



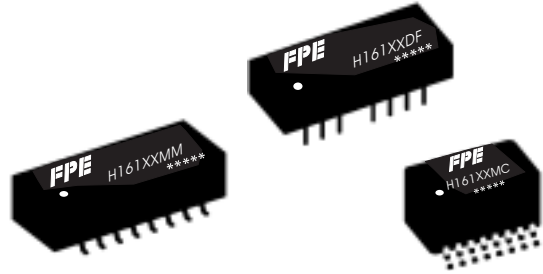
## 10/100 Base-T Transformer Modules

**C**ompliant With IEEE 802.3 standards including  
Baseline Wander Compensation specification of  
350  $\mu$  H OCL when biased at 8mA from 0°C to 70°C

**S**ingle Channel Interface For 10/100Mbps Ethernet  
Applications with CMC<sub>3</sub> tuned to enhance EMC  
system performance.

**C**ompatible With Various 10/100TX Transceiver  
Requiring 1:1 Transmit and Receive Turns Ratio

**R**oHS " -R " peak solder rating 260°C, non-RoHS peak solder  
rating 225°C For RoHS part, add suffix -R



### ELECTRICAL SPECIFICATIONS @ 25°C

Part Number	Insertion Loss (dB max)			Return Loss (dB min)			CMRR (dB min)			Crosstalk (dB min)	
	0.3-100MHz	0.3-30MHz	40MHz	50MHz	60-100MHz	0.3-30MHz	60MHz	80-100MHz	0.3-60MHz	60-100MHz	
H16102DF H16102DF-R	-1.1	-16	-14	-13.5	-10	-40	-35	-30	-40	-30	
H16105DF H16105DF-R	-1.1	-16	-14	-13.5	-10	-40	-35	-30	-40	-30	
H16107DF H16107DF-R	-1.1	-16	-14	-13.5	-10	-40	-35	-30	-40	-30	
H16119DF H16119DF-R	-1.1	-16	-14	-13.5	-10	-40	-35	-30	-40	-30	
H16101MM H16101MM-R	-1.1	-16	-14	-13.5	-10	-40	-35	-30	-40	-30	
H16104MM H16104MM-R	-1.1	-16	-14	-13.5	-10	-40	-35	-30	-40	-30	
H16116MM H16116MM-R	-1.1	-16	-14	-13.5	-10	-40	-35	-30	-40	-30	
H16101MC H16101MC-R	-1.1	-16	-14	-13.5	-10	-40	-35	-30	-40	-30	
H16102MC H16102MC-R	-1.1	-16	-14	-13.5	-10	-40	-35	-30	-40	-30	
H16107MC H16107MC-R	-1.1	-16	-14	-13.5	-10	-40	-35	-30	-40	-30	
H16110MC H16110MC-R	-1.1	-16	-14	-13.5	-10	-40	-35	-30	-40	-30	
H16101ME H16101ME-R	-1.1	-16	-14	-13.5	-10	-40	-35	-30	-40	-30	

**Note :**

Operating Temperature : 0°C - 70°C  
All models meet Isolation Voltage (HiPot) of 1500Vrms

