

Date: December 22, 2021

Office of Engineering and Technology  
Laboratory Division  
Equipment Authorization Branch  
Federal Communications Commission Laboratory  
7435 Oakland Mills Road  
Columbia, MD 21046

Subject: Class II Permissive Change for PCB and Part Modification and PAG C2PCPX

Dear Sir/Madam,

With reference to the C2PCPX procedure subject to PAG approval (item C2PCPX in KDB Publication 388624 D02) and KDB inquiry #144531, the application shall meet the following conditions:

- 1) The requirements of § 2.1043 are fulfilled, i.e., device's block functions for the fundamental frequency, primary modulator circuit, maximum power or field strength ratings shall remain unchanged.  
Overall block diagram maintained no changes to primary modulator circuit, maximum power or field strength ratings.
- 2) Transmitter PCB layout and parts changes are only permitted if there is no change in the identification of a device's form, functional specification, as initially granted, or previously approved under a Class II permissive change.  
No change in terms of layout and functional specification.
- 3) PCB changes are limited to non-substantive modifications layout changes to the same size physical circuit board previously granted.  
Yes. PCB stack up, form factor and material are maintained.
- 4) C2PCPX is not permitted to add, remove, augment, or change capabilities, such as transmitters, increased bandwidth, additional rule parts, bands, etc.  
There are no addition or removal in the transmitter capabilities, bandwidth or rules part.
- 5) In the PAG submission for item C2PCPX, the applicant shall provide complete information on testing demonstrating that the proposed changes for fundamental emissions are unchanged within the normal acceptable tolerances and out band emissions do not exceed the appropriate limits. The PAG submission shall include all applicable test reports and internal photos.  
The test reports and internal photos are provided in the application.
- 6) The modified device shall not be marketed under the existing grant of certification before confirmation that the C2PCPX PAG is approved and granted.  
Yes.
- 7) Software Defined Radio (SDR) grants that use the C2PCPX procedure are not permitted to make subsequent Class III permissive changes.  
Software Defined Radio (SDR) is not used for this application.

- 8) The C2PCPX PAG procedure has no impact on the provisions of V) of this publication for nonSDR software-only changes, thus adding an equipment class when related to rule changes is still permitted.  
There is no addition of equipment class.
- 9) Class I permissive changes are not permitted under this C2PCPX procedure.  
Yes, Class I permissive changes were not performed

