



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.

Cloned antenna series are available through [AU Technology](#), which guarantees constant parameters.

Manufactured with RF SPIN's [SPM Technology](#) to achieve the best mechanical and radio parameters.

## Features and Specifications



### Technical Performance

- Wide bandwidth
- Low return loss
- Individual calibration
- Covers 5G frequency band



### Design and Surface Treatment

- Corrosion-resistant coating
- Includes standard mount



### Manufacturing Technology

- High quality SMA type coaxial connector



### Product Packaging Includes

- Linear polarized double ridged broadband horn antenna

## Product Parameters

### PRODUCT IDENTIFICATION

Product Name	<b>QRH0422</b>
Product Category	<b>Quad Ridged Horn Antenna</b>

### ELECTRICAL SPECIFICATIONS

Frequency Range	<b>3.6 GHz – 22 GHz</b>
VSWR (max.)	<b>2.4</b>
VSWR (avg.)	<b>1.4</b>
Impedance	<b>50 Ohm</b>
Connector	<b>SMA (female)</b>
Power (CW / Peak)	<b>120 W / 250 W</b>
Antenna Factor	<b>33 – 43 dB/m</b>
Port Isolation	<b>-32 dB</b>
Polarization	<b>Dual Linear, Circular (with hybrid)</b>

### PHYSICAL SPECIFICATIONS

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

### OPERATING CONDITIONS

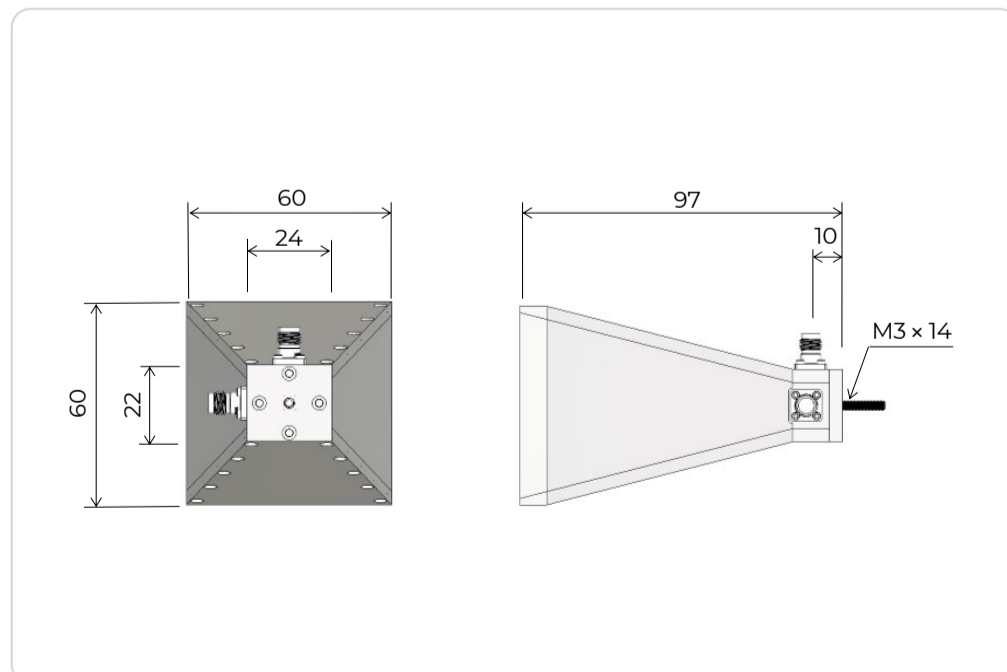
Rated Temperature Range	<b>0°C – +50°C</b>
Storage Temperature Range	<b>-20°C – +60°C</b>

### MOUNTING FLANGE

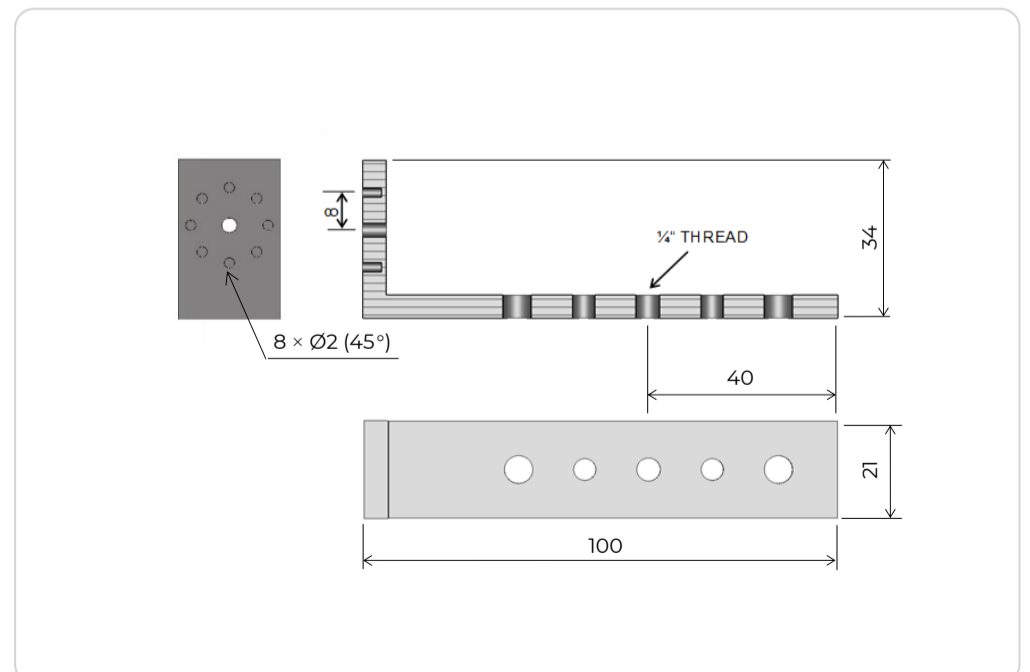
Mounting	<b>Adapter with ¼ inch inner thread, supplied with antenna</b>
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## Mechanical Drawings

