

Technical Specifications (excerpt!) SPECTRAN® EMF and RF Spectrum Analyzers V4

For further information, please consult the exhaustive descriptions on our website at http://www.spectran.com or simply give us a call at: Fon: ++49(0)6556-93033

		1Hz	10Hz	2KHz	10KHz	400kHz	1MHz	30MHz	700MHz	2,5GHz	4GHz	6GHz	8GHz	9,4GHz	Total	Optional Power Detector** (Broadband Detector) Mini/Max	Typical NoiseLevel (MIN)***	Typical range (MAX)***	Filter bandwidth (MIN)	Filter bandwidth (MAX)	Typical accuracy (base unit)*** (I/Q) as TRUE RMS	VECTOR power measurement long-term measurements	SMA input for analysing EXTER- NAL signal sources	Enhanced range according to ICNIRP / DIN / VDE 0848	Included HyperLOG EMC- measurement antenna (model)	
NOVICE	SPECTRAN® NF-1010*	-	✓	✓	-	-	-	-	-	-	-	-	-	-	10HZ-2KHz	-	1V/m 10nT	2kV/m 100µT	5Hz	2kHz	5%	-	-	-	-	
	SPECTRAN® NF-1010E*	-	✓	✓	✓	-	-	-	-	-	-	-	-	-	10HZ-10KHz	-	1V/m 10nT	2kV/m 100µT	5Hz	10kHz	5%	-	-	-	-	
INTERMED.	SPECTRAN® NF-3010*	-	✓	✓	✓	✓	-	-	-	-	-	-	-	-	10HZ-400kHz	-	0,1V/m 1nT	5kV/m 100µT	1Hz	300KHz	5%	✓	64K	-	-	
	SPECTRAN® NF-3020*	-	✓	✓	✓	✓	-	-	-	-	-	-	-	-	10HZ-400kHz	-	0,1V/m 1nT	5kV/m 100µT	1Hz	300KHz	5%	✓	64K³	-	-	
PRO	SPECTRAN® NF-5010*	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	1Hz-1MHz	-	0,1V/m 1nT	5kV/m 100µT	1Hz	1MHz	3%⁴	✓	64K³	✓	-	
	SPECTRAN® NF-5030*	✓	✓	✓	✓	✓	✓	Option	-	-	-	-	-	-	1Hz-30MHz⁷	-	0,1V/m 1pT⁴	20kV/m 2mT	1Hz	1MHz⁶	3%⁴	✓⁵	64K³	✓	✓	
NOVICE	SPECTRAN® HF-2025	-	-	-	-	-	-	-	✓	✓	-	-	-	-	700MHz-2,5GHz	-	-80dBm	0dBm	5MHz	50MHz	+/-4dB	-	-	✓	-	7025
	SPECTRAN® HF-2025E	(N³)	-	-	-	-	-	-	✓	✓	-	-	-	-	700MHz-2,5GHz	700MHz 2,5GHz	-80dBm	0dBm	1MHz	50MHz	+/-4dB	-	-	✓	-	7025
INTERMED.	SPECTRAN® HF-4040	(N³)	-	-	-	-	-	-	✓	✓	✓	-	-	-	100MHz-4GHz	100MHz 4GHz	-90dBm	0dBm	100kHz	50MHz	+/-3dB	✓	64K	✓	-	7040
	SPECTRAN® HF-4060	(N³)	-	-	-	-	-	-	✓	✓	✓	✓	-	-	100MHz-6GHz	100MHz 6GHz	-90dBm	0dBm	100kHz	50MHz	+/-3dB	✓	64K³	✓	-	7060
PRO	SPECTRAN® HF-6060*	NEW! V4	-	-	-	-	-	✓	✓	✓	✓	✓	-	-	10MHz-6GHz	10MHz 6GHz	-150dBm⁸	0dBm	10kHz	50MHz	+/-2dB	✓	64K³	✓	-	7060
	SPECTRAN® HF-6080*	NEW! V4	-	-	-	-	-	✓	✓	✓	✓	✓	✓	-	10MHz-8GHz	10MHz 8GHz	-160dBm⁸	10dBm	3kHz	50MHz	+/-2dB	✓	64K³	✓	✓	6080
	SPECTRAN® HF-60100*	NEW! V4	-	-	-	-	✓	✓	✓	✓	✓	✓	✓	✓	1MHz-9,4GHz¹	1MHz 10GHz	-170dBm⁸	30dBm⁸	1kHz	50MHz	+/-1dB²	✓	64K³	✓	✓	60100

APPLICATION EXAMPLES: Measurement of (active) Radar, traction power, high-voltage lines, mains cables, lamps, power supplies, transformer, DSL, various appliances in household, businesses and offices

APPLICATION EXAMPLES: Measurement of (active) Radar, cellular radio, cellphones, UMTS, DECT phones, transmission towers, WLAN, Wi-Fi, Bluetooth, Microwave ovens, HAM radio, TETRA, Broadcast...

PC-Software (free!)

