

# FREEDM<sup>®</sup> LST<sup>™</sup> Gel-Free Cables

A LANscape<sup>®</sup> Pretium<sup>™</sup> Solutions Product

Corning  
Cable Systems

## Applications

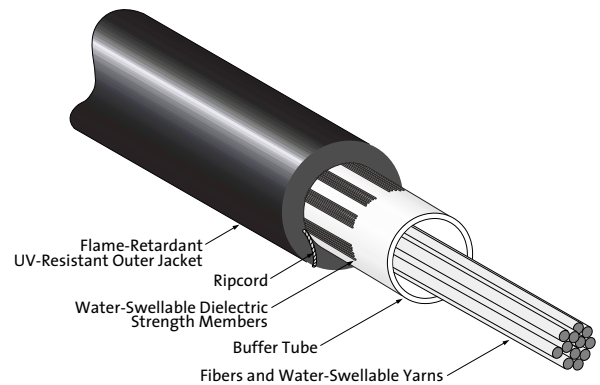
- Inter- and intrabuilding backbones in aerial, duct and riser applications

## Description

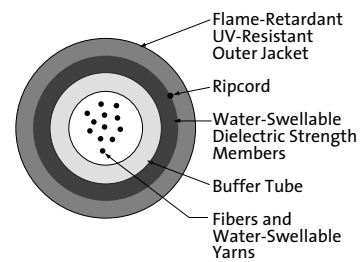
Corning Cable Systems FREEDM<sup>®</sup> LST<sup>™</sup> Gel-Free Cables are flame-retardant, indoor/outdoor, riser-rated cables suitable for installation in aerial, duct and riser applications. Because of the riser rating, there is no need for a transition splice when entering the building. Using water-swappable yarns both inside and surrounding the buffer tubes, these cables are fully water-blocked without the use of messy gels, providing for more efficient and craft-friendly cable preparation. Available in a compact design from 2 to 24 fibers, the buffer tubes and fibers in each tube are color-coded for quick, easy identification.

## Features / Benefits

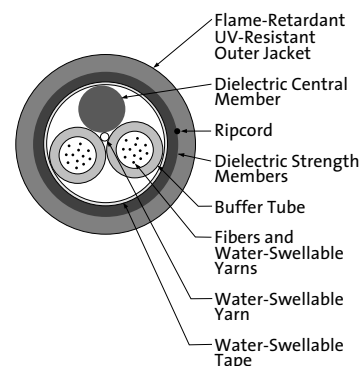
- Gel-free design is fully waterblocked using craft-friendly, water-swappable yarns, making cable access and use of buffer tube fan-out kits simple
- Available in 62.5  $\mu\text{m}$ , 50  $\mu\text{m}$ , single-mode and hybrid versions
- Standard 3 mm buffer tube size reduces the number of access tools required by craftspersons
- Flame-retardant jacket is rugged, durable and easy to strip
- Compact design, all-dielectric cable construction requires no grounding or bonding
- Color-coded fibers and buffer tubes for quick and easy identification during installation
- No preferential bend axis for easier installation and better handling
- UV-resistant and listed OFNR and FT-4
- Compatible with buffer tube fan-out kit for rapid, simple termination
- Available with interlocking armor
- Available with Gigabit Ethernet and 10 Gigabit Ethernet performance



FREEDM LST Gel-Free Cable | Drawing ZA-2470



12-Fiber FREEDM LST Gel-Free Cable | Drawing ZA-2470



24-Fiber FREEDM LST Gel-Free Cable | Drawing ZA-2470

**Specifications**

<b>Temperatures</b>	Storage: -40° to +70°C (-40° to +158°F) Installation: -10° to +60°C (+14° to +140°F) Operation: -40° to +70°C (-40° to +158°F)
<b>Approvals and Listings</b>	National Electrical Code <sup>®</sup> (NEC <sup>®</sup> ) OFNR, CSA OFN FT-4
<b>Common Installations</b>	Outdoor aerial and duct; indoor vertical riser and general purpose horizontal according to NEC Article 770
<b>Design and Test Criteria</b>	ANSI/ICEA S-104-696

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

Fiber Count	Nominal Weight kg/km (lb/1000 ft)	Nominal Diameter mm (in)	Maximum Tensile Load		Minimum Bend Radius Loaded cm (in)	Minimum Bend Radius Installed cm (in)
			Short-Term N (lbf)	Long-Term N (lbf)		
2-12	55 (37)	8.0 (0.31)	1330 (300)	400 (90)	12.0 (4.9)	8.0 (3.1)
13-24	72 (48)	11.2 (0.44)	2700 (600)	810 (180)	16.8 (6.6)	11.2 (4.4)

**Transmission Performance**

Fiber Code	K	C	S	S	E
<b>Performance Option Code</b>	<b>30</b>	<b>31</b>	<b>80</b>	<b>90</b>	<b>01</b>
<b>Fiber Type</b>	62.5/125 μm (850/1300 nm)	50/125 μm (850/1300 nm)	50/125 μm (850/1300 nm)	50/125 μm (850/1300 nm)	Single-mode (1310/1383/1550 nm)
<b>Maximum Attenuation (dB/km)</b>	3.5/1.0	3.5/1.5	3.0/1.5	3.0/1.5	0.4/0.4/0.3
<b>Minimum LED Bandwidth (MHz•km)</b>	200/500	500/500	1500/500	1500/500	- / - / -
<b>Minimum Effective Modal Bandwidth (MHz•km)</b>	*220/ -	*510/ -	**2000/ -	***4700/ -	- / - / -
<b>Serial Gigabit Ethernet Distance (m)</b>	300/550	600/600	1000/600	1000/600	5000/ - / -
<b>Serial 10 Gigabit Ethernet Distance (m)</b>	33/ -	82/ -	300/ -	****550/ -	10000/40000

\* As predicted by RML BW, per TLA/ELA 455-204 and IEC 60793-1-41, for intermediate performance laser-based systems (up to 1 Gb/s).

\*\* As predicted by minEMBc, per TLA/ELA 455-220 and IEC 60793-1-49, for high performance laser-based systems (up to 10 Gb/s).

\*\*\* As predicted by minEMBc, per TLA/ELA 455-220 and IEC 60793-1-49, for high performance laser-based systems (up to 10 Gb/s).

\*\*\*\* The 550 m distance is equivalent to a 4700 EMB system with standards-compliant transceiver and fiber characteristics, 3.0 dB/km cable attenuation and 1.0 dB total connector loss.