LC&) &$N&
Miniature SMD CMOS Clock Oscillator

Features and Benefits

Frequency from 1 MHz up to 80 MHz
Sub miniature package: 2.5 x 2.0 x 1.0 mm
High shock and vibrational resistivity
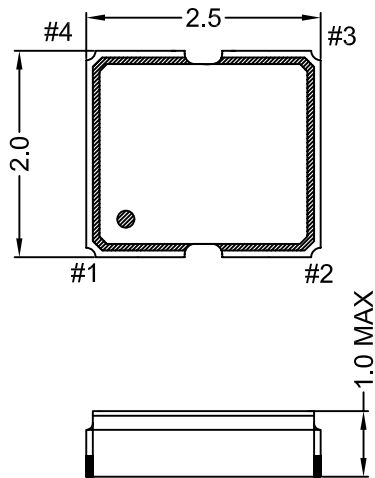
Typical Applications

Telecommunications
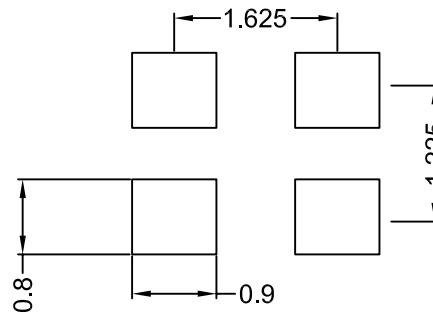Wireless communications

Description

XO2520ZG offers wide frequency range, operating temperature and frequency stability options, along with high shock and vibrational resistivity all in a sub miniature package, ideal for various telecommunication and wireless communication applicationsÈ

Mechanical Drawing & Pin Connections

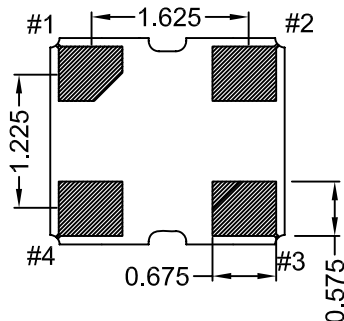**Drawing No:** MD1*00) 3-&

Solder Pattern

Do not design any conductive path between the pattern

Pin Connection

Pin	Function
#1	Tri-State
#2	GND
#3	Output
#4	Vdc

Unit in mm
1mm = 0.039 inches

Specifications

Oscillator Specification	Sym	Condition	Value Min.	Value Typ.	Value Max.	Unit	Note
Frequency Range	F		1		80	MHz	
Standard Frequencies			12.0, 16.0, 20.0, 24.0, 26.0, 27.0, 38.4, 40.0			MHz	
Output Waveform			CMOS				
Output Level			$V_{OH} \geq 0.9 Vcc$ $V_{OL} \leq 0.1 Vcc$			Vdc	
Output Load				15		pF	
Symmetry		@ ½Vdc	45		55	%	
Rise / Fall Time			3 ~ 5			ns	
Tri-state function		Pin #3 → signal Pin #3 → high impedance	Pin #1 = high or open Pin #1 = low				
Power Supply							
Voltage	V_{cc}	±5%		+2.5		V	
Supply Current				<10		mA	
Frequency Stability							
Frequency Stability vs. Temperature Tolerance Aging Supply and Load Variation			±25		±50	ppm	
Environmental Conditions							
Operating temperature range		-20°C to +70°C for commercial applications -40°C to +85°C for industrial applications					
Storage temperature range		-55°C to +125°C					

Ordering Options: Operating Temperature and Frequency Stability

Operating Temperature (w)		Frequency Stability (z)	
Code	T (°C)	Code	Stability [ppm]
1	-20 to +70	1	±25
2	-40 to +85	2	±50

Ordering Codes

Model	Frequency in MHz (up to 4 digits)	Operating Temperature	Frequency Stability
XO2520Z2	xx.yyyy	w	Z

Example:XO2520Z2-26.0000-2-2 has the following specifications

Operating Frequency	= 26.0000 MHz
Operating Temperature	= -40°C to +85°C
Frequency Stability	= ±50 ppm

Example for IR reflow soldering temperature