

### Features and Benefits:

- \* RoHS peak wave solder temperature rating 260°C
- \* Suitable for CAT 5 & 6 Fast Ethernet Cable or better UTP



### Electrical Performance Summary:

- \* Meets or exceeds IEEE 802.3 standard for 100Base-T
- \* 350 µH minimum OCL with 8mA bias current
- \* Minimum 1500Vrms isolation per IEEE 802.3 requirement

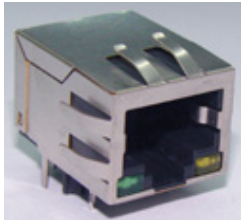
### Electrical Specifications @ 25°C — Operating Temperature 0°C to +70°C

Part Number	Turns Ratios		Mech Drawing	EMI Fingers	LEDs <sup>1</sup> (L/R)	Insertion Loss (dB MAX)	Return Loss (dB MIN) 100W±15W				Crosstalk (dB MIN)			Common Mode Rejection (dB MIN)		Hipot (Vrms)
	TX	RX					1-65 MHz	1-10 MHz	10-30 MHz	30-60 MHz	60-80 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-50 MHz	
SM C04 1A06 HOG1	1CT:1	1CT:1	H	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A06 CBG1	1CT:1	1CT:1	C	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A06 FBG1	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A15 GOG1	1CT:1	1CT:1	G	NO	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A15 CBG1	1CT:1	1CT:1	C	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A15 HOG1	1CT:1	1CT:1	H	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A15 FBG1	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 HOG1	1CT:1	1CT:1	H	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A19 GOG1	1CT:1	1CT:1	G	NO	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A19 CBG1	1CT:1	1CT:1	C	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
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SM C04 1A10 DAG1	1CT:1	1CT:1	D	YES	Y/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
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SM C04 1A10 FHG1	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
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SM C04 1A13 GOG1	1CT:1	1CT:1	G	NO	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
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SM C04 1A13 FBG1	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A13 FGG1	1CT:1	1CT:1	F	YES	Y/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A13 CBG1	1CT:1	1CT:1	C	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
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SM C04 1A46 CBG1	1CT:1	1CT:1	C	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A46 FBG1	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A46 FHG1	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500

Note: 1.LEDs Left/Right: G=green, Y=yellow, N/A=none, YG=Bi-color LED Yellow Green. 2. LEDs with internal resistor. 3.Bi- color Left LED.

### Features and Benefits:

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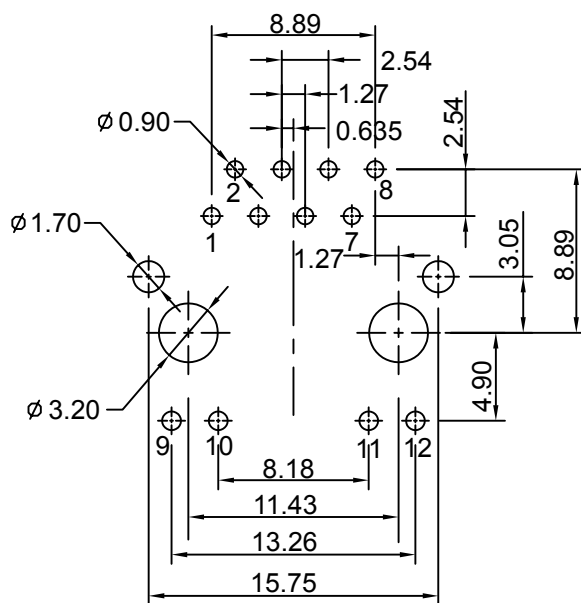
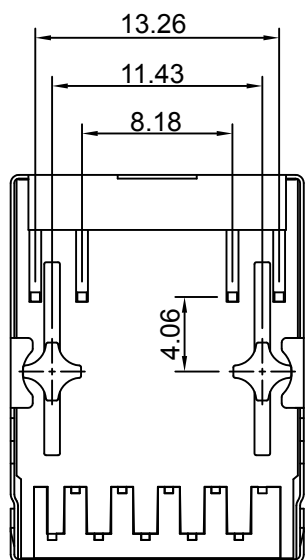
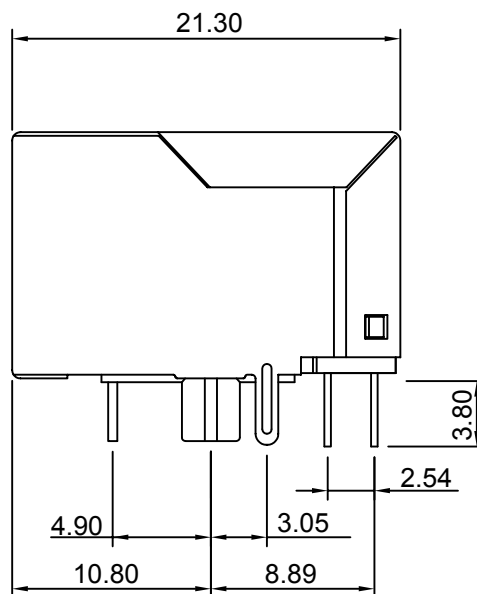
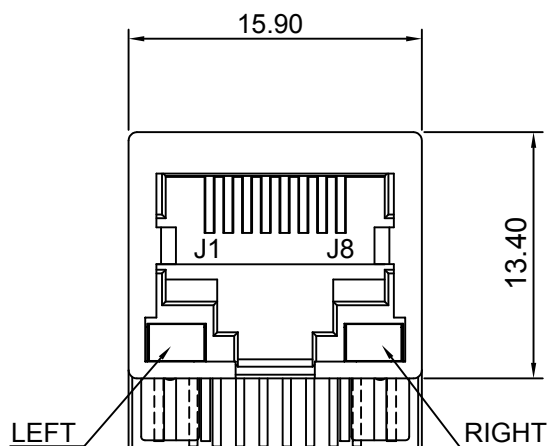
### Electrical Specifications @ 25°C — Operating Temperature 0°C to +70°C

