# Product Information

MLX90614

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

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

Features and Benefits

- 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;
- 0.01˚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 memory;
- Single or Dual zone thermometer version;
- RoHS compatible
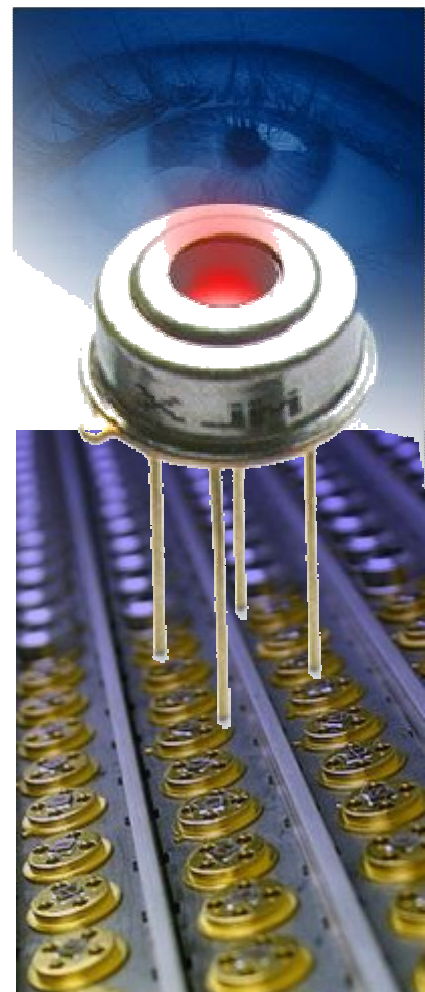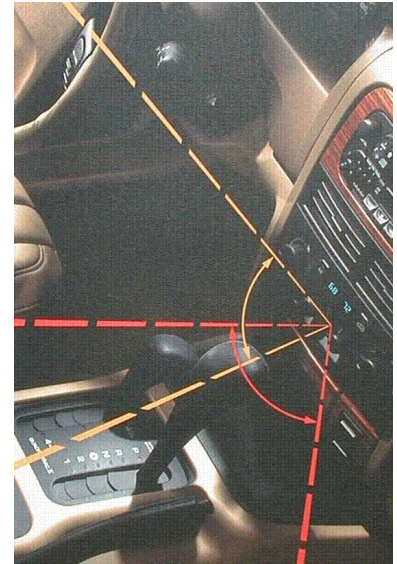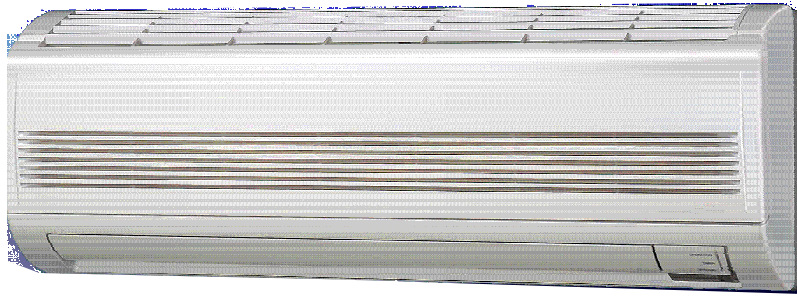
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Typical Applications

- 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;
- 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;

PWM mode

SMBus
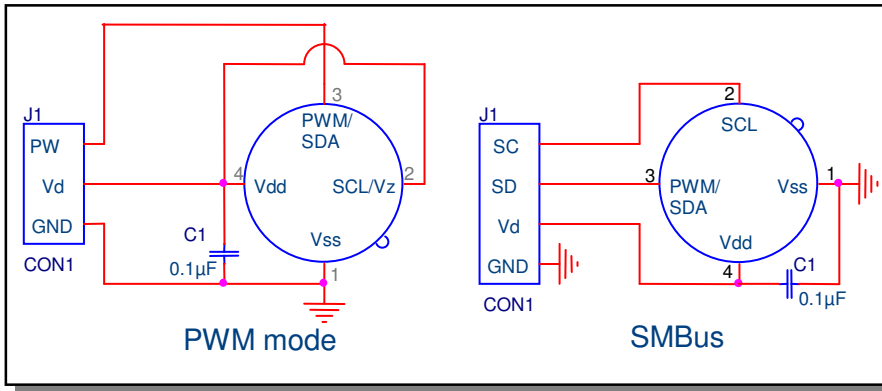
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