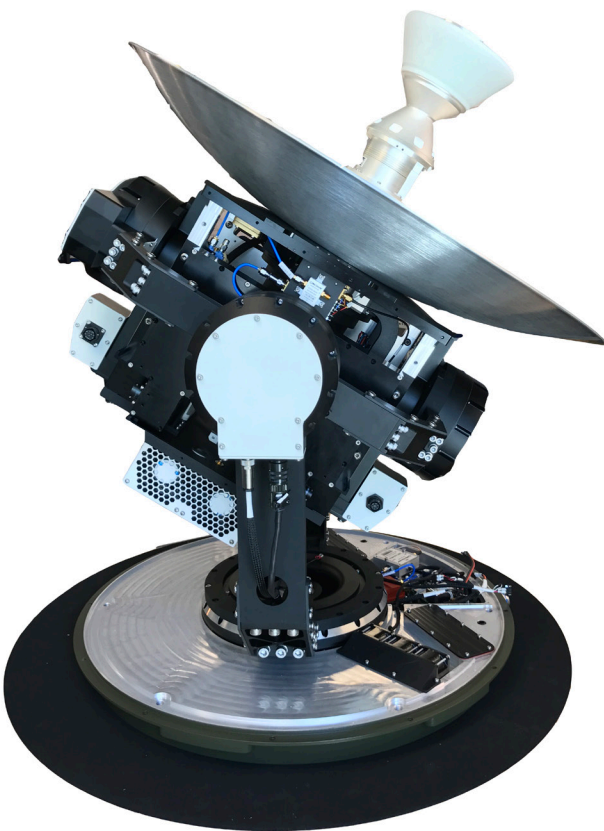


SALAMANDER KU BAND SATELLITE ON THE MOVE TERMINAL

- Adapted for both land and maritime applications
- 65cm or 75cm antenna

Acquires and tracks
satellites in
GPS denied environments



EM Solutions Model No:
01-375A/01-375B



Radio waves at work

PRODUCT INFORMATION
& SPECIFICATIONS

SALAMANDER

Ku Band Maritime Satellite Terminal

EM SOLUTIONS SATELLITE ON THE MOVE TERMINAL FAMILY

Designed initially for the Australian Defence Force at X and Ka band, the Salamander terminal operates at Ku band and is suitable for civilian use in emergency services applications. EM Solutions' Salamander satellite terminals affordably combine robust, resilient design and MIL-STD quality with a state of the art antenna feed.

● INCREASED SYSTEM AVAILABILITY

Increased system availability due to best-in-class pointing accuracy, a result of using closed-loop beacon signal processing and tracking. The terminal's proprietary monopulse pointing system minimises the pointing error to near-zero, which preserves the link budget and improves performance on marginal links.

● QUICKEST RE-ACQUIRE TIME

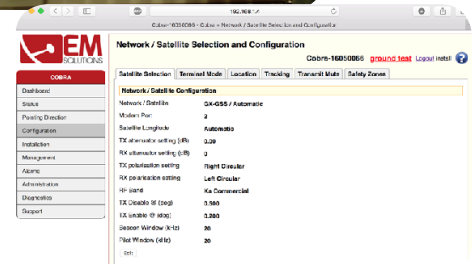
Quickest re-acquire time after obstruction, due to use of an innovative gyro-lock mode that predicts satellite direction during signal loss and readies the unit for immediate operation after the antenna clears the obstruction.

● CONTINUOUS COVERAGE OVER ALL RANGES OF MOTION

The terminal has a three-axis gimbal mount system, eliminating keyhole effect and sync losses when the satellite is close to overhead. Other systems struggle to rotate quickly enough to maintain pointing.

● REDUCED MAINTENANCE AND POWER CONSUMPTION

Reduced maintenance and power consumption due to the use of high life, sealed brushless motors, and the balanced inertial system mass that minimises internal movement of the antenna and reduces power consumption to a mere few watts over the Block Up Converter(s) fitted.



SPECIFICATIONS

| SPECIFICATIONS | Ku-BAND | |
|--------------------------|---|--|
| Antenna Size | 0.65m | 0.75m |
| RF Frequency | Rx: 10.7 to 12.75 GHz (in 4 bands) Tx: 13.75 to 14.5 GHz | |
| G/T (10° elevation) | >13 dBK | >14 dBK |
| Antenna Gain (mid band) | Rx 35dB min Tx 36dB min | Rx 36dB min Tx 37dB min |
| EIRP | 48dBW (sat) 46dBW (lin) (25W BUC) | 54dBm (sat) 51dBm (lin) (55W BUC) |
| Polarisation | Linear (360° continuous) | |
| Pointing Error | <0.2deg | |
| Height (radome) | 854mm | 900mm |
| Diameter (radome) | 882mm diameter | 950mm diameter |
| Weight | <70kg | <80kg |
| Power Consumption | <450W | <500W |
| Supply Voltage | 90-264V AC | |
| Pedestal Type | 3 axis, Az 360° continuous, EL -10° to -10°, XEL ±15° | 3 axis, Az 360° continuous, EL +20° to +20°, XEL ±25° |
| Tracking Type | Monopulse tracking on Ku-band Beacon or User Defined Carrier | |
| INU & Gyros | Embedded | |
| Regulatory | ITU R.S.728-1 IEC 60950 C tick | |
| EM Solutions Part Number | 01-375A | 01-375B |

SALAMANDER

Ku Band Maritime Satellite Terminal

Environmental Specification Summary

Temperature

High Temperature

- Operational: $+55^{\circ}\text{C} \pm 3^{\circ}\text{C}$

- Storage: $+70^{\circ}\text{C} \pm 3^{\circ}\text{C}$

Low Temperature

- Operational: $-10^{\circ}\text{C} \pm 3^{\circ}\text{C}$

- Storage: $-20^{\circ}\text{C} \pm 3^{\circ}\text{C}$

Altitude

Temp -20°C , Altitude 1Kms

Thermal Shock (sub system/module level)

$+55^{\circ}\text{C} \pm 3^{\circ}\text{C}$

$-20^{\circ}\text{C} \pm 3^{\circ}\text{C}$

Bump (sub system/module level)

Peak acceleration: $250\text{m/s} \pm 10\%$

Pulse Duration: 6ms, 1/2 sine pulse

Frequency: 2-3 bumps/sec

Driving Rain (exposed sub system)

Rain fall rate: 2500mm/hr

Flow rate: 450lit/hr

Static Pressure: 200kPa
