

RF Amplifiers for NMR, MRI, EPR E-mail Sales for a Quote

Tomco produces a wide range of amplifiers tailored to suit the requirements of NMR, MRI, EPR, ESR, ENDOR and NQR. Available across a wide range of frequencies and power levels, these amplifiers cover most commonly used NMR frequencies.

Key features are:

- very low interpulse noise
- high linearity
- very fast pulse rise/fall times
- fast post-pulse recovery
- compact, modular systems requiring minimal ongoing maintenance
- rugged, high reliability, 3 year warranty
- handle up to +10dBm overdrive for no damage, robust VSWR protection
- low power CW operation automatically available in standard 20% duty cycle models
- ultra fast systems available for EPR

General Amplifiers for Magnetic Resonance

Model No.	Frequency	Peak Power	Max. duty cycle	Max.pulse width	Low power CW
BT00250-AlphaS	100kHz-30MHz	250W	20%	100ms	Yes
BT00500-AlphaS		500W	20%	100ms	Yes
BT01000-AlphaS BT01000-AlphaS-100ms		1kW	20%	10ms 100ms	Yes
BT02000-AlphaS BT02000-AlphaS-100ms		2kW	20%	10ms 100ms	Yes
BT04000-AlphaS		4kW	20%	100ms	Yes
BT00250-AlphaSA	500kHz-150MHz	250W	20%	100ms	Yes
BT00500-AlphaSA		500W	20%	100ms	Yes
BT01000-AlphaSA BT01000-AlphaSA-100ms		1kW	20%	10ms 100ms	Yes
BT02000-AlphaSA		2kW	20%	100ms	Yes
BT00100-Gamma	5-400MHz	100W	20%	300ms	Yes
BT00250-Gamma		250W	20%	300ms	Yes
BT00500-Gamma		500W	20%	300ms	Yes
BT01000-Gamma		1kW	20%	300ms	Yes
BT00250-GammaS	5-310MHz	250W	20%	300ms	Yes
BT00500-GammaS		500W	20%	300ms	Yes
BT01000-GammaS		1kW	20%	300ms	Yes
BT00100-Delta	100-600MHz	100W	20%	300ms	Yes
BT00250-Delta		250W	20%	300ms	Yes
BT00500-Delta		500W	20%	300ms	Yes
BT01000-Delta		1kW	20%	300ms	Yes

[Ask us about custom specifications](#)

Dual Band RF Amplifier for NMR

Model no.	Frequency	Peak power	Max. duty cycle	Max. pulse width	Notes
TwinPulse 400	Channel A: 200-650MHz Channel B: 5-300MHz	Channel A: 100W Channel B: 300W	20%	300ms	Dual channel amplifier The new Tomco TwinPulse400 is a single, low-cost drop-in replacement for Varian / Agilent 200 - 650MHz NMR Systems.

Ultra fast pulse rise/falltime amplifiers for EPR

[Contact us for more information](#)

Model no.	Frequency	Peak power	Max. duty cycle	Max. pulse width	Notes
BT0500-EPR	Fixed freq in the range 100-900MHz	500W	5%	10µs	typically <15ns rise time <10ns fall time at frequencies >300MHz
BT1000-EPR		1kW	5%	10µs	
BT2000-EPR		2kW	5%	10µs	
BT4000-EPR		4kW	5%	10µs	
BT00250-EPR-6722	200-750MHz	250W	5%	10µs	

Amplifier Modules

Our amplifier modules are popular choices for OEMs and do-it-yourself spectrometer builders. They are "brick" modules meaning power amplifier stage only with no power supply or mismatch protection. They do include over temperature protection and can be supplied with suitable heatsink and fan assembly.

They offer a versatile, cost-effective solution for the RF amplifier stage of benchtop magnetic resonance systems.

Model No.	Frequency	Peak Power	Pulsed operation		Notes
			Max.duty cycle	Max.pulse width	
BTM00250-AlphaS	100kHz-30MHz	250W pulsed/50W CW	20%	100ms	Gating included: high fidelity pulsed operation
BTM00250-AlphaSA	500kHz-150MHz	250W pulsed/50W CW	20%	100ms	
BTM00300-GammaS	5-310MHz	300W pulsed/30W CW	20%	100ms	
BTM00100-Delta	200-650MHz	100W pulsed/15W CW	20%	100ms	