Rev 1.8
19.09.2014

Log periodic broadband yagi antenna Series HyperLOG® 70xx - span 700MHz to 6GHz

Excellent LogPer antennas for mobile measurements and laboratory

Highlights:

- Optimal for usage with spectrum analysers for EMC measurement
- Incl. high-tech radom with modern, appealing design
- Excellent forward/backward ratio
- Freely alignable polarisation
- Excellent symmetry of radiation patterns
- Integrated 1/4" tripod socket
- Suitable for mobile use
- Made in Germany
- **10 years warranty**

Calibration & standards:

- The log-periodic precompliance test antenna of the HyperLOG® 70xx series are suitable for interference field strength measurement. The specialized broadband characteristics allow measurements to be taken in the complete specified frequency range **without switching.**
- **These antennas are suitable for measurement according to the following standards and procedures:**
  CISPR, VDE, MIL, VG, EN 55011, EN 55013, EN 55015, EN 55022, MIL-Std-461.

Included with delivery:

- HyperLOG® 70xx-Antenna
- **Typical calibration data with up to 533 calibration points (10MHz steps)**
- Aluminum design carrycase with custom padding
- Sturdy, detachable pistol grip with "miniature tripod" mode
- Special Aaronia SMA toolset with over-torque protection

References / examples of proof:

- Airbus Deutschland, Germany
- EADS, Germany
- ATI Research, USA
- Motorola, Spain
- University of California, USA
- Los Alamos National Labratory, USA

AARONIA AG
WWW.AARONIA.DE

Made in Germany

Specifications

HyperLOG® 7025:

- Design: Logarithmic-periodic
- Frequency range: **700MHz-2,5GHz**
- Max. transmission power: 100 W CW (400MHz)
- Nominal impedance: 50 Ohm
- VSWR (typ.): <1:2
- Gain (typ.): **4dBi**
- Antenna factor: **23-34dB/m**
- Calibration points: **183** (10MHz steps)
- RF connection: SMA socket (18GHz) or N socket using an adapter
- Dimensions (L/W/D): (340x200x25) mm
- Weight: 270gr
- **Warranty: 10 years**

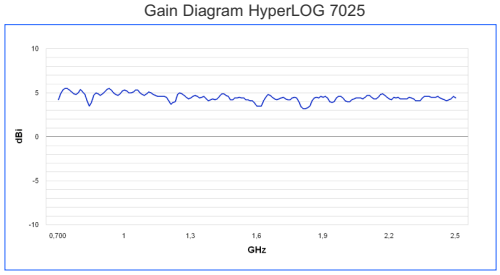
HyperLOG® 7040:

- Design: Logarithmic-periodic
- Frequency range: **700MHz-4GHz**
- Max. transmission power: 100 W CW (400MHz)
- Nominal impedance: 50 Ohm
- VSWR (typ.): <1:2
- Gain (typ.): **4dBi**
- Antenna factor: **23-38dB/m**
- Calibration points: **333** (10MHz steps)
- RF connection: SMA socket (18GHz) or N socket using an adapter
- Dimensions (L/W/D): (340x200x25) mm
- Weight: 270gr
- **Warranty: 10 years**

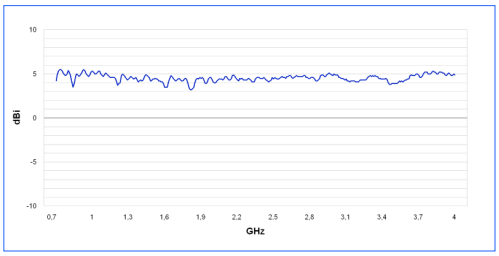
HyperLOG® 7060:

- Design: Logarithmic-periodic
- Frequency range: **700MHz-6GHz**
- Max. transmission power: 100 W CW (400MHz)
- Nominal impedance: 50 Ohm
- VSWR (typ.): <1:2
- Gain (typ.): **5dBi**
- Antenna factor: **26-41dB/m**
- Calibration points: **533** (10MHz steps)
- RF connection: SMA socket (18GHz) or N socket using an adapter
- Dimensions (L/W/D): (340x200x25) mm
- Weight: 250gr
- **Warranty: 10 years**

