



# 10/100 Base-TX ISOLATION TRANSFORMERS WITH FILTERS

- ① Designed for 10/100MB/s Transmission Over UTP-5 Cable, IEEE 802.3 100BASE-TX.
  - ② Designed for 350uHY Primary OCL with an 8mA bias.
  - ③ Designed to Support all leading Fast Ethernet Chip Sets.
  - ④ Provides the Cable Interface, Isolation & Common Mode Filtering required by the PMD Sublayer.
  - ⑤ Through Hole SIP & Low Profile Surface Mount Packages.
- (1) : IEC950, UL1950, CSA-950 REINFORCED INSULATION VERSION, 3000Vrms Isolation.

## NORMAL TEMP RANGE

### ELECTRICAL SPECIFICATIONS AT 25°C - OPERATING TEMPERATURE RANGE 0°C TO +70°C

PART NUMBER	INSERTION LOSS (dB Max) 1 to 80MHz	RISE TIME (ns Typ) 10-90%	Differential to Common Mode Rejection (dB Min)			Return Loss (dB Min)			Crosstalk (dB Min)		HI-POT (VrmsMin)
			1-30 MHz	30-100 MHz	100-150 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-60MHz	60-100MHz	
PM-8508	-1.0	2.5	-60	-50	-30	-18	-12	-10	n/a	n/a	1500
PM-8510	-1.0	2.5	-31	-31	-28	-18	-12	-10	n/a	n/a	1500
PM-8515	-1.0	2.5	-42	-37	-34	-18	-12	-10	-40	-38	1500
PM-8517	-1.0	2.5	-42	-37	-34	-18	-12	-10	-40	-38	1500
PM-8520	-1.1	2.5	-31	-31	-28	-18	-12	-10	-40	-38	1500
PM-8529	-1.1	2.5	-45	-40	-35	-16	-12	-10	-40	-35	1500
<sup>(1)</sup> PM-8535	-1.2	2.5	-35	-30	-25	-18	-12	-10	-40	-38	3000 <sup>(1)</sup>
<sup>(1)</sup> PM-8536	-1.2	2.5	-35	-30	-25	-18	-12	-10	-40	-38	3000 <sup>(1)</sup>
<sup>(1)</sup> PM-8538	-1.2	2.5	-43	-37	-33	-16	-13	-12	-45	-38	3000 <sup>(1)</sup>
<sup>(1)</sup> PM-8540	-1.2	2.5	-35	-30	-25	-18	-12	-10	-40	-38	5000 <sup>(1)</sup>
PM-8589	-1.0	2.5	-42	-38	-32	-22	-18	-12	-40	-40	1500

## EXTENDED TEMP RANGE

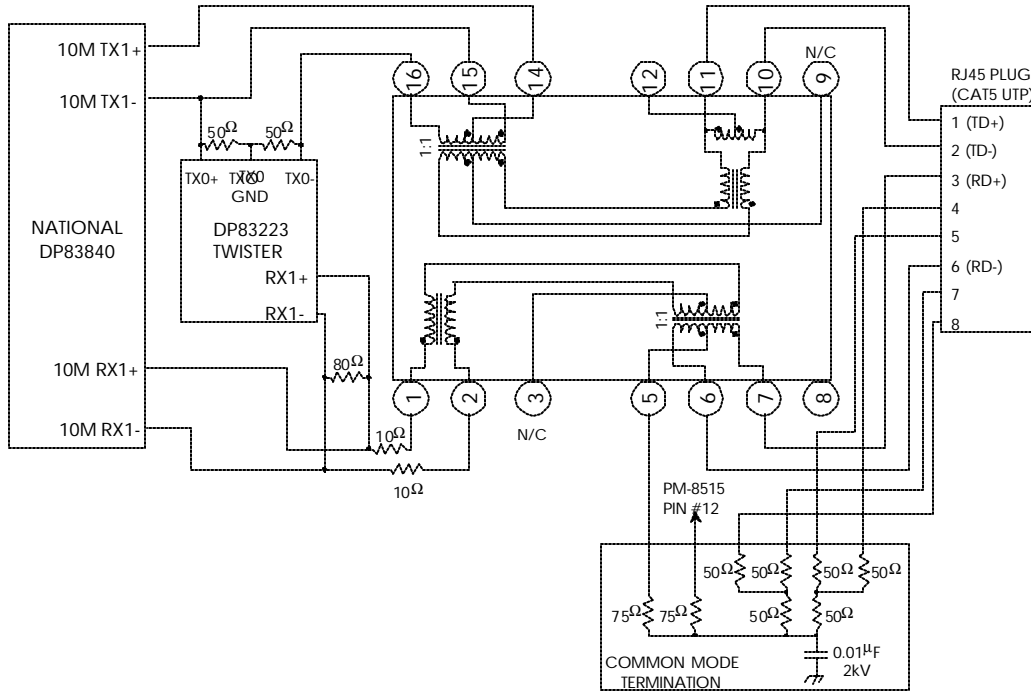
### ELECTRICAL SPECIFICATIONS AT 25°C - OPERATING TEMPERATURE RANGE -40°C TO +85°C

