





### Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2018.12.17
1.1	The “ESD Level” “Mechanical Structure” “Package: Tape & Reel” changed	<i>Amway</i>	2021.01.14
1.2	The “Output Waveform” “Storage Temperature” “Moisture Sensitivity Level” changed	<i>Amway</i>	2021.10.14
1.3	The “Moisture Sensitivity Level” changed	<i>Amway</i>	2022.06.22
1.4	The “Mechanical Structure” changed	<i>Amway</i>	2022.07.15



## 1. Electrical Parameters

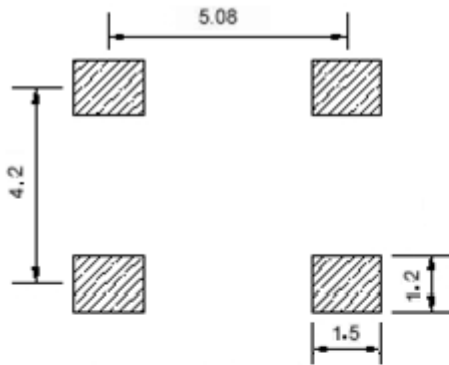
MODEL: T75B-1802-50.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	50.00			MHz	
	Output Waveform	LVCMOS				
	Output Low Voltage			0.33	V	$V_{cc}=3.3V, O_{load}=10\text{ pF}$
	Output High Voltage	2.97			V	$V_{cc}=3.3V, O_{load}=10\text{ pF}$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			5	ns	@25°C
	Load	10			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-1		+1	$\times 10^{-6}$	$T_A$ varied from -40°C to 85°C, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$ , $V_{cc}=3.3V, O_{load}=10\text{ pF}$ , temperature variable speed less than 2°C per minute.
	Initial Frequency Tolerance	-1		+1	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A = 25^\circ\text{C} \pm 2^\circ\text{C}$ , $V_{cc}=3.3V$ , within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.1		+0.1	$\times 10^{-6}$	measurement referenced to frequency observed $T_A=25^\circ\text{C}$ , $V_{cc}$ varied from 3.13V to 3.47V, and $O_{Load}=10\text{ pF}$ .
	Frequency Tolerance vs. Load	-0.4		+0.4	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V, O_{Load}=10\text{ pF}$ .
	Aging Tolerance 10 Years	-5		+5	$\times 10^{-6}$	$T_A=25^\circ\text{C}, V_{cc}=3.3V$ and after 1h of operation.
Power Supply	Current Consumption			30	mA	@25°C, $V_{cc}=3.3V, O_{load}=10\text{ pF}$ .
	Supply Voltage	3.14	3.3	3.46	V	
	Start-up time			5	ms	vs. Frequency: Within $\pm 1.0$ ppm
			50	ms	vs. Output Level: To 90% of $V_{p-p}$	



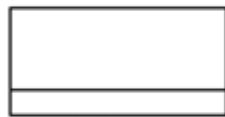
Phase Noise	Phase Noise		-78	-75	dBc/Hz	10Hz
			-108	-105		100Hz
			-133	-130		1KHz
			-143	-140		10KHz
			-148	-145		100KHz
			-153	-150		1MHz
Environmental Conditions	Operable Temperature	-40		+85	°C	
	Storage Temperature	-40		+90	°C	
	ESD Level	Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC 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 (°C)	-10~35°C				



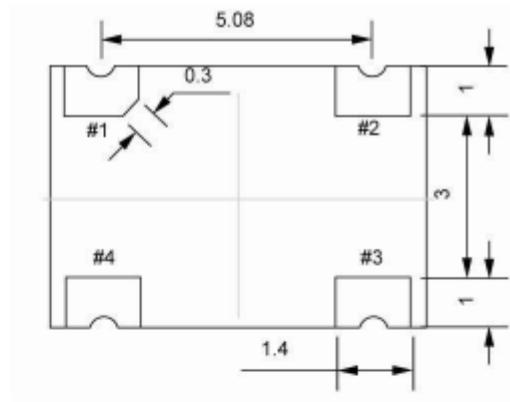
## 2. Mechanical Structure(mm)



