Bussed Resistor Network

Features

- Stable resistor network
- High speed termination network
- 15 or 23 terminating lines/package
- Saves board space and reduces assembly cost

Applications

- Parallel termination
- Pull up/pull down
- Digital pulse squaring
- Coding and decoding
- Telemetry

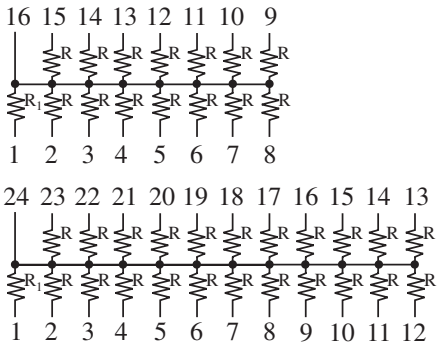
Product Description

CAMDs PRN101/111 Bussed Resistor Termination Networks offer high integration and performance in a miniature QSOP or SOIC package, which saves critical board area and provides manufacturing cost and reliability efficiencies. This part is well-suited as a general purpose replacement for all popular MLCC resistor chips and larger size thick film technology packages.

Why thin film resistor networks? A terminating resistor is used to reduce or eliminate unwanted reflections on a transmission line or in some cases provide DC pull-up/pull-down. It can perform this function only when its resistance value is closely matched to the characteristic impedance of the transmission line. The resistors used for terminating transmission lines must be noiseless, stable, and functional at high frequencies. Unlike thin film-based resistor networks, conventional thick film resistors used for this purpose are not as stable over temperature and time, and may have functional limitations when used in high frequency applications.

SCHEMATIC CONFIGURATION

Type RB:



STANDARD SPECIFICATIONS	
TCR	±250ppm
TTCR*	±5ppm
Operating Temperature Range	0°C to 70°C
Power Rating/Resistor	100mW for R < 1KΩ
	25mW for R ≥ 1KΩ
Minimum Insulation Resistance	10,000 MΩ
Storage Temperature	–65°C to +150°C
Package Power Rating	1W, max.

STANDARD VALUES			
R (Ω) Isolated	Code	R (Ω) Isolated	Code
51	51R0	2.2K	2201
56	56R0	2.7K	2701
330	3300	4.7K	4701
390	3900	6.8K	6801
680	6800	10K	1002
1K	1001	20K	2002
1.1K	1101	47K	4702
2K	2001		

