



汇隆电子(金华)有限公司
HUILONG ELECTRONIC (JINHUA) CO.,LTD

SPECIFICATION FOR APPROVAL

CUSTOMER _____




NOMINAL FREQUENCY 21.948717 MHz

HOLDER TYPE 3225

SPEC. NO. (P/N) HL21948001

CUSTOMER P/N _____

ISSUE DATE Dec.13,2021

APPROVED	PREPARED	QA
		
APPROVED BY CUSTOMER :		AVL Status
<p>Please return one copy with approval toHLC</p>		

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ISO9001
 ISO14001



RoHS Compliant (Pb- Free)



TYPE HL SEAM SEALED X'TAL

ELECTRICAL SPECIFICATIONS

HLC Parts Number : HL21948001

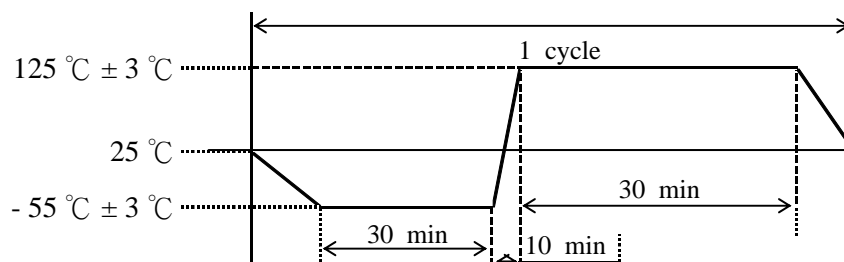
Item	Symbol	Specifications				Notes
		Min	Type	Max	Units	
Nominal frequency	FO	21.948717		MHz		
Mode of Oscillation	OT	Fundamental				
Load Capacitance	LC	12		pF		
Frequency Tolerance	FT	± 10		ppm	at 25°C ± 3°C	
Frequency Stability		± 10		ppm	with working temperature Reference to 25°C	
Working temperature range	TR	-20~70		°C		
Drive Level	DL	100		μW		
Series Resonant Resistance RR	CI/RR	60		Ω	Max.	
Insulation Resistance	IR	>500		MΩ		
Shunt Capacitance C0	C0	7		pF	Max.	
Aging		3		ppm/yr.		
Storage temperature range		-40 ~ 125		°C		
Unit Weight				g		



