www.narda-sts.com

Selective Radiation Meter

SRM-3006

narda Safety Test Solutions®
an L3 Communications Company

Telemeter Electronic

Konform zur EMF Richtlinie 2013/35/EU

5G

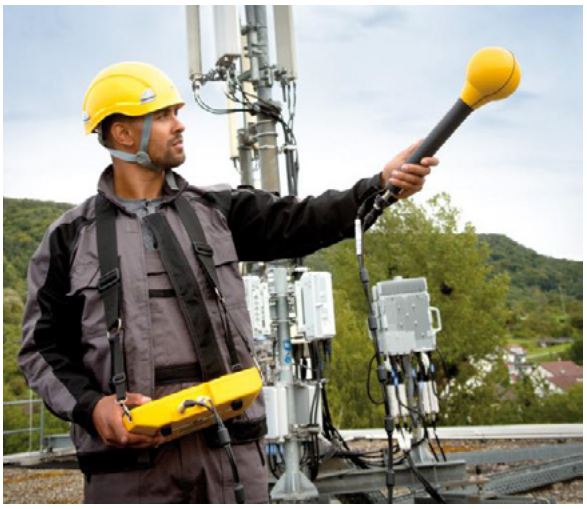
Selective measurement of high frequency electro-magnetic fields

Complete, easy to use test system, consisting of a base unit and measuring antennas, for non-directional detection of fields and their sources in the frequency range from 9 kHz to 6 GHz

- **Measurements conforming to ICNIRP and national standards with results displayed directly in terms of the permitted limit value**
- **Fast, reliable results using predefined measurement routines, setups, and automatic settings**
- **Extrapolation to maximum exposure levels and evaluating pilot signal information with LTE - FDD/TDD and UMTS operating modes**
- **Scope mode for short term analysis of pulsed signals and long term recording of variable exposure levels**
- **Editable tables for automatic correlation of results with telecommunications services (e.g. broadcasting, GSM, WiMAX)**
- **Individual preparation of field campaigns with subsequent evaluation and handling of large quantities of measurement data**
- **Suitable for outdoor use: Radiation protected, robust, splash-proof, ergonomically designed; uses exchangeable rechargeable batteries; equipped with integrated GPS and voice recorder**

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

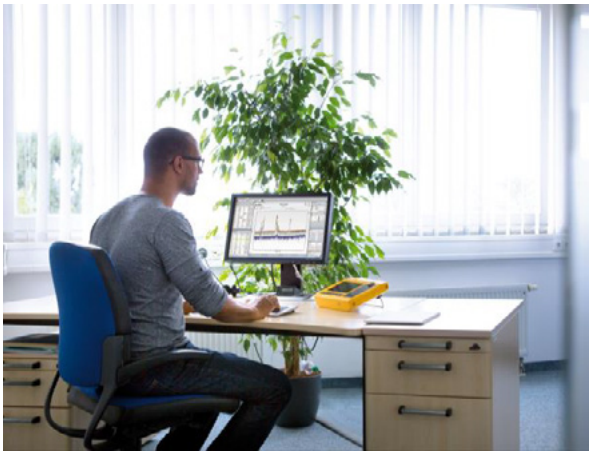
THE SRM AND ITS APPLICATIONS



The Selective Radiation Meter SRM is a compact, frequency-selective measuring system for safety analysis and environmental measurements of high-frequency electromagnetic fields. It covers broadcasting, mobile telephony, and industrial frequencies from the lowest long-wave range up to the latest wireless applications and evaluates the field exposure level in accordance with international or national standards.

Where the field environment is unknown – in offices, factory buildings, public places, or private homes – the SRM provides authorities and measurement service providers with a rapid overview of the field sources that are relevant to human safety.

Where the field situation is known, such as at so-called “shared sites”, where several service providers share a common antenna site, the SRM shows the overall field exposure level as well as the proportions due to each service as an absolute value or as a percentage of the permitted limit value.



Users can resolve services down to individual channel accuracy and measure their contribution to the field emission with the SRM. It is also possible to integrate over the entire frequency range of the service and display the absolute result or the value relative to the permitted limit.

OPERATION AND USE

All functions and parameters can be set directly on the SRM basic unit via menus and the numerical keypad, softkeys, or the rotary control. As well as this, the SRM also provides facilities for saving and recalling measurement settings (setups) and entire measurement sequences (routines). The PC software included with the device, “SRM-3006 Tools”, includes editable tables for antennas and cables from other manufacturers, user-defined evaluation curves, and lists of services and operators.

OPERATING MODES

The SRM is designed for everyday use and has operating modes tailored to the main areas of application: Safety Evaluation, Spectrum Analysis, Level Recorder, Scope, UMTS and LTE. Details about these operating modes and other functions are given in the Specifications.

ANTENNAS

Narda offers a broad range of three-axis and single-axis measuring antennas for electric fields (E-fields) and magnetic fields (H-fields). The three-axis antennas are advantageous in practice because they give isotropic (i.e. non-directional) results automatically.

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

DEFINITIONS AND CONDITIONS

Conditions
Unless otherwise noted, specifications apply after 30 minutes warm-up time within the specified environmental conditions. The product is within the recommended calibration cycle.

Specifications with limits
These describe product performance for the given parameter covered by warranty. Specifications with limits (marked as <, ≤, >, ≥, ±, max., min.) apply under the given conditions for the product and are tested during production taking measurement uncertainty into account.

Specifications without limits
These describe product performance for the given parameter covered by warranty. Specifications without limits represent values with negligible deviations which are ensured by design (e.g. dimensions or resolution of a setting parameter).

Typical values (typ.)
These characterize product performance for the given parameter that is not covered by warranty. When stated as a range or as a limit (marked as <, ≤, >, ≥, ±, max., min.), they represent the performance met by approximately 80 % of the instruments. Otherwise, they represent the mean value. The measurement uncertainty is not taken into account.

Nominal values (nom.)
These characterize expected product performance for the given parameter that is not covered by warranty. Nominal values are verified during product development but are not tested during production.

Uncertainties
These characterize an interval for a given measurand estimated to have a level of confidence of approximately 95 percent. Uncertainty is stated as the standard uncertainty multiplied by the coverage factor k=2 based on the normal distribution. The evaluation has been carried out in accordance with the rules of the "Guide of the Expression of Uncertainty in Measurement" (GUM).

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

SPECIFICATIONS ● BASIC UNIT

Basic Unit SRM-3006			
MODES			
Operating modes	Measurements vs. frequency	● Spectrum Analysis ● Safety Evaluation	
	Measurements vs. time (Zero Span)	● Level Recorder ● Scope (Option)	
	Measurements on mobile networks	● UMTS P-CPICH Demodulation (Option) ● LTE (for FDD networks) (Option) ● LTE (for TDD networks) (Option)	
RF DATA [a]			
Frequency	Frequency range	9 kHz to 6 GHz	
	Resolution bandwidth (RBW)	See specifications for each mode	
	Phase noise (SSB)	< - 100 dBc/Hz (@ 300 kHz carrier offset)	verified at (57.5 / 2140.5 / 4500.5) MHz
	Reference frequency	Initial deviation < 1 ppm Aging < 1 ppm/year, < 5 ppm over 15 years Thermal drift < 1.5 ppm (-10 °C to +50 °C)	
Amplitude	Display range	From Displayed Average Noise Level (DANL) to +20 dBm	
	Measurement range (MR)	-30 dBm to +20 dBm in steps of 1 dB	
	RF Input attenuation	0 to 50 dB in steps of 1 dB (coupled with measurement range MR)	
	Measurement range setting	Set individually from a list or using the “MR Search” function for determining the optimum measurement range at a given time	
	Level uncertainty	≤ 1.2 dB (15 °C to 30 °C) valid for Spectrum Analysis and Safety Evaluation modes	
	Displayed Average Noise Level (DANL)	f ≤ 30 MHz: < -160 dBm/Hz (noise figure < 14 dB) f ≤ 2 GHz: < -156 dBm/Hz (noise figure < 18 dB) f ≤ 4 GHz: < -155 dBm/Hz (noise figure < 19 dB) f ≤ 6 GHz: < -150 dBm/Hz (noise figure < 24 dB)	MR = -30 dBm (RF input attenuation = 0 dB)
	3rd order intermodulation	< -60 dBc for two single tones with a level of 6 dB below MR, spaced by 1 MHz or more	
	Spurious responses (input related)	< -60 dBc or MR-60 dB (whichever is worse) and a carrier offset of 1 MHz or more	
	Spurious responses (residual)	< -90 dBm (MR = -30 dBm, RF input attenuation = 0 dB) For (294 to 306) MHz and (4534 to 4586) MHz limited to < -85 dBm	
RF input	Type	N-Connector, 50 Ω, female	
	Maximum RF power level	+27 dBm (destruction limit)	
	Maximum DC voltage	±50 V	
	Return loss	> 12 dB (typ.), f ≤ 4.5 GHz > 10 dB (typ.), f > 4.5 GHz	MR ≥ -28 dBm (RF input attenuation ≥ 2 dB)

