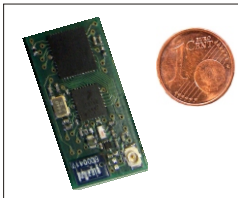
livetec ZigBee™ prepared HF & USB devices for wireless applications



SMT HF Module

USB Stick

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typical wireless applications:

- medical devices and applications
- wireless sensor and actuator networks for measurement and control
- industrial automation and control
- logistics
- telemetry
- PDA's or other battery operated systems
- wireless games, peripherals and accessories

additional information:

- starter kit available
- easy to use / out of the box usage
- software and hardware support and engineering
- designed for rapid prototyping and series
- services and support
- modular design
- multi-vendor platform under development
- integration in the livetec telemetry platform with gateway & data
- data processing center
- ZigBee networking support under development

onboard features HF-module:

- range up to 70m (depending on environment)
- 802.15.4 (PHY/MAC)
- frequency range: 2.4000 - 2.4835 GHz
- 16 channels (5MHz spacing; not overlapping)
- DSSS (direct sequence spread spectrum)
- ultra-low-power design
- shut down (max. 40 uA)
- data rate up to 250 kbps
- operating voltage: 2.0V - 3.4V
- chipset: Freescale HCS08 GT60 / MC13192
- memory: 60 kByte flash on board
- antenna integrated or external
- mechanical dimensions: 25 mm x 14 mm
- flash-based firmware for easy upgrade
- SMT footprint

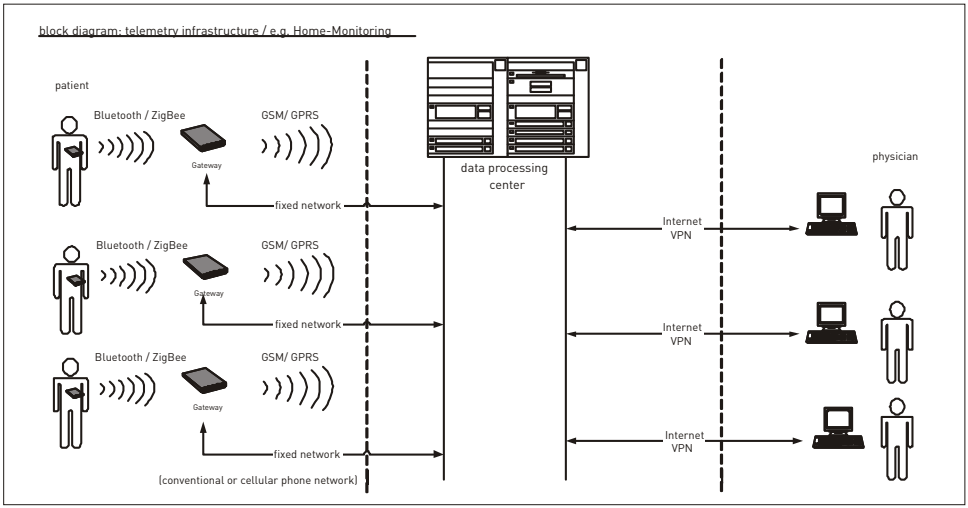
USB Features:

- USB1.1/2.0
- USB-Bus-powered device
- communication using virtual COM-port including hardware-handshaking
- MS Windows ™ and Linux Driver

telemetry (mobile) platform

medical

livetec mobile gateway



typical telemetry applications:

- patient (home) monitoring
- medical studies
- remote monitoring
- medication tracing

additional information:

- complete infrastructure available
- point-to-point structure possible
- software & hardware engineering for your specific requirements

telemetry platform:

- choice of connectivity: analog, ISDN, GSM/GPRS modems
- Bluetooth
- GPS receiver
- VPN / data storage / webservice

- Gateway: mobile or wired
- memory card
- bi-directional data transfer
- accumulator or battery powered
- lowest power technology

