



AC TERMINATION NETWORK

Features

- Stable resistor-capacitor network
- No signal delays
- 18 terminating lines/package
- Saves board space and component cost

Applications

- AC Terminator
- Low Pass Filter
- Power Supply Filtering

Product Description

CMD's PRC202/212 Integrated Resistor-Capacitor Termination Network is designed to eliminate transmission line effects on high speed data lines. This thin film network can support (terminate) 18 data lines, and requires no DC power. The small surface mount packages improve board yields and reliability, minimize space and routing problems on the board, and reduce assembly costs. The PRC 202/212 is a space efficient and cost effective replacement for conventional MLCC surface mount chip resistors and capacitors.

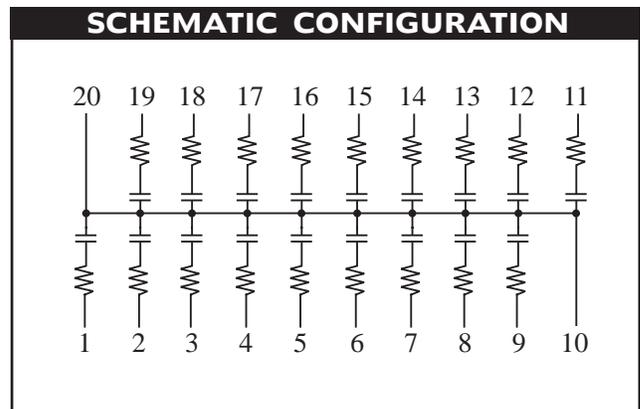
Why thin film RC networks? A terminating RC is used to reduce or eliminate reflections on a transmission line. It can perform this function only when its impedance value matches the characteristic impedance of the transmission line. Passive components affect the electrical performance of electronic systems. In reality, every resistor has some parasitic series inductance and a parasitic capacitance; and every capacitor has both series resistance and inductance. At low speeds, these parasitics do not affect the performance of resistors and capacitors. However, at higher speeds, these parasitics cause mismatch in a termination. To prevent these problems in high speed digital designs, a designer must take special care in selecting passive components or networks.

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.

STANDARD VALUES			
R(Ω)	C (pf)	Breakdown Voltage (max)	RC Code
33	47	133V	330/470A
47	47	133V	470/470A
47	33	93V	470/330A
50	180	26V	500/181A
75	50	123V	750/500A
100	100	48V	101/101A

NON-STANDARD SPECIFICATIONS	
Absolute Tolerance (R)	±10%
Absolute Tolerance (C)	±10%
Operating Temperature Range	0°C to 70°C
Power Rating/Resistor	100mW

NON-STANDARD VALUES	
Resistance Range	10Ω to 150K Ω
Capacitance Range	33pF to 100 pF





STANDARD PART ORDERING INFORMATION					
RC Code	Package		Ordering Part Number		Part Marking
	Pins	Style	Tubes	Tape & Reel	
330/470A	20	QSOP	PRC212330K/470M/T	PRC212330K/470M/R	PRC212330K/470M
470/470A	20	QSOP	PRC212470K/470M/T	PRC212470K/470M/R	PRC212470K/470M
470/330A	20	QSOP	PRC212470K/330M/T	PRC212470K/330M/R	PRC212470K/330M
500/181A	20	QSOP	PRC212500K/181M/T	PRC212500K/181M/R	PRC212500K/181M
750/500A	20	QSOP	PRC212750K/500M/T	PRC212750K/500M/R	PRC212750K/500M
101/101A	20	QSOP	PRC212101K/101M/T	PRC212101K/101M/R	PRC212101K/101M

NON-STANDARD PART ORDERING INFORMATION				
PRC202 (Example)	XXX	T1	XXX	T2
Part Series	R Code	R Tolerance	C Code	C Tolerance
PRC202 - SOIC		K - $\pm 10\%$		K - $\pm 10\%$
PRC212 - QSOP		M - $\pm 20\%$		M - $\pm 20\%$

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 CMD representative or to the factory for a quotation.