1 Purpose and Scope

The purpose of this procedure is to describe the requirements and processes necessary to complete a First Article Inspection Report (FAIR). This procedure applies to assemblies, sub-assemblies and detail (Sheet metal and Machined) parts manufactured to the requirements of Viasat drawings and specifications. This process is applicable to both items provided by external Suppliers and items processed internal to Viasat.

At the end of this document there are AS9102-acceptable First Article Inspection Report (FAIR) forms that may be used to document inspection results. The user may follow the attached examples of each form to ensure consistent data reporting.

2 General Requirements

2.1 When specified on the PO or at the request of the Product Quality Engineer (PQE), a first article inspection shall be performed by the Supplier.

QAPP 12 or 12A on the Viasat PO provide the official flowdown to the supplier that a FAIR is required. The PQE must understand the customer requirements, typically conveyed via QA clauses/Q-codes/Quality provisions/etc on the customer PO, to determine the appropriate QAPP to apply to meet customer requirements.

For full turnkey CMs delivering directly to Viasat customers, the CM shall provide an AS9102-compliant FAIR to Viasat for review and record-keeping, as detailed in Section 5.3.

For Viasat assemblies and sub-assemblies manufactured internally, the PQE shall identify the product and/or the part that requires a FAIR. The PQE will work with the appropriate Planner who will identify the FAIR on the Manufacturing Traveler and a Quality Inspection Records (QIR) shall bear special identification designating First Article Inspection was completed.

2.2 A Complete First Article Inspection Report must be completed with all Dimensions and Notes checked, unless otherwise specified on the PO or by the PQE.

2.3 A full First Article Inspection Report shall be performed when there is:

- **First Production Run of a part**
- **A change in design affecting form, fit, or function**
- **A change in the manufacturing source(s)**
- **A lapse in production for two years or more**

2.4 When submitting the FAIR, the following documents shall be included, **when applicable**:

- **The original FAIR**
- **Copies of all material and process Certificates of Conformance**
- **Copies of the Acceptance Test Procedure and test data**
- **Copies of the manufacturing process documents (e.g., traveler/routing sheets, manufacturing/quality plans, manufacturing work instructions) if applicable**
- **Nonconforming documentation (if any)**

3 Procedures for a General First Article Inspection Report (QAPP 12)

3.1 The Supplier has the option to either use the Supplier's own First Article Inspection Report or Viasat's General First Article Inspection Report (FAIR) for documenting inspection results prior to shipping production parts to Viasat. The recommended form is attached as the Supplier First Article Inspection Form (Pg. 5).

3.2 If the Supplier elects to use his own FAIR form it must contain the same elements as the Viasat recommended form.

This will include, but is not limited to:

1. Part Number, Revision Number, & Part Name
2. Purchase Order Number
3. Supplier/Organizational Name
4. Supplier FAI Report Number/Job Number
5. Drawing Number & Revision Number
6. Characteristic Number
7. Dimensional Requirements & Tolerances
8. Dimensional Results
9. Name, Title, Signature, & Date by the Inspector assessing the First Article Inspection

IF APPLICABLE:

1. Serial Number
2. Reference Location from Drawing
3. Characteristic Designator
4. Designed Tooling
5. Non-Conformance Number

3.3 General First Article Inspection Form. This form is used to list all the Design Characteristics and measured values.

- Fields 1, 1A, 1B, 2, 2A, 4, 5, 5A, 6, 7, 8, 11, 11A, 12 16, & 17 are mandatory input fields (orange).
- (Field 11) List all of the design characteristics (e.g., drawing dimensional characteristics with tolerances including, notes and special instructions).
- (Field 8) Each characteristic shall have a unique assigned number.
- (Field 9) Reference locations are not required but recommended for quickly identifying the drawing zones and page number.
- For Multiple Characteristics (e.g., “4 Places”), list once with the minimum and maximum of the measured values attained. If a characteristic is found to be non-conforming, that characteristic must be listed separately with the measured value noted.
- (Field 10) When stated by the customer, record the characteristic type (e.g., flight safety, critical, major, etc.).
- (Field 11a) Lists the range of acceptable values (minimum to maximum) based upon the nominal specification plus/minus the listed tolerances.
- (Field 13) If specially designed tooling is used as a media of inspection, record the tool identification number.