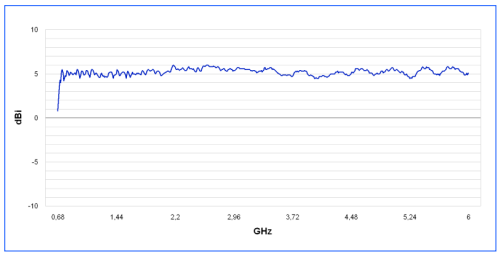
Gain Diagram HyperLOG 7025



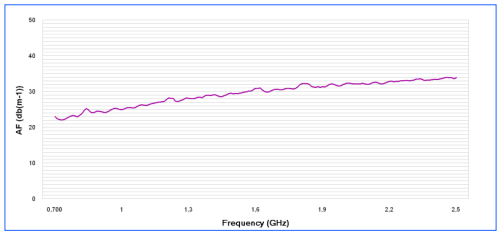
Gain Diagram HyperLOG 7040



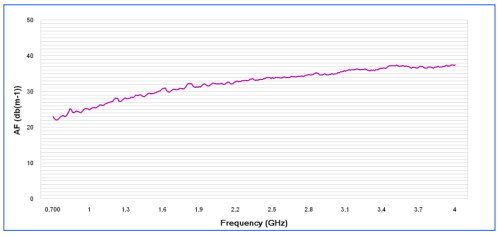
Gain Diagram HyperLOG 7060



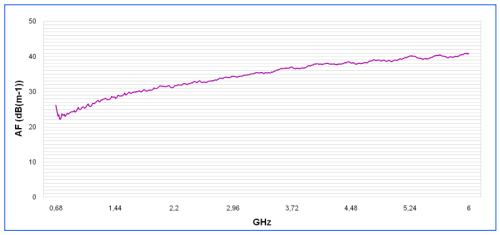
Antenna factor HyperLOG 7025



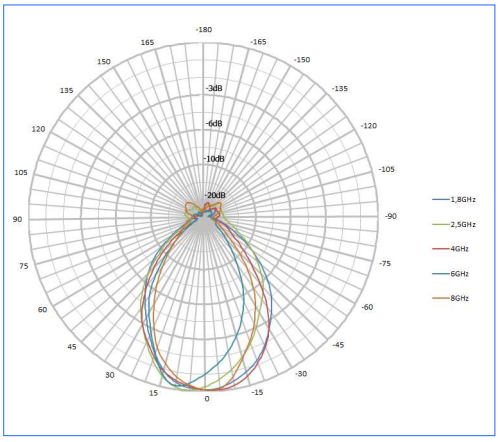
Antenna factor HyperLOG 7040



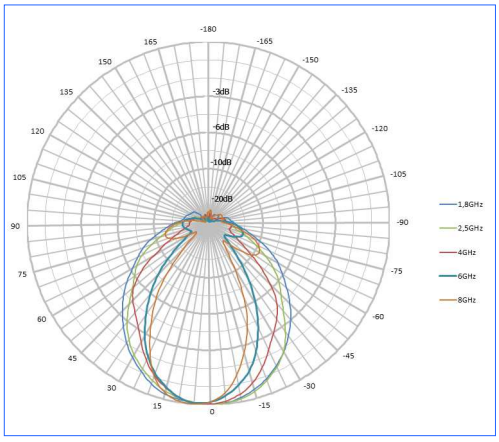
Antenna factor HyperLOG 7060



Horizontal Pattern HyperLOG 70xx Serie



Vertikal Pattern HyperLOG 70xx Serie



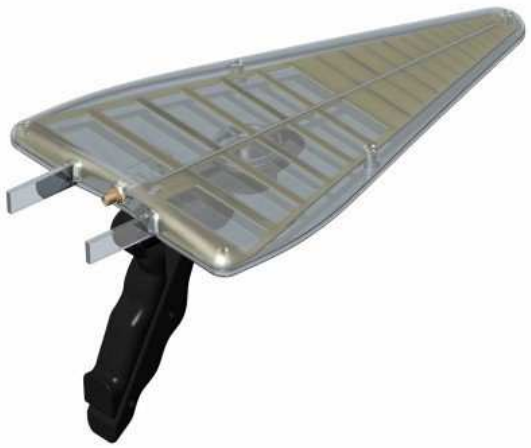
Description

HyperLOG 70xx Antenna with pistol grip expanded as a miniature tripod

With their log-periodic measurement antennas from the HyperLOG® 70xx series, Aaronia finally offers a very cost-effective alternative, which at the same time meets the highest expectations. In conjunction with the HyperLOG® antennas, every regular spectrum analyser becomes a fully professional directional RF measurement device within a few moments. Thus, a perfect "dream team" for EMC measurement in the laboratory or for outdoor use is at your disposal.

Due to their flexibility in polarisation, HyperLOG antennas can also be used as handy WLAN or Wifi antennas. Point-to-point WLan links or networks can be constructed easily using the full bandwidth up to 6GHz, achieving high throughput. Optimal for MMDS, ISM, CCTV and data/telephony transmission.

The HyperLOG® 70xx logper antennas come standard with a specially constructed, high tech radom housing. This housing has been constructed after intense research with the most modern computer technology in such a way that its shape, material and special coating have virtually no influence on measurements, not even in case of dew or other kinds of humidity collecting on the surface. Another important factor for Aaronia was the development of a radom with the lowest possible damping factor achievable. This turned out to be quite an adventure for our development team, particularly in the high GHz ranges. Fortunately, this adventure has been mastered resulting in a beautiful, elegant design, to the complete satisfaction of the development team. Our first test measurements even by far surpassed our guidelines!
The resulting antenna had the best possible protection against mechanical stress and environmental influence without sacrificing any of its performance.



Also available in a "transparent" finish at extra charge

Lot of space for optionally accessories:
The HyperLOG® transportcase

Included with delivery: A sturdy aluminum design carrycase with custom padding for the antenna, cables and accessories. Furthermore, every antenna of the HyperLOG® 70xx series includes a detachable multi-functional pistol grip with "miniature-tripod" mode and an appropriate SMA toolset.

Recommended accessories for Aaronia Antennas

Aluminum tripod

Height adjustable, high stability. Recommended for use with HyperLOG 70xx and 60xx antennas. Max. height: 105cm.

Order/Art.-No.: 281

1m / 5m / 10m SMA-Cable

High quality special SMA cable for connecting any HyperLOG®-Antenna or BicoLOG®-Antenna with various test equipment like our RF Spectrum-Analyzer. You can choose between 3 different cables:

1m standard SMA cable (RG316U)
5m LowLoss SMA cable (especially low damping)
10m LowLoss SMA cable (especially low damping)

All versions: SMA plug (male) / SMA plug (male)

Order/Art.-No.: 771 (1m Cable), 772 (5m Cable), 773 (10m Cable)

SMA to N Adapter

This special high quality adapter allows operation of all HyperLOG®-Antenna with any standard spectrum-analyzer with N connector. Also this adapter is needed to connect BicoLOG® antennas to a SPECTRAN Spectrum Analyzer.

Especially massive, chrome-plated design. This adapter is usable for very high frequencies up to at least 18GHz. Physical dimensions are just 30x20mm. Nominal impedance 50 Ohms. Layout: SMA socket (female) / N plug (male).

