

## Product Datasheet - Technical Specifications



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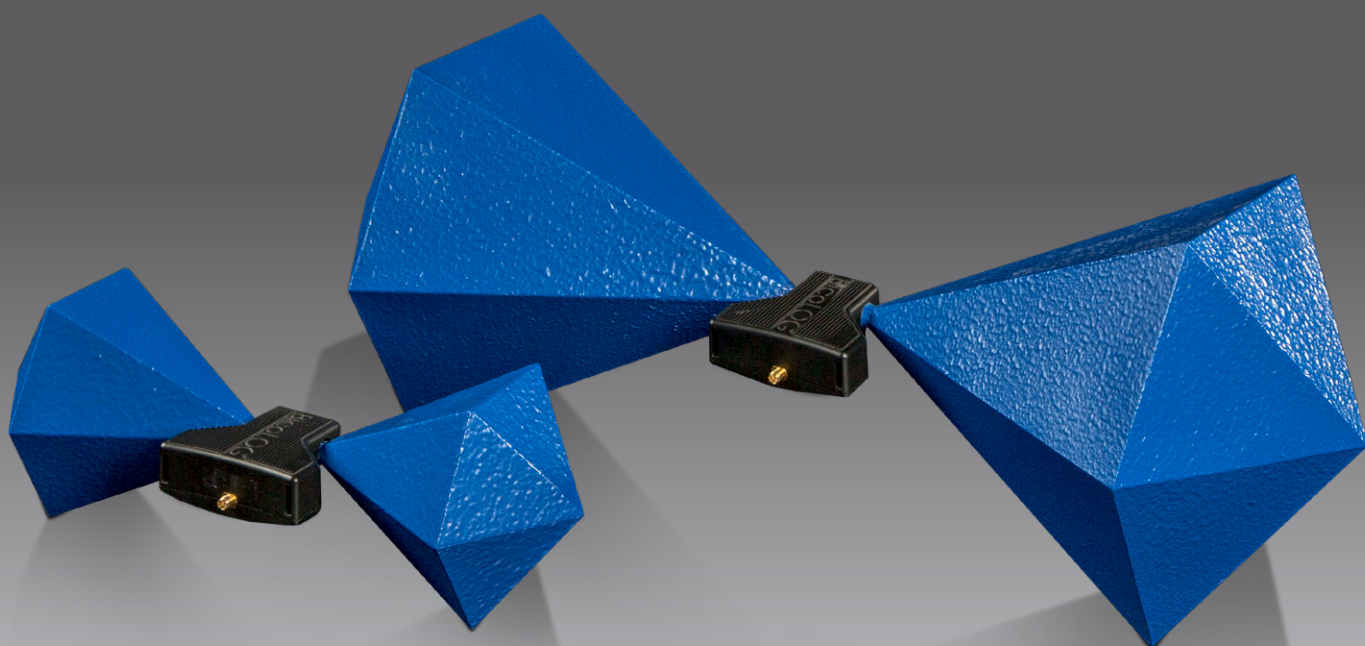
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BICONICAL ANTENNAS

# BICOLOG<sup>®</sup>

SERIES

Broadband transmission and reception from 20 MHz to 3 GHz – mobile and stationary use



## Highlights:

- One broadband antenna for the entire frequency range (20 MHz – 3 GHz)
- Ideal in combination with spectrum analyzers
- Lightweight and small in size

