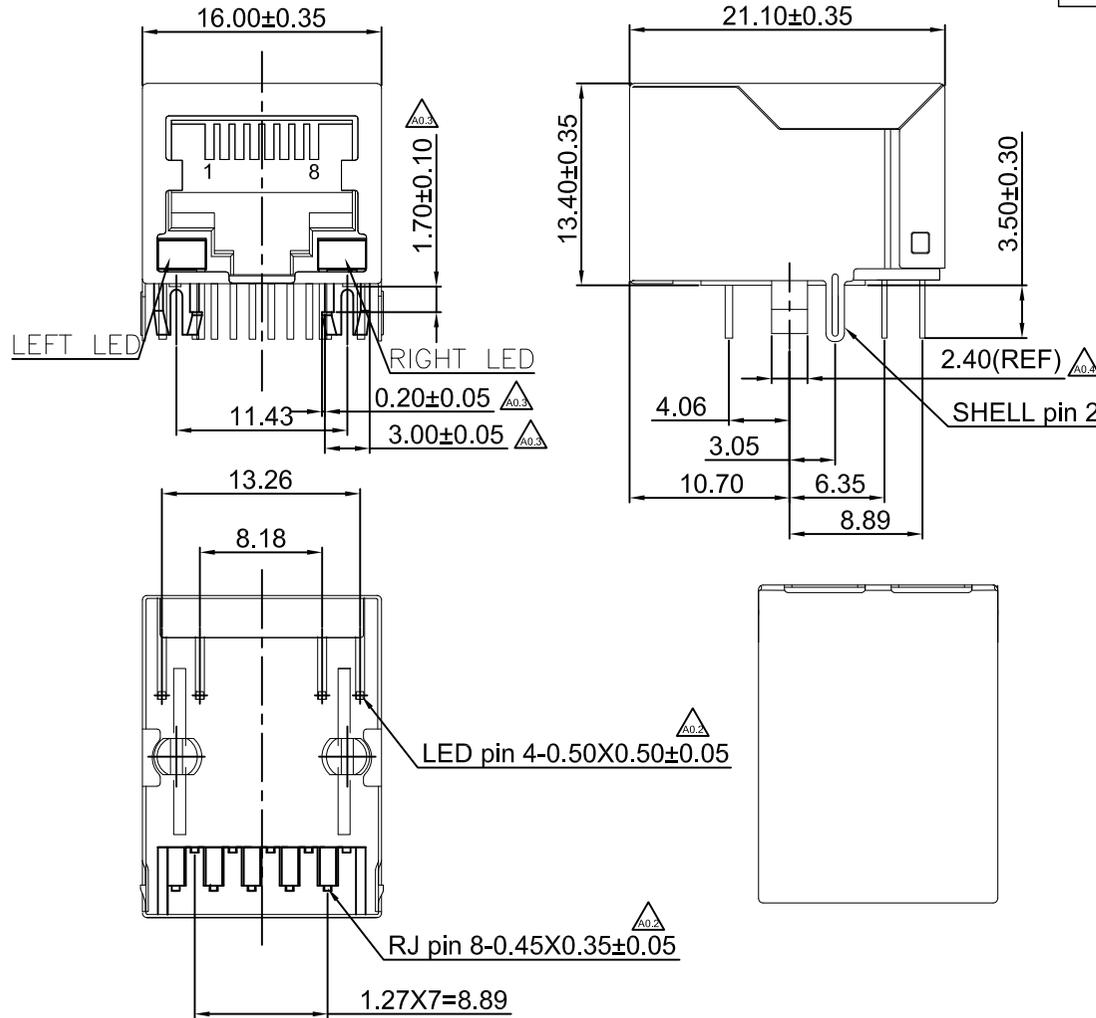
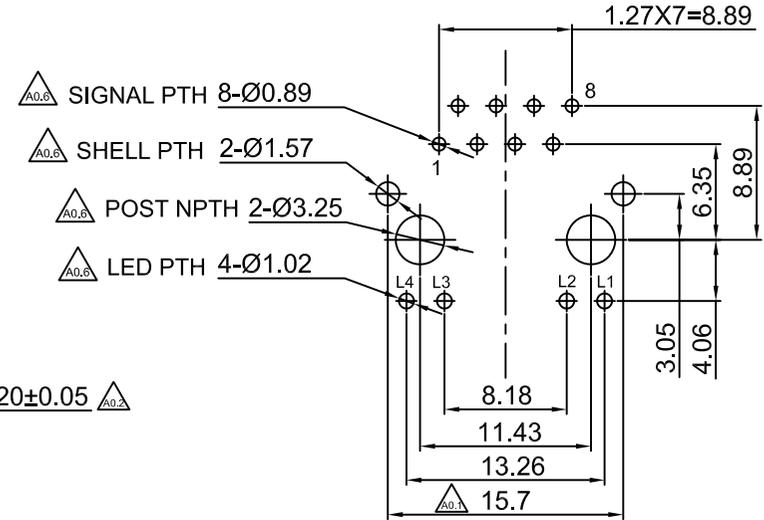


