Customer Code : _____

DATASHEET

DAPU P/N: **O22A-K427-19.20MHz**

Customer P/N: _____

DAPU			Customer Approval
Drew	Audited	Approved	
Amway.wei	Tony · Wang	James.Liu	
Date: 2019.04.30			Stamp, please! Thanks!

Guangdong Dapu Telecom Technology Co.,Ltd

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

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2019.04.30

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1. Electrical Parameters

MODEL：O22A-F427-19.20MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		19.20		MHz	
	Output Waveform		Sine wave			
	Level	7	9	11	dBm	
	Load		50		Ω	
	Harmonics Suppression			-30	dBc	
	Spurious Suppression			-60	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-3		+3	$\times 10^{-9}$	T_A varied from-40℃ to 70℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=5.0V, V_c=2.0V, O_{load}=50Ω, temperature variable speed less than 2℃per minute.
	Initial Frequency Tolerance	-0.1		+0.1	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃±3℃, V_{cc}=5.0V, V_c=2.0V and after 15 minutes of operation, before shipment.
	Frequency Tolerance vs. supply voltage	-0.5		+0.5	$\times 10^{-9}$	measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 4.75V to 5.25V, V_c=2.0V, O_{load}=50Ω.
	Frequency Tolerance vs. Load	-0.5		+0.5	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with T_A=25℃, V_{cc}=5.0V, V_c=2.0V, O_{load}=50Ω.
	Warm up	-50		+50	$\times 10^{-9}$	
	Short Term Stability			0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25℃; 1s, using PN9000 equipment.
	Aging Tolerance per day	-0.3		+0.3	$\times 10^{-9}$	V_{cc},V_c, T_A constant Measurement referenced to frequency observed with T_A=25℃,V_{cc}=5.0V, V_c=2.0V, O_{load}=50Ω and after 30 days of operation.
	Aging Tolerance 1Year	-0.03		+0.03	$\times 10^{-6}$	
	Aging Tolerance 15Year	-0.3		+0.3	$\times 10^{-6}$	
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Warm up current		500	600	mA	@25℃
	Stable power consumption		0.7	1.2	W	@25℃
	Reference voltage	3.9	4.0	4.1	V	Load: 9 KΩ

