

# WORLD'S FIRST 3D ANTENNA

# ISOLOG 3D MOBILE PRO

## 9 KHz to 8 GHz

All-in-one antenna – No more swapping




- ✓ Compatible with any Spectrum Analyzer
- ✓ High gain and low noise
- ✓ Two built-in bypass pre-amplifiers (single/dual)
- ✓ Manual or automatic axis switching

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# Highlights

- ✓ Compatible with any spectrum analyzer
- ✓ 9 kHz to 8 GHz frequency range
- ✓ High gain and low noise
- ✓ Two built-in bypass pre-amplifiers
- ✓ Manual or automatic axis switching
- ✓ Battery- or DC-powered
- ✓ 6h battery operating time
- ✓ Only 350 g weight
- ✓ Made in Germany



# 3D RF Testing at its Best



The new IsoLOG 3D Mobile PRO, Aeronia's latest development, is an extremely light and small isotropic antenna compatible with any spectrum analyzer. Ready "on the fly", it offers a suitable plug and play solution for 3D measurements in limited time frames.

The antenna requires no software installation, no power connection and no changes to the hardware. Via the N (male or female) connector, it can be connected with any analyzer or oscilloscope.

The IsoLOG 3D Mobile PRO is available in three different versions:

- ▶ 9 kHz - 3 GHz (IsoLOG 3D Mobile 9030 PRO)
- ▶ 9 kHz - 6 GHz (IsoLOG 3D Mobile 9060 PRO)
- ▶ 9 kHz - **8 GHz** (IsoLOG 3D Mobile 9080 PRO)



## Hardware

Each IsoLOG 3D Mobile PRO includes an internal, rechargeable battery (offering an operating time of approx. 6 hours), and switchable low-noise bypass single or dual pre-amplifiers (+15dB each (@2GHz)).

The two integrated amps allow the measuring of even extremely weak signals. Thus, used in bypass mode, the antenna is still usable amidst high field strengths. The antenna is controlled either via USB, or a manual antenna selection mode which requires no USB connection. The IsoLOG 3D Mobile PRO also features a built-in, ultra-fast and adjustable "chopper" function: Using special, glitch-free RF switches, this feature offers an automatic endless antenna rotation / selection with a switching duration of up to 50 kHz. This transforms the IsoLOG 3D Mobile PRO into a fully functional 3D antenna without the need for any USB software control.



# Functions and Accessories

- 1 X-axis sensor
- 2 Y-axis sensor
- 3 Z-axis sensor
- 4 Power on/off
- 5 Select axis  
X/Y/Z-axis or chop-mode (rotates around X/Y/Z axis)
- 6 Select chop rate  
1 Hz up to 50 kHz (adjustable in 16 steps)
- 7 Preamp 1 on / Preamp 2 on / Both off
- 8 Select sensor  
Loop for lower / dipole for higher frequency range
- 9 LED's  
X/Y/Z red = active sensor or alternating for chop mode  
SENSOR green = loop / red = dipole  
PREAMP blink = one on / red = both on / black = off  
REMOTE red = connected to PC  
BATTERY red = charging / green = charged
- 10 N-Type rf connector  
female / optional male
- 11 Power connector  
For battery charging with included 12V power supply

Lightweight (only 350 g) and handy, the IsoLOG 3D Mobile PRO is the ultimate portable measuring solution. The layout and functions are as follows:



RF Connectors N Male and N Female

## Included in Delivery

Shipped in a waterproof transport case, the scope of delivery leaves nothing to be desired:

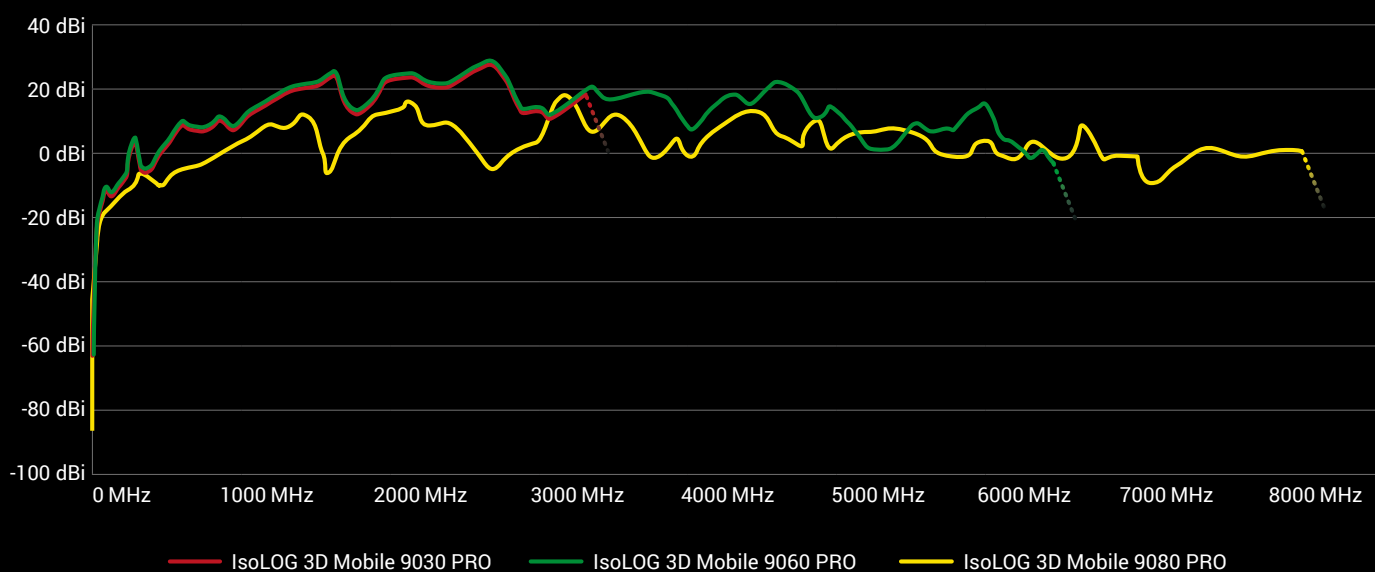
- IsoLOG 3D Mobile PRO antenna with built-in rechargeable battery
- Battery charger / power supply
- Water and shock proof transport case
- Pistol grip with miniature tripod function
- SMA to N Adapter for the connection of SMA cables



# Technical Data

| Technical Specifications |  |                           |                           |
|--------------------------|--|---------------------------|---------------------------|
| Design                   | Isotropic / 3D, portable   |                           |                           |
| Frequency Range          | 9 kHz to 3 GHz (9030 PRO)  | 9 kHz to 6 GHz (9060 PRO) | 9 kHz to 8 GHz (9080 PRO) |
| Preamp Stages            | 2 (+15dB each (@2GHz))   |                           |                           |
| Chop / Switch Speed Rate | 1 Hz to 50 kHz   |                           |                           |
| Nominal Impedance        | 50 Ohm   |                           |                           |
| RF Connection            | N-female, optional free of charge orderable as N-male (SMA or BNC via adapter) |                           |                           |
| Dimensions               | 315 x 70 x 70 mm   |                           |                           |
| Weight                   | 350 g  |                           |                           |
| Tripod Connection        | 1/4"   |                           |                           |
| Battery                  | 800 mAh LiPo   |                           |                           |
| Interface                | USB 2.0  |                           |                           |
| Operating Temperature    | -10° to +50°C  |                           |                           |
| Storage Temperature      | -20° to +60°C  |                           |                           |
| Country of Origin        | Germany  |                           |                           |
| Warranty                 | 2 years  |                           |                           |

Gain Diagram IsoLOG® Mobile Antennas



— IsoLOG 3D Mobile 9030 PRO — IsoLOG 3D Mobile 9060 PRO — IsoLOG 3D Mobile 9080 PRO



# 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
- Duracell, USA
- German Telekom, Germany
- Bank of Canada, Canada
- NBC News, USA
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- Keysight, China
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- Philips Semiconductors, Germany
- Hyundai Europe, Germany
- VIAVI, Korea
- Wilkinson Sword, Germany
- IBM Deutschland, Germany
- Nokia Siemens Networks, Germany

