

**RF Amplifier Module  
BTM00250-AlphaS  
100kHz-30MHz  
250W**

- NMR, MRI, EPR
- Radar
- Ultrasonics
- Test and Measurement
- RF therapy

The BTM00250-AlphaS is a 250W pulsed/CW class AB RF power amplifier covering the 100kHz to 30MHz frequency range

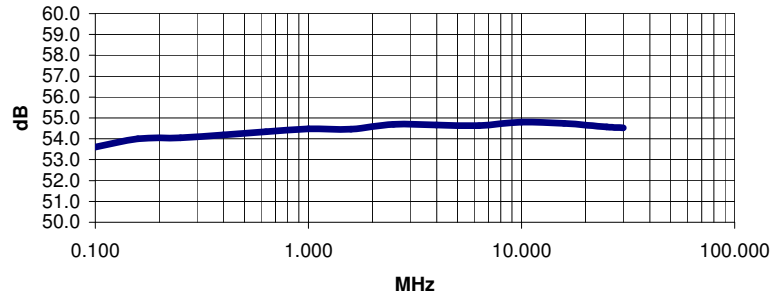
- Rugged, high reliability design
- Excellent phase and amplitude stability
- Compact and easy to use
- Low power CW operation
- Fast pulse rise and fall times
- Low interpulse noise

**BTM00250-AlphaS**

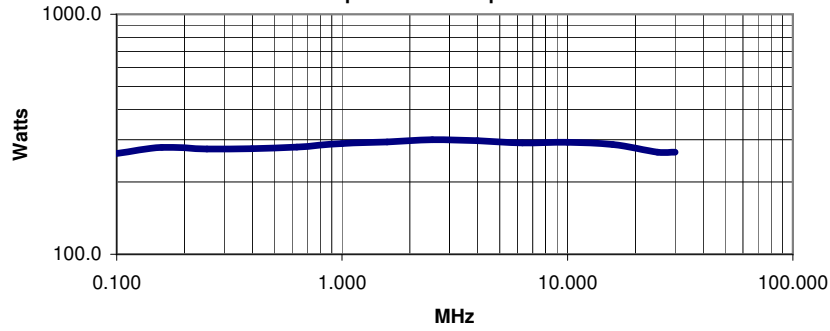
<b>Model number</b>	BTM00250-AlphaS
<b>Output power for 0dBm input</b>	250W PEP minimum
<b>P1dB</b>	200W PEP minimum
<b>Type</b>	Class AB MOSFET
<b>Frequency</b>	100kHz - 30MHz
<b>RF input level</b>	0dBm for full rated output power
<b>Gain flatness</b>	±2dB maximum (measured at 1/10th rated output power)
<b>Max.duty cycle</b>	20% in pulsed mode at max pulse width
<b>Max.pulse width</b>	100ms in pulsed mode
<b>Rated power in CW mode</b>	25W minimum
<b>Pulse droop</b>	0.5dB maximum
<b>Pulse risa and fall time</b>	<200ns typical using a pre-gated RF input signal
<b>Gate delay</b>	Rising edge: 1us typical Falling edge: 200ns typical
<b>Harmonics</b>	Odd: -12dB maximum Even:-20dBc maximum
<b>Spurious</b>	<-70dBc
<b>Output noise (blanked)</b>	<10dB above thermal
<b>Phase change / power</b>	5° typical from -40dB to full power
<b>Phase stability</b>	1° typical across 100ms pulse
<b>DC supply</b>	Pulsed mode: 50V max at approx 3A CW mode: 30V max at approx 6A
<b>Input/output impedance</b>	50Ω nominal
<b>Maximum load VSWR</b>	Tolerates at least 3:1 @ full rated power. External VSWR protection is recommended.
<b>Protection</b>	Over-temp, reverse polarity, input/output transients
<b>Cooling</b>	Requires an adequate heatsink (available as an option)
<b>Connectors</b>	RF input and output: SMA or N-type DC power: Solder tag
<b>Remote Interface</b>	15-pin D connector provides Temp monitor, Current monitor, PTT in, Gate in, Gain adjust, Standby
<b>Gain control range</b>	10dB typical for 0-5V control voltage
<b>RF gate (blanking)</b>	CMOS/TTL compatible
<b>Dimensions</b>	120 x 200 x 37mm
<b>Mass</b>	1.3kg



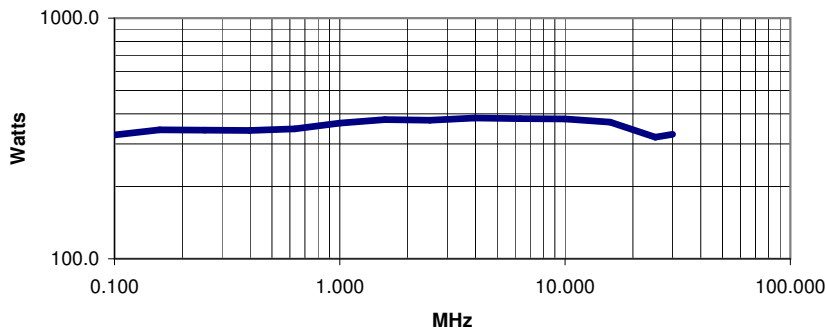
**Gain**



**Output for 0dBm input**



**P1dB**



**Harmonics at 200W output**

