



**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**

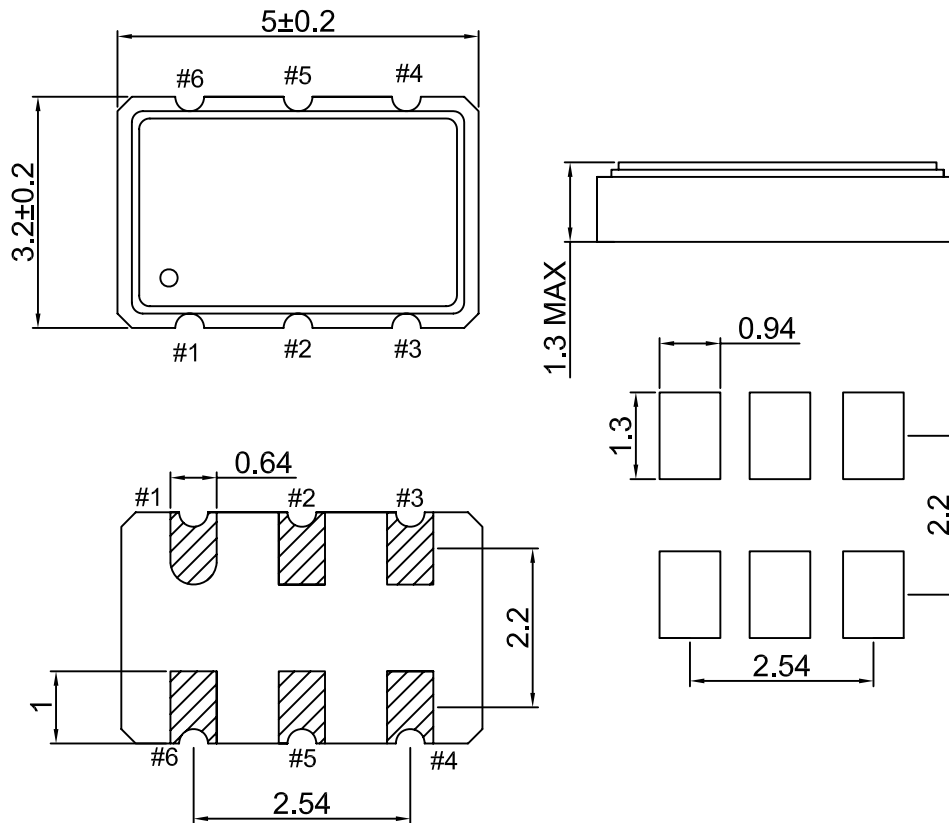
10 Gigabit Ethernet  
 SDH SONET, Fiber Channel broadband access  
 DSL, GPON and switching system

**Description**

XO5300ZLP offers 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			LVPECL				
Output Level			$V_{OH} \geq 2.275V$ $V_{OL} \leq 1.680V$			V	
Output Load			50 $\Omega$ to Vdc -2.0V				
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	< 0.5			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 <sub>cc</sub>	±5%		+3.3		V	
Supply Current			40		85	mA	
<b>Frequency Stability</b>							
Frequency Stability vs. Temperature Tolerance		Over -20°C to +70°C		±25		ppm	
Aging		Over -40°C to +85°C		±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	±25
2	-40 to +85	±50

**Ordering Codes**

Model	Frequency in MHz (up to 4 digits)	Operating Temperature vs Frequency Stability
XO5300ZLP2	xx.yyyy	w

Example: XO5300ZLP2-125.0000-2 has the following specifications

- Operating Frequency = 125.0000 MHz
- Operating Temperature = -40°C to +85°C
- Frequency Stability = ±50 ppm

**Example for IR reflow soldering temperature**

