

LMI AEROSPACE

AS9102_(B)

FAI REPORT

GUIDELINE



LMI
aerospace

a higher level of performance

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**This Standard
to also apply to
Suppliers**

FAI Objectives

- Provide objective evidence of compliance to AS9102B and customer requirements.
- Strive for a more consistent FAI process across all LMI facilities.
- Reduce questions and confusion relative to completing FAI documentation.
- Eliminate Customer rejections/returns of FAI packages.

Standard FAI Guidelines

- Do not combine detail and assembly requirements on one FAI.
 - Even if it is built on the same router, you must complete a Detail and Assembly FAI separately.
- All internal LMI FAI packages will be uploaded to Net-Inspect.
- For Customers that do not use Net-Inspect as a buy off, it is acceptable to fill out Form 1 and upload the remainder of the, certs, etc. to Net-Inspect. (You will not submit these FAIs in Net-Inspect)

AS9102(B) FAI Report STANDARD GUIDELINES

The FAI is about “TRACEABILITY”

- Proof of compliance to specific Standardized and Customer requirements.
- All information should be documented in order to provide a level of confidence that the requirements have been fully enacted.
- Form 1 is utilized to capture the details of a sub-assembly or assembly.
- Only “Modified” hardware is to be placed on Form 1.
 - Standard hardware (non-modified) is to be placed on Form 2

AS9102(B) FAI Report

Form 1 GUIDELINES

Box 1: Part Number

Part Number of the Detail, Assembly or Kit per PO line item.

Box 2: Part Name

Name of the Part as shown on the Drawing or PO line item.

NOTE: Program Box – If the correct program is not listed, No Program Assigned is acceptable to use with the understanding that the Super Administrator will be contacted to add the program for the next FAI.

Box 3: Serial Number

Serial Number of the part, as assigned by the Customer or Organization if applicable.

NOTE: "N/A if not applicable."

Box 4: FAI Report Number

Unique FAI Report Number required on all forms in Box 4 (This is auto-generated)

The image shows a screenshot of the 'AS9102 Rev B First Article Inspection' form. Red arrows point to the following fields:

- Field 1: Part Number
- Field 2: Part Name
- Field 3: Serial Number
- Field 4: FAI Number
- Field 5: Part Revision Level
- Field 6: Drawing Number
- Field 7: Drawing revision level
- Field 8: Additional Changes
- Field 10: Organization Name
- Field 11: Supplier Code
- Field 12: P.O. Number
- Field 13: Detail Part (Assembly FAI)
- Field 14: Full FAI / Partial FAI
- Field 15: Program
- Field 16: Part Number
- Field 17: Part Name
- Field 18: Part Number
- Field 19: Supplier
- Field 20: FAI Number
- Field 21: Signature
- Field 22: Date
- Field 23: Reviewed By
- Field 24: Date
- Field 25: Customer Approval
- Field 26: Date

AS9102(B) FAI Report

Form 1 GUIDELINES

Box 5: Part Revision Level

Parts List Revision – Revision should be recorded as listed on Engineering Parts List. (See FAI Appendix for specific Customer Requirements)

Box 6: Drawing Number

Record the basic drawing number, sheet number and/or authority dataset file name associated with the FAI part. There may be multiple base drawings (part and spray dot) list all that apply. Include any build-to standard drawing(s). Include any DL, MPL, etc.

Box 7: Drawing Revision Level

Record Eng. Document revision level. There may be multiple base dwgs. (part and spray dot) list all that apply.

Box 8: Additional Changes

Record supplemental Engineering document no. and revision or condition of Supply Document and revision that are incorporated in the product but not reflected in referenced Drawing/Part Revision level.

The image shows a screenshot of the AS9102(B) Form 1 Part Number Accountability form. Red arrows point from the text boxes on the left to specific fields on the form:

- Box 5: Part Revision Level points to field 5. Part Revision Level.
- Box 6: Drawing Number points to field 6. Drawing Number.
- Box 7: Drawing Revision Level points to field 7. Drawing revision level.
- Box 8: Additional Changes points to field 8. Additional Changes.

The form includes sections for Part Number Accountability, INDEX of part numbers or sub-assembly numbers required to make the assembly noted above, and a signature section.

AS9102(B) FAI Report

Form 1 GUIDELINES

Box 9: Manufacturing Process Reference:

The work order number (release/work order number or router number) will be entered here. See Appendix for Customer Requirements

Box 10: Organization Name

Name and address of the site performing the FAI.

Box 11: Supplier Code

Supplier Code is a unique number assigned by the Customer. It is sometimes referred to as Vendor Code, Vendor Identification Number, Supplier Number, etc.

