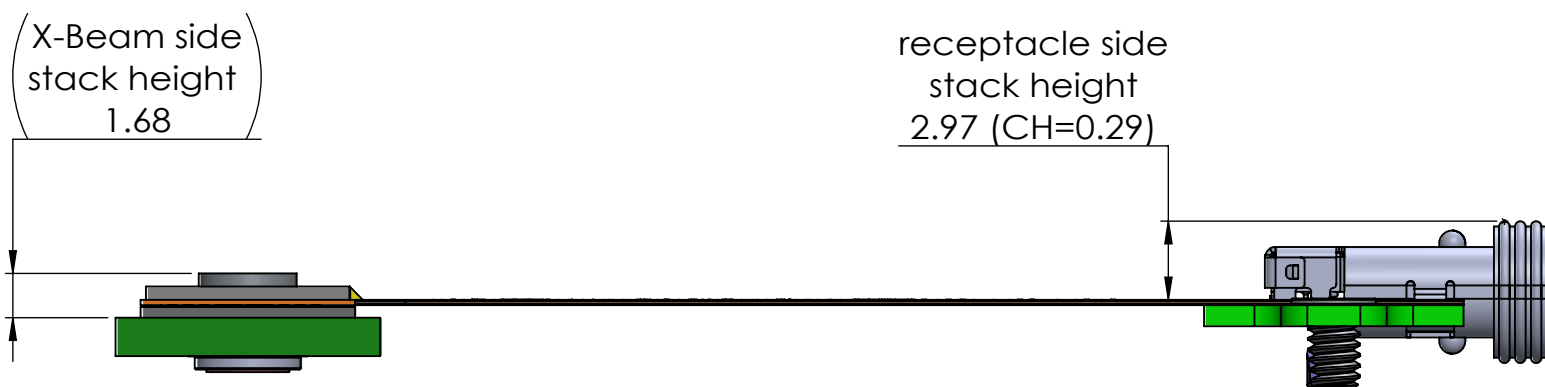


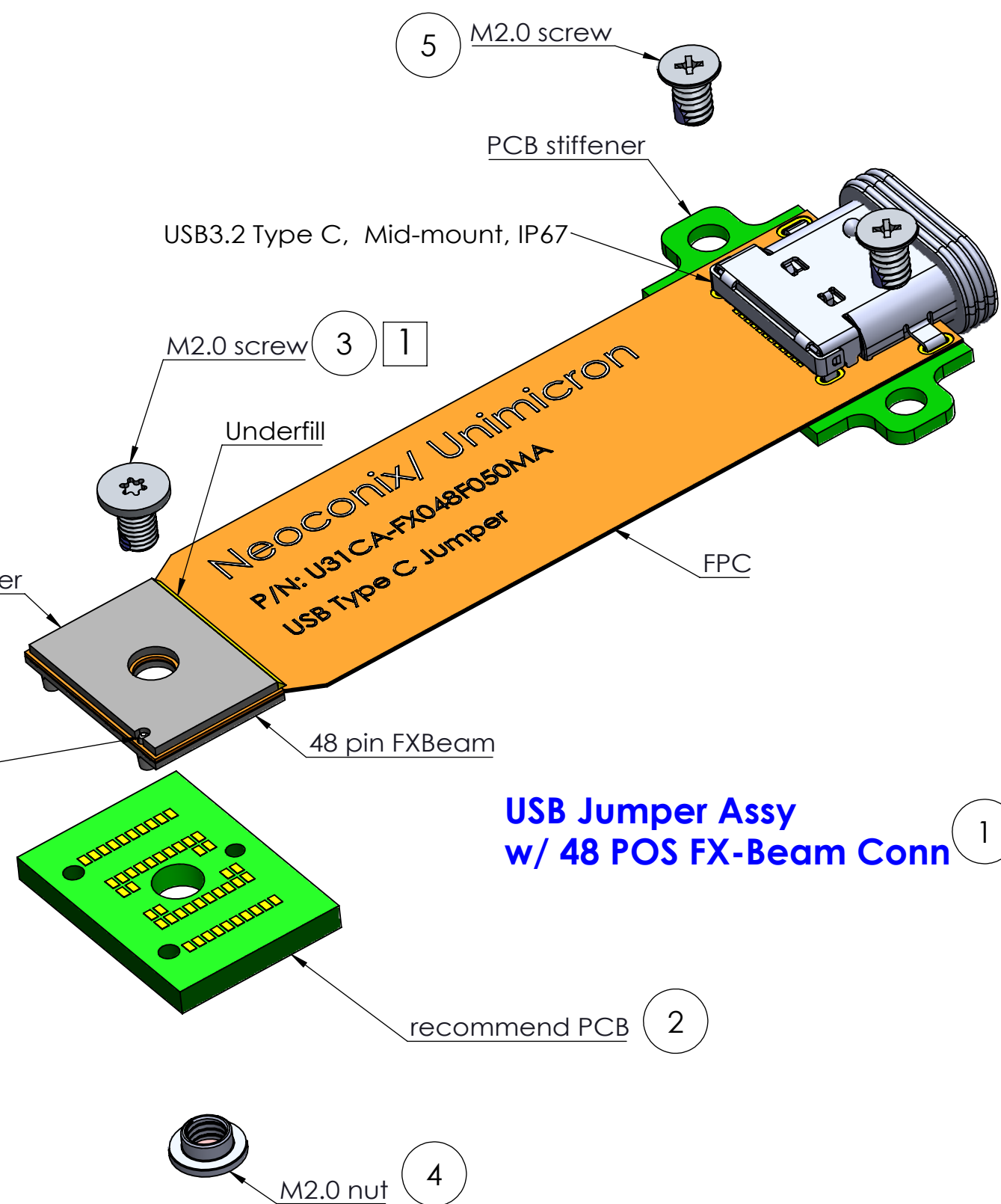
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Assembly-TOP view



Assembly-BOT view



USB Jumper Assy
w/ 48 POS FX-Beam Conn 1

Item	Description	Neoconix P/N	Qty Req'd per Assy	Comment
1	USB3 Type C FPC Jumper Assy	U31CA-FX048F050MA (Included)	1	
2	PCB	N/A – Customer supplied	1	See Page 3
3	Screw, M2.0 1	B01-000XXX (Included)	1	See Page 5
4	SMT Nut, M2.0	B01-0006XX (Included)	1	See Page 6
5	Pan Head Screw, M2.0	N/A – Customer supplied	2	

Notes: (unless otherwise specified)

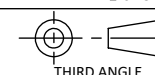
1. TORX T5 std. Neoconix offering. Consult Neoconix doc. AS-000023 for alt. screw options.