Antenna



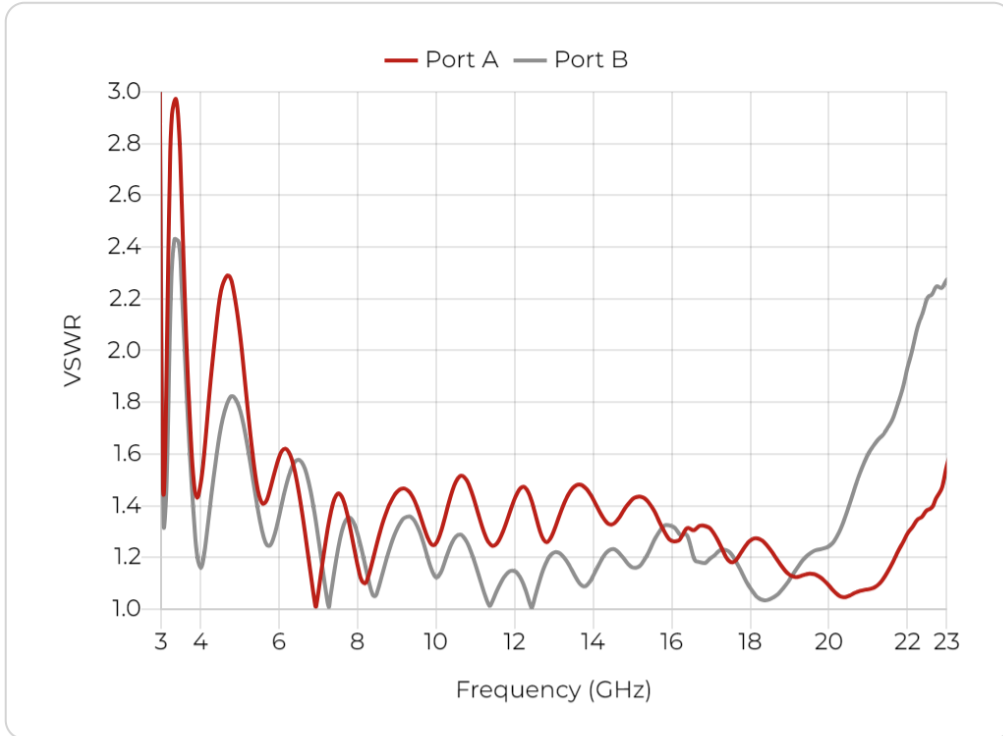
Mounting flange



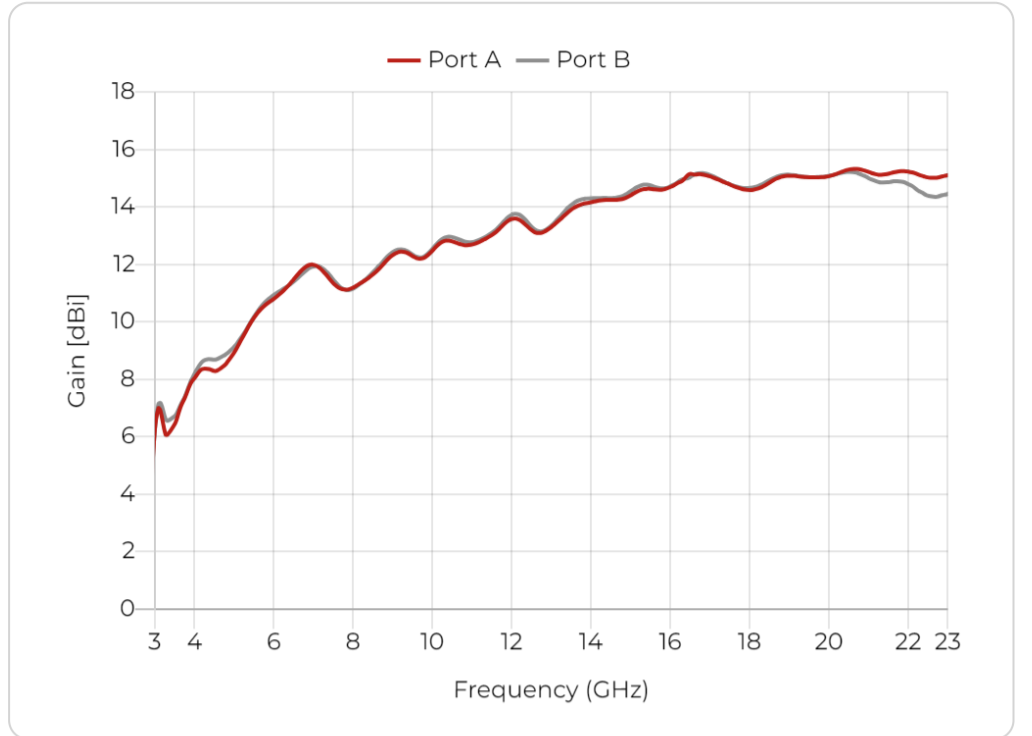
# Parameters and Performance

## Typical parameters

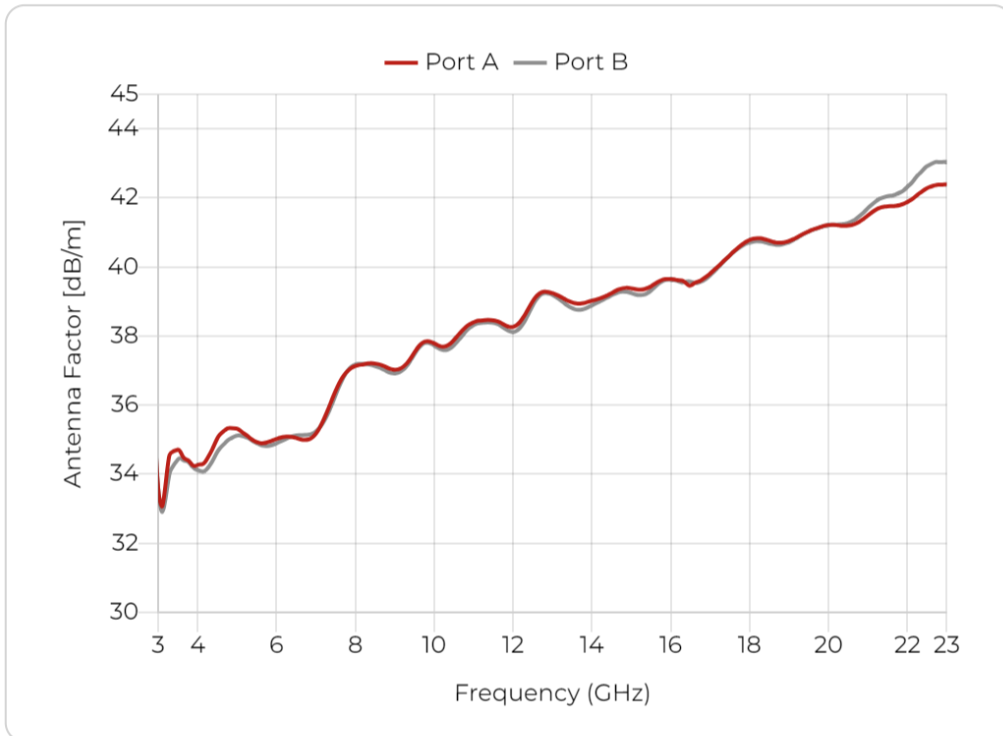
VSWR



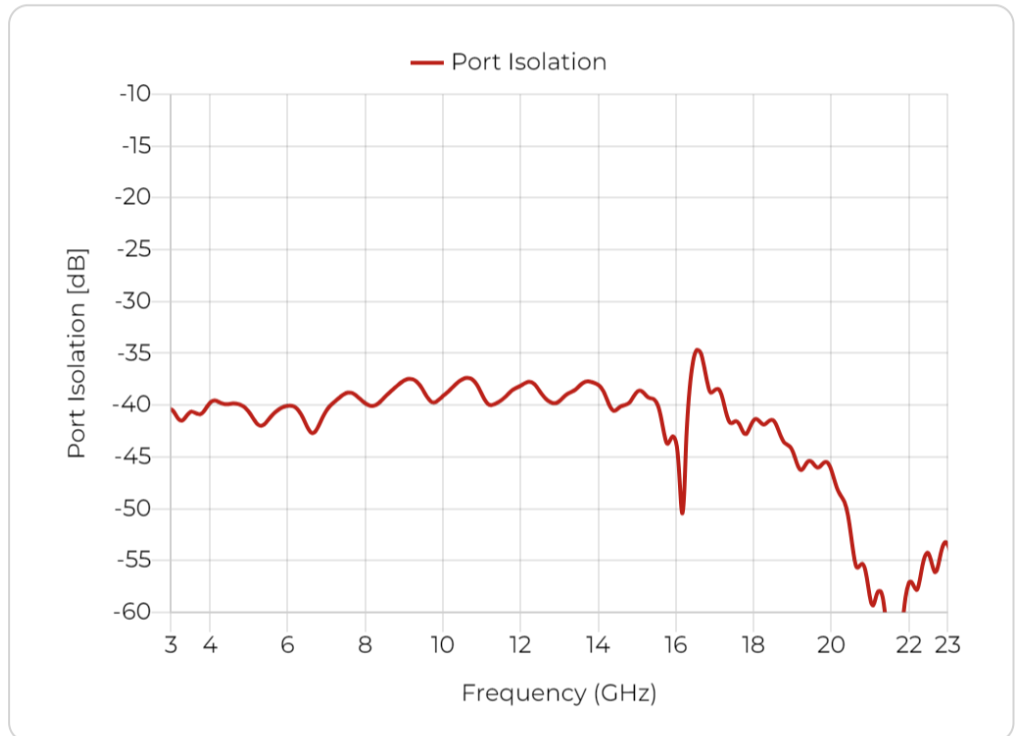
Gain



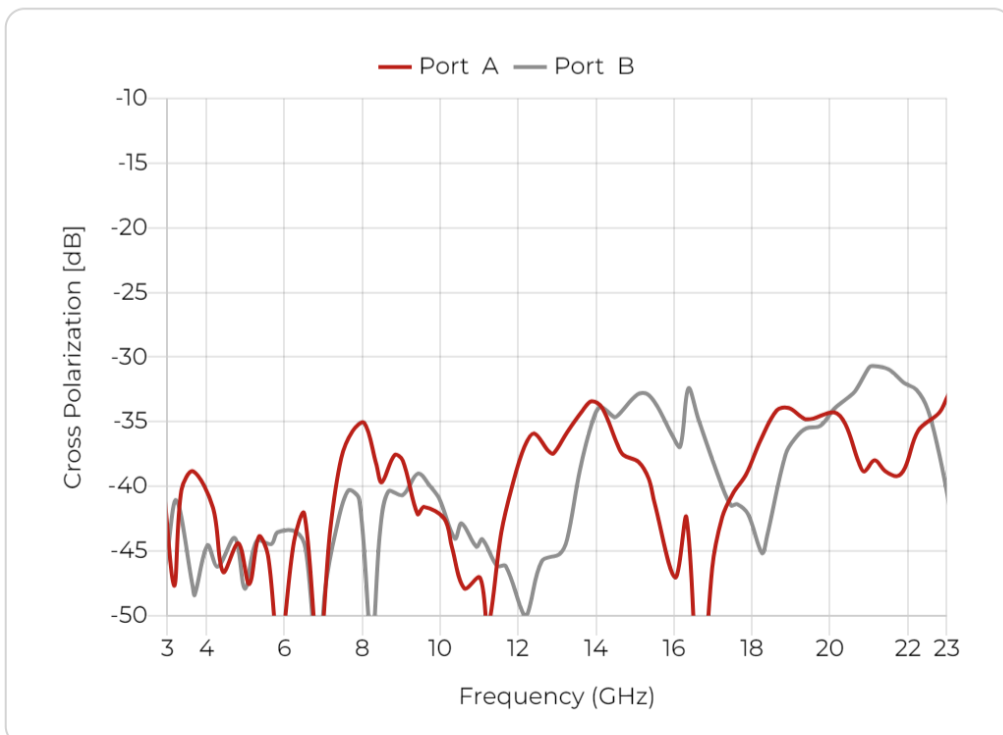
Antenna Factor



Port Isolation

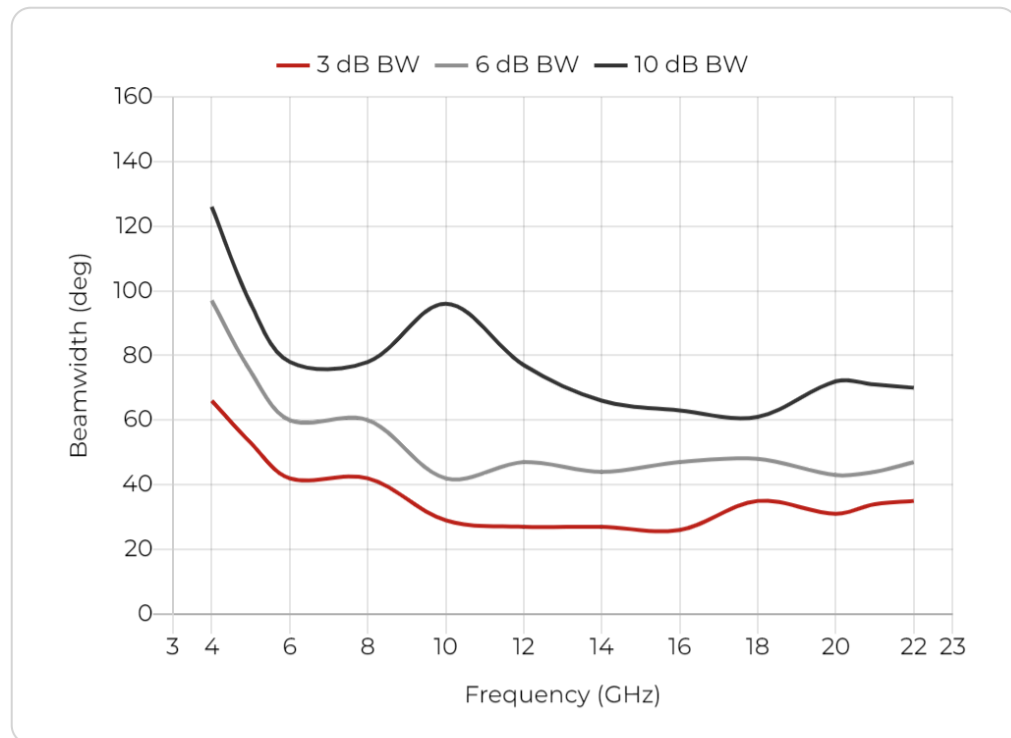


