

Passive Reflector

LUNEBERG LENSES

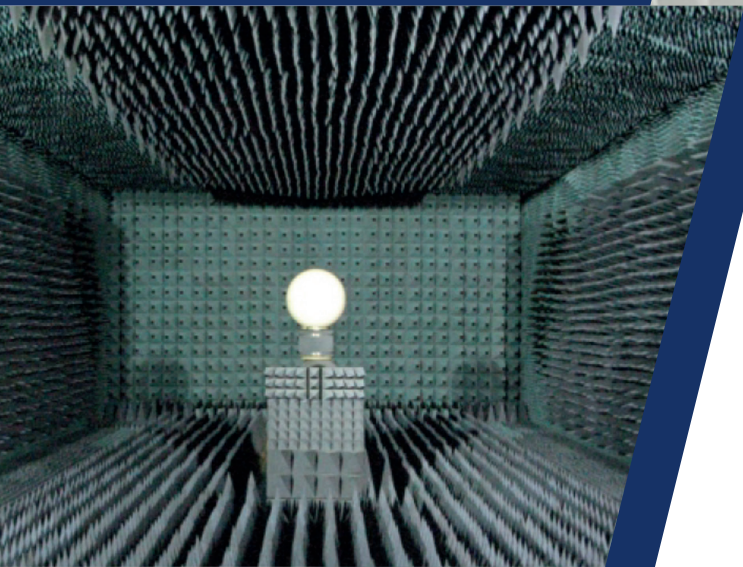
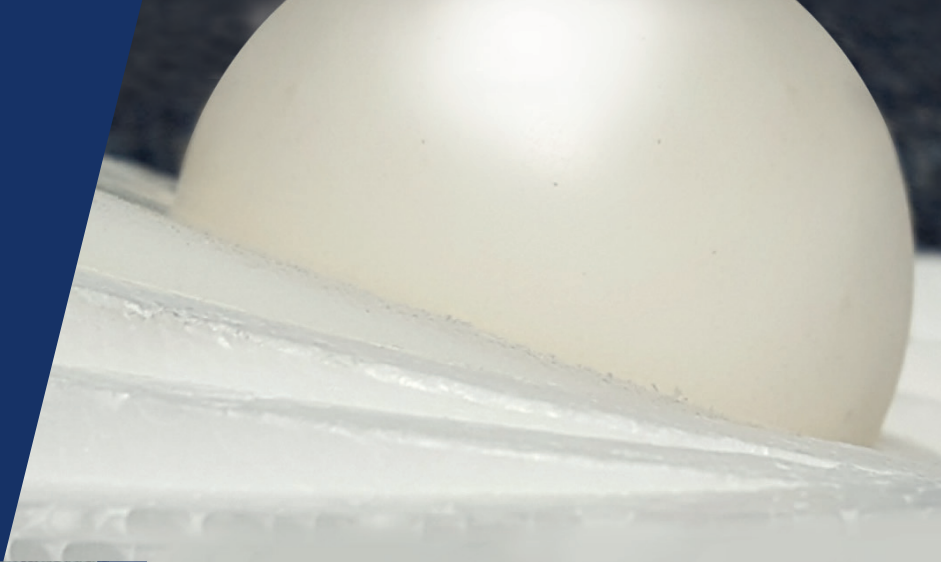


- / Significant RCS enhancement
- / Calibrated in anechoic chamber
- / Homogeneous response within a wide angle
- / Unmatched performances



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Response according to the incident wave :

- Cone with an opening angle of 90° to 140° , called « classic »
- Equatorial zone, called « belt »
- Omnidirectional response with the assembly of several reflectors
- Circular polarization response with no direction inversion

Range characteristics :

- Min. RCS guaranteed : 0.2 m^2 to 250 m^2
- Polarization : rectilinear or circular
- Type of radar : monostatic or bistatic
- Diameters available : 3 to 24 inches

DESCRIPTION

Luneberg reflectors are spheres made of concentric dielectric layers with a metal-plated reflecting surface, encapsulated in a watertight fiberglass shield.

This device significantly enhances the radar cross-section of any system with little or no RCS and gives a remarkably homogeneous response within a wide angle.

Depending on the model, and according to their final use, Luneberg reflectors can reflect incident energy coming from various directions back in a specific zone.

APPLICATIONS

This technology can be used in satellite communication with multiple beam antennas, airport, sea and river beaconing, as well as in the air navigation aids.

For calibration purposes, Luneberg reflectors allow to accurately assess radar range.

This type of reflector allows :

- Calibration of measurement systems
- Radar satellite imagery for detection
- Automotive radar training (autopilot)

It can be integrated to air targets, whether towed, propelled or jetpowered for spotting.

As far as the equipment of naval targets is concerned, reflectors are fixed on watercraft to amplify their radar signal.

The technical data contained in this document is presented for reference.
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