

# Quad-Ridge Flared Horn



## SOLUTION FOR

- Wideband illumination of CATR systems
- Wideband feeder for reflector antennas

## Main features

### Technical performance

- Nearly constant gain with frequency
- Dual linear polarization with high polarization purity and isolation
- Low return loss / VSWR
- Wide bandwidth

### Design

- Flared horn with rolled aperture edges for minimum diffraction and optimum impedance matching
- Well-defined smooth radiation pattern throughout the operational bandwidth
- Lightweight for easy handling

### Surface treatment

- Surtec 650 according to MIL-C 5541E class 3
- Polyurethane paint

### Repeatability

- Stiff and robust mechanical design
- Standard MVG circular interface for precision centering
- Precision pins for accurate polarization alignment
- Precision machined
- High reliability coaxial connectors

### Delivered documents

- Typical performance data (TYMEDA™)
- Measured return loss data

## Product configuration

### Equipment

- Mounting flange
- Integrated coaxial transition with high precision connectors
- Protective radome/lens for outdoor installation and improved gain performance
- Available in combination with baffle absorbers to reduce direct illumination of the Quiet Zone in CATRs

### Related services

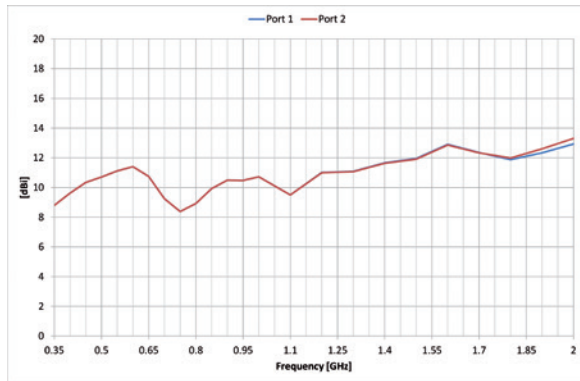
- Calibration and maintenance
- Customization

■ Included □ Optional

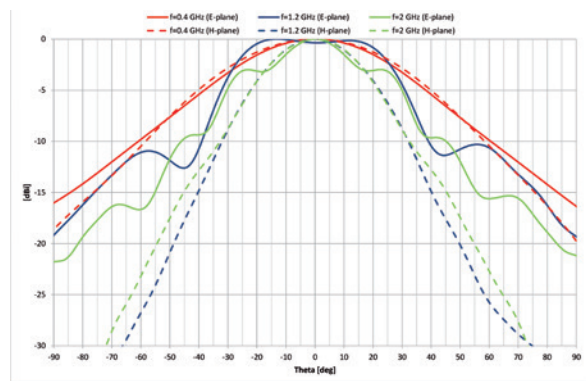
## Electrical characteristics

<b>Part number</b>	<b>QRFH350</b>
<b>Type of antenna</b>	Quad-ridge flared horn
<b>Frequency range</b>	0.35 – 2 GHz
<b>Polarization</b>	Dual linear
<b>Gain</b>	8.5 – 13 dBi
<b>Half-power beamwidth</b>	
<b>E-plane</b>	70 – 30°
<b>H-plane</b>	65 – 25°
<b>VSWR</b>	< 3.25 [0.35 – 0.37] GHz < 2 [0.37 – 0.7] GHz < 1.5 [0.7 – 2] GHz
<b>Return loss</b>	< -5.5 dB [0.35 – 0.37] GHz < -9.5 dB [0.37 – 0.7] GHz < -14 dB [0.7 – 2] GHz
<b>Impedance</b>	50 Ohms

QRFH350 typical boresight gain



QRFH350 typical radiation pattern



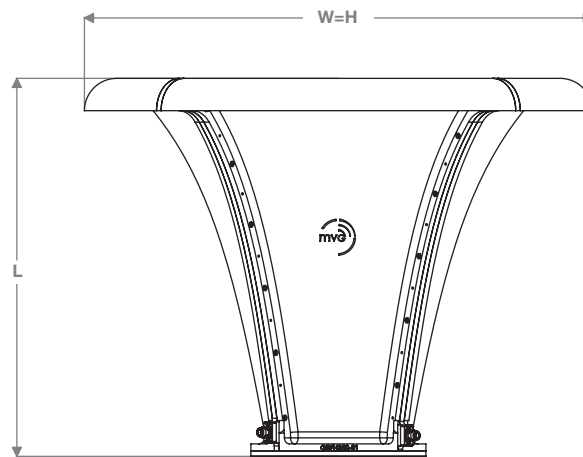
## Mechanical characteristics

<b>Part number</b>	<b>QRFH350</b>
<b>Dimensions [mm] (H x W x L)</b>	840 x 840 x 625
<b>Weight (approx.)</b>	25 Kg
<b>RF connectors</b>	N-type Female <sup>(2)</sup>
<b>Material</b>	Aluminum
<b>Treatment</b>	Surtec 650 <sup>(1)</sup>
<b>Interface</b>	Fixture plate with recessed female pilot

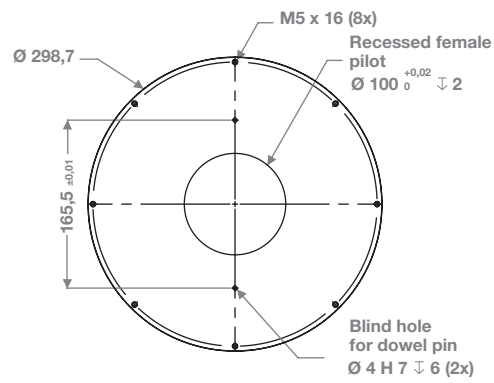
(1) According to MIL-C 5541E class 3

(2) Southwest 312-04SF

Dimensional drawing



QRFH350 flange



Contact your local sales representative for more information  
[www.mvg-world.com/antennas](http://www.mvg-world.com/antennas)  
[salesteam@mvg-world.com](mailto:salesteam@mvg-world.com)