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**PR2186E2**

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
C1, C3, C8, C20	4	1.0uF	Capacitor, Ceramic, 16V, X7R, 20%	603	STD	STD		
C4, C18, C24	3	4700pF	CAP, CERM, 4700pF, 50V, +/-10%, X7R, 0402	0402	C1005X7R1H472K	TDK		
C5, C11, C17, C19	4	4.7uF	Capacitor, Ceramic, 10V, X5R, 20%	603	STD	STD		
C6, C9	2	100pF	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0402	0402	GRM1555C1H101JA01D	MuRata		
C14	1	33pF	CAP, CERM, 33pF, 50V, +/-5%, C0G/NP0, 0402	0402	GRM1555C1H330JA01D	MuRata		
C15, C25	2	1uF	CAP, CERM, 1uF, 10V, +/-10%, X5R, 0402	0402	GRM155R61A105KE15D	MuRata		
C16, C31, C70, C71, C72	5	0.1uF	Capacitor, Ceramic, 50V, X7R, 10%	402	STD	STD		
C21	1	0.01uF	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0402	0402	GRM155R71H103KA88D	MuRata		
C22	1	4.7uF	CAP, CERM, 4.7uF, 10V, +/-20%, X5R, 0402	0402	GRM155R61A475M	MuRata		
C23, C33	2	10uF	CAP, CERM, 10uF, 16V, +/-20%, X5R, 0603	0603	EMK107BBJ106MA-T	Taiyo Yuden		
C27, C28, C29, C30	4	0.1uF	CAP, CERM, 0.1uF, 25V, +/-5%, C0G/NP0, 1206	1206	C3216C0G1E104J	TDK		
C32, C35	2	22uF	CAP, CERM, 22 uF, 6.3 V, +/- 20%, X5R, 0603	0603	C1608X5R0J226M080A C	TDK		
C74, C75	2	0.01uF	CAP, CERM, 0.01uF, 25V, +/-5%, C0G/NP0, 0603	0603	C1608C0G1E103J	TDK		
D2, D3	2	BAT54HT1G	Diode, Small Signal, 200-mA, 30-V	SOD-323	BAT54HT1G	Fairchild		
D5	1	Green	LED, Green, SMD	LED_0603	150060VS75000	Würth Elektronik eiSos		
D7	1	Super Red	LED, Super Red, SMD	LED_0603	150060SS75000	Würth Elektronik eiSos		
J1	1		Connector, USB Micro AB	Connector, USB Micro AB	DX4R205JJAR1800	JAE Electronics		
L1	1	1000 ohm	0.25A Ferrite Bead, 1000 ohm @ 100MHz, SMD	0402	BLM15HG102SN1D	MuRata		
L2	1	6.5uH	Coil TX Wireless Power, 30mm X 2mm	TH, Dia 30mm, Pin spacing 15mm	760308101103	Würth Elektronik eiSos		
Q1, Q3	2	-20V	MOSFET, P-CH, -20 V, -20 A, SON 2x2mm	SON 2x2mm	CSD25310Q2	Texas Instruments		None
Q2, Q5	2	25V	MOSFET, N-CH, 25V, 5A, SON 2x2mm	SON 2x2mm	CSD16301Q2	Texas Instruments		None
Q4, Q7	2	50V	MOSFET, N-CH, 50V, 0.2A, SOT-323	SOT-323	BSS138W-7-F	Diodes Inc.		None
Q6	1	DTC114EUA	Transistor, Digital NPN, 50 V, 100 mA	SOT-323	DTC114EUA	Rohm		
R1, R3	2	2.94k	RES, 2.94 k, 1%, 0.063 W, 0402	0402	CRCW04022K94FKED	Vishay-Dale		
R2, R26, R29, R47	4	10.0	RES, 10.0 ohm, 1%, 0.063W, 0402	0402	CRCW040210R0FKED	Vishay-Dale		
R4, R5, R8, R9, R11, R19, R50, R75, R76	9	10.0k	RES, 10.0k ohm, 1%, 0.063W, 0402	0402	CRCW040210K0FKED	Vishay-Dale		
R6, R12, R13	3	100k	RES, 100k ohm, 1%, 0.063W, 0402	0402	CRCW0402100KFKED	Vishay-Dale		
R7	1	22.1	RES, 22.1 ohm, 1%, 0.063W, 0402	0402	CRCW040222R1FKED	Vishay-Dale		
R10	1	76.8k	RES, 76.8k ohm, 1%, 0.063W, 0402	0402	CRCW040276K8FKED	Vishay-Dale		
R14	1	12.1k	RES, 12.1k ohm, 1%, 0.063W, 0402	0402	CRCW040212K1FKED	Vishay-Dale		
R15, R16	2	475	RES, 475, 1%, 0.063 W, 0402	0402	CRCW0402475RFKED	Vishay-Dale		
R17, R48	2	3.57k	RES, 3.57k ohm, 1%, 0.063W, 0402	0402	CRCW04023K57FKED	Vishay-Dale		
R23	1	42.2k	RES, 42.2 k, 1%, 0.063 W, 0402	0402	CRCW040242K2FKED	Vishay-Dale		
R25, R28	2	523k	RES, 523k ohm, 1%, 0.063W, 0402	0402	CRCW0402523KFKED	Vishay-Dale		
R32	1	.020 Ohm	Resistor, Chip, 1/16W,	603	WSL0603R0200FEA	Vishay Dale		

