



L3HARRIS™
FAST. FORWARD.

Q139-1 HORN ANTENNA AND POLARIZER ASSEMBLY

L3Harris' Q139-1 antenna is a rectangular, dual-ridge horn designed for electronic support measures (ESM) and electronic warfare (EW) applications. The antenna element has a wide angle of view in the azimuth plane and a moderate angle of view in the elevation plane. It has been designed to provide repeatable, unit-to-unit amplitude tracking. The Q139-1 includes an integrated, multilayer polarizing grid that provides slant 45 polarization and allows for the reception of virtually all signal polarizations.

ELECTRICAL						
Gain and backlobe	Frequency (GHz)	Antenna gain (dBi min) (measured at applicable polarization)				Backlobe (max)
		Peak	± 45° AZ @ 0° EL	± 5° EL @ 0° AZ	± 10° EL @ 0° AZ	
	18.0	11.0	7.8	11.0	8.0	18.0
	20.2	11.5	8.1	11.5	8.2	20.0
	22.4	10.5	7.6	8.2	5.7	22.0
	24.6	9.5	7.6	8.5	6.5	22.0
	26.8	9.5	6.8	9.5	7.0	22.0
	29.0	9.3	5.5	8.0	5.0	22.0
	31.2	11.3	8.7	11.0	9.0	22.0
	33.4	11.5	8.2	11.0	8.0	22.0
	35.6	10.8	4.4	10.8	8.8	22.0
	37.8	11.5	4.8	11.0	9.0	22.0
	40.0	13.9	4.8	13.0	10.0	22.0
VSWR	2.0:1 max					
Polarization	Slant 45°					
Amplitude tracking						
Parameter	Value					
Amplitude tracking (to any antenna within same frequency) within ±45° AZ and ±15° EL for any polarization and frequency in band (dB max)	2.0 dB p.t.p. for 50% of the data 2.5 dB p.t.p. for 60% of the data 3.0 dB p.t.p. for 80% of the data 3.5 dB p.t.p. for 88% of the data 5.0 dB p.t.p. for 100% of the data					
Amplitude tracking within ±65° AZ and ±15° EL for any polarization and frequency in band (dB max)	+/- 6					
Gain at -90° to -65° and 65° to 90° AZ comparative to any antenna gain at 45° and -45° AZ (dB max) for ±15° EL	2.0 dB p.t.p. for 50% of the data 2.5 dB p.t.p. for 60% of the data 3.0 dB p.t.p. for 80% of the data 3.5 dB p.t.p. for 88% of the data 5.0 dB p.t.p. for 100% of the data					
Power handling	+34 dBm up to 6 GHz, +28 dBm above 6 GHz					



KEY FEATURES

- > Suitable for a variety of ESM and EW applications
- > Phase matching and amplitude tracking available
- > Contains an integrated, multilayer polarizing grid

For further details and specifications, contact the factory at antenna.info@L3Harris.com

Q139-1 Horn Antenna and Polarizer Assembly

© 2020 L3Harris Technologies, Inc. | 12/2020 | 60574 | EC

Nonexport-controlled Information

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



L3HARRIS™
FAST. FORWARD.

1025 W. NASA Boulevard
Melbourne, FL 32919