

深圳市维拓精电科技有限公司
WTL International Limited

APPROVAL SHEET

DESCRIPTION :	3.2*2.5mm 4 Pin SMD Crystal Oscillator			
NOMINAL FREQ.:	27.000MHz			
WTL P/N:	WTL3L30053CH			
VERSION:	1			
DATE:	2019.06.04			
Customer	Customer P/N			
Micros sp.j. W.Kedra i J.Lic	/			
Customer Signature	WTL			
	Approved by: <i>Xo Xo Lee</i>			
	Checked by: <i>Susan He</i>			
	Issued by: <i>Shengbiao</i>			
REVISION HISTORY				
Revised Page	Revision Content	Date	Ref. No.	Reviser



P/N: WTL3L30053CH
SEAM SEALED OSCILLATOR 3.2*2.5MM SMD



1. ELECTRICAL CHARACTERISTICS

Standard atmospheric conditions

Unless otherwise specified, the standard range of atmospheric conditions for making measurement and tests are as follow :

Ambient temperature : 25±5°C

Relative humidity : 40%~70%

If there is any doubt about the results , measurement shall be made within the following limits : Ambient temperature : 25±3°C

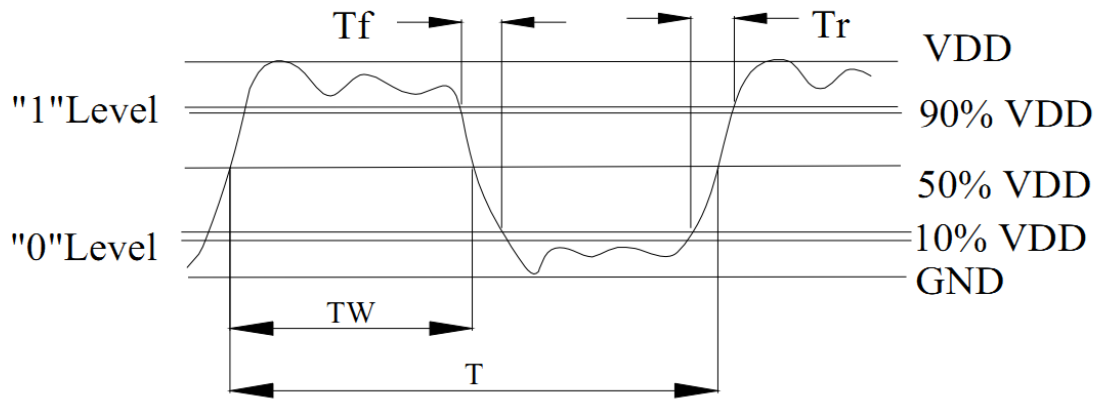
Relative humidity : 40%~70%

