

## Mobiapps M230

### m230 GSM & Satellite Transceiver

The m230 provides worldwide multi-mode data transmit / receive capabilities for asset tracking and industrial remote communications.

The m230 operates over the GSM cellular quad-band network and the ORBCOMM low-earth orbit satellite network, providing optimal global coverage. It can significantly improve asset utilization by allowing companies to monitor, track and manage their fixed and mobile assets around the world.



#### Operational Benefits:

The m230 can benefit business operations in multiple ways:

- ☒ Reduced asset downtime
- ☒ Increase field personnel productivity
- ☒ Immediate response to asset fault codes or device alerts
- ☒ Quickly locate lost or stolen assets
- ☒ Identify tampering and misuse of equipment
- ☒ More efficient replacement parts distribution

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## CHARACTERÍSTICS

### Product Design:

The m230 is designed for reliable operation in the harshest environments; for power-constrained marine, transportation, energy and construction industrial applications. Housed within its rugged, sealed enclosure is everything needed for uninterruptible operation; including programmable processor, real-time clock, extensive power modes, GPS and internal battery. Serial RS232, digital and analog interfaces enable connection to most any sensor or sensor controller. Its pioneering design focuses on low power consumption, simple asset integration and ease of programming, making it the ideal choice for:

- Heavy equipment tracking and monitoring
- Trailer, container and rail car tracking
- Fixed asset monitoring - oil and gas and meter reading

### Product Merits:

With the m230's versatility, users can quickly implement solutions that are optimized for their tracking and monitoring applications. Features include:

- Extremely rugged sealed enclosure
- Stainless steel mounting bracket
- Industrial grade J1455 compliance
- SMS over GSM quad band
- Internal primary or rechargeable battery
- Global satellite coverage (no blockage)
- 12-channel tightly-integrated GPS
- Broad range of digital and analog I/O
- Internal temperature sensor
- Ample program and nonvolatile memory
- Complete API in C programming language
- Popular embedded RTOS



Distributor for Spain and Portugal:

**ORBCOMM**

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## PRODUCT SPECIFICATIONS

- **Interfaces:**

Host Serial Port: RS232, 3-wire (TX, RX, DTR)  
Digital Input: One 3.3V (optional 5 more)  
Analog Input: Eight optional, 10-bit  
Charger input: Access to internal battery  
Conxall 8-pin and 20-pin sealed connectors

- **Satellite Communications:**

TNC female connector, 50 ohm  
ORBCOMM Rx: 137 – 138 MHz, 4800 bps  
ORBCOMM Tx: 148 – 150.05 MHz, 2400 bps  
ORBCOMM & FCC Approved

- **GPS Receiver:**

Number of Channels: 12  
Cold Start: < 52 seconds TTFF (90%)  
Horizontal Accuracy: < 11 meters (90%)

- **Power:**

Internal 19 Ah LiSoCl<sub>2</sub> primary battery, or  
Internal 4.8 Ah Li-ion rechargeable battery  
ORBCOMM Tx: 1.75 A @ 12 V (pulse current)  
ORBCOMM Rx: 125 mA @ 12 V  
GPS only: 45 mA @ 12 V (not inc. antenna)  
GSM Tx/Rx Session: Avg. 200 mA @ 3.5 V

- **Cellular Communications:**

SMA female connector, 50 ohm, 3 V Active  
Number of Channels: 12  
Cold Start: < 52 seconds TTFF (90%)  
Horizontal Accuracy: < 11 meters (90%)

- **Enclosure:**

Sealed plastic case (IP 66)  
18.5 x 22.1 x 7.6 cm (7.3" x 8.7" x 3.0")  
Stainless steel mounting bracket

- **Environmental:**

Meets or exceeds J1455 specifications in  
mechanical and environmental  
Operating Temperature: -40°C to +85°C  
Salt Mist: IEC 68-2-52  
Vibration: 3 g RMS (30 m/s<sup>2</sup>) vibration 25 Hz  
to 500 Hz for 10 cycles (IEC 68-2-6 Fc)  
Shock: half sine acceleration of 20 g (200 m/s<sup>2</sup>),  
18 ms duration (IEC 68-2-27 Ea)

- **Programming:**

Program / Data Memory (flash): 8 MB  
SDRAM: 16 MB  
Language: C/C++ on Fusion RTOS  
Environment: ADI Visual DSP w/JTAG ICE



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