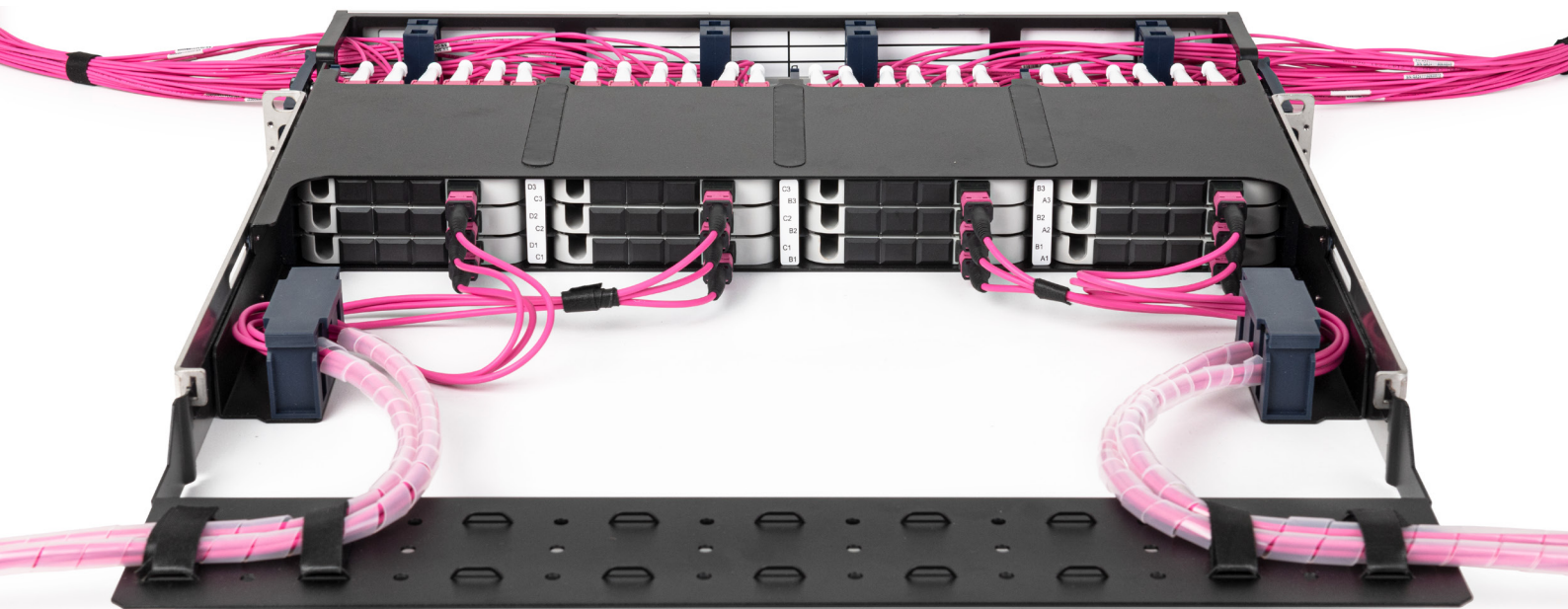
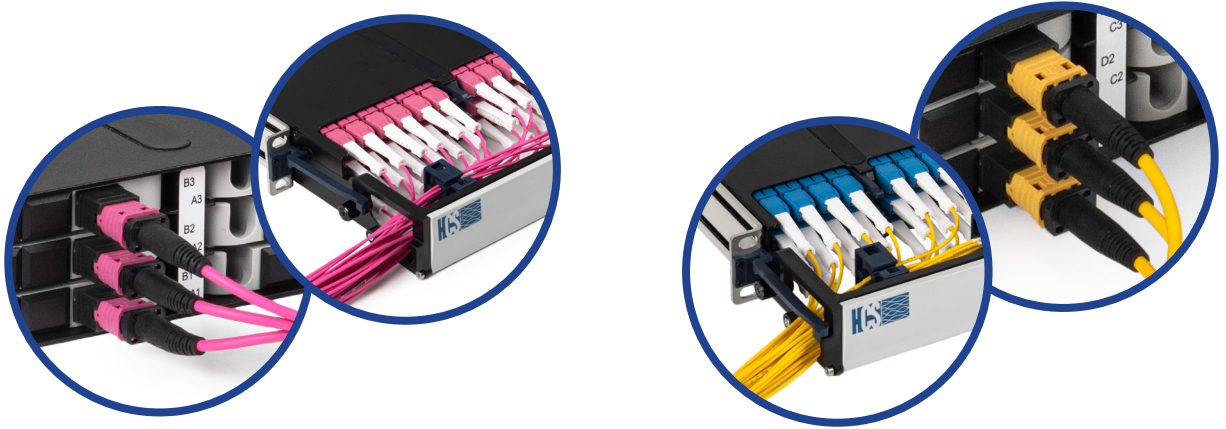
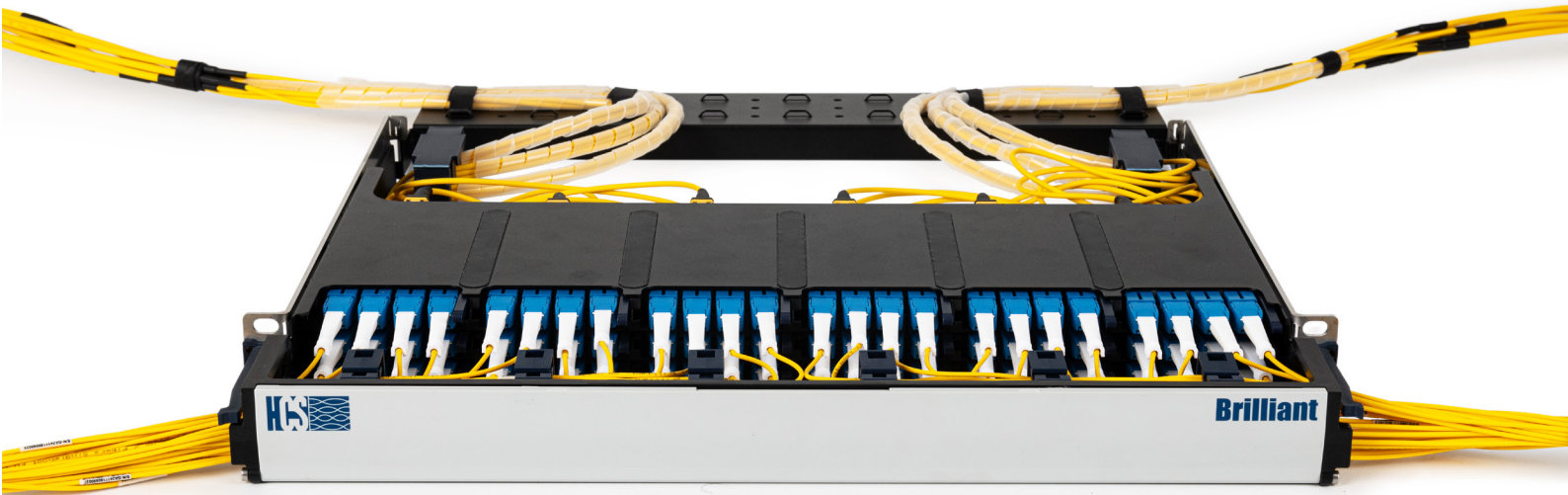


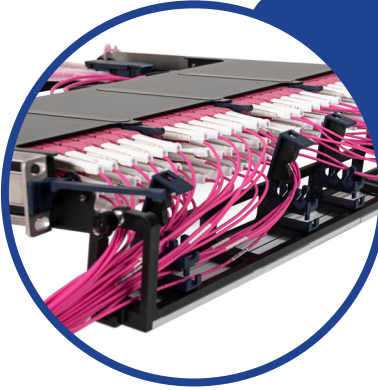


HCS Brilliant 8 & 12 System Solutions









*Integrated Front & Back
Cable Managers For
Fast & Easy Routing!*

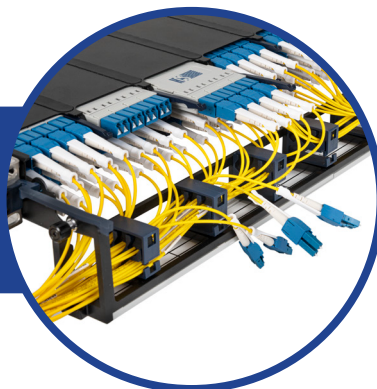


*Sliding Rail With Three Position Options
Allows Fast & Easy Installation!*



*Secured Connection with LC Keyed
Cassettes & Cords!*

Just Plug & Play!





