



RF Amplifier Module AlphaSA Series 500kHz-150MHz

- NMR, MRI, EPR
- RADAR
- Ultrasonics
- Test & Measurement
- RF therapy

The BT-AlphaSA is a range of class AB RF power amplifiers covering the 500kHz-150MHz frequency range

- Rugged, high reliability design
- Excellent phase and amplitude stability
- Compact and easy to use
- Fast pulse rise and fall times
- Low interpulse noise

BTM00250-AlphaSA

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|------------------------------------|---|
| Model number | BTM00250-AlphaSA |
| Output power for 0dBm input | 250W PEP minimum in pulsed mode/50W in CW mode |
| P1dB | 200W PEP minimum in pulsed mode/40W in CW mode |
| Type | Class AB MOSFET |
| Frequency | 500kHz-150MHz |
| Gain flatness | ±2dB maximum (measured at 1/10th rated output power) |
| Max.duty cycle | 20% in pulsed mode at max.pulse width |
| Max.pulse width | 100ms |
| Pulse droop | 0.5dB maximum |
| Pulse rise and fall time | <200ns typical using a pre-gated RF input signal |
| Gate delay | Rising edge: 1µs typical Falling edge: 200ns typical |
| Harmonics | Odd: -12dB maximum Even:-20dBc maximum |
| Spurious | <-70dBc |
| Output noise (blanked) | <10dB above thermal (1MHz bandwidth) |
| Phase change/power | 5° typical from -40dB to full power |
| Phase stability | 1° across 100ms pulse |
| DC supply | Pulsed mode: 50V max. at approx. 3A CW mode: 30V max. at approx. 6A |
| Input/output impedance | 50Ω nominal |
| Maximum load SWR | Tolerates at least 3:1 @ full rated power without shutdown External VSWR protection is recommended |
| Remote interface | 15-pin D connector provides Temp monitor, Current monitor, PTT in, Gate in, Gain adjust, Standby |
| Protection | Over-temp, reverse polarity, input/output transients |
| Connectors | RF input and output: SMA or N-type |
| Cooling | Requires an adequate heatsink (available as an option) |
| Gain control range | 10dB minimum for 0-5V control voltage |
| RF drive | 0dBm nominal, +10dBm for no damage |
| RF gate(blanking) | CMOS/TTL compatible |
| Physical | 120mm x 200mm x 37mm, weight 1.3kg |
| Compliance | CE |



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