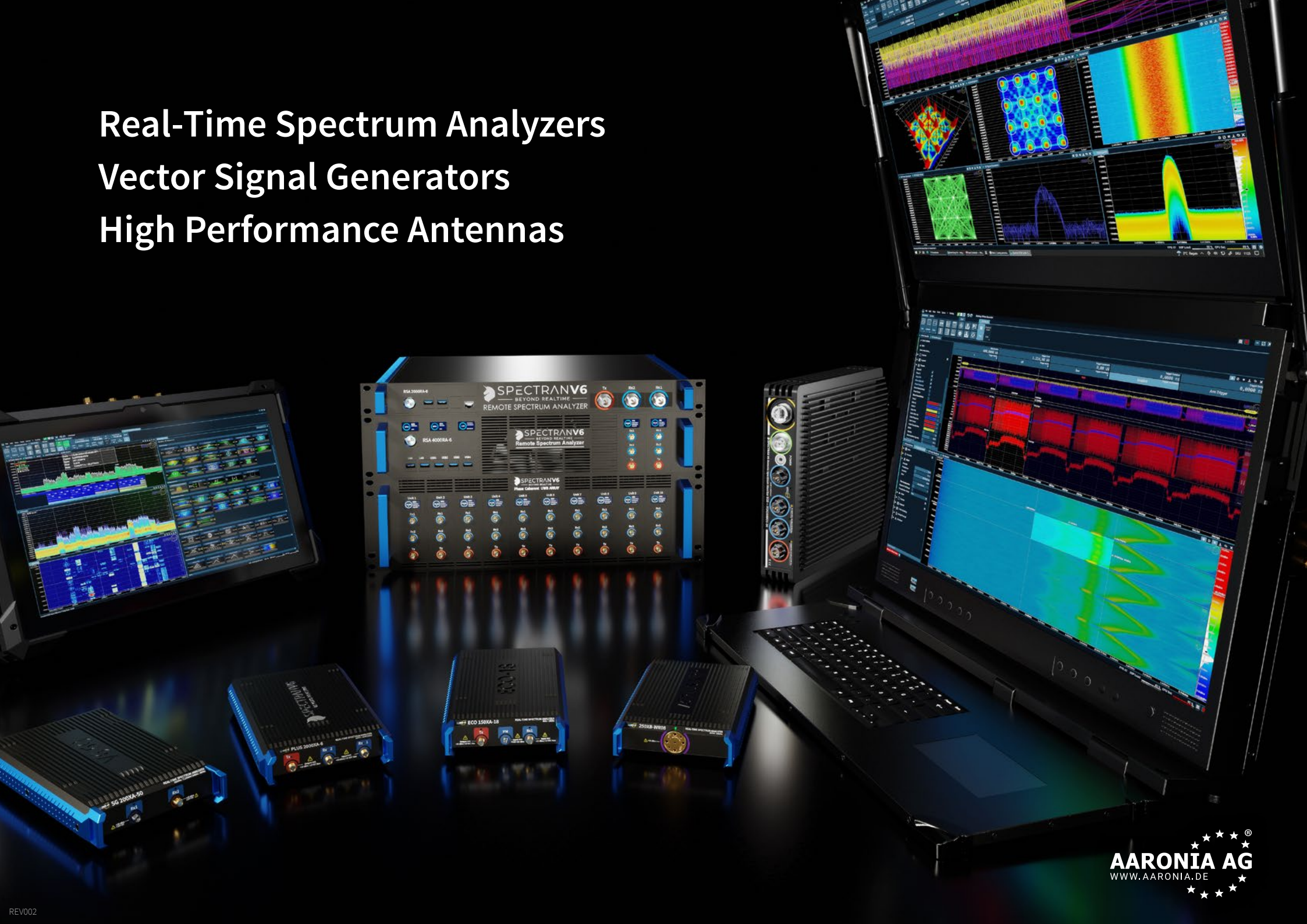


Real-Time Spectrum Analyzers Vector Signal Generators High Performance Antennas





The Company

Aaronia AG, established in 2003, is a leading German company specializing in advanced RF and EMF measurement technologies. Catering to industries like telecommunications, defense, aerospace, and research, Aaronia is known for its innovative spectrum analyzers, antennas, signal generators, and shielding solutions.

The company is headquartered in the picturesque Eifel region of rural Germany, where its state-of-the-

art high-tech campus serves as the hub for research, development, and production. This unique location combines the tranquility of the countryside with cutting-edge facilities, fostering innovation and technological excellence.

Renowned for precision and reliability, Aaronia combines German engineering excellence with a commitment to delivering high-performance solutions trusted worldwide.

German Engineering

Aaronia delivered its first Spectrum Analyzer in 2004, marking the start of a legacy in spectrum analysis innovation. In 2008, the V4 series broke records with a world-leading handheld sensitivity of DANL -170 dBm (Hz).

Since 2020, the 6th generation of SPECTRAN® analyzers has been on the market, offering real-time measurement capabilities that have redefined industry standards.

With the latest advancements, Aaronia introduces 490MHz real-time bandwidth and a staggering 3THz/s sweep speed, setting new benchmarks for speed and precision.

These features make the new generation of SPECTRAN® analyzers ideal for even the most demanding applications, solidifying Aaronia's position as a leader in cutting-edge spectrum analysis technology.



Always on the Edge of Innovation

Aaronia AG has consistently pushed the boundaries of RF and EMF measurement technology, establishing itself as a global leader in high-performance solutions. The company's flagship SPECTRAN® V6 series has set new benchmarks in the USB compact class.

By cascading multiple SPECTRAN® V6 devices, Aaronia achieves real-time bandwidths in the gigahertz range, enabling unparalleled performance in spectrum analysis. These systems are deployed globally,

from individual installations to complex integrated networks, showcasing their versatility and robust functionality.

This innovative approach is also the foundation for AARTOS™, the world's most powerful UAV detection system, with over 650 installations worldwide. AARTOS™ combines precision and scalability, making it a trusted choice for detecting and mitigating drone threats in security and defense applications.

Industry Leading Software

Aaronia's core mission encompasses the development, trade, and distribution of advanced measurement instruments and technologies. Its expertise spans low- and high-frequency measurement technology, robotics, and the shielding of electromagnetic fields.

The company also conducts basic research in communications and measurement technology, developing proprietary circuits and measurement meth-

ods that deliver extreme sensitivity and precision in high-frequency applications.

With a commitment to innovation and excellence, Aaronia continues to shape the future of RF measurement technology, providing groundbreaking solutions for diverse industries and applications.

Find out more at www.aaronia.com

SPECTRAN® V6 Real-Time Spectrum Analyzer Overview



Our SPECTRAN® V6 series of real-time spectrum analyzers are the most compact and fastest analyzers on the market.

The SPECTRAN® V6 can reliably capture even the shortest signal transmissions, sweeping 6GHz in less than 2 milliseconds (over 3THz per second).

Its full bandwidth IQ streaming (via USB) makes the V6 series unique on the market. With no other analyzer even coming close!

With countless capabilities, the SPECTRAN® V6 lets you overcome almost any challenge. Such as spectrum monitoring, RF and microwave measurements, interference hunting, EMC testing, Wi-Fi and wireless communication network troubleshooting, RF surveillance or counter-surveillance measurements.

The SPECTRAN® V6 is the ideal spectrum analyzer for taking fast and reliable measurements.

With a weight of only 850 g, the SPECTRAN® V6 is perfect for performing measurements in the field, while it's high-tech features also make it fit for use in the lab.

Each SPECTRAN® V6 includes our PC analysis software RTSa-Suite PRO, transforming it into a fully-featured benchtop spectrum analyzer.



SPECTRAN® V6 PLUS
REAL-TIME SPECTRUM ANALYZER

10MHz to 8GHz frequency range
490MHz real-time bandwidth
1100GHz/s sweep speed
IQ POI of 15/10 ns
DANL of -170 dBm/Hz



SPECTRAN® V6 ECO
REAL-TIME SPECTRUM ANALYZER

9kHz to 7,25GHz frequency range
44MHz real-time bandwidth
3THz/s sweep speed
IQ POI of 30/20 ns
DANL of -170 dBm/Hz



SPECTRAN® V6 ECO 18
REAL-TIME SPECTRUM ANALYZER

9kHz to 18GHz frequency range
60MHz real-time bandwidth
3THz/s sweep speed
IQ POI of 30/20 ns
DANL of -170 dBm/Hz



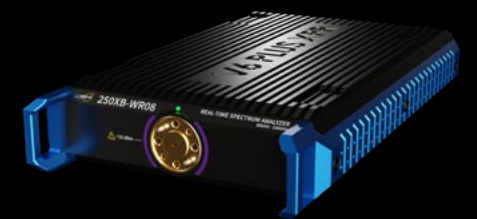
SPECTRAN® V6 ECO 5G
REAL-TIME SPECTRUM ANALYZER

250MHz to 53GHz frequency range
60MHz real-time bandwidth
3THz/s sweep speed
IQ POI of 30/20 ns
DANL of -170 dBm/Hz



SPECTRAN® V6 ECO XPR
REAL-TIME SPECTRUM ANALYZER

50GHz to 140GHz frequency range
60MHz real-time bandwidth
3THz/s sweep speed
IQ POI of 30/20 ns
DANL of -170 dBm/Hz



SPECTRAN® V6 PLUS XPR
REAL-TIME SPECTRUM ANALYZER

50GHz to 140GHz frequency range
490MHz real-time bandwidth
1100GHz/s sweep speed
IQ POI of 15/10 ns
DANL of -170 dBm/Hz



V6CUSTOMIZED

— PRECISION MADE SPECTRUM ANALYZERS —

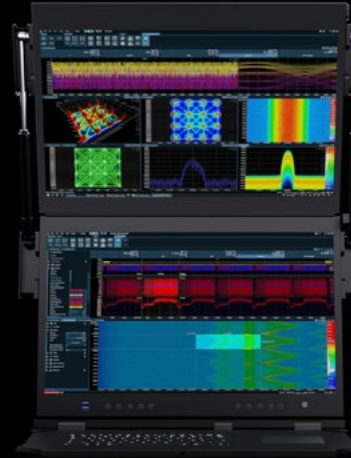
Aaronia AG provides tailored solutions for nearly every application, offering spectrum analyzers in a range of versatile form factors. From compact USB desktop models to advanced configurations, our devices are designed to meet diverse needs. Whether you require a powerful and portable tablet, a rugged outdoor device built for tough environments, or a high-performance server solution, Aaronia AG has the perfect option to suit your requirements.

With the innovative V6CUSTOMIZED service, you can personalize your device by allocating SPECTRAN® V6 analyzer slots and customizing the hardware to meet your specific demands. This flexibility ensures your analyzer is perfectly optimized for your applications. For seamless configuration, visit configurator.aaronia.com.

Aaronia's spectrum analyzers deliver unmatched performance, featuring real-time bandwidths of over 6GHz, lightning-fast sweep speeds of up to 30THz/s, and advanced capabilities for IQ data recording, signal classification, and decoding. Every device is engineered to provide unparalleled reliability and precision, ensuring it exceeds expectations in both laboratory and field environments. Whatever your spectrum analysis needs, Aaronia AG offers the ultimate solution, V6CUSTOMIZED just for you.

SPECTRAN® V6 CC Up to 4 SPECTRAN® V6 slots

- OUTDOOR
- INDOOR
- MOBILE
- STATIONARY
- HIGH END
- V6CUSTOMIZED



SPECTRAN® V6 MIL 1 SPECTRAN® V6 slot

- OUTDOOR
- MOBILE
- BATTERY POWERED
- RUGGEDIZED
- V6CUSTOMIZED



SPECTRAN® V6 Mobile 1 SPECTRAN® V6 slot

- OUTDOOR
- MOBILE
- BATTERY POWERED
- V6CUSTOMIZED



SPECTRAN® V6 ODB Up to 2 SPECTRAN® V6 slots

- OUTDOOR
- REMOTE
- STATIONARY
- RUGGEDIZED
- V6CUSTOMIZED



SPECTRAN® V6 RSA Up to 6 SPECTRAN® V6 slots

- INDOOR
- REMOTE
- STATIONARY
- V6CUSTOMIZED



SPECTRAN® V6 IQR Up to 10 SPECTRAN® V6 slots

- INDOOR
- REMOTE
- STATIONARY
- HIGH END
- V6CUSTOMIZED





SPECTRAN[®] V6 PLUS

REAL-TIME SPECTRUM ANALYZER

Aronia's latest generation of high performance real-time spectrum analyzers: Even the entry-level SPECTRAN[®] V6 250XA-6 model is equipped with a real-time bandwidth of 80MHz (optionally 120MHz) while the 500XA-6 version features an additional vector signal generator.

The flagship model 2000XA-6 is equipped with an astonishing real-time bandwidth of 160MHz (optionally up to 490MHz) and a sweep speed of up to 1100GHz/s. The SPECTRAN[®] V6 requires little space in the laboratory and is also ideal for mobile applications due to its low power requirements.



490MHz of Real-Time Brilliance in the Palm of your Hands

OUTDOOR

INDOOR

STACKABLE

MOBILE

USB POWERED



V6 PLUS 250XA-6

Frequency Band 10MHz - 6 8GHz	IQ POI 30 20 ns	Sweep Speed 300 440GHz/s	RTBW 80 120MHz
Rx ▶ 1 Rx	ADC ▶ Dual 2GSPS 16-Bit	Weight ▶ 850 g	
Tx ▶ -		SKU# ▶ 102/001	
DANL ▶ -165 dBm/Hz			



V6 PLUS 500XA-6

Frequency Band 10MHz - 6 8GHz	IQ POI 30 20 ns	Sweep Speed 300 440GHz/s	RTBW 80 120MHz
Rx ▶ 1 Rx	ADC ▶ Dual 2GSPS 16-Bit	Weight ▶ 850 g	
Tx ▶ 1 Tx		SKU# ▶ 102/002	
DANL ▶ -168 dBm/Hz			



V6 PLUS 2000XA-6

Frequency Band 10MHz - 6 8GHz	IQ POI 15 10 ns	Sweep Speed 730 1100GHz/s	RTBW 160 245 490MHz
Rx ▶ 2 Rx	ADC ▶ Dual 2GSPS 16-Bit	Weight ▶ 850 g	
Tx ▶ 1 Tx		SKU# ▶ 102/003	
DANL ▶ -170 dBm/Hz			



SPECTRAN[®] V6 ECO

REAL-TIME SPECTRUM ANALYZER

Redefining Sweep Speeds
with more than 3THz/s

OUTDOOR

INDOOR

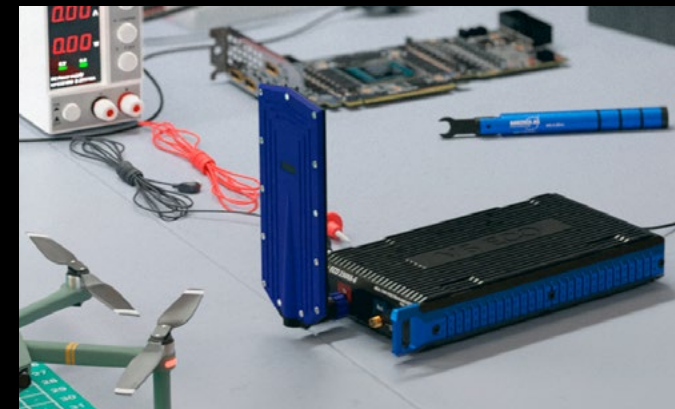
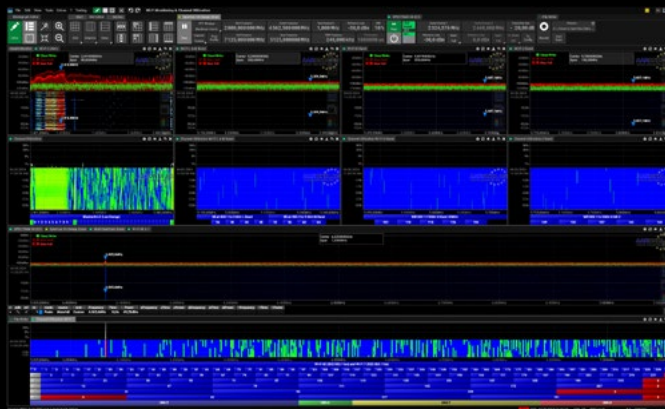
STACKABLE

MOBILE

USB POWERED

Aaronia presents the SPECTRAN[®] V6 ECO, a real-time, high-performance, spectrum analyzer and monitoring receiver designed to capture even the shortest signal transmissions. Its scanning speed and recording time are unrivaled. The analyzer scans 6GHz in 2ms (3THz/s),

making it the world's fastest USB spectrum analyzer. The entry-level 100XA-6 model features 1 Rx input with a RTBW of 44MHz, a vector signal output is added for the 150XA-6 version. The 200XA-6 with 2 independent Rx and a RTBW of 2x44MHz completes the V6 ECO lineup.