Brilliant Solutions Introduction

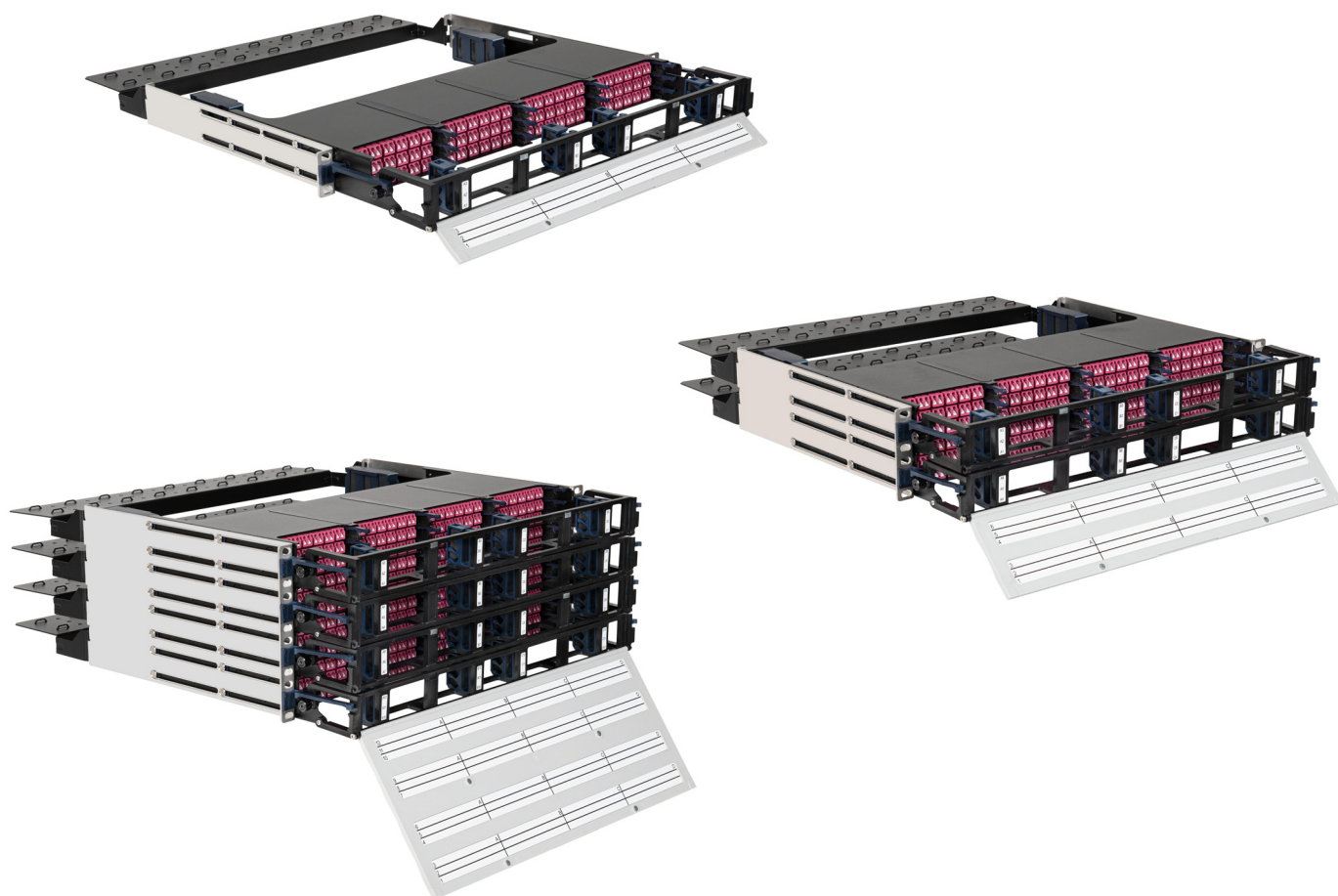
High density & Data center fiber deployment become a major challenge to operators – Fiber communication become the critical asset of the organization – the need for fail safe, high quality, reliable, flexible, scalable, manageable and visible – to operate 24/7 nonstop is a must for any organization Communication / DATA.

HCS's Brilliant Fiber solutions are high-density pre-terminated optical cabling solutions that achieve all this goals – via its Matrix concept that create the best visual and manageable solution – been able to visual & manage 144F/288F/576F points in one platform, is truly a revolution in FO deployment for any high density and Data Center environment.

HCS's Brilliant Fiber solutions simplify installation and take performance to the next level. HCS Brilliant bend-insensitive optical fibers both for Multimode applications OM3/OM4/OM5 & Singlemode application G.657.A2 are the corner stone of the HCS's Brilliant Fiber solutions guaranteed high quality performance under all installation process and challenges, as well as the complete fiber channel Insertion loss that guaranty matching between all fiber components.

HCS's Brilliant Fiber solutions factory pre-terminated provide fast deployment improved system performance, guaranty channel performance and component compatibility, with complete range of Transition cassettes MTP®/MPO-LC , MTP®/MPO—MTP®/MPO, Splice cassette, Adapter cassette, 1U-4U Housing, Fiber trunk cables, patch cords, harness & other accessories – to insure complete fiber solution to all applications.

HCS's Brilliant Fiber solutions contains 8F, 12F, 24F (first generation solution) base fiber and its multiples – to cover all existing and future needs for any deployment, the new front end cable management insure precise access to any port in seconds, without interruption to the working system – all modules support and supply per demand with any EIA/TIA-568C polarity options, to support 10G, 40G, 100G, 400G, 800G Ethernet, InfiniBand & Fiber Channel (32G).





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HCS Brilliant Solutions Fiber Performance

MTP®/MPO to LC Modules – Low-Loss

	Insertion Loss, OM3/OM4/OM5	SM
Module Values	≤ 0.50 dB	≤ 1.0 dB

MTP®/MPO to LC Modules – Super-Low-Loss

	Insertion Loss, OM3/OM4/OM5	SM
Module Values	≤ 0.35 dB	≤ 0.50 dB

MTP®/MPO to LC Modules – Super-Low-Loss-Plus

	Insertion Loss, OM3/OM4/OM5	SM
Module Values	≤ 0.30 dB	≤ 0.45 dB

Connected Mated Pair – Super-Low-Loss

	Insertion Loss, OM3/OM4/OM5	SM
LC Connector	≤ 0.10 dB	≤ 0.15 dB
MTP®/MPO Connector	≤ 0.25 dB	≤ 0.35 dB

*All MTP®/MPO connectors on trunks or assembly are produce to meet Super-Low-Loss-Plus performance

*All LC connectors on trunks or assembly are produce to meet Super-Low-Loss-Plus performance

Connected Mated Pair – Super-Low-Loss-Plus

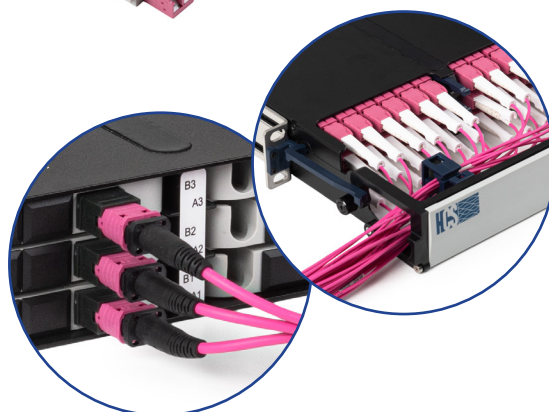
	Insertion Loss, OM3/OM4/OM5	SM
LC Connector	≤ 0.10 dB	≤ 0.10 dB
MTP®/MPO Connector	≤ 0.20 dB	≤ 0.35 dB

*All MTP®/MPO connectors on trunks or assembly are produce to meet Super-Low-Loss-Plus performance

*All LC connectors on trunks or assembly are produce to meet Super-Low-Loss-Plus performance

