Customer Code: _____

DATASHEET

DAPU P/N: **O22S-Y448-120.00MHz**

Customer P/N: _____

DAPU			Customer Approval
Drew	Audited	Approved	
Amway.wei	Tony · Wang	Jason zhao	
Date: 2020.06.24			Stamp, please! Thanks!

Guangdong Dapu Telecom Technology Co.,Ltd

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

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

Bldg 16,.N.Ind.Zone,SSL Industry Park,
Dongguan City, Guangdong Province,
PR China
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FAX:0086-0769-81800098

Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2020.06.24

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Dongguan City, Guangdong Province,
PR China
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1. Electrical Parameters

MODEL：O22S-Y448-120.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		120.00		MHz	
	Output Waveform		Sine wave			
	Level	6	8	10	dBm	
	Load		50		Ω	
	Harmonics Suppression			-30	dBc	
	Spurious Suppression		-100		dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.05		+0.05	$\times 10^{-6}$	T_A varied from-40℃ to 85℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=12.0V, O_{load}=50Ω, temperature variable speed less than 2℃per minute.
	Initial Frequency Tolerance	-0.2		+0.2	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=12V, V_c=2.5V, 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 10.8V to 13.2V, V_c=2.5V, O_{load}=50Ω.
	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}=12.0V, V_c=2.5V, O_{load}=50Ω.
	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℃; 1s.
	Aging Tolerance Per Day	-2		+2	$\times 10^{-9}$	V_{cc},V_c, T_A constant Measurement referenced to frequency observed with T_A=25℃,V_{cc}=12.0V, V_c=2.5V, O_{load}=50Ω and after 30 days of operation.
	Aging Tolerance Per Year	-0.2		+0.2	$\times 10^{-6}$	
	Retrace		0.02	0.05	$\times 10^{-6}$	After 30min, switch-on.
	G-Sensitivity			1	$\times 10^{-9}$/g	

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Power Supply	Supply Voltage	10.8	12.0	13.2	V	
	Steady Consumption			130	mA	@25℃
	Warm up current			300	mA	
	Warm-Up Time			3	min	@25℃within $\pm 0.1\times10^{-6}$ of final frequency with reference after 30min on
	Reference Voltage	4.75	5	5.25	V	
	V_{REF} Output Current			0.1	mA	At Pin 2.
Voltage Control Characteristics	Frequency Tuning Range			-1.5	$\times10^{-6}$	V_c=0V. measurement referenced to V_c=2.5V
		-0.2		+0.2	$\times10^{-6}$	V_c=2.5V. measurement referenced to exactly 120.00MHz
		+1.5			$\times10^{-6}$	V_c=5.0V. measurement referenced to V_c=2.5V
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	10			KΩ	
Phase Noise	Phase Noise @25℃			-130	dBc/Hz	100Hz
				-150		1KHz
				-165		10KHz
				-165		100KHz
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 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 (℃)	-10~35℃				

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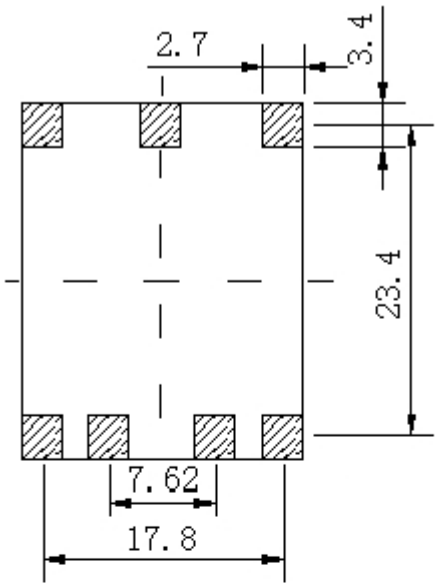
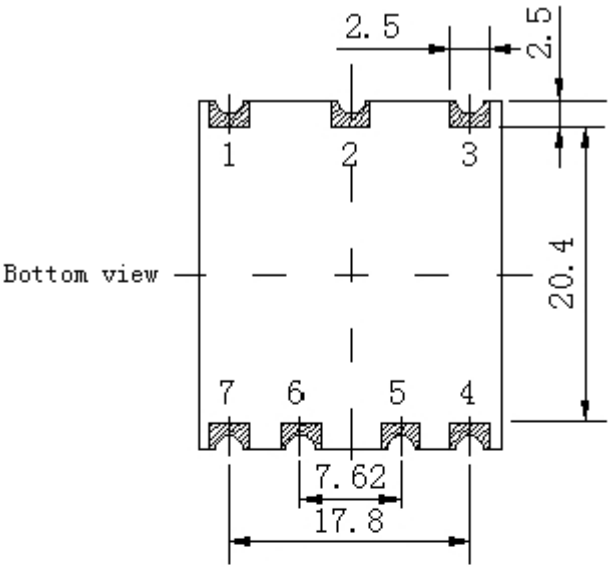
2. Mechanical Structure (mm)