Part Number	Turns Ratios		Mech Drawing	EMI Fingers	LEDs <sup>1</sup> (L/R)	Insertion Loss (dB MAX)	Return Loss (dB MIN) 100W±15W				Crosstalk (dB MIN)			Common Mode Rejection (dB MIN)		Hipot (Vrms)
	TX	RX					1-65 MHz	1-10 MHz	10-30 MHz	30-60 MHz	60-80 MHz	1-30 MHz	30-60 MHz	60-100 MHz	1-50 MHz	
SM C04 1A46 HOG2	1CT:1	1CT:1	H	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A46 EDG1	1CT:1	1CT:1	E	YES	Y/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C 04 1A46 ADG1	1CT:1	1CT:1	A	NO	Y/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 DEG1	1CT:1	1CT:1	D	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 DDG1	1CT:1	1CT:1	D	YES	Y/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 DBG1	1CT:1	1CT:1	D	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 AEG1	1CT:1	1CT:1	A	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 GOG1	1CT:1	1CT:1	G	NO	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 BBG1	1CT:1	1CT:1	B	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 HOG1	1CT:1	1CT:1	H	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 FBG1	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 IOG1	1CT:1	1CT:1	I	NO	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 DFG1	1CT:1	1CT:1	D	YES	G/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 FEG1	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A60 DFG1	1CT:1	1CT:1	F	YES	Y/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C004 1A60 FAG1	1CT:1	1CT:1	F	YES	Y/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A34 GOG1	1CT:1	1CT:1	G	NO	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A34 FEG1	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A34 HOG1	1CT:1	1CT:1	H	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A34 EEG1	1CT:1	1CT:1	E	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
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SM C04 1A47 BBG1	1CT:1	1CT:1	B	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A47 GOG1	1CT:1	1CT:1	G	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A47 DDG1	1CT:1	1CT:1	D	YES	Y/G	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A47 FBG1	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A16 GOG1	1CT:1	1CT:1	G	NO	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A16 FBG1	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A16 EBG1	1CT:1	1CT:1	E	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A16 ABG1	1CT:1	1CT:1	A	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A16 HOG1	1CT:1	1CT:1	H	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A15 IOG1	1CT:1	1CT:1	I	NO	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A71 HOG1	1CT:1	1CT:1	H	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A71 BBG1	1CT:1	1CT:1	B	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
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SM C04 1A05 HOG2	1CT:1	1CT:1	H	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A05 BBG1	1CT:1	1CT:1	B	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A06 FBG1	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A	1CT:1	1CT:1	G	NO	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A	1CT:1	1CT:1	D	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A	1CT:1	1CT:1	H	YES	N/A	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A	1CT:1	1CT:1	C	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A	1CT:1	1CT:1	C	NO	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500
SM C04 1A	1CT:1	1CT:1	F	YES	G/Y	-1	-20	-16	-12	-10	-40	-35	-30	-30	-20	1500

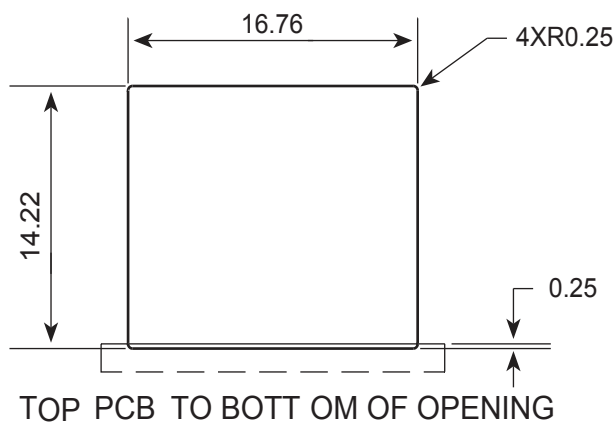
Note: 1.LEDs Left/Right: G=green, Y=yellow, N/A=none, YG=Bi-color LED Yellow Green. 2. LEDs with internal resistor. 3.Bi- color Left LED.



**B**



SUGGESTED PCB LAYOUT (TOP VIEW)



Dimensions:mm

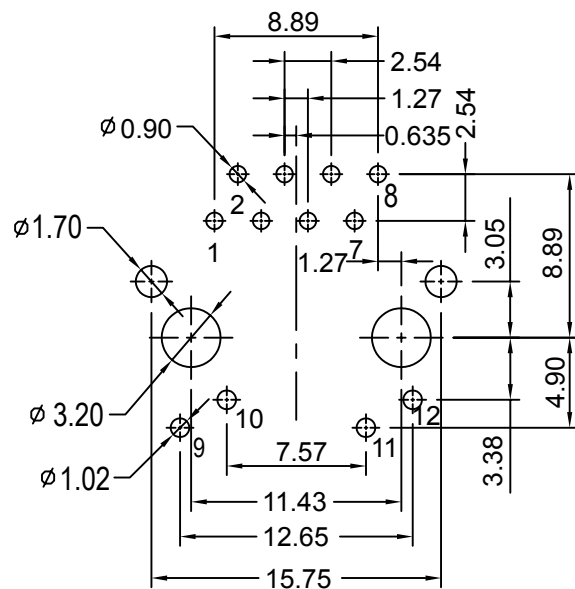
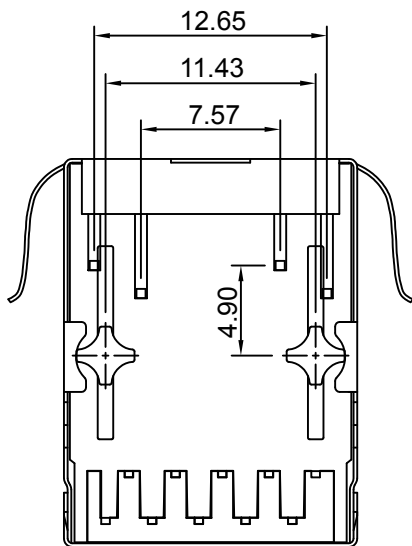
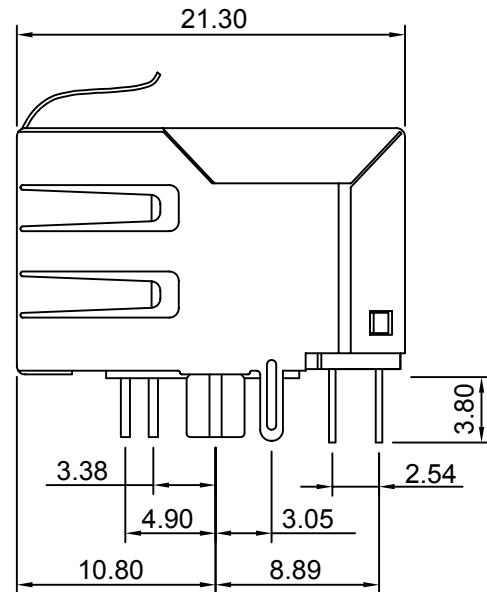
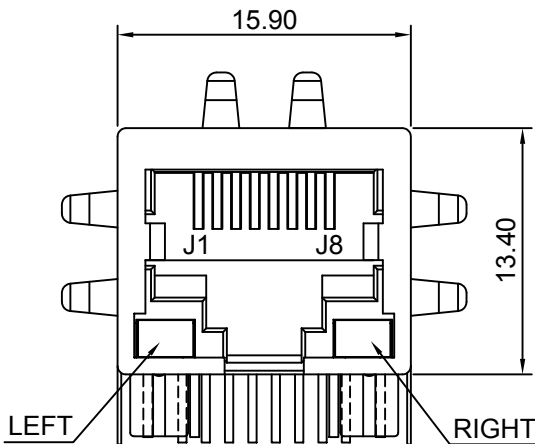
Unless otherwise specified, all tolerances are  $\pm 0,25$