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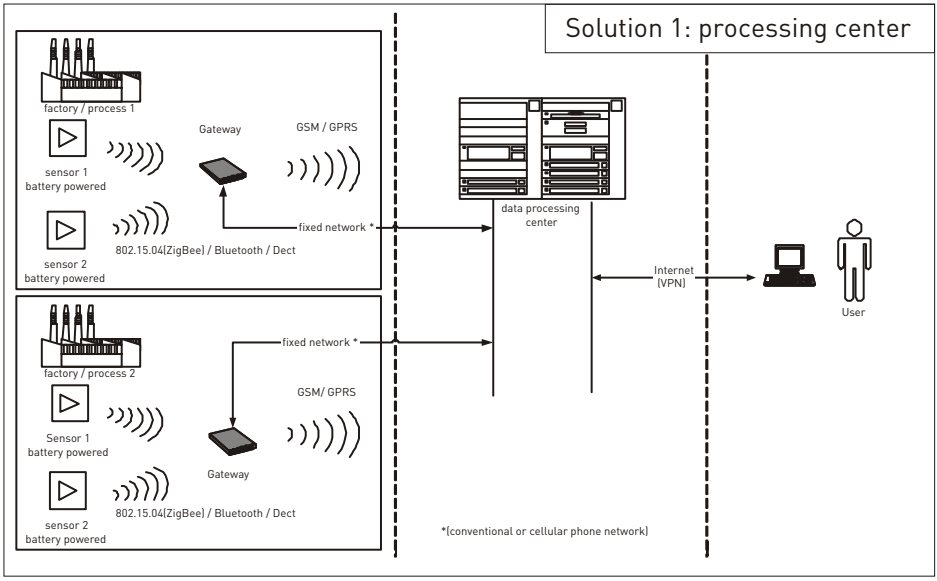
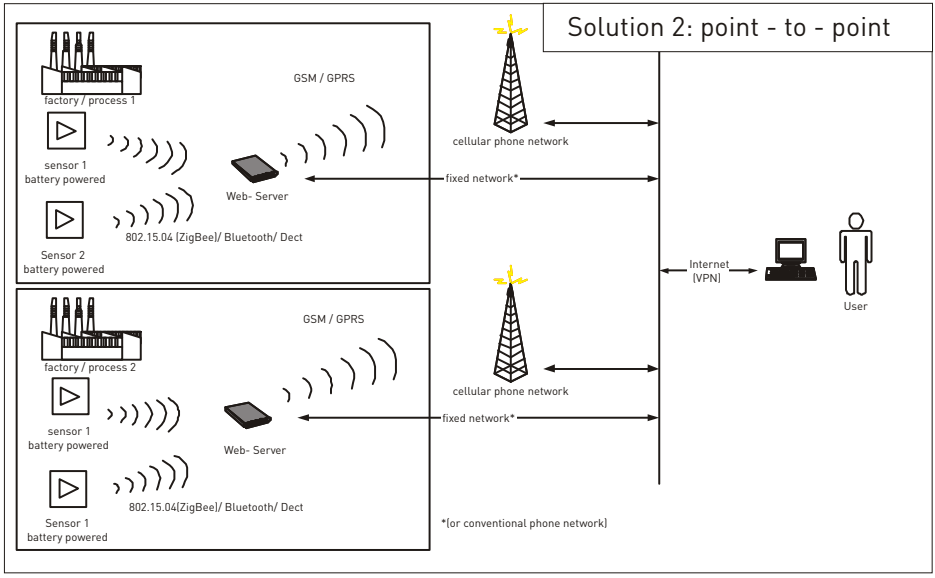
telemetry (mobile) platform

industrial





industrial engineering

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engineering - core capabilities

system experience:

- soft & hardware engineering
- safety engineering / emc
- power concepts
- communication technology: Ethernet, ZigBee, Bluetooth, GSM / GPRS, ISDN, PTSN
- Interface-/ network programming based on network protocols and wireless transmission technology

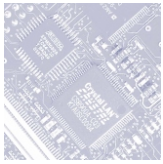
medical engineering:

- cardiology
- external universal pacemaker
- cardiac stimulation procedure
- electrophysiology
- ECG- and intra cardiac signal recording

- non invasive / invasive blood pressure measuring technique
- ablation procedure
- clinical practice
- close collaboration with medical specialists
- validation & concession
- risk management

soft- & hardware engineering:

- surface programming/ user interfaces design
- controller programming (e.g. ARM/ Motorola/ MSP430/ DSP) using real time operating systems
- digital signal processing
- digital circuit- and micro controller development



- analogous circuit design using modern simulation instruments
- supply concepts, accumulator recharge- and monitoring technology

product to market:

- prototyping
- OEM supplier
- cooperation at preparation of the specification sheet
- requirements specification/ project planning
- development based upon international standards (according to EN 60601, UL)
- unit-certifications (CE- / UL)

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