Cutting Model : AT CUT

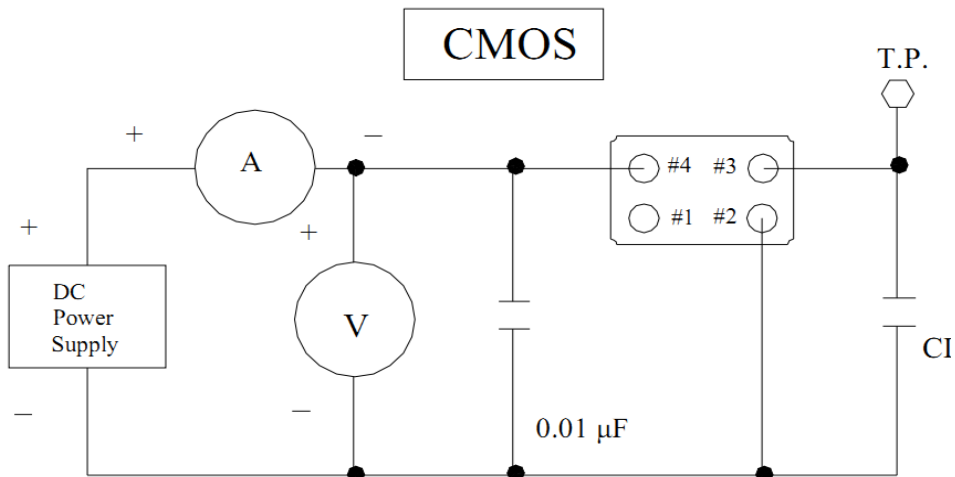


Parameters	Condition/Model	Value
Fan Out Type		COMS
Supply Voltage		3.3V
Frequency Range		27.000MHz
Operating Temperature		-20~+70°C
Input Current	Frequency Range	1.5mA max
Frequency Stability	At 25°C	±25ppm
	vs. operating temperature	±25ppm
Symmetry	AT 1/2 Vdd	45/55%
Output Voltage	Vol(max)	1.62V
	VoH(min)	2.09V
Rise/Fall Time	AT 0.1Vdd~0.9Vdd	10ns max
Drive Ability	CMOS load max	15pF
Start-up Time	Load RANGE	10ms max(15pF)
E/D Function	#1 OPEN	PIN #3 ACTIVE
	#1 >=2.2V	PIN #3 ACTIVE
	#1 <=0.8V	PIN #3 INACTIVE
PAD Connection	PIN#1 E/D	PIN#3 OUT
	PIN#2 GND	PIN#4 Vdd

2. C - MOS LOAD OUTPUT WAVEFORM

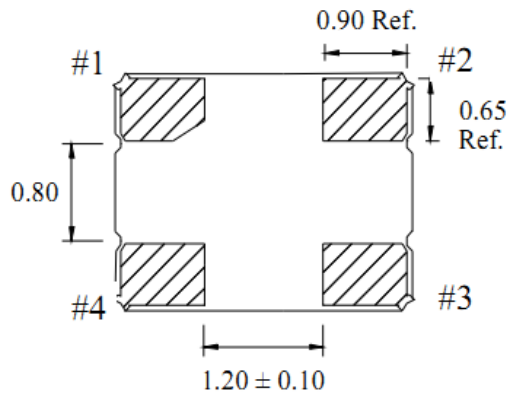
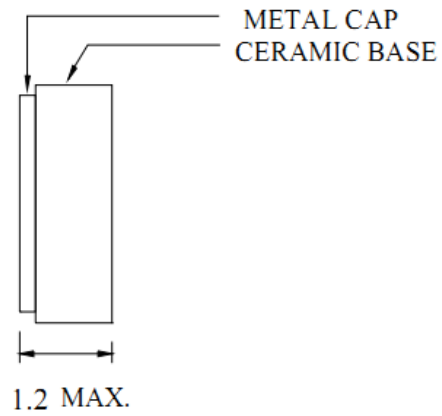
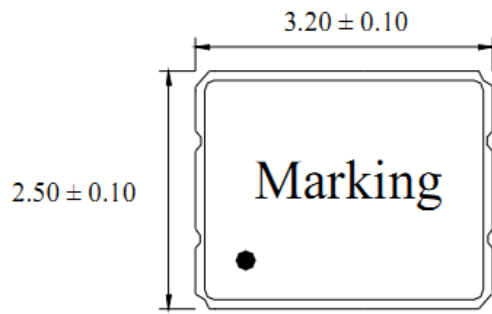


3. C - MOS LOAD TEST CIRCUIT



***Because SMA series has no by pass capacitor.
 So,we recommend our customer to use capacitor 0.01 μ F
 in join Vcc and GND.

