



GENERAL

Transmitter Type

FM Broadcast, 100% solid state

Configuration

Four power amplifiers and one switching power supply

RF Output Power

HD Radio™ Digital mode:
65 W to 400 W into a 1.2 VSWR
65 W to 360 W into a 1.5 VSWR

HD Radio™ Hybrid mode:
130 W to 1,000 W into a 1.2 VSWR
130 W to 900 W into a 1.5 VSWR

Analog mode:

30 W to 1,400 W into a 1.2 VSWR
30 W to 1,250 W into a 1.5 VSWR

RF Output Connection

7/16 DIN, female
(Type 'N' and 7/8 inch EIA available)

RF Output Impedance

50 ohms unbalanced

Efficiency

HD Radio™ Digital mode:
40% typical at 360 W

HD Radio™ Hybrid mode:
50% typical at 900 W

Analog mode:

60% typical at 1,250 W

RF Load VSWR

1.5:1 - Automatic power reduction into higher VSWR

Protected from open and short circuits at all phase angles

RF Frequency Range

87.5 MHz to 108 MHz
No tuning required

Turn Around Loss

Better than 5 dB (Analog mode)

Excitation

Nautel M50 Direct-to-Channel Digital FM Exciter

Spurious and Harmonic

Meets or exceeds all FCC/IC requirements

AC INPUT

Voltage

180 V ac to 264 V ac, 1 phase, 50/60 Hz

Power Consumption

HD Radio™ Digital mode:
900 W at 360 W RF output (909 VA)

HD Radio™ Hybrid mode:
1.80 kW at 900 W RF output (1.82 kVA)

Analog mode:

2.08 kW at 1.25 kW RF output (2.10 kVA)

Power Factor

Unity Power Factor Corrected (typically 0.99)

Power Line Harmonics

IEEE 519-1992

AUDIO PERFORMANCE

Asynchronous AM S/N Ratio

Better than 60 dB below reference carrier with 100% amplitude modulation using 75 μ s de-emphasis (no FM modulation present)

Synchronous AM S/N Ratio

Better than 50 dB below reference carrier with 100% amplitude modulation 75 μ s de-emphasis

ENVIRONMENTAL

Temperature Range

0°C to +50°C
Derate 3°C per 500 m above sea level
(2°C per 1,000 ft)

Humidity Range

0% to 95% non-condensing

Altitude

0 m to 3,000 m (0 ft to 10,000 ft)

Cooling Air Requirements

105m³/hr (62 cfm)

PHYSICAL

Dimensions

Open ventilation configuration
W = Standard 19" (48.3 cm) EIA rack
[minimum opening of 17.5" (44.5 cm)]

H = 3 RU = 5.25" (13.3 cm)

D = Dependent upon connector type (not including handles)

Type 'N' = 21.5" (54.6 cm)

7/16 DIN = 21.5" (54.6 cm)

7/8 EIA = 22.4" (56.9 cm)

Weight

16.8 kg (37 lbs)

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.