



Optical Receiver (Analog)

Bill-of-Materials

HW B, Document 1.0, November 24, 2017

Item	Quantity	Reference	Manufacturer	Manuf. Part #	Distributor	Distrib. Part #	Description
1	7	C1, C2, C3, C4, C5, C6, C7	Kemet	C0805C104K5RACTU	Digi-Key	399-1170-1-ND	Capacitor, 0.1uF, 50V, Ceramic, 10%, X7R, 0805
2	1	C8	AVX	TAP105K020SCS	Digi-Key	478-1833-ND	Capacitor, 1uF, 20V, Tantalum, Radial
3	1	C9	AVX	TAP106K016SCS	Digi-Key	478-1839-ND	Capacitor, 10uF, 16V, Tantalum, Radial
4	1	D1	Vishay Semiconductor	BPW21R	Digi-Key	751-1013-ND	Photodiode, Silicon PN, 420-675nm, TO-5
5	1	D2	Lite-On	LTL-1CHG	Digi-Key	160-1710-ND	LED, Green diffused, 2.1V, 569nm, 3mm
6	1	L1	EPCOS (TDK)	B78108S1473J	Digi-Key	495-5568-1-ND	Inductor, 47uH, 1.1R, 450mA, Axial
7	1	P1	Molex	22-28-8062	Digi-Key	WM50015-06-ND	Header, Single row, R/A, 6-pin, 0.244" L, 0.1" P
8	1	Q1	Fairchild Semiconductor	2N3904BU	Digi-Key	2N3904FS-ND	Transistor, NPN, 40V, 0.2A, TO-92
9	1	R1	Any	Any	Digi-Key	P100KACT-ND	Resistor, 100k, 5%, 1/8W, 0805
10	2	R2, R12	Bourns	PVG5A203C03R00	Digi-Key	490-2667-1-ND	Resistor, Variable Trimmer, 20k, 1/8W, SMD
11	3	R3, R6, R11	Any	Any	Digi-Key	P1.0KACT-ND	Resistor, 1k, 5%, 1/8W, 0805
12	1	R4	Bourns	PVG5A504C03R00	Digi-Key	490-2674-1-ND	Resistor, Variable Trimmer, 500k, 1/8W, SMD
13	1	R5	Any	Any	Digi-Key	P4.7KACT-ND	Resistor, 4.7k, 5%, 1/8W, 0805
14	3	R7, R8, R9	Any	Any	Digi-Key	P10KACT-ND	Resistor, 10k, 5%, 1/8W, 0805
15	1	R10	Bourns	PVG5A105C03R00	Digi-Key	490-2663-1-ND	Resistor, Variable Trimmer, 1.0M, 1/8W, SMD
16	1	R13	Any	Any	Digi-Key	1.0KQBK-ND	Resistor, 1k, 5%, 1/4W, Axial
17	1	S1	NKK Switches	SS312SAH4	Digi-Key	360-3250-ND	Switch, Slide, SPDT, R/A, 0.4VA @ 24V
18	3	TP4, TP5, TP6	Keystone	5016	Digi-Key	5016KCT-ND	Testpoint, SMT
19	2	U1, U2	Maxim Integrated	MAX4124EUK+T	Digi-Key	MAX4124EUK+TCT-ND	IC, Operational Amplifier, Rail-to-Rail, SOT23-5
20	1	U3	Maxim Integrated	MAX985EUK+T	Digi-Key	MAX985EUK+TCT-ND	IC, Comparator, Push-Pull, Rail-to-Rail, SOT23-5
21	1	U4	Texas Instruments	LP2950CZ-3.3/NOPB	Digi-Key	LP2950CZ-3.3/NOPB-ND	Linear Regulator, LDO, 3.3V @ 100mA, TO-92
22	1	PCB	OSH Park	OPTICSPY ANALOG	N/A	N/A	PCB, Fabrication