# ALTOS® Cable with FastAccess™ Technology

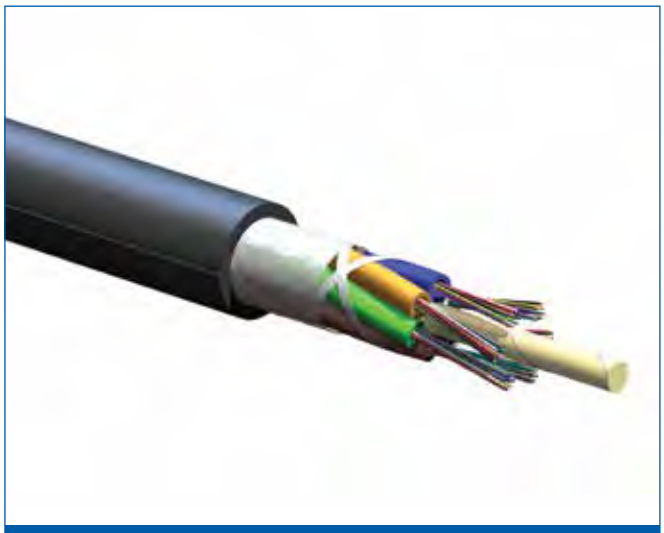
A LANscape® Solutions Product

## features and benefits |

| | |
|---|---|
| **Contains FastAccess Technology** | Innovative cable jacket feature reduces cable end access time by up to (will vary by installer) 50 percent and reduces overall risk of inadvertent fiber damage as well as risk to installers from sharp cable access tools |
| **Medium-density polyethylene jacket** | Rugged and durable, while providing superior protection against UV radiation, fungus, abrasion and other environmental factors. |
| **Fully waterblocked loose tube all-dielectric gel-free design** | Simple access and no clean up |
| **Industry-standard performance** | Meets the requirements of Telcordia GR-20, Issue 3 and ICEA S-87-640 |
| **Available in 62.5 µm, 50 µm, single-mode and hybrid versions** | Ready for any application including Gigabit Ethernet and 10 Gigabit Ethernet |

Corning Cable Systems ALTOS® Cable with FastAccess™ Technology is an all-dielectric gel-free cable designed for outdoor and limited indoor use for campus backbones in lashed aerial and duct installations. The innovative FastAccess Technology combined with the all-dielectric gel-free loose tube design simplifies removal of the cable jacket reducing cable end access time by up to 50 percent. Equally important is the overall reduction in risk of inadvertent fiber damage and risk to installers from sharp cable access tools. The cable is fully waterblocked using craft-friendly, water-swellable materials, which means no clean up is required. The flexible buffer tubes are easy to route in closures, and the SZ-stranded, loose tube design isolates fibers from installation and environmental rigors while allowing easy midspan access. The all-dielectric gel-free cable construction requires no bonding or grounding, and these cables have a medium-density polyethylene jacket that is rugged, durable, and easy to handle. A variety of fiber types are available including 62.5 µm, 50 µm, single-mode and hybrid versions, as well as fibers with Gigabit Ethernet and 10 Gigabit Ethernet performance.

**ALTOS Cable with FastAccess Technology, All-Dielectric, Gel-Free** | Photo LAN2866



**ALTOS Cable with FastAccess Technology, All-Dielectric, Gel-Free** | Photo LAN2962



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# ALTOS® Cable with FastAccess™ Technology

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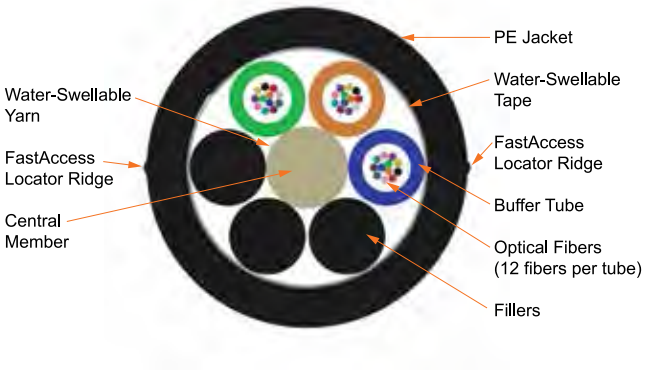
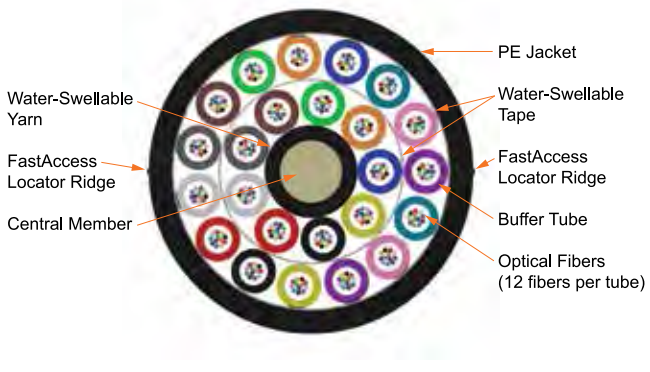