DIMENSIONS ARE IN
MM [INCH]
.X ± 0.13 [.005]
.XX ± 0.08 [.003]
.XXX ± 0.04 [.001]
ANGLE: NO DEC ± 1°
.X ± 0.5°
.XX ± 0.25°

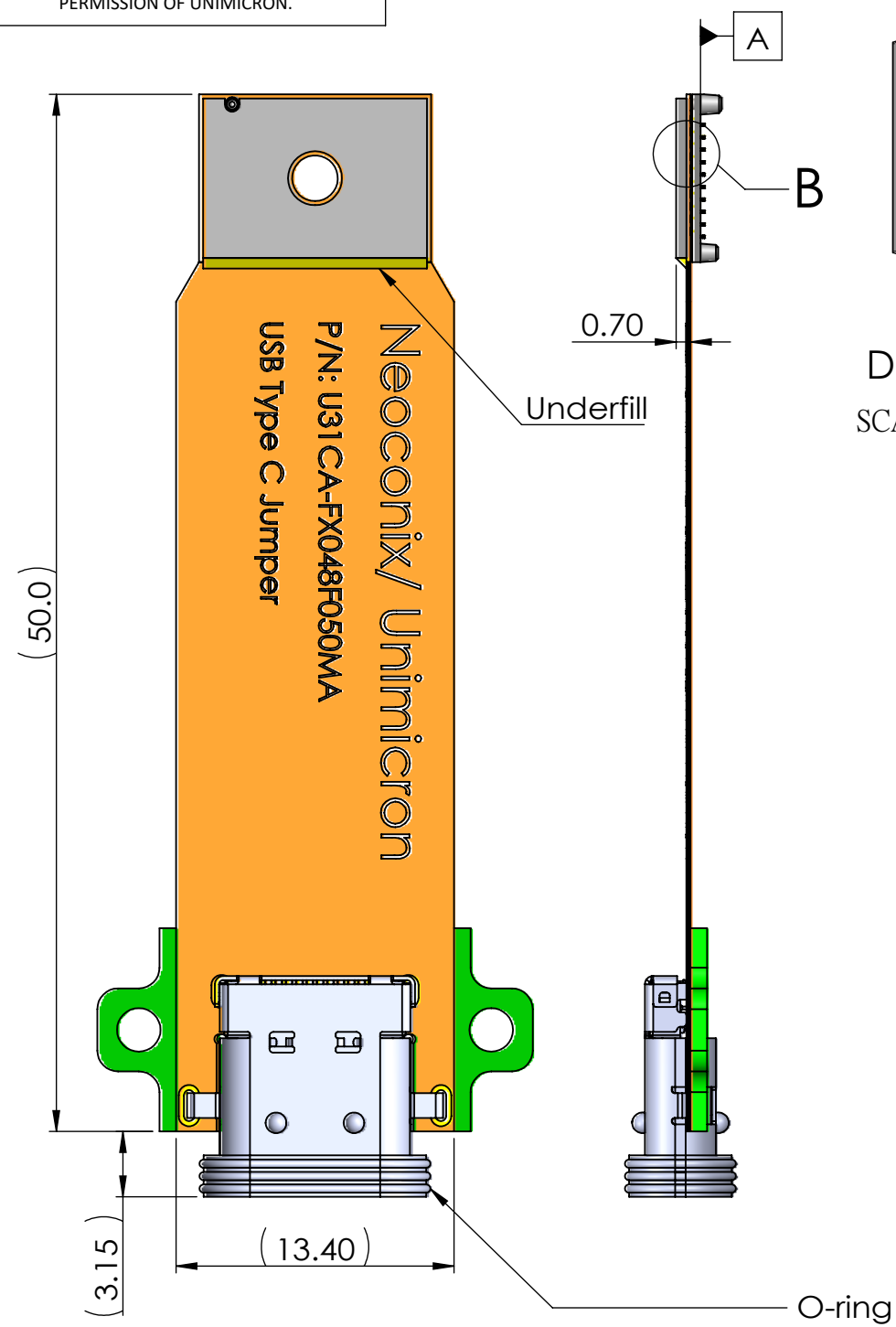
MATERIAL:
FINISH:
DRAWN BY: Winni Cheng 2021/05/28
CHECKED BY: Jason Wu 2021/05/28
ENGR APPR:
MFG APPR:
QA APPR:

TITLE:
USB 3.2 Type C Mid-Mount
Bridge 48 pin FXBeam
DWG. NO.:
U31CA-FX048F050MA
REV
8
SCALE: 2:1 SHEET 1 OF 6

