

QRH0422

Quad Ridged Horn Antenna | 3.6 GHz – 22 GHz



Discover the QRH0422, a dual-polarized broadband horn antenna from the forefront of RF technology. Operating seamlessly across a wide frequency range from 4 GHz to 22 GHz, this antenna is a testament to superior engineering and design. The QRH0422 is not just about broad frequency coverage; it's about precision and quality. With its robust design and the reliability of an SMA connector, this antenna guarantees stable and consistent performance in various environments.

ELECTRICAL SPECIFICATIONS

Frequency Range	3.6 GHz - 22 GHz	Antenna Factor	33 - 43 dB/m
VSWR (avg)	1.4	Power (CW/Peak)	120 W / 250 W
VSWR (max)	2.4	Port Isolation	32 dB
Impedance	50 Ohm	Cross Polarization	30 dB
Connector	SMA (female)	Polarization	Dual Linear, Circular (with hybrid)
Gain	8 - 16 dBi		

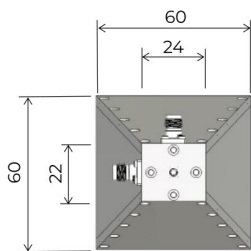
PHYSICAL SPECIFICATIONS

Width	60 mm (2.362 in)
Depth	60 mm (2.362 in)
Height	97 mm (3.819 in)
Weight	0.193 kg (0.425 lb)

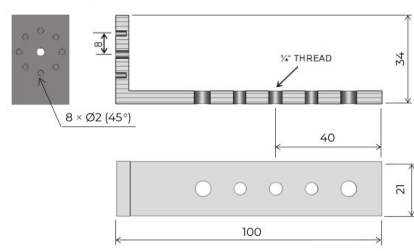
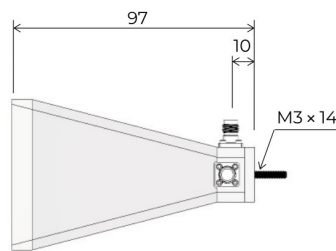
OPERATING CONDITIONS

