



Luna Innovations Products Play Key Role in Safety of New Hong Kong-Zhuhai-Macau (HZMB) Bridge

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ROANOKE, Va.--(BUSINESS WIRE)--Nov. 29, 2018-- Luna Innovations Incorporated (NASDAQ: LUNA), a global leader in advanced optical technology, today announced an important product application for its Micron Optics [si155 Optical Sensing Interrogators](#). On October 24, a new bridge-tunnel system was opened to the public connecting Hong Kong, Zhuhai and Macau – three major cities in China's Pearl River Delta region. Officially known as the Hong Kong-Zhuhai-Macau Bridge (HZMB), this mega-structure consists of three cable-stayed bridges, one undersea tunnel and two artificial islands. The HZMB bridge-tunnel system spans a total length of 55 kilometers, making it the longest sea-crossing link ever built.

Given the significant span of this complicated structure, active monitoring of the conditions of the HZMB bridge-tunnel system in real-time is critical to the long-term safety of the system. Built to withstand a magnitude 8 earthquake, a super typhoon and strikes by super-sized cargo vessels, the bridge incorporates 400,000 tons of steel – 4.5 times the amount in San Francisco's Golden Gate Bridge. Engineers deployed a structural health monitoring (SHM) system, which utilizes fiber optic sensing technology featuring a total of 13 si155 Optical Sensing Interrogators from the Lightwave Division of [Luna Innovations](#).

Featuring new and groundbreaking capabilities, these Optical Sensing Interrogators provide long-term, reliable and accurate measurements of hundreds of optical strain, temperature, acceleration and displacement sensors. These critical measurements allow bridge operators to monitor the long-term structural health of the bridge, assess its condition during extreme weather events and detect vessel impacts.

"Providing real-time, critical measurement information relative to the behavior of the HZMB bridge-tunnel system will provide bridge operators with the ability to constantly evaluate required maintenance and repairs," said Scott Graeff, President and Chief Executive Officer of Luna. "Monitoring the structural health of the longest sea-crossing link ever built is a perfect application of our fiber optic sensing systems. We're excited to be a part of this engineering marvel and are proud to provide a solution to ensure long-term safety for all who use this system."

News outlets have reported on the HZMB bridge and its significance, including an October 22, 2018 report by *CNN*. In addition to the HZMB, Luna Innovations has provided fiber optic sensing systems used for SHM for many other major bridges around the world, including the Penang Second Bridge in Malaysia and the Chulitna River Bridge in Alaska.

For more information about Luna Innovations and its fiber optic sensing solutions, visit: <http://lunainc.com/fiber-optic-solutions/fiber-sensing-solutions/>.

About Luna

Luna Innovations, Incorporated (www.lunainc.com) is a leader in optical technology, providing unique capabilities in high-performance fiber optic-based test products for the telecommunications industry and distributed fiber optic-based sensing for the aerospace and automotive industries. Luna is organized into two business segments, which work closely together to turn ideas into products: a Technology Development segment and a Products and Licensing segment. Luna's business model is designed to accelerate the process of bringing new and innovative technologies to market.

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