Travelling Merchant: A018

DATASHEET

Standard: **O22A-1803-38.88MHz**

P/N:

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Amway.wei	Tony · Wang	James.Liu	
Date: 2013.10.30			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2013.05.23
1.1	"Frequency Tuning Range" change	Amway	2013.10.30

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1. Electrical Parameters

MODEL： O22A-1803-38.88MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		38.88		MHz	
	Output Waveform		HCMOS			
	Output Low Voltage			0.5	V	V_{cc}=5.0V, O_{load}=15pF
	Output High Voltage	4.5			V	V_{cc}=5.0V, O_{load}=15pF
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			5	ns	
	Load		15		pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.1		+0.1	$\times 10^{-6}$	T_A varied from 0℃ to 70℃, measurement referenced to frequency observed with T_A=25℃, V_{cc}=5.0V, V_c=1.25V, O_{load}=15pF, temperature variable speed less than 2℃per minute.
		-0.2		+0.2	$\times 10^{-6}$	T_A varied from-30℃ to 70℃, measurement referenced to frequency observed with T_A=25℃, V_{cc}=5.0V, V_c=1.25V, O_{load}=15pF, temperature variable speed less than 2℃per minute.
	Initial Frequency Tolerance	-0.5		+0.5	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=5.0V, V_c=1.25V, and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.05		+0.05	$\times 10^{-6}$	measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 4.75V to 5.25V, V_c =1.25V and O_{Load}=15pF.
	Frequency Tolerance vs. Load	-0.05		+0.05	$\times 10^{-6}$	10% load change measurement referenced to frequency observed with T_A=25℃, V_{cc}=5.0V, V_c=1.25V, and O_{Load}=15pF.
	Short-Term Stability: Allan Variance			0.1	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference， test after power for 1hour ref. to 25℃; 1s, using PN9000 equipment.
	Aging Tolerance Per Day	-2		+2	$\times 10^{-9}$	V_{cc}, V_c, T_A constant measurement referenced to frequency observed with T_A=25℃, V_{cc}= 5.0V, V_c=1.25V, and after 30 days of operation.
	Aging Tolerance 10 Year	-3		+3	$\times 10^{-6}$	

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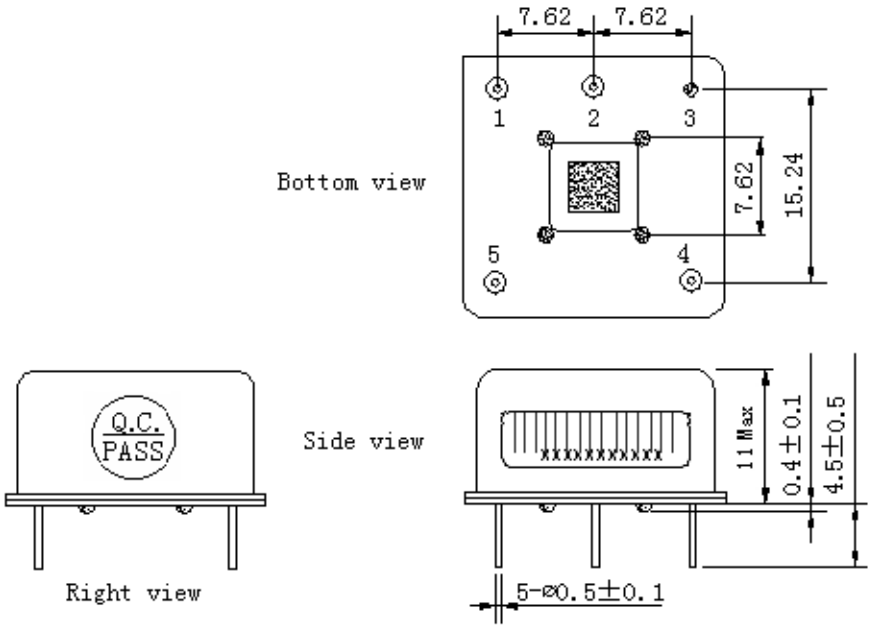
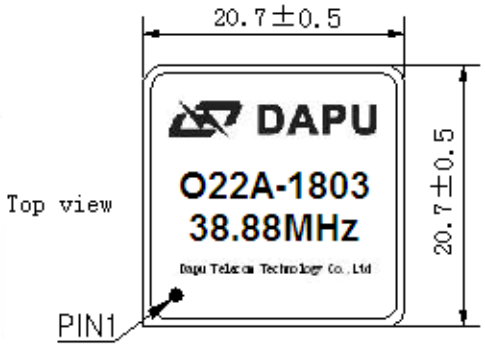
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Steady Consumption			300	mA	@25℃
	Warm up current			600	mA	
	Warm-Up Time			5	minutes	@25℃within±0. 5×10^{-6} of final frequency with reference after 1 hour on.
Voltage Control Characteristics	Frequency Tuning Range	-10		-5	×10^{-6}	V_c=0V. measurement referenced to V_c=1.25V
		-0.5		+0.5	×10^{-6}	V_c=1.25V. measurement referenced to exactly 38.88MHz
		+5		+10	×10^{-6}	V_c=2.5V. measurement referenced to V_c=1.25V
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	
Phase Noise	Phase Noise			-60	dBc/Hz	1Hz
				-115		100Hz
				-145		10KHz
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; 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)