**AARONIA AG**  
WWW.AARONIA.DE



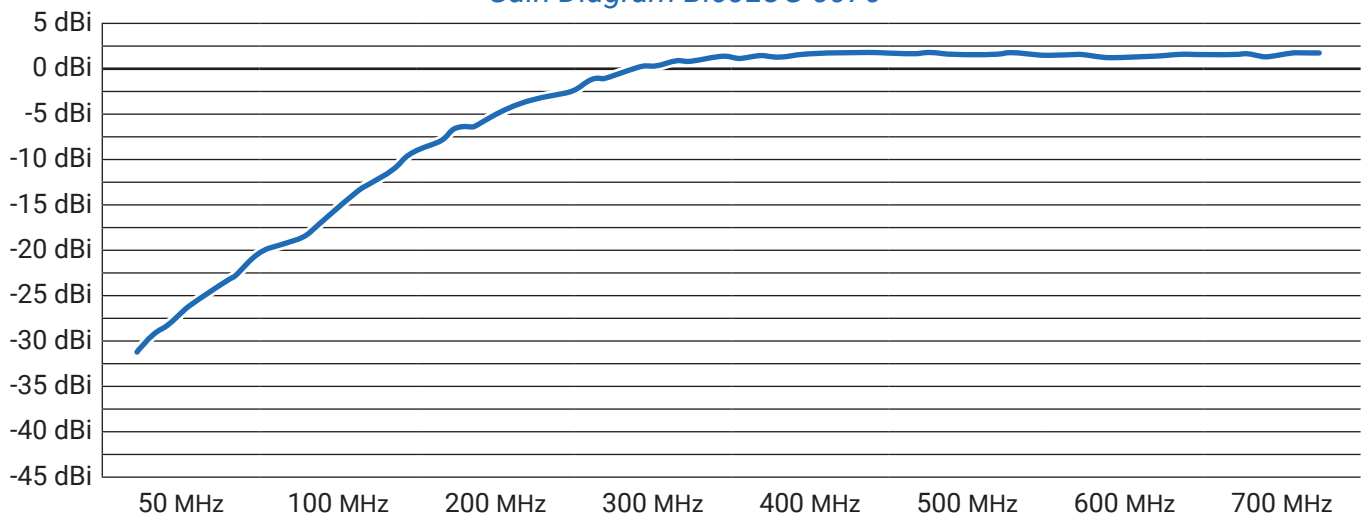
MADE IN GERMANY

# Specifications

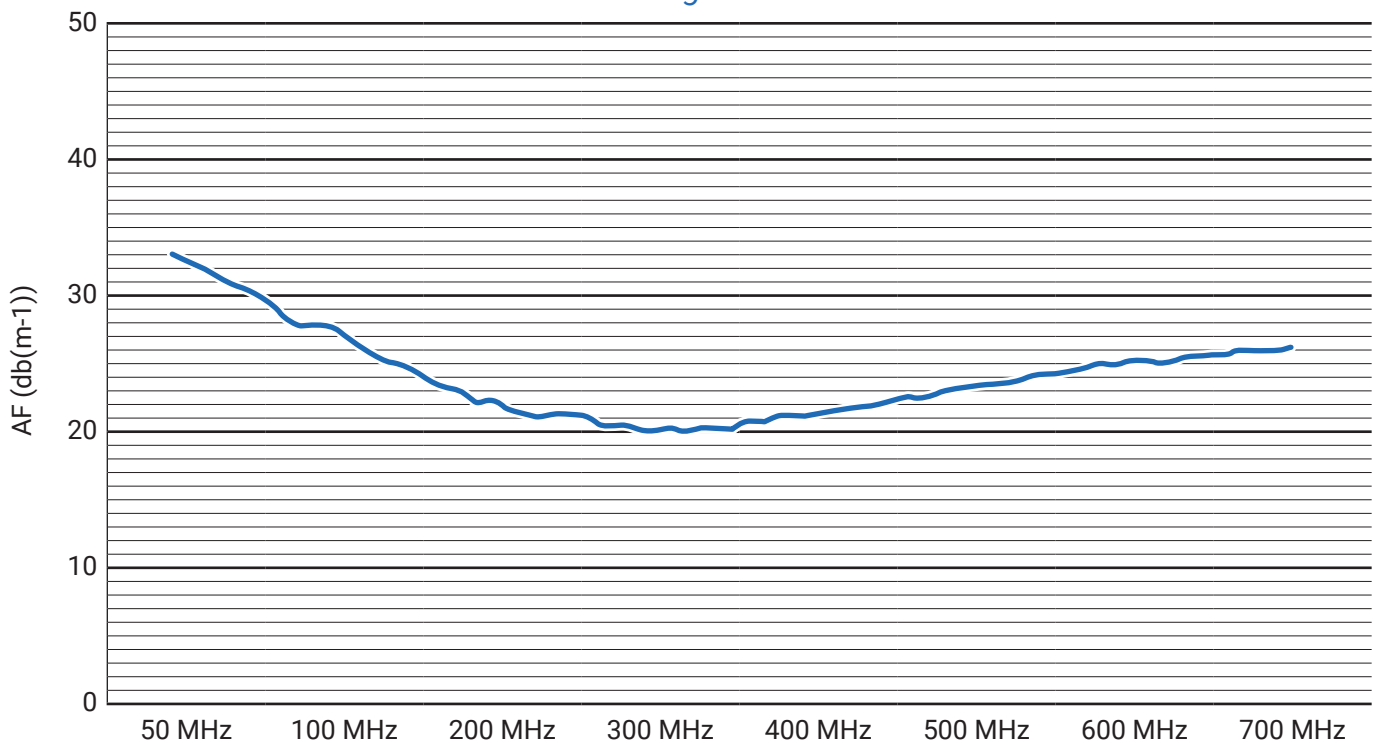
## BicoLOG<sup>®</sup> 5070

Dimensions [L x W x D]	350 x 160 x 140 mm	Nominal Impedance	50 Ohm
Weight	350 g	Calibration Points	70 (5 MHz and 10 MHz steps)
Design	Biconical	RF Connection	SMA (f) or N with adapter
Frequency Range	50 MHz – 700 MHz	Tripod Socket	1/4"
Gain	-29 dBi – 1 dBi	Antenna Factor	20 – 33 dB/m
Max. Transmission Power	5 W AM (100 MHz)		

