射频放大器数据表

TOMCO

型号：BT00250-EPR-6722

频率：200MHz-750MHz

功率：250W

- 科学和工业应用

BT-EPR系列是一系列AB RF功率放大器，它们表现出脉动快速上升和降落时间

- 坚固的固态设计 - 高可靠性
- 极高的相位和振幅稳定性
- 超快速脉搏上升/秋季时间
- 高线性度
- 非常低的脉冲间噪声
- 具有竞争力的价格

RF Specifications

类型	Class AB MOSFET
额定功率	250W minimum PEP for input power of 0dBm
P1dB	200W minimum Minimum output power at P1dB compression
增益	54dB minimum
频率	200MHz - 750MHz
增益平稳度	±2dB maximum (measured at 1/10th rated output power)
最大占空比	5% Maximum GATE duty cycle
最大脉冲宽度	10μs Maximum GATE pulse width
脉冲下降	0.5dB maximum Measured at max. pulse width at P1dB level
脉冲上升和下降时间	20ns typical using a pre-gated RF input signal
门延迟	Rising edge: 250ns typical Falling edge: 100ns typical Rising edge measured from rising edge of GATE pulse to 90% RF output voltage. Falling edge measured from falling edge of GATE pulse to 10% RF output voltage
谐波	Odd: -16dBc typical, -10dBc maximum Even:-30dBc typical, -20dBc maximum Measured at 1dB below rated output power
杂散	<-70dBc
输出噪声（消隐）	<10dB above thermal (100kHz bandwidth)
输出样本	-50dB into 50 Ω (forward voltage sample)
输入/输出阻抗	50 Ω nominal
负载驻波比	Tolerates at least 3:1 @ full rated power without shutdown
射频输入	0dBm nominal, 10dBm for no damage
门（消隐）	Logic low = Blank, logic high = unblank. CMOS and TTL compatible

电气规格

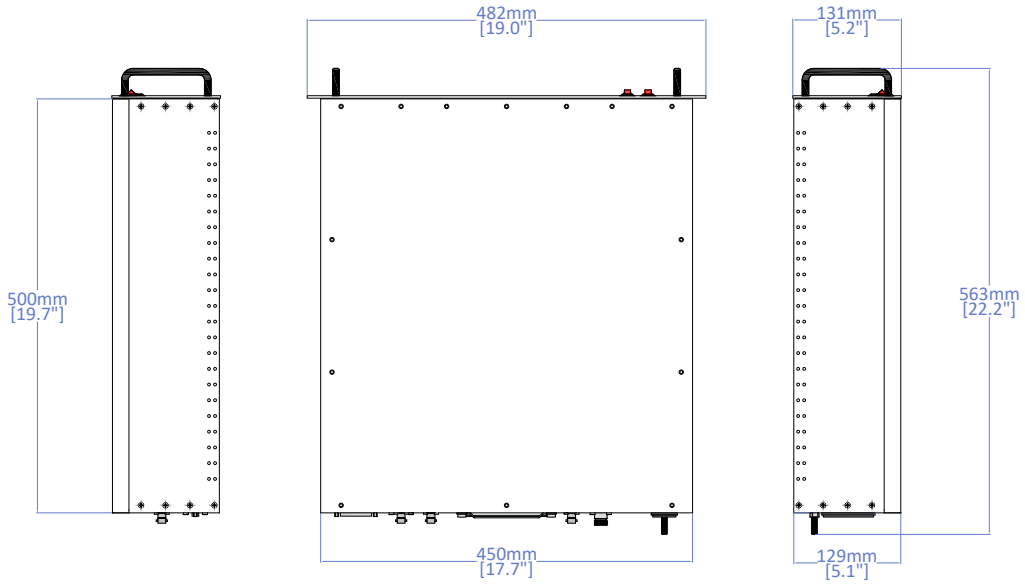
电源电压	110-240V, 50-60Hz, single phase
额定功率	250VA maximum
电源入口	1 x IEC inlet (mains power cord supplied)

