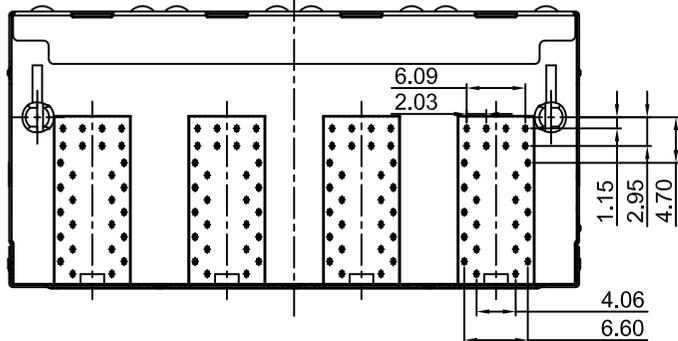
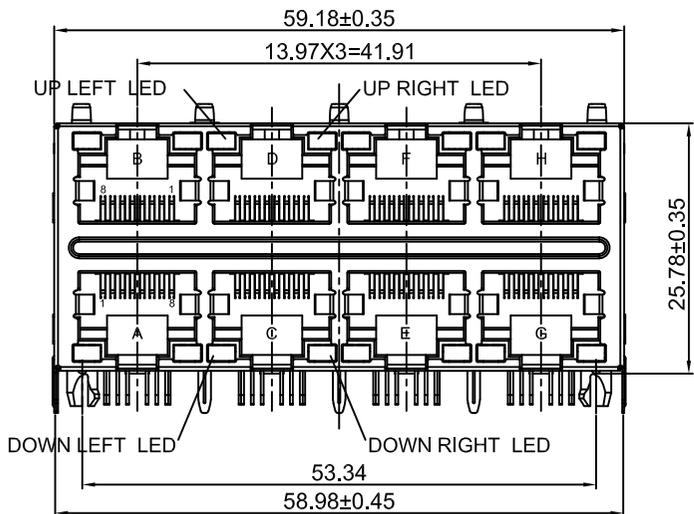
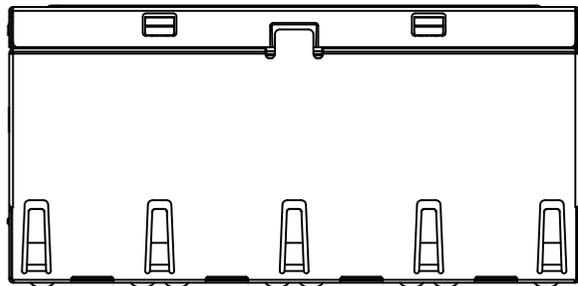


# GP Component

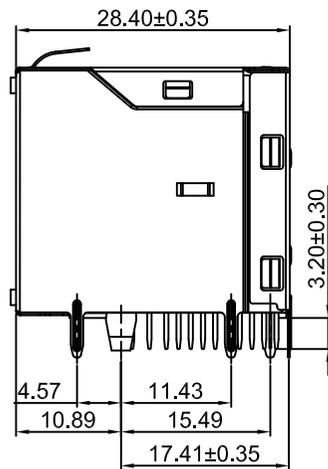
REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2024/03/03	Vince
A1			Modify Led Polarity	2025/03/05	Vince

## 1. MECHANICAL DIMENSIONS :



Printing:

**MATRIX**  
**MRJG-24T1976TRS**  
**YYWW**

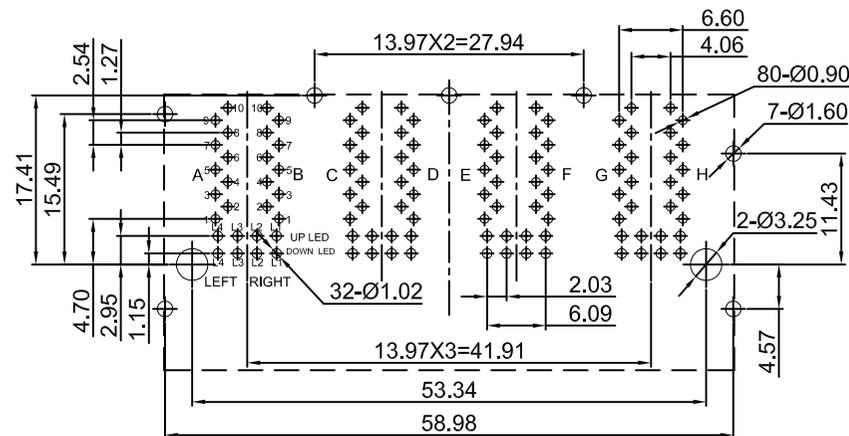


MATRIX PART NO:  
MRJ G-24 T 1976 T RS

Matrix--RJ45  
F:10/100  
G:10/100/1000  
N:Pure Connector  
11:1X1 : 21:2X1  
12:1X2 : 22:2X2  
14:1X4 : 24:2X4  
16:1X6 : 26:2X6  
18:1X8 : 28:2X8  
1U:RJ+USB

RS:ROHS  
HF:Halogen Free  
Industrial Temperature  
Series Number  
S:SMD  
T:THT

## 2. PCB LAYOUT :



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

### 1.Material:

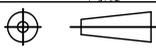
- 1.1 Housing: PA46 UL94V-0 Black.
- 1.2 Insert core and Cover:PA46 UL94V-0 Black.
- 1.3 Contact :Phosphor Bronze,Gold plated on contact area 6u",Tin plated on solder area 80u" min, overall nickel plating 30u" min.
- 1.4 Input Terminal : Brass,Tin plated on solder area 80u" min, Ni underplated overall 30u" min.
- 1.5 Metal shielding:Copper alloy with Nickel plated.

### 2.Environmental requirements:

- 2.1 Lead-free process,compliant RoHS.



