

NARDA BROADBAND FIELD METER SRM-3006

Technical Note 05

SRM-3006 Tools PC software



The SRM-3006 Tools PC software also offers an extended range of features compared with its predecessor, even though it is still included in the package at no additional cost. The most important features are:

Screenshot function

Measurement reports can be prepared in rapid time and with clarity:

1. Save the screenshots under *Display* on the SRM unit.
2. Connect the unit to the PC.
3. Start SRM-3006 Tools.
4. Click the button to upload the SRM unit's memory.
5. Select the screenshot and save it on the hard disk.

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.

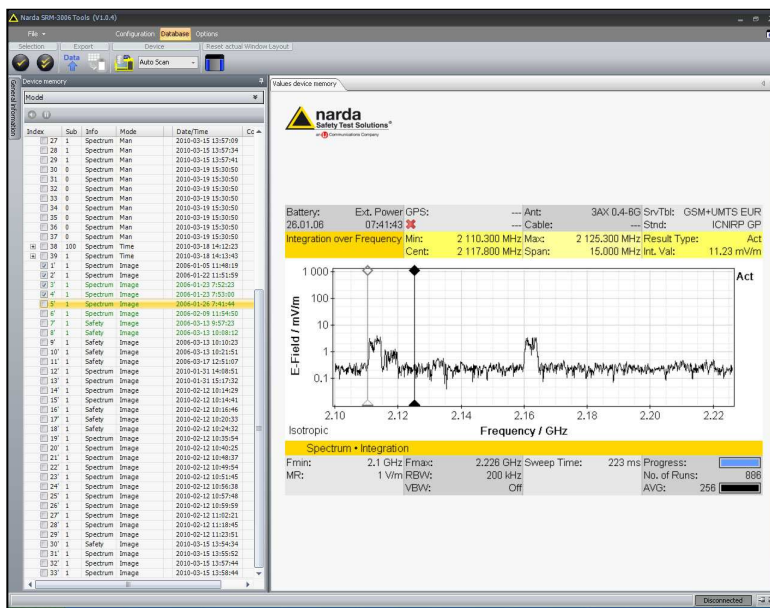


Figure 1: Example screenshot. The screenshot function can be used to insert measurement results directly into test reports, showing numerical values and graphical representations at a glance. Screenshots can also be attached to e-mails for distribution and discussion.

▲ Measurement routines

It has never been easier to generate automatic measurement sequences. Details are contained in Technical Note 04, which is available from www.narda-sts.de under Literature ► High Frequency

▲ Graphical display of antenna factors

If you enter or edit the response data for a third-party antenna or cable, a graphical display of the antenna factor or antenna gain or of the cable transfer function is displayed on the right. Any implausible values can be spotted immediately.

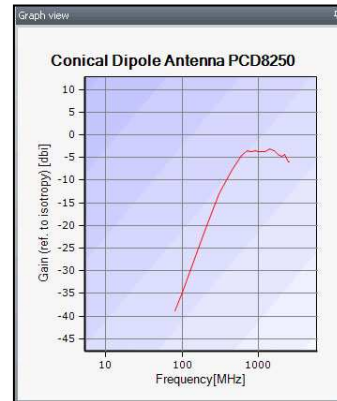


Figure 2:
Graphical display of antenna factors. These can be directly edited using the PC software.

▲ Graphical display of standards

In the same way, SRM-3006 Tools also graphically displays the limit values of a standard. That is always useful when you want to generate a user-defined standard, e.g. if locally or for a particular reason only a certain percentage of the ICNIRP limit value is permitted.

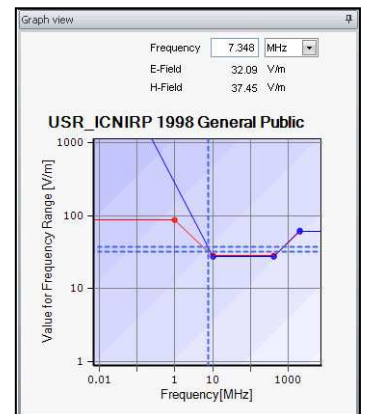


Figure 3:
Graphical display of limit value curves for a standard.

▲ Entry of H-field or E-field values

It is also very convenient that you can now enter the limit values in H-field values (A/m) or E-field values (V/m) – exactly as they are specified in the standard.

