

Customer Code: _____

DATASHEET

DAPU P/N: **O22B-X426-10.00MHz-ACT**

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2024.07.11			

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1. Electrical Parameters

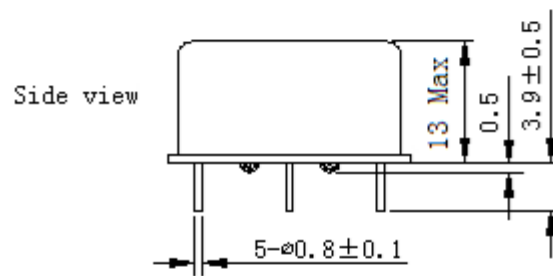
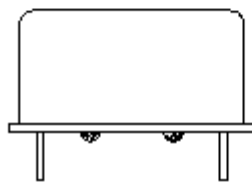
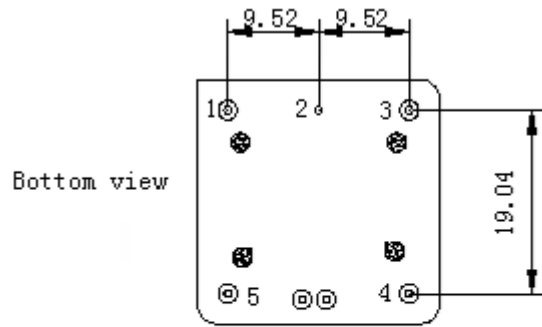
MODEL: O22B-X426-10.00MHz-ACT							
Item	Description	Parameters			Unit	Test Condition	
		Min.	Typ.	Max.			
Output	Frequency	10.00			MHz		
	Output Waveform	Sine wave					
	Level	3	5	7	dBm		
	Load	50			Ω		
	Harmonics Suppression			-30	dBc		
	Spurious Suppression			-70	dBc		
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-5		+5	$\times 10^{-9}$	T_A varied from -40°C to $+85^\circ\text{C}$, measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$, $V_{\text{cc}}=5\text{V}$, $O_{\text{load}}=50\Omega$, temperature variable speed less than 2°C per minute.	
	Initial Frequency Tolerance	-0.2		+0.2	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{\text{cc}}=5\text{V}$, $V_c=2.5\text{V}$, and after 15 minutes of operation, within 30 days after ex-works.	
	Frequency Tolerance vs. supply voltage	-1		+1	$\times 10^{-9}$	5% voltage change measurement referenced to frequency observed $T_A=25^\circ\text{C}$, $V_c=2.5\text{V}$, $O_{\text{load}}=50\Omega$.	
	Frequency Tolerance vs. Load	-1		+1	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{\text{cc}}=5\text{V}$, $V_c=2.5\text{V}$, $O_{\text{load}}=50\Omega$.	
	Short-Term Stability: Allan Variance				0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25°C ; 1s.
					0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25°C ; 10s.
	Retrace	-1		+1	$\times 10^{-9}$	After 60 minutes from turn on, following 24 hours minimum on time, and 24 hours maximum off time. At constant temperature and voltage. Referenced to frequency at off time	
	Aging Tolerance Per Day	-0.5		+0.5	$\times 10^{-9}$	V_{cc} , V_c , T_A constant measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{\text{cc}}=5\text{V}$, $V_c=2.5\text{V}$, and after 30 days of operation..	
	Aging Tolerance Per Year	-0.075		+0.075	$\times 10^{-6}$		
Aging Tolerance 15Years	-0.5		+0.5	$\times 10^{-6}$			



