

## PRODUCT OVERVIEW

### RF TEST



### EMF



### EMI-EMC



### ANTENNAS



### TRIPODS AND SUPPORTS



# SEMS (Shielding Effectiveness Measurement System)



**FREQUENCY RANGE:** from 10 kHz to 300 MHz

**OPTIONS:** different antennas for electric and magnetic fields, different frequency range configurations (SEMS LIGHT), NMR-01 non-magnetic and non-reflective tripod

**FOR MORE INFORMATION:** datasheet, manual, video

The SEMS has been conceived and designed to meet the growing test requirements of shielding effectiveness for shielded environments in hospitals and other environments, such as EMI-EMC chambers, military and civil shelters for telecommunications. The SEMS allows automatic and reliable measurements and rapidly determines the reduction value of the magnetic and the electric field in shielded environments.



# CCM (Contact Current Meter)



**FREQUENCY RANGE:** from 40 Hz to 110 MHz

**OPTIONS:** calibration Jig

**FOR MORE INFORMATION:** datasheet, manual, video

The CCM allows the measurement of the contact current flowing through the human body, as it makes contact with a conductive object charged by an EM field. This instrument can verify the compliance to the limits for the exposition to contact current for workers and general public, shown on the ICNIRP guidelines and compliant with the directive of the European Parliament 2013/35/EU of 26/06/2013. The display indication provides the value of the current in mA and the percentage of the value compared to the standard.



## PM50D (Personal Monitor)



**FREQUENCY RANGE:** from 10 Hz to 30 KHz

**OPTIONS:** different configurations such as: the PM50 without screen, the PM50D with screen, the PM50D-20 with screen and level range up to 20 mT.

**FOR MORE INFORMATION:** datasheet, manual

PM50 devices allow to monitor and protect the workers from the risk of exceeding the exposition threshold for low frequency magnetic fields, through their positioning on the limbs, on the trunk and on the waist.



## SEP (Selective Electric Isotropic Triaxial Antenna)



**FREQUENCY RANGE:** from 100 KHz to 3 GHz

**OPTIONS:** rugged pc, wireless bridge, NMR-01 non-magnetic and non-reflective tripod

**FOR MORE INFORMATION:** datasheet, manual, video

The SEP selectively monitors the electric field, allowing automatic accurate measurements, in a very wide range, in real time and with minimum effort, due to its small size. His three high sensitivity axes allow to cover different applications, such as workers exposure in broadcasting, telecommunication and industrial sectors. It is also possible to perform altitude measurements through using a drone.



## SMF (Static Magnetic Field Sensor)



**FREQUENCY RANGE:** from DC to 1 KHz

**OPTIONS:** URM up to 1 T for calibration, Android app

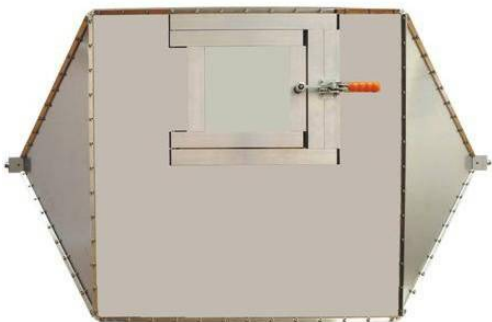
**FOR MORE INFORMATION:** datasheet, manual, video

The SMF "Static Magnetic Field" is an isotropic and triaxial magnetometer with Hall effect sensors, that allows magnetic field measurements up to 3 Tesla (6 T optional).

The probe is designed for testing magnetic fields with frequencies from DC to 1 kHz in: MRIs, metal factories that make use of big magnets, companies that involve high DC currents and power inverters. The SMF calibration can be performed thanks to the URM (Universal Reference Magnet) for magnetic field sensors (isotropic, non-isotropic, axial or transverse) up to 1 T.



## TEM-01 (Transverse Electromagnetic Cell)



**FREQUENCY RANGE:** from DC to 300 MHz

**OPTIONS:** Technical panel with RF connectors and power/signal filters

**FOR MORE INFORMATION:** datasheet

Compact and easily transportable, this TEM cell is the right alternative to the Open Area Test Site (OATS) and to the anechoic chamber. It is built wholly in aluminium to guarantee lightness and long-term duration without any oxidation and allows to measure the emission from the EUT or to generate the electromagnetic field required in compliance to the EN 61000-4-3 standard.





