

SUPPLEMENTAL INFORMATION

I. INTRODUCTION AND BACKGROUND

Formus Communications, Inc. ("Formus"), was formed in 1996 to acquire Local Multipoint Distribution Service ("LMDS") licenses, among others, in the United States and comparable spectrum in certain international markets. Formus is in the process of developing a series of wireless broadband telecommunications systems for both LMDS and related uses. These systems will provide two-way data transfer services at very high data rates. The systems will address the so-called "last mile" capacity limitations of existing copper wire telecommunications networks and will enable the further growth and utility of the Internet and World Wide Web.

Formus has received a series of STAs to test these systems in and around the Denver, Colorado, area. The most recent STA was granted by the FCC on November 4, 1998, and expires on May 4, 1999 (call sign WA9XA0, file number S-3555-EX-1998). By this application, Formus seeks an Experimental Radio license to continue to test, demonstrate, and lease its systems in the Denver, Colorado BTA (market number B110), subject to the non-interference and other conditions described below. Since the systems will promote new technologies and services, Formus believes the public interest, necessity, and convenience will be served by the grant of the subject application. Formus has received the consent of the incumbent LMDS BTA licensee to test its systems.

II. INFORMATION FOR INDIVIDUAL ITEMS ON FCC FORM 442

Frequency

Formus is requesting the frequencies listed to design, develop, and evaluate systems intended to provide a very broad range of telecommunications services.

Emission

Formus seeks to employ various modes of modulation, bandwidth and data rates, including FDMA, TDMA, QPSK, 4QAM, 16QAM, and 64QAM. Nevertheless, none of these modes of operation would extend beyond the specific frequencies set forth under Item 4(a) of this application.

Modulating Signal

Although the electronic application states that the Modulating Signal will be 1 Gb/s, the data streams will actually range from 100 Kb/s to 1 Gb/s.

Necessary Bandwidth

Although the electronic application states that the Necessary Bandwidth will be 6 MHz, the bandwidth will actually range from 6 MHz to 1 GHz. 6 MHz corresponds to cable modem bandwidth. 1 GHz is the widest bandwidth signal that Formus is likely to encounter.

Location of Proposed Operation

Formus proposes to conduct its experimental operations at various locations within the Denver, Colorado BTA. Specifically, it proposes to test, demonstrate, and operate products (1) at its own premises; (2) at the premises of entities working under Formus' authorization in the design and development of the devices and related products; (3) at trade shows or non-residential exhibitions; (4) at non-residential business, commercial, industrial scientific, or medical locations during the design, development and pre-production stages; and (5) at certain residential locations participating in the design, development, or evaluation of LMDS and related services. Accordingly, Formus submits that its operations will be consistent with the Commission's current marketing rules. See 47 C.F.R. §§ 2.803, 5.202 (1998). Formus understands that it must operate on a non-interference basis with existing primary licensees, and has obtained the consent of the incumbent BTA licensee for Market Number B110 (Denver, Colorado) to conduct its experiment operations.

Antenna Information

LMDS and related operations typically require the use of directional and omnidirectional antennas mounted on buildings or towers and at subscriber premises. Antennas will be mounted either: (1) not higher than 20 feet above ground or on a building; (2) on an FAA-approved structure in a manner that will not exceed the approved height (e.g., side mounted below the approved height); or (3) in a manner that does not require FAA approval. Formus will restrict operation under its experimental authorization to ensure compliance with FCC and FAA requirements.

Equipment to be Installed

The section above entitled "Introduction and Background" describes the equipment to be installed under the authority requested in this application. Formus proposes to operate a sufficient number of units as discussed below to complete performance, functionality, acceptance, and market testing of products.

Owner and Operator of Equipment

Formus understands that the FCC permits (1) companies to enter into agreements and contracts to manufacture new products; (2) manufacturers to sell, but not deliver, products on a conditional basis to wholesalers and retailer; (3) entities to operate prototype devices for, among other things, compliance testing, demonstration at trade shows and other exhibitions with appropriate notices displayed; and (4) companies to evaluate product performance and customer

acceptability at the manufacturer's facilities or at certain non-residential sites during the developmental, design, and pre-production stages. Aside from these general rules, however, the FCC also allows parties to seek additional authorization to lease products in connection with market studies. Such authority may be granted under the FCC's experimental rules set forth in Part 5 of the Commission's rules. See 47 C.F.R. §§ 5.202(j), 5.206 (1998).

Formus seeks authority under its experimental license to accomplish all of the above in connection with its testing of LMDS equipment. Formus will not engage in any commercial LMDS service using its experimental license

To obtain accurate data, Formus must employ a sufficient number of units during its studies to simulate actual usage. It expects that it will be able to complete such studies with a maximum of 5 base units and 50 subscriber units per product generation, with a maximum of 20 subscriber units operating at any given time. This number is intended to reflect the maximum number of unapproved units that will be in operation at any given time. In other words, before Formus begins to experiment on a new product, it generally will have obtained approval for certain existing products under experimentation or it will have recalled those products and ceased operation. As required, Formus would seek separate and specific authority if more units are needed to conduct a particular study.

Formus recognizes that the operation of any unapproved device under experimentation must not cause harmful interference to authorized facilities. It therefore will coordinate its activities with all licensed users in the proposed bands. Should interference occur, Formus will take reasonable steps to resolve the interference, including if necessary arranging for the discontinuance of operation. To that end, Formus would advise entities receiving the equipment that permission to operate the equipment has been granted under experimental authority issued to Formus, that such operation is strictly temporary, and that the equipment may not cause harmful interference. Accordingly, Formus proposes to label the equipment or user information as follows:

FCC STATEMENT

This Experimental Radio Station Authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This Experimental Radio Station Authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control the Government of the United States conferred by Section 706 of the Communications Act of 1934.

III. CONCLUSION

Formus submits that this grant of application will serve the public interest, convenience, and necessity, as it would allow Formus to enhance its ability to develop innovative products to support the communications and information exchange/transfer needs of the public.