



HTL PASSIVE CONNECTIVITY SOLUTIONS

For Faster & Better Connectivity



+91 44 2250 1020/21
pcssales@htllimited.com
www.htllimited.com

PRODUCT CATALOG
2022 - 23



ABOUT US

HTL Ltd. is a subsidiary of HFCL Ltd. (formerly Himachal Futuristic Communications Ltd)

As an Industry acclaimed passive components manufacturer in India, HTL Ltd's fiber and copper cabling solutions for faster & enhanced connectivity experience are the product of choice for leading Indian as well as global telecom hardware manufacturers. Today, our fiber & copper solutions help enterprises to manage their converged networks by providing plenty of bandwidth headroom for future growth.

HTL offers a complete range of fiber cable assemblies which are factory-connectorized to produce unsurpassed connectivity while our copper cable assemblies provide dependable high performance cabling infrastructure that would last long into the future. Similarly, our cabinets portfolio is helping telecom players to reimagine network hardware and cable management systems. Our entire range of products meets and exceeds the performance requirements of Central Office, Outside Plant, FTTH, LAN, security surveillance and data center cabling applications.

All of our products meet IEC, EIA/TIA, TSEC & GR326 Standards. Our products are easy to install, future ready with minimum installation and reduce time spent on sites as well as operating costs. Our products are manufactured with the best in class latest technologies to provide fast deployment, provisioning and long-term reliability thereby enabling us to be the preferred partner to build future ready high bandwidth networks for enterprises of today and tomorrow.

Located in Chennai India, our fully integrated passive components facility for design, engineering & manufacturing of an entire gamut of passive components is certified to ISO & other relevant global standards.



CONTENTS

FIBER CONNECTIVITY SOLUTIONS

- 01 FIBER MANAGEMENT SYSTEMS**
Fiber Optic Patch Panel – 1U Rack Mount Type
Fiber Optic Patch Panel – 2U Rack Mount Type

- 05 FIBER ACCESS TERMINATION BOX**
Wall Mount FAT Box – Plastic
Wall Mount FAT Box – Metal

- 09 FIBER TERMINATION BOX**
Fiber Wall Termination Box 1-4F

- 10 PLC OPTICAL SPLITTERS**
Bare Type PLC Splitter
ABS Box type PLC Splitter
LGX Cassette Type PLC Splitter
Rack Mount Type PLC Splitter

- 15 JOINT SPLICE CLOSURES**
Outdoor Dome Type Closure
Outdoor Inline/Straight Type Closure

- 18 FIBER CONNECTORS & ADAPTERS**
SC & LC Field Connectors
SC & LC Adapters

- 21 FIBER CABLE ASSEMBLIES**
Optical Fiber Patch Cord Assemblies
Optical Fiber Pigtail Assemblies

- 25 MPO FIBER SOLUTIONS**
MPO Rack Mount Solutions
MPO Cable Assemblies

STRUCTURED CABLING SOLUTIONS

- 31 COPPER CABLES**
Category 6 U/UTP Cable
Category 6 S/FTP Cable
Category 6 F/UTP Cable
Category 6 U/UTP Outdoor Cable
Category 6A U/UTP Cable
Category 6A S/FTP Cable
Category 6A F/UTP Cable
Category 6A U/FTP Cable
Category 6A U/UTP Outdoor Cable

- 41 RJ-45 COPPER PATCH CORDS**
Category 6 U/UTP Patch Cord
Category 6 F/UTP Patch Cord
Category 6A U/UTP Patch Cord
Category 6A F/UTP Patch Cord

- 45 INFORMATION OUTLETS (IO)**
Category 6 UTP IO
Category 6 STP IO
Category 6A UTP IO
Category 6A STP IO

- 49 IO JACK PANELS**
Category 6 UTP Jack Panel
Category 6 STP Jack Panel
Category 6A UTP Jack Panel
Category 6A STP Jack Panel

- 53 IO FACE PLATES**
86x86 Faceplates 1P, 2P, 4P

FIBER MANAGEMENT SYSTEMS

FIBER OPTIC PATCH PANEL 1U RACK MOUNT TYPE

HTL Passive Connectivity Solutions provides variety of fiber optic patch panel for fiber management systems (FMS) applications. Fiber management system panels are used to provide cable interconnections between communication facilities integrating fiber splicing, fiber terminations and fiber patching with fiber cable connections together in a single unit. It can also work as a protective device to secure fiber optic connections from physical damages during operations.

PRODUCT FEATURES

- 1U sliding drawer type
- Indoor installation grade
- Powder coated CRCA panel
- Front removable adapter plate
- Adequate cable storage space
- Pre-installed with breakout tube for fan out fibers
- Provided with ABS splice tray for splice management
- Provided with pigtail trumpets for guiding fiber pigtails
- Provided with FRP and cable sheath clamping for rear cable entry



FIBER TERMINATIONS

- Fusion splicing
- Direct patching
- Distribution network
- Fiber capacity 24F/48F

APPLICATIONS

- Data center
- Central office
- Premise cabling
- FTTH access networks
- Data communication networks



PART CODE SCHEME

Replace X with the correct code to determine the correct FMS panel configuration

HT - X X X X XX X XXX X

Product Family

R = Rack mount FMS
W = Wall Mount FMS - CRCA
A = Wall Mount FMS - ABS
P = Wall Mount FMS - PC

S = Sliding/telescopic type
F = Fixed type

Height

1 = 1U
2 = 2U
3 = 3U
4 = 4U
6 = 6U

1 = Loaded panel with adapters & pigtail
2 = Loaded panel with adapters only
3 = Unloaded panel

SCA = SC APC SM adapter green
SCP = SC PC SM adapter blue
SCU = SC UPC SM adapter blue
LCA = LC APC SM adapter green
LCP = LC PC SM adapter blue
FCA = FC APC adapter green
FCP = FC PC adapter blue
STP = ST PC SM adapter blue
E2A = E2000 APC SM adapter green
E2P = E2000 PC SM adapter blue
SC1 = SC PC MM adapter beige
SC2 = SC PC MM adapter aqua
SC3 = SC PC MM adapter erica violet
LC1 = LC UPC MM adapter beige
LC2 = SC UPC MM adapter aqua
LC3 = LC UPC MM adapter erica violet
LC3 = LC UPC MM adapter lemon green
ST1 = ST PC MM adapter beige

S = Simplex
D = Duplex
Q = Quad

Fiber count: 24=24F; 48=48F

Panel Colour
G = Grey 7032
Y = Grey 7035
B = Black

ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|----------------|---|
| 24F | HT-RS1G24SSCA1 | 1U 24F SM SCAPC Simplex FMS Panel Loaded |
| 12F | HT-RS1G12SSCA1 | 1U 12F SM SCAPC Simplex FMS Panel Loaded |
| 24F | HT-RS1G24DLCA1 | 1U 24F SM LC APC Duplex FMS Panel Loaded |
| 24F | HT-RS1G24DSCP1 | 1U 24F SM SC PC Duplex FMS Panel Loaded |
| 48F | HT-RS1G48DLCA1 | 1U 48F SM LC APC Duplex FMS Panel Loaded |
| 24F | HT-RS1G24DLCP1 | 1U 24F SM LC PC Duplex FMS Panel Loaded |
| 48F | HT-RS1G48DLCP1 | 1U 48F SM LC PC Duplex FMS Panel Loaded |
| 24F | HT-RS1G24DLC21 | 1U 24F MM OM3 LC PC Duplex FMS Panel Loaded |
| 24F | HT-RS1G24DLC31 | 1U 24F MM OM4 LC PC Duplex FMS Panel Loaded |
| 48F | HT-RS1G48DLC21 | 1U 48F MM OM3 LC PC Duplex FMS Panel Loaded |
| 48F | HT-RS1G48DLC31 | 1U 48F MM OM4 LC PC Duplex FMS Panel Loaded |

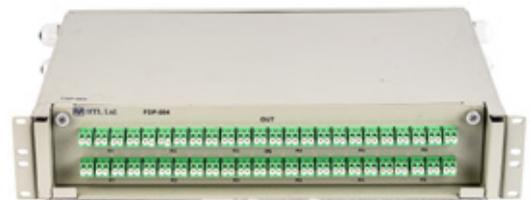
FIBER MANAGEMENT SYSTEMS

FIBER OPTIC PATCH PANEL 2U RACK MOUNT TYPE

HTL Passive Connectivity Solutions provides variety of Fiber Optic Patch Panel for Fiber Management systems (FMS) applications. Fiber management system panels are used to provide cable interconnections between communication facilities integrating fiber splicing, fiber terminations and fiber patching with fiber cable connections together in a single unit. It can also work as a protective device to secure fiber optic connections from physical damages during operations.

PRODUCT FEATURES

- 2U sliding drawer type
- Indoor installation grade
- Powder coated CRCA panel
- Front removable adapter plate
- Adequate cable storage space
- Pre-installed with breakout tube for fan out fibers
- Provided with ABS splice tray for splice management
- Provided with pigtail trumpets for guiding fiber pigtails
- Provided with FRP and cable sheath clamping for rear cable entry



FIBER TERMINATIONS

- Fusion splicing
- Direct patching
- Distribution network
- Fiber capacity 24F/48F/96F

APPLICATIONS

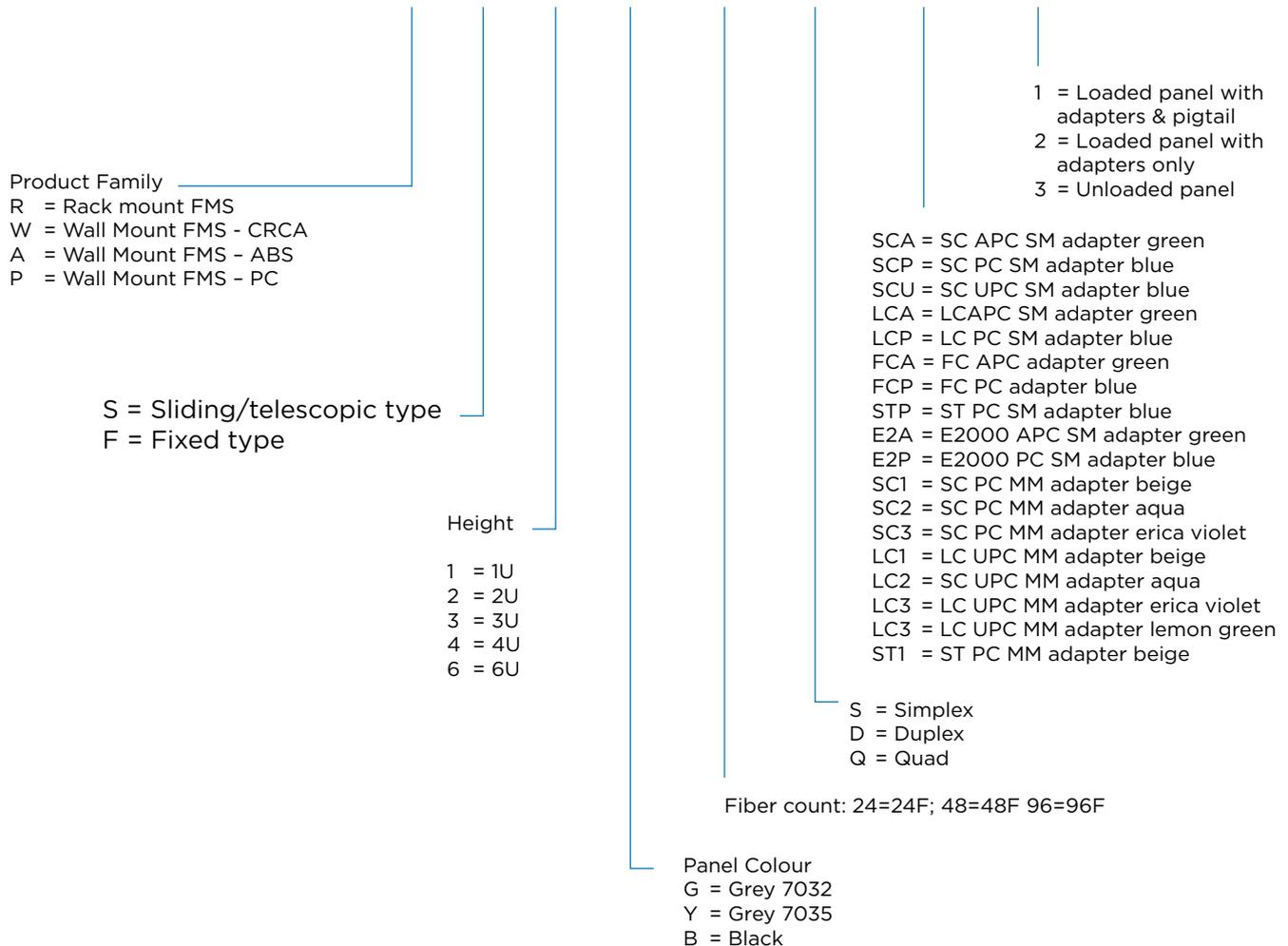
- Data center
- Central office
- Premise cabling
- FTTH access networks
- Data communication networks



PART CODE SCHEME

Replace X with the correct code to determine the correct FMS panel configuration

HT - X X X X XX X XXX X



ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|----------------|---|
| 48F | HT-RS2G48SSCA1 | 2U 48F SM SCAPC Simplex FMS Panel Loaded |
| 24F | HT-RS2G24SSCA1 | 2U 24F SM SCAPC Simplex FMS Panel Loaded |
| 48F | HT-RS2G48DLCA1 | 2U 48F SM LC APC Duplex FMS Panel Loaded |
| 48F | HT-RS2G48DSCP1 | 2U 48F SM SC PC Duplex FMS Panel Loaded |
| 96F | HT-RS2G96DLCA1 | 2U 96F SM LC APC Duplex FMS Panel Loaded |
| 48F | HT-RS2G48DLCP1 | 2U 48F SM LC PC Duplex FMS Panel Loaded |
| 96F | HT-RS2G96DLCP1 | 2U 96F SM LC PC Duplex FMS Panel Loaded |
| 48F | HT-RS2G48DLC21 | 2U 48F MM OM3 LC PC Duplex FMS Panel Loaded |
| 48F | HT-RS2G48DLC31 | 2U 48F MM OM4 LC PC Duplex FMS Panel Loaded |
| 96F | HT-RS2G96DLC21 | 2U 96F MM OM3 LC PC Duplex FMS Panel Loaded |
| 96F | HT-RS2G96DLC31 | 2U 96F MM OM4 LC PC Duplex FMS Panel Loaded |

FIBER ACCESS TERMINATION BOX

WALL MOUNT INDOOR/OUTDOOR FIBER TERMINAL BOX: 6-48F - PLASTIC

HTL Passive Connectivity Solutions wall mount fiber access terminal (FAT) box is designed to provide easy patching, storing fiber terminations for feeder cables, branch cable, direct connection and allocation. This FAT is used for both indoor & outdoor applications. This FAT can also be used to mount passive splitters and install fiber in small and medium size multi dwelling units (MDU's) for FTTx applications.

