

Bill of Materials

TI DESIGNS

TIDA-00292

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	PCB Footprint
1	1	+BATT-		Header, 2-Pin			HDR1X2
2	1	AFE4300PNR		IC AFE 16BIT 860SPS 80LQFP	Texas Instrument	AFE4300PNR	AFE_4300_QFP50P1400X1400X160
3	2	BLE_C28, M_C8	2.2nF	CAP CER 2200PF 50V 10% X7R 0603	AVX	06035C222KAT2A	0603_new
4	1	BLE_C29	100nF	CAP CER 0.1UF 25V 10% X7R 0603	AVX	06033C104KAT2A	0603_new
5	18	C1, C2, C4, C5, C6, C8, C9, C12, C13, C15, C16, C19, C20, C31, M_C2, M_C6, M_C7, P_C21	0.1uF	CAP CER 0.1UF 25V 10% X7R 0603	AVX	06033C104KAT2A	0603_new
6	4	C3, C7, C11, C14	10uF	CAP, CERM, 10uF, 6.3V, +/-20%, X5R, 0603	Kemet	C0603C106M9PACTU	0603
7	1	C10	100uF	CAP, CERM, 100uF, 6.3V, +/-20%, X5R, 1210	Kemet	C1210C107M9PACTU	1210
8	2	C17, C18	4.7uF	CAPACITOR,SMT,0603,CERAMIC,4.7uF,6.3V,10%,X5R	TDK Corporation	C1608X5R0J475K/0.80	0603_new
9	6	C21, C22, C23, C33, C35, C36	1uF	CAP, CERM, 1uF, 16V, +/-10%, X5R, 0603	Kemet	C0603C105K4PACTU	0603
10	10	C24, C25, C26, C27, C28, C29, C30, C39, C40, C41	1.0uF	CAP CER 1UF 16V 10% X5R 0603	AVX	0603YD105KAT2A	0603_new
11	2	C32, C34	0.47uF	CAP CER 0.47UF 10V 10% X5R 0603	Kemet	C0603C474K8PACTU	0603_new
12	11	CR0, CR1, CR2, CR3, CR4, CR6, CR7, CR8, CR9, CR10, CR11			Texas Instrument	TPD1E10B09	ESD protection (new)
13	1	CR5		Single Channel ESD Protection Device in 0402 Packag	Texas Instrument	TPD1E10B09	ESD protection (new)
14	2	D1, D7		LED 470NM BLUE CLEAR 0603 SMD	Rohs Semiconductor	SMLE12BC7T86	LED
15	2	D2, D6		LED GREEN 0603 SMD	Rohs Semiconductor	SMLE12EC6T	LED
16	1	J9	GRP061VWCN-RC	Header, 0.050 Single Male RA	Sullins	GRP061VWCN-RC	J9
17	1	J-1		CBL PLUG-OF-NAILS MSP430 LEG TI	Tag-Connect	TC2050-IDC-430	TC2050-IDC-430
18	2	L1, L2	3.3uH	INDUCTOR POWER 3.3UH 1.3A SMD	TDK Corporation	VL4012AT-3R3M1R3	Inductor
19	1	MSP_C1	470nF	CAP CER 0.47UF 10V 10% X5R 0603	Kemet	C0603C474K8PACTU	0603_new
20	2	MSP_R15, R15	10K	RES 10.0K OHM 1/10W 1% 0603 SMD	VISHAY	CRCW060310K0FKEA	0603_new
21	4	M_R1, M_R2, M_R8, R57	1K	RES 1.00K OHM 1/10W 1% 0603 SMD	VISHAY	CRCW06031K00FKEA	0603_new
22	1	M_R6	47K	RES 47.0K OHM 1/10W 1% 0603 SMD	VISHAY	CRCW060347K0FKTA	0603_new
23	2	P1, P2		TERMINAL BLOCK 3.5MM 6POS PCB	ON-SHORE TECHNOLOGY	ED555/6DS	6 pin connector
24	1	P3		TERMINAL BLOCK 3.5MM 4POS PCB	ON-SHORE TECHNOLOGY	ED555/4DS	4 Pin Connector
25	1	P_C15	10nF	CAP CER 10000PF 16V 5% X7R 0603	AVX	0603YC103JAT2A	0603_new
26	1	P_C16	2.2uF	CAP CER 2.2UF 10V 10% X5R 0603	MURATA	GRM188R61A225KE34D	0603_new
