



1. Electrical Parameters

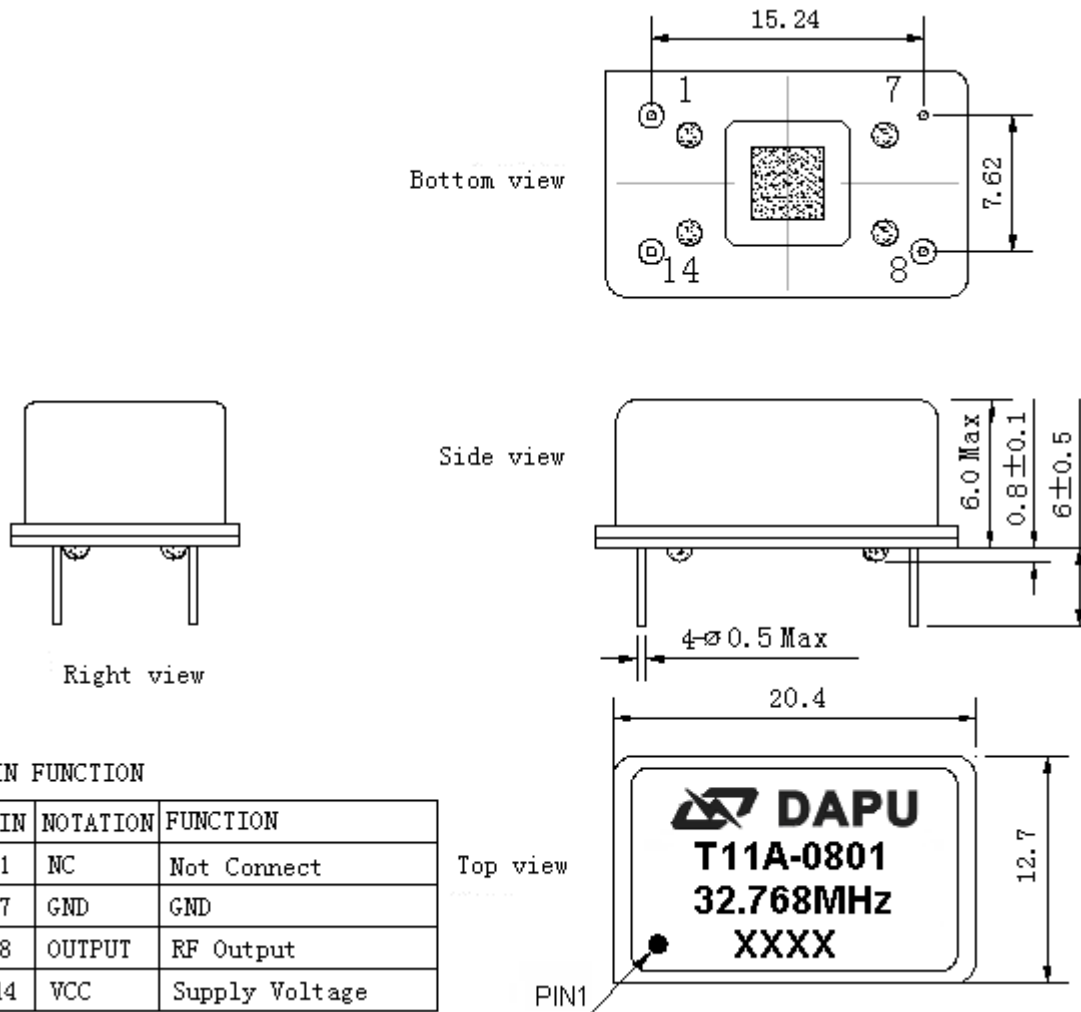
MODEL: T11A-0801-32.768MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	32.768			MHz	
	Output Waveform	HCMOS				20pF±10%
	Output Low Voltage			0.4	V	V _{cc} =5.0V, O _{load} =20pF
	Output High Voltage	2.8			V	V _{cc} =5.0V, O _{load} =20pF
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			5	ns	@25°C
	Load	20			pF	
	Harmonics Suppression			-35	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-2.5		+2.5	× 10 ⁻⁶	T _A varied from -40°C to -20°C, measurement referenced to frequency observed with T _A =25°C, V _{cc} =5.0V, O _{load} =20pF, temperature variable speed less than 2°C per minute.
		-1		+1	× 10 ⁻⁶	T _A varied from -20°C to 70°C, measurement referenced to frequency observed with T _A =25°C, V _{cc} =5.0V, O _{load} =20pF, temperature variable speed less than 2°C per minute.
		-2.5		+2.5	× 10 ⁻⁶	T _A varied from 70°C to 85°C, measurement referenced to frequency observed with T _A =25°C, V _{cc} =5.0V, O _{load} =20pF, temperature variable speed less than 2°C per minute.
	Initial Frequency Tolerance	-1		+1	× 10 ⁻⁶	Measurement referenced to frequency observed with T _A =25°C ±2°C, 10% load change and V _{cc} varied from 4.75V to 5.25V, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.2		+0.2	× 10 ⁻⁶	measurement referenced to frequency observed T _A =25°C, V _{cc} varied from 4.75V to 5.25V, and O _{Load} =20pF.
	Frequency Tolerance vs. Load	-0.1		+0.1	× 10 ⁻⁶	10% load change measurement referenced to frequency observed with T _A =25°C, V _{cc} =5.0V, O _{Load} =20pF.
	Short-Term Stability: Allan Variance			0.2	× 10 ⁻⁹	Temperature stability, no EMI\EMC or other interference, test after power for 30 mins ref. to 25°C; 1s, using PN9000 equipment.



