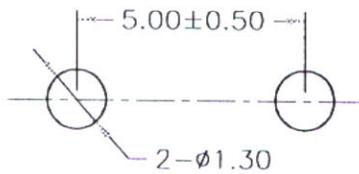
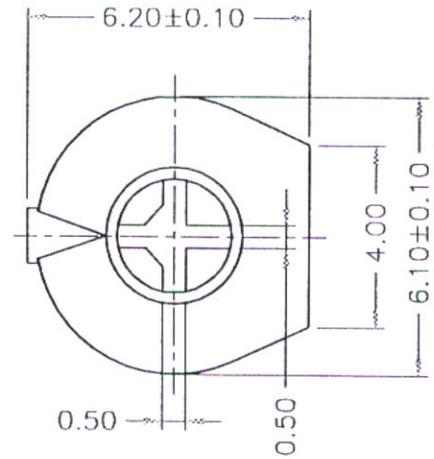
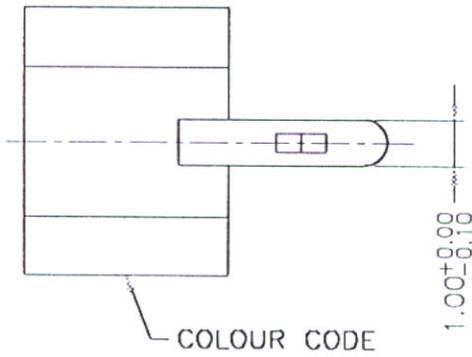
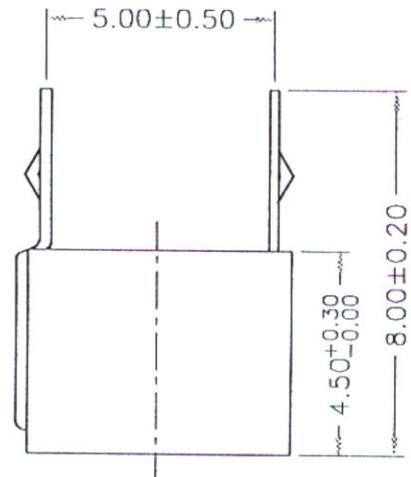


APPEARANCE

DRAWING



P.C.B Layout



PART NO.	COLOUR CODES
CVN-605	BLUE
CVN-610	WHITE
CVN-620	RED
CVN-630	GREEN
CVN-640	YELLOW
CVN-650	BROWN
CVN-660	BROWN
CVN-670	BLUE



DRAWN	廖军林	27-10-2000	MODEL NO	CVN-6□□		
CHECKED	伍枝	30-10-2000	SCALE	DRAWING NO	REV	SHEET/OF
APPROVED	Leo Jan	31-10-2000	6:1	WX-178	B	

SPECIFICATIONS AND APPLICATION LITERATURE OF CVN SERIES

I. SCOPE OF APPLICATIONS

This standard is stipulated as a variable magnetism CONDENSER (CERAMIC TRIMMER CAPACITOR) of outer circumference of a circle measurement 6mm \varnothing that used CERAMIC STATOR. This TRIMMER can be used in various WIRELESS APPARATUS, TUNER, partial blast-off of FRONT END and for adjustment of tuning circuit of such as crystal (quartz) clock.

II. SCOPE OF OPERATING TEMPERATURE

Surrounding temperature should be at -30~+85°C and the surface temperature of TRIMMER shall be less than +85°C when there are up-rising of temperature by conduction and radiation from other heat source.

III. TESTING ENVIRONMENT

Testing shall be done at temperature of 15-35°C and humidity of 40-75% unless otherwise there are no other problems, but it stipulates that the standard testing status is at temperature of 23 \pm 1°C, humidity of 50 \pm 2%.

IV. RATED VOLTAGE

The rated voltage is the maximum voltage (50V. DC) that withstands continuous use within the scope of operating temperature..

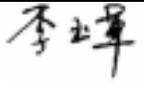
V. ELECTRIC SPECIALTY

5.1 Capacitance

When measured at frequency 1 MHz, the minimum and maximum temperature coefficient of capacitance satisfy the value of the rated table.

Part No.	Capacitance (pF)		Coefficient of temp. (XPPM/PC)	Color
	Min.	Max.		
CVN-605	> 2.0	5 +80%/-0% (5~9 pF)	NP0 \pm 200	BLUE
CVN-610	> 2.7	10 +50%/-0% (10~15pF)	N 470 \pm 300	WHITE
CVN-620	> 4.2	20 +50%/-0% (20~30pF)	N 750 \pm 300	RED
CVN-630	> 5.5	30 +50%/-0% (30~40pF)	N 750 \pm 300	GREEN
CVN-640	> 6.8	40 +50%/-0% (40~50pF)	N 1200 \pm 500	YELLOW
CVN-650	> 9.1	50 +50%/-0% (50~60pF)	N 1200 \pm 500	BROWN
CVN-660	> 10.2	60 +30%/-0% (60~78pF)	N 1200 \pm 500	BROWN
CVN-670	> 11.5	70 +30%/-5% (66.5~91pF)	N 1200 \pm 500	BROWN

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5.2 Capacitance by rotation angle

When it rotated to a reverse direction of capacitance by rotation angle of the TRIMMER, the value of capacitance by angle applies big value from either $\pm 1\%$ or 0.2pF to early phase value and make it less than the value.

