SPECTRAN®

World's first LowCost Handheld Spectrum Analyser!

"These novel spectrum analysers from Aaronia AG finally fulfill the long-standing dream of **electronics engineers** and **environmental measurement technicians** of a **full-featured spectrum analyser** which is affordable for everyone and easy to use even for the novice. This has always been deemed **totally impossible** by experts as such devices always used to **cost a fortune**."

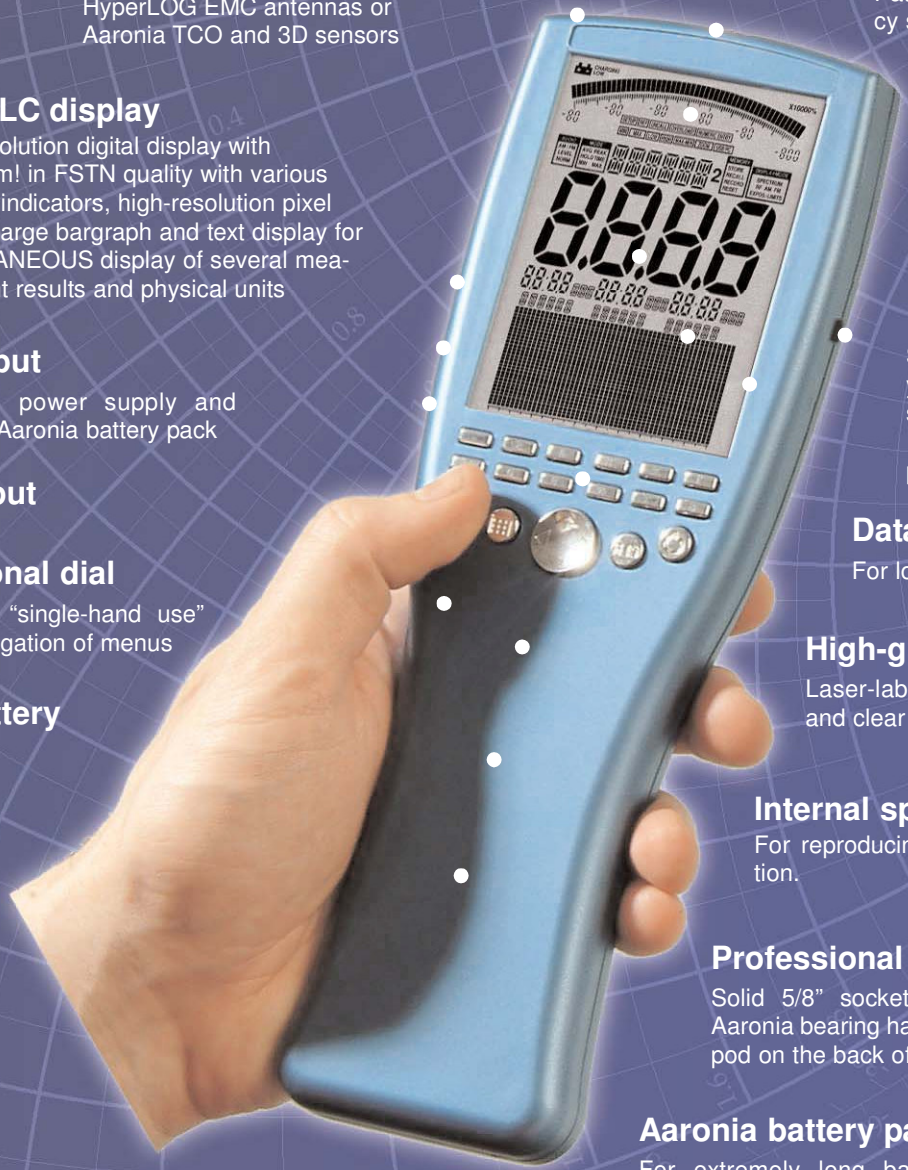
EMF & RF sensor inputs
High-grade, gold-plated construction with over-torque protection

Sensor mount
For sturdy connection of HyperLOG EMC antennas or Aaronia TCO and 3D sensors

Patented signal analysis
Patented, innovative RF vector frequency scanning and processing technology

Huge LC display
High-resolution digital display with 80x60mm! in FSTN quality with various numeric indicators, high-resolution pixel display, large bargraph and text display for SIMULTANEOUS display of several measurement results and physical units

Signal processor
Integrated signal processor (DSP) for ultra-fast calculation and display of measurements



Power input
For external power supply and charging the Aaronia battery pack

USB 2.0 Connector
Super-fast USB 2.0 connector for your PC or laptop. Also allows software updates (over the Internet) to the internal FLASH program memory

Audio output

Data logger function
For long-term measurements

Multi-functional dial
For professional "single-hand use" and practical navigation of menus

High-grade keyboard
Laser-labelled, with SOLID keycaps and clear layout

Integrated battery charger

Internal speaker
For reproducing AM and FM demodulation.

Professional tripod socket
Solid 5/8" socket for mounting the Aaronia bearing handle or a regular tripod on the back of the unit

Aaronia battery pack
For extremely long battery life. Available with **4** and **7 hours** of continuous operation!

EMV 2008
International Exhibition and Conference on Electromagnetic Compatibility (EMC)
19–21 February 2008
Messe Düsseldorf

USB 2.0 ready

CE

The above functionality is different depending on the particular model, see inside for details

SPECTRAN® - Our affordable EMC / environmental measurement devices

SPECTRAN®

RF spectrum analyzers

APPLICATION EXAMPLES: Measurement of (active) radar, mobile communications, cellphones, UMTS, DECT phones, transmission towers, WLan, Wifi, Bluetooth, microwave ovens, amateur radio, TETRA, TV broadcast etc.

