Travelling Merchant:_____

DATASHEET

Standard: **T75B-R313-38.40MHz-A**

P/N: _____

Plot			The Label
Drew	Audited	Approved	
Amway.wei	Carry.Wang	Jason Zhao	
Date: 2022.08.30			Stamp, please! Thanks!

Guangdong Dapu Telecom Technology Co.,Ltd

Building 5, No.24, Industrial East Road, Songshanhu Park, Dongguan, Guangdong, P.R. China

TEL：0086-0769-88010888 FAX：0086-0769-81800098

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Songshanhu Park, Dongguan,
Guangdong, P.R. China
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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2021.08.27
1.1	The “Current Consumption” “Mechanical Structure” changed	Amway	2022.03.03
1.2	Add “Allan Variance” “Hold Over Stability”	Amway	2022.08.30

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1. Electrical Parameters

MODEL： T75B-R313-38.40MHz-A						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		38.40		MHz	
	Output Waveform		HCMOS			
	Output Low Voltage			0.4	V	V_{cc}=3.3V, O_{load}=10 pF
	Output High Voltage	2.97			V	V_{cc}=3.3V, O_{load}=10 pF
	Duty Cycle	45	50	55	%	@50%
	Start Up Time		2	3	s	
	Rise / Fall Time （10%~90%）			10	ns	@25℃
	Load		10		pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.28		+0.28	$\times 10^{-6}$	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}=10pF, temperature variable speed less than 2℃per minute.
	Freq.Stability vs. Supply Voltage	-0.1		+0.1	$\times 10^{-6}$	V_{cc}=3.3V+/-5%, V_c=1.65V,
	Aging	-1		+1	$\times 10^{-6}$	First year
		-3		+3	$\times 10^{-6}$	10years
	APR	-5		+5	$\times 10^{-6}$	Sufficient range to correct for initial calibration,15years aging, temperature, voltage, and load variations.
	Voltage Control	0		3.3	V	
	Input Impedance	10			KΩ	
	Slope		Positive			
	Linearity			10	%	
	Modulation BW		6		Hz	3dB BW
	Allan Variance		0.2	0.5	$\times 10^{-9}$	Temperature stability, no EMI no EMI \EMC or other interference, test after power for 1hour ref. to 25℃; 1s
	Hold Over Stability	-0.02		+0.02	$\times 10^{-6}$	24hours with 25℃,After 48hours constant on power.

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Power Supply	Current Consumption			15	mA	@25℃, V_{cc}=3.3V, V_c=1.65V, O_{Load}=10pF.
	Supply Voltage	3.13	3.3	3.45	V	
Phase Noise	Phase Noise @25℃		-93	-85	dBc/Hz	10Hz
			-122	-115		100Hz
			-144	-139		1KHz
			-163	-155		10KHz
			-167	-162		100KHz
			-167	-164		1MHz
Phase Jitter	Phase Jitter		70	100	fs	12KHz to 20MHz
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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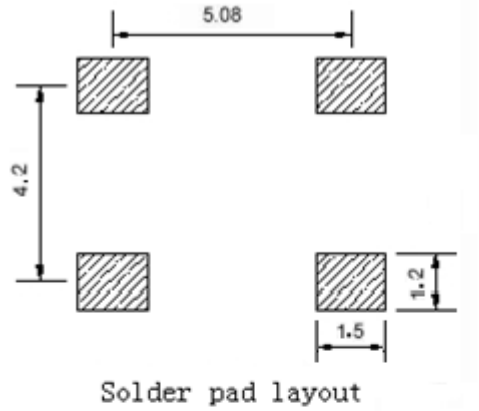
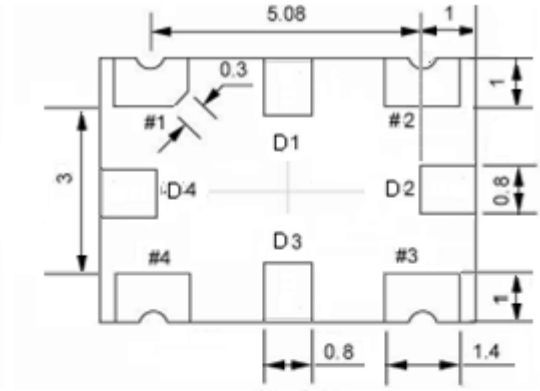
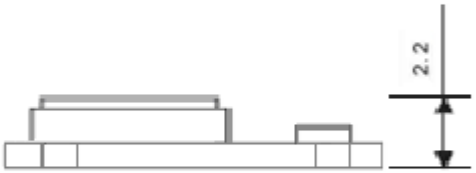
2. Mechanical Structure(mm)