Box 12: P.O. Number

Customer Purchase Order Number, PO Revisions (if any) PO Line Item Number and if applicable, the contract no.

The image shows a screenshot of the AS9102(B) Form 1 First Article Inspection form. Red arrows point to the following fields:

- Field 5: Part Revision Level
- Field 10: Organization Name (containing "LMI AEROSPACE ST. OWEN")
- Field 11: Supplier Code
- Field 12: P.O. Number

The form includes sections for Part Number Accountability, Manufacturing Process Reference, and an INDEX of part numbers or sub-assembly numbers. It also has a signature line and a date field.

AS9102(B) FAI Report

Form 1 GUIDELINES

Box 13: Detail Part or Assembly FAI:
Check as appropriate

Box 14: Full FAI or Partial FAI:
Mark as applicable – For a partial FAI list original FAI Part Number and Previous Revision. List the Reason for the Partial FAI

BOX 15, 16, 17, 18

These sections are required ONLY if Assembly FAI is checked in Field 13. **NOTE:** Net-Inspect will not allow you enter anything in these boxes if *Detail FAI* is checked.

Baseline Part Number Including Revision Level
When completing a Partial (Delta)FAI, the Baseline Part Number and Revision Level **MUST** be filled in for previously accepted FAI.

The image shows a screenshot of the AS9102(B) Form 1 First Article Inspection form. Red arrows point to several key fields: Field 13 (Detail Part or Assembly FAI), Field 14 (Full FAI or Partial FAI), Field 15 (Part Number), Field 16 (Part Name), Field 17 (Part Revision Number), and Field 18 (Supplier). The form is titled 'AS9102(B) Rev B First Article Inspection' and 'Form 1-Part Number Accountability'. It contains various input fields for part information, drawing details, manufacturing process, and organizational data. A 'SAVE' button is visible at the bottom right of the form.

AS9102(B) FAI Report

Form 1 GUIDELINES

Box 19, 20, 21, and 22

Net-Inspect will automatically fill in these boxes when you sign and submit the FAI to the customer. Creator Signature and Reviewed by Signature may be the same.

Box 23 and 24

These boxes will remain open until the customer Approves and Signs the FAI electronically on their end.

AS/EN/SJAC9102 Rev B First Article Inspection

Form 1 - Part Number Accountability

1. Part Number	2. Part Name	3. Serial Number	4. FAI Number Customer FAI # Internal FAI Number ADD FAI Approved
5. Part Revision Level	6. Drawing Number	7. Drawing revision level	8. Additional Changes
9. Manufacturing Process Reference	10. Organization Name LMI AEROSPACE ST. CHARLES	11. Supplier Code	12. P.O. Number
13. Detail Part <input type="checkbox"/> Assembly FAI <input type="checkbox"/>	14. Full FAI <input type="checkbox"/> Partial FAI <input type="checkbox"/>	Baseline Part Number including revision level	Customer Part Number

Program: List of Programs
Reason for Partial FAI
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.

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	Supplier	18. FAI Number
Delete row				
Delete row				
Delete row				
Delete row				
Delete row				
Delete row				

1) Signature indicates that all characteristics are accounted for, meet drawing requirements or are properly documented for disposition.
2) Also indicate if the FAI is complete part only. L4: FAI Complete FAI not Complete Void Pass/Fail: Select

Customer: LMI AEROSPACE

Signature	Signature	19. Date
Reviewed By	20. Date	21. Date
23. Customer Approval	24. Date	

SAVE

- Form 2 will capture materials (Including Standard Catalog hardware), processes and functional testing applicable to the first article part or assembly. These processes are to be listed in chronological order as they appear in the manufacturing process.
- Form 2 shall address all materials, processes and specifications where the resulting output cannot be verified by subsequent monitoring or measurement.
- Processing Certifications shall reference relative part number; if not, a copy of the referenced work order/traveler must be attached to show traceability.
- Process Codes are NOT the same as Finish Codes. Column 7 of Form 2 is for the Codes associated to “Special Processes”.
 - Example: Boeing’s Finish Code F-18.05 is for “Sealed” Chromic Acid Anodize Finish, in accordance with BAC5019. This is a “Special Process”, coded as 304 in Boeing’s D1-4426. The Code “304” is the what should be entered under Column 7 of Form 2. The Finish Code F-18.05 also calls for primer application per BAC5736, this is not a “Special Process”, therefore “N/A” would be entered under Column 7 for the Primer.
 - For verification of the application of the finishes, the Finish Code (F-18.05) would be bubbled and recorded on Form 3.

