Federal Communications Commission
Experimental Radio Services

7 July 2000

Dear Sir/Madam,

mDiversity, Inc. is a start-up alternative RF technology equipment company that is in the process of validating its technology. mDiversity is requesting permission to operate a test transmitter system in the San Jose, CA, area (BTA #404 – San Francisco) under the Special Temporary Authorization (STA) licensing process. The following is the information requested in paragraph 5.56, 'Procedure for obtaining a special temporary authorization'.

FCC Filing - Special Temporary Authorization (STA)
Response to Paragraph 5.56 (b)

(1)
Name and address:

Licensee Company Contact:	Dale Kluesing
Licensee Company Name:	mDiversity, Inc.
Licensee Company Address:	150 Charcot Avenue San Jose, CA 95131
Licensee Company Telephone:	408-468-6600
Representative Contact:	Adam C. Syrek
Representative Company Name:	Lumenix, LLC
Representative Address:	7611 Little River Turnpike, Suite 404W Annandale, VA 22003
Representative Telephone:	703-658-6400

If granted, the STA should be in mDiversity's name; however, contact should be made directly with Lumenix.

(2)
Need for special action:
mDiversity is requesting an STA permit to perform field studies to validate its technology in and around the city of San Jose, CA (within BTA #404). The data obtained during these studies will be used to verify the operating characteristics of mDiversity's equipment and quantify the performance of this equipment compared to conventional BTS technology.

A previous Experimental License (Call Sign WA2XQH, File Number 6095-EX-PL-1998; expired April 1, 2000) was held under the name of Silicon Wireless, Inc. for similar purposes and operations characteristics. mDiversity has subsequently purchased Silicon Wireless, Inc.

(3)
Type of operation to be conducted:
A system consisting of 4 to 5 transmitting locations will be set up to emit both modulated and non-modulated signals from building roofs, existing radio towers or crane sites. Directional antennas (in the horizontal plane) will be used to configure sectored cell sites to radiate these signals. A test vehicle equipped with a suitable receive system will traverse an area around the transmitter collecting signal strength measurements. Additional information will be collected through the various equipment components.

(4)
Purpose of operation:
The data obtained during these studies will be used to verify the operating characteristics of mDiversity's equipment and quantify the performance of this equipment compared to conventional BTS technology.

(5)
Time and date of proposed operation:
Start: October 1, 2000
Stop: March 31, 2001

(6)
Class of station, call sign of station, and nature of service:
Class of station: PCS
Call sign: FCC specified
Nature of Service: Special Temporary Authorization

(7)
Location of proposed operation:
In and around the city of San Jose, CA, which resides in the San Francisco BTA (#404)

(8)
Equipment to be used, including name of manufacturer, model and number of units:

Transmitter:	Manufacturer:	- Silicon Wireless, Inc.
	Model (FCC Identifier):	- MY3XTS1900-100
	Number of units:	- Ten (10)
Receiver:	Manufacturer:	- Silicon Wireless, Inc.
	Model (FCC Identifier):	- MD1900.100W.A3
	Number of units:	- Ten (10)

(9)
Frequencies desired:
PCS C-block and F-block downlink frequencies: 1975 to 1990 MHz and 1970 to 1975 MHz; uplink transmissions will occur on the corresponding channel pair in the 1895 to 1910 MHz and 1890 to 1895 MHz ranges.

BTA #404 has been requested since mDiversity is located in this area. The BTA's C-block licensee's status is unresolved and, subsequently, there is no active PCS operator in that block in this area. (mDiversity will coordinate with the licensee prior to commencement of transmission.) According to the FCC's licensing database, there is no current PCS licensee in the F-block in BTA #404.

A limited number of channels will be transmitted, therefore, only a small part of the bandwidth will actually be utilized when transmitting. The whole PCS C- and F-blocks have been requested to allow flexibility in selecting frequencies that will avoid interference to existing fixed microwave services. A PCS-to-fixed microwave interference analysis following TIA Bulletin 10F recommendations will be conducted for the San Francisco BTA prior to system activation.

(10)
Plate power input to final radio frequency stage:
Transmit Power: 50 dBm (100W)

(11)
Type of emission:
Bandwidth: 200 kHz and 30 kHz (modulated) and continuous wave (non-modulated)

Modulation: GMSK (for GSM operations) and 8PSK (for EDGE operations); some tests will utilize non-modulated transmissions

(12)
Overall height of antenna structure above ground:

Maximum height of antenna structure: 150 feet above ground level or at roof top levels of existing building structures

If any additional information is required please do not hesitate to contact our representatives as they have designed, and will be performing, the field tests.

Yours Sincerely,

Dale Kluesing
Vice President of Engineering
mDiversity, Inc.