

NARDA BROADBAND FIELD METER

NBM-550



Measuring electric and magnetic fields

ranging from low frequency to microwaves

- ▲ **Non-directional measurement using isotropic probes for applications in the frequency range 1 Hz to 60 GHz**
- ▲ **Large, graphic display for easy-to-read results**
- ▲ **Intelligent probe interface with automatic detection of probe parameters for simple operation**
- ▲ **Memory for up to 5000 measurement results**

OPTIONAL

- ▲ **Automatic storage of position data with GPS interface and plug-in GPS receiver**
- ▲ **Voice recording for comments**
- ▲ **Probe for spectral measurements and Weighted Peak from 1 Hz to 400 kHz**



Narda Broadband Field Meter NBM-550

DESCRIPTION

The Narda Broadband Field Meter NBM-550 is part of the NBM-500 device family. It makes extremely accurate measurements of non-ionizing radiation. Equipped with probes for measuring electric and magnetic field strengths, it covers all frequencies from just a few Hz as found in industrial applications through to long wave and on up to microwave radiation. Flat frequency response probes ("flat probes"), as well as so-called shaped probes that evaluate the field strength on the basis of a human safety standard are available. A probe with built-in FFT analysis enables spectral measurements in the low frequency range. These probes are calibrated separately from the field meter, and include a non-volatile memory that contains the probe parameters and calibration data. They can therefore be used with any device in the NBM-500 family without losing any of the calibration accuracy.

APPLICATIONS

The NBM-550 is used to make precision measurements to establish human safety, particularly in workplace environments where high electric or magnetic field strengths are likely to occur. Some examples are:

- **Measuring field strengths to comply with general safety regulations**
- **Establishing safe zones**
- **Measuring and monitoring field strengths around broadcasting and radar equipment**
- **Measuring field strengths of cell phone transmitters and satellite communications systems to demonstrate compliance with human safety standard limit values**
- **Measuring field strengths in the industrial environment, such as plastics welding equipment, RF heating, tempering, and drying equipment**
- **Measurements for protecting users of diathermy equipment and other medical devices that generate high-frequency radiation**
- **Measuring field strength in TEM cells and absorber chambers to demonstrate electromagnetic compatibility (EMC)**
- **Spectral measurements on LF fields emanating from industrial equipment or overhead power cables**



*Robust yet light and easy to carry,
designed for simple, one-hand operation*



*Changing the probe is quick and easy, with
no need to reconfigure the device*

FEATURES with high frequency probes

The Narda Broadband Meter NBM-550 is designed for on-site use. The combined features listed below ensure that it delivers precise results quickly and simply, even under difficult operating conditions.

Display and operation

- Graphical user interface with selectable language.
- Backlit monochrome LCD with selectable illumination time; easy to read, even in bright daylight.

Result display and evaluation

- 5 types of result can be displayed in easy-to-read form: Momentary RMS value (Actual), minimum RMS value (Min), maximum RMS value (Max Hold), average RMS value (Average), maximum average RMS value (Max Avg).
- History Mode memory operates continuously in the background. This allows you to graphically evaluate and save the results for the previous 8 hours of operation (see upper picture opposite).
- Selectable units: V/m, A/m, mW/cm², W/m² when using non-weighted (flat) probes, % of limit value when using weighted (shaped) probes.
- Stored limit values for common human safety standards allow direct display of results for flat probes in % of limit value at a known frequency of the field under test (see lower picture opposite).

Automatic adjustment, application of calibration data

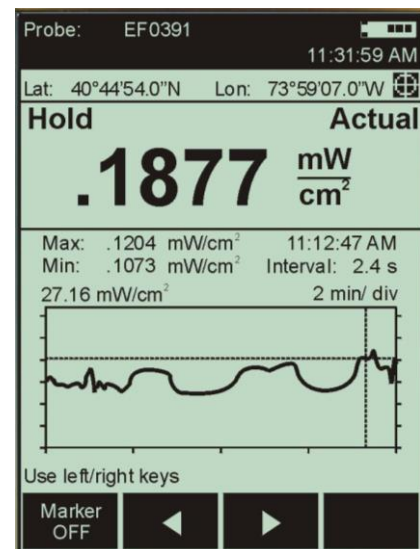
- Intelligent probe interface detects the NBM probe type and automatically recalls and applies the correction values that were recorded during calibration.
- Fully automatic zero point adjustment at programmable time intervals.
- Reminder function lets you know when calibration is due.

