







## 1. Electrical Parameters

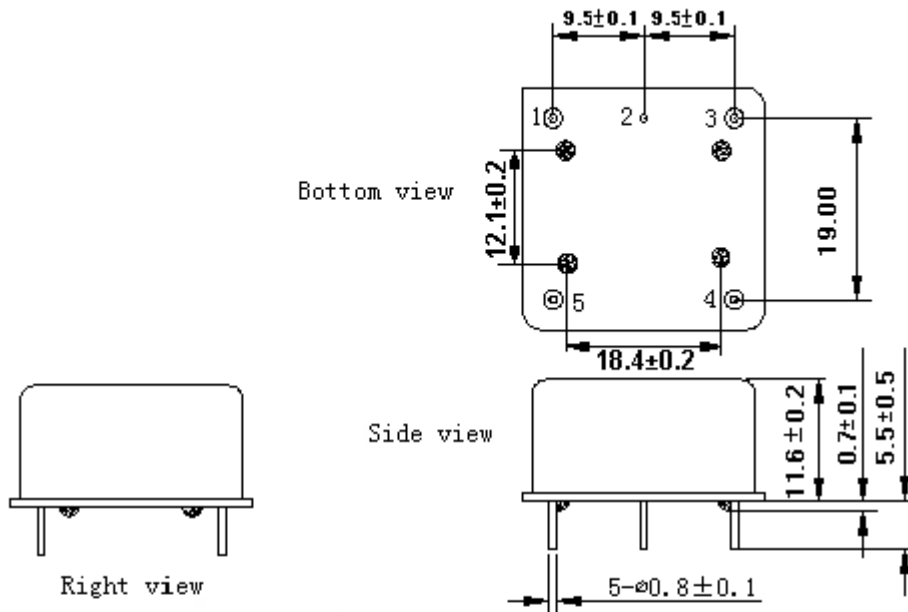
MODEL: O22B-1806-10.00MHz-C						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.5	V	$V_{cc}=5.0V, O_{load}=15pF$
	Output High Voltage	4.5			V	$V_{cc}=5.0V, O_{load}=15pF$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			10	ns	
	Load	14.25	15	15.75	pF	
	Start up time			1	s	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.01		+0.01	$\times 10^{-6}$	$T_A$ varied from $0^\circ C$ to $75^\circ C$ , measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=5.0V, V_c=2.0V, O_{load}=15pF$ , temperature variable speed less than $2^\circ C$ per minute.
	Initial Frequency Tolerance	-0.2		+0.2	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=5.0V, V_c=2.0V$ , and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-2.0		+2.0	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^\circ C, V_{cc}$ varied from 4.75V to 5.25V, $V_c=2.0V$ , and $O_{Load}=15pF$ .
	Frequency Tolerance vs. Load	-2.0		+2.0	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=5.0V, V_c=2.0V$ , and $O_{Load}=15pF$ .
	Short-Term Stability: Allan Variance			0.05	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^\circ C$ ; 1s, using PN9000 equipment.
	Aging Tolerance Per Day	-0.5		+0.5	$\times 10^{-9}$	$V_{cc}, V_c, T_A$ constant Measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=5.0V, V_c=2.0V, O_{load}=15pF$ and after 30 days of operation.
	Aging Tolerance 1 Year	-0.1		+0.1	$\times 10^{-6}$	
	Aging Tolerance 10Year	-0.4		+0.4	$\times 10^{-6}$	
	Retrace			0.01	$\times 10^{-6}$	@ $25^\circ C$ , frequency variation measured after 24 hours on , 24hours power off and 24 hours power on.



Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Steady Consumption			250	mA	@25°C
	Warm up current			600	mA	
	Warm up time			15	minutes	@25°C within $\pm 0.1 \times 10^{-6}$ of final frequency with reference after 1 hour on.
Voltage Control Characteristics	Frequency Tuning Range	-2.4		-0.8	$\times 10^{-6}$	$V_c=0V$ . measurement referenced to $V_c=2.0V$ .
		-0.2		+0.2	$\times 10^{-6}$	$V_c=2.0V$ . measurement referenced to exactly 10.00MHz.
		+0.8		+2.4	$\times 10^{-6}$	$V_c=4.0V$ . measurement referenced to $V_c=2.0V$ .
	Linearity			10	%	
	Slope	Positive				
	Modulation Bandwidth	DC to $2.5 \pm 1.5$			KHz	
	Input Impedance	100			K $\Omega$	
Phase Noise	Phase Noise		-85	-80	dBc/Hz	1Hz
			-125	-120		10Hz
			-145	-140		100Hz
			-150	-145		1KHz
			-155	-150		10KHz
Environmental Conditions	Operable Temperature	0		+75	°C	
	Storage Temperature	-55		+105	°C	
	ESD Level	Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; ANSI/ESDA/JEDEC JS-001-2010.				
	Moisture Sensitivity Level	Not humidity sensitive.				
	Vibration	Test Condition: 0.75mm ;acceleration:10g;10Hz~500Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X ,Y , Z), IEC 68-2-06 Test Fc.				
Shock	50g; 11ms; half sine wave (3 times for each 3 directions X, Y, Z), IEC 68-2-27 Test Ea/Severity 50A.					
Full Package Storage	Relative humidity (%)	20% ~70%				
	Temperature (°C)	-10~35°C				

