# USB SPECTRUM ANALYZERS VECTOR SIGNAL GENERATORS

**9 kHz to 140 GHz**  |  **30 THz/s Sweep Speed**  |  **6 GHz RTBW**

**AARONIA AG**
WWW.AARONIA.DE

# Real-Time Spectrum Analyzer Overview


SPECTRAN® V6
BEYOND REALTIME

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 6 GHz in less than 5 milliseconds (over 1 THz 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 network measurements, RF surveillance or counter-surveillance measurements.
The V6 is the ideal spectrum analyzer for taking fast and reliable measurements.

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

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

## SPECTRAN V6 ECO
### REAL-TIME SPECTRUM ANALYZER

9 kHz to 7,2 GHz frequency range
44 MHz real-time bandwidth
3 THz/s sweep speed
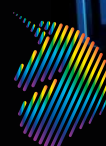IQ POI of 30/20 ns
DANL of -170 dBm/Hz

## SPECTRAN V6 ECO 18
### REAL-TIME SPECTRUM ANALYZER

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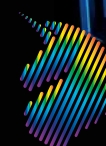IQ POI of 30/20 ns
DANL of -170 dBm/Hz

## SPECTRAN V6 ECO 5G
### REAL-TIME SPECTRUM ANALYZER

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

## SPECTRAN V6 ECO XPR
### REAL-TIME SPECTRUM ANALYZER

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

## SPECTRAN V6 PLUS XPR
### REAL-TIME SPECTRUM ANALYZER

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

# SPECTRAN® **V6** Integrated Analyzers

Aaronia AG offers optimised solutions for almost every application. In addition to the compact USB desktop variants, our analyzers are integrated into diverse form factors. Whether it's a handy and powerful tablet, rugged outdoor devices or absolute high-end performance as a server solution - Aaronia AG has the right device for you.
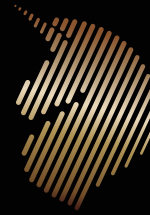
**V6**CUSTOMIZED

—— PRECISION MADE SPECTRUM ANALYZERS ——

In addition to the standard configurations included in this catalog of our form factors, we offer our **V6**CUSTOMIZED service for all devices. Here you have the option of freely allocating all available SPECTRAN® V6 analyser slots as well as customising the hardware of the unit itself. Try our configurator at configurator.aaronia.com.

## SPECTRAN® V6 Mobile
1 SPECTRAN® V6 slot

- OUTDOOR
- MOBILE
- BATTERY POWERED
- V6CUSTOMIZED

## SPECTRAN® V6 MIL
1 SPECTRAN® V6 slot

- OUTDOOR
- MOBILE
- BATTERY POWERED
- V6CUSTOMIZED

## SPECTRAN® V6 Command Center
Up to 4 SPECTRAN® V6 slots

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

## SPECTRAN® V6 ODB
Up to 2 SPECTRAN® V6 slots

- OUTDOOR
- REMOTE
- STATIONARY
- V6CUSTOMIZED

## SPECTRAN® V6 RSA
Up to 6 SPECTRAN® V6 slots

- INDOOR
- REMOTE
- STATIONARY
- V6CUSTOMIZED

## SPECTRAN® V6 IQR
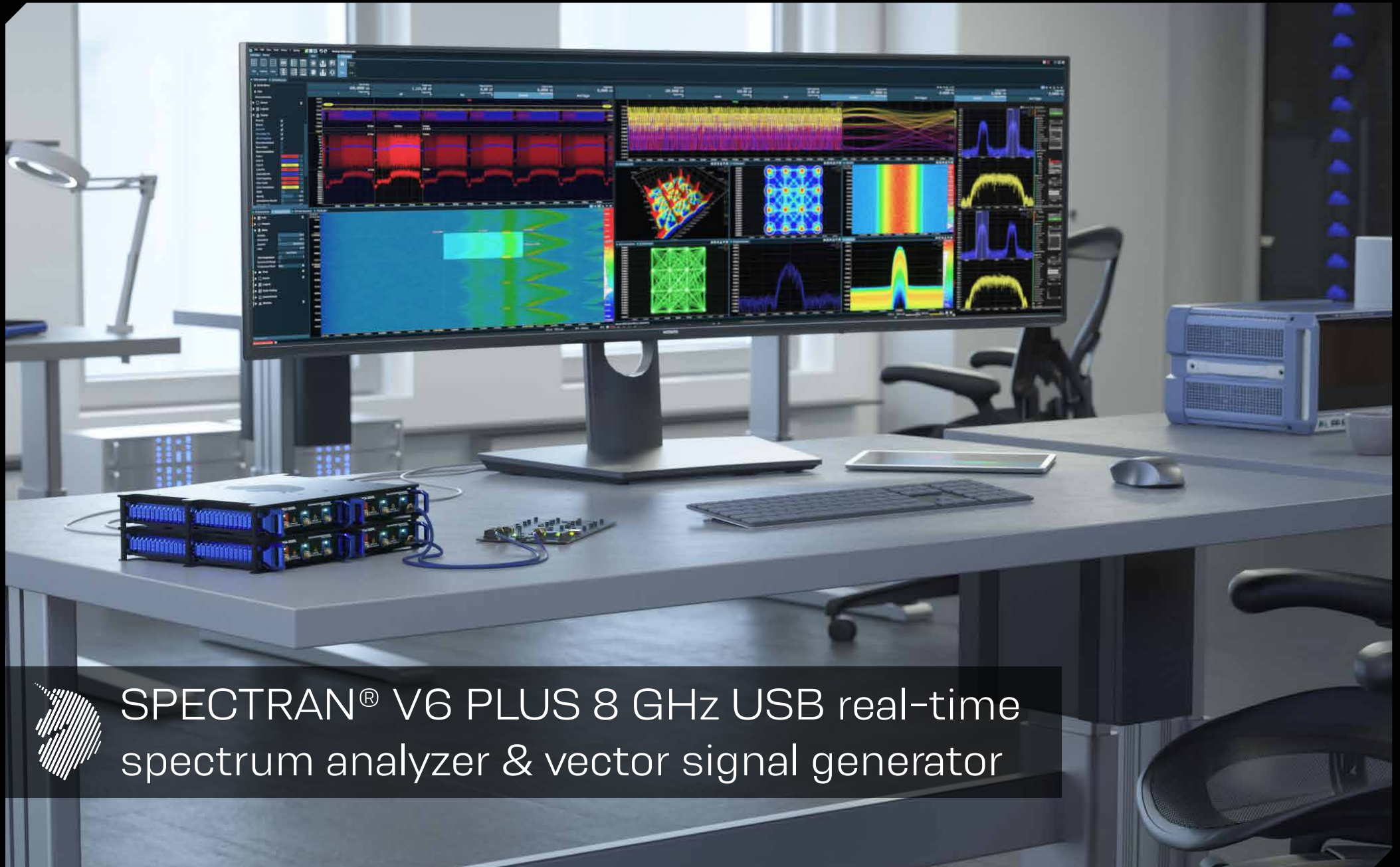Up to 10 SPECTRAN® V6 slots

- INDOOR
- REMOTE
- STATIONARY
- HIGH END
- V6CUSTOMIZED

SPECTRAN® V6 PLUS 8 GHz USB real-time spectrum analyzer & vector signal generator

# USB Real-Time Spectrum Analyzers

## SPECTRAN® V6 PLUS
### REAL-TIME SPECTRUM ANALYZER

Aaronia'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 245MHz) and a sweep speed of up to 1100 GHz/s. The SPECTRAN® V6 requires little space in the laboratory and is also ideal for mobile applications due to its low power requirements.

