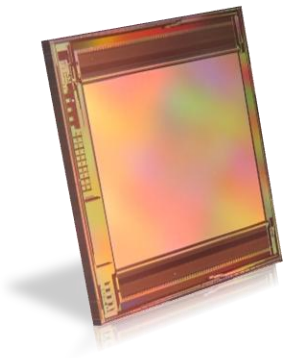
MT6420DDA 640×512-20µm
Dual-Polarity Direct Injection ROIC

Mikro Tasarım



Key Product Features

- Dual-Polarity DI ROIC for 640×512-20µm FPAs including T2SL, MCT, InSb, and QWIP
- 1, 2, 4, or 8 analog outputs with reference
- Programmable polarity, gain, and biasing
- Snapshot operation: ITR and IWR
- Low-power and high frame rates
- Cryogenic operation down to 65K

Product Specifications	Values			
Array Format and Pitch	640 × 512	20µm × 20µm		
Pixel Polarity and Type	p-on-n or n-on-p	for T2SL, MCT, InSb, and QWIP		
Input Circuit Type	Dual-Polarity Direct Injection (Dual-DI), programmable			
Full Well Capacity / Gain	FWC	1.5 Me-	3 Me-	6 Me-
	Gain	4x	2x	1x
Detector Biasing	Programmable in in 1mV steps (-1.0V < Bias < 1.0V)			
Integration Time	Programmable from 10µs to 100ms in 1µs steps			
Analog Outputs	Programmable 1, 2, 4, or 8 with reference			
Output Swing	≥ 2.0V with adjustable gain and offset			
Readout Modes	Snapshot Operation: ITR and IWR Modes			
Windowing	Programmable Size and Location (64-pixel step size in XY)			
Frame Rate	≤ 200 Hz at full frame, upto 1000 Hz with windowing			
System Clock	Nominal 10 MHz	Maximum 12MHz		
Supply Voltage	Nominal 3.3V and 1.8V ± 5% variation at DC levels			
Power Dissipation	≤ 135 mW at 100 fps with 4-outputs			
Input Referred Noise	≤ 450e- at 77K, 1x Gain			
Operating Temperature	Cryogenic (T ≥ 65K) and room-temperature operation			
Temperature Sensor	On-chip active sensor with 1mV/K sensitivity			
Die, Wafer, Die / Wafer	15.6mm × 15.6mm	200mm	89 (Typical 76 A+ Grade)	

MT6430DDA

Product Datasheet

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