

StealthRay 3000/40

2-way low-profile in-motion satellite antenna with an integrated extremely thin 40W BUC

Featuring an integrated 40W RAS-branded BUC, mounted directly underneath the mobile satellite antenna, the new design eliminates the need for expensive RF interconnecting cables, significantly decreases the signal power loss and simplifies installation on the vehicle. Having a height of only 1.2 inches (3 cm), the BUC preserves the antennas aerodynamic shape and low-profile design.

The SOTM antenna employs a GPS and gyro-assisted mechanical tracking system. The built-in GPS and gyro are used for a fast and fully automatic satellite acquisition. High-speed satellite tracking technology support communication at speeds up to 220 mph.

The StealthRay 3000/40 can be configured for use with virtually any Ku band satellite to enable IP connectivity on fast-moving vehicles for real-time video, voice and data applications.

Technical Specifications

Physical

Outdoor Unit Size:	45"L x 35"W x 7"H (115 x 90 x 18 cm)
Outdoor Unit Weight:	95 lbs (43 kg)
Indoor Unit Size:	7"L x 9"W x 3"H (18 x 23 x 7 cm)
Indoor Unit Weight:	2 lbs (1 kg)

Electrical

Frequency Band:	Receive: High Band: 11.7 - 12.75 GHz Low Band: 10.95 - 11.7 GHz (Factory option, specify upon order)
	Transmit: 14.0 - 14.5 GHz
Polarization:	Linear (auto polarization control)
Gain:	Receive: 29.5 dBi Transmit: 27 dBi
Antenna G/T:	8 db/°K at 30° elevation or 9 db/°K at 45° elevation
Uplink EIRP:	42.0 dBW
Cross Polarization:	Greater than 30 dB
IF Input/Output:	950-2150 MHz
Power Supply:	10-30 VDC (antenna), 48 VDC (BUC)
Continuous Power Consumption:	55W (antenna) + 180W (BUC)

Antenna Performance

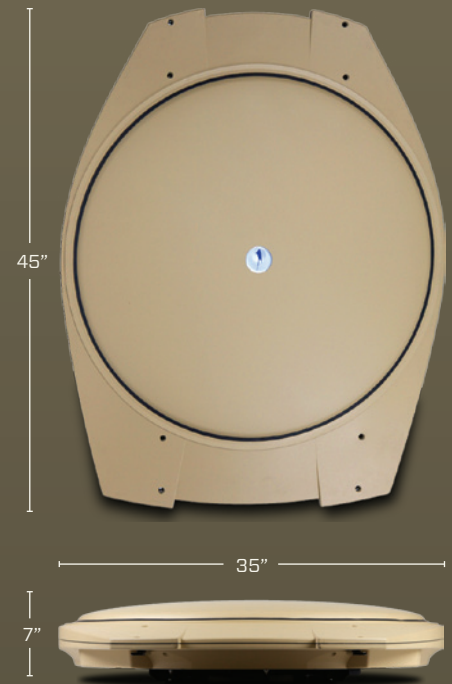
Elevation Look Angle Range:	Automatically adjusted, 20° - 80°
Azimuth Angle Range:	Automatically adjusted, 360° continuous
Tracking Rate:	60° per second
Polarization Angle Range:	Automatically adjusted, -180° to +180°
Initial Satellite Acquisition & Lock:	Less than 60 seconds, fully automated with integrated GPS
Satellite Re-Acquisition:	Less than 1 second, modem dependent

Electrical Interfaces

Tx, Rx & Control	TNC, 50Ω
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Environmental

Temperature Range	-13° to +130°F (-25° to +55°C)
Relative Humidity	10 to 100% condensing
Ground Speed	Up to 220 mph (350 Km/h)
Flammability	UL 94, VO



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RaySat
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About SIGS

Spacenet Integrated Government Solutions (SIGS), a wholly owned subsidiary of Spacenet Inc, develops networks and communications solutions for agencies such as the Department of Defense, Homeland Security, the Intelligence community and other government agencies requiring highly secure, flexible solutions.

Founded in 1981, Spacenet Inc designs, develops, and manages wireline and wireless broadband network solutions for business, industrial and government customers. RaySat Antenna Systems (RAS) is a division of SIGS and specializes in the development and support of in-motion, low-profile, 2-way antenna systems.

RAS's antennas are specifically designed for the needs of Satcom-On-The-Move (SOTM), mobile emergency communications, home land security (HLS), search & rescue, governmental organizations, DSNG, private security, asset tracking, research & exploratory and general mobile satellite data communications. RAS offers consulting and R&D services to clients requiring custom technology solutions.