## EXHIBIT 1: Experimental Description

## a.

We are designing, building, and purchasing equipment for the MMDS, MDS, and ITFS frequencies of 2500-2690 MHz and 2150-2162 MHz. We will be purchasing our transverters from California Amplifier of Camarillo, California. We will interface these transverters with our 3Com cable modems. The modulation employed will be QAM 64 downstream and QPSK, or some type of low density QAM, upstream. Channel width < 6 MHz.

Thus, we are basically taking a 44MHz QAM 64 modulated signal from the headend cable modem and upconverting this signal to some channel within 2500-2690 MHz band for transmission through the air to a client downconverter, which takes this microwave signal and downconverts it to a frequency around 513MHz for insertion into a 3Com client cable modem.

The client transmitter for upstream communication to the hub takes a 42MHz QPSK (or QAM) cable modem signal and upconverts this to some channel within 2150-2162 MHz, were it is sent through the air to the hub and downconverted for insertion into the hub cable modem.

## b.

Our specific objective is to design, build, and manufacture complete twoway systems for the MMDS service for data, video, and POTS, as well as to identify and optimize equipment, MAC, and modulation methods to maximize data rates and minimize bandwidth.

c.

Since few wireless companies are developing the necessary data-enabled two-way MMDS equipment to outfit the entire United States and Europe, this program of experimentation will develop low cost and spectrally efficient MMDS equipment to be used by the FCC MMDS auction winners.