



## SPECIFICATION

Customer : \_\_\_\_\_

Customer P/N : **OS70506A-LVPECL -155.52MHz**

Agent : \_\_\_\_\_

Agent Code : \_\_\_\_\_

Order Code : \_\_\_\_\_

P/N : \_\_\_\_\_

Customer Approval :

东莞市大普通信技术有限公司

Dongguan DAPU Telecom Technology co.,Ltd

市场/SALE DEPARTMENT

TEL: 0769-81867888

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URL [HTTP://www.dptel.com](http://www.dptel.com)

Date : \_\_\_\_\_

Approved By: \_\_\_\_\_

品质部/QUALITY ASSURANCE DEPT

TEL:0769-81867888-833

Checked By: \_\_\_\_\_

研发部/R&D DEPT.

TEL:0769-81867888-828

Designer : \_\_\_\_\_



## 1、 Scope:

- |     |                         |                           |
|-----|-------------------------|---------------------------|
| 1.1 | Description:            | SMD Crystal Oscillator    |
| 1.2 | Center Frequency:       | 155.52MHz                 |
| 1.3 | Dimension & Drawing No: | OS70506A-LVPECL-155.52MHz |

## 2、 Construction:

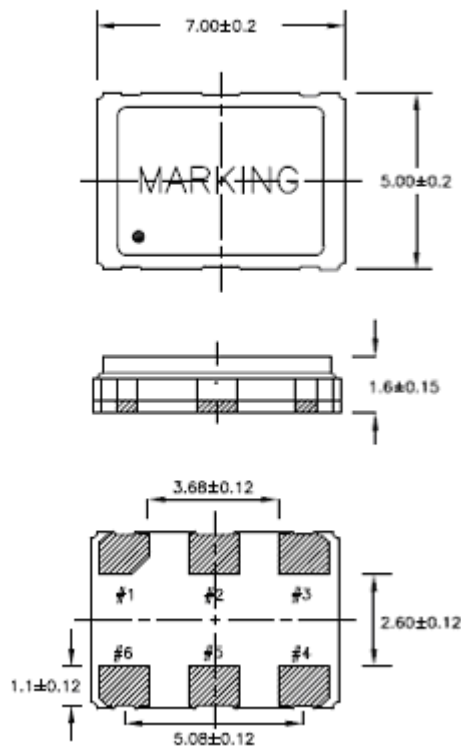
- 2.1 Oscillators series: SMD7×5 XO

## 3、 Electrical Characteristics

- |      |                              |  |  |
|------|------------------------------|--|--|
| 3.1  | Nominal Frequency:           | 155.52MHz                                  |  |
| 3.2  | Frequency Stability:         | $\leq \pm 30\text{ppm}$                    | @ Include Freq. Tolerance, Temp.,<br>Supply voltage, Load. |
| 3.3  | Aging:                       | $\leq \pm 3\text{ppm/year}$                | @ at 25°C $\pm 5^\circ\text{C}$                            |
| 3.4  | Operating Temperature Range: | 0°C to +70°C                               |  |
| 3.5  | Storage Temperature Range:   | -55°C to +125°C                            |  |
| 3.6  | Input Voltage:               | +3.3VDC $\pm 5\%$                          |  |
| 3.7  | Current Consumption:         | $\leq 100\text{mA}$                        |  |
| 3.8  | Output Waveform:             | LVPECL                                     |  |
| 3.9  | Output Symmetry:             | 45% ~ 55%                                  | @ 1.65V  |
| 3.10 | Rise/Fall Time:              | $\leq 0.5\text{ns}$                        | @ 20% ~ 80% of wave  |
| 3.11 | Output Voltage $V_{OL}$ :    | $\leq 1.68\text{V}$                        |  |
|      | $V_{OH}$ :                   | $\geq 2.275\text{V}$                       |  |
| 3.12 | Output Load:                 | 47.5Ω ~ 52.5Ω                              |  |
| 3.13 | Tri-state(standby function)  | $2.97\text{V} \leq V_{ih} \leq V_{cc}$     | @ Enable   |
|      |                              | $\text{GND} \leq V_{il} \leq 0.33\text{V}$ | @ Disable  |
| 3.14 | Start Time:                  | $\leq 10\text{ms}$                         | @ +3.135V  |
| 3.15 | Jitter                       | $\leq 5\text{ps(rms)}$                     | @ 12 kHz ~ 20 MHz BW                                       |



