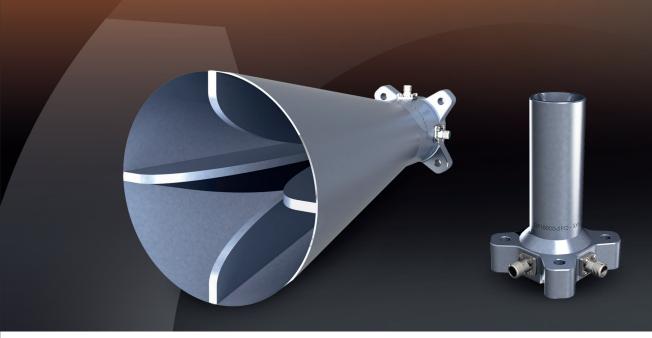


Space Qualified Antennas

CLOSED BOUNDARY QUAD-RIDGE HORNS





SOLUTION FOR

- LEO / MEO / GEO Payloads
- Satellite-to-Satellite Link
 - Inter-satellite connectivity
 - Crosslinking across constellation
- Space-Ground Link
 - Capturing signals of interest
 - Communicating with ground systems
- Satellite Reflector Feed
 - Mounting easily on reflectors
 - Supporting high gain applications

PRODUCT CONFIGURATION

Equipment

- Mounting flange
- Integrated coaxial transition with high precision connector

Related services

- Calibration
- Maintenance
- Customization

MAIN FEATURES

Technical performance

- Wideband Frequency Coverage: Supporting a range of applications with flexible performance across multiple bands
- Dual Polarization: Enhancing versatility and signal clarity
- Outstanding RF Performance: Delivering stable and repeatable results critical for mission success

Design

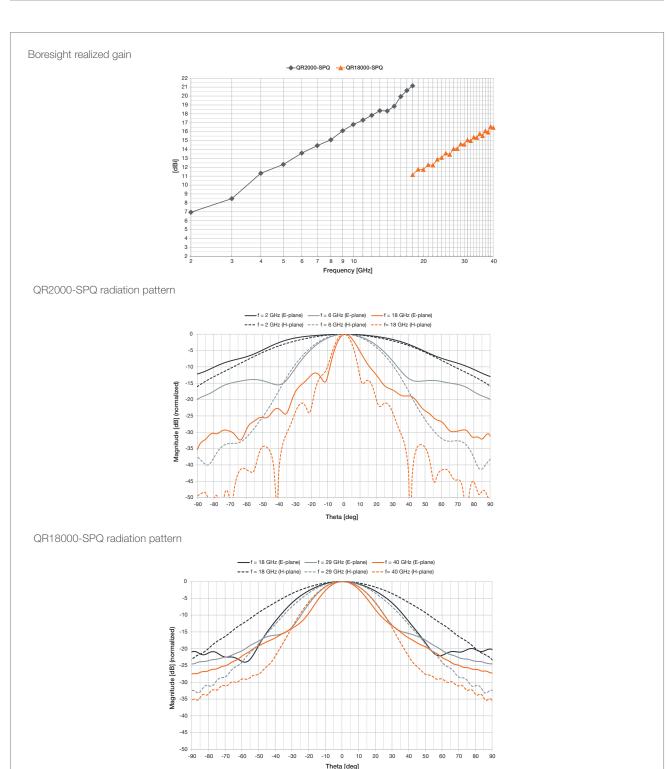
- Monolithic design: Minimizes connections and moving parts for improved durability during launch vibrations
- Lightweight construction: Helps achieve mission payload weight targets without compromising functionality
- Off-the-shelf solution: Streamlines procurement with pre-designed, ready-to-deploy solutions
- Scalable design: Frequency bands and mechanical interface customizable upon request

Space Qualification

- RF performance testing for optimal signal integrity
- Mechanical and vibrational testing to withstand the harsh conditions of launch⁽¹⁾
- Thermal qualification for extreme temperature variation⁽²⁾
- Outgassing tests to ensure compliance with space environmental requirements⁽³⁾

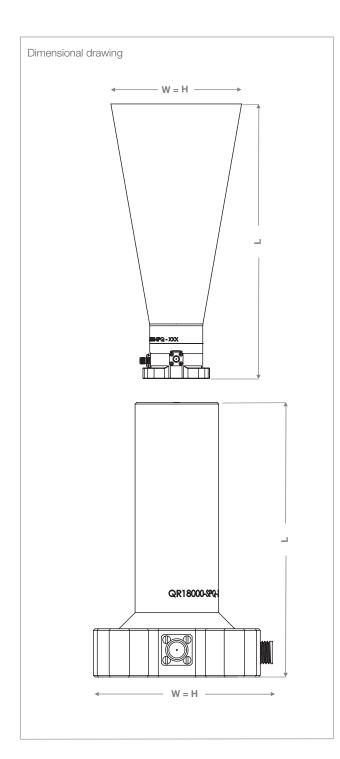
Electrical characteristics

Part number	QR2000-SPQ	QR18000-SPQ	
Type of antenna	Closed boundary quad-ridge horn	Closed boundary quad-ridge horn	
Frequency range	2 – 18 GHz	18 – 40 GHz	
Polarization	Dual linear	Dual linear	
Gain	7 – 21 dBi	11 – 16 dBi	
VSWR	< 1.9	< 1.9	
Return loss	< -10 dB	< -10 dB	
Port-to-port isolation	> 30 dB	> 40 dB	
Cross-polar discrimination	> 25 dB	> 37 dB	
Impedance	50 Ohms	50 Ohms	



Mechanical characteristics

Part number	QR2000-SPQ	QR18000-SPQ	
Dimensions [mm] (H x W x L)	122 x 122 x 256	65 x 65 x 85	
Weight (approx.)	0.8 Kg	0.2 Kg	
RF connector	SMA female	2.92 mm female (2.4 mm female optional)	
Material	Aluminum	Aluminum	





Testing Connectivity for a Wireless World

The Microwave Vision Group offers cutting-edge technologies for the visualization of electromagnetic waves. With advanced test solutions for antenna characterization, radar signature evaluation and electromagnetic measurements, we support company R&D teams in their drive to innovate and boost product development.



For more information: https://www.mvg-world.com

Contact us:

© MVG 2025 - Graphic design: www.ateliermaupoux.com, pictures: © All rights reserved.