



The **OSA 5401** is an SFP-based PTP grandmaster, boundary and slave clock designed for deployment deep in the radio access network, enabling you to upgrade legacy systems with IEEE 1588v2 PTP and Synchronous Ethernet functionality.

The **OSA 5405** is a PTP grandmaster and GNSS receiver with a revolutionary dual GNSS antenna to deliver accurate small cell synchronization without the need for a clear sky view. Two variants for indoor and outdoor installations.

Objective and Level

This training course introduces OSA5405/5401 with extended features, applications, operation by using CLI. Students will be introduced to provision GNSS, PTP, NTP and SyncE, as well as SyncJack.

This class is applicable to different industries (Broadcasting, Power and Enterprise).

Level: Advanced

Please, note: the training will be provided using GoToTraining application or other tool – we will arrange a short test of the tool upfront the training – you will get invited for both – test and training session. For the practical exercises trainer will hand over keyboard and mouse to one student at a time, for e.g. a configuration exercise. For the handover the student needs to have the GoToTraining Client installed on his computer.

Note: Recording the remote training session is not permitted.

Note: We also recommend our 1 day training on ‘Using SyncDirector with Ensemble Controller’. For installation and administration of ENC software, we offer a separate full Ensemble Controller training.

Audience and Benefits

- The class is aimed for synchronization experienced users to achieve advanced knowledge of OSA 5401 and OSA 5405
- Certificate of attendance, no exam
- Small courses, 8 attendants maximum

Agenda	THEORY	PRACTICE
	<ul style="list-style-type: none"> • Product introduction • Product management and maintenance • GNSS introduction • NTP introduction • SynE configuration • Supported PTP profile introduction • SyncJack introduction 	<ul style="list-style-type: none"> • DCN practice • Product configuration backup/restoration. • Product upgrade. • Provision product as an NTP server • Provision SyncE • Provision product as GM/BC/Slave for supported profiles. • Provision SyncJack

Pre-requisites

Engineer or technician having a telecommunication background and synchronization knowledge.

Contact

Training: training@adva.com

Day 1 9am – 4pm Lunch Break 12am – 1pm	Advanced Setup of OSA 5401/05
Theory	<ul style="list-style-type: none"> • The concept of SyncE, PTP and NTP • Overview of OSA 5401 and OSA 5405 • Product management and maintenance <ul style="list-style-type: none"> ○ IP address ○ Configuration backup and restoration ○ Software upgrade • GNSS introduction • NTP server introduction • SyncE introduction
Lab Exercises	<ul style="list-style-type: none"> • Advanced Setup of the OSA 5401 and OSA5405 • Product management <ul style="list-style-type: none"> ○ DCN Setup (IP Settings) ○ Name, time and user configuration ○ Local user and remote authentication • Product maintenance <ul style="list-style-type: none"> ○ Configuration backup and restoration ○ Software upgrade • Provision GNSS • Provision OSA5405/5401 as an NTP server. • Provision OSA5405/5401 with SyncE capability on port.
Day 2 9am – 4pm Lunch Break 12am – 1pm	Delivery of Synchronization via Packet Networks
Theory	<ul style="list-style-type: none"> • PTP profile introduction <ul style="list-style-type: none"> ○ L3 profile ○ L2 profile • SyncJack™ (Maintaining and monitoring the performance of synchronization services) • Short Introduction to SyncDirector options for spoofing and jamming
Lab Exercises	<ul style="list-style-type: none"> • Provision OSA5405/5401 as GM/BC/SLAVE on different profiles. • Provision SyncProbe.