



ANALOG MODULES, INC.

AS9102 First Article Inspection Report (FAIR) Guidelines

Requirements

- AS9102 – Aerospace First Article Inspection Requirement (Invoked by AS9100)
- 7.5.1.1 – Production Process Verification

The organization shall use a representative item from the first production run of a new part or assembly to verify that the production processes, production documentation and tooling are capable of producing parts and assemblies that meet requirements. This process shall be repeated when changes occur that invalidate the original results (eg., engineering changes, manufacturing process changes, tooling changes, etc.).
Reference Q8 on AMI's Quality Provisions.



FAI Definition & Purpose (Ref AS9102)

- A complete, independent, and documented physical and functional inspection process to verify that prescribed production methods have produced an acceptable item as specified by engineering drawings, planning, purchase order, engineering specifications and/or other applicable design documents.
- To provide objective evidence that all engineering design and specification requirements are:
 - Understood
 - Accounted for
 - Verified
 - Documented

FAIR Package

- AS9102 Forms (1, 2, 3)
- Bubbled Drawing
- Bill of Material (BOM)
- Certificate of Compliance
- RoHS Certificate of Compliance (if applicable)
- Material Certifications
- Special Process Certifications
- Test Data
- COTS PO and Traceability information

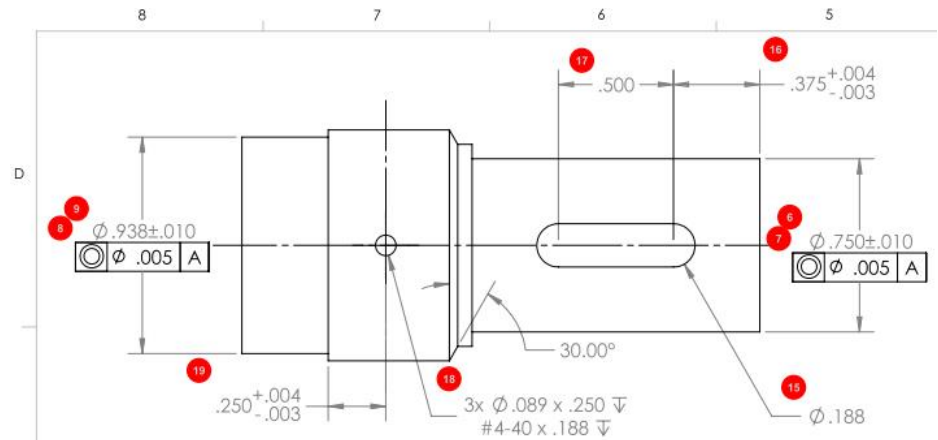
Forms

The following forms comprise a First Article Inspection Report (FAIR)

- AS9102 Form 1: Part Number Accountability
 - Shall be used to identify the part that is being first article inspected and associated sub-assemblies or detail parts
- AS9102 Form 2: Product Accountability – Raw Material, Specification and Special Process(s), Test Verification
 - Shall be used if any material, special processes or functional testing are defined as a design requirement.
- AS9102 Form 3: Characteristic Accountability, Verification and Compatibility Evaluation
 - Shall be used to record an actual measurement or inspection/verification of the FAI part for every design characteristic on the drawing including Notes.
 - Include requirement and tolerance information in column 8
 - Record actual dimensions in column 9
 - Record tool used (asset number) to take the measurement in column 10
 - **Do not use “Pass” or “Compliant” for dimensional data**
 - No need to include reference dimensions
- Fields on the forms are
 - **Required:** Mandatory information
 - **Conditionally Required:** This field shall be completed when applicable to the product (e.g., serial number shall be entered when there is a serial number) or when required by the customer. **AMI always requires the fields be filled.**
 - Optional: This field is provided for convenience; the field may be left blank (N/A)

Bubbled Drawing

- A required element of a FAIR package to support Column 5 of Form 3
- Bubble and number all dimensions
- Bubble and number all surface finish callouts
- Bubble and number all material and hardness requirements
 - Don't forget the requirements identified in the title boxes at the bottom of the drawings
- Reference dimensions do not need to be bubbled
- If part is shipped incomplete per Purchase Order (PO) or Statement of Work (SOW), account for the excluded characteristics by indicating in Form 3 **N/A per PO** or **N/A per SOW**





