

CX series - 1794/204 MHz

DISTRIBUTION
AMPLIFIERS

CX4R-D and CX4R-DG

The CX4R is a compact amplifier and the amplifier stages are based on extremely high performance GaN solution that makes the usable gain range especially wide and allows high output level. Alignment can be made using electrical circuits that are controlled with push buttons. A fixed high gain return amplifier circuit is fixed on the motherboard. The amplifiers are remote powered. In addition to RF ports, power can also be supplied through a separate connector at the side of the PSU. It also features a bypass port next to the input port. The amplifier comes in two variants, one is a group amplifier CX4R-DG and another is an end amplifier CX4R-D.

CX4R-D and CX4R-DG features:

- 1.8 GHz forward path
- Up to 492 MHz return path
- Push buttons and a display for easy alignment
- Return Follows Forward
- Remote Ingress Switching
- Power Save mode
- Cable Simulator
- Bypass port at input

TELESTE

CX4 SERIES THE FIRST EUROPEAN STYLE 1.8 GHz AMPLIFIER

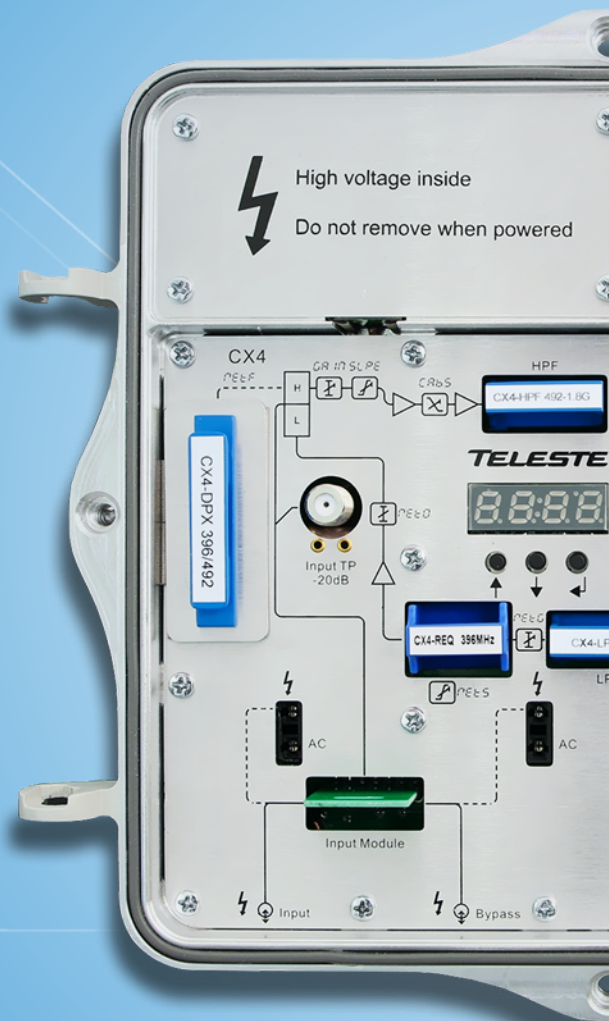
The CX4 is a compact amplifier and it is designed to meet the evolving needs of cable operators and their subscribers. The CX4 stands as the first amplifier of its kind in Europe, featuring compatibility to both 1.8 GHz and 1.2 GHz networks.

Next-generation broadband technology

The CX4 offers a versatile, high-performance solution for maximizing existing DOCSIS 3.1 networks and future-proofing for DOCSIS 4.0. Its flexibility enables operators to install it in their 1.2 GHz networks now and seamlessly upgrade to 1.8 GHz later with different split frequencies between upstream and downstream.