PART NUMBER	INSERTION LOSS (dB Max) 1 to 80MHz	RISE TIME (ns Typ) 10-90%	Differential to Common Mode Rejection (dB Min)			Return Loss (dB Min)			Crosstalk (dB Min)		HI-POT (VrmsMin)
			1-30 MHz	30-100 MHz	100-150 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-60MHz	60-100MHz	
PM-8590	-1.0	2.5	-42	-37	-32	-16	-11	-10	-40	-35	1500
PM-8591	-1.0	2.5	-42	-37	-32	-16	-11	-10	-40	-35	1500
PM-8592	-1.0	2.5	-42	-37	-34	-18	-12	-10	-40	-38	1500

# 10/100 Base-TX ISOLATION TRANSFORMERS WITH FILTERS

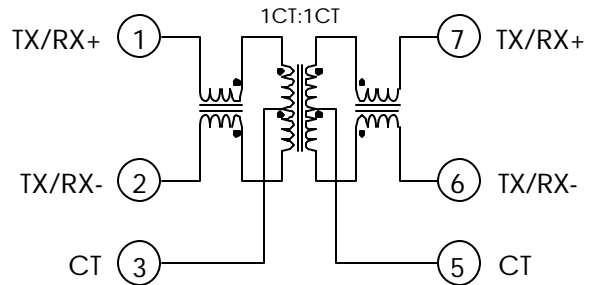
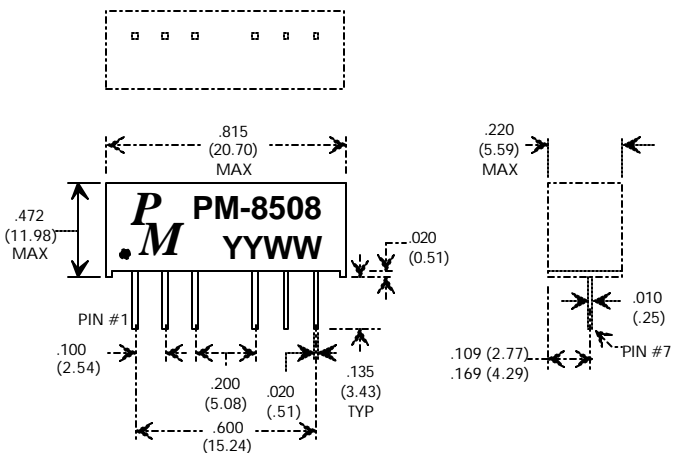
## TYPICAL PM-8515 & 8592 APPLICATION

### TYPICAL 10/100Mb/s ETHERNET NODE (10-BASE & 100BASE-TX)



## PM-8508 MECHANICAL

## PM-8508 SCHEMATIC

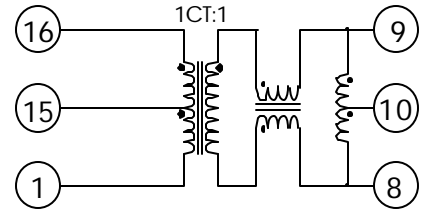
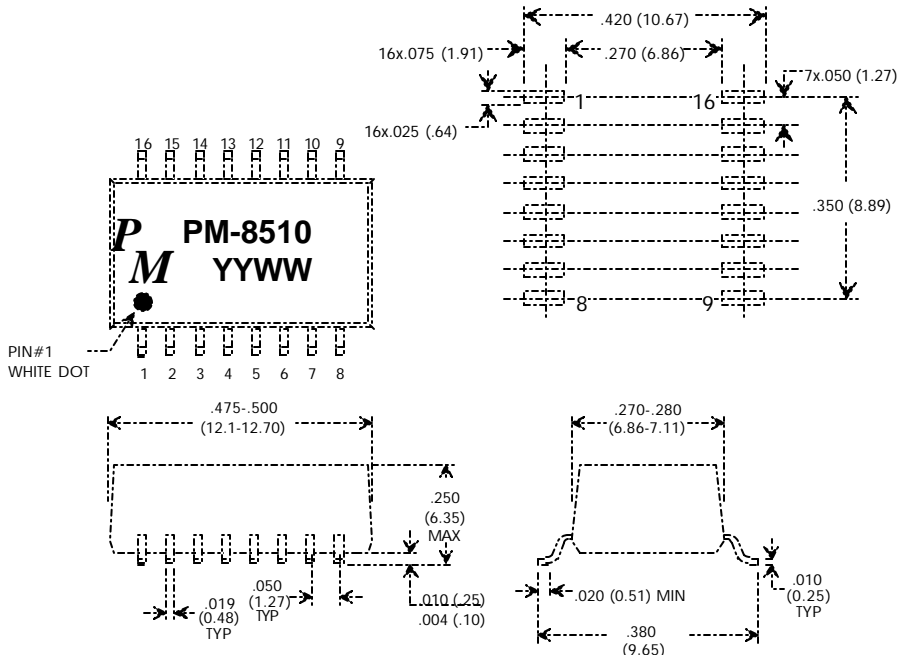


