

Customer Code : \_\_\_\_\_

# DATASHEET

DAPU P/N: 022A-P426-90.00MHz

Customer P/N: \_\_\_\_\_

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2024.07.02			

## Guangdong Dapu Telecom Technology Co.,Ltd

Building 5, No.24, Industrial East Road, Songshanhu Park, Dongguan, Guangdong, P.R. China

TEL: 0086-0769-88010888 FAX: 0086-0769-81800098



### Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2024.07.02

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## 1. Electrical Parameters

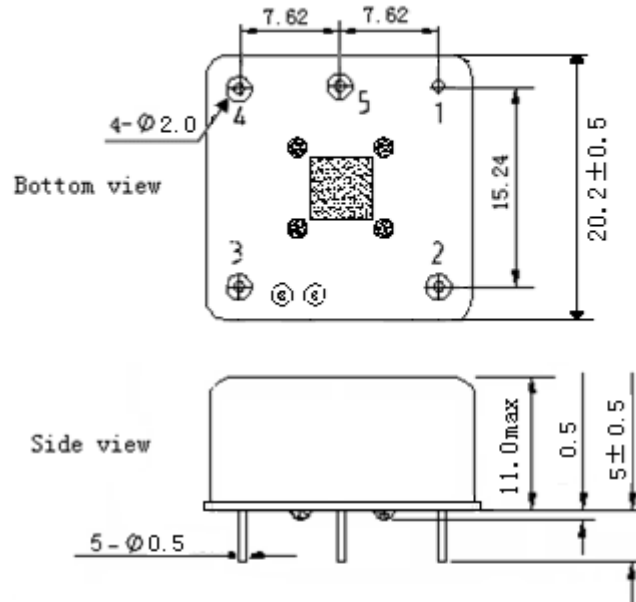
MODEL: O22A-P426-90.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	90.00			MHz	
	Output Waveform	Sine wave				
	Level	14	17		dBm	
	Load	50			$\Omega$	
	Harmonics Suppression			-30	dBc	
	Spurious Suppression			-80	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.02		+0.02	$\times 10^{-6}$	$T_A$ varied from $0^\circ\text{C}$ to $55^\circ\text{C}$ , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$ , $V_{\text{cc}}=5.0\text{V}$ , $O_{\text{load}}=50\Omega$ , temperature variable speed less than $2^\circ\text{C}$ per minute.
	Initial Frequency Tolerance	-0.5		+0.5	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ , $V_c=2.25\text{V}$ and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. supply voltage	-2		+2	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^\circ\text{C}$ , $V_{\text{cc}}$ varied from 4.75V to 5.25V, $V_c=2.25\text{V}$ , $O_{\text{load}}=50\Omega$ .
	Frequency Tolerance vs. Load	-2		+2	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ , $V_c=2.25\text{V}$ , $O_{\text{load}}=50\Omega$ .
	G-Sensitivity			0.5	$\times 10^{-9}/\text{g}$	worst direction
	Retrace	-0.02		+0.02	$\times 10^{-6}$	After 30 minutes
	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 $25^\circ\text{C}$ ; 0.01s to 1s.
	Aging Tolerance per day	-5		+5	$\times 10^{-9}$	$V_{\text{cc}}, V_c, T_A$ constant Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ , $V_c=2.25\text{V}$ , $O_{\text{load}}=50\Omega$ and after 30 days of operation.
	Aging Tolerance 1Year	-0.5		+0.5	$\times 10^{-6}$	
	Aging Tolerance 10Years	-2		+2	$\times 10^{-6}$	



Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Steady Consumption			300	mA	@25°C
	Warm up current			700	mA	
	Reference Voltage		4.5		V	
	Warm-Up Time			5	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			-0.5	$\times 10^{-6}$	$V_c=0V$ . measurement referenced to $V_c=2.25V$ .
		-0.5		+0.5	$\times 10^{-6}$	$V_c=2.25V$ . measurement referenced to exactly 90.00MHz.
		+0.5			$\times 10^{-6}$	$V_c=4.5V$ measurement referenced to $V_c=2.25V$ .
	Deviation Slope		1.3		$\times 10^{-6}/V$	
	Linearity			10	%	
	Slope	Positive				
Input Impedance	100				K $\Omega$	
Phase Noise	Phase Noise		-100		dBc/Hz	10Hz
				-130		100Hz
				-160		1KHz
				-172		10KHz
				-178		100KHz
Environmental Conditions	Operable Temperature	0		+55	°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				

