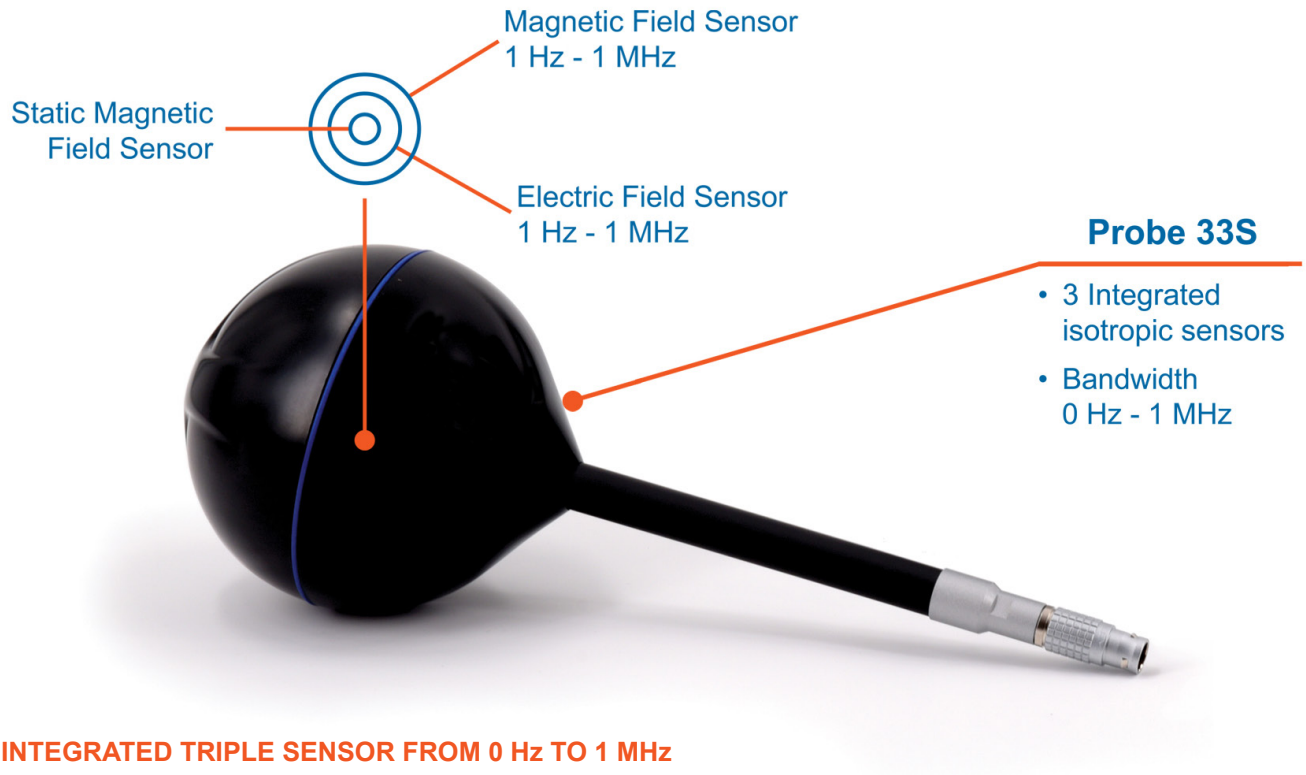
33S TRIPLE PROBE

Electric, Magnetic and Magnetostatic Fields



INTEGRATED TRIPLE SENSOR FROM 0 Hz TO 1 MHz

The 33S probe is one sensor for three physical quantities: a triple isotropic sensor for measuring magnetostatic, electric and magnetic fields.

In conjunction with the NHT 3DL meter, it allows simultaneous measurement and display of the electric and magnetic field from 1 Hz to 1 MHz. Selection of the quantity to be measured and represented is managed by the meter.

Thanks to its bandwidth, the 33S probe allows for the measurement of emissions generated by medical devices both surgical (electrosurgical), therapeutic (magnetotherapy) and diagnostic (magnetic resonance).

Key Features:

33S (Electric Probe): E Field
- Frequency Range: 1 Hz ÷ 1 MHz
- Dynamic: > 100 dB
- Directivity: Isotropic

33S (Magnetic Probe): B Field
- Frequency Range: 1 Hz ÷ 1 MHz
- Dynamic: > 100 dB
- Directivity: Isotropic

33S (Magnetostatic Probe): B_{DC} Field
- Frequency Range: DC
- Dynamic: > 80 dB
- Directivity: Isotropic

Compatibility:

- NHT 3DL Meter

Main Applications:

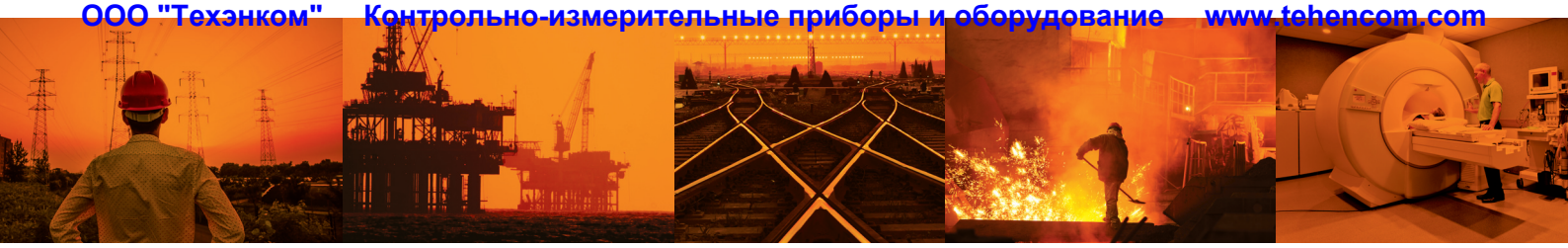
- Energy
- Diagnostic Medicine
- Automotive
- Railways
- Industrial
- Military