TYPE HL SEAM SEALED X'TAL

RELIABILITY SPECIFICATIONS

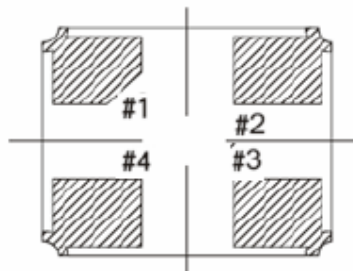
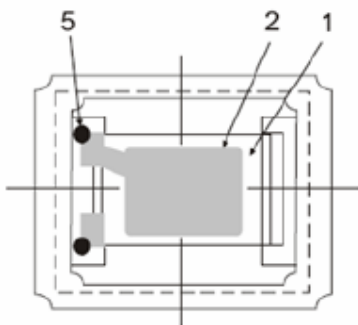
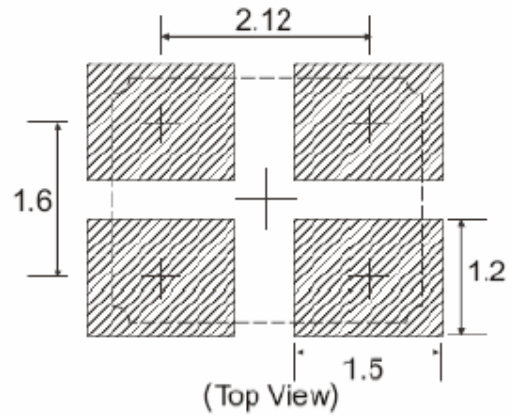
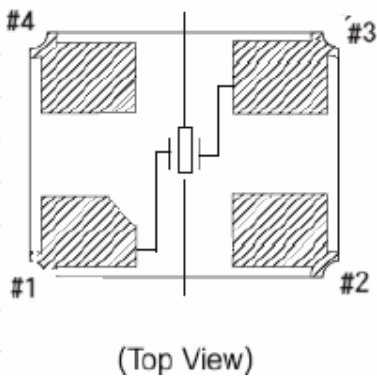
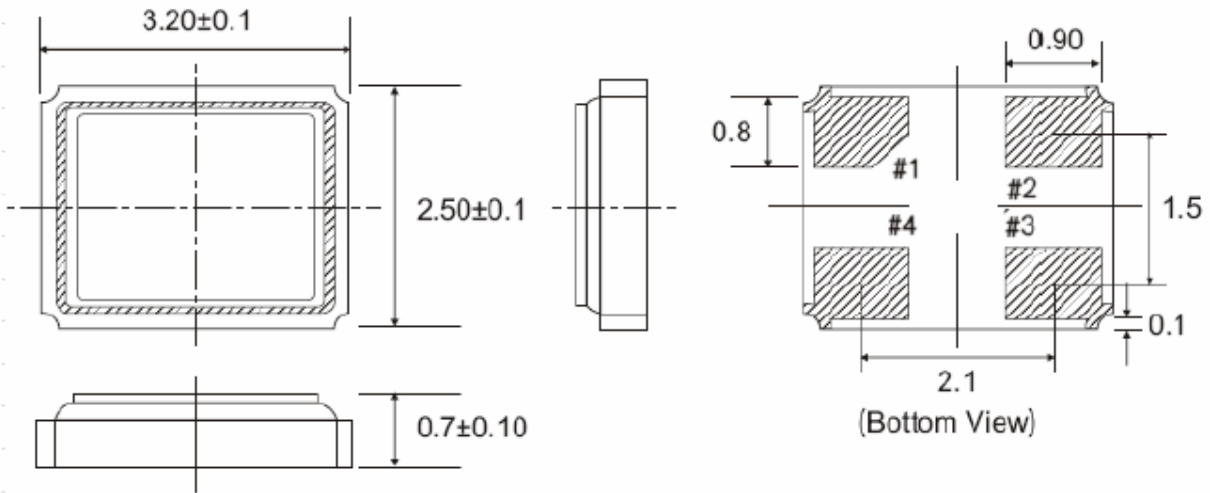
NO.	TEST ITEM	TEST METHODS
1	DROP TEST	Device are dropped from a height of 150 cm onto 2 mm thickness stainless plate executing 3 times of random drops.
2	MECHANICAL SHOCK	Device are shocked to half sine wave (1000 G) three mutually perpendicular axes each 3 times.
3	VIBRATION	Frequency range 10 ~ 2000 Hz Amplitude 1.5 mm Sweep Time 20 minute Test Time 2 hours
4	SOLDERABILITY	MIL - STD - 20E Method 208C Temperature 245°C±5°C Material H63A (Silver 2 ~ 3 %) Immersion depth 0.5 mm minimum Immersion time 3 ± 0.5 seconds Flux Rosin resin methyl alcohol solvent (1 : 4)
5	RESISTANCE TO SOLDERING HEAT	MIL - SLD -202, Method 210, Condition I or J 10 sec immersion into 260 ± 5°C solder pot, above 180°C is 90 ~ 120 sec.
6	LOW TEMP. STORAGE	Leave at - 55 °C ± 2°C for 1000 ± 12 hours
7	HIGH TEMP. STORAGE	Leave at 125 °C ± 2°C for 1000 ± 12 hours
8	THERMAL SHOCK	Total 100 cycles of the following temperature cycle





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DIMENSIONS



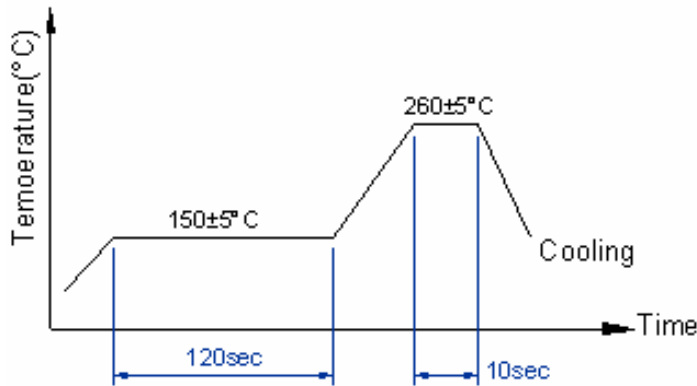
1	Quartz Blank
2	Electrode
3	Lid
4	Base
5	Conductive adhesive