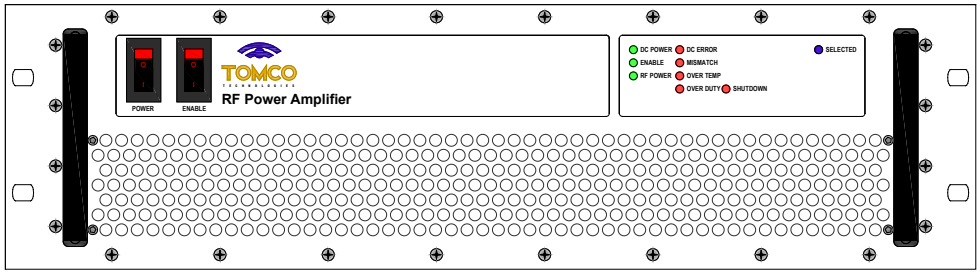
RF Amplifier Data Sheet

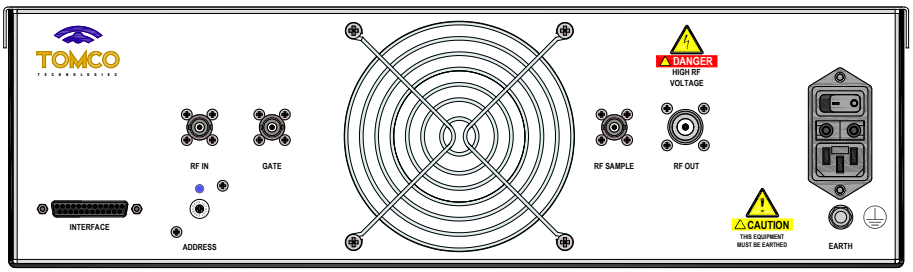
TOMCO

Mechanical Specifications

连接器	RF IN: BNC female GATE: BNC female RF SAMPLE: BNC female RF OUT: N type female INTERFACE: DB25 female Other connectors types available on request
尺寸	Chassis size: 450mmW (17.7”W) x 500mmD (19.7”D) x 129mmH (5.1”H) Total size: 482mmW (19”W) x 563mm (22.2”D) x 131mm (5.2”H) Rack compatibility: 19” 3RU
重量	approx. 13kg (28lbs)
防护等级	IP20





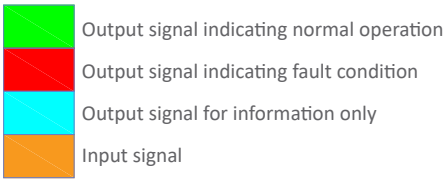


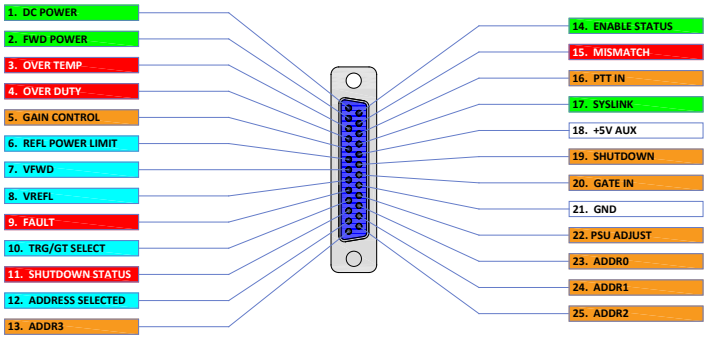
保护

负载驻波比	Tolerates up to VSWR 3:1 at full rated power without shutdown Self-resetting shutdown protection activates if VSWR limits are exceeded
过温	Self-resetting shutdown protection activates if thermal limits are exceeded
占空比	Duty cycle limit is determined from the GATE signal duty cycle. Self-resetting shutdown protection activates if duty cycle limit is exceeded
脉冲宽度	Pulse width limit is determined from the GATE signal pulse width. Self-resetting shutdown protection activates if pulse width limit is exceeded

Monitoring and Control

Front panel switches	Power (turns on DC power) Enable (enables RF)
Front panel LEDs	• DC POWER • ENABLE • RF POWER • DC ERROR • MISMATCH • OVER TEMP • OVER DUTY • SELECTED • SHUTDOWN
Parallel interface	25-pin D-connector (pinout available at www.tomcorf.com/pdf/interface.pdf)*





Environmental

General	Intended for use only in controlled, indoor environment. Non-consumer product for industrial and scientific use. This product is not authorised for stand-alone on-air use. Additional systems, hardware and considerations are required to meet local spectral management regulations. Compliance of the final complete system is the responsibility of the end user.
Cooling	Forced air, front to rear
Operating temperature	+5^{0}C to +40^{0}C
Storage temperature	-20^{0}C to +60^{0}C
Humidity	80% for temperature up to 31^{0}C, decreasing linearly to 50% relative humidity at 40^{0}C
Operating altitude	Up to 2000m
Pollution degree	2
Transient voltage compatibilty	Category II, in line with IEC 60364-4-44:2007
Electromagnetic compatibility	In line with IEC61326-1:2012 ISM equipment, Group 1, Class A For use only in shielded areas. ENC55011 (CISPR 11) limits exceeded by up to 40dB
Safety	In line with IEC61010-1:2010
Electromagnetic field strength	In line with ICNIRP Guidelines: 1998, occupational limits

* Some functions may be unavailable on select amplifier models

Change record

Document/Issue number	Originator	Date	Change
DS006722A	JR	22/08/2018	Original
DS006672B	JR	19/12/2018	pp.1-5:M
DS006672C	LS	06/05/2021	p.1:H