



# DS300

## Stellar's Mobile Asset Tracker



### ***Automotive OEM Quality for the M2M Market***

The **DS300**, designed by Stellar Satellite Communications, Ltd. ([www.Stellar-sat.com](http://www.Stellar-sat.com)) and Delphi Electronics and Safety and manufactured by Delphi ([www.delphi.com](http://www.delphi.com)), is a two-way satellite communicator for use with the ORBCOMM Low-Earth-Orbit (LEO) satellite network. The DS300 is a complete hardware solution for companies using a wide variety of applications to track, monitor and communicate with fixed and mobile assets around the globe.

The **DS300** features a satellite modem, user-programmable application processor, GPS receiver, software configurable I/O options, and battery charger packaged in a rugged, automotive-grade enclosure. Globally competitive pricing, world-class design, and stable performance make the DS300 an exceptional product for transportation, heavy equipment, marine, aeronautical, and many other markets.

### **Feature Highlights:**

- ORBCOMM Modem
- Configurable I/Os with 8 Digital Channels (Input or Output) and 4 Analog Channels (Input)
- Ruggedized Automotive Rated Case
- 8-Channel GPS
- User-Programmable Application Processor to Facilitate Value-Added Custom Solutions
- Integrated Battery Charger with Selectable Voltage Options to a Max of 24 VDC
- Automotive Grade FAKRA Connectors Allowing Quick Connect and Disconnect





General	Dimension: 206 x 86 x 38 mm (maximum) Configuration: Sealed Case
Approvals	FCC, ETSI, Industry Canada, Japan, Malaysia, Mexico and more Contact Stellar for other pending approvals
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 @ -120 dBm
Application Interfaces	Main Serial: RS232 (4-wire: TX, RX, CD, GND) App RS232 Serial: (3-wire: TX, RX, GND) Power Out: Switchable Battery Voltage Output 12 Configurable I/O Lines <ul style="list-style-type: none"> <li>Analog - a maximum of 4 Input Lines @ 0-3 V, 10-bit A/D</li> <li>Digital - as many as 12 I/O Lines @ 3 V nominal, 6.8 mA max</li> </ul>
Application Connector	Delphi Packard 100W Micro-Pack 36 Pin Connector
Power Requirements	1A External Power: 9.0 to 30 VDC, current-limited to 1.3A Transmit: 2.0 A max @ 12 VDC Receive: 85 mA max @ 12 VDC (with Illuminating Indicators off) Sleep: 50 uA nominal, 100 uA max @ 12 VDC GPS: 22 mA nominal, 25 mA max @ 12 VDC Transient Tolerance: 100 usec @ 100V
Environmental	Temperature: -40°C to +85°C (operating) Shock & Vibration: SAE J1455 Pressure Wash: MIL 506.1 Radiated Emissions: EN 301 721
Data Connectors	GPS: FAKRA SMB C Code key (blue color), keyed, 50 Ω VHF: FAKRA SMB D Code key (violet color), keyed, 50 Ω
Application Hosting	128K user-written C code, 4K RAM, 4K EEPROM
GPS Receiver	Cold Start: 95% < 10 meter error TTFF < 90 seconds TTFF < 55 seconds with Almanac and Ephemeris

