

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

# DATASHEET

**DAPU P/N:** T2016G-B51900-30.72MHz-N0

DAPU			Customer Approval
Drew	Audited	Approved	
Jieshu ZHENG	Jianhua LIN	Gangtao FENG	
Date:	2024/1/15		
			Stamp, please! Thanks!

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### Table of amendment

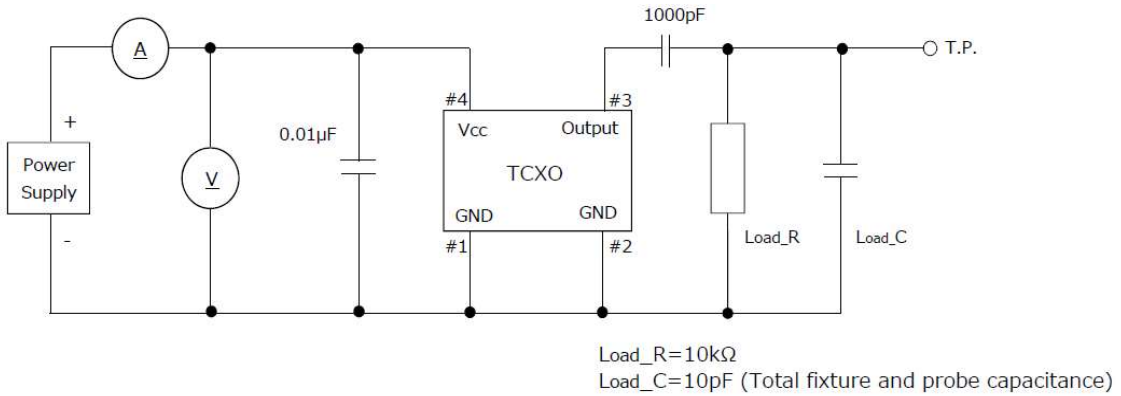
Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Jieshu ZHENG	2024/1/15

## 1、Electrical Parameter

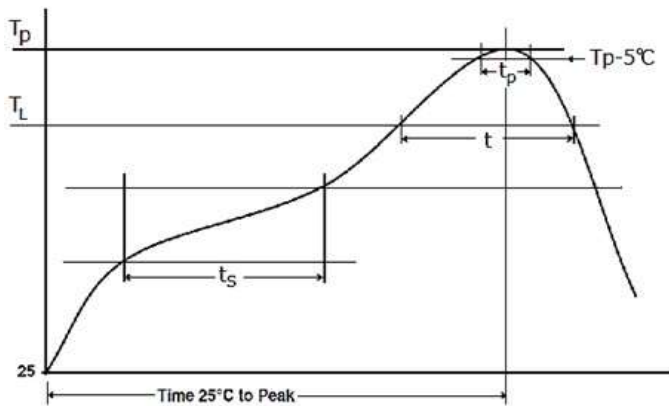
MODEL:		T2016G-B51900-30.72MHz-N0				
No.	Description	Parameters			Units	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	30.720			MHz	
	Output Waveform	Clipped Sine Wave				
	Vp-p	0.8			V	
	Spurious Suppression			-5	dBc	
	Load	10KΩ//10pF				
Frequency Stabilities	Frequency Tolerance	-1.5		1.5	$\times 10^{-6}$	@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 per minute.
	vs. Supply Voltage	-0.2		0.2	$\times 10^{-6}$	measurement referenced to frequency observed T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3±5%, and O <sub>Load</sub> =10KΩ//10pF.
	vs. Load	-0.2		0.2	$\times 10^{-6}$	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.
	Frequency Slope	-		-	ppm/°C	T <sub>A</sub> varied from -40°C to 85°C
Power Supply	Current consumption			2	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	3.14	3.30	3.47	V	
SSB Phase Noise	Phase Noise@25±2°C			-	dBc/Hz	1Hz
				-		10Hz
				-		100Hz
				-130		1KHz
				-		10KHz
				-		100KHz
				-		1MHz

Symmetry	-	40/60		60/40	%	GND level (DC cut)
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%				
	Load	10KΩ//10pF				