14Bit Dual-ADC

0,5ppm TCXO (Option)

15dB Preamp Internal! (Option)

30 DAYS free test

10 YEARS Warranty

WORLDRECORD:

Our new SPECTRAN HF-60100 V4 is the
- World's Most Sensitive Handheld Analyzer!
- World's Smallest 9,4GHz Analyzer!

-170dBm AVG NoiseLevel @5,555GHz
Do you know a DESKTOP Analyzer, no matter at which price, that offers THIS sensitivity?



WINNER
Test & Measurement



Frequency Overview Aaronia Antennas & Probes (optional)

1Hz	10Hz	100Hz	1kHz	10kHz	100kHz	1MHz	10MHz	100MHz	1GHz	10GHz	100GHz
									HyperLOG 7025		
									HyperLOG 7040		
									HyperLOG 7060		
									HyperLOG 6080		
									HyperLOG 60100		
									HyperLOG 60180		
									HyperLOG 4025		
									HyperLOG 4040		
									HyperLOG 4060		
									HyperLOG 3080		
									HyperLOG 30100		
									HyperLOG 30180		
									BicoLOG 5070		
									BicoLOG 30100		
									BicoLOG 20100		
									BicoLOG 20300		
									Aaronia EMV Probe-Set PBS1 & PBS2		
									Aaronia Active Differential Probe (NF-50xx series)		

¹ At the moment the NF and V4 Series are available with Beta-Firmware. The Beta-Firmware is in continuous development. Some functionality may still be limited and not fully to specifications (Beta status). By regularly checking our homepage for updates, you can always keep your measurement device up-to-date. As soon as version 1.0 of the firmware is released, all functionality and features will be fully available.

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Your Aaronia distributor:

SPECTRAN®
Spectrum Analyzer & EMC Tester

AARONIA AG
WWW.AARONIA.DE

High-end technology: Handheld Analyzer with Desktop-Power

PATENTED Spectrum Analyzer at affordable price: Think SPECTRAN®

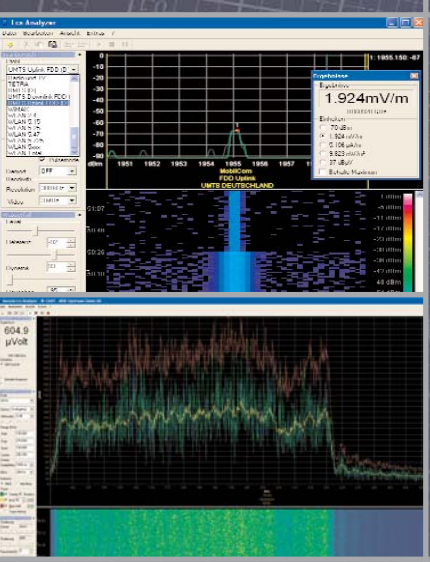
Singular technology and appealing exterior

Spectrum Analyzers with quality Made in Germany

PATENTED analysis

Real ANALYSIS: Find and pinpoint radiation sources. Measure **frequency** and **signal strength** of various signal sources including **exposure limit display**. Our **patented SPECTRAN®** measurement technology is the key. Thanks to this **patent**, we can offer the compact form factor and unrivaled price of our new RF-SPECTRAN® units.

Clones won't stand a chance! In addition, you can use our **free PC analysis software** to unleash SPECTRAN®'s **full potential**. **Incredible value for money, handy, and PRECISE** - what more can you ask for?



Finally: PLAINTEXT

Be it RF or EMF: SPECTRAN® is capable of EMC analysis which used to be possible only with significantly more expensive pro equipment, as SPECTRAN® can even determine **the source of radiation**. You can even determine the **PROVIDER operating a cell phone mast** etc.. Be it Radar, Wi-Fi, RFID, WLAN, UMTS, cellular radio, active cellphones, DECT phones, TETRA, Bluetooth, broadcast radio or TV. The new SPECTRAN® models analyse signals of up to **9.4GHz** and measure up to **10GHz**. **Completely unique in this price category!**



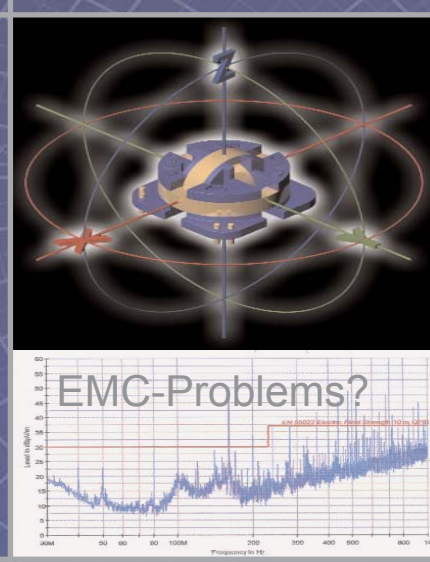
Exposure limits

At a button push: Calculation of official exposure limits used to be a complex, time-consuming and delicate task even for pros, as mostly, engineers are confronted with a chaotic mix of various frequencies and signal levels. SPECTRAN® liberates you from this work. It calculates **several exposure limits CONFORMING TO STANDARDS**. **Simply choose a limit type, measure, read the meter - that's it.** Using our PC software, you can even create exposure limits of your own or calculate and display several exposure limits **at the same time**.



