J1000 AM Transmitter

Making Digital Broadcasting **Work** PHONE +1.902.823.2233 FAX +1.902.823.3183 info@nautel.com www.nautel.com

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
Meets or exceeds FCC, IC, and ITU requirements

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°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 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.