## V6 PLUS 250XA-6

| Frequency Band 10MHz - 6 \| 8 GHz | IQ POI 30 \| 20 ns | Sweep Speed 300 \| 440GHz/s | RTBW 80 \| 120MHz |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Rx | 1 Rx (SMA) | Design | USB Desktop |
| Tx | - | Weight | 850 g |
| DANL | -165 dBm/Hz | SKU# | 102/001 |

## V6 PLUS 500XA-6

| Frequency Band 10MHz - 6 \| 8 GHz | IQ POI 30 \| 20 ns | Sweep Speed 300 \| 440GHz/s | RTBW 80 \| 120MHz |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Rx | 1 Rx | Design | USB Desktop |
| Tx | 1 Tx | Weight | 850 g |
| DANL | -168 dBm/Hz | SKU# | 102/002 |

## V6 PLUS 2000XA-6

| Frequency Band 10MHz - 6 \| 8 GHz | IQ POI 15 \| 10 ns | Sweep Speed 730 \| 1100GHz/s | RTBW 160 \| 490MHz |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Rx | 2 Rx | Design | USB Desktop |
| Tx | 1 Tx | Weight | 850 g |
| DANL | -170 dBm/Hz | SKU# | 102/003 |

## Hardware Options

| | |
|---|---|
| ➕ 120 MHz I/Q RTBW | 250XA-6/500XA-6 only |
| ➕ 490 MHz I/Q RTBW | 2000XA-6 only |

| | |
|---|---|
| ➕ 120 MHz Tx | 250XA-6 only |
| ➕ Ultra Low Noise Preamp | Additional 20 dB of gain |

| | |
|---|---|
| ➕ OCXO Timebase | ultra high vibration resistance |
| ➕ Internal GPS | spoofing detection/active GPS antenna |

SPECTRAN® V6 ECO 8 GHz USB real-time spectrum analyzer & vector signal generator

# USB Real-Time Spectrum Analyzers

**SPECTRAN V6 ECO**
REAL-TIME SPECTRUM ANALYZER

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 44 MHz, a vector signal output is added for the 150XA-6 version. The 200XA-6 with 2 Rx and a RTBW of 2x44MHz completes the ECO V6 lineup.

## V6 ECO 100XA-6

| Frequency Band 9kHz - 6 | 7.2 GHz | IQ POI 30 | 20 ns | Sweep Speed 500GHz/s | RTBW 44MHz |
|---|---|---|---|

| Rx | 1 Rx | | Design | USB Desktop |
|---|---|---|---|---|
| Tx | - | | Weight | 850 g |
| DANL | -170 dBm/Hz | | SKU# | 102/011 |

## V6 ECO 150XA-6

| Frequency Band 9kHz - 6 | 7.2 GHz | IQ POI 30 | 20 ns | Sweep Speed 500GHz/s | 3THz/s | RTBW 44MHz |
|---|---|---|---|

| Rx | 1 Rx | | Design | USB Desktop |
|---|---|---|---|---|
| Tx | 1 Tx | | Weight | 850 g |
| DANL | -170 dBm/Hz | | SKU# | 102/036 |

## V6 ECO 200XA-6

| Frequency Band 9kHz - 6 | 7.2 GHz | IQ POI 30 | 20 ns | Sweep Speed 500GHz/s | 3THz/s | RTBW 2x 44MHz |
|---|---|---|---|

| Rx | 2 Rx | | Design | USB Desktop |
|---|---|---|---|---|
| Tx | - | | Weight | 850 g |
| DANL | -170 dBm/Hz | | SKU# | 102/037 |

## Hardware Options

| | |
|---|---|
| ⊕ Ultra Fast Tictoc LO | 3THz/s sweep speed |
| ⊕ Frequency Extention WiFi6E | 9kHz - 7.2GHz |
| ⊕ Internal Rx1 PowerMeter | 1MHz to 8GHz |
| ⊕ Ultra Low Noise Preamp | Additional 20 dB of gain |
| ⊕ OCXO Timebase | ultra high vibration resistance |
| ⊕ Internal GPS | spoofing detection/active GPS antenna |

SPECTRAN® V6 ECO 18 GHz USB real-time spectrum analyzer & vector signal generator

# USB Real-Time Spectrum Analyzers

OUTDOOR

INDOOR   STACKABLE

MOBILE   USB POWERED

## V6 ECO



**SPECTRAN® V6 ECO 18**
REAL-TIME SPECTRUM ANALYZER

This 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 - 18 GHz | 30 \| 20 ns | 500GHz/s \| 3THz/s | 60MHz |

| | | | |
|---|---|---|---|
| Rx | 1 Rx | Design | USB Desktop |
| Tx | - | Weight | 850 g |
| DANL | -170 dBm/Hz | SKU# | 102/065 |

## V6 ECO 150XA-18

| Frequency Band | IQ POI | Sweep Speed | RTBW |
|---|---|---|---|
| 9kHz - 18 GHz | 30 \| 20 ns | 500GHz/s \| 3THz/s | 60MHz |

| | | | |
|---|---|---|---|
| Rx | 1 Rx | Design | USB Desktop |
| Tx | 1 Tx | Weight | 850 g |
| DANL | -170 dBm/Hz | SKU# | 102/066 |
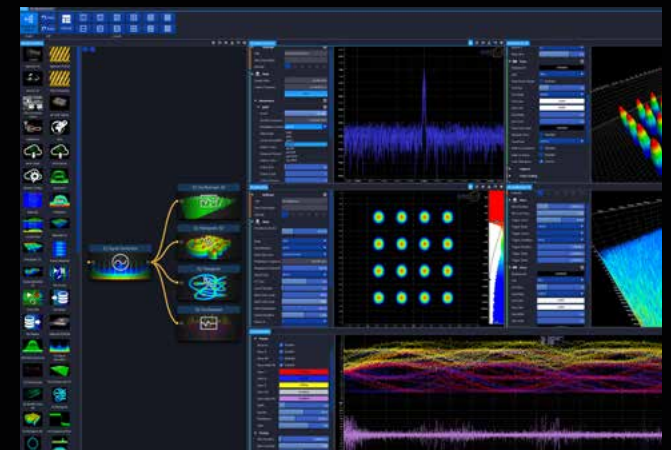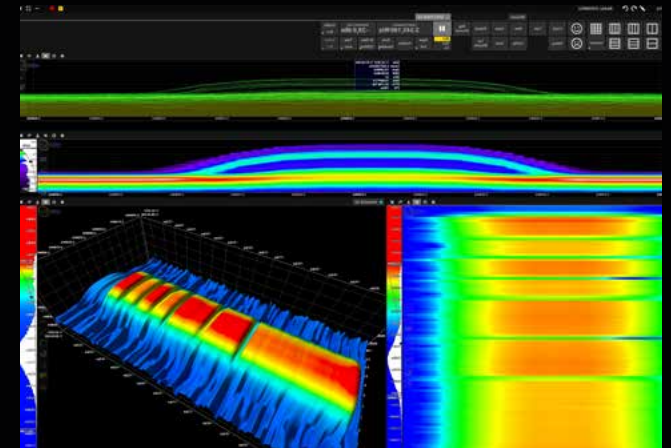
## Hardware Options

| ⊕ Ultra Fast Tictoc LO | 3THz/s sweep speed |
|---|---|
| ⊕ PowerMeter | Up to 70 GHz |

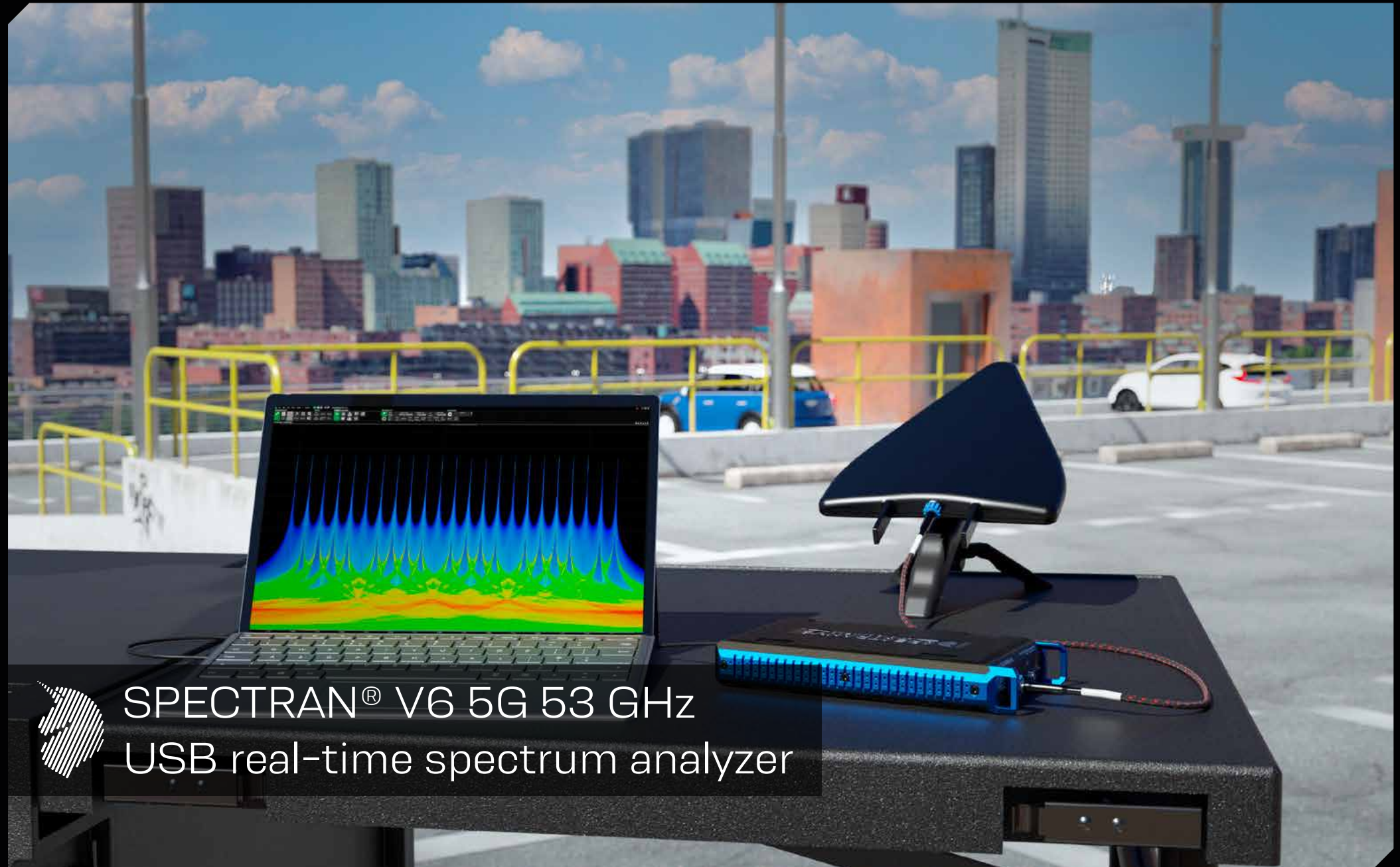| ⊕ OCXO Timebase | ultra high vibration resistance |
|---|---|
| ⊕ Ultra Low Noise Preamp | Additional 20 dB of gain |