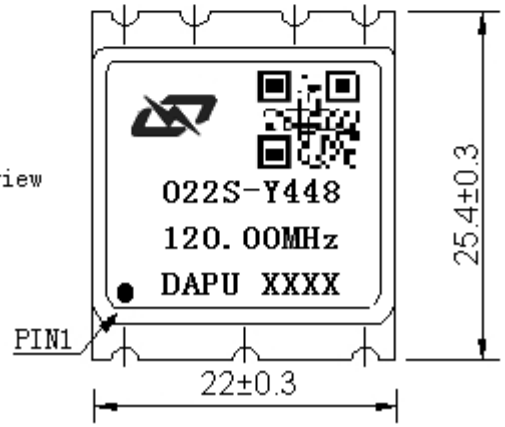
Solder Pad layout



Right view

PIN FUNCTION

PIN	NOTATION	FUNCTION
1	VC	Control Voltage
2	VREF	5V±5%
3	VCC	Supply Voltage
4	OUTPUT	RF Output
5,6	NC	Not Connect
7	GND	GND



Note1: Tolerance ±0.20mm without mark.

Note2: The first two xx representative: week.
After two xx representative: year.

Note3: Referential Weight 7.8g.

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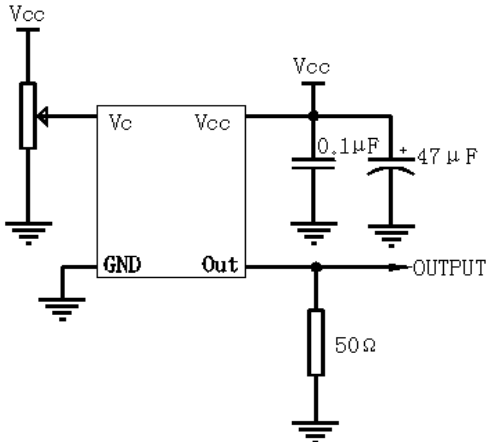
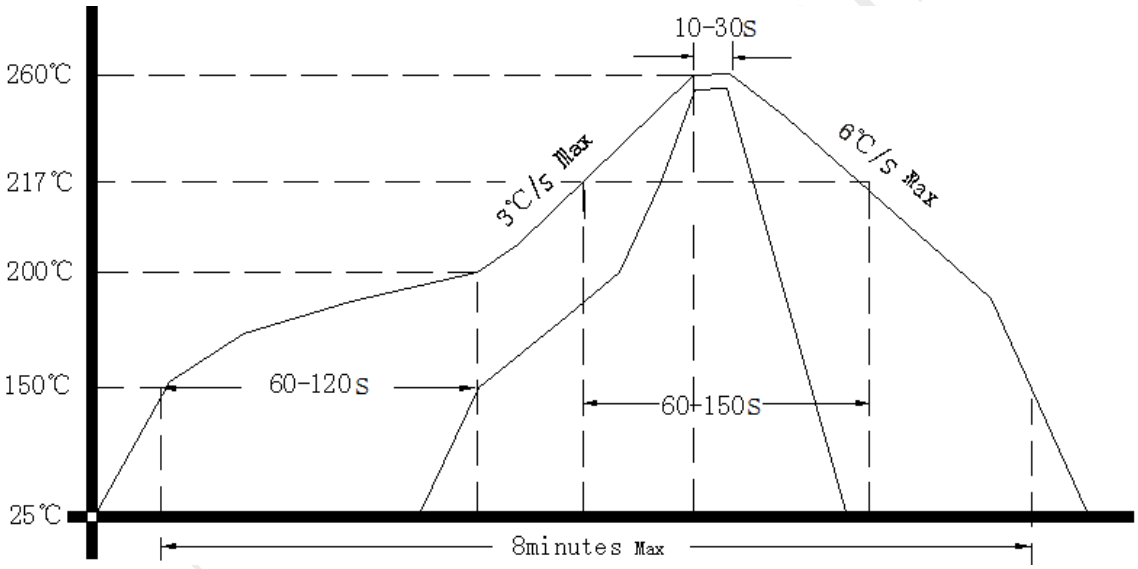
3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)