- The Part Mark specification / requirement will be bubbled and recorded on Form 3.
- If a substitution material and/or process is used per customer substitution documentation, that substitution **MUST** be recorded on Form 2.
- Evidence of traceability between the material cert and work order / traveler should be maintained and furnished.
- Material requirements contained in the Engineering definition should be reflected on the material certification.
 - **EXAMPLE:** .200" sheet AMS-QQ-A-250/12

When Engineering requires Heat Treatment and / or Aging

- Both Heat Treat and Age condition(s) are to be recorded on Form 2 as a “Special Process” in accordance with the Customer Approved Supplier Processor List (ASPL). A reference to the certification should be included on Form 3.

Hardness and Conductivity Requirements

- If hardness and conductivity is listed as a Special Process, it will need to be reflected on Form 2 with results on Form 3.

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Form 2 GUIDELINES

Box 6: Specification

Enter material or process specifications number (include permitted alternates, if used and its governing document), Class and material form (e.g. sheet, bar, etc.). At a minimum, identify all specifications that are called out directly on the build documentation (Engineering Drawing) to include Specification revision levels and relative Amendment(s) as required.

Box 7: Code

Enter Customer assigned material or process code when applicable.
NOTE: See Appendix for applicable customer requirements. If none required, list "N/A". See Examples on Sheet 12.

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Form 2 - Product Accountability - Materials, Special Processes, and Functional Testing

1. Part Number Test	2. Part Name Test Part	3. Serial Number DUJ	Product Code	4. FAIR Number 4748	9. Customer Approval Verification	10. Certificate of Conformance number	Date and Reference Work Instruction
Material							
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Process							
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
Inspection							
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NA *	<input type="text"/>	<input type="text"/>	<input type="text"/>

11. Functional Test Procedure Number	12. Acceptance report number
<input type="text"/>	<input type="text"/>
Add New Row	
13. Comments	14. Signature
<input type="text"/>	<input type="text"/>
15. Date	
<input type="text"/>	

Documents:
(Remove)
Print Report

Go to View Mode Form 1 Form 3



AS9102(B) FAI Report

Form 2 GUIDELINES

Box 8: Supplier Code

Customer given **supplier code** (found on the customer ASL) and the **name and address** of the organization performing special process or supplying material, as applicable.

Box 9: Customer Approval Verification

Indicate YES if the special process or material source is to be approved by the customer. Enter "N/A" if customer approval is not required.

NOTE: DO NOT enter NO.

Box 10: Certificate of Conformance Number

Number of the Certificate (e.g. special process completion cert number, raw material test report number, heat lot number, standard catalog hardware compliance report number, PO number, traceability number).

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Form 2 - Product Accountability - Materials, Special Processes, and Functional Testing

1. Part Number Test	2. Part Name Test Part	3. Serial Number 007	Product Code	4. FAIR Number 4748		
5. Material or Process Name	6. Specification Number	7. Code	8. Supplier	9. Customer Approval Verification	10. Certificate of Conformance number	Data Card Reference Work Instruction
Material				NA *		
				NA *		
				NA *		
				NA *		
				NA *		
				NA *		
Process				NA *		
				NA *		
				NA *		
				NA *		
				NA *		
Inspection				NA *		
				NA *		
				NA *		
				NA *		
				NA *		
11. Functional Test Procedure Number	12. Supplier report number					
13. Comments	14. Signature		15. Date			

Documents:

(Remove)

Print Report

Go to View Mode Form 1 Form 3

SAVE



AS9102(B) FAI Report

Form 2 GUIDELINES

Box 11: Functional Test Procedure

Complete if a Functional Test Procedure is called out as Design Requirement.

Box 12: Acceptance Report Number

The functional test certificate indicating that test requirements have been met.
NOTE: Enter "N/A" if no data.

Box 13: Comments

Enter Comments as applicable.

Box 14, 15: Prepared By and Date

These are Auto Generated in Net-Inspect once the FAI has been saved / Signed.