5.3 Temperature specialty of capacitance or capacitance DRIFT

When it changed the temperature like table-1 at the location of more than 80% of the maximum rated capacitance and reached to heat parallel, and when the capacitance is measured at frequency $1 \pm 0.2\text{MHz}$, the temperature coefficient of capacitance or capacitance DRIFT satisfies the rated.

5.4 Incoming Voltage

Impressing 110V DC for rated incoming voltage to between both electrode, and when rotated the ROTOR to left and right in each one rotation, there should not be Short or Damage. But Direct Current shall be less than 50mA.

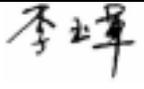
5.5 Q Factor

When measured at frequency $1 \pm 0.2\text{MHz}$, the following rated values should be satisfied.

Model	Q Value
CVN-605	MORE THAN 500
CVN-610	MORE THAN 500
CVN-620	MORE THAN 500
CVN-630	MORE THAN 500
CVN-640	MORE THAN 300
CVN-650	MORE THAN 300
CVN-660	MORE THAN 200
CVN-670	MORE THAN 300

5.6 Insulation Resistance

When measured at rated voltage in the location of maximum capacitance, the insulation resistance should be more than 10,000M ohm. But the charging time should be less than 40 seconds (50V DC).

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VI. MECHANICAL SPECIALTY

6.1 Strength of Terminal

When slowly added the weight of 250g to each terminal to direction of terminal and kept for 10 seconds, there should not be anything unusual mechanically and electrically. (TORQUE changes should satisfy Section 6.2 after each rotation.)

6.2 Rotation Torque

Rotation torque should be within 20~200g/cm in within the scope of 360°C. But the rotation speed should be 5~20rpm.

6.3 Condition of soldering

When soldered by soldering time 2 ± 0.5 seconds in the condition of soldering of temperature $230 \pm 5^\circ\text{C}$, each terminal should be soldered by more than 3/4 from all quantities inserted.

6.4 Rotation life

At the location of maximum capacitance, rotate 180° clockwise and return to the original position, and then return to original position again after rotation 180° anti-clockwise, and when rotated 100 CYCLES by doing this motion as one cycle, the change of maximum capacitance should be within the big value from either $\pm 12\%$ or 0.75pF. Torque should be within 20~200g.cm

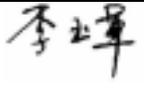
VII. ENVIRONMENTAL SPECIALTY (CONDITION)

7.1 Anti-vibration (Low frequency vibration)

After adding the variable vibration of vibration width 1.5m/m and frequency number 10~55 MHz to the direction of between X, Y and Z axes in each 2 hours, should satisfy Table-4. But the cycle of vibration number should be during 1 minute and the location should be 80~90% of capacitance maximum value.

7.2 SOLDER-DIP heat resistance

When dipped the top of each terminal to 1m/m during ± 0.5 second in condition of soldering temperature $270 \pm 5^\circ\text{C}$, should satisfy Table-2. But when it is done after kept in ordinary room temperature during 1~2 hours, the location of TRIMMER should be more

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than 80% of capacitance maximum value.

7.3 Humidity resistance

After doing temperature CYCLE of the Table in 1 CYCLE at the location of 80~90% of maximum rated capacitance, should keep to 40°C 90~95% RH testing during 96 ± 4 hours. And should satisfy Table-3

TEMPERATURE CYCLE

Step	1	2	3	4
Temperature (°C)	Room Temperature	-30 ⁺⁰ -3	+85 ⁺³ -0	Room Temperature
Time (minute)		60 ⁺³⁰ -0	60 ⁺³⁰ -0	10 -15

7.4 Life (High temperature Loading)

When kept during 1,000 ± 12 hours in maximum operating temperature ±3°C impressing 2 times' direct voltage of rated voltage at the location of 80~90% of maximum rated capacitance, should satisfy following specialty.

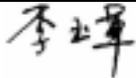
VIII. MARK

It should be marked by regulated color or letter on upper side of TRIMMER rotation part.

Model	Color
CVN-605	BLUE
CVN-610	WHITE
CVN-620	RED
CVN-630	GREEN
CVN-640	YELLOW
CVN-650	BROWN
CVN-660	BROWN
CVN-670	BROWN

IX. PACKING

Packing is to be in bulk with every 500 pcs. put in a polyester bag. Every carton shall contain 20

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bags and thus a total of 10,000 pcs.

TABLE-1 Temperature specialty of capacitance

Step	1	2	3	4	5
Temperature (°C)	20 ± 2	-25 ± 3	20 ± 2	85 ± 3	20 ± 5

TABLE-2 SOLDER-DIP heat resistance

Item	Standard
External Appearance	There should not be remarkable ab-normalty
Change of capacitance	within ±5%
Q	satisfy Section 5.5
Torque	satisfy Section 6.2

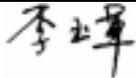
TABLE-3 Humidity Resistance

Item	Standard
External Appearance	There should not be remarkable ab-normalty
Change of capacitance	within ±5%
Q	More than 150
Insulation Resistance	More than 10,000M ohm

TABLE-4 Vibration Resistance

Item	Standard
External Appearance	There should not be remarkable ab-normalty
Change of capacitance	should be less than ±2% or 0.5pF, whichever is bigger
Q	More than 200
TORQUE	Satisfy Section 6.2
Incoming Voltage	Satisfy Section 5.4

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