



## Features and Benefits

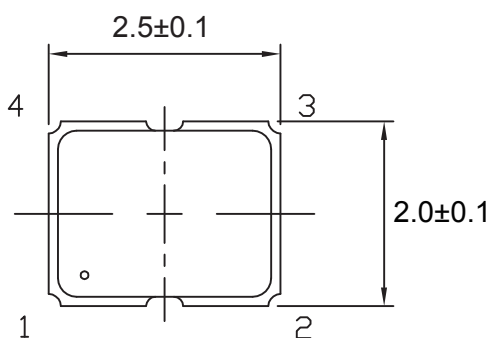
Frequency range: 20MHz  
Supply voltage: 5V  
Steady current: 30mA Max  
Output waveform: CMOS  
Frequency Tolerance:  $\pm 50$ ppm  
Aging:  $\pm 5$ PPM first year  
Operating temperature:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$   
Size: 2.5x2.0x1.0mm

## Typical Applications

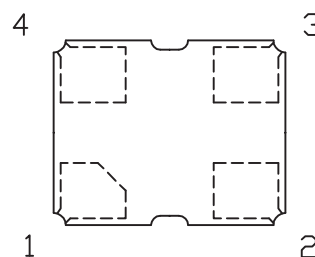
IWLAN  
GPS  
Smart phone

## Mechanical Drawing & Pin Connections

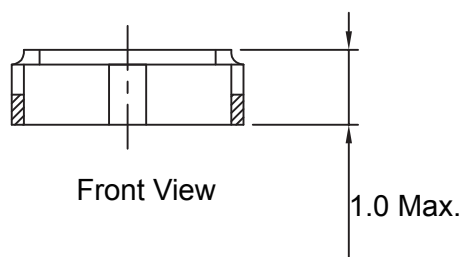
Drawing No: MD200055-1



Top View

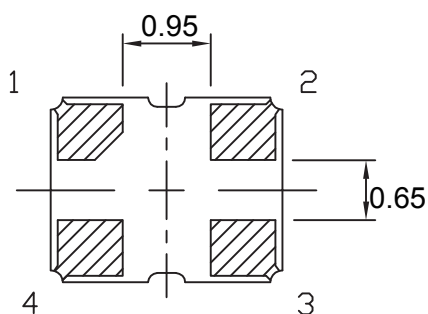


1--INH  
2--GND  
3--Output  
4--VDD

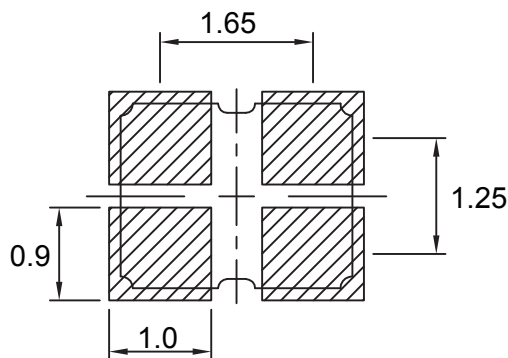


Front View

|        |             |                |
|--------|-------------|----------------|
| INH    | 'H' or Open | 'L' (Standby)  |
| Output | Enable      | High Impedance |



Bottom View



Recommended Land Pattern



## Specifications

| Oscillator Specification                   | Sym             | Condition      | Value               |      |                     | Unit | Note |
|--|-----------------|----------------|---------------------|------|---------------------|------|------|
|  |                 |                | Min.                | Typ. | Max.                |      |      |
| Frequency Range                            |                 |                |                     | 20   |                     | MHz  |      |
| <b>RF Output</b>                           |                 |                |                     |      |                     |      |      |
| Output Waveform                            |                 |                | CMOS                |      |                     |      |      |
| Load                                       | R <sub>L</sub>  |                |                     |      | 15                  | pF   |      |
| H-Level Voltage                            | V <sub>H</sub>  |                | 90% V <sub>DD</sub> |      |                     | V    |      |
| L- Level Voltage                           | V <sub>L</sub>  |                |                     |      | 10% V <sub>DD</sub> | V    |      |
| Symmetry                                   |                 | @50%VDC        | 40%                 |      | 60%                 |      |      |
| Rise and Fall Time                         |                 | Tr/Tf          |                     |      | 6                   | ns   |      |
| <b>Power Supply</b>                        |                 |                |                     |      |                     |      |      |
| Supply Voltage                             | V <sub>cc</sub> | ±10%           |                     | 5.0  |                     | V    |      |
| Current                                    |                 |                |                     |      | 30                  | mA   |      |
| Standby Current                            |                 |                |                     | 10   |                     | uA   |      |
| <b>Frequency Stability</b>                 |                 |                |                     |      |                     |      |      |
| Frequency Tolerance                        |                 | -40°C to +85°C |                     |      | ±50                 | ppm  |      |
| Aging 1 <sup>st</sup> Year                 |                 |                |                     |      | ±5.0                | ppm  |      |
| <b>Environmental,Mechanical Conditions</b> |                 |                |                     |      |                     |      |      |
| Operating temperature range                | -40°C to +85°C  |                |                     |      |                     |      |      |
| Storage temperature range                  | -40°C to +90°C  |                |                     |      |                     |      |      |