V6 ECO 100XA-6

Frequency Band 9kHz - 6 7.25GHz	IQ POI <1μs	Sweep Speed 500GHz/s 3THz/s	RTBW 44MHz
Rx ▶ 1 Rx	ADC ▶ Dual 2GSPS 16-Bit	Tx ▶ -	Weight ▶ 850 g
DANL ▶ -170 dBm/Hz	SKU# ▶ 102/011		



V6 ECO 150XA-6

Frequency Band 9kHz - 6 7.25GHz	IQ POI <1μs	Sweep Speed 500GHz/s 3THz/s	RTBW 44MHz
Rx ▶ 1 Rx	ADC ▶ Dual 2GSPS 16-Bit	Tx ▶ 1 Tx	Weight ▶ 850 g
DANL ▶ -170 dBm/Hz	SKU# ▶ 102/036		



V6 ECO 200XA-6

Frequency Band 9kHz - 6 7.25GHz	IQ POI <1μs	Sweep Speed 500GHz/s 3THz/s	RTBW 2x 44MHz
Rx ▶ 2 Rx	ADC ▶ Dual 2GSPS 16-Bit	Tx ▶ -	Weight ▶ 850 g
DANL ▶ -170 dBm/Hz	SKU# ▶ 102/037		



SPECTRAN® V6 ECO 18

REAL-TIME SPECTRUM ANALYZER

3THz/s Sweep Speed
from 9kHz to 18GHz

OUTDOOR

INDOOR

STACKABLE

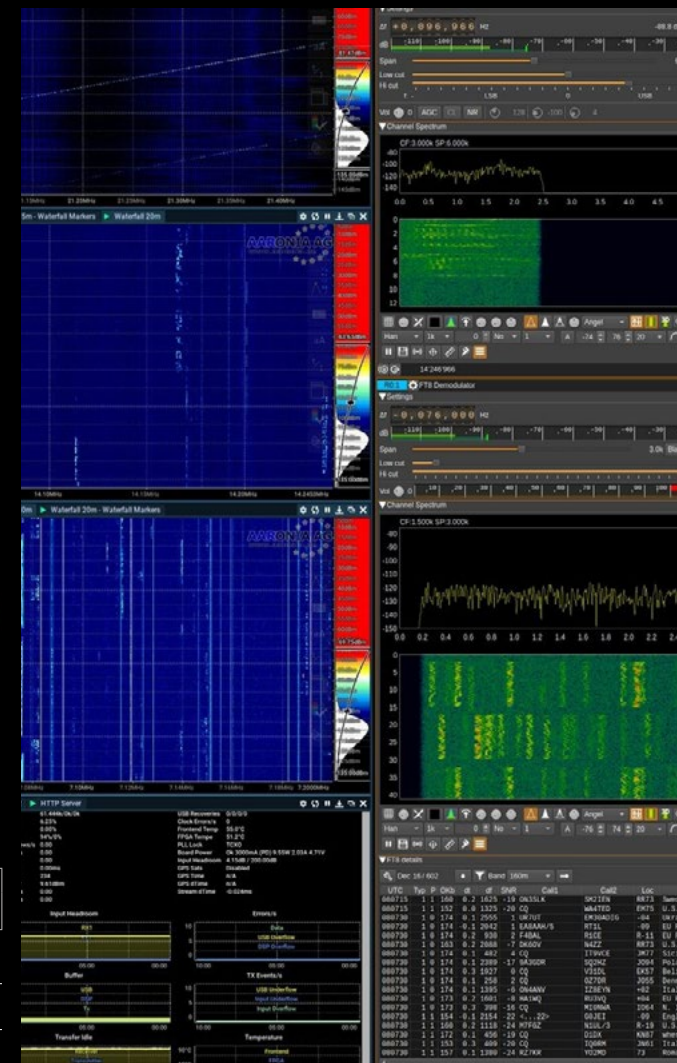
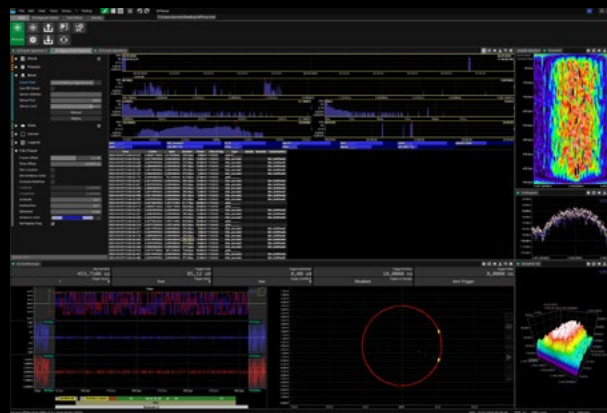
MOBILE

USB POWERED

The SPECTRAN® V6 ECO-18 Real-Time Spectrum Analyzer enables you to conquer almost any challenge. Whether it's spectrum monitoring, RF and microwave measurements, interference hunting, EMC testing or Wi-Fi and wireless network measurements, the SPECTRAN® V6 ECO-

18 is the ideal spectrum analyzer for making reliable and fast measurements.

The included analysis software, RTSA-Suite PRO, transforms the V6 ECO-18 into a fully-featured benchtop spectrum analyzer. The V6 ECO-18 offers a solution for almost every application.



V6 ECO 100XA-18

Frequency Band	IQ POI	Sweep Speed	RTBW
9kHz - 18GHz	<1μs	500GHz/s 3THz/s	60MHz
Rx	▶ 1 Rx	ADC	▶ Dual 2GSPS 16-Bit
Tx	▶ -	Weight	▶ 850 g
DANL	▶ -170 dBm/Hz	SKU#	▶ 102/065



V6 ECO 150XA-18

Frequency Band	IQ POI	Sweep Speed	RTBW
9kHz - 18GHz	<1μs	500GHz/s 3THz/s	60MHz
Rx	▶ 2 Rx	ADC	▶ Dual 2GSPS 16-Bit
Tx	▶ -	Weight	▶ 850 g
DANL	▶ -170 dBm/Hz	SKU#	▶ 102/066

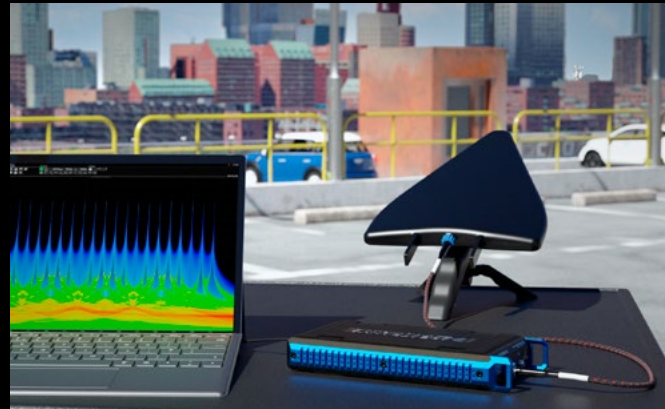


SPECTRAN[®] V6 ECO 5G

REAL-TIME SPECTRUM ANALYZER

Aaronia presents the SPECTRAN[®] V6 5G, a real-time spectrum analyzer specifically designed for monitoring 5G networks, detecting even the shortest signal interference or performance degradation. Its price/performance ratio as well as the number of available additional functions are

unsurpassed. The analyzer scans 6GHz in less than 2ms (3THz/s), making it one of the fastest USB spectrum analyzers in the world. Two different versions are provided, covering the complete range of 5G bands. Simply choose the one which fulfills your requirements.



Stay Ahead with 5G Spectrum Precision

OUTDOOR

INDOOR

STACKABLE

MOBILE

USB POWERED

Spectran[®] V6 USB Real-Time Spectrum Analyzers



V6 5G 100XA-30

Frequency Band 24GHz - 30GHz	IQ POI <1μs	Sweep Speed 500GHz/s 3THz/s	RTBW 60MHz
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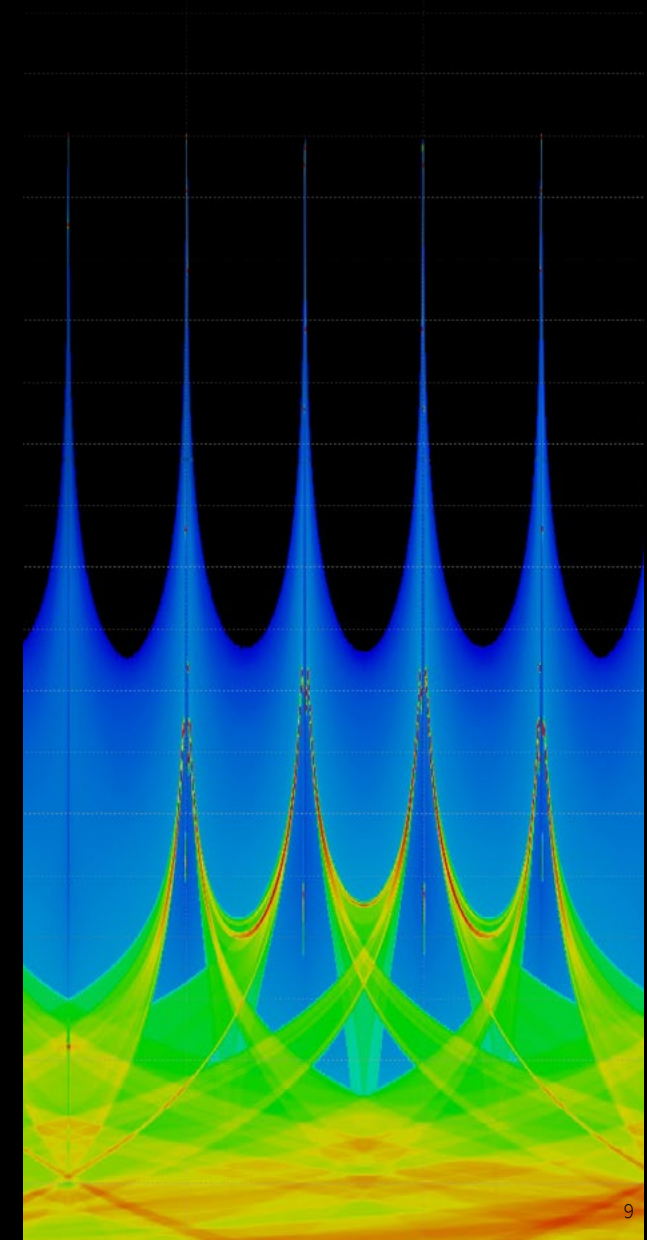
Rx	▶ 1 Rx	ADC	▶ Dual 2GSPS 16-Bit
Tx	▶ -	Weight	▶ 850 g
DANL	▶ -170 dBm/Hz	SKU#	▶ 102/053



V6 5G 200XA-50

Frequency Bands 250MHz - 7.5GHz / 24 - 53GHz	IQ POI <1μs	Sweep Speed 500GHz/s 3THz/s	RTBW 60MHz
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Rx	▶ 2 Rx	ADC	▶ Dual 2GSPS 16-Bit
Tx	▶ -	Weight	▶ 850 g
DANL	▶ -170 dBm/Hz	SKU#	▶ 102/055





SPECTRAN® V6 PLUS XPR

REAL-TIME SPECTRUM ANALYZER

Frequency Band
50GHz - 140GHz

IQ POI
15 | 10 ns

Sweep Speed
1100GHz/s

RTBW
490MHz

The SPECTRAN® V6 PLUS XPLORER delivers groundbreaking performance in a portable, lightweight design tailored for the most demanding professionals.

Boasting an astonishing 490MHz real-time bandwidth and a sweep speed of 1100GHz/s, it's engineered for applications requiring exceptional detail and precision.

From radar testing and automotive distance control systems to radio link setups and advanced spectrum monitoring, the PLUS XPLORER is versatile enough to handle even the most challenging microwave tasks.

Despite its compact form, its capabilities rival those of far larger systems, offering unparalleled performance and flexibility in one advanced solution.



V6 PLUS XPLORER 250XB-WR15

Frequency Band 50GHz - 75GHz	IQ POI 15 10 ns	Sweep Speed 730 1100GHz/s	RTBW 160 245 490MHz
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Rx	▶ 1 Rx	ADC	▶ Dual 2GSPS 16-Bit
Tx	▶ -	Weight	▶ 700 g
DANL	▶ -170 dBm/Hz	SKU#	▶ 102/077



V6 PLUS XPLORER 250XB-WR10

Frequency Band 75GHz - 110GHz	IQ POI 15 10 ns	Sweep Speed 730 1100GHz/s	RTBW 160 245 490MHz
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Rx	▶ 1 Rx	ADC	▶ Dual 2GSPS 16-Bit
Tx	▶ -	Weight	▶ 700 g
DANL	▶ -170 dBm/Hz	SKU#	▶ 102/079

Mastering Microwave Measurements, Anywhere You Go.

OUTDOOR

INDOOR

STACKABLE

MOBILE

USB POWERED



V6 PLUS XPLORER 250XB-WR12

Frequency Band 60GHz - 90GHz	IQ POI 15 10 ns	Sweep Speed 730 1100GHz/s	RTBW 160 245 490MHz
---------------------------------	----------------------	--------------------------------	----------------------------

Rx	▶ 1 Rx	ADC	▶ Dual 2GSPS 16-Bit
Tx	▶ -	Weight	▶ 700 g
DANL	▶ -170 dBm/Hz	SKU#	▶ 102/078



V6 PLUS XPLORER 250XB-WR08

Frequency Band 90GHz - 140GHz	IQ POI 15 10 ns	Sweep Speed 730 1100GHz/s	RTBW 160 245 490MHz
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Rx	▶ 1 Rx	ADC	▶ Dual 2GSPS 16-Bit
Tx	▶ -	Weight	▶ 700 g
DANL	▶ -170 dBm/Hz	SKU#	▶ 102/080



SPECTRAN[®] V6 ECO XPR

REAL-TIME SPECTRUM ANALYZER

Frequency Band
50GHz - 140GHz

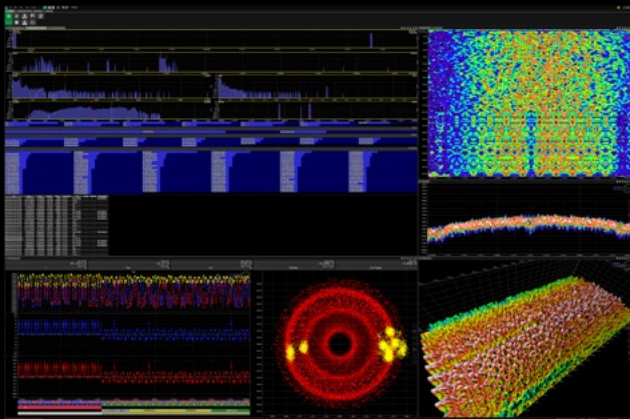
IQ POI
<1 μ s

Sweep Speed
3THz/s

RTBW
60MHz

The SPECTRAN[®] V6 ECO XPLORER is your ideal solution for advanced millimeter-wave applications, offering industry-leading value without sacrificing performance. With an ultra-fast sweep speed of up to 3THz/s, it ensures precise and efficient analysis for tasks such as spectrum monitoring, radar device testing, and setting up radio relay links.

