

NF Type

20.3 x 12.7 mm

Oven Controlled Crystal Oscillator

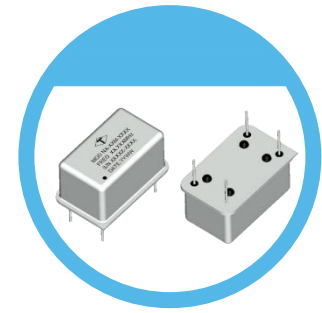
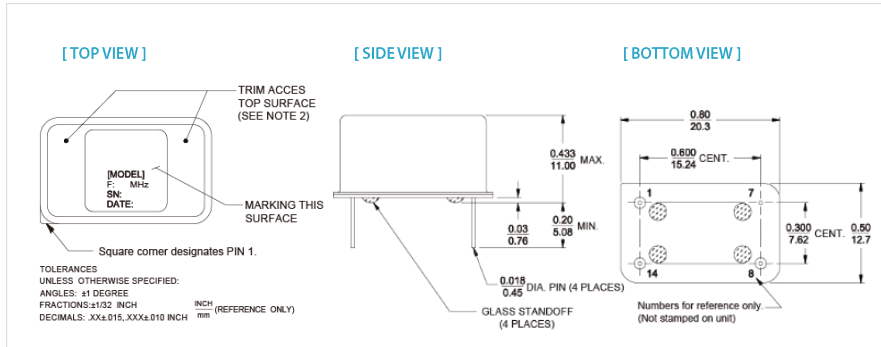
FEATURES

- Dimension 20.3 x 12.7 x 11.0 mm Typical
- Stratum 3 (Overall ± 4.6 ppm including 10 years aging)

TYPICAL APPLICATION

- SDH/SONET, Telecommunication Base Station
- Test and Measurement Equipment
- Synthesizer, Digital Switch, Reference Timing Circuit

DIMENSION (mm)



RoHS Compliant

PIN FUNCTION

PIN#	FUNCTION
1 (See Note 1)	VCO INPUT or NOT CONNECTED
7	0 VOLTS AND CASE
8	R.F. OUTPUT
14	+VDC

Note 1: If the specification does not specify parameters for PIN 1 then PIN 1 is not internally CONNECTED.

Note 2: If the specification does not specify parameters for "MECHANICAL FREQUENCY ADJUSTMENT" then there is not Trim Access.

ELECTRICAL SPECIFICATION

Parameter		Min.	Typ.	Max.	Unit	Test Condition	
Output	Frequency Range	10		40	MHz		
	Standard Frequency	10, 12.8, 15.36, 19.2, 20, 26, 38.88			MHz		
	Waveform			Rectangular		Sine wave output is available.	
		"1" Level	2.4			V	
	"0" Level			0.5	V		
	Load			15	pF		
Duty Cycle	45	50	55	%	@ 2.0 V		
Spurious			-60	dBc			
Frequency Stability	Ambient	-0.1		+0.1	ppm	-30°C to +70°C, referenced to +25°C Refer to Freq. Stability Vs Temp. Range table.	
	Aging	Daily	-5.0		+5.0	ppb	Per day, at time of shipment
		Yearly	-5.0		+5.0	ppb	after 30 days
		Yearly	-0.5		+0.5	ppm	
		10 years	-3.0		+3.0	ppm	
	Voltage	-50		+50	ppb	$\pm 5\%$ Change	
	Warm-up	-0.1		+0.1	ppm	in 2 minutes @ +25°C, referenced to 1 hour	
Phase Noise			-105	dBc/Hz	@ 10Hz		
			-130	dBc/Hz	@ 100Hz		
			-140	dBc/Hz	@ 1KHz		
			-150	dBc/Hz	@ 10KHz		
Electrical Frequency Adjustment	Range			-5.0	ppm	VCO @ 0V	
		5.0			ppm	VCO @ +5.0V	
	Control	0	2.5	5.0	V		
	Slope			Positive			
VCO Input Impedance	100			Kohm			
Input Power	Voltage	4.75	5.0	5.25	V	3.3V input voltage is available.	
	Current			400	mA	@ turn on	
	Steady state			0.8	W	@ +25°C	

Note: not all combination of options are available. Other specifications may be available upon request.

Specifications subject to change without notice.

FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppb		
	±50	±100	±200
0 ~ +70	○	○	○
-30 ~ +70	△	○	○
-40 ~ +85	△	○	○

○: Available △:Conditional x: Not Available

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