PRODUCT FEATURES

- IP-65 rated
- Ample storage for slack
- Installation: Indoor/Outdoor wall mount type
- Constructed of high quality PC/ABS material
- Available with unloaded and loaded variants
- Accommodates multimode and single mode fibers
- Accommodates 1:8 SC, 1:16 SC, 1:32 SC/LC PLC splitters
- Accommodates 24 Simplex SC and 24 Duplex LC adapters
- Single door type - can be flipped over for ease of access and maintenance
- Can be preloaded with SC, LC adapters and pre-terminated cable assemblies
- Accommodates all cables below 12mm outdoor/indoor cables and 3mm OD soft cables



APPLICATIONS

- Premise cabling
- FTTH access networks
- Data communication networks



ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|----------------|---|
| 24F | HT-AFXG24SXXX3 | 24F Wall Mount Type FAT - Unloaded |
| 24F | HT-AFXG24SSCA2 | 24F Wall Mount Type FAT - loaded with SM SCAPC Adapters |
| 24F | HT-AFXG24SSCP2 | 24F Wall Mount Type FAT - loaded with SM SC PC Adapters |
| 48F | HT-AFXG48DLCA2 | 48F Wall Mount Type FAT - loaded with SM LCAPC Adapters |
| 48F | HT-AFXG48DLCP2 | 48F Wall Mount Type FAT - loaded with SM LC PC Adapters |

FIBER ACCESS TERMINATION BOX

WALL MOUNT INDOOR/OUTDOOR FIBER TERMINAL BOX: 6-96F - PLASTIC

HTL Passive Connectivity Solutions wall mount fiber access terminal (FAT) box is designed to provide easy patching, storing fiber terminations for feeder cables, branch cable, direct connection and allocation. This FAT is used for both indoor & outdoor applications. This FAT can also be used to mount passive splitters and install fiber in small and medium size multi dwelling units (MDU's) for FTTx applications.

PRODUCT FEATURES

- IP-65 rated
- Ample storage for slack
- Installation: Indoor/Outdoor wall mount type
- Constructed of high quality PC/ABS material
- Available with unloaded and loaded variants
- Accommodates multimode and single mode fibers
- Accommodates 48 Simplex SC and 48 Duplex LC adapters
- Accommodates 1:8 SC, 1:16 SC, 1:32, 1:64 SC/LC PLC splitters
- Single door type - can be flipped over for ease of access and maintenance
- Can be preloaded with SC, LC adapters and pre-terminated cable assemblies
- Accommodates all cables below 12mm outdoor/indoor cables and 3mm OD soft cables



APPLICATIONS

- Premise cabling
- FTTH access networks
- Data communication networks



ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|----------------|---|
| 48F | HT-AFXG48SXXX3 | 48F Wall Mount Type FAT - Unloaded |
| 48F | HT-AFXG48SSCA2 | 48F Wall Mount Type FAT - loaded with SM SCAPC Adapters |
| 48F | HT-AFXG48SSCP2 | 48F Wall Mount Type FAT - loaded with SM SC PC Adapters |
| 96F | HT-AFXG96DLCA2 | 96F Wall Mount Type FAT - loaded with SM LCAPC Adapters |
| 96F | HT-AFXG96DLCP2 | 96F Wall Mount Type FAT - loaded with SM LC PC Adapters |

FIBER ACCESS TERMINATION BOX

WALL MOUNT INDOOR FIBER TERMINAL BOX: 6-48F - METAL

HTL Passive Connectivity Solutions wall mount fiber access terminal (FAT) box is designed to provide easy patching, storing fiber terminations for feeder cables, branch cable, direct connection and allocation. This FAT is used for both indoor applications. This FAT can also be used to mount passive splitters and install fiber in small and medium size multi dwelling units (MDU's) for FTTx applications.

PRODUCT FEATURES

- IP-55 rated
- Ample storage for slack
- Installation: Indoor wall mount type
- Available with unloaded and loaded variants
- Constructed of powder coated CRCA material
- Accommodates multimode and single mode fibers
- Accommodates 1:8 SC, 1:16 SC, 1:32 SC/LC PLC splitters
- Accommodates 24 Simplex SC and 24 Duplex LC adapters
- Single door type - can be flipped over for ease of access and maintenance
- Can be preloaded with SC, LC adapters and pre-terminated cable assemblies
- Accommodates all cables below 12mm outdoor/indoor cables and 3mm OD soft cables



APPLICATIONS

- Premise cabling
- FTTH access networks
- Data communication networks



ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|----------------|---|
| 24F | HT-AWXG24SXXX3 | 24F Wall Mount Type FAT Metal Box - Unloaded |
| 24F | HT-AWXG24SSCA2 | 24F Wall Mount Type FAT Metal Box - loaded with SM SCAPC Adapters |
| 24F | HT-AWXG24SSCP2 | 24F Wall Mount Type FAT Metal Box - loaded with SM SC PC Adapters |
| 48F | HT-AWXG48DLCA2 | 48F Wall Mount Type FAT Metal Box - loaded with SM LCAPC Adapters |
| 48F | HT-AWXG48DLCP2 | 48F Wall Mount Type FAT Metal Box - loaded with SM LC PC Adapters |

FIBER ACCESS TERMINATION BOX

WALL MOUNT INDOOR FIBER TERMINAL BOX: 6-96F - METAL

HTL Passive Connectivity Solutions wall mount fiber access terminal (FAT) box is designed to provide easy patching, storing fiber terminations for feeder cables, branch cable, direct connection and allocation. This FAT is used for both indoor applications. This FAT can also be used to mount passive splitters and install fiber in small and medium size multi dwelling units (MDU's) for FTTx applications.

PRODUCT FEATURES

- IP-55 rated
- Ample storage for slack
- Installation: Indoor wall mount type
- Available with unloaded and loaded variants
- Constructed of powder coated CRCA material
- Accommodates multimode and single mode fibers
- Accommodates 1:8 SC, 1:16 SC, 1:32, 1:64 SC/LC PLC splitters
- Accommodates 48 Simplex SC and 48 Duplex LC adapters
- Single door type - can be flipped over for ease of access and maintenance
- Can be preloaded with SC, LC adapters and pre-terminated cable assemblies
- Accommodates all cables below 12mm outdoor/indoor cables and 3mm OD soft cables



APPLICATIONS

- Premise cabling
- FTTH access networks
- Data communication networks



ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|----------------|---|
| 48F | HT-AWXG48SXXX3 | 48F Wall Mount Type FAT Metal Box - Unloaded |
| 48F | HT-AWXG48SSCA2 | 48F Wall Mount Type FAT Metal Box - loaded with SM SCAPC Adapters |
| 48F | HT-AWXG48SSCP2 | 48F Wall Mount Type FAT Metal Box - loaded with SM SC PC Adapters |
| 96F | HT-AWXG96DLCA2 | 96F Wall Mount Type FAT Metal Box - loaded with SM LCAPC Adapters |
| 96F | HT-AWXG96DLCP2 | 96F Wall Mount Type FAT Metal Box - loaded with SM LC PC Adapters |

FIBER TERMINATION BOX (FTB)

FIBER WALL TERMINATION BOX HOME ACCESS: 1-4F

HTL Passive Connectivity Solutions provides variety of Fiber Termination Box (FTB) for local area networks and FTTH applications

PRODUCT FEATURES

- Holds up to maximum four fibers
- Wall mount and surface mount type
- Constructed of high quality ABS material
- Available in loaded and unloaded options
- Compact design, small size for easy installation



APPLICATIONS

- FTTH network
- Local area network (LAN), FTTD



ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|--------------|---|
| 1F | HT-FTB1FU | 1F FTB - Unloaded |
| 1F | HT-FTB1FSCA0 | 1F FTB - Loaded with SM SC APC Adapter and G652D Pigtail |
| 1F | HT-FTB1FSCA1 | 1F FTB - Loaded with SM SC APC Adapter and G657A1 Pigtail |
| 1F | HT-FTB1FSCA2 | 1F FTB - Loaded with SM SC APC Adapter and G657A2 Pigtail |
| 2F | HT-FTB2FU | 2F FTB - Unloaded |
| 2F | HT-FTB2FSCA0 | 2F FTB - Loaded with SM SC APC Adapter and G652D Pigtail |
| 2F | HT-FTB2FSCA1 | 2F FTB - Loaded with SM SC APC Adapter and G657A1 Pigtail |
| 2F | HT-FTB2FSCA2 | 2F FTB - Loaded with SM SC APC Adapter and G657A2 Pigtail |
| 4F | HT-FTB4FU | 4F FTB - Unloaded |
| 4F | HT-FTB4FSCA0 | 4F FTB - Loaded with SM SC APC Adapter and G652D Pigtail |
| 4F | HT-FTB4FSCA1 | 4F FTB - Loaded with SM SC APC Adapter and G657A1 Pigtail |
| 4F | HT-FTB4FSCA2 | 4F FTB - Loaded with SM SC APC Adapter and G657A2 Pigtail |

PLC OPTICAL SPLITTERS

PLC OPTICAL SPLITTER BARE TYPE 1XN & 2XN

HTL Passive Connectivity Solutions provides variety of Fiber Optic PLC (Planar lightwave circuit) Splitters for metropolitan area networks (MAN), local area networks, FTTx and other applications. PLC splitters are mainly used for optical signal coupling and distribution in passive optical network (PON) Systems. PLC has advantages of wavelength insensitivity, uniform splitting, high stability and high density.

PRODUCT FEATURES

- Wide operating wavelength from 1260-1650nm
- Compact design, small size for easy installation
- Good uniformity and low polarization dependent loss (PDL)



APPLICATIONS

- FTTx networks
- GPON and 10G-PON networks
- Point to multipoint (P2MP) networks



ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|-------------|---|
| 1X2 | HT-SPPB102U | 1X2 PLC Splitter Bare type without connector |
| 1X4 | HT-SPPB104U | 1X4 PLC Splitter Bare type without connector |
| 1X8 | HT-SPPB108U | 1X8 PLC Splitter Bare type without connector |
| 1X16 | HT-SPPB116U | 1X16 PLC Splitter Bare type without connector |
| 1X32 | HT-SPPB132U | 1X32 PLC Splitter Bare type without connector |
| 1X64 | HT-SPPB164U | 1X64 PLC Splitter Bare type without connector |
| 2X2 | HT-SPPB202U | 2X2 PLC Splitter Bare type without connector |
| 2X4 | HT-SPPB204U | 2X4 PLC Splitter Bare type without connector |
| 2X8 | HT-SPPB208U | 2X8 PLC Splitter Bare type without connector |
| 2X16 | HT-SPPB216U | 2X16 PLC Splitter Bare type without connector |
| 2X32 | HT-SPPB232U | 2X32 PLC Splitter Bare type without connector |
| 2X64 | HT-SPPB264U | 2x64 PLC Splitter Bare type without connector |

PLC OPTICAL SPLITTERS

PLC OPTICAL SPLITTER ABS BOX TYPE 1XN & 2XN

HTL Passive Connectivity Solutions provides variety of Fiber Optic PLC (Planar lightwave circuit) Splitters for metropolitan area networks (MAN), local area networks, FTTx and other applications. PLC splitters are mainly used for optical signal coupling and distribution in passive optical network (PON) Systems. PLC has advantages of wavelength insensitivity, uniform splitting, high stability and high density.