MICRORAD
Percipere Aestimare et Inquirere

Piazza delle Azalee, 13/14
05018 Orvieto (TR) - Italy

Tel: +39 0763.393291
Fax: +39 0763.394423

info@microrad.it
www.microrad.it



TECHNICAL SPECIFICATIONS			
	E Field	**B Field**	**BDC Field**
Field type	Electric	Magnetic induction	Magnetostatic
Sensor type	Capacitor	Coil	Hall
Bandwidth	1 Hz ÷ 1 MHz	1 Hz ÷ 1 MHz	DC
Response type	Flat	Flat	-
Frequency response	±3dB (1Hz÷1MHz) ±1dB (10Hz÷400KHz) @200V/m	±3dB (1Hz÷1MHz) ±1dB (10Hz÷400KHz) @20 µT	-
Measurement range	1 V/m ÷ 100 kV/m	150 nT ÷ 15 mT	5 µT ÷ 60 mT
Dynamic	100 dB	100 dB	80 dB
Linearity	±0.7 dB (>200V/m) @50Hz	±0.7 dB (>2 µT) @50Hz	±0.5 dB (>50µT)
Directivity	Isotropic	Isotropic	Isotropic
Isotropy	±1 dB	±1 dB	±1 dB

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0°C ÷ 50°C
Size	325 x 120 Ø (mm)
Weight	200 g
Country of origin	Italy

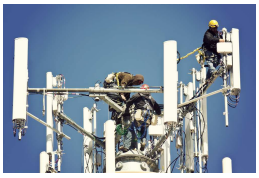
Technical information may be subject to change without notice

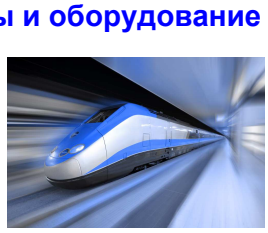
MICRORAD
Percipere Aestimare et Inquirere

Piazza delle Azalee, 13/14
05018 Orvieto (TR) - Italy

Tel: +39 0763.393291
Fax: +39 0763.394423

info@microrad.it
www.microrad.it




33P TRIPLE PROBE

Electric, Magnetic and Magnetostatic Field

Main Features:

33P (Electric Probe): E field

- Frequency Range: 1 Hz ÷ 400 kHz
- Dynamic: > 86 dB
- Directivity: Isotropic

33P (Magnetic Probe): B field

- Frequency Range: 1 Hz ÷ 400 kHz
- Dynamic: > 94 dB
- Directivity: Isotropic

33P (Magnetostatic Probe): B_{DC} field

- Frequency Range: DC
- Dynamic: > 70 dB
- Directivity: Isotropic

Compatibility:

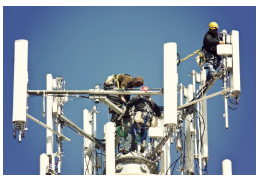
- NHT3D Meter

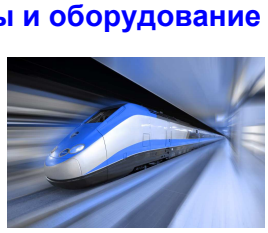
Main applications:

- Energy
- Medical
- Automotive
- Railways
- Industrial
- Military

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




33P TRIPLE PROBE

Electric, Magnetic and Magnetostatic Field

Description:

The Microrad 33P probe consists of three different sensors combined into one: an electric field sensor (E), a magnetic induction sensor (B) and a static magnetic field sensor (B_{DC}). The operator can select the required sensor type by means of the switch located at the base of the probe.

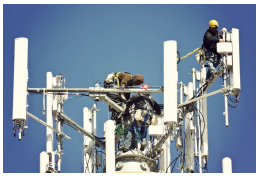
Each sensor within the probe is based on a set of three mutually orthogonal sensitive elements. The signals from the sensors, corresponding to the spatial components of the selected field, are used by the NHT3D instrument to calculate the isotropic value.

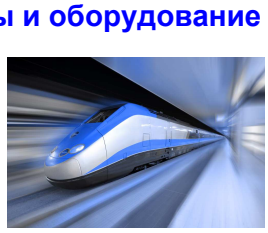
TECHNICAL SPECIFICATIONS			
	E field	B field	B_{DC} field
Field type	Electric	Magnetic induction	Magnetostatic
Sensor type	Capacitor	Coil	Hall
Bandwidth	1 Hz ÷ 400 kHz	1 Hz ÷ 400 kHz	DC
Response type	Flat	Flat	-
Frequency response	±1dB (10Hz÷400kHz) @ 200V/m	±1 dB (10Hz÷400KHz) @ 20 µT	-
Measurement range	1 V/m ÷ 20 kV/m	300 nT ÷ 16 mT	1 µT ÷ 4 mT
Dynamic	86 dB	94 dB	72 dB
Linearity	±0.7 dB (>200V/m) @50Hz	±0.7 dB (>2 µT) @50Hz	±0.5 dB (>10µT)
Directivity	Isotropic	Isotropic	Isotropic
Isotropy	±1 dB	±1 dB	±1 dB

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	365 x 120 Ø (mm)
Weight	300 g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




33N TRIPLE PROBE

Electric, Magnetic and Magnetostatic Field

Main Features:

33N (Electric Probe): E Field

- Frequency Range: 1 Hz ÷ 20 kHz
- Dynamic: > 86 dB
- Directivity: Isotropic

33N (Magnetic Probe): B Field

- Frequency Range: 1 Hz ÷ 20 kHz
- Dynamic: > 94 dB
- Directivity: Isotropic

33N (Magnetostatic Probe): B_{DC} Field

- Frequency Range: DC
- Dynamic: > 60 dB
- Directivity: Isotropic

Compatibility:

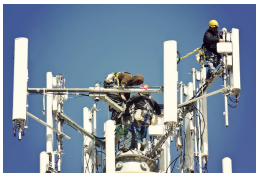
- NHT310 and NHT3D Meters

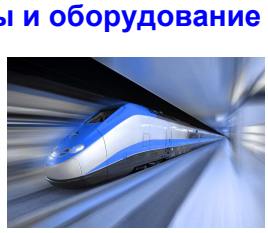
Main applications:

- Energy
- Medical
- Automotive
- Railways
- Industrial
- Military

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




33N TRIPLE PROBE

Electric, Magnetic and Magnetostatic Field

Description:

The Microrad 33N probe consists of three different sensors combined into one: an electric field sensor (E), a magnetic induction sensor (B) and a static magnetic field sensor (B_{DC}). The operator can select the required sensor type by means of the switch located at the base of the probe.

