



Designers and Manufacturers of RF Amplifiers

Pulsed RF Amplifier Data Sheet BT-DeltaB series 1kW



The BT-DeltaB series is a range of class AB RF power amplifiers covering the 200MHz-600MHz frequency range

- Rugged, solid-state design - high reliability
- Extremely high phase and amplitude stability
- Very fast pulse rise/fall times
- High linearity
- Low power CW operation
- Very low interpulse noise
- Competitively priced

Suitable for pulsed radar, NMR, MRI, NQR, EPR, ultrasound systems and other scientific applications.

BT-DeltaB series

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|-------------------------|--|
| Model number | BT01000-DeltaB |
| Rated power | 1kW minimum ¹ |
| P1dB | 800W minimum ² |
| Type | Class AB MOSFET |
| Frequency | 200MHz-600MHz |
| Gain flatness | ±1.5dB maximum |
| Duty cycle | 20% maximum ³ |
| Maximum pulse width | 10ms ⁴ |
| CW mode | 100W typical ⁵ |
| Pulse droop | 5% maximum |
| Phase change with power | <5° from -40dB to full power |
| Phase stability | <1° across 100ms pulse |
| Harmonics | Odd: -12dBc maximum Even: -20dBc maximum |
| Spurious | <-70dBc maximum |
| Rise/fall times | <100ns typical |
| Output noise (blanked) | <10dB above thermal (1MHz bandwidth) |
| Load SWR | Tolerates at least 3:1 at full rated power without shutdown ⁶ |
| Gate delay | 1µs maximum |

BT-DeltaB series

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|-----------------------------|--|
| Input/output impedance | 50 Ω nominal |
| Indicators | DC Power Output Enable RF Power Over-temp Over-duty Load mismatch |
| Status monitoring interface | Optional: RS232, RS422, RS485 supported |
| Cooling | Forced air |
| Drive signals: RF drive | 0dBm nominal, 10dBm for no damage |
| RF gate (blanking) | 0-5V CMOS |
| Physical | 19" Wx 600mmD x 180mmH ⁷ |
| Connectors | RF output: N type RF input, gate, sample: BNC |
| Mains power requirements | 110-240V, 50-60Hz, single phase, 2kVA maximum ⁸ |
| Compliance | CE |

1. Input power=1mW
2. Minimum output power at 1dB gain compression
3. Maximum gate duty cycle
4. Maximum gate pulse width
5. CW operation automatically available at RF drive level~ -10dBm
6. Self resetting protection shuts the amplifier off if the load SWR is excessive
7. 4RU x 19" inch rack mounting
8. 3-pin IEC. Mains supply must include an earth

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