



Near-Infrared (0.9 - 1.7 μm) 64x64 InGaAs Focal Plane Array

FEATURES

- 64x64 Array Format
- 0.9 μm -1.7 μm Spectral Range
- 32-pin CLCC Package
- Typical Pixel Operability >99.5%
- Quantum Efficiency >70%
- Built-in Temperature Sensor
- 2MHz Pixel Rate

APPLICATIONS

- Near-Infrared Imaging
- Spectrometry
- Semiconductor/Solar Panel Inspection
- See through Fog / Smoke
- Ice / Slush / Moisture Mapping
- Industrial Thermal Imaging

GENERAL DESCRIPTIONS

PARAMETER	UNIT	VALUE
Sensor Technology	---	Planar InGaAs PIN
Spectral Range	μm	0.9 -1.7
Pixel Array	---	64 x 64
Pixel Pitch	μm	40
Image Size	mm	2.56 x 2.56
Package Type	---	32-pin Ceramic LCC
Weight	g	TBD

SPECIFICATIONS (¹ITS = 20°C)

Parameter		Unit	Typical Value	Conditions
Dark Current		fA	≤ 120	Photopixel Biased @ -0.5 V
Quantum Efficiency* Fill Factor (QE _{FF})		%	≥ 70	λ = 1.0 μm - 1.6 μm
Response Nonuniformity		%	≤ 5	At 50% Well Occupation
Response Nonlinearity (Max. Peak-to-Peak Deviation)		%	≤ 1	10% - 90% Well Occupation Range
Charge Capacity	@High Gain, 3.6μV/e ⁻	Me ⁻	0.5M	ROIC Specifications
	@Low Gain, 0.86μV/e ⁻		1.85M	
Readout Noise		e ⁻	≤ 500	High Gain, Integration Time = 1 ms
Output Swing		V	>1.6	
Minimum Integration Period		μs	5.5	
Pixel Operability		%	≥ 99.5	Percentage of Pixels with QE _{FF} Deviation within ±20%*(QE _{FF} Mean).

1. Readings from integrated temperature sensor (ITS).

ABSOLUTE MAXIMUM RATINGS

Parameter	Unit	Min.	Max.
² Operating Temperature	°C	-25	+70
² Storage Temperature	°C	-40	+70
Power Consumption	mW	---	70

2. Non-condensing environment.

PACKAGE OUTLINE (Unit: mm)

