

# **J1000** AM Transmitter

Making Digital Broadcasting Work

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### **GENERAL**

#### **Transmitter Type**

Medium wave, 100% solid state

#### Configuration

Two 500 W RF power modules each including eight broadband RF amplifiers and four modulators

#### **RF Output Power**

Rated: 1,000 W

Range: 10 W to 1,100 W

Six preset levels, selected locally or remotely

#### **RF Output Connection**

Type N

#### **RF Output Impedance**

50 ohms, unbalanced

#### Efficiency

75%

#### Frequency Range

531 kHz to 1,690 kHz (supplied to one frequency as ordered)

#### Frequency Stability

Internal:

±2 ppm over temperature range

External

GPS 10 MHz dependent on external source

# **Modulation Capability**

125% positive peak modulation at rated power

#### **Incidental Quadrature Modulation**

36 dB below 95% modulation at 1,000 Hz

# **Spurious and Harmonic**

-73 dB relative to carrier

### AC INPUT

#### Voltage

170 - 270 V ac, 1 phase, 50 Hz or 60 Hz

#### **Power Consumption**

1,430 W maximum at 1 kW, 0% modulation 2,140 W maximum at 1 kW, 100% modulation

# ENVIRONMENTAL

#### **Temperature Range**

 $0^{\circ}$ C to  $+50^{\circ}$ 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 4,000 m (0 ft to 13,000 ft)

## PHYSICAL

# Dimensions

58 cm H x 48 cm W x 51 cm D (23" H x 19" W x 20" D)

#### Weight

23 kg (50 lbs)



# AUDIO PERFORMANCE

#### **Frequency Response**

+0.2 dB/-0.8 dB, 30 Hz to 10,000 Hz.

#### **Total Harmonic Distortion**

Better than 0.8% (THD), 30 Hz to 10,000 Hz at 95% modulation. Referenced at 1,000 W.

Better than 1.2% (THD), 30 Hz to 10,000 Hz at 95% modulation. Referenced at 100 W.

Reduced antenna bandwidth may degrade specification.

# **Carrier Shift**

0.5% or less

#### **Hum and Noise**

65 dB or more below 100% modulation

# DIGITAL COMPATIBILITY

## **Frequency Response**

+0.2 dB/-1.5 dB, 30 Hz to 15,000 Hz. Referenced at 1 kHz

#### **Total Harmonic Distortion**

Better than 1% (THD), 30 Hz to 15,000 Hz at 95% modulation. Referenced at 1 kHz

#### **Incidental Quadrature Modulation**

35 dB or better (typical), 30 Hz to 15,000 Hz

#### Notes:

Specifications established at rated power unless otherwise noted. All measurements at 50 ohms resistive load; AC input voltage at nominal level.