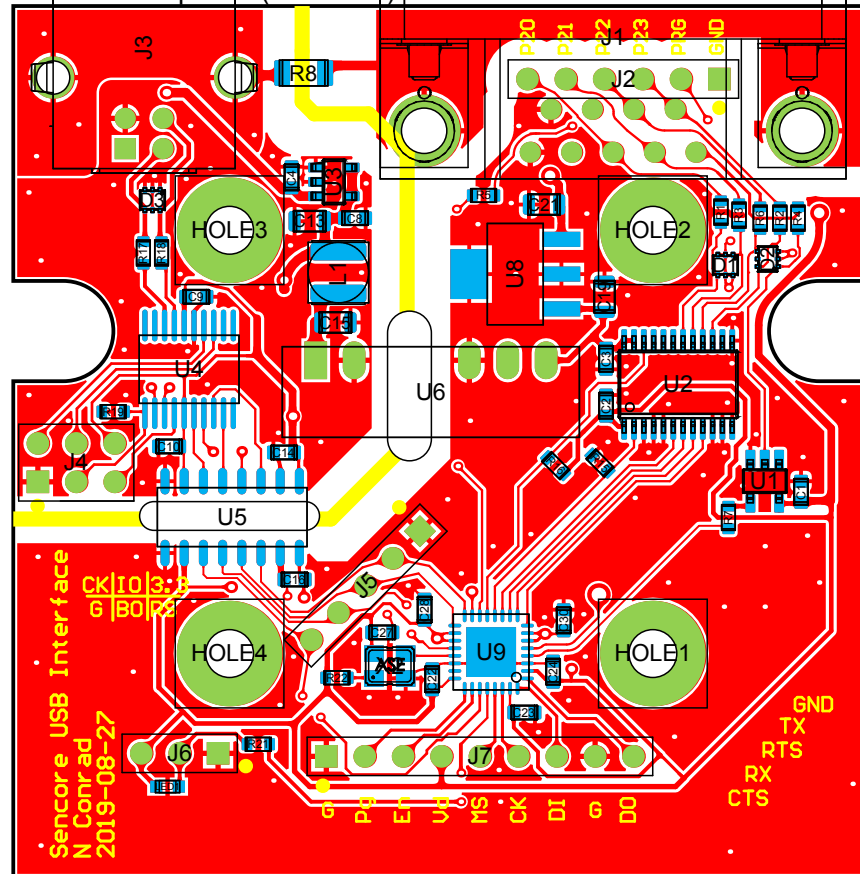


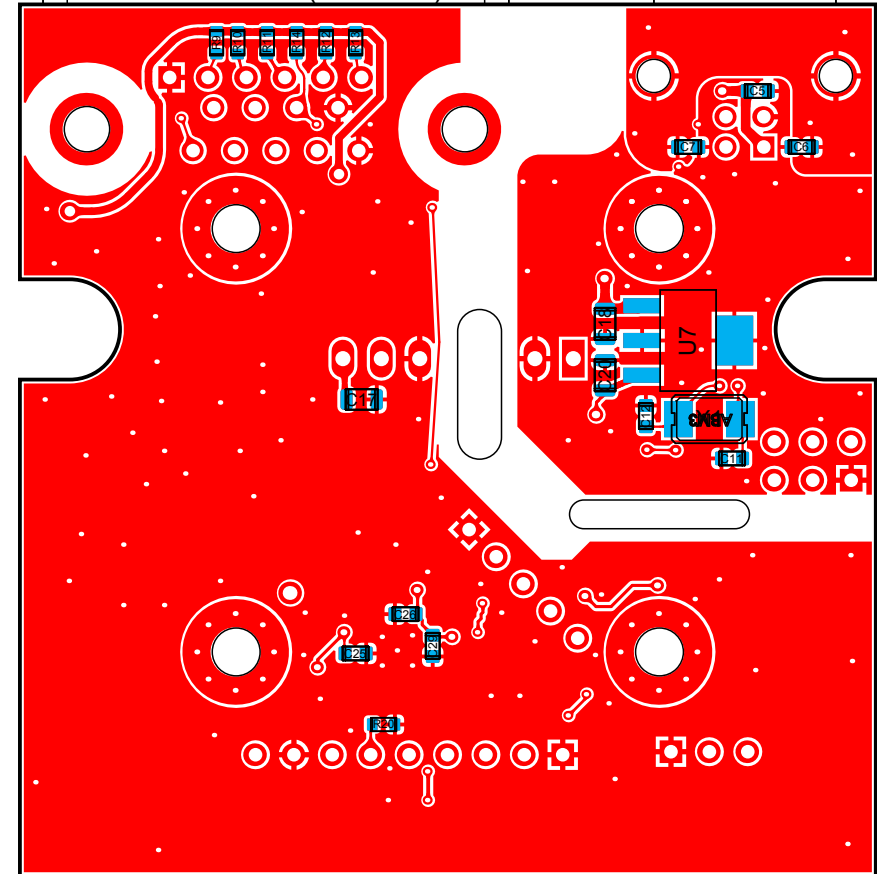
A

B

View from Top side (Scale 2:1)



View from Bottom side (Scale 2:1)



1

1

2

2

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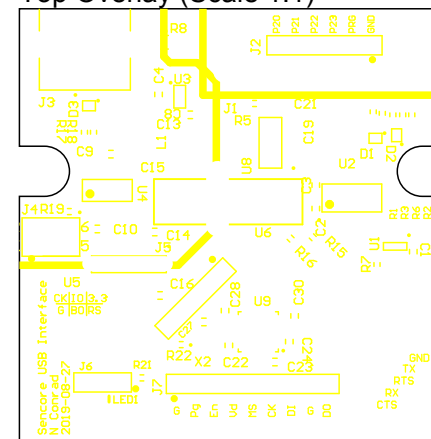
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		TOLERANCES:		CHECKED				
		FRACTIONAL ±		ENG APPR.				
		ANGULAR: MACH ± BEND ±		MFG APPR.				
		TWO PLACE DECIMAL ±		Q.A.				
		THREE PLACE DECIMAL ±		COMMENTS:		SIZE DWG. NO.		
		INTERPRET GEOMETRIC TOLERANCING PER:						
		MATERIAL				SCALE: 1:1 WEIGHT: SHEET 1 OF 8		
		FINISH						
	NEXT ASSY	USED ON						
	APPLICATION		DO NOT SCALE DRAWING					

A

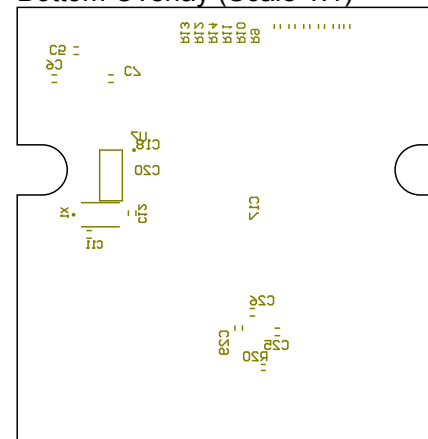
B

B

Top Overlay (Scale 1:1)



Bottom Overlay (Scale 1:1)