Solder pad layout



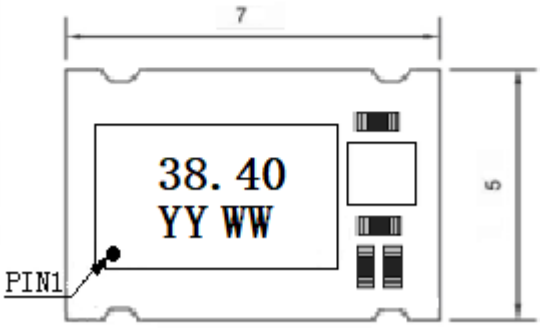
Bottom view



Side 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



Top view

Note1: Tolerance ±0.2mm without mark

Note2: Referential weight 0.2g

Note3: The first two YY representative: year
After two WW representative: week

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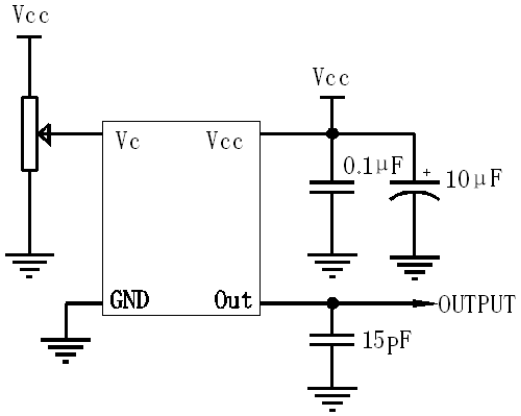
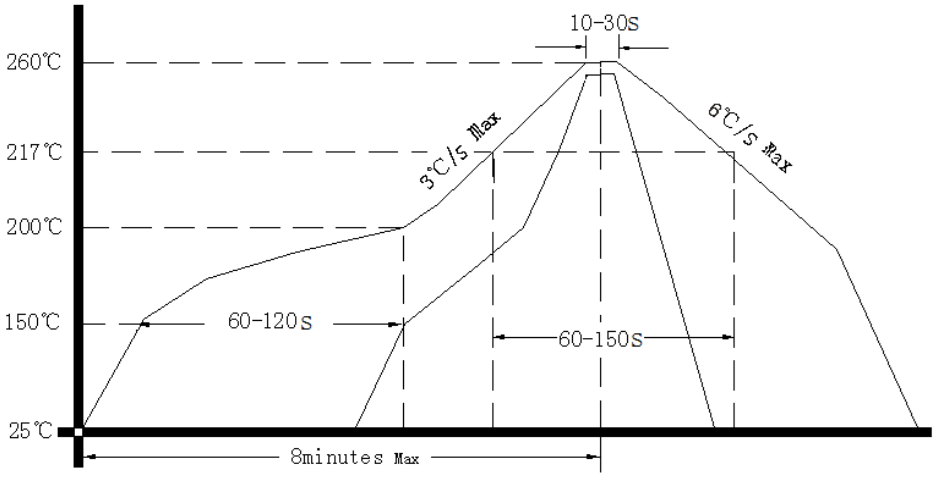
3. Test circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)