



# P/Active™ 1% Tolerance Precision Isolated Series Termination Network

## Features

- Highly integrated series termination network
- 1% absolute tolerance terminations
- Ultra-low cross talk
- 11 terminating lines/package
- Saves board space and improves system reliability
- Reduces assembly cost and rework

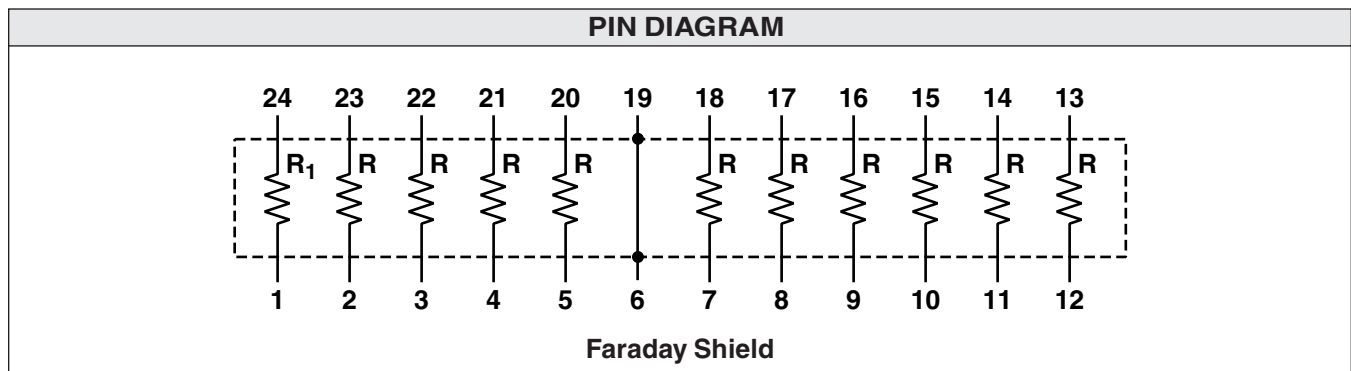
## Applications

- PC Desktop and PC-based Server systems
- Engineering Workstations
- Embedded RISC processor systems
- Series Termination

## Product Description

The PAC™RPI series terminator network offers high performance, high reliability, and low cost through manufacturing efficiency. The resistor termination elements are fabricated using state-of-the-art thin film manufacturing. The resistor elements are specified at 1% tolerance for the most demanding termination requirements. This integrated solution† is silicon-based

and has the same reliability characteristics as any of today's microprocessor products. The thin film resistors have excellent stability over temperature, applied voltage, and product life. In addition, the QSOP industry standard packaging is easy to handle in manufacturing and provides interconnect reliability on par with other common semiconductor components.



STANDARD PART ORDERING INFORMATION					
Package			Ordering Part Number		
R Code	Pins	Style	Tubes	Tape & Reel	Part Marking
220	24	QSOP	PAC220FRPIQ24/T	PAC220FRPIQ24/R	PAC220FRPIQ24
330	24	QSOP	PAC330FRPIQ24/T	PAC330FRPIQ24/R	PAC330FRPIQ24
470	24	QSOP	PAC470FRPIQ24/T	PAC470FRPIQ24/R	PAC470FRPIQ24
510	24	QSOP	PAC510FRPIQ24/T	PAC510FRPIQ24/R	PAC510FRPIQ24
560	24	QSOP	PAC560FRPIQ24/T	PAC560FRPIQ24/R	PAC560FRPIQ24
680	24	QSOP	PAC680FRPIQ24/T	PAC680FRPIQ24/R	PAC680FRPIQ24