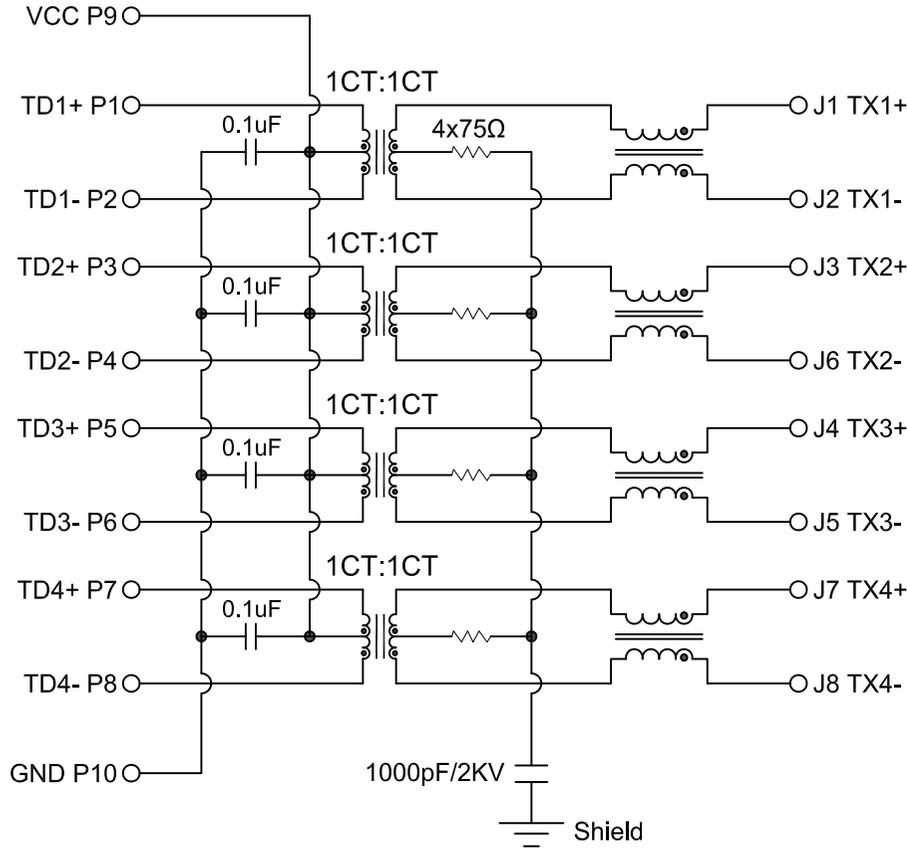
## Matrix Electronics Co.,Ltd

<b>TOLERANCE:</b> X X.X ± X X.XX ± XX X.XXX ± XXX ANGLE:± 角度		<b>DESIGN BY :</b> Vince Chen		<b>DATE :</b> 2025/03/05		<b>PART NAME:</b> RJ45 2X4 GIGA BASE DIP DOUBLE	
 <b>UNIT: mm [inch]</b> <b>SCALE:1:1 SIZE:A4</b>		<b>CHECKED BY:</b> Hanson Huang		<b>DATE :</b> 2025/03/05		<b>PART NO.</b> MRJG-24T1976TRS	
		<b>APPROVED BY1:</b> Richard Hsieh		<b>DATE :</b> 2025/03/05		<b>MOLD NO.</b> NA	
		<b>APPROVED BY2:</b> Richard Hsieh		<b>DATE :</b> 2025/03/05		<b>DRAW NO.</b>	
				<b>SHEET NO.</b> 1 OF 4			

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2024/03/03	Vince
A1			Modify Led Polarity	2025/03/05	Vince

3. SCHEMATIC:

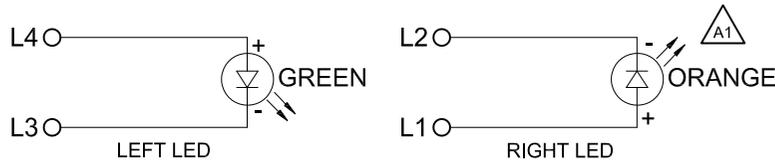
PCB CONNECTIONS



RJ45 CONNECTIONS

3. Electrical Specification @25°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 +85°C.
  - 4.2 Storage Temperature : -40°C to +85°C.
- 5. Wave soldering peak temperature:260°C.



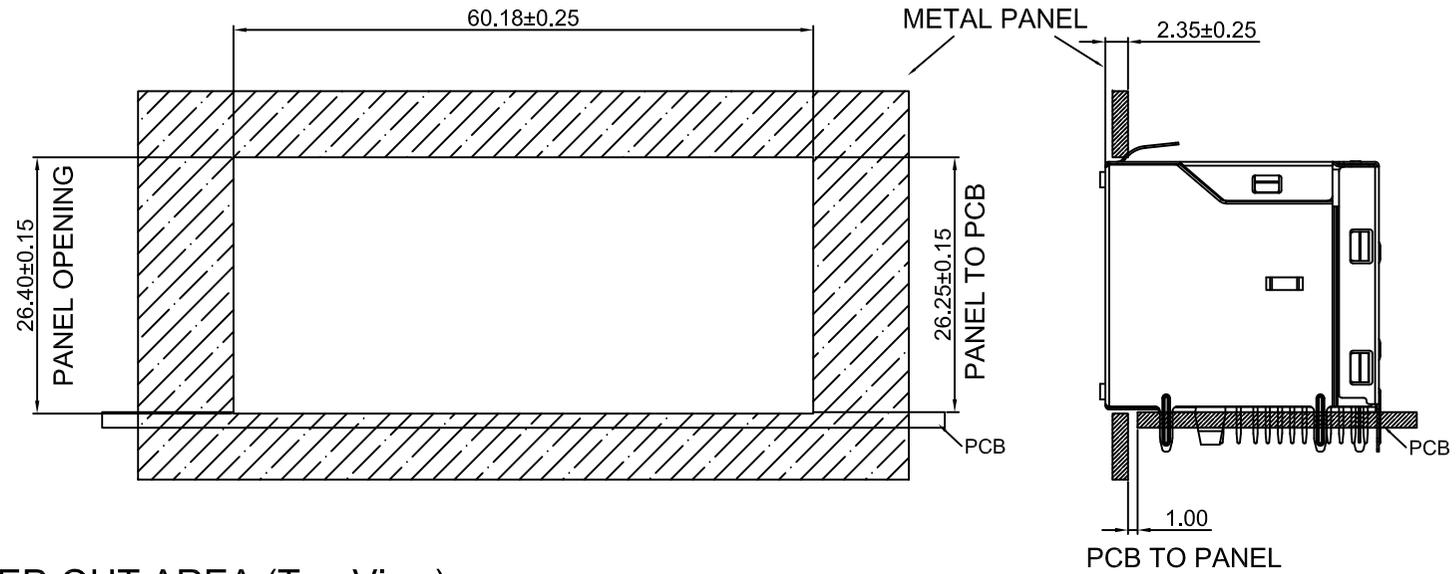
Emitting Color	$\lambda$ p(nm)	Vf@If=20mA
GREEN	565	1.8-2.5V
ORANGE	610	1.8-2.5V

