Customer Code : _____

DATASHEET

DAPU P/N: **O22S-P329-10.00MHz-A**

Customer P/N: _____

DAPU			Customer Approval
Drew	Audited	Approved	
Amway.wei	Tony·Wang	Jason zhao	
Date: 2024.06.12			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	2024.06.12

1. Electrical Parameters

MODEL： O22S-P329-10.00MHz-A						
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}=5V, O_{load}=15pF
	Output High Voltage	4			V	V_{cc}=5V, O_{load}=15pF
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			5	ns	
	Load		15		pF	
	Start-up Time			0.5	s	
	Spurious			-70	dBc	
	Overshoot			10	%	O_{load}=15pF
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range			1	$\times 10^{-9}$	T_A varied from -40℃ to 85℃, V_{cc}=5V, O_{load}=15pF, temperature variable speed less than 2℃per minute. calculation formula : $(f_{max}-f_{min})/f_0, f_0$=10M.
	Initial Frequency Tolerance	-0.5		+0.5	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=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 4.75V to 5.25V, and O_{Load}=15pF.
	Frequency Tolerance vs. Load	-0.5		+0.5	$\times 10^{-9}$	10% load change measurement referenced to frequency observed with T_A=25℃, V_{cc}=5V, and O_{Load}=15pF.
	Short-Term Stability Allan Variance			0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference， test after power for 1hour ref. to 25℃; 1s.
	Aging Tolerance Per Day	-0.3		+0.3	$\times 10^{-9}$	V_{cc}, V_c, T_A constant measurement referenced to frequency observed with T_A=25℃, V_{cc}= 5V, and after 30 days of operation.
	Aging Tolerance 1 Year	-0.03		+0.03	$\times 10^{-6}$	
	Total Free-run Accuracy	-1.5		+1.5	$\times 10^{-6}$	Over lifetime (Telcordia GR-1244 requirement: ±4.6ppm)

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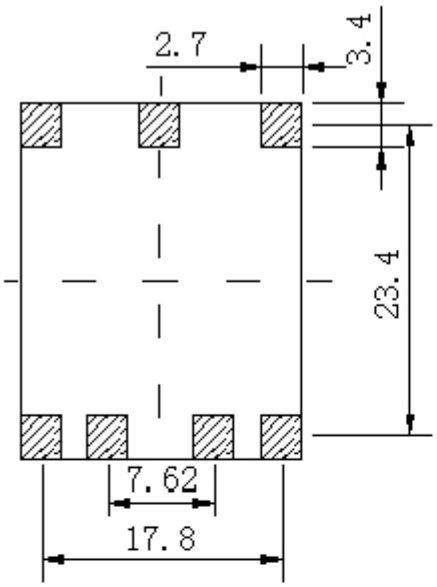
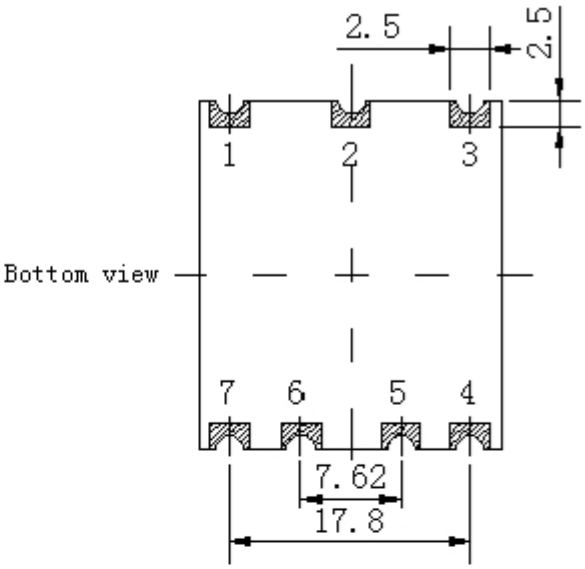
Power Supply	Supply Voltage	4.75	5	5.25	V	
	Steady Consumption			350	mA	@25℃
	Warm up current			750	mA	
	Warm-Up Time			5	minutes	@25℃within $\pm 0.1 \times 10^{-6}$ of final Frequency with reference after 24 hour on.
Phase Noise	Phase Noise @25℃		-95		dBc/Hz	1Hz
			-125			10Hz
			-140			100Hz
			-150			1KHz
			-150			10KHz
Jitter				1	ps	RMS Jitter (12KHz-5MHz)
Environmental Conditions	Operable Temperature	-40		+85	℃	
	Storage Temperature	-55		+105	℃	
	Operable Environmental Conditions	5		85	%RH	
	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	Level 2.				
	Vibration	Test Condition: 0.75mm ;acceleration:10g;5Hz～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℃				

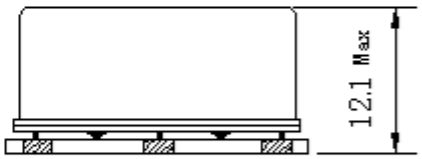
2. Mechanical Structure (mm)



