Customer Code : _____

DATASHEET

DAPU P/N: **T75B-A311-16.384MHz**

Customer P/N: _____

DAPU			Customer Approval
Drew	Audited	Approved	
Amway.wei	Carry.Wang	Jason Zhao	
Date: 2020.11.19			Stamp, please! Thanks!

Guangdong Dapu Telecom Technology Co.,Ltd

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2020.11.19

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1. Electrical Parameters

MODEL： T75B-A311-16.384MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		16.384		MHz	
	Output Waveform		HCMOS			
	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%）			8	ns	@25℃
	Load		15		pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.05		+0.05	$\times 10^{-6}$	T_A varied from -40℃ to 85℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}= 3.3V, V_c=1.65V, $O_{load=}$ 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, V_c=1.65V 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 3.135V to 3.465V, V_c=1.65V and O_{Load}= 15pF .
	Frequency Tolerance vs. Load	-0.2		+0.2	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with T_A= 25℃, V_{cc}=3.3V, V_c=1.65V, O_{Load}= 15pF
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	T_A=25℃, V_{cc}=3.3V, V_c=1.65V and after 1h of operation.
	Aging Tolerance 20 Year	-4.6		+4.6	$\times 10^{-6}$	
Power Supply	Current Consumption			8	mA	@25℃, V_{cc}=3.3V, V_c=1.65V, O_{load}=15pF.
	Supply Voltage	3.135	3.3	3.465	V	

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Voltage Control Characteristics	Frequency Tuning Range	-13		-5	$\times 10^{-6}$	V_c=0.5V. measurement referenced to V_c=1.65V
		-1		+1	$\times 10^{-6}$	V_c=1.65V. measurement referenced to exactly 16.384MHz
		+5		+13	$\times 10^{-6}$	V_c=3.3V. measurement referenced to V_c=1.65V
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	
Phase Noise	Phase Noise @25℃			-80	dBc/Hz	10Hz
				-113		100Hz
				-130		1KHz
				-143		10KHz
				-145		100KHz
				-148		1MHz
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; 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.				
Full Package Storage	Relative humidity (%)	20%～70%				
	Temperature (℃)	-10~35℃				

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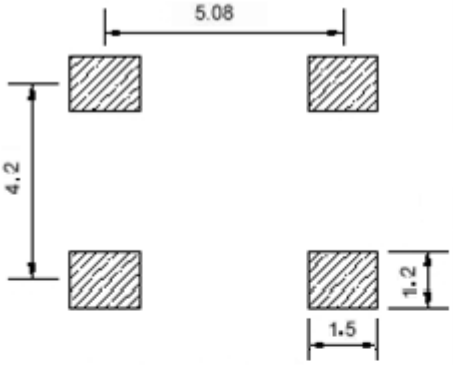
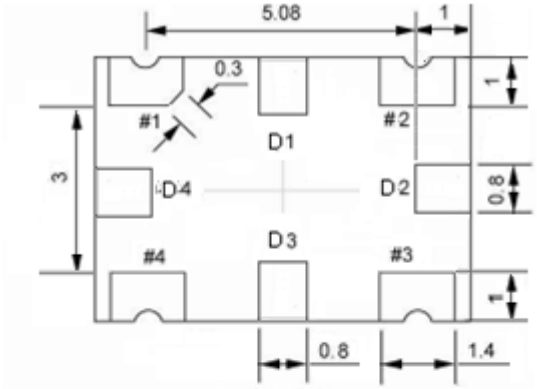
2. Mechanical Structure(mm)