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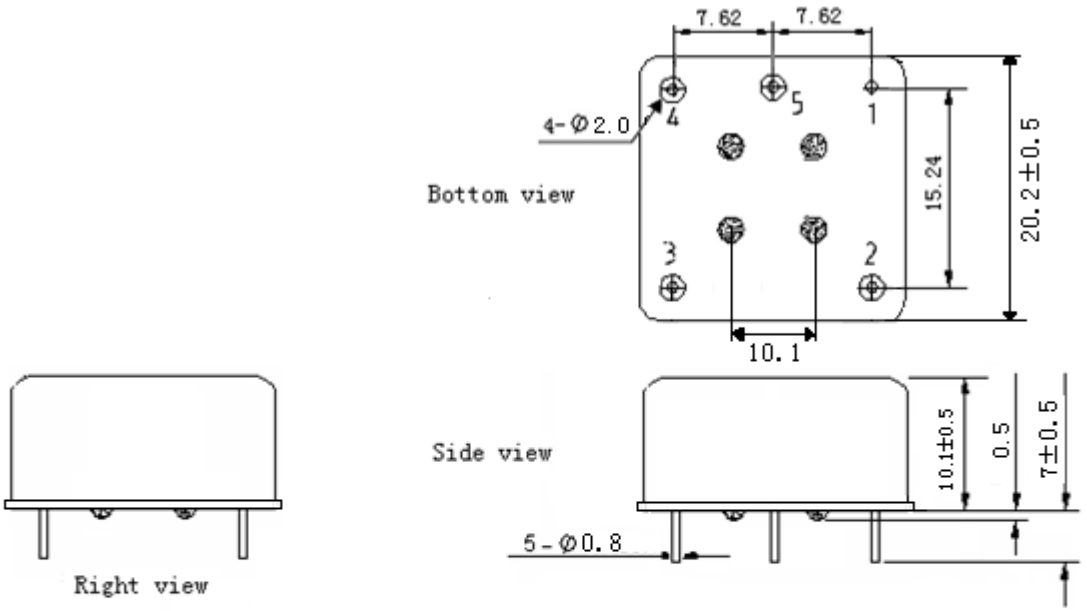
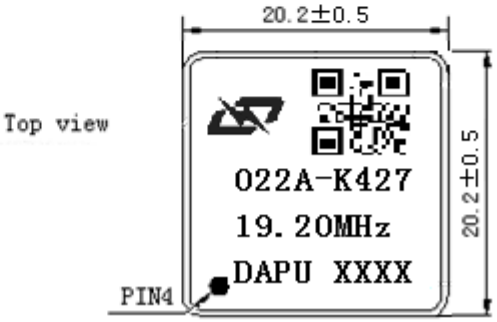
Voltage Control Characteristics	Frequency Tuning Range	-1.0		-0.5	$\times 10^{-6}$	V_c=0V. measurement referenced to V_c=2.0V.
		-0.1		+0.1	$\times 10^{-6}$	V_c=2.0V. measurement referenced to exactly 19.20MHz.
		+0.5		+1.0	$\times 10^{-6}$	V_c=4.0V. measurement referenced to V_c=2.0V.
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	
Phase Noise	Phase Noise		-90	-85	dBc/Hz	1Hz
			-115	-110		10Hz
			-145	-140		100Hz
			-161	-155		1KHz
			-167	-160		10KHz
			-168	-165		100KHz
			-168	-165		1MHz
Environmental Conditions	Operable Temperature	-40		+70	℃	
	Limit operating temperature	-55		+90	℃	
	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; 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.				
Full Package Storage	Relative humidity (%)	20%～70%				
	Temperature (℃)	-10~35℃				

2. Mechanical Structure (mm)



PIN FUNCTION

PIN	NOTATION	FUNCTION
1	GND	GND
2	OUTPUT	RF Output
3	VCC	Supply Voltage
4	VC	Control Voltage
5	VREF	Reference Voltage



