1.2 GHz RF Amplifier

ARF120H Series

- 1.2GHz bandwidth
- Indoor bidirectional amplifier
- Compact design, small and exquisite
- Improved ESD and surge protection
- Low noise figure
- Standard JXP PADs for ATT & EQ

ARF120H Series 1.2 GHz Two-way GaAs RF amplifier is part of ACT Advanced Fiber Deep HFC solution, which has been designed to deliver interactive CATV, high capacity DOCSIS and other advanced services. The cost effective last mile amplifier platform helps operators expand bandwidth of their existing HFC network while minimizing capital investment. The ARF120H amplifier has compact housing with embedded RF module and is suitable for MDU, FTTB or FTTC applications with output to 107 dBµV.

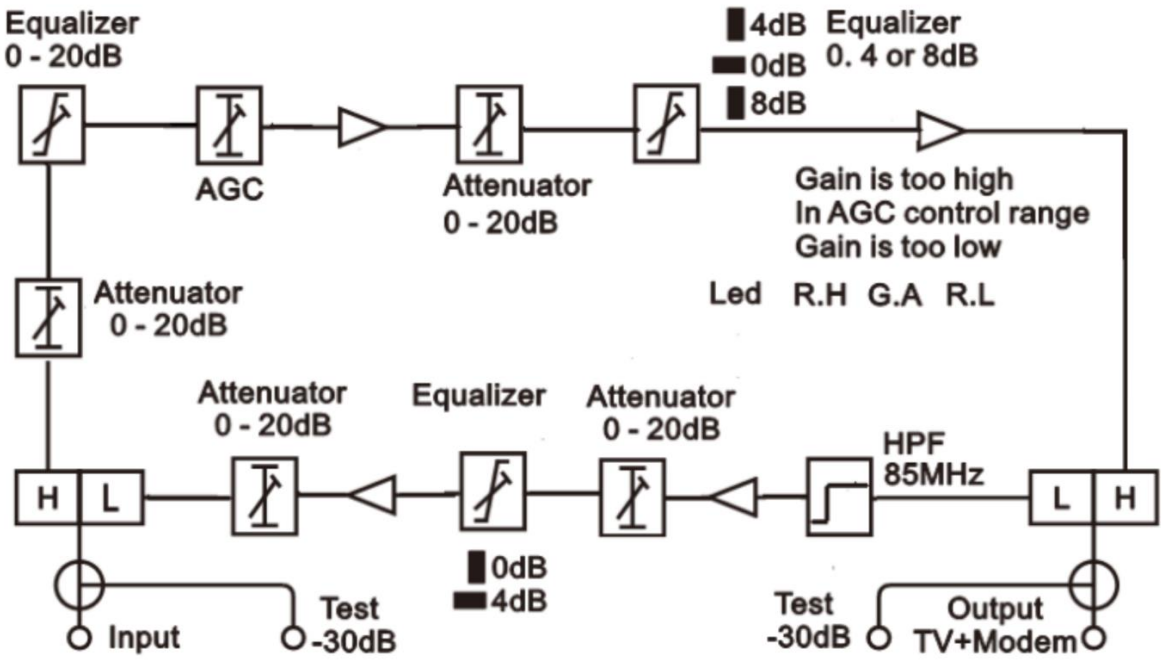
The ARF120H 1.2 GHz GaAs RF amplifier adopts E-pHEMT Push Pull distribution technology, that guarantees the excellent CTB and CSO performance and suitable for upgrade to DOCSIS 3.1.

ARF120H RF amplifier has low power consumption and supports local or remote power options. Combined with ACT's converged headend AH1000 optical system and AON node series, ARF120H is an ideal product to provide MSOs with an economical, flexible HFC access solution.

