IEC Quality Assessment System for Electronic Components (IECQ System)

Rules of Procedure –
Part 4: IECQ ADHP Scheme – Aerospace, Defense, and High Performance (ADHP) Component Management
IECQ PUBLICATION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

RULES OF PROCEDURE –

Part 4: IECQ Aerospace, Defense, and High Performance (ADHP) Component Management Scheme (IECQ ADHP Scheme)

FOREWORD

This publication has been prepared by the IECQ Management Committee (IECQ MC) of the IEC Quality Assessment System for Electronic Components (IECQ).

This publication is directly related to the IECQ System management Basic Rules contained in publications (IEC CA 01 + IECQ 01-S), IEC Harmonised Basic Rules (IEC CA 01) plus the IECQ Supplement (IECQ 01-S).

IECQ Rules of Procedure IECQ 03-4 has been prepared by IECQ working group WG04, of IECQ Management Committee (IECQ MC).


This edition includes the following significant technical changes with respect to the previous edition:

a) Revise the name of the IECQ AVIONICS Electronic Component Management Plans (ECMP) Scheme to the IECQ Aerospace, Defense, and High Performance (ADHP) Component Management Scheme per the recommendation of WG04 and approval of IECQ MC, to ensure the Scheme is capable of supporting growing requirements of ADHP Component Management,

b) Define and describe the distinction between Conformity Assessment and Implementation Assessment,

c) Include control Plans for EEE Parts Management, Lead-free Electronics, Counterfeit Parts, Obsolescence, and COTS Assemblies in the ADHP Electronics Scheme,

d) Include assessment scheme for Subcontractor PCB assembly,

e) The documentation structure for the scheme has been updated in line with other IECQ scheme e.g. IECQ OD 701 now becomes IECQ OD 3401 etc,

f) Include clarification over single & multi-site (location) certification, Inc. revised lay out of text,

g) Includes align with the newly introduced IEC CA 01, IEC Harmonised Basic Rules Edition 2.0,

h) Update all references to the former IECQ 01 document which is now replaced by combined documents known as IECQ System management Basic Rules (IEC CA 01 + IECQ 01-S), IEC Harmonised Basic Rules (IEC CA 01) plus the IECQ Supplement (IECQ 01-S),
h) Update Normative references.

The text of this International Standard is based on the following documents:

<table>
<thead>
<tr>
<th>Document</th>
<th>Report on MC Consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>IECQ-MC/392/CA</td>
<td>IECQ/MC/399/MR</td>
</tr>
</tbody>
</table>

Full information on the report of IECQ MC approval of this publication can be found in the report indicated in the above table.
INTRODUCTION

Taking into account the object of the International Electrotechnical Commission (IEC) as given in Article 2 of the Statutes, the particular object of the IECQ System, operated in conformity with the Statutes and under the authority of the IEC, is to facilitate international trade in electronic components of assessed quality, by providing a global framework for independent assessment and certification.

The object is achieved by the implementation of quality assessment procedures in such a manner that organizations, processes, and components certified as conforming to the requirements of an applicable standard or specification, are acceptable to all participants.

The IECQ System provides manufacturers with a “Supply chain verification tool” for seeking assurance that electronic components, assemblies, processes and related materials conform to declared technical Standards and Specifications.

The IECQ ADHP Scheme requirements are designed to evaluate ADHP equipment manufacturers’ and related organizations’ Plans prepared in accordance with any or all of the following industry standards:

- SAE EIA-STD-4899, Requirements for and Electronic Components Management Plan.
- SAE AS5553, Fraudulent/Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition.
- ANSI.TechAmerica (now SAE) STD-0016, Standard for Preparing a DMSMS Management Plan\(^1\).
- IEC 62402, Obsolescence Management – Application guide
- SAE EIA-933, Requirements for a COTS Assembly Management Plan.
- IECQ OD 3407-1, Subcontractor assessment – assembly

NOTE: Throughout this document, the above industry standards are referred to, individually or collectively, as the referenced industry standard(s), or the relevant referenced industry standard(s). It is expected that the context will allow the reader to understand which standard(s) are indicated in the remainder of this document.

\(^1\) IECQ CBs and clients should be aware that this standard contains references to GIDEP, which may not be available to clients outside the USA. In such instances, the alternative methods listed in SAE STD-0016 can be considered acceptable, if properly implemented.
RULES OF PROCEDURE –

Part 4: IECQ Aerospace, Defense, and High Performance (ADHP) Component Management Scheme (IECQ ADHP Scheme)

1 Scope and application

1.1 General

This publication contains the Rules of Procedure of the Scheme of the IECQ System, hereinafter referred to as the “Rules”, for the IECQ Aerospace, Defense, and High Performance (ADHP) Component Management Scheme (IECQ ADHP Scheme).

This IECQ ADHP Rules of Procedure provides the requirements specific to this Scheme and is to be used in conjunction with applicable IECQ System Management Basic Rules (IEC CA 01 + IECQ 01-S), General Rules of Procedures (IECQ 03-1) and Operational Documents (OD) as listed in normative references Clause 2.

In the event of conflict between the provisions of these Rules of Procedure and any other requirements contained in referenced documents, the requirements of these Rules of Procedure and the referenced industry standards shall apply.

1.2 Application

The scheme provides for issuing of the following types of certificates, see Figure 1:

- a) “Certificate of Conformity” (listing both the Plan(s) reference and the Standard(s)), see IECQ OD 3405, which describes the IECQ 03-4 Third edition scheme
- b) “Certificate of Implementation” (listing the Plan(s) reference ONLY), see IECQ OD 3406 which is a new scheme for use with specific customers.
- c) “Certificate of Conformity Subcontractor”, see IECQ OD 3407-1 based on IEC TS 62239-1

Table 1 provides additional information summarising the attributes of each type of certificate. Appendix A details various supply chain scenarios with guidelines as to which type of Certificate are considered appropriate. IECQ WG4 should be consulted if additional advice is required.

Annex B and Table B.1 detail the various audit checklists
1.2.1 IECQ ADHP Conformity and Implementation Certification Utilisation

IECQ ADHP Conformity assessment to IECQ OD 3405 is a compliance certification to referenced industry standard(s) achieving greater industry standardization, whilst IECQ ADHP Implementation assessment to IECQ OD 3406 does not establish any compliance to referenced industry standard(s). Therefore, the IECQ ADHP Certificate of Conformity to IECQ OD 3405 is considered superior and should be utilised in place of an IECQ ADHP Certificate of Implementation to demonstrate compliance when plan owners have multiple ADHP customers.

