

### Features:

- Same physical design for all 5 bands
- alarm and control via contact closure or Ethernet
- Modern design using digital technology for alarm and control
- DSP processing enables channel dynamics of threshold, channel frequency, and bandwidth.
- Synergistic design with tunnel processing
- VHF tunnel design provides a Dynamic Range > 100 dB
- Low power consumption
- High IP3 amplifier of 60 dBm
- AGC for all DSP channels enables a DR for the UHF channels of > 70 dB
- Service is simple since all bands use same foot print.



Thirty years of custom designed In-Building Wireless products is reflected in this high linearity, power efficient RF power amplifier. Merging of micro controller to the latest in RF products produces the AMDI's 1465PA. The 1465PA channel amplifier is a high-linearity, multi-carrier amplifier for DAS (Distributed Antenna System) applications. The unit is available in single and dual-amplifier configurations. Each amplifier has its own processor board, alarms, panel indicators and power supply. The processor board controls the enable signal to the amplifier and monitors forward power, reverse power, current, fan status and heat sink temperature.

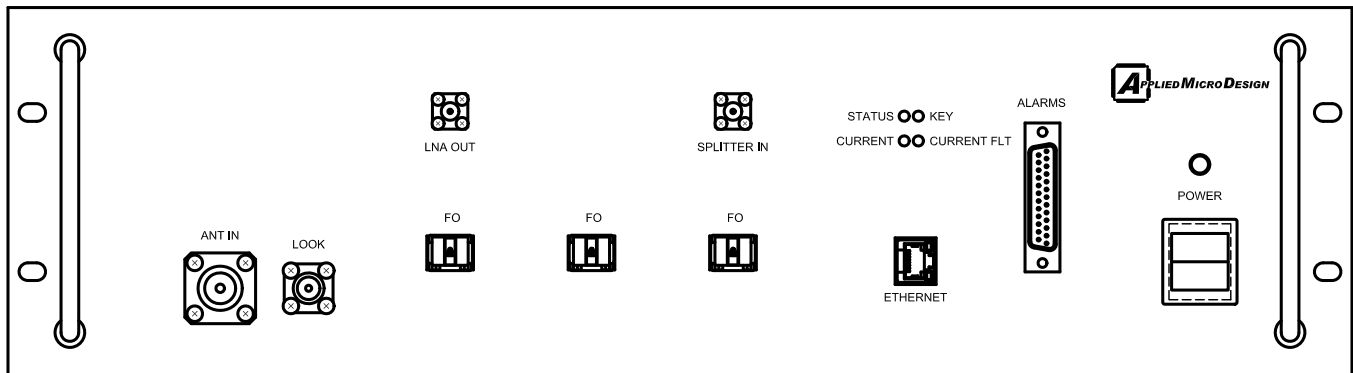
Head End downlink module is used for each of the 5 bands. Wide dynamic range amplifiers with IP 3 points enabling multiple channels in one band. FCC type acceptance system utilizing a synergistic design that produces IM levels that are greater than 60 dBc.