Key Features

- Supports 1.2 GHz bandwidth
- Indoor bidirectional amplifier
- Compact design, small and exquisite
- Improved ESD and surge protection
- Low noise figure
- Standard JXP plug-in PADs for adjustments of attenuation and forward input equalization
- Plug-in DMC jumper for adjustments of forward interstage and reverse equalization
- Gain adjustment 0 to 18 dB (AGC)

Block Diagram



Specifications

Forward Path Characteristics

Item	Unit	Technical Parameters
Pass Band	MHz	110/258 to 1218
Gain	dB	35
Frequency Response	dB	±1.0
Reference Output Level (CENELEC 42 channel) CSO: 60dB CTB: 60dB	dBpV	>=107
Gain Adjustment	dB	0 to min.18 dB (AGC)
Input Equalizer Adjustable	dB	0 to 20 dB 1 dB step, Adjust via JXP PAD
Interstage Equalizer Adjustable	dB	0, 4, 8 Adjust dvia DMC Jumper
Return Loss	dB	16
RF Test Point	dB	-30
Noise Figure	dB	≤7

Note:

1. dForward Gain and Noise Figure measured with 0 dB input EQ and 0 dB input pad.
2. Distortion performance reference output level is 107 dBµV (CENELEC 42 channel, flat). Digital refers to 550 MHz to 1.2 GHz loading with QAM carriers at -6 dB relative to analog CW carrier levels.

Return Path Characteristics

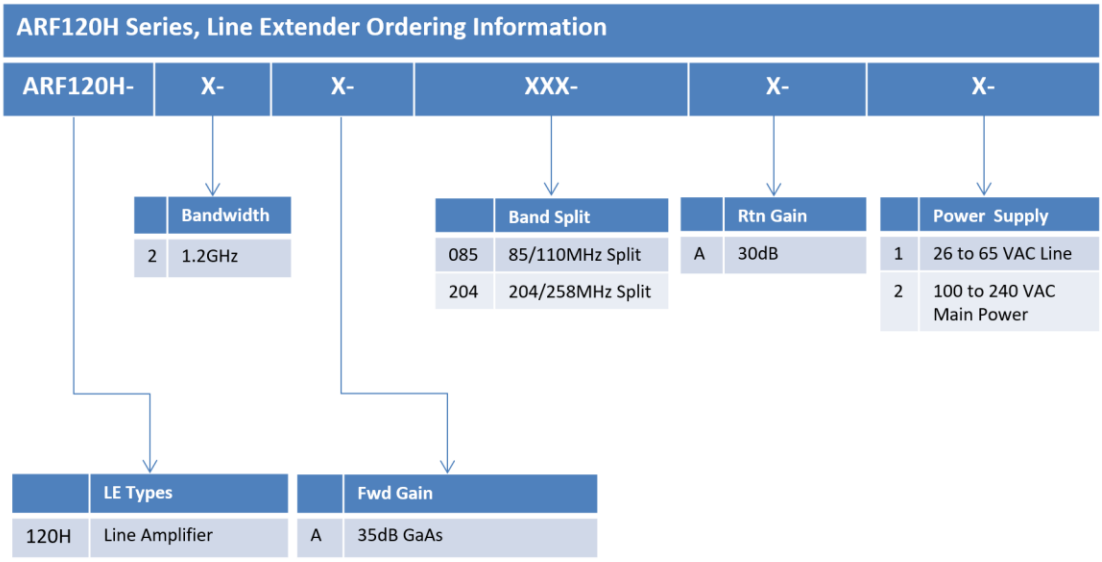
Item	Unit	Technical Parameters
Pass Band	MHz	5 to 85/204
Gain	dB	30
Gain Control (Input & Output)		0 to 20 dB 1 dB step, Adjust via JXP PAD
Equalizer Adjustable	dB	0, 4 Adjust via DMC Jumper
Frequency Response	dB	±1.0
Return Loss	dB	18
RF Test Point	dB	-30
Noise Figure	dB	≤6

General Characteristics

Power Consumption (High Gain / Low Gain)	W	≤5
Supply Voltage (AC)	V	26 to 65 V (remote PS) / 220 V (local PS)
RF Connectors	-	F - female, Imperial
Dimensions (W x H x D)	mm	105 x 125 x 50
Weight	kg	0.70
Mechanical Enclosure	-	IP 54 class protection, diecast housing
Operating Temperature	°C	-40 to + 55
Storage Temperature	°C	-40 to + 80
Relative Humidity Range	-	5% to 95%

Note: Unless otherwise noted, all specifications reflect typical performance and are referenced to 20°C.

Ordering Information



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