Sincerely,



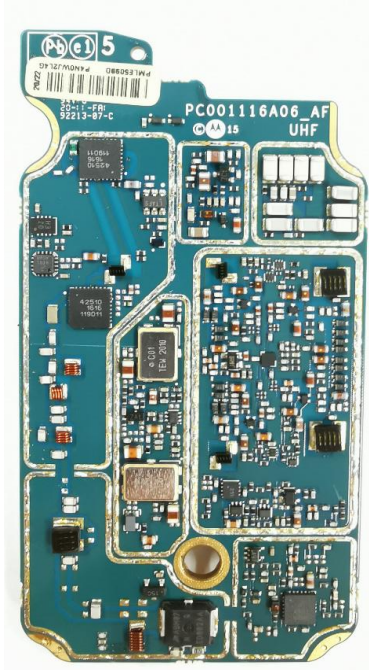
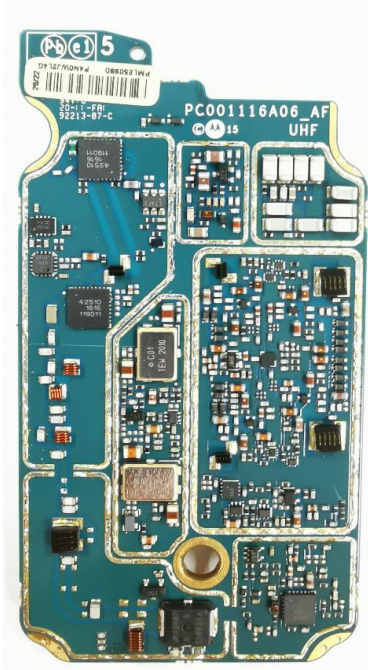
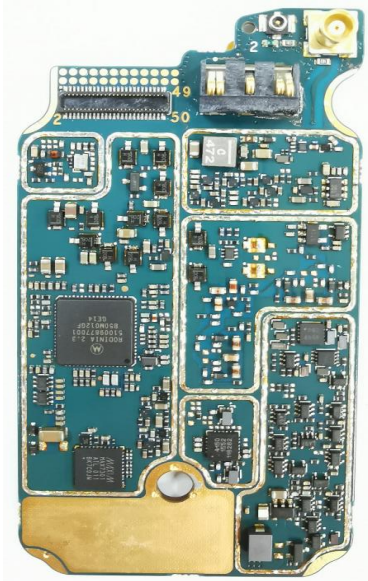
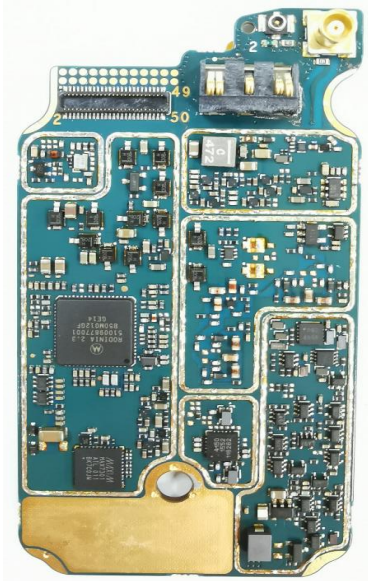
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FCC/IC Certification Manager  