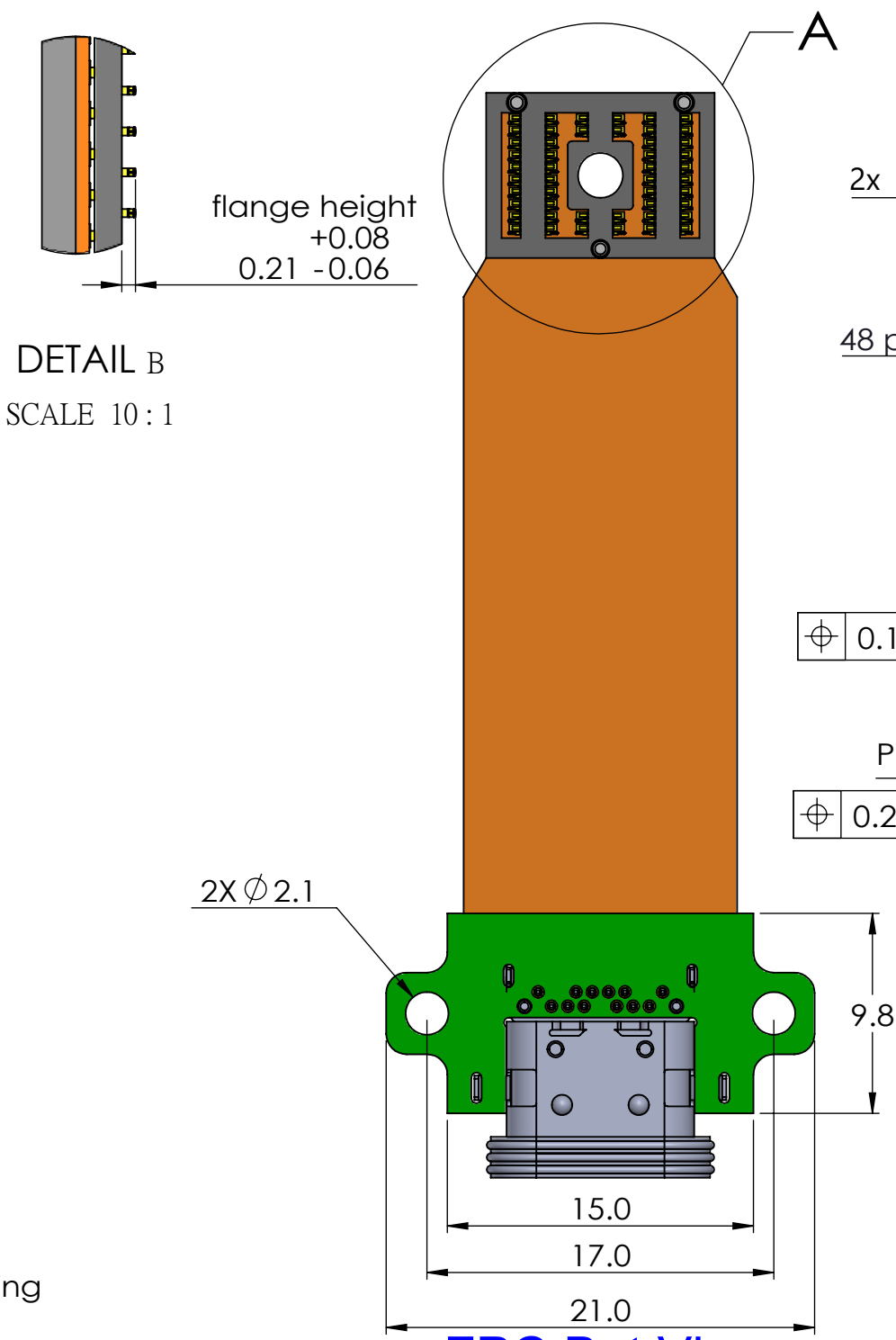


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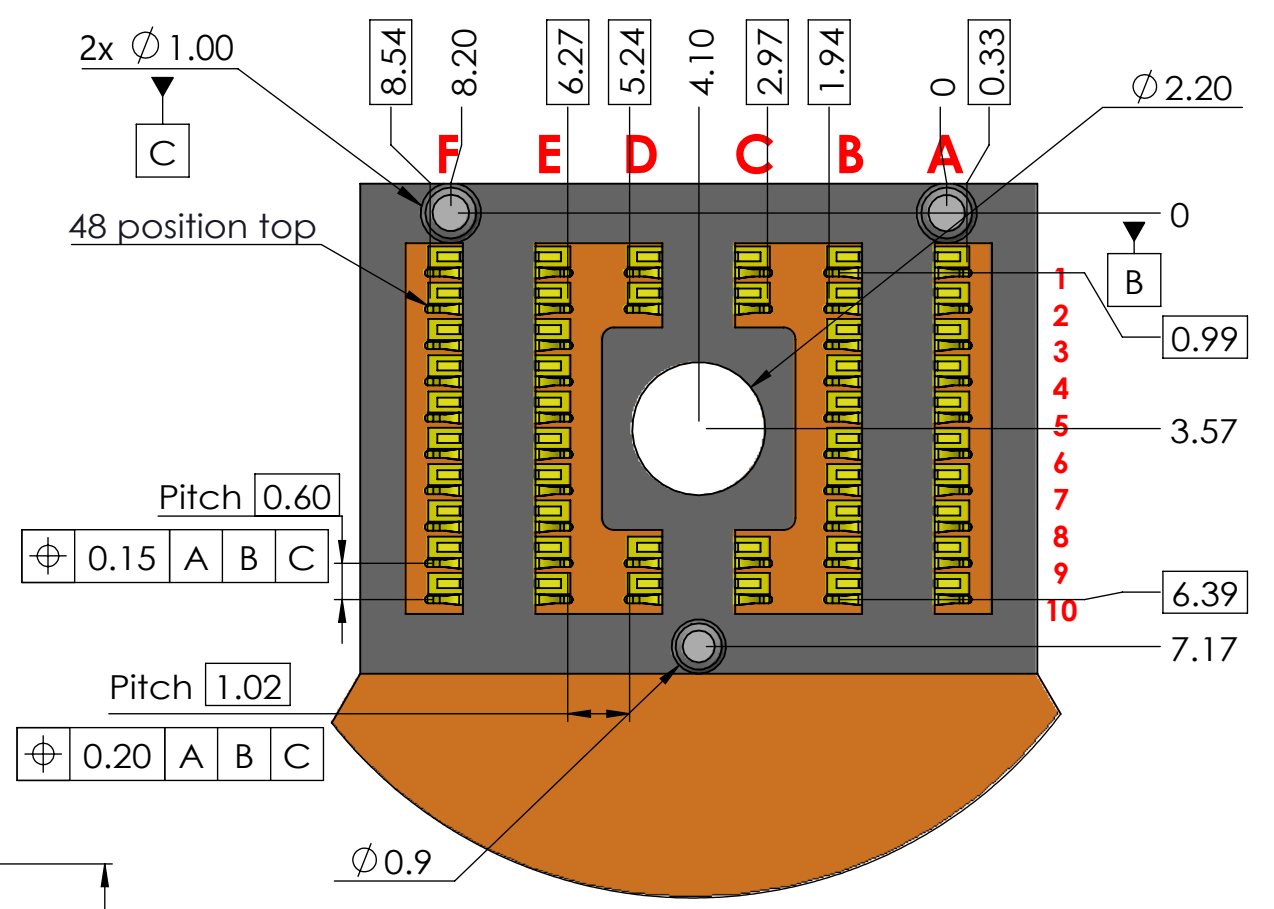
Revisions			
REV	ECN #	Description	Date
6		1. Add Ink stamp markings to the Flex 2. Add the reference stiffener size on page 2.	2021/02/23
7		Update the Ink typo on page 1.	2021/03/04
8		Update the screw type on X-Beam side	2020/05/28



FPC Top View



FPC Bot View



DETAIL A SCALE 8:1

Pin	Signal Name	Mating Sequence	Pin	Signal Name	Mating Sequence
A1	GND	First	B12	GND	First
A2	SSTXp1	Second	B11	SSRXp1	Second
A3	SSTXn1	Second	B10	SSRXn1	Second
A4	Vbus	First	B9	Vbus	First
A5	CC1	Second	B8	SBU2	Second
A6	Dp1	Second	B7	Dn2	Second
A7	Dn1	Second	B6	Dp2	Second
A8	SBU1	Second	B5	CC2	Second
A9	Vbus	First	B4	Vbus	First
A10	SSRXn2	Second	B3	SSTXn2	Second
A11	SSRXp2	Second	B2	SSTXp2	Second
A12	GND	First	B1	GND	First
SHELL	GND		SHELL	GND	

receptacle pin map

F	E	D	C	B	A	
GND	GND	GND	GND	GND	GND	1
CC2	VBUS	VBUS	VBUS	VBUS	SBU2	2
GND	VBUS			VBUS	GND	3
RX2-	VBUS			VBUS	TX1-	4
RX2+	VBUS			VBUS	TX1+	5
GND	GND			GND	GND	6
TX2-	GND			GND	RX1-	7
TX2+	SBU1			CC1	RX1+	8
GND	GND	D+	VBUS	GND	GND	9
SHIELD	GND	D-	VBUS	GND	SHIELD	10

FPC pin assignment

- NOTES:
- 5A power rating.
 - USB Connector with waterproof IP67 rated.
 - Hybrid, Mid-mount type receptacle connector with CH 0.29mm.
 - Reference pin map table for PCB assignment.

