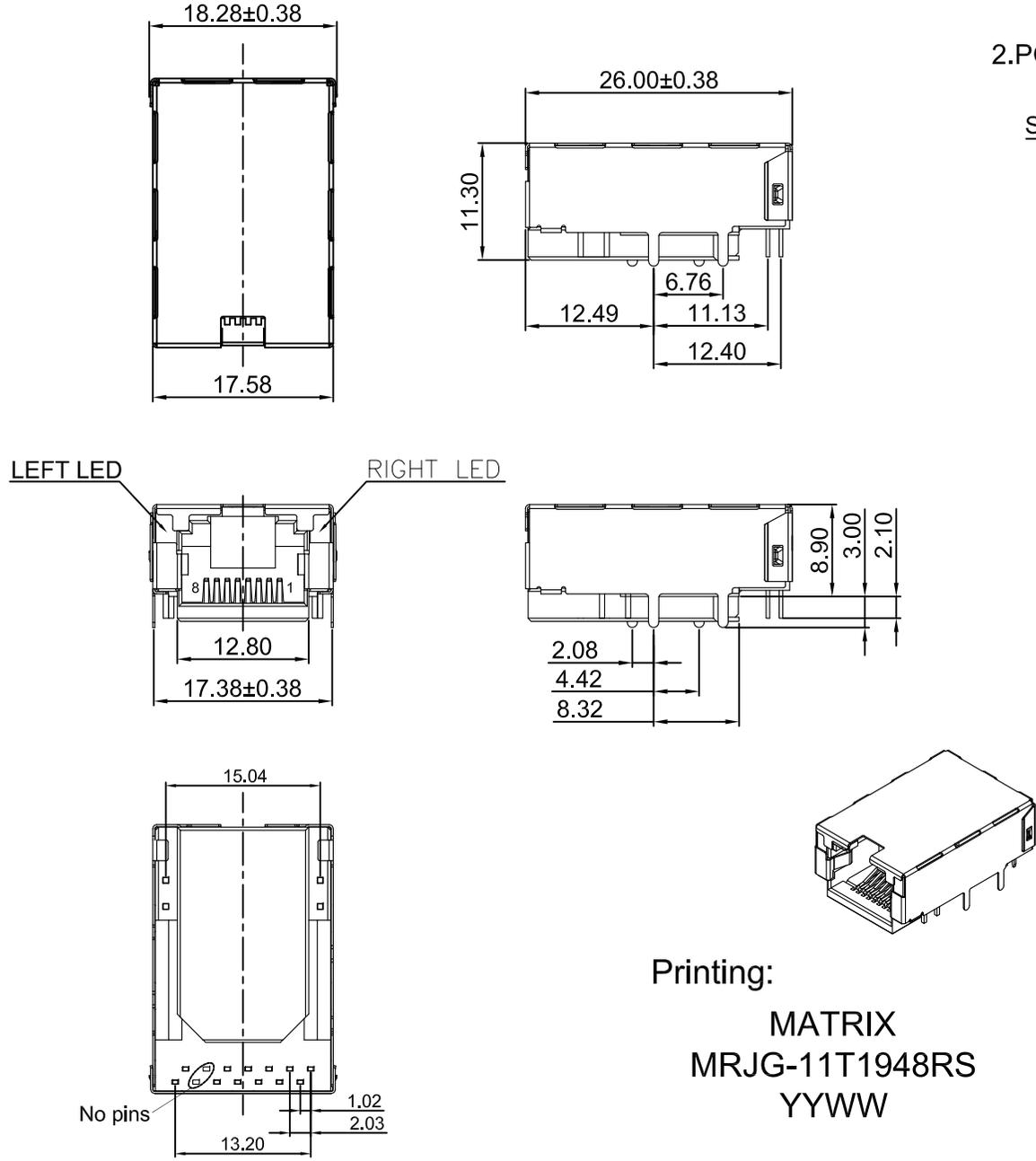


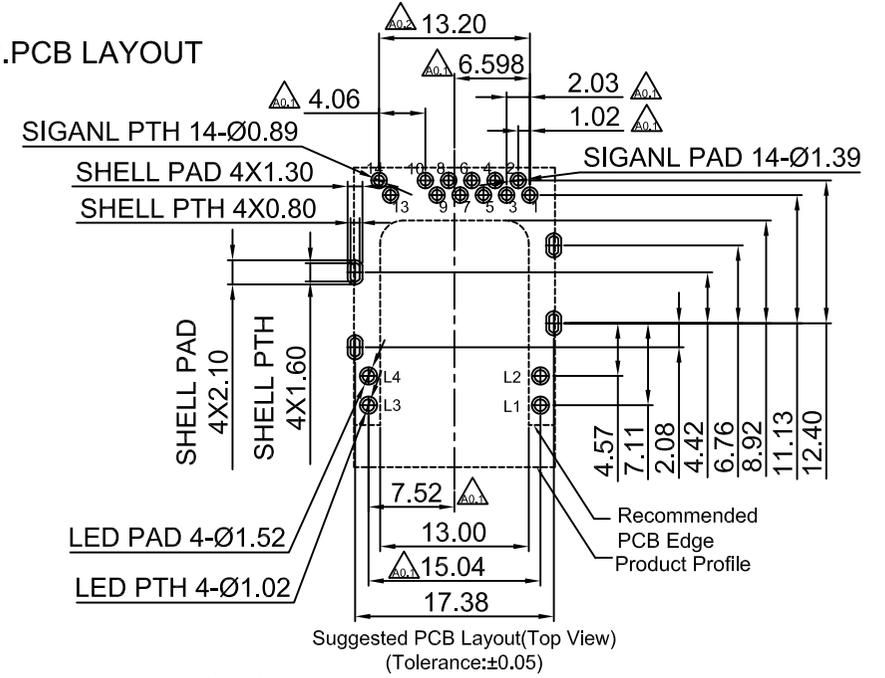
GP Component

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2023/12/11	Vince
A0.1			Add PCB Size	2024/12/12	Vince
A0.2			Modify PCB Size	2024/12/12	Vince

1.MECHANICAL



2.PCB LAYOUT



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 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.

Printing:

MATRIX
MRJG-11T1948RS
YYWW

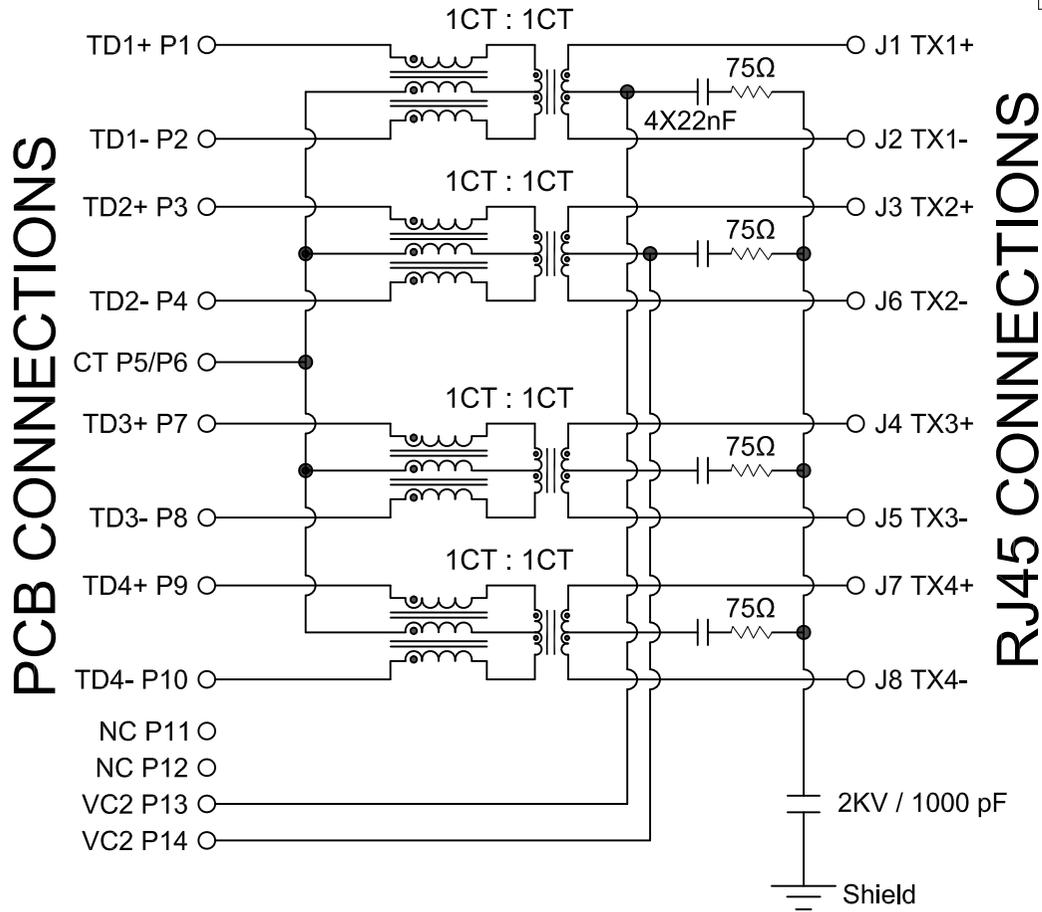


Matrix Electronics Co., Ltd

TOLERANCE: X.X ±0.38 X.XX ±0.25 X.XXX ±0.13 ANGLE: ±3°	DESIGN BY : Vince Chen	DATE : 2024/12/12	PART NAME: RJ45 CONN W/ LED, 10/100/1000G BASE	
 UNIT: mm [inch] SCALE:1:1 SIZE:A4	CHECKED BY: Hanson Huang	DATE : 2024/12/12	PART NO.	MRJG-11T1948RS
	APPROVED BY1: Richard Hsieh	DATE : 2024/12/12	MOLD NO.	NA
	APPROVED BY2: Richard Hsieh	DATE : 2024/12/12	DRAW NO.	
			SHEET NO.	1 OF 3

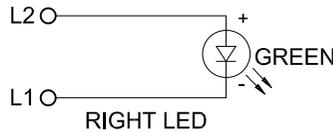
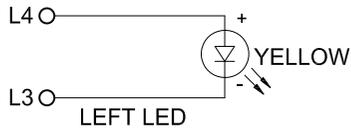
GP Component

3. SCHEMATIC:



PCB CONNECTIONS

RJ45 CONNECTIONS



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

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
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A0.2			Modify PCB Size	2024/12/12	Vince

4. Electrical Specification @25°C:

- 4.1 Inductance: 350uH Min With 8mA DC bias.
- 4.2 Hi-Pot Test: Input to Output 2250VDC/1mA.
- 4.3 Insertion loss : 1-100MHZ -1dB max.
- 4.4 Return loss : 1-30MHZ -18dB min.
30-60MHZ -16dB min.
60-80MHZ -12dB min.
80-100MHZ -10dB min.
- 4.5 Common Mode Rejection:1-100MHZ -30dB min.
- 4.6 Cross Talk:1-100MHZ -30dB min.
- 5. Operating and Storage Temperature:
 - 5.1 Operating Temperature : 0°C to +70°C.
 - 5.2 Storage Temperature : -40°C to +85°C.
- 6. Wave soldering peak temperature:260°C.
- 7. DC current: Meeting IEEE802.3at Standards.
720mA MAX @57VDC Continuous.
Supports 2 pair of 30W lines.

MATRIX PART NO:
MRJ G-11 T 1948 RS
Matrix-RJ45
F:10/100
G:10/100/1G
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
Series Number
S:SMD
T:THT

