

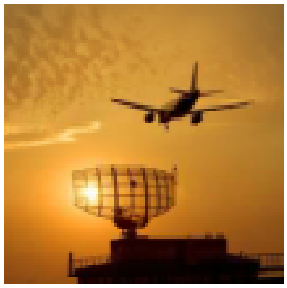


NEW FAMILY OF RADAR PROBES ER

Electric Field Probes (E) in L, S, C, X and Ku Bands

Main Features:

- Frequency Range: L,S,C,X and Ku
- Dynamic: >40 dB
- Pulse response up to 500ns (meter model NHT3DL) and 1µs (meter model NHT3D)
- Biaxial/Triaxial Configurations

Compatibility:

- NHT3DL Meter
- NHT3D Meter
- WAVES PC Software for NHT3D

Typical Applications:

- Radar applications in military and civil sectors

Information subject to change without prior notice

MICRORAD

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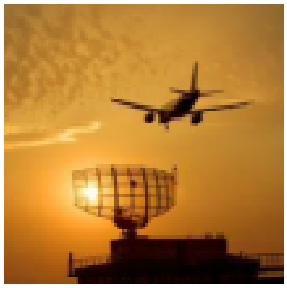


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Electric Field Probes (E) in L, S, C, X and Ku Bands

Description:

The new family of MICRORAD Radar isotropic probes, Model ER, represents a major breakthrough in the area of isotropic measurement of impulse signals.

In conjunction with the NHT3DL / NHT3D meter it is the first system on the market which allows the operator to measure the emission levels from Radar sources and to demodulate the signal.

The introduction of the envelope sampling technique allows the operator to:

- immediately visualize the pulsed signal in the time domain on the NHT3DL graphical display and read the Tau, PRF and Duty Cycle values at the same time

- immediately read the peak and average value on the display of the NHT3D meter while providing a graphic analysis of the pulsed signal in the time domain on PC display.

This innovative technique opens new perspectives of analysis, allowing the operator to distinguish and evaluate multiple intermittent or pulsed signals commonly utilised within the Telecommunications and Radar sectors.

These features offer the following advantages:

- Reliable identification of the source
- Exact calculation of the energy value of the source according to CEI 211-7/B
- Possibility to measure multiple pulsed sources simultaneously
- Possibility of measuring mixed CW and pulsed sources
- Post processing data to reconstruct the time / amplitude of the measurements
- Pulse capture capability with Tau up to 500 ns using NHT3DL meter and 1 µs using NHT3D and PRF up to 100 kHz

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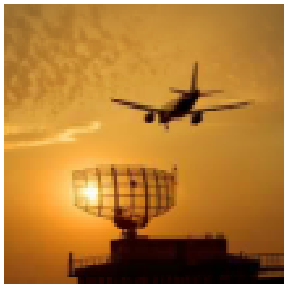


NEW FAMILY OF RADAR PROBES ER

Electric Field Probes (E) in L, S, C, X and Ku Bands

The ER probes are based on diode sensors (detectors) and can measure both CW and pulsed signals in the L, S, C, X and Ku bands.

Application sectors:

- Air traffic control
- Coastal surveillance
- Meteorology
- Road traffic control
- Anticollision

The measurement range of the probe makes it ideal for safety and permissible exposure limits in public and professional environments in accordance with the CEI 211-7/B standard.

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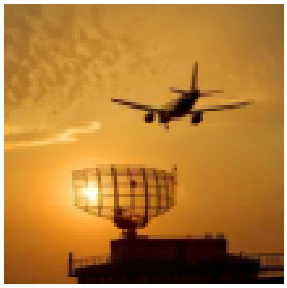


NEW FAMILY OF RADAR PROBES ER

Electric Field Probes (E) in L, S, C, X and Ku Bands

DISPLAY OF THE RADAR SIGNAL USING NHT3DL

Display of Radar pulse signal

Display of Radar pulse values:

- **Tau**
- **PRF**
- **Duty Cycle**

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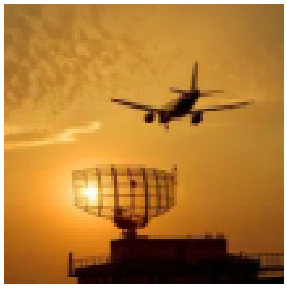


