

# Bill of Materials

Reference	Value	Manufacturer	Package	DigiKey	Quantity	Notes
C1, C2, C7	0.1μF	Samsung	0603	1276-1006-1-ND	3	
C3	1μF	Samsung	0603	1276-6524-1-ND	1	
C4	10μF	Samsung	0603	1276-1119-1-ND	1	
C5	10μF	Samsung	0805	490-12538-1-ND	1	
C6	1μF	Samsung	0603	1276-1860-1-ND	1	Can be used for C3 as well
D1	DB2J40700	Panasonic	SOD-323	DB2J40700LCT-ND	1	
IC1	74LVC138	NXP Semiconductors	16-SOIC (3.90mm)	568-1577-5-ND	1	
IC2	DS2431	Maxim Integrated	TO-92-3	DS2431+-ND	1	
IC3	AP3032	Diodes Incorporated	SOT-23-6	AP3032KTR-G1DICT-ND	1	
IC4	74AHC1G08	NXP Semiconductors	SC-70-5	568-2501-1-ND	1	
L1	15μH	TDK		445-6598-1-ND	1	
P1	C.H.I.P.	Sullins Connector Solutions		S2011EC-20-ND	2	20x2 Pin Male Headers
P2	Power	CUI Inc.	2.5x5.5mm	CP-002B-ND	1	5.5x2.5mm Barrel Jack
P3	Pwr SW	Harwin Inc.		952-2244-ND	1	2 Pin Male Header (Right Angle)
P4	UART	Harwin Inc.		952-2245-ND	1	3 Pin Male Header (Right Angle)
P5	LCD	TE Connectivity		A100226CT-ND	1	40 Pin Flat Flex 0.5mm Bottom Contacts
P6	GPIO	On Shore Technology Inc.		ED10528-ND	1	17x2 Shrouded Male Header
R1	5.1Ω	Yageo	0603	311-5.1GRCT-ND	1	For 5" & 7" Panels (39mA backlight)
R1	15Ω	Yageo	0603	311-15GRCT-ND	1	For 4.3" Panel (13mA Backlight)
R2	4.7K	Yageo	0603	311-4.7KGRCT-ND	1	

## Notes

Capacitors can be substituted as long as the package, voltage, and capacitance is the same. Use X5R or X7R dielectric.

Resistors can be substituted as long as the package and resistance are the same.

Cheap pin headers from eBay will work fine if you want to save some money. DigiKey is expensive for pin headers.

The LCD connector (P5) is already installed if you bought one of my boards.

R1 sets the backlight current. Current = 0.2/R1