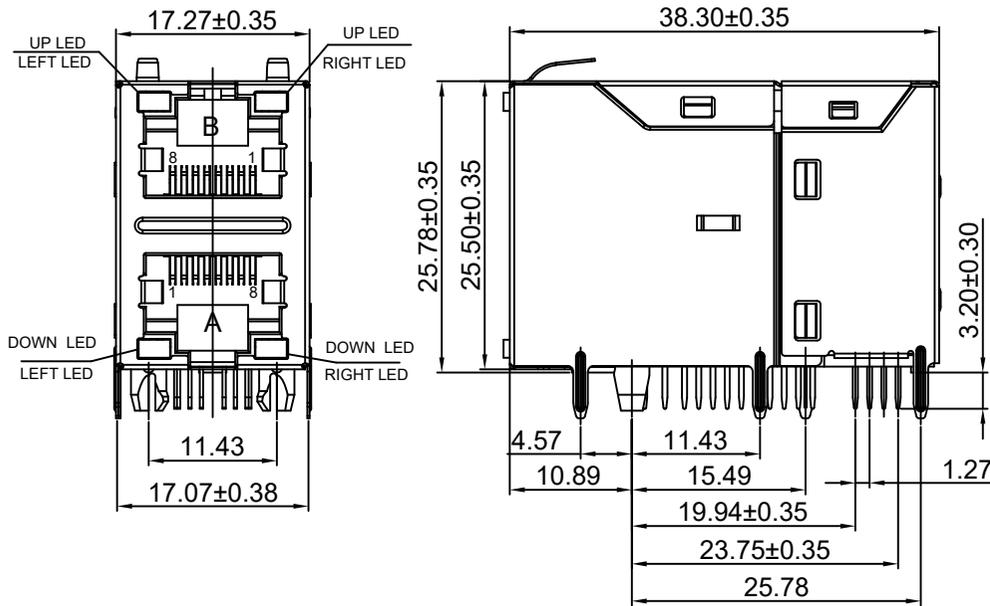
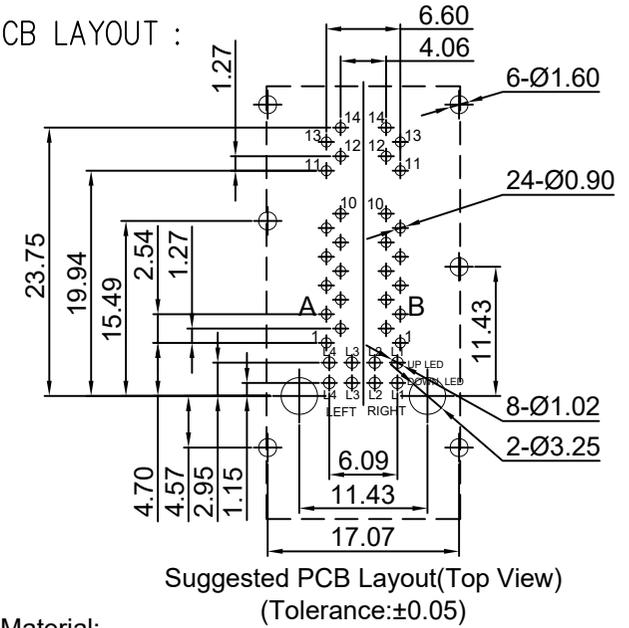


GP Component

1. MECHANICAL DIMENSIONS :



2. PCB LAYOUT :



1. Material:

- Housing: PA46 UL94V-0 Black.
- Insert core: PA46 UL94V-0 Black.
- Contact : Phosphor Bronze, Gold plated on contact area $6\text{u}''$, Tin plated on solder area $80\text{u}''$ min, overall nickel plating $30\text{u}''$ min.
- Input Terminal : Brass, Tin plated on solder area $80\text{u}''$ min, Ni underplated overall $30\text{u}''$ min.
- Metal shielding: Copper alloy with Nickel plated.

2. Environmental requirements:

- Lead-free process, compliant RoHS.