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R33	1	243	RES, 243, 1%, 0.063 W, 0402	0402	CRCW0402243RFKED	Vishay-Dale		
R36, R37	2	1.00	RES, 1.00 ohm, 1%, 0.063W, 0402	0402	CRCW04021R00FKED	Vishay-Dale		
R46, R55	2	1.00k	RES, 1.00k ohm, 1%, 0.063W, 0402	0402	CRCW04021K00FKED	Vishay-Dale		
R53	1	2.00Meg	RES, 2.00Meg ohm, 1%, 0.063W, 0402	0402	CRCW04022M00FKED	Vishay-Dale		
R70, R71, R72, R73	4	0	RES, 0, 5%, 0.063 W, 0402	0402	CRCW04020000Z0ED	Vishay-Dale		
U1	1	BQ500212A	IC, Qi Compliant Wireless Power Transmitter Manager	VQFN	BQ500212ARGZ	TI		None
U4	1	SN74LVC2G32DCUx	IC, Dual 2-Input Positive-OR Gates	VSSOP-8	SN74LVC2G32DCUx	TI		None
U5	1	TLV71733	IC, 150mA, Low IQ, LDO Regulator for Portables	uDFN	TLV71733PDQN	TI		None
U6, U9	2	SN74LVC2G08DCU	Dual 2-Input Positive-And Gate	VSSOP	SN74LVC2G08DCU	TI		None
U7	1		Voltage Output, High or Low Side Measurement, Bi-Directional Zero-Drift Series Current-Shunt Monitor, DCK0006A	DCK0006A	INA199A1DCK	Texas Instruments		None
C10, C12	0	0.047uF	CAP, CERM, 0.047uF, 16V, +/-10%, X7R, 0603	0603	GRM188R71C473KA01D	MuRata		
D8	0	NoPop	LED, Green, SMD	1.6x0.8x0.8mm	LTST-C190GKT	Lite-On		
J2	0	NoPop	Header, 100mil, 3x1, Gold, TH	PBC03SAAN	PBC03SAAN	Sullins Connector Solutions		
NTC	0	NoPop	Header, 2-pin, 2mm spacing	2x4 mm	TMM-102-xx-y-TM-S	Samtec		
R18	0	NoPop	RES, 475, 1%, 0.063 W, 0402	0402	CRCW0402475RFKED	Vishay-Dale		
R24	0	NoPop	RES, 48.7 k, 1%, 0.063 W, 0402	0402	CRCW040248K7FKED	Vishay-Dale		
R27	0	NoPop	RES, 0 ohm, 5%, 0.063W, 0402	0402	CRCW04020000Z0ED	Vishay-Dale		
R99	0	NoPop	RES, 86.6 k, 1%, 0.063 W, 0402	0402	CRCW040286K6FKED	Vishay-Dale		

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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