Surface Mount Clock Oscillator

- Immediate Delivery
- Ultra Low Jitter
- Low Phase Noise

RoHS COMPLIANT 2002 / 95 / EC

Part Numbering Example: FT305055ANM - XXX.XXXX M

F	T		3	050	55	AN	M	XXX.XXXX
SERIES	OUTPUT	PACKAGE STYLE	VOLTAGE	STABILITY	OPERATING TEMP.	STABILITY	TRI-STATE	FREQUENCY
	Blank=Cmos T = TTL	DV = Full Size Xo53 = 3.2X5 Blank = 5X7	1= 1.8V 3= 3.3 V 5= 5.0V	050= ±50 ppm 025= ±25 ppm 020= ±20 ppm	48= -40 °C + 85 °C 50= -55 °C +105°C 55= -55 °C +125°C	Blank=40/60% AN=45/55%	I = Industrial Std 0.5 ~170MHz M= MIL-STD-883B B= MIL-PFR-55310D	

Specifications:

Description	Min	Typ	Max	Unit
Frequency Range: Programmable to Any Discrete Frequency	0.5		170.000	MHz
Available Stability Options:	-50 -25		50 25	ppm ppm
Supply Voltage Options: (1.5–133 MHz)	1.62	1.8	3.3 2.5 1.98	V
Operating Temperature Range Options:				
Storage Temperature:	-55		+125	°C
Aging (PPM/Year) Ta=25C, Vdd=3.3V/2.5V			±5	
Output Level:	HCMOS/TTL			

Operating Conditions:

Description	Min	Max	Unit
Vdd Rise Time:	100		µS
HCMOS Max Capacitive Load on outputs for CMOS levels Frequency: < 40 MHz Frequency: 40–133 MHz		 25 15	 pF pF

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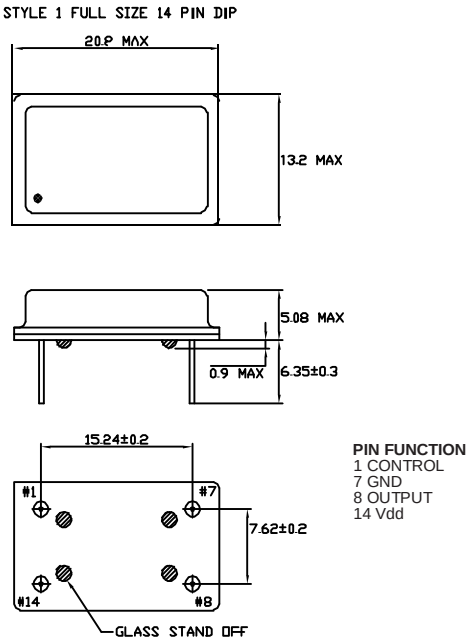
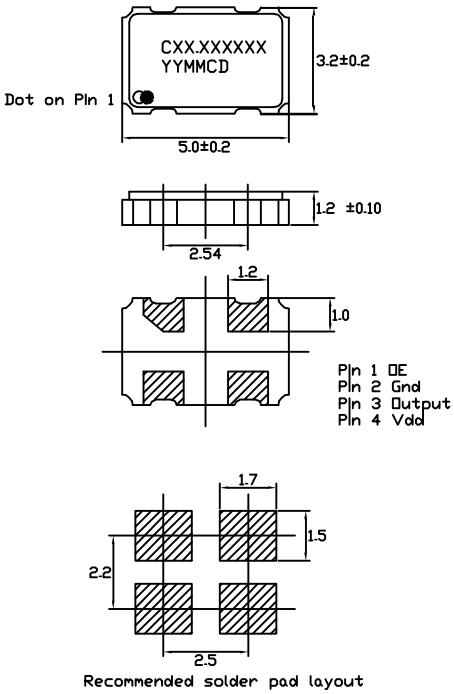
Full Size 14 Pin Dip

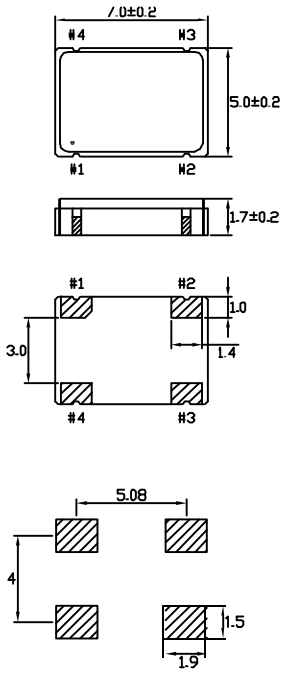


PIN FUNCTION
1 CONTROL
7 GND
8 OUTPUT
14 Vdd

3.2x5 Ceramic SMD



5x7 Ceramic SMD



PIN FUNCTION
1 CONTROL
2 GND
3 OUTPUT
4 Vdd

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Electrical Characteristics

Description	Test Conditions	Min	Typ	Max	Unit
Input Characteristics (Pin 1):					
V_{IL}, Low–Level Input Voltage TO DISABLE OUTPUT				0.2Vdd	V
V_{IH}, High–Level Input Voltage TO ENABLE OUTPUT OR open		0.7VddV			
I_{IL}, Input Low Current	V_{IN} = 0V			80	µA
I_{IH}, Input High Current	V_{IN} =Vdd			10	µA
Output Characteristics: V_{OL}, Low–Level Output Voltage	8 mA I_{OL}			0.4	V
V_{OHCMOS},					V
High-level HCMOS Voltage	-8 mA I_{OL}	Vdd-0.4			V
Power Supply Current: (Loaded)	1.8V Vdd, Output Freq < 133 MHz			15	mA
Tri-State Internal Pull-up:	1.8V Vdd	50	70	90	kΩ
Tri-State Leakage Current:	TS option, Pin 1 low			20	µA
Power Down Current:				10	µA

"Tristate internal pull up. Output active when high"

Output Clock Switching Characteristics

Description	Test Conditions	Min	Typ	Max	Unit
Duty Cycle: HCMOS @ Vdd/2		45		55	%
Output Clock Rise/Fall:	0.2–0.8Vdd, C_L = 15		2		nS nS
Start Up Time:			3	10	mS
RMS Period Jitter:			3	5	pS
RMS Integrated Jitter:	12kHz to 20MHz		10		pS
Phase Noise:	@ 10kHz			-120	dBc/Hz

Environmental And Mechanical	
Mechanical Shock	Per MIL-STD-883 ,Method 2002 ,Cond.B
Thermal Shock	Per MIL-STD-883 ,Method 1011 ,Cond.A
Vibration	Per MIL-STD-883 ,Method 2007 ,Cond.A
Seal	Per MIL-STD-883, Method 1014, Condition B & C
Solderability	Per MIL-STD-883 ,Method 2003 ,Cond.A