## Realtek Semiconductor Corp.

Federal Communications Commission 7435 Oakland Mills Road Columbia MD 21046

Subject: Requesting Class II permissive change for FCC ID: TX2-RTL8852AE To Whom It May Concern:

The purpose of this letter is to request a Class II Permissive change for FCC ID: TX2-RTL8852AE, original granted on 16/10/2020.

The major change field under this application is:

- 1. The subject approved module is being used in a portable configuration- a Notebook Computer (Brand name/Model: see SAR test report), the distance between antenna and human body is 0mm and the original module report the distance is 20cm. SAR testing was performed to demonstrate RF compliance.
- 2. The difference compared with the original module design is antenna change. Two groups antennas are used for the subject approved module in the Notebook Computer as below listed.

## Original module:

| Antenna Type | Frequency Range (MHz) | Peak Gain (dBi) |  |
|--------------|-----------------------|-----------------|--|
| PIFA         | 2400 - 2500           | 3.5             |  |
|              | 5150 - 5850           | 5               |  |
| Dipole       | 2400 - 2500           | 3.14            |  |
|              | 5150 - 5850           | 5               |  |

## For notebook:

| Ant.                          | Brand     | Model         | Type            | Frequency Range (MHz) | Gain (dBi) |
|-------------------------------|-----------|---------------|-----------------|-----------------------|------------|
| Ant S0<br>(Main Ant) Luxshare |           | L01RF284-NB-H | PIFA<br>Antenna | 2400-2500MHz          | 1.97       |
|                               | Luvahara  |               |                 | 5150-5350MHz          | 1.19       |
|                               | Luxsnare  |               |                 | 5470-5725MHz          | 0.66       |
|                               |           |               |                 | 5725-5850MHz          | -1.11      |
| Ant S1<br>(Aux Ant)           | Luxshare  | L01RF283-NB-H | PIFA<br>Antenna | 2400-2500MHz          | -2.30      |
|                               |           |               |                 | 5150-5350MHz          | -1.00      |
|                               | Luxsilare |               |                 | 5470-5725MHz          | -1.55      |
|                               |           |               |                 | 5725-5850MHz          | -2.42      |

| Ant.                       | Brand          | Model         | Type            | Frequency Range (MHz) | Gain (dBi) |
|----------------------------|----------------|---------------|-----------------|-----------------------|------------|
| Ant S0<br>(Main Ant) INPAQ |                |               |                 | 2400-2500MHz          | 0.95       |
|                            | MDA I D 02 022 | PIFA          | 5150-5350MHz    | -0.75                 |            |
|                            | INPAQ          | MDA-LB-02-032 | Antenna         | 5470-5725MHz          | 0.31       |
|                            |                |               | 5725-5850MHz    | 1.20                  |            |
| Ant S1 (Aux Ant) INPAQ     |                | MDA-LB-02-033 | PIFA<br>Antenna | 2400-2500MHz          | -1.33      |
|                            | INDAO          |               |                 | 5150-5350MHz          | -1.05      |
|                            | INPAQ          |               |                 | 5470-5725MHz          | 0.37       |
|                            |                |               | 5725-5850MHz    | 1.18                  |            |

3. For the Notebook Computer, since it is client without DFS radar detection capability, detection threshold as set to the module remains identical, and would deactivate the link as it is operated with AP only, DFS test can be excluded.

Please contact me if you have any questions or need further information regarding this application.

Best Regards

Name: Dana Liaw

Funtion: Project Manager

Date: 2020/03/29

Signed: