

2.3 –2.4 GHz Experimental License for

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Beceem is developing WiMAX compliant Base-Station and Subscriber Station chips sets based on the IEEE 802.16 standard.

a. Description of Equipment

Base-Station - The base station equipment is similar in function to a 3G base station, except the Air Interface is OFDMA 802.16 based with a 10MHz wide channel.

Subscriber-Station - The subscriber station equipment is similar in function to a mobile handset. Initial tests will be done with larger form factor devices.

b. Specific objectives to be accomplished

The goal of the test is characterize the performance (throughput, battery lifetime and range) in a real-world outdoor environment. Fixed, portable and mobile modes will be tested. In particular, testing will focus on outdoor MIMO (Multiple In, Multiple Out) operation:

--Comparing throughputs for Beam Forming, Space Time coding and Spatial Multiplexing Modes

--Performing drive tests to study outdoor and indoor coverage.

--Looking at factors that effect range (coding, modulation and repetition)

--Validating models for new Hybrid-ARQ scheme.