

## **Real-time analysis of electromagnetic fields in hand-held format**

### **Selective Radiation Meter from Narda Safety Test Solutions now with time function analysis in the nanosecond range**

**Pfullingen, April 21 2010 – Narda Safety Test Solutions has now equipped its frequency-selective measuring set for electromagnetic fields with a “Scope” operating mode. Using this, it is now possible to analyze the frequency content and time characteristics of signals from radar equipment, mobile communications services such as Wi-Fi, WLAN, WiMAX, and DECT, or radio control systems like ZigBee and Bluetooth.**

The Selective Radiation Meter SRM-3006 from Narda Safety Test Solutions is now available with a “Scope” operating mode. The instrument displays the real-time characteristic of a signal recorded using frequency selection. It is possible to measure pulse widths and signal periods as well as set triggers, just as with an oscilloscope. The time intervals that can be set range from 24 hours down to microseconds, and the resolution goes down into the nanosecond range. It can therefore be used to make long-term observations of individual radio channels e.g. over the course of an entire day, as well as to detect even the shortest of impulses, such as from radar equipment.

This combination of frequency-selective measurement and display versus time opens up possibilities that are not covered by either pure spectrum analysis or simple measurement over time:

- In unknown multi-frequency environments specialists can determine the type of field source by marking a frequency line displayed in “Spectrum” mode and switching to “Scope” mode to look at the time characteristic which exhibits specific features for various mobile communications services such as Wi-Fi, WLAN, WiMAX or DECT. The resolution bandwidth (RBW) can be set between 40 kHz and 32 MHz – enough to capture an entire WiMAX channel.

- Where the signals are known, e.g. from GSM stations, operators can select a single 200 kHz bandwidth traffic channel (TCH) and measure the loading of the individual timeslots within the frequency channel using “Scope” mode.
- In “Scope” mode, the instrument records the real peak values of radio control signals in the industrial environment, such as ZigBee, or Bluetooth, or in the public and private domain – garage door openers, automobile keys, installation switches – even in complex situations where several signals are superimposed.

The SRM-3006 measures the average, RMS and peak values simultaneously; further conclusions about the type of field source can be drawn from the ratios of these values to one another. The instrument can be set to display all results in either physical quantities, such as field strength (V/m, A/m) or power density (W/m<sup>2</sup>, mW/cm<sup>2</sup>), as logarithmic expressions (dBµV), or directly as a percentage of the permitted limit value. For the latter, the weighting curves for all the current safety standards are stored in the instrument.

The SRM-3006 automatically takes the calibration data into account when Narda’s proprietary antennas are used. The instrument also accepts measuring antennas from other manufacturers, such as so-called sniffer probes. In such cases, software can be used to upload the calibration data to the instrument.

### **About the SRM-3006**

The Selective Radiation Meter SRM-3006 from Narda Safety Test Solutions has been specially developed for environmental and safety measurements in electromagnetic fields. Using isotropic measuring antennas, the instrument covers the entire frequency range from 9 kHz to 6 GHz. It can therefore be used equally well to investigate safety in the near field region of long wave transmitters, make measurements on radio and TV broadcast transmitters, and determine exposure levels caused by the latest generation of mobile telecommunications services.

This text along with a press photo is also available from  
[www.narda-sts.de](http://www.narda-sts.de) > Literature > Press Reports

**Narda Safety Test Solutions** is a global leader in the development and production of measuring equipment for safety in electric, magnetic, and electromagnetic fields (EMF). Narda is a highly innovative company, owning around 95% of all the published patents for measuring such fields. The product portfolio includes broadband and frequency-selective measuring devices, monitors for complete wide area coverage, or that can be worn on the body for personal safety. Under the PMM brand, they offer instruments for assessing the electromagnetic compatibility (EMC) of devices. The range of services includes servicing, calibrating, and training programs.

Narda Safety Test Solutions has development and production facilities at three locations: Hauppauge, Long Island / USA, Pfullingen / Germany and Cisano / Italy. Closeness to customers is guaranteed by a worldwide network of representatives.

Narda Safety Test Solutions is part of **L-3 Communications**, New York.

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