



Description

HCS DataLight series includes a complete line of Local Area Network (LAN) fiberoptic cables for high transmission rates including voice, data and video. All HCS DataLight cables are produced and rigorously tested to conform to most international standards.

HCS DataLight Indoor/Outdoor Single Loose Tube (SLT) cable series provides outstanding all-dielectric design for both indoor and outdoor installations in harsh conditions.

These cables consist of 2-24 color-coded bare fibers (250 microns OD), contained in a single jell-filled loose tube, overall served with water-blocking swellable aramid yarns or glass yarn and jacketed with black, UV resistant PE or LSOH compound.

HCS DataLight cables fully conform to and provide a substantial margin above all relevant TIA/EIA and IEC standards.

Optional fibers available: Multimode 50/125 microns (OM2, OM3 & OM4), 62.5/125 microns and Singlemode fibers.

Applications

HCS DataLight cables can be used for various application including the following:

- ☒ General purpose outdoor LAN cable
- ☒ Campus backbone cable
- ☒ Campus distribution cable

HCS DataLight cables support all presently available LAN applications, including the IEEE802.3z protocols for Gigabit Ethernet, 1000BASE-SX (Short wavelength Gigabit Ethernet) 1000BASE-LX (Long wavelength Gigabit Ethernet) & IEEE 802.3ae 10GBASE-SR/SW 10GBASE-LX4 (10 Gigabit Ethernet).

Qualifications and Approvals

HCS DataLight Cables are tested and verified for full compliance with the following standards:

- ☒ ANSI/TIA/568-C.3
- ☒ ISO/IEC 11801 (2nd Edition)
- ☒ CENELEC EN50173
- ☒ EIA/TIA-455
- ☒ IEC 60332-1
- ☒ IEC 60754
- ☒ IEC 60793
- ☒ IEC 60794

Benefits & Features

- ➔ Exceptional material properties and cable design - Providing a unique Century™ Lifetime Warranty.
- ➔ UV, LSOH and water resistant optional constructions - Providing a single cable suitable for indoor and outdoor locations.
- ➔ All-dielectric construction - Providing perfect EMC (Electro Magnetic Compatibility) and total noise immunity.
- ➔ Crisp and clear color coding - Providing positive fiber identification and ease of termination.
- ➔ Descending sequential meter mark - Providing easy stock and left-over handling.
- ➔ Batch number printed every meter - Providing fast retrieval of test results from data-base.
- ➔ A comprehensive product range - Providing all state-of-the-art cable constructions.
- ➔ Unique DoubleSafe™ Quality Assurance Program - Providing lowest rejection rate available.

OPTIONAL CONSTRUCTIONS

HCS DataLight Indoor/Outdoor SLT Cables contain up to 24 color-coded, 250 micron bare optical fibers.

All fibers are contained in a single jell-filled loose tube, overall served with water-blocking swellable glass yarns providing light rodent protection and jacketed with black, UV resistant LSOH or PE compound. The cables fully comply with the EIA/TIA FOTP 82B and IEC 60794-1-F5 longitudinal water-blocking tests (with swellable Glass yarn).

Basic Fiber :	As selected from the FIBER OPTIONS Section.
Buffer type:	None. (Bare, color-coded fibers).
Fibers OD:	250 microns nom.
Loose tube:	Single, filled with a Thixotropic gel.
Strength elements over the loose tube:	Served swellable glass yarns.
Number of fibers:	2-24.
Color Code:	HCS Color Table No. 3 (ANSI/TIA/EIA-598-A Color Code)
Outer Jacket:	Heavy duty, UV Resistant LSOH or PE compound.
Cable OD	7.0 mm nom.
Standard Outer Jacket Color :	Black RAL 9005. Other colors available upon request.
Standard Surface Marking :	Includes HCS P/N, cable description, Meter mark and Batch Number.
Cable weight	38 Kg/Km nom.
Max. Tensile Load - Short term	1000 N
Max. Tensile Load - Long term	700 N
Min. Bending Radius - Short term	140 mm
Min. Bending Radius - Long term	70 mm
Min. Impact resistance	2000 N
Water penetration	3m max @ 24h
Storage Temperature :	-40 to +70C
Temperature operating range :	-40 to +70C
Caloric Value:	800 Kj/m nom.
Halogen Content	Null

ORDERING INFORMATION

HCS P/N	Description	Notes
SFO-00201	2 Fibers All Dielectric LSOH Indoor/Outdoor SLT Black	
SFO-00202	2 Fibers All Dielectric PE Outdoor SLT Black	
SFO-00401	4 Fibers All Dielectric LSOH Indoor/Outdoor SLT Black	
SFO-00402	4 Fibers All Dielectric PE Outdoor SLT Black	
SFO-00601	6 Fibers All Dielectric LSOH Indoor/Outdoor SLT Black	
SFO-00602	6 Fibers All Dielectric PE Outdoor SLT Black	
SFO-00801	8 Fibers All Dielectric LSOH Indoor/Outdoor SLT Black	
SFO-00802	8 Fibers All Dielectric PE Outdoor SLT Black	
SFO-01001	10 Fibers All Dielectric LSOH Indoor/Outdoor SLT Black	
SFO-01002	10 Fibers All Dielectric PE Outdoor SLT Black	
SFO-01201	12 Fibers All Dielectric LSOH Indoor/Outdoor SLT Black	
SFO-01202	12 Fibers All Dielectric PE Outdoor SLT Black	
SFO-02401	24 Fibers All Dielectric LSOH Indoor/Outdoor SLT Black	
SFO-02402	24 Fibers All Dielectric PE Outdoor SLT Black	

Notes:

1. The "FO" in the P/N is replaced by the fiber designation selected from the **FIBER OPTIONS** Table.
2. Packaging options to be discussed with HCS Customer Service.
3. The standard jacket color is Black RAL 9005. Other colors available upon request.

