

DMM324 User Manual

1. Features

- Based on 24GHz (ISM Standards) Doppler Microwave
- The range of Transmit Power is applicable to worldwide standards
- Low power consumption,

Operating Voltage: 5V

Average Current: 33mA

- Small size, 30mm(L)* 30mm(W)* 12mm(H);
- Detectiondistance is adjustable between 0.1m and 4m

2. Description

The 24GHz Microwave Module is a K-band moving detection radar production within intelligent decision unit, used for detecting the moving objects with the speeds ranging from 0.05m/s to 7m/s, and the detectiondistance is adjustable between 0.1m and 4m.

The device widely used in many fields such as Automatic control, Human detection with features including high sensitivity, low cost, low power consumption and small size.

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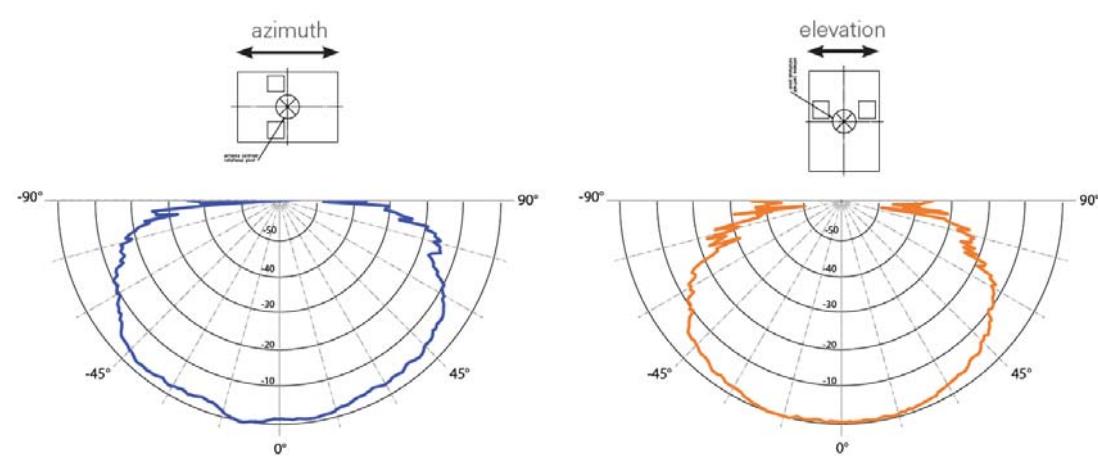
1. Specifications

Electrical Characteristics:

| Parameter | Symbol | Min | TYP | Max | Unit | Notes |
|--------------------|-----------|------|--------|------|-------------|---|
| Tx Frequency | f_0 | | 24.125 | | GHz | |
| Field Strength | P_{out} | | 85.69 | | $dB\mu V/m$ | @3m |
| Detection Distance | D_r | -10% | | +10% | | Detection Distance will change with the panel material and the chamber environment, need to regulate in the actual environment. |

2. Detection Area

Too many external factors will interfere the signal transmit by the antenna, such as attenuation caused by going through air, plastic; metal reflection and shielding; paint or colorant absorption. These factors all will have a negative effect on detection Area, therefore, in ideal situation, the detection area as below:

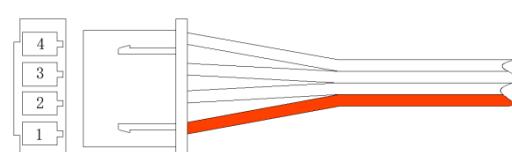


3. Interface

This module use the TJC-4interface:

Interface Pin

| NO. | PIN | I/O | NOTE |
|-----|-----------------|-----|------------------|
| 4 | GND | I | A/D GND |
| 3 | En | I | Enable |
| 2 | Out | O | H/L Level Output |
| 1 | V _{CC} | I | 5V Power Supply |



4. Interfere Factors Caution

The radar signal is easily disturbed by fluorescent lamp, metal leaf fan, vibration, should avoid them when using it.

The antenna Tx surface cannot be shielded and reflected by metal, graphite glass, and also should consider the attenuation when using plastic or glass.

Note : the device is used within a building .

FCC Statement

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.