

World's First 3D Antenna from 9kHz to 6GHz

# IsoLOG 3D Mobile

One antenna for all your needs, no need to swap antennas any more.



High Gain and Low Noise

Built-in Bypassable Pre-Amplifier

Manual or Automatic Axis Switching

# Highlights

- ✓ Usable with any spectrum analyzer
- ✓ Frequency range 9kHz to 6GHz
- ✓ High gain and low noise
- ✓ Built-in bypass pre-amplifier
- ✓ Manual or automatic axis switching
- ✓ Battery or DC powered
- ✓ 6h battery run-time
- ✓ Only 350g weight
- ✓ 10 years warranty
- ✓ Made in Germany



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**MADE IN GERMANY**

# 3D RF Testing at it's Best



The new IsoLOG 3D Mobile, Aaronia's latest development, is a very light and small isotropic antenna which is compatible to any spectrum analyzer. It just works „on the fly“ and is a suitable plug and play solution for 3D measurements in limited time frames.

The antenna requires no software installation, no power connection and no hardware changes. It is connectable via the N (male) connector to any analyzer or oscilloscope.

The IsoLOG 3D Mobile is available in 2 versions with an ultra-wide frequency coverage from 9kHz up to 3GHz (IsoLOG 3D Mobile 9030) or 6GHz (IsoLOG 3D Mobile 9060).



## Hardware

Each IsoLOG 3D Mobile includes an internal, re-chargeable battery, offering a runtime of approx. 6 hours, and a switchable low noise bypass pre-amplifier.

The integrated amp allows measurements of very low-powered signals. Thus, used in bypass mode, the antenna is still usable for high field-strengths. The control of the antenna is done via USB or via manual antenna selection mode, requiring no USB connection.

Aaronia also integrated an ultra fast 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 50kHz. This feature transforms the IsoLOG 3D Mobile into a fully functional 3D antenna without the need of any USB software control.

# Technical Data

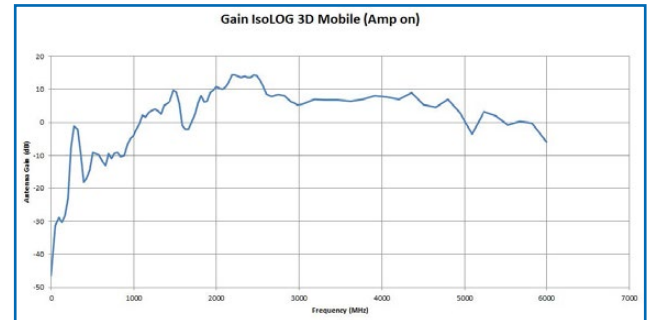
## Scope of Delivery

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

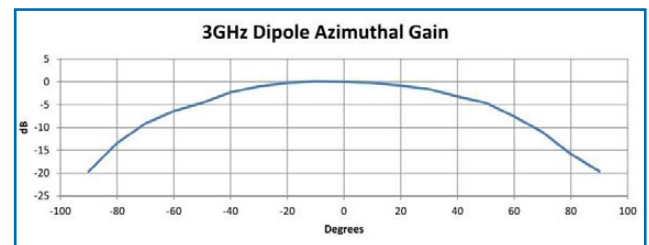
- IsoLOG 3D Mobile antenna with built-in rechargeable battery
- Water and shock proof transport case
- Pistol grip with miniature-tripod function
- Battery charger / power supply
- SMA to N Adapter for the connection of SMA cables

Technical Specifications	
Design	Isotropic / 3D, portable
Frequency Range	9kHz to 3GHz (9030) 9kHz to 6GHz (9060)
Chop/Switch Speed Rate	1Hz to 50kHz
Nominal Impedance	50 Ohm
RF-Connection	N female (optional N male, SMA or BNC via adapter)
Dimensions	315 x 70 x 70 mm
Weight	350 g
Tripod Connection	1/4"
Battery	650mAh LiPo
Interface	USB 2.0
Temperature Range (Operation)	-10° to +50°C
Temperature Range (Storage)	-20° to +60°C
Country of Origin	Germany
Warranty	10 years

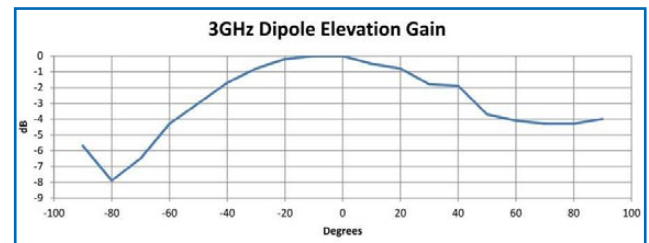
## Antenna Gain



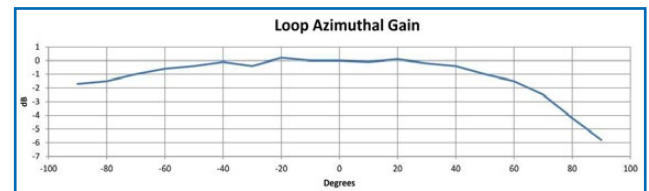
## Azimuth Gain at 3GHz



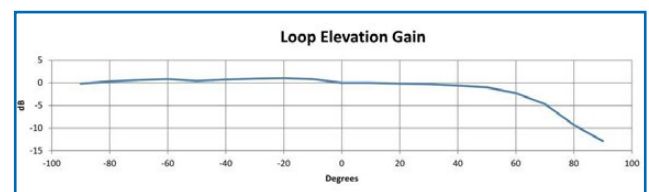
## Elevation Gain at 3GHz



## Azimuth Gain at 70MHz



## Elevation Gain at 70MHz



# Layout and Functions

The handy form factor and small weight of only 350g predestine the IsoLOG 3D Mobile for portable measurements. The following picture shows the layout and functions of the antenna:

1. 3-Axis Sensor Head
2. LED Indicator Lights
3. Axis Change / Chop Mode
4. Manual / USB Control
5. Pre-Amp On / Bypass
6. Change of Internal Sensor
7. Manual Selection of Chop Rate
8. Antenna On / Off Switch
9. USB Connector
10. RF Connector (N-Female)
11. 12V Power Supply Connector





# References



## Cross-Section of 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
- Indonesien Institute of Science, 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 Athen, 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

- APPLE, USA
- 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
- Sony, Germany
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- Nokia-Siemens Networks, Germany



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