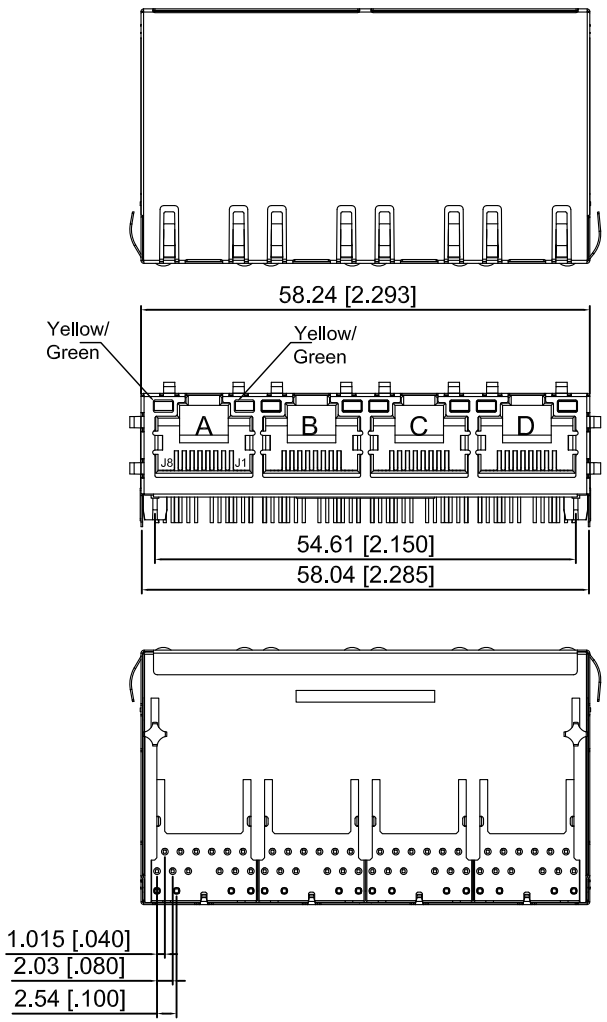
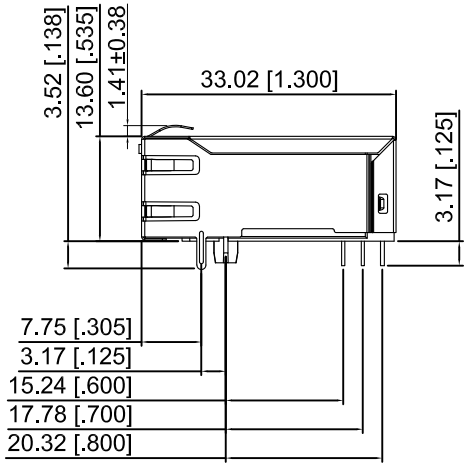
GP Component

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2022/12/14	Vince
A1			Modify Led Color	2023/12/15	Vince

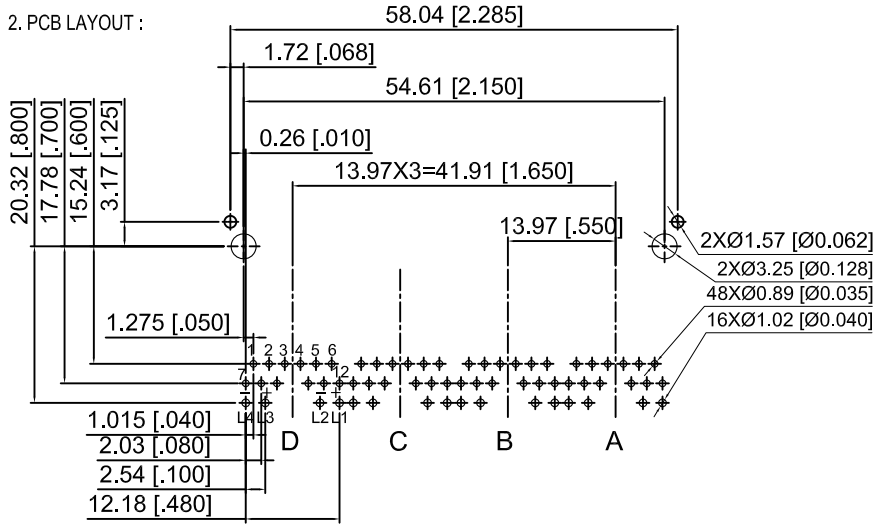
1. MECHANICAL DIMENSIONS :