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**Product changes illustration and comparison**

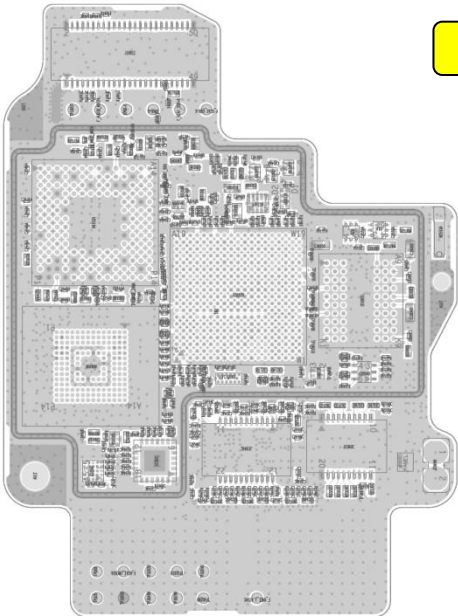
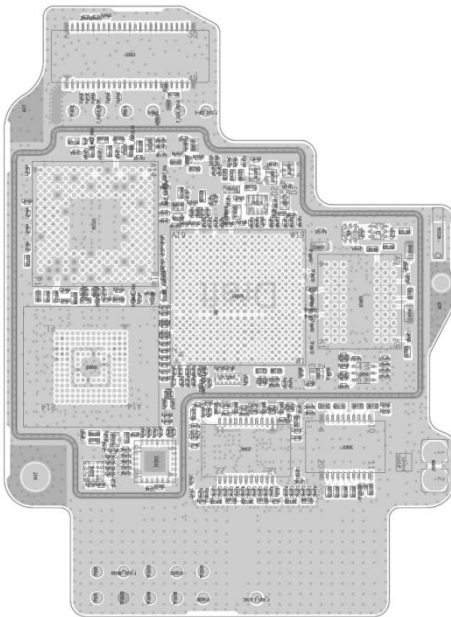
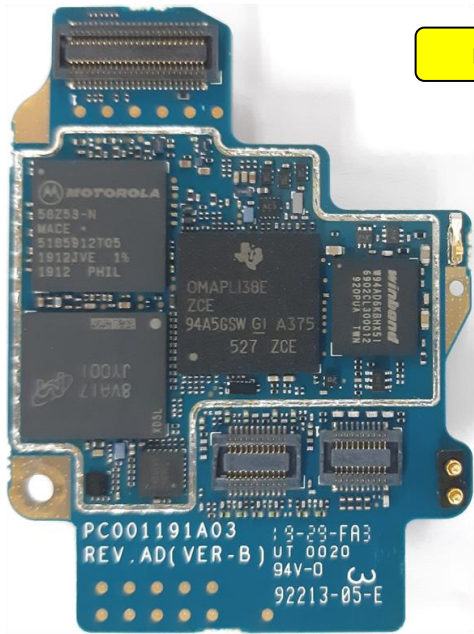
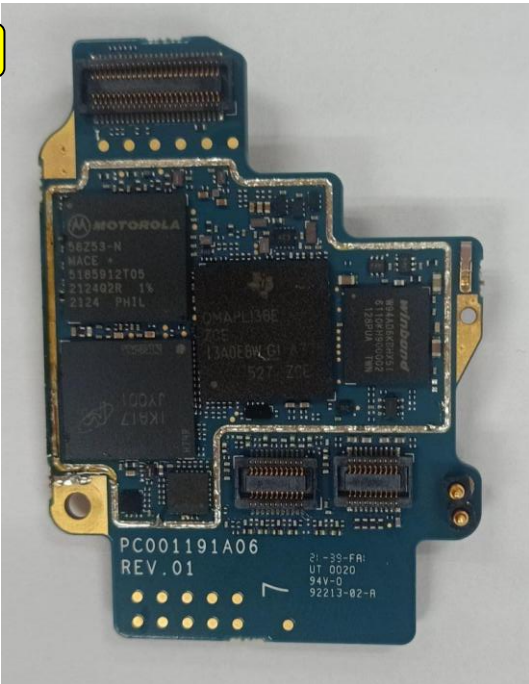
Description of the changes:

1. The changes were triggered due to BT/WLAN chipset part shortage and a new BT/WIFI chipset is replaced.
2. Few passive components were replaced at Power Management section (PMIC), BT/WiFi Circuitry, 3.6V Switching Regulator and 3.3V LDO due to new BT/WLAN chipset part design requirement. All replacement parts performance are comparable to the existing parts.
3. There is no mechanical change.
4. No change to the sales model number.
5. Reuse shipping batteries, chargers and accessories.
6. No changes to the RF board.

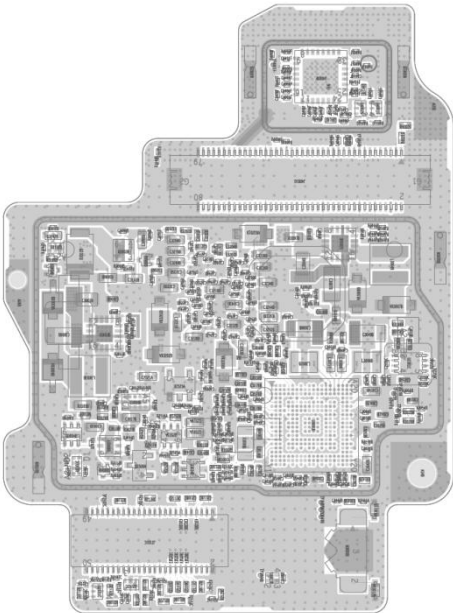
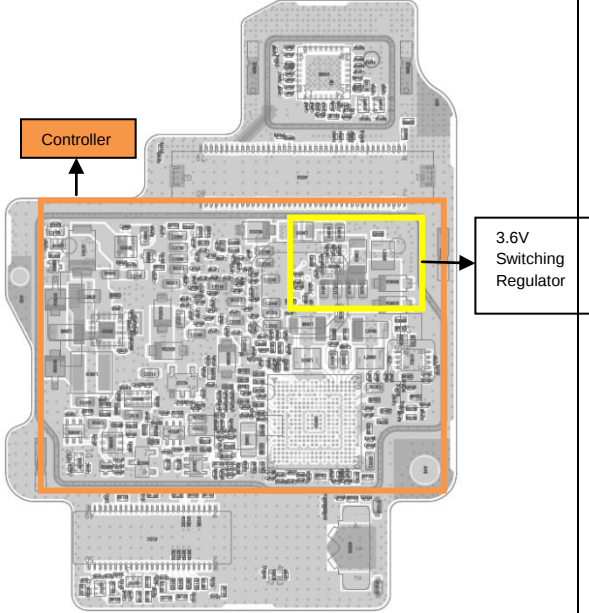
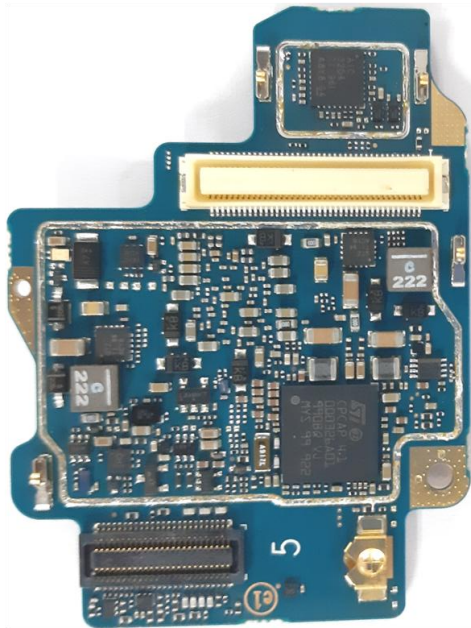
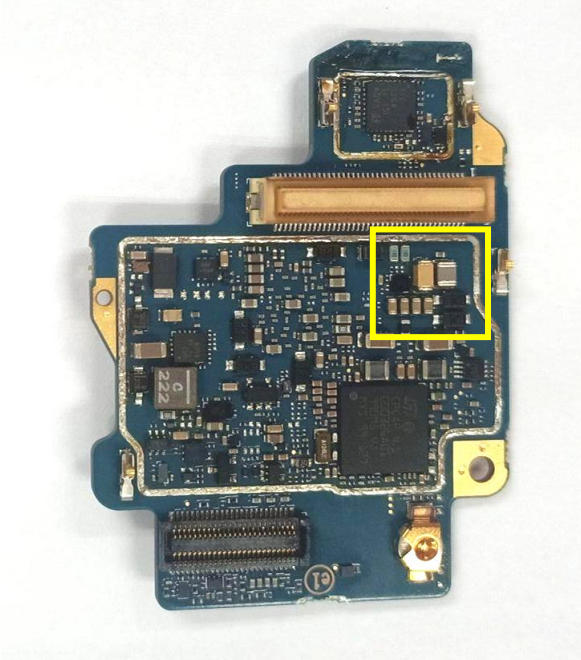
| RF Board (LMR)                                                                                                              |  |                                                                                                                              |  |
|-----------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------|--|
| Before Changes                                                                                                              |  | After Changes                                                                                                                |  |
|  <p>RF board without shield (Top)</p>     |  |  <p>RF board without shield (Top)</p>     |  |
|  <p>RF board without shield (Bottom)</p> |  |  <p>RF board without shield (Bottom)</p> |  |

