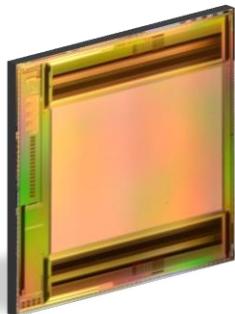


MT6415CA3

640×512-15µm CTIA VGA ROIC



Features

- Very Low-Noise and Small Pitch CTIA VGA ROIC
- 640×512-15 µm SWIR FPAs including InGaAs, MCT, T2SL, and CQD
- 2, 4, or 8 Analog Outputs with Analog Reference
- Programmable Biasing, Timing, and Windowing
- Snapshot Operation: ITR Mode
- High Speed, Low Power, and Very Low Noise

Technical Specifications

Detector Array Format	640×512 (VGA)		
Pixel Size	15 µm×15 µm		
Pixel Polarity	Supports both p-on-n and n-on-p detector arrays		
Input Circuit Type	Capacitive Trans Impedance Amplifier (CTIA)		
Full Well Capacity (Double Gain)	HG: 10.000 e-	LG: 350.000 e-	
Detector Biasing	12-bit programmable in 0.7mV steps		
Integration Time	Programmable from 100ns to 1s in 100ns steps		
Number of Analog Outputs	Programmable 2, 4, or 8 with reference		
Output Swing	< 2.0V with adjustable gain and offset		
Readout Modes	Snapshot Operation: ITR Mode		
Windowing	Programmable size and location		
Sub-Sampling	2:1 in Rows and Columns for faster scanning		
System Clock	Nominal 10 MHz (up to 12.5MHz)		
Frame Rate	≤ 260 Hz at full frame, up to 1000 Hz with windowing		
Power Dissipation	≤ 150 mW, 3.3V and 1.8V Supplies		
Readout Noise	HG: ≤ 10e- rms	LG: ≤ 110e- rms	
Operating Temperature	Room Temperature (300K) and Cryogenic (77K)		
Temperature Sensor	On-chip active sensor with 1mV/K sensitivity		
Wafer Size / Die Size / DPW	Wafer: 200mm	Die: 12.2mm×13.3mm	Total: 133 Dice 100 Dice working (Typical)
Product Delivery	Tested wafers or singulated parts with test data		