*Note: Image enlarged for clarity.*

**ALTOS Cable with FastAccess™ Technology, All-Dielectric, Gel-Free, 36-Fiber** | Drawing ZA-3878




**ALTOS Cable with FastAccess Technology, All-Dielectric, Gel-Free, 288-Fiber** | Drawing ZA-3879

## specifications |

| | | |
|---|---|---|
| **Maximum Tensile Loads** | Short-Term:<br>Long-Term: | 2700 N (600 lbf)<br>890 N (200 lbf) |
| **Temperatures** | Storage:<br>Installation:<br>Operation: | -40° to +70°C (-40° to +158°F)<br>-30° to +70°C (-22° to +158°F)<br>-40° to +70°C (-40° to +158°F) |
| **Common Installations** | Outdoor lashed aerial and duct; indoor when installed according to National Electrical Code® (NEC®) Article 770 | |
| **Design and Test Criteria** | ANSI/ICEA S-87-640 | |

*Corning Cable Systems recommends storing cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.*

| Fiber Count | Maximum Fibers per Tube | Number of Tube Positions | Number of Active Tubes | Central Member | Nominal Cable Weight kg/km (lb/1000 ft) | Nominal Outside Diameter mm (in) | Minimum Bend Radius Loaded cm (in) | Minimum Bend Radius Installed cm (in) |
|---|---|---|---|---|---|---|---|---|
| 2-72 | 12 | 6 | 1-6 | Dielectric | 73 (49) | 10.5 (0.41) | 15.8 (6.2) | 10.5 (4.1) |
| 73-96 | 12 | 8 | 7-8 | Dielectric | 98 (66) | 12.2 (0.48) | 18.3 (7.2) | 12.2 (4.8) |
| 97-144 | 12 | 12 | 9-12 | Dielectric | 162 (109) | 15.8 (0.62) | 23.7 (9.3) | 15.8 (6.2) |
| 145-216 | 12 | 18 | 13-18 | Dielectric | 147 (99) | 16.0 (0.63) | 24.0 (9.4) | 16.0 (6.3) |
| 217-288 | 12 | 24 | 19-24 | Dielectric | 196 (131) | 18.2 (0.72) | 27.3 (10.7) | 18.2 (7.2) |



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# ALTOS® Cable with FastAccess™ Technology

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## transmission performance |

| Optical Fiber Type (µm) | 62.5 Multimode | 50 Multimode | 50 Multimode | 50 Multimode | 50 Multimode | Single-mode* |
|---|---|---|---|---|---|---|
| ISO/IEC 11801 Nomenclature | OM1 | OM2 | OM3 | OM4 | OM4 | OS2 |
| Fiber Code | K | T | T | T | T | E |
| Performance Option Code | 30 | 31 | 80 | 90 | 91 | 01 |
| Wavelength (nm) | 850/1300 | 850/1300 | 850/1300 | 850/1300 | 850/1300 | 1310/1383/1550 |
| Maximum Attenuation (dB/km) | 3.4/1.0 | 3.0/1.0 | 3.0/1.0 | 3.0/1.0 | 3.0/1.0 | 0.4/0.4/0.3 |
| Minimum Over Filled Launch (OFL) Bandwidth (MHz•km) | 200/500 | 700/500 | 1500/500 | 3500/500 | 3500/500 | – / – / – |
| Minimum Effective Modal Bandwidth (EMB) (MHz•km) | 220/ – | 950/ – | 2000/ – | 4700/ – | 5350/ – | – / – / – |
| Serial 1 Gigabit Ethernet Distance (m) | 300/550 | 750/600 | 1000/600 | 1000/600 | 1000/600 | 5000 / – / – |
| Serial 10 Gigabit Ethernet Distance (m) | 33/ – | 150/ – | 300/ – | 550†/ – | 600‡/ – | 10000/ – /40000 |

** ITU 652.D compliant.*
*† Assumes 1.0 dB maximum total connector/splice loss.*
*‡ Assumes 0.7 dB maximum total connector/splice loss.*

*Notes:*
*1) Improved attenuation and bandwidth options available.*
*2) Bend-insensitive single-mode fibers available on request.*
*3) Contact Corning Cable Systems Customer Service Representative for additional information.*



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# ALTOS® Cable with FastAccess™ Technology

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## ordering information | Contact Customer Service at 800-743-2671 for non-standard offerings.

| 0 | 1 | 2 | K | U | 4 | - | T | 4 | 7 | 3 | 0 | D | 2 | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |

### 1-3

Select fiber count.

