

TEST READINESS CHECKLIST:

RTCA DO-160 Avionics Engineers



Use this checklist to prepare your avionics equipment for RTCA DO-160 environmental testing. Completing these items before engaging a test laboratory helps ensure an efficient test program, reduces delays, minimizes costly retesting, and provides the documentation needed to support certification and qualification activities.

Equipment & Product Information
<input type="checkbox"/> Equipment name and part number provided
<input type="checkbox"/> Equipment function described (avionics, navigation, communication, etc.)
<input type="checkbox"/> Aircraft platform or program identified
<input type="checkbox"/> Hardware revision level documented
<input type="checkbox"/> Software or firmware version documented
<input type="checkbox"/> Weight and dimensions provided

Test Configuration & Operating Modes
<input type="checkbox"/> Normal operating mode defined
<input type="checkbox"/> Worst-case operating mode identified
<input type="checkbox"/> Power supply requirements specified
<input type="checkbox"/> Data interfaces defined
<input type="checkbox"/> External loads or peripherals included
<input type="checkbox"/> Test configuration diagram provided

Sample Preparation
<input type="checkbox"/> Test article labeled with part number and revision
<input type="checkbox"/> Mounting orientation specified
<input type="checkbox"/> Installation hardware or mounting brackets provided
<input type="checkbox"/> Cable harnesses included
<input type="checkbox"/> Connector pinouts documented

Equipment & Product Information
<input type="checkbox"/> Section 4 – Temperature and Altitude
<input type="checkbox"/> Section 5 – Temperature Variation
<input type="checkbox"/> Section 6 – Humidity
<input type="checkbox"/> Section 7 – Operational Shocks & Crash Safety
<input type="checkbox"/> Section 8 – Vibration
<input type="checkbox"/> Section 10 – Waterproofness
<input type="checkbox"/> Section 11 – Fluids Susceptibility
<input type="checkbox"/> Section 15 – Magnetic Effect
<input type="checkbox"/> Section 16 – Power Input
<input type="checkbox"/> Section 17 – Voltage Spike
<input type="checkbox"/> Section 19 – Induced Signal Susceptibility
<input type="checkbox"/> Section 20 – RF Susceptibility
<input type="checkbox"/> Section 21 – Emission of RF Energy
<input type="checkbox"/> Section 22 – Lightning Induced Transient Susceptibility
<input type="checkbox"/> Section 25 – Electrostatic Discharge

Documentation Provided to Test Lab
<input type="checkbox"/> DO-160 test plan provided
<input type="checkbox"/> Equipment installation manual included
<input type="checkbox"/> Functional performance criteria defined
<input type="checkbox"/> Pass/fail requirements documented
<input type="checkbox"/> Engineering contact identified for test support

Shipping & Handling
<input type="checkbox"/> Equipment packaged to prevent damage during shipping
<input type="checkbox"/> Handling requirements documented (ESD precautions, etc.)
<input type="checkbox"/> Shipping documentation included
<input type="checkbox"/> Return instructions provided

Program & Certification Planning
<input type="checkbox"/> Certification authority identified (FAA / EASA / OEM)
<input type="checkbox"/> Target certification timeline documented
<input type="checkbox"/> Qualification vs. development testing specified
<input type="checkbox"/> Additional testing requirements identified