**2 Test Circuit**

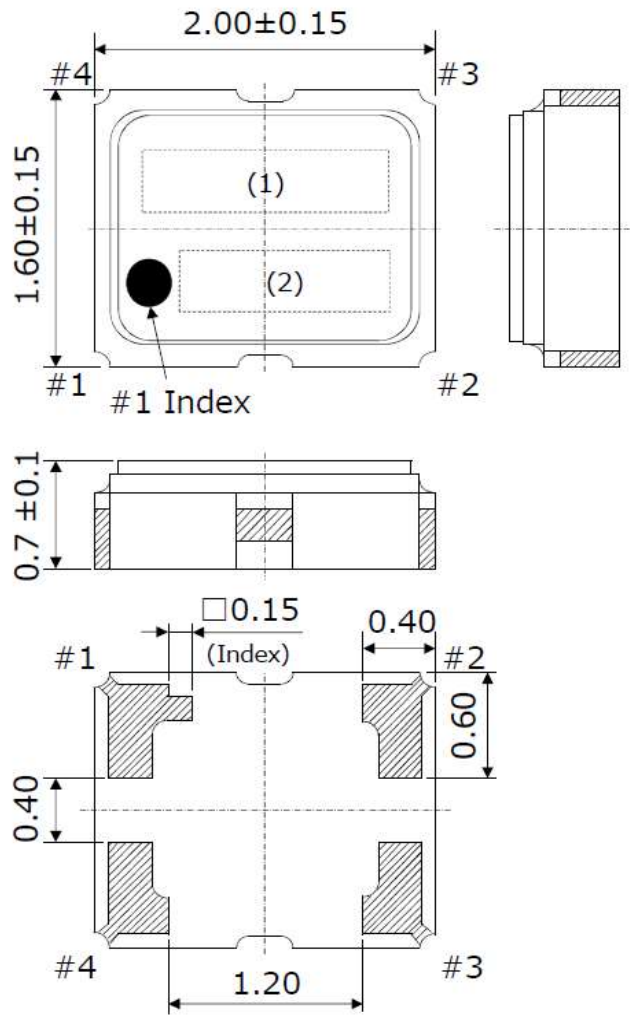


**3. Reflow Soldering Curve (RoHS)**



Ts	(°C)	150~200
ts time	(s)	60~120
TL	(°C)	217
t time	(s)	60~150
Tp	(°C)	max.260
tp	(s)	max.30

#### 4、 Mechanical Structure(mm)



#### Pin connections

Pin No.	Connection
#1	GND
#2	GND
#3	Output
#4	Vcc

Unit : mm

Dimensional tolerance :  $\pm 0.15$

(Unless otherwise noted)

(1) Frequency ex.) 30.720MHz → 30.72

(2) Lot No. ex.) 2022/01/01 → 201

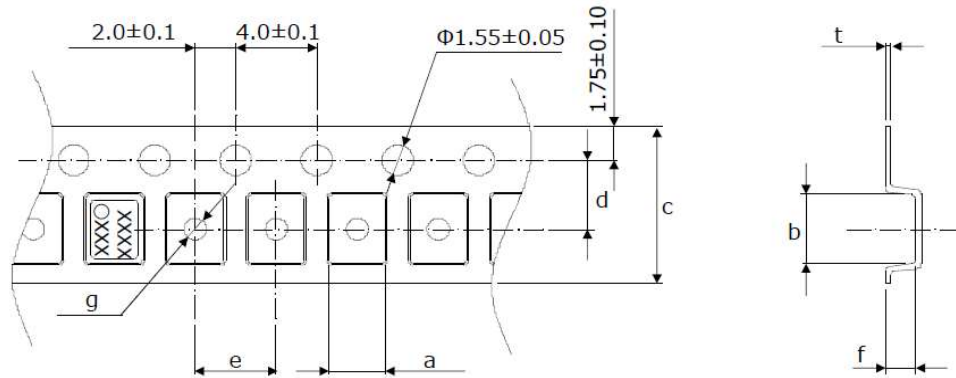
Year : The last digit of the year

Week : We gave the sequence of week numbers 01(first week) for production date.

There are starting from 1st of Jan. However, add '0' figure to the first week during the nine weeks.

