

## GENERAL

### Transmitter Type

FM Broadcast, 100% solid state

### Configuration

16 hot swappable RF power modules  
32 switching power supplies (2 per RF power module)

Power supplies are hot-swappable

1 low voltage power supply (same as RF power module power supply)

Integrated exciter

### Optional

Main/standby exciter  
Redundant low voltage power supplies  
HD Radio upgradable  
UPS Interface

### RF Output Connection

3-1/8 inch EIA, female (standard)  
4-1/16 inch, female (optional)

### RF Output Impedance

50 ohms unbalanced

### RF Load VSWR

1.5:1 with 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

### Frequency Stability

± 200 Hz

### Turn Around Loss

Better than 20 dB

### Spurious and Harmonic

Meets or exceeds all FCC/IC/RED requirements

### Upgradability

Upgradable to the next nameplate power level with factory firmware update

## AC INPUT

### Voltage

180 Vac to 264 Vac, 3-ph., 50/60 Hz (standard)  
312 Vac to 457 Vac, 3 ph., 50/60 Hz (optional)  
180 Vac to 264 Vac, 1 ph., 50/60 Hz (optional)  
Bottom AC input optional; factory configurable; contact Nautel for details

### Power Consumption

**Analog mode:**  
42.3 kW at 30.0 kW RF output (43 kVA)

### Power Factor

Unity Power Factor Corrected (typically 0.98)

### 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 µs de-emphasis (no FM modulation present)

### Synchronous AM S/N Ratio

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

## ENVIRONMENTAL

### Temperature Range

0°C to +50°C  
Derate 3°C per 500 m above sea level  
(2°C per 1000 ft)

### Humidity Range

0% to 95% non-condensing

### Altitude

0 m to 3000 m (0 ft to 10,000 ft)

### Cooling Air Requirements

5437 m<sup>3</sup>/hr (3200 cfm)

## COMPLIANCE

Product complies with:

- ISED specification BETS6 issue 2
- FCC CFR title 47 part 2 and part 73
- Conforms with all essential requirements of Radio European Directive 2014/53/EU

## PHYSICAL

### Dimensions

Open ventilation configuration:  
184.2 cm H x 165.1 cm W x 76.2 cm D  
(72.5" H x 66" W x 30" D)

Note: total depth 81.3 cm (32") with front hinged panel and air filters installed

Closed ventilation configuration - consult factory

### Weight

744 kg (1640 lbs)



**RF Output Power and Efficiency**

**Analog Mode (max/rated)**

**Analog TPO (kW)**

**33 / 30**

**Typical Efficiency**

**71%**

### Notes:

Specifications established at rated power unless otherwise noted.

All measurements into 50 ohm resistive load. AC input voltage at nominal level.