

RF NEAR FIELD

# PROBE SET

DC TO 9 GHz

EMF & RF close field sniffer-set for use with any Spectrum Analyzer or Measurement Receiver



✓ 5 different near-field probes  
for measuring H and E fields

✓ Very handy design incl. rubberised handle  
✓ Suitable for field strength and EMC measurements

# Specifications

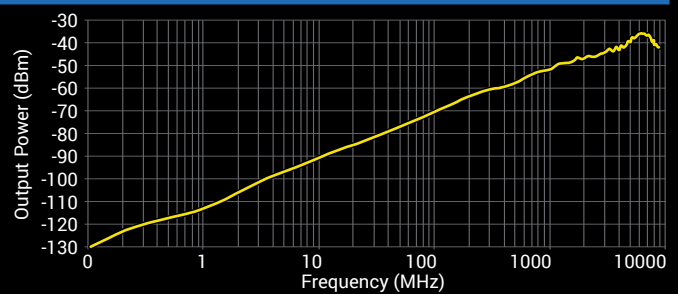
## PBS1 & PBS2 Sniffer Set

|                                |                               |                                |  |
|--------------------------------|-------------------------------|--------------------------------|--|
| Dimensions of Case [L x W x D] | 300 x 190 x 70 mm             | Frequency Range                | DC – 9 GHz                                       |
| Weight PBS1                    | 1200 g<br>(case incl. probes) | Weight PBS2                    | 1500 g<br>(case incl. probes and pre-amplifier)  |
| Pre-Amplifier Noise (PBS2)     | 3,5 dB typical                | Pre-Amplifier Type/Gain (PBS2) | 1 MHz: 40 dB;<br>3 GHz: 37,5 dB;<br>6 GHz: 35 dB |
| Warranty                       | 2 years                       | „linear“ falloff.              |  |

Included in delivery is a transport case with paddings for the 5 probes and for the pre-amplifier with power supply (only included at the PBS2). Each probe-set also contains a 1 m SMB-to-SMA cable and a pistol grip with miniature tripod function

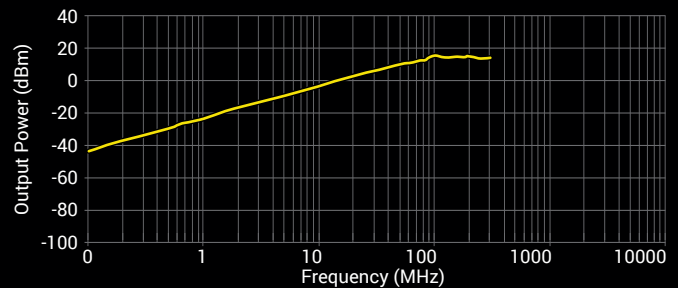
## Isotropic E-field Probe

|                             |                        |
|-----------------------------|------------------------|
| Sensor Diameter             | 3 mm                   |
| Maximum Resonance Frequency | 9 GHz                  |
| Connector                   | 50 Ohms SMB socket (m) |
| Warranty                    | 2 years                |



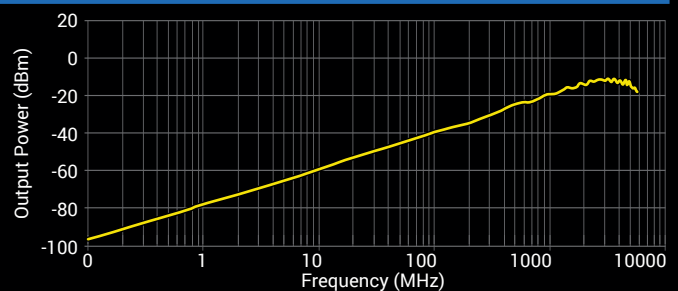
## 50 mm Magnetic Field Probe

|                             |                        |
|-----------------------------|------------------------|
| Sensor Diameter             | 50 mm                  |
| Maximum Resonance Frequency | 700 MHz                |
| Connector                   | 50 Ohms SMB socket (m) |
| Warranty                    | 2 years                |



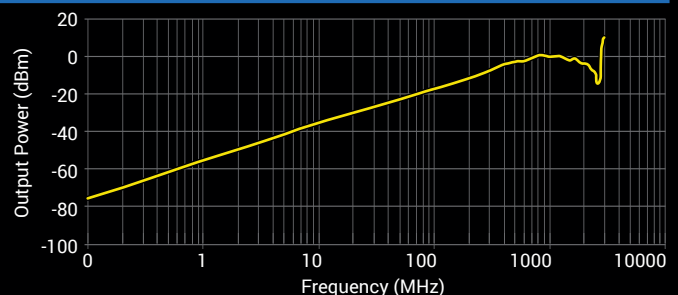
## 6 mm Magnetic Field Probe

|                             |                        |
|-----------------------------|------------------------|
| Sensor Diameter             | 6 mm                   |
| Maximum Resonance Frequency | 6 GHz                  |
| Connector                   | 50 Ohms SMB socket (m) |
| Warranty                    | 2 years                |



## 12 mm Magnetic Field Sniffer

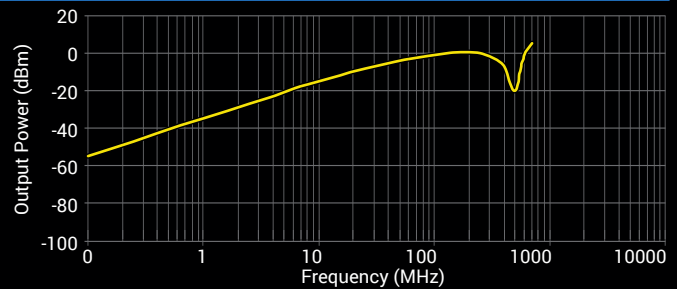
|                             |                        |
|-----------------------------|------------------------|
| Sensor Diameter             | 12 mm                  |
| Maximum Resonance Frequency | 2,6 GHz                |
| Connector                   | 50 Ohms SMB socket (m) |
| Warranty                    | 2 years                |



