Product Information / AC3000

Intelligent Amplifier

Teleste amplifiers mean reliability – more than ever now. Packed with some of the smartest technology the new breed of broadband amplifiers was born to make operators' life simpler. The completely new AC3000 amplifier with Onlign technology sets a new standard for easy operation.

AC3000 Intelligent Amplifier – better value for investments

To meet future requirements in the broadband business environment operators are challenged to work with ever greater speed, agility and cost-effectiveness. Challenges that are just as important are network availability, ease of installation and maintenance. With the AC3000, intelligent amplifier you can keep up with customer and competitive requirements and turn challenges into competitive advantage.

Customer needs in focus

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 AC3000 through the use of the new microprocessor-based control system. The new Onlign technology gives digital precision to everyday operation. This is an amplifier platform operators can count on; engineered to provide reliable performance and easy alignment.

Intelligent alignment

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 responding quickly to any indication of problems. 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.

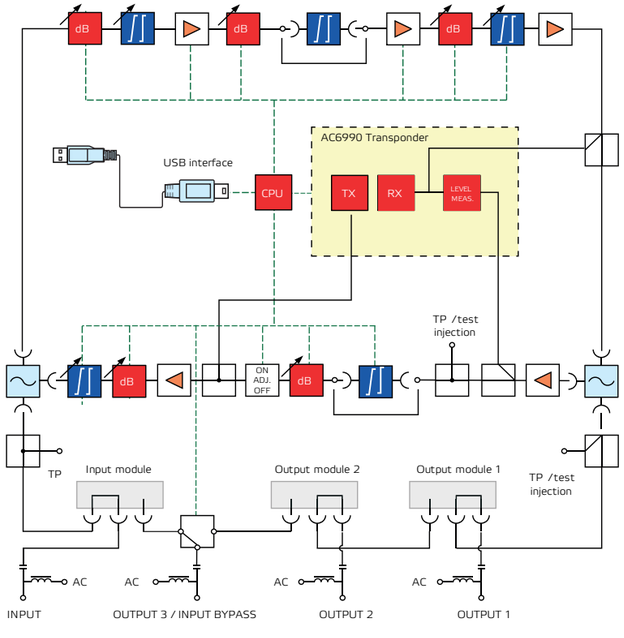
In order to optimize HFC network performance, it is essential that the systems are aligned so that amplifiers operate at the best compromise between noise and distortion. An intelligent and automatic alignment system with huge gain control range ensures optimum operation of the amplifiers. Only in this way can the required quality of signal and level of reliability for the broadband transmission solutions be fully achieved.

Extraordinary capabilities

The upstream signal path in AC3000 has many benefits compared to average products on the market. There is an extremely high gain with output and mid-stage gain controls. Signal level or unwanted disturbances like ingress can be monitored even in the cases where return channel is switched off.

In addition to its' automatic alignment routines, the AC3000 features built-in ALSC circuits which can be activated easily by adding the transponder unit AC6990. Advanced ALSC (Automatic Level and Slope Control) function operates from operator programmable pilot frequencies (QAMs or analogue TV carriers) to keep 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) provides a comprehensive network management tool. CATVisorTM Commander offers a user friendly interface supporting 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 AC3000 broadband amplifiers. They are packed with ingenious solutions such as continuous electrical adjustments; automatic gain/slope adjustments; and integrated microprocessor control that provides fully automated operation.

Downstream and upstream signal path With ingress control and integrated microprocessor that provides fully automated operation with single push button alignment these new amplifiers deliver the perfect package of performance, reliability and ease of use.

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

AC6990 Optional transponder module consisting of RF modem and level measurement unit. It can be used to add remote connectivity, ALSC and up- and downstream signal monitoring functionality to AC3000 platform.

