Ultra-small implantable radio

Good conductivity in the human body

Medical implantable communication system (MICS) radio features good conductivity in human body higher data rate, and a communication range up to 2 meters all while operating in the core band of 402 to 405 MHz.

Features
- Compact size: 8.6 x 5.6 x 1.7 mm
- Ultra-low current consumption: 1.3mA idle state
- High Data Rate: 128 kbps
- Operating frequency: 402-405 MHz band

Applications & Benefits
- Active implant devices with wireless capabilities that can be used to diagnose, monitor and provide warnings in support of human life.
- Small in stature for small implantable devices.
- Extended implant device battery life due to low current consumption.
- For data intensive therapeutic and vital monitoring applications.
- Accepted worldwide for transmitting data in support of therapeutic medical implant device functions.
- Medical implantable device manufacturers:
  - Insulin/drug/baclofen pumps
  - Arrhythmia monitors
  - Bladder monitor, etc.
- Medical/Healthcare: reporting and monitoring

Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>LBAA0PC1RM-298</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Band</td>
<td>402 to 405 MHz</td>
</tr>
<tr>
<td>Output Power</td>
<td>Up to 8 dBm (programmable)</td>
</tr>
<tr>
<td>Receiver Sensitivity</td>
<td>-96 dBm (typ)</td>
</tr>
<tr>
<td>Current Consumption</td>
<td>TX: 14.8 mA (typ), RX:14.8 mA (typ)</td>
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<tr>
<td>Voltage Input</td>
<td>3.0V</td>
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<tr>
<td>Antenna</td>
<td>Off board antenna</td>
</tr>
<tr>
<td>Dimensions</td>
<td>8.6 mm x 5.6 mm x 1.7 mm</td>
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<tr>
<td>Host Interface</td>
<td>SPI</td>
</tr>
<tr>
<td>Operating Temp</td>
<td>0°C to +55°C</td>
</tr>
</tbody>
</table>

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