



## Quad Ridged Horn Antenna

The QRH50E antenna is an enhanced version of the broadband bestseller that helps hundreds of the world's leading players develop, test, and deploy 5G networks. Advanced antenna with exceptional technical parameters and excellent design in aluminum alloy.

### 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 2.40mm type coaxial connector



#### Product Packaging Includes

- Adapter with ¼ inch inner thread, supplied with antenna
- Linear polarized double ridged broadband horn antenna

### Product Parameters

#### PRODUCT IDENTIFICATION

Product Name	<b>QRH50E</b>
Product Category	<b>Quad Ridged Horn Antenna</b>

#### ELECTRICAL SPECIFICATIONS

Frequency Range	<b>5 GHz – 50 GHz</b>
VSWR (max.)	<b>2.5</b>
VSWR (avg.)	<b>1.45</b>
Impedance	<b>50 Ohm</b>
Connector	<b>2.40mm</b>
Power (CW / Peak)	<b>5 W / 10 W</b>
Antenna Factor	<b>40 – 52 dB/m</b>
Port Isolation	<b>-28 dB</b>
Polarization	<b>Dual Linear, Circular (with hybrid)</b>

#### PHYSICAL SPECIFICATIONS

Width	<b>45 mm (1.772 in)</b>
Height	<b>85 mm (3.346 in)</b>
Depth	<b>45 mm (1.772 in)</b>
Weight	<b>0.078 kg (0.172 lb)</b>

#### OPERATING CONDITIONS

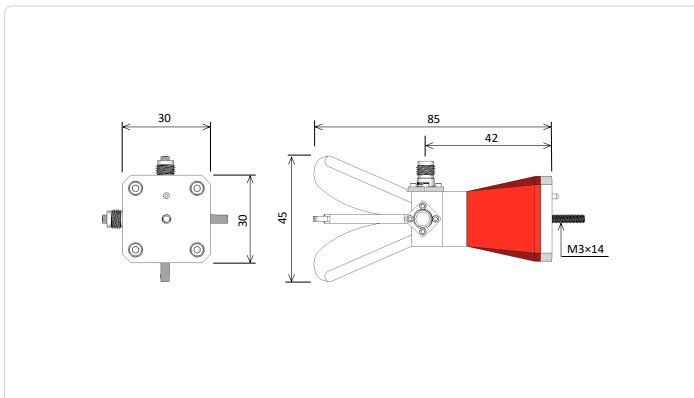
Rated Temperature Range	<b>0°C – +50°C</b>
Storage Temperature Range	<b>-20°C – +70°C</b>

#### MOUNTING FLANGE

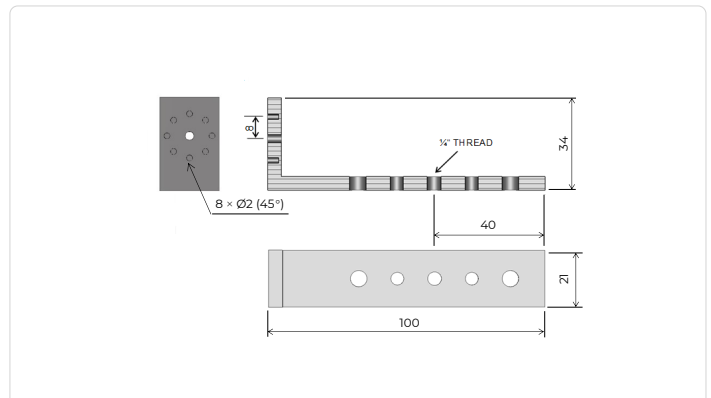
Mounting	<b>Adapter with ¼ inch inner thread, supplied with antenna</b>
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### Mechanical Drawings

