

Bill of Materials

MIC24046 Evaluation Board

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Quantity	Designator	Description_	Manufacturer 1	Manufacturer Part Number 1	Supplier 1	Supplier Part Number 1
3	C1, C3, C8	CAP CER 0.1uF 25V 10% X7R SMD 0603	Murata	GRM188R71E104KA01D	Digi-Key	490-1524-1-ND
2	C2, C21	CAP CER 2.2uF 10V 10% X7R SMD 0603	Murata	GRM188R71A225KE15D	Digi-Key	490-4520-1-ND
2	C5, C6	CAP CER 22uF 25V 10% X5R SMD 1206	Murata Electronics North America	GRM31CR61E226KE15L	Digi-Key	490-5527-1-ND
1	C7	CAP CER 10uF 25V 10% X5R SMD 0805	Murata	GRM21BR61E106KA73L	Digi-Key	490-5523-1-ND
3	C9, C14, C16	CAP CER 22uF 10V 20% X7S SMD 0805	TDK Corporation	C2012X7S1A226M125AC	Digi-Key	445-14560-1-ND
2	C10, C11	CAP CER 100uF 6.3V 20% X5R SMD 1206	Murata	GRM31CR60J107ME39L	Digi-Key	490-4539-1-ND
1	C17	CAP CER 47pF 50V 5% NP0 SMD 0603	KEMET	C0603C470J5GACTU	Digi-Key	399-1056-1-ND
1	C18	CAP CER 0.010uF 25V 10% X7R SMD 0603	Yageo	CC0603KRX7R8BB103	Digi-Key	311-1360-1-ND
1	C19	CAP CER 1000pF 50V 20% X7R SMD 0603	TDK Corporation	C1608X7R2A102K080AA	Digi-Key	445-1298-1-ND
1	D1	DIO RECT 1N4148WS 1.25V 150mA 75V SOD-323	Diodes Inc	1N4148WS-7-F	Digi-Key	1N4148WS-FDICT-ND
1	J1	CON HDR-2.54 Male 1x4 Gold 5.84MH TH VERT	Samtec	TSW-104-07-G-S	Samtec	TSW-104-07-G-S
1	J1S	CON HDR-2.54 Male 1x5 Gold 5.84MH TH VERT	FCI	68000-105HLF	Digi-Key	609-3462-ND
7	J2S, J6, J7, J9, J15, J16, J18	CON HDR-2.54 Male 1x2 Gold 5.84MH TH VERT	FCI	77311-118-02LF	Digi-Key	609-4434-ND
1	J3	CON HDR-2.54 Male 1x7 Gold 5.84MH TH VERT	Samtec	TSW-107-07-G-S	Samtec	TSW-107-07-G-S
1	J8	CON TERMINAL 3.5mm 1x2 Female 16-28AWG 6A TH R/A	On Shore Technology Inc	ED555/2DS	Digi-Key	ED1514-ND
1	J10	CON HDR-2.54 Male 2x6 Gold 5.84MH TH VERT	Sullins	PBC06DAAN	Digi-Key	S2011E-06-ND
5	J11, J12, J13, J14, J17	CON HDR-2.54 Male 1x3 Tin 6.75MH TH VERT	Molex Inc	90120-0123	Digi-Key	WM8073-ND
1	L1	INDUCTOR 2.2uH 9.7A 20% SMD L5.28W5.48H3.1	Coilcraft	XAL5030-222MEC	Farnell	2289067
1	Q2	TRANS FET N-CH 2N7002-7-F 60V 170mA 370mW SOT-23-3	Diodes Inc	2N7002-7-F	Digi-Key	2N7002-FDICT-ND
2	R1, R2	RES TKF 0R 1/10W SMD 0603	Panasonic	ERJ-3GSY0R00V	Digi-Key	P0.0GTR-ND
1	R3	RES TKF 49.9R 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF49R9V	Digi-Key	P49.9HCT-ND
1	R4	RES TKF 2.55k 1% 1/10W SMD 0603	Yageo	RC0603FR-072K55L	Digi-Key	311-2.55KHRCT-ND
2	R6, R13	RES TF 10k 1% 1/16W SMD 0603	TE Connectivity	5-1879337-9	Digi-Key	A102203CT-ND
4	R8, R9, R10, R11	RES TKF 1R 1% 2W SMD 2512	Bourns Inc.	CRM2512-FX-1R00ELF	Digi-Key	CRM2512-FX-1R00ELFCT-ND
1	R12	RES TKF 1k 5% 1/10W SMD 0603	Panasonic	ERJ-3GEYJ102V	Digi-Key	P1.0KGCT-ND
1	R14	RES TKF 20k 5% 1/10W SMD 0603	Panasonic	ERJ-3GSYJ203	Digi-Key	P20KGCT-ND
2	TP1, TP5	MISC, TEST POINT MULTI PURPOSE MINI WHITE	Keystone	5002	Digi-Key	36-5002-ND