AS/EN/SJAC9102 Rev B First Article Inspection

Form 2 - Product Accountability - Materials, Special Processes, and Functional Testing

1. Part Number	2. Part Name	3. Serial Number	Product Code	4. FAIR Number
Test	Test Part	007		4748

5. Material or Process Name	6. Specification Number	7. Code	8. Supplier	9. Customer Approval Verification	10. Certificate of Conformance number	Date and Reference Work Instruction
Material				NA *		
				NA *		
				NA *		
				NA *		
				NA *		

11. Functional Test Procedure Number	12. Acceptance report number

14. Signature: _____ 15. Date: _____

- Unless verified by CMM, Roamer Arm, Scanner, etc.; un-dimensioned features from Customer supplied models will be supported by Conventional Inspection Sheet/Model Based Drawing showing dimensions and tolerance and must show evidence of QA validation.
- Be aware of restraining requirements for datum.
- All dimensions shown on drawing face must be bubbled and reported on Form 3. (Referenced Dimensions are NOT required, but may be bubbled – see Customer Requirements)
- Stock Material and Temper should be included on bubbled print and included on Form 3; also, verify any feature you are milling.
- All GD&T controls will be bubbled on drawings and reported on Form 3. This also applies to the supporting BASIC dimension, UNLESS it is reported via the CMM report attached to the FAI.
- Engineering established Datum Systems and/or targets must be demonstrated in CMM alignment reporting.
- CMM report coordinate data must be reported in the same format as the coordinate system established by the Model as required.
- Non-modified features of extrusion drawings shall be recorded on Form 3.

- When attaching a nut plate to a detail, bubble and record:
 - Hole to Hole dimensions (required in the nut-plate spec)
 - Rivet attach hole diameter with countersink size
 - Applicable for detail parts
 - For assemblies, recorded as the flushness requirement.
 - All reportable dimensions for installed rivet (requirements are found in the installation spec.).

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Form 3 GUIDELINES

Box 1, 2, 3 & 4 and Sheet Number(s):
Net-Inspect will automatically fill in these boxes for Form 3.

Box 5: Characteristic Number

Unique assigned number for each Design Characteristic. Must correlate with the “bubbled” engineering characteristics.

Box 6: Reference Location

Location of the Design Characteristic (e.g. drawing zone, page number and section, specification, etc. If the Eng. Is divided into zones, it is required by all our customers to list the sheet and zone the characteristics falls in. It is also required to provide the cutout view label when applicable.

SEE NEXT SHEET FOR Box 6 Examples.

The screenshot shows the AS9102 Rev B First Article Inspection Form 3. Red arrows point to the following fields:

- Top header: AS/ENS/JAC9102 Rev B First Article Inspection
- Form Title: Characteristic Accountability, Verification and Compatibility Evaluation
- Field 1: Part Number (Test)
- Field 2: Part Name (Test Part)
- Field 3: Serial Number (007)
- Field 4: FAIR Number (4748)
- Field 5: Char. No. (1*)
- Field 6: Reference Location (Bubblin...)
- Field 7: Characteristic Description (CUT LABEL)
- Field 8: Requirement (Actual Requirement Units)
- Field 9: Results Bulk Entry Template (Variable +)
- Field 10: Inspected / Test Results (Variable +)
- Field 11: Additional Data/Comments (ALL/OK)
- Field 12: Signature
- Field 13: Date

At the bottom of the form, there is a 'Documents' section with a 'Print Report' button and a 'Go to View Mode' button. A 'SAVE' button is also visible.

***The field 8, "Requirement" should be in either of the following formats:**

- FeatureDescription (Specification +/- HighTolerance) En: Tuning (10 +/-0.01) QR: (10 +/-0.01)
- FeatureDescription (Specification +/-HighTolerance/Controlance) En: Tuning (10 +/-0.01/-0.02) QR: (10 +/-0.01/-0.02)
- FeatureDescription (Specification +/-HighTolerance/Controlance) En: Tuning (10 +/-0.01/-0.02) QR: (10 +/-0.01/+0.02)
- FeatureDescription (Lower specification - Upper specification) En: Tuning (10.01 - 10.02) QR: (10.01 - 10.03)
- Description (> Specification) En: Profile of a Surface (> 0.02)
- Description (> Specification) En: Profile of a Surface (> 0.02)
- Description (< Specification) En: Profile of a Surface (< 0.02)
- Description (< Specification) En: Profile of a Surface (< 0.02)
- Unit of measurement can be specified after

FeatureDescription (Specification +/-HighTolerance) is the Actual Requirement field. En: Tuning (10 +/-0.01/-0.02) UNITS=IN QR: (10 +/-0.01/-0.02) UNITS=IN

Box 6: Reference Location

Note: If the engineering is divided into zones, it is required by all of our customers to list the sheet and zone that characteristic falls in. It is also required to provide the cutout view label when applicable.

- **EX:** Sheet 2, Zone B3 would be listed as “**2B3**”
- **EX:** Sheet 4, Zone E2, Cutout View would be listed as “**4E2A-A**”
- Specification controlled features like lightening holes or heads should list the specification that controls the feature.
 - **EX:** A hole called out as “**SS5100-4**” on Sheet 1 zone C5 should list “**SS5100-4**” for the dimensions specific to the spec and for location of the hole itself note “**1C5**”
 - For characteristics that extend past one particular zone, list the range on the drawing.
 - If the engineering is not divided into zones, at least provide the sheet number on which the part is shown.
- **EX:** For characteristics defined by designed tooling, try to list the drawing zone if possible. If not, list the tool used to inspect that feature.
- **EX:** For characteristics that originate from the PO, list “**PO**”.

