

Customer Code : _____

DATASHEET

DAPU P/N: **O22S-P319-10.00MHz-G360**

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2024.05.06			

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1. Electrical Parameters

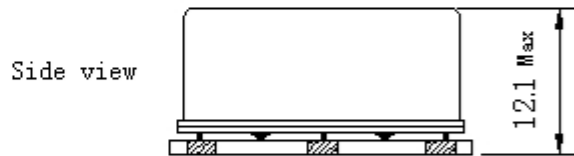
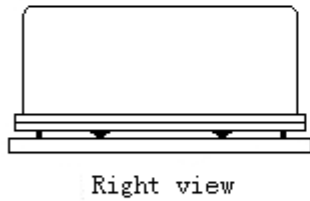
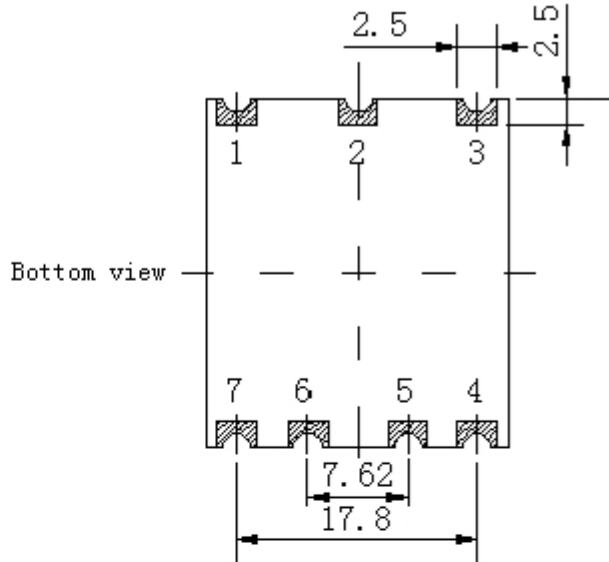
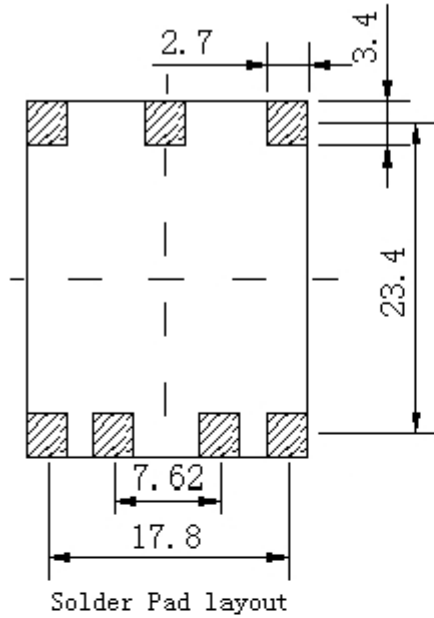
MODEL: O22S-P319-10.00MHz-G360						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	LVCMOS				
	Output Low Voltage			0.4	V	$V_{cc}=3.3V, O_{load}=15pF$
	Output High Voltage	2.4			V	$V_{cc}=3.3V, O_{load}=15pF$
	Duty Cycle	45		55	%	@50%
	Rise / Fall Time			5	ns	(10%~90%)
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range			1	$\times 10^{-9}$	T_A varied from $-40^{\circ}C$ to $85^{\circ}C$, $V_{cc}=3.3V$, $O_{load}=15pF$, temperature variable speed less than $2^{\circ}C$ per minute. calculation formula: $(f_{max}-f_{min})/f_0, f_0=10M$.
	Initial Frequency Tolerance	-0.2		+0.2	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}C$, $V_{cc}=3.3V$, and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-2		+2	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}C$, V_{cc} varied $3.3V \pm 2.52\%$, and $O_{Load}=15pF$.
	Frequency Tolerance vs. Load	-2		+2	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with $T_A=25^{\circ}C$, $V_{cc}=3.3V$, and $O_{Load}=15pF$.
	Short-Term Stability Allan Variance			5	$\times 10^{-12}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^{\circ}C$; 1s.
	Aging Tolerance Per Day	-0.15		+0.15	$\times 10^{-9}$	V_{cc}, T_A constant measurement referenced to frequency observed with $T_A=25^{\circ}C$, $V_{cc}=3.3V$, and after 30 days of operation.
	Aging Tolerance 1 Year	-0.03		+0.03	$\times 10^{-6}$	
	Holdover/Drift over 4 hours	-1.5	± 1	+1.5	μS	Temperature change of $+3^{\circ}C$ or $-3^{\circ}C$ after Holdover starts.(slope $0.5^{\circ}C/min$); no voltage supply change and load change; after 7 days constant on power; typical define: 95% of the parts meet the requirement