Cross Polarization

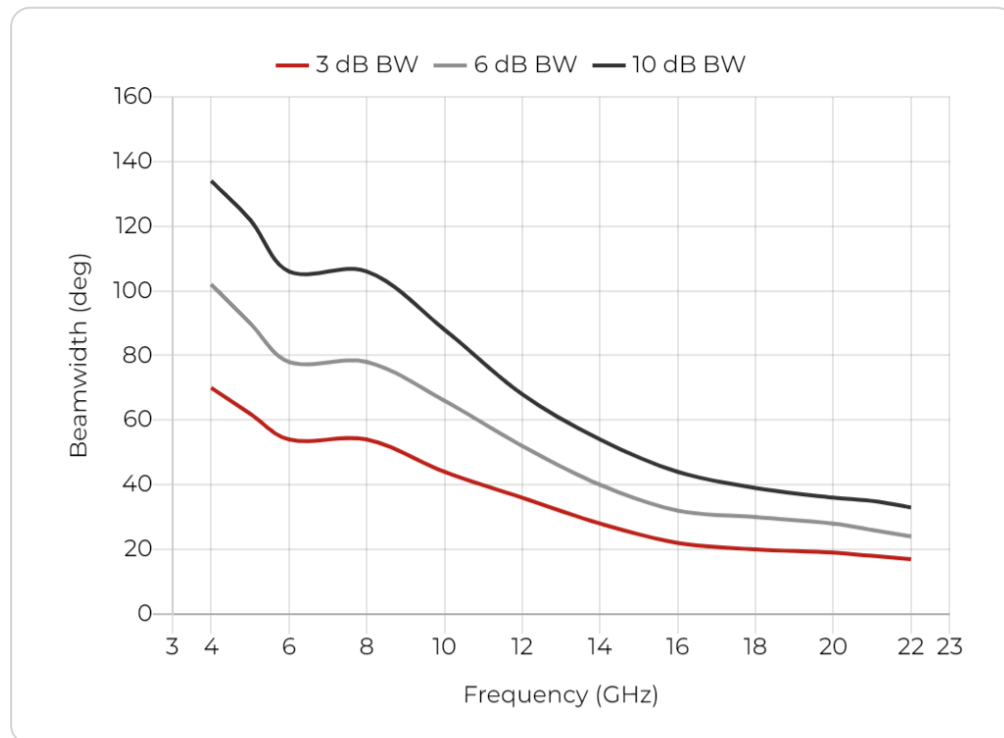


# Beamwidth

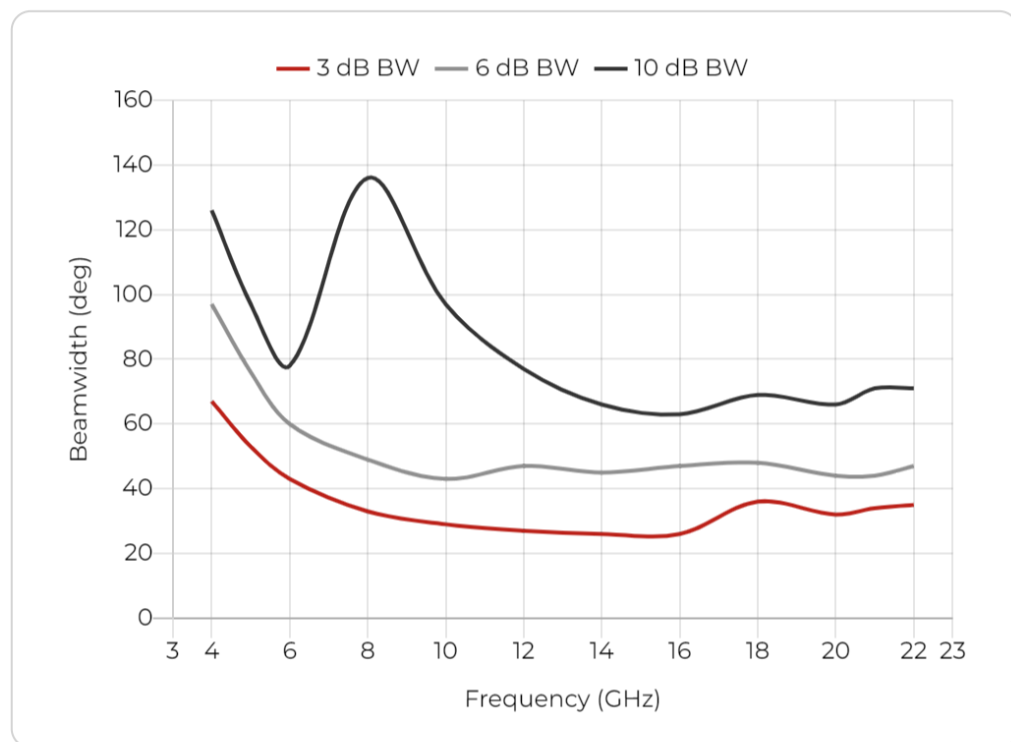
Port A, E plane



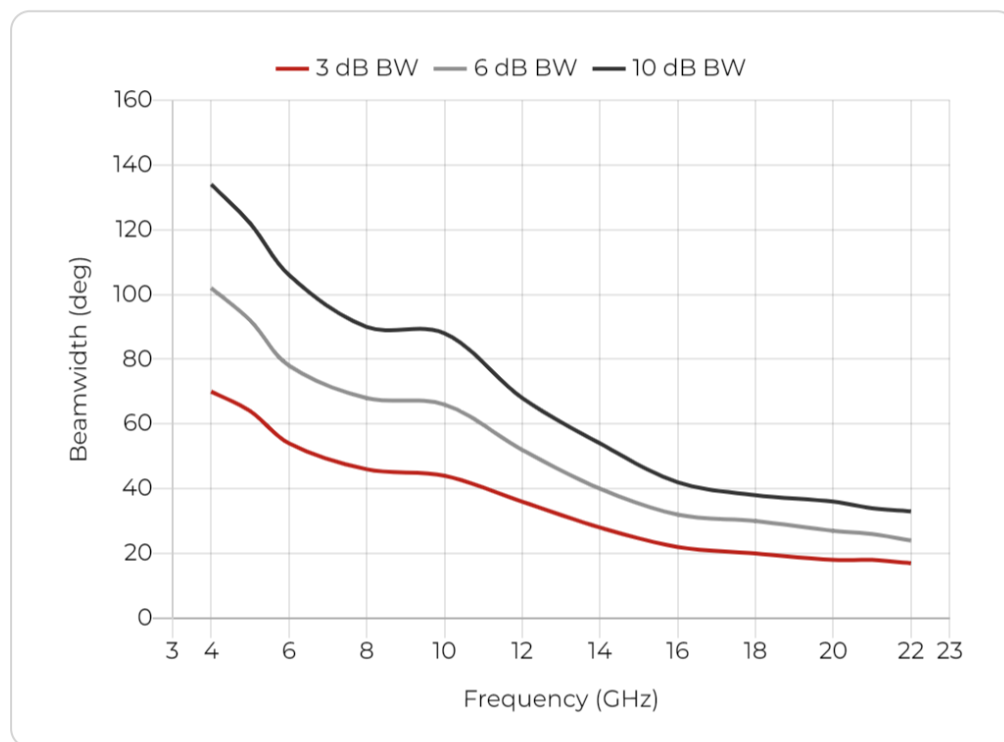
Port A, H plane



Port B, E plane

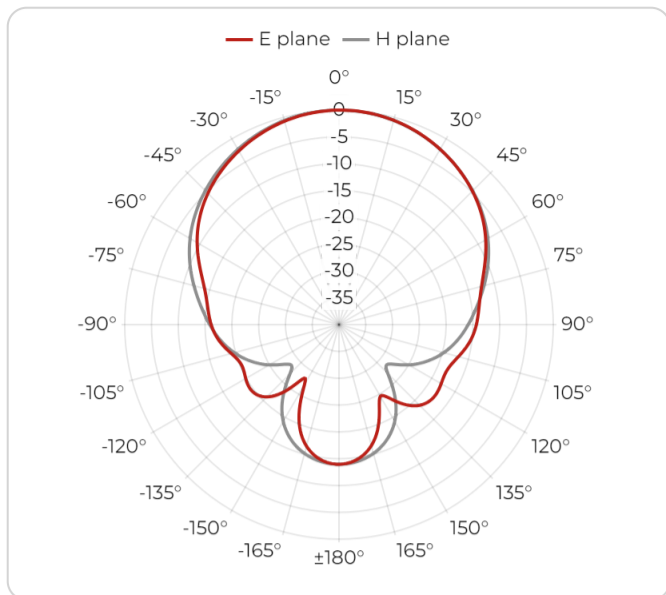


Port B, H plane

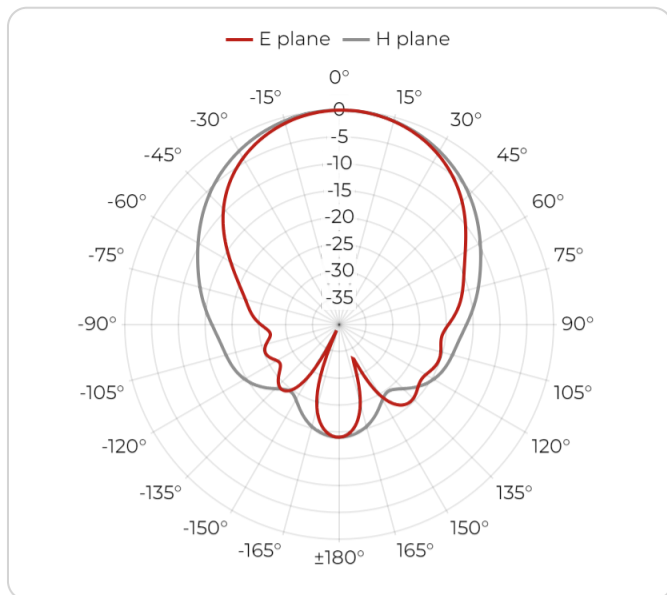


# Radiation Patterns - Port A

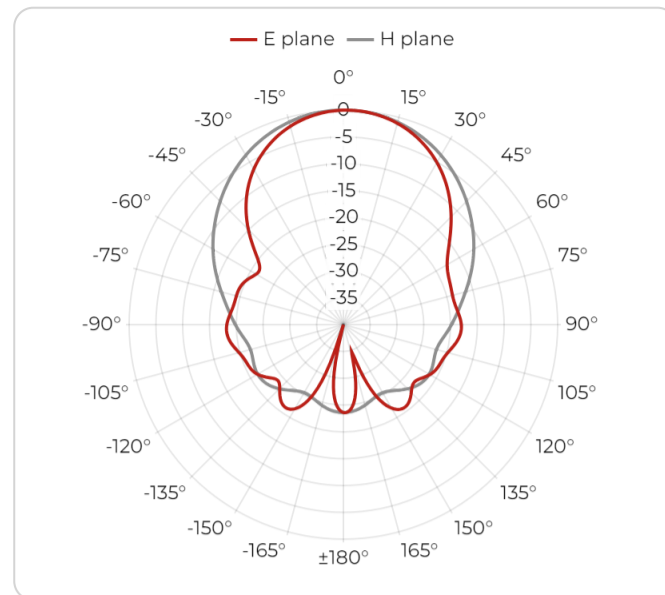
