

5 Bill of Materials, Board Layout and Schematics

5.1 Bill of Materials

Table 2. Bill of Materials

Count	RefDes	Value	Description	Size	Part Number	MFR
2	C1, C2**	4.7uF	Capacitor, Ceramic, 10V, X5R, 10%	0805	GRM219R61A475KE19D	Murata
1	C3**	100uF	Capacitor, Ceramic, 6.3V, X5R, 20%	1812	GRM43SR60J107ME20L	Murata
2	C4, C6	0.1uF	Capacitor, Ceramic, 50V, X7R, 10%	0603	Std	Std
1	C5**	0.01uF	Capacitor, Ceramic, 50V, X7R, 10%	0603	GRM188R71H103KA01D	Murata
3	J1, J2, J5	ED555/2DS	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25 inch	ED555/2DS	OST
2	J3, J4	PEC02SAAN	Header, Male 2-pin, 100mil spacing,	0.100 inch x 2	PEC02SAAN	Sullins
1	J6	PEC03SAAN	Header, Male 3-pin, 100mil spacing,	0.100 inch x 3	PEC03SAAN	Sullins
2	JP1, JP2	PEC03SAAN	Header, Male 3-pin, 100mil spacing,	0.100 inch x 3	PEC03SAAN	Sullins
1	L1	22uH	Inductor, SMT, 0.8A, 360milliohm	0.153 x 0.153 inch	LPS4018-223MLB	Coilcraft
1	R1	10.0M	Resistor, Chip, 1/10W, 1%	0805	CRCW080510M0FKEA	Vishay
0	R11	Open	Resistor, Chip, 1/10W, 1%	0805	Std	Std
4	R12, R14, R15, R16	0	Resistor, Chip, 1/10W, 1%	0805	Std	STD
0	R13, R17, R18	Open	Potentiometer, 1/4 in. Cermet, 12-Turn, Top-Adjust	0.25x0.17	3266W-504LF	Bourns
3	R2, R6, R8	4.42M	Resistor, Chip, 1/10W, 1%	0805	CRCW08054M42FKEA	Vishay
1	R3	5.90M	Resistor, Chip, 1/10W, 1%	0805	CRCW08055M90FKEA	Vishay
1	R4	4.02M	Resistor, Chip, 1/10W, 1%	0805	CRCW08054M02FKEA	Vishay
2	R5, R10	5.60M	Resistor, Chip, 1/10W, 1%	0805	CRCW08055M60FKEA	Vishay
1	R7	1.43M	Resistor, Chip, 1/10W, 1%	0805	CRCW08051M43FKEA	Vishay
1	R9	4.22M	Resistor, Chip, 1/10W, 1%	0805	CRCW08054M22FKEA	Vishay
0	TP1, TP2, TP6, TP7, TP8, TP9, TP10, TP14, TP16, TPG1, TPG2, TPG3, TPG4	Open	Test Point, 0.032 Hole		STD	STD
1	U1	BQ25504RGT	IC, NanoAmpere Integrated Boost Converter/Charger	QFN-16	BQ25504RGT	TI
1	--		PCB, 1.8 In x 1.8 In x 0.031 In		HPA674	Any
2	See Note 5		Shunt, 100-mil, Black	0.1	929950-00	3M

- Notes:
1. These assemblies are ESD sensitive, ESD precautions shall be observed.
 2. These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.
 3. These assemblies must comply with workmanship standards IPC-A-610 Class 2.
 4. Ref designators marked with an asterisk (***) cannot be substituted. All other components can be substituted with equivalent MFG's components.
 5. Place shunt on JP1-2/3 (Divider) and JP2 (place on just one pin – ckt should be floating).

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