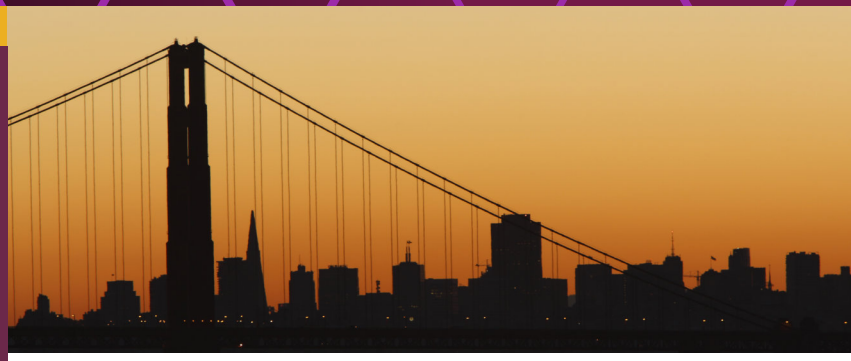
Digital Attenuator

Model 1456DA



Features:

- Modular design
- Small size for in building and tunnels
- Micro processor control and alarm
- Ethernet interface to NMS
- Design blocks are universal to all of the family of tunnel amplifiers
- Channelized Digital Attenuator
- Programmable via GUI
- Control/Status via SNMP
- 3U Rack-Mount Enclosure
- Up to 50 Channels

This product builds on thirty years of experience in the custom design and build of products for In-Building Wireless applications.

There are two different configurations for the Digital Attenuator; “Head End to Tunnel” and “Tunnel to Head End”. The two units are similar in design; the only difference is the location of the isolators and directional couplers in the signal flow.

Each chassis contains eight 8-channel boards; each board contains eight identical channels that include a Cross Band Coupler (CBC), an RF Switch, and Digital Attenuator. The purpose of the CBC is to combine the communications signals with the Gateway IP Radio that is part of the Loop-Back sub-system.

Each 8-channel board has a local processor that controls each of the RF Switches and Digital Attenuators, and also monitors the output of the corresponding directional couplers.

The eight local processors communicate via an RS-422 interface to a main processor board. The main processor board has an Ethernet interface that allows for communications with the computer in the Head End control room.

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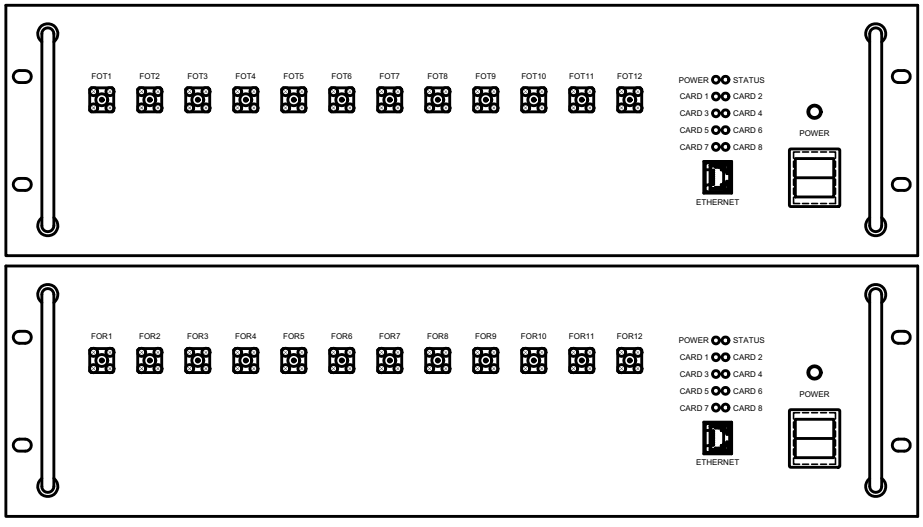

