

# IECQ PUBLICATION

**IEC Quality Assessment System for Electronic Components (IECQ System)**

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**Rules of Procedure –  
Part 2: IECQ Approved Process Scheme**



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IEC Central Office  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland

Tel.: +41 22 919 02 11  
Fax: +41 22 919 03 00  
[info@iec.ch](mailto:info@iec.ch)  
[www.iec.ch](http://www.iec.ch)

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INTERNATIONAL  
ELECTROTECHNICAL  
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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**Rules of Procedure –  
Part 2: IECQ Approved Process Scheme**

## FOREWORD

This publication has been prepared by the Management Committee (MC) of the IECQ.

This publication is directly related to Publication IECQ 01 containing the Basic Rules of the IECQ System.

This second edition of IECQ 03-2 replaces the first edition IECQ 03-2. Main changes to the second edition include:

- Inclusion of requirements for organizations operating from more than one location (site),
- Inclusion of requirements for organisations utilizing one management system on multi-sites,
- Clarification on the term and use of Quality Plan Summary (Process Manual).

This editorial update 2.1 edition of IECQ 03-2 provides clarification for correct implementation and criteria of Distributors.

The text of this publication is based on the following documents:

Document	Report on MC Consultation
IECQ MC/232/CA	MC/255A/R

Full information on the approval by the MC 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 Schemes provide 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.

IECQ Approved Process Certification may be applied to any process, which may affect conformity or compliance of electronic components, related assemblies or services. For example this may cover, but not limited to; product engineering, printed wiring board manufacture, electronic component manufacturing, printed circuit board assembly, Electro Static Discharge (ESD) controls or even supply chain management.

Additional the electronic components industry relies on, as a part of its manufacturing infrastructure, a supporting industry of organizations providing a wide range of specialized services, processing, and manufacture of piece parts and material.

The IECQ Approved Process Scheme permits such organizations to certify their specialized services or processes under the IECQ Approved Process Scheme. Manufacturers of finished electronic components shall seek certification to the IECQ Approved Component Scheme (IECQ 03-3) if they wish to qualify finished electronic components. However, such manufacturers may also seek certification for specific services or processes or for the manufacture of piece parts and material in accordance with the IECQ Approved Process Scheme. This approach recognizes the diverse infrastructure of the electronic components industry and makes it possible for a total electronic component manufacturing capability to be assessed as a totality taking account of the separate operations of several companies, each of which contributes piece parts, materials, processing or technical services to the final product.

Examples of supporting industry organizations are design bureaux, packagers, electroplaters, PCB mass laminators.

## Rules of Procedure – Part 2: IECQ Approved Process Scheme

### 1 Scope

This publication contains the Rules of Procedure of the Scheme of the IECQ, hereinafter referred to as the "Rules", for the Approved Process Scheme. (IECQ Approved Process Scheme).

This IECQ Approved Process Scheme Rules of Procedure provides the requirements specific to this scheme and is to be used in conjunction with applicable IECQ System management Basic Rules (IECQ 01), General Rules of Procedures (IECQ 03-1) and Operating Documents.

### 2 Normative references

The following publications contain provisions, which, through reference in this text, constitute provisions of these Rules. At the time of publication, the editions indicated were valid. The IECQ Management Committee shall decide the timetable for the introduction of revised editions of the publications.

IECQ 01, *IEC Quality Assessment System for Electronic Components (IECQ System) – Basic Rules*

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

IECQ 03-1, *General Requirements for all IECQ Schemes*

ISO 9001, *Quality management systems – Requirements*

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*

ISO/IEC Guide 65, *General requirements for bodies operating product certification systems*

In the event of conflict between the provisions of this document and any other directly or indirectly referenced provisions, the provisions of this document shall take precedence.

### 3 Terms and Definitions

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

For the purpose of the IECQ Approved Process Scheme, the definitions contained in IECQ 01, IECQ 03-1 and the following apply:

### 3.1

#### **IECQ Approved Process Scheme**

Scheme of the IECQ enables the independent conformity assessment of an organization for compliance with a defined specification within a given scope

### 3.2

#### **IECQ Approved Process Certificate**

a Certificate issued under the IEC Quality Assessment System for Electronic Components (IECQ) recognizing that an organization has the resources and facilities necessary to assure that the specified process(es) comply with the stated specifications as listed on the Certificate

### 3.3

#### **Quality Plan Summary (Process Manual)**

a document describing the processes and process control methods specific to the Component Products, Related Materials and Assemblies within the scope of IECQ certification. This may also be known as a Process Plan or Process Manual

## **4 Governing of the IECQ Scheme**

This document, IECQ 03-2, sets out the general rules and procedures of the IECQ Approved Process Scheme. These general rules are supplemented by the Scheme's Operational Documents (ODs). These Operational Documents are available to all IECQ Member Bodies, IECQ CBs, and Applicants who have applied for an IECQ Approved Process Certificate.

