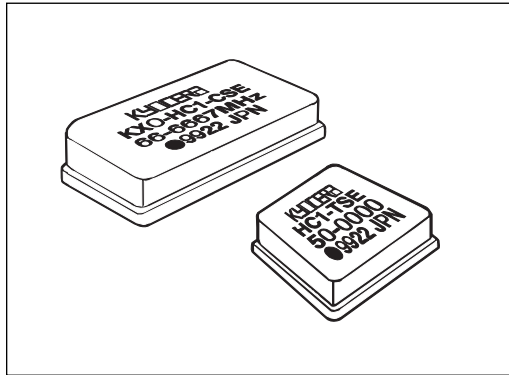


Crystal Clock Oscillators - Leaded

KXO-HC/KHO-HC Series: HCMOS Drive -
TTL or CMOS Compatible



f_0 : 1 to 72MHz



HOW TO ORDER

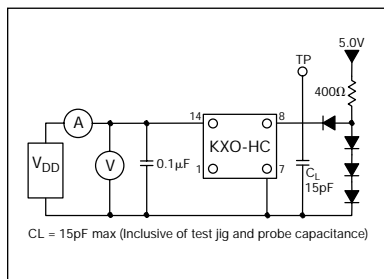
KXO-HC 1 -TS E - 32.0000M T

- ① ②③ ④ ⑤ ⑥
- ① **Type:** KXO = 14 pin DIP; KHO = 8 pin DIP
 - ② **Frequency Precision:** S = ± 25 ppm (special)
0 = ± 50 ppm
1 = ± 100 ppm
 - ③ **Output Level/Duty Cycle:** TS = TTL compatible/45 to 55%
CS = CMOS compatible/45 to 55%
 - ④ **Enable/Disable Function:** Blank \square = without function
E = with function
 - ⑤ **Frequency**
 - ⑥ **Standard Packaging:** T = tube (KXO-HC = 25 pcs.)
(KHO-HC = 40 pcs.)

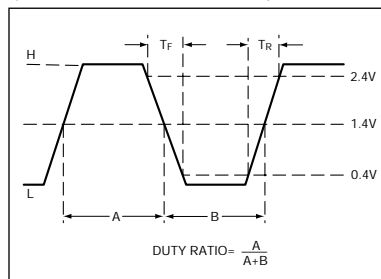
Specifications: TTL Compatible

CLASSIFICATION	CODE	RATING		UNIT	REMARKS
Output Frequency	f_{OUT}	1-50	50.1-72	MHz	-----
Frequency Precision (Inclusive of Temp. Voltage variation)	$\Delta f/f$	0 : ± 50 1 : ± 100		ppm ppm	$T_a=0\sim+70^\circ\text{C}$
Aging Rate	$\Delta f/f$	± 5		ppm/year	-----
Operating Temp.	T_{OPR}	0~+70		$^\circ\text{C}$	-----
Storage Temp.	T_{STR}	-55~+125		$^\circ\text{C}$	-----
Supply Voltage	V_{CC}	5 \pm 0.5	5 \pm 0.25	V	-----
Supply Current	I_{CC}	50 max.	70 max.	mA	$CL=15\text{pF} \cdot 10\text{TTL Load, } T_a=25^\circ\text{C}$
Output	Duty Ratio	S_y	45-55	%	1.4V DC Level
	Output 0 Level	V_{OL}	0.4 max.	V	$I_{OL}=16\text{mA}$
	Output 1 Level	V_{OH}	2.4 min.	V	$I_{OH}=-1\text{mA}$
	Rise/Fall Time	T_R, T_F	5.0 max.	3.5 max.	nsec
Time to Enable/Disable	-----	100 max.		nsec	-----
Input Current	I_{IH}	10 max.		μA	$V_{CC}=5.5\text{V}$
	I_{IL}	-150 max.		μA	$V_{CC}=5.5\text{V}$
Input Voltage	V_{IH}	2.2 max.		V	-----
	V_{IL}	0.8 max.		V	-----
Fan Out	-----	10		TTL	-----
Load Capacitance	C_L	15 max.		pF	-----

Test Circuit (KXO-HC-T/KHO-HC-T)



Shape of Output Wave (KXO-HC-T/KHO-HC-T)



Additional information on this product is available from AVX's catalog or AVX's FAX Service.
Call 1-800-879-1613 and request document #141. Visit our website <http://www.avxcorp.com>



Crystal Clock Oscillators - Leaded

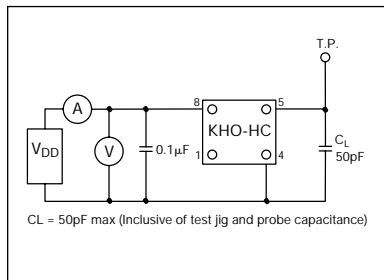
KXO-HC/KHO-HC Series HCMOS Drive - TTL or CMOS Compatible (Continued)