Compact and lightweight, this cost-effective tool features a 60MHz real-time bandwidth, making it perfect for high-speed signal analysis and accurate results. Whether you're tackling cutting-edge technology or routine testing, the ECO XPLORER is the ultimate companion for high-performance spectrum analysis.



V6 ECO XPLORER 100XA-WR15

Frequency Band 50GHz - 75GHz	IQ POI <1 μ s	Sweep Speed 3THz/s	RTBW 60MHz
Rx ▶ 1 Rx	ADC ▶ Dual 2GSPS 16-Bit	Weight ▶ 700 g	SKU# ▶ 102/057
Tx ▶ -			
DANL ▶ -170 dBm/Hz			



V6 ECO XPLORER 100XA-WR10

Frequency Band 75GHz - 110GHz	IQ POI <1 μ s	Sweep Speed 3THz/s	RTBW 60MHz
Rx ▶ 1 Rx	ADC ▶ Dual 2GSPS 16-Bit	Weight ▶ 700 g	SKU# ▶ 102/061
Tx ▶ -			
DANL ▶ -170 dBm/Hz			

Efficiency Meets Precision in Every Sweep

OUTDOOR	INDOOR	STACKABLE
	MOBILE	USB POWERED



V6 ECO XPLORER 100XA-WR12

Frequency Band 60GHz - 90GHz	IQ POI <1 μ s	Sweep Speed 3THz/s	RTBW 60MHz
Rx ▶ 1 Rx	ADC ▶ Dual 2GSPS 16-Bit	Weight ▶ 700 g	SKU# ▶ 102/059
Tx ▶ -			
DANL ▶ -170 dBm/Hz			



V6 ECO XPLORER 100XA-WR08

Frequency Band 90GHz - 140GHz	IQ POI <1 μ s	Sweep Speed 3THz/s	RTBW 60MHz
Rx ▶ 1 Rx	ADC ▶ Dual 2GSPS 16-Bit	Weight ▶ 700 g	SKU# ▶ 102/063
Tx ▶ -			
DANL ▶ -170 dBm/Hz			



SPECTRAN[®] V6 TABLET

REAL-TIME SPECTRUM ANALYZER

Frequency Band
9kHz - 140GHz

IQ POI
15 | 10 ns

Sweep Speed
3THz/s

RTBW
490MHz

The Aaronia SPECTRAN[®] V6 MOBILE Real-Time Analyzer redefines portability and power in RF analysis. Equipped with an AMD Ryzen7 processor, 64 GB RAM, and ultra-fast PCI-E 4.0, it delivers high-end performance in a compact, mobile package. Depending on the built-in analyz-

er, it covers 9kHz up to 140GHz, achieving up to 3THz/s sweep speed, 490MHz real-time bandwidth, and an incredible -170 dBm/Hz DANL. Extensive I/Os ensure unmatched versatility, making it the ultimate solution for professionals on the move.

Raising the Bar for Mobile Performance

- OUTDOOR
- MOBILE
- BATTERY POWERED
- V6CUSTOMIZED

SpectranV6 ▶ 1 slot

Rx ▶ Up to 2 Rx

Tx ▶ Up to 1 Tx

DANL ▶ -170 dBm/Hz

ADC ▶ Dual 2GSPS 16-Bit

Storage ▶ Up to 32 TB

CPU ▶ AMD Ryzen™ 7 8-Core 8845HS

GPU ▶ AMD Radeon™ 780M

RAM ▶ 64 GB LPDDR5

Display ▶ 15.6" Touchscreen, 1500nit, 1920 x 1080

Batteries ▶ 2 included

Runtime ▶ 3.5 hours / battery

Connectors ▶ HDMI, USB-C Gen 3.2 (5 Gbps), 3x USB-A 3.0, 2x RJ45 2.5 GbE, SFP+, 3.5 mm audio, RS232, SD

Slots ▶ 2x M.2 2280, 3x M.2 2242, SIM

Cameras ▶ Front / Rear

Misc ▶ Smart pen, handle, hands-free strap, stand, VESA 100 mount, 220W power supply

Weight ▶ 5 kg





SPECTRAN[®] V6 MIL

REAL-TIME SPECTRUM ANALYZER

Frequency Band
9kHz - 140GHz

IQ POI
10 ns

Sweep Speed
3THz/s

RTBW
490MHz

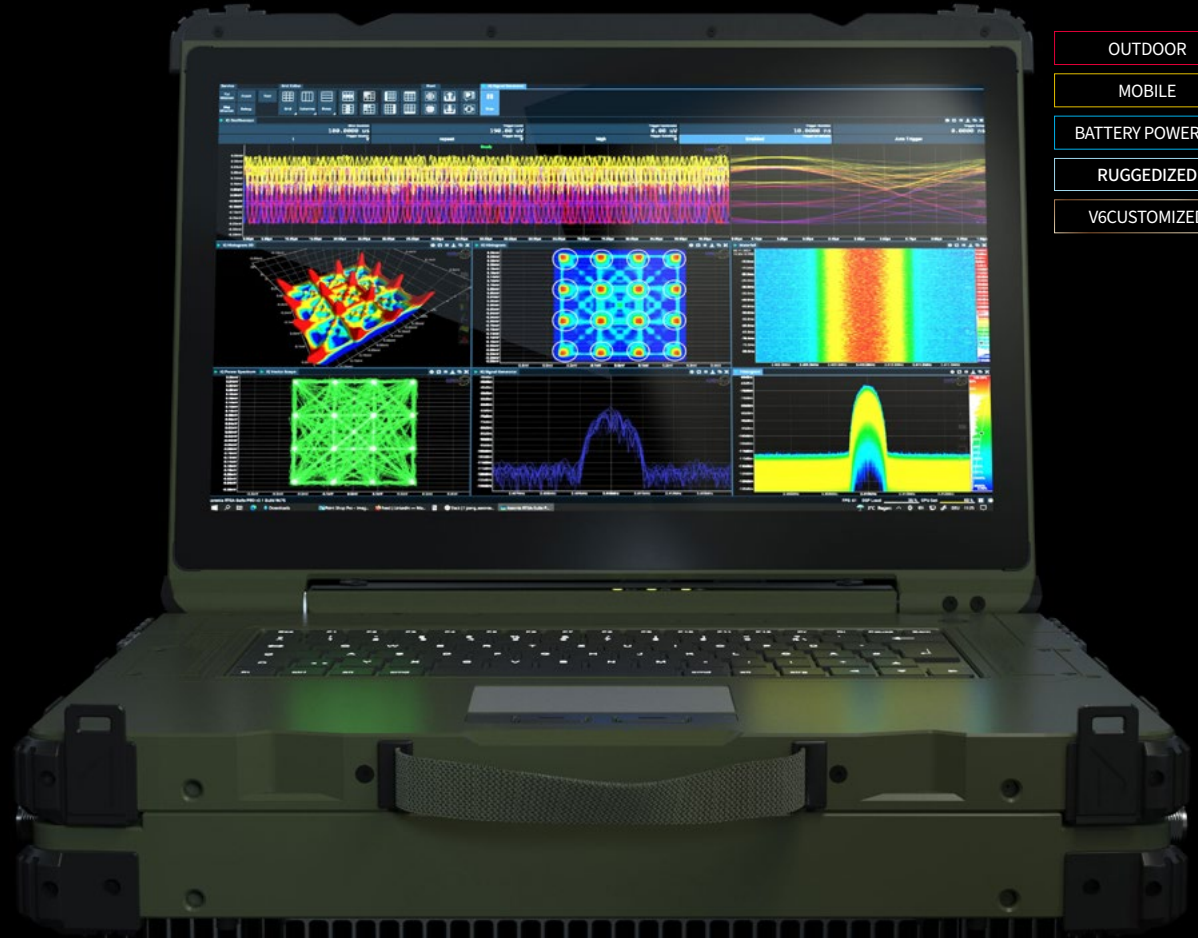
The SPECTRAN[®] V6 MIL is a state-of-the-art, military-grade outdoor spectrum analyzer that seamlessly blends exceptional power with unmatched ruggedness.

Equipped with an Intel[®] Xeon[®] processor, 64 GB of RAM, and a high-speed SSD, it offers superior performance while maintaining ultra-low noise levels as low as -170 dBm (Hz) DANL with the preamplifier on. This makes it a versatile and reliable solution

for a wide range of applications, from detecting eavesdropping attempts and monitoring VIP events to ensuring signal integrity through interference detection and EMC/EMI testing.

Whether used for technical surveillance, radio monitoring, or identifying weak or short-lived signals, the SPECTRAN[®] V6 MIL is designed to deliver precision and dependability in even the most demanding environments.

Military-Grade Durability, Cutting-Edge Precision.



- OUTDOOR
- MOBILE
- BATTERY POWERED
- RUGGEDIZED
- V6CUSTOMIZED

Spectran[®] V6 Integrated Real-Time Spectrum Analyzers

SpectranV6 ▶ 1 slot

Rx ▶ Up to 2 Rx

Tx ▶ Up to 1 Tx

DANL ▶ -170 dBm/Hz

ADC ▶ Dual 2GSPS 16-Bit

Storage ▶ Up to 16 TB

CPU ▶ Intel[®] XEON[®]

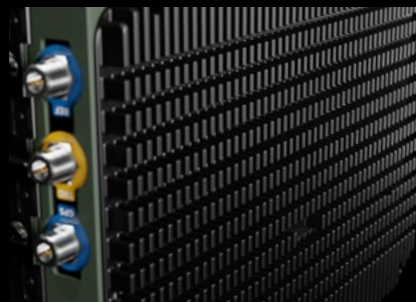
GPU ▶ nVidia GTX 1050

RAM ▶ 64 GB

Display ▶ 15,6" 1920x1080 anti-glare

Standard ▶ MIL-STD-810G, IP65

Weight ▶ 9.5 kg





SPECTRAN[®] V6 CC

REAL-TIME SPECTRUM ANALYZER

The Ultimate Portable Real-Time Battlestation

HIGH END

OUTDOOR

INDOOR

MOBILE

V6CUSTOMIZED

Frequency Band
9kHz - 140GHz

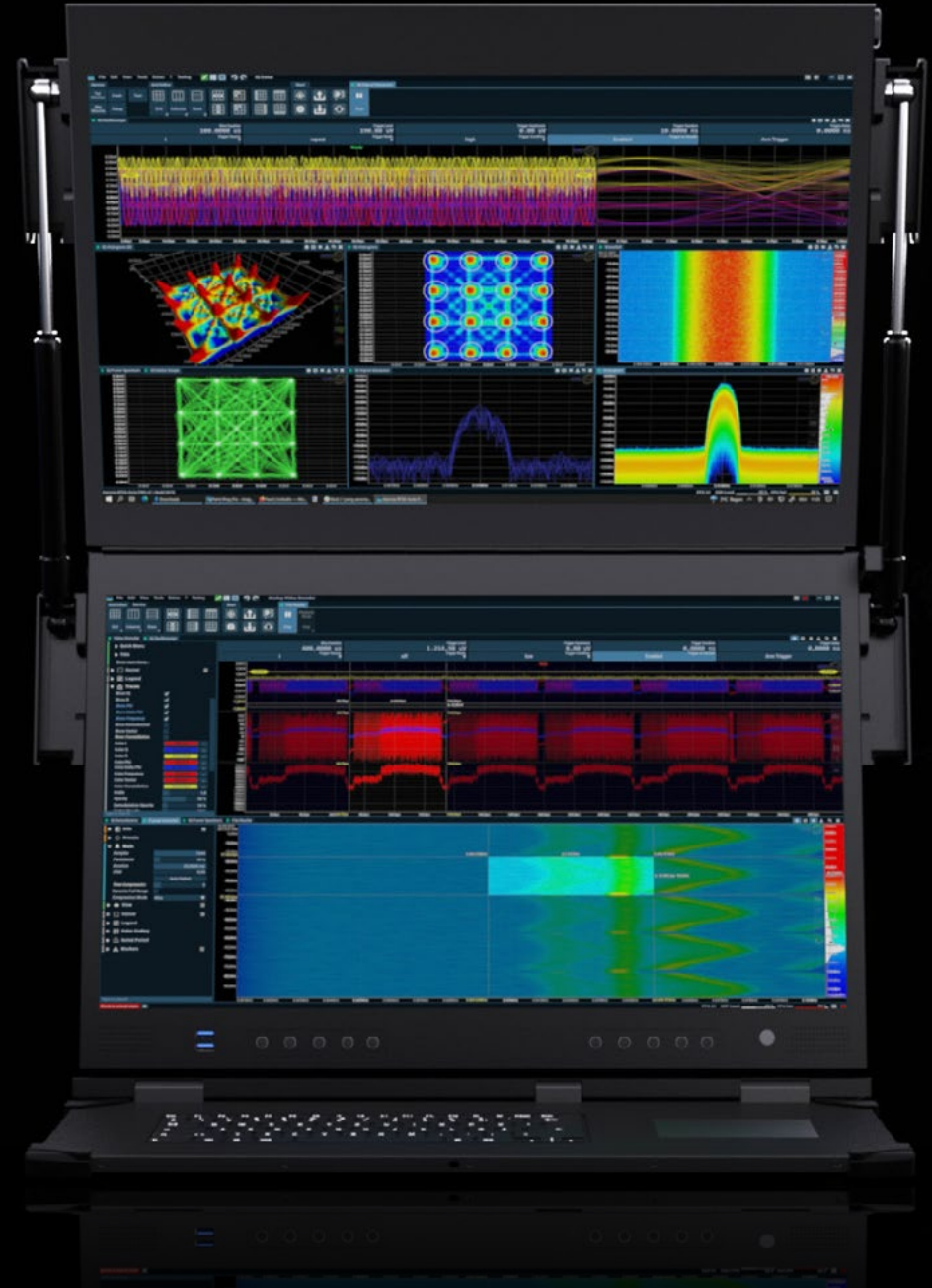
IQ POI
10 ns

Sweep Speed
12THz/s

RTBW
1960MHz

The SPECTRAN[®] V6 Command Center represents the pinnacle of Aaronia's innovation, delivering a spectrum analyzer of unmatched power and versatility. This high-performance system provides all the RF capabilities you need while ensuring precise and detailed measurements. Fully customizable and scalable, it supports up to four independent analyzers through a cascadable system. Its dual 24" 4K widescreen displays showcase an incredible

instantaneous bandwidth of up to 196MHz (complex I/Q) with a pin-point POI of just 10ns. Powered by an Intel[®] Core[™] i9-13900K 24-core processor, up to 128 GB DDR5 RAM, and an NVIDIA Geforce 4060 RTX graphics card, it delivers seamless streaming and playback. Made in Germany to the highest standards, the Command Center redefines reliability and performance in spectrum analysis.



