

Assembly Bill of Materials

Texas Instruments

Project Name:	LM5121 Dual Boost
Project File:	PMP9297_REVB.PrjPCB
Base ID:	PMP9297
Schematic Rev:	B
Assembly Variant:	None
Build Quantity:	1
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Item	Designator	Description	RoHS	Manufacturer	PartNumber	Quantity	Required
1	!PCB1	Printed Circuit Board	O	Any	PMP9297	1	1
2	C1, C28	CAP, CERM, 330pF, 100V, +/-10%, X7R, 0603	Y	MuRata	GRM188R72A331KA01D	2	2
3	C2	CAP, AL, 470uF, 63V, +/-20%, 0.082 ohm, SMD	Y	Panasonic	EEV-FK1J471M	1	1
4	C3, C4, C29, C30	CAP, AL, 220uF, 100V, +/-20%, 0.153 ohm, SMD	Y	Panasonic	EEV-FK2A221M	4	4
5	C5, C6, C31, C32	CAP, CERM, 10uF, 50V, +/-20%, X7S, 1210	Y	TDK	C3225X7S1H106M	4	4
6	C7, C17, C33, C43	CAP, CERM, 1uF, 50V, +/-10%, X7R, 0805	Y	MuRata	GRM21BR71H105KA12L	4	4
7	C8, C9, C34, C35	CAP, CERM, 4.7uF, 100V, +/-20%, X7S, 1210	Y	TDK	C3225X7S2A475M	4	4
8	C10, C11, C14, C36, C37, C40	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0603	Y	MuRata	GRM188R72A104KA35D	6	6
9	C12, C15, C22, C24, C38, C41, C48, C50, C55	CAP, CERM, 0.1uF, 16V, +/-10%, X7R, 0402	Y	MuRata	GRM155R71C104KA88D	9	9
10	C13, C25, C39, C51	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0402	Y	MuRata	GRM1555C1H101JA01D	4	4
11	C16, C42	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0402	Y	MuRata	GRM155R71H103KA88D	2	2
12	C18, C44	CAP, CERM, 10uF, 6.3V, +/-20%, X5R, 0603	Y	MuRata	GRM188R60J106ME47D	2	2
13	C19, C45	CAP, CERM, 4700pF, 50V, +/-10%, X7R, 0402	Y	MuRata	GRM155R71H472KA01D	2	2
14	C20, C23, C46, C49	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	Y	MuRata	GRM188R71C105KA12D	4	4
15	C21, C47	CAP, CERM, 1000pF, 50V, +/-10%, X7R, 0402	Y	MuRata	GRM155R71H102KA01D	2	2
16	C26, C52	CAP, CERM, 4700pF, 50V, +/-10%, X7R, 0402	Y	TDK	C1005X7R1H472K	2	2
17	C27, C53	CAP, CERM, 470pF, 50V, +/-5%, C0G/NP0, 0402	Y	TDK	C1005C0G1H471J	2	2
18	C54	CAP, AL, 10uF, 16V, +/-20%, 1.35 ohm, SMD	Y	Panasonic	EEE-FK1C100R	1	1
19	D1, D4	Diode, Schottky, 100V, 1A, PowerDI123	Y	Diodes Inc.	DFLS1100-7	2	2
20	D2, D5, D7, D8, D10, D11	Diode, Ultrafast, 100V, 0.25A, SOD-323	Y	NXP Semiconductor	BAS316,115	6	6
21	D3, D6	Diode, Schottky, 30V, 0.35A, SOD-323	Y	ST Microelectronics	BAT48JFILM	2	2
22	D9, D12	Diode, Schottky, 30V, 0.2A, SOD-323	Y	Diodes Inc.	BAT54WS-7-F	2	2
23	D13	Diode, Zener, 56V, 1.3W, DO-41	Y	Vishay-Semiconductor	1N4731A	1	1
24	FID1, FID2, FID3	Fiducial mark. There is nothing to buy or mount.		N/A	N/A	3	3
25	H1, H2, H5, H6	Standoff, Hex, 0.5"L #4-40 Nylon	Y	Keystone	1902C	4	4

