AVX KYOCERA

386-HC Crystal Clock Oscillators for Intel 80386

i80386 Compatible - f_o: 24, 32, 40, 50 MHz

FEATURES

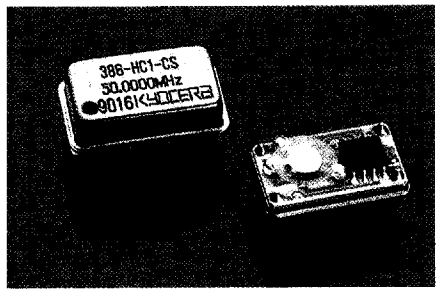
1) World's only clock oscillator specifically designed to meet the rigorous timing demands of the Intel 80386.
2) Capable of driving the 80386 and the surrounding LSI devices (80387, 82380, 82385) at loads of up to 150pF.
3) Replaces existing clock generator and/or buffer.
4) ENABLE/DISABLE FUNCTION is optional.
5) 45/55 symmetry for all standard frequencies even at 150pF loads. (50MHz up to 80pF)

HOW TO ORDER

386-HC 1-C S E-40.0000M

① ②③④⑤ ⑥

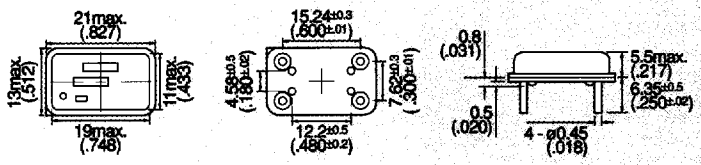
① Type: (Kyocera 386 Crystal Oscillator)
② Frequency precision: 1= ±100 ppm
③ Output Level: C=CMOS compatible
④ Duty Cycle:
S = 45 to 55% (fixed)
⑤ Enable/Disable:
Nil = without function
E = with function
⑥ Frequency: 24, 32, 40 & 50 MHz Available



SPECIFICATIONS: (386-HC)

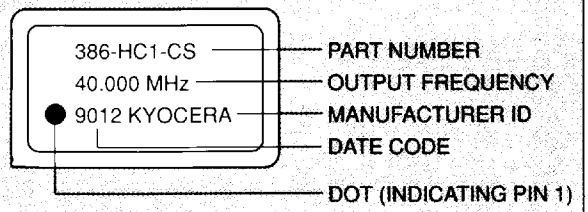
Classification		Code	Rating	Unit	Remarks
Output Frequency		f_{out}	24, 32, 40	MHz	CL=150pF Max
			50.0	MHz	CL=80pF Max
Frequency Precision		Δf/f	1: ±100	ppm	0 to 70°C, 4.5V to 5.5V
Operating Temperature Range		T_{opr}	0 to +70	°C	
Storage Temperature Range			-55 to +125	°C	
Voltage		V_{DD}	5±0.25	V	
Electrical Current Consumption		I_{DD}	65 Max	mA	f=40 MHz, C_L=150pF
Output	Load capacitance	C_L	150	pF	f=12.0 MHz to 40.0MHz
			80	pF	f=40.1 MHz to 50.0MHz
	Duty Cycle	S_Y	45 to 55	%	1/2V_{DD} level
	"0" Level	V_{OL}	0.1 V_{DD} Max.	V	At I_{OL}= 12mA
	"1" Level	V_{OH}	0.9V_{DD} Min	V	At I_{OH}= -1mA
	Rise and Fall Time	T_R, T_F	(On clock time table)	nS	
Time to Enable/Disable			100 Max	nsec	Tristate
Input Current		I_{IH}	10 Max	μA	V_{DD}=5.25V
		I_{IL}	—150 Max	μA	V_{DD}=5.25V
Input voltage		V_{IH}	2.2 Min	V	
		V_{IL}	0.8 Max	V	

DIMENSIONS:



Units: mm (inch)

MARKING:



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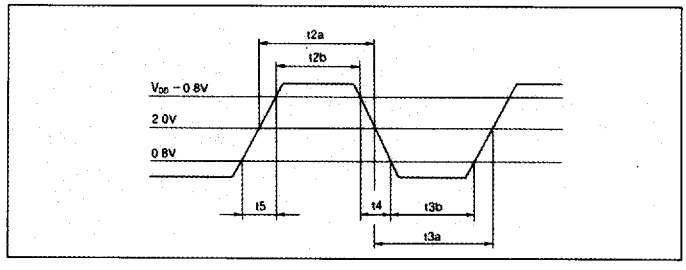
CLOCK TIME TABLE (32 MHz, 40 MHz)

Frequency	32 MHz		40 MHz	
Clock time (nS)	Min.	Max.	Min.	Max.
Clock high time t2a	9	–	8	–
Clock high time t2b	5	–	5	–
Clock low time t3a	9	–	8	–
Clock low time t3b	7	–	6	–
Clock fall time t4	–	7.5	–	8
Clock rise time t5	–	7.5	–	8

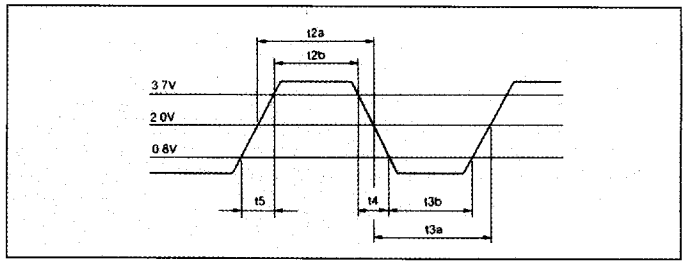
SHAPE OF OUTPUT WAVE (32 MHz, 40 MHz)



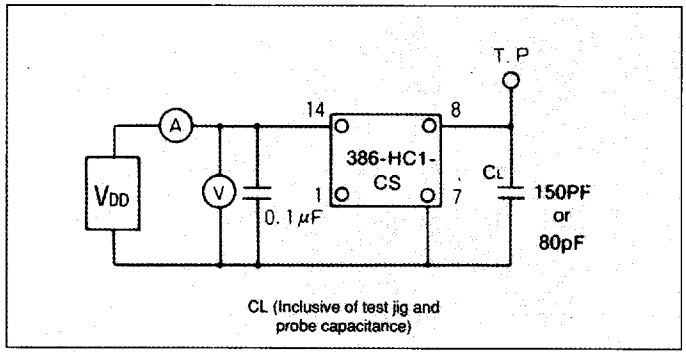
CLOCK TIME TABLE (50 MHz)

Frequency	50 MHz	
Clock time (nS)	Min.	Max.
Clock high time t2a	7	–
Clock high time t2b	4	–
Clock low time t3a	7	–
Clock low time t3b	5	–
Clock fall time t4	–	7
Clock rise time t5	–	7

SHAPE OF OUTPUT WAVE (50 MHz)



TEST CIRCUIT



LOAD CAPACITANCE

Frequency	Capacitance (Max.)
32 MHz, 40 MHz	150pF
50 MHz	80pF

ENABLE/DISABLE FUNCTION CHART (E Specification)

# 1 PIN	#8 PIN
H or Open	Oscillation
L	High impedance

PIN CONNECTION

1	N.C. OR CONTROL
7	GND
8	OUTPUT
14	+5 V_{DD}