Customer Code: _____

DATASHEET

DAPU P/N: **O23B-B448-10.00MHz**

Customer P/N: _____

DAPU			Customer Approval
Drew	Audited	Approved	
Amway.wei	Tony · Wang	James.Liu	
Date: 2020.03.17			Stamp, please! Thanks!

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	2019.11.15
1.1	The “ESD Level” “Mechanical Structure” changed	Amway	2020.03.04
1.2	The “Aging Tolerance per day” “Aging Tolerance 1 Year” “Mechanical Structure” changed	Amway	2020.03.17

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1. Electrical Parameters

MODEL：O23B-B448-10.00MHz

Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		10.00		MHz	
	Output Waveform		Sine wave			
	Level	8	10	12	dBm	
	Load		50		Ω	
	Harmonics Suppression			-30	dBc	
	Spurious Suppression			-70	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-1		+1	$\times 10^{-9}$	T_A varied from-20℃ to 90℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=12.0V, V_c=2.5V, O_{load}=50Ω, temperature variable speed less than 2℃per minute.
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=12.0V, V_c=2.5V 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℃, V_{cc} varied from 11.4V to 12.6V,V_c=2.5V, O_{load}=50Ω.
	Frequency Tolerance vs. Load	-0.5		+0.5	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with T_A=25℃, V_{cc}=12.0V,V_c=2.5V, O_{load}=50Ω.
	Short Term Stability			0.005	$\times 10^{-9}$	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}=12.0V,V_c=2.5V, O_{load}=50Ω and after 30 days of operation.
	Aging Tolerance 1 Year	-0.05		+0.05	$\times 10^{-6}$	

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Power Supply	Supply Voltage	11.4	12.0	12.6	V	
	Steady Consumption			175	mA	@25℃
	Warm up current			400	mA	
	Start up time			500	ms	
	Warm-Up Time			3	minutes	@25 ℃ within ±0.02 × 10^{-6} of final frequency with reference after 1 hour on.
Voltage Control Characteristics	Frequency Tuning Range	-1.5		-0.4	×10^{-6}	V_c=0V. measurement referenced to V_c=2.5V.
		-0.1		+0.1	×10^{-6}	V_c=2.5V. measurement referenced to exactly 10.00MHz.
		+0.4		+1.5	×10^{-6}	V_c=5.0V. measurement referenced to V_c=2.5V.
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	10			KΩ	
Phase Noise	Phase Noise			-100	dBc/Hz	1Hz
				-130		10Hz
				-153		100Hz
				-158		1KHz
				-160		10KHz
				-160		100KHz
Environmental Conditions	Operable Temperature	-20		+90	℃	
	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.				
Full Package Storage	Relative humidity (%)	20%～70%				
	Temperature (℃)	-10~35℃				

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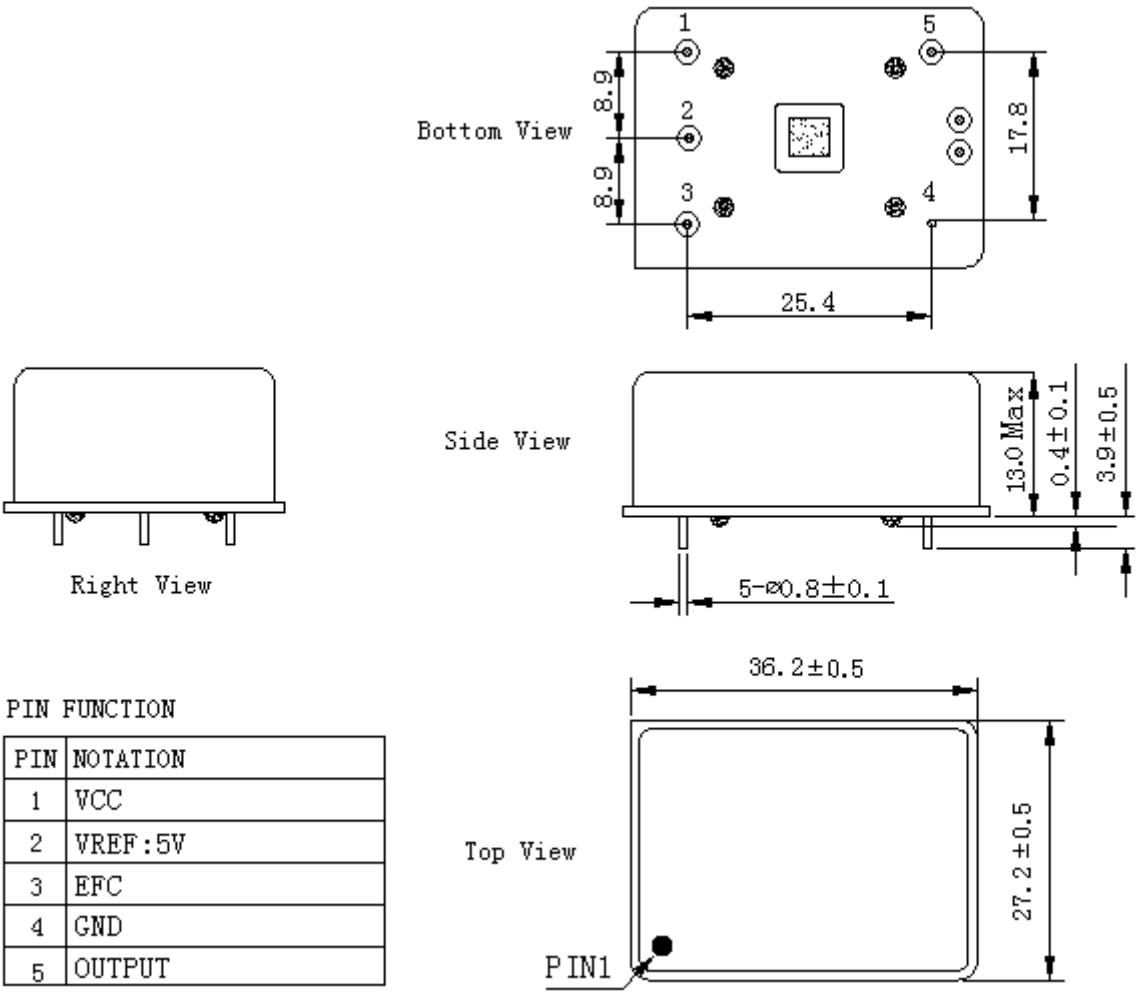
2. Mechanical Structure (mm)



