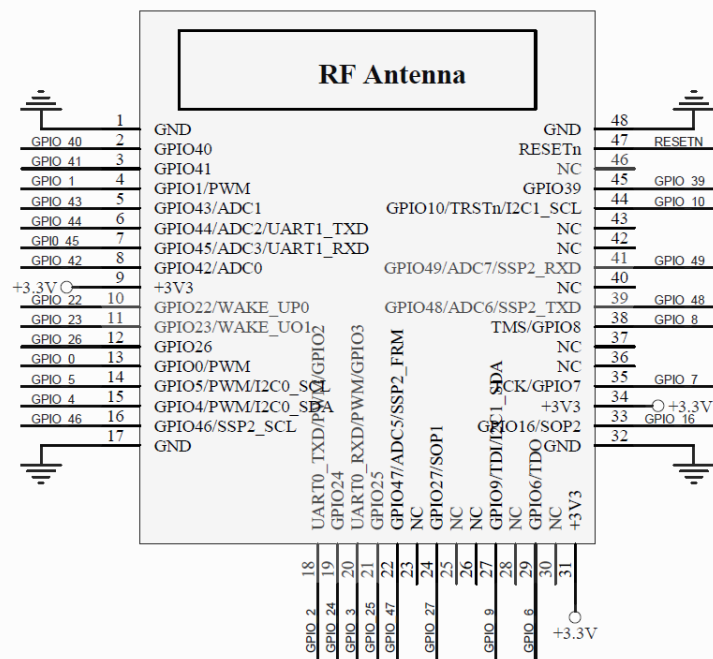


HET-WM300 User Manual

HET-WM300 Features

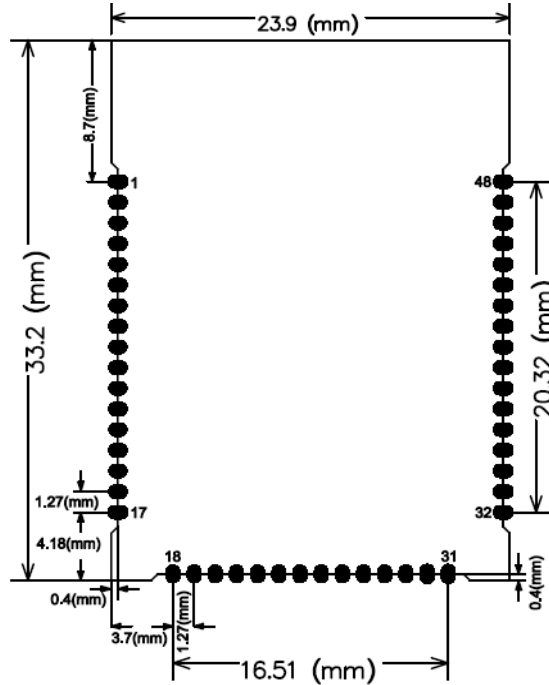
HET-WM300 is a highly integrated, low-power embedded WiFi module. The module includes a full-featured WLAN subsystem powered by proven and mature IEEE 802.11n/g/b. The WLAN subsystem integrates a WLAN MAC, baseband, and direct-conversion RF radio with integrated PA, LNA, and transmit/receive switch, the maximum average output power is **18dBm**. The module's applications subsystem is powered by an ARM cortex-M4F CPU that operates up to 200MHz. The module supports an integrated 512KB SRAM, 128KB mask ROM, and 2MB flash. The module provides a full array of peripheral interfaces including SSP/SPI/I2S, UART, I2C, General Purpose Timers and PWM, ADC, DAC, Analog comparator, and GPIOs.

The typical minimum application system schematic is shown in below, except the power supply interface, all other GPIOs can be used basing on user's own applications and requirements since the module provides a full array of peripheral interfaces including SSP/SPI/I2S, UART, I2C, General Purpose Timers and PWM, ADC, DAC, Analog comparator, and GPIOs. The power supply voltage range is from 3.0V to 3.6V, which should have 300mA load ability at least, a dedicated low noise LDO is suggested to provide power supply for the module, the module 3.3V inputs are connected together inner the module, at least one 100uF low ESR capacitor should be placed as close as possible to the 3.3V pinout of the module. For detailed information about the main chip functions, please refer to 88MW300 datasheet.



