TAITIEN

NF Type Oven Controlled Crystal Oscillator

RoHS Compliant Optional

FEATURE

1. Typical 20.12 x 12.5 x 10.0 mm.
2. High Stability.
3. Compact Package.

ORDERING INFORMATION

N	F	A	E	H	E	J			T	N	L	–	?
OCXO	Package (mm)	Supply Voltage (V)	Pulling Range (PPM)	Freq. Stability (PPb)	Temp. Range (°C)	Output Logic and Symmetry			Oscilator Mode	Appearance	Marking	Dash	Freq. (MHz)
	L :20.12 W:12.50 H :10.0	A:12 T:5	D: ±1 E: ±5	E: ±30 F: ±40 G: ±50 H: ±100 I: ±200 K: ±500	B:0~+50 E: 0~+70 C:-20~+70 D:-30~+70		50±5%	50±10%	A:AT Fundamental T:AT 3rdOvertone F:AT 5thOvertone S:AT 7thOvertone H:SC 3rdOvertone I :SC 5thOvertone J:SC 7thOvertone	N:Normal	L:Laser Marking F:Laser Marking (RoHS Compliant)		xx.xxxxxx
						TTL 15pF	A	B					
						TTL 50pF	E	R					
						CMOS 15pF	J	K					
						CMOS 50pF	F	G					
						SINE WAVE	W						

Ordering example: NFAEHEJTNL-10.000000 MHz

VCC: 12V, Frequency Stability: ±100ppb, 0℃ to +70℃. Load: CMOS 15pF, Symmetry: 50±5%. AT-3rd Overtone, Laser Marking, Freq. 10.000000MHz

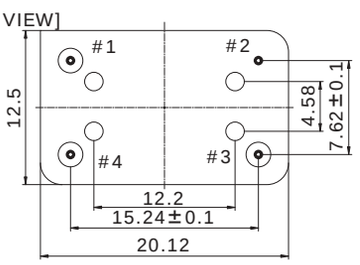
FREQ. STABILITY vs. TEMP.RANGE (○:AT ○:SC)

Temp.(°C) \ PPB		E: ±30		F: ±40		G: ±50		J: ±80		H: ±100		I: ±200		K: ±500	
B	0 ~ +50	X	X	X	X	△	X	○	X	○	X	○	X	○	X
E	0 ~ +70	X	X	X	X	X	X	△	X	△	X	○	X	○	X
C	-20 ~ +70	X	X	X	X	X	X	X	X	△	X	○	X	○	X
D	-30 ~ +70	X	X	X	X	X	X	X	X	△	X	○	X	○	X
L	-40 ~ +85	X	X	X	X	X	X	X	X	X	X	X	X	X	X

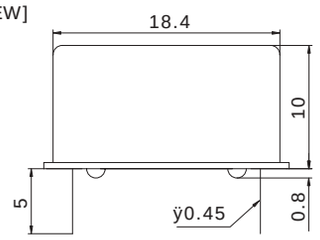
○:Standard △:Available (case by case) ×:Not available

OUTLINE DRAWING

[BOTTOM VIEW]



[SIDE VIEW]



PIN	FUNCTION
#1	CONTROL VOLTAGE IN
#2	GND/CASE
#3	RF OUTPUT
#4	SUPPLY VOLTAGE

MARK:
FAEHEJ
10.000000MHz
0145

OCXO

*Contact Sales@taitien.com.tw for special request.

ELECTRICAL SPECIFICATION

	Min	Nominal	Max	Note			Unit
NOMINAL FREQUENCY		13					**MHz**
TEMPERATURE RANGE							
Operating	0		70				°C
Storage	-40		85				°C
POWER SUPPLY	11.4	12	12.6	**Vcc±5%**			**V**
CURRENT CONSUMPTION							
At switch on			200				mA
At steady state@25°C			80				mA
FREQUENCY ADJUSTMENT							
Control voltage range	0.5		4.5				V
Pulling range		5					±ppm
Linearity			10				%
Slope		Positive					
Reference voltage							V
OUTPUT SIGNAL WAVEFORM				Square			
Level	0.5		4.5	HCMOS			V
Duty cycle	40		60				%
Rise time / Fall time		4					ns
Load		15		10KΩ//15pF±5%			pF
Spurious							dBc
Harmonics							dBc
FREQUENCY STABILITY							
Vs temperature range		100		Reference to frequency at 25°C			±ppb
Vs power supply		50		Vcc ±5%			±ppb
Vs load		20		Ca ±5%			±ppb
Vs warm up time at 25°C							±ppb
AGING	1 day	1 year	10 years	After 30 Days of Operation			
Medium/long term stability	0.002	0.2					±ppm
Allan variance	0.1 s	1 s	10 s				
							±ppb
RETRACE	30mn	1h	24h	After 24 hours turn off			
							±ppb
PHASE NOISE	1 Hz	10 Hz	100 Hz	1 KHz	10 KHz	100 KHz	
		-90	-115	-140	-145		dBc/Hz

Available Frequency Range: 10MHz to 50MHz Including 10.0，13.0, 16.384, 19.44，20.0, 26.0, 32.768, 38.88 MHz
Available Options: AT cut Crystal, Different Input Voltage, Wide Electrical Adjustment.