

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.

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
- 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 1/4 inch inner thread, supplied with antenna
- Linear polarized double ridged broadband horn antenna

Product Parameters

PRODUCT IDENTIFICATION

| | |
|------------------|---------------------------------|
| Product Name | QRH50E |
| Product Category | Quad Ridged Horn Antenna |

ELECTRICAL SPECIFICATIONS

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

PHYSICAL SPECIFICATIONS

| | |
|--------|----------------------------|
| Width | 45 mm (1.772 in) |
| Height | 85 mm (3.346 in) |
| Depth | 45 mm (1.772 in) |
| Weight | 0.078 kg (0.172 lb) |

OPERATING CONDITIONS

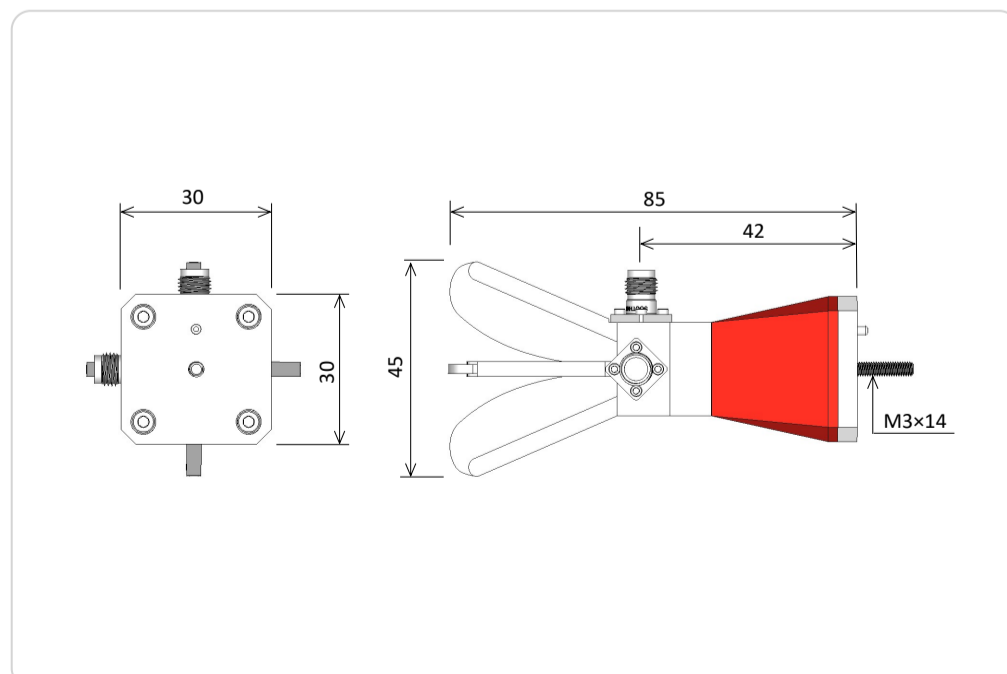
| | |
|---------------------------|----------------------|
| Rated Temperature Range | 0°C – +50°C |
| Storage Temperature Range | -20°C – +70°C |

MOUNTING FLANGE

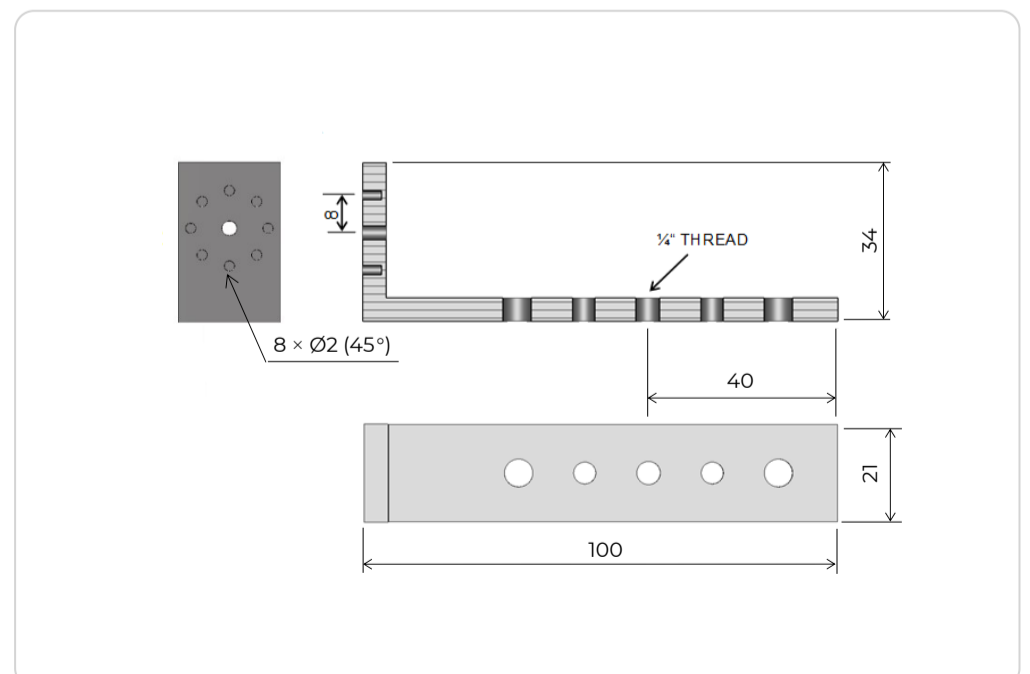
| | |
|----------|------------------------------------------------------------------|
| Mounting | Adapter with 1/4 inch inner thread, supplied with antenna |
|----------|------------------------------------------------------------------|