⊕ Internal GPS   spoofing detection/active GPS antenna

SPECTRAN® V6 5G 53 GHz
USB real-time spectrum analyzer

# USB Real-Time Spectrum Analyzers

**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 10ms (500 GHz/s), making it one of the fastest USB spectrum analyzers in the world.

Three different versions are provided, covering the complete range of 5G bands. Simply choose the one which fulfills your requirements.

## V6 5G 100XA-30

| Frequency Band | IQ POI | Sweep Speed | RTBW |
|---|---|---|---|
| 24GHz - 30GHz | 30 \| 20 ns | 500GHz/s \| 3THz/s | 60MHz |

| Rx | 1 Rx | Design | USB Desktop |
|---|---|---|---|
| Tx | - | Weight | 850 g |
| DANL | -170 dBm/Hz | SKU# | 102/053 |
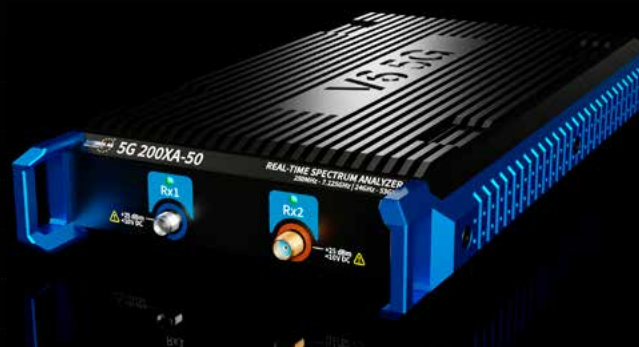
## V6 5G 200XA-50

| Frequency Band | IQ POI | Sweep Speed | RTBW |
|---|---|---|---|
| 250MHz - 7.5GHz 24 - 53GHz | 30 \| 20 ns | 500GHz/s \| 3THz/s | 60MHz |

| Rx | 2 Rx | Design | USB Desktop |
|---|---|---|---|
| Tx | - | Weight | 850 g |
| DANL | -170 dBm/Hz | SKU# | 102/055 |

## Hardware Options

+ Ultra Fast Tictoc LO — 3THz/s sweep speed

+ Ultra Low Noise Preamp — Additional 20 dB of gain

+ Internal GPS — spoofing detection/active GPS antenna

DEVELOPED & MANUFACTURED IN GERMANY

## V6 ECO XPLORER 100XA-WR15

| Frequency Band | IQ POI | Sweep Speed | RTBW |
|---|---|---|---|
| 50GHz - 75GHz | 30 | 20 ns | 3THz/s | 60MHz |

| | | | |
|---|---|---|---|
| Rx | 1 Rx | Design | USB Desktop |
| Tx | - | Weight | 700 g |
| DANL | -170 dBm/Hz | SKU# | 102/057 |
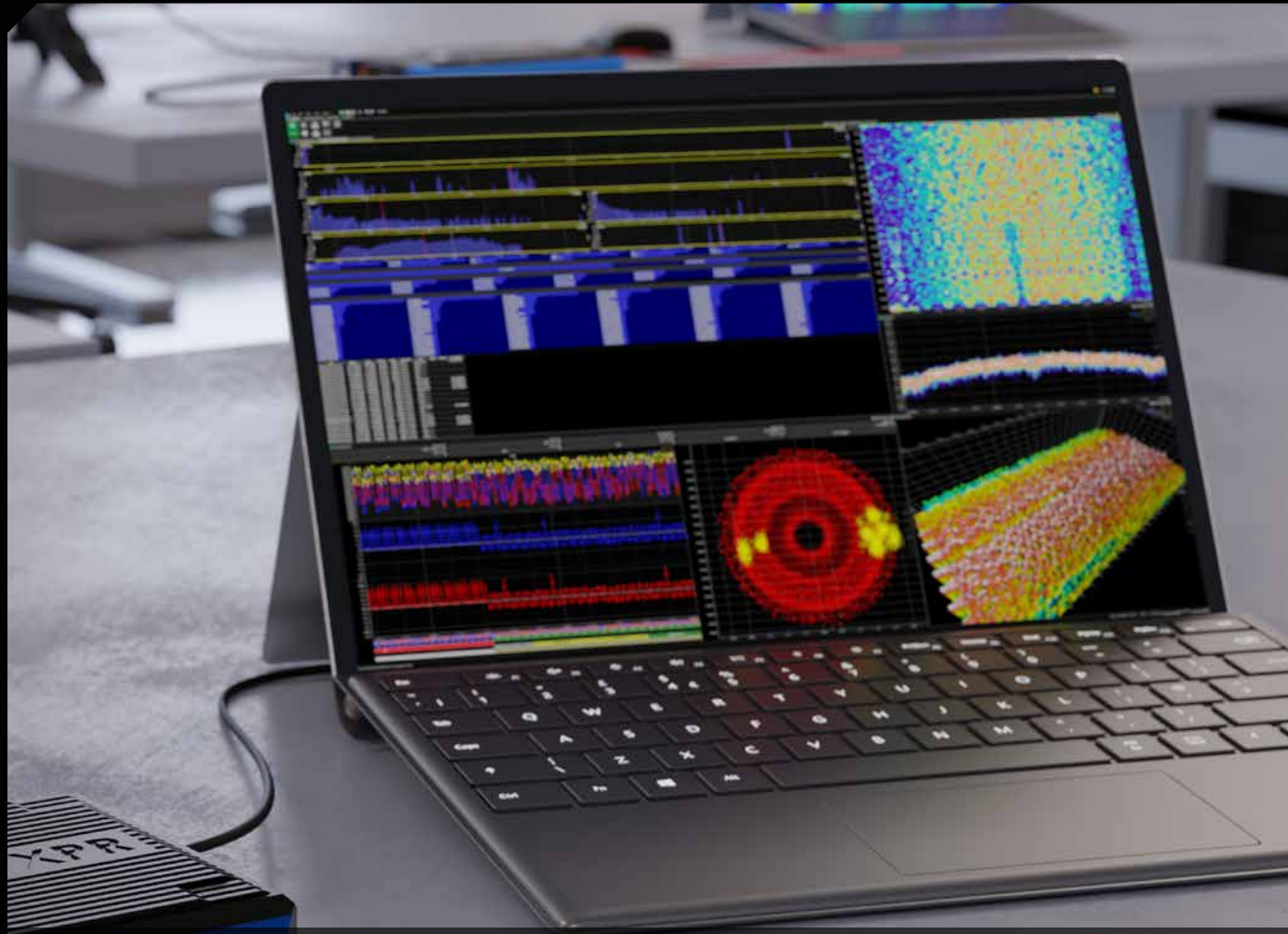
# SPECTRAN® V6 ECO XPLORER 140 GHz USB real-time spectrum analyzer

# USB Real-Time Spectrum Analyzers

**SPECTRAN® V6 ECO XPR**
REAL-TIME SPECTRUM ANALYZER

The new SPECTRAN® V6 XPLORER, the first USB spectrum analyzer for microwave applications > 100GHz. It is designed to provide a cost-effective development and validation platform for all millimeter-wave applications, including those with the shortest signal transmissions. Despite its compact size and light weight, its sampling speed is virtually unmatched. With this, you can master almost any challenge in the microwave range. Whether spectrum monitoring, setting up radio relay links, testing automotive distance control systems or any radar device.

