

TEST REPORT

FCC MPE Test for TR_N2RDU_1900P_M

APPLICANT

SOLiD, Inc.

REPORT NO.

HCT-RF-2005-FC022-R3

DATE OF ISSUE

1 July 2020

Tested by
Kyung Soo Kang



Technical Manager
Jong Seok Lee



HCT CO., LTD.

Soo Chan Lee

SooChan Lee / CEO

HCT CO., LTD.

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

| | |
|--|---|
| TEST REPORT FCC MPE Test for TR_N2RDU_1900P_M | REPORT NO. HCT-RF-2005-FC022-R3 |
| | DATE OF ISSUE July 01, 2020 |
| | Additional Model - |

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

| | |
|-------------------|------------------|
| Eut Type | DAS |
| Model Name | TR_N2RDU_1900P_M |

| | |
|---------------|------------|
| FCC ID | W6UL1900PM |
|---------------|------------|

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 | June 04, 2020 | Initial Release |
| 1 | June 16, 2020 | - Revised Eut Type from 'Alliance TR N2ROU CALA' to 'DAS' - Revised the data table. - Added MIMO data(optional) and the simultaneous band emission conditions. |
| 2 | June 29, 2020 | - Revised model name and ID. |
| 3 | July 01, 2020 | - Revised model name. |

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.

* The report shall not be reproduced except in full(only partly) without approval of the laboratory.

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

- PCS – WCDMA (Downlink)

| | | |
|---|---------|--------------------|
| Max Peak output Power at antenna input terminal | 34.00 | dBm |
| Max Peak output Power at antenna input terminal | 2511.89 | mW |
| Prediction distance | 320.00 | cm |
| Prediction frequency | 1935.20 | MHz |
| Antenna Gain(typical) | 17.00 | dBi |
| Antenna Gain(numeric) | 50.12 | - |
| Power density at prediction frequency(S) | 0.0978 | mW/cm ² |
| MPE limit for uncontrolled exposure at prediction frequency | 1.0000 | mW/cm ² |

- PCS – LTE 10 MHz (Downlink)

| | | |
|---|---------|--------------------|
| Max Peak output Power at antenna input terminal | 34.00 | dBm |
| Max Peak output Power at antenna input terminal | 2511.89 | mW |
| Prediction distance | 320.00 | cm |
| Prediction frequency | 1935.20 | MHz |
| Antenna Gain(typical) | 17.00 | dBi |
| Antenna Gain(numeric) | 50.12 | - |
| Power density at prediction frequency(S) | 0.0978 | mW/cm ² |
| MPE limit for uncontrolled exposure at prediction frequency | 1.0000 | mW/cm ² |

[Optional: Ant 1 + Ant 2 (MIMO)]

- PCS (Downlink)

| | | |
|---|---------|--------------------|
| Max Peak output Power at antenna input terminal | 37.00 | dBm |
| Max Peak output Power at antenna input terminal | 5011.87 | mW |
| Prediction distance | 320.00 | cm |
| Prediction frequency | 1935.20 | MHz |
| Antenna Gain(typical) | 17.00 | dBi |
| Antenna Gain(numeric) | 50.12 | - |
| Power density at prediction frequency(S) | 0.1952 | mW/cm ² |
| MPE limit for uncontrolled exposure at prediction frequency | 1.0000 | mW/cm ² |

Simultaneous band emission conditions

TR_N2RDU_1900P_M & TR_N2RDU_L2600F_M

| Band | MPE Ratio (Power density / Limit) | Sum of MPE Ratio | |
|---------|-----------------------------------|------------------|-----|
| PCS | 0.0978 | 0.1957 | ≤ 1 |
| BRS/EBS | 0.0978 | | |

***Note**

1. The result of each band was applied to the worst value.
2. MPE ratios are calculated as
$$[(\text{Power density}_1 / \text{MPE Limit}) + [(\text{Power density}_2 / \text{MPE Limit}) + \dots]] \leq 1$$