Presseinformation

Wireless Automation Pavilion 2008

Einleitung

Die HANNOVER MESSE mit ihren Fachmessen Factory Automation und Interkama+ ist weltweit führend in den Bereichen Fertigungs- und Prozessautomation und hat sich in den letzten Jahren eine herausragende Position bei der Industriekommunikation erarbeitet. Durch die gleichzeitige Darstellung von Komponenten und Applikationen der Prozess- und vor allem auch der Fertigungsautomation sind alle wichtigen Abnehmerbranchen in Hannover vertreten. Das macht die HANNOVER MESSE zur idealen Plattform, um zukunftsweisende Lösungen und Produkte für Wireless Automation zu präsentieren.

Die drahtlose Kommunikation als Ergänzung zur klassischen Industriekommunikation gewinnt ständig an Bedeutung: Bisher wurde der Datenaustausch von und zwischen Maschinen sowie zentralen Steuereinheiten meist über eine kabelgebundene Installation realisiert. Inzwischen setzen aber immer mehr Unternehmen auf drahtlosen Technologien wie z. B. Bluetooth, WLAN oder IEEE 802.15.4 und die damit verbundenen Vorteile.

Die HANNOVER MESSE greift seit 2005 das Zukunftsthema „Wireless Automation“ gezielt in einem eigenen Ausstellungsbereich auf. Alle Themen und Trends der „Wireless Automation“ sind unter einem Dach vereint. In das Geschehen ist der International Wireless Pavilion integriert, der mit eigenem Vortragsprogramm und angeschlossener Businesslounge zum Informationsaustausch in entspannter Atmosphäre einlädt. Darüber hinaus bietet Ihnen die HANNOVER MESSE in Zusammenarbeit mit dem Institut für Automation und Kommunikation e.V. Magdeburg (ifak) eine zentrale Anlaufstelle für Ihr Informationsinteresse oder Ihre konkreten Fragen zum Einsatz der funkgestützten Kommunikation in der Automatisierungstechnik.

Das ifak Magdeburg ist ein unabhängiges Institut der angewandten Forschung, u. a. auf dem Gebiet der industriellen Kommunikation. Im Schwerpunkt Wireless Industrial Communication wird durch das ifak in Gremien wie DKE, VDI/VDE-GMA, PNO und ZVEI die Spezifikation von Protokollen und Profilen zur Verknüpfung der Standards aus Büro- und Telekommunikation mit denen der industriellen Kommunikation mitgestaltet. Zur Bewertung und zum Test von Funklösungen unter den Bedingungen des Einsatzes im industriellen Umfeld engagiert sich das Institut bei der Richtlinienarbeit und entwickelt Tools und Dienstleistungsangebote. Die gerätetechnische Integration drahtloser Kommunikationskomponenten in Geräte und Systeme der Automation und die methodische Integration der drahtlosen Kommunikation in den Lebenszyklus von Automatisierungssystemen (von der Modellierung bis zum Re-Engineering) wird forciert. Besonderes Augenmerk liegt darauf, die drahtlose Übertragung nicht als "Anhängsel" der drahtgebundenen Kommunikation zu betrachten, sondern als integralen Bestandteil heterogener Netzwerke der Automation.

Bereits 1999 gehörte das ifak Magdeburg zu den Initiatoren des Fokusprojektes „Funkgestützte Kommunikation in der Automatisierungstechnik“ der VDI/VDE-Gesellschaft für Mess- und Automatisierungstechnik (GMA). Unter Beteiligung von rund 25 Experten der Elektro- und Automatisierungstechnik wurde ein Leitfaden erarbeitet, der die Auswahl von geeigneten Funktechnologien anhand der Anforderungsprofile aus verschiedenen Einsatzbereichen der Automatisierung systematisiert und erleichtert. Dieser Leitfaden wurde als VDI-Richtlinie 2185 „Funkgestützte Kommunikation in der Automatisierungstechnik“ publiziert. Das Expertenteam setzt seine Arbeit als GMA-Fachausschuss 5.21 fort. Sowohl neue technologische Entwicklungen als auch Praxiserfahrungen mit funkgestützter Kommunikation im industriellen Umfeld werden diskutiert und im Rahmen von Workshops und Fachtagungen der Öffentlichkeit präsentiert.

Dieses Dokument fasst die Presseinformationen der einzelnen Aussteller des Wireless Automation Pavilions 2008 zusammen.

Deutsche Messe AG **ifak Magdeburg**

Ideale Systemergänzung der WISA® Familie von ABB
Drahtloser Sensor-/Aktorverteiler WIOP208

WISA® steht für Wireless Interface für Sensoren und Aktoren und ist ein ABB Standard, der speziell für die Fabrikautomatisierung entwickelt wurde. Die WISA®-Produktpalette bietet unter anderem Sensor-/Aktorverteiler, die Signale drahtlos übertragen.

Das jüngste Mitglied dieser IP67-Gerätefamilie ist der drahtlose Sensor-/Aktorverteiler WIOP208. Er bietet die Möglichkeit bis zu acht Sensoren und Aktoren anzuschließen. Die geringen Abmessungen machen den WIOP208 zum kleinsten Sensor-/Aktorverteiler seiner Art und prädestinieren ihn für Handlingsanwendungen.
Die Kommunikation zwischen WIOP208 und der Maschinensteuerung erfolgt drahtfrei mit WISA®-COM. Dazu wird die Steuerung per Feldbus an ein Ein-/Ausgabemodul WDIO100 angeschlossen, das über zwei Antennen die Funkverbindung zu den Sensor-/Aktorverteilern in der Maschine hält. Jedes WIOP wird mit 24 V DC versorgt.

Die Vorteile beim Einsatz von drahtlosen Sensor-/Aktorverteilern sind die flexible und hoch verfügbare Kommunikation.

WISA®-Sensor-/Aktorverteiler lassen sich unabhängig von Signalleitungen und Busstrukturen in Maschinen platzieren. Werkzeug- und Vorrichtungswechsel, die in Fertigungsstraßen für unterschiedliche Produktlinien häufig vorkommen, werden durch drahtlose Sensor-/Aktorverteiler vereinfacht.
Der WIOP208 ist ein Ersatz für konventionelle IP67-Verteiler. Standardsensoren und -aktoren lassen sich wie gewohnt anschließen.

Anwendungsmöglichkeiten sind:

- Drehtische für Roboter- und Handlingsanwendungen
- Roboterzellen und -gärten
- Modulare Fertigungsstraßen
- Montagemaschinen mit häufigem Werkzeug- bzw. Vorrichtungswechsel

Auch bei einem bestehenden Maschinenpark können WIOP208 zur Zukunftssicherung der Anlagen beitragen. Retrofit-Maßnahmen mit WISA®-Technologie erhöhen die Verfügbarkeit in Gebrauch befindlicher Maschinen und Anlagen signifikant.

Weitere Informationen erhalten Sie bei:

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www.abb.de/stotz-kontakt

anyware TECHNOLOGIES
A wavecom COMPANY

Linking **Innovation** to your **Business**

Stand L16-Hall 6
Wireless pavilion

Contact

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I. ANYWARE TECHNOLOGIES

Creation: 2000

Business Name: Anyware Technologies SA
Status: Public Limited Company with capital of 308 950 Euro

Location

Toulouse
Prologue II – rue Ampère
BP 87 216
31672 Labège Cedex
France

Activity

Anyware Technologies is a software provider and creator of tailor-made applications for our customers: international companies, SMEs and public services.
Internationally recognized for our knowledge in open source technologies, we stand out from our competitors thanks to our technical know-how and level of expertise in open source technologies. We offer our customers in different fields of activity complementary applications based on a common open source kernel.

- **Open Source Solutions & Services**, including expertise, consulting and numerous services in the area of open source components:
  - Development of web applications (intranet, extranet) based on a scalable architecture
  - Modeling and code generation tools, based on the open source Eclipse platform
  - CMS and collaborative tools: Ametys
- **Machine-to-Machine Solutions:** the central management of remote equipment (electronic billboards, electricity meters, public lighting, alarm systems …), including end-to-end solutions based on our M2M Services platform.

For more information: www.anyware-tech.com .

Staff

Today, Anyware Technologies has of 70 employees, and among them 60 engineers – experts in open source technologies.

Shareholding

Anyware Technologies is a subsidiary of the Wavecom Group since the 1st of February 2008.

Wavecom Group

Founded in 1993, located in Issy-Les-Moulineaux (near Paris), Wavecom is a world leader in prepackaged wireless communication solutions for automotive, industrial (machine-to-machine) and professional mobile applications. Wavecom has headquarters in Paris, with offices in Hong Kong, Beijing (China), Research Triangle Park - North Carolina (USA), Farnborough (UK).
Wavecom is a rated company on the following markets: Euronext Paris (Eurolist, AVM) in France and NASDAQ (WVCM) in the USA.
The company has 500 employees, among them 70% work on R&D and has built an international network comprising 40 value-added distributors.
In 2006, the company acquired the Sony Ericsson M2M activity.

For more information: www.wavecom.com.

Management

CEO: Mr Emmanuel Walckenaer
Innovation Director: Mr Ludovic Le Moan
Director – Open Source Solutions&Services: Mrs Sylvie Suchet
Director - Machine to Machine Solutions: Mr Philippe Junca
Staff Manager: Mrs Catherine Menneteau
Marketing/Communication Manager: Mrs Anne Monié
Financial Manager: Mrs Christelle Chazelle

II. MACHINE-TO-MACHINE OFFER

Anyware Technologies is the first French Machine-to-Machine solutions provider. Combining its historical expertise in automated systems, Web technologies and IT applications, Anyware Technologies is perfectly positioned to address the opportunities raised by the growing M2M market.
The company has created a set of solutions to facilitate the connection, monitoring, control and management of remote systems through a Web interface.
Anyware Technologies unique M2M offer is based on universal technologies able to connect any equipment to the IT system of a company. The quality and the flexibility of this offer enables to propose M2M applications in sectors as varied as personal assistance, access control, security, remote monitoring and billboard management.
Anyware Technologies has formed technological partnerships with the main M2M market leaders.

What is Machine-to-Machine (M2M)?

Machine-to-Machine technology allows remote equipments to be monitored and controlled from a central point via a communication network.

With communication wireless networks (GSM/SMS/GPRS/EDGE, Wi-Fi…) and Web technologies dramatically expanding during the last few years, M2M has become an efficient solution to manage remote machines, thereby improving companies' performance and competitiveness. While a human intervention was previously required to monitor, control or maintain machines spread on the field, Machine-to-Machine now makes it possible to manage remote equipments from a central application, via a simple wireless or wired connection.

Fields of applications are unlimited:

- Security.
- Personal emergency.
- Industrial automation.
- Digital imaging.
- Home and building automation.
- Traffic control.
- Medical systems,
- Billboard, kiosk and vending machine management.
- Fleet management.
- Metering: power, water, gas, parking machines...
- Electronic payment systems.

Benefits are countless:

The benefits offered by M2M are countless:

- **INNOVATION**: creating new revenue streams based on innovative value-added services.
- **SECURITY:** optimized information control and reliability.
- **ECONOMY:** decreased costs and increased technical support's capacity to react.
- **PRODUCTIVITY:** optimized equipment uptime and reduced equipment downtime.
- **COMPETITIVENESS:** improved quality of service and customer satisfaction.

Anyware Technologies M2M products and services :

Anyware Technologies proposes two complementary and autonomous tools for the development of the embedded and server part of M2M end-to-end applications. This offer is completed by turnkey services allowing to adapt these tools to customer business specific applications.

m DeveloperSuite	**Development environment tool to develop M2M embedded and server applications in a record time!**

World FIRST development tool dedicated to M2M communication modules.
M2MDeveloperSuite allows you to develop your own M2M embedded and servers applications in record time.
Thanks to the embedded application developed with the M2MDeveloperSuite, data are collected, filtered and transferred to the server application for further treatments.

Provided as an integrated software suite, the product is mainly directed to developers and integrators in charge of developing M2M applications for companies operating fleets of machines

m ServicePack	**A turnkey M2M solution tailored to your specific needs that we entirely specify, develop and deploy for you** **Turnkey solutions are developed thanks to our M2M Middleware:** m OperatingPortal **A custom made solution based on field-proven M2M components**

M2M Service Pack includes all the services needed to build-up and deploy an efficient M2M solution: analysis of customer needs, technical proposal, specification and development of the complete solution, secure hosting, supply and activation of SIM cards, maintenance of the system.

M2M Service Pack is targeted at companies without internal resources to develop their own M2M applications.

m OperatingPortal	**M2M Services Platform**

M2M Advanced Platform to Connect, Monitor, Control and Manage your remote devices :
M2MOperatingPortal is an M2M Middleware Platform which allows transforming machine raw data in business useful information for your company .
M2M Operating Portal is based on open source components and allows an easy customization and integration to your IT system.

Automation M2M vertical solutions

thinHMI	**A Web HMI graphical design tool dedicated to automation**

thinHMI is a powerful and easy-to-use industrial thin client HMI system.
It can be embedded in any industrial device equipped with a web server.
thinHMI allows for designing fully graphical HMI which are displayed and real-time animated on a Web browser.
With thinHMI, you can develop advanced full Web synoptics without any specific Web technologies skills (html, javascript, Java applets).

thinHMI is mainly targeted at OEMs, providers of industrial devices with embedded web server.

thinPLC	**An easy and universal access to your automation applications**

thinPLC is a software dedicated to automation diagnostics.
thinPLC is a thin client tool allowing remote or on-site diagnostics for PLC-based industrial installations.
Via a simple Web browser, it allows for displaying and animating PLC applications in real time without requiring a programming tool.

thinPLC is targeted at companies wishing to improve the availability of its production tool, to increase operators autonomy and maintenance teams efficiency.

III. SOME REFERENCES

International companies

IV.OUR LAST PRESS RELEASES

Wavecom announces acquisition of Anyware Technologies, a leader in M2M Solutions and Services

Combining Wavecom and Anyware Technologies creates a unique, best- of-breed M2M platform to address Worldwide M2M Market

Issy-les-Moulineaux (France) – February 1, 2008 – Wavecom S.A. today announced that it signed a definitive agreement to acquire Anyware Technologies, an industry leader in machine-to-machine (M2M) client-server software solutions located in Toulouse, France.

"Anyware is a recognized leader in developing M2M software solutions for customers who use wireless technology to enhance their business processes. Anyware Technologies' M2M-specific solutions perfectly compliment Wavecom's secure and scalable Intelligent Device Services (IDS) platform, with the combination creating the most advanced end-to-end software solution in the industry." commented Ron Black, CEO of Wavecom.

"We have been a Wavecom technology partner for several years and welcome the opportunity to join forces in broadening the deployment of our combined best-in-class turn-key solutions which allow customers to develop wireless products that connect any equipment seamlessly to their IT infrastructure." added Ludovic Le Moan, CEO of Anyware Technologies.

Anyware Technologies is now a wholly-owned subsidiary of Wavecom. The headquarters remains in Toulouse. Emmanuel Walckenaer, becomes CEO of this subsidiary while retaining his current role as VP of Wavecom's Intelligent Device Services. Ludovic Le Moan will continue to play a strategic role in the company by driving technological innovation. He will pilot the building of a new offer, combining Anyware Technologies software and Wavecom embedded expertise on a new platform which will ease customer's adoption while significantly reducing time to market of complete M2M solutions.

Emmanuel Walckenaer, added, "Anyware Technologies brings to Wavecom a world class-leading Integrated Development Environment (IDE), built on Eclipse™, whose ease-of-use will accelerate broad adoption of wireless M2M applications. Anyware's Java™-based software can be used with all brands of wireless modules and the company will continue to supply to the entire wireless M2M space.

Formed in 2000, Anyware Technologies has grown at high double digit rates over the last few years, ending 2007 with sales of nearly € 5 million, an increase of 74% from the previous year, and was profitable. The transaction was finalized for a cash payment to Anyware shareholders of € 9.1 million plus € 1.5 million placed in an escrow account for customary warranty provisions. An additional payment for earn-out of up to € 2 million upon reaching certain milestones is to be made in 2009. The acquisition should be accretive for Wavecom in 2008.

About Wavecom
Wavecom is a worldwide leader in embedded industrial wireless communication solutions for automotive, machine-to-machine and mobile professional applications. Wavecom's solutions include the Open AT® software platform encompassing the Wavecom Open AT® Operating System, a wide range of Plug-Ins, the Open AT® Integrated Development Environment (IDE) along with a market-leading range of Wireless CPUs (Central Processing Units), and an expanding portfolio of services. These complete embedded solutions enable makers of all types of machines to development of a new breed of intelligent wireless applications, without the need of external processors and other ASICs (ApplicationSpecific Integrated Circuits) and components.
Founded in 1993 and headquartered in Paris, Wavecom has subsidiaries in Hong Kong (China), Research Triangle Park, NC (USA) and Farnborough (UK). Wavecom is publicly traded on Euronext Paris (Eurolist) in France and on the NASDAQ (WVCM) exchange in the U.S.
www.wavecom.com

About Anyware Technologies
Created in 2000, Anyware Technologies is a French software and solutions provider expert in embedded software, Web technologies and IT systems. Leveraging its technology, tools and expertise, the company has created a set of Machine-To-Machine software and professional services. The Machine-To-Machine portfolio is especially designed to facilitate the connection, management and monitoring of remote equipments through a Web interface.
Anyware Technologies proposes a unique M2M offer based on a universal technology able to connect any equipment to the IT system of a company. The quality and flexibility of this offer enables M2M applications in sectors as varied as personal assistants, access control, security, remote monitoring and billboard management. The company has formed technological partnerships with the main M2M market leaders.
www.anyware-tech.com

M2M GLOBAL SOLUTION: A revolution in the M2M World!

Labège (France) - February 2008-Telecom Design and Anyware Technologies team up to launch the first end-to-end and universal Machine-To-Machine offer!

Telecom Design, specialised in the design of telecommunication modules, and **Anyware Technologies**, developer of Machine-To-Machine (M2M) software and solutions, have teamed up to launch the first end-to-end universal M2M offer. This offer is composed of both software and hardware elements that can connect any type of equipments to a company IT system via a standard or wireless communication network. Real-time data from the device can be accessed remotely through a user-friendly web interface.

Additional skills

Anyware Technologies, expert in Machine-To-Machine applications, was looking for a pioneering partner in telecommunication modules. The company wished to support its expanding business by supplying a hardware solution that would complement its own offer of remote equipments centralized management system.

Telecom Design, with its expertise and know-how in modular telecommunication solutions, was seeking a partner who could provide an M2M services platform that was both, open and flexible, yet capable of processing information provided by various telecommunications modules.

A multi-network offer adapted to any equipment

This partnership brings a "revolutionary concept" to the M2M world: the M2M Global Solution. This solution is unique because of its ability to adapt itself to any type of business applications and transfer data across all multiple communication networks using a single communication module. This solution is targeted at companies operating fleets or networks of remote machines

The M2M Global Solution will considerably simplify and accelerate the implementation of M2M applications and thereby provide a rapid return on investment.

Two major innovations:

- **The Xrouter™ from Telecom Design** is a modular multi-protocol/multi-network Machine-To-Machine gateway using the Xtract™ technology – an extractable telecommunication mini-module – which provides clients with a universal connection concept.
- **The Xrouter™ Operating Portal from Anyware Technologies**: a set of software bricks based on open and flexible technologies that can easily be customized to be adapted to any business requirements. This platform can store and convert raw data coming from your machines into sources of useful information for the company. It can also control remote equipment and manage alarms and updates.

About Anyware Technologies
Created in 2000, Anyware Technologies is a French software and solutions provider expert in embedded software, Web technologies and IT systems. Leveraging its technology, tools and expertise, the company has created a set of Machine-To-Machine software and professional services. The Machine-To-Machine portfolio is especially designed to facilitate the connection, management and monitoring of remote equipments through a Web interface.

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www.anyware-tech.com

About Telecom Design

Founded in July 2000 and quoted on the stock market since 2002, Telecom Design is specialized in the design of wired and wireless telecommunication modules dedicated to electronic M2M equipment.
TD was one of the first manufacturers to develop the Socket Modem(tm) format benefiting from all modem functionalities in a universal industrial format. In 2005, TD reinforced its pioneering identity by launching its Xtract(tm) technology, the ultimate step towards maximum telecommunications flexibility: extractable modules that can be plugged or unplugged easily to switch from one telecommunication technology to another one.
Its strategic alliances with technological leaders such as AGERE, SILICON LABS, CONEXANT or FREESCALE, together with the quality and innovation of its products made it possible for TD to sign on world-wide customers such as SONY, PIONEER, THALES, NEOPOST, DIONE (now part of VERIFONE), SAGEM, XEROX...
www.telecomdesign.com

Sogexi chooses Anyware Technologies to develop a Machine-to-Machine solution for the management of street lighting

Labège (France) - February 2008-An application which will allow Sogexi customers to obtain more efficient management of street lighting from the first quarter of 2008.

The Sogexi company, the reference equipment provider offering products and services for remote management of street lighting, and Anyware Technologies, the number one French software editor for Machine-to-Machine solutions and products, are developing together a remote management system allowing to manage remote street lighting facilities through the GPRS network. Sogexi will propose this new service to municipalities in France and in Europe from the first quarter of 2008. An internet web site, called Tegis, will centralise the data collected by all the control units connected to the central server. Customers can use a web interface to consult a warning message log, to rapidly detect failures and to modify the programmed dimming periods of the Tegis control units for their sector.

Complementary business and technology skills

The Sogexi company, after 25 years of ongoing innovation and with around twenty international patents, is positioned today as the European leader in its market.
The Anyware Technologies company, present on the M2M market for the past 5 years, anticipated this market by designing development tools and customisable and flexible software components to rapidly set up a specific business application. Anyware Technologies is developing the remote and server parts of this remote management application.

"We chose Anyware Technologies for their excellent level of expertise and their capacity to provide turnkey M2M solutions, whatever the business need. We are very confident in the application that we are developing together as it answers the objective of our customers to obtain efficient street lighting management" says Marc Villez, CEO of the Sogexi company.

A real advance brought to the TEGIS remote management system

The Tegis system for the remote management of street lighting networks, put onto the market in 2005, allows on the one hand remote monitoring of a street lighting distribution cabinet and of all of its light sources, and on the other hand the control of power dimming. Tegis consists of a control unit located in the lighting cabinet, and independent modules installed at each light source. The Tegis control unit and the modules communicate by power line communication using the electrical power supply network. The modules send fault messages to the control unit in the event of failure of a light source, while the control unit generates orders for power dimming.

Today the fault messages can be consulted not only on the display panel of the control unit but also by SMS or by e-mail thanks to a GSM modem installed in the distribution cabinet. In the system that will be operational in early 2008, the data will be uploaded by the GPRS network and displayed in real-time on a web interface. Failures will therefore be detected more quickly and logged and the control units can be programmed remotely.

This application will ensure that the installation can operate continuously at nearly 100% capacity and that it meets the needs of Sogexi's customers who wish to ensure safety and maximum comfort for their users while saving on maintenance. In addition, its ease of use will require no training for the operating personnel and the "open" technologies used will allow easy future adaptation.

About Anyware Technologies

Created in the year 2000, Anyware Technologies is the number one French software editor for Machine-To-Machine (M2M) solutions. Thanks to its expertise, its tools and its components, Anyware Technologies proposes today a set of turnkey M2M software packages and solutions that are complete, proven and easy to use. A unique offer on the market comprising the remote and server parts of M2M applications used to connect, control, and manage all types of remote equipment through a web interface. The quality and flexibility of its offer have allowed Anyware Technologies to propose M2M applications in sectors as varied as personal welfare assistance, access control, remote monitoring, telemedecine, management of billboards, street lighting… and to establish technological partnerships with the main players of the M2M market.

CONTACT PRESS: Anne Monié- Tel: +33 561 007 343
anne.monie@anyware-tech.com

About Sogexi

With 25 years of ongoing innovation, backed up by around twenty international patents, SOGEXI is positioned today as the reference equipment provider for street lighting. Today the specialist and European leader in its market, SOGEXI's offer revolves around 4 main segments: the connection and protection of street lights, accessories for assistance with installation and maintenance, the power supply of lighting, and the intelligent management of street light networks.
Sogexi is motivated by the constant desire to offer its customers a street lighting management solution that is continually more efficient. This is why it develops products and systems that are innovative, reliable and easy to use, combining leading edge technology and street lighting. All Sogexi technologies are "open" to allow easy adaptation in the futur

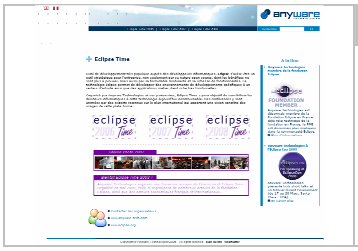
V. NEXT MEETINGS

Eclipse Time - 29th of May, 2008 - Toulouse (SW of France)	
eclipse Time	For the third following year, Anyware Technologies organizes in Toulouse a seminary about Eclipse. This day allows to show to numerous industrial actors and managers Eclipse projects, business cases and innovative technologies.

VI.MORE INFORMATION

Anyware Technologies

- www.anyware-tech.com



Eclipse Time event web site

Eclipse Time - http://www.eclipsetime.org

Organized for the third time in Toulouse, the 29th of May, the Eclipse Time event permits to gather many Eclipse experts to present business cases and conferences during the day.

Ametys: the Java open source CMS

- www.ametys.fr
- www.ametys.org

connectBlue™

PRESS RELEASE
Malmö, Sweden
April 15, 2008

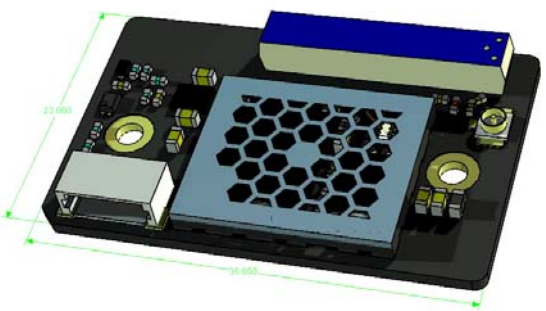
connectBlue™ introduces a new wireless technology

connectBlue releases a ZigBee/IEEE 802.15.4 product range where the first products include an OEM module and an industrial IP65 Serial Port Adapter – both developed to meet the tough demands of industrial environments.

The new IEEE 802.15.4 product range share form factor and electrical interfaces with the well-known and proven connectBlue Bluetooth and Wireless LAN product ranges. Thanks to the connectBlue industrial de facto standard, it is possible for the users to reuse the integration efforts of three different wireless technologies. This compatibility provides the OEM and system integrators with the capability to meet the varying customer demands with a minimum of investment.

“The greatest advantage the expanded offering presents the customers with is the unrivaled flexibility they get as they freely can choose between alternative wireless features,” said Rolf Nilsson, President of connectBlue. “Also, as the new IEEE 802.15.4 products are compatible with our existing Bluetooth and Wireless LAN program, our customers can meet their new customer demands plus reduce implementation costs and time-to-market.”

The IEEE 802.15.4 product range is delivered with the standard Serial Port Adapter firmware and can be configured with AT commands using the connectBlue Toolbox computer software. The connectBlue Serial Port Adapter application is optimized for high performance and robust behavior especially targeted for demanding industrial usage. In addition, there is the possibility to use the IEEE 802.15.4 compliant hardware to implement customer specific application software or download a free ZigBee reference application into the modules.



With the introduction of ZigBee/IEEE 802.15.4 technology, connectBlue is continuing its legacy of being the most comprehensive wireless industrial solution provider. A legacy that begun as connectBlue became the first company in the world to offer industrial Bluetooth enabled products when the Bluetooth Serial Port Adapters were launched already in 2001.

Caption:
The new industrial IEEE 802.15.4 product range opens up the possibility for both Serial Port solutions and customer specific solutions.

About connectBlue

connectBlue™ is a leading provider of wireless solutions for demanding applications in hygiene, rough environment, mobility, control, personal safety and security areas. Based on Bluetooth technology, Wireless LAN and IEEE 802.15.4, connectBlue provides ready-to-use products and modules as well as custom design solutions in both hardware and software. connectBlue was founded in 2000 and has offices in Malmö, Sweden and Chicago, USA. For more information, please visit www.connectblue.com

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connectBlue™

PRESS RELEASE
Malmö, Sweden
April 8, 2008

connectBlue™ releases complete Bluetooth 2.1+EDR HCI modules

The connectBlue portfolio of industrial OEM modules is now expanded with two new Bluetooth 2.1+ EDR HCI modules. The unique feature of the new modules is the storing of the Bluetooth MAC (Media Access Control) address and the individual radio tuning parameter directly in the module. As the two HCI (Host Controller Interface) modules are already radio tested and fine-tuned, they are ready to be installed in demanding industrial applications. Also, thanks to their high input sensitivity and high output power, the modules fit nicely when there is a need of a long range high-performing Bluetooth HCI solution.

Since the new Bluetooth 2.1+EDR HCI modules are equipped with high speed UART (Universal Asynchronous Receiver/Transmitter) up to 3.7 Mbit/s as well as SPI (Serial Peripheral Interface), it is possible to fully utilize the EDR (Enhanced Data Rate) data throughput. Further, the modules have an excellent input sensitivity of –90 dBm as well as output power of +7 dB enabling a range of some 150 meters.

