

Customer Code : \_\_\_\_\_

# DATASHEET

DAPU P/N : T936-H412-50.00MHz

P/N : \_\_\_\_\_

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2023.11.20			

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## 1. Electrical Parameters

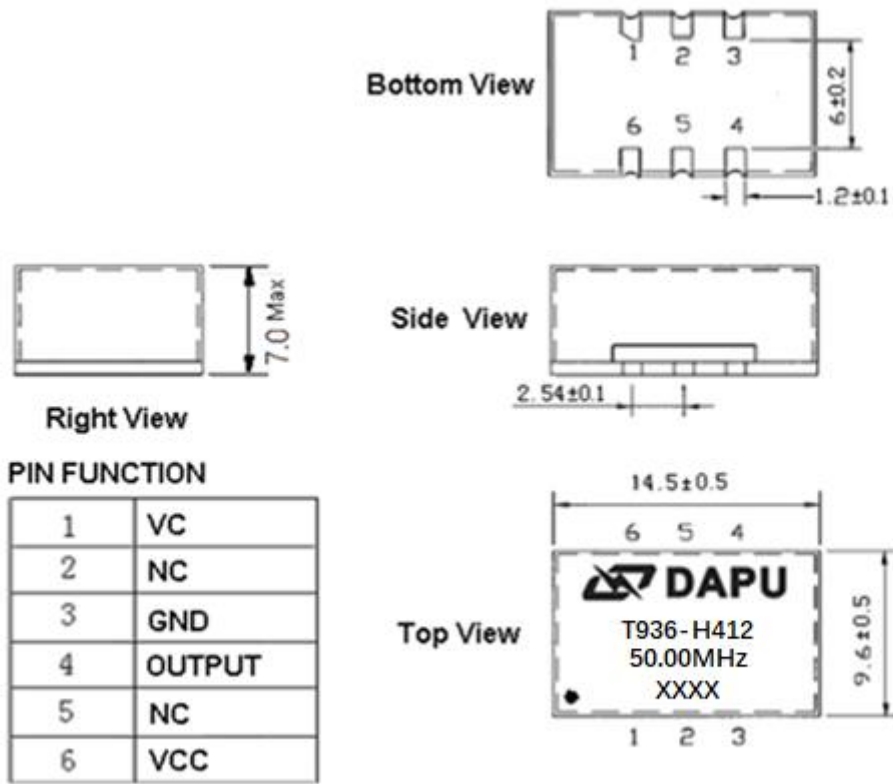
MODEL: T936-H412-50.00MHz							
Item	Description	Parameters			Unit	Test Condition	
		Min.	Typ.	Max.			
Output	Frequency	50.00			MHz		
	Output Waveform	Sine Wave					
	Level	5			dBm		
	Harmonics Suppression			-30	dBc		
	Spurious Suppression			-60	dBc		
	Load	50			$\Omega$		
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range		-0.5		+0.5	$\times 10^{-6}$	$T_A$ varied from $-40^\circ\text{C}$ to $85^\circ\text{C}$ , measurement referenced to frequency observed with $f_{\text{ref}} = (f_{\text{max}} + f_{\text{min}}) / 2$ , $V_{\text{cc}} = 3.3\text{V}$ , $V_c = 1.5\text{V}$ , $O_{\text{load}} = 50\Omega$ , temperature variable speed less than $2^\circ\text{C}$ per minute.
			-1		+1	$\times 10^{-6}$	$T_A$ varied from $-45^\circ\text{C}$ to $-40^\circ\text{C}$ , measurement referenced to frequency observed with $f_{\text{ref}} = (f_{\text{max}} + f_{\text{min}}) / 2$ , $V_{\text{cc}} = 3.3\text{V}$ , $V_c = 1.5\text{V}$ , $O_{\text{load}} = 50\Omega$ , temperature variable speed less than $2^\circ\text{C}$ per minute.
	Initial Frequency Tolerance	-1.0		+1.0	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A = 25^\circ\text{C}$ , $V_{\text{cc}} = 3.3\text{V}$ , $V_c = 1.5\text{V}$ , and after 15 minutes of operation, within 30 days after ex-works.	
	Frequency Tolerance vs. Supply Voltage	-0.1		+0.1	$\times 10^{-6}$	measurement referenced to frequency observed $T_A = 25^\circ\text{C}$ , $V_{\text{cc}}$ varied from 3.13V to 3.47V, $V_c = 1.5\text{V}$ , and $O_{\text{Load}} = 50\Omega$ .	
	Frequency Tolerance vs. Load	-0.1		+0.1	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with $T_A = 25^\circ\text{C}$ , $V_{\text{cc}} = 3.3\text{V}$ , $V_c = 1.5\text{V}$ , $O_{\text{Load}} = 50\Omega$ .	
	Aging Tolerance Per Day	-10		+10	$\times 10^{-9}$	TA=25°C, V <sub>cc</sub> =3.3V, V <sub>c</sub> =1.5V and after 1h of operation.	
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$		
	Aging Tolerance 10 Year	-4.6		+4.6	$\times 10^{-6}$		
Power Supply	Current Consumption		30		mA	@25°C, V <sub>cc</sub> =3.3V, O <sub>Load</sub> =50Ω.	
	Supply Voltage	3.13	3.3	3.47	V	@25°C	



Voltage Control Characteristics	Frequency Tuning Range	-15		-9	$\times 10^{-6}$	$V_c=0.5V$ . measurement referenced to $V_c=1.5V$
		-1		+1	$\times 10^{-6}$	$V_c=1.5V$ . measurement referenced to exactly 50.00MHz
		+9		+15	$\times 10^{-6}$	$V_c=2.5V$ . measurement referenced to $V_c=1.5V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100				K $\Omega$
Phase Noise	Phase Noise @25°C		-80		dBc/Hz	10Hz
			-110			100Hz
			-140			1KHz
			-150			10KHz
			-155			100KHz
Environmental Conditions	Operable Temperature	-45		+85	°C	
	Storage Temperature	-55		+105	°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 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.					



## 2. Mechanical Structure(mm)



**Note1:** Tolerance ±0.2mm without mark

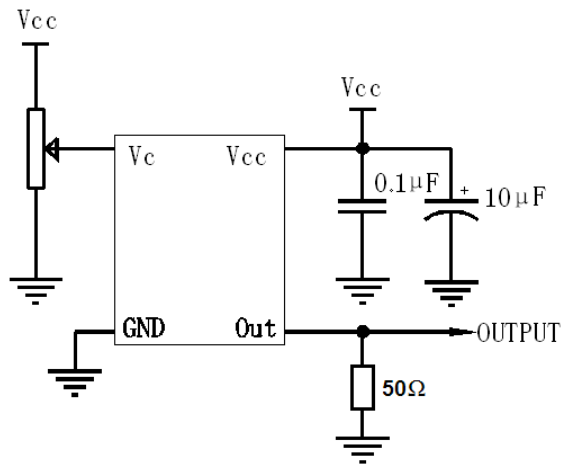
**Note2:** Referential weight 2.2g

**Note3:** NC is not connect

**Note4:** The first two xx representative: week  
After two xx representative: year



### 3. Test circuit



### 4. Reflow Soldering Curve (RoHS)