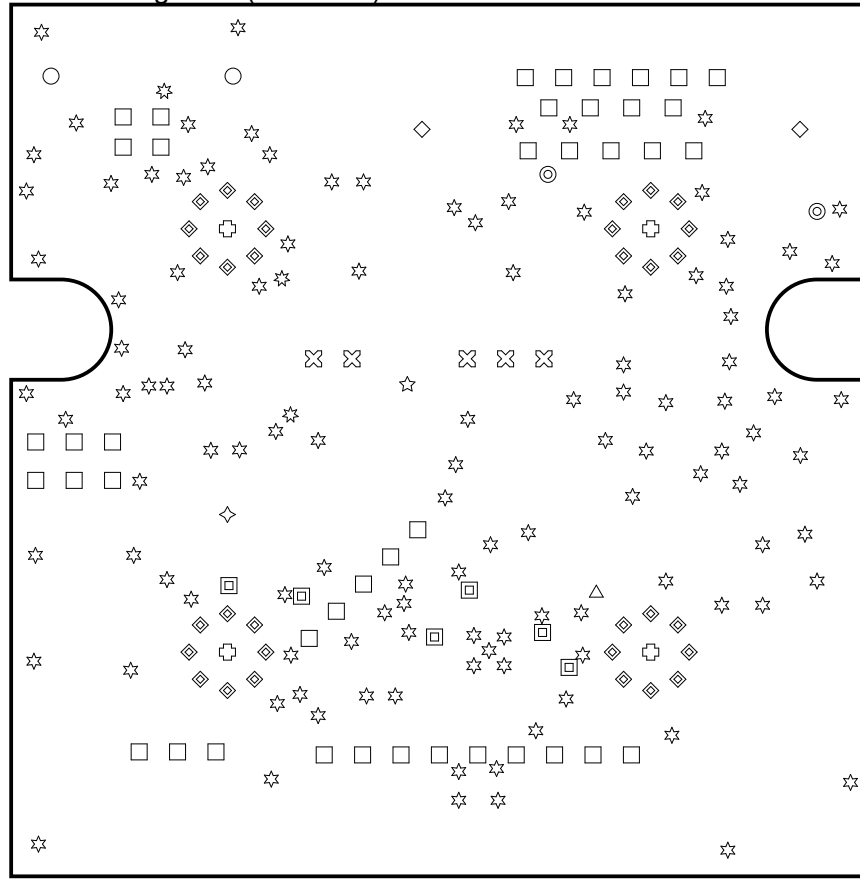
N Conrad			
TITLE			
Sencore USB IB Dwg			
SIZE	DWG. NO.		
SCALE: 1:1	WEIGHT:	SHEET 2 OF 8	

B

A

B

## Drill Drawing View (Scale 2:1)



Drill Table

Symbol	Count	Hole Size	Plated	Hole Type	Via / Pad	Hole Length
☆	116	0.30mm	Plated	Round	Via	
◇	32	0.33mm	Plated	Round	Via	
▣	6	0.40mm	Plated	Round	Via	
☆	3	0.50mm	Plated	Round	Via	
◎	2	0.70mm	Plated	Round	Via	
□	42	0.90mm	Plated	Round	Pad	
△	1	0.91mm	Plated	Round	Via	
⊗	5	1.00mm	Plated	Round	Pad	
◇	1	2.00mm	Non-Plated	Slot	Pad	12.00mm
○	2	2.30mm	Plated	Round	Pad	
☆	1	3.00mm	Non-Plated	Slot	Pad	10.00mm
◇	2	3.10mm	Plated	Round	Pad	
⊕	4	3.26mm	Plated	Round	Pad	
217 Total						

1

1

2

2

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		TWO PLACE DECIMAL ±		Q.A.				
		THREE PLACE DECIMAL ±		COMMENTS:			SIZE	
		INTERPRET GEOMETRIC TOLERANCING PER:					DWG. NO.	
		MATERIAL						
		FINISH						
	NEXT ASSY	USED ON						
	APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:1	WEIGHT:
							SHEET 3 OF 8	

A

B

A

B

## Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.01mm	Solder Resist	Solder Mask	GTS
Copper	Top Layer	0.04mm		Signal	GTL
		1.20mm	FR-4	Dielectric	
Copper	Bottom Layer	0.04mm		Signal	GBL
Surface Material	Bottom Solder	0.01mm	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO
Total thickness: 1.29mm					

