



AC amplifiers

AC3010 & AC3210 1.2 GHZ INTELLIGENT TRUNK/ DISTRIBUTION AMPLIFIERS

These next-generation amplifiers deliver an incredible all-round performance, flexibility and cost-efficiency. Do not let the functional exterior fool you. You are looking at two of the most intelligent amplifiers on the market. These amplifiers are the ultimate usability enhancers.

For these amplifiers, we have incorporated the performance and features that address the needs of the most demanding customers. They are user-friendly and reliable, robust yet compact. On both amplifiers the amplifier stages are based on a high-performance solutions that make the usable gain range especially wide and provides high output levels. Both of these amplifiers also support the DOCSIS® 3.1 frequencies.

TELESTE

AC3010 & AC3210 AMPLIFIERS FOR HEAVY DUTY NEEDS

Based on the latest GaN technology the amplifier ensures optimised power consumption while offering high output level. AC3010 is a single active output amplifier with 48 dB maximum gain. The AC3210 is a dual active output amplifier with 2 x 48 dB maximum gain. Both amplifiers offer high output levels (U_{max} 115.0 dB μ V, 112 channels).

1. Always in control

Conventional mechanical adjustments and management of the parameters are laborious and time-consuming processes. The days of frequent maintenance tasks are over.

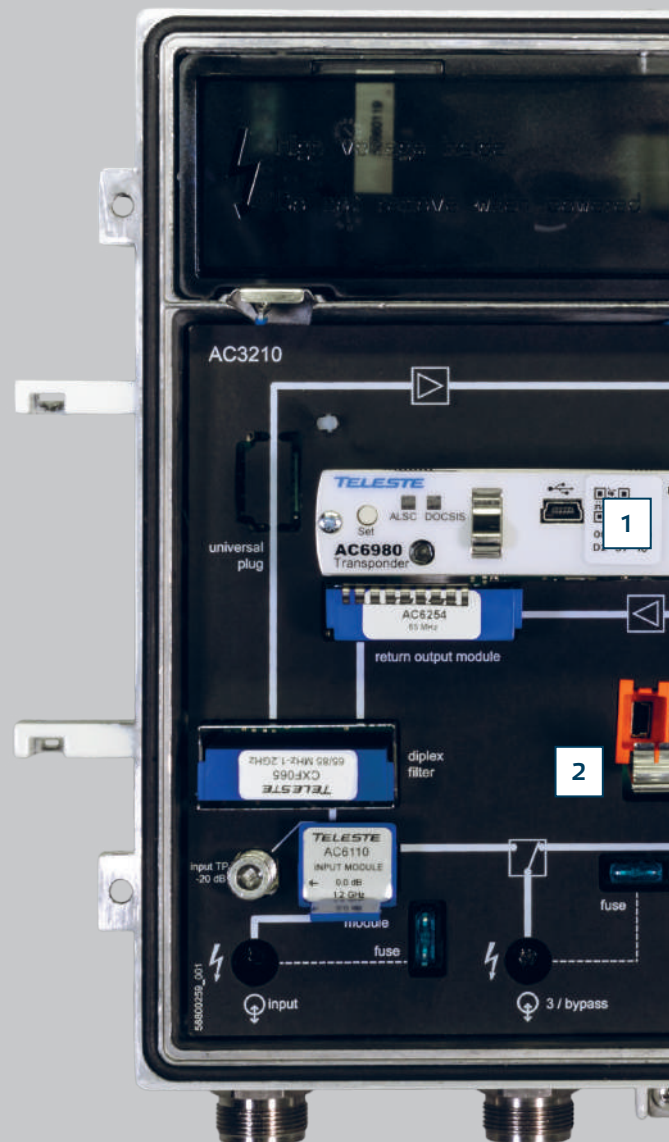
In addition to being automatically aligned, the amplifiers can be monitored and controlled remotely via the optional plug-in transponder unit. The transponder unit offers three different management options: CATVisor, HMS and DOCSIS.

2. Easy management even on the site

The node can be accessed locally via a USB port. The USB port also enables wireless local management via Bluetooth® and Teleste Commander application for Android smartphones and tablets.