SpectranV6 ▶ 4 slots

Rx ▶ Up to 8 Rx

Tx ▶ Up to 4 Tx

DANL ▶ -170 dBm/Hz

ADC ▶ 8x 2GSPS 16-Bit

Storage ▶ Up to 24 TB

CPU ▶ Intel[®] Core[™] i9-13900K

GPU ▶ nVidia Geforce 4060 RTX

RAM ▶ 128 GB DDR5

Display ▶ 2x 4K anti-glare

Network ▶ 2x 100 GbE

Weight ▶ 30.0 kg



SPECTRAN® V6 RODB

REAL-TIME SPECTRUM ANALYZER

24/7 Mesh Connectivity, Limitless Spectrum Oversight.

OUTDOOR

STATIONARY

REMOTE

RUGGEDIZED

V6CUSTOMIZED

Frequency Band
9kHz - 140GHz

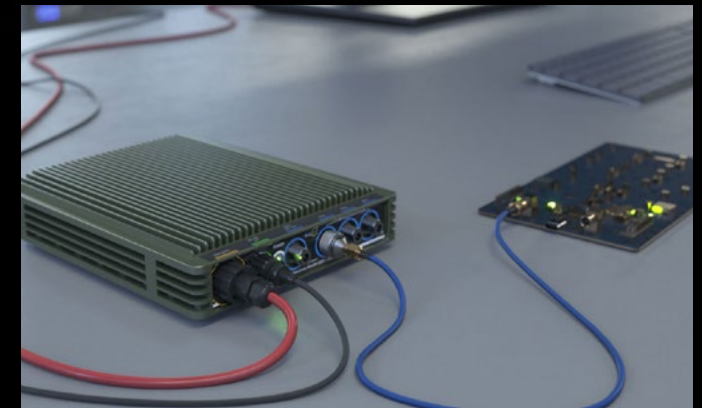
IQ POI
10 ns

Sweep Speed
6THz/s

RTBW
980MHz

The SPECTRAN® V6 RODB series offers a robust and versatile solution for continuous remote spectrum analysis and monitoring. These IP66-certified outdoor boxes integrate a state-of-the-art SPECTRAN® V6 real-time spectrum analyzer and a powerful PC, enabling seamless data streaming, analysis and recording. With internal storage options including 1 TB for the operating system and up to 30 TB for spectra or IQ data, these devices are perfectly suited for 24/7 monitoring in demanding environments.

Designed to deliver unmatched flexibility, the SPECTRAN® V6 RODB series features advanced mesh capabilities, allowing theoretically unlimited coverage via LAN, fiber optics, radio link, or LTE. Administration and configuration are made simple and intuitive through a user-friendly web interface, ensuring efficient operation and easy management of your spectrum analysis tasks. Whether for industrial, security, or telecommunications applications, the SPECTRAN® V6 RODB series provides reliable performance tailored to your monitoring needs.



SpectranV6 ▶ 1/2 slots

Rx ▶ Up to 4 Rx

Tx ▶ Up to 2 Tx

DANL ▶ -170 dBm/Hz

ADC ▶ 4x 2GSPS 16-Bit

Storage ▶ Up to 30 TB

OS ▶ Windows or Linux

Standard ▶ IP66

Network ▶ 1 GbE

Colors ▶ White, olive green





SPECTRAN[®]V6 RSA

REAL-TIME SPECTRUM ANALYZER

Remote Access,
Real-Time Precision.

HIGH END

REMOTE

STATIONARY

INDOOR

V6CUSTOMIZED

Frequency Band
9kHz - 140GHz

IQ POI
10 ns

Sweep Speed
18THz/s

RTBW
2940MHz

Our all-inclusive solution is crafted to meet and exceed your spectrum monitoring and streaming requirements, featuring a powerful inbuilt PC for seamless integration of processing and analysis. The dedicated remote control web interface offers effortless operation from any location, providing a smooth, intuitive user experience for both local and remote applications.

With 6GHz IQ real-time spectrum monitoring, you gain immediate insights, enabling quick and informed decisions. The 24/7 data streaming feature ensures that no critical information is ever

missed, continuously capturing and recording essential data. Supporting up to 6 configurable SPECTRAN[®] V6 Real-Time Spectrum Analyzers, the system scales effortlessly to meet the needs of complex or expanding operations.

Entirely customizable to align with your specific workflow, this solution delivers a perfect blend of precision, reliability, and adaptability. Whether for small-scale projects or demanding environments, it provides robust, high-performance spectrum monitoring and analysis tailored to your requirements.



SpectranV6 ▶ Up to 6 slots

Rx ▶ Up to 12 Rx

Tx ▶ Up to 6 Tx

DANL ▶ -170 dBm/Hz

ADC ▶ Up to 12x 2GSPS 16-Bit

Inbuilt PC ▶ Yes

Network ▶ 2.5/10 GbE

Sizes ▶ 1RU / 2RU / 4RU



1 SPECTRAN[®] V6 Analyzer Slot



2 SPECTRAN[®] V6 Analyzer Slots



6 SPECTRAN[®] V6 Analyzer Slots



SPECTRAN® V6 IQR

REAL-TIME SPECTRUM ANALYZER

Frequency Band
9kHz - 140GHz

IQ POI
10 ns

Sweep Speed
30THz/s

RTBW
4900MHz

Enjoy 24/7 IQ data recording and remote real-time spectrum monitoring. It records a continuous stream of IQ data, providing a complete picture of the spectrum. This data captures all signal characteristics, including amplitude and phase, making it incredibly detailed.

For applications requiring enhanced precision, an optional phase-coherency feature is avail-

able, enabling synchronized measurements across multiple analyzers. The recorded data can be played back in real-time or accelerated time, allowing for detailed analysis, simulation, and decision-making in controlled environments. Scale effortlessly with support for up to 10 V6 spectrum analyzers and tailor the system to your unique workflow with our fully configurable platform.



SpectranV6 ▶ Up to 10 slots

Rx ▶ Up to 30 Rx

Tx ▶ Up to 10 Tx

DANL ▶ -170 dBm/Hz

ADC ▶ 20x 2GSPS 16-Bit

Inbuilt PC ▶ No

Size ▶ 2RU / 4RU or more

Options ▶ Phase Coherency

HIGH END

REMOTE

STATIONARY

INDOOR

V6CUSTOMIZED



Frequency Band
9kHz - 140GHz

IQ POI
10 ns

Sweep Speed
18THz/s

RTBW
2940MHz

Discover the ultimate all-in-one solution with our high-end real-time spectrum analyzer featuring industry standard server architecture. Combining advanced spectrum analysis with powerful processing, it delivers seamless 24/7/365 IQ data recording and real-time monitoring. The system captures a continuous IQ data stream, providing a detailed spec-

trum overview with precise signal characteristics, including amplitude and phase. The inbuilt server ensures real-time data playback, accelerated simulation, and efficient decision-making. Supporting up to 6 SPECTRAN® V6 analyzers, this customizable platform offers unmatched performance and precision for demanding applications.



SpectranV6 ▶ Up to 6

Rx ▶ Up to 12

Tx ▶ Up to 6

Rx RTBW ▶ Up to 2.940MHz/s

IQ POI ▶ Up to 10 ns

Sweep ▶ Up to 18THz/s

Inbuilt PC ▶ High-End Server

Network ▶ 100 GbE

Storage ▶ Up to 1000 TB

Size ▶ 2RU 19" server rack

AARONIA RTSA-Suite PRO

Real-Time Analysis
Made Effortless

RTSA-Suite PRO is the world's fastest real-time spectrum analysis software, meticulously designed for our latest SPECTRAN® real-time instruments. Engineered to deliver unparalleled speed and precision, it sets the standard for modern spectrum analysis software.

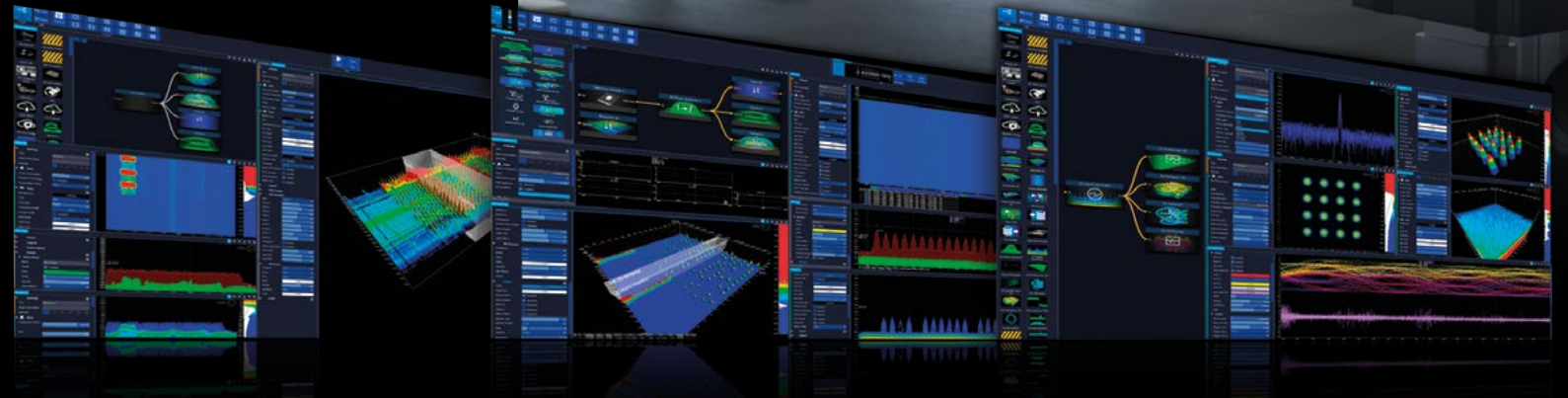
The software's versatility allows seamless integration of various hardware components, enabling comprehensive evaluation across a wide range of applications. Its intuitive block-based configuration system simplifies setup, providing optimal settings for almost any measurement scenario. With its extensive library of free standard blocks—valued at over €7,000—RTSA-Suite PRO equips you with the tools to handle most tasks right out of the box.

Notable included features:

- An HTTP Server and Client for web-based interactions
- AM/FM Demodulator for audio signal processing
- Sweep Zoom for enhanced signal detail
- Filewriter/reader for efficient data management
- 32k FFT feature for high-resolution frequency analysis

RTSA-Suite PRO runs seamlessly on both Windows and Linux, offering flexibility across operating systems. It features a powerful API, allowing users to create custom workflows, integrate third-party tools, or automate processes for maximum efficiency. Regular software updates ensure access to the latest features, performance enhancements, and compatibility improvements, keeping your analysis capabilities ahead of the curve.

Whether you require gapless real-time 3D views, unlimited recording time, simultaneous support for multiple devices, or advanced features like real-time demodulation and intelligent 3D TRIGGER, RTSA-Suite PRO is your ultimate solution. It supports USB 2.0 and 3.0, up to 20GHz real-time bandwidth, and full MATLAB compatibility, making it the go-to choice for almost limitless measurement scenarios. Experience unparalleled speed, flexibility, and innovation with RTSA-Suite PRO.



AARONIA RTSA-Suite PRO Software Blocks

Real-Time Analysis Made Effortless

GNSS Compass

#122/039 **Devices**
Allows the usage of an external dual GNSS satellite navigation system for position, direction and tilt information.

GPS

#122/004 **Devices**
The GPS block offers the possibility to read the GPS data from a GPS device.

NRP-Z11 Power Sensor

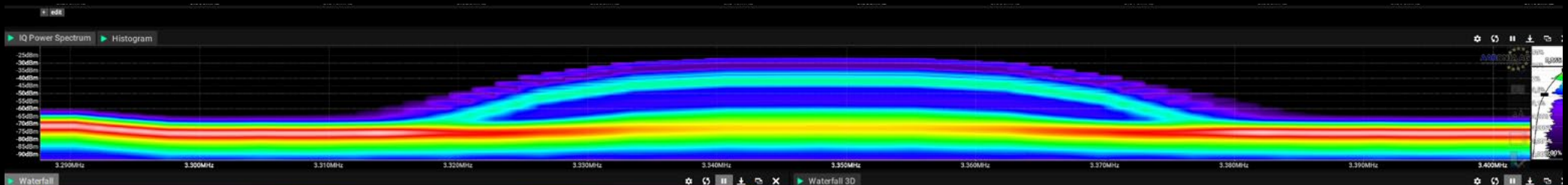
#122/007 **Devices**
Device control for the Rohde & Schwarz NRP-Z power sensor family.

NRQ6 Power Sensor

#122/008 **Devices**
Device control for the Rohde & Schwarz NRQ6 frequency selective power sensor.

RF SP4T Switch

#122/028 **Devices**
The RF SP4T Switch block can be used as a stand alone or within a mission.



Tektronix RSA

#122/029 **Devices**
Allows the usage and configuration of a separate Tektronix RSA USB Analyzer.

IQ Direction Power Spectrum

IQ Processing
Analyzes the IQ spectrum and will add an antenna sync information to it based on some advanced algorithm.

IQ High Prec Power Spectrum

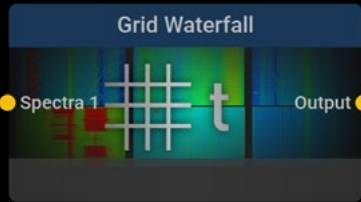
#122/051 **IQ Processing**
Converts I/Q data in real-time to SPEC-TRA using an highly optimized double precision 64Bit FFT algorithm.

IQ Pulse Inspector

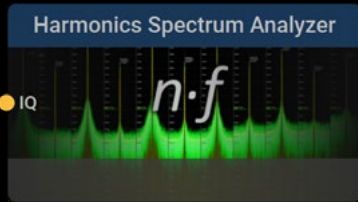
#122/017 **IQ Processing**
Offers a fully automatic digital signal burst/pulse classification and demodulation/decoder.

Channel Power

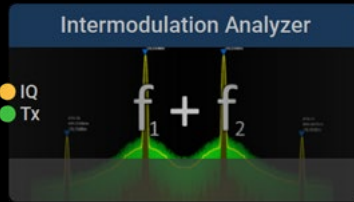
#122/019 **Measurement**
Generates the channel stream for the Category Timeline, Category Bars and Category Histogram blocks.



#122/020 **Measurement View**
Shows up to 16 waterfall displays within a single view.



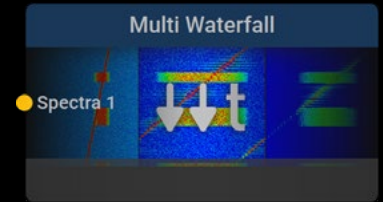
#122/005 **Measurement View**
The block offers a real-time harmonics and THD (in dBc and percentage) measurement based on IQ data.



#122/006 **Measurement View**
The Intermodulation Analyzer block offers a real-time IP3 (TOI) measurement.