Solder Pad layout

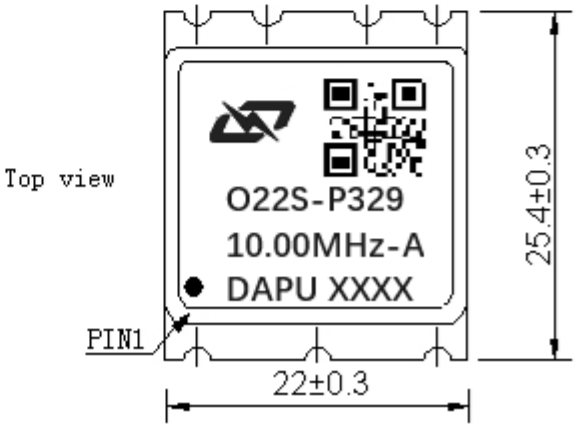


Right view



PIN FUNCTION

PIN	NOTATION	FUNCTION
1	NC	Not Connect
2	NC	Not Connect
3	VCC	Supply Voltage
4	OUTPUT	RF Output
5,6	NC	Not Connect
7	GND	GND



Note1: Tolerance ± 0.20mm without mark

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

Note3: Referential weight 7.8g

Note4: NC is not connect

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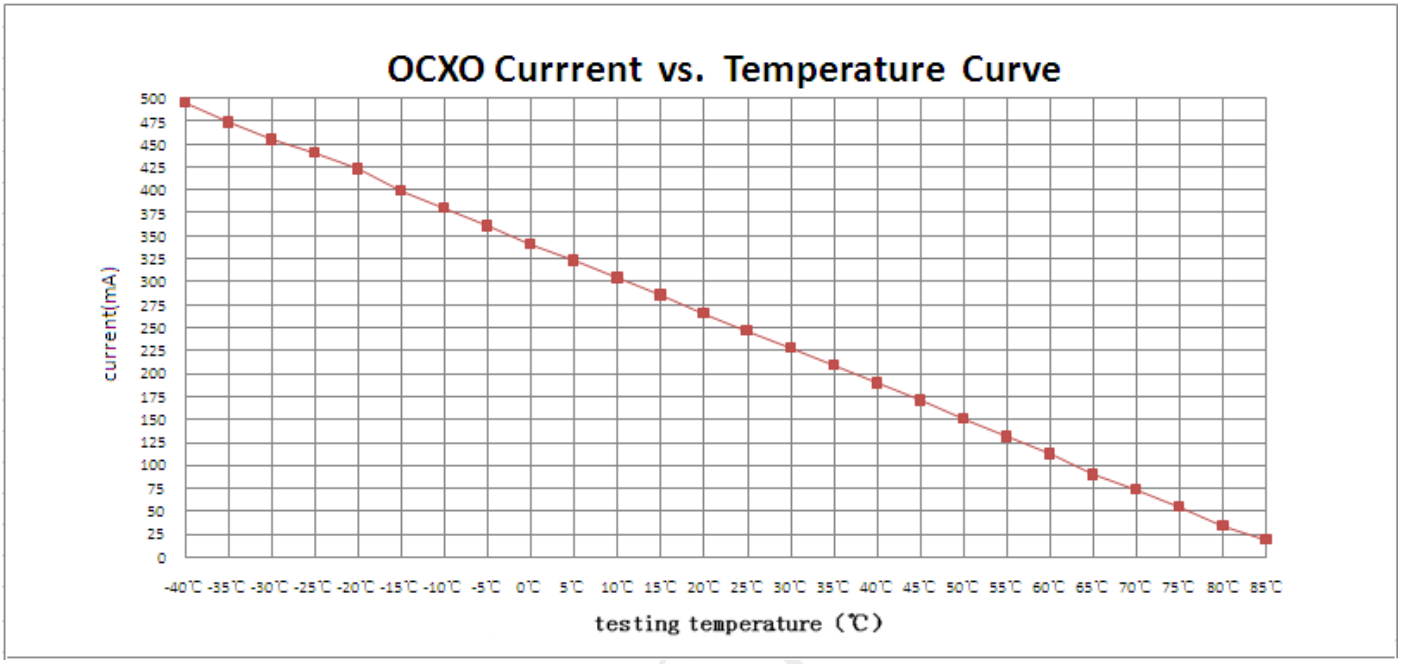
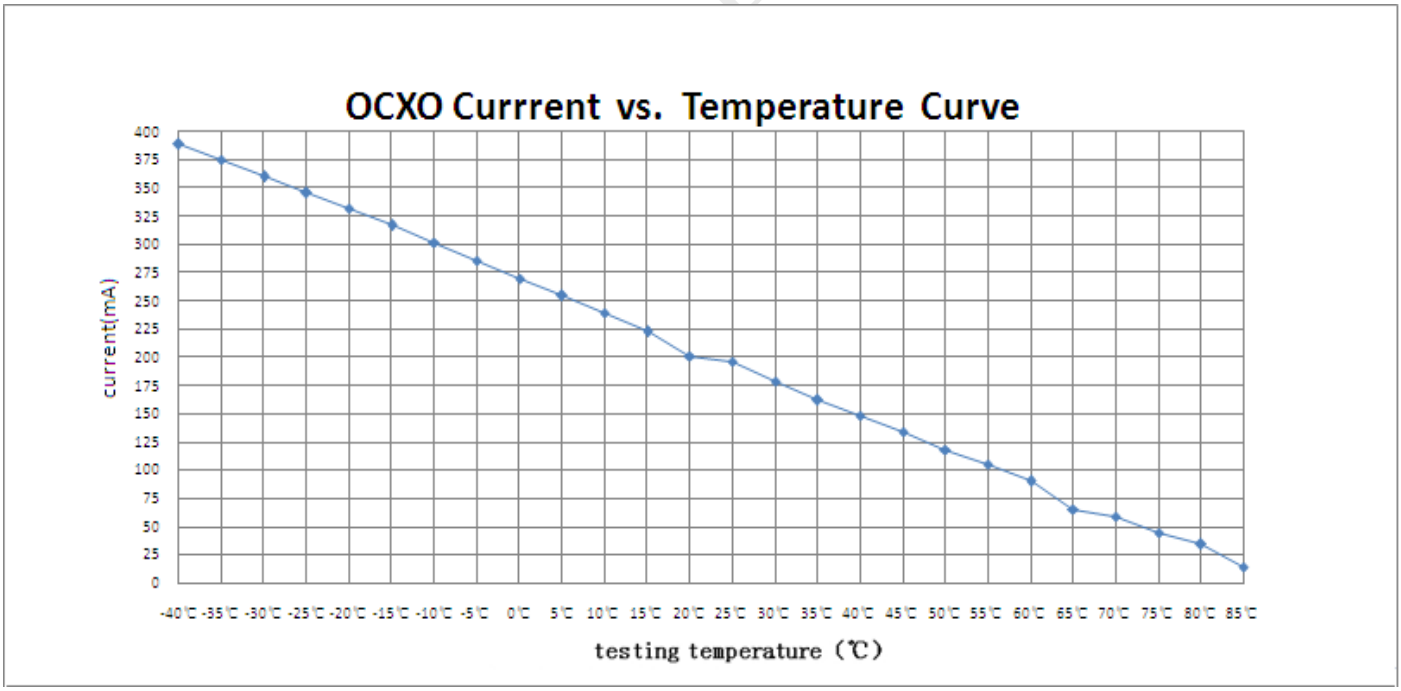
3. Current vs. Temperature

