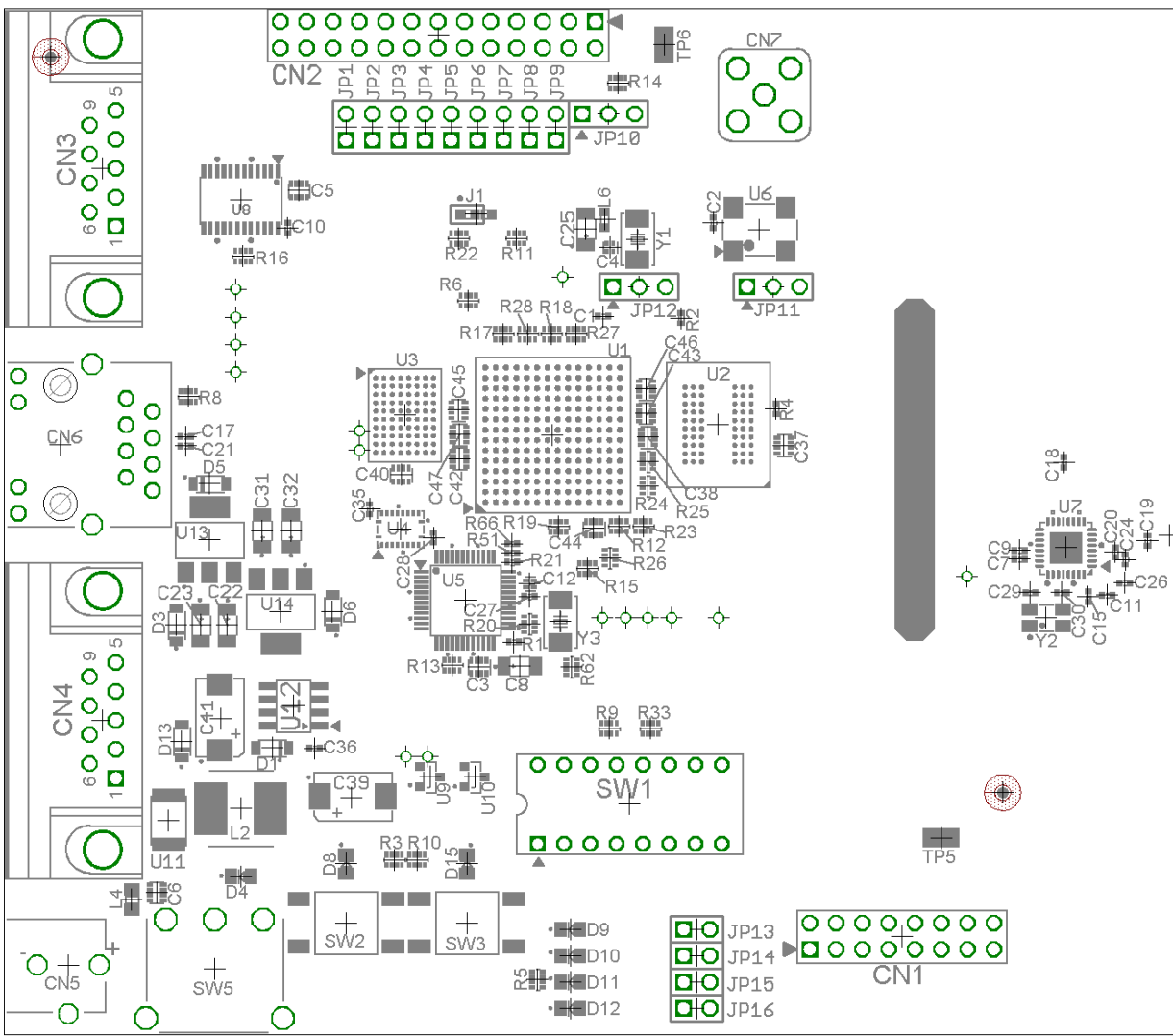


# M5208EVBe\_RevE DESIGNATOR DIAGRAM





## M5208EVBe – Bill of Materials

Per brd	Value	Intec PN	Description	Part Nos
13	0.1uF	C104-4	0.1uF 0402 X7R capacitor GRM155R71C104KA88D	C1, 2, 7, 9, 10, 11, 17, 21, 27, 28, 35, 36, 40
11	0.1uF	C104x4-4	0.1uFx4 0805 cap array Murata GNM214R71C104MA01D or eq.	C3, 5, 6, 37, 38, 42, 43, 44, 45, 46, 47
6	10uF, 6.3V	C106A10VT	10uF/6.3v/0.5R tant cap Kemet T491A106K006AS or eq.	C8, 22, 23, 25, 31, 32
1	100uF/10V 0R15	C107D10VT	100uF/10V/0.15R tant cap Vishay 593D107X9010D2T or eq.	C39
2	10pF	C10P0-4	10pF 0402 COG capacitor Murata GRM1555C1H100JZ01D	C29, 30
2	18pF	C18P0-4	18pF 0402 COG capacitor Murata GRM1555C1H180JZ01D	C20, 24
1	1.5pF	C1P5-4	1.5 pF 0402 COG capacitor Murata GRM0335C1E1R5CD01D	C19
3	220pF	C221-4	220pF 0402 COG capacitor Murata GRM1555C1H221JA01D	C15, 18, 26
1	22pF	C22P0x2-4	22pFx2 0504 COG cap array TDK CKCM25C0G1H220K	C4
1	33pF	C33P0x2-4	33pFx2 0504 COG cap array TDK CKCM25C0G1H330K	C12
1	4.7uF/50V 0R36	C475D50VT	4.7uF/50V/0.36R tant cap Vishay 293D475X9050D2T or eq.	C41
3	1X3	H1x3	Mode 36-140-0	JP10, 11, 12
1	2x4	H2x4	Mode 36-280-0	JP13-16
1	2x8	H2x8	Mode 36-280-0	CN1
1	2x9	H2x9	Mode 36-280-0	JP1-9
1	BDM Header	H2x13	Mode 36-280-0	CN2
2	DB9F/90	DB9FRT	Mode 30-420-0 DB9F connector	CN3, 4
1	102AH	PJ102AH	CUI 102AH 2.1mm power jack	CN5
1	HFJ11-2450E	ETHRJ45	Ethernet RJ45, Halo HFJ11-E2450E or Tyco 5-1605473-7	CN6
5	0.4V/1a/30Vmax	DCRS05	MCC MBRX130 diode	D1, 3, 5, 6, 13
1	LED-0805 - Green	LEDG-8	Green 0805 LED LiteOn LTST-C170KGKT	D4
4	LED-0805 - Amber	LEDO-8	Amber 0805 LED LiteOn LTST-C170KFKT	D9, 10, 11, 12
2	LED-0805 - Red	LEDR-8	Red LED 0805 LiteOn LTST-C170KRKT	D8, 15
1	47uH/1A 0R2	L473-7	Inductor 47uH 0.155 ohm 0.95a CoilCraft MSS7341-473ML or eq.	L2
1	0805FB200z/1a	FB221R102-8	0805 Ferrite Bead, 200R/1a Murata BLM21P221SGPT or eq	L4
1	FB1K0/100ma	FB102R101-6	0603 Ferrite Bead 1K/100ma Murata BLM18AG102SN1D or eq.	L6
