




Laser Communication Ground Terminal for Satellite Operations

The RHINO ground terminal provides for unprecedented high-speed and high-throughput downlink and uplink for satellites in LEO, MEO and potentially GEO satellite operation

Mynaric is the leading manufacturer of high-speed and data secure wireless laser communication products and services to interconnect satellites, UAVs, aircraft or high-altitude platforms with each other or with the ground. Our space, air and ground terminals are serially produced ensuring reduced costs and allowing for large scale deployment with short lead times.

-  **Ultra-high data rates and link distances**
Downlink distances up to MEO between satellite and ground at up to 10 Gigabit per second (Gbps), with roadmap to 100 Gbps
-  **Secure**
Highly resistant to tapping, jamming, spoofing and electro-magnetic interference (EMI) compared to RF systems
-  **License-free**
No ITU or FCC frequency coordination required for the laser channels

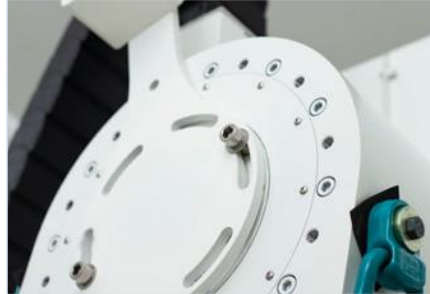


AREAS OF OPERATION

Ground access points for Optical Links from Space Terminal from various orbit

KEY FEATURES

- Integrated positioning system
- Shared aperture for transmission and reception
- Fully hands-off (remote) operation for monitoring and control
- Designed to withstand wide temperature range and geographical diversity during operation



Housing



Electronics



Final assembly line



Optical characteristic

Parameter	Nominal Value	Comment
Link Distance	LEO, MEO	Potentially extend to GEO
Aperture Diameter	700 mm	-
Operational Wavelength	1553 nm / 1536 nm	-
Data Rate	10 Gbps (DL) / 1 Gbps (UL)	Bidirectional symmetric options available
Dimensions (H x W x D)	2,390 mm x 1,260 mm x 1,150 mm	Keep-out area Ø 2,600 m
Mass	900 kg*	*Early design estimates
Power Consumption	192 - 225 W*	*Early design estimates
Steering Range	Azimuth 0 - 360 deg Elevation 0 - 85 deg	Nearly full hemispherical range
Data Communication Interfaces	Gigabit Ethernet, compliance with the 802.3 IEEE standard	-
Input Voltage	110/220 V (AC)	-
Operating Temperature	min. -20° C max. +65° C	-

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