27	1	P_C17	1uF	CAP, TANT, 1UF, 10V, 20%, 1608-10	AVX	TACL105M010XTA	0603
28	2	P_C18, P_C20	10uF	CAP CER 10UF 6.3V 20% X5R 0603	Kemet	C0603C106M9PACTU	0603_new
29	1	P_C19	2.2uF/6V	CAP TANT 2.2UF 6.3V 20% 0603	AVX	TACL225M006XTA	C3
30	2	P_C22, P_C23	0.033uF	CAP, CER, 0.033UF, 16V, 10%, X7R, 0603	KEMET	C0603C333K4RACTU	0603
31	2	P_R12, P_R14	10K	RES 10.0K OHM 1/10W 1% 0603 SMD	VISHAY	CRCW060310K0FKEA	0603_modified
32	4	R1, R2, R3, R4	49.9k	RES, 49.9k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060349K9FKEA	0603
33	2	R16, R17	3.3k	RES 3.3K OHM 1/10W 5% 0603 SMD	VISHAY	CRCW06033K30JNEA	0603_new
34	21	R42, R43, R44, R45, R60, R61, R62, R69, R79, R80, R81, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99	0	RES 0.0 OHM 1/10W 0603 SMD	VISHAY	CRCW06030000Z0EA	0603_new
35	1	R58	100ohms	RES 100 OHM 1/10W 5% 0603 SMD	VISHAY	CRCW0603100RJNEA	0603_new
36	7	R63, R64, R65, R66, R67, R68, R82	10M	RES 10.0M OHM 1/10W 1% 0603 SMD	YAGEO	RC0603FR-0710ML	0603_new
37	1	R70	49.9	RES 49.9 OHM 1/10W 1% 0603 SMD	Panasonic	ERJ-3EKF49R9V	0603_new
38	1	R71	600	RES 600 OHM 1/10W 1% 0603 SMD	YAGEO	9C06031A6000FKHFT	0603_new
39	2	R73, R74	100	RES, 100 ohm, 1%, 0.063W, 0402	Vishay-Dale	CRCW0402100RFKED	0402
40	2	SW, SW2		SWITCH TACTILE SPST-NO 0.02A 15V	Panasonic	EVQ-21505R	EVQ-21505R
41	19	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23					TestPoint
42	4	TP11, TP12, TP13, TP14					TP
43	1	U1		IC MCU 16BIT 128KB FLASH 64VQFN	TI	MSP430F5528IRGCT	MSP430_QFN127P600-new
44	1	U4		500mA, Low Quiescent Current, Ultra-Low Noise, High PSRR Low-Dropout Linear Regulator	Texas Instrument	TPS735285DRV	TPS735285DRV_new - duplicate
45	1	U5			Linear Technology	LTC2951CDDB-1#TRMPBF	LTC2951

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46	1	U7	BR-LE4.0-S2A	MODULE BLUETOOTH VER4.0 W/ANT	TI	BR-LE4.0-S2A	BLE-LE4.0-S2A
47	1	Y1	{Value}	Crystal, Piezo Ceramic Resonator, 4.000MHz, 39pF ±20%	muRata	CSTCR4M00G15L99-R0	Y1
48	2	C1, C2	220nF	CAP, CERAMIC, 220NF, 10%, 16V, X5R, SMT0402	TAIYO YUDEN	EMK105BJ224KV-F	0402
49	1	C3	33nF	CAP, CERAMIC, 33NF, 10%, 16V, X5R, SMT0402	MURATA	GRM155R61C333KA01D	0402
50	1	C4	470nF	CAP, CERAMIC, 470NF, 10%, 16V, X5R, SMT0402	TDK	C1005X5R1C474K	0402
51	15	C5, C7, C9, C10, C15, C16, C23, C24, C26, C27, C38, C39, C40, C41, C47	0.1uF	CAP, CERAMIC, 0.1UF, 10%, 16V, X5R, SMT0402	MURATA	GRM155R61C104KA88D	0402
52	2	C6, C8	10uF	CAP,TANTALUM, 10UF, 20%, 6.3V, 6 OHM, SMT0603	NICHICON	F980J106MMA	C0603_POL