## L-3 (Sniffer)

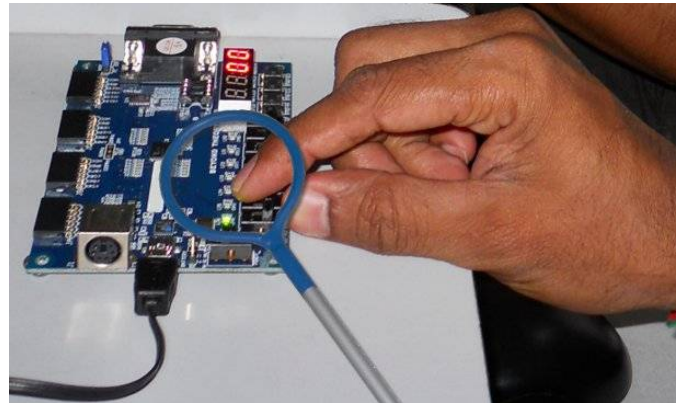


**FREQUENCY RANGE:** from 10 kHz to 300 MHz (1 GHz)

**OPTIONS:** 50 cm coaxial cable N(f) - N(m)

**FOR MORE INFORMATION:** datasheet

The L-3 provides measurements for RF leaks and near the signal source. This antenna has the sensitivity for magnetic field emissions.



## MSA210 (Vand Der Hoofden Sphere)



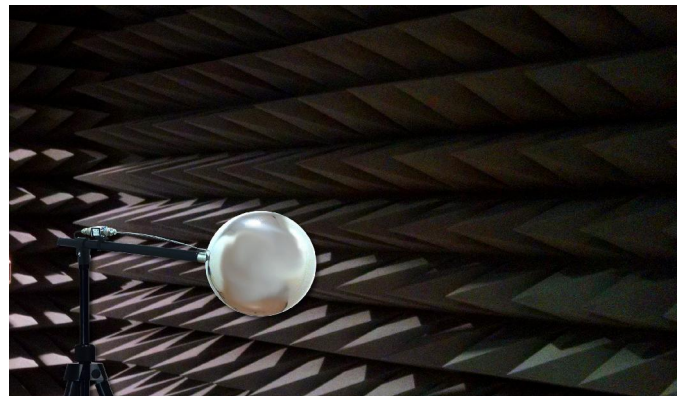
**FREQUENCY RANGE:** from 20 kHz to 10 MHz

**OPTIONS:** NMR-01 non-magnetic and non-reflective tripod

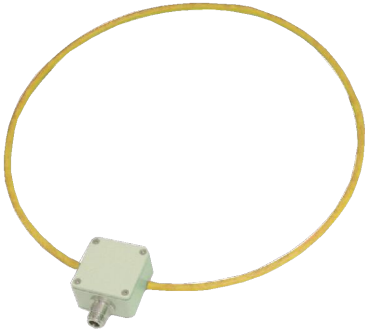
**FOR MORE INFORMATION:** datasheet, manual

MSA-210 "Van Der Hoofden Test Head" allows to measure human exposure to electromagnetic field radiations emitted from lighting appliances with power supplies that work on high frequencies. The method used to measure the induced current density complies with IEC62493.

This test head has to be connected to the EMI receiver through a protection network. The software supplied allows to analyze the peak values for the verification of the "F factor" limits compliance.



## L-1 (Loop Antenna)



**FREQUENCY RANGE:** from 2 MHz to 128 MHz

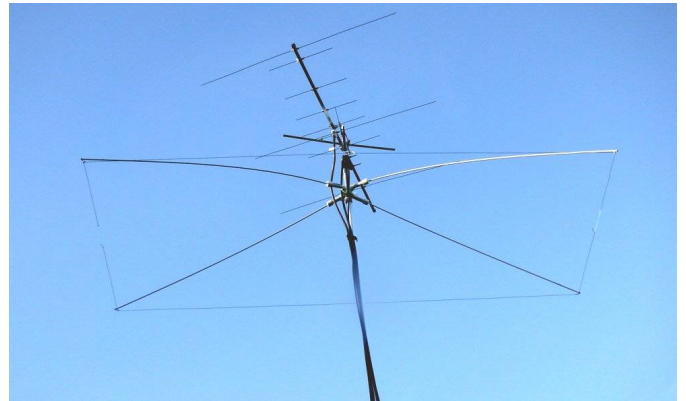
**OPTIONS:** NMR-01 non-magnetic and non-reflective tripod, NMR-BLK block, NMR-ARJ support

