

AURORA™

FlexRadio™

Introducing the Aurora™ Series—an all-new family of HF/6m transceivers featuring the world's first truly integrated 500W SDR transmitter. The Aurora Series defines a new category in amateur radio, eliminating the traditional boundaries between transceiver, amplifier, tuner, and power supply.

Designed for the modern operator, the Aurora Series delivers exceptional RF performance in a radically compact form factor—leveraging cutting-edge high-efficiency technology that produces more power with less weight, lower heat, and dramatically reduced power input requirements.

At the heart of Aurora is a revolutionary 500W transmitter module that achieves up to 90% efficiency—a dramatic leap over conventional MOSFET and LDMOS designs, which typically operate at 40–60%. The result: less heat to dissipate, a smaller heatsink, and a much lighter radio.

The entire 500W transmitter fits in the same physical envelope as traditional 100W PA systems and runs cool

enough to share the existing FLEX-8000 heatsink footprint. This level of integration means operators no longer need to carry or connect external power amplifiers, tuners, or heavy AC/DC power supplies. The Aurora Series includes everything needed inside the chassis—power supply, automatic antenna tuner, and 500W transmitter—with a standard IEC plug accepting 80–264VAC.

The AU-510M / AU-520M allows the same client access, but does so with a stunning 8" touchscreen display and ergonomic controls to deliver a high-performance SDR with a traditional radio interface—no PC required.

Both models share the same AURORA high-power, high-efficiency transmitter, game-changing band awareness, industry-leading phase noise performance / receiver dynamic range, and brick wall filters to give you the advantage in the most competitive DXing or contesting activities while maximizing your fun during casual operations.

A NEW DAY FOR THE UNEXPLORED.



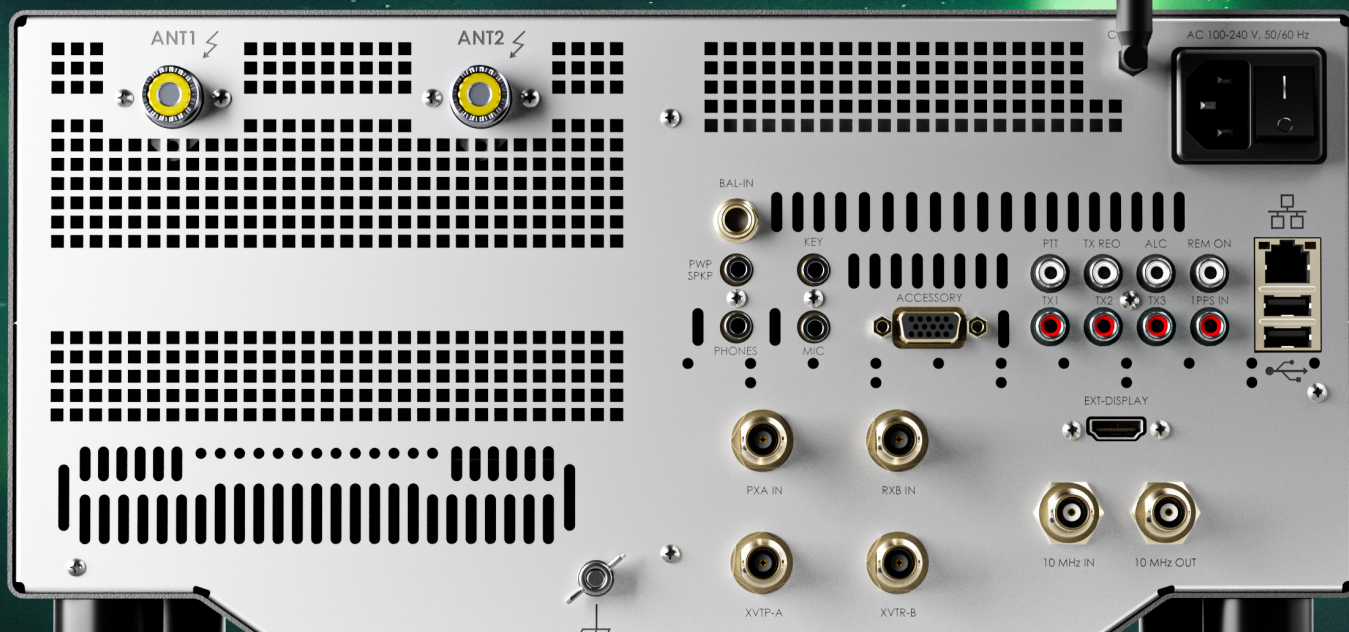
510/510M FEATURES

- 500W PEP HF, 200W 6m operation with 80% nominal efficiency
- Integrated AC/DC Power Supply, 80-264VAC, 47-63Hz, PF > 0.94
- All Modes/Amateur Bands 160m-6m
- Integrated Remote Operation with a Maestro™, iPad®, iPhone® or PC/Laptop
- Two Independent Band/Mode Receivers
- Full Duplex Cross-Band Operation
- One Receive Only Port
- One Transverter/Exciter Port
- Direct Sampling SDR 122.88Msps, 16 bit
- 115 dB 2kHz RMDR
- 8-Inch 1920 X 1200 IPS Display on AU-510M with external monitor port
- >145 dB Dynamic Range
- Built in 500W Antenna Tuner
- 10 MHz Reference Input
- Integrated GNSS receiver with antenna maintains radio frequency with no adjustments
- Optional High-performance GPSDO provides 10MHz output for external equipment

