



## EMC SPECTRUM ANALYZER 5030 SPECTRAN

### SPECTRAN® 5030 (1Hz to 1MHz)

- \* Range in frequenza: 1Hz a 1MHz
- \* A display: vettore, X, Y, Z
- \* Campo elettrico sensore direzionale interno monoassiale: 0,1V/m a 20kV/m
- \* Unità di misura: V, V/m, T, G, A/m
- \* Campo magnetico sensore isotropico interno e brevettato (Tesla): 1pT a 2mT
- \* Analisi FFT inclusa
- \* Datalogger interno (64kB)
- \* Detettori: RMS, Min/Max
- \* Accuratezza: +o-3%
- \* Interfaccia: USB 2.0
- \* Batteria 1300mAh ricaricabile
- \* Dimensioni: 260x86x27 mm
- \* Peso: 420gr
- \* Incluso di: software per analisi post misure
- \* Completo di caricabatteria-alimentatore da rete, valigia di trasporto.

In opzione su richiesta:

- Certificato di calibrazione di casamadre



Made in Germany

Distribuito da:  
Zetalab s.r.l.



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# Description



## CONFORMING TO STANDARDS

Measurement of electric and magnetic fields in this price range has never been this professional.

Find radiation sources in your surroundings. Find their respective frequencies and signal strengths, including direct display of exposure limits. This used to be impossible in this price category, professional units often costing several thousand euros and being excessively complicated in handling.

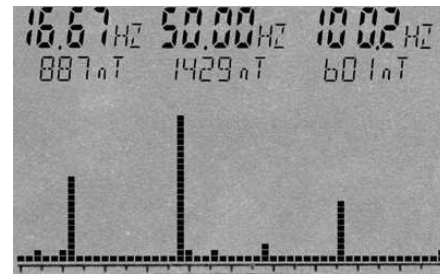
The highly complex calculations in spectrum analysis incl. exposure limit calculation is being performed, unnoticed in the background, by a high-performance DSP (digital signal processor). This ultra-fast processor even allows, depending on the settings, REAL-TIME display with a NF-5030 (could you ask for more?).

## Spectrum ANALYSIS

Professional EMF measurement devices use a frequency dependant measurement approach, the so-called spectrum analysis. In a certain frequency range, the individuals signals and their respective strengths are being broken down, for example into a "bargraph" display (see SPECTRAN® screenshot on the right). The height of the individual bars represents the corresponding signal strength. For the 3 strongest signal sources, SPECTRAN® can automatically displays the frequency and signal level, thanks to its "Auto Marker" feature. Of course, you can also setup the filter width and the frequency range to be analysed as you like.

In the EMF (LF) spectrum shown here, a frequency range of approx. 20Hz to 60Hz from left to right is being analysed. During analysis, the Auto Marker feature has determined - fully automatic - two main signal sources:

- Signal#1=30Hz at 45 $\mu$ T
- Signal#2=50 (mains power) at 75 $\mu$ T

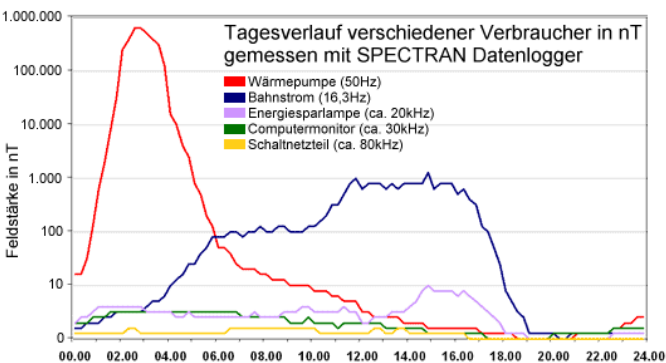


LF spectrum display and automatic multi-marker display on the digital screen of SPECTRAN® (Screenshot)

## LONG-TERM MEASUREMENT (Data logging feature)

SPECTRAN® measurement devices with data logger allow long-term recordings of measurement results over a freely adjustable period of time. This is particularly indispensable for serious evaluation of exposure by appliances and machinery which have a changing power consumption or radiation strength over time. Examples for these include railroads, power lines and plants, but also home appliances and their respective power cables, and various high-frequency transmission facilities like mobile phone transmission towers, mobile phones, radar etc. Depending on the time of day, considerable variation of exposure can occur (see attached graphics). Without long-term recordings, MASSIVE misinterpretation of total exposure can occur. With long-term data logging using SPECTRAN®, the daily variation of exposure can be recorded and analysed. Thus, the actual total exposure can be evaluated precisely.

With this functionality, you can even discover sporadic EMC problems which would otherwise be very hard to detect.



