

# Features and Benefits

**ANTRONIX®**

## VRA901 VoIP Residential Amplifier

The Antronix VoIP Residential Amplifier provides a passive VoIP port for reliable voice service, even when power is disrupted to the amplifier. The 9 output port amplifier has 8 amplified output ports with unity gain in the forward and return band plus one passive VoIP output port. This amplifier utilizes the Antronix patented CamPort®. This auto-seizing F-port ensures maximum contact area and reliability for multimedia applications. The all-ports-down configuration allows for ease of installation in a NID enclosure and can be powered with a power inserter (included).



- **Passive VoIP Port**  
The passive VoIP port provides a passive 4dB loss, even when power is disrupted to maintain critical voice service.
- **Unity Gain Forward and Return**  
Active gain in the forward and return band provides unity gain in both directions for ease of installation.
- **CamPort® Auto-Seizing F-Port**  
Patented auto-seizing F-port features a “Cam Activated Mechanism” to provide full contact pressure (> 2000 grams) on the center conductor for maximum reliability.
- **All-Ports-Down Configuration for NID Enclosures**  
The all ports facing down configuration provides clean wiring within a NID enclosure.
- **3 dB Noise Figure**  
Provides clean amplification of weak signals to overcome the poor noise figure in TV tuners and converters.
- **6 kV Surge Protection**  
Unique surge protection on all RF ports without the use of arc gaps which may cause high impulse noise during discharge.
- **Low Intermodulation Ferrites**  
Proprietary ferrite blend inhibits re-magnetization of the core due to voltage spikes from impulse noise or lightning. This prevents high-level return carriers from affecting forward path video signals.
- **Zinc Diecast Housing with Soldered Back Plate**  
Provides corrosion resistance for both indoor and outdoor applications and repeatable 120 dB RFI shielding.
- **Power Inserter Included for Remote Powering**  
The amplifier is optionally powered remotely with a dual isolation compartment power inserter for high AC to RF isolation to prevent ingress.
- **PTC Short-Circuit Protected UL Listed Adaptor**  
Self-resetting circuit protection provides safe protection against short-circuits to minimize maintenance costs.

## Electrical Specifications VoIP Residential Amplifier VRA901

Forward Specifications	Freq (MHz)	Spec
<b>Gain (Outputs 1–8)</b> (dB max) (dB nom)	52-1002	0±1.5
		0±1.0
<b>Return Loss</b> (dB)	52-1002	18
<b>Port to Port Isolation</b> (dB)	52-1002	22
<b>Noise Figure</b> (dB)	52-1002	3.0 <sup>1</sup>
<b>RFI Isolation</b> (dB)	5-1002	-120
<b>Group Delay</b> (ns/3.58 MHz)	Ch. 2	30.0
	Ch. 3	10.0
	Ch. 4	5.0
	Ch. 5 & up	3.0
<b>Distortions<sup>2</sup></b>		
Composite Triple Beat (-dBc)		75
Composite Second Order (-dBc)		62
Cross Modulation (-dBc)		75
Hum Modulation (-dBc)		80
<b>Return Specifications</b>		
<b>Gain (Outputs 1–8)</b> (dB max) (dB nom)	5-42	0±1.0
		0±0.5
<b>Return Loss</b> (dB)	5-42	18
<b>Port to Port Isolation</b> (dB)	5-42	25
<b>Noise Figure</b> (dB)	5-42	6.0 <sup>1</sup>
<b>Group Delay</b> (ns/1.0 MHz)	5.0-6.5	20.0
	6.5-8.0	15.0
	8.0-34	5.0
	34-42	20.0
<b>VoIP Port Specifications</b>		
<b>Insertion Loss</b> (dB nom)	5-1002	4.0±1.0
<b>Return Loss</b> (dB)	5-1002	18

### Notes:

1. Noise figure of gain block at room temperature.
2. +12 dBmV flat input, 79 analog channels from 54 MHz to 552 MHz. Digital channels from 552 MHz to 1002 MHz at 6 dB below the analog channels.

## Specifications

### VoIP Residential Amplifier VRA901

General	
Nominal Impedance	75 $\Omega$
F-connector Type	ANSI/SCTE 01 Compliant Sealed CamPort®
Power Adaptor	12 VDC/500 mA output, UL, PTC short-circuit protected, self-resetting
Dimensions, Weight	5.9" W x 2.9" H x 1.35" D / 0.84 lb.
Environmental	
Pressure Seal	15 psi
Surge withstand	6 kV Combo Wave (IEEE C62.41-1991 Cat. B3) on Input Port 6 kV Ring Wave (IEEE C62.41-1991 Cat. A3) on Output Ports and VoIP Port
Operating Temperature	-40 °C to +60 °C
Corrosion Resistance	Meets ANSI/SCTE Specification

## Ordering Guide

<b>VRA901/ACP</b>	8 amplified unity gain outputs + 1 VoIP port. AC power adaptor & power inserter included.
<b>ARPI-2000</b>	Power Inserter for Remote Powering
<b>ARAC-15N-50E6</b>	AC Power adaptor, 120 VAC/60 Hz Input, 15 VDC output, 500 mA, Efficiency Level VI

