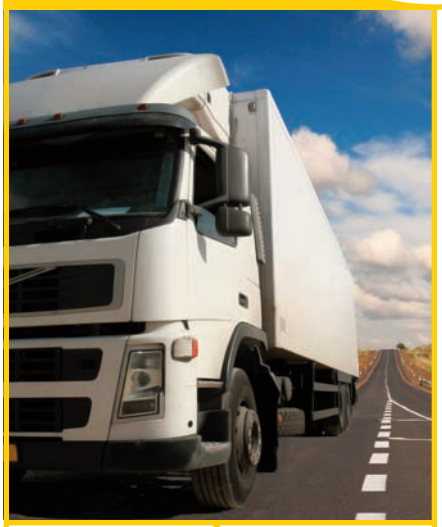
ORBCOMM
CONNECTING THE WORLD'S ASSETS

OG2 and ISAT Satellite Modems



FEATURES

Small form factor, low profile

Wide-range, single power input

Low power consumption

PCI Express interface connector

Includes Developer's Kit

Interchangeable with ORBCOMM and Inmarsat networks

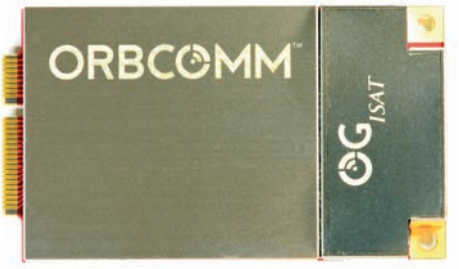
Common ORBCOMM data delivery interface

Innovation and Leadership in M2M

Satellite Modems Tailored for OEM Solutions

ORBCOMM has launched a comprehensive suite of world-class OEM satellite modem solutions. This suite of satellite modems includes the OG2 modems (OG2-M and OG2-GPS) and an Isat Data Pro (IDP) L-Band modem (OG-ISAT), which provides global coverage over Inmarsat's satellite constellation. ORBCOMM's turn-key OEM solutions are intended for early integration into M2M applications targeted for the transportation & distribution, heavy equipment, oil & gas, maritime and government markets. Combined with ORBCOMM's Multi-Access Point Platform™ (MAPP™), satellite and cellular services and robust web applications, OEMs can utilize ORBCOMM's components to create complete M2M solutions operating on a truly global platform. In addition, ORBCOMM's comprehensive service offering translates into cost savings in development time, decreased risk and faster time to market for our OEM customers deploying solutions in the field.

Powerful Suite of Satellite Modems



ORBCOMM's robust, cost-effective OG2 and ISAT modems can be easily integrated into a wide variety of wireless M2M applications. The OG2-GPS modem features an on-board three-axis accelerometer and built-in GPS. The OG-ISAT modem contains built-in GPS. With a footprint smaller than a credit card, ORBCOMM's entire suite of modems is interchangeable, offering OEM's a M2M solution compatible with ORBCOMM's current OG1 satellite network and future OG2 services as well as with Inmarsat's L-Band IDP network. The modems' superior design offers our customers immediate improvements in latency, message size, performance and regulatory coverage.

The modems feature a single, wide-range power supply input, which provides flexibility for product designers. The modems' low power consumption improves longevity in battery-powered applications. The modems also utilize an industry-standard PCI Express physical interface for seamless integration. In addition, integrators can purchase the ORBCOMM Developer's Kit, which includes the OG2 or ISAT satellite modem, modem evaluation board, universal power supply, antennas, USB to serial adapter, Quick Start Guide CD with documentation, and PC interface software.

OG2-M AND OG2-GPS SPECIFICATIONS

Mechanical
- 40mm(w)×70mm(l)x10.5mm(h)
- Mini PCI Express: 52-pin edge connector, 0.8 mm pitch

Electrical Usage
- Input Voltage: 4.0 VDC to 15 VDC
- Input Current
  - Transmit Mode: 1.6 A
  - GPS On: 35 mA
  - Receive Mode: 70 mA
  - Sleep Mode, Standby: 10 µA
  - Sleep Mode, Deep: 3 µA

International Regulatory Compliance
- FCC: CFR 47, Part 25 and 15; CE: EN 301 721, EN301 489-20, EN300 832; Industry Canada; ANATEL

Vibration
- MIL-STD-810E, Tracked Vehicle and Aircraft
- EN 300 721 (IEC Pub. 68-2-36)
- SAE J1455, Cab Mounted & Transverse Axis

Radiated Emissions
- Applicable Sections of EN 300 832 and EN 300 721

Environmental
- Temperature: SAE J1455
  - Operating: -40C to +85C
  - Storage: -50C to +125C

Key Features
- Software: MQX v3.8 Real-Time Operating System
- Interfaces: 16b A/D (4), SD Card (1), CAN (1), GPIO (2-22), Serial (3), USB (1), SPI (2)
- Accelerometer: 3 Axis, Programmable (OG2-GPS)
- GPS: Rapid TTF via ORBCOMM-Provided Ephemeris (OG2-GPS)

OG-ISAT MODEM SPECIFICATIONS

Mechanical
- 40mm(w)×70mm(l)x10.5mm(h)
- Mini PCI Express: 52-pin edge connector, 0.8 mm pitch

Electrical Usage
- Input Voltage: 4.0 VDC to 15 VDC
- Input Current:
  - Transmit Mode: Pending
  - GPS On: Pending
  - Receive Mode: Pending
  - Sleep Mode, Standby: Pending
  - Sleep Mode, Deep: Pending

International Regulatory Compliance
- FCC: CFR 47, Part 25 and 15 and Industry Canada

Vibration
- MIL-STD-810G, Tracked Vehicle and Aircraft
- SAE J1455, Cab Mounted & Transverse Axis

Environmental
- Temperature: SAE J1455
  - Operating: -40C to +85C
  - Storage: -50C to +125C

Key Features
- Software: MQX v4 Real-Time Operating System
- Interfaces: 16b A/D (2), SD Card (Pending), CAN (1), GPIO (2-22), Serial (3), USB (1), SPI (2)

The ORBCOMM Developer's Kit Includes:

- OG2 or OG-ISAT Satellite Modem
- Modem Evaluation Board
- Universal Power Supply
- Antennas
- USB to Serial Adapter
- Quick Start Guide CD with Documentation
- PC Interface Software