

Bill of Materials

TI DESIGNS

TIDM-BOOST-IR-REMOTE - MSP-EXP430FR4133

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
1	1	LCD1		FH1138P	Adkom Elektronik	FH-1138P			
2	1	J101		PINHD-2X9	Townes	P101-2*9SGF-116A-NX			
3	1	JP1		JUMPER_2.51MM	Townes	P101-1*02SGF-116C-NX			
4	1	J6		PINHEADER1X3	Townes	P101-1*03SGF-116C-NX			
5	2	J1,J2		PINHEADER1X10	JXT	JT254F-D180-850-110-10D			
6	1	R119	0R	RES ZERO OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-070RL		0402	
7	1	R106	1M	RES 1M OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-071ML		0402	
8	1	R105	1k4	RES 1K4 OHM 1/16W 5% 0402 SMD	Yageo	RC0402FR-071K4L		0402	
9	2	C11,C112	1n	CAP,1NF,+/-10%,X7R,50V,SMD	Murata	GRM155R71H102KA01D		0402	
10	1	C4	1u	CAP,1UF,+/-10%,X5R,6.3V,SMD	Murata	GRM155R60J105ME19D		0402	
11	1	C108	1u	CAP,1UF,+/-10%,X5R,6.3V,SMD	Murata	GRM188R61A105KA61D		0603	
12	1	R126	2k2	RES 2K2 OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-072K2L		0402	
13	1	L101	2u2	INDUCTOR 2.2UH 20% 1007 SMD	Taiyo Yuden	CBC2518T2R2M		1206	
14	1	R127	3k3	RES 3K3 OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-073K3L		0402	
15	2	C117,C119	4.7u	CAP,4.7UF,+/-10%,X5R,10V,SMD	Murata	GRM188R61A475KE15D		0603	
16	2	C106,C109	4.7u	TCAP,4.7UF,+/-10%,16V,SMD1206(A)	AVX	TAJA475K016RNJ		A	
17	2	R116,R117	4k7	RES 4K7 OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-074K7L		0402	

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18	1	R128	6k8	RES 6K8 OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-076K8L		0402	
19	2	C110,C111	10p	CAP,10PF,+/-5%,COG,50V,SMD	Murata	GRM1555C1H100JA01D		0402	
20	1	C7	10u	CAP,10UF,+/-10%,X5R,10V,SMD	Murata	GRM188R61A106KE69D		0603	
21	1	C104	10u	TCAP,10UF,+/-10%,10V,SMD	AVX	TAJA106K010RNJ		A	
22	2	C5,C6	12p	CAP,12PF,+/-5%,COG,50V,SMD	Murata	GRM1555C1H120JA01D		0402	
23	2	R103,R104	27R	RES 27 OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-0727RL		0402	
24	1	Y1	32.768kHz	Crystal 32.768KHz 12.5PF	MICRO CRYSTAL	MS3V-T1R			
25	4	C115,C116,C122,C123	33p	CAP,33PF,+/-5%,COG,50V,SMD	Murata	GRM1555C1H330JA01D		0402	
26	1	R123	33k	RES 33K OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-0733KL		0402	
27	4	R1,R107,R108,R109	47k	RES 47K OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-0747KL		0402	
28	15	C1,C2,C3,C8,C10,C103,C113,C114,C118,C120,C121,C124,C105,C126	100n	CAP,100NF,+/-10%,X7R,16V,SMD	Murata	GRM155R71C104KA88D		0402	
29	1	R125	150k	RES 150K OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-07150KL		0402	
30	6	R112,R113,R114,R115,R121,R122	220k	RES 220K OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-07220KL		0402	
31	2	C102,C107	220n	CAP,220NF,+/-10%,X5R,10V,SMD	Murata	GRM155R61A224KE19D		0402	
32	1	R124	240k	RES 220K OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-07240KL		0402	
33	5	R4,R5,R101,R102,R120	470R	RES 470 OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-07470RL		0402	
34	1	C101	470n	CAP,470NF,+/-10%,X5R,10V,SMD	Murata	GRM155R61A474KE15D		0402	
35	1	R118	820R	RES 820 OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-07820RL		0402	
36	2	D101,D102	BAS40-05	General-purpose Schottky diodes	NXP	BAS40-05W		SC70	
37	1	T102	BC850CW-115	NPN general purpose transistors	NXP	BC850CW		SC70	
38	1	T101	DMG1013UW	P-Channel Enhancement Mode Field-Effect Transistor	ON	DMG1013UW		SC70	
39	1	MSP101	MSP430F5528IRGC	MSP430 Microcontroller	TI	MSP430F5528IR		RGC64	
40	1	U1	MSP430FR4133IPM	MSP430 Microcontroller	TI	MSP430FR4133IPM		LQFP64	
41	1	MSP102	MSP430G2452IRSA16R	MSP430 Microcontroller	TI	MSP430G2452IR		RSA16	
42	1	J102	Micro-USB	Micro-USB connector	Hirose	ZX62R-B-5P		SMD	
43	1	Q101	CSTCR4M00G15L99	Resonators 4MHZ	Murata	CSTCR4M00G15L99-R0		SMD	
44	2	LED1,LED101	Red	Chip LED RED	Everlight	17-215SURC/S530-A2/TR8		0805	
45	3	S1,S2,S3	T062S	Switch,Tactile,160gf+/-50gf,black housing,black plunger,6.6*6*4.3MM,SMD	kaler	T062S-043FBT04B		SMD	

