

LightGuard Inmarsat

Remote monitoring with Inmarsat M2M

The LightGuard Inmarsat satellite terminal can be used for monitoring of AtoNs which are not in range of land based communication systems. The Inmarsat M2M is a short message two-way satellite based communication system, with coverage on all continents.

- Can be connected directly to Sabik lights with SMC-electronics equipped with AUX Interface, LightGuard Terminal and LightGuard Basic
- Low power consumption
- Low communication costs
- Integrated GPS
- Automatic message on day/night change
- Remote light activation
- Polling of detailed additional information
- Remote configuration
- Data visualization in WebSCADA

Purchase Airtime directly from SABIK

SABIK is a Skywave Solution Provider and in cooperation with Skywave we can offer Airtime to our customers at very attractive conditions.

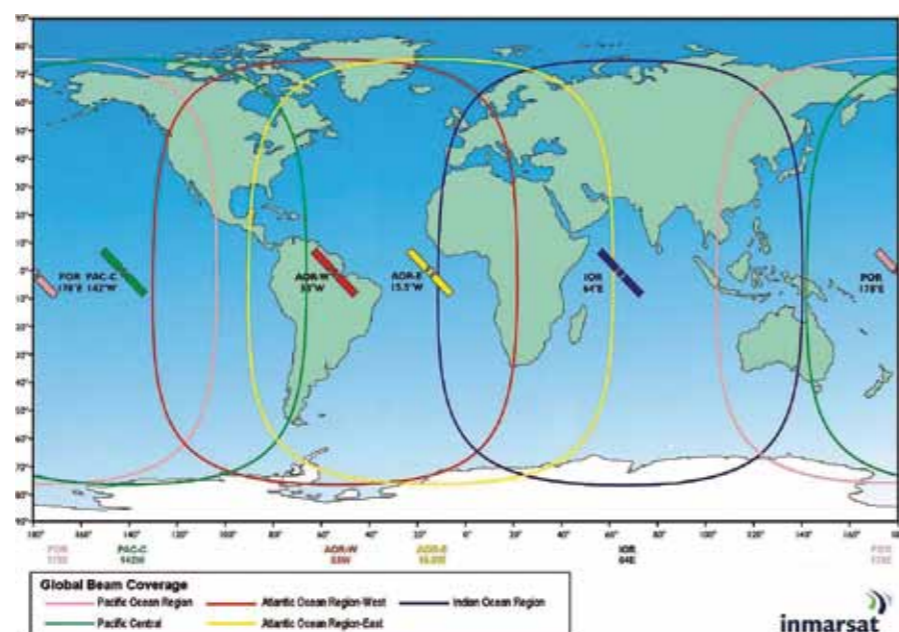


ISATM2M Network Service

Using Inmarsat's network of geosynchronous satellites, the SkyWave IsatM2M network offers services designed to address the real-time requirements of the remote monitoring and tracking industry. Solution Providers (SPs) around the world trust the SkyWave IsatM2M network because of its proven reliability, coverage and longevity.

The service which operates across five overlapping Ocean Regions and between +/- 75° latitude supports many critical applications including transport vehicle security, industrial equipment monitoring and marine tracking.

ISATM2M IS DESIGNED FOR COST-EFFECTIVE EXCEPTION-BASED AND SCHEDULED MESSAGING



By combining two-way communication with flexible message payload sizes, low message latency, flexible billing plans and low terminal power consumption, Solution Providers can rely on the SkyWave IsatM2M network to support competitive tracking and monitoring services.

- Two-way communication enables messaging to and from the asset for tracking, monitoring and control operations
- Seamless global network provides 5 Ocean Region coverage between +/- 75° latitude
- Network availability of 99.995% and 24/7 Network Operations Center (NOC) provides continuous and reliable service
- Low message latency allows for applications that require immediate communication to and from the asset. No long delays
- Messaging Options allow the customer to choose the message which best fits their application and budget
- Flexible Billing Plans with low monthly costs and competitive per message price make IsatM2M ideal for a variety of remote monitoring applications
- Over-the-air programming ensures easy and agile application adaptation and customization once the asset is deployed. No site visit needed

Main Technical Specification

PHYSICAL	
Size	• 160 mm (diameter) x 47 mm (height) • C1D2 mounting kit adds 70 mm to height
Mass	~ 535 g
ENVIROMENTAL	
Operating Temperature	-40 °C to + 70 °C
Storage Temperature	-40 °C to + 85 °C
Humidity	95 % Relative Humidity at +30 °C non-condensing
Dust & Water Ingress	IP67/NEMA-4x
Vibration	5-20 Hz; 1.92 m/s ³ random noise
Shock (survival)	Half sine 6 ms, 300 m/s ²
ELECTRICAL	
Input Voltage	9 VDC to 32 VDC
Power Consumption	Transmit mode: 7.6
Power Consumption (Typical @ 12 VDC)	• Transmit mode: 7.6 • Tracking mode (GPS on): 0.9 W • Sleep: 7mW
RS 485 ESD	±15 kV HBM
Mating Connector	Conxall Mini-Con-X® 6282-8SG-3DC
SATELLITE COMMUNICATIONS (D +/ISATM2M)	
Frequency	• RX: 1525.0 to 1559.0 MHz • Tx: 1626.5 to 1660.5 MHz
EIRP	9 dBW max
Elevation Angle	0 to +90 degrees
GPS	
Channels	16 channels; 1575.42 MHz
Acquisition	• Cold-start: 34s • SuperSense®: -148 dBm
Accuracy	3 m CEP; 5 M SEP
CERTIFICATIONS/COMPLIANCE	
Satellite	Inmarsat D+/IsatM2M Type Approval
Regulatory	• ANS/ISA-12.12.01-2007 (supercedes UL 1604); • CAN/CSA C22.2 No.142,213; UL916; UL50 • FCC, RoHS, Anatel, IC pending • CEO Mark (R&TTE)
MEMORY	
Data Log	320 kB: Up to 17, 200 positions
EXTERNAL INTERFACES	
Serial	• RS232: console interface; supports NMEA output • RS 485: MOBUS RTU interface
Analog/Digital	• 2 Software-configurable input/output – Digital or 10-bit A/D input – Digital output; max sink 250mA – 4-20mA current detection (pin 8 only)
PROGRAMMING CAPABILITIES	
Script Logic	128 Actions, 64 Alarms, 64 Timers, 32 Data Transformers, 2 programmable I/O lines – digital or analog, 128 Geofences (circular, rectangular, polygons), Low Power modes
SATELLITE MESSAGING	
Form Terminal	10.5 bytes or 25.5 bytes
To Terminal	4 alert codes + up to 100 bytes