

# Amplifiers

## Model AR-G120

### Features:

- 100 W CW, 0.8 – 6.0 GHz
- Class A operation
- 100% mismatch tolerant with no foldback
- Ethernet, USB, RS232 & GPIB interface
- Built in Calibrated Directional Coupler
- 3 Year Warranty

To view our full amplifier portfolio visit:  
[www.arworld.us/ar-amplifiers](http://www.arworld.us/ar-amplifiers)

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ISO 9001:2015 Certified  
ISO 17025 :2017 Accredited



New class A, high power density, design has allowed us to produce a 100 watt, 0.8 GHz to 6 GHz amplifier in a compact 4U package. With a minimum of 100 watts of linear power this amplifier is ideal for RF immunity testing in a GTEM Cell or with a wide range of available horn antenna such as the Teseq BHA range. Readily integrated with the Teseq NSG 80 MHz to 6 GHz test system these amplifiers can form part of a broadband RF test system. The new touch screen colour display gives an immediate visual indication of forward and reverse power along with the current operating status of the amplifier and access to diagnostic information such as gate current and heatsink temperature.

Fan speed adjusts depending on the heatsink temperature thus ensuring the minimum audio noise level possible in the operating environment. The inbuilt calibrated forward power coupler provides a quick and easy way to monitor forward power with any power meter. Input overdrive protection prevents damage to the input devices due to accidental high input power. Multiple remote interfaces are available as standard including USB, GPIB, RS232, and Ethernet. Amplifier gain can be controlled either remotely through one of the available interfaces or via the front panel touch screen.

The export classification for this equipment is 3A001. These commodities, technology or software are controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

- 100 W
- 0.8 – 6.0 GHz

| <b>Electrical Specifications</b>     |                                  |
|--------------------------------------|----------------------------------|
| <b>Parameter</b>                     | <b>Value</b>                     |
| Frequency Bands                      | Single Band                      |
| Frequency (min.) GHz                 | 0.8 GHz                          |
| Frequency (max.) GHz                 | 6 GHz                            |
| Psat (min)                           | 125 W                            |
| P1dB (min.)                          | 100 W                            |
| Small Signal Gain                    | 50 dB                            |
| Gain Variation (max) ±               | +/- 3.0 dB                       |
| Harmonics @ P1dB (typ)               | -18 dBc                          |
| Spurious (min.)                      | -70 dBc                          |
| 3rd Order Intercept Point            | 10 dB > P1dB                     |
| RF Sample Port Coupling Factor (nom) | 47 dB                            |
| Modulation Formats                   | AM, FM, PM, OFDM                 |
| Maximum Input Power (no damage)      | 10 dBm                           |
| Gain Control                         | 0-30 dB in 255 Steps             |
| Output VSWR Tolerance                | Infinite any phase (no foldback) |
| Stability                            | Unconditional                    |
| Output Impedance                     | 50 Ohm                           |
| Input VSWR                           | 2:1 (max)                        |
| Output VSWR                          | 2:1 (typical)                    |

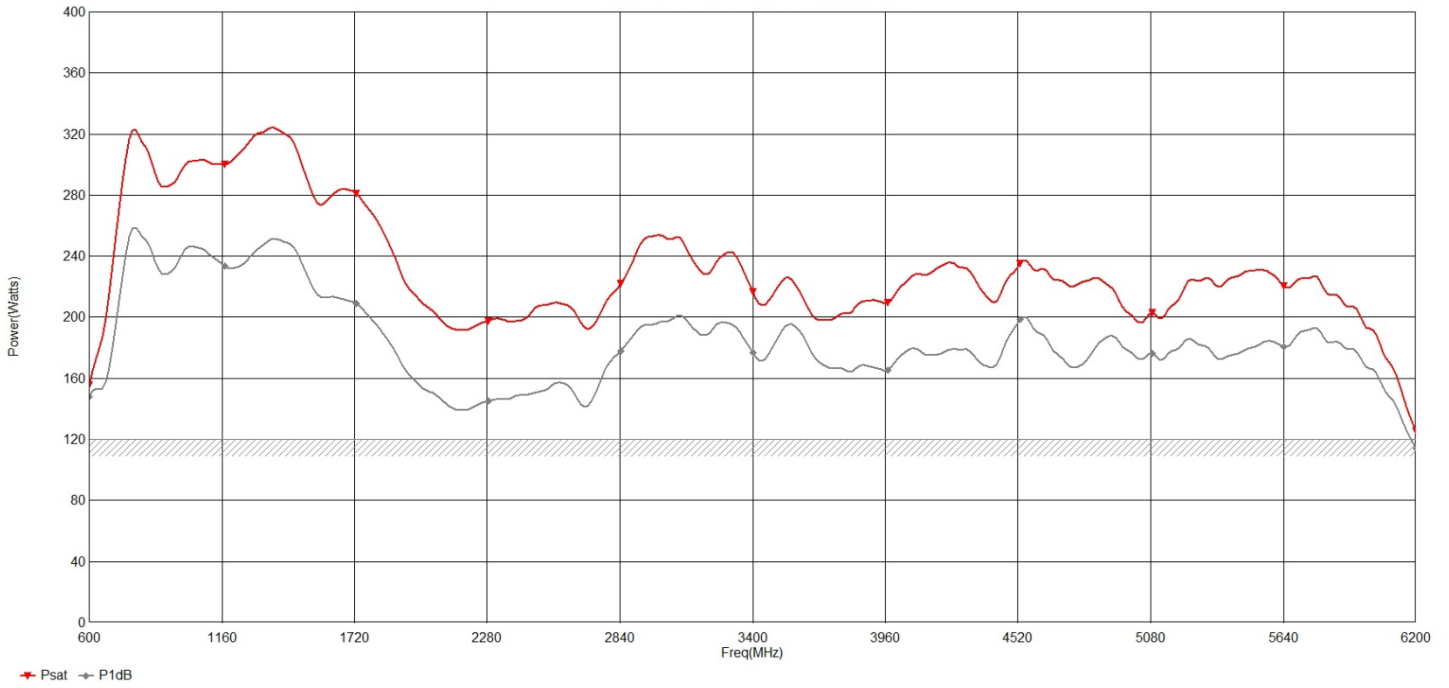
| <b>General Specifications</b> |                                   |
|-------------------------------|-----------------------------------|
| <b>Parameter</b>              | <b>Value</b>                      |
| Safety Interlock              | Via rear panel mounted BNC-female |
| Supply Voltage                | 90 to 264 VAC                     |
| Supply Frequency              | 47 - 63                           |
| Supply Power (Typ.)           | 1.5 kVA                           |
| RF Input Connector            | Type N female                     |
| RF Output Connector           | Type N female                     |
| RF Sample Port Connectors     | Type N female                     |
| Com Interface                 | GPIB, RS232, Ethernet & USB       |
| Weight kg                     | 28 kg                             |
| Dimensions                    | 19 inch, 4U, 615mm (WxHxD)        |
| Cooling System                | Air Cooled, Self-contained        |

| <b>Available Variants</b> |                           |               |
|---------------------------|---------------------------|---------------|
| <b>Product</b>            | <b>Configuration</b>      | <b>Item #</b> |
| AR-G120-001               | Front Panel RF Connectors | 3-342428      |
| AR-G120-002               | Rear Panel RF Connectors  | 3-342429      |

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### TYPICAL PSAT POWER @ 0dBm INPUT



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To order AR Products, call: 215.723.8181. For an applications engineer, call: 800.933.8181. Direct to Service call: 215.723.0275 or email: [service@arworld.us](mailto:service@arworld.us)

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