Conversion MTP®/MPO to MTP®/MPO Modules

	Insertion Loss, OM3/OM4	
Module Value	≤ 0.5 dB	





HCS Brilliant 8 System Trunk Cables

Fiber Count	OD nom (mm)	Jacket	Cable Design	Weight (kg/km)	Sub units (mm)	Max TS	Fire Standard	Crash Resistance N/100mm	Pulling Eye
8	4.5	Double Jacket	1x8F	23	1x3.0	450N	IEC 60332-3-24	1000N	YES
24	7.5	Double Jacket	3x8F	42	3x2.0	450N	IEC 60332-3-24	1000N	YES
48	8.5	Double Jacket	6x8F	66	6x2.0	450N	IEC 60332-3-24	1000N	YES
96	12.0	Double Jacket	12x8F	138	12x2.0	660N	IEC 60332-3-24	1000N	YES
144	12.8	Double Jacket	18x8F	140	18x2.0	660N	IEC 60332-3-24	1000N	YES

HCS Brilliant 12 System Trunk Cables

Fiber Count	OD nom (mm)	Jacket	Cable Design	Weight (kg/km)	Sub units (mm)	Max TS	Fire Standard	Crash Resistance N/100mm	Pulling Eye
12	4.5	Double Jacket	1x12F	23	1x3.0	450N	IEC 60332-3-24	1000N	YES
24	7.5	Double Jacket	2x12F	42	2x2.0	450N	IEC 60332-3-24	1000N	YES
48	8.5	Double Jacket	4x12F	60	4x2.0	450N	IEC 60332-3-24	1000N	YES
96	10.0	Double Jacket	8x12F	96	8x2.0	660N	IEC 60332-3-24	1000N	YES
144	12.0	Double Jacket	12x12F	140	12x2.0	660N	IEC 60332-3-24	1000N	YES

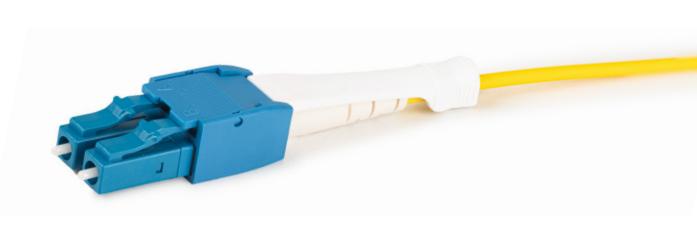
HCS Brilliant 8 & 12 System Assembly Cables

Fiber Count	OD nom (mm)	Jacket	Cable Design	Weight (kg/km)	Sub units (mm)	Max TS	Fire Standard	Crash Resistance N/100mm	Pulling Eye
8	3.0	Single Jacket	1x8F	7.6	1x3.0	150N	IEC 60332-3-24	500N	YES
12	3.0	Single Jacket	1x12F	7.6	1x3.0	150N	IEC 60332-3-24	500N	YES





HCS Brilliant Trunk & Assembly Optical Performance



Multimode- Super-Low-Loss

Trunks	RL Connector A	RL Connector B	Max. Insertion Loss Connector A	Max. Insertion Loss Connector B
MTP®/MPO-MTP®/MPO	≤ -25 dB	≤ -25 dB	≤ 0.25 dB	≤ 0.25 dB
MTP®/MPO-LC	≤ -25 dB	≤ -25 dB	≤ 0.25 dB	≤ 0.10 dB
LC Duplex Singleboot-LC Duplex Singleboot	≤ -25 dB	≤ -25 dB	≤ 0.10 dB	≤ 0.10 dB

Singlemode - Super-Low-Loss

Trunks	RL Connector A	RL Connector B	Max. Insertion Loss Connector A	Max. Insertion Loss Connector B
MTP®/MPO(APC)-MTP®/MPO(APC)	≤ -65 dB	≤ -65 dB	≤ 0.35 dB	≤ 0.35 dB
MTP®/MPO(APC)-LC	≤ -65 dB	≤ -40 dB	≤ 0.35 dB	≤ 0.15 dB
MTP®/MPO(APC)-LC(APC)	≤ -65 dB	≤ -60 dB	≤ 0.35 dB	≤ 0.15 dB
LC Duplex Singleboot-LC Duplex Singleboot (PC)	≤ -40 dB	≤ -40 dB	≤ 0.15 dB	≤ 0.15 dB
LC Duplex Singleboot-LC Duplex Singleboot (APC)	≤ -60 dB	≤ -60 dB	≤ 0.15 dB	≤ 0.15 dB

Multimode- Super-Low-Loss-Plus

Trunks	RL Connector A	RL Connector B	Max. Insertion Loss Connector A	Max. Insertion Loss Connector B
MTP®/MPO-MTP®/MPO	≤ -25 dB	≤ -25 dB	≤ 0.20 dB	≤ 0.20 dB
MTP®/MPO-LC	≤ -25 dB	≤ -25 dB	≤ 0.20 dB	≤ 0.10 dB
LC Duplex Singleboot-LC Duplex Singleboot	≤ -25 dB	≤ -25 dB	≤ 0.10 dB	≤ 0.10 dB

Singlemode - Super-Low-Loss-Plus

Trunks	RL Connector A	RL Connector B	Max. Insertion Loss Connector A	Max. Insertion Loss Connector B
MTP®/MPO(APC)-MTP®/MPO(APC)	≤ -65 dB	≤ -65 dB	≤ 0.35 dB	≤ 0.35 dB
MTP®/MPO(APC)-LC	≤ -65 dB	≤ -40 dB	≤ 0.35 dB	≤ 0.10 dB
MTP®/MPO(APC)-LC(APC)	≤ -65 dB	≤ -60 dB	≤ 0.35 dB	≤ 0.10 dB
LC Duplex Singleboot-LC Duplex Singleboot (PC)	≤ -40 dB	≤ -40 dB	≤ 0.10 dB	≤ 0.10 dB
LC Duplex Singleboot-LC Duplex Singleboot (APC)	≤ -60 dB	≤ -60 dB	≤ 0.10 dB	≤ 0.10 dB

Connector insertion-loss performance are for reference only as HCS tests the complete trunk & assembly performance, that include 2 sides



HCS Brilliant Solutions HD Housing

HCS Brilliant solutions HD housings are mountable in 19 or 23 inch racks and cabinets and provide industry-leading high-density connectivity when combined with Brilliant modules, panels, harnesses, trunks, and patch cords.

General Properties

Frame	Metal, colored black
Front cover	Removable
Operating temperature	-10 to +60C at 5-85% RH
Storage temperature	-40 to +70C
Plastic parts	High-impact flame retardant Polycarbonate
Port identification	Numbering labels and labeling stickers
Panel access	Front slide rail with two stop positions
Cassette access	Front slide rail with two stop positions
Back Cable	Management Removable per 1U with strain-relief clamp
Front Cable	Management Removable per 1U with strain-relief clamp

HCS Brilliant 8 Solutions HD Housing



Z-PFO-K0818-1U | Brilliant 8, 1U
72x LC duplex ports (144 fibre)
72x MTP ports (576 fibre)



Z-PFO-K0836-2U | Brilliant 8, 2U
144x LC duplex ports (288 fibre)
144x MTP ports (1152 fibre)



Z-PFO-K0872-4U | Brilliant 8, 4U
288x LC duplex ports (576 fibre)
288x MTP ports (2304 fibre)

Ordering Information

Part Number	Height	Dimensions (W x D x H)	Number of Cassettes per Housing
Z-PFO-K0818-1U	1U	482 mm x 410 mm x 44 mm, 19 inch	18
Z-PFO-K0836-2U	2U	482 mm x 410 mm x 88 mm, 19 inch	36
Z-PFO-K0872-4U	4U	482 mm x 410 mm x 177 mm, 19 inch	72

HCS Brilliant 12 Solutions HD Housing



Z-PFO-K1212-1U | Brilliant 12, 1U
72x LC duplex ports (144 fibre)
72x MTP ports (576 fibre)



Z-PFO-K1224-2U | Brilliant 12, 2U
144x LC duplex ports (288 fibre)
144x MTP ports (1152 fibre)



Z-PFO-K1248-4U | Brilliant 12, 4U
288x LC duplex ports (576 fibre)
288x MTP ports (2304 fibre)

Ordering Information

Part Number	Height	Dimensions (W x D x H)	Number of Cassettes per Housing
Z-PFO-K1212-1U	1U	482 mm x 410 mm x 44 mm, 19 inch	12
Z-PFO-K1224-2U	2U	482 mm x 410 mm x 88 mm, 19 inch	24
Z-PFO-K1248-4U	4U	482 mm x 410 mm x 177 mm, 19 inch	48



HCS Brilliant MTP®/MPO Trunks

HCS Brilliant MTP®/MPO trunks are pre-terminated Plug & Play cabling solution provide the backbone of the Brilliant solution. Using MTP®/MPO connectors with push-pull boot on both ends, these trunks are designed to interface with the Brilliant pre-terminated solutions systems modules. All MTP®/MPO trunks are manufactured and shipped with strain-relief clips and pulling eye to allow easy tool-less installation.

