

QHA-678

Space-Based Quadrifilar Helix Antenna

DESCRIPTION

The QHA-678 is a Quadrifilar Helix hemispherical broadband antenna. The antenna is designed and qualified to be flown on a spacecraft designed for LEO & GEO space missions where the required mission lifetime is 3 years minimum. The quadrifilar antenna has higher gain and superior on-axis axial ratio than a monofilar helical antenna.



Space Qualified Quadrifilar Helix Antenna

SPECIFICATIONS

ELECTRICAL

Frequency Band	6.7 GHz to 8 GHz
VSWR	$\leq 2.0:1$
Polarization	Right-Hand Circular
Gain	> 3.0 dBiC Boresight > -2.0 dBiC across $\pm 70^\circ$ beamwidth > -6.5 dBiC across $\pm 85^\circ$ beamwidth
Axial Ratio	$\leq 3.0:1$ nom.
Power	5 Watts (qualified)
Ground Plane	Ground Plane Independent
Connector	SMA Female

MECHANICAL

Weight	3 oz (85 g)
Dimensions	2.5" L x 2.5" W x 1.82" H (6.4 cm L x 6.4 cm W x 4.62 cm H)
Mounting	Available Upon Request
Finish (Default)	White Thermal Control Paint, Chemical Conversion Coating

ENVIRONMENTAL

Shock	MIL-STD810G
Vibration	MIL-STD810G
Operational Temp.	-148°F to +203°F (-100°C to +95°C)