PRODUCT FEATURES

- ABS box splitter
- Wide operating wavelength from 1260-1650nm
- Compact design, small size for easy installation
- Good uniformity and low polarization dependent loss (PDL)
- ABS box splitters are suitable with indoor and outdoor wall mount box



APPLICATIONS

- Central office
- FTTx networks
- GPON and 10G-PON networks
- Point to multipoint (P2MP) networks



ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|------------------|---|
| 1X2 | HT-SPPA102SCA21 | 1X2 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 1X4 | HT-SPPA104SCA21 | 1X4 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 1X8 | HT-SPPA108SCA21 | 1X8 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 1X16 | HT-SPPA116SCA21 | 1X16 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 1X32 | HT-SPPA132SCA21 | 1X32 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 1X64 | HT-SPPA164SCA21 | 1X64 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 1X128 | HT-SPPA1128SCA21 | 1X128 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 2X2 | HT-SPPA202SCA21 | 2X2 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 2X4 | HT-SPPA204SCA21 | 2X4 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 2X8 | HT-SPPA208SCA21 | 2X8 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 2X16 | HT-SPPA216SCA21 | 2X16 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 2X32 | HT-SPPA232SCA21 | 2X32 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 2X64 | HT-SPPA264SCA21 | 2X64 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |
| 2X128 | HT-SPPA2128SCA21 | 2X128 PLC Splitter ABS Box type with SCAPC connector 2mm SM G652D Cable |

For SM G657A1 fiber core 2mm cable: Replace last two digits 21 with 22 in the above part codes

For SM G657A2 fiber core 2mm cable: Replace last two digits 21 with 23 in the above part codes

ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|------------------|---|
| 1X2 | HT-SPPA102SCA31 | 1X2 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 1X4 | HT-SPPA104SCA31 | 1X4 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 1X8 | HT-SPPA108SCA31 | 1X8 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 1X16 | HT-SPPA116SCA31 | 1X16 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 1X32 | HT-SPPA132SCA31 | 1X32 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 1X64 | HT-SPPA164SCA31 | 1X64 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 1X128 | HT-SPPA1128SCA31 | 1X128 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 2X2 | HT-SPPA202SCA31 | 2X2 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 2X4 | HT-SPPA204SCA31 | 2X4 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 2X8 | HT-SPPA208SCA31 | 2X8 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 2X16 | HT-SPPA216SCA31 | 2X16 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 2X32 | HT-SPPA232SCA31 | 2X32 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 2X64 | HT-SPPA264SCA31 | 2X64 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |
| 2X128 | HT-SPPA2128SCA31 | 2X128 PLC Splitter ABS Box type with SCAPC connector 3mm SM G652D Cable |

For SM G657A1 fiber core 3mm cable: Replace last two digits 31 with 32 in the above part codes

For SM G657A2 fiber core 3mm cable: Replace last two digits 31 with 33 in the above part codes

ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|------------------|---|
| 1X2 | HT-SPPA102SCA91 | 1X2 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 1X4 | HT-SPPA104SCA91 | 1X4 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 1X8 | HT-SPPA108SCA91 | 1X8 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 1X16 | HT-SPPA116SCA91 | 1X16 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 1X32 | HT-SPPA132SCA91 | 1X32 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 1X64 | HT-SPPA164SCA91 | 1X64 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 1X128 | HT-SPPA1128SCA91 | 1X128 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 2X2 | HT-SPPA202SCA91 | 2X2 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 2X4 | HT-SPPA204SCA91 | 2X4 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 2X8 | HT-SPPA208SCA91 | 2X8 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 2X16 | HT-SPPA216SCA91 | 2X16 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 2X32 | HT-SPPA232SCA91 | 2X32 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 2X64 | HT-SPPA264SCA91 | 2X64 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |
| 2X128 | HT-SPPA2128SCA91 | 2X128 PLC Splitter ABS Box type with SCAPC connector 0.9mm SM G652D Cable |

For SM G657A1 fiber core 0.9mm cable: Replace last two digits 91 with 92 in the above part codes

For SM G657A2 fiber core 0.9mm cable: Replace last two digits 91 with 93 in the above part codes

PLC OPTICAL SPLITTERS

PLC OPTICAL SPLITTER LGX CASSETTE TYPE 1XN & 2XN

HTL Passive Connectivity Solutions provides variety of fiber optic PLC (Planar lightwave circuit) splitters for metropolitan area networks (MAN), local area networks, FTTx and other applications. PLC splitters are mainly used for optical signal coupling and distribution in passive optical network (PON) systems. PLC has advantages of wavelength insensitivity, uniform splitting, high stability and high density.



PRODUCT FEATURES

- LGX cassette box splitter
- Wide operating wavelength from 1260-1650nm
- Compact design, small size for easy installation
- Good uniformity and low polarization dependent loss (PDL)
- LGX cassette splitter are suitable with indoor and outdoor wall mount box

APPLICATIONS

- Central office
- FTTx networks
- GPON and 10G-PON networks
- Point to multipoint (P2MP) networks



ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|----------------|---|
| 1X2 | HT-SPPC102SCA1 | 1X2 PLC Cassette Splitter Plug-in type SCAPC |
| 1X4 | HT-SPPC104SCA1 | 1X4 PLC Cassette Splitter Plug-in type SCAPC |
| 1X8 | HT-SPPC108SCA1 | 1X8 PLC Cassette Splitter Plug-in type SCAPC |
| 1X16 | HT-SPPC116SCA1 | 1X16 PLC Cassette Splitter Plug-in type SCAPC |
| 1X32 | HT-SPPC132SCA1 | 1x32 PLC Cassette Splitter Plug-in type SCAPC |
| 1X64 | HT-SPPC164SCA1 | 1X64 PLC Cassette Splitter Plug-in type SCAPC |
| 2X2 | HT-SPPC202SCA1 | 2X2 PLC Cassette Splitter Plug-in type SCAPC |
| 2X4 | HT-SPPC204SCA1 | 2X4 PLC Cassette Splitter Plug-in type SCAPC |
| 2X8 | HT-SPPC208SCA1 | 2X8 PLC Cassette Splitter Plug-in type SCAPC |
| 2X16 | HT-SPPC216SCA1 | 2X16 PLC Cassette Splitter Plug-in type SCAPC |
| 2X32 | HT-SPPC232SCA1 | 2x32 PLC Cassette Splitter Plug-in type SCAPC |
| 2X64 | HT-SPPC264SCA1 | 2X64 PLC Cassette Splitter Plug-in type SCAPC |

PLC OPTICAL SPLITTERS

PLC OPTICAL SPLITTER RACK MOUNT TYPE 1XN & 2XN

HTL Passive Connectivity Solutions provides variety of fiber optic PLC (Planar lightwave circuit) splitters for metropolitan area networks (MAN), local area networks, FTTx and other applications. PLC splitters are mainly used for optical signal coupling and distribution in passive optical network (PON) systems. PLC has advantages of wavelength insensitivity, uniform splitting, high stability and high density.

PRODUCT FEATURES

- 19" rack mount type fixed splitter
- Wide operating wavelength from 1260-1650nm
- Compact design, small size for easy installation
- Good uniformity and low polarization dependent loss (PDL)
- Rack mount splitters are suitable with indoor and outdoor racks or enclosures



APPLICATIONS

- Central office
- FTTx networks
- GPON and 10G-PON networks
- Point to multipoint (P2MP) networks



ORDERING DETAILS

| Fiber | Part code | Product description |
|-------|----------------|--|
| 1X2 | HT-SPPR102SCA1 | 1X2 PLC Splitter SC APC 19" Rack Mount Type |
| 1X4 | HT-SPPR104SCA1 | 1X4 PLC Splitter SC APC 19" Rack Mount Type |
| 1X8 | HT-SPPR108SCA1 | 1X8 PLC Splitter SC APC 19" Rack Mount Type |
| 1X16 | HT-SPPR116SCA1 | 1X16 PLC Splitter SC APC 19" Rack Mount Type |
| 1X32 | HT-SPPR132SCA1 | 1X32 PLC Splitter SC APC 19" Rack Mount Type |
| 1X64 | HT-SPPR164SCA1 | 1X64 PLC Splitter SC APC 19" Rack Mount Type |
| 2X2 | HT-SPPR202SCA1 | 2X2 PLC Splitter SC APC 19" Rack Mount Type |
| 2X4 | HT-SPPR204SCA1 | 2X4 PLC Splitter SC APC 19" Rack Mount Type |
| 2X8 | HT-SPPR208SCA1 | 2X8 PLC Splitter SC APC 19" Rack Mount Type |
| 2X16 | HT-SPPR216SCA1 | 2X16 PLC Splitter SC APC 19" Rack Mount Type |
| 2X32 | HT-SPPR232SCA1 | 2X32 PLC Splitter SC APC 19" Rack Mount Type |
| 2X64 | HT-SPPR264SCA1 | 2X64 PLC Splitter SC APC 19" Rack Mount Type |

JOINT SPLICE CLOSURES

JOINT CLOSURE OUTDOOR HEAT SHRINK DOME TYPE

HTL Passive Connectivity Solutions provides variety of fiber joint closures to protect fiber cable splices for outside plant fiber cables. Joint closures secures fiber splices and ensures high reliability in ambient temperature ranges. Provides management of fibers without disturbing the existing fibers already in use and are installed in underground, aerial and duct mount OSP applications.

PRODUCT FEATURES

- Heat shrink seal type
- UV resistant outer dome
- All entry ports are sealed ports
- IP-68 rated – water proof grade
- 5 ports with four round ports and one oval port
- Constructed of high quality polycarbonate (PC) material



APPLICATIONS

- CATV application
- FTTH access network
- Data communication network
- Outside plant (OSP) distribution network



ORDERING DETAILS

| SL.NO. | Part code | Product description |
|--------|--------------|--|
| 1 | HT-JCH012DT1 | Fiber Joint Closure Dome HS Type - 12F |
| 2 | HT-JCH024DT1 | Fiber Joint Closure Dome HS Type - 24F |
| 3 | HT-JCH048DT1 | Fiber Joint Closure Dome HS Type - 48F |
| 4 | HT-JCH072DT1 | Fiber Joint Closure Dome HS Type - 72F |
| 5 | HT-JCH096DT1 | Fiber Joint Closure Dome HS Type - 96F |

JOINT SPLICE CLOSURES

JOINT CLOSURE OUTDOOR MECHANICAL DOME TYPE

HTL Passive Connectivity Solutions provides variety of fiber joint closures to protect fiber cable splices for outside plant fiber cables. Joint closures secures fiber splices and ensures high reliability in ambient temperature ranges. Provides management of fibers without disturbing the existing fibers already in use and are installed in underground, aerial and duct mount OSP applications.

PRODUCT FEATURES

- UV resistant outer dome
- IP-68 rated – water proof grade
- Mechanical seal type – reusable
- 5 ports with four round ports and one oval port
- Constructed of high quality polycarbonate (PC) material



APPLICATIONS

- CATV application
- FTTH access network
- Data communication network
- Outside plant (OSP) distribution network



ORDERING DETAILS

| SL.NO. | Part code | Product description |
|--------|--------------|---|
| 1 | HT-JCM012DT1 | Fiber Joint Closure Mechanical Dome Type – 12F |
| 2 | HT-JCM024DT1 | Fiber Joint Closure Mechanical Dome Type – 24F |
| 3 | HT-JCM048DT1 | Fiber Joint Closure Mechanical Dome Type – 48F |
| 4 | HT-JCM072DT1 | Fiber Joint Closure Mechanical Dome Type – 72F |
| 5 | HT-JCM096DT1 | Fiber Joint Closure Mechanical Dome Type – 96F |
| 6 | HT-JCM144DT1 | Fiber Joint Closure Mechanical Dome Type – 144F |

JOINT SPLICE CLOSURES

JOINT CLOSURE OUTDOOR INLINE/STRAIGHT TYPE

HTL Passive Connectivity Solutions provides variety of fiber joint closures to protect fiber cable splices for outside plant fiber cables. Joint closures secures fiber splices and ensures high reliability in ambient temperature ranges. Provides management of fibers without disturbing the existing fibers already in use and are installed in underground, aerial and duct mount OSP applications.

PRODUCT FEATURES

- Inline straight type
- Heat shrink seal type
- UV resistant outer box
- All entry ports are sealed ports
- IP-68 rated - water proof grade
- 4 ports with two inlet and two outlet ports
- Constructed of high quality polycarbonate (PC) material



APPLICATIONS

- CATV application
- FTTH access network
- Aerial mount installation
- Data communication network
- Outside plant (OSP) distribution network



ORDERING DETAILS

| SL.NO. | Part code | Product description |
|--------|--------------|---------------------------------------|
| 1 | HT-JCH012ST1 | Fiber Joint Closure Inline Type - 12F |
| 2 | HT-JCH024ST1 | Fiber Joint Closure Inline Type - 24F |
| 3 | HT-JCH048ST1 | Fiber Joint Closure Inline Type - 48F |
| 4 | HT-JCH072ST1 | Fiber Joint Closure Inline Type - 72F |
| 5 | HT-JCH096ST1 | Fiber Joint Closure Inline Type - 96F |

CONNECTORS & ADAPTERS

SC & LC FIELD CONNECTOR

HTL Passive Connectivity Solutions provides field installable fast connector for easy installation of fiber at customer premises. Our field connector provides superior performance with low insertion loss.

PRODUCT FEATURES

- For quick and easy installation at site
- Available in short boot and long boot
- Minimum tooling required at site for installation
- Available in single mode (SM) & multimode (MM) fiber types
- Meets and exceeds the requirements of ANSI/TIA-568.3-D and IEC standards
- Available in SC UPC, SC APC and small form factor LC UPC and LC APC type



APPLICATIONS

- FTTH home access networks
- Data communication networks



ORDERING DETAILS

| SL.NO. | Part code | Product description |
|--------|-------------|--|
| 1 | HT-FCSSCU90 | SC UPC SM Field Connector - 900µm Boot |
| 2 | HT-FCSSCA90 | SC APC SM Field Connector - 900µm Boot |
| 3 | HT-FCSSCU25 | SC UPC SM Field Connector - 250µm Boot |
| 4 | HT-FCSSCA25 | SC APC SM Field Connector - 250µm Boot |
| 5 | HT-FCSLCU90 | LC UPC SM Field Connector - 900µm Boot |
| 6 | HT-FCSLCA90 | LC APC SM Field Connector - 900µm Boot |
| 7 | HT-FCSLCU25 | LC UPC SM Field Connector - 250µm Boot |
| 8 | HT-FCSLCA25 | LC APC SM Field Connector - 250µm Boot |

CONNECTORS & ADAPTERS

SC & LC ADAPTERS

HTL Passive Connectivity Solutions provides fiber optic adapters for easy installation for variety of fiber management systems, fiber access terminals, fiber distribution box and other fiber optic applications.