Port A, 4 GHz



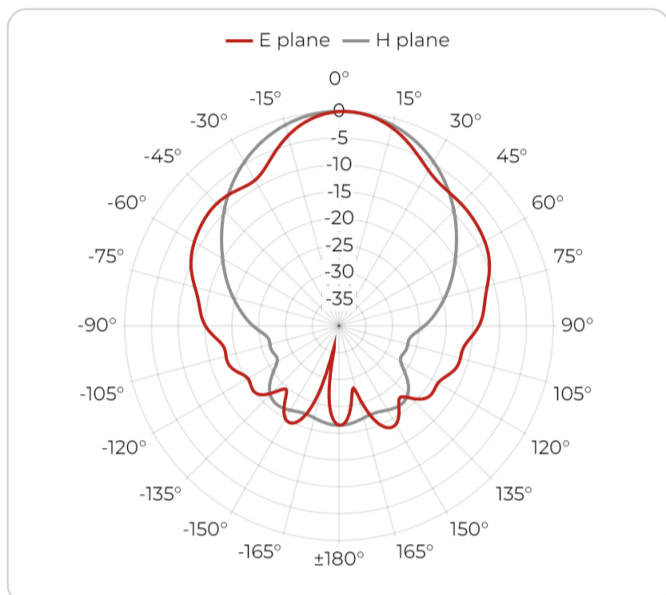
Port A, 5 GHz



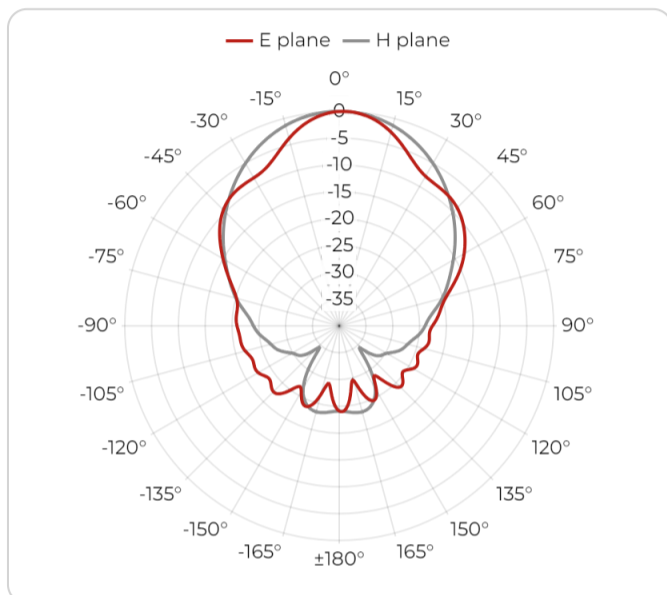
Port A, 6 GHz



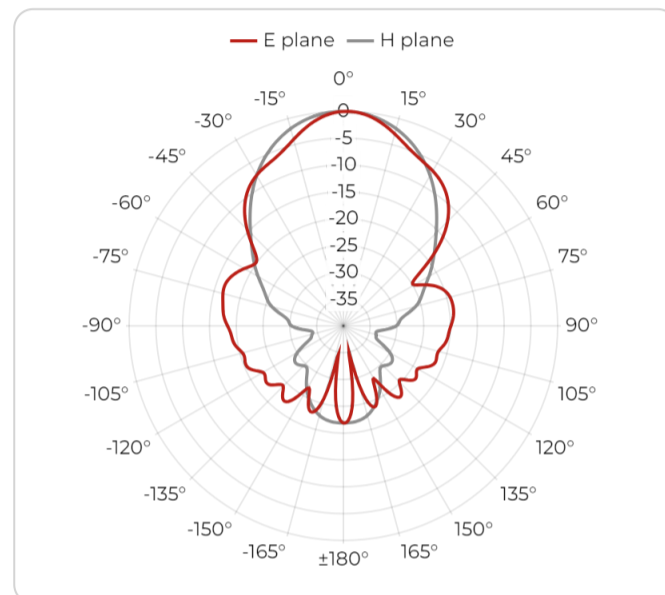
Port A, 8 GHz



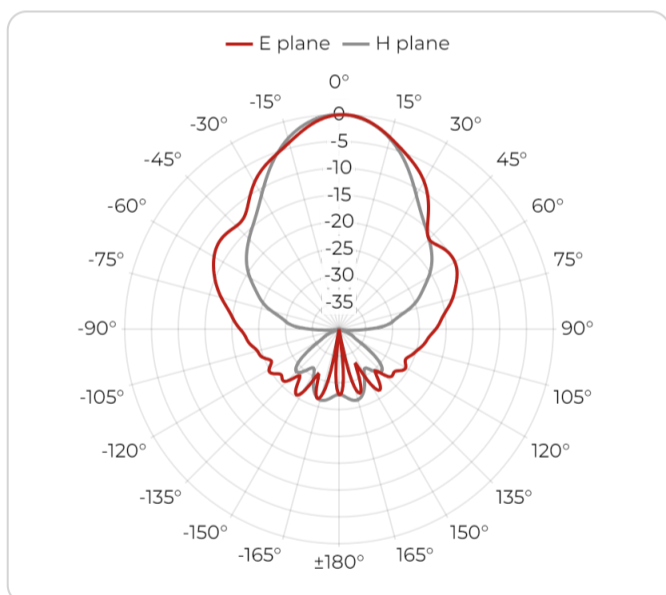
Port A, 10 GHz



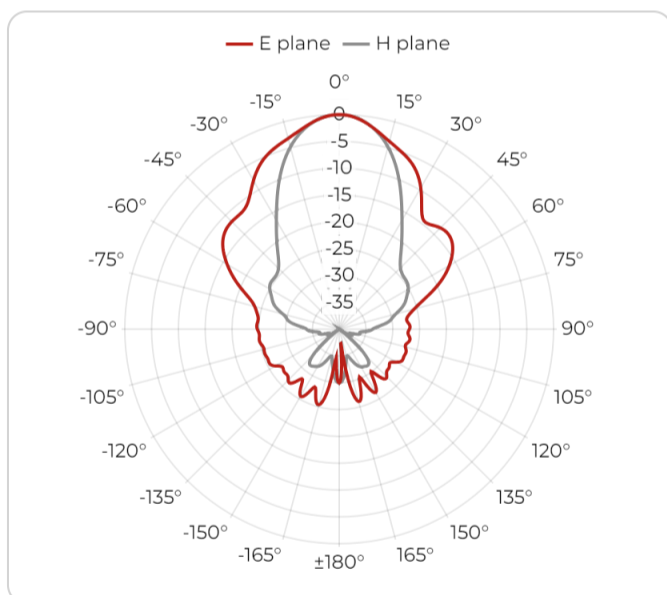
Port A, 12 GHz



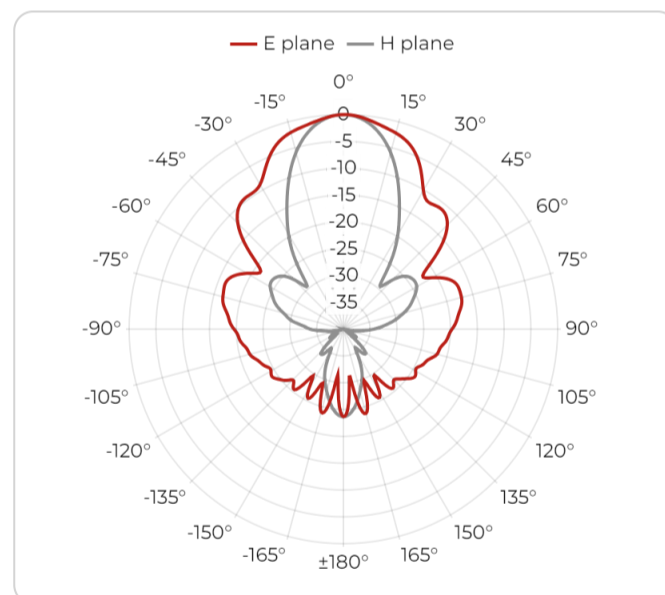
Port A, 14 GHz



