



Dual-polarized broadband antenna QRH20EC with 3D printed patented lens technology. Increase the Gain and enhance the overall performance by using a smart lens while keeping low weight and small size.

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
- Suitable for EMC/EMI applications



Design and Surface Treatment

- Corrosion-resistant coating
- Very precise spirit level for both polarizations



Manufacturing Technology

- High quality SMA type coaxial connector



Product Packaging Includes

- Antenna with lens
- Adapter with ¼ inch inner thread, supplied with antenna

Product Parameters

PRODUCT IDENTIFICATION

Product Name	QRH20EC
Product Category	Quad Ridged Horn Antenna

ELECTRICAL SPECIFICATIONS

Frequency Range	1.7 GHz – 20 GHz
VSWR (max.)	2.4
VSWR (avg.)	1.45
Impedance	50 Ohm
Connector	SMA (female)
Power (CW / Peak)	20 W / 40 W
Antenna Factor	28 – 42.5 dB/m
Port Isolation	-33 dB
Polarization	Dual Linear, Circular (with hybrid)

PHYSICAL SPECIFICATIONS

Width	101 mm (3.976 in)
Height	178 mm (7.008 in)
Depth	101 mm (3.976 in)

OPERATING CONDITIONS

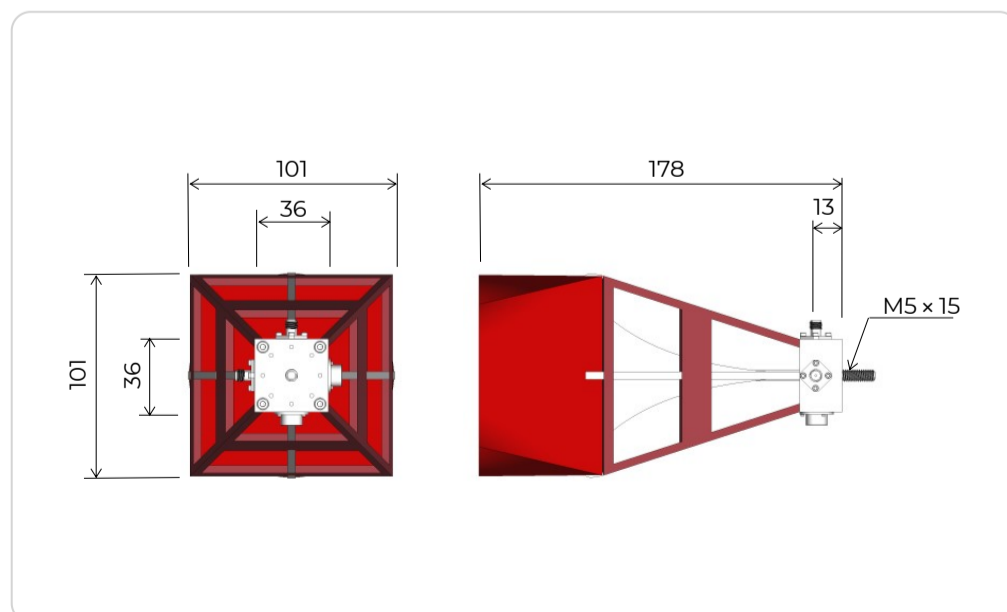
Rated Temperature Range	0°C – +50°C
Storage Temperature Range	-20°C – +70°C

MOUNTING FLANGE

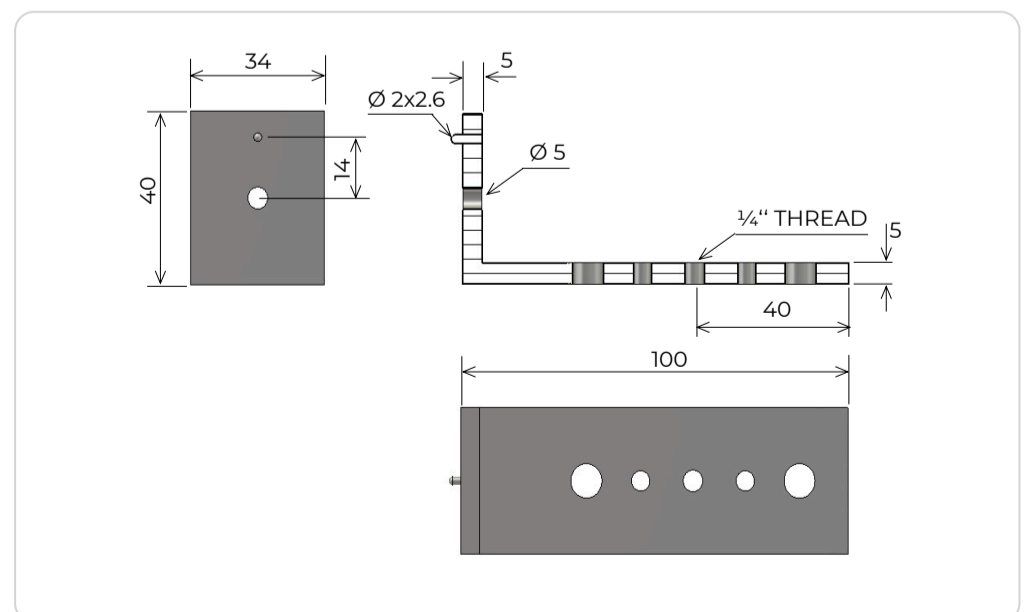
Mounting	Adapter with ¼ inch inner thread, supplied with antenna
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Mechanical Drawings

