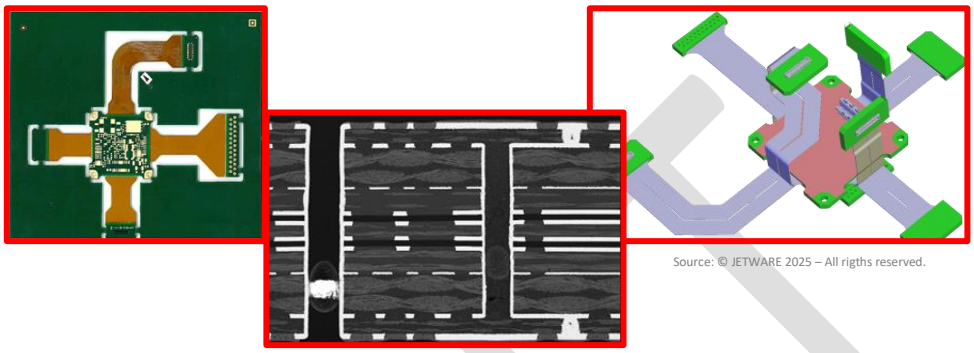
SEC TECH-CLASS
November 13 to 14, 2025

IPC ASSISTED DESIGN OF FLEXIBLE PCB



DETAILS

- From Thursday November 13, 2024 at 8:30 a.m.
- Until Friday November 14, 2024 at 17:30 p.m.
- Location: To be defined
- Minimum number of registrations: 10
- Maximum number of registrations: 20
- Language: French and/or English (depending on the audience)
- Registration closure: October 31, 2025

EDUCATIONAL GOALS

- Flex and Rigid Flex technologies for a "3D Design" approach of competitive and robust electronic systems combined with high-density HDI and/or high-speed HSD requirements

TARGET AUDIENCE

- Electronic (and mechanical) technicians and engineers

PREREQUISITE

- Motivation for 3D circuit interpretation
- General knowledge of electronics
- Basic knowledge of PCB design

REGISTRATION FEES

- Non-member of the **SEC**: CHF 1’600.- / person
- **SEC BLUE** member: CHF 800.- / person
- **SEC SILVER** or **SEC GOLD** member: CHF 400.- / person
- **SEC SPONSOR** member: Free
- Payment term: in advance

TRAINER

- Sylvain LE ROUX, Director of JETWARE since 2010, IPC CID/CID+ Instructor with 30 years of DFM experience for PCB design

DESCRIPTION

1. **Identification of the Flex IPC 2223 Design codes**
   - Flex Type 1/2/3/4/5
   - Uses A/B/C/D
   - Static/Dynamic requirements
   - High Thermal conditions
   - UL identification
2. **Specific Designations of the Flexible Polyimide film base material: IPC 4102/03/04**
   - Selection of materials to build flexible boards
   - Identification of the properties of copper laminates
   - Implementation of coverlays
3. **Copper selection dedicated to bending by IPC 4562**
   - Mechanical characteristics of copper
   - Permissible number of bends
   - Elongation performance according to environmental temperature
4. **Design rules for each type of Flex IPC 2223**
   - Single side type 1
   - Double side PTH type 2
   - Multi layer Flex type 3
   - Type 4 rigid-flex
   - Double side or Multi layer Type 5
5. **Industrial process consideration for fabrication and Assembly IPC 2223**
   - Identification of the different areas
   - Identification of the mechanical stresses
   - Definition of the assembly array and processing of panel setting
6. **Manufacture of rigid Flex with/without HDI technology IPC 6013 dedicated to the fabrication**
   - Realization of the type 4 rigid flex
   - Analysis of equipment and manufacturing processes
   - Configuration of FPC HDI by the implementation of laser drilling
7. **Integration of high frequency signals in Flexible boards HSD**
   - Impedance line implementation
   - Performance evaluation
   - Construction of Flex dedicated to the high-speed connectors

ONLINE REGISTRATION

By following THIS LINK

Or by scanning the QR-code:

The **SEC** s an initiative of CapQua Sàrl, the FSRM and the GESO supported by the canton of Neuchâtel and the SECO under the NPR.