

MC121EVM REV D Bill of Materials



Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB1	1		MC121EVM	Any	Printed Circuit Board	
2	C1, C4	2	10uF	CL17Y10K04PNE	Samsung	C121 Series 0805 10uF 16V ±10% Tolerance X7S Multilayer Ceramic Chip Capacitor	0605
3	C2, C3, C5, C6	4	0.1uF	CGA3E308R1H104K080AB	TDK	CAP. CERAM. 0.1 uF 50 V ±10% X8R AEC-Q200 Grade 0, 0603	0603
4	C7, C8, C9, C10, C11	5	0.1uF	0603C210K4T2A	AVX	CAP. CERAM. 0.1 uF 10 V ±10% X7R, 0603	0603
5	C13	1	1uF	EMK107B7109K4HT	Taiyo Yuden	CAP. CERAM. 1 uF 16 V ±10% X7R AEC-Q200 Grade 1, 0603	0603
6	C15, C26	2	1uF	GRM18B27A475ME1SD	MuRata	CAP. CERAM. 4.7 uF 10 V ±20% X7R, 0603	0603
7	C14, C20	2	1000pF	8.85012E+11	Wurth Elektronik	CAP. CERAM. 1000 pF 16 V ±10% X7R, 0603	0603
8	C16	1	1uF	8.85012E+11	Wurth Elektronik	CAP. CERAM. 1 uF 50 V ±10% X7R, 0605	0605
9	C18	1	2.2uF	EMK107B722KCA-T	Taiyo Yuden	CAP. CERAM. 2.2 uF 16 V ±10% X7R, 0603	0603
10	C17	1	1uF	CL31B109K0CHNNNE	Samsung	CAP. CERAM. 1 uF 100 V ±10% X7R, 1206	1206
11	C19, C24	3	0.1uF	CGA3E308R1A104Q80AB	TDK	CAP. CERAM. 0.1 uF 100 V ±10% X7S AEC-Q200 Grade 1, 0603	0603
12	C21	1	0.01uF	8.85012E+11	Wurth Elektronik	CAP. CERAM. 0.01 uF 16 V ±10% X7R, 0603	0603
13	C22	1			Wurth Elektronik	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0402, NPO, 47pF, 10VDC	
14	C23	1	100pF	GRM0335C1H101GA0TD	Murata	Chip Multilayer Ceramic Capacitors for General Purpose, C021, 100pF, C0G, 30ppm/°C, 2% 50V	0201
15	C25	1	1000pF	C0402C102J3GACTU	Kemet	CAP. CERAM. 1000 pF 25 V ±5% COG/NPO, 0402	0402
16	C27	1	220pF	GRM022R71A221KA01	MuRata	CAP. CERAM. 220 pF 10 V ±10% X7R, 01005	01005
17	D1	1	40V	NR18LA4M0A1R	Rohm	Diode, Schottky, 40 V, 3 A, SOD-128	SOD-128
18	D2, D4	2	Bright	1508KV575000	Wurth Elektronik	LED, Bright Green, SMD	LED, 0805
19	D3, D12	2	6V	A233CV6-TF	Micro Commercial Components	Diode, Zener, 5.8 V, 300 mW, SOT-23	SOT-23
20	D5	1	50V	BAT116EE6327HTSA1	Infineon Technologies	Diode, Schottky, 40 V, 0.75 A, AEC-Q101, SOD-323	SOD-323
21	D6	1	Red	LTST-C190KRKT	Lie-On	LED, Red, SMD	Red LED, 1.6x0.8x0.8mm
22	D7	1	Green	LTST-C190KGRKT	Lie-On	LED, Green, SMD	1.6x0.8x0.8mm
23	D8	1	10V	SZM03219VST1G	OM Semiconductor	Diode, Zener, 10 V, 300 mW, AEC-Q101, SOD-323	SOD-323
24	D9	1	Blue	1500B0675000	Wurth Elektronik	LED, Blue, SMD	LED, 0805
25	D13	1	RGB	18-337/R6G/BHC-A01/2T	Evedlight	LED, RGB, TH	1.6x1.6mm
26	F1	1	CTO 2		Bul Fuse	Fuse 2 A 725 VAC 63 VDC SMD	1206
27	F10, F102, F103	3	N/A		N/A	Physical mark. There is nothing to buy or mount.	N/A
28	H1, H2, H3, H4	4		NY PMS 44 0025 PH	BAF Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
29	H5, H6, H7, H8	4		18026	KeyStone	Standoff, Hss, 0.21, 64-40 Nylon	Standoff
30	H9, H10	2		60-57-4404	Molex	Rectangular Housing Connector, 4 Pcs, 2.54mm	
31	J1, J8	2		70543-0008	Molex	Header(shrouded), 2.54mm, 4x1, 1in, TH	Header(shrouded), 2.54mm, 4x1, TH
32	J2	1		1051640001	Molex	Receptacle, USB 2.0, Micro B, 5 Position, R/A, SMT	Receptacle, USB 2.0, Micro B, 5 Pos, 0.65mm Pitch, R/A, SMT
