RF Exposure Evaluation Report

APPLICANT : Green Packet Berhad, Taiwan

EQUIPMENT: LTE Outdoor CPE (Band 43)

BRAND NAME: Greenpacket

MODEL NAME : OT-350

FCC ID : W9V-OT350-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'

Ines/sai

Approved by: Jones Tsai / Manager





Report No.: FA570718

SPORTON INTERNATIONAL INC.

No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.)

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Report Issued Date: Aug. 07, 2015

Report Version : Rev. 01

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SPORTON LAB. RF Exposure Evaluation Report

Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA570718	Rev. 01	Initial issue of report	Aug. 07, 2015

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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 District, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978				

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

Manufacturer Cartesian Car				
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 Outdoor CPE (Band 43)			
Brand Name	Greenpacket			
Model Name	OT-350			
FCC ID	W9V-OT350-GP			
Wireless Technology and Frequency Range	LTE Band 43: 3650.0 MHz ~ 3700.0 MHz			
Mode	QPSK, 16QAM			
Antenna Type	Patch Antenna			
EUT Stage	Pre-production			

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

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3. 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.

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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/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:

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

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Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna

4. Maximum RF average output power among production units

	LTE Band 43							
Modulation	BW (MHz)	RB size	Target MPR	Power				
QPSK	20	≤ 18	0	18.00				
QPSK	20	> 18	0	18.00				
16QAM	20	≤ 18	0	18.00				
16QAM	20	> 18	0	18.00				
QPSK	15	≤ 16	0	18.00				
QPSK	15	> 16	0	18.00				
16QAM	15	≤ 16	0	18.00				
16QAM	15	> 16	0	18.00				
QPSK	10	≤ 12	0	18.00				
QPSK	10	> 12	0	18.00				
16QAM	10	≤ 12	0	18.00				
16QAM	10	> 12	0	18.00				
QPSK	5	≤ 8	0	18.00				
QPSK	5	> 8	0	18.00				
16QAM	5	≤ 8	0	18.00				
16QAM	5	> 8	0	18.00				

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^2)	Limit (mW/cm^2)
LTE Band 43	3650.0	12.0	18.0	30.000	1.000	1000.000	0.199	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.

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