

Cable AML News

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NEW 28 GHz BROADBAND MULTI-MEDIA SYSTEM INSTALLED

Cable AML recently delivered High-Power base station Transceivers and several subscriber CPE (Customer Premises Equipment) Transceivers for a broadband LMDS system operating in the 28

GHz band. The high-power, broadband base station Transceivers are key components of a multi-carrier system. The system is capable of transmitting several dozen high-quality digital TV signals and

simultaneously providing two-way, high-speed data services. Two orthogonally polarized high-gain antennas at the base station provide 360 degree azimuth coverage.

The large volume of bandwidth available at LMDS bands around 28 GHz makes it possible to provide wire-



28 GHz Tower Platform Base Station with Outdoor High Power Transceivers and Sector Antennas

See IP System continued on page 4

BROADBAND 3.5 GHz FIXED WIRELESS SYSTEM DELIVERED

Cable AML has delivered a state-of-the-art FWA (Fixed Wireless Access system) operating in the 3.5 GHz band. The system was designed to meet the requirements of a recently auctioned fixed wireless 3.5 GHz band in Asia.

Cable AML's BWA-2003 provides a standards-based wireless platform for enabling next-generation IP-

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Indoor equipment cabinet for BWA-2003 3.5 GHz Wireless System includes Base Station Modem and Indoor RF Transceiver



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based services. The system allows 27 Mbps shared data bandwidth per sector, with easy expansion capability up to 100 Mbps, while maintaining full IP functionality.

The BWA-2003 is an open, modular system, which is attractive to operators because they no longer need to worry about proprietary systems that can quickly become obsolete. The BWA-2003 provides High-speed Internet ac-

cess, LAN Extensions, Virtual Private Networking, Voice over IP, Video Conferencing, Distance Learning and Dedicated High-speed connections in a single, powerful and rugged package.

The BWA-2003 features shared access based on the latest FDM/TDM/TDMA technology for maximum flexibility, power and capacity. The system provides high-speed connectivity to a large number of subscribers with high spectral ef-



BWA-2003 subscriber equipment includes outdoor CPE Integrated Antenna/Transceiver (right) and indoor modem.

iciency, thanks in part to features such as program-

mable modulation formats (64-QAM downstream and QPSK and 16-QAM upstream). ◆

2.5 GHz SYSTEM FOR MULTICHANNEL TV AND TWO-WAY DATA

Cable AML has delivered the first BWA-2002D+ system to be installed in South East Asia. The system simultaneously broadcasts multi-channel analog and/or digital TV and provides two-way IP connectivity for High-Speed Internet Access and other IP high performance ap-

plications.

The system is based on Cable AML's broadband Transceiver Model TRX02-250C, a compact yet powerful unit which provides multi-carrier downstream capability and high-sensitivity upstream receive functionality specifically designed for wireless Internet service.

The macro-cell system is designed to provide 180-degree azimuth coverage to a distance of 20 Kms with a single base station. The base station also houses the TV headend and the NMS (Network Management System) for

the two-way data system. All of the base station indoor equipment (transceiver, headend modem termination system and network management system) fits in a single enclosed rack.

The system allows operators to combine two services through a single base station infrastructure for maximum revenue at minimum capital deployment cost. Two revenue streams can be realized from different subscribers: multi-channel residential TV service and two-way high-speed Internet access for residential and institutional subscribers. ◆



Cable AML's BWA-2002D+ Indoor Cabinet Housing Base Station Modem and RF Transceiver



Subscriber CPE Transceiver for 2.5 GHz wireless system

BROADBAND HIGH POWER SOLID STATE TRANSMITTER REPLACES CHANNELIZED UNIT

A broadband, high-power AML transmitter has been delivered to a cable system to replace an older, channelized unit that provided service for many years to an isolated island community in the US.

The new transmitter will make it possible to provide any mix of analog and digital channels, thus allowing additional channels and digital service upgrades without hardware changes. It operates over a 13 mile (21 Kilo-

meter) link feeding a broadband active repeater. The combined transmitter-repeater link spans a distance of over 20 miles (32 Kilometers).

The ITX-1300S is Cable AML's highest power transmitter operating in the 12.7-13.2 GHz CARS (Community Antenna Relay Service) band. It replaces a large room full of Hughes channelized STX-141 transmitters, each of which was designed to transmit only one analog

VSBAM channel.

The ITX-1300S incorporates solid state GaAs FET power amplifiers with built-in redundancy and a state-of-the-art dual feed-forward control loop. It is designed to power high-reliability links operating at full capacity over difficult propagation environments. ♦

ITX-1300S Broadband High-Power AML Transmitter



UPCOMING EVENTS...

Cable AML will be attending 3 California events in the beginning of 2002. We look forward to seeing you!

| | | |
|--|--|---|
| Jan. 8 - 10, 2002 Conference on Emerging Technologies San Jose, CA | Jan. 14 - 16, 2002 WCA Technical Symposium Booth #325 - San Jose, CA | Feb. 12 - 14, 2002 Broadband Wireless World Forum Booth # 136 - Anaheim, CA |
|--|--|---|

SMALL SUBSCRIBER POCKETS SERVED COST-EFFECTIVELY WITH ITX-011 BROADBAND TRANSMITTER

The cost of providing cable service to a small California community within a franchise area was minimized thanks to a well designed AML system. The Cable AML model

ITX-011 broadband transmitter is the cornerstone of this system.

The 13 GHz transmitter has the capability of providing high-quality analog

or digital TV signals in a 17 mile (28 Kilometer) link.

With a one-way capacity of 80 analog channels, the link is designed to be easily upgraded for two-way service if, and when, cable modems are installed in the service area.

Moreover, the ITX-011 system architecture enables the operator to upgrade the

transmitter to a higher power configuration if required.

A veritable workhorse in service at many cable systems, the ITX-011 includes an "F" connector port and a toggle switch at the front panel to facilitate diagnostics by allowing rapid comparison of the transmitter input and output signals at VHF.



ITX-011 Broadband AML Transmitter



IP System continued from page 1

less services such as multi-channel digital TV service and high-speed Internet access, which until recently, were available only by cable.

A state-of-the-art, two-way shared-access IP (Internet Protocol) system provides Enterprise, MDU (Multiple Dwelling Units) and residential High-Speed Internet access as well as other enhanced IP

services such as VoIP, VPN (Virtual Private Network) services, and high-quality video conferencing.

High-capacity dedicated access links can also be implemented for backhaul or high-reliability PTP (point-to-point) and P-T-MP (point-to-multipoint), high-speed connectivity.



Typical subscriber CPE Integrated Antenna/RF Transceiver installation for 28 GHz LMDS System

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Cable AML

LEADER IN

**BROADBAND
WIRELESS
ACCESS**

YOU

**DECIDE THE
REQUIREMENTS...**



2.5 GHz

23 GHz



13 GHz

10.5 GHz

28 GHz

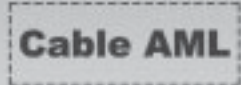


3.5 GHz

28 GHz

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SOLUTIONS!**



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in Broadband Microwave



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