Power Supply	Supply Voltage	4.75	5	5.25	V	
	Reference Voltage		4.5		V	
	Steady Consumption			200	mA	@25°C
	Warm up current			600	mA	
	Warm-Up Time			5	min	@25 °C within $\pm 0.05 \times 10^{-6}$ power on 5 minutes referred to 1 hour
Voltage Control Characteristics	Frequency Tuning Range	-0.9		-0.6	$\times 10^{-6}$	$V_c=0V$. measurement referenced to $V_c=2.5V$
		-0.2		+0.2	$\times 10^{-6}$	$V_c=2.5V$. measurement referenced to exactly 10.00MHz
		+0.6		+0.9	$\times 10^{-6}$	$V_c=5V$. measurement referenced to $V_c=2.5V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			K Ω	
Phase Noise	Phase Noise @25°C			-85	dBc/Hz	1Hz
				-115		10Hz
				-145		100Hz
				-155		1KHz
				-155		10KHz
Environmental Conditions	Operating Temperature	-40		+85	°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; JEDEC JESD22-A115C.				
	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				

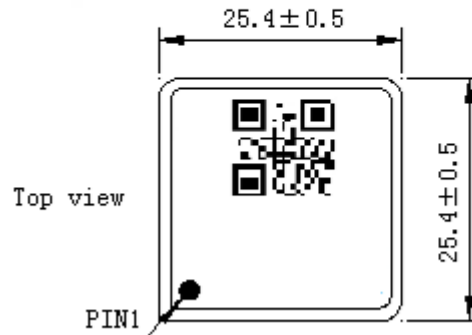


2. Mechanical Structure (mm)



PIN FUNCTION

PIN	NOTATION	FUNCTION
1	OUTPUT	RF Output
2	GND	GND
3	VC	Control Voltage
4	VREF	Reference Voltage
5	VCC	Supply Voltage

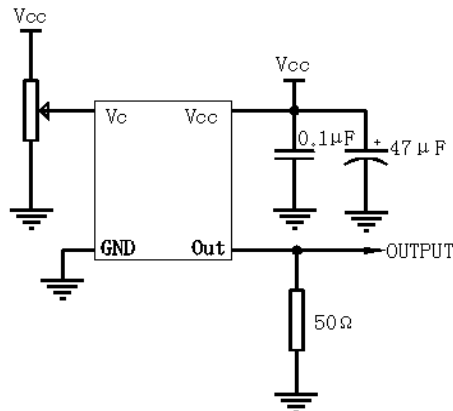


Note1: Tolerance ± 0.2 mm without mark

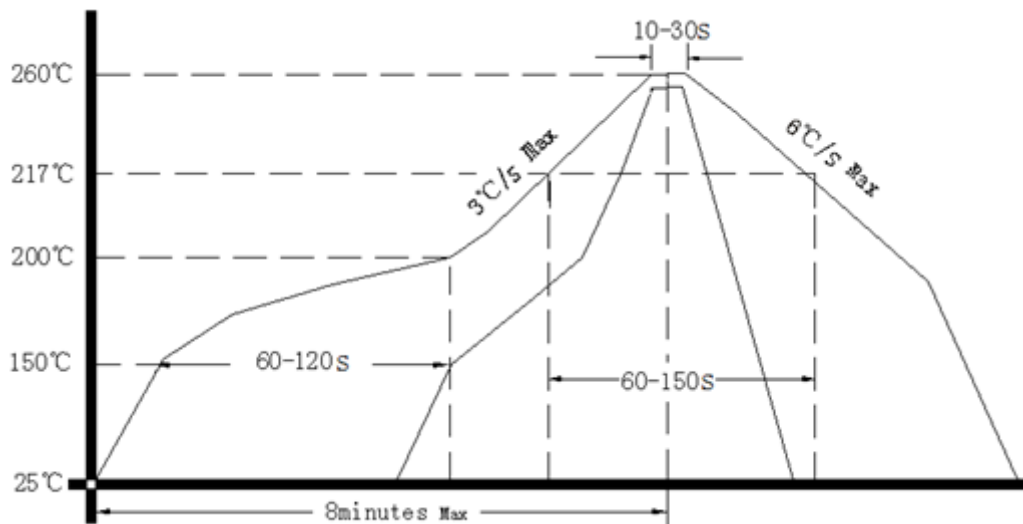
Note2: Referential weight 13.6g



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)