Mechanical Drawings

Antenna



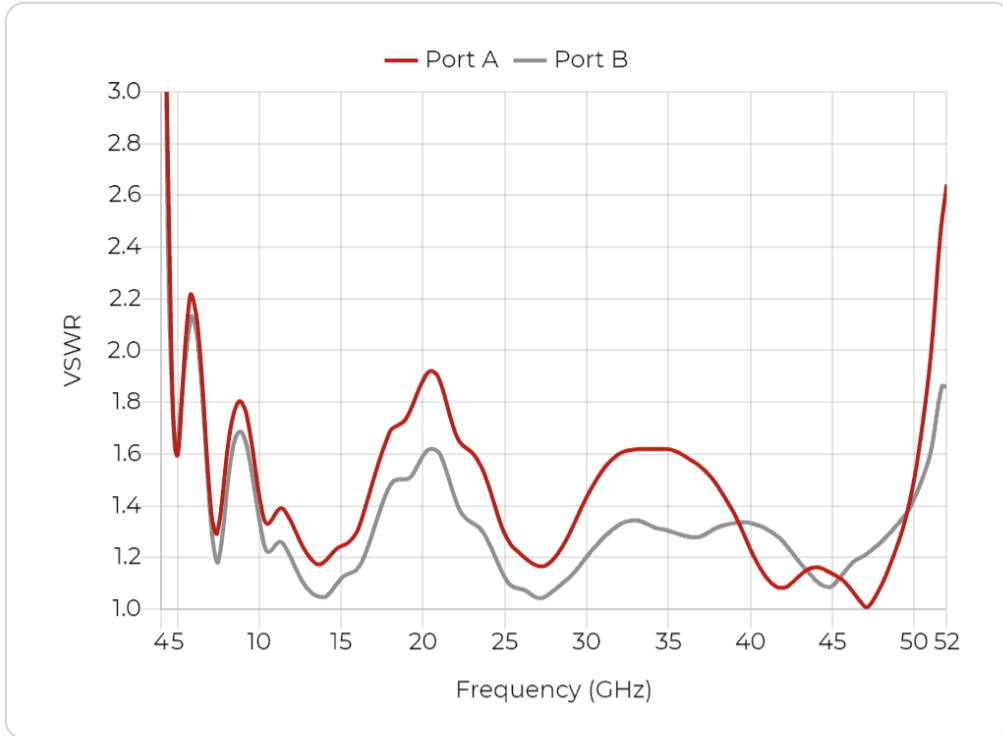
Mounting flange



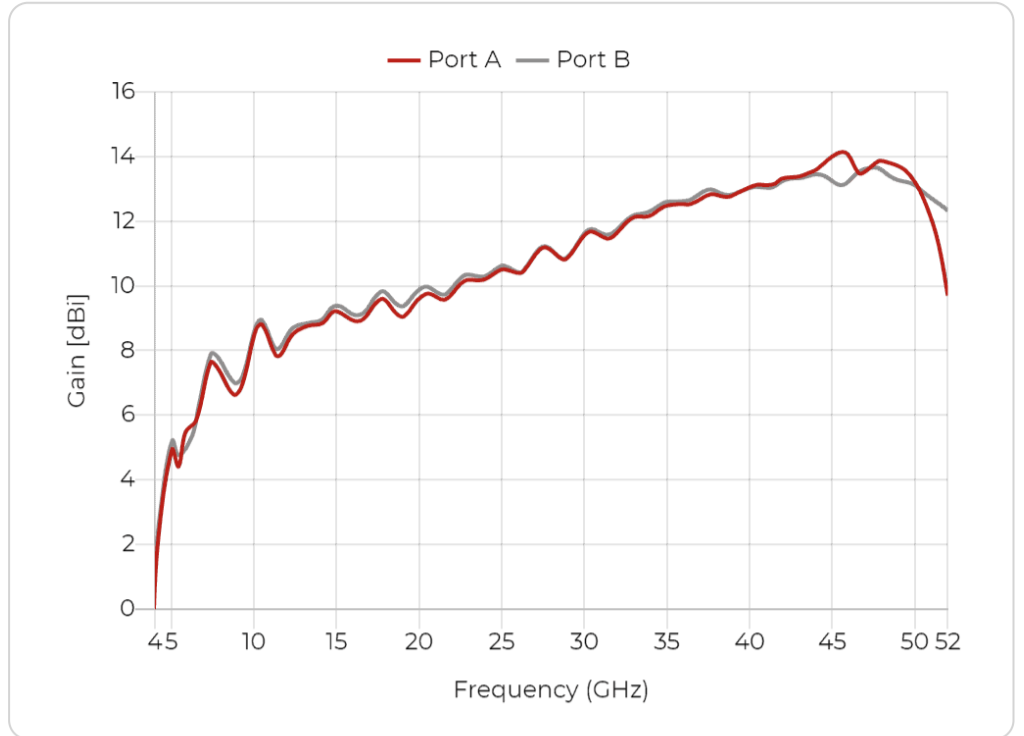
Parameters and Performance

Typical parameters

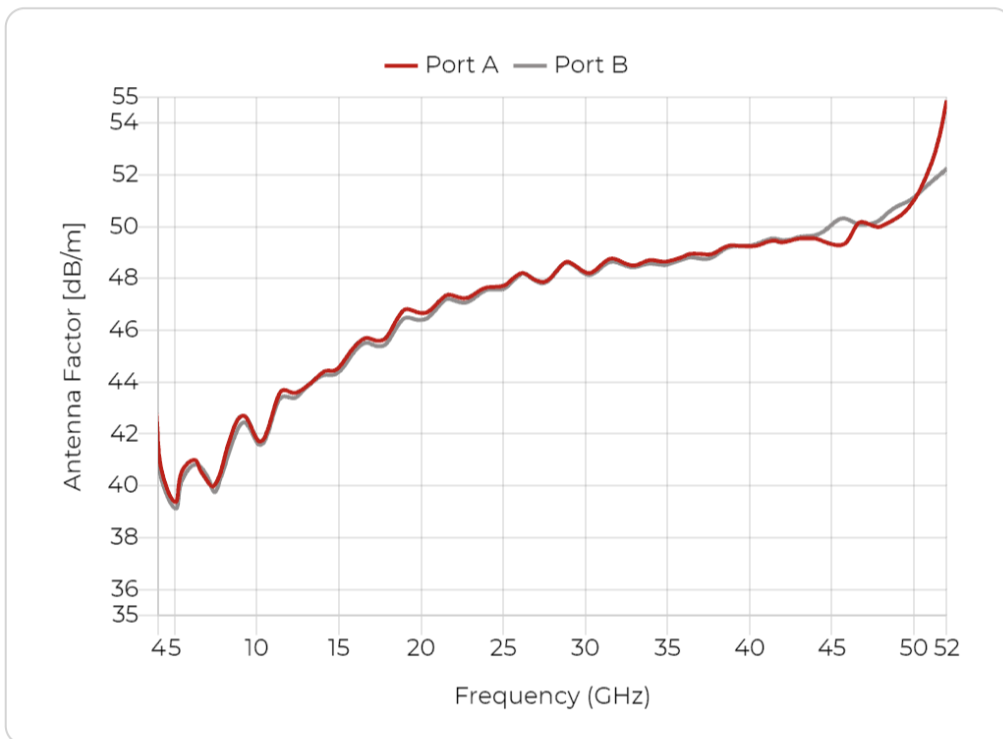
VSWR



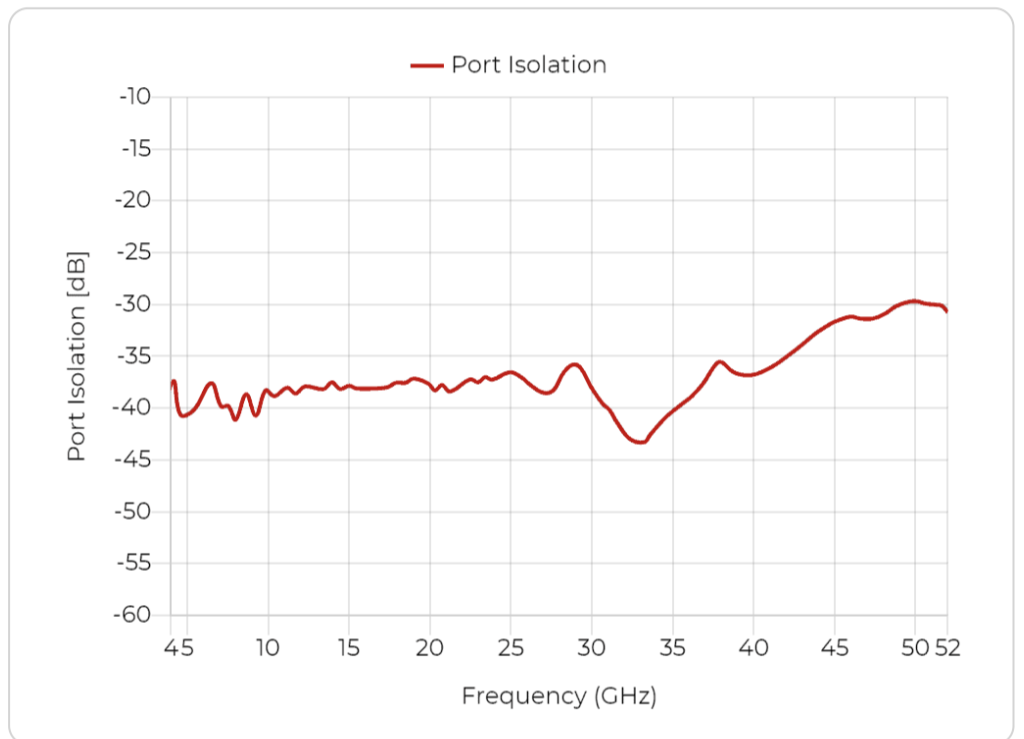
Gain



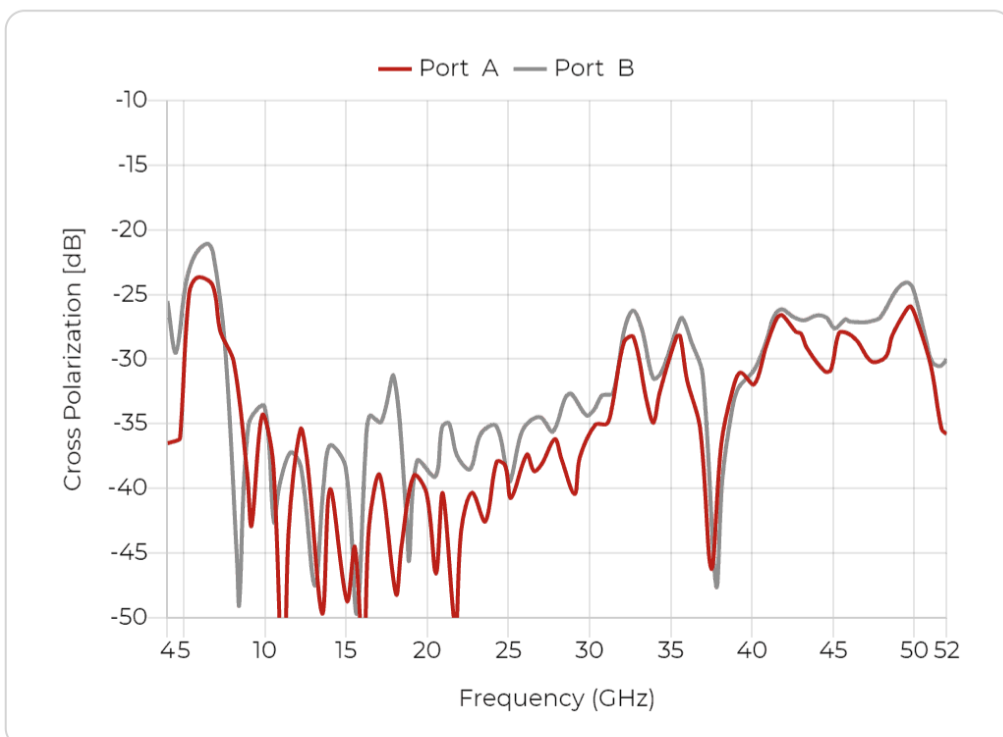
Antenna Factor