Antenna



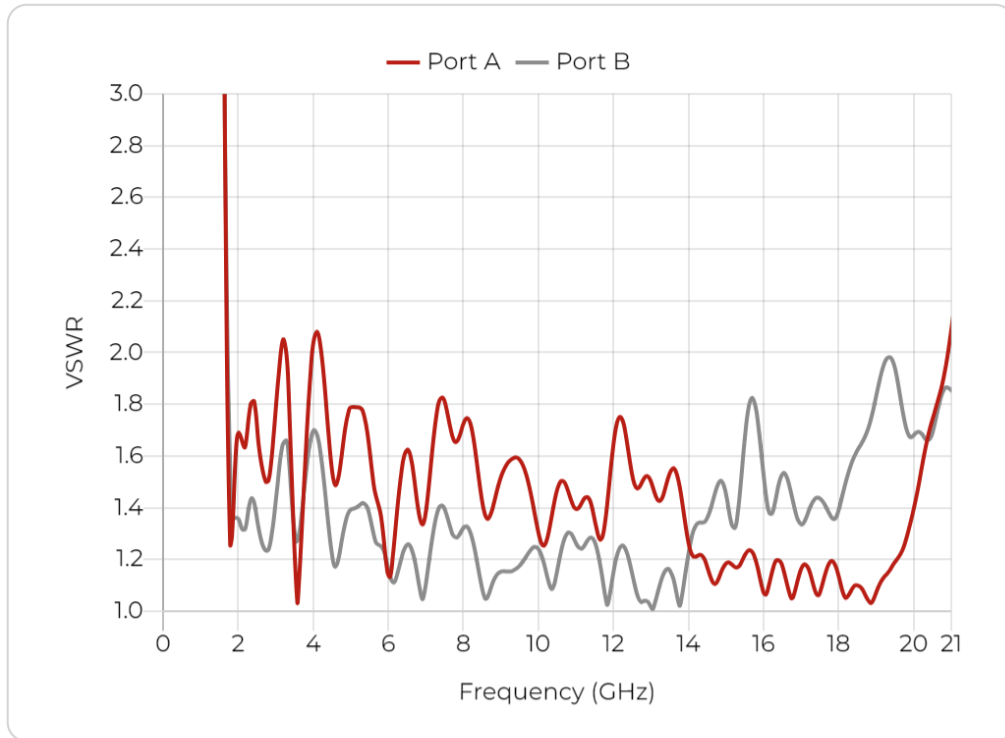
Mounting flange



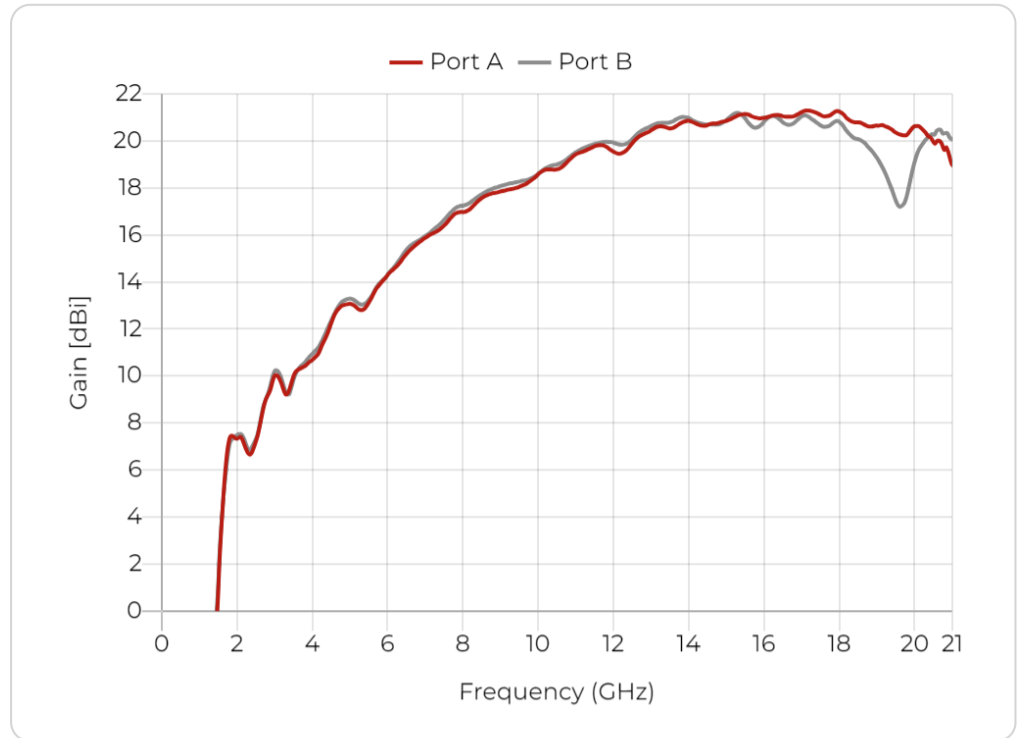
Parameters and Performance

Typical parameters

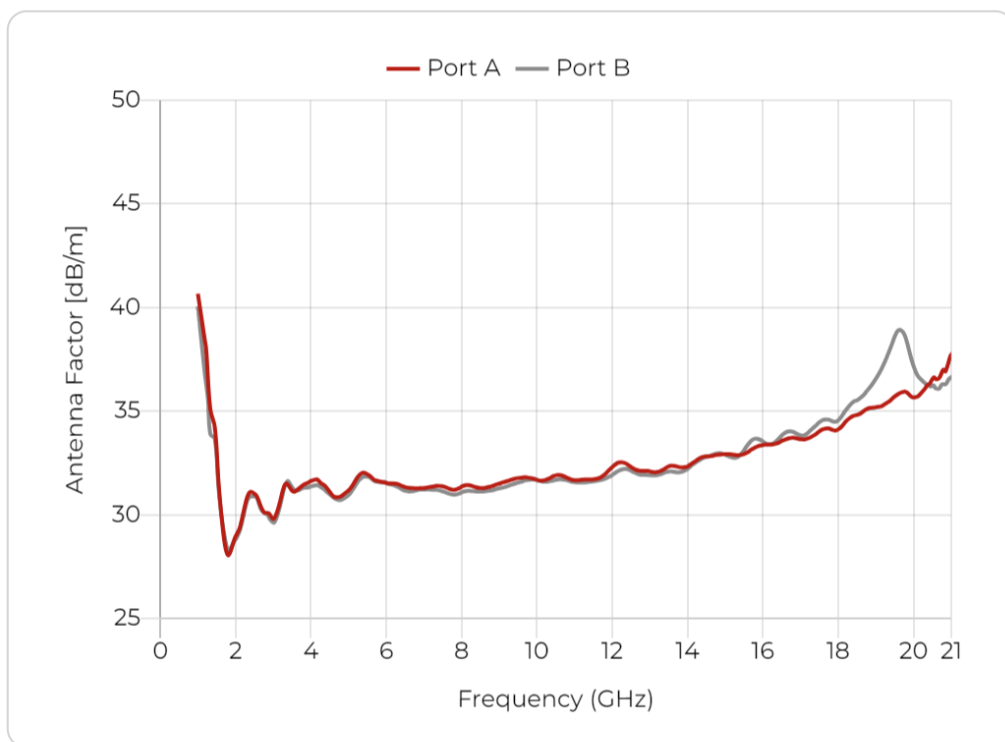
VSWR



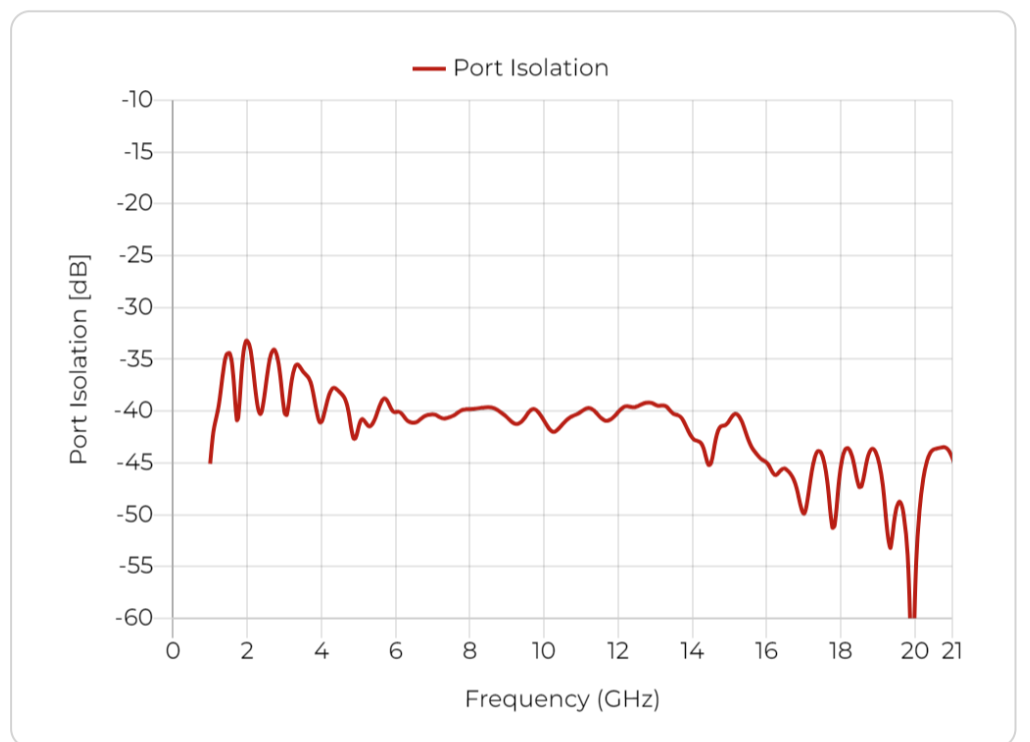
Gain



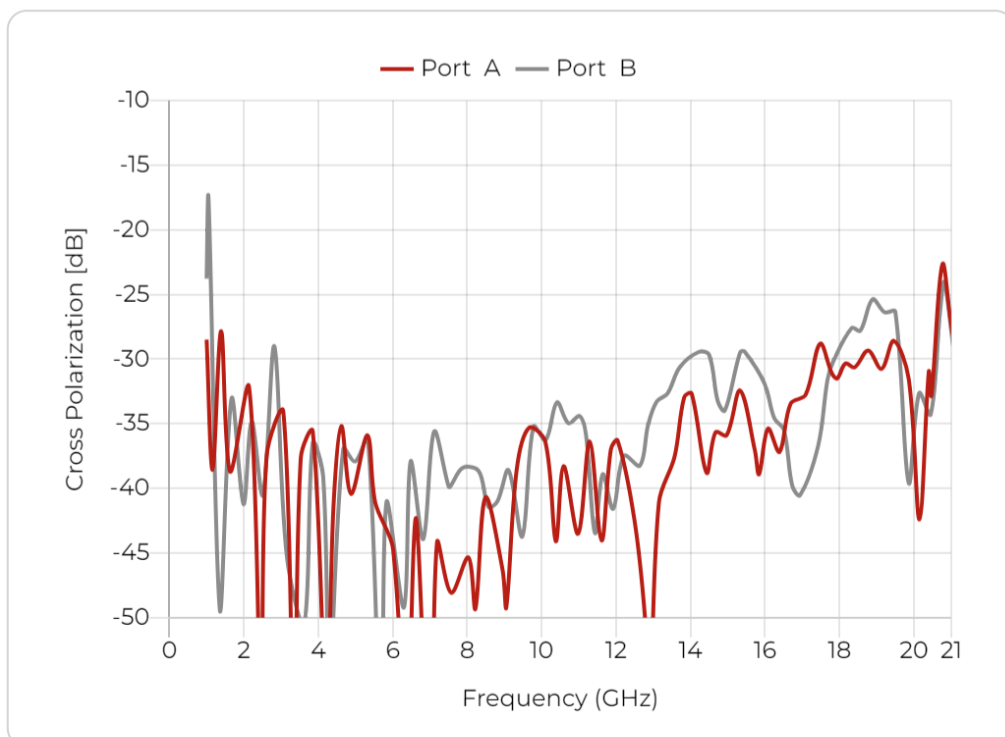
Antenna Factor



Port Isolation

