

Microwave power amplifiers



Component
École Nationale
Supérieure
d'Électrotechnique
d'Électronique

In brief

- > **AmetyS Code:** N9EE14A
- > **Open to exchange students:** Yes

Presentation

Objectives

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

- Describe the two possible technologies (solid-state power amplifiers and electronic tubes) and name the three main families of tube amplifiers
- List their advantages and disadvantages
- Choose the most suitable technology for a given frequency range and power range
- Identify the different physical phenomena present in a tube amplifier

Description

This course covers microwave amplifiers used in microwave chains (> 1 GHz) to generate high power (> 1 W). These circuits can be used in many applications, including defense, radar, telecommunications, science, medicine, ovens, and GPS.

Pre-requisites

Microwave waveguides

Microwave amplifiers (gain, IM3, efficiency, etc.)