UMT P/N: FBGNCX007

DIMENSIONS ARE IN MM [INCH]

.X ± 0.13 [.005]

.XX ± 0.08 [.003]

.XXX ± 0.04 [.001]

ANGLE: NO DEC ± 1°

.X ± 0.5°

.XX ± 0.25°

MATERIAL:

FINISH:

DRAWN BY: Winni Cheng 2021/05/28

CHECKED BY: Jason Wu 2021/05/28

ENGR APPR:

MFG APPR:

QA APPR:

TITLE:

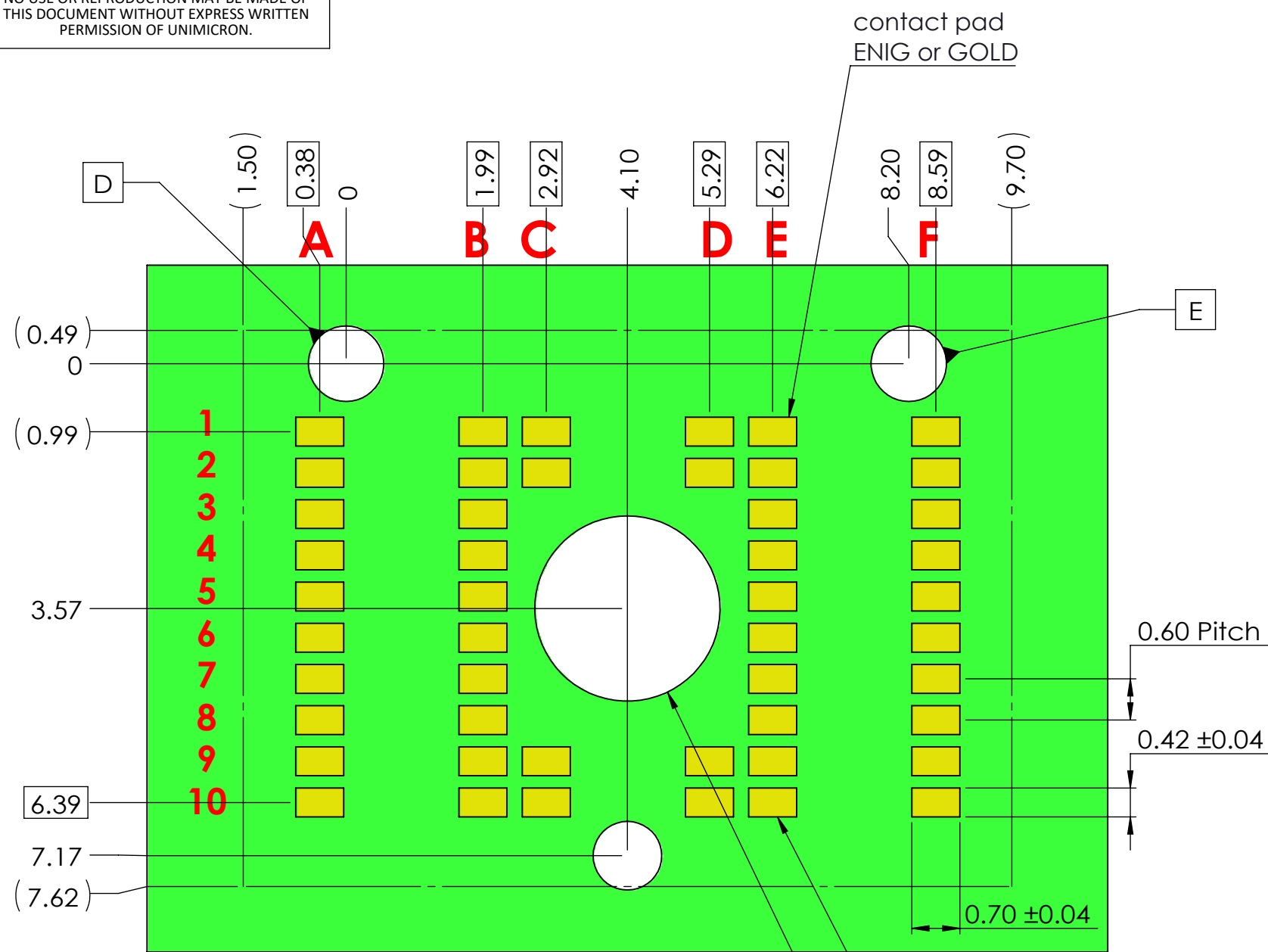
USB 3.2 Type C Mid-Mount Bridge 48 pin FXBeam