3. Power supply with active power factor correction

The combination of high output level, 1.2 GHz DS frequency, and smart features can be potentially power-consuming. In the AC3010/3210 this challenge is solved by built-in active power factor correction and clever design that guarantee low power consumption.

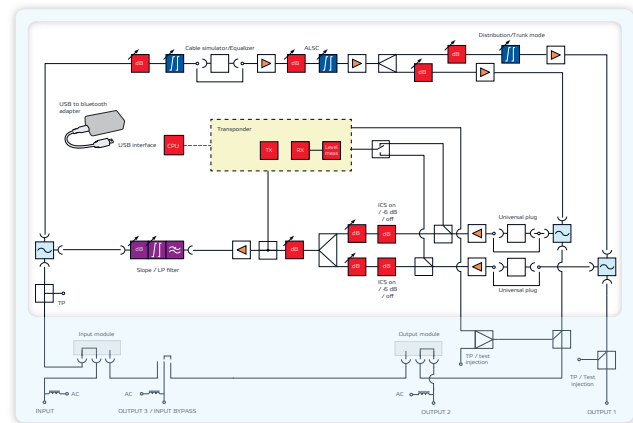


AC3010/3210 and the environment

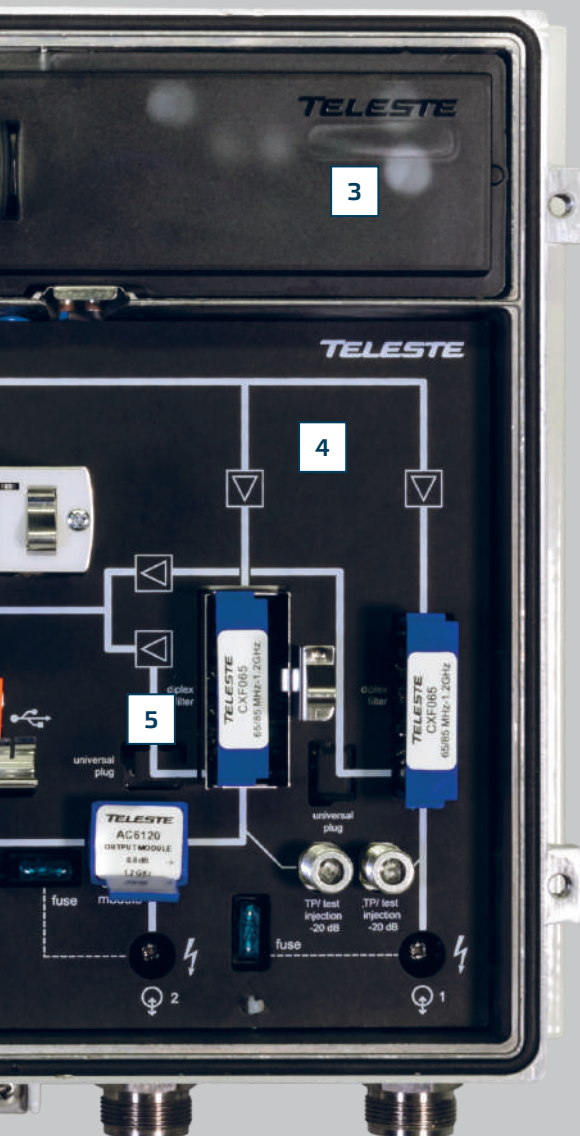
- Power supply with active power factor correction
- Compact size with reduced material consumption
- High performance means less active units in the field

Features

- Supports up to 1.2 GHz DS and 204 MHz US
- Forward amplifiers use the latest GaN technology
- 48 dB maximum gain
- Active power factor correction
- Efficient ESD and Surge protection



ACE3210 block diagram, smart functionalities are illustrated on the white area.



4. Removing barriers with RIS

Ingress can often generate problems that are challenging to locate and can also far too often disrupt services and irritate end-users. It is a great advantage to have the possibility to isolate and locate ingress noise sources.