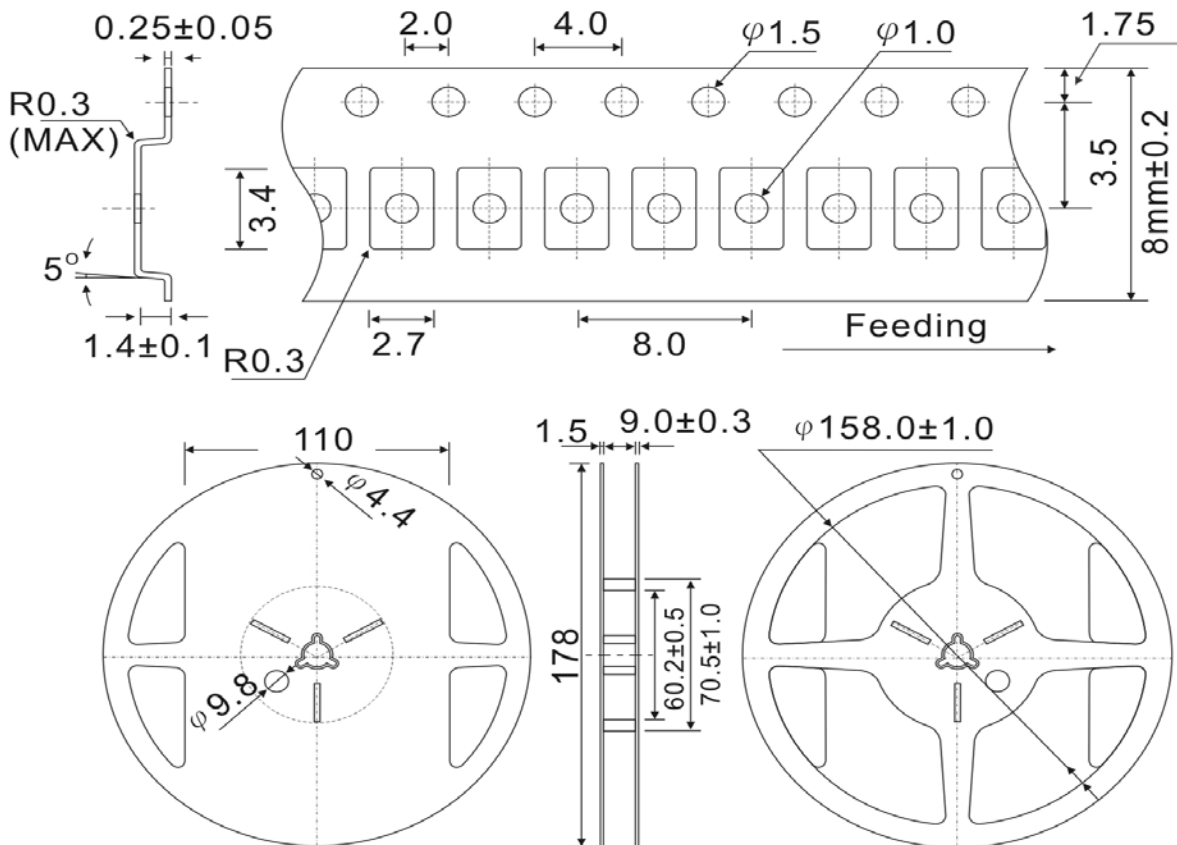
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SUGGESTED IR REFLOW PROFILE