Antenna



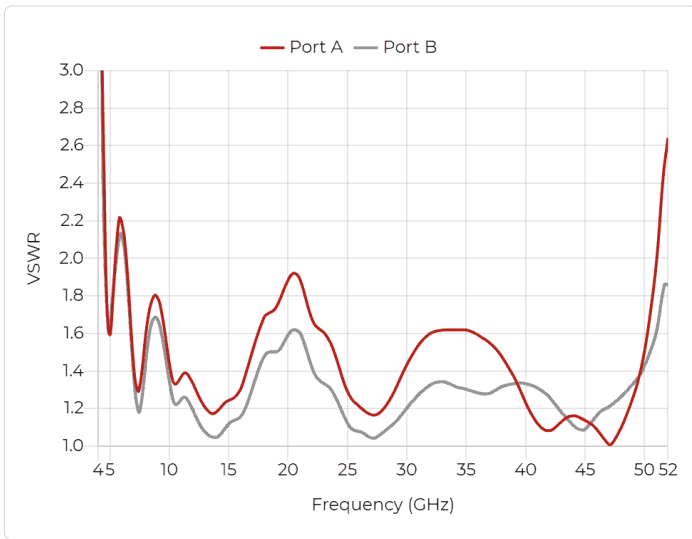
Mounting flange



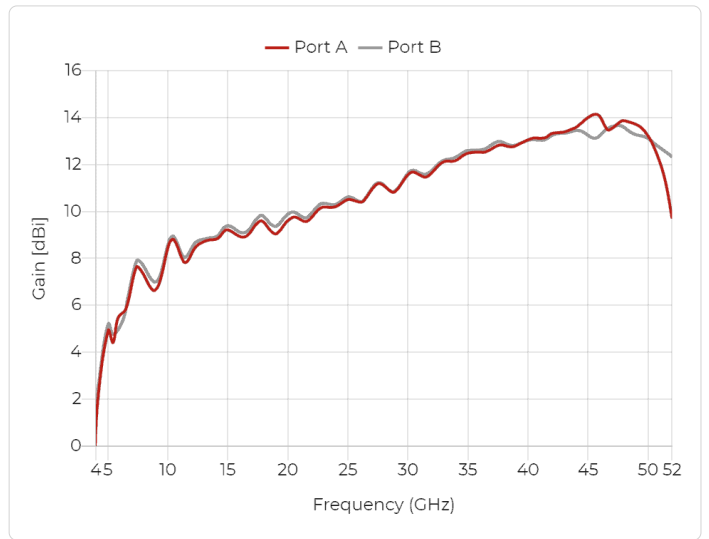
# Parameters and Performance

## Typical parameters

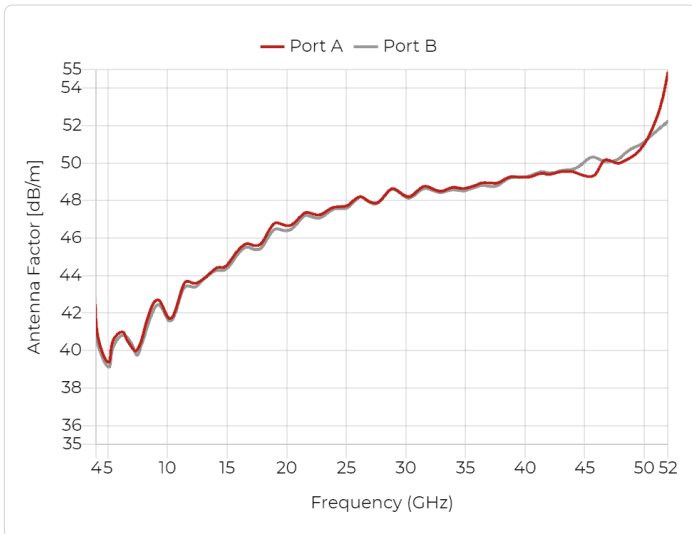
VSWR



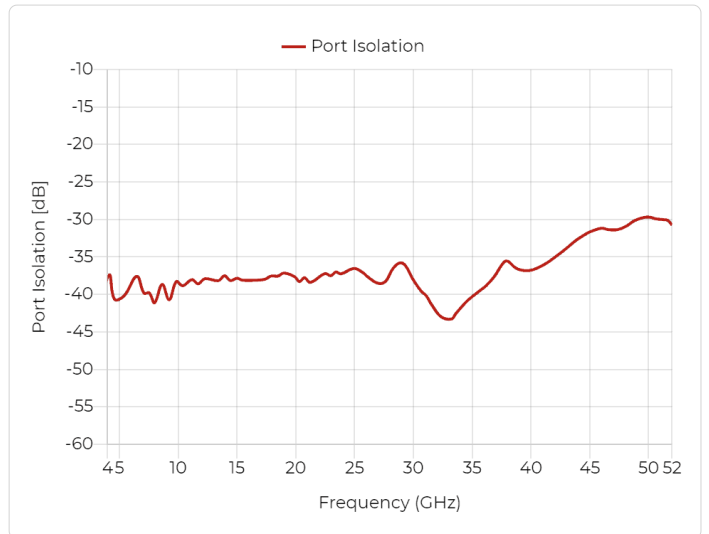
Gain



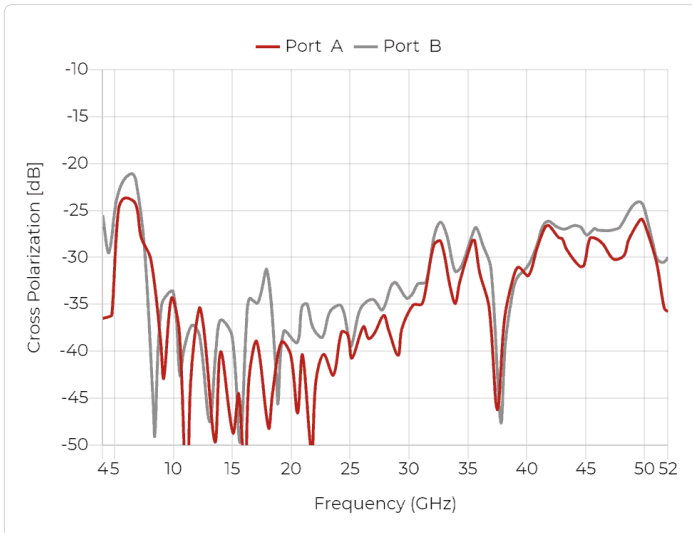
Antenna Factor



Port Isolation

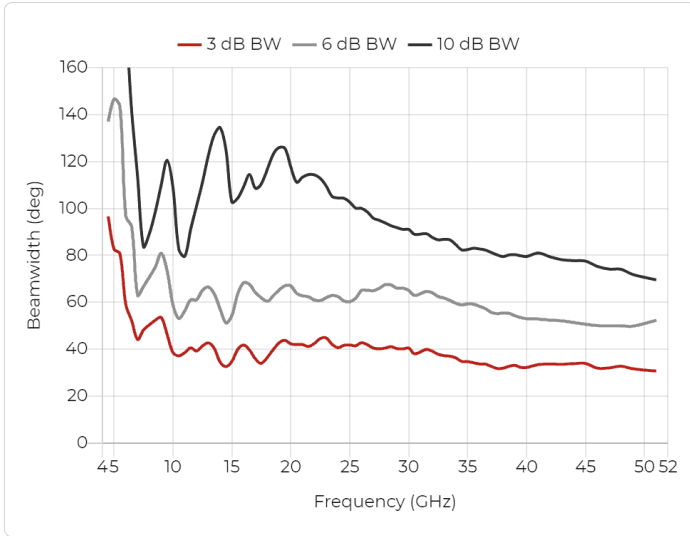


