HomeConnect® Passive VoIP Amplifier, unity forward/reverse, 1.2GHz / nine ports

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
- 55 -dBc

Distortion Performance (CSO), minimum
- 62 -dBc

Distortion Performance (CTB), minimum
- 73 -dBc

Distortion Performance (DSO), minimum
- 55 -dBc

Distortion Performance (DTO), minimum
- 60 -dBc

Distortion Performance (X-Mod), minimum
- 70 -dB

Group Delay, 1st channel, maximum
- 30 ns

Group Delay, channel 3, maximum
- 15 ns

Group Delay, channel 4–6, maximum
- 5 ns

Group Delay, reverse, maximum
- 20 ns

Hum Modulation, minimum
- -75 dB
<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impedance</td>
<td>75 ohm</td>
</tr>
<tr>
<td>Operating Current at Voltage</td>
<td>380 mA @ 12 Vdc</td>
</tr>
<tr>
<td>Shielding Effectiveness, minimum</td>
<td>120 dB</td>
</tr>
<tr>
<td>Surge Capability Test Method</td>
<td>ANSI/SCTE 81</td>
</tr>
<tr>
<td>Surge Capability Waveform</td>
<td>1.2/50 voltage and 8/20 current combination waveform</td>
</tr>
</tbody>
</table>

### Electrical Specifications, Isolation

| Isolation at Frequency Band, output to output, minimum | 22 dB @ 1002–1218 MHz | 22 dB @ 54–1002 MHz |
| Isolation at Frequency Band, output to VoIP, minimum  | 22 dB @ 1002–1218 MHz | 22 dB @ 54–1002 MHz |
| Isolation at Frequency Band, VoIP to output, minimum | 22 dB @ 1002–1218 MHz | 22 dB @ 54–1002 MHz |

### Electrical Specifications, Rx (Uplink)

| Flatness                      | ±0.5 dB                                   |
| Gain Tolerance, video ports   | 0.0 dB ±1.0                               |
| Insertion Loss, video ports   | 0 dB                                      |
| Return Loss, minimum          | 20 dB                                     |
| Noise Figure, maximum         | 18 dB                                     |
| Operating Frequency Band      | 5 – 42 MHz                                |

### Electrical Specifications, Tx (Downlink)

| Flatness                      | ±0.75 dB                                  |
| Gain Tolerance, video         | 0.0 dB ±1.25                               |
| Noise Figure, maximum         | 9 dB                                      |
| Operating Frequency Band      | 54 – 1218 MHz                             |
| Return Loss, minimum          | 20 dB                                     |

### Electrical Specifications, VoIP

| Insertion Loss Rx, VoIP ports, maximum | 4.5 dB                                   |
| Insertion Loss Tx, VoIP ports, maximum | 5.5 dB                                   |
| Return Loss, VoIP ports, minimum     | 20 dB                                     |
Environmental Specifications

Operating Temperature: -40 °C to +60 °C (-40 °F to +140 °F)

Safety Standard: CE | SCTE

Packaging and Weights

Height, packed: 230.124 mm | 9.06 in
Width, packed: 290.068 mm | 11.42 in
Length, packed: 415.036 mm | 16.34 in
Carton Quantity: 20
Included: Power adapter

Weight, gross: 8.278 kg | 18.25 lb

Regulatory Compliance/Certifications

Classification: Designed, manufactured and/or distributed under this quality management system

Included Products

CSAPAE612V500 - Power Adapter for Subscriber Amplifiers, ac/dc, 12 V, 500 mA, EISA

* 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, 1st 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)
<table>
<thead>
<tr>
<th>Noise Figure, maximum</th>
<th>Total amplifier contribution</th>
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