Travelling Merchant:_____

DATASHEET

Standard: **O75A-1201-20.00MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	
Amway.wei	Carry.Wang	Jason zhao	
Date: 2020.06.23			Stamp, please! Thanks!

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	2020.06.23

DAPU Confidential

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： O75A-1201-20.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		20.00		MHz	
	Output Waveform		LVCMOS			
	Output Low Voltage			0.33	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		55	%	@50%
	Rise / Fall Time			2	ns	10%~90%
				1	ns/V	Measured at mid-point of rising edge.
	Startup time till valid waveform			15	ms	Time until RF output waveform is within output level, duty cycle and rise/fall time spec
	Load		15		pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.1		+0.1	$\times 10^{-6}$	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	-1		+1	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.3V within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-5		+5	$\times 10^{-9}$	measurement referenced to frequency observed T_A= -40~95℃, V_{cc} varied from 3.135V to 3.465V, and O_{Load}=15pF .
	Frequency Tolerance vs. Load	-0.01		+0.01	$\times 10^{-6}$	10% load change measurement referenced to frequency observed withT_A=25℃,V_{cc}=3.3V, O_{Load}=15pF.
	Frequency vs. temperature slope	-5		+5	$\times 10^{-9}$/℃	T_{amb} slope ±1 ℃/min with any temperature window over operating temperature range. Includes also hysteresis effects. Slope measurement for device qualification as described in the related note.
	Aging Tolerance Per Day	-5		+5	$\times 10^{-9}$	T_A=25℃, V_{cc}=3.3V, and after 30days of operation.
	Overall Tolerance Over 15years	-4.6		+4.6	$\times 10^{-6}$	Over operating temperature range.

DAPU Confidential

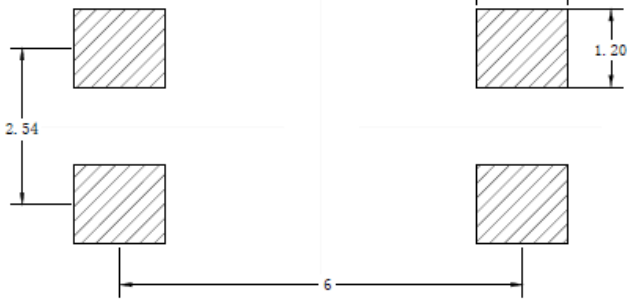
Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PRC China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

	Retrace accuracy	-0.025		+0.025	$\times 10^{-6}$	Cycle: 1st power on 1h, power off 15 min, 2nd power on. First reading 30 s after 2nd power on, referenced to last frequency reading immediately before power off, T_A varied from-40℃to 95℃.
	Warm up Time			30	s	Time until RF output is within ±0.025 ppm referenced to last frequency reading 1 h after startup, T_A varied from-40℃to 95℃.
	Rate of temperature variation	-1		+1	℃/min	
	Steady Consumption			230	mA	@25℃
	Warm up current			460	mA	
	Supply Voltage	3.135	3.3	3.465	V	
Phase Noise	Phase Noise -40~95℃		-75	-63	dBc/Hz	1Hz
			-110	-89		10Hz
			-140	-116		100Hz
			-160	-134		1KHz
			-165	-144		10KHz
			-165	-144		100KHz
Sub harmonic	Sub harmonic			-84	dBc	10Hz≤f_{offset}
Environmental Conditions	Operating Temperature	-40		+95	℃	
	Operable Temperature	-45		+105	℃	
	Storage Temperature	-55		+105	℃	
	Relative Humidity Range	5		95	%	
	Absolute Humidity Range	1		29	g/m^3	
	Air Pressure Range	70		106	kPa	
	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.				

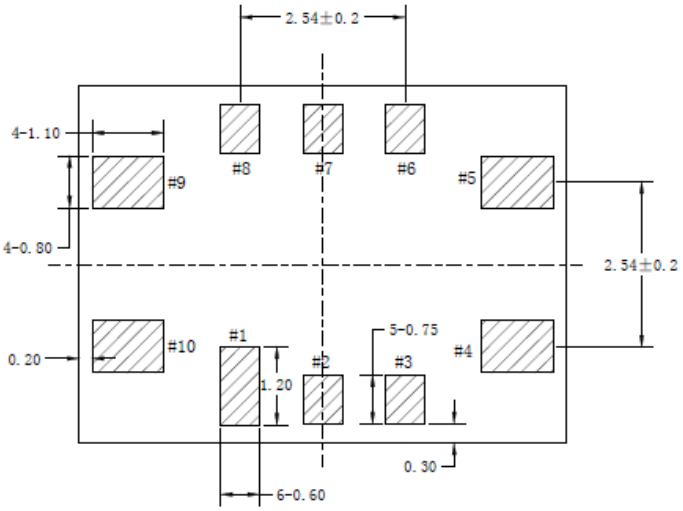
DAPU confidential

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

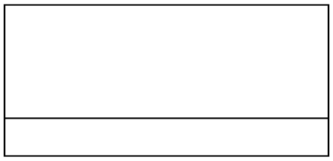
2. Mechanical Structure(mm)



