

Date: Jun. 20, 2018 Federal Communications Commission 7435 Oakland Mills Road Columbia MD 21046

C.C.: SGS Taiwan Limited

Subject: Requesting Class II permissive change for FCC ID: S9E-QCNFA324

To Whom It May Concern:

The purpose of this letter is to request a Class II Permissive change for FCC ID:

S9E-QCNFA324, Original grant date: 05/18/2018,

Applicant: Trimble Inc.

The major change filed under this application is:

- 1. The subject approved module is being used in different host (Portable category Configuration, Host Brand/Model: Trimble /121500).
- 2. SAR Testing is performed to demonstrate RF Compliance.
- 3. The difference compared with the original design is adding 2 antennas to this EUT:

## Original PIFA Antenna

| original i il 7 7 7 lillorina          |             |             |            |             |             |
|--|-------------|-------------|------------|-------------|-------------|
| Frequency (MHz)                        | 2402~2480   | 5150~5250   | 5250~5350  | 5470~5725   | 5725~5850   |
|  | Main / Aux  | Main / Aux  | Main / Aux | Main / Aux  | Main / Aux  |
| Peak Ant. Gain (dBi)<br>Supplier AnJie | 3.62 / 3.62 | 3.08 / 3.08 | 3.08 /3.08 | 4.76 / 4.76 | 4.76 / 4.76 |
|  | MIMO        | MIMO        | MIMO       | MIMO        | MIMO        |
| Peak Ant. Gain (dBi)<br>Supplier AnJie | 6.63        | 6.09        | 6.09       | 7.77        | 7.77        |

The MIMO configuration is used as the worst case in original grant condition.

## New Additional PIFA Antenna

| Frequency (MHz)                        | 2402~2480    | 5150~5250                | 5250~5350   | 5470~5725   | 5725~5850   |
|--|--------------|--------------------------|-------------|-------------|-------------|
|  | Main / Aux   | Main / Aux               | Main / Aux  | Main / Aux  | Main / Aux  |
| Peak Ant. Gain (dBi)<br>Supplier AnJie | -0.67 / 0.46 | 1.74 / <mark>3.95</mark> | 1.96 / 3.80 | 2.41 / 3.93 | 2.92 / 3.93 |
|  | MIMO         | MIMO                     | MIMO        | MIMO        | MIMO        |
| Peak Ant. Gain (dBi)<br>Supplier AnJie | 2.94         | 5.99                     | 5.99        | 6.25        | 6.46        |

The MIMO gain of new antenna set is lower than original one.

4. Software security remains unchanged form original application

Best Regards

Craig Bacho / Regulatory Engineer Trimble Inc.