



EN3011 & EN3030 Broadband Access Solution

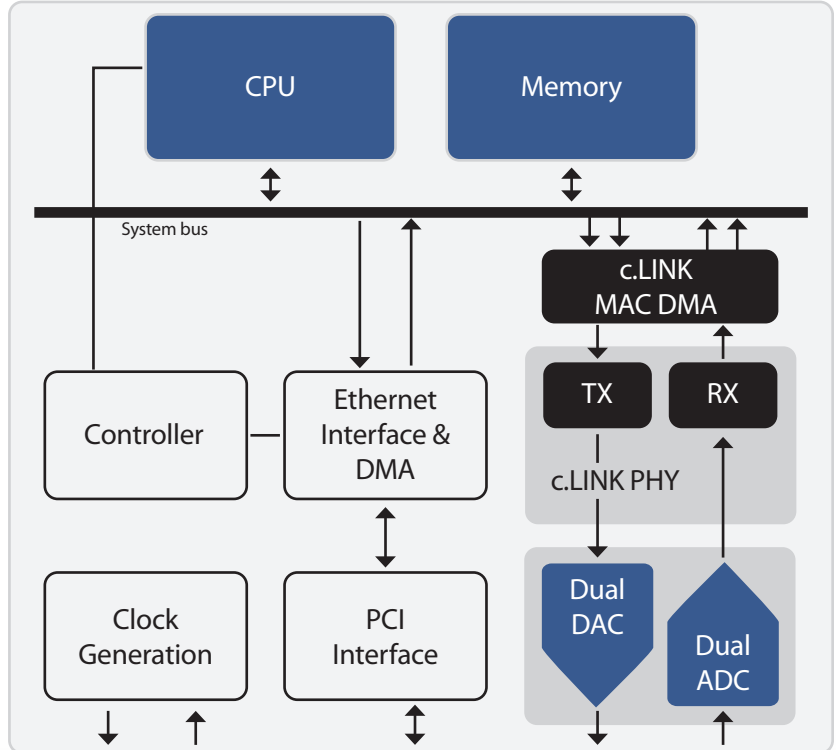
Due to excessive deployment expenses, many service providers have not been able to justify offering high-speed broadband access to residents of multiple dwelling units (MDUs) (i.e., apartment buildings and condominiums), leaving this significant market underserved—until now.

Entropic’s c.LINK™ Access chipset leverages existing coaxial (coax) cable infrastructure, enabling an easy, cost effective system for service providers to bring high speed data and video networking services to residents within MDUs. No new wires. No changes to the existing wiring. The c.LINK technology is so advanced that it enables reverse communication through coax splitters.

As evidence of the growth of coax solutions, a consortium of industry leading companies has formed Multimedia over Coax Alliance (MoCA™) to promote product interoperability for home networking. Entropic’s c.LINK chipset, the core technology behind this emerging industry standard, has been modified to support the creation of the star-based network topology necessary to provide broadband access to MDUs.

Cable, telco and satellite operators, set-top box OEMs, network equipment OEMs and consumer electronics OEMs worldwide have embraced c.LINK for its versatility. Because our technology allows you to select broadcast frequencies from 800 MHz to 1500 MHz, you can cascade multiple network controllers to expand unit coverage and coexist with cable, terrestrial and satellite signals.

The c.LINK Access Solution is comprised of the EN3011 Access Network Controller chip and the EN3030 Access Client chip. The EN3011, in combination with the EN1010 RF integrated circuit, is used in devices at the point-of-entry to the building to provide over 100 Mbps of broadband data to up to 31 client units from a single network controller. The EN3030 is also used in combination with the EN1010 in customer premise equipment (CPEs), such as an access point, gateway or router.