Special evaluations

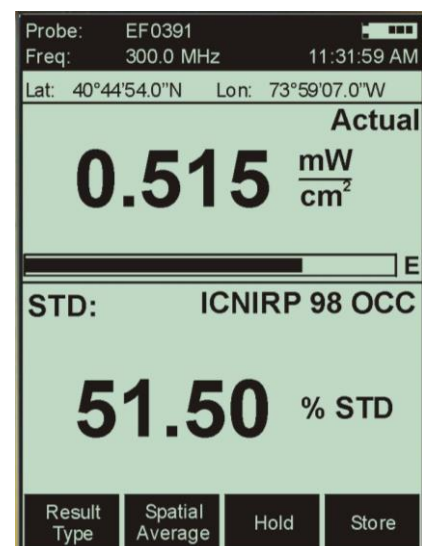
- Time averaging, period settings of up to 30 minutes.
- Spatial averaging, discrete or continuous.
- Multi-position spatial averaging for up to 24 locations.

Warning functions

- Audible warning with programmable alarm threshold.
- Hot spot search function with audible warning.



History Mode shows the variation of field strength versus time as a graph. Numerical values can be read out using the marker.



Apply Standard: You can also display the field strength as a percentage of the limit value of a standard even when using flat probes. Simply select the standard on the NBM-550 (ICNIRP in the example shown) and set the frequency. The evaluation is useful if the main component of the field strength is due to a single source of known frequency. Available standards are listed on page 6.

FEATURES with EHP-50F

The EHP-50F FFT analyzer can be conveniently and easily controlled by the Narda Broadband Meter NBM-550 for spectral measurements on low frequency fields. The measured values for the electric or magnetic field are shown on the display of the NBM-550.

Communication between the EHP-50F and the NBM-550 is via an optical cable to avoid affecting the measured field strength. The NBM-550 automatically detects a connected EHP-50F after it is switched on.

Result display and evaluation

- Display modes:
 - Weighted Peak** (WPM) according IEC 61786-2, provides signal weighting in time domain for a selected standard and covers the frequency range from 1 Hz to 400 kHz. Display is in %.
 - Spectrum** mode displays frequency-selective measured RMS values
 - Standard** mode displays the measured RMS values in % referred to the permitted limit value of a selected safety standard
 - XYZ** simultaneously displays the RMS values measured synchronously for the three spatial axes
 - Monitor** for parallel display of the following result types: Momentary RMS value (Actual), minimum RMS (Min), maximum RMS (Max), average RMS (Average)
- Measurement ranges and units:

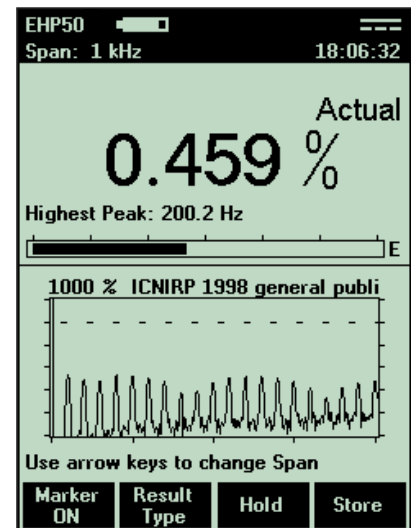
| | |
|-----------------|--|
| Electric field: | 0.0001 to 100 kV/m |
| | 0.001 to 1000 V/m |
| Magnetic field: | 0.0001 to 10 mT |
| | 0.0001 to 100 µT |
| | Results can also be displayed in Gauss |
- Frequency range selection in 8 steps
Span (Fstop) = 100/200/500 Hz, 1/2/10/100/400 kHz
- Numerical display of wideband measurement value or the highest value in the spectrum (Highest Peak)

Special evaluations

- Timer controlled measurement with selectable save intervals (Timer Logging)
- Averaging function for 4 / 8 / 16 / 32 samples
- Marker function for evaluating the spectrum graphics and the graphics for Weighted Peak vs. time

Warning functions

- Audible warning variable thresholds separately settable for electric and magnetic field



Standard mode displays the spectrum of the measured field, evaluated e.g. according to the ICNIRP guidelines. The dotted line represents the limit value (100%).