Daily variation of various radiation sources discloses MASSIVE variation in exposure

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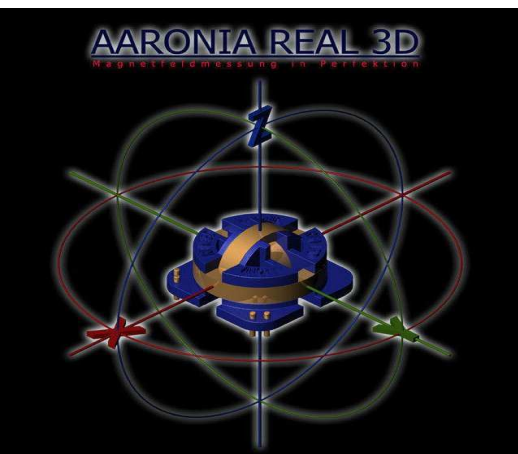
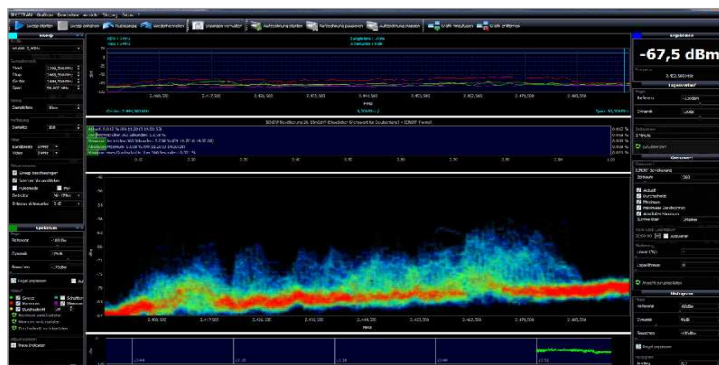
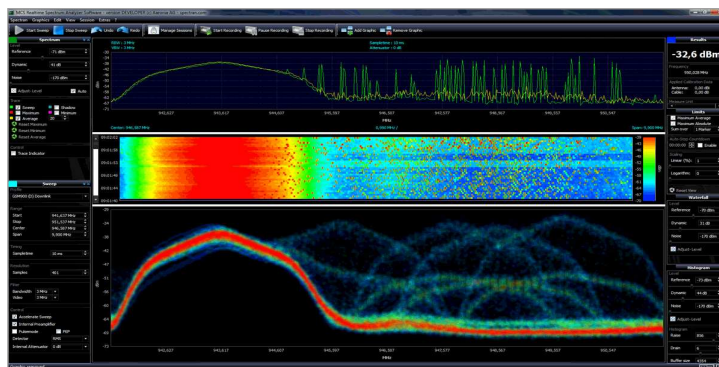
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## Free PC Analysis Software „MCS“

The cross-platform Spectrum Analyzer Software MCS for Windows, Linux and MAC OS shows the full potential of the SPECTRAN units. The measurement results and controls work in realtime, which means without any delay between the reception and the display of the signal on a monitor.

- ◆ Works on all important operating systems like Windows, MAC OS and Linux
- ◆ Multi-Device capable, remote control function of several units which can be controlled simultaneously from the same PC
- ◆ Real-Time remote control with any Spectran Spectrum Analyzer
- ◆ Unlimited number of limits e.g. EN55011, EN55022, ICNIRP and more, inclusive limit lines and beam indicator as well as a special limit editor to create and save custom limits
- ◆ Multi window support
- ◆ Powerful Undo-Feature
- ◆ Customer-specific skins and color-settings
- ◆ Record and Replay function
- ◆ Advanced Trigger and alarm functions
- ◆ Unlimited number of markers
- ◆ Multiple views at the same time: Spectrum, Waterfall, Histogram, Limits, Chanelpower, Providerdisplay, Time Domain, Results...
- ◆ Personal sessions handling
- ◆ Simultaneous display of multiple units like dBm, dBμV, V/m, W/m<sup>2</sup> etc. with powerful autorange
- ◆ and many more features that are constantly evolving...



Aaronia REAL-3D magnetic field sensor

## The new standard: 3D MEASUREMENT

Mismeasurement caused by wrongly adjusting the measurement device in space or troublesome and complex 3D calculations with a calculator are a problem of the past from now on, thanks to SPECTRAN® EMF (LF) measurement devices. All SPECTRAN® EMF measurement devices can measure magnetic fields directly in 3D! Starting with the SPECTRAN® NF-1010E, field strengths of the individual X, Y and Z axes can even be shown separately. This has become possible thanks to the newest development from the Aaronia laboratories: Our high-tech REAL 3D miniature sensor coil. Consisting of a specially crafted nylon base with 3 independent windings made of ultra-thin, 0,05 mm! wire, it impresses with its extremely high sensitivity. It allows measurement of magnetic fields in all 3 spacial dimensions. The signal processor (DSP) of the SPECTRAN® performs the resulting highly complex calculations. You receive 3D measurement results which can otherwise only be achieved by using highly professional equipment.

## INCLUDED WITH DELIVERY

- ◆ LF spectrum analyser SPECTRAN NF-50xx
- ◆ Sturdy aluminum-design carrycase (with custom padding!)
- ◆ 1300mAh Aaronia power battery with charger
- ◆ PC Software MCS (on CD)
- ◆ Exhaustive manual with lots of basic information, hints and exposure limit tables (PDF file)



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