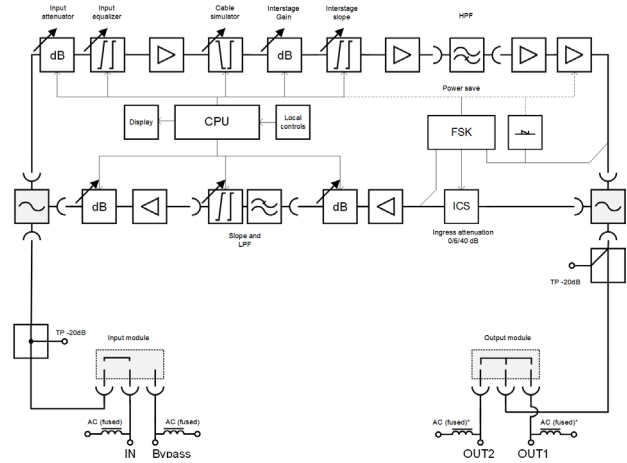
Energy-efficient performance

The CX4 features a Power Save mode that allows operators to optimize power consumption in relation to the needed network signal levels. This mode is particularly beneficial when network loading is lower, as it allows operators to conserve energy without compromising on performance.

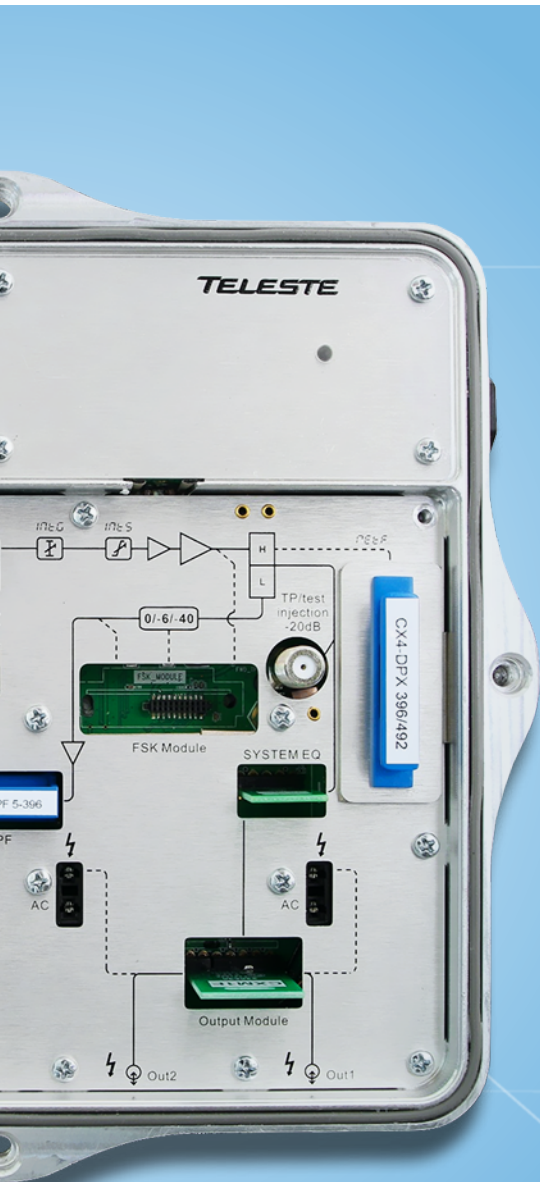


Excellent capabilities

The CX4's return path reaches up to 492 MHz, set through diplexers and filter modules. Additionally, the amplifier boasts a high gain return amplifier, seamlessly integrated to the motherboard. Coupled with the broad usable gain range and high output levels, this ensures that the compact CX4 consistently delivers excellent RF performance.



CX4 block diagram



Improved subscriber services

Facilitating the maintenance of exceptional service quality, the CX4 is equipped with ingress control switches, making it efficient to detect and control ingress issues and helping operators minimise service outages. The switches can be operated remotely via an optional module.

User-friendly, robust, and reliable

The CX4 boasts a user-friendly interface with push-button controls and a clear display, simplifying operation. Its electrical circuit-based configuration streamlines alignment, while its robust IP67-rated enclosure ensures reliability in any environment, making it an ideal component for broadband infrastructure.

