

Features and Benefits

ANTRONIX®

MFRA1-1505EQ **MoCA 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. This amplifier utilizes the Antronix patented CamPort®. This auto-seizing F-port ensures maximum contact area and reliability for multimedia applications. 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.

- **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 4.5dB of tilt compensation associated with standard cable loss.

- **6 kV Combination Wave Surge Protection**

Unique 6kV 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 Powering**

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

MFRA1-1505EQ

Forward Specifications	Frequency (MHz)	Specifications
Gain (dB nom)	54-1002	
	54	+10.5
	1002	+15.0
Forward Equalization Tilt (dB nom)	54-1002	4.5
Return Loss (dB min)	54-1002	18
Noise Figure (dB max)	54-1002	4.0
Group Delay (ns/3.58 MHz)	Ch. 2	30.0
	Ch. 3	10.0
	CH. 4 & up	5.0
Distortions ¹		
Composite Triple Beat (dBc)		-74
Composite Second Order (dBc)		-62
Cross Modulation (dBc)		-74
Hum Modulation (dBc)		-80
Return Specifications	Frequency (MHz)	Specifications
Gain (dB nom)	5-42	-5.0
Input Return Loss (dB min)	5-15, 40-42	18
	15-40	22
Output Return Loss (dB min)	5-15, 40-42	18
	15-40	25
Noise Figure (dB max)	15-42	7.0
Group Delay (ns/1.5 MHz)	5.0-6.5	20.0
	6.5-40	10.0
(ns/2.0 MHz)	40-42	30.0
Distortions ²		
Discrete Second Order (dBc)		-55
Discrete Third Order (dBc)		-55
Cross Modulation (dBc)		-65
MoCA Specifications	Frequency (MHz)	Specifications
Isolation		
Output Port to Input Port (dB min)	1125-1525	36
Input Port to Output Port (dB min)	1125-1525	16

Notes:

1. +12dBmV 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.
2. Two +55 dBmV carriers at 13 MHz and 19 MHz.

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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	4.9" W x 4.1" H x 1.0" D / 0.60 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

MFRA1-1505EQ/AC	1 Output Amplifier. Active return. AC Power Adaptor Included
ARPI-2000	Optional Power Inserter for Remote Powering
ARAC-12N-5	AC Power Adaptor, 120 VAC/60 Hz Input, 12 VDC Output, 500 mA