Printing:

1957 YYWW

MATRIX PART NO:

MRJ G-21 T 1957 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

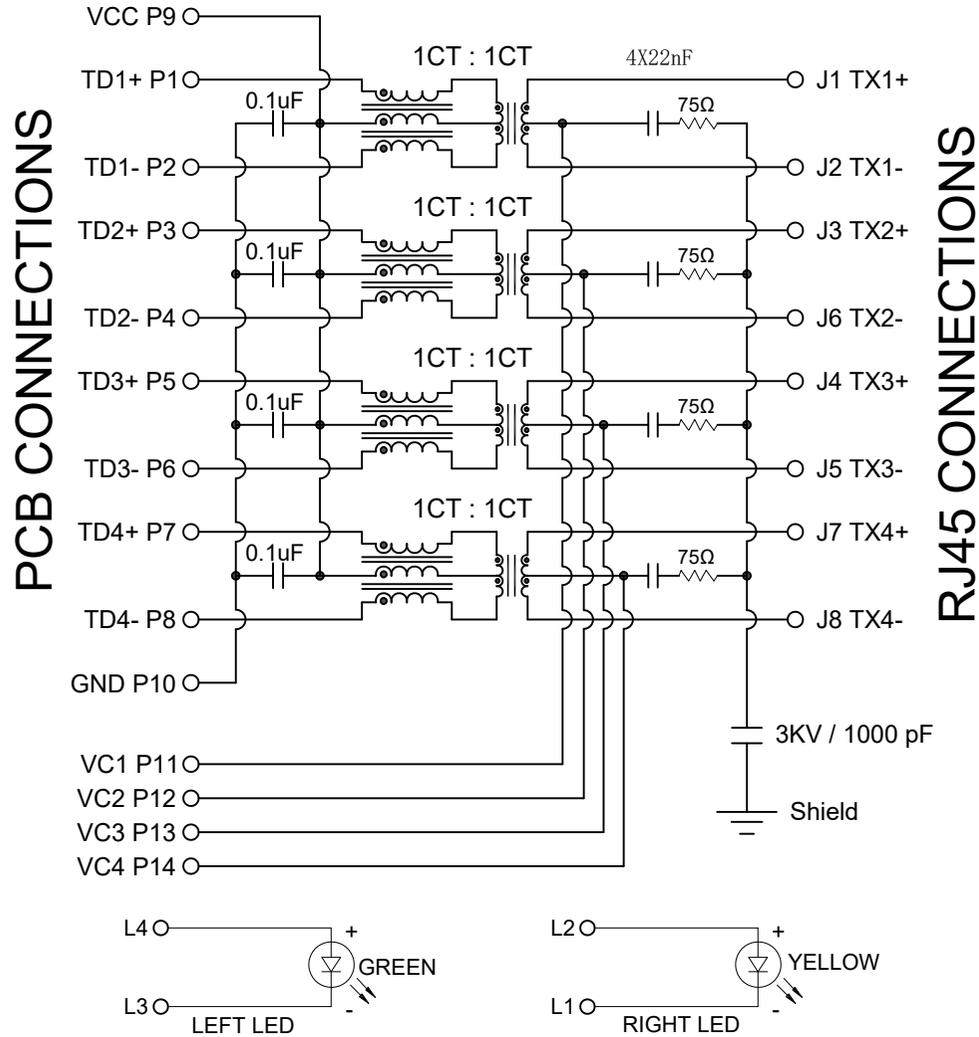


Matrix Electronics Co., Ltd

TOLERANCE: X X.X ± 0.38 X.XX ± 0.25 X.XXX ± 0.13 ANGLE: $\pm 3^\circ$	DESIGN BY :	DATE :	PART NAME:	
	Vince Chen	2025/07/30	RJ45 2X1 CONN. W/LED. POE DIP DOUBLE 10/100/1000, FILTER	
 UNIT: mm [inch] SCALE:1:1 SIZE:A4	CHECKED BY:	DATE :	PART NO.	MRJG-21T1957TRS
	Hanson Huang	2025/07/30	MOLD NO.	NA
	APPROVED BY1:	DATE :	DRAW NO.	
	Richard Hsieh	2025/07/30	SHEET NO.	1 OF 4
	APPROVED BY2:	DATE :		
	Richard Hsieh	2025/07/30		

GP Component

3. SCHEMATIC:



REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2024/01/08	Vince
A1			Delete Printing Matrix Logo & Part No	2025/07/17	Vince
A2			Modify Printing	2025/07/30	Vince

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.

6. DC current:Meeting IEEE802.3bt Standards.

- 1A MAX @57VDC Continuous.
- Supports 2 pairs of twisted pair cables, with a maximum PSE power of 45W.
- Supports 4 pairs of twisted pair cables, with a maximum PSE power of 90W.

