

Test Report No:
2480097R-RFUSV17S-A

RF EXPOSURE EVALUATION DECLARATION

Product Name	Telematics Platform 2
Brand Name	PCI
Model No.	PCI-TP2
FCC ID	LY5-PCITP2V2
Applicant's Name / Address	PCI Private Limited 35 Pioneer Road North Singapore 628475
Manufacturer's Name / Address	PCI Private Limited 35 Pioneer Road North Singapore 628475
Test Method Requested, Standard	FCC CFR Title 47 Part 2.1091 Radiofrequency radiation exposure evaluation: mobile devices.
Verdict Summary	IN COMPLIANCE
Documented By	 Amelia Wu
Approved By	 Allen Lin
Date of Receipt	Aug. 05, 2024
Date of Issue	Oct. 18, 2024
Report Version	V1.0

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Competences and Guarantees

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

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General Conditions

1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

Version	Description	Issued Date
V1.0	Initial issue of report	Oct. 18, 2024

1. General Information

1.1. EUT Description

RF General Information				
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type	
WiFi 2.4 GHz	2400 ~ 2483.5	2412 ~ 2462	802.11b: DSSS 802.11g/n, VHT: OFDM	
WiFi 5 GHz	5150 ~ 5250 5250 ~ 5350 5470 ~ 5725 5725 ~ 5850	5180 ~ 5240 5260 ~ 5320 5500 ~ 5700 5745 ~ 5825	802.11a/n/ac: OFDM	
Bluetooth	2400 ~ 2483.5	2402 ~ 2480	BR / EDR: FHSS (GFSK / $\pi/4$ -DQPSK / 8DPSK) LE: GFSK	
Evaluation Mode	Band	Uplink Frequency Range (MHz)	Downlink Frequency Range (MHz)	Modulation Type
WWAN	WCDMA Band 2	1850~1910	1930~1990	BPSK / QPSK
	WCDMA Band 4	1710~1755	2110~2115	
	WCDMA Band 5	824~849	869~894	
	LTE Band 2	1850~1910	1930~1990	QPSK / 16QAM
	LTE Band 4	1710~1755	2110~2155	
	LTE Band 5	824 ~ 849	869 ~ 894	
	LTE Band 7	2500~2570	2620~2690	
	LTE Band 8	880~915	925~960	
	LTE Band 12	699~716	729~746	
	LTE Band 13	777~787	746~756	
	LTE Band 26	814~849	859~894	
	LTE Band 38	2570~2620	2570~2620	
	LTE Band 41	2496~2690	2496~2690	
	LTE Band 66	1710~1780	2110~2200	

Note: The above EUT information is declared by the manufacturer.

1.2. Testing Location Information

Testing Location Information		
Test Laboratory : DEKRA Testing and Certification Co., Ltd.		
1 (TAF: 3024)	ADD: No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958 Test site Designation No. TW3024 with FCC. Conformity Assessment Body Identifier (CABID) TW3024 with ISED.	
2 (TAF: 3024)	ADD: No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. TEL: +886-3-582-8001 FAX: +886-3-582-8958 Test site Designation No. TW3024 with FCC. Conformity Assessment Body Identifier (CABID) TW3024 with ISED.	
Test site number for address 1 includes HC-SR02. Test site number for address 2 includes HC-CB02, HC-CB03, HC-CB04, HC-SR10 and HC-SR12.		

2. RF Exposure Evaluation

2.1. Test Limit

(A) Test Limit for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
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
300-1500	-	-	f/300	<6
1500-100,000	-	-	5	<6

(B) Test Limit for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
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
300-1500	-	-	f/1500	<30
1500-100,000	-	-	1.0	<30

Note: f = frequency in MHz; *Plane-wave equivalent power density

Power Density (S) is calculated by the following formula:

$$S=(P*G) /4\pi R^2$$

where:

S = power density (in appropriate units, e.g. mW/ cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

π = 3.1416

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

2.2. Test Result of RF Exposure Evaluation

Exposure Environment: General Population / Uncontrolled Exposure

Evaluation Mode	E.I.R.P (dBm)	E.I.R.P (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Test Result (PASS/FAIL)
WiFi 2.4 GHz	23.160	207.014	0.041	1.000	PASS
WiFi 5 GHz Band 1	18.060	63.973	0.013	1.000	PASS
WiFi 5 GHz Band 2	17.780	59.979	0.012	1.000	PASS
WiFi 5 GHz Band 3	21.900	154.882	0.031	1.000	PASS
WiFi 5 GHz Band 4	22.400	173.780	0.035	1.000	PASS
Bluetooth BR / EDR	15.820	38.194	0.008	1.000	PASS
Bluetooth LE	6.400	4.365	0.001	1.000	PASS
WCDMA Band 2	27.610	576.766	0.115	1.000	PASS
WCDMA Band 4	27.750	595.662	0.119	1.000	PASS
WCDMA Band 5	25.150	327.341	0.065	0.549	PASS
LTE Band 2	27.600	575.440	0.114	1.000	PASS
LTE Band 4	27.780	599.791	0.119	1.000	PASS
LTE Band 5	25.150	327.341	0.065	0.549	PASS
LTE Band 7	26.960	496.592	0.099	1.000	PASS
LTE Band 8	24.860	306.196	0.061	0.599	PASS
LTE Band 12	23.460	221.820	0.044	0.466	PASS
LTE Band 13	25.190	330.370	0.066	0.518	PASS
LTE Band 26	25.220	332.660	0.066	0.543	PASS
LTE Band 38	26.750	473.151	0.094	1.000	PASS
LTE Band 41	26.960	496.592	0.099	1.000	PASS
LTE Band 66	27.780	599.791	0.119	1.000	PASS

Distance (cm): 20 for Maximum Permissible Exposure.

Co-location**Conclusion:**

The formula of calculated the MPE is:

$$\text{CPD1} / \text{LPD1} + \text{CPD2} / \text{LPD2} + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

1. WWAN LTE + WiFi 2.4 GHz = $0.127 + 0.041 = 0.168$, therefore the maximum calculations of above situations are less than the "1" limit.
2. WWAN LTE + WiFi 5 GHz = $0.127 + 0.035 = 0.162$, therefore the maximum calculations of above situations are less than the "1" limit.
3. WWAN LTE + Bluetooth = $0.127 + 0.008 = 0.135$, therefore the maximum calculations of above situations are less than the "1" limit.

Note:

1. The above EUT information is declared by the manufacturer.
2. The results are based on the maximum power.