



NEWS RELEASE

Brazilian National Observatory enhances national timekeeping with Adtran's Oscilloquartz super high-performance optical cesium clock

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News summary:

- National timekeeping institution sought to enhance stability and precision to support critical national and international scientific work
- Adtran's industry-first OSA 3300 SHP with optical pumping technology delivers exceptional short-term stability
- Deployment ensures consistent, high-precision time synchronization, advancing research, education and contribution to UTC

RIO DE JANEIRO--(BUSINESS WIRE)-- Adtran today announced that the Brazilian National Observatory (Observatório Nacional) has integrated its OSA 3300 Super High-Performance optical cesium atomic clock into its timekeeping infrastructure. The deployment marks the first use of an optical pumping cesium clock at the observatory, enabling it to maintain and distribute legal Brazilian time with unmatched performance. Delivering twice the short and long-term stability of leading magnetic cesium clocks, along with double the operational lifespan, the **OSA 3300 SHP** ensures consistent, high-precision synchronization that supports both national and regional research and education. The technology solidifies the observatory's role as a leader in timekeeping and a critical contributor to the global UTC standard.

Adtran's OSA 3300 SHP is helping the Brazilian National Observatory achieve new levels of stability and precision with its timekeeping. (Photo: Business Wire)



“The deployment of Adtran’s Oscilloquartz super high-performance atomic clock is an important step forward in advancing our mission. It empowers us to achieve new levels of stability and precision in maintaining Brazil’s official time, ensuring that our timekeeping meets the highest global standards,” said Ricardo José de Carvalho, head of time service division at the Brazilian National Observatory. “Founded in 1827, our observatory has a long-standing legacy as Brazil’s oldest research institution in astronomy, geophysics and metrology. This new technology strengthens our ability to conduct crucial scientific observations, from seismological monitoring to astronomical data collection. It ensures we’re better equipped to contribute to international scientific collaborations and maintain our status as a leader in the global timekeeping community.”

Adtran’s OSA 3300 SHP cesium atomic clock, the newest addition to the Oscilloquartz synchronization portfolio, is enhancing the capabilities of Brazil’s National Observatory (recognized by lab code ONRJ in the International Bureau of Weights and Measures). As the country’s timekeeping authority, the observatory generates and maintains Brazil’s official time standard, ensuring precise synchronization across critical systems, including telecoms and scientific research. Leveraging industry-first optical pumping technology, the OSA 3300 SHP provides exceptional short-term stability and twice the Allan Deviation performance of the 3300 HP while maintaining the same 10-year lifespan. Its compact design integrates seamlessly into existing systems, ensuring easy deployment. What’s more, its remote management capabilities simplify operations and enhance flexibility for the observatory’s timekeeping infrastructure. Supported by Nextest, a specialized provider of testing and measurement solutions, the deployment will help foster international collaboration in timekeeping and metrology.

“We’re helping the Brazilian National Observatory strengthen its role as a leader in timekeeping. Our advanced solution will be key in supporting its efforts to push the boundaries of scientific research, enhance educational programs and contribute valuable data to the global scientific community,” commented Allan De Souza, VP of Latin America sales at Adtran. “Our OSA 3300 SHP cesium atomic clock embodies our dedication to advancing time and frequency technology, built on 75 years of expertise in synchronization solutions. It provides the observatory with unparalleled precision and stability. We’re proud to collaborate with Nextest to support this vital work and contribute to innovations that strengthen timekeeping capabilities worldwide.”

About Adtran

ADTRAN Holdings, Inc. (NASDAQ: ADTN and FSE: QH9) is the parent company of Adtran, Inc., a leading global provider of open, disaggregated networking and communications solutions that enable voice, data, video and internet communications across any network infrastructure. From the cloud edge to the subscriber edge, Adtran empowers communications service providers around the world to manage and scale services that connect people, places and things. Adtran solutions are used by service providers, private enterprises, government organizations and millions of individual users worldwide. ADTRAN Holdings, Inc. is also the largest shareholder of Adtran

Networks SE, formerly ADVA Optical Networking SE. Find more at **Adtran**, **LinkedIn** and **X**.

About Nextest

Nextest is a Brazilian company based in Minas Gerais specializing in innovative electronic systems, advanced instrumentation, and tailored solutions for various industries. With a strong commitment to quality and customer satisfaction, Nextest leverages cutting-edge technology and technical expertise to deliver reliable products and services. The company has been recognized for its excellence and dedication, being awarded for two consecutive years by Oscilloquartz/Adtran. This prestigious recognition highlights Nextest's leadership and commitment to delivering exceptional solutions in the field of network synchronization and telecommunications. Find more at **Nextest** and **LinkedIn**.

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