

Voltage Controlled Crystal Oscillator (VCXO)

High Frequency
Ceramic Package
LVPECL Out

Pb-free : RoHs compliance



VCX-705LP

Typical applications

- SONET, SDH, Gbits, Ethernet, IEEE1394, Fibre Channel.

Features

- 100 to 170 MHz.
- LVPECL / 50Ω Load.
- Package : Metal lid + Ceramic package.
- 7.5×5.0×1.65mm

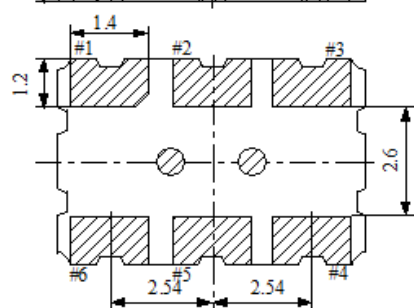
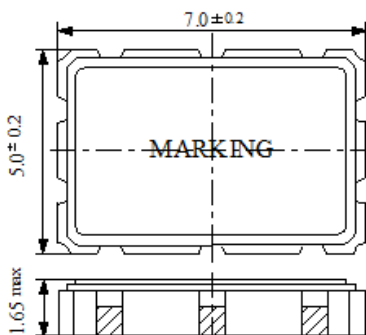
Specifications

Model	VCX-705LP	
Available Frequency Range	100.000 to 170.000 MHz	
Frequency Stability	±30ppm(-10 to +70°C), ±50 ppm(-30 to +75°C), ±100 ppm(-40 to +85°C)	
Operating Temperature	-40 to +85° C	
Storage Temperature	-40 to +85° C	
Power Supply Voltage	3.3V±10%	
Power Supply Current Consumption	90 mA max. (60mA typ.)	
External control function / External control voltage	±100×10 ⁻⁶ min. / +1.65V±1.50V DC (positive)	
Input impedance of #1 Vcont terminal	100 KΩ min.	
Input voltage level	VIL : 30%Vcc max. / VIH : 70%Vcc min.	
Output	Level	Vol: Vcc-1.620 max., Voh: Vcc-1.025 min. (LVPECL)
	Load	50 Ω (terminus to Vcc-2V)
	Rise & Fall Time	1.5ns max. (0.6ns typ.) at output amplitude 20% to 80%
	Duty Cycle	45%55% at 50% output swing level
Phase Jitter	0.4ps typ. / 12KHz ~ 20MHz offset	
Phase noise	-135dBc/Hz typ. At 10KHz offset, -145dBc/Hz typ. At 100KHz offset	
Tri state Function	#2 : N.C. or "H"→Output enable / #2 : "L"→Hi-Z(Output disable)	

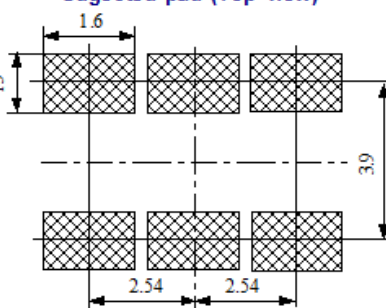
Environmental Characteristics

Description	Specification
Fall Shock	Test : 3 time free drop onto concrete board from 150cm high Result: ±5.0 ppm max.
Vibration Shock	Test : Freq. 5-500Hz, Amplitude 1.5mm, Test time 4cycles/XYZ axis Result: ±5.0 ppm max.
Solderability	Test : Immersed into solder bath at 235±° C for 3 sec. Result: More than 95%
Humidity	Test : 90 to 95%RH at 60±3° C±500 hours Result: ±5.0 ppm max.
Reflow Heat	Test : 2 times of IR reflow soldering in accordance with reflow temperature profile as per the document No.:TR-0531 Result: ±1.0 ppm max.

Outline Drawing & Suggested Pad



Suggested pad (Top view)



TERMINAL	CONNECTION
#1	Vcont
#2	CE
#3	Vss
#4	OUTPUT
#5	OUTN
#6	Vdd