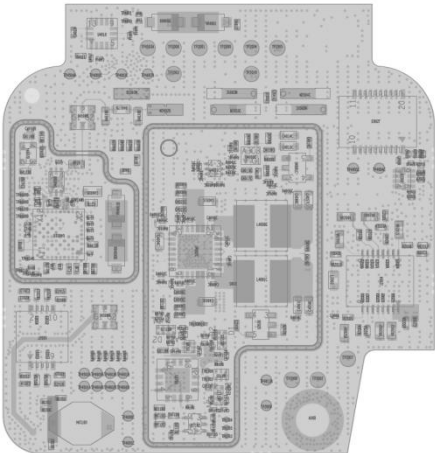
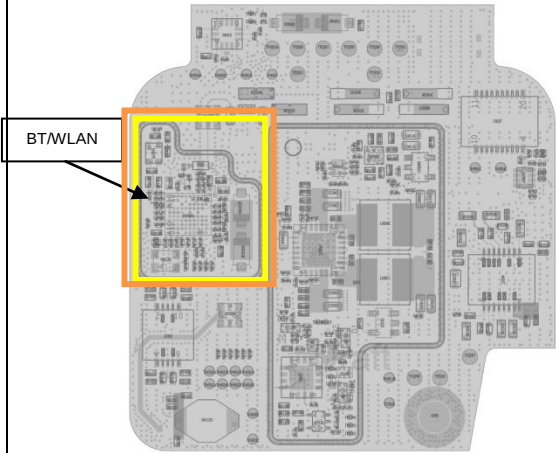
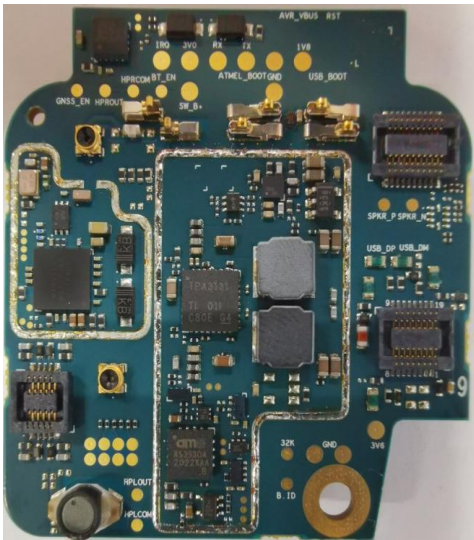
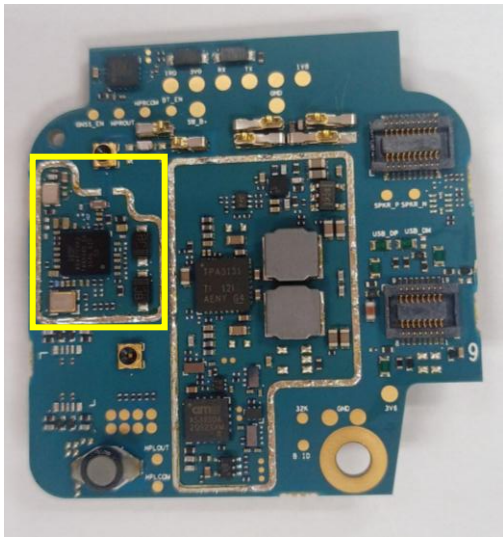
No changes

