

Customer Code: _____

DATASHEET

DAPU P/N: **O22B-T426-100.00MHz-B**

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2021.08.19			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2015.10.09
1.1	“Phase Noise” changed	<i>Amway</i>	2015.10.14
1.2	The “Mechanical Structure” changed	<i>Amway</i>	2019.12.02
1.3	The “ESD Level” “Mechanical Structure” changed	<i>Amway</i>	2020.11.18
1.4	Add “Seal inspection”	<i>Amway</i>	2021.08.19



1. Electrical Parameters

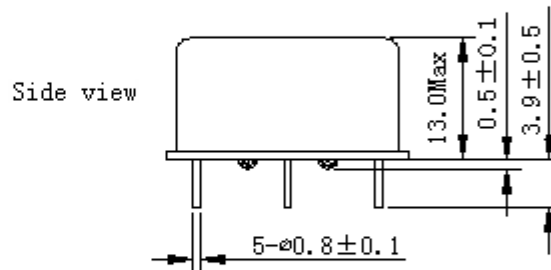
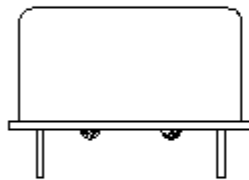
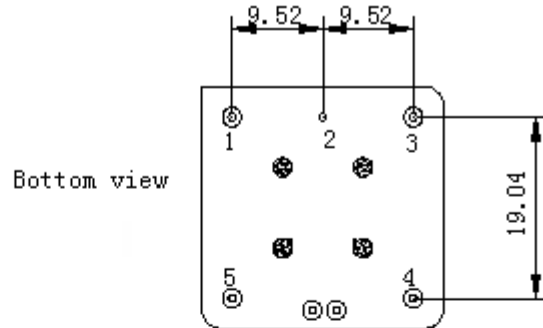
MODEL: O22B-T426-100.00MHZ-B						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	100.00			MHz	
	Output Waveform	Sine wave				
	Level	8	13		dBm	
	Load	50			Ω	
	Harmonics Suppression			-50	dBc	
	Spurious Suppression			-80	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.05		+0.05	$\times 10^{-6}$	T_A varied from -55°C to 85°C , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$, $V_{\text{cc}}=5.0\text{V}$, $V_c=2.5\text{V}$, $O_{\text{load}}=50\Omega$, temperature variable speed less than 2°C per minute.
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=5.0\text{V}$, $V_c=2.5\text{V}$ and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. supply voltage	-5		+5	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}\text{C}$, V_{cc} varied from 4.75V to 5.25V, $V_c=2.5\text{V}$, $O_{\text{load}}=50\Omega$.
	Frequency Tolerance vs. Load	-5		+5	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=5.0\text{V}$, $V_c=2.5\text{V}$, $O_{\text{load}}=50\Omega$.
	Short Term Stability			0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25°C ; 1s.
	Aging Tolerance per day	-5		+5	$\times 10^{-9}$	V_{cc}, V_c, T_A constant Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=5.0\text{V}$, $V_c=2.5\text{V}$, $O_{\text{load}}=50\Omega$ and after 30 days of operation.
	Aging Tolerance 1 Year	-0.1		+0.1	$\times 10^{-6}$	
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Steady Consumption			400	mA	@ 25°C
	Warm up current			900	mA	
	Warm-Up Time			5	min	@ 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 $V_c=2.5V$.
		-0.1		+0.1	$\times 10^{-6}$	$V_c=2.5V$. measurement referenced to exactly 100.00MHz.
		+0.5			$\times 10^{-6}$	$V_c=5.0V$. measurement referenced to $V_c=2.5V$.
	Linearity			10	%	
	Slope	Positive				
Input Impedance	100				K Ω	
Phase Noise @25°C	Static Phase Noise			-127	dBc/Hz	100Hz
				-155		1KHz
				-165		10KHz
				-170		100KHz
	Dynamic Phase Noise (Random Vibration: 0.01g/Hz, 10Hz~2KHz, Design Assurance)			-85	dBc/Hz	100Hz
				-105		1KHz
				-155		10KHz
				-165		100KHz
Seal Inspection	Fine leak detection	The helium fine leak detection of tracer gas shall be carried out according to the method and judgment basis specified in method 1014.2 condition A1 in GJB548B-2005				
	Rough leak detection	The rough leak detection of fluorocarbon shall be carried out according to the method and judgment basis specified in method 1014.2 condition C1 in GJB548B-2005				
Environmental Conditions	Operable Temperature	-55		+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	NC	Not Connect
5	VCC	Supply Voltage



Note1: Tolerance $\pm 0.20\text{mm}$ without mark

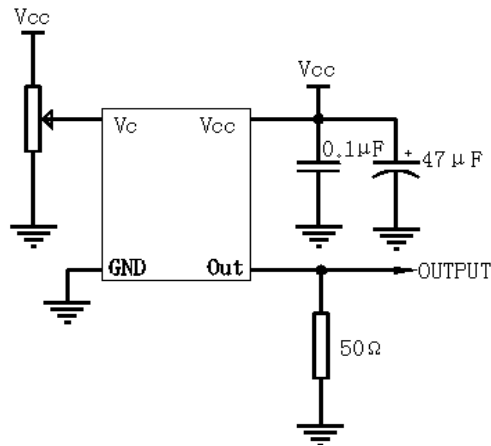
Note2: The first two xx representative: week
After two xx representative: year

Note3: Referential Weight 13.6g

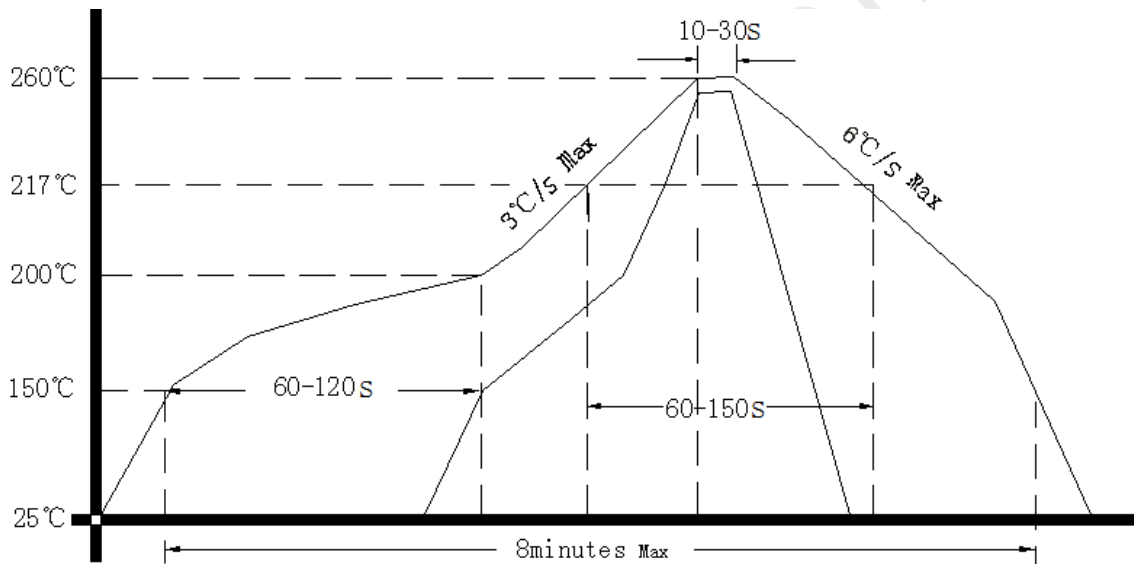
Note4: NC is not connect



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package(mm)

