



Designers and Manufacturers of RF Amplifiers

RF Amplifier Module Data Sheet BTM-AlphaS 500kHz-150MHz 250W Pulsed/50W CW



The BTM-AlphaS module is a class AB RF power amplifier module covering the 500kHz-150MHz range.

- Pulsed and CW operation
- Rugged, compact, simple to interface
- Excellent phase and amplitude stability

Suitable for OEM manufacturers in the fields of radar, NMR, MRI, NQR, EPR, ultrasound systems, plasma and accelerator systems, communications and other scientific applications.

BTM-AlphaS series

Model numbers	BTM00250-AlphaS
Rated power	250W pulsed minimum ¹ / 50W CW minimum ¹
P1dB	200W minimum ² / 40W CW minimum ²
Type	Class AB MOSFET
Frequency	500kHz-100MHz
Gain flatness	±2dB maximum
Duty cycle	20% max.for pulsed operation
Max.pulse width	100ms in pulsed operation
Harmonics	Odd: -12dBc maximum Even:-20dBc maximum
Spurious	<-70dBc maximum
Phase stability	<5° from -40dB to full rated power
Phase stability across pulse	<1° across 100ms pulse
Output noise (blanked)	<10dB above thermal (1MHz bandwidth)
Input/output impedance	50 Ω nominal

BTM-AlphaS series

Indicators	DC Power RF Power Over-temp
Cooling	Heatsink required <0.5°C/W recommended Maximum allowable case temperature 80°C (Module can be supplied with a heatsink fitted)
Protection	Overheating, duty cycle limitation for pulsed operation
Drive signals: RF drive	0dBm nominal, 10dBm for no damage
RF gate (blanking)	0-5V CMOS
Physical	200m x 120mm x 65mm (without heatsink)
Connectors	RF output: SMA RF input, gate:SMA
Supply voltages	+50V for 250W pulsed (6A max.) +28V for 50W CW (6A max.)
Compliance	CE

1. Input power=1mW

2. Minimum output power at 1dB gain compression

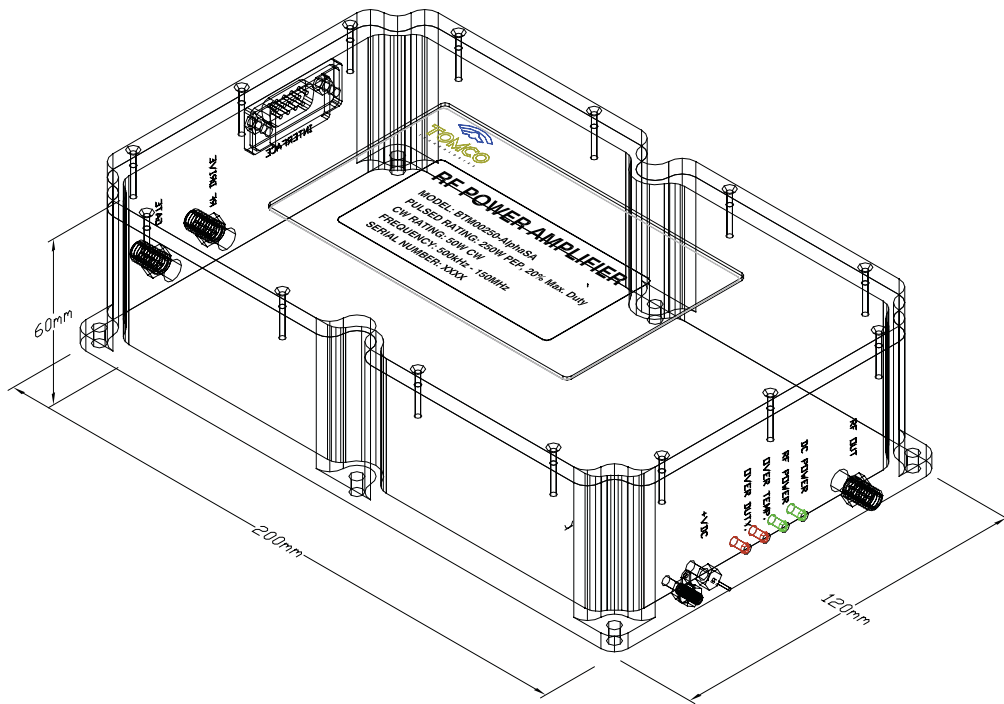
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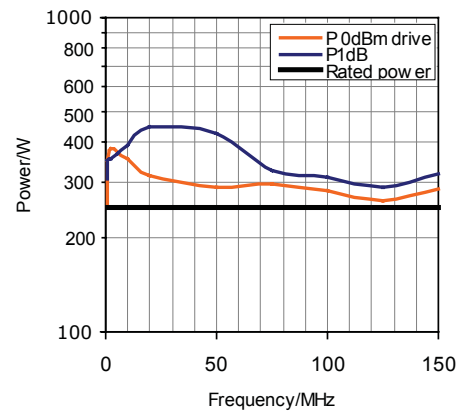


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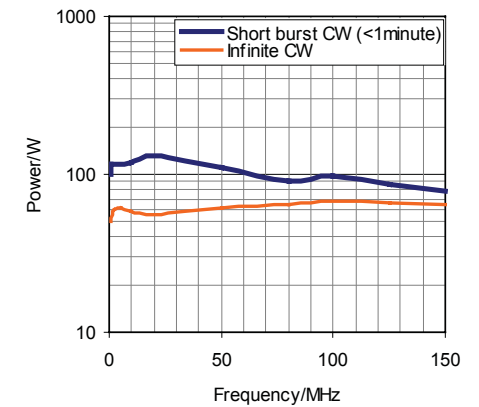
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Peak pulsed output power



Peak CW output power



Harmonics

