0168-EX-ST-2000

ADAPTIVE BROADBAND

May 3, 2000

Federal Communications Commission
Office of Engineering Technology
445 12th Street S.W.
Washington, DC 20554

Attention: Douglas Young – 7-A332

Dear Mr. Young:

Adaptive Broadband Corporation requests the granting of a Special Temporary Authorization to permit it to demonstrate new broadband access wireless products at the SUPERCOMM 2000 trade show. The STA is requested for the duration of the show, June 4 through June 8, 2000. The hours of operation will be 7 AM to 7 PM.

The venue for the show, and the location of all operations under the requested STA will be indoors at the Georgia World Congress Center, 285 International Boulevard, N.W., Atlanta, GA 30313. The geographical coordinates are 33.7627 degrees North latitude, 84.3984 degrees West longitude.

The demonstrations planned involve an Access Point unit with integral antenna (equivalent to a base or cell-site) communicating at short range with a Subscriber Unit, which also has an integral antenna. Both units will be within the confines of the Adaptive Broadband Corporation booth (30 x 50 feet) on the floor of the show, or one unit may be located at the booth of another, cooperating exhibitor within approximately 150 feet. The minimum power necessary to maintain communications quality will be employed.

Adaptive will be demonstrating the products operating within the MMDS band.

The equipment is manufactured by the Adaptive Broadband Corporation as the Model SU-F025A MMDS Subscriber Unit and as the Model AP-F025A MMDS Access Point. These units are in the prototype stage and have not yet been Certified or Verified to FCC requirements, although it is believed that they meet all technical requirements. Approval testing is scheduled for June 2000.

We request that the STA permit operation on all except channels 1 and 2 of the MMDS bands, specifically including the range of 2500 MHz to 2686 MHz. This will permit us to use a channel which neither causes nor receives interference.

We request authorization to operate at a maximum EIRP of 1.0 Watt. Modulation will be any of the following: QPSK, 16QAM, or 64QAM. In all cases, over the air symbol rates are 4.17 Msymbols/sec, with a necessary bandwidth of 6.0 MHz.

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The antennas, which are integral to the radio units, as shown on the attached data sheet, will be no higher than 30 feet above the floor of the building and will be indoors.

Please issue the STA to:

Adaptive Broadband Corporation
Attention: Jacob Z. Schanker
615 Fishers Run
Victor, NY 14564
Telephone: 716 742 6154
FAX: 716 742 6102

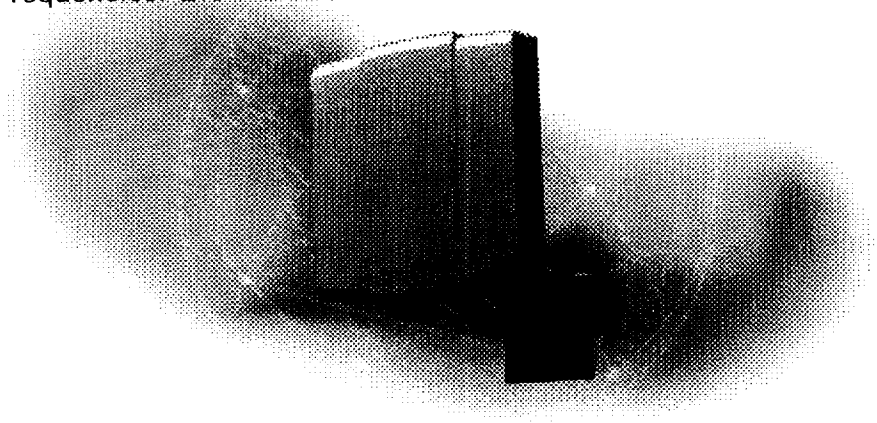
Any questions may be directed to me at 716 742 6154 or by email to jschanker@adaptivebroadband.com

Sincerely yours,

Jacob Z. Schanker
Director of Agency Compliance

AB-Access™

MMDS Frequencies: 2.5 - 2.7 GHz



TRANSACTIONAL DATA APPLICATIONS

AB-Access is a broadband fixed wireless access network for Internet, data, video and voice applications. Up to ten times the effective Internet data throughput of other point-to-multipoint systems is achieved by the patented Adaptive Broadband Packet-on-Demand technology.

Telecommunication operators and Internet Service Providers use AB-Access to enhance or replace existing networks, wired or wireless, or to develop new networks. AB-Access operates in various frequency bands, licensed and unlicensed. AB-Access has been designed with the needs of today and tomorrow's service operators foremost in mind. Rapidly deployable, scalable and economical, AB-Access maximizes use of bandwidth and provides up to 25 Mpbs communication in the MMDS frequencies from 2.5 to 2.7 GHz.

