Customer Code : _____

DATASHEET

DAPU P/N: **O79A-K319-20.00MHz-G025**

Customer P/N: _____

DAPU			Customer Approval
Drew	Audited	Approved	
Amway.wei	Tony · Wang	Jason Zhao	
Date: 2023.05.18			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	2023.05.04
1.1	The “Marking” changed	Amway	2023.05.18

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1. Electrical Parameters

MODEL： O79A-K319-20.00MHz-G025						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		20.00		MHz	
	Output Waveform		HCMOS			
	Output Low Voltage			0.4	V	V_{cc}=3.3V, O_{load}=15pF
	Output High Voltage	2.4			V	V_{cc}=3.3V, O_{load}=15pF
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			4	ns	
	Load		15		pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.02		+0.02	$\times 10^{-6}$	T_A varied from-40℃to 85℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=3.3V, O_{load}=15pF, temperature variable speed less than 2℃per minute.
	Initial Frequency Tolerance	-1		+1	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.3V, and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.01		+0.01	$\times 10^{-6}$	Measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 3.13V to 3.47V, and O_{Load}= 15pF.
	Frequency Tolerance vs. Load	-0.01		+0.01	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with T_A= 25℃, V_{cc}=3.3V, O_{Load}= 15pF.
	Short-Term Stability: Allan Variance		0.03		$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference， test after power for 1hour ref. to 25℃; 0.1s.
	Reflow Shift	-0.5		+0.5	$\times 10^{-6}$	After 1 hour recovery.
	Slope	-1		+1	$\times 10^{-9}$/℃	T_A=25℃, temperature ramp 0.5℃/minute.
	Aging Tolerance Per Day	-3		+3	$\times 10^{-9}$	V_{cc}, T_A constant measurement referenced to frequency observed with T_A= 25℃, V_{cc}= 3.3V, and after 30 days of operation.
	Aging Tolerance First Year	-0.5		+0.5	$\times 10^{-6}$	
	Aging Tolerance 20 Years	-3		+3	$\times 10^{-6}$	
	Holdover 24 hours Drift	-3		+3	$\times 10^{-9}$	T_A=25℃, at constant temperature, temperature variation ≤±1℃ , after 30 days of operation.

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	Overall Stability	-4.6		+4.6	$\times 10^{-6}$	Inclusive of the following: - operating temperature -40℃ to 85℃ - 3.3V±5%,- 15pF load ±5%,- 2 times reflow soldering,- 20 years aging reference to nominal frequency.
Power Supply	Supply Voltage	3.13	3.3	3.47	V	
	Steady Consumption			250	mA	@25℃
	Warm up current			600	mA	
	Warm-up Time			3	minute	@25℃within $\pm 0.1\times 10^{-6}$ of final frequency with reference after 1 hour on.
Phase Noise	Phase Noise @25℃		-105		dBc/Hz	10Hz
			-135			100Hz
			-160			1KHz
			-165			10KHz
			-170			100KHz
			-170			1MHz
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	Level 1.				
	RHOS	Products comply with ROHS 6.				
	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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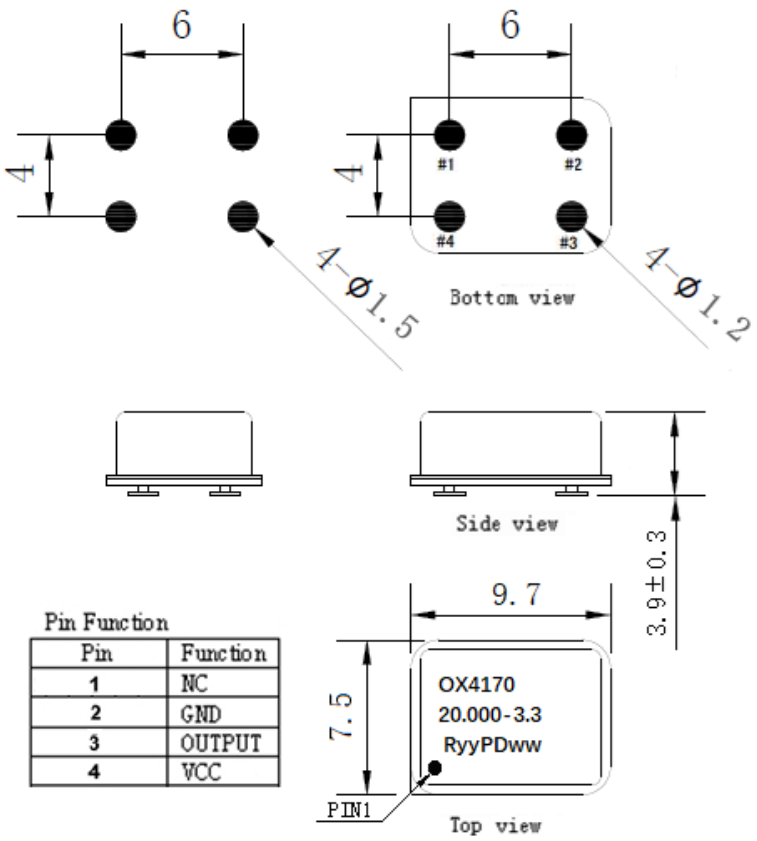
2. Mechanical Structure(mm)



