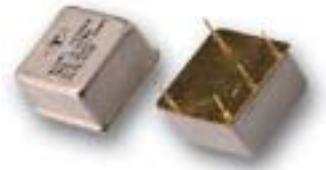


NP Type Oven Controlled Crystal Oscillator

FEATURE

1. Typical 20.6 x 20.6 x 12.0 mm.
2. AT-Cut Crystal
3. High stability.
4. CMOS output ; Fast Warm-up.



ORDERING INFORMATION

N	P	T	E	H	D	J	-	N	L	-	?
OCXO	Package (mm)	Supply Voltage(V)	Pulling range (ppm)	Freq. Stability (ppb)	Temp. Range (°C)	Output Logic and Symmetry Dash	Dash	Pin Out	Lead Free	Dash	Freq.(MHz)
	L :20.6 W:20.6 H :12.0	T:5.0 E:3.3	E: ±5.0	G: ±50 H: ±100 M: ±140 I : ±200	B: 0~+50 E: 0~+70 D: -30~+70	Symmetry Output	50±5%	N:Normal Plase Refer to "OUTLINE DRAWING"	F:RoHS Compliant L:Not RoHS Compliant		xx.xxxxxx
						CMOS 15pF	J				

Ordering Example: NPTEHDJ-NL-38.880000 MHz

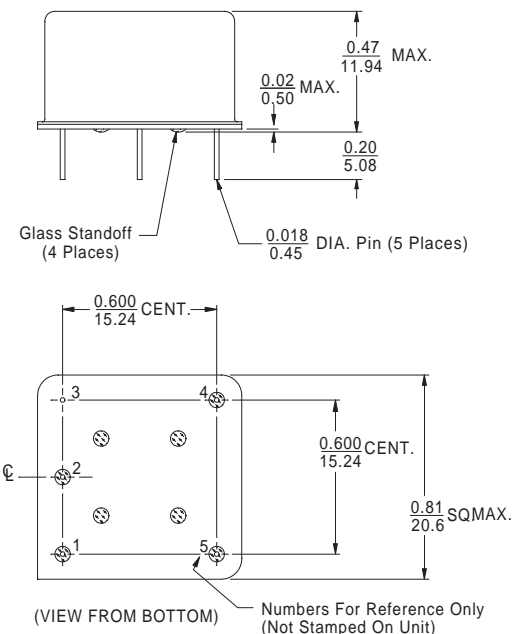
P-TYPE; V_{DD}: 5V; Pulling Range: ±5.0ppm; Freq. Stability: ±100ppb; Temp. Range: -30°C to +70°C; CMOS 15pF, Symmetry: 50±5%; Pin Out: Normal; Not RoHS Compliant; Freq. 38.880000MHz.

FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppb	G: ±50	H: ±100	M: ±140	I: ±200
B	0 to +50	○	○	○	○
E	0 to +70	△	○	○	○
D	-30 to +70	X	○	○	○

○:Standard △:Available (case by case) X:Not available

OUTLINE DRAWING



Pin	Pin Out
1	+VDC
2	R.F. OUTPUT
3	0 VOLTS & CASE
4	VCO INPUT
5	REFERENCE VOLTAGE

MARK	
MODEL:	PTEHDJ
Freq.:	38.880MHz
S/N :	0000-0000
DATE:	0528

UNIT: $\frac{\text{Inch}}{\text{mm}}$

ELECTRICAL SPECIFICATION

	Min.	Nominal	Max.	Note	Unit
Output					
Frequency		38.88			MHz
Wave Form		CMOS			
Level "1"	+4.3				V
Level "0"			+0.5		
Load		15			pF
Spurious			-60		dBc
Frequency Stability					
Ambient			±100	Reference to +25 °C	ppb
Operating Temperature	-30		+70		°C
Aging					
At time of shipment			±10		ppb
After indefinite storage					
Daily			±10	After 30 days	ppb
Yearly			±1.0		ppm
10 years			±4.0		
Voltage			±20	VDC ±5% change	ppb
Warm-up			±50	In 5 minutes @ +25°C (Reference to 30 Minutes)	
Phase Noise @ 38.88 MHz					
@ 10 Hz			-80		dBc
@ 100Hz			-110		
@ 10 kHz			-145		
Electrical Frequency Adjustment					
Range	5.0		12.0		±ppm
Control	0.0		2.8		V
Slope		Positive			
Center	1.0	1.4	1.8	Control Voltage at which nominal Frequency occurs at time of shipment	V
Input impedance	100				kΩ
Input Power					
Voltage	4.75	5.0	5.25		V
@turn on current			3.5		W
Steady state @25°C			1.0		
Reference Voltage					
Voltage	2.7	2.8	2.9		V
Load	9.0		∞		kΩ
Temperature Stability			±0.01		VDC

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

The daily aging rate also applies at the time of shipment from factory.

* The Electrical frequency Adjustment Range is sufficient for the life of the oscillator.

Specification subject to change with Frequency.

Available Frequency Range: 5MHz to 40MHz including 5.0, 10.0, 16.384, 19.44, 24.576, and 32.768 MHz.