# 10/100 Base-TX ISOLATION TRANSFORMERS WITH FILTERS

## PM-8510 MECHANICAL

### RECOMMENDED P.C.B. LAYOUT All Dimensions in inches (mm)

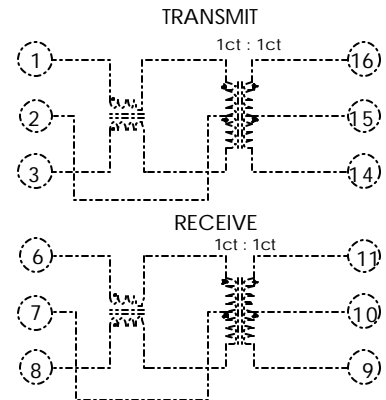
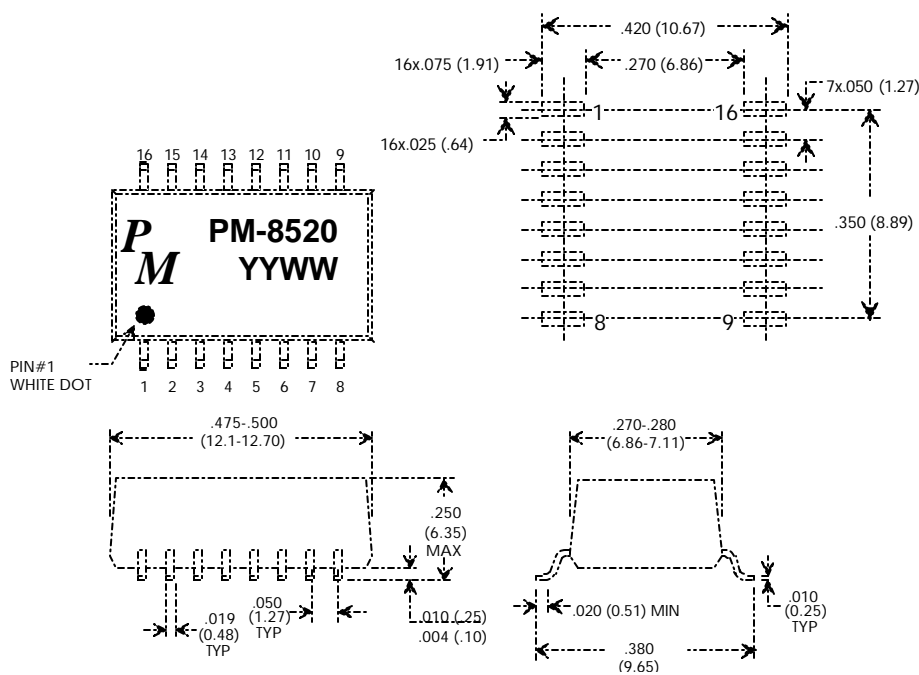
## PM-8510 SCHEMATIC



## PM-8520 MECHANICAL

### RECOMMENDED P.C.B. LAYOUT All Dimensions in inches (mm)

## PM-8520 SCHEMATIC

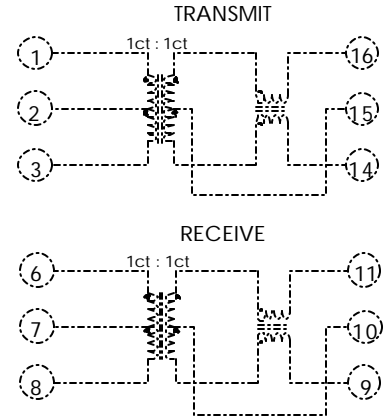
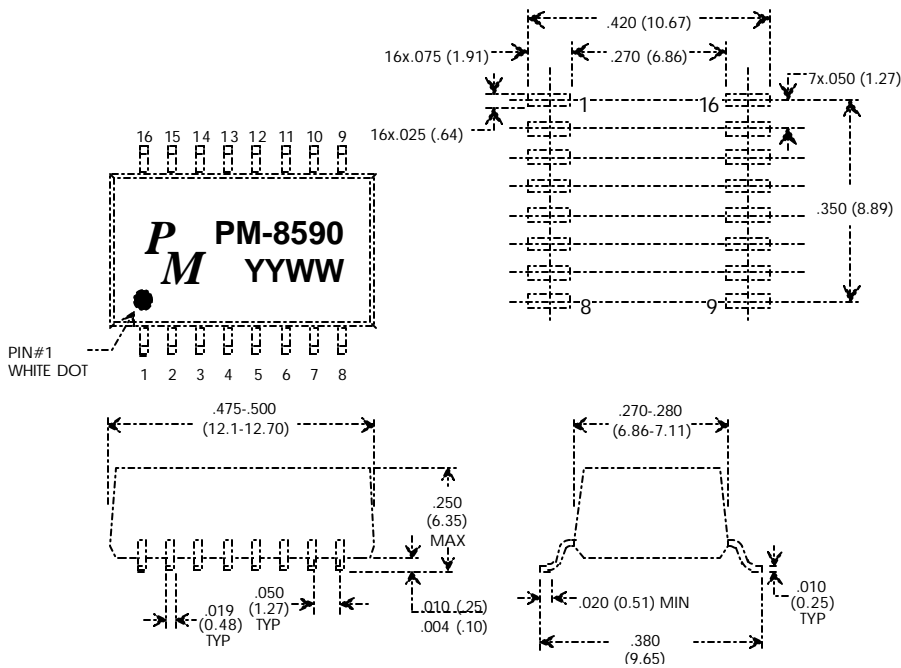


