Travelling Merchant:_____

DATASHEET

Standard: **O79A-E319-48.00MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Amway.wei	Tony·Wang	James.Liu	
Date: 2020.03.18			

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

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PRC China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2019.11.19
1.1	Add "Acceleration Sensitivity "	Amway	2019.11.22
1.2	Add "Aging Tolerance 10 Year" "Jitter" "Reflow shift" "Warm-Up Time". The "Phase Noise""ESD Level" "Mechanical Structure" changed	Amway	2020.03.18

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PRC China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

1. Electrical Parameters

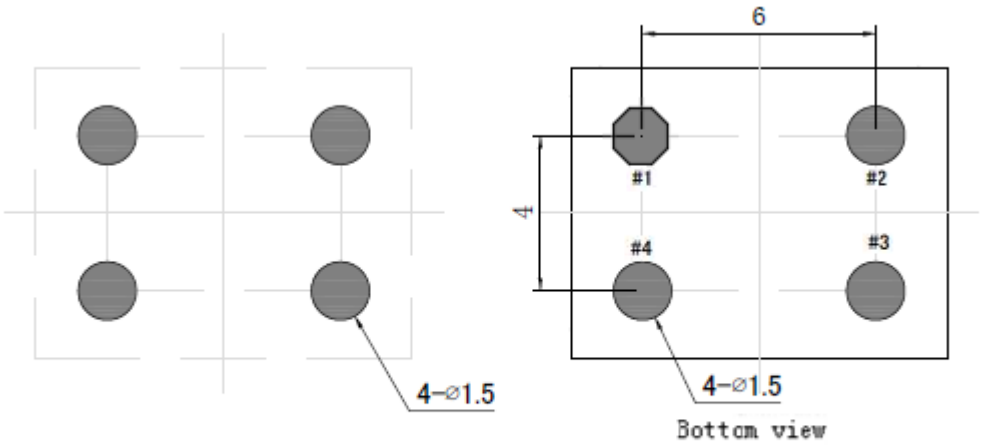
MODEL： O79A-E319-48.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		48.00		MHz	
	Output Waveform		LVCMOS			
	Output Low Voltage			0.4	V	V_{cc}=3.3V, O_{load}=15 pF
	Output High Voltage	2.4			V	V_{cc}=3.3V, O_{load}=15 pF
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time （10%~90%）			5	ns	@25℃
	Load		15		pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.02		+0.02	$\times 10^{-6}$	T_A varied from-40℃to 95℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=3.3V, 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}=3.3V 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 3.13V to 3.47V, and O_{Load}=15pF .
	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}=3.3V, O_{Load}=15pF.
	Frequency slope	-0.5		+0.5	$\times 10^{-9}$/℃	Temperature ramp ≤1℃/minute
	Acceleration Sensitivity			3	$\times 10^{-9}$/g	Sinewave Vibration at 2g in three axies , 10Hz to 200Hz.
	Temperature Gradient		15		℃/H	
	Aging Tolerance Per Day	-5		+5	$\times 10^{-9}$	T_A=25℃, V_{cc}=3.3V, and after 1h of operation.
	Aging Tolerance 1 Year	-0.5		+0.5	$\times 10^{-6}$	
	Aging Tolerance 10 Year	-2.5		+2.5	$\times 10^{-6}$	
	Jitter			0.18	ps	RMS @ 12KHz to 5MHz
	Reflow shift	-0.2		+0.2	$\times 10^{-6}$	After 1 hour recovery at 25° C

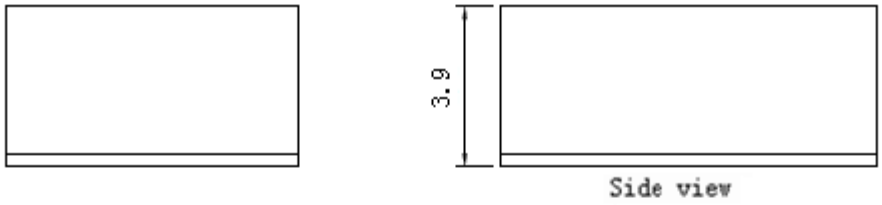
Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PRC China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

Power Supply	Supply Voltage	3.13	3.3	3.47	V	
	Steady Consumption			230	mA	@25℃
	Warm up current			460	mA	
	Warm-Up Time			1	min	@25℃within $\pm 0.1\times10^{-6}$ of final frequency with reference after 1 hour on.
Phase Noise	Phase Noise @25℃		-60	-50	dBc/Hz	1Hz
			-102	-90		10Hz
			-135	-130		100Hz
			-152	-148		1KHz
			-155	-150		10KHz
			-165	-158		100KHz
			-170	-162		1MHz
Environmental Conditions	Operable Temperature	-40		+95	℃	
	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 3.				
	Vibration	Test Condition: 0.75mm ;acceleration:10g;10Hz～2000Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X ,Y , Z) .IEC 68-2-06 Test Fc.				
	Shock	100g； 6ms； half sine wave (3 times for each 3 directions X ,Y, Z),IEC 68-2-27 Test Ea/Severity 50A.				

