

**Bill of Materials**

Reference	Qty	Part Number	Description	Package	Manufacturer
U1	1	RT6190GQW	Buck-Boost PWM Controller	WQFN-40L 5x5	Richtek
L1	1	7443551470	4.7μH/7mΩ/15A	12.8x12.8x6.2mm	WÜRTH ELEKTRONIK
L2	1	--	NC	--	--
Q1, Q2, Q3, Q4	4	EPC2204	N-MOSFET for Power Stage (100V/29A)	2.5x1.5mm	Efficient Power Conversion
QC1, QC2, QA1, QA2	4	SM3430NHQA	N-MOSFET for USBC/A Power Path (40V/36A)	DFN3.3x3.3A-8_EP	Sinopower
D1, D2, D3, D4	4	1N4148WT-7	Diode (100V/0.25W) (1) External BOOT Voltage for SW1 and SW2 (2) Discharge QC1, QC2, QA1, QA2	SOD-523	Diodes
D5, D6, D7, D8	4	V1P6	Schottky Diode (60V/1A)	DO-219AD	Vishay
EC1, EC2	2	--	NC	--	--
EC3, EC4	2	350ARHA101M08X8	100μF/35V	8x3.5mm	APAQ
C3, C4, C34, C35, C37	5	0603B104K500CT	0.1μF/50V/X7R/0603	C-0603	WALSIN
C5, C6, C14, C16, C17, C18, C20, C21, C26, C31	10	GRM188R61H105KAALD	1μF/50V/X7R/0603	C-0603	MURATA
C7, C8	2	GRM188R61E475KE11D	4.7μF/10V/X5R/0603	C-0603	MURATA
C9	1	0603N1R0C500CT	1pF/50V/NPO/0603	C-0603	WALSIN
C10	1	0603B332K500CT	3.3nF/50V/X7R/0603	C-0603	WALSIN
C11	1	0603N221J500CT	220pF/50V/NPO/0603	C-0603	WALSIN
C12	1	0603B103K500CT	10nF/50V/X7R/0603	C-0603	WALSIN
C13	1	0603B333K500CT	33nF/50V/X7R/0603	C-0603	WALSIN
C15, C19	2	0603B152K500CT	1.5nF/50V/X7R/0603	C-0603	WALSIN
C22, C23, C24, C25, C27, C28, C29, C30	8	1206X106K500CT	10μF/50V/X5R/1206	C-1206	WALSIN
C32, C33, C36, C38, C39, C40, C41, C42	8	--	NC	--	--

Reference	Qty	Part Number	Description	Package	Manufacturer
R1, R2, R3, R4, R7, R8, R33, R34, R35, R43, R44, R45	12	WR06X000 PTL	0/0603	R-0603	WALSIN
R9, R10, R11, R12	4	WR06X10R0FTL	10/0603/1%	R-0603	WALSIN
R13	1	WR12X2200FTL	220/1206/1%	R-0603	WALSIN
R14, R18, R32	3	WR06X1003FTL	100k/0603/1%	R-0603	WALSIN
R15	1	WR06W1R00FTL	1/0603/1%	R-0603	WALSIN
R16, R36	2	WR06X1002FTL	10k/0603/1%	R-0603	WALSIN
R17, R31, R37, R38, R39, R40, R41, R42	8	--	NC	--	--
R19	1	WR06X4702FTL	47k/0603/1%	R-0603	WALSIN
R20	1	WR06X5101FTL	5.1k/0603/1%	R-0603	WALSIN
R21, R22, R24, R25	4	WR06X1001FTL	1k/0603/1%	R-0603	WALSIN
R23, R26	2	WR06W2R00FTL	2/0603/1%	R-0603	WALSIN
R29, R30	2	RLM-1632-6F-R010-FNH	10mΩ/1%/1206 for input/output current sense	R-1206	Cyntec
R46	1	--	NC	--	--
RT1	1	--	NC	--	--

## More Information

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

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