## V6 ECO XPLORER 100XA-WR12

| Frequency Band 60GHz - 90GHz | IQ POI 30 \| 20 ns | Sweep Speed 3THz/s | RTBW 60MHz |
|---|---|---|---|

| Rx | 1 Rx | | Design | USB Desktop |
|---|---|---|---|---|
| Tx | - | | Weight | 700 g |
| DANL | -170 dBm/Hz | | SKU# | 102/059 |

## V6 ECO XPLORER 100XA-WR10

| Frequency Band 75GHz - 110GHz | IQ POI 30 \| 20 ns | Sweep Speed 3THz/s | RTBW 60MHz |
|---|---|---|---|

| Rx | 1 Rx | | Design | USB Desktop |
|---|---|---|---|---|
| Tx | - | | Weight | 700 g |
| DANL | -170 dBm/Hz | | SKU# | 102/061 |

## V6 ECO XPLORER 100XA-WR08

| Frequency Band 90GHz - 140GHz | IQ POI 30 \| 20 ns | Sweep Speed 3THz/s | RTBW 60MHz |
|---|---|---|---|

| Rx | 1 Rx | | Design | USB Desktop |
|---|---|---|---|---|
| Tx | - | | Weight | 700 g |
| DANL | -170 dBm/Hz | | SKU# | 102/063 |

## Hardware Options

➕ Internal GPS    spoofing detection/active GPS antenna

➕ Ultra Low Noise Preamp    Additional 20 dB of gain

## SPECTRAN® V6 PLUS XPLORER 140 GHz USB real-time spectrum analyzer

### V6 PLUS XPLORER 250XB-WR15

| Frequency Band | IQ POI | Sweep Speed | RTBW |
|---|---|---|---|
| 50GHz - 75GHz | 15 | 10 ns | 730 | 1100GHz/s | 160 | 490MHz |

| | | | |
|---|---|---|---|
| Rx | 1 Rx | Design | USB Desktop |
| Tx | - | Weight | 700 g |
| DANL | -170 dBm/Hz | SKU# | 102/077 |

# USB Real-Time Spectrum Analyzers

OUTDOOR
INDOOR
MOBILE
STACKABLE
USB POWERED

V6
XPR

## SPECTRAN® V6 PLUS XPR
### REAL-TIME SPECTRUM ANALYZER

The new SPECTRAN® V6 XPLORER, the first USB spectrum analyzer for microwave applications > 100GHz. It is designed to provide a cost-effective development and validation platform for all millimeter-wave applications, including those with the shortest signal transmissions. Despite its compact size and light weight, its sampling speed is virtually unmatched. With this, you can master almost any challenge in the microwave range. Whether spectrum monitoring, setting up radio relay links, testing automotive distance control systems or any radar device.

### V6 PLUS XPLORER 250XB-WR12

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

| Rx | 1 Rx | Design | USB Desktop |
|---|---|---|---|
| Tx | - | Weight | 700 g |
| DANL | -170 dBm/Hz | SKU# | 102/078 |

### V6 PLUS XPLORER 250XB-WR10

| Frequency Band | IQ POI | Sweep Speed | RTBW |
|---|---|---|---|
| 75GHz - 110GHz | 15 \| 10 ns | 730 \| 1100GHz/s | 160 \| 490MHz |

| Rx | 1 Rx | Design | USB Desktop |
|---|---|---|---|
| Tx | - | Weight | 700 g |
| DANL | -170 dBm/Hz | SKU# | 102/079 |

### V6 PLUS XPLORER 250XB-WR08

| Frequency Band | IQ POI | Sweep Speed | RTBW |
|---|---|---|---|
| 90GHz - 140GHz | 15 \| 10 ns | 730 \| 1100GHz/s | 160 \| 490MHz |

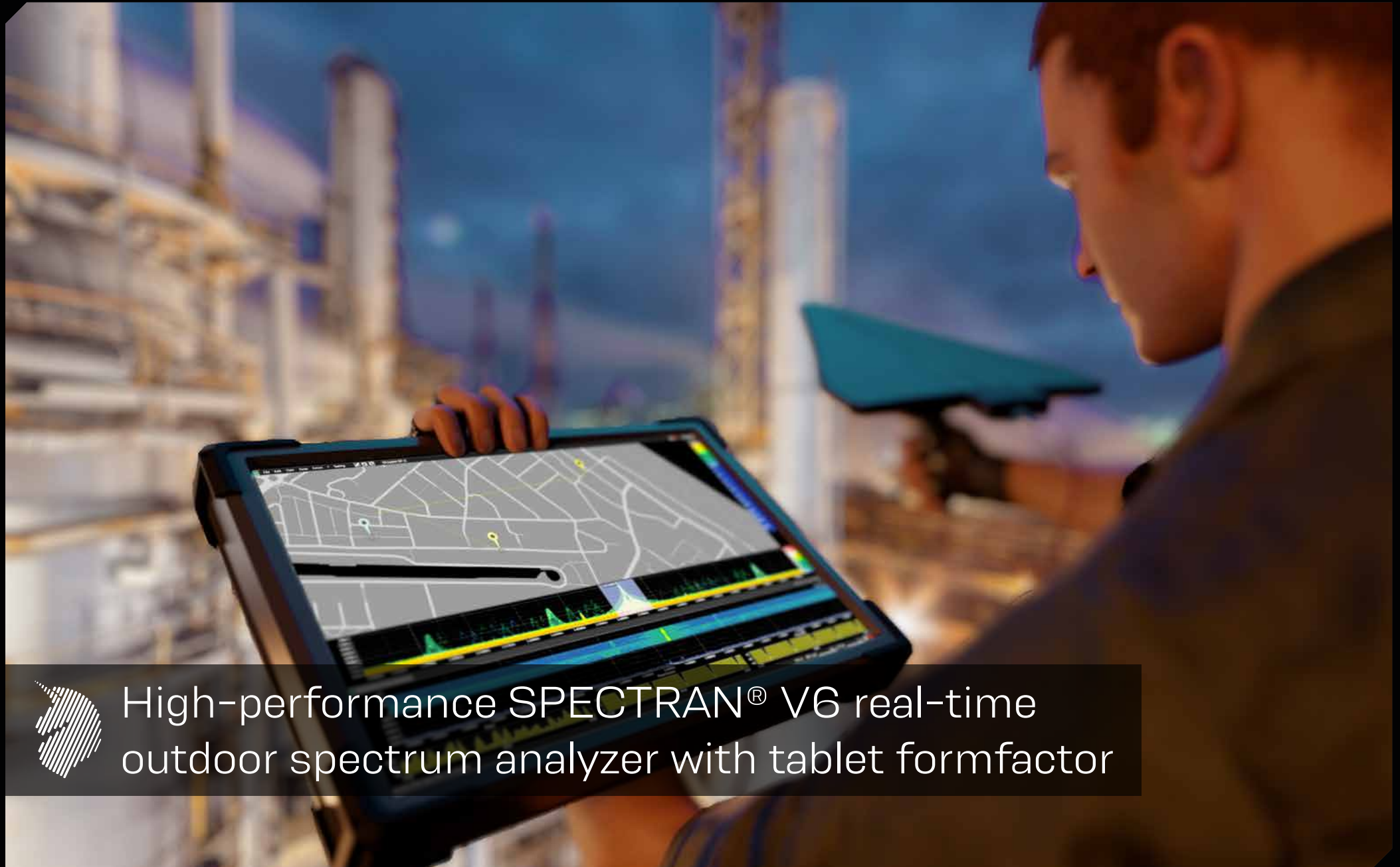| Rx | 1 Rx | Design | USB Desktop |
|---|---|---|---|
| Tx | - | Weight | 700 g |
| DANL | -170 dBm/Hz | SKU# | 102/080 |

## Hardware Options

- ⊕ OCXO Timebase — ultra high vibration resistance
- ⊕ 490 MHz I/Q RTBW
- ⊕ Internal GPS — spoofing detection/active GPS antenna
- ⊕ Ultra Low Noise Preamp — Additional 20 dB of gain

