



Double Ridged QRH0140 operating from 1GHz to 40GHz. Most broadband antenna exceeds expectations. Simple design, robust construction, and calibrated data, this is only some advances of the QRH0140.

Cloned antenna series are available through **AU Technology**, which guarantees constant 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
- Storage in protective tailor-made wooden box



### Manufacturing Technology

- Manufactured using a high grade aluminum alloy
- Extremely durable
- High quality K type coaxial connector



### Product Packaging Includes

- Antenna
- Adapter with 1/4 inch inner thread, supplied with antenna

## Product Parameters

### PRODUCT IDENTIFICATION

Product Name	<b>QRH0140</b>
Product Category	<b>Quad Ridged Horn Antenna</b>

### ELECTRICAL SPECIFICATIONS

Frequency Range	<b>1 GHz – 40 GHz</b>
VSWR (max.)	<b>70</b>
VSWR (avg.)	<b>1.6</b>
Impedance	<b>50 Ohm</b>
Connector	<b>K (female)</b>
Power (CW / Peak)	<b>10 W / 20 W</b>
Antenna Factor	<b>35 – 70 dB/m</b>
Port Isolation	<b>-30 dB</b>
Polarization	<b>Linear, Circular (with hybrid)</b>

### PHYSICAL SPECIFICATIONS

Width	<b>54 mm (2.126 in)</b>
Height	<b>69 mm (2.717 in)</b>
Depth	<b>54 mm (2.126 in)</b>
Weight	<b>0.050 kg (0.110 lb)</b>

### OPERATING CONDITIONS

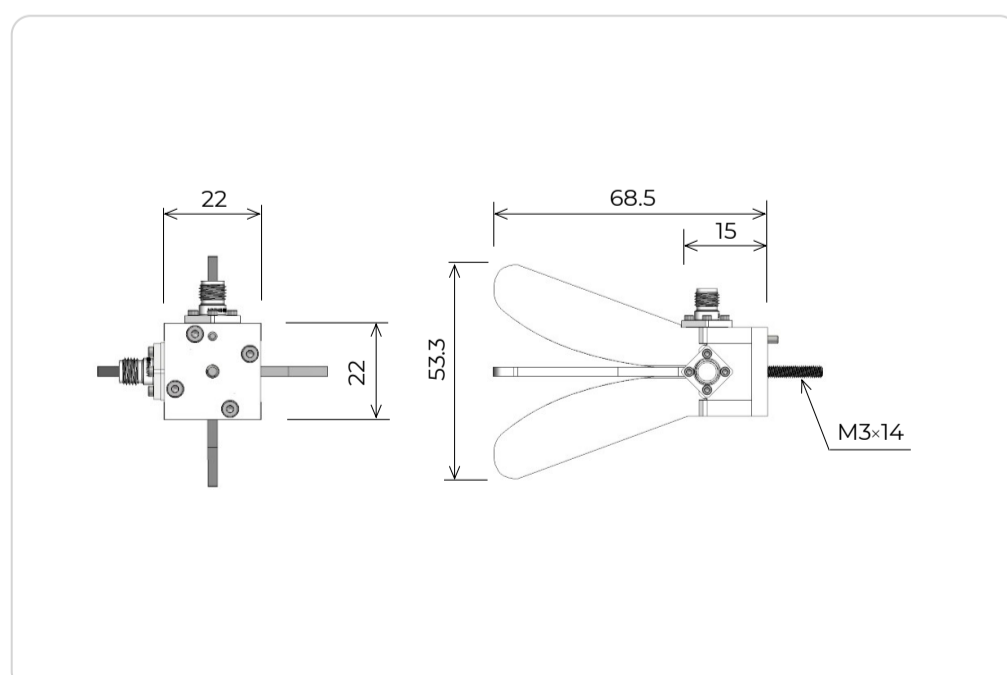
Rated Temperature Range	<b>0°C – +50°C</b>
Storage Temperature Range	<b>-20°C – +70°C</b>

### MOUNTING FLANGE

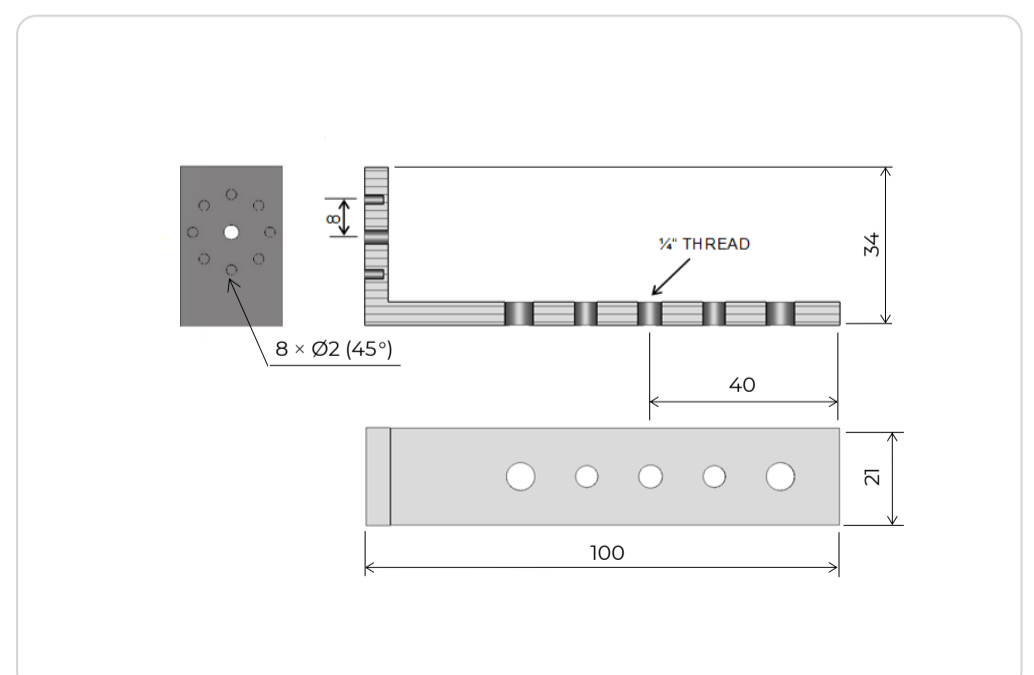
Mounting	<b>Adapter with 1/4 inch inner thread, supplied with antenna</b>
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## Mechanical Drawings

