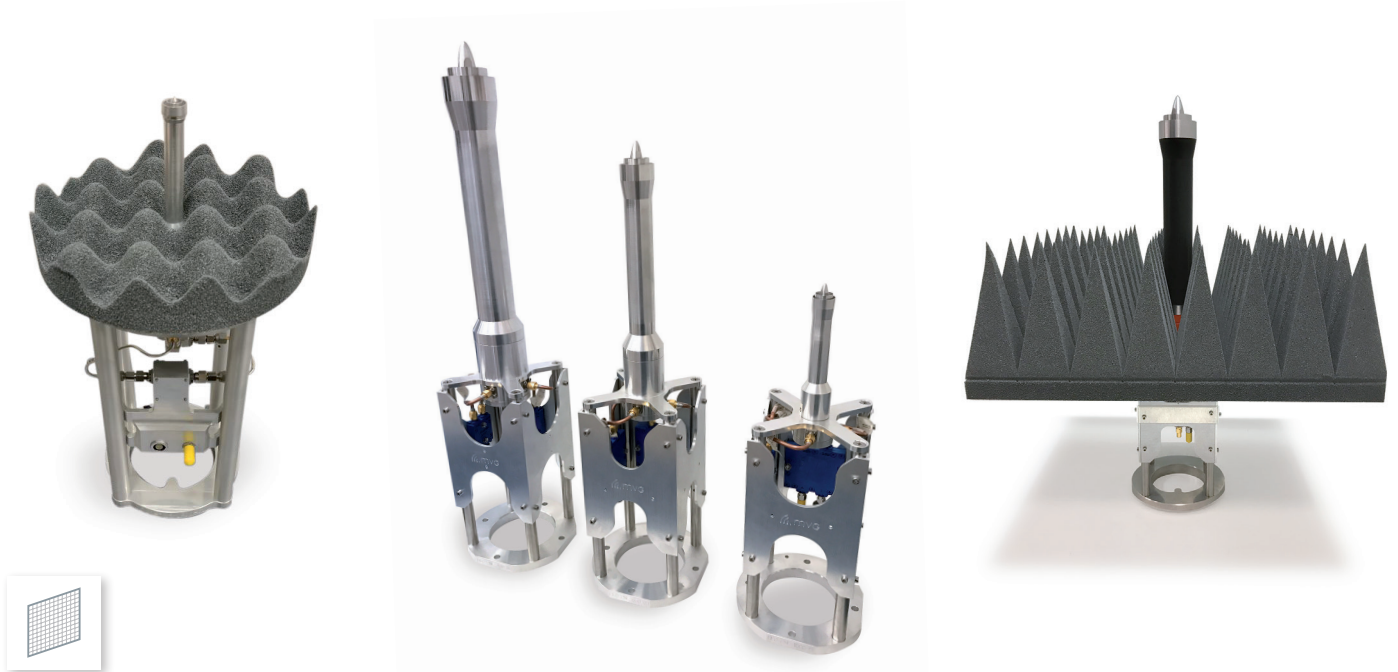


Dual Linear Polarized Minimum Scattering Probe for Planar Near-Field



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

- Surtec 650 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
- Integrated polarization switch

Related services

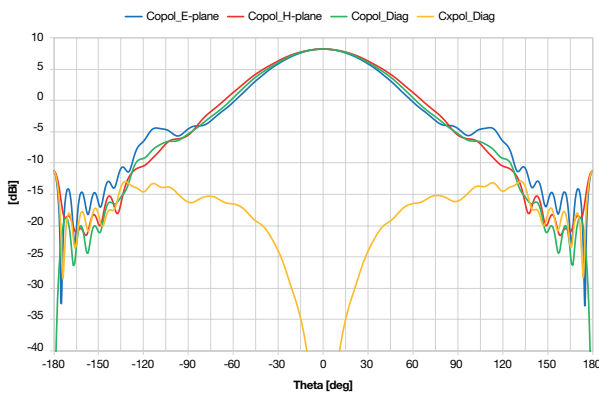
- Calibration and maintenance
- Customization

