



## Services for FPGA/ASIC Design and FAA Compliance



[\*Airborne software \(DO-178C\) and electronic hardware\(DO-254\) compliance support\*](#)

[\*Turnkey digital design services\*](#)

[\*FPGA/ASIC/Board design and verification for all industries\*](#)

[\*DO-254/DO-178C and Certification Overview training\*](#)

[\*DO-254/DO-178C Templates and Checklists\*](#)

[\*DO-254/DO-178C Tools\*](#)

[\*DO254/DO-178C program auditing\*](#)

Patmos Engineering Services is an independent women owned engineering consulting company founded and incorporated by Jeff and Tammy Reeve in January 2000.

Patmos offers a unique skill set, combining digital design (FPGA, ASIC, board level) with FAA DER review and approval authority for programmable devices and software.

Patmos is THE expert in DO-254 design, verification, and certification of complex Airborne hardware Devices.

In the aerospace domain, the Patmos team supports both commercial and military avionics design and certification programs and is DDTC registered with the United States Department of State Bureau of Military affairs.

Beyond aerospace, Patmos has developed a diversity of designs for fields including medical, audio, commercial, and consumer products.

The Patmos team has a combined experience in digital hardware design and certification of over 40 years. The goal of Patmos is to provide integrity and honesty in engineering practices and activities.

Patmos DUNS ID #155113033

**KNOWLEDGE  
INTEGRITY  
EFFICIENCY**

If you're seeking assistance with digital design and/or airborne electronics, think Patmos. Our highly qualified staff (and hand-picked industry contractors) takes pride in helping our clients achieve first pass and ongoing success in their electronic design programs, always with honesty and integrity.

## No Better Choice than Patmos.

**PATMOS ENGINEERING SERVICES, INC.**

PATMOS ENGINEERING SERVICES, INC.  
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## Qualifications

**Tammy Reeve** has been an FAA designated engineering representative (DER) since 2000, supporting programs under the FAA, EASA, CAAC, and Transport Canada. Her accomplishments include:

- Approval of Software data items to RTCA DO-178B/C/ED-12B/C (FAA 8110-3 form approvals)
- Approval of Hardware data items to RTCA DO-254 and supporting policy (FAA 8110-3 form approvals)
- EASA Type Validation authority for Software and Airborne Electronic Hardware
- Canadian Finding Authority for Military project work for DO-254 and DO-178B/C
- Selection as a Boeing authorized representative (AR)
- Training on current FAA guidance in DO-254, DO-178B, DO-178C (delta), and ARP 4754A
- Gap Analysis: Evaluating processes and developing plans/approaches for approval by certifying bodies
- Software and hardware tool qualification development and/or evaluation
- TSO/TC/STC/PMA process review and liaison between applicants and approval authorities
- Assisting with FAA "Partnership for Safety Plans" to streamline certification activities and data transmittals
- Assisting with DO-160 Qualification Test Plan/Procedures/Results
- Chair of the US DO-254 Users Group, coordinating with the EU DO-254 User Group, and driving industry input into the hands of policy makers
- Co-secretary for the "Model-Based Development" sub-group for the RTCA SC-205 (DO-178C) working committee

**Jeff Reeve** hold four patents in digital design and is considered an expert in his field. While Jeff is a Xilinx certified expert, he has worked on Altera, Actel (Microsemi), Lattice, ASIC and board designs. His experience includes:

### FPGA/CPLD

- Architecture
- VHDL/Verilog RTL coding
- Testbench Generation and simulation
- Synthesis/Place & Route/Timing analysis
- 1M+ Gates, 300 MHz+

### Microprocessors/Microcontroller/DSP

- Analog Devices Sharc DSP 21161
- Coldfire
- ATMega128
- MicroChip PIC
- Mips Family

### Board Design

- Architecture
- Design and Schematic Capture
- PCB Layout/Fabrication/Assembly
- Test and Debug
- High Speed (2.5GHz+)
- Signal Integrity
- High Speed Memory Interfaces
- Power Supply design

### System Interfaces

- PCI, USB, IEEE-1394 (FireWire)
- EIDE
- High Speed Custom Serial Interfaces

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