Texas Instruments

Bill of Materials

TI DESIGNS

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
!PCB1	1		Printed Circuit Board		SAT0060	Any
C1, C2, C3, C4, C5, C6, C7, C8	8	1000pF	CAP, CERM, 1000pF, 2KV 10% X7R 1206	1206	202R18W102KV4E	Johanson Dielectrics Inc
C9	1	0.47uF	CAP, CERM, 0.47uF, 16V, +/-5%, X7R, 0805	0805	0805YC474JAT2A	AVX
C10, C11, C19, C21, C25, C26	6	0.1uF	CAP, CERM, 0.1uF, 16V, +/-10%, X7R, 0402	0402	GRM155R71C104KA88D	MuRata
C12, C13, C14, C16	4	47pF	CAP, CERM, 47pF, 50V, +/-5%, C0G/NP0, 0402	0402	GRM1555C1H470JZ01	MuRata
C15, C?	2	22uF	CAP, AL, 22uF, 50V, +/-20%, 0.88 ohm, SMD	SMT Radial D	EEE-FK1H220P	Panasonic
C17	1	1uF	CAP, CERM, 1uF, 100V, +/-10%, X7R, 1206	1206	GRM31CR72A105KA01L	MuRata
C18	1	0.1uF	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0603	0603	GRM188R72A104KA35D	MuRata
C20, C22, C23, C24	4	0.22uF	CAP, CERM, 0.22uF, 100V, +/-10%, X7R, 0805	0805	GRM21AR72A224KAC5L	MuRata
C27	1	0.01uF	CAP, CERM, 0.01uF, 16V, +/-10%, X7R, 0402	0402	C1005X7R1C103K	TDK
C28	1	0.1uF	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0603	0603	GRM188R71E104KA01D	MuRata
C29, C31, C32	3	4700 pF	CAP, CERM, xxxF, xxV, [TempCo], xx%, [PackageReference]	Used in PnP output	Used in BOM report	Used in BOM report
C30	1	1uF	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	0603	C1608X7R1C105K	TDK
C33	1	1uF	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	0603	GRM188R71C105KA12D	MuRata
C34	1	1000pF	CAP, CERM, 1000pF, 25V, +/-10%, X7R, 0603	0603	GRM188R71E102KA01D	MuRata
C35	1	0.01uF	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0402	0402	GRM155R71H103KA88D	MuRata
C36	1	22uF	CAP, CERM, 22uF, 25V, +/-10%, X7R, 1210	1210	GRM32ER71E226KE15L	MuRata
C37, C38	2	2.2uF	CAP, CERM, 2.2uF, 25V, +/-10%, X7R, 0805	0805	GRM21BR71E225KA73L	MuRata
C39	1	1000pF	CAP, CERM, 1000pF, 100V, +/-10%, X7R, 0402	0402	GRM155R72A102KA01D	MuRata
D1, D2, D3, D4, D5, D6, D7, D8	8		LED GREEN 0.2MM 13MCD 0402 SMD	0402 (1005 Metric)	SML-P12PTT86	Rohm Semiconductor
D9	1		LED RED 0.2MM 60MCD	0402 (1005 Metric)	SML-P12VTT86	Rohm Semiconductor
D10	1	45V	Diode, Schottky, 45V, 0.1A,	SOD-523	SDM10U45-7-F	Diodes Inc.
D11	1	1000V	Diode, P-N, 1000V, 1A,	2.67x5.2mm	BYM10-1000-E3/97	Vishay-Semiconductor
D12	1	33V	Diode, TVS, Bi, 33V, 1500W,	SMC	SMCJ33CA	Bourns
D13, D17	2	200V	Diode, Schottky, 200V, 1A,	PowerDI123	DFLS1200-7	Diodes Inc.
D14	1	60V	Diode, Schottky, 60V, 1A,	SOD-123F	PMEG6010CEH,115	NXP Semiconductor
FID1, FID2,	3		Fiducial mark. There is	Fiducial	N/A	N/A
H1, H2, H5,	4		Screw Pan Head M3	Screw M3	29311	Keystone
J1	1		Terminal Block, 8x1, 2.54 mm,	8POS Terminal Block	1725711	Phoenix Contact
J2, J3	2		Header, 2 Pos, 6A, 63V, TH	6.2x8.5x5.54 mm	1725656	Phoenix Contact
J4	1		Receptacle, 0.8mm, 25x2,	25x2 Socket Strip	ERF8-025-05.0-L-DV-K-	Samtec
LBL1	1		Thermal Transfer Printable	PCB Label 0.650"H x 0.200"W	THT-14-423-10	Brady
Q1	1	60V	MOSFET, N-CH, 60V, 50A,	SON 5x6mm	CSD18537NQ5A	Texas Instruments
R1, R2, R3,	8	1.20k	RES, 1.20k ohm, 1%, 0.25W,	1.4x3.6mm	MMA02040C1201FB30	Vishay/Beyschlag
R9, R10,	3	10.0k	RES, 10.0k ohm, 1%, 0.063W,	0402	CRCW040210K0FKED	Vishay-Dale
R11	1	44.2k	RES, 44.2k ohm, 1%, 0.063W,	0402	CRCW040244K2FKED	Vishay-Dale
R13	1	47.5k	RES, 47.5k ohm, 1%, 0.063W,	0402	CRCW040247K5FKED	Vishay-Dale
R14, R36	2	0	RES, 0 ohm, 5%, 0.063W,	0402	CRCW04020000Z0ED	Vishay-Dale
R15	1	11.3k	RES, 11.3k ohm, 1%, 0.063W,	0402	CRCW040211K3FKED	Vishay-Dale
R16, R18,	4	80.6	RES, 80.6 ohm, 1%, 0.063W,	0402	CRCW040280R6FKED	Vishay-Dale
R17, R21	2	1.50k	RES, 1.50k ohm, 1%, 0.063W,	0402	CRCW04021K50FKED	Vishay-Dale
R22	1	1.15k	RES, 1.15k ohm, 1%, 0.063W,	0402	CRCW04021K15FKED	Vishay-Dale

