

S-QSK Parts List (05/13/2013)
Paul Christensen, W9AC

Schematic Symbol	Description	Qty.	Mfg. Data	Notes	Mouser P/N
C1, C2	2200pF@500V	2	Vishay 440LD22-R	C2 not normally used	75-440LD22-R
C3	0.001uF@100V	1	TDK FK18X7R2A102K		810-FK18X7R2A102K
C4	N/A	1		Not used	
C5-C10 *	0.01uF@50V	6	TDK FK28X7R1H103K		810-FK28X7R1H103K
C11, C13	0.1uF@50V	2	TDK FK28X7R1H104K		810-FK28X7R1H104K
C12	470uF@25V	1	Panasonic EEU-FR1E471Y		667-EEU-FR1E471Y
C14	1.0uF@50V	1	Panasonic ECE-A1HKS010		667-ECE-A1HKS010
C15, C16	47uF@50V	2	Panasonic ECE-A1HKA4R7		667-ECE-A1HKA4R7
D1, D2	1N4148	2	Vishay	Alternate: 1N914	78-1N4148
D3-D15	1N4002	13	Vishay	Alternate: 1N4004	625-1N4004E-E3/73
J1	BNC Female Input	1	Amphenol 112778		BNC 523-112778
JP15,18	2-pin 90-deg. 3.81mm Header	2	Phoenix Contact 1803277	2-pos. I/O Jack	651-1803277
JP3, 6, 9, 14, 17, 22-27	3-pin 90-deg. 3.81mm Header	10	Phoenix Contact 1803280	3-pos. I/O Jack	651-1803280
JP1, 4, 7, 10-13, 16, 19, 28-34	2-pos. 0.100" header	16	Molex 22-28-4363	Breakaway Header Strip	538-22-28-4363
JP2, 5, 8, 20, 21	3-pos. 0.100" header	5	Molex 22-28-4363	Breakaway Header Strip	538-22-28-4363
K1-K8	DPST SS Relay	8	Avago ASSR-1520	Alternate: ASSR-1228	630-ASSR-1228-302E
L1	47uH@0.5A	1	Murata 11R473C	Precision Filter Inductor	580-11R473C
LD1-LD9	T 1 3/4 Yellow LED	9	LiteOn LTL-307Y		859-LTL-307Y
M1	Arduino Nano Microcontroller	1	Arduino	Microcontroller	
Q1	2N6426	1	Central Semi	Darlington NPN	610-2N6426
Q2, Q3	2N5551	2	Central Semi	HV Switching	610-2N5551
R1	2.2K@1W MOX	1	IRC CMO12201JLFTR	Metal Oxide Film	66-CMO12201JLFTR
R2	4.7K@1/4W	1	Xicon 291-4.7K-RC		291-4.7K-RC
R3	470K@1/4W	1	Xicon 291-470K-RC		291-470K-RC
R4	560@1/4W	1	Xicon 291-560-RC		291-560-RC
R5-R7	680@1/4W	3	Xicon 291-680-RC		291-680-RC
R8-R11	10K@1/4W	4	Xicon 291-10K-RC	Pull-up, not normally used	291-680-RC
R12-R19	130@1/4W	8	Xicon 291-130-RC		291-130-RC
R20, R21	1K@1/4W	2	Xicon 291-1K-RC		291-1K-RC
U1	TLP620-4	1	Toshiba	Quad photo-transistor array	757-TLP620-4(F)
U2	12 DC-DC Converter	1	Murata MEE3S1212SC	Used for 24V DC Upconverter	580-MEE3S1212SC
U3 *	16F88 PIC	1	Microchip 16F88	Alternative to Nano	579-PIC16F88-4P
U4 *	78L05	1	TI TL750L05CLP	5V LDO Regulator	595-TL750L05CLP
	8-Pin Low Profile DIP Socket	4	Mill-Max 193308	Used for K1-K4	575-193308
	16-Pin Low Profile DIP Socket	1	Mill-Max 199316	Used for U1	575-199316

* C9,C10, U3, U4 only used with 16F88 PIC Option

S-QSK Remote Sensor

C1, C2	2200pF@500V	2	Vishay 440LD22-R	C2 not normally used	75-440LD22-R
C3	0.001uF@100V	1	TDK FK18X7R2A102K		810-FK18X7R2A102K
C4	0.01uF@50V	1	TDK FK28C0G1H103J		810-FK28C0G1H103J
D1, D2	1N914/1N4148	2	Vishay		78-1N4148
D3	1N4002	1	Vishay		625-1N4004E-E3/73
J1	2-pos. 0.100" header	1	Molex 22-28-4363	Breakaway Header Strip	538-22-28-4363
J2	BNC Female Input	1	Amphenol112778	BNC	523-112778
J3	2-pos. 0.100" header	1	Molex 22-28-4363	Breakaway Header Strip	538-22-28-4363
JP1	2-pos. 0.100" header	1	Molex 22-28-4363	Breakaway Header Strip	538-22-28-4363
R1	2.2K@1W MOX	1	IRC CMO12201JLFTR	Metal Oxide Film	66-CMO12201JLFTR
R2	4.7K@1/4W	1	Xicon 291-4.7K-RC		291-4.7K-RC
R3	470K@1/4W	1	Xicon 291-470K-RC		291-470K-RC