NBM-550 with EHP-50F: The perfect solution for all industrial applications.

Operation

- User-defined setups make it easy to recall device settings
- Battery saving user-selectable timed auto-off function
- Hold button “freezes” measurement result for easy readout
- Keypad lock prevents inadvertent operation of control keys

Remote control

- NBM-TS PC software enables remote controlled measurements (EHP-TS should be used for remote control of the EHP-50F)
- PC connection via USB or optical interface
- Additional freedom of movement for probes provided by using an extension and optical cable. The NBM-550 controller function enables data communication with the smaller NBM-520 for use as a “probe extension handle”. This makes it possible to locate the probe remotely from the NBM-550 control unit without the adverse effects on the measurement that would be caused by metallic connecting cables.



Left:
Probe extension using an optical cable. The NBM-550 acts as controller and displays the results. The smaller NBM-520 acts as the optical probe interface. Both devices can also be used separately as measuring devices when fitted with probes.

Result storage and evaluation

- Data memory for up to 5000 results
- External trigger input for data storage (e.g. for connecting to an odometer)
- Timer Logging for timer controlled data storage (e.g. for long-term monitoring)
- Screenshot download as bitmap for simple documentation
- “NBM-TS” PC software for convenient data management, documentation and subsequent evaluations

OPTIONS

- GPS interface and plug-in GPS receiver for automatic storage of position data
- Conditional Logging: Stores measurement data when a threshold value is exceeded when using a high frequency probe
- Audio recorder for voice comments, with built in microphone, and earphone output; transfer to PC



Above: The battery compartment is opened easily using a coin. Four replaceable NiMH rechargeable batteries (AA size) are used to power the device.

Below:

Open the protective rubber cover to access the connectors: Charger socket, optical interface, headphone connector and the multi purpose GPS / USB/ external trigger connector.

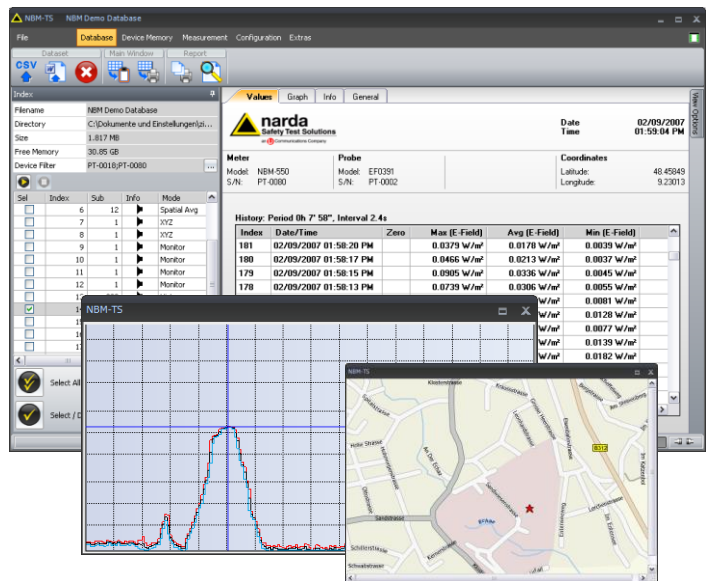


GPS receiver connected to the NBM-550

PC SOFTWARE

The comprehensive, easy to use "NBM-TS" PC software (included) provides the following functions:

- Result transfer to a PC
- Result database management
- Result evaluations
- Device configuration management
- Firmware update control
- Remote controlled measurements



STANDARDS

Safety limits are already stored in the NBM-550 for a variety of standards. In addition, users can also create their own standards. This allows direct display of results for flat probes in % of limit value at a known frequency of the field under test.

| Safety Standard | Region | Safety Standard | Region |
|-----------------------|----------------|-------------------------------|---------------|
| 2013/35/EU Limbs | European Union | ICNIRP 1998 Occupational | International |
| 2013/35/EU High ALs | European Union | ICNIRP 1998 General Pub | International |
| 2013/35/EU Low ALs | European Union | ICNIRP 2010 Occupational | International |
| BGV B11 2h/d | Germany | ICNIRP 2010 General Pub | International |
| BGV B11 Area 1 | Germany | IEEE C95.1 Upper Tier | International |
| BGV B11 Area 2 | Germany | IEEE C95.1 General Pub | International |
| FCC 1997 Occupational | USA | Safety Code 6 1999 RF Work | Canada |
| FCC 1997 General Pop | USA | Safety Code 6 1999 Gen Pub | Canada |
| GB8702-2014 | China | Safety Code 6 2015 Controlled | Canada |
| | | Safety Code 6 2015 Uncontrl'd | Canada |

