



RF Amplifier Module AlphaS Series 100kHz-30MHz

- NMR, MRI, EPR
- RADAR
- Ultrasonics
- Test & Measurement
- RF therapy

The BT-AlphaS is a range of class AB RF power amplifiers covering the 100kHz-30MHz frequency range

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

BTM00250-AlphaS

Model number	BT00250-AlphaS
Output power for 0dBm input	250W PEP minimum in pulsed mode/50W in CW mode
P1dB	200W PEP minimum in pulsed mode/40W in CW mode
Type	Class AB MOSFET
Frequency	100kHz-30MHz
Gain flatness	±2dB maximum (measured at 1/10th rated output power)
Max.duty cycle	20% in pulsed mode at max.pulse width
Max.pulse width	100ms
Pulse droop	0.5dB maximum
Pulse rise and fall time	<200ns typical using a pre-gated RF input signal
Gate delay	Rising edge: 1µs typical Falling edge: 200ns typical
Harmonics	Odd: -12dB maximum Even:-20dBc maximum
Spurious	<-70dBc
Output noise (blanked)	<10dB above thermal (1MHz bandwidth)
Phase change/power	5° typical from -40dB to full power
Phase stability	1° across 100ms pulse
DC supply	Pulsed mode: 50V max. at approx. 3A CW mode: 30V max. at approx. 6A
Input/output impedance	50Ω nominal
Maximum load SWR	Tolerates at least 3:1 @ full rated power without shutdown External VSWR protection is recommended
Remote interface	15-pin D connector provides Temp monitor, Current monitor, PTT in, Gate in, Gain adjust, Standby
Protection	Over-temp, reverse polarity, input/output transients
Connectors	RF input and output: SMA or N-type
Cooling	Requires an adequate heatsink (available as an option)
Gain control range	10dB minimum for 0-5V control voltage
RF drive	0dBm nominal, +10dBm for no damage
RF gate(blanking)	CMOS/TTL compatible
Physical	120mm x 200mm x 37mm, weight 1.3kg
Compliance	CE