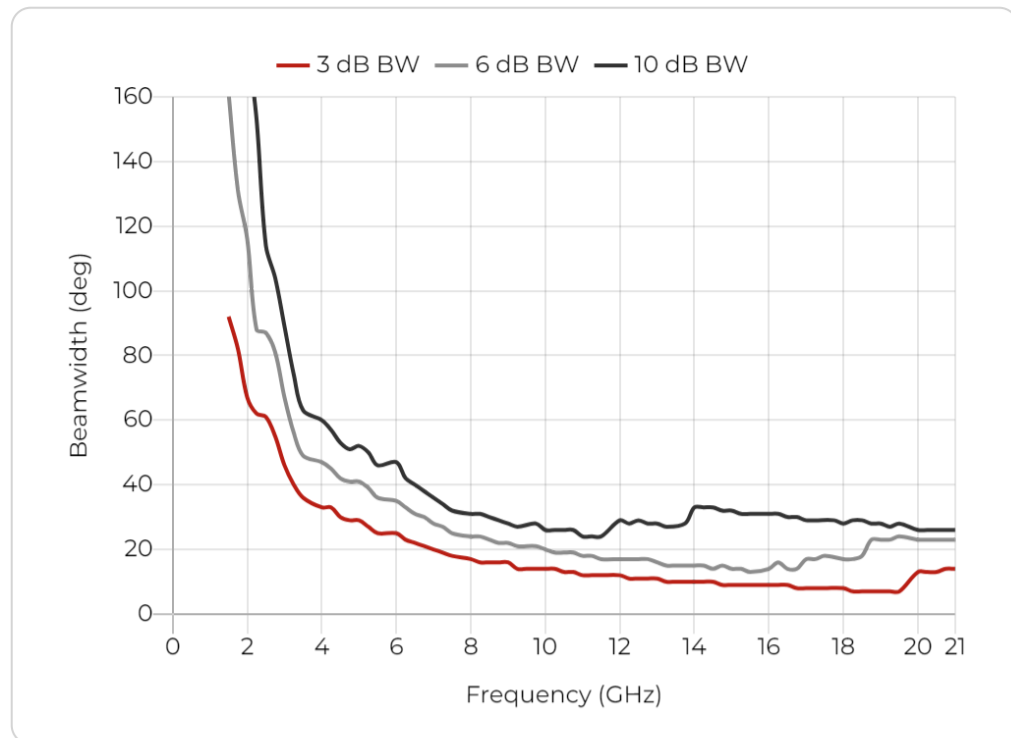


Cross Polarization

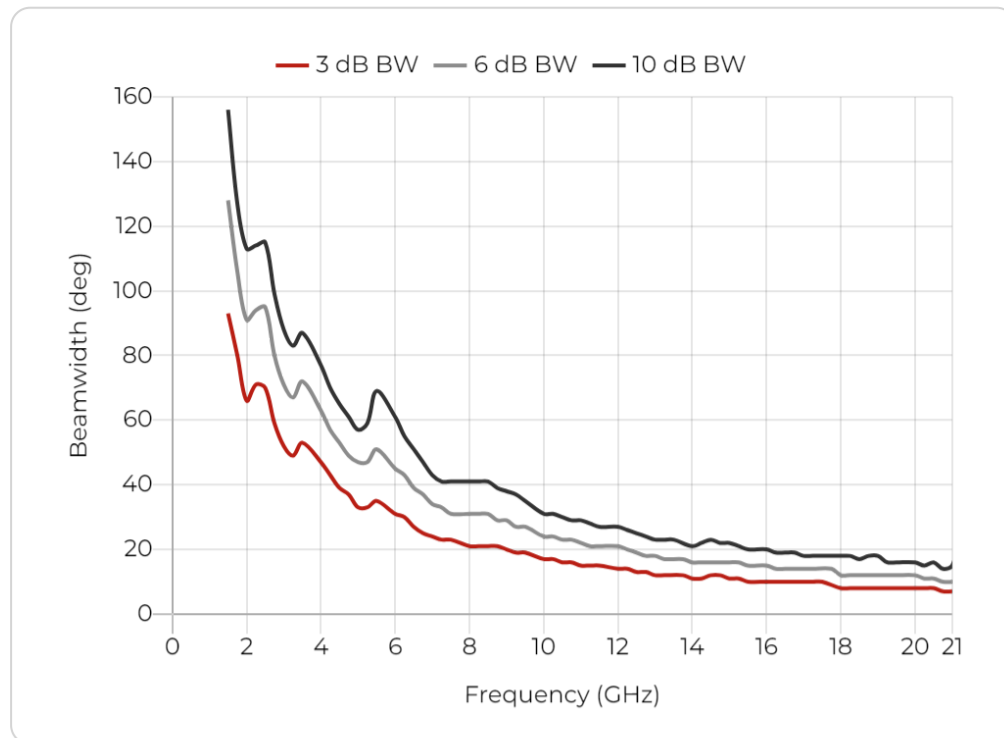


Beamwidth

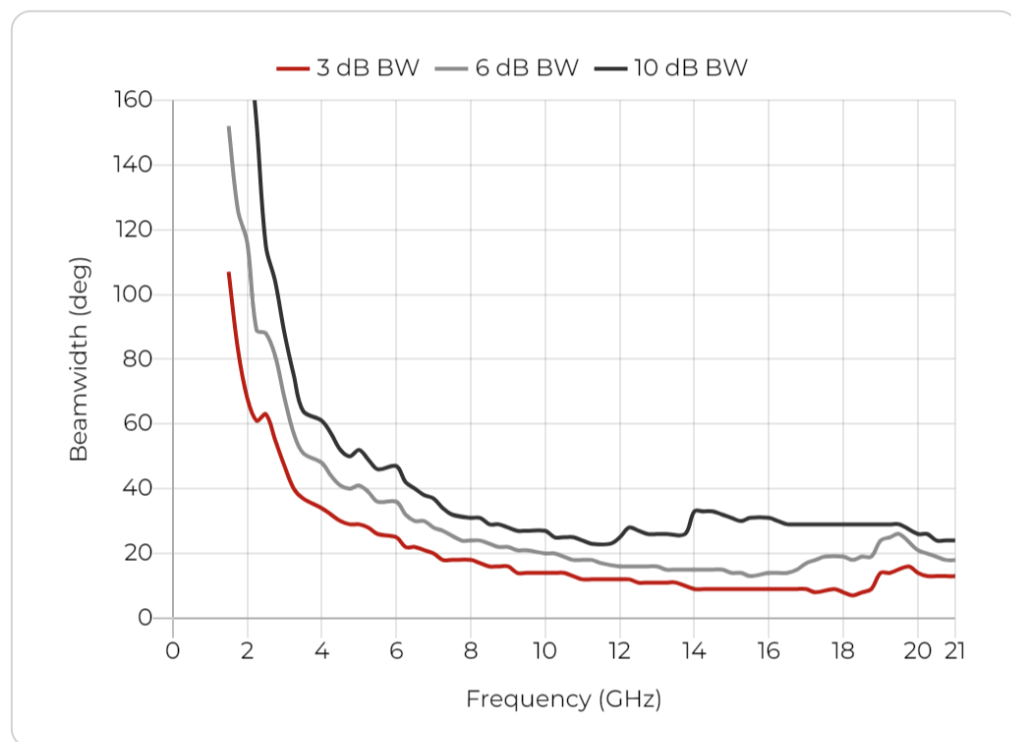
Port A, E plane



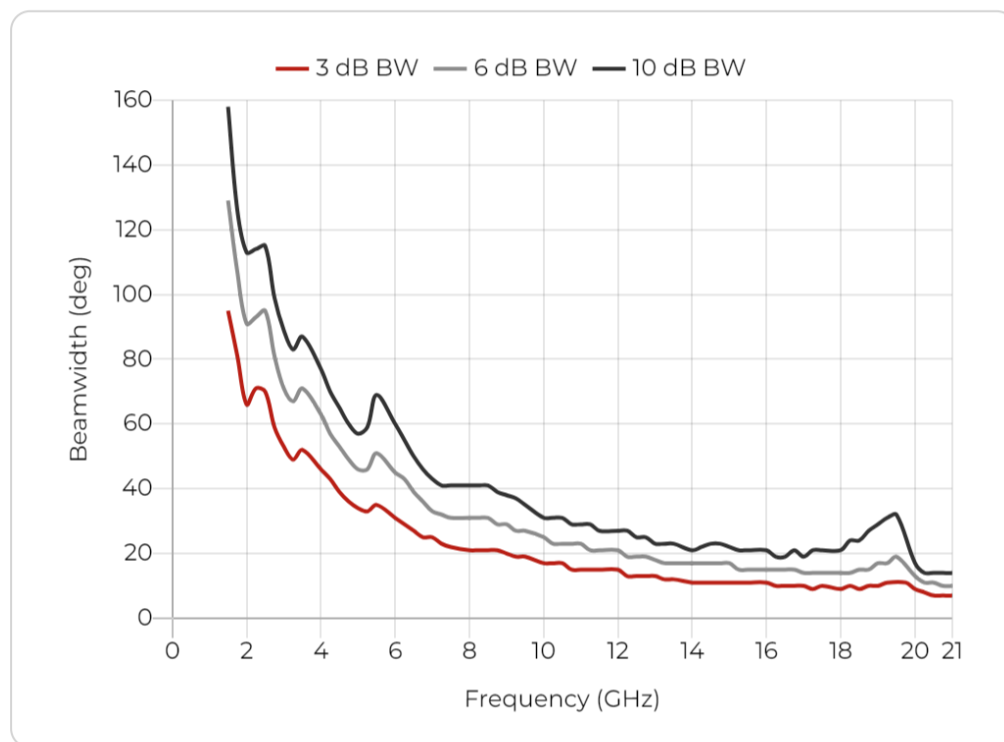
Port A, H plane



Port B, E plane

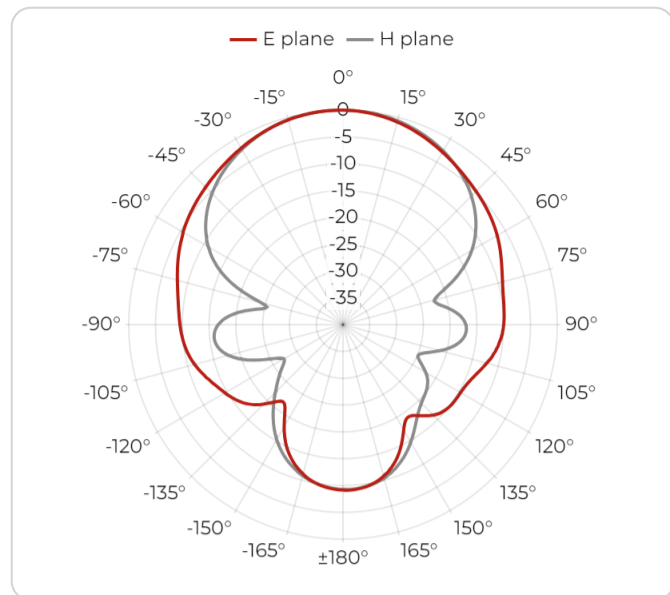


Port B, H plane

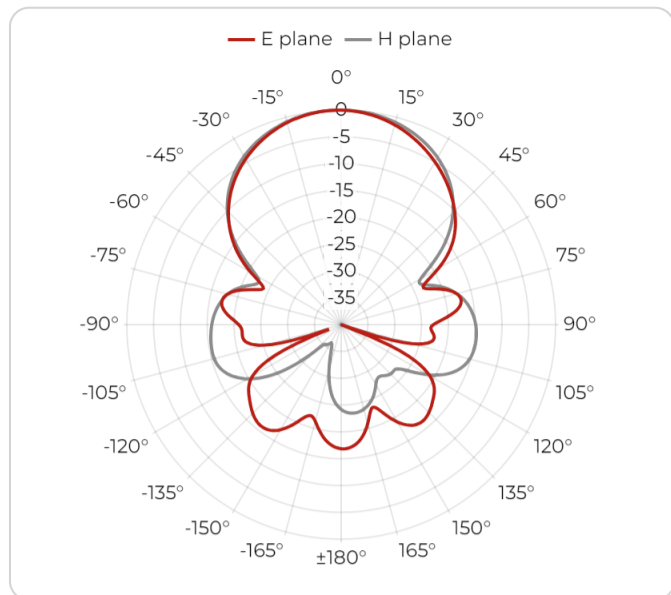