53	2	C11, C25	2.2nF	CAP, CERAMIC, 2.2NF, 10%, 50V, X5R, SMT0402	TDK	C1005X5R1H222K	0402
54	2	C12, C31	10nF	CAP, CERAMIC, 10NF, 10%, 25V, X5R, SMT0402	TDK	C1005X5R1E103K	0402
55	4	C13, C14, C17, C32	2.2uF	CAP, TANTALUM, 2.2UF, 20%, 10V, SMT0603	ROHM SEMICONDUCTOR	TCM1A225M8R	C0603_POL
56	1	C22	2.2nF	CAP, CERAMIC, 2.2NF, 10%, 50V, X7R, SMT0402	YAGEO	CC0402KRX7R9BB222	0402
57	3	C28, C35, C37	4.7uF	CAP, TANTALUM, 4.7UF, 20%, 16V, 12 OHM, SMT0603	NICHICON	F981C475MMA	C0603_POL
58	2	C29, C30	10pF	CAP, CERAMIC, 10PF, +/-0.25 pF, 25V, COG, SMT0402	AVX	04023A100CAT2A	0402
59	2	C33, C34	1uF	CAP, TANTALUM, 1UF, 20%, 16V, 10 OHM, SMT0603	NICHICON	F981C105MMA	C0603_POL
60	2	C36, C45	1uF	CAP, TANTALUM, 1UF, 20%, 25V, 10 OHM, SMT0603	NICHICON	F981E105MMA	C0603_POL
61	8	C42, C44, C52, C53, C55, C57, C58, C59	10uF	CAP,TANTALUM, 10UF, 20%, 10V, 7.5 OHM, SMT0603	NICHICON	F981A106MMA	C0603_POL
62	2	C43, C46	100nF	CAP, CERAMIC, 100NF, -20%TO+80%, 50V, Y5V, SMT0805	YAGEO	CC0805ZRY5V9BB104	0805
63	2	C48, C49	22uF	CAP, TANTALUM, 22UF, 20%, 10V, SMT0603	VISHAY	Z98D226X0010M2T	C0603_POL
64	1	C50	220nF	CAP, CERAMIC, 220NF, 10%, 50V, X7R, SMT0805	AVX	08055C224KAT2A	0805
65	4	C51, C54, C56, C60	10nF	CAP, CERAMIC, 10NF, 10%, 50V, X7R, SMT0805	KEMET	C0805C103K5RACTU	0805
66	3	D1, D7, D11	GREEN	LED, GREEN, SMT0402	KINGBRIGHT	APHHS1005CGCK	LED_0402
67	2	D2, D8	BLUE	LED, BLUE, SMT0402	PANASONIC	LNJ947W8CRA	LED_0402
68	4	D3, D4, D5, D6	BAV99W	DIODE, DUAL SWITCHING DIODE, 0.215A, 70V, SOT-323	ON SEMICONDUCTOR	BAV99WT1G	SOT-323
69	1	D9	SD103AW-13-F	DIODE, SCHOTTKY, 0.35A, 40V, SOD-123	DIODES INC	SD103AW-13-F	D_SOD123
70	1	D10	RED	LED, RED, SMT0402	KINGBRIGHT	APHHS1005SURCK	LED_0402
71	1	J1	TC2050-IDC-NL-430	CONNECTOR, PLUG OF NAILS CABLE, DUAL ROW, VERTICAL, 10-PIN	TAG CONNECT	TC2050-IDC-NL-430	TC2050-IDC-NL
72	2	J2, J4	ZX62D-AB-5P8	CONNECTOR, MICRO-USB-AB, RECEPTACLE, RIGHT ANGLE, 5-PIN	HIROSE	ZX62D-AB-5P8	USB-ZX62D-AB-5P8_REVISED
73	1	J3	GRPB061VWCN-RC	CONNECTOR, HEADER, SINGLE ROW, RA, 6-PIN	SULLINS	GRPB061VWCN-RC	CONN_GRPB061VWCN
74	1	J5	PEC02SAAN	CONNECTOR, HEADER, SINGLE ROW, VERTICAL, 2-PIN	SULLINS	PEC02SAAN	HDR100_1X2
75	1	J6	GRPB061VWVN-RC	CONNECTOR, HEADER, SINGLE ROW, VERTICAL, 6-PIN	SULLINS	GRPB061VWVN-RC	HDR50_1X6
76	1	L1	DLW31SN900SQ2L	INDUCTOR, CHOKE COIL WIRE WOUND, 0.37A, SMT1206, 4-PIN	MURATA	DLW31SN900SQ2L	IND_1206-4P
77	1	L2	10UH	INDUCTOR, FERRITE, 10UH, 58MHZ, SMT-2 PIN	COILCRAFT	LPS3010-103MLB	IND_LPS3010_SERIES
