Texas Instruments

Bill of Materials

TI DESIGNS **TIDM-LPBP-CONTACTLESS-TEMP-SENSE**
(MSP-EXP430G2 BOM)

Item	Quantity	Designator	Value	Description	Manufacturer	Manufacturer Part Number	Notes
1	1	N/A		Printed Circuit Board	Texas Instruments	EDGE#: 6499073	
2	1	C1	1uF	CAP CER 1.0UF 16V X7R 10% 0603	TDK	C1608X7R1C105K	
3	1	C2	0.01uF	CAP CER 10000PF 25V X7R 10% 0402	TDK	C1005X7R1E103K	
4	1	D1		LED ALINGAP GRN WHT DIFF 0603SMD	Lumex	SML-LX0603SUGW-TR	
5	1	FB1		FERRITE BEAD 300 OHM .2A 0402	Wurth	74279272	
6	1	H1		CONN SOCKET 10PIN .050 R/A SNGL	Mill-Max	851-43-010-20-001000	If not available, use: "851-43-050-20-001000" and cut down to 10 pins
7	**DNI**	H2	**DNI**	CONN FPC/FFC 10POS .5MM HORZ SMD	Hirose	FH12-10S-0.5SH(55)	**Optional - Do Not install**
8	1	Q1		MOSFET P-CH 50V 130MA SC70-3	Diodes Inc	BSS84W-7-F	
9	2	R1,R2	0R	RES 0.0 OHM 1/16W 0402 SMD	Rohm	MCR01MZPJ000	
10	3	R3,R4,R5	47k	RES 47.0K OHM 1/16W 1% 0402 SMD	Rohm	MCR01MZPF4702	
11	1	R6	160R	RES 160 OHM 1/16W 1% 0402 SMD	Rohm	MCR01MZPF1600	
12	1	U1		Infra-Red Sensor with Digital Interface	Texas Instruments	TMP006AIYZFT	

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TI DESIGNS TIDM-LPBP-CONTACTLESS-TEMP-SENSE
(MSP-EXP430G2 BOM)

Pos.	Ref Des	Number per board	Description	DigiKey part #	Comment
1	C2, C3	2	16pF 0402		
2	C9, C10	2	22pF 0402		
3	C1	1	10nF 0402		
4	C5, C7, C11, C12, C13	5	100nF 0402		
5	C4, C6, C8	3	1uF/6.3V 0604		
6	D1	1	1N4148 Micromelf		
7	EZ_USB	1	SB-MB-H	732-2109-ND, H2961CT-ND	preferred: 732-2109-ND
8	Q1	1	SMD Freqtech: FT10A-12,0/16-30-30/27		
9	R1, R2, R3, R16, R17	3	47k 0402		Only 3 because DNP R16, R17
10	R8	1	61k5 0402		was 6.8k on Rev1.3
11	R19, R22	2	3k3 0402		was 3.3k on Rev1.3
12	R9	1	30k 0402		
13	R12 R21	2	33k 0402		
14	R4, R5, R6, R7, R23	5	100R 0402		
15	R14, R15	2	33R 0402		
16	R18, R20	2	100k/1% 0402		
17	R13, R24, R25	3	1k5 0402		
18	R10	1	10k 0402		
19	R11	1	15k 0402		
20	U1	1	MSP430F1612IPMR		supplied by TI
21	U4	1	TPD2E001DRLR		supplied by TI
22	U3	1	TUSB3410VF		supplied by TI
23	U2	1	TPS77301DGKR		supplied by TI
24	U5	1	AT24C128-10TU-2.7	AT24C128B-TH-B-ND	Check Comment at the end
25	TP1, TP2, TP3, TP4,				Keep vias free of solder
26	C14	1	1nF, SMD0603		
27	C21, C22	2	12.5pF, SMD0603		DNP
28	C23	1	10uF/10V, SMD 0805	445-1371-1-ND	
29	C20, C24	1	100nF, SMD0603		C24 is DNP
30	LED0, LED1	2	green DIODE0603		
31	LED2	1	red DIODE0603		
32	R34, R27	1	47k SMD0603		R34 is DNP
33	R32, R26	2	270R SMD0603		

Pos.	Ref Des	Number per board	Description	DigiKey part #	Comment
34	R33	1	470R SMD0603		
35	R28, R29	2	0R SMD0603		
36	U7	1	DIL20	e.g.: A404AE-ND, 3M5465-ND	A404AE-ND preferred!
37	Q2	1	Crystal	Will be supplied by microcrystal!	DNP: Q2
38	J1, J2,	2	10-pin header, TH		Populate Male Headers, insert Female headers into kit
39	J3	1	2X05 Pin Header Male		place jumper on all header (5 pcs)
40	J4	1	6 Pin Header Male 1.28 mm		DNP: keep vias free of solder
41	J5	1	2X02 Pin Header Male		place jumper on header
42	J6	2	3-pin header, male, TH	SAM1035-03-ND	no jumper required
43	S1, S2	2	Push Button	P12225STB-ND	
44	MSP430	1	MSP430G2452IN14		DNP: enclosed with kit.
45	MSP430	1	MSP430G2553IN14		Put into Socket, Preprogrammed
46	Rubber stand off	4		Buerklin: 20H1724	apply to corners at bottom side

TEXAS INSTRUMENTS

Bill of Materials

TI DESIGNS **TIDM-LPBP-CONTACTLESS-TEMP-SENSE**

(430BOOST-TMP006 BOM)

Item	Qty	Reference	escripti	Manufacturer	Manufacturer PN	Distributor	Distributor PN	Notes
1	2	J1-2	CONN	TE Connectivity	5-534237-8	Digikey	A32910-ND	
2	1	J3-4	CONN	Mill-Max	850-10-010-20-001000	Digikey	ED8650-ND	**See note 1**
3	1	D1	LED GR	Lite On	LTST-C190GKT	Digikey	160-1183-1-ND	
4	1	D2	LED RE	Lite On	LTST-C190CKT	Digikey	160-1181-1-ND	
5	2	R1-2	RES 49	Yageo	RC1206FR-07499RL	Digikey	311-499FRCT-ND	
6	1	R3	Do Not	N/A	N/A	N/A	N/A	DNI
7	1	N/A	MSP430	Texas Instruments	MSP430G2553IN20	N/A	N/A	**See note 2**
8	1	N/A	HING C	3M	5701	Digikey	SCP131-ND	**See note 2 and Note 3**

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