Radiation Patterns - Port A

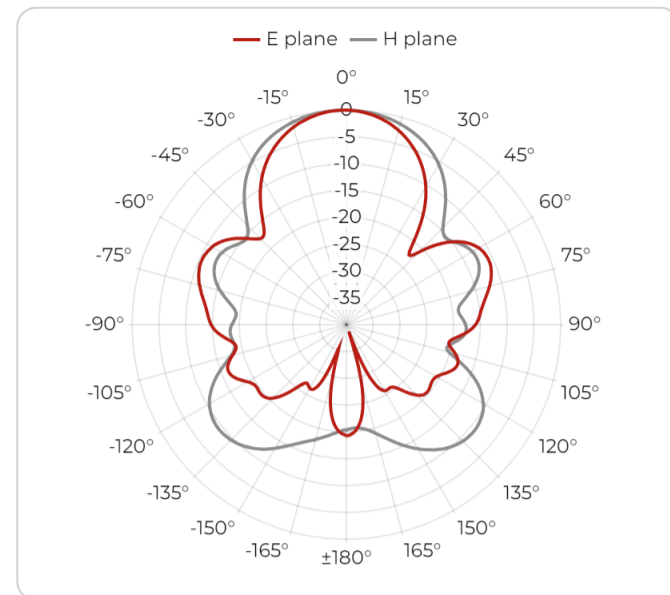
Port A, 2 GHz



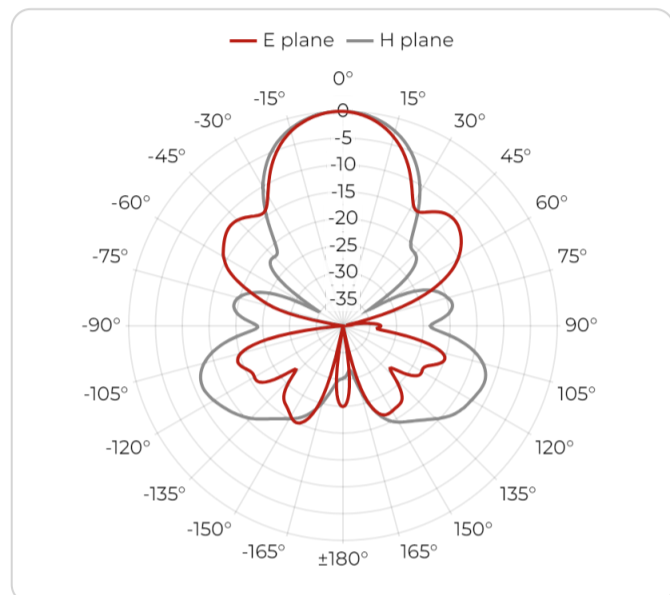
Port A, 3 GHz



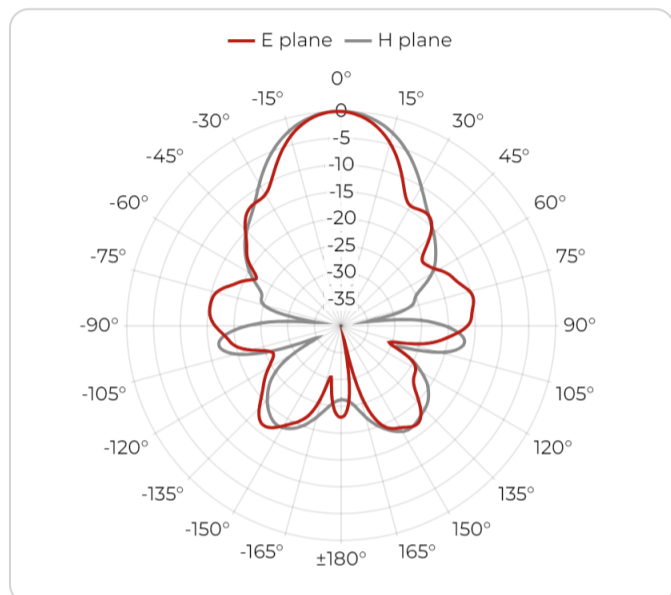
Port A, 4 GHz



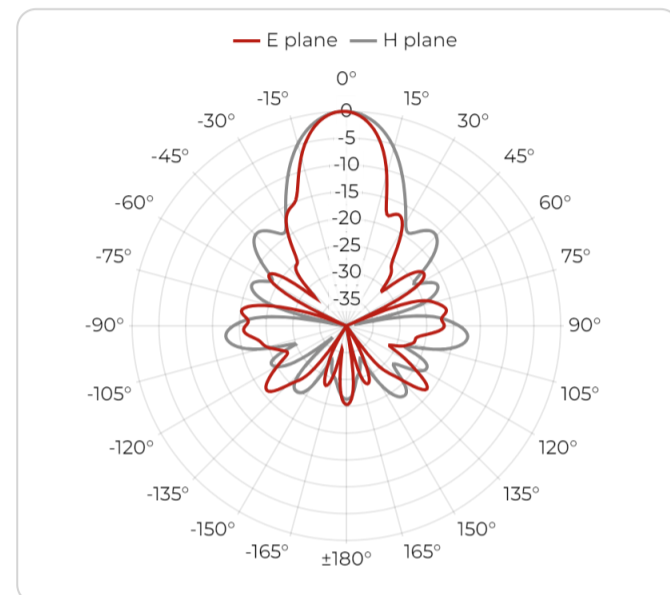
Port A, 5 GHz



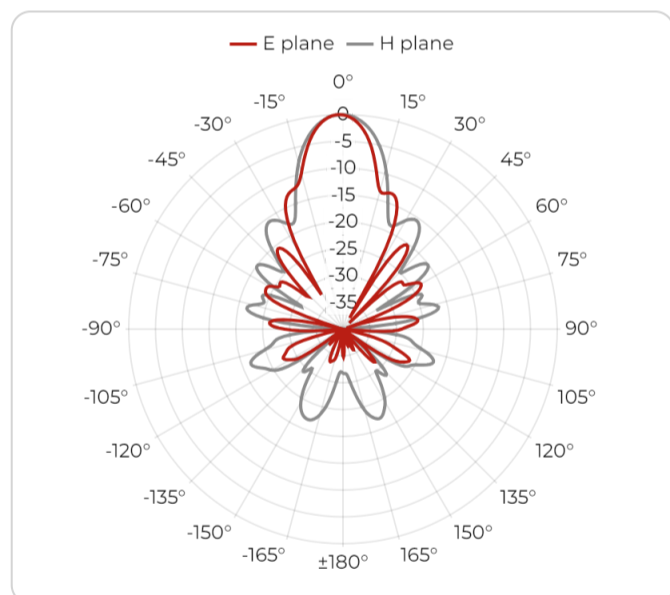
Port A, 6 GHz



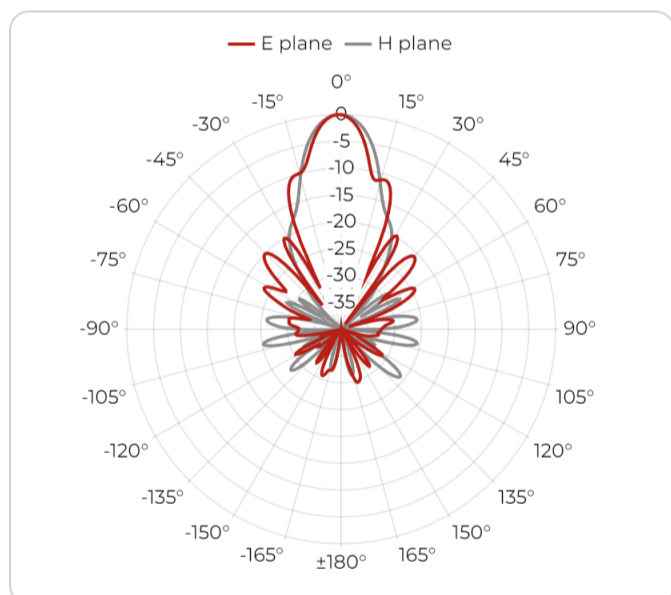