Gain Diagram BicoLOG 5070



Antenna Factor Diagram BicoLOG 5070

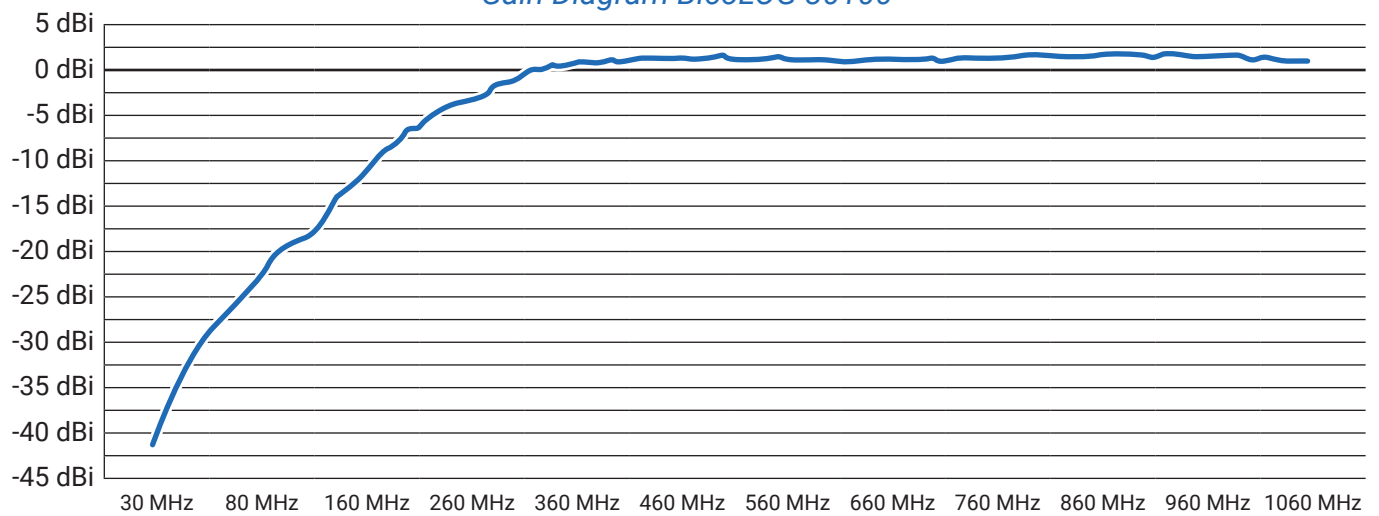


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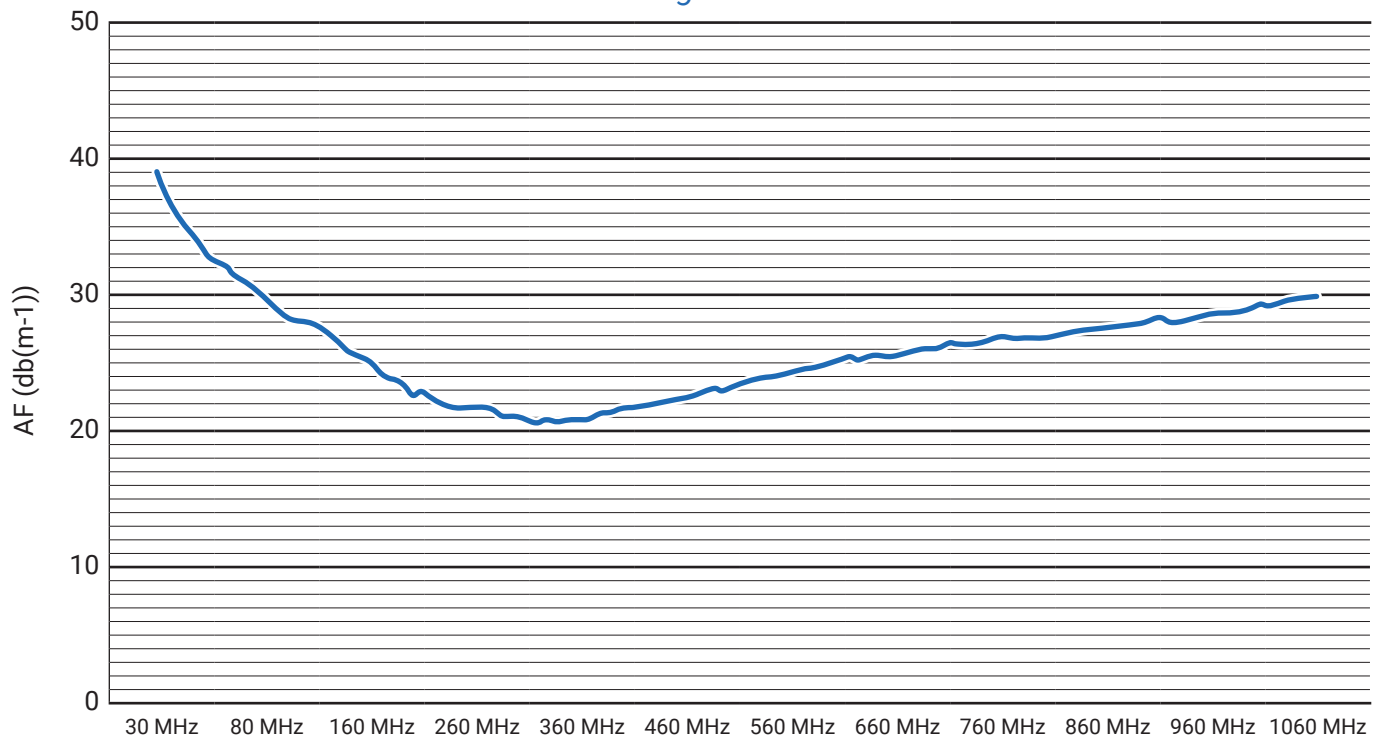
## BicoLOG® 30100

Dimensions [L x W x D]	350 x 160 x 140 mm	Nominal Impedance	50 Ohm
Weight	350 g	Calibration Points	104 (5 MHz and 10 MHz steps)
Design	Biconical	RF Connection	SMA (f) or N with adapter
Frequency Range	30 MHz – 1 GHz	Tripod Socket	1/4"
Gain	-39 dBi – 1 dBi	Antenna Factor	20 – 41 dB/m
Max. Transmission Power	5 W AM (100 MHz)		

