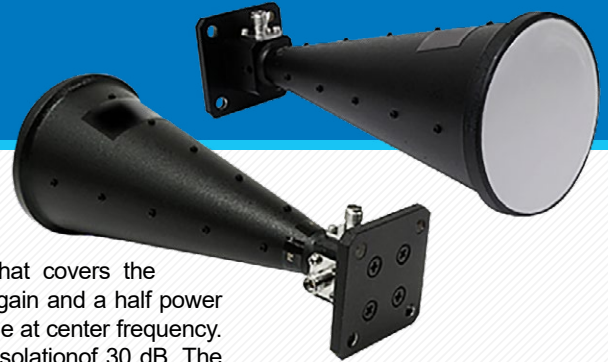


MODEL NUMBER:
QRHA40G

Quad Ridged, Dual Polarization Horn Antenna, 18 to 40 GHz



DESCRIPTION:

Model QRHA40G is a quad-ridged, dual polarized horn antenna that covers the frequency range of 18 to 40 GHz. The antenna offers 17 dBi nominal gain and a half power beamwidth of 19 degrees on the E-plane and 14 degrees on the H-plane at center frequency. The antenna also offers -15 dB typical sidelobe levels and a nominal isolation of 30 dB. The input ports of this antenna are female 2.92mm (K) connectors.

FEATURES

- Coaxial Connectors for RF Inputs
- Broad Bandwidth
- Dual Polarization
- Moderate Gain

APPLICATIONS:

- Communication Systems
- Radar Systems
- Antenna Ranges
- System Setups

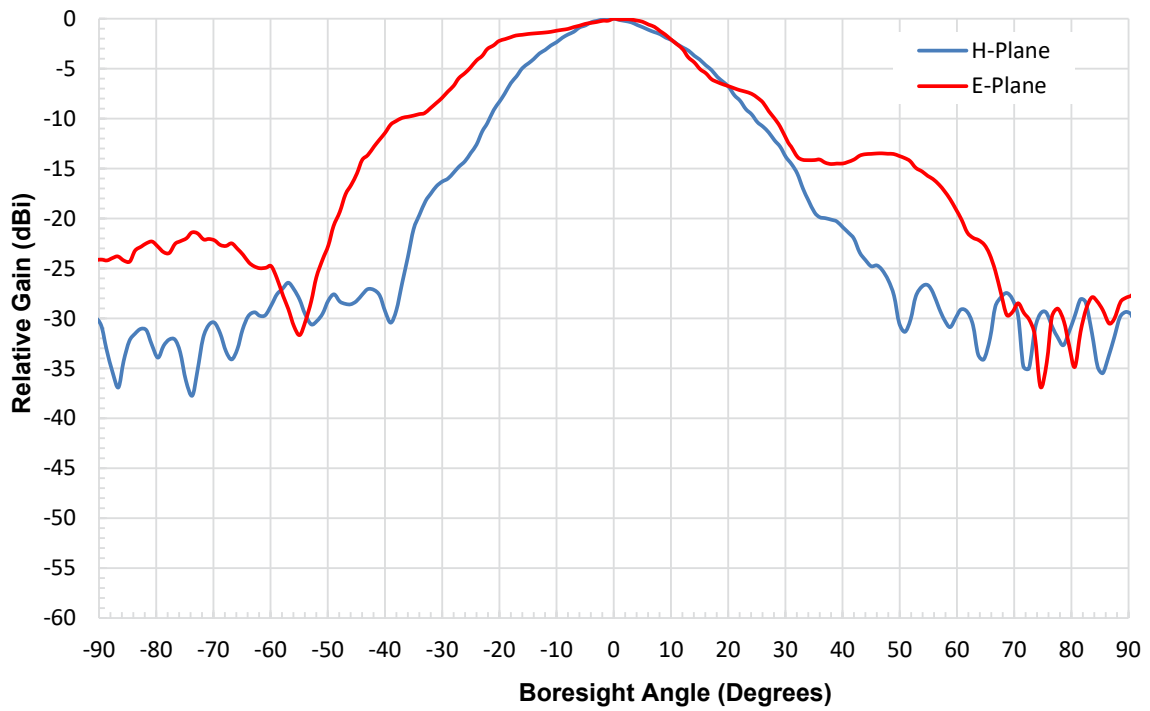
ELECTRICAL SPECIFICATIONS:

PARAMETER	MINIMUM	TYPICAL	MAXIMUM
Frequency	18 GHz	28 GHz	40 GHz
Gain		17 dBi	
E-Plane 3 dB Beamwidth		19°	
H-Plane 3 dB Beamwidth		14°	
Sidelobe Levels		-15 dB	
Port Isolation		30 dB	
Return Loss	7 dB	10 dB	
Cross Polarization	20 dB	30 dB	
Specification Temperature		+25 °C	
Operating Temperature	-45 °C		+85 °C

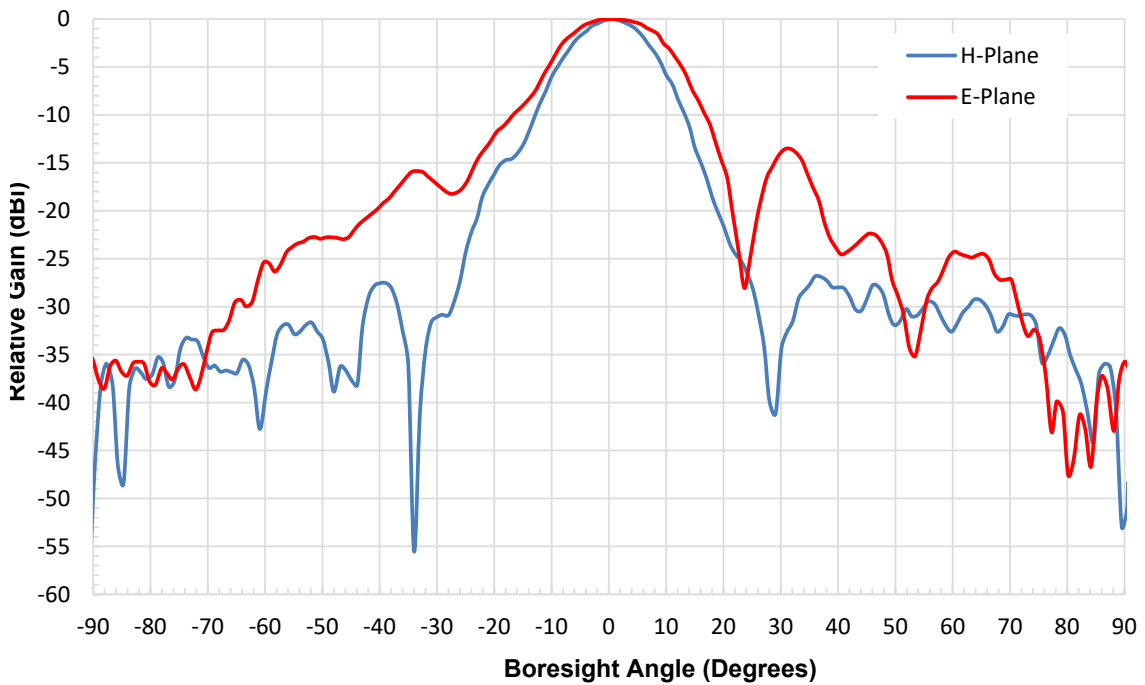
MECHANICAL SPECIFICATIONS:

ITEM	PARAMETER
Antenna Ports	2.92mm (K) Female Connectors
Mounting	Ø 0.18" Thru Holes
Material	Aluminum Alloy
Inner Finish	Chem Film
Outer Finish	Black Paint
Weight	7.3 oz.
Outline	AC-TK16-DP-H1

