

Press release

For immediate publication

New: Narda FieldMan – The smart future of field strength measurement

Pfullingen, 16 November 2022 – Narda has opened the door to the future of electromagnetic field measurements with the FieldMan. And the future is smart. Just one handy, intuitive, easy to use instrument with its various digital probes is all that is needed for reliable isotropic field measurements from 0 Hz (DC) up to an unrivalled 90 GHz. Its precise, reproducible measurements will deliver meaningful and authoritative results even for future applications in the fields of health and safety at work and in the environment.

The spread of applications for the FieldMan ranges from the thoroughly reliable detection and analysis of low frequency fields in the industrial workplace through to high frequency measurements on mobile radio antennas, transmitting equipment and radar installations. Its many intelligent features ensure that the operating concept and handling, efficiency and economy are all first rate, resulting in an excellent total cost of ownership. All these facets taken together play a part in the high degree of user comfort, which in turn means that test and measurement technicians find that the versatile FieldMan is a delight to use for their challenging day-to-day measurement tasks.

New versatility

The Narda engineers have channeled all the customer feedback gathered over many years from the practical side of EMF and EMC measurements into this new device. Taken together, the many well thought out features of the FieldMan mean that the new instrument will make measurements quicker and more reliable in future, making things noticeably easier wherever possible. The brilliant color display is an immediately visible feature. All the information shown on it can be clearly read, even under the most difficult lighting conditions.

For example, accredited calibration now only requires the FieldMan probes to be sent in to the laboratory. The basic instrument is not needed, so it can continue to be used with another probe instead of losing time and money. All the probes can be used interchangeably with the basic instrument, and

each probe also has its own built-in automatic self-test for all three axes. This effectively prevents measurement errors by detecting any potential failure of an axis well in advance. At the same time, this eliminates the need for complicated separate testing using external test generators. Integrated climate sensors for temperature, air humidity and pressure combined with automatic thermal coefficient compensation guarantee precise and correct results even at low ambient temperatures.

All this means that test technicians can obtain measurement results as well as correct, complete documentation for all the required parameters faster, easier, and more reliably than ever before. They can fully focus on the fundamental parameters of the measurements, with less distraction and all the added benefits of a potential error rate approaching zero.

Digital probes

The new FieldMan can be equipped with various digital probes to cover practically any application in the frequency range from 0 Hz (DC) up to 90 GHz. The probes are the proven E field and H field probes for broadband detection of field strengths in the long wave to millimeter wave bands together with two new B field probes for spectral (FFT) measurement of magnetic field components. The two digital probes, BFD-400-1 and BFD-400-3, also make shaped time domain measurements in accordance with the limit values of all the important human safety standards. Accredited calibration of the broadband probes along with integrated probe and sensor tests guarantee the highest accuracy and reliability regardless of the frequency range in which the measurement is made. The big advantage is that only one basic instrument is needed, as it can be used with all the probes.

The real feature of the FieldMan is that capture and processing of the measurement result takes place completely within the probe itself. This means that the actual measuring device, the active components, are located in the lower part of the probe in the connector. This has several advantages. For one thing, the connection between the probe and the basic measuring instrument has always been a potential weak point. Every plug in or screw in connection is particularly sensitive, both mechanically and electrically. This problem is eliminated in the FieldMan because only the measurement results are transmitted across the connector rather than the received signal.

Additionally, more and more users are demanding measuring devices with accredited calibration. If the active components are in the basic instrument, then the measurement service provider cannot operate while the instrument is being calibrated, as both the basic instrument and the relevant probe must be sent together for calibration. The FieldMan changes all that. Since only the probe needs to be calibrated, the measurement service can be continued using an alternative probe. This brings advantages in costs, as it reduces down time and loss of earnings for the measurement service provider.

Brilliant color display and integrated sensors

One example of a smart solution in the detail of the new FieldMan that makes every day measurements easier and more comfortable is the newly developed, brilliant anti-glare color display which immediately attracts the eye as soon as it is switched on. The high resolution and automatic brightness control mean that even those who wear glasses will always find it easy to read under even the poorest lighting conditions, particularly in bright sunlight. From any perspective, even from an unfavorably acute viewing angle, the small digits on the display can easily be read, as there are absolutely no reflections to mask the view.

A further really useful feature of the FieldMan is the pair of ultrasound sensors fitted on the underside, which measure the exact distance of the instrument above the ground when the protective cover is opened. This parameter, which is often required by the measurement standards, is automatically shown on the display and conveniently also recorded simultaneously in the documentation. Another clever solution: The same protective cover that shields the two sensors for the distance meter when closed also serves as an extended stand for the device when opened. This enables probes with a large sensor area to clear and not rest on the table top during measurements, avoiding damage to the connector and the possible consequence of needing expensive repairs.

The built in climate sensors further exemplify the well thought out way that the FieldMan provides added value and generally assists users in day to day measurements. These sensors detect the temperature, air humidity and air pressure and record the results fully automatically in the measurement report for further evaluation and professional presentation. Taken together, all these smart detail solutions lead to less complicated measurement processes that require fewer peripheral devices to accomplish. Measurements are simpler, quicker and cheaper to make

because the overall complexity is reduced and many potential sources of error are effectively avoided.

State of the art communications

Processing, evaluation and analysis of the recorded measurement data is supported by numerous features and additional functions. For communications, the FieldMan has appropriate options for USB-C and optical RP-02 as well as a Micro SD card and Gigabit Ethernet. While the Micro SD can simplify personalization, the optional WiFi / Bluetooth interface enables remote control from a smartphone app. As well as the PC software, another highlight is support for media files to enable more professional presentations to be made using the smartphone app. So, for example, this smart feature can be used to enhance and refine measurement reports by adding meaningful image and video files. While still on site, test technicians can conveniently transmit their results via smartphone back to the office or their client, or upload them to the cloud.

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This text along with images can also be found at www.narda-sts.com/en under: Company > Press

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Caption 1: The versatile FieldMan covers many applications, from the thoroughly reliable detection and analysis of low frequency fields in industry through to high frequency measurements on mobile radio antennas, transmitting equipment, and radar installations.

[02_Narda FieldMan_221116.jpg]



Caption 2: The new FieldMan from Narda – just one handy, intuitive, easy to use instrument with its various digital probes is all that is needed for reliable isotropic field measurements from 0 Hz (DC) up to an unrivalled 90 GHz.

Narda is a leading supplier of measuring devices for EMF Safety, RF Test & Measurement and EMC. The EMF Safety product range encompasses broadband and frequency selective measuring equipment, wide area coverage monitors, and warning devices worn on the person for personal safety. The RF Test & Measurement range includes analyzers and devices for measuring and identifying radio sources. Under the PMM brand name, the EMC range offers devices for measuring the electromagnetic compatibility of equipment.. The range of services provided includes servicing, calibration (including accredited calibration), and a continual range of training programs. The company management system is run in accordance with ISO 9001:2015 and it maintains a calibration laboratory that has DIN EN ISO/IEC 17025:2018 accreditation.

Narda has development and production facilities located in Pfullingen / Germany and Cisano / Italy and has its own representative in Beijing / China. A global network of resellers ensures local presence.

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