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PRC China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

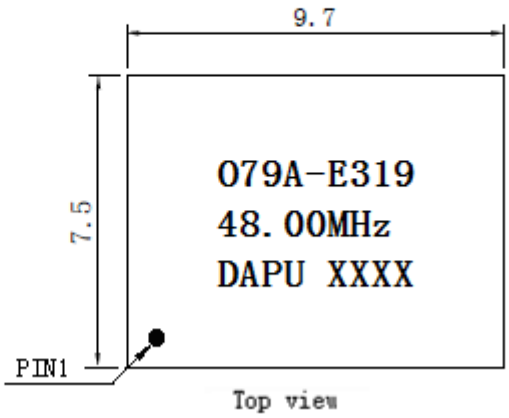
2. Mechanical Structure(mm)





Pin Function

Pin	Function
1	NC
2	GND
3	OUTPUT
4	VCC



Note1: Tolerance ±0.2mm without mark

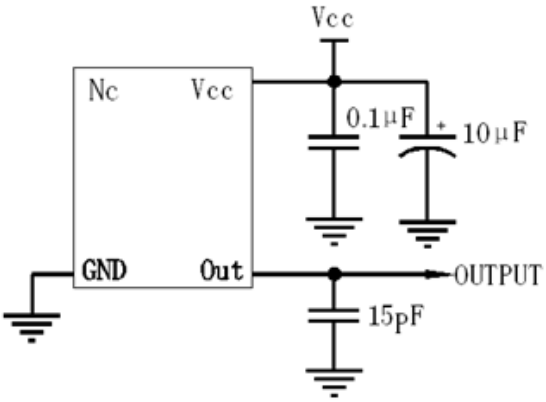
Note2: The first two xx representative: week
After two xx representative: year

Note3: Referential Weight 1.5g

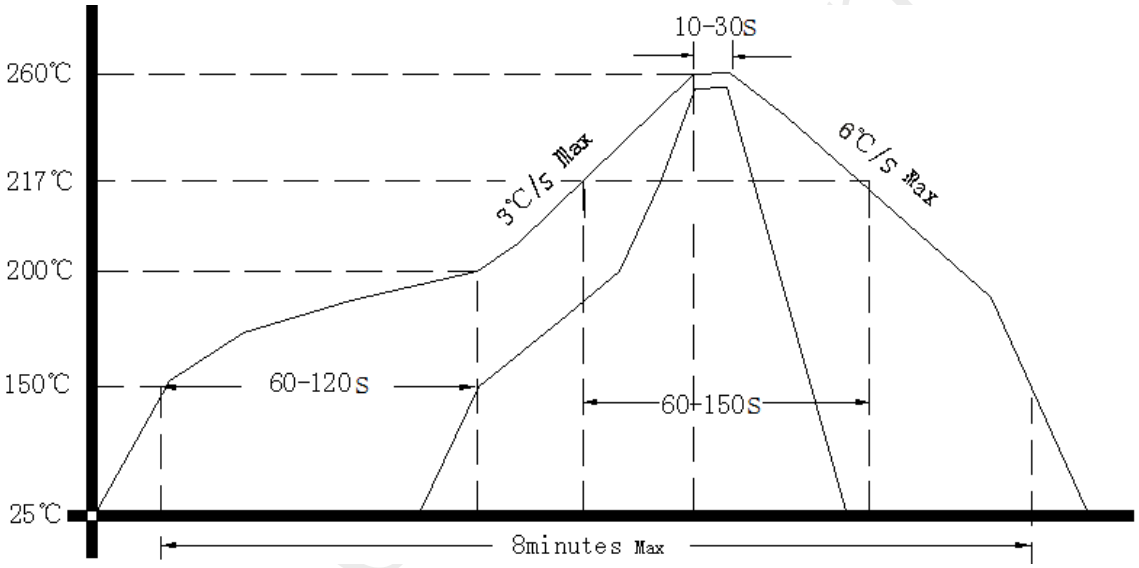
Note4: NC is not connect

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PRC China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

3. Test circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)