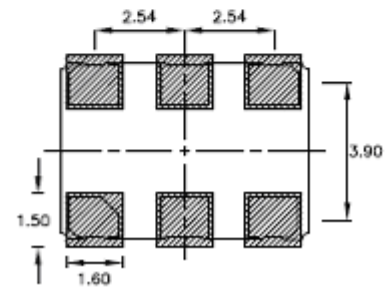
4. Figure



Standard

Terminal	Connection
#1	NC or INH
#2	NC
#3	GND
#4	OUT
#5	OUTN
#6	+Vcc

LAND PATTERN (REFERENCE)



Unit : mm



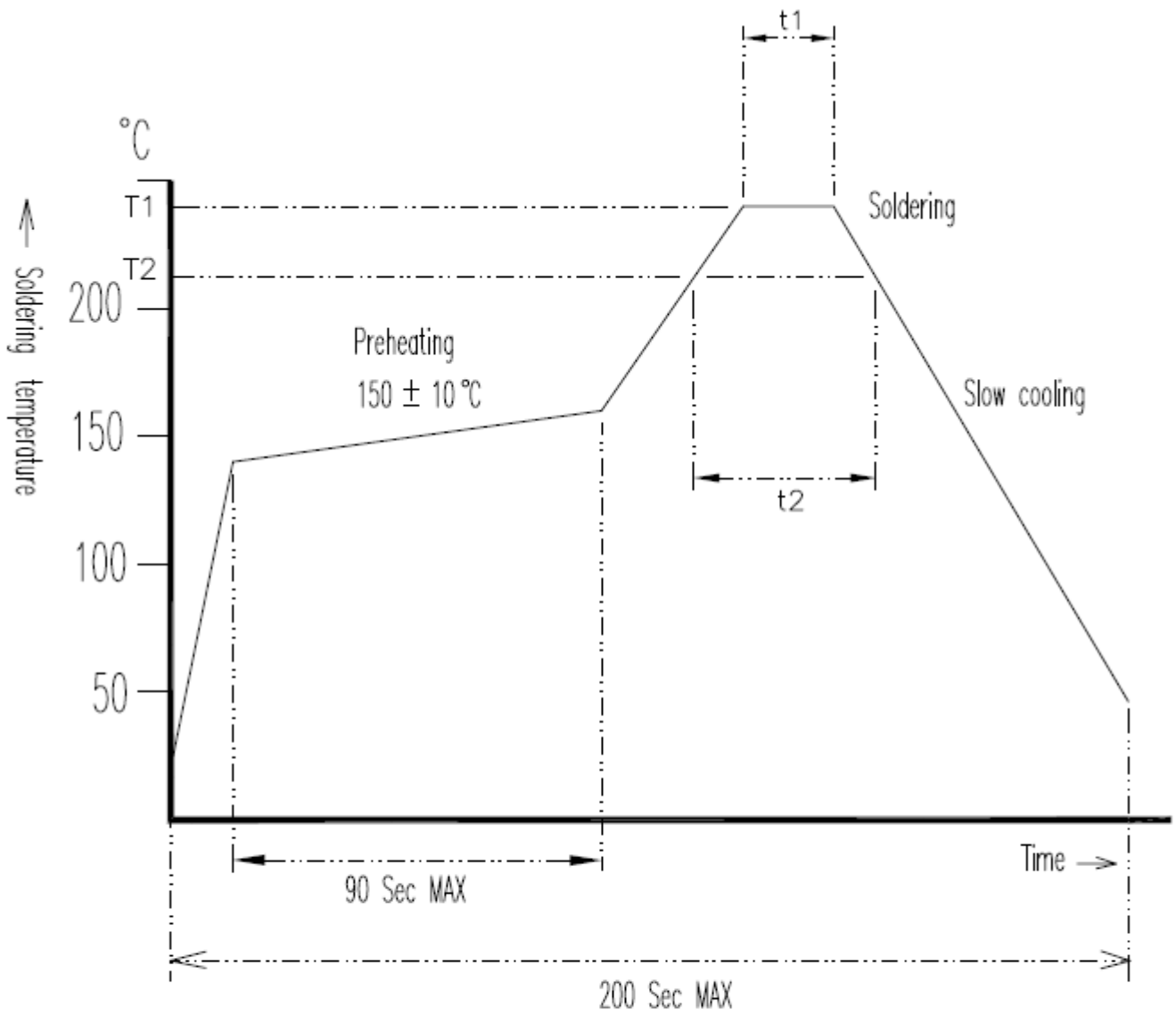


## 7. Environmental Performance

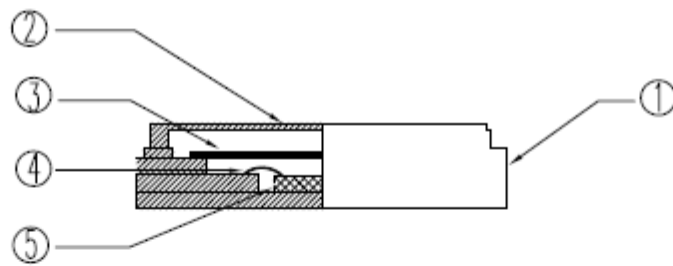
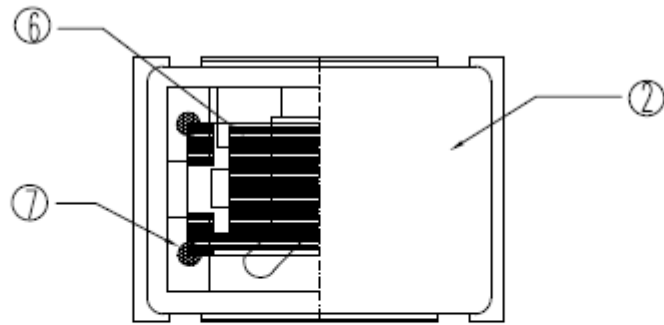
ITEM	CONDITION	SPECIFICATIONS					
1. Low temperature storage	Temp. : -40 ±3°C                      Time : 1000 ±2 H Measure after leaving a room for 1~2 H	Frequency stability ΔF : ± 5.0 ppm max					
2. High temperature storage	Temp. : +85 ±2°C                      Time : 1000 ±2 H Measure after leaving a room for 1~2 H						
3. Moisture resistance (High temperature and highhumidity storage)	Temp. : +85 ±2°C                      Hum. : 90 ~ 95%RH Time : 1000 ±2 H Measure after leaving a room for 2 hours						
4. Shock	A half sine wave acceleration of 490 m/s <sup>2</sup> peak amplitude of 7 to 11 ms duration 3 shock each plane.						
5. Damp heat cycle	Setup temperature and test time as below table : Cycle : 100 cycles Measure after leaving a room for 2 hour <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Temperature</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>Operating Temp. (Low Temp.) +0/-6°C</td> <td>30 ± 3 min</td> </tr> <tr> <td>Operating Temp. (High Temp.) +4/-0°C</td> <td>30 ± 3 min</td> </tr> </tbody> </table>		Temperature	Time	Operating Temp. (Low Temp.) +0/-6°C	30 ± 3 min	Operating Temp. (High Temp.) +4/-0°C
