

5.8 GHz Motion Sensor

Model : TMS580A-400

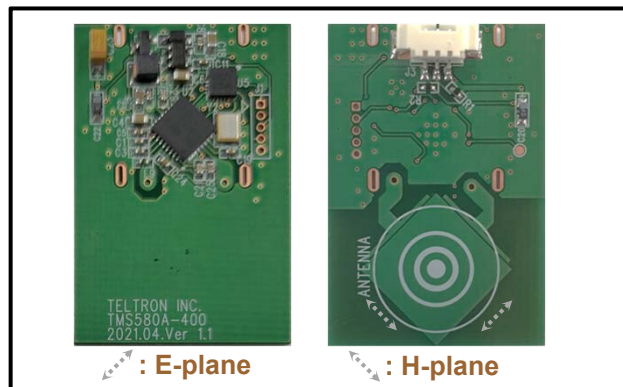
[Features]

The TMS580A-400 is a 5.8GHz Doppler sensor transceiver module for motion detection, consisting of a single element semiconductor and patch antenna including a phase-fixed loop frequency oscillator, power amplifier, low noise amplifier, and frequency mixer. It provides a reliable solution for motion detection.

[Applications]

- Intrusion alarm
- Automatic door
- Obstruction alarm system
- Non-contact measurement
- Dual motion sensor with PIR
- Velocity measurement
- Automatic on and off lamps

[Picture]



[Electrical Specifications]

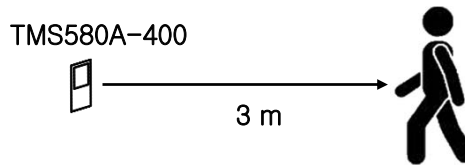
| Parameters | | Min. | Typ. | Max. | Unit | Condition |
|------------|-------------------------------------|-----------------|------|-------|--------|------------------|
| CW | Frequency | 5785 ~ 5815 | | | MHz | -20℃ ~ +50℃ |
| | Output Power | -19 | -18 | -17 | dBm | |
| | Detection Range ¹ Note 1 | 0.2 | | 3 | m | Front of antenna |
| | Output Duration | 0.1 | | 1,800 | sec | |
| | - 3dB Beam Width (E) | | 92 | | degree | |
| | - 3dB Beam Width (H) | | 93 | | degree | |
| | Operating Voltage | | 5.0 | | V | |
| | Operating Current | 55 | 65 | 75 | mA | CW |
| | Operating temp. | - 20 | | + 50 | ℃ | |
| | Storage temp. | -40 | | +120 | ℃ | |
| | Size | 35.0 × 24 × 7.4 | | | mm | |

Warning : The specifications can be changed without any notice.

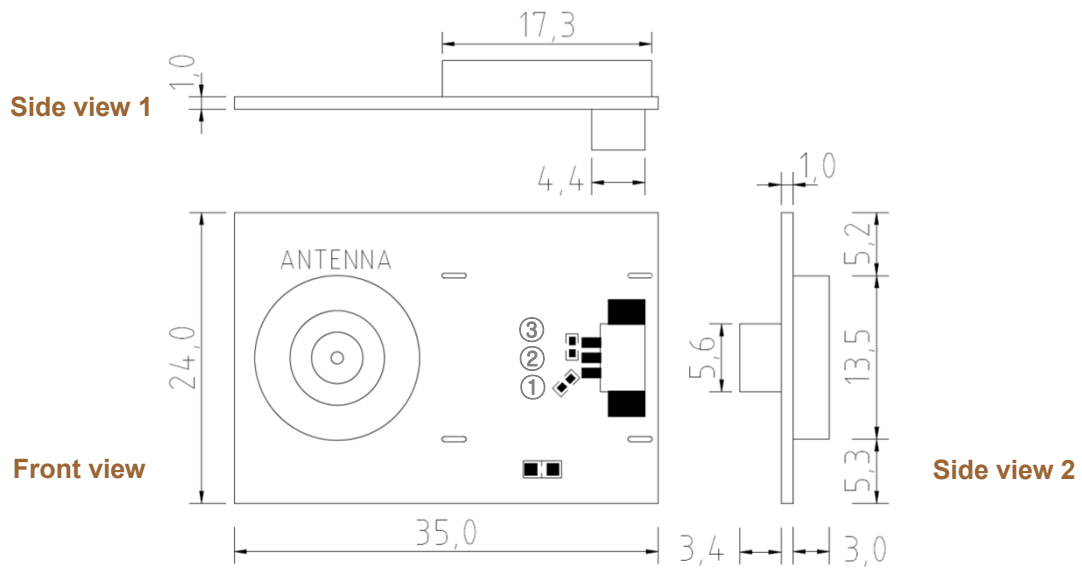
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[Note 1]



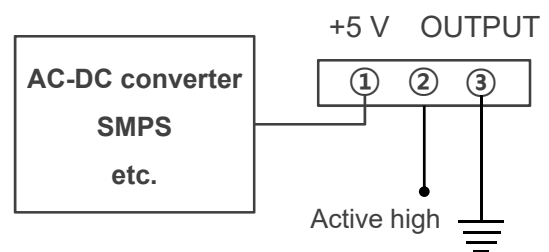
[Dimension (Unit : mm)]



[Pin Description]

| # | Pin Name | Description |
|---|----------|--------------------|
| 1 | +5 V | Power |
| 2 | OUTPUT | Movement detection |
| 3 | GND | Ground |

[Electrical Interface]



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[FCC Compliance Statement]

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.

[FCC Interference Statement]

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

[FCC Caution]

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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INTEGRATION INSTRUCTIONS per FCC KDB 996369 D03, Section 2.0

2.2 List of applicable FCC rules

The module has been certified for use under FCC Part 15.249 only

2.8 Label and compliance information

FCC ID: 2A3MG-TMS580A-400

If the module's FCC ID is not visible when installed in the host system then the host system shall be labeled with "Contains FCC ID: 2A3MG-TMS580A-400".

The host devices user manual shall contain, in addition to the compliance information required for the host system for e.g. Part 15 subpart B, the following statements:

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.

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

2.9 Information on test modes and additional testing requirements

To verify that your installation of the module into your host device has not compromised compliance with FCC rules we recommend performing spot checks with the module operational to check that emissions remain below the FCC 15.249 limits.

Refer to FCC KDB 996369 D04.

2.10 Additional testing, Part 15 Subpart B disclaimer

The modular transmitter is only FCC authorized for FCC Part 15 Subpart C 15.249 and that the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification.

This includes Part 15 subpart B requirements for unintentional radiators.

Host manufacturers are responsible for the approvals of the host system with this module installed for Part 15 B when applicable following the appropriate procedures for SDoC or certification.