RF Amplifier Data Sheet
BT-Delta series
100-600MHz
100W, 250W CW

- Communications
- Plasma
- CW Radar
- Test & Measurement

The BT-Delta-CW series is a range of class AB RF power amplifiers covering the 100MHz to 600MHz frequency range

• Excellent phase and amplitude stability

• Rugged, reliable, modular solid-state design

• High linearity

• In-built protection

• Very fast blanking

• Capable of pulsed operation

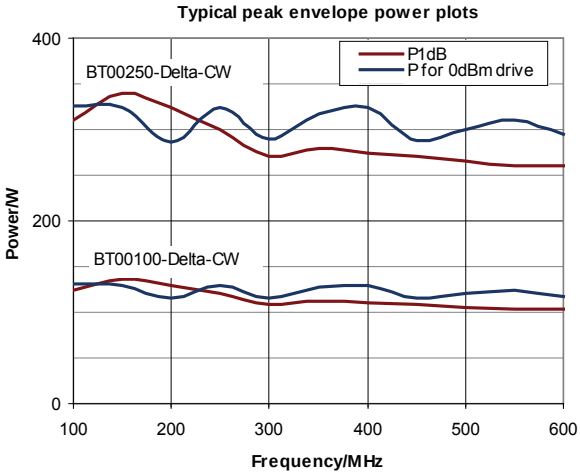
Suitable for CW radar, communications, HF/VHF jamming, particle accelerator/ plasma systems, plasma, RF heating and other scientific applications.