Emitting Color	λ_p (nm)	$V_f@I_f=20mA$
GREEN	565	1.8-2.5V
YELLOW	585	1.8-2.5V



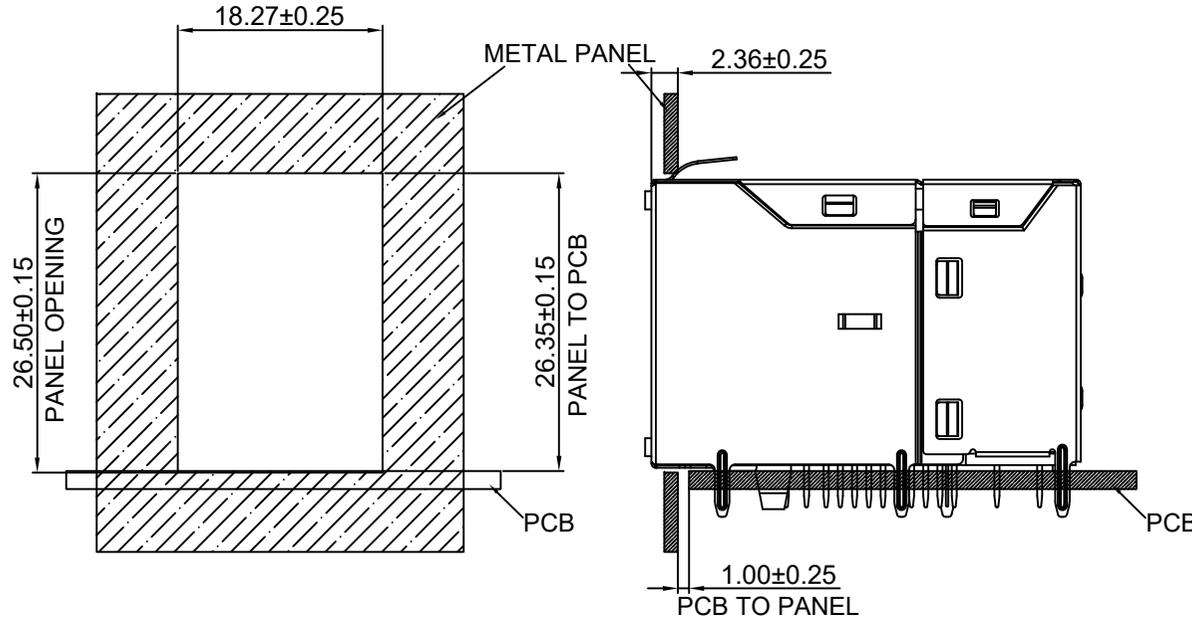
Matrix Electronics Co., Ltd

TOLERANCE: X X.X ±0.38 X.XX ±0.25 X.XXX ±0.13 ANGLE: ±3°	DESIGN BY : Vince Chen	DATE : 2025/07/30	PART NAME: RJ45 2X1 CONN. W/LED, POE DIP DOUBLE 10/100/1000, FILTER	
	CHECKED BY: Hanson Huang	DATE : 2025/07/30	PART NO.	MRJG-21T1957TRS
 UNIT: mm [inch] SCALE:1:1 SIZE:A4	APPROVED BY1: Richard Hsieh	DATE : 2025/07/30	MOLD NO.	NA
	APPROVED BY2: Richard Hsieh	DATE : 2025/07/30	DRAW NO.	
			SHEET NO.	2 OF 4

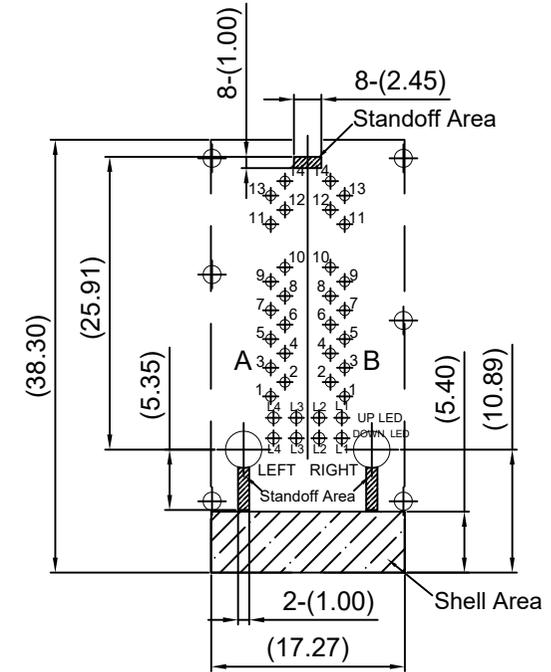
GP Component

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2024/01/08	Vince
A1			Delete Printing Matrix Logo & Part No	2025/07/17	Vince
A2			Modify Printing	2025/07/30	Vince

