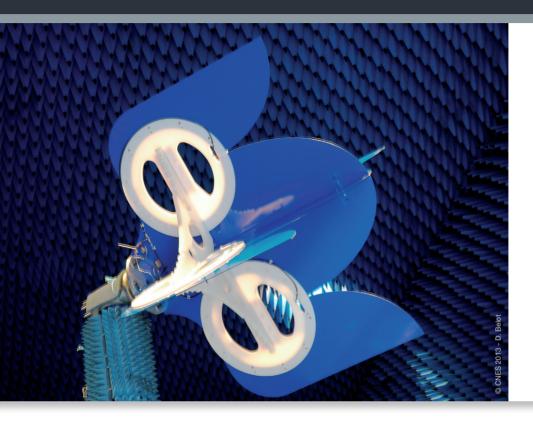
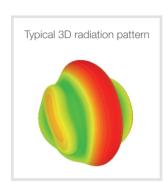
# VHF Wideband Dual Polarized Probe





#### SOLUTION FOR

- Spherical Near-Field
- Antenna VHF Measurements

# Main features

## **Technical performance**

- Wide bandwidth
- Dual linear polarization
- High efficiency
- Low return loss / VSWR

#### Design

- Aluminium lightweight panel
- High stiffness

#### **Surface treatment**

- Paint
- For indoor use

#### Repeatability

- Robust mechanical design
- Reliable cables and coaxial connectors

#### **Delivered documents**

Measured return loss data

# Product configuration

## Equipment

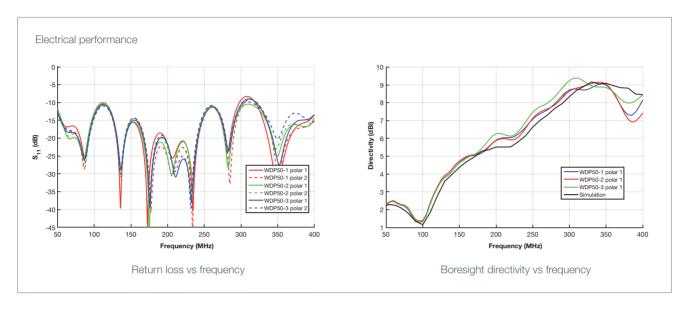
- Probe
- Mechanical RF switch
- □ PoE switch
- Mounting flange

## **Related services**

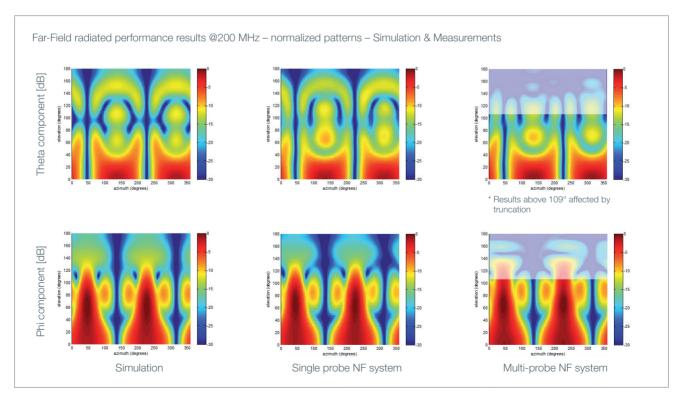
- □ Calibration and maintenance
- □ Outdoor installation customization
- □ Optical tool for accurate polarization alignment

#### **Electrical characteristics**

Part number	Type of antenna	Frequency range [MHz]	Polarization	Gain at center frequency [dBi]	Directivity [dBi]	VSWR	Return loss [dB]	Port to port isolation [dB]	Impedance [Ohms]
WDP50	Dual polarized probe	50 – 400	Dual Linear	7.5	1 to 9	< 1.9	< -10	> 25	50



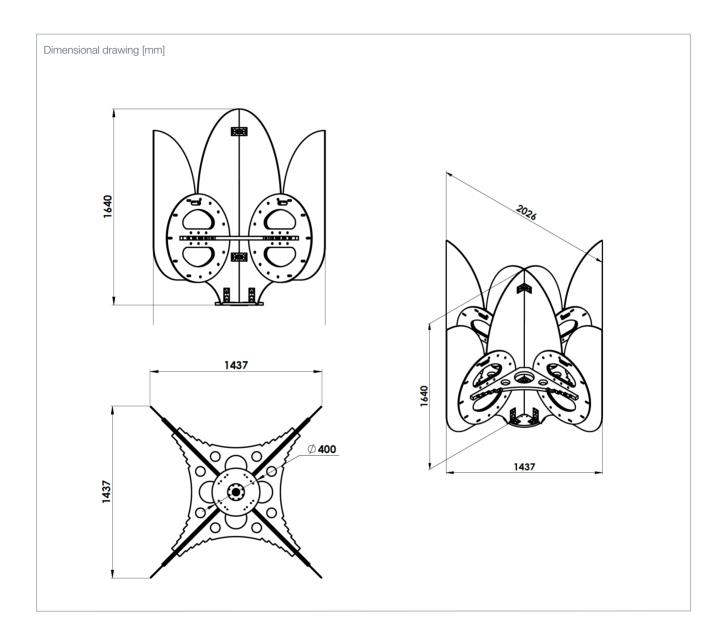
Measured performances of 3 different WDP50 probes: the high performance repeatability is proven by the highly correlated plots



Radiated performances measured in 2 different Near-Field systems vs. simulation

#### **Mechanical characteristics**

Part number	Dimensions (L x H x W) [mm]	Weight (approx.) [kg]	RF Connector	Material	Color	Interface
WDP50	2026 x 1640 x 1437	75	SMA Female (N-type optional)	Aluminium EN AW-5754	Custom	Custom



#### REFERENCES

- G. Le Fur, F. Cano-Facila, L. Duchesne, D. Belot, L. Feat, A. Bellion, R. Contreres, K. Elis. "Comparison of antenna measurement results in disturbed environment using a VHF spherical near field system". International Conference on Antenna Measurements & Applications; IEEE CAMA, Nov 2014.
- G. Le Fur, F. Cano-Facila, F. Saccardi, D. Belot, L. Durand, L. Duchesne, L.J. Foged, J-M Lopez, A. Bellion. "Improvement of antenna measurement results at low frequencies by using post-processing techniques," The 8th European Conference on Antennas and Propagation (EuCAP 2014), The Hague, 2014, pp. 1680-1684.
- G. Le Fur, F. Cano-Facila, L. Duchesne, D. Belot, L. Feat, A. Bellion, R. Contreres, K. Elis. "Uncertainty Analysis of Spherical Near Field Antenna Measurement System at VHF". Antenna Measurement Techniques Association; AMTA, Oct 2014, Tucson, United States
- G. Le Fur, F. Cano-Facila, L. Duchesne, D. Belot, L. Feat, A. Bellion, R. Contreres, K. Elis. "Investigations on probe phase center impact in antenna measurement results uncertainty for spherical Near Field systems," 2015 9th European Conference on Antennas and Propagation (EuCAP), Lisbon, 2015, pp. 1-4.