PIN FUNCTION

PIN	NOTATION
1	VCC
2	VREF:5V
3	EFC
4	GND
5	OUTPUT

Note1: Tolerance ±0.20mm without mark

Note2: Referential weight 20.7g

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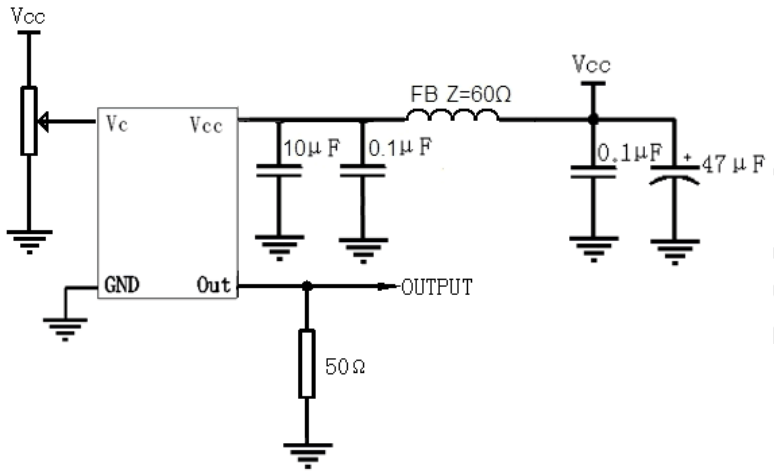
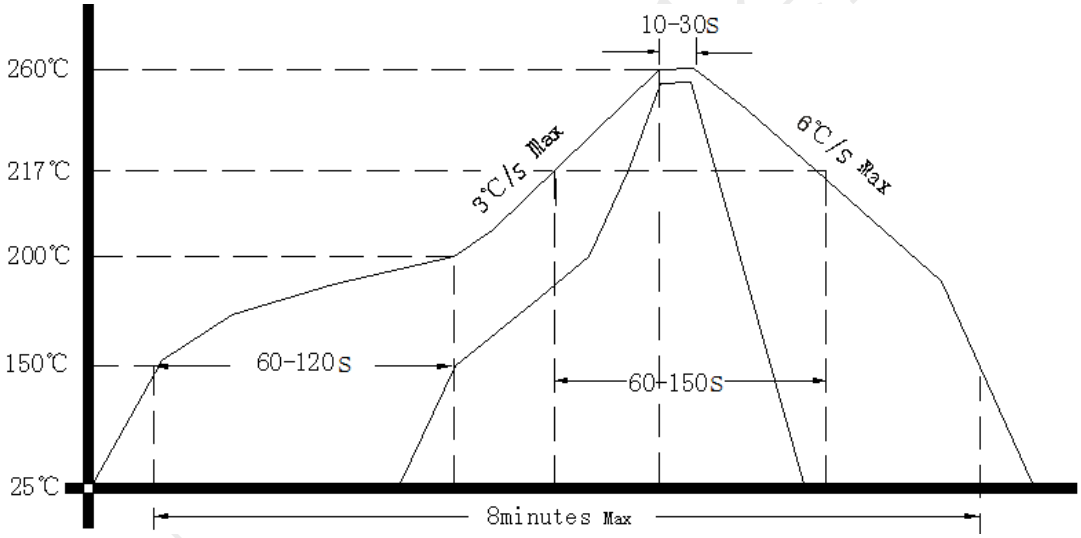
3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package(mm)