PRODUCT FEATURES

- Anti-fungus plastic material
- Features snap and flange mount
- Meets and exceeds TIA/EIA and IEC specifications
- Available in single mode (SM) & multimode (MM) fiber types
- Available in simplex, duplex (SC & LC) and quad ports (LC only)
- Available in SC PC, SC APC and small form factor LC PC and LC APC type.
- Available in zirconia ceramic for SM adapters and phosphorous bronze for MM Adapters

APPLICATIONS

- Data center
- Central office
- FTTH access networks
- Premise cabling networks
- Data communication networks



ORDERING DETAILS

| SL.NO. | Part code | Product description |
|--------|---------------|--------------------------------------|
| 1 | HT-FADSSSCAFG | SC APC SM Simplex Adapter - Green |
| 2 | HT-FADSSSCUFB | SC UPC SM Simplex Adapter - Blue |
| 3 | HT-FADDSSCUFB | SC UPC SM Duplex Adapter - Blue |
| 4 | HT-FADDMSCUFE | SC UPC MM Duplex Adapter - Beige |
| 5 | HT-FADDMSCUFA | SC UPC MM Duplex Adapter - Aqua |
| 6 | HT-FADDMSCUFV | SC UPC MM Duplex Adapter - Er Violet |
| 7 | HT-FADSSLCAFG | LC APC SM Simplex Adapter - Green |
| 8 | HT-FADSSLCUFB | LC UPC SM Simplex Adapter - Blue |
| 9 | HT-FADDSLCAFG | LC APC SM Duplex Adapter - Green |
| 10 | HT-FADDSLCUFB | LC UPC SM Duplex Adapter - Blue |
| 11 | HT-FADDMLCUFE | LC UPC MM Duplex Adapter - Beige |
| 12 | HT-FADDMLCUFA | LC UPC MM Duplex Adapter - Aqua |
| 13 | HT-FADDMLCUFV | LC UPC MM Duplex Adapter - Er Violet |
| 14 | HT-FADQSLCAFG | LC APC SM Quad Adapter - Green |
| 15 | HT-FADQSLCUFB | LC UPC SM Quad Adapter - Blue |
| 16 | HT-FADQMLCUFE | LC UPC MM Quad Adapter - Beige |
| 17 | HT-FADQMLCUFA | LC UPC MM Quad Adapter - Aqua |
| 18 | HT-FADQMLCUFV | LC UPC MM Quad Adapter - Er Violet |

FIBER CABLE ASSEMBLIES

SINGLEMODE AND MULTIMODE FIBER PATCH CORD ASSEMBLIES

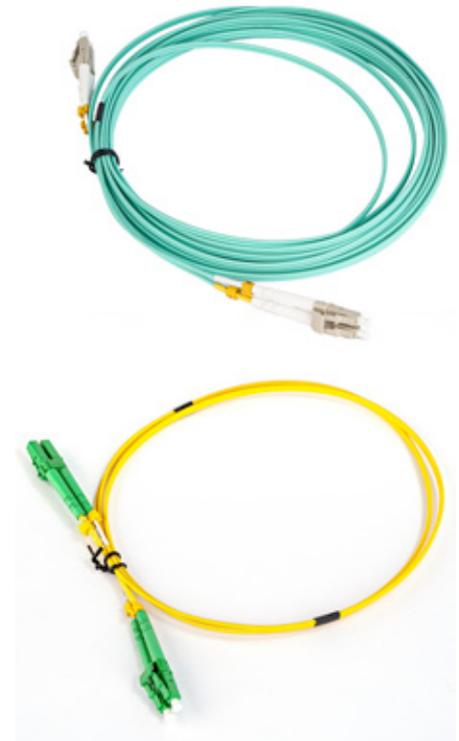
HTL Passive Connectivity Solutions provides variety of fiber optic patch cord assemblies for singlemode and multimode type fiber applications

PRODUCT FEATURES

- Standard or custom assemblies
- Controlled fiber protrusion type
- Precision ferrule endface geometry
- LSZH jacket for fire safety standards
- Available in Single mode and multimode fiber cores
- Available in simplex, duplex, 2mm, 3mm cable options
- Factory polished and tested as per relevant standards
- Available in the combinations of different fiber connectors

APPLICATIONS

- Data center
- Central office
- FTTH access networks
- Premise cabling networks
- Data communication networks



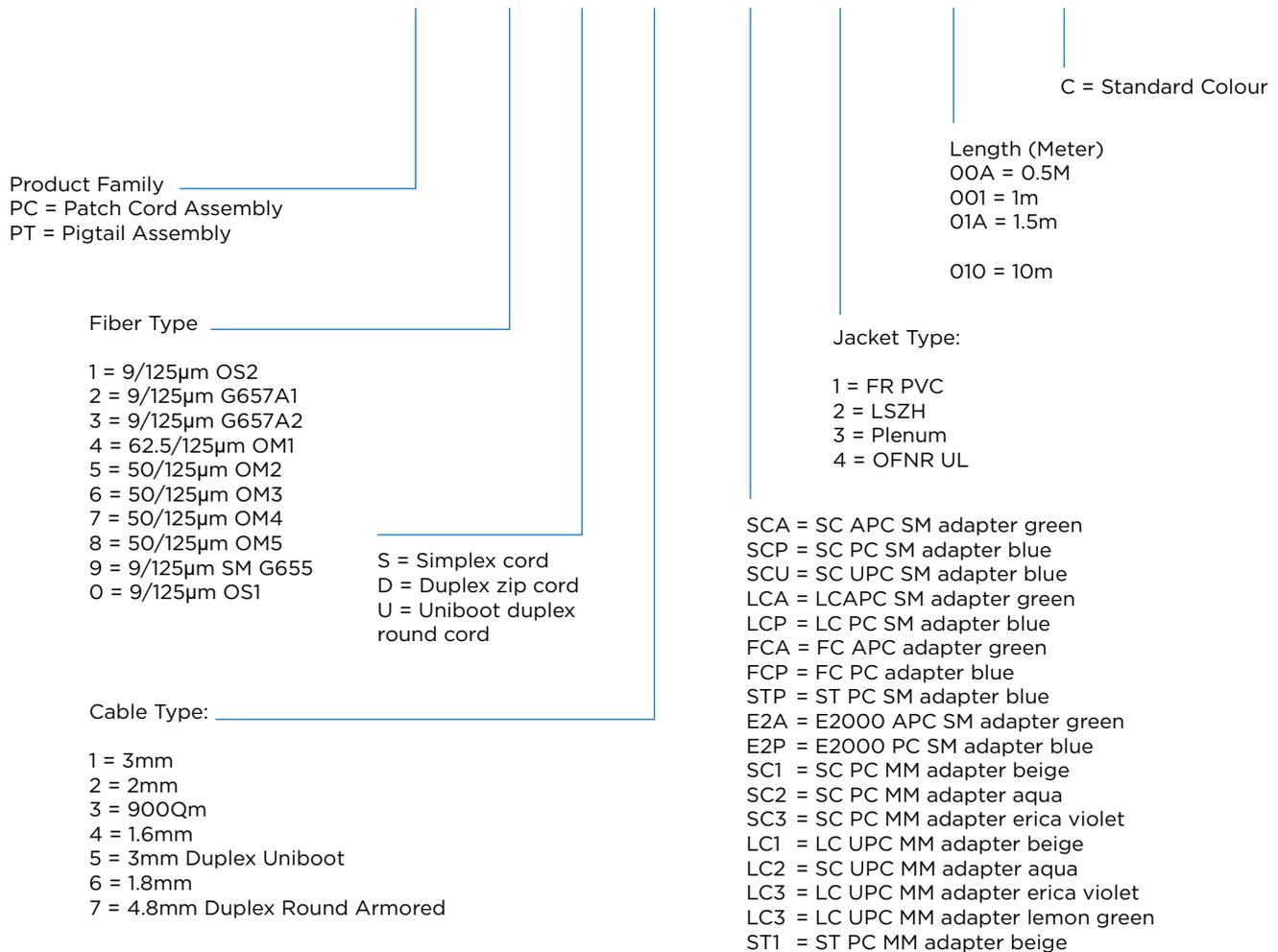
ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|-----------------|---|
| 1 | HT-PC1S1222001C | SC APC - SC APC, SM OS2 Simplex OF Patch cord LSZH 1m |
| 2 | HT-PC1S1252003C | SC APC - LC APC, SM OS2 Simplex OF Patch cord LSZH 3m |
| 3 | HT-PC1D2142001C | SC PC - LC PC, SM OS2 Duplex OF Patch cord LSZH 1m |
| 4 | HT-PC6D2362001C | SC UPC - LC UPC, MM OM3 Duplex OF Patch cord LZHS 1m |
| 5 | HT-PC7D2662001C | LC UPC - LC UPC, MM OM4 Duplex OF Patch cord LSZH 1m |
| 6 | HT-PC8D2662010C | LC UPC - LC UPC, MM OM5 Duplex OF Patch cord LSZH 10m |

PART CODE SCHEME

Replace X with the correct code to determine the correct fiber assembly configuration

HT - XX X X X XX X XXX X



FIBER CABLE ASSEMBLIES

SINGLE MODE AND MULTIMODE FIBER PIGTAIL ASSEMBLIES

HTL Passive Connectivity Solutions provides variety of fiber optic pigtail assemblies for singlemode and multimode type fiber applications.

PRODUCT FEATURES

- Standard or custom assemblies
- Controlled fiber protrusion type
- Precision ferrule end-face geometry
- Available in different fiber connectors
- Available in Single mode and multimode fiber cores
- Factory polished and tested as per relevant standards



APPLICATIONS

- Data center
- Central office
- FTTH access networks
- Premise cabling networks
- Data communication networks



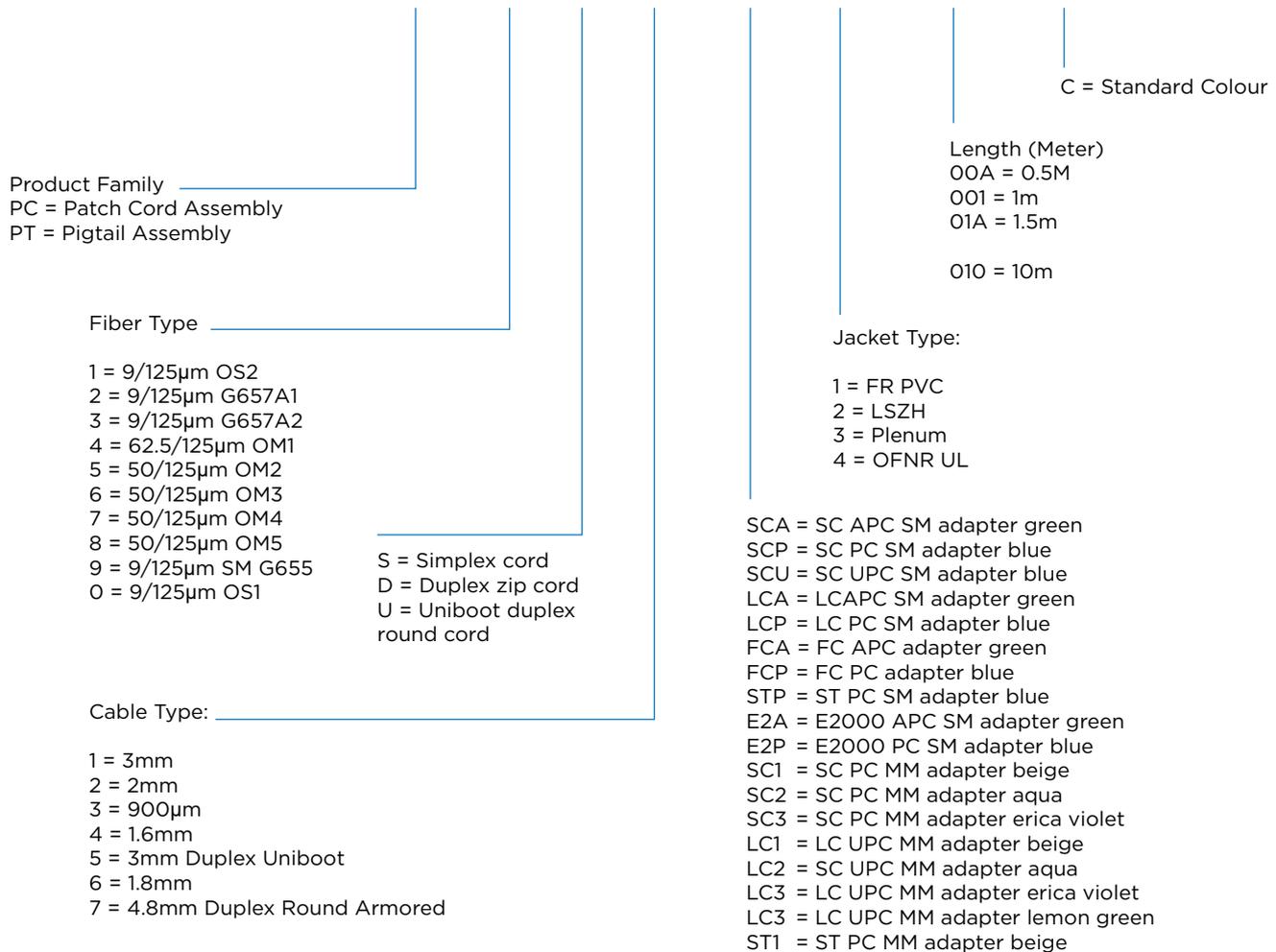
ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|-----------------|---------------------------------------|
| 1 | HT-PT1S3041001C | LC PC, Singlemode Pigtail 1.0m |
| 2 | HT-PT1S304101AC | LC PC, Singlemode Pigtail 1.5m |
| 3 | HT-PT1S3051001C | LC APC, Singlemode Pigtail 1.0m |
| 4 | HT-PT1S3051001C | LC APC, Singlemode Pigtail 1.5m |
| 5 | HT-PT2S3041001C | LC PC, Singlemode G657A1 Pigtail 1.0m |

PART CODE SCHEME

Replace X with the correct code to determine the correct fiber assembly configuration

HT - XX X X X XX X XXX X



MPO FIBER SOLUTIONS

1U FIBER RACK MOUNT PANEL & CASSETTES

HTL Passive Connectivity Solutions 1U Rack Mount HD Fiber Panel supports maximum of 144F with MPO to LC modules or cassettes. This high-density solution provides to a greater network availability ideal for Data center and other fiber backbone connectivity.

PRODUCT FEATURES

- 1U 19" rack mount type
- Indoor installation grade
- Modular and scalable construction
- Pluggable cassettes for easy plug and play
- Cassette loaded with low loss connectors and adapters
- Available in single mode OS2 and multimode OM3, OM4, OM5 fiber



APPLICATIONS

- Plug and play systems
- High density fiber systems
- Backbone enterprise networks
- Data communication networks
- High integration equipment and devices
- Data center & storage area network (SAN)



ORDERING DETAILS

| SL.NO. | Part code | Product description |
|--------|------------------|---------------------------------|
| 1 | HT-MPS1B096QXXX3 | 1U 96F MPO LC Panel - Unloaded |
| 2 | HT-MPS1B144QXXX3 | 1U 144F MPO LC Panel - Unloaded |
| 3 | HT-MPB012DLC P11 | 12F OS2 MPO LC Cassette |
| 4 | HT-MPB024QLC P11 | 24F OS2 MPO LC Cassette |
| 5 | HT-MPB012DLC 211 | 12F OM3 MPO LC Cassette |
| 6 | HT-MPB024QLC 211 | 24F OM3 MPO LC Cassette |
| 7 | HT-MPB012DLC 311 | 12F OM4 MPO LC Cassette |
| 8 | HT-MPB024QLC 311 | 24F OM4 MPO LC Cassette |
| 9 | HT-MPB012DLC 411 | 12F OM5 MPO LC Cassette |
| 10 | HT-MPB024QLC 411 | 24F OM5 MPO LC Cassette |

MPO FIBER SOLUTIONS

2U FIBER RACK MOUNT PANEL & CASSETTES

HTL Passive Connectivity Solutions 2U Rack Mount HD Fiber Panel supports maximum of 288F with MPO to LC modules or cassettes. This high-density solution provides to a greater network availability ideal for Data center and other fiber backbone connectivity.

