

## RF Exposure Report

TCL OVERSEAS MARKETING LTD

2.1 Channel Dolby Atmos Soundbar with Wireless Subwoofer

Model Number: S55H

Additional Model: S55H-CA, S55H5, S55H1, S55H7

IC: 26250-S55H

|                          |  |
|--------------------------|--|
| Applicant:               | TCL OVERSEAS MARKETING LTD   |
| Address:                 | 5/F, Building 22E, 22 Science Park East Avenue HongKong                |
|                          | Science Park Shatin Hong Kong  |
|                          |  |
| Prepared By:             | EST Technology Co., Ltd.   |
|                          | Chilingxiang, Qishantou, Santun, Houjie, Dongguan,<br>Guangdong, China |
| Tel: 86-769-83081888-808 |  |

|                 |                  |
|-----------------|------------------|
| Report Number:  | ESTE-R2401400-2  |
| Date of Test:   | Jan. 05~25, 2024 |
| Date of Report: | Mar. 31, 2025    |

## Maximum Permissible Exposure

### 1. Applicable Standard

RSS-102 Issue 5, March 2015

#### 1.1. Limit

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than  $4.49/f^{0.5}$  W (adjusted for tune-up tolerance), where  $f$  is in MHz;
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than  $1.31 \times 10^{-2} f^{0.6834}$  W (adjusted for tune-up tolerance), where  $f$  is in MHz;
- at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

For example

| Frequency (MHz) | EIRP (W) | EIRP (dBm) |
|-----------------|----------|------------|
| 920             | 1.39     | 31.43      |
| 850             | 1.32     | 31.19      |
| 1900            | 2.28     | 33.58      |
| 2450            | 2.71     | 34.33      |
| 5200            | 4.54     | 36.57      |

## 2. Conducted Power Result

| Mode      | Frequency (MHz) | Peak output power (dBm) | Peak output power (mW) |
|-----------|-----------------|-------------------------|------------------------|
| GFSK      | 2402            | 6.32                    | 4.2855                 |
|           | 2441            | 5.8                     | 3.8019                 |
|           | 2480            | 5.75                    | 3.7584                 |
| π/4-DQPSK | 2402            | 7.1                     | 5.1286                 |
|           | 2441            | 6.58                    | 4.5499                 |
|           | 2480            | 6.53                    | 4.4978                 |
| 8-DPSK    | 2402            | 7.54                    | 5.6754                 |
|           | 2441            | 7.02                    | 5.0350                 |
|           | 2480            | 6.97                    | 4.9774                 |
| SRD 1M    | 2402            | 6.19                    | 4.1591                 |
|           | 2440            | 5.71                    | 3.7239                 |
|           | 2480            | 5.61                    | 3.6392                 |
| SRD 2M    | 2402            | 6.19                    | 4.1591                 |
|           | 2440            | 5.77                    | 3.7757                 |
|           | 2480            | 5.64                    | 3.6644                 |

## 3. Calculated Result and Limit

| Mode      | Peak output power (dBm) | Ant. gain (dBi) | E.I.R.P (dBm) | Ture-up power (dBm) | Max Ture-up power |        | Limit (W) | Test Result |
|-----------|-------------------------|-----------------|---------------|---------------------|-------------------|--------|-----------|-------------|
|           |                         |                 |               |                     | (dBm)             | (W)    |           |             |
| GFSK      | 6.32                    | 3.21            | 9.53          | 9±1                 | 10                | 0.0100 | 2.676     | Complies    |
| π/4-DQPSK | 7.10                    | 3.21            | 10.31         | 10±1                | 11                | 0.0126 | 2.676     | Complies    |
| 8-DPSK    | 7.54                    | 3.21            | 10.75         | 10±1                | 11                | 0.0126 | 2.676     | Complies    |
| SRD 1M    | 6.19                    | 3.21            | 9.4           | 9±1                 | 10                | 0.0100 | 2.676     | Complies    |
| SRD 2M    | 6.19                    | 3.21            | 9.4           | 9±1                 | 10                | 0.0100 | 2.676     | Complies    |

- Limited=  $1.31 \times 10^{-2} f^{0.6834}$  W (where  $f$  is in MHz);
- We choose 2402MHz(Lowest frequency operate at Bluetooth) to calculate MPE limit as higher frequency will have higher MPE limits.

**End of Test Report**