Travelling Merchant: A018

DATASHEET

Standard: **T75A-1801-38.88MHz**

P/N:

Plot			The Label
Drew	Audited	Approved	
Amway.wei	Carry.Wang	James.Liu	
Date: 2019.05.06			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
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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2019.05.06

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1. Electrical Parameters

MODEL： T75A-1801-38.88MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		38.88		MHz	
	Output Waveform		HCMOS			
	Output Low Voltage			0.33	V	V_{cc}=3.3V, O_{load}=15 pF
	Output High Voltage	2.97			V	V_{cc}=3.3V, O_{load}=15 pF
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time （10%~90%）			5	ns	@25℃
	Spurious suppression			5	dBc	
	Start up time			10	ms	
	Load		15		pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.1		+0.1	$\times 10^{-6}$	T_A varied from -40℃to 85℃, measurement referenced to frequency observed with T_A = 25℃, V_{cc}=3.3V, O_{load}=15pF, temperature variable speed less than 2℃per minute.
		-0.28		+0.28	$\times 10^{-6}$	T_A varied from 85℃to 105℃, measurement referenced to frequency observed with T_A = 25℃, V_{cc}=3.3V, O_{load}=15pF, temperature variable speed less than 2℃per minute.
	Initial Frequency Tolerance	-1.5		+1.5	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.3V within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.1		+0.1	$\times 10^{-6}$	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	-0.1		+0.1	$\times 10^{-6}$	5% load change measurement referenced to frequency observed withT_A=25℃,V_{cc}=3.3V, O_{Load}=15pF.
	Short-Term Stability			0.1	$\times 10^{-9}$	No temperature change
				2	$\times 10^{-9}$	12℃ per min
	Aging Tolerance 20 Years	-5		+5	$\times 10^{-6}$	T_A=25℃, V_{cc}=3.3V, and after 1h of operation.
	Frequency Slope	-0.05		+0.05	$\times 10^{-6}$	Temperature ramp 2℃/minute，Test interval: test per 1℃
	Overall Stability	-4.6		+4.6	$\times 10^{-6}$	

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Power Supply	Current Consumption			10	mA	@25℃, V_{cc}=3.3V, O_{Load}=15pF.
	Supply Voltage	3.13	3.3	3.47	V	
Phase Noise	Phase Noise @25℃		-53	-50		1Hz
			-88	-82	dBc/Hz	10Hz
			-112	-110		100Hz
			-135	-133		1KHz
			-144	-142		10KHz
			-147	-145		100KHz
			-152	-150		1MHz
Jitter	Jitter			1	ps-rms	10Hz-100KHz
Environmental Conditions	Operable Temperature	-40		+105	℃	
	Storage Temperature	-55		+125	℃	
	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	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.				

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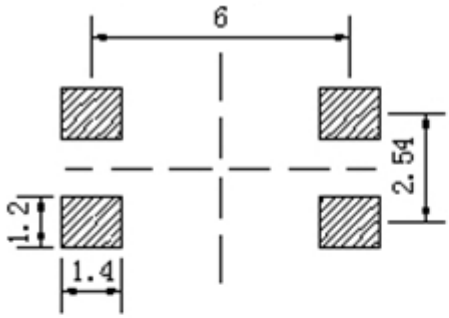
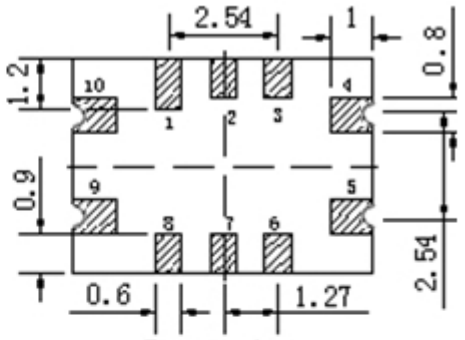
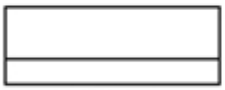
2. Mechanical Structure(mm)



