



VCO Specifications

Unit Name	Voltage Controlled Oscillator
Part Name	KSV-3.3S775AY
Date	June 24, 2004

Written by	Checked by	Approved by



Systron Inc.
1274 - 3rd Avenue South
Lethbridge, Alberta
T1J 0J9 Canada

Phone: (403) 327-1444
Fax: (403) 327-1480
e-mail: sales@systroninc.com

1. Scope.

This specification applied to KSV-3.3S775AY VCO.

2. Material Lists

PART NAME	MATERIAL
P. C. Board	Glass cloth epoxide resin
Case	Nickel Silver-Sheets (C7710)

3. Ratings

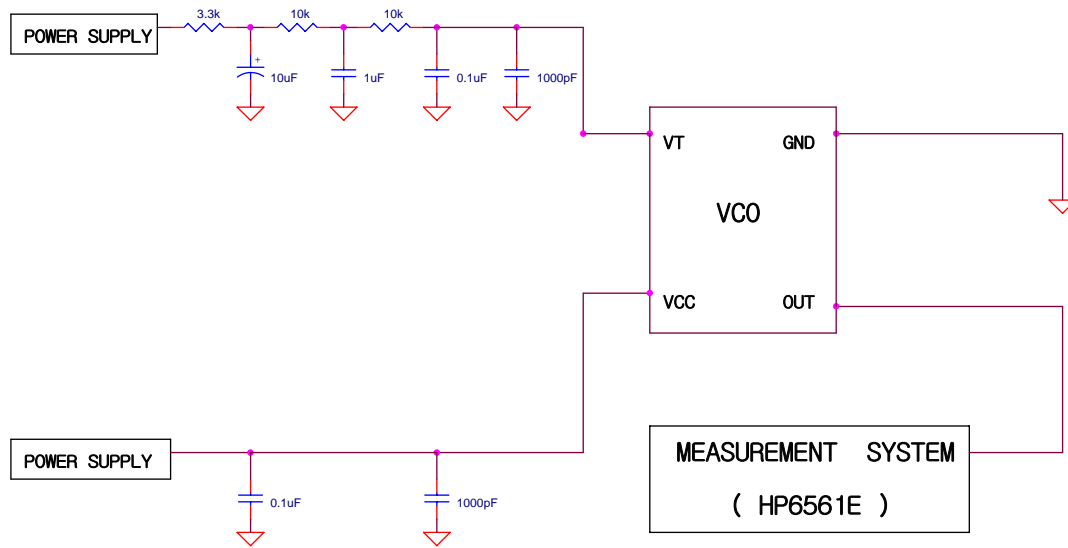
	ITEM	SYMBOL	RATING	UNIT
1	Supply Voltage	Vcc	3.3 ± 10%	V
2	Tuning Voltage	Vt	0.3 ~ 3.0	V
3	Operating Temperature	Top	-40 ~ +85	°C
4	Storage Temperature	Tstg	-40 ~ +85	°C
5	Storage Humidity	Hstg	5 ~ 95%	%

4. Electrical Characteristics

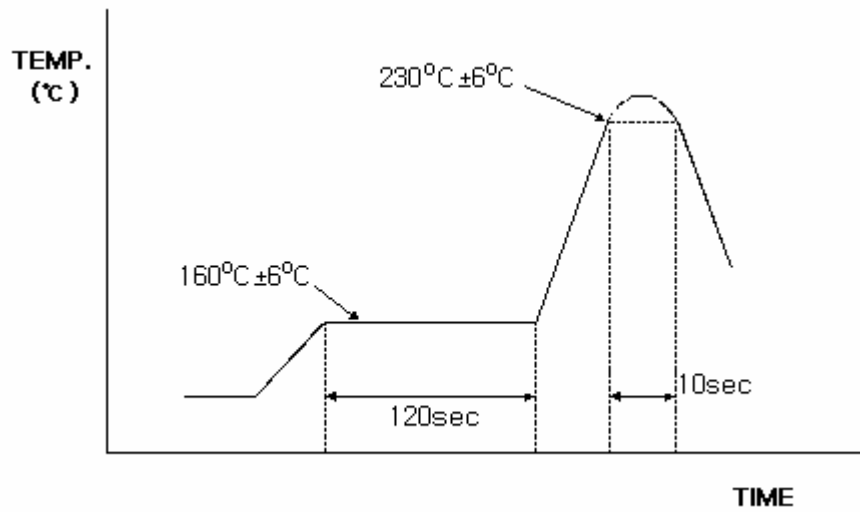
This test shall be performed under the conditions of temp. At 25 ± 3°C, humidity 60% max.