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
R23	1	56.0	RES, 56.0 ohm, 1%, 0.4W,	2.2x5.8mm	MMB02070C5609FB20	Vishay/Beyschlag
R24	1	4.64k	RES, 4.64k ohm, 1%, 0.063W,	0402	CRCW04024K64FKED	Vishay-Dale
R25	1	22.6k	RES, 22.6k ohm, 1%, 0.063W,	0402	CRCW040222K6FKED	Vishay-Dale
R26	1	0.3	RES, xxx ohm, x%, xW,	Used in PnP output	Used in BOM report	Used in BOM report
R27	1	100k	RES, 100k ohm, 1%, 0.063W,	0402	CRCW0402100KFKED	Vishay-Dale
R28	1	49.9k	RES, 49.9k ohm, 1%, 0.063W,	0402	CRCW040249K9FKED	Vishay-Dale
R29	1	6.34k	RES, 6.34k ohm, 1%, 0.063W,	0402	CRCW04026K34FKED	Vishay-Dale
R30	1	340k	RES, 340k ohm, 1%, 0.063W,	0402	CRCW0402340KFKED	Vishay-Dale
R31, R33	2	20.0k	RES, 20.0k ohm, 1%, 0.063W,	0402	CRCW040220K0FKED	Vishay-Dale
R32	1	105k	RES, 105k ohm, 1%, 0.063W,	0402	CRCW0402105KFKED	Vishay-Dale
T1	1	50uH	Transformer, 50uH, SMT	17.02x15.49x6.99mm	750342178	Wurth Elektronik eiSos
TP1, TP3,	6	Black	Test Point, Miniature, Black,	Black Miniature Testpoint	5001	Keystone
TP2, TP10,	6	White	Test Point, Miniature, White,	White Miniature Testpoint	5002	Keystone
TP4, TP5,	6	Orange	Test Point, Miniature, Orange,	Orange Miniature Testpoint	5003	Keystone
TP14,	2	Yellow	Test Point, Miniature, Yellow,	Yellow Miniature Testpoint	5004	Keystone
U1	1		34 V, Digital-Input Serializer	PWP0028E	SN65HVS885PWP	Texas Instruments
U2	1		Positive High Voltage Hot	MUB10A	LM5069MM-2	Texas Instruments
U3	1		IC, EEPROM, 2KBIT, 1MHZ,	SOIC-8	AT24C02C-SSHM-B	Atmel
U4	1		100V, 600mA Constant On-	NGU0008B	LM5017SD/NOPB	Texas Instruments
U5	1		4242-VPK Small-Footprint and	DBQ0016A	ISO7141CCDBQ	Texas Instruments
U6	1		4242-VPK Small-Footprint and	DBQ0016A	ISO7131CCDBQ	Texas Instruments
U7	1		50 mA, 24 V, 3.2-mA Supply	DCK0005A	TPS71533DCK	Texas Instruments
D15	0	6.2V	Diode, Zener, 6.2V, 500mW,	SOD-123	MMSZ5234B-7-F	Diodes Inc.
D16	0	27V	Diode, Zener, 27V, 500mW,	SOD-123	MMSZ5254B-7-F	Diodes Inc.

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

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