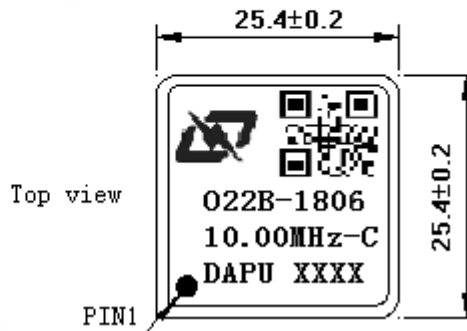


## 2. Mechanical Structure (mm)



### PIN FUNCTION

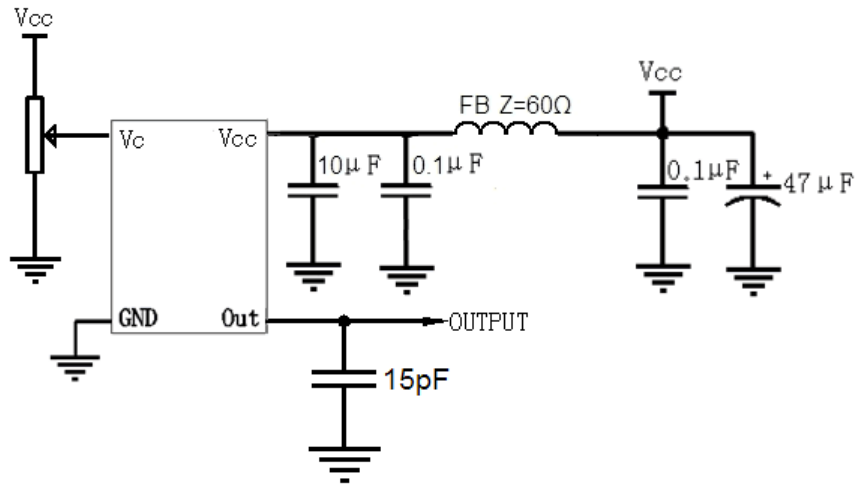
PIN	NOTATION	FUNCTION
1	OUTPUT	RF Output
2	GND	GND
3	VC	Control Voltage
4	NC	Not Connect
5	VCC	Supply Voltage



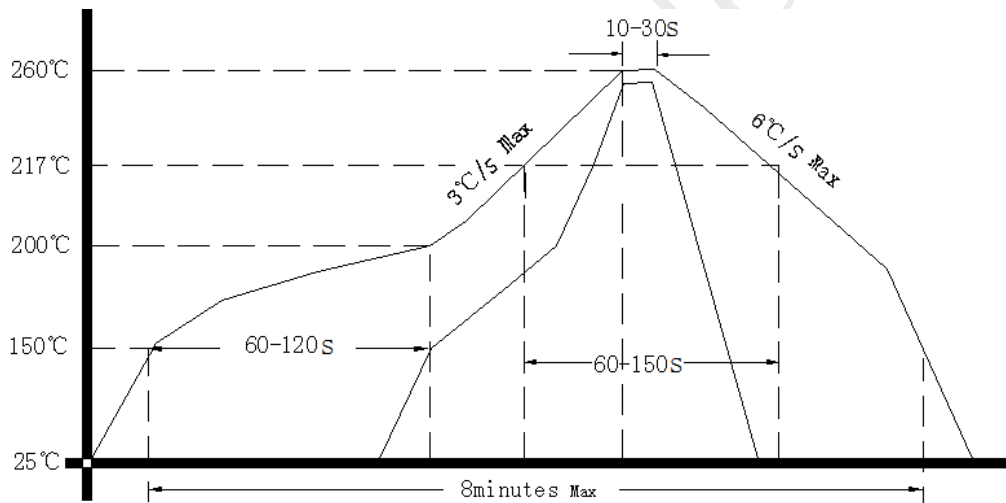
- Note1:** Tolerance  $\pm 0.2$ mm without mark
- Note2:** The first two xx representative: week  
After two xx representative: year
- Note3:** Referential weight 13.6g



### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package (mm)

