



1. Electrical Parameters

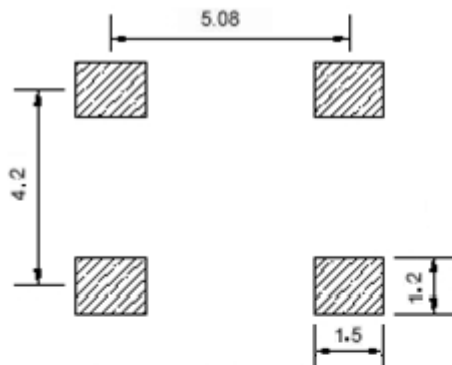
MODEL: T75B-1804-19.20MHZ						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	19.20			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.33	V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Output High Voltage	2.97			V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			8	ns	@25°C
	2nd Harmonics			-35	dBc	
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.28		+0.28	$\times 10^{-6}$	T_A varied from -40°C to 85°C, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, $V_{cc}=3.3V, O_{load}=15\text{ pF}$, temperature variable speed less than 2°C per minute.
	Initial Frequency Tolerance	-0.9		+0.9	$\times 10^{-6}$	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	-0.2		+0.2	$\times 10^{-6}$	T_A varied from -40°C to 85°C, $V_{cc} \pm 5\%$, $O_{Load}=15\text{ pF}$.
	Frequency Tolerance vs. Load	-0.2		+0.2	$\times 10^{-6}$	T_A varied from -40°C to 85°C, $15\text{ pF} \pm 5\text{ pF}$, $V_{cc}=3.3V$.
	Drift	-0.04		+0.04	$\times 10^{-6}/\text{day}$	$V_{cc}=3.3V, T_A=25^\circ\text{C}$.
	Slope			18	$\times 10^{-9}/^\circ\text{C}$	$T_A = 25^\circ\text{C} \pm 2^\circ\text{C}$
	Reflow soldering	-1.5		+1.5	$\times 10^{-6}$	Reflow cycles: 2 times.
	Short-Term Stability			1	$\times 10^{-9}/\text{s}$	T_A varied from -40°C to 85°C, constant temperature.
			0.01	$\times 10^{-6}/\text{s}$	$T_A = 25^\circ\text{C}$, supply power noise not less than 60mV.	



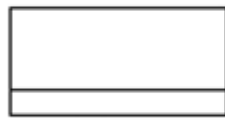
	Aging Tolerance 20 Years	-3		+3	$\times 10^{-6}$	$T_A=25^{\circ}\text{C}$, $V_{cc}=3.3\text{V}$ and after 1h of operation.
	Overall Stability	-4.6		+4.6	$\times 10^{-6}$	Including 20 years aging.
Power Supply	Current Consumption			6	mA	@ 25°C , $V_{cc}=3.3\text{V}$, $O_{load}=15\text{pF}$.
	Supply Voltage	3.135	3.3	3.465	V	
Phase Noise	Phase Noise @ 25°C		-90	-85	dBc/Hz	10Hz
			-120	-110		100Hz
			-142	-125		1KHz
			-152	-135		10KHz
			-155	-140		100KHz
Environmental Conditions	Operable Temperature	-40		+85	$^{\circ}\text{C}$	
	Storage Temperature	-55		+125	$^{\circ}\text{C}$	
	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 2.				
	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 ($^{\circ}\text{C}$)	-10~35 $^{\circ}\text{C}$				



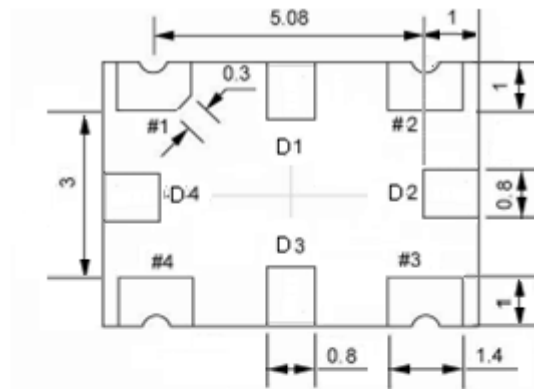
2. Mechanical Structure(mm)