a) RF data apply in the temperature range of 20°C to 26°C and a relative humidity between 25 % and 75 %.

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

MODE SPECTRUM ANALYSIS		
Measurement principle		Spectrum analysis
Resolution bandwidth RBW, (-3 dB nominal)		10 Hz to 20 MHz (in steps of 1, 2, 3, 5, 10, 20, …)
Video bandwidth VBW		Off, 0.2 Hz to 2 MHz (in steps of 1, 2, 3, 5, 10, 20, … coupled with selected RBW)
Filter	Type	Gaussian
	Shape factor (-60 dB/ -3 dB)	3.8 typical
Result types		Individually selectable traces for: Act: Displays instantaneous (actual) spectrum Max: Maximum hold function Avg: Average over a selectable number of spectra (4 to 256) or a selectable time period of 1 to 30 minutes Max Avg: Maximum hold function after averaging Min: Minimum hold function Min Avg: Minimum hold function after averaging Standard: Display of the selected safety standard
		SAVG: Spatial Averaging; Types: „continuous“ or „discrete“
Marker functions		Highest peak, next peak right, next peak left, next higher peak, next lower peak Information provided by Marker: frequency, level, service name according to the selected service table. Delta marker to measure difference in level and frequency of the same trace or to display the difference between two different traces e.g. average and maximum at the same frequency.
Evaluation functions		Peak table (list of up to 50 highest peaks) Integration over a user-specified frequency range (channel power)
Axis		X, Y, Z axis selection for single-axis measurements using a Narda Three-Axis Antenna or selection of isotropic measurements
Display functions		Y-scale range: 20, 40, 60, 80, 100 or 120 dB Y-scale reference: MR-100 dB to MR+20 dB (-130 dBm to +40 dBm) Screen arrangement: help line, status lines on/off
Zoom		Zoom Min: Sets the lower frequency limit of the zoom window Zoom Max: Sets the upper frequency limit of the zoom window Zoom Cent: Moves the zoom window along the frequency axis Zoom Span: Changes the scale of the zoom window Execute Zoom: Sets the zoom window limits to the selected frequency values
Extras (transfer of parameters)		“Go to: *mode*“ changes the operating mode with automatic parameter transfer for Fcent and Fspan. “Select Service“ allows easy frequency settings by means of predefined service tables

MODE SAFETY EVALUATION	
Measurement principle	Spectrum analysis, followed by integration over user-defined frequency bands (“services”)
Number of services	1 to 500, predefined by service tables on the instrument or created by PC software SRM-3006 Tools
Name of services	User definable, maximum 15 characters set by PC software SRM-3006 Tools
Channel bandwidth of a service (CBW)	Individually selectable for each channel, from 40 Hz to 6 GHz
Resolution bandwidth RBW, (-3 dB nominal)	Available bandwidths as for Spectrum Analysis mode. The following condition applies: RBW ≤ $CBW_{(narrowest\ service)}$ / 4 Automatic: RBW setting depending on of the narrowest service Manual: can be set in the range of available RBWs Individual: separately defined for each individual service by PC software SRM-3006 Tools (“Others” needs to be switched off)
Detection	Root mean square value (RMS), integration time = 1 / RBW
Filter	See Spectrum Analysis mode
Result types	See Spectrum Analysis mode
Marker functions for bar graph view	Highest peak, next peak right, next peak left, next higher peak, next lower peak Information provided by Marker: frequency, level, service name according to the selected service table. Delta marker to measure difference in level and frequency of the same trace or to display the difference between two different traces (Result Types) at the same frequency.
Evaluation function	Distribution (percentage contribution of each service)
Axis	X, Y, Z axis selection for single-axis measurements using a Narda Three-Axis Antenna or selection of isotropic measurements
Display functions	Table view showing service names, the corresponding frequency bands, field strength per result type and RBW (when set to individual) Screen arrangement: help line, status lines on/off Sort function according to various criteria
	Bar graph of services showing contribution of the selected Result Types
Noise threshold	Displays results only if they are above the typical noise floor when activated. The threshold is selectable (0, 3, 6, 10, 15, or 20 dB relative to the typical DANL). Measurement values below the threshold are shown as the absolute threshold value marked with “<” (less than threshold)
Others On/Off	Others On: field strength in the frequency gaps between the specified services is measured Others Off: field strength in the frequency gaps between the specified services is ignored
Extras (transfer of parameters)	“Go to: *mode*“ changes the operating mode with automatic parameter transfer for Fcent and Fspan. „Select Service Table“ allows switching between predefined service tables

MODE UMTS P-CPICH DEMODULATION (OPTION)		
Measurement principle		Demodulation of the P-CPICH (Primary Common Pilot Channel) as the basis for automatic assignment of measured field strength values to the individual UMTS radio cells
UMTS channel selection		By entering the center frequency (Fcent)
Frequency setting resolution		100 kHz (for Fcent frequency entry)
Resolution bandwidth RBW, (-3 dB nominal)		3.84 MHz (fixed)
Detection		Root mean square value (RMS), integration time = 10 ms
Filter	Type	Root-raised cosine (RRC)
	Roll-off factor	α = 0.22
Demodulation algorithms		P-CPICH decoding dynamic typically -20 dB according EN50492 / IEC 62232
Result types		Individually selectable for: Act: Displays instantaneous (actual) channel power Max: Maximum hold function Avg: Average over a selectable number of measurements (4 to 256) or a selectable time period of 1 to 30 minutes Max Avg: Maximum hold function after averaging Min: Minimum hold function Min Avg: Minimum hold function after averaging Standard: Display of the selected safety standard
Evaluation functions		Extrapolation factor adjustable from 1 to 100 in steps of 0.001 Ratio Pilot/Analog in dB
Axis		X, Y, Z axis selection for single-axis measurements using a Narda Three-Axis Antenna or selection of isotropic measurements
Results display	Displayed items	Up to 16 scrambling codes simultaneously
		Selection of individual scrambling codes
		Channel power for the selected Result Types
		Number of measurement runs since last reset
	Table layout	Table format: Index, Scrambling Code, selected result types
		Total: Total power of all listed scrambling codes
		Analog: Analog measurement result for the selected UMTS frequency channel (no extrapolation)
Noise threshold		In case of “Analog” results: values are displayed only if they are above the typical noise floor when activated. The threshold is selectable (0, 3, 6, 10, 15, or 20 dB relative to the typical DANL). Measurement values below the threshold are shown as the absolute threshold value marked with “<” (less than threshold)
Extras (transfer of parameters)		“Go to: *mode*“ changes the operating mode with automatic parameter transfer for Fcent and RBW. “Select Service“ allows easy frequency settings by means of predefined service tables