PRODUCT FEATURES

- 1U 19" rack mount type
- Indoor installation grade
- Modular and scalable construction
- Pluggable cassettes for easy plug and play
- Cassette loaded with low loss connectors and adapters
- Available in single mode OS2 and multimode OM3, OM4, OM5 fiber

APPLICATIONS

- Plug and play systems
- High density fiber systems
- Backbone enterprise networks
- Data communication networks
- High integration equipment and devices
- Data center & storage area network (SAN)



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|------------------|---------------------------------|
| 1 | HT-MPS2B192QXXX3 | 2U 192F MPO LC Panel - Unloaded |
| 2 | HT-MPS2B288QXXX3 | 2U 288F MPO LC Panel - Unloaded |
| 3 | HT-MPB012DLC P11 | 12F OS2 MPO LC Cassette |
| 4 | HT-MPB024QLC P11 | 24F OS2 MPO LC Cassette |
| 5 | HT-MPB012DLC 211 | 12F OM3 MPO LC Cassette |
| 6 | HT-MPB024QLC 211 | 24F OM3 MPO LC Cassette |
| 7 | HT-MPB012DLC 311 | 12F OM4 MPO LC Cassette |
| 8 | HT-MPB024QLC 311 | 24F OM4 MPO LC Cassette |
| 9 | HT-MPB012DLC 411 | 12F OM5 MPO LC Cassette |
| 10 | HT-MPB024QLC 411 | 24F OM5 MPO LC Cassette |

MPO FIBER SOLUTIONS

MPO-MPO CABLE ASSEMBLIES

HTL Passive Connectivity Solutions factory terminated MPO cable assembly's supports high-density Data center applications. This high-density solution provides to a greater network availability ideal for Data center and other fiber backbone connectivity for plug and play installations.

PRODUCT FEATURES

- Indoor installation grade
- Temperature rating 75°C
- Available in polarity A, B & C
- Round & flexible outer jacket
- Low insertion loss assemblies
- LSZH jacket for fire safety standards
- For quick and easy installation at site
- Available in standard and customized lengths
- Available in 12F and 24F fiber pre-terminated MPO assemblies
- Available in single mode OS2 and multimode OM3, OM4, OM5 fiber
- Meets and exceeds the requirements of ANSI/TIA-568.3-D and IEC specifications



APPLICATIONS

- Plug and play systems
- High density fiber systems
- Backbone enterprise networks
- Data communication networks
- High integration equipment and devices
- Data center & storage area network (SAN)



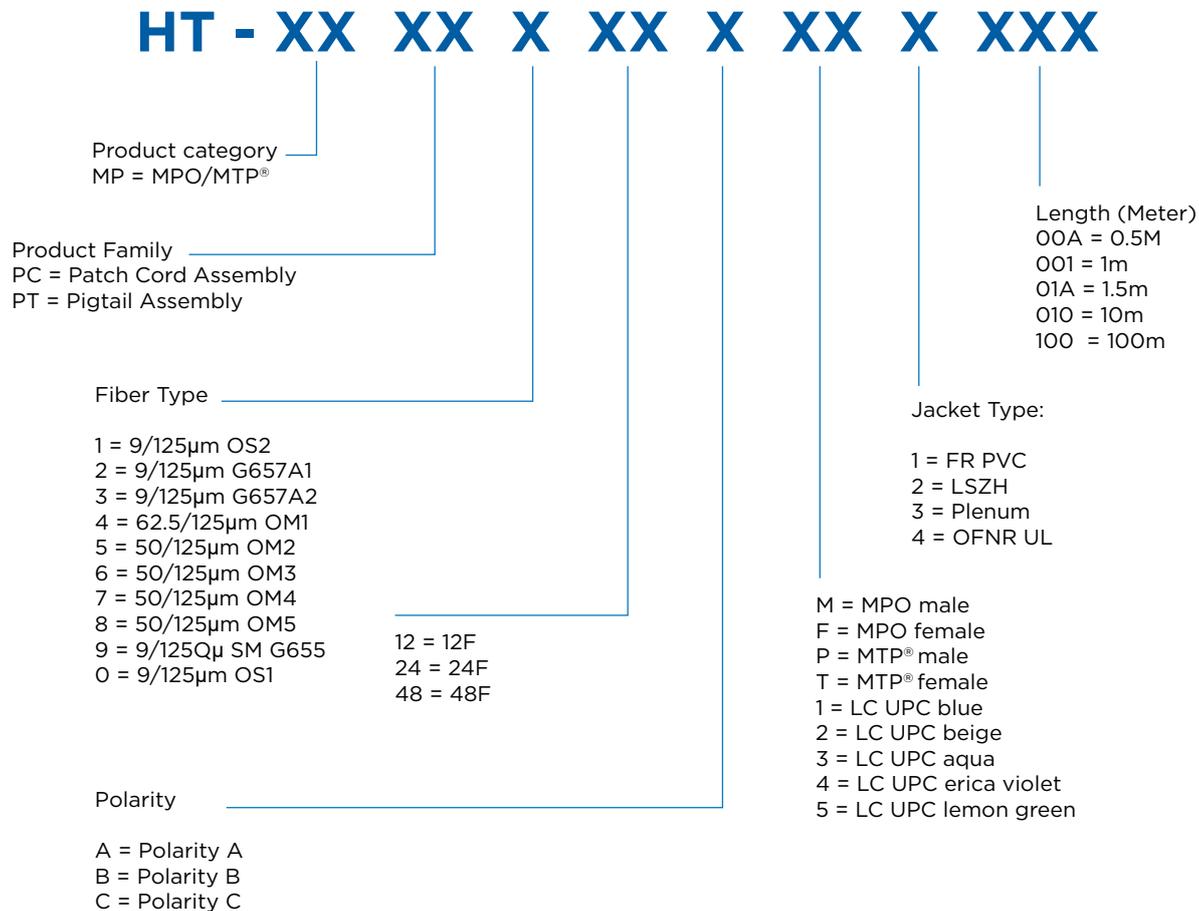
ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|-------------------|--|
| 1 | HT-MPPC112AMM2001 | 12F MPO-MPO OS2 Pol A Cable Assembly 1M - LSZH |
| 2 | HT-MPPC112BMM2001 | 12F MPO-MPO OS2 Pol B Cable Assembly 1M - LSZH |
| 3 | HT-MPPC112CMM2001 | 12F MPO-MPO OS2 Pol C Cable Assembly 1M - LSZH |
| 4 | HT-MPPC124AMM2001 | 24F MPO-MPO OS2 Pol A Cable Assembly 1M - LSZH |
| 5 | HT-MPPC124BMM2001 | 24F MPO-MPO OS2 Pol B Cable Assembly 1M - LSZH |
| 6 | HT-MPPC124CMM2001 | 24F MPO-MPO OS2 Pol C Cable Assembly 1M - LSZH |
| 7 | HT-MPPC612AMM2001 | 12F MPO-MPO OM3 Pol A Cable Assembly 1M - LSZH |
| 8 | HT-MPPC612BMM2001 | 12F MPO-MPO OM3 Pol B Cable Assembly 1M - LSZH |
| 9 | HT-MPPC612CMM2001 | 12F MPO-MPO OM3 Pol C Cable Assembly 1M - LSZH |
| 10 | HT-MPPC624AMM2001 | 24F MPO-MPO OM3 Pol A Cable Assembly 1M - LSZH |
| 11 | HT-MPPC624BMM2001 | 24F MPO-MPO OM3 Pol B Cable Assembly 1M - LSZH |
| 12 | HT-MPPC624CMM2001 | 24F MPO-MPO OM3 Pol C Cable Assembly 1M - LSZH |

In the above part code replace last three digits '001' with 010 for 10m, 020 for 20m, 100 for 100m

PART CODE SCHEME

Replace X with the correct code to determine the correct MPO cable assembly configuration



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|-------------------|--|
| 13 | HT-MPPC712AMM2001 | 12F MPO-MPO OM4 Pol A Cable Assembly 1M - LSZH |
| 14 | HT-MPPC712BMM2001 | 12F MPO-MPO OM4 Pol B Cable Assembly 1M - LSZH |
| 15 | HT-MPPC712CMM2001 | 12F MPO-MPO OM4 Pol C Cable Assembly 1M - LSZH |
| 16 | HT-MPPC724AMM2001 | 24F MPO-MPO OM4 Pol A Cable Assembly 1M - LSZH |
| 17 | HT-MPPC724BMM2001 | 24F MPO-MPO OM4 Pol B Cable Assembly 1M - LSZH |
| 18 | HT-MPPC724CMM2001 | 24F MPO-MPO OM4 Pol C Cable Assembly 1M - LSZH |
| 19 | HT-MPPC812AMM2001 | 12F MPO-MPO OM5 Pol A Cable Assembly 1M - LSZH |
| 20 | HT-MPPC812BMM2001 | 12F MPO-MPO OM5 Pol B Cable Assembly 1M - LSZH |
| 21 | HT-MPPC812CMM2001 | 12F MPO-MPO OM5 Pol C Cable Assembly 1M - LSZH |
| 22 | HT-MPPC824AMM2001 | 24F MPO-MPO OM5 Pol A Cable Assembly 1M - LSZH |
| 23 | HT-MPPC824BMM2001 | 24F MPO-MPO OM5 Pol B Cable Assembly 1M - LSZH |
| 24 | HT-MPPC824CMM2001 | 24F MPO-MPO OM5 Pol C Cable Assembly 1M - LSZH |

MTP® is the registered trademark of US CONEC

In the above part code replace last three digits '001' with 010 for 10m, 020 for 20m, 100 for 100m

MPO FIBER SOLUTIONS

MPO – LC CABLE ASSEMBLIES

HTL Passive Connectivity Solutions factory terminated MPO – LC trunk cable assembly's supports high-density Data center applications. This high-density solution provides to a greater network availability ideal for Data center and other fiber backbone connectivity for plug and play installations.

PRODUCT FEATURES

- Indoor installation grade
- Temperature rating 75°C
- Available in polarity A, B & C
- Round & flexible outer jacket
- Low insertion loss assemblies
- LSZH jacket for fire safety standards
- For quick and easy installation at site
- Available in standard and customized lengths
- Available in single mode OS2 and multimode OM3, OM4, OM5 fiber
- Available in 12F and 24F fiber pre-terminated MPO-LC multi fiber assemblies
- Meets and exceeds the requirements of ANSI/TIA-568.3-D and IEC specifications



APPLICATIONS

- Plug and play systems
- High density fiber systems
- Backbone enterprise networks
- Data communication networks
- High integration equipment and devices
- Data center & storage area network (SAN)

