



# SOTM-X7800

## Low Profile SOTM Military Antenna

2-way vehicular Satcom antenna for ground mobile broadband communications

SOTM-X7800 is a 2-way low profile military Satcom-On-The-Move antenna system for ground mobile broadband communications, supporting on the move high data rates. Easy to install and to maintain.

**Low profile and compact size & weight**  
Integrates wide band passive radiation structures, full RF-transceiver (including 25W GaN-based power amplifier), two axis motorised mechanical system, switchable polarization and pointing-tracking system in a low profile (H<27cm) compact size and weight.

**Satellite Communications On the Move**  
For military on the move real time video, voice and data applications from vehicles in motion.



## TECHNICAL SPECIFICATIONS

ELECTRICAL	
Frequency band:	Receive: 7.25 - 7.75 GHz Transmit: 7.9 - 8.4 GHz
IF input (TX) / output (Rx):	950 - 1450 MHz
Polarization:	Switchable Circular (RHCP or LHCP)
Gain:	Receive: 28.5 dBi Transmit: 29 dBi (side-lobes per MIL-STD-188-164A)
Uplink EIRP:	43 dBW (High Efficiency 50W GaN-based HPA)
Antenna G/T:	8.5 dB/K at 30° elevation
Cross Polarization:	> 25 dB

ENVIRONMENTAL	
Operational temperature:	-30°C to +60°C
Relative humidity:	up to 95%
Altitude:	3.000 mts
Max. vehicle speed:	150 Km/h
Environmental:	MIL-STD-810G

COVERAGE & TRACKING	
Elevation angle range:	15-90°
Azimuth angle range:	360° continuous
Polarization angle range:	+/- 180°
Azimuth tracking:	100°/s, 500°/s <sup>2</sup>
Elevation tracking:	50°/s, 250°/s <sup>2</sup>
Initial satellite acquisition & lock:	< 90 seconds (cold start)
Satellite re-acquisition:	< 3 sec
Pointing accuracy:	< 1dB (under Churchville B dynamics)

PHYSICAL & INTERFACES	
ODU	
Terminal weight:	< 60 Kg
IF ports:	N-type / SMA (50Ω)
Power and Control:	MS-type
Outline:	1000 x 1200 mm, H = 270 mm
IDU	
Terminal weight:	< 3 Kg
Power and Control:	MS-type
Outline:	1U, 19"
Power supply:	18-36 VDC
Consumption:	< 350 W