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A KRATOS COMPANY

MPT40 Multi-Purpose SATCOM Terminal

Compact, Resilient Ka-Band Connectivity for Mobile and Rapid Deployable Mission Critical Operations

The MPT40 is a next-generation, low-profile Ka-band SATCOM terminal designed to deliver reliable, high-performance connectivity for ground vehicles, naval platforms, and rapidly deployable needs. Compact, lightweight, and cost-effective, the MPT40 ensures uninterrupted communications in the most demanding operational environments, supporting mission success wherever forces operate.

Mission-Driven Design

Built on Orbit's decades of operational SATCOM experience, MPT40 combines combat proven architecture with a modern design. The terminal is engineered for rapid deployment, seamless platform transfer, and robust performance under harsh environmental conditions.

Key Features

- Multiple applications - Vehicles mount, Small Vessels, Ground deployable
- On-The-Move & On-The-Pause
- Multi-Orbit Operation – Supports GEO, MEO, HEO, and LEO constellations.
- Operation in a GNSS denied environment
- Single LRU Architecture – Simplified installation, maintenance, and logistics
- Rapid deployable
- MIL-STD Ruggedization – Full immunity to vibrations, temperatures and EMI
- Ku-Band and X-Band variants – to be available soon

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.

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Assured Operation in Challenging GNSS Environments

Modern military operations increasingly face degraded, denied, or spoofed GNSS/GPS conditions. MPT40 maintains satellite connectivity in such environments through a resilient system architecture that combines Orbit proprietary HW and advanced algorithms. This approach enables continued operation when external navigation aids are unreliable, supporting mission continuity for maneuvering forces operating under electronic warfare or contested spectrum conditions

AI and ML Ready Architecture

MPT is built on a future ready architecture that enables the integration of advanced analytics, AI, anomaly detection and machine learning techniques. These capabilities leveraged to enhance tracking accuracy, optimize acquisition and reacquisition, improve fault detection and health monitoring, and support predictive maintenance over the system lifecycle. By enabling data driven optimization, MPT supports higher availability, reduced operator workload, and continuous performance improvement across diverse operational scenarios.

Performance Specifications	
Tx Frequency Band	27.5-31.0GHz
Rx Frequency Band	Band 17.7-21.2GHz
Polarization	RHCP/LHCP
EIRP	≥ 47.5 dBW (10W) ≥ 50.5 dBW (20W)
G/T	12 dB/K
Azimuth coverage	360° continuous
Elevation range	+5° to +90°
System Height	<45cm
System Footprint (LxW)	50×50cm
Total Weight	<30kg
Environmental	MIL-STD-810H
EMI/EMC	MIL-STD-461G
Power Input	MIL-STD-1275

Typical Applications

- Tactical ground vehicles
- Armored and logistics vehicles
- Unmanned vehicles
- Amphibious vehicles
- Small vessels and patrol boats
- USVs
- Deployed command posts
- Expeditionary and maneuvering forces

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Connectivity in Motion