

FXi 250 - Technical Specifications : Technical Specifications

GENERAL

RF Power Output:

25-250W

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; 100kHz increments, 10kHz when specified

Frequency Stability:

Internal TCXO: +/-100Hz, -10 degrees C to +50 degrees C External Output: +/- accuracy of reference source

Audio Inputs:

AES (wire & optical), L&R analog, composite, SCA/RBDS/RDS external generator input, SCA audio inputs (2); two internal SCA generators, internal RBDS/RDS generator

Modulation Type:

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

Modulation Capability:

Up to 300kHz

Asynchronous AM S/N Ratio:

80dB below rated power reference carrier with 100% AM modulation at 400Hz, 75 lsec-de-emphasis with no FM modulation present

Synchronous AM S/N Ratio:

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

Spurious and Harmonic:

85dB or better; low pass filter standard

AC Input:

90 to 264VAC; 47-63Hz

Power Factor:

0.98 or better

Surge Protection:

Tested with IEEE C62.41-1991 recommended waveforms for location category B3 and IEC 801-4 standard waveforms for severity level 4

Regulatory:

FCC; DOC; CE; CCIR; IEC 215 Safety

ENVIRONMENTAL

Temperature Range:

-10 degrees C to +50 degrees C

Altitude:

10,000 ft (3048 m)

Humidity:

95% maximum, non-condensing

STEREO PERFORMANCE

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) L&R: +10dBm for 100% modulation into 600 ohms

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Technical Specifications

Impedance:

AES: 110 ohms balanced L&R: 600 ohms or 10k selectable; balanced

Connector:

AES: Wire-XLR, Optical-Toshiba (TosLink) L&R: XLR

Amplitude Response:

+/- 0.5dB, 20Hz to 15kHz

THD + Noise:

0.03% or better

IMD Distortion:

0.03% or better

S/N Ratio:

85dB or better below 100% modulation @ 400Hz

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:

2dB max

38,57,76 and 95kHz Suppression:

80dB below 100% modulation

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: BNC Unbalanced: BNC

Amplitude Response:

+/- 0.01dB; 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

IMD Distortion:

0.005% or less

FM S/N Ratio:

90dB below 100% modulation @ 400Hz

MONO PERFORMANCE

Operational Modes:

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

Input Level:

3.5V p-p for 100% modulation into 600 ohms

Impedance:

600 ohms or 10k ohms selectable

Connector:

XLR



Broadcast Electronics

Technical Specifications

Amplitude Response:

+/- 5dB; 20Hz to 15kHz

THD + Noise:

0.05% or less; 20Hz to 15kHz

IMD Distortion:

0.05% or less; 20Hz to 15kHz

FM S/N Ratio:

90dB below 100% modulation @ 400Hz

SCA 1&2 PERFORMANCE (INTERNAL)

Operational Modes:

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

Input Level:

3.5V p-p for 100% modulation into 600 ohms

Impedance:

600 ohms or 10k ohms selectable

Connector:

XLR

Amplitude Response:

+/- 0.5dB; 20Hz to 7kHz

THD + Noise:

0.05% or less; 20Hz to 15kHz

IMD Distortion:

0.05% or less; 20Hz to 15kHz

FM S/N Ratio:

90dB below 100% modulation @ 400Hz

RBDS/RDS PERFORMANCE (INTERNAL)

Frequency:

57kHz

Injection Level:

2 to 15%; software programmable

SCA/RBDS/RDS (EXTERNAL)

Input Level:

3.5V p-p for 10% deviation

Impedance:

10k ohms unbalanced

Connector:

BNC

Amplitude Response:

+/- 0.5dB; 20Hz to 100kHz

19kHz Output:

19kHz synchronization clock for external RBDS/RDS operation 2.5V p-p into 50 ohms

PHYSICAL

Height:

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Technical Specifications

7 inches

Width:

19" EIA rack mountable

Depth:

No rear rails required - fits into 24" deep rack

Airflow:

Intake and exhaust through back of unit

Weight:

38 lbs. unpacked

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

