

Universal amplifier

The CXE180 is the latest addition in our extensive range of amplifiers and it might just be the best amplifier there is for distribution or line extender applications. The amplifier's compact size and light weight brings out its usefulness, while its proven technology gives it plenty of output muscle. It offers versatility on output configuration and easy operation without the need of plug-in attenuators or equalisers. This new amplifier offers a remarkable combination of reliability and top performance in a small package. What would be better?



Versatility in a small package

If you are looking for a compact solution for a modern distribution network, we would like to introduce the CXE180 amplifier.

CXE180 is a robust, well performing 1 GHz all-around amplifier, intended for operators who appreciate high performance, cost efficiency and easy installation.



- High output level
- Cable simulator option
- Plug-in diplex filters
- Fixed US amplifier
- All adjustments with rotary switches
- Remote/local powering
- No additional accessories

The new CXE180 is a dual output distribution amplifier for which reliability and total economy have been the guiding principles. It is based on our in-depth know-how in broadband amplifiers to deliver performance and functionality on a scale that makes it ideal for any distribution purposes at a competitive price.

CXE180 is a compact high performance, bi-directional distribution amplifier with 1 GHz frequency range in the downstream and up to 85 MHz in the upstream. The amplifier has a reliable and flexible power supply concept that allows it to be powered either locally or remotely with up to 3 A feed through current per port. The high performance output stage uses latest technology to improve RF performance over the entire 47...1006 MHz frequency range and ensures low power consumption. The amplifier is suitable for both indoor and outdoor installation as the rating for the class of enclosure is IP54.

The CXE180 amplifier combines the advantages of two gain modes with the flexibility of use a full range of output modules. Gain can be selected easily in the field according to wanted operation. Higher gain of 40 dB is designed to be used for distribution purposes, while the lower 32 dB gain is suitable for line extender use.

The design of the CXE180 operational concept is based on the idea that the greatest possible reliability and lowest maintenance requirement is achieved by abandoning the use of variable attenuators. Therefore the gain and slope adjustments are based on proven technology using electronical controls, thus eliminating the need for the usual plug-in attenuators in system setup. The concept further offers increased robustness in terms of repeatability and reliability, under all conditions.

In order to simplify configuration the amplifier was designed with an integrated upstream amplifier. An optional feature on the upstream path includes ingress blocker CXF065 18. This is a diplexer with integrated high-pass filter which can be used to eliminate undesired ingress noise which may appear from the distribution lines. Lower ingress level guarantees the safe operation of the element management system (EMS) and essentially prevents unnecessary overload of the upstream transmitter.

The amplifier is ready for future possibilities and options with a comprehensive plug-in diplex filter selection with 85 MHz expansion in the upstream. A choice of several diplex filter options and up to six output modules enhances the CXE180's functionality, and efficient ESD and Surge protection further more its dependability. Versatile, powerful and reliable, CXE180 is certainly the amplifier that can do the most under demanding distribution challenges.

No need for usual plug-in accessories in system set-up.

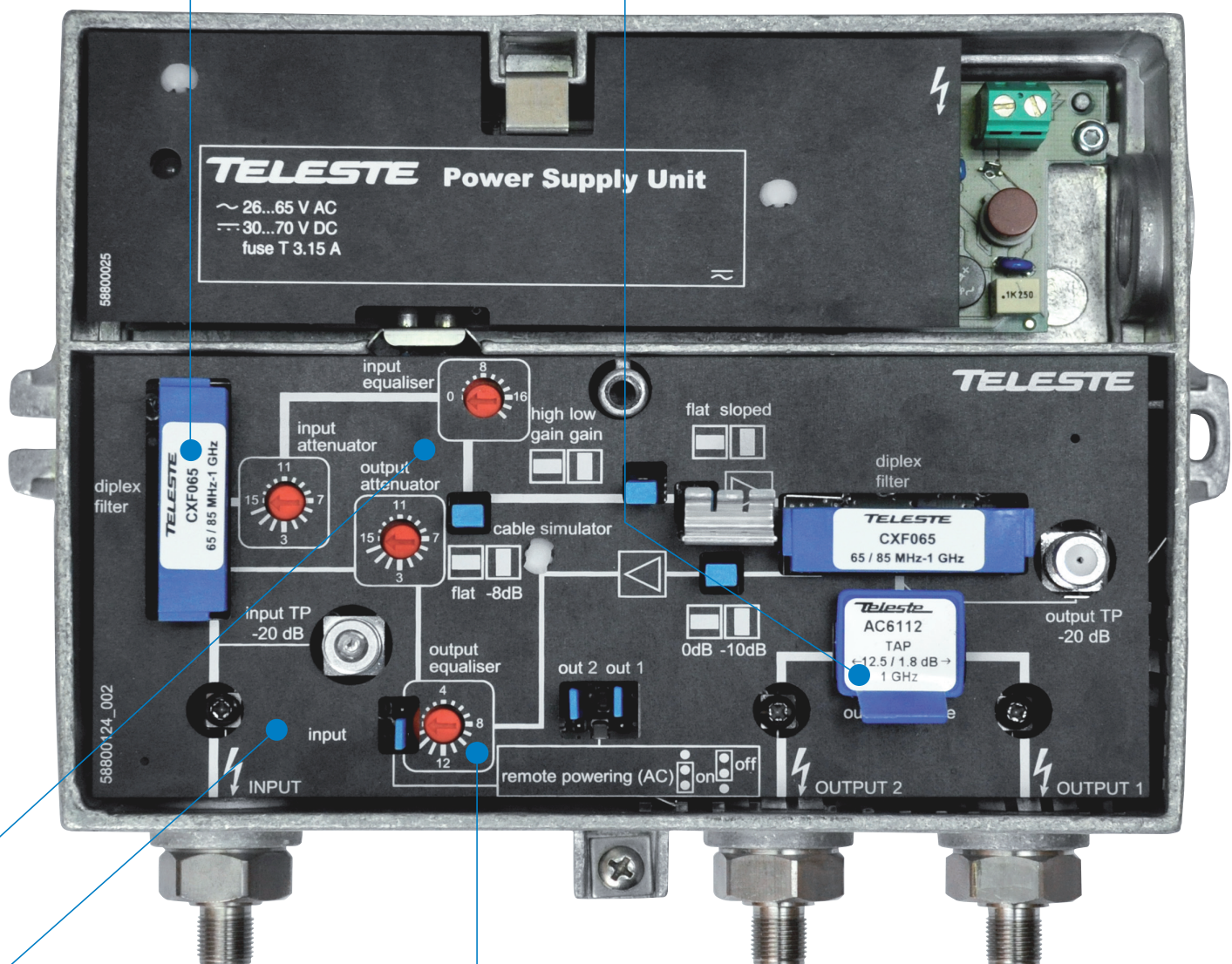
Integrated upstream amplifier enables extended operation up to 85 MHz

