

STX LP 5kW G2 - Specifications : Technical Specifications

RF SPECIFICATIONS

Output Power:**Range:****FM:**

1250-5500 W

FM+HD (with VP_e XG):

3890W @ -20 dB; 2780W @ -14 dB; 2225W @ -10dB (All powers approximate. Actual power levels dependent upon installation and frequency)

HD Only (with VP_e XG):

1670W (Typical. Actual output power dependent upon installation and frequency)

Accuracy:

+/-5%

Resolution:

1 W

Efficiency:

63% typical AC to RF (FM Only)

VSWR:

Rated power into 1.5:1 @ 5000w

Output Impedance:

50 ohms nominal

Frequency:**Range:**

87.5 MHz to 108 MHz, programmable in 10 kHz steps

Stability:

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

RF Harmonics Suppression:

Suppression meets all FCC/IC/ETSI requirements

Modulation:**Type:**

Direct-to-channel digitally generated FM (no analog up-conversion); FM only,HD Radio only, or HD Radio + FM, DRM+

Capabilities:

up to 300 kHz

Audio Inputs:

AES, L&R analog, composite, SCA/RBDS/RDS external generator input,SCA audio inputs(2)

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 56dB referenced to average peak-to-peak carrier amplitude. 75kHz deviation @400Hz

Spurious and Harmonic:

85dB or better; low pass filter standard

Power Factor:

0.98 or better

Regulatory:

Meets all FCC/IC/CE and IEC 215 safety requirements

FM AUDIO SPECIFICATIONS WITH INTERNAL EXCITER

Composite:**Connector Type:**

BNC un-balanced

Broadcast Electronics

Technical Specifications

Input Level:

3.5 V p-p nominal for 75 kHz deviation

Impedance:

10k ohms

Amplitude Response:

+/-0.03 dB, 30Hz to 53kHz; +/-0.1 dB, 53kHz to 100kHz

Total Harmonic Distortion + Noise:

0.005% or less @ 400Hz, 10-22kHz bandwidth, 75uSec deemphasis

Intermod Dist:

0.13%, SMPTE (60/7000Hz, 1:1 ratio), DIM-B: 0.008% (14KHz)

S/N Ratio:

85 dB below 100% modulation @ 400Hz

AES Input:**Connector :**

XLR Female

Impedance:

110 Ohms, balanced

Level:

-2 dBFS for 100% modulation

Amplitude Response::

+/-0.03 dB, 30Hz to 53kHz; +/-0.1 dB, 53Hz to 100kHz

THD + Noise:**Stereo:**

0.01% typical @ 400Hz, measured 10-22kHz, 75uSec deemphasis

Mono:

0.005% typical @ 400Hz, measured 10-22kHz, 75uSec deemphasis

SNR:**Stereo:**

80dB below 100% modulation @ 400Hz

Mono:

85dB below 100% modulation @ 400Hz

Stereo Separation::

-74dB below 100% modulation @ 400Hz

Preemphasis:

50us, 75us, none

Modes:

Mono L, Mono R, Mono L+R, Stereo

Analog L/R:**Input Level:**

3.5V p-p for 100% modulation into 10k Ohms

Impedance:

600 Ohms or 10k Ohms, selectable, balanced

Connector:

XLR Female

Amplitude Response:

+/-0.25 dB, 30Hz to 53kHz

Stereo Separation:

-70dB, 30Hz to 15kHz

THD + Noise:**Stereo:**

Broadcast Electronics

Technical Specifications

0.01% typical @ 400Hz, measured 10-22kHz, 75 uSec deemphasis

Mono:

0.008% typical @ 400hz, measured 10-22kHz, 75uSec deemphasis

SNR:

Stereo:

80 dB below 100% modulation @ 400Hz

Mono:

83dB below 100% modulation @ 400Hz

Modes :

Mono L, Mono R, Mono L+R, Stereo

PILOT OUTPUT (19KHZ)

Stability :

Internal TXCO +/-0.018Hz Factory Calibration, +/-4ppm aging/temp, -10 to +50 degrees C; External Input +/- Accuracy of Reference Source

Connector:

BNC un-balanced

Level:

+/-5% 1V p-p into high impedance

10MHZ INPUT

Connector:

SMA un-balanced

Level:

1 to 3V p-p, nominal 2.8V p-p (13dBm)

1 PULSE PER SECOND INPUT

Connector :

SMA un-balanced

Level:

5V TTL Rising Edge

SCA/RBDS/RDS (EXTERNAL)

Input Level:

3.5V p-p for 10% deviation

Impedance:

10k ohms unbalanced

Connector:

BNC

Amplitude Response:

+/- 0.1dB; 53KHz to 100kHz

THD+N:

0.15% 53khz to 100kHz

MECHANICAL/PHYSICAL

Size:



Broadcast Electronics

Technical Specifications

Unpacked:

19" W x 36.75"(21RU) H x 26" D (48.3 cm W x 93.4 cm H x 66.1 cm D)

Weight:**Unpacked:**

250 lbs (113.4 kg)

Airflow:**Outlet Size:**

275 square inches (1774 square cm); Rear of unit

RF Output Connector:

1-5/8" EIA Flange and 1-5/8" 90 degree Elbow provided.

ENVIRONMENTAL

Temperature:

-10 degrees to +50 degrees C

Altitude:

10,000 ft (3,048 M)

Humidity:

95% Non-Condensing

ELECTRICAL

AC Input Voltage:

180-260 VAC, 47-63Hz (Single Phase) or 180 to 260 VAC 3 Phase Delta or 311 to 449 VAC 4 Wire Wye

Disconnect Size:

100 A

AC Wire Size:

#2 Copper AWG, Type THHN

Current Draw:

38.2 A Typical

Power Consumption:

7.9 kW (calculated)

Cooling Air Requirements:

1200 CFM (34.0 M3/min)

Heat Dissipation:

2937 W at 5 kW RF Output into 50 Ohm load

BTU:

10,021 BTU/H at 5 kW RF Output into 50 Ohm load

Power Factor:

0.98 at full load

Surge Protection:

Suitable Surge Arrestor Recommended

ALL VALUES APPLY TO FM ONLY MODE

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