**Matrix Electronics Co., Ltd**

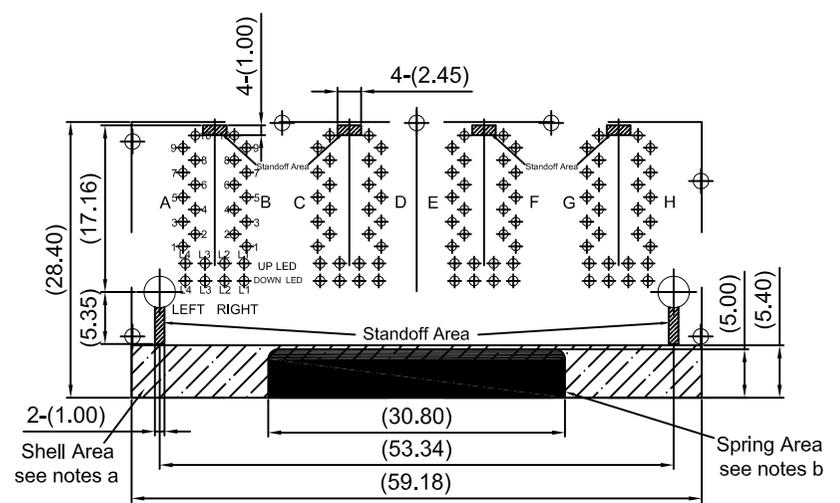
<b>TOLERANCE:</b> X X.X ± X X.XX ± XX X.XXX ± XXX ANGLE: ± 角度	<b>DESIGN BY :</b> Vince Chen	<b>DATE :</b> 2025/03/05	<b>PART NAME:</b> RJ45 2X4 GIGA BASE DIP DOUBLE	
	<b>CHECKED BY:</b> Hanson Huang	<b>DATE :</b> 2025/03/05	<b>PART NO.</b>	MRJG-24T1976TRS
 <b>UNIT: mm [inch]</b>	<b>APPROVED BY1:</b> Richard Hsieh	<b>DATE :</b> 2025/03/05	<b>MOLD NO.</b>	NA
	<b>SCALE:1:1</b>	<b>APPROVED BY2:</b> Richard Hsieh	<b>DATE :</b> 2025/03/05	<b>DRAW NO.</b>
<b>SIZE:A4</b>			<b>SHEET NO.</b>	2 OF 4

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2024/03/03	Vince
A1			Modify Led Polarity	2025/03/05	Vince

Recommended Panel cutout:



KEEP-OUT AREA (Top View):



