

Bill of material for MiniModbus board Rev.C

Amount	Designator	Description	Digikey order number	Price each USD Mar 2012	Total USD	Comment
1	IC2	PIC18F14K22	PIC18F14K22-I/P-ND	2,64	2,64	Supplied firmware will only work with this device.
1	IC1	MAX232N	296-1402-5-ND	0,62	0,62	
1		9-way female DSUB, PCB mount	A35109-ND	0,85	0,85	
4	OK1-OK4	PC817 Optoisolator	425-2427-5-ND	0,44	1,76	
1	IC4	ULN2803 Darlington Array	497-2356-5-ND	0,93	0,93	
4	LED5-LED8	LED, 3mm, RED,	754-1211-ND	0,15	0,6	Or any suitable 3mm LED
5	LED1-LED4,LED9	LED, 3mm, GREEN,	754-1210-ND	0,14	0,7	Or any suitable 3mm LED
5	R3,R4,R7,R8,R10	Resistor 470 ohm, 5%, 1/4W	CF14JT470RCT-ND	0,08	0,4	Anything from 270 to 1k will work OK.
2	D1, D2	Diode 1N4003	1N4003-TPMSCT-ND	0,34	0,68	Or any suitable general purpose diode
1	IC3	7805 Voltage regulator, TO220	MC7805CT-BPMS-ND	0,56	0,56	
1	C6	100uF, 35V Aluminium electrolytic	P1191-ND	0,74	0,74	
1	C5	10uF, 16V Aluminium electrolytic	P5134-ND	0,2	0,2	
4	C1-C4	1uF, 50V Aluminium electrolytic	P5174-ND	0,2	0,8	
6	C7-C12	0.1uF, 50V Ceramic capacitor	490-3859-ND	0,15	0,9	Or any suitable decoupling capacitor
1	IC5	MC33202 General purpose OP (rail-to-rail)	MC33202PGOS-ND	1,23	1,23	Alternative: TS922, TLV272 or similar
1	IC6	78L12 Voltage regulator, 100mA, TO92	497-2955-5-ND	0,55	0,55	Alternative: 78L10, 78L15
9		2 way terminal block, 3.5mm	277-1706-ND	0,34	3,06	Or other 3,5mm pitch terminal block
2		3 way terminal block, 3.5mm	277-1707-ND	0,5	1	Or other 3.5mm pitch terminal block
3		8 way terminal header, 3.5mm	277-1755-ND	0,46	1,38	
3	R1, R6, R9	Resistor 10k, 1%, 1/4W	RNF14FTD10K0CT-ND	0,15	0,45	May use 5% but precision on analog out will suffer
6	R2, R5, R11-R14	Resistor 4k7, 5%, 1/4W	CF14JT4K70CT-ND	0,08	0,48	Any value from 1k to 47k will be OK
1	K1, JP1	0.1" pin header	929400E-01-36-ND	1,8	1,8	P/N is for one 36 way break-away header.
4	R15-R18	270 ohm	CF14JT270RCT-ND	0,08	0,32	For 5V input voltage
4	R15-R18	1k	CF14JT1K00CT-ND	0,08	0,32	For 12V input voltage
4	R15-R18	2k2, 0.5W	P2.2KBBCT-ND	0,14	0,56	For 24V input voltage. Note the 0.5W rating.

Total:

22,65