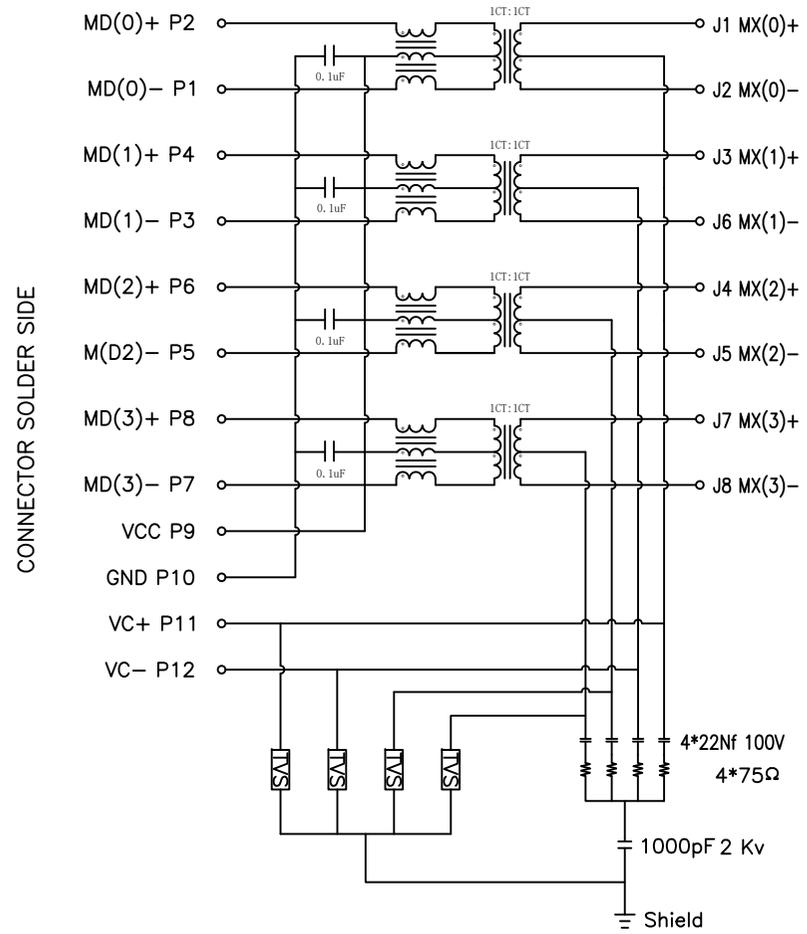


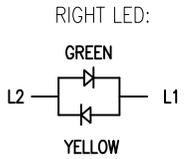
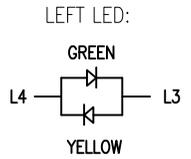


3. SCHEMATIC: 



RJ45 CONTACT SIDE

CONNECTOR SOLDER SIDE



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
A0			Initial	2024/06/20	Vince
A0.1			Add Led Pin Definition	2025/06/25	Vince
A1			Modify Schematic	2025/07/24	Vince
A2			Delete PIN	2025/08/29	Vince

3.ELECTRICAL CHARACTERISTICS(25±5°C)