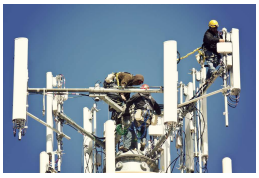
Each sensor within the probe is based on a set of three mutually orthogonal sensitive elements. The signals from the sensors, corresponding to the spatial components of the selected field, are used by the NHT310 or NHT3D instruments to calculate the isotropic value.

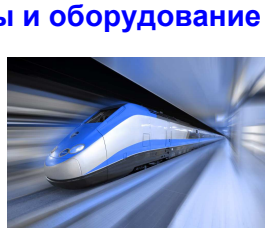
TECHNICAL SPECIFICATIONS			
	E field	B field	B_{DC} field
Field type	Electric	Magnetic induction	Magnetostatic
Sensor type	Capacitor	Coil	Hall
Bandwidth	1 Hz ÷ 20 kHz	1 Hz ÷ 20 kHz	DC
Response type	Flat	Flat	-
Frequency response	±1dB (10Hz÷20kHz) @ 200V/m	±1 dB (10Hz÷20KHz) @ 20 µT	-
Measurement range	1 V/m ÷ 20 kV/m	300 nT ÷ 16 mT	1 µT ÷ 4 mT
Dynamic	86 dB	94 dB	72 dB
Linearity	±0.7 dB (>200V/m) @50Hz	±0.7 dB (>2 µT) @50Hz	±0.5 dB (>10µT)
Directivity	Isotropic	Isotropic	Isotropic
Isotropy	±1 dB	±1 dB	±1 dB

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	365 x 120 Ø (mm)
Weight	300 g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




10H PROBE

Static Magnetic Field: B Field – DC

Key Features:

- Frequency: DC
- Dynamic range: > 70 dB
- Directivity: Isotropic

Compatibility:

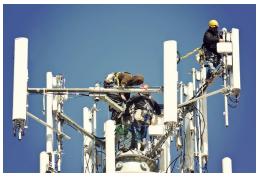
- Strumenti NHT310 e NHT3D

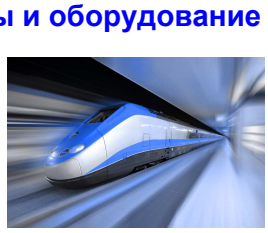
Typical Application:

- MRI - Magnetic Resonance Imaging
- Electrolysis
- Geomagnetism
- Shielding verification

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




10H PROBE

Static Magnetic Field: B Field – DC

Description:

The 10H probe is based on a set of three mutually orthogonal Hall sensors. The probe, connected to the NHT 3D or NHT 310 meters, is able to measure the three X, Y, Z spatial components of the static magnetic field, and to obtain its isotropic value.

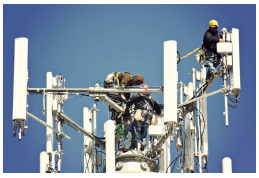
The probe detects only static magnetic fields, but it is able to report cases in which there are also 50Hz variable components of the field. The 10H probe is ideal for use in applications areas such as magnetic resonance, electrolysis, shielding verifications and geomagnetism.

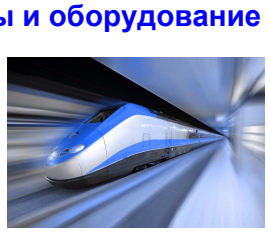
TECHNICAL SPECIFICATIONS	
Frequency range	DC
Measurement range	1μT ÷ 4mT
Dynamic range	72 dB
Sensor type	Hall sensors
Directivity	Isotropic
Linearity	± 0.5 dB (10μT ÷ 4mT)
Isotropic response	± 0.5 dB

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	300 x 16 Ø(mm)
Weight	63 g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




20H PROBE

Magnetic Field Probe: B Field, DC ÷ 1000 Hz

Key Features:

- Frequency range: DC ÷ 1000 Hz
- Dynamic Range: > 80 dB
- Directivity: Isotropic
- Sensitivity > 1mT
- High pass filter (cut-off @ 1.5Hz)

Compatibility:

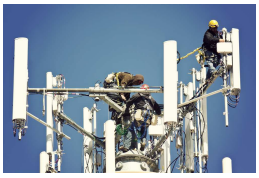
- NHT310 and NHT3D meters

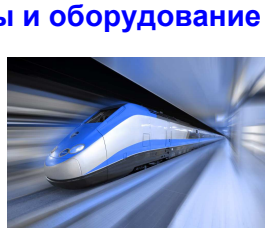
Typical Application:

- MRI - Magnetic Resonance Imaging
- Galvanic treatments
- Railway power supply plants
- Metalworking processes

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




20H PROBE

Magnetic Field Probe: B Field, DC ÷ 1000 Hz

Description:

The 20H probe is based on a set of three mutually orthogonal Hall sensors. The three voltages, which correspond to the spatial components of the field, are available individually at the probe output. The NHT 310 or NHT 3D meter calculates the resulting isotropic field strength.

The probe detects magnetic fields from 0 to 1000 Hz. It is suitable for use in applications such as Magnetic Resonances Imaging (MRI), materials working plants (galvanic and mills) and power supply plants for railway stations.

Its high rate of 15 T makes it ideal for extremely strong magnetic field measurements such as those used for example in the latest generation or experimental magnetic resonance.

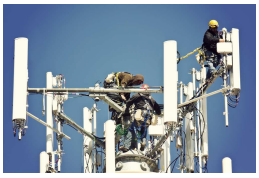
The presence of a first-order high-pass filter (20 dB / decade) with a 1.5Hz cutting frequency allows to discriminate the static component from the others at higher frequencies. In fact, the filter, when inserted, completely suppresses the continuous component and the probe band becomes 1.5 Hz ÷ 1000 Hz.