Port Isolation

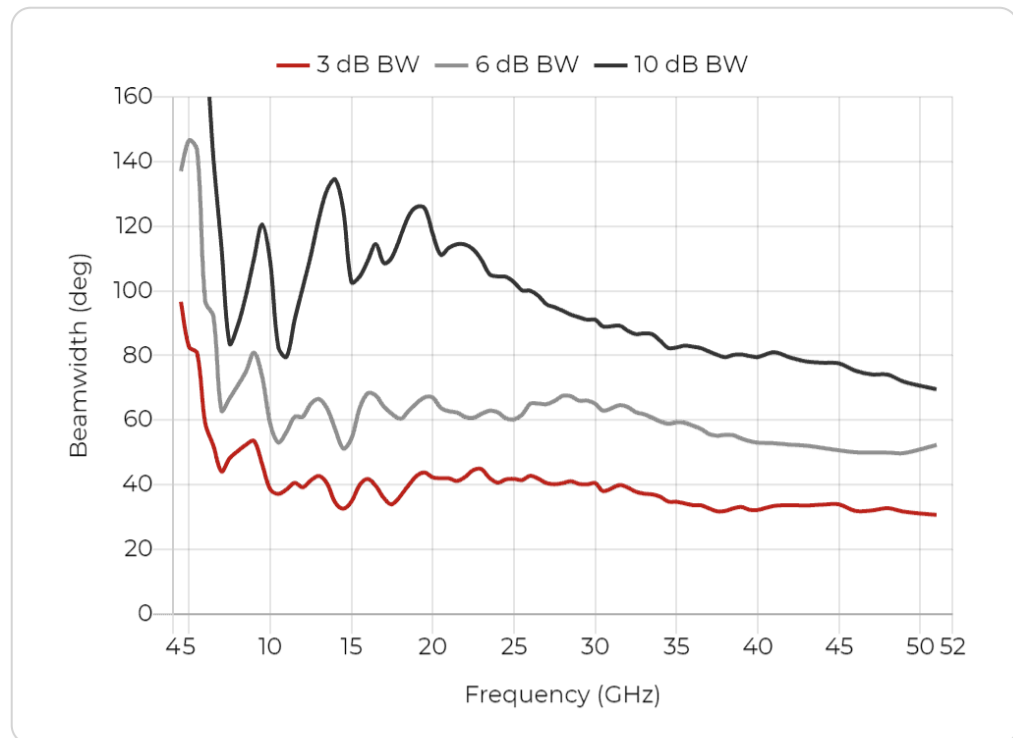


Cross Polarization

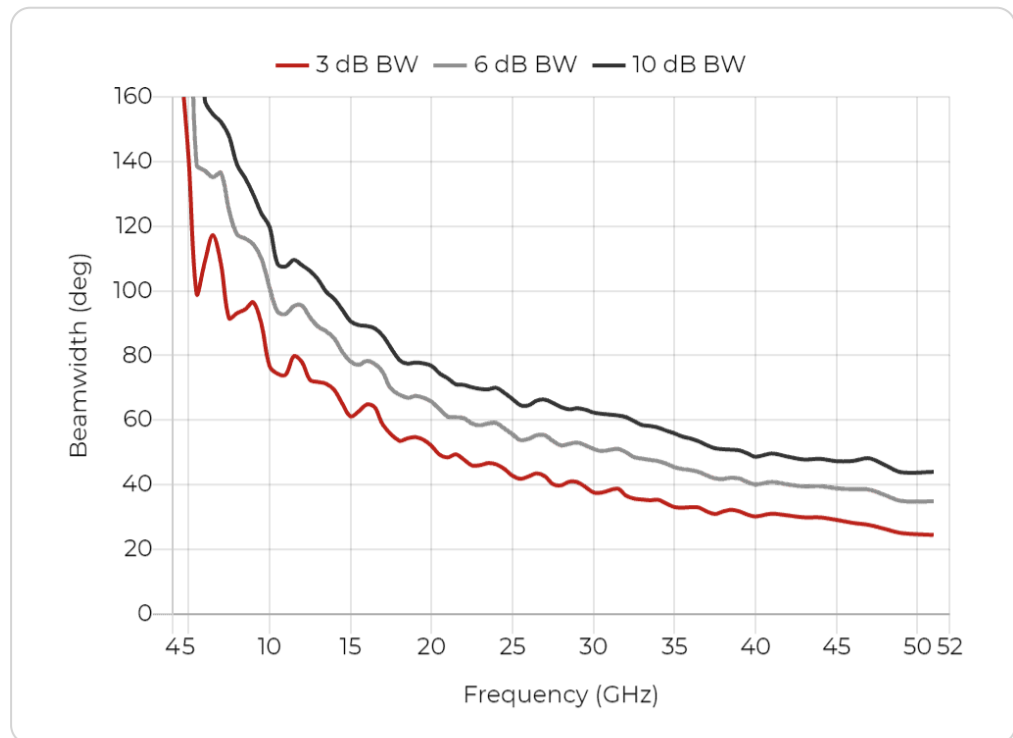


Beamwidth

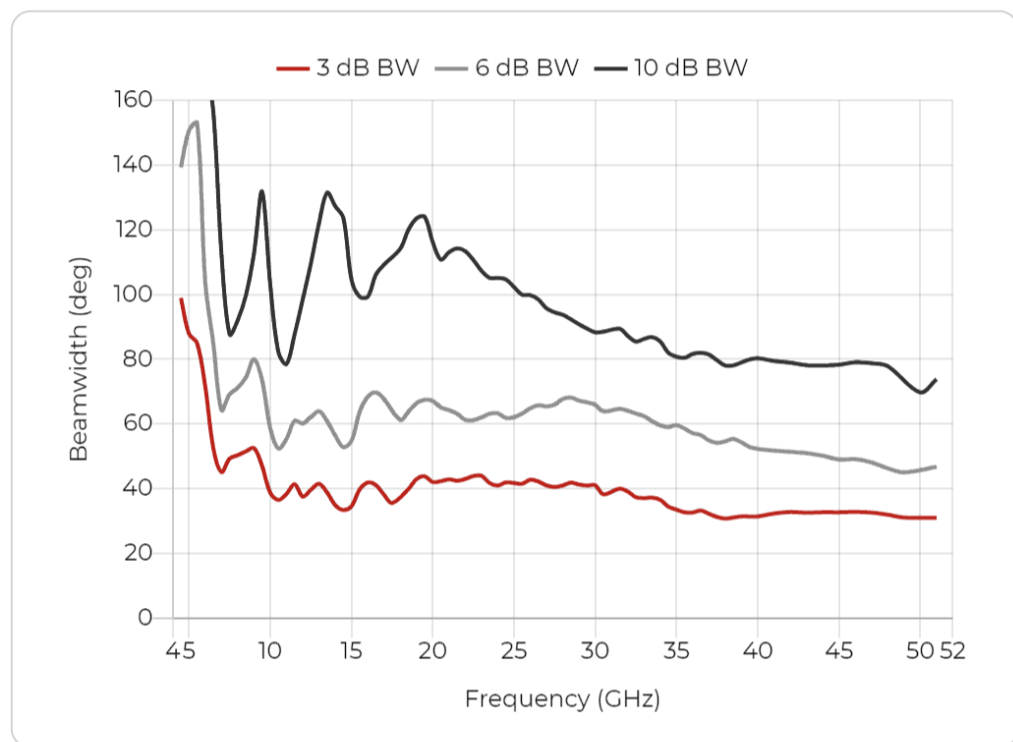
Port A, E plane



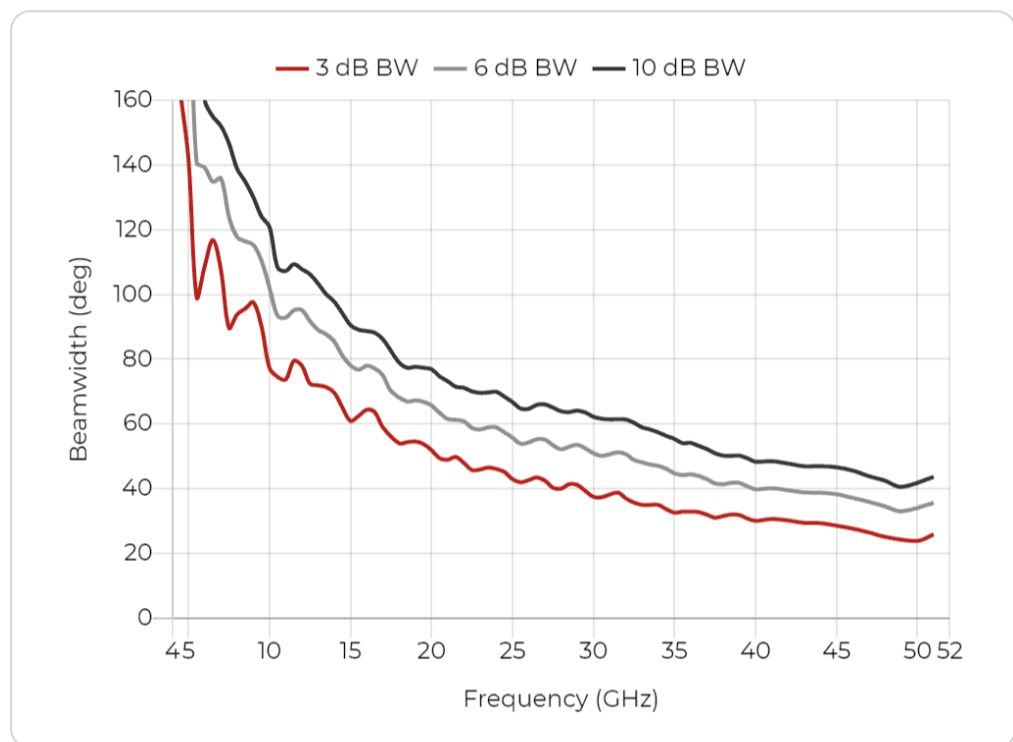
Port A, H plane



Port B, E plane

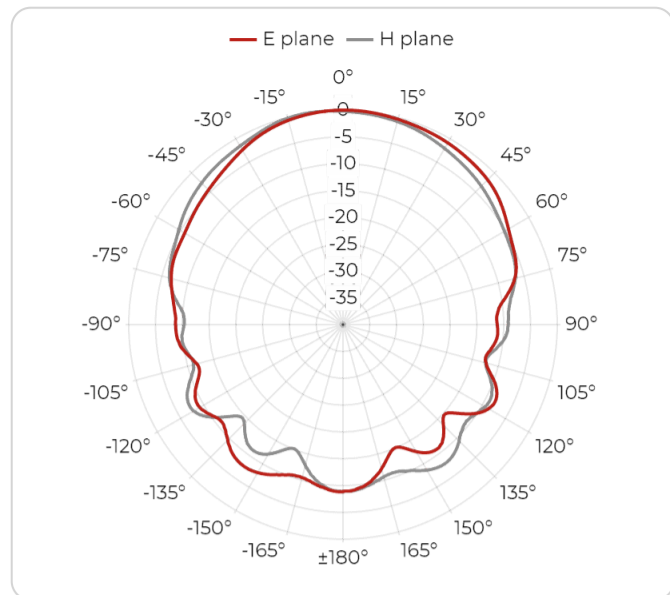


Port B, H plane