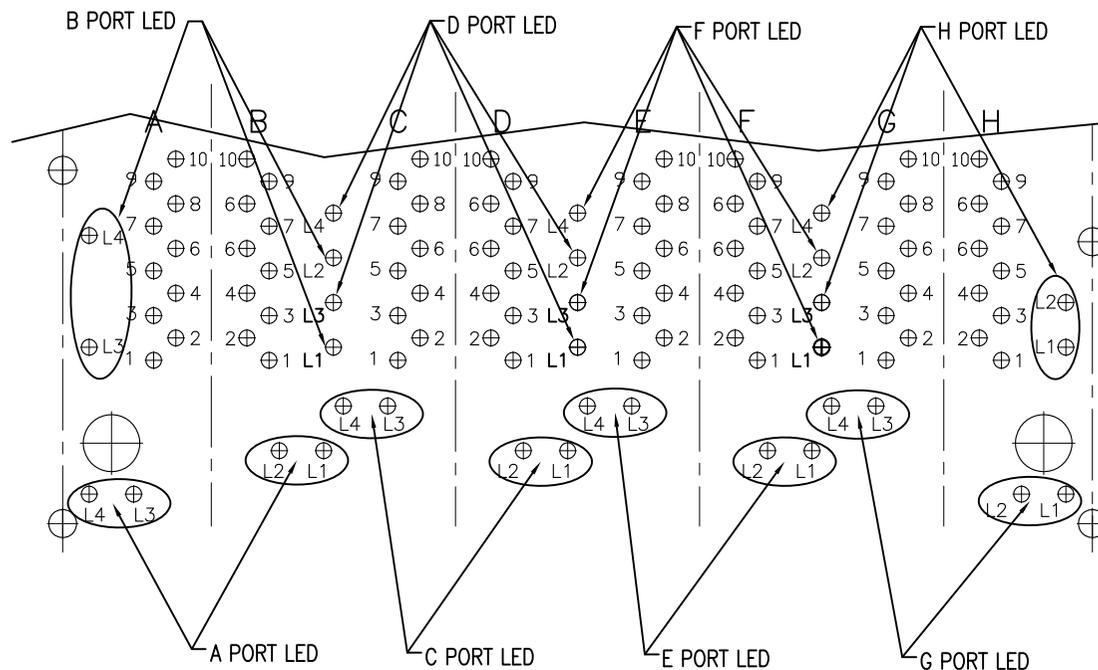
- 3-1. TR:(100KHz,0.1V);  
INPUT:OUTPUT=1:1±3%
- 3-2. LX:(100KHz,100mV,8mA, DC Bias)  
180uH MINIMUM
- 3-3. HIPOT: 100%  
INPUT TO OUTPUT=1500VAC FOR 60 SECONDS
- 3-4. INSERTION LOSS:  
-0.5dB MAXIMUM AT 1MHz TO 50MHz;  
-1.0dB MAXIMUM AT 50MHz TO 125MHz;  
-2.0dB MAXIMUM AT 125MHz TO 200MHz;
- 3-5. RETURN LOSS:  
-20dB MINIMUM AT 1MHz TO 40MHz;  
-20+15\*Log(F/40)dB MINIMUM AT 40MHz TO 200MHz
- 3-6.Reflected CM to Diff Conversion(REF)  
-30dB MAXIMUM AT 1MHz  
-30dB MAXIMUM AT 50MHz  
-27dB MAXIMUM AT 100MHz  
-24dB MAXIMUM AT 200MHz
- 3-7. CM to DM Conversion(REF)  
-35dB MAXIMUM AT 1MHz TO 50MHz;  
-30dB MAXIMUM AT 125MHz  
-25dB MAXIMUM AT 200MHz
- 3-8.Reflected Diff to CM Conversion(REF)  
-48dB MINIMUM AT 1MHz TO 10MHz;  
-48+19\*Log(F/10)dB MINIMUM AT 10MHz TO 200MHz
- 3-9.CM to CM Attenuation(REF)  
-25dB MINIMUM AT 1MHz TO 200MHz
- 3-10. CROSS TALK:  
-35dB MINIMUM AT 1MHz TO 40MHz;  
-35+15\*Log(F/40)dB MINIMUM AT 40MHz TO 200MHz
- 3-11.ACCORDING TO IEEE802.3bt Type 3 POE++  
FOR PSE ( 30W Max./Pair, Total 60W Max)  
APPLICATIONS.

 Matrix Electronics Co., Ltd

TOLERANCE: X.X ±0.38 X.XX ±0.25 X.XXX ±0.13 ANGLE: ±3°	DESIGN BY : Vince Chen	DATE : 2025/08/29	PART NAME: RJ45 2X4 2.5G BASE DIP TAB UP,POE++ W/LED&SHELL
	CHECKED BY: Hanson Huang	DATE : 2025/08/29	PART NO. MRJ2G-24T2021TRS
	APPROVED BY1: Richard Hsieh	DATE : 2025/08/29	MOLD NO. NA
	APPROVED BY2: Richard Hsieh	DATE : 2025/08/29	DRAW NO.
UNIT: mm [inch] SCALE:1:1 SIZE:A4			SHEET NO. 2 OF 4

GP Component

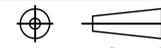
REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2024/06/20	Vince
A0.1			Add Led Pin Definition	2025/06/25	Vince
A1			Modify Schematic	2025/07/24	Vince
A2			Delete PIN	2025/08/29	Vince