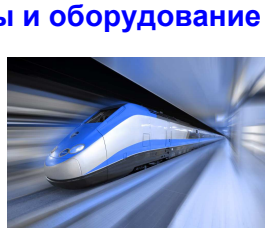
TECHNICAL SPECIFICATIONS	
Frequency range	0 ÷ 1000 Hz
Type of frequency response	Flat
Measurement range	1 mT ÷ 15 T
Dynamic range	80 dB
Sensor type	Hall sensors
Directivity	Isotropic
Frequency response	± 0.5 dB (0 Hz ÷1 kHz)
Linearity	± 0.5 dB (5 ÷ 2000 mT)
	± 1 dB (2 ÷ 15 T)
Isotropic response (@ 10mT)	± 0.5 dB (@ 10mT)

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operation temperature	0℃ ÷ 50℃
Size	300 x 16 Ø (mm)
Weight	63 g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




30H PROBE

Magnetic Field Probe: B Field, DC ÷ 1000 Hz

Key Features:

- Frequency range: DC ÷ 1000 Hz
- Dynamic Range: 70 dB
- Directivity: Isotropic
- Sensitivity > 200 µT
- High pass filter (cut-off @ 1.5Hz).

Compatibility:

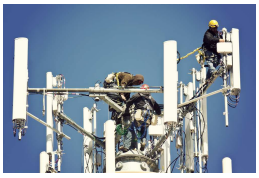
- NHT310 and NHT3D meters

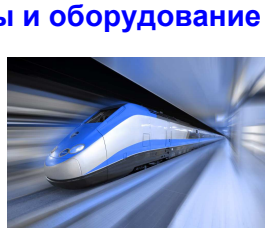
Typical Application:

- Locations where there are patients with pacemakers
- MRI - Magnetic Resonance Imaging
- Galvanic treatments
- Railway Power Supply Plants
- Metalworking processes

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




30H PROBE

Magnetic Field Probe: B Field, DC ÷ 1000 Hz

Description:

The 30H probe is based on a set of three mutually orthogonal Hall sensors. The three voltages, which correspond to the spatial components of the field, are available individually at the probe output. The NHT 310 or NHT 3D meter calculates the resulting isotropic field strength.

The probe detects magnetic fields from 0 to 1000 Hz. It is suitable for use in applications such as Magnetic Resonances Imaging (MRI), materials working plants (galvanic and mills) and power supply plants for railway stations.

The high sensitivity of this probe makes it ideal for exposure measurements in sensitive environments, such as places where people using peacemakers are present.

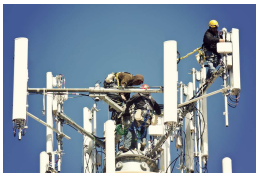
The presence of a first-order high-pass filter (20 dB / decade) with a 1.5Hz cutting frequency allows to discriminate the static component from the others at higher frequencies. In fact, the filter, when inserted, completely suppresses the continuous component and the probe band becomes 1.5 Hz ÷ 1000 Hz.

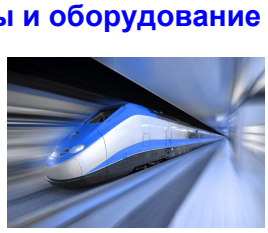
TECHNICAL SPECIFICATIONS	
Frequency range	0 ÷ 1000 Hz
Type of frequency response	Flat
Measurement range	200 µT ÷ 600 mT
Dynamic range	70 dB
Sensor type	Hall sensors
Directivity	Isotropic
Frequency response	± 0.5 dB (0 Hz ÷1 kHz)
Linearity	± 0.7 dB (5 ÷ 550 mT)
Isotropic response	± 0.5 dB (@ 10 mT)

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	300 x 16 Ø (mm)
Weight	63 g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




20B PROBE (100cm^2)

Magnetic Field Probe: B Field, 1 Hz ÷20 kHz

Key Features:

- Frequency range: 1 Hz ÷ 20 kHz
- Dynamic range: > 94 dB
- Directivity: Isotropic
- Sensitivity >0.1 µT

Compatibility:

- NHT310 and NHT3D meters

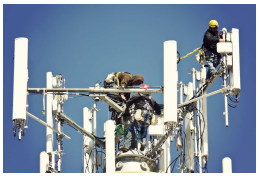
Typical Application:

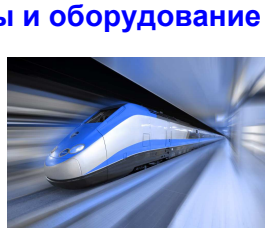
- Power lines
- Industrial installations
- CEI EN 50500:

  “Measurement procedures of magnetic field levels generated by electronic and electrical apparatus in the railway environment with respect to human exposure”.

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




20B PROBE (100cm^2)

Magnetic Field Probe: B Field, 1 Hz ÷20 kHz

Description:

The 20B probe is based on a set of three mutually orthogonal coils. The signals from the three coils, corresponding to the spatial components of the field, are used by the NHT310 or NHT3D instruments to calculate the resulting isotropic value.

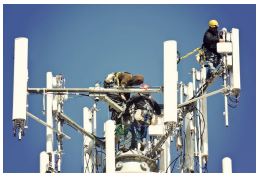
The probe is able to detect fields in the frequency range between 1 Hz and 20 kHz, covering many low frequency applications in the industrial, transport, energy and medical sectors. In particular, the probe specifications allow operator to carry out measurements in accordance with EN50500 for the railway sector.

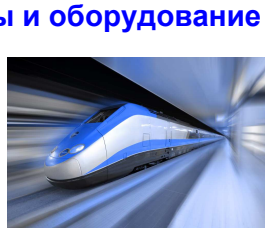
TECHNICAL SPECIFICATIONS	
Frequency range	1 Hz ÷ 20 kHz
Type of frequency response	Flat
Measurement range	300 nT ÷ 16 mT
Dynamic range	94 dB
Sensor type	Coils
Directivity	Isotropic
Frequency response	± 0.5 dB (50 Hz ÷ 20 kHz)
Linearity	± 0.5 dB (1 µT ÷ 1 mT)
	± 0.7 dB (1 mT ÷ 16 mT)
Isotropic response	± 0.5 dB (@50 Hz)

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	365 x 120 Ø (mm)
Weight	135 g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




11E PROBE

Electric Field Probe: E Field, 1 Hz ÷ 400 kHz

Key Features:

- Frequency range: 1 Hz ÷ 400 kHz
- Dynamic range: > 60 dB
- Directivity: Isotropic

Compatibility:

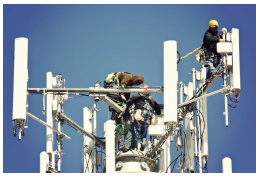
- NHT310 and NHT3D meters

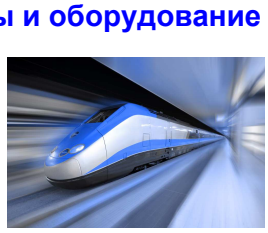
Typical Application:

- Medium and High Power Lines
- Transformation stations of electricity
- Industrial installations

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




11E PROBE

Electric Field Probe: E Field, 1 Hz ÷ 400 kHz

Description:

The 11E probe is based on a set of three mutually orthogonal capacitors. The signals from the three capacitors, corresponding to the spatial components of the field, are used by the NHT310 or NHT3D instruments to calculate the isotropic value.

