Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077
TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

**TCXO2017BM**
2.0 x1.6 mm SMD VCTCXO

## Features and Benefits

Typical 2.0 x 1.6 x 0.7 mm ceramic SMD package
For automatic assembly.
Compactness and lightweight.
Miniature size and low profile.

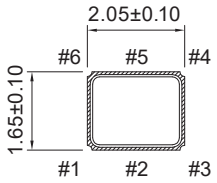
## Typical Applications

GPS
WiMAX, WLAN
Mobile Phone
IoT, Wearable Electronics

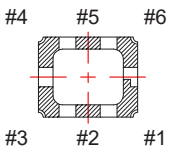
## Mechanical Drawing & Pin Connections

**Drawing No:** MD200047-1

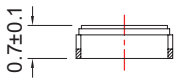
[ TOP VIEW ]




[ BOTTOM VIEW ]



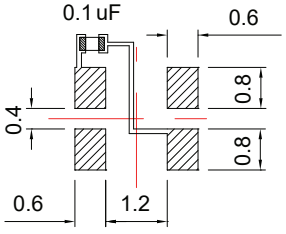

[ SIDE VIEW ]




| Pin# | Function |
|---|---|
| 1 | Vcon: VC-TCXO<br>GND:TCXO |
| 2 | No Connection |
| 3 | GND |
| 4 | Output |
| 5 | No Connection |
| 6 | VDD |

Unit in mm
1mm = 0.0394 inches

Solder PAD Layout




To ensure optimal oscillator performance, place a by-pass capacitor of 0.1µF as close to the part as possible between Vdd and GND pads.

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## Specifications

| Specification | Condition | 3.3V/3.0V/2.8V | | 2.5V | | 1.8V | | Unit |
|---|---|---|---|---|---|---|---|---|
| | | Min. | Max. | Min. | Max. | Min. | Max. | |
| **Supply Voltage Variation (VDD)** | | 2.66 | 3.465 | 2.375 | 2.625 | 1.71 | 1.89 | V |
| **Frequency Range** | | 10 | 52 | 10 | 52 | 10 | 52 | MHz |
| **Frequency Tolerance** | @25°C,1 hour after reflow | | ±2.0 | | ±2.0 | | ±2.0 | ppm |
| **Standard Frequency** | | 16.369,19.2,26,38.4 | | | | | | MHz |
| **Frequency Stability** | | | | | | | | |
| **Vs Supply Voltage Change** | ±5% | | ±0.2 | | ±0.2 | | ±0.2 | ppm |
| **Vs Load Change** | ±10% | | ±0.2 | | ±0.2 | | ±0.2 | ppm |
| **Vs Aging (first year)** | | | ±1.0 | | ±1.0 | | ±1.0 | ppm |
| **Supply Current** | 10MHz≤Fo≤26MHz | - | 1.5 | - | 1.5 | - | 1.5 | mA |
| | 26MHz＜Fo≤52MHz | - | 2.0 | - | 2.0 | - | 2.0 | |
| **Output Level (Clipped Sinewave)** | | 0.8 | - | 0.8 | - | 0.8 | - | Vp-p |
| **Load** | | 10kohm//10pf | | 10kohm//10pf | | 10kohm//10pf | | |
| **Control Voltage Range** | VCTCXO | 0.5 | 2.5 | 0.4 | 2.4 | 0.3 | 1.5 | V |
| **Pulling Range** | VCTCXO | ±5.0 | | ±5.0 | | ±5.0 | | ppm |
| **Vc Input Impedance** | VCTCXO | 500 | | 500 | | 500 | | kohm |
| **Phase Noise@19.2MHz** | | | | | | | | |
| | 100Hz | -115 | | -115 | | -115 | | dBc/Hz |
| | 1KHz | -135 | | -135 | | -135 | | |
| | 10KHz | -148 | | -148 | | -148 | | |
| **Start Time** | | - | 2 | - | 2 | - | 2 | mSec |
| **Storage Temp. Range** | | -55°C to +125°C | | | | | | °C |

## Frequency Stability vs. Temperature

| | ±0.5PPM | ±1.0PPM | ±1.5PPM | ±2.0PPM | ±2.5PPM |
|---|---|---|---|---|---|
| **-20°C to +70°C** | Available | Available | Available | Available | Available |
| **-30°C to +85°C** | Available | Available | Available | Available | Available |
| **-40°C to +85°C** | Available | Available | Available | Available | Available |

Note: not all combination of options are available. Other specifications may be available upon request.