1

1

2

2

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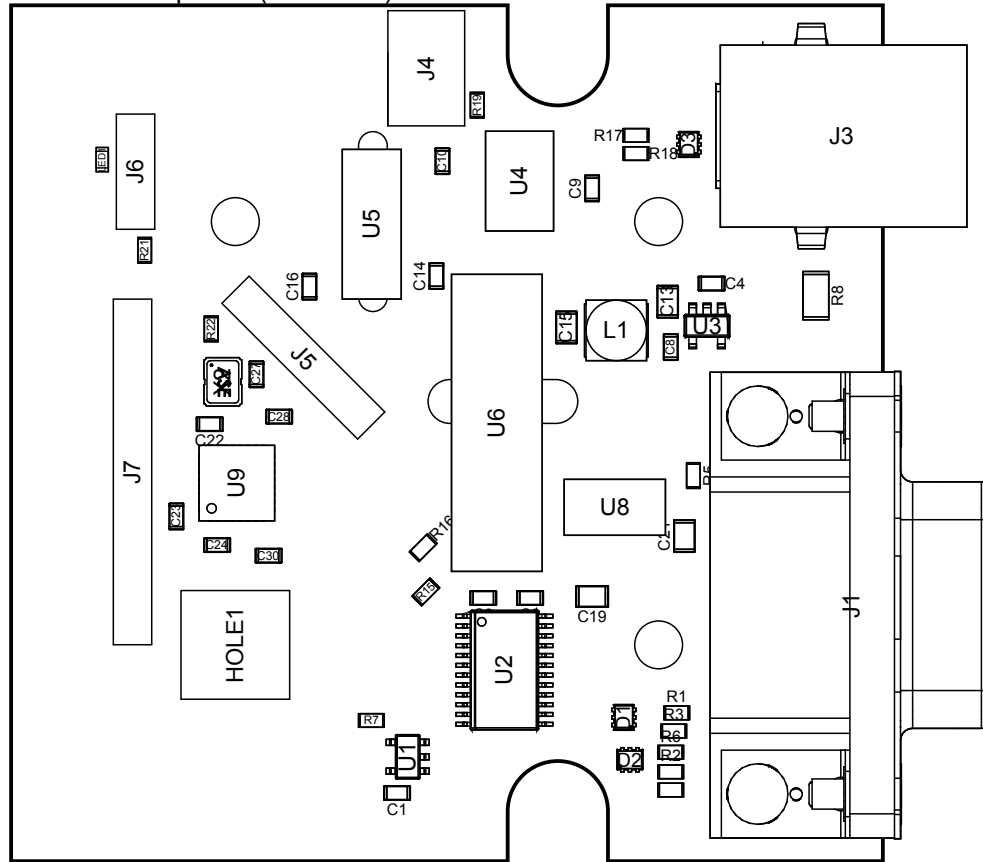
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		TOLERANCES:	CHECKED					
		FRACTIONAL ±	ENG APPR.					
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		TWO PLACE DECIMAL ±	Q.A.					
		THREE PLACE DECIMAL ±	COMMENTS:			SIZE	DWG. NO.	
		INTERPRET GEOMETRIC TOLERANCING PER:						
		MATERIAL						
		FINISH						
NEXT ASSY	USED ON	DO NOT SCALE DRAWING				SCALE: 1:1	WEIGHT:	SHEET 4 OF 8
APPLICATION								

A

B

View from Top side (Scale 2:1)