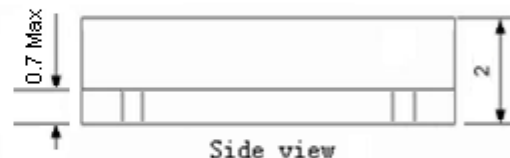
Solder pad layout



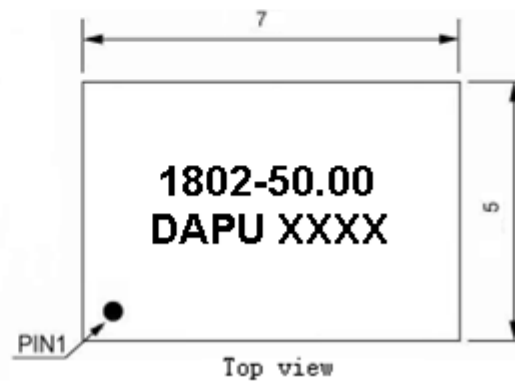
Right view



Bottom view



Side view



Top view

### PIN FUNCTION

PIN	NOTATION	FUNCTION
1	NC	Not Connect
2	GND	GND
3	OUTPUT	RF Output
4	VCC	Supply Voltage

**Note1:** Tolerance  $\pm 0.20\text{mm}$  without mark

**Note2:** The first two xx representative: year

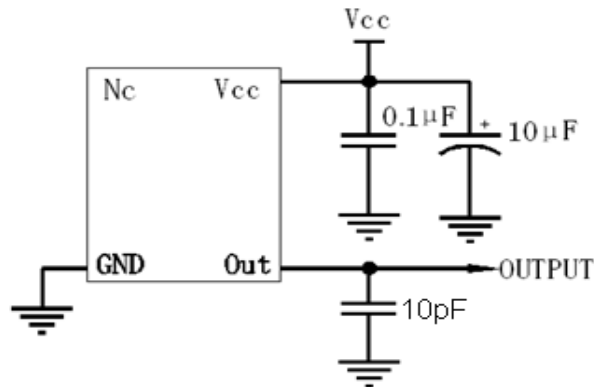
After two xx representative: week

**Note3:** Referential Weight 0.2g

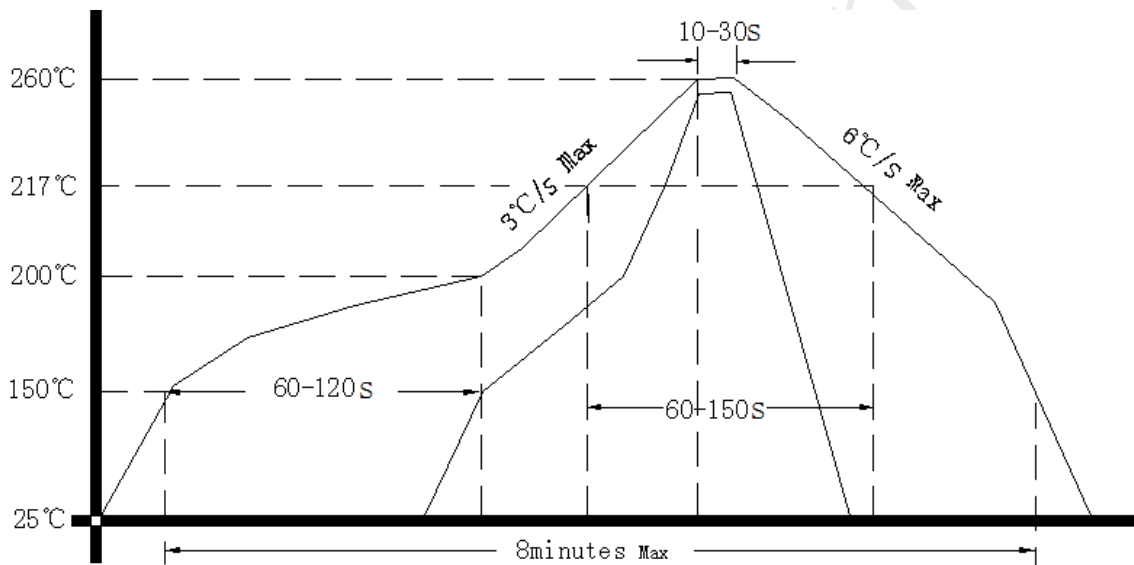
**Note4:** NC is not connect



### 3. Test circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package: Tape & Reel (mm)

