

INTERCONNECT
MACHINES NOW!



wireless intelligent remote m2m appliance
wirma[®] telemetry



wirma[®] telemetry is part of the Machine To Machine (m2m) family of networking products developed by KerLink[®]. It is designed to provide local intelligence for operational data collection applications from fixed machines (automatic reporting, remote equipment management, real time operation, etc).

wirma[®] telemetry is a high power microcomputer with most common industrial interfaces and has embedded interfaces for many different wireless and wired networks.

wirma[®] telemetry has a programming interface for accessing the hardware resources. Customers' applications can be easily adapted to any environment and to all operating requirements.

wirma[®] telemetry can be used within the KerLink[®] network architecture to provide a global solution for m2m services. The KerLink[®] optimised high reliability connection protocol allows communications software to build all the company's equipment into its information system quickly and easily to provide value added services.

● ● ● ● **Versatility**

wirma[®] telemetry is an open microcomputer which can be adapted physically and functionally for any type of application:

- Remote data collection from counters,
- Remote maintenance and monitoring,
- Infrastructure management: tolls, street furniture, street lighting,
- Remote management of printers, photocopiers, air-conditioning, lifts,
- Remote patient monitoring,
- Remote monitoring and environmental risk management,
- ● ● ●



Example: remote management of an industrial site

➤ A remote industrial site supervision system that provides true real time administration for the installation (data collection, intervention, reconfiguration of alarm thresholds, etc). The information system is automatically alerted if there is a system failure and the corrective actions can be carried out more quickly. The plant operator benefits from increased productivity and improved quality control.



Example: remote monitoring of high security sites

➤ A remote surveillance company has installed an advanced incident detection system which automatically raises the appropriate alarms in case of critical situations or intruders. The event log is dated and recorded locally before being uploaded to the control centre for analysis. This improves the quality of the information passed to the end customer.

● ● ● ● ● **Advanced features**

- **Multi protocol** equipment
- **Several machines can be connected to a single wirma[®]**
- Basic M2M **data models**
- Data acquired **stored locally**
- **KerLink[®] m2m Services:** software interface providing simple, unified, reliable access to hardware (TCP/IP, XML)

● **Specifications**

Physical:

Robust extruded aluminium case
Compact (105mmx44mmx120mm)

System:

Processor ARM920T 200 MIPS at 180 MHz
RAM: 32 Mb SDRAM (up to 128 Mb)
ROM: 32 Mb FLASH (up to 64 Mb)
Supply voltage: 7V – 48V
Wake-up modes: CAN, GSM, RTC
Optional battery backup

Interfaces:

USB2.0, CAN 2.0A or B, high speed
Serial (RS232 or RS485), GPIO, I2C, etc
Embedded protocols (Modbus, etc)

● **Advantages**

- **Rapid implementation:** m2m applications development tools
- **Rapid, easy modification for updates:** new machines, new types of sensor, etc
- **Configurable state machine**
- **Upgradable embedded application**
- **Several programming languages (C, C++, Java)**

Networking:

GSM/GPRS 900/1800 Class 10, FME male antenna connector, removable SIM card
Ethernet 10/100 baseT, RJ45
Optional WLAN 802.11G

Open operating system:

Linux standard version 2.6.13
Cross compilation system for developing embedded applications in C or C++ (optionally Java)

Standards:

CE mark, conforms to R & TTE Directive
Directive 2006/28/EC e-marking
Wide operating temperature range

● ● ● ● ● **Development tools**

- **Starter Kit (optional): wirma[®]** all hardware options (including Bluetooth and WLAN), demo board extension card (GPIOs, relays, etc), power supply, antennae, training and software development kit (SDK).
- **Telemetry Debug Kit (optional): wirma[®] telemetry,** dedicated debugger, power supply, GSM/DCS antenna, training and software development kit (SDK).
- **Software development kit (SDK): GNU tools for compiling and linking** embedded applications, specifications for basic m2m function interfaces and debugging. For rapid, easy development of specific solutions under Java, in C or C++.

● ● ● ● ● **Can be used in the KerLink[®] m2m network solution: wanesy[®] (optional)**

- **Optimised connection and encryption of the data transfer**
- **Standardised protocol for interface to customer IT systems** for any application
- **Unified hardware interface** for local or remote applications
- **Simple administration** (remote software updates, reporting, alarms, etc)
- **Time-saving** using real time management
- **Profitability/minimisation** of operating costs through better handling of the data collected
- **Permanent link** between the customer's information system and the equipment
- **Network QoS**