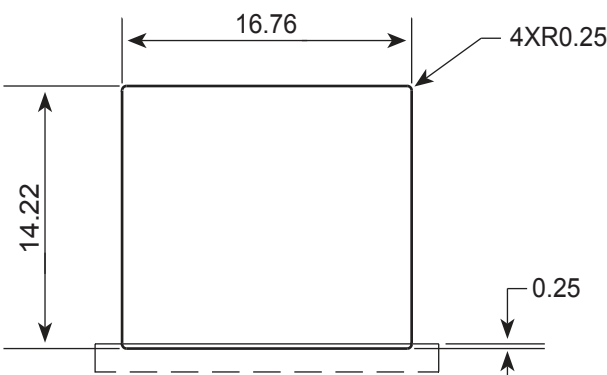




F



SUGGESTED PCB LAYOUT (TOP VIEW)



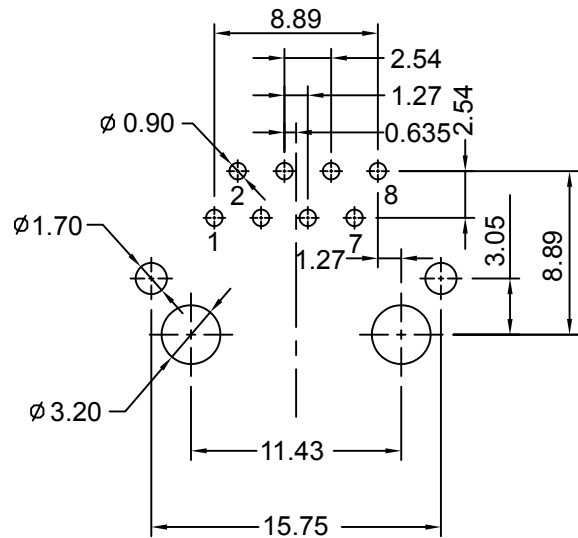
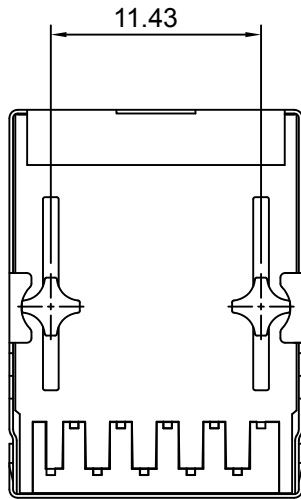
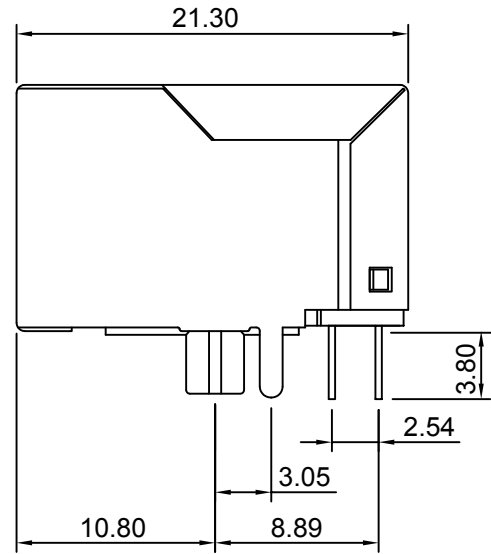
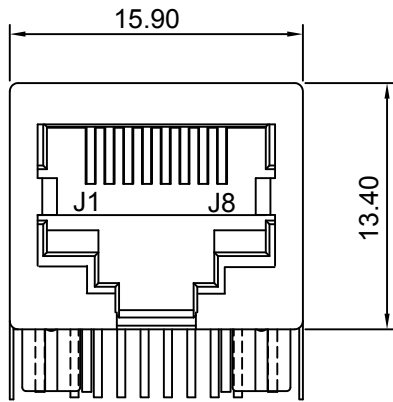
TOP PCB TO BOTT OM OF OPENING

Dimensions:mm

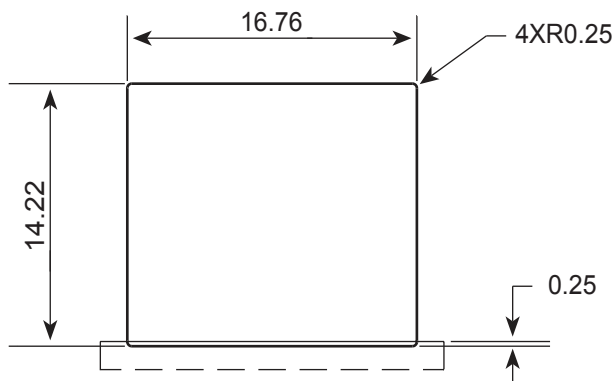
Unless otherwise specified, all tolerances are  $\pm 0,25$



G



SUGGESTED PCB LAYOUT (TOP VIEW)