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

MODE LTE (for FDD networks) (OPTION)		
Measurement principle		Power level measurement of the cell specific and traffic independent signals PSS (Primary Sync Signal), SSS (Secondary Sync Signal) and RS (Reference Signal) of LTE cells.
LTE channel selection		By entering the center frequency (Fcent)
Frequency setting resolution		100 kHz (for Fcent frequency entry)
Channel bandwidth CBW, (-6 dB nom.)		Can be set to the following values: No. of subcarriers: 72 / 180 / 300 / 600 / 900 / 1200 TBW (MHz): 1.08 / 2.7 / 4.5 / 9.0 / 13.5 / 18 **CBW (MHz): 1.4 / 3 / 5 / 10 / 15 / 20** Transmit Bandwidth (TBW) is the occupied bandwidth of all subcarriers
Detection		Root mean square value (RMS), integration time = 10 ms (5 ms at CBW 15 MHz, 20 MHz)
Filter	Type	Steep cut-off channel filter (app. Raised-Cosine)
	Roll-off factor	α = 1 - (TBW/CBW)
Cell specific signals (Signal) (Display of the average power level per Resource Element out of all elements of the considered signal)		Individually selectable for: PSS (Primary Sync Signal) SSS (Secondary Sync Signal) RS Avg (Reference Signal Average) RS Sum (Reference Signal Sum) RS Max (Reference Signal Maximum) RS 0 (Reference Signal antenna 0) RS 1 (Reference Signal antenna 1) RS 2 (Reference Signal antenna 2) RS 3 (Reference Signal antenna 3)
Result types (applicable to all cell specific signals)		Individually selectable for: Act: Displays the instantaneous (actual) value Max: Maximum hold function Avg: Average over a selectable number of measurements (4 to 256) or a selectable time period of 1 to 30 minutes Max Avg: Maximum hold function after averaging Min: Minimum hold function Min Avg: Minimum hold function after averaging Standard: Display of the selected safety standard
Axis		X, Y, Z axis selection for single-axis measurements using a Narda Three-Axis Antenna or selection of isotropic measurements
Extrapolation function		Extrapolation factor adjustable from 1 to 10000 in steps of 0.001
Results display	Displayed items	Selection of individual Cell ID's
		Number of measurement runs since last reset
	Table layout	Up to 16 Cell ID's simultaneously Table format: Index, Cell ID, No. Ant. (number of antennas), selected signals shown for each selected result type (up to 54 columns + Standard)
		Total: Total power of all listed Cell ID's
		Analog: Analog measurement result for the selected LTE frequency channel (no extrapolation)
Setting parameters		Synchronization (Cell Sync): Sync/ No Sync Cyclic Prefix Length (CP Length): Normal/Extended
Noise threshold		In case of "Analog" results: values are displayed only if they are above the typical noise floor when activated. The threshold is selectable (0, 3, 6, 10, 15, or 20 dB relative to the typical DANL). Measurement values below the threshold are shown as the absolute threshold value marked with "<" (less than threshold)
Extras (transfer of parameters)		"Go to: *mode*" changes the operating mode with automatic parameter transfer for Fcent and CBW. "Select Service" allows easy frequency settings by means of predefined service tables

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

MODE LTE (for TDD networks) (OPTION)		
Measurement principle		Power level measurement of the cell specific and traffic independent signals PSS (Primary Sync Signal), SSS (Secondary Sync Signal) and RS (Reference Signal) of LTE cells.
LTE channel selection		By entering the center frequency (Fcent)
Frequency setting resolution		100 kHz (for Fcent frequency entry)
Uplink-downlink configuration (3GPP TS 36.211)		Seven uplink-downlink (0-6) configurations according to the standard 3GPP TS 36.211 are supported. To obtain a reliable result the instrument should be adapted to the uplink-downlink configuration of the base station.
Channel bandwidth CBW, (-6 dB nom.)		Can be set to the following values: No. of subcarriers: 72 / 180 / 300 / 600 / 900 / 1200 TBW (MHz): 1.08 / 2.7 / 4.5 / 9.0 / 13.5 / 18 **CBW (MHz): 1.4 / 3 / 5 / 10 / 15 / 20** Transmit Bandwidth (TBW) is the occupied bandwidth of all subcarriers
Detection		Root mean square value (RMS), integration time = 10 ms (5 ms at CBW 15 MHz, 20 MHz)
Filter	Type	Steep cut-off channel filter (app. Raised-Cosine)
	Roll-off factor	α = 1 - (TBW/CBW)
Cell specific signals (Signal) (Display of the average power level per Resource Element out of all elements of the considered signal)		Individually selectable for: PSS (Primary Sync Signal) SSS (Secondary Sync Signal) RS Avg (Reference Signal Average) RS Sum (Reference Signal Sum) RS Max (Reference Signal Maximum) RS 0 (Reference Signal antenna 0) RS 1 (Reference Signal antenna 1) RS 2 (Reference Signal antenna 2) RS 3 (Reference Signal antenna 3)
Result types (applicable to all cell specific signals)		Individually selectable for: Act: Displays the instantaneous (actual) value Max: Maximum hold function Avg: Average over a selectable number of measurements (4 to 256) or a selectable time period of 1 to 30 minutes Max Avg: Maximum hold function after averaging Min: Minimum hold function Min Avg: Minimum hold function after averaging Standard: Display of the selected safety standard
Axis		X, Y, Z axis selection for single-axis measurements using a Narda Three-Axis Antenna or selection of isotropic measurements
Extrapolation function		Extrapolation factor adjustable from 1 to 10000 in steps of 0.001
Results display	Displayed items	Selection of individual Cell ID's
		Number of measurement runs since last reset
	Table layout	Up to 16 Cell ID's simultaneously Table format: Index, Cell ID, No. Ant. (number of antennas), selected signals shown for each selected result type (up to 54 columns + Standard)
		Total: Total power of all listed Cell ID's
		Analog: Analog measurement result for the selected LTE frequency channel (no extrapolation)
Setting parameters		Synchronization (Cell Sync): Sync/ No Sync Cyclic Prefix Length (CP Length): Normal/Extended
Noise threshold		In case of "Analog" results: values are displayed only if they are above the typical noise floor when activated. The threshold is selectable (0, 3, 6, 10, 15, or 20 dB relative to the typical DANL). Measurement values below the threshold are shown as the absolute threshold value marked with "<" (less than threshold)
Extras (transfer of parameters)		"Go to: *mode*" changes the operating mode with automatic parameter transfer for Fcent and CBW. "Select Service" allows easy frequency settings by means of predefined service tables