# 10/100 Base-TX ISOLATION TRANSFORMERS WITH FILTERS

## PM-8590 MECHANICAL

## PM-8590 SCHEMATIC

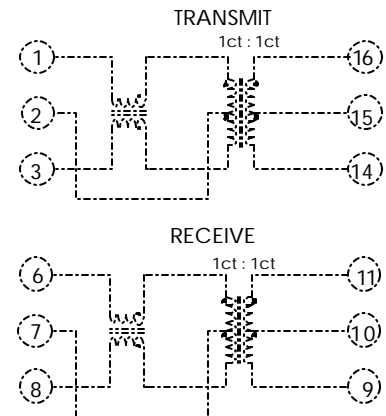
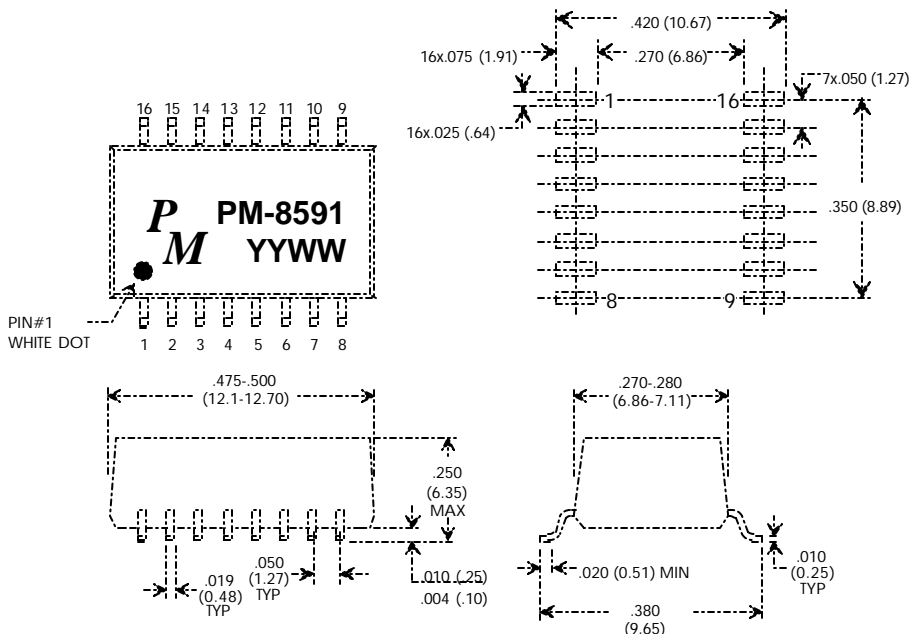
### RECOMMENDED P.C.B. LAYOUT All Dimensions in inches (mm)



## PM-8591 MECHANICAL

## PM-8591 SCHEMATIC

### RECOMMENDED P.C.B. LAYOUT All Dimensions in inches (mm)



Specifications subject to change without notice.

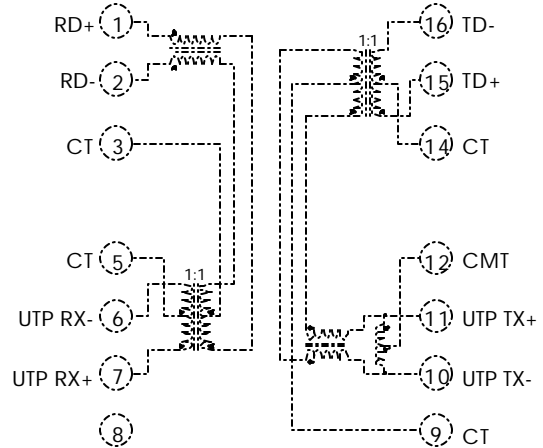
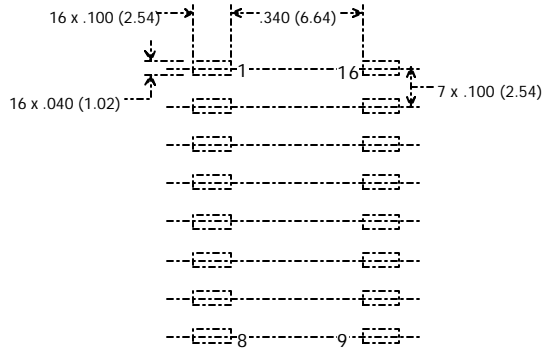
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# 10/100 Base-TX ISOLATION TRANSFORMERS WITH FILTERS

