

Interface Modules For 802.3 10Base-T LAN Applications

Key Features

- All Fil-Mag® components are manufactured in ISO 9001 certified facilities to meet the highest international standards
- Components meet or exceed IEEE 802.3 10Base-T specifications
- Ideal for adapter cards, MAUs, Hubs, and Motherboard applications
- Compatible with multiple 10Base-T chips
- High performance for maximum EMI suppression
- 2000 Vrms isolation voltages

SurfaceMount

- Proven in all surface mount soldering processes
- Available in tubes; tape and reel optional

Through-Hole

- Low-profile DIL packages
- Auto insertable
- SIP package (78Z1122F-XX) ideal for multiport repeater hub applications

Packaging

- Fil-Mag's® 78Z transformer/filter combination modules are packaged in surface mount, SIP, and DIL compatible packages

ICCompatibility

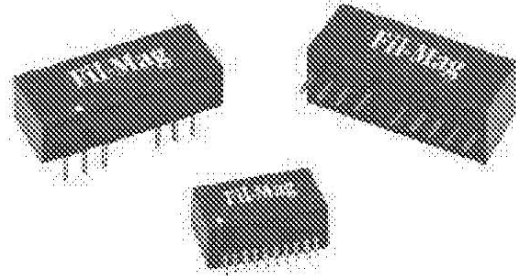
- The 78Z Series offers full compatibility with 10Base-T transceiver and multiport repeater ICs from all major manufacturers

Fil-Mag®
A Technitrol Company

Fil-Mag Legacy Products



10Base-T Interface Modules



Electrical Specifications at 25°C

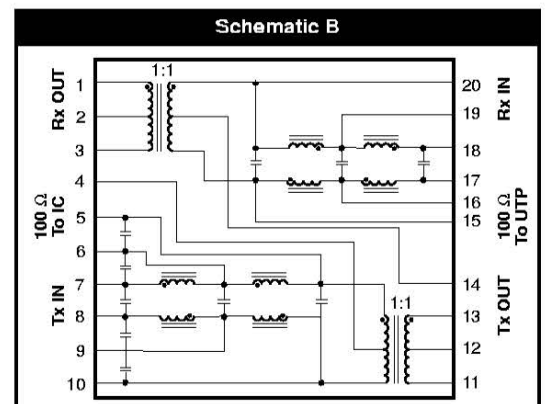
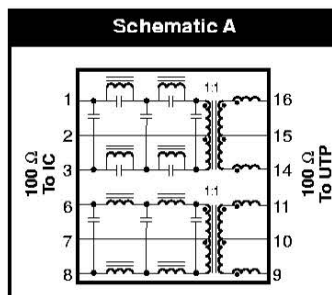
Part No	Package Type (Pins)	Insertion Loss to 10 MHz dB Max	Attenuation ⁴		Return Loss 0.5-10MHz dB min 100Ω ±15Ω	Crosstalk to 30MHz dB min	Common Mode Rejection dB min		Schem		
			30-50MHz Tx dB min	30-50MHz Rx dB min			50-100MHz Tx dB min	50-100MHz Rx dB min		50MHz	100MHz
78Z1120B-01 ¹	DIL (16)	-1.0	-32	-20	-25	-25	-15	-30	-30	-25	C
78Z1122B-01 ²	DIL (16)	-1.0	-30	-15	-35	-20	-15	-30	-35	-30	A
* 78Z1122B-11	DIL (16)	-4.5	-30	-15	-30	-20	-15	-35	-35	-30	E
78Z1122B-12	DIL (16)	-4.5	-30	-15	-30	-20	-15	-30	-35	-30	G
* 78Z1122B-13	DIL (16)	-4.5	-30	-15	-30	-20	-15	-35	35	-30	E
78Z1123B-17	DIL (16)	-1.0	-30	-15	-30	-20	-15	-30	-30	-25	G
78Z1122B-22	DIL (16)	-1.0	-30	-15	-30	-20	-15	-30	-30	-25	G
78Z1120D-01	SMD (20)	-1.0	-32	-25	-25	-20	-15	-30	-30	-25	B
78Z1122D-01	SMD (16)	-1.0	-30	-15	-30	-20	-15	-35	35	-30	A
* 78Z1122D-11	SMD (16)	-4.5	-30	-15	-30	-20	-15	-35	35	-30	E
78Z1122D-12	SMD (16)	-4.5	-30	-15	-30	-20	-15	-30	-30	-30	E
* 78Z1122D-13	SMD (16)	-4.5	-30	-15	-30	-20	-15	-30	-30	-30	E
78Z041SM	SMD (16)	-1.0	-30	-15	-30	-20	-15	-30	-20	-30	H
78Z1122K-01A	SMD (16)	-1.0	-30	-20	-30	-20	-15	-30	-35	-30	F
78Z1122F-01 ³	SIP (10)	-1.0	-30	-15	-35	-20	-15	-30	-45	-45	D
78Z1122F-12 ³	SIP (12)	-1.0	-30	-15	-30	-20	-15	-35	-35	-30	I
78Z1122F-15 ³	SIP (12)	-1.0	-30	-15	-30	-20	-15	-35	-35	-30	I