Applications

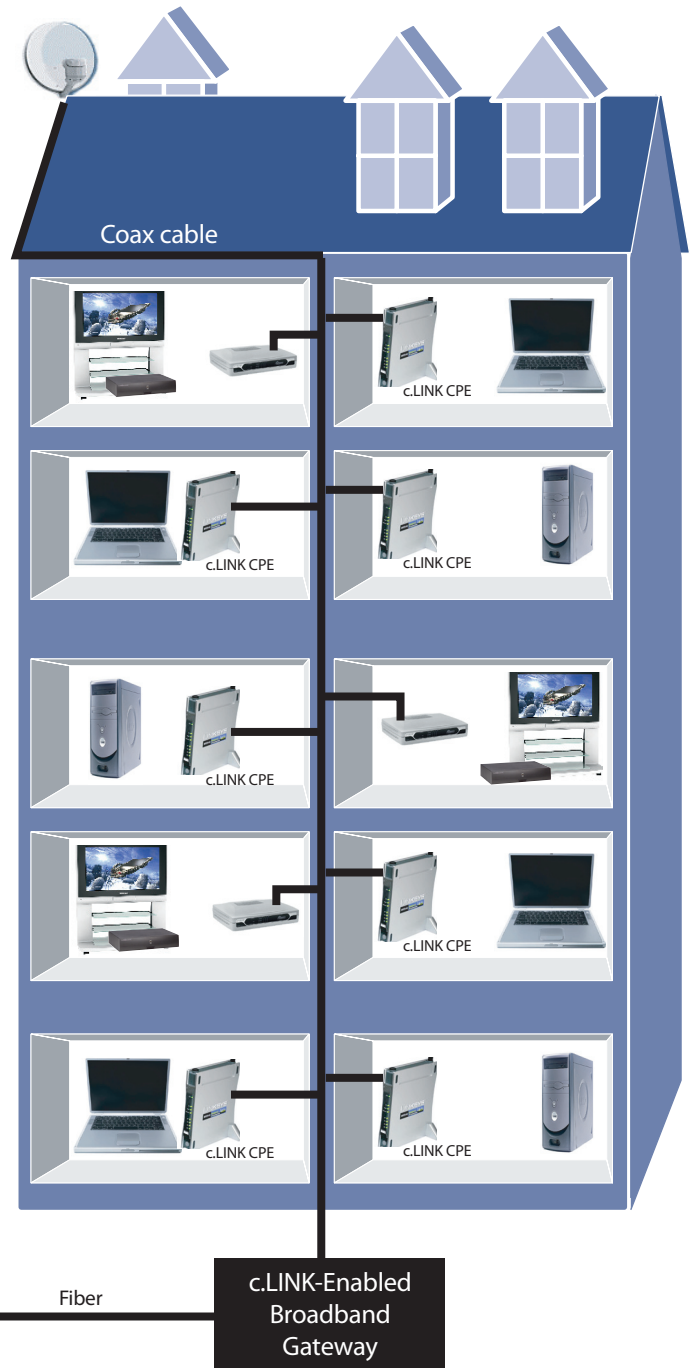
- High speed data and video distribution
- Last 300-m solution
- FTTP with coax distribution
- Access point/gateway
- Ethernet/coax bridge or router
- Client premise equipment
- Set-top box and digital video recorder

Benefits

- No new wires; video and data networking using existing coax cable and splitters
- Supports >1 Gbps available bandwidth for multiple c.LINK networks
- Supports >100 Mbps to each unit
- Enables a managed and trusted network
- Enables tiered rate structuring
- Creates new revenue streams for service providers
- Simple and inexpensive installation and configuration
- Dramatic deployment cost reduction

Features

- Fully integrated c.LINK Controller for coax-based access networks
- Network Characteristics
 - o Data capacity per channel is > 120 Mbps (>600 Mbps for 5 channels)
 - o Point to multi-point configuration
 - o Support up to 31 clients per c.LINK network controller
 - o Constant-delay and low-latency network
 - o TDMA/TDD-fully coordinated MAC, no collisions
 - o Frequency scanning from 800 MHz to 1500 MHz for efficient bandwidth utilization
 - o SNMP support
 - o Extended distance support of up to 600 m
 - o Supports up to 5 channels on a single coax
- Bandwidth Management
 - o Rate adaptation
 - o System upstream and downstream rate control
 - o Client node data rate limits and guarantees
 - o Support IEEE 802.1p priorities
- Network Security
 - o Hardware DES encryption for network privacy
 - o Network coordinator access control of the client nodes
- Standard 32-bit 33/66 MHz PCI 2.2 interface
- Electrical and physical characteristics
 - o 3.3-V I/O, PCI interface (3.3-V/5.0-V)
 - o 3.3-V/1.8-V power supply
 - o 336-pin Ball Grid Array



Product Reference Information

Number	Description
EN93010EVK	c.LINK Access Network Evaluation Kit (EVK)
EN93010SDK	c.LINK Linux Access Network Software Development Kit (SDK)
EN1010	Coaxial Network Interface RF Integrated Circuit - Commercial Temperature
EN1011	Coaxial Network Interface RF Integrated Circuit - Industrial Temperature
EN3011	Access Network Controller Integrated Circuit - Industrial Temperature
EN3030	Access Client Integrated Circuit - Commercial Temperature