2500A225A

- 2500 Watts CW
- 10kHz–225MHz
- Class A
- Portable
- Full VSWR–tolerant
- CE & RoHS Compliant

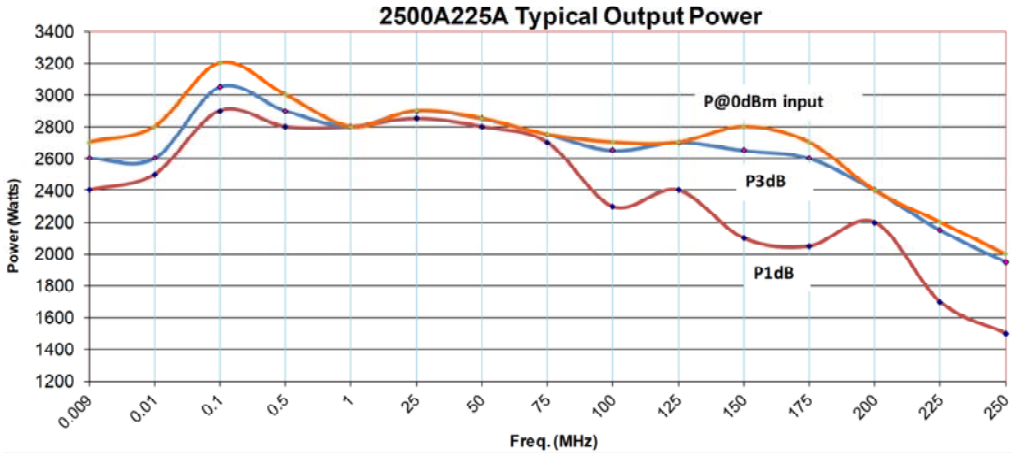
Features

The Model 2500A225A is a solid-state, self-contained, broadband amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required. The amplifier is air-cooled using internal self-contained liquid cooling for high performance and reliability. A stylish, contemporary enclosure allows for easy portability.

The Model 2500A225A, when used with a sweep generator, will provide a minimum of 2500 watts of RF power. Included is a front panel gain control which permits the operator to conveniently set the desired output level. The 2500A225A is protected from RF input overdrive by an RF input leveling circuit which controls the RF input level to the RF amplifier first stage when the RF input level is increased above 0dBm. The RF amplifier stages are protected from over-temperature by removing the DC voltage to them if an over-temperature condition occurs due to cooling blockage or fan failure. The Model 2500A225A is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a color LCD touch screen display to indicate the operate status and fault conditions if an over-temperature or power supply fault has occurred. The unit can be returned to operate when the condition has been cleared.

All amplifier control functions and status indications are available remotely through the included Remotes Package. The Remotes Package includes GPIB/IEEE-488 format, RS-232 hardwire and fiber optic, USB, and Ethernet. The bus interface connector is located on the back panel and positive control of local or remote operation is assured by a Local/Remote keyswitch on the front panel of the amplifier. Also included with the Remotes Package is a safety interlock circuit for use with external safety switch interlocks. This circuit prevents the amplifier from going into operate mode unless the external connection is made. A jumper plug is provided for cases where this functionality is not needed.

The export classification for this equipment is EAR99.



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ISO 9001 Certified

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Specifications

RATED OUTPUT POWER:
Typical: 2800 watts, min 2500 watts, .01-100MHz
Typical: 2300 watts, min 2000 watts, 100-225MHz

INPUT FOR RATED OUTPUT: 1.0 mW Max

POWER OUTPUT @ 3dB COMPRESSION:
Typical: 2800 watts, min 2500 watts, .01-100MHz
Typical: 2300 watts, min 2000 watts, 100-225MHz

POWER OUTPUT @ 1dB COMPRESSION:
Typical: 2400 watts, min 2000 watts, .01-100MHz
Typical: 1900 watts, min 1500 watts, 100-225MHz

FLATNESS: ±2.0 dB typical, ±2.5 dB maximum

FREQUENCY RESPONSE: 10kHz-225 MHz instantaneously

GAIN (at maximum setting): 64 dB minimum

GAIN ADJUSTMENT (Continuous Range) : 20 dB

INPUT IMPEDANCE: 50 ohms, VSWR 1.5:1 maximum

OUTPUT IMPEDANCE: 50 ohms nominal

MISMATCH TOLERANCE: 100% of rated power without foldback up to 6.0:1 mismatch, above which may limit to 1250W reflected power.