Brilliant MTP®/MPO trunks are available with SM G.657.A2, MM OM3 BI, MM OM4 BI and MM OM5 BI they are produced and tested each one individually Super-Low-Loss and Super-Low-Loss-Plus performance.



MTP® / MPO Trunk

1 - 2 - 3 4 - 5 6 7 8 9 - 10 - 11 12 - 13

1	Define Product Z= Brilliant Solution	2	Define Product Type T= Trunk Assembly	3	Define Product Fiber Count A= 8 fibers B= 12 fibers C= 24 fibers D= 48 fibers E= 72 fibers F= 96 fibers G= 144 fibers	4	Define Product Fiber Type 55= MM OM3 BI 57= MM OM4 BI 59= MM OM5 BI A2= SM G.657.A2 BI
5	Define Product Jacket Type O= LSOH, 60332-1 B= LSOH, 60332-3-22 C= LSOH, 60332-3-24 D= LSOH, 60332-3-25	6	Define Product Jacket Color Y= Yellow A= Aqua V= Violet G= Lime Green	7	Define Brilliant 8 MTP®/MPO Connectors A= 8 Fiber MTP® (Non-Pinned) B= 8 Fiber MTP® (Pinned) C= 8 Fiber MPO (Non-Pinned) D= 8 Fiber MPO (Pinned)	8	Define Brilliant 12 MTP®/MPO Connectors E= 12 Fiber MTP® (Non-Pinned) F= 12 Fiber MTP® (Pinned) G= 12 Fiber MPO (Non-Pinned) H= 12 Fiber MPO (Pinned) * MTP®/MPO Singlemode Connector are APC * Pulling Eye position at 7
9	Define Product Loss Level L = Super-Low-Loss *MM: 0.25dB Max. IL Min. 25dB RL (Per MTP®/MPO Connector Mated) *SM 0.35dB Max. IL Min. 65dB RL (Per MTP®/MPO Connector Mated) S = Super-Low-Loss-Plus *MM 0.20dB Max. IL Min. 25dB RL (Per MTP®/MPO Connector Mated)	10	Define Product Length 001= 1 meter 005= 5 meter 010= 10 meter 025= 25 meter 155= 155 meter 999= 999 meter	11	Define Product Pulling Eyes P= With Pulling Eye N= Without Pulling Eye	12	Define Product Polarity A= Polarity A B= Polarity B C= Polarity C
13	Define Product CPR Rating (If Applicable) B= B2ca C= Cca D= Dca E= Eca F= Fca						

Example:

Z-T-A55-CACCS-105-NA-F

HCS Brilliant 8, 8 Fibers MPO Trunk, MM OM3 BI, LSOH 60332-3-24, Aqua,
1x8 Fiber MPO (Non Pinned) - 1x8 Fiber MPO(Non Pinned), Super-Low-Loss-Plus, 105 meters, Without Pulling Eye, Polarity A

Z-T-C57-CVABL-095-PB-F

HCS Brilliant 8, 24 Fibers MPO Trunk, MM OM4 BI, LSOH 60332-3-24, Violet,
3x8 Fiber MTP®(Non Pinned) - 3x8 Fiber MTP®(Pinned), Super-Low-Loss, 95 meters, With Pulling Eye, Polarity B

Z-T-CA2-CYHGL-358-PC-F

HCS Brilliant 12, 24 Fibers MPO Trunk, SM G.657.A2 BI, LSOH 60332-3-24, Yellow,
2x12 Fiber MPO/APC(Pinned) - 2x12 Fiber MPO/APC(Non-Pinned), Super-Low-Loss, 358 meters, With Pulling Eye, Polarity C

Z-T-G59-CGEES-049-NC-F

HCS Brilliant 12, 144 Fibers MPO Trunk, MM OM5 BI, LSOH 60332-3-24, Lime Green,
12x12 Fiber MTP®(Non Pinned) - 12x12 Fiber MTP®(Non-Pinned), Super-Low-Loss-Plus, 49 meters, Without Pulling Eye, Polarity C



HCS Brilliant MTP®/MPO to LC Assembly

HCS Brilliant MTP®/MPO-LC Assembly are pre-connected Plug & Play solution to be connected with HCS Brilliant Cassette.

The Cords on LC side are singleboot for fast deployment by the user. All assemblies are available with SM G.657.A2, MM OM3 BI, MM OM4 BI and MM OM5 BI. Assemblies are produced and tested individually to meet Super-Low-Loss and Super-Low-Loss-Plus performance. LC side support polarity changing.



MTP®/MPO to LC Assembly

1 - 2 - 3 4 - 5 6 7 8 9 - 10 - 11 - 12

1 Define Product Z= Brilliant Solution	2 Define Product Type U= MTP®/MPO to LC Assembly	3 Define Product Fiber Count A= 8 fibers B= 12 fibers	4 Define Product Fiber Type 55= MM OM3 BI 57= MM OM4 BI 59= MM OM5 BI A2= SM G.657.A2 BI
5 Define Product Jacket Type O= LSOH, 60332-1 B= LSOH, 60332-3-22 C= LSOH, 60332-3-24 D= LSOH, 60332-3-25	6 Define Product Jacket Color Y= Yellow A= Aqua V= Violet G= Lime Green	7 Define Brilliant 8 MTP®/MPO Connectors A= 8 Fiber MTP® (Non-Pinned) B= 8 Fiber MTP® (Pinned) C= 8 Fiber MPO (Non-Pinned) D= 8 Fiber MPO (Pinned) Define Brilliant 12 MTP®/MPO Connectors E= 12 Fiber MTP® (Non-Pinned) F= 12 Fiber MTP® (Pinned) G= 12 Fiber MPO (Non-Pinned) H= 12 Fiber MPO (Pinned) *MTP®/MPO Singlemode Connector are APC	
9 Define Product Loss Level L= Super Low-Loss *Multimode: RL for LC Connector Min. 25dB RL for MTP Connector Min. 25dB IL Per MTP Connector Mated Max. 0.25dB IL Per LC/PC Connector Mated Max. 0.10dB *Singlemode: RL for LC Connector Min. 40dB RL for MTP Connector Min. 65dB IL Per MTP Connector Mated Max. 0.35dB IL Per LC/PC Connector Mated Max. 0.15dB	8 Define Brilliant Singleboot LC Connectors I= MM OM3 LC/PC (Duplex) J= MM OM4 LC/PC (Duplex) K= MM OM5 LC/PC (Duplex) L= SM LC/PC (Duplex) M= SM LC/APC (Duplex)		
10 Define Product Total Length 001= 1 meter 005= 5 meter 010= 10 meter 025= 25 meter 155= 155 meter 999= 999 meter	11 Define Product Fanout Length D= Default Length	12 Define Product Pulling Eyes P= With Pulling Eye N= Without Pulling Eye	

Example:

Z-U-A55-CAAIL-105-D-N
HCS Brilliant 8, 8 Fibers MTP® to LC Assembly, MM OM3 BI, LSOH 60332-3-24, Aqua,
1x8 Fiber MTP® (Non Pinned) - 4xLC/PC(Duplex), Super-Low-Loss, 105 meters, Without Pulling Eye

Z-U-B57-CVFIS-234-D-N
HCS Brilliant 12, 12 Fibers MTP® to LC Assembly, MM OM4 BI, LSOH 60332-3-24, Violet,
1x12 Fiber MTP® (Pinned) - 6xLC/PC(Duplex), Super-Low-Loss-Plus, 234 meters, Without Pulling Eye

Z-U-BA2-CYGIS-050-D-P
HCS Brilliant 12, 12 Fibers MPO to LC Assembly, SM G.657.A2 BI, LSOH 60332-3-24, Yellow,
1x12 Fiber MPO (Non-Pinned) - 6xLC/PC(Duplex), Super-Low-Loss-Plus, 50 meters, With Pulling Eye



HCS Brilliant MTP®/MPO to MTP®/MPO Assembly

HCS Brilliant MTP®/MPO assemblies are pre-terminated Plug & Play cabling solution provide the backbone of the Brilliant solution. Using MTP®/MPO connectors with push-pull boot on both ends, these assemblies are designed to interface with the Brilliant pre-terminate solutions systems modules. All MTP®/MPO trunks are manufactured and shipped with strain-relief clips and pulling eye to allow easy tool-less installation. Brilliant MTP®/MPO assemblies are available with SM G.657.A2, MM OM3 BI, MM OM4 BI and MM OM5 BI. Assemblies are produced and tested each one individually Super-Low-Loss and Super-Low-Loss-Plus performance.