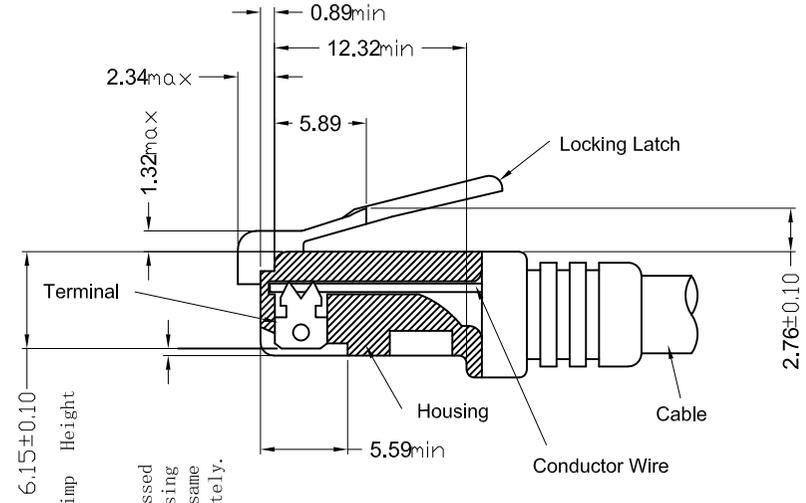
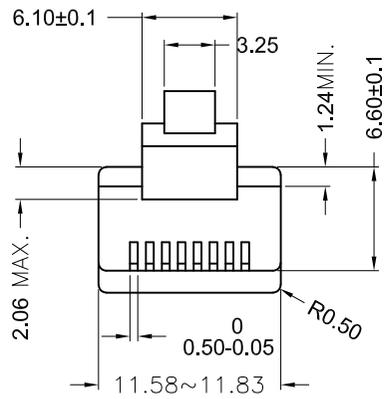
Notes:

- a. Shell Area recommends avoiding through holes, solder pads, components, and circuit wiring.
- b. If there is a spring at the bottom of the product, this is the PCB avoidance area; If there is no spring at the bottom of the product, this is a prohibited area for wiring.

 <b>Matrix Electronics Co., Ltd</b>			
<b>TOLERANCE:</b> X. X.X ± X X.XX ± XX X.XXX ± XXX ANGLE: ± 角度	<b>DESIGN BY :</b> Vince Chen	<b>DATE :</b> 2025/03/05	<b>PART NAME:</b> RJ45 2X4 GIGA BASE DIP DOUBLE
	<b>CHECKED BY:</b> Hanson Huang	<b>DATE :</b> 2025/03/05	<b>PART NO.</b> MRJG-24T1976TRS
	<b>APPROVED BY1:</b> Richard Hsieh	<b>DATE :</b> 2025/03/05	<b>MOLD NO.</b> NA
UNIT: mm [inch] SCALE:1:1 SIZE:A4	<b>APPROVED BY2:</b> Richard Hsieh	<b>DATE :</b> 2025/03/05	<b>DRAW NO.</b> <b>SHEET NO.</b> 3 OF 4

GP Component

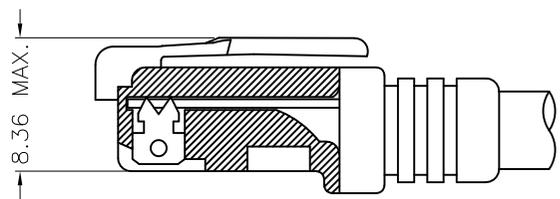
REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2024/03/03	Vince
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All contacts recessed below top of housing and must be at the same height approximately.

\* 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



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

 <b>Matrix Electronics Co., Ltd</b>			
<b>TOLERANCE:</b> X X.X ± X X.XX ± XX X.XXX ± XXX ANGLE: ± 角度		<b>DESIGN BY :</b> Vince Chen <b>CHECKED BY:</b> Hanson Huang <b>APPROVED BY1:</b> Richard Hsieh <b>APPROVED BY2:</b> Richard Hsieh	<b>DATE :</b> 2025/03/05 <b>DATE :</b> 2025/03/05 <b>DATE :</b> 2025/03/05 <b>DATE :</b> 2025/03/05
UNIT: mm [inch] SCALE:1:1 SIZE:A4		<b>PART NAME:</b> RJ45 2X4 GIGA BASE DIP DOUBLE <b>PART NO.</b> MRJG-24T1976TRS <b>MOLD NO.</b> NA <b>DRAW NO.</b> <b>SHEET NO.</b> 4 OF 4	