

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

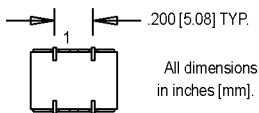
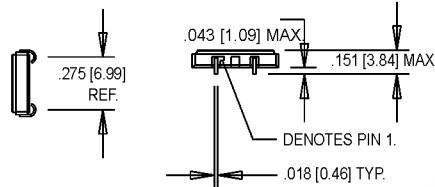
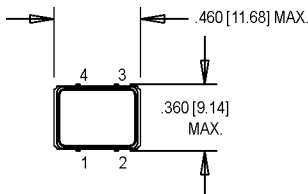
Product Series
 K1526C = 5.0 Volt
 K1536C = 3.3 Volt

Model Selection:
 See Electrical Specs

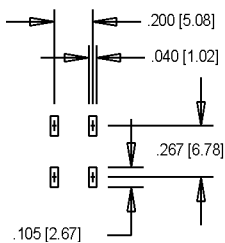
Temperature Range
Blank: 0°C to +70°C
M: -40°C to +85°C

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	Min.	Typ.	Max.	Units	Condition/Notes
Model		K1526CA	K1526CD	K1526CE		
		K1536CA	K1536CD			
Frequency Range	F	2 to 55	55.1 to 80	2 to 55	2 to 40	MHz
Frequency Stability	$\Delta F/F$	Inclusive of Calibration, Temperature, Voltage, Load, and Aging				
Overall		±25	±40	±25	±32	ppm
0°C to +70°C		±50	±60	±50	±50	ppm
-40°C to +85°C						
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	
Aging						
1 st Year		-3/-5		+3/+5	ppm	<52 MHz / ≥52 MHz
Thereafter (per year)		-1/-2		+1/+2	ppm	<52 MHz / ≥52 MHz
Control Voltage	V _C	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	f _m	20			kHz	+3 dB
Input Impedance	Z _{in}	50K			Ohms	@ 10 kHz
Input Voltage	V _{dd}	4.5	5.0	5.5	V	K1526C
		3.0	3.3	3.6	V	K1536C
Input Current	I _{dd}			30	mA	
Output Type						CMOS/TTL
Load				15	pF	HCMOS
Symmetry (Duty Cycle)		(See ordering information)				
Logic "1" Level	V _{oh}	V _{dd} -0.5			V	
Logic "2" Level	V _{ol}			0.5	V	
Output Current			20		mA	
Rise/Fall Time	T _r /T _f			5	ns	20% to 80% V _{dd} , CL = 15 pF
Start up Time				10	ms	
Phase Jitter @ 26 MHz	φ _J		4		ps RMS	Integrated 12 kHz – 20 MHz
Phase Noise (Typical) @ 26 MHz		10 Hz	100 Hz	1 kHz	10 kHz	100 kHz
		-65	-95	-115	-130	-140
						Offset from carrier dBc/Hz
Mechanical Shock		Per MIL-STD-202, Method 213, Condition C (100 g's, 6ms duration, ½ sine wave)				
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.				

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