**PM-8515 & 8592 MECHANICAL**

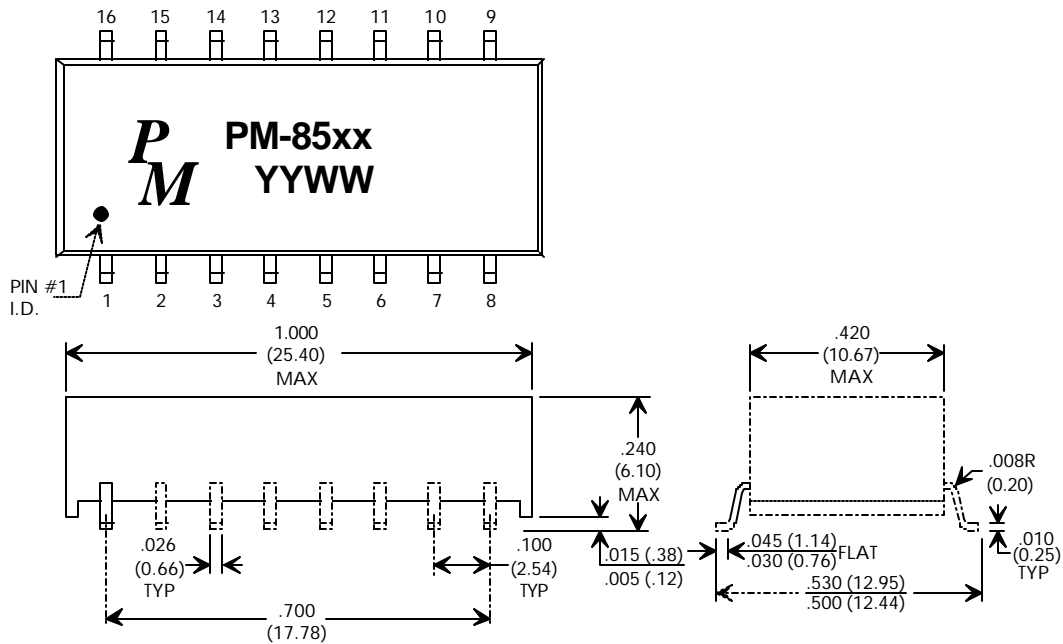
**PM-8515 & 8592 SCHEMATIC**

**RECOMMENDED P.C.B. LAYOUT**  
Dimensions in inches (mm)



PM-8515  
100BASE-TX MAGNETICS

**PHYSICAL DIMENSIONS ..... IN INCHES (mm)**



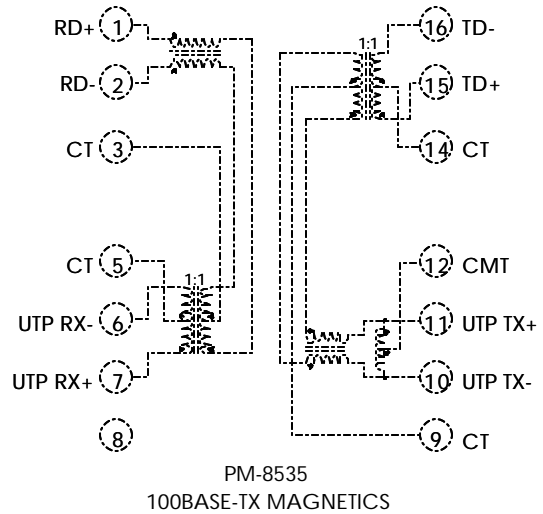
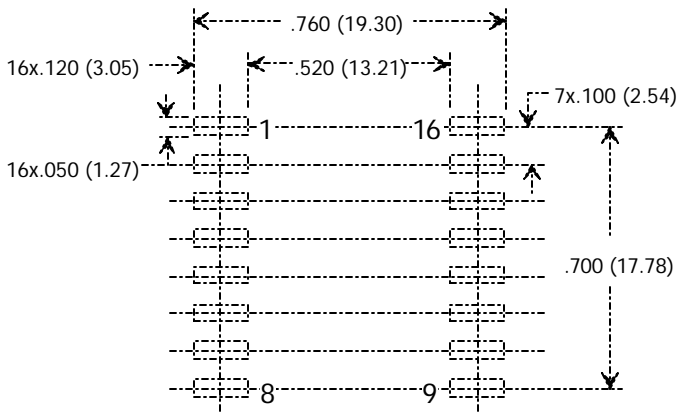
# 10/100 Base-TX ISOLATION TRANSFORMERS WITH FILTERS

PM-8535 MECHANICAL

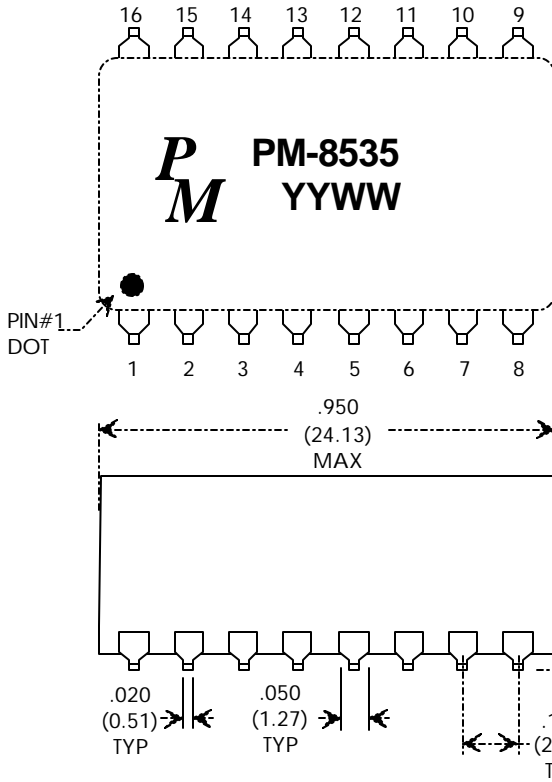
PM-8535 SCHEMATIC

### RECOMMENDED P.C.B. LAYOUT

Dimensions in inches (mm)

