



Date: 08/18/2021

Federal Communications Commission  
Authorization and Evaluation Division  
7435 Oakland Mills Road  
Columbia MD 21046

Subject: Requesting Class II Permissive Change

FCC ID: 2AXF3-URHM1140

The purpose of this letter is to request a Class II Permissive Change for FCC ID: 2AXF3-URHM1140, Original Grant Date: 11/15/2020.

Applicant: Uhnder Inc.

Model Number: UR-HM1140-1, UR-HM1140-2, UR-HM1140-3

- No design or layout changes were made to the mm wave radar antenna design or layout
- All HW changes encompassed in this C2PC filing were to improve the design to reduce emissions below 18 GHz and to improve Ethernet Communication Interface Signal Integrity performance. No changes were made that would cause an increase in emissions above 18 GHz.
- Changes only impact the digital circuitry with no impact to the RF circuitry, RF power or signal characteristics.
- Quill v1.8, PCBA: Lockhart v1p80 is similar to as the original filling's PCBA in terms of RF signal characteristics. Hardware modifications do not affect fundamental RF characteristics reported in original filling.
- The HW changes do not affect the RF exposure conditions.
- RF firmware in below versions is equivalent to original filing and there is no change with respect to the fundamental signals RF power, and characteristics.
- Sabine is a two-die solution with an analog and digital die. Sabine rev. B0 was used in the original filing of the FCC/ISED certification. Sabine rev. B3 has an updated Digital die (with added features and improvements) but the Analog die remains the same as Sabine rev. B0. Overall, from an RF characteristic prospective, both Sabine rev. B0 and Sabine rev. B3 are the same form, fit and function.



The changes filed under this request are the as per the description for the following HW / SW version numbers:

Sl.No	Description of Changes	HW & SW Version	EMC Verification
1	Quill v1.8, PCBA: Lockhart v1p80 (with Black Cable & EMI gasket/copper tape) with Sabine B0 (Radar Chip)	HW Version : MOD-1588 SW Version : srs v0.7.8-U1, mcu v1.6-Au	9KHz-90GHz
2	Quill v1.8, PCBA: Lockhart v1p80 (with Black Cable & EMI gasket/copper tape) with Sabine B3 (Radar Chip)	HW Version : MOD-1585 SW Version : v0.7.8-U1, mcu v1.6-Au	9KHz-90GHz

Sincerely,

Mickey Malone  
VP of Operations