Customer Code : _____

DATASHEET

DAPU P/N: 10MHz-10ppb-sine-001

Customer P/N: _____

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Amway.wei	Tony · Wang	Jason Zhao	
Date: 2022.11.14			

Guangdong Dapu Telecom Technology Co.,Ltd

Building 5, No.24, Industrial East Road, Songshanhu Park, Dongguan, Guangdong, P.R. China

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2022.11.14

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1. Electrical Parameters

MODEL：10MHz-10ppb-sine-001						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		10.00		MHz	
	Output Waveform		Sine wave			
	Level	6		10	dBm	
	Load		50		Ω	
	Harmonics Suppression			-30	dBc	
	Spurious Suppression			-70	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.01		+0.01	$\times 10^{-6}$	T_A varied from-40℃ to 85℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=5.0V, 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}=5.0V, V_c=1.5V +/-0.2V and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. supply voltage	-0.2		+0.2	$\times 10^{-9}$	measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 4.75V to 5.25V, V_c=1.5V, O_{load}=50Ω.
	Frequency Tolerance vs. Load	-0.2		+0.2	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with T_A=25℃, V_{cc}=5.0V, V_c=1.5V, O_{load}=50Ω.
	Short Term Stability			5	$\times 10^{-12}$	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}=5.0V,V_c=1.5V, O_{load}=50Ω and after 30 days of operation.
	Aging Tolerance 1Year	-0.05		+0.05	$\times 10^{-6}$	
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Reference Voltage	3.1	3.3	3.3		Load current less than 10 mA
	Current Consumption			250	mA	@25℃
	Current Consumption during warm up			650	mA	
	Warm-Up Time			10	minutes	@25℃within ±0.01×10^{-6} of final frequency with reference after 60 minutes on.

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Voltage Control Characteristics	Frequency Tuning Range	-0.8		-0.4	$\times 10^{-6}$	V_c=0V. measurement referenced to V_c=1.5V.
		-0.1		+0.1	$\times 10^{-6}$	V_c=1.5V. measurement referenced to exactly 10.00MHz.
		+0.4		+0.8	$\times 10^{-6}$	V_c=3.0V. measurement referenced to V_c=1.5V.
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	
Phase Noise	Phase Noise			-90	dBc/Hz	1Hz
				-120		10Hz
				-140		100Hz
				-150		1KHz
				-155		10KHz
				-155		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	Frequency range：20Hz～2000Hz, acceleration : 6g , ASD:0.04g^2/Hz one cycle per 30 min, test 2 hour. (3 times for each 3 directions X ,Y , Z)，GJB 150.16A-2009				
	Shock	100g；6ms；half sine wave (3 times for each 3 directions X ,Y, Z),GJB 360B-2009				
Full Package Storage	Relative humidity (%)	20%～70%				
	Temperature (℃)	-10~35℃				

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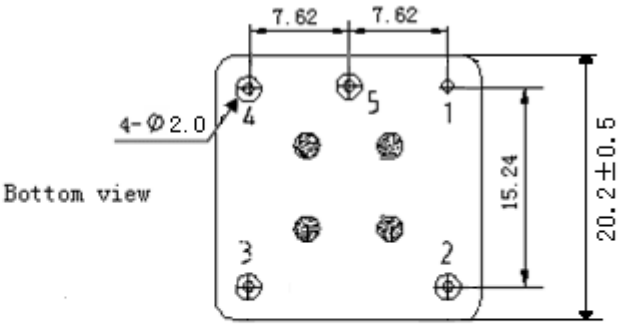
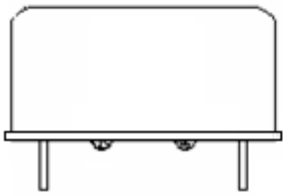
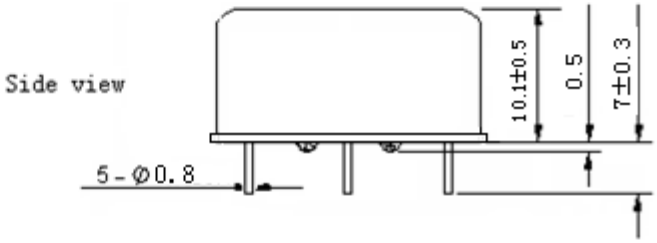
2. Mechanical Structure (mm)