The unique feature that stores the Bluetooth MAC address as well as the individual radio tuning parameters in the module not only avoids the efforts to store these parameters in the host processor but also eliminates the need for trimming, tuning and testing the radio parameters during the production of the final product.

“Our new complete Bluetooth 2.1+EDR industrial modules provide the customer with ready to use HCI solutions for industrial, medical and other demanding applications.” said Rolf Nilsson, President of connectBlue. “Not only is this solution ideal for high volume applications but also for medium volume applications.”

The Bluetooth 2.1+EDR HCI OEM modules are available with internal antenna as well as an external antenna option and they are fully Bluetooth qualified and radio type approved in Europe, US (FCC) and Canada. Depending on the host stack used, the modules can provide a large variety of Bluetooth functionality for data and voice transmission.

The OHCI411 module has the same form factor (16x36 mm) as the connectBlue OEMSPA311/331 and thus shares the same connector and mounting holes. The OHCI406 is a miniaturized version (14x22.5 mm) of the OHCI411 module. Besides

dimensions and power input, the functionality is the same of both Bluetooth 2.1+EDR HCI OEM modules.

Caption:
The industrial Bluetooth 2.1 + EDR HCI modules provide a cost efficient solution for demanding host stack based applications.

About connectBlue

connectBlue™ is a leading provider of wireless solutions for demanding applications in hygiene, rough environment, mobility, control, personal safety and security areas. Based on Bluetooth technology, Wireless LAN and 802.15.4, connectBlue provides ready-to-use products and modules as well as custom design solutions in both hardware and software. connectBlue was founded in 2000 and has offices in Malmö, Sweden and Chicago, USA. For more information, please visit www.connectblue.com

For further information

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connectBlue™

PRESS RELEASE
Malmö, Sweden
February 5, 2008

connectBlue™ introduces the world's most high performing small sized Wireless Network Platform for industrial use

The new industrial Wireless Network Platform from connectBlue enables a robust and reliable Bluetooth connection between the Ethernet based infrastructure and industrial equipment such as machines, machine parts, barcode readers, mobile human-machine interface (HMI) devices, sensors, programmable logic controllers (PLC) and more.

In demanding industrial applications, the connectBlue Wireless Network Platform becomes the universal "Ethernet to Bluetooth" enabler since it has a wide variety of possible use cases that are all easily configured via customized web pages. One powerful feature is the Ethernet cable replacement possibility providing wireless communication to moving / rotating devices or when cables are difficult or expensive to install. Thanks to the Terminal Server Functionality the Wireless Terminal Platform accommodates up to seven Bluetooth Serial Port connections to an Ethernet network. This function provides virtual serial cables between the industrial devices and a PC connected to the Ethernet.

"The Wireless Network Platform does not just simplify and reduce the actual installation costs, it also provides a completely maintenance free connection," said Rolf Nilsson, President of connectBlue. "And though the product itself is new, the underlying platform is a proven solution that has been in years of operation 24-7 under rough industrial conditions. This is why we can vouch for the Wireless Network Platform being the smallest high performing industrial Bluetooth access point available on the market."

With its compelling possibilities, the new Industrial Wireless Network Platform is ideal when Bluetooth enabled mobile and rotating devices such as PDAs, conveyor, transportation systems or robots are to be connected into the existing Ethernet infrastructure.

Caption:
The connectBlue industrial Wireless Network Platform provides a robust and reliable solution for the connection of moving and rotating machines/devices to an Ethernet infrastructure.

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connectBlue

PRESS RELEASE
Malmö, Sweden
January 15, 2008

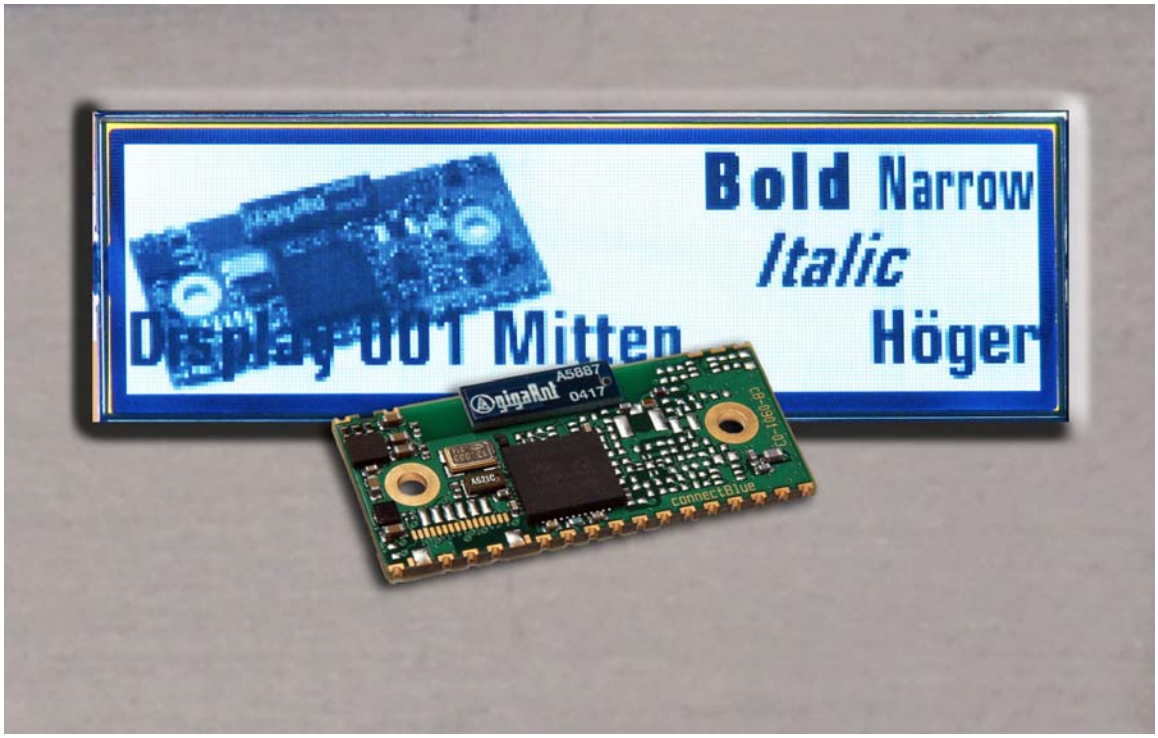
connectBlue releases Bluetooth I²C Bus Adapter

connectBlue today releases a Bluetooth based I²C (Inter-Integrated Circuit) OEM adapter which enables a cost-efficient and easy-to-use wireless solution when connecting devices such as displays, sensors and signal converters.

I²C is a multi-master serial computer bus that is used to attach devices to, for instance, an embedded system. By connecting the new Bluetooth I²C Bus Adapter from connectBlue to the I²C bus, the customer does not have to connect the I²C master device directly to the I²C bus. Instead, the new adapter implements the master side of the I²C bus interface and via Bluetooth functionality makes it possible to wirelessly enable a number of slaves on an I²C bus. The "original" I²C master implements a simple I²C look-alike protocol based on the Bluetooth serial port profile (SPP). The master device can then access all I²C slaves available on the I²C bus over Bluetooth wireless technology.

"The advantage of a bus connection is how it logically can connect multiple devices over the same set of wires; and via our new Bluetooth I²C Bus Adapter, it can now make this connection wirelessly," said Rolf Nilsson, President of connectBlue. "Thus, when you connect mobile or temporary devices or when you want to overcome complicated and costly installations of displays and sensors, the Bluetooth I²C Bus Adapter provides an efficient and easy-to-use solution.."

With a few additions, the Bluetooth I²C Bus Adapter is configured using the same AT commands as the connectBlue standard Serial Port Adapters. Typically, the adapter is pre-configured using a toolbox or AT commands, and then mounted and used for reading and writing data to and from the slaves on the I²C bus. It is also possible to use the Bluetooth I²C Bus Adapter more dynamically and/or to re-configure it over air.



Caption:

The new Bluetooth I²C Bus Adapter from connectBlue enables an easy and cost efficient way for wireless connection of I²C-interface based devices like displays, sensors and signal converters.

About connectBlue

connectBlue is a leading provider of wireless solutions for demanding applications in segments like industrial automation, medical, instrumentation, diagnostics, logistics / transportation, vehicles and point of sales. Based on Bluetooth® technology, WLAN and 802.15.4, connectBlue provides ready-to-use products and modules as well as custom design solutions in both hardware and software. connectBlue was founded in 2000 and has offices in Malmö, Sweden and Chicago, USA. For more information, please visit www.connectblue.com

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BACKGROUND

Malmö, Sweden
April 15, 2008

Profile

connectBlue™ is a leading provider of wireless solutions for demanding applications in segments like industrial automation, medical, instrumentation, diagnostics, logistics / transportation, vehicles and point of sales. Based on Bluetooth technology, WLAN and ZigBee/IEEE 802.15.4, connectBlue provides ready-to-use products and modules as well as custom design solutions in both hardware and software.

Background

connectBlue was founded in 2000 by Rolf Nilsson with the vision to support the industry in going wireless. Only half a year since commencing operation, connectBlue introduced the world's first industrial Bluetooth product. Today, connectBlue is recognized worldwide as the leading expert and provider of a variety of wireless solutions for professional use. connectBlue has a well-tested product portfolio and partnerships with leading companies within the wireless industry. Compatibility, extended life cycles and latency continue to be the key requirements for the connectBlue offering.

The head office is based in Malmö, Sweden and the North American office lies in Chicago, USA. Based on connectBlue´s extensive experience of all the requirements needed to supply the market with cost-effective and time-saving wireless solutions, connectBlue supports customers worldwide.

connectBlue employs and develops world-class professionals with great experience from industrial demands on lead-times, performance and technical documentation as well as young and innovative brains that can push the bounders of technology further.

Management Team

Rolf Nilsson, CEO
Rolf has 30 years of experience in sales and marketing. Before he started connectBlue he was the President of the Scandinavian operations of the British Corporation Eurotherm. Previous to that, he worked at Satt Control/Alfa Laval Automation/ABB Automation Products.

Pelle Svensson, President connectBlue, Inc.
Before Pelle joined connectBlue, he was responsible for the Bluetooth technology marketing group within Ericsson Mobile Communications from the inception of Bluetooth technology. He has a long experience in development, training and marketing in the area of industrial processes automation. Since early 2007, he heads up the North American office in Chicago, USA.

Mats Andersson, CTO
Mats has 25 years of experience in product development within industrial automation. Just before Mats started working at connectBlue, he was the senior consultant and expert on wireless communication and Bluetooth technology at WM-Data.

Martin Engdahl, Sales Director
Before Martin joined connectBlue in 2001, he was the technical product manager for the Industrial IT control products at Alfa Laval Automation/ABB Automation Products. In total, he has over 10 years experience of industrial automation, wireless communication and hardware & software development.

Tomas Henriksson, Product Manager Bluetooth
Tomas has 15 years of experience in software development for embedded real time systems. Before joining connectBlue in 2000, Tomas worked for Combitech Systems as a consultant where he was a project manager/system architect for the Bluetooth unit within Ericsson Mobile Communications.

Investors
connectBlue's financially strong investors have a long-term commitment in the company and consist of Briban Invest, Schneider Electric Ventures, Phoenix Contact and Rolf Nilsson.

Customers
connectBlue customers are amongst the leading companies within their respective field and include ABB, Alfa Laval, Atlas Copco, Autocom, BMW, Bromma Conquip, Daimler Chrysler, Digigroup, Extech, Fiat, GE Medical, Leica, Nestlé, Olsberg, Parker Hannifin, Philips Semiconductor, Phoenix Contact, Rimex, Schneider Electric, Trimble, Vectronix, Zoll Medical, etc. For more details, see http://www.connectblue.com/references/all-references/.

Offering
Initially, connectBlue focused only on Bluetooth consulting services for industrial product manufacturers where the services covered hardware and software design. In addition, connectBlue offered training, qualification and approval services.

After 6 months, connectBlue expanded its offering with product business launching the world's first industrial Bluetooth product at Cebit 2001, the Rugged Serial Port Adapter. connectBlue also offered Custom Design, which is a combination of products and consulting services.

The second product launched was the Bluetooth Web Enabler, which was awarded "Most innovative industrial product" by journalists at Scanautomatic 2001.

During 2002, a close cooperation with Ericsson Microelectronics (later Infineon) was established on an embedded communication interface. The interface then became the standard used in Infineon's Bluetooth solutions.

Also in 2002, connectBlue launched the Serial Port Adapter generation 2, which became the best seller in the years that followed.

As Bluetooth technology as a whole was taking off in 2003 and 2004 becoming a standard in most laptops and PDAs, connectBlue experienced a solid growth in its product business.

During 2005, connectBlue managed to build a strong relationship with Philips Semiconductor by maintaining the Philips Bluetooth stack and becoming the Philips Design House in Europe. connectBlue was also awarded the "Fastest Growing Communication Company" in Sweden, Deloitte

Also in 2005, connectBlue released the Serial Port Adapter generation 3, which was based on a modular and backwards compatible design making it even easier for the customer to keep up the speed with wireless evolution.

In 2006, connectBlue launched a new series of Wireless LAN products. Also in 2006, and to further leverage on the Bluetooth expertise, connectBlue patented the Bluetooth easy pairing/configuration with ID plug.

During 2007, connectBlue expanded its market by establishing a North American office in Chicago US. connectBlue was also a proud winner of the Control Engineering “Engineers' Choice Award Winners” in the category "Networks, Communications Hardware & Software: I/O Products & Cabling".

In 2008, connectBlue has continued expanding its Bluetooth and Wireless LAN product ranges while also introducing a new product range using ZigBee/IEEE 802.15.4.

About connectBlue

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company release

Communication system AGNES

- geographically unlimited communication system
- direct communication between arbitrary points in network
- configuration from any point in network
- to one point can be connected several user devices
- software for administration RADWIN

AGNES is the communication system of company Conel s.r.o. For data tranmsission uses GSM–GPRS modems and radio data modems of its own production. It could be either completely wireless or combined with cabel infrastructure.

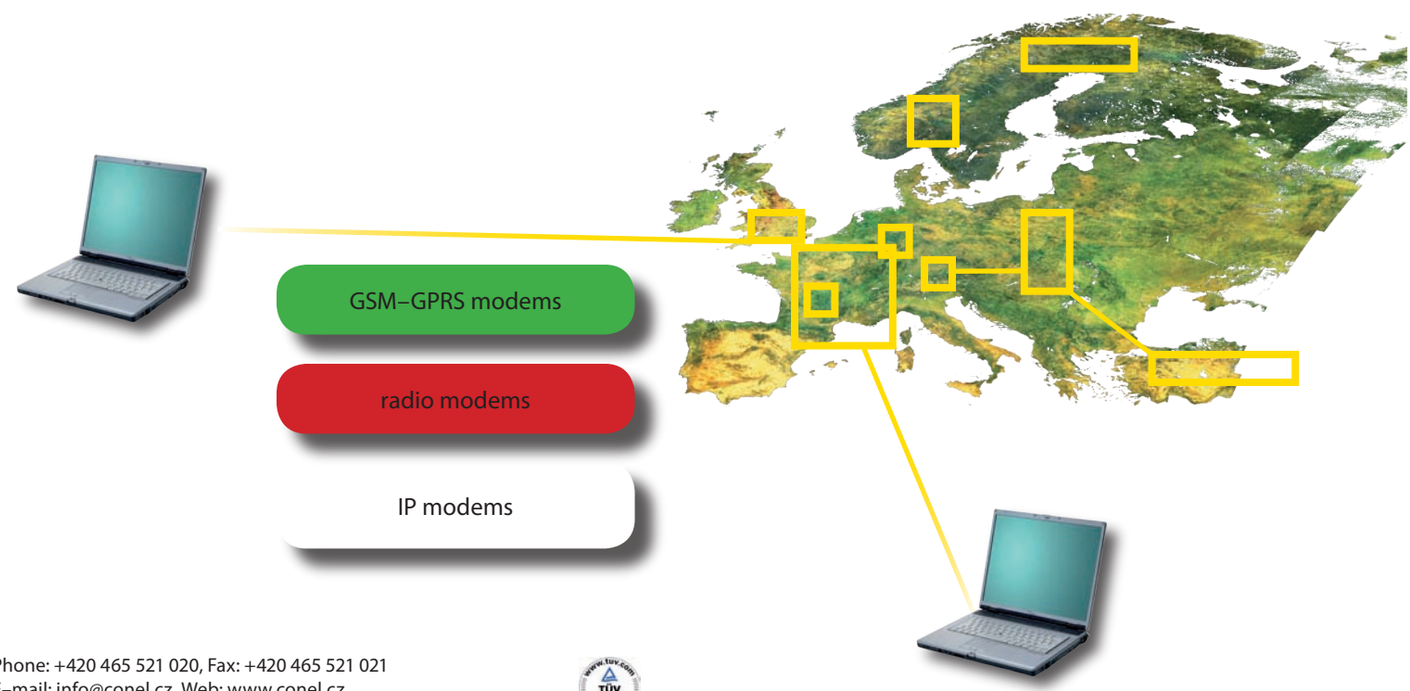
The advantage of AGNES is high reliability, low entrance fees and universality – from point to point applications to the systems of hundreds or thousands points. The system would be spread over the city area, region or few countries without geographical limits.

Communication system AGNES combines various transmitting technologies in packet data network to fill all the customers needs. Into AGNES communication system could be connected also single IP modems or whole IP networks – it is ussual application example when two IP networks are connected by wireless part of the system. From a control room (from SCADA PC) such a kind of combined network looks like one network with all the features and advantages of one complete system. The system AGNES would be spread over the city area, region or few countries without geographical limits.

The core of the system are GPRS modems CGU 04, radio modems CDA 70 and CDL400/800. These industrial modems communicates with more than 50 industrial communication protocols – PROFIBUS, MBUS, S-BUS, RDS92, LINKA, AT-MODEM, IEC870, EPSNET, ARNEP etc. So they can connect large variety of PLC´s and various sensors and gauges in idustry. It is also possible to create protocol exactly according to requirements of customer.

AGNES system brings advantages to user also because of decentralization of his communication. Modems communicates directly one with each other without need to transfer data to one controlling machine that accumulates and route data. In AGNES every modem receives and sends data so the danger of a big central failure is reasonably reduced.

Security of AGNES system is high. Communication is made by secure prototocols and every station in network is secured by password for administration. In GSM–GPRS is also possible to assign fix IP address to every modem. It is also possible to get private APN from mobile operator and make your own wireless GSM–GPRS infrastructure over public GSM–GPRS system that is not accessible from Internet. Your network is than completely separated from public GSM–GPRS system.



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ISO 9001:2001

wireless communication
monitoring – control
M2M communication

company release

Communication system AGNES

GPRS modem CGU 04
radio modem CDA 70
radio modem CDL 400/800

GPRS modem CGU 04 is designed for large or small networks. Modem interconnects equipment with interface RS232, RS485 and MBUS by secure communication protocols. For connecting PLC, water meters and other sensors, etc. Modems can also monitor and control simple technology process by using input/outputs (I/O). CGU 04 is possible to use in combined networks with radio data modems and IP equipment of company Conel in wireless communication system AGNES.

- **GPRS, CSD, SMS** communication
- 1 x communication interface **RS232**
- 1 x optional interface **RS232, RS485, MBUS**
- **1 x I/O port** - possible to connect **5 I/O modules (analog/binary)** CIO
- Diagnostics and service functions, **remote administration**
- Easy interconnection with another communication technologies (radio networks, Internet/intranet)

Radio modem CDA 70 is suitable for creating large or small wireless data networks mainly in industry with the range between communication points up to tens of kilometers. It is possible to connect equipment with RS232, RS485, MBUS or Ethernet. It is possible to create networks without geographical limits (hundreds/thousands kilometers) because of retranslation methods. For waterworks, heating industry, energetics, transport etc.

- **Frequency** bands **143-174 MHz or 403-470 MHz**
- **Output** power from **0,01 to 5 W**
- **Packet system** of data transmission, security and data compression
- 3 x optional interface **RS232, RS485, MBUS**
- 1 x **CIO (I/O port)** - possible to connect **5 inputs/outputs** by CIO modules
- 1 x optional interface **Ethernet 10/100**
- Extensive diagnostics possibilities and servis functions, **remote administration and configuration**
- **Easy interconnection** with another communication technologies **(GPRS, Internet/intranet) in system AGNES**

Radio modems CDL for locale wireless radio data networks (distances of tens and few hundred meters between communication points) in shared VHF and UHF bands. For creating larger networks is possible to use retranslation methods. For locale data collection and technology control mainly in industry (waterworks, heating industry, transport etc.).

- CDL 800 (804 - 940 MHz)
- CDL 400 (402 - 470 MHz)
- Output power **0,15 - 150mW**
- Communication speed from 1,2 kb/s to 19,2 kb/s
- 1 x interface **RS232**
- 1 x optional interface **RS232, RS485, MBUS**
- 1 x CIO port - 5 programmable inputs/outputs modules CIO
- Easy interconnection with **GPRS and IP** in system **AGNES**
- Diagnostics and service functions, **remote administration**

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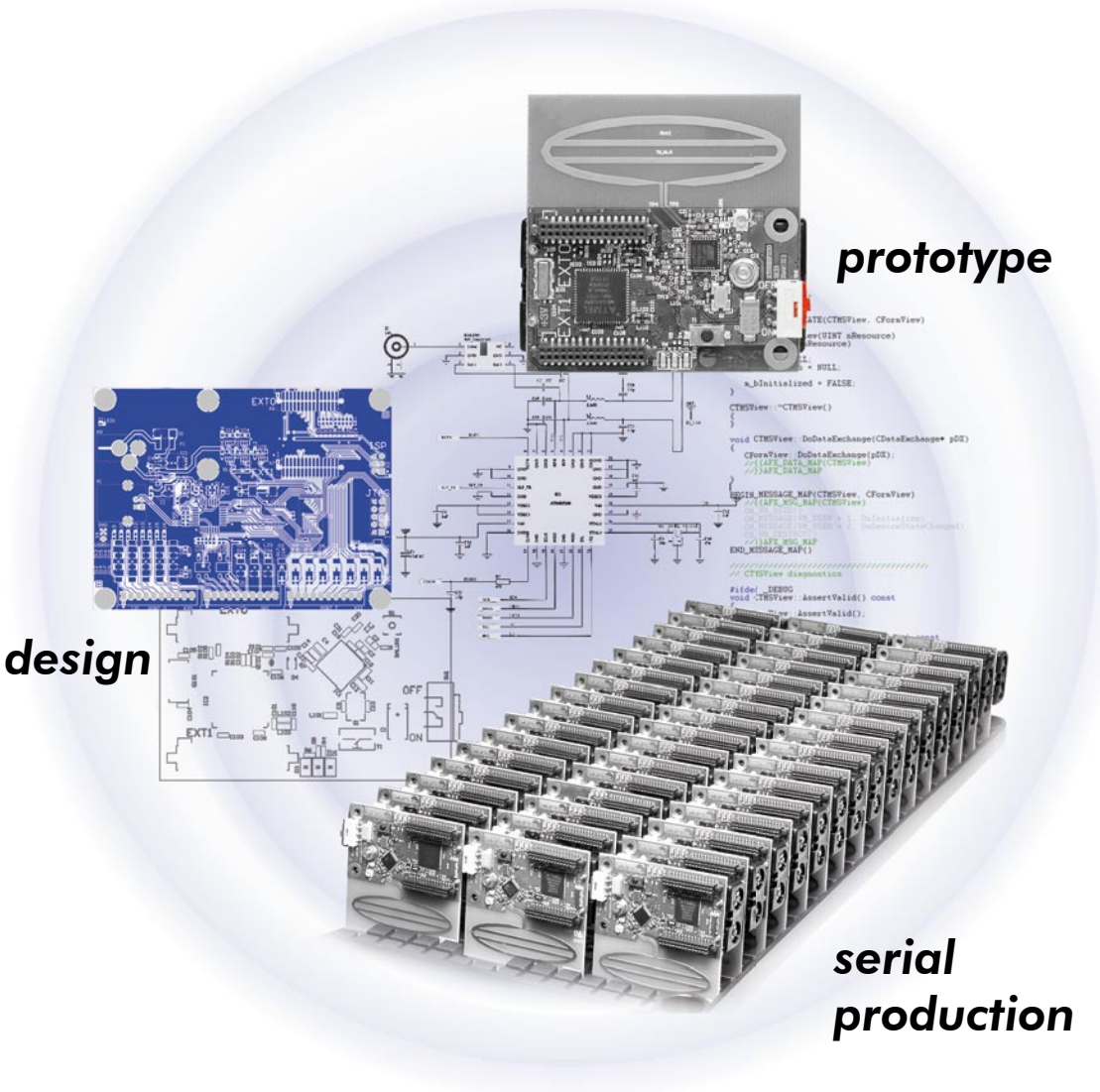
ISO 9001:2001

PRODUKT INFO

868 MHz|915 MHz|2,4 GHz
IEEE 802.15.4
ZigBee™
proprietary

Wireless Communication



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Kompetenzen

- Im Vordergrund unserer Aktivitäten im Bereich der wireless Technologien stehen **Nahbereichsnetzwerke**. Unterstützt werden sowohl die nationalen 868 / 915 MHz Frequenzbänder als auch das internationale 2,4 GHz Band.

- Wir verwenden unterschiedliche Chipsätze verschiedener Hersteller.

- Angepasst an die jeweiligen Erfordernisse kommen sowohl keramische als auch Leiterplattenantennen zum Einsatz. Wir setzen produkt- bzw. kundenspezifische und externe Standard-Antennen ein.

Referenzen

Automatisierung

- mobile Steuerung und Verwaltung der Entnahme von Flüssigkeiten oder Schüttgütern
- drahtloses Sensornetzwerk zur Erfassung von Umweltdaten (Temperatur, Feuchte, Helligkeit)

Gebäudeautomatisierung

- vernetztes Schließsystem mit Zugangskontrolle über Chipkarte

Anwendungen

- Personen-/Gerätelokalisation
- Gebäudeautomatisierung
- industrielle Fernsteuerungen
- drahtlose Sensorik
- Fernüberwachung

Leistungen

- **Hard- und Software-Entwicklung**
  Die Erfahrungen unseres Entwicklerteams reichen von einfachen Peer-to-Peer-Anwendungen bis hin zu komplexen Netzwerken. Wichtig sind uns die Schnittstellen zum Kunden in jeder Phase der Entwicklung. Die Nähe zum Fertigungsbereich ist unser Vorzug. So entstehen qualitativ hochwertige fertigungsgerechte Unterlagen.
- **Fertigung und Prüfung**
  Vom Funktionsmuster bis zum Seriengerät produzieren wir alles im eigenen Haus. Unser Fertigungsbereich verfügt über eine Bestückungskapazität von mehr als 250.000 BE pro Tag. Die Prüfung der elektrischen und funkrelevanten Parameter führen wir selbst durch. Unser Geschäftsbereich Testsysteme stellt dafür die benötigten (HF-) Serientester zur Verfügung.

Automatisches Testsystem zur Prüfung von elektrischen und funkrelevanten Parametern

Die richtige Lösung

Funknetzwerke bieten nicht nur den Komfort drahtloser Verbindungen, es entfallen auch die Kosten für teure Kabelinstallationen. Um diesen Vorteil nutzen zu können, muss das drahtlose Netzwerk einfach zu installieren sein, eine robuste und zuverlässige Kommunikation gewährleisten und die einzelnen Knoten auch über Jahre im Batteriebetrieb funktionieren. Unter den zur Auswahl stehenden Funktechnologien bevorzugen wir deshalb Lösungen für **low-cost** und **low-power embedded** Anwendungen.

Diese **LR-WPANs (Low Rate Wireless Personal Area Network)** sind speziell für Sensoren und Aktoren entwickelt und zeichnen sich durch Fähigkeiten wie Selbstkonfiguration, Redundanz in der Übertragungsstrecke und Erweiterung des Übertragungsbereiches durch Multi-Hops aus.
Die Datenraten liegen zwischen 20 und 250 kbit/s.
Um eine Koexistenz mit anderen Wireless-Technologien zu ermöglichen, wird konsequent auf Kollisionsvermeidung mittels CSMA/CA gesetzt.