Gain Diagram BicoLOG 30100



Antenna Factor Diagram BicoLOG 30100

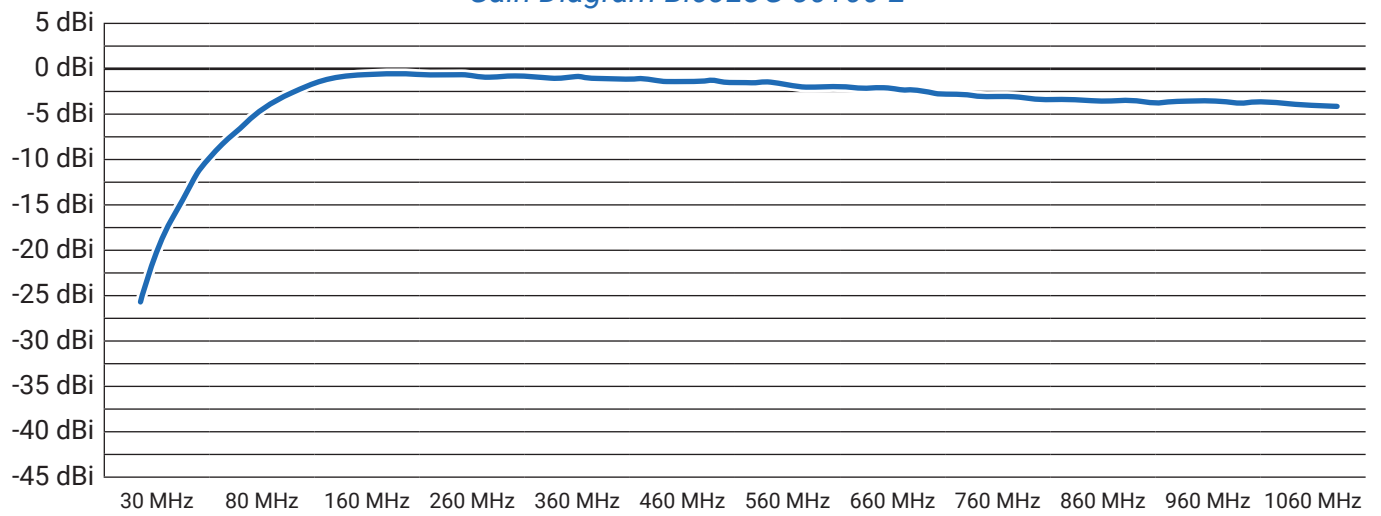


# Specifications

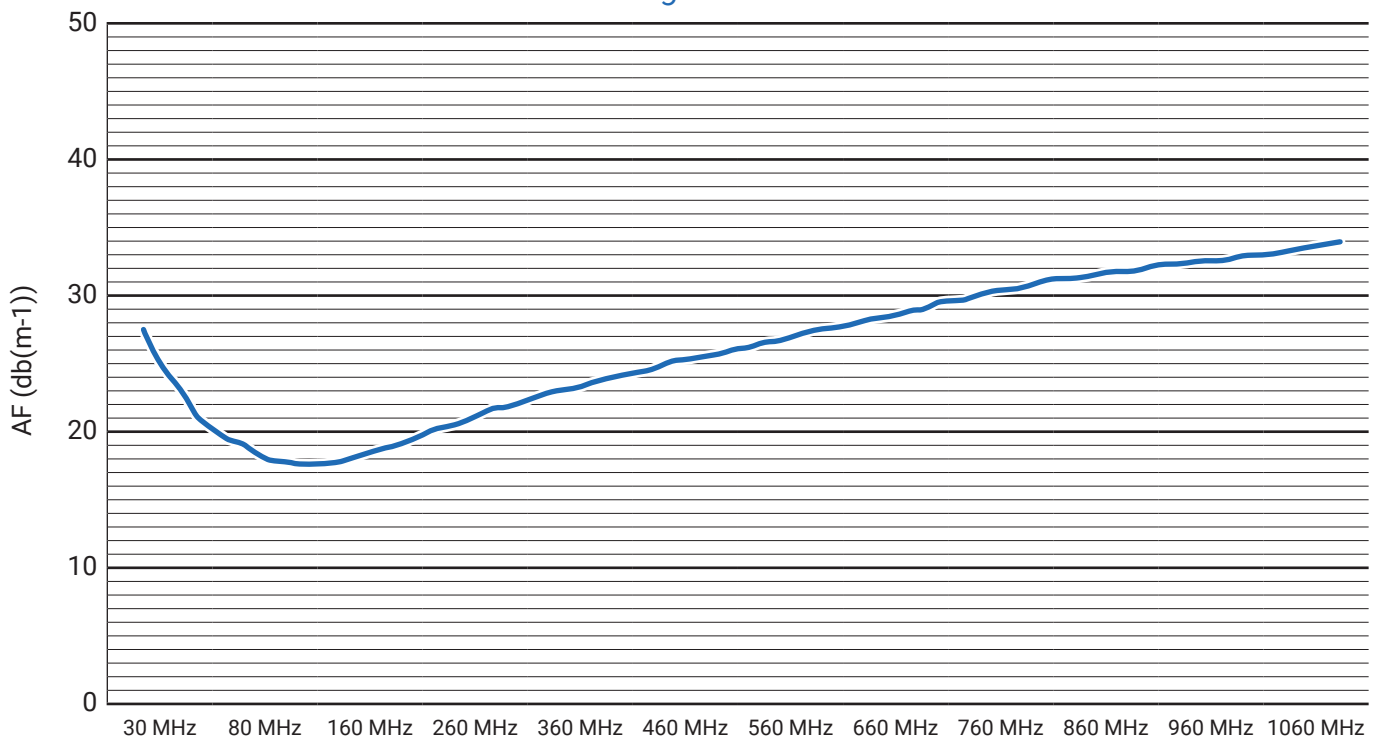
## BicoLOG® 30100 E

Dimensions [L x W x D]	540 x 225 x 225 mm	Nominal Impedance	50 Ohm
Weight	1150 g	Calibration Points	194 (5 MHz steps)
Design	Biconical	RF Connection	SMA (f) or N with adapter
Frequency Range	30 MHz – 1 GHz	Tripod Socket	1/4"
Gain	-31 dBi – 1 dBi	Antenna Factor	17 – 31 dB/m
Max. Transmission Power	5 W AM (100 MHz)		