DWG. NO.: U31CA-FX048F050MA

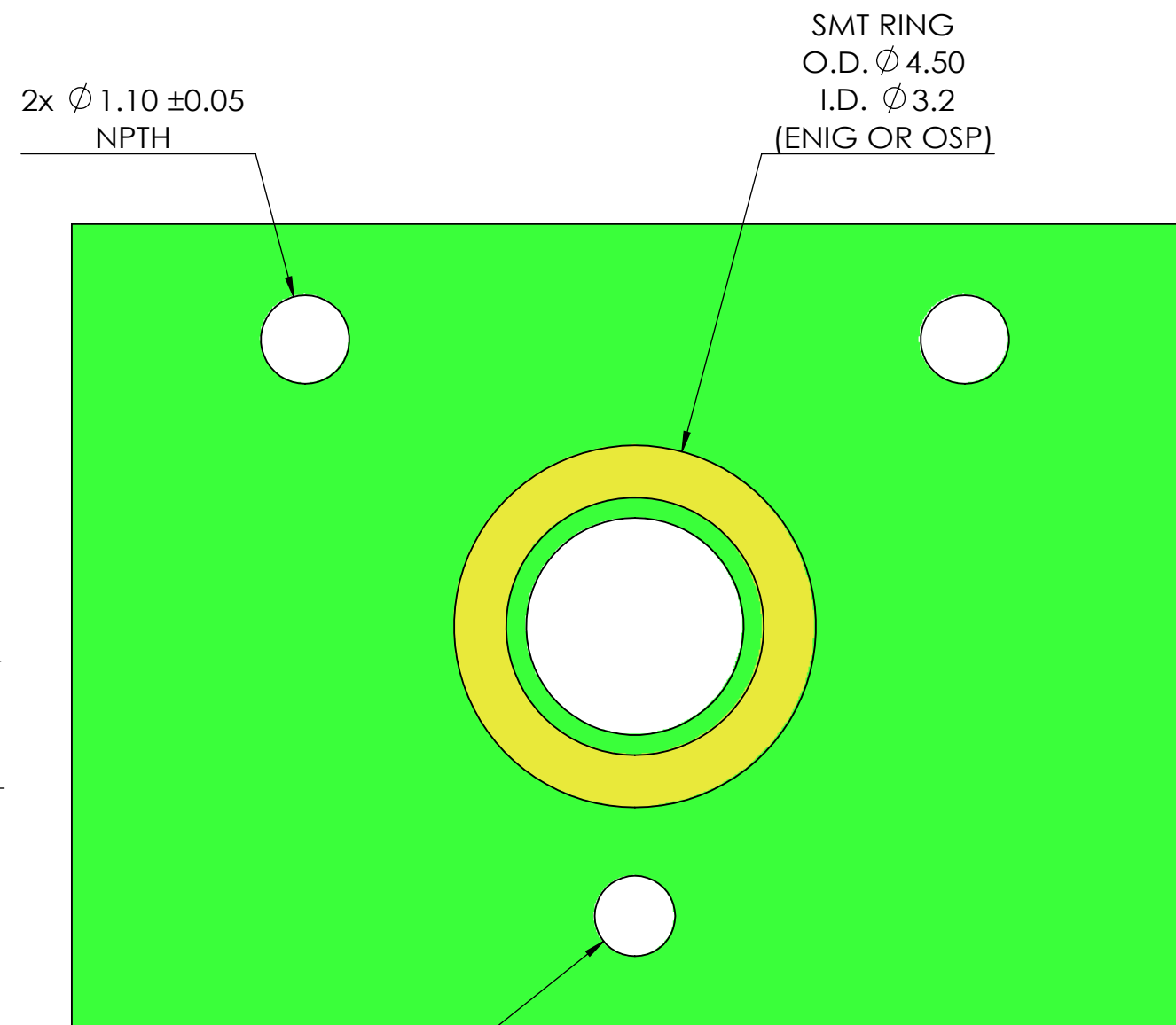
REV: 8

SCALE: 2:1 SHEET 2 OF 6

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Front side



Back side

	A	B	C	D	E	F
1	GND	GND	GND	GND	GND	GND
2	SBU2	VBUS	VBUS	VBUS	VBUS	CC2
3	GND	VBUS			VBUS	GND
4	TX1-	VBUS			VBUS	RX2-
5	TX1+	VBUS			VBUS	RX2+
6	GND	GND			GND	GND
7	RX1-	GND			GND	TX2-
8	RX1+	CC1			SBU1	TX2+
9	GND	GND	VBUS	D+	GND	GND
10	SHIELD	GND	VBUS	D-	GND	SHIELD

