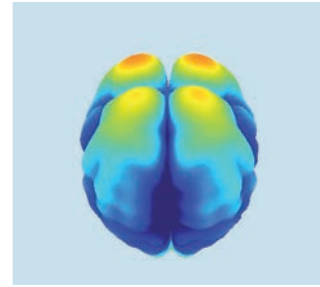
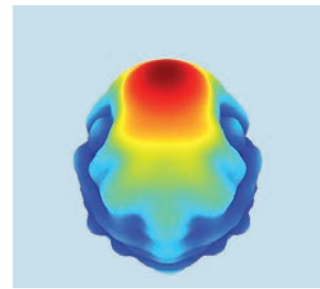


Closed Wideband Quad Ridge Horns



QR Typical 3D cross-Polarization radiation pattern



QR Typical 3D co-Polarization radiation pattern

REFERENCE ANTENNAS

Main use:

- Gain calibration
- Wideband probe for far-field test range
- Reflector feed for high gain applications

Delivered documents:

- Typical performance data (TYMEDA™)
- Measured return loss data and port-to-port coupling

Surface treatment:

- Alodine 1200 according to MIL-C 5541E class 3
- Blue paint

Related services:

- Calibration and maintenance
- Customization

1 TECHNICAL PERFORMANCE

- Circular polarization available with external hybrid coupler
- Uniform gain over operational bandwidth
- Dual linear discrimination with high polarization purity and isolation
- Low VSWR
- Wide bandwidth

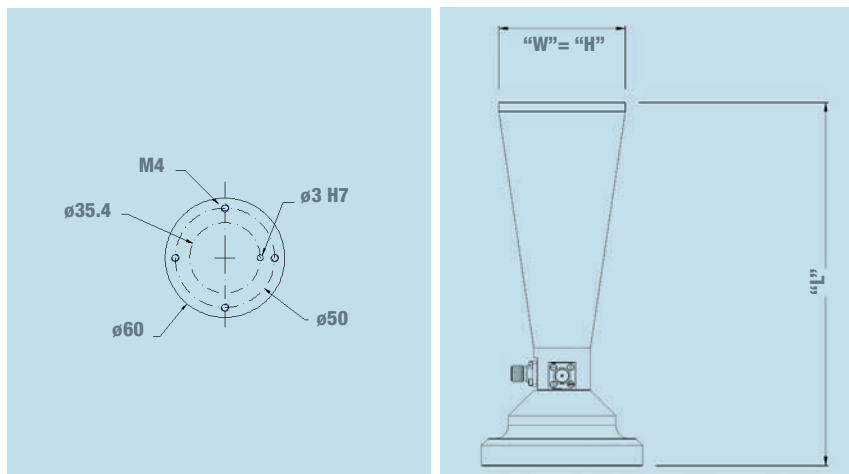
2 DESIGN

- Prevents excitation of unwanted higher order modes in the aperture
- Smooth radiation pattern over the operational bandwidth
- Lightweight for easy handling

3 REPEATABILITY

- Stiff and robust mechanical design
- Standard SATIMO circular interface for precision centering
- Precision pin for accurate polarization alignment
- Precision machined
- High reliability connector

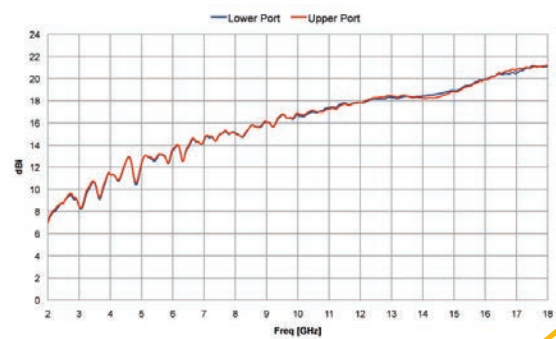
Mechanical drawing & interface



Electrical characteristics

Part number	QR 2000	QR 18000
Type of antenna	Closed wideband quad ridge horn	Closed wideband quad ridge horn
Frequency range	2 – 18 GHz	18 – 40 GHz
Average gain	7 – 21 dBi	14 – 18 dBi
Average VSWR	< 1.9:1	< 1.9:1
Return loss	< -10 dB	< -10 dB
Polarization	Dual linear	Dual linear
Cross polar Discrimination	> 25 dB (typical)	> 30 dB (typical)
Port-to-port isolation	> 30 dB (typical)	> 35 dB (typical)
Impedance	50 Ohms	50 Ohms

QR2000 Boresight gain versus frequency



Mechanical characteristics

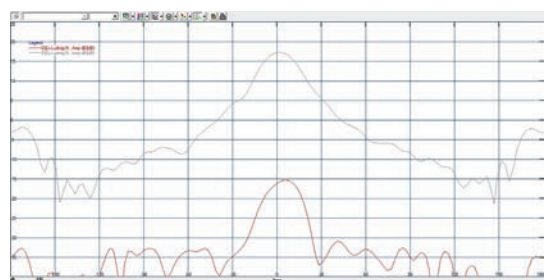
Part number	QR 2000	QR 18000
Dimensions H x W x L [mm]	257.4 x 125 x 125	134.7 x 48 x 48
Weight (approx)	1.3 Kg	0.2 Kg
Connector	PC 3.5 ⁽¹⁾ Female	K ⁽²⁾ Female
Material	Aluminum	Aluminum
Treatment	Alodine 1200 ⁽³⁾	Alodine 1200 ⁽³⁾
Color	Blue	Blue
Interface Ø	60 mm	60 mm

(1) Huber+Suhner type 23 PC35-50-0-51/199UE

(2) SWMI type 1012-16SF

(3) Equivalent to MIL-C 5541E class 3

QR2000 E plane cut at 10 GHz



QR2000 H plane cut at 10 GHz

