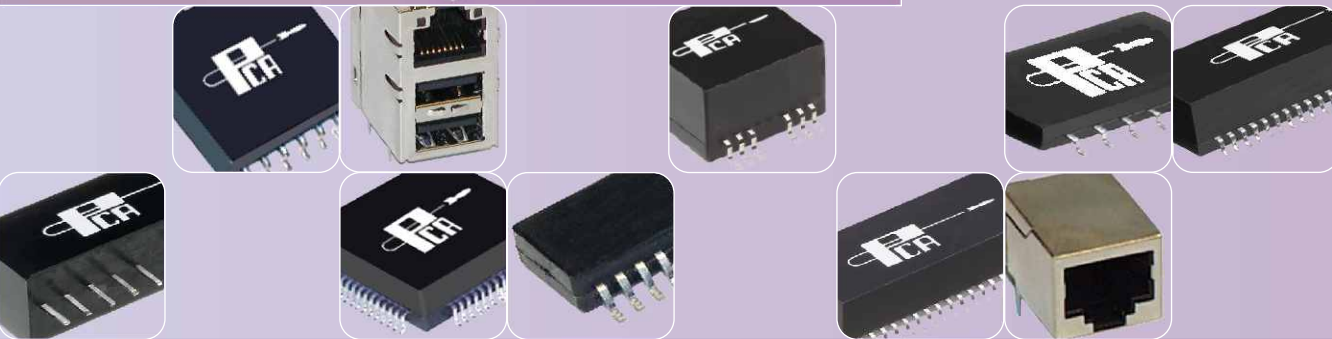




Networking

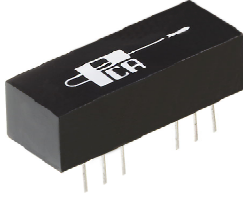




Contents 10Base-T Networking

PCA Part No.	OCL (μH)	Turns Ratio	Package Style	Length	Width	Height
EPA1829C		1:1/1:1	16 Pin DIP	1.00	.400	.350
EPA1990A	200	1:1/1:1	16 Pin DIP	1.00	.280	.300
EPA2013D		1:1/1:1	16 Pin DIP	1.00	.280	.310
EPE6009S	200	1:1/1:1	16 Pin SOIC	.460	.280	.230
EPE6010S	200	1:1.414	16 Pin SOIC	.460	.260	.230
EPE6047S	400	2CT:1CT/1CT:1CT	16 Pin SMD	.460	.260	.230
EPE6051GM		1:1/1:1	14 Pin PCMCIA	.800	.530	.084
EPE6065AS	200	1:1/1:1.41	16 Pin SMD	.500	.270	.200
EPE6066		1:1/1:1	12 Pin SIL	1.240	.330	.430
EPE6117		1:1	62 Pin DIP	1.700	1.025	.400
EPE6119G		1:1/1:1	16 Pin SMD	1.005	.280	.230
EPE6133AG		1:1	14 Pin PCMCIA	.800	.530	.084
EPE6133LG		1:1	14 Pin PCMCIA	.800	.530	.084
EPE6150G		1:1/1:1	16 Pin SMD	.930	.390	.235
EPE6152M		1:1/1:1	8 Pin SIP	1.050	.310	.430
EPE6166CSE	160	1:1/1:1.41	16 Pin SMD	.550	.280	.250
EPE6166S	140	1:1/1:1.41	16 Pin SMD	.550	.280	.250
EPE6225S	150	1:1/1CT:1CT	16 Pin SMD	1.120	.670	.260
EPE6243S		1:1/1:1	Quad Pkg	1.00	1.00	.285
EPE6250S		1:1	16 Pin SMD	.610	.510	.330
EPE6271S		1:1/1:1	20 Pin SOIC	.610	.510	.330
EPE6272		1:1.41/1:1	10 Pin SIP	1.05	.200	.450
EPE6313S		1:1/1:1.41	16 Pin SMD	.550	.280	.250
EPE6313SE		1:1/1:1.41	16 Pin SMD	.550	.280	.250
EPE6333G		2CT:1CT/1CT:1CT	16 Pin SMD	.990	.400	.252
EPE6343G		1:1/1:1	16 Pin SMD	.930	.390	.235
EPE6356S		1:1.41/1:1	16 Pin SMD	1.265	.720	.310
EPE6370G		2:1/1:1	16 Pin SMD	.980	.390	.375
EPE6376S	110	1CT:1CT/1CT:1.41CT	16 Pin SMD	.500	.270	.220
EPE6381		1CT:1.41/1:1	12 Pin DIL	.800	.400	.250
EPE6382	140	1CT:1.41/1CT:1CT	16 Pin DIP	.800	.285	.240
EPE6386G	100	1:1.414/1:1	12 Pin SMD	.990	.270	.265

10Base-T Interface Module with Enhanced Common Mode Attenuation EPA1829C

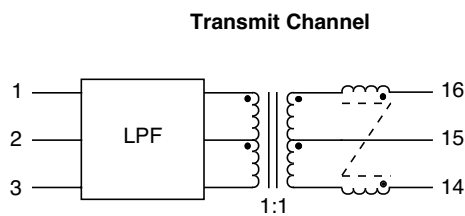


- General Purpose 10Base-T Filter Module
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

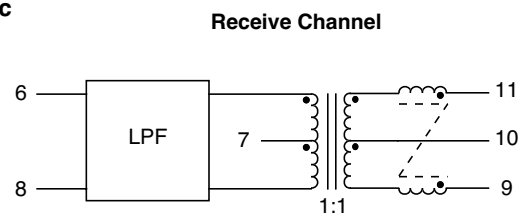
Electrical Parameters @ 25° C

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	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
17/17	-1/-1	-15/-15	-6/-4	-14/-9	-20/-15	-31/-24	-30/-30	-25/-25	-30/-30

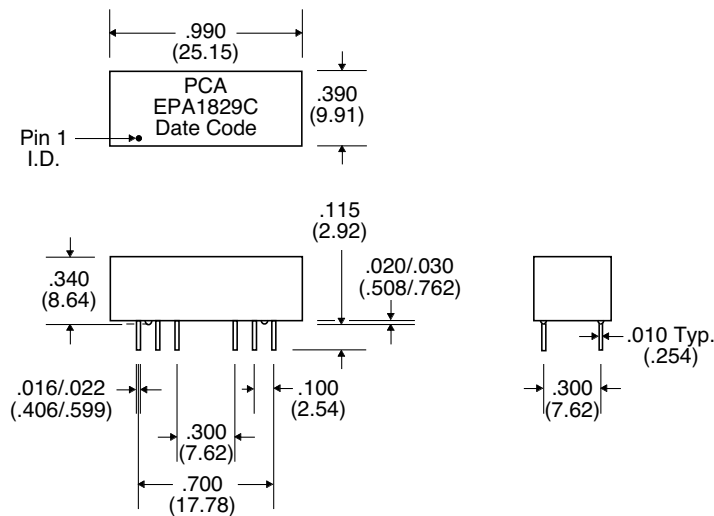
- **Isolation** : meets or exceeds 802.3 IEEE Requirements • **Characteristic Filter Impedance** : 100 Ω •
- Referenced to the Output Level Fundamental Frequency @ 5 MHz • CMC is common to both channels •



Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

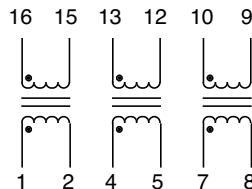


- Designed for IEEE 802.3 and ECMA Requirements
- Available in Low Profile S.O.I.C. 16 Pin SMD Package
- Hipot : both 2000 Vrms and 500 Vrms available in compliance with LAN's Safety Requirements

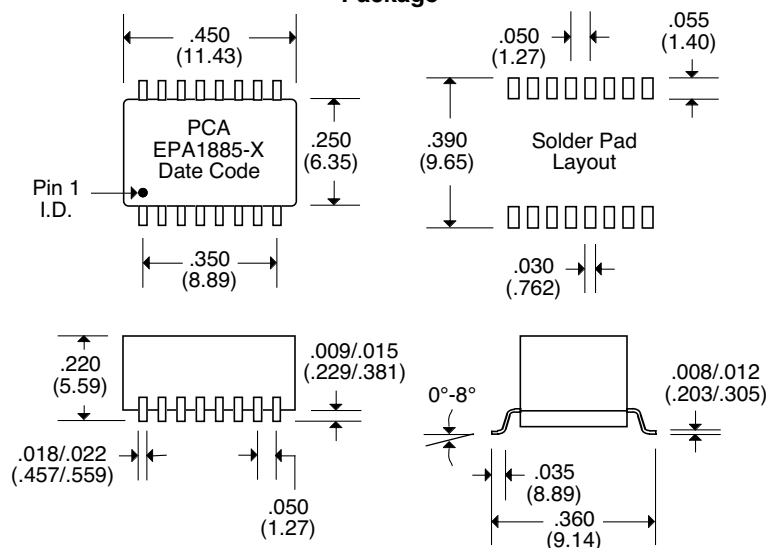
Electrical Parameters @ 25° C

PCA Part Number	OCL ($\mu\text{H} \pm 20\%$)	Interwinding Capacitance (pF Max.)	Leakage Inductance ($\mu\text{H} \text{ Max.}$)	Et-Constant (V- $\mu\text{Sec. Typ.}$)	Rise Time (nS Max.)	Turns Ratio ($\pm 5\%$)	DCR ($\Omega \text{ Max.}$)
EPA1885-1	25	5	0.15	2.0	3.0	1:1	0.15
EPA1885-2	30	5	0.15	2.0	3.0	1:1	0.15
EPA1885-3	35	6	0.15	2.0	3.0	1:1	0.20
EPA1885-4	50	7	0.20	2.0	3.0	1:1	0.20
EPA1885-5	75	8	0.20	2.4	3.0	1:1	0.30
EPA1885-6	100	9	0.25	2.5	3.0	1:1	0.30
EPA1885-7	125	10	0.25	3.0	3.0	1:1	0.30
EPA1885-8	150	11	0.25	3.0	3.0	1:1	0.40
EPA1885-9	175	12	0.25	3.0	3.5	1:1	0.50
EPA1885-10	200	13	0.30	3.5	3.5	1:1	0.50

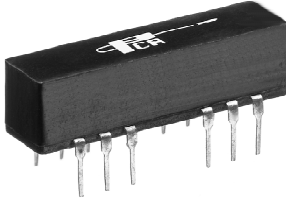
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



- General Purpose 10Base-T Filter Module
- Complies with or exceeds IEEE 802.3, 10Base-T Standards
- Available in SMD and DIP Packages

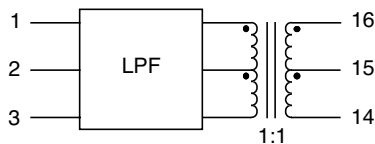
Electrical Parameters @ 25° C

Cut-Off Frequency (MHz)	OCL (μ H Min.)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Crosstalk (dB Min.)
± 1.0 MHz		1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	1-10 MHz
Xmit/Rcv		Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
17/17	200	-1/-1	-15/-15	-7/-6	-19/-14	-30/-20	-35/-31	-30/-30

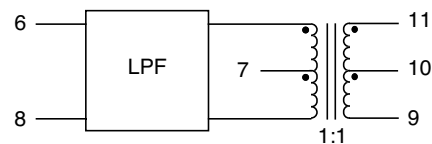
- **Isolation** : meets or exceeds 802.3 IEEE Requirements
- **Characteristic Filter Impedance** : 100 Ω
- Referenced to the Output Level Fundamental Frequency @ 5 MHz
- CMC is common to both channels

Schematic

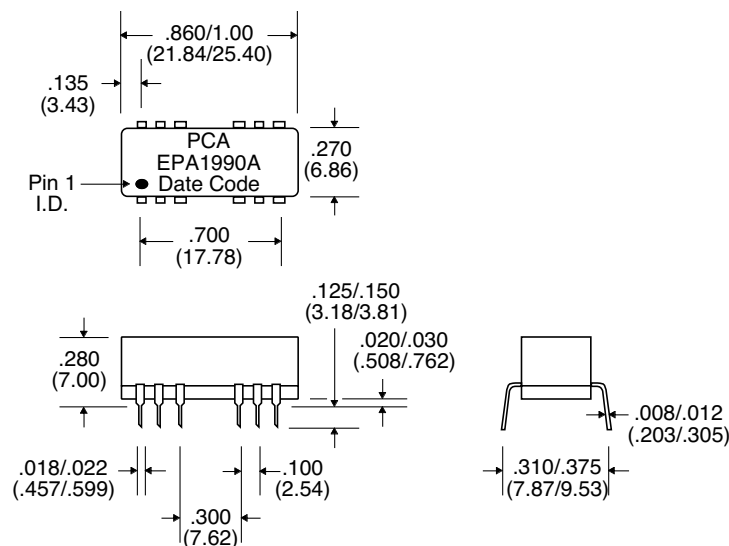
Transmit Channel



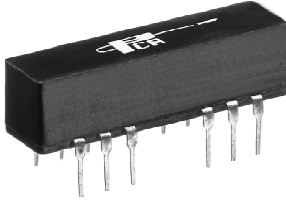
Receive Channel



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



- General Purpose 10Base-T Filter Module
- Complies with or exceeds IEEE 802.3, 10Base-T Standards
- Available in SMD and DIP Packages

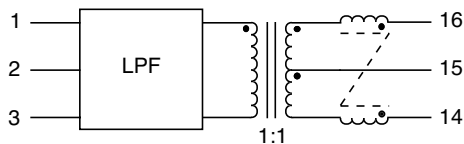
Electrical Parameters @ 25° C

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	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit	Xmit	Xmit/Rcv
17/17	-1/-1	-15/-15	-7/-6	-19/-14	-30/-20	-35/-31	-30	-25	-30/-30

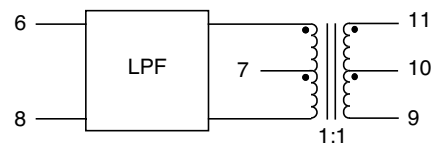
- **Isolation** : meets or exceeds 802.3 IEEE Requirements
- **Characteristic Filter Impedance** : 100 Ω
- Referenced to the Output Level Fundamental Frequency @ 5 MHz
- CMC is common to both channels

Schematic

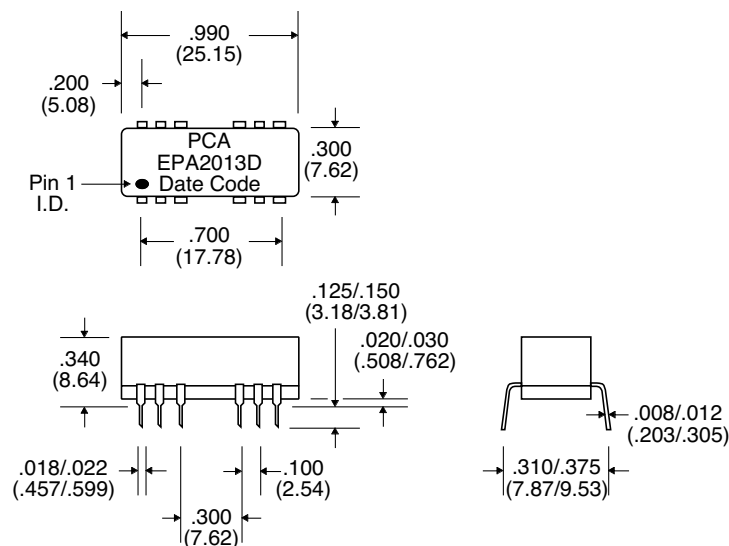
Transmit Channel



Receive Channel



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

10Base-T Interface Module Isolation Transformer EPE6009S

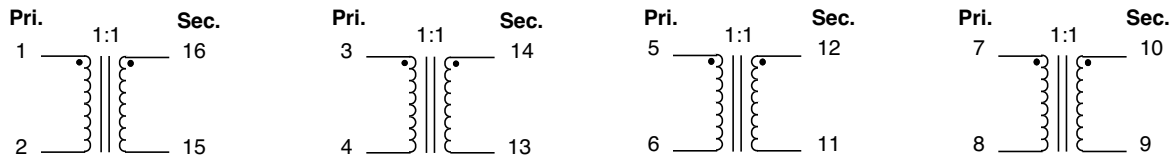


- Optimized for Level One LXT915
- Four Receiver Channel in one small Outline Package
- Robust design allows for toughest soldering processes
- Complies with or exceeds IEEE802.3, 10Base-T Requirements

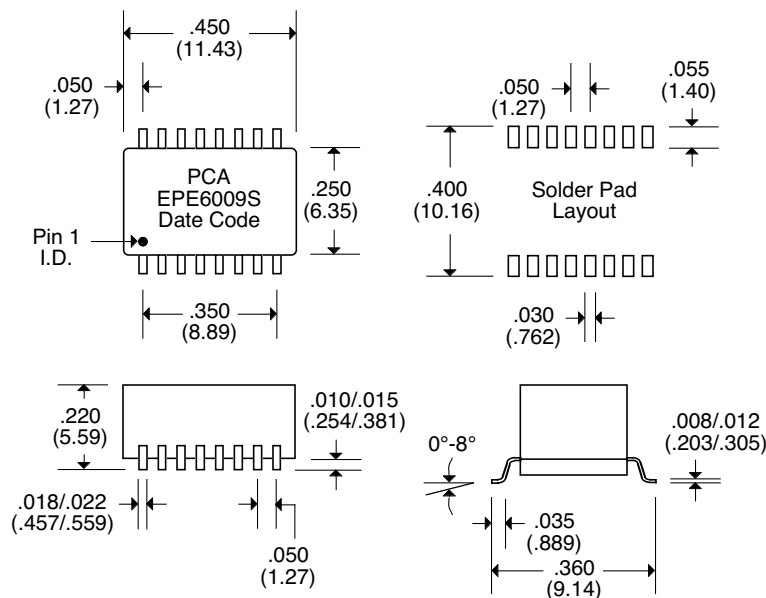
Electrical Parameters @ 25° C

Secondary Inductance (μ H Min.)	Interwinding Capitance (pF Max.)	Leakage Inductance (μ H Min.)	DCR (Ω Max.)	Hipot (Vrms)
@ 100 KHz, 0.1Vrms	@ 100 KHz, 0.1Vrms	@ 100 KHz, 0.1Vrms		
200	10	.15 @ Pri.	0.350	1500

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10Base-T Interface Module Isolation Transformer EPE6010S

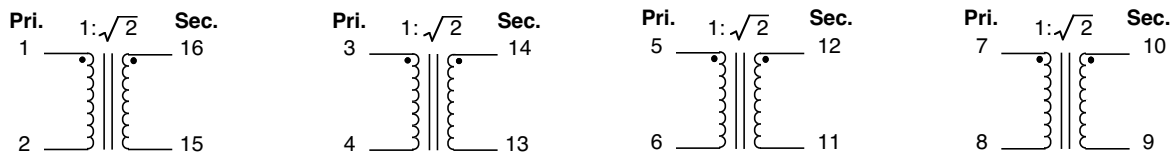


- Optimized for Level One LXT915
- Four Receiver Channel in one small outline package
- Robust design allows for toughest soldering processes
- Complies with or exceeds IEEE802.3, 10Base-T Requirements

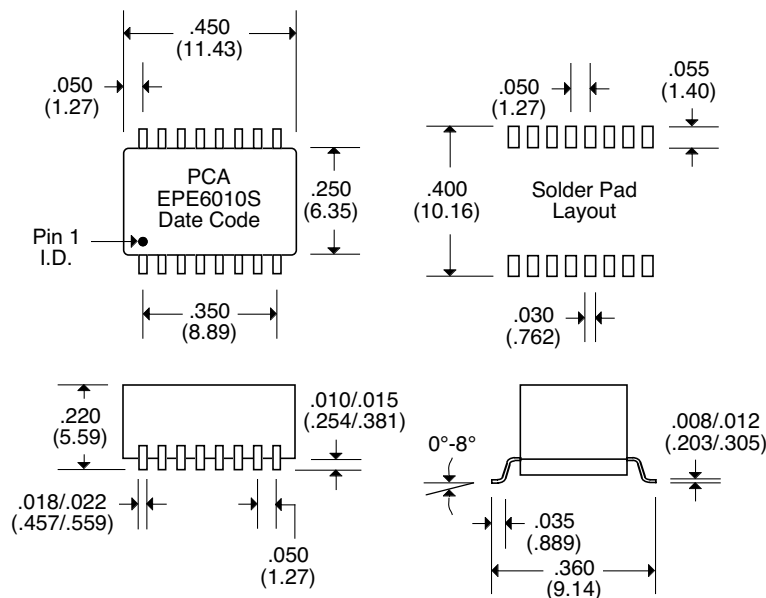
Electrical Parameters @ 25° C

Secondary Inductance (μ H Min.)	Interwinding Capacitance (pF Max.)	Leakage Inductance (μ H Min.)	DCR (Ω Max.)	Hipot (Vrms)
@ 100 KHz, 0.1Vrms	@ 100 KHz, 0.1Vrms	@ 100 KHz, 0.1Vrms		
200	10	.25 @ Pri.	0.350	1500

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



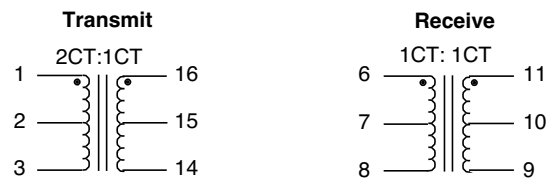
- Designed for use with Seeq 83C95
- General Purpose 10Base-T Filter Module
- Complies with or exceeds IEEE 802.3, 10Base-T Standards
- Available in SMD, DIP & DIL Packages
Optional Tape and Reel Packaging
- Hipot : 2000 Vrms

Electrical Parameters @ 25° C

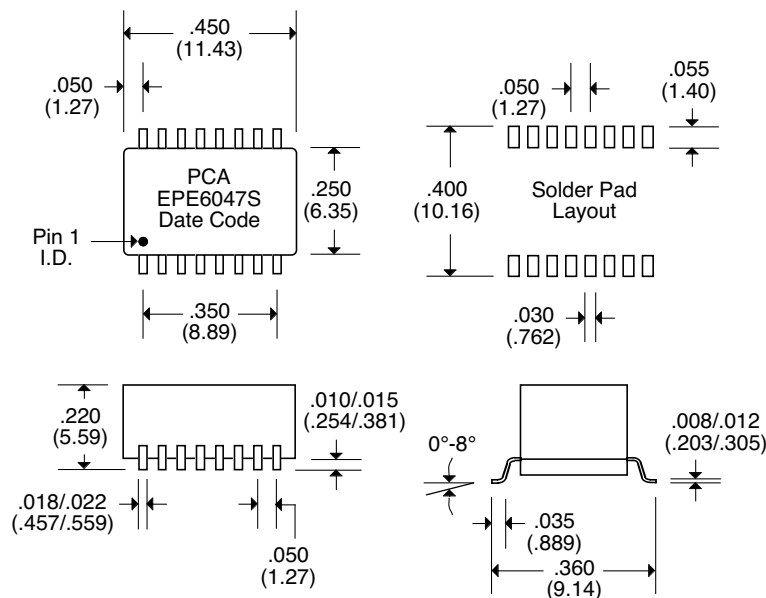
Inductance ($\mu\text{H} \pm 20\%$)		Interwinding Capacitance (pF Max.)	Leakage Inductance ($\mu\text{H} \text{ Max.}$)		Et Prodcut (V- μS Typ.)	Rise Time (nS Max..)	DCR (Ω Max.)	
@100 KHz, 0.1 Vrms		@100 KHz, 0.1 Vrms	@100 KHz, 0.1 Vrms					
Xmit	Rcv	from Input to Output	Xmit	Rcv			Xmit	Rcv
400	100	10	0.30	0.17	2.0	3.0	0.45	0.30
Pins 1-3	Pins 6-8		Pins 16-14 w/ 1,2,3 shorted	Pins 6-8 w/ 9,10,11 shorted			Pins 1-3	Pins 6-8, 11-9, 16-14

- **Isolation** : meets or exceeds 802.3 IEEE Requirements •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10Base-T Interface Module for PC Card Applications

EPE6051GM



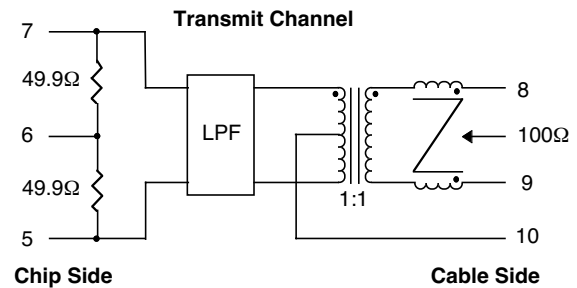
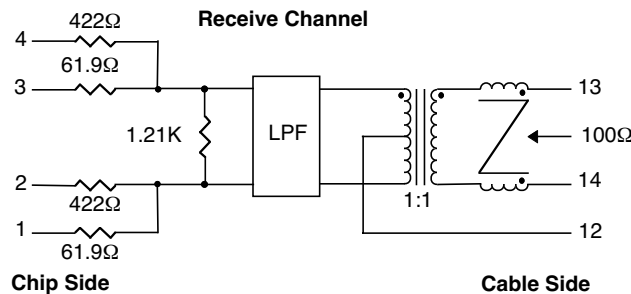
- Optimized for AMD/PHY type chip for Card Bus
- Robust construction allows for IR/VP processes
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

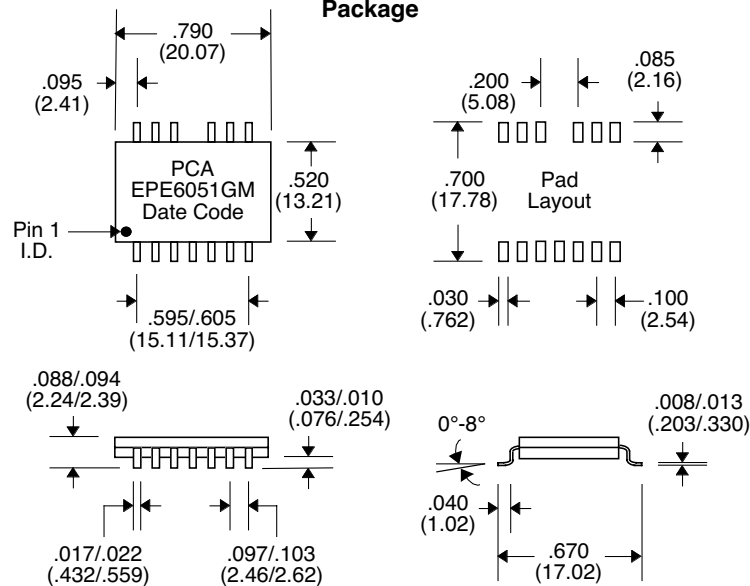
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
± 1.0 MHz	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	@ 200 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
17/17	-1/-1	-15/-15	-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, excluding resistor network

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

10Base-T Isolation Transformer with Common Mode Choke EPE6065AS

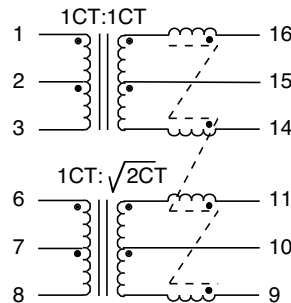


- Optimized for Level One's LX901 and Fujitsu's MB86961 Transceiver Chips
- Complies with or exceeds IEEE 802.3, 10Base- T Standards
- 1500 Vrms Isolation

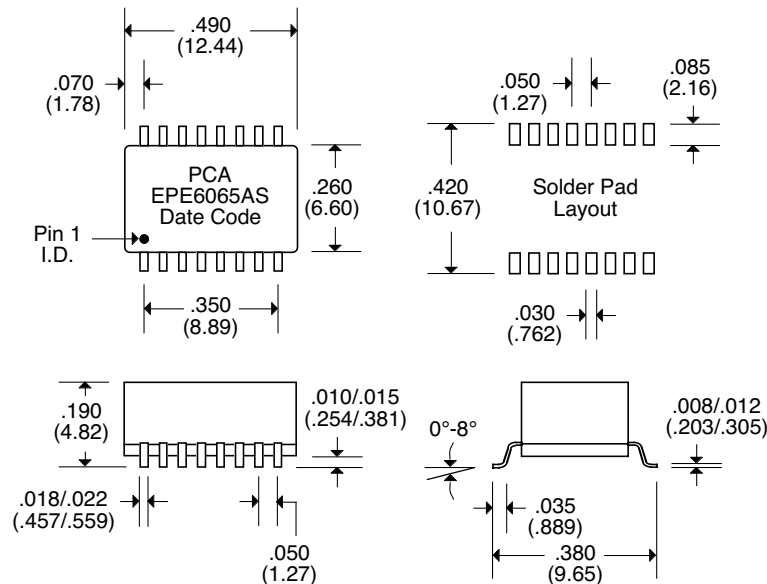
Electrical Parameters @ 25° C

Inductance (μ H Min.)	Interwinding Capacitance (pF Max.)	Leakage Inductance (μ H Max.)	Primary DCR (Ω Max.)
@100 KHz, 0.1 Vrms	@100 KHz, 0.1 Vrms	@100 KHz, 0.1 Vrms	
200	12	0.20	0.35

Schematic

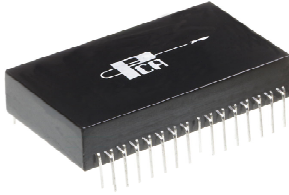


Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10 Base-T Multiport Module with Enhanced Common Mode Attenuation EPE6117



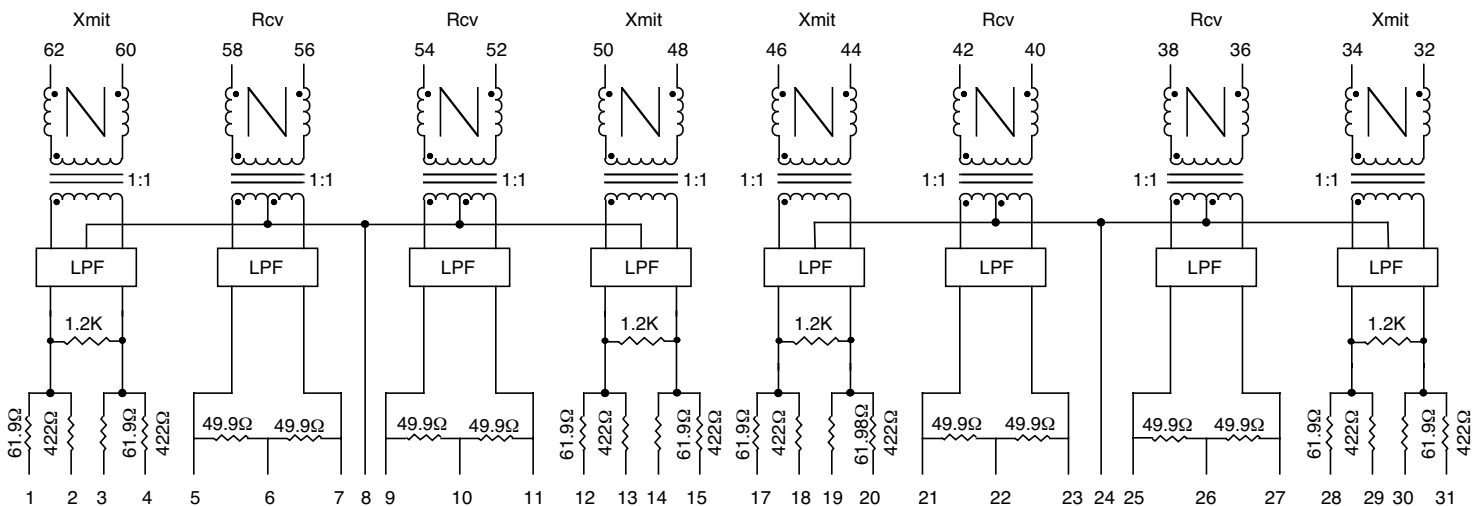
- Optimized for AMD Repeater Chips
- Low Crosstalk enhances network reliability
- Robust construction allows for IR/VP processes
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

