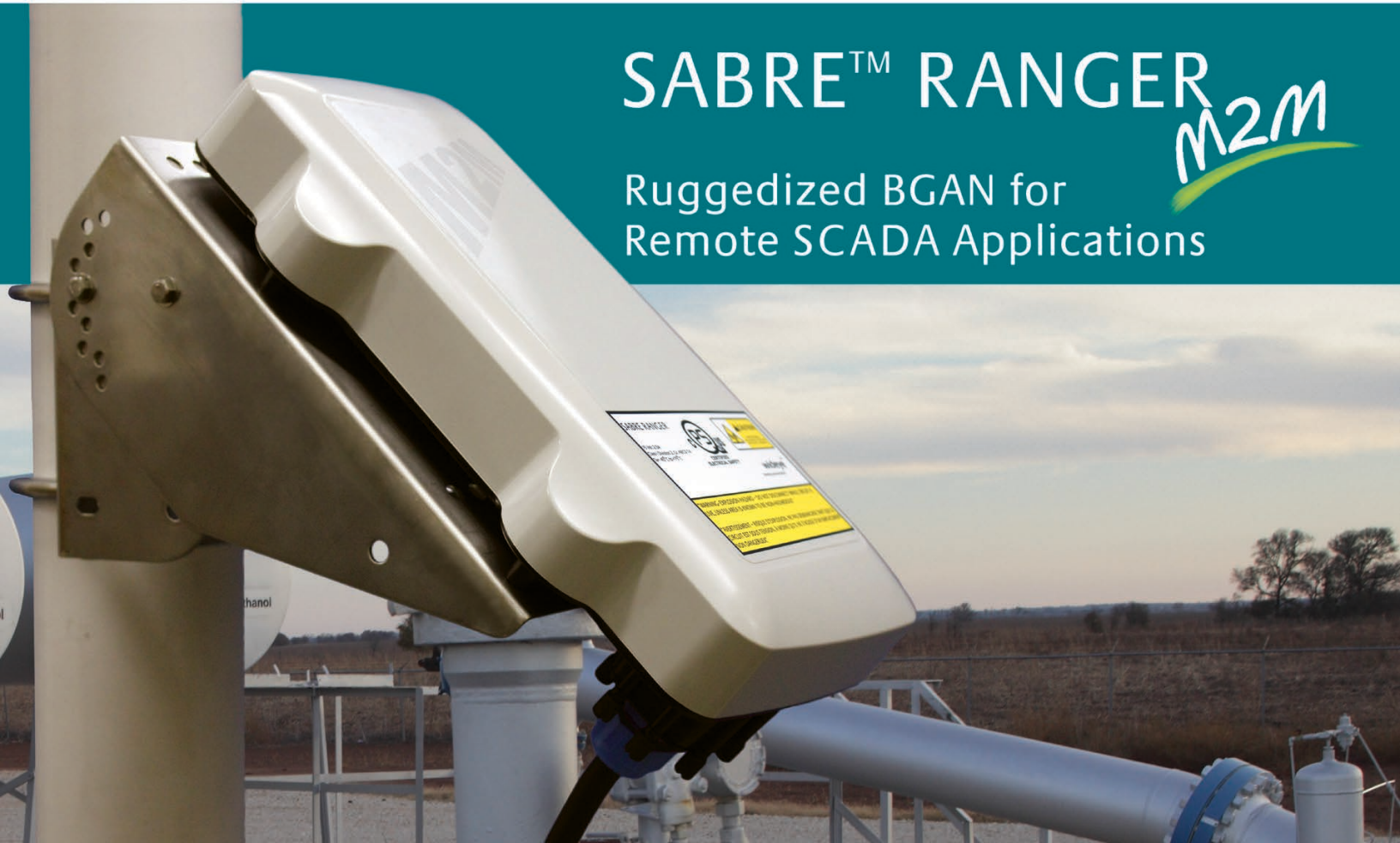


# SABRE™ RANGER

## M2M

### Ruggedized BGAN for Remote SCADA Applications



The SABRE™ Ranger M2M is a BGAN M2M (machine-to-machine) terminal with a ruggedized mechanical enclosure build for long term outdoor all weather installation. It is designed for SCADA applications in remote unmanned location. The firmware is specially designed such that it can provide reliable and stable BGAN connectivity continuously for long period without user intervention. To ensure that users are always in control of SABRE™ Ranger M2M, Addvalue developed features that enable users to control the terminal remotely and is fully compatible with Remote Terminal Manager (RTM) which allows the user to graphically view the location of the terminal and the terminal status. The PDP context of the SABRE™ Ranger M2M can be activated or deactivated remotely via SMS; in times when users need to reboot the terminal, the rebooting process can also be initiated via SMS; the terminal can be configured remotely using SMS commands; and logs can be retrieved remotely for debugging. The SABRE™ Ranger M2M also comes with a mounting bracket that's specially designed for easy antenna pointing.