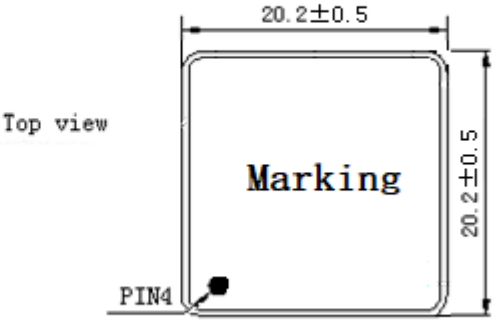






PIN FUNCTION

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



Note1: Tolerance ± 0.2mm without mark

Note2: Referential weight 8.0g

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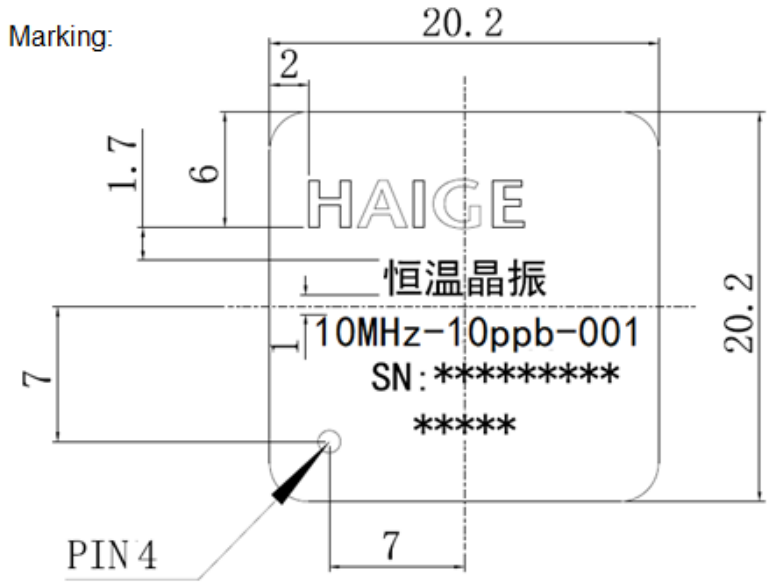

印字标识要求：

1）文字标识采用激光刻制，除首行外，其余字高均为 1.5mm，字体为黑体，以居中对称美观为原则；

2）首行“HAIGE”按提供的“logo.cdr”文件制作，字高为 2.5mm，无颜色要求；

3）第二、三行为晶振的名称型号；

4）第四行为生产批次号“*********”代表年、月及序号，如 202207001，代表 2022 年 7 月份第 001 只；

5）第五行为制造商代码：“10379”；

6）第六行“•”为压控电压引脚位置标识（数字 4 仅供参考，以厂家实际规格书序号为准）。

外观要求：

不锈钢。

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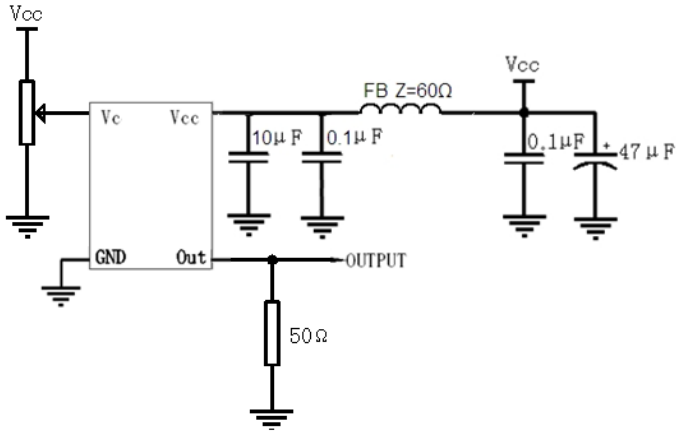
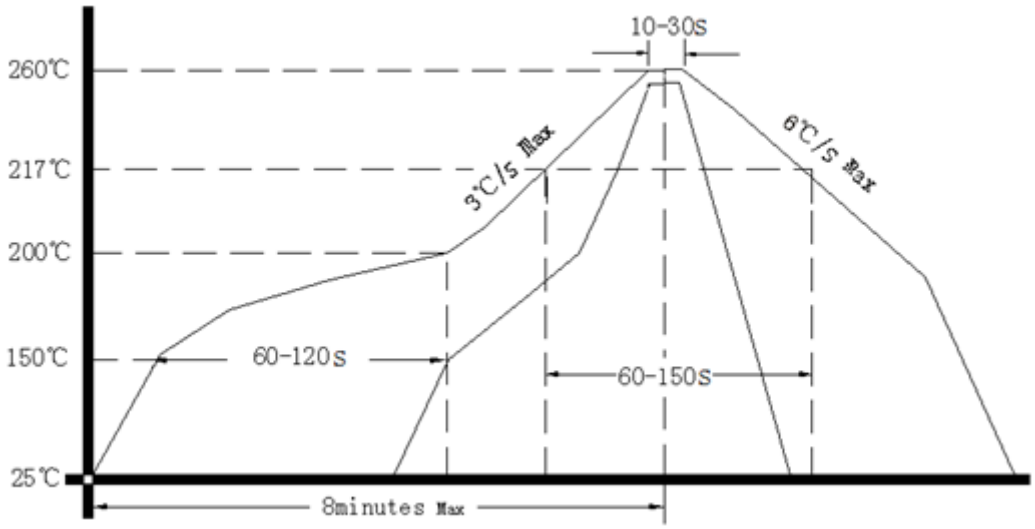
3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package(mm)