TOP PCB TO BOTT OM OF OPENING

Dimensions:mm

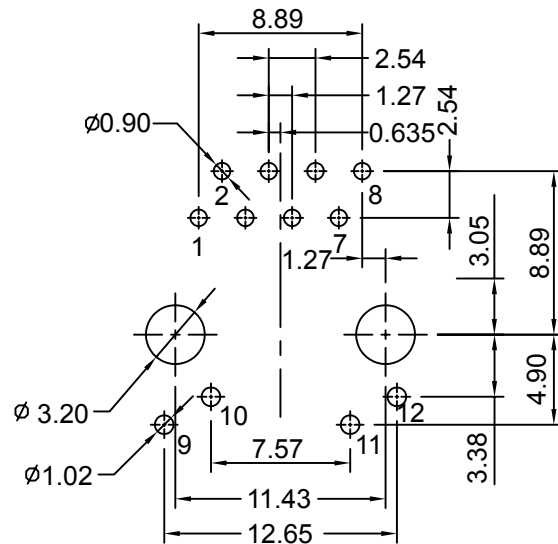
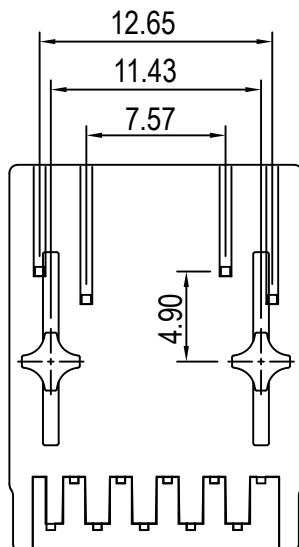
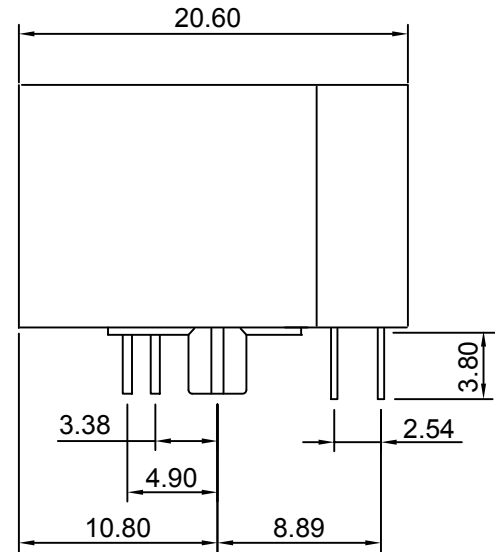
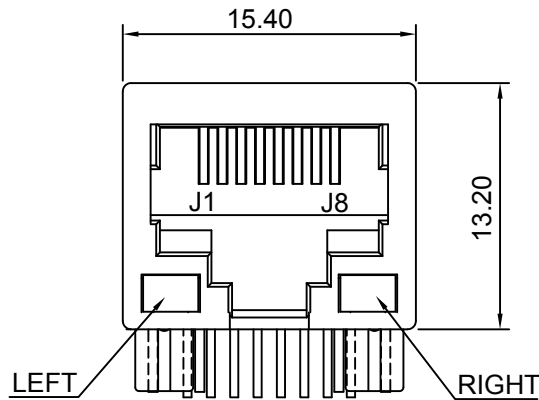
Unless otherwise specified, all tolerances are  $\pm 0,25$



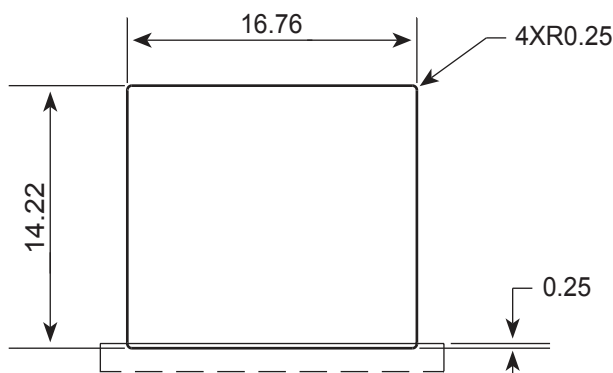




**K**



SUGGESTED PCB LAYOUT (TOP VIEW)



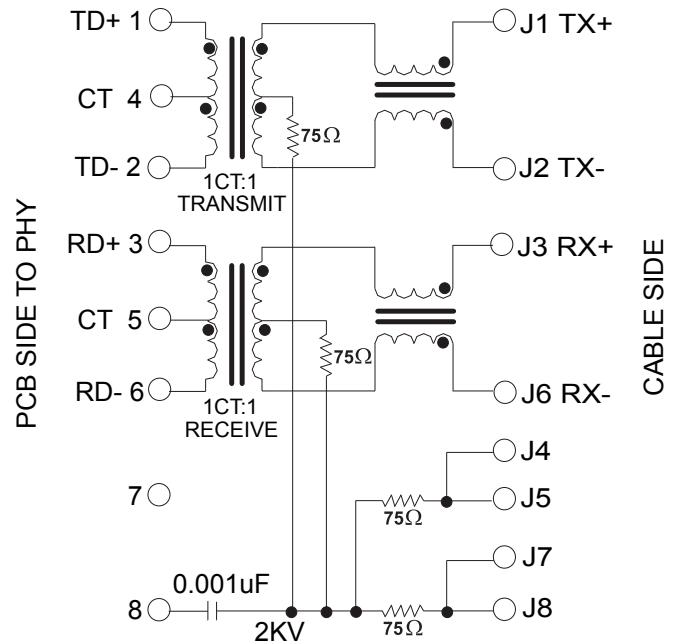
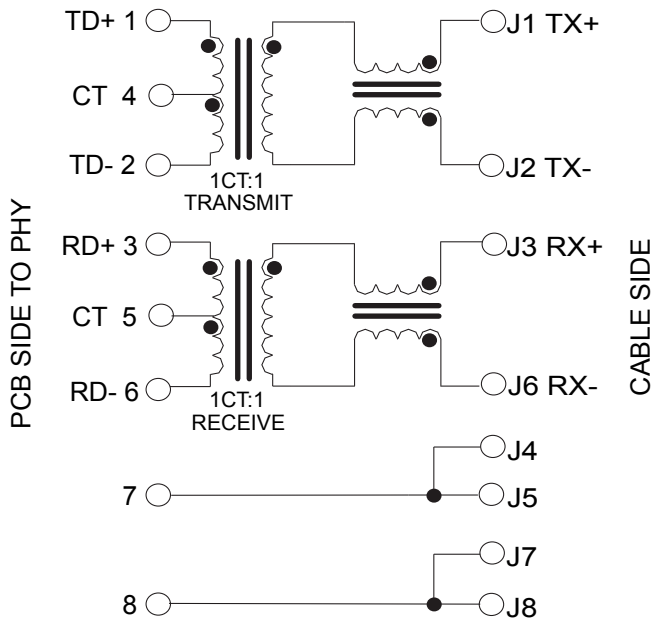
TOP PCB TO BOTT OM OF OPENING

