

# Bill of Materials

# MCP3912 Eval Board

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Quantity	Designator	Description_	Manufacturer 1	Manufacturer Part Number 1	Supplier 1	Supplier Part Number 1
42	C3, C4, C5, C6, C7, C10, C11, C12, C14, C16, C18, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C46, C47, C50, C51, C52, C53, C54, C55, C56, C61, C64, C65, C66, C67	CAP CER 0.1uF 16V 10% X7R 0603	Samsung	CL10B104KO8NNNC	Digi-Key	1276-1005-1-ND
3	C13, C44, C45	CAP CER 10uF 16V 10% X5R SMD 1206	TDK	C3216X5R1C106K	Digi-Key	445-4052-1-ND
1	C15	CAP TANT 10uF 20V 10% 2.1Ohm SMD B	AVX	TAJB106K020RNJ	Digi-Key	478-1674-1-ND
1	C17	CAP CER 10uF 10V 20% X7R SMD 1206	Murata	GRM31CR71A106KA01L	Digi-Key	490-3371-2-ND
2	C25, C26	CAP CER 22pF 50V 5% C0G SMD 0603	TDK	C1608C0G1H220J	Digi-Key	445-1273-1-ND
2	C62, C63	CAP CER 1uF 10V 20% X7R SMD 0603	TDK	C1608X7R1A105M	Digi-Key	445-5139-1-ND
1	D1	DIO RECT MRA4005 1.1V 1A 600V DO-214AC_SMA	ON Semiconductor	MRA4005T3G	Digi-Key	MRA4005T1GOSCT-ND
5	J3, J7, J21, J23, J25	CON HDR-2.54 Male 2x3 Gold 5.84MH TH VERT	Samtec	TSW-103-08-L-D	Digi-Key	SAM1040-03-ND
4	J6, J12, J13, J19	CON HDR-2.54 Male 1x2 Gold 5.84MH TH VERT	FCI	77311-118-02LF	Digi-Key	609-4434-ND
1	J8	CON HDR-2.54 Male 2x8 Gold 5.84MH TH VERT	FCI	68602-116HLF	Digi-Key	609-3364-ND
1	J9	CON HDR-2.54 100V 2A Male 2x2 TH VERT	3M	961204-6404-AR	Digi-Key	3M9458-ND
1	J10	CON POWER 2.5mm 5.5mm SWITCH TH R/A	CUI Inc	PJ-002B	Digi-Key	CP-002B-ND

1	J11	CON HDR-2.54 Male 1x6 Gold 5.84MH TH VERT	FCI	68001-106HLF	Digi-Key	609-3272-ND
1	J14	CON DSUB 250V 2A DB-9-RA F	TE Connectivity	1734354-2	Digi-Key	A35108-ND
1	J15	CON USB MINI-B Female SMD R/A	Hirose	UX60-MB-5ST	Digi-Key	H2959CT-ND
1	J16	CON HDR-2.54 Male 1x3 TH VERT	Molex	90120-0763	Digi-Key	WM8085-ND
1	J17	CON EDGE MEC1 1mm 80P Female SMD VERT	Samtec	MEC1-160-02-L-D-A	Samtec	MEC1-160-02-L-D-A
4	J20, J22, J24, J26	CON TERMINAL 3.5mm 6A Female 1x3 TH R/A	Keystone Electronics	8723	Digi-Key	8723K-ND
1	L1	FERRITE 300mA 0.5R SMD 1806	Laird	LI1806C151R-10	Digi-Key	240-2418-1-ND
1	LCD1	DISPLAY LCD NHD-C0216CIZ-FSW-FBW-3V3 16x2 Alpha 3.3V TH	Newhaven Display	NHD-C0216CIZ-FSW-FB	Digi-Key	NHD-C0216CIZ-FSW-FB
2	LD1, LD2	DIO LED GREEN 1.7V 20mA 3.92mcd Diffuse SMD 0603	OSRAM	LG L29K-G2J1-24-Z	Digi-Key	475-2709-1-ND
1	LD3	DIO LED RED 2V 25mA 104mcd Diffuse SMD 0603	OSRAM	LS Q976-NR-1-0-20-R18	Digi-Key	475-2512-2-ND
2	LD4, LD5	DIO LED RED 1.65V 30mA 20mcd Diffuse RAD T-1 3/4	Kingbright Corp	WP7113LSRD	Digi-Key	754-1267-ND
1	LD6	DIO LED BI RED, GREEN 1.95V, 2.1V 30mA 0805	Kingbright Corp	APHBM2012SURKCGKC	Digi-Key	754-1093-1-ND
1	Q1	TRANS FET P-CH SI1307EDL -12V - 850mA 290mW SOT-323-3	Vishay/Siliconix	SI1307EDL-T1-GE3	Digi-Key	SI1307EDL-T1-GE3CT-N
1	R5	RES TKF 100R 5% 1/10W SMD 0603	NIC Components	NRC06J101TRF	NIC Component	NRC06J101TRF
9	R6, R7, R8, R9, R10, R12, R14, R17, R54	RES TKF 10R 5% 1/10W SMD 0603	Yageo	RC0603JR-0710RL	Digi-Key	311-10GRCT-ND
8	R16, R67, R68, R73, R74, R79, R80, R85	RES TKF 1k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF1001V	Digi-Key	P1.00KHCT-ND
2	R20, R42	RES TKF 1M 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF1004V	Digi-Key	P1.00MHCT-ND
20	R25, R26, R29, R30, R35, R37, R45, R46, R47, R49, R50, R51, R52, R55, R56, R57, R59, R60, R63, R98	RES TKF 1k 5% 1/10W SMD 0603	Panasonic	ERJ-3GEYJ102V	Digi-Key	P1.0KGCT-ND
1	R27	RES TKF 0R 1/10W SMD 0603	NIC Components	NRC06Z0TRF	NIC Component	NRC06Z0TRF
2	R28, R62	RES TKF 10k 5% 1/10W SMD 0603	Panasonic	ERJ-3GEYJ103V	Digi-Key	P10KGTR-ND
1	R32	RES TKF 0R 1/10W SMD 0603	Panasonic	ERJ-3GEY0R00V	Digi-Key	P0.0GCT-ND
6	R33, R36, R44, R48, R53, R58	RES TKF 4.7k 5% 1/10W SMD 0603	Yageo	RC0603JR-074K7L	Digi-Key	311-4.7KGRTR-ND
2	R38, R39	RES TKF 2.2k 5% 1/10W SMD 0603	Panasonic	ERJ-3GEYJ222V	Digi-Key	P2.2KGCT-ND
4	SW1, SW2, SW3, SW4	SWITCH TACT SPST 12V 50mA TL3301NF160QG/TR SMD	E-Switch	TL3301NF260QG/TR	Digi-Key	EG1868CT-ND
1	U4	IC POWER LM1117-5V SOT-223-3	National Semiconductor	LM1117MPX-5.0/NOPB	Digi-Key	LM1117MPX-5.0CT-ND
2	U6, U7	IC PHOTO HCPL-181 4-SMD	Avago Technologies	HCPL-181-00CE	Digi-Key	516-1788-1-ND
1	U8	IC TRANSCEIVER SN75C3223PWR TSSOP-20	Texas Instruments	SN75C3223PWR	Digi-Key	296-13501-1-ND
4	U10	"PIM-100-Pin 25 X 1 Header 1.27mm on center"	Oupiin America, Inc.	2246-1X25G00SU	Oupiin	2246-1X25G00SU
1	PIM that plugs into U10 Socket PIM Ships plugged-in	<b>MA240015</b> PIM 100 Pin PIC24F256GA General Purpose PIM	Microchip	MA240015	Microchip	MA240015
1	U11	IC TRANSCEIVER TXS0102 US-8	Texas Instruments	TXS0102DCUR	Digi-Key	296-21931-1-ND
1	X1	CRYSTAL 10MHz 18pF SMD HC49/US	Abracon	ABLS-10.000MHZ-B4-T	Digi-Key	535-10215-1-ND