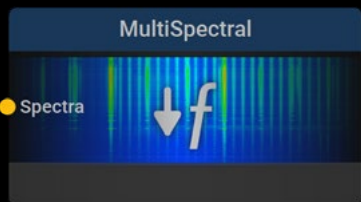
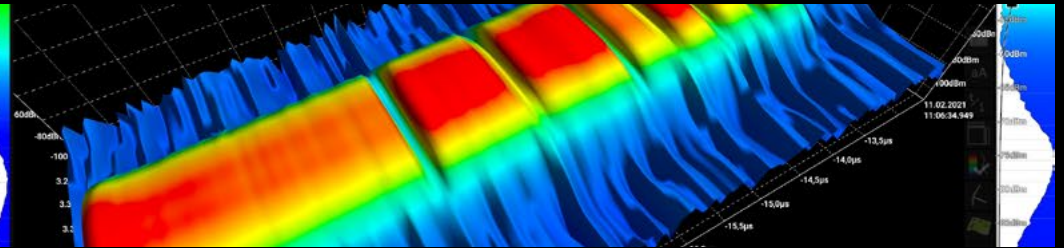
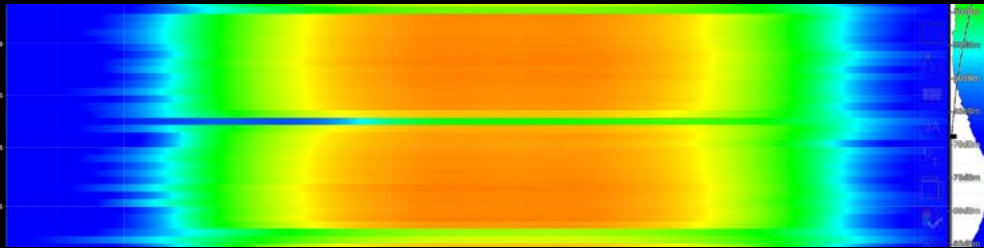


#122/049 **Measurement View**
The IQ Power Statistics block offers a real-time PDF, CDF, CCDF & Relative CCDF statistical RF power measurement.

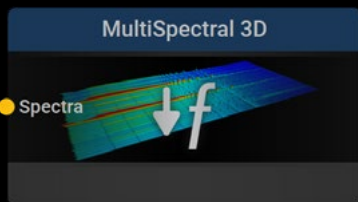


#122/020 **Measurement View**
The Multi Waterfall block (Grid Spectrogram) shows up to 8 waterfalls within a single view.

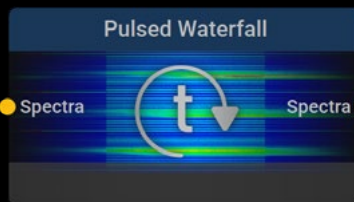
RTSA-Suite PRO Software



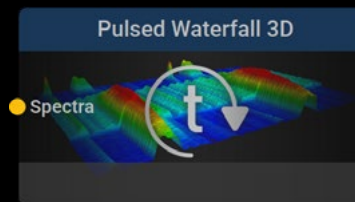
#122/022 **Measurement View**
Shows all fundamentals and harmonics within the frequency spectrum e.g. from pulsed or frequency modulated signals.



#122/022 **Measurement View**
Shows the fundamentals and harmonics from all pulsed or frequency modulated signals within the frequency spectrum at a glance in 3D.



#122/022 **Measurement View**
Identify the duration of any signal within the frequency spectrum live at a glance.



#122/022 **Measurement View**
Identify the duration of any signal within the frequency spectrum live at a glance.



#122/020 **Trigger|Detector|Filter**

AARONIA RTSA-Suite PRO Software Blocks

Real-Time Analysis Made Effortless

Antenna Segment Filter

#122/020 **Trigger|Detector|Filter**
 Allows you to filter the stream depending on the selected IsoLOG® 3D DF antenna segments.

Spectrum Multi Notch Filter

#122/040 **Trigger|Detector|Filter**
 The Spectrum Multi Notch Filter block allows you to remove or to reduce single or multiple signals from the spectrum.

Spectrum Reference

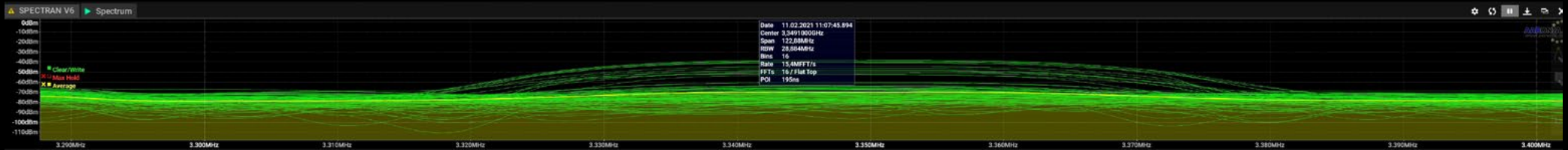
#122/030 **Trigger|Detector|Filter**
 Allows you to compare two spectra streams and to get the offset as a new spectra stream.

Category Bars

#122/019 **Channel Analysis**
 The Category Bars block offers a multi channel bargraph incl min, max and average graph.

Signal Event Merger

Trigger|Detector|Filter
 This block merges multiple signal event sources from the IQ Signal Classifier block to create a coherent dataset.



Category Histogram

#122/019 **Channel Analysis**
 The Category Histogram block offers a multi channel power vs time histogram graph.

Category Timeline

#122/019 **Channel Analysis**
 The Category Timeline block offers a functional multi channel timeline graph. This is a "must have" to monitor channels e.g. Bluetooth LE.

Channel Utilization

#122/019 **Channel Analysis**

Signal Strength Locator

#122/036 **Audio**
 The Signal Strength Locator offers an audio signal (frequency and/or pulse rate) proportional to the signal strength.

Video Decoder

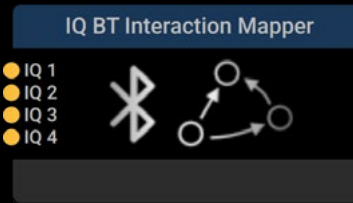
#122/054 **Decoder**
 The Video Decoder block decodes any analog video from an IQ stream in real-time.



#TBA **Decoder**
The IQ Signal Classifier block decodes and classifies multiple modulations within an IQ stream in real-time.



#TBA **Decoder**
The IQ Signal Event Explorer block offers a complex and powerful interactive IQ database search & selection graph.



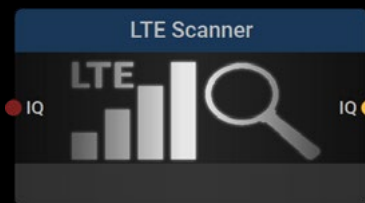
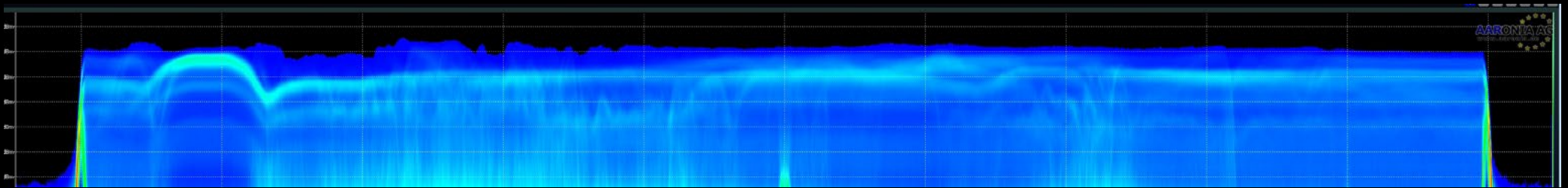
#122/053 **Decoder**
The IQ BT Interaction Mapper block shows all Bluetooth® devices and their MAC, vendor and protocol as a table and an interaction graph.



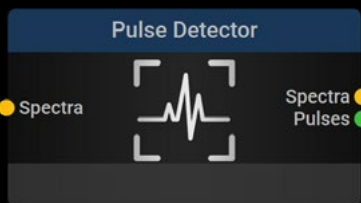
#122/034 **Decoder**
Shows the MAC, vendor, SSID and protocol used by all WiFi routers, nodes, phones etc. within detection range.



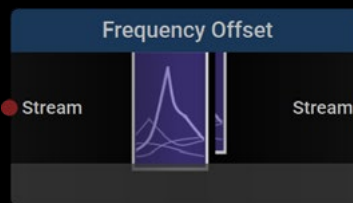
#122/052 **Decoder**
The LTE Decoder block synchronizes to your LTE cell, decodes and displays the most relevant data.



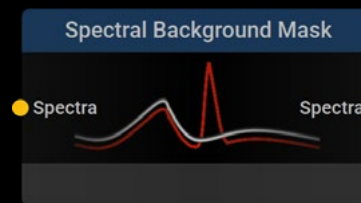
#122/052 **Decoder**
The LTE Scanner block automatically tunes your SPECTRAN® V6, scans for available cells and shows them in a table.



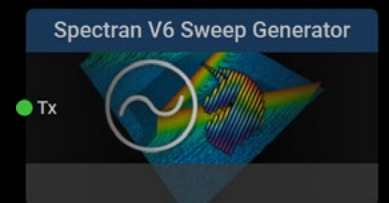
#122/022 **Decoder**
This block can identify pulsed signals matching specified power, duration and width conditions and forward them as JSON data.



#122/050 **Calibration**
The Intermodulation Analyzer block offers a real-time IP3 (TOI) measurement.



#122/041 **Calibration**
Removes all spurious or other signal from the spectrum to offer a perfect clean spectrum to measure your DUT within a noisy RF environment.



#122/032 **Sweep**
This block can sweep over the full frequency range starting at 75MHz up to 6GHz and is not limited to the RTBW.

AARONIA RTSA-Suite PRO Software Blocks

Real-Time Analysis Made Effortless



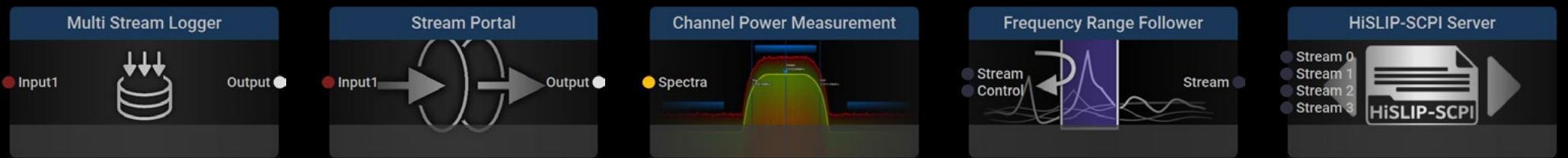
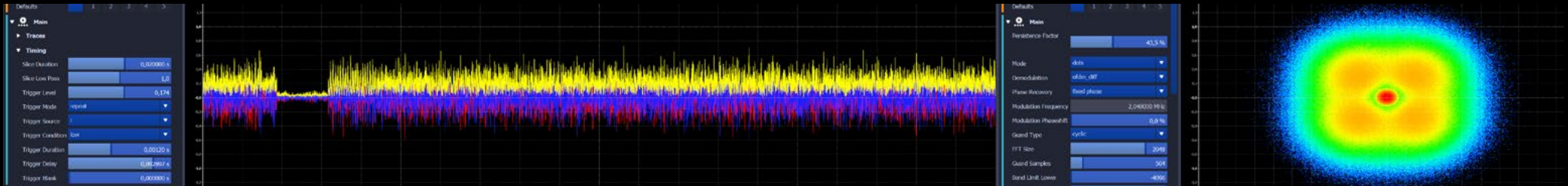
#122/038 **Sweep**
This block offers an impressive tracking generator, e.g. for rejection measurement of a DUT.

#122/012, 122/013 **In / Out**
These blocks can handle any data format (I/Q, SPECTRA, Video etc.) within the RTSA-Suite PRO.

#TBA **In / Out**
The Signal Event Power Trace offers an ID (device) specific event & power timeline graph allowing to track e.g. specific MAC addresses.

#TBA **In / Out**
This block pairs with IQ Signal Classifier to create a database for monitoring via IQ Signal Event Explorer inside the RTSA-Suite PRO.

#TBA **In / Out**
The Signal Event Database Writer streams signal events to an external database within a network.



#122/015 **In / Out**
Multi Stream Logger Block allows to merge and store up to 16 streams (IQ and/or Spectra).

#122/042 **In / Out**
Local machine stream IO (similar to the HTTP block) but is much more efficient and includes an adjustable buffer for time critical missions.

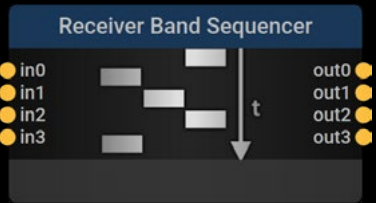
#122/002 **Control**
Measures the ratio of power between the main channel and those channels around the main channel.

#122/003 **Control**
Changes the center frequency and span of an additional SPECTRAN® V6 according to the cursor of the first SPECTRAN® V6.

#122/046 **Control**
Provides a TCP/IP server interface with a SCPI command set to control a RTSA-Suite PRO Mission remotely.

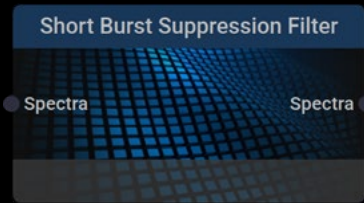
AARONIA RTSA-Suite PRO Software Blocks

Real-Time Analysis
Made Effortless



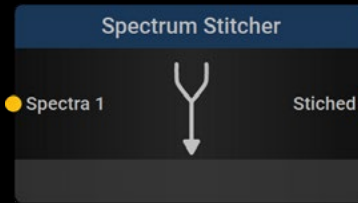
#122/037 **Control**

Consists of up to 32 individual frequency band setups which can be run as a batch sequence over and over again.



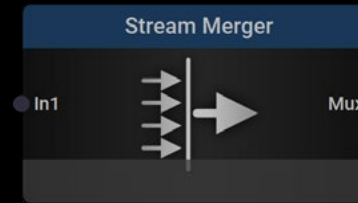
#122/001 **Control**

The Short Burst Suppression Filter attempts to suppress short pulses from an incoming spectra stream.



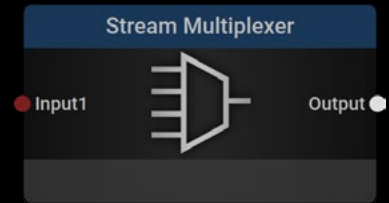
#122/031 **Control**

The Spectrum Stitcher block merges/stitches multiple spectra streams to a single new spectra stream.



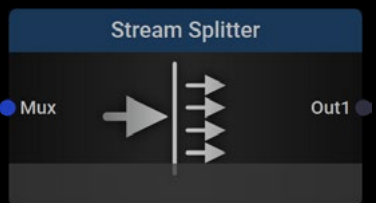
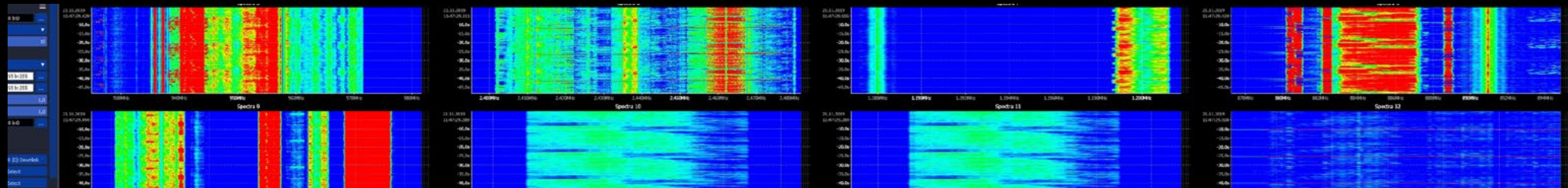
#122/023 **Control**

The Stream Merger block merges up to 16 data stream of any type to a single mixed stream.



#122/016 **Control**

This block switches/selects from multiple sources (even different data formats e.g. IQ, video, spectra are supported).