#### MAIN FEATURES

- Remote configuration and debugging
- 24/7 Always-On Capability
- IP watchdog for fail-safe operation
- PDP activation/deactivation via SMS
- Selected settings via SMS
- Reboot terminal via SMS
- Fully compatible with Remote Terminal Manager (RTM)
- Single unit with integrated antenna (all-in-one)
- Ruggedized (IP65) mechanical enclosure for prolonged outdoor harsh weather installation
- NEMA Type 4X Corrosion Resistance
- Enhanced Vibration and Shock Resistance
- Class I Div. 2 and ATEX Zone 2, Group II, Category 3
- Over-the-air firmware upgrade at no charge
- Secure Remote Access restricted with authorized numbers
- Wind loading of up to 125mph (200kph) with standard mounting bracket.

## Inmarsat Service Features

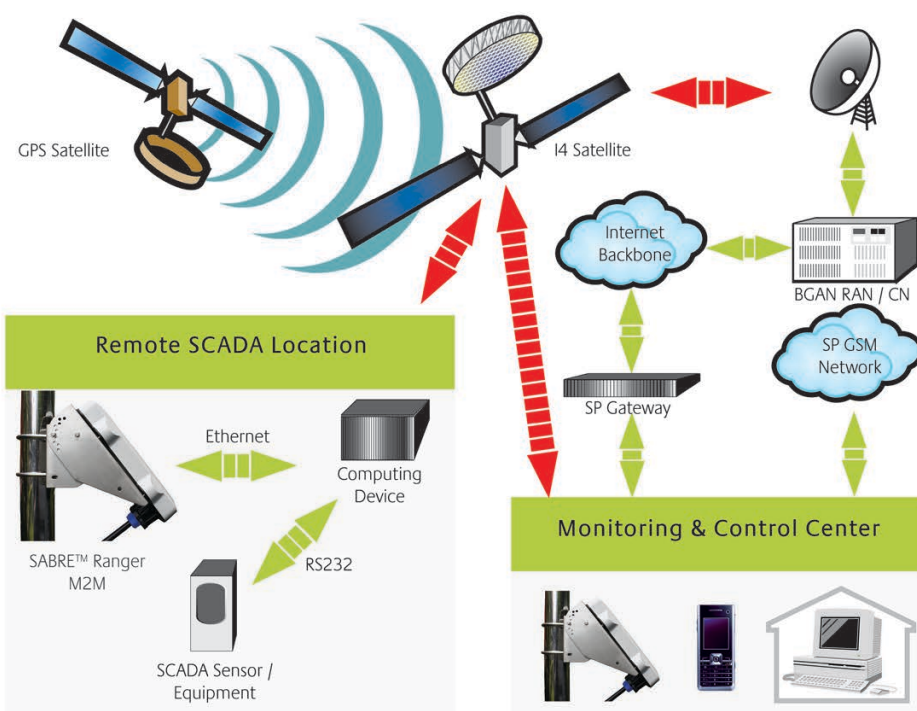
- Qualified for special Inmarsat M2M pricing plans
- No connection charge ( Unlike BGAN which charges 200KB)
- No charge for over-the-air firmware upgrades
- Billing increment step size: 1KB (Compared to BGAN which is 10KB)

## BGAN M2M for SCADA

The SABRE™ Ranger M2M brings BGAN M2M technology to the field of remote unmanned SCADA applications. It comes with an enhanced firmware that provides reliable continuous 24/7 operation and connectivity with the BGAN network.

## All Weather

With IP65 and NEMA Type 4X compliance certifications, the terminal is fit for long term outdoor installations in all weather conditions.



## Technical Specifications

### Frequency Band

Receive: 1525MHz – 1559MHz  
Transmit: 1626.5MHz – 1660.5MHz

### Antenna

Type: Built-in patch antenna

### Bearer Data Rate

Receive: 384 kbps (Max)  
Transmit: 240 kbps (Max)

### GPS Air Interface

Integrated GPS receiver and antenna

### Services

Standard IP, SMS

### Interfaces

Ethernet connection (RJ45)  
RS232 (DB9) 9600 bps with 10m Multi-function cable

### Firmware Upgrades

Over-the-air or via Ethernet RJ45

### Supports 3GPP AT commands

### Operating System Support

Microsoft Windows,  
Linux,  
Mac OS

### Environmental

Operating Temp: -40°C to +75°C  
-40°F to 167°F  
Operating Humidity: 95%  
(Non-condensing at +40°C or 104°F)  
Storage Temp: -40°C to +80°C, -40°F to +176°F  
Storage Humidity: 5% to 95% (RH)  
Water & Dust: IP65 compliant

### Electrical

DC Input: 12 to 18Vdc Min 2A

### Power Consumption

Receive: 6 W  
Transmit mode: 22 W

### Weight

1.5 Kg / 3.3 lbs

### Dimensions

305 x 186 x 49 mm  
12 x 7.32 x 1.93 in

### Wind Loading

Up to 125 mph (200kph) with standard mounting bracket

### Certification of Compliance

Inmarsat Type Approval  
CE  
FCC  
IC (Industry Canada)  
CSA (Safety mark – cCSAus)  
NEMA Type 4X  
RoHS  
IP65  
Class I Div. 2 and ATEX Zone 2, Group II, Category 3 Certified



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