



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: 7.0x5.0x1.45mm

Typical Applications

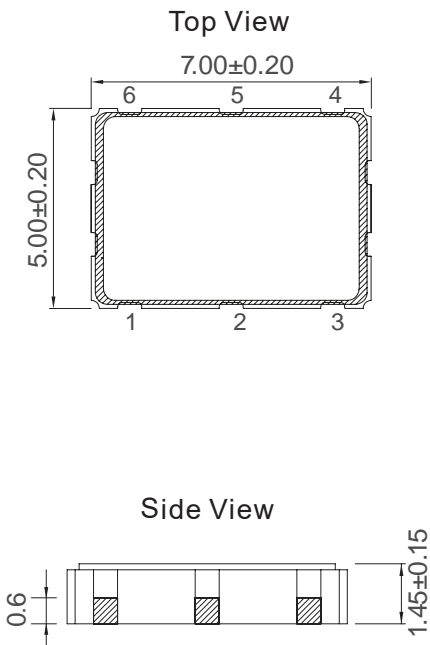
- High-speed ethernet
- Fiber channel
- HDTV
- ATM,
- Set-top box
- WiMAX
- Server
- SAS
- SATA

Description

The VCXO7500AL-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

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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			M Ω	
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

VCXO7500AL-LVPECL	-	10MHz	-	x	x	x
Group				01	02	03

For example, VCXO7500AL-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