

Travelling Merchant: _____

DATASHEET

Standard: **O22L-Q313-10.00MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2017.10.13			

Guangdong Dapu Telecom Technology Co.,Ltd

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, China

TEL: 0086-0769-88010888 FAX: 0086-0769-81800098



1. Electrical Parameters

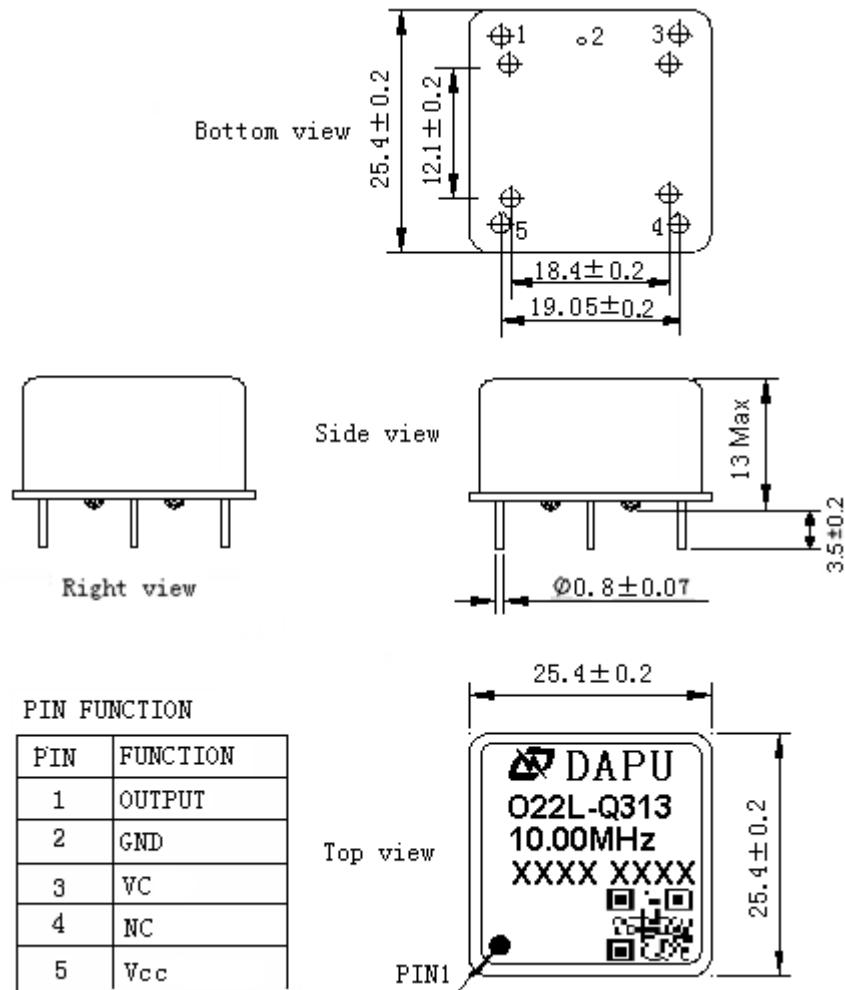
MODEL: O22L-Q313-10.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.4	V	$V_{cc}=3.3V, O_{load}=15pF$
	Output High Voltage	2.4			V	$V_{cc}=3.3V, O_{load}=15pF$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time			6	ns	10%~90%
	Spurious			-60	dBc	
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-3		+3	$\times 10^{-9}$	T_A varied from $-40^{\circ}C$ to $85^{\circ}C$, measurement referenced to frequency observed with $T_A = 25^{\circ}C, V_{cc}=3.3V, V_c=1.65V, O_{load}=15pF$, 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 $T_A=25^{\circ}C, V_{cc}=3.3V, V_c=1.65V$, 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 $T_A=25^{\circ}C, V_{cc}$ varied from 3.13V to 3.47V, $V_c=1.65V$ and $O_{Load}=15pF$.
	Frequency Tolerance vs. Load	-0.5		+0.5	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with $T_A= 25^{\circ}C, V_{cc}=3.3V, V_c=1.65V$, 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 $25^{\circ}C; 1s$, using PN9000 equipment.
	Aging Tolerance Per Day	-0.5		+0.5	$\times 10^{-9}$	V_{cc}, V_c, T_A constant measurement referenced to frequency observed with $T_A= 25^{\circ}C, V_{cc}= 3.3V, V_c=1.65V$,and after 30 days of operation.
	Aging Tolerance 30 Days	-0.5		+0.5	$\times 10^{-9}$	
	Aging Tolerance 1 Year	-0.05		+0.05	$\times 10^{-6}$	
	Aging Tolerance 10 Years	-0.3		+0.3	$\times 10^{-6}$	