Cross Polarization

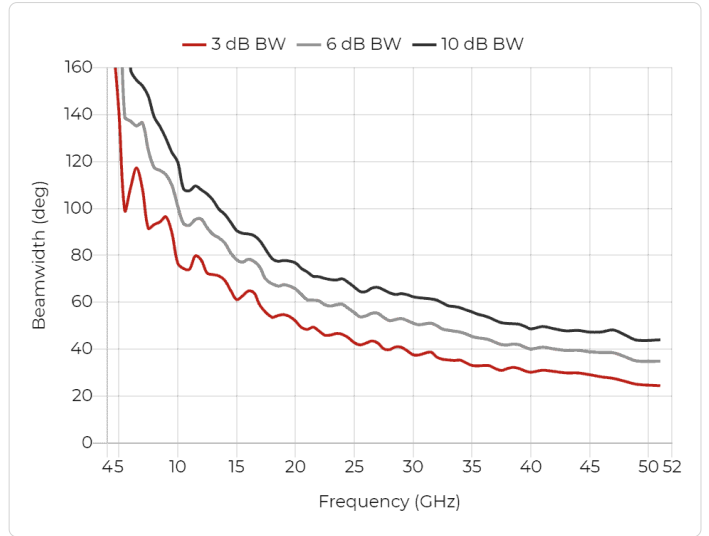


## Beamwidth

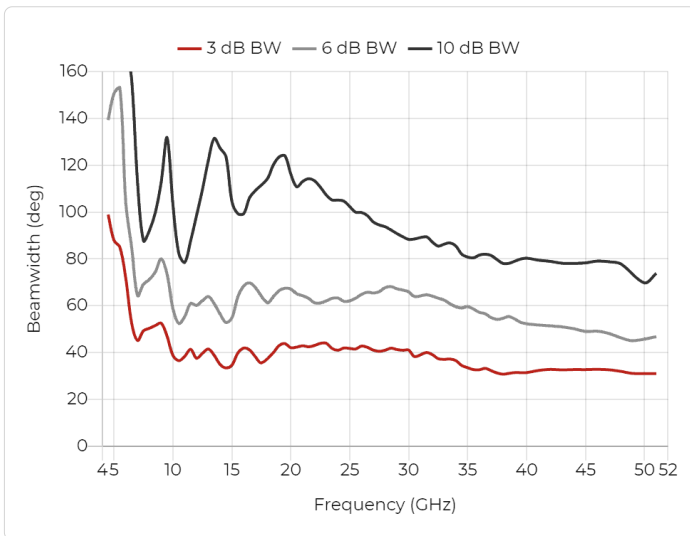
Port A, E plane



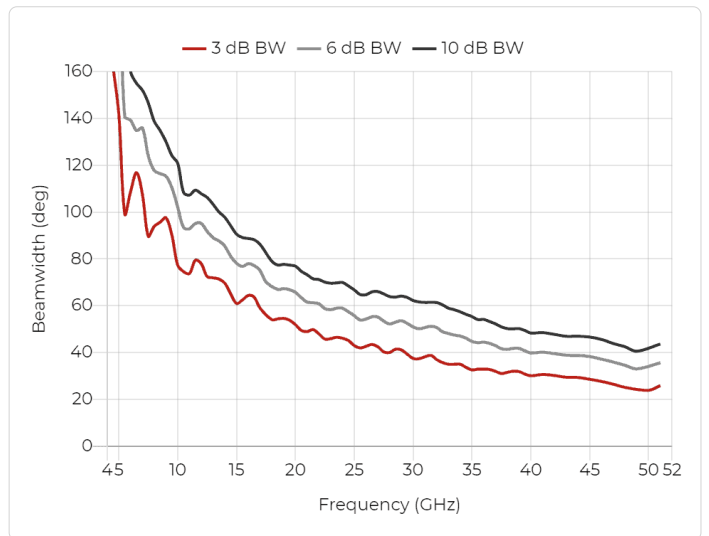
Port A, H plane



Port B, E plane

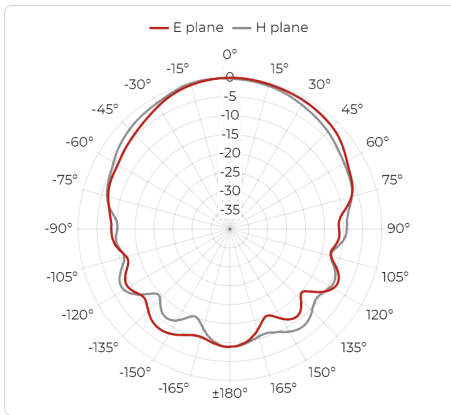


Port B, H plane

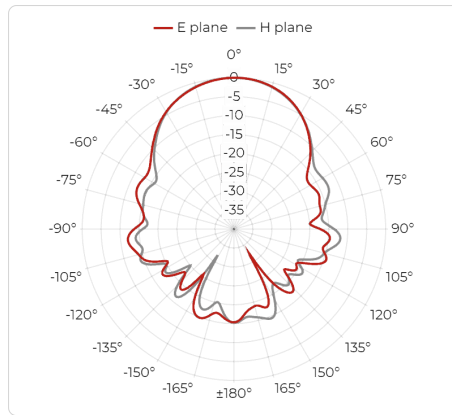


## Radiation Patterns - Port A

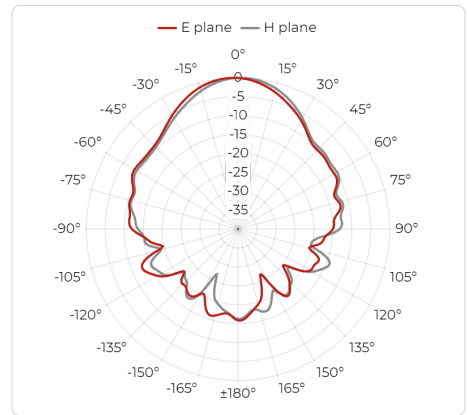
