

1 or 2 -port Line Amplifier

ARF100C Series



- **862 MHz Forward Bandwidth**
- **1 or 2 RF Output Options**
- **High Output Level up to 112 dB μ V**
- **Low Distortion and Excellent Signal-to-Noise Performance**
- **GaAs Technology for reliable RF performance**
- **High-Reliability Switching Power Supply**

The ARF100C Series unidirectional line amplifier is designed for reliable downstream CATV and digital television signal distribution in HFC, MDU, FTTB and FTTC networks. Based on the proven outdoor amplifier platform, it provides high forward-path gain and output performance in a compact housing for cost-effective network extension and signal level restoration.

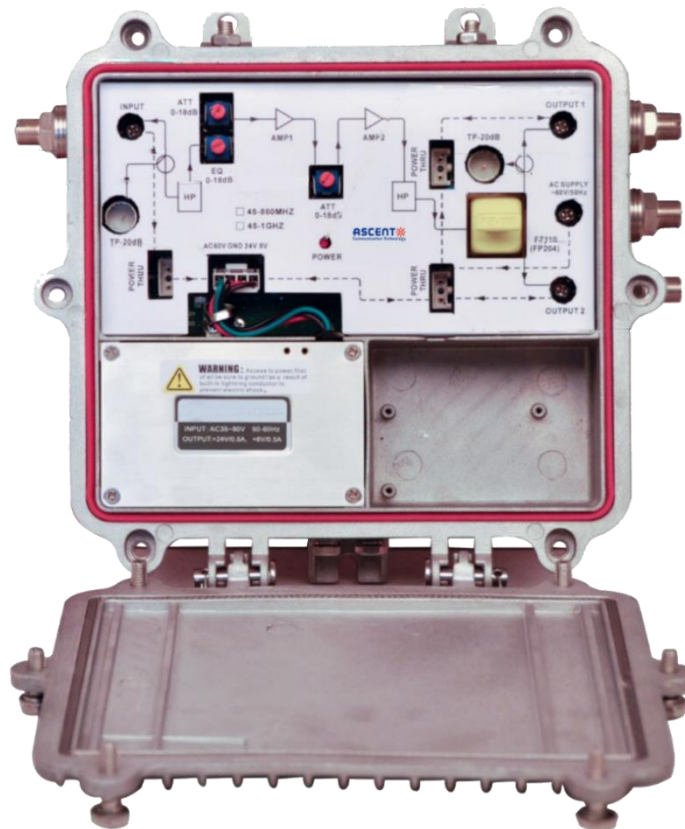
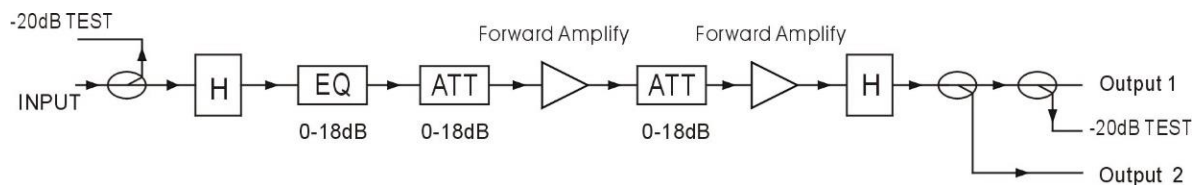
The ARF100C supports a 47 to 862MHz forward path with rated gain of at least 41dB and rated output level up to 112dB μ V. Adjustable input equalization and attenuation, interstage attenuation, plug-in output tap/splitter options and -20dB test points provide flexible field setup and convenient system maintenance.

With an aluminium weather-resistant housing, high-reliability switching power supply and lightning protection design, the ARF100C is suitable for demanding access-network environments. Unlike the ARF110C bidirectional series, ARF100C is a forward-path-only amplifier for applications where a return-path amplifier is not required.

Key Features

- 862 MHz Forward Bandwidth
- Cost-Effective, High-Performance Design
- 1 or 2 RF Output Options
- High Output Level up to 112 dBμV
- Low Distortion and Excellent Signal-to-Noise Performance
- Adjustable Equalizer and Attenuator for flexible field setup
- Integrated Test Ports for convenient signal monitoring and adjustment
- GaAs Technology for reliable RF performance
- Compact, Waterproof Aluminum Housing suitable for MDU and outdoor installations
- High-Reliability Switching Power Supply
- Integrated Lightning Protection for stable long-term operation in demanding environments