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

LEVEL RECORDER MODE		
Measurement principle		Selective level measurement at a fixed frequency setting (Zero Span)
Detection		Peak (holding time 480 ms)
		Root mean square value (RMS), RMS average time adjustable from 480 ms up to 30 min
Filter	Type	Steep cut-off channel filter (app. raised cosine)
	Roll-off factor	α = 0.16
Resolution bandwidth RBW (-6 dB nominal)		100 Hz to 32 MHz (in steps of 100, 125, 160, 200, 250, 320, 400, 500, 640, 800, 1000, …, 10 MHz, 13.333 MHz, 16 MHz, 20 MHz, 26.666 MHz, 32 MHz)
Video bandwidth (VBW)		Off, 0.01 Hz to 32 MHz (depending on the selected RBW)
Result Type		Peak ACT: Displays the actual peak value Peak MAX: Max hold function for peak values RMS ACT: Averaging over a defined time period (0.48 seconds to 30 min) RMS MAX: Max hold function for RMS values
		SAVG: Spatial Averaging; Types: „continuous“ or „discrete“
Axis		X, Y, Z axis selection for single-axis measurements using a Narda Three-Axis Antenna or selection of isotropic measurements
Noise threshold		Displays results only if they are above the typical noise floor when activated. The threshold is selectable (0, 3, 6, 10, 15, or 20 dB relative to the typical DANL). Measurement values below the threshold are shown as the absolute threshold value marked with “<” (less than threshold). Only applies to the numerical result display (Value)
Extras (transfer of parameters)		“Go to: *mode*“ changes the operating mode with automatic parameter transfer for Fcent and RBW. “Select Service“ allows easy frequency settings by means of predefined service tables
SCOPE MODE (OPTION)		
Measurement principle		Selective level measurement at a fixed frequency setting (Zero Span)
Filter	Type	Steep cut-off channel filter (app. raised cosine)
	Roll-off factor	α = 0.16
Sweep Time		500 ns to 24 h (Time Span)
Time Resolution		31.25 ns up to 90 min
Resolution bandwidth RBW (-6 dB nominal)		100 Hz to 32 MHz (see Level Recorder Mode)
Video bandwidth (VBW)		Off, 0.01 Hz to 32 MHz (depending on the selected RBW)
Result Type	Magnitude Actual (high resolution)	ACT: Displays the instantaneous (actual) value. (time resolution = 1/RBW) Standard: Displays the limit of the selected safety standard
	Magnitude Condensed (long observation)	Magnitude Condensed allows to display the results over a long time period MAX: Maximum value within the time resolution interval (corresponds to peak detector). AVG: Average value within the time resolution interval (corresponds to RMS detector). MIN: Minimum value within the time resolution interval. Standard: Displays the limit of the selected safety standard.
Marker function		Delta marker, Marker, highest peak, next peak right, next peak left, next highest peak, next lowest peak
Evaluation functions		Duty cycle (ratio of average power to maximum power)
Triggering		Programmable Trigger Delay, Trigger Edge and Trigger Level
Trigger Mode	Free Run	Time signal runs continuously.
	Single	Single triggering as soon as the selected conditions apply for Trigger Level, Trigger Delay, and Trigger Edge
	Multiple	Same as for Single but with multiple subsequent triggering
	Manual Start	Time signals displayed instant by a button.
	Time Controlled	Time signals runs instant by date and time.
Axis		X, Y, Z axis selection for single-axis measurements using a Narda Three-Axis Antenna or selection of isotropic measurements
Extras (transfer of parameters)		“Go to: *mode*“ changes the operating mode with automatic parameter transfer for Fcent and RBW. “Select Service“ allows easy frequency settings by means of predefined service tables

MEASUREMENT FUNCTIONS		
Detection of Narda measurement antennas		Automatic consideration of antenna parameters after antenna is plugged in: antenna type, serial number, calibration date and antenna factors (see below). Automatic frequency range adjustment according to the connected antenna
Antenna factors		Used to display measurement results in field strength units Stored in all Narda antennas during calibration Antenna factor lists for antennas from other manufacturers can be created and transferred to the instrument using the PC software SRM-3006 Tools/TS
Detection of Narda Cables		Automatic consideration of cable parameters after cable is plugged in: Cable type, serial number, calibration date and loss factors (see below) Automatic frequency range adjustment according to the connected cable
Cable loss factors		Used for frequency response compensation of the power level display Stored in all Narda cables during calibration Cable loss lists for cables from other manufacturers can be created and transferred to the instrument using the PC software SRM-3006 Tools/TS
Units	With antenna:	% (of the standard), V/m, A/m, W/m², mW/cm², dBV/m, dBmV/m, dBA/m, dBµV/m, dBm, dBV, dBmV, dBµV
	Without antenna:	dBm, dBV, dBmV, dBµV
Isotropic Measurements		Automatic switching of the antenna axes when using one of Narda's three-axis measurement antennas followed by computation of the isotropic result. Support for sequential measurements using single-axis antennas with subsequent computation of the isotropic result. Both results are directly displayed as a spectrum curve or as numerical values
Weighted Display		In % of standard for human safety standards like ICNIRP, IEEE, FCC etc. New lists of exposure limits can be created and transferred to the instrument using the PC software SRM-3006 Tools/TS
Correlation of results with telecom services		Service Tables specify the used frequency band, the name and the required resolution bandwidth (RBW) of up to 500 individual services in a single list. Thus measurement results can be easily assigned to a service even without the knowledge of the frequency (marker functions, peak table evaluation function, Safety Evaluation mode). Service Tables can be created either directly on the instrument or conveniently created and transferred to the instrument using the PC software SRM-3006 Tools/TS
Setups		Complete device configurations provide fast switching between different measurement tasks. Saved setups can be downloaded to a PC for archiving and uploaded back to the instrument using the PC software SRM-3006 Tools/TS
Measurement Routines		Automated sequences of setups (created using the PC software SRM-3006 Tools/TS)
Results Memory	Memory modes	Result stored as: Spectrum in Spectrum Analysis mode (SPECTRUM), Table in Safety Evaluation mode (SAFETY), Values in UMTS P-CPICH Demodulation mode (UMTS) as well as for LTE mode (LTE FDD and LTE TDD) Values for Level Recorder (LEVEL) and Scope (SCOPE)
	Conditional Storing	Conditional storing of results exceeding a specified threshold value (in all operating modes except "Scope") with individual storage rates and reset function
	Time Controlled Storing	Long term monitoring up to 99 hours (in all operating modes except "Scope"). Settings for: start date, start time, duration and time interval (6 s to 60 min)
	Memory capacity	128 MB (up to 8000 spectra, 4000 screenshots)
Hold		Button that "Freezes" the display; the measurement continues in the background.
Operating language		Selectable: English (Default), French, Spanish, Turkish, Simplified Chinese

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

GENERAL SPECIFICATIONS				
Operating temperature range			-10 °C to +50 °C during normal operation with batteries	
			0 °C to +40 °C with external power supply	
Compliance	Climatic		Storage	1K3 (IEC 60721-3) extended to -10 °C to +50 °C
			Transport	2K4 (IEC 60721-3) restricted -30 °C to +70° C due to display
			Operating	7K2 (IEC 60721-3) extended to -10 °C to +50 °C
	Mechanical		Storage	1M3 (IEC 60721-3)
			Transport	2M3 (IEC 60721-3)
			Operating	7M3 (IEC 60721-3)
	Ingress protection		IP 52 (with antenna attached and interface protector closed)	
	EMC	European Union	Complies with EMC Directive 2014/30/EU and EN 61326 -1: 2013	
		Immunity	EN: 61000-4-2, 61000-4-3, 61000-4-4, 61000-4-5, 61000-4-6, 61000-4-8, 61000-4-11	
		Emissions	EN: 61000-3-2, 61000-3-3, EN 55011 (CISPR 11) Class B	
	Safety		Complies with European Low Voltage Directive 2014/35/EU and EN 61010-1: 2010	
RF Immunity			200 V/m	
Air humidity (operating range)			< 29 g/m³ (< 93 % RH at +30 °C), non-condensing	
Weight			2.8 kg / 6.2 lbs (basic unit including battery)	
Dimensions (H x W x D)			213 mm x 297 mm x 77 mm (8.4” x 11.7” x 3.0”)	
Display	Type		Color display TFT-LCD with backlight, for indoor and outdoor use	
	Size, resolution		7 inch (152 mm x 91 mm), 800 x 480 pixels	
Interface			USB mini B (USB 2.0)	
			Optical RS 232 (Baud rate 115 200)	
			Earphone 3.5 mm TRS	
Power supply	Battery		Lithium-Ion rechargeable battery pack operating time: 2.5 hours (nominal) charging time: 4.5 hours (nominal)	
	External power supply		Input: 9 to 15 V_{DC} Adapter 100-240 V_{AC} / 12 V_{DC}, 2.5 A (plug DIN 45323)	
Recommended calibration interval			24 months	
Country of origin			Germany	