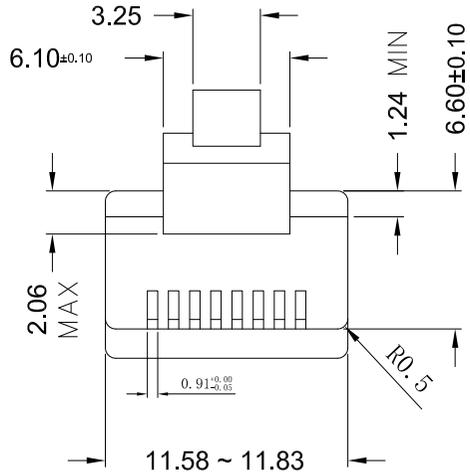


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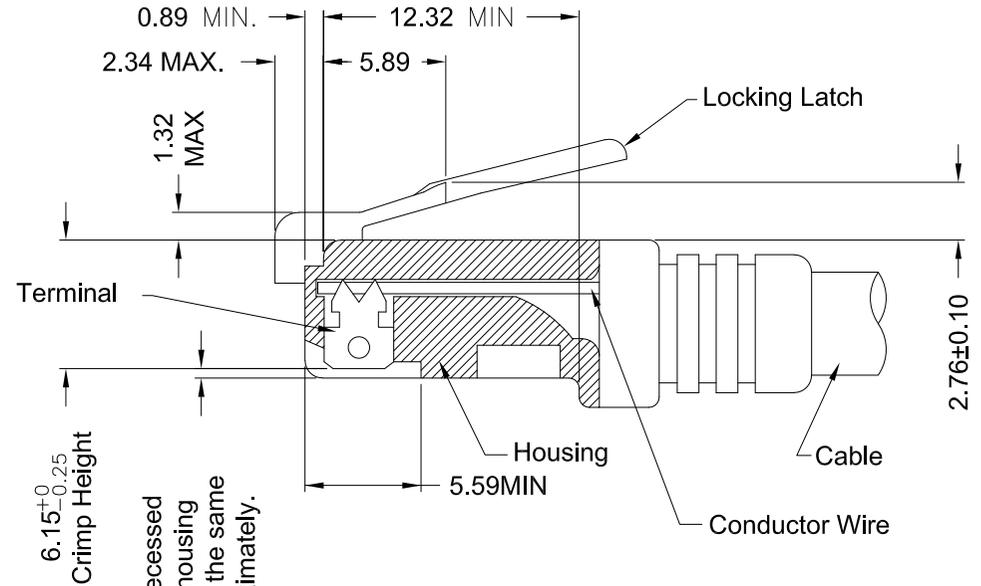
TOLERANCE:	DESIGN BY :	DATE :	PART NAME:	
X X.X X.XX ±0.38 X.XXX ±0.25 ANGLE: ±3°	Vince Chen	2024/12/12	RJ45 CONN W/ LED, 10/100/1000G BASE	
	CHECKED BY:	DATE :	PART NO.	MRJG-11T1948RS
UNIT: mm [inch]	APPROVED BY1:	DATE :	MOLD NO.	NA
SCALE:1:1 SIZE:A4	APPROVED BY2:	DATE :	DRAW NO.	
	Richard Hsieh	2024/12/12	SHEET NO.	2 OF 3

GP Component

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2023/12/11	Vince
A0.1			Add PCB Size	2024/12/12	Vince
A0.2			Modify PCB Size	2024/12/12	Vince

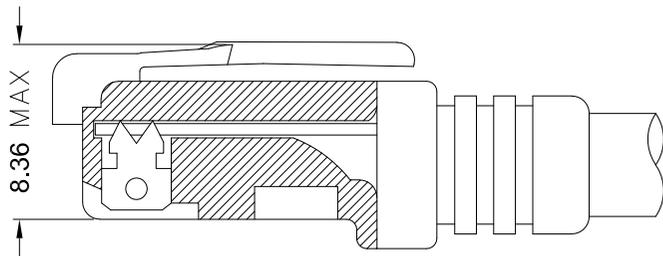


- * There must be no damage to housing or locking latch. There must be no nicks or cuts in cable.
- * Durability : 750 cycles generally



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

 Matrix Electronics Co., Ltd				
TOLERANCE: X: ±0.38 X.X: ±0.25 X.XX: ±0.13 ANGLE: ±3°	DESIGN BY :	DATE :	PART NAME:	
	Vince Chen	2024/12/12	RJ45 CONN W/ LED, 10/100/1000G BASE	
  UNIT: mm [inch] SCALE:1:1 SIZE:A4	CHECKED BY:	DATE :	PART NO.	MRJG-11T1948RS
	Hanson Huang	2024/12/12		
	APPROVED BY1:	DATE :	MOLD NO.	NA
	Richard Hsieh	2024/12/12		
	APPROVED BY2:	DATE :	DRAW NO.	
	Richard Hsieh	2024/12/12	SHEET NO.	3 OF 3