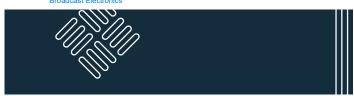


### Tomorrow's Radio Today



# Digital Exciter / Transmitter STXe-60 and STXe-500

#### STXe60



#### STXe500



The STXe series of direct to channel exciters has eclipsed even our own legendary exciter predecessors in audio quality. The STXe is a digital exciter that can produce the best AES audio but is also capable of broadcasting in HD or DRM+. The STXe series of exciters include as standard an RDS generator and multi-program inputs with silence sensor. Also included is a built-in audio delay for HD Radio operation. The system also includes SNMP Level III Control and Security and is perfect for translator operation with a built in FSK-ID generator. AES over Composite / Baseband 192 Capable allows excellent audio quality and as with all BE transmitters uses the latest in transistor amplifier technology offering the highest AC to RF efficiency.

# **Key Features and Benefits**

- RDS Generator built-in with Dynamic RDS
- Multiple Program Inputs with silence senor and auto failover
- Single Frequency Network capable with built-in Audio delay
- N+1 Capable, Main/Alternate Capable
- SNMP Level 3 Security and Control

Power Options	
60W	
500W	



Unparalleled Graphical User Interface!

# Digital Exciter / Transmitter STXe-60 and STXe-500



## Specifications

GENERAL		
RF Power Output	STXe-500: 25 - 550 W	STXe-60: 6 – 70 W
Output Impedance	50 ohms nominal	
VSWR	Rated power into 1.5:1 VSWR. Open and short circuit protected at all phase angles	
Frequency Range	875 MHz to 108 MHz; 10 kHz increments	
Frequency Stability	Internal TCXO: +/- 4ppm agin/temp, -10°C to +50°C; External Input: +/- accuracy of reference source	
Audio Inputs	AES, L&R analog, Unbalanced composite, SCA audio inputs, RDS input	
Modulation Type	Diect-to-channel	
Modulation Capability	Up to 300kHz	
Asynchronous AM S/N Ratio	64dB 75dB below rated power reference carrier wit modulation present	h 100% AM modulation at 400Hz, with no FM
Synchronous AM S/N Ratio	60dB below rated power reference carrier with 100 75kHz at 400Hz	% AM modulation at 400Hz, with FM modulation +/-
Spurious and Harmonic	85dB or better typical, low pass filter standard	
AC Input	90 to 264VAC; 47-63Hz	
Power Factor	0.95 typical at 220VAC	
AC Inputs Testing	Tested to EN 301 489-1, including Voltage Dips and 9.8), conducted immunity and conducted radiation	d Dropouts (Section 9.7B), Voltage Surges (Section
Regulatory	FCC; IC; CE; BETS-6; IEC 215 Safety	
ENVIRONMENTAL		
Temperature Range	-10°C to +50°C	
Altitude	10,000 ft (3048 m)	
Humidity	95% maximum, non-condensing	
Air Capacity	160 CFM (22.7 m3/min)	
Heat Dissipation	270 W at Rated Output	
ВТИ	927 BTU/H at Rated Output	
STEREO PERFORMANCE		
Operational Modes	Stereo, mono (L+R), L only, R only	
Input Level	AES: -2dBfs for 100% modulation; 16-24 bits (32, 44	4.1, 48 or 96kHz typical rates for AES/EBU devices)
Impedance	AES: 110 ohms balanced; balanced	
Connector	AES: Wire-XLR	
Amplitude Response	+/- 0.25dB, 20Hz to 15kHz	
THD + Noise	0.03 or better @400Hz, measured 10Hz-22kHz, 75 measured 10Hz-22kHz, 75 uS deemphasis	uS deemphasis Stereo: 0.01 typical @ 400Hz,
S/N Ratio	AES: 95dB typical below 100% moduation @ 400Hz below 100% modulation @ 400Hz, 10Hz-22kHz bar 100% modulation @ 400Hz, 10Hz-22kHz bandwidth modulation @ 400Hz, 10Hz-22kHz bandwidth, CCIF modulation @ 400Hz, unweighted	ndwidth, CCIR-468 filter Analog: 93dB typical below n, A-weighted filter 98dB typical below 100%
Stereo Seperation	70dB, 20Hz to 15kHz	
Linear Crosstalk	70dB below 100% modulation, 20Hz to 15kHz, main	n to sub and sub to main
Pilot Stability	+/-0.3Hz, 0°C to +50°C	
Audio Overshoot	150% peak deviation max	

# Digital Exciter / Transmitter STXe-60 and STXe-500

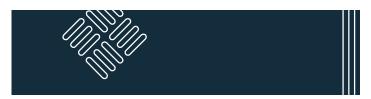


MONO PERFORMANCE				
Operational Modes	Mono (L+R), L only, R only			
Input Level	L&R: +10dBm for 1005 modulation into 600 ohms			
Impedance	600 ohms or 10k selectable			
Connector	XLR			
Amplitude Response	+/-0.25dB, 20Hz to 15kHz			
THD + Noise	0.005 typical @ 400Hz, measured 10Hz-22kHz, 75 uS deemphasis			
IMD Distortion	20Hz to 15kHz			
FM S/N Ratio	86dB or better below 100% modulation @ 400Hz, 10Hz-22kHz bandwidth, unweighted			
COMPOSITE PERFORMANCE				
Input Level	3.5V p-p for 100% modulation into 10k ohms			
Impedance	Balanced: 10k ohms or 50 ohms selectable Unbalanced: 10k ohms			
Connector	Balanced: BNS Unbalanced: BNC			
Amplitude Response	+/- 0.03dB; 20Hz to 53kHz; 0.1 dB; 53kHz to 99kHz			
Phase Response	+/-0.1 degree from linear phase, 53kHz to 100kHz			
THD + Noise	0.005% or less @ 400Hz, 10-22Khx bandwidth, 75 uS deemphasis			
IMD Distortion FM S/N Ratio	SMPTE: 0.01% or less (60/7000HZ; 1:1 ratio) DIM-B: 0.005% typical (14 Hhz) 88dB or better below 100% modulation @ 400Hz, 10Hz-22kHz bandwidth, unweighted 95dB typical below 100%			
SCA 1&2 PERFORMANCE (INTERNAL)				
Input Level	3.5V p-p for 10% deviation			
Impedance	10k ohms unbalanced			
Connector	BNC			
Amplitude Response	+/-0.1dB; 53Hz to 100kHz			
19kHz Output	19kHz synchronization clock for external RBDS/RDS operation 1V pp into high impedance			
MECHANICAL/PHYSICAL				
Height	2RU, 3.5" (8.89 cm)			
Width	19" (48.3 cm) EIA Rack Mount			
Depth	22" (55.9 cm) with connectors, 21" chassis, 25.5" rack			
Weight	25 lbs (11.3 kg) unpacked			
Outlet Size	66.5in2 (492 cm2), rear of unit			

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# Digital Exciter / Transmitter STXe-60 and STXe-500





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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## Tomorrow's Radio Today

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