Temperature	Time						
Operating Temp. (Low Temp.) +0/-6°C	30 ± 3 min						
Operating Temp. (High Temp.) +4/-0°C	30 ± 3 min						

## 8. Mechanical Performance

6. Solderability	Solder bath : +235°C ±5°C Time: 2 ±0.5 S	The dipping surface of the lead shall be at least 95% covered with a continuous new solder coating.
7. Resistance to soldering heat	Solder bath : +260°C ±5°C Time: 2 ±0.5 S Reflow chart as attach sheet. ( 2 Times)	<ul style="list-style-type: none"> <li>• Shall Be free from any defectiveness on its surface.</li> <li>• Frequency stability ΔF : ±5.0 ppm max</li> </ul>
8. Airtight	Solder bath : +260°C ±5°C Time: 2 ±0.5 S Reflow chart as attach sheet. ( 2 Times)	Less than 1x1E-8 mbarL/S.
9. Vibration	Frequency : 10 ~ 55Hz, amplitude (total excursion): 1.5mm±15%, 3 Direction (X, Y, Z) each 2 H.	Frequency stability ΔF : ±5.0 ppm max
10. Shock	Dropping form 75 cm high 2 times on hard wood.	Same as above.



Application \ Temperature/Time	T1/t1	T2/t2
Lead Free	260±5°C/10 Sec Max	225°C Min/60 Ses Max
Non Lead Free	240±5°C/10 Sec Max	200°C Min/40 Sec Max



PART NAME	MATERIAL	PART NAME	MATERIAL	PART NAME	MATERIAL			
1	BASE	CERAMIC	4	WIRE	ALUMINIUM	7	ADHESIVES	SILVER GLUE
2	CAP	CERAMIC	5	IC	Si			
3	BLANK	QUARTZ	6	ELECTRODE	Cr+Ag			