



## Amplifiers

### 1200A225A

- 1200 Watts CW
- 10kHz–225MHz
- Class A
- Portable
- Full VSWR-tolerant
- CE & RoHS Compliant

### Features

The Model 1200A225A 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.

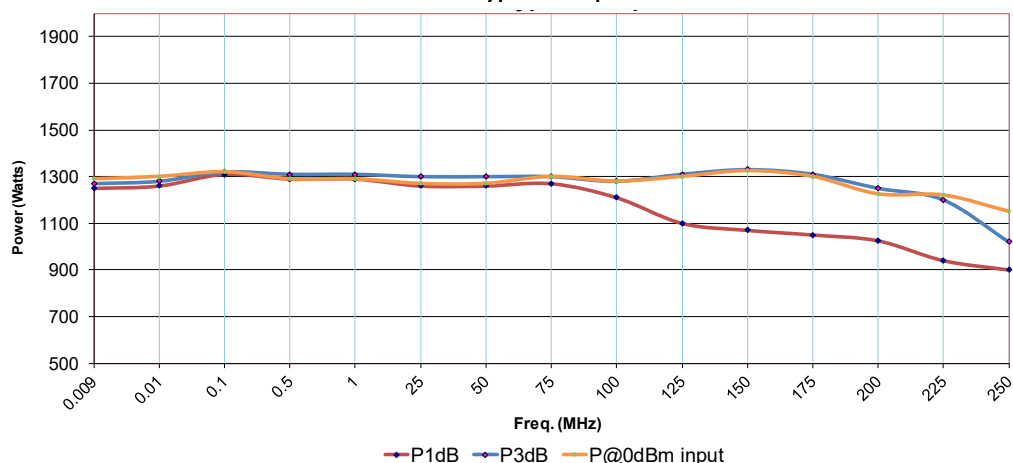
The Model 1200A225A, when used with a sweep generator, will provide a minimum of 1200 watts of RF power. Included is a front panel gain control which permits the operator to conveniently set the desired output level. The 1200A225A is protected from RF input overdrive by an RF input leveling circuit which 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 1200A225A 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.

1200A225A Typical Output Power



AR RF/Microwave  
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www.arworld.us

ISO 9001 Certified



# 1200A225A

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## Specifications

### RATED OUTPUT POWER:

Typical: 1300 watts, min 1200 watts, .01-100MHz  
Typical: 1200 watts, min 1100 watts, 100-225MHz

INPUT FOR RATED OUTPUT: 1.0 mW Max

### POWER OUTPUT @ 3dB COMPRESSION:

Typical: 1300 watts, min 1200 watts, .01-100MHz  
Typical: 1200 watts, min 1100 watts, 100-225MHz

### POWER OUTPUT @ 1dB COMPRESSION:

Typical: 1250 watts, min 1100 watts, .01-100MHz  
Typical: 1050 watts, min 800 watts, 100-225MHz

FLATNESS:  $\pm 2.0$  dB typical,  $\pm 2.5$  dB maximum

FREQUENCY RESPONSE: 10kHz-225 MHz instantaneously

GAIN (at maximum setting): 61.8 dB minimum

GAIN ADJUSTMENT (Continuous Range): 20 dB

INPUT IMPEDANCE: 50 ohms, VSWR 1.5:1 maximum

OUTPUT IMPEDANCE: 50 ohms nominal

MISMATCH TOLERANCE: Will operate without damage or oscillation when connected to any load impedance without the aid of foldback circuitry.

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

THIRD ORDER INTERCEPT: 78 dBm typical

NOISE FIGURE: 7.0 dB typical

HARMONIC DISTORTION: Minus 30 dBc typical, minus 20 dBc maximum at 800 watts

SPURIOUS: Minus 70 dBc typical

PRIMARY POWER: 200-240 VAC single-phase, 50/60Hz, 4.5 kWatts

### CONNECTORS:

RF Input: N female  
RF Output: 7/16 DIN female  
RF Sample Ports: N 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: 139 kg (305 lbs)

SIZE (W x H x D): 56.1 x 132.1 x 82.4 cm (22.1 x 52 x 32.5 in)