# GP Component

## 1. MECHANICAL DIMENSIONS :



REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0.2			Add Pin Size	2023/07/17	Vince
A0.3			Add Increase the size of the fixed column	2023/07/18	Vince
A0.4			Add Size Mark	2024/08/27	Vince
A0.5			Modify Schematic	2025/05/05	Vince
A0.6			Modify Schematic & Add Pcb Annotation	2025/05/06	Vince



Suggested PCB Layout(Top View)  
(Tolerance:  $\pm 0.05$ )

### 1. Material:

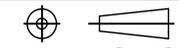
- 1.1 Housing: PBT UL94V-0 Black.
- 1.2 Insert core: PBT UL94V-0 Black.
- 1.3 Contact : Phosphor Bronze, Gold plated on contact area  $30\mu$ , Tin plated on solder area  $80\mu$  min, overall nickel plating  $30\mu$  min.
- 1.4 Input Terminal : Brass, Tin plated on solder area  $80\mu$  min, Ni underplated overall  $30\mu$  min.
- 1.5 Metal shielding: Copper alloy with Nickel plated.

### 2. Environmental requirements:

- 2.1 Lead-free process, compliant RoHS.

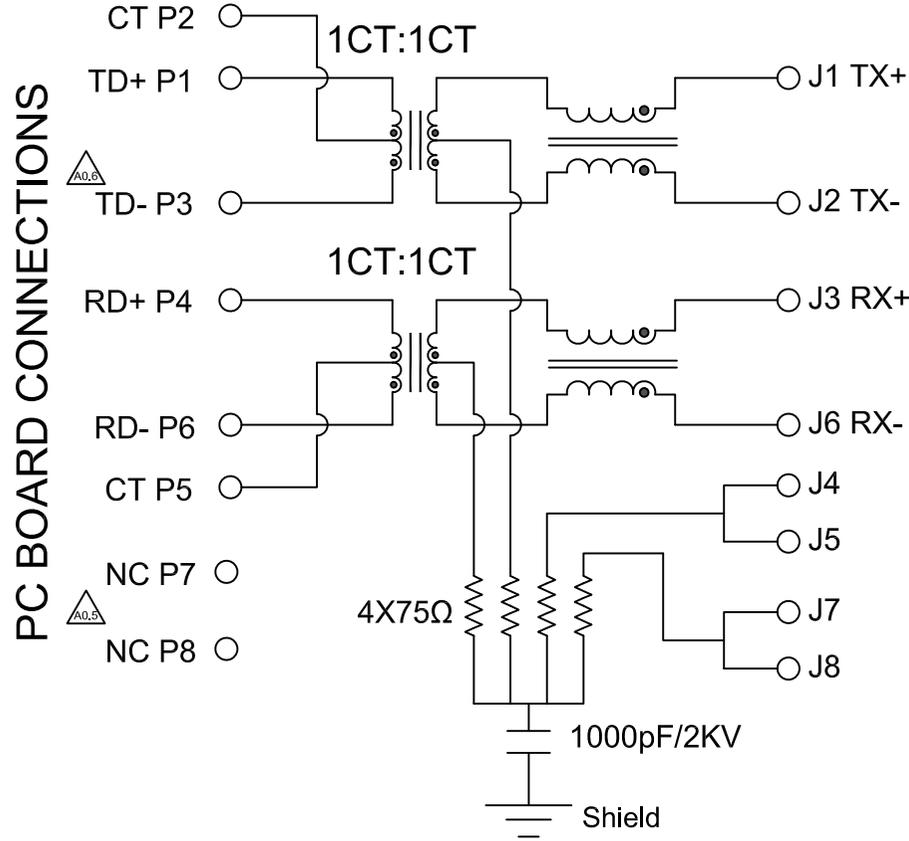


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<b>TOLERANCE:</b> X: X X.X: $\pm 0.38$ X.XX: $\pm 0.25$ X.XXX: $\pm 0.13$ ANGLE: $\pm 3^\circ$	<b>DESIGN BY :</b> Vince Chen	<b>DATE :</b> 2025/05/06	<b>PART NAME:</b> RJ45, CONNECTORS, W/LED SP, 8C 10/100Mbps, FILTER	
	<b>CHECKED BY:</b> Hanson Huang	<b>DATE :</b> 2025/05/06	<b>PART NO.</b> MRJF-11T1580TRS	
