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

The FCC-OET is analyzing new options for the Class II Permissive Changes (CP2C) procedure. The OET Lab may provide case-by-case guidance related to accommodate non-pin-to-pin compatible parts modifications. This guidance will only be related to specific KDB inquiries and cannot be considered for future reference or as a precedent-setting at this time.

Within the provisions of § 2.1043, non-substantive1 modifications are limited to the electrical/electronic components and the Printed Circuit Board (PCB) layout of a transmitter (or of the transmitter portion of the device2) may be permitted as a Class II Permissive Change. For instance, to accommodate non-pin-to-pin compatible integrated circuits.

This procedure (Class II Permissive Change for PCB and Part Modification referred to as C2PCPX) is subject to PAG approval (item C2PCPX in KDB Publication 388624 D02) and may be granted under the following conditions:

1) The requirements of § 2.1043 are fulfilled, i.e., the device’s block functions for the fundamental frequency, primary modulator circuit, maximum power, or field strength ratings shall remain unchanged.
2) Transmitter PCB layout and parts changes are only permitted if there is no change in identifying a device’s form, functional specification, as initially granted or previously approved under a Class II permissive change.
3) PCB changes are limited to non-substantive modifications layout changes to the same size physical circuit board previously granted.
4) C2PCPX is not permitted to add, remove, augment, or change capabilities, such as transmitters, increased bandwidth, additional rule parts, bands, etc.
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-of-band; emissions do not exceed the appropriate limits. The PAG submission shall include all applicable test reports and internal photos.
6) The modified device shall not be marketed under the existing grant of certification before confirmation that the C2PCPX PAG is approved and granted.
7) Software Defined Radio (SDR) grants that use the C2PCPX procedure are not permitted to make subsequent Class III permissive changes.
8) The C2PCPX PAG procedure has no impact on the provisions of V) of this publication for non-SDR software-only changes; thus, adding an equipment class when related to rule changes is still permitted.
9) Class I permissive changes are not permitted3 under this C2PCPX procedure.

To process a PAG for C2PCPX, the applicant shall provide a letter in a Class II permissive change filing acknowledging compliance to the preceding items 1) through 9) above. The PAG KDB inquiry shall also include a clear description of the changes under consideration and comparative photos or illustrations of

1 “Substantive modifications” are here referred to as changes that alter the electrical parameters defining the functionality of the transmitter (typically voltage or currents waveforms or, equivalently, frequency spectra), beyond the manufacturing and component tolerances considered by design.
2 The transmitter portion of a device includes all the circuitry that may affect the spectrum of the signal that is sent to the antenna.
3 When the transmitter PCB board and enclosure remain the same, changes to external or internal mechanical passive filters that result in a reduced frequency band relative to the original grant, and all emissions have not been degraded, a Class I permissive change is acceptable.
the device (schematics, block diagram, Gerber files, etc., or impacted areas) before and after the implemented modifications.