

Large format, 6-10 and 10-15 micron dual broad-band QWIP Focal Plane Array

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The Jet Propulsion Laboratory (JPL) is developing a 512x640 format, dual broad-band, quantum well infrared photodetector (QWIP) focal plane array (FPA) for an imaging interferometer. This is a new type of imaging interferometer based on special Fourier transform spectroscopy, which scans interferograms digitally without moving any optical components. These static interferometers require large format FPAs with high uniformity and operability. QWIP is ideal candidate for this instrument because the technology has shown remarkable success in advancing highly uniform, highly-operability, and large format multi-color focal plane arrays. The FPA utilizing in the interferometer covers the wavelength from 6 -10 μm and 10 -15 μm in alternative rows.