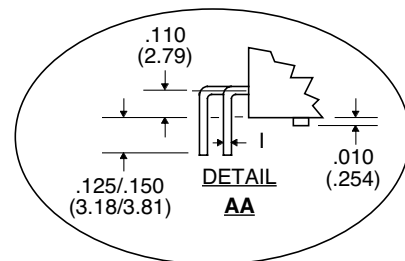
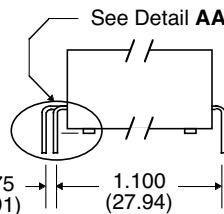
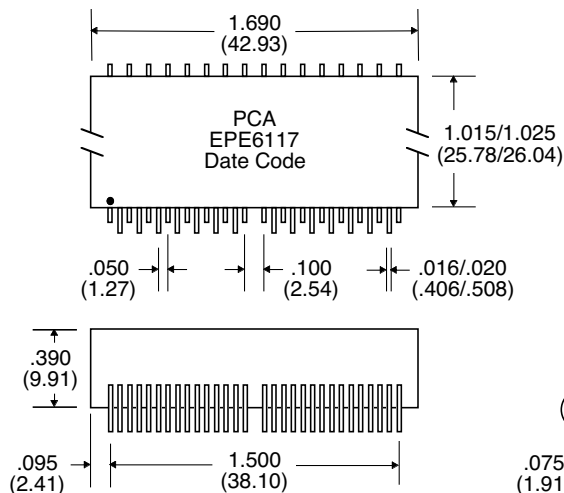
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)		Crosstalk (dB Min.)
± 1.0 MHz	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
17/17	-1/-1	-15/-15	-7/-5	-18/-11	-30/-18	-35/-26	-30/-30	-30/-30	-35/-35

• **Isolation** : meets or exceeds 802.3 IEEE Requirements • **Characteristic Filter Impedance** : 100 Ω •

Schematic

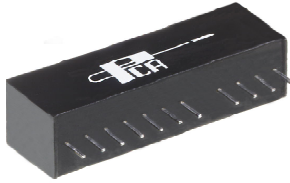


Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

10Base-T Hub Module with Enhanced CMA and Resistor Network EPE6066



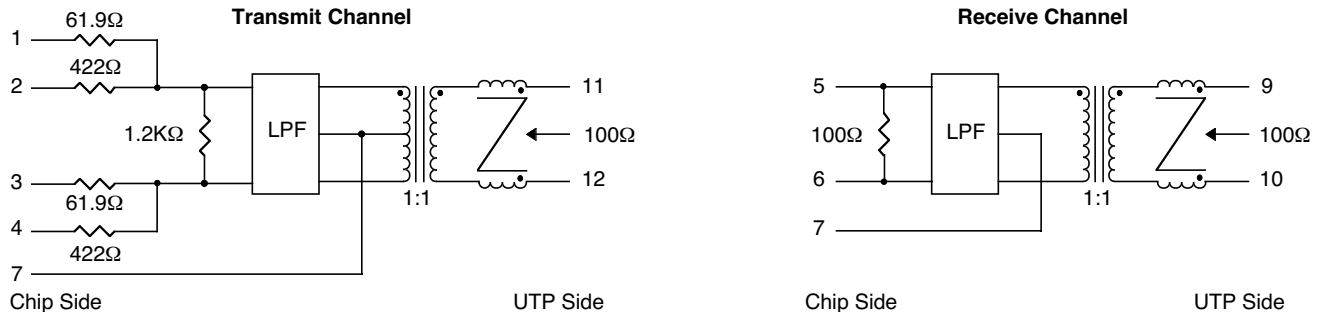
- Optimized for AMD/PHY Controllers
- Robust construction allows for IR/VP processes
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

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	@ 50-70 MHz	@ 50 MHz	@ 100 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
17/17	-1/-1	-15/-15	-7/-5	-18/-11	-30/-20	-33/-26	-30/-30	-30/-30	-35/-35

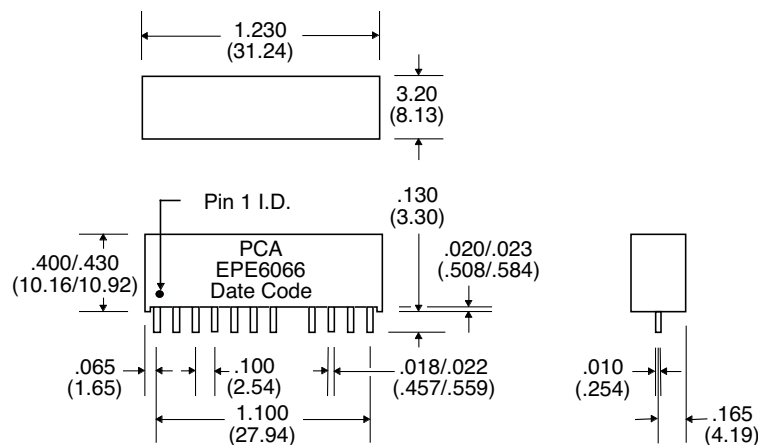
• **Isolation** : meets or exceeds 802.3 IEEE Requirements • **Characteristic Filter Impedance** : 100 Ω •

Schematic



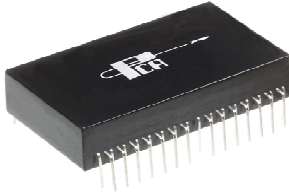
All Resistors are matched within ± 1 %.

Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

10 Base-T Multiport Module with Enhanced Common Mode Attenuation EPE6117



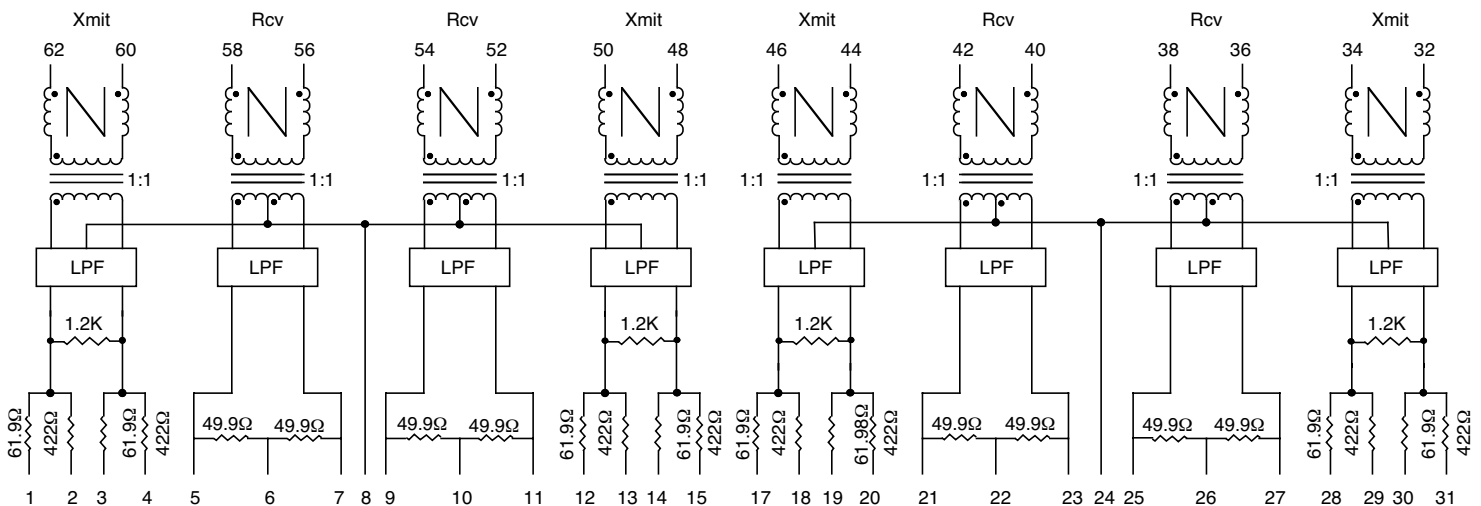
- Optimized for AMD Repeater Chips
- Low Crosstalk enhances network reliability
- Robust construction allows for IR/VP processes
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

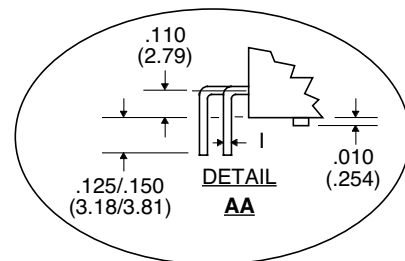
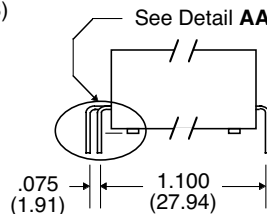
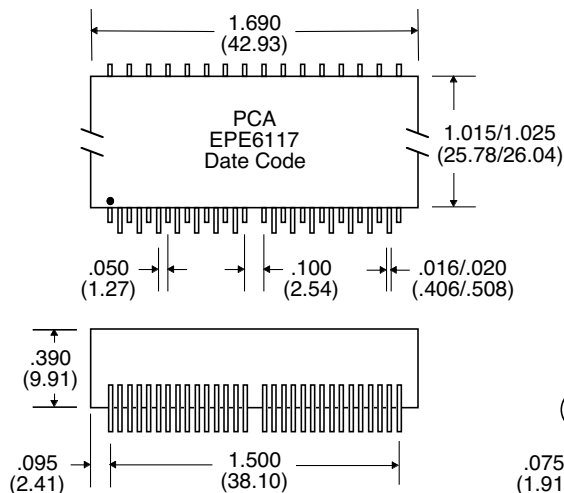
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)		Crosstalk (dB Min.)
± 1.0 MHz	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
17/17	-1/-1	-15/-15	-7/-5	-18/-11	-30/-18	-35/-26	-30/-30	-30/-30	-35/-35

• **Isolation** : meets or exceeds 802.3 IEEE Requirements • **Characteristic Filter Impedance** : 100 Ω •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

EPE6119G & EPE6119G-RC



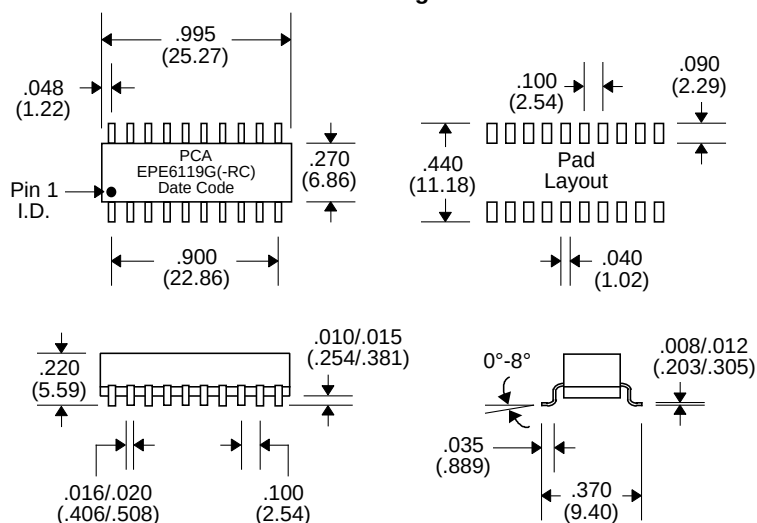
- General Purpose 10Base-T Filter Module
- Robust construction allows for toughest reflow processing
- Complies with or exceeds IEEE 802.3, 10Base-T Standards
- Peak Solder Rating (See Note 2)
- RoHS Compliant

Electrical Parameters @ 25° C

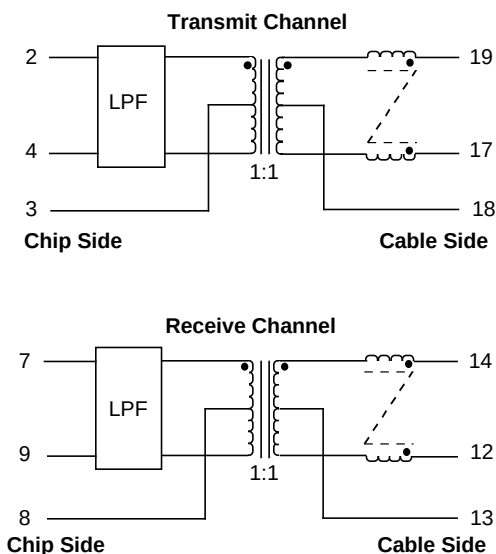
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)	Crosstalk (dB Min.)
± 1.0 MHz	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	50-100 MHz	1-100 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
17/17	-1/-1	-15/-15	-7/-6	-18/-14	-30/-20	-32/-31	-30/-30	-35

• **Isolation** : Meets or exceeds 802.3 IEEE Requirements • **Characteristic Filter Impedance** : 100 Ω •

Package



Schematic



Notes :	EPE6119G	EPE6119G-RC
1. Assembly Process (Solder Composition)	SnPb	Pb-Free + (RoHS exemption 7a)
2. Peak Solder Rating (per IPC/JEDEC J-STD-020C)	225°C	260°C
3. Moisture Sensitive Levels (MSL) (per IPC/JEDEC J-STD-020C)	MSL = 3 (168 Hours, ≤30°C/60%RH)	MSL = 4 (72 Hours, ≤30°C/60%RH)
4. Weight	1.85 grams	1.85 grams
5. Packaging Information (*Add "TR" to end of part number when placing order)	(Tube) 19 pieces/tube (Tape & Reel) 550 pieces/13" reel (*EPE6119G-TR)	(Tube) 19 pieces/tube (Tape & Reel) 550 pieces/13" reel (*EPE6119G-RC-TR)

Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

10Base-T PC Card Module with Enhanced CMA and Resistor Network EPE6133AG



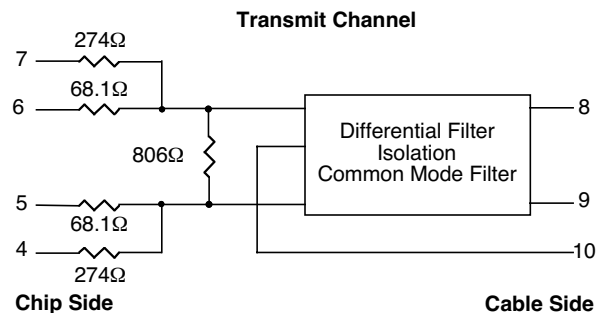
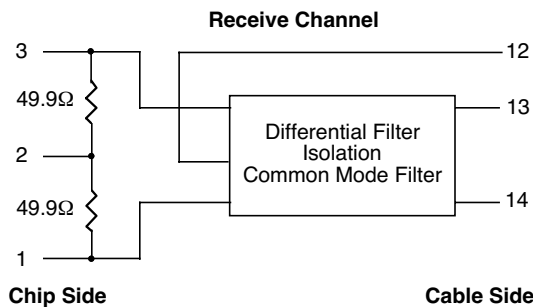
- Optimized for SMC 91C94 Chip
- Recommended for National, AT&T PHY Chips
- Robust construction allows for IR/VP processes
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

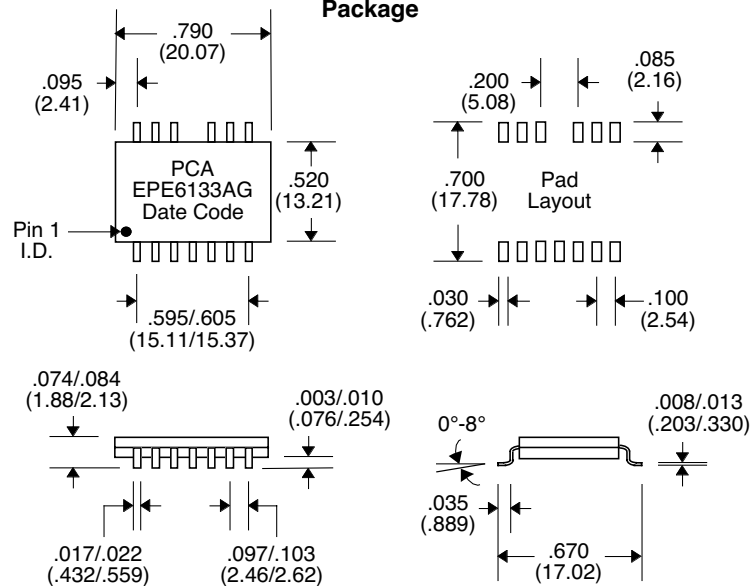
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
± 1.0 MHz	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	@ 200 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
17/17	-1/-1	-25/-25	-7/-5	-15/-11	-25/-15	-30/-25	-30/-30	-30/-30	-30/-30	-20/-20

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

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

10Base-T PC Card Module with Enhanced CMA and Resistor Network EPE6133LG



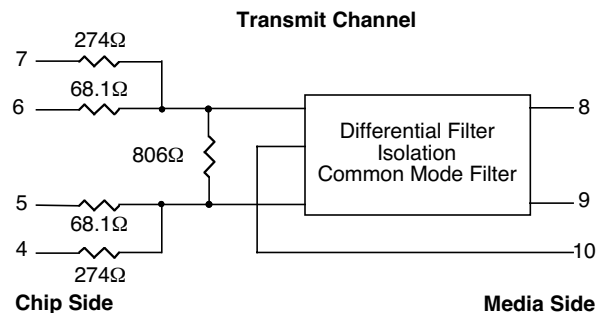
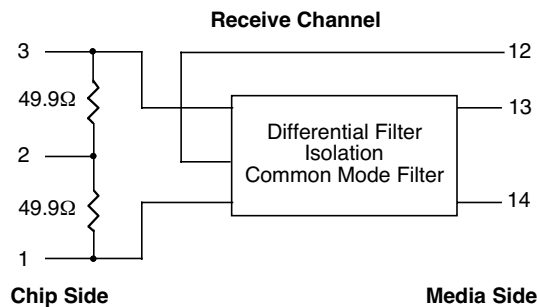
- Recommended for National, AT&T PHY Chips
- Robust construction allows for IR/VP processes
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

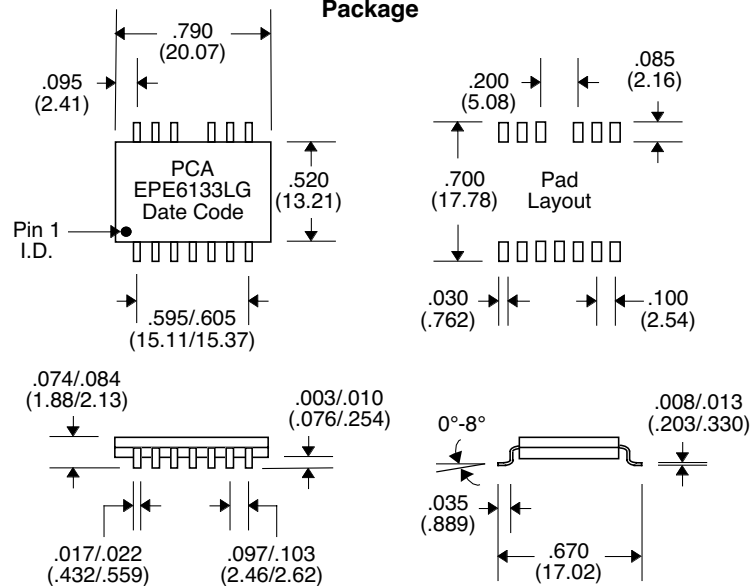
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
± 1.0 MHz	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	@ 200 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
17/17	-1/-1	-25/-25	-7/-5	-15/-11	-25/-15	-30/-25	-30/-30	-30/-30	-30/-30	-20/-20

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

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10Base-T Interface Module with all Resistors Integrated EPE6150G



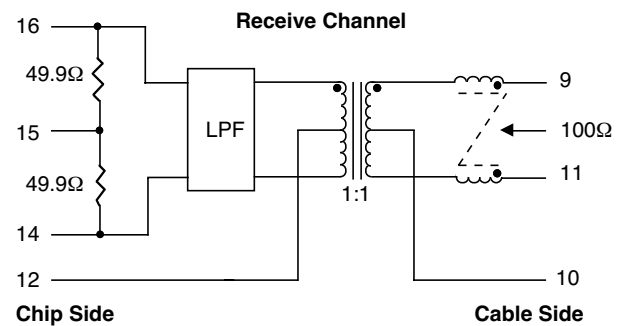
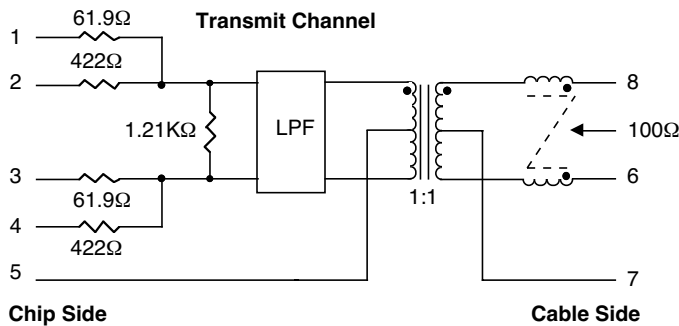
- Optimized for AMD/PHY Controllers
- Robust construction allows for toughest reflow processing
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

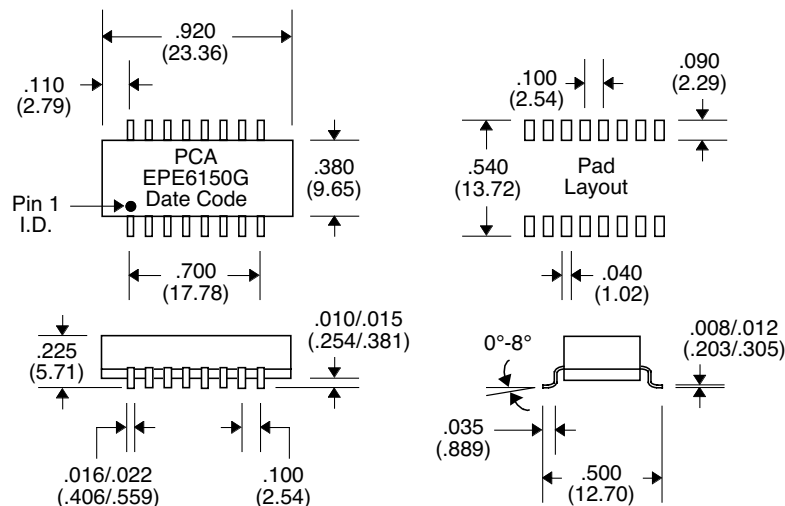
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
± 1.0 MHz	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	@ 200 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
17/17	-1/-1	-15/-15	-7/-5	-18/-11	-30/-18	-35/-26	-45/-45	-30/-30	-20/-20	-35/-35

• Isolation : Meets or exceeds 802.3 IEEE Requirements • Characteristic Filter Impedance : 100 Ω •

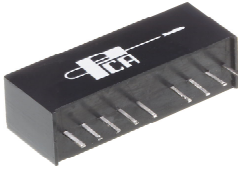
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25



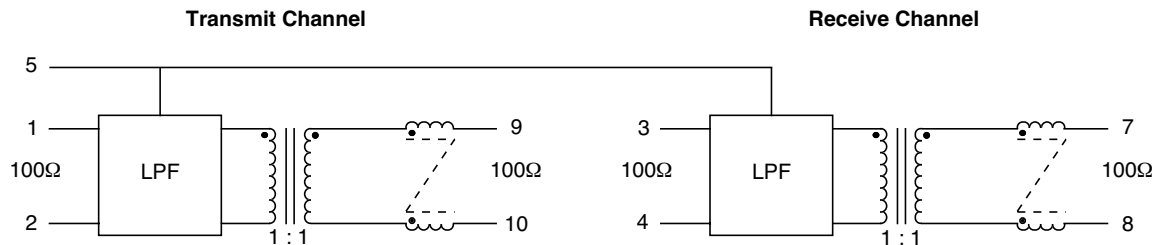
- Recommended for AMD MACE Chips
- General Purpose 10 Base-T Filter Module
- Robust construction allows for IR/VP processes
- Complies with or exceeds IEEE 802.3, 10Base-T Standards
- Available in SMD, DIP, DIL, and SIP Packages (Pin-outs may vary)

Electrical Parameters @ 25° C

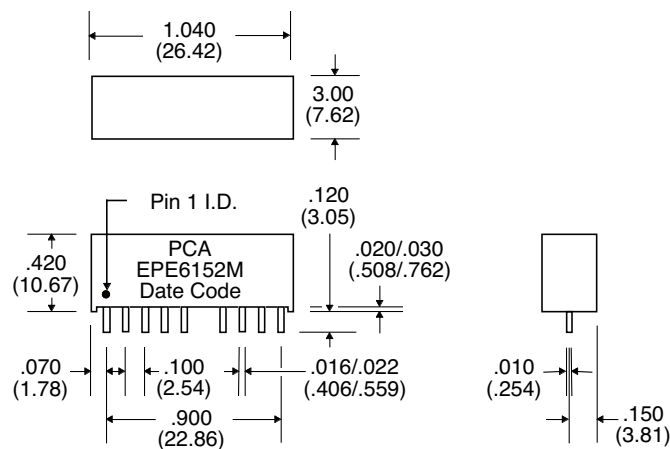
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
± 1.0 MHz	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	@ 200 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
17/17	-1/-1	-15/-15	-7/-5	-18/-11	-30/-18	-35/-26	-45/-40	-30/-30	-20/-20	-35

- Isolation : meets or exceeds 802.3 IEEE Requirements
- Characteristic Filter Impedance : 100 Ω
- Insertion Loss : Referenced @ 5 MHz

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25



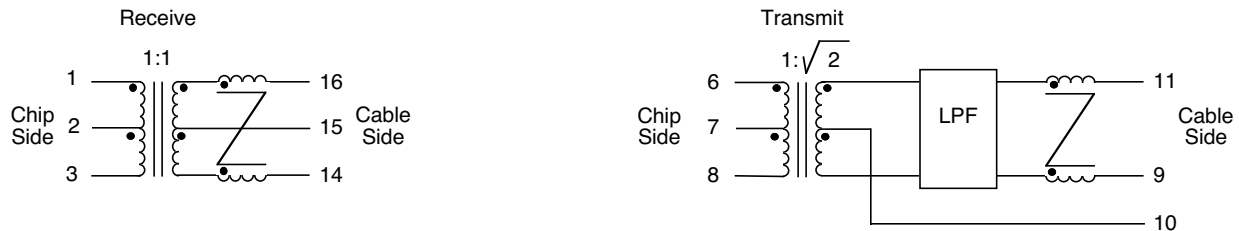
- Robust construction allows for toughest reflow processing
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

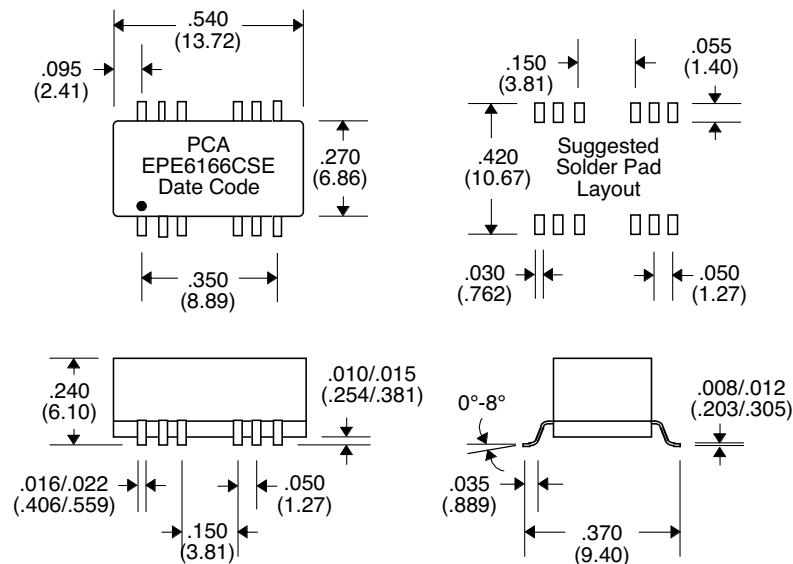
OCL (μ H Min.)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)		Crosstalk (dB Min.)
@ 100 KHz, 20 mVrms	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	10-30 MHz	30-100 MHz	1-10 MHz
Cable Side	Xmit	Xmit	Xmit	Xmit	Xmit	Xmit	Xmit/Rcv	Xmit/Rcv	Between Channels
160	-1	-15	-5	-14	-24	-30	-40	-30	-30

• Cut-off Frequency : 17 MHz $\pm$ 1, Ref. @ 5 MHz • Cable Side Impedance : 100 Ω •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm$.010 / .25



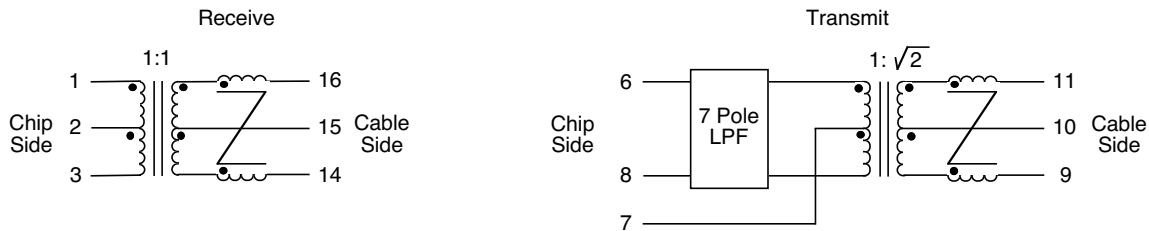
- Robust construction allows for toughest reflow processing
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

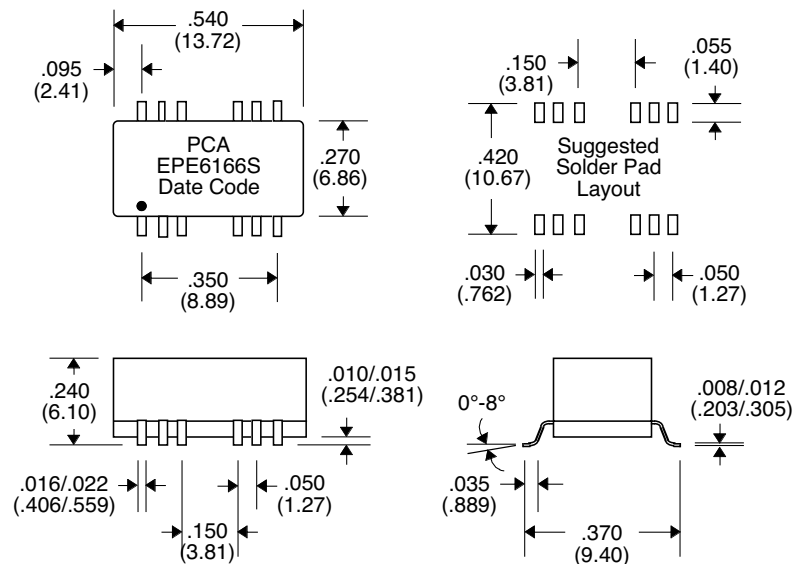
OCL (μ H Min.)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)	Crosstalk (dB Min.)
@ 100 KHz, 20 mVrms	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	30-100 MHz	1-10 MHz
Cable Side	Xmit	Xmit	Xmit	Xmit	Xmit	Xmit	Xmit	Between Channels
140	-1	-15	-7	-18	-30	-35	-30	-30