Standard offerings:

| | | | |
|---|---|---|---|
| 012 | 048 | 096 | 216 |
| 024 | 060 | 144 | 288 |
| 036 | 072 | 192 | |

### 4

Select fiber type (see Transmission Performance table).

### 5 / 12

Defines cable type.

U/D = ALTOS® Gel-free Cable

### 6

Defines outer jacket.

4 = All-dielectric

### 7

Defines fiber placement.

T = 12 fibers/buffer tube (standard)

### 8

Defines length markings.

4 = Markings in feet (standard)

### 9

Defines special jacket feature.

7 = ALTOS Cable with FastAccess™ Technology

### 10-11

Select performance option code (see Transmission Performance table).

### 13-14

Defines special requirements.

20 = No special requirements

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# Closet Connector Housings (CCH)

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## CCH Pigtailed Cassettes

CCH Pigtailed Splice Cassettes enable faster field splicing and easy modular management of connectorization within the housing.

The CCH Pigtailed Splice Cassettes are pre-loaded and pre-routed for quick fusion splicing of either individual or ribbon fiber pigtails, utilizing the same space-saving platform as the standard CCH Splice Cassette.

The pre-routed Pigtailed Cassettes reduce field labor by streamlining the features and components of the pigtail cassette to allow for efficiencies in the field. They are loaded with a pigtail assembly and a CCH Connector Panel. The pigtails have 900 µm protection at the connector panel for added durability, routed into the splice tray layer, where it transitions to either 250 µm fiber or bare ribbon (depending on the splicing method desired) for ease of splicing.

The Pigtailed Cassette allows the elimination of individual splice trays or separate splice housings, as well as allowing splicing to be done away from the rack housing in a suitable workspace as needed. The modular design makes it easy to access the fiber in an individual cassette without disturbing the other fibers in the housing.

Each cassette is shipped with the CCH Connector Panel and choice of pigtails, 1 rail for use with CCH-01U/2U/3U housings, and 2 rails used with CCH-04U housings. Grommets and cable ties for additional strain relief and protective tubing for incoming cable are also included. Splicing cassettes ship with the appropriate number and type of fiber heat-shrink splice protectors.

**CCH Pigtailed Cassette** | Photo LAN2741

**CCH Pigtailed Cassette** | Photo LAN2593





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## specifications and ordering information |

### Pigtailed Splice Cassettes (CCH-CS)

CCH Splice Cassette (CCH-CS) loaded with CCH panel and factory-terminated pigtails. Available with ribbon or single-fiber splicing configurations. Includes appropriate number and type of heat shrinks and protective tubing depending on fiber count and cable type. See matrix on the next page to build your part number.

| **Multimode** | |
|---|---|
| **Loss** | 0.35 dB typical (all fibers) at 1300 nm, 0.5 dB max* |
| **Single-Mode** | |
| **Loss** | 0.15 dB typical (all fibers) at 1310 nm, 0.4 dB max* |

The following 6 products are in the core CCH product set and are stocked at our distributors for immediate availability.

| Part Number | Description | Type |
|---|---|---|
| **CCH-CS12-59-P00RE** | 12 F, SC, UPC, Duplex, Single-mode (OS2), Single-fiber (250 µm) | Rack-Mountable Hardware |
| **CCH-CS12-6T-P00RE** | 12 F, ST® Compatible, UPC, Simplex, Single-mode (OS2), Single-fiber (250 µm) | Rack-Mountable Hardware |
| **CCH-CS12-A9-P00RE** | 12 F, LC, UPC, Duplex, Single-mode (OS2), Single-fiber (250 µm) | Rack-Mountable Hardware |
| **CCH-CS24-A9-P00RE** | 24 F, LC, UPC, Duplex, Single-mode (OS2), Single-fiber (250 µm) | Rack-Mountable Hardware |
| **CCH-CS12-E4-P00TE** | 12 F, LC, PC, Duplex, 50 µm (OM3), Single-fiber (250 µm) | Rack-Mountable Hardware |
| **CCH-CS24-E4-P00TE** | 24 F, LC, PC, Duplex, 50 µm (OM3), Single-fiber (250 µm) | Rack-Mountable Hardware |

| | **Dimensions (H x W x D) cm (in)** | **Shipping Weight kg (lb)** |
|---|---|---|
| **CCH-CS ☐☐ - ☐☐ - P00 ☐☐** | 16.2 x 3.5 x 20 (6.4 x 1.4 x 7.9) | 0.75 (1.5) |

