



Communications for a Smarter Grid

October 11, 2012

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

Re: Class Permissive II Change Application for **FCC ID: TK4-10-WLE200NX**

To whom it may concern

Compex Wireless a/b/g/n network Mini PCIe adapter WLE200NX (FCC ID: TK4-10-WLE200NX) has FCC approval, however Ambient has integrated this device into X-3200-xxx smart grid node and connected it to a new PIFA antenna (Model 51-0202-002) that has the following maximum gains:

- 2.6 dBi net gain (after cable loss) in the frequency band of 2412 - 2462MHz and
- 2.3 dBi net gain (after cable loss) in the frequency band of 5745.0 - 5825.0 MHz

Simultaneously, Sierra Wireless Multi-band radio module Model: MC8355 (FCC ID: N7NMC8355) has been also integrated into X-3200-xxx smart grid node and his transmitting antenna has collocated with Wi-Fi module transmitting antenna at the distance less than 20 cm. FCC Grant of Authorization for MC8355 module stated that in such case additional RF human exposure evaluation shall be needed. MC8355 antenna has the following maximum gain:

- 1.4dBi net gain (after cable loss) in the frequency band of 824.0 – 849 MHz and
- 3.4dBi net gain (after cable loss) in the frequency band of 1850-1910 MHz

Therefore Ambient Corporation submits this Class II permissive change application to:

- add a new antenna to Compex Wireless a/b/g/n network Mini PCIe adapter WLE200NX (FCC ID: TK4-10-WLE200 NX) and
- address its collocation with FCC ID: N7NMC8355

Ambient Corporation will only utilize the DTS frequencies of this module. UNII band frequencies will not be used.



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This application includes:

- Authorization Letter from Compex Systems Pte Ltd. to file for Class II permissive change
- MPE calculation to demonstrate collocated RF exposure compliance with MC8355 module
- Radiated Spurious Emission Test Report for X-3200-YLE smart grid node with the new PIFA antenna for WLE200NX module (issued by Curtis-Straus LLC).
- and specifications of the 51-0202-002 antenna

Best regards

A handwritten signature in black ink that reads "Aron J. Viner".

Aron Viner
VP, Compliance & Standardization
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