

# **Design with the Zynq™ UltraScale+ RFSoC**

3 days - 21 hours

### **OBJECTIVES**

- After completing this training, you will have the skills to:
  - 1 Describe the RFSoC family in general
  - 2 Identify applications for RF Data Converter blocks
  - 3 Configure, simulate and implement the blocks
  - $\circ~$  4 Verify RF Data Converters on real hardware

#### PREREQUISITES

- Understanding of the Zynq<sup>™</sup> MPSoC architecture
- Basic familiarity with data converter terms and principles

#### **CONCERNED PUBLIC**

- Technicians and Engineers in Digital Electronics
- All our training courses are given at a distance and are accessible to people with reduced mobility.
- Our partner AGEFIPH accompanies us to implement the necessary adaptations related to your disability.



#### NOTES

• Release date: 20/12/2021



• Objective 2

• Objective 3

Objective 4

DAY 3

RF-DAC Hardware {Lecture, Demo, Lab}
 RFSoC Hardware {Lecture, Demo}

• Data Converter Design {Lecture, Demo, Lab}

• Practice on ZCU111 {Lecture, Demo, Lab}

#### CHAPTERS

#### DAY 1

- Objective 1
  - Zynq UltraScale+ RFSoC Overview {Lecture, Demo}
- Objective 2

   RF-ADC Hardware {Lecture, Demo, Lab}
- DAY 2

#### **TEACHING METHODS**

- Inter-company training :
  - Online training
  - $\circ~$  Provision of course material in PDF format
  - $\circ~$  Loan of a ZCU111 card

## METHODS OF MONITORING AND ASSESSMENT OF RESULTS

- Attendance sheet
- Evaluation questionnaire
- Evaluation sheet on:
  - Technical questionnaire
  - $\circ~\mbox{Result}$  of the Practical Works
  - Validation of Objectives
- Presentation of a certificate with assessment of prior learning



#### SUPPORT

- Authorized Trainer Provider AMD : Engineer Electronics and Telecommunications ENSIL
  - Expert AMD FPGA Language VHDL/Verilog RTL Design
  - Expert AMD SoC & MPSoC Language C/C++ System Design
  - Expert DSP & AMD RFSoC HLS Matlab Design DSP RF
  - Expert AMD Versal AI Engines Heteregenous System Architect

#### PC RECOMMENDED

- Software Configuration :
  - Vitis Unified Software Platform 2021.1
- Hardware configuration:

- Recent computer (i5 or i7)
- OS Linux 64-bits (Windows 10 compatible)
- At least 16GB RAM
- Display resolution recommended 1920x1080
- Zyng UltraScale+ RFSoC ZCU111 board (will be lent)

### PARTNERS

# AMD Authorized Training Provider

### CONTACT

Administratif / Formateur : (+33) 06 74 52 37 89 info@mvd-training.com