• Cut-off Frequency : 17 MHz $\pm$ 1, Ref. @ 5 MHz • Characteristic Filter Impedance : Xmit 52 Ω , Rcv 100 Ω •

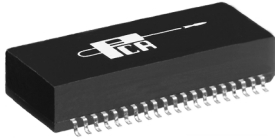
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm$.010 / .25

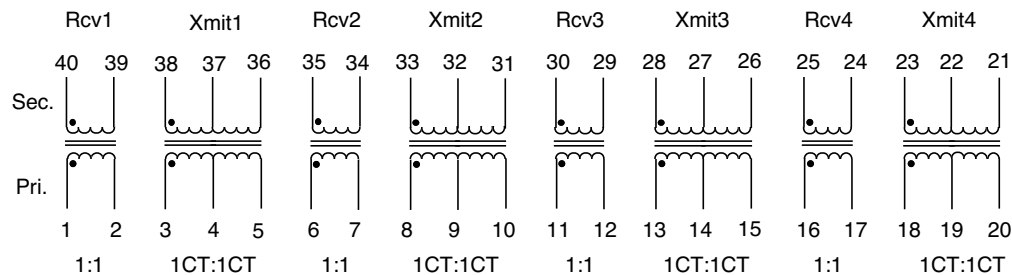


- 4 Transmit, 4 Receive Quad Port Surface Mount Filter
- Operating Temperature -0°C to 70°C
- 1500 Vrms Isolation

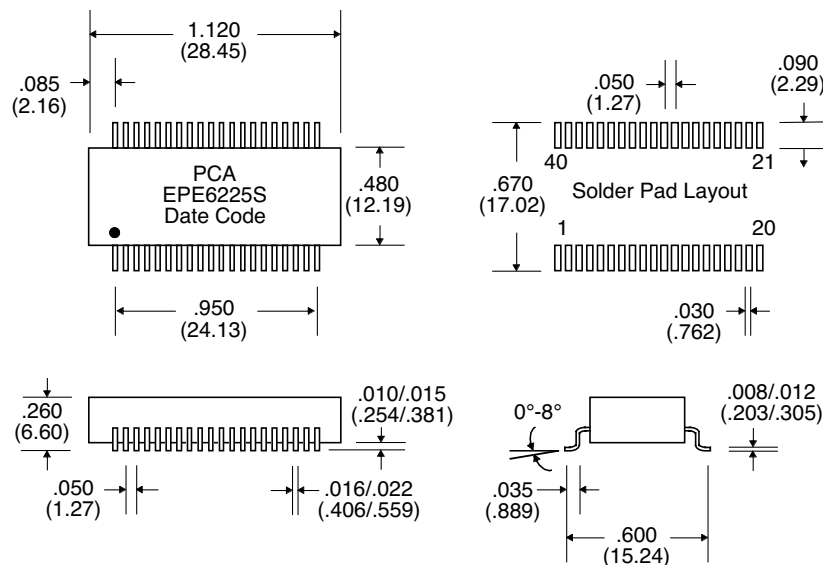
Electrical Parameters @ 25° C

Primary Inductance (μ H min.)	Leakage Inductance (μ H Max.)	Interwinding Capacitance (pF Max.)	Insertion Loss (dB Max)	Return Loss (dB	Common Mode Rejection TX Side (dB Min.)				Crosstalk (dB Typ.)
@ 100 KHz, 0.1 Vrms	@ 100 KHz, 0.1 Vrms	@ 100 KHz, 0.1 Vrms	1-10 MHz	5-10 MHz	1-10 MHz	@ 50 MHz	@ 100 MHz	@ 200 MHz	5-10 MHz
Xmit & Rcv			Xmit & Rcv	Xmit & Rcv					Xmit & Rcv
150	0.30	10	-1.0	-20	-40	-30	-20	-10	-50

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

4-Port 10Base-T Interface Module with Enhanced Common Mode Attenuation

EPE6243S

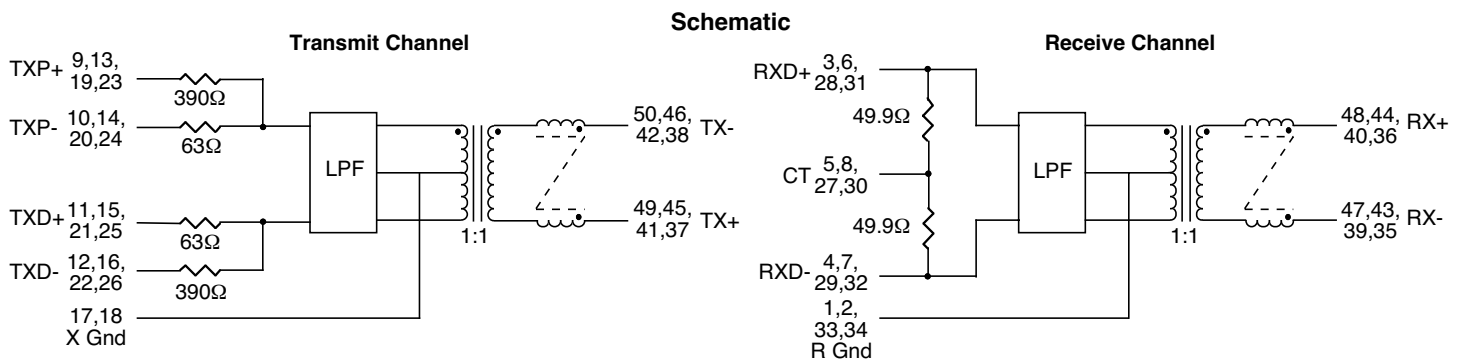


- Optimized for LSI L64381 Chip
- Robust construction allows for solder reflow processes
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

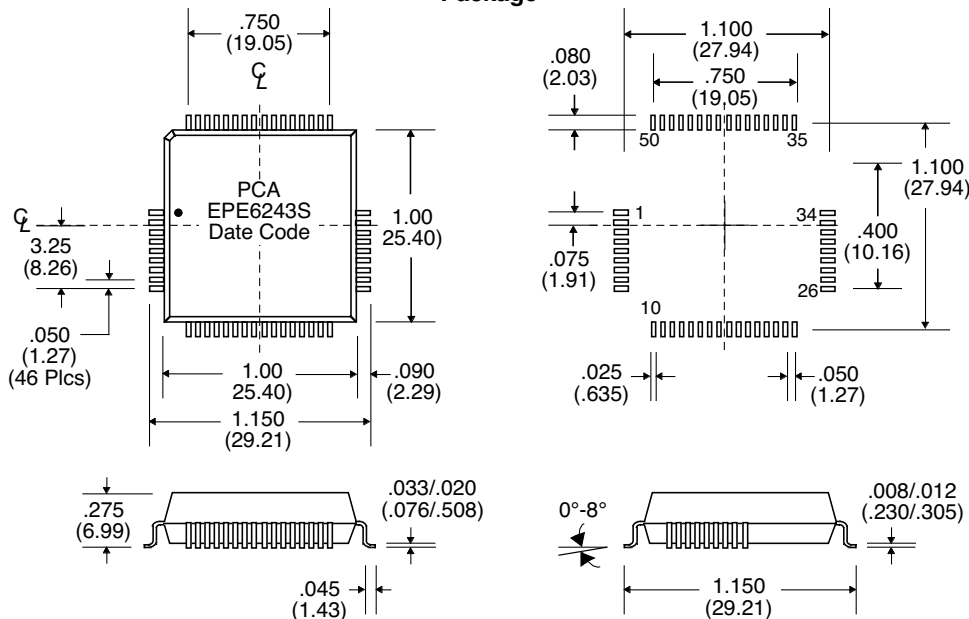
Electrical Parameters @ 25° C

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/± 1.5	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 5 MHz	@ 10 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	Xmit/Rcv
17/19.5	-6/-6.5	-15/-15	-8/-6	-16/-11	-27/-16	-50/-32	-45/-30	-40/-30	-30/-38	-25/-27	-30/-30

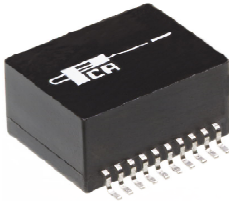
• Optimized design to give 3 nS Group Delay Difference over 5 MHz-10 MHz • † Resistor Network Included •



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25



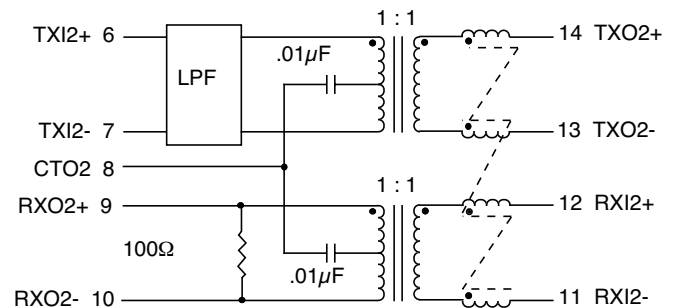
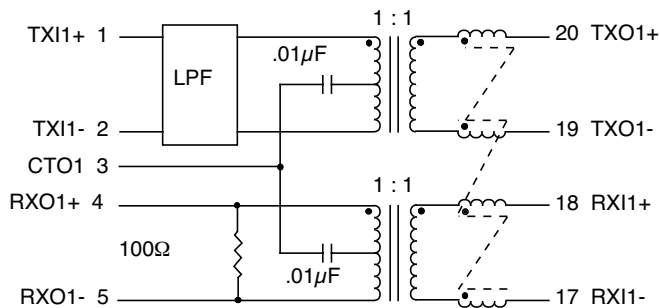
- Optimized for AMD 79C984 Integrated Multiport Repeater
- Robust Construction allows for toughest Reflow Processing
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

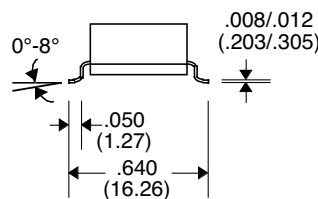
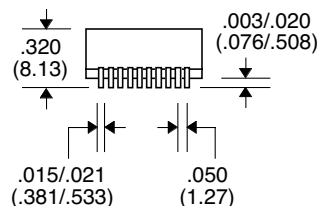
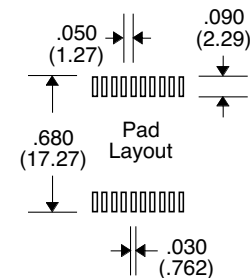
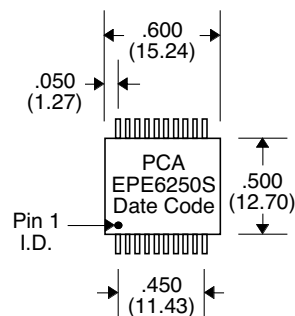
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
± 1.5 MHz	1-10 MHz	5-10 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	@ 200 MHz	1-10 MHz
Xmit	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
22.5	-1/-1	-15/-25	-3/-1	-5/-1	-10/-1	-40/-35	-35/-25	-35/-20	-30/-30

• **Isolation** : meets or exceeds 802.3 IEEE Requirements • **Characteristic Filter Impedance** : 100 Ω •

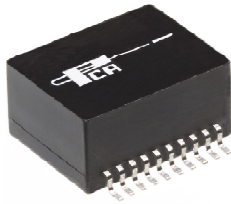
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

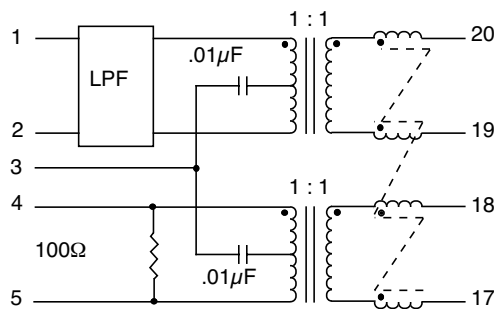


- Optimized for AMD 79C984 Integrated Multiport Repeater
- Robust Construction allows for toughest Reflow Processing
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

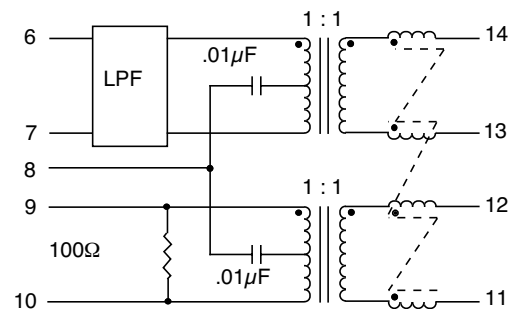
Electrical Parameters @ 25° C

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	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	@ 200 MHz	1-10 MHz
Xmit	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
22.5	-1/-1	-15/-25	-3/-1	-5/-1	-10/-1	-40/-35	-35/-25	-35/-20	-30/-30

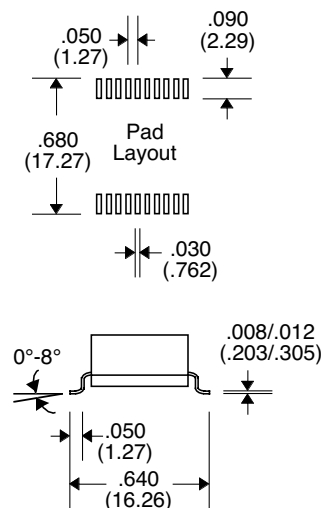
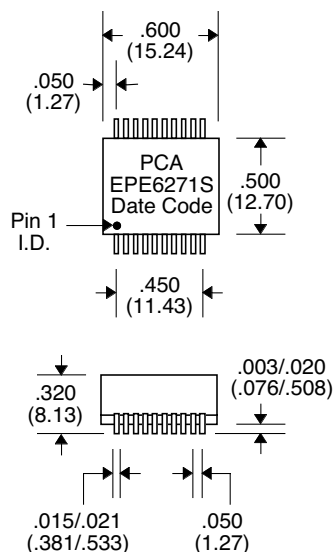
• Isolation : meets or exceeds 802.3 IEEE Requirements • Characteristic Filter Impedance : 100 Ω •



Schematic

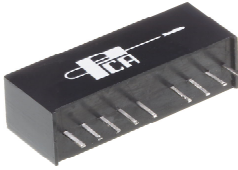


Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

10 Base-T Interface Module for PCI BUS Applications EPE6272



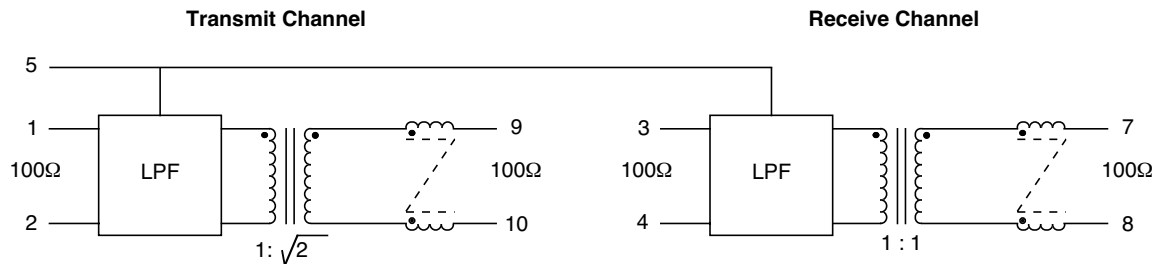
- Compatible with PCI Bus 3.3V requirement
- Recommended for use with DEC 21041 Controller
- Complies with or exceeds IEEE 802.3, 10Base-T Standards
- Available in SMD, PC Card Packages

Electrical Parameters @ 25° C

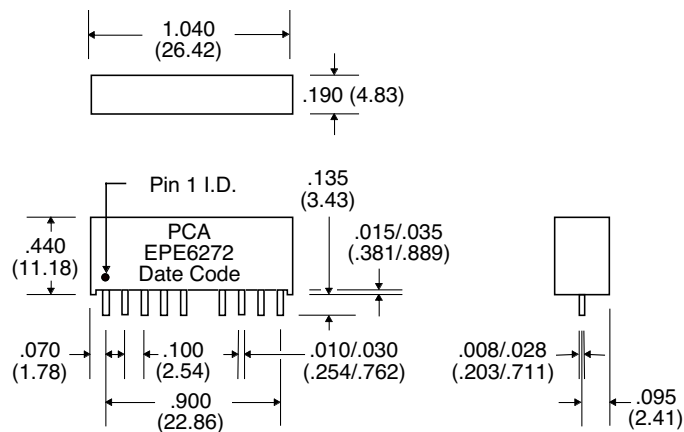
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)		Crosstalk (dB Min.)
± 1.0 MHz	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
17/17	-1/-1	-15/-15	-7/-5	-18/-11	-30/-18	-35/-26	-30/-30	-30/-30	-31/-31

- **Isolation** : meets or exceeds 802.3 IEEE Requirements
- **Characteristic Filter Impedance** : 100 Ω
- Referenced @ 5 MHz

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

Miniature 10Base-T Interface Module with Enhanced Common Mode Attenuation EPE6313S



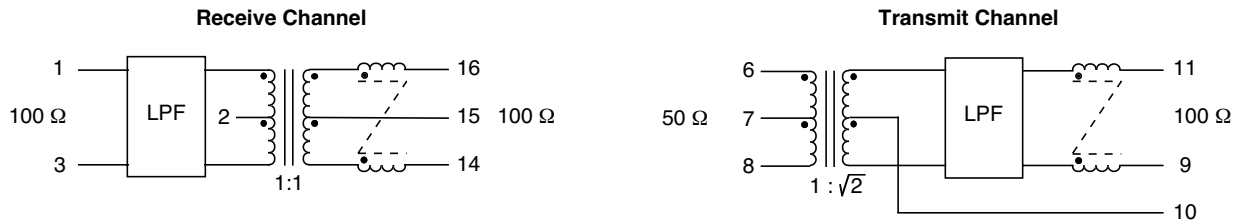
- Designed for use with Level One's LXT901 Chip
- Robust design allows to withstand current soldering profiles
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

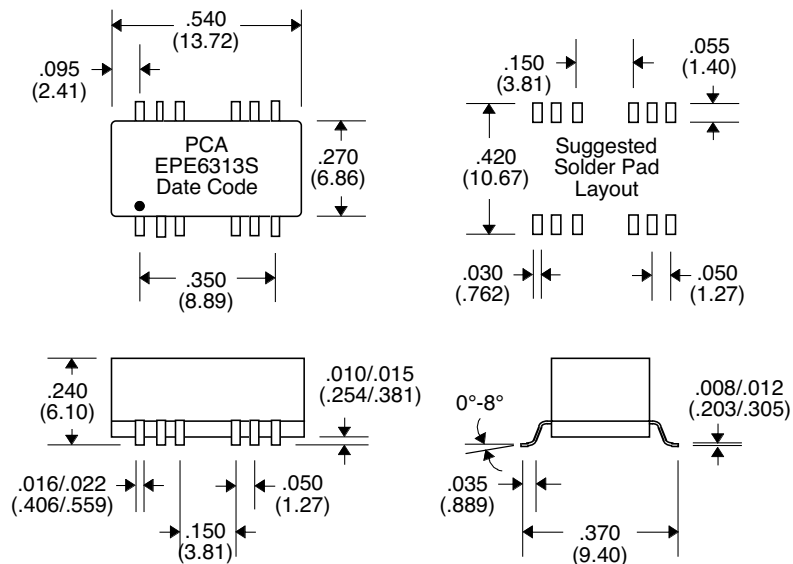
Cut-Off Frequency (MHz)	Insertion Loss † (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)	Crosstalk (dB Min.)
± 1.0	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	30-100 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Between Channels
17/17	-1/-1	-15/-15	-5/-4	-14/-9	-24/-15	-30/-24	-30/-30	-30

• † Referenced to the Output Level Fundamental Frequency @ 5 MHz •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

Miniature 10Base-T Interface Module with Enhanced Common Mode Attenuation EPE6313SE



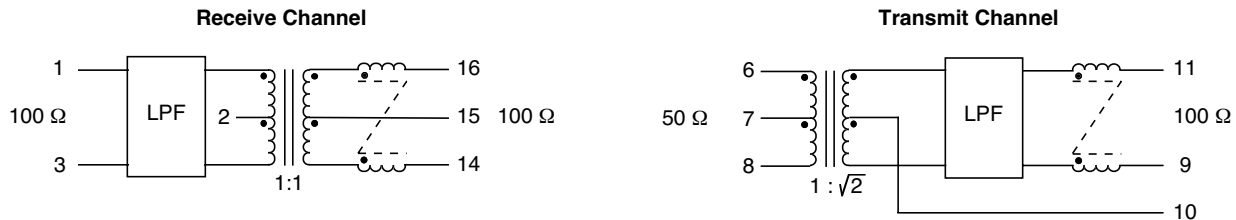
- Designed for use with Level One's LXT901 Chip
- Robust design allows to withstand current soldering profiles
- Complies with or exceeds IEEE 802.3, 10Base-T Standards
- Operating Temperature : -40°C to +85°C

Electrical Parameters @ 25° C

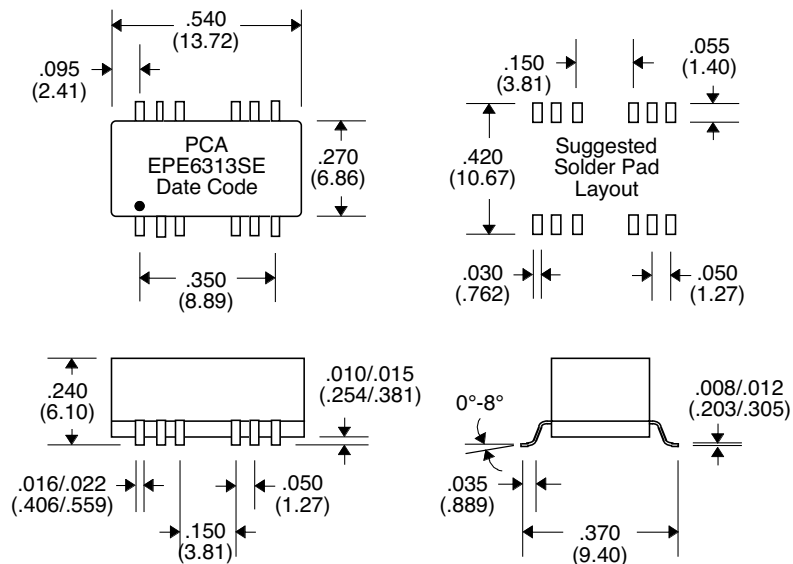
Cut-Off Frequency (MHz)	Insertion Loss † (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)	Crosstalk (dB Min.)
± 1.0	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	30-100 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Between Channels
17/17	-1/-1	-15/-15	-5/-4	-14/-9	-24/-15	-30/-24	-30/-30	-30

• † Referenced to the Output Level Fundamental Frequency @ 5 MHz •

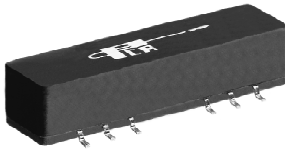
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25



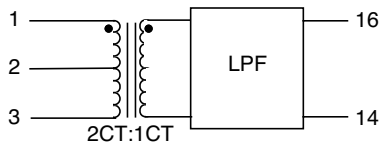
- Optimized for ML4664 and ML 4669
- Robust construction for reflow processes
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

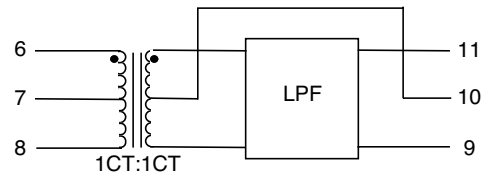
Insertion Loss (dB Max.)	Return Loss (dB Typ.)	Attenuation (dB Min.)				Crosstalk (dB Min.)
1-10 MHz	5-10 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
-1/-1	-15/-15	-5/-5	-10/-10	-16/-16	-20/-20	-30

Schematic

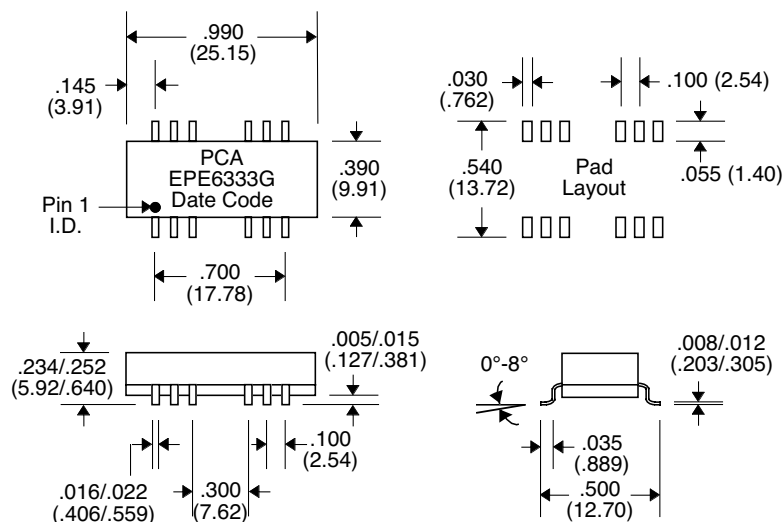
Transmit Channel



Receive Channel



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25



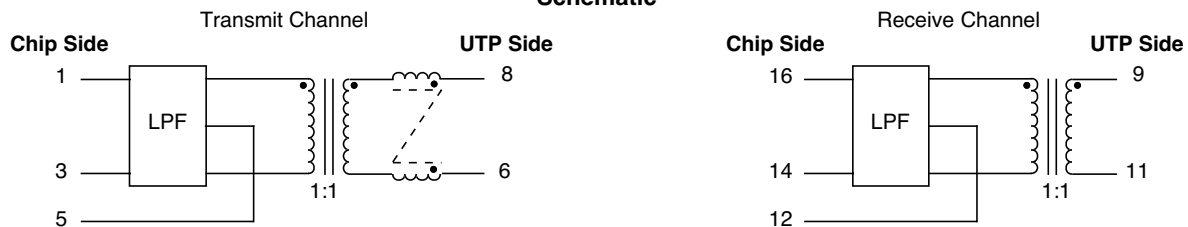
- General purpose 10Base-T Filter Module
- Robust construction allows for toughest reflow processing
- Complies with or exceeds IEEE 802.3, 10Base-T Standards
- Transfer Molded Package

Electrical Parameters @ 25° C

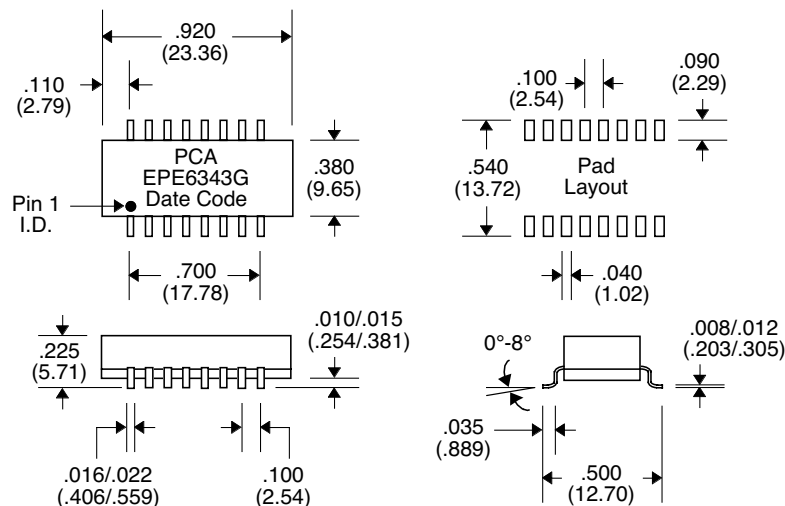
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)			Crosstalk † (dB Min.)
± 1.0 MHz	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	@ 200 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
17/17	-1/-1	-15/-15	-7/-5	-19/-11	-30/-18	-35/-26	-45/---	-50/---	-40/---	-35

• Isolation : 1500 Vrms • Characteristic Filter Impedance : 100 Ω • †Crosstalk : Between Channels •

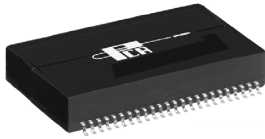
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25



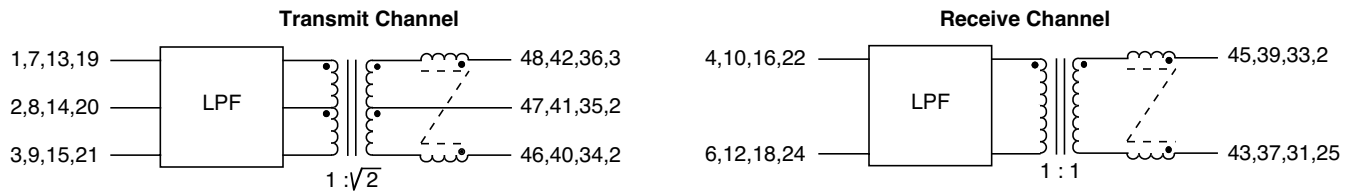
- General purpose 10Base-T Filter Module
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

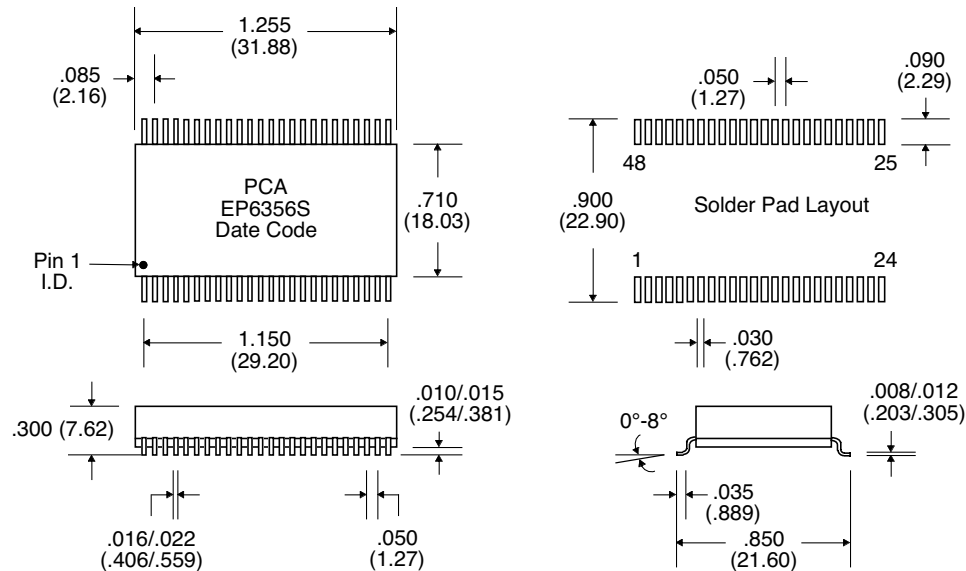
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
(Ref.)	1-10 MHz	5-10 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	@ 200 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
19/19	-1/-1	-15/-15	-5/-5	-10/-10	-16/-16	-40/-40	-30/-30	-25/-25	-30

