

# CSMAPDU9VPI102/1.0



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HomeConnect® Passive VoIP, Amplifier with MoCA connectivity, unity forward/reverse, Mid Split, 1.0 GHz Forward, 85 MHz return, nine ports, with power inserter

## Product Classification

Product Type	RF amplifier
Product Brand	HomeConnect®

## General Specifications

Device Type	All ports down amplifier   Two-way subscriber amplifier   VoIP subscriber amplifier
Application	Indoor   Outdoor
Patent Number	7912431 (expires 8/2/2025)
Video Ports, quantity	8
Video Standard	NTSC
VoIP Passive Ports, quantity	1

## Electrical Specifications

Distortion Performance (CCN), minimum	60 -dBc
Distortion Performance (CSO), minimum	65 -dBc
Distortion Performance (CTB), minimum	73 -dBc
Distortion Performance (DSO), minimum	55 -dBc
Distortion Performance (DTO), minimum	60 -dBc
Distortion Performance (X-Mod), minimum	73 -dB
Group Delay, 2nd channel, maximum	30 ns
Group Delay, channel 3, maximum	15 ns
Group Delay, channel 4–6, maximum	5 ns
Group Delay, reverse, maximum	25 ns
Hum Modulation, minimum	-75 dB
Impedance	75 ohm
Operating Current at Voltage	380 mA @ 15 Vdc

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<b>Shielding Effectiveness, minimum</b>	100 dB
<b>Surge Capability Test Method</b>	ANSI/SCTE 81   IEEE C62.41-B3 (6 kV, 3000 A, Combination wave) on all ports
<b>Surge Capability Waveform</b>	1.2/50 voltage and 8/20 current combination waveform   100 kHz ring wave waveform

## Electrical Specifications, Isolation

<b>Isolation at Frequency Band, output to output, minimum</b>	25 dB @ 5–1002 MHz
<b>Isolation at Frequency Band, output to VoIP, minimum</b>	25 dB @ 5–1002 MHz
<b>Isolation at Frequency Band, power port to RF output, minimum</b>	60 dB @ 5–1002 MHz
<b>Isolation at Frequency Band, VoIP to output, minimum</b>	25 dB @ 5–1002 MHz

## Electrical Specifications, MoCA

<b>Band Rejection, output to input, minimum</b>	40 dB
<b>Band Rejection, VOIP to input, minimum</b>	35 dB
<b>Insertion Loss, output to output, maximum</b>	35 dB
<b>Insertion Loss, output to VOIP, maximum</b>	35 dB
<b>Insertion Loss, VOIP to output, maximum</b>	35 dB
<b>Operating Frequency Band</b>	1125 – 1675 MHz

## Electrical Specifications, Rx (Uplink)

<b>Flatness</b>	±1.0 dB
<b>Insertion Loss, video ports</b>	0 dB
<b>Return Loss, minimum</b>	20 dB
<b>Noise Figure, maximum</b>	18 dB
<b>Operating Frequency Band</b>	5 – 85 MHz

## Electrical Specifications, Tx (Downlink)

<b>Flatness</b>	±1.0 dB
<b>Gain, video ports</b>	0 dB
<b>Noise Figure, maximum</b>	10.5 dB
<b>Operating Frequency Band</b>	102 – 1002 MHz
<b>Return Loss, minimum</b>	20 dB

## Electrical Specifications, VoIP

<b>Insertion Loss Rx at Frequency Band, VoIP ports, maximum</b>	4.3 dB @ 5–42 MHz
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**Insertion Loss Tx at Frequency Band, VoIP ports, maximum**

4.5 dB @ 54–550 MHz | 6.0 dB @ 550–1002 MHz

**Return Loss at Frequency Band, VoIP ports, minimum**

20 dB @ 5–1002 MHz

## Environmental Specifications

**Operating Temperature**

-40 °C to +60 °C (-40 °F to +140 °F)

**Safety Standard**

SCTE

## Packaging and Weights

**Height, packed**

190.5 mm | 7.5 in

**Width, packed**

247.65 mm | 9.75 in

**Length, packed**

508 mm | 20 in

**Carton Quantity**

20

**Included**

Power adapter | Power inserter

**Weight, gross**

9.072 kg | 20 lb

## Included Products

CMD/CSAPAE615V500

– Power Adapter for Subscriber Amplifiers, CMD, ac/dc, 15 V, 500 mA, EISA VI

CSHMPIE

– HomeConnect® Power Inserter for Subscriber Amplifiers with High Isolation, Copper Nickel Plated Zinc Housing

## \* Footnotes

**Distortion Performance (CCN), minimum**

CCN—Composite Carrier to Noise; 77 analog, 110 digital—256 QAM channel loading

**Distortion Performance (CSO), minimum**

CSO—Composite Second Order; 77 analog, 110 digital—256 QAM channel loading

**Distortion Performance (CTB), minimum**

CTB—Composite Triple Beat; 77 analog, 110 digital—256 QAM channel loading

**Distortion Performance (DSO), minimum**

DSO—Discrete Second Order; 13 MHz and 19 MHz, 55 dBmV per carrier loading

**Distortion Performance (DTO), minimum**

DTO—Discrete Third Order; 13 MHz and 19 MHz, 55 dBmV per carrier loading

**Distortion Performance (X-Mod), minimum**

X-Mod—Cross Modulation; 77 analog, 110 digital—256 QAM channel loading

**Group Delay, 2nd channel, maximum**

Channel (3.58 MHz Span)

**Group Delay, channel 3, maximum**

Channel (3.58 MHz Span)

**Group Delay, channel 4–6, maximum**

Channel 2 (3.58 MHz Span)

**Noise Figure, maximum**

Total amplifier contribution

**Noise Figure, maximum**

Total amplifier contribution