An IECQ ADHP Certificate of Implementation may be issued in conjunction with an IECQ ADHP Certificate of Conformity provided all aspects have been addressed for both certification types utilizing one assessment.
### Table 1 – Comparison of IECQ 03-4 Certification Types

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Certificate of Conformity: IECQ OD 3405</th>
<th>Certificate of Implementation: IECQ OD 3406</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The compliance</strong> evaluation of the plan(s) to the applicable industry standard(s)(^2) or those clauses flowed down to subcontractors</td>
<td>X</td>
<td>N/A</td>
<td>For the Implementation audit, the plan owner has to demonstrate to the IECQ CB its provision for the control and approval of their plan(s). Where said approval can be demonstrated to applicable industry standard(s), then standard IECQ audit checklists could be used, otherwise a specific custom checklist has to be created for each edition of a plan(s).</td>
</tr>
<tr>
<td><strong>The compliance</strong> evaluation that the plan owner has documented procedures and processes implemented per the plan(s) (usually referred to as first level documentation),</td>
<td>X</td>
<td>X</td>
<td>For the Implementation audit, the plan owner’s procedures and processes would not be evaluated for their adequacy, only their implementation. Confusion and non-standardisation may result where multiple customers have different perspectives for the requirements of the plan owner’s plan(s) and their procedures and processes.</td>
</tr>
<tr>
<td><strong>The compliance</strong> evaluation of the procedures and processes per the plan(s) technical appropriateness,</td>
<td>X</td>
<td>N/A</td>
<td>For the Implementation audit, the technical appropriateness of procedures and processes would typically not be evaluated.</td>
</tr>
<tr>
<td><strong>The compliance</strong> evaluation of the plan owner organisation resources are technically competent to use the implemented procedures and processes per the plan(s),</td>
<td>X</td>
<td>N/A</td>
<td>For the Implementation audit, typically the plan owner’s organization resources would not be evaluated for their technically competent.</td>
</tr>
<tr>
<td><strong>The compliance</strong> evaluation of the implementation and use of the documented procedures and processes within the organization per the plan(s),</td>
<td>X</td>
<td>X</td>
<td>For the Implementation audit, only the implementation of the plan(s) and their related procedures and processes is evaluated and not the compliance to external standards.</td>
</tr>
<tr>
<td><strong>The on-going compliance</strong> surveillance of the plan owners plan(s) and the implementation, technical appropriateness, technical competency and use of the documented procedures and processes per the plan(s) and to the applicable industry standard(s).</td>
<td>X</td>
<td>N/A</td>
<td>For the Implementation audit, no technical competence and appropriateness of plan owner’s plan(s) to external standards is evaluated.</td>
</tr>
<tr>
<td>The evaluation that the Plan owner has clear unambiguous provision for the control and approval of their plan(s) including detailing revision and date</td>
<td>X</td>
<td>X</td>
<td>IECQ has introduced a new certification type to address the situation whereby a specific customer of a plan owner may assist by conducting the review of Plan(s) against referenced industry standards, called Implementation audit. This is most appropriate for small companies new to the IECQ ADHP scheme which require support and guidance through direct customer interaction. Owing to the nature of the implementation audit offers no global standardisation as different customers may have different opinions when reviewing plan owner’s Plan(s), resulting in differing results across many audits.</td>
</tr>
</tbody>
</table>

\(^2\) For the industry standards relevant to the listed Plan types see the Introduction
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This can result in lack of standardization within the plan owner’s business. Plan owners may find implementation audits difficult to manage where they have more than two customers.

IECQ recommends that the implementation audit is replaced by conformity assessments when more than two customers are involved.

For the conformity audit the customer may evaluate the Plan Owner’s Plan as part of contract negotiations, which is outside the scope of the IECQ process.

<table>
<thead>
<tr>
<th>The evaluation that the plan owner has documented procedures and processes implemented per the plan(s) within their organization (usually referred to as first level documentation),</th>
<th>X</th>
<th>X</th>
<th>For the conformity audit the IECQ CB evaluates the procedures to the plan owner’s plan and the external standard. For the implementation audit the IECQ CB evaluates the plan owner’s provision for control and approved of plan(s).</th>
</tr>
</thead>
<tbody>
<tr>
<td>The evaluation of the implementation and use of the documented procedures and processes within the organization per the plan(s) by the IECQ CB,</td>
<td>X</td>
<td>X</td>
<td>For the conformity audit the IECQ CB evaluates the implementation and use of procedures to the plan owner’s plan and the external standard. For the implementation audit the IECQ CB evaluates the implementation and use of procedures to the plan owner’s plan.</td>
</tr>
<tr>
<td>The IECQ CB on-going surveillance of the implementation and use of the documented procedures and processes per the plan(s).</td>
<td>X</td>
<td>X</td>
<td>For the conformity audit the IECQ CB evaluates the on-going implementation and use of procedures to the plan owner’s plan and the external standard. For the implementation audit the IECQ CB evaluates that the plan owner’s customer approved procedures are implemented and used on an on-going basis.</td>
</tr>
<tr>
<td>The IECQ CB issues certificates showing compliance to the applicable industry standard(s)² above</td>
<td>X</td>
<td>N/A</td>
<td>For the Implementation audit, the certificate will state compliance to the plan owner’s internal procedure.</td>
</tr>
</tbody>
</table>

### 1.2.2 Type IECQ ADHP Conformity Certification

IECQ ADHP Conformity Assessment is intended for use as a means of 3rd party verification of claims of compliance of Plan(s), procedures and processes prepared in accordance with any or all of the referenced industry standard(s)² above within the ADHP industry sectors.

This certification type “Certificate of Conformity” is described in IECQ OD 3405 and covers:

- the compliance evaluation of the plan(s) to the applicable industry standard(s),
- the compliance evaluation that the Plan owner has documented procedures and processes implemented per the plan(s) (usually referred to as first level documentation), for the number of sites required see 4.3.
- the compliance evaluation of the procedures and processes per the plan(s) technical appropriateness,
- the compliance evaluation of the Plan owners’ organisation resources are technically competent to use the implemented procedures and processes per the plan(s),
- the compliance evaluation of the implementation and use of the documented procedures and processes within the organization per the plan(s),
- the on-going compliance surveillance of the Plan owners plan(s) and the implementation, technical appropriateness, technical competency and use of the documented procedures and processes per the plan(s) and to the applicable industry standard(s)² above.
An IECQ ADHP Compliance Certification may include all relevant plan(s) and referenced industry standard(s) as applicable on the one Certificate of Conformity (Master Site Certificate). Alternatively, separate IECQ ADHP Certificates of Conformity may be issued per plan.

1.2.3 Type IECQ ADHP Implementation Certification

IECQ ADHP Implementation Assessment is intended for use as a means of 3rd party verification of claims of implementation of Plan(s), procedures and processes prepared in accordance with any or all of the referenced industry standard(s) within the ADHP industry sectors.

