



L3HARRIS™
FAST. FORWARD.

Q138 SERIES HORN ANTENNAS

L3Harris' Q138 Series of antennas are rectangular, dual-ridge horns designed for electronic support measures (ESM) and electronic warfare (EW) applications. They are suitable for a wide variety of applications in the 6-18 gigahertz band. The antenna elements have a wide angle of view in the azimuth plane and a moderate angle of view in the elevation plane, and have been designed to provide repeatable, unit-to-unit, phase tracking. All units can be provided independently or as matched sets with the phase and amplitude tracking shown below. L3Harris can also provide the Q138 Series pre-assembled into interferometer arrays with customer specified spacing. In addition, the Q138 Series can be adapted for the reception of many polarizations with the addition of L3Harris model Q156 Series of polarizer grids. These lightweight, multilayer grids are specifically designed for interface with the Q138 Series and provide slant-45 polarization.

ELECTRICAL			
ANTENNA GAIN (DBI)	FREQUENCY (GHZ)		
	6	10	18
Peak	7.5	11	12.2
+/-40° AZ @ 0° EL	4.9	7.2	7.6
+/-40° EZ @ 0° AZ	5.2	7.5	8.8
Back-lobe, max (-dB)	13	19	21
Polarization	Horizontal		
Phase tracking			
Within +/-40° AZ and +/-10° EL	10° peak-to-peak		
Within any 100 MHz	96% <2° peak-to-peak, 100% <4.3° peak-to-peak		
Within 10° AZ	98% <2° peak-to-peak, 100% <2.9° peak-to-peak		
Within 5° EL	89% <2° peak-to-peak, 100% <4.4° peak-to-peak		
Polarization	2° peak-to-peak		
Relative to gold standard	+/- 6.2°		
VSWR, max	2.5:1 for 100%, 2.0:1 for 90%		
Amplitude tracking			
Within +/-40° AZ and +/-10° EL	10° peak-to-peak		
Within any 100 MHz	96% <2° peak-to-peak, 100% <4.3° peak-to-peak		
Within 10° AZ	98% <2° peak-to-peak, 100% <2.9° peak-to-peak		
Within 5° EL	89% <2° peak-to-peak, 100% <4.4° peak-to-peak		
Within any 5°	99% <0.6° peak-to-peak, 100% <0.7° peak-to-peak		
Within any polarization	0.6 dB peak-to-peak		
Squint	2.5:1 for 100%, 2.0:1 for 90%		
Power handling	+34 dBm up to 6 GHz, +28 dBm above 6 GHz		
MECHANICAL			
Connector	TNC		
Weight	500 grams nom		
Finish	Chemical film per MIL-C-5541		



KEY FEATURES

- > Designed for ESM/EW applications
- > Wide-angle field of view in the azimuth plane
- > Phase- and amplitude-tracking options are available
- > Can be used in fixed-site, ground or airborne applications

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

Q138 Series Horn Antennas

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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.



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