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

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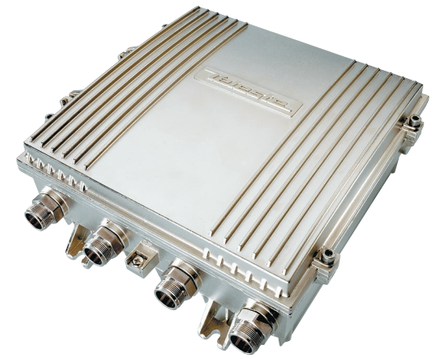
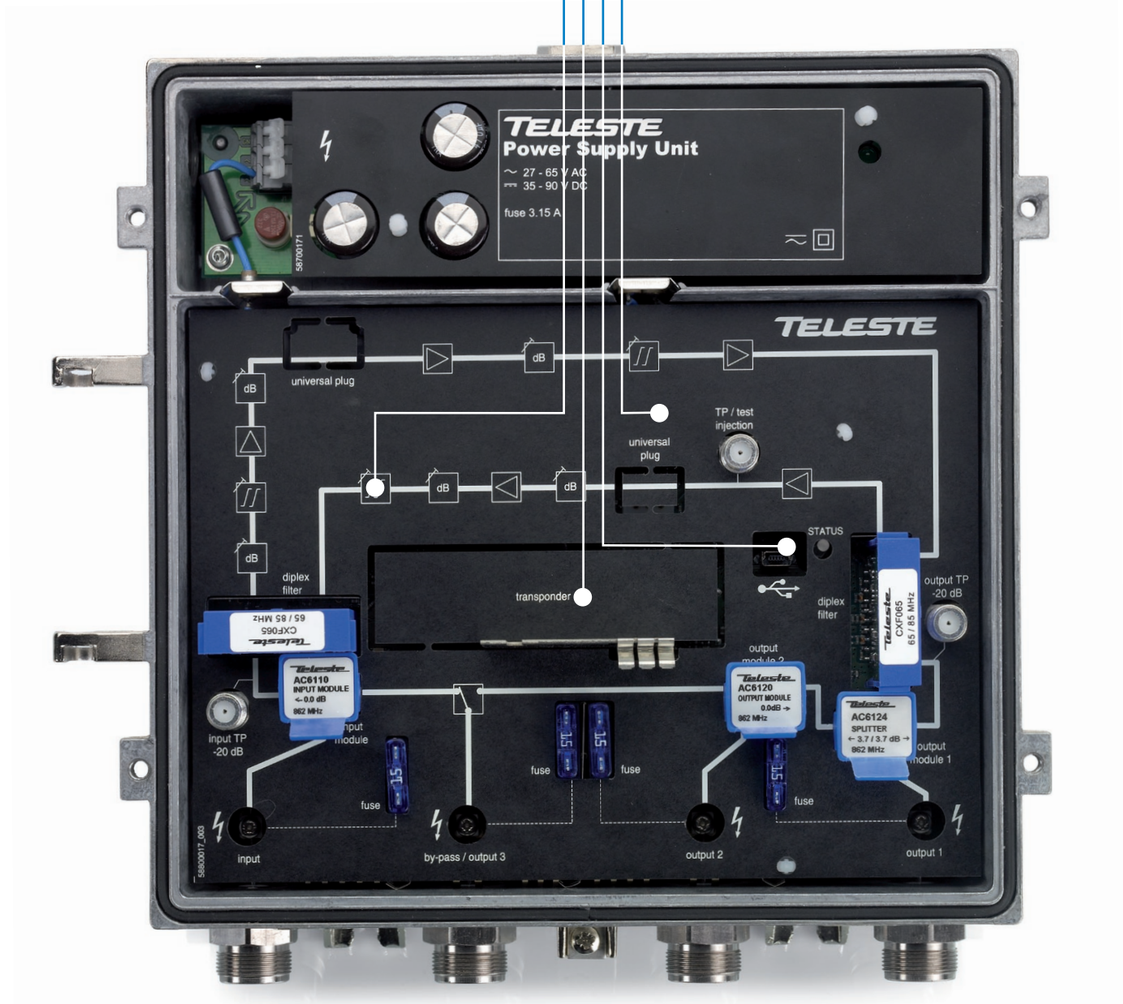


Onlign TECHNOLOGY



The AC3000 intelligent amplifier has what you are looking for. Reliability. Performance. Easy operation. Along with its simplicity and enviable performance, the easy operation comes to the front as its key advantage. So if you are looking for a compact amplifier packed with a lot of features and a whole lot of performance, look closely at Teleste's new intelligent amplifier; the AC3000.

Just push the button.

Technical specifications

AC3000 INTELLIGENT AMPLIFIER

Downstream signal path		**Upstream signal path**	
Frequency range	47…1000 MHz	Frequency range	5…85 MHz
Return loss	18 dB	Return loss	18 dB
Gain	19…40 dB	Maximum gain	30 dB
Flatness	±0.5 dB	Ingress switching	0 dB / -3…-15 dB / off
Noise figure	6.4 dB	Flatness	± 0.3 dB
CTB 41 channels	114.5 dBµV	Noise figure	5.8 dB
CSO 41 channels	117.0 dBµV	Output level DIN 45004B	118.0 dBµV
XMOD 41 channels	112.0 dBµV	CINR	> 58 dBc

General			
Power consumption	27 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 ºC
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

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