

# Bill of Materials

# MCP1643 RGB LED Driver Demo Board

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 Part Number: ADM00612  
 Revision: 1  
 Engineer: Catalin Bibirica  
 Drawn By: Catalin Bibirica



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Quantity	Designator	Description_	Manufacturer 1	Manufacturer Part Number 1	Supplier 1	Supplier Part Number 1
1	BT1	BATT HOLDER 1 TH AA	Keystone	1028	Farnell	1650669
2	C2, C3	CAP CER 10uF 16V 20% Y5V SMD 0805	TDK	C2012Y5V1C106Z	Digi-Key	445-3458-1-ND
2	C5, C6	CAP CER 100uF 10V 20% X5R SMD 1206	TDK Corporation	C3216X5R1A107M160AC	Digi-Key	445-6007-1-ND
1	C10	CAP CER 1uF 16V 10% X5R SMD 0603	AVX	0603YD105KAT2A	Digi-Key	478-1249-1-ND
1	D1	DIO SCTKY PD3S140 490mV 1A 40V POWERDI-123	Diodes Incorporated	PD3S140-7	Digi-Key	PD3S140DICT-ND
4	J0, J1, J3, J4	CON TP LOOP Tin SMD	Harwin Inc	S1751-46R	Digi-Key	952-1478-1-ND
1	J2	CON HDR-2.54 Male 1x6 Tin 5.84MH TH VERT	Sullins	PEC06SAAN	Digi-Key	S1012E-06-ND
1	L1	INDUCTOR CHOKE 4.7uH 1.35A 20% SMD L2.8W2.8H2.8	Würth Electronics Inc	744025004	Digi-Key	732-2615-1-ND
1	LD1	DIO LED TRI RED, GREEN, BLUE 2.1V, 3.5V, 3.5V 300mA, 350mA, 350mA SMD TO-252-3	Lumex Opto/Components Inc	SML-LX1610RGBW/A	Digi-Key	67-2074-ND
4	Q1, Q2, Q3, Q4	TRANS FET N-CH IRLML2402 20V 1.2A 540mW SOT-23-3	International Rectifier	IRLML2402TRPBF	Digi-Key	IRLML2402PBFTR-ND
1	R1	RES TKF 0.3R 1% 1/2W SMD 1206	Vishay Dale	RCWE1206R300FKEA	Digi-Key	RCWE.3ECT-ND
2	R2, R5	RES TF 10k 0.1% 1/10W SMD 0603	Panasonic	ERA-3AEB103V	Digi-Key	P10KDBTR-ND
1	R3	RES TKF 47k 5% 1/10W SMD 0603	Panasonic	ERJ-3GEYJ473V	Digi-Key	P47KGCT-ND
1	R4	RES TKF 1.3k 5% 1/10W SMD 0603	Panasonic	ERJ-3GEYJ132V	Digi-Key	P1.3KGTR-ND
1	R6	RES TKF 1k 1% 1/16W SMD 0805	Stackpole Electronics Inc	RMCF 1/10 1K 1% R	Digi-Key	RMCF1/101KFRCT-ND
1	R7	RES TKF 0R 1% 1/4W SMD 1206	TT Electronics	WCR1206-R005JI	Farnell	1100137
3	R8, R9, R10	RES TKF 0R 1/10W SMD 0603	NIC Components	NRC06Z0TRF	NIC Components	NRC06Z0TRF
3	R11, R12, R13	RES TRIMMER Cermet 10K 10% 500mW TH 3386X	Bourns Inc.	3386X-1-103TLF	Digi-Key	3386X-103TLF-ND
2	SW1, SW2	SWITCH TACTILE SPST 12V 50mA RS285G05A2URT SMD	C&K Components	RS285G05A2URT	Digi-Key	RS285G05A2URT-ND

### Microchip Parts listed below

1	U1	MCHP ANALOG SWITCHER Boost 5V MCP1643T-I/MS MSOP-8	Microchip Technology	MCP1643T-I/MS	Digi-Key	MCP1643T-I/MS-ND
1	U2	MCHP MCU 8-BIT 48MHz 14kB 1kB PIC16F1455-I/ST TSSOP-14	Microchip Technology	PIC16F1455-I/ST	Digi-Key	PIC16F1455-I/ST-ND

### Do Not Populate Parts listed below

3	C1, C4, C7	CAP CER 10000pF 50V 20% X7R SMD 0603	AVX Corporation	06035C103KAT2A	Digi-Key	478-1227-1-ND
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