The Teleste RIS (Remote Ingress Switching) system allows for low-cost ingress detection and countermeasures at the headend. RIS makes it possible to quickly isolate the ingress-polluted line and secure proper operations for all of the other return segments. The system consists of a headend HDM155 RIS controller module and low-cost RIS receiver module installed in the field equipment. The RIS receiver module, AC6915, is controlled by an FSK data signal. Two-way system operation is not required.

A cost effective RIS module also enables the use of Argus Smart RIS toolset if Argus NMS is used to manage the network. Smart RIS is the most advanced unidirectional remote ingress switching management system available on market.

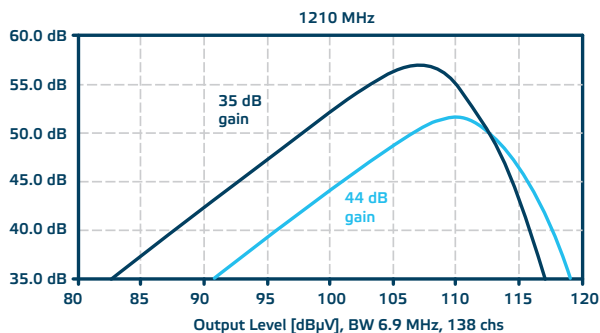
5. Easy upgrading

Upgrading US to 85 MHz or 204 MHz is simple. There is no need to change the return path amplifier, but only duplex filters and a passive plug-in modules.

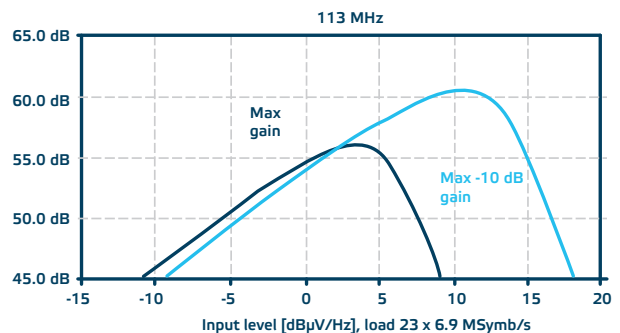
AC3010 & AC3210 / 1.2 GHZ INTELLIGENT TRUNK/ DISTRIBUTION AMPLIFIERS

AC3010 / AC3210 TRUNK AND DISTRIBUTION AMPLIFIER		AC6992 TRANSPONDER MODULE (CATVISOR AND HMS)	
DOWNSTREAM SIGNAL PATH		RF MODEM	
Frequency range	85...1218 MHz	Power consumption	1.8 W
Maximum gain	48 dB / 2 x 48 dB	DS frequency range	80...88 MHz, 108...132 MHz, 160...176 MHz, 216...264 MHz
Pivot point frequency selection	1 GHz / 1.2 GHz	US frequency range	5...65 MHz
Umax(112 x QAM channels) @ 1.0 GHz	115 dBμV	DS input level range @ transponder	60...90 dBμV
Umax(138 x QAM channels) @ 1.2 GHz	112.0 dBμV	US output level range @ transponder	75...104 dBμV
CTB 41 channels	118.0 dBμV	RF LEVEL MEASUREMENTS	
CSO 41 channels	119.0 dBμV	DS measurement range	50...1218 MHz, 0.25 MHz steps
CINR	See curves	US measurement range	5...204 MHz, 0.25 MHz steps
UPSTREAM SIGNAL PATH		Measurement bandwidth	0.35 MHz
Frequency range	5... up to 204 MHz	DS dynamic range	80...120 dBμV
Max gain	28 dB / 2 x 28 dB	US dynamic range	20...75 dBμV
Gain control	-20...0 dB		
CINR	See curves		
GENERAL PLATFORM CHARACTERISTICS			
Power consumption	30 W / 41 W		
Max current feed through	7 A / port		
Dimensions (h x w x d)	(AC3010) 245 mm x 255 mm x 100 mm / (AC3210) 245 mm x 255 mm x 107 mm		
Weight	(AC3010) 3.0 kg / (AC3210) 3,9 kg		
Class of enclosure	IP67		
EMC	EN50083-2		
ESD	4 kV		
Surge	6 kV (EN 60728-3)		

CINR (Downstream)



CINR (Upstream)



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