

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

# DATASHEET

**DAPU P/N:** T2016C-B5A9CD-52.00MHz-D0

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Jieshu ZHENG	Jianhua LIN	Gangtao FENG	
Date:	2025/1/17		

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### Table of amendment

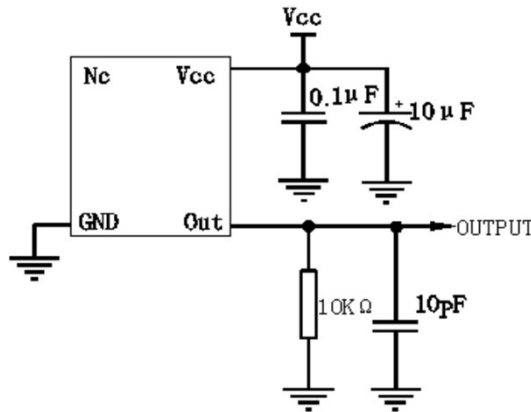
Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Jieshu ZHENG	2025/1/17

## 1、Electrical Parameter

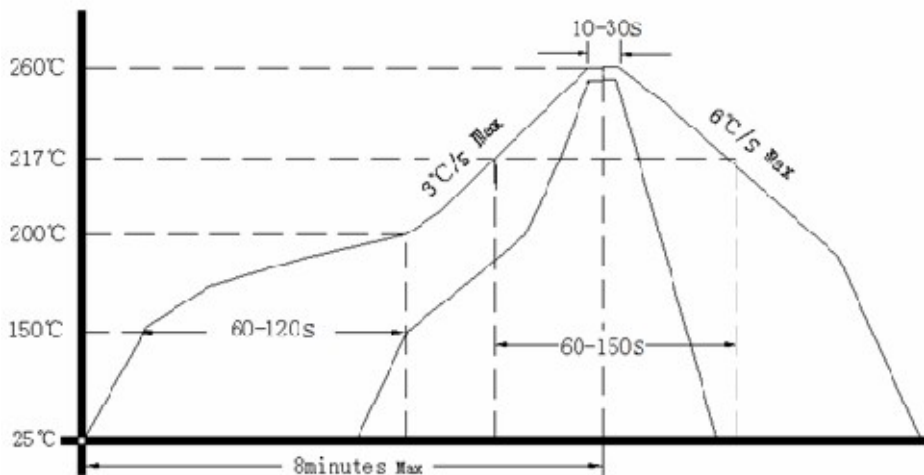
MODEL:		T2016C-B5A9CD-52.00MHz-D0				
No.	Description	Parameters			Units	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	52.000			MHz	
	Output Waveform	Clipped Sine Wave			-	
	Vp-p	0.8			V	
	Spurious Suppression			-8	dBc	
	Load	10KΩ//10pF			-	
Frequency Stabilities	Frequency Tolerance	-1.5		1.5	$\times 10^{-6}$	@25±2°C, 2H, after 2 times reflow soldering, base on nominal frequency.
	vs. Temperature	-0.5		0.5	$\times 10^{-6}$	T <sub>A</sub> varied from -40°C to 85°C, measurement referenced to frequency observed with f <sub>ref</sub> =(f <sub>max</sub> +f <sub>min</sub> )/2, V <sub>CC</sub> =3.3V, O <sub>load</sub> =10KΩ//10pF, temperature variable speed less than 2°C per minute.
	vs. Supply Voltage	-0.1		0.1	$\times 10^{-6}$	measurement referenced to frequency observed T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V±10%, and O <sub>Load</sub> =10KΩ//10pF.
	vs. Load	-0.1		0.1	$\times 10^{-6}$	10% load change measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, and O <sub>Load</sub> =10KΩ//10pF.
	Aging Tolerance 1 Year	-1		1	$\times 10^{-6}$	T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, and after 1h of operation.
	Clock Drift	-15		15	ppb/s	-40~85°C, 0.17°C/s
	Frequency Slope	-0.1		0.1	ppm/°C	TA varied from -40°C to 85°C
Power Supply	Current consumption			3	mA	@25°C, V <sub>cc</sub> =3.3V, O <sub>Load</sub> =10KΩ//10pF.
	Start up Time			2	ms	More than 90% of final output voltage
	Supply Voltage	1.71	3.30	3.63	V	
SSB Phase Noise	Phase Noise@25±2°C			-50	dBc/Hz	1Hz
				-83		10Hz
				-113		100Hz
				-138		1KHz
				-145		10KHz
				-153		100KHz
				-155		1MHz

Environmental Conditions	Operable Temperature	-40		85	°C	
	Storage Temperature	-55		105	°C	
	ESD Level	Human Body Model, class 2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V; 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 direction s X ,Y, Z ), IEC 68-2-27 Test Ea/Severity 50A.					
Full Package Storage	Relative humidity (%)	20%~70%				
	Temperature (°C)	-10~35°C				

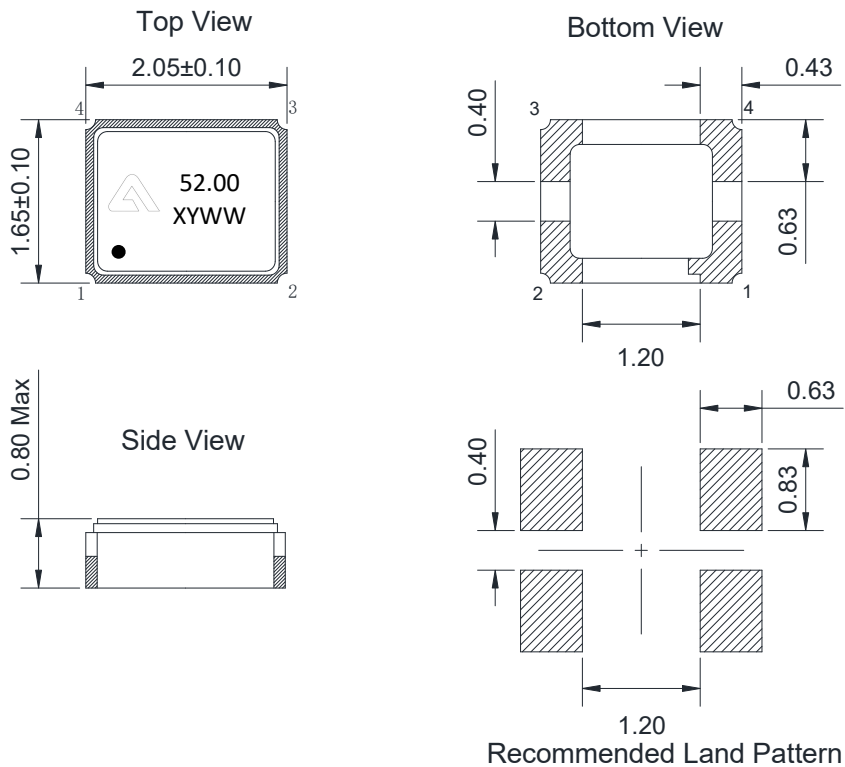
## 2、 Test Circuit



## 3、 Reflow Soldering Curve (RoHS)



#### 4、 Mechanical Structure(mm)



Note: X representative internal code ,Y representative year, WW representative week

PIN NAME	CONNECTION
PIN1	NC
PIN2	GND
PIN3	F <sub>OUT</sub>
PIN4	V <sub>CC</sub>