LED PIN DEFINITION

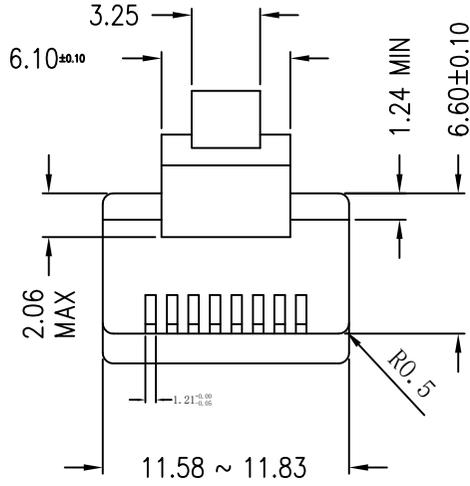


Matrix Electronics Co., Ltd

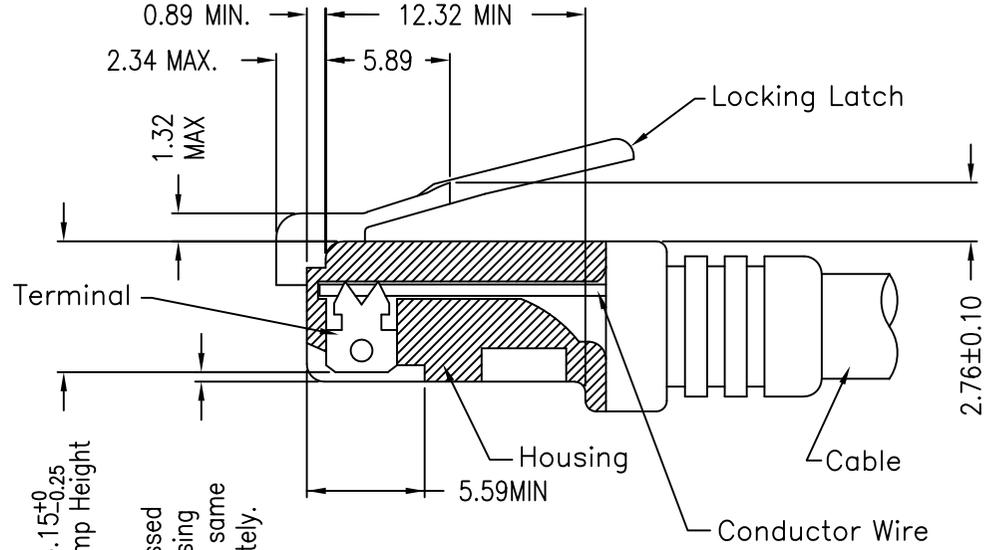
<b>TOLERANCE:</b> X:X ±0.38 X:XX ±0.25 X:XXX ±0.13 ANGLE: ±3°	<b>DESIGN BY :</b> Vince Chen	<b>DATE :</b> 2025/08/29	<b>PART NAME:</b> RJ45 2X4 2.5G BASE DIP TAB UP,POE++ W/LED&SHELL	
	<b>CHECKED BY:</b> Hanson Huang	<b>DATE :</b> 2025/08/29	<b>PART NO.</b> MRJ2G-24T2021TRS	<b>MOLD NO.</b> NA
 <b>UNIT: mm [inch]</b> <b>SCALE:1:1 SIZE:A4</b>	<b>APPROVED BY1:</b> Richard Hsieh	<b>DATE :</b> 2025/08/29	<b>DRAW NO.</b> NA	<b>SHEET NO.</b> 3 OF 4
	<b>APPROVED BY2:</b> Richard Hsieh	<b>DATE :</b> 2025/08/29		

GP Component

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2024/06/20	Vince
A0.1			Add Led Pin Definition	2025/06/25	Vince
A1			Modify Schematic	2025/07/24	Vince
A2			Delete PIN	2025/08/29	Vince

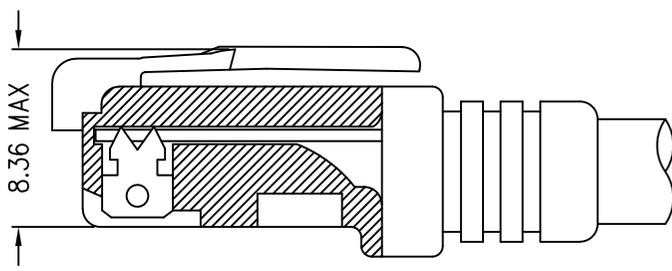


- \* There must be no damage to housing or locking latch. There must be no nicks or cuts in cable.
- \* Durability : 750 cycles generally



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



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

STANDARD MODULAR PLUG ASSEMBLY

 <b>Matrix Electronics Co., Ltd</b>					
<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> 2025/08/29	<b>PART NAME:</b> RJ45 2X4 2.5G BASE DIP TAB UP, POE++ W/LED&SHELL	
		<b>CHECKED BY:</b> Hanson Huang	<b>DATE :</b> 2025/08/29	<b>PART NO.</b>	MRJ2G-24T2021TRS
		<b>APPROVED BY1:</b> Richard Hsieh	<b>DATE :</b> 2025/08/29	<b>MOLD NO.</b>	NA
		<b>APPROVED BY2:</b> Richard Hsieh	<b>DATE :</b> 2025/08/29	<b>DRAW NO.</b>	
<b>UNIT:</b> mm [inch]	<b>SCALE:</b> 1:1	<b>SIZE:</b> A4		<b>SHEET NO.</b>	4 OF 4