

## Communications & Power Industries Tetrode



The 4CW50,000E is characterized by low input and feedback capacitances and low internal lead inductances. A rugged thoriated tungsten filament provides adequate emission over the long operating life. It is recommended for use as a Class C RF amplifier or oscillator, a Class AB RF linear amplifier, a Class AB push-pull AF amplifier or modulator. The 4CW50,000E is also useful as a plate and screen-modulated Class C RF amplifier.

### FEATURES:

Maximum plate dissipation:	50,000 Watts
Maximum screen dissipation:	1,500 Watts
Maximum grid dissipation:	400 Watts
Frequency for max rating (CW):	110 MHz
Amplification factor:	4.5
Filament/cathode:	Thoriated Tungsten
Voltage:	12.0 Volts
Current:	215 Amps
Capacitance: Grounded cathode	
Input:	310.0 pF
Output:	52.0 pF
Feedthrough:	0.7 pF
Capacitance: Grounded grid	
Input:	140.0 pF
Output:	52.0 pF
Feedthrough:	0.3 pF
Cooling:	Water and Forced Air
Base:	Special Coaxial
Air Socket:	SK-2011A
Air Chimney:	---
Boiler:	---
Length:	11.50 in; 292.0 mm
Diameter:	9.53 in; 242.00 mm
Weight:	35.0 lb; 15.9 kg

### BENEFITS:

- Worldwide brand name recognition
- Over 85 years technical expertise

### APPLICATIONS:

- Communications
- Industrial
- Science

Class of Operation	Type of Service	MAXIMUM RATINGS		TYPICAL OPERATION				
		Plate Voltage (Volts)	Plate Current (Amps)	Plate Voltage (Volts)	Screen Voltage (Volts)	Plate Current (Amps)	Drive Power (Watts)	Output Power (kiloWatts)
C	RF amplifier	17,500	12.0	15,000	1,500	11.5	150	137.0
C	RF amplifier plate modulated	15,000	12.0	14,000	750	9.2	685	110.0
AB1	RF linear amplifier	17,500	12.0	10,000	1,800	9.1	---	57.0
AB1	AF linear amplifier	17,500	12.0	15,000	1,250	18.6	---	195.0

With a history of producing high quality products, we can help you with your tetrode.

Contact us at [MPPMarketing@cpii.com](mailto:MPPMarketing@cpii.com) or call us at +1 650-846-2800. The data should be used for basic information only.

Formal, controlled specifications may be obtained from CPI for use in equipment design.



**Microwave Power  
Products Division**  
811 Hansen Way  
Palo Alto, California  
USA 94304

tel +1 650-846-2800  
fax +1 650-856-0705  
email [MPPMarketing@cpii.com](mailto:MPPMarketing@cpii.com)  
web [www.cpii.com/MPP](http://www.cpii.com/MPP)

For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.

©2020 Communications & Power Industries LLC.  
Company proprietary: use and reproduction is strictly prohibited without written authorization from CPI.