Ratings

Operating Temperature: 0 to 70°C
Isolation primary to secondary: DWV 2000 Vrms

Notes:

- ¹ Available with Butterworth filters; specify 78Z035
- ² Available with Butterworth filters; specify 78Z034C
- ³ SIP package ideal for multiport repeater hub applications
- ⁴ Both transmit and receive channels meet IEEE 802.3 specs



* Pulse's policy is to keep all catalog parts active. However, some parts may be subject to change. Contact customer service for the status of any part. (619) 674-8100

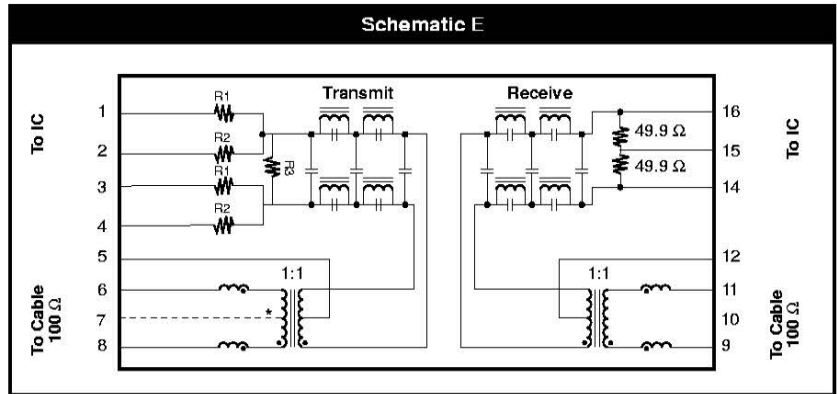
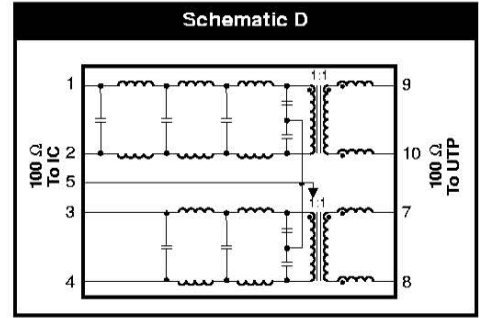
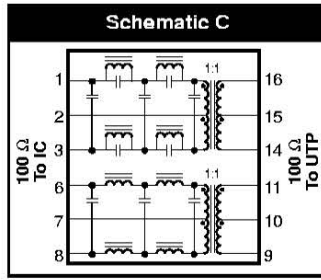
Interface Modules For 802.3 10Base-T LAN Applications

Resistor Values (Schematic E, G, I)

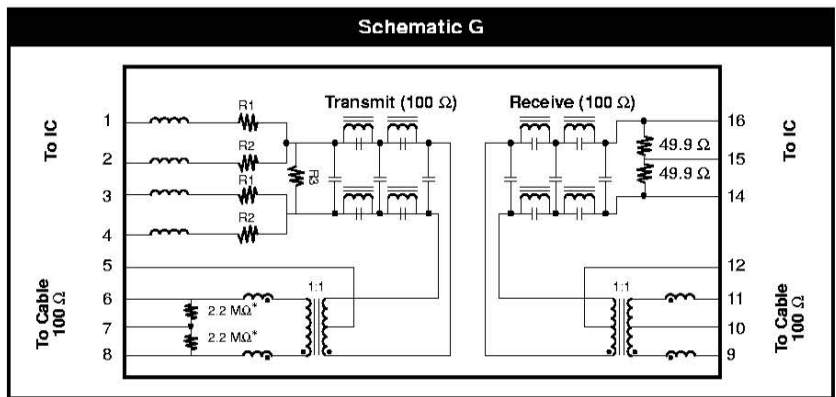
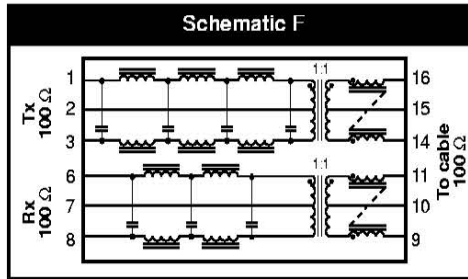
Part Number	R ₁ (Ohms)	R ₂ (Ohms)	R ₃ (KOhms)
78Z1122B/D-11	42.2	280	5.11
78Z1122B/D-12	61.9	422	1.21
78Z1122B/D-13	57.6	232	NA
78Z1122F-12	61.9	422	1.21
78Z1122F-15	57.6	232	N/A
78Z1123B-17	64.9	261	2.40
78Z1122B-22	53.6	348	.806