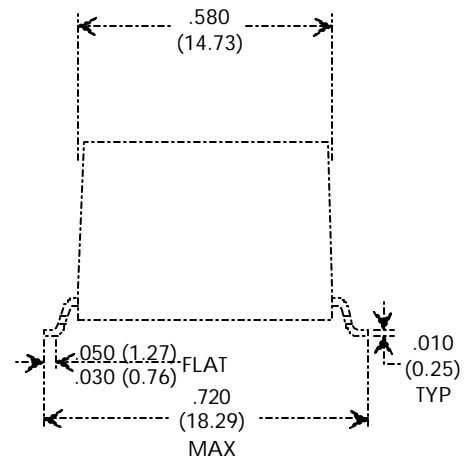


### PHYSICAL DIMENSIONS ..... IN INCHES (mm)



**NOTE1:**  
**REINFORCED INSULATION SYSTEM (UL1950, CSA-950, IEC950):**

- A) ALL MATERIALS MEET "UL", "CSA" & "IEC" REQUIREMENTS
- B) MEET UL 94-VO FOR FLAMABILITY.
- C) ALL MATERIALS ARE RATED 130°C OR BETTER.
- D) RXT REINFORCED INTERNAL CONSTRUCTION.
- E) DESIGNED FOR >6.2mm CREEPAGE



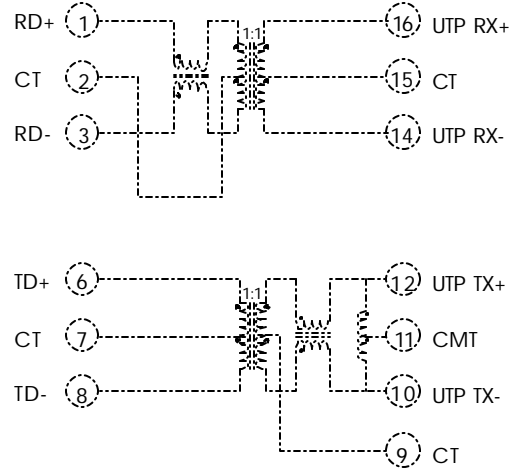
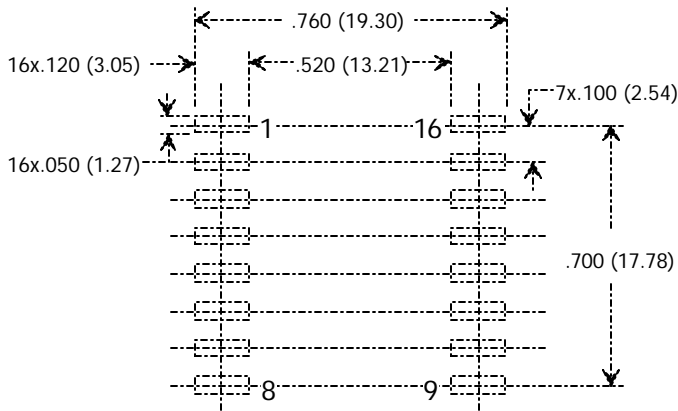
# 10/100 Base-TX ISOLATION TRANSFORMERS WITH FILTERS

PM-8536 MECHANICAL

PM-8536 SCHEMATIC

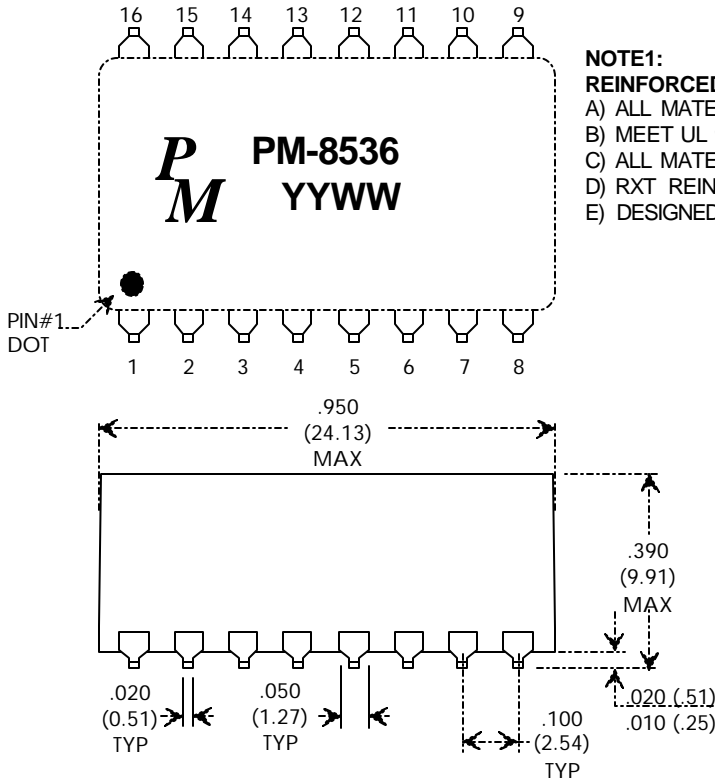
### RECOMMENDED P.C.B. LAYOUT

Dimensions in inches (mm)



PM-8536  
100BASE-TX MAGNETICS

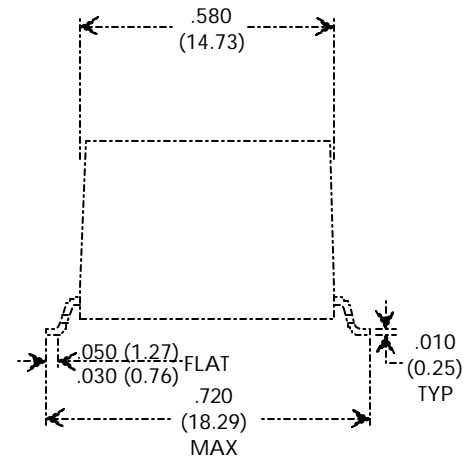
### PHYSICAL DIMENSIONS ..... IN INCHES (mm)



