

# TEST REPORT

FCC MPE Test for eROUa\_3434\_X  
Certification

**APPLICANT**  
SOLiD, Inc.

**REPORT NO.**  
HCT-RF-2301-FC062-R1

**DATE OF ISSUE**  
March 28, 2023

**Tested by**  
Sang Su Lee

**Technical Manager**  
Jong Seok Lee

**HCT CO., LTD.**  
*Bongjai Huh*  
BongJai Huh / CEO



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**TEST  
REPORT**

FCC MPE Test for  
eROUa\_3434\_X

**REPORT NO.**

HCT-RF-2301-FC062-R1

**DATE OF ISSUE**

March 28, 2023

**Additional Model**

eROUa\_3434\_N

**Applicant**

**SOLiD, Inc.**

10, 9th Floor, SOLiD Space, Pangyoyeok-ro 220, Bundang-gu, Seongnam-si,  
Gyeonggi-do, 463-400, South Korea

**Eut Type  
Model Name**

DAS  
eROUa\_3434\_X

**FCC ID**

W6UERA3434

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	January 18, 2023	Initial Release
1	March 28, 2023	- Revised the tables to External/Internal and SISO/MIMO.

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.

If this report is required to confirmation of authenticity, please contact to [www.hct.co.kr](http://www.hct.co.kr)



## 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

### 3. Result

**[External, SISO]**

- C-Band 5G NR 20 MHz (Downlink)

MIMO Max Peak output Power at antenna input terminal	23.00	dBm
MIMO Max Peak output Power at antenna input terminal	199.53	mW
Prediction distance	60.00	cm
Prediction frequency	3 450.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.2210	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

- C-Band 5G NR 40 MHz (Downlink)

MIMO Max Peak output Power at antenna input terminal	23.00	dBm
MIMO Max Peak output Power at antenna input terminal	199.53	mW
Prediction distance	60.00	cm
Prediction frequency	3 450.00	MHz
Antenna Gain(typical)	17.00	dBi
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Power density at prediction frequency(S)	0.2210	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

- C-Band 5G NR 60 MHz (Downlink)

MIMO Max Peak output Power at antenna input terminal	23.00	dBm
MIMO Max Peak output Power at antenna input terminal	199.53	mW
Prediction distance	60.00	cm
Prediction frequency	3 450.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.2210	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

- C-Band 5G NR 80 MHz (Downlink)

MIMO Max Peak output Power at antenna input terminal	23.00	dBm
MIMO Max Peak output Power at antenna input terminal	199.53	mW
Prediction distance	60.00	cm
Prediction frequency	3 450.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.2210	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

- C-Band 5G NR 100 MHz (Downlink)

MIMO Max Peak output Power at antenna input terminal	23.00	dBm
MIMO Max Peak output Power at antenna input terminal	199.53	mW
Prediction distance	60.00	cm
Prediction frequency	3 450.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.2210	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

**[External, MIMO]**

- C-Band 5G NR 20 MHz (Downlink)

MIMO Max Peak output Power at antenna input terminal	26.00	dBm
MIMO Max Peak output Power at antenna input terminal	398.11	mW
Prediction distance	60.00	cm
Prediction frequency	3 450.00	MHz
Antenna Gain(typical)	20.00	dBi
Antenna Gain(numeric)	100.00	-
Power density at prediction frequency(S)	0.8800	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

- C-Band 5G NR 40 MHz (Downlink)

MIMO Max Peak output Power at antenna input terminal	26.00	dBm
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Power density at prediction frequency(S)	0.8800	mW/cm <sup>2</sup>
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Antenna Gain(typical)	20.00	dBi
Antenna Gain(numeric)	100.00	-
Power density at prediction frequency(S)	0.8800	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

**[Internal, SISO]**

- C-Band 5G NR 20 MHz (Downlink)

MIMO Max Peak output Power at antenna input terminal	23.00	dBm
MIMO Max Peak output Power at antenna input terminal	199.53	mW
Prediction distance	60.00	cm
Prediction frequency	3 450.00	MHz
Antenna Gain(typical)	5.50	dBi
Antenna Gain(numeric)	3.548	-
Power density at prediction frequency(S)	0.0156	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

- C-Band 5G NR 40 MHz (Downlink)

MIMO Max Peak output Power at antenna input terminal	23.00	dBm
MIMO Max Peak output Power at antenna input terminal	199.53	mW
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Antenna Gain(numeric)	3.548	-
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MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

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Antenna Gain(typical)	5.50	dBi
Antenna Gain(numeric)	3.548	-
Power density at prediction frequency(S)	0.0156	mW/cm <sup>2</sup>
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Antenna Gain(typical)	5.50	dBi
Antenna Gain(numeric)	3.548	-
Power density at prediction frequency(S)	0.0156	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

**[Internal, MIMO]**

- C-Band 5G NR 20 MHz (Downlink)

MIMO Max Peak output Power at antenna input terminal	26.00	dBm
MIMO Max Peak output Power at antenna input terminal	398.11	mW
Prediction distance	60.00	cm
Prediction frequency	3 450.00	MHz
Antenna Gain(typical)	8.50	dBi
Antenna Gain(numeric)	7.079	-
Power density at prediction frequency(S)	0.0623	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

- C-Band 5G NR 40 MHz (Downlink)

MIMO Max Peak output Power at antenna input terminal	26.00	dBm
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Antenna Gain(typical)	8.50	dBi
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Power density at prediction frequency(S)	0.0623	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

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Antenna Gain(typical)	8.50	dBi
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Power density at prediction frequency(S)	0.0623	mW/cm <sup>2</sup>
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