



## DS300

Global Coverage

- GPS
- ORBCOMM

### INDUSTRIAL STRENGTH

Tested to meet or exceed J1455 requirements with IP67 enclosure.

### PHYSICAL SPECIFICATIONS

Size: 8" x 3.3" x 1.5"  
(206mm x 86mm x 38mm)

The DS300, designed by Stellar Satellite Communications ([www.Stellar-sat.com](http://www.Stellar-sat.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.



# DS300

## ADVANTAGES

- 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

## SERVICES AVAILABLE

Technical Support  
Software Support  
Hardware Support  
Guaranteed Warranty  
Software Engineering  
Application Development



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## TECHNICAL SPECIFICATIONS

### Communications - ORBCOMM:

Transmit Freq: 148.000 to 150.050 MHz  
Receive Freq: 137.000 to 138.000 MHz  
Transmit Power: 5W

### GPS

Cold Start: 99% < 10 meter, TTFF < 95 seconds  
(@95% success rate)  
TTFF < 55 seconds with Almanac and Ephemeris

### Data Interfaces

Main Serial: RS232 (4-wire: TX, RX, CD, GND)  
App Serial: RS232 (3-wire: TX, RX, GND)

### Input / Output

12 Configurable I/O Lines

- Analog - a maximum of 4 Input Lines  
@ 0-3 V, 10-bit A/D
- Digital - as many as 12 I/O Lines  
@ 3 V nominal, 6.8 mA max

### Power

External Power Source: 9 - 30 VDC  
Power Consumption at 12V:  
Transmit ORBCOMM 2.0 a MAX  
Receive ORBCOMM 85 mA  
Sleep: 50 uA nominal, 100 uA max  
GPS: 22 mA nominal, 25 mA max

### Memory

128K Flash, 4K EEPROM, 4K RAM

### Environmental Specifications & Certifications

Operating Temperature: -40C to + 85C  
Storage Temperature: -50C to + 85C  
Shock & Vibration: SAE J1455  
Pressure Wash: MIL 506.1  
Radiated Emissions: EN 301 721

FCC Certified

ETSI

Industry Canada, Japan, Malaysia, Mexico and more