



**“In mega-building such as this, it’s essential to have network infrastructure that combines high performance and reliability with ease of installation and maintenance. The time saving installation and management features of SYSTIMAX solutions pay big dividends in a project of this scale.”**

**Laura Chen**  
Regional Sales Director, Greater China  
CommScope

## Greenland Group Networks 450m High Nanjing Zifeng Plaza with CommScope Network Infrastructure

### **SYSTIMAX® Solutions reach for the sky in one of China’s tallest buildings**

**Summary:** Buildings as big as the Nanjing Zifeng Plaza need network infrastructure that can sustain high performance over long cable runs. To guarantee data transmission speed from top to bottom of its new 450m high-rise, Shanghai Greenland Group chose LazrSPEED® fiber and GigaSPEED® copper solutions

Greenland Group is one of China’s top 100 companies and a national leader in the real estate sector. Founded in 1991, it also has interests in energy, finance, industry and construction as well as property. Its total assets exceed 100 billion yuan.

The Group has completed building developments in Shanghai, Beijing, Guangzhou, Nanjing and 40 other cities across China’s 23 provinces. To date, the biggest highest of these buildings is the Nanjing Zifeng Plaza constructed on a 28,745m<sup>2</sup> site in the city’s center.

The \$460 million, 89 storey development includes a shopping mall, offices and a five-star hotel. At 450 metres, it was the 7th tallest building in the world and the second tallest in China when construction was completed.

To serve businesses in the building, Greenland Group specified 11,000 information outlets to deliver data transmission speeds up to 1Gb/s. It also wanted to ensure that every outlet would offer end-to-end performance that fully met specifications of the Category 6/Class E cabling standard. To meet these requirements, the company decided on solutions from CommScope’s SYSTIMAX structured cabling portfolio.

With a vertical network backbone of more than 450 meters, the building needed an industry leading multi-mode fiber solution. The alternative was to use single-mode fiber with expensive electronics to serve areas furthest from the main distribution frame. Using SYSTIMAX LazrSPEED 550 multimode fiber avoided this expense.

LazrSPEED 550 was the first cabling solution to meet all specifications of the OM4 multimode fiber standard. With its laser optimized design, it can support data transmission at 10Gb/s up to 550 metres, or 100Gb/s over shorter distances.

The solution’s exceptional performance gives network designers more options because less of their optical power budget is taken by losses in the cabling. This helps optimize results with current and emerging multimode Ethernet, Fibre Channel and InfiniBand applications.

Greenland Group’s other infrastructure requirements included a full range of solutions with a proven track record of performance in extremely large buildings. CommScope not only offered a complete portfolio of copper, fiber and cabling management solutions, it could also point to successful installations in many of the world’s biggest buildings. These include the 88-floor Jinmao Tower, the 101-floor Shanghai World Financial Center and the 103-floor Guangzhou International Finance Center.

Infrastructure installation at the Zifeng Plaza was completed by Johnson Controls, a global company that is a world leader in intelligent building systems. The company, which is a CommScope BusinessPartner, was responsible for the majority of low voltage engineering throughout the development.

For horizontal connections to outlets on each floor, Johnson Controls installed 350km GigaSPEED XL copper cabling. This UTP (Unshielded Twisted Pair) solution exceeds specifications of the Category 6/Class E cabling standard, providing 1Gb/s transmission speeds over 100 metres.

The GigaSPEED XL connections link information outlets with a pair of distribution frames on each floor. These are quipped with SYSTIMAX G2 high density shelves for splicing and termination of fiber connections. The unique design of the G2 sliding shelf allows easy access to both the front and back of connector blocks.

For GigaSPEED copper connections, Greenland chose PATCHMAX GS3 modular patching hardware. Like the G2 fiber shelves, this met the requirement for high density connectors designed for fast, easy installation and maintenance. In total 420 PATCHMAX panels were installed.

A team of more than 200 technicians and engineers worked on the project, installing cabling against a tight schedule. A key factor in meeting the deadlines was the timely availability of material from CommScope's distributors in China. Through local warehouses and CommScope's global supply network, cabling and components could be delivered quickly from stock.

The finished infrastructure now supports a wide variety of mission critical systems for tenants of the Plaza alongside the vital building management systems. In accordance with its company policy, Greenland Group always gives high priority to environmental control and energy management in its buildings.

Commenting on the Zifeng Plaza project, Laura Chen, Regional Sales Director, Greater China, CommScope said: "In mega-building such as this, it's essential to have network infrastructure that combines high performance and reliability with ease of installation and maintenance. The time saving installation and management features of SYSTIMAX solutions pay big dividends in a project of this scale.

"With this SYSTIMAX installation, every tenant gets the network reliability and performance they expect. Greenland Group is fully aware that, in a 1,500 ft building, compromising on features such as cabling - especially for network risers - wastes time, money and materials in the longer term."



[www.commscope.com](http://www.commscope.com)

Visit our Web site or contact your local CommScope representative for more information.

© 2011 CommScope, Inc. All rights reserved.

All trademarks identified by ® or ™ are registered trademarks or trademarks, respectively, of CommScope, Inc.

This document is for planning purposes only and is not intended to modify or supplement any specifications or warranties relating to CommScope products or services.

07/11 CA-A-57