RF Exposure Evaluation Report

APPLICANT : Green Packet Berhad, Taiwan

EQUIPMENT: LTE Band 7 Outdoor CPE

BRAND NAME: Green Packet

MODEL NAME : OF-250

FCC ID : W9V-OF250-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

Cole huan'

Approved by: Jones Tsai / Manager

lac-MRA



Report No.: FA450931

SPORTON INTERNATIONAL INC.

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 FCC ID: W9V-OF250-GP Page Number : 1 of 7
Report Issued Date : Jul. 02, 2014

Report Version : Rev. 01

Report No. : FA450931

Table of Contents

1.	ADMINISTRATION DATA				
	1.1. Testing Laboratory	4			
2.	DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)	4			
3.	MAXIMUM RF AVERAGE OUTPUT POWER AMONG PRODUCTION UNITS	5			
4.	RF EXPOSURE LIMIT INTRODUCTION	6			
5.	RADIO FREQUENCY RADIATION EXPOSURE EVALUATION	7			
	5.1 Power Density Calculations	7			

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: W9V-OF250-GP Page Number : 2 of 7
Report Issued Date : Jul. 02, 2014
Report Version : Rev. 01



SPORTON LAB. RF Exposure Evaluation Report

Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA450931 Rev. 01		Initial issue of report	Jul. 02, 2014

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: W9V-OF250-GP Page Number : 3 of 7
Report Issued Date : Jul. 02, 2014
Report Version : Rev. 01

Report No. : FA450931

1. Administration Data

1.1. <u>Testing Laboratory</u>

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			

Report No. : FA450931

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

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

2. <u>Description of Equipment Under Test (EUT)</u>

Product Feature & Specification					
EUT Type	LTE Band 7 Outdoor CPE				
Brand Name	Green Packet				
Model Name	OF-250				
FCC ID	9V-OF250-GP				
Wireless Technology and Frequency Range	LTE Band 7: 2502.5 MHz ~ 2567.5 MHz				
Mode	LTE: QPSK, 16QAM				
Antenna Type	PATCH ANTENNA				
HW Version	A1				
SW Version	OF-250_e37i				
EUT Stage 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.

 SPORTON INTERNATIONAL INC.
 Page Number
 : 4 of 7

 TEL: 886-3-327-3456
 Report Issued Date
 : Jul. 02, 2014

 FAX: 886-3-328-4978
 Report Version
 : Rev. 01

FCC ID: W9V-OF250-GP



SPORTON LAB. RF Exposure Evaluation Report

3. Maximum RF average output power among production units

LTE Band 7							
average power(dBm)							
Modulation	BW (MHz)	RB size	(MPR)	Power			
QPSK	20	≤ 18	0	23.00			
QPSK	20	> 18	1	22.00			
16QAM	20	≤ 18	1	22.00			
16QAM	20	> 18	2	21.00			
QPSK	15	≤ 16	0	23.00			
QPSK	15	> 16	1	22.00			
16QAM	15	≤ 16	1	22.00			
16QAM	15	> 16	2	21.00			
QPSK	10	≤ 12	0	23.00			
QPSK	10	> 12	1	22.00			
16QAM	10	≤ 12	1	22.00			
16QAM	10	> 12	2	21.00			
QPSK	5	≤ 8	0	23.00			
QPSK	5	> 8	1	22.00			
16QAM	5	≤ 8	1	22.00			
16QAM	5	> 8	2	21.00			

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: W9V-OF250-GP Page Number : 5 of 7 Report Issued Date: Jul. 02, 2014 Report Version : Rev. 01

Report No. : FA450931

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 ²)	Averaging time (minutes)	
800 St.	(A) Limits for O	ccupational/Controlled Expos	sures	W	
0.3-3.0	614	1.63	*(100)	6	
3.0-30	1842/	f 4.89/1	f *(900/f2)	6	
30-300	61.4	0.163	1.0	6	
300-1500			f/300	6	
1500-100,000			5	6	
	(B) Limits for Gene	ral Population/Uncontrolled I	Exposure		
0.3-1.34	614	1.63	*(100)	30	
1.34-30	824/	f 2.19/1	f *(180/f2)	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

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: W9V-OF250-GP Page Number : 6 of 7
Report Issued Date : Jul. 02, 2014

Report Version : Rev. 01

Report No.: FA450931

5. Radio Frequency Radiation Exposure Evaluation

5.1. Power Density Calculations

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	(mW)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)	
LTE Band 7	2502.5	11.0	23.0	34.000	2.512	2511.886	0.500	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.

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: W9V-OF250-GP

: 7 of 7 Page Number Report Issued Date: Jul. 02, 2014 Report Version

: Rev. 01

Report No.: FA450931