Antenna



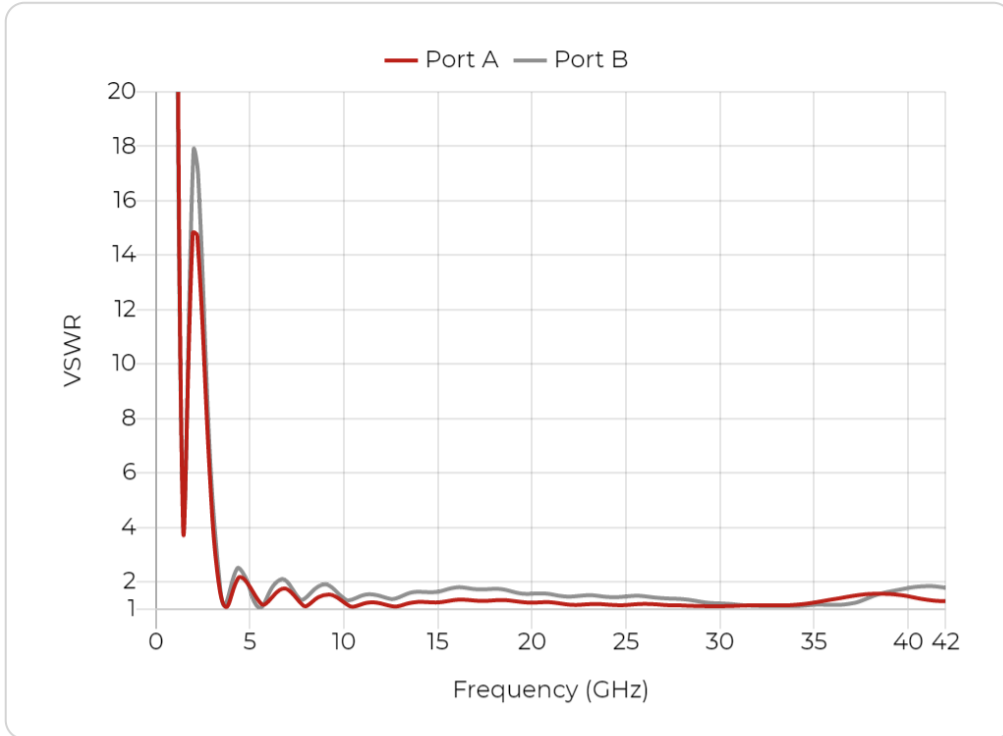
Mounting flange



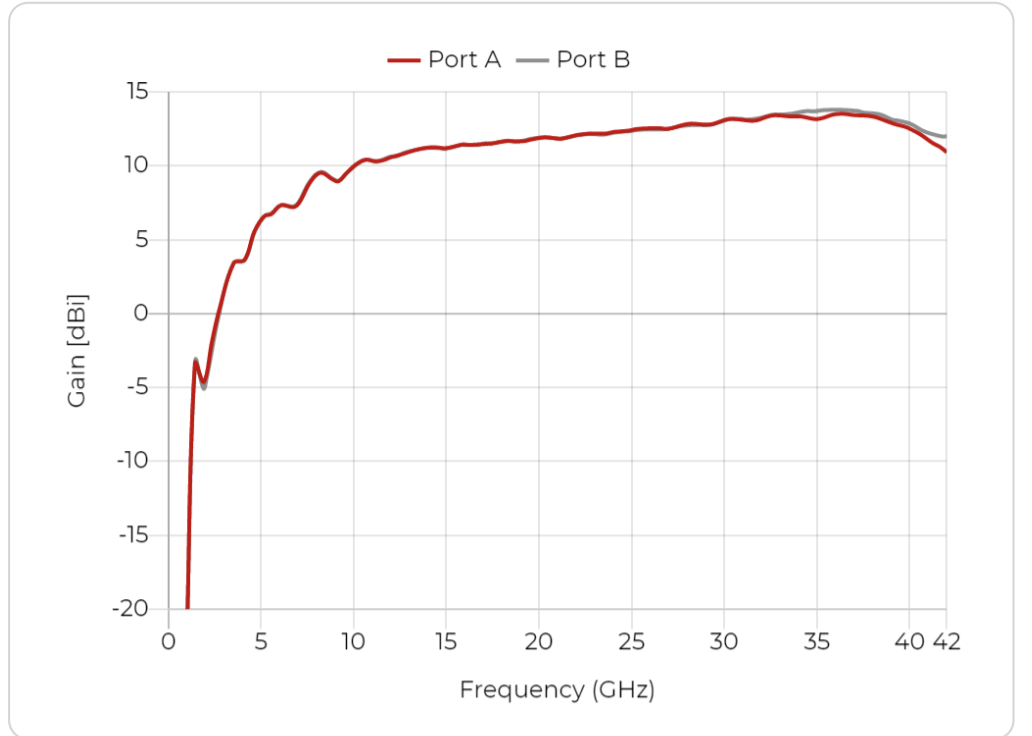
# Parameters and Performance

## Typical parameters

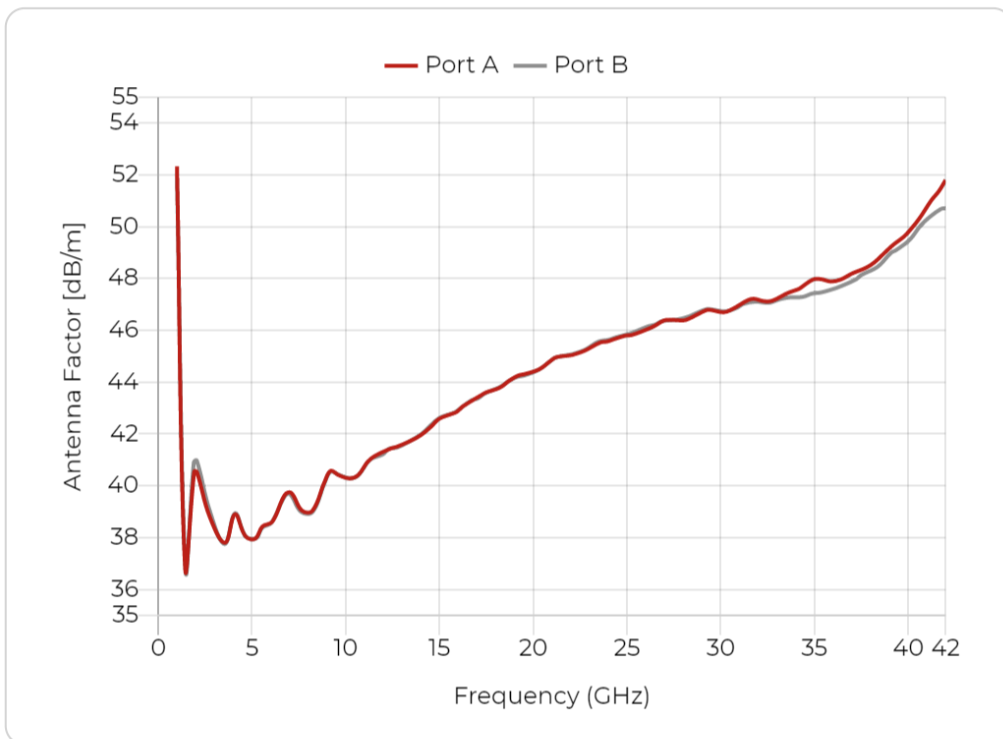
VSWR



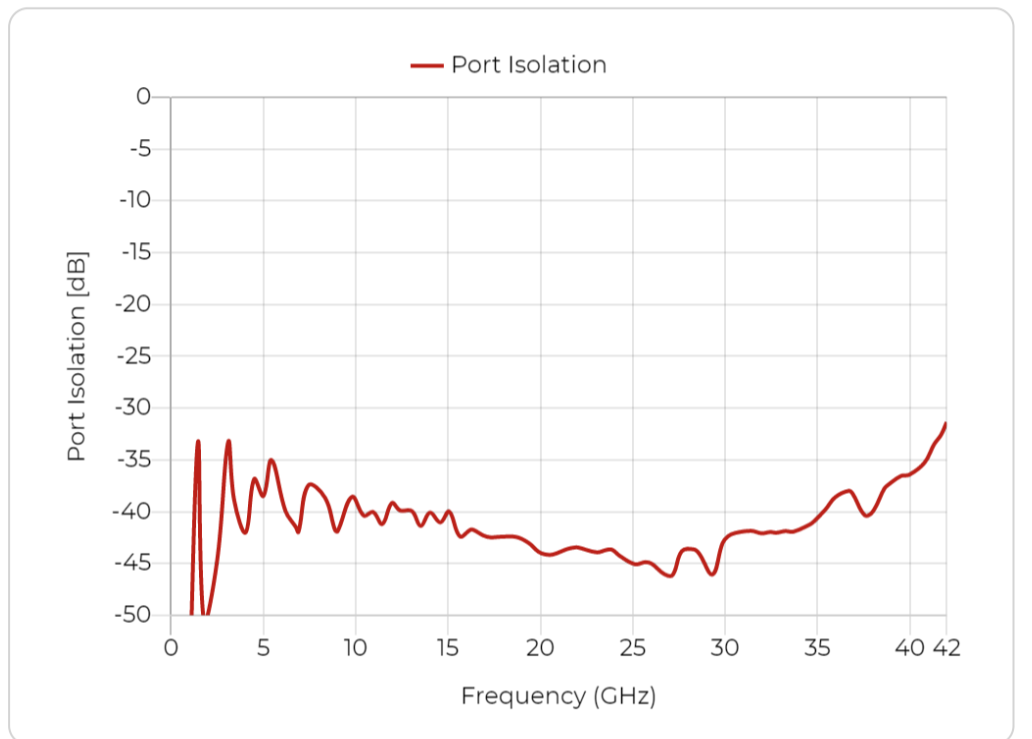
Gain



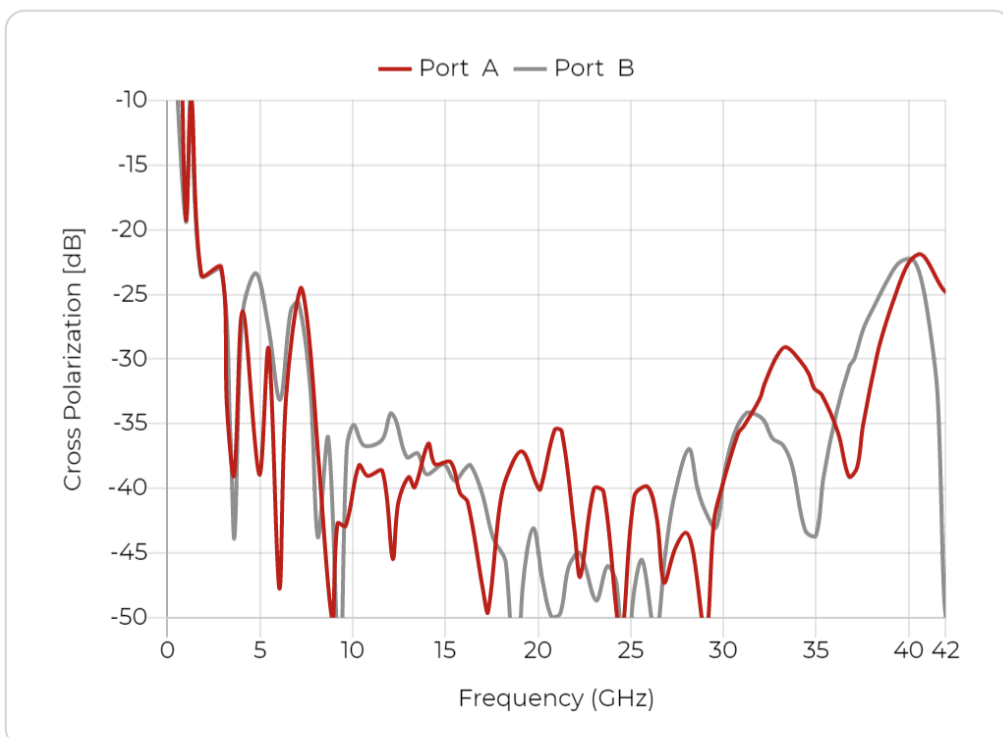
Antenna Factor



Port Isolation

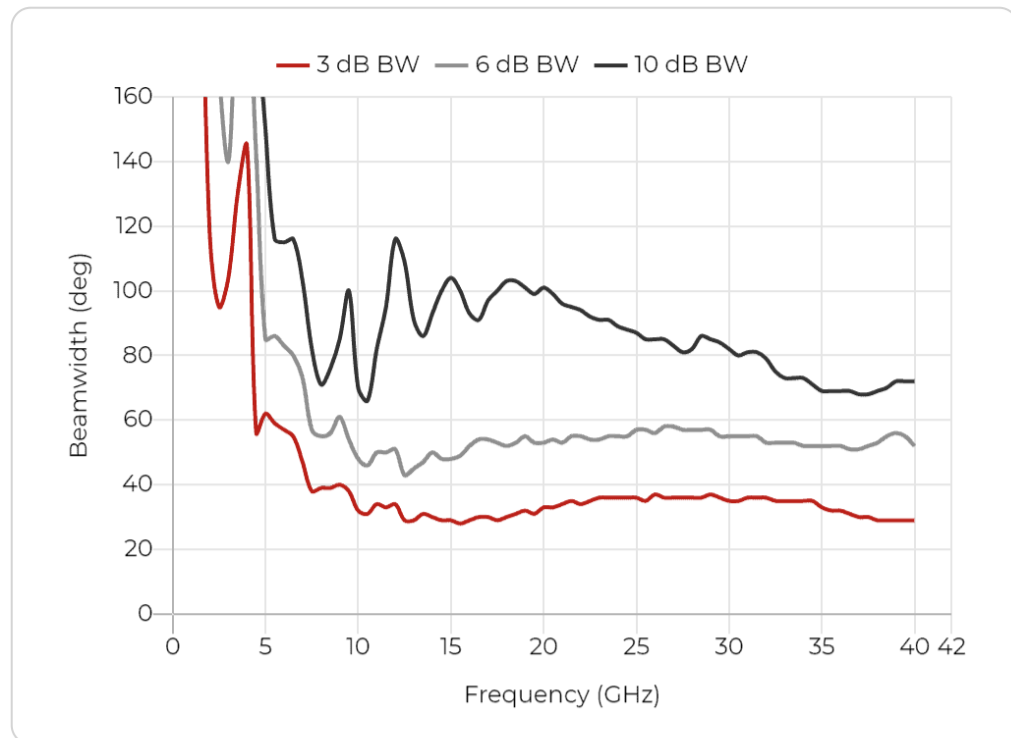


Cross Polarization

