Broadcast Electronics

Tomorrow's Radio Today

STXe Series

Solid State FM Transmitter

The STXe Series is the latest in a long timeline of reliable, efficient, and performance-leading FM transmitters from Broadcast Electronics.

BE STX Line of Transmitters Expands

The Broadcast Electronics STX line of solid-state transmitters continues to expand with the new STXe Series FM transmitters. Based on the RF technology of the STX 10 and the exciter technology of the STXe and STX LP transmitters, the STXe Series provides unparalleled performance and reliability in its class.

Hot-Pluggable / Front Access Power Supply

Unique at these power levels, the STXe Series includes two RF power supply modules that are front accessible and hot-pluggable, providing quick and easy service in the event of a power issue.

Superior Performance

STXe Series is designed to exceed the FM transmitters of the past

- The best in audio quality
- SNMP level 3 control and security
- Full digital operation
- HD compatible

GUI

With IP connectivity at the transmitter site, the STXe will provide all important transmitter operating conditions and control options from a laptop, tablet, or smartphone. Three levels of security control are available from "view only" to "complete control," ensuring secure access for the correct personnel

Key Features & Benefits

- Compact Size…only 4RU
- > 70% AC to RF Efficiency
- Hot-Pluggable / Front Accessible Power Supplies
- Internal Stereo Generator
- Internal RDS generator
- Audio & MPX inputs with silence sense and auto switching
- IP Connectivity with Superior GUI for anytime, anywhere access
- Best Audio Quality Available
- Front Panel LCD Metering for all functions including RF Power, VSWR, Voltages, etc.
- Returns to previous state after power failure and restore

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SPECIFICATIONS

Specifications	
Frequency Range	87.5 MHz to 108 MHz, tuned specific operating frequency programmable to 10 kHz steps.
Frequency Stability	± 150 Hz, 0 to 50 C
RF Output Power	STXe 2kW: 750 to 2000W. STXe 3kW: 750W to 3000W
Pre-emphasis	Selectable 50 µsec or 75 µsec
RF Output Impedance	50 Ohms
VSWR	1.5 : 1 Maximum
Modulation Type	Direct-to-channel digitally generated FM (no analog up-conversion); FM only, HD Radio only, or HD Radio + FM, DRM+
Modulation Capabilities	Up to .±300 kHz
Asynchronous AM S/N Ratio	Better than -65dB (-70dB Typical) referenced to average peak-to-peak carrier amplitude. 75uSec de-emphasis
Synchronous AM S/N Ratio	Better than 60dB referenced to average peak-to-peak carrier amplitude. 75kHz deviation @400Hz
Spurious and Harmonic	85dB or better; low pass filter standard.
Regulatory	Meets all FCC/IC/CE and IEC 215 safety requirements

Audio Specifications:	
Audio Inputs	AES (XLR), L&R analog (XLR), Composite (BNC), SCA/ RBDS/RDS external generator input (BNC), SCA audio inputs (2 BNC)
Amplitude Response	Composite: ± 0.03dB, 30 Hz to 53 kHz; ± 0.1dB, 53kHz to 100kHz. AES and Analog: ± 0.25, 20Hz to 15kHz
Total Harmonic Distortion + Noise	Composite: 0.005% or less @400Hz, 10-22kHz bandwidth, 75uSec deemphasis. AES Stereo: 0.01% typical @ 400Hz, measured 10-22kHz, 75uSec deemphasis; AES Mono: 0.005% typical @ 400Hz, measured 10-22kHz, 75uSec deemphasis. Analog Stereo: 0.01 typical @400 Hz, 10-22kHz bandwidth 75uSec deemphasis; Analog Mono: 0.008 typical @400 Hz, 10-22kHz bandwidth 75uSec deemphasis
Intermodulation Distortion	Composite: 0.13% SMPTE (60/7000 Hz, 1:1 ratio), DIM-B: 0.008% (14kHz).
S/N Ratio	Composite: 85dB below 100% modulation @400 Hz.AES/ Analog L&R Stereo: 80dB below 100% modulation @400Hz. Analog L/R: -70dB, 30Hz to 15kHz
Stereo Separation	AES: -74dB below 100% modulation @400Hz. Analog L/R: -70dB, 30Hz to 15kHz

Mechanical/Physical	
Dimensions	19”W x 6.97” (4RU) H x 28.33” D (48.3 cm W x 17.7 cm H x 72 cm D)
Weight	58lbs (26.3 kg)
RF Output Connector	7/16 Female DIN

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SPECIFICATIONS (continued)

Environmental	
Temperature	-10 degrees to +50 degrees C
Altitude	10,000 ft (3,048 M)
Humidity	0-95% Non-Condensing

Electrical and Cooling	
AC Input Voltage	200-264 VAC, 47-63Hz (Single Phase)
Disconnect Size	40A
Cooling Air Requirements	300 CFM (8.5M3/min)
Heat Dissipation	1500 W at 3 kW RF Output into 50 Ohm load
BTU	5118BTU/H at 3kW RF Output into 50 Ohm load
Efficiency	> 70% typical Total AC to RF (FM Only)

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Taking the next step is easy with Broadcast Electronics. Contact your sales representative today to discuss solutions that will work for you and your station*(s)*.

To contact your BE sales representative, simply visit our website at bdcast.com or call 217.224.9600 and learn more about what BE has to offer.

BE manufactures complete RF systems for radio and TV. Our products encompass program generation, audio and data management, interfacility transport and analog and digital Radio and TV transmission.

BE and Elenos Group products are used daily in more than 40,000 installations in nearly 100 countries. For over sixty years, BE pioneering developments have set industry standards for innovation and reliability, while providing broadcasters with new options for operational productivity and income generation.

BE is headquartered in Quincy, Illinois, USA, and is represented worldwide by a network of local representatives.

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BE - Broadcast Electronics is part of Elenos Group
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