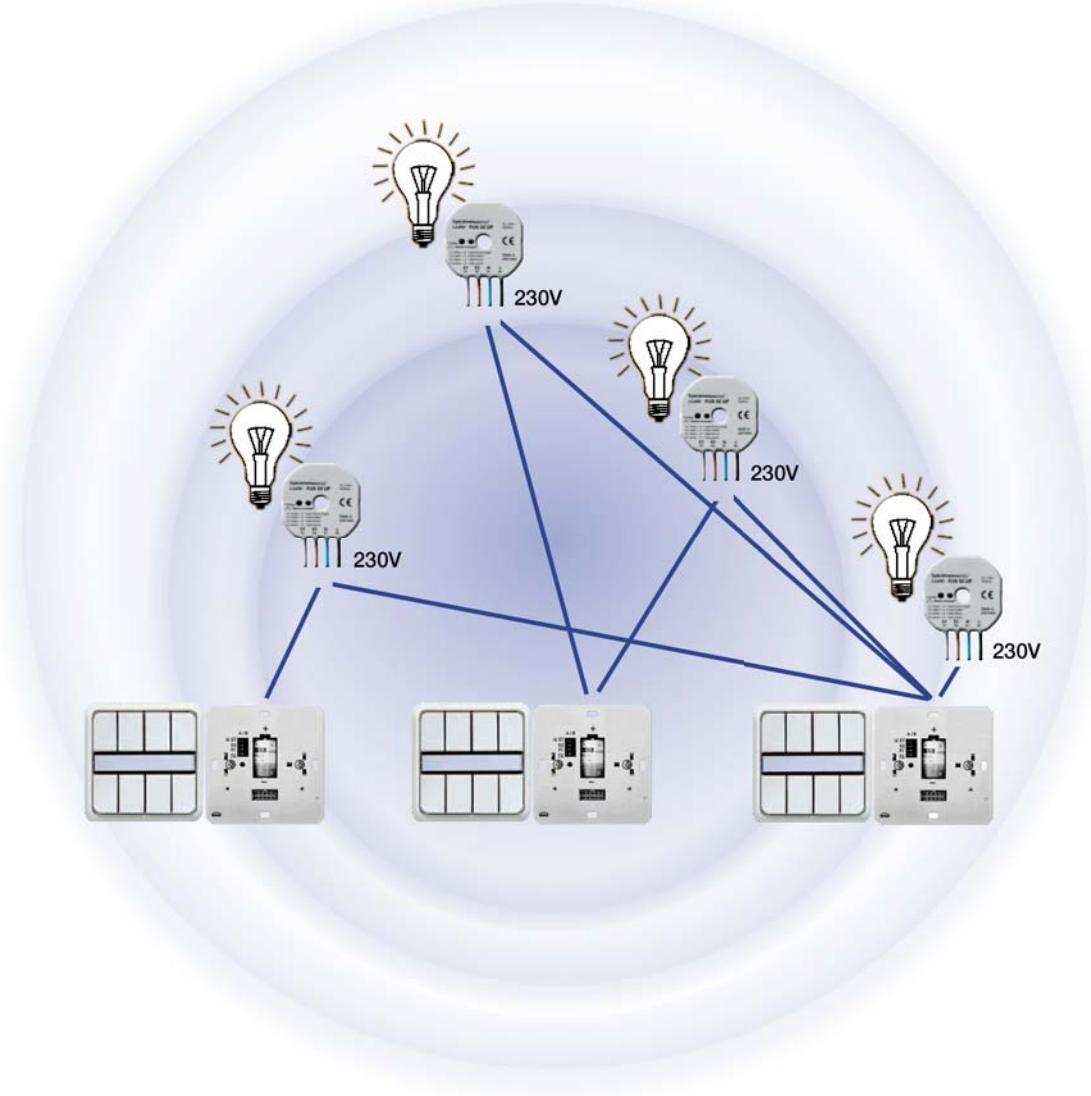
Mit **ZigBee-Standard**
können diese Vorteile bei relativ geringem Datenratenbedarf einfach umgesetzt werden. Die Geräte haben eine sehr geringe Stromaufnahme. Mit zwei AAA-Batterien erreicht ein Funkknoten eine Lebensdauer von mehreren Jahren. Typische Reichweiten eines einzelnen ZigBee-Knotens liegen bei 20 bis 50 m innerhalb von Gebäuden.

Proprietär
Wenn die existierenden Standards den Erfordernissen nicht genügen oder z.B. Sicherheitsaspekte diese Standards ausschließen, kann auf proprietäre Lösungen zurückgegriffen werden.

PRODUKT INFO

IEEE 802.15.4
2,4 GHz
ZigBee™

Funkkomponenten Gebäudeautomatisierung



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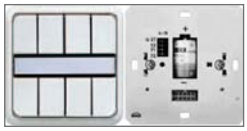
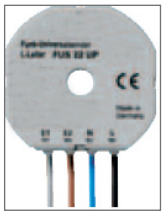
Kurzbeschreibung



- **Der LS8 - Light Switch** ist ein ZigBee™-Funkschalter (ZigBee - Home Automation / Profil Lightning). Batteriebetrieben schaltet und dimmt er Licht (Lampen).
- Tastenbetätigungen lösen Funktelegramme aus. Anderenfalls sendet der Schalter in festen Zeiteinstellungen ein Lebenszeichentelegramm (life guard).
- Passende Tastenaufsätze (1-, 2- oder 4-fach) kommen z.B. aus dem EIB- bzw. KNX-Sortiment der Fa. Jung. Die Verbindung erfolgt über den 10-poligen AST- oder PEI-Anschluss.
- Die Parametrierung übernimmt ein 4-facher Schiebeschalter.



- **Der LL1 - Light Load Controller** ist ein ZigBee™-Funk-Aktor (ZigBee - Home Automation / Profil Lightning).
- Er empfängt ZigBee-Funktelegramme und schaltet 230V-Elemente.
- Der Aktor fungiert als ZigBee-Router dank permanenter Energieversorgung.
- Die Messwerte des absoluten Energieverbrauchs und der momentanen Leistung sind über Funk abrufbar.

Besonderheiten

- Schalter und Aktor arbeiten im Rahmen des offenen Standards ZigBee 2006. Sie können jeweils interoperabel mit den Produkten anderer Hersteller betrieben werden.
- Beide nutzen das 2,45 GHz ISM-Band.

Details

Schalter LS8	Aktor LL1
erkennt automatisch den Typ des aufgesteckten Tastenaufsatzes	Schaltung über ein Relais: - einpolig 230V/ 6A - induktive oder kapazitive Lasten
kann 2,4 oder 8 Tasten bedienen	
Antenne(n) sind komplett integriert	Als ZigBee-Router kann der LL1 Funktelegramme anderer Teilnehmer im Mesh-Netzwerk weiterleiten.
Zum manuellen Binding (Zuordnung Aktor - Sensor) werden ein Taster und eine LED benutzt (zugänglich bei abgezogenem Tastenaufsatz).	Zum manuellen Binding (Zuordnung Aktor - Sensor) werden ein Taster und eine LED benutzt (problemlos zugänglich).
Batterieabschaltung über 4-poligen DIP-Switch	

Technische Daten

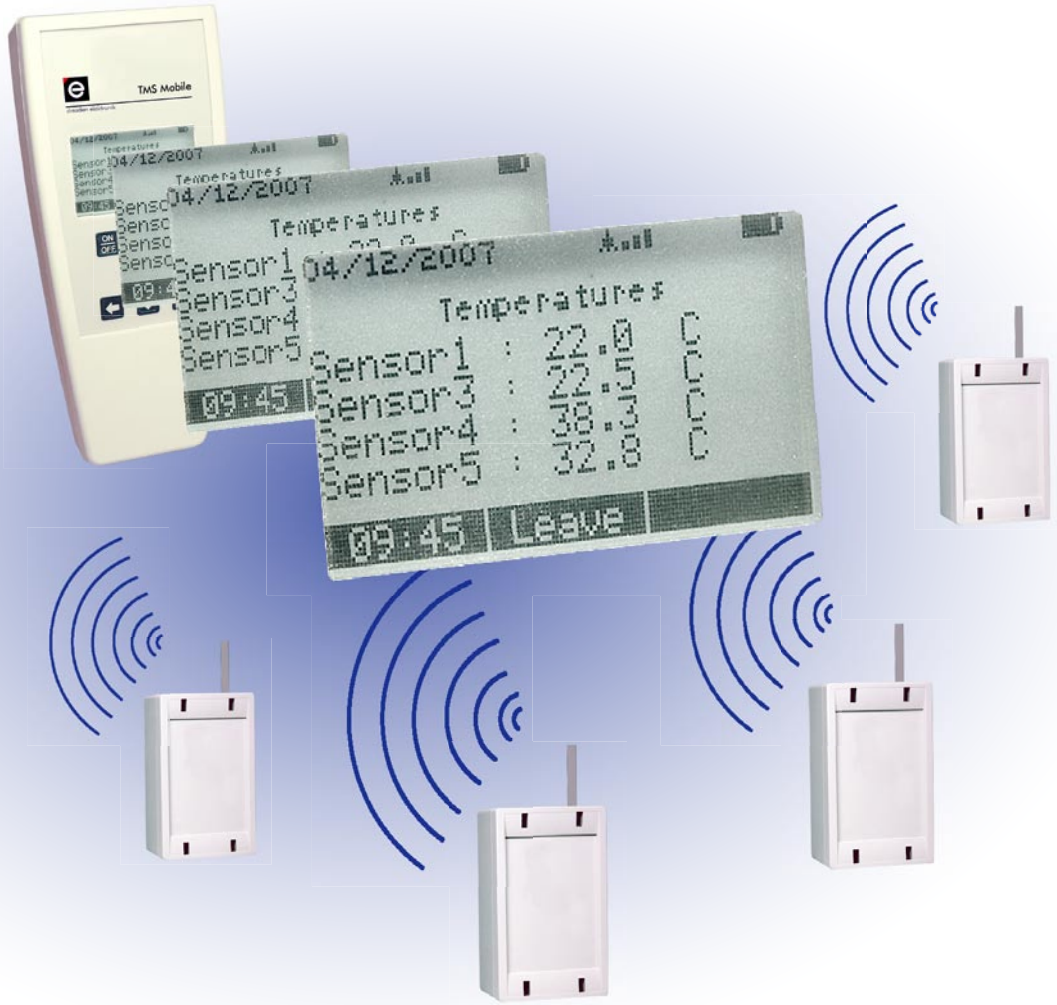
Schalter LS8	Aktor LL1
Montage: in UP-Dosen	Einbau: am Anschluss einer Hängelampe oder in einer UP-Dose
Versorgung: 3V (1x CR123A)	Versorgung: über das 230V-Netz
Batterielebensdauer: 5...10 Jahre	
Sendeleistung 1..10mW	Sendeleistung 1..10 mW
Zulassung: CE, ETSI, FCC ID: U6TZIGBIT-A2	Zulassung: CE, ETSI, FCC ID: U6TZIGBIT-A2
Temperaturbereich: -20..+55°C	Temperaturbereich: -20..+55°C
Rel. Luftfeuchtigkeit: max. 80% (ohne Betauung)	Rel. Luftfeuchtigkeit: max. 80% (ohne Betauung)

ZigBee® Alliance
Wireless Control That Simply Works

PRODUKT INFO

wireless communication
IEEE 802.15.4
2,4 GHz

Sensor Network TMS ZigBee™



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Kurzbeschreibung

- Das **Messsystem TMS** arbeitet als drahtloses Sensornetzwerk in der Industrie- und Gebäudeautomatisierung.
  Die Datenerfassung erfolgt über Dutzende von Sensoren.
- Gemessen werden
  Temperaturen, Druck, Feuchte und Helligkeit.
- Jeder Sensor meldet sich sofort nach dem Einschalten bei einer Zentrale oder einem Gateway an und überträgt nur an diese seine Messwerte. Die Zuordnung von Sensor und Zentrale/ Gateway ist eindeutig und sich überlappende Empfangsbereiche können klar abgegrenzt werden.

Anwendung

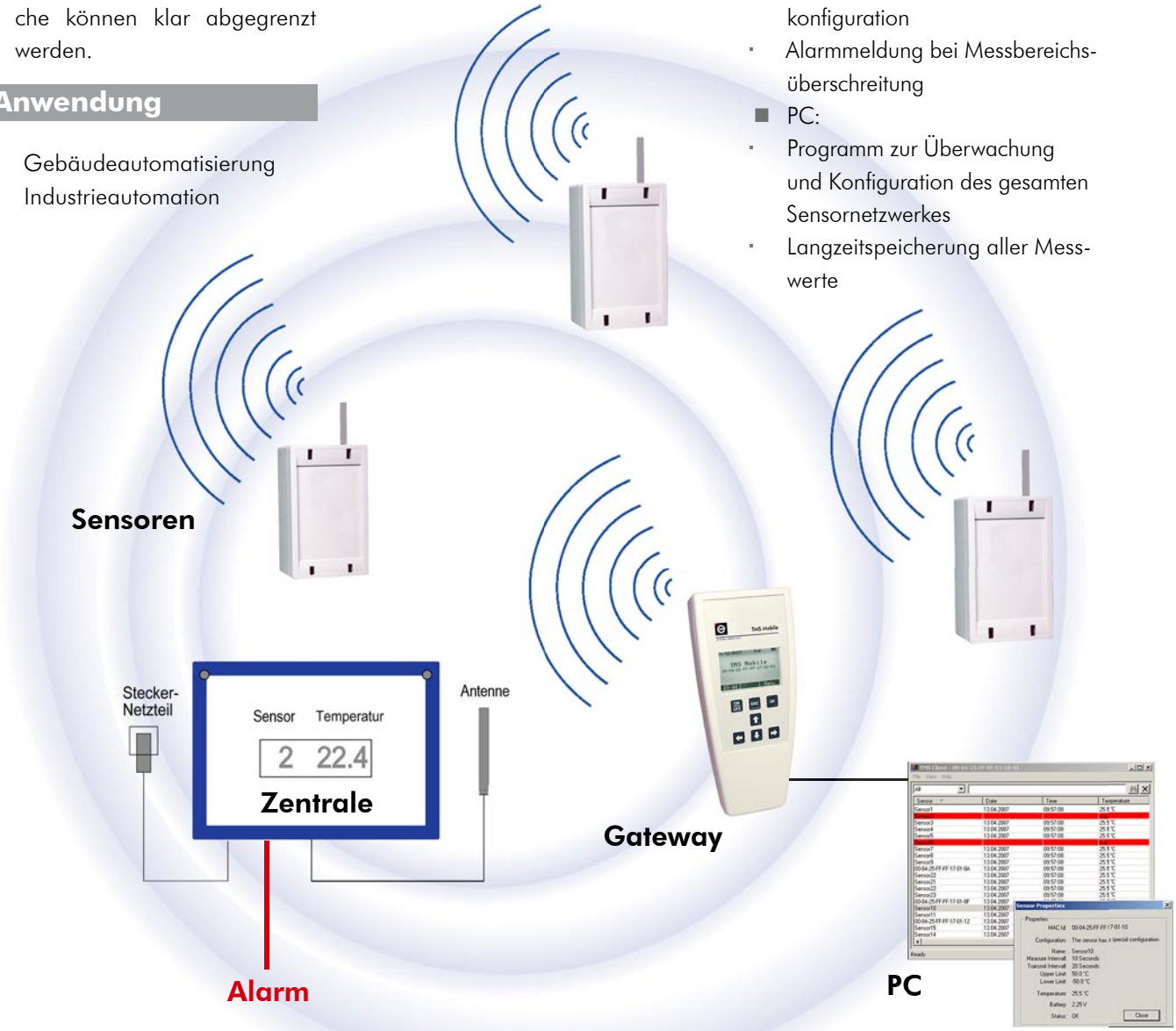
- Gebäudeautomatisierung
- Industrieautomation

Details

- 2,4GHz-Band
  Von Vorteil sind seine weltweite Verfügbarkeit und die Lizenzfreiheit.
- Alle Komponenten sind IEEE 802.15.4 kompatibel und auch neben anderen Wireless-Lösungen im 2,4GHz-Band verwendbar (Kollisionsvermeidung).
- Die Sensorelektronik ist für die Erfassung langsam veränderbarer Größen konzipiert.
- Das Messintervall kann für jeden Sensor von Sekunden bis Stunden eingestellt werden.
  Das ermöglicht eine lange Batterie-Lebensdauer.

Technische Daten

- Sensoren:
  - sofort betriebsbereit
  - vollständige Übertragungsüberwachung
  - weltweit eindeutige ID
  - bidirektionale Kommunikation
  - autonomer Batteriebetrieb über mehrere Jahre
- Gateway:
  - USB - Interface
  - LiPoly-Akku (>24 Std. Betriebsdauer)
  - LCD Display
  - Ein-/Aus-, sechs Funktionstasten
- Zentrale:
  - SD-Karte für Speicherung empfangener Daten und Netzwerkkonfiguration
  - Alarmmeldung bei Messbereichsüberschreitung
- PC:
  - Programm zur Überwachung und Konfiguration des gesamten Sensornetzwerkes
  - Langzeitspeicherung aller Messwerte



ELPRO Europe Update

ELPRO Technologies 2008

ELPRO Monthly is a short monthly ELPRO UPDATE

In This Issue:-

Total Radio Solution

High Powered Telemetry

ELPRO is part of Cooper Crouse Hinds

ELPRO Technologies Is Only Complete Wireless Solutions Provider

ELPRO resellers have access to products from the only company offering a complete range of wireless products. Other suppliers specialise in one field only ELPRO will offer its teams a full range of radio solutions

1. 802.15 standard short range high speed for battery powered sensors (WHART)
2. Modems for data applications on plant wide or interplant communications
3. Radio telemetry for plant wide process control applications
4. Serial telemetry for interplant communications
5. GSM for interplant data communications
6. WiFi for high speed short distance mobile communications
7. Plug and play telemetry for resale through off-the-shelf industrial suppliers

High Power 5W Telemetry

ELPRO can now supply radio with 1W, 2W or 5W in the 105U telemetry units.

These units can be used with local licenses in Europe. All the functionality of the 105U-1 or 105UG-PR2 with ranges up to 50km

Advantages to the customer means no reliance on third party GSM services and no data costs. Plus the advantages of the WIB communication.

ELPRO Technologies

Now part of Cooper Crouse Hinds

Many of you will now know ELPRO Technologies is now part of this major American group.

The opportunities to our distributors are improved now that their radio product is being supplied with the best warrantee in industry and from one of the major suppliers to process and automation industry worldwide.

For more details see:- http://www.crouse-hinds.com/crousehinds/press/pr.cfm?id=192&action=view&CompanyID=1

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Grain Load-out Conveyor

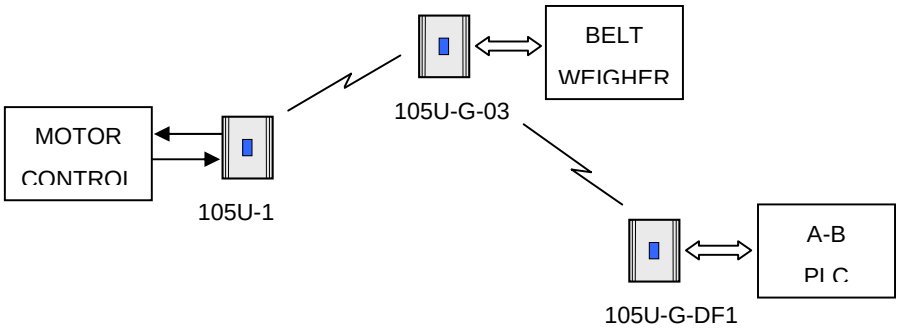
Keywords: 105U-G Modbus master; 105U-G DF1; 105U-1; Belt weigher; Motor control; RS485 connection; Repeater operation

Introduction

A grain load out conveyor has a belt weigher with Modbus interface. A 105U-G-MD1 Modbus module is connected to the weigher and transmits the accumulated weight value to a control panel approx ½ mile away.

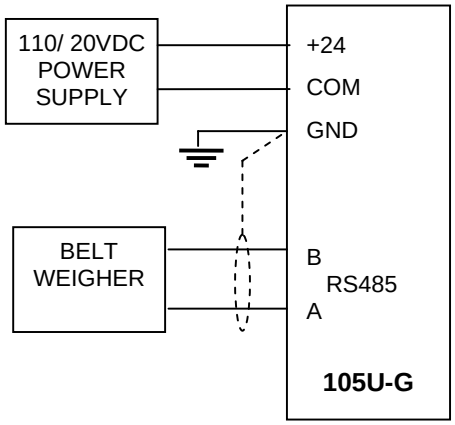
The conveyor is also monitored and controlled from the control panel via a 105U-1 wireless I/O module at the motor control panel, at the foot of the conveyor.

The control panel has a Allen-Bradley SLC5 PLC controlling the load out operation. A 105U-G DF1 module is connected to the PLC to transfer signals from the weigher and conveyor motor control.



Belt Weigher

The belt weigher measures the accumulated weight transferred, conveyor speed and instantaneous weight rate (tons/hour). The belt weigher has a RS485 port and provides a Modbus RTU Slave interface for serial transfer of these values. A 105U-G Modbus Master unit is connected to the belt weigher - the 105U-G will read these values at a pre-set period (10 secs) and transfer these values to the 105U-G at the control panel.



The distance to the control panel is approx ½ mile, thru a congested warehouse area. A test using CFD890 antennas showed a strong radio path, so these antennas are used at both sites. The antenna at the belt weigher is mounted beside the weigher panel, mounted on the handrail beside the conveyor. As there is a lot of steelwork around the conveyor facility, including light poles beside the antenna, a lightning surge protector is not used.

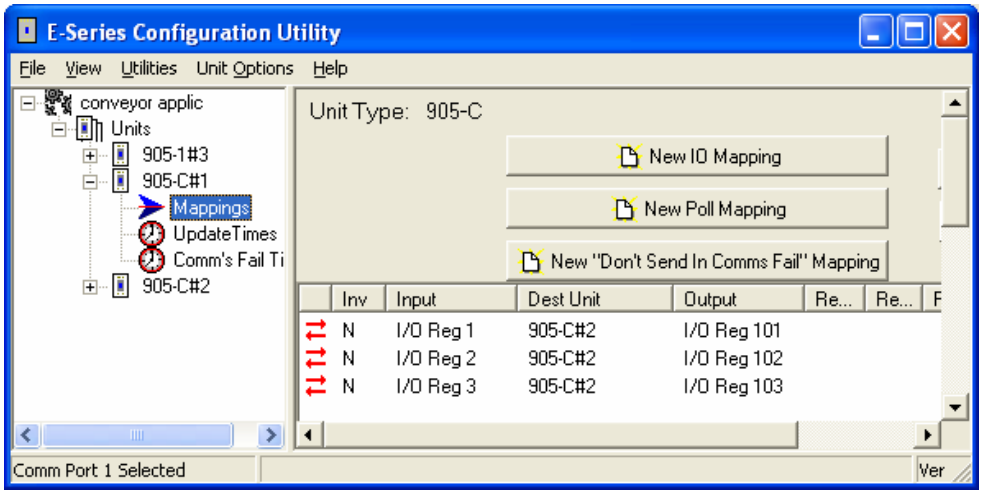
Power is available at the belt weigher panel. A small 110V/20VDC power supply is used to power the 105U-G module. Spare space is available in the belt weigher panel for mounting the module. Screened twisted pair wire is used to connect the RS485 ports on the weigher and 105U-G. RS485 is polarity sensitive - if the communications isn't working, reverse the wires. The RS485 port on the weigher is fixed at 9600 baud, 7 data bits, even parity and 2 stop bits. The serial port of the 105U-G is configured to be the same.

The belt weigher provides the weight, speed and rate as Modbus registers 40001, 40002 and 40003. The 105U-G reads these registers and puts the values into its I/O registers 0001, 0002 and 0003. Note the 105U-

Configuration of serial port

```
Baud Rate : 9600
Character 7 Data Bits; 2 Stop Bits; Even parity
10000 mSec Delay Between Polls
I/O Configuration:
Index   Slave   Retry   Maximum ComFail Command Slave   105U-G  Point
        Addr    Delay   Retries Loctn   Type    Loctn   Loctn   Count
0       1       100     5       4801    Read     40001   1       3
```

G will transmit a "change message" whenever one of the I/O registers changes. To avoid jamming the radio channel with continuous transmissions, the Modbus poll time must be carefully selected. The 105U-G Modbus Master interface is configured to provide the read polls to the weigher. The Modbus registers are 16 bit, and will therefore change every time they are read - resulting in change messages being transmitted to the control panel on each read. A poll time of 10 seconds is selected.



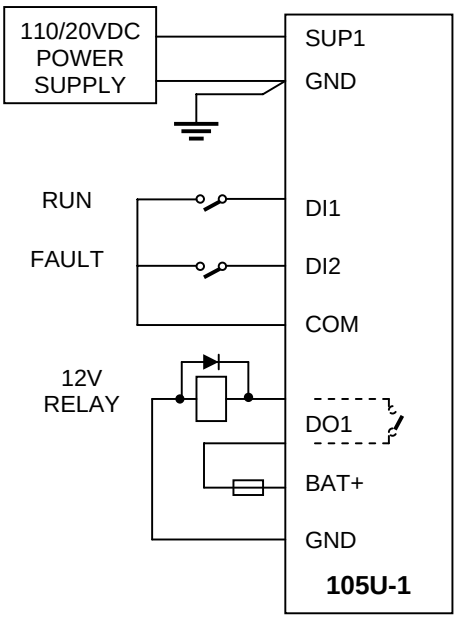
The three I/O registers are configured (or "mapped") to I/O registers 0101, 0102 and 0103 at the 105U-G at the control panel.

Conveyor Motor Controller

A 105U-1 is installed at the motor controller at the foot of the conveyor to provide monitoring and control of the conveyor. "Run" and "Fault" signals are connected to the 105U-1 and these are transmitted to the control panel. The control panel transmits a control "on/off" message to the 105U-1, which appears as a discrete output contact (DO1) - this contact is connected into the control circuit of the conveyor motor.

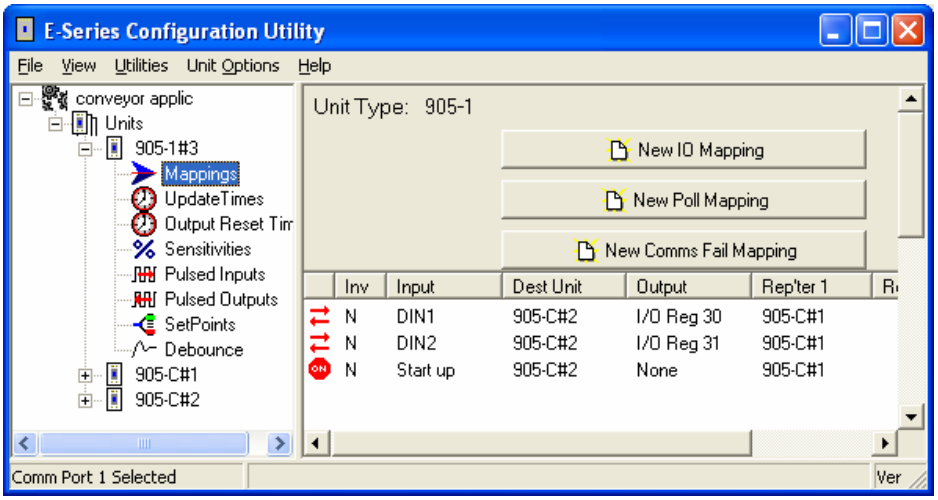
The 105U-1 is installed in a small NEMA4 enclosure beside the motor controller. Power is available from the motor controller and a small 110V/20VDC power supply is used to power the 105U-1. The "run" input is connected to an auxiliary contact on the motor contactor, and the fault input is connected to a fault relay contact which closes on a "fault" trip.

The DO contact is connected to a 12VDC relay mounted in the motor controller. The 12V power is sourced from the battery output of the 105U module. A surge suppression diode is connected

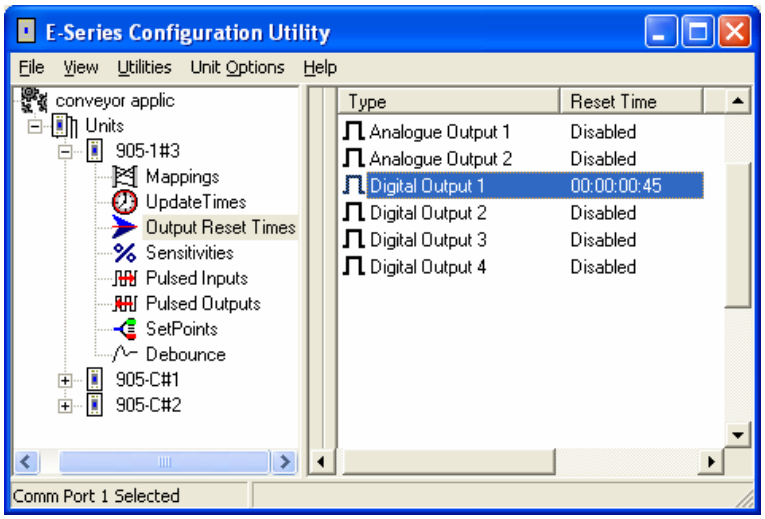


across the relay.

A radio path check showed that a reliable radio path to the control panel does not exist between the motor controller and the control panel, because of a large steel hopper immediately in front of the motor controller. Tests showed that a good radio path existed if the antenna was installed above the hopper or to one side, however either solution required installing a long length of coaxial cable.



An alternative was to use the 105U-G at the weigher as a repeater, as a good radio path existed between the motor controller and the weigher (the hopper did not obstruct this path) - this alternative was selected. A CFD890 is mounted on the side of the motor controller enclosure and all transmissions to the control panel are via the weigher unit acting as a repeater.



