

PREBUILT 12-METER S- OR L-BAND REFLECTOR

Large-aperture reflector for high-gain applications

L3Harris is offering a prebuilt, prequalified 12-meter reflector for S- or L-band frequencies that has successfully completed all unit-level testing. With the initial build and testing complete, the unit can be ready for spacecraft integration in less than half the time of a custom reflector build. The reflector, which is currently stored in a temperature-controlled environment, supports high-gain missions including most mobile satellite services and science synthetic aperture radar.

L3Harris will ensure inspection and replacement of limited life items and recertify the reflector for usable life. After deployment and surface measure testing and recertification, L3Harris will ship the reflector to the customer for spacecraft environmental tests and post-test deployment. L3Harris will also oversee final stowage and secure shipment to the designated customer facility. The design is identical to the L3Harris-built ICO G1 reflector, which successfully deployed in orbit.

PERFORMANCE PARAMETERS

PARAMETER	SPECIFICATION
Frequency of operation	S band
Deployed geometry	
Projected diameter	12 m
Focal length	7.8 m
Center offset	8.1 m
Surface accuracy on orbit	
Root mean square	4 mm
Stowed dimensions	
Height	4.3 m
Diameter	0.7 m
Mass	
Reflector	94.1 kg
Stiffness	
Stowed	30 Hz
Deployed	0.18 Hz

STOWED LOADS

Reflector has successfully completed unit-level sine vibe testing.

ELECTRICAL INTERFACES

Deployment of the reflector is initiated with the sequential release of pyrotechnic pinpullers (11 total).

Deployment is driven by 3 direct current brush motors.

Additional telemetry included in the reflector design are thermistors, potentiometers and limit switches.

Prebuilt 12-meter S- or L-band Reflector

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KEY FEATURES

- Offers large apertures for high-gain missions
- > Designed for S- or L-band frequency
- Offers option of using existing or modified boom and spacecraft restraints

KEY BENEFITS

- > Supports fast delivery
- Provides prebuilt, prequalified design



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