Dimensions:mm

Unless otherwise specified, all tolerances are  $\pm 0,25$

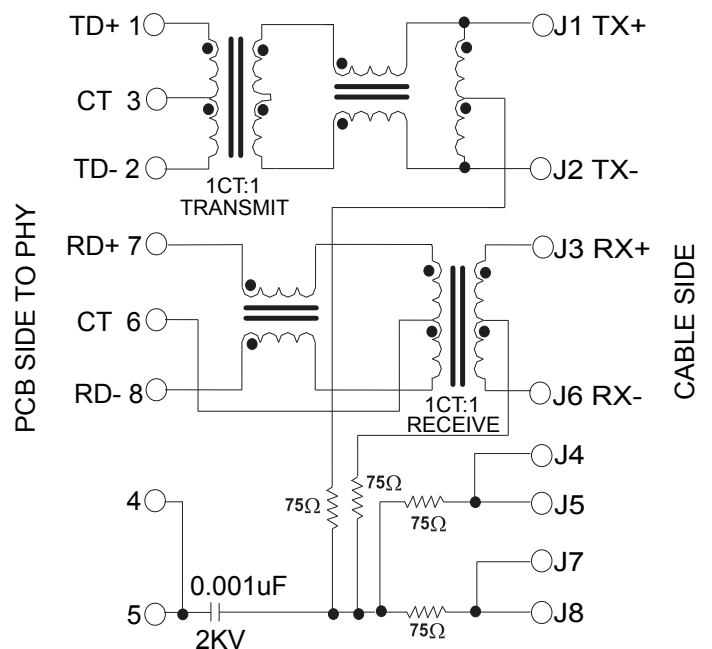
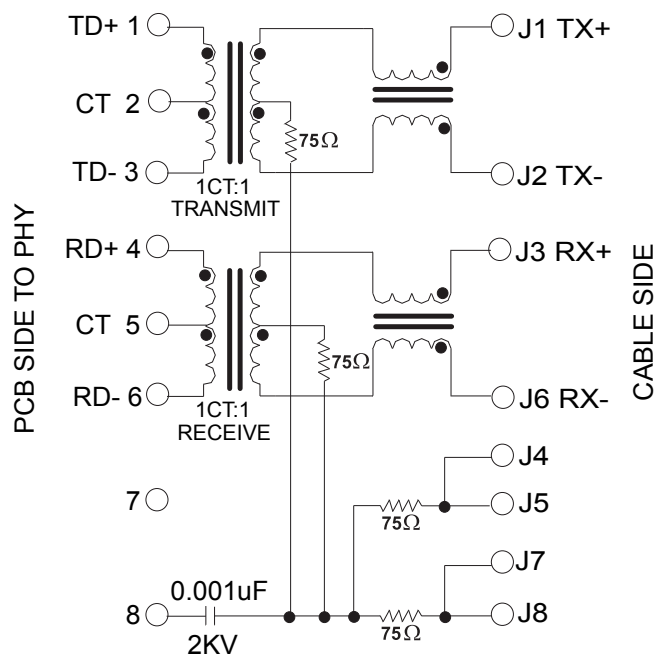
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15



60

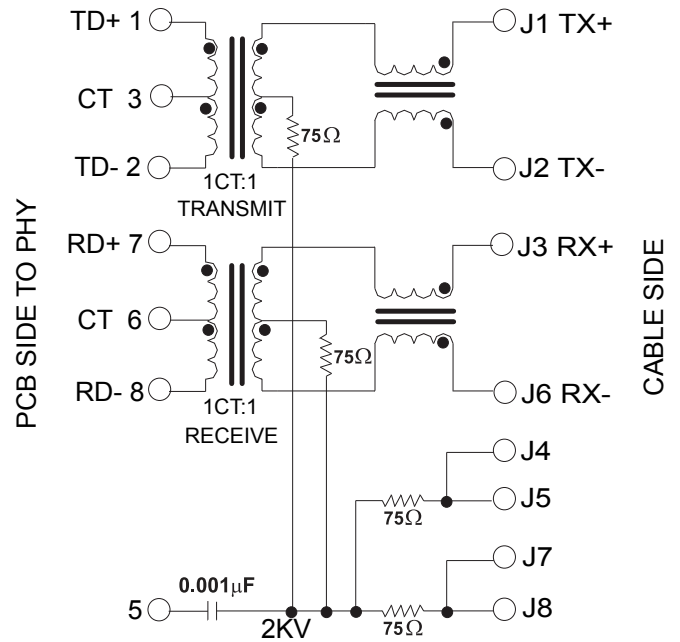
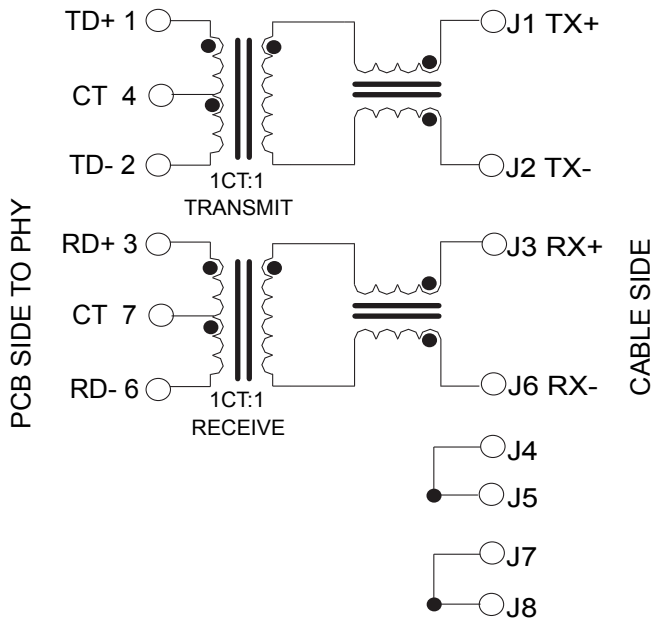
19