MODULATION CAPABILITY: Will faithfully reproduce AM, FM, or Pulse modulation appearing on input signal.

THIRD ORDER INTERCEPT: 74 dBm typical

NOISE FIGURE: 8.5 dB typical

HARMONIC DISTORTION: Minus 30 dBc typical, minus 20 dBc maximum at 1750 watts

SPURIOUS: Minus 70 dBc typical

PRIMARY POWER (User must specify): 200-240 VAC or 380-415 VAC, 3-phase, 50/60Hz, 9.5 kWatts

CONNECTORS:
RF Input: N female
RF Output: 7/16 DIN female

REMOTES PACKAGE:

IEEE-488:	24-pin female
RS-232:	9-pin subminiature D (female)
Fiber optic:	ST Conn Tx and Rx RS-232
USB 2.0:	Type B
Ethernet:	RJ-45
Safety Interlock:	15-pin subminiature D

COOLING: Forced air, internal self-contained liquid

WEIGHT: 159 kg (350 lbs)

SIZE (W x H x D): 56.1 x 115 x 88.9 cm (22.1 x 45.25 x 35 in)

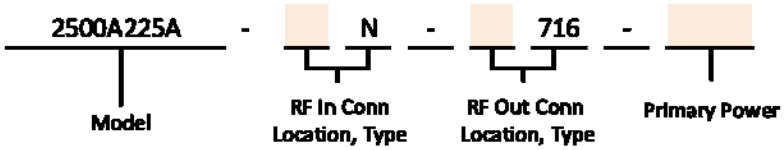
ENVIRONMENTAL:
Operating Temperature: 5°C / +40°C
Operating Altitude: Up to 2000M
Shock and vibration: Normal Truck Transport

REGULATORY COMPLIANCE:

EMC	EN 61326-1
Safety	UL 61010-1
	CAN/CSA C22.2 #61010-1
	CENELEC EN 61010-1
RoHS	DIRECTIVE 2011/65/EU

EXPORT CLASSIFICATION: EAR99

Ordering Options



CONNECTOR LOCATION	
Front	F
Rear	R

PRIMARY POWER	
200-240 VAC	LV
380-415 VAC	HV

Contact your AR RF/Microwave Instrumentation Sales Associate for specific model configuration pricing.