THE AB-ACCESS NETWORK

An AB-Access network consists of:

- Subscriber units at the customer premises, which provide either ATM or Ethernet (10BaseT);
- Cell sites of up to 18 miles (29.6 km) depending on modulation and channel, each providing a standard ATM connection to the wide area carrier network, which enable communication between the subscriber units and the wide area network via a number of sectors, each containing a transceiver, or access point;
- A network manager, to centrally manage the network via a graphical user interface

The network can provide coverage from island sites to complete geographical coverage. The network is structured in a cellular pattern, typically with six sectors per cell site. Each sector is serviced by a transceiver known as an access point, providing up to a 25 Mbps channel which is shared among users according to priority rules and limits specified by the service provider. Cell sites and subscriber units are interconnected by either conventional wired backhaul, or by wireless point-to-point links. Each subscriber unit provides either an Ethernet or an ATM interface, via an RJ45 socket installed in the subscriber premises. AB-Access supports 'quality of service' mechanisms to support real-time, high priority video and voice traffic.

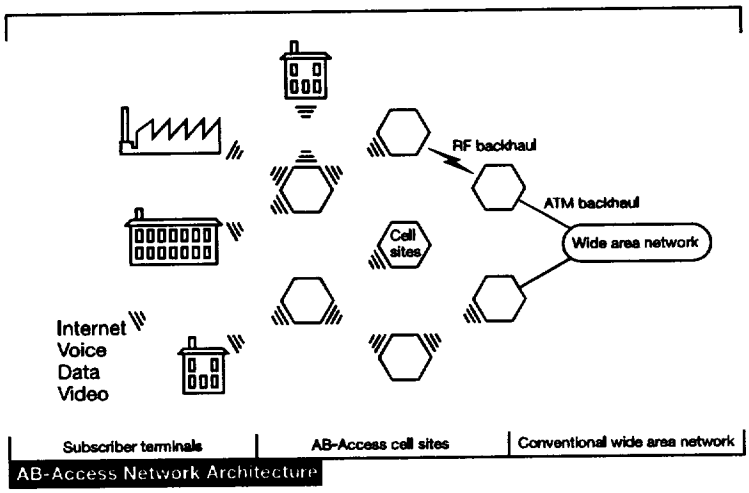
MAXIMIZING BANDWIDTH USE

No aspect of the AB-Access bandwidth is committed, allowing dynamic allocation of resources to serve only subscribers with data to transmit, maximizing data throughput and hence enhancing revenues.

Packet-on-Demand: Beyond bandwidth-on-demand, AB-Access allocates bandwidth to users at the granularity of a single cell, rather than in larger 'chunks' which are not used 100% of the time. This avoids wasted bandwidth and greatly increases the effective use of the available bandwidth.

Time Division Duplexing (TDD) for Asymmetric Traffic Management: Avoiding fixed upstream and downstream channels which remain unused for a portion of the time, AB-Access supports the highly asymmetric traffic patterns which are typical of Internet-type applications, where servers are often located at both sides of the network. The TDD approach means that each data channel is used for both upstream and downstream traffic, dynamically altering direction according to traffic load. This greatly increases the efficiency of spectrum use, as compared to traditional frequency duplexed systems, which allocate fixed partitions of spectrum to upstream and downstream traffic, resulting in unused spectrum.

ADAPTIVE BROADBAND™



AB-Access Network Architecture

ADVANCED SUBSCRIBER MANAGEMENT

Immediate Provisioning: New subscribers can be brought on-line immediately, with a single integrated unit which minimizes costs and enables fast and easy installation.

Flexible Tariffing: Subscribers can be billed in a variety of ways, not just by on-air time, but by amount of bandwidth used, bits transferred, or another appropriate measure.

ECONOMICALLY AND OPERATIONALLY EFFICIENT

Initial infrastructure cost is low... and the network can be incrementally deployed as subscriber numbers grow. The wireless infrastructure means a complete network can be installed in days or weeks, rather than the months or years a wired network requires.

The network is centrally managed by a single application... with traffic balanced via handover between cells sectors, and interference managed through frequency agility.

SPECIFICATION SUMMARY

Operating Frequency Range	2.5 GHz–2.7 GHz
Speed	8 up to 25 Mbps, depending on range and propagation environment

INTERFACES

Subscriber unit:	ATM and 10BaseT Ethernet
Adaptive Modulation	QPSK, 16, 64 QAM
Bit-Error Rate	Tunable to support a range of applications and high level protocols
Subscriber Units per Sector	Up to 254 simultaneously active subscriber units allowed per sector (overlapping sectors allowed); Each subscriber unit may support unlimited users

ENVIRONMENTAL CHARACTERISTICS

Temperature Range:	-40 to +55 degrees Celsius ambient temperature
Humidity:	up to 100% at 45 degrees Celsius
Wind Loading:	50 m/second

CELL SITE COMPONENTS

Six access points, each with an integrated patch antenna

ATM switch multiplexing and demultiplexing traffic from the access points

Unix-based control server to manage the access points

SUBSCRIBER UNIT COMPONENTS

Environmentally sealed roof-top transceiver with integrated patch antenna

Internal junction box with RJ45 socket and integrated 110V or 220V AC power supply

Web-based installation and configuration application

NETWORK MANAGEMENT

Single central application with GUI, communicating with the cell sites and subscriber units over IP

ADAPTIVE BROADBAND™

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