 <b>UNIT: mm [inch]</b> <b>SCALE: 1:1 SIZE: A4</b>	<b>APPROVED BY1:</b> Richard Hsieh	<b>DATE :</b> 2025/05/06	<b>MOLD NO.</b> NA	
	<b>APPROVED BY2:</b> Richard Hsieh	<b>DATE :</b> 2025/05/06	<b>DRAW NO.</b> SHEET NO. 1 OF 4	

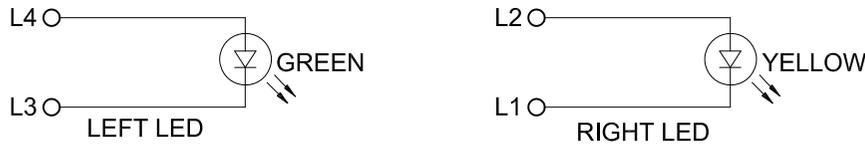
# GP Component

## 2. SCHEMATIC:



PC BOARD CONNECTIONS

RJ45 CONNECTIONS



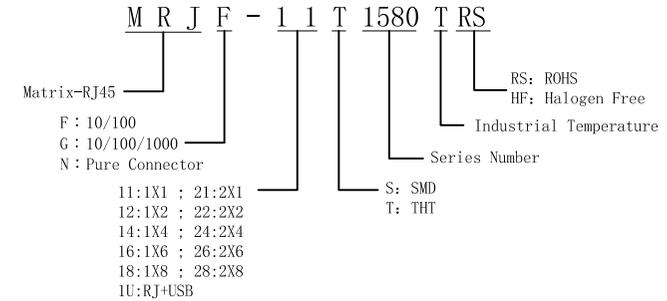
Emitting Color	$\lambda$ p(nm)	Vf@If=20mA
GREEN	565	1.8-2.5V
YELLOW	585	1.8-2.5V

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
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A0.6			Modify Schematic & Add Pcb Annotation	2025/05/06	Vince

## 3. ELECTRICAL CHARACTERISTICS(25±5°C) :

- 3.1 Inductance: 350uH Min With 8mA DC bias.
- 3.2 Hi-Pot Test: Input to Output 2250VDC/1mA.
- 3.3 Insertion loss : 1-100MHZ -1dB max.
- 3.4 Return loss : 1-30MHZ -18dB min.  
30-60MHZ -16dB min.  
60-80MHZ -12dB min.  
80-100MHZ -10dB min.
- 3.5 Common Mode Rejection:1-100MHZ -30dB min.
- 3.6 Cross Talk:1-100MHZ -30dB min.
- 4. Operating and Storage Temperature:
- 4.1 Operating Temperature : -40°C to +105°C.
- 4.2 Storage Temperature : -40°C to +105°C.
- 5. Wave soldering peak temperature:260°C.

## MATRIX PART NO:

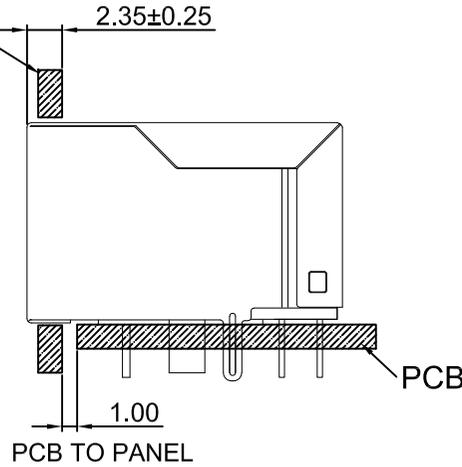
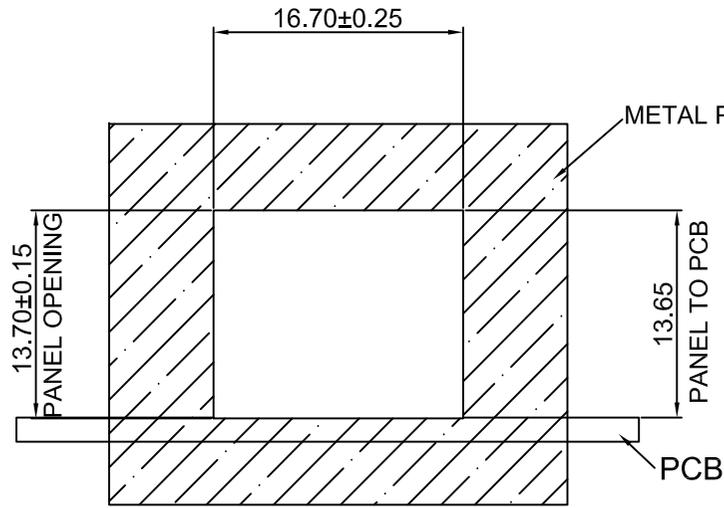


