

Features and Benefits

ANTRONIX®

MVRA936EQ

MoCA Enhanced VoIP Residential Amplifier

With MoCA (Multimedia over Coax Alliance) having widespread deployment for high speed in-home networking, this amplifier has enhanced performance in the MoCA band to optimize the data rates for video sharing, multi-room DVR service, video conferencing and other MoCA applications. The amplifier has eight amplified output ports and a reliable passive VoIP port, which maintains RF integrity even when power is disrupted to the amplifier. The passive VoIP port provides a MoCA path to the amplified output ports to ensure full MoCA compatibility. This amplifier utilizes the Antronix patented CamPort®. This auto-seizing F-port ensures maximum contact area and reliability for multimedia applications. The amplifier can be mounted in an all-ports-down configuration which allows for ease of installation in a NID enclosure. The integrated MoCA point of entry filter prevents MoCA signals from interfering with an adjacent subscriber.



- **MoCA Enhanced**

Optimized RF performance in the MoCA band ensures maximum data rates for MoCA enabled devices. Integrated MoCA point of entry filter prevents MoCA signals from interfering with adjacent subscribers

- **Passive VoIP Port for Critical Voice Service**

The passive VoIP port provides a passive 4.5 dB loss, even when power is disrupted to maintain critical voice service. The VoIP port also supports MoCA band communications to the amplified output ports.

- **Self-Terminating Internal Switch**

An internal self-terminating switch provides excellent bi-directional RF performance between the input port and VoIP port even when power is disrupted.

- **CamPort® Auto-Seizing F-port**

Patented auto-seizing brass F-port features a "Cam Activated Mechanism" to provide full contact pressure (> 2000 grams) on the center conductor for maximum reliability.

- **Internal Cable Equalizer**

An internal cable equalizer provides 4.5 dB of tilt compensation associated with standard cable loss.

- **All-Ports-Down Configuration for NID Enclosures**

Amplifier can be mounted with all ports facing down configuration to provide clean wiring within a NID enclosure.

- **6 kV Combination Wave Surge Protection**

Unique 6 kV surge protection on all RF ports without the use of arc gaps which may cause high impulse noise during discharge.

- **Powder Coated Aluminum Housing**

Provides the most corrosion resistant protection against salt fog and rust.

- **Optional Power Inserter for Remote**

The amplifier can be 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 provides safe protection against short-circuits to minimize maintenance costs.

Electrical Specifications

MVRA936EQ

Forward Specifications	Frequency (MHz)	Specifications
Gain (Outputs 1 – 8) (dB nom)	54-1002	
	54	+0
	1002	+5.0
Forward Equalization Tilt (dB nom)	54-1002	4.5
Return Loss (dB min)	54-1002	18 ¹
Port to Port Isolation (dB min)	54-1002	25
Noise Figure (dB max)	54-1002	8.0
Group Delay (ns/3.58 MHz)	Ch. 2	30
	Ch. 3	10
	CH. 4 & up	5
Distortions²		
Composite Triple Beat (dBc)		-74
Composite Second Order (dBc)		-62
Cross Modulation (dBc)		-74
Hum Modulation (dBc)		-80
Return Specifications	Frequency (MHz)	Specifications
Gain (Outputs 1–8) (dB nom)	5-42	-6.5
Return Loss (dB min)	5-15, 40-42	18
	15-40	25
Port to Port Isolation (dB min)	5-15, 40-42	25
	15-42	28
Noise Figure (dB max)	5-42	20
Group Delay (ns/1.5 MHz)	5.0-6.5	20
	6.5-40	10
(ns/2.0 MHz)	40-42	30
Distortions³		
Discrete Second Order (dBc)		-55
Discrete Third Order (dBc)		-55
Cross Modulation (dBc)		-65
MoCA Specifications	Frequency (MHz)	Specifications
Insertion Loss		
Output Port to Output Port (dB max)	1125-1525	42
Isolation		
Output Port to Input Port (dB min)	1125-1525	36
Input Port to VoIP Port, Bi-directional (dB min)	1125-1525	30
Input Port to Output Port (dB min)	1125-1225	23
	1225-1525	26
VoIP Port Specifications	Frequency (MHz)	Specifications
Insertion Loss (dB nom)	5-1002	4.5
Return Loss (dB min)	5-1002	18 ¹

Notes:

1. Input port and VoIP port return loss remains at 18 dB even upon power failure.
2. +12 dBmV flat input, 79 analog channels from 55 MHz to 550 MHz. Digital channels from 550 MHz to 1002 MHz at 6 dB below the analog channels.
3. Two +55 dBmV carriers at 13 MHz and 19 MHz.

Specifications MVRA936EQ

General	
Nominal Impedance	75 Ω
F-connector Type	ANSI/SCTE 01 Brass Compliant Sealed CamPort®
Power Adaptor	12 VDC/500 mA Output, UL, PTC Short-Circuit Protected
Dimensions/Weight	5.9" W x 3.9" H x 1.5" D/0.75 lb.
Environmental	
Pressure Seal	15 psi
Surge Withstand	6 kV/3 kA Combo Wave (IEEE C62.41-1991 Cat. B3) on all Ports 6 kV/200 A Ring Wave (IEEE C62.41-1991 Cat. A3) on all Ports
RFI Screening Effectiveness	-100 dB
Operating Temperature	-40 °C to +60 °C
Corrosion Resistance	Meets ANSI/SCTE Specification

Ordering Guide

MVRA936EQ/AC	8 Amplified Outputs + 1 VoIP Port Amplifier. Active Return. AC Power Adaptor Included
ARPI-2000	Optional Power Inserter for Remote Powering
ARAC-15N-50E6	AC Power Adaptor, 120 VAC/60 Hz Input, 15 VDC Output, 500 mA, Efficiency Level VI