520/520M FEATURES

- 500W PEP HF, 200W 6m operation with 80% nominal efficiency
- Integrated AC/DC Power Supply, 80-264VAC, 47-63Hz, PF > 0.94
- All Modes/Amateur Bands 160m-6m
- Integrated Remote Operation with a Maestro™, iPad®, iPhone® or PC/Laptop
- Four Independent Band/Mode Receivers
- Full Duplex Cross-Band Operation
- True Diversity Reception
- Two Receive Only Ports
- Two Transverter/Exciter Ports
- Integrated SO2R Solution (OTRSP) Support in one radio
- Contest Band Filters: >50dB Rejection band-to-band
- Direct Sampling SDR 245.76Msps, 16 bit
- 115 dB 2kHz RMDR
- 8-Inch 1920 X 1200 IPS Display on AU-520M with external monitor port
- >155 dB Dynamic Range
- Built in 500W Antenna Tuner
- 10 MHz Reference Input
- Integrated GNSS receiver with antenna maintains radio frequency with no adjustments
- Optional High-performance GPSDO provides 10MHz output for external equipment

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RECEIVER

Independent Band/Mode Receivers (Max)	2
1/2 kHz Reciprocal Mixing Dynamic Range (RMDR)	110/115 dB
ADC Bits/Sampling Rate	16/122.88 Msps
Frequency Coverage	30 kHz–54 MHz
Amateur Band Preselectors	3rd Order
Cableless Digital Audio Channels (DAX/DAX IQ) Channels	2/2
Receive Only Ports (Base/Including XVTR Ports)	1/2
Full Duplex RX/TX Operation	✓

SPECTRUM/WATERFALL DISPLAY

Internal Touch Panel Display Size Diagonal	8-inch (M model versions)
Integrated Display Resolution	1920x1200 (M model versions)
External Display Resolution/Connection	1920x1200/External monitor port (M model versions)
Spectrum/Waterfall Displays (Max)	2
Spectrum/Waterfall BW (Min/Max)	5 kHz - 7 MHz
Spectrum Dynamic Range (Max Zoom In)	> 145dB
Spectrum Resolution Bandwidth (Min)	5.85 Hz/px (bin)

AURORA TRANSMITTER

160m–10m Transmitter Output, Amateur Bands Only	1–500W (125W AM)
6m Transmitter Output	1–200W (50W AM)
Harmonic Suppression	≤ 60 dBc
Transverter Ports	1
Transverter IF Frequency Coverage/Power	100 kHz–54 MHz/adjustable up to +10 dBm
Integrated Automatic Antenna Tuner Range	3:1 SWR
Integrated Adaptive Pre-distortion (SmartSignal™)	✓

GENERAL

Modes (Note 1)	SSB, CW, AM, SAM, FM, RTTY, Digital
Integrated Remote Operation (SmartLink™)	✓
Maestro, PC, MAC, iPhone®, iPad® Client Options	✓
Integrated 12-channel GNSS Receiver, TTFF (COLD)	<35s — GPS, Galileo, GLONASS, QZSS, SBAS
Frequency Stability (0°C–50°C)	0.001ppm (GNSS), 0.5ppm (TCXO)
Optional High-performance GPS Disciplined Oscillator	5 x 10 ⁻¹³ Over 24 Hours
External 10MHz Reference Input	✓
Power Requirements	80-264VAC, 35W Receive, 675W Transmit
Dimensions	6.74"H (17.1cm) x 14"W (35.6cm) x 13.25"D (33.7cm)

* Features subject to change without notice. Some features may be in future software releases.




RECEIVER

Independent Band/Mode Receivers (Max)	4
1/2 kHz Reciprocal Mixing Dynamic Range (RMDR)	110/115 dB
ADC Bits/Sampling Rate	16/122.88 Msps
Frequency Coverage	30 kHz–54 MHz
Amateur Band Preselectors	7th Order
Cableless Digital Audio Channels (DAX/DAX IQ) Channels	4/4
Receive Only Ports (Base/Including XVTR Ports)	2/4
Full Duplex RX/TX Operation	✓

SPECTRUM/WATERFALL DISPLAY (AU-520M Only)

Internal Touch Panel Display Size Diagonal	8-inch (M model versions)
Integrated Display Resolution	1920x1200 (M model versions)
Connection Port	HDMI®
Spectrum/Waterfall Displays (Max)	2 (On M model display)
Spectrum/Waterfall BW (Min/Max)	5 kHz – 14 MHz
Spectrum Dynamic Range (Max Zoom In)	> 145dB
Spectrum Resolution Bandwidth (Min)	1.46 Hz/px (bin)

AURORA TRANSMITTER

160m–10m Transmitter Output, Amateur Bands Only	1–500W (125W AM)
6m Transmitter Output	1–200W (50W AM)
Harmonic Suppression	≤ 60 dBc
Transverter Ports	2
Transverter IF Frequency Coverage/Power	100 kHz–54 MHz/adjustable up to +10 dBm
Integrated Automatic Antenna Tuner Range	3:1 SWR
Integrated Adaptive Pre-distortion (SmartSignal™)	✓

GENERAL

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Maestro, PC, MAC, iPhone®, iPad® Client Options	✓
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This device has not been authorized as required by the rules of the Federal Communications Commission.
This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained.