Pin Function

Pin	Function
1	NC
2	GND
3	OUTPUT
4	VCC

Note1: Tolerance ±0.2mm without mark

Note2: yy: Year (2 characters)

ww: Week (2 characters)

Note3: Referential Weight 1.5g

Note4: NC is not connect

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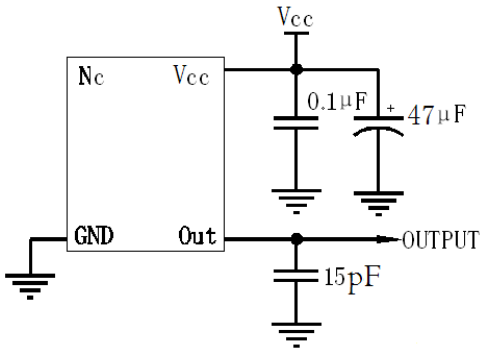
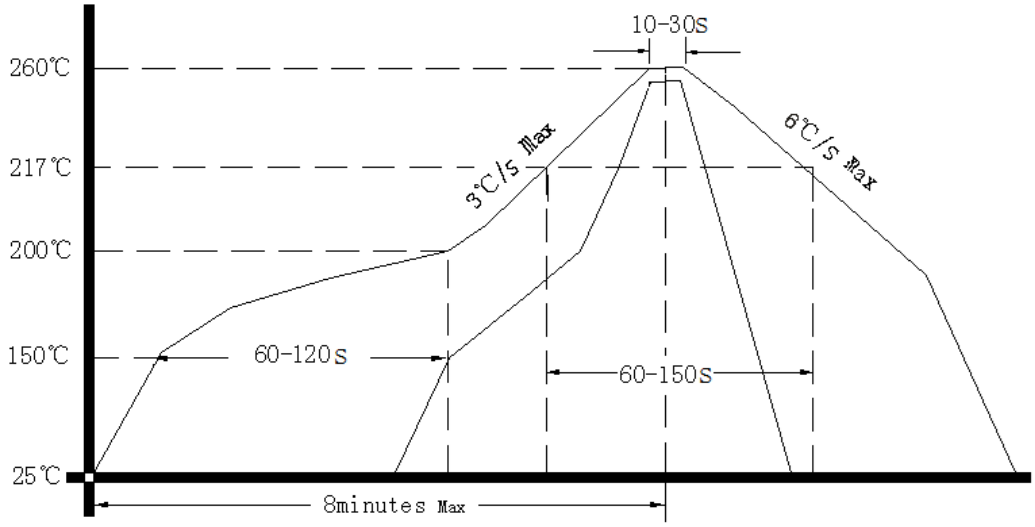
3. Test Circuit



4. Reflow Soldering Curve (RoHS)



Note: Passing through reflow upside down is not supported

5. Package: Tape & Reel (mm)