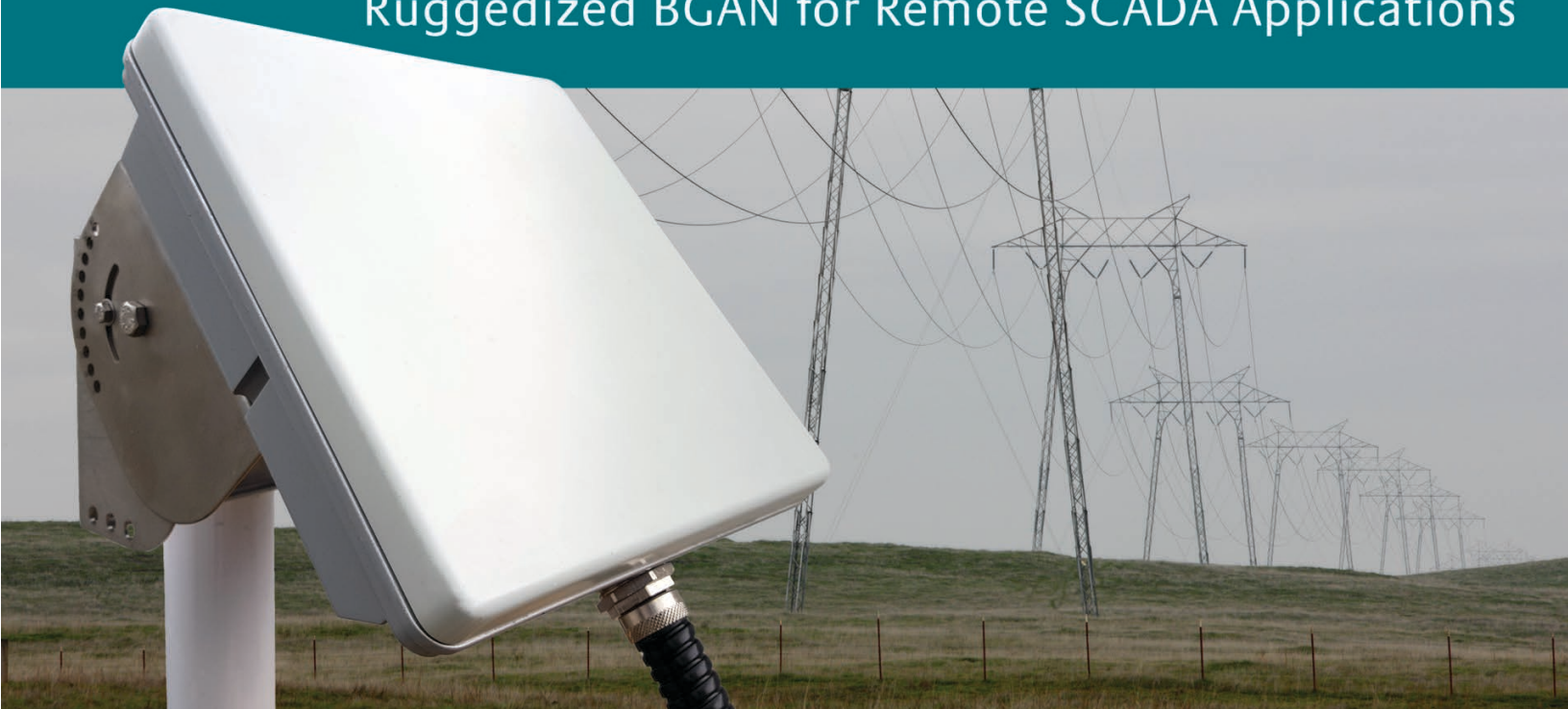


# SABRE™ RANGER 5000

## Ruggedized BGAN for Remote SCADA Applications



The Wideye™ SABRE™ Ranger 5000 is a Class 2 BGAN M2M terminal, with a ruggedized mechanical enclosure designed to be “touched once and left” in all weather conditions. The terminal operates on both the Inmarsat standard BGAN or M2M service, which offers global coverage and is ideally suited for SCADA applications in remote unmanned locations. With Addvalue’s IP watchdog feature, the terminal can ensure reliable and stable connectivity for extended periods of operation.

The Wideye™ SABRE™ Ranger 5000 is fully compatible with the Remote Terminal Manager (RTM) and M2MAP Platforms, which allows the user to graphically view the location of the terminal and monitor the terminal status. The terminal can also be controlled or configured remotely through SMS commands and the logs can be retrieved remotely for debugging.

The rugged stainless steel mounting bracket option is specially designed for the Wideye™ SABRE™ Ranger 5000, which makes the installation and antenna pointing easier.