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Form 3 GUIDELINES

Box 7: Characteristic Designator

Key, Flight Safety, Critical, Major Characteristics as defined by the Customer.

NOTE: "N/A" if no data

Box 8: Requirement

Specified requirement for the Design Characteristic (e.g. drawing dimensional characteristics with nominal and tolerances included, drawing notes, specification requirements, etc.

EX: A flag note in the PL states that flange heights should be within +/- .01 The flange height S/B .75; The requirement in the Fai should then be written as ".75 +/- .01

For tooling controlled features (MTX, form block, set-back router jig, etc.) list the tool used to inspect and list the tolerance afterwards. **Ex: "Contour per HPB ± .03"**

Ex: When a single design that applies to multiple characteristics may be recorded as one characteristic number. "5X .098" - .103" ".25R TYP"

NOTE:. Any general notes or flag notes for a specific dimension or feature should be listed on Form 3. It is acceptable to reference back to Form 2 for special process results. Notes that do not apply to the FAI part should be listed on Form 3 as N/A and may be grouped on one line.

AS/EN/JAC9102 Rev B First Article Inspection

Sheet 1 of 1

Sheet Or Char No.

Go to View Mode Form 1 Form 2

Form 3 - Characteristic Accountability, Verification and Compatibility Evaluation

1. Part Number	2. Part Name	3. Serial Number	4. FAIR Number
Test	Test Part	007	4748
Characteristic Accountability		Inspection / Test Results	
5. Char. No.	6. Reference Location	7. Characteristic Designator	8. Requirement *
1*	Drill No.		CMT Cabinet
Op#		Actual Requirement	Units
		()	
Comments			
2*	Drill No.		CMT Cabinet
Op#		Actual Requirement	Units
		()	
Comments			
3*	Drill No.		CMT Cabinet
Op#		Actual Requirement	Units
		()	
Comments			
The Signature indicates that all characteristics are accounted for: meet drawing requirements or are properly documented for disposition.			
12. Signature <input type="text"/>			13. Date <input type="text"/>

Documents:

[\(Remove\)](#)

[Print Report](#)

Go to View Mode Form 1 Form 2

*The field "Requirement" should be in either of the following formats:

1. Feature/Description (specification of HighTolerance) Ex: Turning (10 +/-0.01) OR (10 +/-0.01)
2. Feature/Description (specification of HighTolerance, LowTolerance) Ex: Turning (10 +0.01/-0.02) OR (10 +0.01/-0.02)
3. Feature/Description (specification of HighTolerance, LowTolerance) Ex: Turning (10 +0.01/-0.02) OR (10 +/-0.01/-0.02)
4. Feature/Description (Lower specification - Upper specification) Ex: Turning (10.01 - 10.02) OR (10.01 - 10.02)
5. Description (+ Specification) Ex: Profile of a Surface (+0.02)
6. Description (- Specification) Ex: Profile of a Surface (-0.02)
7. Description (+ Specification) Ex: Profile of a Surface (+0.02)
8. Description (+ Specification) Ex: Profile of a Surface (+0.02)
9. Unit of measurement can be specified after
- *Feature/Description (specification of HighTolerance) in the Actual Requirement field. Ex: Turning (10 +0.01/-0.02) UNITS+IN OR (10 +0.01/-0.02) UNITS+DN

SAVE



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Form 3 GUIDELINES

Box 9: Results

List measurement(s) obtained for the Design Characteristics.

- All measurements shall be listed in the same units of measure as indicated on the drawing.
- For Multiple Characteristics list each characteristic as individual values or list once with the minimum and maximum of measured values attained. You can click the “add more results” button in Net-Inspect on Form 3.
- If a characteristic is found to be non-conforming then that characteristic must be listed separately with the measured value noted.

(M)		VB	0.75	0.72	0.76
0.75	0.72	PASS			
0.76					

Ex: A .75 flange running .72 at bottom and .76 at top should be listed as “.72 to .76”.

- If a Design Requirement requires verification testing, then the actual results will be recorded on form 3. If a laboratory report or certificate of test is included in the FAIR, then these results need not be written on the form, record PASS OR FAIL in Box 9 and add “See Form 2” in Comments Blk. The laboratory report or certificate of test must show specific values for requirements and actual results.
- See Slide 24 for additional Examples for Box 9**

AS/ENVS/JAC9102 Rev B First Article Inspection Sheet 1 of 1

Sheet Or Char No.