Power Supply	Supply Voltage	3.13	3.3	3.47	V	
	Steady Consumption			400	mA	@25°C
				700	mA	@-40°C
	Warm up current			1200	mA	
	Warm-Up Time			5	minutes	@25°C within $\pm 0.1 \times 10^{-6}$ of final frequency with reference after 1 hour on.
Phase Noise	Phase Noise @25°C			-80	dBc/Hz	1Hz
				-120		10Hz
				-140		100Hz
				-145		1KHz
				-150		10KHz
				-150		100KHz
Environmental Conditions	Operable Temperature	-40		+85	°C	
	Storage Temperature	-55		+105	°C	
	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 (°C)	-10~35°C				

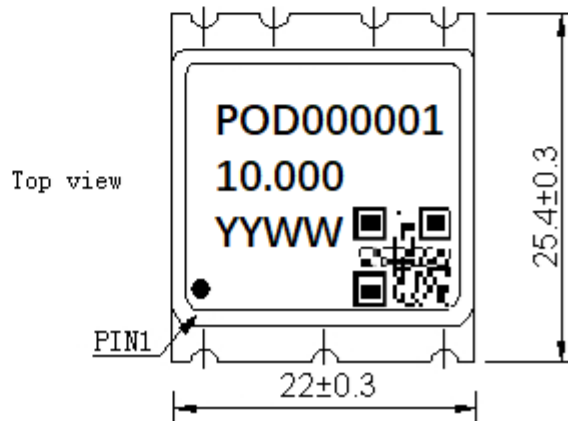


2. Mechanical Structure (mm)



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 $\pm 0.20\text{mm}$ without mark

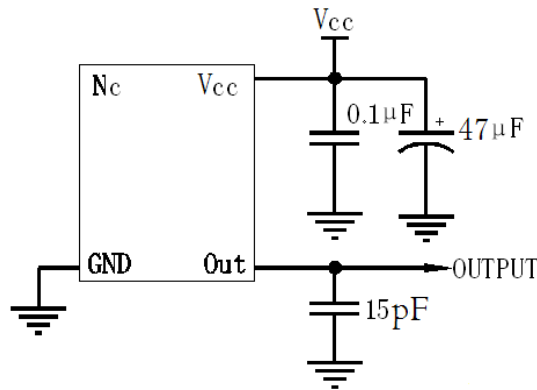
Note2: The first two YY representative: year
After two WW representative: week

Note3: Referential weight 7.8g

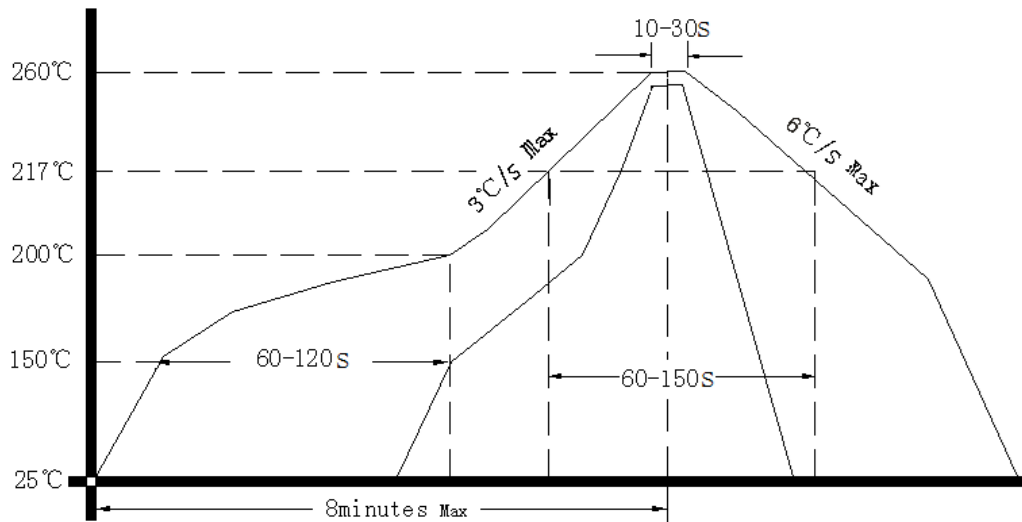
Note4: NC is not connect



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



Note: Passing through reflow upside down is not supported

5. Package: Tape & Reel (mm)