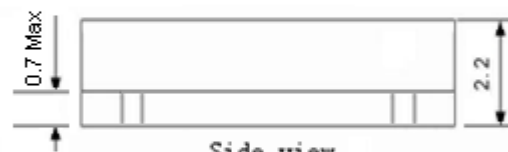
Solder pad layout



Right view



Bottom view



Side view



Top view

PIN FUNCTION

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

Note1: Tolerance ± 0.20 mm without mark

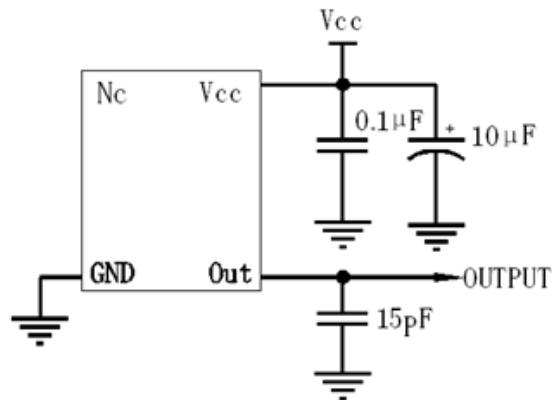
Note2: The first two xx representative: week
After two xx representative: year

Note3: Referential Weight 0.2g

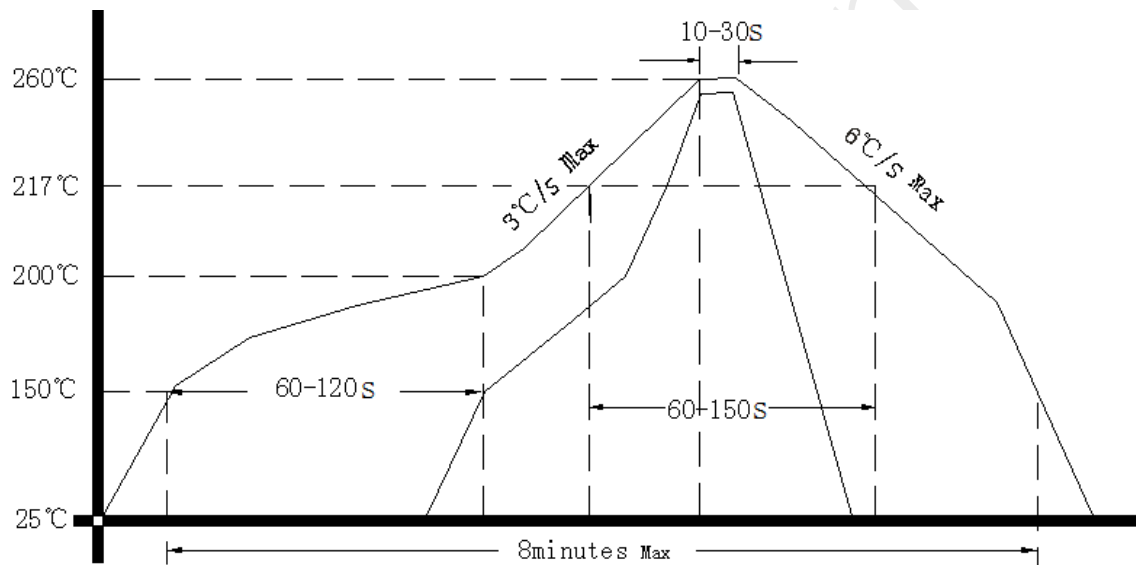
Note4: NC is not connect



3. Test circuit



4. Reflow Soldering Curve (RoHS)



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

5. Package: Tape & Reel (mm)