Order/Art.-No.: 770

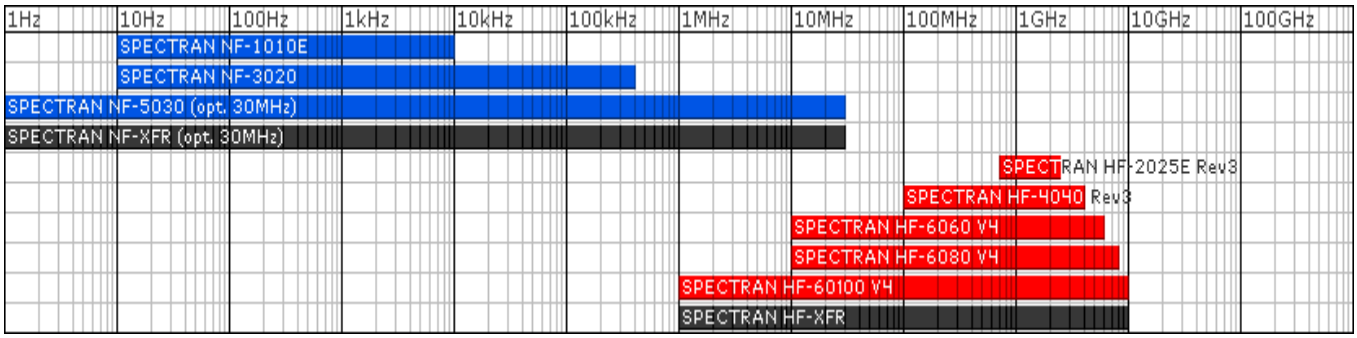
Heavy multifunctional Pistol Grip (strongly recommended!)

Highly recommend for the usage of HyperLOG antennas. Quick and easy change of antenna polarization, perfect antenna handling (even with the more heavy HyperLOG 30100X).

