

HIGH COMPACTION RATIO ANTENNA

High-accuracy, large-aperture antenna optimized for smallsats

L3Harris' High Compaction Ratio (HCR) antenna with 1-meter reflector and feed fits in a 2U cubesat volume or a 5-meter reflector in less than a quarter of an Evolved Expendable Launch Vehicle (EELV) Secondary Payload Adapter (ESPA) class satellite. The HCR antenna is designed for high-frequency, high-gain antenna performance up to 40 gigahertz.

The HCR antenna has a fast production turnaround that supports smallsat constellation development.

L3Harris applies fabrication and surface-shaping processes that are based on 40 years of reflector heritage to streamline production and minimize development risk for our customers.

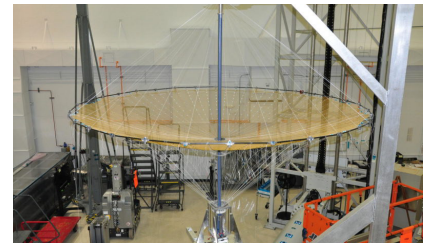
ABOUT L3HARRIS SPACE ANTENNAS

L3Harris has been engineering first-of-their-kind payloads that meet and exceed the needs of our customers for more than 50 years. Our position as the most experienced unfurlable mesh reflector manufacturer in the world has been earned by continually pushing the boundaries of space antenna technology. Today, we are the number-one provider of large high-accuracy mesh reflectors, with more than 90 antennas on orbit.

By drawing upon this experience and our repeatable designs, proven processes and rigorous testing capabilities, we reduce risk for our space antenna customers, who want to tap the potential of smallsats for their communications missions.

PERFORMANCE PARAMETERS

PARAMETER	SPECIFICATION		
Antenna Size	1 m	3 m	5 m
Frequency	X through Ka and above	X through Ka	X
Packaging	2 U 96 x 99 x 234 mm	1/4 ESPA 330 x 330 x 660 mm	1/4 ESPA 343 x 343 x 912 mm
Optical Transparency	up to 85%	up to 85%	up to 85%



KEY FEATURES

- > Offers 1-meter to 5-meter apertures that meet the needs of smallsat form factors
- > Enables high data transfer rates typically only available with large-aperture reflectors
- > Is not subject to ITAR controls

High Compaction Ratio Antenna

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