MTP®/MPO to MTP®/MPO Assembly

1 - 2 - 3 4 - 5 6 7 8 9 - 10 - 11 12 - 13

1	Define Product Z= Brilliant Solution	2	Define Product Type V= MTP®/MPO to MTP®/MPO Assembly	3	Define Product Fiber Count A= 8 fibers B= 12 fibers	4	Define Product Fiber Type 55= MM OM3 BI 57= MM OM4 BI 59= MM OM5 BI A2= SM G.657.A2 BI
5	Define Product Jacket Type O= LSOH, 60332-1 B= LSOH, 60332-3-22 C= LSOH, 60332-3-24 D= LSOH, 60332-3-25	6	Define Product Jacket Color Y= Yellow A= Aqua V= Violet G= Lime Green	7	Define Brilliant 8 MTP®/MPO Connectors A= 8 Fiber MTP® (Non-Pinned) B= 8 Fiber MTP® (Pinned) C= 8 Fiber MPO (Non-Pinned) D= 8 Fiber MPO (Pinned) Define Brilliant 12 MTP®/MPO Connectors E= 12 Fiber MTP® (Non-Pinned) F= 12 Fiber MTP® (Pinned) G= 12 Fiber MPO (Non-Pinned) H= 12 Fiber MPO (Pinned) * MTP®/MPO Singlemode Connector are APC * Pulling Eye position at 7		
9	Define Product Loss Level L= Super-Low-Loss *Multimode: RL for MTP Connector Min. 25dB IL Per MTP Connector Mated Max. 0.25dB *Singlemode: RL for MTP Connector Min. 65dB IL Per MTP Connector Mated Max. 0.35dB S= Super-Low-Loss-Plus *Multimode: RL for MTP Connector Min. 25dB IL Per MTP Connector Mated Max. 0.20dB	10	Define Product Length 001= 1 meter 005= 5 meter 010= 10 meter 025= 25 meter 155= 155 meter 999= 999 meter				
11	Define Product Pulling Eyes P= With Pulling Eye N= Without Pulling Eye	12	Define Product Polarity A= Polarity A B= Polarity B C= Polarity C	13	Define Product CPR Rating (If Applicable) B= B2ca C= Cca D= Dca E= Eca F= Fca		

Example:

Z-V-A55-CAAL-105-NA-F

HCS Brilliant 8, 8 Fibers MTP® to MTP® Assembly, MM OM3 BI, LSOH 60332-3-24, Aqua,
1x8 Fiber MTP®(Non Pinned) - 1x8 Fiber MTP®(Non Pinned), Super-Low-Loss, 105 meters, Without Pulling Eye, Polarity A

Z-V-A57-CVCCS-055-PC-F

HCS Brilliant 8, 8 Fibers MPO to MPO Assembly, MM OM4 BI, LSOH 60332-3-24, Violet,
1x8 Fiber MPO(Non Pinned) - 1x8 Fiber MPO(Non Pinned), Super-Low-Loss-Plus, 55 meters, With Pulling Eye, Polarity C

Z-V-BA2-CYFEL-843-PB-F

HCS Brilliant 12, 12 Fibers MTP® to MTP® Assembly, SM G.657.A2 BI, LSOH 60332-3-24, Yellow,
1x12 Fiber MTP®(Pinned) - 1x12 Fiber MTP®(Non Pinned), Super-Low-Loss, 843 meters, With Pulling Eye, Polarity B



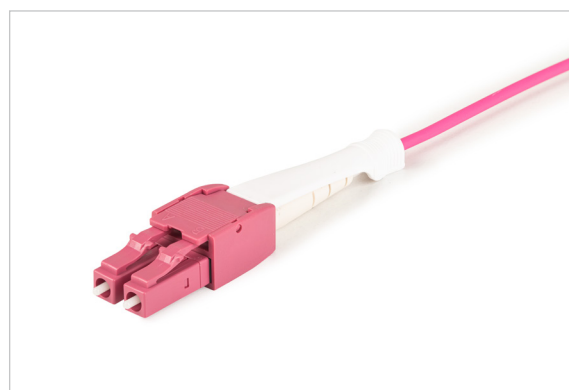
HCS Brilliant LC Singleboot Cord

HCS Brilliant Singleboot Patch Cord are 2.0mm LC Cord design to used with HCS Brilliant Cassette. The design allow the user to manage the patch cord even in the most high-density environment.

HCS Brilliant LC Singleboot Cords are available with SM G.657.A2, MM OM3 BI, MM OM4 BI and MM OM5 BI.

Each cord is produced and tested seperately to meet Super-Low-Loss and Super-Low-Loss-Plus Performance.

Cords support polarity changing.



Singleboot LC FO Cord

1 - 2 - 3 4 - 5 6 7 8 9 - 10

1 Define Product Z= Brilliant Solution	2 Define Product Type W= 2 Fibers Singleboot	3 Define Product Polarity A= A-to-A B= A-to-B (Default Option)	4 Define Product Fiber Type 55= MM OM3 BI 57= MM OM4 BI 59= MM OM5 BI A2= SM G.657.A2 BI
5 Define Product Jacket Type O= LSOH, 60332-1 B= LSOH, 60332-3-22 C= LSOH, 60332-3-24 D= LSOH, 60332-3-25	6 Define Product Jacket Color Y= Yellow A= Aqua V= Violet G= Lime Green	7 8 Define Brilliant Singleboot LC Connectors I= MM OM3 LC/PC (Duplex) J= MM OM4 LC/PC (Duplex) K= MM OM5 LC/PC (Duplex) L= SM LC/PC (Duplex) M= SM LC/APC (Duplex)	
9 Define Product Loss Level L= Super Low-Loss *Multimode: RL Min. 25dB IL Per LC/PC Connector Mated Max. 0.10dB *Singlemode/PC: RL Min. 40dB IL Per LC/PC Connector Mated Max. 0.15dB *Singlemode/APC: RL Min. 60dB IL Per LC/APC Connector Mated Max. 0.15dB	S= Super Low-Loss Plus *Singlemode/PC: RL Min. 40dB IL Per LC/PC Connector Mated Max. 0.10dB *Singlemode/APC: RL Min. 60dB IL Per LC/APC Connector Mated Max. 0.10dB		10 Define Product Length 001= 1 meter 005= 5 meter 010= 10 meter 025= 25 meter 050= 50 meter

Example:

Z-W-B55-CAIIL-001

HCS Brilliant, 2 Fibers Singleboot LC/PC(DX) to LC/PC(DX) FO Cord, MM OM3 BI, LSOH 60332-3-24, Aqua, Super-Low-Loss, 1 meter, A-to-B, Polarity Switchable

Z-W-B57-CVJIL-005

HCS Brilliant, 2 Fibers Singleboot LC/PC(DX) to LC/PC(DX) FO Cord, MM OM4 BI, LSOH 60332-3-24, Violet, Super-Low-Loss, 5 meter, A-to-B, Polarity Switchable

Z-W-BA2-CYMMS-010

HCS Brilliant, 2 Fibers Singleboot LC/APC(DX) to LC/APC(DX) FO Cord, SM G.657.A2 BI, LSOH 60332-3-24, Yellow, Super-Low-Loss-Plus, 10 meter, A-to-B, Polarity Switchable

Z-W-BA2-CYLLS-010

HCS Brilliant, 2 Fibers Singleboot LC/PC(DX) to LC/PC(DX) FO Cord, SM G.657.A2 BI, LSOH 60332-3-24, Yellow, Super-Low-Loss-Plus, 10 meter, A-to-B, Polarity Switchable



HCS Brilliant Splicing Cassettes

HCS Brilliant Splicing Cassettes are available with 8 fibers and 12 fibers capacity. The cassette come fully equipt including cassette, adapters, 1.5meter color-coded pigtails, splicing tray and splicing protection tubes.

