

A

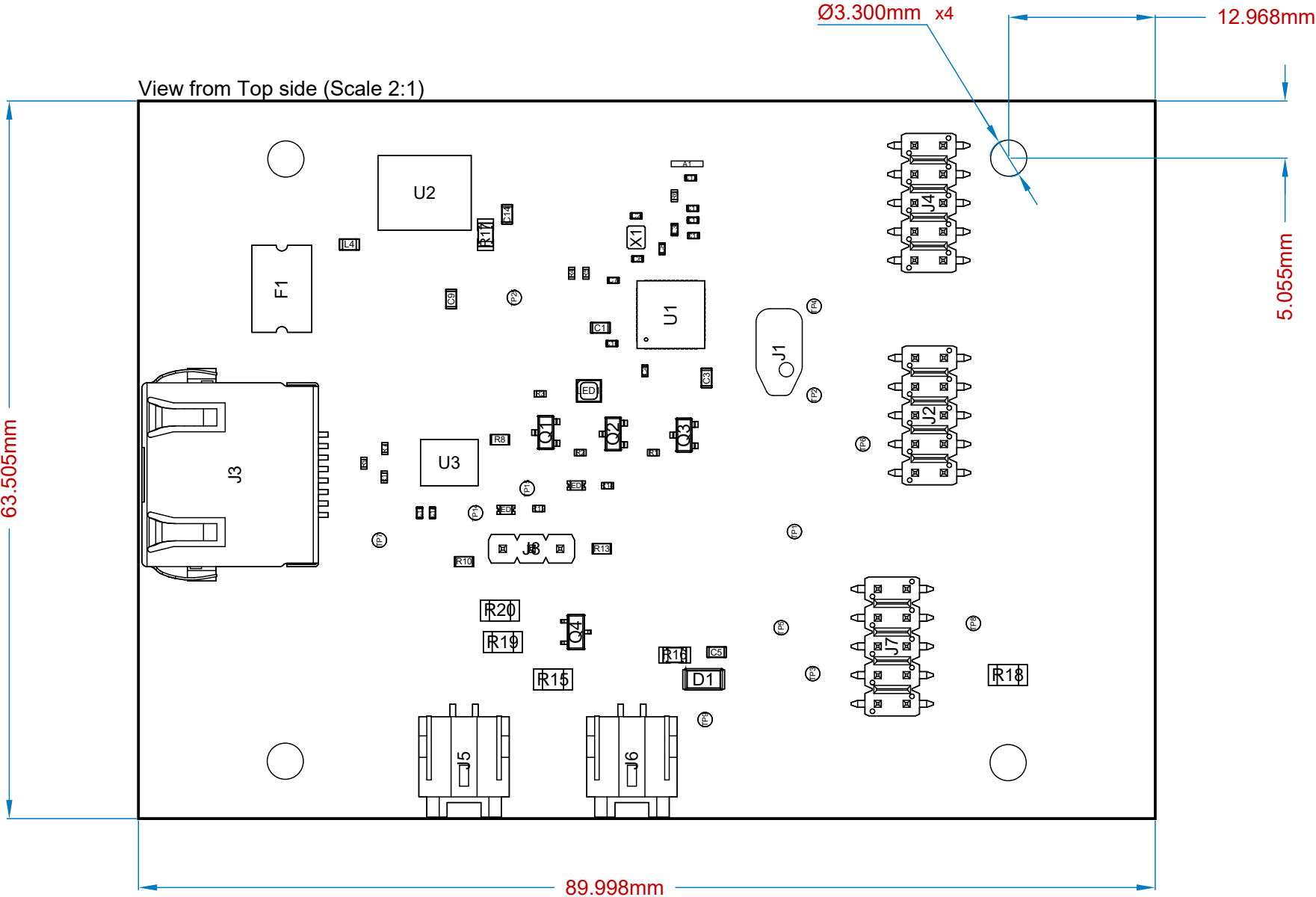
B

C

D

REV	Description	Date	Appr
1.0	1. Initial release	3/14/2023	FKA

View from Top side (Scale 2:1)



- Notes: (All Dimensions are in mm)
- 1. All dimensional tolerances per IPC-2615
  - 2. All boards to be cleaned, inspected, and date stamped
  - 3. Workmanship to be equal to and compliant with the requirements of IPC-A-610
  - 4. This assembly contains electrostatic discharge (ESD) sensitive devices; static-free handling is required per MIL-STD-1686, class 2
  - 5. Conformal coating is not required.
  - 6. Boards to be electrical tested per IPC- 9252 and marked or stamped to show that the board passed.
  - 7. Board should be RoHs compliant .

