



## 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

$\pm 2$  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 m<sup>3</sup>/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.  
Referenced at 1 kHz, 95% modulation

### 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  $\mu$ 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.