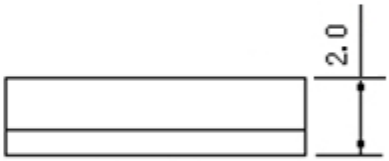
Solder pad layout



Bottom view



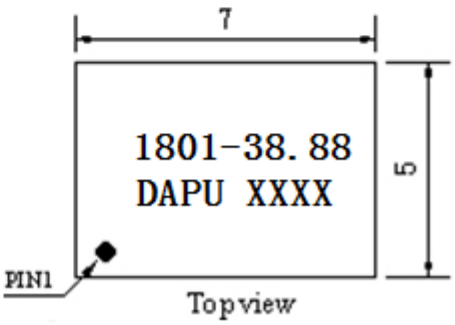
Right view



Front view

PIN FUNCTION

PIN	NOTATION	FUNCTION
1, 2, 3, 6, 7	NC	Not Connect
4	GND	GND
5	OUTPUT	RF Output
8	E/D	Output Enable/Disable
9	VCC	Supply Voltage
10	NC	Not Connect



Top view

Note1: Tolerance ±0.2mm without mark

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

Note3: Referential Weight 0.2g

Note4: NC is not connect

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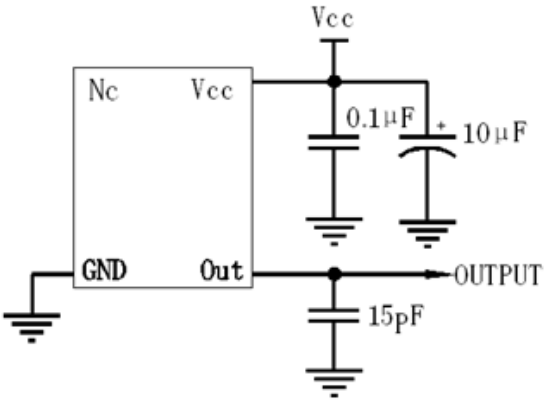
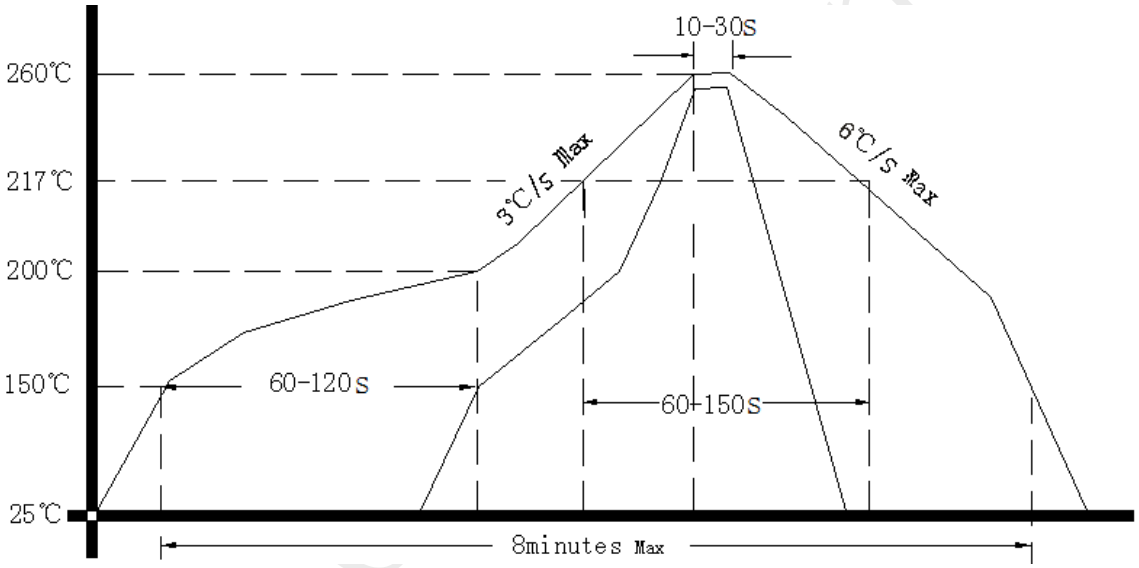
3. Test circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)