// ARM+FPGA architecture, low power consumption

// Support GigE Vision protocol for high speed transmission

// Support GenICam protocol, meet the 3rd party common camera API interface

// IR resolution: 384*288/640*512 optional

// Synchronize cameras with external trigger

// Support on line temperature correction
// Measurement range: -40°C~150°C
// The measurement accuracy is up to ±2°C

Introduction

The Mstar IR-CAM Series of thermal imaging temperature sensors offers comprehensive visual temperature monitoring for process control and quality assurance applications as well as condition monitoring and fire prevention. The IR-CAM100 integrates seamlessly into existing systems and is one of the few thermal imaging temperature sensors on the world market to provide temperature linear output by using GenICam™ compliant software.

Typical Applications
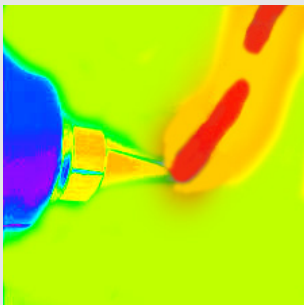
Hot melt adhesive detection for packaging industry.
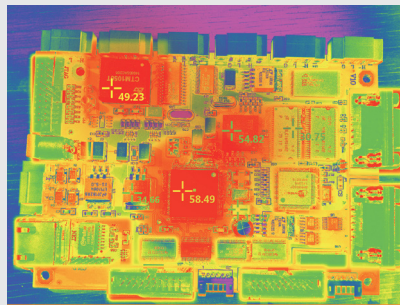
Providing quality control for PCBs.

Detecting liquid levels in visually opaque bottles.

Specifications

Model	IR-CAM100-A-10R	IR-CAM100-A-20G	IR-CAM100-B-30R	IR-CAM100-B-40G
	Thermography type	Observation type	Thermography type	Observation type
	THERMAL IMAGING TEMPERATURE SENSOR			
Image and Optical Data				
Resolution	384 × 288		640 × 512	
Detector Pitch	17 µm			
Spectral Range	8 – 14 µm			
Detector Type	Uncooled vanadium oxide			
NETD	≤50mk @ f1.0			
Focal length	7.5mm/13mm/19mm/25mm			
Focus	Manual			
Software Data				
Measurement tools	Highest temp.; Lowest temp.; Average temp.; Linear temp. measurement; isothermal analysis; Temperature-difference measuring, location, measurement, detection			
Communication	Ethernet/RS232/IO			
Language	English/Chinese			
Image Processing				
Electron multiplication	1-8 times stepless mag.; step length:1/8			
Video flip	4 types			
Dimmer	Linear/mixed/histogram optional			
Nonuniform correction(NUC)	Solenoid shutter			
Power				
Power input	DC 12V			
Power consumption	≤3.8W@12V@25℃		≤4.2W@12V@25℃	
Temp. Measurement				
Temp. measuring environment	-10℃~+60℃, 5%~80% humidity			
Temp. measuring range	-40℃~+150℃; -40℃~+550℃	/	-40℃~+150℃; -40℃~+550℃	/
Temp. measuring accuracy	2 ℃ or ±2% (Taking the max. value)	/	2 ℃ or ±2% (Taking the max. value)	/
Boot time	≤15S			
Physical Data				
Weight	<=180g (without lens and lens mount)			
Dimension	48mmx50mmx62.5mm (without lens)			
Environment Data				
Operating Temperature	-40℃~+60℃			
Operating Humidity	0%~80%RH			
Storage Temperature	-45℃+85℃			
Storage Humidity	0%~85%RH			
Impact test index	Semi-sinusoidal wave, acceleration of 30g, pulse width of 11ms, direction of installation and use (X-axis) impact three times without power test			
Vibration test index	10HZ~150HZ~10HZ, peak-to-peak value of displacement: 0.15mm Vibration in the direction of installation and use (X-axis), 8min/ axis, number of cycles: 2, without power test			

Dimension

Unit: mm