

TEST REPORT

FCC MPE Test for eROUa_682335_X_R
Certification

APPLICANT
SOLiD, Inc.

REPORT NO.
HCT-RF-2201-FC116

DATE OF ISSUE
January 28, 2022

Tested by
Kyung Soo Kang



Technical Manager
Jong Seok Lee



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

HCT CO., LTD.

74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si,
Gyeonggi-do, 17383 KOREA
Tel. +82 31 634 6300 Fax. +82 31 645 6401



HCT Co., Ltd.

74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA
Tel. +82 31 634 6300 Fax. +82 31 645 6401

고객비밀
CUSTOMER SECRET

TEST REPORT

FCC MPE Test for
eROUa_682335_X_R

REPORT NO.

HCT-RF-2201-FC116

DATE OF ISSUE

January 28, 2022

Additional Model

eROUa_682335_N_R

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_682335_X_R

FCC ID

W6UERA682335R

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 28, 2022	Initial Release

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

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

3. RESULTS

3.1 MPE calculation for standalone operations

- 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	60.00	cm
Prediction frequency	617.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.1108	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.4113	mW/cm ²

- 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	60.00	cm
Prediction frequency	617.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.1108	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.4113	mW/cm ²

- 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	60.00	cm
Prediction frequency	617.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.1108	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.4113	mW/cm ²

- 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	60.00	cm
Prediction frequency	862.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.1108	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.5747	mW/cm ²

- 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	60.00	cm
Prediction frequency	862.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.1108	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.5747	mW/cm ²

- 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	60.00	cm
Prediction frequency	862.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.1108	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.5747	mW/cm ²

- 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	60.00	cm
Prediction frequency	869.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.1108	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.5793	mW/cm ²

- 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	60.00	cm
Prediction frequency	869.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.1108	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.5793	mW/cm ²

- 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	60.00	cm
Prediction frequency	869.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.1108	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.5793	mW/cm ²

- 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	60.00	cm
Prediction frequency	869.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.1108	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.5793	mW/cm ²

- 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	60.00	cm
Prediction frequency	2350.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.2783	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

- 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	60.00	cm
Prediction frequency	2350.00	MHz
Antenna Gain(typical)	17.00	dBi
Antenna Gain(numeric)	50.12	-
Power density at prediction frequency(S)	0.2783	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3.2 Simultaneous band emission conditions

[Downlink]

Ant 1

Band	MPE Ratio (Power density / Limit)	Sum of MPE Ratio	
ESMR	0.1928	0.6623	≤ 1
Cellular	0.1912		
WCS	0.2783		

- *Note
1. The result of each band was applied to the worst value.

2. MPE ratios are calculated as

[(Power density1 / MPE Limit) + [(Power density2 / MPE Limit) + ...] ≤ 1