

Travelling Merchant: \_\_\_\_\_

# DATASHEET

Standard: O22B-N326-10.00MHz-G289

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

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2023.12.15			

## 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>	2023.12.15



## 1. Electrical Parameters

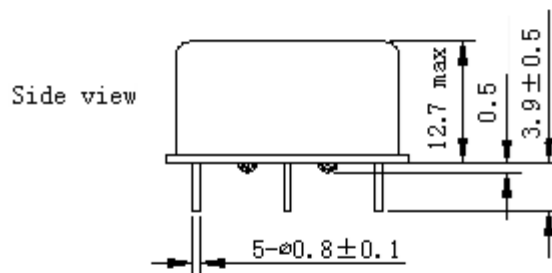
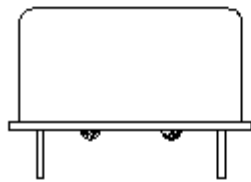
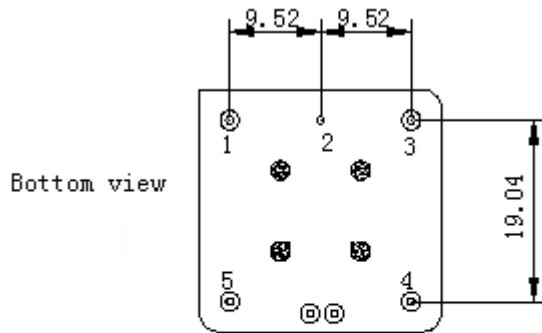
MODEL: O22B-N326-10.00MHz-G289						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.5	V	$V_{cc}=5.0V, O_{load}=15pF$
	Output High Voltage	4.0			V	$V_{cc}=5.0V, O_{load}=15pF$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			6	ns	
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.8		+0.8	$\times 10^{-9}$	$T_A$ varied from $-40^{\circ}C$ to $85^{\circ}C$ , measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=5.0V, V_c=2.1V, O_{load}=15pF$ , 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 $T_A=25^{\circ}C, V_{cc}=5.0V, V_c=2.1V$ , and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.5		+0.5	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}C, V_{cc}$ varied from 4.75V to 5.25V, $V_c=2.1V$ and $O_{Load}=15pF$ .
	Frequency Tolerance vs. Load	-0.5		+0.5	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with $T_A=25^{\circ}C, V_{cc}=5.0V, V_c=2.1V$ , and $O_{Load}=15pF$ .
	Short-Term Stability: Allan Variance			5	$\times 10^{-12}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^{\circ}C; 1s$ .
	Aging Tolerance Per Day	-0.3		+0.3	$\times 10^{-9}$	$V_{cc}, V_c, T_A$ constant measurement referenced to frequency observed with $T_A=25^{\circ}C,$
	Aging Tolerance 1 Year	-0.02		+0.02	$\times 10^{-6}$	$V_{cc}= 5.0V, V_c=2.1V$ , and after 30 days of operation.



Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Reference Voltage		4.5		V	
	Steady Consumption			350	mA	@25°C
	Warm up current			800	mA	
	Warm-Up Time			3	minutes	@25°C within $\pm 0.02 \times 10^{-6}$ of final frequency with reference after 1 hour on.
Voltage Control Characteristics	Frequency Tuning Range			-0.4	$\times 10^{-6}$	$V_c=0V$ . measurement referenced to $V_c=2.1V$
		-0.2		+0.2	$\times 10^{-6}$	$V_c=2.1V$ . measurement referenced to exactly 10.00MHz
		+0.4			$\times 10^{-6}$	$V_c=4.2V$ . measurement referenced to $V_c=2.1V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			K $\Omega$	
Phase Noise	Phase Noise			-95	dBc/Hz	1Hz
				-125		10Hz
				-145		100Hz
				-150		1KHz
				-155		10KHz
Environmental Conditions	Operable Temperature	-40		+85	°C	
	Storage Temperature	-45		+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				