APPLICATIONS - HIGH FREQUENCY PROBES

| Frequency range | 100 kHz to 3 GHz | 100 kHz to 6 GHz | 3 MHz to 18 GHz | 300 MHz to 50 GHz | 100 MHz to 60 GHz | 300 kHz to 30 MHz | 27 MHz to 1 GHz | 300 kHz* to 50 GHz |
|------------------------------------|------------------|------------------|-----------------|-------------------|-------------------|-------------------|-----------------|--------------------|
| Field type | E | E | E | E | E | H | H | E Shaped |
| Probe designation | EF0391 EF0392 | EF0691 | EF1891 | EF5091 EF5092 | EF6092 | HF3061 | HF0191 | EA ... ED5091 |
| Mobile radio / telecommunications | ● | ● | ● | | | ● | ● | ● |
| Radio / TV broadcasting | ● | ● | ● | | | ● | ● | ● |
| Satellite communications | | | ● | ● | ● | | | ○ |
| Radar | | | ○ | ● | ○ | | | ○ |
| Industry: Heating and tempering | ● | ● | | | | ● | | |
| Industry: Plastics welding | ● | ● | | | | ● | | |
| Industry: Semiconductor production | ● | ● | | | | ○ | | |
| Medicine: Diathermy, hyperthermy | ● | ● | | | | | | ○ |
| Leak detection | | | ● | ● | ● | | | ○ |
| General public safety | ● | ● | ● | ○ | ● | ● | ○ | ○ |
| Health and safety at work | ● | ● | ● | ● | ● | ● | ● | ● |

