

# AA1003 Apartment Amplifier

## Features

- Two way amplifier, 1 or 2 output ports
- Up to 58dBmV output level at 1003 MHz bandwidth
- 6KV surge protection
- Plug in EQs & Pads for easy installation
- Power-doubling amplifier IC for high power output
- Robust construction
- Wall mount
- Aluminum die-cast housing for superior heat dissipation
- RoHS compliant



## Description

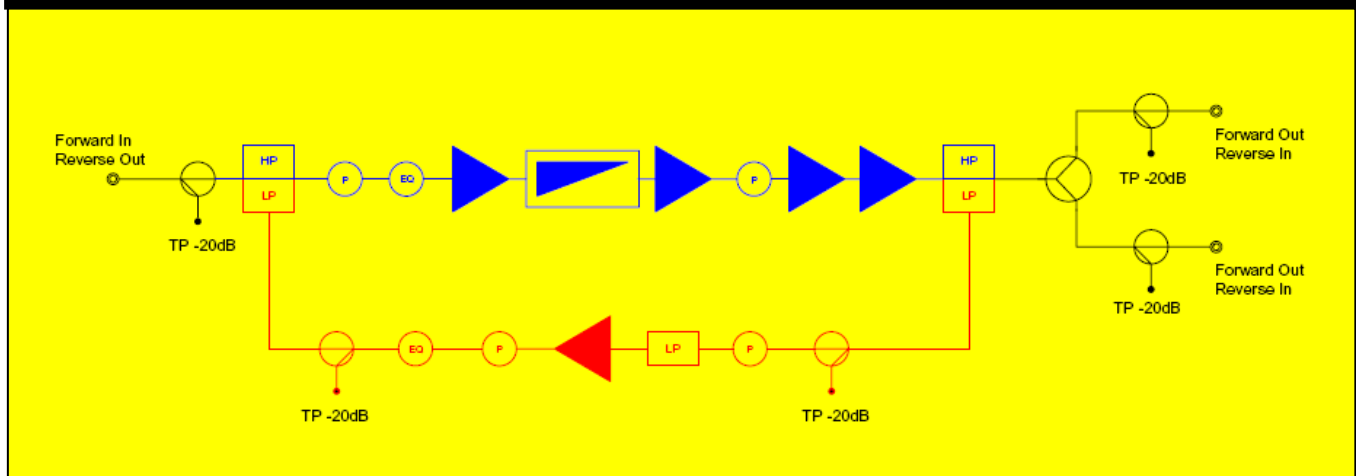
The AA1003 is a state-of-the-art indoor amplifier for video, data, telephony, VOD, and VOIP multiple services in a CATV network. With a bandwidth of 1003 MHz it is designed to provide high quality, low noise amplification of the RF signal in both the forward and the return paths. Ideal for signal distribution in locations such as high rises, apartments, hotels, hospitals, schools, and other multiple dwelling/tenant applications.

## Specifications

Parameter	Unit	Specification	
<b>Forward</b>			
<b>RF Section Performance</b>		Standard Type	High Output Type
RF bandwidth	MHz	54/85-1003	
Return loss	-dB	≥16	
Flatness	dB	+/-0.75	
Output level	dBmV	36/51 at 54/1003MHz	43/58 at 54/1003MHz
Test point	dB	-20+/-1	
Output port	inch	F-connector	
Noise figure	dB	<8.5	
Slope control	dB	0 to 20(1dB step), plug-in EQs	
Attenuator	dB	0 to 20(1dB step), plug-in PADs	
Impedance	ohm	75	
<b>Distortion Performance</b> (NTSC77 CW channels, 15dB slope)			
CSO	-dBc	>65	>61
CTB	-dBc	>68	>65
XMOD	-dBc	>65	>65

Reverse		
<b>RF Performance</b>		
Bandwidth	MHz	5 to 42/65
Flatness	dB	+/-0.75
Return loss	-dB	≥16
Gain level	dB	18
Noise figure	dB	<10
Slope control	dB	0 to 12 (1dB step), plug-in EQs
Attenuator	dB	0 to 20 (1dB step), plug-in PADs
Test point	dB	-20+/-1
<b>Distortion Performance</b> (13 and 19MHz, 0dB attenuator and 35dBmV output)		
CSO	-dBc	>82
CTB	-dBc	>90
XMOD	-dBc	>80
<b>Electrical/Physical/Environmental Performance</b>		
Supply voltage	VAC	90 to 240 mains power
Power consumption	W	<18
Dimensions	mm	L x H x W, 252 x 105 x197
Weight	Kg	<3
Operating temperature	°C	-10 to +50
Storage temperature	°C	-40 to +85
Humidity	%	95% , non-condensing

## Block Diagram



## Ordering Information

AA1003 -- X -- XX -- X -- X

**Type :**  
AA1003: two way  
AA1003S: forward only

**Frequency :**  
4:42/54  
6:65/85

**Power supply :**  
M1: main power USA type  
M2: main power Europe type  
M3: main power Chinese type  
M4: main power Argentina type  
4F: 48VAC with F-connector

**Output ports :**  
1: 1 port  
2: 2 ports

**Output level :**  
S: standard 51dBmV  
H: high output 58dBmV