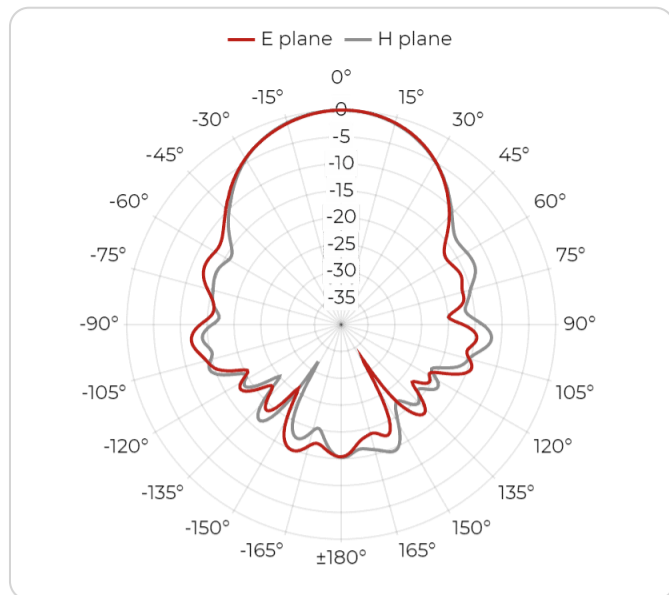


Radiation Patterns - Port A

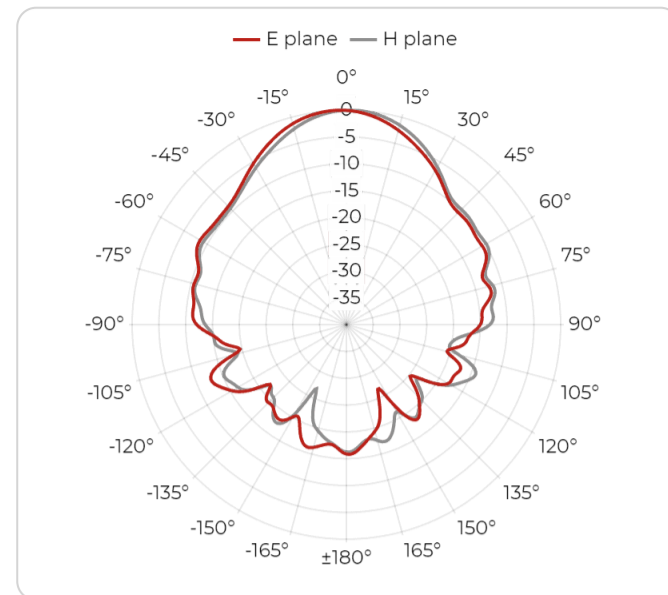
Port A, 5 GHz



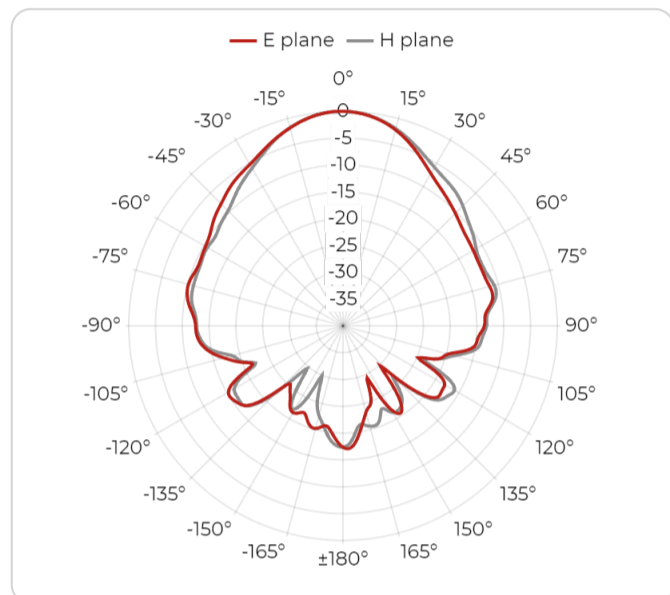
Port A, 8 GHz



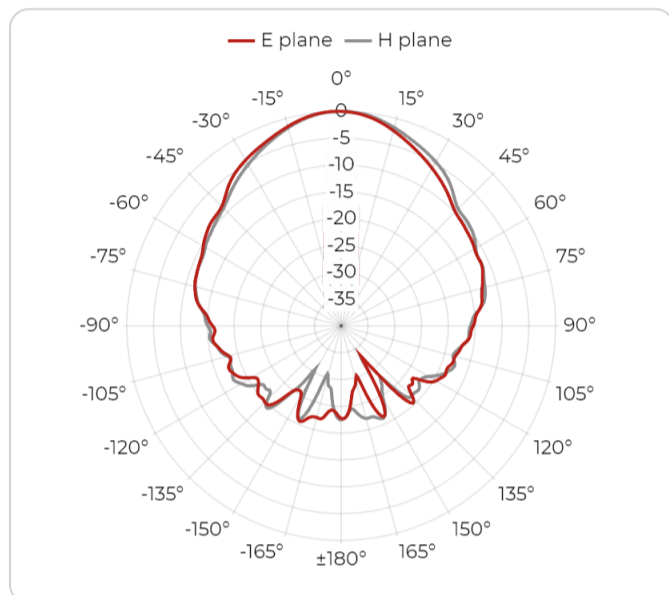
Port A, 10 GHz



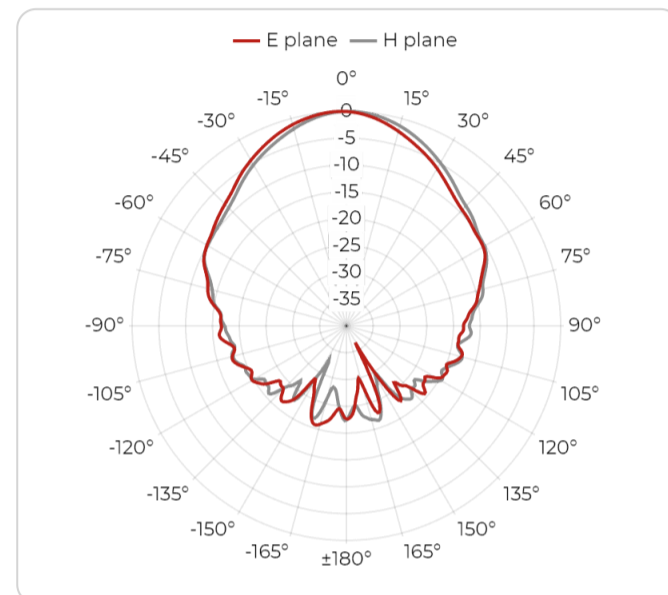
Port A, 12 GHz



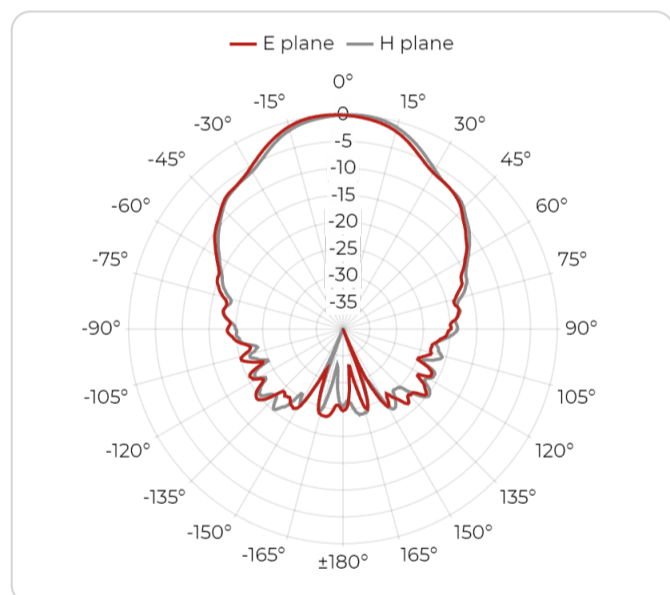