This certification type “Certificate of Implementation” is described in IECQ OD 3406 which covers:

- the evaluation that the Plan owner has clear unambiguous provision for the control and approval of their plan(s), including detailing revision and date.
- where said approval can be demonstrated to applicable industry standard(s), then standard IECQ audit checklists could be used, otherwise a specific custom checklist has to be created for each edition of a plan(s).
- the evaluation that the Plan owner has documented procedures and processes implemented per the plan(s) within their organization (usually referred to as first level documentation), for the number of sites required see 4.3.
- the evaluation of the implementation and use of the documented procedures and processes within the organization per the plan(s) by the IECQ CB.
- the on-going surveillance of the implementation and use of the documented procedures and processes per the plan(s) by the IECQ CB.

This certification type “Certificate of Implementation” does not cover:

- verification of the plan(s) compliance to any referenced industry standard(s)\(^2\) above
- verification of the procedures and processes per the plan(s) technical appropriateness,
- verification of the technical competency of the Plan owners’ organisation resources to use the implemented procedures and processes per the plan(s).

An IECQ ADHP Implementation Certification may include all relevant plan(s) on the one Certificate of Implementation (Master Site Certificate). Alternatively, relevant plan(s) may be issued separately.

This implementation audit is most appropriate for small companies new to the IECQ ADHP scheme which require support and guidance through direct customer interaction.

However, the implementation assessment does not provide global standardisation, as different customers may have different opinions when reviewing client’s Plan(s) resulting in differing results across many audits. This can result in lack of standardisation within the plan owner’s business, impacting ‘common stock’ procedures whereby components might require segregation and unique identification for each customer’s specific plan. Also, the IECQ independent Third-Party implementation assessment has increased costs (time and resources) for both Clients and Customers when more than one customer is involved.

IECQ recommends that the implementation assessment is upgraded to an IECQ conformity assessment when the plan owner requires implementation audits for more than two customers.

1.2.4 Type IECQ ADHP Subcontractor Assembly Certification

IECQ ADHP Subcontractor assembly assessment is intended for use as a means of 3rd party verification of claims of compliance of those agreed ADHP Plan requirements, which are flowed down to a subcontractor conducting assembly operations. IECQ OD 3407-1 describes the agreed flow down for ADHP Plan(s) using IEC TS 62239-1. IECQ OD 3407-1 contains the blank
template (Table 2), which the supplier and the plan owner complete and agree for the specific contract flow-down which becomes the supplier’s IEC TS 62239-1 ECMP for that particular purchase order. The IECQ CB uses the IECQ OD 3407-1 templates from Tables 3, 4, 5 and 6 to assess whether:

- The supplier complies with the minimum IECQ OD 3407-2 supplier requirements i.e. Table 3,
- Whether the plan owner has been providing the supplier with the agreed data per Table 2 using the template in Table 4
- Whether supplier has been providing the plan owner with the agreed data per Table 2 using the template in Table 5
- Whether the supplier has been fulfilling the agreed Table 2 flow-down requirements using the template in Table 6.

Note that an IECQ SAE EIASTD 4899 subcontractor assembly assessment process will be developed soon for use when the customer states their review of the plan owners plan is to SAE EIASTD 4899.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. The IECQ Management Committee shall decide the timetable for the introduction of revised editions of the documents. For undated references, the latest edition of the referenced document (including any amendments) applies.

The IECQ System management Basic Rules and Procedures prescribed in the following documentation shall be used for the IECQ ADHP assessments where applicable.

Nothing in these rules and procedures will be considered justification for conducting any or all of an ISO 9001 or AS/EN/JISQ 9100 requirement assessment on the entity being assessed as part of an IECQ ADHP Assessment.

IEC CA 01, IEC Conformity Assessment Systems – Basic Rules

IECQ 01-S, IECQ Supplement to Harmonized Basic Rules IEC CA 01

IECQ 02, General Requirements for the Acceptance of IECQ Certification Bodies into the IECQ System

IECQ 03-1, General Requirements for all IECQ Schemes

IECQ OD 010, Qualification Criteria for Assessors and Lead Assessors according to IECQ (third-party assessment) – General for all Schemes

IECQ OD 3401, Principles for the Development, Implementation, and Assessment of Aerospace, Defence, and High Performance (ADHP) Component Plans

IECQ OD 3402, Process for Building Check Lists for Assessment, Evidence of Compliance Summaries, and Assessment Reporting Forms for Aerospace, Defense, and High Performance (ADHP) Electronics Control Plans

IECQ OD 3402-1, ECMP Assessment – Evidence of Compliance Summary and Assessment Reporting Form
IECQ OD 3403, *Assessment Procedures for Acceptance of Candidate ADHP Plan Technical Experts (TE) in the IECQ ADHP Electronics Scheme*

IECQ OD 3404, *Witness Assessment Checklist for Assessment of ADHP Assessors and ADHP Technical Experts*

IECQ OD 3405, *Procedures for the Issuing of IECQ Certificates of Conformity for Aerospace, Defense, and High-Performance Electronics Control Plans*

IECQ OD 3406, *Procedures for the Issuing of IECQ Certificates of Implementation for Aerospace, Defense, and High-Performance Electronics Control Plans*

IECQ OD 3407-1, *Subcontractor assessment assembly*

ISO 9001, *Quality management systems – Requirements*

AS/EN/JISQ 9100, *Quality Management Systems – Requirements for Aviation, Space and Defence Organizations*

ISO/IEC 17000, *Conformity assessment – Vocabulary and general principles*

ISO/IEC 17021, *Conformity Assessment – Requirements for bodies providing audit and certification of management systems*

ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

### 3 Terms and definitions

The basic definitions concerning conformity assessment contained in ISO/IEC 17000 apply.

For the purpose of the IECQ ADHP Scheme the terms and definitions given in IEC CA 01, IECQ 01-S, IECQ 02, IECQ 03-1 and the following apply.

**Terms and definitions**

#### 3.1 IECQ ADHP Scheme

scheme of the IECQ, which enables the independent conformity assessment for compliance with the referenced industry standards

Note 1 to entry: ISO/IEC 17000 Clause 2.8 defines conformity assessment Scheme.

#### 3.2 ADHP electronics

electronic equipment, for use in aerospace, defense, and high-performance applications, containing discrete electronic components (e.g. capacitors, resistors, semiconductors, integrated circuits, printed circuit boards, etc.) and their assemblies including the final system, and including the design, test and manufacturing processes used to produce the system.

#### 3.3 ADHP Plan

a document prepared by an ADHP Plan owner, that documents the processes used to satisfy the requirements of any or all of the referenced industry standards. The ADHP Plan may be
taken to mean control Plans for any or all of the following: Parts Management, Lead-free Electronics, Counterfeit Parts, Obsolescence, and COTS Assemblies

Note 1 to entry: a plan typically has a hierarchy of lower processes and or procedures based on AS/EN/JISQ9100 or ISO9001 quality management procedures.