*) EB5091: 3 MHz – 50 GHz

● more important

○ variable importance

SPECIFICATIONS

| NBM-550 | | | | | | | | | | | | | |
|---|--|------------------------|---------------------|------------------------|------------------|------------------------|---------------------|--|---------------------------------|--|-----------------------------------|--------------------|------------------|
| DISPLAY | | | | | | | | | | | | | |
| Display type | Transflective LCD, monochrome | | | | | | | | | | | | |
| Display size | 10 cm (4"), 240 x 320 dots | | | | | | | | | | | | |
| Backlight | White LEDs, selectable illumination time (OFF, 5s, 10s, 30s, 60s, PERMANENT) | | | | | | | | | | | | |
| Refresh rate | 200 ms for bar graph and graphics, 400 ms for numerical results | | | | | | | | | | | | |
| Operating languages | English, French, German, Italian, Spanish, Simplified Chinese, Turkish, Russian | | | | | | | | | | | | |
| MEASUREMENT FUNCTIONS (with high frequency probes) | | | | | | | | | | | | | |
| Result units | mW/cm ² , W/m ² , V/m, A/m, % (of standard) | | | | | | | | | | | | |
| Display range | .0001 to 9999, 4 digits, variable or fixed triads can be selected <table border="0"> <tr> <td><u>Variable triads</u></td><td><u>Fixed triads</u></td></tr> <tr> <td>0.01 V/m to 100.0 kV/m</td><td>0.01 to 9999 V/m</td></tr> <tr> <td>0.01 mA/m to 265.3 A/m</td><td>0.0001 to 265.3 A/m</td></tr> <tr> <td>0.001 mW/m² to 26.53 MW/m²</td><td>0.0001 to 9999 W/m²</td></tr> <tr> <td>0.1 nW/cm² to 2.653 kW/cm²</td><td>0.0001 to 9999 mW/cm²</td></tr> <tr> <td>0.0001 % to 9999 %</td><td>0.0001 to 9999 %</td></tr> </table> | <u>Variable triads</u> | <u>Fixed triads</u> | 0.01 V/m to 100.0 kV/m | 0.01 to 9999 V/m | 0.01 mA/m to 265.3 A/m | 0.0001 to 265.3 A/m | 0.001 mW/m ² to 26.53 MW/m ² | 0.0001 to 9999 W/m ² | 0.1 nW/cm ² to 2.653 kW/cm ² | 0.0001 to 9999 mW/cm ² | 0.0001 % to 9999 % | 0.0001 to 9999 % |
| <u>Variable triads</u> | <u>Fixed triads</u> | | | | | | | | | | | | |
| 0.01 V/m to 100.0 kV/m | 0.01 to 9999 V/m | | | | | | | | | | | | |
| 0.01 mA/m to 265.3 A/m | 0.0001 to 265.3 A/m | | | | | | | | | | | | |
| 0.001 mW/m ² to 26.53 MW/m ² | 0.0001 to 9999 W/m ² | | | | | | | | | | | | |
| 0.1 nW/cm ² to 2.653 kW/cm ² | 0.0001 to 9999 mW/cm ² | | | | | | | | | | | | |
| 0.0001 % to 9999 % | 0.0001 to 9999 % | | | | | | | | | | | | |
| Result types (RMS, isotropic) | Actual, Maximum, Minimum, Average, Average Maximum | | | | | | | | | | | | |
| Result types (RMS, X-Y-Z mode) | Actual X, Actual Y, Actual Z (requires a probe with separate axes) | | | | | | | | | | | | |
| Time averaging | Selectable averaging time, 4 s to 30 min (2 s steps) | | | | | | | | | | | | |
| Spatial averaging | Discrete or continuously | | | | | | | | | | | | |
| Multi-position spatial averaging | Averages up to 24 spatially averaged results, each position and total is stored | | | | | | | | | | | | |
| History Mode | Graphical display of Actual RMS results versus time (span of 2 minutes to 8 hours) | | | | | | | | | | | | |
| Correction frequency | 1 kHz to 100 GHz or OFF (direct frequency entry, interpolation between calibration points) | | | | | | | | | | | | |
| Hot Spot Search | Audible indication of increasing and decreasing field strength (result type Act or Max) | | | | | | | | | | | | |
| Alarm function | 2 kHz audible signal (4 Hz repetition), adjustable threshold | | | | | | | | | | | | |
| Timer Logging | Start time pre-selection: up to 24 h or immediate start Logging duration: up to 100 h Logging interval: 1s to 6 min (in 11 steps) | | | | | | | | | | | | |
| RESULT MEMORY | | | | | | | | | | | | | |
| Physical memory | 12 MB non-volatile flash memory for measurement results and voice comments | | | | | | | | | | | | |
| Storage capacity | Up to 5000 results (including instrument settings, time stamp and GPS data when available) | | | | | | | | | | | | |
| INTERFACES | | | | | | | | | | | | | |
| Remote control | Via USB or optical RS-232 interface (selectable) | | | | | | | | | | | | |
| - USB | Serial, full duplex, 460800 baud (virtual COM port), multi-pin connector | | | | | | | | | | | | |
| - Optical interface | Serial, full duplex, 115200 baud, no parity, 1 start and 1 stop bit | | | | | | | | | | | | |
| Earphone | 3.5 mm TRS, ≥ 16 ohms (mono), for voice recorder option only | | | | | | | | | | | | |
| External trigger (for result storage) | Uses the multi-pin connector. Interface cable with BNC connector available as accessory Triggers when contacts short-circuited | | | | | | | | | | | | |
| External GPS receiver | Uses the multi-pin connector; GPS receiver with interface cable available as an option | | | | | | | | | | | | |
| Probe interface | Plug-and-play auto detection, compatible with all NBM series probes RMS integration time for measuring input approx. 270 ms Measurement sampling rate 5 Hz (5/ 50/ 60 Hz for remote operation) | | | | | | | | | | | | |