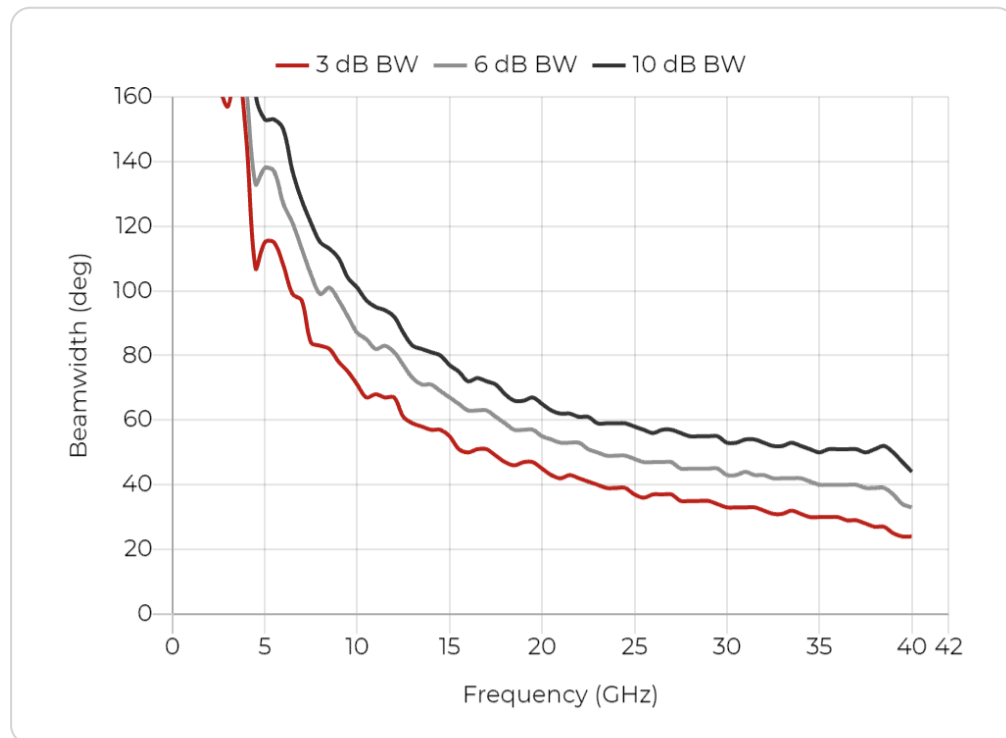


# Beamwidth

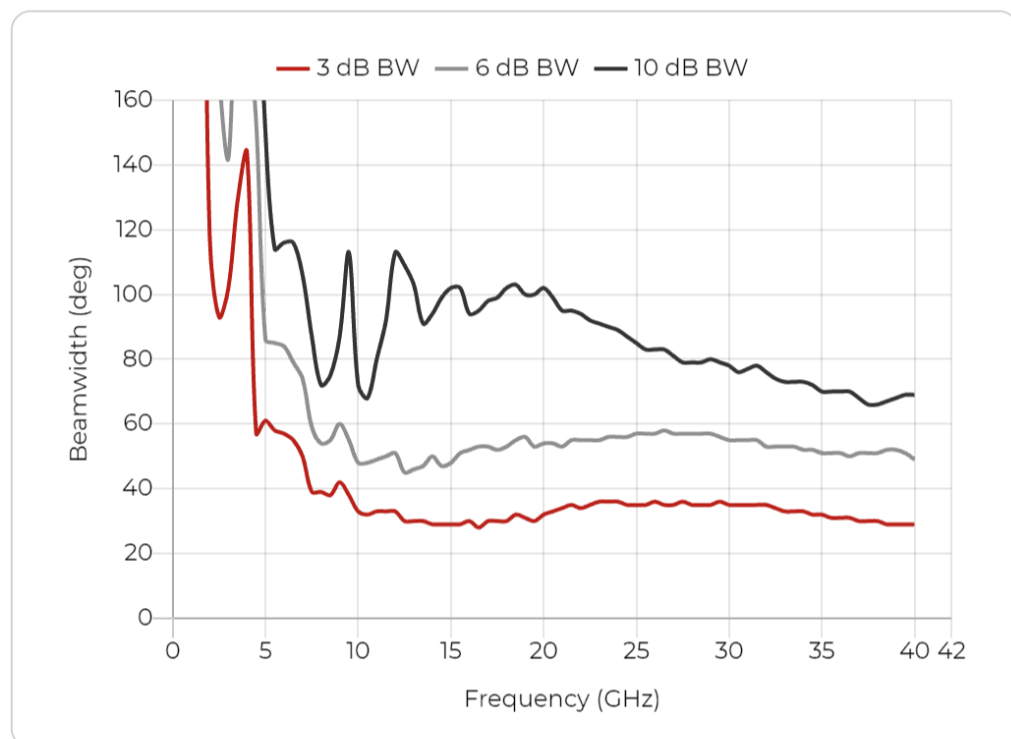
Port A, E plane



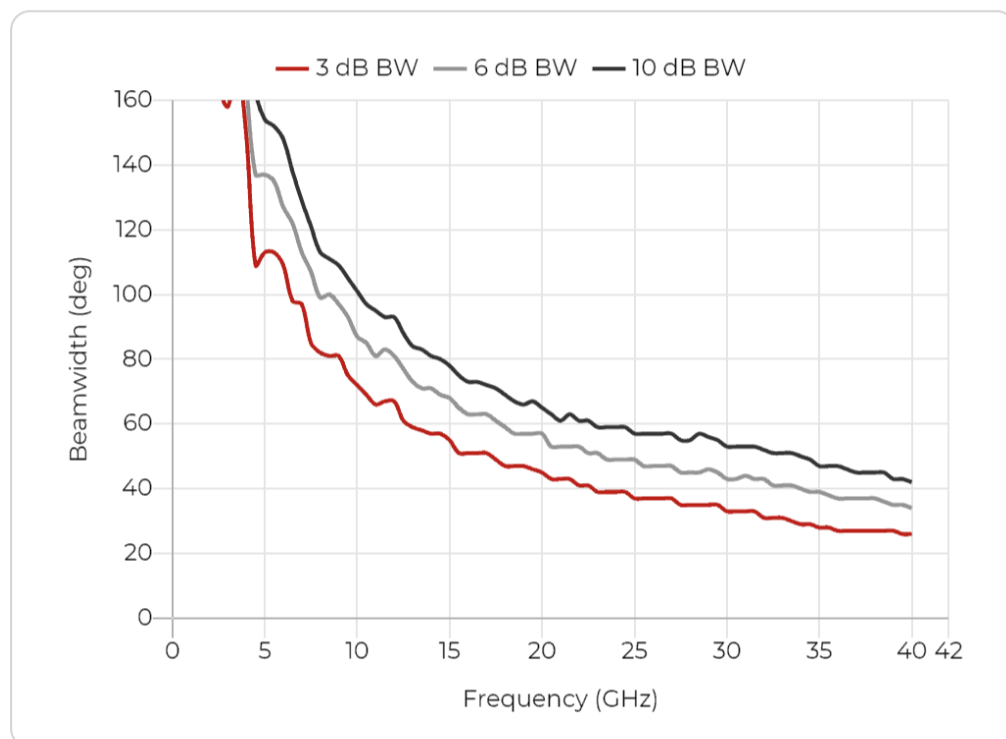
Port A, H plane



Port B, E plane

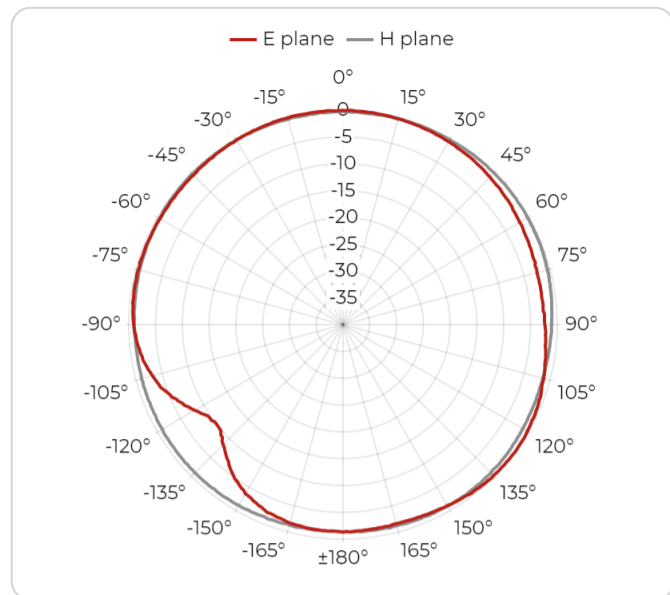


Port B, H plane

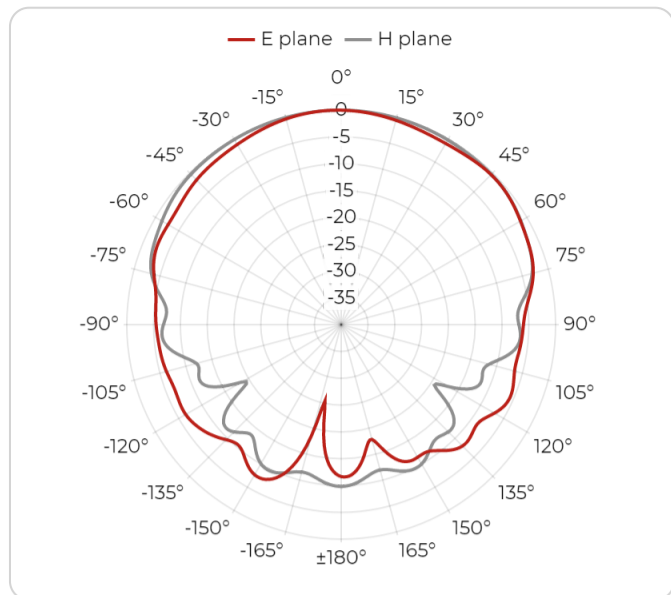


# Radiation Patterns - Port A

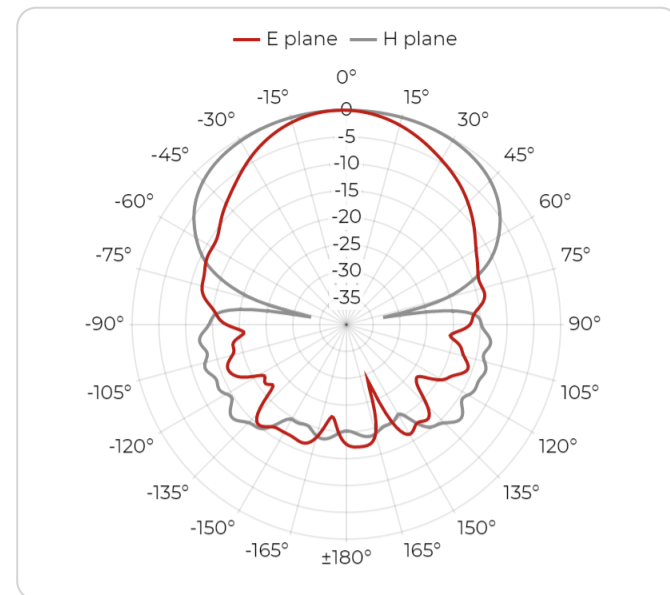
Port A, 1 GHz



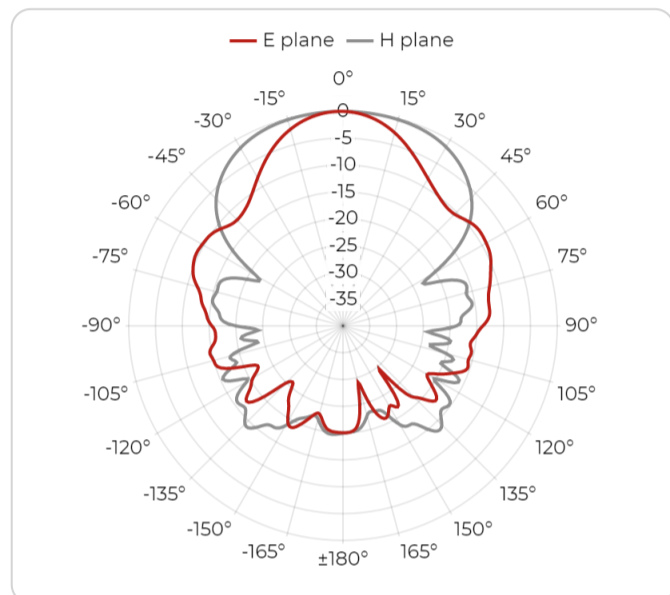
