

# TEST REPORT

FCC MPE Test for MRDU\_600\_700LTE\_FN  
Certification

APPLICANT  
SOLiD, Inc.

REPORT NO.  
HCT-RF-1906-FC028-R1

DATE OF ISSUE  
June 26, 2019

**HCT Co., Ltd.**

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FCC ID  
: W6UHM6070LFN

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\_600\_700LTE\_FN

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	June 12, 2019	Initial Release
1	June 26, 2019	Recalculated due to error

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

## - 600 MHz Service

Max Peak output Power at antenna input terminal	38.000	dBm
Max Peak output Power at antenna input terminal	6309.57	mW
Prediction distance	350.00	cm
Prediction frequency	617.00	MHz
Antenna Gain(typical)	17.000	dBi
Antenna Gain(numeric)	50.119	-
Power density at prediction frequency( S)	0.205	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.411	mW/cm <sup>2</sup>

## - Lower 700 MHz

Max Peak output Power at antenna input terminal	38.000	dBm
Max Peak output Power at antenna input terminal	6309.57	mW
Prediction distance	350.00	cm
Prediction frequency	729.00	MHz
Antenna Gain(typical)	17.000	dBi
Antenna Gain(numeric)	50.119	-
Power density at prediction frequency( S)	0.205	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.486	mW/cm <sup>2</sup>

- Upper 700 MHz

Max Peak output Power at antenna input terminal	38.000	dBm
Max Peak output Power at antenna input terminal	6309.57	mW
Prediction distance	350.00	cm
Prediction frequency	746.00	MHz
Antenna Gain(typical)	17.000	dBi
Antenna Gain(numeric)	50.119	-
Power density at prediction frequency( S)	0.205	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.497	mW/cm <sup>2</sup>

- FirstNet

Max Peak output Power at antenna input terminal	38.000	dBm
Max Peak output Power at antenna input terminal	6309.57	mW
Prediction distance	350.00	cm
Prediction frequency	758.00	MHz
Antenna Gain(typical)	17.000	dBi
Antenna Gain(numeric)	50.119	-
Power density at prediction frequency( S)	0.205	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	0.505	mW/cm <sup>2</sup>