

## **New Zigbee-based wireless programmable micro-controller**

IDC's new ZB108 wireless programmable micro-controller offers the ability to eliminate centralised PLCs, control cubicles and field-bus cabling. Suitable for the control of mobile and fixed plant, The ZB108s has embedded intelligence to enable independent operation for stand alone control and monitoring applications, or it can be connected in a wireless network with other Zigbee devices to provide distributed control system architecture.

The ZB108 features "Zigbee" wireless networking, which operates at the 2.4GHz, licence- free IEEE 802.15.4 international standard, providing secure and robust two- way communications up to 100m between nodes, with routing over multiple nodes for larger networks and longer distances. Additional security and redundancy is provided with encryption and alternative routing of messages in the event of a single node failure.

Complementing its embedded micro-controller, the ZB108 integrates 4 PNP Digital Inputs, 4 FET short circuit protected outputs, and RS232/RS422/RS485 selectable serial connection with extensive LED diagnostics. The unit accepts 12 – 24VDC to cater for both mobile and fixed plant control and monitoring applications, and has an IP65 enclosure with cage clamp termination for sensor wiring. The ZB108 is a central component in the IDC family of ZB modules, which includes Ethernet and serial gateways, routers, micro- controller and handheld devices. All of the modules offer a unique 64- bit MAC identifier, embedded intelligence, battery management and extremely low power consumption.

For server based applications all the ZB modules are networked together using IDC's ZBGateway software, a Visual Studio .net component that enables predefined Zigbee templates to be configured in a Windows based software tool via a ZB104 Ethernet Gateway

Typical applications for IDC's Zigbee-based systems range from simple remote monitoring to eliminate cabling, mobile plant monitoring and tracking, remote control and monitoring of automatic guided vehicles to full- blown telemetry systems for site- wide distributed control applications with hundreds of sensors and actuators.

**IDC Ltd** Intelligent Distributed Controls (IDC Ltd) is based in Derby. The company has a highly skilled team of dedicated hardware and software design, development and application engineers. These personnel have specialist application knowledge of control systems applied to logistics, warehouse distribution and manufacturing. This applications experience has IDC enabled to develop key skills in real time control, RFID and wireless technology, and to develop niche products for these industries and related OEMs. IDC's customer base includes Toyota, Toys R Us, ASDA George, Smiths Areospace, Astra Zeneca and Vestas Wind Systems A/S

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