



Features and Benefits

As an active forward path distribution device, the unit provides 8 output ports with an ultra-flat signal response for delivery to an optical transmitter in the frequency range of 48-1218MHz.

- Compact and modular in its' construction, the chassis occupies only 2RU.
- Active and passive components are all modular for simple system upgrades, replacement and/or future modifications.
- Chassis includes a load sharing redundant power supply configuration, and amplifier redundancy for improved device reliability.
- The unique system design contains a built-in RF Switch microcontroller circuit which provides a self-calibration function which will significantly reduce RF switch failure caused by unequal RF parameters at the RF detector circuit of each input.
- Simplifies engineering and architecture design challenges; allows for consistent
- Significantly reduces the use of external jumper cables, power consumption, rack space, and manpower hours of labor.
- With multiple configuration options for signal balancing, the units are compatible with a wide range of optical transmitters.

THREE YEAR PARTS AND LABOR WARRANTY INCLUDED

Model number **ADF-204** is a Forward Path Active Distribution Device designed for typical usage within headend and hub site environments. The unit is arranged for installation within a standard 19" EIA rack, is compact, and modular while using only 2 rack units of space. The system provides an ultra-flat RF output signal for distribution to optical transport. It is an extremely reliable and cost effective platform and offers a flexible feature set required for today's modern cable TV plant.

The all modular solution allows for architecture design consistency amongst multiple hub sites while saving precious rack space. Integrated design circuitry allows the unit to significantly reduce external cabling. A flexible feature set allows for moves, adds, and changes as the cable network evolves; ready to solve the challenge of complex RF combining and splitting schemes.

The unit is designed for segmented insertion of input signals in three separate layers for final distribution to a group of 8, a sub group of 4, or a single output for optical transport. The first layer of signals introduced are inserted for common broadcast signal distribution through a Main Input section module. The Main Input section module allows for a single broadcast input and an additional 4 Auxiliary Inputs.

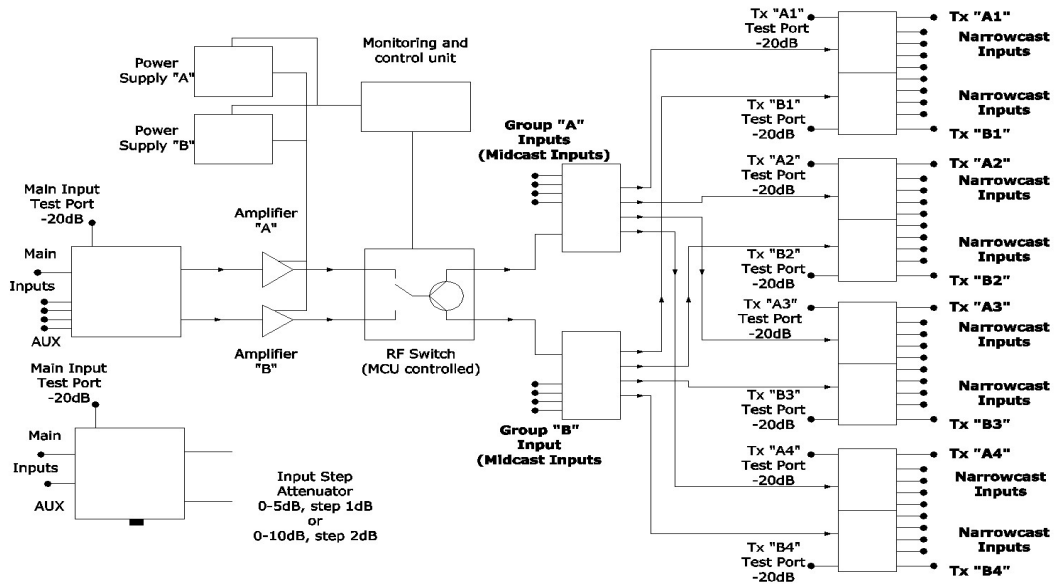
The combined broadcast signal is then split and distributed into two groups. Each grouped broadcast signal will then pass through an amplification stage module connected with a built-in RF switch for redundancy. The output signal from each amplifier is then fed to a passive Midcast input section module with 4 grouped insertion ports. The combined broadcast and grouped input signals are then fed for final signal distribution to a sub group of 4 TX passive output section narrowcast modules.