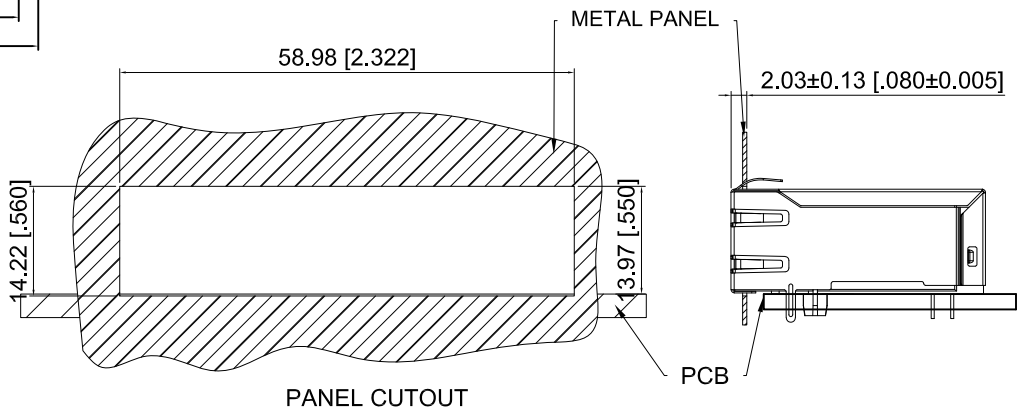
GoldPlating	Option
1.8μ"	☐
3μ"	☐
6μ"	■
15μ"	☐
30μ"	☐
50μ"	☐

2. PCB LAYOUT :



RECOMMENDED P.C.B LAYOUT
TOP VIEW (COMPONENT SIDE)

Dimension Tolerance:
PCB LAYOUT
Tolerances:±0.05[.002]



PANEL CUTOUT

MATERIALS

1.HOUSING:GLASS FILLED PA46(BLACK) UL94V-0(ROHS)
2.CONTACT: PHOSPHOR BRONZE,50 MICROINCHES MIN. OVERALL DUCTILE NICKEL UNDERPLATE WITH SELECTED 6 MICROINCHES GOLD AT MATING INTERFACE
3.SHIELD:0.2mm THICKNESS WITH BRASS
4.JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS PART 68 SUBPART F
5.THE PART IS RECOMMENDDED FOR WAVE SOLDERING PROCESS PEAK SOLDERING TEMPERATURE IS 260°C MAX,10 SECS MAX.
6.OPERATING TEMPERATURE:0°C TO +70°C. STORAGE TEMPERATURE:-40°C TO +85°C.

Printing:

MATRIX
MRJ10G-14T1746RS
YYWW

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 : 2023/12/15	PART NAME: RJ45 1x4 Tab_Up/ThroughHole 10G Base-T W/LED	
	CHECKED BY: Hanson Huang	DATE : 2023/12/15	PART NO.	MRJ10G-14T1746RS
	APPROVED BY1: Richard Hsieh	DATE : 2023/12/15	MOLD NO.	NA
UNIT: mm [inch]	APPROVED BY2: Richard Hsieh	DATE : 2023/12/15	DRAW NO.	
SCALE:1:1 SIZE:A4			SHEET NO.	1 OF 3

