

RF Exposure Evaluation Declaration

FCC ID: 2AO9UBTVI3SE

APPLICANT: LD Eufonico LLC

Application Type: Certification

Product: Smart TV Box

Model No.: BTVi3S

Serial Model Name: BTVi3SE (With Clock)

Brand Name: LD

FCC Classification: Digital Transmission System (DTS)

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(Marlin Chen)



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

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Revision History

| Report No. | Version | Description | Issue Date | Note |
|---------------|---------|----------------|------------|-------|
| 1801RSU028-U2 | Rev. 01 | Initial report | 03-21-2018 | Valid |
| | | | | |

1. PRODUCT INFORMATION

1.1. Equipment Description

| | |
|--------------------|---|
| Product Name | Smart TV Box |
| Model No. | BTVi3S |
| Serial Model Name | BTVi3SE (With Clock) |
| Brand Name | LD |
| Work Voltage | AC 120V/60Hz |
| WiFi Specification | 802.11 b/g/n |
| Components | |
| Adapter | M/N: BX-0502000 INPUT: 100-240V ~ 50/60Hz, 0.8A OUTPUT: 5Vdc, 2 A |

1.2. Description of Available Antennas

| Antenna Type | Frequency Band (GHz) | T _x Paths | Maximum Peak Antenna Gain (dBi) |
|--------------|----------------------|----------------------|---------------------------------|
| PIFA Antenna | 2412 - 2462 | 1 | 3.83 |

2. RF Exposure Evaluation

2.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency Range (MHz) | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm ²) | Average Time (Minutes) |
|---|-------------------------------|-------------------------------|-------------------------------------|------------------------|
| (A) Limits for Occupational/ Control Exposures | | | | |
| 300-1500 | -- | -- | f/300 | 6 |
| 1500-100,000 | -- | -- | 5 | 6 |
| (B) Limits for General Population/ Uncontrolled Exposures | | | | |
| 300-1500 | -- | -- | f/1500 | 6 |
| 1500-100,000 | -- | -- | 1 | 30 |

f= Frequency in MHz

Calculation Formula: $Pd = (Pout \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

r = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.2. Test Result of RF Exposure Evaluation

| | | | | | |
|-----------|------------------------|--|--|--|--|
| Product | Smart TV Box | | | | |
| Test Item | RF Exposure Evaluation | | | | |

| Test Mode | Frequency Band (MHz) | Maximum Out power (dBm) | Maximum EIRP (dBm) | Power Density at R = 20 cm (mW/cm ²) | Limit (mW/cm ²) |
|-------------|----------------------|-------------------------|--------------------|--|-----------------------------|
| 802.11b/g/n | 2412 ~ 2462 | 19.13 | 22.96 | 0.0393 | 1 |

CONCULISON:

The max Power Density at R (20 cm) = 0.0393mW/cm² < 1 mW/cm² for 2.4G WLAN.

Therefore, the Min Safety Distance is 20cm.

The End