

Compact Zynq UltraScale+ RFSoc

Online Live

Workshop

Applicable Technologies	Requirements	Contact
Zynq® UltraScale+™ RFSoc devices	Basic knowledge on MPSoC hardware and software design Basic familiarity with data converter terms and principles	Michael Schwarz P. +49 7664 91313-15 E. info@plc2.de
Fee (net per person)	Inclusive	Duration
OL € 1,900	Training material	3 days
WO € 2,300	Plus beverages during breaks Lunch	3 days

Workshop

This course starts with a description of the new RFSoc family in general. You will enumerate the key elements of the RFSoc devices and you will identify typical applications for data converters. This course provides a deep discussion of the architecture and functionality of the data converters. You will learn how to utilize the data converter by configuration, simulation, and implementation. The RF design at the PCB level is very challenging. In this course, you will learn the PCB-level design requirements. The realization options for a successful PCB design will be discussed deeply.

Due to accompanying exercises, the course offers in-depth and practice-oriented training. Attendees of the online live course will do the practical exercises in the afternoon on their own.

During the training, the target technology will be the Zynq® UltraScale+™ RFSoc ZCU111 evaluation kit.

Agenda

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| <p>01. Zynq UltraScale+™ RFSoc overview
RF backgrounder
Describing RFSoc architecture overview
Data converter solutions overview
SD-FEC solutions overview
Tool support</p> <p>02. RF-ADC / RF-DAC
Recovering basic vocabulary
Describing the architecture, functionality, and interfaces
Configuring data converters
Utilizing data converters in IP Integrator
Software driver overview</p> <p>03. RFSoc hardware
RFSoc hardware - ZCU111 evaluation kit and board setup</p> <p>04. RF data converter design
Describing common features
Applying the design flow
Utilizing the example design by simulation and implementation</p> | <p>05. Data converter practice
ZCU111 evaluation tool
RF analyzer tool
Frequency planning</p> <p>06. PCB design topics for RFSoc devices
Describing power requirements
Performing power estimation
Utilizing the power design
Describing the analog signal requirements
Understanding PCB material and layer stackup options
Utilizing the analog trace design</p> <p>Exercises:
01. RF-ADC IP configuration
02. RF-DAC IP configuration
03. RF data converter simulation
04. RF data converter implementation
05. RFSoc power estimation
06. ZCU111 evaluation tool practice
07. RF analyzer tool practice
08. Frequency planning tool practice</p> |
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