Fiber P/N	Fiber Type	Multimode Fiber Grade & Standard	Cabled Attenuation (dB/km)				Min. Bandwidth (MHz·km)				Numerical Aperture
			850nm		1300nm		850nm		1300nm		
			Nom	Max	Nom	Max	OFL	EMB	OFL	EMB	
52	50/125μm Graded Index Multimode Optical Fiber	Standard Grade OM2 - ISO/IEC 11801 TIA 492AAAB A1a.1 - IEC 60793-2-10 TIA-568.3-D	2.8	3.5	0.8	1.5	500	NS	500	NS	0.200±0.02
54		10G Grade OM3 - ISO/IEC 11801 TIA-492AAAC-A A1a.2 - IEC 60793-2-10 TIA-568.3-D	2.8	3.5	0.8	1.5	1500	2000	500	500	0.200±0.02
55		10G Grade Bend Insensitive OM3 - ISO/IEC 11801 TIA-492AAAC-A A1a.2 - IEC 60793-2-10 TIA-568.3-D	2.8	3.0	0.8	1.5	1500	2000	500	500	0.200±0.02
56		10G Grade TIA-492AAD OM4 - ISO/IEC 11801 A1a.3 - IEC 60793-2-10 TIA-568.3-D	2.3	3.0	0.6	1.5	3500	4700	500	500	0.200±0.015
57		10G Grade Bend Insensitive TIA-492AAD OM4 - ISO/IEC 11801 A1a.3 - IEC 60793-2-10 TIA-568.3-D	2.3	3.0	0.6	1.5	3500	4700	500	500	0.200±0.015
58		10G - WBMMF TIA-492AAE OM5 - ISO/IEC 11801 A1a.4b- IEC 60793-2-10 TIA-568.3-D	2.3	3.0 2.3@953nm	0.6	1.5	3500 1850@953nm	4700 2470@953nm	500	500	0.200±0.015
59		10G – WBMMF Bend-Insensitive TIA-492AAE OM5 - ISO/IEC 11801 A1a.4b- IEC 60793-2-10 TIA-568.3-D	2.3	3.0 2.3@953nm	0.6	1.5	3500 1850@953nm	4700 2470@953nm	500	500	0.200±0.015
61	62.5/125μm Graded Index Multimode Optical Fiber	Standard Grade OM1 - ISO/IEC 11801 TIA-492AAAA TIA-568.3-D	3.0	3.5	0.7	1.5	200	NS	600	NS	0.275±0.015
Fiber P/N	Fiber Type	Singlemode Fiber Grade & Standard	Cabled Attenuation (dB/km)						MFD		
			1310nm		1383nm		1550nm				
			Nom	Max	Nom	Max	Nom	Max			
91	9.3/125μm Single Mode Optical Fiber	Standard Grade OS1 - ISO/IEC 11801 TIA-568.3-D Inside Plant	0.4	1.0	NS	NS	0.4	1.0	9.3±0.5 μm@1310nm		
92		Premium Grade OS2 - ISO/IEC 11801 TIA-568.3-D Outside Plant	0.33	0.40	0.30	0.40	0.22	0.4	9.3±0.5 μm@1310nm		
93		ITU-T G.652.C	0.33	0.35	NS	NS	0.20	0.22	9.2±0.5 μm@1310nm		
94		ITU-T G.652.D no water peak	0.33	0.35	0.31	0.35	0.20	0.22	9.2±0.5 μm@1310nm		
95		ITU-T G.655 Non-zero dispersion shifted	0.33	0.35	NS	NS	0.20	0.22	9.6±0.5 μm@1550nm		
96		ITU-T G.656 No water peak non-zero dispersion shifted	0.33	0.35	0.35	0.40	0.20	0.22	9.6±0.5 μm@1550nm		
A1		ITU-T G.657.A1 Bend-insensitive Category A1 MBR: 10mm	0.33	0.40	0.35	0.40	0.20	0.30	8.6-9.5±0.4 μm@1310nm		
A2		ITU-T G.657.A2 Bend-insensitive Category A2 MBR: 7.5mm	0.33	0.40	0.35	0.40	0.20	0.30	8.6-9.5±0.4 μm@1310nm		
B2		ITU-T G.657.B2 Bend-insensitive Category B2 MBR: 7.5mm	0.40	0.50	0.4 max. @1625nm		0.20	0.30	6.3-9.5±0.4 μm@1310nm		
B3		ITU-T G.657.B3 Bend-insensitive Category B3 MRR: 5mm	0.40	0.50	0.4 max. @1625nm		0.20	0.30	6.3-9.5±0.4 μm@1310nm		