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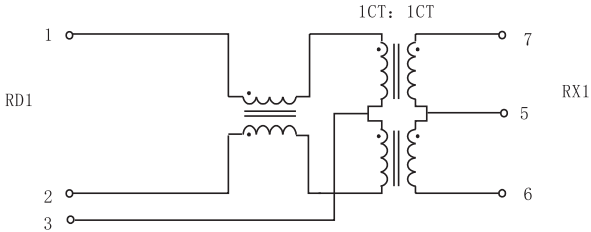
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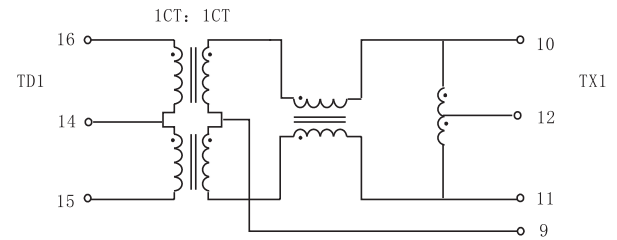
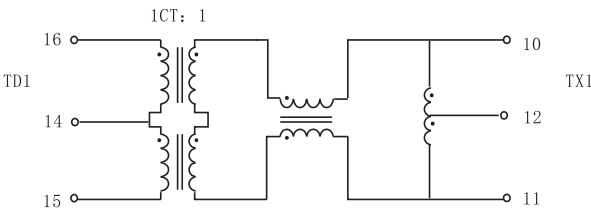
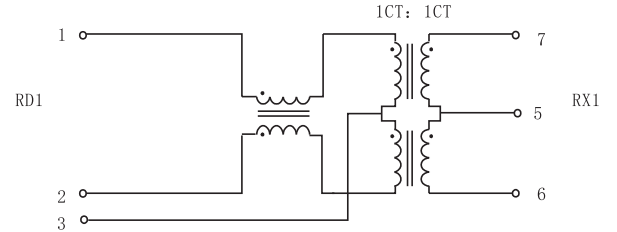
# 10/100 Base-T Transformer Modules

## SCHEMATICS

**H16101DF, H16105MM, H16116MM**  
**H16101DF-R, H16105MM-R, H16116MM-R**

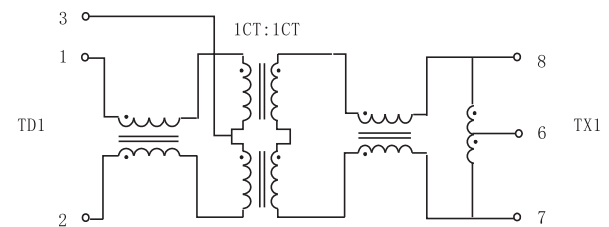
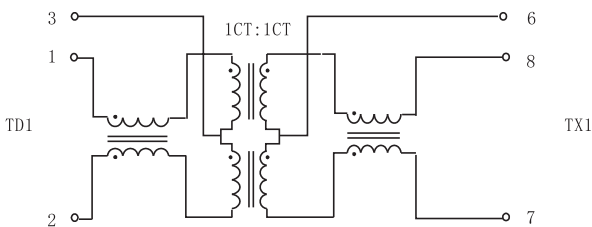
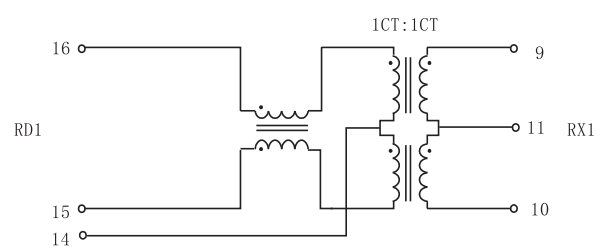
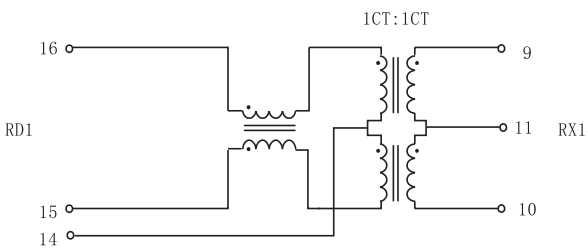


