

**HM-R series FSK receiver module****General**

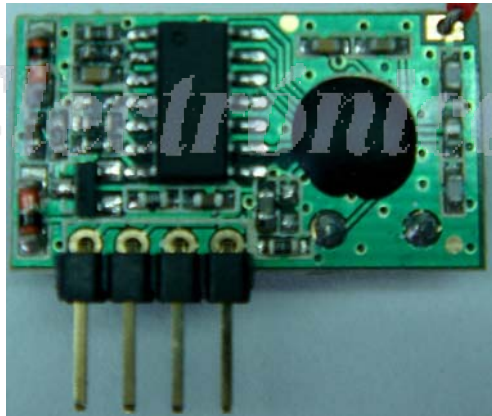
HM-R series receiver module is specially designed by Hope Microelectronics Co., Ltd. For replacing those applications that used ASK technology module already. It used together with HM-T/HM-TP series FSK transmission module. Due to the benefits form FSK technology, the module is robust to interference, and longer working range can be achieved.

**FEATURES**

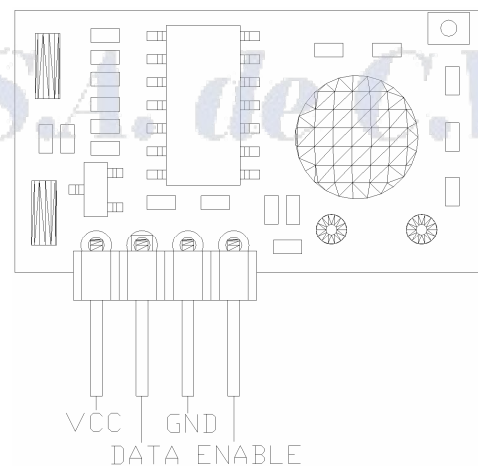
1. Highly integrated, small size
2. Hi sensitivity, low power consumption
3. FSK technology, suitable for replacing ASK modules
4. Less interference, longer working range
5. Can be used to replace ASK module pair W/O software modification
6. No manual tuning required during production

The module

HM-R receiver module



Pins name



Note: ENABLE active hi make module work and low sleep the module.

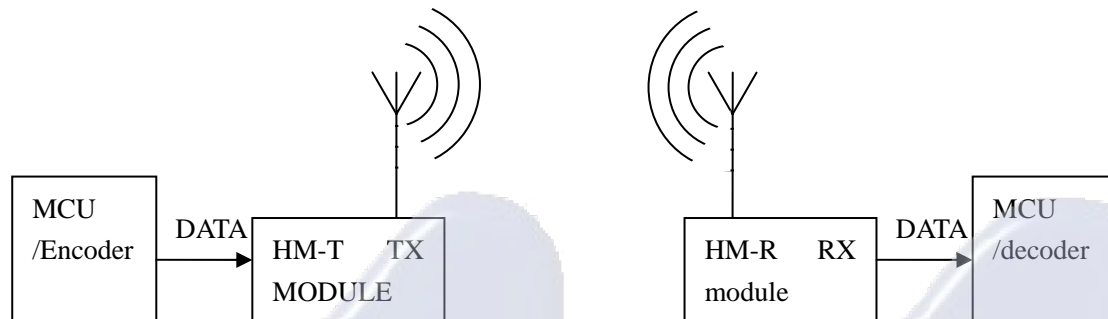
It is recommended than keep ENABLE low while power on, and then active it after module initialization

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## HM-R

### Application

Pin to pin replace the old ASK module pair. Special design can be made for more sophisticated application.



### Specification

#### 1. DC parameter

|              | Min | Typ  | Max  | Unit |
|--------------|-----|------|------|------|
| Power supply | 2.5 | 3    | 5    | V    |
| Temperature  | -35 |      | 80   | °C   |
| Data rate    | 600 | 4800 | 9600 | bps  |

Note: Data rate can be customize from 300bps to 100kbps

#### 2. Performance

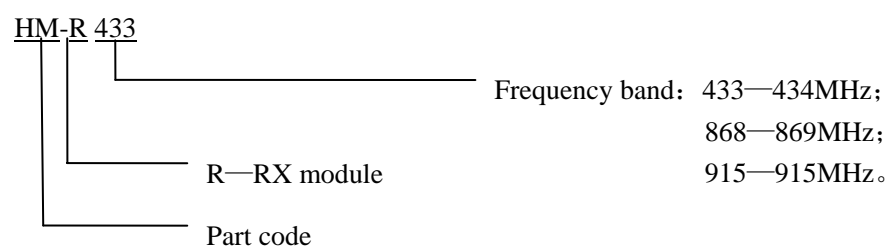
VCC=3V, T=25°C

| Model          | Condition      | HM-R433 | HM-R868 | HM-R915 | 单位  |
|----------------|----------------|---------|---------|---------|-----|
| Frequency      |                | 434     | 869     | 915     | MHz |
| Sensitivity    |                | -97     | -98     | -99     | dBm |
| RX current     |                | 9       | 10      | 11      | mA  |
| Reliable range | Work with HM-T | 240     | 160     | 250     | m   |
|                | Work with HM-R | 260     | 290     | 370     | m   |

Note: 1.Range test conditions: 1.Open area; 2.Antenna is about 2m above ground.

