

Bill of Materials

V _{IN} = 12V, V _{OUT} = 5V, I _{OUT} = 1A, f _{sw} = 2100kHz						
Reference	Count	Part Number	Value	Description	Package	Manufacturer
U1	1	RTQ2131BGQW-QA	RTQ2131B	Step-Down Converter	WDFN-10SL 3x3	RICHTEK
C1, C2, C3, C4, C16	5	N/A	N/A	Optional for EMI requirement	N/A	N/A
C5	1	GCM31CR71H225KA	2.2μF	Capacitor, ceramic, 50V, X7R, ±10%	1206	MURATA
C6, C7, C8	3	CGA3E2X7R1H104K	0.1μF	Capacitor, ceramic, 50V, X7R, ±10%	0603	TDK
C9, C10	2	GCM31CC71E106KA	10μF	Capacitor, ceramic, 25V, X7S, ±10%	1206	MURATA
C11	1	GCM188R71C105KA	1μF	Capacitor, ceramic, 16V, X7R, ±10%	0603	MURATA
C12	1	N/A	N/A	Optional	N/A	N/A
C13	1	N/A	N/A	Optional	N/A	N/A
C15	1	GCE188R71H152KA	1.5nF	Capacitor, ceramic, 50V, X7R, ±10%	0603	N/A
L1, L2	2	N/A	N/A	Optional for EMI requirement	N/A	N/A
L3	1	WE-74437336047	4.7μH	Inductor, SMT, Isat = 5.9A, 50mΩ	5.2 x 5.2 x 2.8mm	Würth Elektronik
R2, R4	2	WR06X1003	100kΩ	Resistor, chip, 1/10W, 1%	0603	WALSIN
R3	1	WR06X1053	105k	Resistor, chip, 1/10W, 1%	0603	WALSIN
R5	1	WR06X2002	20k	Resistor, chip, 1/10W, 1%	0603	WALSIN
R6	1	WR06X3742	37.4k	Resistor, chip, 1/10W, 1%	0603	WALSIN

More Information

For more information, please find the related datasheet or application notes from Richtek website <http://www.richtek.com>.

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