

AS0840-100/100

0.8 - 4.0 GHz 100/100 Watt Dual Band Class A Solid State Amplifier



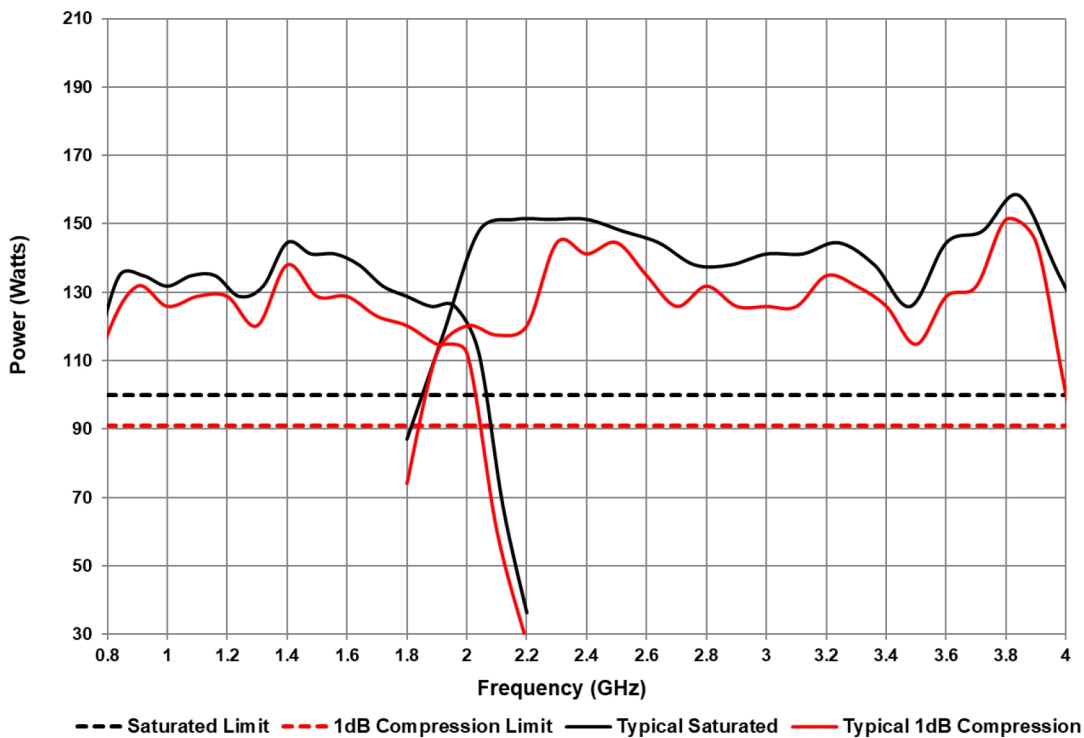
MAIN FEATURES

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

The AS0840 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 - 4 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	Dual Band
Frequency (min.) GHz	0.8 GHz
Frequency (max.) GHz	4 GHz
Modulation Formats	AM, FM, PM, ODFM
RF Sample Port Coupling Factor (nom)	47 dB
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)
Spurious (min.)	-70 dBc

Band 1

Frequency (min.) GHz Band 1	0.8 GHz
Frequency (max.) GHz Band 1	2 GHz
Psat (min.) Band 1	110 W
P1dB (min.) Band 1	100 W
Gain (min.) Band 1	46 dB
Gain Variation (max) Band 1	+/- 2.0
Harmonics @ P1dB Band 1 (typ)	-20 dBc
3rd Order Intercept Point Band 1	10 db > P1dB
Noise Figure Band 1	6 dB

Band 2

Frequency (min.) Band 2	2 GHz
Frequency (max.) Band 2	4 GHz
Psat (min.) Band 2	110 W
P1dB (min.) Band 2	100 W
Gain (min.) Band 2	46 dB
Gain Variation (max) Band 2	+/- 2.5
Harmonics @ P1dB Band 2 (typ)	-20 dBc
3rd Order Intercept Point Band 2	10 db > P1dB
Noise Figure Band 2	8 dB

Mechanical Specifications

Safety Interlock	Via rear panel mounted BR2-female
Supply Voltage	90 to 264 VAC
Supply Frequency	47 to 63
Supply Power (typ.) Band 1	0.64 kVA
Supply Power (typ.) Band 2	1.2 kVA
RF Input Connector	Type N female
RF Output Connector	Type N female
RF Sample Port Connectors	Type N female
Com. Interface	GPIO, RS232, Ethernet & USB
Dimensions (WxHxD)	19 inch, 7U, 527mm
Weight kg	45 kg
Cooling System	Air Cooled, Self-contained

Available Product Configurations

Product	Configuration	Item #
AS0840-100/100-001	Front Panel RF Connectors	3-342300
AS0840-100/100-002	Rear Panel RF Connectors	3-342301