### Features and Benefits



### MicroAmp MRA series

The Antronix MicroAmp provides subscriber premise amplification in a small convenient package. The one output micro-housing allows all ports of the amplifier to be facing down to simplify coaxial cable wiring in NID enclosures or small spaces. Our patented CamPort® provides the only auto-seizing F-port for maximum contact area and reliability for multimedia applications. Ideal for both indoor and outdoor applications, the MRA was engineered to withstand the harshest environmental threats with the capability of enduring repeated high power surges.

#### · Micro-Housing

Our micro-housing offers the convenience of a small package without sacrificing performance.

#### • Port Configuration Ideal for NID Enclosures

The micro-housing allows all output ports of the amplifier to be facing down to simplify coaxial cable wiring in NID enclosures or small spaces.

#### CamPort® Auto-Seizing F-port

Patented auto-seizing F-port features a "Cam Activated Mechanism" to provide full contact pressure (>2,000 grams) on the center conductor for maximum reliability.

#### • 3 dB Noise Figure

Provides clean amplification of weak signals to overcome the poor noise figure in TV tuners and converters.

#### 6 kV Combination Wave Surge Protection

Unique surge protection on all ports without the use of arc gaps which may cause high impulse noise during discharge.

#### • 15 psi Sealed SCTE Compliant CamPort®

Sealed brass CamPort® prevents water migration.

#### • 5-42/52-1002 MHz Diplex Filter

True 5-42 MHz return band and full 1 GHz downstream spectrum for more useable bandwidth.

#### Powered Locally or Remotely

Power the amplifier locally with supplied adaptor or remotely with an optional power inserter.

#### • PTC Short-Circuit Protected UL Listed Adaptor

Self-resetting circuit protection provides safe protection against short-circuits to minimize maintenance costs.

#### Dual Compartment Power Inserter

Provides high AC to RF isolation to minimize ingress.

#### Exceeds all SCTE Standards

#### 5 Year Warranty

Applies to amplifier only.





# **Electrical Specifications MRA series**

|                                 |            | MRA1-15  | MRA2-11  | MRA4-8   |
|---------------------------------|------------|----------|----------|----------|
| Forward Specification           | Freq (MHz) | 1 output | 2 output | 4 output |
| Gain (dB nominal)               | 52-1002    | 14.5     | 11.5     | 7.5      |
| Return Loss (dB)                | 52-1002    | >20      | >20      | >20      |
| Port-to-Port Isolation (dB)     | 52-1002    | NA       | >23      | >25      |
| Noise Figure (dB)               | 52-1002    | <3.0     | <3.0     | <3.0     |
| Flatness (dB)                   | 52-1002    | ±0.5     | ±0.5     | ±0.5     |
| AC/RF Isolation (dB)            | 52-1002    | >65      | >65      | >65      |
|                                 | Ch. 2      | <16.0    | <16.0    | <16.0    |
|                                 | Ch. 3      | <8.0     | <8.0     | <8.0     |
| Group Delay (nS/3.58 MHz)       | Ch. 4      | <5.0     | <5.0     | <5.0     |
|                                 | Ch. 5 & up | <3.0     | <3.0     | <3.0     |
| Distortions <sup>1</sup>        |            |          |          |          |
| Composite Triple Beat (dBc)     |            | -75      | -75      | -75      |
| Composite Second Order (dBc)    |            | -62      | -62      | -62      |
| Cross Modulation (dBc)          |            | -75      | -75      | -75      |
| Hum Modulation (dBc)            |            | -80      | -80      | -80      |
| Return Specification            |            |          |          |          |
| Insertion Loss (dB)             | 5-42       | <1.2     | <4.8     | <8.3     |
| Flatness (dB)                   | 5-42       | ±0.5     | ±0.5     | ±0.5     |
| Return Loss (dB)                | 5-42       | >20      | >20      | >20      |
| Port-to-Port Isolation (dB)     | 5-42       | NA       | >25      | >25      |
| <b>Group Delay</b> (nS/1.0 MHz) | 5.0-7.0    | <20      | <20      | <20      |
|                                 | 7.0-8.0    | <15      | <15      | <15      |
|                                 | 8.0-36     | <5       | <5       | <5       |
|                                 | 36-42      | <20      | <20      | <20      |





## **Specifications MRA** series

| General  |   |  |
|--|---|--|
| Nominal Impedance  | 75 Ω  |  |
| RFI  | >120 dB   |  |
| F-connector Type   | ANSI/SCTE 01 (formerly IPS-SP-400) Compliant Brass Sealed CamPort®  |  |
| Pressure Seal  | 15 psi  |  |
| Surge Withstand  | 6 kV Combination Wave: IEEE C62.41-1991 Cat. B3 on all RF Ports, and including the Power Adapter  |  |
| Operating Temperature                                    | -40 °C to +60 °C  |  |
| Warranty   | 5 Years   |  |
| Power Adaptor  | 12 VDC/200 mA Output UL Listed, PTC Short-Circuit Protected, Self-Resetting Adaptor   |  |
| Dimensions/Weight<br>(weight is without power<br>supply) | One Output: 3.5" W x 2.3" H x 0.8" D / 0.4 lb. Two Output: 3.5" W x 2.9" H x 0.8" D / 0.4 lb. Four Output: 4.6" W x 2.9" H x 0.8" D / 0.6 lb. |  |

 $<sup>^{1}</sup>$  +10 dBmV flat input, 79 analog channels from 55 MHz to 550 MHz. Digital channels from 550 MHz to 750 MHz at 6 dB down.

## Ordering Guide

| MRA1-15/AC* | 1 Output Amplifier, 120 VAC PS                       |
|-------------|--|
| MRA2-11/AC* | 2 Output Amplifier, 120 VAC PS                       |
| MRA4-8/AC*  | 4 Output Amplifier, 120 VAC PS                       |
| ARPI-2000   | Power Inserter for Remote Powering                   |
| ARAC-12N    | Power Adaptor, 120 VAC/60 Hz<br>Input, 12 VDC Output |

<sup>\*/</sup>ACP includes power inserter

