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

- Spot Size of Normalized Output (above 10%)
Outline of Sensor Packaging and Pin Arrangement

Temperature Accuracy (Typical)
Module Circuit

```plaintext
+5V

C1 R1

Sensor

R2 C2

R3 C3 Rg

Ro

R4

R5 R6

R7 C5

OP-Amp

Vout
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