

Solid State High Power Amplifier

6.0 - 18.0 GHz, Wide Instantaneous Bandwidth, Built-in protection

Broadband Series: PA1062

FEATURES

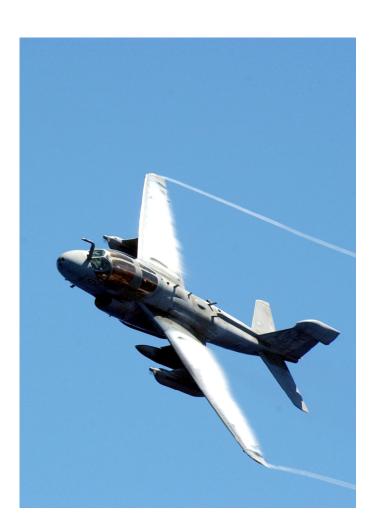
Class AB GaN design 6.0 – 18.0 GHz 40 Watt output power 46 dB gain 32 Volt operation

Fully protected – load VSWR, input overdrive, over/under supply voltage, overcurrent

Available as a module or rack mounted

APPLICATIONS

Broadband jamming Electronic warfare EMI / EMC test equipment



Wideband. Agile. Powerful. Compact.

Control, use or deny the spectrum.

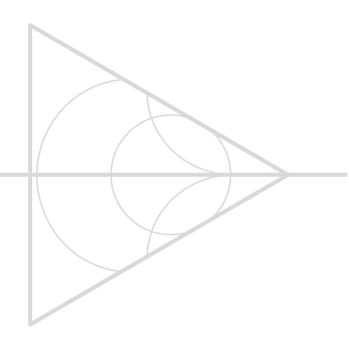
The first task is to get your message through. The second is to prevent the other guy from getting *his* message through. The MtronPTI PA1062 Solid State Power Amp provides up to 40 Watts of CW power across the full bandwidth and less than 4.0 dB_{P-P} gain flatness to meet the needs of broadband spectrum control.

With full power operation from 6.0 GHz to 18 GHz and built in VSWR protection, the PA1062 has 46 dB of gain, perfect for standalone, array or TWT driver applications.

MtronPTI's line of Solid State Power Amplifiers is backed by a multi-national design and manufacturing team with more than 150 years combined PA design experience. MtronPTI's continuing focus on client service ensures full program life engineering support from specification to production to next generation architecture planning.

Like all MtronPTI's SSPAs, the PA1062 is also available integrated with power supply, cooling and communications interface as a rack mountable unit for laboratory or fixed location applications.

EA-6B Prowler – U.S. Navy photo by Photographer's Mate 3rd Class Martion S. Fuentes. (RELEASED)



Electrical Characteristics

| Parameter | Symbol | Min. | Тур. | Max. | Units | Comment |
|---------------------------|----------------------|------|------|------|------------|--|
| PASSBAND | | | | | | |
| Operating Frequency Range | F _{CARRIER} | 6 | | 18 | GHz | |
| Power Output | P _{OUT MIN} | 40 | | | Watts | CW |
| Small Signal Gain | A _{RF_MIN} | 46 | | | dB | |
| Power Gain Flatness | | | | 4.0 | dB_{P-P} | A _{RF_MAX} - A _{RF_MIN} |
| Input Return Loss | RL _{IN} | 10 | | | dB | Within the F_{SIG} bandwidth into 50Ω |
| Harmonics | | | | -25 | dBc | At rated P _{OUT} |
| Non Harmonic Spurious | | | | -60 | dBc | |
| Noise Figure | NF | | | 8.0 | dB | |
| Power | | | | | | |
| Operating Voltage | V_{DD} | 30 | | 32 | V_{DC} | |
| Current Consumption | I _{DD} | | | 18 | Α | |
| Max Input Power | P _{IN_MIN} | | | +8 | dBm | Without damage |
| Load VSWR Protection | | | ∞:1 | | | |

Environmental & Physical

Shutdown

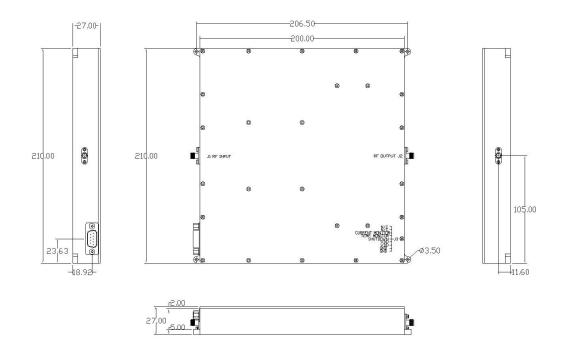
TTL

32 V_{DC} Ground

| Parameter | Symbol | Min. | Тур. | Max. | Units | Comment |
|--|------------------|------|--------------------|------|-------|----------------------|
| Operating Case Temperature T _{OC} | | -20 | | +75 | ∞ | |
| Storage Temperature | T _{STR} | -40 | | +85 | ℃ | |
| Relative Humidity | | 5 | | 95 | % | Non-condensing |
| Dimensions | | | 200 x 210 x 27 | | mm | Excluding connectors |
| Weight | | | TBD | | | |
| RF Connectors IN / OUT | | | SMA Female | | | Cover Flange |
| DC Power / Interface Connector | | | 7-pin Hybrid D-Sul |) | | |
| Cooling | | | External Heat Sinl | (| | Forced air required |
| D-Sub Connector Pin Assignments | | | | | | |
| 1 N/C | | | | | | |
| 2 N/C | | | | | | |
| 3 Current Sensor | Analog | | | | | |
| 4 Temperature Sensor | Analog | | | | | |

Case Outline

Α1



Revision History

| Date | Rev. | Orig. | Details of Revision |
|----------|------|-------|--------------------------------|
| 20141118 | Α | DPD | Initial release in 2015 format |

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MtronPTI may change specifications without notice to improve end application performance or product manufacturability.

Contact MtronPTI for the most up-to-date information.