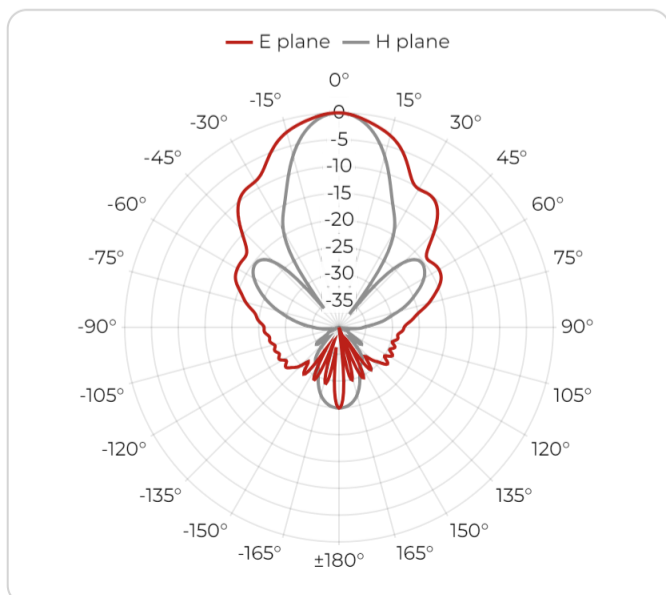
Port A, 16 GHz



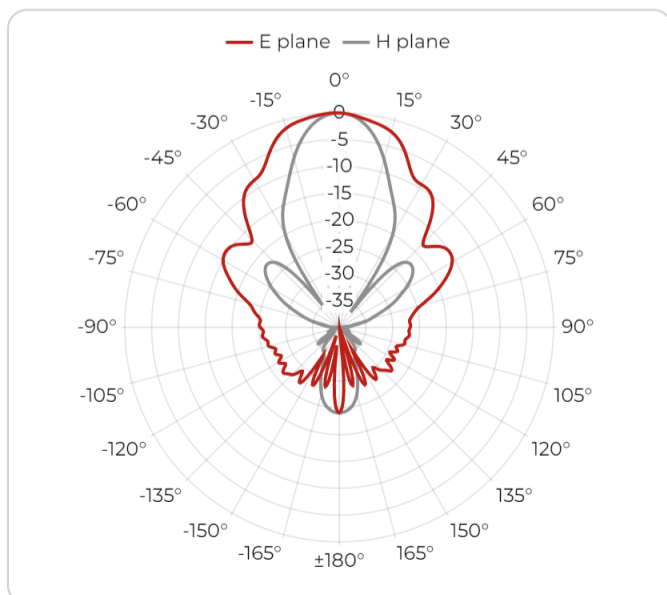
Port A, 18 GHz



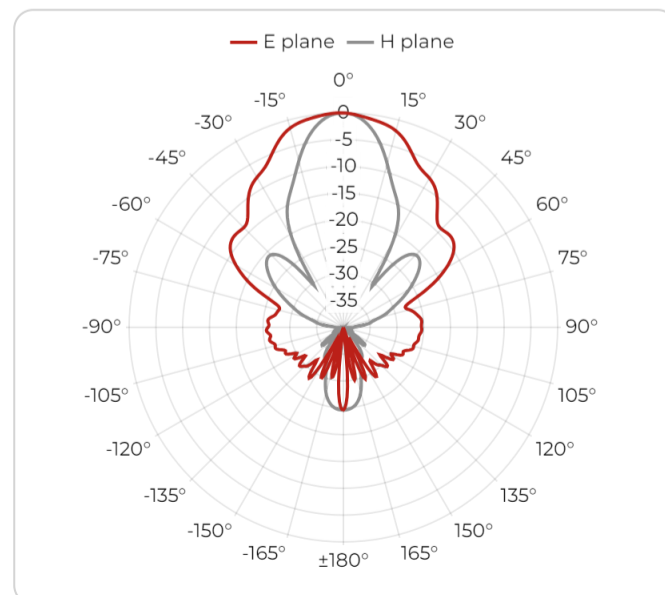
Port A, 20 GHz



Port A, 21 GHz

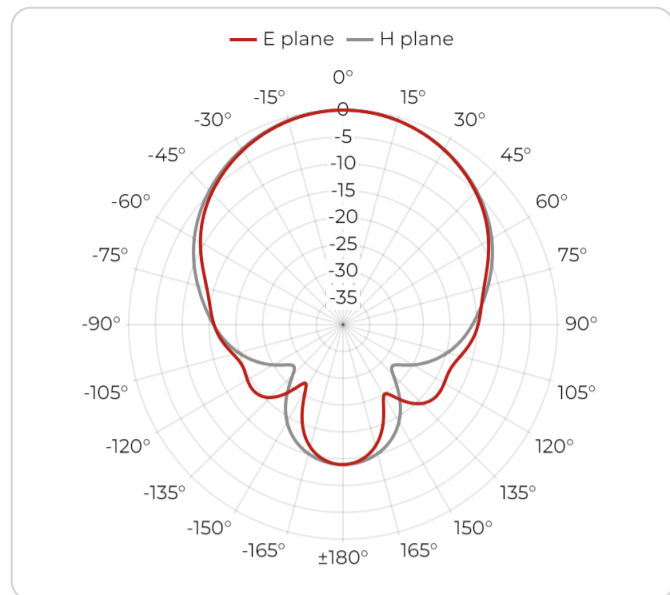


Port A, 22 GHz

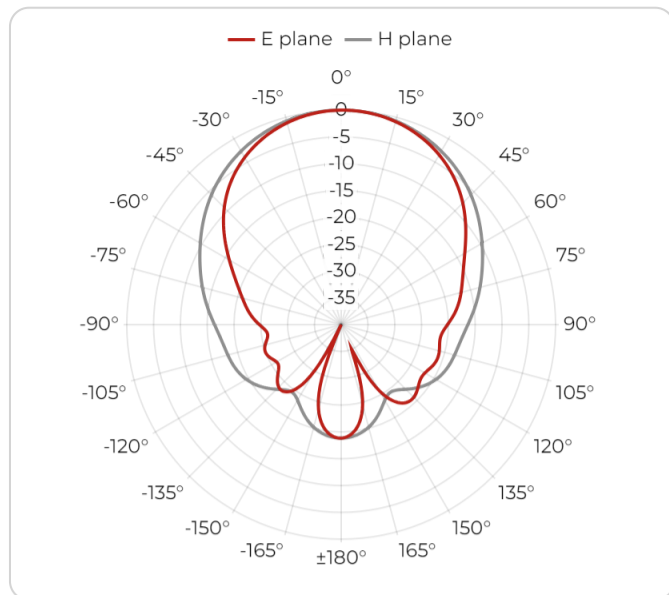


# Radiation Patterns - Port B

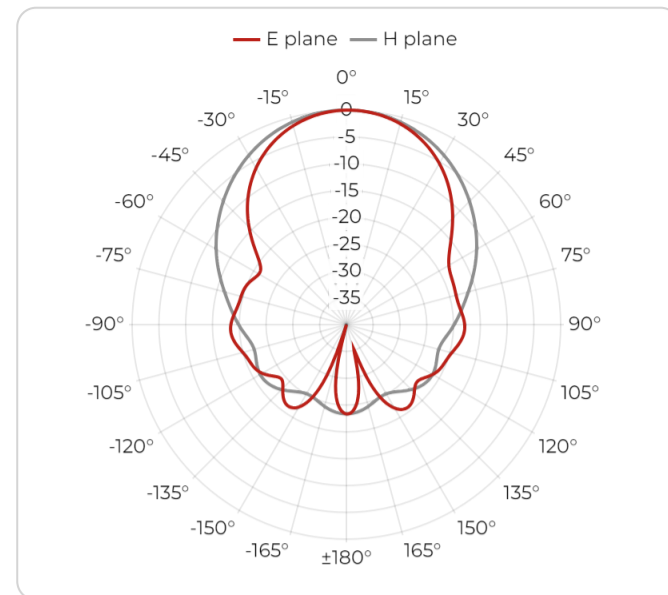
Port B, 4 GHz



