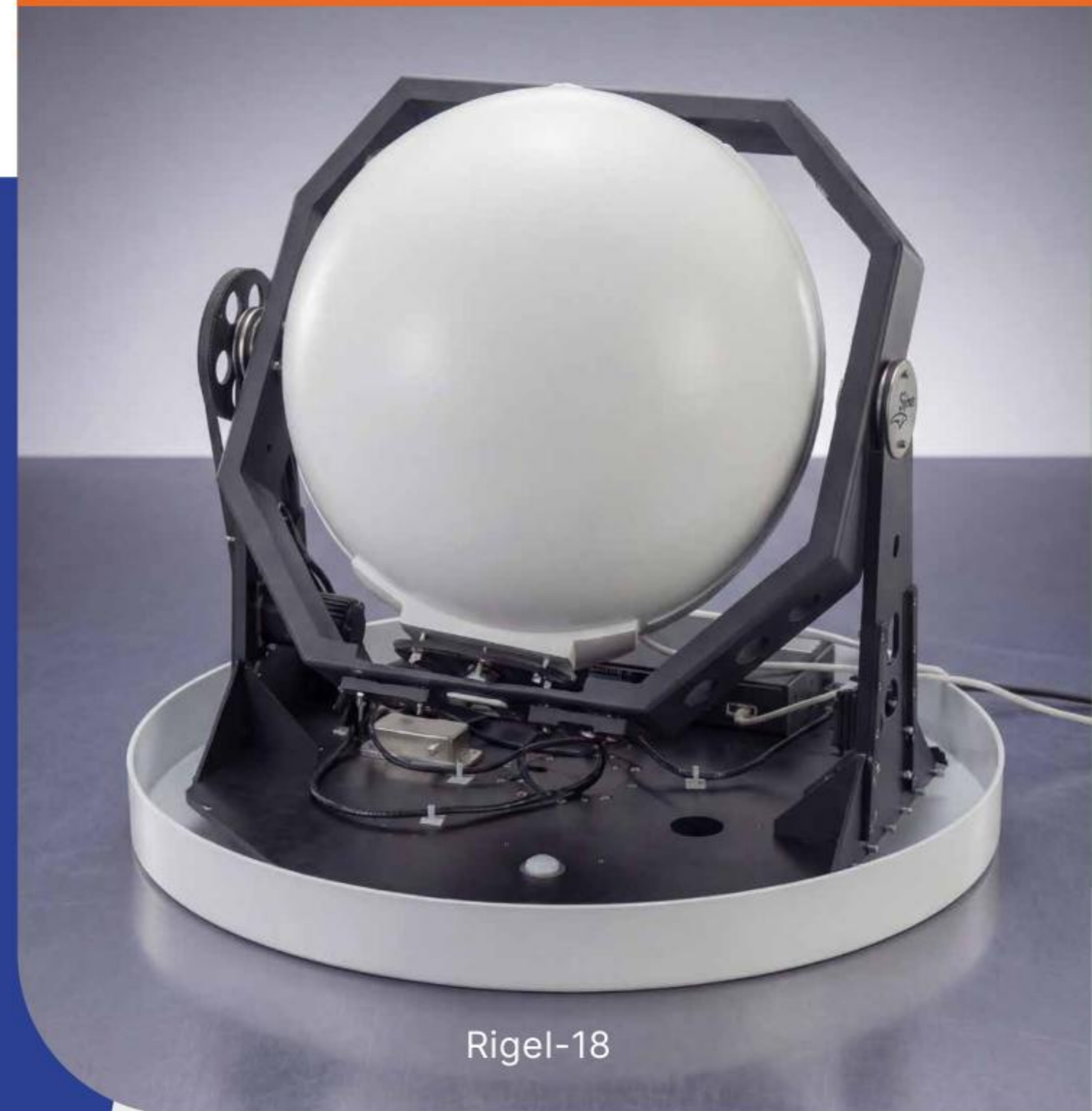


Rigel

Compact Multi-Orbit Multi-Band SATCOM

Rigel-18 is a compact multi-orbit, multi-band Ku/Ka/X maritime SATCOM system based on advanced Luneburg Lens technology, delivering exceptional RF performance with minimal SWaP (size, weight, and power consumption) for GEO, MEO and LEO satellite networks.



Rigel-18 is ideally suited for maritime operations where continuous, resilient broadband communications are mission-critical. Its ability to smoothly transition across frequency bands and satellite networks makes it an optimal solution for commercial, security, and defense maritime platforms operating in dynamic and contested environments.

Mission-Optimized Design

Exceptional RF performance - lightweight & ruggedized

Precision Tactical Antenna

High Gain, Luneburg Lens, X, Ku or Ka bands

Cybersecurity, GNSS-denied

Integrated Cybersecurity supports GNSS-denied environment

Consistent Performance

Stable connectivity across all elevation angles with no scan-losses

Continuous Link Assurance

No Zenith Keyholes for uninterrupted communication

Integrated SATCOM

Including: ACU, IMU, Tracking Receiver, Servo drivers, LNBS & BUCs

GEO/MEO/LEO-Ready Capability

Supports multi-beam seamless operation

Available Configurations

X-Band, Ku-Band, Ka-Band, X/Ku-Band, X/Ka-Band or Ku/Ka-band (Electronic Switchable)

Target Platforms

All types of Commercial Maritime and Navy Vessels



Specifications

Rigel -18 X/ Ku/Ka

Antenna Type	Luneburg Lens antenna
Antenna Size	45 cm (18")
Stabilizer/Tracking Positioner	X/Y/Azimuth
Elevation Angle Cross Angle Azimuth Range	-10° to +120° ± 75° Unlimited
Frequency Range	TX: 7.9 0- 8.40 GHz RX: 7.25 - 7.75 GHz TX: 13.75 - 14.50 GHz RX: 10.70 - 12.75 GHz TX: 29.00 - 31.00 GHz RX: 19.20 - 21.20 GHz
G/T Typical (Mid-range, 30° EL. Clear Sky W/O Radome)	X : 8.5 dB/K Ku: 13.2 dB/K Ka: 14.7 dB/K
EIRP Typical: Mid-range, w/o Radome, Incl. BUC (P-Rated-PSAT)	X : 42.5 dBW (40W BUC) (*) Ku: 48.0 dBW (40W BUC) (*) Ka: 48.5 dBW (20W BUC) (*)
Polarization	X : Circular (L/R) Ku: Linear (V/H) Ka: Circular (L/R)
System Power Consumption (P-Rated-PSAT)	X : 200W (40W BUC) Ku: 240W (40W BUC) Ka: 170W (20W BUC)
Antenna Weight (w/o BUC)	~ 55 Kg (120 Lb.) (**)
Environmental Conditions	According to MIL-STD
Operation Temperature	- 40°C to 60°C
Link with Satellite at Zenith	YES
Supporting LEO/MEO/GEO in a single antenna (using Luneburg lens, Dual beams)	YES

Notes: Specifications subject to change without notice | (*) Other BUC's are available | (**) For Ku or Ka