- **Isolation** : Meets or exceeds 802.3 IEEE Requirements
- **Characteristic Filter Impedance** : 100 Ω
- Referenced to the Output Level Fundamental Frequency @ 5 MHz

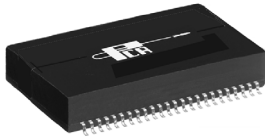
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



- General purpose 10Base-T Filter Module
- Complies with or exceeds IEEE 802.3, 10Base-T Standards

Electrical Parameters @ 25° C

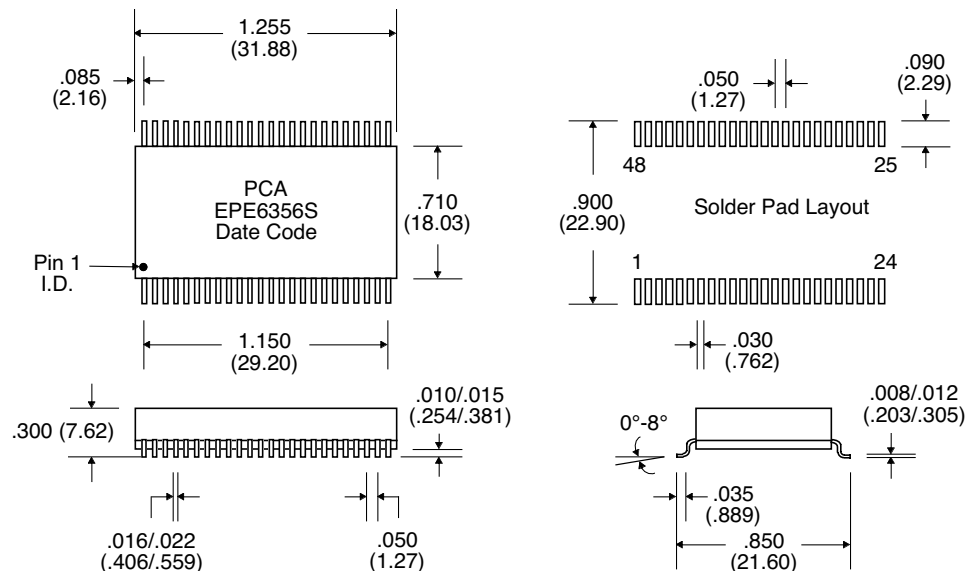
Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
(Ref.)	1-10 MHz	5-10 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	@ 50 MHz	@ 100 MHz	@ 200 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
19/19	-1/-1	-15/-15	-5/-5	-10/-10	-16/-16	-40/-40	-30/-30	-25/-25	-30

- **Isolation** : Meets or exceeds 802.3 IEEE Requirements
- **Characteristic Filter Impedance** : 100 Ω
- Referenced to the Output Level Fundamental Frequency @ 5 MHz

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



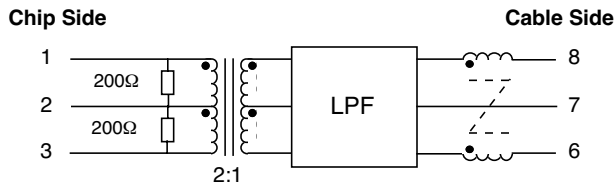
- General purpose 10Base-T Filter Module
- Complies with or exceeds IEEE 802.3, 10Base-T Standards
- Available in SMD and DIP Packages

Electrical Parameters @ 25° C

Cut-Off Frequency (MHz)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)				Crosstalk (dB Min.)
± 1.0 MHz	1-10 MHz	5-10 MHz	@ 20 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	1-10 MHz
Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv
17/17	-1/-1	-15/-15	-7/---	-15/-16	-20/-10	-30/-18	-30/-30

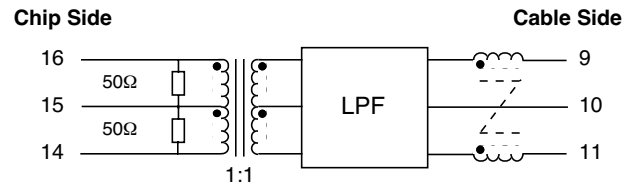
• Isolation : 1500VAC • Cable Side Impedance : 100 Ω •
 * Referenced to the filter output @ 5 MHz for filter only, excluding resistor network •

Transmit Channel

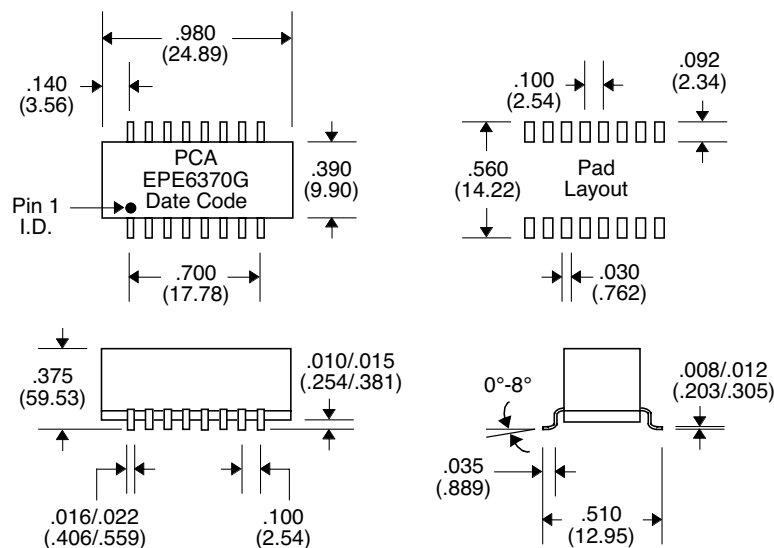


Schematic

Receive Channel



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25



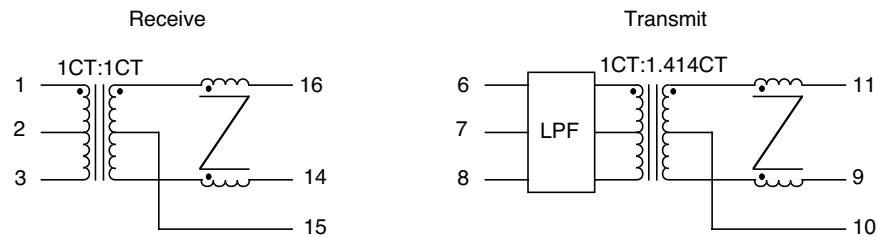
- Optimized for Level One's LX901/7/14 Transceiver Chips
- Complies with or exceeds IEEE 802.3, 10Base-T Standards
- Available in SMD and DIP Packages
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

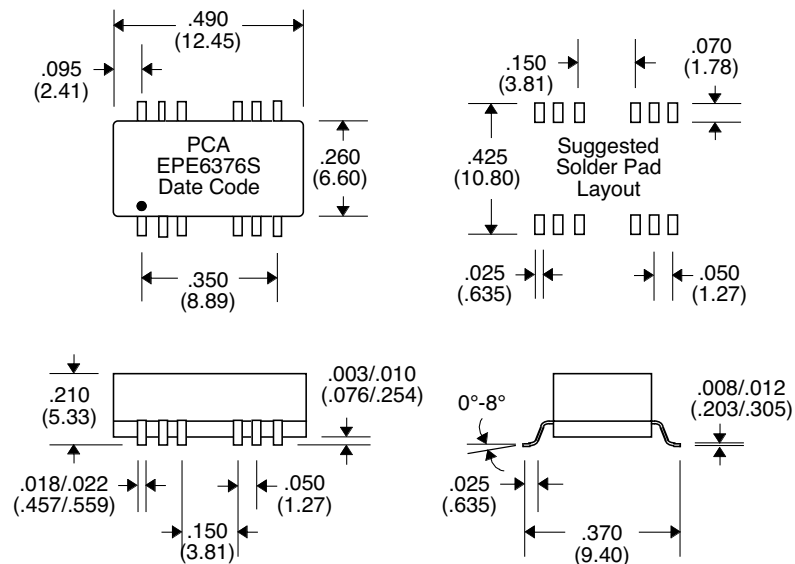
OCL (μ H Min.)	Cut-Off Frequency (MHz Typ.)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)			Common Mode Rejection (dB Min.)		Crosstalk (dB Min.)
@ 100 KHz, 0.1 Vrms		1-10 MHz	5-10 MHz	@ 25 MHz	@ 30 MHz	@ 40 MHz	1-30 MHz	30-100 MHz	1-10 MHz
	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit	Xmit	Xmit	Xmit/Rcv	Xmit/Rcv	
110	-17/-17	-1/-1	-15/-15	-5	-10	-16	-40/-40	-30/-30	-40

• Cable Side Impedance : 100 Ω •

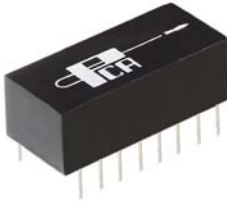
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



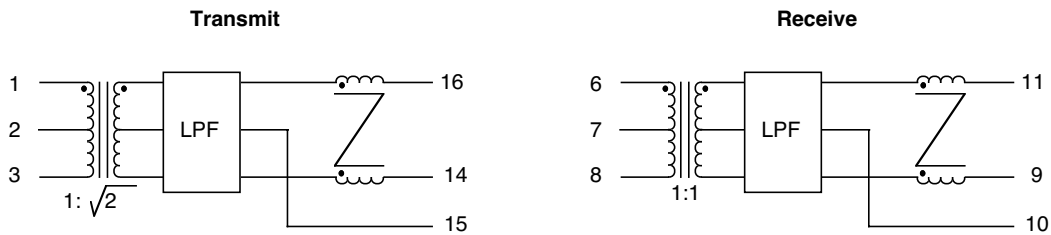
- Optimized for Ubicom's IP2022 Internet Processor
- Complies with or exceeds IEEE 802.3, 10Base-T Standards
- Robust construction allows for IR/VP processes
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

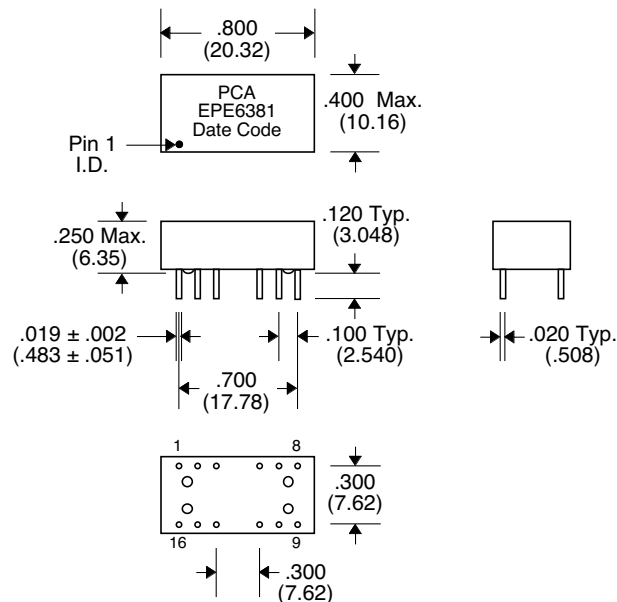
Cut-off Frequency (MHz Typ.)	Insertion Loss (dB Max.)	Return Loss (dB Min.)	Attenuation (dB Min.)		Crosstalk (dB Min.)
	5-10 MHz	5-10 MHz	@30 MHz		1-10 MHz
			Xmit	Rcv	
17	-1	-17	-27	-18	-30

• Cable Side Impedance : 100 Ω •

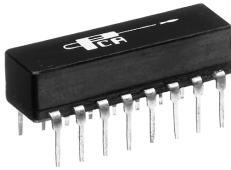
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm$.010 / .25

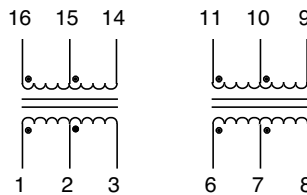


- General Purpose 10 Base-T Filter Module for Adapter Cards, MAUs, Hubs & Motherboard Applications
- Complies with or exceeds IEEE 802.3, 10 Base-T Requirements
- Available in 16 Pin DIP Package
- 2000 Vrms Isolation

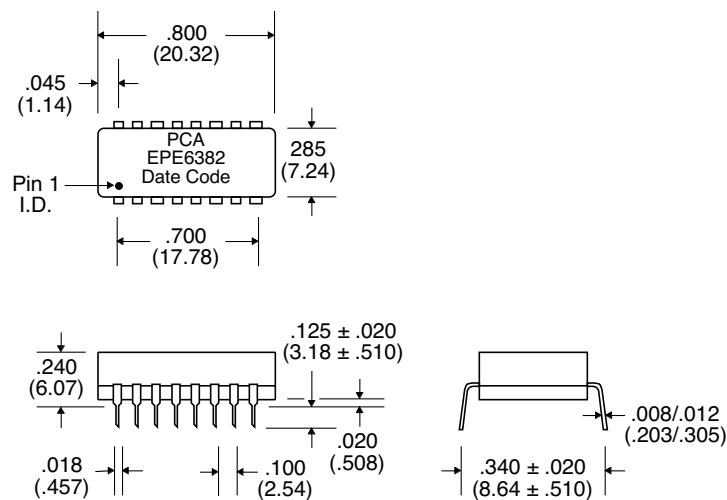
Electrical Parameters @ 25° C

Sine Wave Inductance (μ H Min.)	Interwinding Capacitance (pF Max.)	Leakage Inductance (μ H Max.)	Turns Ratio ($\pm 5\%$)		DCR (Ω Max.)
@ 100 KHz, 20 mVrms	@ 100 KHz, 20 mVrms	@ 100 KHz, 20 mVrms	Xmit	Rcv	
140	15	0.5	1CT: $\sqrt{2}$ CT	1CT: 1CT	0.4
Pins 6-8/1-3					

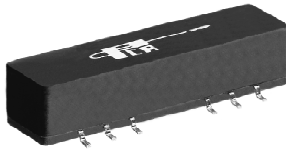
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

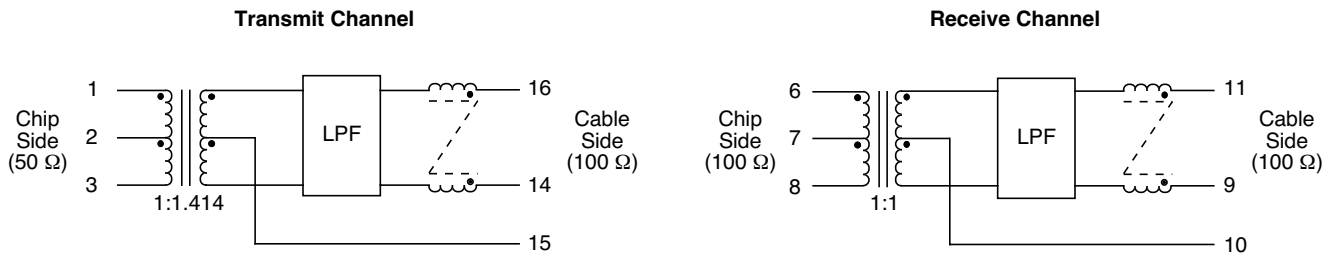


- General Purpose 10Base-T Filter Module
- Complies with or exceeds IEEE 802.3, 10Base-T Standards
- Also available in DIP Packages
- 1500 Vac Isolation

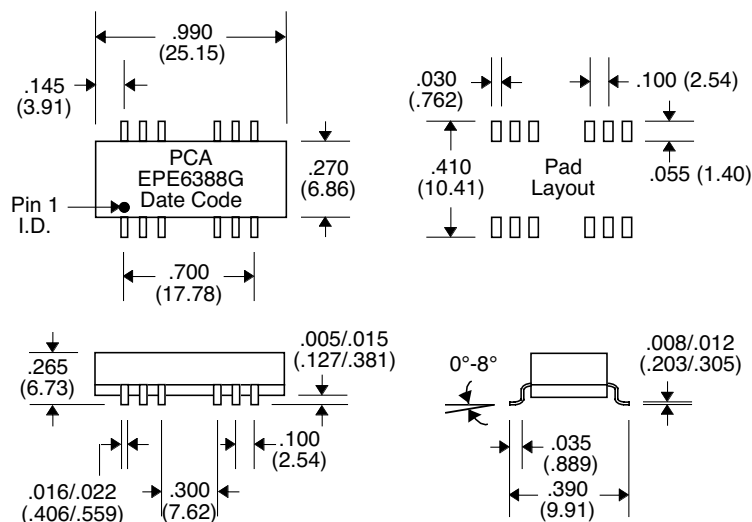
Electrical Parameters @ 25° C

Cut-Off Frequency (MHz Typ.)	Insertion Loss (dB Max.)	Return Loss (dB Typ.)	Attenuation (dB Min.)				Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
---	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	
17/17	-1/-1	-17/-17	-7/-6	-19/-14	-30/-20	-35/-31	-30/-20	-25/-24	---/---	-30

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



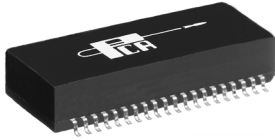
Contents

100Base-T Networking

PCA Part No.	OCL (μH)	Turns Ratio	Package Style	Length	Width	Height
EPF8015G	350 @ 100KHz, .1 Vrms	1:1/1.41:1	14 Pin PCMCIA	.810	.530	.098
EPF8017GH	350 @ 100KHz, .1 Vrms	1:1/1:1	16 Pin SMD	.990	.440	.252
EPF8023G	350 @ 100KHz, .1 Vrms	1:1/1:1	14 Pin PCMCIA	.810	.530	.098
EPF8024G	350 @ 100KHz, .1 Vrms	1:1/1 .41:1	16 Pin SMD	.990	.400	.252
EPF8025G	350 @ 100KHz, .1 Vrms	1:1/2:1	16 Pin SMD	.800	.285	.243
EPF8029G	350 @ 100KHz, .1 Vrms	1:1/1:1	14 Pin PCMCIA	.790	.510	.088
EPF8034S	350 @ 100KHz, .1 Vrms	1:1/1CT:1CT	40 Pin SOIC	1.130	.490	.370
EPF8049S	350 @ 100KHz, .1 Vrms	1:1/1:CT:1CT	40 Pin SOIC	1.130	.490	.255
EPF8066SM	350 @ 100KHz, .1 Vrms	1:1/1CT:1CT	40 Pin SOIC	1.130	.490	.255
EPF8069S	350 @ 100KHz, .1 Vrms	1:1	14 Pin PCMCIA	.500	.280	.084
EPF8092G	350 @ 100KHz, .1 Vrms	1:1/1:1	16 Pin SMD	.990	.400	.243
EPF8095G	350 @ 100KHz, .1 Vrms	1CT:1CT/1CT:1.41CT	16 Pin SMD	.990	.400	.243
EPF8105S	350 @ 100KHz, .1 Vrms	1:1/2CT:1CT	16 Pin SMD	1.130	.490	.255
EPF8107G	350 @ 100KHz, .1 Vrms	1:CT:1CT	16 Pin SMD	.980	.390	.247
EPF8115G	350 @ 100KHz, .1 Vrms	1CT:1CT/1CT:1CT	16 Pin SMD	.990	.400	.980
EPF8123S	350 @ 100KHz, .1 Vrms	1:1/1CT:1CT	40 Pin SOIC	1.130	.490	.270
EPF8123SP	350 @ 100KHz, .1 Vrms	1CT:1CT/1:1	40 Pin SOIC	1.120	.480	.370
EPF8124S	350 @ 100KHz, .1 Vrms	1CT:1CT/1:1	40 Pin SOIC	1.120	.480	.260
EPF8125S	350 @ 100KHz, .1 Vrms	1:1/1:1	16 Pin SOIC/PCMCIA	.570	.570	.080
EPF8130S	350 @ 100KHz, .1 Vrms	1:1/1CT:1CT	40 Pin SOIC	1.130	.490	.270
EPF8143S	350 @ 100KHz, .1 Vrms	1CT:1CT/1CT:1CT	16 Pin SMD	.500	.280	.200
EPF8143SE	350 @ 100KHz, .1 Vrms	1CT:1CT/1CT:1CT	16 Pin SMD	.500	.280	.200
EPF8181AS	350 @ 100KHz, .1 Vrms	1CT:1CT/1CT:1CT	16 Pin SOIC/PCMCIA	.500	.280	.084
EPF8181S	350 @ 100KHz, .1 Vrms	1CT:1CT/1CT:1CT	16 Pin SOIC/PCMCIA	.500	.280	.084
EPF8183S	350 @ 100KHz, .1 Vrms	1CT:1CT	16 Pin SMD	1.12	.480	.260
EPF8183SP	350 @ 100KHz, .1 Vrms	1CT:1CT/1CT:1CT	40 Pin SOIC	1.120	.480	.370
EPF8185SL	350 @ 100KHz, .1 Vrms	1CT:1:1/1CT:1:1	20 Pin SOIC	.610	.570	.080
EPF8186AG	350 @ 100KHz, .1 Vrms	1:1/1:1	16 Pin SMD	.990	.400	.252
EPF8188G	350 @ 100KHz, .1 Vrms	1:1/1:1	16 Pin SMD	.990	.400	.252
EPF8195F1	350 @ 100KHz, .1 Vrms	1CT:1CT/1CT:1CT	16 Pin SMD	.530	.480	.240
EPF8196F2	350 @ 100KHz, .1 Vrms	1CT:1CT/1CT:1CT	16 Pin SMD	.580	.460	.190
EPF8209S	350 @ 100KHz, .1 Vrms	1CT:1CT/1CT:1CT	16 Pin PCMCIA/SOIC	.500	.280	.084
EPF8223S	350 @ 100KHz, .1 Vrms	1:1/1.41:1	16 Pin SMD	1.130	.490	.270
EPF8229F	350 @ 100KHz, .1 Vrms	1CT:1CT	16 Pin SMD	.540	.600	.225

10/100Base-TX Module for Quad-Port Applications

EPF8124S



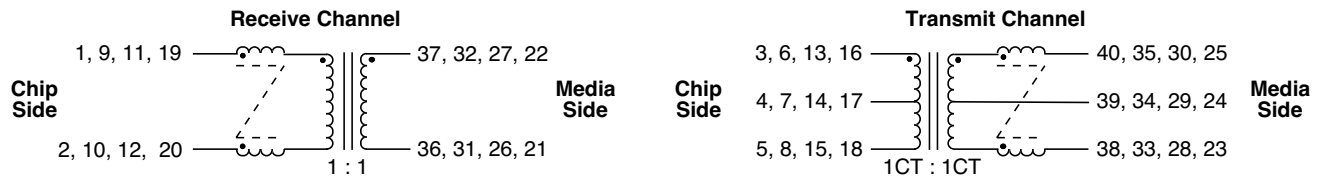
- Recommended for use with SEEQ 84220 Chip
- Designed for Dual Stacked RJ-45 Connector
- Significantly Improved Common Mode Attenuation
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

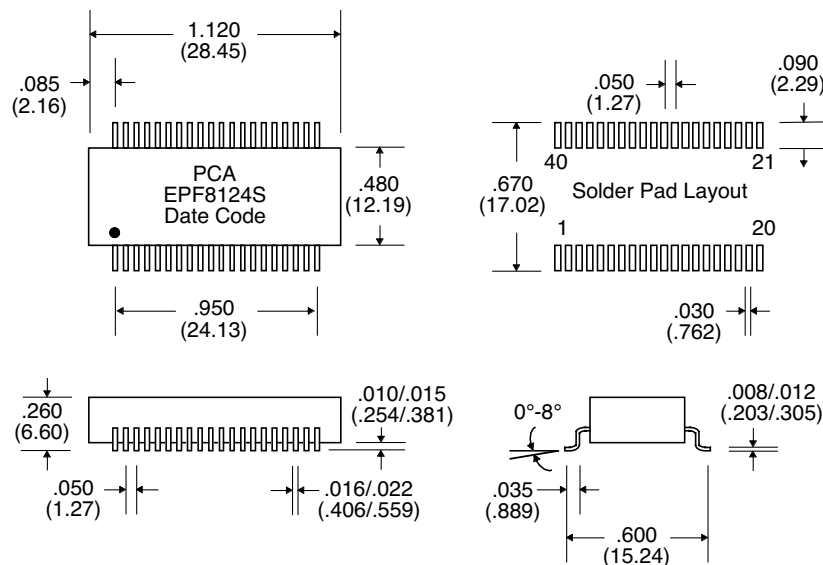
OCCL @ 70°C	Insertion Loss (dB Max.)		Return Loss (dB Min.)			Common Mode Rejection (dB Min.)				Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	1-100 MHz	150 MHz	1-30 MHz	60 MHz	100 MHz	30-100 MHz	200 MHz	300 MHz	500 MHz	1-100 MHz
Media Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-3/-3	-18/-18	-12/-12	-10/-10	-30/-20	-20/-20	-20/-10	-10/---	-30

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface Module for PC Card Applications EPF8015G



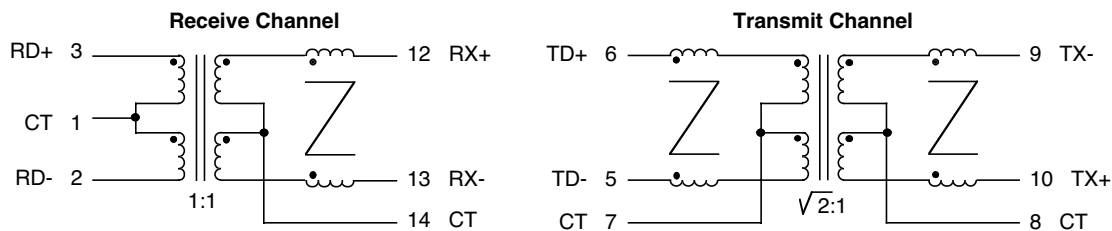
- Optimized for QSI6611/6612 PHY/MAC
- Guaranteed to operate with 8 mA DC Bias at 70°C on Cable Side
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

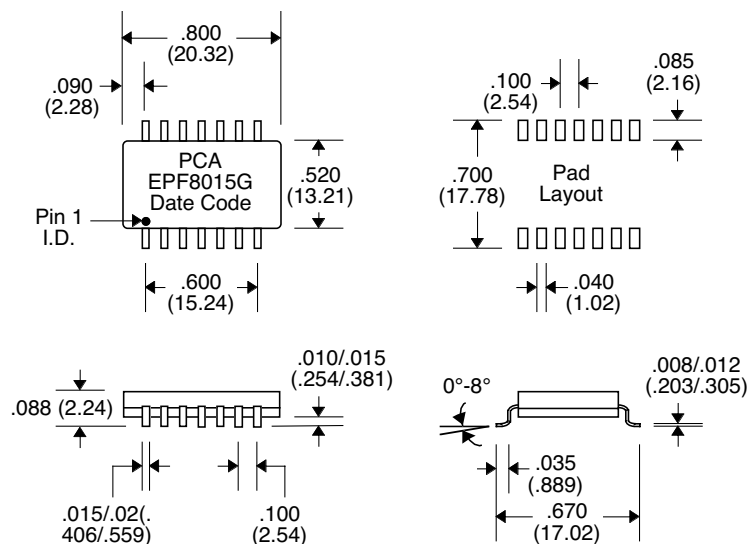
OCL (@ 70°C)	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.) Between Channels
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	100 MHz	150 MHz	1-30 MHz	60 MHz	100 MHz	30-100 MHz	200 MHz	500 MHz	1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1.5/-1	-2/-2	-4/-3	-18/-18	-12/-12	-8/-10	-38/-38	-30/-25	-20/-15	-40

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface Module with Enhanced Common Mode Attenuation EPF8017GH



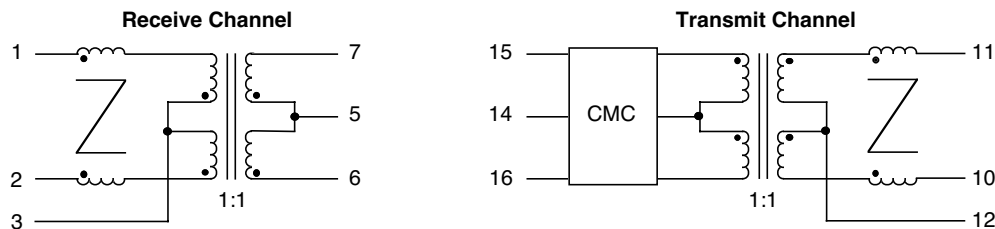
- Optimized for use with DP83840A/DP83223 Chip Set
- Recommended for use with ICS 1890 Series & SSI578Q2120 (when connected per appropriate schematic)
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards
- Guaranteed to operate with 8 mA DC Bias at 70°C

Electrical Parameters @ 25° C

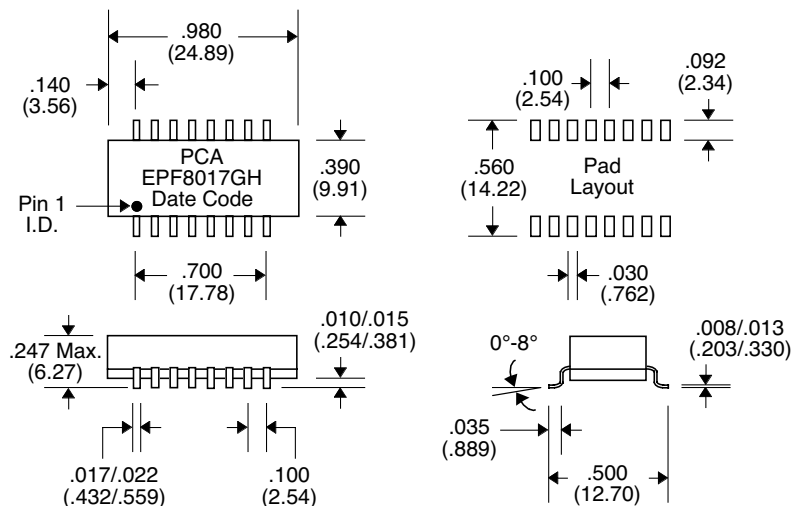
OCL (@ 70°C)	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)	
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	80-100 MHz	100-150 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-30 MHz	30-100 MHz	100-500 MHz	5-10 MHz	10-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv		
350 μ H	-1/-1	-2/-2	-3.5/-3.5	-18/-18	-12/-12	-10/-10	-40/-40	-35/-30	-10/-10	-35	-35

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

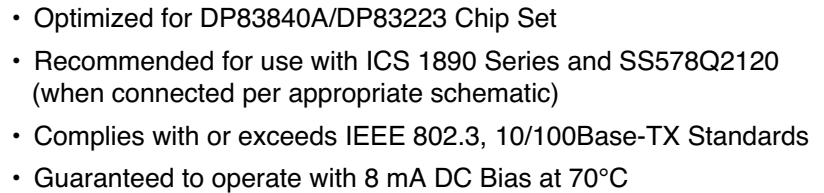
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



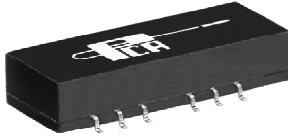
OCL (@ 70°C)	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.) Between Channels	
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	80-100 MHz	100-150 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-30 MHz	30-100 MHz	100-500 MHz	1-10 MHz	10-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv		
350 μ H	-1/-1	-1/-1	-3.5/-3	-20/-20	-17/-17	-10/-10	-38/-38	-38/-38	-10/-10	-38	-38

Transmit Channel

The diagram shows a 1:1 transformer. The primary side has terminals 6, 5, and 7. The secondary side has terminals 9, 8, and 10. A Z-network is connected to the secondary terminals.