The input mappings to the control panel are as shown. An output reset time is configured on DO1 to stop the conveyor if communications is lost from the control panel. The reset time is set to the minimum value of 45 seconds. The update time at the control panel module for the control on/off signal is 30 seconds. If the 105U-1 at the conveyor does not receive an update, DO1 will reset and stop the conveyor.

Control Panel

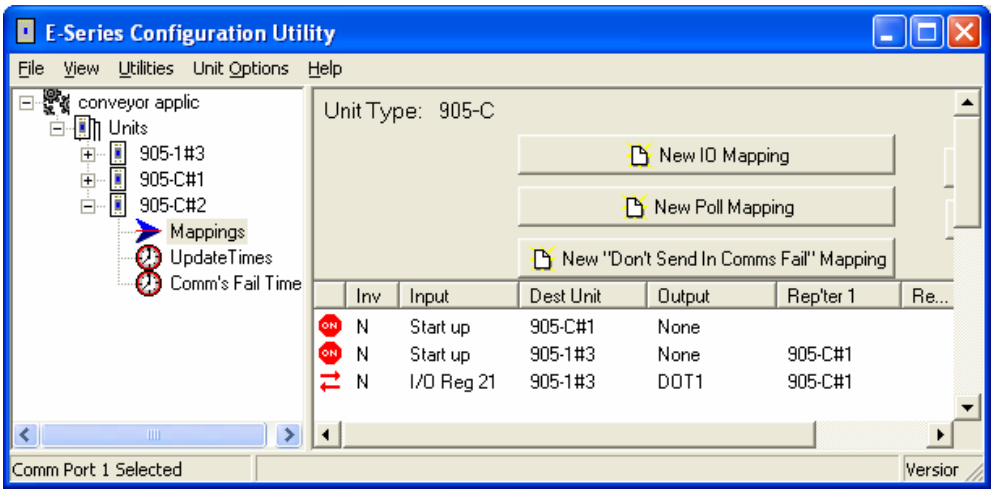
The control panel contains an Allen-Bradley SLC5 PLC which controls the load-out plant. A 105U-G DF1 module is connected to the RS232 port on the PLC. This PLC port is configured as a full-duplex (point-to-point) DF1 link.

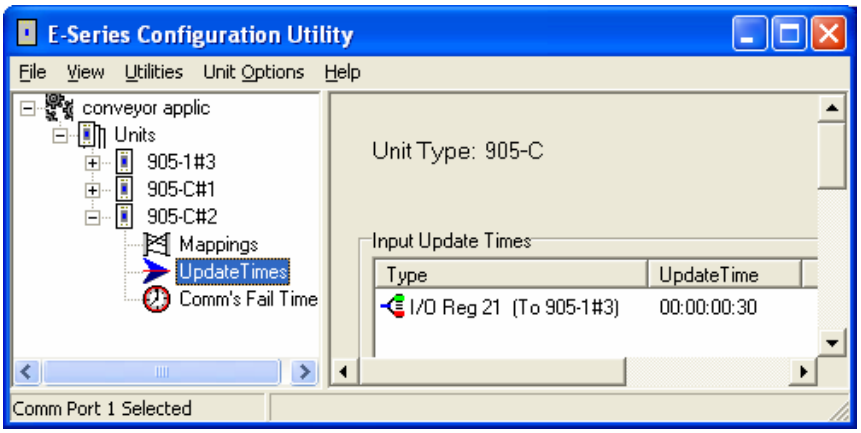
This 105U-G passes across the weight, speed and rate values from the weigher, and the run and fault signals from the motor controller. The 105U-G also transmits the control on/off signal to the motor controller.

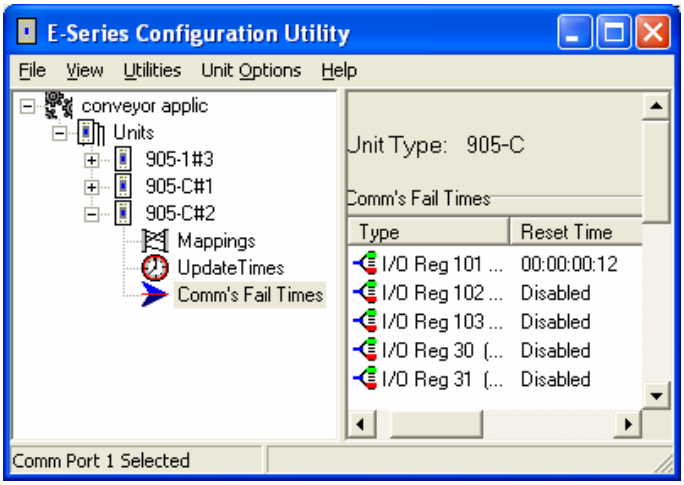
The PLC port is configured for 9600 baud, 8 data bits, no parity and 1 stop bit - and the 105U-G serial port is configured as the same. The A-B PLC is configured to act as the DF1 “command initiator” - either DF1 unit can do this. The PLC will read the values from the 105U-G and write the control on/off signal value to the 105U-G. The I/O mapping for the control on/off signal is shown, as well as the update time set to 30 seconds.

The PLC also monitors the communications status of each remote module. For the weigher module, the PLC monitors the status register associated with the accumulated weight register. This register is 0101 and the associated status register is 5101. The 105U unit at the weigher reads the accumulated weight value

every 10 seconds, and this will generate a change message every 10 seconds when the conveyor is running. At the control panel, a "comms fail time" of 12 seconds is set - if a new weight value is not received in 12 seconds, register 5101 will show a comms fail. The PLC monitors this register to determine if communications is active to the weigher module.







ELPRO Offers Industry First Lifetime Warranty

ELPRO's Lifetime Warranty is a clear statement to the market that ELPRO has the utmost faith in its staff, and in its design and manufacturing systems. A Lifetime Warranty signals to our customers that we are serious in providing them long term reliable solutions.

The Lifetime Warranty on manufacturing and component defects is limited to the serviceable life of each product, constrained only by the availability of electronic components. ELPRO's policy is to forward purchase components to service products for 10 years after they become non-current. However, ELPRO further guarantees that if it is unable to repair or replace a defective product, for whatever reason, within three years of original purchase, ELPRO will replace the product with another equivalent product.

ELPRO Technologies

NEW PRODUCT LAUNCH GUIDE

Think Wireless…Think ELPRO

105U-L *Cost-Effective* Wireless I/O

Performance, Reliability, Security


ELPRO
OK
D1
D2
SP
TX
AZ
PG
SET
05U-L-T
ELPRO
OK
D1
D2
SP
RX
CF
PG
105U-L-R

Introduction

The 105U-L family is a powerful yet economical wireless I/O solution, adding another competitive advantage to the ELPRO product offering.

Product position:

The 105U-L family comprises a transmit only 105U-L-T and receive only 105U-L-R unit:

- They are designed to effectively address customers who are interested in wireless, but need the comfort (insurance) of a wireless solution that solves simple wire replacement. ELPRO's "L" series does this and more. The units are pre-configured out of the box, but offer your customers future scalability to build on their wireless deployment as requirements demand.

- The L series further strengthens ELPRO's product portfolio and competes directly with the Phoenix RAD-ISM-900-SET family of one-way wireless products. However the 105U-L family add more customer value in the following key areas:

    - Scalability – the L series can be readily incorporated into other E-Series networks (gateways and wireless I/O) using the E-Series configuration. software. This differs from the Phoenix option wherein the units must either operate stand alone from other installations, be 'chipped' or sent back to the factory to be readdressed for incorporation into a wider network/install base.

    - The range of the 105L units can be 5km (869MHz) in Europe (20km US) where the competitive units are only available with 2.4GHz (1km)

    - While the L series are a matched pair like the Phoenix units, they are able to be purchased separately or as a package buy.

The "L" family provides a powerful combination of economical wireless technology, with ELPRO's proven WIB*net*™ peer-to-peer wireless network and industrial-strength feature-set for a one-stop solution provider when your customer thinks wireless deployment.

Key features include:

- Industrial-strength transmission of 500mW @ 869MHz
- Superior receiver sensitivity – best in class RSSI
- Analog, Thermocouple/mV and Digital/Pulse inputs and Analog and Digital outputs
- Factory calibrated or User configured for precise in-situ requirements
- Secure data encryption
- Economically priced for first time wireless users or quick add-ons to existing networks.
- **WIB***net*™ - provides peer-to-peer, high scan-rates and multi-hop
- Upto 3000 devices per network means you can expand as the need arises
- Diagnostics reporting on robustness of network and individual device health
- Push button signal strength indication with the LED's on the receiver unit.
- Compact, DIN rail package for easy, high-density install
- Fail comms and fail-safe mode visibility and user configurable

Product Overview

The 105U-L-T Transmitter has

- two voltage-free digital inputs, also suitable for pulse (100 Hz plus pulse-rate calculation).
- one 0-20mA/0-5V (12-bit) analog input
- one mV input with configurable linearization and cold-junction compensation for type J,K,T thermocouples (accuracy < 1degC).
- internal setpoint status for analog input, thermocouple, ambient temperature and supply voltage.
- supply voltage, pulse rates and ambient temperature available as internal analog values.

The 105U-L-R Receiver provides

- three relay contact outputs (250V, 1A)
- one 0-20mA analog output - note: "source" signal, not "sink"
- two transistor digital outputs for "Comms Fail" and "System OK".

Both units are powered by 9 – 30 VDC and generate a 24V analog loop supply. The analog loop supply can be configured to switch according to sample and warm-up times.

Factory Configuration

The units can be set to a default factory configuration without any configuration software. The default configuration provides:

105U-LT(Transmitter)	Sends	105U-LR (Receiver)
Digital Input 1	⇨	Digital Output 1
Digital Input 2	⇨	Digital Output 2
Analogue Setpoint status	⇨	Digital Output 3
Analogue input (4-20 mA)	⇨	Analog output
Thermocouple Input (Not used)		Communication Failure (Comes on if no messages from 105U-LT)
Setpoint Output (Local indication)		
System OK (On if system OK)		System OK (On if system OK)

- Input changes are transmitted immediately and an input update block message is transmitted every 1 second.
- The Analog Setpoint status is determined internally in the 105U-L-T by comparison on the analog input value and the setpoint values set by the Rotary Switch on the front of the unit.
- Communications Fail ("Comms Fail")status and output at the 105U-L-R activates if no radio message is received within 5 seconds. Digital outputs will reset off on Comms Fail, although the analog output will retain it's previous value.
- The factory default configuration can be modified by using the E Series configuration software.

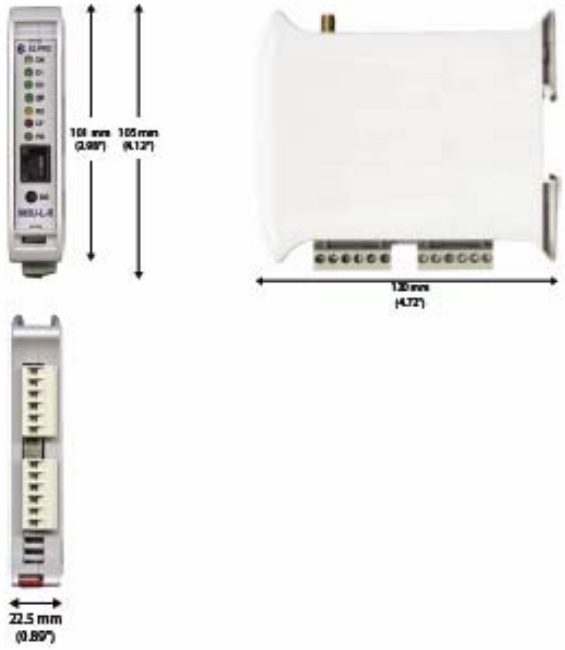
WIB-net Features

All standard WIB-net features, including security encryption can be configured using the E Series package.

The 105U-L units can communicate using both single and block mapping messages.

Flexible I/O housed in an industrial-hardened rail mount package.

Each unit is constructed of a high-strength, thermo-plastic housing (100 x 22 x 120 mm) with a DIN-rail mount. These units are compliant with Class 1, Div 2 approvals and rated to operate from temperature extremes of minus 40/ plus 60 C.



105U-L Diagnostics add customer benefit

On-line configuration and diagnostics port (RS232) allows diagnostics that monitor communications messages, read input/output values and radio signal strength. RSSI is also visible from the front LED's on the front of the receiver unit to quickly provide local indication of radio signal strength to the User. Comms Fail condition is displayed by flashing LED's.

Major Features–Advantages-Benefits

FEATURE	ADVANTAGE	BENEFIT
Strong RF transmit power – 500mW @ 869MHz	5km LOS and 0.5km in congested areas	Reliably transfer data greater distances
Economical I/O capacity	Start small and build as needed	Lower initial investment costs, less risk to deploy wireless until confidence builds
Security - encryption	Tight security of customers wireless data and operational information	Increased confidence in using wireless
WIB*net*™ - fully compatible with ELPRO's 105U wireless I/O and wireless gateways	true peer-to-peer communications, plus high-scan updates and multi-hop mesh-like repeater	Fast, reliable data transfer with future scalability – no loss of original investment when more I/O is required
Factory configured option	No configuration required	Quick, easy deployment of matched wireless I/O – excellent "out of box" experience
Compact industrial-grade DIN-rail mount package	Easy, quick install with detachable terminal blocks for convenient wiring	Industrial package allows high-density applications lowering overall install costs
Diagnostics	Information on the robustness of the net and health of devices and power supply	Faster troubleshooting, lower operating costs, and quicker up time
Configuration software	Easy to use via RS232 port	Easy to initialize, apply upgrades, and faster install time.
Lifetime warranty	Only ELPRO offers this – unmatched by any wireless competitor	Confidence builder for customers in early stages of wireless technology deployment
Industrial rated – temp, humidity	-40 to + 60 degrees C, plus Class I Div 2 approval	"As-Is" use in industrial areas

Frequently-Asked-Questions (FAQ's)

1. Why use the "L" series when ELPRO offers the E series of wireless I/O?

   ELPRO continues to lead the market in innovative, reliable and flexible wireless solutions. The "L" series is additive to the competitive wireless offering and aimed at the entry-level market where point-to-point wireless replacement is wanted.

2. What does uni-directional mean in the 105U-L series?

   This means there are two separate units – one that acts as a transmitter only and one unit that acts as a receiver - as opposed to traditional E- Series products with both transmitter and receiver in one device.

3. What RF technology is used in the 105U-L?

   The 105U-L-T uses a 869MHz 500mW transmitter, which is a common standard across Europe in I/O products.

4. Does the 105U-L series use change-of-state data broadcast?

   Yes, the 105U-L utilizes the peer-to-peer, exception reporting communications of WIB-net. It has both single I/O messaging and block messaging as used by gateways. When configuring input-output mappings, you can bundle multiple inputs into the one mapping, creating a block mapping.

5. What type of package does the 105U-L ?

   The new DIN-rail mount package is a high-strength, thermo-plastic housing (100 x 22 x 120 mm / 3.9 x 0.9 x 4.7 inches) featuring a DIN-rail up-right mount. The package allows high installation panel-density. The detachable terminals blocks make it easier to initially wire or optionally to begin wire placement prior to delivery of the device itself. Should repairs or replacement be required, the detachable terminal blocks allow for faster troubleshooting, and quicker uptime.

   Terminal blocks are also marked now to simplify wiring

6. What diagnostics does the 105U-L have?

   The 105U-L-R has a "SIGNAL" pushbutton on the front panel which will display RSSI (radio signal strength) on the front panel LED's. Other diagnostic functions are as per other E-Series products - reading input values, monitor comms messages etc.

7. Why order the 105U-L from the factory as a matched set?

   Ordering a "pair kit" provides a transmitter-receiver pair and two antennas. The pair can be set to default configuration without any configuration - the transmitter is set to a unique system address according to its serial number and the transmitter will "configure" the receiver via the radio channel. Fast implementation with minimum engineering.

Of course, for customers already familiar and comfortable with wireless, ELPRO's units also offer the ability to field configure for larger networks. Basically the best of both worlds. The set also includes a configuration cable is RJ45 to 9 pin sub D connector. This is the same type used with the 455U unit and it is worth supplying to the customer with the first pair

8. How do you use the thermocouple input?

   The thermocouple input is suitable for direct connection of type J, K or T thermocouples or compensating wire, or mV signals. The 105U-L-T provides cold junction compensation and thermocouple linearization with an overall accuracy of better than 1 degC.

   The thermocouple input is not used in the default "matched-pair" configuration, however the configuration can be modified to map the thermocouple input to the receiver analog output. Similarly, the thermocouple input can be mapped to a gateway.

   There is also a setpoint status associated with the thermocouple input.

9. What is the rotary switch for on the transmitting unit?

   The analog value set point output can be selected without using software just by turning this switch
   This means the Analog input or the thermocouple input can effectively act as a thermostat or mechanically adjustable level switch. Of course the set point has a hysterysis which can also be adjusted this stops output chatter.

10. Can multiple 105U-L-R units be used in a network?

    Yes, each R unit can have a unique address, and can form part of the 100's of radio addresses within a network. For example, you could have one gateway unit talking to lots of 105U-L-R units. More than one R unit can have the same unit address, but these units will set their outputs in exactly the same way. It is possible to use this feature to "broadcast" the same control message to multiple receiver units - for example, for lighting control.

    Because the R unit cannot transmit an acknowledgment, transceiver products such as gateways will transmit each message 5 times (original plus 4 re-tries).

Any more questions? … if so, please let us know.

PRESS RELEASE

HART Communication Foundation ***www.hartcomm.org***

HART Stand Focuses on Wireless Possibilities

Visitors to the HART Communication Foundation stand (8-K24) will see a functioning display of prototype HART-enabled wireless technology that shows the possible connection methods and applications enabled by wireless technology.

The display focuses on new wireless connectivity to existing HART devices, new wireless-enabled devices for measurement and control, and potential applications enhanced by *Wireless*HART™ Communication.

The display shows how wireless can be applied to installed HART-enabled devices and how valuable HART data can be available to asset management applications even if the control system is not capable of integrating HART data. Devices from a number of HCF member companies communicate in a common wireless environment to demonstrate coexistence, reliability, flexibility and support from leading device suppliers.

The Foundation will present short seminars providing an overview of the new *Wireless*HART communication standard at the Speakers Corner in the Wireless Pavilion, at 15.30 and again at 16.00 each day, Monday through Thursday.

Demonstrations of the enhanced Device Description Language in the HART stand show the functionality, ease-of-use and benefits of the new technology. The latest HART-enabled devices, control systems and host applications from leading process automation suppliers are also displayed.

The HCF will hold a press conference to announce recent news on the HART Communication Protocol and the new *Wireless*HART technology. The press conference is Tuesday at 13.00 in the Hamburg Room of the Convention Center.

HART Communication is the global standard for smart process instrumentation with an installed base of more than 26 million devices worldwide. The HART Communication Foundation provides worldwide support for application of HART technology. For more information, go to www.hartcomm.org.

Helmut-Schmidt-University

University of the Federal Armed Forces Hamburg
Germany

Electrical Measurement Engineering
Univ.-Prof. Dr.-Ing. Gerd Scholl

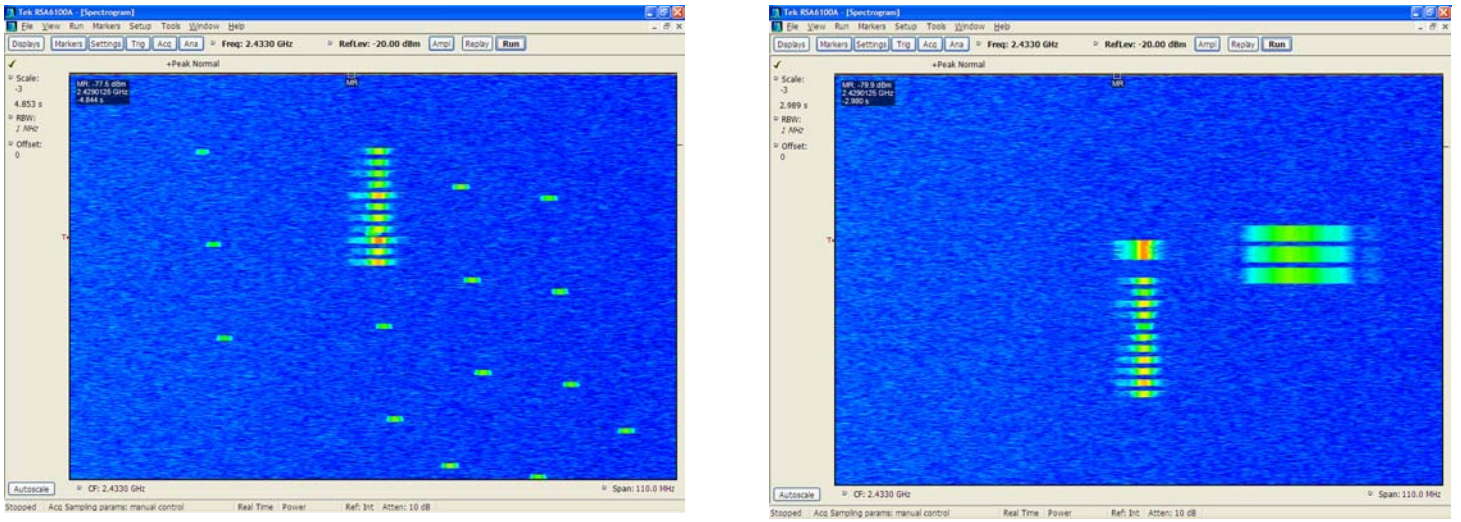
Research Focus

- Wireless Sensors and Sensor Systems
- Wireless Automation

EnAS
Energy Autarkic Actuator and Sensor Systems for Factory Automation Networks

Current Research Projects

- Modular Wireless Real-Time (5 ms) Sensor/Actuator Network for Factory Automation Applications
- Low-Latency Ultrawideband-Systems for Industrial Applications



Spectrogram of the communication signals of wireless sensor nodes operating in the 2.45 GHz ISM-Band together with Bluetooth (left) and WLAN (right) messages

emt

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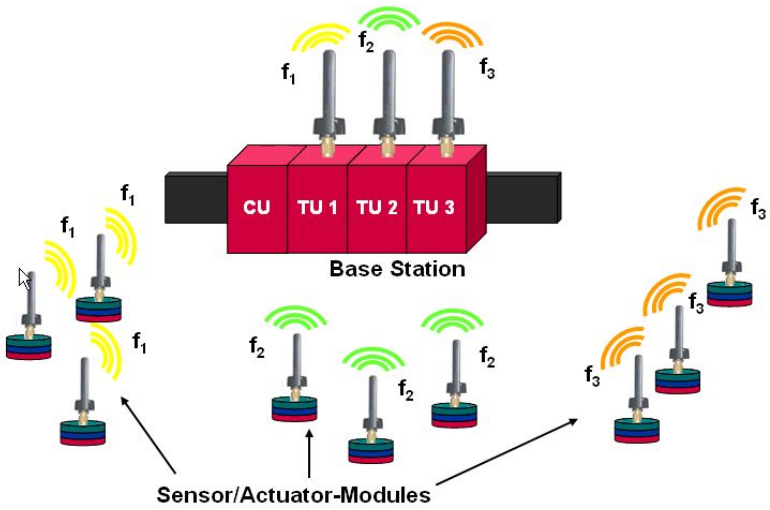
HELMUT SCHMIDT UNIVERSITÄT
Universität der Bundeswehr Hamburg

Modular Wireless Real-Time Sensor/Actuator Network for Industrial Applications

The network is organized in a star topology, where the base station (BS) serves as network controller and gateway to the wired fieldbus. For each single sensor/actuator module a time/frequency slot is allocated by the BS so that collisions between the sensor and actuator nodes can be avoided. To achieve multi-frequency operation the BS is made up of a central control unit and multiple radio transceiver units, also employed in the sensor/actuator modules. A cycle time of 5 ms for 31 sensor/actuator modules could be achieved, which corresponds to the performance of a wired AS-i fieldbus system.



Part of the work has been supported by the Federal Ministry of Economics and Technology under the roof of Next Generation Media Programme in the ENAS project. We would like to thank the project executing organization DLR and FESTO, the lead manager of the consortium for their excellent and continuous support.

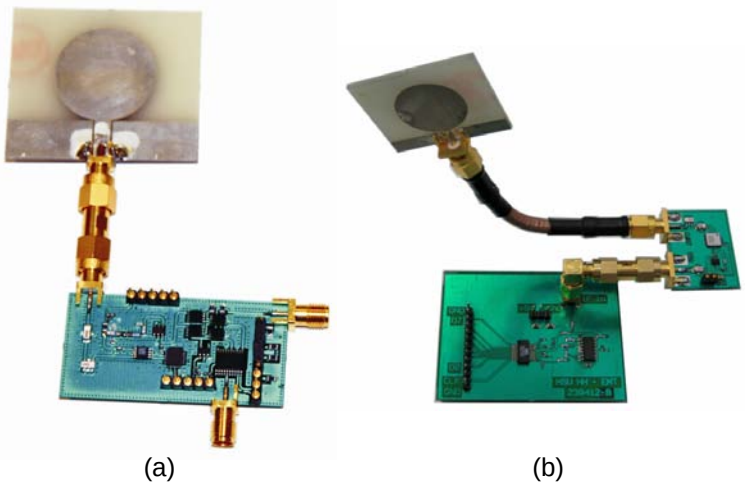
ngm next generation media

DLR Deutsches Zentrum für Luft- und Raumfahrt e.V.

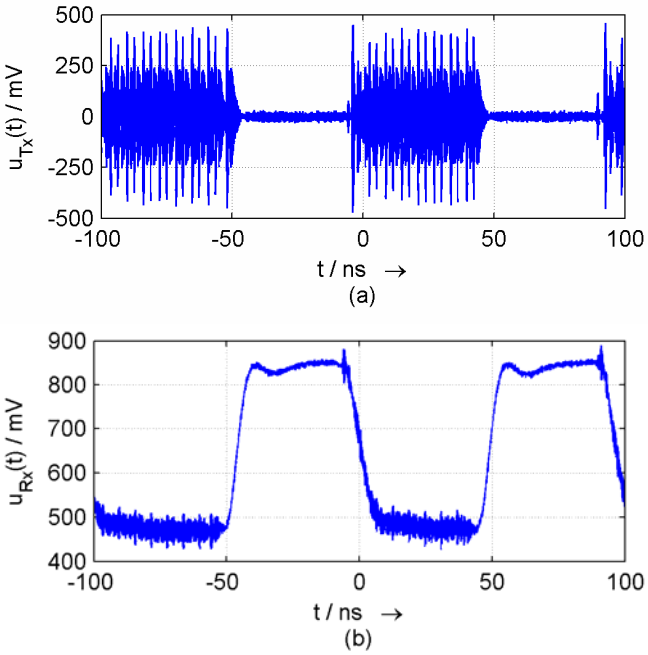
FESTO

Ultra-Wideband (UWB) Systems for Industrial Applications

- Transmission of Short Pulses with a Bandwidth of up to 1 GHz
- Simple Low-Cost Transmitter for Sensor Nodes
- Low Probability of Interception and Deception
- Optional Ranging / Localization



Fabricated prototypes:
(a) UWB-Transmitter, (b) UWB-Receiver



UWB-Data signal at a data rate of 20 MBit/s:
(a) transmitted, (b) received

Fraunhofer Institut
Mikroelektronische
Schaltungen und Systeme

Presseinformation
2.4.2008

Die Kuh mit dem 7. Sinn …

Ein drahtloses Messsystem, bestehend aus Sensoren und Übertragungseinheiten, ermöglicht eine gesündere Haltung von Nutztieren bei minimalem Ressourcen-Einsatz.

In der Milchwirtschaft bleibt oft nicht viel Zeit, den Gesundheitszustand der Kühe zu überwachen. Ein kleiner Sensor soll die Landwirte dabei künftig unterstützen: Im Pansen der Kuh misst er den pH-Wert und die Temperatur. Ein **aktives Transpondersystem**, das sich im Pansen der Kuh befindet, ermittelt die relevanten Parameter und überträgt die Daten über eine eingekapselte Messsonde in Form von Sensorsignalen drahtlos im 133 kHz-Frequenzbereich an externe Empfangseinheiten am Halsband des Tieres. Von dort aus werden die Daten über ein drahtloses Sensornetzwerk zu einer zentralen Datenbank auf 2,45 GHz (IEEE 802.15.4) weitergeleitet. Ist der pH-Wert einer Kuh fütterungsbedingt zu niedrig, bekommt der Landwirt einen Warnhinweis auf seinen PC.
Zur Zeit kann der pH-Wert im Pansen lediglich über Schlundsonden am Unterbauch der Tiere gemessen werden.

Die entwickelten **ZigBee™-kompatiblen IMS-Netzwerk-Knoten** vereinen alle erforderlichen Komponenten für den Anschluss von Sensoren und Aktoren in sich. Aufgrund ihres niedrigen Energieverbrauches garantieren solche Funkmodule lange Betriebszeiten und sind in der Lage sich selbständig zu vernetzen. Eine spezielle Infrastruktur oder Überwachung ist überflüssig.

