

TEST REPORT

FCC MPE Test for HRDU_2500_100TDD
Certification

APPLICANT
SOLiD, Inc.

REPORT NO.
HCT-RF-1908-FC002

DATE OF ISSUE
August 02, 2019

HCT Co., Ltd.

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Applicant	SOLiD, Inc. 10, 9th Floor, SOLiD Space, Pangyoyeok-ro 220, Bundang-gu, Seongnam-si, Gyeonggi-do, 463-400, South Korea
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Eut Type Model Name	ALLIANCE_MPROU HRDU_2500_100TDD
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FCC ID	W6UMP25TDD
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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	August 02, 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 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

- BRS – LTE 20 MHz (TDD)

Max Peak output Power at antenna input terminal	44.00	dBm
Max Peak output Power at antenna input terminal	2511.89	mW
Prediction distance	450.000	cm
Prediction frequency	2500	MHz
Antenna Gain(typical)	17.000	dBi
Antenna Gain(numeric)	50.119	-
Power density at prediction frequency(S)	0.495	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

- BRS – 5G NR 40 MHz

Max Peak output Power at antenna input terminal	44.00	dBm
Max Peak output Power at antenna input terminal	2511.89	mW
Prediction distance	450.000	cm
Prediction frequency	2574.1	MHz
Antenna Gain(typical)	17.000	dBi
Antenna Gain(numeric)	50.119	-
Power density at prediction frequency(S)	0.495	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

- BRS – 5G NR 60 MHz

Max Peak output Power at antenna input terminal	44.00	dBm
Max Peak output Power at antenna input terminal	2511.89	mW
Prediction distance	450.000	cm
Prediction frequency	2618.8	MHz
Antenna Gain(typical)	17.000	dBi
Antenna Gain(numeric)	50.119	-
Power density at prediction frequency(S)	0.495	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²