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	ROMTech			
		DIMENSIONS ARE IN mm	DRAWN		3/15/2023	TITLE  SBC_TO_MC2_ PCB			
		TOLERANCES:	CHECKED						
		FRACTIONAL±	ENG APPR.						
		ANGULAR: MACH±    BEND ±	MFG APPR.						
		TWO PLACE DECIMAL   ±							
		THREE PLACE DECIMAL   ±							
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.			COMMENTS:			
		MATERIAL							
NEXT ASSY	USED ON	FINISH				SIZE	DWG. NO.  16515-200		Rev  1
APPLICATION		DO NOT SCALE DRAWING				SCALE:	1:1	WEIGHT:	SHEET 1 OF 4

A

B

C

D

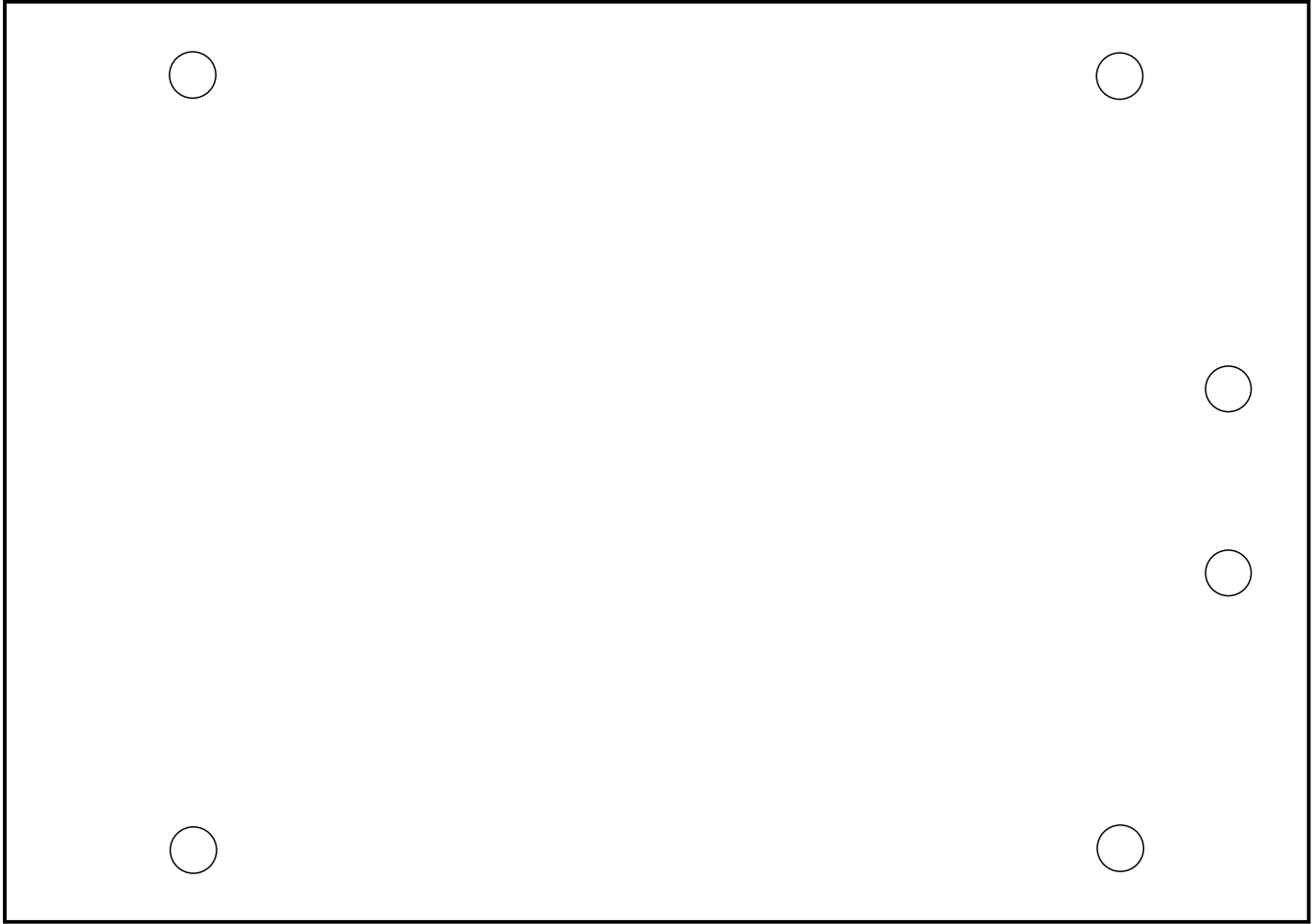
A

B

C

D

View from Bottom side (Scale 2:1)



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		ANGULAR: MACH± BEND ±	MFG APPR.					
		TWO PLACE DECIMAL ±				SIZE DWG. NO. 16515-200 Rev 1		
		THREE PLACE DECIMAL ±						
		INTERPRET GEOMETRIC TOLERANCING PER:						
		MATERIAL	COMMENTS:					
NEXT ASSY	USED ON	FINISH						
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:1	WEIGHT:	SHEET 2 OF 4

A

B

C

D

1

Bill Of Materials

Line #	Designator	Name	Quantity	Manufacturer 1	Manufacturer Part Number 1	Description
1	C1	1.0uF	1	Samsung	CL10A105KQ8NNNC	1µF ±10% 6.3V Ceramic Capacitor X5R 0603 (1608 Metric)
2	C2, C6	12pF	2	Murata	GRM1555C1E120JA01D	12pF ±5% 25V Ceramic Capacitor C0G, NP0 0402 (1005 Metric)
3	C3, C9	4.7uF	2	Murata	GRM188R6YA475KE15D	4.7µF ±10% 35V Ceramic Capacitor X5R 0603 (1608 Metric)
4	C4, C7, C16	0.1uF	3	Yageo	CC0402KRX5R9BB104	0.1µF ±10% 50V Ceramic Capacitor X5R 0402 (1005 Metric)
5	C5, C14	100pF	2	Murata	GRM1885C1H101GA01D	Non-polarized Capactior
6	C8	100pF	1	Kyocera AVX	04025A101FAT2A	100pF ±1% 50V Ceramic Capacitor C0G, NP0 0402 (1005 Metric)
7	C10	0.8pF	1	Murata	GRM1555C1HR80CA01D	0.8pF ±0.25pF 50V Ceramic Capacitor C0G, NP0 0402 (1005 Metric)
8	C17	4.7uF	1	Murata	GRM155R60J475ME87D	MURATA - GRM155R60J475ME87D - SMD Multilayer Ceramic Capacitor, 4.7 µF, 6.3 V, 0402 [1005 Metric], ± 20%, X5R, GRM Series