Neben dem Wireless Stabling (Drahtlos vernetzte Stallung) kann dieses Netzwerk auch andere Anwendungsfelder wie z.B. Land- und Forstwirtschaft erschließen. Die sensorgesteuerte Überwachung von Anbauflächen in den Bereichen Ackerbau, Forstwirtschaft und Weinbau bezüglich Bodenfeuchte, Bodenqualität, etc. ermöglicht einen punktgenauen ressourcenschonenden Einsatz von Dünge-/ Schädlingsbekämpfungsmitteln und Wasser. Das Fraunhofer IMS rundet damit neben den klassischen Transpondern (RFID) mit Sensoren ihre Produktpalette ab.

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Fraunhofer Institut
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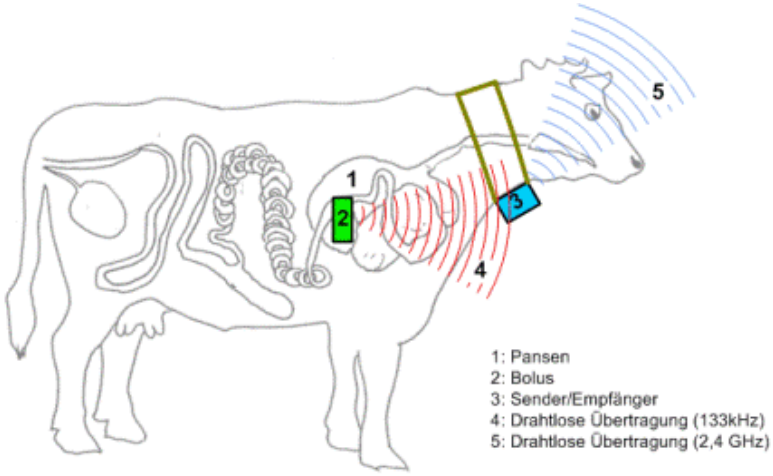
Schaltungen und Systeme

Ab Mitte 2008 soll das, im Rahmen dieses Projektes, entwickelte Messsystem zum Einsatz kommen und auf Versuchsbauernhöfen der Landwirtschaftskammer Niederrhein und in weiteren Forschungseinrichtungen erprobt werden.

Das Fraunhofer IMS hat hiermit gemeinsam mit verschiedenen niederländischen und deutschen Partnern (WUR Wageningen, LTO-Noord, LWK-NRW, ISIC-IC GmbH, TZK Kleve) ein grenzüberschreitendes Projekt ins Leben gerufen. Es wird durch das EU-Programm INTERREG IIIA der Euregio Rhein-Waal, durch das Ministerium für Wirtschaft, Mittelstand und Energie des Landes Nordrhein-Westfalen sowie durch die Provinz Gelderland kofinanziert.

Die „Funkende Kuh" sowie weitere drahtlose Entwicklungen stellen die Forscher des Duisburger Instituts **vom 21.-25.04.2008 auf der Hannover Messe HMI 2008 (Halle 6, Stand 10 K)** vor.



(Zeichnung nach B. Lükte Entrup, 2006)

Fraunhofer Institut
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Schaltungen und Systeme

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20.3.2008

Preise auf Knopfdruck

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Preisschilder an Supermarktregalen zu ändern, ist oft mit Rennerei für die Angestellten verbunden. Mit einem System von vernetzten Displays lassen sich Preise schnell und jederzeit von einem zentralen Computer aus aktualisieren.

Manchmal erlebt man an der Kasse eine freudige Überraschung: T-Shirt, Kamera, Schokolade sind günstiger als auf dem Regal ausgezeichnet. Mitunter entpuppt sich ein Produkt auch als teurer. Die wenigen Mitarbeiter in Elektro-, Bau- und Supermärkten sind meist überlastet. Für das Aktualisieren der Schilder an den Regalen bleibt da oft wenig Zeit. Das gilt auch für elektronische Displays: Bei Preisänderungen müssen die Flash-Speicherkarten im entsprechenden Display ausgetauscht werden.

Ein vernetztes elektronisches Anzeigensystem soll den Mitarbeitern die Rennerei beim Preisschild wechseln künftig ersparen – und dem Kunden Überraschungen. Forscher des Fraunhofer-Instituts für Mikroelektronische Schaltungen IMS in Duisburg haben die vernetzten Displays gemeinsam mit der Firma renzel media entwickelt. »Über einen zentralen Rechner im Büro kann der Filialleiter die Preise auf den Displays schnell und unkompliziert ändern«, sagt Hans-Christian Müller, Gruppenleiter am IMS. »Dazu haben wir in jedem Screen einen Empfänger integriert. Über einen Sender im zentralen Computer lässt sich jedes Display einzeln ansteuern.« Sind etwa die Erdbeeren im Sonderangebot, muss der Filialleiter lediglich die Datei, die den neuen Preis enthält, in das Hauptverzeichnis kopieren – und schon aktualisiert sich die Anzeige am Erdbeer-Regal. Damit der Preis an der richtigen Anzeigentafel geändert wird, trägt diese Datei als Namen den Nummerncode des entsprechenden Displays. Die Software, mit der die Preisschilder erstellt werden, liefert die Firma renzel media direkt mit.

Der Computer zerlegt die Bilder, die angezeigt werden sollen – etwa eine Schale Erdbeeren mit dem entsprechenden Preis – in kleine Datenpakete und sendet sie an den Empfänger. Hier wird das Bild wieder zusammengesetzt und angezeigt. Geht ein Datenpaket bei der Funk-übertragung verloren, fragt der Empfänger automatisch beim Sender nach – das fehlende Paket wird erneut geschickt. Der Grund für diese Datenpakete: Die Displays besitzen nur einen kleinen Prozessor, damit sie energiesparend arbeiten und nicht zu viel Wärme entwickeln. »So können auch dicht schließende Gehäuse verwendet werden, was an manchem Installationsort von Vorteil ist – etwa an einem Kühlregal, wo Feuchtigkeit unvermeidbar ist«, sagt Müller. Der Prototyp des vernetzen Anzeigensystems mit 25 Displays ist vom 21. bis 25. April auf der Hannover-Messe zu sehen (Halle 6, Stand K10). Nun planen die Forscher, ihre Entwicklung serienreif zu machen.

Fraunhofer Institut
Mikroelektronische
Schaltungen und Systeme

Presseinformation
20.3.2008

Feldforschung – ganz real

Fraunhofer IMS-Sensornetzwerke in der Landwirtschaft

Für den normalen Beobachter mag es ungewöhnlich erscheinen, das Ingenieure aus dem Bereich der Halbleiterforschung ihre Experimente und Messungen im Freien und nicht im Labor durchführen, aber genau dass machen momentan Mitarbeiter des Fraunhofer-Instituts für Mikroelektronische Schaltungen und Systeme (IMS) aus Duisburg.
Auf einem Kartoffelfeld im 90km entfernten Emmerich interessieren sich die Forscher aus Duisburg aber weniger für die Pflanzen, als für das auf dem Kartoffelfeld von ihnen installierte drahtlose Sensornetz. Dieses Funknetz besteht aus kleinen Funkplatinen, die in der Lage sind selbständig miteinander ein Funknetz aufzubauen und Daten zu einer Basisstation zu senden. Ausgestattet mit Sensoren wird eine Funkplatine so zu einer kleinen Messstation, die es ermöglicht, unterschiedliche physikalische Werte zu messen.

Ziel dieses, von der Euregio geförderten, Projektes ist es, die klimatischen Verhältnisse direkt in der Umgebung der Pflanze zu messen und daraus Rückschlüsse für die weitere Behandlung zu ziehen. Ferner erhoffen sich die Mitarbeiter der Landwirtschaftskammer NRW, die das Projekt auf landwirtschaftlicher Seite betreuen, weitere Erkenntnisse über die klimatischen Verhältnisse die das Entstehen und Ausbreiten von Pflanzenkrankheiten fördern. Diese Daten könnten in Zukunft dazu beitragen, frühzeitig solche Krankheiten wie z.B. Phytophthora zu erkennen und entsprechende Gegenmaßnahmen einzuleiten.

Die Messdaten der einzelnen Stationen werden von der Basisstation, welche im Büro des Landwirts am PC angeschlossen ist, per E-Mail nach Duisburg geschickt. Hier können die Mitarbeiter des Fraunhofer-Instituts neben den Sensordaten, die die klimatischen Verhältnisse darstellen, auch interne Vorgänge im Funknetz erkennen: beispielsweise wie die einzelnen Messstationen über Funk miteinander verbunden sind (die Topologie des Netzes) oder über welche Verbindungen die Daten durch das Funknetz geleitet werden. Dies ist besonders interessant, wenn auf Grund eines Ausfalls einer Station, die Daten automatisch über andere Stationen zur Basis gefunkt werden.
Bei den Besuchen vor Ort kontrollieren die Forscher unter anderem den mechanischen Aufbau der einzelnen Stationen; sind sie doch über einen längeren Zeitraum den widrigen Wetterbedingungen ausgesetzt, die sich bis heute nicht simulieren lassen.

Weitere Sensornetzwerke des Fraunhofer Instituts IMS im Bereich der Land-, und Forstwirtschaft sowie der Tierzucht werden vom **21.-25.04.2008 auf der Hannover Messe HMI 2008 (Halle 6, Stand 10 K)** gezeigt.

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Katalogeintrag Hannover Messe 2008

IMST GmbH ist ein unabhängiger Entwicklungsdienstleister für Funksysteme und Mikroelektronik. Innovative Lösungen für alle Arten der Funkkommunikation und funkgestützten Sensorik werden hier entwickelt und geprüft.

Die Geschäftsbereiche im Überblick:

- ***IMST.Solutions***: Systemdesign, Funklösungen, Hard- und Software, Integration von Standardtechnologien, wie Bluetooth, WLAN, ZigBee, GSM/UMTS und proprietäre Lösungen in den lizenzfreien ISM-Bändern (**I**ndustrial, **S**cientific, **M**edical Applications).
- ***IMST.Components:*** Entwicklung von Komponenten für die Funktechnik – vom Chip bis zur Antenne. Fertigung von Prototypen für LTCC- und Hybridschaltungen.
- ***IMST.Products:*** Designtools zur Synthese und Analyse komplexer mikroelektronischer Hochfrequenzschaltungen – Empire™, Coplan for ADS™, TOPAS, MultiLib™.
- ***IMST.Services:*** Prüfdienstleistungen durch das akkreditierten Prüf- und Testzentrum für elektromagnetische Verträglichkeit (EMV), CE, Dosimetrie (SAR), HF und Antennenmesstechnik.

Setting the Standard for Automation™

ISA NEWS RELEASE

Contact: Jennifer Infantino
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ISA Announces Co-Located ISA100 Wireless Solutions Summit and Manufacturing IT Forum in May

Research Triangle Park, NC (25 February 2008) - ISA will hold an ISA100 Wireless Solutions Summit and a Manufacturing IT Forum in May in Cleveland, Ohio.

The second annual ISA100 Wireless Summit, which will be held 18-19 May, brings wireless industry experts, end users, and exhibitors together to discuss wireless solutions in the industrial environment.

"The ISA100 Wireless Solutions Summit allows attendees to learn from and network with the most renowned industrial wireless experts in the world," said ISA Director of Standards and Publishing Services T.S. "Chip" Lee. "Plus, the attendees will have a chance to hear details of actual experiences from end users as they evaluate their wireless options and explore the benefits of this important technology."

The ISA100 Wireless Solutions Summit will feature presentations, case studies, and panel discussions covering the technologies that are the key to successful wireless implementation in industrial applications. Attendees will be able to explore the details and progress of the ISA100 Universal Family of Wireless Standards, and during the exhibition, products and system solutions coming to the marketplace will be on display.

Topics planned for the summit include "An Overview of Industrial Wireless - Applications and Technologies," "Trustworthy Wireless - Security without Wires," "People and Asset Tracking and Identification - Industrial Challenges and Solutions," and "ISA100 - The End User's Perspective."

The first-ever Manufacturing IT Forum, held 20-21 May, will focus on bridging the divide between manufacturing and IT, and is supported by leading publications and industrial and professional organizations. "IT departments are becoming owners of manufacturing automation systems, and automation is touching everything from devices to logistics and beyond," said ISA Business Development Manager Bob Crigler. "Opportunities, conflicts, and technologies are creating new dynamics for owner-operators, suppliers and integrators of IT systems in manufacturing environments. ISA has developed a program to address those concerns and help attendees walk away with plans and paths for improvements in efficiency and operational excellence."

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The conference will focus on establishing an understanding of how the most successful companies have addressed the issues and used Manufacturing IT as a competitive advantage. Through case studies and panel discussions, attendees will learn about applications of technology, organizational structures and best practices for transformation of systems, processes and business.

Panel discussions will be moderated by editors of major industry publications and will cover technology, organization and a look into the future. Technology topics will include SOA, Active Directory, and security, among others.

For Manufacturing IT conference topics, registration details, and more, visit www.isa.org/mfgit. To learn more about the ISA100 Wireless Solutions Summit, visit www.isa.org/isa100summit. Attendees can also register by phone at (919) 549-8411. Registration discounts are available for attending both conferences, and for registering before 15 April. Companies interested in exhibiting are encouraged to contact Chris Johnson at cjohnson@isa.org or (919) 990-9230.

About ISA

Founded in 1945, ISA (www.isa.org) is a leading, global, nonprofit organization that is setting the standard for automation by helping over 30,000 worldwide members and other professionals solve difficult technical problems, while enhancing their leadership and personal career capabilities. Based in Research Triangle Park, North Carolina, ISA develops standards; certifies industry professionals; provides education and training; publishes books and technical articles; and hosts the largest conference and exhibition for automation professionals in the Western Hemisphere. ISA is the founding sponsor of The Automation Federation (www.automationfederation.org).

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ISA NEWS RELEASE

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ISA100 Wireless Technologies Demonstrated at Conference in Chongqing, China

Research Triangle Park, NC (31 March 2008) -- Today, the ISA100 Wireless Compliance Institute, with the support of General Electric, Honeywell, and Nivis, demonstrated prototype ISA100.11a wireless standard-based products in the ISA100 booth at the 2008 International Industrial Wireless Conference. The conference is being held in Chongqing, China, and represents a worldwide collaboration of leading organizations with the Chongqing University of Posts and Telecommunications serving as host.

The demonstration used prototype ISA100.11a technologies based on the current ISA100.11a draft standard. "This demonstration is the basis of our alpha test bed for the ISA100 Wireless Compliance Institute," said Andre Ristaino, Managing Director of the Automation Standards Compliance Institute in which the ISA100 Wireless Compliance Institute operates.

"Since the design of the standard is nearly done, it was time to test in a live setting. Our discoveries from this effort will be used to further solidify the technology and ensure that users get a very robust standard." The demonstration, or alpha test bed, will be expanded to include more vendors' devices and will be shown at multiple conferences throughout the year.

The wireless demonstration contained several field devices from each of the supporting vendors. The ISA100 technologies ran on multiple radio platforms communicating through backhaul routers to a single host system. The field devices deployed both mesh routing and non-routing technologies proving each can operate successfully in a single wireless network. "We are excited to be a part of this historic demonstration which is the first of its kind in demonstrating multiple vendors' products using a wireless standard designed for industrial usage," said Dan Sexton of GE. "It shows that this technology is truly interoperable among multiple vendor offerings."

The application demonstrated was a simple tank gauging solution, which is a use case that many users have stated as an initial deployment for wireless solutions in their plants. Two tanks were

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alternatively filled and emptied which provided both monitoring and control usage of the wireless technology. "This technology works and was designed by wireless experts to fit many process applications in an industrial plant, including control," said Marius Chilom of Nivis. "It not only accommodates straightforward tank gauging applications like in our demonstration at the conference, but also handles full scale, plant wide deployments using multiple wireless backhaul routers."

The demonstration, using wireless technology, viewed many variables located in each of the field devices. This data included the process variable like traditional 4-20ma wiring and also device diagnostics and configuration data like existing digital fieldbuses. This information was communicated to a host system over an Ethernet link from a gateway using the Modbus protocol. "The beauty of the ISA100 standard is that the host could have been any legacy system in a plant using any communication protocol like HART, Fieldbus Foundation, Profibus, Devicenet, etc. and the field devices could have done the same thing," said David Kaufman of Honeywell. "This capability is the reason the ISA100.11a standard will be the next "4-20ma standard" for the 21st century. It combines the advantages of the 'single variable 4-20ma world' with the advantages of the 'multi-variable digital bus world' into a single, efficient, wireless network."

For more information about the ISA100 standard, visit www.isa.org/ISA100.

About ISA100 Wireless Compliance Institute

The ISA100 Wireless Compliance Institute facilitates the implementation and understanding of the planned ISA100 universal family of industrial wireless standards through compliance testing programs, associated market awareness, and technical support to users and developers. The ISA100 Wireless Compliance Institute is constituted as an industry group within the Automation Standards Compliance Institute (ASCI), an ISA organization created to facilitate the proper use and application of automation standards through development and implementation of conformance assessment programs and related activities. It is open to participation from end users, technology suppliers, research and development, academia, and other industry consortia and standards bodies. For more information visit www.isa.org/ASCI.

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ISA NEWS RELEASE

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ISA100 Wireless Committee Assesses New Standards Work in Factory and Discrete Automation

Research Triangle Park, NC (31 January 2008) - ISA100, the Wireless Systems for Automation standards committee, recently formed an interest group for wireless networks in factory and discrete automation. A teleconference was held with participants representing automation equipment vendors and users interested in understanding where wireless networks may be applied in different environments.

During the October ISA100 meeting in Houston, Texas, support formed to address the need for standards for wireless networks in environments in addition to the processing environments on which the first ISA100 standard focuses. The new interest group will be oriented toward factory automation, discrete parts manufacturing, high-speed machines and other non-process applications. Jim Reizner of Procter & Gamble and Mark O'Hearne of Millennial Net will lead the group.

The interest group was formed to explore opportunities and requirements that are distinctly different from those currently under consideration in ISA100 working groups. The interest group will survey the market to define a broad scope of interest in the community, identify interested parties, and analyze current contributions from other organizations. The group will then consider if a standards effort led by ISA is warranted, based on use cases and current efforts underway with other organizations. If so, the group will develop the scope, purpose, deliverables, and schedule for a proposed new working group - which will then work to define and develop the standard for ISA and ANSI approval.

In the coming weeks, the group is reaching out to the automation industry to determine the interest level for developing a standard for a wireless factory/discrete automation system to serve hybrid and discrete industries such as consumer goods, electronics, automotive, aerospace and others. In contrast to environments driving the ISA100.11a (release 1) and other emerging interest groups, this group will consider assembly, batch, blending, packing, robotics, shop floor data collection and other

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applications. These are likely to drive different demands for mobility, scalability, point density and lower latency.

During the initial conference call to discuss the interest group, participants from Procter & Gamble, General Motors, and Ford voiced user perspectives about how their environments are different from what is currently covered in ISA100.11a. High-speed production lines involve many types of sensors beyond the process sensors (e.g. pressure, flow and temperature) covered by ISA100.11a. In many plants, it is inconvenient or impractical to run wires for sensor I/O, and eliminating high flexure forces associated with cables is a high priority for many manufacturers. Participants also agreed that their companies want to use wireless to build automated production machines, as well as for assembly lines and material conveyors.

For more information on how to participate in the interest group, contact Charley Robinson at crobinson@isa.org or +1(919)990-9213.

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ISA NEWS RELEASE

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ISA100 Prepares for Initial Ballot of the ISA100.11a Draft Standard Following Successful Meeting in Orlando

Research Triangle Park, NC (5 March 2008) - The ISA100.11a working group, following a very successful meeting in February, is planning an early April committee meeting in Chongqing, China. During the meeting, the ISA100.11a draft standard is scheduled to be issued for initial work group balloting, which is the first step in the consensus based approval process for the standard. The draft ballot will be voted on by the work group via mail at a later time.

The series of meetings held last month in Orlando included several workshops where leaders and editors presented technical material from the standard under development.

"The workshops allowed the leadership to share what we've been working on with a wider audience, and gave people a chance to ask questions and make suggestions about the standard. This is a major part of the consensus building process for an open standard like ISA100.11a," said ISA100 co-chair Wayne Manges of Oak Ridge National Labs.

Several open items were discussed and resolved in various task groups, including the security task group, where several motions were put forward and passed. "In the security task force, we had about 7 open items that needed to be discussed before consensus could be reached and motions could be made and passed. That process is critical for the progress of the standard," said ISA100.11a co-chair Pat Kinney of Kinney Consulting.

"When major competitors like Yokogawa, Honeywell, and Emerson come together to get motions passed in sessions, the users win, and that's what we saw in Orlando," added Manges.

About 40 individuals representing more than 30 companies attended the work group meeting and workshops, with about 50 people attending an ISA100 overview session. The overview session

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provided information about the work of the committee, the ISA100.11a standard, the ISA100 Wireless Compliance Institute, interoperability, and user expectations.

"In addition to giving us a chance to share what we've done and get feedback on open items, the work we did in Orlando kept us on track to deliver a draft of the standard for ballot in April at our China meeting," said ISA100.11a co-chair Dan Sexton of GE Global Research.

The April meeting will be held 1-4 April at the Empark Grand Hotel in Chongqing, China. For more information about ISA100, or to register to attend the meeting, visit www.isa.org/standards or call Charley Robinson at (919) 990-9213.

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ISA100.11a Editor Team Meets at ISA Headquarters

Research Triangle Park, NC (13 March 2008) - The ISA100.11a editor team met last week at ISA headquarters in Research Triangle Park, NC. The team met to study the comments received from the review of the preliminary draft ISA100.11a standard that was conducted by members of the working group over the past few weeks.

Participants included members of the ISA100.11a working group and the ISA100 committee, all of whom were invited to attend. Several joined via teleconference during the three day meeting. 320 comments were received on the draft from 12 members of the working group, and those comments formed the basis of the work during the meetings.

ISA100.11a co-chairs Dan Sexton of GE Global Research and Pat Kinney of Kinney Consulting reported that the team resolved numerous technical issues in areas of the standard such as the DLL, Transport layer, and Application layer with consensus recommendations for further edits and development of the draft standard.

"The meetings last week were extremely productive, which bodes well for the availability of the draft standard for initial review and ballot by the working group starting next month at our meeting in China," said ISA100 committee member Dave Kaufmann of Honeywell.

The next ISA100 committee meeting will be held 1-4 April at the Empark Grand Hotel in Chongqing, China. At this meeting, the ISA100.11a draft standard is scheduled to be issued for initial work group balloting over the succeeding several weeks, which is the first step in the consensus based approval process for the standard.

"In this ad hoc meeting the technical editing team worked expeditiously in reaching consensus in the informal comment resolution process taking place in preparation for the first WG level letter ballot,"

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said ISA100 committee member José A. Gutierrez of Emerson. "The work we did last week will be a key factor in the ability to achieve consensus agreement on the final standard in a timely manner."

For more information about ISA100, visit www.isa.org/ISA100 or call (919) 549-8411.

About ISA

Founded in 1945, ISA (www.isa.org) is a leading, global, nonprofit organization that is setting the standard for automation by helping over 30,000 worldwide members and other professionals solve difficult technical problems, while enhancing their leadership and personal career capabilities. Based in Research Triangle Park, North Carolina, ISA develops standards; certifies industry professionals; provides education and training; publishes books and technical articles; and hosts the largest conference and exhibition for automation professionals in the Western Hemisphere. ISA is the founding sponsor of The Automation Federation (www.automationfederation.org).

Setting the Standard for Automation™

ISA NEWS RELEASE

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Automation Standards Compliance Institute Launches Open Membership Program for ISA100 Wireless Compliance Institute

Research Triangle Park, NC (4 February 2008) - The ISA100 Wireless Compliance Institute, an organization that is part of the Automation Standards Compliance Institute, has begun an open membership program for all interested parties.

Industry leaders from major manufacturing and automation control system users and suppliers have formed the ISA100 Wireless Compliance Institute to establish essential specifications and processes to be used in the testing and certification of wireless products and systems for the ISA100 family of wireless standards. The organization aims to decrease the time, costs, and risks of developing and deploying standards-based, industrial wireless devices and systems by establishing a collaborative, industry-based program among users, suppliers, and other stakeholders.

Current sponsors of the Institute include Airsprite, Honeywell, Invensys, NIVIS, Shell, Shenyang Institute of Automation, and Yokogawa.

The ISA100 Wireless Compliance Institute will conduct independent testing and certification of wireless devices and systems for the ISA100 Wireless Systems for Industrial Automation standards. The Institute will provide education and technical support to users and suppliers in the design, certification, deployment, and management of wireless devices and systems that utilize the ISA100 family of standards. This effort will accelerate the market adoption of the ISA100 standard by certifying that wireless devices and systems meet a common set of specifications for assured interoperability.

"The ISA100 Wireless Compliance Institute is incredibly important for end users in our industry," said David Kaufman of Honeywell. "A well-designed and managed product certification process will reduce cost, time, and risk for users selecting and deploying wireless products and systems. It's also important for suppliers and integrators, who can improve their time to market and lower their development and integration costs with a single compliance framework and an ISA100 Wireless Compliant stamp of certification."

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A document intended for specifying the test cases and test points for the ISA100.11a standard is currently under development. The ISA100.11a standard will provide an interoperable environment for wireless devices, and the Institute's test specification will assess their performance.

Areas to be tested are the standard technology layers including application, transport, network, data link, and physical as well as major system components including security manager, system manager and gateway, the document's scope, objectives, development process, review process, and schedule have been approved by the current members of the Institute.

"Development of the test specification will parallel the development of the ISA100.11a standard," said ISA100 co-chair Wayne Manges of ORNL.

"The development work that the standard committee is working on will feed the compliance work, and the work that the Institute is doing will help our working groups to better focus on the standard. As each draft of ISA100.11a is released, the Institute's compliance engineers will provide feedback to improve the overall technology in the standard as well as make sure that we're developing a very testable standard."

The test specification development schedule includes several milestones, with a first review of the draft test specification already completed and a 2nd review scheduled for the end of February. The first full draft of the test specification will be complete in early April, in parallel with the release of the first full draft of the ISA100.11a standard for working group ballot. The second test specification draft will be released in early June, after edits are made based on the ISA100.11a working group ballot responses.

"It's important that companies interested in becoming members of the ISA100 Wireless Compliance Institute join at this stage of development," said Automation Standards Compliance Institute Managing Director Andre Ristaino. "Industry leaders who join the Institute can help define the model for how products and systems will become compliant and contribute to test specifications and wireless test kits. Our supplier members can ensure that their products or systems are going to be compliant the first time they're tested, and users will ensure that their specific needs are met for assured "out of the box" interoperability in their plants."

For more information about the ISA100 Wireless Compliance Institute or to learn more about membership opportunities, call Andre Ristaino at (919) 990-9222 or email aristaino@isa.org.

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Setting the Standard for Automation™

ISA NEWS RELEASE

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ISA Announces Third Edition of Wireless Networks Resource

Research Triangle Park, NC (20 February 2008) - ISA recently announced the third edition of its popular book, Wireless Networks for Industrial Automation by Dick Caro.

Available in digital format, this book includes the increasingly popular wireless application Radio Frequency Identification (RFID) topic and also provides a clear, unbiased view of the emerging wireless communications market. Caro's goal is to help keep readers up-to-date with the wireless market so they can make better decisions on the timing and strategy for implementing wireless networks for automation projects.

According to Caro, going wireless is more than just plugging in some wireless components to replace the wires. Residential networks are easily justified using today's inexpensive wireless components to avoid costly or unsightly wire installations. Industrial use is not quite so clear due to privacy and security problems and the potential for signal loss in plant environments. Industrial use must have secure communications that never fails. However, the cost of industrial wiring is so high, that wireless can usually be justified.

In this third edition, the author includes a general update of events that have occurred since the previous edition. Of significance is an overview of new technology, such as ISA100.11a, WirelessHART, and WiFi, including IEEE 802.11n.

For more information about this resource, visit www.isa.org/wirelessnetworks or call (919) 549-8411.

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Press Kit

Our press kit contains key company information for journalists and analysts. To receive a copy of our press kits, please contact our Marketing Department

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Press Release

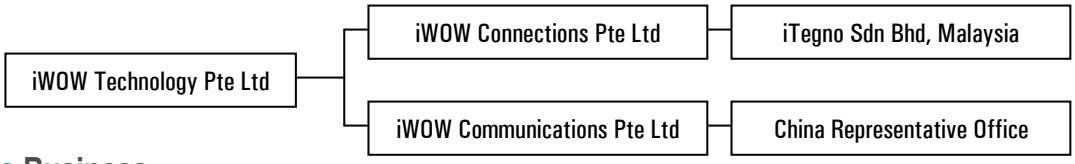
iWOW Introduces TR-900 GSM/GPRS Module
21 April 2008

Company Profile

Our Vision:

"To be the world's leading technology solutions provider in the global wireless communications industry.

