

Customer Code : \_\_\_\_\_

# DATASHEET

DAPU P/N: **O22A-F319-10.00MHz**

Customer P/N: \_\_\_\_\_

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2023.07.17			

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### Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2023.07.17

DAPU Confidential



## 1. Electrical Parameters

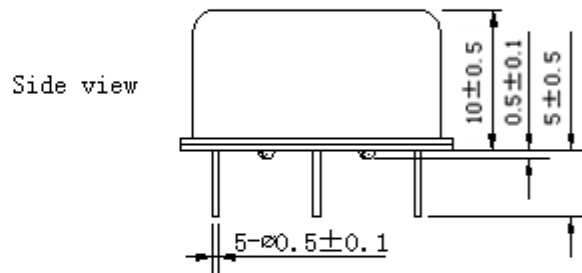
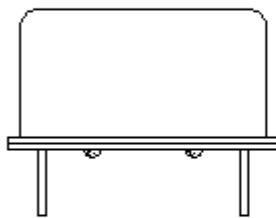
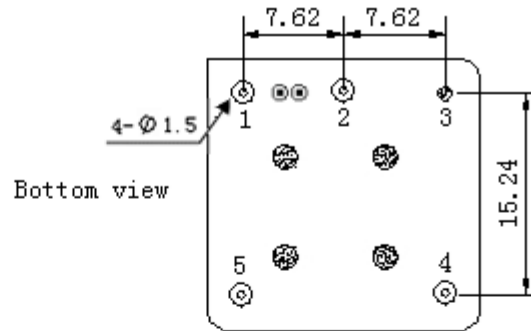
MODEL: O22A-F319-10.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.3	V	$V_{cc}=3.3V, O_{load}=15pF$
	Output High Voltage	2.8			V	$V_{cc}=3.3V, O_{load}=15pF$
	Duty Cycle	40	50	60	%	@50%
	Rise / Fall Time (10%~90%)			10	ns	
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-5		+5	$\times 10^{-9}$	$T_A$ varied from $-20^{\circ}C$ to $75^{\circ}C$ , 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 $2^{\circ}C$ per minute.
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	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 from 3.13V to 3.47V, 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	-0.5		+0.5	$\times 10^{-9}$	$V_{cc}, T_A$ 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	-0.1		+0.1	$\times 10^{-6}$	
Power Supply	Supply Voltage	3.13	3.3	3.47	V	
	Steady Consumption			350	mA	@ $25^{\circ}C$
	Warm up current			1000	mA	
	Warm-Up Time			10	minutes	@ $25^{\circ}C$ within $\pm 0.01 \times 10^{-6}$ of final frequency with reference after 1 hour on.



Phase Noise	Phase Noise			-85	dBc/Hz	1Hz
				-120		10Hz
				-135		100Hz
				-145		1KHz
				-150		10KHz
				-150		100KHz
		Environmental Conditions	Operable Temperature	-20		
Storage Temperature	-55			+105	°C	
ESD Level	Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.					
	Machine Model, class B: 200V to 400V; ANSI/ESDA/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 (°C)	-10~35°C				

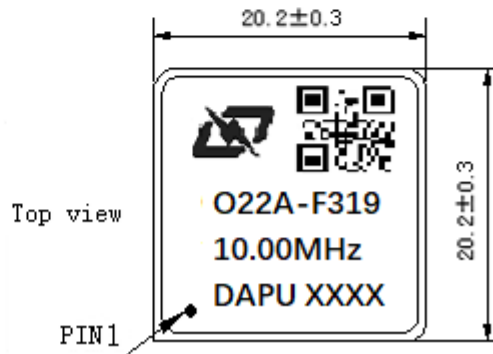


## 2. Mechanical Structure (mm)



PIN FUNCTION

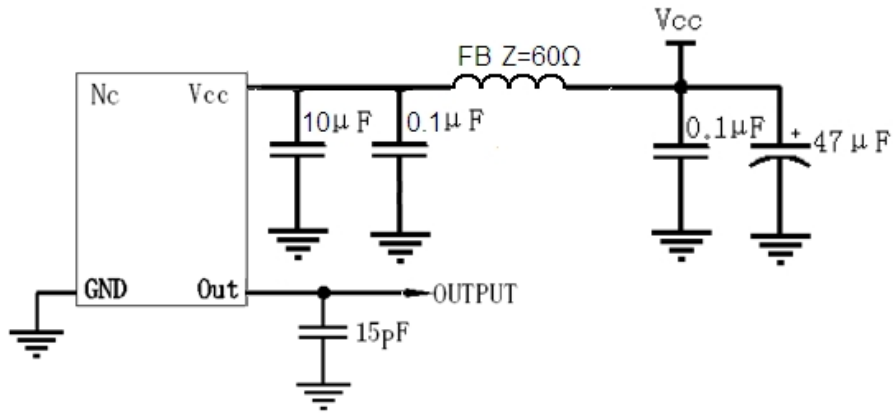
PIN	NOTATION	FUNCTION
1	NC	Not Connect
2	NC	Not Connect
3	GND	GND
4	OUTPUT	RF Output
5	VCC	Supply Voltage



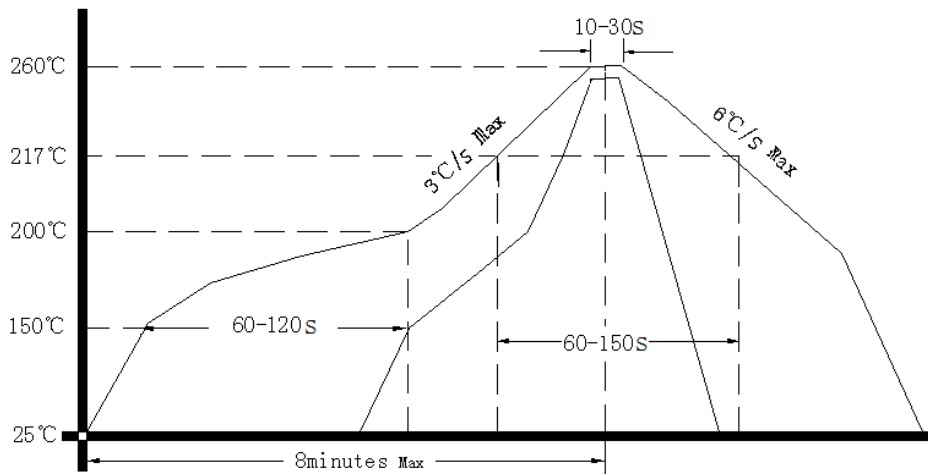
- Note1:** Tolerance  $\pm 0.20\text{mm}$  without mark
- Note2:** The first two xx representative: week  
After two xx representative: year
- Note3:** Referential weight 8.0g
- Note4:** NC is not connect



### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package (mm)

