D.9.0 Additional Information for WaveAccess

WaveAccess
FCC TEST
ITS CHECKLIST
waveLyNX BR132 Wireless Bridge
2/23/98

<u>Model number /name</u>: *waveLyNX* BR132

<u>Simplified Operating Instructions</u>:

Connect the antenna to the unit using a 20 foot RG-8 and 2 foot RG-58 cables (provided).
Connect the wall mounted power adapter to rear panel.
Turn on the unit.
Connect a 10BaseT cable from the local wired network to the unit.

For a more detailed operating instructions see the enclosed *waveLyNX* BR132 User's Guide.

<u>Unique Cabling</u>:

10BaseT to the RJ45 connector on the rear panel ("ETHERNET").
Power supply adapter cord to plug input on the rear panel ("DC IN").
Note: the "TEST" connector on the rear panel is used for debugging/installation only. If a cable is required use an RS-232C (DB-9, female-female) to connect to a monitor (PC).

<u>List of Clock Frequencies</u>:

0.8, 3.6864, 6.4, 10, 20, 26.666, 32, 80 MHz.
All timing is derived from 32 MHz, 80 MHz oscillators.

<u>Schematics</u>:

Bridge PHY Revision-.
Jaguar WaveAccess AP v1.3.

<u>Product Description</u>:

The *waveLyNX* BR132 wireless bridge is a unit which connects a 10BaseT local area network to another such network at distances of up to 20 mile. This is done by employing two units which constitute a **point to point** RF link at the ISM band of 2.4 GHz. Both units employ a frequency hopping spread spectrum radio covering 79 channels of 1 MHz each.
Data rates of 3.2 and 1.6 Mbps (using 16QAM and QPSK modulation techniques, respectively) are supported and switched automatically as dictated by the channel conditions.

Several types of antennas can be connected to the unit. Parabolic reflector of up to 24dBi, Yagi of 14dBi, Omnidirectional of up to 12dBi and Patch/Planar of up to 9dBi.

For a radio parameters list see the enclosed "*waveLyNX™* BR132's Radio Parameters".

For a detailed description see the enclosed *waveLyNX* BR132 User's Guide.

Support Equipment:
>10BaseT wired network (connected to the EUT) and its components:
>>100 foot Data-Grade Network Cable, UTP, 24 Gauge, 4 Pair, 100 ohm (Belkin # A7J304-250)
>>5 Port Workgroup Hub (Linksys model no: EW5HUB)
>>Laptop computer (Canon Innova Book 350CD, SN Toshiba MK1924FCV)
>>PCMCIA Ethernet 10Mbps LAN Adapter (Megahertz model no. XJ10BT, SN 6530162385).

>A monitor to set up the *waveLyNX* BR132 device- using the "Canon" laptop and RS-232C (DB-9, female/female) connecting the monitor to *waveLyNX* BR132.

>A second *waveLyNX* wireless bridge and

>10BaseT wired network (connected to the second *waveLyNX*) and its components:
>>5 foot Data-Grade Network Cable, UTP, 24 Gauge, 4 Pair, 100 ohm (Belkin # A7J304-250), Crossed
>>Laptop computer (Texas Instruments Extensa 510)
>>PCMCIA Ethernet 10Mbps LAN Adapter (Megahertz model no. XJ10BT, SN 6530162385)

Intended Operating Environment: an office environment where a 10BaseT Local Area Network is installed.

Software Exercise Program:
- For normal operation:
DOS script which copies a file back and forth (infinite loop) between the two PCs via the wireless bridge. The PCs are connected to the two 10BaseT networks on each side of the bridge.
- Special FCC testing software:
Controls the mode of operation between receive only and receive/transmit, regular hopping and a single frequency operation, and 16QAM and QPSK (3.2 Mbps and 1.6 Mbps data rates, respectively) operations. In all transmit cases a synthetic packet is used without a need for having a destination. Mode switching is done by SNMP commands sent from a Linux SNMP manager (installed on a PC).