


# Pulsed RF Amplifier Data Sheet
# BT-DeltaA series
# 500W



The BT-DeltaA series is a range of class AB RF power amplifiers covering the 100MHz-500MHz 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-DeltaA series | |
|---|---|
| Model number | BT00500-Delta |
| Rated power | 500W minimum[1] |
| P1dB | 500W minimum[2] |
| Type | Class AB MOSFET |
| Frequency | 100MHz-500MHz |
| Gain flatness | ±1.5dB maximum |
| Duty cycle | 20% maximum[3] |
| Maximum pulse width | 10ms or 100ms[4] |
| CW mode | 50W 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<br>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 |

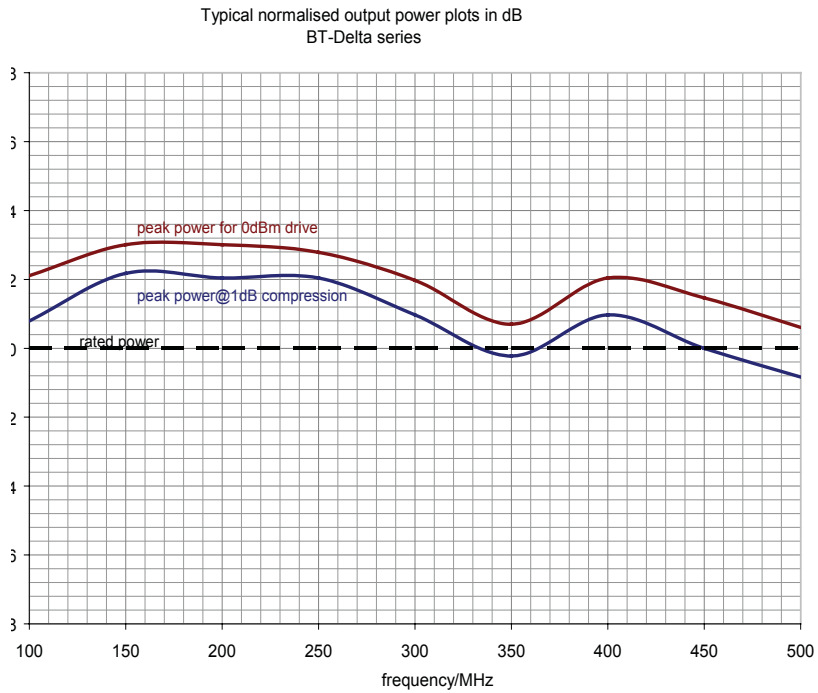
| BT-DeltaA series | |
|---|---|
| Input/output impedance | 50 Ω nominal |
| Indicators | DC Power<br>Output Enable<br>RF Power<br>Over-temp<br>Over-duty<br>Load mismatch |
| Status monitoring interface | Optional: RS232, RS422, RS485 supported |
| Cooling | Forced air |
| Drive signals:<br>RF drive<br><br>RF gate (blanking) | <br>0dBm nominal, 10dBm for no damage<br>0-5V CMOS |
| Physical | 19" Wx 600mmD x 128mmH[7] |
| Connectors | RF output: N type<br>RF input, gate, sample:BNC |
| Mains power requirements | 110-240V, 50-60Hz, single phase, 2kVA maximum[8] |
| Compliance | CE |

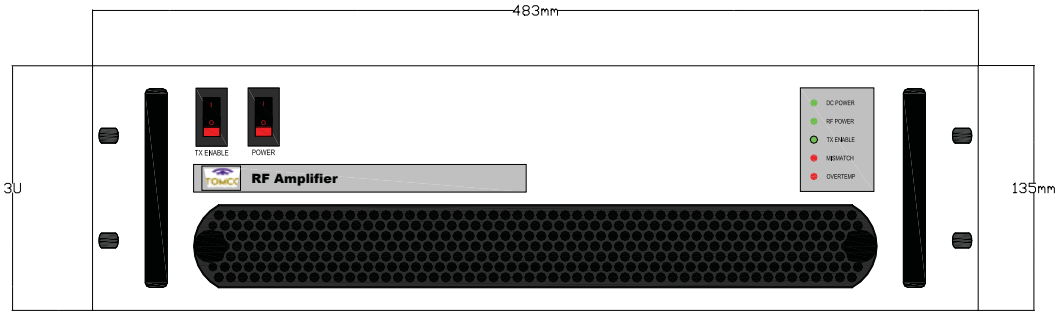
*1. Input power=1mW*
*2. Minimum output power at 1dB gain compression*
*3. Maximum gate duty cycle*
*4. Maximum gate pulse width*
*5. CW operation automatically available at RF drive level~ -10dBm*
*6. Self resetting protection shuts the amplifier off if the load SWR is excessive*
*7. 3RU x 19" inch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

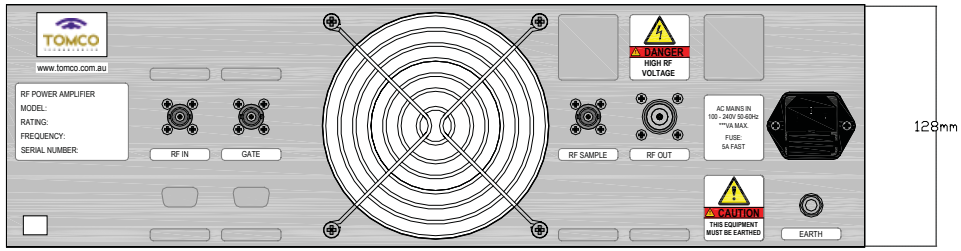
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