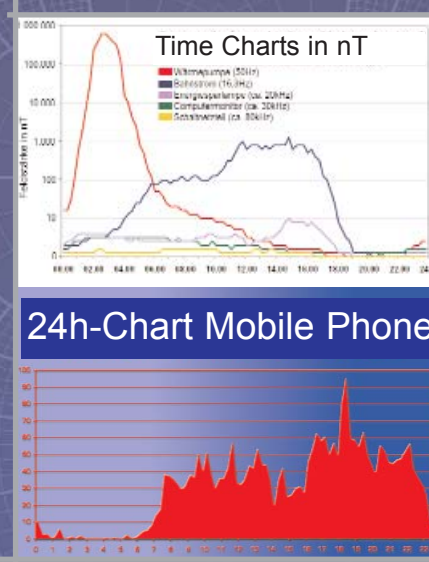
3D measurement

3D magnetic field measurement: All SPECTRAN® EMF (LF) models include our newest innovation: a high-tech **REAL 3D miniature measurement coil with outstanding, extreme sensitivity**. As an upgrade, the device can be fitted with a 3D sensor for **static magnetic fields** (geomagnetic field, general magnets). Both sensors can measure magnetic fields in all three dimensions **INDEPENDANTLY** (isotropic measurement). The vastly complex 3D calculations are then accomplished by SPECTRAN®'s **DSP**. We offer **perfect 3D measurement**, otherwise only available in high-end pro equipment.



Long-term recording

Professional DATALOGGER: Many signal sources, like cellular radio or cellphones, can vary **EXTREMELY** in signal level. In such cases, **ONLY long-term measurement can exactly determine exposure**. Quick and dirty measurements are often meaningless. Thus, all SPECTRAN® models with data-logger allow **long-term measurement over a freely adjustable timespan**. Sporadic EMC problems and exposure variation can thus be measured, documented and analyzed exactly. The optional 1MB extension can store more than 10.000 measurements.



The perfect team

Just in case: Our popular **measurement kits** unite all functionality of the individual SPECTRAN® models at a **yet again drastically reduced price**. Professional users in science, business and authorities as well as the dedicated novice receive the **optimal solution for simultaneous measurement of LF and RF signal sources** of up to **10GHz** (12GHz). All kits are shipped in a high-quality Aaronia carrycase including the unit itself, battery charger, accessories and the corresponding **HyperLOG® measurement and bearing antenna**.



SMA connector
High-end gold-plated 18GHz design with over-torque protection

Sensor mount
For solid attachment of HyperLOG® EMC antennas or external probes

Huge 3,5" LC display
High-resolution, super-crisp digital display (80x60mm)! **FSTN quality** with various numeric indicators, **multi-function GRAPHICS display** with 25x51 pixels=1530 pixels, large bargraph, and various text display functions

Power input
For external power supply and recharging the internal battery

Audio output
With volume control

Integrated battery charger

PRO "Jog Dial"
Multifunction rotational control for fast single-hand usage similar to cellphones, mice or PDAs

PATENTED circuitry
Patented, innovative RF detection and processing

DSP signal processor
Integrated **high-performance signal processor (DSP)** for super-fast calculations and display updates.

USB 2.0 connector
USB 2.0 connector for computers or notebooks, for optional utilization of our free **professional PC analysis software** and for **firmware updates** (via Internet)

High-quality keypad
Laser-labeled, with **MASSIVE** key caps and uncluttered layout

Tripod connector
Sturdy 5/8" **metal** screw thread for attaching the Aaronia multi-function handle or a regular tripod

Internal speaker
For high-quality reproduction of AM and FM demodulation (for example: pulsing)

Aaronia specialized battery
For prolonged operation. Available with up to **4 or 7 hours** (optional) of battery life



SPECTRAN® Analyzer
Exemplary function overview (here: SPECTRAN® HF-4040)

SPECTRAN®
Quality & innovation from a dependable partner

SPECTRAN® spectrum analysers: appealing exterior and incredible functionality at an affordable price. Finally pinpoint your signals. Our next-generation measurement devices astound experts around the globe especially through their low pricetag and the compact form factor. Indeed: RF spectrum analysers in particular were widely-known as expensive, scientific equipment just for professionals. Moreover, SPECTRAN® units offer some features which are hard to find even in high-end equipment. All this in a small, practical instrument. Where else can you find such compact **spectrum analyser** at a comparable price?

SPECTRAN® Spectrum & signal analysis, timeslot analysis, level and power measurement [dBm, dBuV, T, G, V/m, A/m, W/m², W/cm², dBuV/m...], STANDARDS-CONFORMANT exposure limit calculation, long-term recording, 3D magnetic field measurement, PC analysis software

