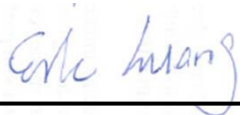


# RF Exposure Evaluation Report

APPLICANT : Green Packet Berhad, Taiwan  
EQUIPMENT : LiTE Band 7 Indoor CPE  
BRAND NAME : Green Packet  
MODEL NAME : IF-250  
FCC ID : W9V-IF250-GP  
STANDARD : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091, and pass the limit. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.



Reviewed by: Eric Huang / Deputy Manager



Approved by: Jones Tsai / Manager



## SPORTON INTERNATIONAL INC.

No. 52, Hwa Ya 1<sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.



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**Revision History**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA472107	Rev. 01	Initial issue of report	Aug. 18, 2014

**1. Administration Data**

**1.1. Testing Laboratory**

Testing Laboratory	
Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978

Applicant	
Company Name	Green Packet Berhad, Taiwan
Address	6F, No.21, Lane 583, Rueiguang Rd. Neihu District, Taipei City 11492, Taiwan

Manufacturer	
Company Name	Green Packet Berhad, Taiwan
Address	6F, No.21, Lane 583, Rueiguang Rd. Neihu District, Taipei City 11492, Taiwan

## **2. Description of Equipment Under Test (EUT)**

<b>Product Feature &amp; Specification</b>	
<b>EUT Type</b>	LiTE Band 7 Indoor CPE
<b>Brand Name</b>	Green Packet
<b>Model Name</b>	IF-250
<b>FCC ID</b>	W9V-IF250-GP
<b>Integrated Module</b>	Brand Name: Green Packet Model Name: FDD-LTE Band 7 Module
<b>Wireless Technology and Frequency Range</b>	LTE Band 7: 2502.5 MHz ~ 2567.5 MHz
<b>Mode</b>	• LTE: QPSK, 16QAM
<b>Antenna Type</b>	Omni-antenna
<b>HW Version</b>	A1
<b>SW Version</b>	1.0.0_e69b_GP
<b>EUT Stage</b>	Production Unit

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

## **3. Maximum RF average output power among production units**

<b>LTE Band 7</b>				
<b>Modulation</b>	<b>BW (MHz)</b>	<b>RB size</b>	<b>MPR</b>	<b>Power</b>
QPSK	20	≤ 18	0	24.00
QPSK	20	> 18	1	23.00
16QAM	20	≤ 18	1	23.00
16QAM	20	> 18	1	23.00
QPSK	15	≤ 16	0	24.00
QPSK	15	> 16	1	23.00
16QAM	15	≤ 16	1	23.00
16QAM	15	> 16	1	23.00
QPSK	10	≤ 12	0	24.00
QPSK	10	> 12	1	23.00
16QAM	10	≤ 12	1	23.00
16QAM	10	> 12	1	23.00
QPSK	5	≤ 8	0	24.00
QPSK	5	> 8	1	23.00
16QAM	5	≤ 8	1	23.00
16QAM	5	> 8	1	23.00

#### **4. RF Exposure Limit Introduction**

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna

#### **5. Radio Frequency Radiation Exposure Evaluation**

##### **5.1. Standalone Power Density Calculation**

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
LTE Band 7	2502.5	8.0	24.0	32.000	1.585	1584.893	0.315	1.000

**Note:** For conservativeness, the lowest uplink frequency of each band is used to determine the MPE limit of that band

#### **Conclusion:**

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.