78	2	L3, L4	100uH	INDUCTOR, POWER CHOKE COIL, 470UH, 10%, 0.34A, SMT0805	KOA SPEER	SDR0805TTEB101K	0805
79	10	R1, R2, R4, R5, R17, R18, R34, R35, R54, R55	3.3K	RESISTOR, THICK FILM, 3.3K, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ332X	0402
80	1	R3	270K	RESISTOR, THICK FILM, 270K, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ274X	0402
81	15	R6, R7, R8, R10, R11, R12, R13, R14, R16, R31, R33, R44, R46, R47, R53	0	RESISTOR, THICK FILM, 0, JUMPER, 0.1W, SMT0402	PANASONIC	ERJ-2GE0R00X	0402
82	3	R9, R49, R51	47K	RESISTOR, THICK FILM, 47K, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ473X	0402
83	1	R15	1K	RESISTOR, THICK FILM, 1K, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ102X	0402
84	2	R19, R20	27	RESISTOR, THICK FILM, 27 OHM, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ270X	0402
85	1	R21	33K	RESISTOR, THICK FILM, 33K, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ333X	0402
86	1	R22	1.4K	RESISTOR, THICK FILM, 1.4K, 1%, 0.1W, SMT0402	PANASONIC	ERJ-2RKF1401X	0402
87	1	R23	402	RESISTOR, THICK FILM, 402 OHM, 1%, 0.1W, SMT0402	PANASONIC	ERJ-2RKF4020X	0402
88	1	R24	1M	RESISTOR, THICK FILM, 1M, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ105X	0402
89	4	R25, R27, R32, R45	10K	RESISTOR, THICK FILM, 10K, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ103X	0402
90	1	R26	8.87K	RESISTOR, THICK FILM, 8.87K, 1%, 0.1W, SMT0402	PANASONIC	ERJ-2RKF8871X	0402
91	2	R28, R39	100K	RESISTOR, THICK FILM, 100K, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ104X	0402
92	1	R29	1.8M	RESISTOR, THICK FILM, 1.8M, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ185X	0402
93	1	R30	1.18K	RESISTOR, THICK FILM, 1.18K, 1%, 0.1W, SMT0402	PANASONIC	ERJ-2RKF1181X	0402
94	2	R36, R37	2	RESISTOR, THICK FILM, 2, 0.1W, 5%, SMT0402	PANASONIC	ERJ-2GEJ2R0X	0402
95	1	R38	180K	RESISTOR, THICK FILM, 180K, 1%, 0.1W, SMT0402	PANASONIC	ERJ-2RKF1803X	0402
96	2	R40, R42	15K	RESISTOR, THICK FILM, 15K, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ153X	0402
97	2	R41, R43	200K	RESISTOR, THICK FILM, 200K, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ204X	0402
98	1	R48	150K	RESISTOR, THICK FILM, 150K, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ154X	0402
99	1	R50	75K	RESISTOR, THICK FILM, 75K, 1%, 0.1W, SMT0402	PANASONIC	ERJ-2RKF7502X	0402
100	1	R52	130	RESISTOR, THICK FILM, 130 OHM, 5%, 0.1W, SMT0402	PANASONIC	ERJ-2GEJ131X	0402
101	1	S1	EVQPSD02K	SWITCH, LIGHT TOUCH, SIDE-OPERATIONAL, SMD	PANASONIC	EVQPSD02K	SW_EVQPS-J
