

Introduction



A House is More than a Home.

The intelligent home is here – a living, working, entertaining, learning place. Cables tie the whole experience together providing high quality, superior performance, proven reliability and wide choice to meet all the needs of changing technology and the demands of the discerning consumer.

Key Applications

- Home office
- Audio/video
- Climate control
- Window shade automation
- Lighting

Special Features

Every Belden cable (and connector) is subject to the industry's most rigorous quality control process.

- **High-Performance, Easy-to-Install Cables and Connectors**
Individual or single application cables are available for any data, video, audio, control or security need, including:
 - Category 5e UTP and optical fiber cables for multimedia, voice, video and data use.
 - Coax cables for HDTV, DBS, CATV, SVHS, CCTV, S-Video, SPIF and cable modem applications.
 - High-conductivity (oxygen-free) speaker cables for audio distribution.
 - Paired, unshielded cables for control applications.
 - Non-category, Cat 5e and Cat 6 low skew performance UTP cables for video signals over twisted pair cables.
 - One-piece connectors and tools that facilitates fast and easy cable connection.
- **Belden also Offers Several Different Composite Cables.**
Composite cables simplify a multiple use installation by combining Belden data cables, coaxial cables, paired and multi-conductor cables and fiber optic cables in a single-pull product.

Installation of these cables means that residential properties will be 'future-proof' – ready to embrace the next generation of home entertainment and new technology. This makes a property more saleable and more attractive to the buyer.
- **Time-tested and Preferred in other Industries**
Many Belden Residential cables in this catalog have been long-standing leaders in other industries such as:
 - **Computer Networks**
Where Belden offers the most innovative cables and the leading data cable technology worldwide.
 - **Broadcast**
Where network studios prefer Belden over any other cable for picture-perfect quality and professional audio technicians demand Belden for crystal-clear audio quality.

- **Broadband CATV**
Where Belden Duobond® Plus (tri-shield) cables have consistently outperformed the more elaborate quad-shielded cables.
- **Alarm/Security**
Where Belden has been a favorite among installers for many years.

Now, these industry-leading and time-tested cables are available, along with many new innovations, for wiring the home of the 21st Century...only from Belden.

- **Better Design and Better Performance**
Some unique high performance technologies are used in the manufacture of the various cables, including:
 - **Bonded-Pair Data Cables to Provide the Assurance of Installable Performance™**
With patented bonded-pair design, the cables are able to withstand the rigors of a typical installation without any degradation in performance. This means, for example, that the Cat 5e cable will not only meet the Cat 5e specifications before installation but, more importantly, it will continue to meet them after installation.
 - **Coax Cables with Belden's Exclusive Duobond® Plus Shielding**
Duobond® Plus consists of a Duofoil® II (foil tape) surrounded by an 80% braid and an outer layer of foil with a shorting fold. This unique construction provides optimum shielding effectiveness.
 - **Composite Cables – Without a Jacket**
Belden Banana Peel® composite cables feature a patent-pending design that eliminates the need for an overall jacket, making the cables easy to handle, identify, pull and terminate. All that is necessary is to peel the cables off the center spline. These cables are increasingly used for multiple installations in new homes.
- **BNC and RCA Connectors**
One-piece BNC and RCA connectors feature a solid, one-piece brass and nickel-plated construction with gold-plated center pins. They are recommended for mini hi-res video cables:
 - 1277R-1280R
 - 1281R
 - 1281S3-S6

To ensure proper connection an easy-to-use compression tool and a stripping tool is available.
- **Multimedia Control Cable**
1502R is a multimedia touch panel control cable for modern audio-video (A/V) and building management systems. When used in conjunction with a touch panel control, these cables improve user comfort and convenience, security and personal enjoyment.
- **Enhanced Sound Performance**
The copper conductors of Brilliance low cap OFHC speaker cable have been manufactured using an upright shaft manufacturing process. The result of this process is a high-conductivity copper conductor that is inherently free of impurities. Exceptional sound clarity is also achieved by using polyolefin insulation, a much better dielectric than traditional PVC. The low capacitance of this insulation material provides the cable with a superior high frequency response and the facility for extended distance runs.

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• Easy Installation

Easy installation features include the following:

- Brightly colored jackets for easy identification
- Print legends that facilitate location identification (Room 12345, Zone ABCDE)
- Cable jackets with ascending/descending sequential markings at 0.6 m intervals
- Extremely flexible, easy-to-pull constructions (highly stranded conductors; PVC)

Brilliance® VideoTwist® UTP Cables

To meet the new video/data UTP requirements, Belden has designed a new series of cables. High resolution videos require high performance cables that have low signal skew and low return loss. Typically, these systems use bundled coax for the cable interconnection. Increasingly, however, system designers are turning to unshielded twisted pair (UTP) transmission equipment to distribute component RGB video because UTP is cheaper than coax. UTP cables also mean that the same cable can be used for premise LAN wiring – eliminating the need for two separate cables.

Brilliance VideoTwist® UTP cables offer the best low skew and return loss performance in the marketplace and are designed for quality video applications – plus they meet applicable TIA/EIA standards for data transmissions. The cables dramatically reduce installation costs but retain the appearance, feel and familiarity of a standard category twisted pair cable.

	Nominal Skew (ns/100 m)	Video Transmisson Distance*	
		ft.	m
Typical UTP Data Cables	25 - 45	370 - 520	112 - 158
RGB Coax Cables	15.0	850	259
VideoTwist® 7987	2.2	5900	1798
VideoTwist® 7988	9.0	1475	450
VideoTwist® 7989	10.0	1300	396

* Based on Broadcast standard of 40nd maximum total skew and the use of amplification equipment.

Security

Belden's answer to this challenge is a broad line of security cables which can be found in the New Generation section 20 in this catalog.

Everything you Need for the Intelligent Home

These structured cabling products for the intelligent home are all brought to you by Belden – the most innovative and trusted manufacturer in the cable industry. Belden offers the most comprehensive, time-tested and proven products for cabling the home.

Availability

Many of these are available off the shelf from distributors. If you have a new or unusual application or you cannot find a Residential cable in this catalog section that meets your technical requirements, see our U.S. Master Catalog or contact technical support at +31-77-3875-414 or techsupport.venlo@belden.com.

Corresponding Literature

Product Bulletins

- NP185: Multimedia control cables (1502R)
- NP212: Brilliance® VideoTwist® UTP low skew cables
- NP229: BNC and RNC connectors
- NP232: Brilliance® low cap OFHC speaker cables