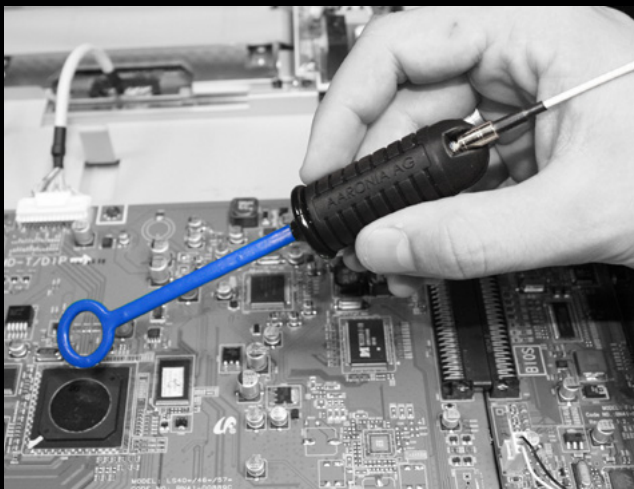
# Specifications

## 25 mm Magnetic Field Probe

|                             |                        |
|-----------------------------|------------------------|
| Sensor Diameter             | 25 mm                  |
| Maximum Resonance Frequency | 500 MHz                |
| Connector                   | 50 Ohms SMB socket (m) |
| Warranty                    | 2 years                |



## Details



*Pinpointing interference sources on a circuit board*

The EMC Near Field probe set allows for straightforward pinpointing and measurement of interference sources in electronic component groups as well as execution and monitoring of generic EMC measurement. Our RF near field probe set is especially suitable for:

- Pinpointing interference sources
- Estimation of interference field strength
- Verification of shielding and filtering measures
- Identifying faulty components
- Detecting circuitry overly sensitive to interference

The set includes a total of 5 probes: 4 probes for magnetic field measurement and one for measurement of electric fields. All probes are covered with an insulating layer, thus allowing safe measurement of oscillators or mains lines.

The PBS2 probe set additionally contains a high-performance pre-amplifier, allowing measurement of significantly weaker interference sources, boosting the sensitivity of our instruments by up to 40 dB. All probes have deliberately been implemented as passive devices to make them usable as transmitting devices as well. Consequently, components and circuits sensitive to interference can easily be pinpointed.

Perfect for locating interference sources which might have been found e.g. in an EN55011, EN55022 or EN50371 (Class A or Class B) survey. After implementing appropriate changes in the circuit, their efficiency can easily and reliably be verified. That way, expensive and time-consuming re-assessments in an EMC laboratory can be skipped.

Verification of official EMC limits: For example, should an interference source exceed an official EMC limit by 10 dB, our probe set can easily verify if a certain countermeasure succeeds in making the circuitry conforming again.

This is another situation where the probe sets can eliminate the need for expensive and time-consuming measurements in EMC laboratories.

Very useful is the integrated (1/4") tripod connector which allows to mount the probes on each tripod.

The RF Probe Set can be connected to any Spectrum Analyzer or Oscilloscope. For units with N-connector we offer a SMA-to-N Adapter (optional).

# References



## Selected Aaronia Clients

### Government, Military, Aeronautic, Astronautic

- NATO, Belgium
- Department of Defense, USA
- Department of Defense, Australia
- Airbus, Germany
- Boeing, USA
- Bundeswehr, Germany
- NASA, USA
- Lockheed Martin, USA
- Lufthansa, Germany
- DLR, Germany
- Eurocontrol, Belgium
- EADS, Germany
- DEA, USA
- FBI, USA
- BKA, Germany
- Federal Police, Germany
- Ministry of Defense, Netherlands

### Research/Development, Science and Universities

- MIT – Physics Department, USA
- California State University, USA
- Indonesian Institute of Sciences, Indonesia
- Los Alamos National Laboratory, USA
- University of Bahrain, Bahrain
- University of Florida, USA
- University of Victoria, Canada
- University of Newcastle, United Kingdom
- University of Durham, United Kingdom
- University Strasbourg, France
- University of Sydney, Australia
- University of Athens, Greece
- University of Munich, Germany
- Technical University of Hamburg, Germany
- Max Planck Inst. for Radio Astronomy, Germany
- Max Planck Inst. for Nuclear Physics, Germany
- Research Centre Karlsruhe, Germany

### Industry

- IBM, Switzerland
- Intel, Germany
- Shell Oil Company, USA
- ATI, USA
- Microsoft, USA
- Motorola, Brazil
- Audi, Germany
- BMW, Germany
- Daimler, Germany
- Volkswagen, Germany
- BASF, Germany
- Siemens AG, Germany
- Rohde & Schwarz, Germany
- Infineon, Austria
- Philips, Germany
- Thyssenkrupp, Germany
- EnBW, Germany
- CNN, USA
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- German Telekom, Germany
- Bank of Canada, Canada
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- AMD, Germany
- Keysight, China
- Infineon Technologies, Germany
- Philips Semiconductors, Germany
- Hyundai Europe, Germany
- VIAVI, Korea
- Wilkinson Sword, Germany
- IBM Deutschland, Germany
- Nokia Siemens Networks, Germany