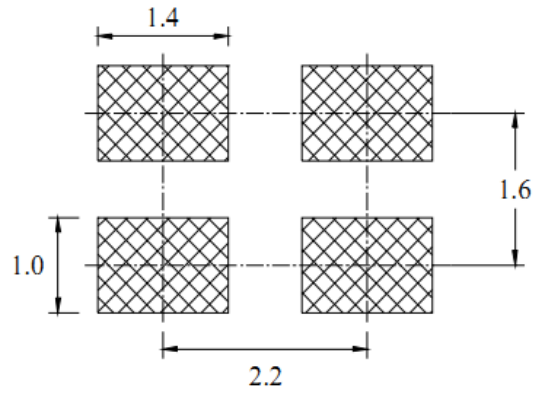
F
S
4



#1 : E/D #2 : GND
#3 : OUTPUT #4 : VDD

Bottom

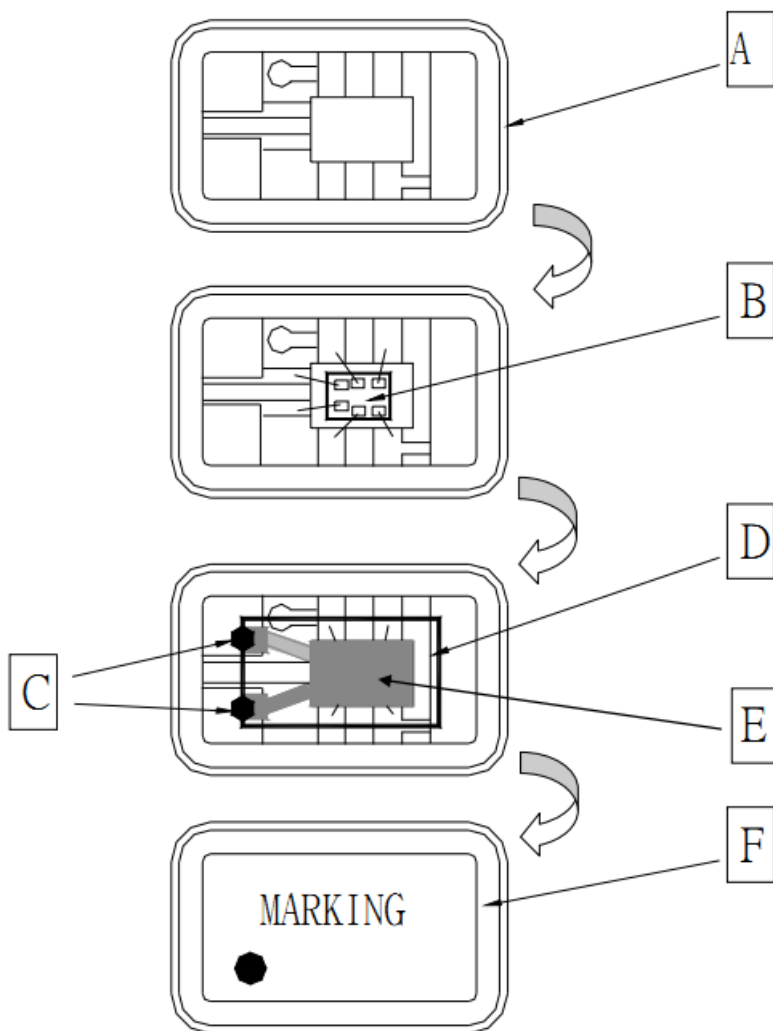
Bottom



(Recommended Land Pattern)

PAD FUNCTION
1: E/D CONTROL
2: GND
3: OUTPUT
4: VDD

5. STRUCTURE ILLUSTRATION



COMPONENTS		MATERIALS	COMPONENTS		MATERIALS
A	Base (Package)	Ceramic (Al ₂ O ₃)+Kovar (Fe/Co/Ni)	D	Crystal blank	SiO ₂
B	IC chip	-	E	Electrode	Cr / Ag
C	Conductive adhesive	Ag / Silicon resin	F	Lid	Fe/Co/Ni

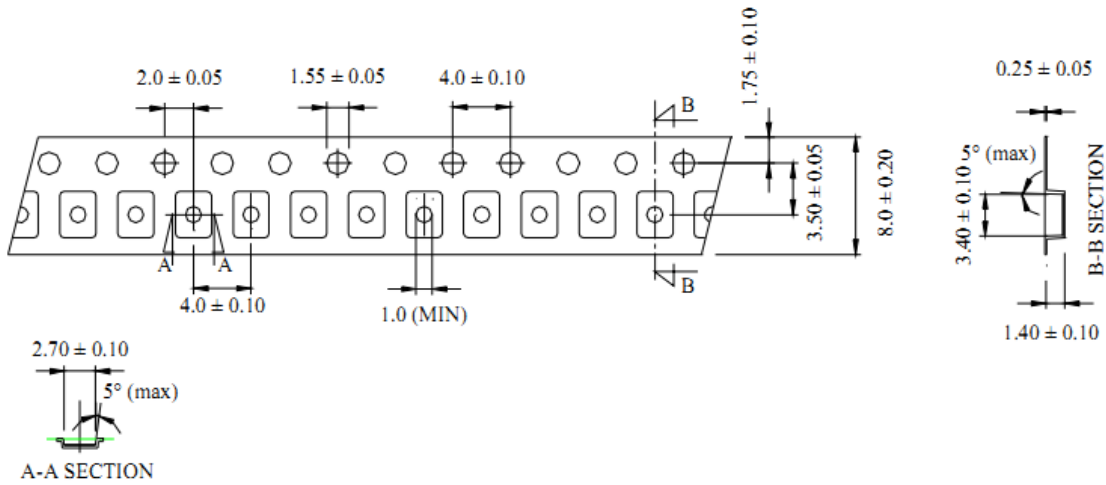
P/N: WTL3L30053CH
SEAM SEALED OSCILLATOR 3.2*2.5MM SMD