	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	$T_A=25^{\circ}\text{C}$, $V_{cc}=5.0\text{V}$, and after 1h of operation.	
	Aging Tolerance 10 Years	-5		+5	$\times 10^{-6}$		
Power Supply	Current Consumption			20	mA	@ 25°C , $V_{cc}=5.0\text{V}$, $O_{load}=20\text{pF}$	
	Supply Voltage	4.75	5.0	5.25	V		
	Absolute Supply Voltage	4.0	5.0	6.0	V		
Phase Noise	Phase Noise @ 25°C			-70	dBc/Hz	10Hz	
				-105		100Hz	
				-125		1KHz	
				-135		10KHz	
				-140		100KHz	
Environmental Conditions	Operable Environmental Condition	Temperature: $-40^{\circ}\text{C}\sim+85^{\circ}\text{C}$					
		Humidity: 10%~90%RH					
		Working Air Pressure: 76kPa~106kPa					
	Storage/Transportation Condition	Temperature: $-50^{\circ}\text{C}\sim+95^{\circ}\text{C}$					
		Humidity: 5%~95%RH					
		Working Air Pressure: 76kPa~106kPa					
	Bump	400m/s ² ; 6ms; (4000±10 times for each 3 directions X , Y , Z) .IEC 60068-2-29 Test Eb.					
Vibration	Test Condition: 0.75mm ; 10Hz~55Hz, one cycle per 30 min. (each 3 directions X , Y , Z) .IEC 60068-2-06 Test Fc.						
Shock	1000 m/s ² ; 6ms; half sine wave (3 times for each 6 directions X , Y , Z),IEC 60068-2-27 Test Ea.						
After test, all specifications still meet the requirements.							
Producibility	Solderability	IEC 600679-1 1997 4.6.3.1 Solderability ; GB/T2423.28-2005.					
	Resistant To Soldering Heat	IEC 600679-1 1997 4.6.3.2 Resistance to soldering heat ; GB/T2423.28-2005.					
	Inner Technology	IPCA-610D (Acceptability of Electronic Assemblies) .					
	Tensile Strength Of Leads	IEC 600679-1 1997 4.6.1.1 Tensile and thrust tests on terminations.					
Full Package Storage	Relative humidity (%)	20%~70%					
	Temperature (°C)	-10~35°C					



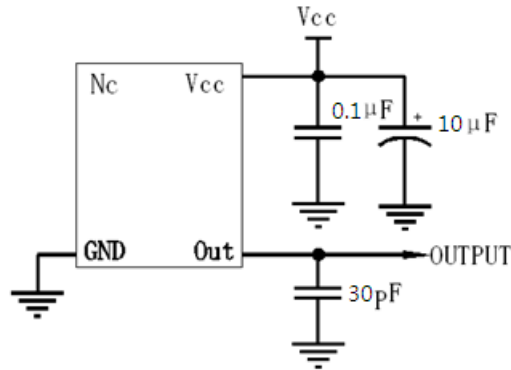
2. Mechanical Structure(mm)



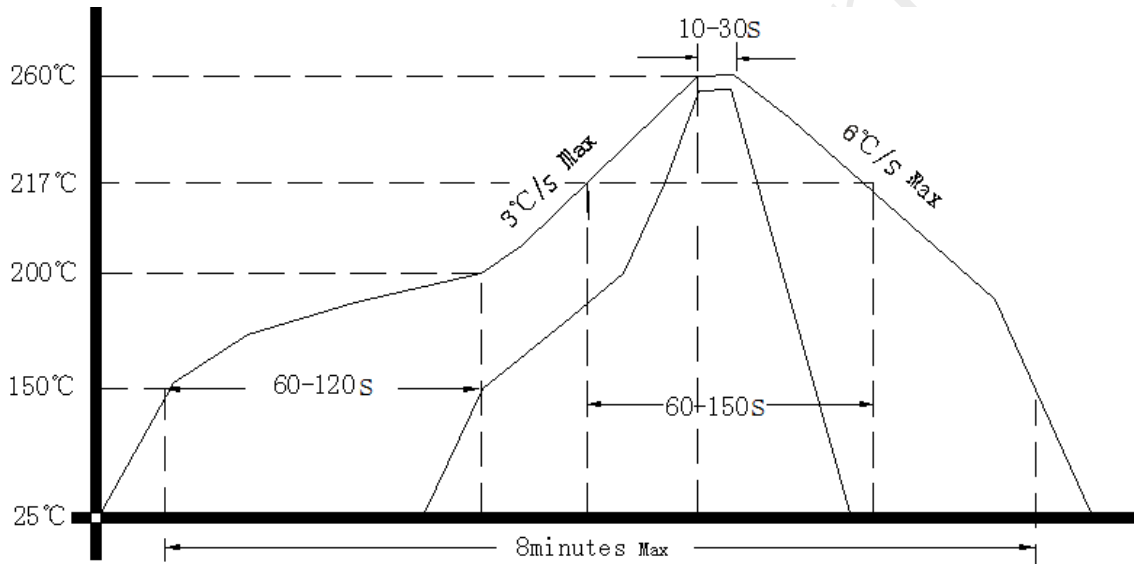
- Note1:** Tolerance $\pm 0.20\text{mm}$ without mark
- Note2:** The first two xx representative: week
After two xx representative: year
- Note3:** Referential Weight 3.8g
- Note4:** NC is not connect
- Note5:** Material composition and coating :
Pad/terminals: Fe-Co-Ni Alloy; Nickel Plating
Base: Fe
Cover: Stainless steel; Nickel Plating



3. Test circuit



4. Reflow Soldering Curve (RoHS)



5. Package: PVC Tube,10pcs (mm)