### Series Electrical Schematics

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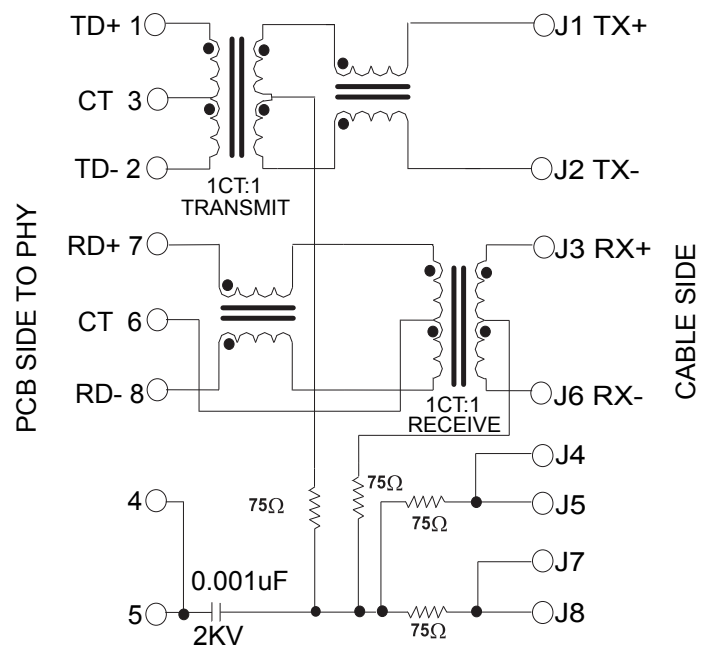
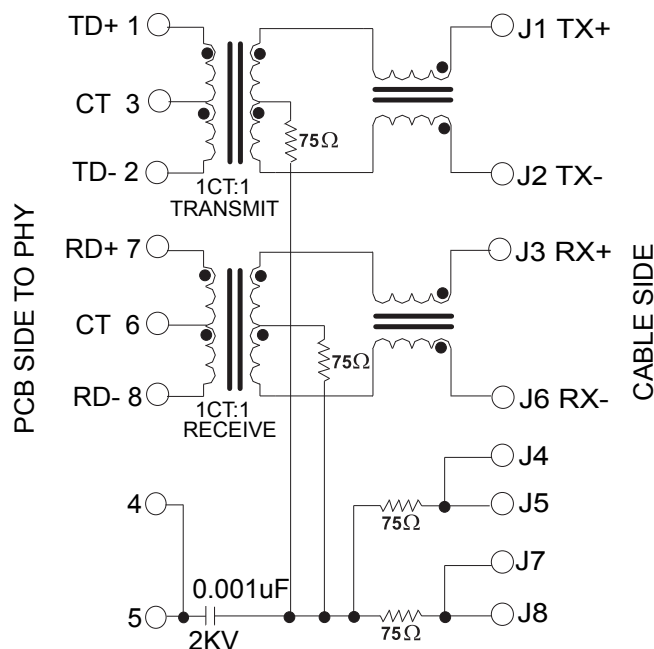
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### Series Electrical Schematics

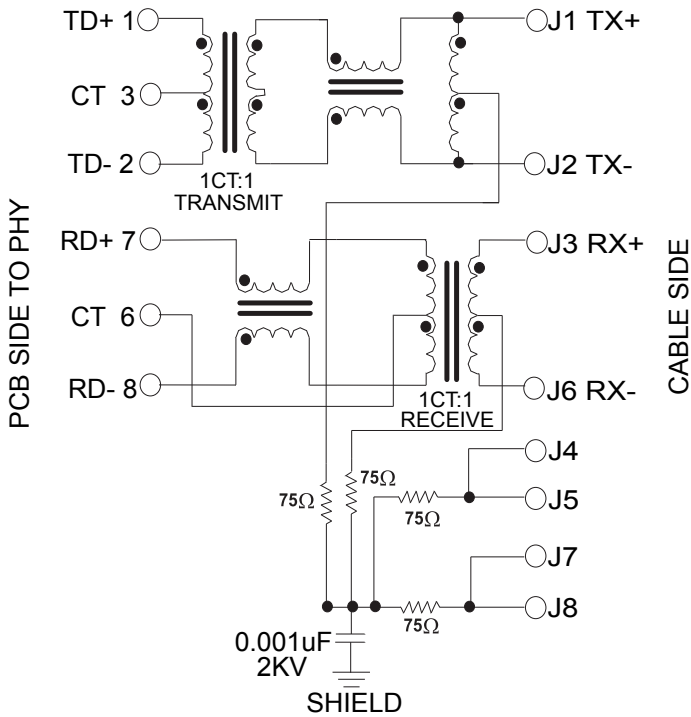
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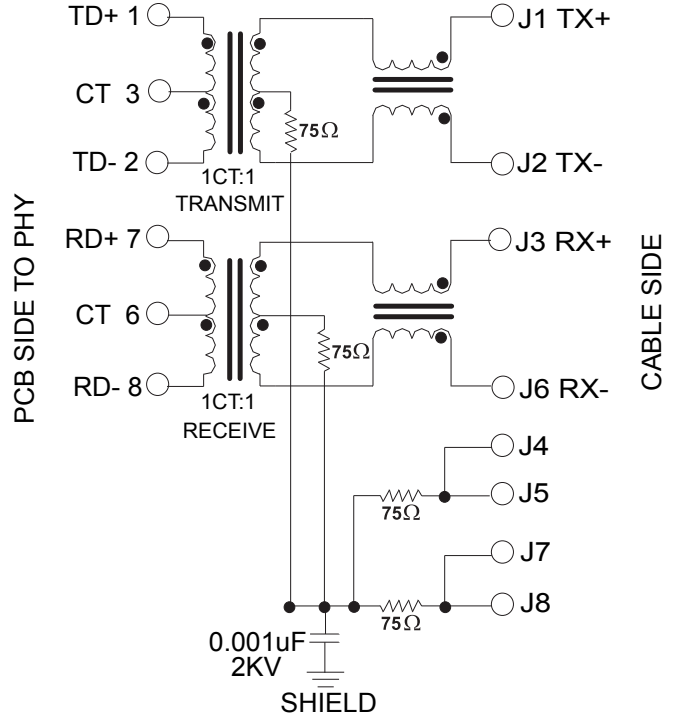