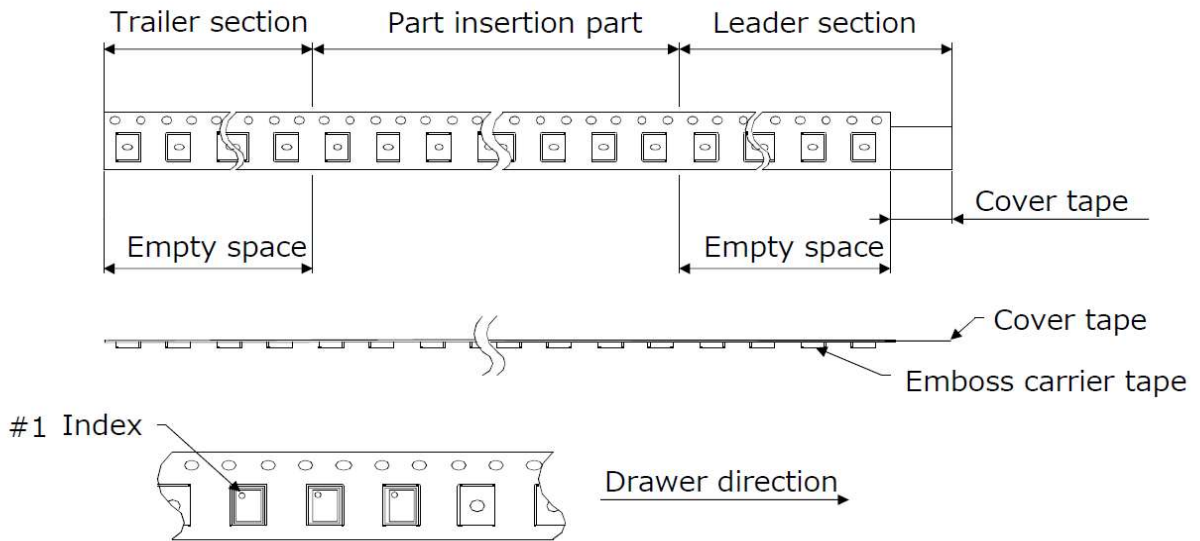
The week means are from Sunday to Saturday.

**5、 Packing**

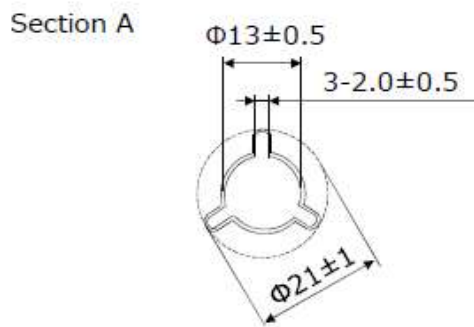
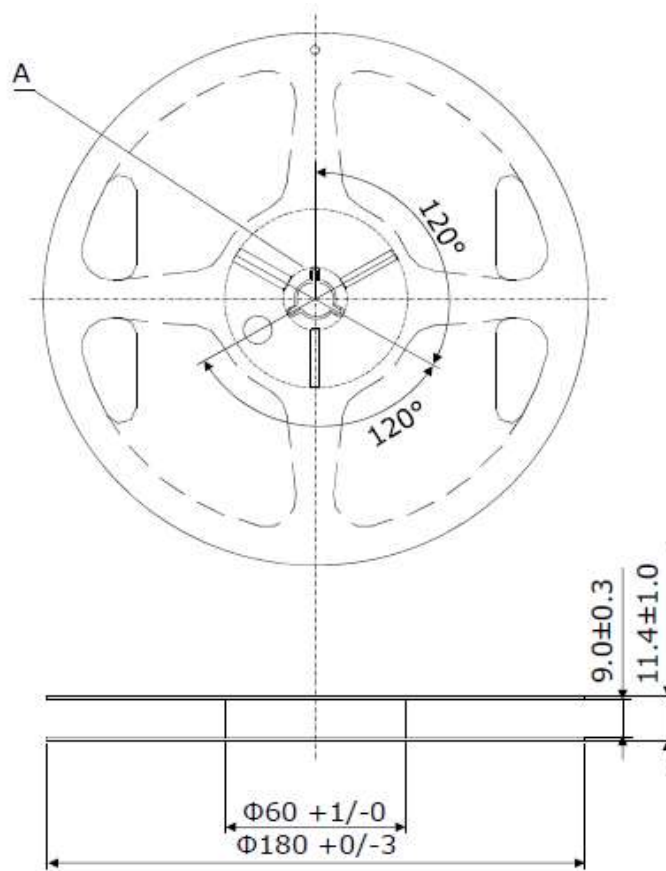


Symbol	a	b	c	d	e	f	t	g
Size	1.95 $\pm 0.10$	2.35 $\pm 0.10$	8.0 $\pm 0.2$	3.50 $\pm 0.05$	4.0 $\pm 0.1$	0.85 $\pm 0.10$	0.20 $\pm 0.05$	$\Phi 1.0$ $\pm 0.1$

Unit : mm



Leader section	Cover tape	The length of cover tape in the leader is more than 350mm including empty space area.
	Emboss carrier tape	After all products were packaged, must remain more than 10pieces or 150mm empty space area, which should be sealed by cover tape.
Trailer section	Cover tape	The empty space area which are sealed by cover tape must remain more than 350mm.
	Emboss carrier tape	



Unit : mm