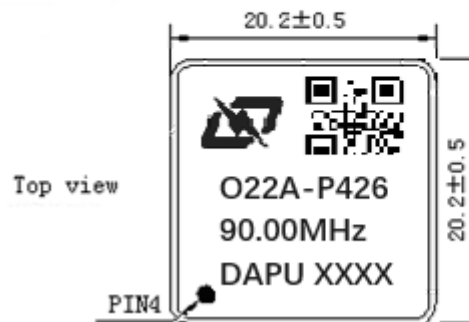


## 2. Mechanical Structure (mm)



### PIN FUNCTION

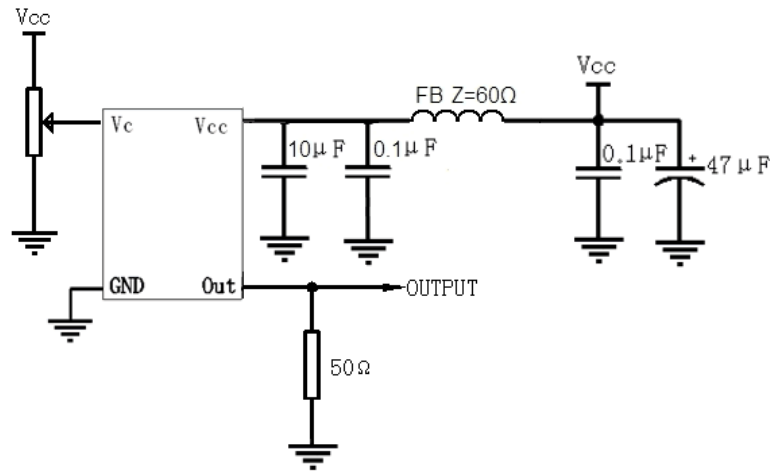
PIN	NOTATION	FUNCTION
1	GND	GND
2	OUTPUT	RF Output
3	VCC	Supply Voltage
4	VC	Control Voltage
5	VREF	Reference Voltage



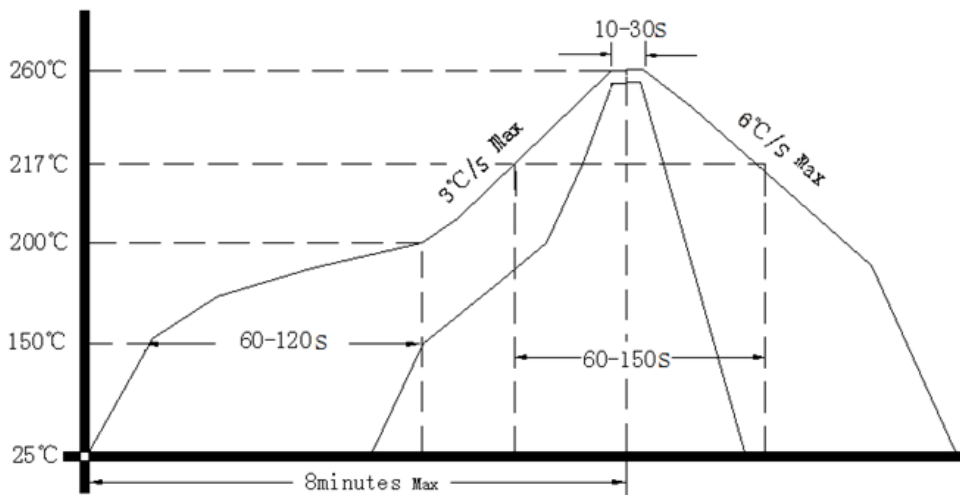
- Note1:** Tolerance  $\pm 0.20$ mm without mark
- Note2:** The first two xx representative: year  
After two xx representative: week
- Note3:** Referential weight 8g



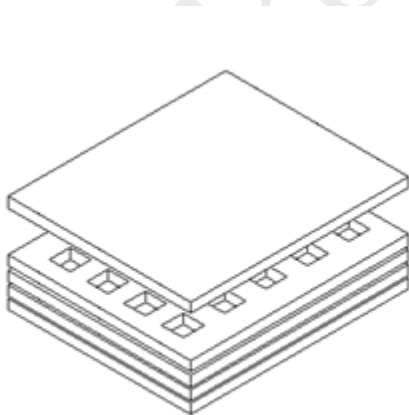
### 3. Test Circuit



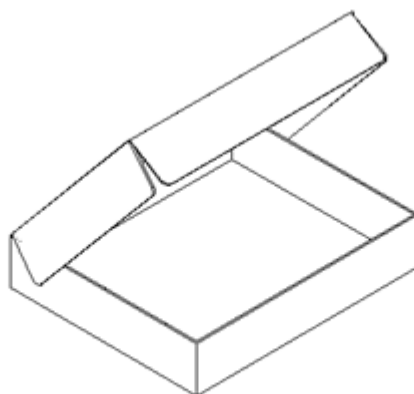
### 4. Reflow Soldering Curve (RoHS)



### 5. Package(mm)



Buffer material



Cardboard  
Max 20pcs. circulator