Established in 1999, iWOW Technology Pte Ltd is a global provider of wireless technologies to the Mobile and Machine-To-Machine (M2M) communication markets. Its products and solutions focus mainly in GSM, GPRS, EDGE and 3G standards. iWOW Technology Pte Ltd has incorporated two wholly owned subsidiaries, iWOW Connections Pte Ltd and iWOW Communications Pte Ltd, each having its specific business charter. Headquartered in Singapore, iWOW has offices in Malaysia and China. Today, iWOW's wide range of wireless communication products and services are being deployed in over 100 countries worldwide.



iWOW's Business

iWOW Connections is an innovator that designs, manufactures, and distributes an extensive wireless connectivity product line, including GSM/GPRS modem, GSM/GPRS module and GPS module, to the M2M market. Experts have forecasted this emerging market to grow in excess of 500 million devices by end of 2010. Through a successful technical support and developer strategy, iWOW has garnered more than 1000 active developers for its solutions. iWOW's wide range of modems and embedded modules are being deployed in Asia, Europe, Middle East, and Africa across a rich array of applications.

Modules: iWOW's embedded modules, mainly in GSM/GPRS and GPS, are specifically designed to deliver industry-leading performance, unrivalled upgradeability and a robust platform for easy development of customised applications.

Modems: iWOW created the *world's first* GPRS USB modem under the iTegno brand name, iTegno. Its iTegno range of wireless GSM/GPRS modems combine ready-to-use and widely compatible platforms with the best technology.

The ready-to-use modems and highly scalable embedded modules suit a wide range of wireless M2M applications from mobile computing, fleet management, security, automated meter reading, industrial systems, healthcare, point-of-sales and etc.

iWOW Communications is a provider of technologies and design solutions for mobile phone development. iWOW's communication solutions allow its customers to maximize returns and stay ahead of competition by reducing production cost and having a shorter time to market with enhanced innovation. This is made possible through its technology leadership, achieved through strategic partnerships with industry leaders like Texas Instruments, and its world class teams in core Research and Development.

Software: iWOW's embedded software, known as i.frame series, are used in mobile communication devices ranging from mobile phones, PDAs, telemetry systems and car navigation systems. It offers high feature scalability and superior robustness. i.frame series has the smallest memory usage in its class. Today, iWOW's embedded i.frame series software has surpassed 20 million deployments worldwide.

Design Services: iWOW offers customised product development solutions in electrical and mechanical design, RF design, electronic designs and software development services. Its complete product design services solutions include product development activities such as product conceptualization, product creation, type approval support, field test support and manufacturing support.

Press Release

iWOW Introduces TR-900 GSM/GPRS Module

Hannover Messe 2008 - Hannover, 21 April 2008 – iWOW Connections, a leading global provider of wireless technologies, today announced the introduction of TR-900 GSM/GPRS module, a new member of the iWOW Wireless Connectivity Module family. The TR-900 module will be the centrepiece of iWOW's showcase at Hannover Messe 2008 in Hannover, Germany from 21 to 25 April 2008.

With a more compact size and enhanced power management, the TR-900 module is designed with industry-leading performance, unrivalled upgradeability and a robust platform for easy development of customised applications. Addressing the M2M market, the TR-900 module is ideal for a wide range of applications such as security & surveillance, automated meter reading, vending & retail and fleet management.

Optimized for use in M2M application, the TR-900 module has a strong software platform and is open to multiple configurations, offering customers more options and greater flexibility in catering to their specific application needs. Supporting a powerful integrated software environment, the module features firmware stacks such as TCP/IP, UDP/IP and FTP. In addition, the TR-900 module will also offer optional services such as MMS stack and embedded programming, providing a versatile and flexible platform to facilitate customers' application designs and development.

"It is important that we provide our customers with the best technology they need to tap into the vast opportunities presented by the rapid growth of the M2M industry," said Lee Yao Chiang, Chief Executive Officer of iWOW Connections. "The TR-900 module was built to enable our customers to do just that."

The TR-900 module offers a simple upgrade path for existing iWOW customers, and is functionally backward compatible with its predecessor, the TR-800 module. With improved performance and enriched features, customers stand to benefit from the reduction in the cost of ownership, as well as greater time-efficiency in the development of their M2M applications.

Press Release

About iWOW Connections Pte Ltd

Singapore-based iWOW Connections Pte Ltd (iWOW) specializes in wireless communication solutions in GSM, GPRS, and 3G technologies, with key focus on the Machine-to-Machine (M2M) market. It designs, manufactures, and markets an extensive wireless connectivity product line, including modules and modems, to the M2M market. The highly scalable embedded modules and ready-to-use modems address the needs of emerging M2M market and are now deployed globally in a wide array of applications from mobile computing, automotive, fleet management, smart phones, emergency services, healthcare, information system, security & surveillance, automated meter reading, industrial systems, vending & retail, traffic control and fixed telephony. For more information, please visit www.iwow.com.sg

- END -

JUMO Wtrans
Drahtlose Temperaturmessung für industrielle Applikationen

Der JUMO-Wtrans-Funk-Temperaturfühler T01.G1 zur mobilen und/oder stationären Messung der Temperatur an beweglichen und festen Messorten sowie der zugehörige Multifunktions-empfänger T01.EC1 wurden entwickelt, um zukünftig Temperaturmesswerte drahtlos übertragen zu können. Der Sender befindet sich im Fühlergriff und ist durch ein wasserdichtes Gehäuse geschützt. Die benutzten Funkfrequenzen sind weitgehend unempfindlich gegenüber externen Störeinflüssen und erlauben eine Übertragung auch in rauer Industrieumgebung. Der Sender ist als Einstichmessfühler konzipiert. Der Fühler ist mit einer Einbaulänge von 50 bis 1000 mm verfügbar und hat einen Platin-Chip-Widerstand als Messelement. Senderseitig wurde ein Einsatztemperaturbereich von –30 … +260 °C realisiert. Der mögliche Umgebungstemperaturbereich der Elektronik beträgt –30 … +85 °C. Neuestes Produkt in der JUMO Wtrans-Familie ist ein Wtrans-Sender mit eingebautem M12-Steckverbinder, welcher den Anschluss von abgesetzten, leitungsgebundenen Widerstandsthermometern ermöglicht!

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Unter Berücksichtigung der derzeit gültigen Gesetzestexte sowie unter Beachtung der verfügbaren Normen und Industriestandards wurde für die Anwendung des JUMO-Wtrans-Systems eine Funklösung mit proprietärem Protokoll im ISM-Band auf der Frequenz 868MHz (Europa) bzw. 915MHz (USA, Kanada, Australien, Neuseeland) ausgewählt.

Der Tragschienen-Empfänger stellt die Messwerte über vier Analogausgänge [0(4) … 20 mA, 0 … 10 V] und über RS485-Schnittstelle mit MOD-Bus-Protokoll zur Verfügung. Pro Empfänger können über die Schnittstelle RS485 bis zu 16 Wtrans-Sender (Einstichtemperaturfühler) verwaltet werden.

Nützliche Funktionen sorgen für eine komfortable Nutzung und vielfältigste Einsatzmöglichkeiten. Über ein komfortables Setup-Programm lassen sich die Parameter des Systems variieren und die notwendigen und gewünschten Einstellungen vornehmen. Alternativ hierzu lassen sich alle Funktionen auch über die am Empfänger angebrachten Tasten und das Display aufrufen und einstellen. So können für jeden der Analog-ausgänge getrennt Parameter wie Linearisierung, Skalenanfang und -ende, Filterkonstanten, Offset- sowie Schleppzeiger (Minimal-, Maximalwertspeicher) eingestellt werden. Die Möglichkeit, die vorgenannten sowie weitere Parameter als Auslöser für einen Alarm auswählen zu können, eröffnet dem

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Anwender ein breites Spektrum vielfältigster Anwendungs- und Überwachungsmöglichkeiten. Alle Ausgänge des Gerätes sind galvanisch getrennt. Bei den Temperaturmessungen wurde ein Echtzeitverhalten der einzelnen Messwerte angestrebt.

Durch den Einsatz einer zukunftsweisenden Funkübertragungstechnologie ergibt sich eine starke Reduzierung des Installationsaufwandes. Weitere Vorteile liegen auf der Hand: Lange Anschlussleitungen in kabelgebundenen Systemen sind auch fast immer hinderlich für den Anwender. Funkbasierte Temperatursensoren bieten hier im Vergleich zu drahtgebundenen Lösungen effektive und günstige Alternativen. Störanfällige, kostspielige Kabelverbindungen fallen weg, die funkbasierte Temperatursensortechnik funktioniert auch in rauer Industrieumgebung. Im Vergleich zur drahtgebundenen Messdatenübertragung reduzieren sich die Kosten bei Wartung, Reparatur und Neuinstallation. Durch die JUMO-Wtrans-Funktechnologie werden völlig neue Anwendungsgebiete bei der Übertragung von Temperaturdaten erschlossen.

Weitere Informationen erhalten Sie unter: www.jumo.net

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Titel: **JUMO Wtrans**
Drahtlose Temperaturmessung für industrielle Applikationen

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LinTech

- embedded hardware
- embedded software
- engineering services
- testing & documentation
- approval services

LinTech

LinTech GmbH from Berlin specialises in the development of hardware and software for use in highly integrated embedded systems.

Such embedded computer services operate in a variety of devices and are employed in different application areas, such that they are invisible to the user.
The software development process for such systems differs fundamentally from that used in standard desktop environments; operating systems are commonly used that conform with real-time requirements.

Compared with desktop PC hardware, a considerably reduced volume of resources are available, with no hard drive, operating system, keyboard or screen. Mechanical memory components are generally replaced by a ROM or Flash chip; moving parts result in wear, which would be highly undesirable in such applications. The most that can be expected is a keypad used in conjunction with an LCD display.

Minimal costs combined with low space, energy and memory demands are the fundamental requirements of the development of embedded systems, especially when they are to be turned out in large production numbers.

Engineering services

The services provided by LinTech comprise all the stages of development, from planning the system and its architecture and selecting the optimum hardware and software components as well as the operating systems, to the development of the electronics and system software, the production of functional samples and prototypes, and on to preparing the product for serial production.

LinTech provides product approval support, both for regulatory inspections and for special procedures such as Bluetooth certification.

LinTech solutions can be found in a variety of application environments and devices, such as:

The automobile industry,
Medical engineering,
Sports,
Entertainment electronics,
Metrology and control engineering,
Traffic engineering,
...and many more.

Products

On the basis of a variety of different system platforms, LinTech develops innovative products which conform with the stringent requirements of their respective field of application.
They are marketed both through the company's own distribution channels as well as by means of OEM partners:

- Bluetooth hands-free systems
- Bluetooth RS232 adapters
- Bluetooth Hi-Fi receivers
- ISDN cards for PCs

Interface Modules

LinTech offers modular solutions for the integration of communications interfaces into existing system environments. The interface modules are system-independent and can be easily integrated in existing environments:

- ISDN communication interfaces
- GSM interface software
- Bluetooth interfaces for data, music and voice transmission

Embedded software

LinTech offers ready-to-use firmware and applications for use in highly integrated circuit applications, such as:

- Firmware für Bluetooth chipsets with support for SPP/HFP/HSP/A2DP/OPP, among others.

- Firmware for host controller systems

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LinTech GmbH
Kommunikationstechnologien

Vereinfachte Bluetooth®-Integration in Systeme und Geräte

LinTech zeigt Neuentwicklungen für die Integration von Bluetooth® in Embedded-Systeme

Der Berliner Bluetooth®-Spezialist LinTech stellt neue Bluetooth®-Lösungen vor, die Anwendungsentwicklern die Integration von Bluetooth®-Funktionen ermöglichen, ohne dass dabei spezielles Bluetooth®-Fachwissen nötig ist.

LinTech zeigt interessante Anwendungen und Möglichkeiten der BlueMPI Software. BlueMPI steht für Bluetooth® Multiprofile Interface - eine innovative Software für Bluetooth® Chips und Host Controller Systeme. Über ein einfaches Applikationsinterface können alle wichtigen Bluetooth®-Profile wie GAP, A2DP, AVRCP, HFP 1.5 HSP, OPP, SPP PBAP sowie FTP ohne spezielles Bluetooth® Know-how von Anwendungsentwicklern genutzt werden.

Zum besseren Arbeiten mit BlueMPI und Testen aller Funktionen hat LinTech ein neues Evaluation–Kit entwickelt. Die Struktur des Evaluation-Boards ist wesentlich verbessert worden: Abgesetzte Tasten ermöglichen jetzt besonders einfache Tests von Bluetooth®-Lösungen im Stand-alone-Modus. Neben dem funktionellen Evaluation-Board liefert LinTech mit dem Evaluation-Kit auch zahlreiche Demoskripte, terminalprogrammbasierte Test-Tools und Beispielapplikationen, die dem Anwender die Integration von Bluetooth® wesentlich erleichtern. Die aktuelle Version des Evaluation-Kits wird jetzt mit einem zusätzlichen, neuen Testprogramm für Windows ausgeliefert. Für die neueste Generation von Bluetooth®-Anwendungen gibt es jetzt auch ein Aufsteckmodul mit CSR BC05-MM-Chipset für das Evaluation-Board.

LinTech bietet BlueMPI 3.0 sowohl als reine Firmware-Lizenz als auch zusammen mit dem Bluetooth® Multiprofile Module LT 1440 an. Dabei ist die Kombination mit dem Multiprofile Module LT 1440 bereits als qualifiziertes Endprodukt-Design nach Bluetooth® Spec. 2.0 zugelassen.

Über LinTech

Das Berliner Entwicklungsunternehmen LinTech, Spezialist für Kommunikationstechnologien, arbeitet seit 1998 als Associate Member der Bluetooth® Special Interest Group (SIG) aktiv an den Bluetooth®-Standards mit. Zum Leistungsspektrum des Unternehmens gehören die Entwicklung kundenspezifischer Lösungen ebenso wie komplette Produktentwicklungen einschließlich Hardware und Software sowie Embedded Systems.

Simplified Bluetooth® Integration for systems and devices

LinTech presents new product developments for the integration of Bluetooth® in embedded systems

LinTech, the Bluetooth® specialists from Berlin, are currently presenting their new solutions for Bluetooth® implementation. These solutions are designed to enable developers to integrate Bluetooth® functions in their applications, even if they have no particular specialist knowledge of Bluetooth®.

LinTech is presenting its interesting applications and demonstrating the potential of BlueMPI software - BlueMPI stands for Bluetooth® Multiprofile Interface, and is an innovative software for Bluetooth® chips and host controller systems. Its simple application interface means that developers can incorporate all important Bluetooth® profiles, such as GAP, A2DP, AVRCP, HFP 1.5 HSP, OPP, SPP PBAP and FTP in their applications, even if they do not possess any specialist knowledge of Bluetooth®.

LinTech has developed a new evaluation kit, the aim of which is to simplify the process of working with BlueMPI and to enable the testing of all its functions. The structure of the evaluation board has been significantly improved. For instance, the use of recessed keys makes it a particularly simple process to test Bluetooth® solutions in standalone mode. In addition to the evaluation board, the LinTech evaluation kit also includes several demo scripts, terminal programme-based testing tools and sample applications, which make it considerably easier for developers to integrate Bluetooth® in their designs. The current version of the evaluation kit is supplied with an additional new test programme for Windows. A plug-in module for the evaluation board, with a CSR BC05-MM chip set, is also available for use with the latest generation of Bluetooth® applications.

LinTech supplies BlueMPI 3.0 either with a standard firmware licence or complete with the Bluetooth® LT 1440 Multiprofile Module. The combined version including the LT 1440 Multiprofile Module is already certified as a qualified end-product design, in accordance with the Bluetooth® Spec. 2.0.

About LinTech

The LinTech development company from Berlin specialises in communications engineering, and, as an associate member of the Bluetooth® Special Interest Group (SIG), has been actively contributing to the development of Bluetooth® standards since 1998. The company's activities also comprises the development of solutions to client specifications, complete product developments including hardware and software components, and embedded systems.

LinTech

Bluetooth®
Multiprofile Interface

BlueMPI 3.0

customer application

UART

BlueMPI

A2DP Source
A2DP Sink
AVRCP Controller
AVRCP Target
HFP 1.5 Handsfree
HFP 15. Audiogateway
HSP Headset
HSP Audiogateway
OPP Server
SPP Dev. A
SPP Dev. B
PBAP Client

BlueLab Rev.xx

Bluetooth Chip/Module with BC0XX controller

LinTech

To simplify integration of Bluetooth functionality for the application software LinTech has developed Bluetooth Multiprofile Interface - BlueMPI 3.0.

BlueMPI 3.0 combines all Bluetooth profiles in a single application program interface (API). This allows application programmers to address and utilize all Bluetooth functions and features in a simple and convenient way without having special Bluetooth Know-How.

The Bluetooth Multiprofile Interface Software BlueMPI is an embedded software system for CSR BlueCore based chipsets and host controller.

It consists of a set of well-defined messages that are exchanged between the application and the Bluetooth stack.

Features:

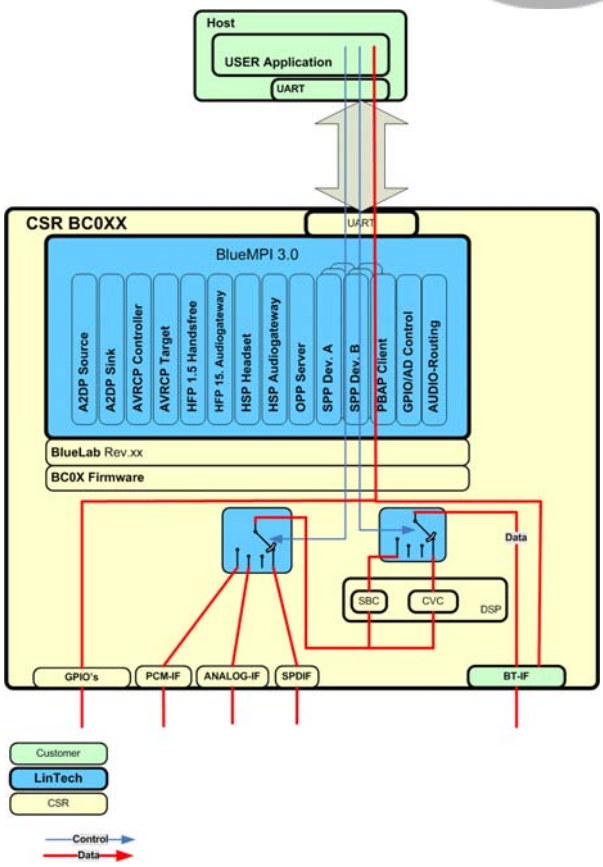
- Bluetooth Profile oriented application interface
- Multiprofile support
- Multiconnection support
- Supports eSCO links
- Independent of operating system
- Powerfull audio capabilities

Supported Bluetooth Profiles:

- GAP
- HFP 1.5 (Audiogateway/Handsfree)
- HSP (Audiogateway/Headset)
- A2DP (Source/Sink)
- AVRCP (Controller/Target)
- SPP (Dev.A, Dev. B , up to 3 Connections)
- OPP (Server)
- PBAP (Client)
- FTP (Server)

Specials:

- Echo Cancellation/ Noise reduction (EC/NR support)
- Stand-alone Mode implemented (Control over GPIO's) as for development of such devices as:
    - Bluetooth handsfree carkits
    - Bluetooth headsets (mono,stereo)
    - Bluetooth multimedia (A2DP) devices
    - Bluetooth data communication devices



BlueMPI 3.0 architecture

Interfaces:

- Control: Message oriented, seriell over UART (8N1/RX,TX,RTS,CTS/max . 46800 baud)
- Audio: analog in/out (StereoCodec), PCM (in/out) , SPDIF(out)
- GPIO
- ADC

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LinTech keeps you connected

LinTech Bluetooth Multiprofile Module

part# 1440

Overview

A compact Bluetooth Multiprofile Module for high quality stereo music and entertainment systems, hands-free applications and data communication devices as well.
Integrated BlueCore™3/5-Multimedia Bluetooth single chip radio and baseband IC for Bluetooth 2.4GHz systems. It contains 8Mbits/16Mbits of internal flash memory plus an onchip DSP and stereo codec.

LinTech's Bluetooth Multiprofile Module is based on long years experience in development of Bluetooth hands-free carkits and Bluetooth audio and data applications. It brings Bluetooth functionality to hands-free car systems or head units and other communication and sound systems as well in a very cost effective and easy way. Bluetooth know-how is not required.
Using hands-free functionality it supports all mobile phones with Bluetooth hands-free profile. With this module users can stream music over Bluetooth from mobile phone, MP3 players or PC to car stereo radio, sound or speaker systems without any wiring required in a high stereo quality .

LinTech's Multiprofile Module provides a fully compliant Bluetooth system to v.2.0 of the Bluetooth specification for data and voice communications.
The embedded DSP core is an open platform digital signal processor (DSP) co-processor allowing for support of enhanced audio applications such as file compression / decompression and EC/NR.
It has been designed to reduce the number of external components required which ensures production costs are minimised.
The device incorporates auto-calibration and built-in self-test (BIST) routines to simplify development and production test. All hardware and device firmware is fully compliant with the Bluetooth v2.0 specification.

Software application interface of LinTech's Multiprofile module is **Blue MPI 3.0** – it allows most simply integration in user devices and environments.
BlueMPI 3.0 provides an message oriented interface over UART (message mode) and an GPIO control interface (standalone mode).
For very simple Bluetooth devices like headsets or simple handsfree carkits LinTechs Bluetooth module can be used how it is – without any external microcontoller - only connect power supply, microphone and speaker and any control buttons – that's all. It works in a very easy way.

Applications:

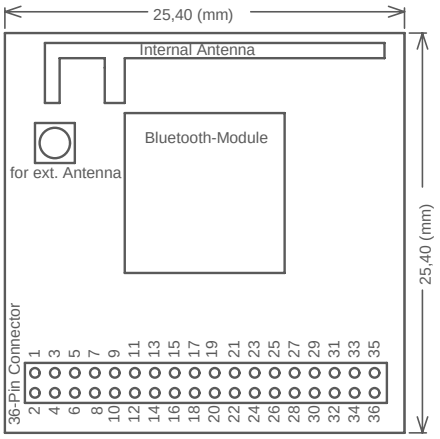
- Automotive **hands-free kits**
- Bluetooth Adapters for handsfree kits
- **General purpose Bluetooth systems** requiring an on-chip audio codec
- Stereo headphones
- Portable audio devices
- Home entertainment systems
- High performance telephony headsets
- Enhanced audio applications
- A/V Profile support for cellphones
- Bluetooth data communication devices

Bluetooth profiles supported:

- GAP
- HFP 1.5 (Audiogateway/Handsfree)
- HSP (Audiogateway/Headset)
- A2DP (Source/Sink)
- AVRCP (Controller/Target)
- SPP (Dev.A, Dev. B , up to 3 Connections)
- OPP (Server)
- PBAP (Client)
- FTP (Server)…other profiles upon request

Mechanical description

BT-CHIP:
CSR BC03 MM PnG



Features:

- Bluetooth Spec. 2.0
- Bluetooth end product design ID **B011656**
- Operation modes:
  SMODE (standalone mode)
  MMODE (message mode)
- Multipoint connections
- Echo cancellation / Noise reduction supported
- eSCO support

Interfaces

Audio module provides two interfaces for configuration and control:

1. UART : command interface (messages) -> **MMODE**
2. GPIO : control by changing signals on PINs (high/low) -> **SMODE**

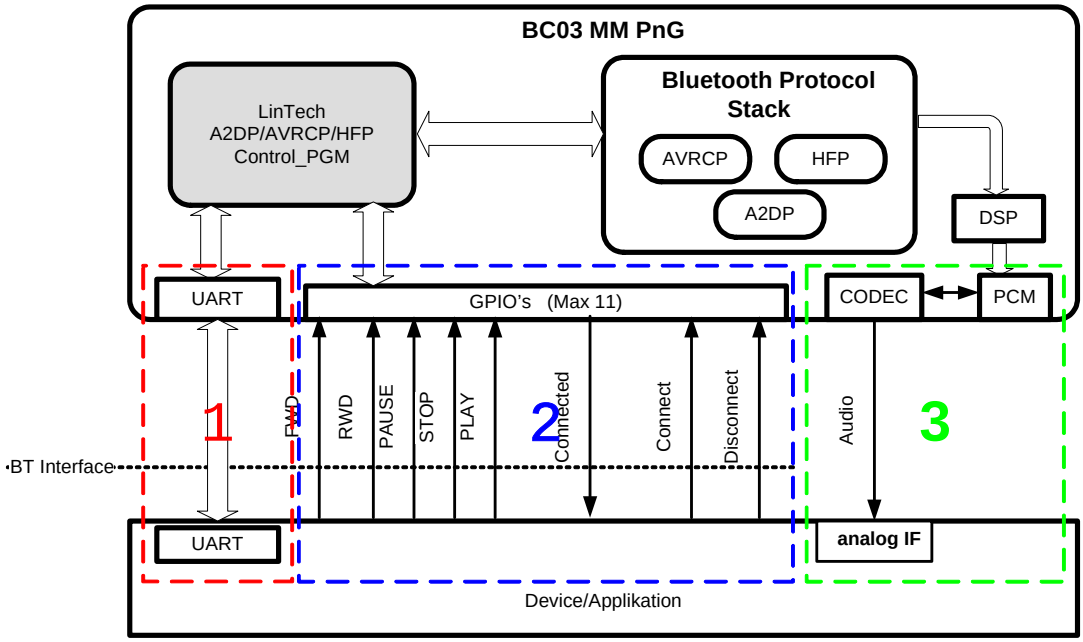
It is not possible to use both interfaces in combination.

Audio interfaces:

analog in/out (StereoCodec)
PCM (in/out) / SPDIF(in/out) (A2DP)

Technical description is included in documentation.

Functional description:



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Bluetooth Schnittstelle als Plug and Play für OEMs
Bluetooth-Spezialist Lintech präsentiert neuestes Modell seiner Industrie-Adapter-Serie

Mit dem Bluetooth Modul 1408_B4AH präsentiert der Berliner Bluetooth-Spezialist Lintech das neueste Modell seiner erfolgreichen Industrie-Adapter-Serie auf der Hannover Messe. **Im Wireless Pavilion** können sich Besucher von dem exzellenten Preis/Leistungsverhältnis, den umfangreichen Funktionen und der hohen Kompatibilität des neue Moduls überzeugen, das auf Basis des Bluetooth Class 2 Radio Chips BC04 von CSR entwickelt wurde.

Der 1408_B4AH stellt eine transparente serielle Verbindung zur Verfügung, die das Bluetooth Serial Port Profile (SPP) unterstützt. Einsetzbar ist er in industriellen Anwendungen - auch in größeren Stückzahlen - z.B. für Messgeräte, Instrumente, Drucker oder Scanner. Dank seiner geringen Abmessungen und über eine Standard-Stiftleiste kann er problemlos in vorhandene Umgebungen integriert werden. Der Adapter ist bereits nach dem Bluetooth-Standard 2.0 zugelassen. So können auch Hersteller ohne jedes Bluetooth-Know-how ihr Produkt mit einer transparenten Bluetooth-Schnittstelle ausstatten und sparen Entwicklungskosten und die Kosten einer aufwendigen Produktzulassung.

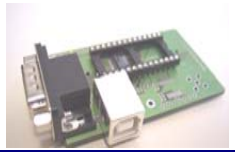
Das Modul verfügt on-chip über eine integrierte Antenne und ein komfortables AT-Kommando-Interface. Es kann über Bluetooth oder UART konfiguriert werden und koexistiert problemlos mit WLAN-Anwendungen und -Geräten. Dabei ist das Modul kompatibel zu allen anderen Lintech-Modulen und Geräten und zu allen Bluetooth-Geräten, die SPP unterstützen.

Mit dem 1408_B4AH führt Lintech seine ausgesprochen erfolgreiche Produktpolitik der integrierten Bluetooth-Module fort, die das Unternehmen bereits seit 1999 verfolgt. Damals kam das Berliner Entwicklungsunternehmen als erster mit einer Bluetooth-Baugruppe mit integrierter Firmware und Applikation auf den Markt, die Herstellern die Integration von Bluetooth-Funktionen in vorhandene Umgebungen entscheidend erleichterte. Lintech-Module finden sich inzwischen in einer Vielzahl von Geräten namhafter Produzenten. Auf der Hannover Messe präsentiert das Unternehmen alle 5 aktuellen Versionen seiner Bluetooth-Module für industrielle Anwendungen und demonstriert eine Auswahl bereits realisierter Anwendungen.

Das Berliner Entwicklungsunternehmen LinTech, Spezialist für Kommunikationstechnologien, arbeitet seit 1998 als Associate Member der Bluetooth Special Interest Group (SIG) aktiv an den Bluetooth-Standards mit. Zum Leistungsspektrum des Unternehmens gehören die Entwicklung kundenspezifischer Lösungen ebenso wie komplette Produktentwicklungen einschließlich Hardware und Software sowie Embedded Systems.

