

PERIMETER TRUSS REFLECTOR

High-accuracy, low-stowed volume reflector

L3Harris’ next-generation Perimeter Truss Reflector meets the increased demand for more accurate, more compact and lighter reflectors. The Ka-band Perimeter Truss Reflector offers low-stowed volume and height, and low mass – characteristics that support the most technically challenging communication, science and synthetic aperture radar missions.

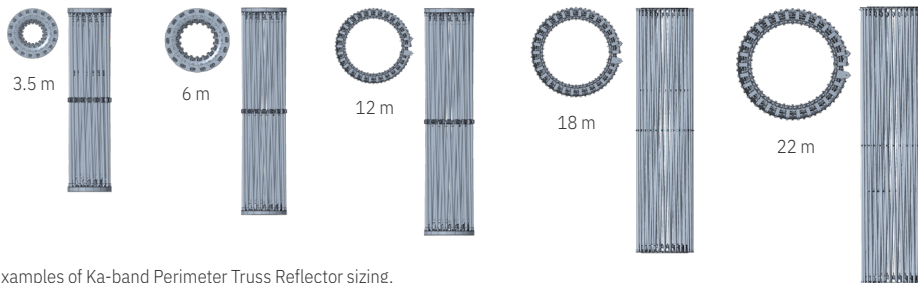
The Perimeter Truss Reflector uses L3Harris’ proprietary high-frequency mesh to achieve superior reflectivity and low cross-polarization interference.

LARGE TELESCOPING BOOM

The Ka-band Perimeter Truss Reflector is available with the Large Telescoping Boom that enables higher focal lengths, lower mass and compact stowage. With boom diameters as small as 20 centimeters, it supports boom lengths up to 50 meters. With precision pointing capability, high stiffness and low mass, it meets the challenging requirements of modern satellite antennas. In addition, its composite tube fabrication, composite lead screw, segment retention detents and latches have been tested and successfully deployed, resulting in a low-risk design.

PERFORMANCE PARAMETERS

PARAMETER	SPECIFICATION				
Deployed Geometry	3.5 m	6 m	12 m	18 m	22 m
Reflector Mass (Kg)	18.6	29.5	54.3	99.8	118
Stowed Height (Cm)	84.6	133.0	205.7	261.7	417
Stowed Diameter (Cm)	19.0	27.6	54.6	82.6	82



Examples of Ka-band Perimeter Truss Reflector sizing.



KEY FEATURES

- > Is scalable from 3 meters to 22 meters
- > Has 50% lower mass than heritage reflector designs
- > Has 30% shorter stowed height than competitive designs
- > Offers surface accuracies better than 0.25 millimeters root mean square
- > Is compatible with universal cradle adapter for spacecraft mounting or with traditional direct mounting

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