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Form 3 - Characteristic Accountability, Verification and Compatibility Evaluation

1. Part Number	2. Part Name	3. Serial Number	4. FAIR Number
Test	Test Part	007	4748
Characteristic Accountability		Inspection / Test Results	
5. Char. No.	6. Reference Location	7. Characteristic Description	8. Requirement *
		9. Results Bulk Entry Template	10. Inspected / Qualified / Tooling
		11. Measurement Number	14. Additional Data/Comments
1*		GDT Cabinet	Variable *
Op	0.75	Actual Requirement Units	
Comments:			
2*		GDT Cabinet	Variable *
Op	0.72	Actual Requirement Units	
Comments:			
3*		GDT Cabinet	Variable *
Op	0.76	Actual Requirement Units	
Comments:			

The Signature indicates that all characteristics are accounted for, meet drawing requirements or are properly documented for disposition.

12. Signature Signature 13. Date

Documents: [\(Remove\)](#)

[Print Report](#)

Go to View Mode [Form 1](#) [Form 2](#)

*The field "Requirement" should be in either of the following formats:
 1. Feature/Description (specification +/-HighTolerance) Ex: Turning (10 +/-0.01) OR (10 +/-0.01)
 2. Feature/Description (specification HighTolerance/LowTolerance) Ex: Turning (10 +0.01/-0.02) OR (10 +0.01/-0.02)
 3. Feature/Description (specification HighTolerance/LowTolerance) Ex: Turning (10 +0.01/-0.02) OR (10 +/-0.01/-0.02)
 4. Feature/Description (Lower specification - Upper specification) Ex: Turning (10.01 - 10.02) OR (10.01 - 10.02)
 5. Description (+ Specification) Ex: Profile of a Surface (+0.02)
 6. Description (- Specification) Ex: Profile of a Surface (-0.02)
 7. Description (+ Specification) Ex: Profile of a Surface (+0.02)
 8. Description (- Specification) Ex: Profile of a Surface (-0.02)
 9. Unit of measurement can be specified after
 *Feature/Description (specification +/-HighTolerance) in the Actual Requirement field. Ex: Turning (10 +/-0.01/-0.02) UNITS+IN OR (10 +/-0.01/-0.02) UNITS+IN

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Box 9: Results (Continued Examples)

List measurement(s) obtained for the Design Characteristics.

- All measurements shall be listed in the same units of measure as indicated on the drawing.
- For metallurgical characteristics with visual verification requirement that are rated against standard photographs, color chip or surface chip, list the photo number of the closest comparison. A statement of conformance is acceptable (record the reference number in this field).
- For processes that require verification per Design Characteristic, include statement of compliance (e.g., certification of compliance, verification indicator such as accept., etc.).

Ex: For MTX and tool controlled features the statement is started in block 8.

Block 9 should note within and a range such as, **“.010 to .015”**.

- For part marking, ensure that marking is legible, correct in content and size and properly located, per applicable specification.
- For attribute data, use the verbiage “pass” or “fail” to record the result.

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Sheet Or Char No.

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Form 3 - Characteristic Accountability, Verification and Compatibility Evaluation

1. Part Number	2. Part Name	3. Serial Number	4. FAIR Number
Test	Test Part	007	4748
Characteristic Accountability		Inspection / Test Results	
5. Char. No.	6. Reference Location	7. Characteristic Description	8. Requirement *
		9. Results Bulk Entry Template	10. Design / Tooling / Measurement Number
		11. Additional Data/Comments	12. Additional Data/Comments
1*		GDT Cabinet	Variable *
Op#	Drill No.	Actual Requirement Units	
Comments:			
2*		GDT Cabinet	Variable *
Op#	Drill No.	Actual Requirement Units	
Comments:			
3*		GDT Cabinet	Variable *
Op#	Drill No.	Actual Requirement Units	
Comments:			

The Signature indicates that all characteristics are accounted for meet drawing requirements or are properly documented for disposition.

