



Update the document revision level (and file name) whenever changes are released to others.

Rev.	Date	Who	Description
0.90	30-Jun-2011	Scot Kornak	Created.
1.00	21-Nov-2011	Scot Kornak	Sipex RS232 transceiver added.
1.01	16-Oct-2014	Scot Kornak	Driver changed to Sipex SP3232EEP-L to allow 3V or 5V operation.

Qty	Reference	BPS Part#	Value	Rating	Description (dimensions in mils, 0.001")	Manufacturer	Man. #	Notes
5	C1-3 C10 C13	C1-1/104	100n	50V	Capacitor, 100nF, 50V, X7R, 10%, Radial, 100sp, TH	Kemet	C320C104K5R5TA	
1	DS1	DS1-3/G	GREEN		LED, Green, Diffused, T1-3/4	LiteOn	LTL-4233	
1	J1	J1-3/9			Connector, DB-9, Female, R.Angle, Screwlocks, Mount Holes, TH	Norcomp	182-009-213R181	
1	J10	J1-90/10			Header, SIL, 1x10, 100sp, 330h, Gold Flash, TH	Tyco	1-103185-0	Installed on bottom of PCB, facing downwards
1		PCB-7770			PCB, ComBoard-232F, RS232, DCE, DB9F, Adapter, 2-Tx, 2-Rx, TH	BusBoard.com	PCB-7770-1.00	
1	R3	R1-1/103	10k	1/4W	Resistor, 5%, 1/4W, Axial			
1	R1	R1-1/105	1M	1/4W	Resistor, 5%, 1/4W, Axial			
1	R2	R1-1/221	220R	1/4W	Resistor, 5%, 1/4W, Axial			
1	U1	U1-20			IC, RS232, 2 Tx, 2 Rx, ESD, 100n Caps, 3V/5V, -40to85, DIP16	Sipex	SP3232EEP-L	
	U1 (alternate)	U1-20/C			IC, RS232, 2 Tx, 2 Rx, ESD, 100n Caps, 3V/5V, 0to70, DIP16	Sipex	SP3232ECP-L	Commercial temp.
1	U2	X-1/16			Socket, Dual Leaf, Tin, DIP16-150, TH	Tyco	1-390261-4	
Mounting Hardware								
2	J1	H-6/438			Spacer, Nylon, For #4 Screw, 478h (7/16"), Unthreaded, 125id, 188od	Bivar	9908-437	
2	J1	H1-410/1000	1.00"		Screw, Philips, #4-40, Pan Head, L=1.00", Steel-Zinc			
2	J1	H1-402			Washer, Flat, #4, id=1/8", od=5/16", thick=0.032", SS	Spanauer	W-2019	
2	J1	H1-403			Split Washer, #4, od=0.040", thick=0.031", Steel-Zinc	Spanauer	W-309	
Parts Not Installed								
1	J5 J8	J1-91/10			Header, DIL, 2x5, 100sp, 330h, 15um Gold, TH	Tyco	103186-5	Alternate 2x5 connector for ribbon cables.