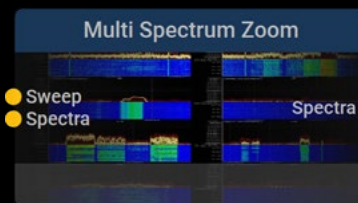
#122/034 **Control**

The Stream Splitter block splits the output of the Stream Merger block back to the original streams.



#122/020 **Master Application**

The IsoLOG[®] Directional Finding block shows you the direction of any selected RF signal(s) in real-time and high accuracy on a map.



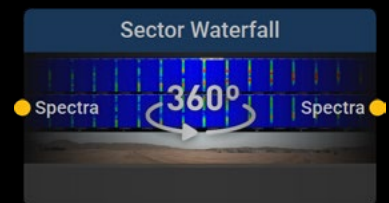
#122/014 **Master Application**

The Multi Spectrum Zoom block is a very capable tool to monitor a large frequency spectrum.



#122/035 **Master Application**

The RF Drive Test block offers a functional RF drive test solution.



#122/020 **Direction Finding**

This block shows a dedicated waterfall for each antenna sector of the IsoLOG[®] 3D DF antenna.



SPECTRAN® V6 FORUM

Visit our official SPECTRAN® V6 Support Forum.

TECHNICAL DATA

EXAMPLE MISSIONS

CUSTOMER APPLICATIONS

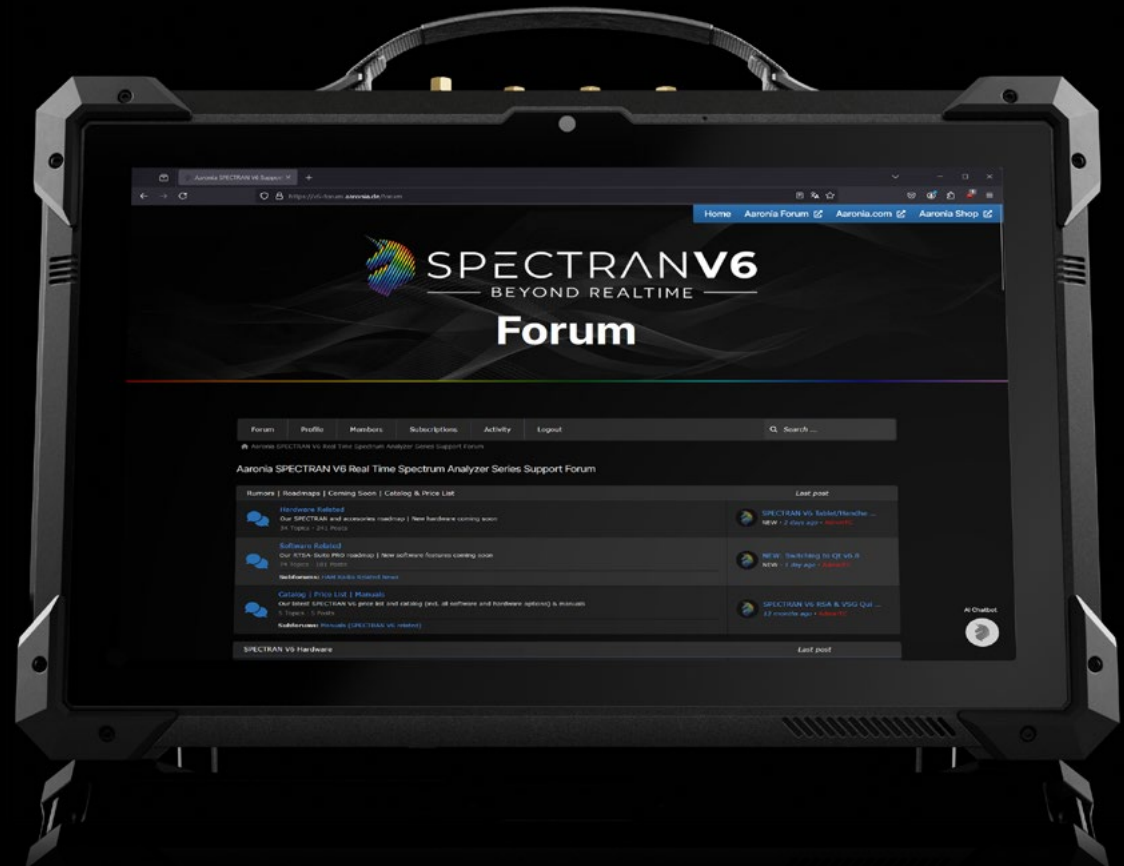
SUPPORT & HELP

API / SDK

Here you will find current information, latest products of the SPECTRAN® V6 family, explanations of individual software features and get professional help for the operation of your real-time spectrum analyzer.

We also welcome new ideas and suggestions.

Visit us at <https://v6-forum.aaronia.de>



SPECTRAN® V6 Accessories

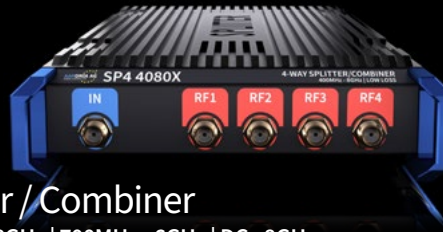


Directional Coupler

50MHz - 6000MHz

High-directivity directional coupler. Provides outstanding directivity and excellent coupling flatness from 50 to 6000MHz, making S-parameter measurements and intermodulation measurements as well as other test and system applications possible.

Connectors	▶ SMA (f)	Insertion loss	▶ 2dB
Impedance	▶ 50 Ohm	Op. temp.	▶ -40 to 85°C
Coup. flatness	▶ ± 0.45dB	Design	▶ USB Desktop
Directivity	▶ up to 33dB	SKU#	▶ 502/017
VSWR (typ.)	▶ 1.2:1		

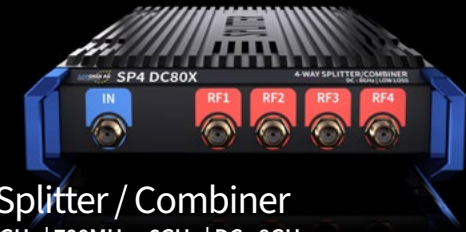


Splitter / Combiner

400MHz - 8GHz | 700MHz - 6GHz | DC - 8GHz

External 4- or 6-way low-loss splitter/combiner (e.g. stitch multiple V6 units to expand the real-time bandwidth). Automatically locking and stackable on SPECTRAN® V6 devices, RF-over-Fiber-converter-systems and V6 powerbanks.

Connectors	▶ SMA (f)	Isolation	▶ ≥ 6 dB
Impedance	▶ 50 Ohm	Insertion loss	▶ ≤ 15 - 20 dB
Power handling	▶ 2W	Design	▶ USB Desktop
Amp. balance	▶ ± 0.8 dB	SKU#	▶ Various



Active Splitter / Combiner

400MHz - 8GHz | 700MHz - 6GHz | DC - 8GHz

Active external 4- or 6-way low-loss splitter/combiner (e.g. stitch multiple V6 units to expand the real-time bandwidth). Automatically locking and stackable on SPECTRAN® V6 devices, RF-over-Fiber-converter-systems and V6 powerbanks.

Connectors	▶ SMA (f)	Isolation	▶ ≥ 6 dB
Impedance	▶ 50 Ohm	Insertion loss	▶ ≤ 0 - 5 dB
Power handling	▶ 2W	Design	▶ USB Desktop
Amp. balance	▶ ± 0.8 dB	SKU#	▶ Various



Broadband Power Amplifier

10MHz to 70GHz | 50dB Gain

With 50dB gain, this compact amplifier delivers unparalleled power across a wide frequency range, ensuring optimal performance in diverse applications. Ideal for demanding environments, our amplifier is engineered to provide consistent signal amplification, making it a valuable asset in research, communication, and testing scenarios.

Connectors	▶ 1.85 mm (V)	NF (1-50GHz)	▶ 6 dB
Impedance	▶ 50 Ohm	I/O Return Loss	▶ -5 dB
Gain	▶ Typ. 50 dB	Design	▶ USB Desktop
Psat:	▶ +15 dBm	SKU#	▶ TBA



RF over Fiber

10MHz to 4 | 6 | 10 | 16GHz

Cable damping is a thing of the past! Aaronia's RF over Fiber solution offers exceptional dynamics and linear frequency response. This makes it possible for the first time to transmit RF signals quasi 1:1 via fiber optics.

This allows cable lengths of up to 100km to be achieved. Additionally, a galvanic separation between transmitter and receiver is achieved. Automatically locking and stackable on SPECTRAN® V6 devices, 4-way splitter/combiner and V6 powerbanks. Requires "OS2 Single Mode" fiber optics with "FC/APC connectors".



SPECTRAN® V6 Powerbank

26800mAh

The Aaronia Powerbank with its 26800mAh allows a high runtime extension of the SPECTRAN® V6 with a laptop.

The powerbank is specially designed for the SPECTRAN® V6 and provides the required voltage and power, and up to two additional devices can be supplied via USB. Allows a runtime of the SPECTRAN® V6 of up to 4-5 hours. Automatically locking and stackable on SPECTRAN® V6 devices, V6 powerbanks, RF-over-Fibre-converter-systems and 4-way splitter/combiner.

SPECTRAN® V6 Accessories



SPECTRAN® V6 Mounting Plate

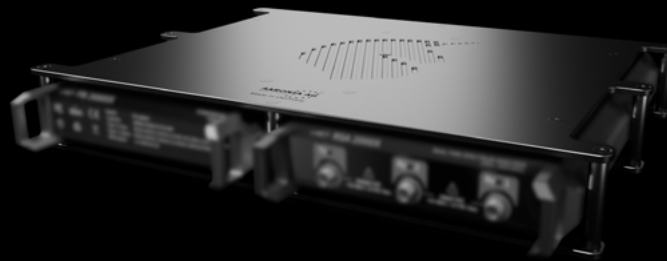
Vertical version

Coated aluminum mounting plates for attaching two SPECTRAN® V6 form factor units in a vertical position. Very compact and sturdy connection especially made for outdoor usage.

Fits all current V6 analyzers, signal generators, splitters, couplers, RFoF units and the powerbank. Mounting rods and screws are included.

Dimensions ▶ 248 x 185 mm

SKU# ▶ 503/062



SPECTRAN® V6 Mounting Plate

Horizontal version

Coated aluminum mounting plates for attaching two SPECTRAN® V6 form factor units in a horizontal position. Very compact and sturdy connection especially made for outdoor usage.

Fits all current V6 analyzers, signal generators, splitters, couplers, RFoF units and the powerbank. Mounting rods and screws are included.

Dimensions ▶ 248 x 248 mm

SKU# ▶ 503/034



Precision Torque Wrench

For Aaronia analyzers, antennas and accessories

Precision Torque Wrench for Aaronia analyzers, antennas and accessories as well as 3rd party products with 3.5mm, 2.92mm for correct mounting and reproducible measurement:

Suited for ▶ 2.4mm / 1.85mm / SMA

Torque ▶ 0.9 N.m.

Wrench size ▶ 5/16"

SKU# ▶ 503/061

Aaronia Antenna Overview



Directional	DF Tracking	Omnidirectional / Biconical	3D Isotropical	EMC / EMI	Probes
<ul style="list-style-type: none"> • 9kHz to 70GHz • Various designs • Unrivaled bandwidth • High directivity and gain • For the laboratory and in the field 	<ul style="list-style-type: none"> • 200kHz to 40GHz • 3D tracking antennas • Cost-effective and powerful • Real-time signal monitoring • Direction finding • Geolocation 	<ul style="list-style-type: none"> • 20MHz to 18GHz • Cost-effective broadband antennas • Omnidirectional / biconical • Constant gain 	<ul style="list-style-type: none"> • 9kHz to 8GHz • 3D measurements • Integrated preamplifiers • High gain and low noise 	<ul style="list-style-type: none"> • 20MHz to 8GHz • Professional EMC pre-compliance test antennas • Unsurpassed accuracy • Very high gain 	<ul style="list-style-type: none"> • DC to 9GHz • Pinpoint measurements of interference sources • Estimate interference field strengths, check shieldings and filter measures



Probe & EMC Sniffer Sets

Passive: DC to 9GHz | Active: 1MHz to 9GHz

Our EMC Near Field Probe Set enables precise pinpointing and measurement of interference sources from DC to 6GHz in electronic components and supports generic EMC testing. The set includes 5 insulated probes: 4 for magnetic fields and 1 for electric fields, ensuring safe measurement of oscillators or mains lines. Ideal for locating interference identified in standards like EN55011 or EN55022, it allows efficient verification of circuit changes, eliminating costly EMC lab reassessments.

The PBS2 Probe-Set includes a high-performance preamplifier, enhancing sensitivity by up to 40 dB for detecting weaker interference sources.

PBS 1 (passive)	▶ 203/002	Connector	▶ SMB (f)
PBS 2 (active)	▶ 203/003		



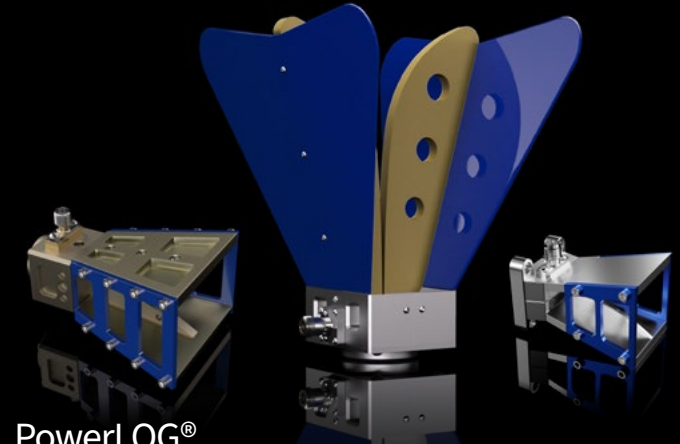
PowerLOG® PRO EMI

Double Pole Broadband Horn - 300MHz to 8GHz

The double polarized quad-ridged horn antennas of the PowerLOG® PRO series are characterized by enormous broadband and very high transmit power. The gain increases with increasing frequency up to max. approx. 14 dBi and generates a constant field strength virtually independent of frequency. This predestines the PowerLOG® PRO especially for EMI compliance tests, since the amplifier does not have to be readjusted depending on the frequency, which saves considerable calibration and measurement effort.

Another special feature of the PowerLOG® PRO is its two inputs. This allows a horizontally or vertically polarized measurement without the need for an error-prone reconfiguration of the antenna.

