



ITTI Company Limited

26/F., Levertech Centre, 69-71 King Yip Street, Kwun Tong, Kowloon, Hong Kong

Tel: (852) 2723-0628

Fax: (852) 2739-0018

APPROVAL SHEET

DATE: Dec 11, 2008

CUSTOMER : VIA Technologies, Inc.

PRODUCT NAME : Surface Mount Crystal Unit

SPECIFICATION VERSION : 0

ITTI PART NO.

CUSTOMER PART NO.

1. 1300621-14.31818MHz

99G08-03205S

14.31818MHz, 8.0 x 4.5 x 1.6mm, SMD

20 / 20 / -20°C to +80°C

RoHS Compliant
Directive 2002/95/EC



PREPARED BY : _____

CONFIRMED BY : _____

CUSTOMER APPROVAL :

CHECKED BY : _____

APPROVED BY : _____





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SPECIFICATION

CUSTOMER : VIA Technologies, Inc.

PACKAGE : L84 (8.0 x 4.5 x 1.6) mm

ITTI PART NO. : 1300621-14.31818MHz

CUSTOMER PART NO. : 99G08-03205S

ELECTRICAL CHARACTERISTICS :

Parameter	Symbol	Condition	Specification	Unit
1. Nominal Frequency	Fo	At 25°C	14.31818	MHz
2. Oscillation Mode	Fundamental			
3. Frequency Tolerance	$\Delta F/Fo$	At 25°C	± 20	ppm
4. Tolerance Stability Over Temp. Range	Tc		± 20	ppm
5. Operating Temp. Range	Topr		-20 to +80	°C
6. Storage Temp. Range	Tstg		-40 to +85	°C
7. Load Capacitance	CL		20	pF
8. Equivalent Series Resistance	R1		50 max.	Ω
9. Drive Level	DL		500 max.	μW
10. Aging	Fa	At 25°C, Per Year	± 5.0 max.	ppm

Date of specification : Dec 11, 2008

VIA Technologies, Inc.



Web : www.itti-co.com



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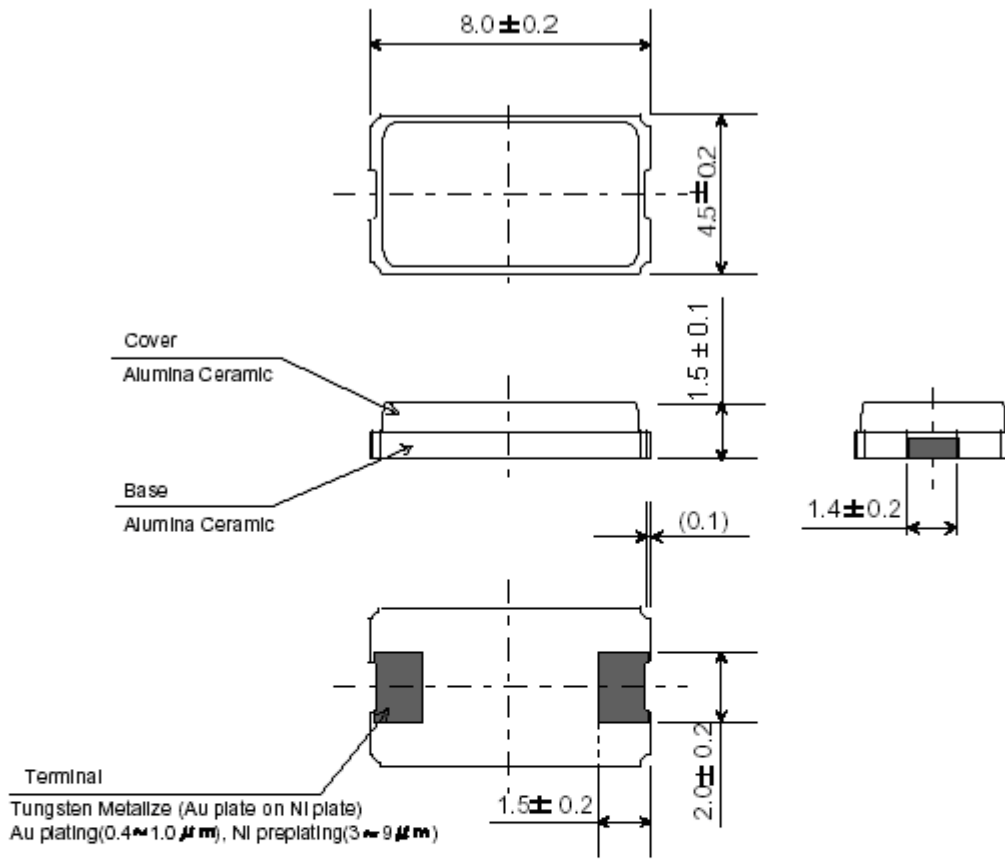
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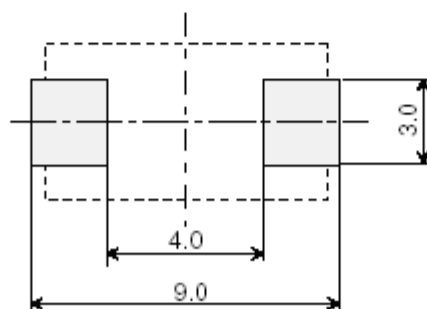
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IT-L84-005