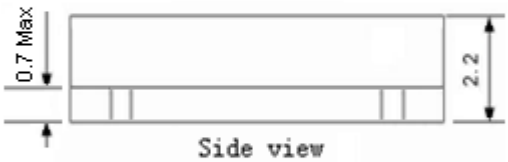


Solder pad layout

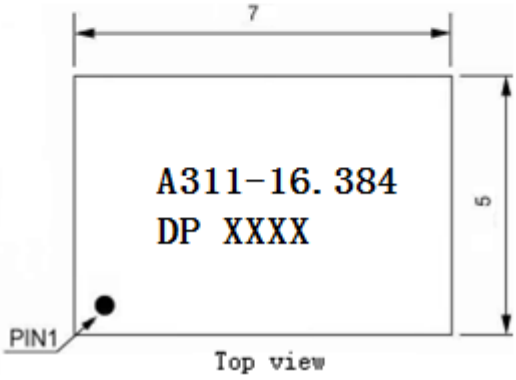
Right view



Bottom view



Side view



Top view

PIN FUNCTION

PIN	NOTATION	FUNCTION
D1, D2, D3, D4	NC	Not Connect
1	VC	Control Voltage
2	GND	GND
3	OUTPUT	RF Output
4	VCC	Supply Voltage

Note1: Tolerance ±0.20mm without mark

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

Note3: Referential Weight 0.2g

Note4: NC is not connect

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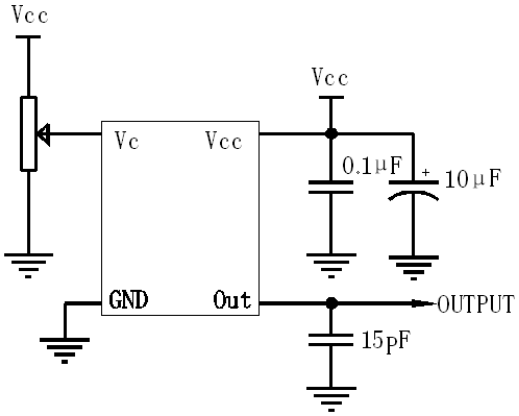
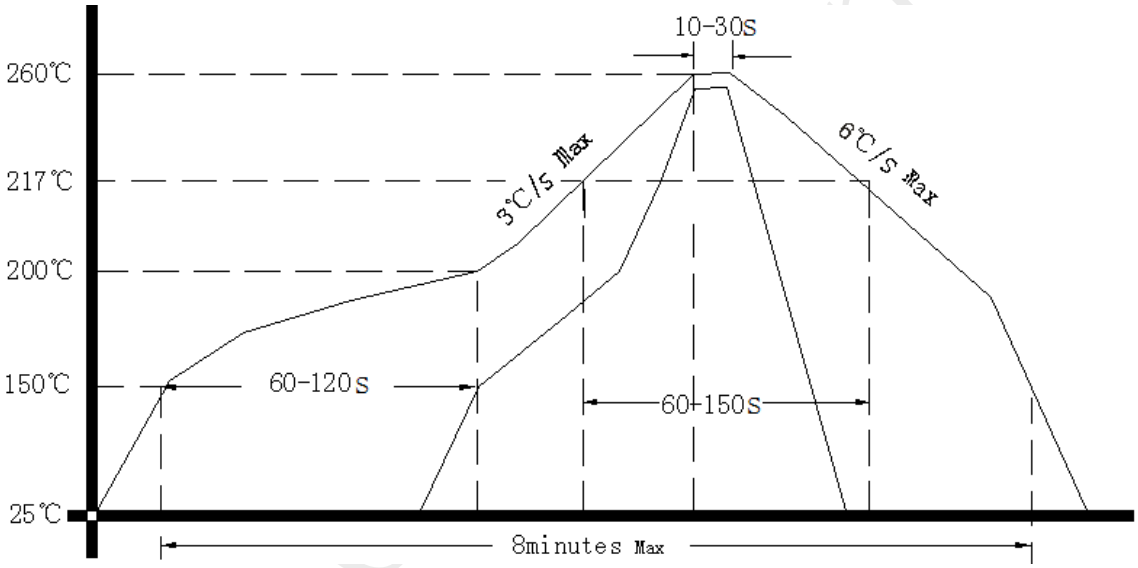
3. Test circuit



4. Reflow Soldering Curve (RoHS)



Note: If soldering with a hot air gun, ensure the temperature ＜320℃， soldering time ＜15 seconds.

5. Package: Tape & Reel (mm)