ORDERING DETAILS

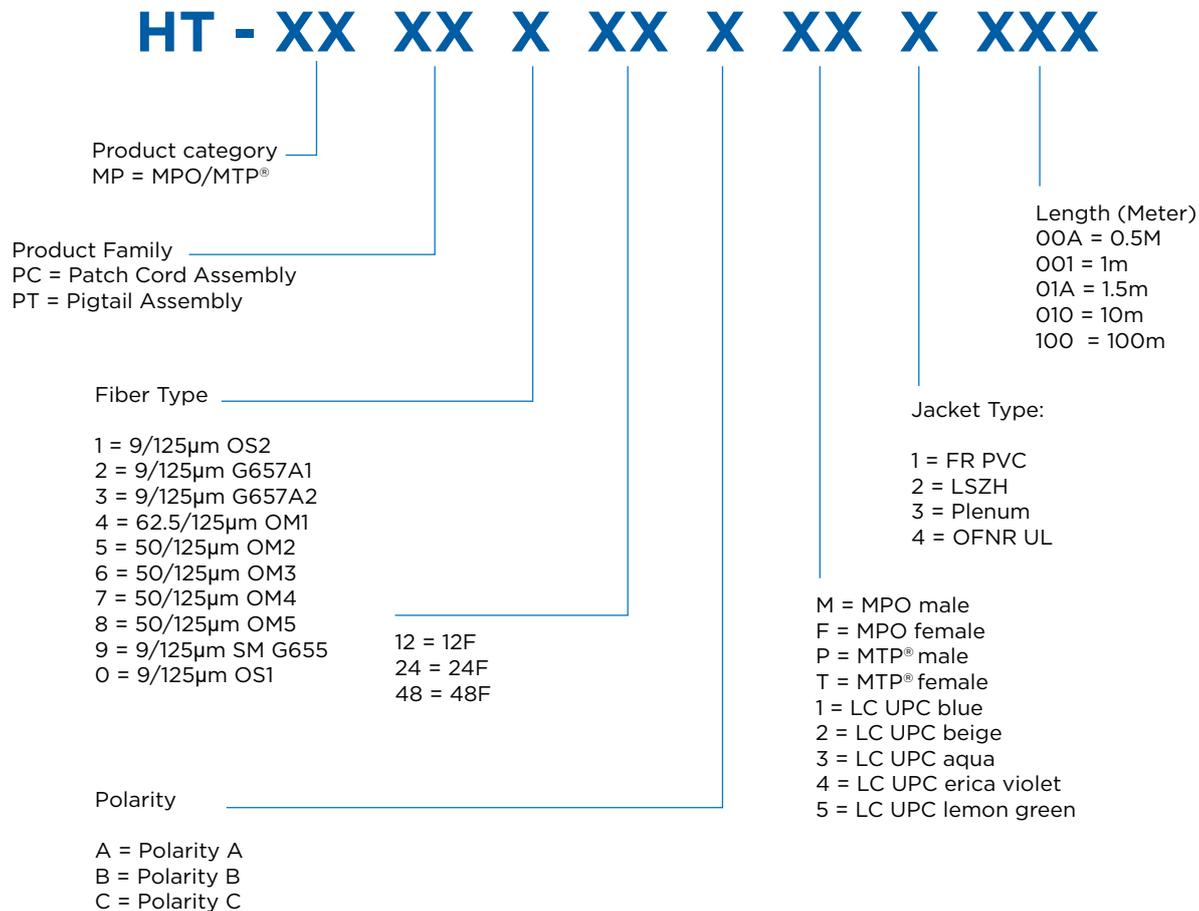


| SL. NO. | Part code | Product description |
|---------|-------------------|---|
| 1 | HT-MPPC112AM12001 | 12F MPO-LC OS2 Pol A Cable Assembly 1M - LSZH |
| 2 | HT-MPPC112BM12001 | 12F MPO-LC OS2 Pol B Cable Assembly 1M - LSZH |
| 3 | HT-MPPC112CM12001 | 12F MPO-LC OS2 Pol C Cable Assembly 1M - LSZH |
| 4 | HT-MPPC124AM12001 | 24F MPO-LC OS2 Pol A Cable Assembly 1M - LSZH |
| 5 | HT-MPPC124BM12001 | 24F MPO-LC OS2 Pol B Cable Assembly 1M - LSZH |
| 6 | HT-MPPC124CM12001 | 24F MPO-LC OS2 Pol C Cable Assembly 1M - LSZH |
| 7 | HT-MPPC612AM32001 | 12F MPO-LC OM3 Pol A Cable Assembly 1M - LSZH |
| 8 | HT-MPPC612BM32001 | 12F MPO-LC OM3 Pol B Cable Assembly 1M - LSZH |
| 9 | HT-MPPC612CM32001 | 12F MPO-LC OM3 Pol C Cable Assembly 1M - LSZH |
| 10 | HT-MPPC624AM32001 | 24F MPO-LC OM3 Pol A Cable Assembly 1M - LSZH |
| 11 | HT-MPPC624BM32001 | 24F MPO-LC OM3 Pol B Cable Assembly 1M - LSZH |
| 12 | HT-MPPC624CM32001 | 24F MPO-LC OM3 Pol C Cable Assembly 1M - LSZH |

In the above part code replace last three digits '001' with 010 for 10m, 020 for 20m, 100 for 100m

PART CODE SCHEME

Replace X with the correct code to determine the correct MPO trunk cable assembly configuration



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|-------------------|---|
| 13 | HT-MPPC712AM42001 | 12F MPO-LC OM4 Pol A Cable Assembly 1M - LSZH |
| 14 | HT-MPPC712BM42001 | 12F MPO-LC OM4 Pol B Cable Assembly 1M - LSZH |
| 15 | HT-MPPC712CM42001 | 12F MPO-LC OM4 Pol C Cable Assembly 1M - LSZH |
| 16 | HT-MPPC724AM42001 | 24F MPO-LC OM4 Pol A Cable Assembly 1M - LSZH |
| 17 | HT-MPPC724BM42001 | 24F MPO-LC OM4 Pol B Cable Assembly 1M - LSZH |
| 18 | HT-MPPC724CM42001 | 24F MPO-LC OM4 Pol C Cable Assembly 1M - LSZH |
| 19 | HT-MPPC812AM52001 | 12F MPO-LC OM5 Pol A Cable Assembly 1M - LSZH |
| 20 | HT-MPPC812BM52001 | 12F MPO-LCOM5 Pol B Cable Assembly 1M - LSZH |
| 21 | HT-MPPC812CM52001 | 12F MPO-LC OM5 Pol C Cable Assembly 1M - LSZH |
| 22 | HT-MPPC824AM52001 | 24F MPO-LC OM5 Pol A Cable Assembly 1M - LSZH |
| 23 | HT-MPPC824BM52001 | 24F MPO-LC OM5 Pol B Cable Assembly 1M - LSZH |
| 24 | HT-MPPC824CM52001 | 24F MPO-LC OM5 Pol C Cable Assembly 1M - LSZH |

MTP® is the registered trademark of US CONEC

In the above part code replace last three digits '001' with 010 for 10m, 020 for 20m, 100 for 100m

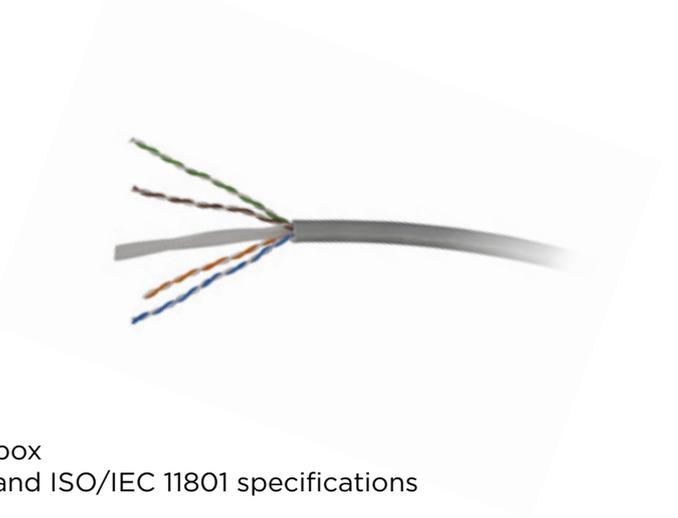
COPPER CABLES

CATEGORY 6 U/UTP 23AWG CABLE

HTL Passive Connectivity Solutions Cat6 U/UTP cable is designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- 4Pair UTP cable
- 23AWG solid bare copper
- Available in LSZH and FR PVC jacket
- Supports IEEE 802.3bt 4P PoE+ applications
- Supports 1Gbps speed data Ethernet applications
- Operates at bandwidth of 250 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Packaging type: Reel of 305m in a spool in a snag free box
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Premise cabling
- LAN Ethernet systems
- Data communication networks
- Surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|--------------|--------------------------------|
| 1 | HT-CC1U11LI3 | Cat6 U/UTP 23AWG Cable - LSZH |
| 2 | HT-CC1U11PI3 | Cat6 U/UTP 23AWG Cable - FRPVC |

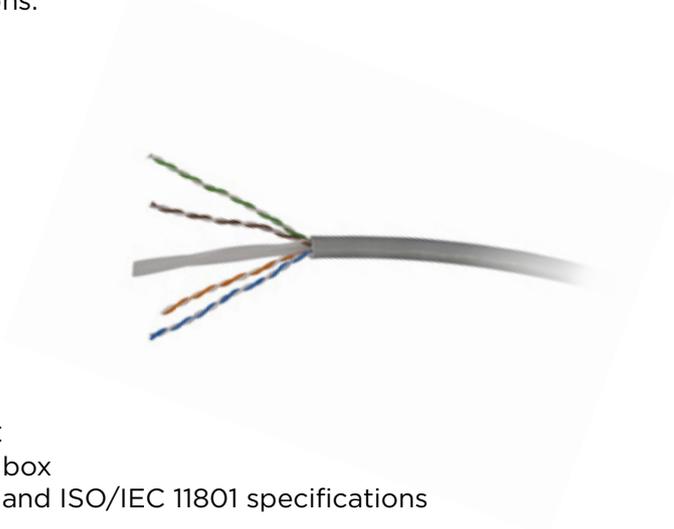
COPPER CABLES

CATEGORY 6 U/UTP 24AWG CABLE

HTL Passive Connectivity Solutions Cat6 U/UTP cable is designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- 4Pair UTP cable
- 24AWG solid bare copper
- Available in LSZH and FR PVC jacket
- Supports IEEE 802.3bt 4P PoE+ applications
- Supports 1Gbps speed data Ethernet applications
- Operates at bandwidth of 250 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Packaging type: Reel of 305m in a spool in a snag free box
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Premise cabling
- LAN Ethernet systems
- Data communication networks
- Surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|--------------|--------------------------------|
| 1 | HT-CC1U12LI3 | Cat6 U/UTP 24AWG Cable - LSZH |
| 2 | HT-CC1U12PI3 | Cat6 U/UTP 24AWG Cable - FRPVC |

COPPER CABLES

CATEGORY 6 S/FTP 23AWG CABLE

HTL Passive Connectivity Solutions Cat6 S/FTP cable is designed to support high data rates, high bandwidth digital applications and provides superior electromagnetic interference protection and voice immunity for indoor shielded installations.

PRODUCT FEATURES

- 4Pair S/FTP cable
- 23AWG solid bare copper
- Available in LSZH and FR PVC jacket
- Packaging type: Reel of 500m in a spool
- Supports IEEE 802.3bt 4P PoE+ applications
- Supports 1Gbps speed data Ethernet applications
- Enhanced overall high screen coverage outer braid
- Individual foil around each pair STP cable construction
- Operates at bandwidth of 250 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Provides superior electromagnetic interference (EMI) protection
- Provide superior noise immunity and coupling attenuation performance
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Premise cabling
- LAN Ethernet systems
- Data communication networks
- Surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|--------------|--------------------------------|
| 1 | HT-CC1S11LI5 | Cat6 S/FTP 23AWG Cable - LSZH |
| 2 | HT-CC1S11PI5 | Cat6 S/FTP 23AWG Cable - FRPVC |

COPPER CABLES

CATEGORY 6 F/UTP 23AWG CABLE

HTL Passive Connectivity Solutions Cat6 F/UTP cable is designed to support high data rates, high bandwidth digital applications and provides superior electromagnetic interference protection for indoor shielded installations.

PRODUCT FEATURES

- 4Pair F/UTP cable
- 23AWG solid bare copper
- Available in LSZH and FR PVC jacket
- Packaging type: Reel of 500m in a spool
- Supports IEEE 802.3bt 4P PoE+ applications
- Supports 1Gbps speed data Ethernet applications
- Operates at bandwidth of 250 MHz for high data rates
- Enhanced overall Aluminum foiled F/UTP construction
- Temperature rating during operation and storage 75°C
- Provides excellent electromagnetic interference (EMI) protection
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Premise cabling
- LAN Ethernet systems
- Data communication networks
- Surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|--------------|--------------------------------|
| 1 | HT-CC1S21LI5 | Cat6 F/UTP 23AWG Cable - LSZH |
| 2 | HT-CC1S21PI5 | Cat6 F/UTP 23AWG Cable - FRPVC |

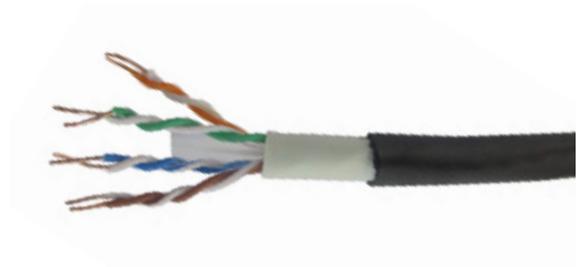
COPPER CABLES

CATEGORY 6 U/UTP OUTDOOR CABLE

HTL Passive Connectivity Solutions Cat6 U/UTP cable is designed to support high data rates, high bandwidth digital applications for indoor and outdoor fixed installations.

PRODUCT FEATURES

- UV rated
- 4Pair UTP cable
- 24AWG and 23AWG solid bare copper
- Packaging type: Reel of 500m in a spool
- Supports IEEE 802.3bt 4P PoE+ applications
- Suitable for both indoor and outdoor installations
- Supports 1Gbps speed data Ethernet applications
- Available in FRPVC inner jacket and PE outer jacket
- Operates at bandwidth of 250 MHz for high data rates
- Temperature rating during operation and storage 85°C
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Premise cabling
- Outdoor installations
- LAN Ethernet systems
- Data communication networks
- Surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|--------------|-------------------------------------|
| 1 | HT-CC1U11HO5 | Cat6 U/UTP 23AWG Outdoor Cable - PE |
| 2 | HT-CC1U12HO5 | Cat6 U/UTP 24AWG Outdoor Cable - PE |

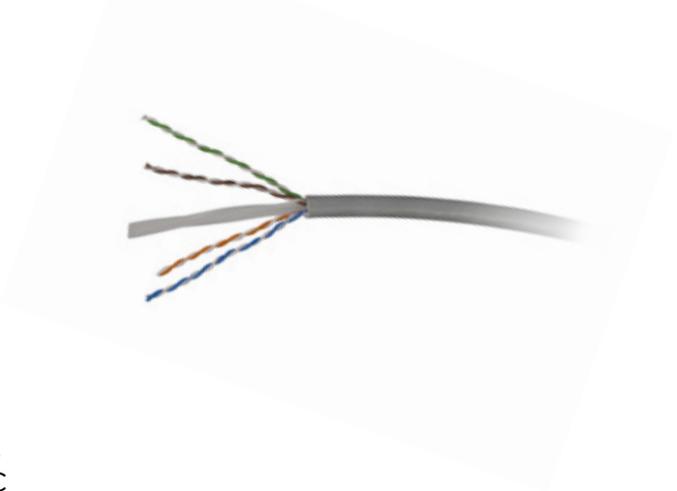
COPPER CABLES

CATEGORY 6A U/UTP CABLE

HTL Passive Connectivity Solutions Cat6A U/UTP cable is designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- 4Pair UTP cable
- 23AWG solid bare copper
- Minimizes alien crosstalk signals
- Available in LSZH and FR PVC jacket
- Packaging type: Reel of 500m in a spool
- Supports IEEE 802.3bt 4P PoE+ applications
- Supports 10Gbps speed data Ethernet applications
- Operates at bandwidth of 500 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Premise cabling
- LAN Ethernet systems
- Data communication networks
- Surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|--------------|---------------------------------|
| 1 | HT-CC2U11LI5 | Cat6A U/UTP 23AWG Cable - LSZH |
| 2 | HT-CC2U11PI5 | Cat6A U/UTP 23AWG Cable - FRPVC |

COPPER CABLES

CATEGORY 6A S/FTP CABLE

HTL Passive Connectivity Solutions Cat6A S/FTP cable is designed to support high data rates, high bandwidth digital applications and provides superior electromagnetic interference protection and voice immunity for indoor shielded installations.