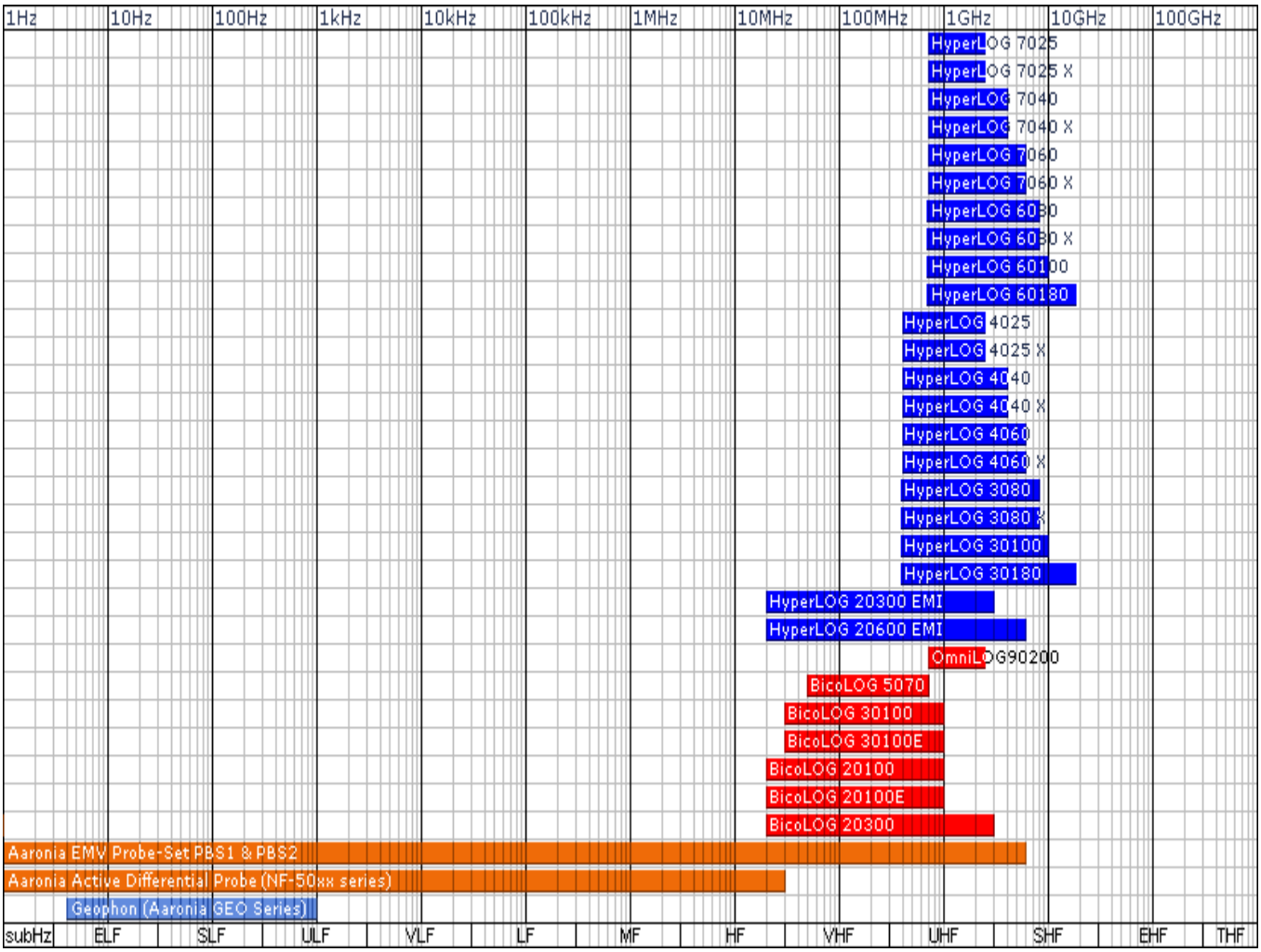
Order/Art.-No.: 282

Frequency overview Analyzer & Antennas

Frequency Overview SPECTRAN Spectrum Analyzer



Frequency Overview HyperLOG and BicoLOG Antennas and Probes



References

User of Aaronia Antennas and Spectrum Analyzers (Examples)

Government, Military, aeronautic, astronautic

- NATO, Belgien
- Boeing, USA
- Airbus, Hamburg
- Bund (Bundeswehr), Leer
- Bundeswehr (Technische Aufklärung), Hof
- Lufthansa, Hamburg
- DLR (Deutsches Zentrum für Luft- und Raumfahrt, Stuttgart
- Eurocontrol (Flugüberwachung), Belgien
- Australian Government Department of Defence, Australien
- EADS (European Aeronautic Defence & Space Company) GmbH, Ulm
- Institut für Luft- und Raumfahrtmedizin, Köln
- Deutscher Wetterdienst, Tauche
- Polizeipräsidium, Bonn
- Landesamt für Umweltschutz Sachsen-Anhalt, Halle
- Zentrale Polizeitechnische Dienste, NRW
- Bundesamt für Verfassungsschutz, Köln
- BEV (Bundesamt für Eich- und Vermessungswesen)

Research/Development, Science and Universitys

- Deutsches Forschungszentrum für Künstliche Intelligenz, Kaiserslautern
- Universität Freiburg
- Indonesien Institute of Sience, Indonesien
- Max-Planck-Institut für Polymerforschung, Mainz
- Los Alamos National Labratory, USA
- University of Bahrain, Bahrain
- University of Florida, USA
- Universität Erlangen, Erlangen
- Universität Hannover, Hannover
- University of Newcastle, Großbritannien
- Universität Strasbourg, Frankreich