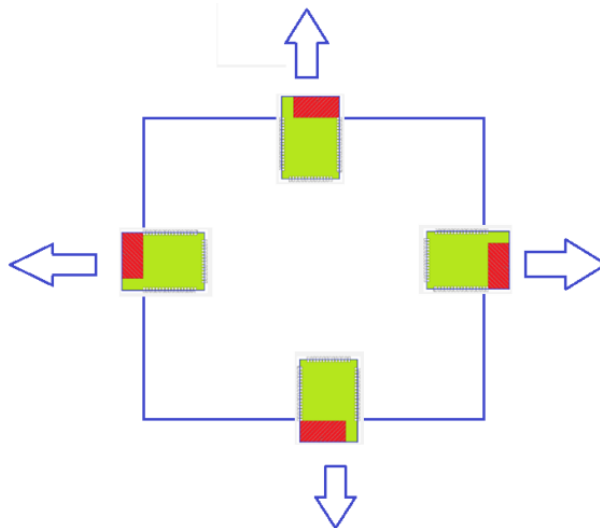
Module Package information

Please refer to below module package dimension for PCB footprint building.



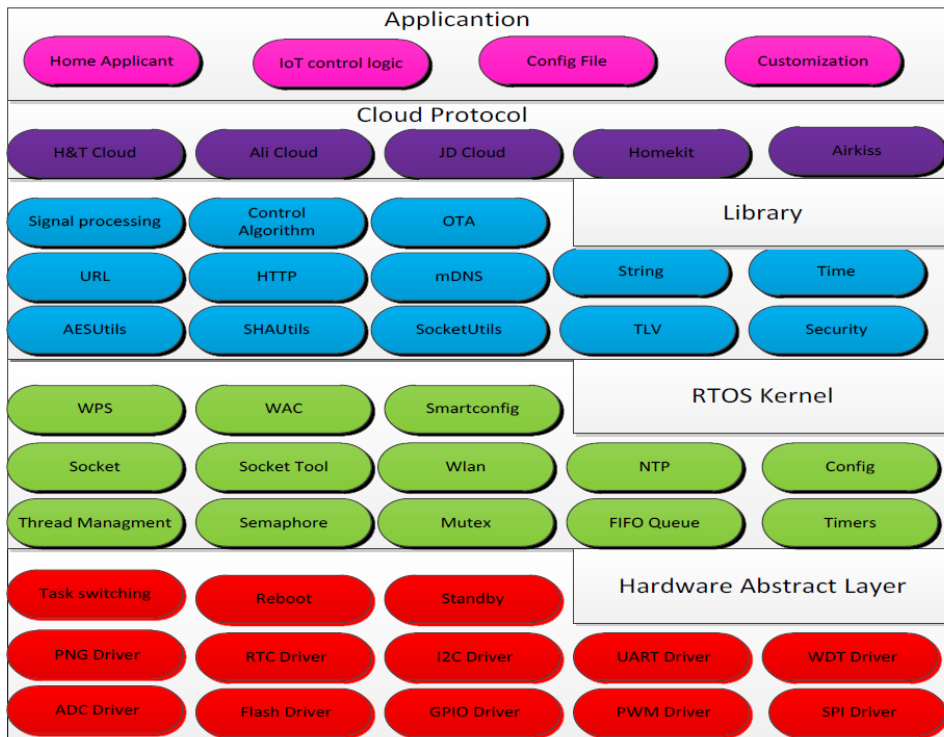
Module Placement Requirement

In order to get good RF performance, there should have no PCB under the antenna area of the module, also the module should be placed on the side edge of the carrier or main PCB and keep at least 15mm clearance out of any metal object at the left and right, refer to below picture for module placement.



