

# Bill of Materials

# MCP1663 Digital Power Supply Ref. Design

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Quantity	Designator	Description_	Manufacturer 1	Manufacturer Part Number 1	Supplier 1	Supplier Part Number 1
3	C1, C2, C6	CAP CER 0.1uF 16V 10% X7R SMD 0603	<a href="#">Wuerth Electronics</a>	<a href="#">885012206046</a>	Digi-Key	<a href="#">732-7965-1-ND</a>
1	C3	CAP CER 10uF 16V 10% X5R SMD 0805	<a href="#">Wuerth Electronics</a>	<a href="#">885012107014</a>	Digi-Key	<a href="#">732-7624-1-ND</a>
1	C4	CAP CER 10uF 10V 10% X5R SMD 0805	<a href="#">Taivo Yuden</a>	<a href="#">LMK212BJ106KG-T</a>	Digi-Key	<a href="#">587-1300-1-ND</a>
1	C5	CAP CER 10uF 50V 20% X7S SMD 1210	<a href="#">TDK</a>	<a href="#">C3225X7S1H106M</a>	Digi-Key	<a href="#">445-4537-1-ND</a>
1	C7	CAP CER 1uF 50V 20% Y5V SMD 0805	<a href="#">Samsung</a>	<a href="#">CL21F105ZBFNNNE</a>	Digi-Key	<a href="#">1276-3010-2-ND</a>
1	C8	CAP CER 1uF 16V 10% X5R SMD 0603	<a href="#">AVX</a>	<a href="#">0603YD105KAT2A</a>	Digi-Key	<a href="#">478-1249-1-ND</a>
1	C9	CAP CER 0.1uF 50V 10% X7R SMD 0805	<a href="#">Cal-Chip</a>	<a href="#">GMC21X7R104K50NTLF</a>	Cal-Chip	<a href="#">GMC21X7R104K50NTLF</a>
1	D1	DIO SCTKY SS24FL 40V 2A SOD-123F	<a href="#">ON Semiconductor</a>	<a href="#">SS24FL</a>	Digi-Key	<a href="#">SS24FLCT-ND</a>
1	J1	CON USB2.0 STD-A MALE TH R/A	<a href="#">Molex Inc</a>	<a href="#">0480370001</a>	Digi-Key	<a href="#">WM17117-ND</a>
1	J2	CON TERMINAL 5mm 1x2 Female 12-26AWG 18A TH R/A	<a href="#">Phoenix Contact</a>	<a href="#">1935161</a>	Digi-Key	<a href="#">277-1667-ND</a>
1	L1	INDUCTOR 10uH 1.1A 20% SMD L7.3W7.3H4	<a href="#">Wuerth Electronics</a>	<a href="#">744877100</a>	Digi-Key	<a href="#">732-2312-1-ND</a>
1	LD1	DIO LED GREEN 2V 30mA 35mcd Clear SMD 0603	<a href="#">Lite-On Inc</a>	<a href="#">LTST-C191KGKT</a>	Digi-Key	<a href="#">160-1446-1-ND</a>
1	LD2	DIO LED RED 2V 30mA 2mcd Clear SMD 0603	<a href="#">Lite-On</a>	<a href="#">LTST-C190EKT</a>	Digi-Key	<a href="#">160-1182-1-ND</a>
1	Q1	TRANS FET P-CH BSS84 -50V -130mA 300mW SOT-23-3	<a href="#">Diodes Inc</a>	<a href="#">BSS84-7-F</a>	Digi-Key	<a href="#">BSS84-FDICT-ND</a>
1	Q2	TRANS FET N-CH NDS7002A 60V 280mA 2R 0.3W SOT-23-3	<a href="#">ON Semiconductor</a>	<a href="#">NDS7002A</a>	Digi-Key	<a href="#">NDS7002ACT-ND</a>
2	R1, R7	RES TKF 1.3k 5% 1/10W SMD 0603	<a href="#">Panasonic</a>	<a href="#">ERJ-3GEYJ132V</a>	Digi-Key	<a href="#">P1.3KGTR-ND</a>
4	R2, R3, R6, R10	RES TF 10k 1% 1/16W SMD 0603	<a href="#">TE Connectivity</a>	<a href="#">5-1879337-9</a>	Digi-Key	<a href="#">A102203CT-ND</a>
2	R4, R5	RES TKF 8.2k 1% 1/10W SMD 0603	<a href="#">Panasonic</a>	<a href="#">ERJ-3EKF8201V</a>	Digi-Key	<a href="#">P8.20KHCT-ND</a>
1	R8	RES TKF 300k 1% 1/10W SMD 0603	<a href="#">Panasonic</a>	<a href="#">ERJ-3EKF3003V</a>	Digi-Key	<a href="#">P300KHCT-ND</a>
1	R9	RES TKF 2k 1% 1/10W SMD 0603	<a href="#">Panasonic</a>	<a href="#">ERJ-3EKF2001V</a>	Digi-Key	<a href="#">P2.00KHTR-ND</a>
1	RB	RES TKF 3.3k 1% 1/10W SMD 0603	<a href="#">Panasonic</a>	<a href="#">ERJ-3EKF3301V</a>	Digi-Key	<a href="#">P3.30KHCT-ND</a>
1	REN	RES TKF 1M 1% 1/10W SMD 0603	<a href="#">Panasonic</a>	<a href="#">ERJ-3EKF1004V</a>	Digi-Key	<a href="#">P1.00MHCT-ND</a>
1	RS	RES TKF 0.025R 1% 1/2W SMD 0805	<a href="#">Panasonic</a>	<a href="#">ERJ-6BWF025V</a>	Digi-Key	<a href="#">P17580CT-ND</a>
1	RT1	RES TKF 330k 1% 1/10W SMD 0603	<a href="#">Panasonic</a>	<a href="#">ERJ-3EKF3303V</a>	Digi-Key	<a href="#">P330KHCT-ND</a>
1	RT2	RES TKF 59k 1% 1/10W SMD 0603	<a href="#">Panasonic</a>	<a href="#">ERJ-3EKF5902V</a>	Digi-Key	<a href="#">P59.0KHCT-ND</a>

### Microchip Parts listed below

1	U1	MCHP INTERFACE USB I2C/UART MCP2221A-I/ML QFN-16	<a href="#">Microchip Technology</a>	<a href="#">MCP2221A-I/ML</a>	Digi-Key	<a href="#">MCP2221A-I/ML-ND</a>
1	U2	MCHP ANALOG DIGIPOT 1-Ch 50k MCP4562-503E/MS MSOP-8	<a href="#">Microchip Technology</a>	<a href="#">MCP4562-503E/MS</a>	Digi-Key	<a href="#">MCP4562-503E/MS-ND</a>
1	U3	MCHP ANALOG SWITCHER Boost 32V MCP1663T-E/OT SOT-23-5	<a href="#">Microchip Technology</a>	<a href="#">MCP1663T-E/OT</a>	Microchip Tech	<a href="#">MCP1663T-E/OT</a>
1	U4	MCHP ANALOG CURRENT SENSE MONITOR PAC1710-1-AIA-TR DFN-10	<a href="#">Microchip Technology</a>	<a href="#">PAC1710-1-AIA-TR</a>	Digi-Key	<a href="#">PAC1710-1-AIA-CT-ND</a>
1	U5	MCHP USB2.0 Protection IC with Battery Charger Detection USB3751A-2-A4-TR QFN-16	<a href="#">Microchip Technology</a>	<a href="#">USB3751A-2-A4-TR-ND</a>	Digi-Key	<a href="#">USB3751A-2-A4-TR-ND</a>