Port A, 8 GHz



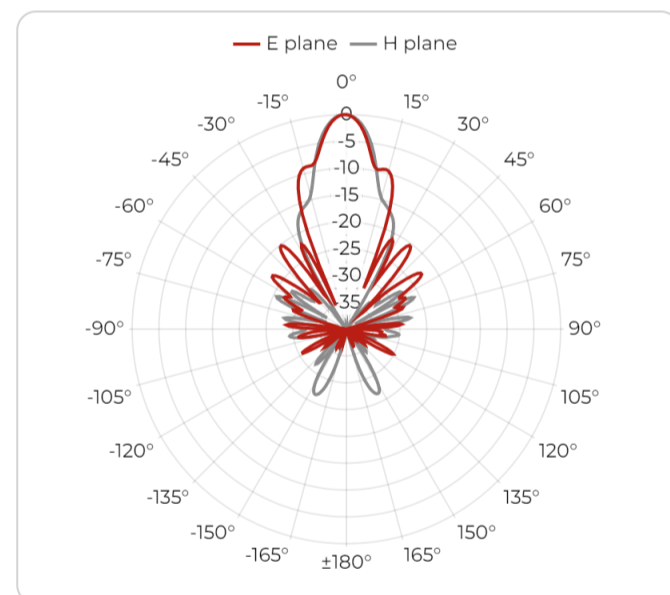
Port A, 10 GHz



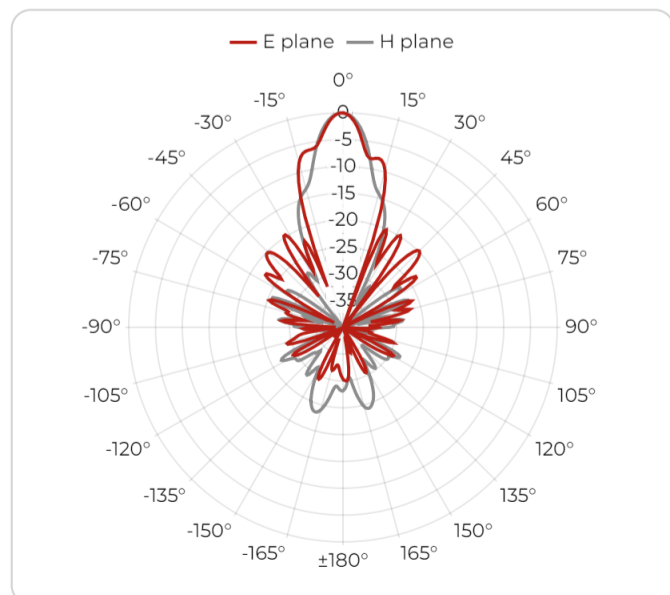
Port A, 12 GHz



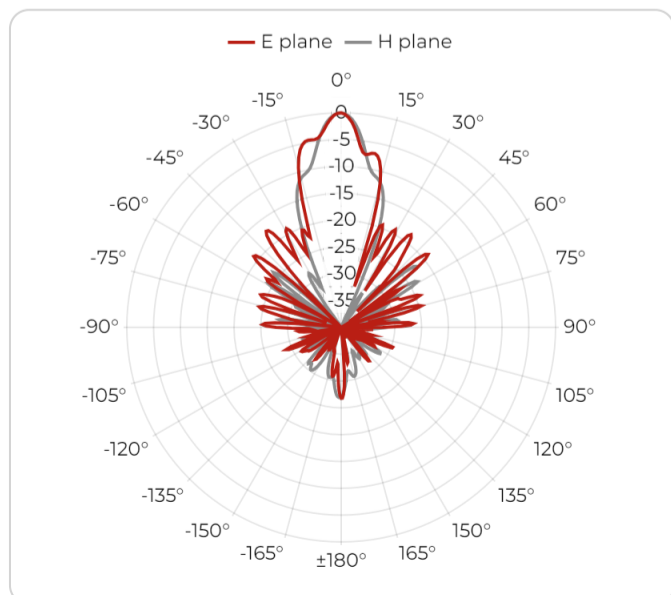
Port A, 14 GHz



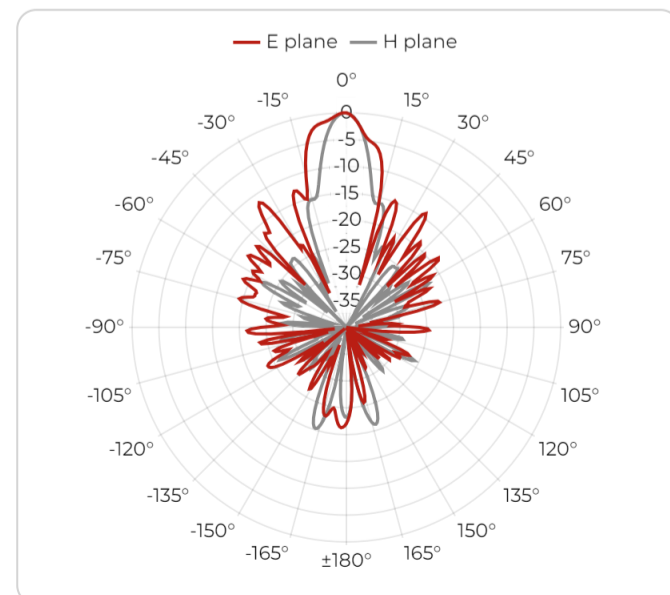
Port A, 16 GHz



Port A, 18 GHz

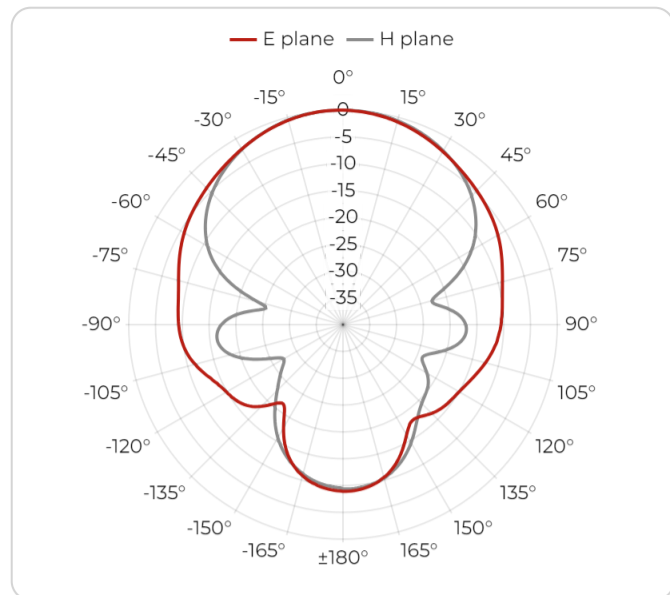


Port A, 20 GHz

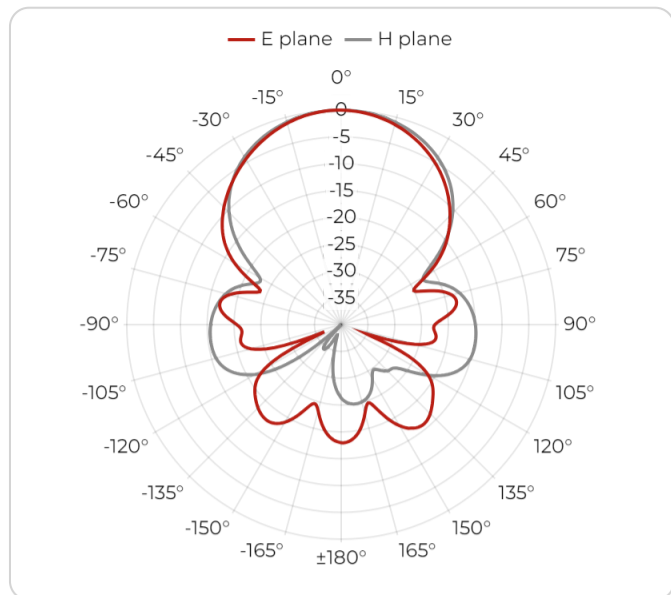