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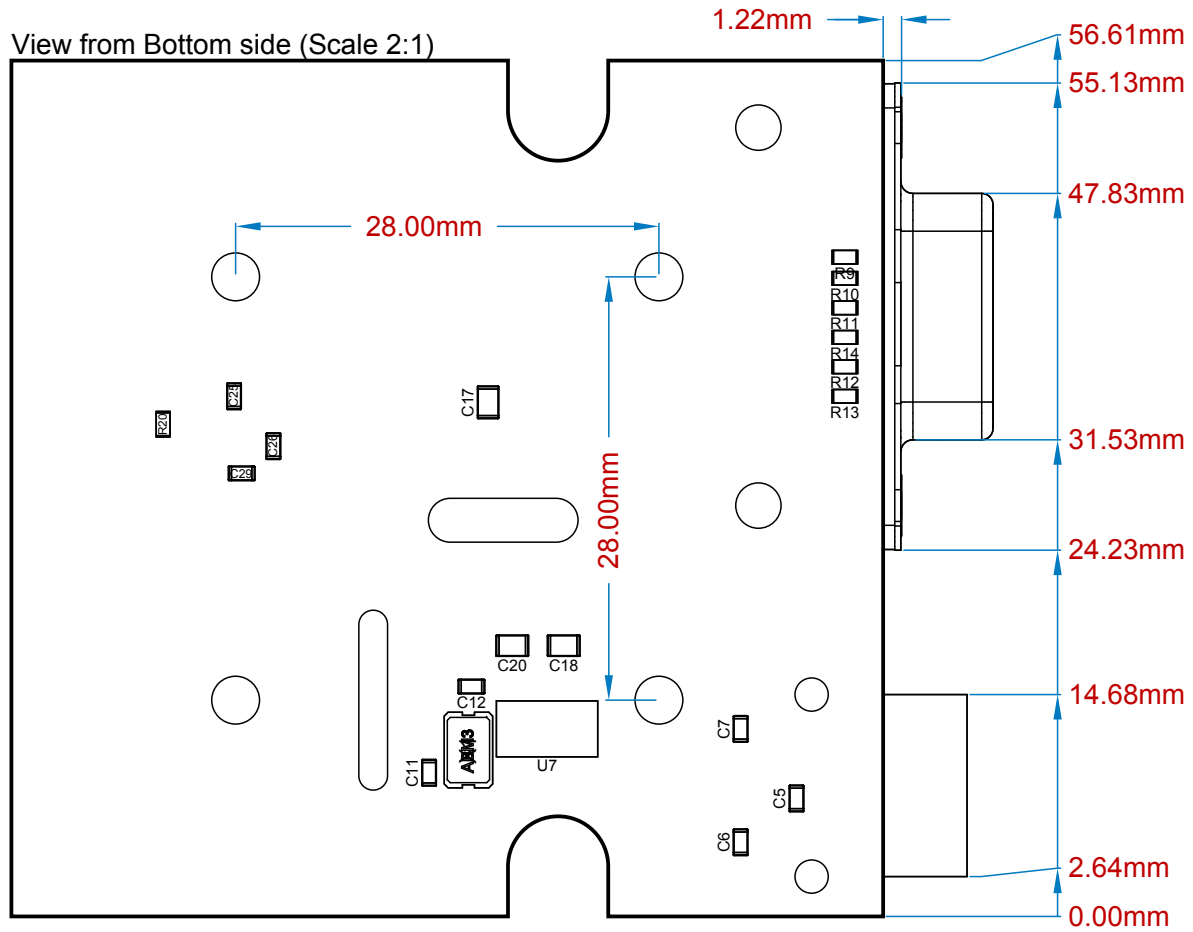
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			DIMENSIONS ARE IN INCHES		DRAWN	8/27/2019	TITLE		
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			INTERPRET GEOMETRIC TOLERANCING PER:						
	NEXT ASSY	USED ON	MATERIAL						
			FINISH				SCALE: 1:1	WEIGHT:	SHEET 5 OF 8
	APPLICATION		DO NOT SCALE DRAWING						

A

B

View from Bottom side (Scale 2:1)



1

1

2

2

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		INTERPRET GEOMETRIC TOLERANCING PER:				SIZE	DWG. NO.	
		MATERIAL						
		FINISH						
	NEXT ASSY	USED ON				SCALE: 1:1	WEIGHT:	SHEET 6 OF 8
	APPLICATION		DO NOT SCALE DRAWING					