33	J3, J5, J9, J13, J19	5		PBC03SAAN	Sullins Connector Solutions	Header, 100mil, 3x1, Gold, TH	PBC03SAAN
34	J4	1		TSW-104-07-G-S	Samtec	Header, 100mil, 4x1, Gold, TH	4x1 Header
35	J8	1		TSW-116-07-G-D	Samtec	Header, 100mil, 16x2, Gold, TH	16x2 Header
36	J7	1		ED1203S	On-Shore Technology	Terminal Block, 5.08 mm, 3x1, Brass, TH	3x1 5.08 mm Terminal Block
37	J10	1		ED1202DS	On-Shore Technology	Terminal Block, 5.08 mm, 2x1, Brass, TH	2x1 5.08 mm Terminal Block
38	J11, J12	2		TSW-101-07-G-S	Samtec	Header, 100mil, 16x6, Gold, TH	Testpoint
39	J15, J16, J18	3		HTSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	Header, 100mil, 2x1, TH
40	K1	1		AYJ2825X	Panasonic	SSR RELAY SPST-NO 500MA 0.40V	SOP4
41	L1	1	10uH	LS-0405X-100H	TDK	Inductor, Shielded Ferrite, 10 uH, 2.4 A, 0.047 ohm, SMD	0406
42	L3	1		BLM1850121T2TD	MuRata	Inductor, Ferrite Bead, Ferrite, 3 A, 120 ohm, AEC-Q200 Grade 1, SMD	0603
43	LBL1	1		TH1-14-423-10	Brady		PCB Label 0.650 x 0.200 inch
44	Q1	1		BUK6D43-40PX	Nexperia	P-Channel 40 V 6A (Ta) 15W (Tc) Surface Mount DMOS200MD-6	SOT1220
45	Q2	1	12 V	Z5C25851TL	Rohm	Transistor, NPN, 12 V, 0.5 A, SOT-416	SOT-416
46	R1	1		RC1806270R00	Stackpole	0 Ohms Jumper 0.5W, 120W Chip Resistor 0805 (2012 Metric) Automotive AEC-Q200 Metal Foil	0805
47	R2, R10, R17, R18	4	2.00k	ERJ-2RKF2001X	Panasonic	RES, 2.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
48	R3, R5, R12, R13, R22, R43	6	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 0%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
49	S4	1	117k	RT0603DRE07117KL	Yageo America	RES, 117 k, 0.5%, 0.1 W, 0603	0603
50	R6	1	100k	CRCW0603100K0UNEA	Vishay-Dale	RES, 100 k, 0.5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
51	R7	1	13.3k	RT0603DRE07133KL	Yageo America	RES, 13.3 k, 0.5%, 0.1 W, 0603	0603
52	R8, R9, R15, R16	4	150k	CRCW0603150K0KFA	Vishay-Dale	RES, 150 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
53	R11, R14, R19, R20, R30, R40	6	5.00k	PNM0402E5001BST1	Vishay-Dale	RES, 5.00 k, 0.1%, 0.05 W, 0402	0402
54	R21, R23	2	10	FC0402E10R0B8T0	Vishay Dale	10 Ohms ±0.1% 0.05W, 1/20W Chip Resistor 0402 (1005 Metric) RF, High Frequency Thin Film	0402
55	R24, R49	2	100	FC0402E1000B8T0	Vishay Dale	100 Ohms ±0.1% 0.05W, 1/20W Chip Resistor 0402 (1005 Metric) RF, High Frequency Thin Film	0402
56	R25	1	2.00k	CRCW04022000KPE0	Vishay-Dale	RES, 2.00 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
57	R26, R29, R30, R38	4	100	ECY0511T10101J	WCA Sytec	100 Ohms ±0.5% 0.25W, 1/20W Chip Resistor 0603 (1608 Metric) Automotive AEC-Q200, Moisture Resistant, Pulse Withstanding Thick Film	0603
58	R27	1	50m	MCS326-4R050FER	Chromite	50 mOhms ±1% 2W Chip Resistor 2012 (0432 Metric) Current Sense, Flame Retardant Coating, Safety Metal Element	2512
59	R28	1	500	RT0603BRC07500RL	YAGEO	500 Ohms ±0.1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Thin Film	0603
60	R31, R44, R45	3	47k	RC0603JR-0747KL	Yageo	RES, 47 k, 5%, 0.1 W, 0603	0603
61	R32, R33	2	470	RC0603JR-07470KL	Yageo	RES, 470, 5%, 0.1 W, 0603	0603