1. Part Number: AMI Part No	2. Part Name: AMI Part Name, as seen on DWG	3. Serial Number: Enter SN or Lot # or Date Code / Lot Code	4. FAIR Number: FAI Report ID if available
5. Part Revision Level: Latest revision that affects the part	6. Drawing Number: AMI Drawing No	7. Drawing Revision Level: AMI Drawing Revision	8. Additional Changes: Provide reference numbers of any changes (Design Change, Engineering Change, Deviation, etc...)
9. Manufacturing Process Reference: Reference No that provides traceability to the manufacturing record (Router No, Manufacturing Plan No)	10. Organization Name: Supplier Name	11. Supplier Code: Supplier Code given by AMI	12. P.O. Number: AMI PO No
13. Detail Part: _____ Assembly FAI: _____	14. Full FAI: _____ Partial FAI: _____ Baseline Part Number (including revision level): _____ Reason for Partial FAI: _____ For a partial FAI, provide the previous part number, including revision level and the reason for the current FAI (e.g., changes in design, process, or manufacturing location)		
a) If above part number is a detail part only, go to field 19. b) If above part number is an assembly, go to the "INDEX" section below.			
INDEX of part numbers or sub-assembly numbers required to make the assembly noted above.			
15. Part Number:	16. Part Name:	17. Part Serial Number:	18. FAIR Number:
<i>This section is required only if the part number identified in field 1 is an assembly requiring lower level parts (i.e., detail parts) to be installed</i>			
Part number included in the assembly and items from the BOM included in the drawing, DPD, or next level assembly. Typically these are the part numbers, standard catalogue items, or sub-assembly numbers required to complete the product noted in field 1	Name of the part installed in the assembly	Serial number of the part that is installed in the assembly.	Report number for the detail parts and associated assemblies
19. Signature: _____ Check Complete, if all characteristics are conforming. Check Not Complete, if nonconforming characteristics are documented in accordance with 9102, 4.4 _____ FAI Complete _____ FAI Not Complete	20. Date:		
21. Reviewed By:	22. Date:		
23. Customer Approval :	24. Date:		

7/1/2015



1. Part Number				2. Part Name			3. Serial Number	4. FAIR Number
Characteristic Accountability				Inspection / Test Results				
5. Char. No.	6. Reference Location	7. Characteristic Designator	8. Requirement	9. Results	10. Designed / Qualified Tooling	11. Nonconformance Number	14. Additional Data / Comments	
Unique assigned number for each design characteristic Usually the bubble number in the bubbled drawing	Location of the design characteristic [e.g., drawing zone (page number and section), DPD model location, specification callout].	If applicable, record characteristic type [e.g., critical items (see 9100 clause 3.3), key characteristics (see 9100 clause 3.4), flight safety, defined by customer	Specified requirement for the design characteristic (e.g., drawing or DPD dimensional characteristic with associated nominal dimension and tolerances, drawing notes, specification requirements)	List measurement (s) obtained for the design characteristics	Record the tool identification number	If the characteristic is found to be nonconforming, record a nonconformance document reference number.		
12. Signature 7/1/2015							13. Date	

Common Mistakes

- Missing Signatures
- Not checking **FAI Complete** or **FAI Not Complete** (*Form 1*)
- Reporting **Pass** or **Complies** for measureable dimensions
- Missing Tool used to take measurement (*Form 3, Field 10*)
- Missing Material Certifications
- Missing Bubbled Drawing
- Leaving blank fields. *Please N/A fields that do not need to be filled*



FAIR Review & Acceptance

- FAIR package will be reviewed by AMI Quality
 - If acceptable, Form 1 will be signed and sent to supplier
 - If unacceptable, it will be processed via Non-Conforming Material procedure

Questions

- Contact Analog Module's Quality Department with any questions or concerns

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