TECHNICAL SPECIFICATION SHEET

PROTEUS 2

CHIRON GPRS DATA MODULE

The Chiron GPRS Data Module offers a cost effective way to upgrade equipment that does not support GPRS data. With the GPRS module many applications can be easily migrated away from leased lines or dial-up links to IP networks thus offering significant communications cost savings.

In addition, GPRS offers data communications in locations that are not equipped with fixed-line telecommunications services.

The module is designed to be easily installed within other equipment in place of an existing communications interface such as a modem. Customised layouts for specific End User equipment are available.

This unit is one of a family of communications modules from Chiron, including ISDN, GSM/GPRS and ETHERNET. The user interface on each module in the range is identical, so it is very easy for users to develop a single base unit (e.g. credit card terminal), on which a range of network interface solutions can be offered.

The user interface to the module is a standard serial data port supporting Hayes modem commands. Any existing system that supports a direct serial data connection or connects via a dial-up modem or ISDN TA can be adapted to GPRS without requiring any changes.

The module incorporates a TCP/IP data protocol stack, which is essential in GPRS connections. The user's equipment is not required to support these complex protocols.

Where dial-up connections are being replaced, the 'always on' feature of GPRS networks also means that new system features such as much faster polling rates for telemetry, 'keep alive' signals for alarms, etc can be implemented with minimal impact on communications costs.

A secure polling algorithm is incorporated into the module for systems (such as security) where remote monitoring of system integrity is required.

Typical Applications

- Credit card authorisation terminals
- Alarm systems
- Video surveillance
- Remote equipment management
- Telemetry

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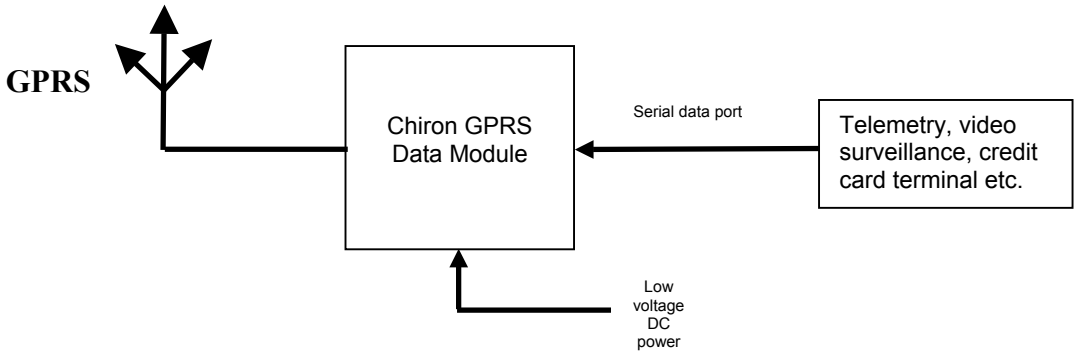
Product Overview

The Chiron GPRS module is for integration into other equipment and allows existing communications links to be migrated to GPRS and IP networking. The module is easy to install into existing or new applications and is compatible with any equipment designed to operate with a modem for data communications. Various configuration options allow flexible use of the communications channel.



Feature overview:

- GPRS dual band (900/1800 MHz) for compatibility with majority of GSM/GPRS networks.
- Serial data interface with Hayes command dialling for data connections.
- Full TCP support for error-free data communications and flow control.
- Polling algorithm, protected by Challenge/Handshake algorithm with MD5 encryption.
- Auto-dial and auto-answer.
- 'Virtual serial cable' mode with automatic call set-up and recovery.
- Remote and local configuration.
- All configuration parameters held in non-volatile memory safe from power loss.
- 5V power input.

Ease of Use

Unlike other solutions that require the attached equipment to have knowledge of IP networking and support IP protocols, the Chiron Ethernet module has the 'look and feel' of a modem, and can thereby be used without the need to modify the existing equipment.

Technical Details

GSM/GPRS Interface

- Dual band (900/1800 MHz) for compatibility with majority of GSM networks
- Socket for external aerial connection for optimum aerial location

Data interface

- Hayes compatible data port
- Baud rates up to 115200 bps
- RTS/CTS flow control
- Outgoing and incoming calls

PPP protocols

- LCP and IPCP protocols
- CHAP and PAP authentication

IP protocols

- IP Version 4
- TCP
- TCP packet sizes configurable
- Echo request supported (PING)

Polling

- Configurable polling host address
- Configurable polling interval

Physical

- Supply voltage 5V
- Serial interface at 5V logic levels
- 90mm x 90mm x 20mm