



LED Display for Home Appliance

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Quality criteria for Electrolux

Must be pass the below reliability test

•**Step 1:**

High Temperature Life Reliability test: (light up test)

Ta = +105°C +/-5°C

Time = 168 hours

IF = Light up display @ customer driver board

•**Step 2:**

High Temperature High Humidity Life Reliability test: (light up test)

Ta = +85°C +/-5°C

RH = 85% Humidity

Time = 168 hours

IF = Light up display @ customer driver board

•**Step 3:**

Temperature Cycles Storage Reliability Test: (Storage test)

1. Ta = +105°C +/-3°C, Time = 24 hours

2. Ta = +23°C +/-3°C, Time = 1 hours (The temperature down within 30 minutes.)

3. Ta = -40°C +/-3°C, Time = 24 hours (The temperature down within 30 minutes.)

4. Ta = +23°C +/-3°C, Time = 3 hours (The temperature up within 30 minutes.)

5. Time = 10 Days

Remark: Use the same displays for above 3 test.



Key quality criteria for Whirlpool

Must be pass below reliability test

•TCP 240 (Light up test @ customer driver board)

Step	Description	Duration
1.	Transition from ambient to 5°C (30% relative humidity +/- 20 %.)	1.0 hour
2.	Steady state at 5°C (30% relative humidity +/- 20 %.)	1.0 hour
3.	Transition from 5 to 85°C. (50% relative humidity.)	1.0 hour
4.	Steady state at 85°C. (50% relative humidity.)	1.0 hour
5.	Transition from 85 to 45°C. (90% to 94% relative humidity.)	1.0 hour
6.	Steady state at 45°C. (90% to 94% relative humidity.)	1.0 hour
7.	Transition from 45 to 25°C. (Maximum = 80% relative humidity.)	1.0 hour



Key quality criteria for Whirlpool

Must be pass the below reliability test

•TCP 240 (Light up test @ customer driver board)

<u>Step</u>	<u>Description</u>	<u>Duration</u>
8.	Transition from 25 to 105°C. (30% relative humidity +/- 20%.)	1.0 hour
9.	Steady state at 105 °C. (30% relative humidity +/- 20%.)	1.0 hour
10.	Transition from 105 to 25°C. (20% relative humidity.)	2.0 hours
11.	Steady state at 25 °C. (20% relative humidity.)	1.0 hour

TOTAL 40 CYCLES (12hours/1 Cycle)

LED Display Application

➤ Home Appliance

- Wall Oven
- Cooktops
- Dishwasher
- Microven
- Washing Machine
- Air Condition
- Refrigerator



➤ Instrument

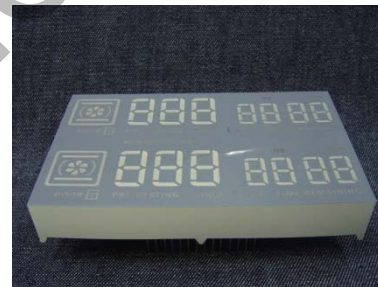
➤ Consumer Electronic Device

➤ Automotive



Application Note

◆ Wall Oven



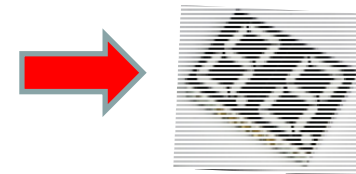
Application Note

◆ COOKTOPS



◆ Super Thin SMD Display is reversed mount on glass for touch screen application.