H-Field				
Lower Frequency	Upper Frequency	Value for Frequency Range [A/m]	Formula	Value
0.0000001 MHz	0.000001 MHz	32000.011167943	*f^	0
0.000001 MHz	0.000008 MHz	0.000000032	*f^	-2
0.000008 MHz	0.0008 MHz	0.004000001		
0.0008 MHz	0.15 MHz	5.000001082		
0.15 MHz	10 MHz	0.729999956		
10 MHz	400 MHz	0.072999996		
400 MHz	2000 MHz	0.0037		
2000 MHz	300000 MHz	0.160000003		

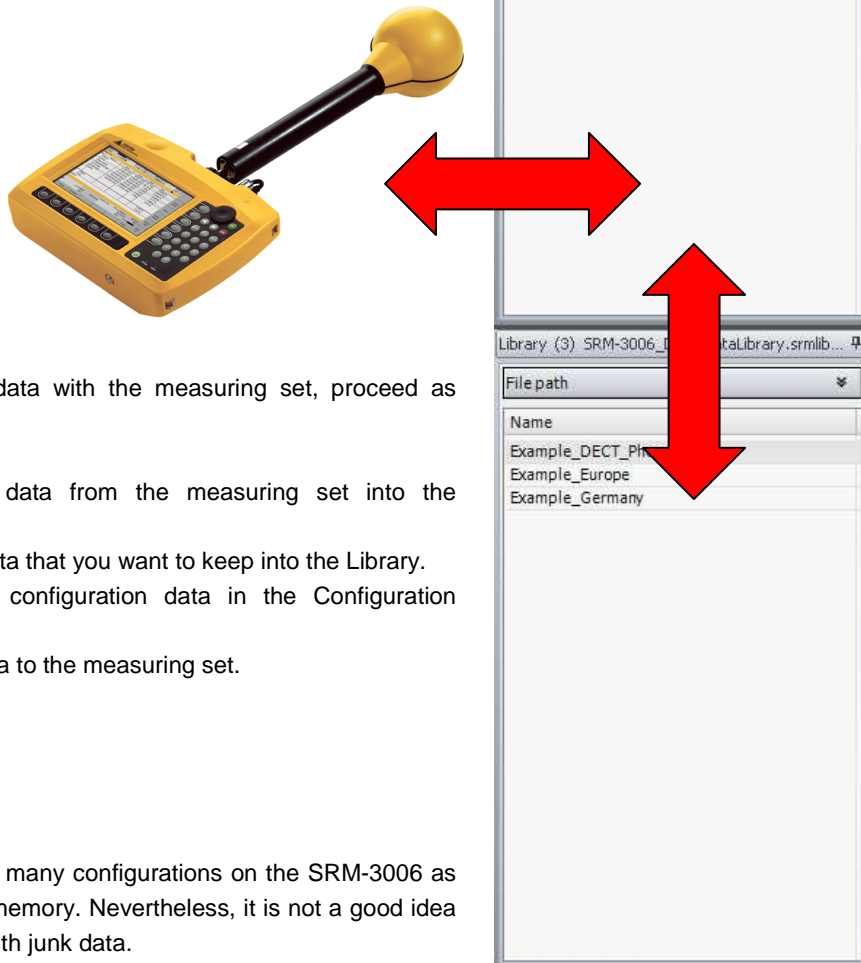
E-Field				
Lower Frequency	Upper Frequency	Value for Frequency Range [V/m]	Formula	Value
0.000001 MHz	0.000025 MHz	10000	*f^	0
0.000025 MHz	0.003 MHz	0.25	*f^	-1
0.003 MHz	1 MHz	87	*f^	0
1 MHz	10 MHz	87	*f^	-0.5
10 MHz	400 MHz	28	*f^	0
400 MHz	2000 MHz	1.375	*f^	0.5
2000 MHz	300000 MHz	61	*f^	0

Figures 4 and 5: *Entering the limit values in the appropriate units: H-field in A/m, E-field in V/m.*

▲ Transferring configuration data

As with the previous SRM-Tools, there are two windows: **Configuration** and **Library**.

The Library can be practically as large as you want. The contents of the Configuration have purposely been kept lean*. When you make a transfer from the PC to the measuring set or vice versa, all the previous content is always deleted. If this were not done, unnecessary data would accumulate in the instrument and would eventually fill up even the comparatively large device memory. For this reason, you should always transfer to the Library any configuration data you have generated in the Configuration window that you want to keep.



To exchange configuration data with the measuring set, proceed as follows:

1. Move the configuration data from the measuring set into the Configuration window.
2. Move the configuration data that you want to keep into the Library.
3. Now generate the new configuration data in the Configuration window.
4. Transfer the complete data to the measuring set.

* You can of course store as many configurations on the SRM-3006 as there is space in the device memory. Nevertheless, it is not a good idea to gradually fill the memory with junk data.

Technical Notes from Narda Safety Test Solutions

These notes report, in no particular order, on the possible applications of Narda measuring equipment. Typical applications for the Selective Radiation Meter SRM-3006 are safety measurements on

- **Radio and TV transmitters (AM, FM, DAB, DVB-T)**
- **Mobile phone stations (GSM-900, GSM-1800, UMTS, CDMA, W-CDMA, LTE)**
- **Wireless communications networks (WiFi, WLAN, WiMAX, DECT, ZigBee, Bluetooth)**
- **Radio controls using ISM frequencies**

The Technical Notes are found on www.narda-sts.de under Literature ► High Frequency

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