| OPTIONS | |
|---|--|
| Conditional Logging | |
| Logging conditions | Selectable: - On upper threshold: Results stored when measurements exceed the adjustable threshold - Out of gap: Results stored when measurements are above the upper threshold or below the lower threshold |
| Logging range | Selectable: - Store all (as long as the condition is true), sampling rate 5 Hz - Store first and last event (when the condition was true) |
| Voice Recorder | |
| Microphone | Built in microphone located at the top of the instrument near the Narda logo |
| Recording level | Fixed level, VU meter for level monitoring displayed when recording |
| Recording length | 30 s max. length per voice comment, 1 voice comment stored with relevant result |
| Recording format | 8-bit PCM mono, stored as WAV file (approx. 240 kbyte per 30 s) |
| Output | External earphone (adjustable output level) or via NBM-TS PC software |
| GPS Position Logging | |
| Receiver type | GPS Standard Positioning Service and Differential GPS (DGPS) capability using real-time WAAS/EGNOS correction |
| Displayed position data | Latitude (Lat) and longitude (Long), selectable units: DMS (degrees, minutes, seconds)/ MinDec (decimal minutes)/ DegDec (decimal degrees) |
| Geodetic system | WGS84/ NAD83 |
| Position accuracy | < 3 m (Differential GPS), <15 m (Standard GPS), high precision mode indicated on the NBM-550. Accuracy specified for 95 % probability |
| Update rate | 1 s |
| Receiver size/ weight | 61 mm diameter x 19.5 mm high / 62 g (approx. 100 g with mounting plate) |
| Receiver mounting | Uses the tripod thread on underside of device, mounting plate included |
| GENERAL SPECIFICATIONS | |
| Recommended calibration interval | 24 months (basic unit only, probes are specified separately) |
| Battery | NiMH rechargeable batteries, 4 x AA size (Mignon), 2500 mAh, included |
| Operation time | 20 hours (backlight off, no GPS) 12 hours (permanent backlight, no GPS) 10 hours (GPS receiver connected, no backlight) |
| Charging time | 2 hours |
| Battery level display | 100%, 80%, 60%, 40%, 20%, 10%, low level (< 5%) |
| Temperature range Operating Non-operating (transport) | -10 °C to +50 °C -30 °C to +70 °C |
| Humidity | 5 to 95%, non condensing ≤29 g/m³ absolute humidity (IEC 60721-3-2 class 7K2) |
| Size (h x w x d) | 45 x 98 x 280 mm (without probe and GPS receiver) |
| Weight | 550 g (without probe and GPS receiver). |
| Accessories (included) | Hard case, power supply, rechargeable batteries, shoulder strap, tripod (bench top), NBM-TS software, operating manual, certificate of calibration, USB cable interface |
| Country of origin | Germany |

This product is protected by the following patents:
 China Design Patent ZL 2006 3 0303322.X
 China Design Patent ZL 2006 3 0190679.1
 European Design Patent 000594254-001
 European Design Patent 000597836-0001
 U.S. Design Patent No. US D570,235 S

