



### Features and Benefits

- Low jitter < 0.5 ps
- Wide range of output frequency up to 212.5 MHz
- SMD small package size: 5.0 x 3.2 x 1.3 mm

### Typical Applications

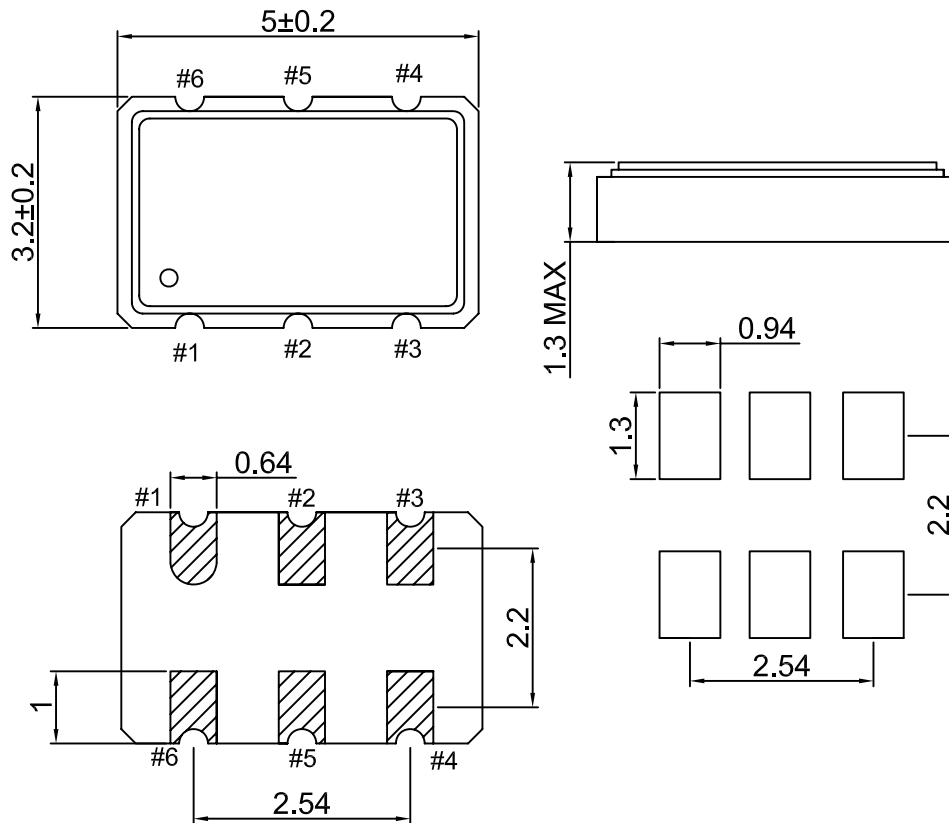
- 10 Gigabit Ethernet
- SDH SONET, Fiber Channel broadband access
- DSL, GPON and switching system

### Description

XO5300ZLDGoffers a wide frequency range and low jitter, all in a miniature SMD package, ideal for various broadband access and switching systems.

### Mechanical Drawing & Pin Connections

Drawing No: MD150016-2



#### Pin Connection

Pad 1	Tri-state or N.C.
Pad 2	N.C.
Pad 3	Ground
Pad 4	Output
Pad 5	Complementary Output
Pad 6	Supply Voltage

Unit in mm  
 1mm = 0.0394 inches



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note	
			Min.	Typ.	Max.			
Frequency Range	F		20.0		212.5	MHz		
Standard Frequencies			106.2500, 120.0000, 122.8800, 125.0000, 153.6000, 155.5200, 156.2500, 159.3750, 161.1328, 200.0000, 212.5000			MHz		
Output Waveform			LVDS					
Output Voltage			$V_{OH} \leq 1.6 V$ $V_{OL} \geq 0.9 V$			V		
Output Load			100			$\Omega$		
Jitter		@ 12 KHz ~ 20 MHz from carrier frequency	< 0.5			ps		
Symmetry		@ 1/2 Vdc	45		55	%		
Rise / Fall Time		20 to 80% of amplitude	< 1.0			ns		
Tri-state function		Pin #4 & 5 → signal Pin #4 & 5 → high impedance	Pin #1 = high or open Pin #1 = low					
<b>Power Supply</b>								
Voltage	$V_{CC}$	$\pm 5\%$		+3.3		V		
Supply Current			30		70	mA		
<b>Frequency Stability</b>								
Frequency Stability vs. Temperature Tolerance		Over -20°C to +70°C		$\pm 25$		ppm		
Aging		Over -40°C to +85°C		$\pm 50$				
Supply and Load Variation								
<b>Environmental Conditions</b>								
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)	Stability [ppm]
1	-20 to +70	$\pm 25$
2	-40 to +85	$\pm 50$

Ordering Codes

Model	Frequency in MHz (up to 4 digits)	Operating Temperature vs Frequency Stability
XO5300ZLD2	xx.yyyy	w

Example: XO5300ZLD2-125.0000-2 has the following specifications  
 Operating Frequency = 125.0000 MHz  
 Operating Temperature = -40°C to +85°C  
 Frequency Stability =  $\pm 50$  ppm

Example for IR reflow soldering temperature

