Point Source Sensitivity table for SNAP
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Below are the expected magnitude limits for the canonical SNAP configuration. Magnitudes given are for S/N>=5 detections of isolated point sources; this limit will be reached for 95% of point sources; because of cosmic rays and interpixel sensitivity variations, the remaining 5% may be somewhat worse, and most of the 95% will be significantly better.

The important parameters of the assumed SNAP instruments are:
* 2.0 meter primary
* 0.4 meter secondary obscuration
* 21.6m focal length
* CCDs are 200 um-thick LBL style, with:
* 10.5 um (0.10") pixels
* 3.5 um charge diffusion sigma
* 4e read noise.
* 1.3e-4 CR hits/sec/pixel
* J and H' bandpasses use HgCdTe detector, with:
* 18 um (0.171") pixels
* 10% "gutter" on all pixel edges
* 0.02 e/s/pix dark current
* 4e read noise
* 1e-4 CR hits/sec/pixel
* 5 um charge diffusion sigma

Solar-min cosmic rays, read noise, dark current, sky noise, interpixel sensitivity variations, and readout overheads have all been taken into account. See GMB or the SNAP publications page for further descriptions of the methodology.

2x2 exposure interlacing has been enforced under the assumption that this is a survey mode, so we will want to have minimal aliasing.

All magnitudes are AB system.

Band	Integrated Exposure Times		
	1000s	10,000s	100,000s (3)
	(30,000 sq.deg/yr)	(3,000 sq.deg/yr)	(300 sq.deg/yr)
H' (1)	26.4	27.85	29.25
J	26.6	28.1	29.4
Z	27.35	28.85	30.2
I	27.4	28.9	30.25
R	27.55	29.1	30.4
V	27.25	28.85	30.25
B	27.65	29.3	30.65
U (3)	26.6	28.5	29.9

NOTES:
1) H' filter is 1.5-1.7 um rectangular bandpass.
2) Optical efficiency of 83% is now assumed, as might be reached for a Ag-coated mirror set and good interference filters. This is clearly too optimistic for U-band. I've used 50% for U.
3) Exp. times for NIR want to be ~900s for deep exposure sequences. ~600s for deep Z/I/R, 900s for V/B, 1800s U.