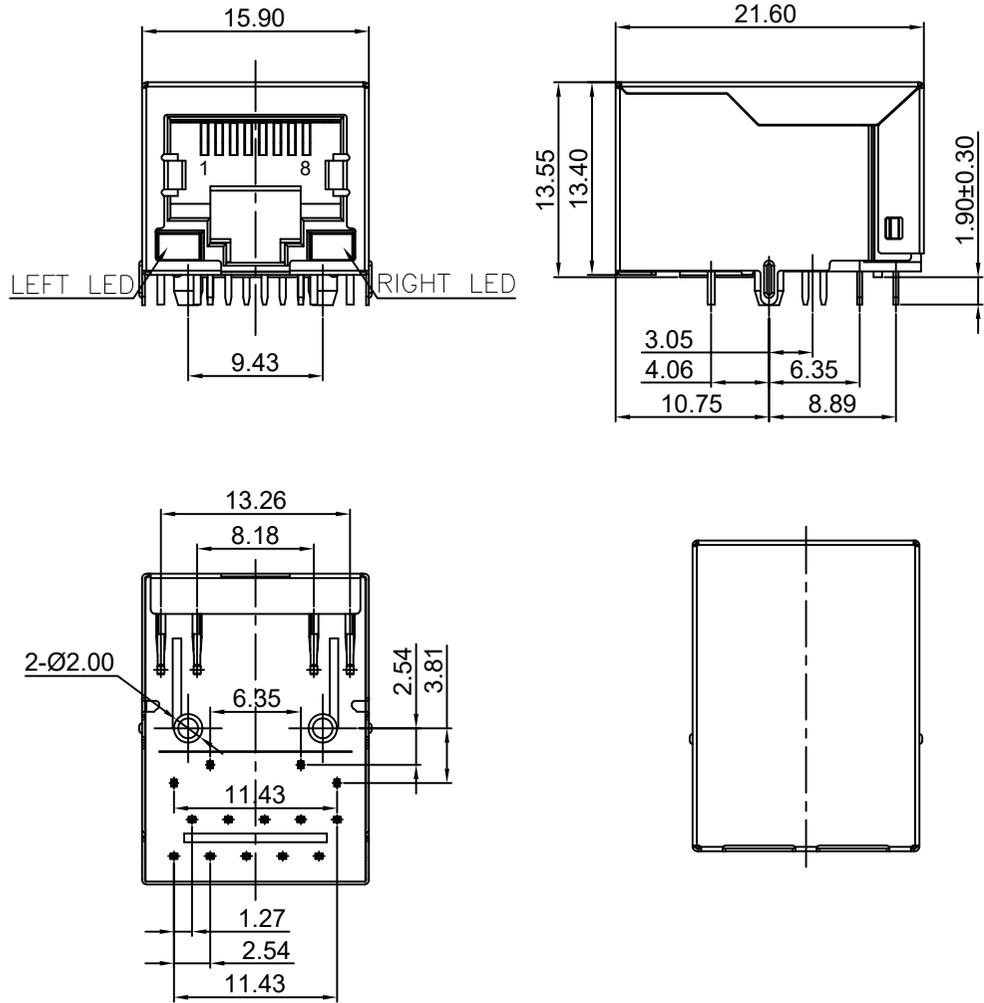


# GP Component

## 1. MECHANICAL DIMENSIONS :

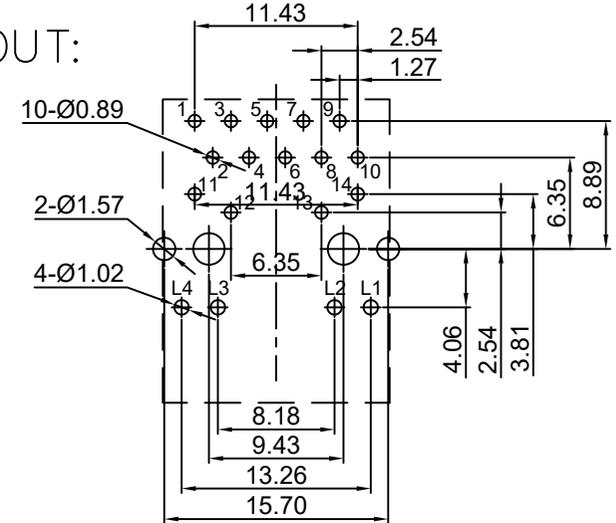


Printing:

**MATRIX**  
**MRJG-11T1962TRS**  
**Y Y W W**

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2024/02/10	Vince
A0.1			Add PCB Size Annotation	2025/04/01	Vince
A0.2			Modify Recommended PADS size	2025/04/07	Vince
A1			Modify Schematic	2025/08/18	Vince
A1.1			Add annotations for voltage withstand test	2025/10/17	Vince

## 2.PCB LAYOUT:



Suggested PCB Layout(Top View)  
(Tolerance:±0.05)

### 1.Material:

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

### 2.Environmental requirements:

- 2.1 Lead-free process,compliant RoHS.

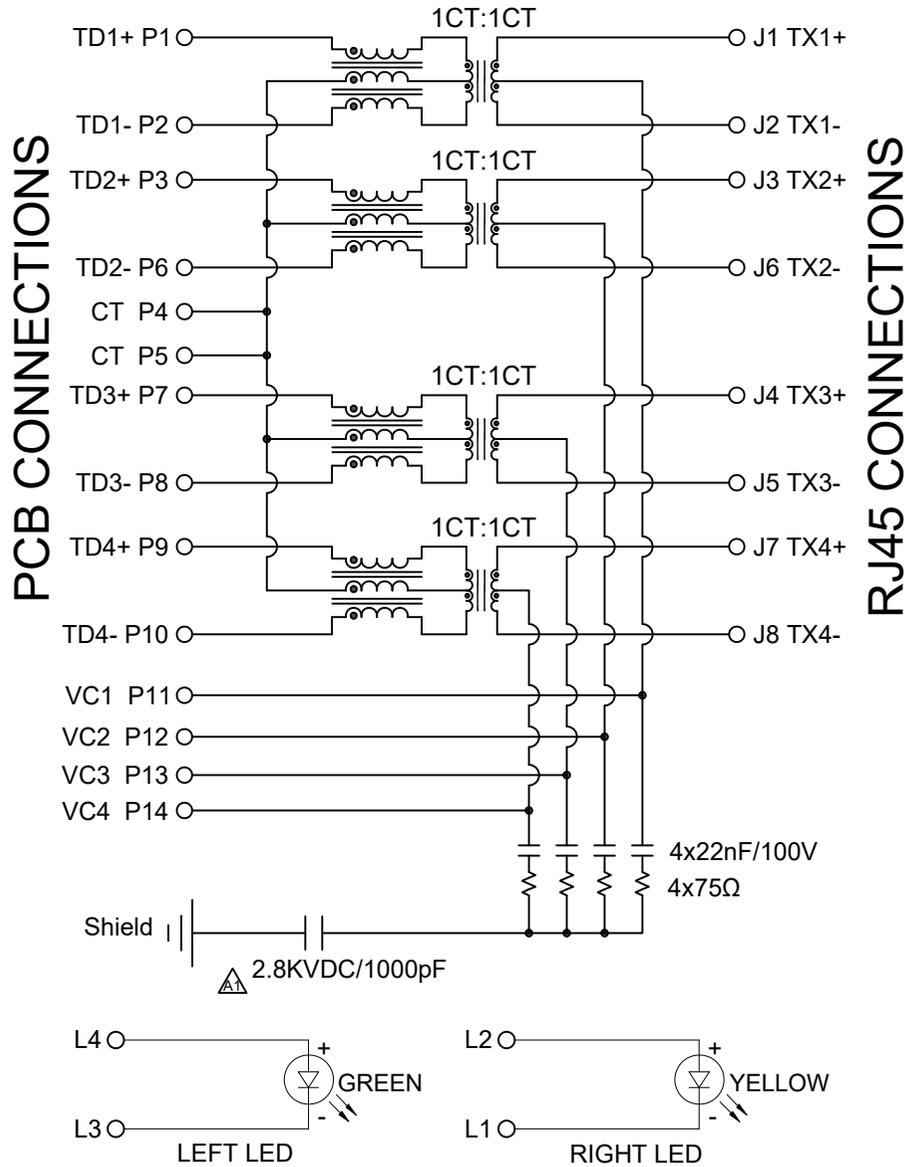


Matrix Electronics Co.,Ltd

<b>TOLERANCE:</b> X X.X ±0.38 X.XX ±0.25 X.XXX ±0.13 <b>ANGLE: ±3°</b>	<b>DESIGN BY :</b> Vince Chen	<b>DATE :</b> 2025/10/17	<b>PART NAME:</b> RJ45 1x1 GIGA BASE WITH POE DIP TAB DOWN , W/LED	
	<b>CHECKED BY:</b> Hanson Huang	<b>DATE :</b> 2025/10/17	<b>PART NO.</b>	MRJG-11T1962TRS
