Low Power Pulsoximeter and EKG Reference Design

Bill of Materials

Qty	Value	Device
1	3V battery	B1
1	MSP430FG437	IC1
1	FT232BM (USB UART)	IC2
1	CAT93C46 (Serial EPROM)	IC3
1	TPS71501(LDO)	IC4
1	MI0805K400R	L1
1	SBLCDA4	LCD1
1	Nellcor compatible probe	Sensor
1	32KHz Crystal	X1
1	6MHz Crystal	X2
1	JTAG Header	J1
1	DB9 (probe connector)	J2
1	USB_RECEPTACLE (Type B)	J4
2	MMBT2222 (NPN Transist	T1, T2
2	BC856ASMD (PNP Transis	Q1, Q2
2	Red LED	LED1, LED2
2	Tact Switch	S1, S2
2	20-pin CCxxxxEMK header	RF1, RF2
1	18-pin eZ430-RF2500T hea	JP6
1	6-pin eZ430-RF header	J5
2	Pin headers	J3, J6
4	Jumpers	JP1, JP2, JP3, JP4
2	10nF	C1, C12
2	10uF	C2, C5
13	0.1uF	,C23,C27,C28
1	3pF	C7
3	47pF	C8,C25,C26
2	33pF	C18,C19
1	33nF	C17
1	1uF (polarized cap)	C21
1	1uF	C24
2	10uF (polarized cap)	C9,C13
2	20 ohm	R1,R2
2	5k	R3,R4
1	47k	R5
1	0 ohm	R6
3	1k	R7,R18,R28
2	100k	R8,R9,R13
2	27ohm	R20,R21
1	500k	R10
1	150k	R11
1	5k	R12
1	15k	R14
3	680k	R15,R16,R17
1	33k	R19
1	1.5k	R22
1	2k2	R23
1	10k	R24,R29,R30
1	470ohm	R25
1	40.2k_0.1%	R26
1	60.4k_0.1%	R27

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