



Product Brochure

RaySat ER5000

Low-Profile Ka- and Ku- Band SOTM Antenna

Versatile Platform for SOTM

Satcom On-The-Move (SOTM) is a superb alternative for establishing continuous, reliable, quickly deployable broadband communications.

The RaySat ER5000 antenna is a low-profile, lightweight, ruggedized two-way antenna system that enables real-time Ka- and Ku-band satellite communications for video, voice and data. Its sturdy structure and compact small size allow implementation on a wide range of vehicles.

Maximum Throughput

The RaySat ER5000 antenna maximizes throughput using high-efficiency waveguide panel technology. It features multiple onboard tracking sensors, which enable accurate tracking, shortest initial acquisition and instantaneous re-acquisition time after signal loss.

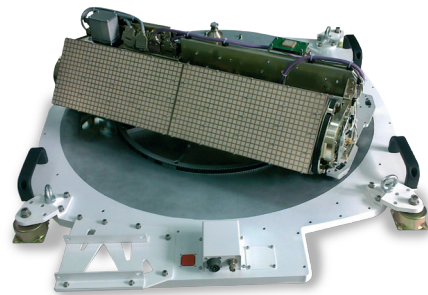
Modem Options

For maximum flexibility, the ER5000 can be deployed in 3 ways:

- Integrated modem, including seamless mechanical integration of Gilat's GLT1000 modem. This allows for operation in low SNR conditions.
- Gilat modem, as part of Gilat's SkyEdge II-c mobility modem, taking advantage of its management and mobility support.
- 3rd party modem, if it is OpenAMIP 1.17 certified. When integrated with 3rd party modems, the antenna is supplied with an Antenna Control Unit (ACU).

Benefits

- Supports standard and extended Ku-band
- Supports commercial Ka-band
- Versatile platform, suitable for different vehicles
- Automatic acquisition and tracking of target satellite signal
- Optional integrated terminal including an antenna, BUC, and modem
- OpenAMIP Protocol



RaySat ER5000

Technical Specifications

Mechanical

Antenna Size L x W x H*:**RaySat ER5000Ku:**

33 x 38.4 x 10 in
83.8 x 97.6 x 25.4 cm

RaySat ER5000Ka:

33 x 37.8 x 10 in
83.8 x 95.9 x 25.4 cm

Antenna Weight:**RaySat ER5000Ku:**

92.8 lb (42.1 kg)

RaySat ER5000Ka:

96.1 lb (43.7 kg)

Electrical

Frequency Band:****RaySat ER5000Ku:**

Rx: 10.95–12.75 GHz

Tx: 13.75–14.5 GHz

RaySat ER5000Ka:

Rx: 19.2–20.2 GHz

Tx: 29–30 GHz

Polarization:**RaySat ER5000Ku:**

Linear

RaySat ER5000Ka:

Circular

Tx Gain (typical):**RaySat ER5000Ku:**

31 dBi

RaySat ER5000Ka:

36 dBi

G/T (typical):**RaySat ER5000Ku:**

9 dB/K

RaySat ER5000Ka:

12 dB/K

Uplink max EIRP:**RaySat ER5000Ku:**

47 dBW (40W BUC)

RaySat ER5000Ka:

52 dBW (40W BUC)

Cross Pol (typical):**RaySat ER5000Ku:**

22 dB

RaySat ER5000Ka:

25 dB

IF Input (Tx):**RaySat ER5000Ku:**

950–1700 MHz

RaySat ER5000Ka:

950–2000 MHz

IF Output (Rx):**RaySat ER5000Ku:**

950–2150 MHz

RaySat ER5000Ka:

950–1950 MHz

Power Consumption*:****RaySat ER5000Ku/****RaySat ER5000Ka:**

120 W

Antenna Performance

Elevation Angle:**RaySat ER5000Ku/****RaySat ER5000Ka:**

0°–90° (automatic tracking up to 80°)

Tracking Rate:**RaySat ER5000Ku/****RaySat ER5000Ka:**

150°/s

Electrical Interfaces

Tx Input:**RaySat ER5000Ku:**

WR75

RaySat ER5000Ka:

WR28

Rx Output:**RaySat ER5000Ku/****RaySat ER5000Ka:**

TNC–Female

OpenAMIP Protocol:**RaySat ER5000Ku/****RaySat ER5000Ka:**

Version 1.17

Environmental

Temperature Range:**RaySat ER5000Ku/****RaySat ER5000Ka:**

–40° to +131°F (–40° to +55°C)

Relative Humidity:**RaySat ER5000Ku/****RaySat ER5000Ka:**

Up to 95%

BUC Options

BUC Options**RaySat ER5000Ku:**

16W, 25W, 40W

RaySat ER5000Ka:

12W, 20W, 40W

* Height excludes dampers

** Factory Selectable

*** In case of GLT1000 modem