Port A, 4 GHz



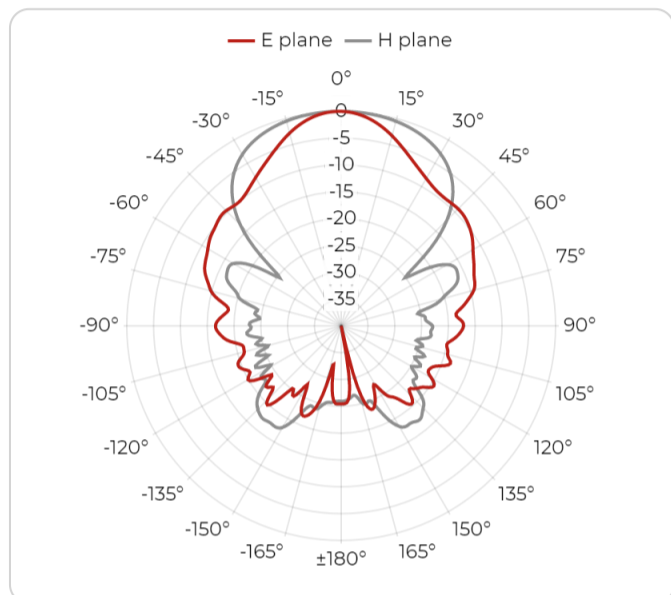
Port A, 7 GHz



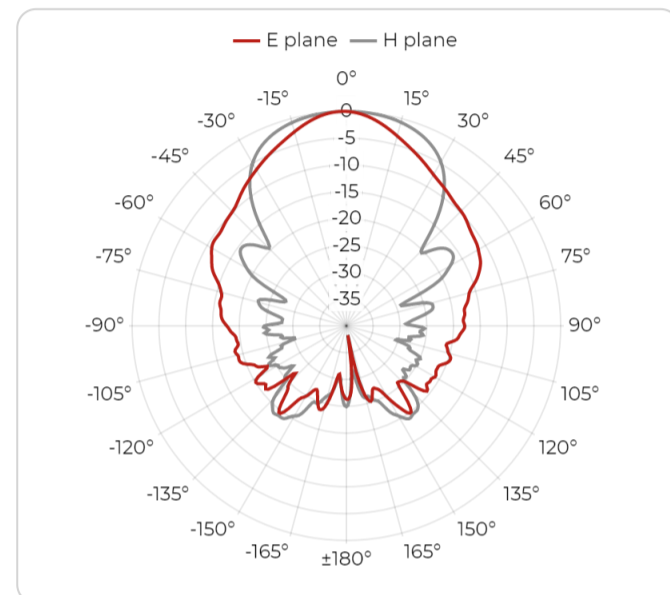
Port A, 10 GHz



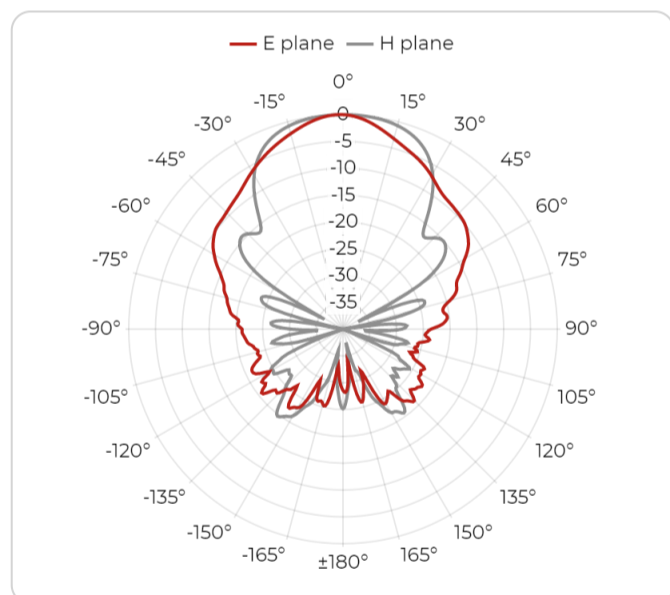
Port A, 13 GHz



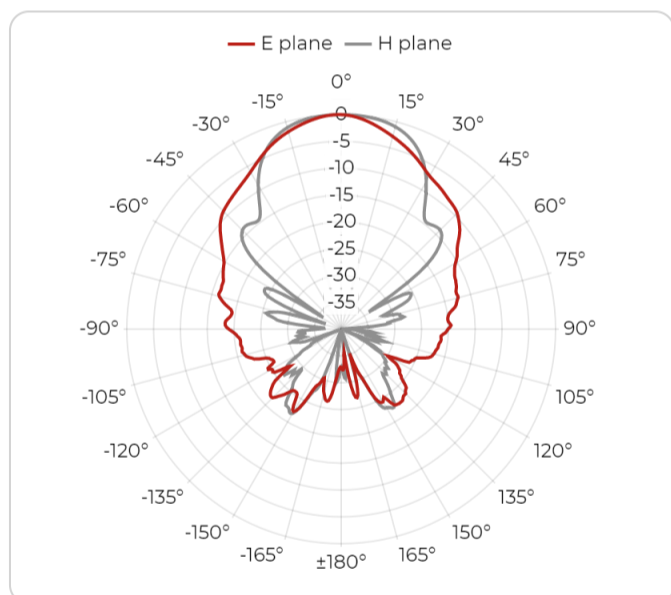
Port A, 16 GHz



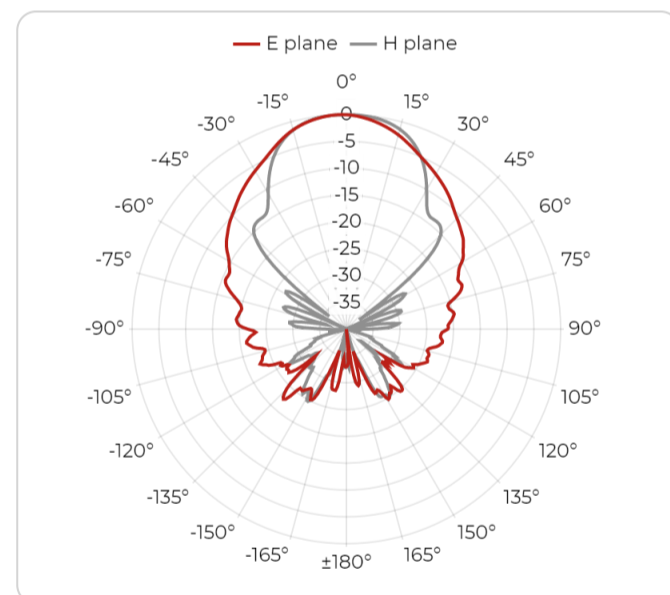
Port A, 19 GHz



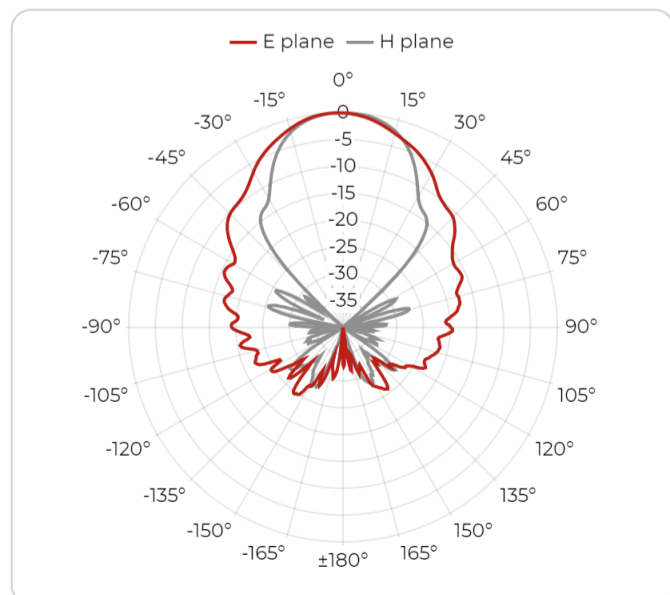
Port A, 22 GHz



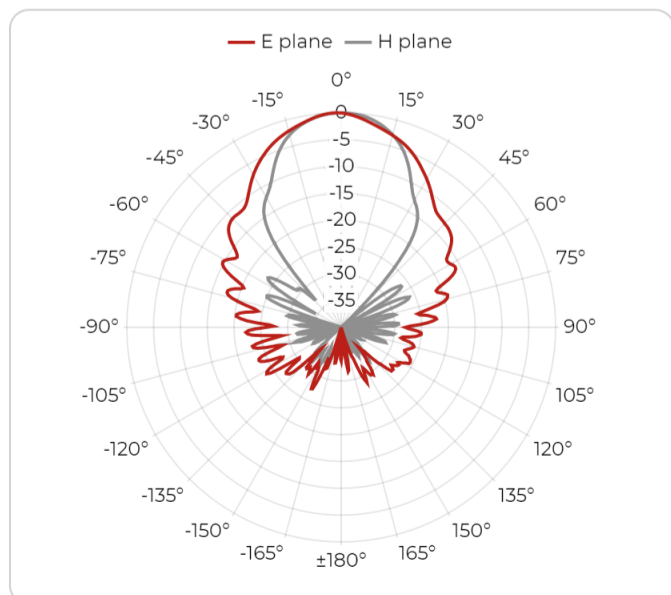