The probe detects fields in the frequency ranges from 1 Hz to 400 kHz, allowing operators to cover low frequency applications in the industrial, high power installations and energy transformation stations sectors.

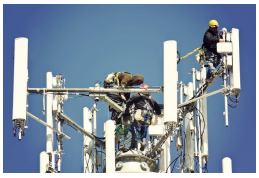
The high dynamic combined with the bandwidth of this probe makes it ideal for protectionist measurement of human exposure to magnetic fields in both public and professional environments.

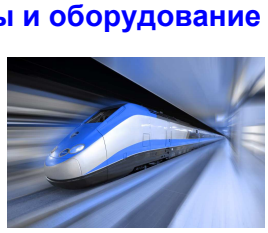
TECHNICAL SPECIFICATIONS	
Frequency range	1 Hz ÷ 400 kHz
Type of frequency response	Flat
Measurement range	20 V/m ÷ 20 kV/m (cw)
Dynamic range	60 dB
Sensor type	Capacitors
Directivity	Isotropic
Frequency response	± 0.5 dB (50 Hz ÷ 50 kHz) @1000 V/m
	± 1 dB (50 kHz ÷ 400 kHz) @1000 V/m
Linearity	± 0.5 dB (200 ÷ 2000 V/m) @ 50 Hz
	± 0.7 dB (2 ÷ 20 kV/m) @ 50 Hz
Isotropic response	± 0.7 dB @ 50 Hz

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	327 x 60 Ø (mm)
Weight	120 g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




10B PROBE

Magnetic Field Probe: B Field, 1 Hz ÷ 400 kHz

Key Features:

- Frequency range: 1 Hz ÷ 400 kHz
- Dynamic range: > 80 dB
- Directivity: Isotropic

Compatibility:

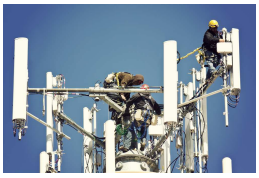
- NHT310 and NHT3D meters

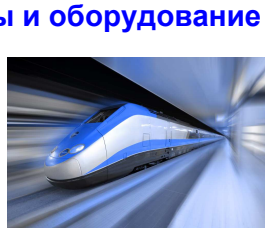
Typical Application:

- Power Lines
- Transformer Stations
- Power Industry
- Anti-theft Systems

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




10B PROBE

Magnetic Field Probe: B Field, 1 Hz ÷ 400 kHz

Description:

The 10B probe is based on a set of three mutually orthogonal coils. The signals from the three coils, corresponding to the spatial components of the field, are used by the NHT310 or NHT3D instruments to calculate the isotropic value.

The probe detects fields in the frequency ranges from 1 Hz to 400 kHz, allowing operators to cover low frequency applications in the industrial, transport, energy and medical sectors.

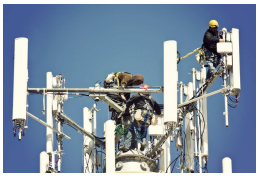
The high dynamic combined with the bandwidth of this probe makes it ideal for protectionist measurement of human exposure to magnetic fields in both public and professional environments.

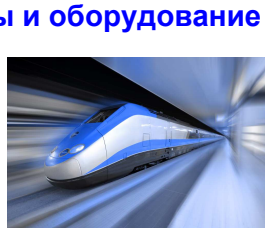
TECHNICAL SPECIFICATIONS	
Frequency range	1 Hz ÷ 400 kHz
Type of frequency response	Flat
Measurement range	0.1 µT ÷ 1 mT
Dynamic range	80 dB
Sensor type	Coils
Directivity	Isotropic
Frequency response	± 0.5 dB (50 Hz ÷ 50 kHz) @ 30µT
	± 1 dB (50 kHz ÷ 400 kHz) @ 30µT
Linearity	± 0.5 dB (1 µT ÷ 500 µT) @ 50Hz
	± 0.7 dB (500 µT ÷ 1 mT) @ 50Hz
Isotropic response	± 0.5 dB @ 50Hz

GENERAL CHARACTERISTICS	
Recommended Calibration Interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	327 x 60 Ø (mm)
Weight	120 g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




30B PROBE (100cm^2)

Magnetic Field Probe: B Field, 1 Hz ÷ 400 kHz

Key Features:

- Frequency range: 1 Hz ÷ 400 kHz
- Dynamic range: > 94 dB
- Directivity: Isotropic

Compatibility:

- NHT310 and NHT3D meters

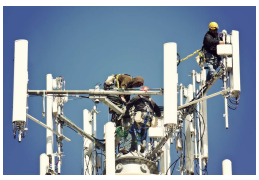
Typical Application:

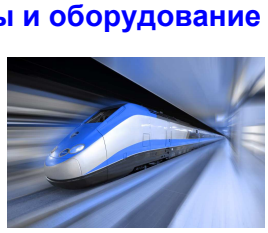
- Power lines
- Industrial installations
- CEI EN 62233:

  “Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure”.

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




30B PROBE (100cm^2)

Magnetic Field Probe: B Field, 1 Hz ÷ 400 kHz

Description:

The 30B probe is based on a set of three mutually orthogonal coils. The signals from the three coils, corresponding to the spatial components of the field, are used by the NHT310 or NHT3D instruments to calculate the resulting isotropic value.

The probe is able to detect fields in the frequency range between 1 Hz and 400 kHz, covering many low frequency applications in the industrial, transport, energy and medical sectors. In particular, the probe specifications allow operator to carry out measurements in accordance with EN62233 for household appliances.