CX4 SERIES / DISTRIBUTION AMPLIFIERS

TECHNICAL SPECIFICATIONS ⁽¹⁾			
Downstream signal path		Upstream signal path	
Gain	51 dB ⁽²⁾	Gain	32 dB ⁽²⁾
Frequency range	258...1794 MHz	Frequency range	5...492 MHz
Return loss	≥ 18 dB ⁽³⁾	Return loss	≥ 18 dB
Input attenuator	0...20 dB ⁽⁴⁾	Output attenuator	0...20 dB ⁽⁴⁾
Input equalizer	0...24 dB ⁽⁴⁾	Interstage attenuator	0...20 dB ⁽⁴⁾
Cable simulator	0 dB/15 dB	Equalizer	0...20 dB ⁽⁴⁾
Interstage attenuator	0...20 dB ⁽⁴⁾	Ingress Control Switches	0 dB/-6 dB/-45 dB ⁽⁶⁾
Interstage equalizer	0...20 dB ⁽⁴⁾	Flatness	±1 dB ⁽⁵⁾
Flatness	±1 dB ⁽⁵⁾	Noise figure	9 dB
Noise figure	9 dB	Total Composite Power	61 dBmV
Total Composite Power	68 dBmV		
GENERAL SPECIFICATIONS			
Connectors	Input and output: 5/8" threads Test points: F connector		
Test points	20 dB input and output		
Impedance	75 Ω	Operating temperature	-20...+65 °C
Power supply	30...90 VAC	Class of enclosure	IP67
Power consumption	< 25W	Safety	EN/IEC 60728-11
Housing	Die-cast Zinc or Aluminum	EMC	EN 50083-2
Dimensions	25 x 21 x 11 cm (w x h x d)	ESD	2 kV
Weight	2 kg	Surge	2 kV
NOTES			
<p>(1) Typical values. (2) Nominal gain in room temperature. (3) The limiting curve is defined at 204 MHz -1.5 dB / octave. Return loss is always > 13 dB. (4) Electronic circuit with 0.5 dB step size. (5) Over the entire temperature range. (6) Ingress switching requires an optional module.</p>			
ORDERING INFORMATION			
CX4R204D	End amplifier, 2 x 204/258 MHz duplexers, upstream 204 MHz module, downstream 258 MHz module, 0 dB input module, output splitter module, 3A fuse at input port, 2 x IECM14 5/8" adapter, 5/8" plug at bypass port.		
CX4R396D	Same as CX4R204D but with 396/492 MHz duplex filters and upstream and downstream modules.		
CX4R492D	Same as CX4R204D but with 492/606 MHz duplex filters and upstream and downstream modules.		
CX4R204DG	Group amplifier, 2 x 204/258 MHz duplexers, upstream 204 MHz module, downstream 258 MHz module, 0 dB input module, output splitter module, 10 A fuses at input and output ports, IECM 14 5/8" adapter, 5/8" plug at bypass port.		
CX4R396DG	Same as CX4R204DG but with 396/492 MHz duplex filters and upstream and downstream modules.		
CX4R492DG	Same as CX4R204DG but with 492/606 MHz duplex filters and upstream and downstream modules.		
OPTIONAL ACCESSORIES			
204/258 MHz kit	2 x duplexer 204/258 MHz, upstream module 204 MHz and downstream module 258 MHz		
396/492 MHz kit	2 x duplexer 396/492 MHz, upstream module 396 MHz and downstream module 492 MHz		
492/606 MHz kit	2 x duplexer 492/606 MHz, upstream module 492 MHz and downstream module 606 MHz		
CXM1E	Minimum loss input/output module		
CXM5E	Splitter input/output module		
CXM8E	8 dB tap input/output module		
CXM14E	14 dB tap input/output module		
CXT series	Remote control modules, please contact us for more details.		



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