Port A, 16 GHz



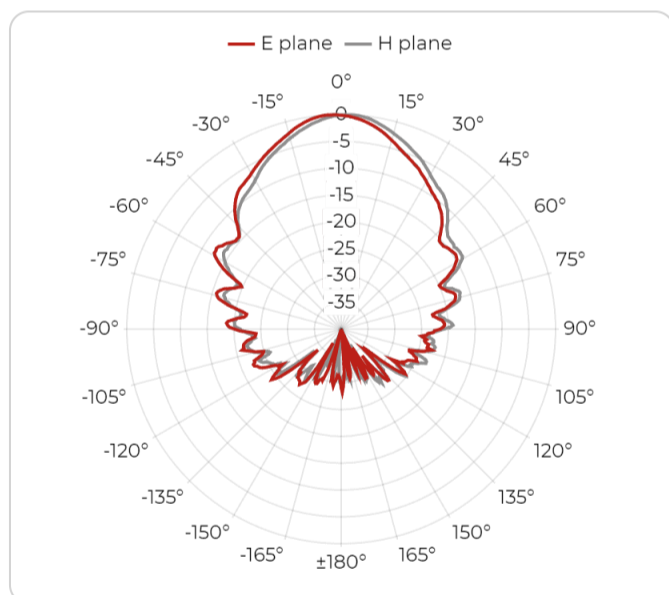
Port A, 20 GHz



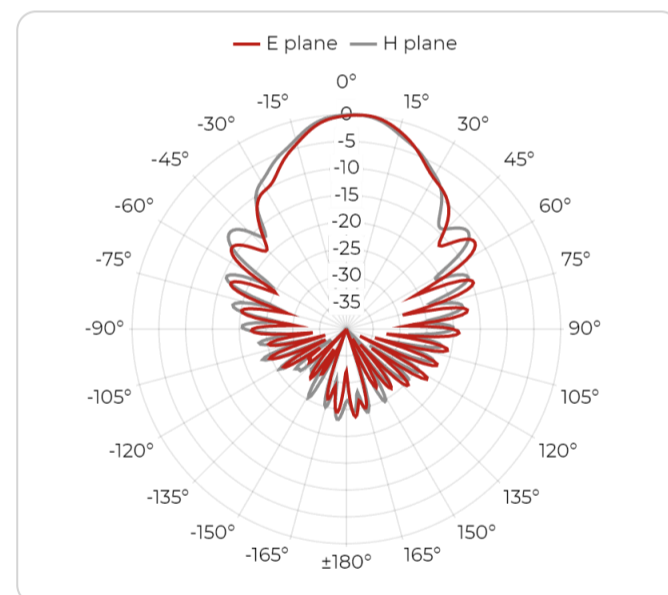
Port A, 25 GHz



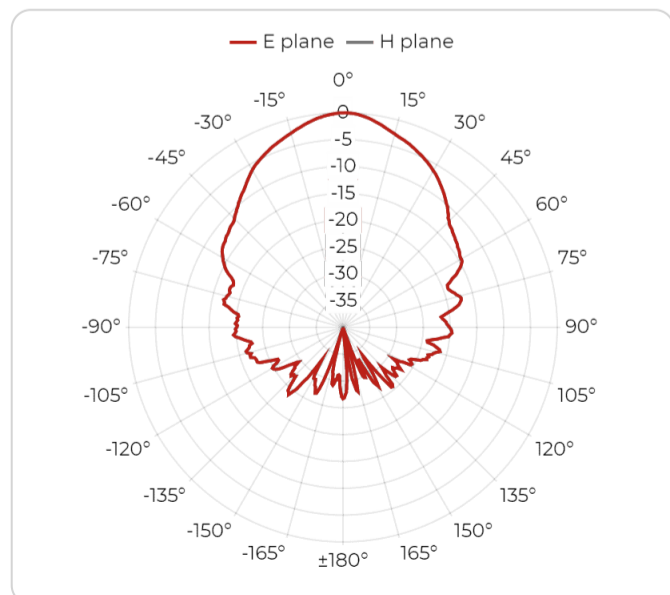
Port A, 40 GHz



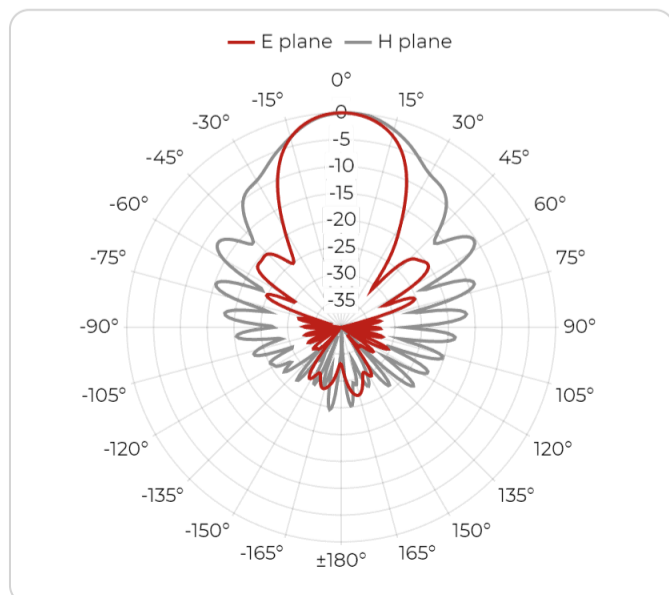
Port A, 50 GHz



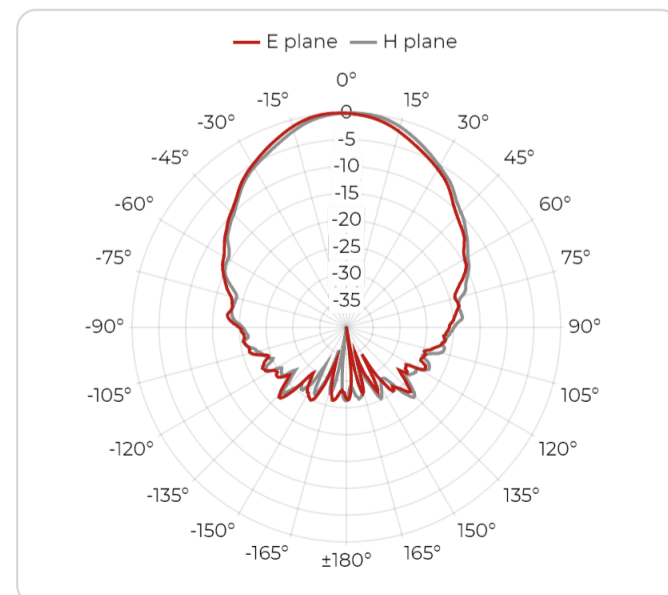
Port A, 35 GHz



