

Customer Code :           A008          

# DATASHEET

DAPU P/N:           O22B-0803-100.00MHz-C          

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

DAPU			Customer Approval
Drew	Audited	Approved	
			Stamp, please! Thanks!
Date: 2022.08.31			

## 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>	2022.07.26
1.1	Add "material code"	<i>Amway</i>	2022.08.31



## 1. Electrical Parameters

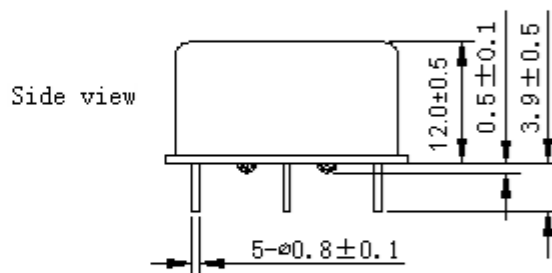
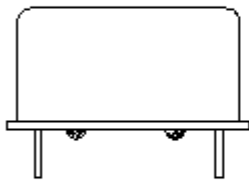
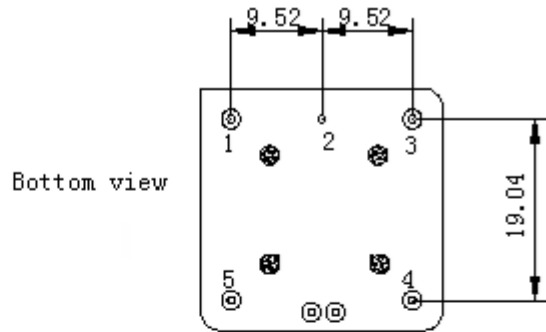
MODEL: O22B-0803-100.00MHz-C						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	100.00			MHz	
	Output Waveform	Sine wave				
	Duty Cycle	45	50	55	%	
	Level	8	13		dBm	
	Load	50			$\Omega$	
	Harmonics Suppression			-50	dBc	
	Spurious Suppression			-80	dBc	
	Start-up Time			2	sec	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.05		+0.05	$\times 10^{-6}$	$T_A$ varied from $-40^\circ\text{C}$ to $85^\circ\text{C}$ , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$ , $V_{\text{cc}}=5.0\text{V}$ , $V_c=2.25\text{V}$ , $O_{\text{load}}=50\Omega$ , temperature variable speed less than $2^\circ\text{C}$ per minute.
	Initial Frequency Tolerance	-0.2		+0.2	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ , $V_c=2.25\text{V}$ and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. supply voltage	-0.01		+0.01	$\times 10^{-6}$	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	-0.01		+0.01	$\times 10^{-6}$	5% Load Change Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ , $V_c=2.25\text{V}$ , $O_{\text{load}}=50\Omega$ .
	Short Term Stability			0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^\circ\text{C}$ ; 1s.
	Aging Tolerance per day	-1		+1	$\times 10^{-9}$	$V_{\text{cc}}, V_c, T_A$ 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	-0.1		+0.1	$\times 10^{-6}$	
	Aging Tolerance 10Years	-0.5		+0.5	$\times 10^{-6}$	
Aging Tolerance 15Years	-0.6		+0.6	$\times 10^{-6}$		



Power Supply	Supply Voltage	4.75	5	5.25	V	
	Steady Consumption			400	mA	@25°C
	Warm up current			800	mA	
	Warm up time			2.5	minutes	@25°C within $\pm 0.1 \times 10^{-6}$ of final frequency with reference after 1 hour on.
			15	minutes	@25°C within $\pm 0.05 \times 10^{-6}$ of final frequency with reference after 1 hour on.	
Voltage Control Characteristics	Frequency Tuning Range			-2	$\times 10^{-6}$	$V_c=0V$ . measurement referenced to $V_c=2.25V$ .
		-0.2		+0.2	$\times 10^{-6}$	$V_c=2.25V$ . measurement referenced to exactly 100.00MHz.
		+2			$\times 10^{-6}$	$V_c=4.5V$ . measurement referenced to $V_c=2.25V$ .
	Linearity			10	%	
	Slope	Positive				
Input Impedance	100				K $\Omega$	
Phase Noise	Phase Noise		-75	-70	dBc/Hz	1Hz
			-110	-105		10Hz
			-140	-135		100Hz
			-165	-160		1KHz
			-176	-171		10KHz
			-180	-175		100KHz
			-180	-175		1MHz
Jitter	Jitter		12	18	fs	
Environmental Conditions	Operable 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				