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

SPECIFICATIONS ● ISOTROPIC ANTENNAS

Three-axis antenna (E-Field) 3501/03			
Frequency range	27 MHz to 3 GHz The correction factors determined individually during calibration are stored in an EEPROM and are applied automatically when used in conjunction with the SRM basic unit.		
Antenna type	E-field		
Sensor type	Three-axis design with scanned axes		
Dynamic range [a]	0.2 mV/m to 200 V/m (typ.)		
Maximum field strength (destruction limit)	435 V/m or 50 mW/cm² (nom.)		
Displayed Average Noise Level (DANL) in conjunction with the SRM basic unit	Frequency range	Single-axis measurement with isotropic antenna	Isotropic measurement
	900 MHz (RBW = 1 kHz)	25 µV/m (typ.)	40 µV/m (typ.)
	2.1 GHz (RBW = 1 kHz)	40 µV/m (typ.)	70 µV/m (typ.)
Measurement range limit (for single CW signal)	300 V/m (typ.) 1000 V/m (typ.) for f ≤ 110 MHz		
RF connector	N-Connector, 50 Ω, male		
MEASUREMENT UNCERTAINTY			
Expanded measurement uncertainty [b] (in conjunction with SRM basic unit and 1.5 m RF cable)	Frequency range	Single-axis measurement with isotropic antenna	Isotropic measurement
	27 – 85 MHz	+2.4 / -3.3 dB	+ 3.2 / -4.7 dB
	> 85–900 MHz	+2.4 / -3.4 dB	+2.5 / -3.6 dB
	> 900-1400 MHz	+2.3 / -3.1 dB	+2.5 / -3.4 dB
	> 1400-1600 MHz	+2.3 / -3.1 dB	+2.6 / -3.8 dB
	> 1600-1800 MHz	+1.8 / -2.3 dB	+2.2 / -3.0 dB
	> 1800-2200 MHz	+1.8 / -2.3 dB	+2.4 / -3.3 dB
	> 2200-2700 MHz	+1.9 / -2.4 dB	+2.7 / -3.8 dB
	> 2700-3000 MHz	+1.9 / -2.4 dB	+3.3 / -5.3 dB
GENERAL SPECIFICATIONS			
Operating temperature range	-10 °C to +50 °C (same as SRM basic unit)		
Compliance – Climatic	Storage	1K3 (IEC 60721-3) extended to -10 °C to +50 °C	
	Transport	2K4 (IEC 60721-3) -40 °C to +70 °C	
	Operating	7K2 (IEC 60721-3) extended to -10 °C to +50 °C	
Compliance – Mechanical	Storage	1M3 (IEC 60721-3)	
	Transport	2M3 (IEC 60721-3)	
	Operating	7M3 (IEC 60721-3)	
Compliance – Ingress protection	IP 52 (antenna connected)		
Compliance – EMC – European Union	Complies with EMC Directive 2014/30/EU and EN 61326 -1: 2013		
Compliance – EMC – Immunity	EN: 61000-4-2, 61000-4-3, 61000-4-4, 61000-4-5, 61000-4-6, 61000-4-8, 61000-4-11		
Compliance – EMC – Emissions	EN: 61000-3-2, 61000-3-3, EN 55011 (CISPR 11) Class B		
Compliance – Safety	Complies with European Low Voltage Directive 2014/35/EU and EN 61010-1: 2010		
Air humidity (operating range)	< 29 g/m³ (< 93 % RH at +30 °C), non-condensing		
Weight	450 g		
Dimensions	450 mm length; 120 mm antenna head diameter		
Calibration	20 reference points: (26; 45; 75; 100; 200; 300; 433; 600; 750; 900) MHz (1; 1.2; 1.4; 1.6; 1.8; 2; 2.2; 2.45; 2.7; 3) GHz The SRM basic unit applies linear interpolation between reference points		
Recommended calibration interval	24 months		
Country of origin	Germany		

a) For a signal to noise ratio of 10 dB (RBW = 1 kHz); 800 MHz to 1.8 GHz
b) Valid for the temperature range +15 °C to +30 °C, according to the definition on page 3

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

Three-axis antenna (E-Field) 3502/01			
Frequency range	420 MHz to 6 GHz The correction factors determined individually during calibration are stored in an EEPROM and are applied automatically when used in conjunction with the SRM basic unit.		
Antenna type	E-field		
Sensor type	Three-axis design with scanned axes		
Dynamic range [a]	0.14 mV/m to 160 V/m (typ.)		
Maximum field strength (destruction limit)	435 V/m or 50 mW/cm² (nom.)		
Displayed Average Noise Level (DANL) in conjunction with the SRM basic unit	Frequency range	Single-axis measurement with isotropic antenna	Isotropic measurement
	900 MHz (RBW = 1 kHz)	33 µV/m (typ.)	60 µV/m (typ.)
	2.1 GHz (RBW = 1 kHz)	25 µV/m (typ.)	43 µV/m (typ.)
Measurement range limit (for single CW signal)	200 V/m (typ.)		
RF connector	N-Connector, 50 Ω, male		
MEASUREMENT UNCERTAINTY			
Expanded measurement uncertainty [b] (in conjunction with SRM basic unit and 1.5 m RF cable)	Frequency range	Single-axis measurement with isotropic antenna	Isotropic measurement
	420-750 MHz	+2.1 / -2.9 dB	+2.6 / -3.8 dB
	> 750-1800 MHz	+2.1 / -2.8 dB	+2.3 / -3.1 dB
	> 1800-4000 MHz	+1.7 / -2.2 dB	+2.0 / -2.6 dB
	> 4000-4500 MHz	+1.8 / -2.3 dB	+2.2 / -3.0 dB
	> 4500-5000 MHz	+1.9 / -2.5 dB	+2.5 / -3.5 dB
	> 5000-6000 MHz	+1.9 / -2.5 dB	+3.1 / -4.9 dB
GENERAL SPECIFICATIONS			
Operating temperature range	-10 °C to +50 °C (same as SRM basic unit)		
Compliance – Climatic	Storage	1K3 (IEC 60721-3) extended to -10 °C to +50 °C	
	Transport	2K4 (IEC 60721-3) -40 °C to +70 °C	
	Operating	7K2 (IEC 60721-3) extended to -10 °C to +50 °C	
Compliance – Mechanical	Storage	1M3 (IEC 60721-3)	
	Transport	2M3 (IEC 60721-3)	
	Operating	7M3 (IEC 60721-3)	
Compliance – Ingress protection	IP 52 (antenna connected)		
Compliance – EMC – European Union	Complies with EMC Directive 2014/30/EU and EN 61326 -1: 2013		
Compliance – EMC – Immunity	EN: 61000-4-2, 61000-4-3, 61000-4-4, 61000-4-5, 61000-4-6, 61000-4-8, 61000-4-11		
Compliance – EMC – Emissions	EN: 61000-3-2, 61000-3-3, EN 55011 (CISPR 11) Class B		
Compliance – Safety	Complies with European Low Voltage Directive 2014/35/EU and EN 61010-1: 2010		
Air humidity (operating range)	< 29 g/m³ (< 93 % RH at +30 °C), non-condensing		
Weight	400 g		
Dimensions	450 mm length; 120 mm antenna head diameter		
Calibration	21 reference points: 420 MHz, 600 MHz, 750 MHz; 900 MHz (1; 1.2; 1.4; 1.6; 1.8; 2; 2.2; 2.45; 2.7; 3; 3.5; 4; 4.5; 5; 5.5; 5.8; 6) GHz The SRM basic unit applies linear interpolation between reference points.		
Recommended calibration interval	24 months		
Country of origin	Germany		

a) For a signal to noise ratio of 10 dB (RBW = 1 kHz); 1.8 to 2.2 GHz
b) Valid for the temperature range +15 °C to +30 °C, according to the definition on page 3