Included Optional

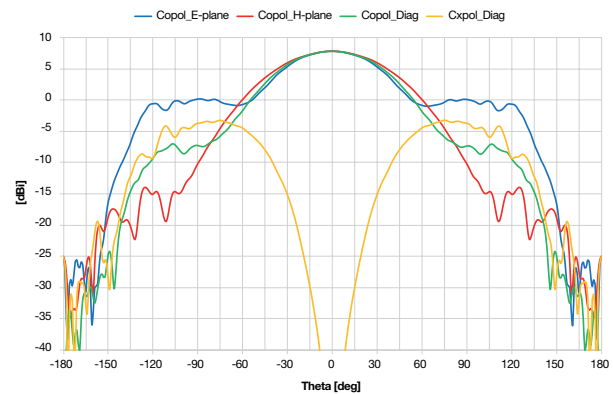
Electrical characteristics

Part number	DLP-PNF-100	DLP-PNF-120	DLP-PNF-200	DLP-PNF-400	DLP-PNF-650	DLP-PNF-1000	DLP-PNF-1800	DLP-PNF-3300
Frequency range	0.8 – 2.0 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	18.0 – 40.0 GHz	33.0 – 50.0 GHz
Polarization	Dual linear	Dual linear	Dual linear	Dual linear	Dual linear	Dual linear	Dual linear	Dual linear
Gain	6.5 – 8.5 dBi	6.5 – 8.5 dBi	6.5 – 8.5 dBi	6.5 – 7.5 dBi	6.5 – 7.5 dBi	6.5 – 7.5 dBi	7 – 9 dBi	8 – 10 dBi
VSWR	< 1.9	< 1.9	< 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	< -10 dB	< -10 dB
Port to port isolation	> 45 dB	> 45 dB	> 45 dB	> 45 dB	> 45 dB	> 45 dB	> 45 dB	> 45 dB
Cross-polar discrimination	> 35 dB	> 35 dB	> 35 dB	> 35 dB	> 35 dB	> 35 dB	> 35 dB	> 35 dB
HPBW 2x (E x H)	65° x 75°	65° x 75°	65° x 75°	65° x 75°	65° x 75°	65° x 75°	65° x 75°	65° x 75°
Impedance	50 Ohms	50 Ohms	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-100	DLP-PNF-120	DLP-PNF-200	DLP-PNF-400	DLP-PNF-650	DLP-PNF-1000	DLP-PNF-1800	DLP-PNF-3300
Aperture dimensions	206 mm	150 mm	91 mm	46 mm	30 mm	18 mm	15 mm	10 mm
RF absorber	AEP-12	AEP-12	AEP-8	AEP-6	AEP-4	AEC-1.5	AEC-1.5	AEC-1.5
Panel	□ 609.6 mm	□ 609.6 mm	□ 609.6 mm	□ 406.4 mm	□ 406.4 mm	□ 406.4 mm	∅ 304.8 mm	∅ 304.8 mm
Weight	15 Kg	11.2 Kg	8 Kg	4 Kg	3.3 Kg	2.7 Kg	2.3 Kg	2.3 Kg
RF connectors	3.5 mm Female	3.5 mm Female	3.5 mm Female	3.5 mm Female	3.5 mm Female	3.5 mm Female	2.92 mm Female	2.4 mm Female
Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Treatment	Surtec 650 ⁽¹⁾	Surtec 650 ⁽¹⁾	Surtec 650 ⁽¹⁾	Surtec 650 ⁽¹⁾	Surtec 650 ⁽¹⁾	Surtec 650 ⁽¹⁾	Surtec 650 ⁽¹⁾	Surtec 650 ⁽¹⁾

(1) Equivalent to MIL-C 5541 class 3



Contact your local sales representative for more information
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