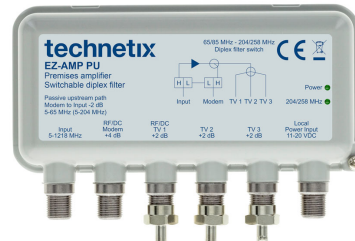


# 1.2 GHz premises amplifier with switchable duplex filters

- **DOCSIS 3.1 compatible amplifier**
- **Dedicated modem port with passive upstream and 4 dB downstream gain**
- **Switchable duplex filters from 65/85 to 204/258 MHz**
- **3 TV ports with 2 dB downstream gain**
- **2kV surge withstand on all ports**



## Overview

One of the major advantages of DOCSIS 3.1 is the extension of the downstream frequency band up to 1.2 GHz, as well as the uplift of the upstream to 204 MHz. While 1.2 GHz upgrades of networks have been ongoing for many years, the upstream is lagging behind, mainly due to FM bands which are still active in the network. Moving forward, it will become necessary to upgrade the upstream to higher capacity to support the relative downstream loading. However, 1.2 GHz in-home amplifiers are currently deployed with a fixed band-split at 65/85 MHz, resulting in the need to replace this device in the future when 204 MHz upstream is activated.

Technetix has resolved this issue and introduces the EZ-Amp series of amplifiers featuring switchable duplex filters to execute an upstream upgrade. Prepare for the upstream future when upgrading legacy 860 MHz or 1 GHz amplifiers today,

The upstream path of the EZ-Amp through the modem port is passive, therefore preventing any issues with amplifier saturation in the upstream.

# 1.2 GHz premises amplifier with switchable diplex filters

## Electrical specifications

Parameter		Frequency	Min	Typ	Max	Units	Details	Notes
Frequency range	Modem port downstream		85/258		1218	MHz		
	Modem port upstream		5		65/204	MHz		
	TV ports downstream		85/258		870	MHz		
Return loss	In and Modem	5 - 12	14			dB		
		12 - 65/204	18			dB		4
		85/258 - 1218	18			dB		4
	TV	85/258 - 870	18			dB		4
Isolation	Port to port	12 - 1218	24			dB		
Gain	Modem	85/258 - 1218		4		dB		
	TV ports	85/258 - 1218		2		dB		
Insertion loss	Upstream loss Modem > In	12			1.5	dB		1
		65/204			4.0	dB		1
Noise figure					6	dB		
Input level range	Max input level	Downstream			17	dBmV	per channel	
Output power	Max output level	Upstream			65	dBmV	per channel	
Surge	Surge withstand	On all ports	2			kV		2
Supply voltage	External power port		11		20	V	DC	
	Line power on Modem/TV1 ports		11		20	V	DC	
Power consumption				1.0	1.5	Watt		
Frequency	Default position switch	65/85 MHz						
	Switched position	204/258 MHz						

## Environmental specifications

Parameter		Min	Max	Units
Temperature range	Operational	-10	60	°C
	Storage	-20	85	°C

Parameter	Standard	Severity
IP rating	IEC 60529	IP55

## Mechanical specifications

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Parameter		Frequency	Min	Units	Details
<b>Connectors</b>	<b>All ports</b>	F Female			IEC 61169-24
<b>Connector Construction</b>					NiSn plated brass connector
					NiSn plated BeCu inner spring
<b>EMC</b>		5 - 300	90	dB	According IEC 60728-2 § 4.5
		300 - 470	85	dB	According IEC 60728-2 § 4.5
		470 - 1218	80	dB	According IEC 60728-2 § 4.5
<b>Housing material</b>	<b>Housing</b>				Die-cast aluminum
	<b>Plating</b>				Trivalent chromate
	<b>Mounting plate</b>				Plastic RAL 9010

## Notes

- 1 Linear point to point limit line
- 2 Tested according to IEC 60728-3
- 3 IP rating with all seal stickers in place and all ports terminated.
- 4 F > 40 MHz -1,5 dB/octave minimal 14dB

## Ordering information

Item name	Article number
EZ-AMP PU	19014182

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Diagram EZ-AMP PU EN