6. PACKING

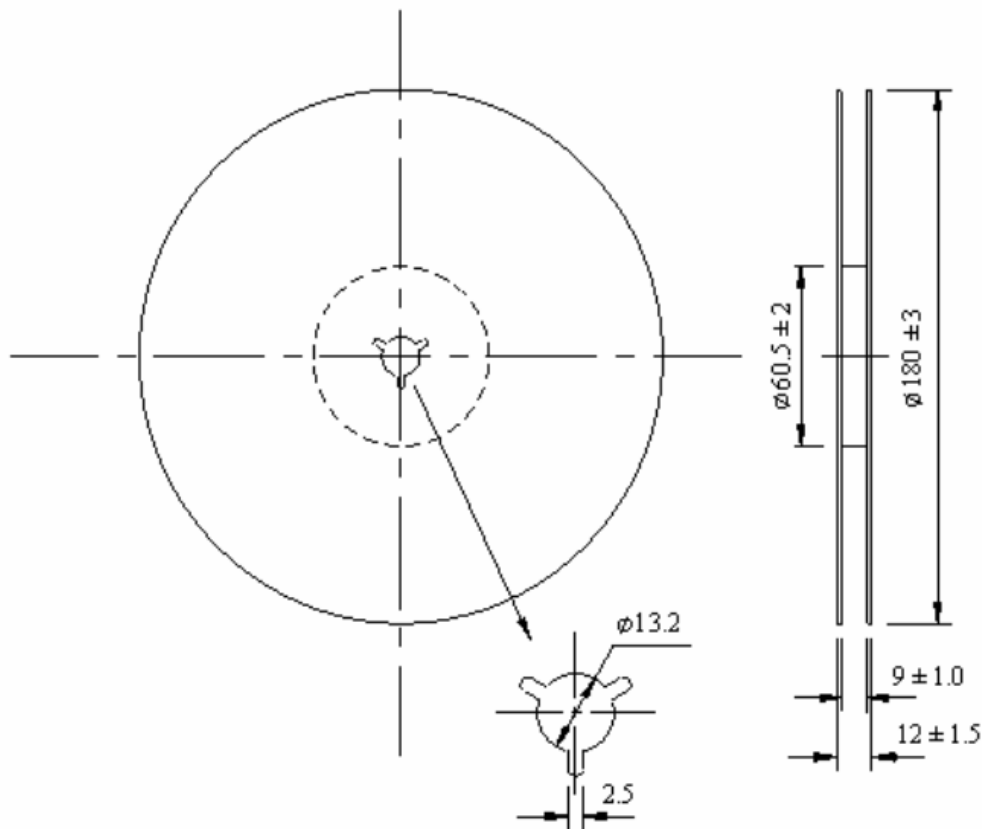
TAPE SPECIFICATION

(Unit: mm)

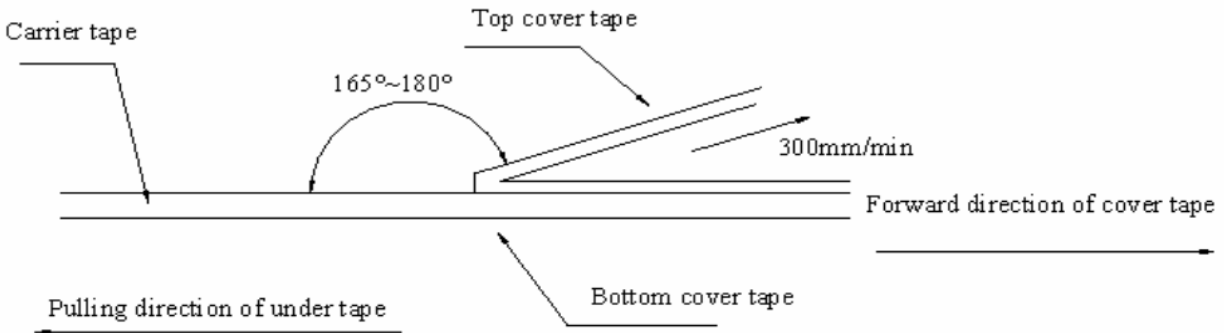


7. OUTLINE DIMENSION

(Unit: mm)



