



DS401

Stellar's Dual Mode Platform

Ideal Platform for Integrating Dual-Mode



The **DS401**, designed by Stellar Satellite Communications, Ltd. (www.Stellar-sat.com) and Delphi Electronics and Safety and manufactured by Delphi (www.Delphi.com), is a two-way satellite communicator for use with the ORBCOMM Low-Earth-Orbit (LEO) satellite network. The DS401 is a complete hardware solution for companies seeking economical global data transmission for asset location, diagnostic, and maintenance across satellite and terrestrial networks. The unit can just as easily be configured as a GSM-only tracker.

As the third generation in the Stellar telematics series, the **DS401** is a complete solution able to evolve over time with ever-changing customer needs. The **DS401** leverages the proven success of more than 120,000 deployed DS100 and DS300 communicators across numerous applications and markets.

The **DS401** expansion bay allows customers to add functionality to meet evolving market requirements. The bay is weatherproof, RF-visible, and designed to accommodate a variety of wireless devices such as GSM/GPRS, WIFI, and more. The DS401 will also accommodate additional memory and proprietary busses.

Platform Feature Highlights:

- ORBCOMM Network Ready
- State of the Art GPS
- 10 Software Configurable I/Os
- Robust Power Conditioning & Battery Charger
- RoHS Compliant & IP67 (ruggedized) Case
- User Defined Expansion Bay

Typical Expansion Bay Features:

- GPRS / CDMA
- ARM 9 Processor
- 32MB Flash, 32MB RAM
- CAN Bus
- Easy to add: USB, J1708, WiFi

Quality and Affordability





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General	Dimension: 206 x 131 x 38 mm (8.1" x 5.1" x 1.5") Configuration: Sealed Case With Customer Defined Bay Board
Transmit / Receive Frequency	ORBCOMM 148 to 150.05 MHz / 137 to 138 MHz
Transmit Power - ORBCOMM	5 Watts
Application Interfaces on Base Unit	Main Serial: RS232 (4-wire: TX, RX, CD, GND) App RS232 Serial: (2-wire: TX, RX) – GND Shared with Main Power Out: Switch-able Battery Voltage Output, 1A max General I/O: 8 configurable analog/digital 0-3.3 VDC, 0-12 VDC or 0-24 VDC General I/O: 2 configurable digital input/output
Environmental	Temperature: -40°C to +85°C (operating) Shock & Vibration: SAE J1455 Pressure Wash: SAE J1455 and IP67 Radiated Emissions: EN 301 721, EN 301 489 RoHS Compliant – Lead Free
GPS Receiver	Cold Start: TTFF < 45 seconds Accuracy: 2.5m CEP and 5.0m SEP
Power Requirements	External Power: 9 to 32 VDC, current-limited to 1.3A or 3A, J1455 24V compliant ⁽¹⁾ Battery Power: 8 to 15 VDC Modem Transmit: 2.0A max @ 12 VDC Modem Receive: 45 mA max @ 12 VDC (with LEDs off) Modem Sleep: 50 uA nominal, 100 uA max @ 12 VDC Application Sleep: 10 uA nominal, 25 uA sleep @ 12 VDC
Application Hosting - Base Unit	368K user-written C code, 40K RAM, 8K EEPROM
RF Connectors	GPS: FAKRA SMB C Code key (blue color), keyed, 50 Ω VHF: FAKRA SMB D Code key (violet color), keyed, 50 Ω AUX: FAKRA SMB K Code key (curry yellow), keyed, 50 Ω
Application Connector	Delphi Packard 36 Pin Connector
Bay Board Options	Quad Mode GPRS ARM 9 Processor 32MB Flash, 32 MB RAM, CAN Bus Optional: Zigbee, 802.11, Ethernet, Proprietary Buses USB Host, J1708, RS485
Near-Term Planned Approvals	FCC, ETSI, Industry Canada, Japan, Korea, Mexico, Brazil, Argentina, Australia



