

MMIC



Component
École Nationale
Supérieure
d'Électrotechnique
d'Électronique

In brief

- > **Ametys Code:** N9EE10B
- > **Open to exchange students:** Yes

Presentation

Objectives

At the end of this course, students will be able to:

- Determine amplifier architectures that meet their specifications.
- Implement integration technologies specific to the field of microwave MMICs.
- Understand the difficulties involved in integrating amplifiers.
- Comply with integrated technology implementation constraints.
- Analyze performance and propose design and correction methods adapted to the problem.
- Design an MMIC chip that meets all system, integration, and electrical performance constraints.

Description

Lecture 1: From Semiconductors to RF Transistors – Sébastien Delcourt – THALES ALENIA SPACE

Lecture 2: From transistors to MMICs – Sébastien Delcourt – THALES ALENIA SPACE

Lecture 3: MMIC design – Fabrice Delahaye – THALES ALENIA SPACE

Lecture 4: Case study: from antenna to MMIC – Fabrice Delahaye – THALES ALENIA SPACE

Project-based learning: Response to industrial specifications (LNA, LLA, or MLA)

Pre-requisites

Course N7EE06A "Active RF Circuits" – 2nd year EEEA, Electronics track
ADS lab, N7EE06D – 2nd year EEEA, Electronics track