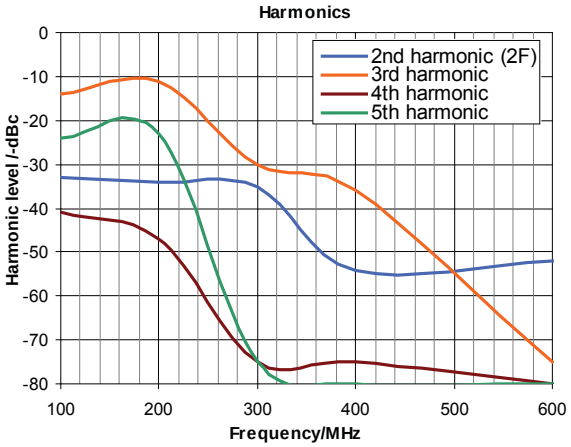
BT-Delta series

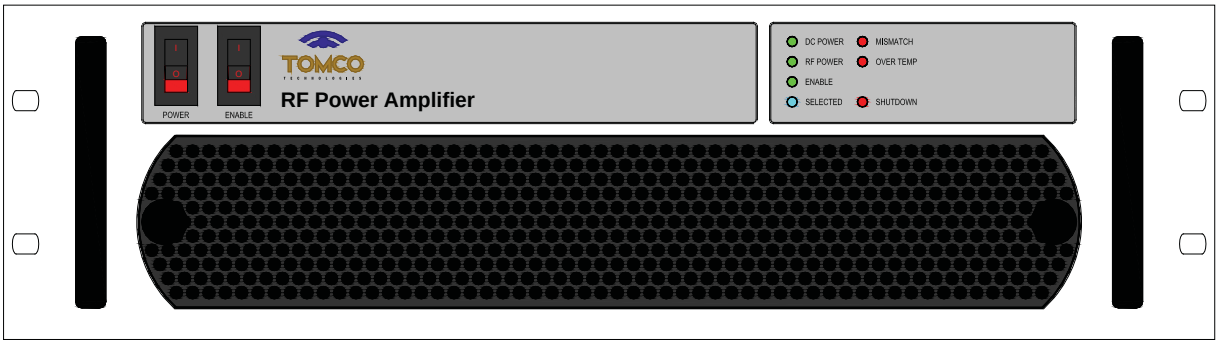
Model numbers	BT00100-Delta-CW/BT00250-Delta-CW
Modulation types	Faithfully reproduces all types of modulation including FM, AM, PM, pulses[1]
Rated CW power	100W/250W minimum[2]
P1dB	80W/200W minimum[3]
Type	Class AB MOSFET
Frequency	100MHz-600MHz[4]
Gain flatness	±2dB maximum
Pulse droop	0.5dB maximum[5]
Pulse rise and fall times	100ns typical using a pre-gate RF input signal
Gate delay	Rising edge: 1μs typical Falling edge: 50ns typical[6]
Harmonics	Odd: -16dBc typ, -10dBc max. Even:-30dBc typ. -20dBc max.
Spurious	<-60dBC maximum
Output noise (blanked)	<10dB above thermal
Output sample	-50dB into 50 Ω (forward voltage sample)
Input/output impedance	50 Ω nominal
Load SWR	Tolerates at least 3:1 @ full rated power without foldback[7]
Remote interface	Parallel status monitoring via 25 pin D connector[8]
Connectors	RF output: N type RF input, gate, PTT, sample:BNC[9]
Cooling	Forced air, front to rear
Indicators	DC Power, RF Power, Enable, Selected, Over-temp, Mismatch, Shutdown
Gain control range	10dB minimum for 0-5V control voltage
Input signals	RF drive: 0dBm RF GATE: CMOS/TTL High=Tx
Physical	19" Wx 500mmD x 128mmH (3RU x 19" rack mounting), approx 23kg
Mains power	110-240V, 50-60Hz, single phase, 500VA/1kVA max.[10]
Operating temperature	0 to +40°C
Compliance	CE

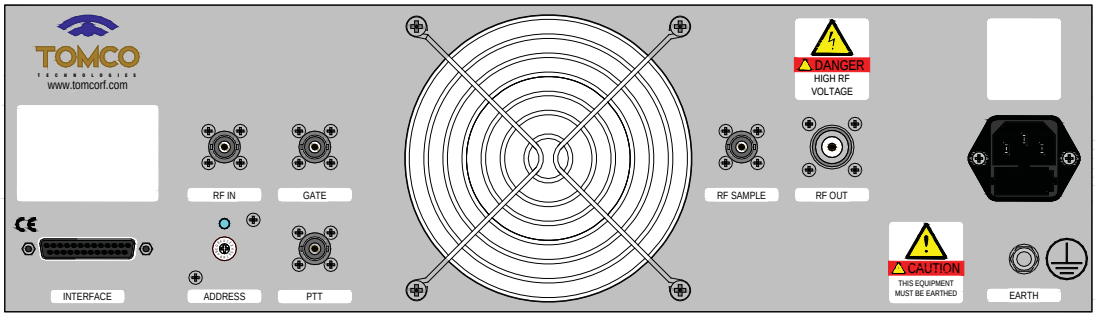
1. Includes high speed gating and noise blanking for pulsed operation
2. PEP for input power of 1mW
3. Minimum output power at 1dB gain compression
4. The amp provides useful power outside this range, but performance is not guaranteed
5. Measured at 100ms pulse width at nominal P1dB level
6. Rising edge measured from rising edge of GATE pulse to 90% RF output voltage. Falling edge measured from falling edge of GATE pulse to 10% RF output voltage
7. Self resetting foldback protection reduces the amplifier gain if the load SWR is excessive
8. Pin out at www.tomcorf.com/pdf/interface.pdf
9. Other connector types available on request
10. 3-pin IEC. Mains supply must include an earth

RF Amplifier Data Sheet
BT-Delta series
100-600MHz
100W, 250W CW









TOMCO TECHNOLOGIES

38 Payneham Road, Stepney, SA 5069. Australia
Tel:+618 8362 2902 Fax:+618 8362 2912

USA:+1 202 657 6844
UK:+44 20 3239 6847
Hong Kong:+852 8121 4277

www.tomcorf.com