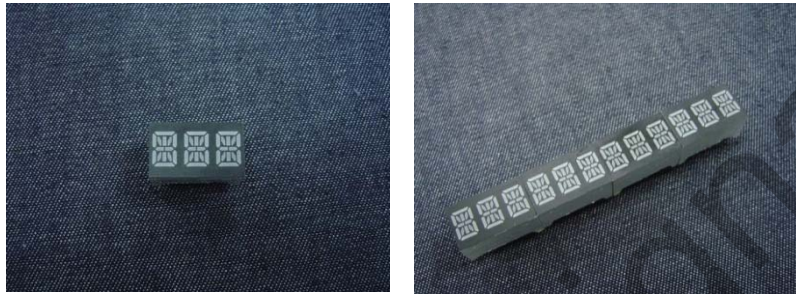
◆ It can be drive @ 105 °C



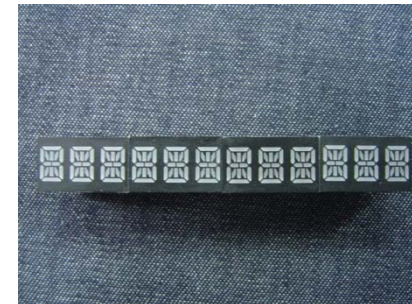
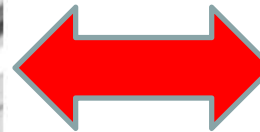
REF Height is 1.01mm only.

Application Note

◆ Dishwasher



Alphanumeric Display can be operated English Letter.

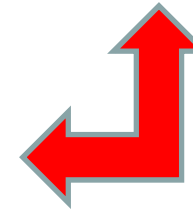


Application Note

◆ Washing Machine



Tilt Display is to fit cover shape



Application Note

◆ Air Condition



The display is included Infrared Receiver.

Application Note

◆ Refrigerator



◆ Super Thin SMD Display is reversed mount on glass for touch screen application.

◆ It can be drive @ 105 °C

Application Note

◆ Consumer Electronic Device - Set-top Box



White color Display

Major Customer

- **Touch-Sensor**



- **Electrolux**



- **Whirlpool**



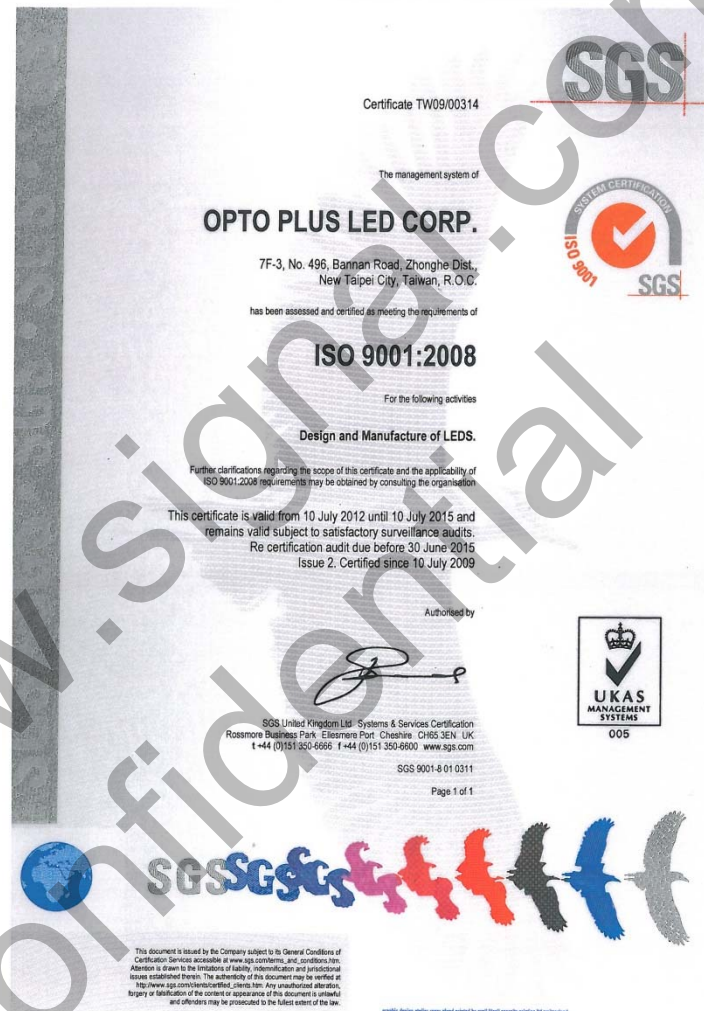
- **GE**



- **Motorola**



Certifications: ISO9001





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