Figure 1: Dimensions of the PCA EPF8023G package. The figure includes four views: Top, Bottom, Side, and Pad Layout. Top view shows a rectangular package with dimensions: width .800 (20.32), height .520 (13.21), and pin pitch .090 (2.28). The pin 1 indicator is on the left. Bottom view shows dimensions: width .600 (15.24), height .010/.015 (.254/.381), and pin pitch .016/.022 (.406/.559). Side view shows a height of .088 (2.24) and a pin diameter of .040 (1.02). Pad Layout shows dimensions: width .700 (17.78), height .100 (2.54), and pin pitch .035 (.889).

TEL: (818) 892-0761
FAX: (818) 894-5791
<http://www.pca.com>



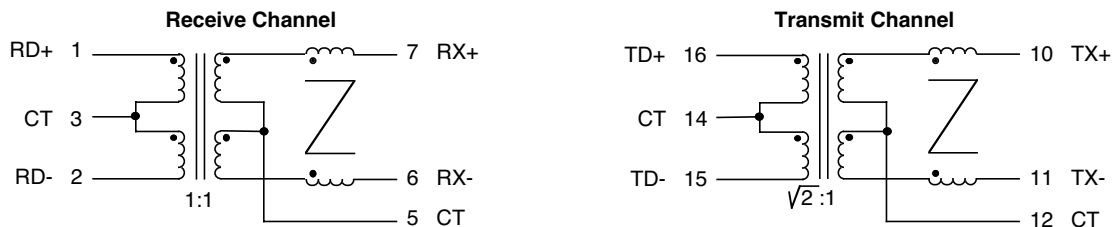
- Optimized for QSI6611/6612 PHY/MAC
- Guaranteed to operate with 8 mA DC Bias at 70°C on Cable Side
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

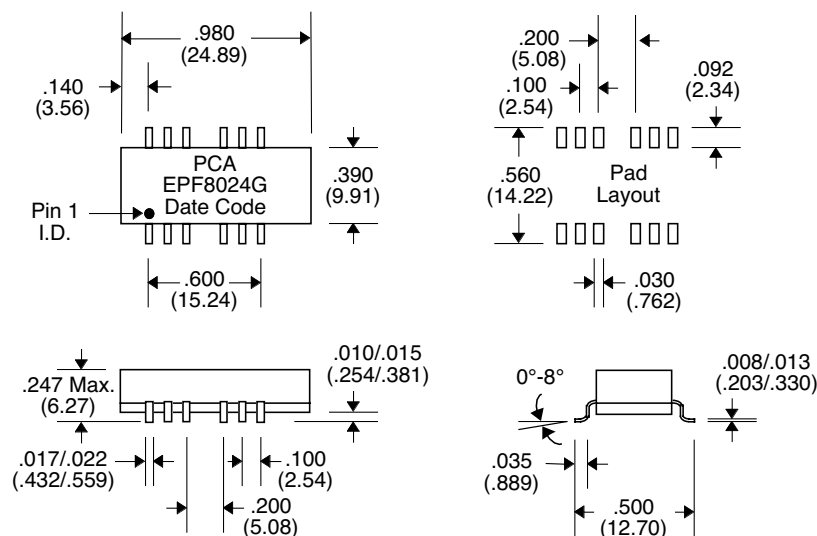
OCL (@ 70°C)	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)	
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	80-100 MHz	100-150 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-30 MHz	30-100 MHz	100-500 MHz	5-10 MHz	10-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv		
350 μ H	-1/-1	-2/-2	-3.5/-3	-18/-18	-12/-12	-10/-10	-40/-40	-30/-30	-10/-10	-35	-35

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



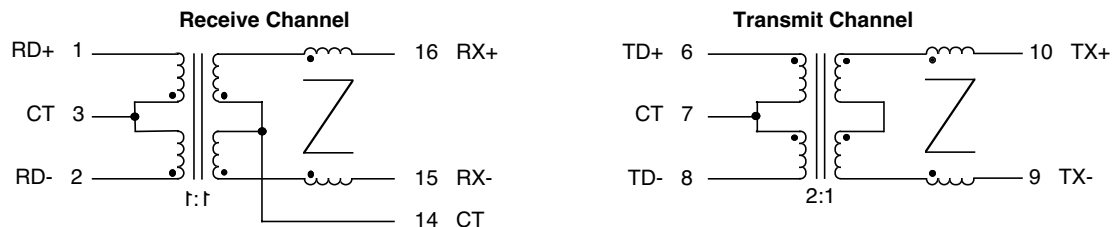
- Recommended for use with SEEQ 80220
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards
- Guaranteed to operate with 8 mA DC Bias at 70°C on Cable Side

Electrical Parameters @ 25° C

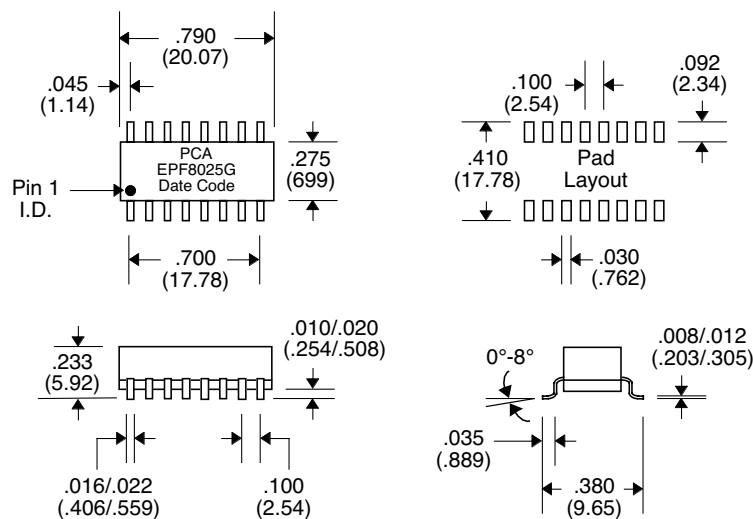
OCL (@ 70°C)	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)	
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	80-100 MHz	100-150 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-30 MHz	30-100 MHz	100-500 MHz	0.1-10 MHz	10-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv		
350 μ H	-1/-1	-1/-1	-3.5/-3	-20/-20	-10/-10	-10/-10	-40/-40	-30/-30	-10/-10	-40	-40

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. • Crosstalk : Between Channels •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface Module for PC Card Applications EPF8029G



- Recommended for use with SSI78Q2120
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards
- Guaranteed to operate with 8 mA DC Bias at 70°C
Low profile, fully integrated with two channels

Electrical Parameters @ 25° C

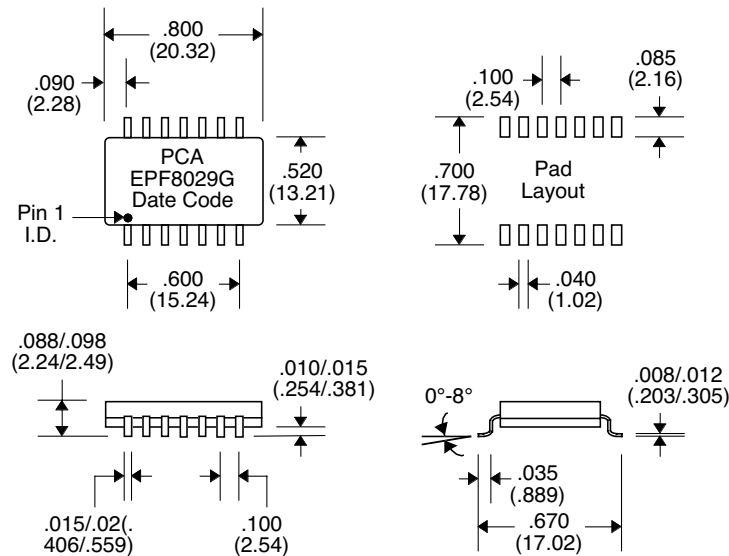
OCL (@ 70°C)	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.) Between Channels	
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	80-100 MHz	100-150 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-30 MHz	30-100 MHz	100-500 MHz	1-10 MHz	10-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv		
350 μ H	-1/-1	-1/-1	-3.5/-3	-18/-18	-12/-12	-10/-10	-38/-38	-30/-30	-10/-10	-40	-40

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



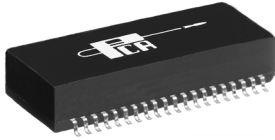
Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Module for Quad-Port Applications

EPF8034S



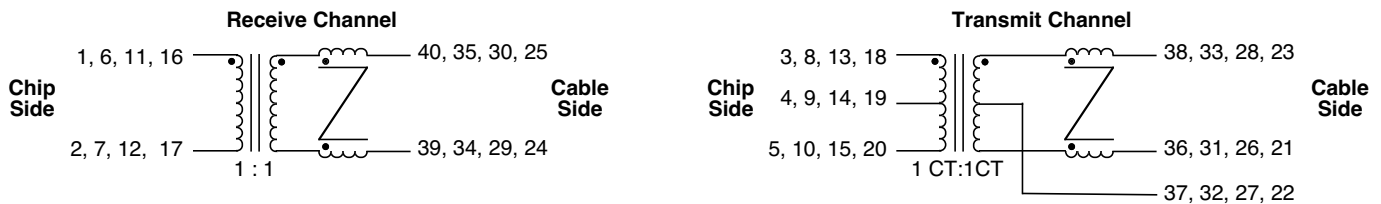
- Optimized for DP83840A/Twister Combination
- Recommended for use with ICS1890 series, SSI TSC78Q2120 chips
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards
- Guaranteed to operate with 8 mA DC Bias at 70°C

Electrical Parameters @ 25° C

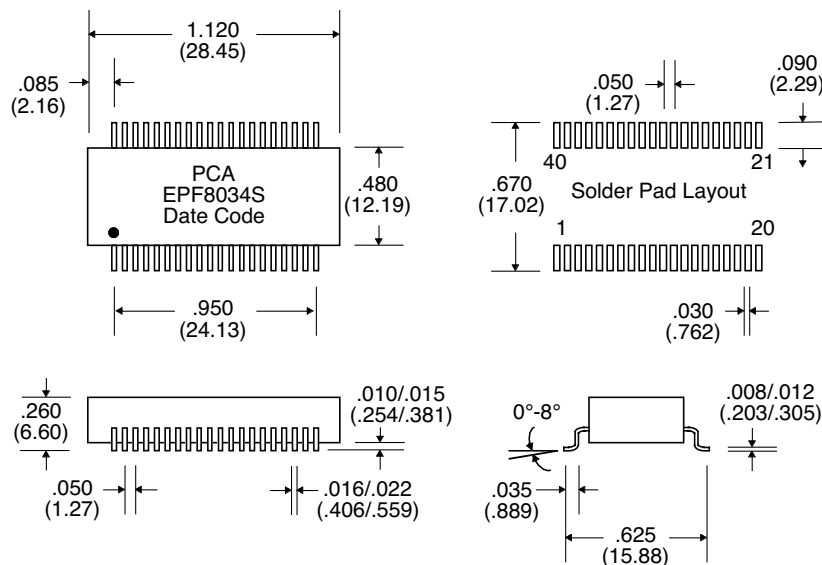
OCL (@ 70°C)	Insertion Loss (dB Max.)		Return Loss (dB Min.)			Common Mode Rejection (dB Min.)				Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	0.1-100 MHz	150 MHz	1-30 MHz	60 MHz	100 MHz	30-100 MHz	200 MHz	300 MHz	500 MHz	0.1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-3/-3	-18/-18	-12/-12	-10/-10	-30/-25	-25/-20	-20/-10	-15/---	-30

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



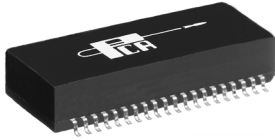
Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Module for Multi-Port Applications

EPF8049S



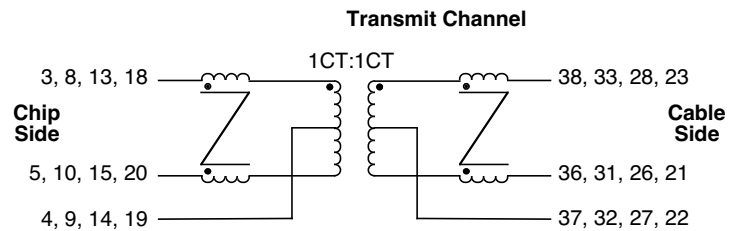
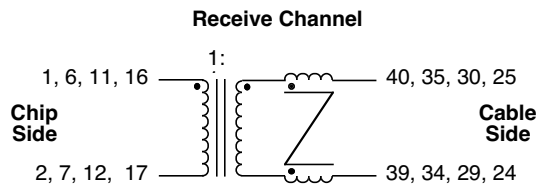
- Optimized for ICS 1890 & SSI 78Q2120 Chips
- Recommended for Broadcom BCM5208 10/100 Solution
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards
- Significantly Improved Common Mode Attenuation
- Guaranteed to operate with 8 mA DC Bias at 70°C

Electrical Parameters @ 25° C

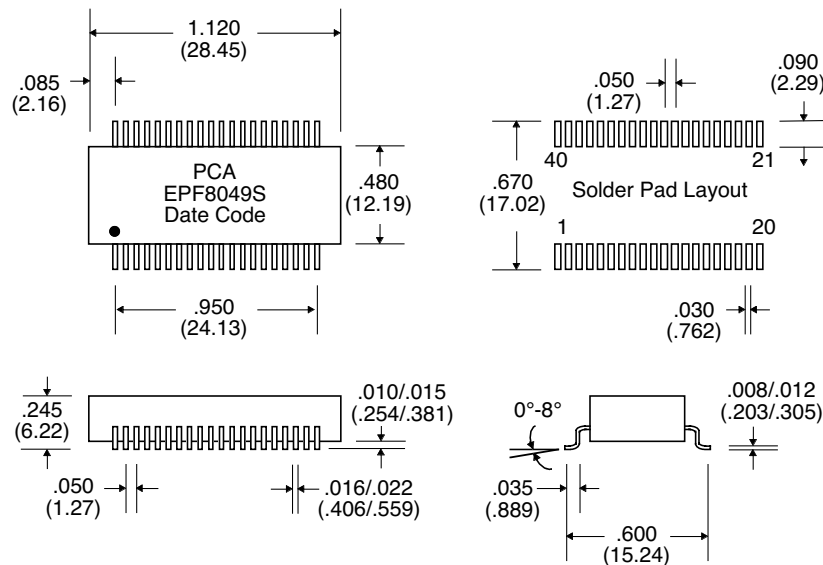
OCL (@ 70°C)	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)				Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	0.1-80 MHz	100 MHz	150 MHz	1-30 MHz	60 MHz	100 MHz	30-100 MHz	200 MHz	300 MHz	500 MHz	0.1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-1/-1	-3/-3	-18/-18	-12/-12	-10/-10	-30/-28	-25/-20	-20/-10	-15/---	-30

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic

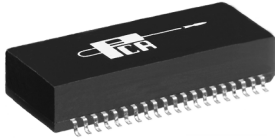


Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Module for Multi-Port Applications EPF8066SM



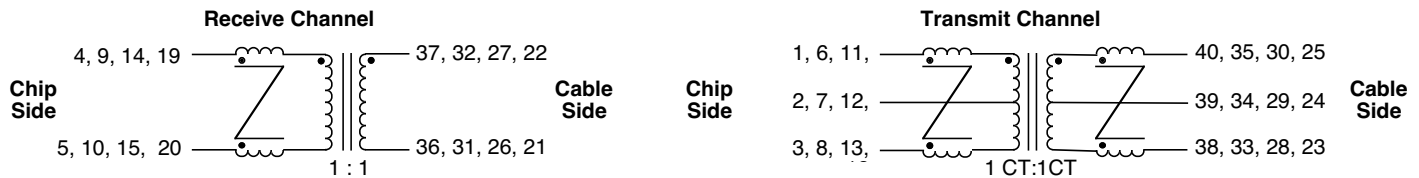
- Significantly Improved Common Mode Attenuation
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

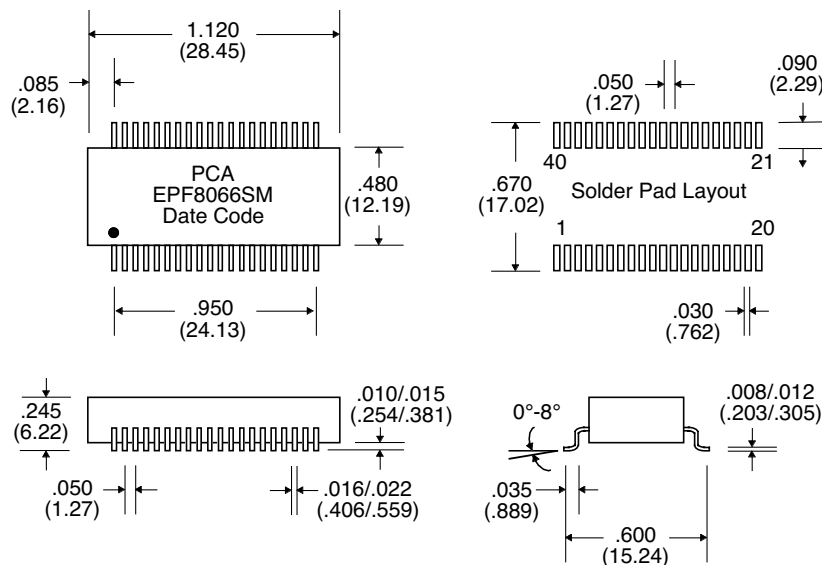
OCL (@ 70°C)	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)				Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	0.1-80 MHz	100 MHz	150 MHz	1-30 MHz	60 MHz	100 MHz	30-100 MHz	200 MHz	300 MHz	500 MHz	0.1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-1/-1	-3/-3	-18/-18	-12/-12	-10/-10	-30/-25	-25/-20	-20/-10	-15/---	-30

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface Module for PC Card Applications EPF8069S



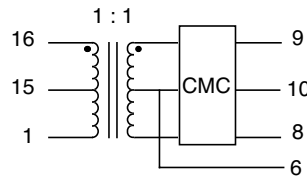
- Recommended for use with SSI78Q2120
- Low profile (PCMCIA), 16 pin SOIC
- Guaranteed to operate with 8 mA DC bias at 70°C
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

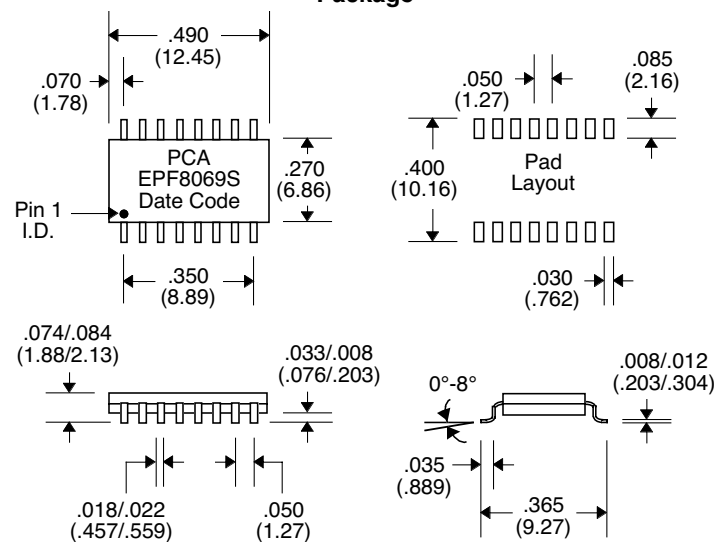
OCL (@ 70°C)	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)	
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	80-100 MHz	100-150 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-100 MHz	100-200 MHz
350μH Cable Side	-1	-1	-2	-18	-12	-10	-30	-10

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

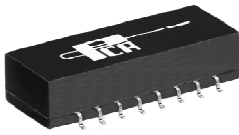
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25



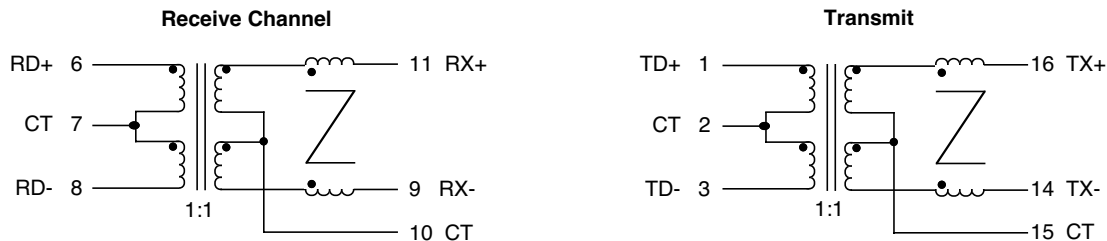
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards
- Guaranteed to operate with 8 mA DC Bias at 70°C

Electrical Parameters @ 25° C

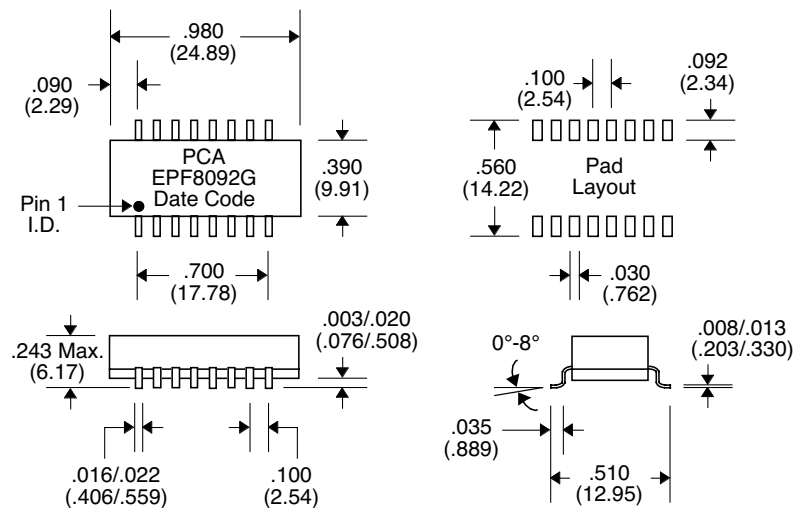
OCL (@ 70°C)	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)	
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	80-100 MHz	100-150 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-30 MHz	30-100 MHz	100-500 MHz	5-10 MHz	10-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv		
350 μ H	-1/-1	-2/-2	-3.5/-3	-18/-18	-12/-12	-10/-10	-40/-40	-30/-30	-10/-10	-35	-35

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic

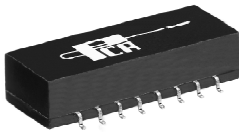


Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface Module with Enhanced Common Mode Attenuation EPF8095G



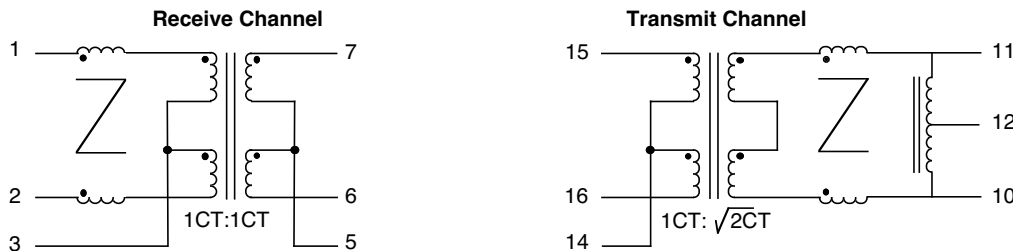
- Optimized for AMD AM79C973 Chip
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Robust construction to meet IR/VP soldering processes
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

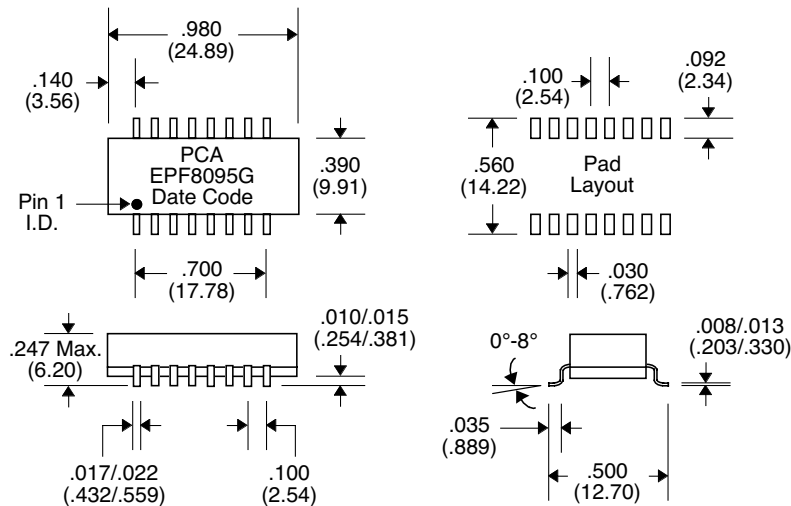
OCL (@ 70°C)	Insertion Loss (dB Max.)	Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)	
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	1-30 MHz	30-60 MHz	60-80 MHz	1-30 MHz	30-100 MHz	100-500 MHz	5-10 MHz	10-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv		
350 μ H	-1/-1	-18/-18	-12/-12	-10/-10	-40/-40	-35/-30	-10/-10	-35	-35

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. • Crosstalk : Between Channels •

Schematic



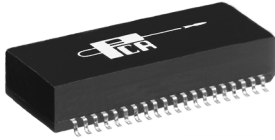
Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Module for Multi-Port Applications

EPF8105S



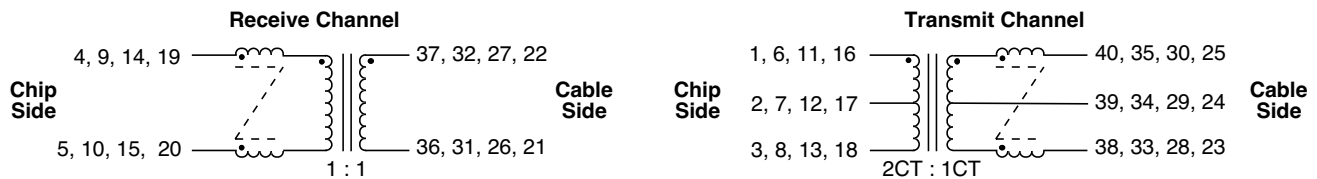
- Recommended for use with Level One LXT974 Chip
- For use with Transceiver requiring 2:1 Transmit Turn Ratio
- Significantly Improved Common Mode Attenuation
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

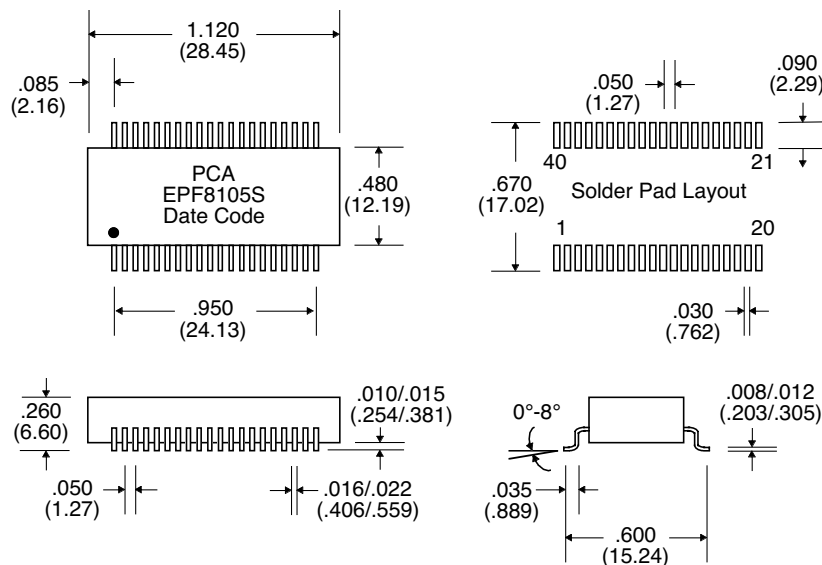
OCL (@ 70°C)	Insertion Loss (dB Max.)			Return Loss (dB Min.)			CMR (dB Min.)		Diff. to CMR (dB Min.)		Crosstalk (dB Min.)	
100 KHz, 0.1 Vrms 8 mA DC Bias	1-60 MHz	80 MHz	100 MHz	1-30 MHz	60 MHz	80 MHz	30-100 MHz	200 MHz	1-60 MHz	200 MHz	60 MHz	100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv		
350 μ H	-1/-1	-2/-1	-2.5/-1	-18/-18	-12/-12	-10/-10	-30/-20	-15/-15	-40/-25	-30/15	-40	-30

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface Module with Enhanced Common Mode Attenuation

EPF8107G



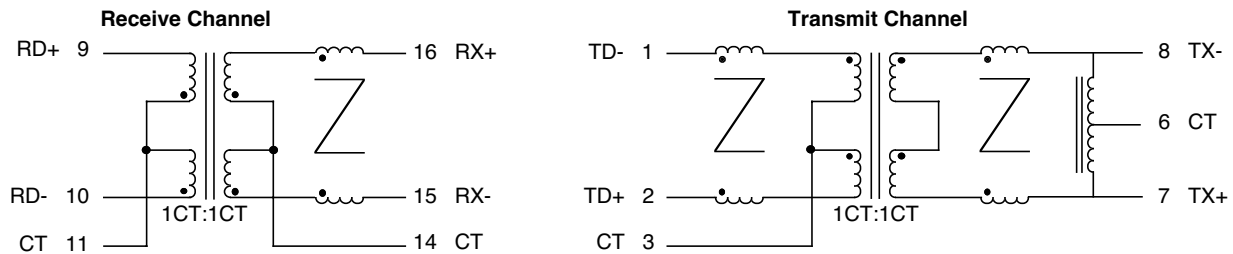
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Robust construction to meet IR/VP soldering processes
- Complies with or exceeds IEEE 802.3, 10BT/100BX Standards