AVX
 f_0 : 1 to 72MHz

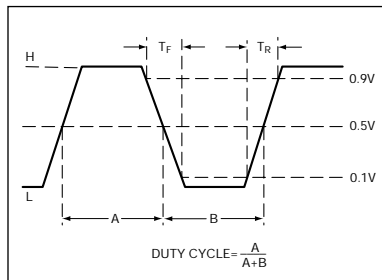
Specifications: CMOS Compatible

CLASSIFICATION		CODE	RATING		UNIT	REMARKS
Output Frequency		f_{OUT}	1~50	50.1~72	MHz	----
Frequency Precision (Inclusive of Temp. Voltage variation)		$\Delta f/f$	0 : ± 50 1 : ± 100		ppm ppm	Ta=0~+70°C
Aging Rate		$\Delta f/f$	± 5		ppm/year	----
Operating Temp.		T _{OPR}	0~+70		°C	----
Storage Temp.		T _{STR}	-55~+125		°C	----
Supply Voltage		V _{CC}	5 \pm 0.5	5 \pm 0.25	V	----
Supply Current		I _{CC}	50 max.	80 max.	mA	CL=50pF, Ta=25°C
Output	Duty Ratio	S _y	45~55		%	0.5V _{CC} DC Level
	Output 0 Level	V _{OL}	0.1V _{CC} max.		V	I _{OL} = 16mA
	Output 1 Level	V _{OH}	0.9V _{CC} min.		V	I _{OH} = 1mA
	Rise/Fall Time	T _R , T _F	10 max.	6 max.	nsec	0.1cc-0.9cc CL=50pF
Time to Enable/Disable		----	100 max.		nsec	----
Input Current		I _{IH}	10 max.		μ A	V _{CC} =5.5V
		I _{IL}	-150 max.		μ A	V _{CC} =5.5V
Input Voltage		V _{IH}	2.2 max.		V	----
		V _{IL}	0.8 max.		V	----
Load Capacitance		C _L	50 max.		pF	----

Test Circuit (KXO-HC-C/KHO-HC-C)

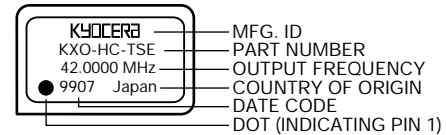


Shape of Output Wave (KXO-HC-C/KHO-HC-C)

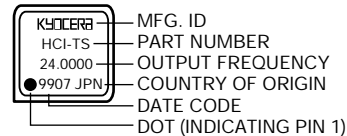


Markings

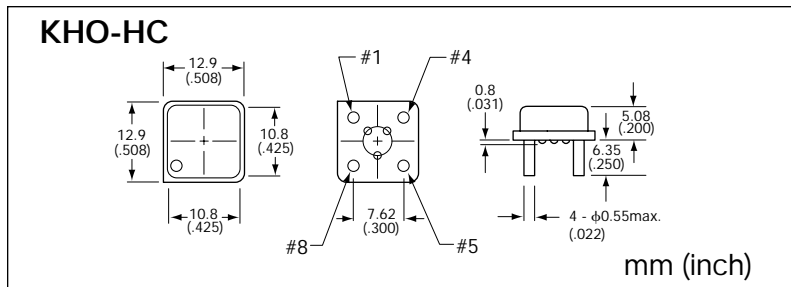
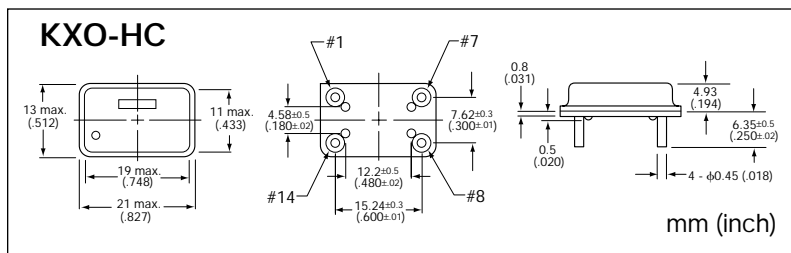
KXO-HC



KHO-HC



Dimensions and PIN Identification



Pin Connection

KXO	KHO	
1	1	N.C. or Control
7	4	Case/GND
8	5	Output
14	8	+5.0V D.C.

Enable / Disable Function Chart

Pin 1	Pin 8
High or Open	Oscillation
Low	High Impedance

Additional information on this product is available from AVX's catalog or AVX's FAX Service. Call 1-800-879-1613 and request document #142. Visit our website <http://www.avxcorp.com>

