



# EMI/RFI T-Filter

## Features

- Suitable for I/O interface cards
- Stable resistor-capacitor network
- No signal delays
- 8 EMI/RFI protection lines/package
- Saves board space and component cost

## Applications

- EMI/RFI Filter
- Low Pass Filter
- LCD Panel Display Filters

## Product Description

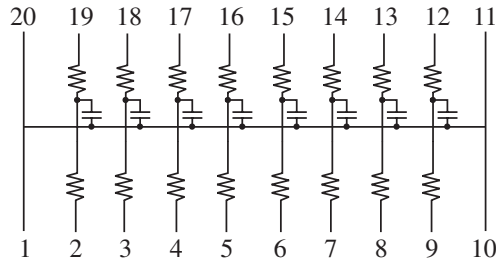
CAMD's PRC200/210 Tapped Filter is specifically designed to suppress EMI/RFI noise at I/O ports of personal computers and engineering workstations, Local Area Network (LAN), Asynchronous Transfer Mode (ATM), Wide Area Network (WAN), and peripheral accessories. This integrated thin film resistor capacitor network is available in miniature surface mount packages which minimizes space and routing problems and improves reliability and yields.

Why thin film EMI/RFI filters? EMI/RFI filters are needed to suppress noise at low and high frequencies of the signal. Ferrite beads used for EMI/RFI filtering are bulky and ineffective at low frequencies and have saturation problems at high frequencies. Resistor-capacitor

networks offer the best technical approach for effective EMI/RFI filtering. Conventional thick film-based EMI/RFI filters do not effectively suppress noise at high frequencies due to the fact that EMI/RFI filters using thick film technology have high parasitic inductance which becomes the dominant component of the capacitor's impedance past resonance, and therefore significantly affects high frequency performance of the filter.

CAMD's PRC200/210 Tapped Filter is fabricated on a silicon substrate using advanced thin film technology. These EMI/RFI filters have very low parasitic inductance and suppress EMI/RFI noise at low and high frequencies to well above 1000 MHz.

### SCHEMATIC CONFIGURATION



### STANDARD PART ORDERING INFORMATION

RC Code	Package		Ordering Part Number		
	Pins	Style	Tubes	Tape & Reel	Part Marking
150/470T	20	SOIC	PRC200150K/470M/T	PRC200150K/470M/R	PRC200150K/470M
250/101T	20	SOIC	PRC200250K/101M/T	PRC200250K/101M/R	PRC200250K/101M
250/181T	20	SOIC	PRC200250K/181M/T	PRC200250K/181M/R	PRC200250K/181M
250/201T	20	SOIC	PRC200250K/201M/T	PRC200250K/201M/R	PRC200250K/201M
270/221T	20	SOIC	PRC200270K/221M/T	PRC200270K/221M/R	PRC200270K/221M



STANDARD PART ORDERING INFORMATION					
RC Code	Package		Ordering Part Number		
	Pins	Style	Tubes	Tape & Reel	Part Marking
400/500T	20	SOIC	PRC200400K/500M/T	PRC200400K/500M/R	PRC200400K/500M
470/330T	20	SOIC	PRC200470K/330M/T	PRC200470K/330M/R	PRC200470K/330M
101/101T	20	SOIC	PRC200101K/101M/T	PRC200101K/101M/R	PRC200101K/101M
150/470T	20	QSOP	PRC210150K/470M/T	PRC210150K/470M/R	PRC210150K/470M
250/101T	20	QSOP	PRC210250K/101M/T	PRC210250K/101M/R	PRC210250K/101M
250/181T	20	QSOP	PRC210250K/181M/T	PRC210250K/181M/R	PRC210250K/181M
250/201T	20	QSOP	PRC210250K/201M/T	PRC210250K/201M/R	PRC210250K/201M
270/221T	20	QSOP	PRC210270K/221M/T	PRC210270K/221M/R	PRC210270K/221M
400/500T	20	QSOP	PRC210400K/500M/T	PRC210400K/500M/R	PRC210400K/500M
470/330T	20	QSOP	PRC210470K/330M/T	PRC210470K/330M/R	PRC210470K/330M
101/101T	20	QSOP	PRC210101K/101M/T	PRC210101K/101M/R	PRC210101K/101M

NON-STANDARD PART ORDERING INFORMATION				
PRC201 (Example)	XXX	T1	XXX	T2
Part Series	R Code	R Tolerance	C Code	C Tolerance
PRC200 - SOIC		K - ±10%		K - ±10%
PRC210 - QSOP		M - ±20%		M - ±20%

California Micro Devices can develop a fully customized solution which embodies the configuration shown in this data sheet or modified to suit specific application requirements. A Non-Recurring Engineering (NRE) charge will apply for all fully customized requirements and a minimum order/lot will be required.

Please direct your detailed circuit configuration and specification requirements to your local CAMD representative or to the factory for a quotation.

STANDARD SPECIFICATIONS	
Absolute Tolerance (R)	±10%
Absolute tolerance (C)	±20%
Operating Temperature Range	0°C to 70°C
Power Rating/Resistor	100mW
Storage Temperature	-65°C to 150°C
Package Power Rating	1.00W, max.

NON-STANDARD SPECIFICATIONS	
Absolute Tolerance (R)	±10%
Absolute Tolerance (C)	±10%

STANDARD VALUES				
R (Ω) ±10%	C (pf) ±10%	Breakdown Voltage (max)	RC Code	fc @ 3bd*
15	47	156V	150/470T	226MHz
25	100	155V	250/101T	64MHz
25	180	74V	250/181T	35MHz
25	200	64V	250/201T	32MHz
27	220	56V	270/221T	27MHz
40	50	149V	400/500T	80MHz
47	33	229V	470/330T	103MHz
100	100	155V	101/101T	16MHz

\* With 0 source impedance.

NON-STANDARD VALUES	
Resistance Range	10Ω to 100Ω
Capacitance Range	15pF to 180pF