The CXE180 uses plug-in diplex filters which can be changed for a different frequency split as required:

- CXF30 – 30/47 MHz
- CXF42 – 42/54 MHz
- CXF50 – 50/70 MHz
- CXF65 – 65/85 MHz
- CXF85 – 85/108 MHz

It is possible to have two outputs using the following separately orderable plugs:

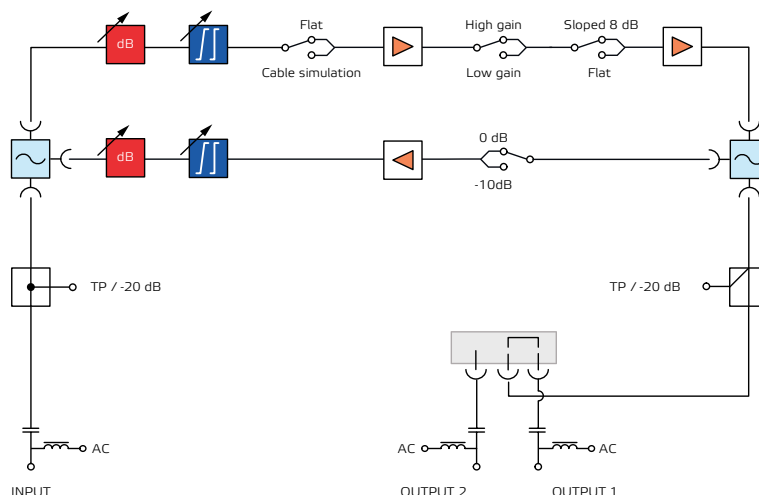
- AC6124 – Splitter, 2 x 4 dB
- AC6128 – Tap, 2 dB / 9 dB
- AC6112 – Tap, 1 dB / 12 dB
- AC6116 – Tap 1 dB / 16 dB
- AC6119 – Tap 1 dB / 20 dB



Electrical adjustments with rotary switches allow uninterrupted operation.

Features

- Proven and reliable technology
- Simple and easy installation
- Integrated upstream amplifier
- 1 GHz frequency range in downstream
- Up to 85 MHz frequency range in upstream
- Electronic adjustments with rotary switches
- No additional accessories in system setup
- Low power dissipation
- Cable simulator option at input
- Excellent ESD and Surge protection



Technical specifications

CXE180 UNIVERSAL AMPLIFIER			
Downstream signal path		Upstream signal path	
Frequency range	47 / 54/ 70 / 85 / 108... 1006 MHz	Frequency range	5...30 / 42 / 50 / 65 / 85 MHz
Return loss	18 dB	Return loss	18 dB
Gain	40.0 dB	Gain	27.0 dB
Input attenuator control range	0...-15 dB	Gain control range (output)	0...-15 dB
Input equaliser control range	0...20 dB	Gain control range (input)	0 / -10 dB
Cable simulator	0 / -8 dB	Slope control range	0... 15 dB
Mid-stage gain slope	8 / 0 dB	Flatness	± 0.75 dB
Mid-stage gain selection	40.0 dB / 32.0 dB	Noise figure	5.0 dB
Flatness	± 0.5 dB	Output level, DIN 45004B	113.0 dBµV
Group delay	2 ns		
Noise figure	7.0 dB		
Output level, CTB 41 channels	112.0 dBµV		
Output level, CSO 41 channels	114.0 dBµV		
Output level, XMOD 41 channels	11.0 dBµV		
General			
Power consumption	14 W	Dimensions (h x w x d)	148 mm x 210 mm x 84 mm
Supply voltage / remote	26...65 V AC	Weight	1.5 kg
/ local	180...255 V AC	Operating temperature	-40...+55 °C
Max. current feed through	3 A / port	Class of enclosure	IP54
Input / Output	PG11 (several adaptors available)	EMC compatibility	EN50083-2
Test point	F female	ESD	4 kV
Hum modulation	70 dB	Surge	6 kV