Port A, 45 GHz

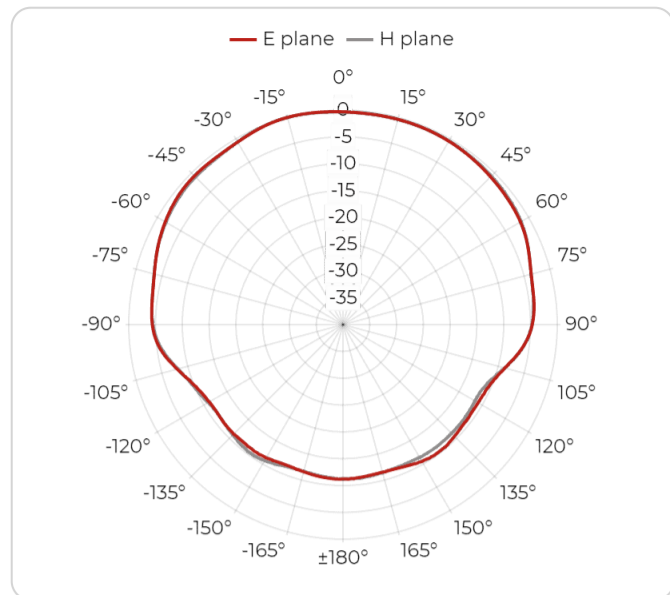


Port A, 30 GHz

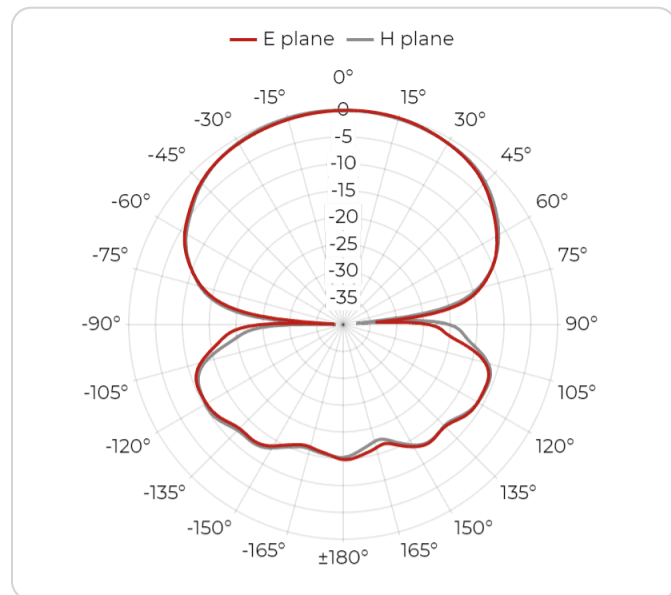


Radiation Patterns - Port B

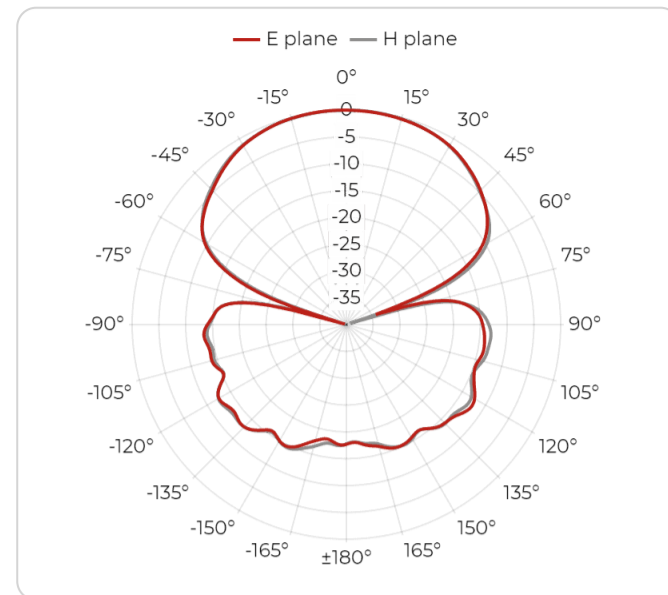
Port B, 5 GHz



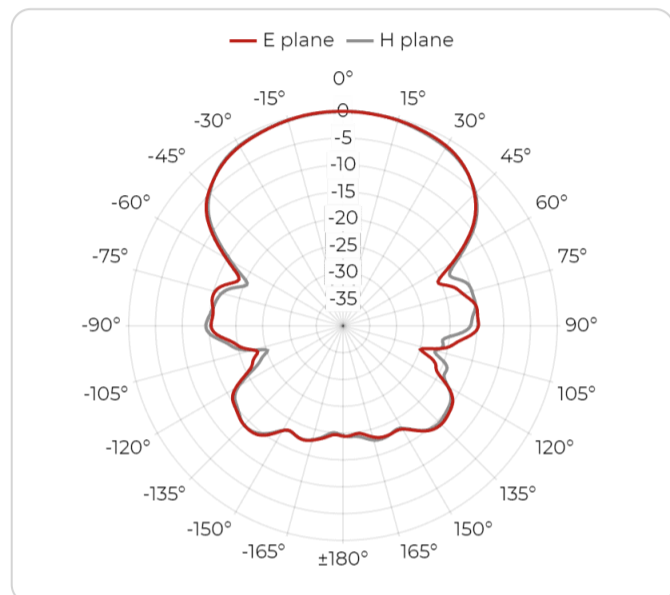
Port B, 8 GHz



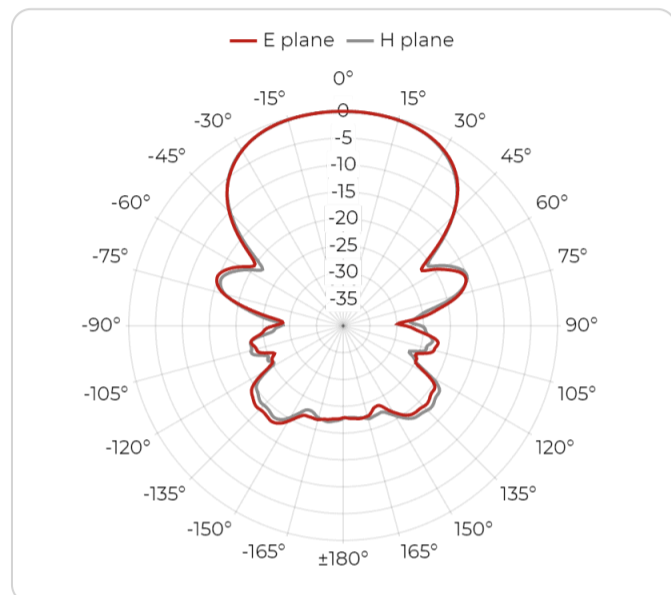
Port B, 10 GHz