PRODUCT FEATURES

- 4Pair S/FTP cable
- 23AWG solid bare copper
- Available in LSZH and FR PVC jacket
- Packaging type: Reel of 500m in a spool
- Supports IEEE 802.3bt 4P PoE+ applications
- Supports 10Gbps speed data Ethernet applications
- Enhanced overall high screen coverage outer braid
- Individual foil around each pair STP cable construction
- Operates at bandwidth of 500 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Provides superior electromagnetic interference (EMI) protection
- Provide superior noise immunity and coupling attenuation performance
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Premise cabling
- LAN Ethernet systems
- Data communication networks
- Surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|--------------|---------------------------------|
| 1 | HT-CC2S11LI5 | Cat6A S/FTP 23AWG Cable - LSZH |
| 2 | HT-CC2S11PI5 | Cat6A S/FTP 23AWG Cable - FRPVC |

COPPER CABLES

CATEGORY 6A F/UTP 23AWG CABLE

HTL Passive Connectivity Solutions Cat6A F/UTP cable is designed to support high data rates, high bandwidth digital applications and provides superior electromagnetic interference protection for indoor shielded installations.

PRODUCT FEATURES

- 4Pair F/UTP cable
- 23AWG solid bare copper
- Available in LSZH and FR PVC jacket
- Packaging type: Reel of 500m in a spool
- Supports IEEE 802.3bt 4P PoE+ applications
- Supports 10Gbps speed data Ethernet applications
- Operates at bandwidth of 500 MHz for high data rates
- Enhanced overall Aluminum foiled F/UTP construction
- Temperature rating during operation and storage 75°C
- Provides excellent electromagnetic interference (EMI) protection
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Premise cabling
- LAN Ethernet systems
- Data communication networks
- Surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|--------------|---------------------------------|
| 1 | HT-CC2S21LI5 | Cat6A F/UTP 23AWG Cable - LSZH |
| 2 | HT-CC2S21PI5 | Cat6A F/UTP 23AWG Cable - FRPVC |

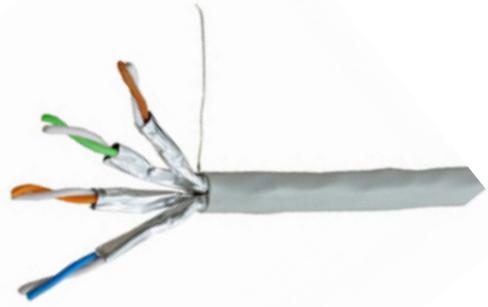
COPPER CABLES

CATEGORY 6A U/FTP 23AWG CABLE

HTL Passive Connectivity Solutions Cat6A U/FTP cable is designed to support high data rates, high bandwidth digital applications and provides superior electromagnetic interference protection for indoor shielded installations.

PRODUCT FEATURES

- 4Pair U/FTP cable
- 23AWG solid bare copper
- Available in LSZH and FR PVC jacket
- Packaging type: Reel of 500m in a spool
- Supports IEEE 802.3bt 4P PoE+ applications
- Supports 10Gbps speed data Ethernet applications
- Operates at bandwidth of 500 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Provides excellent electromagnetic interference (EMI) protection
- Enhanced individual Aluminum foiled around each pair U/FTP construction
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Premise cabling
- LAN Ethernet systems
- Data communication networks
- Surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|--------------|---------------------------------|
| 1 | HT-CC2S31LI5 | Cat6A U/FTP 23AWG Cable - LSZH |
| 2 | HT-CC2S31PI5 | Cat6A U/FTP 23AWG Cable - FRPVC |

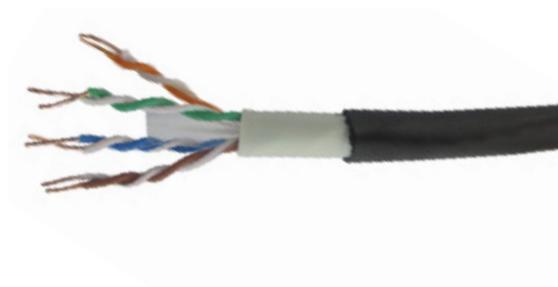
COPPER CABLES

CATEGORY 6A U/UTP OUTDOOR CABLE

HTL Passive Connectivity Solutions Cat6A U/UTP cable is designed to support high data rates, high bandwidth digital applications for indoor and outdoor fixed installations.

PRODUCT FEATURES

- UV rated
- 4Pair UTP cable
- 23AWG solid bare copper
- Packaging type: Reel of 500m in a spool
- Supports IEEE 802.3bt 4P PoE+ applications
- Suitable for both indoor and outdoor installations
- Supports 10Gbps speed data Ethernet applications
- Available in FRPVC inner jacket and PE outer jacket
- Operates at bandwidth of 500 MHz for high data rates
- Temperature rating during operation and storage 85°C
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Premise cabling
- Outdoor installations
- LAN Ethernet systems
- Data communication networks
- Surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|--------------|--------------------------------------|
| 1 | HT-CC2U11HO5 | Cat6A U/UTP 23AWG Outdoor Cable - PE |

RJ-45 COPPER PATCH CORDS

CATEGORY 6 U/UTP PATCH CORDS

HTL Passive Connectivity Solutions Cat6 U/UTP patch cords are designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- Wiring: T568B
- 4Pair UTP RJ-45 patch cords
- Supports data Ethernet applications
- Both component & channel compliant
- Patch cords are available in 5 colours
- Available in LSZH and FR PVC Jacket
- 24AWG multi strand copper conductors
- Supports IEEE 802.3bt 4P PoE+ applications
- Available in standard and customized lengths
- Operates at bandwidth of 250 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Slim boot design RJ-45 unshielded plug for superior performance
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Access points
- Premise cabling
- LAN Ethernet systems
- Data communication networks
- Indoor surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|----------------|-------------------------------------|
| 1 | HT-CPC1U11LG01 | Cat6 U/UTP Patch cord LSZH Grey -1m |
| 2 | HT-CPC1U11LG02 | Cat6 U/UTP Patch cord LSZH Grey -2m |
| 3 | HT-CPC1U11LG03 | Cat6 U/UTP Patch cord LSZH Grey -3m |
| 4 | HT-CPC1U11LG05 | Cat6 U/UTP Patch cord LSZH Grey -5m |
| 5 | HT-CPC1U11LB01 | Cat6 U/UTP Patch cord LSZH Blue -1m |
| 6 | HT-CPC1U11LB02 | Cat6 U/UTP Patch cord LSZH Blue -2m |
| 7 | HT-CPC1U11LB03 | Cat6 U/UTP Patch cord LSZH Blue -3m |
| 8 | HT-CPC1U11LB05 | Cat6 U/UTP Patch cord LSZH Blue -5m |

RJ-45 COPPER PATCH CORDS

CATEGORY 6 F/UTP PATCH CORDS

HTL Passive Connectivity Solutions Cat6 F/UTP shielded patch cords are designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- Wiring: T568B
- 4Pair FTP RJ-45 patch cords
- Supports data Ethernet applications
- Both component & channel compliant
- Patch cords are available in 5 colours
- Available in LSZH and FR PVC Jacket
- 24AWG multi strand copper conductors
- Supports IEEE 802.3bt 4P PoE+ applications
- Available in standard and customized lengths
- Enhanced overall foiled FTP cable construction
- Protection against electromagnetic interference
- Operates at bandwidth of 250 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Slim boot design RJ-45 shielded plug for superior performance against noise signals
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Access points
- Premise cabling
- Shielded installations
- LAN Ethernet systems
- Data communication networks
- Indoor surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|----------------|-------------------------------------|
| 1 | HT-CPC1S21LG01 | Cat6 F/UTP Patch cord LSZH Grey -1m |
| 2 | HT-CPC1S21LG02 | Cat6 F/UTP Patch cord LSZH Grey -2m |
| 3 | HT-CPC1S21LG03 | Cat6 F/UTP Patch cord LSZH Grey -3m |
| 4 | HT-CPC1S21LG05 | Cat6 F/UTP Patch cord LSZH Grey -5m |
| 5 | HT-CPC1S21LB01 | Cat6 F/UTP Patch cord LSZH Blue -1m |
| 6 | HT-CPC1S21LB02 | Cat6 F/UTP Patch cord LSZH Blue -2m |
| 7 | HT-CPC1S21LB03 | Cat6 F/UTP Patch cord LSZH Blue -3m |
| 8 | HT-CPC1S21LB05 | Cat6 F/UTP Patch cord LSZH Blue -5m |

RJ-45 COPPER PATCH CORDS

CATEGORY 6A U/UTP PATCH CORDS

HTL Passive Connectivity Solutions Cat6A U/UTP patch cords are designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- Wiring: T568B
- 4Pair UTP RJ-45 patch cords
- Both component & channel compliant
- Patch cords are available in 5 colours
- Available in LSZH and FR PVC Jacket
- 24AWG multi strand copper conductors
- Supports 10G data Ethernet applications
- Supports IEEE 802.3bt 4P PoE+ applications
- Available in standard and customized lengths
- Operates at bandwidth of 500 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Slim boot design RJ-45 unshielded plug for superior performance
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Access points
- Premise cabling
- LAN Ethernet systems
- Data communication networks
- Indoor surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|----------------|--------------------------------------|
| 1 | HT-CPC1U11LG01 | Cat6A U/UTP Patch cord LSZH Grey -1m |
| 2 | HT-CPC1U11LG02 | Cat6A U/UTP Patch cord LSZH Grey -2m |
| 3 | HT-CPC1U11LG03 | Cat6A U/UTP Patch cord LSZH Grey -3m |
| 4 | HT-CPC1U11LG05 | Cat6A U/UTP Patch cord LSZH Grey -5m |
| 5 | HT-CPC1U11LB01 | Cat6A U/UTP Patch cord LSZH Blue -1m |
| 6 | HT-CPC1U11LB02 | Cat6A U/UTP Patch cord LSZH Blue -2m |
| 7 | HT-CPC1U11LB03 | Cat6A U/UTP Patch cord LSZH Blue -3m |
| 8 | HT-CPC1U11LB05 | Cat6A U/UTP Patch cord LSZH Blue -5m |

RJ-45 COPPER PATCH CORDS

CATEGORY 6A F/UTP PATCH CORDS

HTL Passive Connectivity Solutions Cat6A F/UTP shielded patch cords are designed to support high data rates, high bandwidth digital applications and indoor fixed installations

PRODUCT FEATURES

- Wiring: T568B
- 4Pair FTP RJ-45 patch cords
- Both component & channel compliant
- Patch cords are available in 5 colours
- Available in LSZH and FR PVC Jacket
- 24AWG multi strand copper conductors
- Supports 10G data Ethernet applications
- Supports IEEE 802.3bt 4P PoE+ applications
- Available in standard and customized lengths
- Enhanced overall foiled FTP cable construction
- Protection against electromagnetic interference
- Operates at bandwidth of 500 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Slim boot design RJ-45 shielded plug for superior performance against noise signals
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Access points
- Premise cabling
- Shielded installations
- LAN Ethernet systems
- Data communication networks
- Indoor surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|----------------|--------------------------------------|
| 1 | HT-CPC2S21LG01 | Cat6A F/UTP Patch cord LSZH Grey -1m |
| 2 | HT-CPC2S21LG02 | Cat6A F/UTP Patch cord LSZH Grey -2m |
| 3 | HT-CPC2S21LG03 | Cat6A F/UTP Patch cord LSZH Grey -3m |
| 4 | HT-CPC2S21LG05 | Cat6A F/UTP Patch cord LSZH Grey -5m |
| 5 | HT-CPC2S21LB01 | Cat6A F/UTP Patch cord LSZH Blue -1m |
| 6 | HT-CPC2S21LB02 | Cat6A F/UTP Patch cord LSZH Blue -2m |
| 7 | HT-CPC2S21LB03 | Cat6A F/UTP Patch cord LSZH Blue -3m |
| 8 | HT-CPC2S21LB05 | Cat6A F/UTP Patch cord LSZH Blue -5m |

INFORMATION OUTLETS (IO)

CATEGORY 6 UTP IO JACKS

HTL Passive Connectivity Solutions Cat6 U/UTP (Unshielded Twisted Pair) information outlet jacks are designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- Wiring: T568A/B
- Easy punch down type
- Keystone universal design
- Supports data Ethernet applications
- Both component & channel compliant
- Keystone IO's are available in 6 colours
- Molded plastic material for body and housing
- Operates at bandwidth of 250 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Designed for unshielded twisted pair (UTP) 23/24AWG cables
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Access points
- Premise cabling
- LAN Ethernet systems
- Data communication networks
- Indoor surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|-------------|-------------------------|
| 1 | HT-CIO1U1WH | Cat6 UTP IO Jack White |
| 2 | HT-CIO1U1BK | Cat6 UTP IO Jack Black |
| 3 | HT-CIO1U1BL | Cat6 UTP IO Jack Blue |
| 4 | HT-CIO1U1GN | Cat6 UTP IO Jack Green |
| 5 | HT-CIO1U1RD | Cat6 UTP IO Jack Red |
| 6 | HT-CIO1U1YL | Cat6 UTP IO Jack Yellow |

INFORMATION OUTLETS (IO)

CATEGORY 6 STP IO JACKS

HTL Passive Connectivity Solutions Cat6 STP (Shielded Twisted Pair) information outlet jacks are designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- Wiring: T568A/B
- Easy punch down type
- Keystone universal design
- Supports data Ethernet applications
- Both component & channel compliant
- Keystone IO's are available in 6 colours
- Operates at bandwidth of 250 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Designed for shielded twisted pair (STP) 23/24AWG cables
- Excellent shielding for protection against electromagnetic interference
- Molded plastic material for body and housing with Die cast outer body for shielding
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Access points
- Premise cabling
- Shielded installations
- LAN Ethernet systems
- Data communication networks
- Indoor surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|-------------|----------------------------------|
| 1 | HT-CIO1S1DC | Cat6 STP IO Jack - Die cast body |

INFORMATION OUTLETS (IO)