4 Procedures for a First Article Inspection Report (QAPP 12.A)

4.1 When completing a FAIR, forms other than the ones provided with this procedure may be used, however must contain all "Required" and "Conditionally Required" information. Specific guidelines can be found in the AS9102, Aerospace First Article Inspection Requirement. For FAIRs provided by full turnkey CMs, Viasat Quality personnel shall review and validate the FAIR for compliance with AS9102 and customer requirements prior to acceptance or submission to the customer.

NOTE: Fields 1 – 4 are repeated on all forms for convenience and traceability.

4.2 **Form 1** (Part Number Accountability) shall be used for "Detailed FAI" and "Assembly FAI". This form is used to identify the part that is being first–article inspected and associated subassemblies or detail parts.

- Fields 1, 2, 4, 9, 10, 13, 14, 19 and 20 are mandatory input fields (areas of the form highlighted in orange.
- Fields 3, 5, 6, 7, 8, 15, 16, and 17 must be completed when applicable, typically when performing an Assembly FAI (areas of the form highlighted in blue.)
- Fields 11, 12, 18, 21, 22, 23, and 24 are optional and provided for convenience (areas of the form in white.)
- When performing an Assembly FAI (if indicated in Field 13), fields 15, 16, and 17 will list all subassemblies that make up the top assembly. Each subassembly shall have its own FAIR as described in this procedure.
- When performing a Partial FAI (as indicated in Field 14), list the baseline part number (including revision level) for the prior approved configuration and the reason for the partial FAI. Example, changes in design, process, manufacturing location, etc. A partial FAI addresses differences between the current configuration and the prior approved configuration.

4.3 **Form 2** (Product Accountability – Raw Material, Specifications and Special process(s), Functional Testing). This form is used if any material, special processes or functional testing are defined as a Design Requirement.

- Fields 1, 2, 4, 14, and 15 are mandatory input fields (highlighted in orange.)
- Fields 3, 5, 6, 8, 9, and 10 will be used, as applicable, to list all Material and Process names, specification numbers and Certificate of Conformance numbers (highlighted in blue.)
- Fields 7 and 13 are optional (white).
- Certificate of Conformance shall contain the name, specification number, type, and class, of the material(s) or process(s) specified in the appropriate specification/drawing.
- (Field 8) When required by the customer, the Special Process Supplier Code will be listed and Customer Approval Verification noted when applicable.
- Fields 11 and 12 will list Functional Test procedures (include revision of procedure) and Acceptance report numbers.

4.4 **Form 3** (Characteristic Accountability, Verification and Compatibility Evaluation). This form is used to list all the Design Characteristics and measured values.

- Fields 1, 2, 4, 5, 8, 9, 12 and 13 are mandatory input fields (orange.)
- (Field 8) List all of the design characteristics (e.g., drawing dimensional characteristics with tolerances including, notes and special instructions).
- (Field 5) Each characteristic shall have a unique assigned number.
- (Field 6) Reference locations are not required but recommended for quickly identifying the drawing zones and page number.
- For Multiple Characteristics (e.g., "4 Places"), list once with the minimum and maximum of the measured values attained. If a characteristic is found to be non-conforming, that characteristic must be listed separately with the measured value noted.
- (Field 7) When stated by the customer, record the characteristic type (e.g., flight safety, critical, major, etc.).

- (Field 8a) Lists the range of acceptable values (minimum to maximum) based upon the nominal specification plus/minus the listed tolerances.
- (Field 10) If specially designed tooling is used as a media of inspection, record the tool identification number.

5 Record Management

5.1 Internal First Article Inspection Reports (FAIR) are maintained as hard copies and included in the Production Traveler Package. Refer to the Production Build Documentation Package Maintenance procedure for record management details.

5.2 Received external (Supplier) FAIRs are maintained in the Part History File in Receiving Inspection. Refer to the Receiving Inspection procedure for record management details.

5.3 Submission of FAIRs by Full Turnkey Contract Manufacturers

For full turnkey contract manufacturers (CMs) delivering products directly to Viasat customers, the following requirements apply:

- **FAIR Submission**: CMs shall submit AS9102-compliant FAIRs to Viasat prior to or concurrently with product delivery to the customer, unless otherwise specified in the Purchase Order (PO) or by the Product Quality Engineer (PQE). The FAIR shall include all required documentation as outlined in Section 2.4.

