



GENERAL

Transmitter Type

FM Broadcast, 100% solid state

Configuration

Eight power modules and eight associated switching power supplies

Main and standby IPA modules with associated main and standby power supplies available

Main and standby exciters available

Main and standby low voltage power supplies available

RF Output Power

HD Radio™ Digital mode:
500 W to 3,000 W into a 1.2 VSWR
500 W to 2,800 W into a 1.5 VSWR

HD Radio™ Hybrid mode:
1000 W to 8,000 W into a 1.2 VSWR
1000 W to 7,300 W into a 1.5 VSWR

Analog mode:

200 W to 11,000 W into a 1.2 VSWR
200 W to 10,000 W into a 1.5 VSWR

RF Output Connection

3-1/8 inch EIA, female
(1-5/8 inch and 7/8 inch available)

RF Output Impedance

50 ohms unbalanced

Efficiency

HD Radio™ Digital mode:
30% typical at 2.8 kW

HD Radio™ Hybrid mode:
50% typical at 7.3 kW

Analog mode:

64% typical at 10 kW

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 20 dB

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, 3 phase/1 phase, 50/60 Hz
312 V ac to 457 V ac, 3 phase, 50/60 Hz
User adjustable

Power Consumption

HD Radio™ Digital mode:
9.3 kW at 2.8 kW RF output (9.4 kVA)

HD Radio™ Hybrid mode:
14.6 kW at 7.3 kW RF output (14.7 kVA)

Analog mode:
15.6 kW at 10 kW RF output (15.8 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

1,711m³/hr (1007 cfm)

PHYSICAL

Dimensions

Open ventilation configuration:
184.5 cm H x 81.3 cm W x 87.8 cm D
(72.5" H x 32" W x 34.5" D)

Closed ventilation configuration -
consult factory

Weight

263 kg (580 lbs)

SPECIFICATIONS SUBJECT TO CHANGE
WITHOUT NOTICE.