Port A, 5 GHz



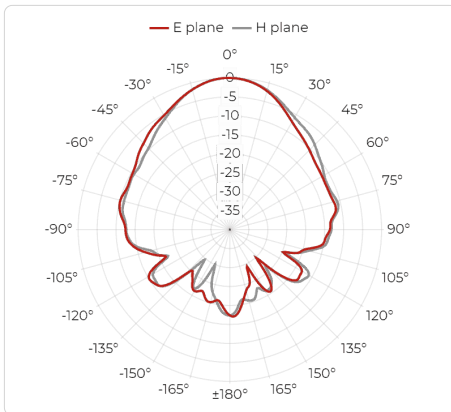
Port A, 8 GHz



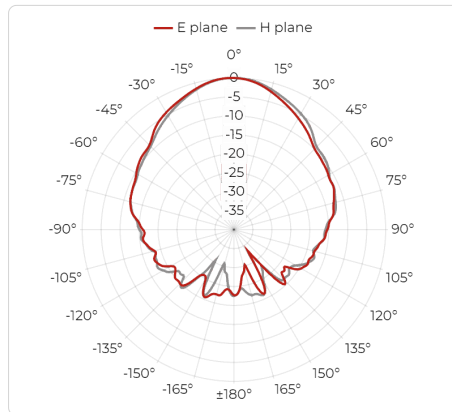
Port A, 10 GHz



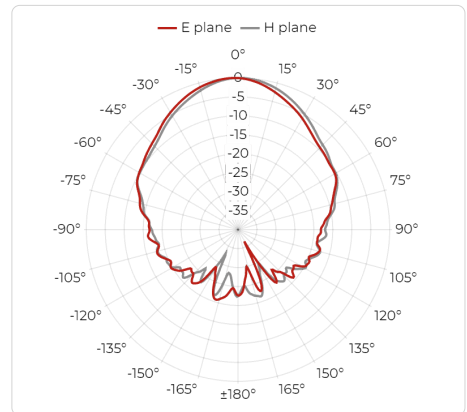
Port A, 12 GHz



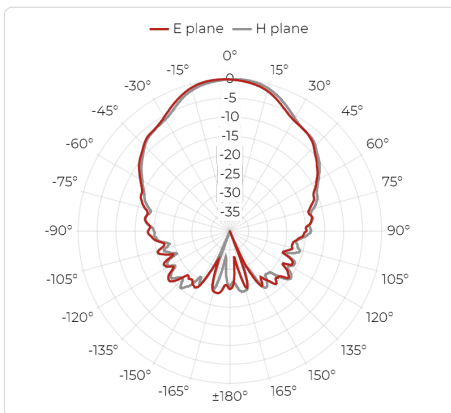
Port A, 16 GHz



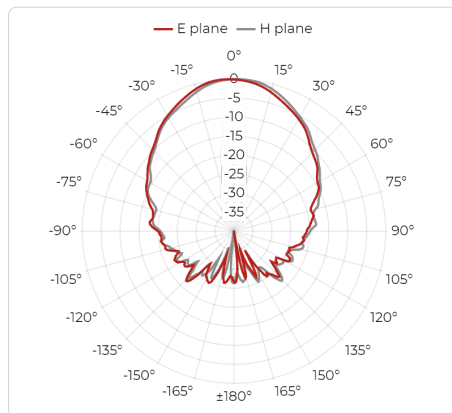
Port A, 20 GHz



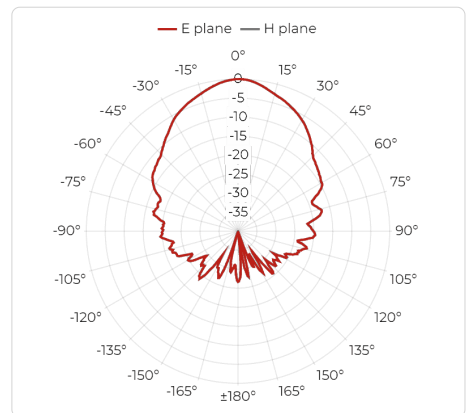
Port A, 25 GHz