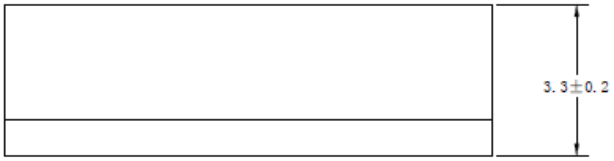
Solder pad layout



Bottom view



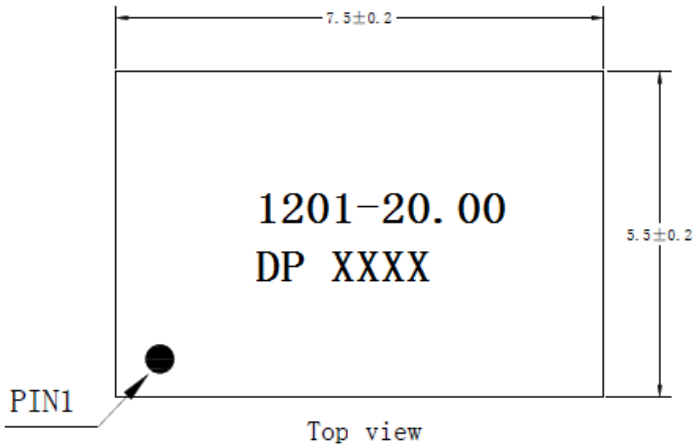
Right view



Front view

Pin Function

Pin	Function
1, 2, 3,6, 7, 8	NC
4	GND
5	OUTPUT
9	VCC
10	NC

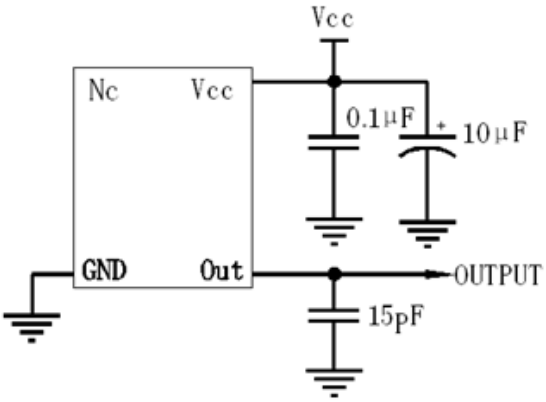


Top view

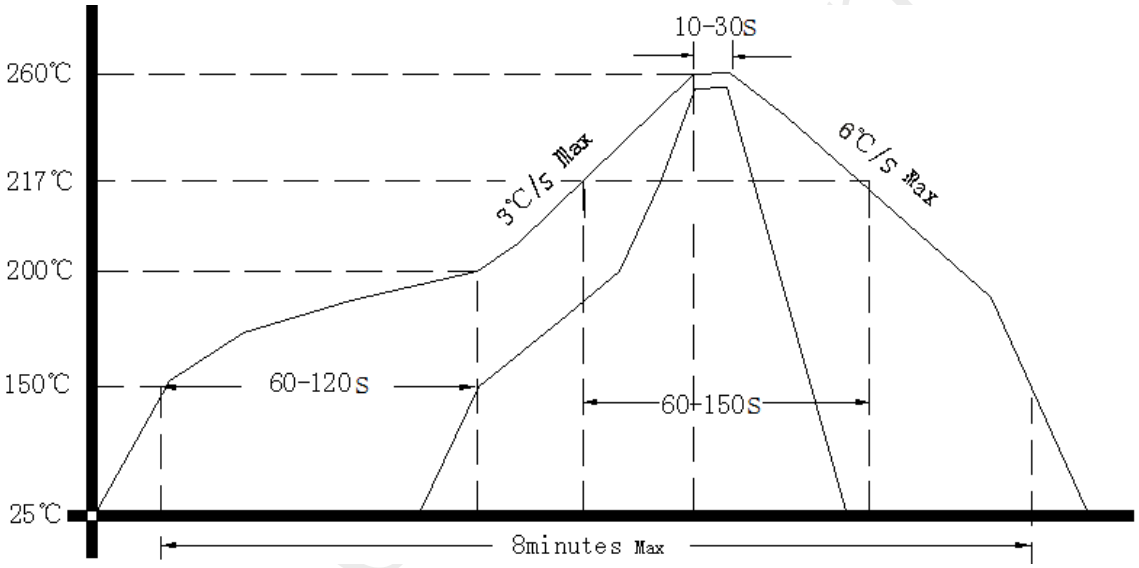
Note1: Tolerance ±0.2mm without mark
Note2: The first two xx representative: week
After two xx representative: year
Note3: Referential Weight 0.2g
Note4: NC is not connect

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)