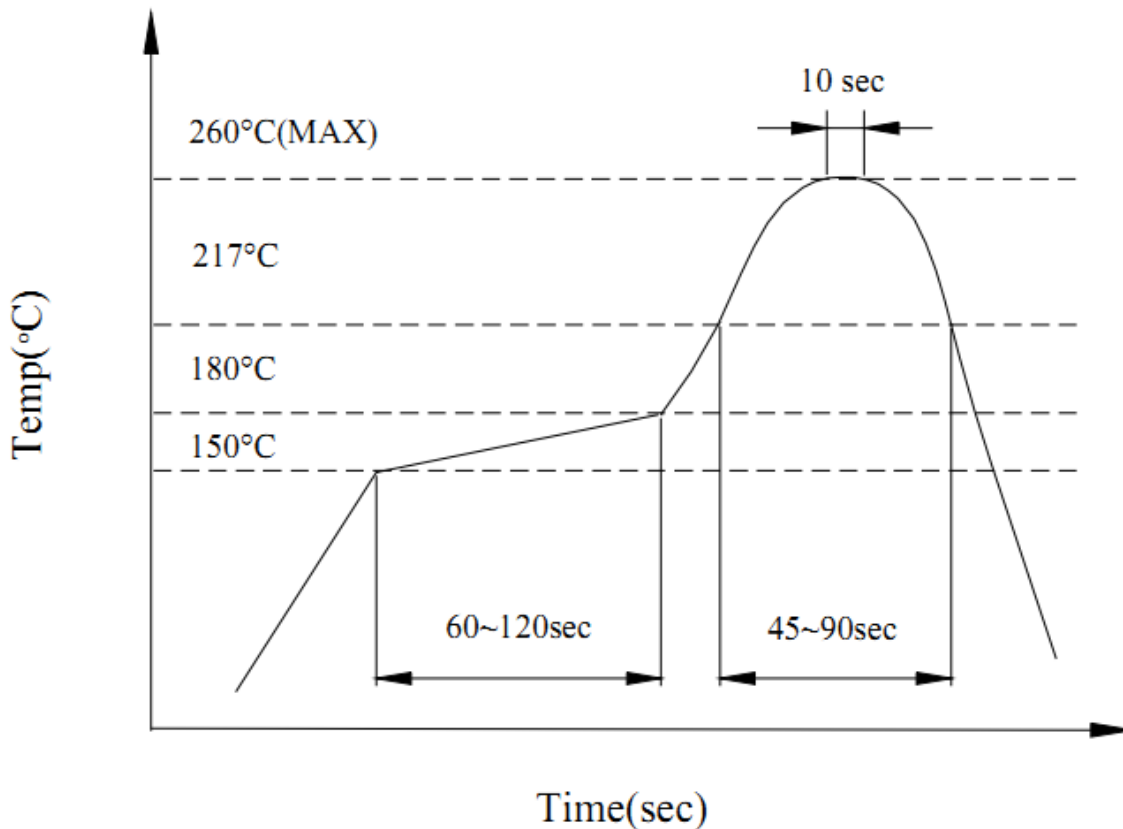
8. COVER TAPE ADHESION STRENGTH



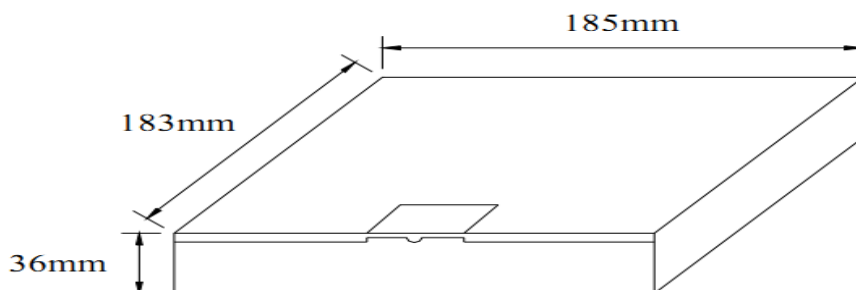
*** In the case, the cover tape is pulled off under the above conditions, the cover tape adhesion strength should be 10.2g~71.4g
 Plastic tape: 10.2g~71.4g

(Cover tape adhesion strength)