26	H3, H4, H7, H8	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Y	B&F Fastener Supply	NY PMS 440 0025 PH	4	4
27	J1, J2, J3, J4, J5, J6	Standard Banana Jack, Uninsulated, 8.9mm	Y	Keystone	575-8	6	6
28	J7, J8	Header, 100mil, 5x2, Tin plated, TH	Y	Sullins Connector Solutions	PEC05DAAN	2	2
29	L1, L3	Inductor, Shielded Drum Core, WE-Perm, 15.4uH, 8A, 0.0148 ohm, SMD	Y	Würth Elektronik eiSos	7443551151	2	2
30	L2, L4	Inductor, Shielded Drum Core, Ferrite, 105nH, 30A, 0.000235 ohm, SMD	Y	Würth Elektronik eiSos	744302010	2	2
31	LBL1	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	Y	Brady	THT-14-423-10	1	1
32	P1, P2	ELOAD	Used in BOM report. Use Y or N.		ELOAD	2	2
33	Q1, Q4	MOSFET, N-CH, 80V, 55A, PG-TDSON-8	Y	Infineon Technologies	BSC123N08NS3 G	2	2
34	Q2, Q5	MOSFET, N-CH, 60V, 172A, SON 5x6mm	Y	Texas Instruments	CSD18532Q5B	2	2
35	Q3, Q6	MOSFET, N-CH, 80V, 23A, PG-TDSON-8	Y	Infineon Technologies	BSC340N08NS3 G	2	2
36	Q7, Q8	Transistor, PNP, 40V, 0.2A, SOT-23	Y	Fairchild Semiconductor	MMBT3906	2	2
37	R1, R27	RES, 10 ohm, 5%, 0.25W, 1206	Y	Vishay-Dale	CRCW120610R0JNEA	2	2
38	R2, R28	RES, 0.01 ohm, 0.5%, 0.5W, 1206	Y	Ohmite	LVK12R010DER	2	2
39	R3, R29	RES, 0.005 ohm, 1%, 1W, 1206	Y	Susumu Co Ltd	PRL1632-R005-F-T1	2	2
40	R4, R30	RES, 90.9k ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW040290K9FKED	2	2
41	R5, R31	RES, 33.2k ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW040233K2FKED	2	2
42	R6, R32	RES, 3.92k ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW04023K92FKED	2	2
43	R7, R8, R33, R34	RES, 100 ohm, 5%, 0.063W, 0402	Y	Vishay-Dale	CRCW0402100RJNED	4	4
44	R9, R12, R16, R35, R38, R42	RES, 0 ohm, 5%, 0.063W, 0402	Y	Vishay-Dale	CRCW04020000Z0ED	6	6
45	R10, R36	RES, 200k ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW0402200KFKED	2	2
46	R11, R37	RES, 3.3 ohm, 5%, 0.063W, 0402	Y	Vishay-Dale	CRCW04023R30JNED	2	2
47	R13	RES, 0 ohm, 5%, 0.063W, 0402	Y	Yageo America	RC0402JR-070RL	1	1
48	R14, R25, R40, R51	RES, 10.0 ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW040210R0FKED	4	4
49	R15, R41	RES, 82.5k ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW040282K5FKED	2	2
50	R17, R43	RES, 7.32k ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW04027K32FKED	2	2
51	R18, R44	RES, 68.1k ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW040268K1FKED	2	2
52	R19, R20, R45, R46	RES, 6.81k ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW04026K81FKED	4	4
53	R21, R47	RES, 56.2k ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW040256K2FKED	2	2

54	R22, R48	RES, xxx ohm, x%, xW, [PackageReference]	Used in BOM report. Use Y or N.	Used in BOM report	DNP1	2	2
55	R23, R49	RES, 1.69k ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW04021K69FKED	2	2
56	R24, R50	RES, 22.6k ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW040222K6FKED	2	2
57	R26, R52	RES, 100k ohm, 1%, 0.063W, 0402	Y	Vishay-Dale	CRCW0402100KFKED	2	2
58	R39	RES, 0 ohm, 5%, 0.063W, 0402	Y	Rohm	MCR01MZPJ000	1	1
59	R53	RES, 6.81k ohm, 1%, 0.25W, TH	Y	Vishay-Dale	CMF506K8100FHEB	1	1
60	RT1, RT2	Thermistor NTC, 10.0k ohm, 1%, 0402	Y	MuRata	NCP15XH103F03RC	2	2
61	TP1, TP2, TP7, TP12	Test Point, Multipurpose, Red, TH	Y	Keystone	5010	4	4
62	TP3, TP4, TP6, TP8, TP10, TP14	Test Point, Multipurpose, Black, TH	Y	Keystone	5011	6	6
63	TP5, TP9, TP15, TP16	Test Point, Multipurpose, White, TH	Y	Keystone	5012	4	4
64	TP11, TP13	Terminal, Turret, TH, Triple	Y	Keystone	1598-2	2	2
65	U1, U3	Wide Input Synchronous Boost Controller with Disconnection Switch Control, PWP0020A	Y	Texas Instruments	LM5121MH/NOPB	2	2
66	U2, U4	Precision 76V High-Side Current Sense Amplifier with Voltage Output, DGK0008A	Y	Texas Instruments	LMP8481MME-S/NOPB	2	2
67	U5	IC, 256 Taps Dual Chan Digital Pot.w/ non-Volatile Memory		TI	TPL0202-10MRTER	1	1
68	Z1, Z2	Diode, Zener, 2.4V, Sharp Knee, SOD-323	Y	Diodes Inc.	CMDZ2L4	2	2

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