GP Component

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
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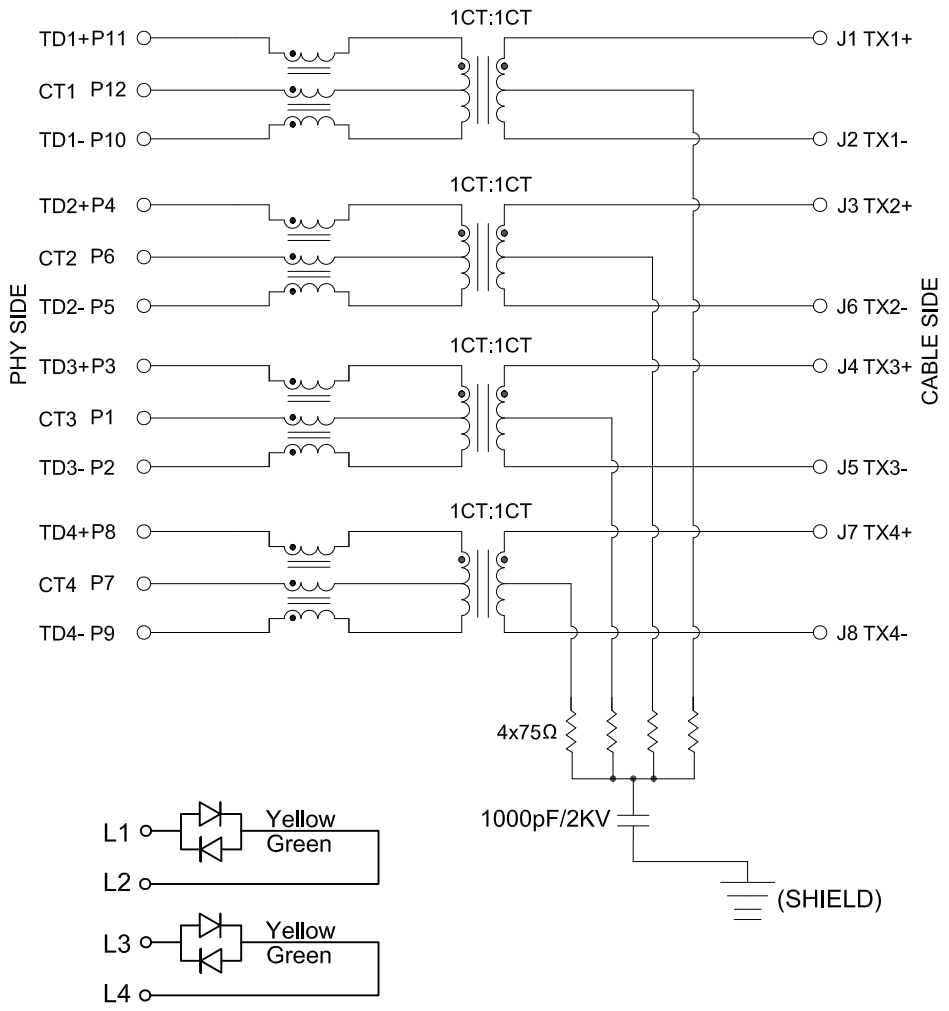
3. SCHEMATIC:



4. ELECTRICAL CHARACTERISTICS :

PARAMETER	SPECIFICATIONS
OPERATING TEMPERATURE	0°C To +70°C
TURNS RATIO	1:1±2%
INDUCTANCE(OCL)	120uH MIN@100KHz/100mV With 8mA DC Bias For(Channel1/2/3/4)
INSERTION LOSS	-3.0dBMAX@1-500MHz
RETURN LOSS	-22dBMIN@1-100MHz; -22+20.75xLOG(f/100)dBMIN@100-500MHz;
CROSSTALK (ADJACENT CHANNELS)	-28dBMIN@1-100MHz; -19dBMIN@100-500MHz;
COMMON MODE REJECTION RATIO	-30dBMIN@1-100MHz; -20dBMIN@100-500MHz;
COMMON MODE TO DIFFERENTIAL MODE ATTENUATION	-30dBMIN@1-250MHz; -20dBMIN@250-500MHz;
HI-POT	2250VDC@60 SECONDS(Channel1/2/3/4)

LED SPECIFICATION			
STANDARD LED	WAVELENGTH	Farward V(max)	TYP
GREEN	570nm	2.4V	2.2V
YELLOW	590nm	2.5V	2.1V

*WITH A FORWARD CURRENT OF 20mA

MATRIX PART NO:

MRJ 10G – 14 T 1746 RS

- MRJ: Matrix–RJ45
- 10G: F : 10/100; G : 10/100/1000; 10G : 10G
- 14: 11:1X1 ; 21:2X1; 12:1X2 ; 22:2X2; 14:1X4 ; 24:2X4; 16:1X6 ; 26:2X6; 18:1X8 ; 28:2X8; 1U:RJ+USB
- T: S : SMD; T : THT
- 1746: Series Number
- RS: RS : ROHS; HF : Halogen Free

Matrix Electronics Co.,Ltd

TOLERANCE: X ±0.38, X.X ±0.25, X.XX ±0.13, X.XXX ±0.13, ANGLE: ±3°	DESIGN BY : Vince Chen	DATE : 2023/12/15	PART NAME: RJ45 1x4 Tab_Up/ThroughHole 10G Base-T W/LED
	CHECKED BY: Hanson Huang	DATE : 2023/12/15	PART NO. MRJ10G-14T1746RS
	APPROVED BY1: Richard Hsieh	DATE : 2023/12/15	MOLD NO. NA
UNIT: mm [inch]	APPROVED BY2: Richard Hsieh	DATE : 2023/12/15	DRAW NO.
SCALE:1:1 SIZE:A4			SHEET NO. 2 OF 3

