

100A400AM20

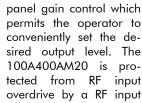
- 4kHz-400MHz
- Class A
- Portable
- Full VSWRtolerant
- CE & RoHS compliant
- High Efficiency

Features

The Model 100A400AM20 is a solid-state, self-contained, air-cooled, broadband amplifier designed for applications requiring RF power down to 4kHz, such as for MIL STD 461 CS114 testing. This amplifier, along with ARI BI00400 current injection probe, or probes of similar insertion loss, offers full compliance to all test curves of CS114, including requirements down to 4kHz. Other advantages of this amplifier include an instantaneous bandwidth, high gain, and linearity. Available in a stylish, contemporary cabinet for benchtop use or with cabinet removed for rack mounting.

The Model 100A400AM20 includes a front

WAA

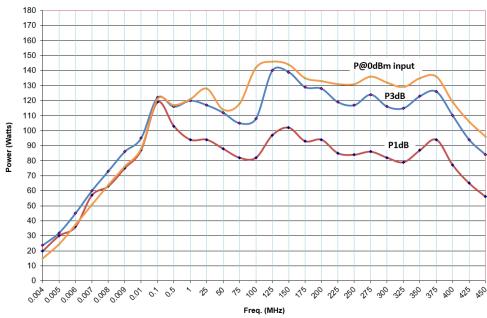


leveling circuit which controls the RF input level to the RF amplifier first stage when the RF input level is increased above OdBm. The RF amplifier stages are protected from overtemperature by removing the DC voltage to them if an over-temperature condition occurs due to cooling blockage or fan failure. The front panel indicates 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 optional 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 switch 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.

100A400AM20 Typical Output Power



AR RF/Microwave Instrumentation 160 School House Rd Souderton, PA 18964 215-723-8181

For an applications engineer call:800.933.8181

www.arworld.us

ISO 9001 Certified



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100A400AM20

4kHz-400MHz

Specifications

RATED OUTPUT POWER INTO 50Ω :

4kHz-100kHz: 10 watts minimum rising to 100

watts minimum at 100kHz

100kHz-400MHz: 125 watts, typical; 100 watts mini-

mum

INPUT FOR RATED OUTPUT: 1.0 mW Max

POWER OUTPUT @ 3dB COMPRESSION INTO 50Ω :

4kHz-100kHz: 10 watts minimum rising to 100

watts at 100kHz

100kHz-400MHz: 125 watts, typical; 100 watts mini-

POWER OUTPUT @ 1dB COMPRESSION INTO 50Ω :

4kHz-100kHz: 10 watts minimum rising to 75

watts at 100kHz

100kHz-400MHz: 85 watts, typical; 75 watts mini-

FLATNESS: ±1.0 dB typical, ±1.5 dB maximum,

100kHz-400MHz

FREQUENCY RESPONSE: 4kHz-400 MHz instantane-

ously

GAIN (at maximum setting): 50 dB minimum, 100kHz-

400MHz; <50dB below 100 kHz

GAIN ADJUSTMENT (Continuous Range): 20 dB mini-

INPUT IMPEDANCE: 50 ohms, VSWR 2.0:1 maximum

OUTPUT IMPEDANCE: 50 ohms nominal

MISMATCH TOLERANCE: 100% of rated power without foldback. Will operate without damage or oscillation with any magnitude and phase of source and load impedance. See Application Note #27.

MODULATION CAPABILITY: Will faithfully reproduce AM, FM, or Pulse modulation appearing on input sig-

THIRD ORDER INTERCEPT: 55 dBm typical

NOISE FIGURE: 8 dB typical

HARMONIC DISTORTION: Minus 20 dBc maximum at 75 watts, -30 dBc typical at 50 watts (.01-400MHz)

SPURIOUS: Minus 73 dBc typical

PRIMARY POWER (Universal; selected automatically):

100-240 VAC, 50/60Hz, 500 watts

RF Input: N female RF Output: N female

REMOTES PACKAGE:

24-pin female IEEE-488:

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 (self contained fans)

WEIGHT:

With Cabinet 18.5 kg (41 lbs) Without Cabinet 10.4 kg (23 lbs)

SIZE (W x H x D):

With cabinet: 50.3 x 15.5 x 55.1 cm (19.8 x 6.1 x

21.7 in)

Without Cabinet: 48.3 x 13.2 x 55.1 cm (19 x 5.2 x

21.7 in)

ENVIRONMENTAL:

Operating Temperature: 5°C / +40°C Operating Altitude: up to 2000M

Shock and vibration: Normal Truck Transport

REGULATORY COMPLIANCE:

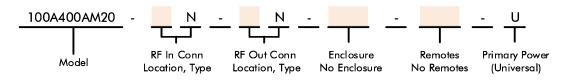
EMC EN 61326-1

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			ENCLOSURE			REMOTES PKG	
Front	F		Enclosure	Е		Remotes	
Rear	R		No Enclosure	NE		No Remotes	
		•			•		

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

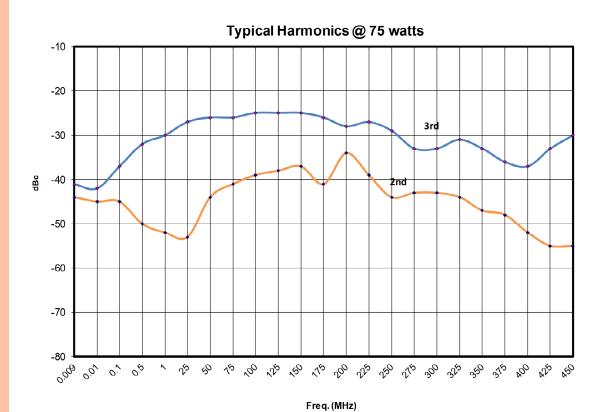
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Graphs

• 4kHz-400MHz

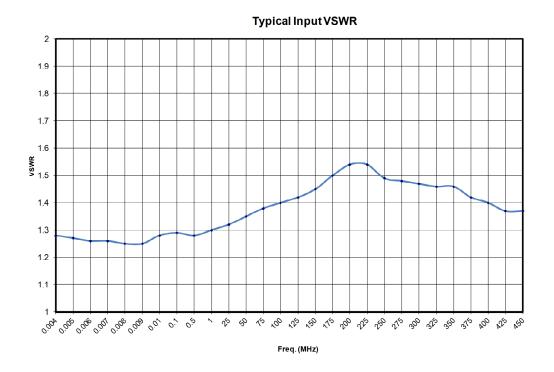


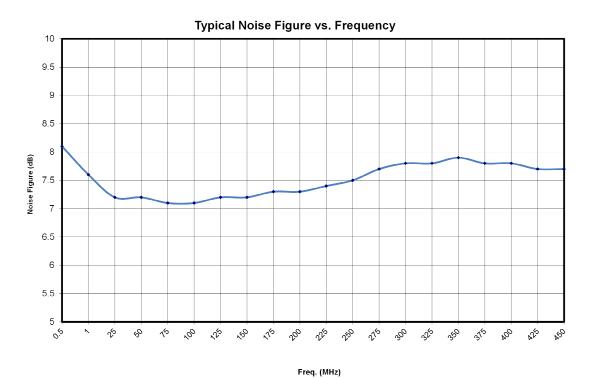


Graphs

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• 4kHz-400MHz





Envelope Drawing

100A400AM20

• 4kHz-400MHz

