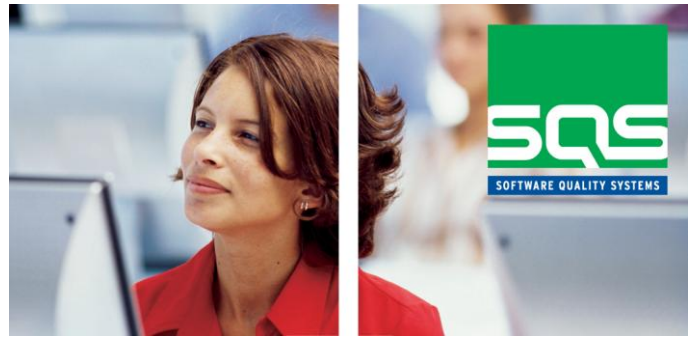


DO254 / ED80 - Design Assurance Guidance for Airborne Electronic Hardware

Q22050

2 Days



Course Overview

Similar to other industrial areas, aircraft manufacturing companies are using complex electronic hardware devices like PLDs, FPGAs, and ASICs for control and monitoring of complex embedded systems. The complexity of the overall systems and the criteria of the standard DO-254 "Design Assurance Guidance for Airborne Electronic Hardware" set particularly high requirements for the development departments. In the airborne segment in addition to the quality, the time-to-Market is decisive for success today. In increasingly shorter development cycles new products must be provided.

The definition of suitable development processes, verification / validation steps and tests, as well as an effective project management and a systematic change and configuration management are necessary activities, in order to meet these requirements. Using complex electronic hardware on an aircraft, a high level of quality shall be ensured to satisfy the adequate safety. DO-254 defines several development and quality objectives which need to be implemented by the development units to ensure this. Scale, the number and complexity of requirements coming from this standard are depending on the defined "design assurance level" (DAL) which shall be chosen for the system / equipment.

Participants of this seminar get an overview of requirements and objectives of DO-254 for the development of airborne complex electronic hardware. Details but also the global context will be presented and discussed. Additionally the relationship to specific EASA and FAA guidelines and certification aspects are presented.

Course Objectives

On completion of this course, attendees will understand:

- The background and goals of DO-254
- The structure and requirements of DO-254
 - Requirements Capture Phase
 - Conceptual Design Phase
 - Detailed Design Process
 - Implementation Process
 - Production Transition Process
 - Validation Process
 - Verification Process
 - Configuration Management Process
 - Process Assurance Process
 - Certification Liaison Process
 - Hardware Design Life Cycle Data
- Additional considerations (e.g. COTS, Microcontroller, Reuse, Tool Qualification, Service Experience)
- Additional requirements of authorities (EASA CRI's, FAA Guidelines + CAST)

Who should attend?

Hardware Engineers, Hardware Manager, Test manager, Quality Assurance Specialists, Quality Manager, Managers responsible for process definition, Specialists for methods and procedures

Prerequisites

None

Related Certifications

None

Recommended Follow-on Courses

None