High-performance SPECTRAN® V6 real-time outdoor spectrum analyzer with tablet formfactor

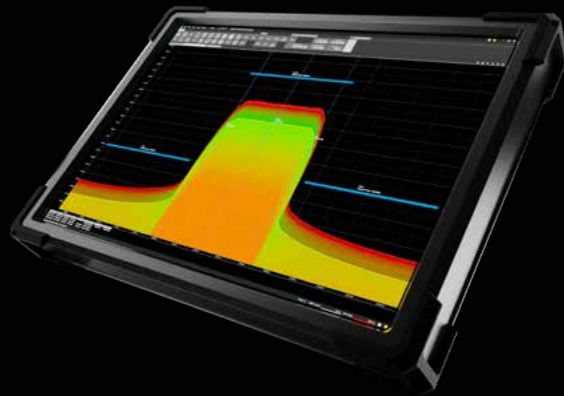# Real-Time Mobile Outdoor Spectrum Analyzers

SPECTRAN®V6
BEYOND REALTIME

Introducing the ultimate mobile handheld spectrum analyzer! Our cutting-edge solution is designed for professionals on the move, offering real-time spectrum analysis at your fingertips. What sets it apart is its complete adaptability - you can customize it with any SPECTRAN® V6 to meet your specific requirements.
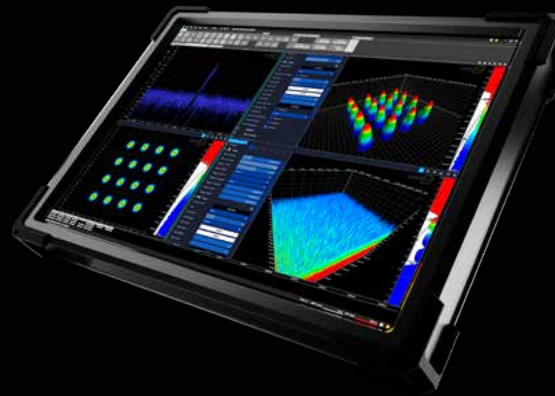
Our optimized touchscreen-capable RTSA Suite PRO software ensures a user-friendly experience, making spectrum analysis easier and more efficient than ever. Plus, with a long-lasting battery, you can stay connected and capture crucial data for extended periods.

## V6 Mobile 100SA-6

| Frequency Band | IQ POI | | Sweep Speed | RTBW |
|---|---|---|---|---|
| 9kHz - 6 \| 8 GHz | 30 \| 20 ns | | 500GHz/s | 44MHz |

| | | | | |
|---|---|---|---|---|
| Rx | 1 Rx | | Design | Outdoor Tablet |
| Tx | - | | Weight | TBA |
| DANL | -170 dBm/Hz | | SKU# | TBA |

## V6 Mobile 2000SA-6

| Frequency Band | IQ POI | | Sweep Speed | RTBW |
|---|---|---|---|---|
| 10MHz - 6 \| 8 GHz | 15 \| 10 ns | | 730 \| 1100GHz/s | 160 \| 245MHz |

| | | | | |
|---|---|---|---|---|
| Rx | 2 Rx | | Design | Outdoor Tablet |
| Tx | 1 Tx | | Weight | TBA |
| DANL | -170 dBm/Hz | | SKU# | TBA |

## V6 Mobile 500SA-50

| Frequency Band | IQ POI | | Sweep Speed | RTBW |
|---|---|---|---|---|
| 250MHz - 7.5GHz 24 - 53GHz | 30 \| 20 ns | | 500GHz/s \| 3THz/s | 60MHz |

| | | | | |
|---|---|---|---|---|
| Rx | 2 Rx | | Design | Outdoor Tablet |
| Tx | - | | Weight | TBA |
| DANL | -170 dBm/Hz | | SKU# | TBA |

## Hardware Options

➕ Frequency Extention WiFi6E    Mobile ECO/PLUS only

➕ 245 MHz I/Q RTBW    Mobile PLUS only

➕ Internal GPS    spoofing detection/active GPS antenna

➕ Internal Preamp    additional 20 dB of gain

➕ OCXO Timebase    ultra high vibration resistance

# Real-Time Rugged Outdoor Spectrum Analyzers



Ultra-stable SPECTRAN® V6 real-time outdoor spectrum analyzer with laptop formfactor
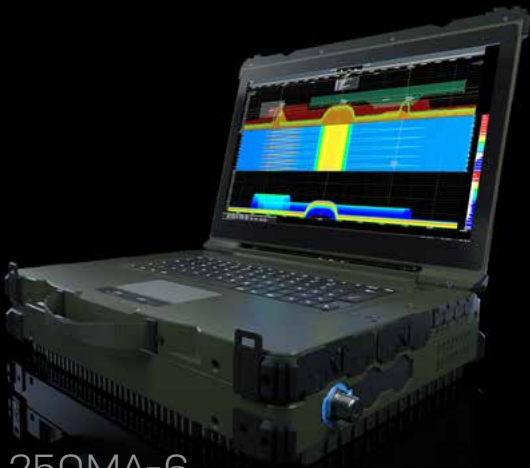
# Real-Time Rugged Outdoor Spectrum Analyzers

## SPECTRAN® V6
### BEYOND REALTIME

The SPECTRAN® V6 MIL 250MA-6 consists of an entry-level real-time spectrum analyzer built into a powerful and extremely shock-resistant outdoor laptop certified to MIL-STD-810G and IP65 standards.

The V6 MIL 500MA-6 also features a vector signal generator while the high-end SPECTRAN® V6 2000MA-6 spectrum analyzer is equipped with 160MHz (optional 245MHz) real-time bandwidth. It is ideal for all mobile applications in the field as it is capable of capturing and displaying signal transmissions in every conceivable way. It is ideal for all mobile applications in the field as it is capable of cap-

turing and displaying signal transmissions in every conceivable way.

## MIL 250MA-6

| Frequency Band 10MHz - 6 \| 8GHz | IQ POI 30 ns | Sweep Speed 300GHz/s | RTBW 80MHz |
|---|---|---|---|

| Rx | 1 Rx | Design | Outdoor Laptop |
|---|---|---|---|
| Tx | - | Weight | 9.5 kg |
| DANL | -165 dBm/Hz | SKU# | 102/013 |

## MIL 500MA-6

| Frequency Band 10MHz - 6 \| 8GHz | IQ POI 20 ns | Sweep Speed 440GHz/s | RTBW 120MHz |
|---|---|---|---|

| Rx | 1 Rx | Design | Outdoor Laptop |
|---|---|---|---|
| Tx | 1 Tx | Weight | 9.5 kg |
| DANL | -168 dBm/Hz | SKU# | 102/014 |

## MIL 2000MA-6

| Frequency Band 10MHz - 6 \| 8GHz | IQ POI 15/10 ns | Sweep Speed 730 \| 1100GHz/s | RTBW 160/245MHz |
|---|---|---|---|

| Rx | 2 Rx | Design | Outdoor Laptop |
|---|---|---|---|
| Tx | 1 Tx | Weight | 9.5 kg |
| DANL | -170 dBm/Hz | SKU# | 102/015 |

## Hardware Options

| + 120 MHz I/Q RTBW | 250MA-6 only |
|---|---|
| + 245 MHz I/Q RTBW | 2000MA-6 only |