PartNumbersCrossReference Chart

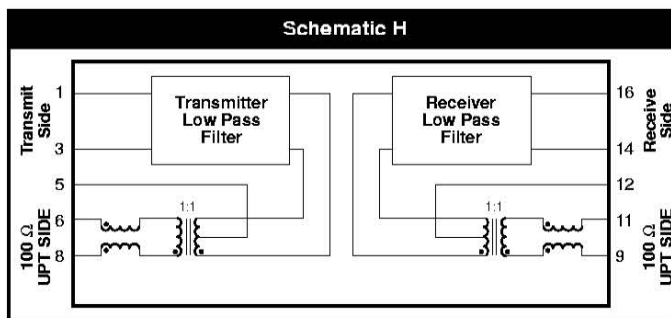
CatalogPart No	IC/Manufacturer	IC Part No
78Z1120B/D/F-01 78Z1122B/D/F-01	AT&T	T7210 T7213 T7220 T7240
	National Semiconductor	DP83902 DP83905 DP83950 DP83955/83956
	Level One	LXT 902 LXT 903
	NCR	NCR92CO2A NCR92CO3
	Fujitsu	MB86962
	Phillips/Sigmetics	NE86C92
	Seeq	83C94
	Intel	82506TC
78Z1120B-02 78Z1122B/D-02	Micro Linear	ML 4651 ML 4652 ML 4654
	National Semiconductor	DP83922
78Z034C 78Z035	AMD	Am79C98
78Z1120F-01 78Z1122F-01 (multiport repeaters)	AT&T Level One	T2200 T2201 LXT 903
	Micro Linear	ML4653
	National Semiconductor	DP83950
	Intel	82505TA
78Z1122B/D/F-12	AMD	Am79C980 Am79C981

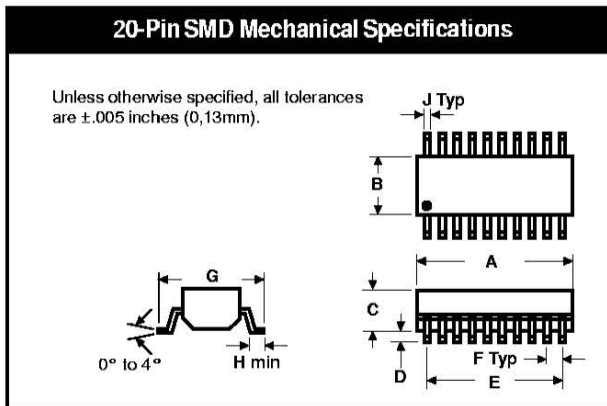
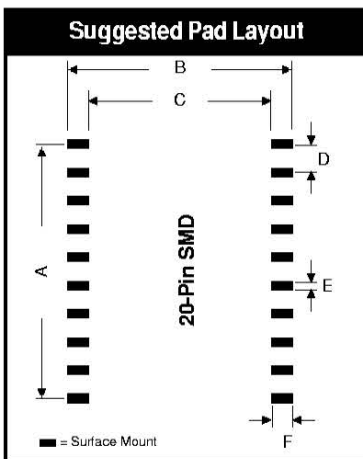
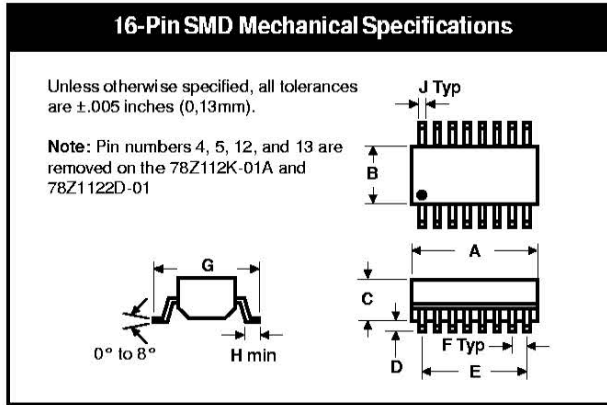
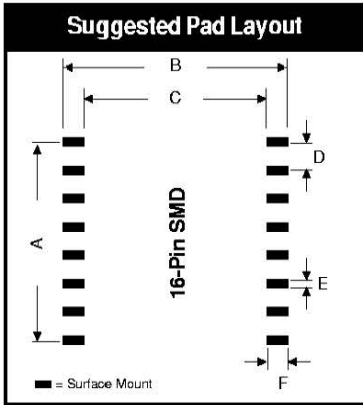


