

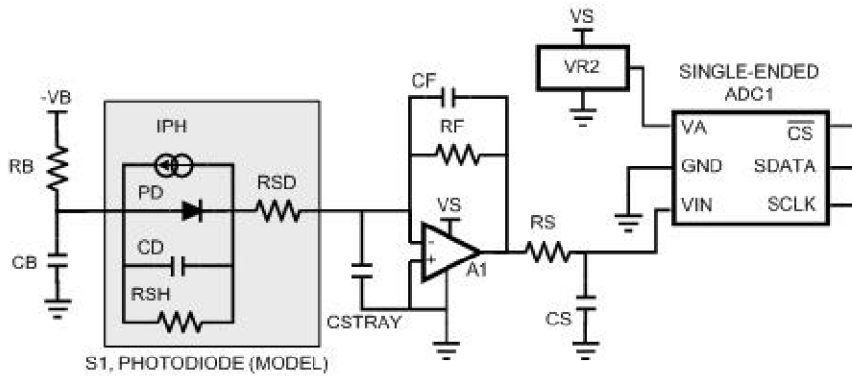


TEXAS INSTRUMENTS WEBENCH® Sensor Designer

PhotoDetector Amplifier/ADC Design

Schematic and BOM

PhotoDetector_Conductive_SingleEnded



Component	Value	Part #	Mfr	Description
A1	Vos=0.6mV, GBW:	LMH6611MK	Texas Instruments	Single Supply 345 MHz Rail-to-Rail Output Amplifier
ADC1	8 bits, INL=0.04LSI	ADC082S021CIMM	Texas Instruments	2 Channel, 50 ksps to 200 ksps, 8-Bit A/D Converter
Board	Photodetector Am	SP1202S03RB-PC	Texas Instruments	Photodiode Board
Cb	10 uF	GRM31CR61E106H	MuRata	X5R Capacitor, 1206 package
Cf	1 pF	06035A1R0CAT2A	AVX	C0G/NP0 Capacitor, 0603 package
Cs	330 pF	C1005C0G1H331J	TDK	C0G/NP0 Capacitor, 0402 package
Rb	10.0 ohms	RG1608P-470-B-T1	Susumu Co Ltd	Resistor, 0.1% tol., 0603 package
Rf	332000 ohms	RG1608P-3323-B-T1	Susumu Co Ltd	Resistor, 0.1% tol., 0603 package
Rs	10.0 ohms	RG1608P-470-B-T1	Susumu Co Ltd	Resistor, 0.1% tol., 0603 package
S1	Si Photodiode	SFH213	OSRAM	Peak Wavelength=850nm, Resp.=0.62
VR2	4.096V	LM4140CCM-4.1	Texas Instruments	Series Voltage Reference, 0.1%, 10ppm/C