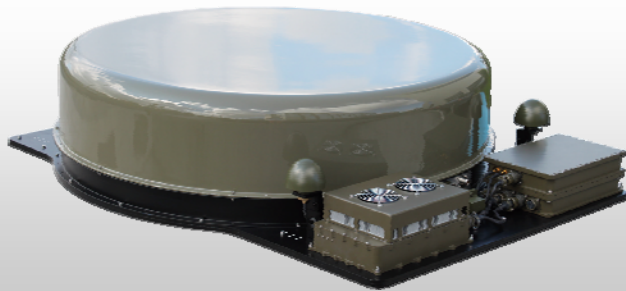




# SOTM-X7800

## Low Profile SOTM Military Antenna



SOTM-X7800 is a **2-way low profile military Satcom-On-The-Move antenna system** for broadband communications, supporting on the move video, voice and data applications from vehicles in motion

SOTM-X7800 integrates wide band passive radiation structures, full RF-transceiver with GaN-based power amplifier, two axis motorised mechanical system, switchable polarization and pointing-tracking system in a compact size and weight.

### TECHNICAL SPECIFICATIONS

#### ELECTRICAL

|                                  |                                                     |
|----------------------------------|-----------------------------------------------------|
| Frequency Band                   |                                                     |
| Receive.....                     | 7.25 – 7.75 GHz                                     |
| Transmit.....                    | 7.9 – 8.4 GHz                                       |
| Antenna Gain Rx/Tx.....          | 28.5 dBi / 29 dBi (side-lobes per MIL-STD-188-164A) |
| Polarization.....                | Switchable Circular (RHCP or LHCP)                  |
| Cross Polarization.....          | 25dB                                                |
| G/T (with radome).....           | 8.5 dB/K at 30° elevation                           |
| Uplink EIRP.....                 | 43 dBW (High Efficiency 50W GaN-based HPA)          |
| IF input (Tx) / output (Rx)..... | 950-1450 MHz                                        |
| Power Supply.....                | 18-36 VDC, 350W                                     |

#### COVERAGE & TRACKING

|                                             |                                      |
|---------------------------------------------|--------------------------------------|
| Elevation.....                              | 15-90°                               |
| Elevation tracking.....                     | 50°/s, 250°/s <sup>2</sup>           |
| Azimuth range.....                          | 360° continuous                      |
| Azimuth tracking.....                       | 100°/s, 500°/s <sup>2</sup>          |
| Tracking system.....                        | IMU + GPS + Channel Power Detector   |
| Initial satellite acquisition and lock..... | < 90 seconds (cold start)            |
| Satellite re-acquisition.....               | < 3 seconds                          |
| Pointing accuracy.....                      | < 1dB (under Churchville B dynamics) |

#### PHYSICAL & INTERFACES

|     |                      |                          |
|-----|----------------------|--------------------------|
| ODU | Terminal weight..... | < 60Kg                   |
|     | IF ports.....        | N-type / SMA (50 Ω)      |
|     | Power & Control..... | MS-type                  |
|     | Outline.....         | 1000mm x 1200mm, H=270mm |
| IDU | Terminal weight..... | < 3Kg                    |
|     | Power & Control..... | MS-type                  |
|     | Outline.....         | 1U, 19"                  |

#### OTHER

|                              |                |
|------------------------------|----------------|
| 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   |