All pigtails are available with SM G.657.A2, MM OM3 BI, MM OM4 BI and MM OM5 BI with Max. IL 0.15db.

The cassettes are ready for direct termination of any customer cable to access the Brilliant Cabling System.

HCS Splicing solution offer HD of 144 Fiber in 1U to increase customer capacity and divide 8 fibers or 12 fibers modules which give full modularity and cable management.

The cassette are identical to all brilliant cassette design and size and as part of HCS Matrix solution that is the new evolution in HD Fiber Optic port management allowing the customer direct access simultaneously to all 144 FO port allowing fast, clear, easy changes and transparent port management.



Brilliant 8, 8 Fiber Splicing Cassette



Brilliant 12, 12 Fiber Splicing Cassette

1 - 2 - 3 4 - 5 6 - 7

1	Define Product Z= Brilliant Solution	2	Define Product Type S= Splicing Cassette	3	Define Product Fiber Count A= 8 Fibers B= 12 Fibers	7	Define Pigtail Loss Level L= Super-Low-Loss *Multimode Pigtail Return Loss Min. 25dB Pigtail Insertion Loss Max. 0.15dB *Singlemode/PC Pigtail Return Loss Min. 40dB Pigtail Insertion Loss Max. 0.15dB *Singlemode/APC Pigtail Return Loss Min. 60dB Pigtail Insertion Loss Max. 0.15dB
4	Define Pigtail Type 55= MM OM3 BI (Different Color, 1.5m) 57= MM OM4 BI (Different Color, 1.5m) 59= MM OM5 BI (Different Color, 1.5m) A2= SM G.657.A2 BI (Different Color, 1.5m)			5	Define Pigtail Connectors I= MM OM3 LC/PC Aqua J= MM OM4 LC/PC Violet K= MM OM5 LC/PC Lime Green L= SM LC/PC Blue M= SM LC/APC Green		
6	Define Splicing Cassette Front Adapters I= MM OM3 LC/PC Aqua (Internal Shutter) J= MM OM4 LC/PC Violet (Internal Shutter) K= MM OM5 LC/PC Lime Green (Internal Shutter) L= SM LC/PC Blue (Internal Shutter) M= SM LC/APC Green (Internal Shutter)			*Splice Cassete kit include: - Splice Cassette - Splice Holder - Splice Protection Tubes - Adapters - Pigtails			

Example:

Z-S-A55-II-L

HCS Brilliant 8, 8 Fibers LC/PC Splicing Cassette, MM OM3 BI, Super-Low-Loss
(Including Splice Holder, 8*Splice Protection Tube, 8*1.5 meter different color LC Pigtail)

Z-S-AA2-LL-L

HCS Brilliant 8, 8 Fibers LC/PC Splicing Cassette, SM G.657.A2 BI, Super-Low-Loss
(Including Splice Holder, 8*Splice Protection Tube, 8*1.5 meter different color LC Pigtail)

Z-S-BA2-MM-L

HCS Brilliant 12, 12 Fibers LC/APC Splicing Cassette, SM G.657.A2 BI, Super-Low-Loss
(Including Splice Holder, 12*Splice Protection Tube, 12*1.5 meter different color LC Pigtail)



HCS Brilliant Adapter Cassettes

HCS Brilliant Adapter Cassettes are available with 8 fiber and 12 fiber LC capacity or 32 or 72 MTP®/MPO Capacity. The cassettes are ready for direct termination of any customer terminated cable to access the Brilliant Cabling System. HCS Adapter solution offer HD of 144 Fiber LC or 576 Fiber MTP®/MPO(brilliant 8) or 864 fiber MTP®/MPO(brilliant 12) in 1U to increase customer capacity and divide 8 fibers or 12 fibers modules which give full modularity and cable management. The cassette are identical to all brilliant cassette design and size and as part of HCS Matrix solution that is the new evolution in HD Fiber Optic port management allowing the customer direct access simultaneously to all 144/576/864 FO port allowing fast, clear, easy changes and transparent port management.



Brilliant 8, Adapter Cassette



Brilliant 12, Adapter Cassette

1 - 2 - 3 4

1

Define Product
Z= Brilliant Solution

2

Define Product Type
A= Adapter Cassette

3

Define Product Family
A= Brilliant 8
B= Brilliant 12

4

Define Adapter Cassette Front Adapters
I= MM OM3 LC/PC Aqua (Internal Shutter)
J= MM OM4 LC/PC Violet (Internal Shutter)
K= MM OM5 LC/PC Lime Green (Internal Shutter)
L= SM LC/PC Blue (Internal Shutter)
M= SM LC/APC Green (Internal Shutter)
C= MTP® Black (Type A: KeyUp-to-KeyDown)
D= MTP® Black (Type B: KeyUp-to-KeyUp)
G= MPO Black (Type A: KeyUp-to-KeyDown)
H= MPO Black (Type B: KeyUp-to-KeyUp)
*Brilliant 8 Cassette: including 4*LC(DX) Adapters
*Brilliant 12 Cassette: including 6*LC(DX) Adapters
*Brilliant 8 Cassette: including 4*MTP®/MPO Adapters
*Brilliant 12 Cassette: including 6*MTP®/MPO Adapters

Example:

Z-A-AI
HCS Brilliant 8, Adapter Cassette, 6*LC/PC MM OM3 Aqua

Z-A-BM
HCS Brilliant 12, Adapter Cassette, 6*LC/APC SM Green

Z-A-AC
HCS Brilliant 8, Adapter Cassette, 4*MTP® Black Adapters
(Type A: KeyUp-to-KeyDown)

Z-A-BG
HCS Brilliant 12, Adapter Cassette, 6*MPO Black Adapters
(Type A: KeyUp-to-KeyDown)



HCS Brilliant Transition Cassettes

HCS Brilliant Transition Cassettes are available with 8 fiber and 12 fiber capacity and terminated with MTP®/MPO to LC Adapters. The cassettes are ready for plug & play with HCS trunk and assembly cables. The transition cassettes are available with low-loss, super-low-loss and super-low-loss-plus options securing the lowest IL channel in the industry.

HCS Transition solution offer HD of 144 Fiber in 1U to increase customer capacity and divide 8 fibers or 12 fibers modules which give full modularity and cable management.

The cassette are identical to all brilliant cassette design and size and as part of HCS Matrix solution that is the new evolution in HD Fiber Optic port management allowing the customer direct access simultaneously to all 144 FO port allowing fast, clear, easy changes and transparent port management.



Brilliant 8, Transition Cassette



Brilliant 12, Transition Cassette

1 - 2 - 3 4 - 5 6 - 7 - 8

1

Define Product

Z= Brilliant Solution

2

Define Product Type

B= Transition Cassette

3

Define Product Fiber Count

A= 8 Fibers

B= 12 Fibers

4

Define Transition Cassette Fiber Type

55= MM OM3

57= MM OM4

59= MM OM5

A2= SM

5

Define Transition Cassette Back MTP®/MPO Adapters

C= MTP® (Pinned)(Type A: KeyUp-to-KeyDown)

D= MTP® (Pinned)(Type B: KeyUp-to-KeyUp)

G= MPO (Pinned)(Type A: KeyUp-to-KeyDown)

H= MPO (Pinned)(Type B: KeyUp-to-KeyUp)

*Singlemode Adapter are APC

6

Define Transition Cassette Front LC Adapters

I= MM OM3 LC/PC Aqua (Internal Shutter)

J= MM OM4 LC/PC Violet (Internal Shutter)

K= MM OM5 LC/PC Lime Green (Internal Shutter)

L= SM LC/PC Blue (Internal Shutter)

M= SM LC/APC Green (Internal Shutter)