# Closet Connector Housings (CCH)

A LANscape® Solutions Product

## ordering information | (continued)

### CCH Pigtailed Splice Cassettes

CCH - CS [1][2] - [5][T] - P00 [K] [E]
|1 |2 |3 |4

**|1**

Select fiber count.
06 = 6 fibers
08 = 8 fibers
12 = 12 fibers
16 = 16 fibers
24 = 24 fibers
*See Note 1*

**|2**

Select adapter code (see Adapter/Connector Code Options table on following page).

**|3**

Select fiber type.
K = 625 µm multimode (OM1)
B = 50 µm multimode (OM2)
T = 50 µm multimode (OM3)
Q = 50 µm multimode (OM4)
R = Single-mode (OS2)

**|4**

Select splicing type.
E = Single fiber splicing
J = Ribbon splicing (only for fiber counts of 12 or 24)

*Note:*
*1) Fiber count for desired adapter is available in table on following page.*

| Part Number | Description |
|---|---|
| **Part Number Examples** | |
| **CCH-CS12-59-P00RE** | Closet Connector Housing Pigtail Cassette with 6 SC duplex single-mode adapters, with 12 single-mode SC pigtails routed inside the cassette for single-fiber splicing |
| **CCH-CS24-E4-P00TE** | Closet Connector Housing Pigtail Cassette with 12 LC duplex aqua OM3/4 adapters, with 24 OM3 LC pigtails routed inside the cassette for single-fiber splicing |

# Closet Connector Housings (CCH)

A LANscape® Solutions Product

## adapter/connector code options |

| Adapter Code | Fiber Type | Alignment | Housing | Fiber/ Adapter | Available Fiber/Panel Counts 6 | 8 | 12 | 16 | 24 |
|---|---|---|---|---|---|---|---|---|---|
| **LC Duplex** | | | | | | | | | |
| A8 | 62.5 µm multimode (OM1) | Ceramic | Composite | 2 | X | X | X | X | X |
| D3 | 50 µm multimode (OM2) | Ceramic | Composite | 2 | X | X | X | X | X |
| E4 | 50 µm multimode (OM3/4) | Ceramic | Composite | 2 | X | X | X | X | X |
| A9 | Single-mode, UPC (OS2) | Ceramic | Composite | 2 | X | X | X | X | X |
| B3 | Single-mode, APC (OS2) | Ceramic | Composite | 2 | X | X | X | X | X |
| **SC Duplex** | | | | | | | | | |
| 91 | 62.5 µm multimode (OM1) | Metal | Composite | 2 | X | X | X | | |
| G7 | 50 µm multimode (OM2) | Ceramic | Composite | 2 | X | X | X | | |
| E7 | 50 µm multimode (OM3/4) | Ceramic | Composite | 2 | X | X | X | | |
| 59 | Single-mode, UPC (OS2) | Ceramic | Composite | 2 | X | X | X | | |
| D9 | Single-mode, APC (OS2) | Ceramic | Composite | 2 | X | X | X | | |
| **SC** | | | | | | | | | |
| 56 | 62.5 µm multimode (OM1) | Metal | Composite | 1 | X | X | X | | |
| G6 | 50 µm multimode (OM2) | Ceramic | Composite | 1 | X | X | X | | |
| E6 | 50 µm multimode (OM3/4) | Ceramic | Composite | 1 | X | X | X | | |
| 3C | Single-mode, UPC (OS2) | Ceramic | Composite | 1 | X | X | X | | |
| 6C | Single-mode, APC (OS2) | Ceramic | Composite | 1 | X | X | X | | |
| **ST® Compatible Connector** | | | | | | | | | |
| 5T | 62.5 µm multimode (OM1) | Ceramic | Metal | 1 | X | X | X | | |
| G5 | 50 µm multimode (OM2) | Ceramic | Metal | 1 | X | X | X | | |
| H3 | 50 µm multimode (OM3/4) | Ceramic | Metal | 1 | X | X | X | | |
| 6T | Single-mode, UPC (OS2) | Ceramic | Metal | 1 | X | X | X | | |
| **FC** | | | | | | | | | |
| 11 | Single-mode, UPC (OS2) | Metal | Metal | 1 | X | X | X | | |
| 21 | Single-mode, APC (OS2) | Metal | Metal | 1 | X | X | X | | |
| **MT-RJ, pinned** | | | | | | | | | |
| 97 | 62.5 µm multimode (OM1) | N/A | Composite | 2 | | X | X | X | X |
| G1 | 50 µm multimode (OM2) | N/A | Composite | 2 | | X | X | X | X |
| E1 | 50 µm multimode (OM3/4) | N/A | Composite | 2 | | X | X | X | X |
| 98 | Single-mode, UPC (OS2) | N/A | Composite | 2 | | X | X | X | X |

