

### STX LP 1kW G2 - Specifications : Technical Specifications

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#### RF SPECIFICATIONS

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

250-1100 W

**FM+HD (with VPc XG):**

780 W @ -20 dB; 555W @ -14 dB; 445W @ -10dB (All powers approximate. Actual power levels dependent upon installation and frequency)

**HD Only (with VPc XG):**

335W (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 @ 1000w

**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 60dB 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

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**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, 53Hz 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)

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**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

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**Connector:**

SMA un-balanced

**Level:**

5V TTL Rising Edge

### 1 PULSE PER SECOND INPUT

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**Connector :**

SMA un-balanced

**IMD Distortion:**

0.05% or less; 20Hz to 15kHz

**FM S/N Ratio:**

90dB below 100% modulation @ 400Hz

### SCA/RBDS/RDS (EXTERNAL)

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**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-100kHz

### MECHANICAL/PHYSICAL



# Broadcast Electronics

## Technical Specifications

**Size:****Unpacked:**

19" W x 5.25" H x 26" D (48.3 cm W x 13.4 cm H x 66.1 cm D)

**Weight:****Unpacked:**

44 lbs (20 kg)

**Airflow:****Outlet Size:**

50 square inches (323 square cm); Rear of unit

**RF Output Connector:**

Type N Connector, Female. 7/16 DIN Optional

### 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)

**Disconnect Size:**

20 A

**AC Wire Size:**

#12 Copper AWG, Type THHN

**Current Draw:**

7.6 A Typical (Measured at 208 VAC, 1 kW output)

**Power Consumption:**

1.58 kW (calculated)

**Cooling Air Requirements:**

200 CFM (5.7 m3/min)

**Heat Dissipation:**

587 W at 1 kW RF Output into 50 Ohm load

**BTU:**

2003 BTU/H at 1 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

