



# AA-12G-2KWP

## 1.0 - 2.0 GHz, 2000 W, 63 dB Min. Solid State High Power Pulse Amplifier

### FEATURES

- Rack mountable chassis
- Class AB linear GaN design
- Instantaneous L-Band bandwidth
- Suitable for high power pulse applications
- Built-in control, monitoring and protection circuits
- Versatile interface options
- High reliability SSPA and ruggedness for harsh environmental installations



### ELECTRICAL SPECIFICATIONS

| Parameter                 | Specification                                |             |            | Notes                          |
|---------------------------|--|-------------|------------|--------------------------------|
| Operating Frequency Range | 1.0 - 2.0 GHz                                |             |            | Pulse                          |
| Peak Output Power         | 2000 Watt Min                                |             |            |                                |
| Power Gain                | 63 dB Min                                    |             |            | Pin = 0 dBm Nom for rated Pout |
| Power Gain Flatness       | 5.0 dB p-p Max                               |             |            | Constant input power           |
| Pulse Characteristics     | <b>Width</b>                                 | <b>Duty</b> | <b>PRF</b> |                                |
|                           | 1 - 100 $\mu$ S                              | 10 % Max    | 100 kHz    |                                |
| Input Return Loss         | -12 dB Max                                   |             |            | Relative to 50 $\Omega$        |
| Harmonics                 | -20 dBc Max                                  |             |            | At rated output                |
| Spurious                  | -60 dBc Max                                  |             |            | Non-harmonics                  |
| Noise Quieting            | -80 dBm/MHz Max                              |             |            |                                |
| Operating Voltage         | 180-240 VAC, $\pm$ 10 %, 50-60 Hz $\pm$ 10 % |             |            | Single Phase                   |
| Efficiency                | >10 %  |             |            | At rated Pout                  |
| Input Power Protection    | +3 dBm Max                                   |             |            | <10 Sec without damage         |
| Load VSWR Protection      | $\infty$ : 1 @ rated Pout                    |             |            | Auto shutdown @ <3:1 load VSWR |

### ENVIRONMENTAL CHARACTERISTICS

| Parameter                     | Specification              | Notes          |
|-------------------------------|----------------------------|----------------|
| Operating Ambient Temperature | 0 to +50 $^{\circ}$ C      |                |
| Storage Temperature           | -20 to +85 $^{\circ}$ C    |                |
| Relative Humidity             | 5 to 95 %                  | Non-condensing |
| Altitude Operating / Storage  | 2500-meter Min             |                |
| Shock                         | MIL-STD-810F, Method 516.5 |                |
| Vibration                     | MIL-STD-810F, Method 514.5 |                |
| Transportation                | MIL-STD-810F, Method 514.5 |                |

### MECHANICAL SPECIFICATIONS

| Parameter            | Specification                              | Notes                  |
|----------------------|--|------------------------|
| Dimensions W x H x D | 16.9" x 10.5" x 23.6" (430 x 266 x 600 mm) | 6U - Excluding handles |
| Weight               | 77 lbs.                                    |                        |
| RF Connectors        | RF Input Type-N Female                     | Front or Rear Panel    |



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|  |   |                           |
|--|---|---------------------------|
| (Specify Front or Rear at time of order)   | RF Sample Type-N Female<br>RF Output SC or 716 Female       |                           |
| AC Power Connector   | MS3102A24-10P   | Rear panel, or equivalent |
| GPIB / Remote Connector (Optional)   | 3549-1002 / MS3102A16S-1S                                   | Rear panel, or equivalent |
| Noise Quieting connector   | BNC female  |                           |
| Cooling  | Built in Fan Cooling  | Variable speed            |
| <b>STANDARD:</b> Digital Monitor & Control<br>FWD, REV, VSWR, GAIN, ALC, V & I, TEMP | Ethernet RJ-45 TCP/IP, RS422/485, USB<br>Optional GPIB IEEE | Rear panel                |