

Features:

- Ultra wide UL dynamic range >100 dB for UL
- Flexible in UL channel any combination of 5 channel DR
- Low noise < 3 db
- Micro control
- Channelized for the UL with BW adjusted using DSP
- Modern design using digital control for all functions
- Alarm and Control using MCAS
- Identical blocks for all UDA family of products
- GUI control
- Alarm interface using contact closures for any SCADA interface
- Modular design enables flexible future proof
- Servicing via look ports and GUI



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.

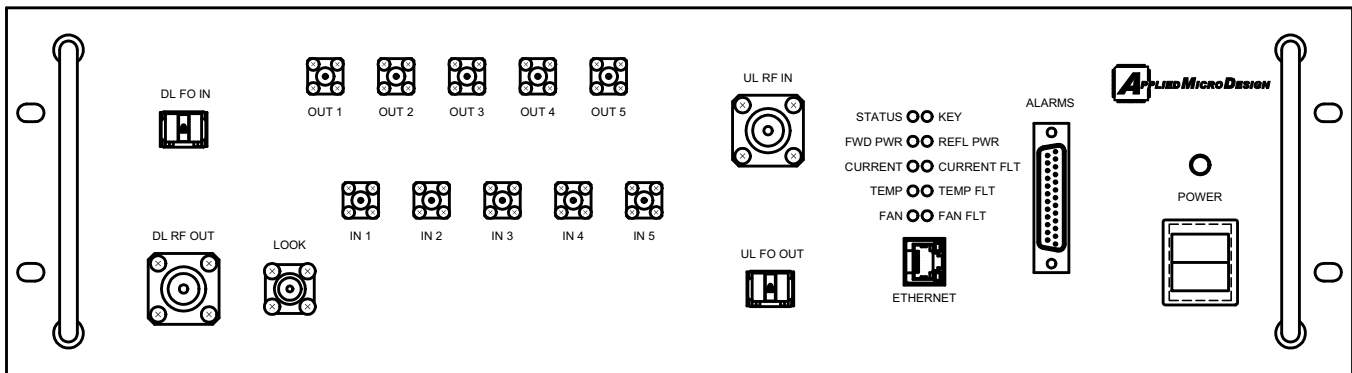
To achieve a wide dynamic amplitude range AMDI adds a limiter to the DSP modules. For channels that provide for portables and high power mobile units the cascade of the limiter and DSP produces an amplitude Dynamic Range that exceeds 100 dB. All thresholds are digitally controlled locally or remotely.

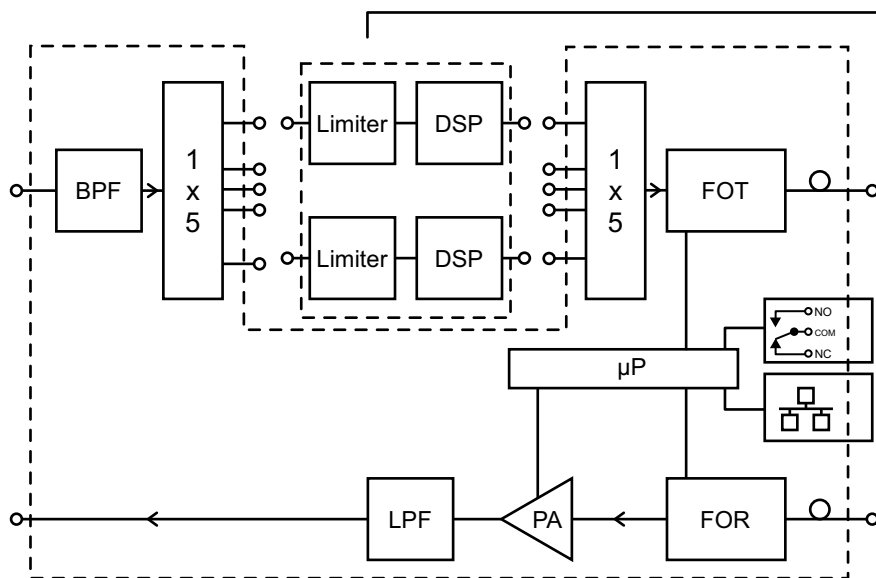
The processor board features remote monitoring capability via Ethernet. A computer running the Graphical User Interface (GUI) can display the status of the amplifier and provide control.

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



rev 1 2015





Model 1476FFRV1 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	Base Model	(MHz)	(MHz)			(dBm)		(dB)	(dBm)	(A)		
No.												
	F-UDA-UL Remote											
1476FFRV-1	Band 1-VHF	159.47	9	5	< 3 dB	-100	5	110	0	0.6	See cut sheet	TBP
	F-UDA-DL Remote											
1476FFRV-1	Band 1	159.1	6	5	< 3 dB		5	70	20	1.5	See cut sheet	TBP

Configuration Chart

Specifications

Frequency: Band 1
 Power Output: 5 W (+37 dBm) Composite
 Power Output: +20 dBm / carrier
 Gain: 35 - 45 dB
 Gain Adjust: 10 dB
 ALC: 5 Watts
 OIP3: +55 dBm
 Impedance: 50 Ohms
 Load VSWR: Infinite, no damage
 N.F.: < 3 dB
 Power Supply: 110V AC
 Current: < 2A
 Operating Temp: -30° to +60° C
 Size: 19" x 5.22" x 16"

Band 1:
 Sensitivity: UL channelized
 -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

