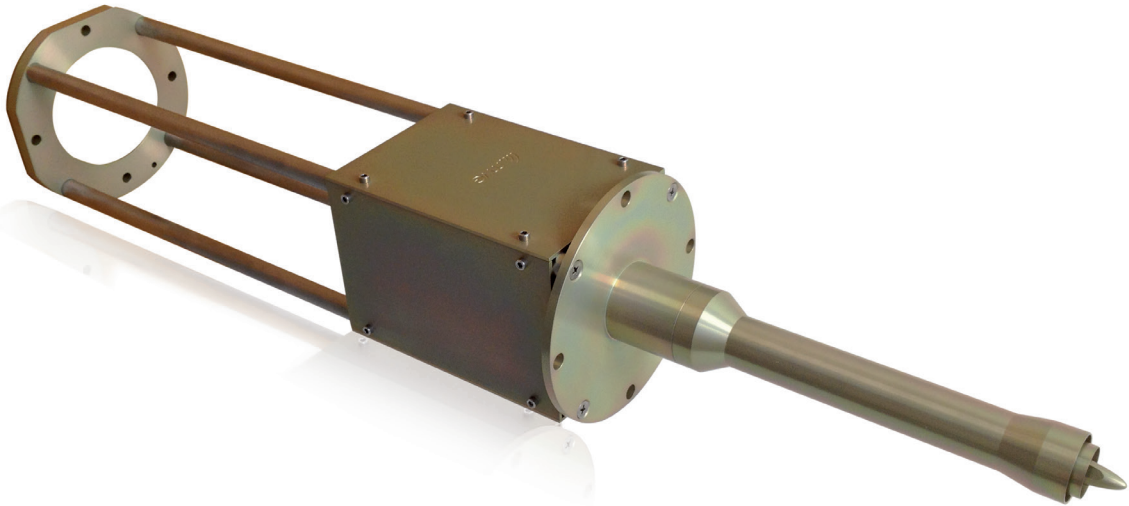


Dual Linear Polarized Minimum Scattering Probe for Planar Near-Field



SOLUTION FOR

- Planar near-field measurements using probe with low scattering properties

Main features

Technical performance

- Dual linear polarization with high on-axis polarization purity and isolation
- No nulls in the forward radiation pattern
- Low back-scattering
- Wideband, low dispersion

Design

- Wideband orthomode junction (OMJ) based on inverted quad-ridge circular waveguide with external feeding circuits
- Axially corrugated circular aperture
- Minimum waveguide cross-section for low backscattering

Surface treatment

- Alodine 1200 according to MIL-C 5541E class 3

Repeatability

- Stiff and robust mechanical design
- Precision machined
- Highly reliable RF components

Delivered documents

- Typical performance data (TYMEDA™)
- Measured return loss data

Product configuration

Equipment

- Mounting flange
- RF absorber panel
- High power configuration

Related services

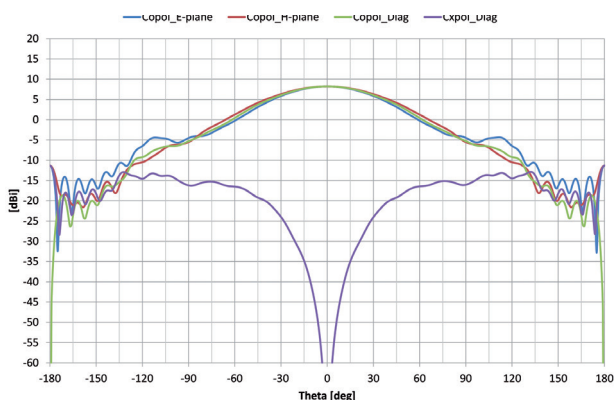
- Calibration and maintenance
- Customization

Included Optional

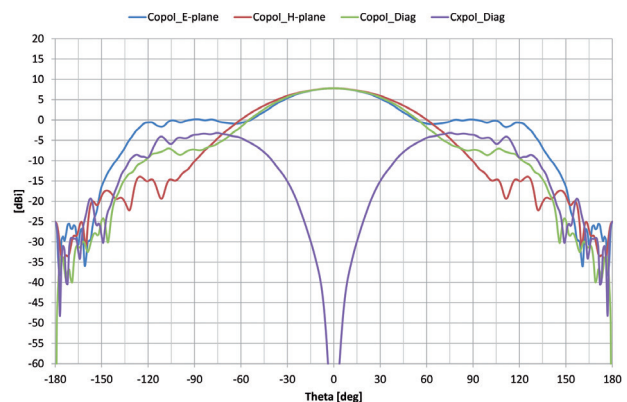
Electrical characteristics

Part number	DLP-PNF-080	DLP-PNF-120	DLP-PNF-200	DLP-PNF-400	DLP-PNF-650	DLP-PNF-1000
Frequency range	0.8 – 1.6 GHz	1.2 – 2.5 GHz	2.0 – 4.5 GHz	4.0 – 8.0 GHz	6.2 – 13.0 GHz	10.0 – 20.0 GHz
Polarization	Dual linear	Dual linear	Dual linear	Dual linear	Dual linear	Dual linear
Directivity	8 dBi	8 dBi	8 dBi	8 dBi	8 dBi	8 dBi
VSWR	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9
Return loss	< -10 dB	< -10 dB	< -10 dB	< -10 dB	< -10 dB	< -10 dB
Port to port isolation	> 45 dB	> 45 dB	> 45 dB	> 45 dB	> 45 dB	> 45 dB
Cross-polar discrimination	> 45 dB	> 45 dB	> 45 dB	> 45 dB	> 45 dB	> 45 dB
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms

Typical DLP-PNF-650 radiation patterns @ 6.2 GHz



Typical DLP-PNF-650 radiation patterns @ 13 GHz

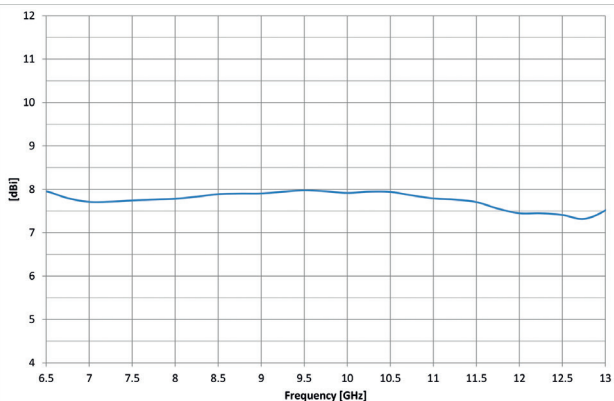


Mechanical characteristics

Part number	DLP-PNF-080	DLP-PNF-120	DLP-PNF-200	DLP-PNF-400	DLP-PNF-650	DLP-PNF-1000
Aperture dimensions	220 mm	150 mm	90 mm	45 mm	30 mm	20 mm
RF connectors	PC 3.5 Female	PC 3.5 Female	PC 3.5 Female	PC 3.5 Female	PC 3.5 Female	PC 3.5 Female
Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Treatment	Alodine 1200 ⁽¹⁾	Alodine 1200 ⁽¹⁾	Alodine 1200 ⁽¹⁾	Alodine 1200 ⁽¹⁾	Alodine 1200 ⁽¹⁾	Alodine 1200 ⁽¹⁾

(1) Equivalent to MIL-C 5541 class 3

Typical DLP-650 boresight gain



Typical DLP-650 port-to-port isolation