1	X2	CRYSTAL 7.3728MHz 18pF SMD HC49/US	Abracon	ABLS-7.3728MHZ-B4-T	Digi-Key	535-10211-1-ND
1	X3	RESONATOR 12MHz 0.1% SMD CSTCE-G	Murata	CSTCE12M0G15L99-R0	Mouser	81-CSTCE12M0G15L99F

**Microchip Parts listed below**

1	U2	MCHP ANALOG LDO 3.3V MCP1825ST-3302E/DB SOT-223-3	Microchip	MCP1825S-3302E/DB	Microchip	MCP1825S-3302E/DB
1	U3	MCHP ANALOG LDO 3.3V MCP1754ST-3302E/DB SOT-223-3	Microchip	MCP1754ST-3302E/DB	Microchip	MCP1754ST-3302E/DB
1	U5	IC ADC 8 Ch Delta Sigma SSOP-28	Microchip	MCP3912		
1	U9	MCHP INTERFACE USB UART MCP2200-I/SS SSOP-20	Microchip	MCP2200-I/SS	Digi-Key	MCP2200-I/SS-ND
4	U12, U13, U14, U15	MCHP MEMORY SERIAL SRAM 1M 20MHz 23LC1024-I/ST TSSOP-8	Microchip	23LC1024T-I/ST	Microchip	23LC1024T-I/ST

**Mechanical Parts to be added in the package**

12	JP1	MECH HW JUMPER 2.54mm 1x2 Handle Gold	TE Connectivity	881545-2	Digi-Key	A26242-ND
5	PAD1	MECH HW RUBBER PAD Bumpon Hemisphere 0.44" x 0.20" Black	3M	SJ-5003 (BLACK)	Digi-Key	SJ5003-0-ND
1	Included in Box at time of packing	USB A Male to Mini USB B 5 pin Cable - 3ft (Distributor....Katerno.com )	Katerno.com	10UM-02103BK	Katerno.com	10UM-02103BK

**Do Not Populate Parts listed below**

0	R18, R64, R65, R66, R69, R70, R71, R72, R75, R76, R77, R78, R81, R82, R83, R84	RES TKF 1k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF1001V	Digi-Key	P1.00KHCT-ND
0	R31, R34	RES TKF 10R 5% 1/10W SMD 0603	Yageo	RC0603JR-0710RL	Digi-Key	311-10GRCT-ND
0	R40, R41	RES TKF 1k 5% 1/10W SMD 0603	Panasonic	ERJ-3GEYJ102V	Digi-Key	P1.0KGCT-ND
0	R43	RES TKF 1M 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF1004V	Digi-Key	P1.00MHCT-ND

Approved	Notes

