



Tomorrow's Radio Today



STX LP1

The STX LP1 is a reliable, efficient, and performance-leading FM transmitter from Broadcast Electronics.

Compact, Cost Effective and Robust

The STX LP1 is versatile, ready for both analog FM as well as HD Radio®, yet space saving and amazingly affordable, both in initial purchase price, but also in long term cost of operation with excellent overall efficiency. Being designed, built and supported by Broadcast Electronics in Quincy, IL, the STX LP1 shares the legendary long life that BE products have been known for since 1959.

Performance

- Exciter audio performance has been a hallmark of BE for decades
- The new exciter and controller in the STX LP1 provides audio performance that rivals BE's legendary FX 30, FX 50 and FXi Exciters
- Improved AC to RF efficiency reduces energy costs
- New enhanced GUI provides access to all important transmitter parameters
- SNMP Level 3 Control and Security

Reliability

- Since 1959, BE has provided equipment to radio broadcasters that is designed to last for the long haul
- Designed and manufactured in the USA, the STX LP line of transmitters has been installed in over 1,400 locations since its introduction
- 2nd Generation design includes updates to power supplies and fans, insuring an even longer transmitter life



Flexibility

- The STX LP Generation is designed for the world's digital standards and unique applications
- HD Radio® Capable
- Synchronous FM Systems
- IP Connectivity for complete transmitter status

Redundancy

- Unique Exciter and controller design allows the ability to add an optional second controller/ exciter for full redundancy in the event of an exciter or controller failure
- Ideal for N+1 Systems



Graphical User Interface

GUI

- With IP connectivity at the transmitter site, the STX LP1 provides 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.





Specifications

SPECIFICATIONS	
Frequency Range	87.5 MHz to 108 MHz, tuned specific operating frequency porgrammable to 10 kHz steps
Frequency Stability	+/- 150 Hz, 0° to 50° C
RF Output Power	250W to 1100W
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 Capabilites	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; assuming low pass filter included (LPF standard in all LP1 transmitters)
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% or less @400Hz, 10-22kHz bandwidth, 75uSec deemphasis. Analog Stereo: 0.01 typical @400Hz, measured 10-22kHz, 75uSec deemphasis; Analog Mono: 0.008 typical @400Hz, measured 10-22kHz, 75uSec deemphasis
Intermodulation Distortion	Composite: 0.13% SMPTE (60/7000 Hz, 1:1 ratio), DIM-B:0.008% (14 kHz)
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	58 lbs (26.3 kg)
RF Output Connector	7/16 Female DIN
ENVIRONMENTAL	
Temperature	-10° to +50° C
Altitude	10,000 ft (3048 M)
Humidity	0-95% non-Condensing
ELECTRICAL AND COOLING	
AC Input Voltage	200-265 VAC, 47-63Hz (Single Phase)
Disconnect Size	30A
Cooling Air Requirements	200 CFM (8.5M3/min)
Heat Dissipation	<500 W at 1.1 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 (*HD Radio and DRM transmission*).

They 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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