Miniature 10 Base-T Interface Module with Enhanced CMA for LXT901

EPE6313S

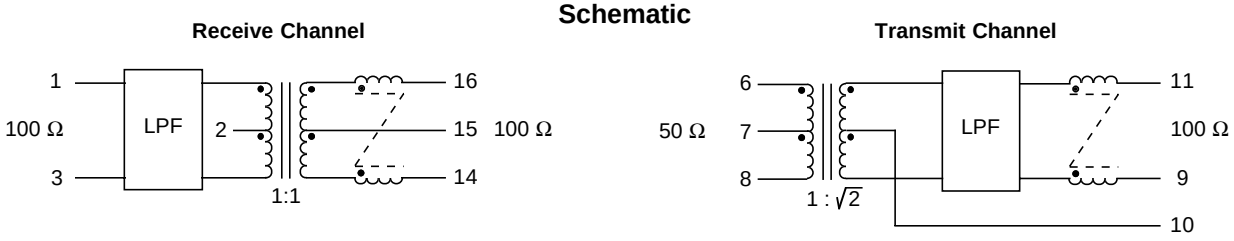
- Enhanced Common Mode Attenuation
- 10 Base-T Filter Module
- Robust design allows to withstand current soldering profiles
- Complies with or exceeds IEEE 802.3, 10 Base-T Requirements

Electrical Parameters @ 25° C

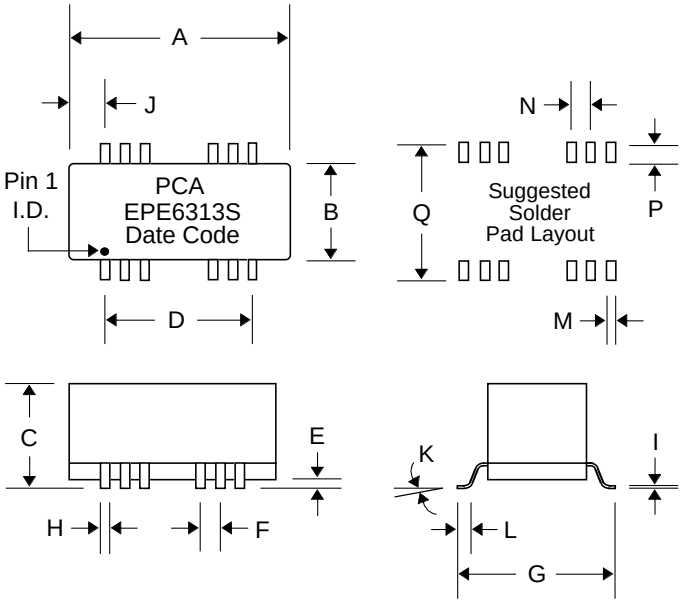
Cut-off Frequency (MHz)		**Insertion Loss** (1) (dB Max.)		**Return Loss** (dB Min.)		**Attenuation** (dB Min.)								**CrossTalk** (dB Min.)	**CMRR** (dB Min.)	
± 1.0 MHz		1-10 MHz		5-10 MHz		@ 20 MHz		@ 25 MHz		@ 30 MHz		@ 40 MHz		Between Channel	@ 30 MHz-100 MHz	
Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	Xmit	Rcv	1-10 MHz	Xmit	Rcv
17	17	-1	-1	-15	-15	-5	-4	-14	-9	-24	-15	-30	-24	-30	-30	-30

- (1) Referenced to the Output Level Fundamental Frequency @ 5 MHz

Schematic



Package



Dimensions

Dim.	(Inches) Min.	Max.	Nom.	(millimeters) Min.	Max.	Nom.
A	.530	.550	.540	13.46	13.97	13.72
B	.260	.280	.270	6.60	7.11	6.86
C	.230	.250	.240	5.84	6.35	6.10
D	.350	Typ.	---	8.89	Typ.	---
E	.010	.015	---	.254	.381	---
F	.050	Typ.	---	1.27	Typ.	---
G	.360	.380	.370	9.14	9.65	9.40
H	.016	.022	.019	.406	.559	.483
I	.008	.012	.010	.203	.309	.254
(J)	.095	Typ.	---	2.41	Typ.	---
K	0°	8°	---	0°	8°	---
L	.025	.045	.035	.635	1.14	.889
M	---	---	.030	---	---	.762
N	---	---	.050	---	---	1.27
P	---	---	.055	---	---	1.40
Q	---	---	.420	---	---	10.67
R	.200	Typ.	---	5.08	Typ.	---
S	---	---	.200	---	---	5.08

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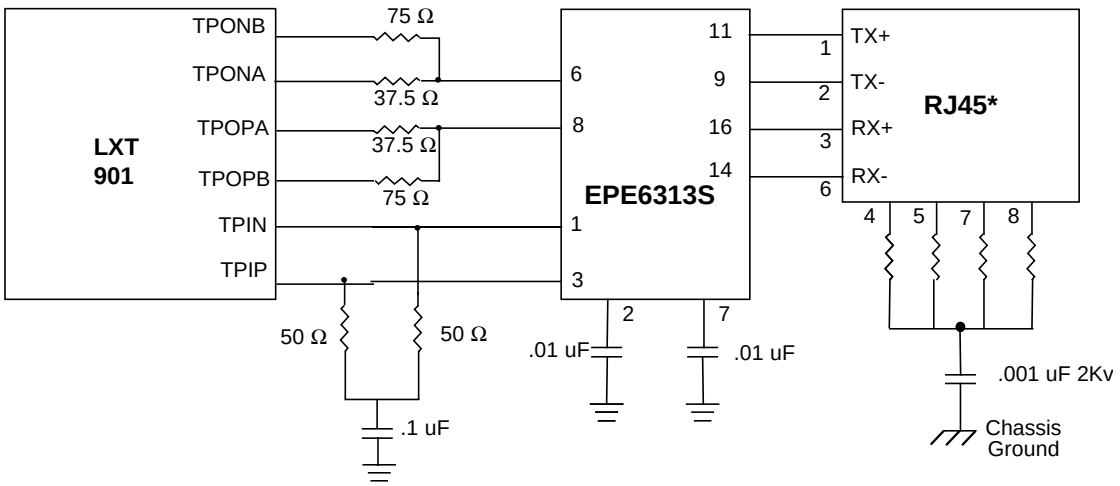
EPE6313S

The circuit below is a guideline for interconnecting PCA's EPE6313S 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.

Typical Application Circuit for UTP Lan Card



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

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