

Intelligent Amplifier

The AC3200 intelligent amplifier is the newcomer in our highly praised new generation of intelligent broadband amplifiers. The Access 3000 series of broadband amplifiers allows the operators to make the most of the 21st century with its user friendly and advanced Onlign technology. Loaded with some of the smartest technology, this new breed of intelligent broadband amplifiers sets an unbeatable standard for easy operation.



AC3200 Intelligent Amplifier – better value for investments

To meet future requirements in the broadband business, environment operators are challenged with working towards ever greater speed, agility and cost-effectiveness. Areas of focus that are just as important are network availability, ease of installation and maintenance. With the AC3200 intelligent amplifier you can keep up with customers and competitive requirements and turn challenges into a competitive advantage.

Competitive advantage

The numerous and often complex adjustments required from today's HFC networks demand the use of computer technology for these functions to be performed automatically, effectively and at high speeds. This capability is achieved in the AC3200 through the use of a new microprocessor-based control system. The new Onlign technology delivers digital precision to everyday operation. This is an amplifier platform operators can count on, engineered to provide reliable performance and easy alignment. Along with its simplicity and enviable performance, the easy operation stands out as its key advantage.

Intelligent alignment

The advantages of the Onlign technology presented in the AC3000 amplifier with one active output are even more pronounced in the new AC3200 amplifier with two active outputs. With Onlign technology, the advanced microcontroller system monitors all vital parameters and makes adjustments automatically. All monitoring and adjustment is carried out without signal interrupt. This comprehensive control system replaces conventional mechanical adjustments and laborious control of parameters with a reliable system that responds quickly to any indication of a problem. All the adjustments are electrical and controlled with a management interface. No plug-in attenuators or equalisers are needed. All this makes the amplifier installation and control easy and comfortable.

In order to optimize HFC network performance, it is essential that the systems are aligned so that the amplifiers operate at the best compromise between noise and distortion. An intel-

ligent and automatic alignment system with wide gain control range ensures optimum operation of the amplifiers. Only in this way can the required quality of signal and level of reliability for the broadband transmission solutions be fully achieved.

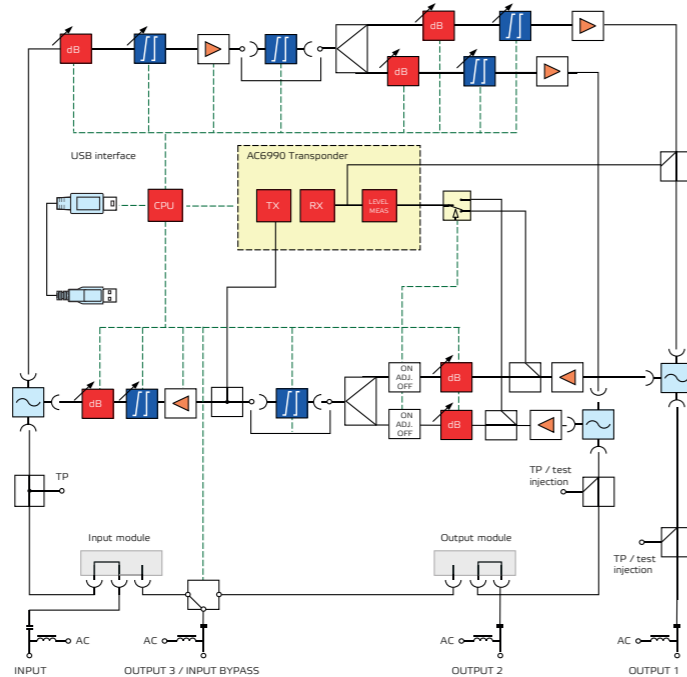
Discover the capabilities

The upstream signal path in the AC3200 has many benefits compared to average products on the market. There is an extremely high gain with output and mid-stage gain controls, and signal level or unwanted disturbances like ingress can be monitored even in cases where the return channel is switched off.

In addition to its automatic alignment routines, the AC3200 features built-in ALSC circuits which can be

activated easily with the addition of the transponder unit AC6990. The advanced ALSC (Automatic Level and Slope Control) function operates from operator programmable pilot frequencies (QAMs or analogue TV carriers) to keep the AC3000's output signal at its adjusted value.

The transponder unit AC6990 is capable of collecting data from all active and monitored devices and together with the Element Management System (EMS) it provides a comprehensive network management tool. The CATVisor™ Commander offers a user friendly interface which supports configuration management as well as control over all vital RF and environmental parameters. The transponder unit also provides a gateway to access the amplifier remotely. The USB interface in the amplifier itself enables local control through PDA or laptop.



There are numeral reasons why broadband operators can expect more from our AC3200 broadband amplifiers. They are packed with ingenious yet practical solutions. However these sophisticated amplifiers are also the simplest to use. With fully automated operation the only thing you need to know about the amplifier is how to push the "red button".

The local USB interface enables local control through PDA or laptop.

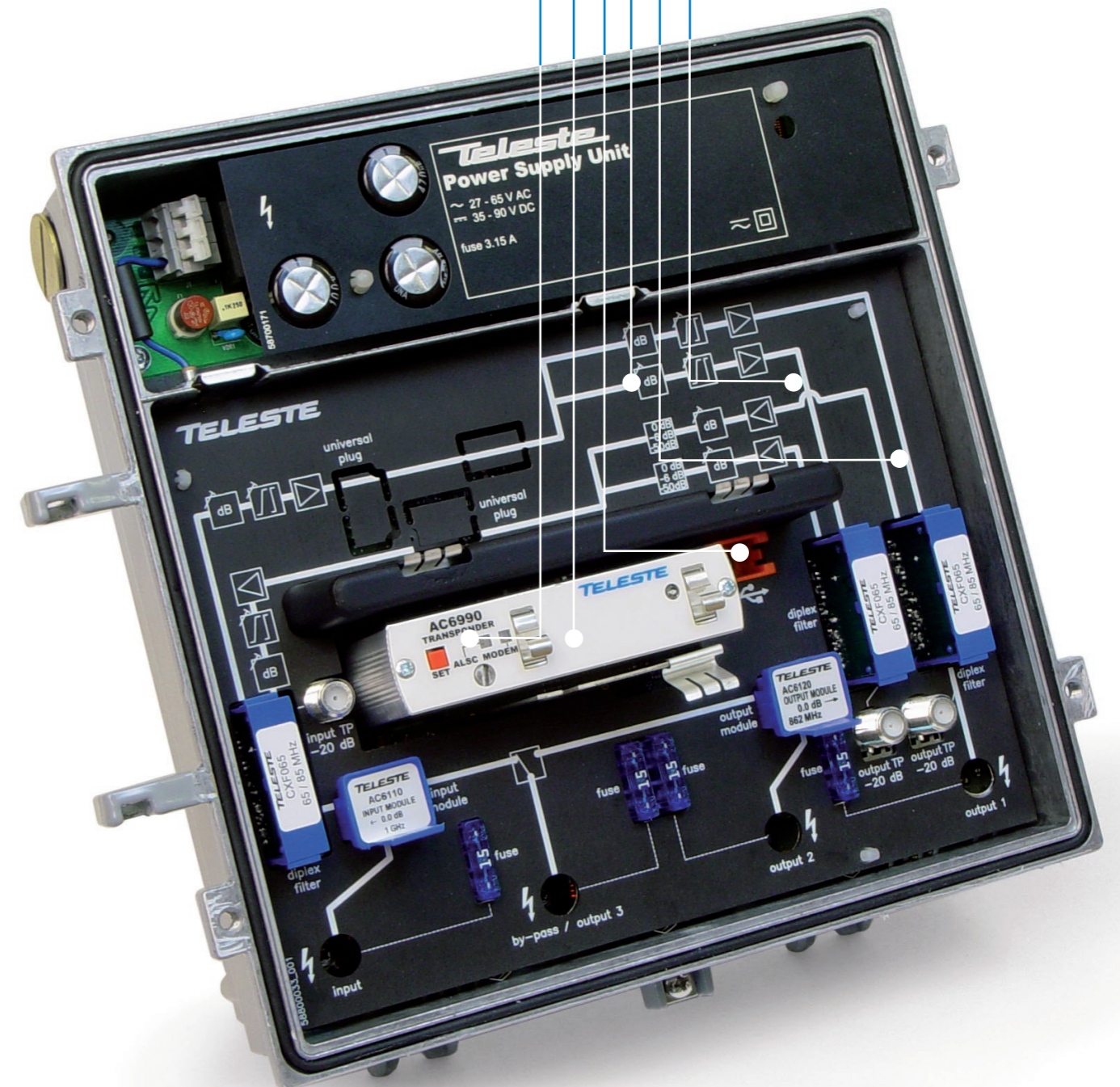
The AC6990 optional transponder module can be used to add remote connectivity, ALSC and up-and downstream signal monitoring functionality to AC3200 platform.

With the touch of the famous red button the amplifier is automatically aligned in both signal directions in a matter of seconds. All the needed settings can be programmed either at the factory or by the user. The procedure can be repeated, reliably at any time you want. It is that simple.

All the adjustments are electrical and controlled with a management interface. No plug-in attenuators or equalisers are needed.

Two separately monitored upstream ports with automatic noise level detection. An alarm is generated when the user configurable alarm limits are exceeded.

Both outputs with individual level and slope settings are fully controlled with automatic alignment.



The AC3200 intelligent amplifier is packed with the advantages you are looking for. No other broadband amplifier compares, because nobody else offers features like these. Field-proven reliability. Outstanding performance. Easy operation with fully automatic, microprocessor based electronic control system. Comprehensive monitoring system.

Let the AC3200 intelligent amplifier help you keep your network operation at the level of performance your customers expect – both now and in the future.



Onlign TECHNOLOGY

Technical specifications

AC3200 INTELLIGENT AMPLIFIER

Downstream signal path		Upstream signal path	
Frequency range	47... 1000 MHz	Frequency range	5...85 MHz
Return loss	20 dB	Return loss	18 dB
Gain	2 x 27...39 dB	Maximum gain	2 x 30 dB
Flatness	± 0.4 dB	Ingress switching	0 dB / -3...-15 dB / off
Noise figure	6.8 dB	Flatness	± 0.3 dB
CTB 41 channels	114.0 dBµV	Noise figure	8.0 dB
CSO 41 channels	117.0 dBµV	Output level DIN 45004B	118 dBµV
XMOD 41 channels	112.0 dBµV	CINR	> 57 dBc

General

Power consumption	36.5 W	Dimensions (h x w x d)	245 mm x 255 mm x 100 mm
Supply voltage / remote	27...65 V AC or ±33...90 V DC	Weight	3.0 kg
/ local	205...255 V AC	Operating temperature	-40...+55 °C
max current feed through	8.0 A / port	Class of enclosure	IP67
Hum modulation	70 dB	EMC compatibility	EN50083-2 (IEC 60728-2)
Input / Output	PG11 (several adaptors available)	ESD	4 kV
Test point	F female	Surge	6 kV
Local service port	USB mini-B		

AC6990 TRANSPONDER MODULE

RF modem		RF level measurements	
Power consumption	2 W	DS measurement range	50...862 MHz
DS frequency range	80... 155 MHz	US measurement range	5...65 MHz
US frequency range	5...45 MHz	Measurement bandwidth	1.5 MHz
DS input level range	50...90 dBµV	DS dynamic range	80...120 dBµV
US input level range	75...100 dBµV	US dynamic range	15...75 dBµV