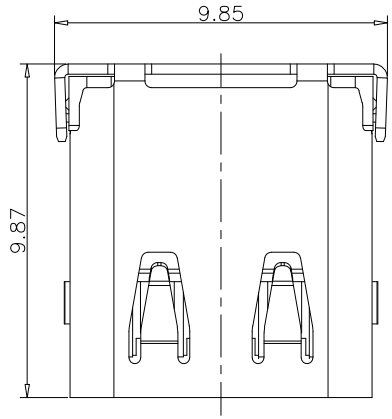
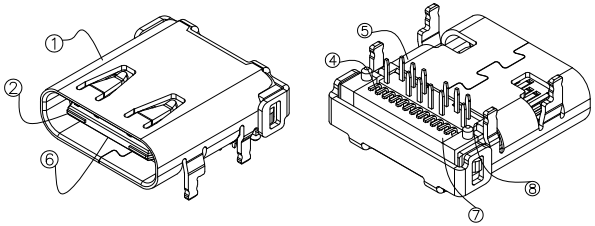
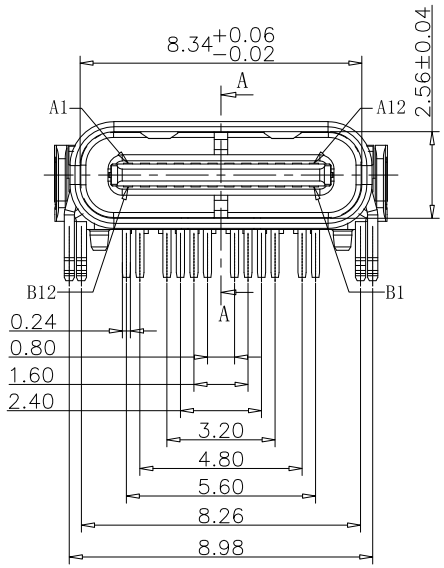
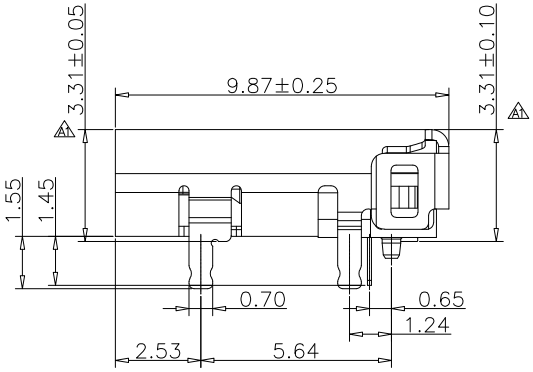
GP Component

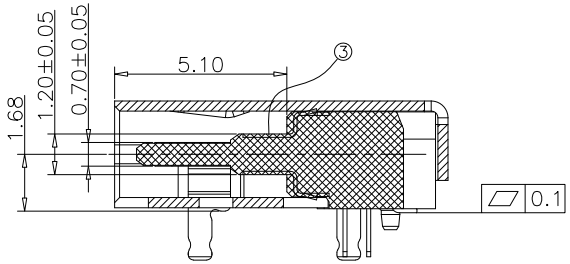
REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2020/09/01	Hanson
A1			Change Dimension	2020/10/12	Hanson



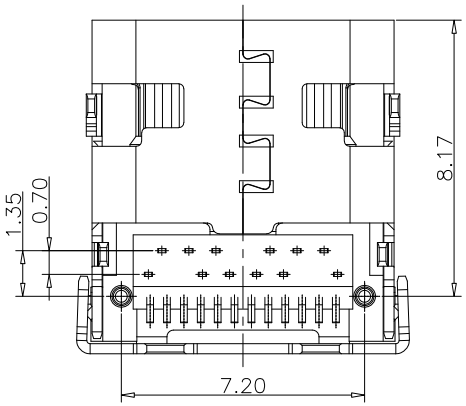








SECTION A-A
SCALE 1:1



MATRIX PART NO:

MUSB 12 − 01 − 427

- MUSB: MATRIX USB
- 12: Pin Number
- 01: Gold Plating (01:G/F, 15:15u", 30:30u")
- 427: *Series number*

NOTE:

1.MATERIAL SPECIFICATION:
- 1−1.HOUSING:HIGH TEMPERATURE RESISTANT PLASTIC,LCP UL94 V−0.
- 1−2.CONTACTS:COPPER ALLOY(C1814)
- 1−3.MID PLATE: STAINLESS STEEL(SUS301)
- 1−4.SHELL: STAINLESS STEEL(SUS304)
- 1−5.EMI PLATE: STAINLESS STEEL(SUS304)

2.PLATING SPECIFICATION:
- 2−1.CONTACTS:
  Ni 50u" MIN. UNDER PLATED OVER ALL.
  G/F PLATED ON THE FUNCTIONAL AREA OF CONTACT.
- 2−2.FRONT SHELL:
  NICKEL UNDERPLATING OVER ALL.
- 2−3.MID PLATE&EMI PLATE:
  CLEAR ONLY

3.MECHANICAL PERFORMANCE,
- 3−1.INSERTION FORCE: 0.5~2.0kgf.
- 3−2.REMOVAL FORCE: 0.8kgf~2.0kgf.
- 3−3.DURABILITY: 10000 CYCLES.

4.ELECTRICAL PERFORMANCE,
- 4−1. CURRENT RATING:5.0A
  VOLTAGE RATING:5.0V
- 4−2. LLCR:
  VBUS & GND PINS AND OTHER PINS: 40mΩ/PIN MAX.
  SHIELD: 50mΩ/MAX.
  LLCR MAX. CHANGE OF ALL PINS: 10mΩ.
- 4−3.INSULATION RESISTANCE: 100MΩ MIN
- 4−4.DIELECTRIC WITHSTAND VOLTAGE,AC 100V FOR 1 MINUTE.

5.ENVIRONMENTAL PERFORMANCE:
OPERATING TEMPERATURE: −40°C~+85°C.

6.IR REFLOW:
THE PEAK TEMPERATURE ON THE BOARD SHALL BE MAINTAINED FOR 10 SECONDS AT 260°C.

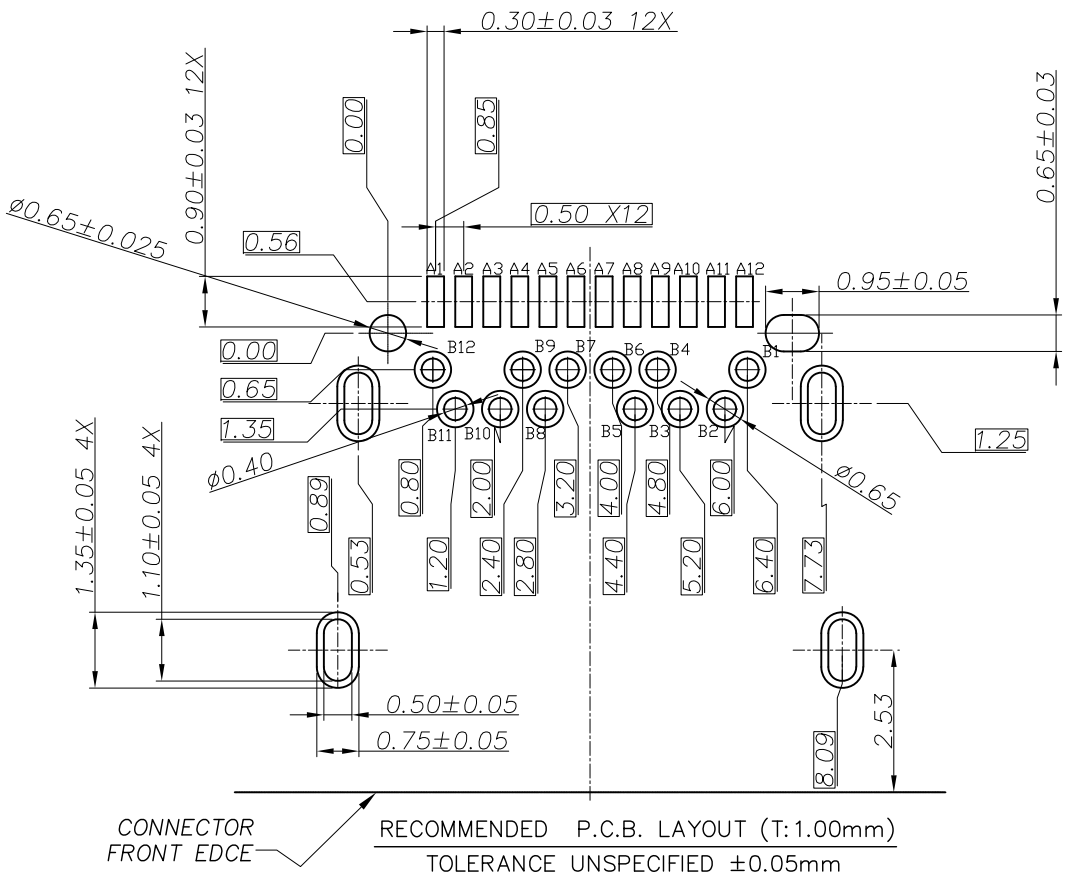
QTY'S	MATERIAL	NAME	NO.
1	THERMOPLASTIC UL94V−0 Black	DIP HOUSING	⑧
1	THERMOPLASTIC UL94V−0 Black	SMT HOUSING	⑦
1	THERMOPLASTIC UL94V−0 Black	LATCH HOUSING	⑥
12	COPPER ALLOY	DIP CONECTOR	⑤
12	COPPER ALLOY	SMT CONECTOR	④
2	SUS	EMI	③
1	SUS	LATCH	②
1	SUS	SHELL	①

