WAVESTREAM

RAYSAT ER7000

High-Gain SOTM Antenna

SOTM: FOR QUICK, CONTINUOUS COMMUNICATIONS

For many applications, Satcom On-The-Move (SOTM) is the only choice to establish reliable, continuous, quickly deployable broadband connectivity.

The RaySat ER7000 is a reliable, low-profile, two-way antenna system that enables real-time broadband satellite communications for video, voice and data transfer. Especially suited for trains and large vehicles, the ER7000 has been successfully deployed worldwide, providing high-performance broadband connectivity.

RAYSAT ER7000: HIGH TRANSMISSION GAIN, LOW-PROFILE

The RaySat ER7000 maximizes throughput using high-efficiency waveguide panel technology and its light weight ensures easy and safe vehicle mounting. The antenna features multiple onboard tracking sensors, enabling accurate tracking and the shortest initial acquisition and instantaneous reacquisition time after signal loss.

INTEGRATED TERMINAL OPTION

The ER7000 can be offered as part of a complete, integrated SOTM terminal with a unified management system. The terminal includes seamless mechanical integration of a Wavestream Block Up Converter (BUC) and a GLT1000 modem. The integration with Wavestream's special-purpose SOTM modem allows for operation in low SNR conditions.

When integrated with 3rd-party modems, the antenna is supplied with an Antenna Control Unit (ACU).



BENEFITS

- High throughput connectivity
- Easy and quick installation and setup
- Rapid auto-acquisition, tracking, and re-acquisition
- Optional integrated terminal including an antenna, BUC, and modem



TECHNICAL SPECIFICATIONS

MECHANICAL

Antenna Size L x W x H*:

51.7 x 55.8 x 11.7 in / 131.2 x 141.8 x 29.8 cm **Antenna Weight:** 132 lb (60 kg) (BUC Included)

ELECTRICAL

Frequency Band**: Rx: 10.95-12.75 GHz Tx: 14.0-14.5 GHz Polarization: Linear Tx Gain (typical): 36 dBi G/T (typical): 13 dB/K @ 12.2-12.75 GHz 11.5 dB/K @ 10.95-12.2 GHz Uplink Max EIRP**: 52 dBW (40W BUC) 53.7 dBW (60W BUC) 56 dBW (100W BUC) Cross Pol (typical): 25 dB IF Input (Tx): 1200-1700 MHz IF Output (Rx):950-2150 MHz **Nominal Power Consumption:** Antenna = 150W Ku 60W BUC = 255W

ANTENNA PERFORMANCE

Elevation Angle: 0°-90° (automatic tracking up to 80°) Azimuth Tracking Rate: 150°/s

ELECTRICAL INTERFACES

Tx Input: Type N Female **Rx Output:** TNC-Female

ENVIRONMENTAL

Temperature Range:

-40°F to +131°F (-40°C to +55°C) Relative Humidity: Up to 95%

BUC OPTIONS

60W (optional 40W and 100W)

* Height excludes dampers, without BUC

** Factory selectable Rx sub-bands

*** Antenna only, without BUC

ABOUT WAVESTREAM

Wavestream sets the standard in the design and manufacture of next generation high power solid state amplifiers. Wavestream's Family of Ka, Ku and X-band Solid State Power Amplifiers (SSPAs), Block Upconverters (BUCs) and transceivers provide systems integrators with field-proven, high performance solutions designed for ground mobile and fixed, gateway and airborne satellite communication systems worldwide.

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CONTACT US

545 West Terrace Drive San Dimas, California 91773 USA T. +1 909 599 9080 F. +1 909 599 9082

www.wavestream.com

sales@wavestream.com

