SGS Korea Co., Ltd.
4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
Tel. +82 31 428 5700 / Fax. +82 31 427 2370
http://www.sgsgroup.kr

TEST REPORT

of

FCC CFR 47 part 1, 1.1307(b), 1.1310

FCC ID: YCK-DR750-2CHLTE

1. Equipment Under Test	:	CAR DASHCAM
2. Model Name	:	DR750-2CH LTE
3. Variant Model Name(s)	:	Refer to the page 3
4. Applicant	:	Pittasoft Co., Ltd.
5. Manufacturer	:	Pittasoft Co., Ltd.
6. Date of Receipt	:	2020.05.20
7. Date of Test(s)	:	2020.05.21 ~ 2020.06.17
8. Date of Issue	:	2020.06.17

In the configuration tested, the EUT complied with the standards specified above. This test report does not assure KOLAS accreditation.

1) The results of this test report are effective only to the items tested.
2) The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received.

Tested by: **Murphy Kim**

Technical Manager: **Hyunchae You**

SGS Korea Co., Ltd. Gunpo Laboratory

INDEX

Table of Contents Page

1. General Information

1.1. Testing Laboratory

SGS Korea Co., Ltd. (Gunpo Laboratory)
- 10-2, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
- 4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
- Designation number: KR0150

All SGS services are rendered in accordance with the applicable SGS conditions of service available on request and accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx.

Telephone : +82 31 688 0901
FAX : +82 31 688 0921

1.2. Details of Applicant

Applicant	:	Pittasoft Co., Ltd.
Address	:	A 4th floor, ABN Tower, 331, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, South Korea, 13488
Contact Person	:	Kim, Kwang-jo
Phone No.	:	+82 10 8998 8734

1.3. Details of Manufacturer

Company	:	Same as applicant
Address	:	Same as applicant

1.4. Description of EUT

Kind of Product	CAR DASHCAM
Model Name	DR750-2CH LTE
Model Serial Number	Conducted Sample: DR7LNAAJ400020 Radiated Sample: DR7LNAAJ400015
Variant Model Names	DR750-2CH IR LTE, DR750-2CH Truck LTE, DR750-1CH LTE, DR750S-2CH LTE, DR750X-2CH LTE, DR750G-2CH LTE
Power Supply	DC 12 V, DC 24 V
Frequency Range	2 402 ㎒ ~ 2 480 ㎒ (Bluetooth) 2 402 ㎒ ~ 2 480 ㎒ (Bluetooth Low Energy) 2 412 ㎒ ~ 2 462 ㎒ (11b/g/n_HT20)
Modulation Technique	DSSS, OFDM, GFSK, π/4DQPSK, 8DPSK
Number of Channels	79 channels (Bluetooth) 40 channels (Bluetooth Low Energy) 11 channels (11b/g/n_HT20)
Antenna Type	Dielectric chip antenna
Antenna Gain	1.99 ㏈i
H/W Version	DR750-2CH LTE REV1.1
S/W Version	DR750-2CH LTE V1.000

1.5. Test Report Revision

Revision	Report Number	Date of Issue	Description
0	F690501-RF-RTL000782	2020.06.17	Initial

1.6. Information of Variant Models

Model Name	Description
DR750-2CH LTE	- Basic model
DR750-2CH IR LTE	- Rear camera IR model
DR750-2CH Truck LTE	- Rear camera truck model
DR750-1CH LTE	- Non rear camera model
DR750S-2CH LTE	- Just variant model name add
DR750X-2CH LTE	
DR750G-2CH LTE	

2. RF Exposure Evaluation

2.1. Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(b), 1.1310

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (㎒)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (㎽/㎠)	Average Time
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f^2	6
30-300	61.4	0.163	1.0	6
300-1 500	-	-	f/300	6
1 500-100 000	-	-	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f^2	30
30-300	27.5	0.073	0.2	30
300-1 500	-	-	**f/1500**	**30**
1 500-100 000	-	-	**1.0**	**30**

2.1.1. Friis transmission formula: Pd = (Pout*G)/(4*pi*R^2)

Where Pd = power density in ㎽/㎠

Pout = output power to antenna in ㎽

G = gain of antenna in linear scale

Pi = 3.1416

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

Pd the limit of MPE, 1 ㎽/㎠. 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 where the MPE limit is reached.

