



MISSION &  
FIELD PROVEN

# Orbit MPT Maritime SATCOM

Mission-Critical BLOS Connectivity for Small Vessels & Unmanned Surface Vehicles (USVs)

Modern maritime forces require resilient Beyond-Line-of-Sight (BLOS) communications to maintain command, control, and mission continuity across extended operational ranges. Orbit's MPT (Multi-Purpose Terminal) Maritime solutions deliver high-performance SATCOM for small vessels and Unmanned Surface Vehicles (USVs), providing reliable communications throughout the mission, even under challenging vessel dynamics and harsh maritime conditions.

## Designed for Mission Success

- **Maritime-Stabilized SATCOM Performance**– Maintaining reliable satellite tracking and high-performance communication under continues vessel motion and challenging sea conditions
- **Combat Proven**– Field-proven MPT systems, with operationally deployed configurations at TRL 9.
- **GNSS interference Resilience**– 100% reliable operation under GNSS Jamming & Spoofing.
- **Compact High Performance**– Maximum capability in minimal SWaP
- **Military Grade Design**– Fully ruggedized MIL-STD architecture

## Key Operational Capabilities



Multi-Orbit compatibility  
(GEO, MEO, LEO, HEO)



Multi-Network interoperability



Network & Modem Independence



Multi-Polarization support



Orbit Communication Systems delivers tailor-made, mission-critical SATCOM solutions for naval, airborne, and ground platforms. With decades of operational experience, Orbit ensures secure, resilient, and uninterrupted communications for defense forces worldwide.



# Orbit MPT Maritime SATCOM

## Typical Mission Applications

-  BLOS Maritime Command & Control- Extended-range operations
-  Manned & Unmanned Surface Vessels (USVs)
-  Patrol & multi-Mission Vessels
-  Maritime ISR Operations
-  Remote USV Control & Real-Time Data Backhaul
-  Roll-on / roll-off installation for special operations

| Product Portfolio                                                   |             |                                                                   |                                                                   |                                                   |
|---------------------------------------------------------------------|-------------|-------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------|
| Parameter                                                           | Value/Notes | Maritime Small Vessels & USVs                                     |                                                                   |                                                   |
| Product                                                             |             | MPT30 MD                                                          | MPT40                                                             | MPT40                                             |
| Band                                                                |             | Ka                                                                | Ka                                                                | Ku                                                |
| Tx Frequency                                                        | GHz         | 27.5 to 31.0                                                      | 27.5 to 31.0                                                      | 13.75 to 14.5                                     |
| Rx Frequency                                                        | GHz         | 17.7 to 21.2                                                      | 17.7 to 21.2                                                      | 10.7 to 12.75                                     |
| Polarization                                                        |             | Circular RHCP & LHCP<br>Co/Cross-Pol<br>(Electrically switchable) | Circular RHCP & LHCP<br>Co/Cross-Pol<br>(Electrically switchable) | Linear H/V Cross-Pol<br>(electrically switchable) |
| EIRP (typical Psat at mid range inc. radome losses)                 | dBW         | 49 @20W                                                           | 47.5 @10W BUC<br>50.5 @20W BUC                                    | 49.2 @60W                                         |
| G/T (typical mid band, 30° elevation, clear sky inc. radome losses) | dB/K        | 10                                                                | 11.5                                                              | 10                                                |
| BUC Psat Options                                                    | W           | 20                                                                | 10/20                                                             | 60                                                |
| Azimuth Coverage                                                    |             | 360° continuous                                                   | 360° continuous                                                   | 360° continuous                                   |
| Elevation Range                                                     |             | 5° to 90°                                                         | 5° to 90°                                                         | 5° to 90°                                         |
| Pointing Accuracy                                                   |             | ≤0.2°                                                             | ≤0.2°                                                             | ≤0.2°                                             |
| Aperture effective Diameter                                         | cm          | 30                                                                | 40                                                                | 40                                                |
| System Height (with Radom)                                          | cm          | 52.5                                                              | 45.1                                                              | 45.1                                              |
| Footprint (L x W)                                                   | cmxcm       | 71 x 65                                                           | 55 x 55                                                           | 55 x 55                                           |
| Weight                                                              | Kg          | <25                                                               | <30                                                               | <30                                               |
| Power Consumption (typ/Peak)                                        | W           | 170/330                                                           | 115/228W @10W Buc<br>140/278W @20W Buc                            | 328/398                                           |
| Operational Temperature (ambient)                                   | C           | -10 to +60                                                        | -40° to +60°                                                      | -40° to +60°                                      |
| Storage Temperature                                                 | C           | -20 to +70                                                        | -46° to +71°                                                      | -46° to +71°                                      |
| Environmental conditions                                            | Standard    | MIL-STD-810G                                                      | MIL-STD-810H                                                      | MIL-STD-810H                                      |
| EMI / EMC standard                                                  | Standard    | MIL-STD-461G                                                      | MIL-STD-461G                                                      | MIL-STD-461G                                      |
| Modem Compatibility                                                 |             | Agnostic                                                          | Agnostic                                                          | Agnostic                                          |

**Note:** The MPT40 represents Orbit's latest generation of tactical broadband SATCOM terminals, designed to support a broad range of mission requirements across land and maritime operations.

Learn more in the dedicated MPT40 brochure available [on our website](#).

Orbit understands that no two missions are alike. Specifications may vary depending on system configuration, including frequency band, BUC power, modem, radome, network requirements, and customer-specific integration needs. Orbit works closely with customers to tailor the solution to specific platform and mission requirements.