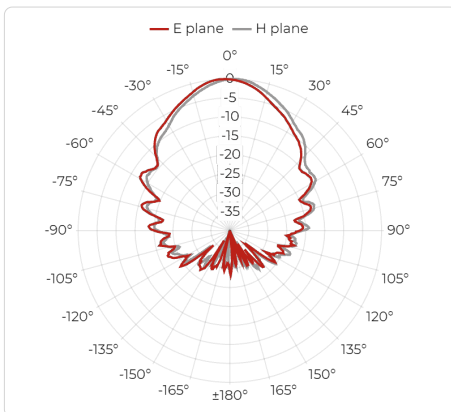
Port A, 30 GHz



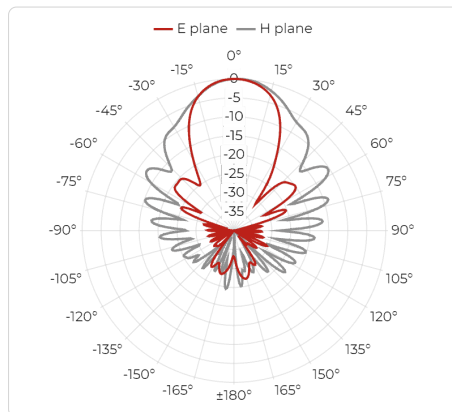
Port A, 35 GHz



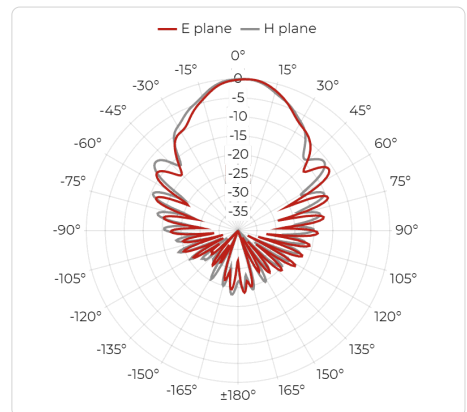
Port A, 40 GHz



Port A, 45 GHz

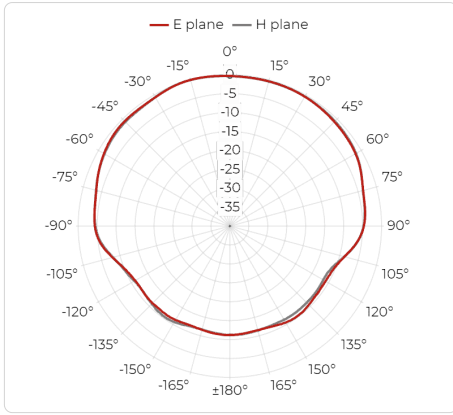


Port A, 50 GHz

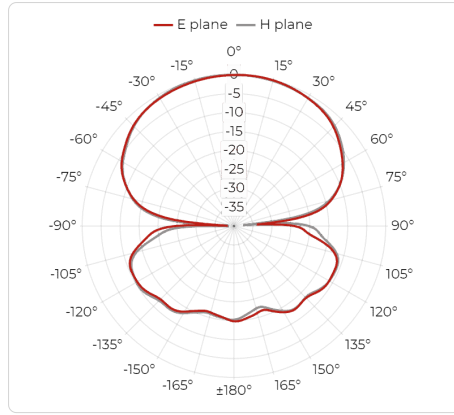


## Radiation Patterns - Port B

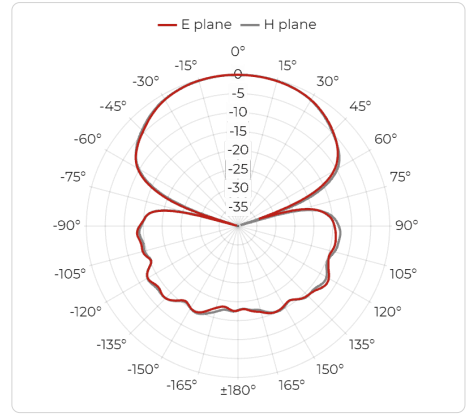
Port B, 5 GHz