**H16117MM**  
**H16117MM-R**



**H16103DF, H16101MM**  
**H16103DF-R, H16101MM-R**

**H16104DF, H16102MM**  
**H16104DF-R, H16102MM-R**



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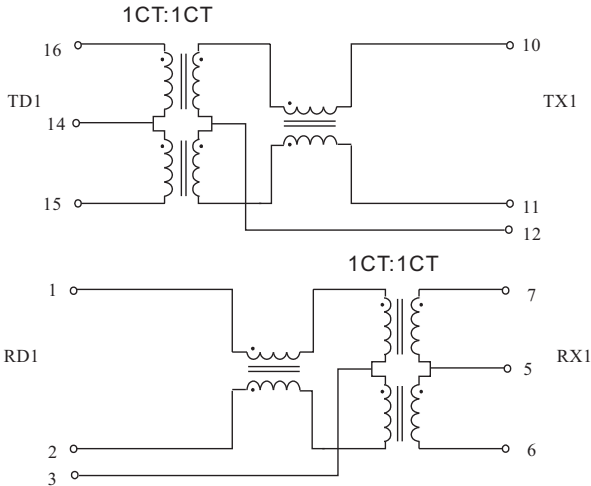
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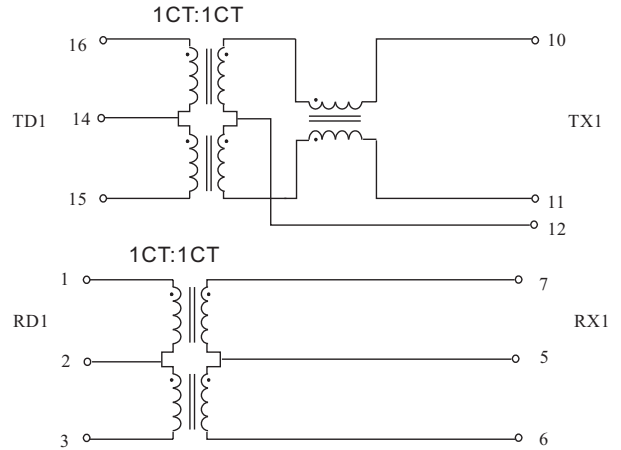
# 10/100 Base-T Transformer Modules

## SCHEMATICS

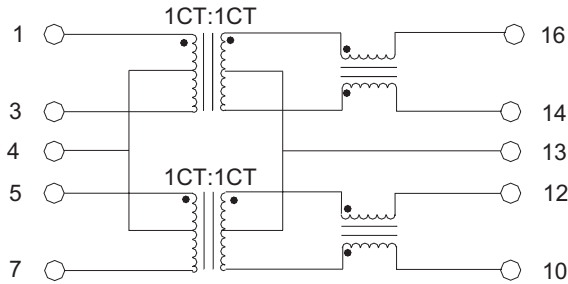
**H16105DF, H16103MM, H16109MC**  
**H16105DF-R, H16103MM-R, H16109MC-R**



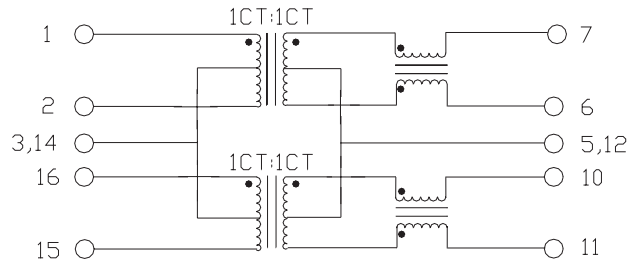
**H16106DF, H16104MM**  
**H16106DF-R, H16104MM-R**