Radiation Patterns - Port B

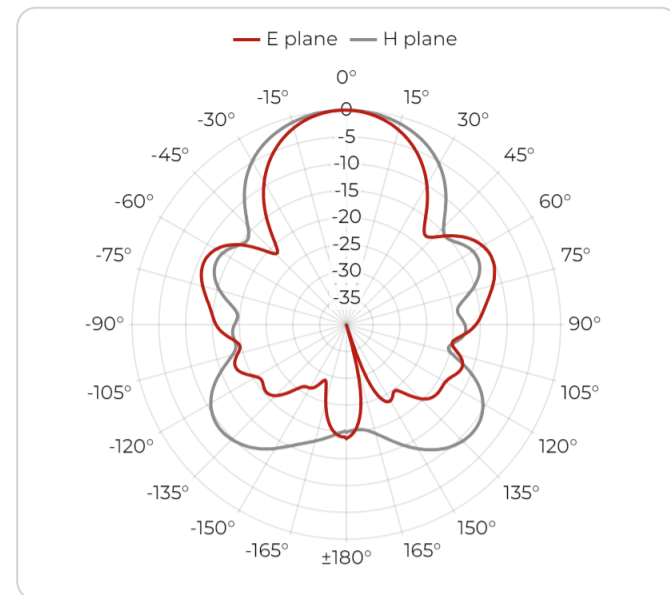
Port B, 2 GHz



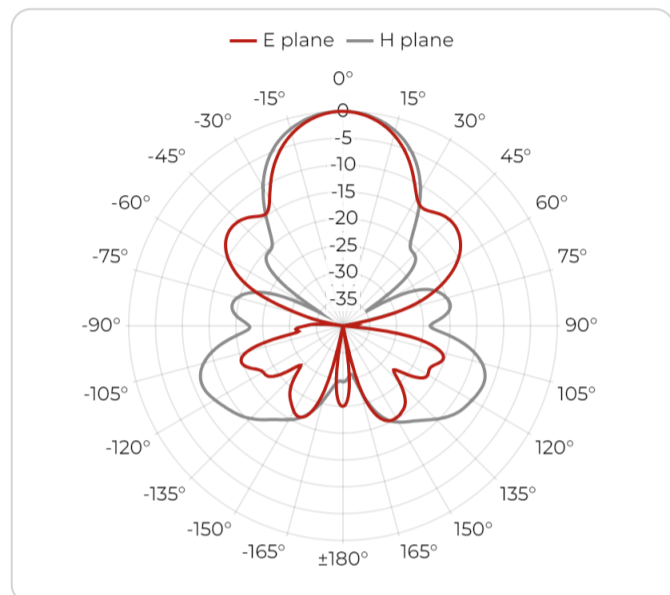
Port B, 3 GHz



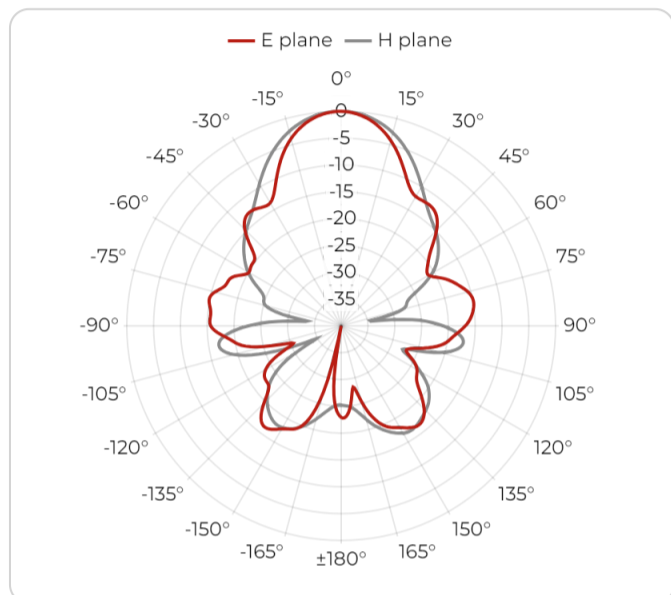
Port B, 4 GHz



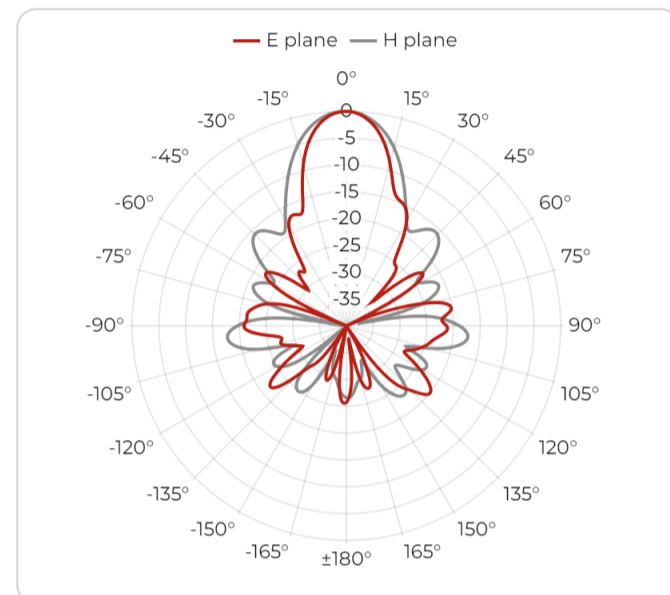
Port B, 5 GHz



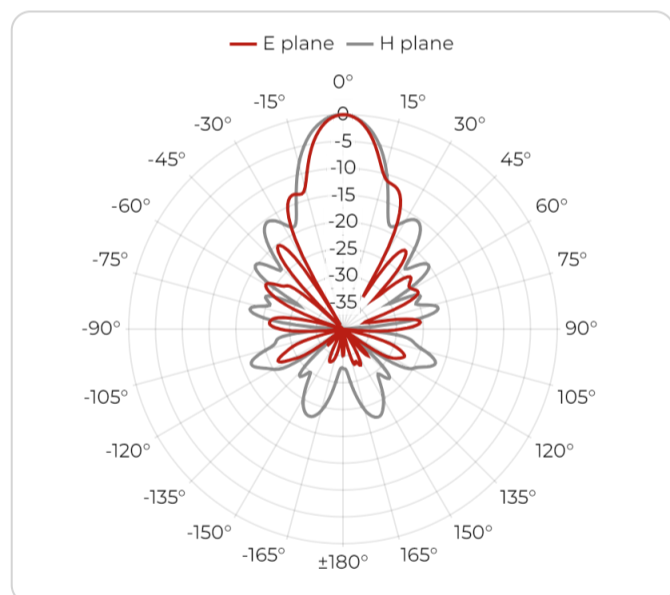
Port B, 6 GHz



