



Home amplifiers

## OV-8420

The OV-8420 is an active splitter enabling downstream traffic up to 1.2 GHz with a 65/85 MHz split band. This allows operators to use the new DOCSIS 3.1 downstream spectrum with their customer enabling higher throughput and more efficient bandwidth use.

### OV-8420 features

- Extended frequency range 5-65/85-1218 MHz
- Amplification 0.5/2/4/8 dB matching different cable lengths
- Outstanding RF performance
- 4 outputs, all ports F-female
- Power Supply 12 VDC included
- ABS plastic housing included
- Kabel Keur PVE4.0 certified (up to 1006 MHz)

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## HOME AMPLIFIERS / OV-8420

TECHNICAL SPECIFICATIONS			
Downstream signal path		Upstream signal path	
Frequency range	85...1218 MHz	Frequency range	5...65 MHz
Return loss	18 dB <sup>(1)</sup>	Return loss	18 dB <sup>(1)</sup>
Gain		Gain	
Port 1	0.5 ± 1.0 dB	Port 1	1.0 ± 1.0 dB
Port 2	2.0 ± 1.0 dB	Port 2	1.0 ± 1.0 dB
Port 3	4.0 ± 1.0 dB	Port 3	1.0 ± 1.0 dB
Port 4	8.0 ± 1.0 dB	Port 4	1.0 ± 1.0 dB
Group delay		Group delay	
85...120	≤ 20 ns <sup>(2)</sup>	5...10	≤ 30 ns <sup>(4)</sup>
120...1218	≤ 10 ns <sup>(2)</sup>	10...65	≤ 10 ns <sup>(4)</sup>
Noise figure	≤ 6 dB	Noise figure	≤ 14 dB
Isolation port to port		Isolation port to port	
85...1006	27 dB	5...10	26 dB
1006...1218	23 dB	10...65	30 dB
Isolation output to RF IN		Isolation RF IN to outputs	
85...1218	26 dB	5...65	26 dB
CTB Distance	≤ - 65 dBc <sup>(3)</sup>	Intermodulation	
		2nd order	≤ - 60 dB <sup>(5)</sup>
		3rd order	≤ - 50 dB <sup>(6)</sup>
CSO Distance	≤ - 66 dBc <sup>(3)</sup>	Maximum input level	116 dBμV <sup>(7)</sup>
GENERAL SPECIFICATIONS			
Impedance	75 Ohm	Input / output connectors	F-female
Supply voltage DC	12 VDC, 270 mA	Dimensions L x W x H	100 x 85 x 26 mm 125 x 91 x 30 mm
Housing	Zinc-Alloy / ABS plastic	Operating temperature	0...+40 °C
EMC compatibility	IEC60728-2	Class of enclosure	IP20
Power Supply (switch mode AC/DC)		Screening effectiveness	
Input	110 - 240 VAC 50 Hz	5...30 MHz	exceeds Class A
Output	12 VDC, 500 mA	30...300 MHz	≥ 85 dB
Power Consumption	≤ 4.0 W	300...470 MHz	≥ 80 dB
Connector	3.5 mm DC plug	470...950 MHz	≥ 75 dB
		950...1218 MHz	≥ 55 dB
Galvanic isolation		Galvanic isolation	
Inner conductor input to inner conductor output	2120 VDC ≤ 0.7 mA <sup>(8)</sup>	Inner conductor input to inner conductor output	230 VAC ≤ 8.0 mA RMS <sup>(9)</sup>
Surge immunity		Spurious / Oscillation	
On all ports	1 kV, 1.2/50 μsec <sup>(9)</sup>	5-65 / 85-1218 MHz	≤ -20 dBμV
NOTES			
<p>(1) F &gt; 40 MHz -1.5 dB/oct.                      (2) Δ 4.43 MHz.                      (3) CENELEC 42 ch. @ (77 + gain) dBμV on the output.                      (4) Δ 2.0 MHz.                      (5) 2-tone test @ 115 dBμV, measured on input port.                      (6) 3-tone test @ 115 dBμV, measured on input port (≤ -62 dB acc. to DIN45004B 115/109/109 dBμV).                      (7) @ BER &lt; 1*10E-8.                      (8) Safety: IEC60728-11§10 / EN50083-1/A1§9. Requirement: 2120 VDC: T ≥ 1 minute, I ≤ 0.7 mA, 230 VAC: I ≤ 8.0 mA RMS.                      (9) Surge voltage according to IEC61000-4-5, EMC (Class 2, level 2) applied between the inner and outer conductor of each port.</p>			
ORDERING INFORMATION			
OV-8420	4-way amplifier		

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