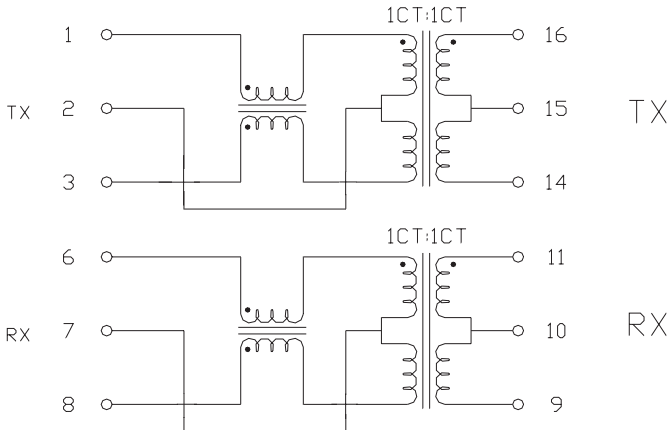
**H16102DF**  
**H16102DF-R**



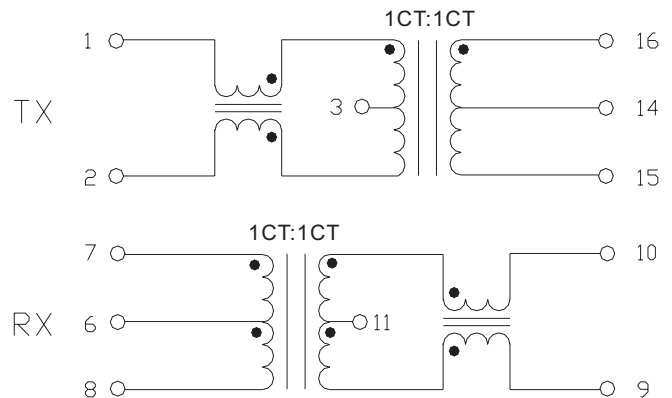
**H16118DF**  
**H16118DF-R**



**H16102MC**  
**H16102MC-R**



**H16103MC**  
**H16103MC-R**



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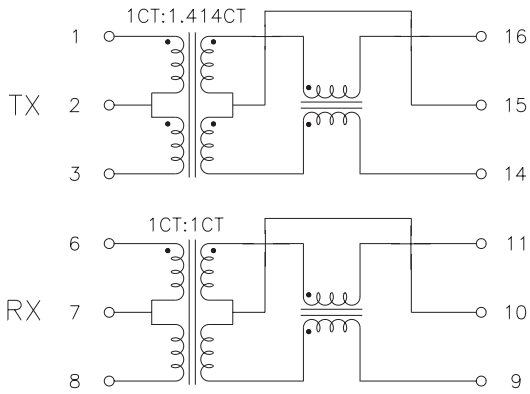
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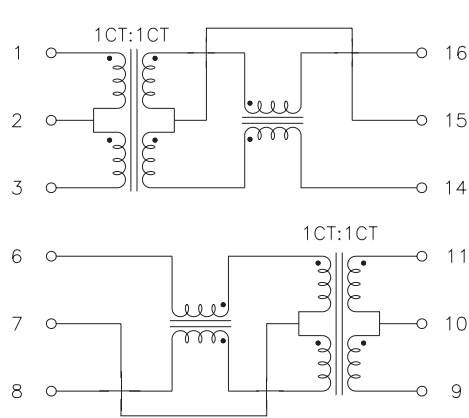
# 10/100 Base-T Transformer Modules