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TOLERANCE:	DESIGN BY :	DATE :	PART NAME:	
X.X ±0.38	Vince Chen	2025/05/06	RJ45, CONNECTORS, W/LED	
X.XX ±0.25	CHECKED BY:	DATE :	PART NO.	MRJF-11T1580TRS
X.XXX ±0.13	Hanson Huang	2025/05/06	MOLD NO.	NA
ANGLE: ±3°	APPROVED BY1:	DATE :	DRAW NO.	
	Richard Hsieh	2025/05/06	SHEET NO.	2 OF 4
UNIT: mm [inch]	APPROVED BY2:	DATE :		
SCALE:1:1 SIZE:A4	Richard Hsieh	2025/05/06		

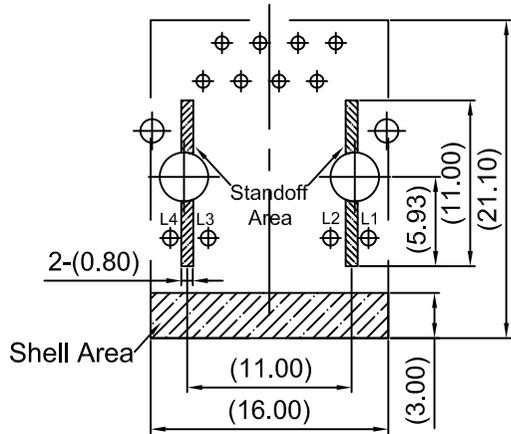
# GP Component

## Recommended Panel cutout:

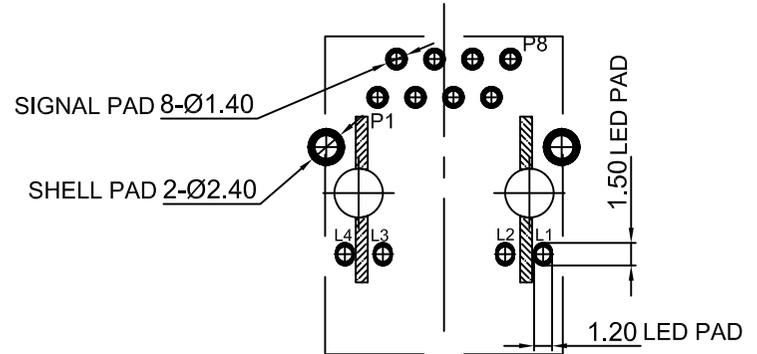


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A0.3			Add Increase the size of the fixed column	2023/07/18	Vince
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A0.5			Modify Schematic	2025/05/05	Vince
A0.6			Modify Schematic & Add Pcb Annotation	2025/05/06	Vince