9	C18	1uF	1	Samsung	CL05A105KP5NNNC	CAP CER 1UF 10V X5R 0402
10	D1	BZT52C12-13-F	1	Diodes	BZT52C12-13-F	Zener Diode 12V 500mW ±5% Surface Mount SOD-123
11	F1	Fuse	1	Bel	0ZCF0185FF2C	Polymeric PTC Resettable Fuse 33V 1.85A 1h Surface Mount 2920 (7351 Metric), Concave
12	J2, J4, J7	95278-101A10LF	3	Amphenol FCI	20021121-00010C4LF	Conn Unshrouded Header HDR 10 POS 2.54mm Solder ST Top Entry SMD T/R
13	J3	6339160-1	1	TE	6339160-1	PCB Mounted Jacks - Single Port, Multi-port and Stacked MJ, RJ45, SMT, SHLD, PANEL GRD
14	J5, J6	SM02B-PASS-TBT(LF)(SN)	2	JST	SM02B-PASS-TBT(LF)(SN)	CONN HEADER SMD R/A 2POS 2MM
15	J8	3 POS Header	1	Würth Elektronik	61300311121	CONN HEADER VERT 3POS 2.54MM
16	L3	3.9nH	1	Murata	LQP15MN3N9B02D	3.9nH Unshielded Thin Film Inductor 170mA 500mOhm Max 0402 (1005 Metric)
17	L4	330 Ohms @100 Mhz	1	Taiyo Yuden	LBMF1608T100K	10µH Unshielded Wirewound Inductor 80mA 360mOhm 0603 (1608 Metric)
18	LED1	ASMB-KTF0-0A306	1	Broadcom	ASMB-KTF0-0A306	LED Multi-Color Chip Red/Green/Blue 620nm/524nm/471nm 20mA 4-Pin PLCC T/R
19	LED2, LED3	GREEN	2	Vishay Lite-On	LTST-C191KGKT	Green 571nm LED Indication - Discrete 2V 0603 (1608 Metric)
20	Q1, Q2, Q3	2SK3018T106	3	Rohm	2SK3018T106	Trans MOSFET N-CH 30V 0.1A 3-Pin UMT T/R
21	Q4	BSS138K	1	ON Semiconductor / Fairchild	BSS138K	N-Channel 50V 220mA (Ta) 350mW (Ta) Surface Mount SOT-23-3
22	R1, R2, R3, R4, R5, R12, R14	1K	7	Samsung	RC1005F102CS	Resistor1 kOhms ±1% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Moisture Resistant Thick Film
23	R6	0	1	Stackpole Electronics Inc	RMCF0402ZT0R00	RES 0 OHM JUMPER 1/16W 0402
24	R7, R11	620R	2	Yageo	RC0402FR-07620RL	YAGEO - RC0402FR-07620RL - Surface Mount Chip Resistor, Thick Film, RC Series, 620 ohm, 63 mW, 1%, 50 V, 0402 [1005 Metric] RoHS Compliant: Yes