Gain Diagram BicoLOG 30100 E



Antenna Factor Diagram BicoLOG 30100 E

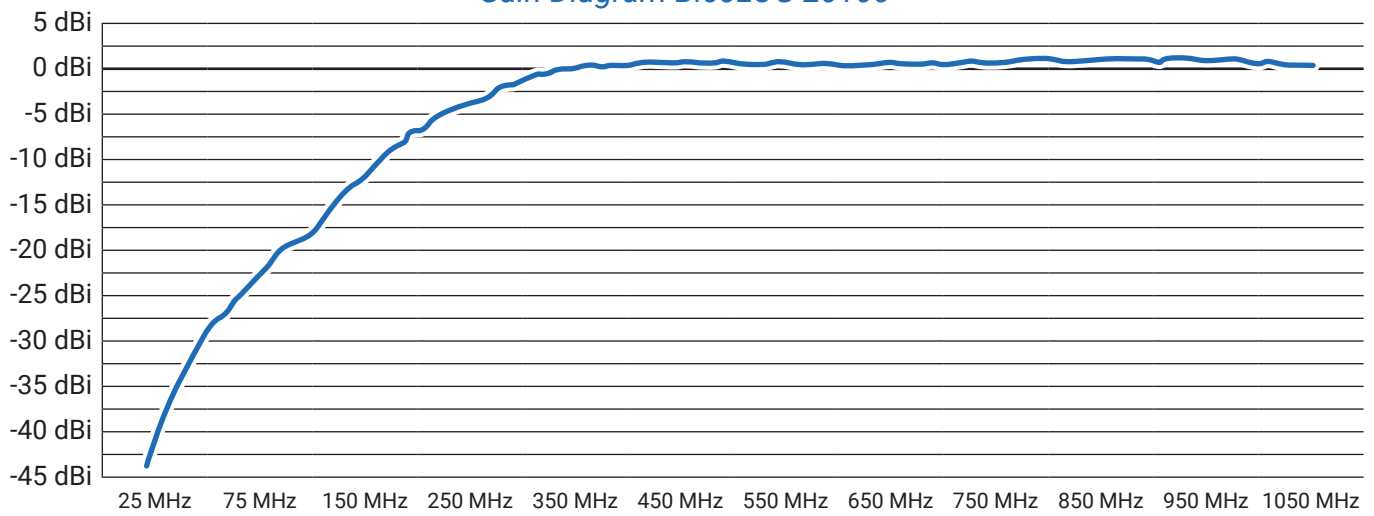


# Specifications

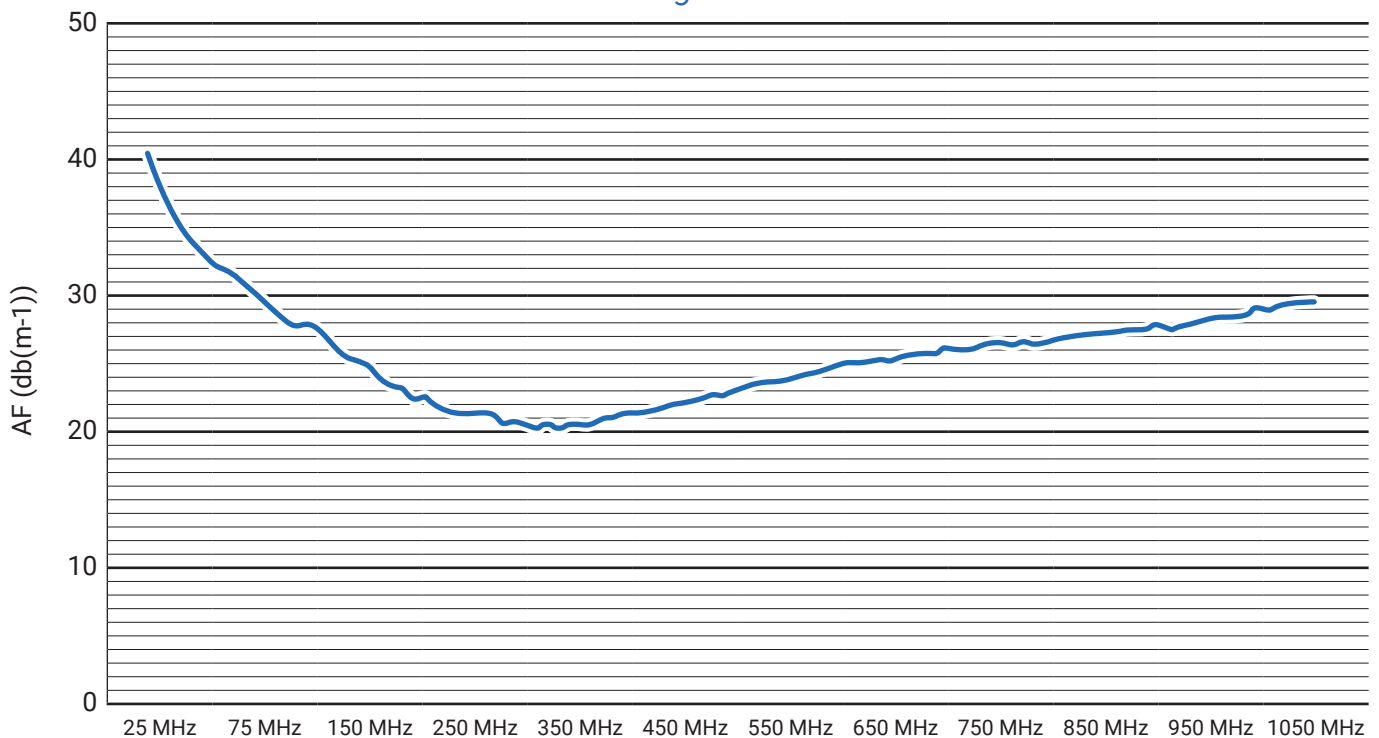
## BicoLOG® 20100

Dimensions [L x W x D]	350 x 160 x 140 mm	Nominal Impedance	50 Ohm
Weight	350 g	Calibration Points	106 (5 MHz and 10 MHz steps)
Design	Biconical	RF Connection	SMA (f) or N with adapter
Frequency Range	20 MHz – 1 GHz	Tripod Socket	1/4"
Gain	-45 dBi – 1 dBi	Antenna Factor	20 – 42 dB/m
Max. Transmission Power	5 W AM (100 MHz)		

