



The preamplifier portion of this receiver is a transimpedence current to voltage converter. Its output voltage is proportional to the input signal current:

 $\textbf{V}_{out} = \textbf{I}_{signal} \textbf{ x } \textbf{R}_{feedback}.$ This photodiode/amplifier is a DC coupled, high gain system and care should be taken to shield the unit from stray light during operation. This will help prevent saturation of the amplifier, which could lead to failure of the unit. Obtaining stable, long term operation will require suitable heat sinking.

SPECIFICATIONS	
Detector Type	1mm Dia ex - InGaAs Photodiode
Responsivity	1.0 x 10 ⁴ V/W @ 2.2 μm
Noise Voltage	$< 0.1 \times 10^{-6} \text{ V/Hz}^{1/2}$
Bandwidth	DC - 300 kHz (-3db)
Operating Wavelength - um	1.2 – 2.6