ZTP-115M
Thermopile IR Module

The ZTP-115M is a single IR module used for non-contact surface temperature measuring. It consists of a thermopile, IR sensor, signal conditioning and voltage output.

Applications
- Occupancy detection
- HVAC
- Appliance
- Microwave oven

Features
- Non-contact measurement
- Wider surface area measurement
- Small-size sensor package
- Included ambient temperature - (thermistor) sensor for compensation
- High sensitivity
- Fast response time
- Low cost
- Analog output
Specifications

Supply Voltage
Single Supply (+5V)

Supply Current
Typical 2.7 mA

Response Time
0.3 ~ 0.6 second

Range of Measuring Temperature
-40°C ~ 145°C

Operating Temperature
-20°C ~ 100°C

Storage Temperature
-20°C ~ 120°C

Thermopile Sensor
ZTP-115

Field of View

* Horizontal Normalized Output (above 50%) : ±5.5°
* Vertical Normalized Output (above 50%) : +6° / -3.5°

*Condition : Distance of IR Point Source to Reflector : 170 mm

Sensitivity

Offset Voltage

Output Voltage

Object Temperature

ZTP-115M
Temperature Accuracy (Typical)

Outline of Sensor Packaging and Pin Arrangement
Module Circuit

- +5V
- R1
- C1
- R2
- R3
- Ro
- Sensor
- OP-Amp
- R4
- R5
- C2
- R6
- C3
- R7
- C5
- C4
- Rg
- Vout
- Rg
- Ro