*Center tap on pin 7 for 78Z1122B-11 only



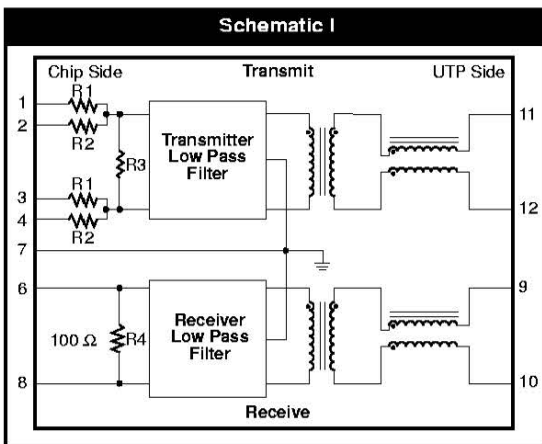
*Resistor circuit only for 78Z1123B-17





Notes:

- A. Each lead is within 0.010° (0,25) radius of its true position at maximum material dimension
- B. Coplanarity within $\pm 0.002^\circ$ (0,05)
- C. Mold flash or protrusion are not included in body dimensions but shall not exceed 0.006° (0,15)
- D. Number of pins included on package is dependent upon product



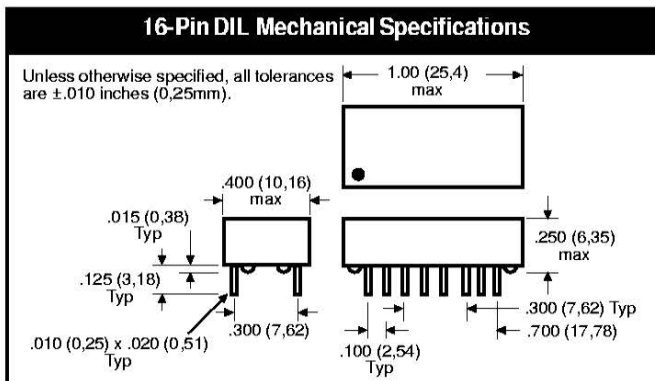
SMD Pad Layout Dimension Chart

Part No	A	B	C	D	E	F	Number of Pads
78Z1120D-01	.450 (11,43)	.480 (12,19)	.300 (7,62)	.050 (1,27)	.030 (0,76)	.090 (2,29)	20
78Z041SM	.700 (17,78)	.550 (13,97)	.390 (9,91)	.100 (2,54)	.030 (0,76)	.080 (2,03)	16
78Z1122D-01	.700 (17,78)	.430 (10,92)	.270 (6,86)	.100 (2,54)	.30 (0,76)	.080 (2,03)	16
78Z1122K-01A	.700 (17,78)	.540 (13,72)	.380 (9,65)	.100 (2,54)	.030 (0,76)	.080 (2,03)	16