1	100	R101-4	100 ohm 0402 resistor Rohm MCR01MZPJ101	R4
1	10K	R103-4	10K ohm 0402 resistor Rohm MCR01MZPJ103	R21



9	10K	R103x4-4	10Kx4 R-array 0408, Rohm MNRM0APJ103, CTS 741C083103J or eq.	R6, 9, 11, 14, 16, 20, 22, 33, 62
4	150R	R151x4-4	150Rx4 R-array 0408, Rohm MNRM0APJ151, CTS 741C083151J or eq.	R3, 5, 8, 10
1	22	R220-4	22 ohm 0402 resistor Rohm MCR01MZPJ220	R2
11	22R	R220x4-4	22Rx4 R-array 0408, Rohm MNRM0APJ220, CTS 741C083220J or eq.	R12, 15, 17, 18, 19, 23, 24, 25, 26, 27, 28
2	4K87 1%	R4871-4	4.87K 1% 0402 resistor Rohm MCR01MZPJ4871	R1, 51
1	49.9 1%	R510x4-4	49.9Rx4 1% R-array 0804, CTS 741C08349R1F	R13
1	300	R301-4	300 ohm 0402 resistor Rohm MCR01MZPJ301	R66
1	DIPSW	SWDIP8	DIP16 with 8 rocker switches Greyhill 76SB08ST	SW1
2	PBSW05	SWPB6x6	Push-button switch ITT Cannon KSC421G or equ	SW2, 3
1	1101M2SXA	SWIT1101	Slide switch ITT 1101M2S3AQE2	SW5
2	TEST_LOOP	TP5015	Test loop Keystone 5015	TP5, 6
1	MCF5208	MCF5208	Freescle MCF5208CVM66 ColdFire microcontroller unit	U1
1	DDR32_64BGA	DDR16M16-1v8	1.8v 16Mx16 DDR SDRAM Micron MT46H16M16LF or Samsung K4X56163PF	U2
1	S29WS128	S29WS064	1.8v BGA flash 4Mx16 Spansion S29WS064	U3
1	SN74LV244ARGYR	LVC244Q	1.6 - 3.6v Octal buffer, QFN package TI SN74LV244ARGYR or eq.	U4
1	DP83848	DP83848	Ethernet Phy National DP83848VV 1-/100	U5
1	MC13192	MC13192	ZigBee Capable Transceiver Freescle MC13192FC	U7
1	SP3249EY	SP3249EY	Serial Level Transceiver Sipex SP3249EEY or eq.	U8
2	MCP130	MCP130S3	MicroChip MCP130T-315I/TT VSuper	U9, 10
1	FUSE-PTC	FU4532	Fuse Raychem miniSMDC050	U11
1	LM2675	LM2675M3	3.3V Switcher National Semi LM2675M-3.3	U12
1	SPX1117M3-1.8	LD1117S1.8	1.8v LDO Voltage Reg Sipex SPX1117M3-1.8	U13
1	SPX1117M3-1.5	LD1117S1.5	1.5v LDO Voltage Reg Sipex SPX1117M3-1.5	U14
1	16MHz	ASV-16	16MHz Oscillator Fox F4100-160 or Abracon ASV-16	U16
1	25MHz	ABM3-25	Abracon ABM3-25.0000-D2	Y1