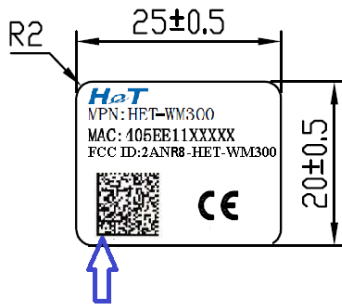
Module Firmware Feature

A rich software development kit(SDK) is provided for HET-WM300 series module, including the RTOS operating system, TCP / IP protocol stack, rich peripheral driver library, totally reliable encryption algorithm library, compatible with multi-protocol Cloud docking protocol library, a rich variety of signals acquisition module and processing library, rich appliance control algorithm library, standardization of storage technology, OTA upgrade, the main part of the appliance control logic libraries. Users don't need to understand the network communications, cloud docking, Wi-Fi, operating system, encryption and other knowledge, users need only do according to their specific product related customization of logic or function to complete the development of the project. A significant reduction in IoT entry conditions, so that customers can quickly develop products to enter the market. Software framework is shown in below.



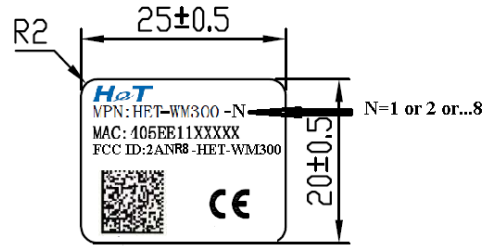
Module Label Information

Main Model Label



2D Barcode : MAC address
 Formate : Data matrix

Series Model Label

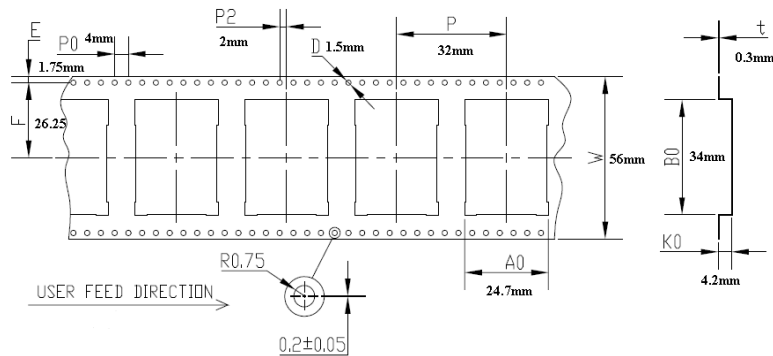


MPN: HET-WM300-1
 Sub-type
 Main-type

Module Package information

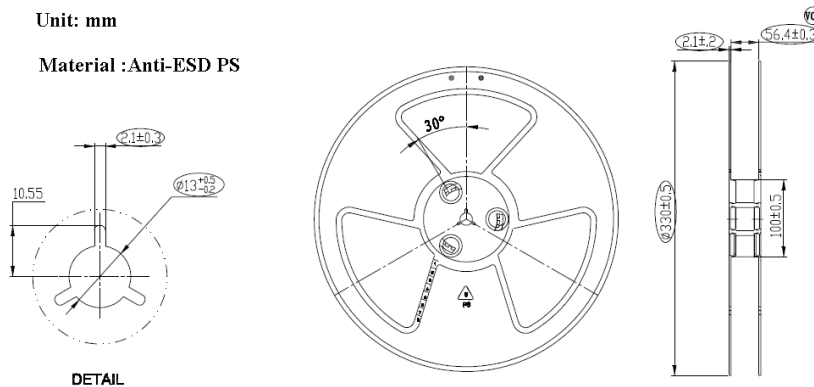
This module can be packaged with tape or tray after production, since this is ESD sensitive device, precautions should be used when handling the device in order to prevent permanent damage.