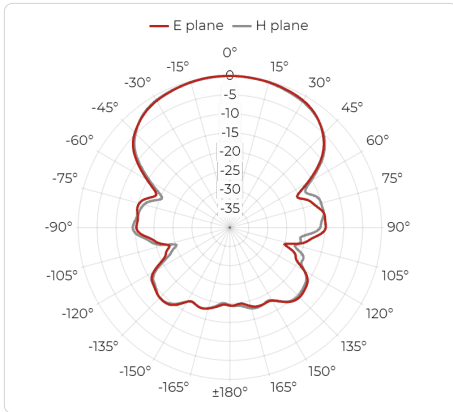
Port B, 8 GHz



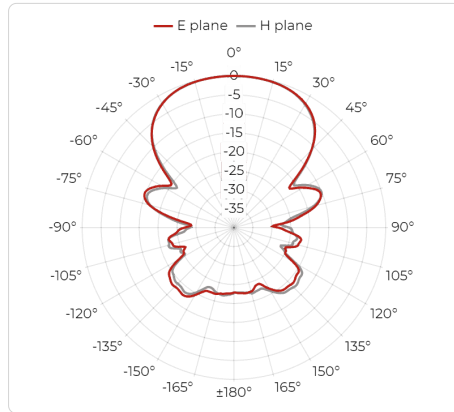
Port B, 10 GHz



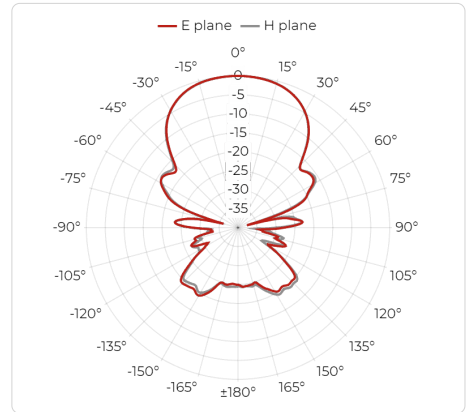
Port B, 12 GHz



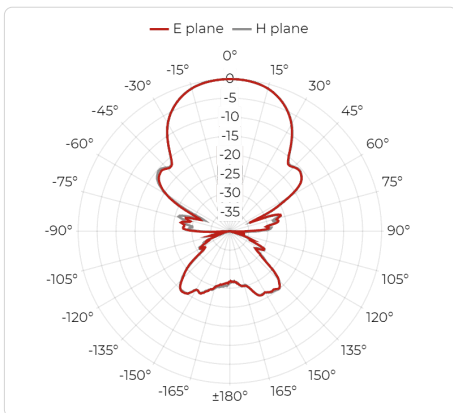
Port B, 16 GHz



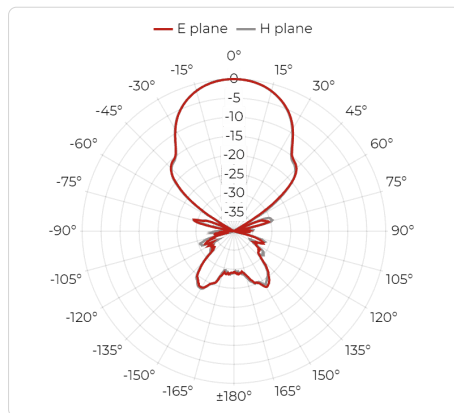
Port B, 20 GHz



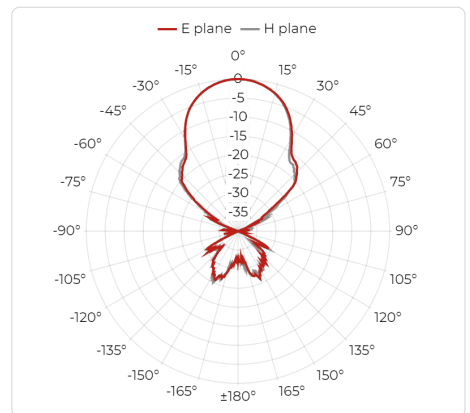
Port B, 25 GHz



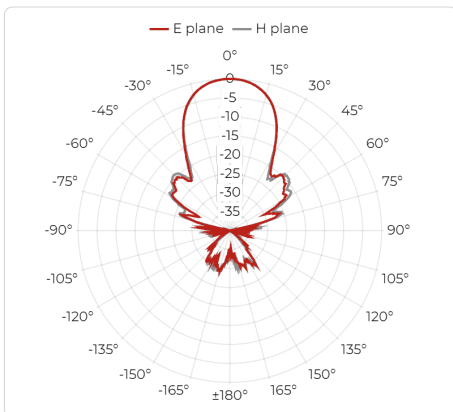
