



RFM Integrated Device, Inc.

General Specification

XTL Crystal Units

**2520 Series**

SMD 2.5 x 2.0 mm

**Frequency Range**

16.000 - 80.000 MHz

**Tol/Spec**

+/-3 to +/-30ppm @25C+/-3C

## Features:

- Surface Mount Hermetic Package
- Excellent Reliability Performance
- Good Frequency Perturbation and Stability over temperature
- Ultra Miniature Package
- Moisture Sensitivity Level (MSL) : Level-1
- ROHS and AEC-Q200 compliance
- Compliance with BT/ WI/ NB-IOT application



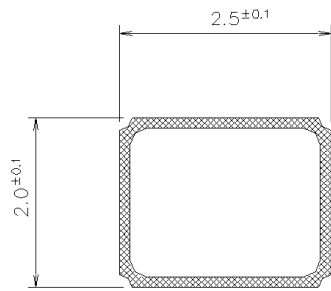
## Specifications

| Item                            | Symbol | Specification                         | Unit              | Remarks                                |
|---------------------------------|--------|---------------------------------------|-------------------|--|
| Frequency Range                 | f_nom  | 16.000 to 80.000                      | MHz               |  |
| Overtone Order                  | OT     | Fundamental                           | —                 |  |
| Load Capacitance                | CL     | 4~∞                                   | pF                |  |
| Frequency Tolerance             | f_tol  | ±3~+-30                               | ×10 <sup>-6</sup> | 25°C±3°C                               |
| Motional Series Resistance      | R1     | Table 1                               | ohm               |  |
| Drive Level                     | DL     | 10~500                                | μW                |  |
| Operating Temp. Range           | T_use  | -20 ~75// -30~85                      | °C                |  |
|                                 |        | -40~85// -40~105                      | °C                |  |
|                                 |        | -40~125// -40~150                     | °C                |  |
| Storage Temp. Range             | T_stg  | -40 to +150                           | °C                |  |
| Frequency Temp. Characteristics | f_tem  | ±10//+-15//+20//+-30<br>//+-50//+-100 | ×10 <sup>-6</sup> | Freq. deviation from the value at 25°C |

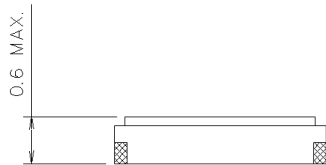
## Resistance

| Frequency Range | Motional Series Resistance |
|-----------------|----------------------------|
| 16000≤20000kHz  | 120 Ω max.                 |
| 20000≤30000kHz  | 80 Ω max.                  |
| 30000≤40000kHz  | 60 Ω max.                  |
| 40000≤60000kHz  | 50 Ω max                   |
| 60000≤80000kHz  | 40 Ω max                   |

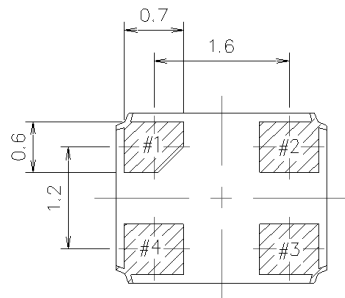
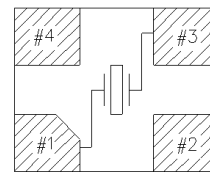
# Mechanical Dimensions (mm): Base



|        | Pin Connection |
|--------|----------------|
| #1 pin | IN/OUT         |
| #2 pin | GND            |
| #3 pin | IN/OUT         |
| #4 pin | GND            |



Internal Connections  
(Top View)



## Recommended Land Pattern: (unit: mm)

