

February 1, 2006

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VIA ELECTRONIC SUBMISSION

Office of Engineering and Technology
Experimental Licensing Branch, MS 1300E1
Federal Communications Commission
445 12th Street, S.W.
Washington D.C. 20054

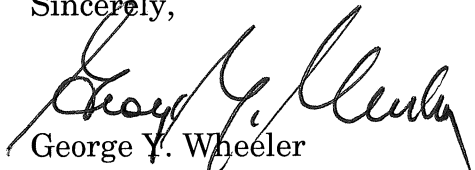
Re: Submission of Progress Report
Call Sign WD2XEQ, File No. 0050-EX-ML-2003

Gentlemen:

In accordance with the terms of its Experimental License, Call Sign WD2XEQ ("License"), Ambient Corporation ("Ambient") is filing the attached six-month progress report ("Report") on its progress in evaluating the feasibility of broadband access via carrier current systems over power lines.

If there are any questions regarding the submission, please contact George Y. Wheeler, Esq. at (202) 457-7073. For technical questions concerning the Report itself, contact Dr. Yehuda Cern, Ambient's Chief Engineer, at (617) 332-7680.

Sincerely,



George Y. Wheeler
Counsel for Ambient Corporation

Enclosure

PROGRESS REPORT OF AMBIENT CORPORATION'S TESTS
PURSUANT TO
EXPERIMENTAL LICENSE

Ambient Corporation ("Company") submits this six-month progress report in accordance with the conditions of its Experimental License to evaluate broadband access via carrier current systems over power lines.

* * *

Test Sites: The Company has continued its ongoing test program at its test site in Westchester County, New York since the grant of its original STA in June 2002. The physical layout of this system is unchanged from that reported in the Company's previous Progress Reports.

The MV/LV test system with Orange and Rockland Utilities Inc. ("O&R") at Monsey, New York reported in the company's previous Progress Reports is unchanged and remains in operation.

The Company's previously reported in-house Low Voltage demonstration system at a 200 unit high-rise apartment building in New York, NY, remains in operation.

As previously reported, the Company entered into a BPL Trial Agreement with San Diego Gas & Electric Company (SDG&E), a unit of Sempra Energy (NYSE: SRE), to evaluate BPL-enabled consumer and utility based applications. Installation of a limited test network which was begun in August has been completed and is in operation. This installation was included as a demonstration system for the recently completed UPLC workshop in San Diego for utility and other customers of BPL equipment.

Other Updates: Testing of the in-building LV demonstration facilities at the offices of IDACOMM in Boise, Idaho has been terminated. An updated reference to the testing of Ambient equipment in Charlotte, NC is not included here. This testing is being conducted under FCC experimental authority held by Duke Power.

BPL Standards Development: Members of the Company's engineering staff participated in the recently completed IEEE meeting in Las Vegas in which substantial progress was made to develop safety, interoperability, EMC measurement standards for access and in-building Broadband over Power Line (BPL) technologies in the following IEEE working groups:

Dr. Yehuda Cern, its Chief Engineer, was chosen to head the Hardware subgroup of IEEE Working Group P1675 which is developing "Standard for Broadband over Power Line Hardware and Personnel Safety."

Aron Viner, its Director of Compliance & Standardization, was chosen as a Chair of the PLC EMC Standard Working Group which will develop the Standard "Powerline Communication Equipment. Electromagnetic Compatibility (EMC) Requirements. Testing and Measurement Methods."

Ram Rao, its Chief Network Architect, became a member of the BPL MAC/ PHY Standard Working Group which will develop "Standard for Broadband over Power Line Networks: Medium Access Control and Physical Layer Specifications."

Testing of Advanced Hardware and Software Capabilities: In the framework of its Experimental License, the Company continues to develop and test methods for enhancing the performance of its BPL systems and to monitor and adjust the parameters of its test facilities to be responsive to the concerns of the amateur radio operators consistent with its obligations under its Experimental License.

The Company is continuing testing operations on underground distribution plant in the Westchester County area in addition to on-going testing of overhead plant.

The Company has made additional advances in its software and hardware to develop new generations of products which fully address all applicable regulatory requirements. The Company is continuing to make improvements in compliance with applicable radiated emission limits upon power-up following a fault condition or during start-up operation after a shut-off procedure, to immediately restore previous settings.

As previously reported to the Commission, the Company has notched out its signals on Amateur bands, demonstrating significant advancements in our technology over the relatively short time period of its test program. These bands include the following Amateur Radio bands: 80, 40, 30, 20, 17, 15, 12 and 10 meters: 3.5-4 MHz, 7-7.3 MHz, 10.1-10.15 MHz, 14.0-14.35 MHz, 18,068 -18,168 MHz, 21-21.45 MHz; 24,890-24,990 MHz, and 28.0-29.7 MHz. Also, the Ambient frequency plan was modified to comply with excluded bands of operations according Table 1 of the FCC Part 15, Subpart G Rules.

The company has also put in place procedures to give prior notification to and to consult with public safety users in the areas where it plans to deploy its Experimental test systems. It has also sent written notifications to public safety users in areas where it has longstanding trials under its Experimental License.

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