12. Signature Signature 13. Date

Documents: [\(Remove\)](#)

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*The field 8, "Requirement" should be in either of the following formats:

1. Feature/Description (specification of HighTolerance) Ex: Turning (10 +/-0.01) OR (10 +/-0.01)
2. Feature/Description (specification of HighTolerance -LowTolerance) Ex: Turning (10 +/-0.01/-0.02) OR (10 +/-0.01/-0.02)
3. Feature/Description (specification of HighTolerance -LowTolerance) Ex: Turning (10 +/-0.01/-0.02) OR (10 +/-0.01/-0.02)
4. Feature/Description (Lower specification - Upper specification) Ex: Turning (10.01 - 10.02) OR (10.01 - 10.02)
5. Description (+ Specification) Ex: Profile of a Surface (+ 0.02)
6. Description (- Specification) Ex: Profile of a Surface (- 0.02)
7. Description (+ Specification) Ex: Profile of a Surface (+ 0.02)
8. Description (- Specification) Ex: Profile of a Surface (- 0.02)
9. Unit of measurement can be specified after

*Feature/Description (specification of HighTolerance) is the Actual Requirement field. Ex: Turning (10 +/-0.01/-0.02) UNITS+IN OR (10 +/-0.01/-0.02) UNITS+IN

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Form 3 GUIDELINES

Box 10: Designed Tooling

If a specially designed tool (including NC programming) is used as a media of inspection, record the tool identification number. When Qualified Tooling (e.g. go/no go gages, thread gages, radius gages) is used for attribute acceptance, record the gage value or range (e.g. minimum/maximum value), as applicable, and its tool identification number.

NOTE: This does not include standard measurement hand tools

Box 11: Non-conformance Number

Record both the customer and internal LMI non-conformance document reference number if the characteristic is found to be non-conforming. A delta FAI for the non-conforming characteristic(s) will be required on the next run of parts.

Box 12, 13: Signature / Date

These will be auto generated when signed and submitted.

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Sheet Or Char No.

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Form 3 - Characteristic Accountability, Verification and Compatibility Evaluation

1. Part Number	2. Part Name	3. Serial Number	4. FAIR Number
Test	Test Part	007	4748
Characteristic Accountability		Inspection / Test Results	
5. Char. No.	6. Reference Location	7. Characteristic Description	8. Requirement *
1*		GDT Cabinet	Variable *
Op#	Drill No.	Actual Requirement Units	Variable *
			add more results
Comments:			
2*		GDT Cabinet	Variable *
Op#	Drill No.	Actual Requirement Units	Variable *
			add more results
Comments:			
3*		GDT Cabinet	Variable *
Op#	Drill No.	Actual Requirement Units	Variable *
			add more results
Comments:			
The Signature indicates that all characteristics are accounted for meet drawing requirements or are properly documented for disposition.			
12. Signature <input type="text"/>		13. Date <input type="text"/>	

Documents: [\(Remove\)](#) [Print Report](#)

Go to View Mode [Form 1](#) [Form 3](#)

*The field "Requirement" should be in either of the following formats:
1. Feature/Description (specification +/-) Tolerance) Ex: Turning (10 +/-0.01) OR (10 +/-0.01)
2. Feature/Description (specification +/-) Tolerance, Level/Tolerance) Ex: Turning (10 +/-0.01/-0.02) OR (10 +/-0.1/-0.02)
3. Feature/Description (specification +/-) Tolerance, Level/Tolerance) Ex: Turning (10 +/-0.01/-0.02) OR (10 +/-0.1/-0.02)
4. Feature/Description (Lower specification) Upper specification) Ex: Turning (10.01 - 10.02) OR (10.01 - 10.02)
5. Description (+) Specification) Ex: Hole of a Surface (+/- 0.02)
6. Description (-) Specification) Ex: Hole of a Surface (-/- 0.02)
7. Description (+) Specification) Ex: Hole of a Surface (+/- 0.02)
8. Description (-) Specification) Ex: Hole of a Surface (-/- 0.02)
9. Hole of a surface (+/-) specification) Ex: Turning (10 +/-0.01/-0.02) UNITS+IN OR (10 +/-0.01/-0.02) UNITS+IN

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Form 3 GUIDELINES

Box 14: Additional Data / Comments

This field area is reserved for optional fields as deemed necessary by the organization. Add additional columns as required by the Organization or Customer. (See “Unique Customer Specific FAI Requirements”)

Preferred Method is to list Standard Gage name (with serialization if applicable) in Column 14

9. Results Bulk Entry Template	10. Designed / Qualified Tooling	11. Nonconformance Number	14. Additional Data/Comments
Bulk upload Variable ▾ .7989 Last Updated By add more results	N/A		Gage Used CALIPERS 0000654

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Form 3 - Characteristic Accountability, Verification and Compatibility Evaluation

1. Part Number	2. Part Name	3. Serial Number	4. FAIR Number
Test	Test Part	007	4748
Characteristic Accountability		Inspection / Test Results	
5. Char. No.	6. Reference Feature	7. Characteristic Requirer	8. Requirement *
9. Results Bulk Entry	10. Assigned / Tooling	11. Inspected / Pass/Fail	14. Additional Data/Comments
1*		GDT Cabinet	Variable *
Op#	Drblle No.	Actual Requirement Units	add more results
Comments:			
2*		GDT Cabinet	Variable *
Op#	Drblle No.	Actual Requirement Units	add more results
Comments:			
3*		GDT Cabinet	Variable *
Op#	Drblle No.	Actual Requirement Units	add more results
Comments:			
The Signature indicates that all characteristics are accounted for: meet drawing requirements or are properly documented for disposition.			
12. Signature	<input type="text"/>	Signature	13. Date <input type="text"/>

Documents:

[\(Remove\)](#)

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Go to View Mode Form 1 Form 2

*The field 8, "Requirement" should be in either of the following formats:

1. Feature/Description (specification of HighTolerance) Ex: Turning (10 +/-0.01) OR (10 +/-0.01)
2. Feature/Description (specification of HighTolerance, LowTolerance) Ex: Turning (10 +0.01/-0.02) OR (10 +0.01/-0.02)
3. Feature/Description (specification of HighTolerance, LowTolerance) Ex: Turning (10 +0.01/-0.02) OR (10 +/-0.01/-0.02)
4. Feature/Description (Lower specification - Upper specification) Ex: Turning (10.01 - 10.02) OR (10.01 - 10.02)
5. Description (+ Specification) Ex: Profile of a Surface (+0.02)
6. Description (- Specification) Ex: Profile of a Surface (-0.02)
7. Description (+ Specification) Ex: Profile of a Surface (+0.02)
8. Description (+ Specification) Ex: Profile of a Surface (+0.02)
9. Unit of measurement can be specified after

*Feature/Description (specification of HighTolerance) is the Actual Requirement field. Ex: Turning (10 +/-0.01/-0.02) UNITS+IN OR (10 +/-0.01/-0.02) UNITS+IN

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Identify CMM reports to reflect the FAI Report Number, Drawing Number, Revision, Model Release and Manufacturing Process Reference.

- Create report headers that clearly identify each point group targeting a specific part feature or characteristic including Datum or targets used for alignment, all GD&T controls and supporting BASIC dimensions. Consider use of drawing identifiers as reflected on the Engineering to tie the maps and CMM reports back to the Engineering.
- Provide specific Point Maps **if required** (See “Unique Customer Specific FAI Requirements”) – A sufficient number of mapped views should be provided to illustrate point placement for features and surfaces inspected. Maps are to be clearly labeled including alignment points to the drawing established Datum System.
- Datum or target origin X, Y & Z values identified on Engineering, must be clearly identifiable on report and alignment maps. Maps do not need to show or list every point taken in the report, but do need to visually demonstrate placement of point groups. Maps provide the reviewer with a visual perspective of the measurement process and features inspected.

FAI PACKAGES SHALL INCLUDE THE FOLLOWING AS APPLICABLE AND BE TRACEABLE TO THE FAI

- Bubble drawing, model screen shot or sketch denoting design characteristics / parts list showing all of the unique part characteristics including all drawing, general and flag notes. This must include your approval and traceability to the authority dataset.
- Unique characteristic accountability – must correspond with unique identifier on bubbled drawing / sketch / screen shot or link to CMM report.
- Material Certifications
- Process Certifications
- Completed FAI Forms
- Non-Conformance documents
- Test reports / results
- Casting / Forging approvals
- Completed Work Order and Re-Work Orders that represent the manufacturing process as required
- Copy of the Customer Condition of Supply (e.g. TSSP, etc.) as required
- Photos

FAI PACKAGES SHALL INCLUDE THE FOLLOWING AS APPLICABLE AND BE TRACEABLE TO THE FAI

- Customer Approval of Frozen planning
- Outside Data Sheet (Outside Processor) or Manufactured Engineering Planning Instruction Control Number
- Supplier Information Requests (SIR)
- Other fabrication records as indicated
- CMM Reports – point maps and set-up instructions as required
- Along with the Part Number, a unique identifier should be logged on the document(s), such as:
 - FAI Report Number
 - Manufacturing Process Reference Number

Communicating with Source Inspection

When there is an interpretation of requirements that differs from the standards documented

- Request that the source inspector provide the basis for the different requirements
- Involve the Quality Manager and/or Quality Engineer in the discussion

AS9102(B) FAI Report

This Standard to be used in conjunction with:

- FAI-APP-001 Customer Specific FAI Requirements
- FAI-APP-001 may be found at:
 - <http://www.lmiaerospace.com/supplier-management/supplier-quality-requirements/>