NON-STANDARD SPECIFICATIONS	
Absolute Tolerance (R)	±2% , ±1%

NON-STANDARD VALUES	
Resistance Range	10 to 47KΩ

C1110600

STANDARD PART ORDERING INFORMATION					
Package	Package		Ordering Part Number		
R Code	Pins	Style	Tubes	Tape & Reel	Part Marking
51R0	16	Narrow SOIC	PRN10116N51R0J/T	PRN10116N51R0J/R	PRN10116N51R0J
56R0	16	Narrow SOIC	PRN10116N56R0J/T	PRN10116N56R0J/R	PRN10116N56R0J
3300	16	Narrow SOIC	PRN10116N3300J/T	PRN10116N3300J/R	PRN10116N3300J
3900	16	Narrow SOIC	PRN10116N3900J/T	PRN10116N3900J/R	PRN10116N3900J
6800	16	Narrow SOIC	PRN10116N6800J/T	PRN10116N6800J/R	PRN10116N6800J
1001	16	Narrow SOIC	PRN10116N1001J/T	PRN10116N1001J/R	PRN10116N1001J
1101	16	Narrow SOIC	PRN10116N1101J/T	PRN10116N1101J/R	PRN10116N1101J
2001	16	Narrow SOIC	PRN10116N2001J/T	PRN10116N2001J/R	PRN10116N2001J
2201	16	Narrow SOIC	PRN10116N2201J/T	PRN10116N2201J/R	PRN10116N2201J
2701	16	Narrow SOIC	PRN10116N2701J/T	PRN10116N2701J/R	PRN10116N2701J
4701	16	Narrow SOIC	PRN10116N4701J/T	PRN10116N4701J/R	PRN10116N4701J
6801	16	Narrow SOIC	PRN10116N6801J/T	PRN10116N6801J/R	PRN10116N6801J
1002	16	Narrow SOIC	PRN10116N1002J/T	PRN10116N1002J/R	PRN10116N1002J
2002	16	Narrow SOIC	PRN10116N2002J/T	PRN10116N2002J/R	PRN10116N2002J
4702	16	Narrow SOIC	PRN10116N4702J/T	PRN10116N4702J/R	PRN10116N4702J
51R0	16	QSOP	PRN1111651R0J/T	PRN1111651R0J/R	PRN1111651R0J
56R0	16	QSOP	PRN1111656R0J/T	PRN1111656R0J/R	PRN1111656R0J
3300	16	QSOP	PRN111163300J/T	PRN111163300J/R	PRN111163300J
3900	16	QSOP	PRN111163900J/T	PRN111163900J/R	PRN111163900J
6800	16	QSOP	PRN111166800J/T	PRN111166800J/R	PRN111166800J
1001	16	QSOP	PRN111161001J/T	PRN111161001J/R	PRN111161001J
1101	16	QSOP	PRN111161101J/T	PRN111161101J/R	PRN111161101J
2001	16	QSOP	PRN111162001J/T	PRN111162001J/R	PRN111162001J
2201	16	QSOP	PRN111162201J/T	PRN111162201J/R	PRN111162201J
2701	16	QSOP	PRN111162701J/T	PRN111162701J/R	PRN111162701J
4701	16	QSOP	PRN111164701J/T	PRN111164701J/R	PRN111164701J
6801	16	QSOP	PRN111166801J/T	PRN111166801J/R	PRN111166801J
1002	16	QSOP	PRN111161002J/T	PRN111161002J/R	PRN111161002J
2002	16	QSOP	PRN111162002J/T	PRN111162002J/R	PRN111162002J
4702	16	QSOP	PRN111164702J/T	PRN111164702J/R	PRN111164702J
51R0	24	QSOP	PRN1112451R0J/T	PRN1112451R0J/R	PRN1112451R0J
56R0	24	QSOP	PRN1112456R0J/T	PRN1112456R0J/R	PRN1112456R0J
3300	24	QSOP	PRN111243300J/T	PRN111243300J/R	PRN111243300J
3900	24	QSOP	PRN111243900J/T	PRN111243900J/R	PRN111243900J
6800	24	QSOP	PRN111246800J/T	PRN111246800J/R	PRN111246800J
1001	24	QSOP	PRN111241001J/T	PRN111241001J/R	PRN111241001J
1101	24	QSOP	PRN111241101J/T	PRN111241101J/R	PRN111241101J
2001	24	QSOP	PRN111242001J/T	PRN111242001J/R	PRN111242001J

STANDARD PART ORDERING INFORMATION (CONTINUED)					
Package	**Package**		**Ordering Part Number**		
R Code	**Pins**	**Style**	**Tubes**	**Tape & Reel**	**Part Marking**
2201	24	QSOP	PRN111242201J/T	PRN111242201J/R	PRN111242201J
2701	24	QSOP	PRN111242701J/T	PRN111242701J/R	PRN111242701J
4701	24	QSOP	PRN111244701J/T	PRN111244701J/R	PRN111244701J
6801	24	QSOP	PRN111246801J/T	PRN111246801J/R	PRN111246801J
1002	24	QSOP	PRN111241002J/T	PRN111241002J/R	PRN111241002J
2002	24	QSOP	PRN111242002J/T	PRN111242002J/R	PRN111242002J
4702	24	QSOP	PRN111244702J/T	PRN111244702J/R	PRN111244702J

NON-STANDARD PART ORDERING INFORMATION			
PRN100 (Example)	**16**	XXXX	T
Part Series	**Pin Count**	**Value Code**	**Tolerance**
PRN101 -SOIC	16 =16-pins	First 3 digits are significant value. (R indicates decimal point) Fourth digit represents number of zeroses to follow.	J = ±5%
PRN111-QSOP	16 =16-pins		G = ±2%
	24 =24-pins		F = ±1%

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. Very precise TCR, TCR tracking and resistor tolerances, and resistor-to-resistor ratio matching can also be provided. 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.