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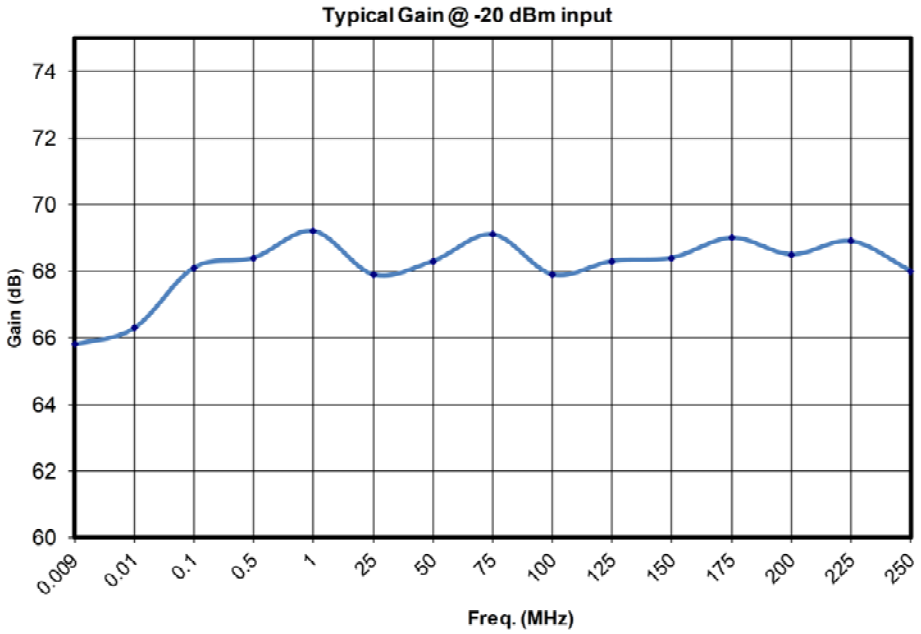
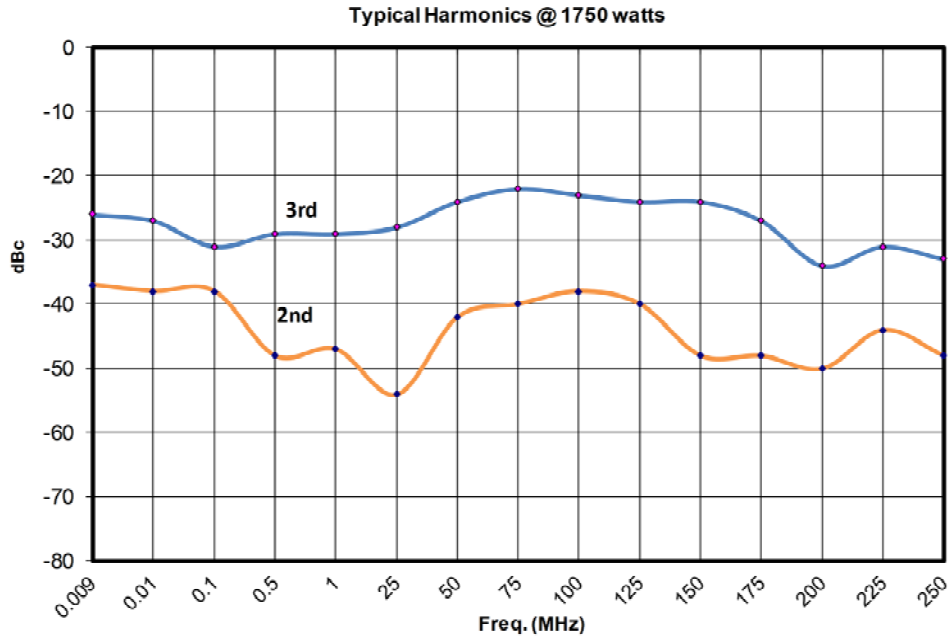
Graphs





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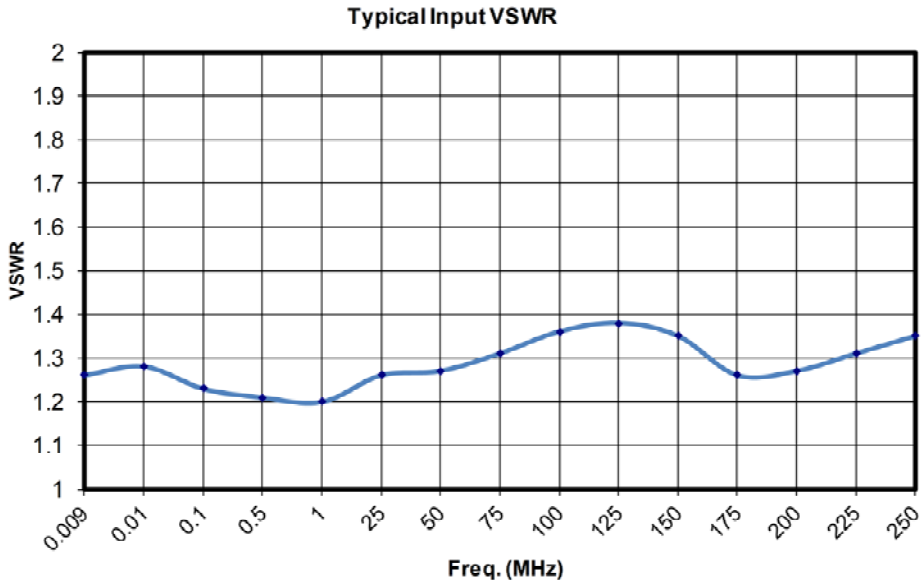

