

STU

Bends like
Magic,
Blends like
Magic



One Fibre,
Multiple Applications

STL a leader in Optical Fibre

STL is one of the world's leading providers for optical fibre and Optical fibre cable solutions. We have solutions to cater to all your connectivity needs. Our lower bend loss optic fibre is best suited for your communication network enabling high optical performance and significantly lower installation costs.

Precision manufacturing in state-of-the-art facilities

STL controls every stage of the manufacturing process to ensure quality is built in to every meter of fibre. To ensure the accuracy and precision of the manufacturing process, STL routinely calibrates and recertifies process equipment and measurement benchmarks against internationally traceable standards from NPL/NIST, and follows test methods compliant with EIA/TIA, CEI-IEC and ITU standards.

Top 3 integrated
Fibre and Cable manufacturers
in the world

Is your Fibre future-ready?

Data consumption is increasing at the speed of light, therefore, data transmission needs to catch up as well. Optical fibre is expanding its reach and is a key enabler of the upcoming 5G technologies that would require a rock-solid foundation. However, at a time when connectivity demands are rising, fibre needs to achieve much more:

- ◆ Geographical expansion into the deeper pockets of a city requires fibre to undergo several bends and turns
- ◆ To suffice the need for higher bit rates, fibre needs to function at next generation PONs working at higher wavelengths
- ◆ Sheer scale of fiberisation requires deskilling of field termination to speed up the process

3X increased bend loss Transition from **GPON to 10G-PON**

Overall, hyperscale fibre rollouts mean lots of unexplored city spreads with more semi-skilled people dealing with them, especially at a time when faster time-to-market is non-negotiable. How will you keep on top of these things in an age where you need to act quickly?

Stellar Fibre

STL Stellar™ fibre is a step towards Next Gen ultra-high definition future. The leading-edge fibre guarantees best-in-class attenuation and macro bend insensitivity, and delivers a host of tangible benefits that can lead to network longevity by a minimum of 10+ years while ensuring “One choice for all network sections”

Attribute	STL OH-LITE NOVA (Enhanced G.652.D and G.657.A1)	STL BOW -LITE (E) (G.657.A2)	stella TM
Typical Attenuation Values (in dB/km)			
@ 1310nm	0.33	0.34	0.33
@ 1550nm	0.19	0.20	0.19
@ 1625nm	0.21	0.22	0.21
@ 1383nm +/- 3nm	0.31	0.34	0.31
MFD @1310NM	9.1 +/- 0.4μ	8.6 +/- 0.4μ	9.1 +/- 0.4μ
Typical Macro Bend Loss Values (in dB)			
1 turn 10mm radius, 1550 nm	≤0.5	≤0.1	≤0.1
1 turn 10mm radius, 1625 nm	≤1.5	≤0.2	≤0.2

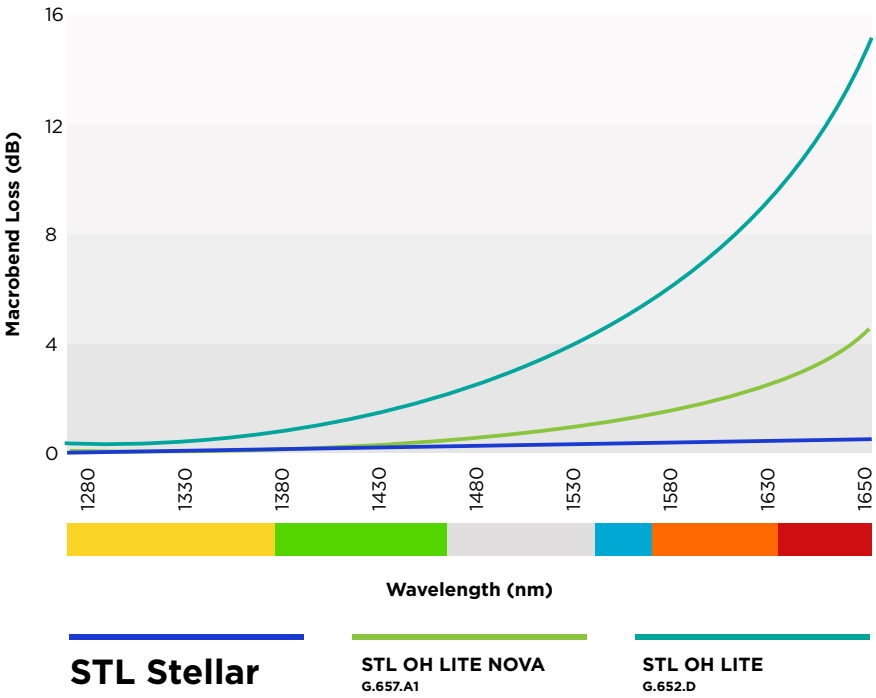
What does Stellar bring to the Table?