## KEEP-OUT AREA (Top View):



## Recommended PADS size:

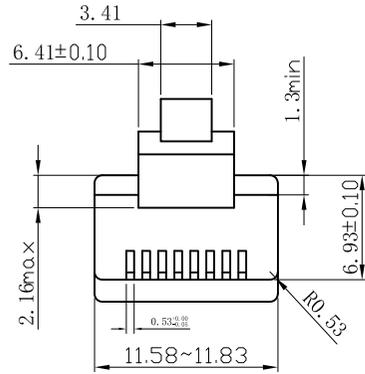


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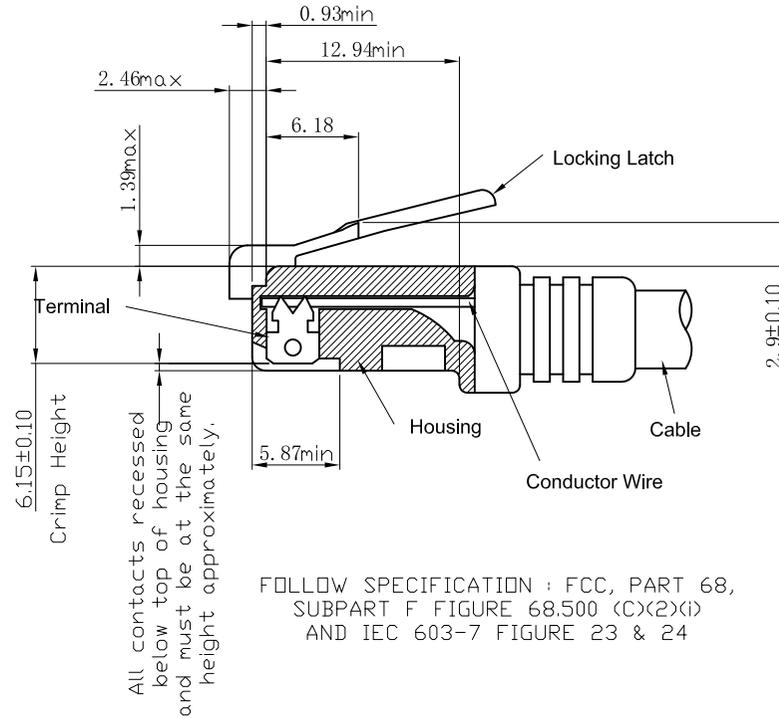
<b>TOLERANCE:</b> X ±0.38 X.X ±0.25 X.XXX ±0.13 ANGLE: ±3°	<b>DESIGN BY :</b> Vince Chen	<b>DATE :</b> 2025/05/06	<b>PART NAME:</b> RJ45, CONNECTORS, W/LED 8P, 8C 10/100Mbps, FILTER	
	<b>CHECKED BY:</b> Hanson Huang	<b>DATE :</b> 2025/05/06	<b>PART NO.</b>	MRJF-11T1580TRS
 <b>UNIT: mm [inch]</b> <b>SCALE:1:1 SIZE:A4</b>	<b>APPROVED BY1:</b> Richard Hsieh	<b>DATE :</b> 2025/05/06	<b>MOLD NO.</b>	NA
	<b>APPROVED BY2:</b> Richard Hsieh	<b>DATE :</b> 2025/05/06	<b>DRAW NO.</b>	
			<b>SHEET NO.</b>	3 OF 4

# GP Component

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
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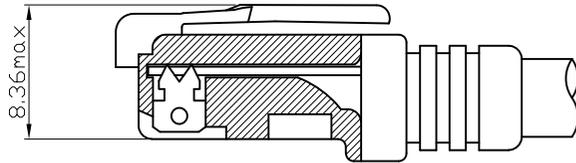


- \* There must be no damage to housing or locking latch. There must be no nicks or cuts in cable.
- \* Durability : 750 cycles generally



FOLLOW SPECIFICATION : FCC, PART 68,  
SUBPART F FIGURE 68.500 (C)(2)(i)  
AND IEC 603-7 FIGURE 23 & 24

STANDARD MODULAR PLUG ASSEMBLY



FOLLOW SPECIFICATION : FCC, PART 68, SUBPART F  
FIGURE 68.500 (C)(2)(ii)



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<b>TOLERANCE:</b> X:X ±0.38 X:XX ±0.25 X:XXX ±0.13 ANGLE: ±3°	<b>DESIGN BY :</b> Vince Chen	<b>DATE :</b> 2025/05/06	<b>PART NAME:</b> RJ45, CONNECTORS, W/LED 8P, 8C 10/100Mbps, FILTER	
	<b>CHECKED BY:</b> Hanson Huang	<b>DATE :</b> 2025/05/06	<b>PART NO.</b>	MRJF-11T1580TRS
 <b>UNIT: mm [inch]</b> <b>SCALE:1:1 SIZE:A4</b>	<b>APPROVED BY1:</b> Richard Hsieh	<b>DATE :</b> 2025/05/06	<b>MOLD NO.</b>	NA
	<b>APPROVED BY2:</b> Richard Hsieh	<b>DATE :</b> 2025/05/06	<b>DRAW NO.</b>	
			<b>SHEET NO.</b>	4 OF 4