### ENVIRONMENTAL:

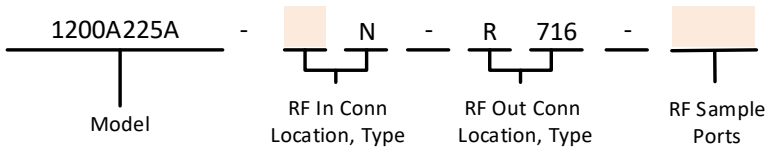
Operating Temperature: 5°C / +40°C  
Operating Altitude: Up to 2000M  
Shock and vibration: Normal Truck Transport

### 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



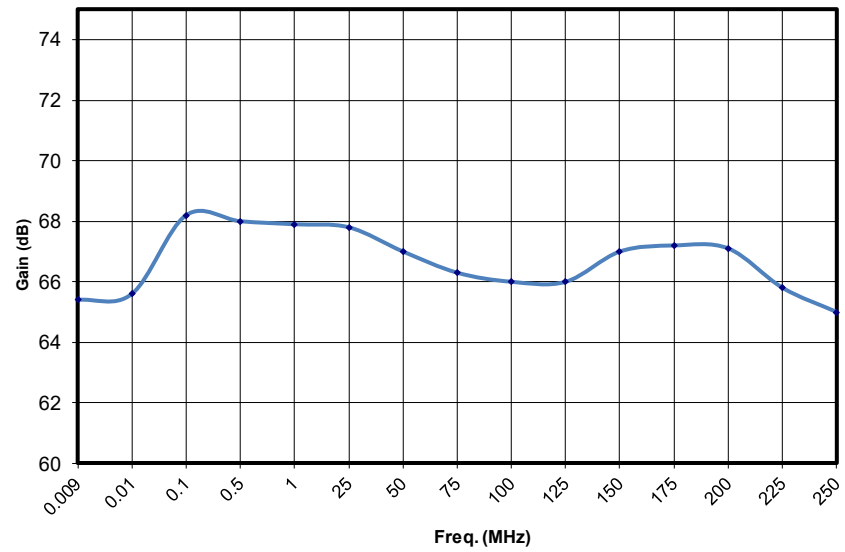
CONNECTOR LOCATION		RF SAMPLE PORTS	
Front	F	RF Sample Ports Front	SPF
Rear	R	RF Sample Ports Rear	SPR

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

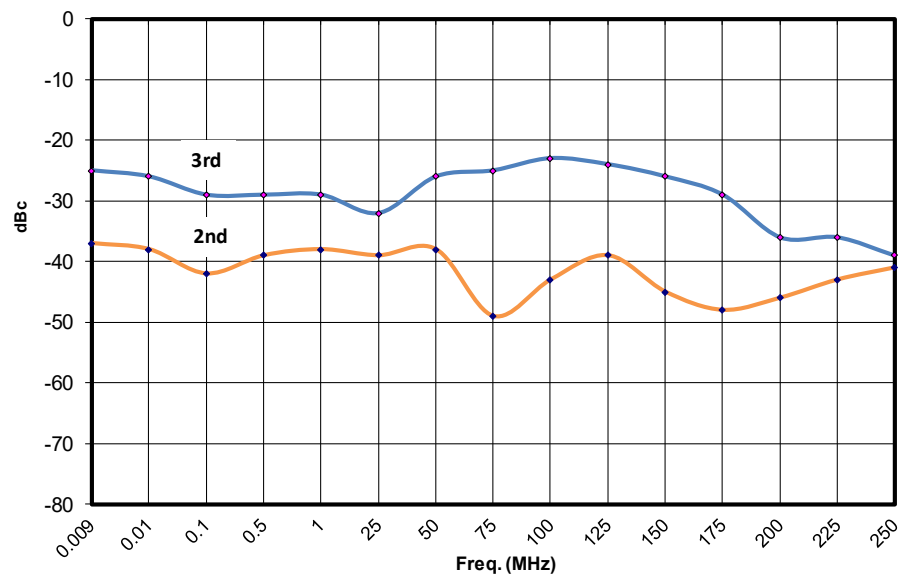
# 1200A225A

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Typical Gain @ -20 dBm input