Dimension



REFERENCE LAND PATTERN (TYPICAL)



Unit: mm



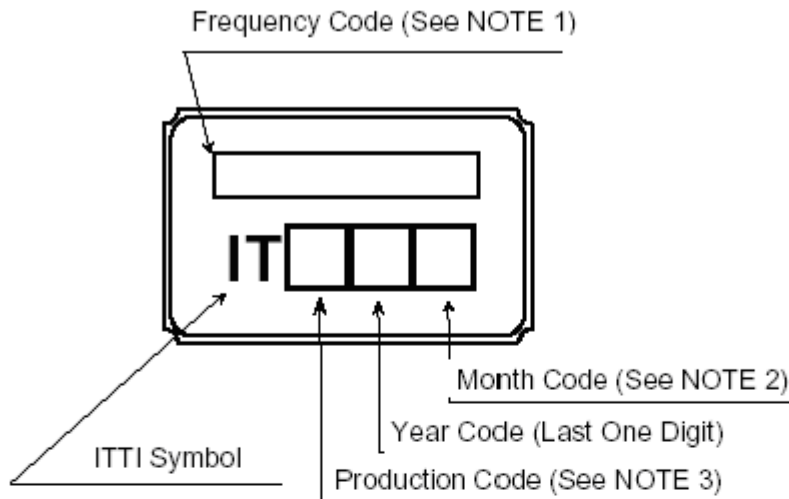


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IT-L84-004B

Marking



NOTE

1. Frequency Code
 Marking Frequency is consist of five digits, first five digits of Nominal Frequency

Example

Nominal Frequency	28.636363 MHz
Frequency Code	28.636

2. Month Code Table

Month	1 Jan.	2 Feb.	3 Mar.	4 Apr.	5 May.	6 Jun.	7 Jul.	8 Aug.	9 Sep.	10 Oct.	11 Nov.	12 Dec.
Month Code	1	2	3	4	5	6	7	8	9	X	Y	Z