1	16.000MHz	AMB9-16	16MHz crystal (tight tolerance, low cap) NX3225-16MHz, Epson TSX-4025-16 or eq.	Y2
1	16MHz	AMB3-16	Abracon ABM3-16.0000-D2	Y3

## M5208EVBe – Parts Placement

Part	Value	Package	Intec PN	Position (mm)		Orientation
				x	y	
C1	0.1uF	SMT-0402	C104-4	57.881	69.352	R180
C2	0.1uF	SMT-0402	C104-4	68.548	78.381	R270
C3	0.1uF	SMD4X0502	C104x4-4	45.87	35.5	R0
C4	22pF	SMD0405-2E	C22P0x2-4	58.53	76	R180
C5	0.1uF	SMD4X0502	C104x4-4	28.48	81.5	R180
C6	0.1uF	SMD4X0502	C104x4-4	14.72	13.72	R90
C7	0.1uF	SMT-0402	C104-4	98.15	45.9	R0
C8	10uF, 6.3V	CAP_TANT_Y	C106A10VT	49.815	35.595	R0
C9	0.1uF	SMT-0402	C104-4	98.149	46.75	R0
C10	0.1uF	SMT-0402	C104-4	27.387	77.9	R270
C11	0.1uF	SMT-0402	C104-4	106.621	42.419	R180
C12	33pF	SMD0405-2E	C33P0x2-4	50.8	43.52	R90
C15	220pF	SMT-0402	C221-4	104.775	42.291	R90
C17	0.1uF	SMT-0402	C104-4	17.521	57.739	R180
C18	220pF	SMT-0402	C221-4	102.4128	55.2704	R90
C19	1.5pF	SMT-0402	C1P5-4	110.5052	47.6783	R90
C20	18pF	SMT-0402	C18P0-4	107.3785	46.5658	R90
C21	0.1uF	SMT-0402	C104-4	17.521	56.839	R180
C22	10uF 0.5R	CAP_TANT_Y	C106A10VT	21.537	39.54	R270
C23	10uF 0.5R	CAP_TANT_Y	C106A10VT	19.02	39.54	R270
C24	18pF	SMT-0402	C18P0-4	108.3716	45.8774	R90
C25	10uF, 6.3V	CAP_TANT_Y	C106A10VT	56.209	77.772	R90
C26	220pF	SMT-0402	C221-4	108.2904	43.617	R0
C27	0.1uF	SMT-0402	C104-4	50.773	42.313	R180
C28	0.1uF	SMT-0402	C104-4	41.487	47.998	R270
C29	10pF	SMT-0402	C10P0-4	99.187	42.672	R0
C30	10pF	SMT-0402	C10P0-4	102.235	42.672	R180
C31	10uF 0.5R	CAP_TANT_Y	C106A10VT	24.914	48.66	R90
C32	10uF 0.5R	CAP_TANT_Y	C106A10VT	27.708	48.66	R90
C35	0.1uF	SMT-0402	C104-4	35.333	50.727	R90
C36	0.1uF	SMT-0402	C104-4	29.975	27.663	R180
C37	0.1uF	SMD4X0502	C104x4-4	75.353	56.893	R90
C38	0.1uF	SMD4X0502	C104x4-4	62.203	57.696	R270
C39	100uF/10V 0R15	CAP_TANT_D	C107D10VT	33.528	22.86	R180
C40	0.1uF	SMD4X0502	C104-4	38.35	54.05	R0
C41	4.7uF/50V 0R36	CAP_TANT_D	C475D50VT	20.955	30.48	R270
C42	0.1uF	SMD4X0502	C104x4-4	44	55.6	R270
