Travelling Merchant:_____

DATASHEET

Standard: **O23B-O413-10.00MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Amway.wei	Tony · Wang	Jason Zhao	
Date: 2024.06.11			

Guangdong Dapu Telecom Technology Co.,Ltd

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2024.06.11

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1. Electrical Parameters

MODEL：O23B-O413-10.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		10.00		MHz	
	Output Waveform		Sine wave			
	Level	6		11	dBm	
	Load		50			
	Harmonics Suppression			-35	dBc	
	Spurious Suppression			-70	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-3		+3	$\times 10^{-9}$	T_A varied from-40℃ to 85℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=3.3V, O_{load}=50Ω, temperature variable speed less than 2℃per minute.
	Initial Frequency Tolerance	-0.01		+0.01	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.3V, V_c=1.65V±0.2V and after 15 minutes of operation, at time of shipment.
	Frequency Tolerance vs. supply voltage	-3		+3	$\times 10^{-9}$	measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 3.13V to 3.47V, V_c=1.65V, O_{load}=50Ω.
	Frequency Tolerance vs. Load	-3		+3	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.3V, V_c=1.65V, O_{load}=50Ω.
	Short Term Stability			0.05	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25℃; 1s.
	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℃,V_{cc}=3.3V, V_c=1.65V, O_{load}=50Ω and after 30 days of operation.
	Aging Tolerance 1Year	-0.05		+0.05	$\times 10^{-6}$	
Power Supply	Supply Voltage	3.13	3.3	3.47	V	
	Current Consumption			500	mA	@25℃
	Current Consumption during warm up			1400	mA	

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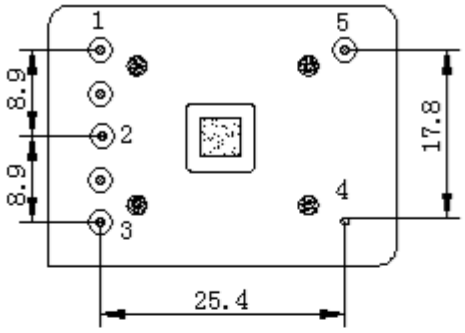
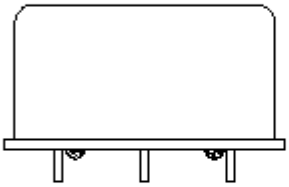
Voltage Control Characteristics	Frequency Tuning Range	-0.9		-0.5	$\times 10^{-6}$	V_c=0V. measurement referenced to V_c=1.65V±0.2V.
		-0.01		+0.01	$\times 10^{-6}$	V_c=1.65V±0.2V. measurement referenced to exactly 10.00MHz.
		+0.5		+0.9	$\times 10^{-6}$	V_c=3.3V. measurement referenced to V_c=1.65V±0.2V.
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	
Phase Noise	Phase Noise @25℃		-120		dBc/Hz	10Hz
			-140			100Hz
			-145			1KHz
			-155			10KHz
			-160			100KHz
Environmental Conditions	Operable Temperature	-40		+85	℃	
	Storage Temperature	-55		+105	℃	
	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.				

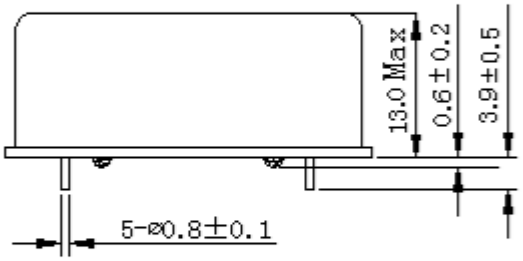
2. Mechanical Structure (mm)

Bottom View





Side View

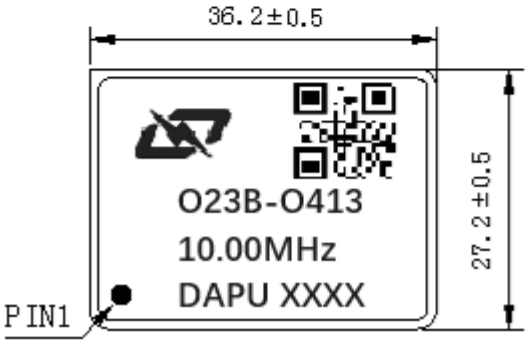


Right View

PIN FUNCTION

PIN	NOTATION	FUNCTION
1	VCC	Supply Voltage
2	NC	Not Connect
3	VC	Control Voltage
4	GND	GND
5	OUTPUT	RF Output

Top View



Note1: Tolerance ± 0.2mm without mark

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

Note3: Referential Weight 20.7g

Note4: NC is not connect

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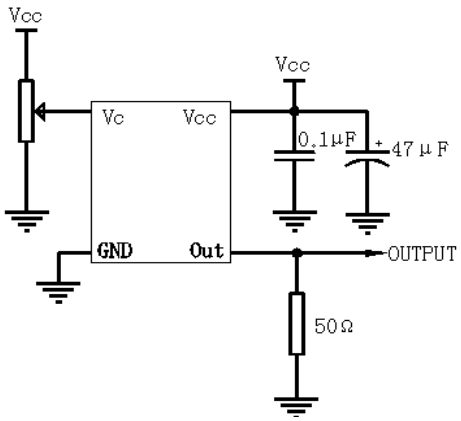
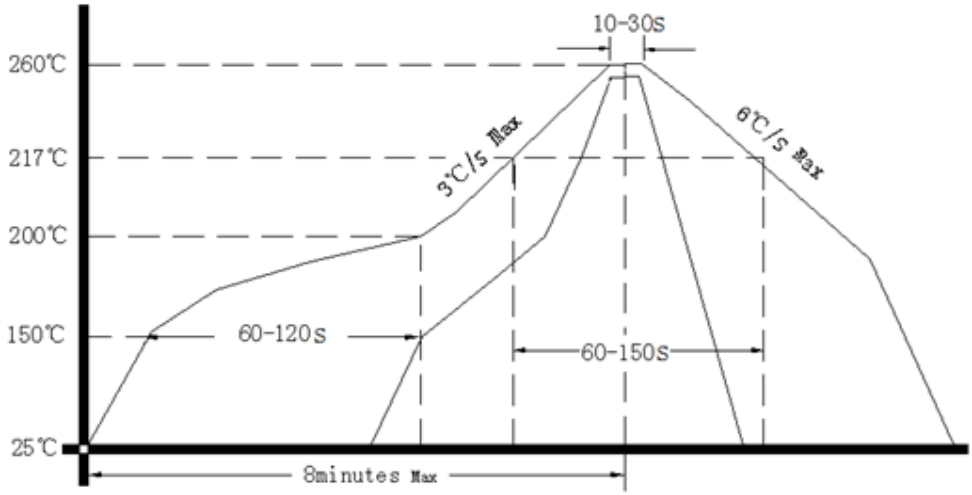
3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package(mm)