Three-axis antenna (H-Field) 3581/02				
Frequency range	9 kHz to 250 MHz The correction factors determined individually during calibration are stored in an EEPROM and are applied automatically when used in conjunction with the SRM basic unit.			
Antenna type	H-Field			
Sensor type	Triaxial active magnetic loop design with scanned axes			
Dynamic range [a]	2.5 µA/m to 560 mA/m (typ.)			
Maximum field strength (destruction limit)	250 A/m / f [MHz] (nom.)			
Displayed Average Noise Level (DANL) in conjunction with the SRM basic unit	Frequency range	Single-axis measurement with isotropic antenna	Isotropic measurement	
	> 1 MHz (RBW = 1 kHz)	0.5 µA/m (typ.)	0.85 µA/m (typ.)	
RF connector [c]	N-Connector, 50 Ω, male			
Measurement uncertainty				
Expanded measurement uncertainty [b] (in conjunction with SRM basic unit and 1.5 m RF cable)	Frequency range	Single-axis measurement with isotropic antenna	Isotropic measurement	
	0.009 - 60 MHz	±2.2 dB	±2.5 dB	
	> 60 - 250 MHz	±2.3 dB	±3.3 dB	
GENERAL SPECIFICATIONS				
Operating temperature range	-10 °C to +50 °C (same as SRM basic unit)			
Compliance – Climatic	Storage	1K3 (IEC 60721-3) extended to -10 °C to +50 °C		
	Transport	2K4 (IEC 60721-3) -40 °C to +70 °C		
	Operating	7K2 (IEC 60721-3) extended to -10 °C to +50 °C		
Compliance – Mechanical	Storage	1M3 (IEC 60721-3)		
	Transport	2M3 (IEC 60721-3)		
	Operating	7M3 (IEC 60721-3)		
Compliance – Ingress protection	IP 52 (antenna connected)			
Compliance – EMC – European Union	Complies with EMC Directive 2014/30/EU and EN 61326 -1: 2013			
Compliance – EMC – Immunity	EN: 61000-4-2, 61000-4-3, 61000-4-4, 61000-4-5, 61000-4-6, 61000-4-8, 61000-4-11			
Compliance – EMC – Emissions	EN: 61000-3-2, 61000-3-3, EN 55011 (CISPR 11) Class B			
Compliance – Safety	Complies with European Low Voltage Directive 2014/35/EU and EN 61010-1: 2010			
Air humidity (operating range)	< 29 g/m³ (< 93 % RH at +30 °C), non-condensing			
Weight	470 g			
Dimensions	450 mm length; 120 mm antenna head diameter			
Calibration	178 reference points The SRM basic unit applies linear interpolation between reference points.			
Recommended calibration interval	24 months			
Country of origin	Germany			

a) For a signal to noise ratio of 10 dB (RBW = 1 kHz); 3 MHz to 250 MHz
b) Valid for the temperature range +15 °C to +30 °C, according to the definition on page 3

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

SPECIFICATIONS ● SINGLE-AXIS ANTENNAS

Single-axis antenna (E-field) 3531 / 01			
Frequency range		27 MHz to 3 GHz The correction factors determined individually during calibration are stored in an EEPROM and are applied automatically when used in conjunction with the SRM basic unit.	
Antenna type		E-Field	
Sensor type		Single-axis passive wide band dipole	
Dynamic range [a]		60 µV/m to 80 V/m (typ.)	
Maximum field strength (destruction limit)		> 300 V/m or 25 mW/cm² (nom.)	
Displayed Average Noise Level (DANL) in conjunction with the SRM basic unit		20 µV/m (typ.) from 100 MHz to 2.2 GHz with RBW = 1 kHz	
Measurement range limit (for single CW signal)		160 V/m (typ.)	
RF connector		N-Connector, 50 Ω, male	
UNCERTAINTY			
Expanded measurement uncertainty [b] (in conjunction with SRM basic unit and 1.5 m RF cable)		Frequency range	Single-axis measurement
		26 - 300 MHz	±2.1 dB
		> 300 - 433 MHz	±2.4 dB
		> 433 - 1600 MHz	±2.2 dB
		> 1600 - 3000 MHz	±1.9 dB
GENERAL SPECIFICATIONS			
Operating temperature range		-10 °C to 50 °C (same as SRM basic unit)	
Compliance	Climatic	Storage	1K3 (IEC 60721-3) extended to -10 °C to +50 °C
		Transport	2K4 (IEC 60721-3) -40 °C to +70 °C
		Operating	7K2 (IEC 60721-3) extended to -10 °C to +50 °C
	Mechanical	Storage	1M3 (IEC 60721-3)
		Transport	2M3 (IEC 60721-3)
		Operating	7M3 (IEC 60721-3)
	Ingress protection		IP 52 (antenna connected)
	EMC European Union		Complies with EMC Directive 2014/30/EU and EN 61326 -1: 2013
	EMC Immunity		EN: 61000-4-2, 61000-4-3, 61000-4-4, 61000-4-5, 61000-4-6, 61000-4-8, 61000-4-11
	EMC Emissions		EN: 61000-3-2, 61000-3-3, EN 55011 (CISPR 11) Class B
	Safety		Complies with European Low Voltage Directive 2014/35/EU and EN 61010-1: 2010
Air humidity (operating range)		< 29 g/m³ (< 93 % RH at +30 °C), non-condensing	
Weight		450 g	
Dimensions		460 mm length; 135 mm x 90 mm antenna head dimensions	
Calibration		24 reference points (26, 30, 40, 50, 60, 75, 100, 200, 300, 433, 600, 750, 900) MHz (1, 1.2, 1.4, 1.6, 1.8, 2, 2.2, 2.45, 2.6, 2.8 , 3) GHz The SRM applies linear interpolation between reference points.	
Recommended calibration interval		24 months	
Country of origin		Germany	

a) For a signal to noise ratio of 10 dB (RBW = 1 kHz); 100 MHz to 2.2 GHz
b) Valid for the temperature range +15 °C to +30 °C, according to the definition on page 3

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

Single-axis antenna (E-field) 3531/04			
Frequency range	9 kHz to 300 MHz The correction factors determined individually during calibration are stored in an EEPROM and are applied automatically when used in conjunction with the SRM basic unit.		
Antenna type	E-field		
Sensor type	Single-axis active broadband dipole		
Dynamic range [a]	50 µV/m to 16 V/m (typ.) for 300 kHz to 10 MHz 50 µV/m to 36 V/m (typ.) for > 10 MHz to 300 MHz		
Maximum field strength (destruction limit)	> 1000 V/m (nom.)		
Displayed Average Noise Level (DANL) in conjunction with the SRM basic unit	20 µV/m (typ.) for each frequency > 1 MHz with RBW = 1 kHz		
Measurement range limit (for single CW signal)	50 V/m (typ.)		
RF connector	N-Connector, 50 Ω, male		
UNCERTAINTY			
Expanded measurement uncertainty [b] (in conjunction with SRM basic unit and 1.5 m cable)	Frequency range	Single-axis measurement	
	0.009 - 300 MHz	±2.0 dB	
GENERAL SPECIFICATIONS			
Operating temperature range	-10 °C to 50 °C (same as SRM basic unit)		
Compliance – Climatic	Storage	1K3 (IEC 60721-3) extended to -10 °C to +50 °C	
	Transport	2K4 (IEC 60721-3) -40 °C to +70 °C	
	Operating	7K2 (IEC 60721-3) extended to -10 °C to +50 °C	
Compliance – Mechanical	Storage	1M3 (IEC 60721-3)	
	Transport	2M3 (IEC 60721-3)	
	Operating	7M3 (IEC 60721-3)	
Compliance – Ingress protection	IP 52 (antenna connected)		
Compliance – EMC – European Union	Complies with EMC Directive 2014/30/EU and EN 61326 -1: 2013		
Compliance – EMC – Immunity	EN: 61000-4-2, 61000-4-3, 61000-4-4, 61000-4-5, 61000-4-6, 61000-4-8, 61000-4-11		
Compliance – EMC – Emissions	EN: 61000-3-2, 61000-3-3, EN 55011 (CISPR 11) Class B		
Compliance – Safety	Complies with European Low Voltage Directive 2014/35/EU and EN 61010-1: 2010		
Air humidity (operating range)	< 29 g/m³ (< 93 % RH at +30 °C), non-condensing		
Weight	550 g		
Dimensions	460 mm length; 135 mm x 90 mm antenna head dimension		
Calibration	183 reference points The SRM applies linear interpolation between reference points.		
Recommended calibration interval	24 months		
Country of origin	Germany		

a) For a signal to noise ratio of 10 dB (RBW = 1 kHz)
b) Valid for the temperature range +15 °C to +30 °C, according to the definition on page 3