62	R34	1	10k	CRCW060310K00UNEA	Vishay-Dale	RES, 10 k, 0.5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
63	R35	1	10k	CRCW060310K00UNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
64	R36, R39	1	8	RCAT20600002SEA	Vishay-Dale	RES, 8, 0.5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
65	R37, R52, R53, R54	4	330	RC0603FR-07330RL	Yageo	RES, 330, 1%, 0.1 W, 0603	0603
66	R41	1	25 kohm	332T-1-253LF	Bourns	Trimmer Potentiometer, 25kohm, 0.5W, TH	3.5x3.5 89mm
67	R42, R46	2	4.7k	RT0603BRC0747KL	Yageo America	RES, 4.7 k, 0.1%, 0.1 W, 0603	0603
68	R48	1	150k	ERJ-2RKF1503X	Panasonic	RES, 150 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
69	R50	1	10.0k	AC0402FR-0710KL	Yageo America	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
70	S1, S4	2		2-34312E+11	Wurth Elektronik	Switch, Toggle, SPST, 12 V, SMD	SMD, 6x3.9mm
71	SH-J2, SH-J8, SH-J9, SH-J13, SH-J15, SH-J16, SH-J18, SH-J19, SH-J20, SH-J21, SH-J22, SH-J23, SH-J24, SH-J25, SH-J26, SH-J27, SH-J28, SH-J29, SH-J30, SH-J31, SH-J32, SH-J33, SH-J34, SH-J35	24	1x2	SNT-100 BK-G	Samtec	Shunt, 100mil, Gold plated, Black	Shunt
72	SW1	1		G12AP	NKK Switches	Switch, Toggle, SPDT, 1Pos, TH	7 X 1.1 X 0.5 mm
73	TP1, TP23	2			Keystone	Test Point, Compact, Red, TH	Red Compact Testpoint
74	TP2, TP30, TP31, TP32, TP33	5		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
75	TP3, TP4	2		5009	Keystone Electronics	Test Point, Compact, Yellow, TH	Yellow Compact Testpoint
76	TP18, TP19, TP20, TP21, TP22	5		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
77	TP26, TP27, TP29, TP29	4		D3082-05	Harwin	1mm Uninsulated Shoring Plug, 10.16mm spacing, TH	Shoring Plug, 10.16mm spacing, TH
78	TP34	1		5006	Keystone Electronics	Test Point, Compact, Black, TH	Black Compact Testpoint
79	U1, U5, U7, U8	4		TMUX121N0CKR	Texas Instruments	1-ch, 2:1 general-purpose analog multiplexer with 1.8-V logic control, DCK0006A (SOT-23-5)	DCK0006A
80	U2	1		FT232RL-REEL	FTDI	UART Interface IC USB Full Speed to Serial UART IC, Includes Oscillator and EEPROM, SSOP-28	SSOP28
81	U3	1		TPD4E04DRYR	Texas Instruments	4-Channel ESD Protection Array for High-Speed Data Interfaces, DRY0006A (USON-6)	DRY0006A
82	U4	1		MSP430PR235T1PTR	Texas Instruments	CMPS MSP430™ FRAM Microcontroller IC 16-Bit 24MHz 32KB (32K x 8) LQFP48	LQFP48
83	U6	1		LM27313XQFNOPB	Texas Instruments	1.8 MHz Boost Converter With 30V Internal FET Switch in SOT-23, DBV0005A (SOT-23-5)	DBV0005A
84	U9, U13	2		PK289D5GDKR	Texas Instruments	Dual Bidirectional Bus Buffer, DGK0008A (VSSOP-8)	DGK0008A
85	U10	1		TPS7303DBVR	Texas Instruments	Low-Noise, High PSRR, RF 200-mA Low-Dropout Linear Regulators, DBV0005A (SOT-23-5)	DBV0005A
86	U11	1		INA240A2PWVR	Texas Instruments	High/Low Side, Bi-Directional Zero-Drift Current Sense Amp w/ Enhanced PWM Rejection, PWD0008A (TSSOP-8)	PWD0008A
87	U12	1		LMH6642MFNCPB	Texas Instruments	Low Power, 120MHz, 70mA Rail-to-Rail Output Amplifier, DBV0005A (SOT-23-5)	DBV0005A
88	V2	1		C-STR4M00G55B-R0	MuRata	Resonator, 4 MHz, 39 pF, AEC-Q200 Grade 1, SMD	4.5x1.2x2 mm