### MAIN FEATURES

- Remote configuration and debugging
- 24/7 Always-On Capability
- IP watchdog for fail-safe operation
- PDP activation/deactivation via SMS
- Configure settings/Reboot via SMS
- Fully compatible with Remote Terminal Manager (RTM) and M2MAP Platform
- Single unit with integrated antenna (all-in-one)
- NEMA Type 4X Corrosion Resistance
- Class I Div. 2
- Ruggedized (IP66) mechanical enclosure for prolonged outdoor harsh weather installation
- Enhanced Vibration and Shock Resistance
- Secure Remote Access restricted with authorized numbers
- Wind loading of up to 125mph (200kph) with optional mounting bracket.
- RS232/ RS485 Serial to IP Server
- Multiple digital and analog I/O configurations

## BGAN M2M for SCADA

The Wideye™ SABRE™ Ranger 5000 brings BGAN M2M technology to the field of remote unmanned SCADA applications. It comes with enhanced firmware that provides reliable continuous 24/7 operation and connectivity with the BGAN network. With built-in 8 x GPIOs, 1 x Analog Input, 1 x RS232, 1 x RS485 with Modbus and 2 x Ethernet ports, it is ideally suited for connecting a plurality of devices for control and monitoring in remote unmanned locations.

## All Weather

With IP66 and NEMA Type 4X compliance certifications, the terminal is fit for long term outdoor installations in all weather conditions.

## APPLICATIONS

### Utilities

- Recloser Control
- Transformer Monitoring
- Distribution Automation
- Solar & Wind Monitoring
- AMI (Advanced Metering Infrastructure)
- Hydro Power – Power Capacity Planning
- Sub-Station Monitoring

### Oil and Gas

- Pipeline Monitoring
- Flow Measurement
- Field Service
- Wellsite Monitoring & Control

### Mining

- Asset tracking
- Geo fencing
- Remote Automation Control

### Environmental/Agriculture

- Water Management, Flood Warning
- Earthquake, Tsunami monitoring
- Farming



Addvalue Innovation Pte Ltd. 8 Tai Seng Link, Level 5 (Wing 2), Singapore 534158.  
Tel: +65 6509 5700, Fax: +65 6509 5701, Website: [www.addvaluetech.com](http://www.addvaluetech.com)

© 2016 Addvalue Innovation Pte Ltd. All rights reserved. Addvalue may have pending patent applications, trademarks or registered trademarks, copyrights, or other intellectual property rights covering subject matter in this document. The furnishing of this document does not give you any license to these intellectual properties. This material may contain unintended errors or omissions and is subject to change without notice. It is provided as is and without any express or implied warranties, including merchantability, fitness for a particular purpose and non-infringement. Addvalue shall not be liable for any special, indirect, incidental or consequential damages as a result of its use. Addvalue, the Addvalue Enabled logo, Wideye, the Wideye logo and Sabre are either trademarks or registered trademarks of Addvalue Technologies Ltd and/or its affiliates in Singapore and/or other countries. Inmarsat, the Inmarsat logo registered trademarks of Inmarsat Global Limited in the United Kingdom and/or other countries, and are used by Addvalue Innovation Pte Ltd under license.

## Technical Specifications

### Frequency Band

Transmit: 1626.5MHz – 1660.5MHz & 1668MHz - 1675 MHz  
Receive: 1525MHz – 1559MHz

### Antenna

Type: Built-in patch antenna

### Bearer Data Rate

M2M SIM  
Standard IP: Up to 464/484kbps (send /receive)

### BGAN SIM

Standard IP: Up to 464/484kbps (send /receive)  
Symmetric Streaming IP: 32, 64, 128kbps

### GNSS Air Interface

Integrated GNSS receiver and antenna  
Supports GPS / Beidou / Glonass

### Services

Standard IP, Streaming IP (BGAN SIM), SMS

### Interfaces

2 x Ethernet Ports (RJ45)  
1 x Power Supply Input (2 wires) Terminal Block  
1 x Power Supply Output for External (2 wires) Terminal Block  
1 x Antenna Pointing Switch  
5 x Pointing LEDs  
1 x Antenna Pointing Buzzer  
1 x Safe mode button  
1 x SIM card holder

### 2 x 12 PIN Terminal Block

1 x RS232 / RS485 with Modbus – software configurable  
built-in Serial-to-IP Server

1 x RS232  
4 x GPIO – Output  
4 x GPIO – Input  
1 x Analog Input Port  
1 x Local wakeup - Input

### Firmware Upgrades

Over-the-air or via Ethernet RJ45

### Supports 3GPP AT commands

OS Agnostic (supports access via Web-MMI)

### Environmental

Operating Temp: -40°C to +75°C  
Operating Humidity: 95% (Non-condensing at +40°C)  
Storage Temp: -40°C to +80°C  
Water & Dust: IP66 compliant

### Electrical

DC input: +10.8V to +31.2V  
Power (max): 30W  
DC output: +12V/1A

### Power Consumption

Receive: < 6 W  
Transmit: < 25 W  
Standby mode: < 1 W  
Low power standby Mode: < 50mW

### Weight

~2.5 Kg

### Dimensions

240.4(L) x 238.4(W) x 70.8(H) mm

### Wind Loading

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

### Regulatory Approvals

CE  
FCC  
IC (Industry Canada)  
NEMA Type 4X  
RoHS  
IP66  
Class I Div. 2 Certified