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XPYNINAB4 12/16/2020

Application to Class II Permissive Change

This request is to add new module versions, NINA-B401 and NINA-B411, to the FCC ID XPYNINAB4. The difference between the new module versions and the already certified versions is described below:

Module variant	Chipset	Antenna configuration	Module size
NINA-B400	nRF52833	u.fl	10.0 * 15.0 mm
NINA-B401	nRF52833	Antenna pin	10.0 * 11.6 mm
NINA-B406	nRF52833	Integrated PCB trace antenna	10.0 * 15.0 mm
NINA-B410	nRF52833	u.fl	10.0 * 15.0 mm
NINA-B411	nRF52833	Antenna pin	10.0 * 11.6 mm
NINA-B416	nRF52833	Integrated PCB trace antenna	10.0 * 15.0 mm

- The printed wiring board have identical layer stack-up and dielectric properties
- Impedance controlled traces and other RF-related parts of the layout, except for the antenna configurations (NINA-B401 and NINA-B411 has its RF-port presented at a solder land to be connected to an external antenna connector using the external antenna reference design), are identical
- The difference between NINA-B401 and NINA-B411 compared to NINA-B400 and NINA-B410 besides the antenna configuration, is that two filtering capacitors are changed from 0P9 to 1P0 and 1P2 to 1P3 to keep the similar peak output and spurious emissions performance as in the original filing.

Besides the differences described above, the listed module versions are identical in terms of the mounted HW components and Firmware that defines all RF characteristics.

To verify that the new module version complies with the limits of the original grant, additional measurements for Peak output power and conducted spurious emissions has been performed using NINA-B401.

Thank you for your attention in this matter.

Yours Sincerely,

Filip Kruzela
Certification Manager, u-blox AG