



NEWS RELEASE

Adtran launches Oscilloquartz Time Scale System for ultra-precise timekeeping

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News summary:

- Industries such as metrology, aerospace and national defense require new levels of precise and reliable timekeeping
- Adtran's comprehensive solution integrates multiple time sources, enhancing accuracy and maintaining precision, even during GPS/GNSS outages
- Time Scale System is available as a turnkey solution, with options for customization, integration, staging and compliance with local legal time providers

HUNTSVILLE, Ala.--(BUSINESS WIRE)-- Adtran today launched its **Oscilloquartz Time Scale System**, developed to meet the precise timekeeping requirements of national metrology institutes, scientific research facilities and other applications demanding the highest levels of accuracy and traceability. The comprehensive system integrates Adtran's Oscilloquartz grandmaster clocks, GPS/GNSS receivers and high-performance optical cesium atomic clocks, alongside a combination of phase comparator, reference generator and time interval counter, ensuring synchronization with Coordinated Universal Time (UTC) and providing robust protection against cybersecurity threats. With its customizable design, real-time monitoring and seamless transition capabilities, the Oscilloquartz Time Scale System addresses the growing demand for resilient and accurate time synchronization across various sectors, ensuring operational continuity and data integrity in an increasingly interconnected and digital world.

Adtran's Oscilloquartz Time Scale System marks a major milestone for network synchronization. (Photo: Business Wire)

"The launch of our Time Scale System represents a major



advancement in precision

timekeeping. Leveraging our industry-first high-performance optical cesium atomic clocks and a fully integrated system capable of combining multiple clock types into a single, stable time scale, this solution offers unmatched accuracy and resilience,” said Gil Biran, GM of Oscilloquartz, Adtran. “At a time when industries like national metrology, defense and aerospace face increasing demands for precision and reliability, our Time Scale System will deliver the confidence needed for mission-critical applications. Oscilloquartz is proud to continue leading innovation in timekeeping, providing solutions that exceed the highest standards of accuracy, security and performance.”

The Oscilloquartz Time Scale System delivers exceptional timekeeping by integrating up to eight different clock types, including optical cesium atomic clocks, hydrogen maser clocks and GNSS receivers, into a single, stable time scale. It uses multi-channel measurement systems to calculate clock time differences and combine these inputs into one output. The system supports the distribution of multiple 5MHz, 10MHz, 1PPS, TOD and IRIG-B outputs, as well as NTP and PTP protocols for flexible infrastructure support. With real-time monitoring and data archiving, it ensures seamless operation during GPS/GNSS outages, maintaining nanosecond precision. The system also automatically generates BIPM reports for institutes contributing to global time standards. With its customizable design, staging, integration and compliance with local legal time providers, the Oscilloquartz Time Scale System sets a new standard in mission-critical timekeeping.

“Our Time Scale System will be key to advancing global standards in timekeeping. By offering real-time monitoring and seamless integration with existing infrastructures, the system ensures our customers stay synchronized with UTC and are protected against any potential disruptions,” commented Patrick Berthoud, time and frequency chief scientist at Oscilloquartz, Adtran. “With its customizable and modular design, the system enables us to collaborate closely with each client to tailor a solution precisely to their specific requirements, whether they need unique frequency sources or enhanced GPS/GNSS resilience. This adaptability underscores our commitment, since our founding in 1949, to delivering technology that meets the highest standards and is versatile enough to perform in diverse and challenging environments.”

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

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