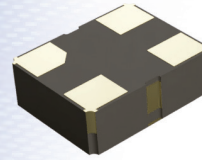




## 2520 Crystal Clock Oscillator 2520XO Series

Model CM 4 PADS 2.5 x 2.0



**Frequency Range :** 1.00MHz to 156.25MHz / 32.768KHz

### Features :

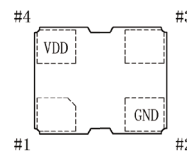
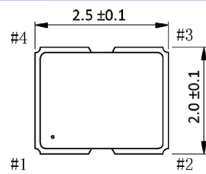
- High reliability & low cost unit
- Tight stability & extended temperature available
- Lead-free type
- For automotive applications, please contact our sales representatives

QUARTZ  
CRYSTALS

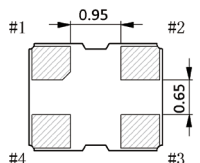
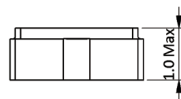
### Standard Specifications

Item	Value												
Frequency Range	1.00MHz to 156.25MHz / 32.768KHz												
Frequency Stability	±50ppm (or specify)												
Operating Temperature Range	-20°C to +70°C (or specify)												
Operable Temperature Range	-40°C to +85°C												
Operating Voltage	1.8V / 3.3V / 5.0V ±10%												
Output Type	HCMOS												
Output Load	15pF Max.												
Current Consumption (Max)	<table border="1"> <tr> <td>1.8V:</td> <td>3.3V</td> <td>5.0V</td> </tr> <tr> <td>116MHz: 5mA</td> <td>1-16MHz: 7mA</td> <td>1-16MHz: 10mA</td> </tr> <tr> <td>17-156.25MHz: 12mA</td> <td>17-156.25MHz: 20mA</td> <td>17-60MHz: 35mA</td> </tr> <tr> <td>32.768KHz: 0.2mA</td> <td>32.768KHz: 0.2mA</td> <td></td> </tr> </table>	1.8V:	3.3V	5.0V	116MHz: 5mA	1-16MHz: 7mA	1-16MHz: 10mA	17-156.25MHz: 12mA	17-156.25MHz: 20mA	17-60MHz: 35mA	32.768KHz: 0.2mA	32.768KHz: 0.2mA	
1.8V:	3.3V	5.0V											
116MHz: 5mA	1-16MHz: 7mA	1-16MHz: 10mA											
17-156.25MHz: 12mA	17-156.25MHz: 20mA	17-60MHz: 35mA											
32.768KHz: 0.2mA	32.768KHz: 0.2mA												
Output Symmetry	HCMOS: 40~60%(at 50%V <sub>DD</sub> ) ; 45~55% is available												
"High" Output Voltage	HCMOS: 90%V <sub>DD</sub> Min.												
"Low" Output Voltage	HCMOS: 10%V <sub>DD</sub> Max.												
Rise and Fall Time	<table border="1"> <tr> <td>1.8V / 3.3V</td> <td>5.0V</td> </tr> <tr> <td>1-156.25MHz: 7ns Max.</td> <td>1-60MHz: 10ns Max.</td> </tr> <tr> <td>32.768KHz: 30ns Max.</td> <td></td> </tr> </table>	1.8V / 3.3V	5.0V	1-156.25MHz: 7ns Max.	1-60MHz: 10ns Max.	32.768KHz: 30ns Max.							
1.8V / 3.3V	5.0V												
1-156.25MHz: 7ns Max.	1-60MHz: 10ns Max.												
32.768KHz: 30ns Max.													
Tri-State	Yes												

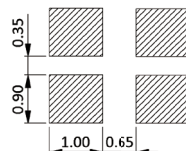
### Dimension



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



### Soldering Pattern



Note:

1. Manufacturer reserves the right to change the specification and content of this product for improvement without notification.
2. Custom specification is welcome. Please contact our sales representative for further details.
3. If the crystal is intended for applications which have direct impact on human life and properties, and require a high degree of reliability and safety concerns, customers must provide full information such as but not limit to the application, electrical and reliability specification at the inquiry beginning stage.
4. Customers have to agree to the "Guideline for handling crystal units" and "Standard Terms and Condition of Sales" which is printed this catalog before placing orders to our company or our distributors. There are also unpredictable factors such as applied condition, oscillation margin and etc and customers must check them beforehand. In case of queries, please do not fail to send inquiry to our company before ordering.

Ver 1.1

