

# Dynamic Engineers Inc.

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

### **Features and Benefits**

Frequency from 1 MHz up to 80 MHz Sub miniature package:  $2.5 \times 2.0 \times 1.0$  mm High shock and vibrational resistivity

## **Typical Applications**

Telecommunications Wireless communications

### **Description**

XO2520Z1 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

LC&) &\$N%

Miniature SMD CMOS Clock Oscillator

### **Mechanical Drawing & Pin Connections**

Drawing No: MD1\*00) 3-&





Solder Pattern |<del>---</del>1.625----|



Do not design any conductive path between the pattern

### **Pin Connection**

Pin	Functio <b>n</b>
#1	Tri-State
#2	GND
#3	Output
#4	Vdc

Unit in mm 1mm = 0.039 inches

Dynamic Engineers, Inc.

Rev.1

Dynamic Engineers reserves the right to make changes to the company datasheet(s) along with other information contained inside; such as data tables and graphs without notification to potential customers who may have earlier revisions in their possession.



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## **Specifications**

Oscillator	Sum	Condition	Value			Unit	Noto
Specification	Sym		Min.	Тур.	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		24.0, 40.0	MHz	
Output Waveform			CMOS				
Output Level				V <sub>OH</sub> ≥ 0.9V V <sub>OL</sub> ≤ 0.1V	cc cc	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 Pi	= high or n #1 = low	open /		
Power Supply							
Voltage	V <sub>cc</sub>	±5%		+1.8		V	
Supply Current				<7		mA	
Frequency Stability	1		-				
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
XO2520Z1	хх.уууу	W	Z

Example:XO2520Z1-26.0000-2-2 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



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