Gain Diagram BicoLOG 20100



Antenna Factor Diagram BicoLOG 20100

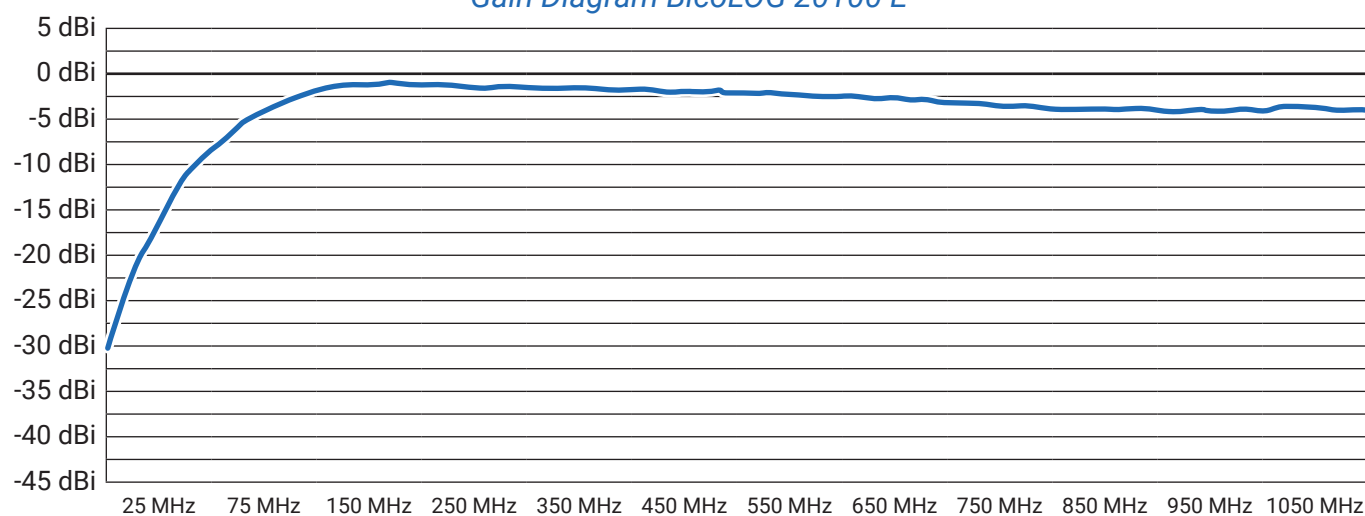


# Specifications

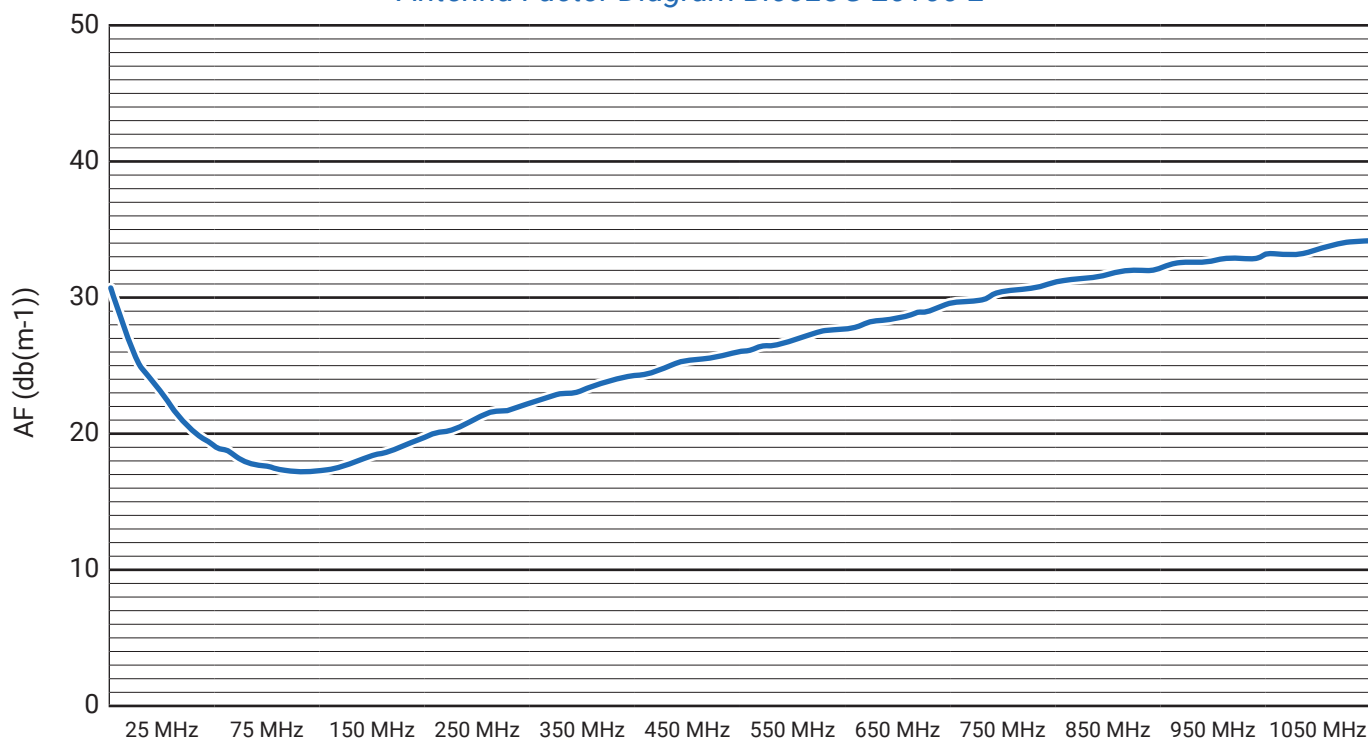
## BicoLOG® 20100 E

Dimensions [L x W x D]	540 x 225 x 225 mm	Nominal Impedance	50 Ohm
Weight	1150 g	Calibration Points	196 (5 MHz steps)
Design	Biconical	RF Connection	SMA (f) or N with adapter
Frequency Range	20 MHz – 1 GHz	Tripod Socket	1/4"
Gain	-38 dBi – 1 dBi	Antenna Factor	17 – 34 dB/m
Max. Transmission Power	5 W AM (100 MHz)		

