Athena Wireless Communications, Inc. FCC Form 442

July 17, 2013

# **NARRATIVE STATEMENT**

By this application, and pursuant to Section 5.3 (d), (h) and (i) of the FCC Rules, 47 C.F.R § 5.3 (d), (h), (i)(2010), Athena Wireless Communications, Inc. ("Athena"), respectfully seeks a 36-month experimental license beginning July 17, 2013, to develop, test and demonstrate prototype high-speed wireless data infrastructure communications equipment that will operate in the lower 700 MHz Block B and C band (704-716/734-746 MHz), and the AWS band (1701-1755/2110-2155 MHz).

The following information is provided in support of this request:

### 1. Need for a 36-month License:

Athena seeks a 36-month license to accommodate ongoing tests of equipment that are expected to change or evolve other this period as a result of Athena's research and development.

# 2. Purpose of Operation:

The proposed operation will allow Athena to develop, test and demonstrate new wireless data infrastructure equipment designed to the new LTE performance standards, among others. For example, Athena will evaluate handoff performance among sectors, network capacity, quality of service, multi-path performance, average data rates, and interference performance.

Athena does not seek authority to conduct market studies or provide communications services under the requested experimental authority. The participants in the test will be advised that: (1) the test is being conducted under an experimental authority issued to Athena, (2) Athena is the party responsible for the operations, (3) all operations must be conducted on a non-interference basis, and (4) after the test is completed, Athena will retrieve and recover all devices that do not comply with FCC regulations.

## 3. <u>Technical Specifications</u>:

## A. Power Levels:

<u>Power</u>: 1 Watt Peak <u>EIRP</u>: 2 Watts Peak

Necessary Bandwidth: 10 MHz Modulation: BPSK, QPSK, 16QAM

Emissions: F2D

Antenna: Omni-directional

<u>Notes</u>: Other emission modes may be utilized, but in no event will the emissions extend beyond the frequency bands requested. All power levels will comply with the limits set forth in the FCC's rules, including those relating to human exposure to radiation.

#### **B.** Antenna Information:

The antennae that would be deployed under this license will not extend more than 6 meters above the ground or, if mounted on an existing building, will not extend more than 6 meters above the building.

# C. Proposed Locations:

Athena seeks authority to conduct its experimental operations nationwide. Although it will conduct tests primarily indoors at its research and development site at Surprise, Arizona, Athena also plans to test and demonstrate equipment at a limited number of sites at other locations in the United States. As it cannot at this time determine the specific locations of such tests, Athena seeks blanket authority to operate nationwide (within the United States and its territories). Specifically, Athena seeks authority to operate and demonstrate products: (i) at its own premises; (ii) at the premises of entities working under Athena's authorization in the design and development of the devices and related products; (iii) at trade shows or non-residential exhibitions; and (iv) at non-residential, business, commercial, industrial, scientific, or medical locations during the design, development, and pre-production stages. Indeed, these operations would be consistent with the requirements set forth in Section 2.803 of the Commission's marketing rules. 47 C.F.R. § 2.803 (2010); see also Revision of Part 2 of the Commission's Rules Relating to the Marketing and Authorization of Radio Frequency Devices, ET Docket No. 94-45, Report and Order, released Feb. 12, 1997, at 11-13, 19-20 ("Marketing Rule Revisions")

### D. Equipment To Be Used:

Athena proposes to deploy only a limited number of units which, as noted above, would operate at low power levels. It expects that it will be able to complete its experimentation and demonstration with a maximum of 3 fixed (base) units per test site. Athena will also limit the power, area of operation, and transmitting times of these units to the minimum necessary to evaluate the equipment.

## 4. Public Interest:

Athena submits that issuance of a license is in the public interest, convenience, and necessity. Grant of a license will permit Athena to develop innovative equipment that will accommodate the communications needs of users.

## 5. Contact Information:

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