J7LC-%N@3%
ŠXÖÙÁÏT ÖÁÔÝUÁ

Features and Benefits
Low jitter < 0.5ps
Wide range of output frequency up to 312.5 MHz

Typical Applications
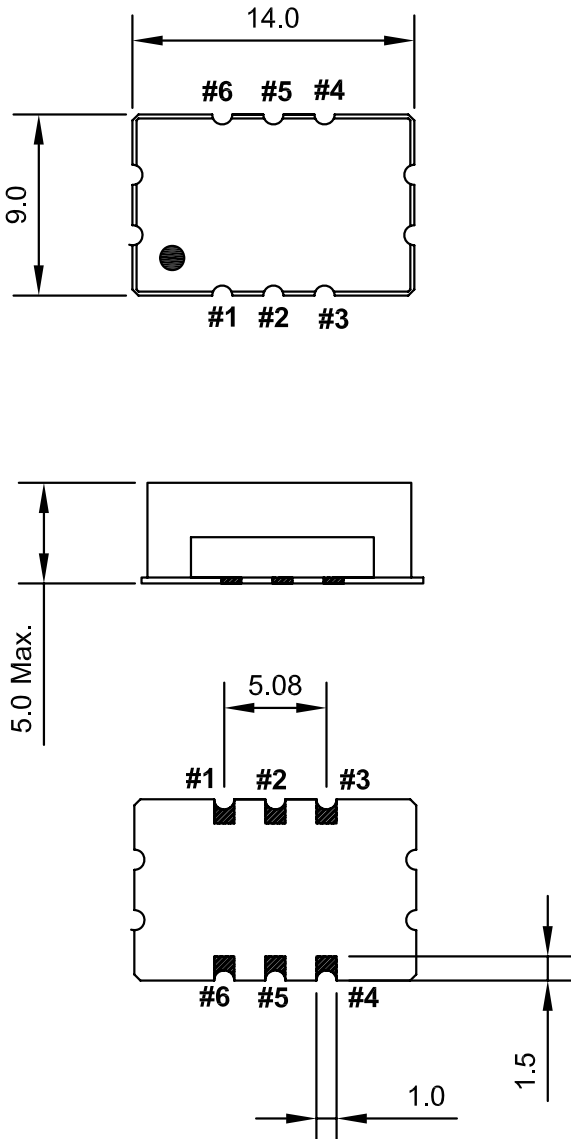10 Gigabit Ethernet
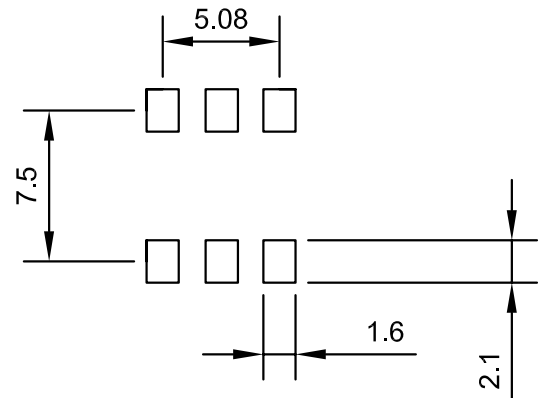SDH SONET, Fiber Channel broadband access
DSL, GPON

Description
VCXO914ZLD1 offers wide frequency range and low jitter in one simplepackage, ideal for various broadband access and communication systems.

Mechanical Drawing & Pin Connections

Drawing No: MD150098-&

Solder pattern

Pin Connections:
#1. Vc (Control Voltage)
#2. E/D or not connected
#3. GND
#4. RF Output
#5. Complementary Output
#6. Vdc

Unit in mm
1mm = 0.0394 inches

Specifications

Oscillator Specification	Sym	Condition	Value Min.	Value Typ.	Value Max.	Unit	Note
Frequency Range	F		19.4400		312.5000	MHz	
Standard Frequencies			19.4400, 76.8000, 77.7600, 106.2500, 120.0000, 122.8800, 125.0000, 153.6000, 155.5200, 156.2500, 159.3750, 161.1328, 200.0000, 212.5000, 256.0000			MHz	
Output Waveform			LVDS				
Output Voltage			$V_{OH} \leq 1.6$ V $V_{OL} \geq 0.9$ V			V	
Output Load			100			Ω	
Jitter (rms)		@ 12 KHz ~ 20 MHz from carrier frequency	< 0.5			ps	
Symmetry		@ ½Vdc	45		55	%	
Rise / Fall Time			1.0			ns	
Frequency Pulling Range			±50		±100	ppm	
Voltage Control		±1.25V	1.25			V	
Enable / Disable Function		Pin #4 & 5→(E) signal Pin #4 & 5→(D) no signal	Pin #2 = high or open Pin #2 = low				
Power Supply							
Voltage	V_{cc}	±5%		+2.5		V	
Supply Current			30		75	mA	
Frequency Stability							
Frequency Stability vs. Temperature Tolerance Aging Supply and Load Variation		Over -20°C to +70°C Over -40°C to +85°C		±25 ±50		ppm	
Environmental Conditions							
Operating temperature range		-20°C to +70°C for commercial applications -40°C to +85°C for industrial applications					

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
VCXO914ZLD1	xx.yyyy	w

Example:VCXO914ZLD1-200.0000-2 has the following specifications
Operating Frequency = 200.0000 MHz
Operating Temperature = -40°C to +85°C
Frequency Stability = ±50 ppm

Example for IR reflow soldering temperature