



October 16, 2024

National Stock Exchange of India Limited

Exchange Plaza, 5th Floor,
Plot No. C-1, G Block,
Bandra Kurla Complex, Bandra (East)
Mumbai - 400 051.

BSE Limited

Phirozee Jeejeebhoy Towers,
Dalal Street,
Mumbai - 400 001.

Sub: - Press Release – STL advances Multicore Fibre portfolio - a Make-in-India enabler for Quantum Communications and Silicon photonics

Ref: - Scrip ID - STLTECH/ Scrip Code – 532374

Dear Sir/Madam,

The Company is pleased to announce that today it has debuted its revolutionary MultiCore Fibre (MCF) today at IMC 2024. STL's MCF suite consists of ultra-thin fibre with 7 and 4 cores (instead of one), along with Multicore Fibre Cables drawn from indigenously developed multicore preform technology.

A copy of the Press Release in this regard is enclosed herewith.

Kindly take the above on record.

Thanking you.

Yours faithfully,

For **Sterlite Technologies Limited**

Amit Deshpande

General Counsel & Company Secretary (ACS 17551)

Enclosure: As above.

PRESS RELEASE

STL advances Multicore Fibre portfolio - a Make-in-India enabler for Quantum Communications and Silicon photonics

New Delhi, 16/October/2024: [STL](#) [NSE: STLTECH], a leading optical and digital solutions company, debuted its revolutionary MultiCore Fibre (MCF) today at IMC 2024. STL's MCF suite consists of ultra-thin fibre with 7 and 4 cores (instead of one), along with Multicore Fibre Cables drawn from indigenously developed multicore preform technology. STL also showcased the power of this optical fibre innovation through a live 400G network transmission with real-time traffic simulation. This Make-In-India innovation is laying the groundwork for the scale-up of advanced technologies like quantum communications and silicon photonics.

Inaugurating the multicore fibre solution at STL's booth, **Sri Neeraj Mittal, Secretary of the Department of Telecommunications**, said, *"STL's multicore solution aims to solve the problems of transmission capacity per fibre. It will fulfil requirements for advanced technologies like quantum communications and silicon photonics."*

STL's Multicore fibre leverages Space Division Multiplexing in 7 and 4 core fibre to achieve ultra-high transmission capacity per fibre within the same diameter. This marquee fibre was deployed in the Advanced Optical Communications (AOC) Test Bed project last year to evaluate its transmission performance with advanced technologies in on-field conditions. This project is run in collaboration with DoT and IIT Chennai.

India's top researchers and academicians hailed STL's work on the multicore fibre as a breakthrough for revolutionary technologies like Quantum Communications and Silicon Photonics.

Multicore optical fiber (MCF) is of immense importance in quantum communications due to its unique ability to provide multiple spatial channels for transmitting quantum information. MCF's unique capability significantly increases the capacity and efficiency of quantum communication systems, enabling the simultaneous transmission of multiple quantum signals. MCF also enables the creation of quantum networks by connecting quantum computers and sensors, facilitating the transfer of quantum states between different nodes. *"The recently announced National Quantum Mission has set aspirational goals for technology development. The work being done at STL on multicore optical fibre will help us become leaders in the deployment of quantum networks,"* said **Anil Prabhakar, Professor at IIT Madras and Principal Investigator of the National Quantum Mission Hub on Quantum Communications**.

For many decades, the world has been fascinated by Silicon Photonics. Terminating optical fibre on silicon chips will drive not only miniaturisation but also ultra-high-density connectivity, improving performance and power efficiency. This will enable low-latency communication and high-speed data transfer, which is vital for real-time applications like accelerated computing and defence. *"Silicon Photonics has emerged as an indispensable catalyst for next-generation communication and computing. The immense potential of Silicon photonics is unlocked through high-density optical fanout enabled by multicore fibre interfaces. Integrating Silicon photonics with multicore fibres will fully harness and exploit their bandwidth capabilities,"* said **Shankar Kumar Selvaraja, Chair professor at the Centre for Nano Science and Engineering, IISc Bangalore and Chair of the National Nano Fabrication Centre (NNfC)**

Commenting on this breakthrough, **Dr Badri Gomatam, CTO, STL**, said: *"We need the next wave of optical fibre innovations for the next wave of technological innovations. With our deep research of around two decades in optical fibre, we have been able to achieve this breakthrough in the form of Multicore fibre. This designed and made-in-India product makes us proud, and we are excited to see how STL's Multicore Fibre can help scale advanced technologies like Quantum Computing and Silicon photonics"*

Sterlite Technologies Limited

Registered office: 4th Floor, Godrej Millennium, Koregaon Road 9, STS 12/1, Pune, Maharashtra- 411 001, India.
CIN - L31300PN2000PLC202408



About STL - Sterlite Technologies Ltd:

STL is a leading global optical and digital solutions company providing advanced offerings to build 5G, Rural, FTTx, Enterprise and Data Centre networks. [Read more](#), [Contact us](#), [stl.tech](#) | [Twitter](#) | [LinkedIn](#) | [YouTube](#)

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