

Ref Des	Description	Digi-Key Part #	Mouser Part #
S1	Vishay TSOP34838 IR Receiver Module	---	782-TSOP34838
U1	IRMimic chip (PIC16LF87-I/P)	---	
U2	5V Linear Regulator, TO-92	LM78L05ACZNS	LM78L05ACZ
Q1	2N3904 NPN transistor, TO-92	2N3904	
D1	IR LED, QED234	QED234	512-QED234
D2	LED, 5mm Hi Eff Red	160-1705	
X1	6.5 MHz HC-49 Crystal	X415	520-HCU650-20X
R1	100 ohm 1/4 W resistor	100QBK	
R2	470 ohm 1/4 W resistor	470QBK	
R3	22 ohm 1/4 W resistor	22QBK	
R4	240 ohm 1/4 W resistor	240QBK	
R5,R6 (only one used)	10K ohm 1/4 W resistor	10KQBK	
R7,R8	Install both only if volt reg not used	0.0QBK	
C1	4.7 uF 50V electrolytic capacitor	P5177	
C2,C6,C7,C8	0.1 uF ceramic cap, 0.1" leads	399-2127 or BC1148CT	
C3,C4	22 pF ceramic cap, 0.1" leads	BC1005CT	
C5	1000 uF 16V electrolytic capacitor	P5142	
J1	Pin header	Part of S2011E-36	
Female IDC connector for J1:		ASC14H	

Notes: If voltage regulator is installed, then install R7 to supply IR LED from +5V, or install R8 to supply IR LED from unregulated voltage.
If regulator is not installed, install both R7 and R8 to connect +5V to +V, and feed in a DC voltage that board can use directly.
To select keypad mode, install R6 and not R5.
To select MCU mode, install R5 and not R6.