

Filename: SENS007A(001)_BOM.xls

Variant: 001

Generated: 1/24/2018 10:10:13 AM

BOOSTXL-3PhGaNInv

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
!PCB1	1		Printed Circuit Board		SENS007	Any
C1	1	220uF	CAP, AL, 220 µF, 100 V, +/- 20%, TH	D12.5xL25mm	EKYB101ELL221MK25S	Chemi-Con
C2, C5, C6, C7, C10, C11, C12, C21, C22, C23, C42, C45	12	3.3uF	CAP, CERM, 3.3 µF, 100 V, +/- 20%, X7S, 1206_190	1206_190	C3216X7S2A335M160AB	TDK
C3, C8, C19	3	2.2uF	CAP, CERM, 2.2 µF, 10 V, +/- 10%, X5R, 0402	0402	C1005X5R1A225K050BC	TDK
C4, C9, C20	3	0.1uF	CAP, CERM, 0.1 µF, 100 V, +/- 5%, C0G/NP0, 1206_190	1206_190	C3216C0G2A104J160AC	TDK
C13, C14, C24, C27, C32, C41, C47, C50, C53, C54, C58, C59, C61, C62, C64, C66, C67, C68, C69, C70	20	0.1uF	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402	0402	GCM155R71C104KA55D	MuRata
C15, C16, C17, C18, C25, C26	6	47pF	CAP, CERM, 47 pF, 25 V, +/- 5%, C0G/NP0, 0402	0402	GRM1555C1E470JA01D	MuRata
C28, C29, C30, C31, C33, C34, C35, C36, C65, C71, C72, C73	12	2200pF	CAP, CERM, 2200 pF, 10 V, +/- 10%, X5R, 0402	0402	GRM155R61A222KA01D	MuRata
C37	1	0.01uF	CAP, CERM, 0.01 µF, 16 V, +/- 10%, X5R, 0402	0402	GRM155R61C103KA01D	MuRata
C38	1	3300pF	CAP, CERM, 3300 pF, 100 V, +/- 10%, X7R, 0603	0603	GRM188R72A332KA01D	MuRata
C39	1	0.01uF	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0805	0805	GRM216R71H103KA01D	MuRata
C40, C49	2	100uF	CAP, CERM, 100 µF, 6.3 V, +/- 20%, X5R, 1206	1206	GRM31CR60J107ME39L	MuRata
C43, C44	2	0.1uF	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0603	0603	GRM188R72A104KA35D	MuRata
C46	1	1uF	CAP, CERM, 1 µF, 10 V, +/- 10%, X7R, 0603	0603	GRM188R71A105KA61D	MuRata
C48	1	1uF	CAP, CERM, 1 µF, 10 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	0402	GCM155C71A105KE38D	MuRata
C51, C55, C57, C60	4	0.033uF	CAP, CERM, 0.033 µF, 10 V, +/- 10%, X7R, 0402	0402	GRM155R71A333KA01D	MuRata
D1, D2, D3, D4	4	70V	Diode, Schottky, 70 V, 0.07 A, SOD-523	SOD-523	1PS79SB70,115	NXP Semiconductor
D5, D6	2	Green	LED, Green, SMD	LED_0603	150060GS75000	Würth Elektronik
J1/J3, J2/J4	2		Receptacle, 2.54mm, 10x2, Tin, TH	10x2 Receptacle	SSQ-110-03-T-D	Samtec
J3	1		Terminal Block, 3x1, 5.08 mm, Tin, TH	Terminal Block, 3x1, 5.08 mm, TH	OSTTC032162	On-Shore Technology
J4	1		Terminal Block, 2-pole, 200mil, TH	THD, 2-Leads, Body 10.16x7.6mm, Pitch 5.08mm	OSTTC022162	On-Shore Technology
J5	1		Header, 100mil, 2x1, Tin, TH	Header, 2 PIN, 100mil, Tin	PEC02SAAN	Sullins Connector Solutions
JP1	1		Shunt, 2.54mm, Gold, Black	Shunt, 2.54mm, Black	60900213421	Würth Elektronik
L1	1	100uH	Inductor, Shielded Drum Core, Ferrite, 100 µH, 2.5 A, 0.1 ohm, SMD	SMD	7447709101	Würth Elektronik
L2	1	33uH	Inductor, Shielded, Ferrite, 33 µH, 0.085 A, 1.4 ohm, SMD	2.5x1.8x2mm	NLFV25T-330K-PF	TDK
L3	1	300 ohm	Ferrite Bead, 300 ohm @ 100 MHz, 0.2 A, 0402	0402	74279272	Würth Elektronik
R1, R2, R54	3	0	RES, 0, 5%, 0.1 W, 0603	0603	MCR03EZPJ000	Rohm
R3, R4, R9, R22, R46, R47, R49, R57, R58, R60, R63, R64, R68, R71, R72, R75, R76, R79	18	0	RES, 0, 5%, 0.063 W, 0402	0402	CRCW04020000Z0ED	Vishay-Dale