GP Component

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
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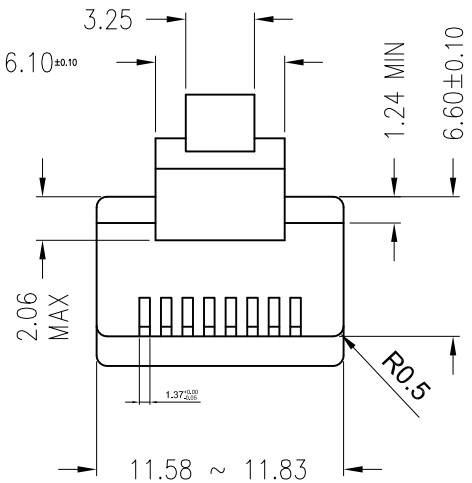
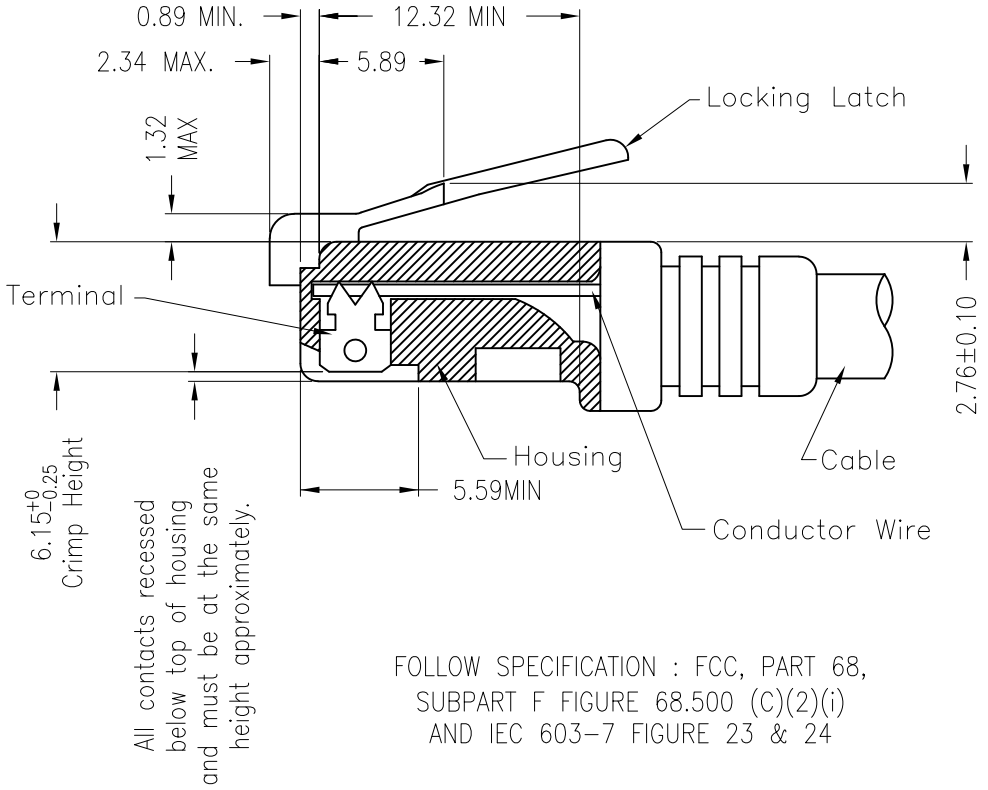
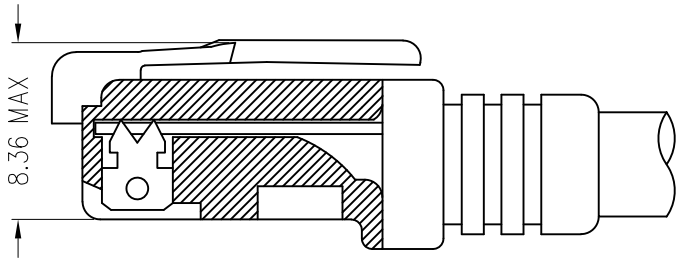


* There must be no damage to housing or locking latch.There must be no nicks or cuts in cable.
* Durability : 750 cycles generally



FOLLOW SPECIFICATION : FCC, PART 68, SUBPART F FIGURE 68.500 (C)(2)(i) AND IEC 603-7 FIGURE 23 & 24



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, X.XXX ±0.13, ANGLE: ±3°	DESIGN BY : Vince Chen	DATE : 2023/12/15	PART NAME: RJ45 1x4 Tab_Up/ThroughHole 10G Base-T W/LED
	CHECKED BY: Hanson Huang	DATE : 2023/12/15	PART NO. MRJ10G-14T1746RS
	APPROVED BY1: Richard Hsieh	DATE : 2023/12/15	MOLD NO. NA
UNIT: mm [inch]	APPROVED BY2: Richard Hsieh	DATE : 2023/12/15	DRAW NO.
SCALE:1:1 SIZE:A4			SHEET NO. 3 OF 3