

Product Information

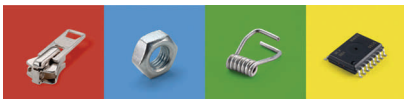
Digital, Plug and Play, Infrared Thermometer in a TO Can

MLX90614

The MLX90614 infrared thermometer is the solution for inexpensive and reliable contact-less temperature measurements. The integration of an infrared sensor and dedicated signal processing chip into one small TO-39 package results in a plug and play fully calibrated thermometer, ready to be integrated in your automotive, industrial, medical or consumer application.

Features

- Factory calibrated IR thermometer with linear digital output
- Small size TO-39 can, easy to integrate;
- Low cost, competitive prices
- Standard calibration in wide temperature range:
 - 40 to 125°C for ambient temperature
 - 70 to 380°C for object temperature
- Better than 0.5°C accuracy in the range 0-50°C
- 0.02°C readout resolution possible
- High refresh rate
- Easy emissivity correction
- Continuous temperature readout through PWM (Pulse Width Modulated) output
- 2-wire SMBus compatible interface for reading temperatures and sensor reconfiguration
- Building block for sensor network with up to 100 thermometers
- High reliability and long-term stability
- Excellent ESD/EMC characteristics
- Available for 3 and 5V applications, Easy to adapt for voltage sources in range 6-24V
- Power saving mode for battery operation
- Traceability through unique ID number in non-volatile memory
- Single or Dual zone thermometer version
- RoHS compliant



Small things make a big difference.

Melexis
Microelectronic Integrated Systems

Automotive ICs

RF & RFID

Intelligent Drivers
and Actuators

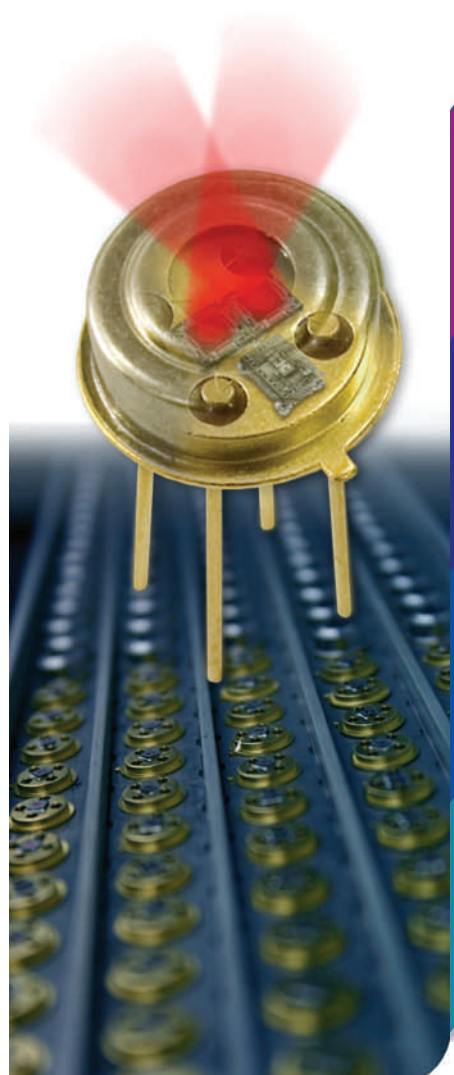
IR Temperature

Hall ICs

CMOS Imaging

Silicon MEMS

BUS ICs

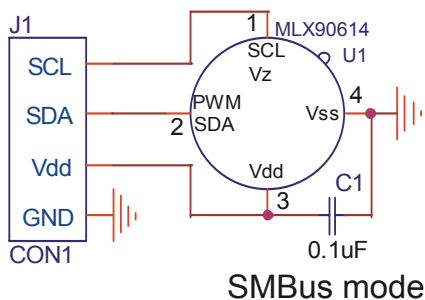
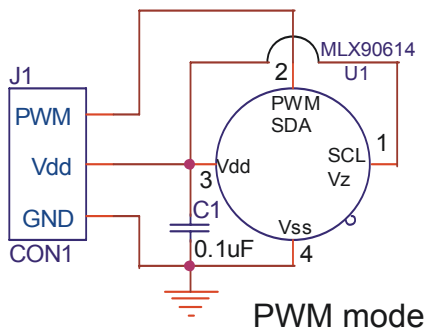




Typical Applications

- High precision contact-less temperature measurement
- Thermal comfort sensor for Mobile Air Conditioning control system
- Windshield defogging
- Automotive blind angle detection
- Temperature sensing element for residential, commercial and industrial building air conditioning
- Presence detector
- Fire/heat detection, alarm systems;
- Gas sensing
- Mobile telephones
- Industrial temperature control;
- Temperature control in laser printers and copiers
- Home appliances: microwave ovens, cooking stove, heater, hair dryer
- Healthcare
- Livestock monitoring;
- Sensor grid for multi-zone temperature control
- Thermal relay/alert

Application Circuits



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