**NOTE1:**

**REINFORCED INSULATION SYSTEM (UL1950, CSA-950, IEC950):**

- A) ALL MATERIALS MEET "UL", "CSA" & "IEC" REQUIREMENTS
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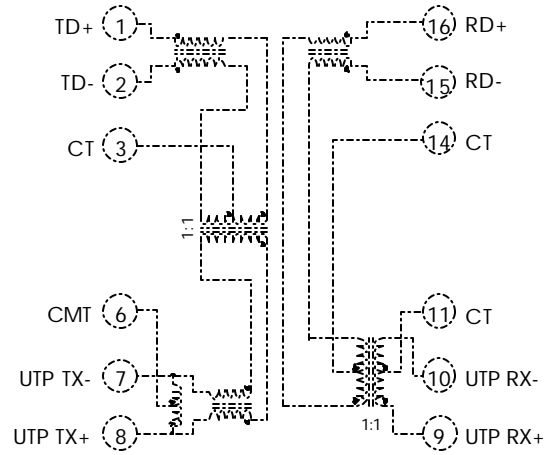
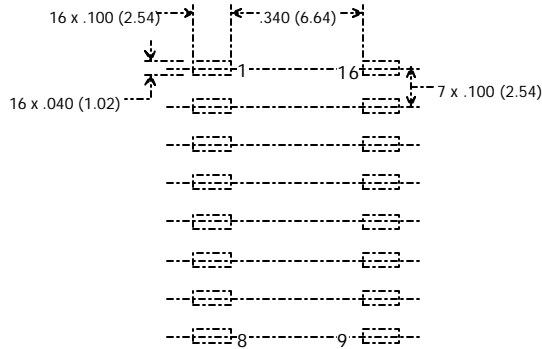