Gain Diagram BicoLOG 20100 E



Antenna Factor Diagram BicoLOG 20100 E

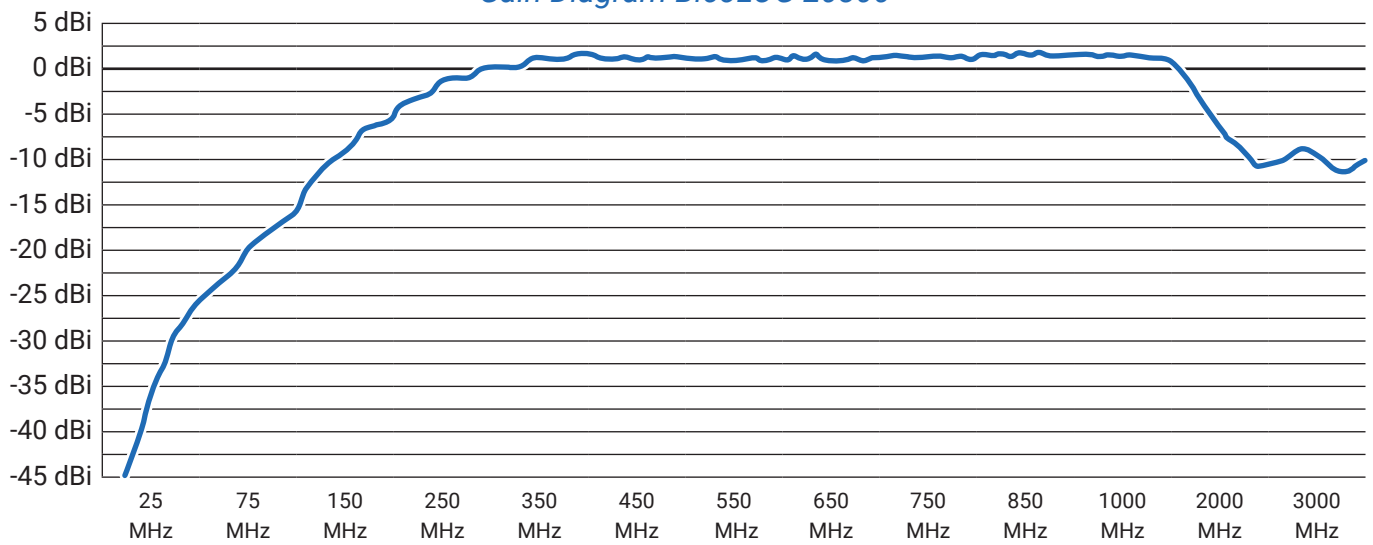


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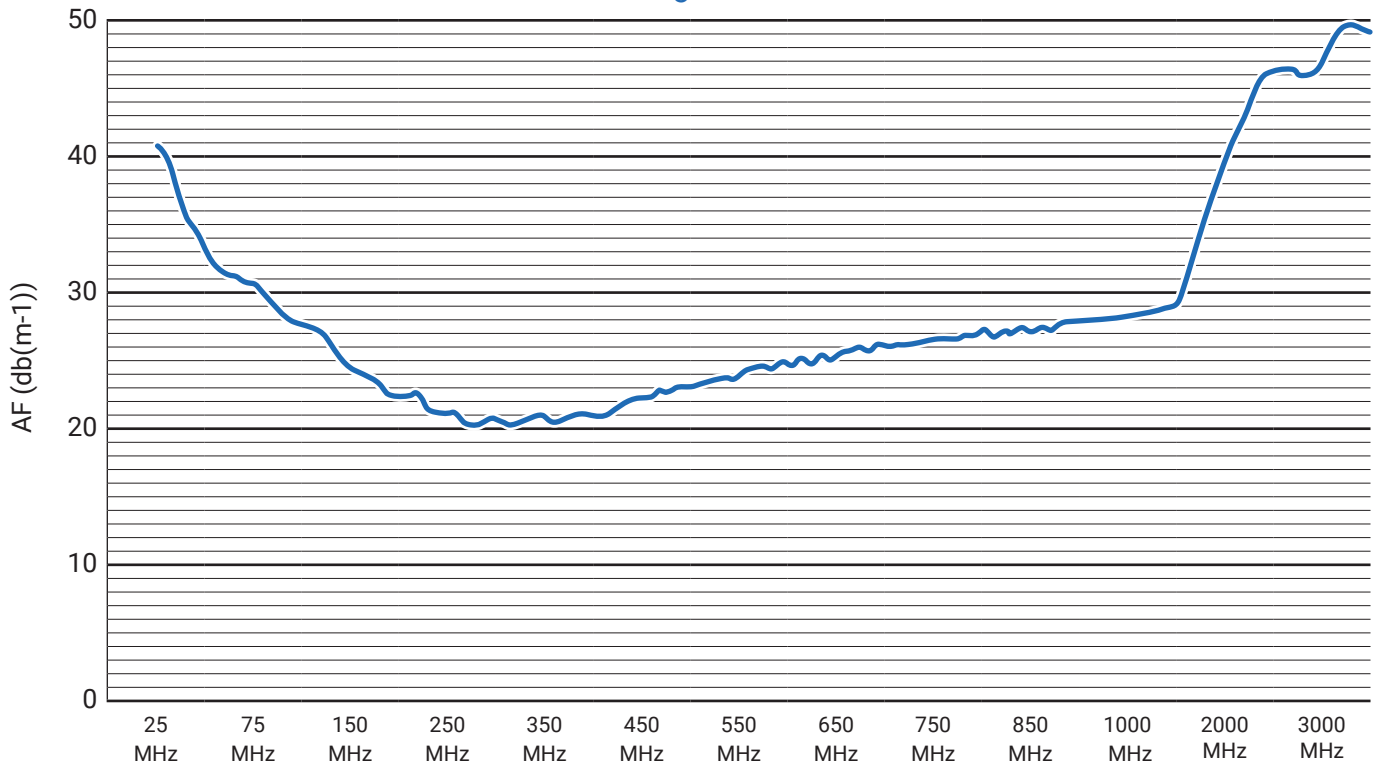
## BicoLOG® 20300

Dimensions [L x W x D]	350 x 160 x 140 mm	Nominal Impedance	50 Ohm
Weight	350 g	Calibration Points	296 (5 MHz and 10 MHz steps)
Design	Biconical	RF Connection	SMA (f) or N with adapter
Frequency Range	20 MHz – 3 GHz	Tripod Socket	1/4"
Gain	-45 dBi – 1 dBi	Antenna Factor	20 – 51 dB/m
Max. Transmission Power	5 W AM (100 MHz)		

Gain Diagram BicoLOG 20300



Antenna Factor Diagram BicoLOG 20300





# Recommended Accessories



## Multifunctional Pistol Grip

(strongly recommended)

Highly recommended for our BicoLOG® antennas. Quick and easy antenna polarization change, guarantees perfectly stable antenna handling.

**Order/Art.-No.: 503/012**

## 1 m / 5 m / 10 m SMA Cable

High-quality special SMA cable, connecting test equipment to any BicoLOG® antenna. Customers can choose between three different cables:

- 1 m standard SMA cable (RG316U)
  - 5 m low-loss SMA cable (especially low damping)
  - 10 m low-loss SMA cable (especially low damping)
- All versions: SMA plug (male) / SMA plug (male)

**Order/Art.-No.: 501/006 (1 m), 501/008 (5 m), 501/0010 (10 m)**



## SMA to N Adapter

This special high-quality adapter allows for operating all BicoLOG® antennas with any standard spectrum analyzer equipped with an N connector. This adapter can be used with very high frequencies. Measuring just 30 x 20 mm in size, its nominal impedance is 50 Ohm. Layout: SMA socket (female) / N plug (male).