3.4 Common ADHP Plan
an ADHP plan that is common across multiple sites (locations) of an applicant organization

3.5 ADHP Plan Owner
an organization that manufactures electronic equipment and/or systems for the ADHP industries (also may be known as a OEM or an OEMs ADHP Subcontractor)

3.6 ADHP Conformity Assessment
an activity to determine if an ADHP Plan conforms to the requirements of the relevant referenced industry standard(s), and has been implemented effectively in the Plan Owner’s organization

3.7 ADHP Certificate of Conformity
a document issued by an IECQ CB that certifies that an ADHP Plan conforms to the requirements of the relevant referenced industry standard and has been implemented effectively in the Plan Owner’s organization

3.8 ADHP Implementation Assessment
an activity to determine if an ADHP Plan has been implemented effectively in the Plan Owner’s organization

3.9 ADHP Certificate of Implementation
a document issued by an IECQ CB that certifies that an ADHP Plan that has been agreed between Plan Owner and their Customer(s) and effectively implemented by the Plan Owner

3.10 ADHP subcontractor
person or entity to whom the holder of obligations under a contract has delegated part or all of such obligations

3.11 Multiple site certification
an IECQ ADHP Certification that covers multiple sites (locations) of a single organization where the same activity is performed at more than one site (location) under a common ADHP Plan. One Master Site IECQ ADHP Certificate (covering the primary site) along with additional Site Certificates for each of the other locations would be issued.

Refer Clause 4.3 for the requirements.

3.12 Subcontractor assembly facilities
location where the subcontractor conducts assembly processes and uses approved test equipment to the plan owners’ drawings and bills of material and test specifications without owning the intellectual property rights to the equipment

[SOURCE: IEC TS 62239-1:2015]
3.13 Technical Expert (TE) [Formerly known as Subject Matter Expert (SME)]
a person who provides specific knowledge of or expertise on the subject material of the relevant referenced industry standard, and whose qualifications are in accordance with ADHP Technical Experts Requirements, IECQ OD 3403 and IECQ OD 3404

Acronyms

ADHP       Aerospace, Defense, and High Performance
OEM        Original Equipment manufacturer
IECQ       International Electrotechnical Commission Quality
IEC        International Electrotechnical Commission
SAE        Society of Automotive Engineers
TE         Technical Expert

4 Principles of the IECQ ADHP Scheme

IECQ ADHP Certification

4.1 General

For the purpose of ADHP certification the requirements for Principles of IECQ Schemes contained in Sub-clause 5 of IECQ 03-1 do not apply and are replaced by the following:

The IECQ ADHP Scheme provides the means for ADHP Plan Owners to obtain an IECQ ADHP Certificate of Conformity or a Certificate of Implementation, hereinafter referred to as the "IECQ ADHP Certificate", that is intended to provide the international market with confidence that such Plan Owners have verified processes for managing the selection and use of electronic components and assemblies in ADHP equipment in accordance with the technical and quality management system requirements of the IECQ ADHP Scheme. This is ensured through independent assessment and on-going surveillance by an IECQ CB of a Plan Owner’s engineering and quality management systems and site assessments to confirm the development, documentation and implementation, by Plan Owner’s processes for managing the selection and use of electronic components and assemblies in ADHP equipment.

The referenced industry standards form the basis of the IECQ ADHP Scheme requirements.

A Plan Owner capable of demonstrating that it complies with the requirements shall be entitled to an IECQ ADHP Certificate in accordance with these IECQ ADHP Rules of Procedure and supporting IECQ Operational Documents.

The IECQ ADHP Certificate may be issued for a specific area of operation of a Plan Owner, as clearly defined in the scope of activity.

The IECQ ADHP Certificate shall only cover one legal entity:

- the issued IECQ ADHP Certificate (Master Site Certificate) shall clearly detail the one legal entity and one physical address of the primary site.
- separate “Additional Site” IECQ ADHP Certificates to a Master Site Certificate (to the one legal entity) shall cover additional trading names or site locations of a multi-site application. See Clause 6.1.3.
A Plan Owner's right to use the IECQ ADHP Certificates is not transferable.

An IECQ ADHP Certificate of Implementation when replaced with an IECQ ADHP Certificate of Conformity can state: ‘See IECQ Conformity assessment certificate XYZ’.

An IECQ ADHP Certificate may be issued to cover one or multiple ADHP Plan(s) for which a Plan Owner submits an application. A combined assessment programme shall be developed and agreed between the IECQ CB and the applicant in the case of a multiple ADHP Plan application, in accordance with the IECQ ADHP Scheme requirements.

An IECQ ADHP Certificate may be issued for more than one plan provided that all plan(s) have the same plan(s) scope of activity.

4.2 Single site (location) certification

A separate IECQ ADHP Certificate issued for each site (location) for which a Plan Owner submits a separate application and ADHP Plan(s).

An ADHP Plan and associated assessment is required for each location to be certified.

Multiple plan(s) may only be itemised provided they have been assessed at the same time.

Under the surveillance plan for maintenance of a single site certification the IECQ CBs issuing IECQ ADHP Certificates shall conduct on-site assessments of each location (site) on an annual basis.

4.3 Multiple site (location) certification

4.3.1 Eligibility for an IECQ ADHP multiple site (location) certification

- a single organization (one legal entity)
- have a common ADHP Plan(s) across all sites (locations)
- utilise the same Plan(s) processes and procedures across all sites (locations) included in the Plan(s)

Process and procedure commonality shall be verifiable by the IECQ CB

4.3.2 General

A multiple site (location) IECQ ADHP Certification issued to cover all nominated sites (locations) for which a Plan Owner submits an application and common ADHP Plan(s) for multiple sites (locations).

An issued IECQ ADHP Certification would consist of One Master Site IECQ ADHP Certificate (covering the primary site) along with associated Additional Site Certificates for each of the other nominated sites (locations).

Multiple plan(s) may only be itemised provided they have been assessed at the same time.

An assessment is required for each certified site (location) for which an IECQ ADHP Certificate is issued.

An initial on-site assessment shall be conducted at each site (location) to verify compliance with the common ADHP Plan(s) and the applicable ADHP Scheme requirements.
4.3.3 Adding Sites

An existing single site (location) IECQ ADHP Certification may be used to satisfy an initial assessment for a site (location) to be added to a multiple site (location) certification where:

- for an IECQ ADHP Conformity Certification the IECQ CB can confirm the site utilized the Plan Owner’s common ADHP Plan to comply with relevant referenced industry standard(s) requirements in the previous site’s assessment.
- for an IECQ ADHP Implementation Certification the IECQ CB can confirm the site utilized the Plan Owner’s common ADHP Plan(s) to comply with the IECQ ADHP Scheme Certificate of Implementation requirements in the previous site’s assessment.

Where a new site (location) is to be added to an existing multiple site (location) certification and this site is not covered by appropriate existing IECQ ADHP single site IECQ ADHP Certification an on-site initial assessment shall be conducted.

4.3.4 Multiple site audit programme

A multiple site audit programme shall be developed and agreed between the IECQ CB and the applicant Plan Owner based on the requirements defined in this clause. IECQ WG04 and IECQ Management Committee shall be consulted to approve any and all agreements outside the requirements specified in this clause.

Where the Plan Owner’s engineering activities for ADHP Scheme program(s) are located at a central site (location) and one or more remote sites perform only specific tasks as part of the overall ADHP program(s), and where it can be demonstrated that the specific tasks are controlled by the central site (location), in such an instance remote site(s) (location) need only be subject to surveillance assessments at intervals up to 5 years.

4.3.5 Ensuring Conformity

When one site (location) of a multiple site (location) certification no longer complies with the IECQ ADHP Scheme requirements, the IECQ ADHP Certification covering all sites (locations) is subject to suspension or cancellation.

As part of the three-year certification cycle for a multiple site (location) IECQ ADHP Compliance Certification the IECQ CB shall conduct an on-site audit of all relevant referenced industry standard(s) requirements once in the three-year period.

4.3.6 Provisions for multiple site (location) certification Surveillance

- When all sites (locations) of a multiple site (location) IECQ ADHP Certification have successfully passed their on-site initial assessment, it is acceptable to conduct the annual surveillance of the Plan Owner’s sites (locations) at one or more on-site location(s) with coverage of the other sites via electronic communication for example via conference calls, e-mails, teleconferencing, video conferencing.
- The IECQ CB shall be responsible for the random selection of one or more on-site sites (locations) at which to perform annual surveillance. Site (location) selection shall be based on past performance and shall ensure that all sites (locations) are assessed on-site and equally during the three-year certification cycle of an IECQ ADHP Certification.
- Sites (locations) that have had no non-compliances in previous assessments, the scope of the surveillance assessments may be reduced, provided the IECQ CB has verified compliance of common process execution at all sites (locations) and that all applicable ADHP Scheme requirements are assessed annually and are common and are not customised differently at different sites. Over the course of a three-year certification cycle all applicable ADHP Scheme requirements shall be assessed by the IECQ CB at each site (location) providing the plan(s) is/are not customised.
5 Plan Owner

The Plan Owner shall have the responsibilities, specified in Sub-clause 7.2.3 of IECQ 03-1 and the following:

a) the Plan Owner shall at all times comply with the requirements of the IECQ ADHP Scheme;

b) when a Plan Owner utilizes a subcontractor in accordance with Sub-clause 7.5 to procure and supply the components in accordance with the requirements of the relevant referenced industry standard(s), the following special considerations shall apply:
   1) the subcontractor cannot assume responsibility for all Clauses in the relevant referenced industry standard(s) because some of the requirements can be validated only at the system level;
   2) a clear delineation of responsibilities between the Plan Owner and the subcontractor shall be in place and available for the IECQ ADHP Assessment;
   3) if the tasks of the subcontractor include component testing, applicable aspects of ISO/IEC 17025 shall be validated during the IECQ ADHP Assessment;
   4) if the tasks of the subcontractor include component testing, there shall be a specific component test plan and test requirements available for each component. During the initial and all surveillance assessments the IECQ TE shall validate, revalidate that the test plan and requirements are adequate and appropriate for the specified end use in the ADHP equipment.
   5) Optionally the Plan Owner may use the IECQ OD 3407-1 Subcontractor assessment Assembly scheme to IEC TS 62239-1 to manage the assembly subcontractor activity to the relevant Plan requirements.

c) The Plan Owner or associated subcontractor(s) shall have a requirement to document and maintain a quality management system in accordance with the requirements of AS/EN/JISQ 9100 and/or ISO 9001 or equivalent standard(s). Evidence of these registrations of that documented quality management system shall be supplied to the IECQ CB during the initial certification and on-going surveillance assessments together with the last assessment report see 7.2; Wherever possible the IECQ CB shall avoid duplication of auditing common areas which are adequately covered by AS/EN/JISQ 9100 and/or ISO 9001 or equivalent standard(s) see 7.1.

d) the Plan Owner shall not significantly vary the QMS or ADHP Plan or its related processes under which any IECQ ADHP Certification is issued during the period of the certification unless
   i) for Conformity assessments and IECQ OD3407-1 assessments: The Plan owner has given the IECQ CB notice in writing of its intentions to do so, and has received confirmation in writing from the IECQ CB that such variations do not render the Certification invalid.
   ii) for Implementation assessments: The Plan owner has given the customer notice in writing of its intentions to do so as well as the IECQ CB, and has received confirmation in writing from the customer and IECQ CB that such variations do not render the Certificate invalid.

   It is expected that changes may be made as a result of continuous improvement practices or revisions to external standards. However, when such changes result in significant changes to the QMS or ADHP Plan and its related processes, the IECQ CB shall be notified;

e) the Plan Owner or associated subcontractor(s) shall give representatives of the IECQ CB access, during normal working hours, to the premises and/or sites in which work being performed within the scope of their certification is being carried out, for the purpose of examining systems, processes, methods of test, and records. These access rights shall include, where necessary, any agreed visits needed to verify that the procedures for the termination of certification described below have been carried out. The Plan Owner shall facilitate any arrangement allowing the IECQ CB to conduct assessment of subcontractors involved in the design, manufacturing, testing of the product.
6 IECQ ADHP Certification

Clause 8 of IECQ 03-1 applies except as follows:

6.1 IECQ ADHP Certificate for a Plan Owner (Client)

6.1.1 General

There shall only be one legal entity per certification.

Where the legal entity of the main certificate (Master Site Certificate) desires to cover additional trading names on their IECQ ADHP Certification, this may be achieved by issuing “Additional Site” Certificates for each additional trading name, clearly detailing the physical address of the primary site (location).

6.1.2 Issue

An IECQ CB, on the basis of a satisfactory IECQ ADHP worksheet, ADHP Plan Assessment, Evidence of Compliance Summary and Assessment Reporting Form (IECQ OD 3402-X or specific Implementation audit checklist or IECQ OD3407-1) issues an IECQ ADHP Certificate certifying that the organization has developed and implemented ADHP procedures and processes which conform with the applicable requirements for IECQ ADHP Plan Owner certification which is in accordance with the IECQ System management Basic Rules, these Rules of Procedure and with respect to relevant referenced industry standard(s).

6.1.3 Content

The IECQ ADHP Certificate shall have the listed content as detailed in Subclause 8.1.4 of IECQ 03-1 and the following as a minimum:

IECQ ADHP Certificate of Conformity

- Clear unambiguous detailed reference to the relevant international accepted standard or specification against which the organization has demonstrated compliance
- Clear unambiguous detailed description of the Scope of Activity(ies), (process and/or technical service including related technologies)
- Clear unambiguous detailed reference to each ADHP Plan(s) covered by the Certification

IECQ ADHP Certificate of Implementation

- Clear unambiguous detailed description of the Scope of Activity(ies), (process and/or technical service including related technologies)
- Clear unambiguous detailed reference to each ADHP Plan(s) covered by the Certification against which the organization has demonstrated compliance, including Revision & Date of Revision shall be included in the “Scope of Activities” field

Note: Multiple plan(s) may only be itemised provided they are assessed at the same time.

