

# TEST REPORT

FCC MPE Test for MRDU\_2500\_100TDD  
Certification

APPLICANT  
SOLiD, Inc.

REPORT NO.  
HCT-RF-1909-FC001

DATE OF ISSUE  
September 03, 2019

**HCT Co., Ltd.**

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**FCC ID**

W6UHM25G100TD

**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**

ALLIANCE\_5W  
MRDU\_2500\_100TDD

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

**Tested by**  
Kwang Il Yoon

(signature)

**Technical Manager**  
Jong Seok Lee

(signature)

**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	September 03, 2019	Initial Release

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 <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

## - BRS – LTE 20 MHz (TDD)

Max Peak output Power at antenna input terminal	38.00	dBm
Max Peak output Power at antenna input terminal	6309.573	mW
Prediction distance	400.00	cm
Prediction frequency	2506.00	MHz
Antenna Gain(typical)	17.000	dBi
Antenna Gain(numeric)	50.119	-
Power density at prediction frequency( S)	0.157	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

## - BRS – 5G NR 40 MHz

Max Peak output Power at antenna input terminal	38.00	dBm
Max Peak output Power at antenna input terminal	6309.573	mW
Prediction distance	400.00	cm
Prediction frequency	2516.00	MHz
Antenna Gain(typical)	17.000	dBi
Antenna Gain(numeric)	50.119	-
Power density at prediction frequency( S)	0.157	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

## - BRS – 5G NR 60 MHz

Max Peak output Power at antenna input terminal	38.00	dBm
Max Peak output Power at antenna input terminal	6309.573	mW
Prediction distance	400.00	cm
Prediction frequency	2526.00	MHz
Antenna Gain(typical)	17.000	dBi
Antenna Gain(numeric)	50.119	-
Power density at prediction frequency( S)	0.157	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>