



QRH300

Quad Ridged Horn Antenna | 300 MHz – 4.5 GHz



The QRH300 is a dual-polarized broadband horn antenna operating from 300 MHz to 4.5 GHz, ideal for EMC testing and wideband measurements in large chambers. It features integrated spirit levels for easy alignment in both polarizations. Each antenna is individually calibrated in our anechoic chamber, with calibration data available electronically on our website.

KEY FEATURES AND TECHNOLOGIES



Suitable for EMC/EMI



Circular polarization (optional)



QR code to access Antenna Portal

ELECTRICAL SPECIFICATIONS

Frequency Range	300 MHz - 4.5 GHz	Antenna Factor	15 - 30 dB/m
VSWR (avg)	1.4	Power (CW/Peak)	700 W / 1100 W
VSWR (max)	2.2	Port Isolation	32 dB
Impedance	50 Ohm	Cross Polarization	20 dB
Connector	N (female)	Polarization	Dual Linear, Circular (with hybrid)
Gain	2 - 15 dBi		

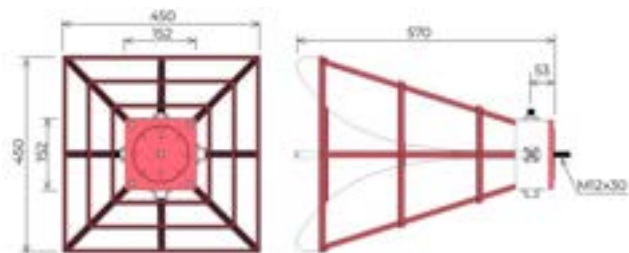
PHYSICAL SPECIFICATIONS

Width	450 mm (17.717 in)
Depth	450 mm (17.717 in)
Height	570 mm (22.441 in)
Weight	9 kg (19.842 lb)

OPERATING CONDITIONS

Rated Temperature	0 °C to 50 °C
Storage Temperature	-20 °C to 70 °C

MECHANICAL DRAWINGS



Antenna

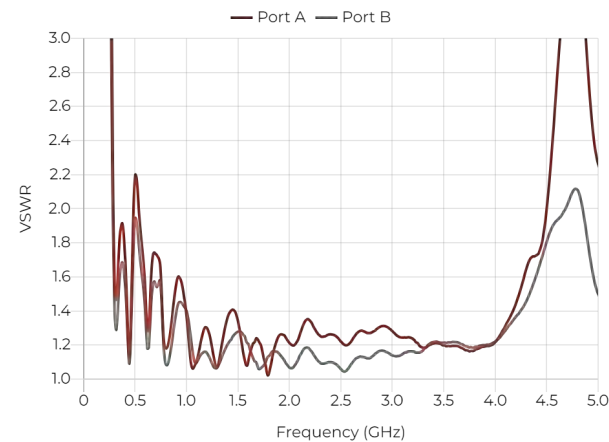


Flange

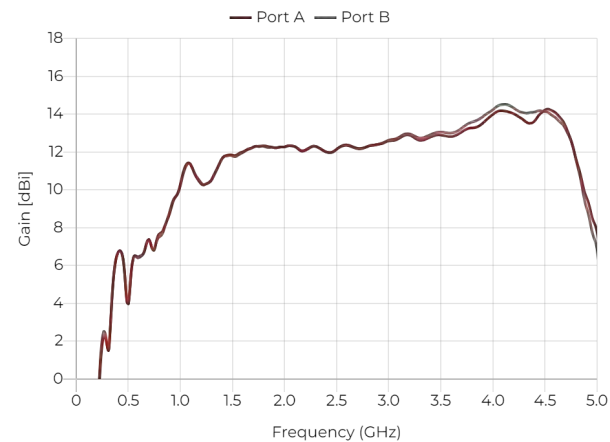
PARAMETERS AND PERFORMANCE

TYPICAL PARAMETERS

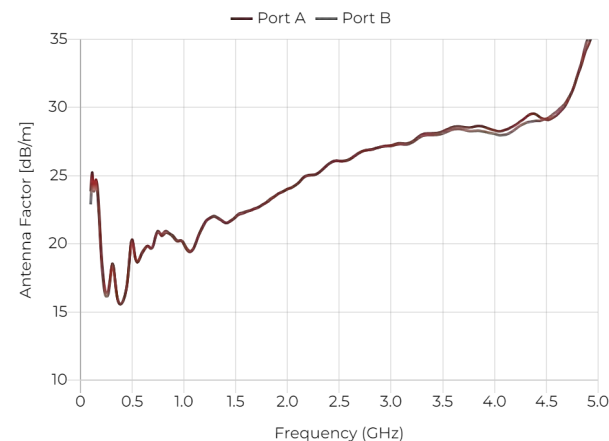
VSWR



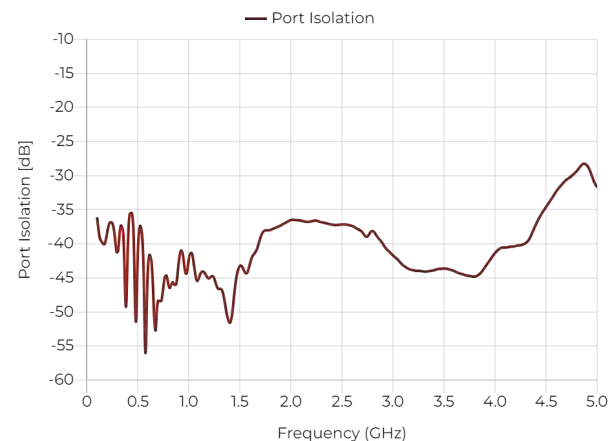
Gain



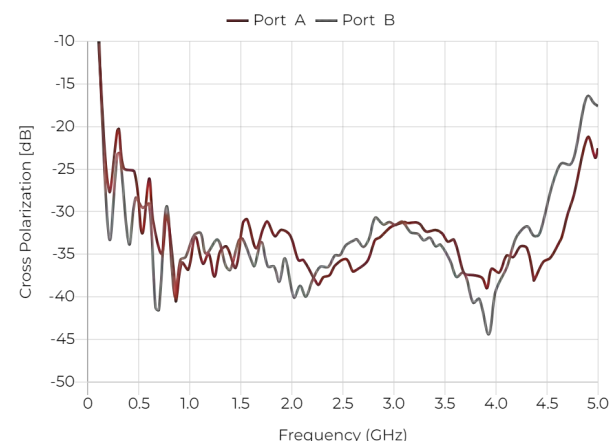
Antenna Factor



Port Isolation

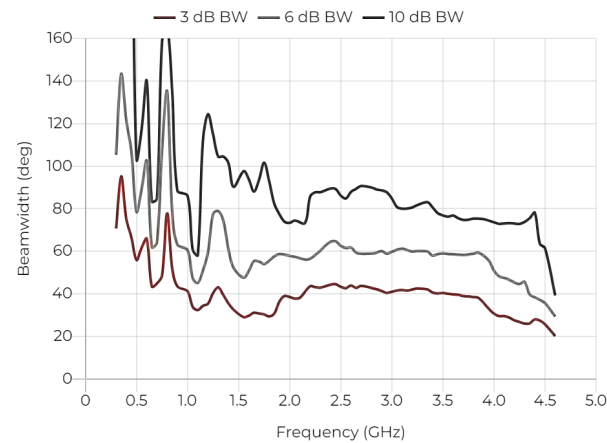


Cross Polarization

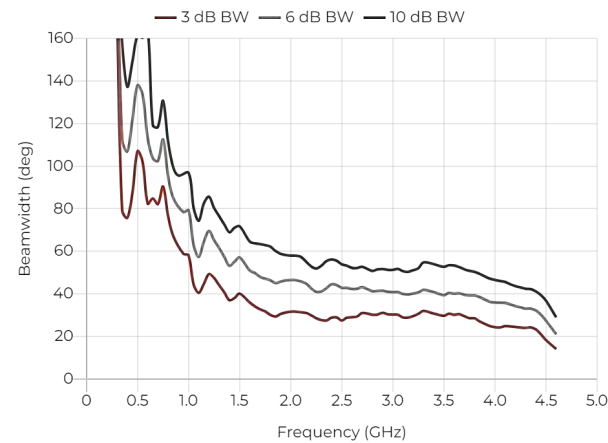


BEAMWIDTH

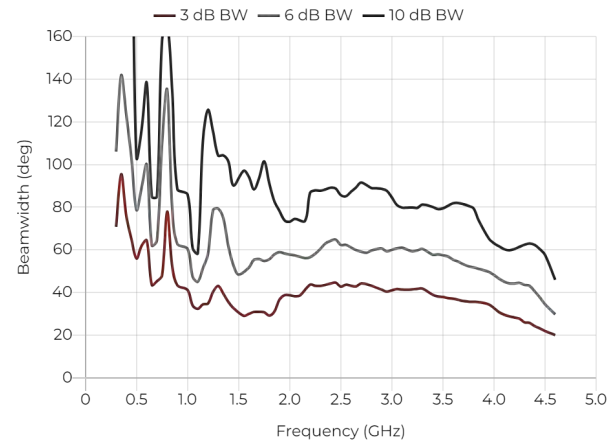
Port A, E plane



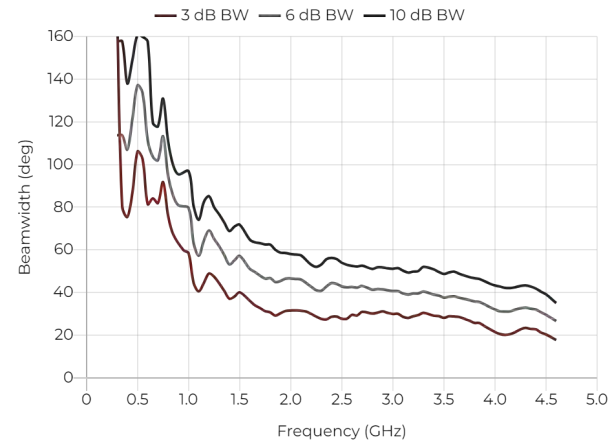
Port A, H plane



Port B, E plane



Port B, H plane



PACKAGING AND ACCESSORIES

Package Contents

- QRH300 Antenna
- Factory calibration certificate
- Full calibration report of each antenna
- QR code accessing online portal
- Calibration test dataset (available online)
- Universal antenna mount

Custom Services

- Custom mounting solutions
- Custom calibration data

RF SPIN MANUFACTURING EXCELLENCE

At RF SPIN, we maintain complete control over the entire antenna lifecycle through our modern facility in Nová Paka, equipped with state-of-the-art machinery. From initial design concepts and development to precision manufacturing and final testing, everything is handled in-house by our experienced team.

This complete vertical integration allows us to maintain the highest quality standards at every stage, ensuring exceptional precision and performance that consistently outperforms competitors. Our comprehensive approach eliminates external dependencies and enables rapid innovation with superior product reliability.



Surface Treatment

Our in-house passivation baths create protective layers ensuring optimal corrosion resistance and electrical conductivity. Anodizing technology increases durability in harsh conditions while enabling customized coloring for client branding.