## Series Electrical Schematics

10

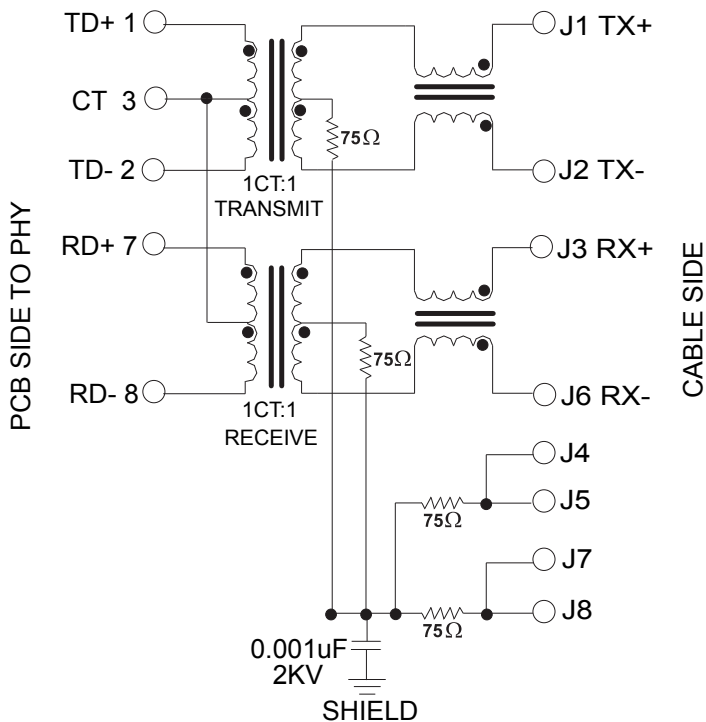


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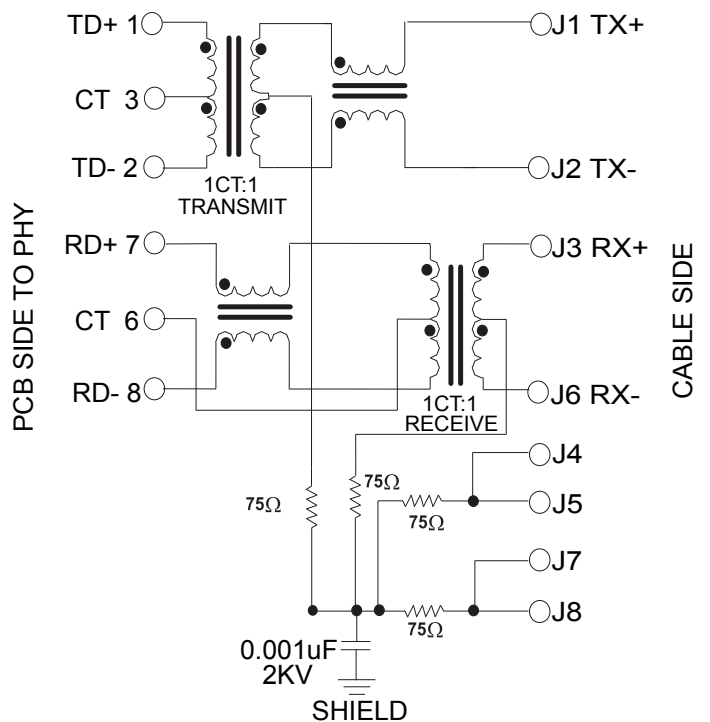


## Series Electrical Schematics

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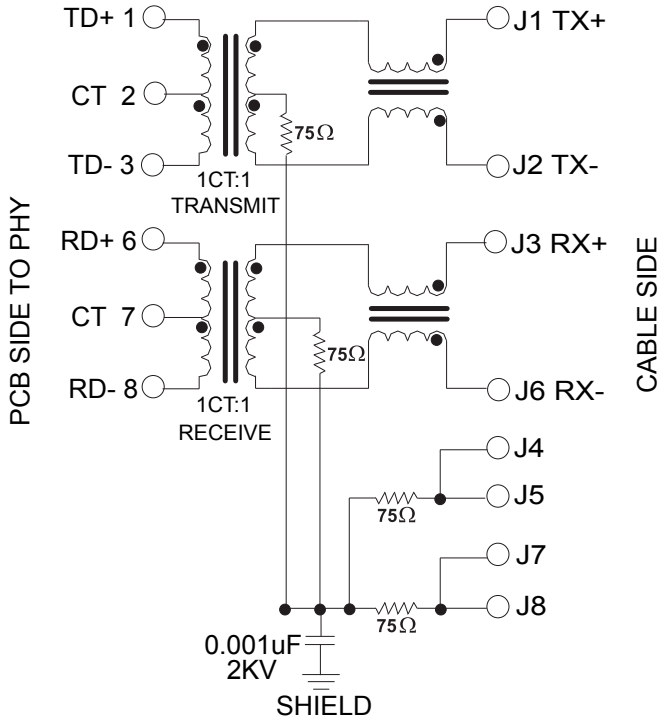
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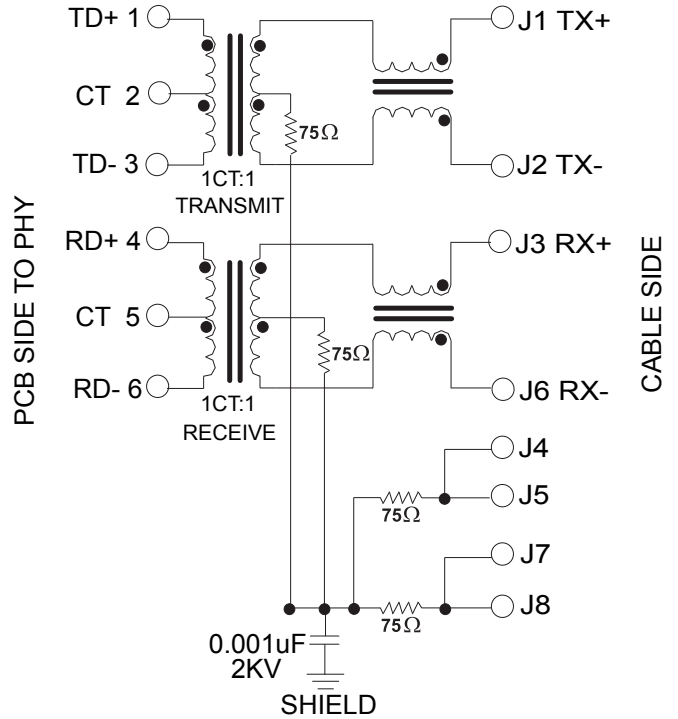