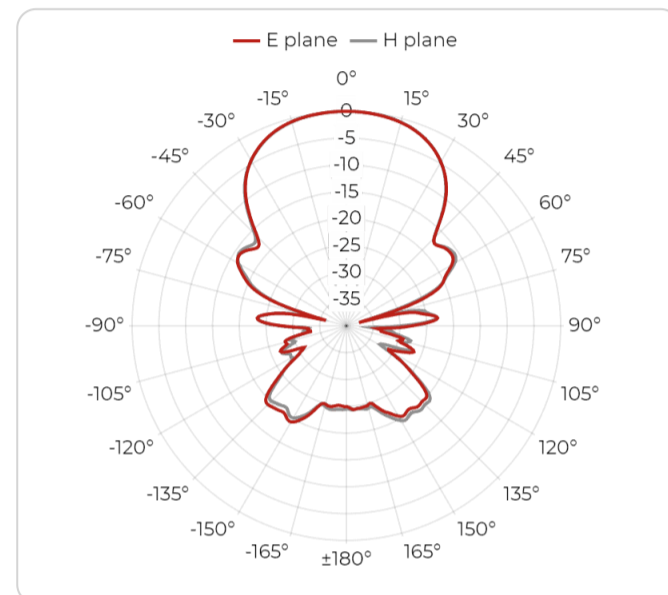
Port B, 12 GHz



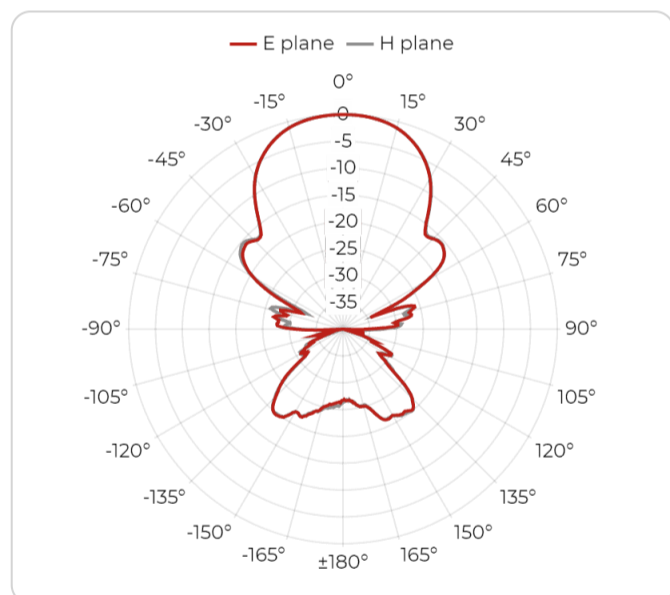
Port B, 16 GHz



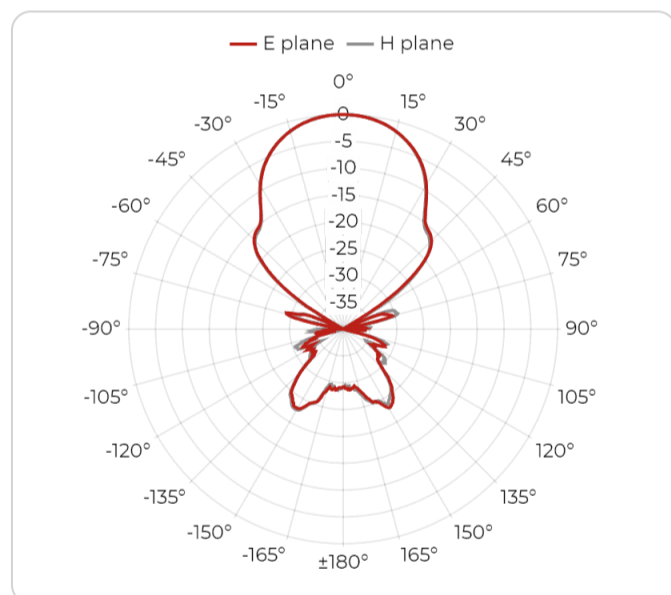
Port B, 20 GHz



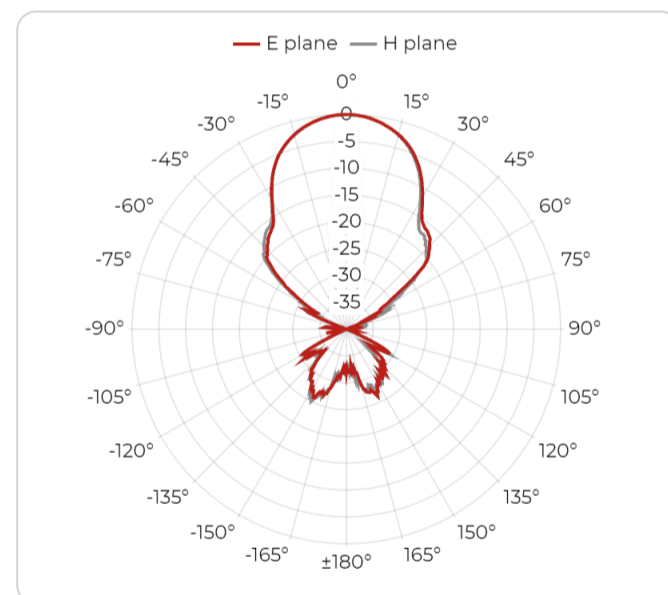
Port B, 25 GHz



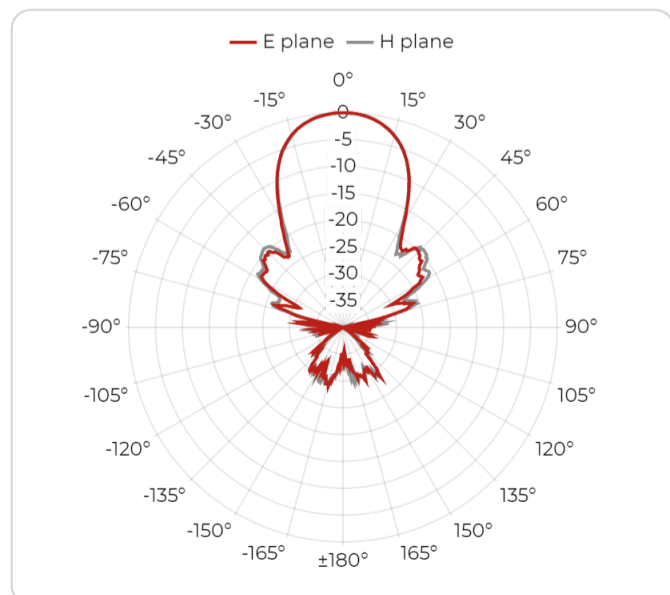
Port B, 30 GHz



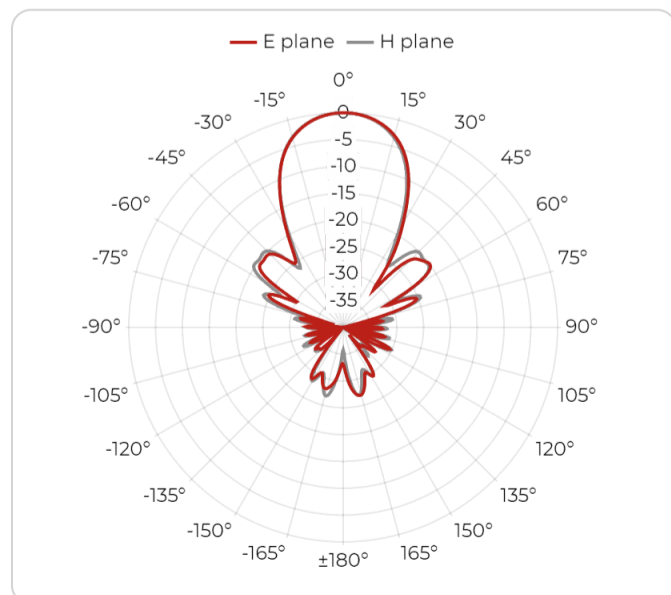