102	1	S2	EG1257	SWITCH, SPDT, SLIDE, SMD	E-SWITCH	EG1257	SW_EG1257
103	4	U1, U3, U4, U5	FM24V10-G1	IC, NVRAM MEMORY, SOIC-8	RAMTRON	FM24V10-G1	FM24V10_SOIC8
104	1	U2	MSP430F5528IYFF	IC, MIXED SIGNAL MICROCONTROLLER, BGA-64	TEXAS INSTRUMENTS	MSP430F5528IYFFR	YFF-64

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105	1	U6	AFE4400	IC, INTEGRATED ANALOG FRONT-END FOR HEART RATE MONITORS AND LOW-COST PULSE OXIMETERS, QFN-40	TEXAS INSTRUMENTS	AFE4400	QFN-40[RHA-42P]
106	1	U9	BR-LE4.0-S2A	IC, 4.0 LOW ENERGY SINGLE MODE CLASS 1 SoC MODULE, QFN-32	BLUE RADIOS	BR-LE4.0-S2A	BR-LE4.0-D2A
107	1	U10	TPS2115ADRB	IC, AUTOSWITCHING POWER MUX, SON-8, DRB	TEXAS INSTRUMENTS	TPS2115ADRB	DRB-8
108	1	U11	TPD2E001DZDR	IC, LOW-CAPACITANCE 2-Chan ±15-kV ESD-PROTECTION ARRAY, SOP-4	TEXAS INSTRUMENTS	TPD2E001DZDR	DZD
109	1	U12	TPS73633DRB	IC, CAP-FREE, NMOS, 400mA LDO REGULATOR WITH REVERSE CURRENT PROTECTION SON-8	TEXAS INSTRUMENTS	TPS73633DRB	DRB-8
110	1	U13	BQ24072RGT	IC, 1.5A USB-FRIENDLY Li-Ion BATTERY CHARGER AND POWER-PATH MANAGEMENT IC, QFN-16	TEXAS INSTRUMENTS	BQ24072RGT	RGT16
111	1	U14	BQ27425-G1YZF	IC, SYSTEM-SIDE IMPEDANCE TRACK FUEL GAUGE WITH INTEGRATED SENSE RESISTOR, BGA-15, YZF	TEXAS INSTRUMENTS	BQ27425-G1YZF	YZF-15
112	1	U15	TPS61093DSK	IC, LOW INPUT BOOST CONVERTER WITH INTEGRATED POWER DIODE AND ISOLATION, SON-10, DSK	TEXAS INSTRUMENTS	TPS61093DSK	DSK
113	1	U16	UC3833DW	IC, LINEAR CONTROLLER, SOIC-16, DW	TEXAS INSTRUMENTS	UC3833DW	DW16-A
114	2	U17, U18	TPS7A4901DGN	IC, ULTRALOW NOISE, HIGH-PSRR, LDO REGULATOR, VIN 3V TO 35V,	TEXAS INSTRUMENTS	TPS7A4901DGN	DGN_8P
115	1	U19	MPU-9150	IC, TRIPLE-AXIS MEMS GYROSCOPE, LGA-24	INVENSENSE INC	MPU-9150	LGA-4X4MM-24P
116	1	Y1	4MHz	CRYSTAL, PIEZO CERAMIC RESONATOR, 4.00 MHz, +/-0.1%, 39pF, SMD	MURATA	CSTCR4M00G15L99-R0	CRYSTAL-2X4.5MM_3P
117	1	Y2	8MHz	CRYSTAL, PIEZO CERAMIC RESONATOR, 8.00 MHz, SMD, 0.5%, 33pF, SMD	MURATA	CSTCE8M00G55-R0	RESONATOR-1.3X3.2-MURATA
118	8	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8					TP_25MIL-SMT
119	1	P1		Header, 7-Pin	Mill-Max Mfg. Corp	850-40-007-10-001000	INTERCONNECTS_850-40-007-10-001000
120	1	U1		Integrated Dual Emitter and Photodetector	APMKorea	DCM03	DCM03

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TI has specifically designated certain components as meeting ISO/TS16949 requirements, mainly for automotive use. In any case of use of non-designated products, TI will not be responsible for any failure to meet ISO/TS16949.