SPECTRAL RESPONSE MEASUREMENT

This is a Characterization tool for the single pixel devices, measuring the Spectral response, Responsivity. InfraRed light of varying wavelength is shined on to the biased sample at low temperature. The current generated is amplified and plotted versus the wavelength of incident light. Also, the sample is placed in front of a Blackbody at known temperature, and its Responsivity is calculated deriving from Planck's equation and radiometry.

Limitations:

- Sample: Single pixel QDIP, DWELL wirebonded on a 64 pin LCC
- Spectral range: 2micron to 18micron depending on sample
- Excitation source: internal IR source at around 1200 deg C
- Spectral resolution: 0.25 cm-1
- Sample Temperature range: 78K to 300K
- Blackbody temperature range: Room temp to 900 deg C