



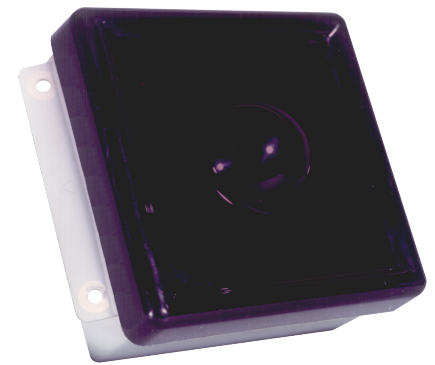
# Q107-4-1 BROADBAND SPIRAL ANTENNA

The Q107-4 spiral antenna provides ultrabroadband frequency coverage and operates continuously from ultra-high frequency through Ku band across a 36:1 bandwidth.

To provide continuous coverage across the operating bandwidth, the Q107-4 has been designed around a loaded cavity. This cavity is loaded with microwave absorbing material, which is carefully selected and screened to ensure each unit amplitude tracks a standard (reference) unit. A tapered microstrip transmission line is used to properly feed the radiating element for left-hand circular polarization generation.

Similar in design to the Q21-2 antenna, the Q107-4 features design enhancements to increase the usable bandwidth. These design enhancements include a shaped lens integrated with the dielectric radome and a ferrite sleeve integrated into the balun assembly. The Q107-4 provides a nominal 100-degree 3-decibel beamwidth and a voltage standing wave ratio (VSWR) of less than 2.0:1.

ELECTRICAL		
Frequency range	0.5-18 GHz	
VSWR	2.0:1 max	
Gain (dBil)	0.5 GHz	-14
	3.0 GHz	-2.3
	9.0 GHz	-1.0
	12.0 GHz	-1.0
	18.0 GHz	-1.0
Axial ratio	3 dB max	
Beamwidth 3 dB	100° nom	
Amplitude tracking	1 dB RMS boresight to 60°	
	1.5 dB RMS 60° to 90°	
MECHANICAL		
Weight	1.5 lbs	
Finish	Grey urethane paint Color no. 36231 per FED-STD-595	
ENVIRONMENTAL		
Qualified to	MIL-STD-810	
	MIL-E-5400	



## KEY FEATURES

- > 36:1 bandwidth
- > Quadrant beamwidth
- > Amplitude tracking to a golden standard
- > Rain-erosion resistant radome

**For further details and specifications, contact the factory at [antenna.info@L3Harris.com](mailto:antenna.info@L3Harris.com)**

### Q107-4-1 Broadband Spiral Antenna

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