U.S. Patent No. 5,877,619
 German Patent DE19536948A1

ORDERING INFORMATION

| NBM-550 | Part Number (P/N) |
|--|-------------------|
| NBM-500 Set 1, Narda Broadband Field Meter <i>- Probes are not included -</i> Set includes: - NBM-550 Basic Unit (2401/01B) - Hard case for NBM-500 Series, holds meter and up to 5 probes (2400/90.06) - Power Supply 9VDC, 100V-240VAC (2259/92.06) - Battery, Rechargeable, NiMH (2x 2259/92.07) - Shoulder Strap, 1m (2244/90.49) - Tripod, bench top, 0.16m (2244/90.32) - Cable, USB Interface for NBM-550, 2 m (2400/90.05) - Software, NBM-TS, PC Transfer (2400/93.01) - Operating Manual NBM-550 - Calibration Certificate | 2400/101B |
| NBM-500 Set 13, 1Hz-6GHz with EHP-50F, NBM-550, EF0691 Set includes: - all parts from NBM-500 Set 1 (2400/101B) - all parts from EHP-50F E&H Field Analyzer Set, 1Hz-400kHz (2404/103) - Probe EF 0691, E-Field, 100kHz-6GHz (2402/14B) - Tripod, Non-Conductive, 1.65m, with Carrying Bag (2244/90.31) | 2400/113 |
| NBM-500 Set 15, 1Hz-3GHz with EHP-50F, NBM-550, EF0391 Set includes: - all parts from NBM-500 Set 1 (2400/101B) - all parts from EHP-50F E&H Field Analyzer Set, 1Hz-400kHz (2404/103) - Probe EF 0391, E-Field, 100kHz-3GHz (2402/01B) - Tripod, Non-Conductive, 1.65m, with Carrying Bag (2244/90.31) | 2400/115 |
| Options Set for NBM-550: GPS, Voice Recorder, Conditional Logging Includes: GPS Receiver for NBM-550, GPS Mounting Set, Earphone, 3.5mm Plug, Option Key, GPS/Voice/Condit. | 2401/40 |
| HIGH FREQUENCY PROBES * | |
| Probe EF 0391, E-Field, for NBM, 100kHz-3GHz | 2402/01B |
| Probe EF 1891, E-Field, for NBM, 3MHz-18GHz | 2402/02B |
| Probe EF 5091, E-Field, for NBM, 300MHz-50GHz, Thermo. | 2402/03B |
| Probe HF 3061, H-Field, for NBM, 300kHz-30MHz | 2402/05B |
| Probe HF 0191, H-Field, for NBM, 27MHz-1GHz | 2402/06B |
| Probe EA 5091, FCC Shaped, for NBM, 300kHz-50GHz, E-Field | 2402/07B |
| Probe EB 5091, IEEE Shaped, for NBM, 3MHz-50GHz, E-Field | 2402/08B |
| Probe ED 5091, ICNIRP Shaped, for NBM, 300kHz-50GHz, E-Field | 2402/10B |
| Probe EF 5092, E-Field, HiPow, for NBM, 300MHz-50GHz, Thermo. | 2402/11B |
| Probe EF 0392, E-Field, HiPow, for NBM, 100kHz-3GHz | 2402/12B |
| Probe EF 0691, E-Field, for NBM, 100kHz-6GHz | 2402/14B |
| Probe EF 6092, E-Field, for NBM, 100MHz-60GHz | 2402/17B |
| LOW FREQUENCY PROBE * | |
| EHP-50F E&H Field Analyzer Set, 1Hz-400kHz, for NBM-550 Set Includes: - EHP-50F Basic Unit (2404/03) - AC/DC Battery Charger, for EHP-50 (2259/92.08) - Cable, FO Duplex, RP-02, 10m (2260/91.07) - Optical Bridge Connector RP-02 (2260/91.08) - EHP-TS PC Software (2404/93.01) - O/E Converter USB, RP-02/USB (2260/90.07) - Tripod Extension, 0.50m, Non-Conductive (2244/90.45) - Foam Inserts for EHP-50, for Hardcase 2400/90.06 (2404/90.01) | 2404/103 |

* See separate data sheets for probe specifications

| ACCESSORIES | |
|--|------------|
| Test-Generator 27 MHz | 2244/90.38 |
| Tripod, Non-Conductive, 1.65m, with Carrying Bag | 2244/90.31 |
| Tripod Extension, 0.50m, Non-Conductive (for 2244/90.31) | 2244/90.45 |
| Handle, Non-Conductive, 0.42m | 2250/92.02 |
| Carrying Strap Hardcase, for SRM/NBM-500 | 3001/90.04 |
| Cable, Coaxial Multi-pin/ BNC, for NBM-550, Ext. Trigger, 2m | 2400/90.04 |
| Cable, FO Duplex (1000 µm) RP-02, 2 m | 2260/91.02 |
| Cable, FO Duplex (1000 µm) RP-02, 5 m | 2260/91.09 |
| Cable, FO Duplex (1000 µm) RP-02, 10 m | 2260/91.07 |
| Cable, FO Duplex (1000 µm) RP-02, 20 m | 2260/91.03 |
| Cable, FO Duplex (1000 µm) RP-02, 50 m | 2260/91.04 |
| Cable, FO Duplex, F-SMA to RP-02, 0.3 m | 2260/91.01 |
| O/E Converter RS232, RP-02/DB9 | 2260/90.06 |
| O/E Converter USB, RP-02/USB | 2260/90.07 |
| Cable, Adapter USB 2.0 - RS232, 0.8 m | 2260/90.53 |
| Shielding Pouch for NBM-550 | 2401/90.02 |

Narda Safety Test Solutions GmbH
 Sandwiesenstraße 7
 72793 Pfullingen, Germany
 Tel. +49 7121 97 32 0
 Fax +49 7121 97 32 790
 support.narda-de@L-3com.com
 www.narda-sts.com

Narda Safety Test Solutions
 435 Moreland Road
 Hauppauge, NY 11788, USA
 Phone +1 631 231-1700
 Fax +1 631 231-1711
 NardaSTS@L-3COM.com
 www.narda-sts.us

Narda Safety Test Solutions Srl
 Via Leonardo da Vinci, 21/23
 20090 Segrate (Milano), Italy
 Phone +39 02 26 998 71
 Fax +39 02 26 998 700
 nardait.support@L-3com.com
 www.narda-sts.it

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