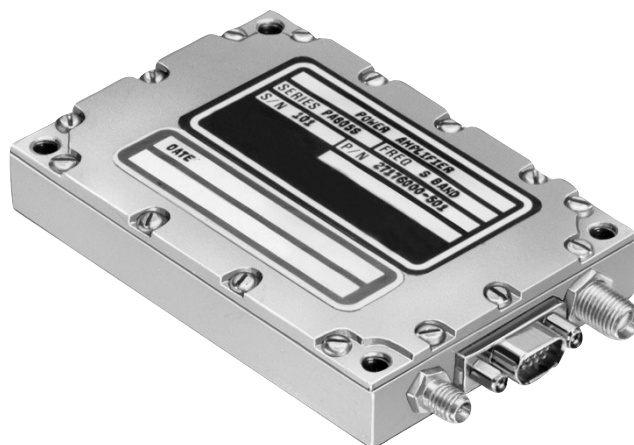


FEATURES

- 5 Watt Power Output with +10 dBm input power
- Wide band design: 0.5 dB Bandwidth = 100 MHz
- Compact Size: 3.0" x 2.0" x 0.5"
- State-of-the-art Solid State Amplifier Design
- High-Efficiency



DESCRIPTION

The PA805S Power Amplifier is a solid state RF amplifier intended for use with low power, S-band telemetry transmitters where size, weight and power consumption are important. The output power flatness of ± 0.25 dB is maintained by Automatic Leveling Control (ALC) circuitry, insuring a constant power over the 100 MHz band. The PA805S performance specifications are in accordance with the latest telemetry range requirements and IRIG standards.

The PA805S utilizes an internal circulator, which allows operation into any load impedance, including open and short circuits, without damage. Output filtering reduces all spurious outputs to below 60 dBc. An internal power line regulator insures uniform performance over the range of input voltage. The regulator also provides reverse polarity protection to the PA805S.

The PA805S uses a milled nickel-plated aluminum enclosure. The connector configuration shown in the outline drawing is standard; other configurations are available as an option.

ELECTRICAL SPECIFICATIONS

Input Characteristics

Power Supply Voltages:	12 $\pm$ 0.5 Vdc -5 $\pm$ 0.25 Vdc
Input Current:	12 Vdc, 2.0 A max -5 Vdc, 33 mA max
RF Input Power Range:	+ 6 dBm to + 10 dBm
Input VSWR:	2:1 max, 50 ohms reference
Input Frequency	2200 to 2300 MHz 2300 to 2400 MHz (2200 to 2400 MHz available)

Output Characteristics

RF Power Output:	5 watts min
RF Power Output Flatness:	± 0.25 dB
Output Impedance:	50 ohms
Performance Bandwidth:	100 MHz bandwidth (200 MHz bandwidth optional)
Output Mismatch Capability:	No damage operating into VSWR up to ∞ :1
Spurious Emissions:	-60 dB relative to carrier
<i>Optional: Forward Power Monitor Available</i>	



MECHANICAL SPECIFICATIONS

Size: 3.0"L x 2.0"W x 0.5"H
(76.2 x 50.8 x 12.7 mm) (not including connectors)

Weight: 3.9 ounces (.1106 kg) max

Connector Configuration:

Power supply: Cannon MDM9S
RF Input: SMA (SSMA optional)
RF Output: SMA

ENVIRONMENTAL SPECIFICATIONS

Baseplate Temperature: -20°C to +71°C
(extended temperature optional)

PIN CONNECTIONS

J1: DC POWER (Cannon MDM9S)

PIN	Function
1, 2	+12 Vdc
4, 5	GND
8, 9	-5 Vdc
3, 6, 7	NC
3	Fwd Pwr Monitor (Optional)

J2: RF IN (3SMA)

J3: RF OUT (SMA)

QUALITY CONTROL

L-3 Communications Telemetry-East's PA805S Power Amplifiers are manufactured under Quality Control procedures accordant with MIL-Q-9858A. As an option, semiconductors and integrated circuits used in PA805S Power Amplifiers can be subjected to intensive preconditioning procedures. Each assembled unit is fully tested to a comprehensive Acceptance Test Procedure that includes full performance testing at thermal extremes.

L-3 Communications Telemetry-East has supported numerous Hi-Rel aerospace programs requiring exhaustive component screening, preconditioning, and selection procedures. Hi-Rel procedures or specific customer-generated procedures can be involved during the manufacture of PA805S Power Amplifiers.

ORDERING INFORMATION

When ordering, specify PA805S Power Amplifier. Part No. 27176001. Consult with your L-3 Communications Telemetry-East Sales Representative or the L-3 Communications Telemetry-East Sales Office in Newtown, PA for additional ordering information requirements.

PA805S Outline Drawing