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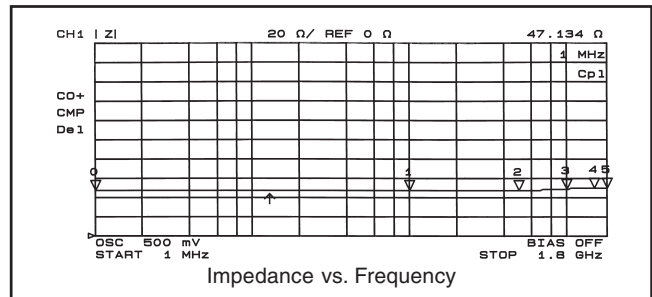
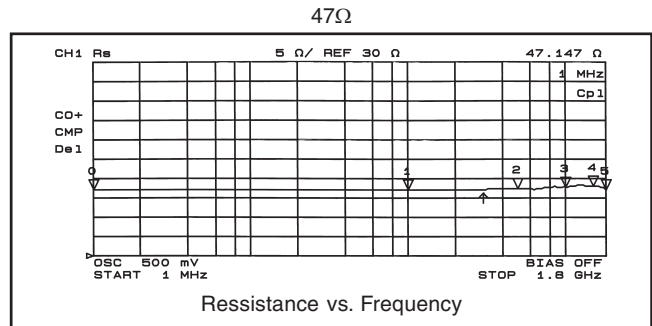
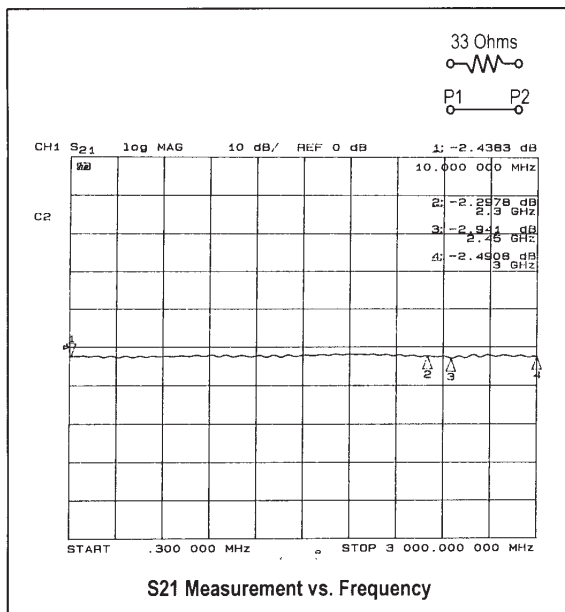
† California Micro Devices manufactures products covered by one or more of U.S. Pat. Nos. 5,355,014, 5,370,766, and 5,514,612, 5,706,163, and other pending applications.



STANDARD SPECIFICATIONS	
Absolute Tolerance (0°C to 70°C)	±1%
Operating Temperature Range	0°C to 70°C
Crosstalk Victim Voltage (see test circuit)	±2% (Typical)
Power Rating/Resistor	100mW
Minimum Insulation Resistance	10,000MΩ

STANDARD VALUES	
R (Ω) Isolated	R Code
22	220
33	330
47	470
51	510
56	560
68	680

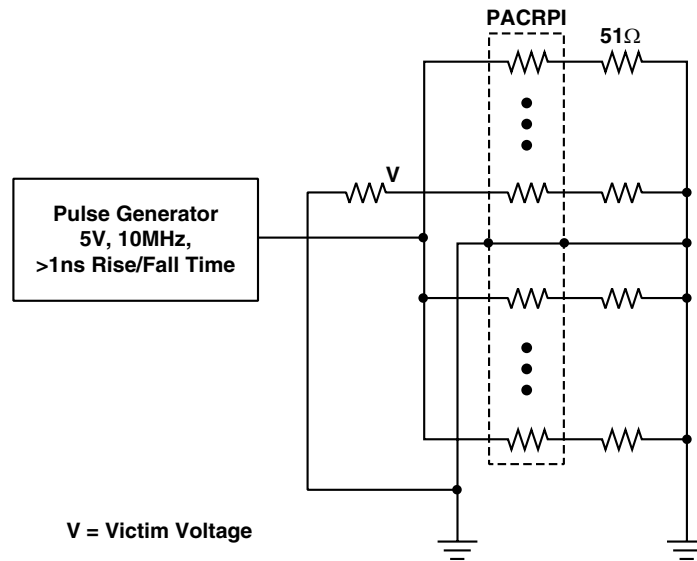
### Typical Frequency Response Characteristics (QSOP Package, TA = 25°C)



Impedance is measured using an HP4291A  
S-Parameters are measured using an HP8753C



Crosstalk Test Circuit ( $T_A=25^{\circ}\text{C}$ )



All lines except victim line are driven