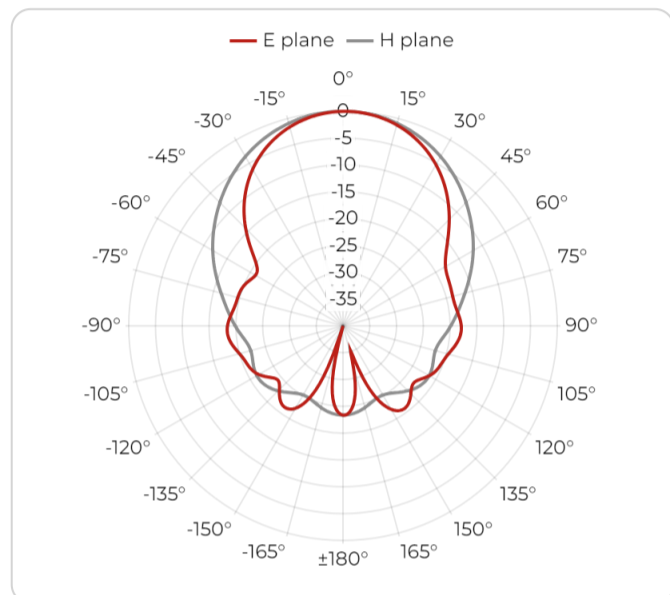
Port B, 5 GHz



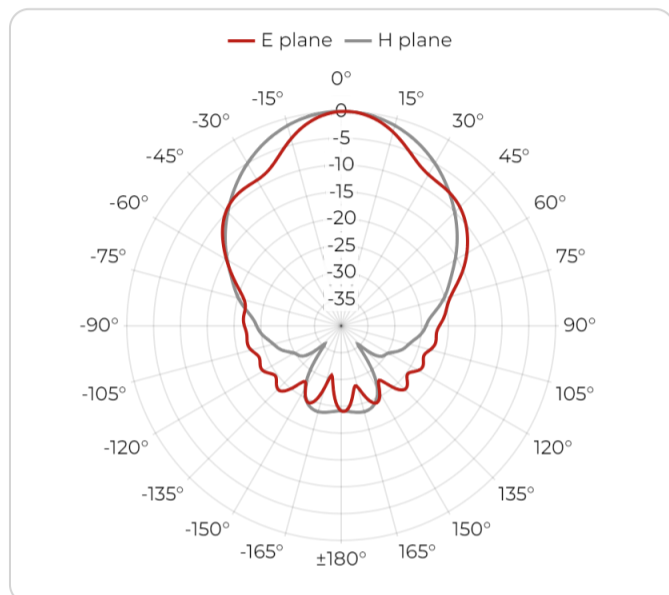
Port B, 6 GHz



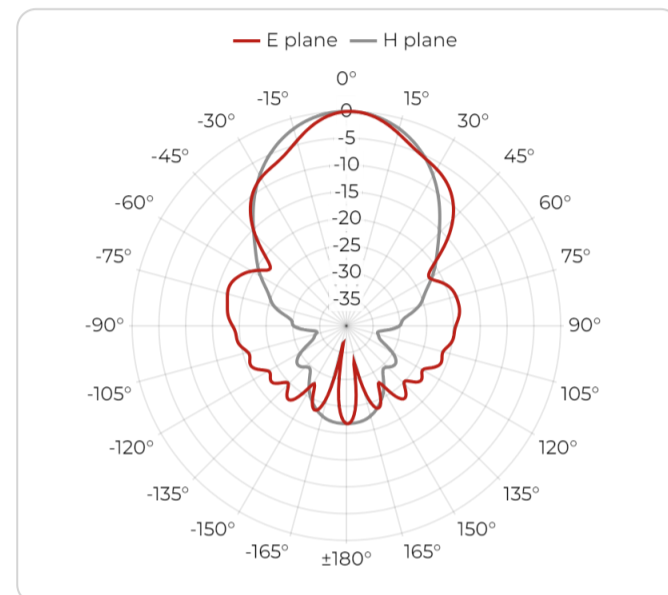
Port B, 8 GHz



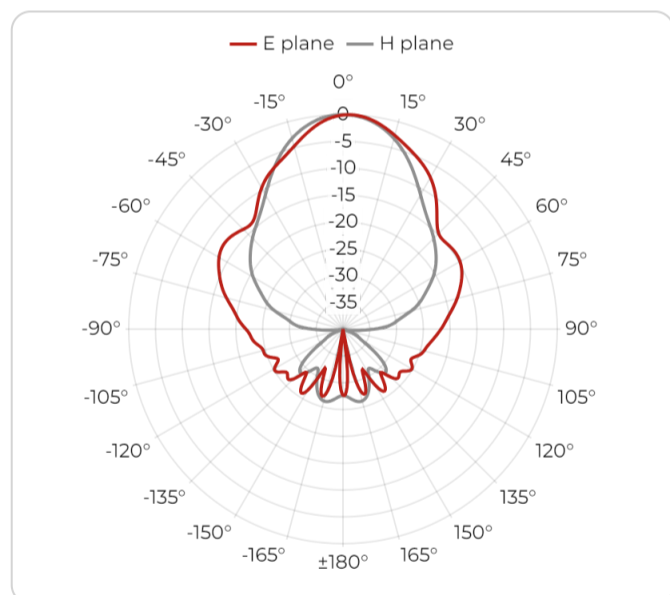
Port B, 10 GHz



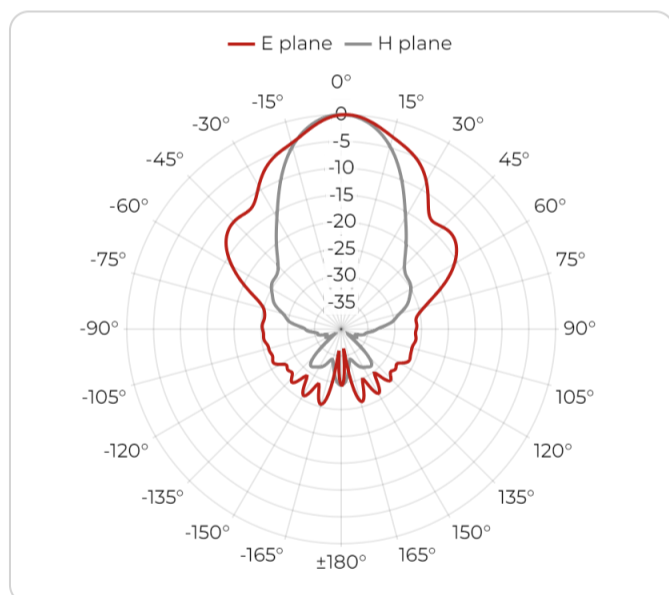
Port B, 12 GHz



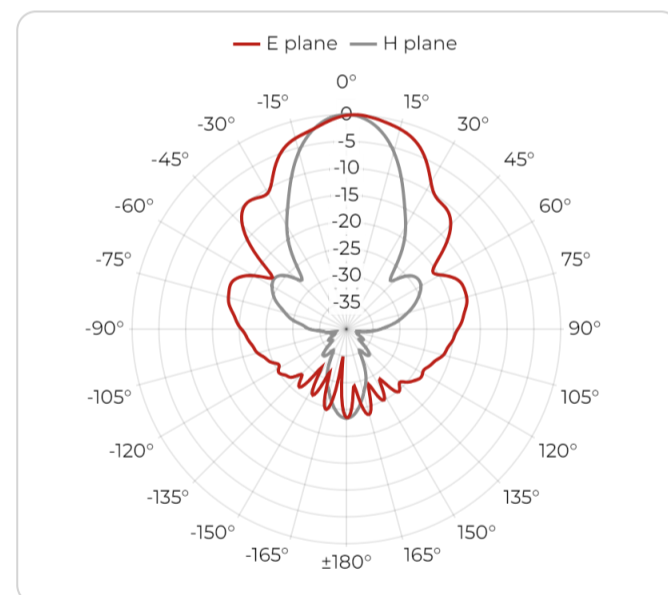
Port B, 14 GHz



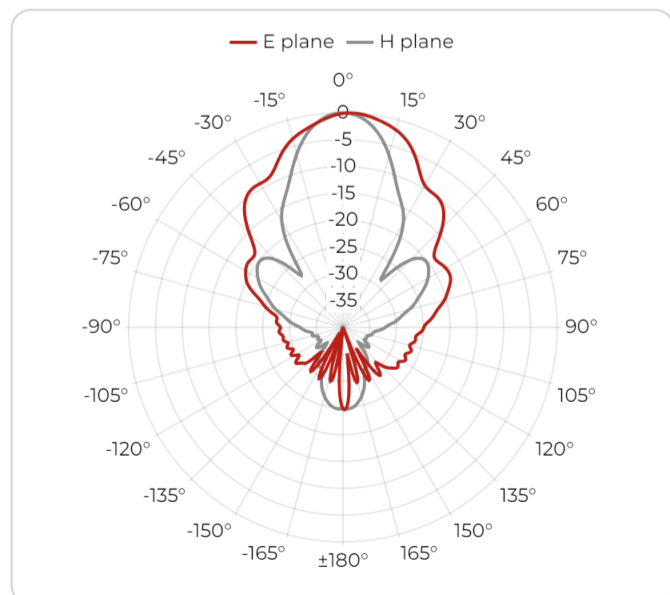
