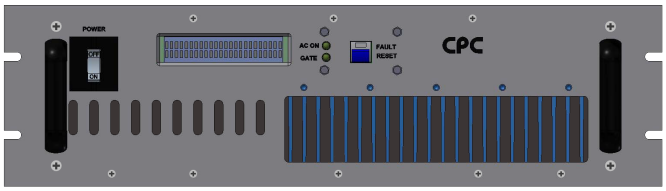
High Power RF Amplifier

30-405 MHz, 1000 W

Model 9T1000M

The 9T1000M delivers 1000 W of Pulsed Output Power across the 30–405 MHz band, supporting pulse widths up to 100 ms. With 60 dB of Gain and Duty Cycles up to 10%, the Amplifier maintains exceptional Gain Flatness and superior pulse fidelity.

Engineered for demanding NMR and MRI applications, the 9T1000M offers comprehensive interface monitoring, advanced control features, and robust fault protection. The design ensures seamless integration in the system, with reliable performance in critical environments.



Specifications

Parameter	Specification
Electrical Specifications	
Operating Frequency	30 - 405 MHz
Pulse Power into 50 Ohms	1000 W (min.)
CW Power	50 W (min.)
Pulse Width	20 - 100 msec (typ.) 300 msec (max.) Dependent on Output Power Consult CPC for Details
Linearity (± 1.5 dB, Class AB)	1000 W (min.)
Gain (0 dBm Input)	+60 dB (nom.)
Gain Flatness	± 3 dB typ.
Harmonic Content (2^{nd}/3^{rd})	-20 dBc/-12 dBc (typ,)
Input/Output Impedance	50 Ohms (nom.)
Input VSWR	Less than 2:1
Duty Cycle	10% (max.)
Amplitude Rise/Fall Time	500 nsec (typ.)
Amplitude Droop	5% to 20 msec (typ.) 8% (max.)
Phase Change / Output Power	12° to Rated Power (typ.) 25° (max.)
Phase Error overpulse	5° to 10 msec duration (typ.)
Noise Figure	12 dB (typ.)
Output Noise (blanked)	20 dB over thermal (typ.)
Blanking Delay	1 µsec (typ.), on/off TTL Signal

Parameter	Specification
Mechanical and Environmental Specifications	
Cooling	Internal Forced Air, Front to Back Flow
Operating Temperature	+10 °C to +40 °C
AC Line Voltage	208 VAC, ±10%, 47-63 Hz
Chassis Size	5.25 (3U) x 19 x 28.8 (HWD inches) Rack Mountable
Weight	80 lbs. (approx.)
Compliance	CE, IEC-60601-01 upon request

Contact CPC today to discuss a solution to fit your system requirements.

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CPC Amps
Communication Power Corporation

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System Features:

Protection functions:
- Maximum forward power
- Maximum VSWR
- Over temperature
- Power supply over voltage
- Under-Voltage
- Over-Voltage
- Over Current
- Duty Cycle
- Pulse Width
- Thermal

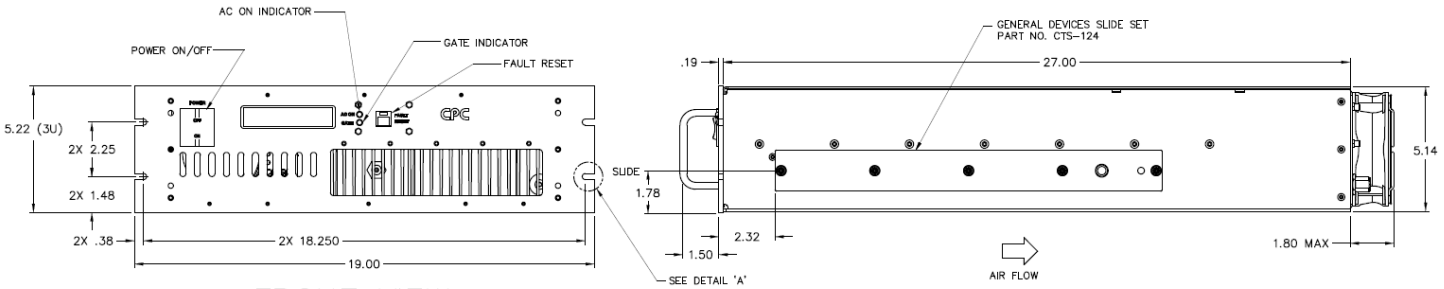
Controls, front panel:
- AC power on/off
- Fault reset

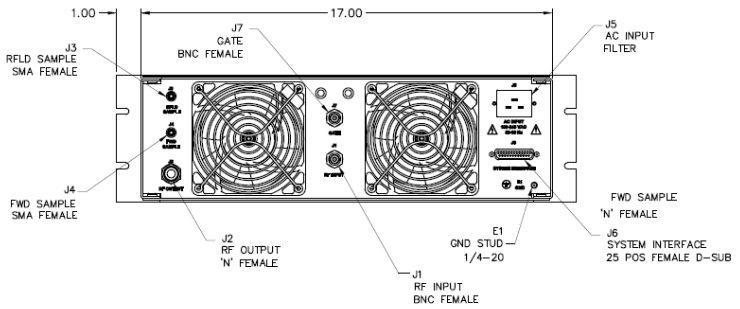
Connectors, rear panel:
- AC mains, Receptacles, EMI filtered
- RF input: BNC (F)
- RF output: Type N (F)
- Noise blanking: BNC (F) dual polarity
- Interface: 25 pin D (F), EMI filtered
- Fwd/Ref RF sample: SMA (F)
- Protective ground: threaded bolt

Front panel indicators:
- AC power on
- Summary Fault
- Blanking (Gate)

Interface functions:
(C= Control Input F= Flag Output)
- Unblank (C)
- CW mode (C/F)
- Standby (C/F)
- Shutdown (C/F)
- Fault Reset (C/F)
- Power supply (F)
- RF overdrive (F)
- Thermal (F)
- VSWR (F)
- Under-Voltage (F)
- Over-Voltage (F)
- Over-Current (F)
- Duty Cycle (F)
- Pulse Width (F)

Outline Drawing





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