Stellar™ fibre is a revolutionary product that not only turns the economics for dense and deep Fibreization in an ISPs favor but also circumvents all deployment challenges, making the solution an installer's delight

Reduced losses at higher wavelength

Making your network future ready

Stellar fibre changes the paradigm of optical network by ensuring lower losses at higher wavelengths. The higher macro bend performance makes the fibre suitable for newer technologies and next-gen PONs - 10G/40G PONs for Fibre to the X applications or L-Band DWDM/CWDM in Metro and Long Haul applications.

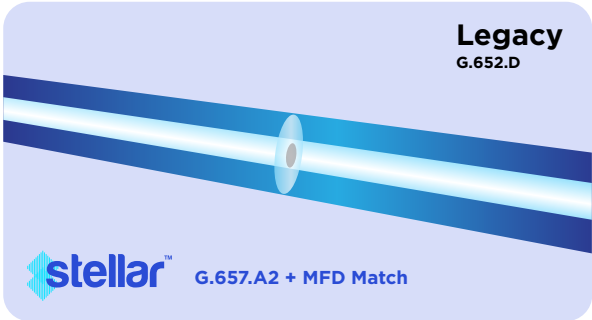
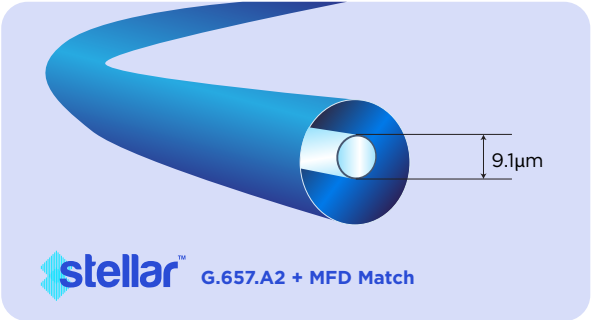
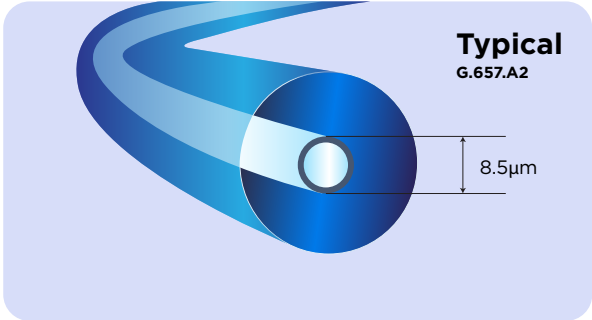
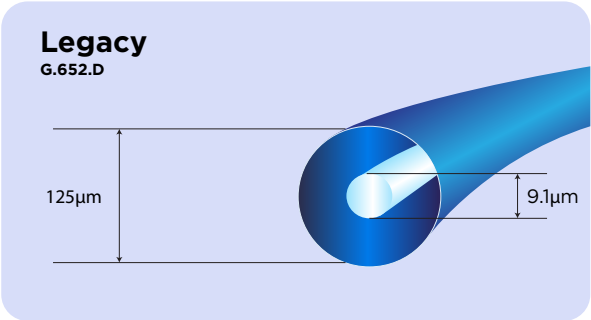


Bend Loss Comparison
1 turn @ 7.5mm radius

Universally compatible with all legacy solutions

Ensuring minimal splice loss and first-time-right installation

Stellar™ fibre boasts of a unique design that makes it a universally acceptable choice. With a higher mode field diameter of 9.1 ± 0.4 micron, the fibre ensures excellent compatibility with almost all existing fibre types. Be it an existing network's capacity enhancement or new network provisioning for Metro and Long Haul or fibre to the X, Stellar fibre proves to be the perfect choice.