# 10/100 Base-TX ISOLATION TRANSFORMERS WITH FILTERS

**PM-8517 MECHANICAL**

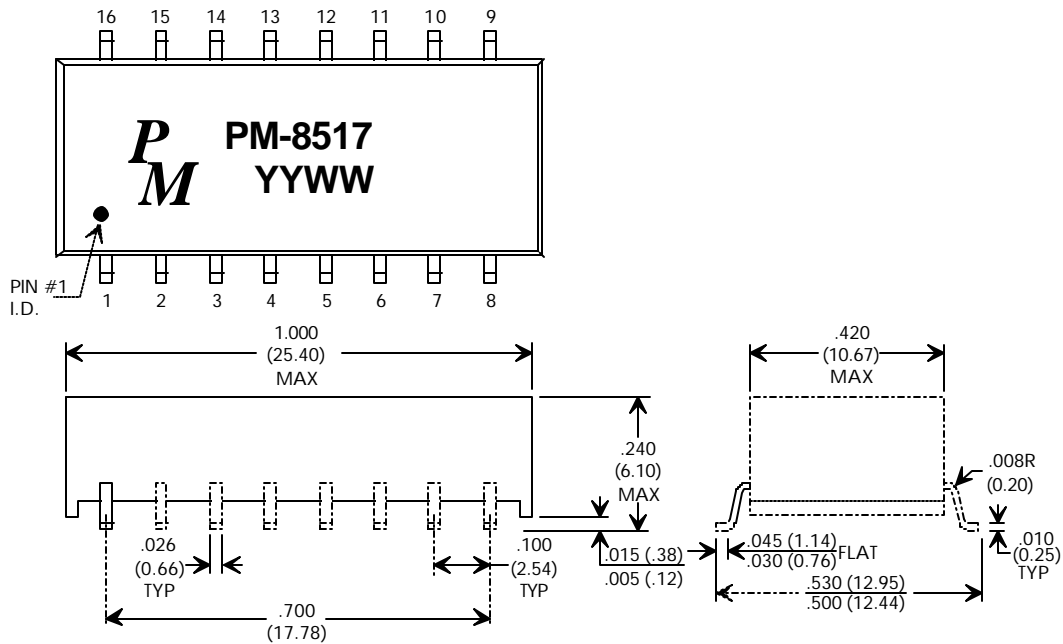
**PM-8517 SCHEMATIC**

**RECOMMENDED P.C.B. LAYOUT**  
Dimensions in inches (mm)



PM-8517  
100BASE-TX MAGNETICS

**PHYSICAL DIMENSIONS ..... IN INCHES (mm)**

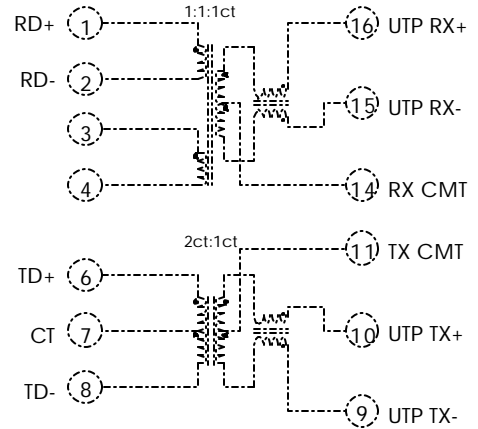
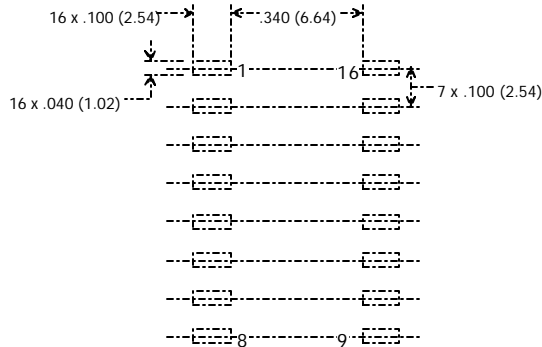


# 10/100 Base-TX ISOLATION TRANSFORMERS WITH FILTERS

**PM-8529 MECHANICAL**

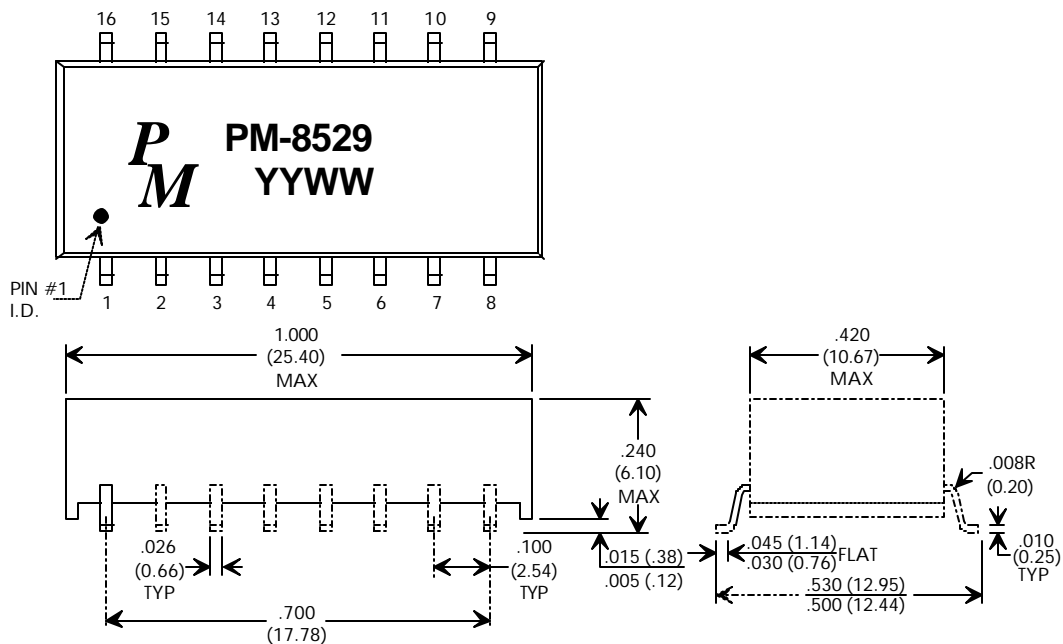
**PM-8529 SCHEMATIC**

### RECOMMENDED P.C.B. LAYOUT Dimensions in inches (mm)



PM-8529  
10/100BASE-TX MAGNETICS

### PHYSICAL DIMENSIONS ..... IN INCHES (mm)



REF IC:  
MICRO LINEAR ML6692  
SEEQ 80220

Specifications subject to change without notice.

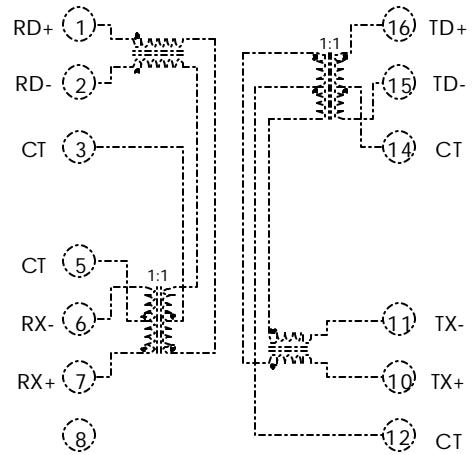
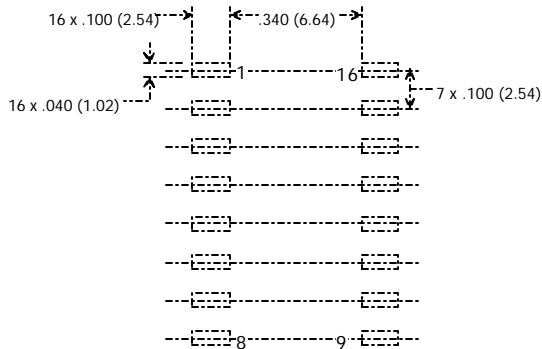
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# 10/100 Base-TX ISOLATION TRANSFORMERS WITH FILTERS

**PM-8589 MECHANICAL**

**PM-8589 SCHEMATIC**

**RECOMMENDED P.C.B. LAYOUT**  
Dimensions in inches (mm)



PM-8589  
100BASE-TX MAGNETICS

**PHYSICAL DIMENSIONS ..... IN INCHES (mm)**