Port B, 30 GHz



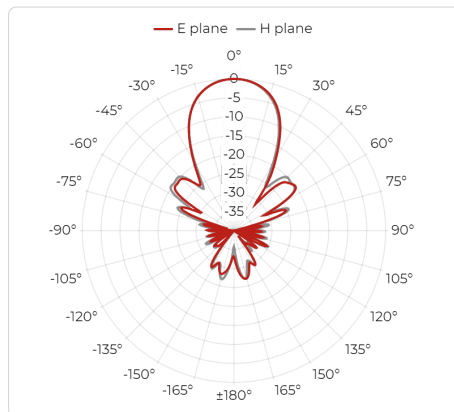
Port B, 35 GHz



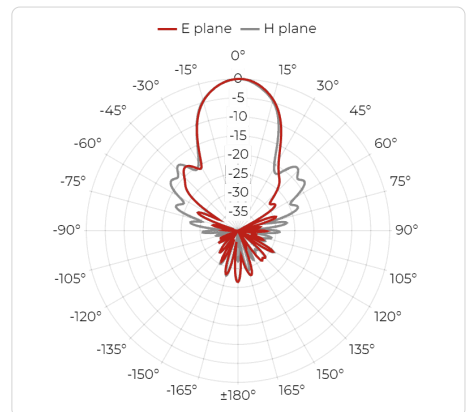
Port B, 40 GHz



Port B, 45 GHz



Port B, 50 GHz



## Packaging and Accessories

### What's in a box

- QRH50E 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



Protective wooden case



Factory calibration report

### Optional Accessories

- [FAS01 Antenna Stand](#)
- [PAS01 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/qrh50e/>

*Data and specifications subject to change without notice.*

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### Address

RFspin s.r.o.  
Na Beránce 57/2  
160 00 Prague 6  
Czech Republic

### E-mail

[info@rfspin.com](mailto:info@rfspin.com)

### Phone

+420 245 008 847