Electrical Parameters @ 25° C

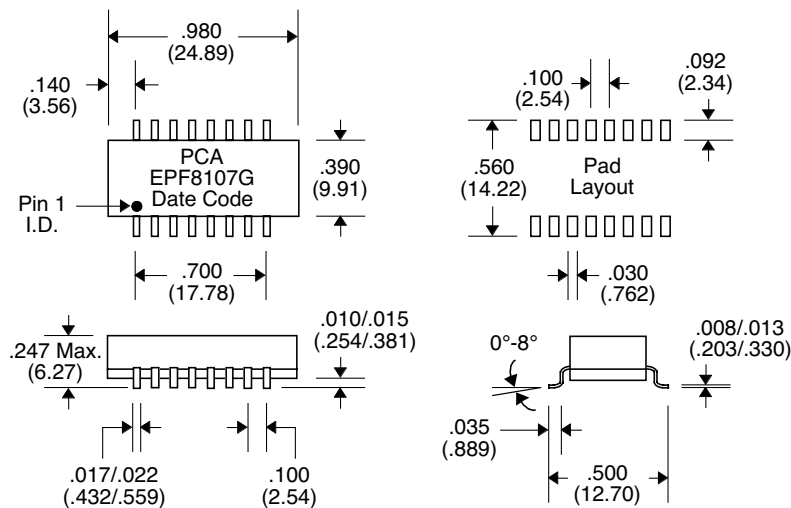
OCL @ 70°C	Insertion Loss (dB Max.)	Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	1-30 MHz	30-60 MHz	80-100 MHz	1-30 MHz	30-100 MHz	100-500 MHz	1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-18/-18	-12/-12	-10/-10	-40/-40	-35/-30	-10/-10	-35

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. • Crosstalk : Between Channels •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface Module with Enhanced Common Mode Attenuation

EPF8115G & EPF8115G-RC



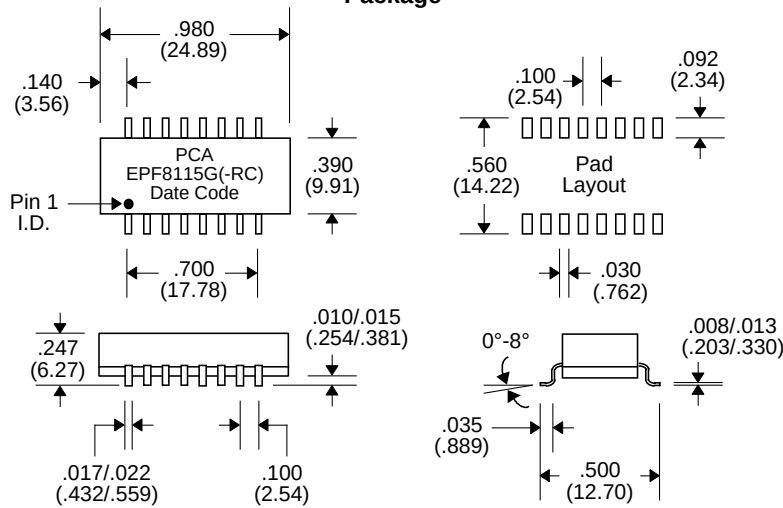
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Robust construction to meet IR/VP soldering processes
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards
- RoHS Compliant

Electrical Parameters @ 25° C

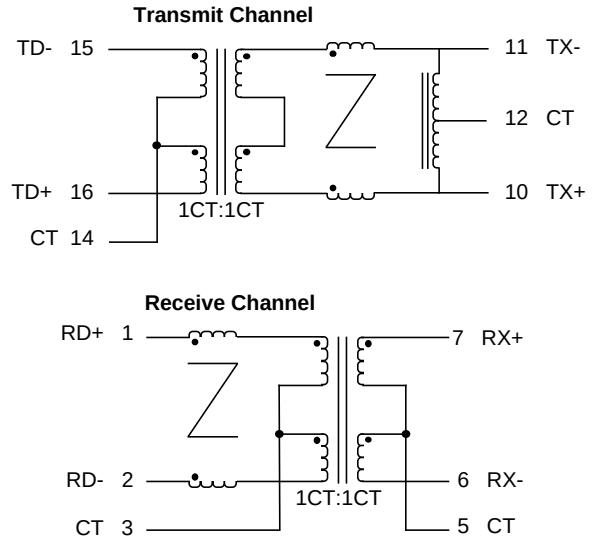
OCCL @ 70°C	Insertion Loss (dB Max.)		Return Loss (dB Min.)				Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	1-100 MHz	100-150 MHz	1-30 MHz	30-60 MHz	60-80 MHz	80-100 MHz	30-100 MHz	200 MHz	300-500 MHz	1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-3/-3	-18/-18	-14/-14	-12/-12	-10/-10	-35/-35	-15/-20	-10/-10	-50

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Package



Schematic

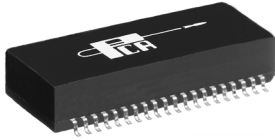


Notes :	EPF8115G	EPF8115G-RC
1. Assembly Process (Solder Composition)	SnPb	Pb-Free + (RoHS exemption 7a)
2. Peak Solder Rating (per IPC/JEDEC J-STD-020C)	225°C	260°C
3. Moisture Sensitive Levels (MSL) (per IPC/JEDEC J-STD-020C)	MSL = 3 (168 Hours, $\leq 30^\circ\text{C}/60\%\text{RH}$)	MSL = 4 (72 Hours, $\leq 30^\circ\text{C}/60\%\text{RH}$)
4. Weight	1.85 grams	1.85 grams
5. Packaging Information (*Add "TR" to end of part number when placing order)	(Tube) 19 pieces/tube	19 pieces/tube
	(Tape & Reel) 550 pieces/13" reel (*EPF8115G-TR)	550 pieces/13" reel (*EPF8115G-RCTR)

Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Module for Quad-Port Applications

EPF8123S



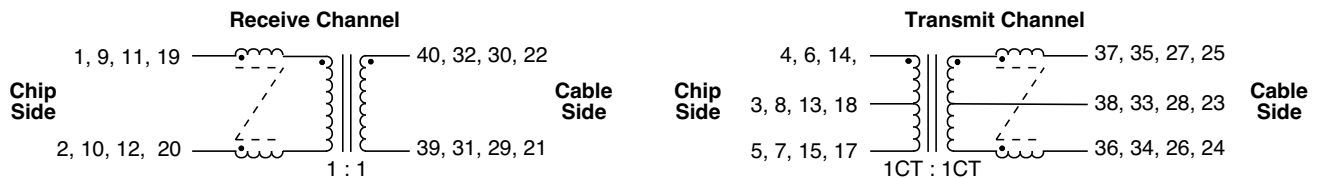
- Recommended for use with SEEQ 84220
- Designed for non-stacked RJ-45 connector
- Significantly improved Common Mode Attenuation
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

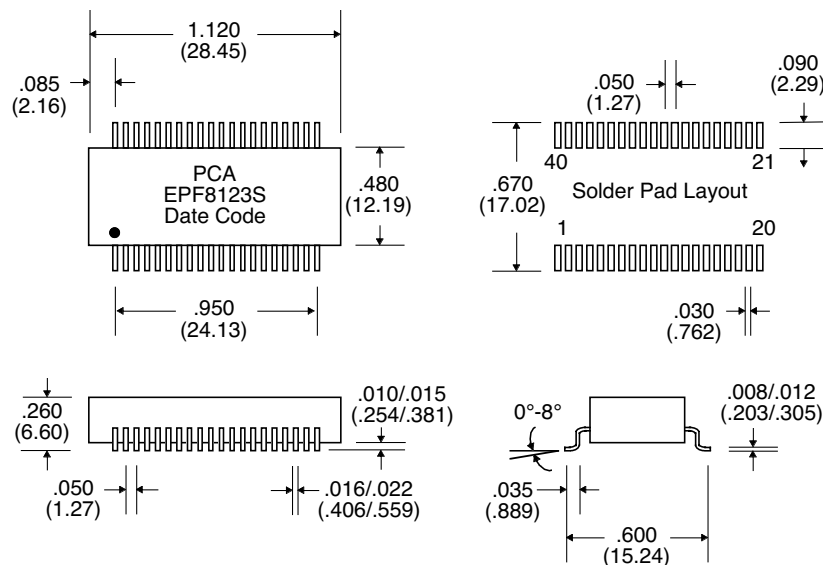
OCL (@ 70°C)	Insertion Loss (dB Max.)		Return Loss (dB Min.)			Common Mode Rejection (dB Min.)				Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	1-100 MHz	150 MHz	1-30 MHz	60 MHz	100 MHz	30-100 MHz	200 MHz	300 MHz	500 MHz	1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-3/-3	-18/-18	-12/-12	-10/-10	-30/-20	-20/-15	-20/-10	-10/---	-30

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface Module for PC Card Applications EPF8125S

- Recommended for use with SSI 78Q2120 chips
- Low profile, fully integrated with two channels
- Guaranteed to operate with 8 mA DC bias at 70°C
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

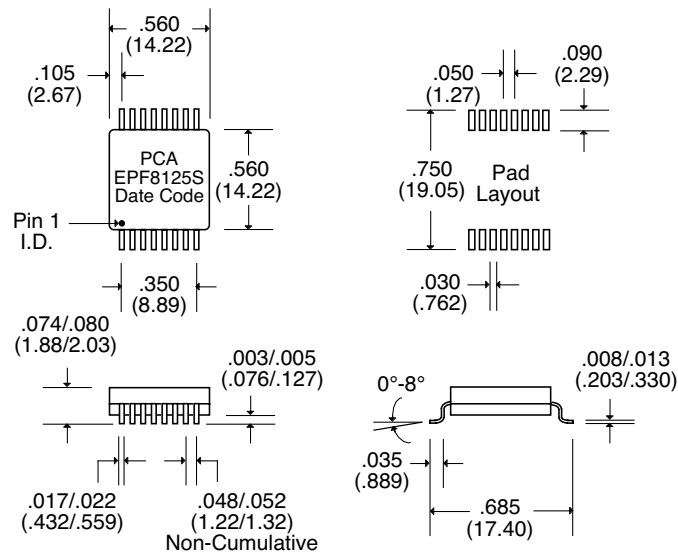
OCL @ 70°C	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.) Between Channels	
100 KHz, 0.1 Vrms 8 mA DC Bias	0.1-80 MHz	100 MHz	150 MHz	30 MHz	60 MHz	100 MHz	1-30 MHz	100 MHz	500 MHz	5-10 MHz	10-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv		
350 μ H	-1/-1	-1/-1	-3.5/-3.5	-18/-18	-12/-12	-10/-10	-30/-30	-25/-25	-10/-10	-40	-40

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



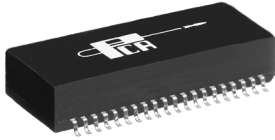
Package



Coplanarity within .003 Max.

Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Module for Multi-Port Applications EPF8130S



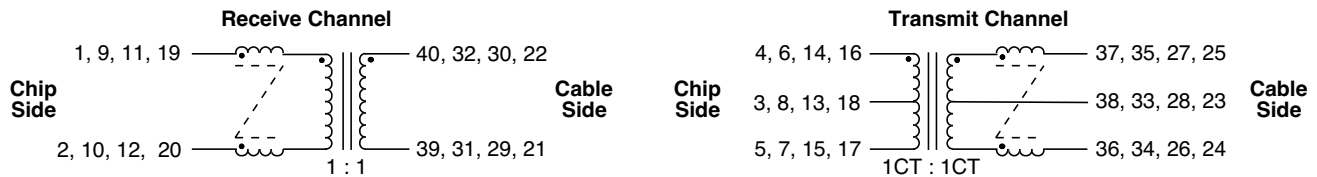
- Recommended for use with Broadcom 5208 Chip
- Significantly Improved Common Mode Attenuation
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Transfer Molded Part

Electrical Parameters @ 25° C

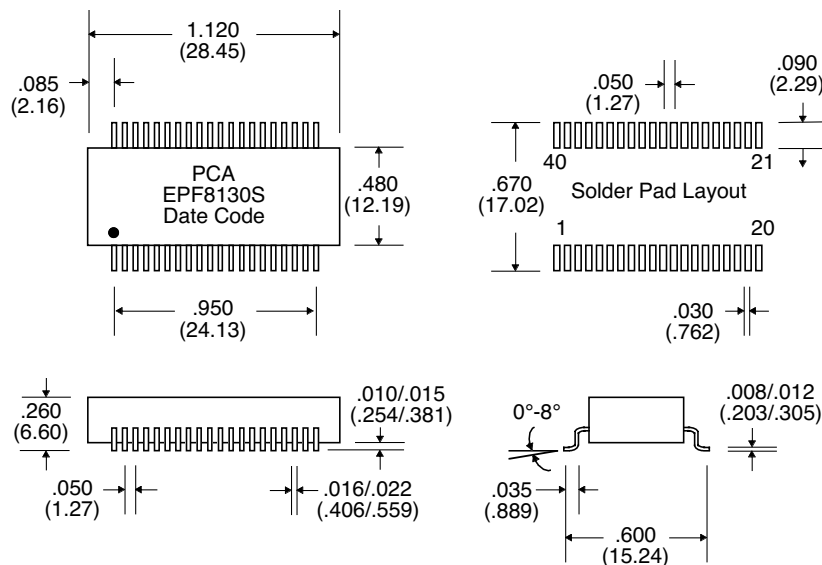
OCL @ 70°C	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)				Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	100 MHz	150 MHz	1-30 MHz	60 MHz	100 MHz	30-100 MHz	200 MHz	300 MHz	500 MHz	1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-1/-1	-3/-3	-18/-18	-12/-12	-10/-10	-30/-20	-20/-15	-20/-10	-15/---	-30

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface Module with Enhanced Common Mode Attenuation

EPF8143S & EPF8143S-RC



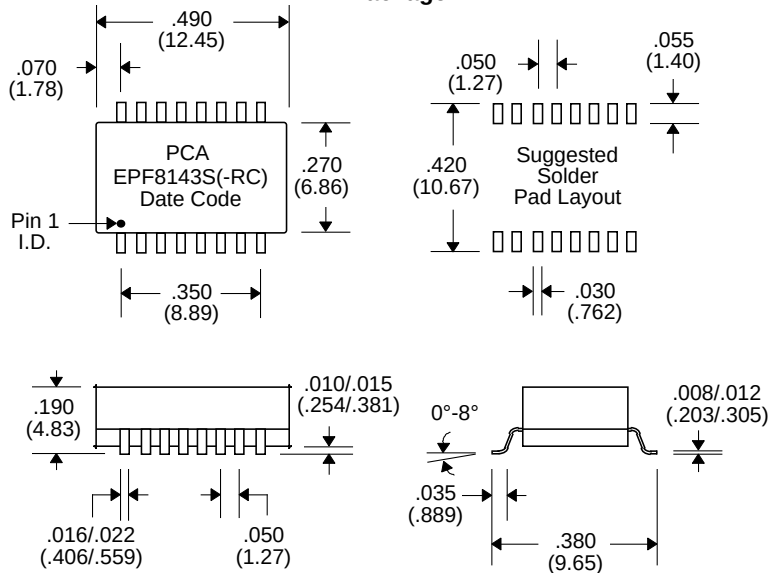
- Recommended for Enable EL40C331, Broadcom BCM5201, BCM5202 & Level One LXT970
- Designed to operate from 0°C to +70°C @ 8 mA DC Bias
- Complies with or exceeds IEEE 802.3 & ANSI X3.263 Standards
- Peak Solder Rating (see Note 2)
- RoHS Compliant

Electrical Parameters @ 25° C

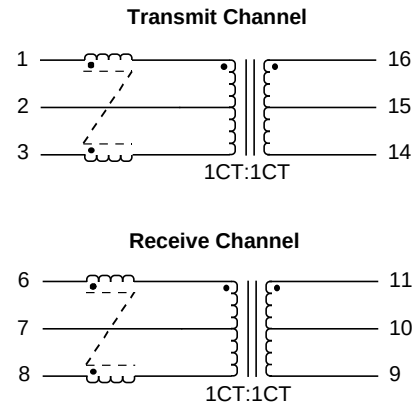
OCL @ 70°C	Insertion Loss (dB Max.)		Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	.1-100 MHz	150 MHz	1-30 MHz	60 MHz	100 MHz	1-30 MHz	30-100 MHz	100-500 MHz	1-100 MHz
	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-3/-3	-18/-18	-12/-12	-10/-10	-40/-40	-35/-30	-10/-10	-35

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Package



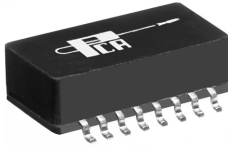
Schematic



Notes :	EPF8143S	EPF8143S-RC
1. Assembly Process (Solder Composition)	SnPb	Pb-Free + (RoHS exemption 7a)
2. Peak Solder Rating (per IPC/JEDEC J-STD-020C)	225°C	260°C
3. Moisture Sensitive Levels (MSL) (per IPC/JEDEC J-STD-020C)	MSL = 3 (168 Hours, $\leq 30^\circ\text{C}/60\%\text{RH}$)	MSL = 4 (72 Hours, $\leq 30^\circ\text{C}/60\%\text{RH}$)
4. Weight	0.912 gram	0.912 gram
5. Packaging Information (*Add "TR" to end of part number when placing order)	(Tube) 40 pieces/tube	40 pieces/tube
	(Tape & Reel) 650 pieces/13" reel (*EPF8143S-TR)	650 pieces/13" reel (*EPF8143S-RCTR)

Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface Module with Enhanced Common Mode Attenuation EPF8143SE



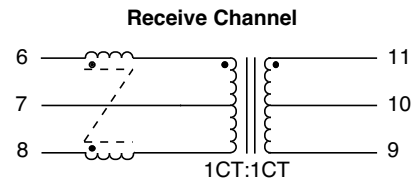
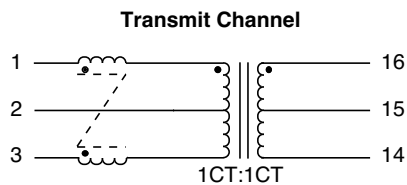
- Recommended to Enable 40C331, Broadcom BCM5201, BCM5202 & Level ONE LXT970 when connected per appropriate schematic
- Designed to operate from -40°C to +85°C @ 8 mA DC Bias
- Complies with or exceeds IEEE 802.3 & ANSI X3.263 Standards

Electrical Parameters @ 25° C

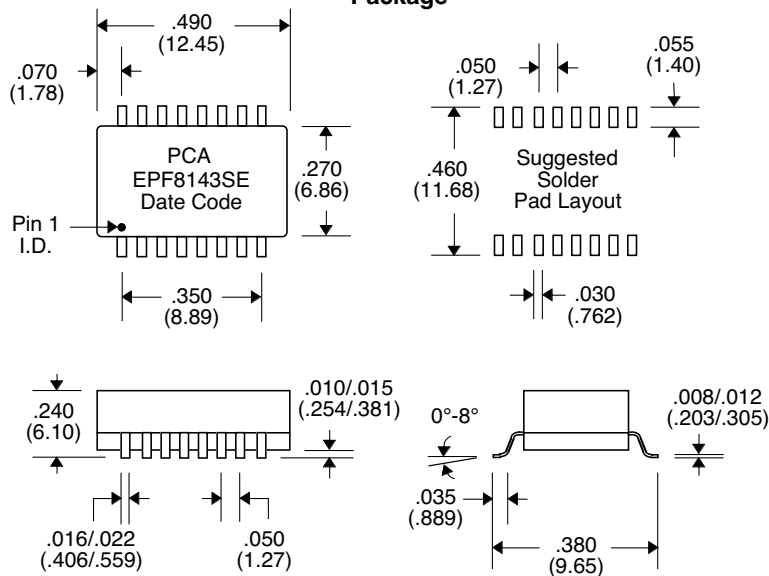
OCL (μ H Min.)	Insertion Loss (dB Max.)		Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	0.1-100 MHz	150 MHz	1-30 MHz	60 MHz	100 MHz	1-30 MHz	30-100 MHz	100-500 MHz	1-100 MHz
Pins 1-3/6-8	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350	-1/-1	-3/-3	-18/-18	-12/-12	-10/-10	-40/-40	-35/-30	-10/-10	-35

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface PCMCIA Module EPF8181AS

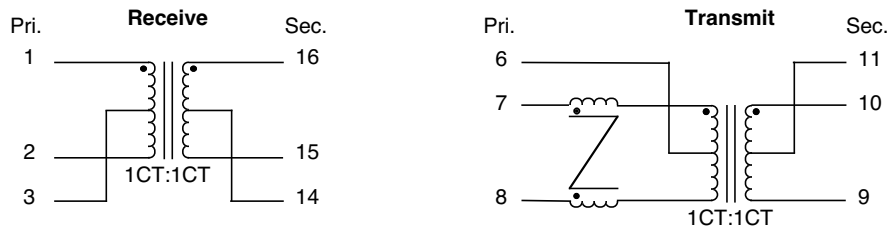


- 1500 Vrms Isolation
- Robust design allows for toughest soldering processes
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

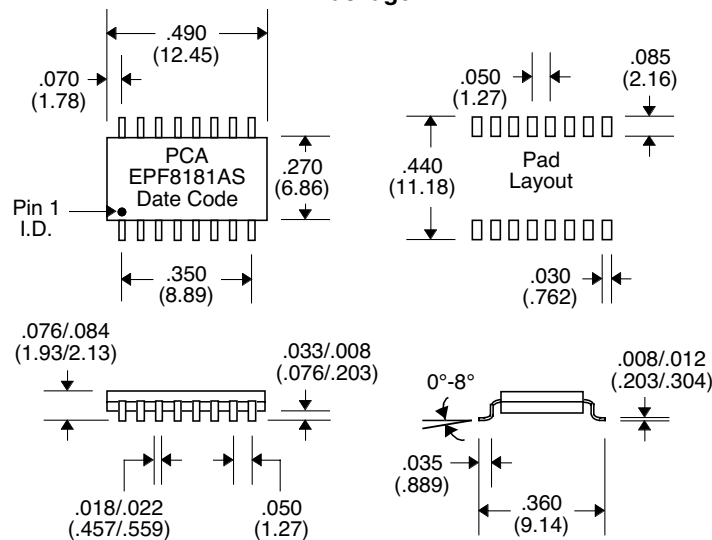
Electrical Parameters @ 25° C

OCL (μ H Min.)	Interwinding Capacitance (pF Max.)	Primary Leakage Inductance (μ H Max.)	Return Loss (dB Min.)			Primary DCR (Ω Max.)	
100 KHz, 0.1 Vrms	@ 100 KHz, 0.1 Vrms	@ 100 KHz, 0.1 Vrms	1-30	30-60	60-80		
Xmit & Rcv		Xmit & Rcv				Xmit	Rcv
350 @ Pins 16-15 & 10-9	25	0.3	-18	-14	-10	1.5	1.0

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface PCMCIA Module EPF8181S

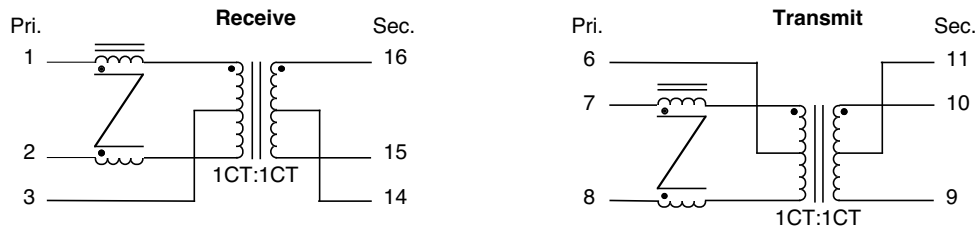


- 1500 Vrms Isolation
- Robust design allows for toughest soldering processes
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

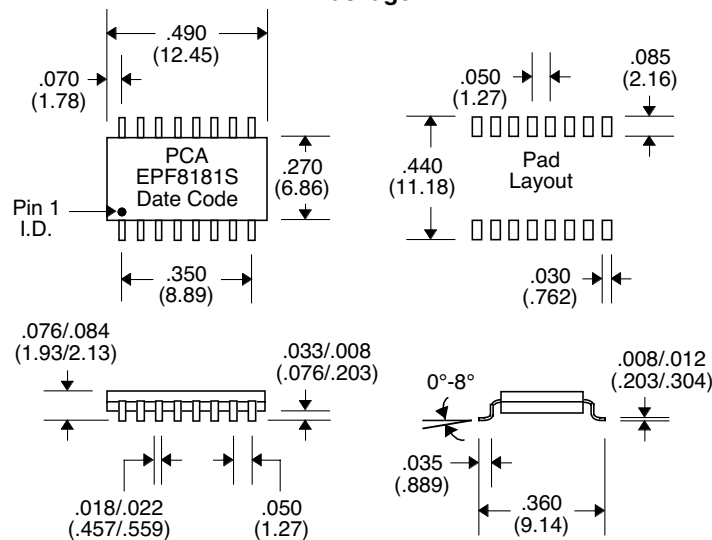
Electrical Parameters @ 25° C

OCL (μ H Min.)	Interwinding Capacitance (pF Max.)	Primary Leakage Inductance (μ H Max.)	Return Loss (dB Min.)			Primary DCR (Ω Max.)	
100 KHz, 0.1 Vrms	@ 100 KHz, 0.1 Vrms	@ 100 KHz, 0.1 Vrms	1-30	30-60	60-80		
Xmit & Rcv		Xmit & Rcv				Xmit	Rcv
350 @ Pins 16-15 & 10-9	12	0.3	-18	-14	-10	0.9	0.9

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



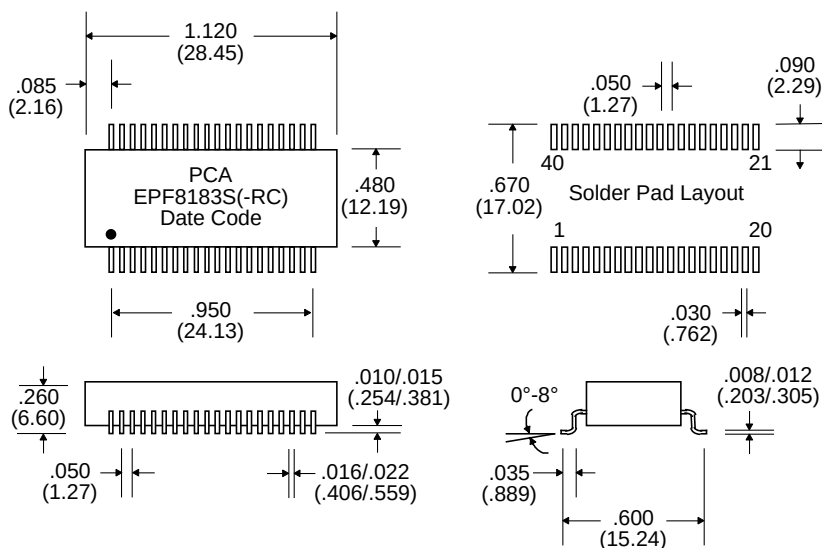
- Significantly Improved Common Mode Attenuation
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards
- Add "-RC" after part number for RoHS Compliant

Electrical Parameters @ 25° C

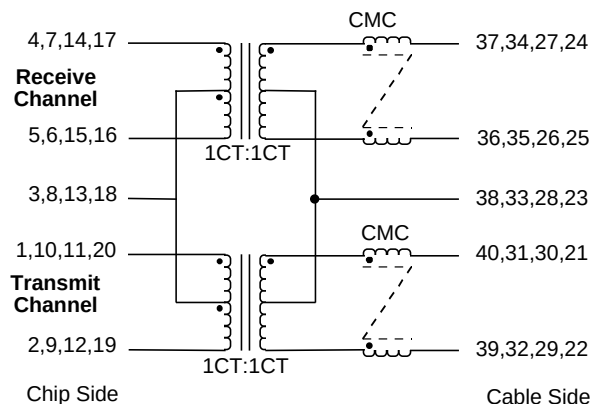
OCL @ 70°C	Insertion Loss (dB Max.)		Return Loss (dB Min.)			Common Mode Rejection (dB Min.)				Common to Diff. Reject. (dB Min.)	Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	1-100 MHz	150 MHz	30 MHz	30-60 MHz	60-80 MHz	30 MHz	100 MHz	200 MHz	300-500 MHz	1-100 MHz	1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-3/-3	-18/-18	-16/-16	-14/-14	-35/-35	-25/-25	-25/-25	-10/-10	-40/-40	-38

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Package



Schematic

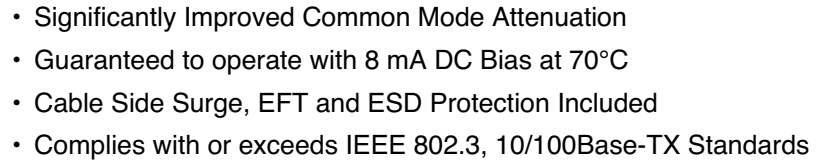


Notes :	EPF8183S	EPF8183S-RC
1. Assembly Process (Solder Composition)	(Leadframe) SnPb	Sn
	(Assembly Solder) SnPb	SnPb (RoHS exemption 7a)
2. Peak Solder Rating (per IPC/JEDEC-J-STD-020C)	225°C	260°C
3. Moisture Sensitive Levels (MSL) (per IPC/JEDEC-J-STD-020C)	3 (168 hours, $\leq 30^\circ\text{C}/60\%\text{RH}$)	4 (96 hours, $\leq 30^\circ\text{C}/60\%\text{RH}$)
4. Weight	5.35 grams	5.35 grams
5. Packaging Information (*Add "TR" to end of part number when placing order)	(Tube) 20 pieces/tube	20 pieces/tube
	(Tape & Reel) 350 pieces/13" reel (*EPF8183S-TR)	350 pieces/13" reel (*EPF8183S-RCTR)

Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

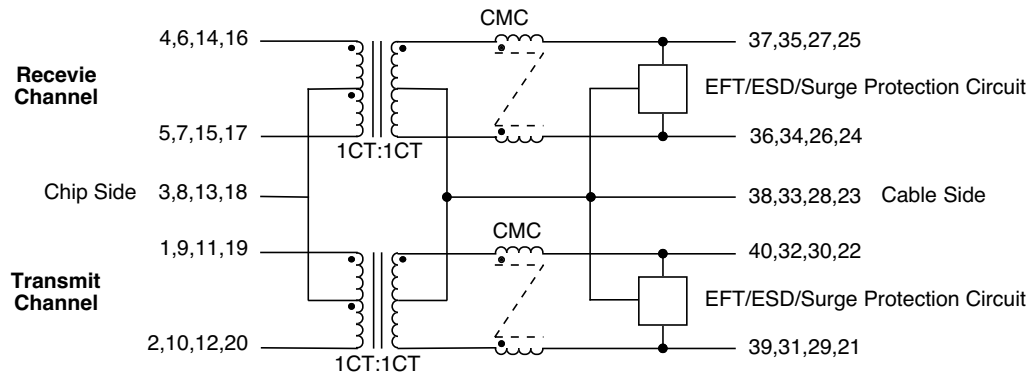


EPF8183SP

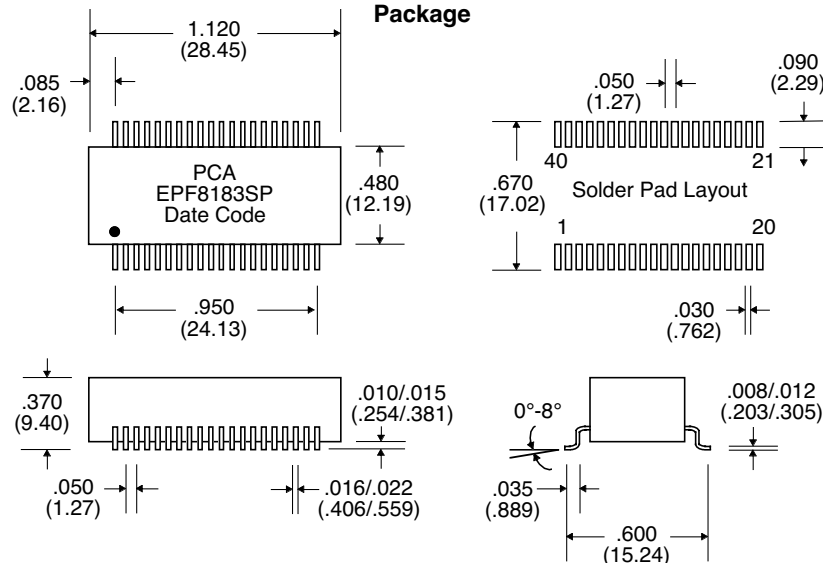


OCL (μH Min.)	Insertion Loss (dB Max.)		Return Loss (dB Min.)			Common Mode Rejection (dB Min.)				Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	150 MHz	30 MHz	30-60 MHz	60-80 MHz	30 MHz	100 MHz	200 MHz	300-500 MHz	1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350	-1/-1	-3/-3	-18/-18	18-20 lof f/30	-14/-14	-35/-35	-25/-25	-25/-25	-10/-10	-38