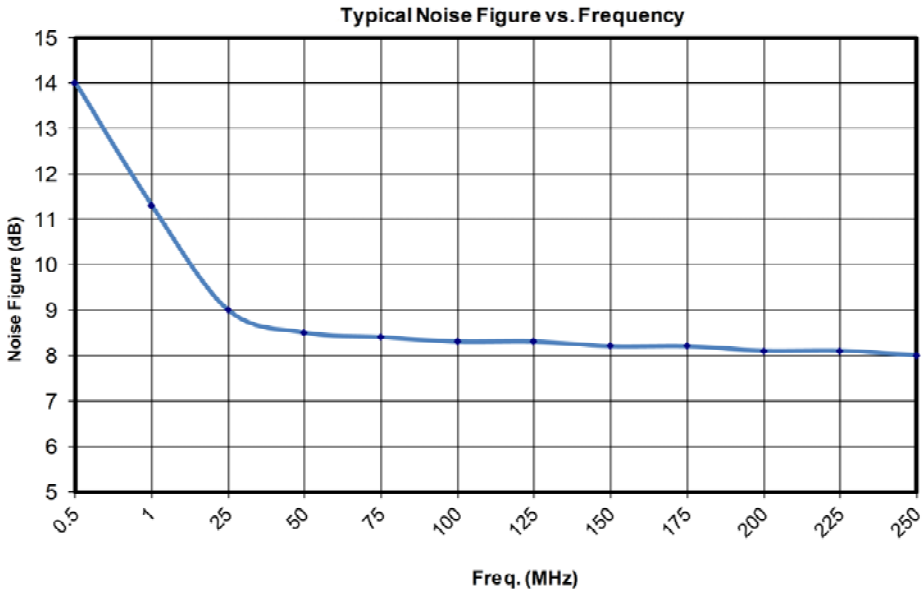

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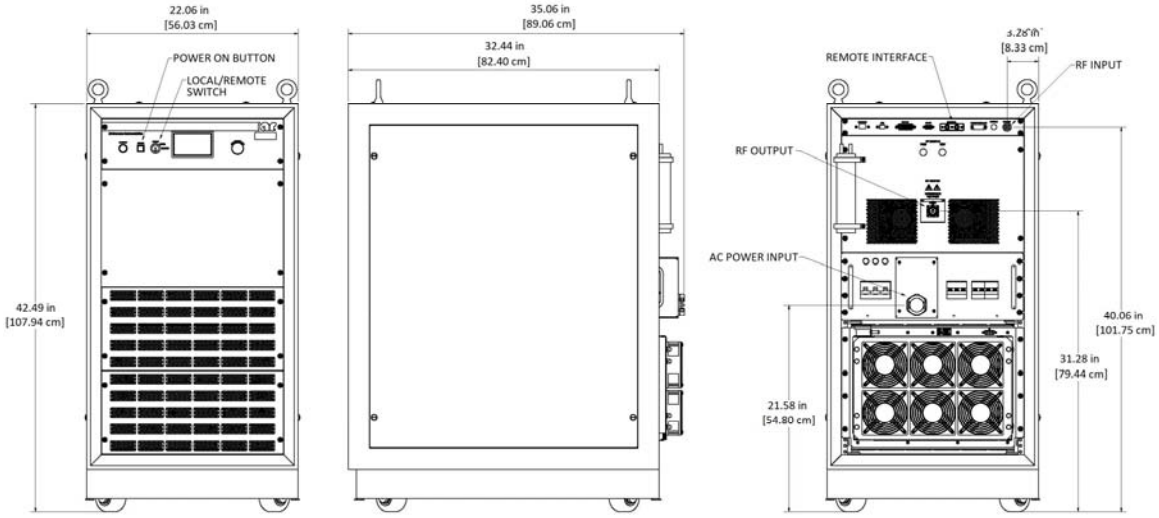
Envelope Drawing