

## OSA suite

### Precise and assured synchronization

Our economies and societies depend on critical infrastructure such as communication networks, power utilities, transportation, and financial institutions, among many others. Accurate synchronization is an essential requirement with each of those operations and needs to be provided in a resilient and robust way. A combination of precise GNSS timing and network-delivered synchronization over timing-aware packet networks from ultra-stable core clocks and core grandmasters is the most reliable way to meet this ambitious demand.



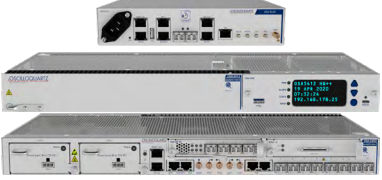



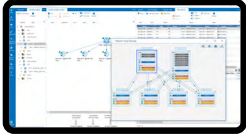
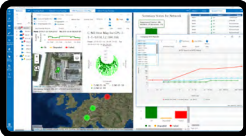
Whether at the edge or core of the mobile backhaul network, deep in the radio access network, in utility distribution networks, or in defense communication networks, our portfolio of synchronization devices provides you with the ideal solution. From the industry's most compact SFP-packaged grandmaster, embedded timing modules and shelf-based edge grandmasters to our highly scalable core devices, we have solutions for every need. What's more, our sophisticated cesium atomic clocks provide a reliable source of time for even the most demanding synchronization applications. Complemented by our powerful synchronization network management system, synchronization assurance across complex timing networks becomes simple.



### Your benefits

- ✔ **Resilient timing solutions**  
Our timing solution portfolio combines network- and GNSS-delivered synchronization with ultra-accurate core clocks
- ✔ **Unrivaled track record in synchronization**  
Oscilloquartz has been a pioneer in time and frequency synchronization since 1949
- ✔ **Cutting edge technology**  
Unique and comprehensive portfolio including SFP-based grandmasters, compact dual GNSS receivers featuring multi-band antennas, and optical cesium clocks
- ✔ **Syncjack™ technology**  
Built-in synchronization assurance for continuous real-time monitoring and performance optimization
- ✔ **Operational simplicity**  
Ease of operation with Ensemble Controller and Sync Director, applying AI/ML for predictive maintenance
- ✔ **Compact and energy efficient design**  
Delivery of accurate, secure and robust timing with the smallest size and power consumption on the market

## OSA suite at a glance

	Product	Major features and applications
	<p><b>OSA 3230B</b></p> <p><b>OSA 3350</b></p>	<p>Cesium atomic clocks for primary reference clock (PRC/ePRC) applications. Our optical and magnetic cesium technology exceeds ITU-T G.811/Stratum 1 PRC and G.811.1 ePRC specifications.</p> <p>Ideal for back-up of GNSS in ePRTC applications.</p>
	<p><b>OSA 5430</b></p> <p><b>OSA 5440</b></p>	<p>Modular, high-performance IEEE 1588v2 PTP core grandmaster, NTP server and SSU supporting 10Gbit/s as well as 1Gbit/s interfaces. Ultimate scalability, with a carrier-class fully redundant design.</p>
	<p><b>OSA 5410/12</b></p> <p><b>OSA 5422</b></p>	<p>Compact edge PTP grandmaster featuring NTP server and multi-band, multi-constellation GNSS receivers. A wide range of sync fanout options for deployment with communication networks, power utilities and broadcasting, among others.</p>
	<p><b>OSA 5405-I</b> <b>OSA 5405-P</b></p> <p><b>OSA 5405-O</b> <b>OSA 5405-MB</b></p>	<p>PTP grandmaster and GNSS receiver with a revolutionary dual GNSS antenna to deliver accurate synchronization at cell and broadcasting sites, substations, enterprise premises. Optimized variants for indoor (-I) and power substations (-P) as well as outdoor (-O) and multi-band outdoor (-MB).</p>
	<p><b>OSA 5401 SyncPlug™</b></p>	<p>SFP-based PTP grandmaster, boundary and slave clock designed for cost efficient deployments in various customer applications, enabling you to upgrade legacy systems with IEEE 1588v2 PTP and Synchronous Ethernet functionality.</p>
	<p><b>OSA 5400 SyncModule™</b> <b>TimeCard™</b></p>	<p>Embedded timing modules can be mounted into open servers and switches utilizing PCIe or M.2 interfaces. Original device manufacturers can easily upgrade their white boxes with sophisticated synchronization capabilities without expensive and slow development efforts.</p>
	<p><b>Ensemble Controller</b></p> <p><b>Ensemble Sync Director</b></p>	<p>Advanced platform for reliable, secure and user-friendly management and surveillance of ADVA FSP and OSA networks, with full FCAPS support.</p> <p>Sync Director extension for timing delivery management and sync assurance.</p>
	<p><b>Professional sync services</b></p> <p><b>OSA Sync Survey</b></p>	<p>To identify existing and potential problems, helping you take control of your synchronization performance and make major savings.</p> <p>Sync Director GNSS Assurance provides analytic tools for monitoring and analysis of GNSS status and reliability.</p>



For more information please visit us at [www.adva.com](http://www.adva.com)  
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Product specifications are subject to change without notice or obligation.