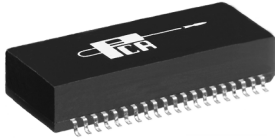
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25



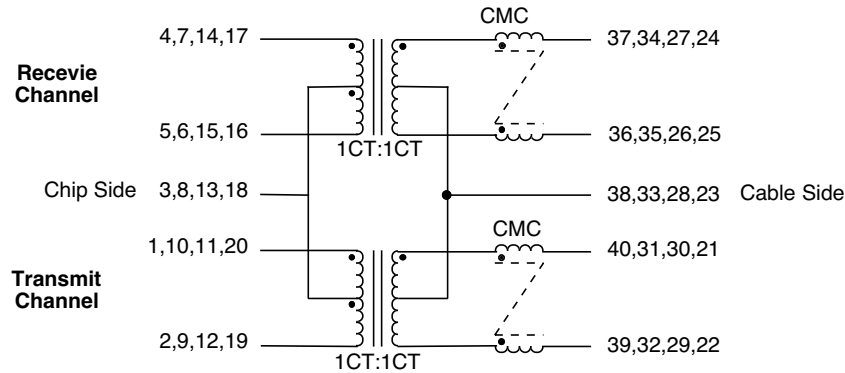
- Significantly Improved Common Mode Attenuation
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

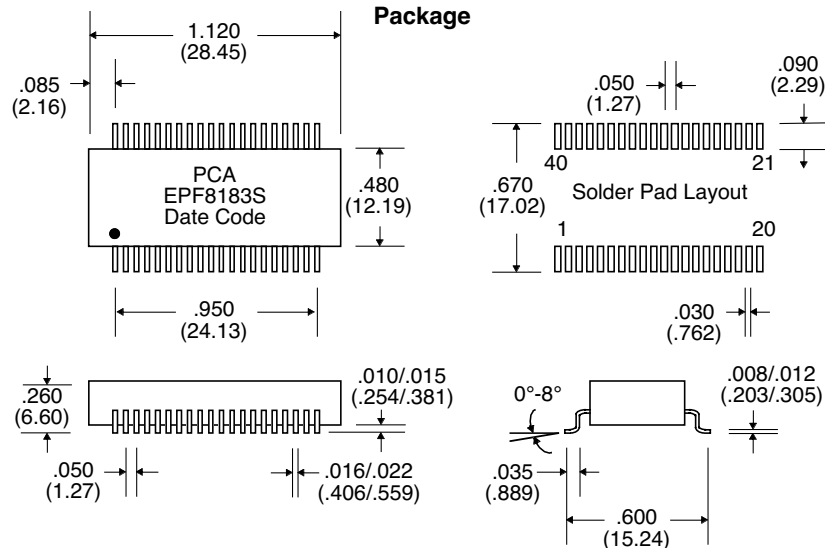
OCL @ 70°C	Insertion Loss (dB Max.)		Return Loss (dB Min.)			Common Mode Rejection (dB Min.)				Common to Diff. Reject. (dB Min.)	Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	1-100 MHz	150 MHz	30 MHz	30-60 MHz	60-80 MHz	30 MHz	100 MHz	200 MHz	300-500 MHz	1-100 MHz	1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-3/-3	-18/-18	-16/-16	-14/-14	-35/-35	-25/-25	-25/-25	-10/-10	-40/-40	-38

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic

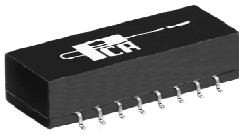


Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm$.010 / .25

10/100Base-TX Interface Module with Enhanced Common Mode Attenuation EPF8186AG



- Recommended for use with SSI578Q2120 Chip (when connected per appropriate schematic)
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

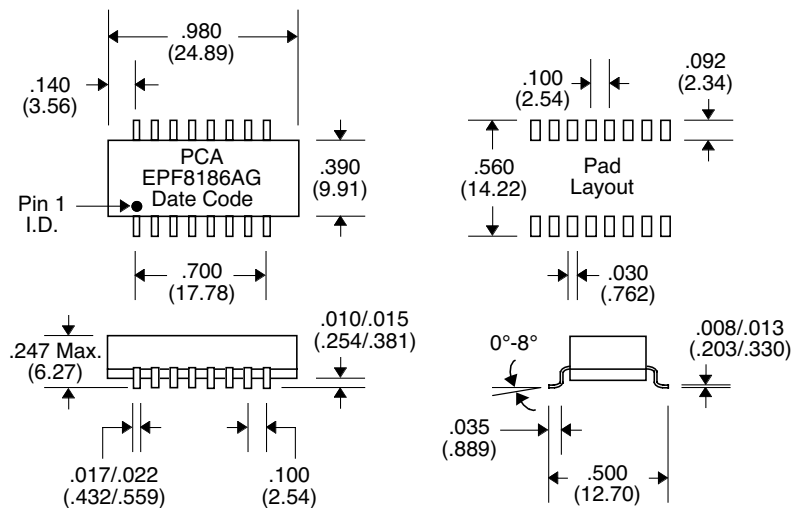
OCL @ 70°C	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)				Crosstalk* (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	80-100 MHz	150 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-30 MHz	30-100 MHz	100-200 MHz	200-500 MHz	1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-1/-1	-3.5/-3	-18/-18	-12/-12	-10/-10	-45/-45	-35/-35	-30/-20	-10/-10	-35

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. • Crosstalk : Between Channels •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface Module with Enhanced Common Mode Attenuation EPF8188G



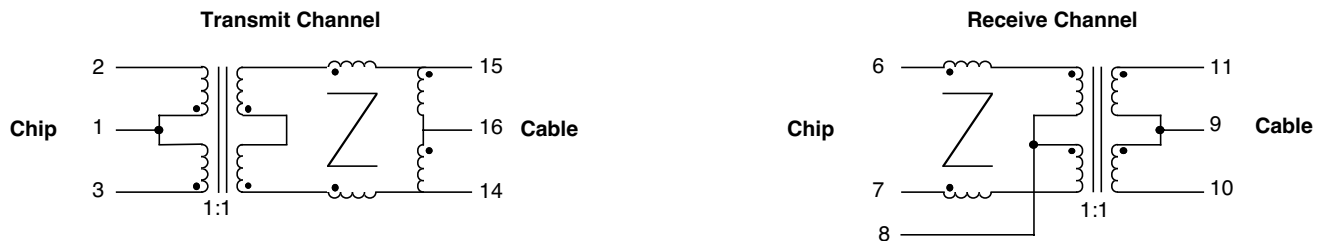
- Recommended for use with SSI578Q2120 Chip
(when connected per appropriate schematic)
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

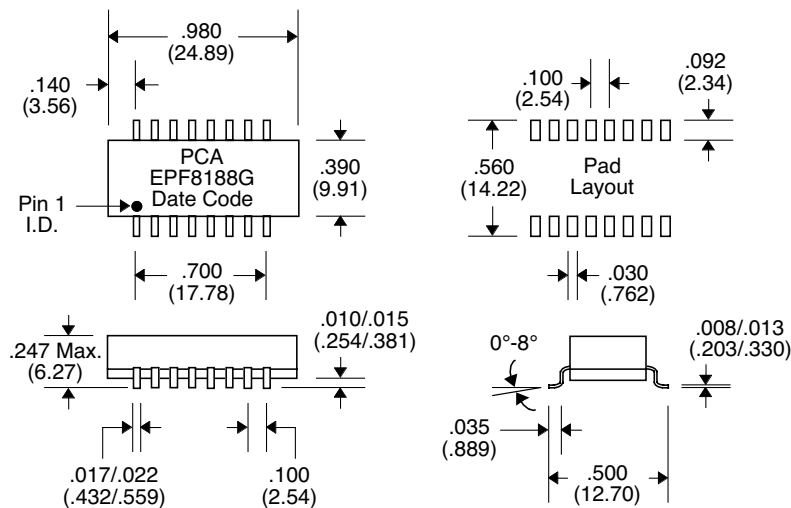
OCL @ 70°C	Insertion Loss (dB Max.)			Return Loss (dB Min.)			Common Mode Rejection (dB Min.)				Crosstalk* (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	80-100 MHz	150 MHz	1-30 MHz	30-60 MHz	60-80 MHz	1-30 MHz	30-100 MHz	100-200 MHz	200-500 MHz	1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-1/-1	-3.5/-3	-18/-18	-14/-14	-10/-10	-45/-45	-35/-35	-30/-20	-10/-10	-35

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. • Crosstalk : Between Channels •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

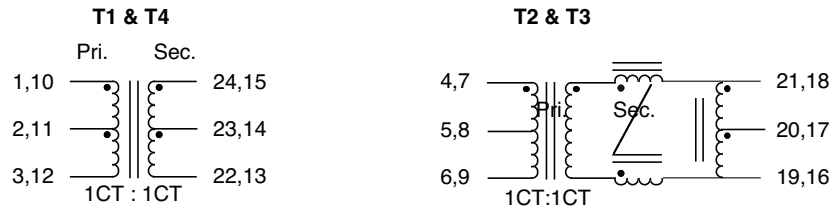
EPF8195F1

- Robust construction allows IR/VP reflow processes
- 1500 Vrms Isolation

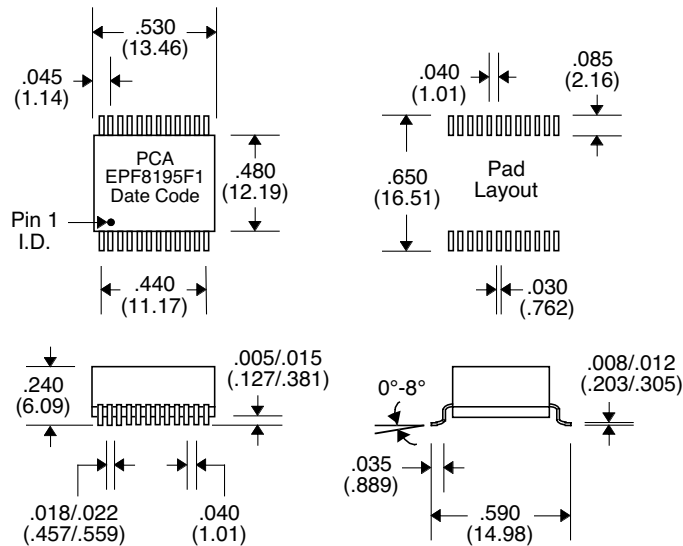
Electrical Parameters @ 25° C

OCL (μ H Min.) 8 mA DC bias	Primary Leakage Inductance (μ H Max.)	Interwinding Capacitance (pF Max.)	Primary DCR (Ω Max.)	
@ 100 KHz, 0.1 Vrms	@ 100 KHz, 0.1 Vrms	@ 100 KHz, 0.1 Vrms	Pri.	Sec.
		Pri. to Sec.	T1 to T4	T2 & T3
350	0.25	40	1	2.8
Pins 24-22, 21-19, 18-16, 15-13			Pins 1-3, 4-6, 7-9, 10-12	Pins 21-19, 18-16

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface Module with Enhanced Common Mode Attenuation EPF8196F2

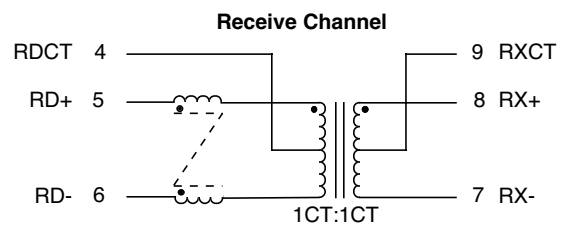
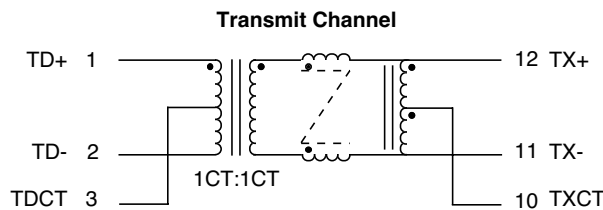
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

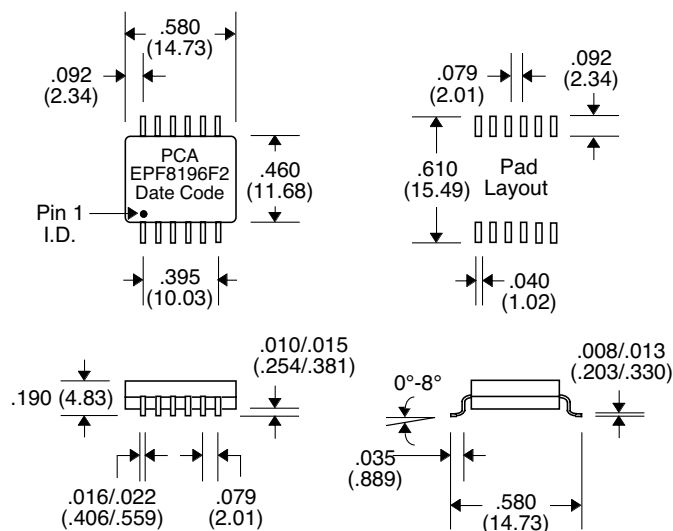
OCL @ 70°C	Insertion Loss (dB Max.)		Return Loss (dB Min.)			Common Mode Rejection (dB Min.)			Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	1-80 MHz	150 MHz	1-30 MHz	60 MHz	80 MHz	1-30 MHz	30-100 MHz	100-500 MHz	1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-3/-3	-18/-18	-12/-12	-10/-10	-40/-40	-30/-30	-10/-10	-35

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Interface PCMCIA Module EPF8209S



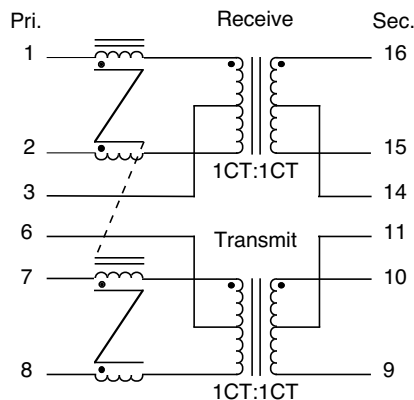
- Designed to work with Broadcom BCM5201, BCM5221 Chipsets
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards
- Robust design allows for toughest soldering processes
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

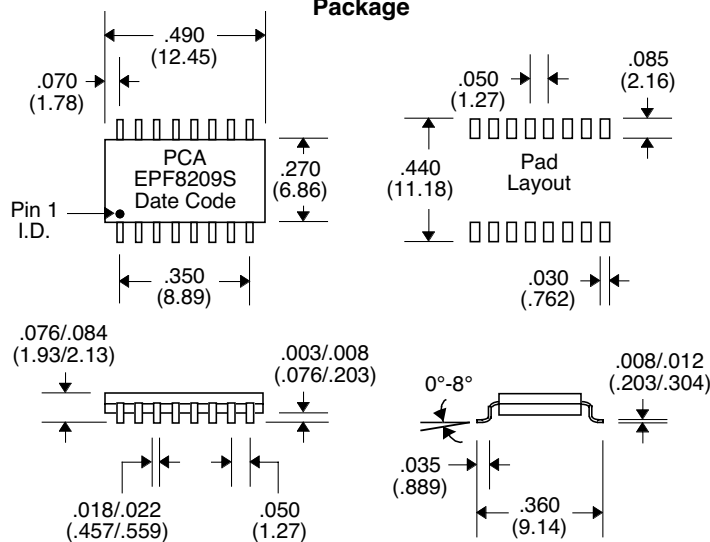
OCL (μ H Min.) @ 8 mA DC Bias	Interwinding Capacitance (pF Max.)	Leakage Inductance (μ H Max.)	CMRR (dB Min.)					Return Loss (dB Min.)			Primary DCR (Ω Max.)	
100 KHz, 0.1 Vrms	@ 100 KHz, 0.1 Vrms	@ 100 KHz, 0.1 Vrms	1 MHz	30 MHz	60 MHz	80 MHz	100 MHz	1-30 MHz	30-60 MHz	60-80 MHz		
Xmit & Rcv	Xmit & Rcv	Xmit & Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit & Rcv			Xmit	Rcv
350 @ Pins 16-15 & 10-9	25	0.3	-27/-27	-17/-9	-16/-4	-14/-2	-12/-1	-10	-14	-10	1.5	1.0

• Insertion Loss : -1 dB Max., 1 MHz to 100 MHz •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Voice Over IP Magnetic Module

EPF8229F

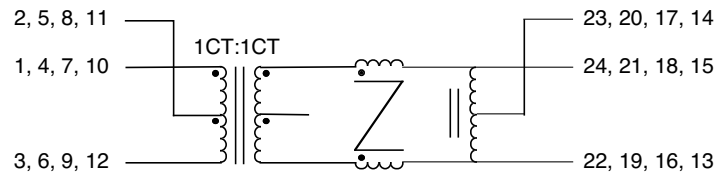
- Designed for Voice Over IP Applications
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards
- Operating Temperature : 0°C to 70°C
- 350 mA Handling Capability
- 1500 Vrms Isolation
- Auto MDIX

Electrical Parameters @ 25° C

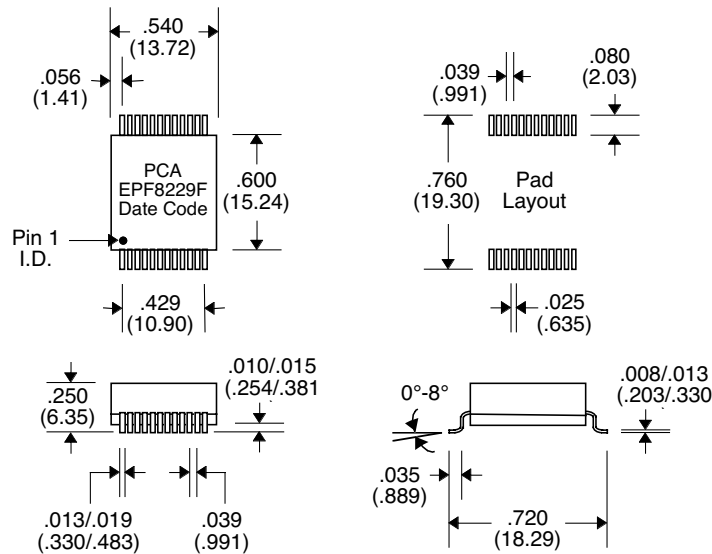
OCL (μ H Min.)	Insertion Loss (dB Max.)			Return Loss (dB Min.)				CMRR (dB Min.)	Common to Differential (dB Min.)				Cross talk (dB Min.)		
100 KHz, 0.1 Vrms 8 mA DC Bias	1-65 MHz	65-100 MHz	100-125 MHz	1-30 MHz	50 MHz	80 MHz	100 MHz	1-80 MHz	1 MHz	30 MHz	50 MHz	100 MHz	1-40 MHz	60 MHz	100 MHz
350 (Media Side)	-1	-1.1	-1.5	-16	-13	-12	-10	-30	-60	-40	-35	-30	-40	-35	-30

• Rise Time : 1.75 nS Max. • Impedance : 100 Ω •

Schematic



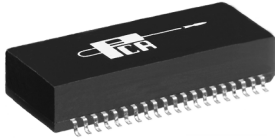
Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

10/100Base-TX Module for Quad-Port Applications

EPF8223S



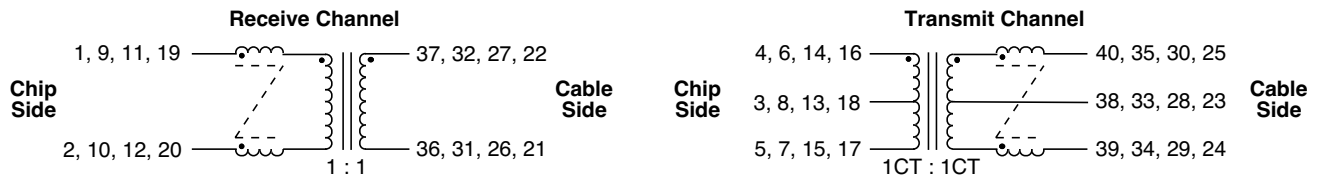
- Guaranteed to operate with 8 mA DC Bias at 70°C
- Complies with or exceeds IEEE 802.3, 10/100Base-TX Standards

Electrical Parameters @ 25° C

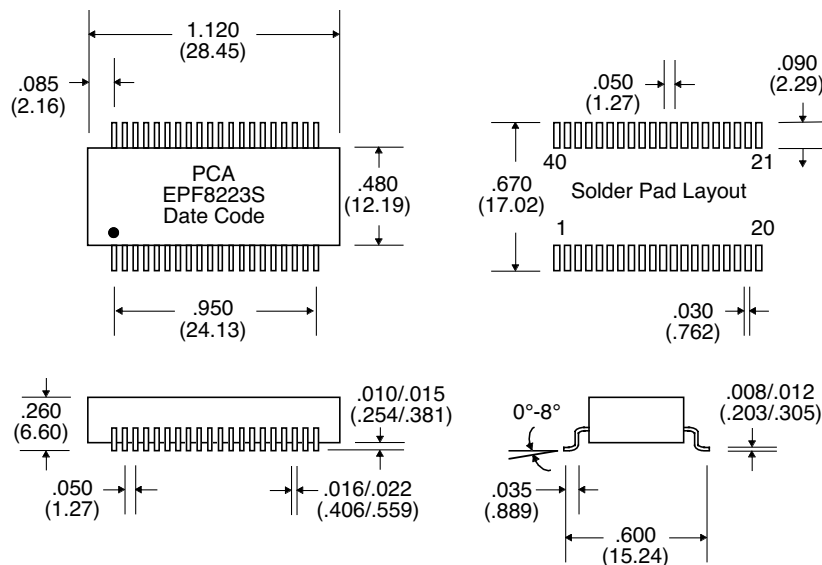
OCV @ 70°C	Insertion Loss (dB Max.)		Return Loss (dB Min.)			Common Mode Rejection (dB Min.)				Crosstalk (dB Min.)
100 KHz, 0.1 Vrms 8 mA DC Bias	1-100 MHz	150 MHz	1-30 MHz	50 MHz	60-80 MHz	30-100 MHz	200 MHz	300 MHz	500 MHz	1-100 MHz
Cable Side	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	Xmit/Rcv	
350 μ H	-1/-1	-3/-3	-18/-18	-14/-14	-12/-12	-30/-20	-20/-15	-20/-10	-10/---	-30

• Isolation : 1500 Vrms • Impedance : 100 Ω • Rise Time : 3.0 nS Max. •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



Contents

1000Base-TX Networking

PCA Part No.	OCL (μH)	Turns Ratio	Package Style	Length	Width	Height
EPG4000S	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.730	.490	.270
EPG4000SLH	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.730	.490	.270
EPG4001AS	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.700	.490	.270
EPG4001CS	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.690	.480	.260
EPG4001S	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.700	.490	.270
EPG4002S	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	1.130	.490	.270
EPG4004	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.550	.610	.235
EPG4004F	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.550	.610	.235
EPG4005	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.550	.610	.235
EPG4006F	350 @ 100KHz, .1 Vrms	1CT:1CT	48 Pin SOIC	1.150	.490	.270
EPG4009F	350 @ 100KHz, .1 Vrms	1CT:1CT	48 Pin SOIC	1.105	.490	.295
EPG4010F	350 @ 100KHz, .1 Vrms	1CT:1CT	48 Pin SOIC	1.105	.490	.270
EPG4011S	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.735	.255	.380
EPG4012S	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.735	.255	.380
EPG4013S	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.690	.480	.175
EPG4014S	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.690	.480	.175
EPG4016F	350 @ 100KHz, .1 Vrms	1CT:1CT	24 Pin SOIC	.540	.600	.225



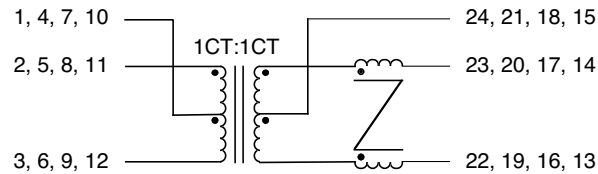
- Complies with or exceeds IEEE 802.3ab 1000Base-T
- Guaranteed to operate with 10/100Base-TX
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

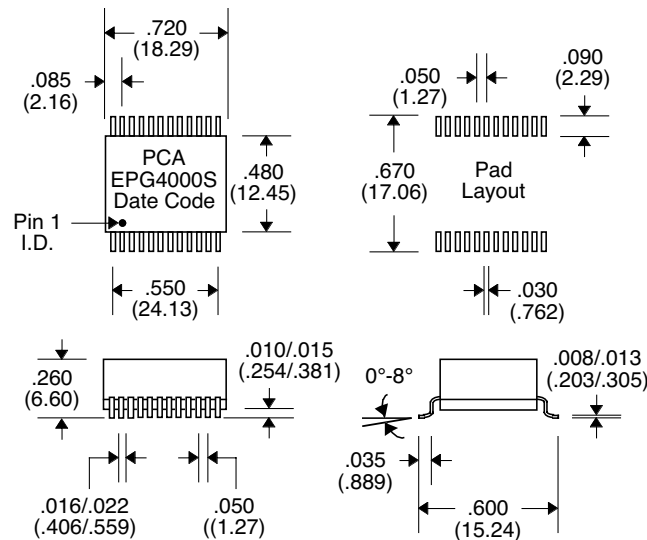
OCL (μ H Min.)	Insertion Loss (dB Max.)			Return Loss (dB Min.)				CMRR (dB Min.)	Common to Differential (dB Min.)				Cross talk (dB Min.)		
@ 100 KHz, 0.1 Vrms 8 mA DC bias	1-65 MHz	65-100 MHz	100-125 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	1-80 MHz	1 MHz	30 MHz	50 MHz	100 MHz	1-40 MHz	60 MHz	100 MHz
350 (Media Side)	-1	-1.1	-1.5	-18	-15	-12	-10	-30	-60	-40	-35	-30	-40	-35	-30

• Rise Time : 1.75 nS Max. • Impedance : 100 Ω •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



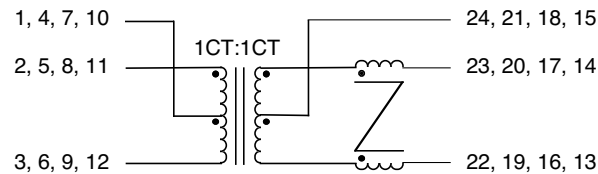
- Guaranteed to operate with 100 Base-X
- Complies with or exceeds IEEE 802.3ab 1000Base-T
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

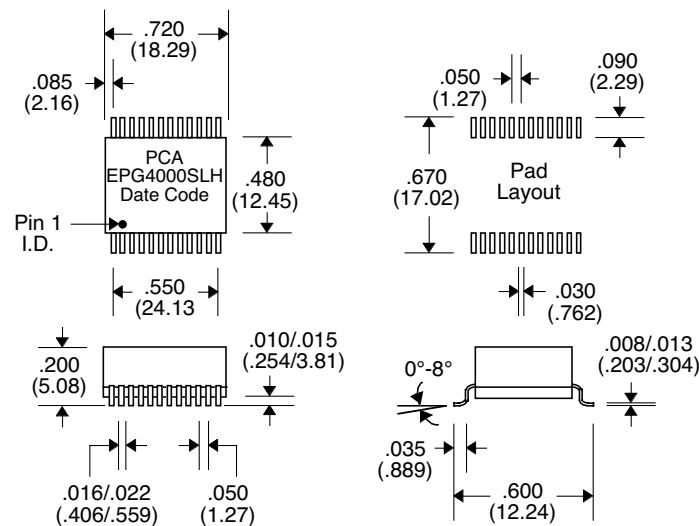
OCL (μ H Min.) @ 8 mA DC bias	Insertion Loss (dB Max.)			Return Loss (dB Min.)				CMRR (dB Min.)	Common to Differential (dB Min.)				Cross talk (dB Min.)		
	1-65 MHz	65-100 MHz	100-125 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	1-80 MHz	1 MHz	30 MHz	50 MHz	100 MHz	1-40 MHz	60 MHz	100 MHz
350 (Media Side)	-1	-1.1	-1.5	-18	-15	-12	-10	-30	-60	-40	-35	-30	-40	-35	-30

• Rise Time : 1.75 nS Max. • Impedance : 100 Ω •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

EPG4001AS & EPG4001AS-RC



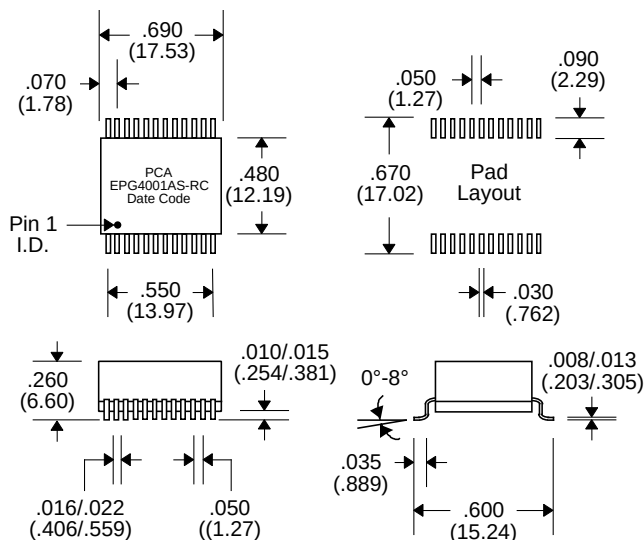
- Complies with or exceeds IEEE 802.3ab 1000Base-T
- Guaranteed to operate with 10/100Base-TX
- 1500 Vrms Isolation
- RoHS Compliant

Electrical Parameters @ 25° C

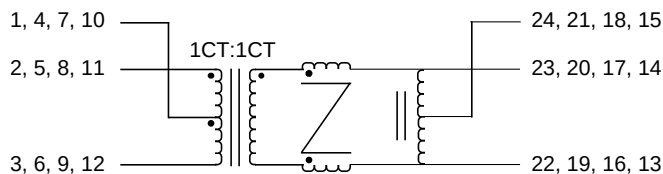
OCL (μ H Min.)	Insertion Loss (dB Max.)			Return Loss (dB Min.)				CMRR (dB Min.)	Common to Differential (dB Min.)				Crosstalk (dB Min.)		
@ 100 KHz, 0.1 Vrms 8 mA DC bias	1-65 MHz	65-100 MHz	100-125 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	1-80 MHz	1 MHz	30 MHz	50 MHz	100 MHz	1-40 MHz	60 MHz	100 MHz
350 (Media Side)	-1	-1.1	-1.5	-18	-15	-12	-10	-30	-60	-40	-35	-30	-40	-35	-30

• Rise Time : 1.75 nS Max. • Impedance : 100 Ω •

Package

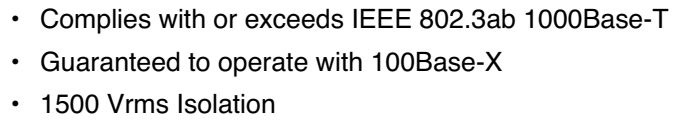
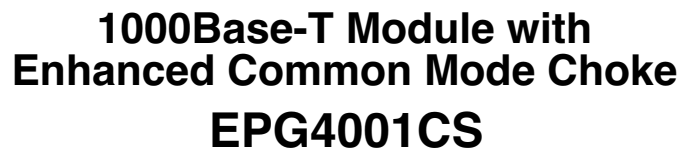


Schematic



Notes :		EPG4001AS	EPG4001AS-RC
1. Assembly Process (Solder Composition)	(Lead Frame Finish)	SnPb	Sn or SnAG
	(Assembly Solder)	SnPb	SnPb [RoHS Exemption 7a]
2. Peak Solder Rating (per IPC/JEDEC J-STD-020C)		225°C (+0/-5°C)	260°C (+0°C)
3. Moisture Sensitive Levels (MSL) (per IPC/JEDEC J-STD-020C)		3 (168 Hours, $\leq$ 30°C/60%RH)	4 (72 Hours, $\leq$ 30°C/60%RH)
4. Weight		3.35 grams	3.35 grams
5. Packaging Information	(Tube)	30 pieces	30 pieces
	(Tape & Reel)	350 pieces/13" reel (*EPG4001AS-TR)	350 pieces/13" reel (*EPG4001AS-RCTR)

Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



OCL (μH Min.)	Insertion Loss (dB Max.)			Return Loss (dB Min.)				CMRR (dB Min.)	Common to Differential (dB Min.)				Cross talk (dB Min.)		
@ 100 KHz, 0.1 Vrms 8 mA DC bias	1-65 MHz	65-100 MHz	100-125 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	1-500 MHz	1 MHz	30 MHz	50 MHz	100 MHz	1-40 MHz	60 MHz	100 MHz
350 (Media Side)	-1	-1.1	-1.5	-18	-15	-12	-10	-30	-60	-40	-35	-30	-40	-35	-30

Figure 1: Mechanical drawing of the PCA EPG4001CS package. The drawing includes a top view showing dimensions for the package body (.690 / 17.53, .070 / 1.78, .480 / 12.19, .550 / 13.97) and pin pitch (.010 / .015 / 254 / 381). It also shows a side view with dimensions for the package height (.260 / 6.60) and pin height (.008 / .013 / 203 / 305). A detail view of the pad layout shows dimensions for the pad diameter (.050 / 1.27), pad pitch (.030 / .762), and pad diameter (.090 / 2.29).