**FOR MORE INFORMATION:** datasheet

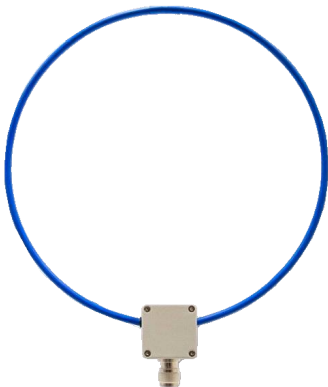
The L-1 is a magnetic field antenna for HF and VHF measurements.

This antenna allows to test the magnetic field shielding and the spectrum monitoring below 128 MHz.

The L-1 pattern is omnidirectional.



## L-2 (Loop Antenna)



**FREQUENCY RANGE:** from 10 kHz to 4 MHz

**OPTIONS:** NMR-01 non-magnetic and non-reflective tripod, NMR-BLK support, NMR-ARJ support

**FOR MORE INFORMATION:** datasheet

The L-2 is a magnetic field antenna for VLF, LF and MF measurements.

This antenna allows to test the magnetic field shielding and the spectrum monitoring below 4 MHz.

The L-2 pattern is omnidirectional.



## R-2 (Rod Antenna)



**FREQUENCY RANGE:** from 1 MHz to 128 MHz

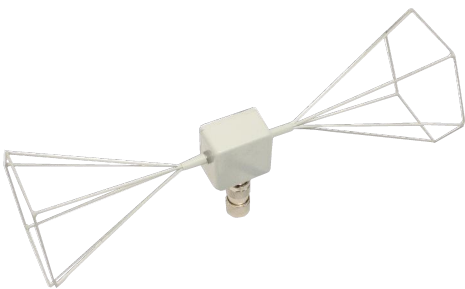
**OPTIONS:** NMR-01 non-magnetic and non-reflective tripod, NMR-BLK block, NMR-ARJ support

**FOR MORE INFORMATION:** datasheet

The R-2 is an electric field antenna for MF, HF and VHF measurements.  
This antenna allows to test the electric field shielding and the spectrum monitoring below 128 MHz.  
The R-2 pattern is omnidirectional.



## B-1 (Biconical Antenna)

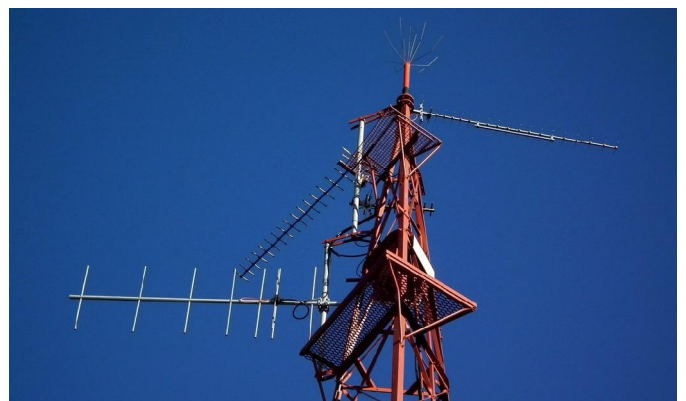


**FREQUENCY RANGE:** from 60 MHz to 300 MHz

**OPTIONS:** NMR-01 non-magnetic and non-reflective tripod, NMR-BLK block, NMR-ARJ support

**FOR MORE INFORMATION:** datasheet

The B-1 is an electric field antenna for VHF measurements.  
This antenna allows to test the electric field shielding where very small space testing zones are present and also the spectrum monitoring below 300 MHz and EMC emissions.  
The B-1 pattern is omnidirectional.



## D-2 (Dipole Antenna)



**FREQUENCY RANGE:** from 40 MHz to 300 MHz

**OPTIONS:** NMR-01 non-magnetic and non-reflective tripod, NMR-BLK support, NMR-ARJ

**FOR MORE INFORMATION:** datasheet, manual

The D-2 is an electric field antenna for VHF measurements with tunable elements. This antenna allows to test the electric field shielding (especially where high dynamic values are required) and EMC emissions. The pattern is omnidirectional.