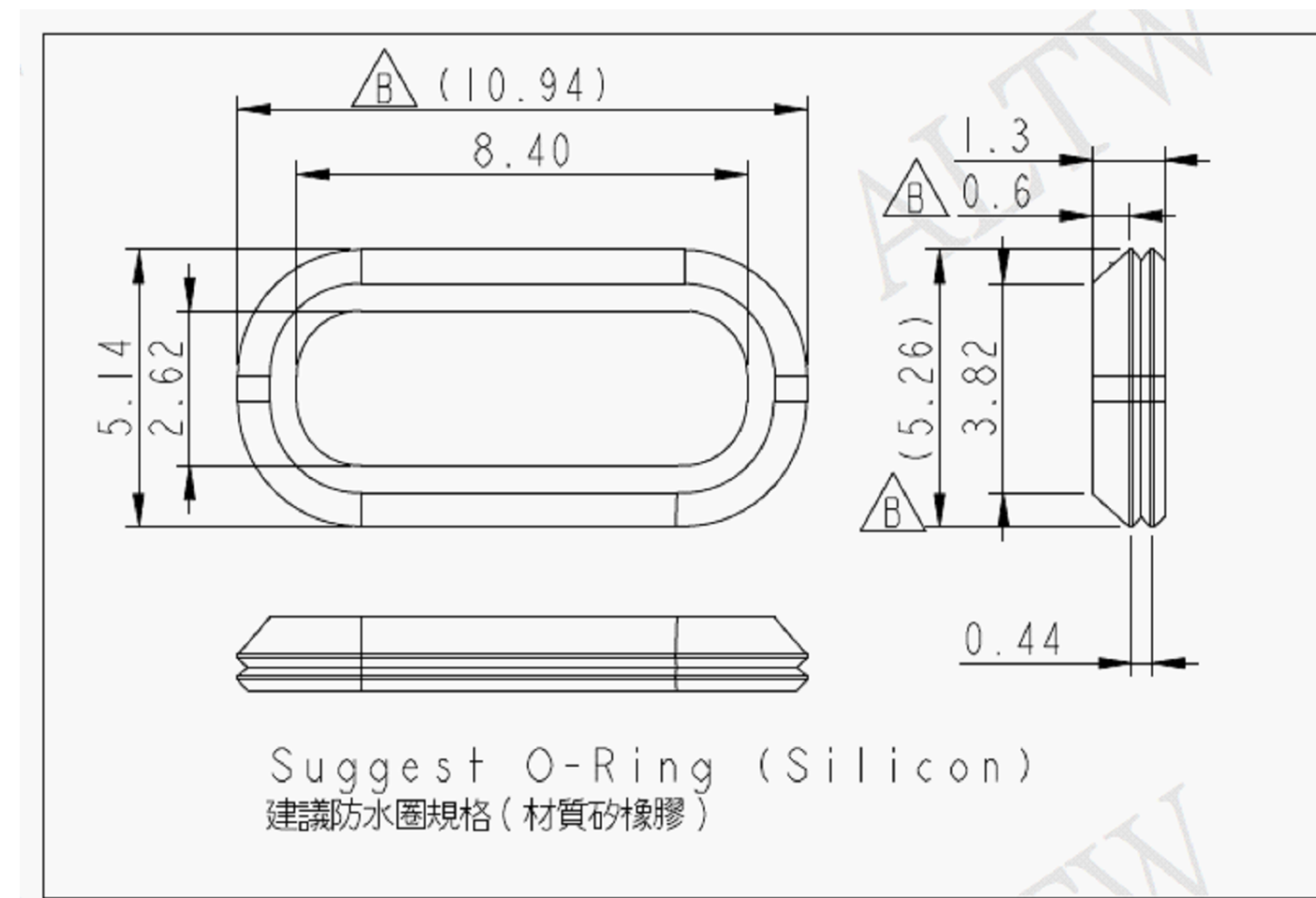
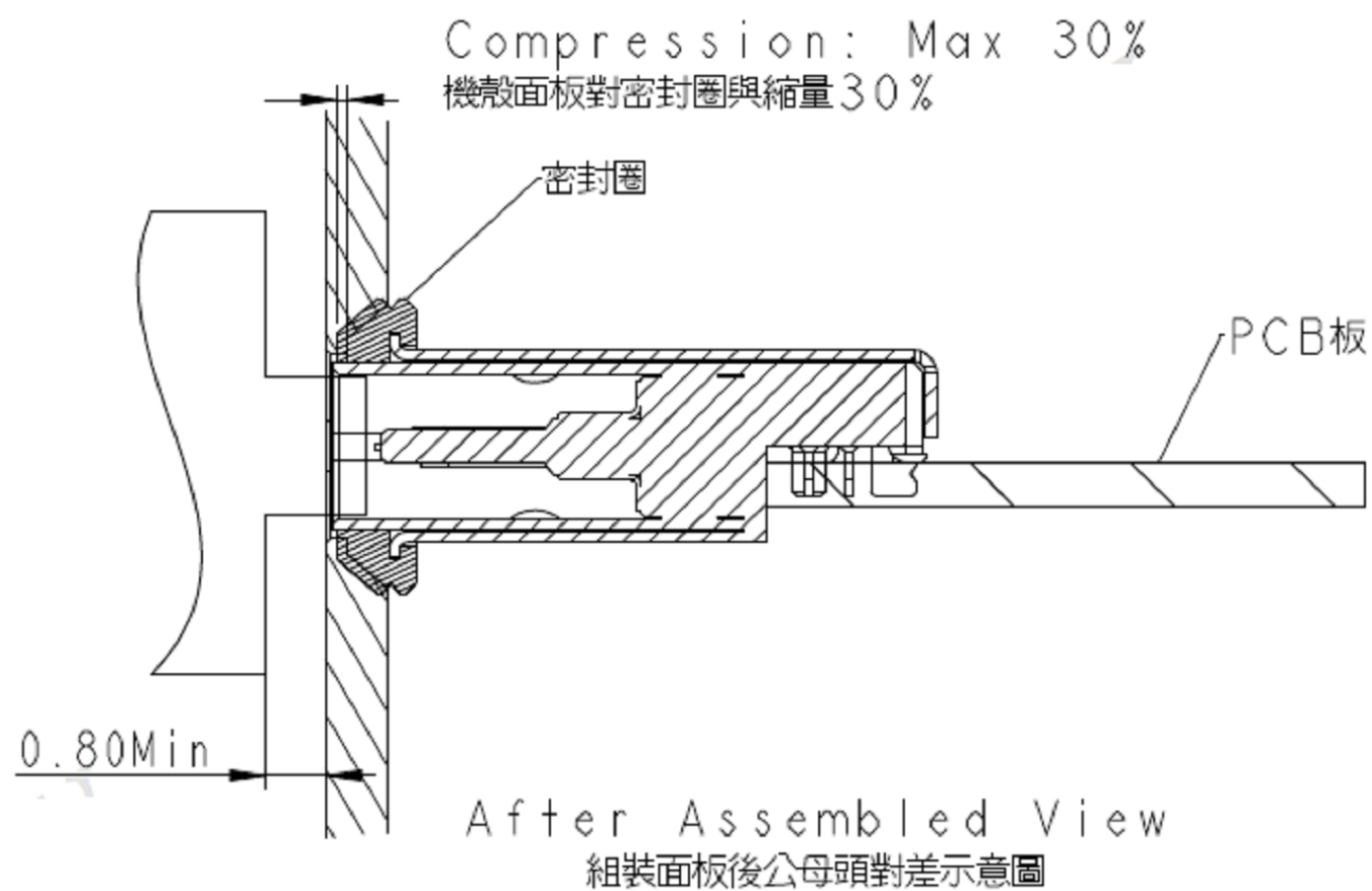
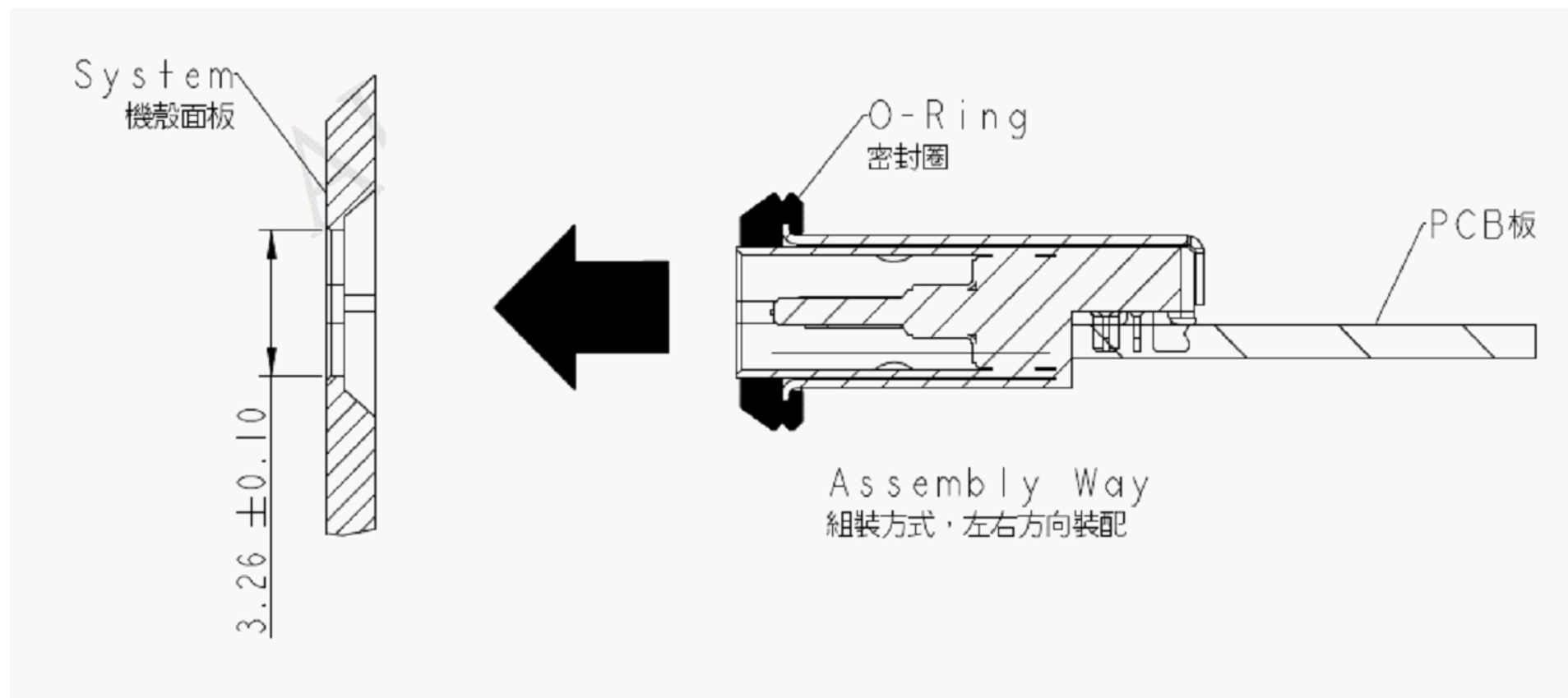
PCB pin assignment

Recommended PCB footprint

NOTES:

1. Solder mask opening 0.52mmx0.8mm min

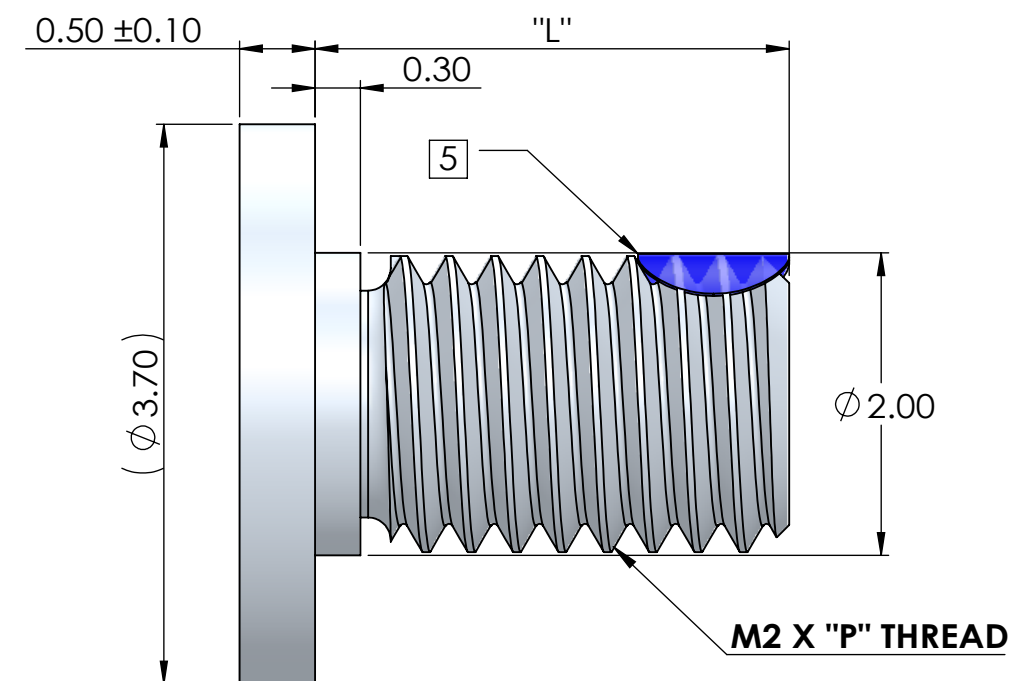
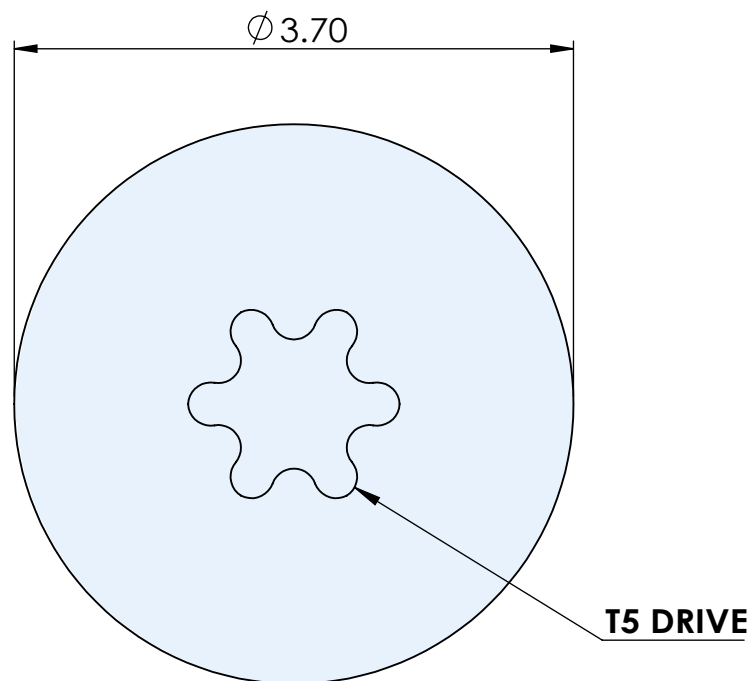
	DIMENSIONS ARE IN MM [INCH] .X ± 0.13 [.005] .XX ± 0.08 [.003] .XXX ± 0.04 [.001] ANGLE: NO DEC ± 1° .X ± 0.5° .XX ± 0.25°		MATERIAL: FINISH:		TITLE: USB 3.2 Type C Mid-Mount Bridge 48 pin FXBeam	
	DRAWN BY: Winni Cheng 2021/05/28		CHECKED BY: Jason Wu 2021/05/28		SIZE B+	DWG. NO.: U31CA-FX048F050MA
	ENGR APPR:		MFG APPR:		REV 8	
	QA APPR:		SCALE: 5:1		SHEET 3 OF 6	



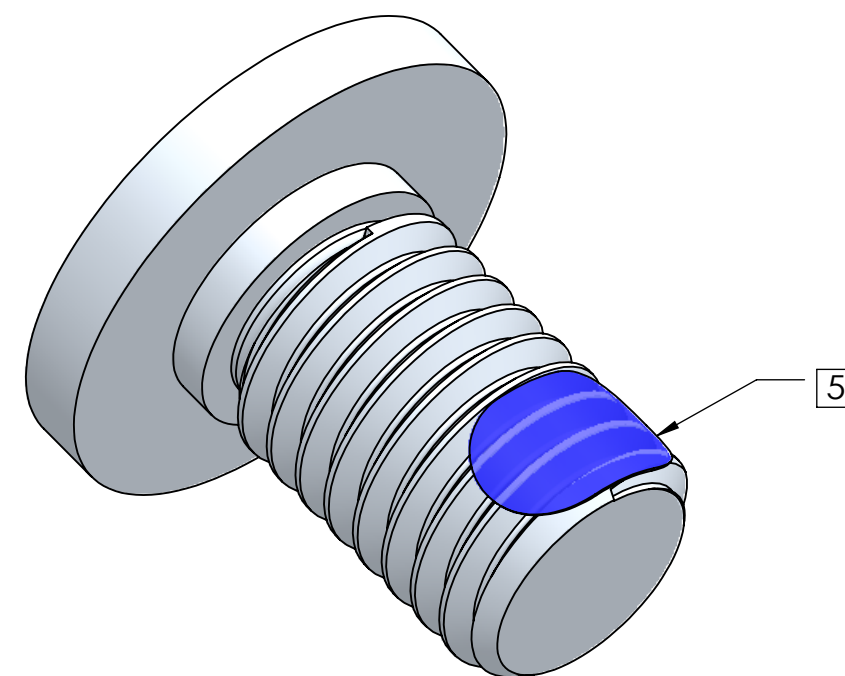
USB Manufacturer's Recommended Panel Cutout

PRELIMINARY

	DIMENSIONS ARE IN MM [INCH] .X ± 0.13 [.005] .XX ± 0.08 [.003] .XXX ± 0.04 [.001] ANGLE: NO DEC ± 1° .X ± 0.5° .XX ± 0.25°		MATERIAL: FINISH: DRAWN BY: Winni Cheng 2021/05/28 CHECKED BY: Jason Wu 2021/05/28 ENGR APPR: MFG APPR: QA APPR:		TITLE: USB 3.2 Type C Mid-Mount Bridge 48 pin FXBeam	
	THIRD ANGLE		SIZE: B+		DWG. NO.: U31CA-FX048F050MA REV: 8	
					SCALE: 20:1 SHEET 4 OF 6	



PCB Thickness (mm)	Screw P/N	"P" mm	"L" mm
0.6 – 1.0	B01-000799	0.25	2
1.0 – 1.6	B01-000800	0.40	3
1.6 – 2.6	B01-000801	0.40	4
2.6 – 4.0	B01-000802	0.40	5