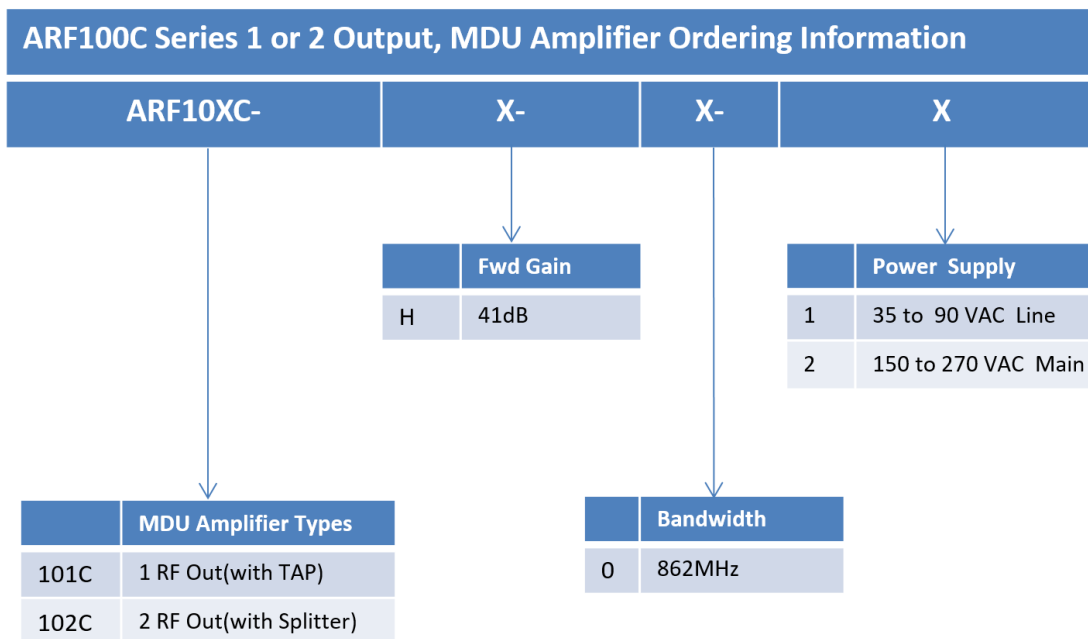
Block Diagram



Specifications

Item	Unit	Technical Parameter
Forward Path		
Frequency Range	MHz	47 to 862
Rated Gain(with Tap output)	dB	≥41
Rated Input Level	dBμV	72
Rated Output Level	dBμV	≥112
Flatness in Band	dB	±0.5
Noise Figure	dB	≤6.5
Return Loss	dB	≥16
C/CTB	dB	≥66
C/CSO	dB	≥64
Input Equalizer	dB	0 to 18(continuously adjustable)
Input Attenuation	dB	0 to 18(continuously adjustable)
Interstage Attenuation	dB	0 to 18(continuously adjustable)
General Performance		
RF Input Connector		F type
RF Output Connector		F type
Characteristic Impedance	Ω	75
Protection Class		Better than IP 42
Power Supply Voltage	V	A: AC(150 to 250)V; B: AC(35 to 90)V 50 to 60Hz
Operating Temperature	°C	-20 to 50
Impulse Withstand Voltage	kV	>5(10/700μs)
Power Consumption	W	≤14
Dimension	mm	220(L) * 205(W) * 65(H)

Ordering Information



Contact Information

Ascent Communication Technology Ltd

AUSTRALIA

140 William Street, Melbourne
Victoria 3000, AUSTRALIA
Phone: +61-3-8691 2902

Hong Kong SAR

Room 1210, 12th Floor, Wing Tuck Commercial
Centre 181 Wing Lok Street, Sheung Wan , Hong Kong SAR
Phone: +852-2851 4722

CHINA

Unit 1933, 600 Luban Road
200023, Shanghai, CHINA
Phone: +86-21-60232616

USA

2710 Thomes Ave
Cheyenne, WY 82001, USA
Phone: +1 203 350 9822

EUROPE

Pfarrer-Bensheimer-Strasse 7a
55129 Mainz, GERMANY
Phone: +49 (0) 6136 926 3246

VIETNAM

11th Floor, Hoa Binh Office Tower
106 Hoang Quoc Viet Street, Nghia Do Ward
Cau Giay District, Hanoi 10649, VIETNAM
Phone: +84-24-37955917

WEB: www.ascentcomtec.com

EMAIL: sales@ascentcomtec.com

Specifications and product availability are subject to change without notice.
Copyright © 2026 Ascent Communication Technology Limited. All rights reserved.
Ver. ACT_ARF100C_LA_DataSheet_V1b_Sep_2025