Input level	▶ 500W CW	PL PRO 30300 EMI	▶ 300MHz - 3GHz	14 dBi gain	205/004
Active	▶ No	PL PRO 30600 EMI	▶ 300MHz - 6GHz	12 dBi gain	205/006
Connector	▶ 2x N (f)	PL PRO 30800 EMI	▶ 300MHz - 8GHz	14 dBi gain	205/005



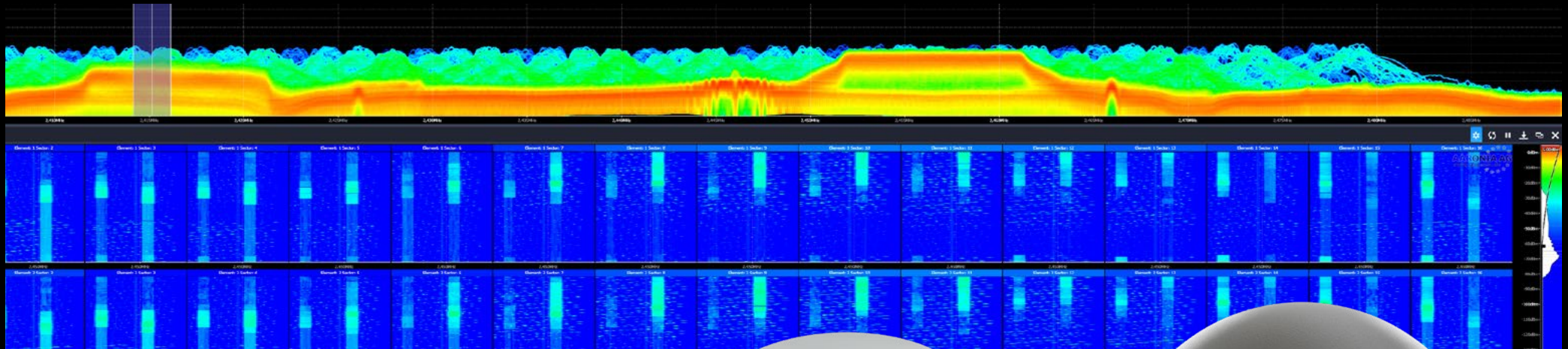
PowerLOG®

Double Pole Broadband Horn - 300MHz to 8GHz

The PowerLOG® series is suitable for both transmitting and receiving purposes. Due to the very high maximum transmit power of up to 500W (peak), the PowerLOG® series is particularly suitable for EMC or interference emission measurements. The delivery of each Aaronia PowerLOG® antenna includes the complete high resolution calibration data with a high number of calibration points (certificate and download link to Excel file included).

The horn antennas of the standard PowerLOG® series are characterized by enormous broadband and very high input power. The gain increases with increasing frequency up to max. approx. 25 dBi. This gain increase compensates for the increasing cable losses at higher frequencies.

PL 10800	▶ 1GHz - 8GHz	400W (peak)	N (f)	13 dBi gain	205/001
PL 70180	▶ 700MHz - 18GHz	500W (peak)	N (f)	17 dBi gain	205/002
PL 40400	▶ 14GHz - 40GHz	300W (peak)	K 2.92 mm (f)	17 dBi gain	205/003
PL 50700	▶ 5GHz - 70GHz	50W (peak)	V 1.85 mm (f)	25 dBi gain	205/007



The IsoLOG® 3D DF is Aaronia's groundbreaking 3D RF tracking antenna, uniquely capable of determining the elevation and altitude of RF sources, making it ideal for tracking drones, airplanes, and other flying transmitters.

With market-leading tracking speeds of 8µs per sector, it offers real-time monitoring across all directions, altitudes, and frequencies simultaneously. Its ultra-high dynamic RF over Fiber solution enables cable lengths of 10 km or more without signal loss, eliminating the need for damping RF cables.

Featuring a customizable sector array, the antenna is housed in a durable, watertight, shock-, and heat-resistant radome that can be color-customized and printed. The auto-rotate switch ensures compatibility with any spectrum analyzer, making it perfect for counter-surveillance and UAV tracking. Its wide frequency range reduces the need for multiple setups, saving space and cost, and making it suitable for vehicles and covert operations.

Resembling a satellite dish, the IsoLOG® 3D DF blends seamlessly into its surroundings while detecting all signal polarizations, including linear and non-vertically polarized signals. Requiring only power and Ethernet, it integrates effortlessly into any network.

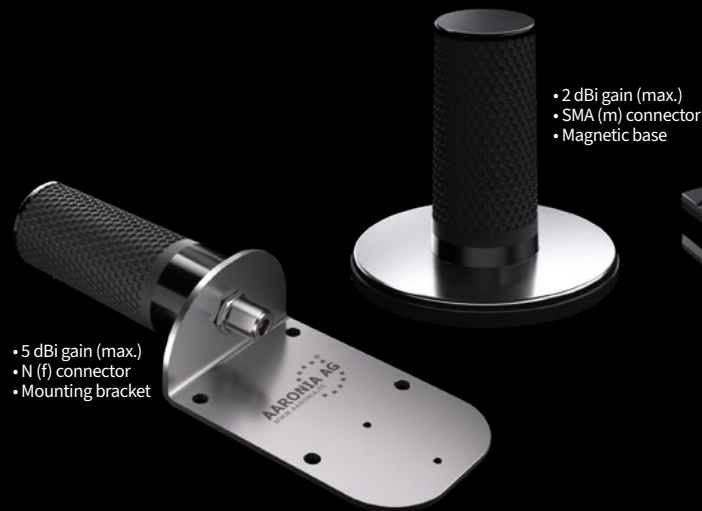
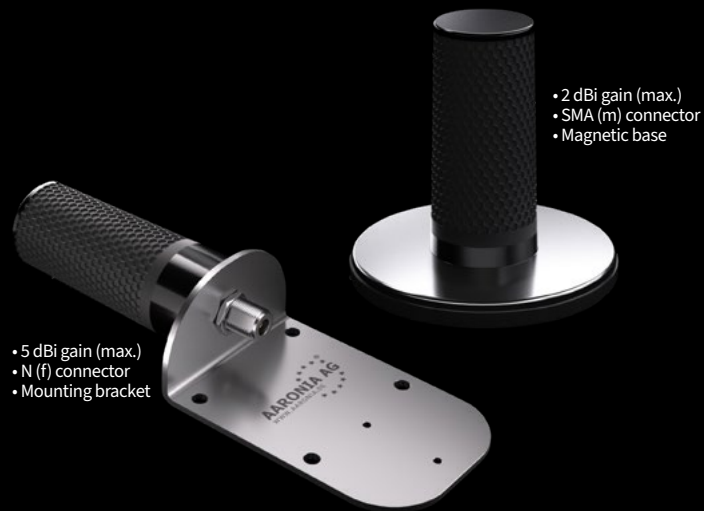


IsoLOG® FOX 3D DF Compact 3D DF Tracking Antenna - 900MHz to 40GHz

IL FOX 16-0280	▶ 900MHz - 7.25GHz	Active	1 to 3°	no 3D	16 sectors	207/020
IL FOX 16-20400	▶ 2GHz - 40GHz	Active	1 to 3°	no 3D	16 sectors	207/018
IL FOX 3D 16-20400	▶ 2GHz - 40GHz	Active	1 to 3°	3D	16 sectors	207/019

IsoLOG® 3D DF 3D DF Tracking Antenna - 400MHz to 18GHz

IL 16-4080	▶ 400MHz - 8GHz	Active	1 to 3°	no 3D	16 sectors	207/012
IL 3D 16-4080	▶ 400MHz - 8GHz	Active	1 to 3°	3D	16 sectors	207/013
IL 16-7080	▶ 700MHz - 8GHz	Active	1 to 3°	no 3D	16 sectors	207/014
IL 3D 16-7080	▶ 700MHz - 8GHz	Active	1 to 3°	3D	16 sectors	207/015
IL 16-10180	▶ 1GHz - 18GHz	Active	1 to 3°	no 3D	16 sectors	207/016
IL 3D 16-10180	▶ 1GHz - 18GHz	Active	1 to 3°	3D	16 sectors	207/017



OmniLOG® PRO

1W Broadband Antenna - 150MHz to 18GHz

The OmniLOG® PRO series offers 1W high-power receive antennas for spectrum monitoring and interference hunting, including countermeasures.

They cover RF sources from VHF to K-band (e.g., radio, TV, mobile, DECT, Bluetooth, WLAN). Each OmniLOG® PRO has an IP65-certified outdoor-ready housing and undergoes rigorous testing, allowing Aaronia to provide a 2-year warranty on all antennas.

OmniLOG® PRO H

100W Broadband Antenna - 700MHz to 18GHz

The OmniLOG® PROH series offers 100W high-power transmit & receive antennas for spectrum monitoring and interference hunting, including countermeasures.

They cover RF sources from VHF to K-band (e.g., radio, TV, mobile, DECT, Bluetooth, WLAN). Each OmniLOG® PRO has an IP65-certified outdoor-ready housing and undergoes rigorous testing, allowing Aaronia to provide a 2-year warranty on all antennas.

OmniLOG®

Omnidirectional Broadband Antenna - 300MHz - 8GHz

Compared to the HyperLOG®-Antennas, the OmniLOG® antenna offers the possibility for a direct, radial measurement of field strength without the need to move the antenna to the source. This offers the possibility to get a direct field strength reading without any hassle.

The frequency range covers following, typical signal sources: GSM, CDMA, LTE, WiFi, ISM, DECT, Bluetooth, 5GHz WLAN, WiMAX. The antenna offers a heavy-duty 90° knuckle base with SMA connector. The knuckle base is freely adjustable into each position and fixed by two special ball pressure screws.

OL PRO 1030	▶ 150MHz - 3GHz	Passive	SMA (f)	Magnetic base	202/004
OL PRO 1060	▶ 150MHz - 6GHz	Passive	SMA (f)	Magnetic base	202/005
OL PRO 10100	▶ 150MHz - 10GHz	Passive	SMA (f)	Magnetic base	202/006
OL PRO 10200	▶ 150MHz - 18GHz	Passive	SMA (f)	Magnetic base	202/007
OL PRO N 1030	▶ 150MHz - 3GHz	Passive	N (f)	Mounting bracket	202/012
OL PRO N 1060	▶ 150MHz - 6GHz	Passive	N (f)	Mounting bracket	202/013
OL PRO N 10100	▶ 150MHz - 10GHz	Passive	N (f)	Mounting bracket	202/014
OL PRO N 10200	▶ 150MHz - 18GHz	Passive	N (f)	Mounting bracket	202/015

OL PRO 1030H	▶ 700MHz - 3GHz	Passive	SMA (f)	Magnetic base	202/008
OL PRO 1060H	▶ 700MHz - 6GHz	Passive	SMA (f)	Magnetic base	202/009
OL PRO 10100H	▶ 700MHz - 10GHz	Passive	SMA (f)	Magnetic base	202/010
OL PRO 10200H	▶ 700MHz - 18GHz	Passive	SMA (f)	Magnetic base	202/011
OL PRO N 1030H	▶ 700MHz - 3GHz	Passive	N (f)	Mounting bracket	202/016
OL PRO N 1060H	▶ 700MHz - 6GHz	Passive	N (f)	Mounting bracket	202/017
OL PRO N 10100H	▶ 700MHz - 10GHz	Passive	N (f)	Mounting bracket	202/018
OL PRO N 10200H	▶ 700MHz - 18GHz	Passive	N (f)	Mounting bracket	202/019

OL 90200	▶ 700MHz - 2.5GHz	Passive	SMA (f)	2 dBi gain	202/001
OL 70600	▶ 680MHz - 6GHz	Passive	SMA (f)	2 dBi gain	202/002
OL 30800	▶ 300MHz - 8GHz	Passive	SMA (f)	2.5 dBi gain	202/003

Aaronia Antennas

Advanced Antennas for Every Challenge



Magnetic Field Antennas MDF

Magnetic Field DF Antenna - 9kHz to 400MHz

The Aaronia MDF is an innovative, ultra-broadband active magnetic field antenna designed for precise signal direction finding. It is ideal for detecting and pinpointing even the weakest signals, whether nearby or at long distances.

Unlike passive versions, the MDF X comes equipped with a built-in 40 dB preamplifier, delivering exceptionally high gain for unparalleled sensitivity. This feature makes it the perfect tool for applications requiring the detection of ultra-weak or distant signals. Its outstanding accuracy and directionality across a wide frequency range set a new benchmark for magnetic field antennas.

MagnoTRACKER

Active Magnetic Field DF Antenna - 1Hz to 1MHz

The Aaronia MagnoTRACKER is the ultimate solution for detecting and pinpointing low-frequency signals from 1Hz to 1MHz. Combining high gain and exceptional directivity, this patent-pending antenna sets a new standard in low-frequency signal tracking.

Using a patented production process, Aaronia has developed a lightweight core, requiring only 10% of the material and weight of traditional ferrites, making the MagnoTRACKER easier to handle and highly portable.

An integrated 25 dB pre-amplifier boosts sensitivity and offers a 50 Ohm impedance output, ensuring excellent performance and compatibility.

IsoLOG® 3D Mobile Pro

Isotropic 3D Antenna - 9kHz to 8GHz

The IsoLOG® 3D Mobile PRO is an ultra-light, compact isotropic antenna ready for instant 3D measurements. It connects easily via N connector to any spectrum analyzer or oscilloscope—no software, power, or hardware changes needed.

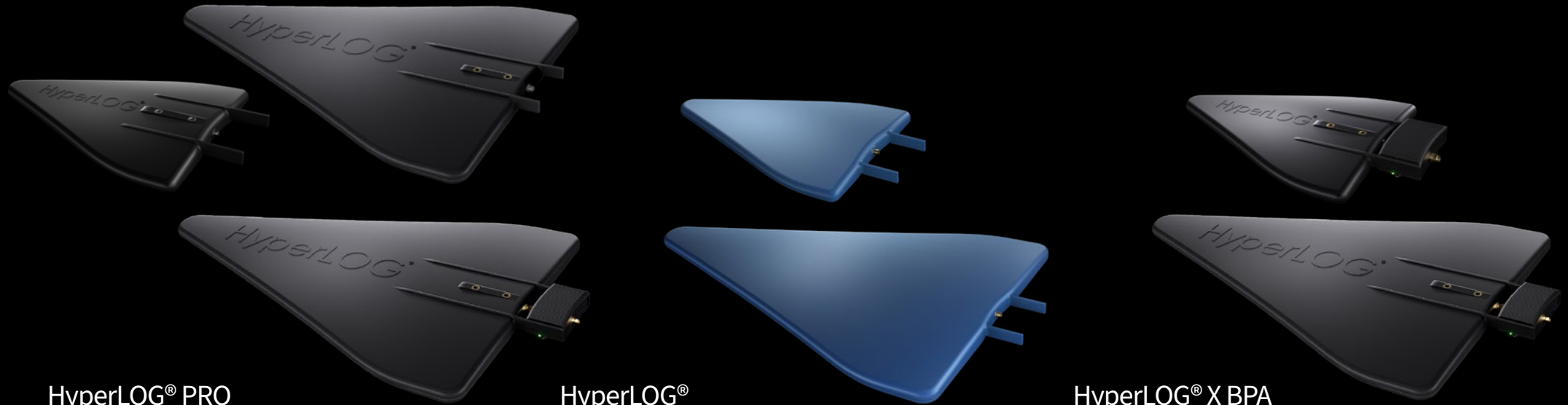
With an internal rechargeable battery lasting up to 6 hours and two low-noise preamplifiers, it handles both weak and high field-strength signals effortlessly. The antenna's unique manual or USB control and glitch-free 50kHz chopper mode allow automatic, fast antenna rotation for seamless 3D functionality without USB software.

Packaged in a waterproof case with a versatile pistol grip/tripod, the IsoLOG® 3D Mobile PRO is the ultimate hassle-free solution for portable 3D spectrum analysis.