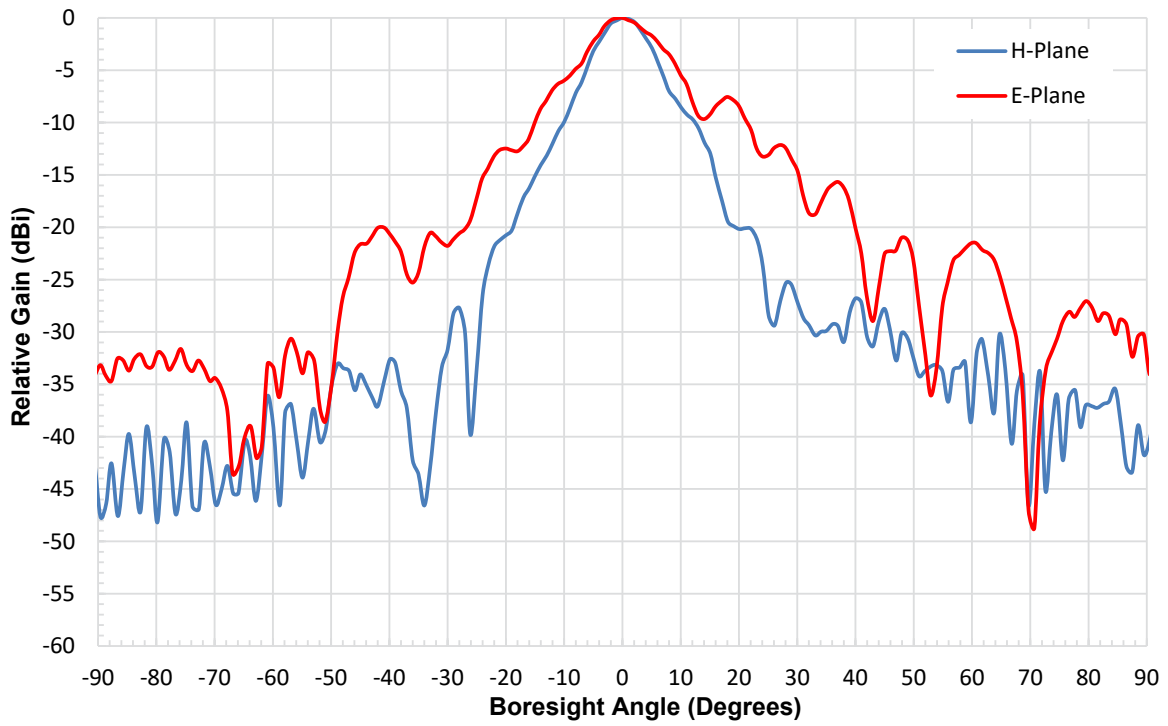
TYPICAL ANTENNA PATTERN @ 18 GHZ



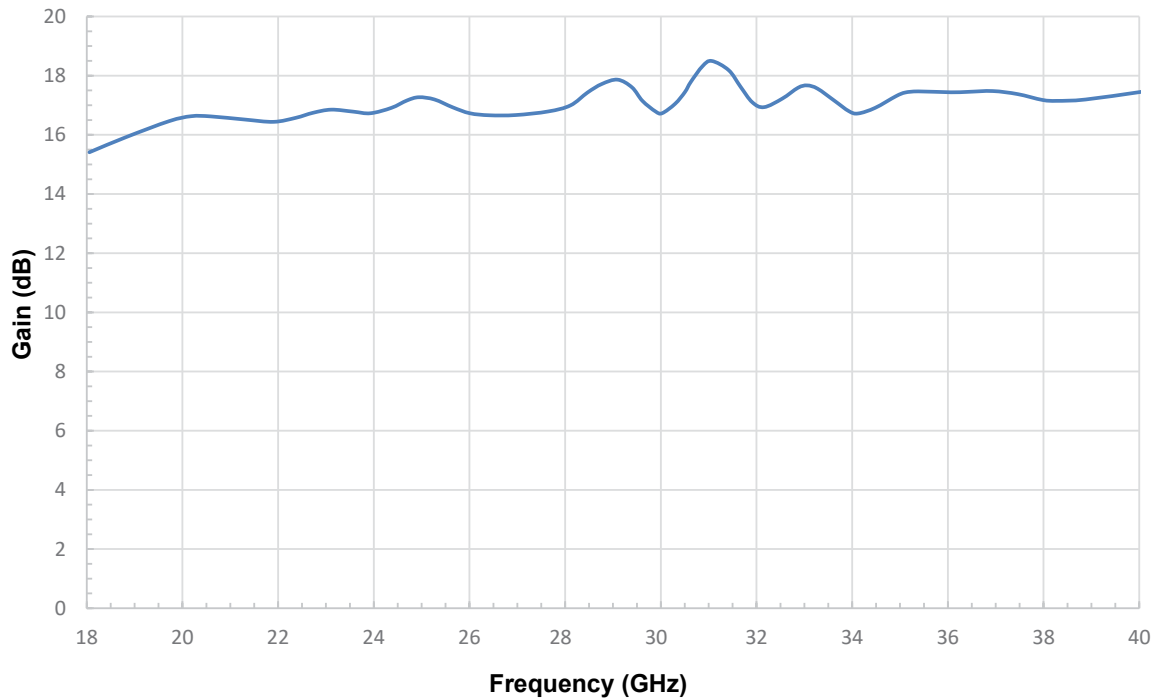
TYPICAL ANTENNA PATTERN @ 28 GHZ



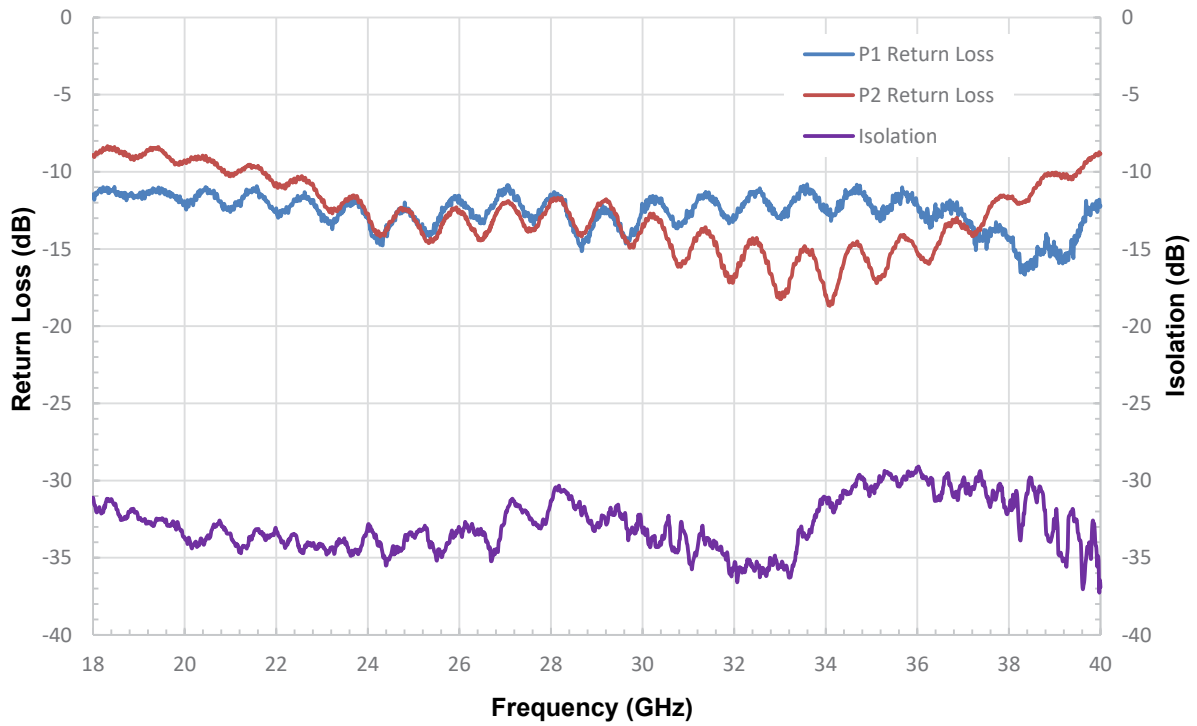
TYPICAL ANTENNA PATTERN @ 40 GHZ



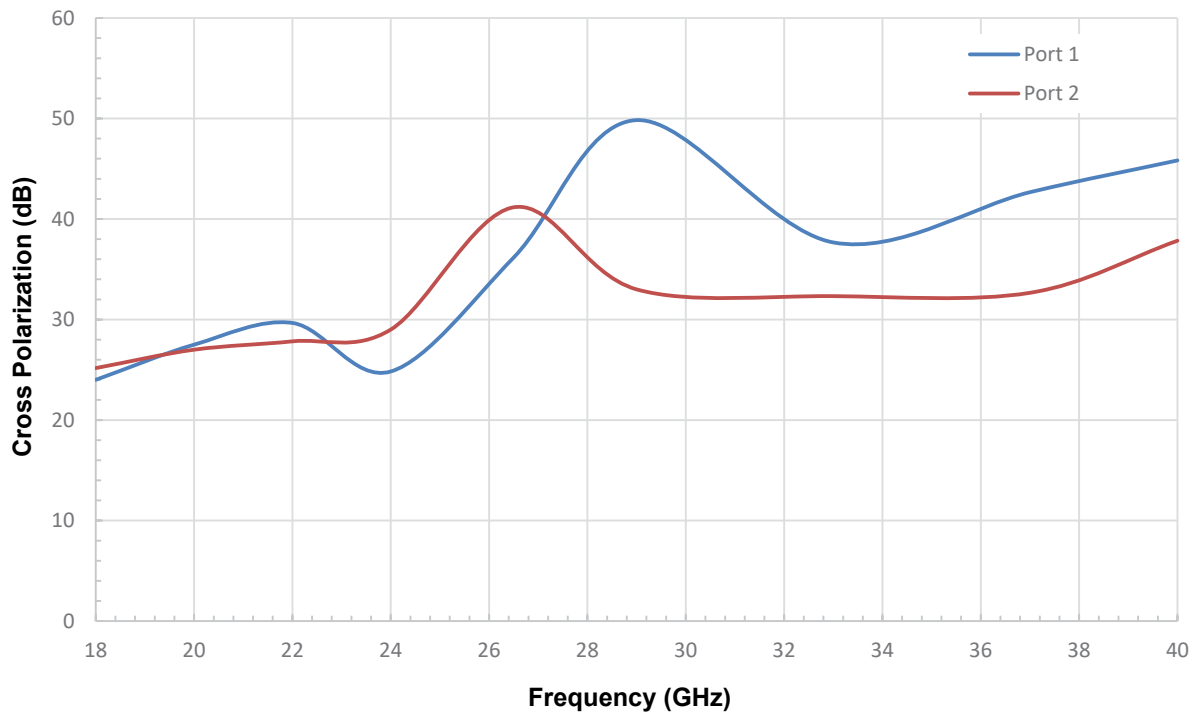