| Fiber Type | Housing Color |
|---|---|
| 62.5 µm multimode (OM1) | Beige |
| 50 µm multimode (OM2) | Black |
| 50 µm multimode (OM3/4) | Aqua |
| Single-mode, UPC (OS2) | Blue |
| Single-mode, APC | Green |

*Note: For keyed LC ordering information, please refer to LAN-701-EN.*

# Wall-Mountable Connector Housing (WCH)

## Holds 2 CCH connector panels/cassettes

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Corning wall-mountable connector housing (WCH) product family offers enhanced innovative features that make installation and troubleshooting of fiber optic connectivity faster, easier and more cost-effective. From fiber and cable routing and strain-relief to port labeling and termination, these housings reduce the risk of error that can disrupt networks.

The WCH housing provides interconnect or cross-connect capabilities between the outside plant, riser or distribution cables and the opto-electronics. With the WCH-02P (two panels, cassettes or modules), WCH-04P (four panels, cassettes or modules), and WCH-06P (six panels, cassettes or modules) capacity, the rugged metal housings can be wall mounted in main cross-connects, telecommunication rooms or other areas where space is a premium. Units accept standard closet connector housing (CCH) cassettes, connector panels and modules for a variety of connectivity options.

The WCH product family features a clear, transparent jumper side door for easy visibility during installation and testing, easy-to-use recessed mounting holes with mounting screws, documentation labels, removable strain-relief brackets, routing clips and guides, improved latches, as well as a preinstalled bubble level for simple and accurate installation. All housings also have field-installable lock kits available for both cable entry and jumper side doors.

Part Number: WCH-02P

## Features and Benefits

**Interconnect and cross-connect capabilities**
Ideal for field splicing and connectorization

**Accepts CCH cassettes, panels and modules**
Variety of preterminated and field-installable capabilities

**Lockable, transparent jumper side door**
Visibility and ease of access for installation, testing and troubleshooting

**Removable strain-relief bracket**
Flexibility for installation and moves, adds and changes (MACs)

**Segregated cable and fiber slack routing**
Fiber protection



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# Wall-Mountable Connector Housing (WCH)

**Holds 2 CCH connector panels/cassettes**

## Standards

| | |
|---|---|
| **RoHS** | Free of hazardous substances according to RoHS 2002/95/EG |

## Specifications

| General Specifications | |
|---|---|
| Application | Enterprise Networks |
| Mounting type | Wall-Mountable |
| Product Type | Wall-Mountable Hardware |

| Design - Hardware | |
|---|---|
| Housing Color | Black |
| Housing Type | WCH |
| Locking Availability | Provider door and jumper door |
| Number of Panels/Cassettes per Housing | 2 |
| Panel or Cassette Type | CCH |
| Splice Tray/Splice Cassette Options | Up to 2 CCH cassettes |
| Maximum Fiber Capacity | 48 |

| Mechanical Characteristics | |
|---|---|
| Dimensions (HxWxD) | 18.8 cm x 42.2 cm x 10.7 cm (7.4 in x 16.1 in x 4.2 in) |

## Ordering Information

| | |
|---|---|
| Part Number | WCH-02P |
| Product Description | Wall-Mountable Closet Housing (WCH), holds 2 CCH connector panels/cassettes |
| EAN Code | 4042673249221 |

# Wall-Mountable Connector Housing (WCH)

**Holds 2 CCH connector panels/cassettes**

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## Shipping Information

| | |
|---|---|
| Units per Delivery | 1/1 |
| Shipping Weight | 3.6 kg (8.0 lb) |
| Package Contents | Housing; installation guide; 2 blank panels; 2 panel ID labels; hardware kit; internal strain-relief bracket; intermediate strain-relief bracket; 4 x 4-in tie wraps; 4 x 8-in tie wraps; dust brushes; 4 mounting screws; bubble level |

RoHS COMPLIANT

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