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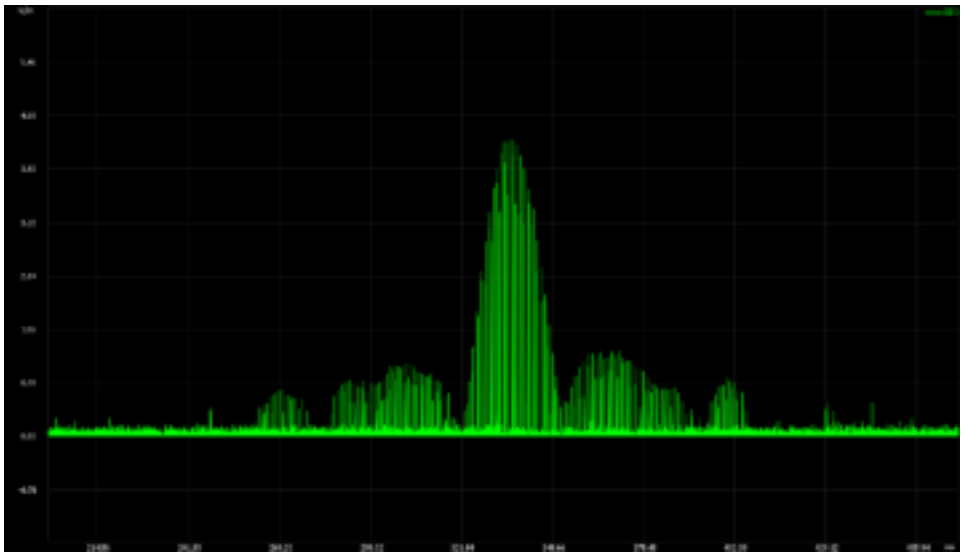
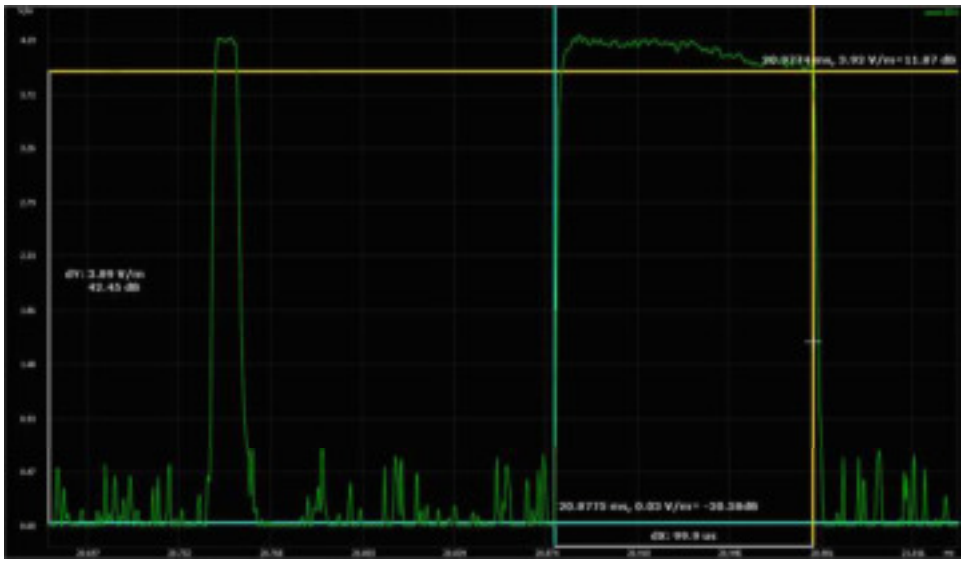
Electric Field Probes (E) in L, S, C, X and Ku Bands

DISPLAY OF THE RADAR SIGNAL USING NHT3D

EXAMPLE OF MAIN AND SIDE LOBES



EXAMPLE OF PULSE WIDTH: 100 us



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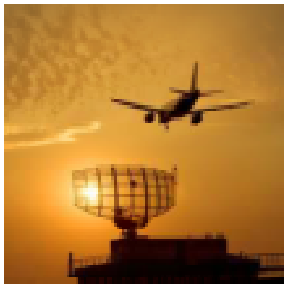


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TECHNICAL SPECIFICATIONS	
Sensor type	Biaxial / triaxial diode detector
Frequency band	L,S,C,X and Ku
Frequency response	± 2 dB typical
Measurement range	50 ÷ 5000 V/m (instantaneous single axis) 0 ÷ 5000 V/m (rms single axis)
Linearity	± 0.8 dB (100 ÷ 4500 V/m)
Sensor overload (single axis)	5000 V/m (pulses below 10 µs, duty cycle < 1%) (*)
Dynamic	40 dB
Anisotropy	± 1,5 dB typical
Pulse response	Up to 500 ns for NHT3DL model 1 µs for NHT3D model
PRF measurable	100 Hz ÷ 100 kHz
Sampling resolution	200 ns for NHT3DL model 500 ns for NHT3D model
Temperature error	0.05 dB/℃
Magnetic field rejection	>20 dB

(*) Combining the value of the two axes the probe can reach 7000 V/m

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Humidity	Up to 90% without condensation
Size	315 x 120 Ø(mm)
Weight	250g
Country of origin	Italy
Certifications	ISO 9001:2008 Calibration according to the standard IEEE 1309:2013

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