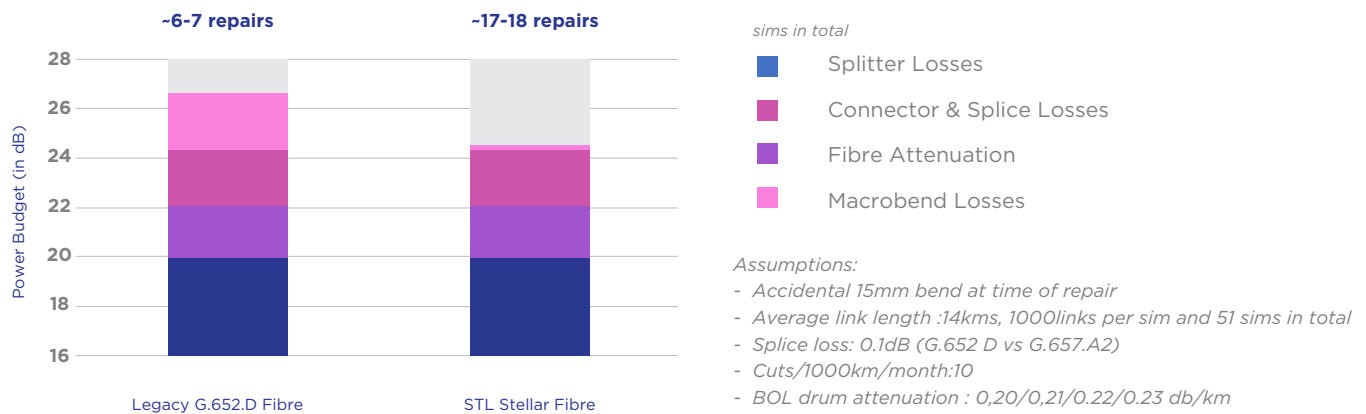
First time right provisioning

Proving to be an installer's delight

Resilient to cuts and accidental bends

Ensuring increased network Life by 10 years

When deploying a fibre network, one of the key factors used to calculate ROI is how less you spend in network operations. STL performed exhaustive experiments and found that using bend insensitive STL Stellar fibre adds nearly 10 years to you network life especially in developing countries.



Stellar Micro Fibre

STL Stellar™ Micro fibre is the 200 micron fibre from STL's optical design solutions. The product not just guarantees best-in-class attenuation, macro bend insensitivity and universal compatibility like it's parent solution, Stellar™, but is also slimmer. Just like Stellar™ fibre, its nuanced version can also find use in almost all sections of a data communication network - Core, Metro and Access. However, it's reduced coating diameter makes it the best fit product for high fibre density optical cable designs.

Hardware **miniaturisation**
and installation **agility**



About STL - Sterlite Technologies Ltd

STL is an industry-leading integrator of digital networks.

We design and integrate these digital networks for our customers. With core capabilities in Optical Interconnect, Virtualized Access Solutions, Network Software and System Integration, we are the industry's leading end-to-end solutions provider for global digital networks. We partner with global telecom companies, cloud companies, citizen networks and large enterprises to deliver solutions for their fixed and wireless networks for current and future needs. We believe in harnessing technology to create a world with next generation connected experiences that transform everyday living. With intense focus on end-to-end network solutions development, we conduct fundamental research in next-generation network applications at our Centre of Excellence. STL has a strong global presence with next-gen optical preform, fibre and cable manufacturing facilities in India, Italy, China and Brazil, optical interconnect capabilities in Italy, along with two software-development centres across India and one data centre design facility in the UK