

March 3, 2005

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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.

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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. During the past six months the Company expanded its network in Westchester County, providing the Consolidated Edison with telemetry from its distribution lines and providing a network capacity to meet the needs of residents for broadband data services.

The MV/LV test system with Orange and Rockland Utilities Inc. ("O&R") at Monsey, New York reported in the company's previous Progress Report is unchanged and remains in operation. At this installation Ambient received a report of interference from a licensed operator in 37.0 - 37.5 MHz band. The Company was able to "notch out" BPL system transmission in this frequency band which solved the interference problem.

Testing of the in-building LV demonstration system at the offices of IDACOMM, Inc. in Boise, Idaho for broadband Internet access capabilities reported in the Company's previous Progress Report is continuing.

In February of 2005, the Company set up an in-building Low Voltage demonstration system at a 200 unit high-rise apartment building in New York, NY, to test and demonstrate broadband internet access capabilities.

BPL Standards Development: Members of the Company's engineering staff have taken their experience gained from the Company's extensive testing program to assist in the development of interoperability 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 as a Chair of the Hardware Task Group for the BPL Hardware Safety Standard Working Group which is developing "Standard for Broadband over Power Line Hardware and Personnel Safety."

Aron Viner, its Principal RF Engineer, 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 now 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 which controls the frequency mask for radiated emissions in licensed radio bands. These new releases are more stable than prior releases and provide improved performance to assure at least 20 dB notching capabilities for interference mitigation.

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, 15 and 10 meters: 3.5-4 MHz, 7-7.3 MHz, 10.1-10.15 MHz, 14.0- 14.35 MHz, 21-21.45 MHz and 28.0-29.7 MHz.

The Company has also made improvements in the design of its devices to enhance shielding of undesired radiated emissions and to optimize power levels which comply with Part 15 limits.

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