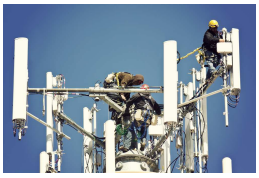
TECHNICAL SPECIFICATIONS	
Frequency range	1 Hz ÷ 400 kHz
Type of frequency response	Flat
Measurement range	300 nT ÷ 16 mT
Dynamic range	94 dB
Sensor type	Coils
Directivity	Isotropic
Frequency response (*)	± 0.5 dB (50 Hz ÷ 50 kHz) @ 30 µT
	± 1 dB (50 kHz ÷ 400 kHz) @ 30 µT
Linearity	± 0.5 dB (0.1 µT ÷ 1 mT)
	± 0.7 dB (1 mT ÷ 16 mT)
Isotropic response	± 0.5 dB (@ 50 Hz)

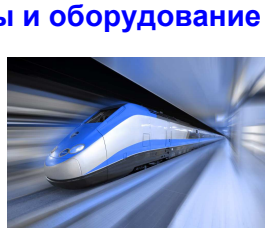
(*) The specifications refer to the use of the probe with the NHT3D instrument.

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	365 x 120 Ø (mm)
Weight	135 g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




02H PROBE

Magnetic Field Probe: H Field, 300 kHz ÷ 30 MHz

Key Features:

- Frequency range: 300 kHz ÷ 30 MHz
- Dynamic Range: 60 dB
- Directivity: Isotropic

Compatibility:

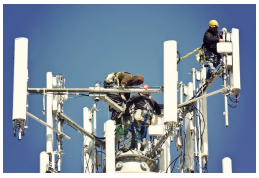
- NHT310 and NHT3D meters

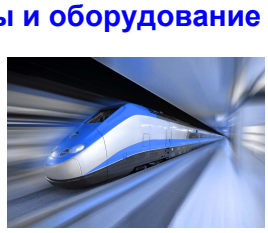
Typical Application:

- Welding systems, RF heating, tempering and drying equipment.
- Diathermy equipment and medical devices RF generators, NMR machines.
- Sensitive sites (hospitals).
- Broadcasting and Telecom services

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




02H PROBE

Magnetic Field Probe: H Field, 300 kHz ÷ 30 MHz

Description:

The 02H probe is based on a set of three mutually orthogonal coils. The signal from the three coils is used by the NHT310 or NHT3D instruments to calculate the isotropic value of the field.

The 02H probe is able to detect both CW (Continuous Wave) and modulated signals in the frequency ranges from 300kHz to 30MHz, allowing operators to cover applications in the industrial, scientific and medical sectors.

The high sensitivity of this probe makes it ideal for protectionist measurement of human exposure to electric fields in both public and professional environments.

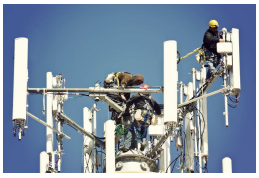
The introduction of the signal envelope sampling technique, carried out with the NHT3D meter, allows not only a reliable reading of the field value, but also, for the first time, the graphical representation in the time domain of the form factor of the analyzed signal. This innovative technique opens up new analytical perspectives, allowing to distinguish and evaluate intermittent or pulse signals with important crest factors such as those typical of mobile telephones or radar.

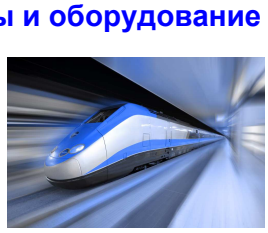
TECHNICAL SPECIFICATION	
Frequency range	300 kHz ÷ 30 MHz
Type of frequency response	Flat
Measurement range	0.016 ÷ 16 A/m
Dynamic range	60 dB
Sensor type	Coils
Directivity	Isotropic
Frequency response	± 1.5 dB (0.5 MHz ÷ 30 MHz)
Linearity	± 0.5 dB (0.032 ÷ 16 A/m)
Isotropic response	± 0.5 dB (@ 20 MHz)

GENERAL SPECIFICATION	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	365 x 120 Ø (mm)
Weight	180g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




01E PROBE

Electric Field Probe: E field, 100 kHz ÷ 6.5 GHz

Key Features:

- Frequency range: 100 kHz ÷ 6.5 GHz
- Dynamic range: > 65 dB
- Directivity: Isotropic

Compatibility:

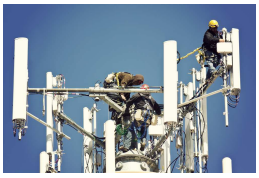
- NHT310 and NHT3D meters

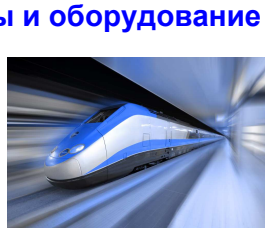
Typical Application:

- Industrial ovens, welding systems, RF heating, tempering and drying systems
- Diathermy equipment and medical devices RF generators, NMR machines
- Power plants and related maintenance and control systems
- Sensitive site (hospital)
- Measurement systems for railway and round transport
- Wireless telecommunication systems such as mobile phone base stations, satellite communication equipment, Broadcasting equipment, Wi-Fi, Wi-Max and LTE

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




01E PROBE

Electric Field Probe: E field, 100 kHz ÷ 6.5 GHz

Description:

The 01E probe is based on a set of three mutually orthogonal diode dipoles. The signal from the three dipoles is used by the NHT310 or NHT3D instruments to calculate the isotropic value of the field.

The 01E probe is able to detect both CW (Continuous Wave) and modulated signals in the frequency ranges from 100kHz to 6.5GHz, allowing operators to cover applications in the industrial, scientific, medical, telecommunications and power plants sectors.

The high sensitivity of this probe makes it ideal for protectionist measurement of human exposure to electric fields in both public and professional environments.

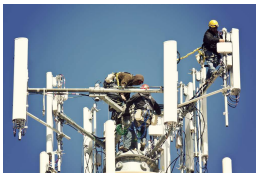
The introduction of the signal envelope sampling technique, carried out with the NHT3D meter, allows not only a reliable reading of the field value, but also, for the first time, the graphical representation in the time domain of the form factor of the analyzed signal. This innovative technique opens up new analytical perspectives, allowing to distinguish and evaluate intermittent or pulse signals with important crest factors such as those typical of mobile telephones or radar.

