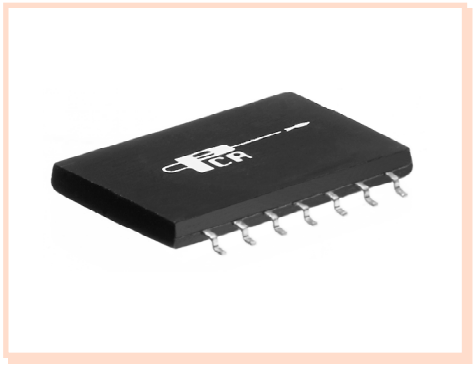
10Base-T PCMCIA Card Module with Enhanced CMA

EPE6367G



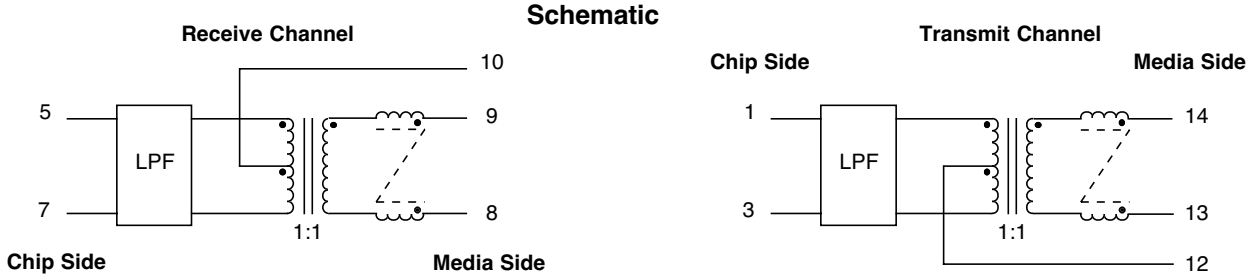
- General Purpose 10-Base T Filter
- Robust construction withstands IR/VP processes
- Complies with or exceeds IEEE 802.3, 10Base-T Requirements

Electrical Parameters @ 25° C

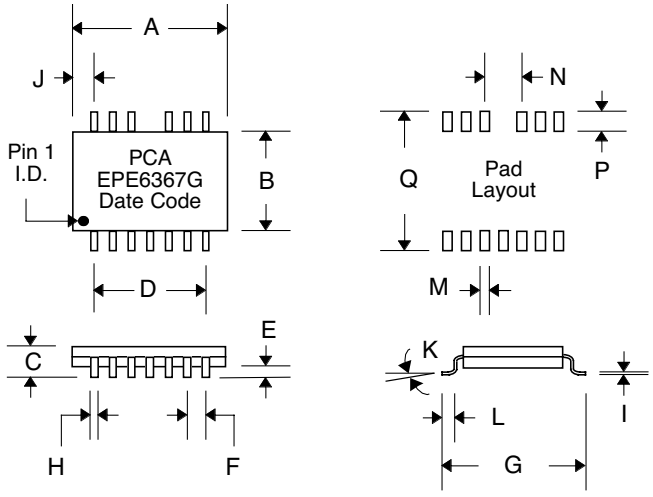
Cut-off Frequency (MHz)		Insertion Loss (dB Max.)		Return Loss (dB Min.)		Attenuation (dB Min.)								Common Mode Rejection (dB Min.)						Crosstalk (dB Min.)	
± 1.0 MHz		1-10 MHz		5-10 MHz		@ 20 MHz		@ 25 MHz		@ 30 MHz		@ 40 MHz		@ 50 MHz		@ 100 MHz		@ 200 MHz		@ 1-10 MHz	
Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	Xmit	Rcv
17	17	-1	-1	-18	-18	-7	-5	-18	-11	-30	-18	-35	-26	-30	-30	-30	-30	-20	-20	-30	-30

- **Isolation** : meets or exceeds 802.3 IEEE Requirements
- **Characteristic Filter Impedance** : 100 Ω
- Referenced to the filter output @ 5 MHz for filter only

Schematic



Package



Dimensions

Dim.	(Inches) Min.	Max.	Nom.	(Millimeters) Min.	Max.	Nom.
A	.780	.800	.790	19.81	20.32	20.07
B	.510	.530	.520	12.96	13.46	13.21
C	.074	.084	.079	1.88	2.13	2.01
D	.595	.605	.600	15.11	15.37	15.24
E	.003	.010	.005	.008	.254	.127
F	.097	.103	.100	2.46	2.62	2.54
G	.660	.680	.670	16.76	17.27	17.02
H	.017	.022	.020	.432	.559	.508
I	.008	.013	.011	.203	.330	2.79
J	.090	.100	.095	2.16	2.67	2.41
K	0°	8°	4°	0°	8°	4°
L	.025	.045	.040	.635	1.14	1.02
M	---	---	.030	---	---	.762
N	---	---	.200	---	---	5.08
P	---	---	.085	---	---	2.16
Q	---	---	.700	---	---	17.78

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The circuit below is a guideline for interconnecting PCA's EPE6367G with transceiver chip as a reference controller. Further details of system design, such as chip pin-out, etc. can be obtained from the specific chip manufacturer.

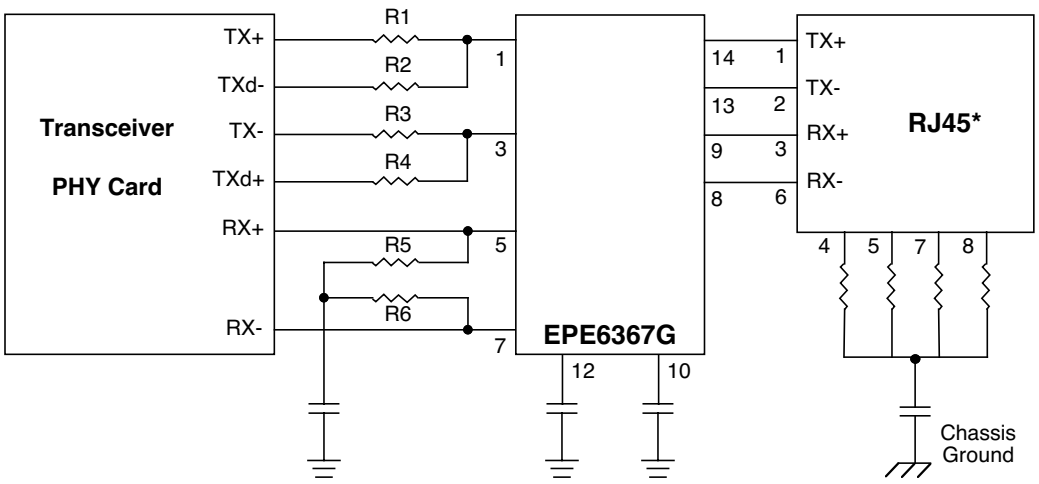
Typical insertion loss of the isolation transformer/filter is 0.7dB. This parameter covers the entire spectrum of the encoded signals in 10 Base-T protocols.

The phantom resistors shown around the RJ45 connector have been known to suppress unwanted radiation that unused wires pick up from the immediate environment. Their placement and use are to be considered carefully before a design is finalized.

It is recommended that there be a neat separation of ground planes in the layout. It is generally accepted practice to limit the plane off at least 0.08 inches away from the chip side pins of EPE6367G. There need not be any ground plane beyond this point.

For best results, PCB designer should design the outgoing traces preferably to be 50Ω, balanced and well coupled to achieve minimum radiation from these traces.

Typical Application Circuit for UTP PC Card



Notes : * Pin-outs shown are for NIC configurations.

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