7

Define Transition Cassette Polarity

A= Straight

MTP®/MPO

1	2	3	4	5	6	7	8	9	10	11	12
1	1	1	1	1	1	1	1	1	1	1	1
1	2	3	4	5	6	7	8	9	10	11	12

LC

(8 Fibers)

MTP®/MPO

1	2	3	4	5	6	7	8	9	10	11	12
1	1	1	1	1	1	1	1	1	1	1	1
1	2	3	4	5	6	7	8	9	10	11	12

LC

(12 Fibers)

8

Define Transition Cassette Loss Level

O= Low-Loss

*Multimode

IL Per MTP®/MPO Connector Mated N/A

IL Per LC/PC Connector Mated N/A

Total Module IL Max. 0.50dB

*Singlemode/PC

IL Per MTP®/MPO Connector Mated N/A

IL Per LC/PC Connector Mated N/A

Total Module IL Max. 1.00dB

*Singlemode/APC

IL Per MTP®/MPO Connector Mated N/A

IL Per LC/APC Connector Mated N/A

Total Module IL Max. 1.00dB

L= Super-Low-Loss

*Multimode

IL Per MTP®/MPO Connector Mated Max. 0.25dB

IL Per LC/PC Connector Mated Max. 0.10dB

Total Module IL Max. 0,35dB

*Singlemode/PC

IL Per MTP®/MPO Connector Mated Max. 0.35dB

IL Per LC/PC Connector Mated Max. 0.15dB

Total Module IL Max. 0.50dB

*Singlemode/APC

IL Per MTP®/MPO Connector Mated Max. 0.35dB

IL Per LC/APC Connector Mated Max. 0.15dB

Total Module IL Max. 0.50dB

S= Super-Low-Loss-Plus

*Multimode

IL Per MTP®/MPO Connector Mated Max. 0.20dB

IL Per LC/PC Connector Mated Max. 0.10dB

Total Module IL Max. 0.30dB

*Singlemode/PC

IL Per MTP®/MPO Connector Mated Max. 0.35dB

IL Per LC/PC Connector Mated Max. 0.10dB

Total Module IL Max. 0.45dB

*Singlemode/APC

IL Per MTP®/MPO Connector Mated Max. 0.35dB

IL Per LC/APC Connector Mated Max. 0.10dB

Total Module IL Max. 0.45dB

Example:

Z-B-A55-CI-A-O

HCS Brilliant 8, 8 Fibers MTP®(Pinned) to LC/PC Transition Cassette, MM OM3 BI, Low-Loss

(Adapter Type A: KeyUp-to-KeyDown)

(Polarity Straight: "M1toL1, M2toL2, M3toL3, M4toL4, M9toL5, M10toL6, M11toL7, M12toL8")

Z-B-BA2-GM-A-S

HCS Brilliant 12, 12 Fibers MPO(Pinned) to LC/APC Transition Cassette, SM G.657.A2 BI, Super-Low-Loss-Plus

(Adapter Type A: KeyUp-to-KeyDown)

(Polarity Straight: "M1toL1, M2toL2, M3toL3, M4toL4, M5toL5, M6toL6, M7toL7, M8toL8, M9toL9, M10toL10, M11toL11, M12toL12")



HCS Brilliant Conversion Cassettes

HCS Brilliant Conversion Cassettes are available as 3x8fiber - 2x12fiber and 6x8fiber - 4x12fiber which enabling the user to change from 8 fiber system to 12 fiber system without need to change the trunk cabling system from 8 fiber to 12 fiber. The cassettes are ready for plug & play with HCS trunk and assembly cables. The Conversion cassettes are available with super-low-loss option securing the lowest IL channel in the industry.

HCS Conversion solution offer HD of 432 or 576 Fiber in 1U. To increase customer capacity and divide 8 fibers or 12 fibers modules which give full modularity and cable management.

The cassette are identical to all brilliant cassette design and size and as part of HCS Matrix solution that is the new evolution in HD Fiber Optic port management allowing the customer direct access simultaneously to all FO port allowing fast, clear, easy changes and transparent port management.



Brilliant, 24 Fibers Conversion Cassette



Brilliant, 48 Fibers Conversion Cassette

1 - 2 - 3 4 - 5 6 - 7 - 8

1 Define Product
Z= Brilliant Solution

2 Define Product Type
C= Conversion Cassette

3 Define Product Fiber Count and Format
A= 24 Fibers B= 48 Fibers
*Back:12 fibers*2 Adapters *Back:12 fibers*4 Adapters
*Front: 8 fibers*3 Adapters *Front: 8 fibers*6 Adapters

4 Define Conversion Cassette Fiber Type
55= MM OM3
57= MM OM4
59= MM OM5
A2= SM

5 **6**
Define Conversion Cassette MTP®/MPO Adapters
C= MTP® (Pinned)(Type A: KeyUp-to-KeyDown)
D= MTP® (Pinned)(Type B: KeyUp-to-KeyUp)
G= MPO (Pinned)(Type A: KeyUp-to-KeyDown)
H= MPO (Pinned)(Type B: KeyUp-to-KeyUp)
*Singlemode Adapter are APC

7 Define Conversion Cassette Loss Level
L= *Super-Low-Loss*
Total Module IL
*Singlemode Max. 0.70dB
*Multimode Max. 0.50dB

8 Define Conversion Cassette Polarity
A= Straight

Example:

Z-C-A55-CC-L-A

HCS Brilliant, 24 Fibers, 2*MTP®(12f)(Pinned) to 3*MTP®(8f)(Pinned) Conversion Cassette, MM OM3 BI, Super Low-Loss,
(Adapter Type A: KeyUp-to-KeyDown)
(Polarity Straight)

Z-C-BA2-GG-L-A

HCS Brilliant, 48 Fibers, 4*MPO(12f)(Pinned) to 6*MPO(8f)(Pinned) Conversion Cassette, SM G.657.A2 BI, Super Low-Loss,
(Adapter Type A: KeyUp-to-KeyDown)
(Polarity Straight)



HCS Brilliant Secure LC Keyed Cassettes and Cords

HCS Brilliant 8 & 12 Secure LC Keyed SM & MM Cassettes and Cords are designed to ensure mechanical network security by preventing improper connections between segregated networks.

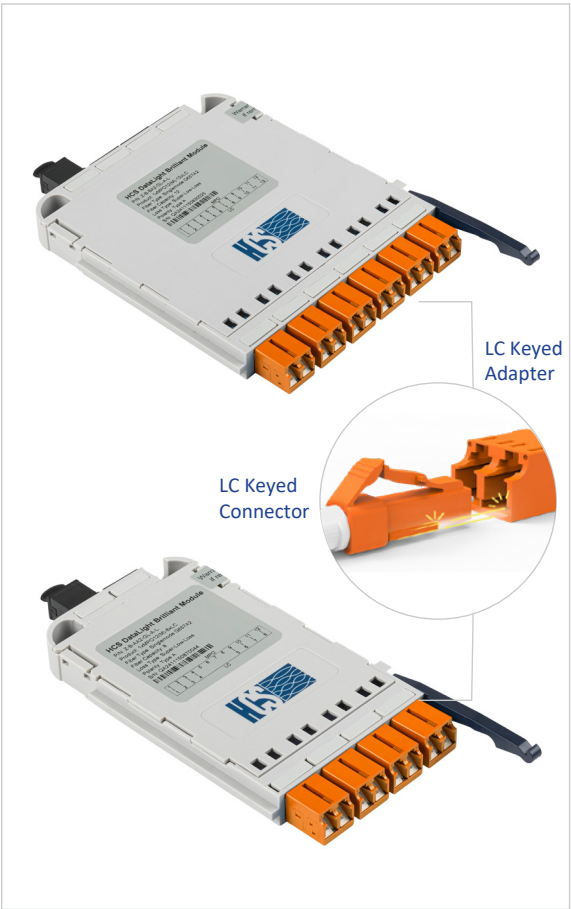
It features a unique color-coded and keyed design, with twelve different colors representing different keys. Each adapter will only mate with a Patch Cords of the same color, ensuring that connections are made correctly and securely.