PIN FUNCTION

PIN	FUNCTION
1	VCC
2	OUTPUT
3	GND
4	Vc
5	NC

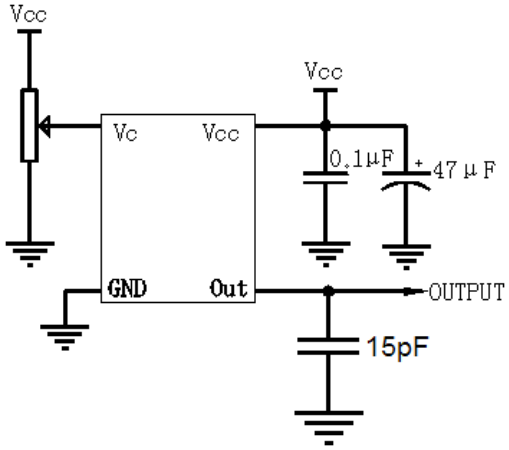


Note1: Tolerance ±0.2mm without mark

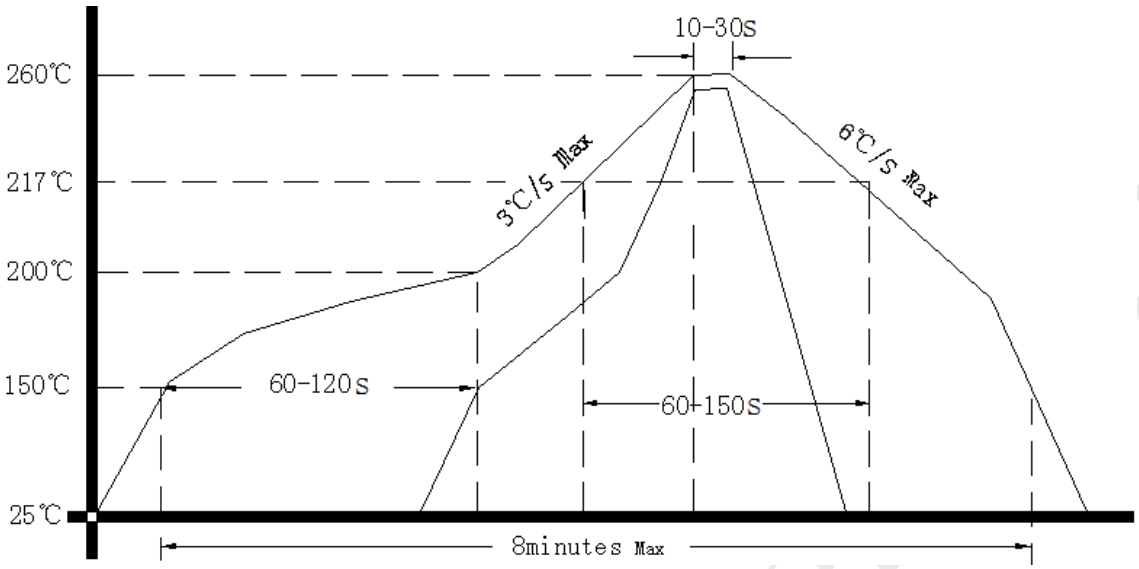
Note2: Referential Weight 8.0g

Note3: NC is not connect

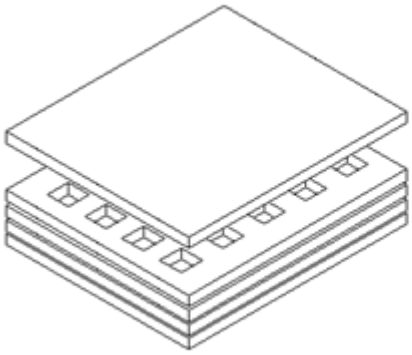
3. Test Circuit



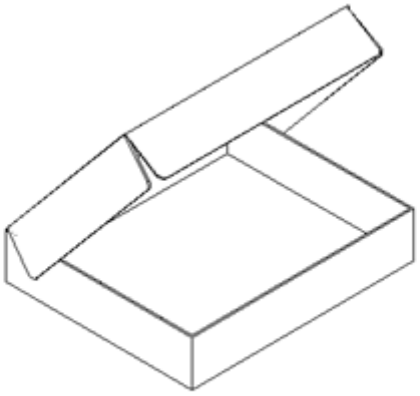
4. Reflow Soldering Curve (RoHS)



5. Package（mm）



Buffer material



Cardboard
Max 20pcs. circulator