6.1.4 Multiple site (location) IECQ ADHP Certification Certificates

IECQ ADHP Certificates for a multiple site (location) certification shall identify each site (location) that has been evaluated for inclusion on the certification.

- A main certificate (Master Site Certificate) shall be issued listing the primary site (location) in the “Organization, Address and Country” fields provided.
- Each additional site (location) to the primary site (location) shall have a separate “Additional Site” Certificate issued clearly detailing the physical address of the site (location).
- Where an associated IECQ ADHP Schedule of Scope is utilised, this shall be controlled and attached in un-secured PDF format, to the definitive On-Line version of all certificates.
Where a printed hard copy of a multiple site (location) IECQ ADHP Certifications’ Certificates is desired, this shall consist of the Master Site Certificate page, the “Additional Site” Certificate page and along with any attached IECQ ADHP Schedule of Scope’s.

6.2 IECQ ADHP Assessment, Evidence of Compliance Summary and Assessment Reporting Form

6.2.1 Content

An IECQ ADHP Plan Assessment, Evidence of Compliance Summary and Assessment Reporting Forms (IECQ OD 3402-X or specific Implementation audit checklist or IECQ OD 3407-1) shall be prepared and issued by an IECQ CB recording the assessment of an applicant organization’s implemented management system and procedures for compliance with the IECQ ADHP Scheme requirements. The assessment includes assessing conformity of the Plan Owner’s documented management system with the requirements of the IECQ ADHP Scheme to the extent that they are required by the relevant referenced industry standard(s) in addition to assessing the implementation of the technical processes used.

6.2.2 Assessment report format (layout).

The Secretariat in consultation with the IECQ CABC, Technical Experts and the approval of the IECQ MC shall prepare a document detailing technical requirements for the Scheme and the layout and content of ADHP Plan Assessment, Evidence of Compliance Summary and Assessment Reporting Forms (IECQ OD 3402-X or specific Implementation audit checklist or IECQ OD 3407-1).

6.2.3 Restrictions

The IECQ ADHP Plan Assessment, Evidence of Compliance Summary and Assessment Reporting Form is a document used in the preparation of IECQ organization’s Certificate and basis for ongoing surveillance of the organization, they shall not be used in any form of advertising or sales promotion in a way that the information may be misrepresented.

NOTE The IECQ ADHP Plan Assessment, Evidence of Compliance Summary and Assessment Reporting Form (IECQ OD 3402-X or specific Implementation audit checklist or IECQ OD 3407-1) is available from the publications/standard forms area of the IECQ website http://www.iecq.org

7 IECQ ADHP Certification Procedure

For the purpose of IECQ ADHP Certification the requirements for IECQ Certification procedure contained in Clause 9 of IECQ 03-1 applies except where alternate provisions are defined in this Clause below

7.1 General

IECQ ADHP assessments for compliance with the relevant referenced industry standard(s) involve a technical and detailed focus beyond that normally required for an AS/EN/JISQ 9100 and/or ISO 9001 QMS, EMS and/or ISO/IEC 17025 audit and hence initial and surveillance IECQ ADHP assessments shall not be substituted by being included as an integral assessment of an AS/EN/JISQ 9100, ISO 9001 and/or ISO 14001 and/or ISO/IEC 17025 audit. The scope of the ADHP audit does not include those requirements already covered by AS/EN/JISQ 9100 and/or ISO 9001 QMS, EMS and/or ISO/IEC 17025. For this reason, the IECQ CB shall limit non-conformance reporting to those areas where a non-conformance is directly related to a requirement of a relevant referenced industry standard.

7.2 Applicant

For the purpose of IECQ ADHP the requirements for Applicants contained in Sub-clause 9.2 of IECQ 03-1 applies except for
"The organization shall have developed and implemented an AS/EN/JISQ 9100 and/or ISO 9001 quality management system (QMS) or equivalent QMS."

Plan Owners shall submit the most recent 3rd party QMS Certification report covering a complete cycle of assessments (all elements of the standard assessed) to the CB for review with a copy of the registration Certificate detailing the scope of registration if requested. The IECQ CB shall determine what, if any, elements of the standard need to be assessed for the IECQ ADHP Certification. QMS registrations awarded by unaccredited bodies shall not be taken into account for the purposes of IECQ Certification.

Plan Owners not registered to AS/EN/JISQ 9100 and/or ISO 9001 or equivalent QMS requirements shall be required to demonstrate compliance with the requirements of the applicable standard prior to an IECQ ADHP initial assessment and all on-going surveillance / recertification assessments.

7.3 Application

The Plan Owner shall submit or make available the following documentation (non-exhaustive) for review by the assessment team in addition to that specified in Sub-clause 9.3 of IECQ 03-1:

7.3.1 Conformity and implementation assessments:

a) master ADHP Plan(s) with applicable flow down requirements included;

b) for the implementation audit, evidence that the customer has approved the ADHP plan and preferably evidence that the customer has approved it to a relevant industry standard (thereby facilitating the use of IECQ standard audit checklists). Note that the IECQ CB has to create custom audit checklists when the customer does not approve the ADHP plan to the relevant industry standard.

c) evidence of compliance with the requirements of the relevant referenced industry standard(s) or Plan owner’s ADHP plan, as requested by the assessment team using the relevant ADHP plan audit checklist;

7.3.2 Subcontractor assembly assessment

a) The supplier shall make available the IECQ OD3407-1 completed Table 2 templates for the purchase orders which the Plan owner and supplier agreed and completed for each specific contract flow-down. In addition, the supplier shall complete the following OD3407-1 templates in Tables 3, 4, 5 and 6 for review by the IECQ CB for each purchase order:

   • IECQ OD3407-1 Table 3 detailing the supplier minimum OD3407-2 requirements
   • IECQ OD3407-1 Table 4 detailing the data the Plan Owner has been providing to the supplier
   • IECQ OD3407-1 Table 5 detailing the data the supplier has been providing the Plan owner
   • IECQ OD3407-1 Table 6 detailing what the supplier has done to show compliance to the agreed IECQ OD3407-1 Table 2.

