

Instrument Characteristics

Parameter	Value
Operating modes	Pointed Observing Survey Mode Polarimetry Mode
Point Source Sensitivity (5σ , 1 hr)	50 μm : 0.9 μJy 250 μm : 2.5 μJy
Surface Brightness Sensitivity (5σ , 1hr)	50 μm : 729 mJy/sr 250 μm : 551 mJy/sr
Resolving power	3.3 in both bands
Angular resolution	$5 \times (\lambda/100 \mu\text{m})$ arcsec
Spectral range	50 μm , 250 μm
Field of View (instantaneous)	50 μm : 3.6' x 2.5' 250 μm : 13.5' x 9'
Saturation limit	TBD mJy (min. 1Jy)
Scanning speed (survey mode)	60 arcsec/sec
Polarimetric sensitivity	0.1% in linear polarization, $\pm 1^\circ$ in polarization angle
Detectors	109 x 73 TES array
Detector NEP	3×10^{-19} W/ $\sqrt{\text{Hz}}$
Detector cold readout	SQUID μWave Multiplexers, HEMTs
Estimated time to reach confusion limit	50 μm : $t_c = 1.9$ hr (120 nJy) (2.1") 250 μm : $t_c = 2$ ms (1.1 mJy) (11")

Point telescope at sources with FSM performing Lissajous scan
Telescope in linear motion while FSM performs Lissajous scan
Both prior modes with rotating half-wave plate