



Features and Benefits

Frequency range: 10-1500MHz
Supply voltage: 2.5/3.3V
Steady current: 100mA Max
Output waveform: LVPECL
Frequency tolerance: ± 25 ppm
Pulling range: ± 50 ppm
Phase noise@1KHz: -95dBc/Hz
Operating temperature: -40°C to +85°C
Size: 5.0x3.2x1.25mm

Typical Applications

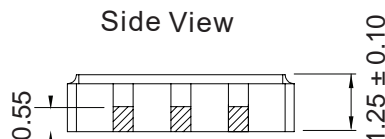
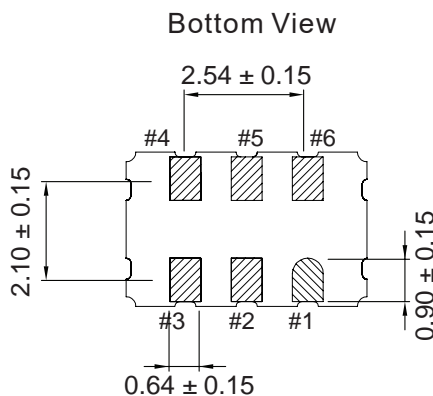
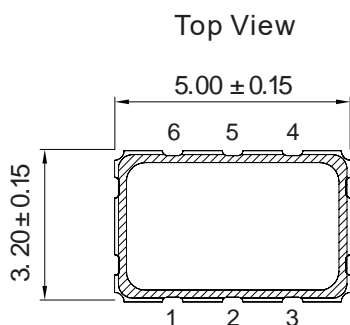
High-speed ethernet
Fiber channel
HDTV
ATM,
Set-top box
WiMAX
Server
SAS
SATA

Description

The VCXO5032AL-LVPECL is designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and frequency stability. These characteristics make it an excellent choice for timing applications.

Mechanical Drawing & Pin Connections

Drawing No: MD24004* -2



PIN	Function
#1	Control Voltage
#2	OE/Tri-State
#3	GND
#4	Output
#5	Complementary Output
#6	Supply Voltage

Unit in mm
1mm = 0.0394 inches

Rev. 1



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VCXO5032AL-LVPECL

Low Phase Jitter Small Size VCXO

Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F_{nom}		10		1500	MHz	
RF Output							
Signal Waveform			LVPECL				
Output Load	R_L		50ohm into V_{cc} -2V				
H-Level Voltage	V_H		V_{cc} -1.025V			V	
L- Level Voltage	V_L				V_{cc} -1.62V	V	
Duty Cycle			45		55	%	
Rise/Fall time					1	nS	
Power Supply							
Supply Voltage	V_{cc}			2.5 3.3		V	
Start up Time	T_{up}				10	mS	
Current					100	mA	
Frequency Adjustment Range							
EFC voltage		3.3V	0.3		3.0	V	
		2.5V	0.25		2.25	V	
Electronic Frequency Control (EFC)			±50			ppm	
Input Impedance			1			MΩ	
Linearity					10	%	
Modulation Bandwidth (BW)			10			KHz	
Frequency Stability							
Frequency Tolerance				±25 or ±50		ppm	See ordering information
RMS phase jitter		12KHz-20MHz			1	pS	
Phase noise@614.4MHz		1KHz			-95	dBc/Hz	
Environmental,Mechanical Conditions							
Operating temperature range	See ordering information						
Storage temperature range	-55°C to +125°C						

Ordering Information

VCXO5032AL-LVPECL	-	10MHz	-	x	x	x
Group				01	02	03

For example, VCXO5032AL-LVPECL-10MHz-1-1-2 denotes the VCXO has the following specifications:

Frequency: 10MHz
 Temperature Range: -20°C to +70°C
 Frequency Tolerance: ±25ppm
 Supply Voltage: 2.5V

01	Temperature Range
Code	Specification
1	-20°C to +70°C
2	-40°C to +85°C

02	Frequency Tolerance
Code	Spec
1	±25ppm
2	±50ppm

03	Supply Voltage
Code	Specification
1	3.3V
2	2.5V