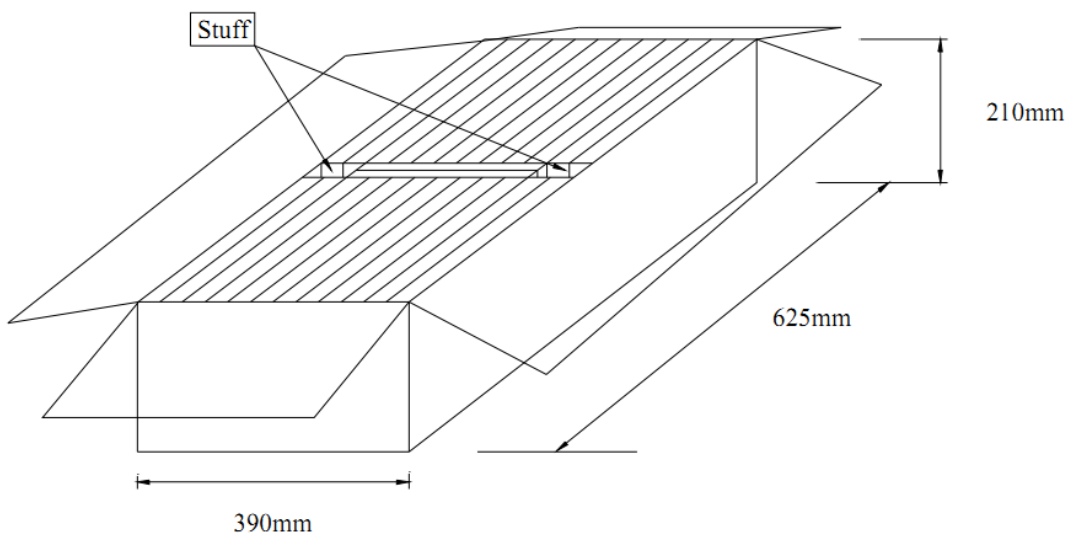
9. SOLDERING REFLOW PROFILE



10. PACKING



PIZZA BOX = 3000 PCS / REEL(MAX)



SMD product packs 32 BOX = The outside box packs (3000 PCS * 32 BOX = 96000 PCS)(MAX)

WTL PART NUMBER SYSTEM :

For example: WTL9M23118CH

[Instructions: for project management, WTL will trace back the part number to developer wherever it goes]

WTL - 9M - 23118 - CH

WTL: Brand

9M : Package Code , please see Table 1

23118: Serial number , flow code , without any rules

CH: WTL Developer Code, for example: VH,CH,PZ,RZ,ML

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Marking Instruction:

[The date code was marked on the crystal body, which will be easily traced back in case of quality issue.]

Quartz Crystal			Watch crystal			Crystal oscillator		
Series	Package Dimension	Marking style	Series	Package Dimension	Marking style	Series	Package Dimension	Marking style
TX1	2.0*1.6mm 4pads	WTL A2 12.000	WX1	3.2*1.5mm 2pads	W32A2	LO2	2.5*2.0mm	WTL A2 .12.000
TX2	2.5*2.0mm 4pads		WX2	2*6mm,3*8mm		LO3	3.2*2.5mm	
TX3	3.2*2.5mm 4pads	Instructions: WTL= WTL brand A= Week code * 2= Year code * 12.000=first 6 codes of frequency	WX3	3.8*8.0mm SMD	Instructions: W=WTL brand 32= first 2 codes of frequency A= week code * 2= year code *	LO5	5.0*3.2mm	Instructions: W=WTL brand A= Week code * 2= Year code * . = oscillator code 12.000=first 6 codes of frequency
TX4	4.0*2.5mm 4pads		WX4	6.9*1.4mm SMD		LO7	7.0*5.0mm	
TX5	5.0*3.2mm 4pads		WX8	2*6mm SMD		LO1	Full/half size	
TX6	6.0*3.5mm 4pads					LV7	7.0*5.0mm VCXO	
TX7	7.0*5.0mm 4pads					LV1	Full/half size VCXO	
TG8	8.0*4.5mm 2pads GLASS					WT1	TCXO	
TG7	7.0*5.0mm 2pads GLASS							
TG6	6.0*3.5mm 2pads GLASS							
TG5	5.0*3.2mm 2pads							
TS7	7.0*5.0mm 2pads							
TS6	6.0*3.5mm 2pads							
TS5	5.0*3.2mm 2pads							
WX5	HC49/U							
WX6	HC49/S							
WX7	HC49/SMD							
WF1	MCF							

* Week code + year code , please refer to WTL Date Code Instructions.

Version 1
2009-1-1