Weitere Informationen sowie Bildmaterial über: LinTech GmbH, Susanne Meinel
Tel. +49 30 54947-260, sam@lintech.de

LinTech OEM Modules

Product name	Bluetooth RS232 ind. Adapter,Class1 part. # 1408_B4Cl1	Bluetooth RS232 ind. Adapter,Class2 part. # 1408_B4Cl2	Bluetooth RS232 ind. Adapter,Class2 part. # 1408_B4_5	RS232 Eva-Board f. 1408-CL1/Cl2/A part.#1408-EVA	Bluetooth Multiprofile Modul part.# .LT 1440	Eval.Kit Bluetooth Multiprofile Modul part.#.LT 1440-EVAL
						
Dimensions/mm	38x22x13	38x22x13	28x22x6	77x42x14	25x25x6	-
Voltagelevel	CMOS 3,3V	CMOS 3,3V	CMOS 3,3V	V.24	CMOS 3,3V	-
Plug	Pin connector DIL socket 2,54mm	Pin connector DIL socket 2,54mm	Connection contacts (holes)	DSUB9 female IC Socket	Pin connector DIL socket 1,27mm, 36 PINs	-
Antenna	External stub antenna	Ceramicantenna	Ceramicantenna	-	integrated	-
Power supply	5V or 3,3V	5V or 3,3V	3V	5V over USB	3V	5V over USB
Bluetooth specificattion	2.0	2.0	2.0	-	2.0	-
Baudrate (in kbps)	Max.460800	Max.460800	Max.460800	-	Standard 115200 Max.460800	-
Transmission power max.	100 mW	2,51 mW	2,51 mW	-	2,51 mW	-
Receiving sensitivity	- 82 dBm typ. - 70 dBm max.	- 82 dBm typ. - 72 dBm max.	- 82 dBm typ. - 72 dBm max.	-	- 82 dBm typ. - 72 dBm max.	-
RF-Power (max)	+20 dBm	+4 dBm	+4 dBm	-	+4 dBm	-
Radio Class	Class1	Class2	Class2	-	Class2	-
Control interface	UART	UART	UART		UART / GPIO	-
Range (open air)	~100m	~30m	~30m	-	~30m	-
Current consumption (115 kBps)	~90mA max.	~50mA max. ~0,5mA SNIFF	~21mA ~0,5mA SNIFF	-	~21mA ~0,5mA SNIFF	-
Operating temperature	-20 - +85°C	-20 - +85°C	-20 - +85°C	-	-25 - +85°C	-
Remarks	Transparent BT RS232 interface, easy to mount, no SW/driver-installation, Master/Slave support, multipoint connections	Transparent BT RS232 interface, easy to mount, no SW/driver-installation, Master/Slave support, multipoint connections	Transparent BT RS232 interface, easy to mount, no SW/driver-installation, Master/Slave support, multipoint connections	-	Integrated Stereo CODEC,DSP, Multipoint connections, message interface /UART = mmode, control over GPIOs-> standalone mode = smode	For Evaluation of message interface (mmode) and standalone mode (smode)
Bluetooth profiles	GAP, SPP (Serial-DevA, Serial-DevB), OPP, DUN	GAP, SPP (Serial-DevA, Serial-DevB), OPP, DUN	GAP, SPP (Serial-DevA, Serial-DevB), OPP, DUN	-	A2DP, AVRCP, HFP 1.5, HSP, OPP, SPP, PBAP	-

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Bluetooth SMT Modules

Product name	WML-C46 NH with Bluetooth SPP* part # 1505-C46NH	WML-C46 AH with Bluetooth SPP* part # 1505-C46AH	WML-C40 NH with Bluetooth SPP* part # 1505-C40NH	WML-C40 AH with Bluetooth SPP* part # 1505-C40AH
				
Dimensions/mm	12,6x11,8x1,9	17,6x11,8x1,9	18,8x13,2x2,05	24,8x13,2x2,05
Connector style	SMT	SMT	SMT	SMT
Antenna	-	Integrated ceramical antenna	-	Integrated ceramical antenna
Power	2,8V-3,4V	2,8V-3,4V	3,3V(3,2-3,4)	3,3V(3,2-3,4)
Bluetooth-Rev.	2.0	2.0	2.0	2.0
Baudrate	Max.460800 (over UART)	Max.460800 (over UART)	Max.460800 (over UART)	Max. 460800 (over UART)
Max. transmission power (mW):	2,51 mW	2,51 mW	100 mW	100 mW
Receiving sensitivity	- 82 dBm typ. - 72 dBm max.	- 82 dBm typ. - 72 dBm max.	- 82 dBm typ. - 70 dBm max.	- 82 dBm typ. - 70 dBm max.
RF-power(dBm):	+4 dBm	+4 dBm	+20 dBm	+20 dBm
Radio class	Class2	Class2	Class1	Class1
Control interface	UART	UART	UART	UART
Reichweite (im freien Feld)	~30m	~30m	~100m	~100m
Current consumption	~50mA max. ~0,5mA SNIFF	~50mA max. ~0,5mA SNIFF	~90mA max.	~90mA max.
Operating temperature	-40 ~ +85°C	-40 ~ +85°C	-40 ~ +70°C	-40 ~ +70°C
Remarks	Embedded Bluetooth SPP Module, UART control interface, multiple connections	Embedded Bluetooth SPP Module, UART control interface, multiple connections	Embedded Bluetooth SPP Module, UART control interface, multiple connections	Embedded Bluetooth SPP Module, UART control interface, multiple connections
Bluetooth Profiles	GAP, SPP (Serial-DevA, Serial-DevB), OPP, DUN	GAP, SPP (Serial-DevA, Serial-DevB), OPP, DUN	GAP, SPP (Serial-DevA, Serial-DevB), OPP, DUN	GAP, SPP (Serial-DevA, Serial-DevB), OPP, DUN

- *** LinTech provides not only Bluetooth SPP firmware for serial data communication over Bluetooth but other embedded applications and customer spezified solutions as well**
- **In case that you plan to realize a special price sensitive Bluetooth project in bigger volumes – please contact us ! LinTech provides very cost effective solutions based on Bluetooth chipsets from Cambridge Silicon Radio (CSR).**

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Neuer serieller Bluetooth-Adapter mit attraktivem Preisleistungsverhältnis

LinTech optimiert Bluetooth-RS232-Adapter-Lösung für mobile Anwendungen

Das Berliner Entwicklungsunternehmen LinTech, Spezialist für Bluetooth-Lösungen und Embedded-Systeme, hat ein neues Modell seiner Bluetooth™ RS232-Adapter-Produktfamilie im Programm. Der LinTech Bluetooth™ RS232 Mini Adapter/S ist mit einem Li-Hochleistungsakku für mobile Anwendungen ausgestattet und zeichnet sich durch sein attraktives Preisleistungsverhältnis aus.

Das kompakte Gerät arbeitet mit Bluetooth-fähigen Geräten wie PCs, Notebooks und PDAs zusammen und erlaubt es, konventionelle serielle Kabelverbindungen durch eine drahtlose Verbindung mit Datenraten bis 230 kBit/s zu ersetzen. Das macht eine Vielzahl von Anwendungen möglich: z.B. die mobile Datenerfassung über Funk etwa bei der Feld- und Landvermessung, die Positionsdatenübertragung von GPS-Ortungssystemen, die Steuerung von Maschinen, Wartungsschnittstellen und Überwachungsfunktionen, das Auslesen von Mess- und Systemdaten in der Automobilindustrie, Umwelttechnik oder Medizintechnik u.v.m.

"Viele Datenverarbeitungsgeräte wie PCs, Notebooks und PDAs sind inzwischen mit einer integrierten Bluetooth-Schnittstelle ausgerüstet, und moderne Betriebssysteme bringen standardmäßig einen Bluetooth Protocol Stack mit", sagt Susanne Meinel, Produktmanagerin von LinTech. "Der Bluetooth™ RS232 Mini Adapter/S erlaubt diesen Geräten das einfache Auslesen und Erfassen verschiedenster Daten ohne aufwändige Verkabelung."

Mit Betriebszeiten von mindestens acht Stunden ist der Bluetooth™ RS232 Mini Adapter/S für mobile Anwendungen optimiert. Das Gerät kommuniziert betriebssystemunabhängig mit allen Bluetooth-Geräten, die das Serial Port Profile unterstützen, und benötigt keinerlei Software- oder Treiberinstallation. Alle Bluetooth™ - RS232 - Adapter von LinTech können problemlos in vorhandene Applikationen integriert werden und besitzen bereits eine eigene Produktzulassung.

Auf www.lintech.de stehen ausführliche Produktinformationen zum Download bereit.

Das Berliner Entwicklungsunternehmen LinTech, Spezialist für Kommunikationstechnologien und Entwicklungspartner namhafter Industrieunternehmen, ist seit 1999 Mitglied der BluetoothTM Special Interest Group (SIG). Zum Leistungsspektrum des Unternehmens gehört die Entwicklung kundenspezifischer Lösungen für die Industrie ebenso wie komplette Produktentwicklungen einschließlich Hardware und Software sowie Design, Entwicklung und Implementierung von Embedded-Systemen.

Weitere Informationen sowie Bildmaterial über: LinTech GmbH, Susanne Meinel,
Tel. +49 (030) 54947-261, sam@lintech.de.

New Serial Bluetooth Adapter Is Excellent Value For Money

LinTech has optimised its Bluetooth RS232 Adapter solution for mobile applications

The LinTech development company from Berlin, specialists in Bluetooth solutions and Embedded Systems, has just added a new Bluetooth™ RS232 Adapter model to its product family. The LinTech Bluetooth™ RS232 Mini Adapter/S is equipped with a high-performance rechargeable Li-ion battery for use with mobile applications, and is particularly interesting due to its excellent cost-performance ratio.

This compact adapter can be used with any Bluetooth-enabled equipment, such as personal computers, notebooks and PDAs. It constitutes a serial connection that functions as a wireless substitute for a standard serial interface cable and supports data flow rates of up to 230 kBit/s. This makes it possible to run a whole variety of applications that require a fast serial connection, such as mobile data collection for land measurement and surveying purposes, the transmission of position data from GSP navigation services, the reading of measurement and system data in the automobile industry, environmental engineering or medical technology, etc.

"The are many instruments such as PCs, notebooks and PDAs that now have an integrated Bluetooth interface, and modern operating systems have a Bluetooth Protocol Stack integrated as standard", says Susanne Meinel, Product manager of LinTech. "The Bluetooth™ RS232 Mini Adapter/S makes it possible for equipment such as this to read and write a variety of data without the need for untidy cables."

The Bluetooth™ RS232 Mini Adapter/S has now been optimised for use with mobile applications and offers operating times of up to eight hours. It can communicate with all other Bluetooth apparatus independently of the operating system in use, as long as the equipment supports the Serial Port Profile. No software or drivers of any kind are required. All Bluetooth™ RS232 Adapters made by LinTech can be easily integrated into existing applications and already have their own product certification.

Detailed product information is available for download from www.lintech.de.

The LinTech development company from Berlin specialises in communications technology and is a development partner for several renowned industrial companies. LinTech has been a member of the BluetoothTM Special Interest Group (SIG) since 1999. It s range of services includes the development of custom-solutions for industrial applications as well as complete product developments including hardware and software, and the design, development and implementation of embedded systems.

Further information and image material is available from: LinTech GmbH, Susanne Meinel,
Tel. +49 (030) 54947 261, sam@lintech.de.

Overwiev LinTech Bluetooth RS232 Adapter

Product name	Bluetooth RS232 Adapter part. # 1406	Bluetooth RS232 Adapter Cable replacement part. # 1407	Bluetooth RS232 Mini Adapter part. # 1409	Bluetooth RS232 Mini Adapter part.# 1409/N	Bluetooth RS232 Mini Adapter part.# 1409_CI1	Bluetooth RS232 Mini Adapter part. # 1409/S	Bluetooth USB Adapter part. # 1410
							
Housing	ABS	ABS	ABS	ABS	ABS	ABS	ABS
Dimensions/ mm	105x42x19	105x42x19	82x42x19	82x42x19	82x42x19	82x42x19	60x20x5
Interface	V.24	V.24	V.24	V.24	V.24	V.24	USB
Plug	DSUB9 male (optional female)	1xDSUB9 male, 1xDSUB9 female	DSUB9 male (optional female)	DSUB9 male (optional female)	DSUB9 male(optional female)	DSUB9 male (optional female)	USB UHC1/DHC1
Antenna	Ext. antenna	Ext. antenna	Ext. antenna	Ext. antenna	Ext. antenna	Ext. antenna	integrated
Power supply	5V, external power supply	5V, external power supply	5V - LI-recharchable battery	5V over PIN 9	5V, external power supply	5V - LI-recharchable battery (optional : 5V over PIN 9)	via USB
Bluetooth Spec.	1.1	1.1	1.2	1.2	1.2	1.2	1.1
Speed (in kbps)	Max.115200	Max.115200	Max.230400	Max.230400	Max.230400	Max.230400	
Transmission power max. (mW):	100 mW	100 mW	2,51 mW	2,51 mW	100 mW	2,51 mW	100 mW
Receiving sensitivity	-80 dBm typ. -70 dBm max.	-80 dBm typ. -70 dBm max.	- 82 dBm typ. - 72 dBm max.	- 82 dBm typ. - 72 dBm max.	-80 dBm typ. -70 dBm max.	- 82 dBm typ. - 72 dBm max.	-88dBm typ -75dBm max.
RF-Power (max)	+20 dBm	+20 dBm	+4 dBm	+4 dBm	+20 dBm	+4 dBm	+20 dBm
Bluetooth radio class	Class 1	Class 1	Class 2	Class2	Class1	Class 2	Class 1
Range (in the open air)	>100 m	>100 m	30 m	30 m	>100m	30 m	~100m
Current consumption (115 kBps)	150mA	150mA	~31mA ~15mA SNIF	~31mA ~15mA SNIF	150mA	~31mA ~15mA SNIF	~ 100mA
Current Cons. (idle)	80mA	80mA	~0,3mA	~0,3mA	80mA	~0,3mA	
Remarks	BT RS232 Adapter, no Softwarein-stallation	Bluetooth cable-replacement, already paired, plug-and-play,	BT RS232 Adapter, Master/Slave, power-management	BT RS232 Adapter, Master/Slave, power-management	BT RS232 Adapter, Master/Slave, power-management	BT RS232 Adapter, Slave, powermanagement	supports Windows 98 SE/ME/2000/XP
Requirements	Device with serial interface (RS232)	Device with serial interface (RS232)	Device with serial interface (RS232)	Device with serial interface (RS232)	Device with serial interface (RS232)	Device with serial interface (RS232)	PC with USB Interface
Bluetooth profiles	GAP, SPP (Serial-DevB)	GAP	GAP, SPP (Serial-DevA, Serial-DevB)	GAP, SPP (Serial-DevA, Serial-DevB)	GAP, SPP (Serial-DevA, Serial-DevB)	GAP, SPP (Serial-DevB)	DUN,SPP, Object Exchange

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MRC COMPONENTS was established in 1997 in Germany to offer specialist representation for electronic component manufacturers from the USA and Far East.

We act as a direct sales link between manufacturers and the European OEM customers, working as the qualified prolonged sales arm for our principals.
We are offering complete sales coverage for major OEMs throughout Europe by experienced engineers with proven strong technical and commercial sales capabilities.

Our main office is in Freising / Bavaria and we also have two offices in Otterndorf and Koenigs Wusterhausen.

MRC Components Area of Focus:

- Magnetic Cores and Inductive Components
- RF & Microwave Components and Sub-Assemblies
- Modules and Modems for GSM/GPRS, GPS, Bluetooth and ISM-Bands
- Sensors for Automotive, Medical and Industrial use

For our Module Business we can offer the following products:

- **Motorola:** GSM/GPRS-Modules and Modems, also with EDGE and Java Functionallity

- **xmodus**: SocketModems and Box Modems for analogue, ISDN, LAN and GSM/GPRS applications, with Java-Interface in preparation

- **J-Com**: GPS-Receiver based on Sirfstar 3-Technology with and without integrated antenna, with and without housing

- **2J**: Antennae and Adapter cable for wireless communication

- **Greenwave**: Transmitter, Receiver and Transceiver for ISM-Bands

- **CEL**: ZigBee Modules

MRC COMPONENTS wurde 1997 in Deutschland gegründet um Herstellern elektronischer Komponenten aus den USA und dem Fernen Osten eine spezielle Repräsentation anzubieten..

Wir agieren als ein direkter Vertriebslink zwischen den Herstellern und den europäischen OEM-Kunden, indem wir einen qualifizierten, verlängerten Vertriebsarm unserer Partner darstellen.

Wir bieten eine komplette Betreuung der wichtigsten OEM´s in ganz Europa durch unsere erfahrenen Ingenieure, die alle eine bewährt starke technische und kommerzielle Vertriebserfahrung besitzen..

Unser Hauptsitz ist in Freising / Bayern und wir unterhalten weitere Büros in Otterndorf und Königs Wusterhausen.

MRC Components Geschäftsmittelpunkt:

- Magnetische Kerne und induktive Komponenten
- HF & Mikrowellen Komponenten und Sub-Baugruppen
- Module und Modems für GSM/GPRS, GPS, Bluetooth and ISM-Bands
- Sensoren für Automotive, medizinische und industrielle Anwendungen

Im Geschäftsbereich Module können wir die folgenden Produkte anbieten:

- **Motorola:** GSM/GPRS-Module und Modems, auch mit EDGE und Java Funktionalität

- **xmodus**: Socket Modems und Box Modems für analoge, ISDN, LAN und GSM/GPRS Applikationen, mit Java-Interface in Vorbereitung

- **J-Com**: GPS-Empfänger basierend auf Sirfstar 3 -Technologie mit und ohne integrierte Antenne, mit und ohne Gehäuse

- **2J**: Antennen und Adapterkabel für drahtlose Kommunikation

- **Greenwave**: Transmitter, Receiver und Transceiver für ISM-Bänder

- **CEL**: ZigBee-Module

Pressemitteilung

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Die Zukunft der Fabrik ist kabellos und engergieautark

BMWi-gefördertes Projekt EnAS entwickelt Verfahren zum funkbasierten Betrieb von Produktionsanlagen

Berlin, 21. April 2008. Die drahtlose Vernetzung von Produktionsanlagen verspricht großes Potenzial zur Kostenreduktion und Optimierung von Industrieprozessen. Neben einer funkbasierten Datenübertragung werden im vom Bundesministerium für Wirtschaft und Technologie geförderten Forschungsprojekt EnAS auf der Hannovermesse Industrie (Halle 6, Stand K23) vom 21. bis 25. April 2008 Verfahren präsentiert, die einen energieautarken Betrieb von Aktor- und Sensorsystemen ermöglichen sollen.

Fertigungsanlagen mit schnell beweglichen Bauteilen stellen hohe Anforderungen an die Energie- und Datenversorgung – und somit auch an die Verkabelung. Eine komplexe Verdrahtung verursacht aber meist hohe Kosten, ist unflexibel und wartungsintensiv; Kabel sind Stolperfallen und nicht selten Ursache für Störungen und kostspielige Stillstandszeiten industrieller Anlagen. Viele Unternehmen sehen die Zukunft daher im drahtlosen Betrieb von Produktionsanlagen. Sie ermöglichen, dass sich Produktionsstrecken schnell und kostensparend an veränderte Anforderungen im Produktionsablauf anpassen lassen.

Allerdings ist die Aktions- und Reaktionszeit solcher Netze für die Fabrikautomatisierung – wo es um Echtzeitanforderungen geht – heute noch keineswegs ausreichend. Zudem ist bislang kein Standard für die drahtlose Kommunikation in einer industriellen Umgebung etabliert. Auch die Energieversorgung der Sensoren und Aktoren stellt eine Herausforderung dar: Primärbatterien finden in der Regel wenig Akzeptanz; Anlagenbetreiber bemängeln ihre begrenzte Lebensdauer und den unkalkulierbar hohen Aufwand, der durch den regelmäßigen Tausch der Batterien verursacht wird.

Auf Grundlage von Kundenforderungen und -wünschen erarbeiten Projektpartner aus Industrie und Forschung im EnAS-Verbund Lösungen, die eine intelligente, energieautarke Vernetzung von Produktionsanlagen versprechen. Schwerpunkt ihrer Arbeit sind autonome, maschinennahe Bauteile aus dem Bereich der Fabrik- und Prozessautomatisierung. Neben Möglichkeiten der drahtlosen Datenübertragung und der autarken Energiegewinnung befasst sich EnAS mit der Informationsverarbeitung der gesammelten Prozessdaten. Im Sinne eines optimalen Energiebudgets ist es sinnvoller, die gewonnenen Informationen lokal zu verarbeiten, statt alle Daten zu übermitteln und zentral auszuwerten. Deshalb gliedert EnAS das System in separate Steuerungseinheiten, die weitestgehend autonom arbeiten. Konzeptioneller Vorteil: Fällt ein Modul aufgrund eines Fehlers im Produktionsprozess aus, muss nicht die gesamte Anlage gestoppt werden.

Ein im Rahmen des Projekts entwickelter Demonstrator veranschaulicht bereits heute auf der Hannover Messe die praktische Umsetzbarkeit der von EnAS angestrebten Zielsetzungen. Drei zentrale Technologiefelder können durch den Demonstrator dargestellt werden: drahtlose Kommunikation (Übertragung mit geringer, definierter Reaktionszeit bzw. niedrigem

Energieverbrauch und hoher Reichweite), ein dezentrales, flexibles Steuerungskonzept und autarke Energieversorgung für Sensoren und Aktoren.

Mit Blick auf das „Internet der Dinge“ unterstützt das **Bundesministerium für Wirtschaft und Technologie (BMWi)** im Rahmen von **next generation media** beispielhafte Referenzprojekte im Bereich der intelligenten Vernetzung von Objekten und zunehmenden Konvergenz elektronischer Medien. Unter dem Leitbegriff „Vernetzte Lebens- und Arbeitswelten“ entwickeln Wirtschaft und Forschung gemeinsam Zukunftstechnologien in vier Innovationsfeldern: Logistiknetze, Produktionsanlagen, Konsumelektronik und Gesundheitsversorgung. Weitere Informationen finden Sie unter: www.nextgenerationmedia.de

PHOENIX CONTACT GmbH & Co. KG, D-32823 Blomberg

Phoenix Contact GmbH & Co. KG ist ein weltweiter Marktführer elektrischer Verbindungs-, elektronischer Interface- und industrieller Automatisierungstechnik. Anfang der 20er Jahre in Essen gegründet, beschäftigt das Unternehmen heute 9300 Mitarbeiter weltweit, davon sind rund 5200 in Deutschland tätig. Zur Phoenix Contact-Gruppe gehören die Gesellschaften Phoenix Contact Electronics, Bad Pyrmont, zur Fertigung von elektronischen Baugruppen in SMT-Technologie, Phoenix Feinbau, Lüdenscheid, zur Fertigung von metallischen Stanz- und Biegteilen sowie der Steckverbinder-Spezialist Coninvers, Herrenberg, und KW-Software, Lemgo. Weitere Fertigungsstätten befinden sich in Harrisburg (USA), Nanjing (China), Nowy Tomysl (Polen), New Delhi (Indien) und Sao Paulo (Brasilien).

Produziert wird mit einer hohen Fertigungstiefe; nicht nur Schrauben, Kunststoff- und Metallteile, sondern auch Werkzeuge und Produktionsmaschinen werden in Eigenfertigung hergestellt. Mehr als 80 Vertretungen und Außendienstler betreuen die Kundschaft in Deutschland; der weltweite Vertrieb erfolgt über ein Netzwerk mit 46 eigenen Gesellschaften sowie rund 30 Vertretungen in Europa und Übersee.

Das Produktspektrum umfasst moderne Komponenten und Systemlösungen für die Elektrotechnik und Elektronik: Neben einem vielfältigen Programm von Reihen- und Sonderklemmen, Printklemmen und Steckverbindern sowie Interface- und Überspannungsschutz-Bausteinen bieten Hard- und Software-Systeme umfassende Automatisierungslösungen. Ethernet und das nach IEC 61158 genormte Feldbussystem Interbus bilden dabei die Basis. Umfangreiche Dienstleistungen in Engineering, Service und Training runden das Produktangebot ab.

In Konstruktions- und Entwicklungsabteilungen werden kontinuierlich innovative Produkt-Ideen umgesetzt, um spezielle Problemlösungen nach Kundenwünschen zu entwickeln. Zahlreiche Patente unterstreichen, dass vielen Produkten von Phoenix Contact eigene Entwicklungen zugrunde liegen.

Einsatzgebiete dieser Produkte sind die industrielle Automation, die Energieversorgung, der Geräte-, Maschinen- und Anlagenbau sowie Gebäude-Installationen.

www.phoenixcontact.com 01/08

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PHOENIX CONTACT GmbH & Co. KG, D-Blomberg

Firmenname	Phoenix Contact GmbH & Co. KG
Firmensitz	32823 Blomberg
Gründungsjahr	1923
Umsatz 2007	1072 Mio EURO
Geschäftsführender Gesellschafter	Klaus Eisert
Geschäftführung	Roland Bent, Dr. Martin Heubeck, Prof. Dr. Gunther Olesch, Frank Stührenberg, Dr. Heinz Wesch
Mitarbeiterzahl	9300 Mitarbeiter weltweit
Phoenix Contact-Gruppe D	Phoenix Contact Electronics GmbH, D-Bad Pyrmont Phoenix Feinbau GmbH & Co KG, D-Lüdenscheid Coninvers GmbH, D-Herrenberg KW-Software GmbH, D-Lemgo
Phoenix Contact-Gruppe international	Argentinien, Australien, Belgien, Brasilien, Chile, China, Dänemark, Finnland, Frankreich, Großbritannien, Indien, Irland, Israel, Italien, Japan, Kanada, Korea, Litauen, Luxemburg, Malaysia, Mexico, Mittlerer Osten, Neuseeland, Niederlande, Norwegen, Österreich, Polen, Portugal, Rumänien, Rußland, Schweden, Schweiz, Singapur, Slowakei, Spanien, Südafrika, Taiwan, Tschechien, Türkei, Ukraine, Ungarn, USA
Produktschwerpunkte	Elektrische Verbindungselemente, elektronische Interface-Systeme, Überspannungsschutz-Bausteine, industrielle Automatisierungssysteme incl. Dienstleistungen.
Zertifizierungen	DIN EN ISO 9001 DIN EN ISO 14001 OHSAS 18001

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Selbstkonfigurierendes Funknetz bringt Gebäudeautomatisierung entscheidend voran

Scatterweb-Geschäftsführer Christian Huthmacher: „Künftig könnte auf den Einsatz von zwei bis drei Kernkraftwerken verzichtet werden."

Berlin, 25. März 2008 – Das Unternehmen Scatterweb hat eine vollständig kabellose und selbst konfigurierende Funklösung entwickelt, mit der die Gebäudeautomatisierung in Deutschland einen entscheidenden Schritt voran gebracht werden kann. Mit dieser ist es erstmals möglich, mittels eines einzigen Systems das zeitnahe Erfassen der Verbrauchsdaten sowie Umweltinformationen und eben auch die Steuerung der Haustechnik zu realisieren. Ist beispielsweise die Temperatur in einem wenig oder über einen gewissen Zeitraum gar nicht genutzten Gebäudeteil zu hoch, ergeht per Funk nach der entsprechenden Datenaufzeichnung automatisch der Befehl an das Steuerungselement, die Heizungsleistung zu verringern. Auf diese Weise lässt sich nicht nur der Energiebedarf punktgenau an den tatsächlichen Bedarf anpassen, sondern auch massiv Geld sparen, ohne dass der Nutzer Einschränkungen in Kauf zu nehmen hätte. Scatterweb spricht von einem Einsparungspotenzial in Höhe von 1,5 Milliarden Euro alleine in den deutschen Haushalten. Bei einem bundesweiten Einsatz der Funklösung könnte künftig außerdem auf den Einsatz von zwei bis drei Kernkraftwerken verzichtet werden, da es praktisch keine Energieverschwendung mehr gäbe.

Bislang scheitert die automatische Steuerung der Haustechnik an verschiedenen Hindernissen. „Zum einen existieren am Markt noch zu viele unterschiedliche Standards, zum anderen adressieren diese außerdem nur jeweils einen Aspekt der Automatisierung – also entweder die Verbrauchsdatenerfassung oder das aktive Energiemanagement", schildert Scatterweb-Geschäftsführer Christian Huthmacher das Hauptproblem. „Ziel muss es sein, die Sammlung von Daten mit der Steuerung der Haustechnik zu koppeln."

