

High Power Pulsed RF Amplifier

125-130 MHz, 4000 W

Model 3T4KP

CPC delivers High Power performance with the 3T4KP Pulsed RF Amplifier. Designed for demanding NMR and MRI applications, the unit provides 4 kW Peak Output Power in the 125 to 130 MHz frequency range and supports Pulse Widths of 20 ms and Duty Cycles up to 20%. Superior Gain Flatness and pulse integrity are maintained while achieving 66 dB Power Gain.

The 3T4KP features CPC's comprehensive interface monitoring, advanced control features, and robust fault protection to ensure seamless integration in the system. Reliable performance in critical environments is built in with superior attention to engineering detail.

Explore the full line of Solid State Amplifiers from CPC operating from 100 kHz to 32 GHz, with power levels up to 150kW that can be customized to meet your requirements.



Specifications

Parameter	Specification
Electrical Specifications	
Operating Frequency	125 - 130 MHz
Pulse Power into 50 Ohms	4 kW Peak
Pulse Width	> 20 ms
Linearity	± 1 dB typ
Gain	+66 dB typ
Gain Flatness	± 2 dB
Harmonics (2 nd /3 rd)	-20 dBc/-12 dBc (typ.)
Input/Output Impedance	50 Ohms
Input VSWR	< 2:1
Duty Cycle	20% max
Rise/Fall Time	250 ns typ
Droop	< 5%
Phase Change vs Dynamic Range	≤ +/-6°
Phase Error over Pulse	5° over 10 msec pulse typ
Noise Figure	12 dB typ
Output Noise (blanked)	≤ 20 dBm/Hz
Blanking Delay	≤ 1.0us "ON", 1.0 μs "OFF", TTL signal
Mechanical and Environmental Specifications	
Operating Temperature	+10 °C to +40 °C up to 95% non-condensing humidity
AC Line Voltage	208 VAC, ±10%, 47-63 Hz
Chassis Size	5.22 (3U) x 19 x 28 (HWD inches)
Weight	50 lbs
Compliance	RoHS

Contact CPC today for more information.

90 Davids Drive, Hauppauge, NY 11788
631-424-7306 x1347 • Sales@CPCamps.com • www.CPCamps.com



Model 3T4KP

System Features:

Protection functions:

- Overdrive
- Maximum VSWR
- Power Supply
- Duty Cycle
- Pulse Width
- Thermal
- Energy

Controls, front panel:

- AC power on/off
- Fault reset

Connectors:

- AC mains, 3 Conductor Grounded Plug
- RF input: BNC (F)
- RF output: Type N (F)
- UnBlanking Input: BNC (F)
- Interface: 25 pin D (F)
- Fwd/Ref RF sample: BNC (F)
- Ground: 1/4-20 UNC

Front panel indicators:

- AC On
- Blanking (Gate)
- Fault
- Status (Display)

Interface functions:

(C= Control Input F= Flag Output)

- Power Supply (F)
- Thermal (F)
- Energy (F)
- Standby(C/F)
- Overdrive (F)
- VSWR (F)
- Unblank (C)
- Shutdown (C/F)
- Fault Reset (C/F)
- Duty Cycle (F)
- Pulse Width (F)

Outline Drawing