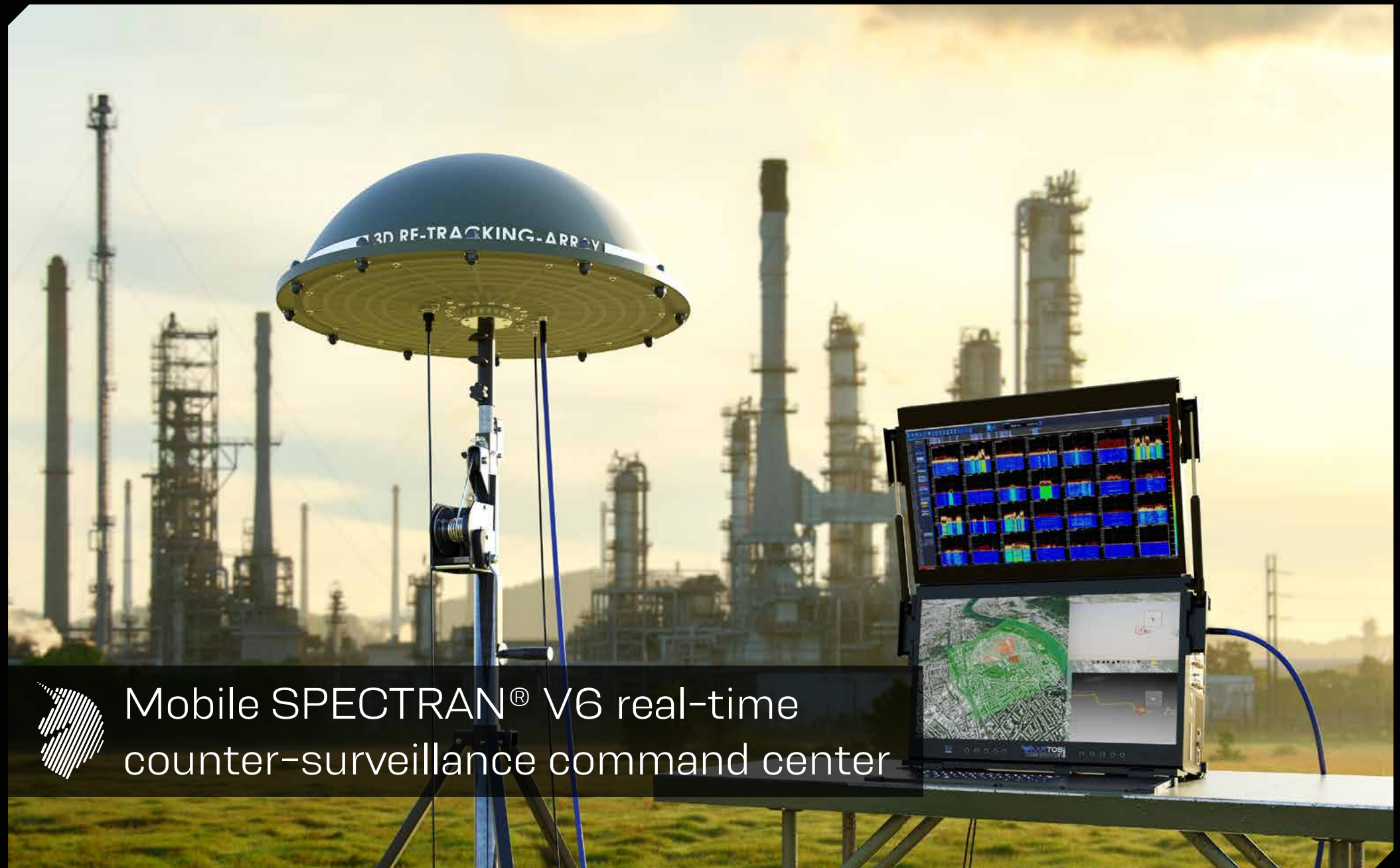| + 2/4/8 TB Memory | |
|---|---|
| + Internal Preamp | additional 20 dB of gain |

| + OCXO Timebase | ultra high vibration resistance |
|---|---|
| + Internal GPS | spoofing detection/active GPS antenna |

# Real-Time Command Centers



Mobile SPECTRAN® V6 real-time counter-surveillance command center

# Real-Time Command Centers

**SPECTRAN V6**
BEYOND REALTIME

Even the basic version shines with expandable 160 MHz RTBW or more than 730 GHz/s sweep. Thus, this customizable high-end spectrum analyzer already offers excellent performance for all basic measurement scenarios in a mobile dual-screen system.

With up to 490 MHz RTBW or more than 2 THz/s sweep the 4000CA-6 variant already is one of the fastest real-time spectrum analysis solutions in the world, only surpassed by the 8000CA-6 with an astonishing RTBW of up to 980 MHz combined with a sweep speed of more than 4 THz/s.

## Command Center 2000CA-6

| Frequency Band 10MHz - 6 \| 8GHz | IQ POI 15 ns | | Sweep Speed 730GHz/s | RTBW 160MHz |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Receiver | 1 | | RAM | 32 GB |
| Rx | 1 Rx | | Storage | - / 4 TB |
| Tx | - | | Design | Mobile Command Center |
| DANL | -165 dBm/Hz | | Weight | 30 kg |
| Network | 10 GbE | | SKU# | 102/016 |

## Command Center 4000CA-6

| Frequency Band 10MHz - 6 \| 8GHz | IQ POI 15/10 ns | | Sweep Speed 1460/2200GHz/s | RTBW 320/490MHz |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Receiver | 2 | | RAM | 64 GB |
| Rx | 4 Rx | | Storage | 4 / 8 TB |
| Tx | 2 Tx | | Design | Mobile Command Center |
| DANL | -170 dBm/Hz | | Weight | 30 kg |
| Network | 2x 10 GbE | | SKU# | 102/017 |

## Command Center 8000CA-6

| Frequency Band 10MHz - 6 \| 8GHz | IQ POI 15/10 ns | | Sweep Speed 2920/4400GHz/s | RTBW 640/980MHz |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Receiver | 4 | | RAM | 128 GB |
| Rx | 8 Rx | | Storage | 8 / 24 TB |
| Tx | 4 Tx | | Design | Mobile Command Center |
| DANL | -170 dBm/Hz | | Weight | 30 kg |
| Network | 2x 100 GbE | | SKU# | 102/018 |

## Hardware Options

| + Dual 245 MHz I/Q RTBW | 4000 / 8000CA-6 only |
|---|---|
| + 245 MHz Tx Data rate | 4000 / 8000CA-6 only |

| + Extended Temperature Range | -40°C to +75°C |
|---|---|
| + Internal Preamp | additional 20 dB of gain |

| + OCXO Timebase | ultra high vibration resistance |
|---|---|
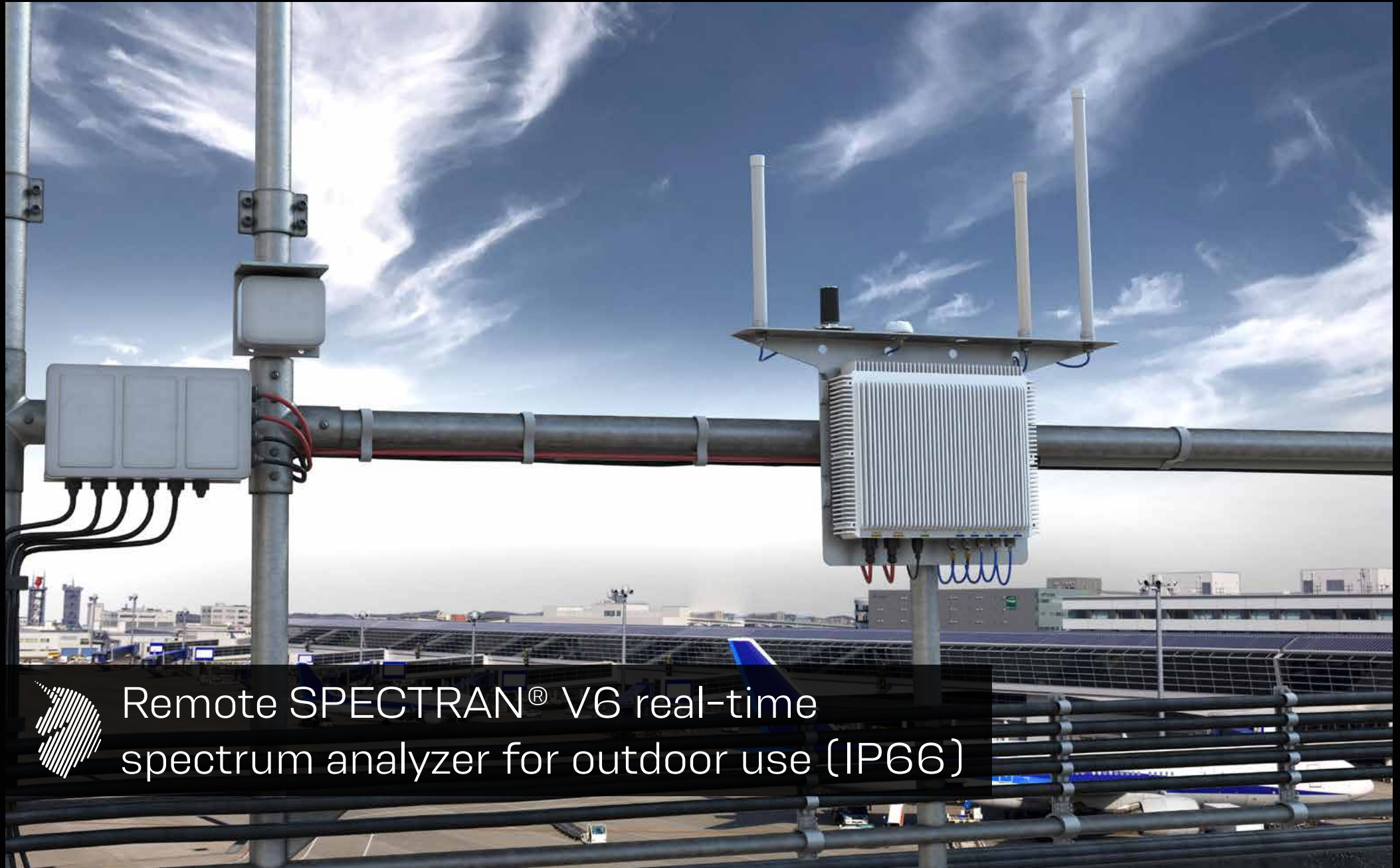
Remote SPECTRAN® V6 real-time spectrum analyzer for outdoor use (IP66)