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46	1	IC102	TPD4E004DRYR	4-Channel ESD-Protection Array	TI	TPD4E004DRYR		son6	
47	1	IC103	TS5A21366RSER	0.75ohm DUAL SPST analog switch with 1.8v compatible input logic	TI	TS5A21366RSER		RSE8	
48	1	IC101	TLV70033DSE	200mA,Low-Dropout Regulator for portable devices	TI	TLV70033DSE		DSE6	
49	2	LED102,LED2	green	Chip LED Green	Everlight	17-215SYGC/S530-E2/TR8		0805	
50	1	PCB		2 layers PCB,Red Soldermask,white Silkscreen,Immersion gold,58.5mm*101.5mm,MSP-EXP430FR4133 PCB		MSP-EXP430FR4133 PCB			

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TIDM-BOOST-IR-REMOTE - BOOST-IR

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1	1	C1	100nF	CAP CER 0.1UF 10V 10% X7R	Standard			C0603	
2	1	C2	100uF	CAP CER 100UF 6.3V 20% X5R 1206,Digikey 490-4539-1-ND	Standard			C1206	
3	1	C3	100nF	CAP CER 0.1UF 10V 10% X7R 0603,Digikey 399-1095-2-ND	Standard			C0603	
4	1	C4	10uF	CAP CER 10UF 10V 10% X5R 0805,Digikey 587-1300-1-ND	Standard			C0805	
5	1	C5	1uF	CAP CER 1UF 10V 10% X5R 0603,Digikey 399-3118-2-ND	Standard			C0603	
6	1	IR_RX	TSOP58438	VISHAY TSOP58438 IR RECEIVER, MINICAST AGC2, 38KHZ	Standard	TSOP58438			
7	1	IR_TX	TSAL6200	IR EMITTER, 940NM, T-1 3/4, THROUGH HOLE	Standard	TSAL6200		Radial, 5mm Dia (T 1 3/4)	
8	1	J1		Header, Female 10-pin, 100mil spacing	CM	CNT-F254-1-10-GM2-850- 4.2		1X10 SMD	
9	1	J2		Header, Female 10-pin, 100mil spacing	CM	CNT-F254-1-10-GM2-850- 4.2		1X10 SMD	
10	1	J3		FPC Connector, UPPER CONTACT, 8pins, 1mm pitch	CM				
11	1	J4		CONN HEADER 3POS .100" SNGL TIN,Digikey SAM1075-03-ND	Standard			1X03	
12	1	J5		TERM BLOCK HDR 2POS VERT 3.5MM,Digikey A104641-ND	Standard			1X02	
13	1	LED		LED BLUE CLEAR 0603 SMD,Digikey 160-1646-6-ND	Standard			CHIPLED_0603	
14	1	R1	0R	RES 0.0 OHM .5W JUMP 1206 SMD, Digikey 541-0.0UBCT-ND	Standard			R1206	
15	1	R2	47R	RES 47 OHM 2/3W 5% 1206 SMD,Digikey P47ALTR-ND	Standard			R1206	
16	1	R3	100R	RES 100 OHM 1/4W 5% 0603 SMD,Digikey RHM100DTR-ND	Standard			R0603	

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17	1	R4	330R	RES 330 OHM 1/4W 5% 0603 SMD,Digikey RHM330DTR-ND	Standard			R0603	
18	1	R5	22R	RES 22 OHM 1/4W 5% 0603 SMD,Digikey RHM22DCT-ND	Standard			R0603	
19	1	R6	100R	RES 100 OHM 1/4W 5% 0603 SMD,Digikey RHM100DTR-ND	Standard			R0603	
20	1	R7	100k	RES 100K OHM 1/4W 5% 0603 SMD,Digikey RHM100KDTR-ND	Standard			R0603	
21	1	R8	1M	RES 1M OHM 1/4W 5% 0603	Standard			R0603	
22	1	R9	1k	RES 1K OHM 1/4W 1% 0603	Standard			R0603	
23	1	T1	FMMT491ATA	Transistors Bipolar - BJT NPN	Standard	FMMT491ATA		SOT-23	
24	1	T2	DMG1013UW-7	MOSFET P-CH 20V 820MA	Standard	DMG1013UW-7		SOT-323	
25	1	KEYPAD1		4x4 Membrane Keypad	CM				

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