Below is the dimension of the packaging tape and reel:

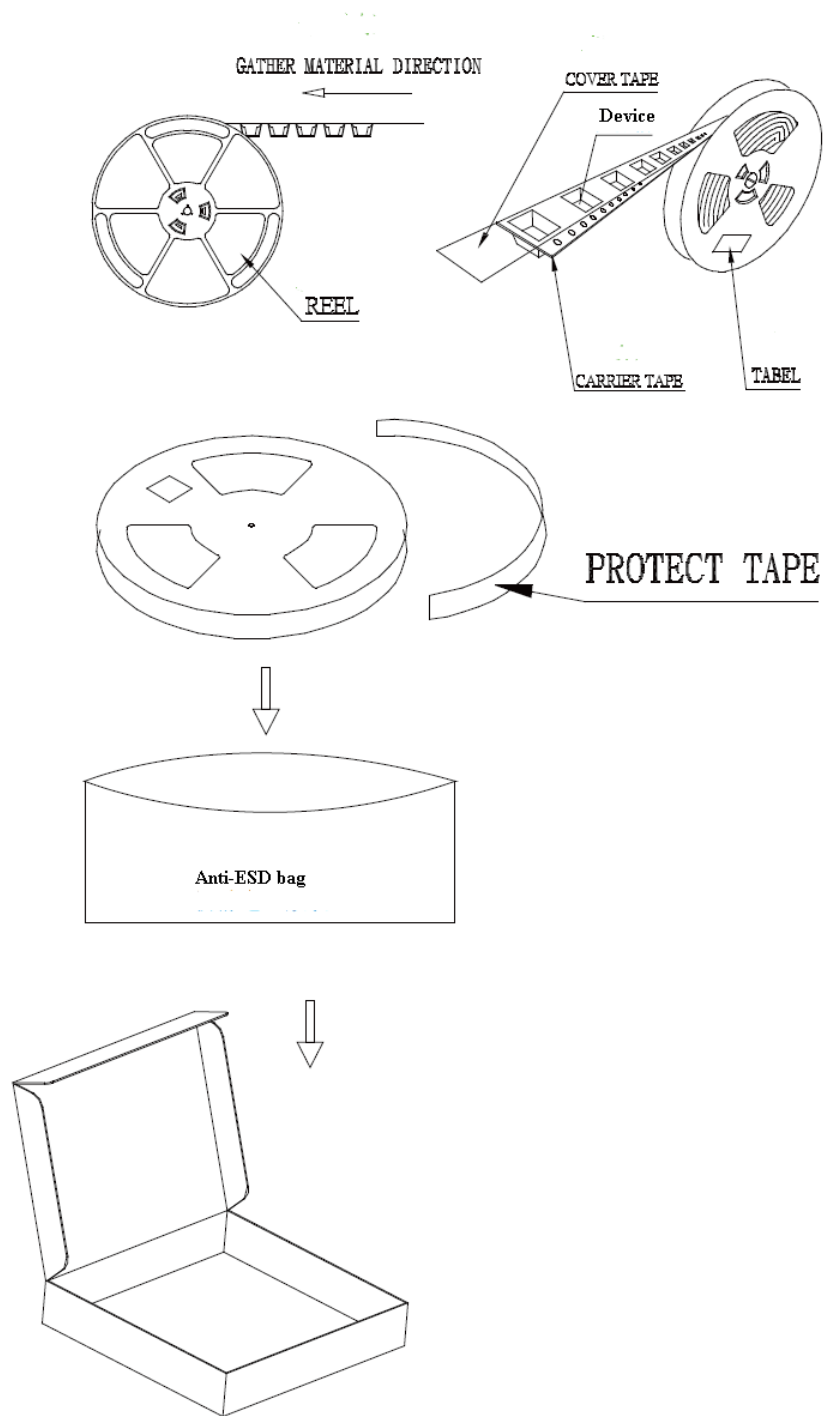


Unit: mm

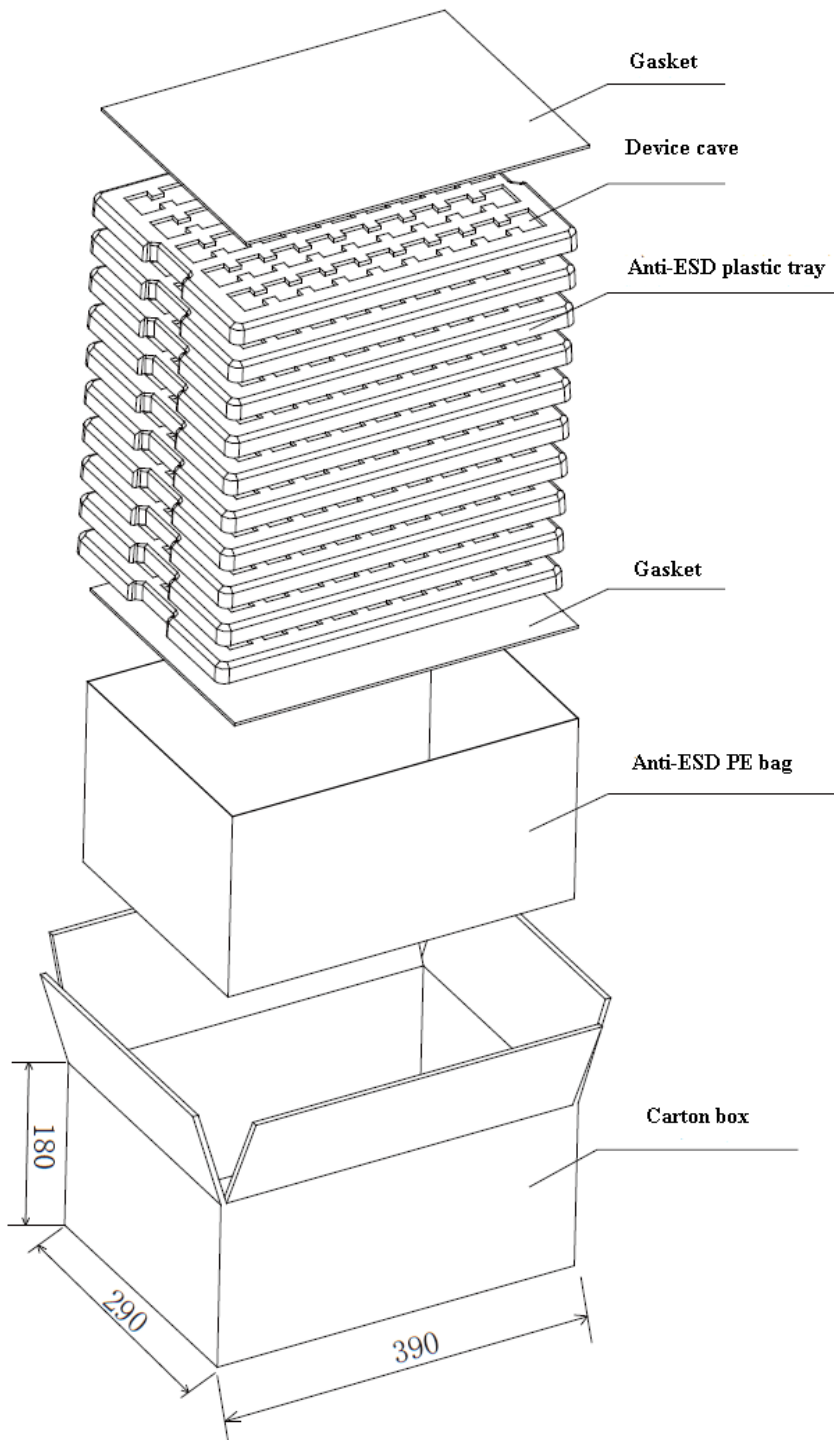
Material :Anti-ESD PS



Below is the tape packaging process :





Below is the tray packaging process:



**Note: 45pcs/tray
10 trays/box**

Below is the carton label drawing.

