



Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2016.11.01



1、Electrical Parameters

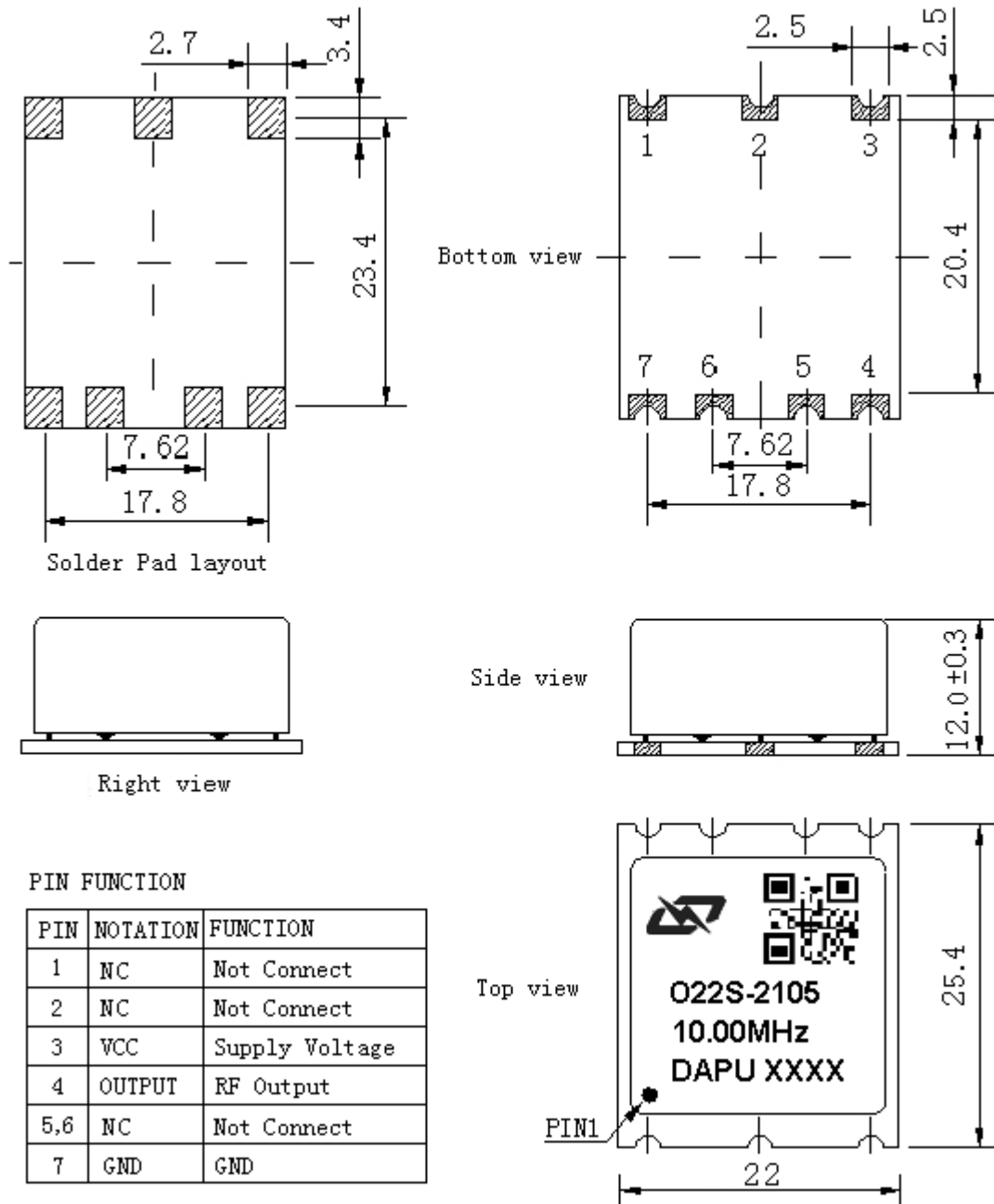
MODEL: O22S-2105-10.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	LVTTTL				
	Output Low Voltage			0.4	V	$V_{cc}=5.0V, O_{load}=15pF$
	Output High Voltage	2.4			V	$V_{cc}=5.0V, O_{load}=15pF$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)		2	3	ns	@25°C
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-5.0		+5.0	$\times 10^{-9}$	T_A varied from -5°C to 85°C, measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=5.0V, O_{load}=15pF$, temperature variable speed less than 2°C per minute.
	Initial Frequency Tolerance	-0.2		+0.2	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=5.0V$, and after 15minutes of operation, Within 24 hours 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 4.75V to 5.25V, and $O_{Load}=15pF$.
	Frequency Tolerance vs. Load	-2		+2	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=5.0V, O_{Load}=15pF$.
	Short-Term Stability: Allan Variance			0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 24hours, 25°C; 1s, using PN9000 equipment.
	Aging Tolerance Per Day	-0.75		+0.75	$\times 10^{-9}$	V_{cc}, T_A constant measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=5.0V$, and after 30 days of operation.
	Aging Tolerance 1 Year	-0.1		+0.1	$\times 10^{-6}$	