TYPICAL GAIN VS. FREQUENCY



TYPICAL PERFORMANCE VS. FREQUENCY

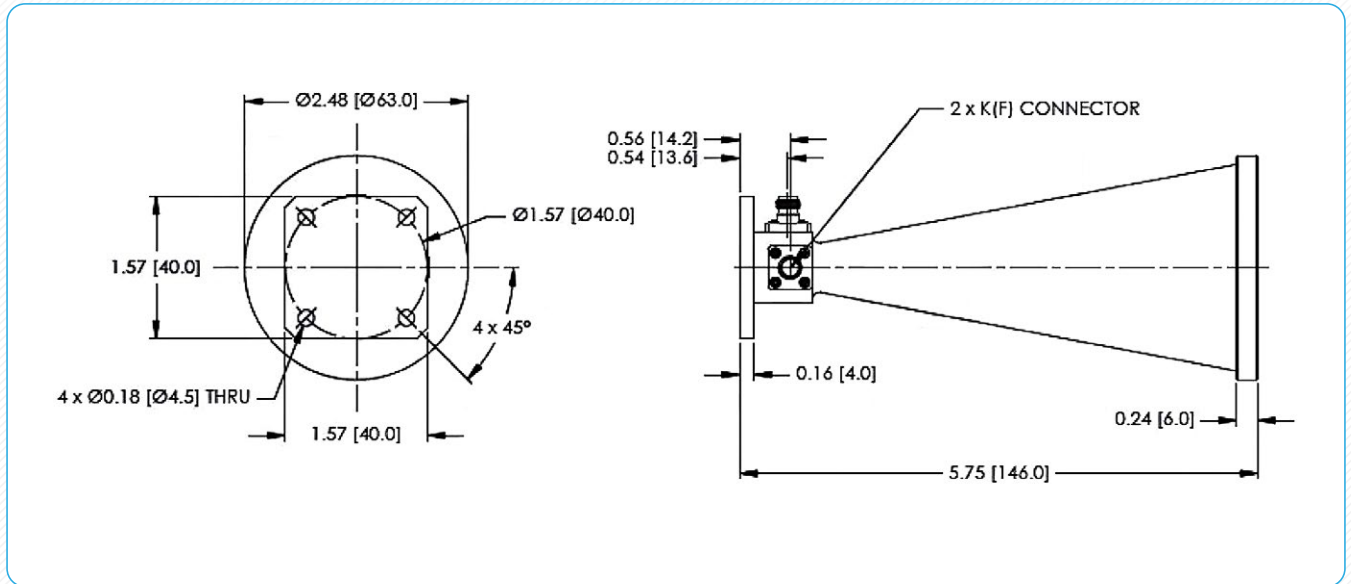


TYPICAL CROSS POLARIZATION VS. FREQUENCY



MECHANICAL OUTLINE:

(Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under $+25^\circ\text{C}$ room temperature.
- The EMCShop reserves the right to change the information presented without notice.

Caution:

- Any foreign objects in the antenna will cause performance degradation and possible device damage.

The
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