Port B, 35 GHz



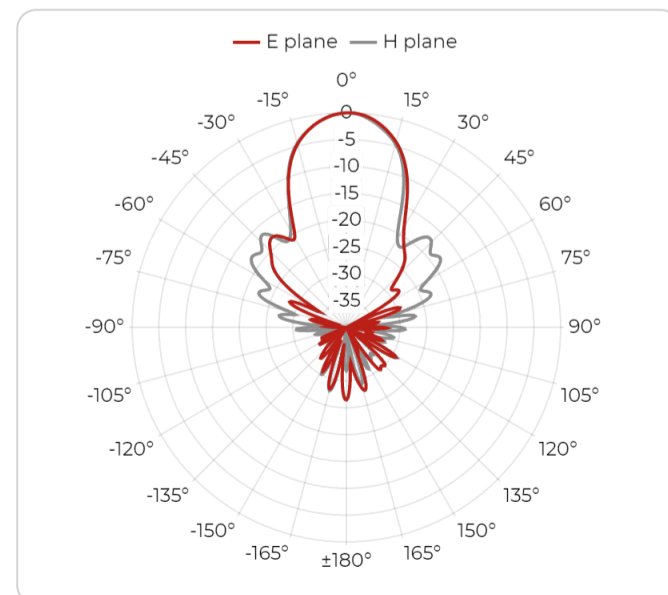
Port B, 40 GHz



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

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/grh50e/>

Data and specifications subject to change without notice.

Datasheet revision 02-2024.

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