ITEM	SPEC.			UNIT	Test conditions
	Min	Typ	Max		
Supply Voltage		3.3		V	DC Voltage
Frequency			762	MHz	Vcc = 3.3V, Vt = 0.3V
	788				Vcc = 3.3V, Vt = 3.0V
Current		15		mA	Vcc = 3.3V, Vt = 1.65V
Output Level	0	3	6	dBm	Vcc = 3.3V, Vt = 1.65V
Phase Noise (C/N)		-104	-100	dBc/Hz	10kHz offset, BW = 1Hz
		-125	-120	dBc/Hz	100kHz offset, BW = 1Hz
		-143	-137	dBc/Hz	1MHz offset, BW = 1Hz
2 nd Harmonic		-15		dBc	Vcc = 3.3V, Vt = 1.65V
Tuning Sensitivity		20		MHz/V	Vt = 0.3V ~ 3.0V
Pulling		TBD		kHz	Vcc = 3.3V, Vt = 1.65V VSWR = 2 All phase
Pushing		TBD		kHz	Vcc = 3.3V ± 0.3V, Vt = 1.65V

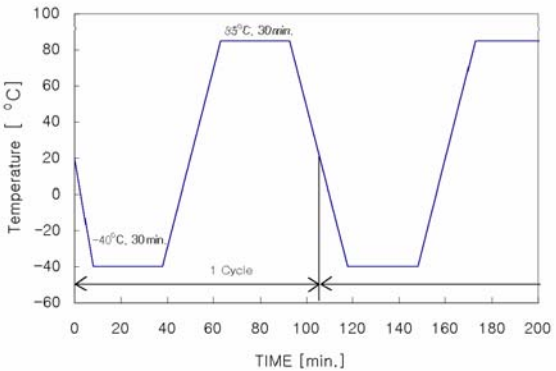
5. Measurement Circuit



6. Soldering Time Profile

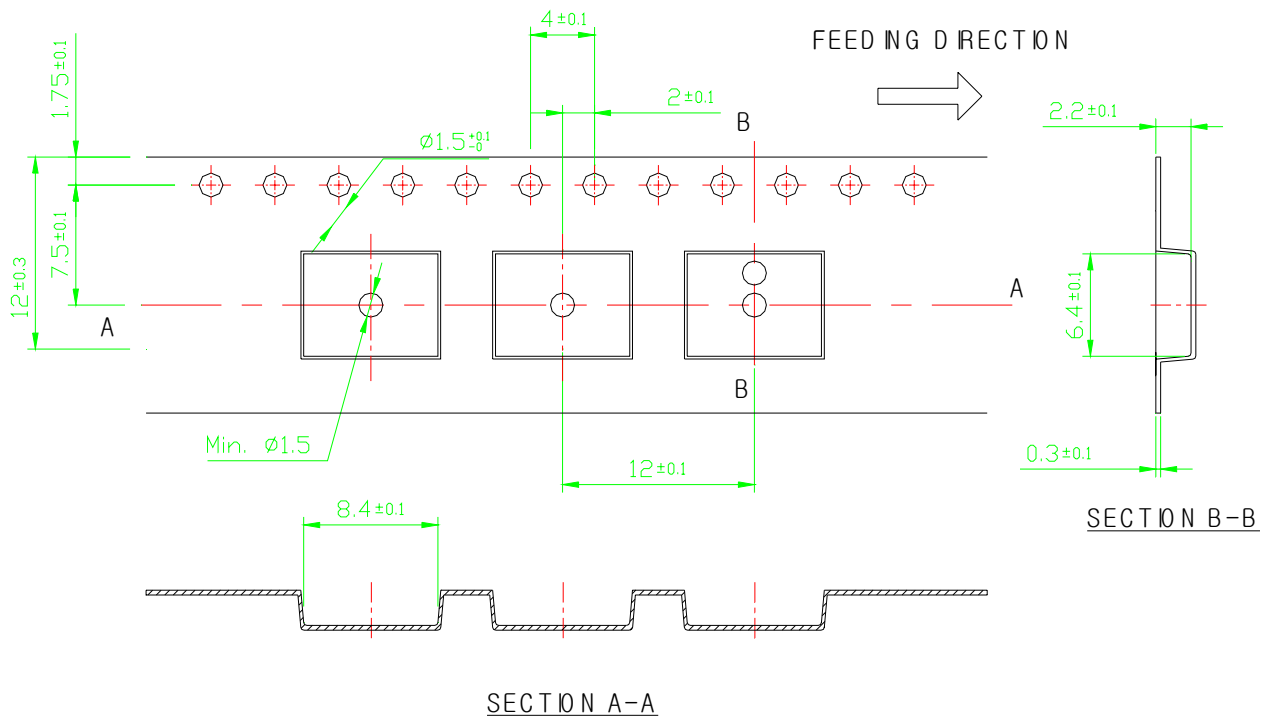


7. Environmental Requirement

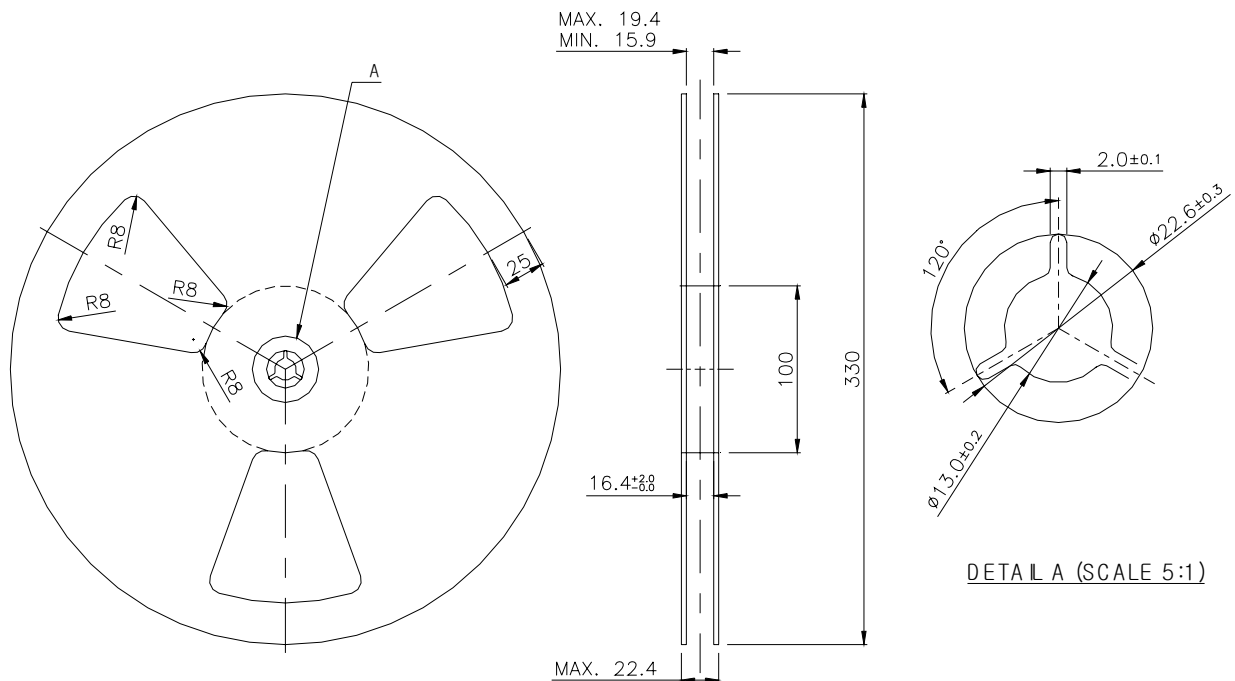
No	ITEM	Condition and Method	Evaluation
1	High Temperature Test	Temp. : +85°C ± 2°C Time : 96hrs ± 2hrs When measured after 2 to 24 hours in normal condition	It shall be satisfied electrical requirement, and not be mechanical damage.
2	Low Temperature Test	Temp. : -40°C ± 2°C Time : 96hrs ± 2hrs When measured after 2 to 24 hours in normal condition	
3	High Temperature & High Humidity	Temp. : +60°C ± 2°C Humi. : 90~95%RH Time : 72hrs ± 2hrs When measured after 2 to 24 hours in normal condition	
4	Temperature Cycle	 <p>-40°C 30min., +85°C 30min., 5 Cycle When measured after 2 to 24 hours in normal condition</p>	
5	Vibration Test	Freq. : 10 to 30Hz, Amplitude : 1.52mm Freq. : 30~60Hz, 6G Cycle : 20 min. / Cycle Position : Three perpendicular planes.	
6	Shock Test	Height : 75cm Times : 3 Method : Dropped onto wood surface	