### Series Electrical Schematics

70

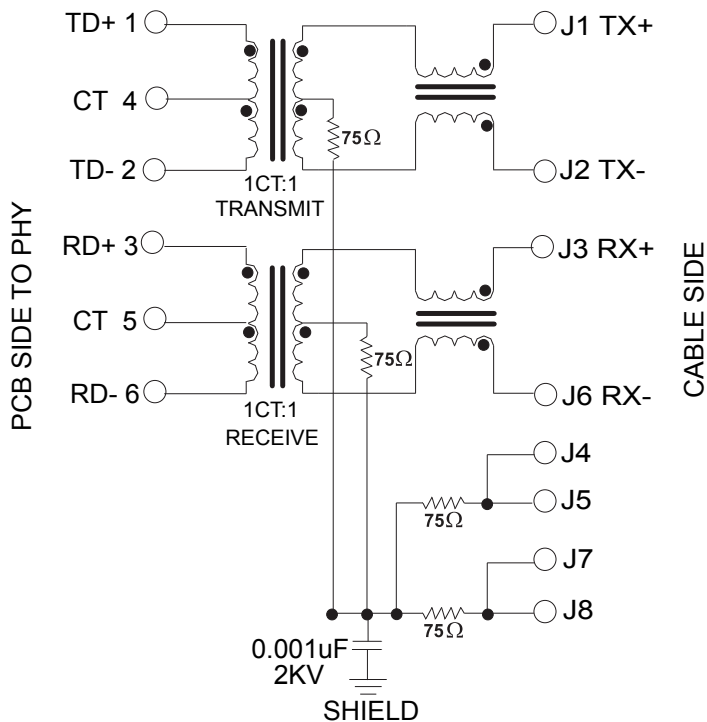


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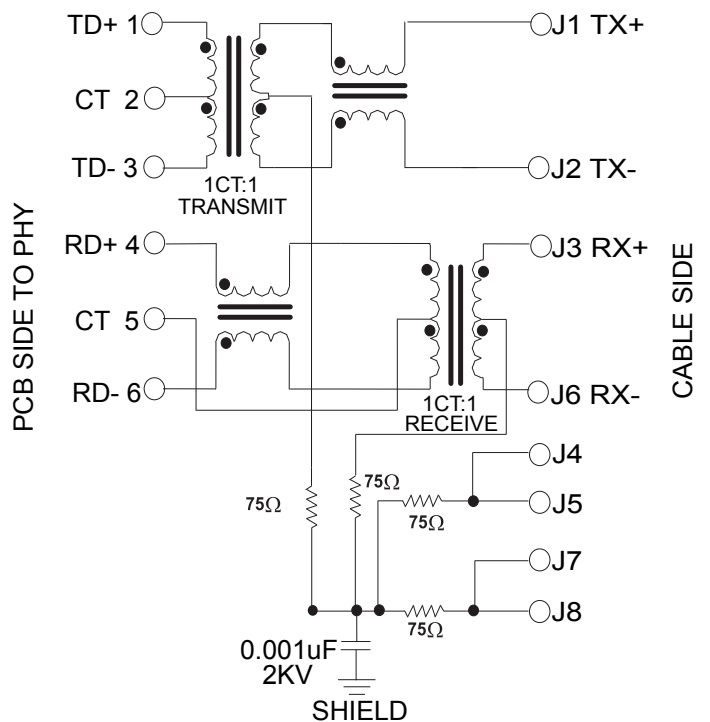


### Series Electrical Schematics

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### LED Configuration

LED CODE	LED COLOR		LED POLARITY	
	LEFT	RIGHT	LEFT	RIGHT
A	Y	G		
B	G	Y		
C	G	G		
D	Y	G		
E	G	Y		
F	G	G		
G	Y	G		
H	G	Y		
I	G	G		
J	Y	G		
K	G	Y		
L	G	G		
O	NO	NO	NO	NO
<b>Standard LED</b>		<b>Wavelength</b>	<b>Forward* V(MAX)</b>	<b>(TYP)</b>
YELLOW		585nm	2.5 V	2.1V
GREEN		565nm	2.5 V	2.2V

Bias current =20mA

### NOTE:

SM C04 X XX XX X X X  
 (1) (2) (3) (4) (5) (6)

(1) Type of product code

1	Tab DOWN 21.59MM
2	Tab UP 21.59MM
3	Tab UP 25.40MM
4	Tab UP 33.02MM
5	180VERTICAL Top entry
6	RJ45+1USB
7	RJ45+2USB

(2) Number of contact ports

A	RJ45 1*1
B	RJ45 1*2
C	RJ45 1*4
D	RJ45 1*6
E	RJ45 1*8
F	RJ45 2*1
G	RJ45 2*2
H	RJ45 2*4
I	RJ45 2*6
G	RJ45 2*8

(3) Number of magnetic ring

(4) Product dimension definition

A	With LED W/O EMI 4.06mm
B	With LED W/O EMI 4.90mm
C	With LED No EMI
D	With LED With EMI 4.06mm
E	With LED With EMI 4.90mm
F	With LED with EMI
G	Without LED without EMI
H	Without LED with EMI
I	Without LED unshield
J	With LED unshield
K	With led no shield

(5) Products Luminous definition

(6) Plating product definition

G0	G0ld flash	G4	15U" G0ld
G1	3U" G0ld	G5	30U" G0ld
G2	6U" G0ld	SN	Tin
G3	10U" G0ld		