

# FCC Radio Test Report

**FCC ID** : Z8H89FT0066  
**Equipment** : XV2-2T Outdoor Wi-Fi 6 Access point  
**Brand Name** : Cambium Networks  
**Model Name** : XV2-2T, XV2-2T1  
**Applicant** : Cambium Networks Inc.  
3800 Golf Road Suite 360 Rolling Meadows IL United States 60008  
**Manufacturer** : Lite-On Network Communication (Dongguan) Limited  
No.30 QingXi-Keji Road, QingXi Town, DongGuan City, Guangdong Province, P.R. China  
**Standard** : 47 CFR FCC Part 15.247

The product was received on Apr. 09, 2021, and testing was started from Apr. 09, 2021 and completed on Jun. 24, 2021. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Hsinhua Laboratory, the test report shall not be reproduced except in full.



Approved by: Jackson Tsai

**SPORTON INTERNATIONAL INC. Hsinhua Laboratory**

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)



## **Table of Contents**

|                                          |          |
|------------------------------------------|----------|
| <b>HISTORY OF THIS TEST REPORT .....</b> | <b>3</b> |
| <b>SUMMARY OF TEST RESULT .....</b>      | <b>4</b> |
| <b>1      GENERAL DESCRIPTION .....</b>  | <b>5</b> |
| 1.1    Information.....                  | 5        |
| <b>PHOTOGRAPHS OF EUT V01</b>            |          |

[illegible]

## Summary of Test Result

| Report Clause | Ref.Std. Clause | Test Items                                  | Result (PASS/FAIL) | Remark         |
|---------------|-----------------|---------------------------------------------|--------------------|----------------|
| 1.1.2         | 15.203          | Antenna Requirement                         | PASS               | -              |
| -             | 15.207          | AC Power-line Conducted Emissions           | PASS               | refer to 1.1.4 |
| -             | 15.247(a)       | DTS Bandwidth                               | PASS               | refer to 1.1.4 |
| -             | 15.247(b)       | Maximum Conducted Output Power              | PASS               | refer to 1.1.4 |
| -             | 15.247(e)       | Power Spectral Density                      | PASS               | refer to 1.1.4 |
| -             | 15.247(d)       | Emissions in Non-restricted Frequency Bands | PASS               | refer to 1.1.4 |
| -             | 15.247(d)       | Emissions in Restricted Frequency Bands     | PASS               | refer to 1.1.4 |

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and explanations:**

None

Reviewed by: Sam Tsai

Report Producer: Debby Hung

# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

| Frequency Range (MHz) | Bluetooth Mode | Ch. Frequency (MHz) | Channel Number |
|-----------------------|----------------|---------------------|----------------|
| 2400-2483.5           | LE             | 2402-2480           | 0-39 [40]      |

| Band          | Mode         | BWch (MHz) | Nant |
|---------------|--------------|------------|------|
| 2.4-2.4835GHz | BT-LE(1Mbps) | 1.0        | 1TX  |

Note:

- ♦ Bluetooth LE uses a GFSK (1Mbps) modulation.
- ♦ BWch is the nominal channel bandwidth.

### 1.1.2 Antenna Information

Model:XV2-2T <Group 1>

| Ant. | Brand   | Model Name   | Antenna Type | Connector | Support |
|------|---------|--------------|--------------|-----------|---------|
| 1    | LYNwave | Snow Leopard | PIFA antenna | I-PEX     | 2.4G    |
| 2    | LYNwave | Snow Leopard | PIFA antenna | I-PEX     | 2.4G    |
| 3    | LYNwave | Snow Leopard | PIFA antenna | I-PEX     | 5G      |
| 4    | LYNwave | Snow Leopard | PIFA antenna | I-PEX     | 5G      |
| 5    | LYNwave | Snow Leopard | PIFA antenna | I-PEX     | BT      |

| Ant. | Port | Gain (dBi) |         |          |          |         |     |
|------|------|------------|---------|----------|----------|---------|-----|
|      |      | 2.4G       | 5G      |          |          |         | BT  |
|      |      |            | U-NII-1 | U-NII-2A | U-NII-2C | U-NII-3 |     |
| 1    | 1    | 5.2        | -       | -        | -        | -       | -   |
| 2    | 2    | 5.3        | -       | -        | -        | -       | -   |
| 3    | 1    | -          | 8.1     | 8.1      | 9.3      | 9.0     | -   |
| 4    | 2    | -          | 8.6     | 8.6      | 8.9      | 8.6     | -   |
| 5    | 1    | -          | -       | -        | -        | -       | 5.6 |

Note 1: The EUT has five antennas.

#### For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax mode (2TX/2RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

#### For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Ant. 5 (port 1) could transmit/receive.

**For 5GHz function:**

For IEEE 802.11 a/n/ac/ax mode (2TX/2RX)

Ant. 3 (port 1) and Ant. 4 (port 2) could transmit/receive simultaneously.

**Model:XV2-2T1 <Group 2>**

| Ant. | Brand   | Model Name          | Antenna Type | Connector | Support |
|------|---------|---------------------|--------------|-----------|---------|
| 1    | M-gear  | Snow leopard_120deg | Array patch  | I-PEX     | 2.4G    |
| 2    | M-gear  | Snow leopard_120deg | Array patch  | I-PEX     | 2.4G    |
| 3    | M-gear  | Snow leopard_120deg | Array patch  | I-PEX     | 5G      |
| 4    | M-gear  | Snow leopard_120deg | Array patch  | I-PEX     | 5G      |
| 5    | LYNwave | Snow Leopard        | PIFA antenna | I-PEX     | BT      |

| Ant. | Port | Gain (dBi) |         |          |          |         |     |
|------|------|------------|---------|----------|----------|---------|-----|
|      |      | 2.4G       | 5G      |          |          |         | BT  |
|      |      |            | U-NII-1 | U-NII-2A | U-NII-2C | U-NII-3 |     |
| 1    | 1    | 11.9       | -       | -        | -        | -       | -   |
| 2    | 2    | 11.7       | -       | -        | -        | -       | -   |
| 3    | 1    | -          | 14.31   | 13.37    | 14.00    | 13.05   | -   |
| 4    | 2    | -          | 14.57   | 14.38    | 13.03    | 12      | -   |
| 5    | 1    | -          | -       | -        | -        | -       | 5.6 |

Note 1: The EUT has five antennas.

**For 2.4GHz function:**

For IEEE 802.11 b/g/n/VHT/ax mode (2TX/2RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

**For BT function:**

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Ant. 5 (port 1) could transmit/receive.

**For 5GHz function:**

For IEEE 802.11 a/n/ac/ax mode (2TX/2RX)

Ant. 3 (port 1) and Ant. 4 (port 2) could transmit/receive simultaneously.

### 1.1.3 Table for Multiple Listing

The brand/model names in the following table are all refer to the identical product.

| Model Name | Antenna | Description                                                                                                |
|------------|---------|------------------------------------------------------------------------------------------------------------|
| XV2-2T     | Group 1 | All the models are identical, the only difference is that the Wi-Fi antennas for each model are different. |
| XV2-2T1    | Group 2 |                                                                                                            |

### 1.1.4 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR142329AL

Below is the table for the change of the product with respect to the original one.

| Modifications                                                                 | Performance Checking                                                                        |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 1. Model:XV2-2T1 was added.<br>2. Group 2 Antenna was added for XV2-2T1 used. | BT antenna is same as original report, therefore test results refer to the original report. |