Scatterweb liefert dabei die gerade einmal Streichholzschachtel-großen Funkmodule, die sich gegenseitig aktivieren und Daten mit einer Bandbreite zwischen 4,8 kbit/s und 115 kbit/s transferieren. Es handelt sich um ein „Multihop"-System, weil die zu übertragenden Informationen über Funkwellen quasi von einem Modul zum nächsten „springen". Selbst der Ausfall eines Knotens schadet nicht, da automatisch das nächste verfügbare Modul gesucht wird. Durch die Nutzung des lizenzfreien Frequenzbandes 868 Megahertz ist eine sehr gute Übertragung innerhalb von Gebäuden möglich, selbst dicke Wände stellen kein Hindernis dar. Das drahtlose Sensornetz ist in der Lage, die Messdaten an eine oder mehrere zentrale Erfassungsstellen weiter zu geben, somit entfällt auch die herkömmliche manuelle und kostspielige Erfassung der Verbrauchsdaten. Geeignet ist die neue Technologie auch als „Rückgrat" für die Vernetzung existierender sowohl drahtgebundener als auch drahtloser Installationen, damit sind hybride Lösungen möglich. Das macht die Funklösung von Scatterweb gerade auch für die Aufrüstung von Bestandsgebäuden interessant, die per Kabel zurzeit aus wirtschaftlichen Gesichtspunkten wenig Sinn macht.

ScatterWeb (www.scatterweb.net) ist ein führender europäischer Anbieter von Komponenten und Lösungen für den Aufbau drahtloser Funk- und Sensornetze. ScatterWeb liefert die Funkmodule, die Gateways und die Software für sog. Multi-Hop-Netze, bei denen die einzelnen Funkstationen selbstständig eine Kette oder ein Netz bilden, wodurch eine große Reichweite erzielt wird. ScatterWeb-Lösungen finden Anwendung in der Logistik (Verfolgung von Waren unterwegs, z.B. im Lkw oder Container), in der Automatisierungstechnik (z.B. Ablesen von Maschinendaten per Funk) und im Gebäudemanagement (z.B. Funkvernetzung zur Zählerablesung in Gebäuden). Mit ScatterWeb-Systemen lassen sich die Einsatzbereiche und Reichweiten unterschiedlicher bestehender Funkstandards wie ZigBee oder RFID vergrößern.

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Presse-Agentur: euro.mar.com dripke.pr, Tel. +49.611.97.31.50, E-Mail team@dripke.de

Energieverbrauch:
Neue Funktechnologie sorgt für Einsparungen in Milliardenhöhe

Die Zukunft gehört „intelligenten“ Verbrauchszählern: Exakte Verbrauchsdatenerfassung und automatische Steuerung

Berlin, 7. Februar 2008 – Dank der neuen Funktechnologie des Berliner Unternehmens Scatterweb bricht bei der Energieversorgung in Deutschland ein neues Zeitalter an. Der künftige Einsatz intelligenter Verbrauchszähler führt nicht nur zu einer permanenten und exakten Verbrauchsdatenerfassung, sondern erlaubt in Verbindung mit Steuerungsgeräten wie Temperaturreglern oder Schaltern erstmals auch die bedarfsgerechte Steuerung des Energieverbrauchs. „Allein in Deutschland gibt es über 100 Millionen Zähler für die Erfassung der in Haushalten und Unternehmen verbrauchten Energie. Leider sind heute noch weniger als fünf Prozent dieser Zähler in der Lage, ihre Messdaten auch aktuell an eine oder mehrere zentrale Erfassungsstellen weiterzugeben“, berichtet Christian Huthmacher, Geschäftsführer der Scatterweb GmbH. „Das führt bisher dazu, dass die Zähler immer noch manuell abgelesen werden müssen – bei siebzig Prozent aller Messgeräte geschieht dies seltener als einmal pro Jahr. Auf dieser Grundlage lässt sich keine Datenbasis für die Effizienzsteigerung schaffen.“ Das Einsprungspotenzial, das sich durch den Einsatz neuer Technologien realisieren lässt, ist enorm: So hat das Bundeswirtschaftsministerium ermittelt, dass durch eine Visualisierung des tatsächlichen Energieverbrauchs und der Einführung zeitabhängiger Tarife deutsche Haushalte pro Jahr rund 9,5 Terrawattstunden (TWh) alleine an Strom einsparen könnten – das entspricht rund 1,5 Milliarden Euro. Außerdem könnte durch die Einsparungen die CO2 Bilanz verbessert und auf den Einsatz von zwei bis drei Kernkraftwerken verzichtet werden.

Laut Angaben des Ministeriums ist hierfür unabdingbare Voraussetzung die Einführung intelligenter Zählersysteme, die nicht nur zu einer Preissensibilisierung der Verbraucher führen, sondern auch Prozesse wie den Lieferantenwechsel oder das Messen und Abrechnen automatisieren sowie als Schnittstelle für weiter gehende Prozesse dienen können. Der Bedarf ist groß: Eine Umfrage des Bundeswirtschaftsministeriums unter vierzig Energieversorgern ergab, dass die Mehrzahl am Thema „Smart Metering“ Interesse hat und schon dabei ist, Pilotprojekte durchzuführen oder zu planen. 63 Prozent gehen davon aus, dass sie durch die Einführung der Technologie ihre Wirtschaftlichkeit verbessern können. „Die Systemanbieter im Bereich der Energieeffizienz haben aufgehört, auf Standards zu warten und fangen damit an, eigene Lösungen zu entwickeln. Diese häufig mittelständisch geprägten Firmen stellen dabei allerdings fest, dass Funknetze deutlich komplexer sind, als sie vorher angenommen haben“, ergänzt Christian Huthmacher.

An dieser Stelle kommt die Funklösung von Scatterweb ins Spiel, die in Zukunft das „Rückgrat“ der Gebäudeautomatisierung bilden könnte. Das vollständig drahtlose Netzwerk besteht aus einer Vielzahl von Funkmodulen und konfiguriert sich selbst. Das bedeutet, dass sich die Module selbsttätig einen anderen Funkknoten suchen, um die erfassten Daten weiterleiten zu können. Es

handelt sich um ein „Multihop“-System, weil die zu übertragenden Daten über Funkwellen quasi von einem Modul zum nächsten „springen“. Pro Sekunde werden über den Frequenzbereich 868 Megaherz 19,2 Kilobit an Datenmenge transferiert. Selbst dicke Wände stellen kein Hindernis dar – eine wichtige Voraussetzung für den Einsatz in Gebäuden. Die Informationen landen schließlich in einem angeschlossen System wie etwa SAP, wo diese visualisiert und analysiert werden können. „Die Sensoren sorgen auf diese Weise für eine permanente, exakte und außerdem transparente Verbrauchsdatenerfassung“, so Christian Huthmacher. Verbunden mit einem Regler ist es dann beispielsweise möglich, die Temperatur und damit den Energieverbrauch in einem Haus oder einer Wohnung zu steuern. Auf diese Weise lässt sich verhindern, dass etwa im Badezimmer den ganzen Tag die Heizung heizt, obwohl dieses höchstens für einen Zeitraum von ein bis zwei Stunden pro Tag frequentiert wird.

ScatterWeb (www.scatterweb.net) ist ein führender europäischer Anbieter von Komponenten und Lösungen für den Aufbau drahtloser Funk- und Sensornetze. ScatterWeb liefert die Funksoftware und Funkmodule für sog. Multi-Hop-Netze, bei denen die einzelnen Funkstationen selbstständig eine Kette oder ein Netz bilden, wodurch eine große Reichweite erzielt wird. ScatterWeb-Lösungen werden in Zähler und Messgeräte für Energieverbräuche integriert, zur drahtlosen Steuerung von Heizung und Beleuchtung eingesetzt und im Gebäudemanagement (z.B. Funkvernetzung in der Gebäudeleittechnik). SctterWeb bietet reine Softwarelösungen und auch Funkhardware für die Integration mit bestehenden Lösungen an.

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Presse-Agentur: euro.mar.com dripke.pr, Tel. +49.611.97.31.50, E-Mail team@dripke.de

Schon jetzt Gespräch mit Christian Huthmacher auf der Hannover Messe (21. bis 25. April 2008) vereinbaren: 0611-973150 oder team@dripke.de

Wireless Profibus & Profisafe

Wireless Profibus like a cable!

DATAEAGLE 3000 family is a real transparent Profibus DP radiolink. This concept is also modular, so you may use different device types with different used frequencys and for short or longer distances. But all DATAEAGLE works like a profibus cable without any changes in your plc software project or in the hardware configuration of your PLC. DP Master and DP Slaves doesn't see the radiolink.

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DATAEAGLE 3000 family can be used for point-to-point connection also for point-to-multipoint. For cost sensitiv application we offer a limited system with 187,5 kbit maximum profibusspeed up to a high end system for 1.5 Mbit busspeed and the possibility of building a network with up to 7 radio DP receivers or DP Slaves behind the radiolink. DATAEAGLE 3x02 category supports also Profisave on profibus base for failsafe connections also via a radiolink.
For connecting Profibus Masters behind the radioside we use DATAEAGLE

3x02-A versions, so you can use also operatorpanels, other plc or a programming devices without limitations of the functionality compared to a cable.

Support and products on world leading position

Highest availibility for industrial applications

The most important thing by radio communication ist the avalibility of the radiolink. DATAEAGLE was developed for supporting the most exceeding demands for a radiolink like interference compression in industrial enviroments. We define our work as worldwide technology leader and DATAEAGLE provides objective evidence day-by-day in thousands of working industrial radio applications.

Profibus & Profisafe via differend standard radio technologies

Inside DATAEAGLE we use standard technologies like Bluetooth, WLAN, DECT, Zigbee in licencefree frequencies 868 Mhz, 1.9 GHz, 2.4 GHz und 5 GHz. So we tunnel Profibus & Profisafe really transparent via all this frequencies. The decistion which frequency is the best are based on the request of data throughput, distance and environment.

"do you request more than standard?"

Not always standard technologies are the best solution. We also use proprietary radio technologies for the highest demands. This propritary technoligy in DE 3002/3003 is based on WLAN 802.11, but we change a lot of radio parameters to increase the robustness and distance. This was necessary because WLAN 802.11 was originally designed for only short distances of some meters with high data throughput, but in industrial application the focus is on robustness and highest avalibility also in a industrial hall with may be 100 ms.

schildknecht
Die intelligente Lösung

Dear customers,
if you have any questions about the data radio transmission – so about the general way or concerning a specific problem – don't hesitate to call us.

It will be a pleasure for us to find the most optimized solution for your problem.

Thomas Schildknecht
engineer graduate
Industrieelektronik Systeme

Einsteinstr. 10 · 74372 Sersheim
Germany
Phone ++49 / (0) 70 42 / 8 41 06-1
Fax ++49 / (0) 70 42 / 84 00 51

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office@schildknecht.info
Internet:
http://www.schildknecht.info
http://www.dataeagle.de

Domains and industries where products made by Schildknecht will be used for years and this very successful:

mechanical engineering, mining, plant manufacturing, robotics, chemicals industry, packaging machines, production data acquisition, restricted access control, parking meters, cash counter machines, railroad, automotive industry, shipbuilding, printing machines, industrial washer, medical engineering and much more fields!

schildknecht
Die intelligente Lösung

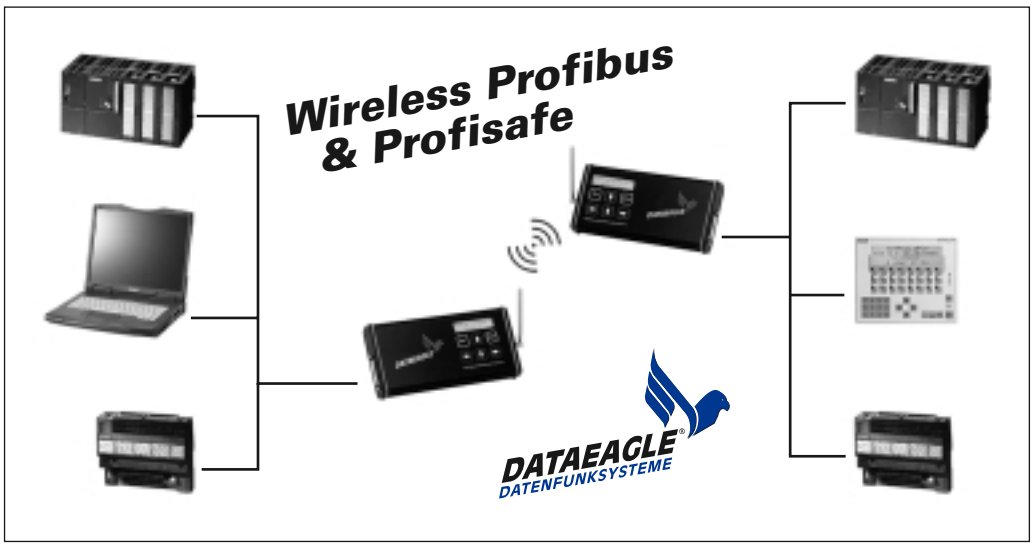
Full Profibus DP functionality,

like a cable connection, without any changes in plc project or hardware parametration.

Device option 3xxx-A can be use to connect Profibus Masters behind the radiolink without limitations of the cable functionality.

Profibus Masters are PLC, Operator Panel (OP) or programming devices.

Profibus busspeed is for the 3xxx-A version identical on both sides of the radio with up to 1.5Mbit.



DATAEAGLE device matrix

Profibus Interface	2,4 GHz 802.11	2,4 GHz 802.11b	1,9 GHz DECT	868 MHz	459 MHz	2,4 GHz Bluetooth	5 GHz 802.11a
Profisafe 1,5 Mbit Diagnosticslave, 7 DP Slaves or 7 DE Slaves	3002		3102	X	X	3702	3802
Profibus 1,5 Mbit Diagnosticslave 3 DP Slaves or 3 DE Slaves	3003	3013	3103	3303	3403	3703	3803
Profibus 500 kbit Diagnosticslave 3 DP Slaves or 3 DE Slaves	3004	3014	3104	3304	3404	3704	3804
Profibus 187,5 kbit, Diagnostic-slave, limitation point-to-point			3105		X	3705	

Airbus Industries uses DATAEAGLE radio communication since years in a lot of applications.

One is for the transportation of the A319 body and uses failsafe via profisafe and data communication via Profibus on Siemens Simatic 315F-PLC. It is prove on value on 24 hours a day since years.

Technical data DATAEAGLE (DE)

Profibus Masterside

Profibusspeed: **Device type DE:**
1,5 Mbit 3002, 3012, 3702, 3102, 3003, 3013, 3703, 3103, 3303, 3403
500 kbit 3004, 3014, 3704, 3104, 3304, 3404
187,5 kbit 3705, 3105

Interface: RS485 Profibus conform DPV0 + DPV1

Signaldelay on the radioside:
DE 3002 / 3003 25 ms (8 Byte read/write)
DE 3702 25 ms (8 Byte read/write)
DE 3102 50 ms (8 Byte read/write)
DE 3303 100 ms (8 Byte read/write)

Diagnsotic: Build in diagnostic profibus slave with own DP address allows online access of the plc to radiovariables inside the DATAEAGLE

Profibus slaveside

Profibusspeed: **Device type DE:**
7 supported DP devices: 3002, 3012, 3102, 3702,
3 supported DP devices: 3102, 3003, 3013, 3703, 3103, 3303, 3403,3004, 3014, 3704, 3104, 3304, 3404
3 supported DP devices (point-to-point): 3705, 3105

Interface: RS485 Profibus conform DPV0 and DPV1

Profibus-Busspeed:
Devicetype **DE 3xxx**: Fix 93,5 kbit/s
Devicetype **DE 3xxx-A**: up to 1,5 Mbit/s like masterside

Supported funcions:
Devicetype **DE 3xxx**: all DP slaves
Devicetype **DE 3xxx-A**: all Profibus DP Master

Profibus DP adresses: Used DP adresses have to be parametrised in DE masterside menu.

Pressemitteilung

Hannover, April 2008

Energieeffizienzmonitoring in der Fertigung

EU-Richtlinie 2006/32/EG zielt auch auf Produktion und Fertigung

Die EU-Richtlinie 2006/32/EG zur Energieeffizienz vom 5. April 2006 und die dadurch hervorgerufenen Aktivitäten der Bundesregierung, um die Einsparziele der Richtlinie (9 Prozent Endenergieeinsparung bis 2017) zu erreichen, erfordern auch nachhaltige Verbesserungen der Energieeffizienz in der Fertigung.

Eine Steigerung der Energieeffizienz und die damit verbundene Reduzierung der Energiekosten erfordern einen permanenten Überblick zum Stromverbrauch und den Energieflüssen in einem Maschinenpark. Zur Umsetzung dieser Forderung bietet das SSV Industrieterminal TRM/816 nun eine Energieverbrauchsschnittstelle, um Verbrauchswerte einzelner Maschinen aus der Fertigung aufzunehmen. Die aufgenommenen Daten werden in einer integrierten Datenbank verdichtet und an übergeordnete PPS-, MES- und ERP-Systeme weitergeleitet. Als Ergebnis erhält der Betreiber losgrößen- und auftragsbezogene Kennzahlen zum Energieeinsatz. Diese Werte bilden gleichzeitig die Basis zur Umsetzung von Energiesparmaßnahmen.

Die Industrieterminals von SSV sind speziell für den Einsatz an der Maschine ausgelegt. Sie eignen sich wahlweise zur Direktmontage oder für die Hutschiene (DIN-Rail System) in Schaltschränken. Versorgungsspannungen zwischen 12 und 24 Volt, überdurchschnittliche Vibrations- und Schockfestigkeit durch den Verzicht auf rotierende mechanische Komponenten, IP65-konforme Gehäuse sowie mögliche Umgebungstemperaturen zwischen -20...+70°C erlauben den Einsatz in besonders rauer Umgebung. Die Software zur Maschinendaten- und Energieverbrauchserfassung kann über ein XML-Toolkit einfach individuell konfiguriert werden.

Informationen

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Pressemitteilung

Hannover, April 2008

Internet-Gateway für Zählerdaten

IP-Gateway koppelt fernauslesbare Zähler per LAN oder GPRS ans Internet

Immer mehr Wärmezähler, Wasserzähler, Strom- und Gaszähler sind mit speziellen M-Bus Schnittstellen für das Fernauslesen vorbereitet. Koppelt man solche Zähler mit einem IP-Netzwerk wie dem Internet, eröffnen sich für Kunden und Energieversorger vielfältige neue Abrechnungs- und Auswertemöglichkeiten. Gleichzeitig steigt die Kostentransparenz durch echtzeitfähige Ablese- und Auswerteintervalle. Für derartige AMR (Automatic Meter Reading) Anwendungen wurde von SSV Embedded Systems die kompakte Gateway-Box M/Box920 entwickelt.

Als Schnittstellen stehen standardmäßig ein 10/100 Mbps Ethernet-LAN Interface und eine M-Bus Master Schnittstelle gemäß EN13757 für die Verbindung mit bis zu 10 externen Verbrauchszählern zur Verfügung. Die maximale Entfernung zwischen einer M/Box920 und einem M-Bus-fähigen Zähler kann bis zu 10 km betragen. Die Verbindung zum Internet erfolgt wahlweise mittels Ethernet-LAN über einen DSL-Router oder durch ein optionales GPRS-Modem per GSM-Mobilfunknetz.

In Abhängigkeit von der Anwendung können auf der M/Box920 verschiedene Softwaremodule installiert werden. Auf Wunsch werden beispielsweise eine integrierte Firewall und ein VPN-Kommunikationsmodul hinzugefügt, um die Datenübermittlung im Internet vollständig gegen unberechtigte Zugriffe abzusichern. Die Konfiguration sämtlicher Softwarekomponenten erfolgt über ein Web-basiertes Interface per Ethernet-LAN.

Die M/Box920 ermöglicht echtzeitfähige Abrechnungssysteme für dezentrale Liegenschaften, AMR- und M2M-Lösungen zur Verbrauchsdatenüberwachung und Smart Metering (intelligentes Messen) Anwendungen im Sinne der EU-Richtlinie 2006/32/EG über „Energieeffizienz und Energiedienstleistungen“.

Informationen

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Presse-Informationen

Stollmann-Produkte auf der Hannover Messe 2008

Wireless Automation, *Halle 6, Stand K14*

Hamburg, 04.04.2008

Industrielles ISDN-Modul mit analoger Modemkommunikation "TA+HIM"
Unser ISDN-Modul "TA+HIM" mit integriertem Modem ist ab sofort erhältlich. Damit ist neben der ISDN-Kommunikation die Datenübertragung zwischen einem ISDN-Anschluss und einem analogen Modem möglich.

GPRS+SOC im neuen Design
Nach dem Redesign ist unser serieller Socket-Adapter mit GPRS-Modul noch flexibler einsetzbar. Neu ist u.a. der Anschluss eines externen SIM-Kartenlesers.

Serielles Bluetooth-Modul mit 922 kbps
Unser preisgünstiges, qualifiziertes Class 2 Bluetooth-Modul mit Serial Port Profile (SPP), BlueMod+B20, können Sie jetzt mit einer Datenrate von 922 kbps über die serielle Schnittstelle betreiben. Mit Bluetooth EDR ist auf der Luftschnittstelle eine theoretische Datenrate von 3 Mbps möglich. Der reale Durchsatz über die Funkstrecke beträgt bis zu 288 kbps. Damit gehört es zu den schnellsten seriellen Bluetooth-Modulen auf dem Markt.

BlueCluster+: Ein kabelloses, ausfallsicheres Netzwerk für die Haustechnik
BlueCluster+ baut sein Netz von einer Basisstation aus selbständig auf. Es können bis zu 250 Knoten im Netz verwaltet werden. Auf das Netz kann über jeden Knoten zugegriffen werden. Jeder Knoten kann als Repeater dienen. Fällt eine Verbindung aus, suchen sich die Knoten autonom einen neuen Kommunikationspartner. Die Anwendung wird auf der Hannover-Messe gezeigt.

Neues embedded NFC-Modul

Stollmann bringt ein neues embedded NFC-Modul „NFCMod+S“ auf den Markt. Das neue NFCMod+S ist ein Modul für die Near Field Communication (NFC). Es unterstützt den Reader/Writer- und Peer-to-Peer-Mode und ist kompatibel zu herkömmlichen Tags und kontaktlosen Chipkarten nach NFC-, MIFARE- und FeliCa™-Standard. NFCMod+S besitzt die Interfaces UART, SPI, I2C, USB 2.0 zum Hostsystem und unterstützt S²C zum Anschluss eines Secure Elements. Der Protokollstack auf dem Modul stammt von Stollmann und wird über eine einfache Command-Schnittstelle angesteuert. NFCMod+S ermöglicht die schnelle und kostengünstige Integration von NFC in eine Vielzahl von Geräten wie Kartenlesern, Zutrittssystemen oder Paymentsystemen.

Über NFC

NFC ist die neue drahtlose Technologie für Zahlungsverkehr, Zutrittskontrolle und viele andere Anwendungen, bei denen es um den schnellen und sicheren Austausch von Authentifizierungsdaten geht. Durch die kurze Reichweite von bis zu max. 10 cm ist eine einfache und sichere Authentifizierung möglich, indem die beteiligten Geräte aneinander gehalten werden.

Die Stollmann Entwicklungs- und Vertriebs-GmbH

Stollmann ist einer der führenden Anbieter von Standard- und Lizenzprodukten für Kommunikations-Technologien wie ISDN, Bluetooth, NFC, GPRS und DSL mit Sitz in Hamburg. Wir entwickeln mit 44 Mitarbeitern Module, Protokollstacks und Referenzdesigns.

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Presse-Information
(4098 Zeichen inkl. Leerzeichen)

Mobile Datenkommunikation / Automatisierung / Messdatenerfassung / LAN-Anbindung

Wireless – Lösungen vom Viola Systems jetzt auch per UMTS mit hoher Geschwindigkeit

Praxiserprobte, zuverlässige Gesamtlösung - schnelle Realisierung

Hannover, 21. April 2008. Der Stand von Viola Systems im Wireless Pavillon der diesjährigen Hannover Messe steht im Zeichen UMTS-schneller Datenkommunikation. Industrielle Anwendungen verlangen immer mehr Bandbreite, z.B. für Video- und Foto-Übertragungen, umfangreiche Datenanalysen oder POS (Point of Sales) – Anwendungen. Per HSDPA ist einen Geschwindigkeit bis zu 1.8 Mbit/s möglich.

Mit dem in diesen Tagen neu vorgestellten Arctic UMTS – Router trägt Viola Systems diesem Bedarf Rechnung. Das neue Gerät passt dabei perfekt zur bewährten Viola Lösung für die nahtlose Datenkommunikation von Geräten, Systemen und Anlagen über Mobilfunknetze. Diese Viola-Lösung besteht aus zuverlässigen, robusten Routern der Outdoor-geeigneten Arctic Produktfamilie, die mit GPRS-, EDGE- oder UMTS-Geschwindigkeit arbeiten, sowie dem Viola-M2M-Gateway.

Die hochwertigen, aufeinander abgestimmten Funkrouter- und Gateway-Produkte verbinden universell Messgeräte, Kameras, automatische Anlagen, Maschinen und vieles mehr drahtlos über die weltweit verfügbaren Mobilfunknetze. Im Gegensatz zu anderen Anbietern fühlt sich Viola Systems für die gesamte Übertragungsstrecke verantwortlich, vom Interface des externen Gerätes, bis zum Netzwerk in der Zentrale. Neben der Standard-LAN-Schnittstelle stehen serielle Anschlüsse verschiedener Standards, Modbus- und IEC101/104 zur Verfügung. Für den direkten Anschluss von Messstellen und keine Steuerungsaufgaben lassen sich Arctic Router auch mit digitalen oder analogen I/O-Anschlüssen ausrüsten. Das Viola M2M Gateway verbindet die entfernten Geräte über die genannten Schnittstellen so über die Mobilfunkstrecke, als wären sie direkt im zentralen Netzwerk installiert. Jedem Gerät wird eine statische IP-Adresse zugewiesen. Das ermöglicht eine bidirektionale Kommunikation zwischen dem Router und dem Netzwerk in der Firmenzentrale. Für Software, die mit diesen Geräten kommuniziert sind daher keine Änderungen nötig, um die Vorteile einer Mobilfunkverbindung

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zu nutzen. Die Verwendung eines Virtual Private Networks (VPN) schützt alle Transaktionen vor unberechtigtem Zugriff.

Die Viola-Lösungen ist auch für wechselnde Einsatzorte oder zum Einbau in Fahrzeuge geeignet. Sie ist dabei preisgünstig zu realisieren, weil die Technologie zur Mobilfunk-Übertragung betriebsfertig in die Lösung eingebaut ist. UL.Consult als exklusiver Vertriebspartner der finnischen Viola Systems Ltd. für Deutschland richtet sich unter anderem an die Energieindustrie sowie Unternehmen, die in den Märkten Automatisierung, Sicherheit und Überwachung oder Medizintechnik tätig sind.

Eine Datenübertragung über das Mobilfunk-Netz ist überall dort sinnvoll, wo die Installation von Festleitungen nicht möglich oder zu kostenintensiv ist. Besonders vorteilhaft bei der Viola Lösung ist die einheitliche Konfiguration jedes Arctic Routers. Auch beim Einsatz in unterschiedlichen Ländern mit verschiedenen Mobilfunkbetreibern ist die Grundkonfiguration einheitlich. Damit ergeben sich erhebliche Vorteile bei der Inbetriebnahme auch größerer Systeme.

Bewährt hat sich die Lösung speziell bei Anwendungen, die einen zuverlässigen und sicheren Betrieb erfordern, beispielsweise bei ABB im Bereich Stromnetze, aber auch bei Betreibern von Fernsehsendern, Straßenverwaltungen im Betrieb von Wetterstationen oder von Maschinenbauern, die Betriebsdaten der bei Kunden genutzten Maschinen erfassen möchten.

Die Gesamtlösung lässt sich logisch in jedes lokale Netzwerk (LAN) einbinden. UL.Consult als exklusiver Partner führt das Viola-System mit dem Know-how aus zahlreichen Projekten in sehr kurzen Zeiten ein. Ulrich Lüer, Geschäftsführer von UL.Consult: „Die Lösung ist praxiserprobt und liefert sehr schnell und zuverlässig Daten von beliebigen Einsatzorten in die Unternehmenszentrale. Speziell die Unabhängigkeit vom Mobilfunk-Anbieter überzeugt unsere Anwender, denn so kann flexibel eine kostengünstige und gut kalkulierbare Variante gewählt werden. Wir lösen mit dem Viola-System heute die unterschiedlichsten Aufgabenstellungen bei Unternehmen aus vielen Branchen."

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Über die UL.Consult GmbH:
Die UL.Consult GmbH in Maintal hat sich auf die Beratung zur Auswahl und Einsatz von Datenübertragungslösungen spezialisiert. Hierbei stehen besonders die digitale Kameratechnik und deren Nutzungsmöglichkeiten über das Internet sowie die Einführung von industriell nutzbaren Mobilfunklösungen im Fokus. Digitale Kameratechnik ist bereits seit Gründung des Unternehmens im Jahr 2001 ein wesentlicher Schwerpunkt. Kunden von UL.Consult sind Unternehmen aus der Bau- und Chemieindustrie, der Medizintechnik und des Geräte- und Anlagenbaus.

Über Viola Systems:
Viola Systems, mit Sitz in Turku Finnland, ist ein auf die Entwicklung und Produktion von modernen, industrietauglichen „M2M“ (Machine-to-Machine) Kommunikationslösungen spezialisiertes Unternehmen.

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