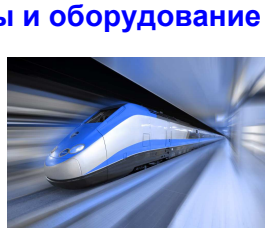
TECHNICAL SPECIFICATION	
Frequency range	100 kHz ÷ 6.5 GHz
Type of frequency response	Flat
Measurement range	0.2 ÷ 360 V/m (cw)
Dynamic range	65 dB
Sensor type	Diode dipoles
Directivity	Isotropic
Frequency response	± 1.5 dB (1 MHz ÷ 3 GHz)
	± 2.5 dB (3 GHz ÷ 6.5 GHz)
Linearity	± 0.5 dB (2 ÷ 200 V/m)
Isotropic response	± 0.5 dB (@100 MHz)
Pulse response	500 µs (with NHT3D)

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	327 x 60 Ø(mm)
Weight	120g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




03E PROBE

Electric Field Probe: E Field, 100 kHz ÷ 18 GHz

Key Features:

- Frequency range: 100 kHz ÷ 18 GHz
- Dynamic Range: > 52 dB
- Directivity: Isotropic

Compatibility:

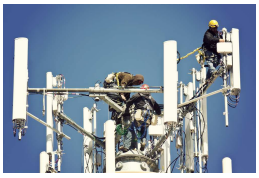
- NHT310 and NHT3D meters

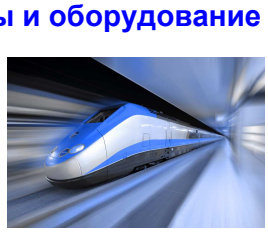
Typical Application:

- Industrial ovens, welding systems, RF heating, tempering and drying systems
- Diathermy equipment and medical devices RF generators, NMR machines
- Power plants and related maintenance and control systems
- Sensitive site (hospital)
- Measurement systems for railway and round transport
- Wireless telecommunication systems such as mobile phone base stations, satellite communication equipment, Broadcasting equipment, Wi-Fi, Wi-Max and LTE

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




03E PROBE

Electric Field Probe: E Field, 100 kHz ÷ 18 GHz

Description:

The 03E probe is based on a set of three mutually orthogonal diode dipoles. The signal from the three dipoles is used by the NHT310 or NHT3D instruments to calculate the isotropic value of the field.

The 03E probe is able to detect both CW (Continuous Wave) and modulated signals in the frequency ranges from 100kHz to 18GHz, allowing operators to cover applications in the industrial, scientific, medical, telecommunications and power plants sectors.

The high sensitivity of this probe makes it ideal for protectionist measurement of human exposure to electric fields in both public and professional environments.

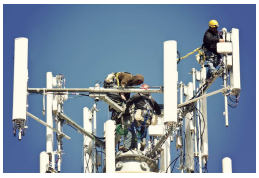
The introduction of the signal envelope sampling technique, carried out with the NHT3D meter, allows not only a reliable reading of the field value, but also, for the first time, the graphical representation in the time domain of the form factor of the analyzed signal. This innovative technique opens up new analytical perspectives, allowing to distinguish and evaluate intermittent or pulse signals with important crest factors such as those typical of mobile telephones or radar.

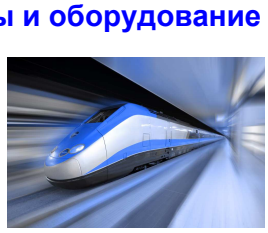
TECHNICAL SPECIFICATIONS	
Frequency range	100 kHz ÷ 18 GHz
Type of frequency response	Flat
Measurement range	0.8 ÷ 340 V/m (cw)
Dynamic range	52 dB
Sensor type	Diode dipoles
Directivity	Isotropic
Frequency response (typical)	± 1.5 dB (1 MHz ÷ 3 GHz)
	± 3 dB (3 GHz ÷ 18 GHz)
Linearity	± 0.5 dB (2 ÷ 200 V/m)
Isotropic response	± 0.5 dB (@100 MHz)

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	327 x 60 Ø(mm)
Weight	120 g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




06E PROBE

Electric Field Probe: E Field, 100 kHz ÷ 6.5 GHz

Key Features:

- Frequency range: 100 KHz ÷ 6.5 GHz
- Dynamic range: > 65 dB
- Directivity: Isotropic
- Max measured level: 650 V/m (CW)

Compatibility:

- NHT310 and NHT3D meters

Typical Application:

- Industrial ovens, welding systems, RF heating, tempering and drying systems
- Diathermy equipment and medical devices RF generators, NMR machines
- Power plants and related maintenance and control systems
- Sensitive site (hospital)
- Measurement systems for railway and round transport
- Wireless telecommunication systems such as mobile phone base stations, satellite communication equipment, Broadcasting equipment, Wi-Fi, Wi-Max and LTE

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it

06E PROBE

Electric Field Probe: E Field, 100 kHz ÷ 6.5 GHz

Description:

The 06E probe is based on a set of three mutually orthogonal diode dipoles. The signal from the three dipoles is used by the NHT310 or NHT3D instruments to calculate the isotropic value of the field.

The 06E probe is able to detect both CW (Continuous Wave) and modulated signals in the frequency ranges from 100kHz to 6.5GHz, allowing operators to cover applications in the industrial, scientific, medical, telecommunications and power plants sectors.

The high sensitivity of this probe makes it ideal for protectionist measurement of human exposure to electric fields in both public and professional environments.

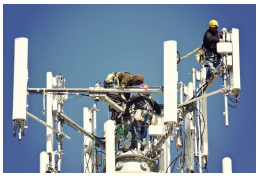
The introduction of the signal envelope sampling technique, carried out with the NHT3D meter, allows not only a reliable reading of the field value, but also, for the first time, the graphical representation in the time domain of the form factor of the analyzed signal. This innovative technique opens up new analytical perspectives, allowing to distinguish and evaluate intermittent or pulse signals with important crest factors such as those typical of mobile telephones or radar.