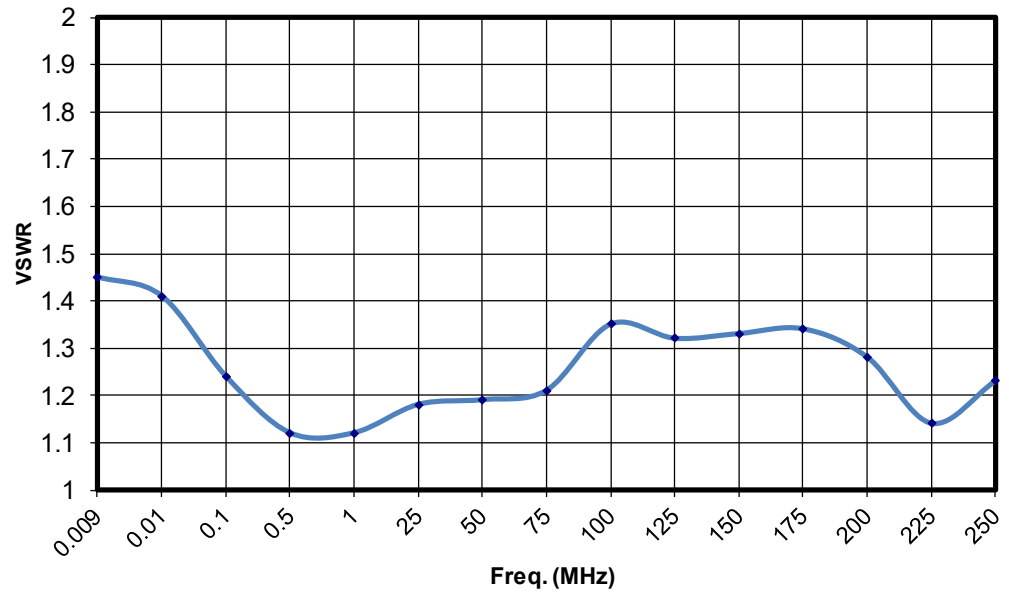
Typical Harmonics @ 800 watts



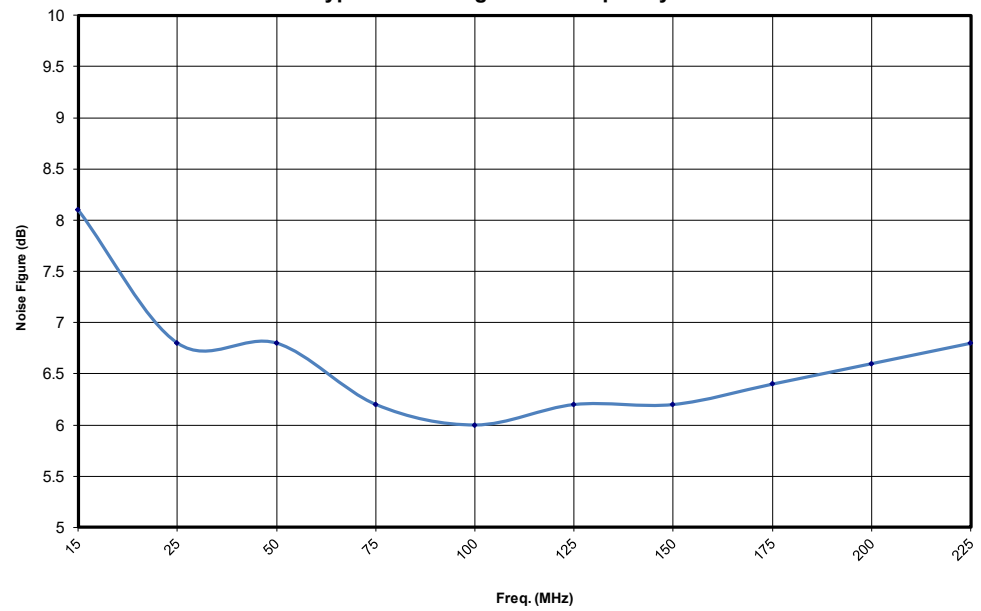
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Typical Input VSWR



Typical Noise Figure vs. Frequency



## Envelope Drawing

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