

GENERAL

Transmitter Type

Medium wave, 100% solid state

Configuration

Two RF power modules each including eight broadband RF amplifiers and four modulators

Dual DDS exciters and modulation encoders.

Full automatic changeover

Third redundant spare module with full automatic changeover (optional)

RF Output Power

Maximum: 15 kW

Max avg. power:

18 kW (12 kW + 100% modulation)

Range: 1 kW to 15 kW

Six programmable preset power level profiles, selectable locally or remotely

RF Output Connection

$7/8$ " or $1 5/8$ " standard

RF Output Impedance

50 ohms, unbalanced

Efficiency

84% typical

RF Load VSWR

2,000 peak reflected watts 1.5:1 VSWR at 12 kW, 100% modulation

Frequency Range

531 kHz to 1,710 kHz. Supplied, tuned and tested to one frequency as specified

Frequency Stability

± 2 ppm; less than 4Hz over temperature range
External GPS for increased stability

Modulation Type

Nautel Wideband Interphase Pulse
Duration Modulator

Modulation Capability

155% positive peak modulation at 10 kW

145% positive peak modulation at 12 kW

120% positive peak modulation at 15 kW

Spurious and Harmonic

Exceeds FCC, IC and ITU requirements

80 dB relative to carrier

AC INPUT

Voltage

187 V ac to 510 V ac, 3 phase, 50 Hz or 60 Hz to customer specifications

Power Supply Variation

$\pm 10\%$ voltage, 47 Hz to 63 Hz

Power Consumption

11.9 kW typical at 10 kW, 0% modulation

17.9 kW typical at 10 kW, 100% modulation

14.3 kW typical at 12 kW, 0% modulation

21.4 kW typical at 12 kW, 100% modulation

Power Factor

0.95 typical

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

1,000 m³/hr (600 CFM)

PHYSICAL

Dimensions

184 cm H x 72 cm W x 104 cm D
(72.5" H x 28.5" W x 41" D)

Weight

329 kg (725 lbs)





AUDIO PERFORMANCE

Audio Input

600 ohms balanced

+10 dBm nominal (adjustable from 0 dBm to +12 dBm)

Frequency Response

+0.2 dB/-0.8 dB, 30 Hz to 10,000 Hz.
Referenced at 1 kHz, 95% modulation

Total Harmonic Distortion

Better than 0.8% (THD), 30 Hz to 10,000 Hz.

Intermodulation Distortion

1.0% or less, 60/7000 Hz, 1:1 ratio
SMPTE standards at 95% modulation.

Transient Intermodulation Distortion

0.5% at 80% modulation, 2.96 kHz/8 kHz,
30 kHz BW

Square Wave Overshoot

1.0% or less at 400 Hz (100 μ s risetime)

Square Wave Tilt

0.5% or less at 40 Hz

Carrier Shift

1% or less at 25, 50, 85 & 100% modulation

Hum and Noise

-65 dB or better below 12 kW, 100% modulation

DIGITAL COMPATIBILITY

HD Radio™

Compatible with NE IBOC - HD Radio
signal generator

Exceeds all regulatory requirements for AM
HD Radio operation

DRM

Compatible - Consult factory



Notes:

Specifications defined in a laboratory environment with high grade source and demodulation equipment. Standard factory measurement does not include all items

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.