## NMR-01 (Non Magnetic and Reflective Tripod)



**MATERIAL:** Fiberglass, DELRIN and PEEK

**OPTIONS:** NMR-BLK, NMR-ARJ, NMR-UNI

**FOR MORE INFORMATION:** datasheet, video

The "non-magnetic and non-reflective" tripod NMR-01 allows to place antennas and measuring instruments in every environment with no problem of interference, reflection, magnetic attraction or wet. The tripod is built with non-metallic material, in order to be usable in anechoic chambers and MRIs. The NMR-01 is solid, suitable for all environments, extendable up to 2 m, lightweight and easy to carry. All these characteristics make it a greatly innovative tripod for EMI-EMC, RF and EMF measurements.





## NMR-BLK (Block for Antenna)

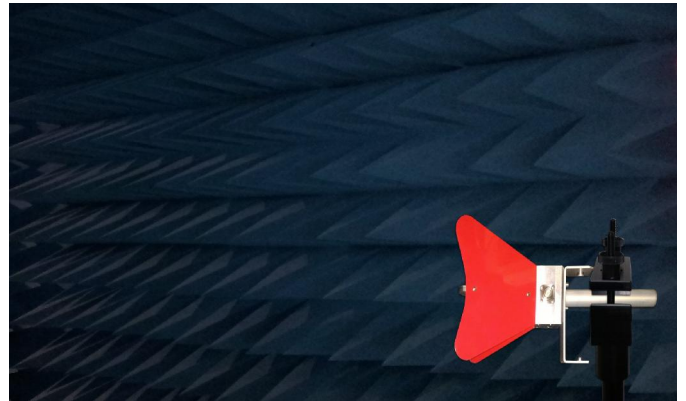


**MATERIAL:** DELRIN and Nylon

**OPTIONS:** NMR-01, NMR-ARJ, MPB UNI

**FOR MORE INFORMATION:** datasheet, video

Completely Delrin and Nylon-made block to allow the fixing of several antenna types. Thanks to its features, including the possibility to flip the lock bracket, both the vertical and the horizontal polarizations are allowed. Also, the  $\frac{1}{4}$  " threading makes it compatible with the most of the tripod models.



## NMR-ARJ (Joint for Tripod)

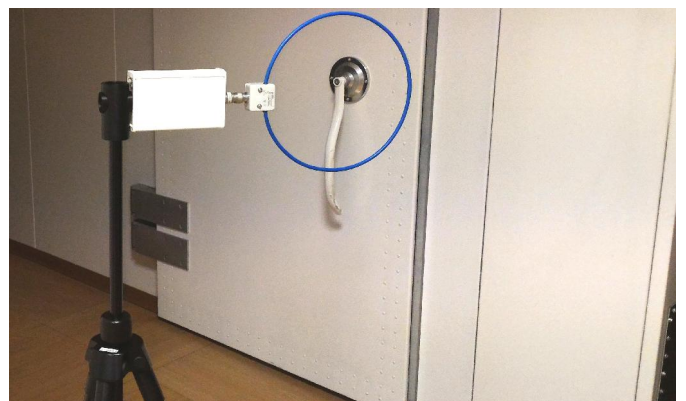


**MATERIAL:** DELRIN

**OPTIONS:** NMR-01, NMR-BLK, NMR-UNI

**FOR MORE INFORMATION:** datasheet, video

Delrin-made positioner, compatible with all the  $\frac{1}{4}$  " insert tripods. It allows the MPB fast connection, facilitating and fastening the grafting of the meter on the tripod, both in vertical and horizontal configurations, allowing both horizontal and vertical polarizations.



## NMR-UNI (Universal support)



**MATERIAL:** DELRIN, steel

**OPTIONS:** NMR-01, NMR-ARJ, NMR-BLK

**FOR MORE INFORMATION:** datasheet, video

This instrument with the  $\frac{1}{4}$  " insert is the adapter between the classic photographic threading and the MPB NMR-01 threading. Thanks to this support, combined with the NMR-ARJ, it is possible to use the fast connection, fastening the positioning and the support of the measuring instrument.