OUTDOOR    REMOTE
STATIONARY    V6CUSTOMIZED

## SPECTRAN®V6
### BEYOND REALTIME

The SPECTRAN® V6 RODB lineup feature an IP66 certified outdoorbox incl. SPECTRAN® V6 real-time spectrum ana-lyzer and Mini-PC for remote data analysis and streaming. The bigger flagship 2000RA-6 is not only the most perform-ing variant but is also perfectly suited for 24/7 spectrum monitoring, since the data storage can be upgrade to up to 30 TB.

## RODB 100RA-6

| Frequency Band 9kHz - 6 | 8GHz | IQ POI 40 ns |
|---|---|

| Sweep Speed 500GHz/s | RTBW 44MHz |
|---|---|

| Receiver | 1 |
|---|---|
| Rx | 1 Rx |
| Tx | - |
| DANL | -165 dBm/Hz |

| Network | 1 GbE |
|---|---|
| RAM | 32 GB / 64 GB |
| Storage | 1 / 4 TB |
| Design | Remote IP66 |
| SKU# | 102/008 |

## RODB 200RA-6

| Frequency Band 9kHz - 6 | 8GHz | IQ POI 30 ns |
|---|---|

| Sweep Speed 3THz/s | RTBW 2x44MHz |
|---|---|

| Receiver | 1 |
|---|---|
| Rx | 2 Rx |
| Tx | - |
| DANL | -168 dBm/Hz |
| Network | 1 GbE |

| RAM | 32 GB / 64 GB |
|---|---|
| Storage | 1 / 8 TB |
| Design | Remote IP66 |
| SKU# | 102/009 |

## RODB 2000RA-6

| Frequency Band 10MHz - 6 | 8GHz | IQ POI 15/10 ns |
|---|---|

| Sweep Speed Up to 2 THz/s | RTBW 320/490MHz |
|---|---|

| Receiver | 2 |
|---|---|
| Rx | 4 Rx |
| Tx | 2 Tx |
| DANL | -170 dBm/Hz |

| Network | 1 GbE |
|---|---|
| RAM | 32 GB / 64 GB |
| Storage | 1 / 30 TB |
| Design | Remote IP66 |
| SKU# | 102/010 |

# Real-Time Rack-Mounted Spectrum Analyzers



19" SPECTRAN® V6 analyzer rack solutions

# Real-Time Rack-Mounted Spectrum Analyzers

## SPECTRAN®V6
### BEYOND REALTIME

Our all-inclusive solution is designed to meet all your spectrum monitoring and streaming requirements.

With our remote spectrum monitoring capabilities, you can keep a watchful eye on your desired frequency spectrum from anywhere.

Our 6GHz IQ real-time spectrum monitoring empowers you with instant insights, allowing you to make informed decisions at lightning speed.

Our 24/7 data streaming feature ensures you never miss a beat, capturing vital data around the clock.

Supporting up to 6 freely configurable SPECTRAN® V6 Real-Time Spectrum Analyzers, our solution scales effortlessly to your unique needs. Furthermore, our system is entirely customizable, adapting to your specific workflow.

## 1RU RSA V6 Spectrum Analyzer
**Configurable with any SPECTRAN® V6 Spectrum Analyzer**

| | | | | |
|---|---|---|---|---|
| Receiver | 1 | | Sweep | Up to 3 THz/s |
| Rx | Up to 2 | | Network | 100 GbE |
| Tx | Up to 1 | | Storage | 1 TB Highspeed SSD |
| Rx RTBW | Up to 245 MHz/s | | Design | 1RU 19" server rack |
| IQ POI | Up to 10 ns | | SKU# | 102/907 |

## 2RU RSA V6 Spectrum Analyzer
**Configurable with any SPECTRAN® V6 Spectrum Analyzers**

| | | | | |
|---|---|---|---|---|
| Receiver | 2 | | Sweep | Up to 6 THz/s |
| Rx | Up to 4 | | Network | 100 GbE |
| Tx | Up to 2 | | Storage | 1 TB Highspeed SSD |
| Rx RTBW | Up to 490 MHz/s | | Design | 2RU 19" server rack |
| IQ POI | Up to 10 ns | | SKU# | 102/908 |

## 4RU RSA V6 Spectrum Analyzer
**Configurable with any SPECTRAN® V6 Spectrum Analyzers**

| | | | | |
|---|---|---|---|---|
| Receiver | Up to 6 | | Sweep | Up to 18 THz/s |
| Rx | Up to 12 | | Network | 100 GbE |
| Tx | Up to 6 | | Storage | 1 TB Highspeed SSD |
| Rx RTBW | Up to 1.470 MHz/s | | Design | 4RU 19" server rack |
| IQ POI | Up to 10 ns | | SKU# | 102/909 |

# Real-Time IQ Recording Spectrum Analyzers





## IQ Recorder V6 Spectrum Analyzer
**Configurable with any SPECTRAN® V6 Spectrum Analyzers**

| Receiver | Up to 6 | IQ POI | Up to 10 ns | Design | 10RU 19" server rack |
|---|---|---|---|---|---|
| Rx | Up to 12 | Sweep | Up to 18 THz/s | SKU# | 102/910 |
| Tx | Up to 6 | Network | 100 GbE | | |
| Rx RTBW | Up to 1470 MHz/s | Storage | Up to 1000 TB | | |

## IQ Recorder V6 Spectrum Analyzer UWB-Array
**Configurable with any SPECTRAN® V6 Spectrum Analyzers**

| Receiver | Up to 10 | IQ POI | Up to 10 ns | Design | 10RU 19" server rack |
|---|---|---|---|---|---|
| Rx | Up to 20 | Sweep | Up to 30 THz/s | SKU# | 102/911 |
| Tx | Up to 10 | Network | 100 GbE | | |
| Rx RTBW | Up to 2500 MHz/s | Storage | Up to 1000 TB | | |

# Real-Time IQ Recording Spectrum Analyzers

Elevate your spectrum analysis to new heights with our all-inclusive solution. Enjoy 24/7 IQ data recording and remote real-time spectrum monitoring.

It records a continuous stream of IQ (In-phase and Quadrature) data, providing a complete picture of the spectrum. This data captures all signal characteristics, including amplitude and phase, making it incredibly detailed.

The recorded data can be played back in real-time or accelerated time, allowing for detailed analysis, simulation, and decision-making in controlled environments. mScale effortlessly with support for up to 10 V6 spectrum analyzers and tailor the system to your unique workflow with our fully config-

urable platform. Enhanced by a high-performance server, our solution ensures you have the power and flexibility you need for unparalleled spectrum management.
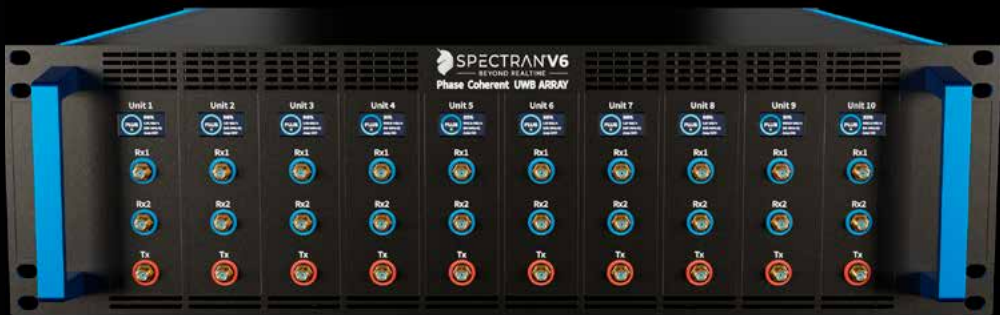
## IQ Recorder Phase-Coherent UWB-Array
**Configurable with any SPECTRAN® V6 Spectrum Analyzers**

| | | | | | |
|---|---|---|---|---|---|
| Receiver | Up to 10 | Rx RTBW | Up to 2.5 GHz/s | Design | 4RU 19" server rack |
| Rx | Up to 20 | IQ POI | Up to 10 ns | SKU# | 102/913 |
| Tx | Up to 10 | Sweep | Up to 30 THz/s | | |

