

StealthRay 5000

2-way low-profile in-motion satellite antenna with enlarged Tx panels

The StealthRay 5000 was developed specifically to offer higher return link data rates. The antenna supports the transmission of high-resolution, high-quality, streaming video from mobile units in the field to a fixed station. Featuring higher transmit gain, the antenna allows approximately 80% higher return link bit rate than the StealthRay 2000 – given all else is equal.

Like the other mobile satellite antennas in this product line, the StealthRay 5000 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 supports communication at speeds up to 220 mph.

The StealthRay 5000 can be configured for use with virtually any Ku band satellite to enable IP connectivity on fast-moving vehicles for real-time, high-quality, streaming video, VoIP and high-speed 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:	70.5 lbs (32 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: 28 dBi Transmit: 30 dBi
Antenna G/T:	7.5 db/°K at 30° elevation or 8.5 db/°K at 45° elevation
Uplink EIRP:	43.7 dBW (with external 40W BUC)
Cross Polarization:	Greater than 25 dB
IF Input/Output:	950-2150 MHz
Power Supply:	10-30 VDC (antenna)
Continuous Power Consumption:	55W (antenna)

Antenna Performance

Elevation Look Angle Range:	Automatically adjusted, 23° - 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	N, TNC, 50Ω
------------------	-------------

Environmental

Temperature Range	-13° to +158°F (-25° to +70C)
Relative Humidity	10 to 100% condensing
Ground Speed	Up to 220 mph (350 Km/h)
Flammability	UL 94, V0



ANTENNA SYSTEMS
RaySat
Satcom on-the-move
A **SIGS** Company

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.