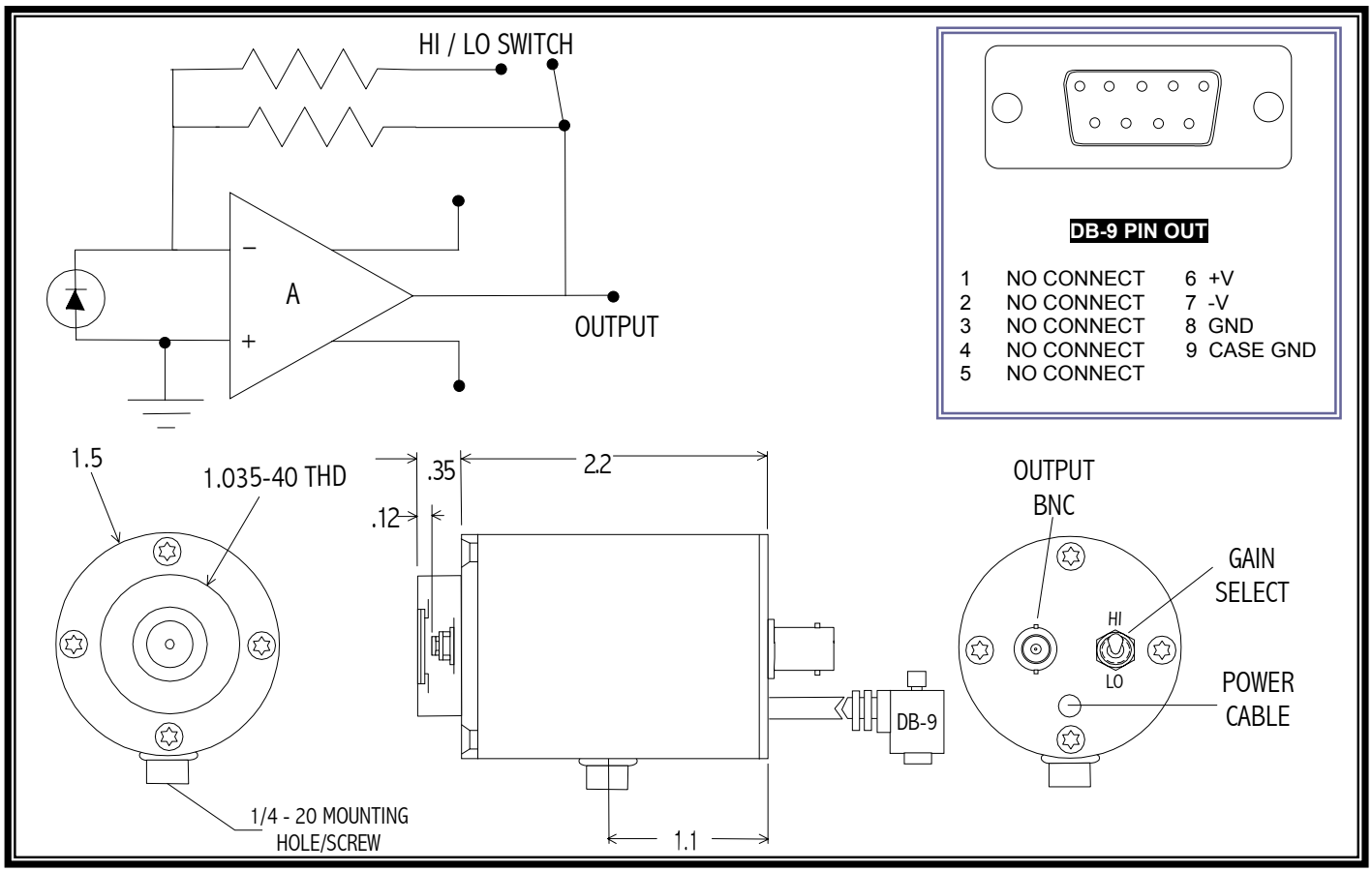
Receiver Modules

SILICON PHOTODIODE RECEIVERS



Application Note This unit is a high performance photodiode/receiver operated with at ambient temperature with a dual gain FET input transimpedence amplifier. The output voltage is proportional to the input signal current: $V_{out} = I_{signal} \cdot R_f$.
The PD/AMP is a DC coupled dual gain system. Care should be taken in shielding the unit from stray light during operation to prevent saturation of the amplifier (and potential failure).

SPECIFICATIONS @ 22° C NOM.			
Part Number	**S – 010 - H**	**S – 025 - H**	**S – 050 - H**
Active Area	**1 mm dia**	**2.5 mm dia**	**5 mm dia**
Operating Wavelength- μm	**0.3 – 1.0**		
Responsivity- V/W @ pk	**0.5 x 10^9 / 10^8**	**.5 x 10^9 / 10^8**	**.5 x 10^8 / 10^7**
Noise- V/Hz$^{1/2}$	**5.0 x 10^{-6} / 0.5 x 10^{-6}**	**5.0 x 10^{-6}/ 10^{-6}**	**1.3 x 10^{-6} / 10^{-7}**
NEP- W/Hz$^{1/2}$ @ pk	**< 1.0 x 10^{-14}**	**< 1.0 x 10^{-14}**	**< 2.5 x 10^{-14}**
Bandwidth (-3dB)- Hz	**DC – 500 / 2k**	**DC – 500 / 2k**	**DC – 2k**
Power Requirements	**+/- 9 VDC to +/- 15 VDC**		
Connections	**BNC signal output. Shielded power cable terminated with a DB-9 connector directly couples the unit with the PS -1 Low Noise Power Supply.**		

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