

AS0820-1000

0.8 - 2.0 GHz 1000 Watt Class A Solid State Amplifier



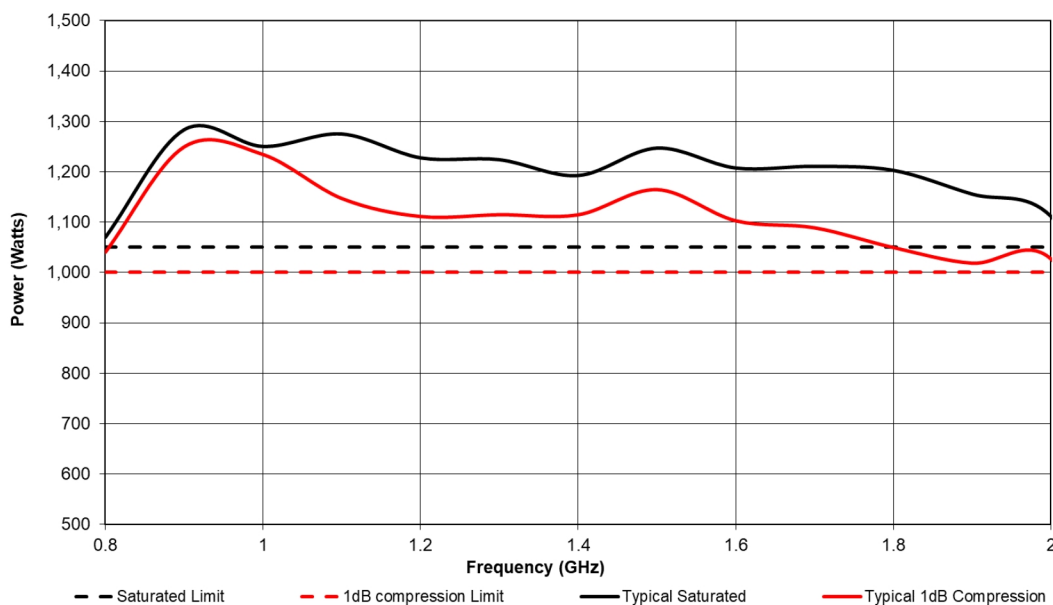
MAIN FEATURES

- Class A Operation
- 100% Mismatch Tolerant with no Foldback
- Calibrated Dual Directional Coupler
- Ethernet, USB, RS232 & GPIB Interface
- 5 Year Warranty

The AS0820 series of solid-state power amplifiers follows the MILMEGA tradition for compact, upgradeable microwave power amplifier solutions with field proven reliability. A modular design enables easy in country service, maintenance and factory upgrades to higher power models.

Developed to cover the frequency band 0.8 - 2 GHz this GaAs based amplifier produces high P1dB performance with excellent linearity and low harmonics making this series ideal for multiple applications including various EMC standards, Telecoms and Instrumentation testing.

Powered from a switched mode power supply for high efficiency, high power factor and wide voltage range operation. The unit is air-cooled with integral fans and is protected against faulty cooling by excess temperature sensing. A safety interlock connector is provided, which the user can short circuit to ground, to put the amplifier into standby mode. Front panel indicators are provided to indicate over-temperature and RF interlock condition.



RF Specifications

| | |
|--------------------------------------|----------------------------------|
| Frequency Bands | Single Band |
| Frequency (min.) GHz | 0.8 GHz |
| Frequency (max.) GHz | 2 GHz |
| Psat (min) | 1050 W |
| P1dB (min.) | 1000 W |
| Small Signal Gain | 55 dB |
| Gain Variation (max) ± | +/- 1.0 dB |
| Harmonics @ P1dB (typ) | -20 dBc |
| Spurious (min.) | -70 dBc |
| 3rd Order Intercept Point | 10 dB > P1dB |
| Noise Figure | 6 dB |
| RF Sample Port Coupling Factor (nom) | 50 dB |
| Modulation Formats | AM, FM, PM, ODFM |
| Maximum Input Power (no damage) | 10 dBm |
| Output VSWR Tolerance | Infinite any phase (no foldback) |
| Stability | Unconditional |
| Output Impedance | 50 Ohm |
| Input VSWR | 2:1 (max) |
| Output VSWR | 2:1 (typical) |

Mechanical Specifications

| | |
|---------------------------|---------------------------------------|
| Safety Interlock | Via rear panel mounted BR2-female |
| Supply Voltage | See, "Available Variants" chart below |
| Supply Frequency | 47 to 63 |
| Supply Power (typ.) | 8.3 kVA |
| RF Input Connector | Type N female |
| RF Output Connector | Type 7/16 female |
| RF Sample Port Connectors | Type N female |
| Com. Interface | GPIO, RS232, Ethernet & USB |
| Weight kg | 165 kg |
| Dimensions (WxHxD) | 19 inch, 20U Rack, 800 mm Deep |
| Cooling System | Air Cooled, Self-contained |

Available Product Configurations

| Product | Configuration | Item # |
|-----------------|--|----------|
| AS0820-1000-003 | Front Panel RF Connectors, 3 Phase STAR, 5 Wire, 380 to 415 VAC Line to Line + N + E | 3-342509 |
| AS0820-1000-004 | Rear Panel RF Connectors, 3 Phase STAR, 5 Wire, 380 to 415 VAC Line to Line + N + E | 3-342510 |
| AS0820-1000-005 | Front Panel RF Connectors, 3 Phase DELTA, 4 Wire, 208 to 240 VAC Line to Line + E | 3-342511 |
| AS0820-1000-006 | Rear Panel RF Connectors, 3 Phase DELTA, 4 Wire, 208 to 240 VAC Line to Line + E | 3-342512 |