	Retrace	-10		+10	$\times 10^{-9}$	After 60 minutes from turn on, following 24 hours minimum on time, and 24 hours maximum off time. At constant temperature and voltage. Referenced to frequency at off time.
Power Supply	Supply Voltage	3.13	3.3	3.47	V	
	Steady Consumption			350	mA	@25°C
	Warm up current			1000	mA	
Voltage Control Characteristics	Frequency Tuning Range			-0.5	ppm	$V_c=0V$. measurement referenced to $V_c=1.65V$
		-0.1		+0.1	ppm	$V_c=1.65V$. measurement referenced to exactly 10.00MHz
		+0.5			ppm	$V_c=3.3V$. measurement referenced to $V_c=1.65V$
	Linearity	-10		10	%	
	Slope	Positive				
	Input Impedance	100			K Ω	
Phase Noise	Phase Noise		-95	-90	dBc/Hz	1Hz
			-125	-120		10Hz
			-140	-135		100Hz
			-148	-145		1KHz
			-156	-155		10KHz
			-158	-155		100KHz
Environmental Conditions	Operable Temperature	-40		+85	°C	
	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/JEDEC JS-001-2010.				
	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.					



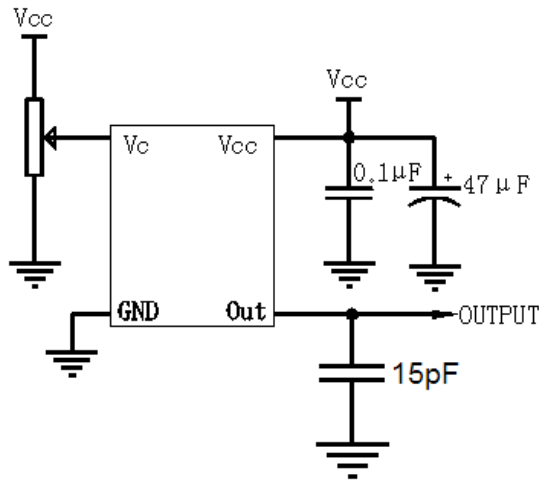
2. Mechanical Structure (mm)



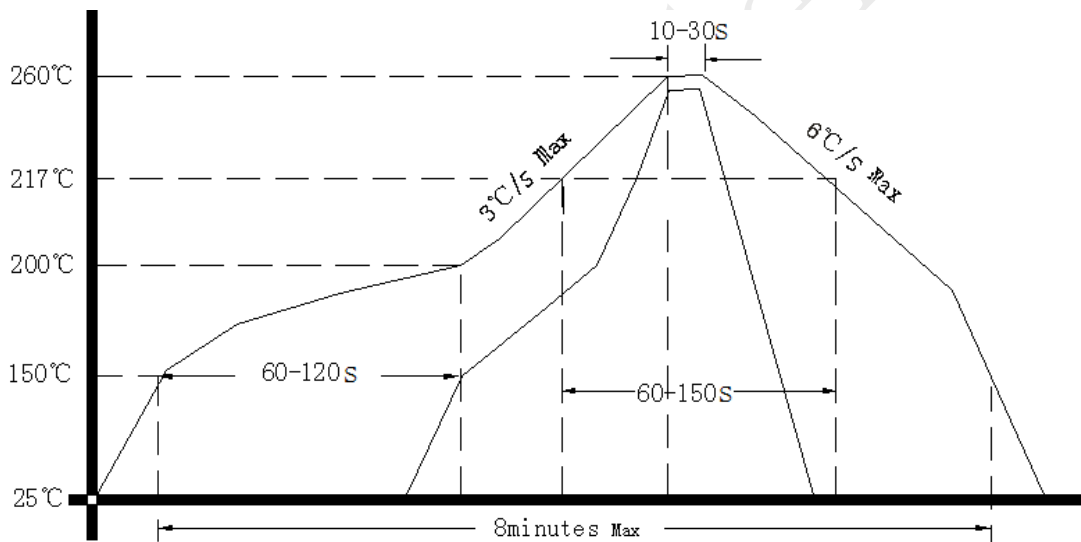
- Note1:** Tolerance ±0.2mm without mark
- Note2:** Referential weight 13.6g
- Note3:** NC is not connect
- Note4:** The first two xx representative: week
After two xx representative: year
At last four xxxx representative: serial number



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package (mm)