3. Production Code

Marking digits do not include a decimal point and dot mark





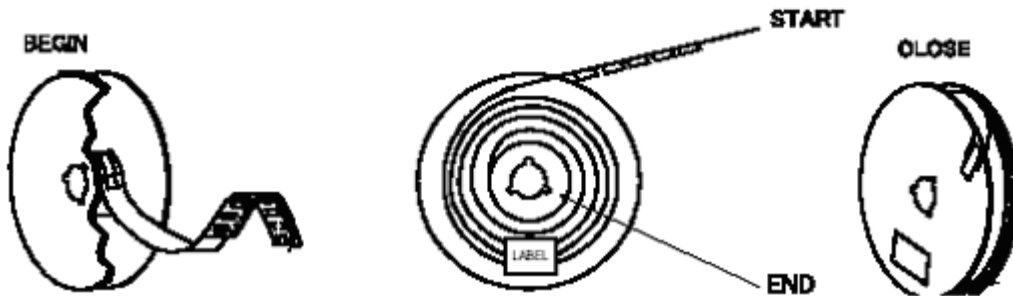
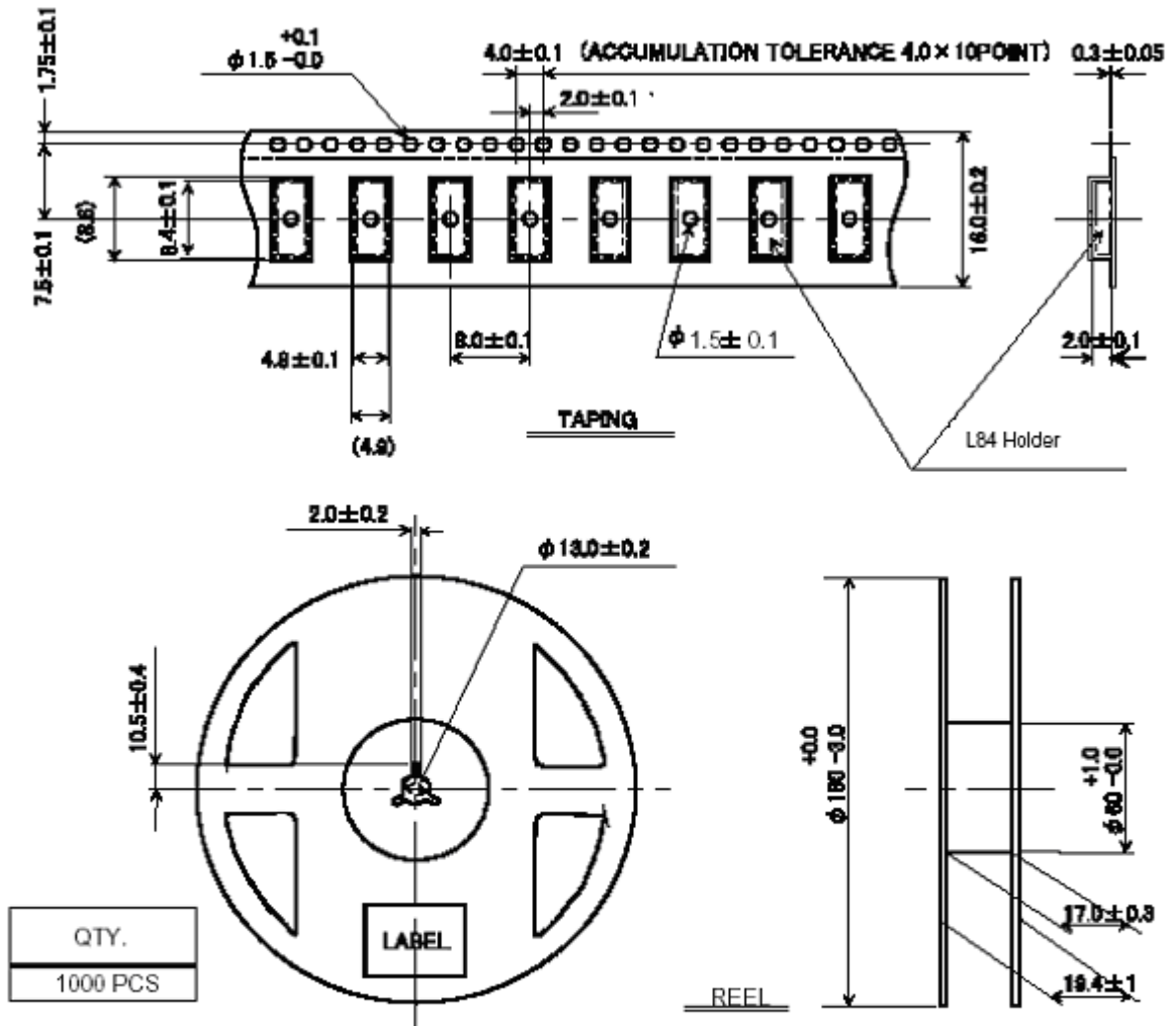
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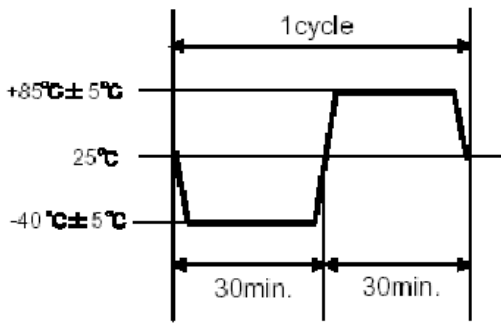
IT-L84-004A Packaging