	Overall Stability	-0.5		+0.5	$\times 10^{-6}$	Inclusive of the following: operating temperature -5°C to 85°C $5.0\text{V} \pm 5\%$ 15pF load $\pm 5\%$ 10 years aging reference to nominal frequency
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Steady Consumption			300	mA	@ 25°C
	Warm-Up Time			10	minutes	@ 25°C within $\pm 0.015 \times 10^{-6}$ of final frequency with reference after 1 hour on.
	Warm up current			800	mA	
Phase Noise	Phase Noise			-80	dBc/Hz	1Hz
				-100		10Hz
				-120		100Hz
				-130		1KHz
				-130		10KHz
				-130		100KHz
Environmental Conditions	Operable Temperature	-5		+85	$^{\circ}\text{C}$	
	Storage Temperature	-40		+85	$^{\circ}\text{C}$	
	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	Level 2.				
	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 ($^{\circ}\text{C}$)	-10~35 $^{\circ}\text{C}$				



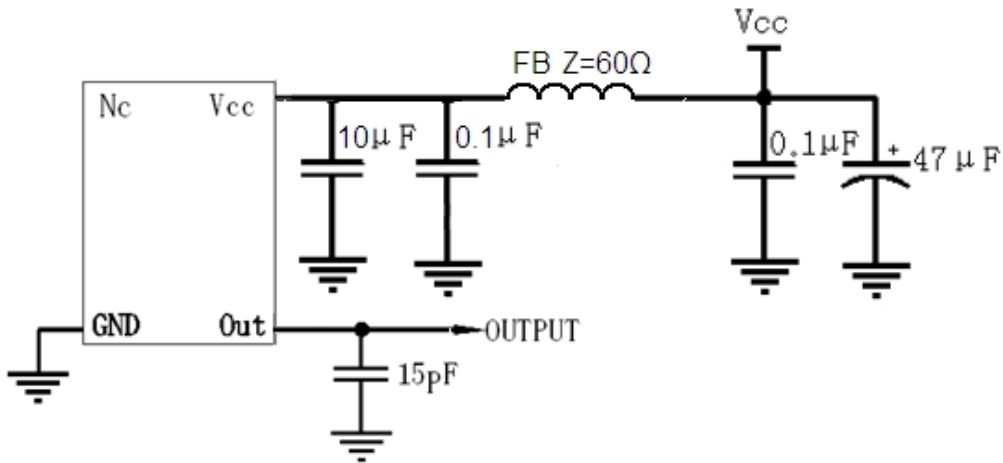
2、 Mechanical Structure(mm)



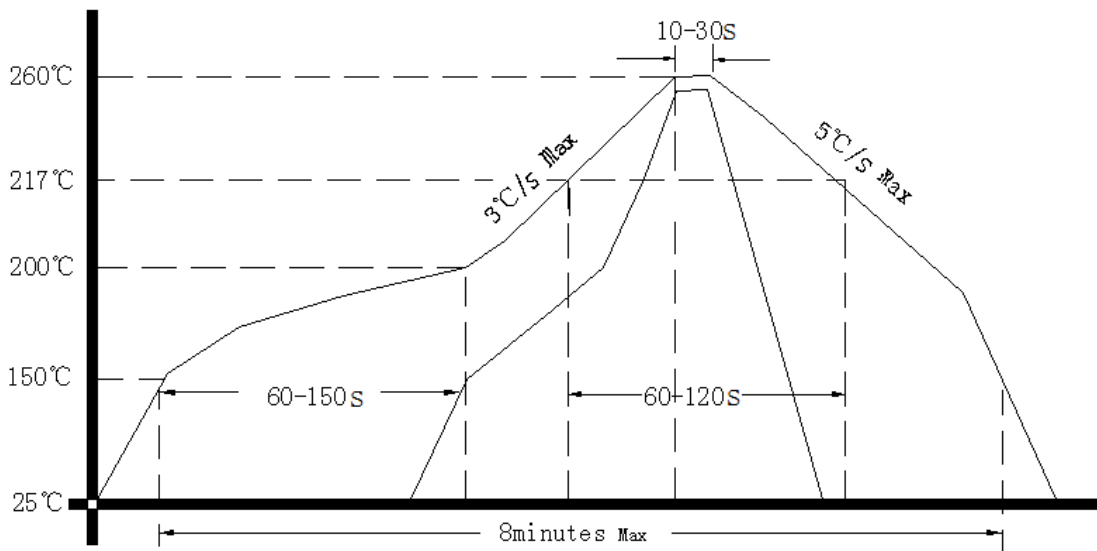
- Note1:** Tolerance $\pm 0.2\text{mm}$ without mark
- Note2:** Referential weight 7.8g
- Note3:** NC is not connect
- Note4:** The first two xx representative: week
After two xx representative: year



3、 Test Circuit



4、 Reflow Soldering Curve (RoHS)



5、 Package (mm)

