RF AMPLIFIERS

BT-Alpha Series
100kHz to 3MHz
1kW, 2kW

POWER AND PRECISION

The BT-Alpha series is a range of class AB RF power amplifiers available in a range of LF/MF bands

Available at peak output power levels up to 8kW.

Excellent phase and amplitude stability.

High efficiency
High linearity

Available as stand alone amplifier systems or as plug-in modules for OEMs

Suitable for NMR, MRI, NQR, ultrasound systems and other scientific applications

Model numbers	BT01000-AlphaB, BT02000-AlphaB
Power @ 1dB compression	1kW,2kW
Saturated output power	1.5kW,3.1kW
Type	Class AB MOSFET
Frequency	100kHz to 3MHz
Gain	59dB, 62dBmin.
Gain flatness	±2dB max.
IP_3	+67dBm,+70dBm typ.
Duty cycle	20%max.(higher values available)
Max.pulse width	10ms (higher values available)
Pulse droop	<0.5dB @ max.pulse width
Harmonics	<-25dBC
Spurious	<-60dBC
Rise/fall times	<100ns typical
Output noise (blanked)	<10dB above thermal (1MHz bandwidth)
Noise figure	Approx.10dB
Phase stability	5° max change over a 1ms pulse
Phase change/power	5° max.change from -30dB to full power
Phase stability/time	<1° max.change in 24hrs
Blanking delay	1 microsecond approx.



Input VSWR	2:1 max.
Input/output impedance	50Ω nominal
Protection	Overheating, load mismatch, drive faults, limited transient protection on inputs and outputs
Drive signals: RF drive RF gate (blanking)	 0dBm nominal, 10dBm for no damage 0-5V CMOS
Dimensions:1kW,2kW	Tx plus power supply: 19”x640mmx270mm
Connectors	RF out: N type Inputs: BNC
Cooling	Forced air
Temperature	0ºC-40ºC
Humidity	95% non-condensing
Compliance	CE

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