IT-L84-004A

Guarantee Reliability Conditions

No.	Item	Test Method	Code
1	Drop	Devices are dropped from the height 75cm onto wooden block (more than 30mm thickness). Execute 3 times random drops.	A
2	Shock	Devices are shocked to half sine wave (100G) Three mutually perpendicular axis each 3 times.	A
3	Vibration	Frequency Range : 10 to 55 Hz Amplitude : 1.5mm Sweep time : 1 min. Test time : 2.0 hours	A
4	Electrode Adherent Strength	See remark (1)	B
5	Solderability	MIL-STD-202E Method 208C 260 ± 5°C for 10s dipped. See remark (2)	C
6	Resistance to Soldering Heat	Pre-Heat temperature : 150°C Pre-heat time : 60 ~ 120s Test temperature : 260 ± 5°C Test time : 10s max.	A, B
7	Resistance to Cold	Leave at -40 ± 2°C for 500 hours	A
8	Resistance to Heat	Leave at +85 ± 2°C for 500 hours	A
9	Humidity	Devices are left in temperature at +60°C with relative humidity of 90 ~ 95% for 500 hours.	A, D
10	Thermal Shock	Devices are left into the following temperature cycle as shown in (Fig. 1) for 100 consecutive cycles. 	A, B



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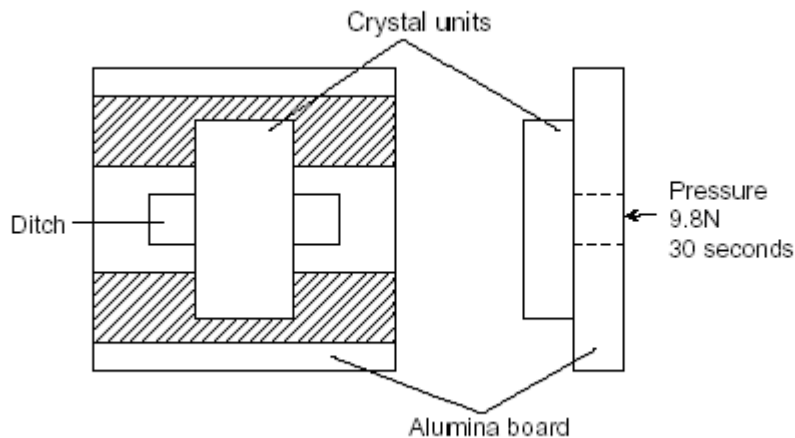
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Code	Specification
A	Frequency tolerance and series resistance should be cleared.
B	After testing unless cracking of materials view of eyes and unless break of seal.
C	The leads shall acquire a new solder coat cover at 90% of immersed area.
D	Insulation resistance shall be greater than 500MΩ.

Remark (1) : Electrode Adherent Strength

a.) Test method condition :

- Using the solder containing silver 2 ~ 3%, soldering iron or reflow soldering bath shall be used for soldering on test fixture (95 ~ 99% alumina board) shown below.



b.) Specified value :

- No peel of electrode, no crack, no other abnormality.

Remark (2) : Solderability condition

- Temperature : $260 \pm 5^\circ\text{C}$
- Material : H63A (Silver 2 ~ 3%)
- Immersing depth : 0.5mm min.
- Immersing time : $10 \pm 0.5\text{s}$
- Flux : Rosin resin methyl alcohol solvent (1 : 4)



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Reflow Condition

■ Air-reflow

Pre-heating temperature : +170°C Pre-heating time : 100s

Heating temperature : +217°C Heating time : 70s

Reflow : 2 passes

