

1.2GHz MDU Amplifier Deep Fiber Solution

ARF120C Series



- **Frequency range: 5 to 1218MHz**
- **RF AGC control, High output level 107dB μ V**
- **Full GaAs MMIC amplifiers**
- **Plug-in equalizer and attenuator**
- **External RF test port**
- **Low power consumption $\leq 18W$**

ARF120C Series 1.2G single RF outputs MDU 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 MDU amplifier platform helps operators expand bandwidth of their existing HFC network while minimizing capital investment. The ARF120C compact housing has compact housing with embedded RF module and is suitable for MDU, FTTB or FTTC applications with outputs up to 107dB μ V.

The ARF120C 1.2 GHz MDU amplifier has AGC control with JXP style plug-in PADs and EQs.

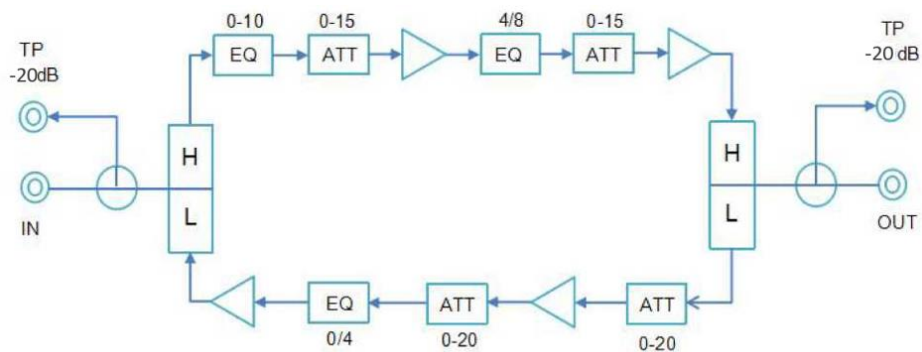
ARF120C amplifier suits the last mile fiber deep access networks. It has low power consumption. Combined with ACT's converged headend AH1000 optical system and AON node series, ARF120C is an ideal product to provide MSOs with an economical, flexible HFC access solution.

ARF120C building amplifier is suitable for HFC bidirectional network, which mainly used to amplify CATV image and digital signals. It is a remote terminal in the CATV transmission system with reasonable circuit, scientific structure and excellent performance index.

Key Features

- Frequency range: 5 to 1218MHz, 65/85, 85/110, 204/258 Optional
- RF AGC control, High output level 107dB μ V
- Full GaAs MMIC amplifiers
- Plug-in equalizer and attenuator
- External RF test port
- Low power consumption $\leq 18W$
- Aluminum die-cast housing, the thickness of the whole machine is only 55mm

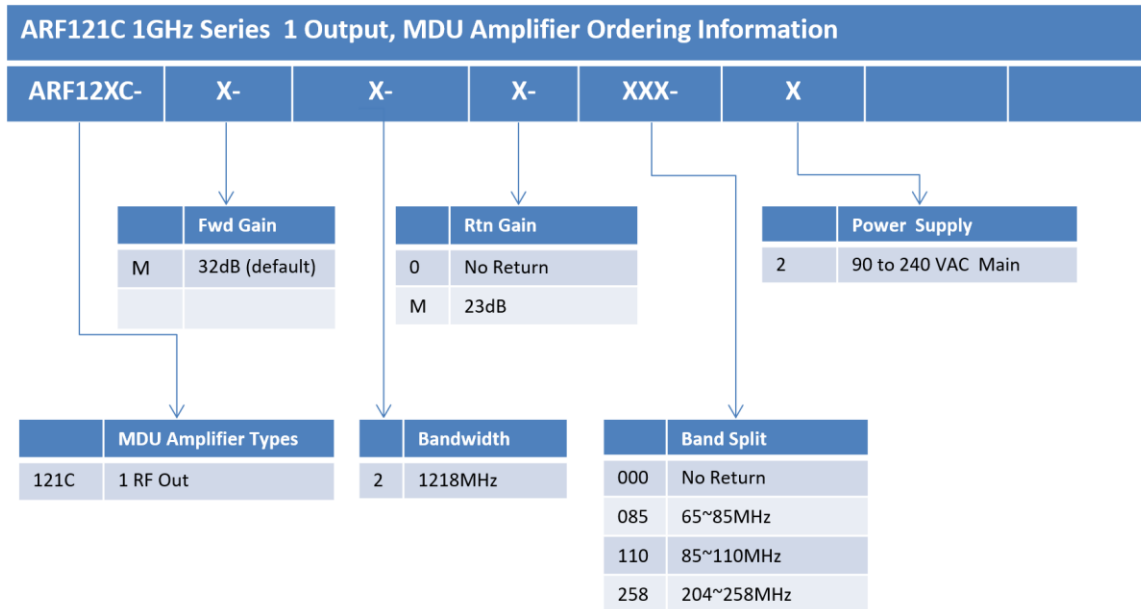
Block Diagram



Specifications

Item	Unit	Technical Parameters	Remark
Downstream			
Frequency Range	MHz	85/110/258 to 1218	
Minimum Gain	dB	32	
Flatness in Band	dB	±1	
Return Loss	dB μ V	>16	@110MHz, -1.5 dB/octave, Min>11
Noise Figure	dB	<7	
Input ATT	dB	0-15	
Input EQ	dB	0-10	
Interstage ATT	dB	0-15	
Interstage EQ	dB	4/8	
CNR	dB	≥52	Euro standard 41CH analog signal,
CTB	dB	≥60	input: 75dBuV
CSO	dB	≥60	Output: 107dBuV@1218MHz
MER	dB	≥40	Interstage EQ: 8dB
BER		1.00E-09	110 to 862 MHz in full configuration, QAM256 digital signal
			Input: 75dBuV,
			Output:104BuV@1218MHz
			Interstage ATT: 3Db, interstage EQ: 8dB
Upstream			
Frequency Range	MHz	5 to 65/85/204	
Gain	dB	>23	
Flatness in Band	dB	±1	
Return Loss	dB	>15	
Noise Figure	dB	<6	
Input ATT	dB	0-20	
Interstage ATT		0-20	
Interstage EQ		0/4	
MER		>38	Euro standard 41CH analog signal, EQ: 8 dB
BER		1.00E-09	Output level 110 dBuV@1218MHz
NPR Dynamic Range	dB	>30	@36dBCNIR
Others			
Waterproof Level		IP41	
Supply Voltage	V	90-240	
Test Port	dB	-20±2	
F connector		Inch, female	
EMC		EN50083-2-2006 table10-classA	
Impedance	Q	75	
Power Consumption	W	<18	
Surge	KV	4 (RF port)	
ESD	KV	2 (RF port)	
Operating Temperature	°C	-20 to +50	
Dimension	mm	200(L) x 115(W) x 55(H)	

Ordering Information



Product Name

Product Description

ARF121C-M-2-M-000-2

ARF121C single output MDU amplifier, 1218MHz, one way, 32dB gain forward, 90-240VAC

ARF121C-M-2-M-085-2

ARF121C single output MDU amplifier, 1218MHz, two way, 32dB gain forward and 23dB return, 65/85MHz, 90-240VAC

ARF121C-M-2-M-110-2

ARF121C single output MDU amplifier, 1218MHz, two way, 32dB gain forward and 23dB return, 85/110MHz, 90-240VAC

ARF121C-M-2-M-258-2

ARF121C single output MDU amplifier, 1218MHz, two way, 32dB gain forward and 23dB return, 204/258MHz, 90-240VAC

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