 <b>UNIT: mm [inch]</b> <b>SCALE:1:1 SIZE:A4</b>	<b>APPROVED BY1:</b> Richard Hsieh	<b>DATE :</b> 2025/10/17	<b>MOLD NO.</b>	NA
	<b>APPROVED BY2:</b> Richard Hsieh	<b>DATE :</b> 2025/10/17	<b>DRAW NO.</b>	
			<b>SHEET NO.</b>	1 OF 4

# GP Component

## 3. SCHEMATIC:



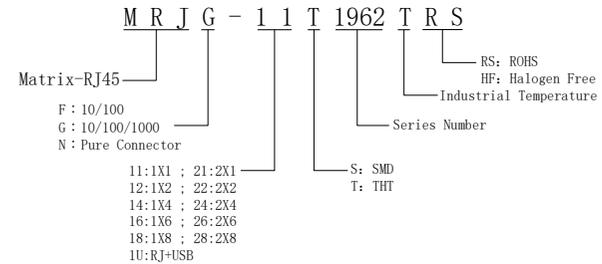
Emitting Color	$\lambda$ p(nm)	Vf@If=20mA
GREEN	565	1.8-2.5V
YELLOW	585	1.8-2.5V

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### 3. Electrical Specification @25°C:

- 3.1 Inductance: 350uH Min With 8mA DC bias.
- 3.2 Hi-Pot Test: Input to Output 2250VDC/1mA.  
Output to Shell 1500VAC/1mA.  
Output to Shell 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 +85°C.
  - 4.2 Storage Temperature : -40°C to +85°C.
- 5. IR Reflow Peak Temperature:250±5°C/10s Max.
- 6. DC current: Meeting IEEE802.3at Standards.  
600mA MAX @57VDC Continuous.  
Supports 2 pairs of twisted pair cables, with a maximum PSE power of 30W.  
Supports 4 pairs of twisted pair cables, with a maximum PSE power of 60W.