Port A, 25 GHz



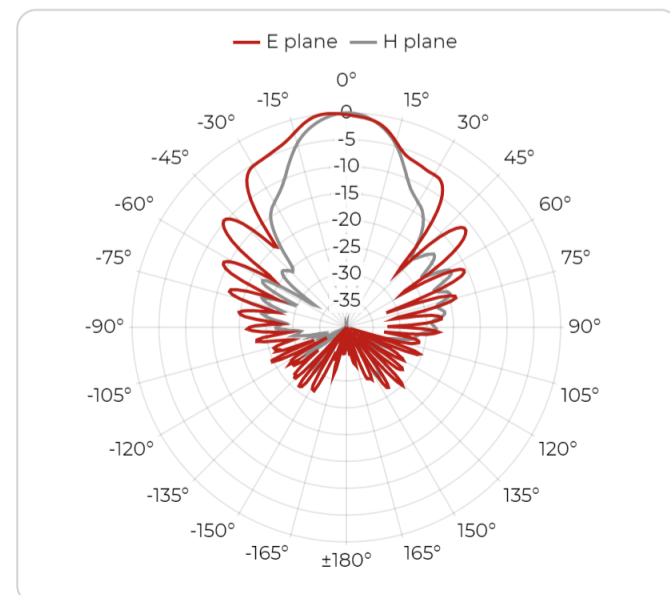
Port A, 30 GHz



Port A, 35 GHz

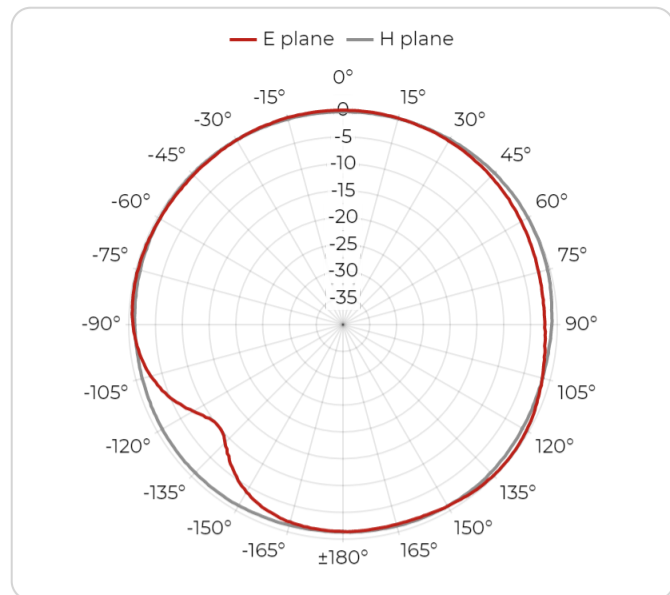


Port A, 40 GHz

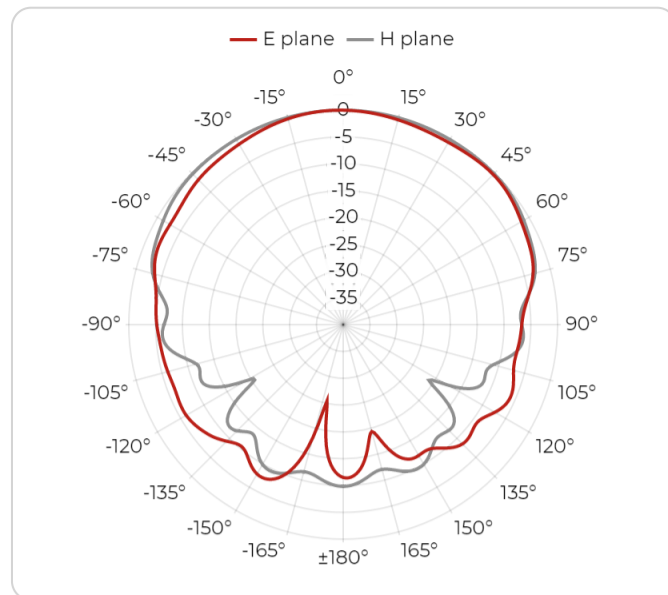


# Radiation Patterns - Port B

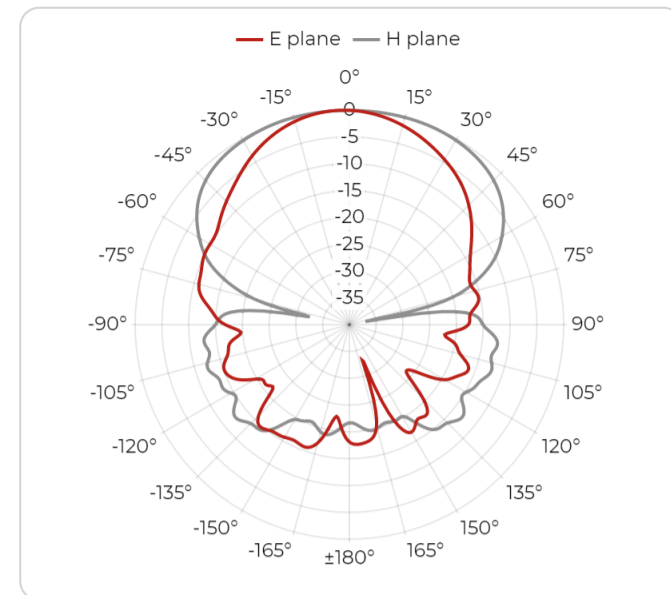
Port B, 1 GHz



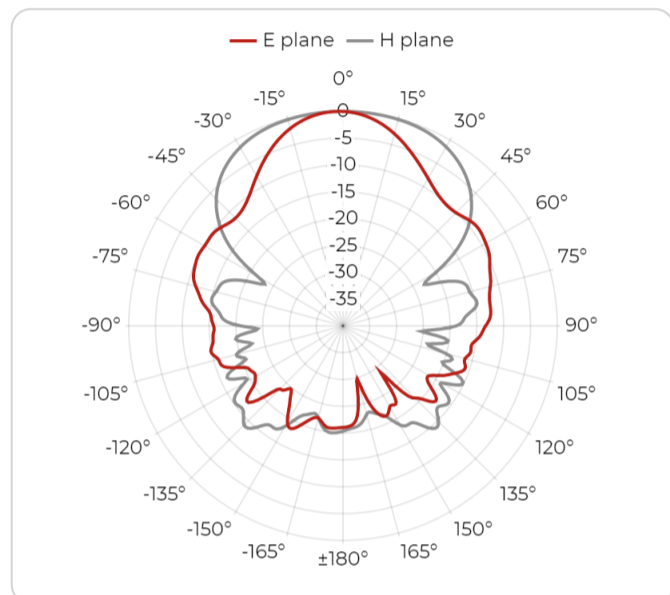
Port B, 4 GHz



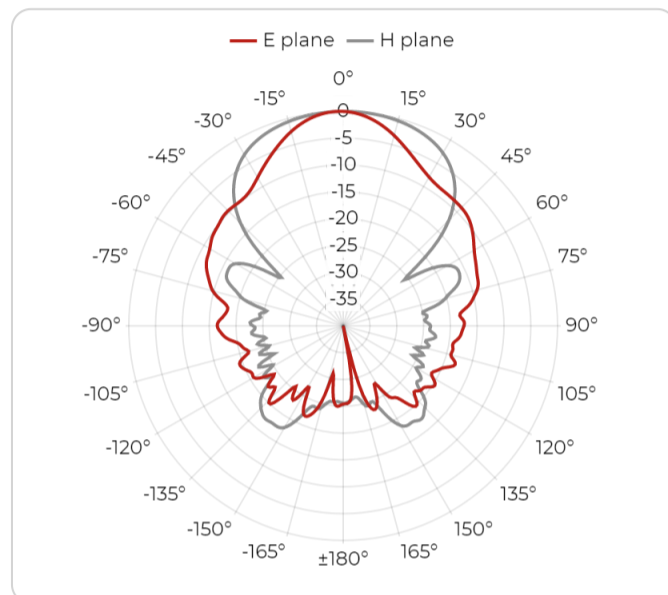
Port B, 7 GHz