2.1.2. Test Result of RF Exposure Evaluation

Test Item : RF Exposure Evaluation Data

Test Mode : Normal Operation

2.1.3. Output Power into Antenna & RF Exposure Evaluation Distance

Bluetooth

- Maximum tune up tolerance

Frequency Range (㎒)	Output Average Power to Antenna (dB m)	Antenna Gain (dB i)	Power Density at 20 ㎝ (㎽/㎠)	Limits (㎽/㎠)
2 400 ~ 2 483.5	6.0	1.99	0.001 252	1

Bluetooth Low Energy

- Maximum tune up tolerance

Frequency Range (㎒)	Output Average Power to Antenna (dB m)	Antenna Gain (dB i)	Power Density at 20 ㎝ (㎽/㎠)	Limits (㎽/㎠)
2 400 ~ 2 483.5	7.0	1.99	0.001 577	1

WLAN (2.4G)

- Maximum tune up tolerance

Frequency Range (㎒)	Output Average Power to Antenna (dB m)	Antenna Gain (dB i)	Power Density at 20 ㎝ (㎽/㎠)	Limits (㎽/㎠)
2 400 ~ 2 483.5	16.0	1.99	0.012 524	1

WCDMA Ⅱ

- Maximum tune up tolerance

Frequency Range (㎒)	Output Average Power to Antenna (dB m)	Antenna Gain (dB i)	Power Density at 20 ㎝ (㎽/㎠)	Limits (㎽/㎠)
1 850~ 1 910	25.0	2.36	0.108 325	1

WCDMA Ⅳ

- Maximum tune up tolerance

Frequency Range (㎒)	Output Average Power to Antenna (dB m)	Antenna Gain (dB i)	Power Density at 20 ㎝ (㎽/㎠)	Limits (㎽/㎠)
1 710 ~ 1 755	25.0	1.59	0.090 726	1

WCDMA V

- Maximum tune up tolerance

Frequency Range (㎒)	Output Average Power to Antenna (dB m)	Antenna Gain (dB i)	Power Density at 20 ㎝ (㎽/㎠)	Limits (㎽/㎠)
824 ~ 849	25.0	0.68	0.073 575	0.55

LTE - Band 2

- Maximum tune up tolerance

Frequency Range (㎒)	Output Average Power to Antenna (dB m)	Antenna Gain (dB i)	Power Density at 20 ㎝ (㎽/㎠)	Limits (㎽/㎠)
1 850 ~ 1 910	25.0	2.36	0.108 325	1

LTE - Band 4

- Maximum tune up tolerance

Frequency Range (㎒)	Output Average Power to Antenna (dB m)	Antenna Gain (dB i)	Power Density at 20 ㎝ (㎽/㎠)	Limits (㎽/㎠)
1 710 ~ 1 755	25.0	1.59	0.090 726	1

LTE - Band 12

- Maximum tune up tolerance

Frequency Range (㎒)	Output Average Power to Antenna (dB m)	Antenna Gain (dB i)	Power Density at 20 ㎝ (㎽/㎠)	Limits (㎽/㎠)
699 ~ 716	25.0	2.68	0.116 608	0.47

Note;

- The power density Pd (5th column) at a distance of 20 ㎝ calculated from the friis transmission formula is far below the limit of 1 ㎽/㎠.
- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
- This equipment should be installed and operated with minimum 20 ㎝ between the radiator and your body.
- The antenna gain of this transmitter is less than 6 dBi and must not be collocated or operating in conjunction with any other antenna or transmitter unless authorized to do so by the FCC.
- According to KDB 447498 D01 RF Exposure Guidance 4.1.

Simultaneous transmission of RF Exposure test exclusion for worst case configuration.

Bluetooth: the ratio is 0.001 577 / 1
WLAN: the ratio is 0.012 524 / 1
WWAN: the ratio is 0.116 608 / 0.47

Confirm the sum result of individual MPEs ratio is ≤ 1.0;
Bluetooth + WLAN + WWAN: (0.001 577 / 1) + (0.012 524 / 1) + (0.116 608 / 0.47) = 0.262 203 ≤ 1.0

- End of the Test Report -