K1526C & K1536C

9x11 mm, 5.0 or 3.3 Volt, CMOS/TTL, VCXO

- Former Champion Technologies, Inc. Product
- Phase-Locked Loops (PLL's), Clock Recovery, Reference Signal Tracking, Synthesizers, Frequency Modulation/Demodulation

Ordering Information

K15X6CX X X 00.0000 MHz

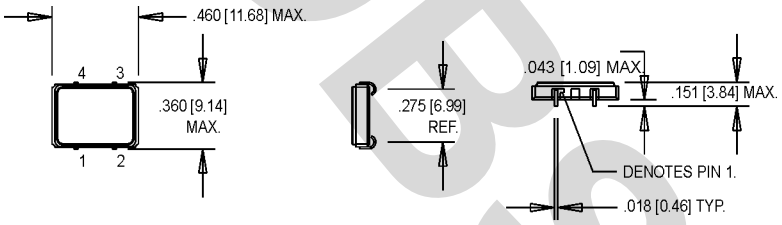
Product Series
K1526C = 5.0 Volt
K1536C = 3.3 Volt

Model Selection:
See Electrical Specs

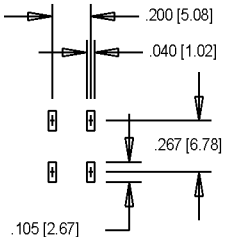
Temperature Range
Blank: 0°C to +70°C
M: -40°C to +85°C

Symmetry/Logic Compatibility
Blank: TTL/CMOS 40%/60%
C: CMOS 45%/55%
T: TTL 45%/55%

Frequency (customer specified)



SUGGESTED SOLDER PAD LAYOUT



Pin Connections

PIN	FUNCTION
1	Voltage Control
2	Ground & Gnd Plane
3	Output
4	+Vdd

	PARAMETER	Symbol					Units
	Model		K1526CA K1536CA		K1526CD K1536CD	K1526CE	
	Frequency Range	F	2 to 55	55.1 to 80	2 to 55	2 to 40	MHz
	Frequency Stability	ΔF/F					
	Overall		Inclusive of Calibration, Temperature, Voltage, Load, and Aging				
	0°C to +70°C		±25	±40	±25	±32	ppm
	-40°C to +85°C		±50	±60	±50	±50	ppm
	Pullability						
	Minimum		±100	±80	±80	±200	ppm
	Maximum		±150	±160	±130		ppm
	PARAMETER	**Symbol**	**Min.**	**Typ.**	**Max.**	**Units**	**Condition/Notes**
	Operating Temperature	T_A	(See ordering information)				
	Storage Temperature	T_S	-40		+125	°C	
Electrical Specifications	Aging						
	1st Year		-3/-5		+3/+5	ppm	<52 MHz / ≥52 MHz
	Thereafter (per year)		-1/-2		+1/+2	ppm	<52 MHz / ≥52 MHz
	Control Voltage	Vc	0.5	2.5	4.5	V	K1526C
			0.3	1.65	3.0	V	K1536C
			0		5.0	V	K1526CE
	Linearity				10	%	Positive Monotonic Slope
	Modulation Bandwidth	fm	20			kHz	+3 dB
	Input Impedance	Zin	50K			Ohms	@ 10 kHz
	Input Voltage	Vdd	4.5	5.0	5.5	V	K1526C
			3.0	3.3	3.6	V	K1536C
	Input Current	Idd			30	mA	
	Output Type						CMOS/TTL
	Load				15	pF	HCMOS
	Symmetry (Duty Cycle)		(See ordering information)				
	Logic "1" Level	Voh	Vdd -0.5			V	
	Logic "2" Level	Vol			0.5	V	
	Output Current				20	mA	
	Rise/Fall Time	Tr/Tf			5	ns	20% to 80% Vdd, CL = 15 pF
	Start up Time				10	ms	
	Phase Jitter @ 26 MHz	ΦJ		4		ps RMS	Integrated 12 kHz – 20 MHz
	Phase Noise (Typical)	**10 Hz**	**100 Hz**	**1 kHz**	**10 kHz**	**100 kHz**	**Offset from carrier**
	@ 26 MHz	-65	-95	-115	-130	-140	dBc/Hz
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 mS duration, ½ sinewave)					
	Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
	Hermeticity	Per MIL-STD-202, Method 112, (1x10-8 atm. cc/s of Helium)					
	Thermal Cycle	Per MIL-STD-883, Method 1010, Condition B (-55°C to +125°C, 15 min. dwell, 10 cycles)					
	Solderability	Per EIAJ-STD-002					
	Soldering Conditions	+240°C max. for 10 secs.					

MtronPTI Lead Free Solder Profile