DELPHI

ENTERTAINMENT & COMMUNICATIONS

Delphi DS101 High-value Satellite Modem

Delphi's DS101 is a proven, two-way satellite modem designed for use with the ORBCOMM low-earth orbit (LEO) satellite network. Enabling remote asset tracking, monitoring, and control globally, it was specifically developed for the machine-to-machine (M2M) market with state-of-the-art, automotive-grade quality.

Delphi DS101 High-value Satellite Modem

The DS101 offers:

- Robust sensitivity and interference rejection
- Low power consumption (< 45mA receive mode)
- Open drain UART interface
- Standard header to help keep integration costs low
- VSWR detector to simplify support and maintenance of deployed units
- Easy integration into your application

A high-performance satellite transceiver, the DS101 satisfies the need for "modem only" applications. With a small footprint, efficient power consumption, globally-competitive pricing, and world-class design and performance, the DS101 is ideal for applications that require reliable, low-cost data communication from even the most remote locations around the world.

Current Applications

Current applications include automatic meter reading, transportation tracking, oil and gas monitoring, and security. In addition, the DS101 is ideally suited for integration with widely-available terrestrial modems to provide a cost-effective, dual-mode solution.

Specifications

Size	102 x 72 x 15 mm (maximum)
Configuration	Printed circuit board with die cast aluminum housing
Transmit Frequency	148 to 150.05 MHz
Transmit Power	5 Watts
Receive Frequency	137 to 138 MHz
Dynamic Range	40 dB minimum
Sensitivity	Minimum BER: E-5 @ -118 dBm Typical BER: E-5 @ -121.5 dBm
Application Interfaces	Main serial: open drain interface (3-wire: TX, RX, CD + ground)
Application Connector	Standard 0.1" header double-row shrouded keyed
Power Requirements	Input voltage: 8 to 16 VDC Transmit: 2.0 A max @ 12 VDC Receive: 45 mA nominal @ 12 VDC (with LEDs switched off)
Environmental	Temperature: -40°C to +85°C (operating) Shock and vibration: SAE J1455 Radiated emissions: EN 301 721, EN 301 489 RoHS compliant—lead-free
RF Connector	VHF: MCX female, 50 Ω
Power Control	Serial command to SC initiates power down sequence; SC responds with ready message
Planned Approvals	FCC, Industry Canada, Japan, Malaysia, Mexico, ETSI modular approval (Contact Delphi for other pending approvals.)