## IQ Recorder Enterprise V6 Spectrum Analyzer
**Configurable with any SPECTRAN® V6 Spectrum Analyzers**

| | | | | | |
|---|---|---|---|---|---|
| Receiver | Up to 6 | IQ POI | Up to 10 ns | Storage | Up to 1000 TB |
| Rx | Up to 12 | Sweep | Up to 6.6 THz/s | Design | 2RU 19" server rack |
| Tx | Up to 6 | Network | 100 GbE | SKU# | 102/912 |
| Rx RTBW | Up to 1500 MHz/s | | | | |

# Vector Signal Generator



## V6 VSG 50XA-18

| Frequency Band | Power | Sweep Speed |
|---|---|---|
| 9 kHz - 18 GHz | +20 dBm | 3 THz/s |

| | |
|---|---|
| Tx | 1 (SMA) |
| DANL | -165 dBm/Hz |
| Design | USB Desktop |
| Weight | 850 g |
| Modulations | Sweep, Noise, Pulse, FSK, QAM, OFDM, Echo/Reflection |
| SKU# | 401/008 |

Aaronia presents the SPEC-TRAN® V6 VSG real-time high-performance vector signal generator designed to generate every imaginable signal.

Many additional software extensions are available, allowing signal sweeping inbetween 9kHz up to 18 GHz in less than 5 ms or complex IQ vector signal modulation with up to 4096QAM.

exemplary image
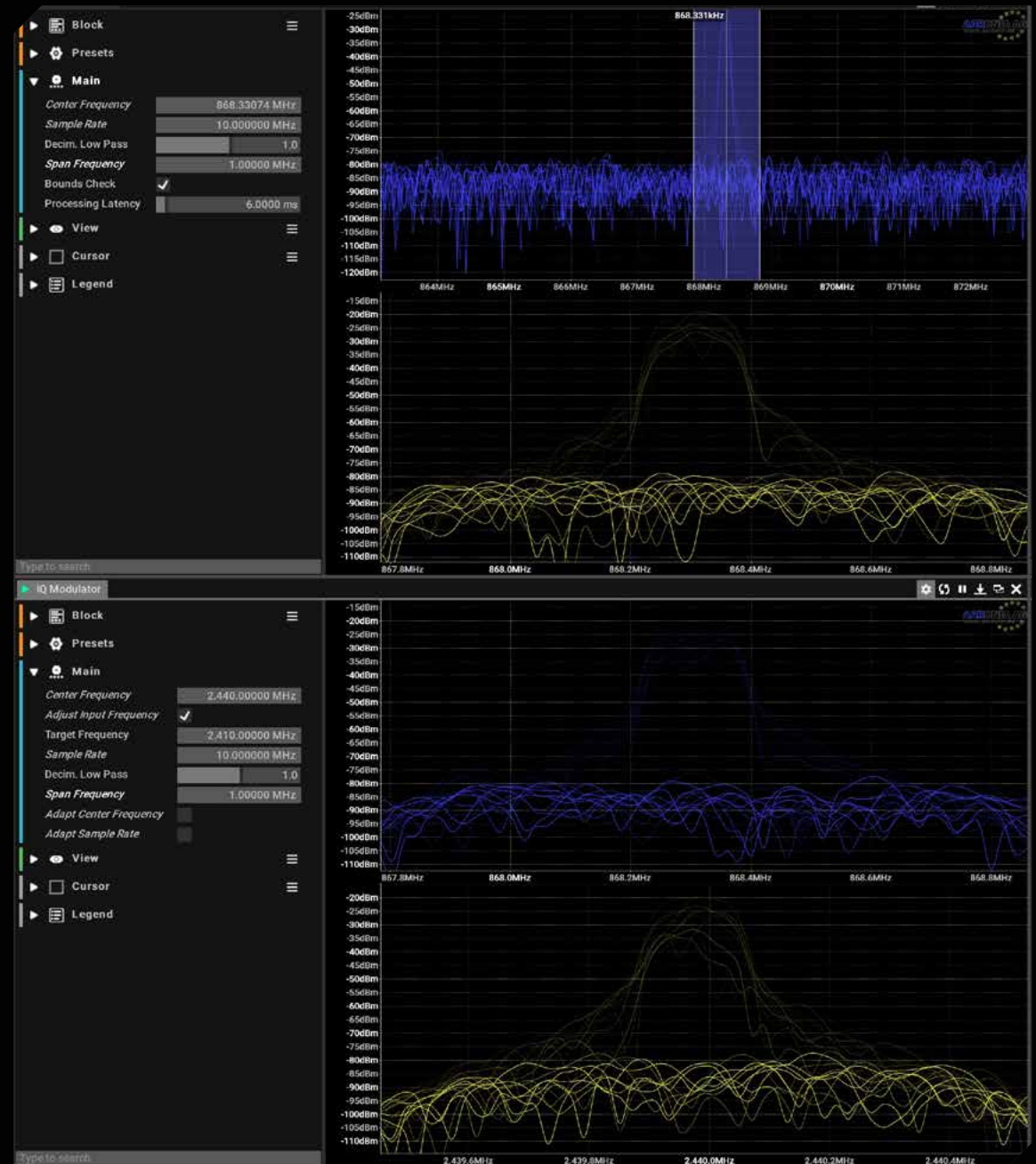
## Directional Coupler
**50MHz - 6000MHz**

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

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

## Splitter / Combiner
**400MHz - 8GHz | 700MHz - 6GHz | DC - 8GHz**

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

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

## Active Splitter / Combiner
**400MHz - 8GHz | 700MHz - 6GHz | DC - 8GHz**

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

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

## Broadband Power Amplifier
**10MHz to 70GHz | 50dB Gain**

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

With an impressive 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 reliable and consistent signal amplification, making it a valuable asset in research, communication, and testing scenarios.

## RF over Fiber
**10MHz to 4 | 6 | 10 | 16GHz**

Cable damping is a thing of the past! Aaronia's RF over Fiber solution impresses with its extremely high 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".

SKU# various

## SPECTRAN® V6 Powerbank
**26800mAh**

The Aaronia Powerbank with its 26800mAh allows a high runtime extension of the SPECTRAN® V6 with a laptop. The battery of the laptop is conserved because the SPECTRAN® V6 is only operated via the powerbank.

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.

SKU# 503/022

# Additional Accessories

## SPECTRAN® V6 Mounting Plate
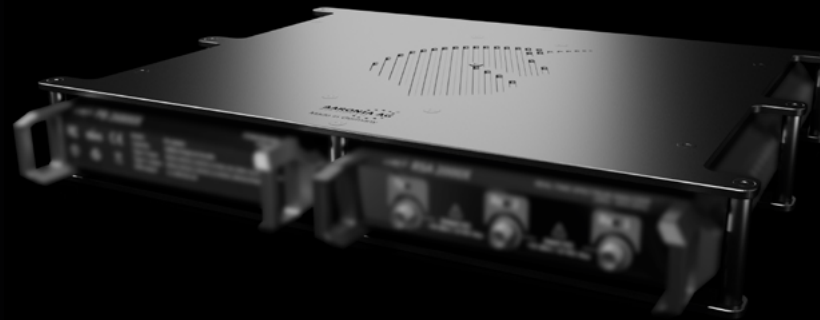**Vertical version**

● ● ●

| Dimensions | 248 x 185 mm | | SKU# | 503/062 |
|---|---|---|---|---|

Coated aluminum mounting plates for attaching two SPEC-TRAN® 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.

## SPECTRAN® V6 Mounting Plate
**Horizontal version**

● ● ●

| Dimensions | 248 x 248 mm | | SKU# | 503/034 |
|---|---|---|---|---|

Coated aluminum mounting plates for attaching two SPEC-TRAN® 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.

## Precision Torque Wrench
**For Aaronia analyzers, antennas and accessories as well as 3rd party products**

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:

· 2.4mm, 1.85mm and SMA connectors
· 5/16" wrench size
· 0.9 N.m. torque
SKU# 503/061

MADE IN GERMANY