

Pulsed RF Amplifier Data Sheet

BT-DeltaB series

100W



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

Model number	BT00100-DeltaB
Rated power	100W minimum ¹
P1dB	80W minimum ²
Type	Class AB MOSFET
Frequency	200MHz-600MHz
Gain flatness	±1.5dB maximum
Duty cycle	20% maximum ³
Maximum pulse width	10ms or 100ms ⁴
CW mode	10W 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

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 350mmD x 128mmH ⁷
Connectors	RF output: N type RF input, gate, sample: BNC
Mains power requirements	110-240V, 50-60Hz, single phase, 500VA 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

© Tomco Technologies



Designers and Manufacturers of RF Amplifiers

Pulsed RF Amplifier Data Sheet BT-DeltaB series, 200-600MHz 100W