Each output section narrowcast module will receive the broadcast and grouped input signals on one port and combine them internally with 4 Narrowcast Inputs. The final resulting combined broadcast/midcast/narrowcast signal is then typically distributed to an optical transmitter. Narrowcast inputs are passively routed to respective output ports with greater than 60dB of isolation between input signals. A variety of customized chassis solutions are offered for transmitters with a dedicated input port for narrowcast signals.

Inserting various amplifier gain blocks allows the system to be compatible with various optical transmitters from legacy and current manufacturers. Multiple Test Ports, Amplifiers and Power Supply status LED's are provided on the front panel for maintenance and signal control. All models include a redundant power supply configuration with a choice of either universal 90-260VAC, or a -48VDC power, and contact closure pin out alarms to monitor the status and performance of all amplifier and power supplies. An optional custom main input section module is also offered with built-in step attenuation or step equalization for system balancing of broadcast signals being introduced to the device.

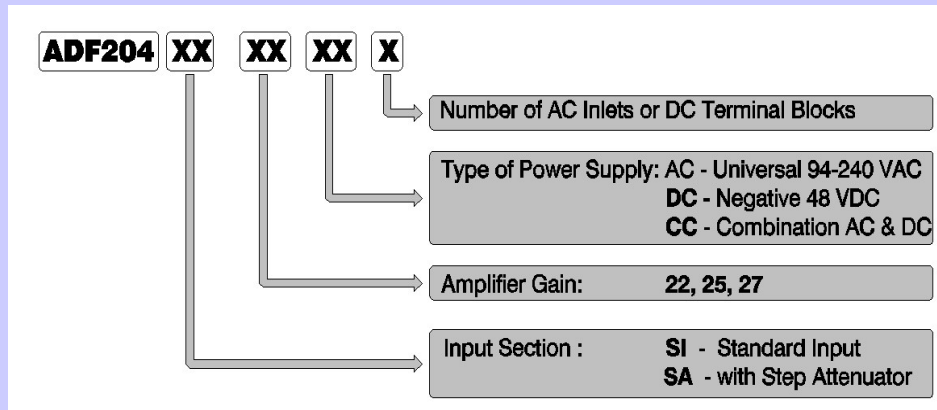
The uniquely configured system allows for the introduction of advanced revenue generating services, without disrupting the network or its current content delivery. Furthermore, its' modular construction allows for design flexibility, optimum performance results, and compliance with all site requirements.

Please contact us for additional technical support or product information.



Technical Parameter	ADF-204
Frequency Range, MHz	48-1218
Available Amplifier's Gain, dB	22/25/27
Insertion Loss, max:	
- Main Input - Outputs (25dB Gain Amplifier, Standard Input), dB	3.0±0.5
- "Group "A"&"B"" Inputs-Outputs (Broadcast Inputs, 25dB Gain Amp), dB	21.5±0.5
- "Group A" &"Group B" Inputs-Outputs (Midcast Inputs), dB	21.5±0.5
- "TX" Inputs – Output (Narrowcast Input), dB	16.5±0.5
Flatness all Insertion Loss, min:	
- up to 1002 MHz, dB	±0.75
- up to 1218MHz, dB	±1.0
Return Loss	
- all Outputs, dB min	18
- all Other Ports	20
Isolation	
Isolation for The Purpose of Frequency Reuse (Actual C/I ratio), dB	57
Isolation Between 'Tx' Inputs of the Same Group, dB, min	30
Isolation Between Any Other Inputs of the Same Group, dB min	30
Recommended Input Levels (22dB Gain Amp)	
- Main Input, dB	18
- "TX" Inputs (narrowcast), dB	34
- Group "A" &"B" Inputs (broadcast), dB	39
- Group "A", Group "B" Inputs (midcast), dB	39
Distortion Parameters (for nominal broadcast input signal levels), dBc:	
- CTB	-98
- CSO	-80
- XMOD	-89
Additional Specs Universal Across All Configurations	
Powering: Universal AC Power Supply, 50-60 Hz	90-260 VAC (-48VDC Optional)
Dimensions (Inches)	3.5H x 19W x14D
Weight	10lb
Alarm Control	Connector DB-15

Ordering Information:



Part Number Example:

ADF204-SI-25-AC-2:

ADF204	ADF-204 device
SI	Standard Input
25	25 dB Gain
AC	Universal Power Supplies - 2 pcs
2	Two AC power Inlets