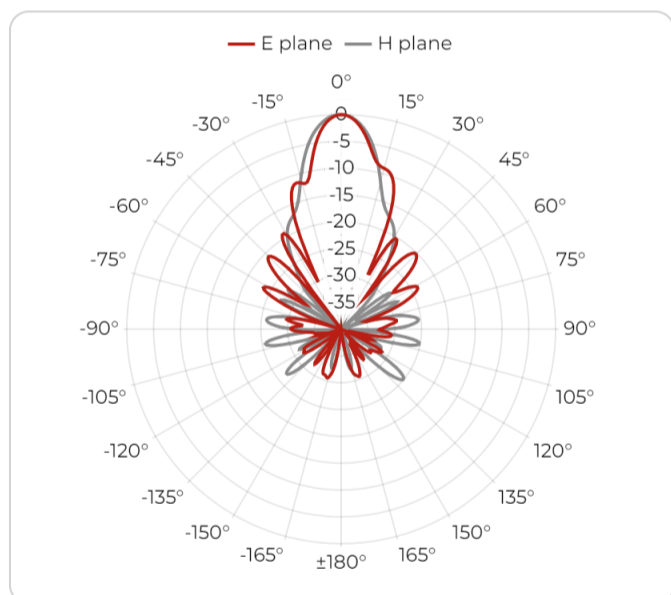
Port B, 8 GHz



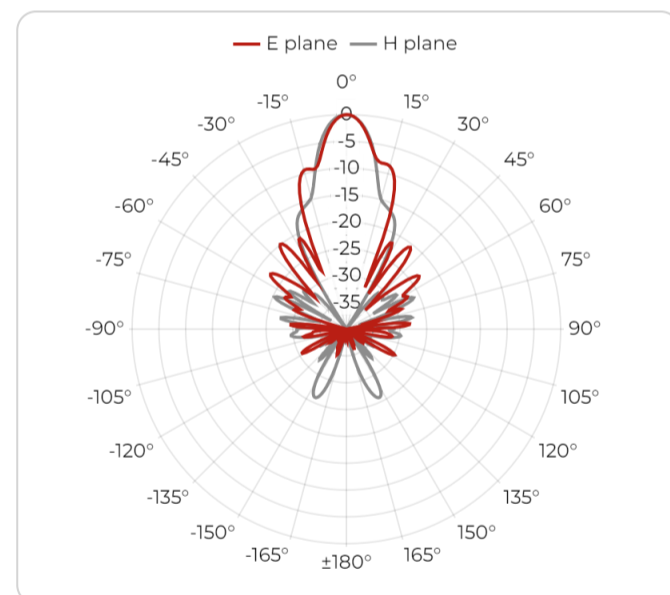
Port B, 10 GHz



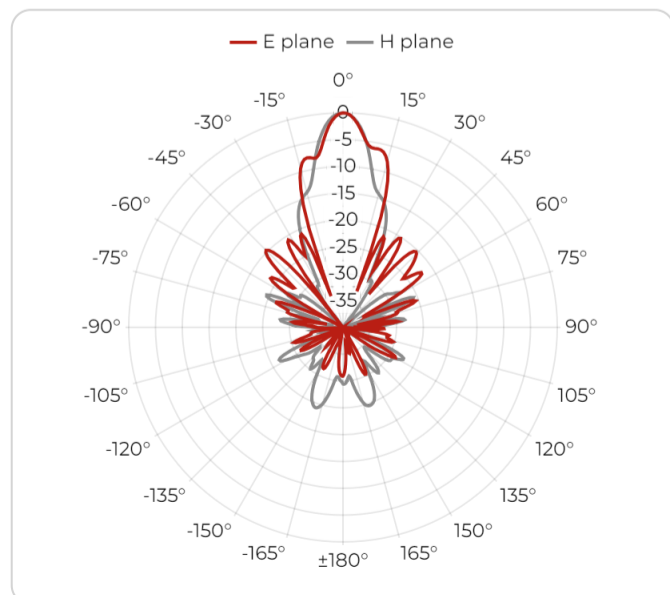
Port B, 12 GHz



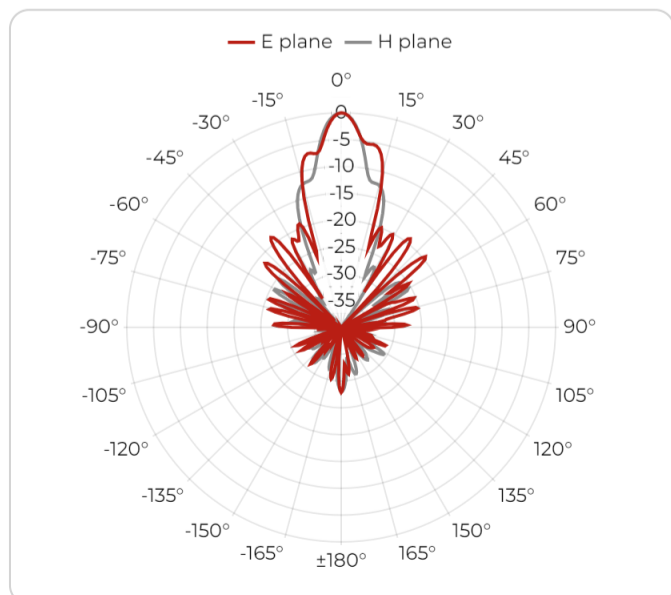
Port B, 14 GHz



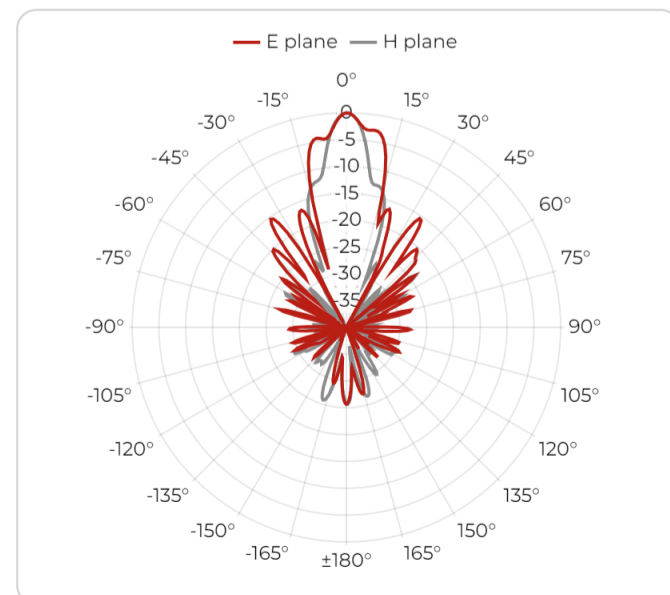
Port B, 16 GHz



Port B, 18 GHz



Port B, 20 GHz



Packaging and Accessories

What's in a box

- QRH20EC 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)

Accessories

- Standard mounting flange

Optional Accessories

- [AHS22-M5 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/grh20ec/>

Data and specifications subject to change without notice.

Datasheet revision 04-2024.

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