Total Time : 200 Sec.Max
Solder melting point : 185°C

PACKING



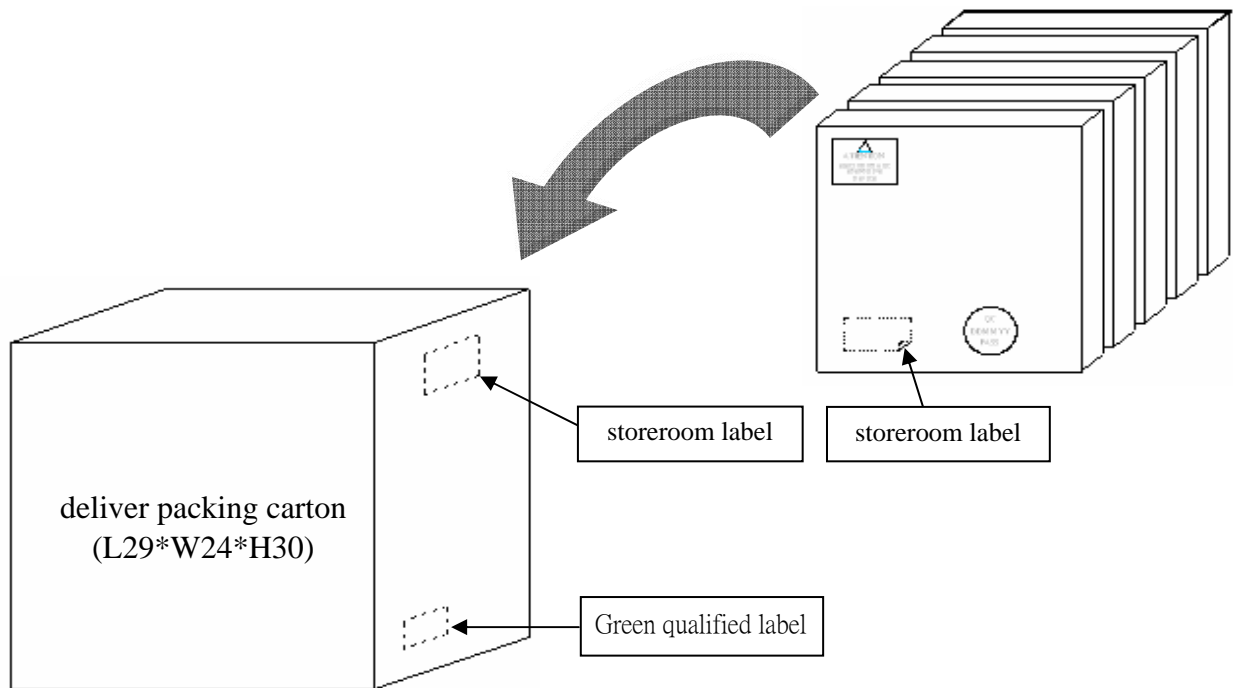
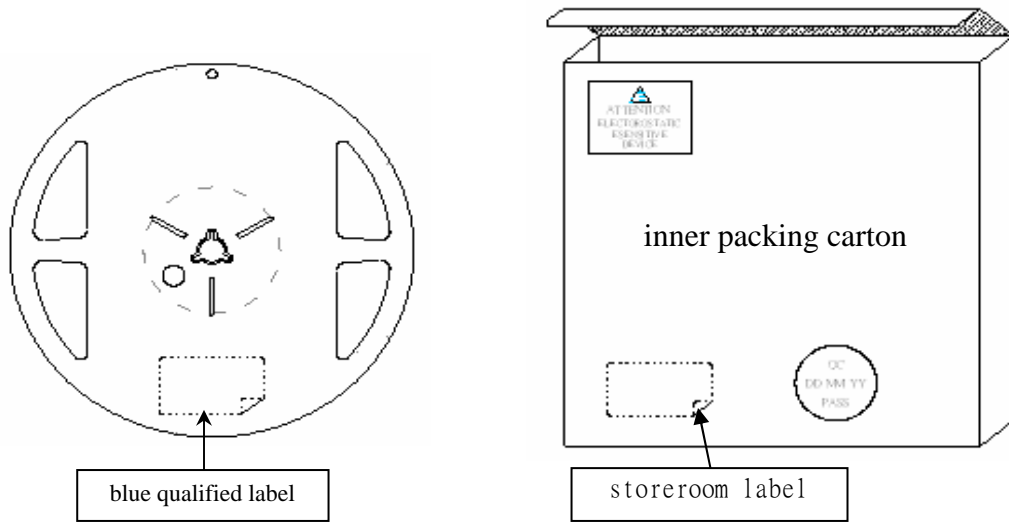
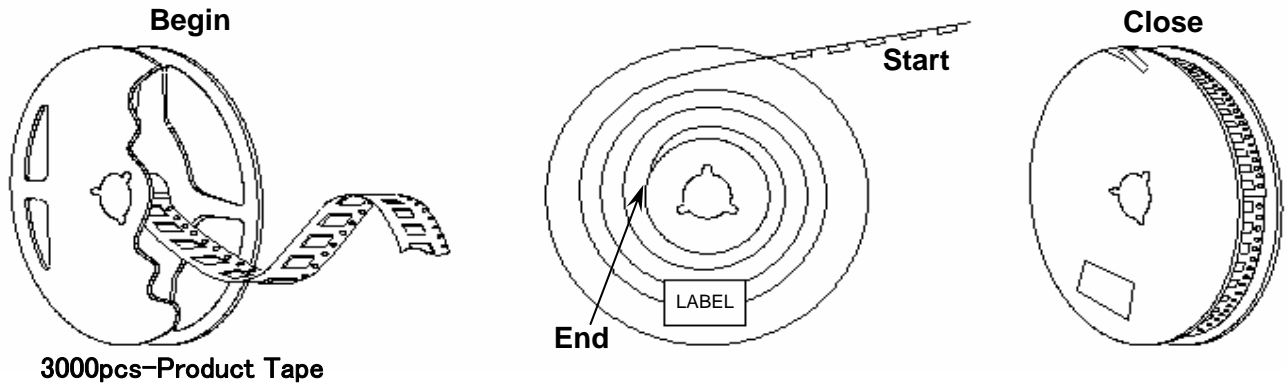
1. 230mm minimum leader which consist of carrier and/or tape followed by a minimum of 160mm of empty carrier tape sealed with cover tape.
2. 160mm minimum trailer of empty carrier tape sealed with cover tape.

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PACKING



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