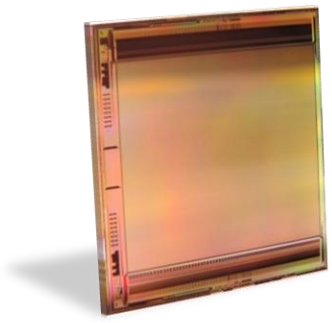
MT12815DA1

1280×1024-15µm DI ROIC



Features

- DI ROIC for 1280×1024-15µm FPAs including T2SL, MCT, InSb, and QWIP
- 2, 4, or 8 analog outputs with reference
- Programmable Biasing, Gain, and Windowing
- Snapshot Operation: ITR and IWR
- Low Power and High Frame Rates
- Cryogenic operation down to 65K

Technical Specifications

Array Format and Pitch	1280×1024	15µm×15µm	
Pixel Polarity and Type	p-on-n	T2SL, MCT, InSb, QWIP	
Input Circuit Type	Direct Injection (DI)		
Full Well Capacity	Programmable (High, Mid, and Low-Gain) Settings		
	HG: ≥ 2Me-	MG: ≥ 5Me-	LG: ≥ 10Me-
Detector Biasing	Programmable in steps of < 1mV		
Integration Time	Programmable from 1µs to 1s in 100ns steps		
Number of Analog Outputs	Programmable 2, 4, or 8 outputs with reference		
Output Swing	≤ 2.0 V with adjustable gain and offset		
Readout Gain	Programmable		
Readout Modes	Snapshot Operation: ITR and IWR Modes		
Windowing	Programmable size and location		
Frame Rate	≤ 50 Hz at full frame, upto 1000 Hz with windowing		
System Clock	Nominal 10 MHz (upto 12MHz)		
Supply Voltage	3.3 V and 1.8 V		
Power Dissipation	≤ 200 mW (50 Hz, 8 outputs)		
Input Referred Noise	≤ 850 e- rms at 77K for 10 Me- FWC		
Operating Temperature	Cryogenic (T ≥ 65K)		
Temperature Sensor	On-chip active sensor with 1mV/K sensitivity		
Die Size / Wafer Size / DPW	21.8mm × 21.1mm	200mm	44