

#### EN: This Datasheet is presented by the manufacturer.

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# **HOPE RF**

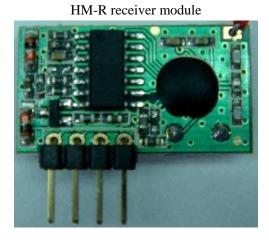
### HM-R series FSK receiver module

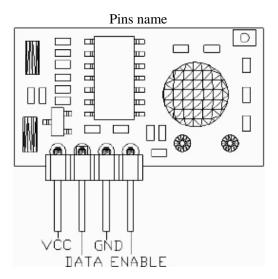
#### GENERAL

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



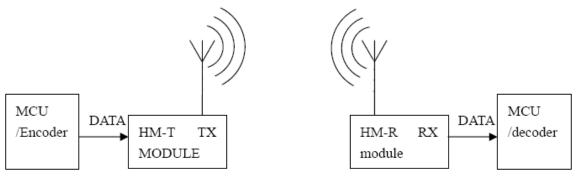


Note: ENABLE active hi make module work and low sleep the module.

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

### Application

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



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### **Specification**

1. DC parameter

|              | Min | Тур  | 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

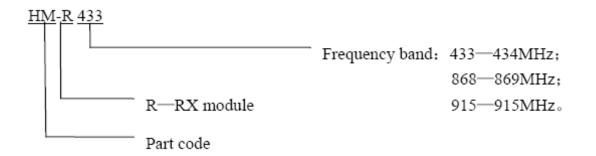
VCC=3V, T=25℃

| Model               | Condition      | HM-R433 | HM-R868 | HM-R915 | 单位  |
|---------------------|----------------|---------|---------|---------|-----|
| Frequency           |                | 434     | 869     | 915     | MHz |
| Typical Sensitivity |                | -109    | -105    | -105    | dBm |
| Maximum Sensitivity |                | -100    | -98     | -98     | dBm |
| RX current          |                | 9       | 10      | 11      | mA  |
| Reliable range      | Work with HM-T | 200     | 160     | 200     | m   |

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

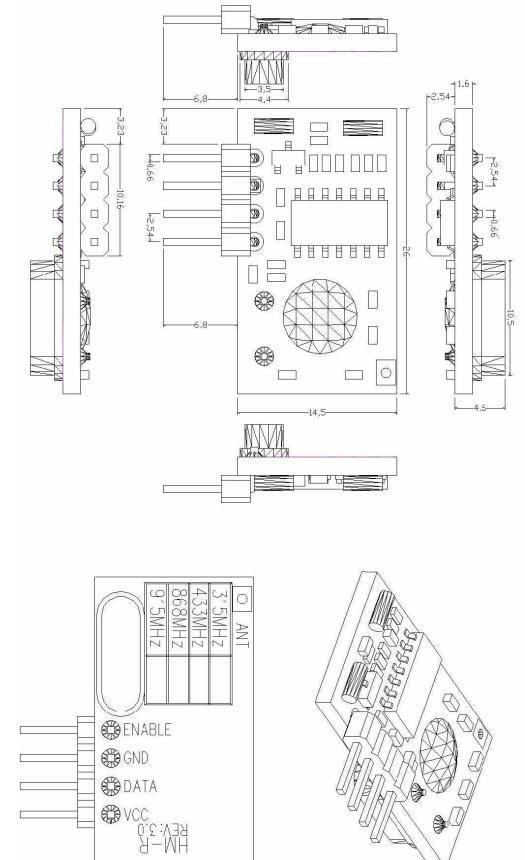
2. If 5V power supplied, even longer range is possible, however more power be consumed

### Naming





#### **Mechanical outline**



## **HOPE RF**

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