Matrix Electronics Co.,Ltd

TOLERANCE: X: ±0.25 X.X ±0.15 X.XX ±0.10 X.XXX ±0.10 ANGLE: ±3°	DESIGN BY : Hanson Huang	DATE : 2020/10/12	PART NAME: *USB 3.1 TYPE C Female R/A*
	CHECKED BY: Vicky Hsieh	DATE : 2020/10/12	PART NO. MUSB12−01−427
	APPROVED BY1: Richard Hsieh	DATE : 2020/10/12	MOLD NO. NA
UNIT: mm [inch]	APPROVED BY2: Richard Hsieh	DATE : 2020/10/12	DRAW NO.
SCALE:1:1 SIZE:A4			SHEET NO. 1 OF 2

GP Component

REV.	ECN NO.	LOCATIONS	DESCRIPTION	DATE	DESIGN
A0			Initial	2020/09/01	Hanson
A1			Change Dimension	2020/10/12	Hanson



USB TYPE-C FULL-FEATURED RECEPTACLE INTERFACE PIN ASSIGNMENTS

PIN	Signal Name	Description	PIN	Signal Name	Description
A1	GND	Ground return	B12	GND	Ground return
A2	SSTXp1	Positive half of first SuperSpeed TX differential pair	B11	SSRXp1	Positive half of first SuperSpeed RX differential pair
A3	SSTXn1	Negative half of first SuperSpeed TX differential pair	B10	SSRXn1	Negative half of first SuperSpeed RX differential pair
A4	VBUS	Bus Power	B9	VBUS	Bus Power
A5	CC1	Configuration Channel	B8	SBU2	Sideband Use (SBU)
A6	Dp1	Positive half of the USB 2.0 differential pair-Position 1	B7	Dn2	Negative half of the USB 2.0 differential pair-Position 2
A7	Dn1	Negative half of the USB 2.0 differential pair-Position 1	B6	Dp2	Positive half of the USB 2.0 differential pair-Position 2
A8	SBU1	Sideband Use(SBU)	B5	CC2	Configuraation Channel
A9	VBUS	Bus Power	B4	VBUS	Bus Power
A10	SSRXn2	Negative half of second SuperSpeed RX differential pair	B3	SSTXn2	Negative half of second SuperSpeed TX differential pair
A11	SSRXp2	Positive half of second SuperSpeed RX differential pair	B2	SSTXp2	Positive half of second SuperSpeed TX differential pair
A12	GND	Ground return	B1	GND	Ground return

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TOLERANCE: X. X.X ±0.25 X.XX ±0.15 X.XXX ±0.10 ANGLE: ±3°	DESIGN BY : Hanson Huang	DATE : 2020/10/12	PART NAME: USB 3.1 TYPE C Female R/A	
	CHECKED BY: Vicky Hsieh	DATE : 2020/10/12	PART NO.	MUSB12-01-427
	APPROVED BY1: Richard Hsieh	DATE : 2020/10/12	MOLD NO.	NA
UNIT: mm [inch]	APPROVED BY2: Richard Hsieh	DATE : 2020/10/12	DRAW NO.	
SCALE: 1:1 SIZE: A4			SHEET NO.	2 OF 2