Recommended Panel cutout:



KEEP-OUT AREA (Top View):

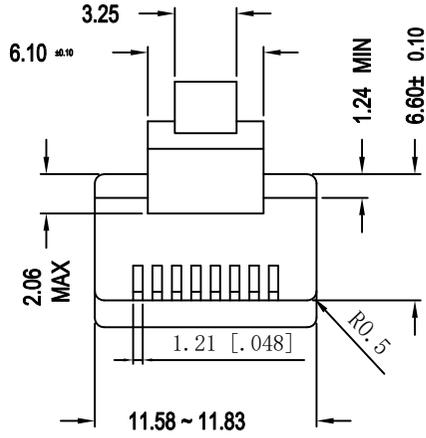


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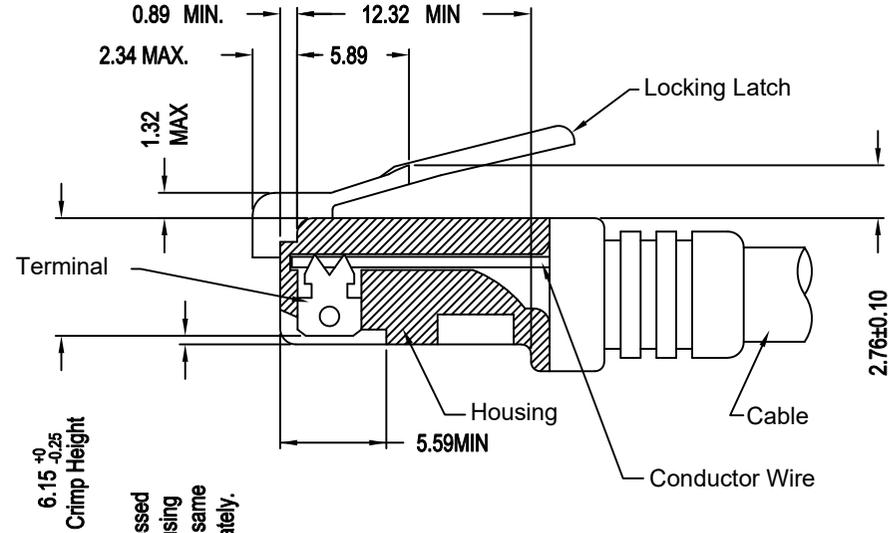
TOLERANCE: X: ± 0.38 X.X: ± 0.25 X.XX: ± 0.13 X.XXX: ± 0.13 ANGLE: $\pm 3^\circ$	DESIGN BY : Vince Chen	DATE : 2025/07/30	PART NAME: RJ45 2X1 CONN. W/LED, POE DIP DOUBLE 10/100/1000, FILTER	
	CHECKED BY: Hanson Huang	DATE : 2025/07/30	PART NO.	MRJG-21T1957TRS
 UNIT: mm [inch] SCALE: 1:1 SIZE: A4	APPROVED BY1: Richard Hsieh	DATE : 2025/07/30	MOLD NO.	NA
	APPROVED BY2: Richard Hsieh	DATE : 2025/07/30	DRAW NO.	
			SHEET NO.	3 OF 4

GP Component

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2024/01/08	Vince
A1			Delete Printing Matrix Logo & Part No	2025/07/17	Vince
A2			Modify Printing	2025/07/30	Vince



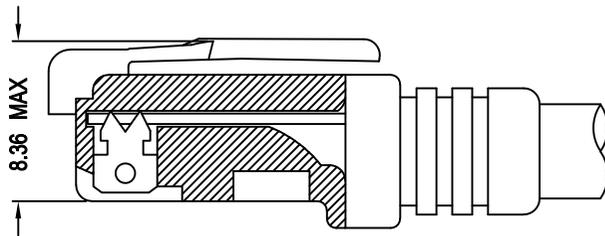
* There must be no damage to housing or locking latch. There must be no nicks or cuts in cable.
 * Durability : 750 cycles generally



All contacts recessed below top of housing and must be at the same height approximately.

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)



Matrix Electronics Co., Ltd

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	Hanson Huang	2025/07/30	MOLD NO.	NA
APPROVED BY1: Richard Hsieh	DATE :	DATE :	DRAW NO.	
	2025/07/30	2025/07/30	SHEET NO.	4 OF 4
APPROVED BY2:	DATE :			
Richard Hsieh	2025/07/30			