Passive VoIP MoCA Amplifier, unity forward/reverse, 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
Shielding Effectiveness, minimum 100 dB
Surge Capability Test Method ANSI/SCTE 81 | IEEE C62.41-B3 (6 kV, 3000 A, Combination wave) on all ports
Surge Capability Waveform 1.2/50 voltage and 8/20 current combination waveform | 100 kHz ring wave waveform

Electrical Specifications, Isolation
Isolation at Frequency Band, output to output, minimum 25 dB @ 5–1002 MHz
Isolation at Frequency Band, output to VoIP, minimum 25 dB @ 5–1002 MHz
Isolation at Frequency Band, power port to RF output, minimum 60 dB @ 5–1002 MHz
Isolation at Frequency Band, VoIP to output, minimum 25 dB @ 5–1002 MHz

Electrical Specifications, MoCA
Band Rejection, output to input, minimum 40 dB
Band Rejection, VOIP to input, minimum 35 dB
Insertion Loss, output to output, maximum 35 dB
Insertion Loss, output to VOIP, maximum 35 dB
Insertion Loss, VOIP to output, maximum 35 dB
Operating Frequency Band 1125 – 1675 MHz

Electrical Specifications, Rx (Uplink)
Flatness ±1.0 dB
Insertion Loss, video ports 0 dB
Return Loss, minimum 20 dB
Noise Figure, maximum 18 dB
Operating Frequency Band 5 – 85 MHz

Electrical Specifications, Tx (Downlink)
Flatness ±1.0 dB
Gain, video ports 0 dB
Noise Figure, maximum 10.5 dB
Operating Frequency Band 102 – 1002 MHz
Return Loss, minimum 20 dB
# Electrical Specifications, VoIP

- **Insertion Loss Rx at Frequency Band, VoIP ports, maximum**: 4.3 dB @ 5–42 MHz
- **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

## Regulatory Compliance/Certifications

<table>
<thead>
<tr>
<th>Agency</th>
<th>Classification</th>
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<tbody>
<tr>
<td>CHINA-ROHS</td>
<td>Below maximum concentration value</td>
</tr>
<tr>
<td>ISO 9001:2015</td>
<td>Designed, manufactured and/or distributed under this quality management system</td>
</tr>
<tr>
<td>REACH-SVHC</td>
<td>Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a></td>
</tr>
<tr>
<td>ROHS</td>
<td>Compliant</td>
</tr>
</tbody>
</table>

## Included Products

- **CSAPE612V500**: Power Adapter for Subscriber Amplifiers, ac/dc, 12 V, 500 mA, EISA VI
- **CSAPE615V500**: Power Adapter for Subscriber Amplifiers, ac/dc, 15 V, 500 mA, EISA VI
- **CSHMPI**: HomeConnect® Power Inserter for Subscriber Amplifiers with High Isolation
- **CSHMPIE**: HomeConnect® Power Inserter for Subscriber Amplifiers with High Isolation

* Footnotes
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<th>Parameter</th>
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<td>Distortion Performance (CCN), minimum</td>
<td>CCN—Composite Carrier to Noise; 77 analog, 110 digital—256 QAM channel loading</td>
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<tr>
<td>Distortion Performance (CSO), minimum</td>
<td>CSO—Composite Second Order; 77 analog, 110 digital—256 QAM channel loading</td>
</tr>
<tr>
<td>Distortion Performance (CTB), minimum</td>
<td>CTB—Composite Triple Beat; 77 analog, 110 digital—256 QAM channel loading</td>
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<td>Distortion Performance (DSO), minimum</td>
<td>DSO—Discrete Second Order; 13 MHz and 19 MHz, 55 dBmV per carrier loading</td>
</tr>
<tr>
<td>Distortion Performance (DTO), minimum</td>
<td>DTO—Discrete Third Order; 13 MHz and 19 MHz, 55 dBmV per carrier loading</td>
</tr>
<tr>
<td>Distortion Performance (X-Mod), minimum</td>
<td>X-Mod—Cross Modulation; 77 analog, 110 digital—256 QAM channel loading</td>
</tr>
<tr>
<td>Group Delay, 2nd channel, maximum</td>
<td>Channel (3.58 MHz Span)</td>
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<td>Group Delay, channel 3, maximum</td>
<td>Channel (3.58 MHz Span)</td>
</tr>
<tr>
<td>Group Delay, channel 4–6, maximum</td>
<td>Channel 2 (3.58 MHz Span)</td>
</tr>
<tr>
<td>Noise Figure, maximum</td>
<td>Total amplifier contribution</td>
</tr>
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<td>Total amplifier contribution</td>
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