



LUNEBERG REFLECTORS  
BISTATIC  
RECTILINEAR POLARIZATION

Zéphyr

Plan #	4LUN04R0006		
R.C.S. Measurements	<p>We guarantee the specifications of the reflector according to plan # 4LUN04R0006. The reflector is delivered with 2 points of measurement (0° and 10° of bistatism in the axis). The measurement delivered corresponds to the measurement of the lens alone. Moreover the reflector can be used from S band to Ku band</p> <p>Further measurements options (patterns, other frequencies...) on specific request.</p>		
Response	<p>Bistatic</p>	<p>As shown on this drawing, the reflected power at an angle of bistatism different from 0° is different from the reflected power in the axis. The larger the aperture of the pattern (large cone of response), the better the results of the reflector in bistatism.</p>	
Polarization	<p>Rectilinear. The reflected wave is on the same plane as the wave interrogating the reflector</p>		
Metallization		<p>Metallization on ± 70° The label of metallization locates the plane where R.C.S. measurements have been done</p>	
Radome	<p>Waterproof composite protection (also against salted ambiance). Acceleration – vibration tests have been passed allowing mounting in supersonic targets</p>		
Standard fixing (in option)		<p>plan 4LUN04D0005</p>	<p>Development of any other fixing at request</p>
Specific unit packaging			
<p>⚠ Precautions of use</p>	<p>The response of the lens depends on the environment.</p> <ul style="list-style-type: none"> <li>● Avoid thick fairing</li> <li>● Avoid fairing made of dielectrical material with important losses</li> <li>● Avoid any object (especially metallic) positioned between the lens and the radar (strap, screw...)</li> <li>● Take care of the mounting</li> </ul>		



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Reference	Frequency range	Measuring frequency (GHz)	Minimum Radar Cross Section guaranteed (m <sup>2</sup> )		Diameter of the reflector without fixing		Weight without fixing (kg)
			R.C.S. in the axis	R.C.S. at 10° of bistatism	(inches)	(cm)	
XBR03	X	9,375	0,1	0,05	2,9	7	0,1
XBR04	X	9,375	0,3	0,075	3,9	10	0,25
XBR05	X	9,375	0,4	0,1	4,9	12	0,4
XBR07	X	9,375	2,2	0,7	7,0	18	1,3
XBR08.5	X	9,375	6	1	8,5	22	2,6
XBR09	X	9,375	6	1	9,2	23	2,9
XBR10	X	9,375	9	2	10,0	25	3,8

