STL

Bends like
Magic,
Blends like
Magic

stellar

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)	stellar
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**

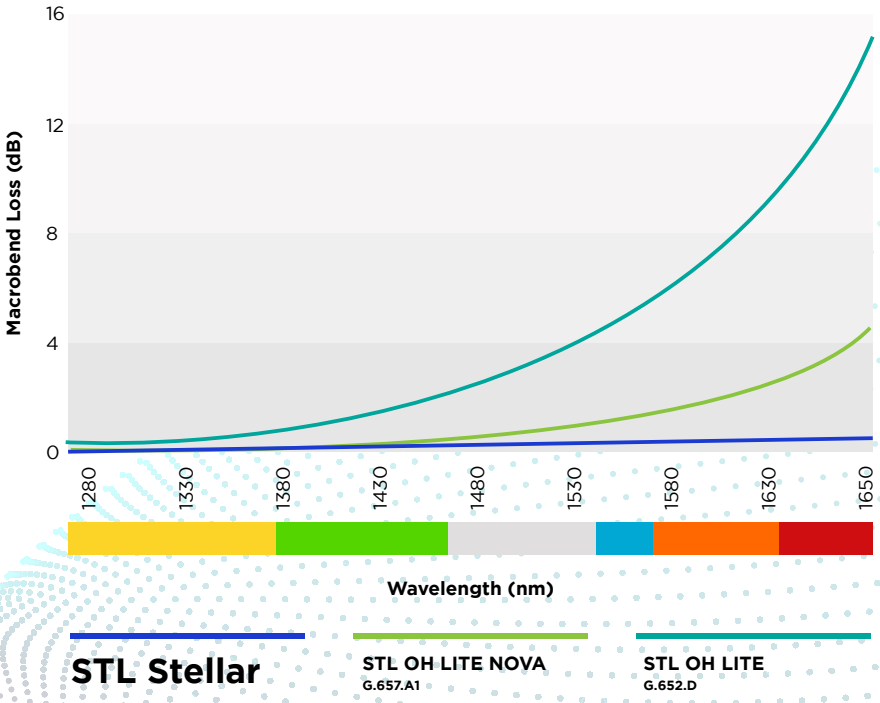
What does Stellar bring to the Table?

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.



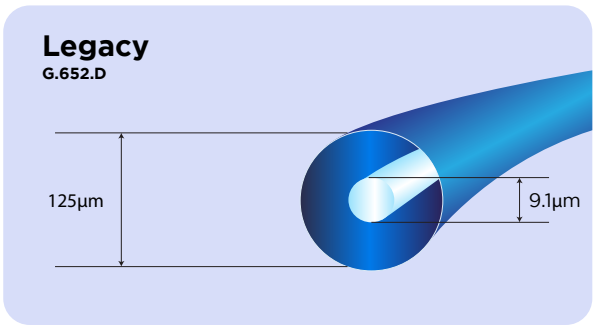
Bend Loss Comparison

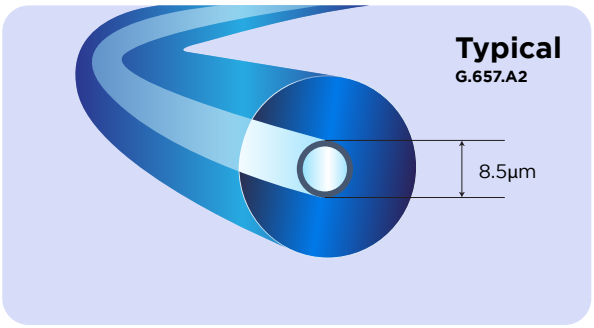
1 turn @ 7.5mm radius

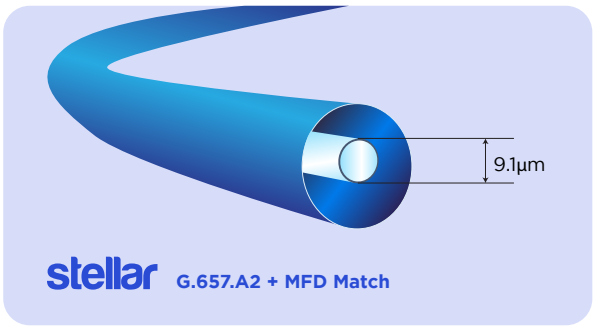
Universally compatible with all legacy solutions

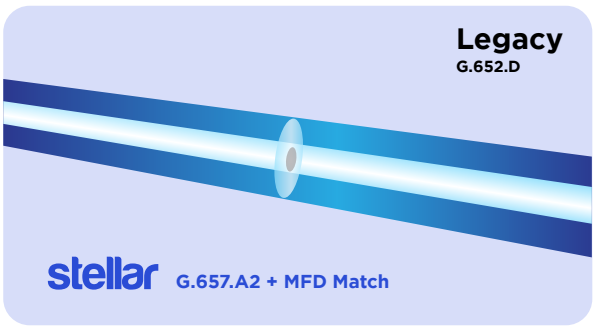
Ensuring minimal splice loss and first-time-right installation

Stellar™ fibre boasts of a unique design that makes it a universally acceptable choice. With a higher mode field diameter of 9.1 3 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.









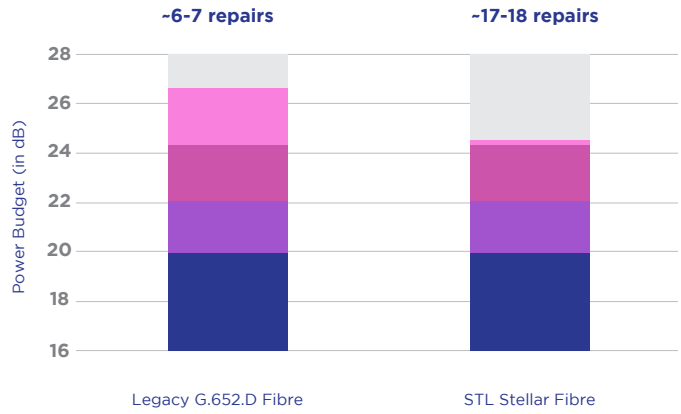
First time right provisioning

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.



sims in total

- Splitter Losses
- Connector & Splice Losses
- Fibre Attenuation
- Macrobend Losses

Assumptions:

- *Accidental 15mm bend at time of repair*
- *Average link length :14kms, 1000links per sim and 51 sims in total*
- *Splice loss: 0.1dB (G.652 D vs G.657.A2)*
- *Cuts/1000km/month:10*
- *BOL drum attenuation : 0,20/0,21/0.22/0.23 db/km*

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**

beyond tomorrow

About STL - Sterlite Technologies Limited

STL is a leading global optical and digital solutions company providing advanced offerings to build 5G, Rural, FTTx, Enterprise and Data Centre networks. The company, driven by its purpose of 'Transforming Billions of Lives by Connecting the World', designs and manufactures in 4 continents with customers in more than 100 countries. Telecom operators, cloud companies, citizen networks, and large enterprises recognize and rely on STL for advanced capabilities in Optical Connectivity, Global Services, and Digital and Technology solutions to build ubiquitous and future-ready digital networks. STL's business goals are driven by customer-centricity, R&D and sustainability. Championing sustainable manufacturing, the company has committed to achieve Net Zero emissions by 2030. With top talent from 30+ nationalities, STL has earned numerous 'Great Place to Work' awards and been voted as the 'Best Organisation for Women'.