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

Single-axis antenna (H-field) 3551/02			
Frequency range		9 kHz to 300 MHz The correction factors determined individually during calibration are stored in an EEPROM and are applied automatically when used in conjunction with the SRM basic unit.	
Antenna type		H-field	
Sensor type		Single-axis active magnetic loop	
Dynamic range [a]		0.4 µA/m to 71 mA/m (typ.)	
Maximum field strength (destruction limit)		> 2.65 A/m above 1 MHz (nom.)	
Displayed Average Noise Level (DANL) in conjunction with the SRM basic unit		0.12 µA/m (typ.) for each frequency > 10 MHz with RBW = 1 kHz	
Measurement range limit (for single CW signal)		100 mA/m (typ.)	
RF connector		N-Connector, 50 Ω, male	
UNCERTAINTY			
Expanded measurement uncertainty [b] (in conjunction with SRM basic unit and 1.5 m cable)		Frequency range	Single-axis measurement
		0.009 - 1 MHz	±2.0 dB
		> 1 - 300 MHz	±1.8 dB
GENERAL SPECIFICATION			
Operating temperature range		-10 °C to 50 °C (same as SRM basic unit)	
Compliance	Climatic	Storage	1K3 (IEC 60721-3) extended to -10 °C to +50 °C
		Transport	2K4 (IEC 60721-3) -40 °C to +70 °C
		Operating	7K2 (IEC 60721-3) extended to -10 °C to +50 °C
	Mechanical	Storage	1M3 (IEC 60721-3)
		Transport	2M3 (IEC 60721-3)
		Operating	7M3 (IEC 60721-3)
	Ingress protection	IP 52 (antenna connected)	
	EMC European Union	Complies with EMC Directive 2014/30/EU and EN 61326 -1: 2013	
	EMC Immunity	EN: 61000-4-2, 61000-4-3, 61000-4-4, 61000-4-5, 61000-4-6, 61000-4-8, 61000-4-11	
	EMC Emissions	EN: 61000-3-2, 61000-3-3, EN 55011 (CISPR 11) Class B	
	Safety	Complies with European Low Voltage Directive 2014/35/EU and EN 61010-1: 2010	
Air humidity (operating range)		< 29 g/m³ (< 93 % RH at +30 °C), non-condensing	
Weight		450 g	
Dimensions		460 mm length; 43 mm x 100 mm antenna head dimension	
Calibration		183 reference points The SRM interpolates between reference points	
Recommended calibration interval		24 months	
Country of origin		Germany	

a) For a signal to noise ratio of 10 dB (RBW = 1 kHz); for frequencies > 10 MHz
b) Valid for the temperature range +15 °C to +30 °C, according to the definition on page 3

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

ORDERING INFORMATION ● INSTRUMENT SETS

SRM – Set Overview	Part Number	
SRM-3006, Selective Radiation Meter, Set 1, Basic Unit, no Antenna Set includes: - Selective Radiation Meter, Basic Unit, SRM-3006 - RF-Cable SRM, 9kHz-6GHz, N 50 Ohm, 1.5m (3602/01) - Carrying Strap for SRM (Basic Unit) (3001/90.02) - Holding Strap for SRM-3006 Basic Unit (3001/90.12) - Operating Manual SRM-3006, English (3006/98.21) - Power Supply 12VDC, 100V-240VAC, all Plugs (2259/92.04) - Software, SRM-3006 Tools (3006/93.01) - Cable, USB 2.0, Master/Slave - A/B mini (2260/90.55) - Reference Book Measuring RF Electromagnetic Fields (3006/98.25) - Safety Instructions (3300/98.10) - Hardcase for SRM, 3001/90.03 - Calibration Certificates: Basic Unit, RF-Cable	**Set with Hardcase**	**3006/101**
SRM-3006, Selective Radiation Meter, Set 2, Basic Unit, no Antenna Set includes: - Selective Radiation Meter, Basic Unit, SRM-3006 - RF-Cable SRM, 9kHz-6GHz, N 50 Ohm, 1.5m (3602/01) - Carrying Strap for SRM (Basic Unit) (3001/90.02) - Holding Strap for SRM-3006 Basic Unit (3001/90.12) - Operating Manual SRM-3006, English (3006/98.21) - Power Supply 12VDC, 100V-240VAC, all Plugs (2259/92.04) - Software, SRM-3006 Tools (3006/93.01) - Cable, USB 2.0, Master/Slave - A/B mini (2260/90.55) - Reference Book Measuring RF Electromagnetic Fields (3006/98.25) - Safety Instructions (3300/98.10) - SRM Hardcase Trolley, 3006/90.01 - Calibration Certificates: Basic Unit, RF-Cable	**Set with Trolley**	**3006/202**
SRM-3006, Selective Radiation Meter, Set 3, Basic Unit plus one Isotropic Antenna (420 MHz – 6 GHz) Set includes: - Selective Radiation Meter, Basic Unit, SRM-3006 - Antenna, Three-Axis, E-Field, 420 MHz-6GHz (3502/01) - RF-Cable SRM, 9kHz-6GHz, N 50 Ohm, 1.5m (3602/01) - Carrying Strap for SRM (Basic Unit) (3001/90.02) - Holding Strap for SRM-3006 Basic Unit (3001/90.12) - Operating Manual SRM-3006, English (3006/98.21) - Power Supply 12VDC, 100V-240VAC, all Plugs (2259/92.04) - Software, SRM-3006 Tools (3006/93.01) - Cable, USB 2.0, Master/Slave - A/B mini (2260/90.55) - Reference Book Measuring RF Electromagnetic Fields (3006/98.25) - Safety Instructions (3300/98.10) - Hardcase for SRM, 3001/90.03 - Calibration Certificates: Basic Unit, RF-Cable, Antenna	**Set with Hardcase**	**3006/103**

Telemeter Electronic GmbH | Joseph-Gaensler-Str. 10 | 86609 Donauwoerth | Phone +49 906 70693-52 | mt@telemeter.de | www.telemeter.info