C43	0.1uF	SMD4X0502	C104x4-4	62	60	R90
C44	0.1uF	SMD4X0502	C104x4-4	56.962	48.879	R0
C45	0.1uF	SMD4X0502	C104x4-4	43.87	60.3	R270
C46	0.1uF	SMD4X0502	C104x4-4	62	62.35	R90
C47	0.1uF	SMD4X0502	C104x4-4	44	57.95	R270
CN1	I/O Header	2X8	H2x8	86.741	9.525	R0
CN2	BDM Header	2X13	H2x13	41.91	96.52	R0
CN3	DB9F/90	D-09F/90	DB9FRT	9.525	83.628	R90

CN4	DB9F/90	D-09F/90	DB9FRT	9.525	30.353	R90
CN5	102AH	PJ102AH	PJ102AH	6.18	6.72	R180
CN6	HFJ11-2450E	HFJ11-E2450E	ETHRJ45	5.438	56.966	R270
CN7	SMA	SMA JACK	Connect2	73.45	90.73	R0
D1	0.4V/1a/30Vmax	CRS05	DCRS05	25.908	27.686	R0
D3	0.4V/1a/30Vmax	CRS05	DCRS05	16.65	39.56	R270
D4	LED-0805 - Green	LED-0805	DISCRETE	22.874	15.291	R180
D5	0.4V/1a/30Vmax	CRS05	DCRS05	19.849	53.2	R180
D6	0.4V/1a/30Vmax	CRS05	DCRS05	31.71	40.86	R270
D8	LED-0805 - Red	LED-0805	LEDR-8	33.02	16.51	R90
D9	LED-0805 - Amber	LED-0805	LEDO-8	54.737	10.16	R180
D10	LED-0805 - Amber	LED-0805	LEDO-8	54.737	7.62	R180
D11	LED-0805 - Amber	LED-0805	LEDO-8	54.737	5.08	R180
D12	LED-0805 - Amber	LED-0805	LEDO-8	54.737	2.54	R180
D13	0.4V/1a/30Vmax	CRS05	DCRS05	17.145	28.321	R270
D15	LED-0805 - Red	LED-0805	LEDR-8	44.704	16.51	R90
JP1-9	2x9	1X2	H2x9	33.02	87.63	R90
JP10	1X3	1X3	H1x3	58.42	88.9	R0
JP11	1X3	1X3	H1x3	74.35	72.227	R0
JP12	1X3	1X3	H1x3	61.38	72.18	R0
JP13-16	2x4	1X2	H2x4	66.929	10.16	R0
L2	47uH/1A 0R2	IND_DN8155	L473-7	22.86	21.844	R180
L4	0805FB200z/1a	SMT-0805	FB221R102-8	12.311	13.05	R270
L6	FB1K0/100ma	SMT-0603	FB102R101-6	58.007	78.69	R270
R1	4K87 1%	SMT-0402	R4871-4	49.271	37.919	R180
R2	22	SMT-0402	R220-4	65.419	69.179	R90
R3	150R	SMD4X402	R151x4-4	37.699	16.9	R0
R4	100	SMT-0402	R101-4	74.602	60.437	R90
R5	150R	SMD4X402	R151x4-4	51.525	5.33	R270
R6	10K	SMD4X402	R103x4-4	44.85	70.88	R0
R8	150R	SMD4X402	R151x4-4	17.78	61.6	R180
R9	10K	SMD4X402	R103x4-4	58.45	29.55	R0
R10	150R	SMD4X402	R151x4-4	39.9	16.9	R0
R11	10K	SMD4X402	R103x4-4	49.519	76.898	R0