- Universität Frankfurt, Frankfurt
- Uni München – Fakultät für Physik, Garching
- Technische Universität Hamburg, Hamburg
- Max-Planck Institut für Radioastronomie, Bad Münstereifel
- Max-Planck-Institut für Quantenoptik, Garching
- Max-Planck-Institut für Kernphysik, Heidelberg
- Max-Planck-Institut für Eisenforschung, Düsseldorf
- Forschungszentrum Karlsruhe, Karlsruhe

Industry

- Shell Oil Company, USA
- ATI, USA
- Fedex, USA
- Walt Disney, Kalifornien, USA
- Agilent Technologies Co. Ltd., China
- Motorola, Brasilien
- IBM, Schweiz
- Audi AG, Neckarsulm
- BMW, München
- Daimler Chrysler AG, Bremen
- BASF, Ludwigshafen
- Deutsche Bahn, Berlin
- Deutsche Telekom, Weiden
- Siemens AG, Erlangen
- Rohde & Schwarz, München
- Infineon, Österreich
- Philips Technologie GmbH, Aachen
- ThyssenKrupp, Stuttgart
- EnBW, Stuttgart
- RTL Television, Köln
- Pro Sieben – SAT 1, Unterföhring
- Channel 6, Großbritannien
- WDR, Köln
- NDR, Hamburg
- SWR, Baden-Baden
- Bayerischer Rundfunk, München
- Carl-Zeiss-Jena GmbH, Jena
- Anritsu GmbH, Düsseldorf
- Hewlett Packard, Dornach
- Robert Bosch GmbH, Plochingen
- Mercedes Benz, Österreich
- EnBW Kernkraftwerk GmbH, Neckarwestheim
- AMD, Dresden
- Infineon Technologies, Regensburg
- Intel GmbH, Feldkirchen
- Philips Semiconductors, Nürnberg
- Hyundai Europe, Rüsselsheim
- Saarschmiede GmbH, Völklingen
- Wilkinson Sword, Solingen
- IBM Deutschland, Stuttgart
- Vattenfall, Berlin
- Fraport, Frankfurt