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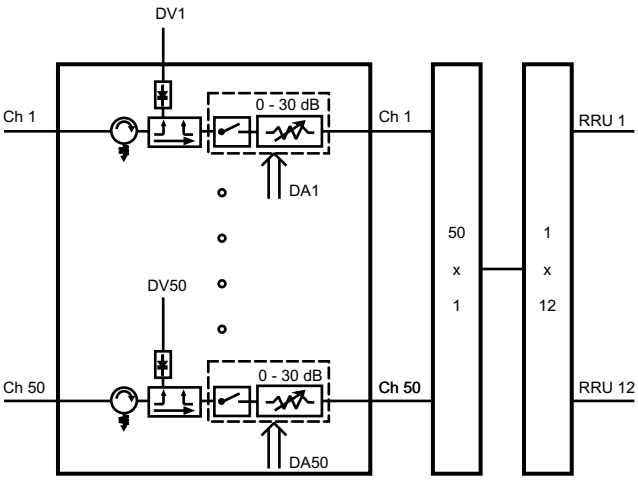
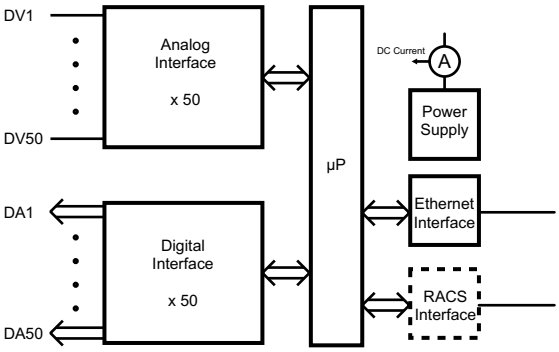
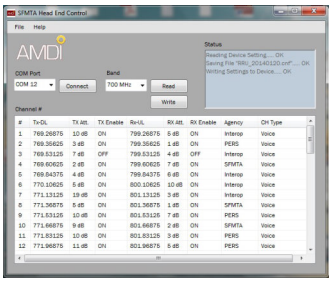
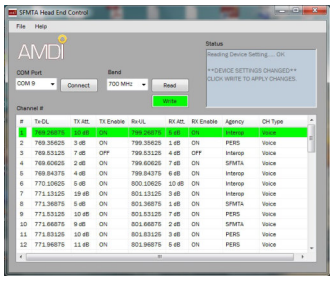




Model 1456DA Product Block Diagram





GUI

FEATURES

Architecture

High performance 32-bit processor

Network Interface

10Base-T and 100Base-TX Link
Connector: RJ45
Protocols: TCP/IP, UDP/IP, ARP, ICMP, SNMPv2, TFTP, FTP, Telnet, DHCP, BOOTP, HTTP, SSHv2, SSHv3

Indicators (LED)

Link & Activity indicator
Relay Contact Closers(Optional)
Status & Fault LED array indicator (Optional)

Alarms (optional)

Temperature
Current

Security

SSHv2 Client & Server, Selectable 128/192/256 Bit certificates
Encryption: AES and 3DES
Authentication: SHA-1, MD5, Base-64 User Access Lists

Software

Windows-based Digital Attenuator GUI
Allows user to set alarming thresholds, view device status, set/get device attenuation settings, and set/get channel names.

Management

Internal Web Manager (SSL Option for secure login)
XML Configuration Records via CLI or FTP
Firmware: Upgradeable via FTP, Telnet, http, and AMDI
Channelized Digital Attenuator GUI
Flash wear leveling and erase cycle statistics
Intermapper Probe File
SNMPv2

Internal Web Server

Allows user to configure network interface, update firmware, and view device statistics.

SPECIFICATIONS

Frequency:	851 - 859 MHz 769 - 775 MHz
Attenuation:	0 - 30 dB
Impedance:	50 Ohms
Connectors:	SMA
Power:	10 VAC
Operating Temp:	-30 to +70 degrees C
Size:	3.47” x 19” x 22”

AMDI
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