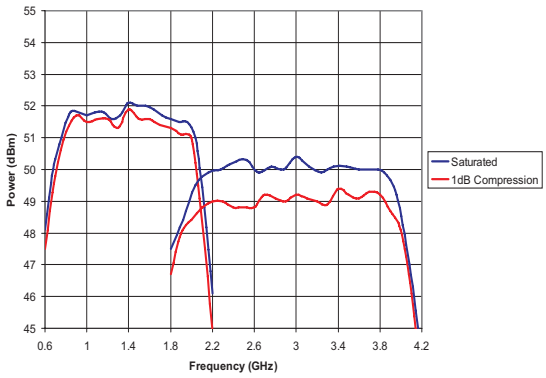
The MILMEGA Series 2000 Broadband Dual Band Class A Solid State Microwave Amplifier Range

The AS0104 series of solid state power amplifiers follows the MILMEGA tradition for compact, upgradeable microwave power amplifier solutions with field proven reliability. Developed to cover the frequency band 1.0 - 4.0 GHz in two bands (1 GHz to 2 GHz and 2 GHz to 4 GHz), the topology has significant advantages over single band solutions

AS0104-100/55, 100 Watt and 55 Watt 1.0 GHz-4.0 GHz Dual Band Broadband Amplifier

Power 1.0-2.0 GHz	
Psat (min):	102.0 W
Psat (min)	50.1 dBm
P1dB (min):	91.0 W
P1dB (min):	49.6 dBm
Noise figure (max):	6.0 dB
Power 2.0-4.0 GHz	
Psat (min):	56.0 W
Psat (min)	47.5 dBm
P1dB (min):	50.0 W
P1dB (min):	47.0 dBm
Noise figure (max):	8.0 dB

Gain variation:	± 2.0 dB
Harmonic distortion (max):	-20 dBc
Power consumption:	2000 W
Primary Power:	85-260 V or 110V* (50/60 Hz)
RF Input:	Type N female
RF Output:	Type N female
Weight:	45 kg
Size:	3U



*Option 26 required for 100V operation

Class leading linearity and noise specifications

- Gain variation with temperature <0.06 dB/°C
- IP3 typically 10 dB> P1 dB
- Harmonics –20 dBc min
- Spurious (max) –70dBc
- Spurious (typical) –80 dBc

Max power

- Unbeatable power density
- Series 2000 will maintain full forward power into any load condition
- Combiner/coupler integration as standard allows samples of incident and reflected power to be measured with virtually no loss
- 100% tested into short and open circuit
- Up to 250 watts in a single 3U unit
- Consistent over greater than octave bandwidths
- Broadband CW power output to 1 kW

High visibility status and power indicators

- Series 2000 incorporate colour led bar graph displays on the front panel giving an indication of incident and reflected power

Other standard features

- 15 way rear mounted D-type allowing remote operation via TTL commands whilst providing access to an output signal sample
- All data is measured at 25 °C driven from a 50 R source and driving into a 50 R load
- Input power (for rated output) 5 dBm
- Input power (no damage) 15 dBm
- Input VSWR (impedance 50 R nominal) 2:1 max
- Output VSWR (impedance 50 R nominal) 2:1 typical
- Load VSWR (any phase) is infinite
- Line input frequency 47-65 Hz
- Operating temperature (ambient air) 0 to 40 °C
- Storage temperature -40 to 70 °C.

Built-in protection

- In the event of internal temperature exceeding 70 °C, the amplifier blocks will automatically switch off to avoid damage
- Unit incorporates a rear panel mounted connector for interlock BR2-female

Easily rack mounted

- Amplifiers are standard 3U high units and may be combined in rack mounted form to build higher power amplifiers

Bench models

- 3U high units have bench case options

Warranty

- 5 year parts and labour warranty on all Series 2000 amplifiers

Other amplifiers available in the 1.0-4.0 GHz Dual Band range:

- AS0104-30/17 - 30/17 watt
- AS0104-30/30 - 30/30 watt
- AS0104-55/17 - 55/17 watt
- AS0104-55/30 – 55/30 watt
- AS0104-55/55 – 55 watt
- AS0104-100/17 - 100/17 watt
- AS0104-100/100 – 100 watt
- AS0104-200/100 – 200/100 watt
- AS0104-200/200 – 200 watt
- AS0104-400/100 - 400/100 watt
- AS0104-400/200 – 400/200 watt

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