Port B, 16 GHz



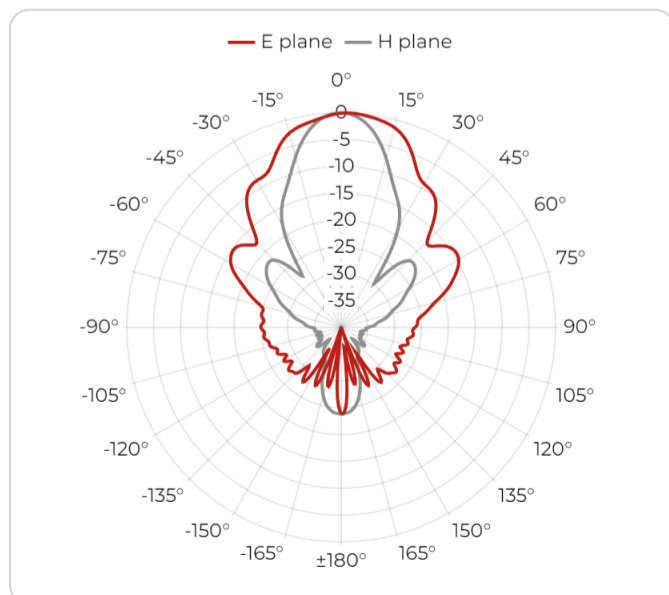
Port B, 18 GHz



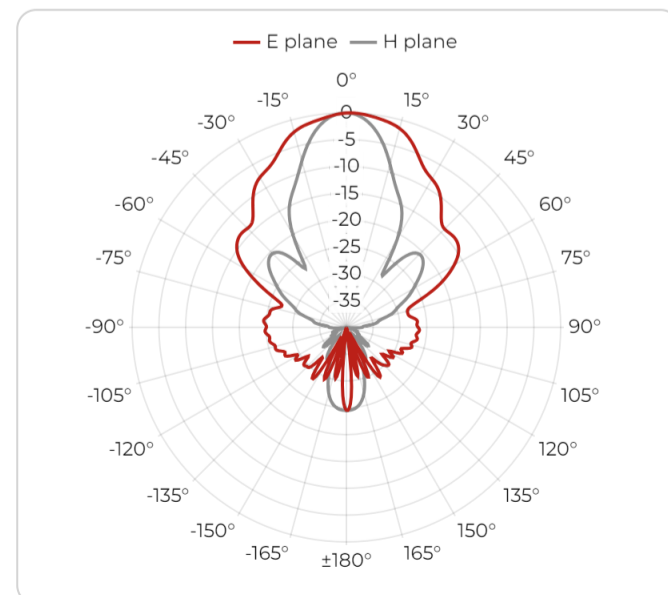
Port B, 20 GHz



Port B, 21 GHz



Port B, 22 GHz



## Packaging and Accessories

### What's in a box

- 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

### Accessories

- Standard mounting flange

### Optional Accessories

- [AHS22-M3 Antenna Fixture](#)

### Custom services

- Custom mounting solutions
- Custom calibration data
- Radome waterproof enclosure

## Manufacturer Information

### About Datasheet

Product information available also online at  
<https://www.rfspin.com/product/grh0422/>

*Data and specifications subject to change without notice.*

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