**Order/Art.-No.: 502/009**

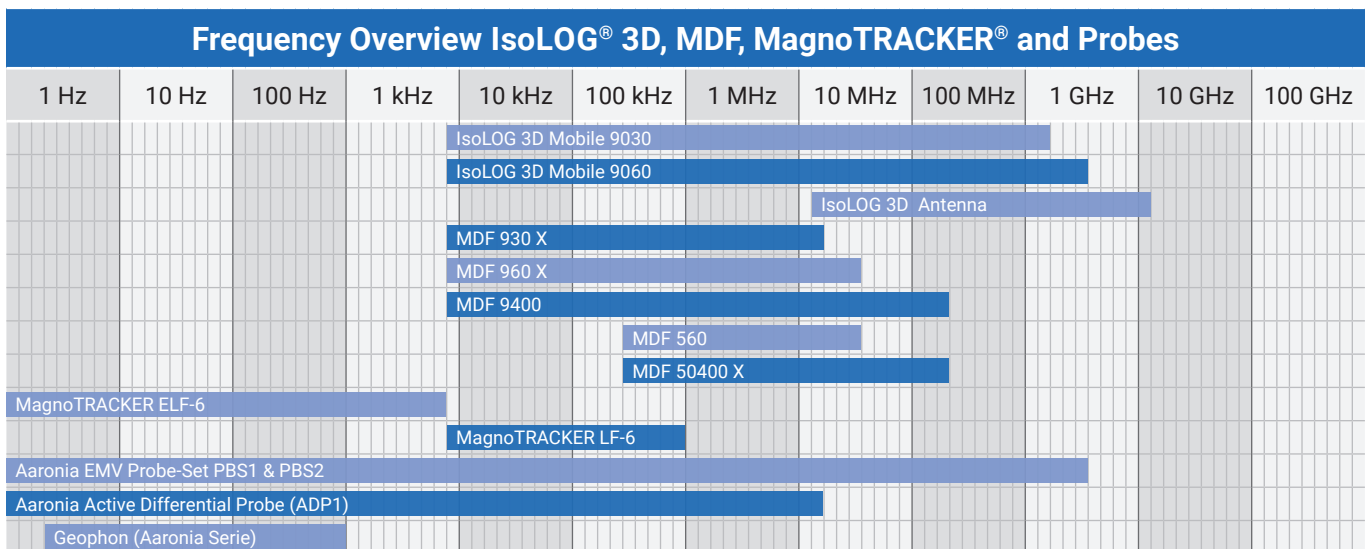
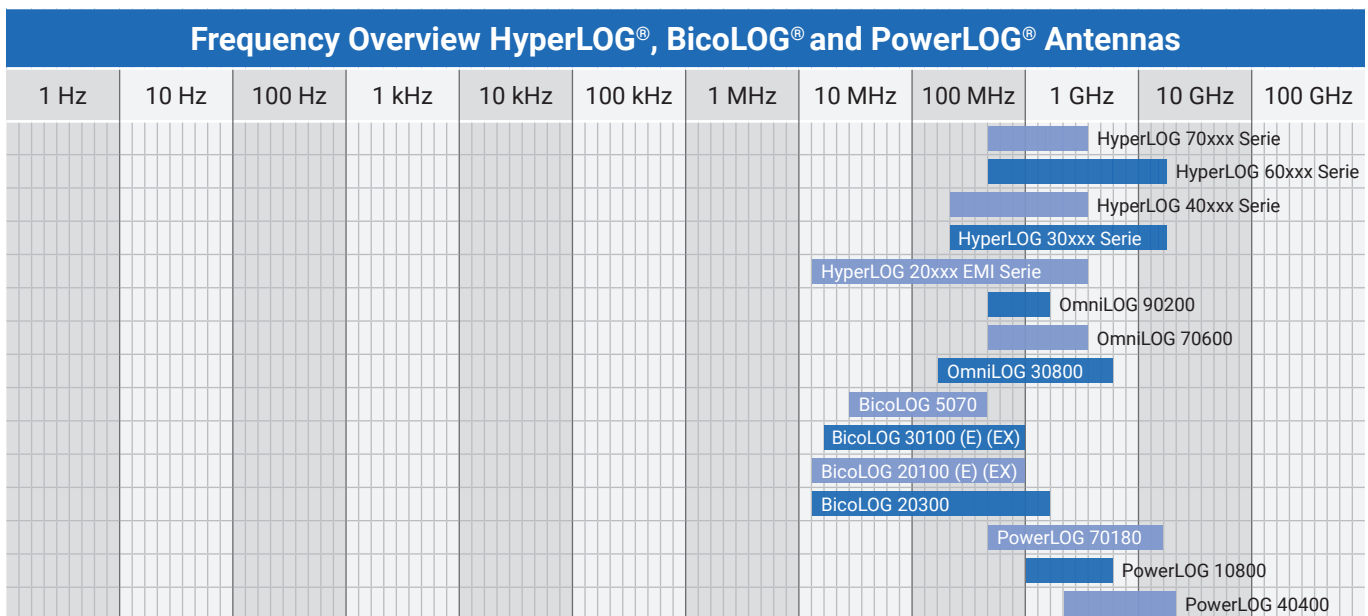
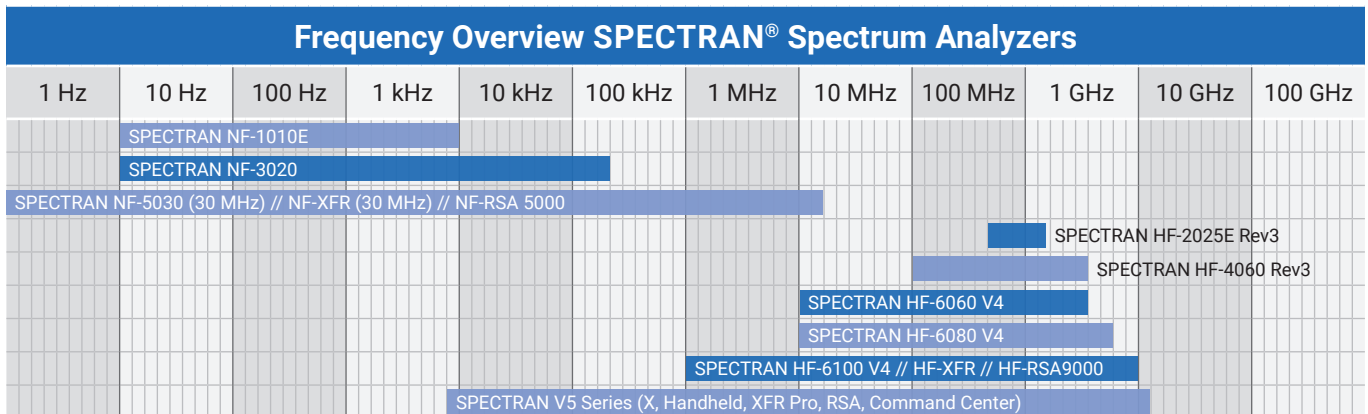
## Miniature Pistol-Grip Tripod

Detachable handle with super-practical miniature tripod mode. The handle can be attached to the back of the unit, and allows for optimal handling and a fixed stand. Strongly recommended for PC use.

**Order/Art.-No.: 503/010**



# Frequency Overviews



# REFERENCES



## Selected Aaronia Clients

### Government, Military, Aeronautic, Astronautic

- **NATO**, Belgium
- **Department of Defense (DoD)**, USA
- **Department of Defence**, Australia
- **Airbus**, Germany
- **Boeing**, USA
- **German Armed Forces**, Germany
- **NASA**, USA
- **Lockheed Martin**, USA
- **Lufthansa**, Germany
- **German Aerospace Center (DLR)**, Germany
- **Eurocontrol**, Belgium
- **EADS**, Germany
- **Drug Enforcement Administration (DEA)**, USA
- **Federal Bureau of Investigation (FBI)**, USA
- **Federal Criminal Police Office (BKA)**, Germany
- **Federal Police**, Germany
- **Ministry of Defence**, Netherlands

### Research/Development, Science and Universities

- **MIT - Physics Department**, USA
- **California State University**, USA
- **Indonesian Institute of Science (LIPI)**, Indonesia
- **Los Alamos National Laboratory (LANL)**, USA
- **University of Bahrain**, Bahrain
- **University of Florida**, USA
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- **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
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- **Hyundai Europe**, Germany
- **VIAVI**, Korea
- **Wilkinson Sword**, Germany
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- **Nokia-Siemens Networks**, Germany