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R5, R6, R7, R8, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R87, R88, R89	18	20	RES, 20, 5%, 0.063 W, 0402	0402	CRCW040220R0JNED	Vishay-Dale
R21, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R41, R48, R50, R80, R82, R84, R86	23	10.0k	RES, 10.0 k, 1%, 0.063 W, 0402	0402	CRCW040210K0FKED	Vishay-Dale
R39, R45	2	16.5k	RES, 16.5 k, 1%, 0.063 W, 0402	0402	CRCW040216K5FKED	Vishay-Dale
R40	1	68k	RES, 68 k, 5%, 0.063 W, 0402	0402	CRCW040268K0JNED	Vishay-Dale
R42	1	113k	RES, 113 k, 1%, 0.1 W, 0603	0603	RC0603FR-07113KL	Yageo America
R43	1	51.0k	RES, 51.0 k, 1%, 0.1 W, 0603	0603	RC0603FR-0751KL	Yageo America
R44	1	3.24k	RES, 3.24 k, 1%, 0.063 W, 0402	0402	CRCW04023K24FKED	Vishay-Dale
R55, R61, R69	3	0.005	RES, 0.005, 1%, 3 W, AEC-Q200 Grade 0, 2512	2512	CRE2512-FZ-R005E-3	Bourns
R56, R62, R66, R70	4	100k	RES, 100 k, 1%, 0.063 W, 0402	0402	CRCW0402100KFKED	Vishay-Dale
R59, R65, R67, R74	4	4.22k	RES, 4.22 k, 1%, 0.063 W, 0402	0402	CRCW04024K22FKED	Vishay-Dale
R77	1	274k	RES, 274 k, 1%, 0.063 W, 0402	0402	CRCW0402274KFKED	Vishay-Dale
R78	1	54.9k	RES, 54.9 k, 1%, 0.063 W, 0402	0402	CRCW040254K9FKED	Vishay-Dale
R81, R83, R85	3	332k	RES, 332 k, 1%, 0.063 W, 0402	0402	CRCW0402332KFKED	Vishay-Dale
TP1, TP2	2		Test Point, Miniature, Black, TH	Black Miniature Testpoint	5001	Keystone
U1, U2	2		100V GaN Half Bridge Power Module, MOF0009A	MOF0009A	LMG5200MOFT	Texas Instruments
U3	1		100V GaN Half Bridge Power Module, MOF0009A	MOF0009A	PLMG5200MOFT	Texas Instruments
U4	1		8-BIT DUAL-SUPPLY BUS TRANSCEIVER WITH CONFIGURABLE VOLTAGE TRANSLATION AND 3-STATE OUTPUTS, RHL0024A	RHL0024A	SN74AVC8T245RHLR	Texas Instruments
U5	1		7.5-100V Wide Vin, 600mA Constant On-Time Synchronous Buck Regulator, DDA0008B (SOIC-8)	DDA0008B	LM5017MRX/NOPB	Texas Instruments
U6	1		Automotive Grade, Low-Power, Easy-to-Use, Temperature Switch in MicroPackage, DRL0006A	DRL0006A	TMP302BQDRLRQ1	Texas Instruments
U7	1		500mA Low Dropout CMOS Linear Regulators Stable with Ceramic Output Capacitors, 6-pin LLP, Pb-Free	SDE06A	LP38691SD-3.3/NOPB	Texas Instruments
U8, U9, U11	3		Wide Common-Mode Range, Voltage Output, High or Low-Side Bi-Directional Zero-Drift Current Shunt Monitor, PW0008A	PW0008A	INA240A1PW	Texas Instruments
U10	1		30 ppm / degC Drift, 3.9 uA Voltage Reference, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A	REF3333AIDBZR	Texas Instruments
U12	1		SINGLE 2-INPUT POSITIVE-OR GATE, DCK0005A (SOT-SC70-5)	DCK0005A	SN74LVC1G32DCKR	Texas Instruments
U13, U14, U15	3		40ns, micro-Power, Rail-to-Rail Input, Single-Channel Comparator with Push-Pull Outputs, DBV0005A (SOT-5)	DBV0005A	TLV3201AIDBVR	Texas Instruments
U16	1		Single 3-Input Positive-OR Gate, DCK0006A (SOT-6)	DCK0006A	SN74LVC1G332DCKR	Texas Instruments
C52, C56, C63	0	1500pF	CAP, CERAM, 1500 pF, 25 V, +/- 5%, COG/NP0, 0402	0402	C0402H152J3GAC7867	Kemet
FID1, FID2, FID3	0		Fiducial mark. There is nothing to buy or mount.	Fiducial	N/A	N/A
R23, R51, R52, R73	0	0	RES, 0, 5%, 0.063 W, 0402	0402	CRCW04020000Z0ED	Vishay-Dale
R53	0	0	RES, 0, 5%, 0.1 W, 0603	0603	MCR03EZPJ000	Rohm

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