Note1: Tolerance ±0.20mm without mark

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

Note3: Referential weight 8.0g

Note4: NC is not connect

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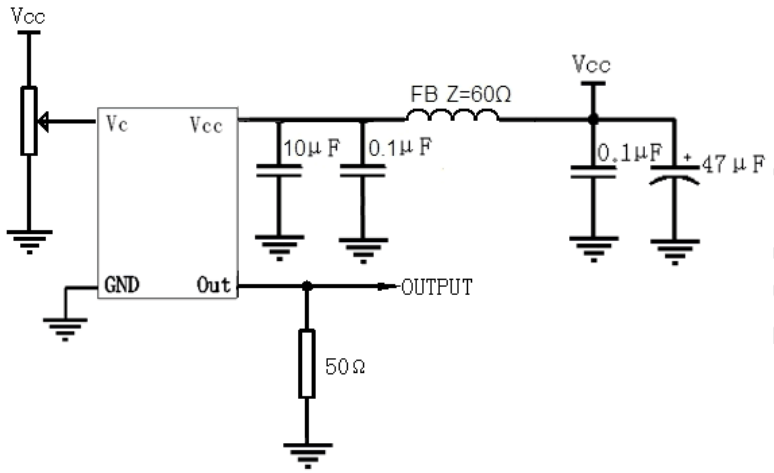
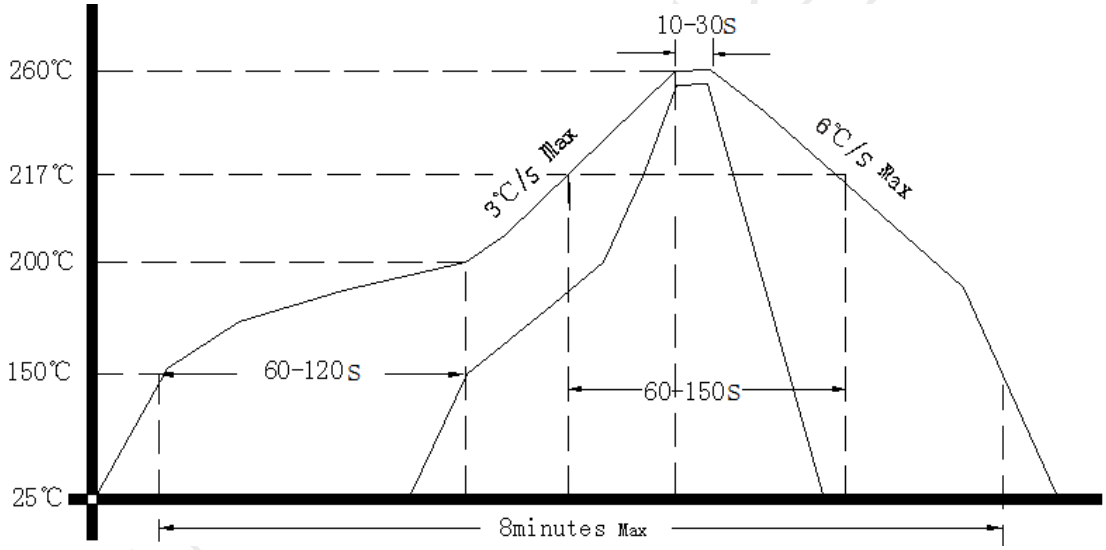
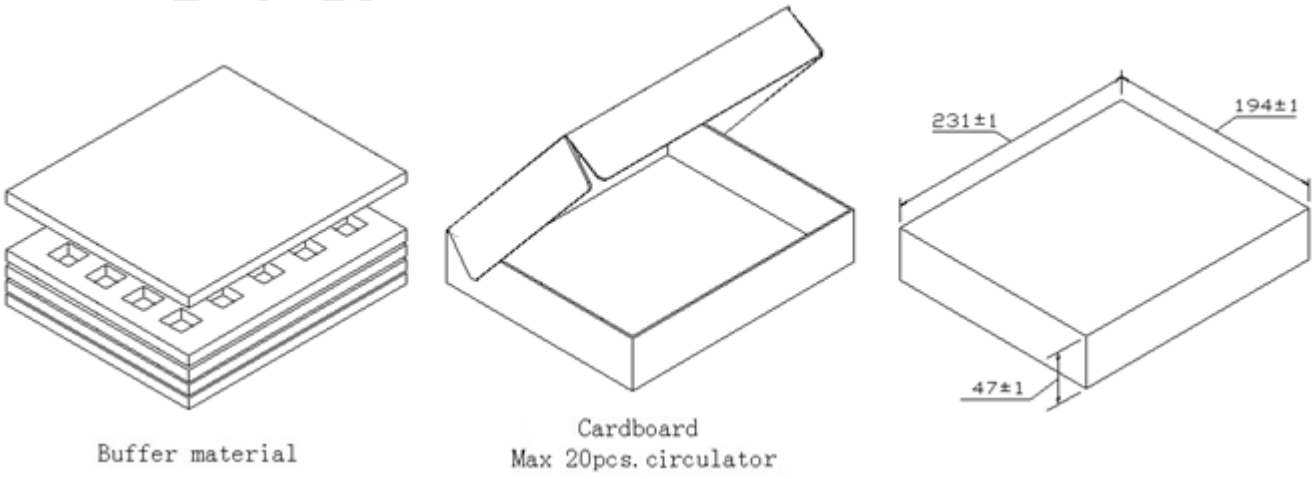
3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package(mm)



Buffer material

Cardboard
Max 20pcs. circulator