2

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			THREE PLACE DECIMAL ±	COMMENTS:			SIZE	DWG. NO.  16515-200		Rev  1
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			MATERIAL							
			FINISH							
	NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING		SCALE: 1:1		WEIGHT:		SHEET 3 OF 4		

Bill Of Materials

Line #	Designator	Name	Quantity	Manufacturer 1	Manufacturer Part Number 1	Description
25	R8, R10, R13	10K	3	Panasonic Electronic Components	ERJ-PA3F1002V	RES SMD 10K OHM 1% 1/4W 0603
26	R9	110R	1	Stackpole Electronics	RMCF0402FT110R	Res Thick Film 0402 110 Ohm 1% 0.063W (1/16W) ±100ppm/C Pad SMD Automotive T/R
27	R15, R18	2K	2	Stackpole Electronics	RMCF1206FT2K00	Resistor
28	R16, R17	1k	2	Panasonic	ERJ-P06F1001V	Resistor
29	R19	10K	1	Stackpole Electronics	RMCF1206FT2K00	Resistor
30	R20	1.5 K	1	Stackpole Electronics	RMCF1206FT2K00	Resistor
31	U1	NRF52832-QFAA-R	1	Elfa Nordic Power	NRF52832-QFAA-R	IC RF TXRX+MCU BLUETOOTH 48QFN
32	U2	BA033CC0FP-E2	1	Rohm Semiconductor	BA033CC0FP-E2	Linear Voltage Regulator IC Positive Fixed 1 Output 1A TO-252
33	U3	LTC4331CUFD#PBF	1	Analog Devices	LTC4331CUFD#PBF	I2C Slave Device Extender Over Rugged Differential Link 20-QFN
34	X1	32MHz	1	Epson	FA-128 32.0000MF10Z-AJ3	32MHz ±10ppm Crystal 8pF 60 Ohms 4-SMD, No Lead
35		16515-100	1			SBC_TO_MC2_PCB

1

1

2

2

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APPLICATION		DO NOT SCALE DRAWING				SCALE:	1:1	WEIGHT:
								SHEET 4 OF 4