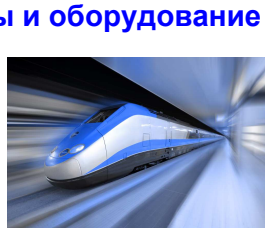
TECHNICAL SPECIFICATIONS	
Frequency range	100 kHz ÷ 6.5 GHz
Type of frequency response	Flat
Measurement range	0.35 ÷ 650 V/m (cw)
Dynamic range	65 dB
Sensor type	Diode dipoles
Directivity	Isotropic
Pulse response	< 500 µs
Frequency response	± 1 dB (100 kHz ÷ 1 GHz)
	± 2.5 dB (1 GHz ÷ 6.5 GHz)
Linearity	± 0.5 dB (2 ÷ 350 V/m)
Isotropic response	± 0.5 dB (@100 MHz)

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	327 x 60 Ø(mm)
Weight	120 g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




02E PROBE

Electric Field Probe: E Field, 400 kHz ÷ 40 MHz

Key Features:

- Frequency range: 400 kHz ÷ 40 MHz
- Dynamic Range: > 52 dB
- Directivity: Isotropic

Compatibility:

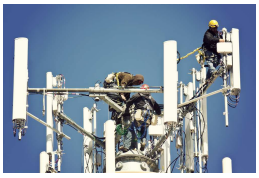
- NHT310 and NHT3D meters

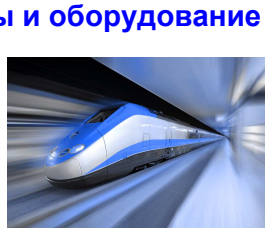
Typical Applications:

- Industrial ovens
- Welding systems
- Short waves transmitting systems

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




02E PROBE

Electric Field Probe: E Field, 400 kHz ÷ 40 MHz

Description:

The 02E probe is based on a set of three mutually orthogonal diode dipoles. The signal from the three dipoles is used by the NHT310 or NHT3D instruments to calculate the isotropic value of the field.

The 02E probe is able to detect both CW (Continuous Wave) and modulated signals in the frequency ranges from 400kHz to 40MHz, allowing operators to cover applications in the industrial, scientific and medical sectors.

The high sensitivity of this probe makes it ideal for protectionist measurement of human exposure to electric fields in both public and professional environments.

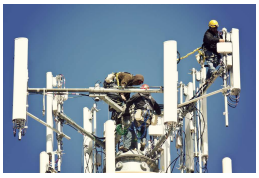
The introduction of the signal envelope sampling technique, carried out with the NHT3D meter, allows not only a reliable reading of the field value, but also, for the first time, the graphical representation in the time domain of the form factor of the analyzed signal. This innovative technique opens up new analytical perspectives, allowing to distinguish and evaluate intermittent or pulse signals with important crest factors such as those typical of mobile telephones or radar.

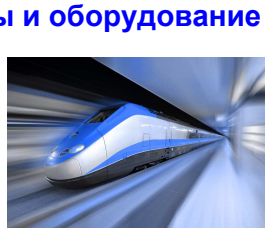
TECHNICAL SPECIFICATION	
Frequency range	400 kHz ÷ 40 MHz
Type of frequency response	Flat
Measurement range	2 ÷ 800 V/m (cw)
Dynamic range	52 dB
Sensor type	Diode dipoles
Directivity	Isotropic
Frequency response	± 1dB (500 kHz ÷ 40 MHz)
Linearity	± 0.5 dB (2-800 V/m)
Isotropic response	± 0.5 dB (@100 MHz)

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operating temperature	0℃ ÷ 50℃
Size	327 x 60 Ø(mm)
Weight	120g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




04E PROBE

Electric Field Probe: E Field, 3 MHz ÷ 40 GHz

Key Features:

- Frequency range: 3 MHz ÷ 40 GHz
- Dynamic Range: > 56 dB
- Directivity: Isotropic

Compatibility:

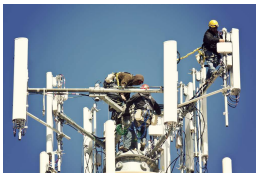
- NHT310 and NHT3D meters

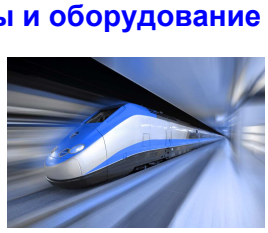
Typical Application:

- Industrial ovens, welding systems, RF heating, tempering and drying systems
- Diathermy equipment and medical devices RF generators, NMR machines
- Power plants and related maintenance and control systems
- Sensitive site (hospital)
- Measurement systems for railway and round transport
- Wireless telecommunication systems such as mobile phone base stations, satellite communication equipment, Broadcasting equipment, Wi-Fi, Wi-Max and LTE

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it




04E PROBE

Electric Field Probe: E Field, 3 MHz ÷ 40 GHz

Description:

The 04E probe is based on a set of three mutually orthogonal diode dipoles. The signal from the three dipoles is used by the NHT310 or NHT3D instruments to calculate the isotropic value of the field.

The 04E probe is able to detect both CW (Continuous Wave) and modulated signals in the frequency ranges from 3MHz to 40GHz, allowing operators to cover applications in the industrial, scientific, medical, telecommunications and power plants sectors.

The high sensitivity of this probe makes it ideal for protectionist measurement of human exposure to electric fields in both public and professional environments.

The introduction of the signal envelope sampling technique, carried out with the NHT3D meter, allows not only a reliable reading of the field value, but also, for the first time, the graphical representation in the time domain of the form factor of the analyzed signal. This innovative technique opens up new analytical perspectives, allowing to distinguish and evaluate intermittent or pulse signals with important crest factors such as those typical of mobile telephones or radar.

TECHNICAL SPECIFICATIONS	
Frequency range	3 MHz ÷ 40 GHz
Type of frequency response	Flat
Measurement range	0.5 ÷ 350 V/m (cw)
Dynamic range	56 dB
Sensor type	Diode dipoles
Directivity	Isotropic
Frequency response (typical)	± 2 dB (10 MHz ÷ 7 GHz)
	± 6 dB (7 GHz ÷ 40 GHz)
Linearity	± 0.5 dB (2 ÷ 350 V/m)
Isotropic response	± 0.4 dB (@100 MHz)
	± 0.5 dB (@1 GHz)

GENERAL CHARACTERISTICS	
Recommended calibration interval	24 months
Operation temperature	0℃ ÷ 50℃
Size	327 x 60 Ø(mm)
Weight	120g
Country of origin	Italy

MICRORAD

Piazza delle Azalee, 13/14 05018 – Orvieto (TR) - Italy
Tel. +39 0763 393291 /Fax. +39 0763 394423 info@microrad.it - www.microrad.it