

STXe 500 - Technical Specifications : Technical Specifications

GENERAL

RF Power Output:

25-550W

Output Impedance:

50 ohms nominal

VSWR:

Rated power into 1.5:1 VSWR. Open and short circuit protected at all phase angles

Frequency Range:

87.5MHz to 108MHz; 10kHz increments

Frequency Stability:

Internal TCXO: +/-100Hz factory calibration, +/-4ppm agin/temp, -10 degrees C to +50 degrees C; External Input: +/- accuracy of reference source

Audio Inputs:

AES, L&R analog, Unbalanced composite, SCA audio inputs, RDS input

Modulation Type:

Direct-to-channel digitally generated FM (no analog up-conversion); FM only

Modulation Capability:

Up to 300kHz

Asynchronous AM S/N Ratio:

64dB 75dB below rated power reference carrier with 100% AM modulation at 400Hz, with no FM modulation present.

Synchronous AM S/N Ratio:

60dB below rated power reference carrier with 100% AM modulation at 400Hz, with FM modulation +/- 75kHz at 400Hz

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 Dropouts (Section 9.7B), Voltage Surges (Section 9.8), and conducted immunity and conducted radiation

Regulatory:

FCC; IC; CE; BETS-6; IEC 215 Safety

ENVIRONMENTAL

Temperature Range:

-10 degrees C to +50 degrees 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

BTU::

927 BTU/H at Rated Output

STEREO PERFORMANCE

Broadcast Electronics

Technical Specifications

Operational Modes:

Stereo, mono (L+R), L only, R only

Input Level:

AES: -2dBfs for 100% modulation; 16-24 bits (32, 44.1, 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 10 Hz-22Khz, 75 uS deemphasis Stereo: 0.01 typical @400Hz, measured 10 Hz-22Khz, 75 uS deemphasis

S/N Ratio:

AES: 95dB typical below 100% modulation @ 400Hz, 10Hz-22Khz bandwidth, A-weighted filter 100dB typical below 100% modulation @ 400 Hz, 10Hz-22Khz bandwidth, CCIR-468 filter Analog: 93dB typical below 100% modulation @ 400Hz, 10Hz-22Khz bandwidth, A-weighted filter 98dB typical below 100% modulation @ 400 Hz, 10Hz-22Khz bandwidth, CCIR-468 filter Stereo: 80dB or better below 100% modulation @ 400Hz, unweighted

Stereo Separation:

70dB, 20Hz to 15kHz

Linear Crosstalk:

70dB below 100% modulation; 20Hz to 15kHz; main to sub and sub to main

Pilot Stability:

+/- 0.3Hz, 0 degrees C to +50 degrees C

Audio Overshoot:

150% peak deviation max

MONO PERFORMANCE

Operational Modes:

Mono (L+R), L only, R only

Input Level:

L&R: +10dBm for 100% 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 10 Hz-22Khz, 75 uS deemphasis

IMD Distortion:

20Hz to 15kHz

FM S/N Ratio:

86dB or better below 100% modulation @ 400Hz, 10 Hz-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:

Broadcast Electronics

Technical Specifications

Balanced: BNC Unbalanced: BNC

Amplitude Response:

+/- 0.03dB; 20Hz to 53kHz; 0.1dB; 53kHz to 99kHz

Phase Response:

+/- 0.1 degree from linear phase; 53kHz to 100kHz

THD + Noise:

0.005% or less @ 400 Hz, 10-22Khz bandwidth, 75 uS deemphasis

IMD Distortion:

SMPTE: 0.01% or less, (60/7000 Hz; 1:1 ratio) DIM-B: 0.005% typical (14 Khz)

FM S/N Ratio:

88dB or better below 100% modulation @ 400Hz, 10Hz-22Khz bandwidth, unweighted 95dB typical below 100% modulation @ 400Hz, 10Hz-22Khz bandwidth, A-weighted filter 100dB typical below 100% modulation @ 400 Hz, 10Hz-22Khz bandwidth, CCIR-468 filter

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:

66.5 in2 (492 cm2), rear of unit