SPECIFICATIONS base unit*	HF-2025	HF-2025E Rev 3	HF-4040 Rev 3	HF-4060 Rev 3	HF-6060 Rev 3	HF-6080 Rev 3
	NOVICE		INTERMEDIATE		INTERMEDIATE	
Frequency range Min	700MHz	700MHz	10MHz	10MHz	1MHz	1MHz
Frequency range Max	2,5GHz	2,5GHz	4GHz	**6GHz**	**6GHz**	**7GHz***
NEW **Optional PEAK Power-Detector** (Maximum usable frequency)***	-	2,5GHz	4GHz	**6GHz**	**6GHz**	**10GHz**
Level [dBm] range (typical) Min	-80dBm	-80dBm	-90dBm	-90dBm	-90dBm	-90dBm
Level [dBm] range (typical) Max	0dBm	0dBm	0dBm	0dBm	0dBm	**30dBm****
Power flux density [W/m²] Range Min	10nW/m²	10pW/m²	10pW/m²	10pW/m²	10pW/m²	**10fW/m²**
Power flux density [W/m²] Range Max	1W/m²	1W/m²	10W/m²	10W/m²	10W/m²	**100W/m²**
Filter bandwidth Min	1MHz	1MHz	100kHz	100kHz	100kHz	100kHz
Filter bandwidth Max	50MHz	50MHz	50MHz	50MHz	50MHz	50MHz
Accuracy Base unit (typical)	+/-4dB	+/-4dB	+/-3dB	+/-3dB	+/-3dB	+/-3dB
Vector power measurement (I/Q) and **True RMS**	-	-	✓	✓	✓	✓
FEATURES						
NEW **Lower noise floor*****	-	✓	✓	✓	✓	✓
Standards-conformant exposure limits (ICNIRP, BGV B11, BImSchV etc.)	-	✓	✓	✓	✓	✓
Extended full ICNIRP range	-	-	-	-	-	✓
Fast ZERO-SPAN sweep	-	-	✓	✓	✓	✓
PULSE mode	✓	✓	✓	✓	✓	✓
ADVANCED HOLD mode (HOLD function)	-	-	✓	✓	✓	✓
INTERNAL data logger (long-term measurements)	-	-	✓	✓	✓	✓
FLASH memory including firmware update (over the Internet)	-	16K	16K	64K(1MB)	64K(1MB)	64K(1MB)
"Clear text" signal identification with direct frequency display	-	✓	✓	✓	✓	✓
TIME-SLOT-ANALYZER	-	✓	✓	✓	✓	✓
Internal speaker	Piezo	Piezo	✓	✓	✓	✓
Configurable antenna and cable calibration data	-	-	✓	✓	✓	✓
Audio demodulation	AM	AM	AM&**FM**	AM&**FM**	AM&**FM**	AM&**FM**
DISPLAY						
DIRECT RF spectrum display	-	✓	✓	✓	✓	✓
Exposure limits display with simultaneous percentage display	✓	✓	✓	✓	✓	✓
Main display in dBm, V/m, A/m or dBµV (switchable)	-	✓	✓	✓	✓	✓
ADDITIONAL display in W/m² with AUTORANGE (**p**W, **µ**W etc.)	-	✓	✓	✓	✓	✓
High-resolution 50 segment bargraph (trend display)	-	✓	✓	✓	✓	✓
3fold marker display (ex. 3x power & frequency at once)	-	✓	✓	✓	✓	✓
INTERFACES / CONNECTORS						
Fast USB 2.0 Interface (PC connection)	✓	✓	✓	✓	✓	✓
Audio output	✓	✓	✓	✓	✓	✓
DC input (max. 15V) for external power supply	✓	✓	✓	✓	✓	✓
SMA RF input (F)	✓	✓	✓	✓	✓	✓
Jog Dial (multi-function dial) for "one-hand operation"	-	✓	✓	✓	✓	✓
OPTIONS (extra charge)						
Option 001 (1MB memory expansion)	-	-	-	✓	✓	✓
Option 002 (5ppm time base / offers higher accuracy)	-	-	-	-	✓	✓
Option 201-205 (REALTIME broad band power-detector)	-	✓	✓	✓	✓	✓
INCLUDED ACCESSORIES in addition to the base unit						
Miniature SMA rod antenna	✓	✓	✓	✓	✓	✓
HyperLOG EMV directional LogPer antenna (model) & SMA-cable	**7025**	**7025**	**7040**	**7060**	**7060**	**6080**
Aaronia 7,2V high-performance battery (1300mAh) + charger	✓	✓	✓	✓	✓	✓
Professional PC analysis software (Windows, downloadable)	✓	✓	✓	✓	✓	✓
Aluminum design transport case	✓	✓	✓	✓	✓	✓

* **Further spectrum analysers up to 9GHz are already in development. Please contact us for further details!** Range, sensitivity and accuracy can change depending on frequency and used parameters. Precision values are based on Aaronia calibration-reference under specific test conditions. Unless otherwise stated, these specifications apply for the reference condition: ambient temperature 22±3°C, relative air humidity 40% to 60%, continuous wave signal (CW), RMS detection.

** Internal: +10dBm. External (with optional 20dB precision attenuator): **+30dBm**

*** Depending on frequency the optional PEAK power detector offers sensetivity up to -50dBm and max. +10dBm input power with an extremely fast reaction time. The NEW Revision3 offers a typ. lower noise floor and a optional REAL TIME power detector.

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