



**Laser Position Sensor
Bill-of-Materials**

Notes:

1) R7 is not populated

Item	Quantity	Reference	Manufacturer	Manuf. Part #	Distributor	Distrib. Part #	Description
1	4	C1,C3,C5,C8	Panasonic	ECJ-1VC1H471J	Digi-Key	PCC2147CT-ND	470pF ceramic capacitor, 50V, NP0, 0603
2	5	C2,C4,C6,C7,C9	Taiyo Yuden	EMK107B7474KA-T	Digi-Key	587-1250-1-ND	0.47uF ceramic capacitor, 16V, X7R, 0603
3	4	C10,C11,C12,C13	Kemet	C0603C103K5RACTU	Digi-Key	399-1091-1-ND	0.01uF bypass capacitor, 50V, X7R, 0603
4	3	C14,C16,C19	AVX	TPSA106K010R0900	Digi-Key	478-1751-1-ND	10uF tantalum capacitor, 10%, 10V, 0.9 ohm ESR, size A
5	1	C15	AVX	TPSA225K035R1500	Digi-Key	478-3105-1-ND	2.2uF tantalum capacitor, 10%, 35V, 1.5 ohm ESR, size A
6	2	C17,C18	Kemet	C0603C104K4RACTU	Digi-Key	399-1096-1-ND	0.1uF bypass capacitor, 16V, X7R, 0603
7	1	D1	Kingbright	KPB-3025ESGC	Newark Electronics	38K3400	Red/Green Bi-Color LED, 1201W SMT
8	1	JP1	Molex	22-28-8040	Digi-Key	WM6004-ND	Single row, right-angle vertical header, 4-pin
9	1	PSD1	Hamamatsu	S5991-01	N/A	N/A	2-D Position Sensitive Detector, SMT
10	4	R1,R8,R12,R16	Panasonic	ERA-3AEB242V	Digi-Key	P2.4KDBCT-ND	2.4k ohm, 0.1%, 1/10W, 0603
11	8	R2,R3,R9,R10,R13,R14,R17,R18	Panasonic	ERA-3AEB104V	Digi-Key	P100KDBCT-ND	100k ohm, 0.1%, 1/10W, 0603
12	5	R4,R11,R15,R19,R20	Panasonic	ERJ-3GEYJ103V	Digi-Key	P10KGCT-ND	10k ohm, 5%, 1/10W, 0603
13	1	R5	Panasonic	ERJ-3GEYJ101V	Digi-Key	P100GCT-ND	100 ohm, 5%, 1/10W, 0603
14	1	R6	Panasonic	ERJ-3GEYJ102V	Digi-Key	P1.0KGCT-ND	1k ohm, 5%, 1/10W, 0603
15	2	R21,R22	Panasonic	ERJ-3GEYJ221V	Digi-Key	P220GCT-ND	220 ohm, 5%, 1/10W, 0603
16	1	R23	Panasonic	ERJ-3GEYJ271V	Digi-Key	P270GCT-ND	270 ohm, 5%, 1/10W, 0603
17	1	R24	Panasonic	ERJ-3GEYJ471V	Digi-Key	P470GCT-ND	470 ohm, 5%, 1/10W, 0603
18	1	U1	Freescale	MC9S08JM8CLC	N/A	N/A	Microcontroller, LQFP32
19	2	U2,U3	Linear Technology	LT1491ACS	Digi-Key	LT1491ACS#PBF-ND	Operational Amplifier, Quad Micropower Rail-to-Rail, SOIC14N
20	1	U4	Linear Technology	LTC1046CS8	Digi-Key	LTC1046CS8#PBF-ND	Converter, +5V to -5V Inductorless, SOIC8