

To: American TCB
From: Tim Blom
Reason: Motorola, Inc. NextNet Wireless product Group response to FCC "Permit But Ask" guidance for FCC ID: PHX-RSU2510R product submission.
Date: 2/20/2007

FCC Tracking Number: 345295

A) Please include comprehensive user operating instructions

An electronic copy of the "Installing and using the Expedience RSU wireless Modem" is included in the documentation exhibits.

B) Please include exhibit addressing:

...
5) Test procedures and results, including justification for selected subset of operational modes

Verification of the performance of the Motorola, Inc. RSU-2510-R transmitter was accomplished by implementation of the procedures contained within TIA/EIA-603 and FCC requirements. Performance results contained within the Test Report and Appendix documents represent all operational modes that are available within the system. Verification of product performance is presented for three frequencies across the RF bandwidth, two channel bandwidths, and all four modulation levels available.

6) Info about how device operates as fixed, mobile, or portable station within the network protocol, e.g., channel bandwidths, modulations, power control / adjustments

The response to this question is included in the 13a Technical Description document.

7) Availability of and specific test equipment required, or justification how factory-test-mode (FTM) represents and covers end-use conditions

The Motorola, Inc. RSU-2510-R product has been tested with equipment that is generally available in the open market. The primary requirement for the measurement of the RSU-2510-R product is that the spectrum analyzer contain a time gating function to facilitate the measurement of the channel power and emissions mask. The time gating function is configured to only allow the spectrum analyzer to sweep when the transmitter is active. Measurements performed on the RSU-2510-R product were completed with an Agilent E4440A spectrum analyzer with the time gating capability.

The Expedience system protocol utilizes all subchannel carriers on each transmission burst. The Expedience system protocol does not allow for a mixed

transmission within a single burst, i.e. all data is one modulation type (4-QAM, 16-QAM, or 64-QAM). The same modulation must be transmitted for the entire burst. To facilitate the product development, a test mode configuration was developed. The test mode allows for the selection of channel frequency, modulation bandwidth, and modulation type (4-QAM, 16-QAM, 64-QAM, ...). Within the test mode, a pseudo random bit sequence is used to generate the transmitted data.

8) Info about applicable and/or loosely-related public standards, if any, e.g., 802.16 and Conformance standards, and how, why, what parts of these are applicable or not

The Motorola, Inc. Expedience system is based on a proprietary protocol. As such there are no existing standards that are applicable. Additional information is contained in the Technical Description document.

9) Evaluate smart-antenna modes per FCC procedures, where applicable, or for TCB permit-but-ask submit additional details herein about adaptive antennas

The Motorola, Inc. RSU-2510-R product does not contain smart antenna technology. The integral antenna contained within the RSU-2510-R product is a 4 element patch array with a fixed gain and beamwidth.

10) Address how FDD and/or TDD modes are allowed under FCC allocated frequency range, i.e., in terms of available blocks and block sizes, and ! paired (uplink/downlink) or single bands

The Motorola, Inc. Expedience system protocol makes use of Time Division Duplex (TDD) operation as allowed by the FCC rules contained in Part 2 and Part 27 for devices operating in the BRS and EBS frequency spectrum. Within the BRS and EBS frequency spectrum, channels are allocated in 5.5 MHz and 6.0 MHz single frequency blocks.

11) Details about selected subchannelizations, permutations, profiles tested and why

The Motorola, Inc. Expedience protocol does not make use of subchannelization. All carriers are utilized for each transmission.