7.4 Assessment team for IECQ ADHP Assessments

The assessment team for IECQ ADHP Assessments shall be comprised* as follows:
### Table 2 – Assessment team members Function Qualifications

<table>
<thead>
<tr>
<th>Assessment team members</th>
<th>Function</th>
<th>Qualifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>IECQ CB assessors</td>
<td>Assessment of general IECQ AVIONICS elements; and management of audit process</td>
<td>IECQ Lead Assessor – Quality Systems and Electronic Components and Systems. Qualified to IECQ OD 010 and IECQ OD 3404</td>
</tr>
<tr>
<td>Avionics technical expert</td>
<td>Subject matter expert</td>
<td>In accordance with IECQ TE Requirements (IECQ OD 3403 and IECQ OD 3404)</td>
</tr>
</tbody>
</table>

*A qualified TE shall participate in all assessments for the issuing and maintaining an IECQ ADHP Certificate of Conformity, an Implementation and OD3407-1 Supplier assessment.*

The number of assessors and assessment days is dependent on the size of the enterprise and the complexity of the assessment. See Sub-clause 7.6 Assessment of IECQ ADHP Organization’s Site(s).

An IECQ ADHP qualified IECQ CB Lead Assessor shall lead the assessment with responsibility for assuring all elements of the assessment plan are covered including the IECQ requirements and applicable ADHP processes.

#### 7.5 Suppliers and subcontractors

Where a Plan Owner’s ADHP programme includes performing an ADHP assessment of applicable subcontractors, the IECQ ADHP Plan Owner shall utilize suppliers and subcontractors as follows:

##### 7.5.1 With independent IECQ ADHP Certification

Where the Plan Owner’s ADHP Plan assumes or states that their suppliers/subcontractors will hold IECQ ADHP Certification (either OD3405 conformity or OD3406 implementation assessment) the most recent IECQ ADHP audit of their suppliers/subcontractors shall be successfully completed prior to the Plan Owner’s IECQ ADHP Certification being granted or continued.

##### 7.5.2 Without independent IECQ ADHP Certification

Where the Plan Owner’s ADHP Plan includes conducting an ADHP assessment of applicable suppliers/subcontractors, the following applies:

##### 7.5.2.1 Has design authority

Where the supplier/subcontractor has any responsibility for design and design authority, the OEMs internal auditor shall function as a fully qualified TE in accordance with the requirements of the IECQ ADHP Scheme Rules of Procedure and documentation (IECQ 03-4, IECQ OD 3403 and IECQ OD 3404 etc.).

*NOTE e.g. where the subcontractor designs layouts or circuit of the printed wiring board or complete subassemblies.*

##### 7.5.2.2 Has no design authority

Where the supplier/subcontractor has no design authority, the Plan Owner shall have a fully documented process in place for suppliers/subcontractors control:
a) The Plan Owner shall identify and clearly document the specific paragraphs of the relevant referenced industry standard(s) that have been subcontracted as part of their ADHP Plan.

b) The Plan Owner shall identify and fully document which specific requirements/competence levels from IECQ OD 3403 “requirements of a TE” that are applicable to their audit teams to ensure a) can be successfully audited.

c) The Plan Owner audit team(s) shall contain at least:

- A Plan Owner’s internal auditor functioning as a fully qualified TE in accordance with the requirements of the IECQ ADHP Schemes Rules of Procedure and documentation (IECQ 03-4, IECQ OD 3403 and IECQ OD 3404 etc.), or

- A Plan Owner’s internal auditor and a Plan Owner’s Technical Expert’s competency in the relevant referenced industry standard(s) and the IECQ ADHP Schemes Rules of Procedure and documentation [IECQ 03-4, IECQ OD 3403 etc.] shall be demonstrable, or

- A Plan Owner’s internal auditor with demonstrated competency in the TE responsibilities identified in b) as documented in the IECQ TE Application Form (MC_266_Q-IECQ_TE&_LA_Application_or_Update_data) and approved by an accepted IECQ TE appointed by the IECQ Secretariat to the scope identified in b).

- Optionally an IECQ OD 3407-1, IEC TS 62239-1 Subcontractor assembly assessment certificate is sufficient.

NOTE 1: The IECQ TE Application Form (MC_266_Q IECQ_TE&_LA_ApplicationorUpdate_data) is available from the publications/standard forms area of the IECQ website http://www.iecq.org.

Note 2: An IECQ SAE EIASTD 4899 subcontractor assembly assessment process will be developed soon for use when the customer states their review of the plan owners plan is to SAE EIASTD 4899

7.5.3 Initial evaluation and surveillance

Initial evaluation and on-going surveillance of suppliers and subcontractors shall be a documented process and records maintained.

NOTE See ADHP AS/EN/JISQ 9100 (Purchasing) for guidance.

7.6 Assessment of IECQ ADHP Organization’s (Client) Site(s)

Sub-clause 9.6 of IECQ 03-1 applies and the following.

An IECQ recognized CB Assessor shall lead the assessment with the responsibility of assuring all elements of the assessment plan are covered including applicable ADHP processes. The TE is responsible for validating ADHP procedures and all technical issues related to compliance with the relevant referenced industry standard(s). An IECQ CB recognized and suitably qualified TE may also lead the assessment.

While conducting the assessment, the TE’s charter is to conduct the detail assessment of the process and the auditor is to support the TE at his direction/discretion and generate the evidence record and ancillary supporting documentation.

The assessment shall be conducted in accordance with the Principles for the implementation of an ADHP Plan. See IECQ OD 3401 for reference. The procedures and policies as defined in the following IECQ documents, for conducting the assessment, subject to the limitations of this document and the referenced industry standard(s):

a) IEC CA 01, IEC Conformity Assessment Systems – Basic Rules
b) IECQ 01-S, IECQ Supplement to Harmonized Basic Rules IEC CA 01
c) IECQ 02, General Requirements for the Acceptance of IECQ Certification Bodies into the IECQ System
d) IECQ 03-1, General Requirements for all IECQ Schemes
During an IECQ ADHP conformity Assessment, it is permissible for the Assessment Team to review areas of potential non-compliance or alternate technical approaches implemented in accordance with the relevant referenced industry standard(s) to demonstrate compliance with the ADHP Plan. This is not possible for IECQ ADHP Implementation audit as the customer has to provide the necessary technical approval first for changes to the plan owners ADHP plans.

For a Plan Owner with multiple site IECQ ADHP Certification, the Assessment Team can review and approve assessment results involving the applicable sites included in the certification during a ‘live’ electronic communication.

A copy of the IECQ ADHP checklist in accordance with (IECQ OD 3402-X or specific Implementation audit checklist or OD3407-1 checklists), audit program, evidence of Compliance Summary and Assessment Reporting Form (or the CB’s IECQ approved equivalent document) shall be used to record the findings of the assessment in the right columns titled “ADHP Assessment Compliance Record”. At the completion of the assessment a copy of this checklist shall be supplied to the organization, being assessed, as part of the assessment report.