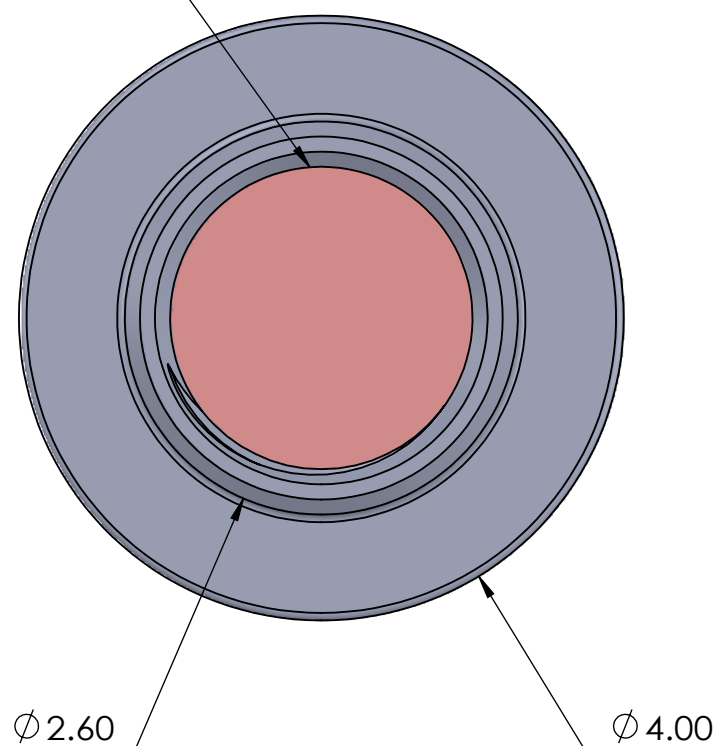
NOTES (UNLESS OTHERWISE SPECIFIED):

1. INTERPRET DRAWING PER ASME Y14.5-94.
2. COMPLIANT WITH RoHS DIRECTIVE 2011/65/EU.
3. **MATERIAL:** AISI 1018.
4. **FINISH:** BRIGHT NICKEL PER ASTM B689-97, TYPE 2, CLASS S.
5. **THREADLOCK:** NYLOK-BLUE, FIRST 2-3 WHOLE THREADS, 75°-150° COVERAGE.
6. SCREW FIT TOLERANCE DOES NOT INCLUDE THREADLOCK.
7. PART TO BE FREE OF BURRS AND SHARP EDGES.
8. TORX T5 std. Neoconix offering. Consult Neoconix document AS-000023 for alt. screw options.

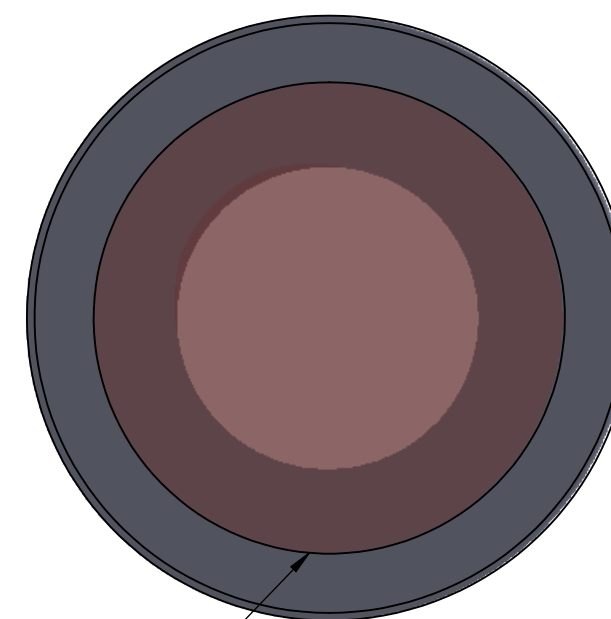
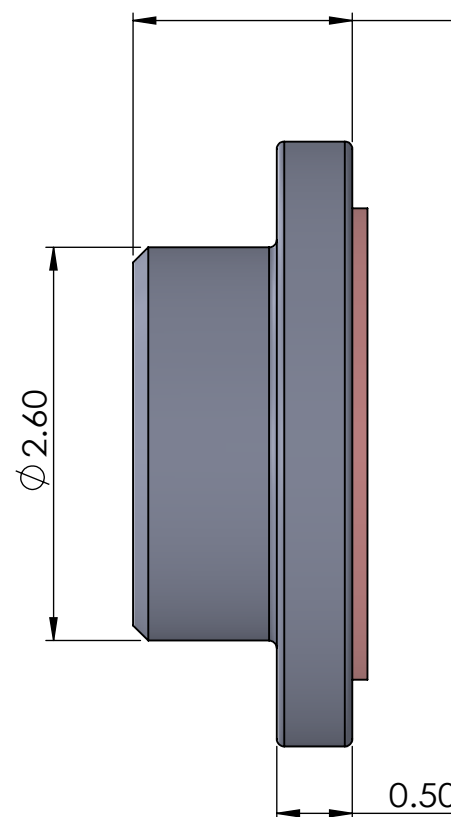
	DIMENSIONS ARE IN MM [INCH] .X ± 0.13 [.005] .XX ± 0.08 [.003] .XXX ± 0.04 [.001] ANGLE: NO DEC ± 1° .X ± 0.5° .XX ± 0.25°		MATERIAL: FINISH: DRAWN BY: Winni Cheng 2021/05/28 CHECKED BY: Jason Wu 2021/05/28 ENGR APPR: MFG APPR: QA APPR:		TITLE: USB 3.2 Type C Mid-Mount Bridge 48 pin FXBeam DWG. NO.: U31CA-FX048F050MA SCALE: 20:1 SHEET 5 OF 6	
	THIRD ANGLE		SIZE: B+		REV: 8	

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M2.0 X 0.40 THREAD



1.45 for PCB thickness > 1.0 mm
1.10 for PCB thickness 0.6 mm ~ 1.0 mm



ATTACH MYLAR ON BOTTOM SIDE FOR
PICK & PLACE

Part Number	Description	Length	PCB Thickness
		(mm)	(mm)
B01-000654	SMT Nut, M2.0 x 0.40 thread	1.1	0.6 – 1.0
B01-000633	SMT Nut, M2.0 x 0.25 thread	1.45	>1.0

NOTES:

1. MATERIAL:C54400-PHOSPHOR BRONZE
2. FINISH:BRIGHT NICKEL PER ASTM B689-97,TYPE 2,CLASS S
3. PART TO BE FREE OF BURRS AND SHARP EDGES.

	DIMENSIONS ARE IN MM [INCH]		MATERIAL:		TITLE:	
	.X ± 0.13 [.005]	✓	FINISH:		USB 3.2 Type C Mid-Mount Bridge 48 pin FXBeam	
	.XX ± 0.08 [.003]		DRAWN BY: Winni Cheng	2021/05/28	SIZE	DWG. NO.:
	.XXX ± 0.04 [.001]		CHECKED BY: Jason Wu	2021/05/28	B+	REV
ANGLE: NO DEC ± 1°				U31CA-FX048F050MA		8
.X ± 0.5°				SCALE: 20:1		SHEET 6 OF 6
.XX ± 0.25°						