RF AMPLIFIERS
BT-Alpha Series
40kHz to 1MHz
4kW

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 number	BT04000-AlphaA
Peak output power for 0dBm drive	4kW
Output power @ 1dB compression	3.2kW
Type	Class AB MOSFET
Frequency	40kHz to 1MHz
Gain flatness	±2dB max.
IP_3	+73dBm typ.
Duty cycle	20%max.(higher values available)
Max.pulse width	10ms (higher values available)
Pulse droop	<0.5dB @ max.pulse width
Harmonics	<-20dBC even, <-10dBc odd Measured @ 1dB compression
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	Transmitter: 19”x 640mm x 270mm Power supply: 19”x 640mm x 270mm
Connectors	RF out: N type Inputs: BNC
Cooling	Forced air
Temperature	0ºC-40ºC
Humidity	95% non-condensing
Compliance	CE

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