

AM 2.5E - Technical Specifications : Technical Specifications

RF SPECS

Output Power:**Range:**

12.5 W to 2.5 kW

Accuracy:

1% full scale

Efficiency:

75% or better, 100% sinusoidal modulation of 2.5 kW carrier into 50 Ohm load

VSWR:

Nominal 1.5:1 at full carrier power; will operate into higher VSWR with automatic power reduction, open and short circuit protected

Impedance:

50 Ohm

Frequency:**Range:**

522 kHz to 1700 kHz, supplied on one frequency (synthesized), as ordered; accommodates 9 kHz or 10 kHz channel spacing

Stability:

±3ppm, 0 to 50° C

RF Harmonics Suppression:

Meets or exceeds FCC, DOC, and CCIR requirements, when preceded by external NRSC-1 compatible audio low pass filter(s)

Modulation:**Type:**

Pulse width modulation of L+R envelope with optional integrated C-QUAM AM stereo; an RF input connector (BNC) is also provided for an external RF or stereo exciter

Capabilities:

>145% peak positive capability at rated nominal output power into 50 Ohm load

Carrier Shift:

<1% at 95% negative modulation at 1 kHz

Regulatory:

Meets or exceeds FCC and DOC technical requirements, meets ENG0215 safety requirements

AM AUDIO SPECS

Modes:

Stereo (with optional stereo card), Mono L+R, Mono L, Mono R, HD with external ASi 10; not compatible with analog stereo

Stereo (with optional stereo card):**Connector Type:**

3 position terminal block (2)

Input Level:

10 dBm, ±1 dB, L+R (or mono) to produce 100% L+R envelope modulation; other input levels accommodated by internal resistor selection

Impedance:

600 Ohm; inputs are balanced, transformerless, and resistive with passive RFI filtering; other impedances can be accommodated.

Amplitude Response:

±0.5 dB, 20 Hz to 10 kHz

THD + Noise:

<1.5% at 50% single channel modulation, 50 Hz to 10 kHz at rated power

S/N Radio:

>55 dB below a reference level equivalent to 100% negative modulation of either left or right channel in a 22 Hz to 30 kHz bandwidth, unweighted

Separation:

-30 dB or better, 50 Hz to 10 kHz, at 50% single channel modulation into a 50 Ohm resistive load, at rated power

Squarewave Overshoot:

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1% or less at 400 Hz, 50% single channel modulation with high frequency boost disabled

Squarewave Tilt:

1% or less at 40 Hz, 1.5% or less at 20 Hz, measured with 90% negative modulation

Incidental Phase Modulation:

Less than 2° (0.035 radians) average, or 30 dB (typical 40 dB) below equivalent 100% L-R C-QUAM modulation 50 Hz to 10 kHz, at rated power; measured with an audio input level which generates 95% negative L+R envelope modulation at 1 kHz (9.5 dBm)

Mono:**Connector Type:**

3 position terminal block

Input Level:

10 dBm, ± 1 dB, L=R (or mono) to produce 100% L+R envelope modulation; other input levels accommodated by internal resistor selection

Impedance:

600 Ohm; inputs are balanced, transformerless, and resistive with passive RFI filtering; other impedances can be accommodated

Amplitude Response:

± 0.5 dB, 20 Hz to 10 kHz at 90% negative modulation (linear phase mode), +0.1 dB -3 dB, 20 Hz to 10 kHz at 90% negative modulation, standard configuration

THD + Noise:

<0.8%, 20 Hz to 10 kHz at rated power

Intermod Dist:

1.2% or less 1:1 ratio, 1.7% or less 4:1 ratio. 60/7000 hz SMPTE standards with 85% modulation at rated power

S/N Radio:

>65 dB below a reference level equivalent to 100% negative modulation in a 22 Hz to 30 kHz bandwidth, unweighted

Squarewave Overshoot:

0.1% or less at 400 Hz, 90% modulation (linear phase mode)

Squarewave Tilt:

1% or less at 40 Hz, less than 1.5% at 20 Hz, 90% negative modulation

MECHANICAL/PHYSICAL

Size:**Unpacked:**

24.82" W x 31.55" D x 71.32" H (63.0 x 80.1 x 181.2 cm)

Weight:**Unpacked:**

410 lbs (186 kg)

Airflow:**Outlet Size:**

9.86" x 15.18" (0.25m x 0.38m)

RF Output Connector:

Female 7/16" DIN

ENVIRONMENTAL

Temperature:

0° to 50° C

Altitude:

10,000 ft (3,048 M) at 60 Hz; 7,500 ft (2,286 M) at 50 Hz

Humidity:

0% to 95% (non-condensing)

ELECTRICAL



Broadcast Electronics

Technical Specifications

AC Input Voltage:

196-252 VAC, 50/60Hz, single phase

Disconnect Size:

40 A

AC Wire Size:

#8 Copper AWG, THHN

Current Draw:

35 A max

Power Consumption:

6.05 kW at 100% modulation of 2500 Watts carrier

Cooling Air Requirements:

500 CFM (14.16 M3/min)

Heat Dissipation:

1650 Watts maximum for 2.5 kW RF output at 125% audio tone modulation

BTU:

5,500 BTU/H for 2.5 kW RF Output at 125% audio tone modulation

Power Factor:

> 0.85 at full load

Surge Protection:

275 V MOV

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

