

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

# DATASHEET

**DAPU P/N:** T2520G-B01900-24.00MHz-N0

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Jieshu ZHENG	Jianhua LIN	Gangtao FENG	
Date:	2024/1/23		

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### Table of amendment

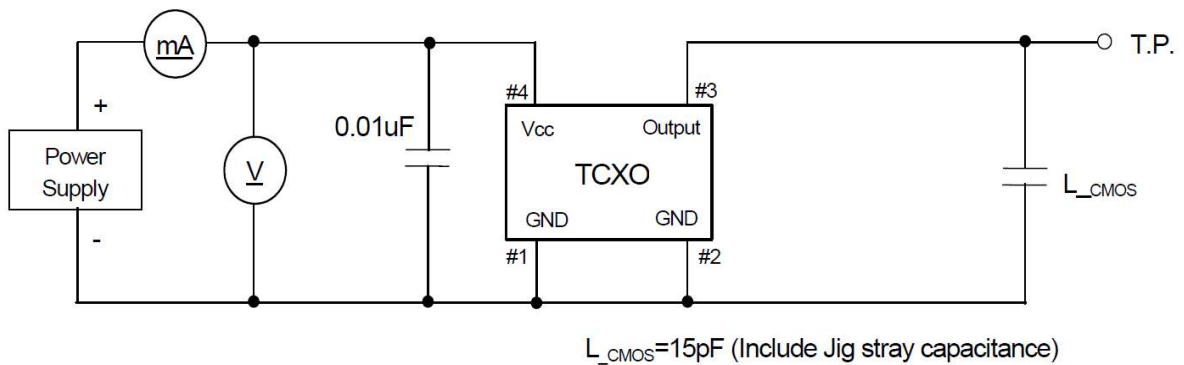
Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Jieshu ZHENG	2024/1/23

## 1、Electrical Parameter

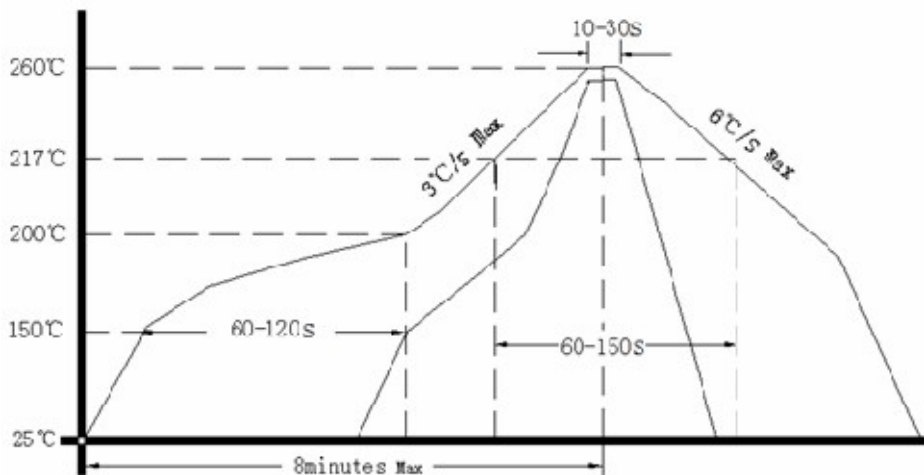
MODEL:		T2520G-B01900-24.00MHZ-N0				
No.	Description	Parameters			Units	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	24.000			MHz	
	Output Waveform	CMOS				
	High Level	0.9			V <sub>DD</sub>	
	Low Level			0.1	V <sub>DD</sub>	
	Rise/Fall Time			10	ns	V <sub>CC</sub> ×0.1~V <sub>CC</sub> ×0.9
	Symmetry	40	50	60	%	V <sub>CC</sub> ×0.5 Level
	Load	15pF				
Frequency Stabilities	Frequency Tolerance	-1.5		1.5	×10 <sup>-6</sup>	@25±2°C, 2H, after 2 times reflow soldering, base on nominal frequency.
	vs. Temperature	-2.5		2.5	×10 <sup>-6</sup>	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> =15pF, temperature variable speed less than 2 per minute.
	vs. Supply Voltage	-0.3		0.3	×10 <sup>-6</sup>	measurement referenced to frequency observed T <sub>A</sub> =25°C, V <sub>CC</sub> =3.3±5%, and O <sub>Load</sub> =15pF.
	vs. Load	-0.2		0.2	×10 <sup>-6</sup>	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> =15pF.
	Aging Tolerance 1 Year	-1		1	×10 <sup>-6</sup>	T <sub>A</sub> =25°C, V <sub>CC</sub> =3.3V, and after 1h of operation.
Power Supply	Current consumption			4	mA	@25°C, V <sub>CC</sub> =3.3V, O <sub>Load</sub> =15pF.
	Start up Time			2	ms	More than 90% of final output voltage
	Supply Voltage	3.135	3.3	3.465	V	
SSB Phase Noise	Phase Noise@25±2°C			-	dBc/Hz	1Hz
				-		10Hz
				-		100Hz
				-130		1KHz
				-		10KHz
				-		100KHz
				-		1MHz