A

B

A

B

## Bill Of Materials

Line #	Designator	Quantity	Manufacturer 1	Manufacturer Part Number 1	Description
1	C1-C3, C5-C7, C9-C12, C14, C16, C22-C30	21	Murata	GCJ188R71H104KA12D	CAP CER 0.1UF 50V X7R 0603
2	C4, C8	2	Murata	GCM188R71E105KA64D	CAP CER 1UF 25V X7R 0603
3	C13, C15, C18-C21	6	Murata	GCM21BC71E475KE36L	CAP CER 4.7UF 25V X7S 0805
4	C17	1	Murata	GCM21BR71A106KE22K	CAP CER 10UF 10V X7R 0805
5	D1-D3	3	Littelfuse	SP1001-05XTG	TVS DIODE 5.5VWM 13VC SOT563
6	J1	1	Amphenol ICC	D09S33E6GX00LF	Conn D-Subminiature SKT 9 POS 2.74mm Solder RA Thru-Hole 9 Terminal 1 Port
7	J2	1			Header, 6-Pin
8	J3	1	Samtec	USBR-B-S-F-O-TH	Conn USB F 4 POS 2.5mm Solder RA Thru-Hole 4 Terminal 1 Port Tray
9	J4	1			Header, 3-Pin, Dual row
10	J5	1			Header, 5-Pin
11	J6	1			Header, 3-Pin
12	J7	1			Header, 9-Pin
13	L1	1	Taiyo Yuden	NRS4018T6R8MDGJ	FIXED IND 6.8UH 1.45A 117.6 MOHM
14	LED1	1	Everlight	19-21SURC/S530-A2/TR8	LED Uni-Color Red, 62.5 mW, 5 V, -30 to 85 degC, 2-Pin SMD, RoHS, Tape and Reel
15	R1-R7	7	Yageo	RC0603JR-0733RL	RES SMD 33 OHM 5% 1/10W 0603
16	R8	1	Yageo Phycomp	RC1206FR-074K7L	RES SMD 4.7K OHM 1% 1/4W 1206
17	R9-R16, R19	9	Yageo	RC0603JR-07100KL	RES SMD 100K OHM 5% 1/10W 0603
18	R17, R18, R22	3	Yageo	RC0603JR-070RL	RES SMD 0 OHM JUMPER 1/10W 0603
19	R20, R21	2	Yageo	RC0603JR-074K7L	RES SMD 4.7K OHM 5% 1/10W 0603
20	U1	1	Texas Instruments	SN74LVC1G34DBVR	Single Buffer Gate, DBV0005A, LARGE T&R
21	U2	1	Texas Instruments	SN74LVC8T245PWR	IC TRNSLTR BIDIRECTIONAL 24TSSOP
22	U3	1	ON Semiconductor	NCP361SNT1G	IC USB POS OVP/OCF 5TSOP
23	U4	1	STMicroelectronics	STM32F042F4P6	ARM Cortex-M0 32-bit MCU, 16 KB Flash, 6 KB Internal RAM, 16 I/Os, 20-Pin TSSOP, -40 to 85 degC, Tray
24	U5	1	Silicon Labs	SI8642EC-B-IS1	Low-Power Quad-Channel Digital Isolator, 150 Mbps, 3.75 kVRMS Isolation Rating, -40 to 125 degC, 16-pin SOIC
25	U6	1	CUI	PEME1-S5-S5-S	5 Vdc, 0.2 A, 1 W, 4.5 ~ 5.5 Vdc Input Range
26	U7, U8	2	Microchip	MCP1703T-3302E/DB	250 mA, 16V, Low Quiescent Current LDO Regulator, 3-Pin SOT-223, Extended Temperature, Tape and Reel
27	U9	1	Lattice Semiconductor	LCMXO2-256HC-4SG32C	IC FPGA 21 I/O 32QFN
	X1	1	Abrakon	ABM3-8.000MHZ-D2Y-T	Miniature Ceramic Crystal, 8 MHz, -40 to 85 degC, 2-Pin SMD, RoHS, Tape and Reel
28	X2	1	Seiko	Q33310F70055100	CMOS Crystal Oscillator, 3.3 V, 25 MHz, +/- 50 ppm, -40 to 85 degC, 4-Pin SMD, RoHS, Tape and Reel

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TWO PLACE DECIMAL ±

THREE PLACE DECIMAL ±

INTERPRET GEOMETRIC

TOLERANCING PER:

MATERIAL

FINISH

NEXT ASSY

USED ON

APPLICATION

DO NOT SCALE DRAWING

MFG APPR.