MDF 9400	▶ 9kHz - 400MHz	Passive	SMA (f)	-60 dBi gain	206/006
MDF 930X	▶ 9kHz - 30MHz	Active	SMA (f)	-30 dBi gain	206/007
MDF 960X	▶ 9kHz - 60MHz	Active	SMA (f)	-35 dBi gain	205/008
MDF 50400X	▶ 500kHz - 400MHz	Active	SMA (f)	-20 dBi gain	206/009

MT LF-2	▶ 9kHz - 1MHz	Active	SMA (f)	35 dBi gain	206/001
MT ELF-6	▶ 1Hz - 9kHz	Active	SMA (f)	35 dBi gain	206/003
MT LF-6	▶ 9kHz - 1MHz	Active	SMA (f)	35 dBi gain	206/002
MT ELF-2	▶ 1Hz - 9kHz	Active	SMA (f)	35 dBi gain	206/004

Design	▶ Isotropic	3D Mobile 9030 Pro	▶ 9kHz - 3GHz	35 dBi gain	207/004
Active	▶ Yes	3D Mobile 9060 Pro	▶ 9kHz - 6GHz	20 dBi gain	207/005
Connector	▶ N (f)	3D Mobile 9080 Pro	▶ 9kHz - 8GHz	22 dBi gain	207/006



HyperLOG® PRO

High Performance DF Antenna - 700MHz to 40GHz

The HyperLOG® PRO series builds on the popular HyperLOG® antennas with improved performance, directionality, and frequency range. Backed by an optional measurement certificate, these antennas are ideal for laboratory use, portable measurements, or as DF antennas.

HL PRO 18200	▶ 2GHz - 20GHz	Passive	K 2.92 mm	11 dBi gain	201/043
HL PRO 18250	▶ 2GHz - 25GHz	Passive	K 2.92 mm	11 dBi gain	201/037
HL PRO 18300	▶ 2GHz - 30GHz	Passive	K 2.92 mm	11 dBi gain	201/038
HL PRO 18350	▶ 2GHz - 35GHz	Passive	K 2.92 mm	11 dBi gain	201/039
HL PRO 18400	▶ 2GHz - 40GHz	Passive	K 2.92 mm	12 dBi gain	201/040
HL PRO 7080	▶ 700MHz - 8GHz	Passive	SMA (f)	11 dBi gain	201/044
HL PRO 70140	▶ 700MHz - 14GHz	Passive	SMA (f)	13 dBi gain	201/045
HL PRO 70200	▶ 700MHz - 20GHz	Passive	SMA (f)	13 dBi gain	201/046
HL PRO 70260	▶ 700MHz - 26.5GHz	Passive	K 2.92 mm	13 dBi gain	201/050
HL PRO 7080X	▶ 700MHz - 8GHz	Active	K 2.92 mm	25 dBi gain	201/047
HL PRO 70140X	▶ 700MHz - 14GHz	Active	K 2.92 mm	26 dBi gain	201/048
HL PRO 70200X	▶ 700MHz - 20GHz	Active	K 2.92 mm	26 dBi gain	201/049

HyperLOG®

Low Cost LogPer Antenna - 680MHz to 18GHz

The HyperLOG® offers top-class passive directional antennas. The HyperLOG® series supports an extremely wide frequency range from 380MHz to 35GHz. This allows the antennas to be used for measuring Tetra/BOS, directional radio, various satellite applications, etc.

HL 7040	▶ 700MHz - 4GHz	Passive	SMA (f)	5 dBi gain	201/002
HL 7060	▶ 700MHz - 6GHz	Passive	SMA (f)	5 dBi gain	201/003
HL 6080	▶ 700MHz - 8GHz	Passive	SMA (f)	6 dBi gain	201/004
HL 60100	▶ 700MHz - 10GHz	Passive	SMA (f)	6 dBi gain	201/005
HL 60180	▶ 700MHz - 18GHz	Passive	SMA (f)	6 dBi gain	201/006
HL 4040	▶ 400MHz - 4GHz	Passive	SMA (f)	5 dBi gain	201/010
HL 4060	▶ 400MHz - 6GHz	Passive	SMA (f)	5 dBi gain	201/011
HL 3080	▶ 380MHz - 8GHz	Passive	SMA (f)	6 dBi gain	201/012
HL 30100	▶ 380MHz - 10GHz	Passive	SMA (f)	5 dBi gain	201/013
HL 30180	▶ 380MHz - 18GHz	Passive	SMA (f)	5 dBi gain	201/014
HL 30250	▶ 380MHz - 25GHz	Passive	SMA (f)	5 dBi gain	201/015
HL 30350	▶ 380MHz - 35GHz	Passive	SMA (f)	6 dBi gain	201/016

HyperLOG® X BPA

Active Bypass DF Antenna - 400MHz to 6GHz

All HyperLOG® X BPA antennas are equipped with an extremely low noise bypass preamplifier (typ. 1.4dB). They can be operated either with an active preamplifier with integrated rechargeable battery or as a passive antenna.

HL 7040X BPA	▶ 700MHz - 4GHz	Active	SMA (f)	26 dBi gain	201/030
HL 7060X BPA	▶ 700MHz - 6GHz	Active	SMA (f)	26 dBi gain	201/031
HL 4040X BPA	▶ 400MHz - 4GHz	Active	SMA (f)	26 dBi gain	201/033
HL 4060X BPA	▶ 400MHz - 6GHz	Active	SMA (f)	26 dBi gain	201/034

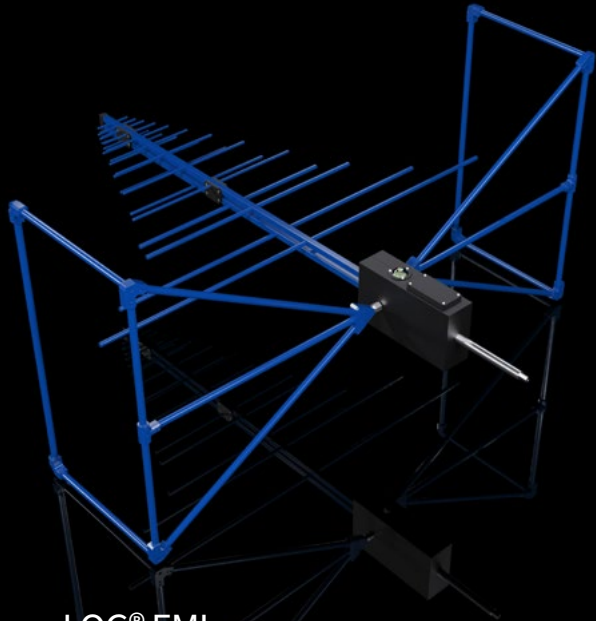


HyperLOG® X

Active LogPer Antenna - 680MHz to 18GHz

With the HyperLOG® X series, Aaronia offers low-cost active directional antennas that nevertheless meet the highest requirements. The HyperLOG® X series supports a wide frequency range from 380MHz to 20GHz.

HL 7040X	▶ 700MHz - 4GHz	Active	SMA (f)	45 dBi gain	201/018
HL 7060X	▶ 700MHz - 6GHz	Active	SMA (f)	45 dBi gain	201/019
HL 6080X	▶ 700MHz - 8GHz	Active	SMA (f)	45 dBi gain	201/020
HL 60100X	▶ 700MHz - 10GHz	Active	SMA (f)	45 dBi gain	201/021
HL 60200X	▶ 700MHz - 20GHz	Active	SMA (f)	21 dBi gain	201/022
HL 4040X	▶ 400MHz - 4GHz	Active	SMA (f)	45 dBi gain	201/024
HL 4060X	▶ 400MHz - 6GHz	Active	SMA (f)	45 dBi gain	201/025
HL 3080X	▶ 380MHz - 8GHz	Active	SMA (f)	45 dBi gain	201/026
HL 30100X	▶ 380MHz - 10GHz	Active	SMA (f)	45 dBi gain	201/027
HL 30200X	▶ 380MHz - 20GHz	Active	SMA (f)	21 dBi gain	201/028



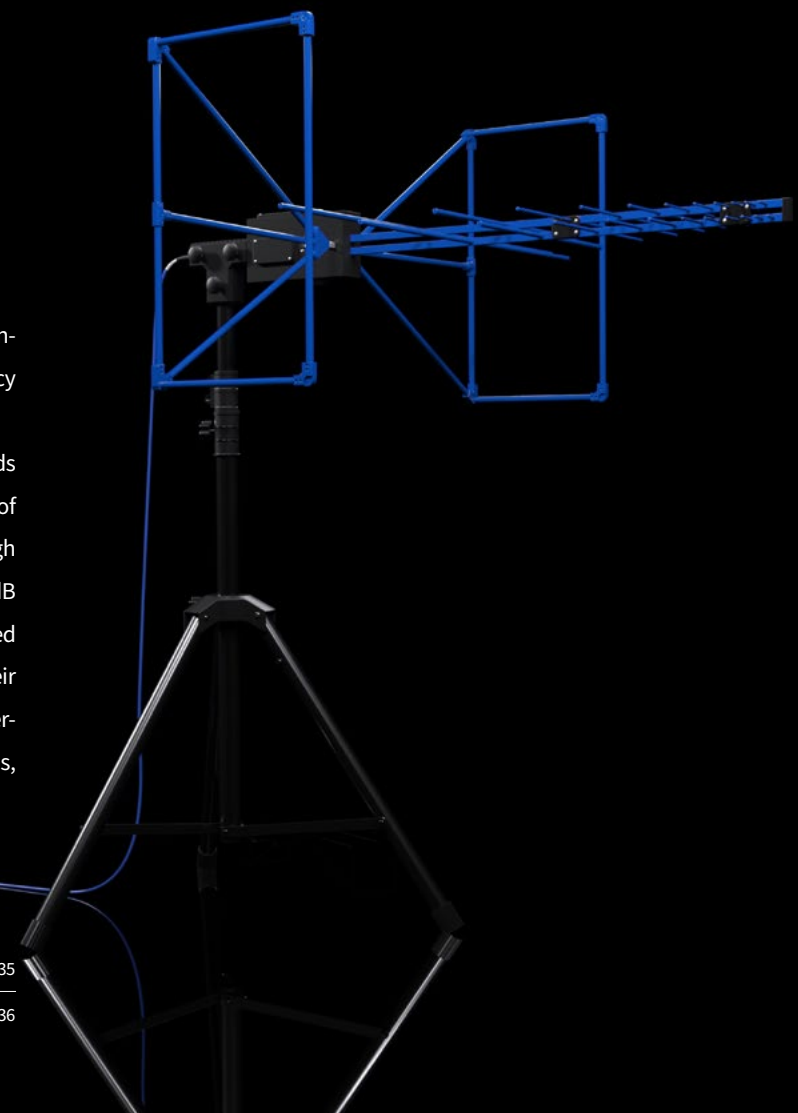
HyperLOG® EMI

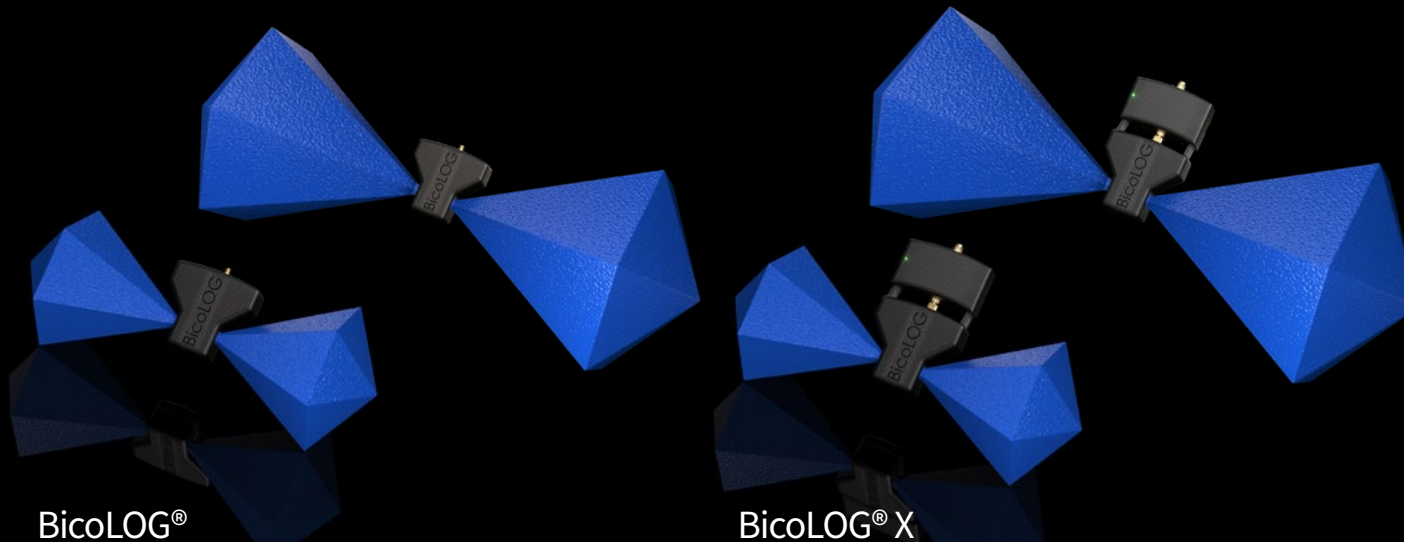
High Performance EMC Antenna - 20MHz to 6GHz

Ultimate EMC/EMI pre-compliance test antenna for the pro user. Unmatched ultra high accuracy. Very high gain over the full frequency range. Meets latest EMC standards up to 6GHz.

The HyperLOG® 20600 EMI meets all needs for the latest EMC standards which are expanded to 6GHz since 2011. It combines the advantages of a biconical antenna and those of a log periodic antenna in a single high end EMC/EMI antenna and offers an extremely high accuracy of 0.3 dB over the full specified frequency range and therefore can even be used as reference antenna. By using the HyperLOG® EMI Antennas with their broad frequency range, the common EMI and EMC measurement error-rates, which show up by switching between different test antennas, are avoided resulting in a drastically reduced measuring time.

HL 20300 EMI	▶ 20MHz - 3GHz	Passive	N (f)	8 dBi	201/035
HL 20600 EMI	▶ 20MHz - 6GHz	Passive	N (f)	8 dBi	201/036





BicoLOG®

EMC Measuring Antenna - 20MHz - 3GHz

The high-quality measurement antennas of the BicoLOG® series are very lightweight and therefore ideal for portable measurement devices in addition to use in the laboratory. Each BicoLOG® has a high-quality SMA connector and can therefore be connected immediately to many spectrum analyzers. Instruments with an N connector can be connected via our optional adapter.

BicoLOG® X

Active EMC Measuring Antenna - 20MHz - 3GHz

The high-quality measurement antennas of the BicoLOG® series are very lightweight and therefore ideal for portable measurement devices in addition to use in the laboratory. Each BicoLOG® has a high-quality SMA connector and can therefore be connected immediately to many spectrum analyzers. Instruments with an N connector can be connected via our optional adapter.



BL 30100	▶ 30MHz - 1GHz	Passive	SMA (f)	1 dBi gain	204/002
BL 20100	20MHz - 1GHz	Passive	SMA (f)	1 dBi gain	204/003
BL 20300	20MHz - 3GHz	Passive	SMA (f)	1 dBi gain	204/004
BL 30100E	▶ 30MHz - 1GHz	Passive	SMA (f)	0 dBi gain	204/005
BL 20100E	▶ 20MHz - 1GHz	Passive	SMA (f)	0 dBi gain	204/006

BL 30100X	▶ 30MHz - 1GHz	Active	SMA (f)	41 dBi gain	204/008
BL 20100X	20MHz - 1GHz	Active	SMA (f)	41 dBi gain	204/009
BL 20300X	20MHz - 3GHz	Active	SMA (f)	41 dBi gain	204/010
BL 30100E X	▶ 30MHz - 1GHz	Active	SMA (f)	41 dBi gain	204/011
BL 20100E X	▶ 20MHz - 1GHz	Active	SMA (f)	41 dBi gain	204/013

Digital Download "Aaronia Main Catalog"



Digital Download "Aaronia Spectrum Management & Signal Classification"