Environmental Conditions	Operable Temperature	-40		85	°C	
	Storage Temperature	-40		85	°C	
	ESD Level	Human Body Model, class 2: 2000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V; JEDEC JESD22-A115C.				
	Moisture Sensitivity Level	Level 1.				
	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				

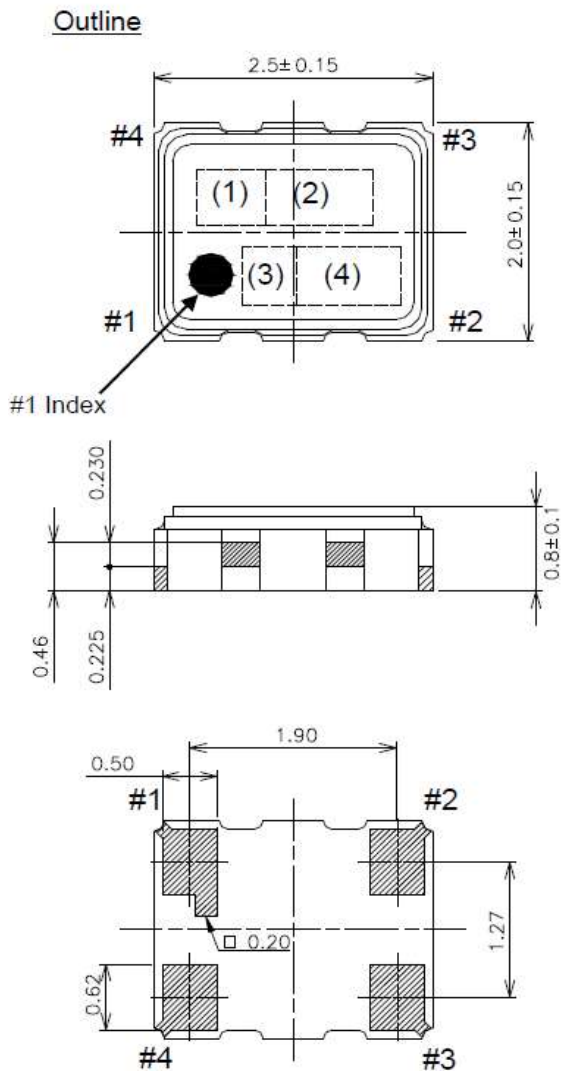
## 2 Test Circuit



## 3. Reflow Soldering Curve (RoHS)



## 4、 Mechanical Structure(mm)



### Pin Connections

Pin No.	Connection
#1	GND
#2	GND
#3	Output
#4	V <sub>CC</sub>

### Marking

(1) Model code	JA
(2) Frequency	24.0(MHz, 3digits)
(3) Logo	D
(4) Date code	Year(1digit)+Week(2digits) e.g.2019/1/1 → 901

unit: mm

Dimensional Tolerance:  $\pm 0.15$

(Unless otherwise noted)