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FAX: (818) 894-5791
<http://www.pca.com>



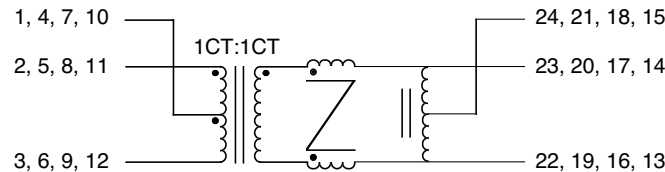
- Complies with or exceeds IEEE 802.3ab 1000Base-T
- Guaranteed to operate with 10/100Base-TX
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

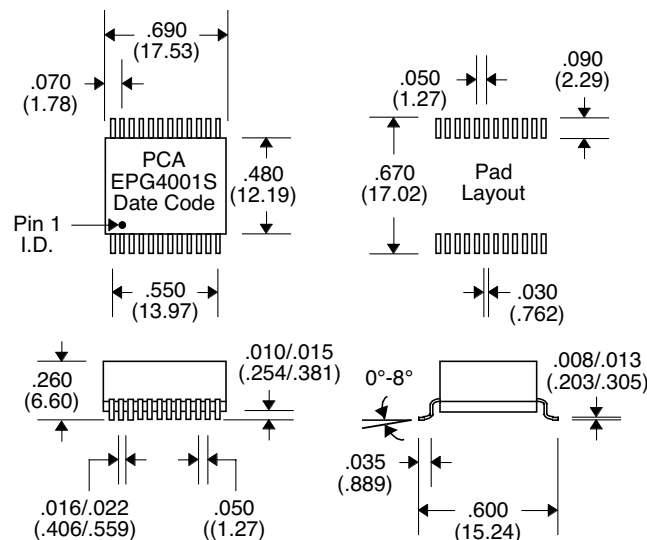
OCL (μ H Min.)	Insertion Loss (dB Max.)			Return Loss (dB Min.)				CMRR (dB Min.)	Common to Differential (dB Min.)				Cross talk (dB Min.)		
@ 100 KHz, 0.1 Vrms 8 mA DC bias	1-65 MHz	65-100 MHz	100-125 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	1-80 MHz	1 MHz	30 MHz	50 MHz	100 MHz	1-40 MHz	60 MHz	100 MHz
350 (Media Side)	-1	-1.1	-1.5	-18	-15	-12	-10	-30	-60	-40	-35	-30	-40	-35	-30

• Rise Time : 1.75 nS Max. • Impedance : 100 Ω •

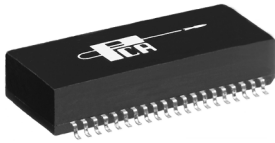
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



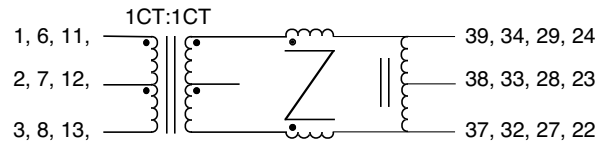
- Complies with or exceeds IEEE 802.3ab 1000Base-T
- Guaranteed to operate with 10/100Base-TX
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

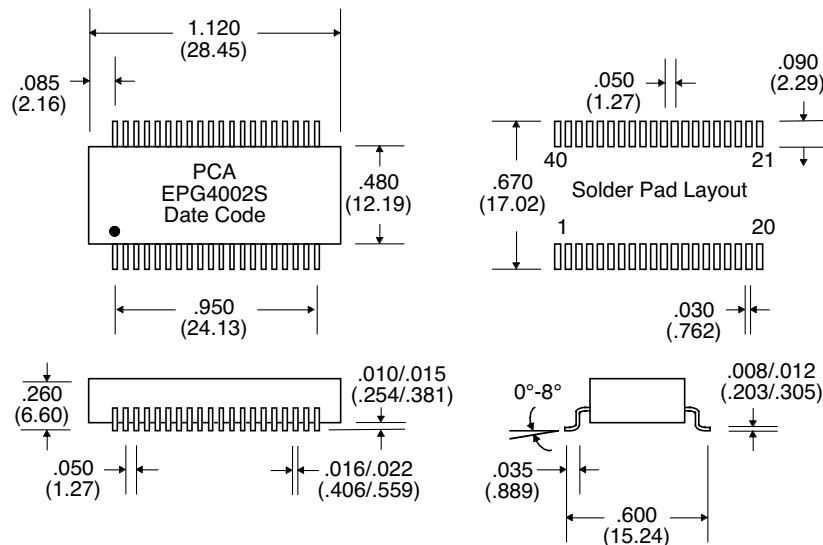
OCL (μ H Min.)	Insertion Loss (dB Max.)				Return Loss (dB Min.)				CMRR (dB Min.)	Common to Differential (dB Min.)				Cross talk (dB Min.)		
@ 100 KHz, 0.1 Vrms 8 mA DC bias	0.1-1 MHz	1-65 MHz	65-100 MHz	100-125 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	1-100 MHz	1 MHz	30 MHz	50 MHz	100 MHz	1-40 MHz	60 MHz	100 MHz
350 (Media Side)	-1.1	-0.5	-0.8	-1.2	-18	-15	-12	-10	-30	-68	-40	-35	-30	-40	-35	-30

• Rise Time : 1.75 nS Max. • Impedance : 100 Ω •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



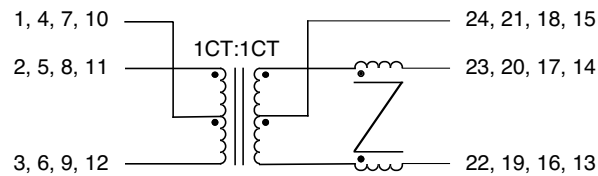
- Complies with or exceeds IEEE 802.3ab 1000Base-T
- Guaranteed to operate with 10/100Base-TX
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

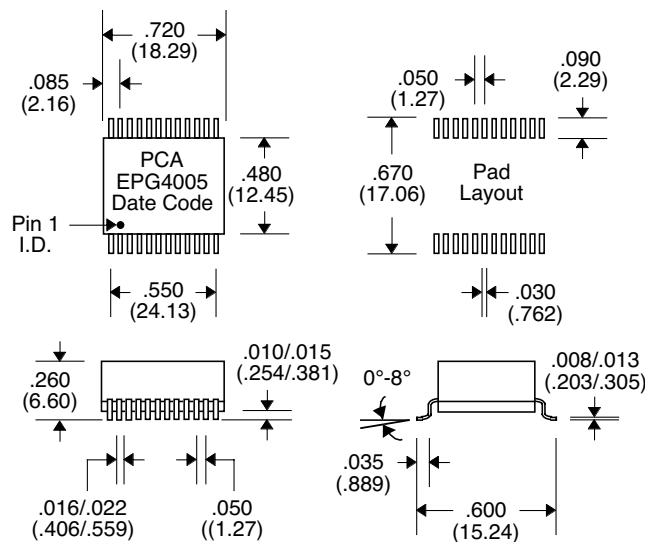
OCL (μ H Min.)	Insertion Loss (dB Max.)			Return Loss (dB Min.)				CMRR (dB Min.)	Common to Differential (dB Min.)				Cross talk (dB Min.)		
	1-65 MHz	65-100 MHz	100-125 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz		1 MHz	30 MHz	50 MHz	100 MHz	1-40 MHz	60 MHz	100 MHz
@ 100 KHz, 0.1 Vrms 8 mA DC bias 350 (Media Side)	-1	-1.1	-1.5	-18	-15	-12	-10	-30	-60	-40	-35	-30	-40	-35	-30

• Rise Time : 1.75 nS Max. • Impedance : 100 Ω •

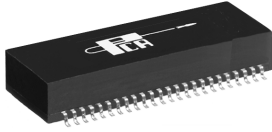
Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



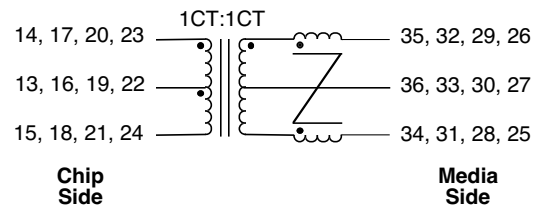
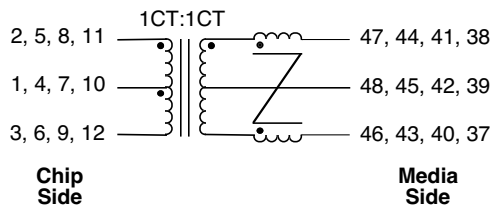
- Complies with or exceeds IEEE 802.3 1000Base-T Standards
- Guaranteed to operate with 8 mA DC Bias at 0°C to +70°C
- Transfer Molded Part
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

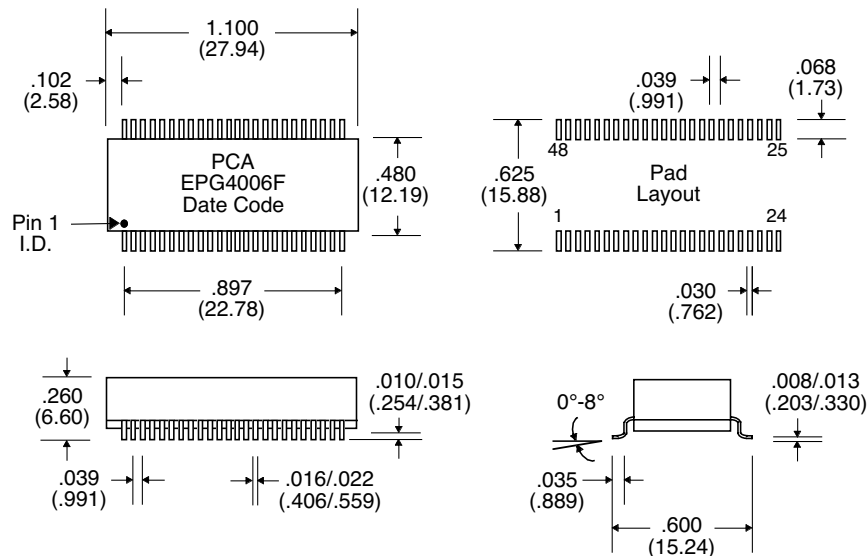
OCL (μ H Min.)	Insertion Loss (dB Max.)				Return Loss (dB Min.)				CMRR (dB Min.)			Crosstalk (dB Min.)		
@ 100 KHz, 0.1 Vrms 8 mA DC bias	1-80 MHz	100 MHz	150 MHz	200 MHz	1-80 MHz	100 MHz	150 MHz	200 MHz	1-80 MHz	80-200 MHz	500 MHz	1-100 MHz	150 MHz	200 MHz
350 (Media Side)	-1.0	-1.1	-1.5	-2.0	-18	-15	-10	-8	-35	-30	-25	-40	-38	-35

Impedance : 100 Ω • Rise Time : 1.75 nS Max.

Schematic

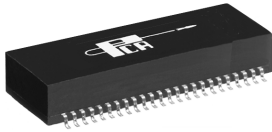


Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

EPG4009F



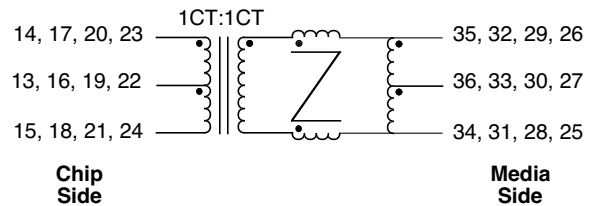
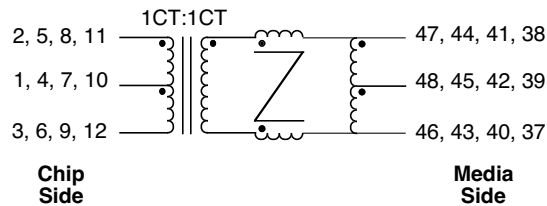
- Complies with or exceeds IEEE 802.3 1000Base-T Standards
- Guaranteed to operate with 8 mA DC Bias at 0°C to +70°C
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

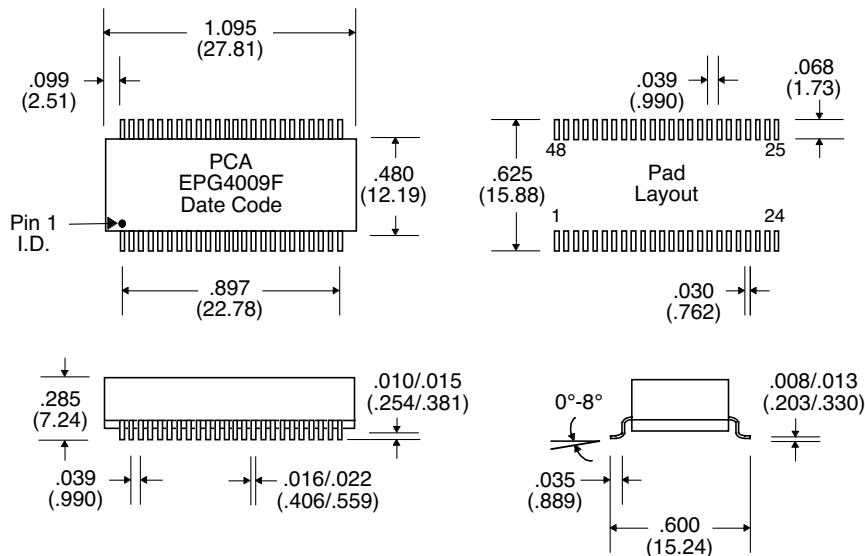
OCL (μ H Min.)	Insertion Loss (dB Max.)	Return Loss (dB Min.)					CMRR (dB Min.)			Crosstalk (dB Min.)		
@ 100 KHz, 0.1 Vrms 8 mA DC bias	1-100 MHz	1-30 MHz	40 MHz	50 MHz	60- 80	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz
350 (Media Side)	-1.4	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-43.5	-37.5	-33

• Impedance : 100 Ω •

Schematic



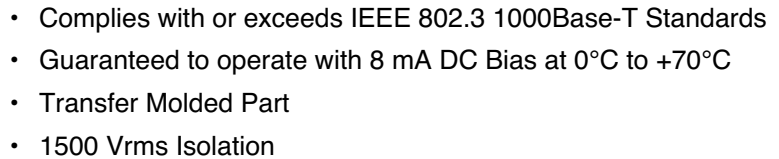
Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$



EPG4010F



OCL (μH Min.)	Insertion Loss (dB Max.)	Return Loss (dB Min.)					CMRR (dB Min.)			Crosstalk (dB Min.)		
@ 100 KHz, 0.1 Vrms 8 mA DC bias	1-100 MHz	1-30 MHz	40 MHz	50 MHz	60-80 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz
350 (Media Side)	-1.4	-16	-14.4	-13.1	-12	-10	-45	-40	-35	-43.5	-37.5	-33

1CT:1CT

14, 17, 20, 23 — 35, 32, 29, 26

13, 16, 19, 22 — 36, 33, 30, 27

15, 18, 21, 24 — 34, 31, 28, 25

Chip Side **Media Side**

Figure 1: Mechanical drawing of the PCA EPG4010F package. The drawing includes four views: top, bottom, side, and a detail of the pad layout. Dimensions are given in inches and millimeters.

- Top View:** Shows the package with a width of 1.095 inches (27.81 mm) and a length of 0.897 inches (22.78 mm). The package is labeled "PCA EPG4010F Date Code".
- Side View:** Shows the package with a height of 0.480 inches (12.19 mm).
- Bottom View:** Shows the package with a width of 0.285 inches (7.24 mm) and a length of 0.897 inches (22.78 mm). The package is labeled "Pin 1 I.D.". The bottom view also shows dimensions for the package body: 0.10/0.015 inches (0.254/0.381 mm) and 0.016/0.022 inches (0.406/0.559 mm).
- Detail View:** Shows the pad layout with dimensions for the pads and the package body. The pad layout includes dimensions for the pads: 0.039 inches (0.990 mm) and 0.068 inches (1.73 mm). The package body dimensions are 0.030 inches (0.762 mm) and 0.008/0.013 inches (0.203/0.330 mm).

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EPG4011J & EPG4011J-RC

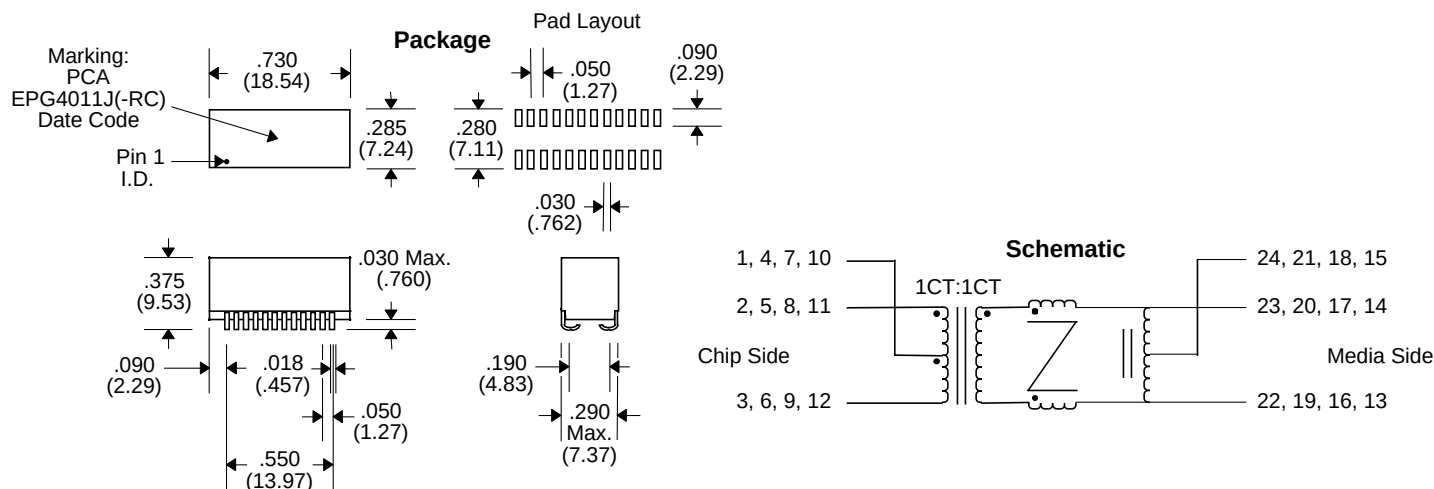


- Smallest Gigabit Magnetic Module
- Ideal for Multiport 10/100Base-TX as Gigabit Solutions
- Suitable for Auto MDIX 10/100Base-TX Applications
- Complies with or exceeds IEEE 802.3ab 1000Base-T
- Guaranteed to operate with 10/100Base-TX
- Operating Temperature Range : 0°C to 70°C
- Enhanced Common Mode Choke
- RoHS Compliant

Electrical Parameters @ 25° C

OCV (μ H Min.)	Insertion Loss (dB Max.)			Return Loss (dB Min.)				CMRR (dB Min.)	Common to Differential (dB Min.)				Crosstalk (dB Min.)		
@ 100 KHz, 0.1 Vrms 8 mA DC bias	1-65 MHz	65-100 MHz	100-125 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	1-80 MHz	1 MHz	30 MHz	50 MHz	100 MHz	1-40 MHz	60 MHz	100 MHz
350 (Media Side)	-1	-1.1	-1.5	-18	-15	-12	-10	-30	-60	-40	-35	-30	-40	-35	-30

• Isolation : 1500 Vrms • Rise Time : 1.75 nS Max. • Impedance : 100 Ω •



Notes :	EPG4011J	EPG4011J-RC
1. Assembly Process (Solder Composition)	(Leadframe) SnPb	Sn
	(Assembly Solder) SnPb	SnPb (RoHS exemption 7a)
2. Peak Solder Rating (per IPC/JEDEC J-STD-020C)	225°C	260°C
3. Moisture Sensitive Levels (MSL) (per IPC/JEDEC J-STD-020C)	3 (168 Hours, $\leq 30^\circ\text{C}/60\%\text{RH}$)	4 (72 Hours, $\leq 30^\circ\text{C}/60\%\text{RH}$)
4. Weight	5.6 grams	5.6 grams
5. Packaging Information	(Tube) 18 pieces/tube	18 pieces/tube
	(Tape & Reel) 350 pieces/13" reel (*EPG4011J-TR)	350 pieces/13 reel (*EPG4011J-RCTR)

Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

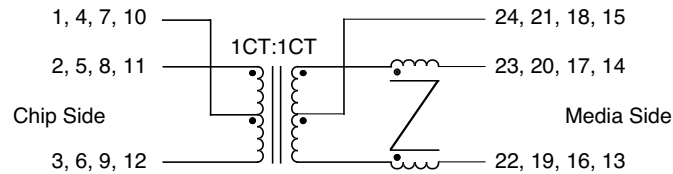
- Smallest Gigabit Magnetic Module
- Ideal for Multiport 10/100Base-TX as Gigabit Solutions
- Complies with or exceeds IEEE 802.3ab 1000Base-T
- Guaranteed to operate with 10/100Base-TX
- Enhanced Common Mode Choke
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

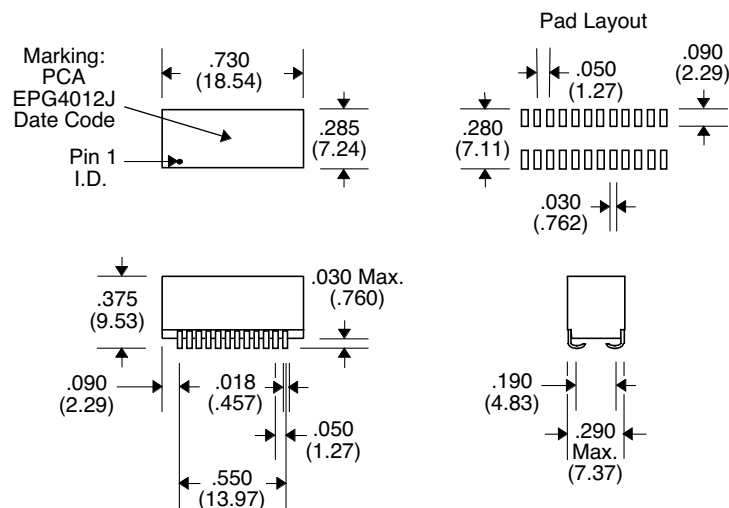
OCL (μ H Min.)	Insertion Loss (dB Max.)			Return Loss (dB Min.)				CMRR (dB Min.)	Common to Differential (dB Min.)				Crosstalk (dB Min.)		
@ 100 KHz, 0.1 Vrms 8 mA DC bias	1-65 MHz	65-100 MHz	100-125 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	1-80 MHz	1 MHz	30 MHz	50 MHz	100 MHz	1-40 MHz	60 MHz	100 MHz
350 (Media Side)	-1	-1.1	-1.5	-18	-15	-12	-10	-30	-60	-40	-35	-30	-40	-35	-30

• Rise Time : 1.75 nS Max. • Impedance : 100 Ω •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

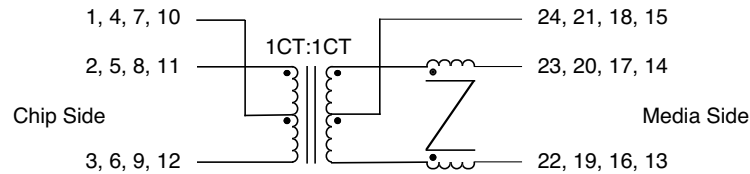
- Complies with or exceeds IEEE 802.3ab 1000Base-T
- Guaranteed to operate with 10/100Base-TX
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

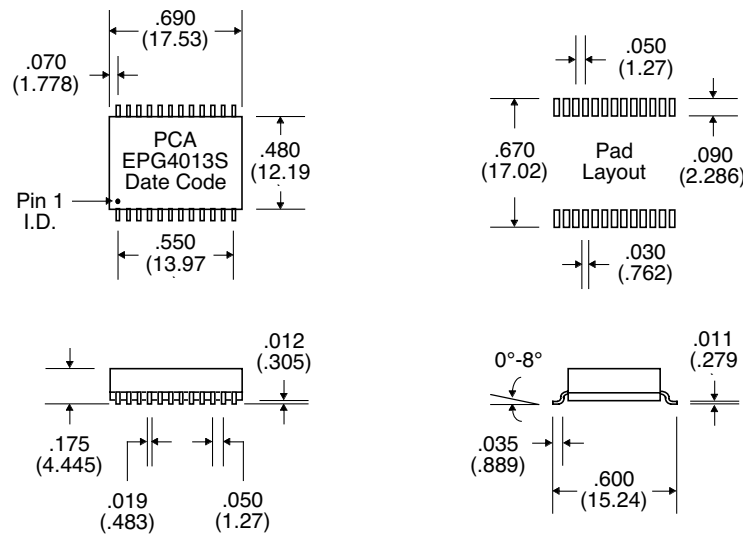
OCL (μ H Min.)	Insertion Loss (dB Max.)			Return Loss (dB Min.)				CMRR (dB Min.)	Common to Differential (dB Min.)				Cross talk (dB Min.)		
	1-65 MHz	65-100 MHz	100-125 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz		1 MHz	30 MHz	50 MHz	100 MHz	1-40 MHz	60 MHz	100 MHz
@ 100 KHz, 0.1 Vrms 8 mA DC bias															
350 (Media Side)	-1	-1.1	-1.5	-18	-15	-12	-10	-30	-60	-40	-35	-30	-40	-35	-30

• Rise Time : 1.75 nS Max. • Impedance : 100 Ω •

Schematic



Package



Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$

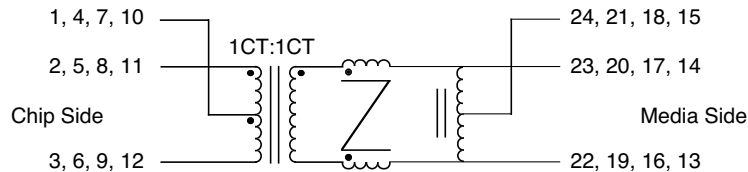
- Complies with or exceeds IEEE 802.3ab 1000Base-T
- Guaranteed to operate with 10/100Base-TX
- 1500 Vrms Isolation

Electrical Parameters @ 25° C

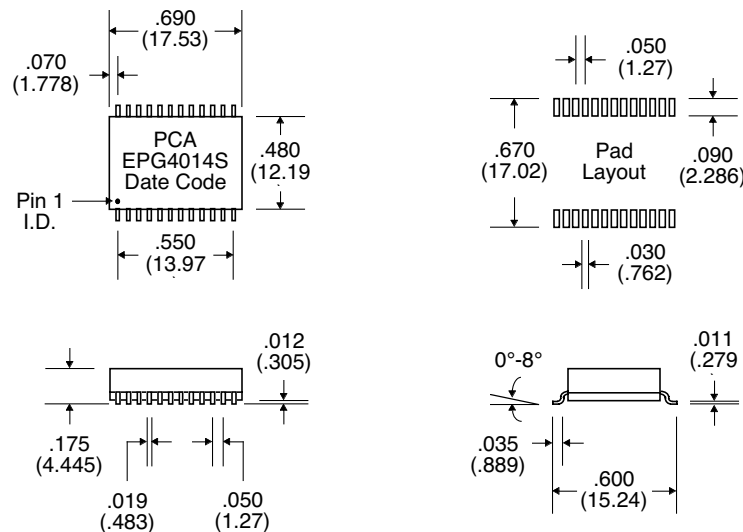
OCL (μ H Min.)	Insertion Loss (dB Max.)			Return Loss (dB Min.)				CMRR (dB Min.)	Common to Differential (dB Min.)				Cross talk (dB Min.)		
@ 100 KHz, 0.1 Vrms 8 mA DC bias	1-65 MHz	65-100 MHz	100-125 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	1-80 MHz	1 MHz	30 MHz	50 MHz	100 MHz	1-40 MHz	60 MHz	100 MHz
350 (Media Side)	-1	-1.1	-1.5	-18	-15	-12	-10	-30	-60	-40	-35	-30	-40	-35	-30

• Rise Time : 1.75 nS Max. • Impedance : 100 Ω •

Schematic



Package



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