2. If 5V power supplied, even longer range is possible, however more power be consumed

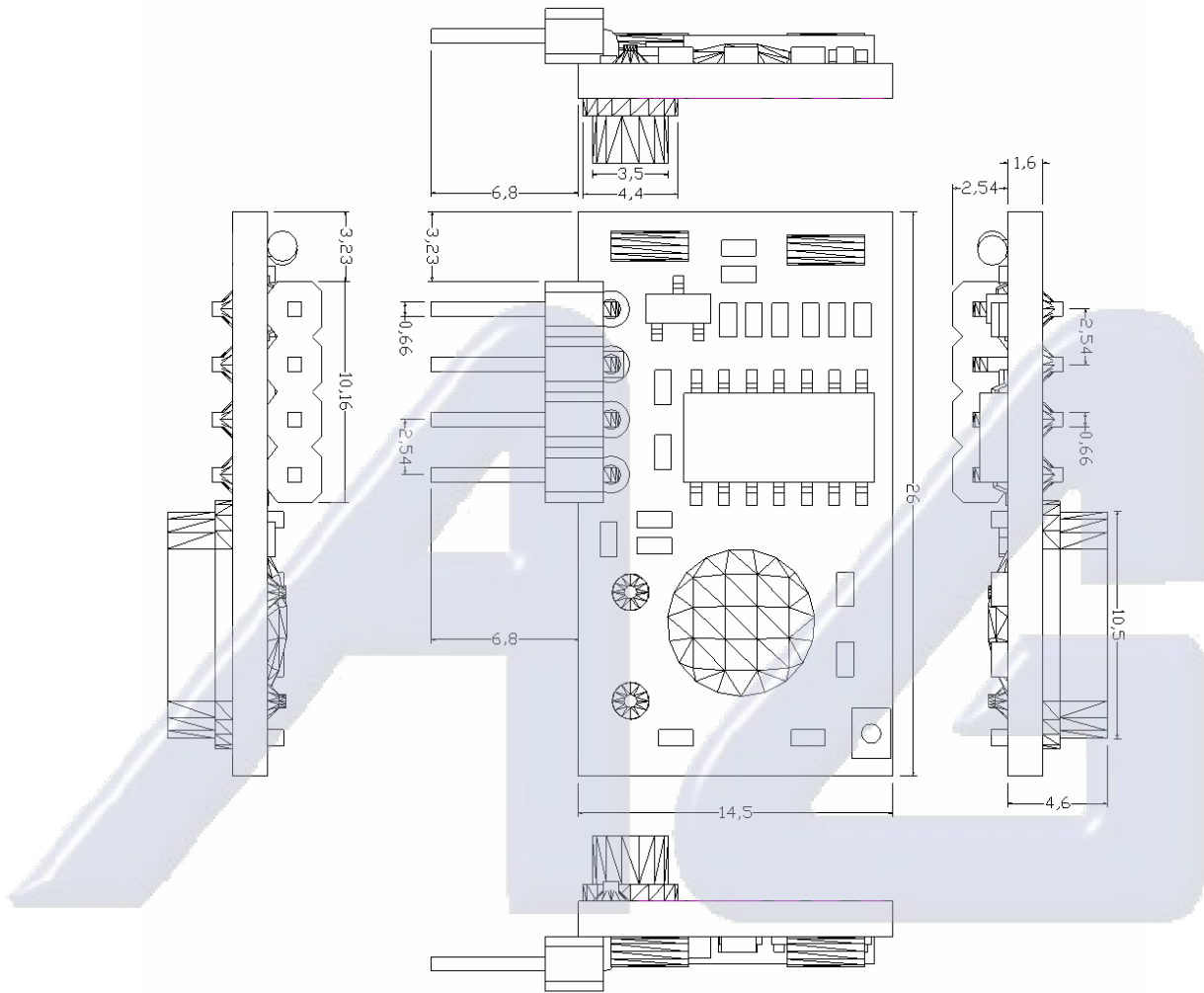
### Naming



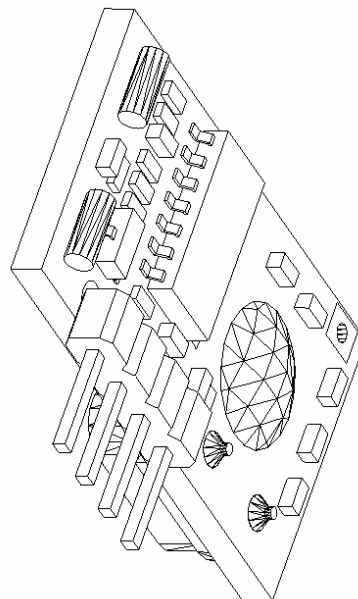
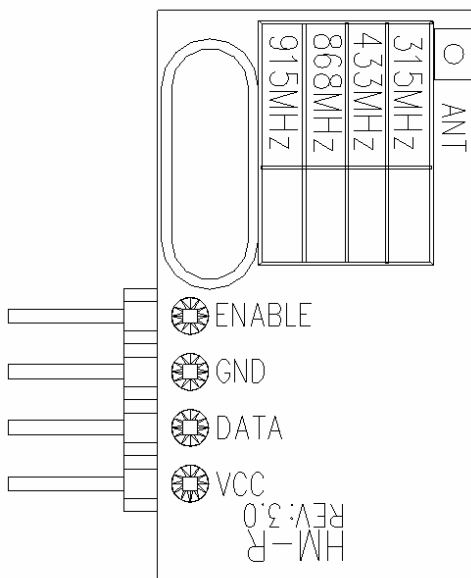
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# HM-R

## Mechanical outline



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# HM-R

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