7.7 Completion (Granting of Certification)
Sub-clause 9.7 of IECQ 03-1 applies

7.8 Surveillance

7.8.1 General

For the purpose of IECQ ADHP the requirements for surveillance contained in Sub-clauses 4.4 and 4.5 of this document and in sub-clause 9.8.1 of IECQ 03-1 apply except for:

“Such frequency shall take into account whether the organization holds current ISO 9001 certification/registration by a competent body.”

7.8.2 Special surveillance
Sub-clause 9.8.2 of IECQ 03-1 applies.

7.9 Changes
Sub-clause 9.9 of IECQ 03-1 applies with the addition of the following requirement.

Changes to an ECMP shall be submitted to the IECQ CB with confirmation of acceptance from the ultimate customer.

7.10 Ensuring conformity
Sub-clause 9.10 of IECQ 03-1 applies.

7.11 Documentation retained
Sub-clause 9.11 of IECQ 03-1 applies.

7.12 Renewal of the Certificate of Conformity (Recertification)
Sub-clause 9.12 of IECQ 03-1 applies.

7.13 Suspension or Cancellation (withdrawal)
Sub-clause 9.13 of IECQ 03-1 applies.
7.14 Reinstatement of IECQ Certificates
Sub-clause 9.14 of IECQ 03-1 applies.

7.15 Notification of cancellation
Sub-clause 9.15 of IECQ 03-1 applies.

7.16 Compliance with rules
Sub-clause 9.16 of IECQ 03-1 applies.

7.17 Appeals
Sub-clause 9.17 of IECQ 03-1 applies.

7.18 Transfer of Certificates
Sub-clause 9.18 of IECQ 03-1 applies.

8 Acceptance of IECQ Certification Bodies (IECQ CB)

8.1 General
New IECQ CBs or existing IECQ CBs seeking to participate in the IECQ ADHP Scheme shall comply with the general requirements of IECQ 02 along with the following additional requirements.

8.2 Specific requirements for IECQ ADHP
IECQ CBs shall be assessed for their competence to comply with these Rules, which shall be demonstrated by an IECQ Assessment. The general competence, efficiency, experience, familiarity with the referenced industry standards, IECQ ADHP, IECQ System rules, IECQ ADHP Scheme requirements and competence to carry out quality management system assessments as well as compliance with ISO/IEC 17021 shall be assessed.

Acceptance in another IECQ Scheme or accreditation by a recognized national accreditation body shall be taken into account. In those cases, the IECQ MC shall decide upon the extent of the assessment that is necessary. A satisfactory assessment as documented in an IECQ Assessor Report (IECQ OD 013) shall be approved by the IECQ CABC and accepted by the IECQ Management Committee (IECQ MC).

Where an IECQ CB assessment involves witness assessment document IECQ OD 3404 shall be used.
Annex A
(informative/normative)

Supply chain scenarios and IECQ assessments

Figure A.1 – Traditional supply chain
<table>
<thead>
<tr>
<th>Supplier</th>
<th>IECQ Assessment type required</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B, E</strong></td>
<td>IEC TS62239-1 conformity assessment or SAE EIA4899 Implementation assessment</td>
<td>Supplier E may not normally be part of the Avionics supply chain and the OEM B may need to manage OEM E, through second party audits.</td>
</tr>
<tr>
<td><strong>C, D</strong></td>
<td>OD3407-1 subcontractor assembly assessment for assembly subcontract activity (e.g. 'build to print'). If design activity also occurs, then the subcontractor becomes an OEM requiring IEC TS62239-1 conformity assessment or SAE EIA4899 Implementation assessment</td>
<td>The subcontractor may start out initially as a PCB assembly operation and then add design activities to their scope of work</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>None expected, although IEC TS62239-1 conformity assessment or SAE EIA4899 Implementation assessment would be appropriate</td>
<td>The OEM for example B, C or E integrating this COTS assembly into their products needs to conduct a 'gap assessment' to either IEC TS 62239-1 or SAE EIA933 to ensure all risks are managed.</td>
</tr>
</tbody>
</table>
Annex B
(informative/normative)

IECQ audit checklists

Figure B.1 – IECQ 03-4 scheme and audit checklists
### Table B.1 – Audit checklists

<table>
<thead>
<tr>
<th>IECQ 03-4 checklist reference number</th>
<th>Relevant industry standard</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>IECQ OD 3402-1</td>
<td>IEC TS 62239-1: 2015 Ed. 2.</td>
<td>Conformity assessment</td>
</tr>
<tr>
<td>IECQ OD 3402-2</td>
<td>SAE EIA-STD-4899 rev C</td>
<td>Implementation audit if not customized</td>
</tr>
<tr>
<td>IECQ OD 3402-3</td>
<td>Cross reference for IEC TS 62239-1: 2015 Ed. 2 and SAE EIA-STD-4899 rev C combined audits</td>
<td>For use when conducting combined audits</td>
</tr>
<tr>
<td>IECQ OD 3402-4</td>
<td>GEIA-STD-0005-1</td>
<td>Implementation audit if not customised</td>
</tr>
<tr>
<td>IECQ OD 3402-5</td>
<td>IEC TS 62647-1</td>
<td>Implementation audit if not customised</td>
</tr>
<tr>
<td>IECQ OD 3402-6</td>
<td>SAE-STD-016</td>
<td>Implementation audit if not customised</td>
</tr>
<tr>
<td>IECQ OD 3402-7</td>
<td>IEC 62402</td>
<td>Implementation audit if not customised</td>
</tr>
<tr>
<td>IECQ OD 3402-8</td>
<td>SAE EIA 933</td>
<td>Implementation audit if not customised</td>
</tr>
<tr>
<td>IECQ OD 3402-9</td>
<td>IEC TS 62239-2 Ed1</td>
<td></td>
</tr>
<tr>
<td>IECQ OD 3706-1</td>
<td>SAE AS5553 rev B (can use SAE AS6462B)</td>
<td>Conformity assessment or implementation audit (if not customized)</td>
</tr>
<tr>
<td>IECQ OD 706-3</td>
<td>IEC TS 62668-1</td>
<td>Conformity assessment or implementation audit (if not customized)</td>
</tr>
</tbody>
</table>
Bibliography

IEC TS 62668-1, Process management for avionics - Counterfeit prevention - Part 1: Avoiding the use of counterfeit, fraudulent and recycled electronic components

IEC TR 62240-1, Process management for ADHP – Electronic components capability in operation – Part 1: Temperature uprating


SAE EIA-STD-4899, Requirements for and Electronic Components Management Plan.


SAE AS5553, Fraudulent/Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition.


ANSI.TechAmerica (now SAE) STD-0016, Standard for Preparing a DMSMS Management Plan. 3

SAE EIA-933, Requirements for a COTS Assembly Management Plan.


IEC 62402, Obsolescence Management – Application guide

3 IECQ CBs and clients should be aware that this standard contains references to GIDEP, which may not be available to clients outside the USA. In such instances, the alternative methods listed in SAE STD-0016 can be considered acceptable, if properly implemented.