## SCHEMATICS

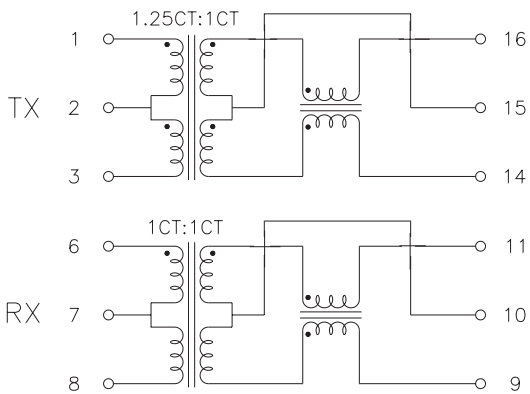
**H16104MC  
H16104MC-R**



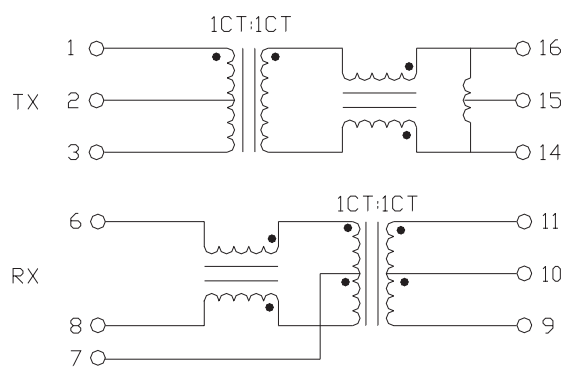
**H16105MC  
H16105MC-R**



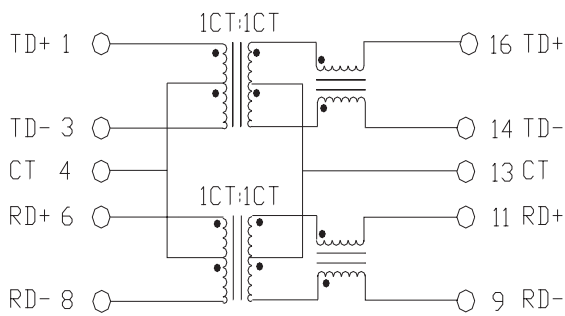
**H16106MC  
H16106MC-R**



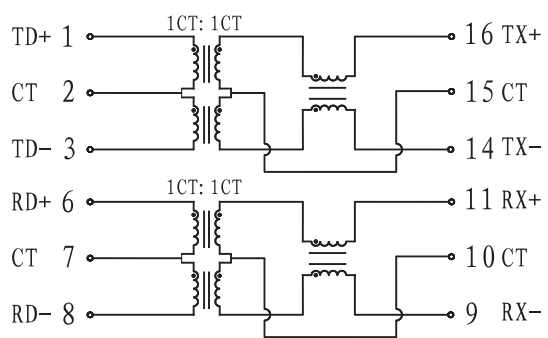
**H16107MC  
H16107MC-R**



**H16108MC  
H16108MC-R**



**H16107DF, H16101MC  
H16107DF-R, H16101MC-R**



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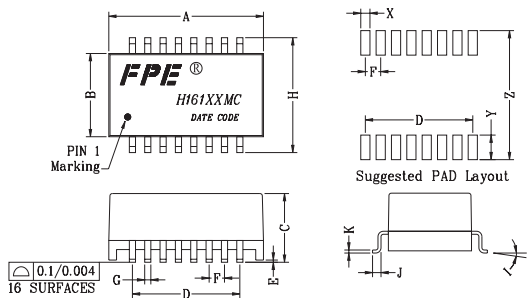
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# 10/100 Base-T Transformer Modules

## SCHMATICS (Continued)

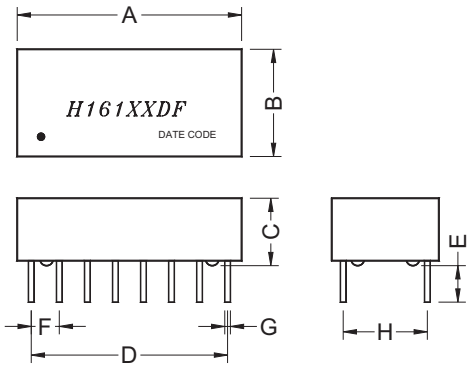
### MECHANICAL SPECIFICATIONS H161XXMC H161XXMC-R



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	12.40	12.90	0.488	0.508
B	6.70	7.20	0.264	0.283
C	4.75	5.25	0.187	0.207
D	8.89(Typical)		0.350(Typical)	
E	0.10	0.20	0.004	0.008
F	1.27(Typical)		0.050(Typical)	
G	0.45	0.55	0.018	0.022

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
H	9.25	9.75	0.364	0.384
I	0□	8□	0□	8□
J	2.55	3.05	0.100	0.120
X	0.71	0.81	0.028	0.032
Y	1.78	2.28	0.070	0.090
Z	10.42	10.92	0.410	0.430
K	0.20	0.30	0.008	0.012

### H161XXDF H161XXDF-R



DIM	MILLIMETERS			INCHES		
	MIN	MAX	NOM	MIN	MAX	NOM
A	20.07	20.57	20.32	0.790	0.810	0.800
B	9.45	9.95	9.70	0.372	0.392	0.382
C	5.85	6.35	6.10	0.230	0.250	0.240
D	---	---	17.78	---	---	0.700
E	3.10	3.50	3.30	0.122	0.138	0.130
F	---	---	2.54	---	---	0.100
G	0.45	0.55	0.50	0.018	0.022	0.020
H	---	---	7.62	---	---	0.300