CATEGORY 6A UTP IO JACKS

HTL Passive Connectivity Solutions Cat6A U/UTP (Unshielded Twisted Pair) information outlet jacks are designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- Wiring: T568A/B
- Easy punch down type
- Keystone universal design
- Both component & channel compliant
- Keystone IO's are available in 6 colours
- Supports 10G data Ethernet applications
- Molded plastic material for body and housing
- Operates at bandwidth of 500 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Designed for unshielded twisted pair (UTP) 23/24AWG cables
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Access points
- Premise cabling
- LAN Ethernet systems
- Data communication networks
- Indoor surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|-------------|--------------------------|
| 1 | HT-CIO2U1WH | Cat6A UTP IO Jack White |
| 2 | HT-CIO2U1BK | Cat6A UTP IO Jack Black |
| 3 | HT-CIO2U1BL | Cat6A UTP IO Jack Blue |
| 4 | HT-CIO2U1GN | Cat6A UTP IO Jack Green |
| 5 | HT-CIO2U1RD | Cat6A UTP IO Jack Red |
| 6 | HT-CIO2U1YL | Cat6A UTP IO Jack Yellow |

INFORMATION OUTLETS (IO)

CATEGORY 6A STP IO JACKS

HTL Passive Connectivity Solutions Cat6A STP (Shielded Twisted Pair) information outlet jacks are designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- Wiring: T568A/B
- Easy punch down type
- Keystone universal design
- Both component & channel compliant
- Keystone IO's are available in 6 colours
- Supports 10G data Ethernet applications
- Operates at bandwidth of 500 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Designed for shielded twisted pair (STP) 23/24AWG cables
- Excellent shielding for protection against electromagnetic interference
- Molded plastic material for body and housing with Die cast outer body for shielding
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Access points
- Premise cabling
- Shielded installations
- LAN Ethernet systems
- Data communication networks
- Indoor surveillance camera networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|-------------|-----------------------------------|
| 1 | HT-CIO2SIDC | Cat6A STP IO Jack - Die cast body |

IO JACK PANEL

CATEGORY 6 UTP IO JACK PANEL

HTL Passive Connectivity Solutions Cat6 UTP (Unshielded Twisted Pair) IO jack panels are designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- Wiring: T568A/B
- Easy punch down type
- Keystone universal design
- Supports data Ethernet applications
- Available in straight and angular type
- Both component & channel compliant
- Available in 1U 24 ports and 2U 48 ports
- Loaded with black Keystone IO UTP jacks
- Operates at bandwidth of 250 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Powder coated CRCA black panel with removable rear cable manager
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Access points
- Premise cabling
- LAN Ethernet systems
- Data communication networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|----------------|-------------------------------------|
| 1 | HT-CJP1U241UBS | Cat6 UTP 24P 1U Straight Jack Panel |
| 2 | HT-CJP1U241UBA | Cat6 UTP 24P 1U Angled Jack Panel |
| 3 | HT-CJP1U482UBS | Cat6 UTP 48P 2U Straight Jack Panel |
| 4 | HT-CJP1U482UBA | Cat6 UTP 48P 2U Angled Jack Panel |

IO JACK PANEL

CATEGORY 6 STP IO JACK PANEL

HTL Passive Connectivity Solutions Cat6 STP (Shielded Twisted Pair) IO jack panels are designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- Wiring: T568A/B
- Easy punch down type
- Keystone universal design
- Supports data Ethernet applications
- Available in straight and angular type
- Both component & channel compliant
- Available in 1U 24 ports and 2U 48 ports
- Loaded with Keystone STP Die-cast type IO jacks
- Operates at bandwidth of 250 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Excellent shielding for protection against electromagnetic interference
- Powder coated CRCA black panel with removable rear cable manager
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Access points
- Premise cabling
- Shielded installations
- LAN Ethernet systems
- Data communication networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|----------------|-------------------------------------|
| 1 | HT-CJP1S241UDS | Cat6 STP 24P 1U Straight Jack Panel |
| 2 | HT-CJP1S241UDA | Cat6 STP 24P 1U Angled Jack Panel |
| 3 | HT-CJP1S482UDS | Cat6 STP 48P 2U Straight Jack Panel |
| 4 | HT-CJP1S482UDA | Cat6 STP 48P 2U Angled Jack Panel |

IO JACK PANEL

CATEGORY 6A UTP IO JACK PANEL

HTL Passive Connectivity Solutions Cat6A UTP (Unshielded Twisted Pair) IO jack panels are designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- Wiring: T568A/B
- Easy punch down type
- Keystone universal design
- Available in straight and angular type
- Both component & channel compliant
- Available in 1U 24 ports and 2U 48 ports
- Supports 10G data Ethernet applications
- Loaded with black Keystone IO UTP jacks
- Operates at bandwidth of 500 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Powder coated CRCA black panel with removable rear cable manager
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Access points
- Premise cabling
- LAN Ethernet systems
- Data communication networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|----------------|--------------------------------------|
| 1 | HT-CJP2U24IUBS | Cat6A UTP 24P 1U Straight Jack Panel |
| 2 | HT-CJP2U24IUBA | Cat6A UTP 24P 1U Angled Jack Panel |
| 3 | HT-CJP2U48IUBS | Cat6A UTP 48P 2U Straight Jack Panel |
| 4 | HT-CJP2U48IUBA | Cat6A UTP 48P 2U Angled Jack Panel |

IO JACK PANEL

CATEGORY 6A STP IO JACK PANEL

HTL Passive Connectivity Solutions Cat6A STP (Shielded Twisted Pair) IO jack panels are designed to support high data rates, high bandwidth digital applications and indoor fixed installations.

PRODUCT FEATURES

- Wiring: T568A/B
- Easy punch down type
- Keystone universal design
- Available in straight and angular type
- Both component & channel compliant
- Available in 1U 24 ports and 2U 48 ports
- Supports 10G data Ethernet applications
- Loaded with Keystone STP Die-cast type IO jacks
- Operates at bandwidth of 500 MHz for high data rates
- Temperature rating during operation and storage 75°C
- Excellent shielding for protection against electromagnetic interference
- Powder coated CRCA black panel with removable rear cable manager
- Meets and exceeds requirements of ANSI/TIA-568.2-D and ISO/IEC 11801 specifications



APPLICATIONS

- Data center
- Access points
- Premise cabling
- Shielded installations
- LAN Ethernet systems
- Data communication networks



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|----------------|--------------------------------------|
| 1 | HT-CJP2S24IUDS | Cat6A STP 24P 1U Straight Jack Panel |
| 2 | HT-CJP2S24IUDA | Cat6A STP 24P 1U Angled Jack Panel |
| 3 | HT-CJP2S482UDS | Cat6A STP 48P 2U Straight Jack Panel |
| 4 | HT-CJP2S482UDA | Cat6A STP 48P 2U Angled Jack Panel |

IO FACE PLATE

86X86 FACEPLATE 1P, 2P & 4P

HTL Passive Connectivity Solutions unloaded 86x86 faceplates can be configured to provide the ports required for the workstation LAN cabling. These faceplates are universal keystone design compatible with cat 6 & cat 6A unshielded and shielded keystone IO jacks

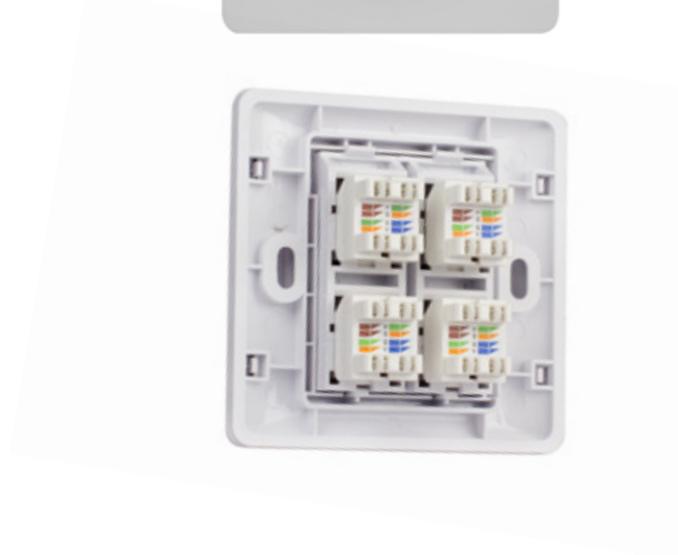
PRODUCT FEATURES

- ABS plastic body for aesthetic look
- Dimensions: 86mm X 86mm (UK style)
- Inbuilt spring type shutter for dust protection
- Available in 1port, 2 ports and 4ports design
- With integrated label holder for port identification
- Compatible for easy snap in of UTP and STP Keystone IO Jacks
- Individually removable IO ports for ease of maintenance during operations



APPLICATIONS

- Premise cabling
- Data access points
- LAN Ethernet systems
- Workstation LAN cabling
- Data communication network
- Indoor surveillance camera network



ORDERING DETAILS

| SL. NO. | Part code | Product description |
|---------|--------------|----------------------------|
| 1 | HT-CFPP1WH1P | 1P faceplate 86x86 - White |
| 2 | HT-CFPP1WH2P | 2P faceplate 86x86 - White |
| 3 | HT-CFPP1WH4P | 4P faceplate 86x86 - White |

Certificate of Registration

OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM - ISO 45001:2018

This is to certify that:

HTL Ltd.
No. 57, GST Road
Guindy
Chennai 600 032
Tamil Nadu
India

Holds Certificate No: **OHS 714250**

and operates an Occupational Health and Safety Management System which complies with the requirements of ISO 45001:2018 for the following scope:

The Manufacture and Dispatch of Optical Fiber Cables, Passive Connectivity Solutions (Accessories), Electrical Wiring Interconnection Systems for Aerospace & Defence Applications, Connecting Systems (Wiring Harness, Battery Cable and EV Parts) for Automotive, Railways & Industrial Applications.
(Previously certified to BS OHSAS 18001:2007 since 2016-09-15)

For and on behalf of BSI:

Chris Cheung, Head of Compliance & Risk - Asia Pacific

Original Registration Date: 2020-10-16
Latest Revision Date: 2021-10-20

Effective Date: 2020-10-16
Expiry Date: 2022-09-14

Page: 1 of 2

...making excellence a habit.™

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract. An electronic certificate can be authenticated online. Printed copies can be validated at www.bsi-global.com/Certificate or telephone +41 11 2602 9000. Further certifications regarding the scope of this certificate and the applicability of ISO 45001:2018 requirements may be obtained by consulting the organization. This certificate is valid only if provided original copies are in complete set.

Information and Contact: BSI, Kitemark Court, Gery Avenue, Knowlton, Milton Keynes MK9 3PR, UK. +44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7605321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2015

This is to certify that:

HTL Ltd.
No. 57, GST Road
Guindy
Chennai 600 032
Tamil Nadu
India

Holds Certificate No: **EMS 714249**

and operates an Environmental Management System which complies with the requirements of ISO 14001:2015 for the following scope:

The Manufacture and Dispatch of Optical Fiber Cables, Passive Connectivity Solutions (Accessories), Electrical Wiring Interconnection Systems for Aerospace & Defence Applications, Connecting Systems (Wiring Harness, Battery Cable and EV Parts) for Automotive, Railways & Industrial Applications.

For and on behalf of BSI:

Chris Cheung, Head of Compliance & Risk - Asia Pacific

Original Registration Date: 2016-09-15
Latest Revision Date: 2021-10-20

Effective Date: 2019-09-15
Expiry Date: 2022-09-14

Page: 1 of 2

...making excellence a habit.™

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract. An electronic certificate can be authenticated online. Printed copies can be validated at www.bsi-global.com/Certificate or telephone +41 11 2602 9000. Further certifications regarding the scope of this certificate and the applicability of ISO 14001:2015 requirements may be obtained by consulting the organization. This certificate is valid only if provided original copies are in complete set.

Information and Contact: BSI, Kitemark Court, Gery Avenue, Knowlton, Milton Keynes MK9 3PR, UK. +44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7605321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

CERTIFICATE

CERTIFICATE NUMBER: 13001219

This is to certify that

HTL Limited

57, GST Road, Guindy, Chennai- 600032

has been found to conform to the Management System Standard:

ISO/IEC 27001:2013

Scope: Provision of Information Security Management System applicable to cover the management operation and maintenance of the information assets and information systems and the associated processes that enable the Design, Development, Supply & Installation of Optical Fibre Cables, Accessories, Wire Harness for Aviation, Auto & Defence Sectors as per Statement of Applicability V 1.0

Initial date of accreditation: 30th November 2019

Certificate Issue Date: 14th December 2019

Certificate Valid Date: 13th December 2022

During the validity of this certificate, the enterprise must mandatorily continue to satisfy the conditions set out in certification agreement.

Dr. Vinik Maheshwari
Director

ISO/IEC 27001:2013

Sanjeev Gurta
Lead Auditor

For information, please contact info@mqasglobal.com

Certificate of Registration

QUALITY MANAGEMENT SYSTEM - TL 9000-H R6.2/R5.6

This is to certify that:

HTL Ltd.
No. 57, GST Road
Guindy
Chennai
Tamil Nadu
600 032
India

Holds Certificate No: **FM 667268**

and operates a Quality Management System which complies with the requirements of TL 9000-H R5.2/R5.6 for the following scope:

Manufacture and supply of Optical Fiber Cables and supply of its accessories.
Product Category: 3.1.1.2.1.

For and on behalf of BSI:

Chris Cheung, Head of Compliance & Risk - Asia Pacific

Original Registration Date: 2017-06-01
Latest Revision Date: 2020-09-14

Effective Date: 2020-09-14
Expiry Date: 2023-05-31

Page: 1 of 1

...making excellence a habit.™

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract. An electronic certificate can be authenticated online. Printed copies can be validated at www.bsi-global.com. Further certifications regarding the scope of this certificate and the applicability of TL 9000-H R5.2/R5.6 requirements may be obtained by consulting the organization. This certificate is valid only if provided original copies are in complete set.

Information and Contact: BSI, Kitemark Court, Gery Avenue, Knowlton, Milton Keynes MK9 3PR, UK. +44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7605321 at 389 Chiswick High Road, London W4 4AL, UK.
Managed by: BSI Group America Inc., 3290 Windward Drive, Suite 300, Herndon, VA 20125-6007 USA +1 703 437 9000
A Member of the BSI Group of Companies.



HTL Registered Office & Factory:
HTL Ltd, No 57, GST Road, Guindy, Chennai-600032

 +91 44 2250 1020/21
 pcssales@htllimited.com
 www.htllimited.com