

# TEST REPORT

FCC MPE Test for eROUa\_682335\_X  
Certification

**APPLICANT**  
SOLiD, Inc.

**REPORT NO.**  
HCT-RF-2006-FC029-R2

**DATE OF ISSUE**  
October 13, 2020

**Tested by**  
Kyung Soo Kang



**Technical Manager**  
Jong Seok Lee



**HCT CO., LTD.**

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고객비밀  
CUSTOMER SECRET

# TEST REPORT

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Additional Model  
-

**Applicant**      **SOLID, Inc.**  
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Gyeonggi-do, 463-400, South Korea

**Eut Type**      DAS  
**Model Name**    eROUa\_682335\_X

**FCC ID**      W6UEROUA682335

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.  
This test results were applied only to the test methods required by the standard.

## REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	August 13, 2020	Initial Release
1	August 28, 2020	Revised the CBRS band data.
2	October 13, 2020	Removed the CBRS band data.

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.

\* The report shall not be reproduced except in full(only partly) without approval of the laboratory.



## 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 <sup>2</sup> )	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	*(100)	30
1.34 - 30.....	824/f	2.19/f	*(180/ f <sup>2</sup> )	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

- 600 MHz – LTE 5 MHz (Downlink)

Max Peak output Power at antenna input terminal	20.00	dBm
Max Peak output Power at antenna input terminal	100.00	mW
Prediction distance	120.00	cm
Prediction frequency	619.50	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency( S)	0.0277	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.4130	mW/cm <sup>2</sup>

- 600 MHz – LTE 10 MHz (Downlink)

Max Peak output Power at antenna input terminal	20.00	dBm
Max Peak output Power at antenna input terminal	100.00	mW
Prediction distance	120.00	cm
Prediction frequency	622.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency( S)	0.0277	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.4147	mW/cm <sup>2</sup>

- 600 MHz – LTE 20 MHz (Downlink)

Max Peak output Power at antenna input terminal	20.00	dBm
Max Peak output Power at antenna input terminal	100.00	mW
Prediction distance	120.00	cm
Prediction frequency	627.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency( S)	0.0277	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.4180	mW/cm <sup>2</sup>

- ESMR – CDMA (Downlink)

Max Peak output Power at antenna input terminal	20.00	dBm
Max Peak output Power at antenna input terminal	100.00	mW
Prediction distance	120.00	cm
Prediction frequency	863.25	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency( S)	0.0277	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.5755	mW/cm <sup>2</sup>

- ESMR – WCDMA (Downlink)

Max Peak output Power at antenna input terminal	20.00	dBm
Max Peak output Power at antenna input terminal	100.00	mW
Prediction distance	120.00	cm
Prediction frequency	864.50	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency( S)	0.0277	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.5763	mW/cm <sup>2</sup>

- ESMR – LTE 5 MHz (Downlink)

Max Peak output Power at antenna input terminal	20.00	dBm
Max Peak output Power at antenna input terminal	100.00	mW
Prediction distance	120.00	cm
Prediction frequency	864.50	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency( S)	0.0277	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.5763	mW/cm <sup>2</sup>

- Cellular – CDMA (Downlink)

Max Peak output Power at antenna input terminal	20.00	dBm
Max Peak output Power at antenna input terminal	100.00	mW
Prediction distance	120.00	cm
Prediction frequency	870.25	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency( S)	0.0277	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.5802	mW/cm <sup>2</sup>

- Cellular – WCDMA (Downlink)

Max Peak output Power at antenna input terminal	20.00	dBm
Max Peak output Power at antenna input terminal	100.00	mW
Prediction distance	120.00	cm
Prediction frequency	871.50	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency( S)	0.0277	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.5810	mW/cm <sup>2</sup>

- Cellular – LTE 5 MHz (Downlink)

Max Peak output Power at antenna input terminal	20.00	dBm
Max Peak output Power at antenna input terminal	100.00	mW
Prediction distance	120.00	cm
Prediction frequency	871.50	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency( S)	0.0277	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.5810	mW/cm <sup>2</sup>

- Cellular – LTE 10 MHz (Downlink)

Max Peak output Power at antenna input terminal	20.00	dBm
Max Peak output Power at antenna input terminal	100.00	mW
Prediction distance	120.00	cm
Prediction frequency	874.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency( S)	0.0277	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.5827	mW/cm <sup>2</sup>



- WCS – LTE 5 MHz (Downlink)

Max Peak output Power at antenna input terminal	24.00	dBm
Max Peak output Power at antenna input terminal	251.19	mW
Prediction distance	120.00	cm
Prediction frequency	2355.32	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency( S)	0.0696	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

- WCS – LTE 10 MHz (Downlink)

Max Peak output Power at antenna input terminal	24.00	dBm
Max Peak output Power at antenna input terminal	251.19	mW
Prediction distance	120.00	cm
Prediction frequency	2355.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency( S)	0.0696	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

**Simultaneous band emission conditions**

[Downlink]

**Ant 1**

Band	MPE Ratio (Power density / Limit)	Sum of MPE Ratio	
ESMR	0.0277	0.1250	≤ 1
Cellular	0.0277		
WCS	0.0696		

\*Note

1. The result of each band was applied to the worst value.
2. MPE ratios are calculated as  

$$[(\text{Power density1} / \text{MPE Limit}) + [(\text{Power density2} / \text{MPE Limit}) + \dots]] \leq 1$$