Features & Benefits

- Keyed adaptor and connector for increase security
- Robust body design: ensures durability and longevity
- Compliant with IEC61754-20 interface
- Enhanced security
- Color coded for simplicity
- Support of Singlemode and Multimode Options
- Enhanced reliability construction
- Exceptional durability
- Versatile applications: suitable for both highstakes and everyday use scenarios

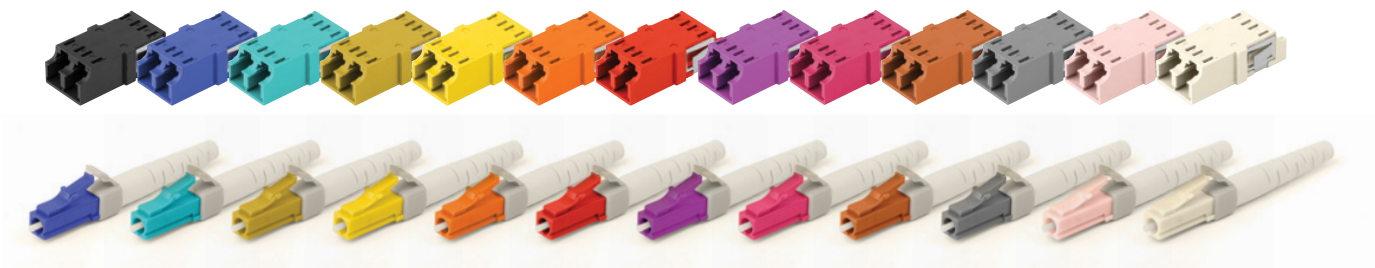
Applications

- Telecommunications
- Data centers
- Local area networks (LANs)
- Fiber to the home (FTTH)
- Enterprise networks
- Medical equipment
- Industrial applications
- Military and aerospace
- Broadcasting



Brilliant LC Secure LC Keyed Cassettes

Available Colors





HCS Brilliant Secure LC Keyed Cords P/N System

1 - 2 - 3 4 - 5 6 7 8 9 - 10 11 12

1	Define Product Z= Brilliant Solution	2	Define Product Type W= 2 Fibers Singleboot	3	Define Product Polarity A= A-to-A B= A-to-B (Default Option)	4	Define Product Fiber Type 55= MM OM3 BI 57= MM OM4 BI 59= MM OM5 BI A2= SM G.657.A2 BI
5	Define Product Jacket Type O= LSOH, 60332-1 B= LSOH, 60332-3-22 C= LSOH, 60332-3-24 D= LSOH, 60332-3-25	6	Define Product Jacket Color Y= Yellow A= Aqua V= Violet G= Lime Green	7 8 Define Brilliant Singleboot LC Keyed Connectors N= MM OM3 LC/PC Keyed (Duplex) O= MM OM4 LC/PC Keyed (Duplex) P= MM OM5 LC/PC Keyed (Duplex) Q= SM LC/PC Keyed (Duplex) R= SM LC/APC Keyed (Duplex)			
9	Define Product Loss Level L= Super Low-Loss S= Super Low-Loss Plus	10	Define Product Length 001= 1 meter 005= 5 meter 010= 10 meter 025= 25 meter 050= 50 meter	11 12 Define Keyed Connector Color PK= Pink GY = Gray WH = White CO = Cobalt YL = Yellow BR = Brown RD = Red TQ = Turquoise OR = Orange MG =Magenta VL = Violet OL = Olive			

HCS Brilliant Secure LC Keyed Transition Cassettes P/N System

1 - 2 - 3 4 - 5 6 - 7 - 8 9 10

1

Define Product

Z= Brilliant Solution

2

Define Product Type

B= Transition Cassette

3

Define Product Fiber Count

A= 8 Fibers

B= 12 Fibers

4

Define Transition Cassette Fiber Type

55= MM OM3

57= MM OM4

59= MM OM5

A2= SM

5

Define Transition Cassette Back MTP®/MPO Adapters

C= MTP® (Pinned)(Type A: KeyUp-to-KeyDown)

D= MTP® (Pinned)(Type B: KeyUp-to-KeyUp)

G= MPO (Pinned)(Type A: KeyUp-to-KeyDown)

H= MPO (Pinned)(Type B: KeyUp-to-KeyUp)

*Singlemode Adapter are APC

6

Define Transition Cassette Front LC Keyed Adapters

N= MM OM3 LC/PC LC Keyed (Internal Shutter)

O= MM OM4 LC/PC LC Keyed (Internal Shutter)

P= MM OM5 LC/PC LC Keyed (Internal Shutter)

Q= SM LC/PC LC Keyed (Internal Shutter)

R= SM LC/APC LC Keyed (Internal Shutter)

7

Define Transition Cassette Polarity

A= Straight

MTP®/MPO

1	2	3	4	5	6	7	8	9	10	11	12
1	1	1	1								
1	2	3	4			5	6	7	8		

LC

(8 Fibers)

MTP®/MPO

1	2	3	4	5	6	7	8	9	10	11	12
1	1	1	1	1	1	1	1	1	1	1	1
1	2	3	4	5	6	7	8	9	10	11	12

LC

(12 Fibers)

8

Define Transition Cassette Loss Level

O= Low-Loss

L= Super-Low-Loss

S= Super-Low-Loss-Plus

9

Define Keyed Cassette Adapter Color

PK= Pink

WH = White

YL = Yellow

RD = Red

OR = Orange

VL = Violet

GY = Gray

CO = Cobalt

BR = Brown

TQ = Turquoise

MG =Magenta

OL = Olive

BK = Back (Universal)

10



HCS Brilliant Secure LC Keyed Splicing Cassettes P/N System

1 - 2 - 3 4 - 5 6 - 7 8 9 10 11

1

Define Product
Z= Brilliant Solution

2

Define Product Type
S= Splicing Cassette

3

Define Product Fiber Count
A= 8 Fibers
B= 12 Fibers

7

Define Pigtail Loss Level
L= *Super-Low-Loss*

4

Define Pigtail Type
55= MM OM3 BI (Different Color, 1.5m)
57= MM OM4 BI (Different Color, 1.5m)
59= MM OM5 BI (Different Color, 1.5m)
A2= SM G.657.A2 BI (Different Color, 1.5m)

5

Define Keyed Pigtail Connectors
O= MM OM3 LC/PC Keyed
P= MM OM4 LC/PC Keyed
Q= MM OM5 LC/PC Keyed
R= SM LC/PC Keyed
S= SM LC/APC Keyed

6

Define Splicing Cassette Keyed Adapters
O= MM OM3 LC/PC Keyed (Internal Shutter)
P= MM OM4 LC/PC Keyed (Internal Shutter)
Q= MM OM5 LC/PC Keyed (Internal Shutter)
R= SM LC/PC Keyed (Internal Shutter)
S= SM LC/APC Keyed (Internal Shutter)

*Splice Cassette kit include:

- Splice Cassette

- Splice Holder

- Splice Protection Tubes

- Adapters

- Pigtails

8

9

Define Keyed Pigtail Connector Color
PK= Pink GY = Gray
WH = White CO = Cobalt
YL = Yellow BR = Brown
RD = Red TQ = Turquoise
OR = Orange MG =Magenta
VL = Violet OL = Olive

10

11

Define Keyed Cassette LC Adapter Color
PK= Pink CO = Cobalt
WH = White BR = Brown
YL = Yellow TQ = Turquoise
RD = Red MG =Magenta
OR = Orange OL = Olive
VL = Violet BK = Back (Universal)
GY = Gray

HCS Brilliant Secure LC Keyed Adapter Cassettes P/N System

1 - 2 - 3 4 5 6

1	Define Product Z= Brilliant Solution	2	Define Product Type A= Adapter Cassette	5	6	Define Keyed Cassette LC Adapter Color PK= Pink CO = Cobalt WH = White BR = Brown YL = Yellow TQ = Turquoise RD = Red MG =Magenta OR = Orange OL = Olive VL = Violet BK = Back (Universal) GY = Gray
3	Define Product Family A= Brilliant 8 B= Brilliant 12	4	Define Adapter Cassette Front Adapters N= MM OM3 LC/PC Keyed (Internal Shutter) O= MM OM4 LC/PC Keyed (Internal Shutter) P= MM OM5 LC/PC Keyed (Internal Shutter) Q= SM LC/PC Keyed (Internal Shutter) R= SM LC/APC Keyed (Internal Shutter) *Brilliant 8 Cassette: including 4*LC(DX) Adapters *Brilliant 12 Cassette: including 6*LC(DX) Adapters			