SRM-3006, Selective Radiation Meter, Set 4, Basic Unit plus one Isotropic Antenna (420 MHz – 6 GHz) Set includes: - Selective Radiation Meter, Basic Unit, SRM-3006 - Antenna, Three-Axis, E-Field, 420 MHz-6GHz (3502/01) - RF-Cable SRM, 9kHz-6GHz, N 50 Ohm, 1.5m (3602/01) - Carrying Strap for SRM (Basic Unit) (3001/90.02) - Holding Strap for SRM-3006 Basic Unit (3001/90.12) - Operating Manual SRM-3006, English (3006/98.21) - Power Supply 12VDC, 100V-240VAC, all Plugs (2259/92.04) - Software, SRM-3006 Tools (3006/93.01) - Cable, USB 2.0, Master/Slave - A/B mini (2260/90.55) - Reference Book Measuring RF Electromagnetic Fields (3006/98.25) - Safety Instructions (3300/98.10) - SRM Hardcase Trolley, 3006/90.01 - Calibration Certificates: Basic Unit, RF-Cable, Antenna	**Set with Trolley**	**3006/204**
SRM-3006, Selective Radiation Meter, Set 5, Basic Unit plus two Isotropic Antennas Set includes: - Selective Radiation Meter, Basic Unit, SRM-3006 - Antenna, Three-Axis, E-Field, 420 MHz-6GHz (3502/01) - Antenna, Three-Axis, E-Field, 27 MHz-3GHz (3501/03) - RF-Cable SRM, 9kHz-6GHz, N 50 Ohm, 1.5m (3602/01) - Carrying Strap for SRM (Basic Unit) (3001/90.02) - Holding Strap for SRM-3006 Basic Unit (3001/90.12) - Operating Manual SRM-3006, English (3006/98.21) - Power Supply 12VDC, 100V-240VAC, all Plugs (2259/92.04) - Software, SRM-3006 Tools (3006/93.01) - Cable, USB 2.0, Master/Slave - A/B mini (2260/90.55) - Reference Book Measuring RF Electromagnetic Fields (3006/98.25) - Safety Instructions (3300/98.10) - Hardcase for SRM, 3001/90.03 - Calibration Certificates: Basic Unit, RF-Cable, Antennas	**Set with Hardcase**	**3006/105**
SRM-3006, Selective Radiation Meter, Set 6, Basic Unit plus two Isotropic Antennas Set includes: - Selective Radiation Meter, Basic Unit, SRM-3006 - Antenna, Three-Axis, E-Field, 420 MHz-6GHz (3502/01) - Antenna, Three-Axis, E-Field, 27 MHz-3GHz (3501/03) - RF-Cable SRM, 9kHz-6GHz, N 50 Ohm, 1.5m (3602/01) - Carrying Strap for SRM (Basic Unit) (3001/90.02) - Holding Strap for SRM-3006 Basic Unit (3001/90.12) - Operating Manual SRM-3006, English (3006/98.21) - Power Supply 12VDC, 100V-240VAC, all Plugs (2259/92.04) - Software, SRM-3006 Tools (3006/93.01) - Cable, USB 2.0, Master/Slave - A/B mini (2260/90.55) - Reference Book Measuring RF Electromagnetic Fields (3006/98.25) - Safety Instructions (3300/98.10) - SRM Hardcase Trolley, 3006/90.01 - Calibration Certificates: Basic Unit, RF-Cable, Antennas	**Set with Trolley**	**3006/206**

SRM-3006, Selective Radiation Meter, Set 7, Basic Unit plus one Isotropic Antenna (27 MHz – 3 GHz) Set includes: - Selective Radiation Meter, Basic Unit, SRM-3006 - Antenna, Three-Axis, E-Field, 27 MHz-3GHz (3501/03) - RF-Cable SRM, 9kHz-6GHz, N 50 Ohm, 1.5m (3602/01) - Carrying Strap for SRM (Basic Unit) (3001/90.02) - Holding Strap for SRM-3006 Basic Unit (3001/90.12) - Operating Manual SRM-3006, English (3006/98.21) - Power Supply 12VDC, 100V-240VAC, all Plugs (2259/92.04) - Software, SRM-3006 Tools (3006/93.01) - Cable, USB 2.0, Master/Slave - A/B mini (2260/90.55) - Reference Book Measuring RF Electromagnetic Fields (3006/98.25) - Safety Instructions (3300/98.10) - Hardcase for SRM, 3001/90.03 - Calibration Certificates: Basic Unit, RF-Cable, Antenna	**Set with Hardcase**	**3006/107**
SRM-3006, Selective Radiation Meter, Set 8, Basic Unit plus one Isotropic Antenna (27 MHz – 3 GHz) Set includes: - Selective Radiation Meter, Basic Unit, SRM-3006 - Antenna, Three-Axis, E-Field, 27 MHz-3GHz (3501/03) - RF-Cable SRM, 9kHz-6GHz, N 50 Ohm, 1.5m (3602/01) - Carrying Strap for SRM (Basic Unit) (3001/90.02) - Holding Strap for SRM-3006 Basic Unit (3001/90.12) - Operating Manual SRM-3006, English (3006/98.21) - Power Supply 12VDC, 100V-240VAC, all Plugs (2259/92.04) - Software, SRM-3006 Tools (3006/93.01) - Cable, USB 2.0, Master/Slave - A/B mini (2260/90.55) - Reference Book Measuring RF Electromagnetic Fields (3006/98.25) - Safety Instructions (3300/98.10) - SRM Hardcase Trolley, 3006/90.01 - Calibration Certificates: Basic Unit, RF-Cable, Antenna	**Set with Trolley**	**3006/208**

ORDERING INFORMATION

Your local Narda representative will inform you of all possible options as well as the current ordering information and will be pleased to provide you with advice.

ANTENNAS		
Antenna, Three-Axis, E-Field, 27 MHz - 3 GHz		**3501/03**
Antenna, Three-Axis, E-Field, 420 MHz - 6 GHz		**3502/01**
Antenna, Three-Axis, H-Field, 9 kHz - 250 MHz		**3581/02**
Antenna, Single-Axis, E-Field, 27 MHz - 3 GHz		**3531/01**
Antenna, Single-Axis, E-Field, 9 kHz - 300 MHz		**3531/04**
Antenna, Single-Axis, H-Field, 9 kHz - 300 MHz		**3551/02**
OPTIONS		
Option, UMTS P-CPICH Demodulation		**3701/04**
Option, Scope		**3701/05**
Option, LTE (for FDD networks)		**3701/06**
Option, LTE (for TDD networks)		**3701/07**
SOFTWARE		
Software, SRM-3006 Tools, Configuration SW (included in all sets)		**-**
Software, SRM-3006 TS, PC Evaluation and Remote		**3006/93.10**
ACCESSORIES		
Antenna Holder for Uniaxial/Triaxial Antenna		**3501/90.01**
Antenna Holder for Triaxial Antenna		**3501/90.02**
RF-Cable, 9kHz-6GHz, 1.5m, N 50 Ohm	(included in all sets)	**3602/01**
RF-Cable, 9 kHz – 6 GHz, N 50 ohm, 5m		**3602/02**
Tripod, Non-Conductive, 1.65 m with carrying bag		**2244/90.31**
Tripod Extension, 0.50m, Non-Conductive		**2244/90.45**
Battery Pack, Rechargeable, 7V2 / 6200 mAh	(one is included in each SRM Basic Unit)	**3001/90.15**
Charger Set for Battery Pack, External		**3001/90.07**
Power Supply DC Vehicle Adapter		**2260/90.56**
SRM Hardcase Trolley (for up to three antennas), replaces 3001/90.05 and 3001/90.03		**3006/90.01**
Carrying Strap for Hardcase	(included in all sets with hardcase 3001/90.03)	**3001/90.04**
Protective Soft Carrying Bag for SRM-3006 Basic Unit		**3001/90.13**
N-Connector Saver for SRM		**3001/90.14**
O/E Converter USB, RP-02/USB		**2260/90.07**
Cable, FO Duplex, F-SMA to RP-02, 0.3m		**2260/91.01**
Cable, FO Duplex, RP-02, 2m		**2260/91.02**
Cable, FO Duplex, RP-02, 5m		**2260/91.09**
Cable, FO Duplex, RP-02, 10m		**2260/91.07**
Cable, FO Duplex, RP-02, 20m		**2260/91.03**
Cable, FO Duplex, RP-02, 50m		**2260/91.04**
Earphone, 3.5mm Plug		**2400/90.03**
Reference Book Measuring RF Electromagnetic Fields	(included in all sets)	**3006/98.25**
Operating Manual SRM-3006, German	(select for free instead of English)	**3006/98.01**

Telemeter Electronic

Germany
Telemeter Electronic GmbH
Joseph-Gänsler-Str. 10, 86609 Donauwoerth
Phone +49 906 70693-0, Fax +49 906 70693-50
info@telemeter.de, www.telemeter.info

Switzerland
Telemeter Electronic GmbH
Romanshornerstr. 117, 8280 Kreuzlingen
Tel. +41 71 6992020, Fax +41 71 6992024
info@telemeter.ch, www.telemeter.info

Czech Republic
Telemeter Electrononic s.r
České Vrbné 2364, 37011 České Budějovice
Tel.+420 38 5310637, +420385510143
info@telemeter.cz, www.telemeter.cz