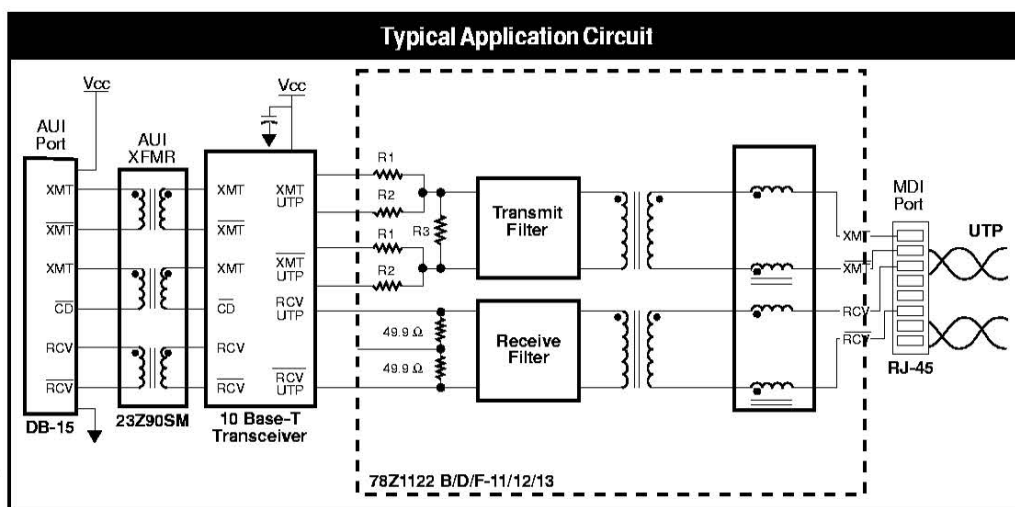
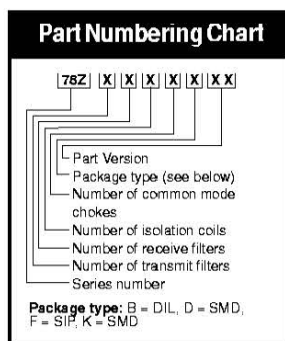
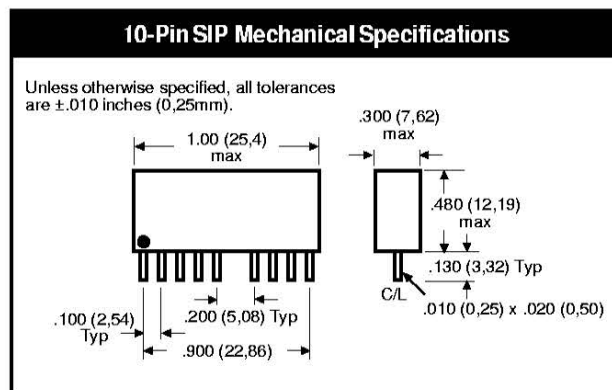
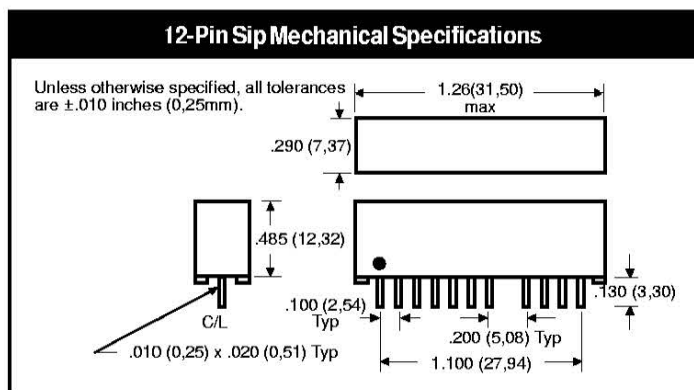
SMD Mechanical Specification Dimension Chart

Part No	A	B	C	D	E	F	G	H	J
78Z1120D-01	.600 (15,24)	.295 (7,49)	.210 (5,33)	.010 (0,25) .005 (0,13)	.450 (11,93)	.050 (1,27)	.420 (10,67)	.030 (0,76)	.018 (0,46)
78Z041SM	1.00 (25,4)	.395 (10,03)	.230 (5,84)	.010 (0,25) .005 (0,13)	.700 (17,78)	.100 (2,54)	.500 (12,7)	.025 (0,64)	.018 (0,46)
78Z1122D-01	.800 (20,32)	.280 (7,11)	.270 (6,85)	.010 (0,25) .005 (0,13)	.700 (17,78)	.100 (2,54)	.370 (9,40)	.025 (0,64)	.018 (0,46)
78Z1122K-01A	1.00 (25,4)	.395 (10,03)	.230 (5,84)	.010 (0,25) .005 (0,13)	.700 (17,78)	.100 (2,54)	.500 (12,70)	.025 (0,64)	.018 (0,46)

Interface Modules For 802.3 10Base-T LAN Applications



Note: For 78Z1122B-11/12/13 and 78Z1123B-17 height = 0.480 (12,19) max



Module configuration is indicated by Fil-Mag® Part Numbering System

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The components on this data sheet are Fil-Mag Legacy Parts.

In the construction of the components described, the full intent of the specification will be met. Pulse, however, reserves the right to make, from time to time, such departures from the detail specifications as may be required to permit improvements in the design of its products.

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