

NJ Type Oven Controlled Crystal Oscillator

RoHS Compliant Optional

FEATURE

1. Typical 25.4 x 22.1 x 15.3 mm.
2. SC-Cut Crystal
3. High stability ; Low Phase Noise.
4. Sine Wave or CMOS output ; Fast Warm-up.



ORDERING INFORMATION

N	J	E	H	E	E	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 :25.4 W:22.1 H:15.3	A:12.0 T:5.0 E:3.3	H: ±0.4 D: ±1.0	A: ± 5 B: ±10 C: ±20 E: ±30 G: ±50	B: 0~+50 E: 0~+70 D:-30~+70	Symmetry Output CMOS 15pF Sine Wave	50±5% J W	N:Normal Please Refer to "OUTLINE DRAWING"	F:RoHS Compliant L:Not RoHS Compliant		xx.xxxxxx

Ordering Example: NJEHEEJ-NL-10.000000 MHz

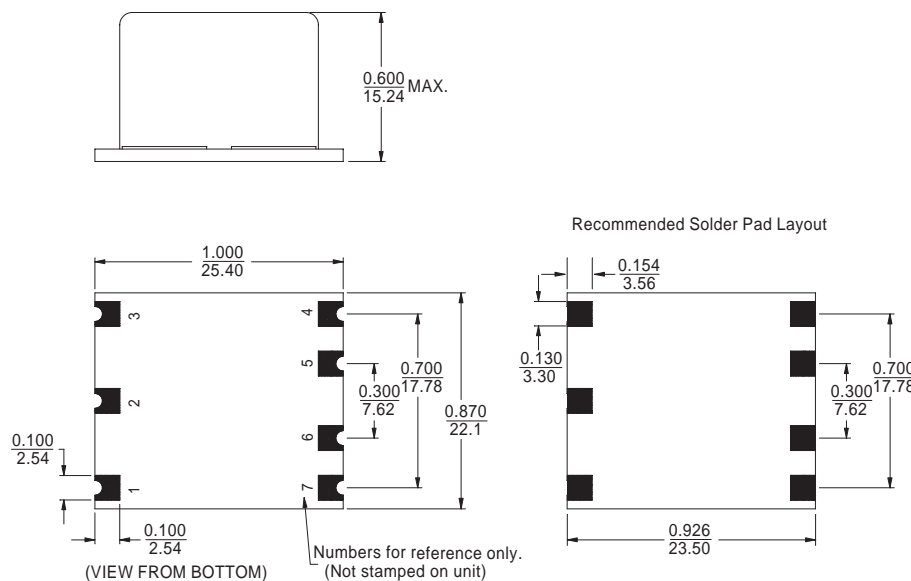
J-TYPE; V_{DD}:3.3V; Pulling Range: ±0.4ppm; Freq. Stability: ±30ppb; Temp. Range: 0°C to +70°C; CMOS 15pF, Symmetry: 50±5%; Pin Out: Normal; Not RoHS Compliant; Freq. 10.000000MHz.

FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppb	A: ±5	B: ±10	C: ±20	E: ±30	G: ±50
B	0 to + 50	△	○	○	○	○
E	0 to + 70	△	△	○	○	○
D	-30 to + 70	X	△	△	○	○

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

OUTLINE DRAWING



Pin	Pin Out
1	VCO INPUT
2	REFERENCE VOLTAGE
3	+VDC
4	R.F. OUTPUT
5	NOT CONNECTED
6	0 VOLTS & CASE
7	0 VOLTS & CASE

MARK	
MODEL:	JEHEEJ
Freq.:	10.000MHz
S/N:	0000-0000
DATE:	0528

ELECTRICAL SPECIFICATION

	Min.	Nominal	Max.	Note	Unit
Output					
Frequency		10.00			MHz
Wave Form		CMOS			
Level "1"	2.4				V
Level "0"			0.4		
Load		15			pF
Spurious			-70		dBc
Frequency Stability					
Ambient			±30	Reference to +25 °C	ppb
Operating Temperature	0		+70		°C
Aging					
At time of shipment			±1.0		ppb
After indefinite storage					
Daily			±1.0	After 30 days	ppb
Yearly			±100		
10 years			±350		
Voltage			±10	VDC ±5% change	ppb
Warm-up			±20	In 4 minutes @ +25°C (Reference to 1 Hour)	
Phase Noise @ 10 MHz					
@ 10 Hz			-115		dBc
@ 100Hz			-135		
@ 1 kHz			-140		
@ 10 kHz			-140		
Electrical Frequency Adjustment					
Range	0.4		1.0		±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	3.14	3.3	3.46		V
@turn on current			3.0		W
Steady state @25°C			1.0		
Reference Voltage					
Voltage	2.72	2.8	2.88		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.