Aaronia Distributors

Aaronia USA, 651 Amberton Crossing
Suwanee, Georgia 30024 USA
Phone ++1 678-714-2000, Fax ++1 678-714-2092
Email:sales@aaroniausa.com
URL:www.aaroniaUSA.com

Aaronia North China, Beijing Mesh Communication Tech Co. Ltd., No. 2 Huayuan Road, Building 2, Haidian District, 100191 Beijing, China
Phone ++86 10 822 37 606, Fax ++86 10 822 37 609
Email: sales@bjmesh.com
URL: www.bjmesh.com.cn

Aaronia South China, Shenzhen TORI Wisdom Technology Co., Ltd, 3BRM, RD FL Luhua Technology Bldg, Guangxia Road 7, Futian, 518049 Shenzhen, China
Phone ++86 755 888 580 86, Fax +86 755 830 73 418
Email: mail@aaronia-china.com
URL: www.aaronia-china.com

E-Instrument Tech Ltd., No. 16, Lane 37
Guanye E. Riad, Pingchen City,
324587 Taoyuan County, Taiwan
Phone:+886 3 4576 809 Fax: +886 3 468 8611
Email:sales@e-channel.com.tw
URL: www.e-channel.com.tw

Testpribor, Fabriciusa St. 30
Moscow 125363 Russia
Phone ++7 495-225-67-37
Email: testpribor@test-expert.ru
URL: www.test-expert.ru

EgeRate Elektronic Muh. ve Tic. Ltd. Sti,
Perpa Ticaret Merkezi, A Blok Kat: 5 No: 141,
Sisli / Istanbul, Turkey
Phone ++90 212 220 3483, Fax ++90 212 220 7635
Email: info@egerate.com
URL: www.egerate-store.com

Aimil Ltd, B-906, BSEL Tech Park, Opp. Vashi Rly Stn,
400705 Vashi, Navi Mumbai, India
Phone ++91 22 3918 3554, Fax ++91 22 3918 3562
Email:sanjayagarwal@aimil.com
URL:www.aimil.com

EKKON SA, Paraná 350, Capital Federal,
1017 Buenos Aires, Argentina
Phone ++ 54 114 123 009 1, Fax ++54 114 372 324 4
Email: info@aaronia-argentina.com.ar
URL:www.aaronia-argentina.com.ar

Mono Tech Ltd, 2 Johanan Hasandlar St.
44641 Kfar-Sava, Israel
Phone ++972 72 2500 290, Fax ++972 9 7654 264
Email: kobi@aaronia.co.il
URL: www.aaronia.co.il

Tagor Electronic doo
Tihomira Brankovica 21
18000 Nis, Serbia
Phone ++381 18 575 545, Fax ++381 18 217 125
Email: miodrag.stojilkovic@tagor.rs
URL: www.tagor-instrumenti.rs

NDN, Janowskiego 15
02-784 Warszawa, Poland
Phone ++48 22 641 1547, Fax ++48 22 641 1547
Email: ndn@ndn.com.pl
URL: www.ndn.com.pl

VECTOR Technologies Ltd, 40 Diogenous str., 15234
Halandri, Greece
Phone ++30 210 685 8008, Fax ++30 210 6858 8118
Email: info@vectortechnologies.gr
URL: www.vectortechnologies.gr

AARONIA AG
WWW.AARONIA.DE

Made in Germany

Aaronia AG, Gewerbegebiet Aaronia AG, DE-54597 Strickscheid, Germany
Phone ++49(0)6556-93033, Fax ++49(0)6556-93034
Email:mail@aaronia.de URL:www.aaronia.com

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