### MATRIX PART NO:



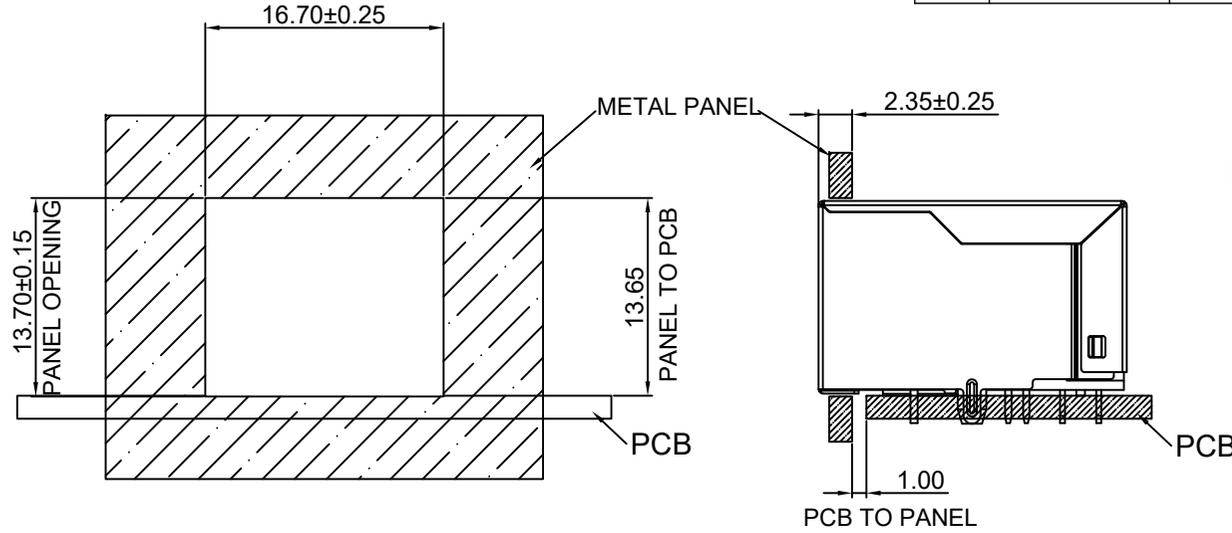
Matrix Electronics Co., Ltd

<b>TOLERANCE:</b> X X.X ±0.38 X.XX ±0.25 X.XXX ±0.13 ANGLE: ±3°	<b>DESIGN BY :</b> Vince Chen	<b>DATE :</b> 2025/10/17	<b>PART NAME:</b> RJ45 1x1 GIGA BASE WITH POE DIP TAB DOWN ,W/LED	
	<b>CHECKED BY:</b> Hanson Huang	<b>DATE :</b> 2025/10/17	<b>PART NO.</b>	MRJG-11T1962TRS
 <b>UNIT: mm [inch]</b>	<b>APPROVED BY1:</b> Richard Hsieh	<b>DATE :</b> 2025/10/17	<b>MOLD NO.</b>	NA
	<b>SCALE:1:1</b>   <b>SIZE:A4</b>	<b>APPROVED BY2:</b> Richard Hsieh	<b>DATE :</b> 2025/10/17	<b>DRAW NO.</b> <b>SHEET NO.</b>
			<b>2 OF 4</b>	

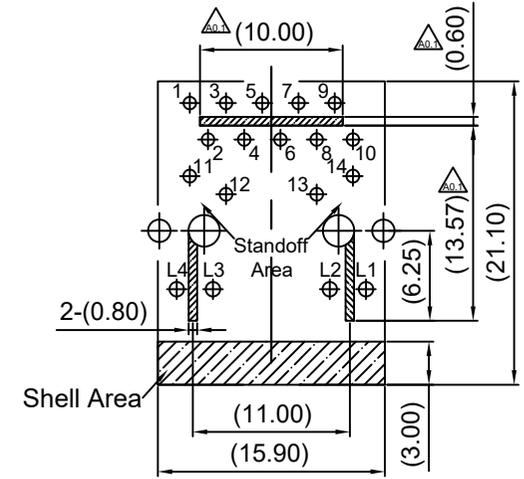
# GP Component

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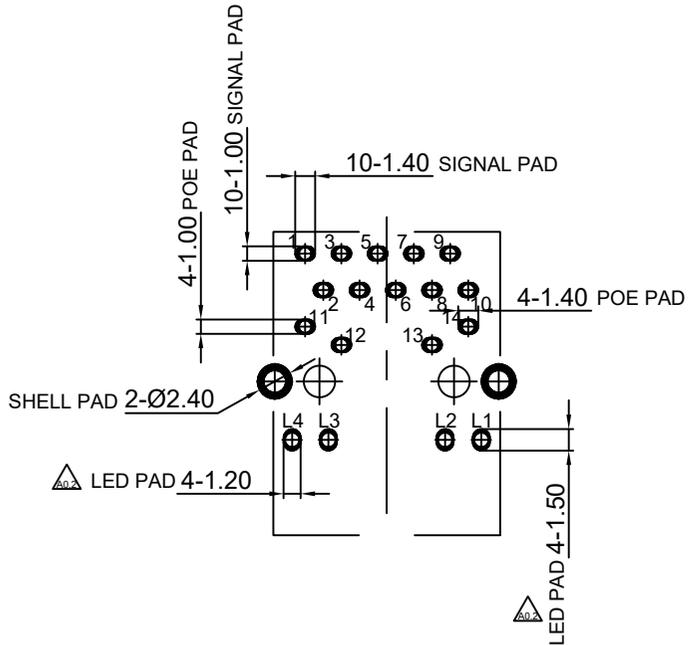
## Recommended Panel cutout:



## KEEP-OUT AREA (Top View):



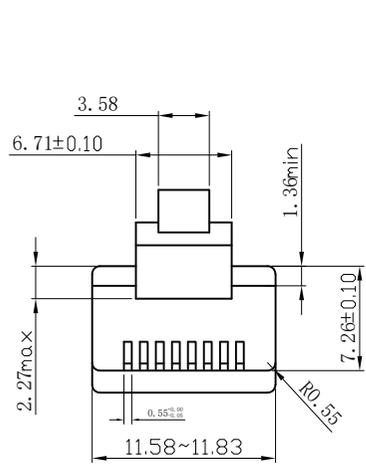
## Recommended PADS size:



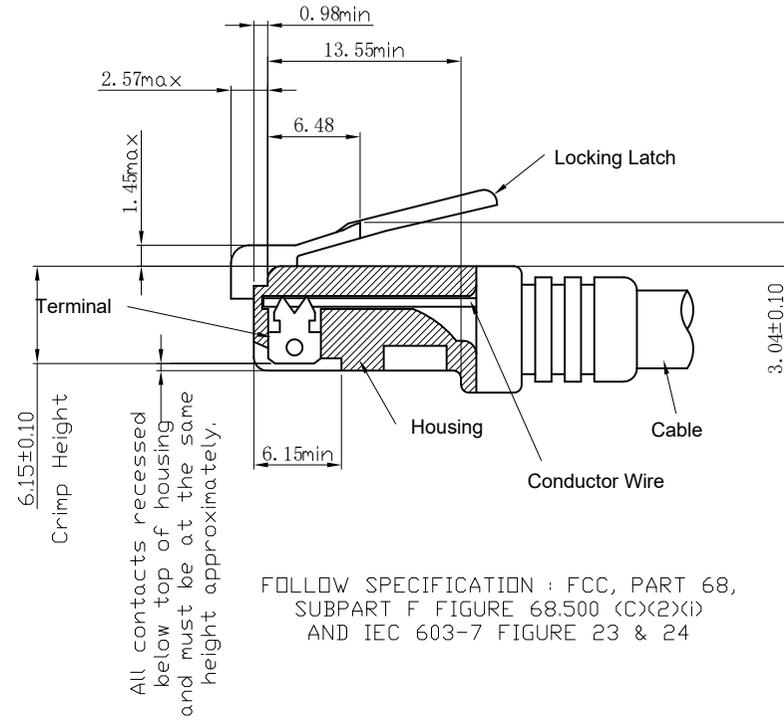
 Matrix Electronics Co., Ltd			
<b>TOLERANCE:</b> X ±0.38 X.X ±0.25 X.XXX ±0.13 ANGLE: ±3°	<b>DESIGN BY :</b> Vince Chen	<b>DATE :</b> 2025/10/17	<b>PART NAME:</b> RJ45 1x1 GIGA BASE WITH POE DIP TAB DOWN , W/LED
<b>CHECKED BY:</b> Hanson Huang	<b>DATE :</b> 2025/10/17	<b>PART NO.</b> MRJG-11T1962TRS	<b>MOLD NO.</b> NA
<b>APPROVED BY1:</b> Richard Hsieh	<b>DATE :</b> 2025/10/17	<b>DRAW NO.</b> (blank)	<b>SHEET NO.</b> 3 OF 4
<b>APPROVED BY2:</b> Richard Hsieh	<b>DATE :</b> 2025/10/17		

# GP Component

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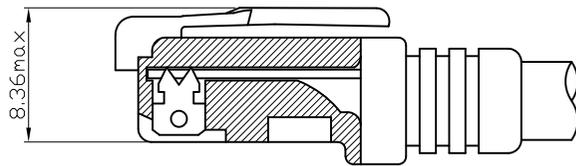


- \* There must be no damage to housing or locking latch. There must be no nicks or cuts in cable.
- \* Durability : 750 cycles generally



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)

 <b>Matrix Electronics Co., Ltd</b>			
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  <b>UNIT: mm [inch]</b> <b>SCALE:1:1    SIZE:A4</b>	<b>APPROVED BY1:</b> Richard Hsieh	<b>DATE :</b> 2025/10/17	<b>MOLD NO.</b> NA
	<b>APPROVED BY2:</b> Richard Hsieh	<b>DATE :</b> 2025/10/17	<b>DRAW NO.</b> SHEET NO. <b>4 OF 4</b>