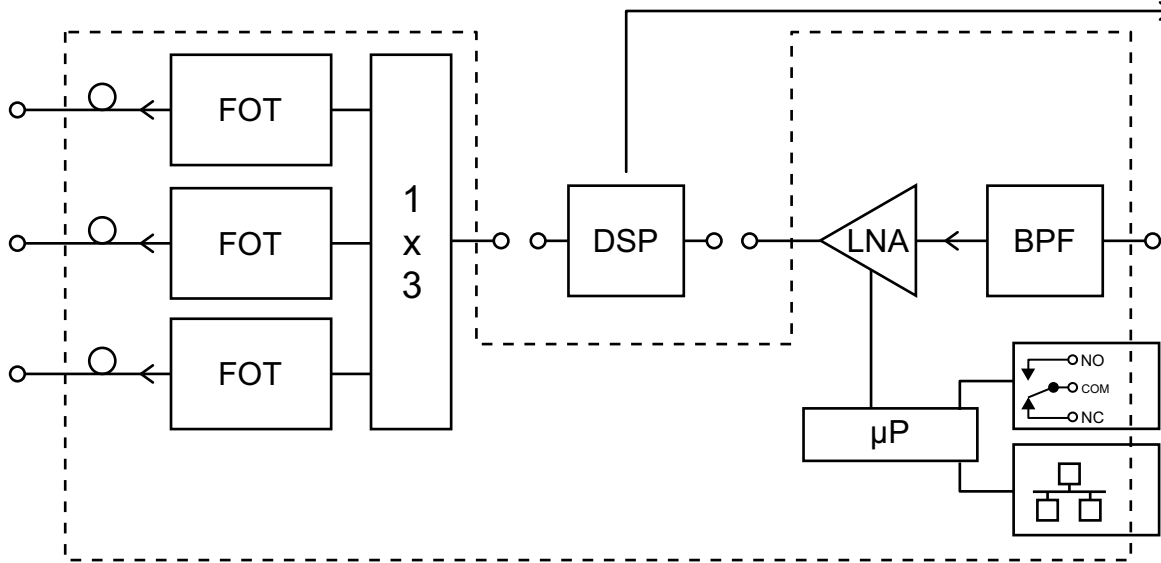
The processor board features remote monitoring capability via Ethernet. A computer running the Graphical User Interface (GUI) can display the status of the amplifier and provide control.

The processor board contains six NO/NC relay lines that interface to any alarm system and control.



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Model 1476HEDL Product Block Diagram



Model 1465DSP datasheet

		Fcenter	BW	Shape	NF	Sensitivity	# channels	Dynamic	Max Power	Power	Alarms	FCC
			1 dB	Factor			per window	Range	per Channel	28V		
Model No.	Base Model	(MHz)	(MHz)			(dBm)		(dB)	(dBm)	(A)		
	Head End DL											
	F-UDA-DL Remote											
1476HEDL-1	Band 1	159.1	6	5	< 3 dB		5	70	0	1.5		TBP
1476HEDL-2	Band 2	463.41	2	5	< 3 dB		3	70	0	1.5	see cut	TBP
1476HEDL-3	Band 3	486.31	3	5	< 3 dB		5	70	0	1.5	sheet	TBP
1476HEDL-4	Band 4	510.02	2	5	< 3 dB		4	70	0	1.5		TBP
1476HEDL-5	Band 5	814.03	4	5	< 3 dB		8	70	0	1.5		TBP

Configuration Chart

**Specifications**

Band 1: UL channelized  
 Sensitivity: -100 dBm  
 Gain: 40 dB adjustable  
 Maximum Input: +10 dBm  
 Max. Input no damage: +20 dBm  
 Bandwidth: adjustable from 6.5 kHz to 25 kHz set at factory

see datasheet 1465DSP for more

**Fiber Optic Specifications**

Frequency Range: 50 kHz - 3 GHz  
 Operating Mode: Supports Full-Duplex and simplex communications  
 Channel Capacity: Base Unit (BU) 8 Full-Duplex or 8 Simplex Channels  
 Gain: 17 dB typical  
 Transmitter Output Power: > 1 mW optical  
 Receiver Sensitivity: -21 dBm optical  
 VSWR I/O: 2:1 maximum  
 Output Noise Floor: -129 dBm (with 1 meter fiber, 2.5 GHz)  
 Spur-Free Dynamic Range: > 102 dB  
 Input 3rd Order Intercept: > 24 dBm  
 RF Input to Xmtr: + 10 dBm maximum  
 Max. Optical Input to Rcvr: < 4 mW  
 Power Requirement (module): TX ± 12 V @ <50 mA; RX +12 V @ <150 mA  
 Connectors: RF: SMA Female  
 Optical: SC/APC  
 Operating Temperature: -20 °C to +60 °C  
 Storage Temperature: -50 °C to +85 °C  
 Humidity: 90% non-condensing  
 Weight: < 1 lb.  
 Enclosure Size: 3/4" W x 3" L x 7/8" H  
 Fiber Optic Cable Type: 9/125 µm Single-Mode  
 Wavelength: 1310 / 1550 nm