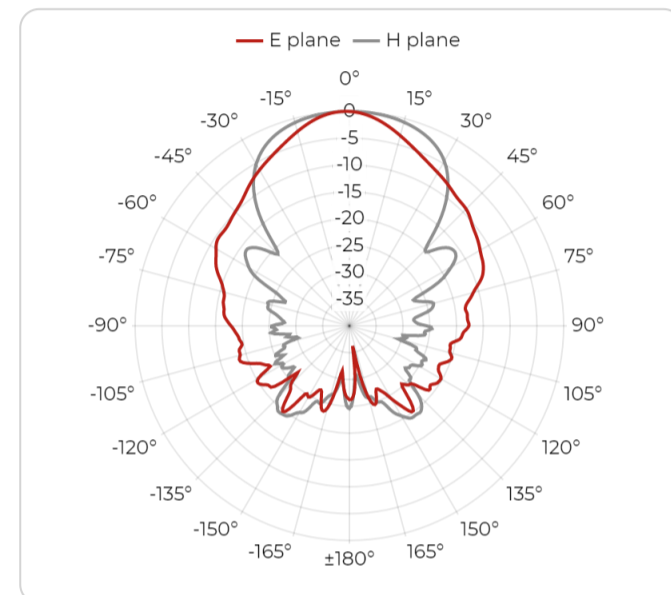
Port B, 10 GHz



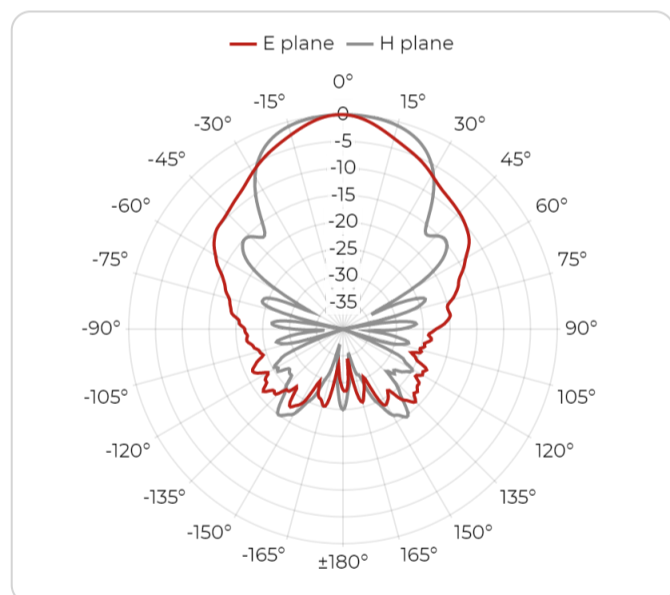
Port B, 13 GHz



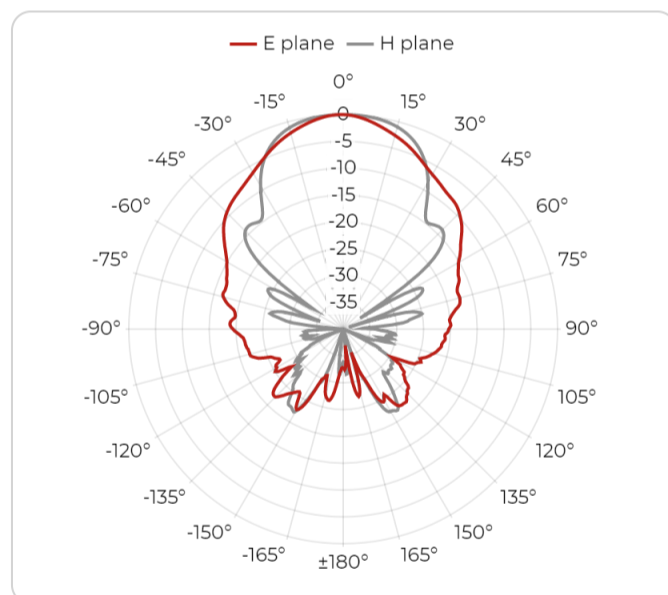
Port B, 16 GHz



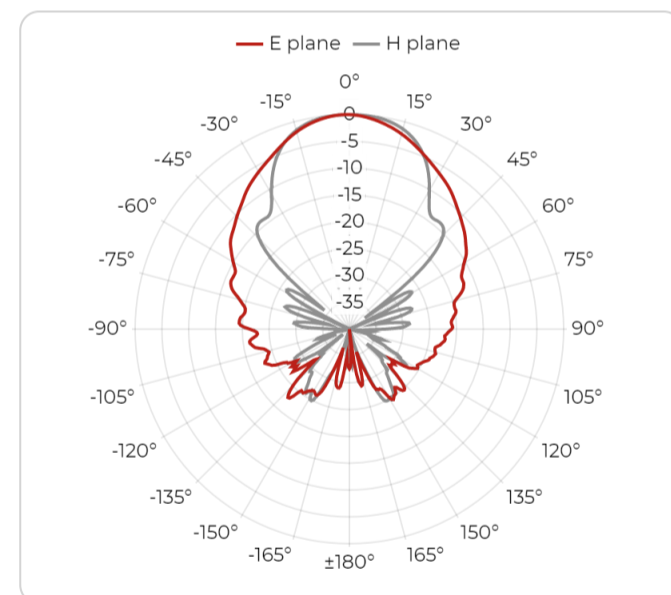
Port B, 19 GHz



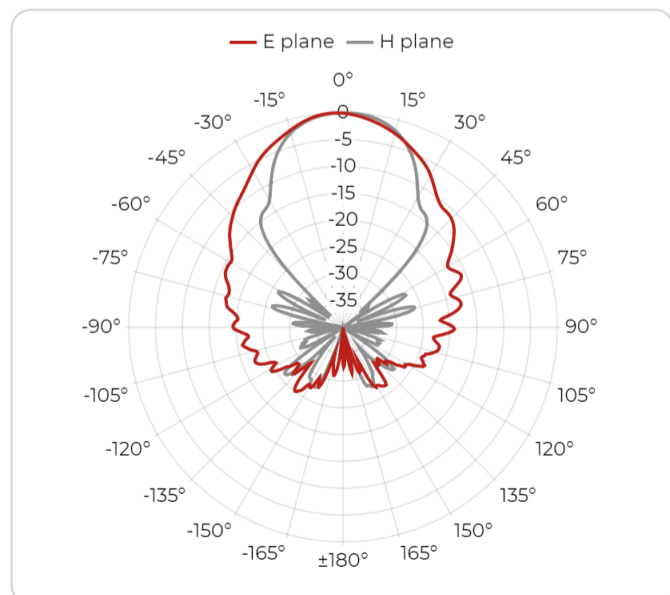
Port B, 22 GHz



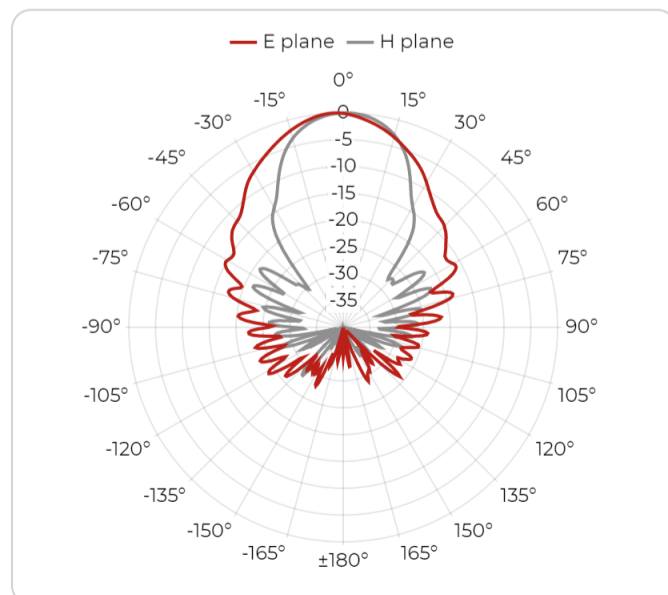
Port B, 25 GHz



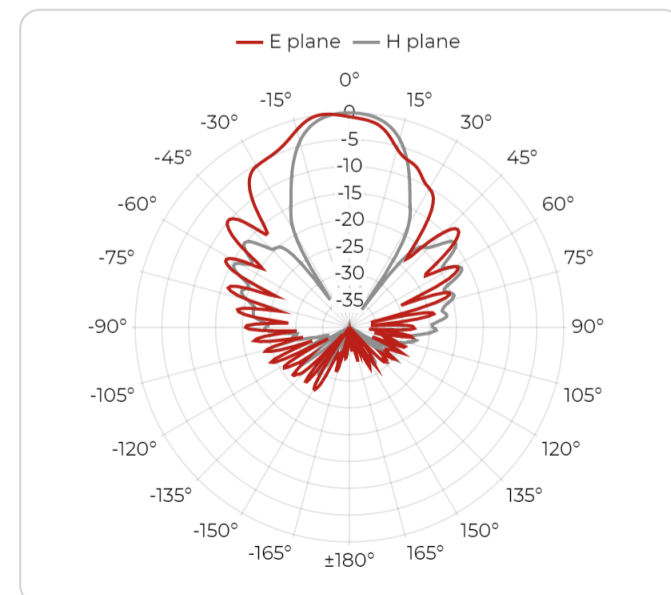
Port B, 30 GHz



Port B, 35 GHz



Port B, 40 GHz



## Packaging and Accessories

### What's in a box

- QRH0140 Antenna
- Antenna specific mount adapter with ¼ inch inner thread
- Protective wooden case
- Factory calibration certificate
- Full calibration report of each antenna
- QR code accessing online portal
- Calibration test dataset (available online)

### Accessories

- Standard mounting flange

### Optional Accessories

- [AHS22-HI Antenna Fixture](#)
- [PAS2022 Antenna Stand](#)

### Custom services

- Custom mounting solutions
- Custom calibration data

## Manufacturer Information

### About Datasheet

Product information available also online at  
<https://www.rfspin.com/product/grh0140/>

*Data and specifications subject to change without notice.*

*Datasheet revision 02-2024.*

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