- **Submission Method**: FAIRs shall be submitted electronically via OSQRE or as specified in the PO. If OSQRE is not set up, CMs shall provide the FAIR package to the designated Viasat Quality contact for the program. Note: FOUO/CUI data must be transferred using secure messaging.

- **Review and Validation**: Viasat Quality personnel shall review and validate the CM's FAIR to ensure compliance with AS9102 and customer requirements before acceptance. Non-compliant FAIRs shall be addressed per the Supplier Quality Management process.

- **Record Retention**: Approved CM FAIRs shall be maintained electronically in Viasat's Part History File or designated quality management system, as referenced in PR000526 (Receiving Inspection) and PR001350 (Record Control and Maintenance).

- **Customer Submission**: If required by the customer, Viasat may provide the CM's FAIR to the customer after validation, ensuring traceability and compliance with flowed-down requirements.

6 References

Documents

- SAE AS9102 – Aerospace First Article Inspection Requirement
- PR000566 – First Article Inspection Process (for internal reverence by Viasat only)
- PR001028 – Production Build Documentation Package Maintenance (for internal reference by Viasat only)
- PR000526 – Receiving Inspection (for internal reference by Viasat only)
- PR001350 – Record Control and Maintenance (for internal reference by Viasat only)

Forms

- Form 1 – Part Number Accountability
- Form 2 – Product Accountability – Raw Material, Specifications and Special process(s), Functional Testing
- Form 3 – Characteristic Accountability, Verification and Compatibility Evaluation
- AS9102 Detailed and Assembly FAIR examples
- General Assembly and Detailed FAIR examples

Detail FAIR (Example)

Assembly FAIR (Example)

General FAIR - Assembly Example

General FAIR - Detail Example

General First Article Inspection Form

1. Part Number	1A. Part Name	2. Purchase Order #:	2A. Supplier Name	3. *Serial Number*	4. FAI Report #
1B. Part Revision	5. Drawing Number	5A. Drawing Revision	6. Detail FAI ☐ Assembly FAI ☐	7. Full FAI ☐ Delta FAI ☐	

Characteristic Accountability					Inspection / Test Results			Optional Fields
8. Char No.	*9. Reference Location*	*10. Characteristic Designator*	11. Requirement	11A. Range	12. Results	*13. Designed Tooling*	*14. Non-Conformance Number*	15.*[Insert columns, etc., as required by Organization or Customer]*
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

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

16. Prepared By (Name, Title & Signature):	17. Date:

Form 1: Part Number Accountability

1. Part Number	**2. Part Name**	***3. Serial Number***	4. FAI Report Number
5. Part Revision Level	***6. Drawing Number***	***7. Drawing revision level***	***8. Additional Changes***
9. Manufacturing Process Reference	**10. Organization Name**	11. Supplier Code	12. P.O. Number
13. Detail FAI ☐ **Assembly FAI** ☐	**14. Full FAI** ☐ **Partial FAI** ☐ ***Reason for Partial FAI:***	***Baseline Part Number including revision level***	

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. FAI Report Number

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 per Section 5.4: ☐ **FAI complete** ☐ **FAI not Complete**

19. Signature	**20. Date**
21. Reviewed By	22. Date
23. Customer Approval	24. Date

Form 2: Product Accountability – Raw Material, Specifications and Special Process(s), Functional Testing

1. Part Number	**2 Part Name**		***3. Serial Number***		4. FAI Report Number
5. Material or Process Name	***6. Specification Number***	7. Code	***8. Special Process Supplier Code***	***9. Customer Approval Verification*** (Yes/No/NA)	***10. Certificate of Conformance number***
11. Functional Test Procedure Number	***12. Acceptance report number, if applicable***				
13. Comments					
14. Prepared By			**15. Date**		

Form 3: Characteristic Accountability, Verification and Compatibility Evaluation

1. Part Number					2. Part Name			3. Serial Number	4. FAI Report
Characteristic Accountability					Inspection / Test Results				
5. Char No.	6. Reference Location	7. Characteristic Designator	8. Requirement	8a. Range	9. Results	10. Designed Tooling	11. Non-Conformance Number	14.*[Insert columns, etc., as required by Organization or Customer*]	
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The signature indicates that all characteristics are accounted for; meet drawing requirements or are properly documented for disposition.									
12. Prepared By							**13. Date**		