## EXHIBIT 1

Pursuant to Section 5.71 of the Commission's rules, Magnolia Broadband, Inc. ("Magnolia") hereby requests renewal of its experimental radio service license WC2XWG for a period of two years, up to and including October 1, 2005.[1] For the reasons set forth herein, Magnolia respectfully submits that favorable Commission action on the instant request will serve the public interest, convenience and necessity.

## Background

Magnolia, a privately held Delaware corporation headquartered in Clinton, NJ, was founded in 2000 for the purpose of developing new wireless communications technology. Magnolia is lead by a team of veteran research scientists with years of experience in the wireless communications industry. Collectively, members of Magnolia's research team hold approximately 30 wireless communications patents, and have particular expertise in digital radio technology. As part of its ongoing efforts to devise innovative products that advance the radio art (particularly digital CDMA technology), Magnolia hereby respectfully requests renewal of its experimental radio service license to continue testing the efficacy of its new chip-based smart antenna design for wireless communications handsets.

## Experimental Program

Magnolia has tested its smart antenna design in two phases. Phase one, which was completed in 2002, occurred primarily inside Magnolia's Clinton, NJ facility. Phase two, which involves the testing of modified handsets at various remote locations (including driving tests) within a ten-mile radius of the Clinton, NJ facility, is continuing. Both phases of the experimental program involved the use of a single fixed base station at the Clinton site, and up to 10 mobile handsets. The base station is constructed with commercially available components and consists of a radio board and a RF interface board; the handsets are constructed with off-the-shelf consumer equipment modified with Magnolia's smart antenna design. More recently, Magnolia has been testing its handsets in cooperation with, and using the fixed base stations of, a commercial mobile wireless licensee.

Magnolia's smart antenna design consists of new algorithms and a new RF chipset, the purpose of which is to electronically steer the radiated energy of wireless handsets. These modifications are not, however, expected to alter the handset's RF emissions. The objective of the smart antenna design is to increase handset performance

[1] 47 C.F.R. §§ 5.71.

(transmit and receive), which will have the attendant benefit of increasing battery life. In order to test this design, Magnolia has retrofitted approximately ten consumer handsets with the new chipset, and has tested the modified handsets in a variety of topographic and population environments. Magnolia's experimental program is allowing it to evaluate equipment performance and to use the data obtained for further refinements to its design. Upon completion of the experimental program, Magnolia anticipates producing a final design, with patented technology, that handset manufactures will be able to easily integrate into certificated equipment.

## Frequency Coordination

Magnolia seeks authority to continue conducting its experimental tests consistent with its presently authorized technical parameters. In order to minimize the potential for interference, Magnolia intends to continue using the lowest power levels possible. In addition, Magnolia will continue to conduct its experimental operations in full coordination with other authorized users to ensure that no harmful interference occurs. Magnolia understands that the experimental use of spectrum is secondary and it will discontinue its experimental activity if such activity causes harmful interference.

## Public Interest Benefit

Successful completion of Magnolia's experimental program will benefit the public by improving the overall performance of consumer wireless handsets. Magnolia's smart antenna design will improve handset transmission and reception performance, increase battery life, and, since it will require no modifications to a carrier's air interface or base station equipment, can be implemented economically. Accordingly, Magnolia respectfully submits that approval of the instant application will advance the radio art, will benefit wireless companies and consumers, and should therefore be granted as consistent with the public interest, convenience and necessity.