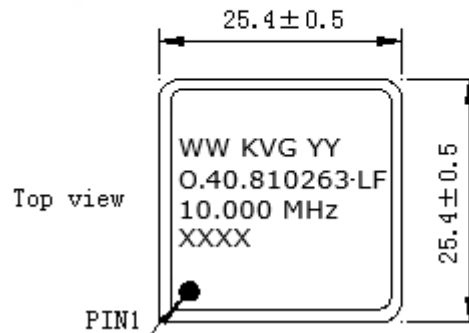


## 2. Mechanical Structure (mm)



### PIN FUNCTION

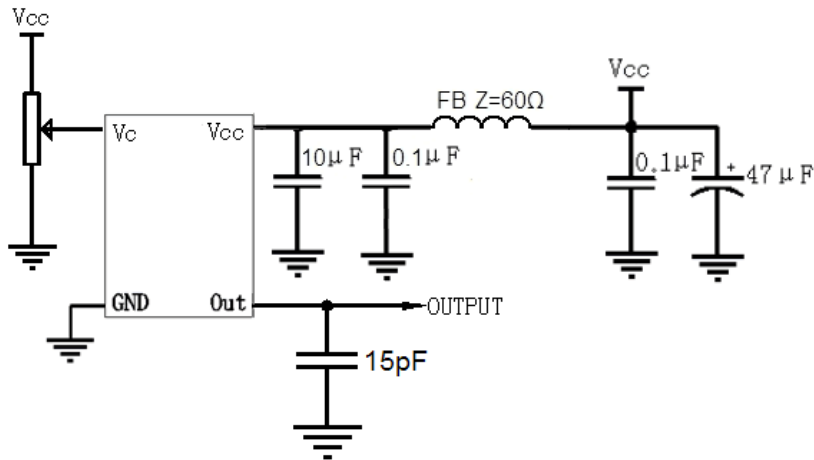
PIN	NOTATION	FUNCTION
1	OUTPUT	RF Output
2	GND	GND
3	VC	Control Voltage
4	VREF	Reference Voltage
5	VCC	Supply Voltage



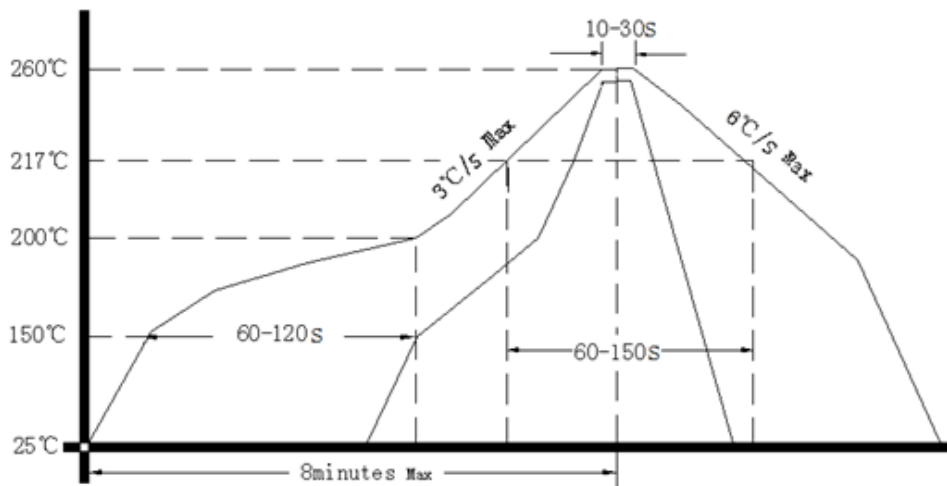
- Note1:** Tolerance  $\pm 0.2\text{mm}$  without mark  
**Note2:** Referential weight 13.6g  
**Note3:** The first two WW representative: week  
 After two YY representative: year  
 Last four XXXX is Serial Number.



### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package (mm)