H16104DF,H16104DF-R:PIN4,5,12&13 OMITTED,

H16101DF,H16101DF-R:PIN4&13 OMITTED,  
PIN8&9 NO CONNECTION

H16105DF,H16105DF-R:PIN4&13 OMITTED,  
PIN8&9 NO CONNECTION

H16103DF,H16103DF-R:PIN4,5,12&13 OMITTED

H16106DF,H16106DF-R:PIN4&13 OMITTED  
PIN8&9 NO CONNECTION

DIMENSIONS : INCHES/(MM) UNLESS OTHERWISE PECIFIED ALL TOLERANCES ARE ±0.010 (0.25)

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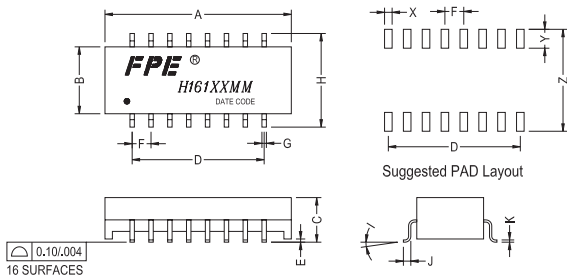
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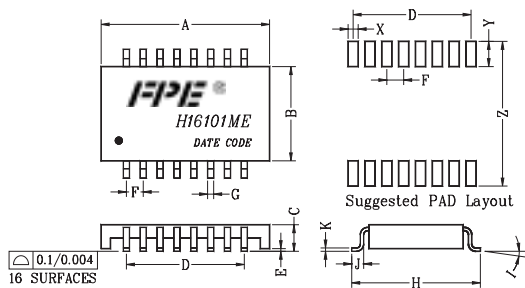
## MECHANICAL SPECIFICATIONS (Continued)

### H161XXMM H161XXMM-R



DIM	MILLIMETERS			INCHES		
	MIN	MAX	NOM.	MIN	MAX	NOM.
A	24.85	25.35	25.10	0.978	0.998	0.988
B	8.75	9.25	9.00	0.344	0.364	0.354
C	5.75	6.25	6.00	0.226	0.246	0.236
D	---	---	17.78	---	---	0.700
E	---	---	0.40	0.008	0.012	0.010
F	---	---	2.54	---	---	0.100
G	0.55	0.65	0.60	0.022	0.026	0.024
H	12.25	12.75	12.50	0.482	0.502	0.492
I	0□	8□	4□	0□	8□	4□
J	0.80	1.20	1.00	0.031	0.047	0.039
K	0.25	0.35	0.30	0.010	0.014	0.012
X	0.92	1.12	1.02	0.036	0.044	0.040
Y	2.29	2.79	2.54	0.090	0.110	0.100
Z	13.47	13.97	13.72	0.530	0.550	0.540

### H16101ME H16101ME-R



DIM	MILLIMETERS			INCHES		
	MIN	MAX	NOM	MIN	MAX	NOM
A	12.45	12.95	12.70	0.490	0.510	0.500
B	6.80	7.30	7.05	0.268	0.287	0.278
C	---	2.25	---	---	0.089	---
D	---	---	8.89	---	---	0.350
E	---	---	0.25	---	---	0.010
F	---	---	1.27	---	---	0.050
G	0.46	0.56	0.51	0.018	0.022	0.020

DIM	MILLIMETERS			INCHES		
	MIN	MAX	NOM	MIN	MAX	NOM
H	9.35	9.85	9.60	0.368	0.388	0.378
I	0□	8□	4□	0□	8□	4□
J	0.95	1.05	1.00	0.037	0.041	0.039
X	0.71	0.81	0.76	0.028	0.032	0.030
Y	1.65	2.15	1.90	0.065	0.085	0.075
Z	10.55	11.05	10.80	0.415	0.435	0.425
K	0.25	0.35	0.30	0.010	0.014	0.012

DIMENSIONS INCHES/(mm) ; UNLESS OTHERWISE SPECIFIED ALL TOLERANCES ARE ± 0.01(0.25).

## For More Informations

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