6	TP2, TP3, TP4, TP6, TP7, TP8	CON TP PIN Tin TH	Harwin	H2121-01	Digi-Key	952-1440-ND
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Microchip Parts listed below

1	Q1	MCHP ANALOG MOSFET N-CH 25V 100A 0.006R MCP87050-U/MF PDFN-8	Microchip Technology	MCP87050T-U/MF	Microchip	MCP87050T-U/MF
1	U1	MCHP ANALOG SWITCHER Buck 0.7V MIC24046YFL-TR VFQFN-20	Microchip Technology	MIC24046YFL-TR	Digi-Key	MIC24046YFL-CT-ND

Mechanical Parts to be added in the package

3	JP1, JP2, JP3	MECH HW JUMPER 2.54mm 1x2	3M	969102-0000-DA	Digi-Key	3M9580-ND
4	PAD1, PAD2, PAD3, PAD4	MECH HW RUBBER PAD CYLINDRICAL D7.9 H5.3 BLACK	3M	SJ61A11	Digi-Key	SJ5747-0-ND

Do Not Populate Parts listed below

1	C1S	CAP CER 22uF 25V 10% X5R SMD 1206	Murata Electronics North America	GRM31CR61E226KE15L	Digi-Key	490-5527-1-ND
3	C2S, C5S, C7S	CAP CER 0.1uF 25V 10% X7R SMD 0402	TDK Corporation	C1005X7R1E104K050BB	Digi-Key	445-7348-1-ND
2	C3S, C4S	CAP CER 100uF 6.3V 20% X5R SMD 1206	Murata	GRM31CR60J107ME39L	Digi-Key	490-4539-1-ND
1	C4	CAP ALU 220uF 16V 20% 0.015R RAD P3.5D8H8	Wurth Electronics Inc	870025374003	Digi-Key	732-6315-1-ND
2	C6S, C8S	CAP CER 2.2uF 10V 10% X7S SMD 0402	TDK Corporation	C1005X7S1A225K050BC	Digi-Key	445-9097-1-ND
2	C9S, C10S	CAP CER 0.012uF 16V 10% X7R SMD 0402	Murata Electronics North America	GRM155R71C123KA01D	Digi-Key	490-3255-1-ND
1	C11S	CAP TANT 47uF 20V 10% 700mOhm SMD D	KEMET	T491D476K020AS	Digi-Key	399-1619-2-ND
2	C12, C13	CAP TANT 220uF 6.3V 10% 225mOhm SMD C	AVX	TPSC227K006R0125	Digi-Key	478-1768-2-ND
1	C15	CAP CER 22uF 10V 20% X7S SMD 0805	TDK Corporation	C2012X7S1A226M125AC	Digi-Key	445-14560-1-ND
1	C20	CAP CER 2.2uF 10V 10% X7R SMD 0603	Murata	GRM188R71A225KE15D	Digi-Key	490-4520-1-ND
3	J2, J4, J5	CON HDR-2.54 Male 1x2 Gold 5.84MH TH VERT	FCI	77311-118-02LF	Digi-Key	609-4434-ND
1	L1S	INDUCTOR 2.2uH 5.5A 20% SMD L4W4H2.1	Coilcraft	XAL4020-222MEC	Farnell	2289054
1	R1S	RES TKF 10k 5% 1/16W SMD 0402	Vishay	CRCW040210K0JNED	Digi-Key	541-10KJCT-ND
1	R2S	RES TKF 2.7k 1% 1/10W SMD 0402	Panasonic	ERJ-2RKF2701X	Digi-Key	P2.70KLTR-ND
1	R7	RES TF 10k 1% 1/16W SMD 0603	TE Connectivity	5-1879337-9	Digi-Key	A102203CT-ND
4	TP1S, TP2S, TP3S, TP4S	CON TP PIN Tin TH	Harwin	H2121-01	Digi-Key	952-1440-ND
1	U1S	MCHP ANALOG SWITCHER Buck 0.7V MIC24046YFL-TR VFQFN-20	Microchip Technology	MIC24046YFL-TR	Digi-Key	MIC24046YFL-CT-ND