Proprietary Information, No Dissemination or Use Allowed Without Prior Written Permission. All printed copies are considered Uncontrolled copies unless the copies are stamped with "Controlled Copy" by Documentation Control.

 	
Customer:	XXXXXXXX
Customer P/N:	XXXXXXXX
Product Name:	WiFi Module
Model:	HET-MW300
FCC ID:	2ANR8-HET-WM300
PO Number:	XXXXXXXX
Quantity:	450 PCS
Carton Number :	XX
Production date:	XX/XX/XX
Shenzhen H&T Intelligent Control Co.,Ltd	

FCC 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.

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

NOTE: 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 try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Reorient or relocate the receiving antenna.
- Reorient or relocate the receiving antenna.
- Consult the dealer or an experienced radio/TV technician for help important announcement

Important Note:

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Country Code selection feature to be disabled for products marketed to the US/Canada.

Proprietary Information, No Dissemination or Use Allowed Without Prior Written Permission. All printed copies are considered Uncontrolled copies unless the copies are stamped with "Controlled Copy" by Documentation Control.

This device is intended only for OEM integrators under the following conditions:

1. The antenna must be installed such that 20 cm is maintained between the antenna and users, and
2. The transmitter module may not be co-located with any other transmitter or antenna,
3. For all products market in US, OEM has to limit the operation channels in CH1 to CH11 for 2.4G band bysupplied firmware programming tool. OEM shall not supply any tool or info to the end-user regarding toRegulatory Domain change.(if modular only test Channel 1-11)

As long as the three conditions above are met, further transmitter testing will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

Important Note:

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End Product Labeling

The final end product must be labeled in a visible area with the following" Contains FCC ID: 2ANR8-HET -WM300 ".

Manual Information to the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.



Shenzhen H&T Intelligent Control Co., Ltd. ↵

D zone, 10/F, Shenzhen Academy of
Aerospace Technology, Hi-Tech Park, South Zone, Shenzhen, China 518057 ↵

Declaration of Conformity

(Module B+C)

We,

Shenzhen H&T Intelligent Control Co., Ltd.

**D zone, 10/F, Shenzhen Academy of Aerospace Technology, Hi-Tech Park, South
Zone, Shenzhen, China 518057**

Contact Person: Yangyehong

e-mail: Coco.Huang@harman.com

Declare under our own responsibility that the product:

Product: WIFI Module

Trade Name:



Regulation Number	Model
	<i>HET-WM300 ,HET-WM300-1,HET-WM300-2,HET-WM300-3, HET-WM300-4,HET-WM300-5,HET-WM300-6,HET-WM300-7, HET-WM300-8</i>

We hereby declare above product is in compliance with the essential requirements and other relevant Union harmonization legislation of below Directives.

References to the relevant harmonized standards used or references to the other technical specifications in relation to which conformity is declared:

EMC :

- | | |
|--|---|
| <input type="checkbox"/> EN 61000-3-2:2014 | <input type="checkbox"/> EN 55024: 2010+A1:2015 |
| <input type="checkbox"/> EN 55032: 2015 | <input type="checkbox"/> EN 61000-3-3:2013 |

RED Directive: 2014/53/EU

- | |
|--|
| <input checked="" type="checkbox"/> ETSI EN 300 328 V2.1.1: 2016 |
| <input checked="" type="checkbox"/> EN62311:2008 |
| <input checked="" type="checkbox"/> EN301 489-1 V2.1.1 |
| <input checked="" type="checkbox"/> EN 301 489-17 V3.1.1: 2017 |

LVD :

- | |
|--|
| <input checked="" type="checkbox"/> EN 60950:2006+A11+A1:2010+A12:2011+A2:2013 |
|--|

The conformity assessment procedure referred to in Article 17 and detailed in Annex III of Directive 2014/53/EU has been followed with the involvement of the following Notified Body: Telefication B.V.

and issued the EU-type examination certificate:

Year to begin affixing CE marking 2017



Date: September 7, 2017

**Yangyehong / RF Engineer
Shenzhen H&T Intelligent Control Co., Ltd**