

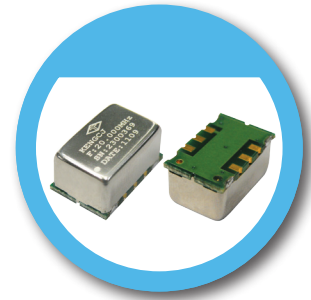
14.3 x 9.3 mm Oven Controlled Crystal Oscillator – NK Type

FEATURE

- Typical 14.3 x 9.3 x 6.0 mm typical
- Stratum 3 (Overall ± 4.6 ppm including 10 years aging.)
- AT Cut Crystal
- Packing: Tape & Reel, 500pcs per Reel.

TYPICAL APPLICATION

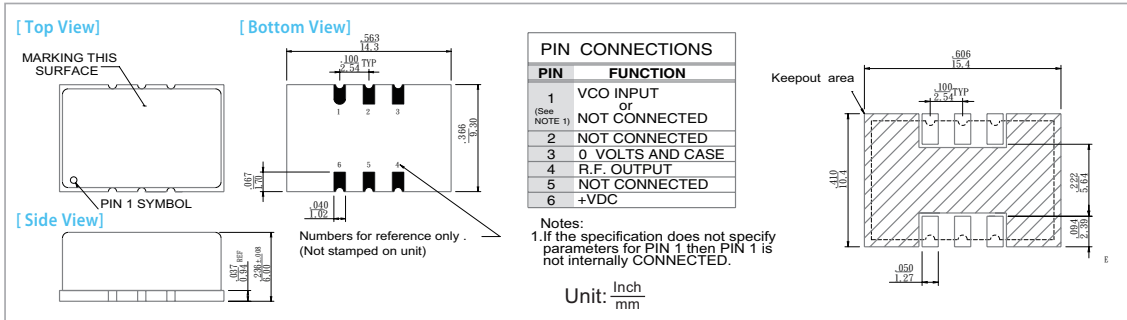
- SDH/SONET, Telecommunication base station
- Test and measurement equipment
- Synthesizer, Digital switch, Reference Timing Circuit



RoHS Compliant Standard

DIMENSION

SOLDER PAD LAYOUT



ELECTRICAL SPECIFICATION

Parameter	Min.	Nominal	Max.	Unit	Test Condition
Output					
Frequency		10, 12.8, 13, 19.2, 20, 25		MHz	
Wave Form		LVC MOS			
Level "1"	2.6			V	
Level "0"			0.4		
Load		15		pF	
Spurious			-60	dBc	
Duty Cycle	45	50	55	%	
Frequency Stability					
Ambient			± 100	ppb	Referenced to +25°C
Operating Temperature	-40		+85	°C	
Storage Temp. Range	-40		+85		
Aging - Yearly			± 1	ppm	
- 10 years			± 4		
Voltage			± 10	ppb	$\pm 5\%$ Change
Warm-up			± 100	ppb	In 1 minutes @ $\pm 25^\circ\text{C}$ (Referenced to 30Minutes)
Phase Noise @ 20MHz			-85	dBc	@ 10Hz
			-110		@ 100Hz
			-130		@ 1KHz
			-145		@ 10KHz
Electrical Frequency Adjustment					
Range	5			ppm	
Control	0		5	V	
Slope		Positive			
VCO Input impedance	100	-	-	K Ω	
Input Power					
Voltage	3.135	3.3	3.465	V	
Turn on current			400	mA	@ turn on
Steady state @ 25°C		0.35		W	@ 25°C

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

* All aging stabilities are after storage of up to 1 year and apply after 30 days of continuous operation.

* The Electrical Frequency Adjustment Range is sufficient for the life of the oscillator. Specification subject to change with frequency.

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm	± 50	± 100	± 200
0 ~ +70		○	○	○
-20 ~ +70		△	○	○
-40 ~ +85		X	△	○

* ○: Available △: Conditional X: Not available