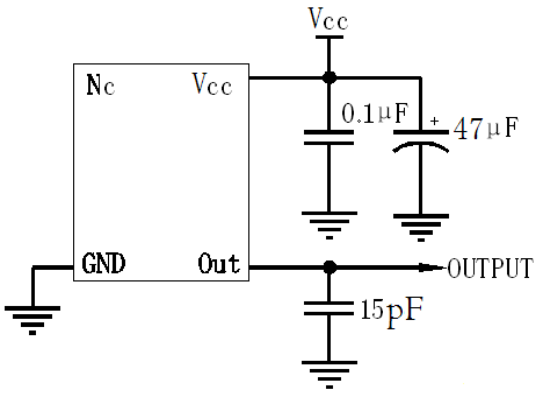
Airflow=1.5m/s



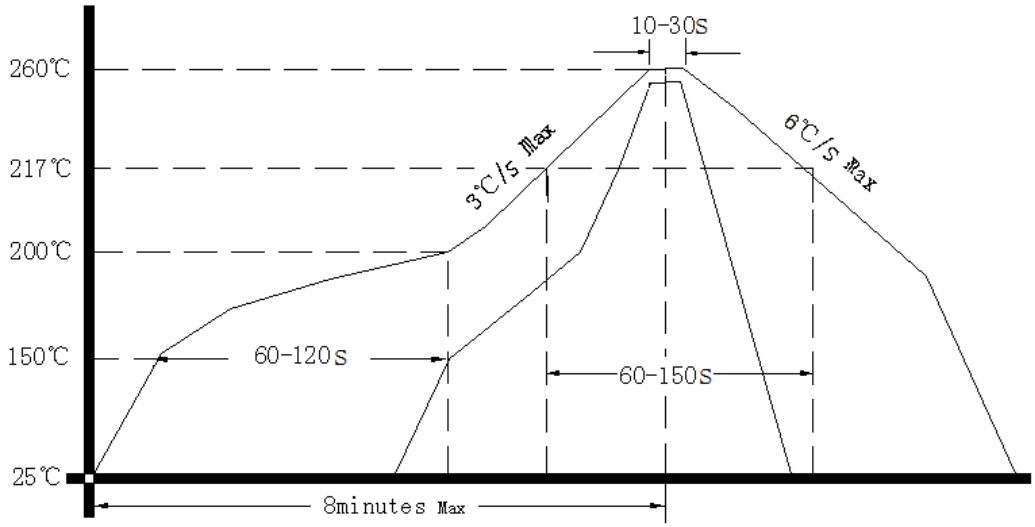
Airflow=0m/s



4. Test Circuit



5. Reflow Soldering Curve (RoHS)



Note: Passing through reflow upside down is not supported

6. Package: Tape & Reel (mm)