

CX series - 1794/204 MHz

DISTRIBUTION  
AMPLIFIERS

## CX4R-D and CX4R-DG

The CX4 is a compact single active, dual output amplifier. The amplifier stages are based on extremely high performance GaN solution that makes the usable gain range especially wide and allows for high output level. The amplifier comes in two variants, a Group Amplifier CX4-DG and an End Amplifier CX4-D. Both variants can be equipped with an HMS transponder, allowing for remote control of features such as Ingress Switches and Power Save. Alignment can be done using electronic circuits controlled with push buttons. A high gain return amplifier circuit is fixed on the motherboard. The amplifier is remote powered and features a combined RF and AC bypass port next to the input port.

### CX4R-D and CX4R-DG features:

- 1.8 GHz forward path
- Up to 492 MHz return path set by plugin modules
- Push buttons and a display for easy adjustment
- Automatic Split detection
- Power Save modes
- Return Auto Alignment
- Ingress Control Switches
- Cable Simulator
- Bypass port at input
- Remote connectivity with CXT25 transponder



**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.

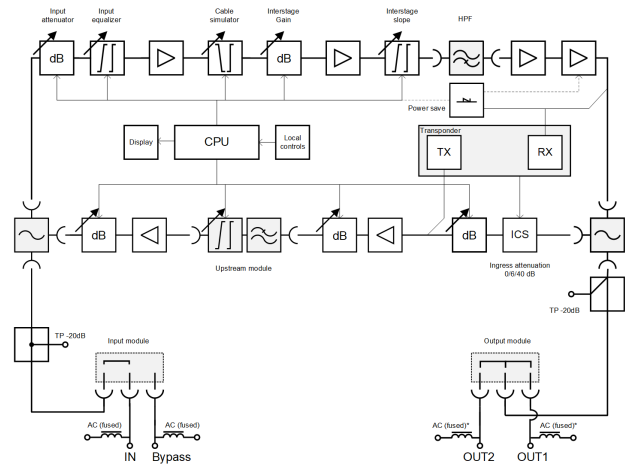
### Energy-efficient performance

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.

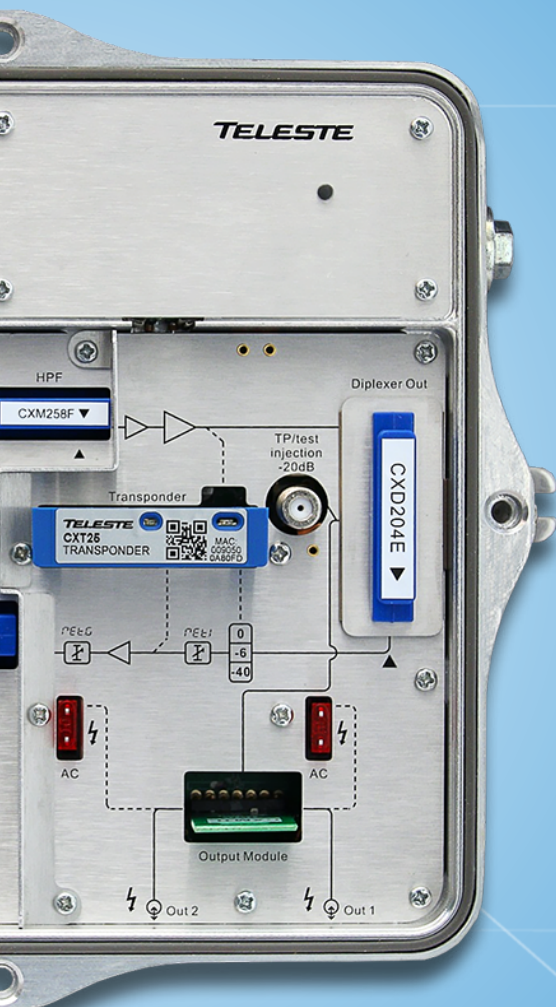


## Excellent capabilities

The CX4's return path reaches up to 492 MHz, set through duplexers 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



## Remote maintenance of service excellence

The CX4 series of products can be ordered with the CXT25, an HMS transponder that enables monitoring and control of the element. It allows operators to carry out remote ingress switching and maintain exceptional service quality by detecting and controlling any ingress issues, helping to minimize service outages.