R12	22R	SMD4X402	R220x4-4	59.4	49.1	R180
R13	49.9 1%	SMD4X402	R510x4-4	43.271	35.689	R180
R14	10K	SMD4X402	R103x4-4	59.304	91.881	R0
R15	22R	SMD4X402	R220x4-4	56.35	45.001	R0
R16	10K	SMD4X402	R103x4-4	23.08	75.15	R180
R17	22R	SMD4X402	R220x4-4	48.2	67.65	R0
R18	22R	SMD4X402	R220x4-4	52.901	67.65	R0
R19	22R	SMD4X402	R220x4-4	53.55	49.03	R180
R20	10K	SMD4X402	R103x4-4	50.781	39.621	R270
R21	10K	SMT-0402	R103-4	49.1	45.6	R180
R22	10K	SMD4X402	R103x4-4	43.92	76.88	R0
R23	22R	SMD4X402	R220x4-4	61.75	49.1	R180
R24	22R	SMD4X402	R220x4-4	62.2	53	R90
R25	22R	SMD4X402	R220x4-4	62.2	55.35	R90
R26	22R	SMD4X402	R220x4-4	58.55	46.05	R90
R27	22R	SMD4X402	R220x4-4	55.25	67.65	R0

R28	22R	SMD4X402	R220x4-4	50.55	67.65	R0
R33	10K	SMD4X402	R103x4-4	62.45	29.55	R0
R51	4K87 1%	SMT-0402	R4871-4	49.1	46.5	R180
R62	10K	SMD4X402	R103x4-4	54.842	35.494	R90
R66	300	SMT-0402	R301-4	49.1	47.4	R0
SW1	DIPSW	DIL16	SWDIP8	60.452	22.25	R0
SW2	PBSW05	PBSW6X6	SWPB6x6	33.02	10.795	R90
SW3	PBSW05	PBSW6X6	SWPB6x6	44.704	10.795	R90
SW5	1101M2SXA	1101M2SXA	SWIT1101	20.32	6.35	R0
TP5	TEST_LOOP	TEST_LOOP	TP5015	90.56	18.987	R180
TP6	TEST_LOOP	TEST_LOOP	TP5015	63.794	95.551	R90
U1	MCF5208	MAPBGA-196	MCF5208	53	57.9	R90
U2	DDR32_64BGA	DDR32_64BGA	DDR16M16-1v8	69	58.9	R180
U3	S29WS128	FBGA80-08	S29WS064	38.7	59.8	R0
U4	SN74LV244ARGYR	QFN-20	LVC244Q	38.27	48.8	R0
U5	DP83848	LQFP48	DP83848	44.55	41.95	R270
U7	MC13192	QFN-32 MC13192	MC13192	102.616	46.99	R180
U8	SP3249EY	TSSOP24	SP3249EY	22.86	80.58	R180
U9	MCP130	SOT-23	MCP130S3	41.148	24.892	R90
U10	MCP130	SOT-23	MCP130S3	45.466	24.892	R90
U11	FUSE-PTC	FUSE_PTC	FU4532	15.875	20.701	R90
U12	LM2675	SO-8	LM2675M3	27.94	31.75	R90
U13	SPX1117M3-1.8	SOT-223	LD1117S1.8	19.85	47.777	R0
U14	SPX1117M3-1.5	SOT-223	LD1117S1.5	26.7	40.84	R180
U16	16MHz	OSCIL_5X7	ASV-16	72.9948	77.7152	R0
Y1	25MHz	50X32_2PD	ABM3-25	53.75	39.91	R90
Y2	16.000MHz	TSX-4025	AMB9-16	100.711	40.259	R0
Y3	16MHz	50X32_2PD	AMB3-16	61.2	76.81	R90