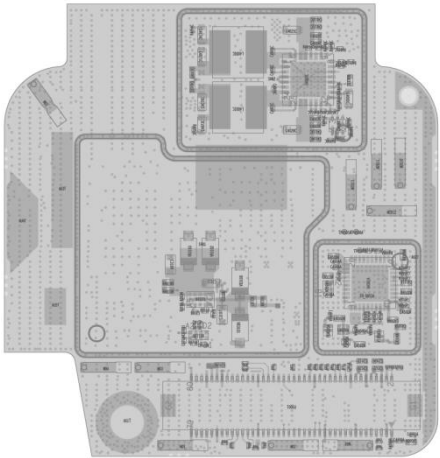
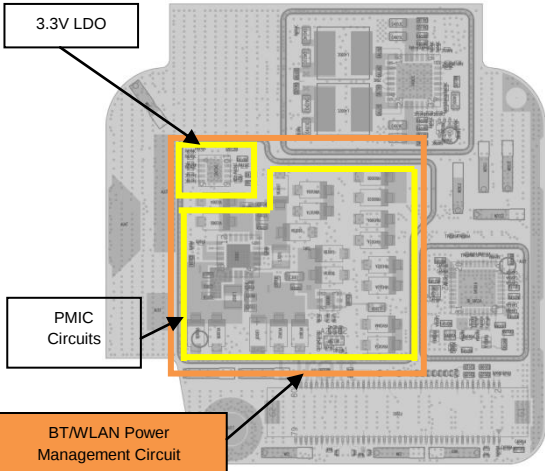
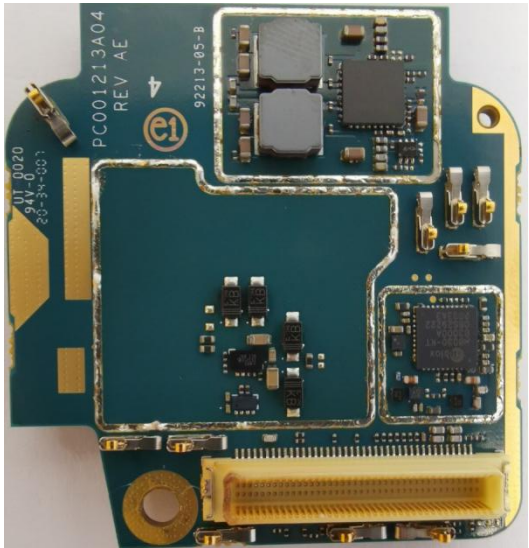
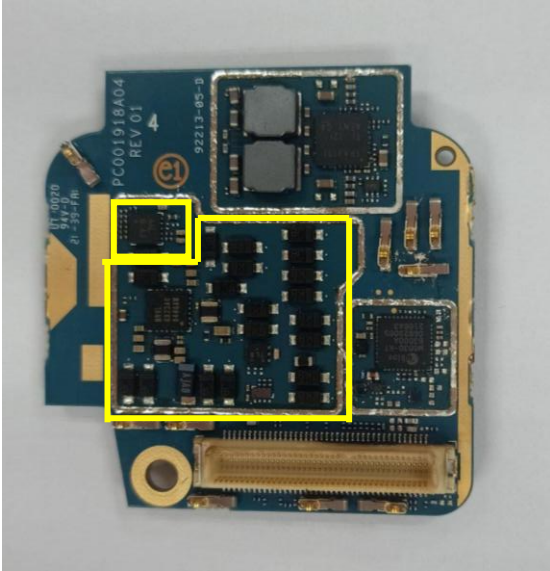
No changes

| Voice Controller (VOCON) Board                                                                        |                                                                                      |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Before Changes                                                                                        | After Changes                                                                        |
|  <p>No changes</p>   |    |
|                                                                                                       |                                                                                      |
| Vocon board PCB layout (Top)                                                                          | Vocon board PCB layout (Top)                                                         |
|  <p>No changes</p> |  |
|                                                                                                       |                                                                                      |
| VOCON board without shield (Top)                                                                      | VOCON board without shield (Top)                                                     |

\* Changes are marked in yellow box. Orange box indicates the sections under the shield.

| Voice Controller (VOCON) Board                                                                                                 |                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Before Changes                                                                                                                 | After Changes                                                                                                                   |
|  <p>Vocon board PCB layout (Bottom)</p>      |  <p>Vocon board PCB layout (Bottom)</p>      |
|  <p>VOCON board without shield (Bottom)</p> |  <p>VOCON board without shield (Bottom)</p> |

| Expansion Board                                                                                                                |                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Before Changes                                                                                                                 | After Changes                                                                                                                   |
|  <p>Expansion board PCB layout (Top)</p>      |  <p>Expansion board PCB layout (Top)</p>      |
|  <p>Expansion board without shield (Top)</p> |  <p>Expansion board without shield (Top)</p> |

| Expansion Board                                                                                                                   |                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Before Changes                                                                                                                    | After Changes                                                                                                                      |
|  <p>Expansion board PCB layout (Bottom)</p>      |  <p>Expansion board PCB layout (Bottom)</p>      |
|  <p>Expansion board without shield (Bottom)</p> |  <p>Expansion board without shield (Bottom)</p> |