## 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 <sup>(1)</sup>			
Downstream signal path		Upstream signal path	
Frequency range	258...1794 MHz	Frequency range	8...492 MHz
Gain	51 dB	Gain	32 dB
Return loss	18 dB	Return loss	18 dB
Input attenuator	0...20 dB	Input attenuator	0...20 dB
Input equalizer	0...22 dB	Interstage attenuator	0...20 dB
Cable simulator	0 dB/15 dB	Output attenuator	0...20 dB
Interstage attenuator	0...20 dB	Equalizer	0...20 dB
Interstage equalizer	0...20 dB	Noise figure	7.5 dB
Noise figure	9 dB	Total Composite Power (in)	32 dBmV
Total Composite Power	68 dBmV		
GENERAL <sup>(1)</sup>			
Connectors	External ports: 5/8" thread Test points: F type	Dimensions	26 × 22 × 7 cm (w × h × d)
Test points	20 dB	Operating temperature	-20...+65 °C
Supply voltage	30...90 VAC	ESD	≥ 4 kV
Power consumption	≤ 25 W	Surge	≥ 6 kV
Weight	2.2 kg		
NOTES			
(1) Typical values, please contact a Teleste representative for further information.			
ORDERING INFORMATION			
<b>CX4R204D</b>	End Amplifier, 2 x CXD204E diplexers, CXM204R upstream module, CXM258F downstream filter, CXM1E input module, CXM5E output module, mini auto fuse at input port, 2 x IECM14 5/8" adapter, 5/8" plug at bypass port.	<b>CX4R204DG</b>	Group Amplifier, 2 x CXD204E diplexers, CXM204R upstream module, CXM258F downstream filter, CXM1E input module, CXM5E output module, mini auto fuses at input and output ports, no connectors, 5/8" plug at bypass port.
<b>CX4R396D</b>	Same as above, but with 2 x CXD396E diplexers, CXM396R upstream module and CXM492F downstream filter.	<b>CX4R396DG</b>	Same as above, but with 2 x CXD396E diplexers, CXM396R upstream module and CXM492F downstream filter.
<b>CX4R492D</b>	Same as above, but with 2 x CXD492E diplexers, CXM492R upstream module and CXM606F downstream filter.	<b>CX4R492DG</b>	Same as above, but with 2 x CXD492E diplexers, CXM492R upstream module and CXM606F downstream filter.
<b>CX4R204D-H</b>	Same as CX4R204D, but with CXT25 transponder module.	<b>CX4R204DG-H</b>	Same as CX4R204DG, but with CXT25 transponder module.
<b>CX4R396D-H</b>	Same as CX4R396D, but with CXT25 transponder module.	<b>CX4R396DG-H</b>	Same as CX4R396DG, but with CXT25 transponder module.
<b>CX4R492D-H</b>	Same as CX4R492D, but with CXT25 transponder module.	<b>CX4R492DG-H</b>	Same as CX4R492DG, but with CXT25 transponder module.
OPTIONAL ACCESSORIES			
<b>CXM1E</b>	Minimum loss input/output module.		
<b>CXM5E</b>	Two-way splitter input/output module.		
<b>CXM8E</b>	8 dB tap input/output module.		
<b>CXM14E</b>	14 dB tap input/output module.		
<b>CXK396E</b>	Split change kit 396/492 MHz, with 2 x CXD396E diplexer, CXM396R upstream module, CXM492F downstream module.		
<b>CXK492E</b>	Split change kit 492/606 MHz, with 2 x CXD492E diplexer, CXM492R upstream module, CXM606F downstream module.		
<b>CXT25</b>	HMS transponder module, DOCSIS 4.0 frequency range compatible.		

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