In-house Antenna Measurements

Our antenna measurement facility features two modern anechoic chambers equipped with both far-field and near-field measurement capabilities. The system operates across an impressive frequency range of 0.7 GHz - 120 GHz (FF) and 2 GHz - 50 GHz (NF).



Antenna Portal

Access all critical antenna data instantly through a simple QR code scan. This digital passport eliminates paperwork, providing immediate access to specifications, documentation, and integration-ready data.

Complete Antenna Data Just One Scan Away



www.rfspin.com/antenna-portal

ABOUT RF SPIN

Experts in Precision Measurement

Antennas

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Industry Leaders Trust Our Technology

Our customers include major global companies such as Airbus Defence and Space, Apple, SpaceX, Mercedes-Benz, NASA, and prestigious international universities. We develop, design, and manufacture our antennas using innovative technologies and state-of-the-art machining equipment at our production facility in Nová Paka.



ADDITIONAL RESOURCES

Online Catalog

Browse our entire product range online with comprehensive parameters and category filtering.



[www.rfspin.com/
catalog](https://www.rfspin.com/catalog)

PDF Portfolio Guide

Download our product guide in preferred print format for quick product comparison and overview.



[www.rfspin.com/
portfolioguide](https://www.rfspin.com/portfolioguide)

DOCUMENT INFORMATION

Complete product information available at
<https://www.rfspin.com/product/qrh300>
Datasheet revision: 07-2025
Data and specifications subject to change.
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MANUFACTURER

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