8. Packing

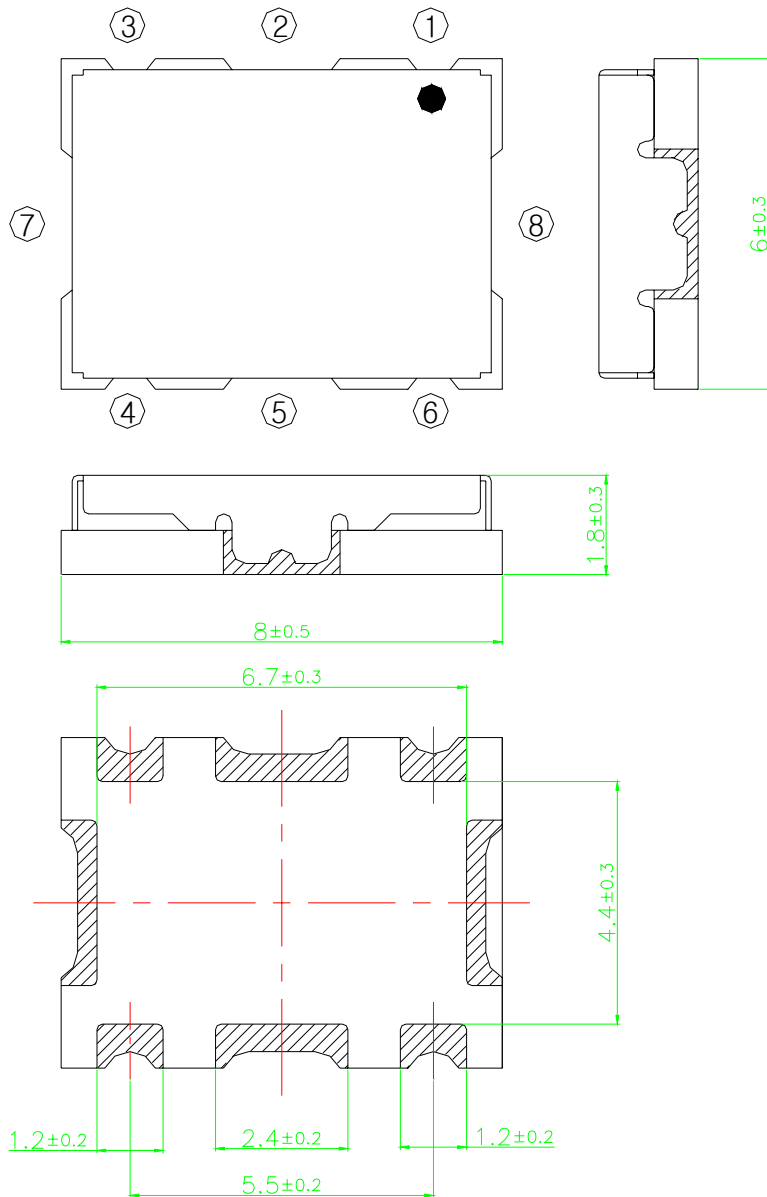
8-1 Embossed Tape



8-2 Reel dimensions



9. Mechanical Characteristics



1	RF OUT
2	GND
3	GND
4	Vt
5	GND
6	Vcc
7	GND
8	GND

10. Recommended Board Pattern

