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TEST REPORT

FCC MPE Test for PSR-9536-B

Certification

APPLICANT
TJ innovation Co., Ltd.

REPORT NO.
HCT-RF-2002-FC004-R1

DATE OF ISSUE
February 20, 2020

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Additional Model
VISION78

Applicant	**TJ innovation Co., Ltd.** 2018, Sambo Techno-tower 122, Jomaru-ro 385beon-gil, Bucheon-si, Gyeonggi-do, Korea
Eut Type Model Name	Public Safety Repeater (PSR-9536) PSR-9536-B
FCC ID	2AVNP-PSR-9536-B

This test results were applied only to the test methods required by the standard.

Tested by
Kyung Soo Kang

Technical Manager
Jong Seok Lee

HCT CO., LTD.
Soo Chan Lee
SooChan Lee / CEO

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	February 12, 2020	Initial Release
1	February 20, 2020	Revised antenna gain.

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance.

RF Exposure Statement

1. LIMITS

According to § 1.1310 and § 2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength (V/m)	Magnetic field Strength (A/m)	Power density (mW/cm^2)	Averaging time (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

F = frequency in MHz

* = Plane-wave equivalent power density

2. MAXIMUM PERMISSIBLE EXPOSURE Prediction

Prediction of MPE limit at a given distance

$$S = PG/4\pi R^2$$

S = Power density

P = power input to antenna

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

R = distance to the center of radiation of the antenna

- PS700 –(Uplink)

Max Peak output Power at antenna input terminal	31.00	dBm
Max Peak output Power at antenna input terminal	1258.93	mW
Prediction distance	40.00	cm
Prediction frequency	769.003125	MHz
Antenna Gain(typical)	5.900	dBi
Antenna Gain(numeric)	3.890	-
Power density at prediction frequency(S)	0.2436	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.5127	mW/cm^2

- PS700 – (Downlink)

Max Peak output Power at antenna input terminal	34.00	dBm
Max Peak output Power at antenna input terminal	2511.89	mW
Prediction distance	40.00	cm
Prediction frequency	799.003125	MHz
Antenna Gain(typical)	2.900	dBi
Antenna Gain(numeric)	1.950	-
Power density at prediction frequency(S)	0.2436	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.5327	mW/cm^2

- PS800 – (Uplink)

Max Peak output Power at antenna input terminal	31.00	dBm
Max Peak output Power at antenna input terminal	1258.93	mW
Prediction distance	40.00	cm
Prediction frequency	851.003125	MHz
Antenna Gain(typical)	5.900	dBi
Antenna Gain(numeric)	3.890	-
Power density at prediction frequency(S)	0.2436	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.5673	mW/cm^2

- PS800 –(Downlink)

Max Peak output Power at antenna input terminal	34.00	dBm
Max Peak output Power at antenna input terminal	2511.89	mW
Prediction distance	40.00	cm
Prediction frequency	806.003125	MHz
Antenna Gain(typical)	2.900	dBi
Antenna Gain(numeric)	1.950	-
Power density at prediction frequency(S)	0.2436	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.5373	mW/cm^2

- FirstNet – LTE 5 MHz (Uplink)

Max Peak output Power at antenna input terminal	31.00	dBm
Max Peak output Power at antenna input terminal	1258.93	mW
Prediction distance	40.00	cm
Prediction frequency	760.500	MHz
Antenna Gain(typical)	5.900	dBi
Antenna Gain(numeric)	3.890	-
Power density at prediction frequency(S)	0.2436	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.5070	mW/cm^2

- FirstNet – LTE 5 MHz (Downlink)

Max Peak output Power at antenna input terminal	34.00	dBm
Max Peak output Power at antenna input terminal	2511.89	mW
Prediction distance	40.00	cm
Prediction frequency	790.500	MHz
Antenna Gain(typical)	2.900	dBi
Antenna Gain(numeric)	1.950	-
Power density at prediction frequency(S)	0.2436	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.5270	mW/cm^2

- FirstNet – LTE 10 MHz (Uplink)

Max Peak output Power at antenna input terminal	31.00	dBm
Max Peak output Power at antenna input terminal	1258.93	mW
Prediction distance	40.00	cm
Prediction frequency	763.000	MHz
Antenna Gain(typical)	5.900	dBi
Antenna Gain(numeric)	3.890	-
Power density at prediction frequency(S)	0.2436	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.5087	mW/cm^2

- FirstNet – LTE 10 MHz (Downlink)

Max Peak output Power at antenna input terminal	34.00	dBm
Max Peak output Power at antenna input terminal	2511.89	mW
Prediction distance	40.00	cm
Prediction frequency	793.000	MHz
Antenna Gain(typical)	2.900	dBi
Antenna Gain(numeric)	1.950	-
Power density at prediction frequency(S)	0.2436	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.5287	mW/cm^2