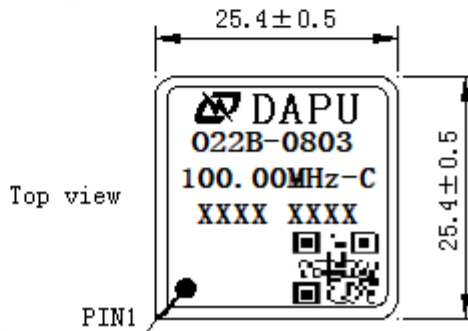


## 2. Mechanical Structure (mm)



### PIN FUNCTION

PIN	NOTATION	FUNCTION
1	OUTPUT	RF Output
2	GND	GND
3	VC	Control Voltage
4	VREF	4.5V
5	VCC	Supply Voltage



**Note1:** Tolerance  $\pm 0.20$ mm without mark.

**Note2:** The first two xx representative: year.

After two xx representative: week.

At last four xxxx representative: serial number.

Two dimensional code marking rules:

Material code + space + brand + space + batch (year week) + space + serial number.

The customer's material code is 030062000052.

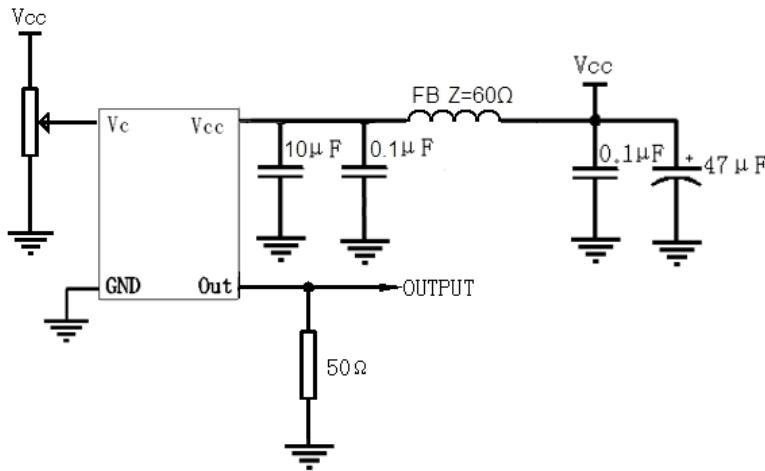
Take 62 in the middle and the last three digits as the material code number in the two dimensional code.

**Note3:** Referential weight 13.6g.

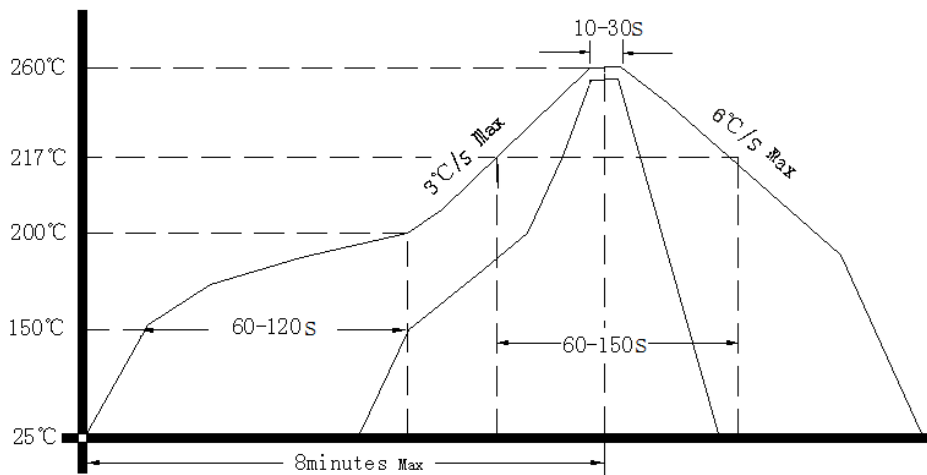
**Note4:** NC is not connect.



### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package(mm)

