Radio Frequency Module Series

Wireless Hi Sensitivity Receiver Module (RF ASK)

Version History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>V1.01</td>
<td>Mar.7, 2004</td>
<td>1st Edition</td>
</tr>
<tr>
<td>V1.02</td>
<td>Jul.2, 2008</td>
<td>2nd Edition</td>
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</tbody>
</table>
Model: RWS-374-3

- Frequency Range: 315MHz
- Modulate Mode: ASK
- Circuit Shape: LC
- Date Rate: 4800 bps
- Selectivity: -108 dBm
- Channel Spacing: ±500KHz
- Supply Voltage: 5V
- High sensitivity passive design
- Simple to apply with low external count

**Electrical Characteristic**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Sym</th>
<th>Min</th>
<th>Type</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Radio Frequency</td>
<td>FC</td>
<td>314.500</td>
<td>315.000</td>
<td>315.500</td>
<td>MHz</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>Pref.</td>
<td>-106</td>
<td>-108</td>
<td>-110</td>
<td>dBm</td>
</tr>
<tr>
<td>Channel Width</td>
<td></td>
<td>-500</td>
<td></td>
<td>+ 500</td>
<td>KHz</td>
</tr>
<tr>
<td>Noise Equivalent BW</td>
<td>NEB</td>
<td>5</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Baseboard Data Rate</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>KB/S</td>
</tr>
<tr>
<td>Receiver Turn On Time</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>ms</td>
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</table>

**DC Characteristic**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Condition</th>
<th>Min</th>
<th>Type</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vcc</td>
<td>Operating Supply Voltage</td>
<td></td>
<td>4.9</td>
<td>5</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>I Tot</td>
<td>Operating Supply Voltage</td>
<td></td>
<td></td>
<td>4.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V Data</td>
<td>Data Out</td>
<td>1 Data=+200uA (High)</td>
<td>Vcc -0.5</td>
<td>Vcc</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Data=-10uA (Low)</td>
<td></td>
<td>0.3</td>
<td></td>
<td>V</td>
</tr>
</tbody>
</table>
**Pin Assignment**

<table>
<thead>
<tr>
<th>Pin</th>
<th>Function</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>GND</td>
</tr>
<tr>
<td>2</td>
<td>Digital Output</td>
</tr>
<tr>
<td>3</td>
<td>Linear Out</td>
</tr>
<tr>
<td>4</td>
<td>VCC</td>
</tr>
<tr>
<td>5</td>
<td>VCC</td>
</tr>
<tr>
<td>6</td>
<td>GND</td>
</tr>
<tr>
<td>7</td>
<td>GND</td>
</tr>
<tr>
<td>8</td>
<td>ANT (About 13cm)</td>
</tr>
</tbody>
</table>
Demo Circuit

RWS - 374

接收天線 ( 長度為 13 公分)

VCC 5V

HT-12D

控制線 1
控制線 2
控制線 3
控制線 4

控制線輸入