Rated Temperature	0 °C to 50 °C
Storage Temperature	-20 °C to 60 °C

MECHANICAL DRAWINGS



Antenna

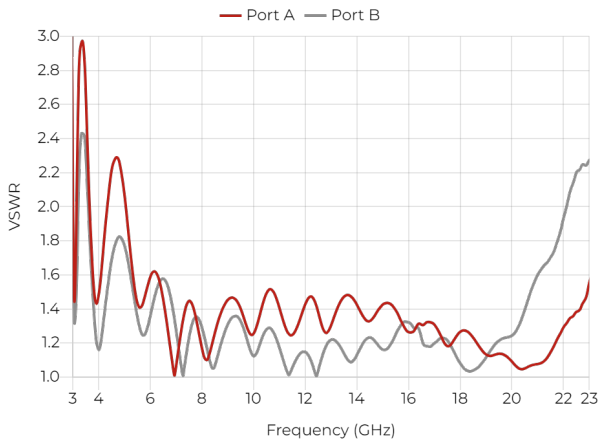


Flange

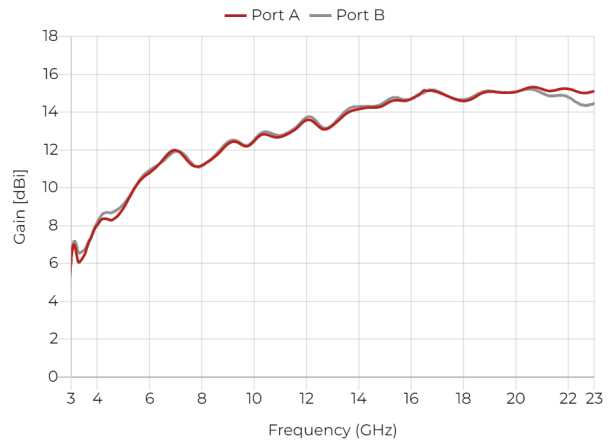
PARAMETERS AND PERFORMANCE

TYPICAL PARAMETERS

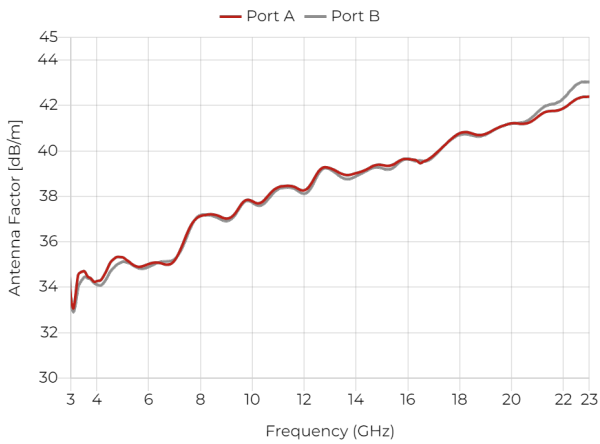
VSWR



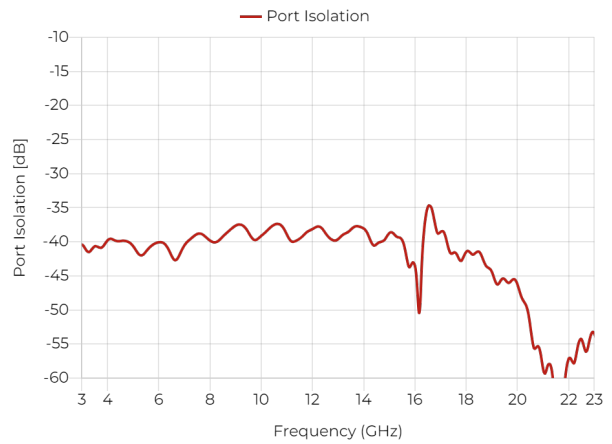
Gain



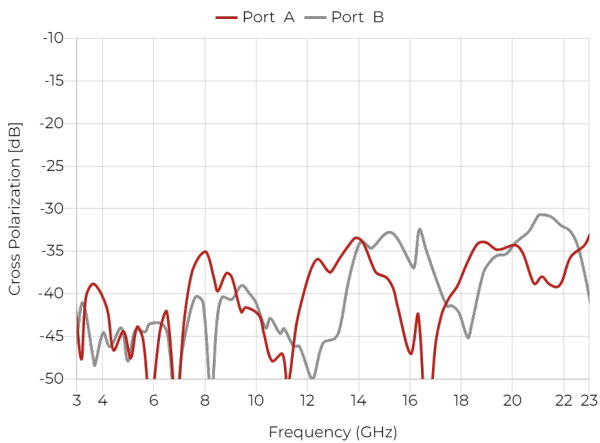
Antenna Factor



Port Isolation

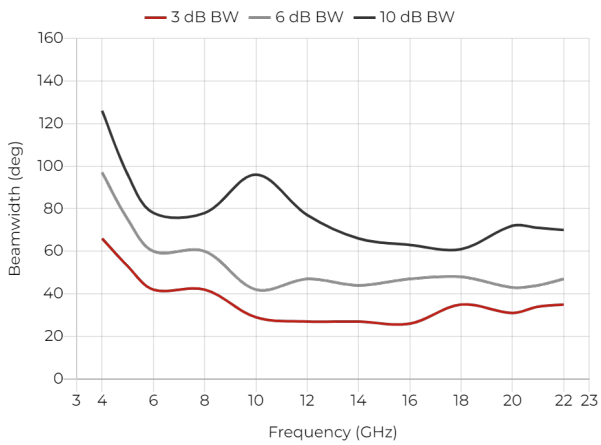


Cross Polarization

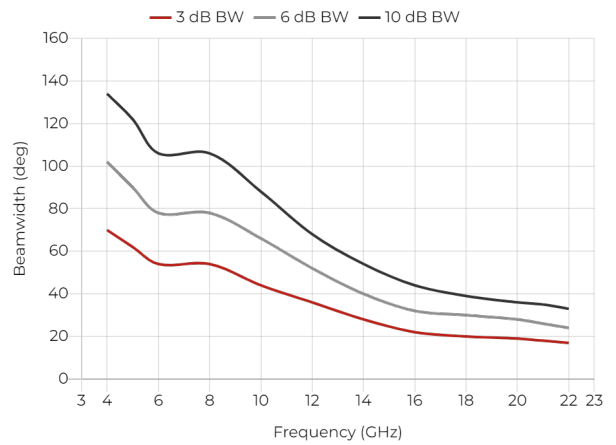


BEAMWIDTH

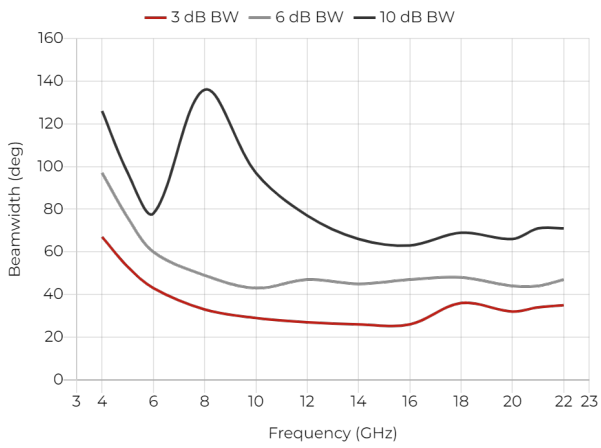
Port A, E plane



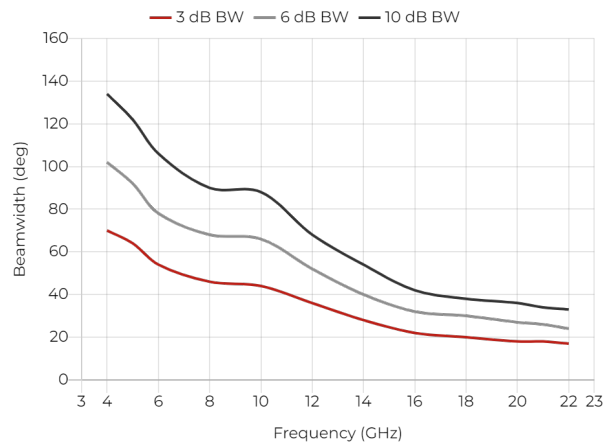
Port A, H plane



Port B, E plane



Port B, H plane



PACKAGING AND ACCESSORIES

Package Contents

- QRH0422 Antenna
- Antenna specific mount adapter with ¼ inch inner thread
- 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
- Radome waterproof enclosure

Optional Accessories

- AHS22-M3 Antenna Fixture

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

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.



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](http://www.rfspin.com/catalog)

PDF Portfolio Guide

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



[www.rfspin.com/
porfolioguide](http://www.rfspin.com/porfolioguide)

DOCUMENT INFORMATION

Complete product information available at <https://www.rfspin.com/product/qrh0422>
Datasheet revision: 07-2025
Data and specifications subject to change.
© RFspin 2025 - All rights reserved

MANUFACTURER

RFspin s.r.o.
Na Beránce 57/2, 160 00 Prague 6, Czech Republic
info@rfspin.com, +420 245 008 847