VC7000 Series- General Specification

n APPROVALS

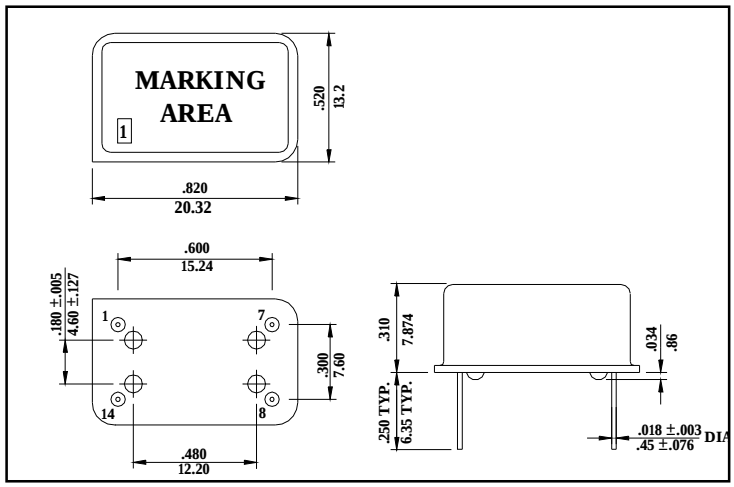
RALTRON	CUSTOMER
Eng. approval, date: Luis Vargas 12/09/02	Name (please print):
Sales approval, date: Tod Raphaely Dec 9,02	Title (please print):
Created by, date:	Signature, date:
Revision:	

n ELECTRICAL SPECIFICATION:

Note 1: measurements are done @ Tamb = +25°C = 15 pF to ground; unless otherwise noted
Note 2: Fo is the actual output frequency measured during Accuracy test
Note 2: frequencies above 52 MHz use straight multiplication design

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Frequency, nom	fn	-	1.000……160.000	MHz
Supply voltage, nom.	Vcc	Vcc±5%	**3.3VDC** **5.0VDC**	VDC
Supply current	Is	-	25.0…..60.0	mA
Freq. stability vs. temperature, max.	Δf/fc (Ta)	(ref. to +25°C)	SEE PART NUMBER GENERATION TABLE	ppm
Freq. stability vs. supply changes, max.	Δf/fc (ΔVs)	Supply change, ±5%	±5.0	ppm
Freq. stability vs. load changes, max.	Δf/fc (Δload)	Load change, ±10%	±3.0	ppm
Aging characteristics, max.	Δf/fc (Δt)	Δt=1st year	±4.0	ppm
	Δf/fc (Δt)	Δt=per year thereafter	±2.0	ppm
HCMOS output levels	VOH / VOL	-	2.97 / 0.3 4.5 / 0.5	V
Duty cycle	DC	@ 50%Vcc	SEE PART NUMBER GENERATION TABLE	%
Rise- / fall time, max.	tr / tf	20%~80% Vout, 80%~20% Vout	2.0…10.0 (see note A)	ns
Control voltage range	Vc	DC	0…+3.3 +0.5…+4.5	V
Pullability	ΔF/Fo	-	SEE PART NUMBER GENERATION TABLE	ppm
Linearity, max.	Δf/V	Positive slope	≤ 10	%
Input impedance, min.	Zin	-	≥ 10	KΩ
Modulation freq. bandwidth, min.	MBW (-3dB)	-	≥ 10	KHz
Operating temperature range	Ta	-	SEE PART NUMBER GENERATION TABLE	°C
Storage temperature range	T(stg)	-	-45…+120	°C
Absolute voltage ranges	Vcc,Vc(abs)	Non-destructive, DC	-0.5…+7.0	V

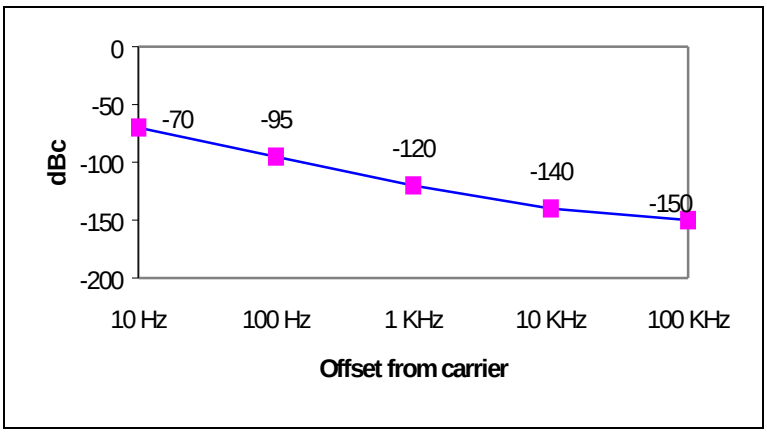
n MECHANICAL SPECIFICATION



OUTLINE TOLERANCE:
±0.015" / 0.4mm
(Unless otherwise specified)

PIN OUT
Pin # 1 is the Control Voltage
Pin # 7 is the Ground, Case
Pin # 8 is the Output
Pin # 14 is the Supply Voltage,Vcc

TYPICAL PHASE NOISE FOR FUNDAMENTAL MODE FREQUENCY



PART NUMBERING SYSTEM

14 PIN DIP SERIES	STABILITY OVER TEMPERATURE	REVISION LEVEL	TEMPERATURE RANGE (°C)	MINIMUM PULLABILITY (Over control voltage range)	FREQUENCY (MHz)	SYMMETRY
VC72: 5.0V HCMOS VC74: 3.3V HCMOS	10: ±15 ppm 15: ±15 ppm 20: ±20 ppm 25: ±25 ppm 50: ±50 ppm 00: ±100 ppm	Assigned	LV: 0…+50 LZ: 0…+70 HZ: -20…+70 D3: -40…+85	50: ±50 ppm 100: ±100 ppm 150: ±150 ppm 200: ±200 ppm	1.00 to 160.00	Blank:40%…60% T: 45%…55% (Tight)

NOTE: Variations from standard specification are available, please contact factory.
All combinations of Stability Vs. Temperature range might not be available, please contact factory.

EXAMPLE: VC7425A-LZ-100-16.384-T