Q.A.

COMMENTS:

SIZE

DWG. NO.

SCALE:

1:1

WEIGHT:

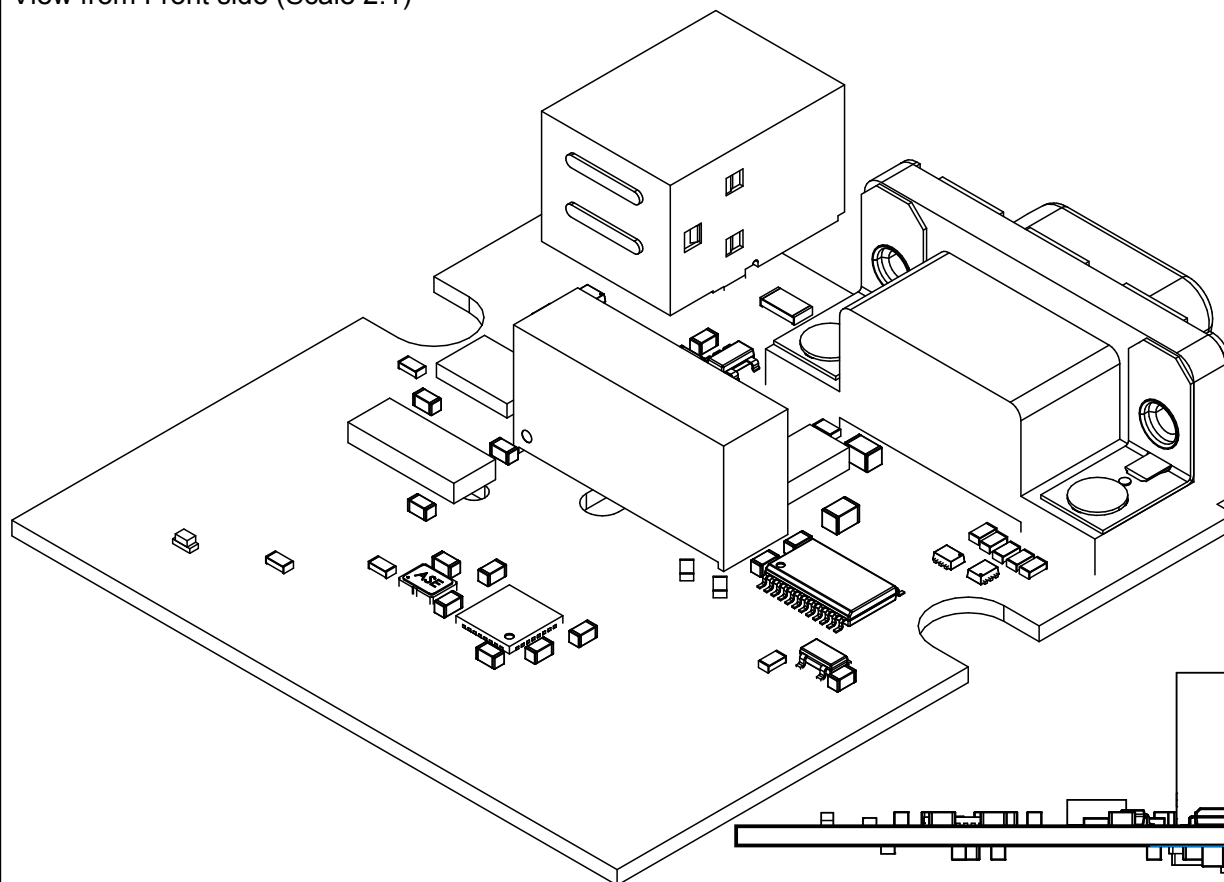
SHEET 7 OF 8

Sencore USB IB Dwg

A

B

View from Front side (Scale 2:1)



11.48mm

12.27mm

11.52mm

3.63mm

1.57mm

1.27mm

0.00mm

View from Right side (Scale 2:1)

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		MATERIAL						
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:1	WEIGHT:	SHEET 8 OF 8