## **5 Principles of the IECQ Approved Process Scheme**

Subclause 5 of IECQ 03-1 applies except as follows:

**5.1** The IECQ Approved Process Scheme provides the means for organizations including manufacturers, distributors and specialist contractor to obtain an IECQ Approved Process Certificate that is intended to provide the international market with confidence that a process listed on the IECQ Approved Process Certificate comply with the technical specification(s) listed on the same Certificate by way of such organizations having implemented processes in accordance with the technical and quality system requirements of the IECQ Approved Process Scheme. This is ensured through independent conformity assessment and ongoing surveillance by an IECQ Certification Body (IECQ CB) of an organization's business and quality management systems and site assessments for compliance with the establishment and implementation of system procedures within the organization's business and quality management systems.

**5.2** The IECQ Approved Process Scheme bases its requirements for the conformity of the organization of a manufacturer, distributor or specialist contractor (supplier) on those of the ISO 9001, with additional requirements specific to the Electronic Component Industry. This document needs to be read in conjunction with ISO 9001.

**5.3** Under the surveillance plan for maintenance of certification, IECQ CBs issuing IECQ Approved Process Certificates shall conduct site assessments on a programme agreed between the IECQ CB and the Organization.

### **5.4 IECQ AP Distributors**

Where an IECQ AP Distributor is an integral part of the IECQ Approved Component (IECQ AC) supply chain and directly supporting IECQ AC manufactures in the controlled distribution of IECQ AC released product.

- An IECQ Distributor shall comply with the requirements of this publication in particular the detailed duties of the DMR in IECQ 03-1 Table 2.



- The IECQ AP Distributor Certification where used in direct support of IECQ AC Scheme shall be issued based on direct fulfilment of the Distributor related requirements of IECQ 03-1, IECQ 03-2 and the Attestation of conformity provision IECQ 03-3 Annex B. The requirements of Clause 8.2.2, “Requirements for the content of a Quality Plan Summary (Process Manual)” shall not apply.

Alternatively an IECQ AP Distributor may be an integral part of a supply chain of other IECQ scheme(s) other than IECQ AC Scheme.

- An IECQ Distributor shall comply with the full requirements of this publication including the detailed duties of the DMR in IECQ 03-1 Table 2 and an applicable standard or specification in accordance with these rules of procedure.

## 6 Organizational structure

### The Organization (Client/Applicant/Certificate Holder)

An Organization shall have the responsibilities, specified in Subclause 7.2.3 of IECQ 03-1 and the following:

- a) shall maintain and document a QMS (Quality Management System) in accordance with the requirements of IECQ Approved Process Scheme Rules of Procedure and supporting IECQ Operations Documents and make available copies of that documented QMS should the IECQ CB require it for certification purposes;
- b) shall not significantly vary the QMS and its related processes under which any IECQ Approved Process Certificate is issued during the period of the certification unless it 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 Certificate invalid. It is expected that changes may be made as a result of continuous improvement practices. However, when such changes result in significant changes to the QMS and its related processes, the IECQ CB shall be notified;
- c) the organization shall facilitate the necessary arrangement enabling the IECQ CB to conduct assessment at subcontractors involved in the design, manufacturing, testing of the product.

## 7 IECQ Approved Process Certification

### 7.1 IECQ Approved Process Certificate for an Organization

IECQ 03-1 applies except as follows:

#### 7.1.1 IECQ Approved Process Certificate Contents

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

- Clear unambiguous detailed description of the Scope of Activity(ies), (process and/or technical service including related technologies)
- For additional or specific criteria, if required to be publicly listed, shall be attached as an “Attached Schedule” to the IECQ Approved Process Certificate utilizing the IECQ Templates
- Clear unambiguous detailed reference to the relevant international accepted standard or specification against which the organization has demonstrated compliance, including Revision & Date of Revision shall be included in the “Scope of Activities” field

## 8 IECQ Approved Process Certification procedure

### 8.1 General

IECQ Approved Process assessments for compliance of an organization are based on the general requirements of IECQ 03-1, requirements of ISO 9001 including as detailed in IECQ 03-1 Clause 9.2 and requirements within this document.

### 8.2 Application

IECQ Approved Process Certification may be applied to any process which may affect conformity or compliance of electronic components, related assemblies or services. For example this may cover, but not limited to; product engineering, printed wiring board manufacture, electronic component manufacturing, printed circuit board assembly, Electro Static Discharge (ESD) controls or even supply chain management. The organization shall demonstrate compliance of such processes to an internationally accepted standards or specification.

The organization seeking approval shall submit or make available the following minimum documentation (non exhaustive) for review by the IECQ CB assessment team in addition to that specified in Subclause 9.3 of IECQ 03-1:

#### 8.2.1 General

- The organizations Quality Plan Summary, relevant to the range of activity(ies), (process and/or technical service including related technologies) for which they are seeking IECQ Approved Process Certification in accordance with the relevant international accepted standard or specification against which it is intended to demonstrate compliance
- IECQ Approved Process documented requirements and the resources available to meet the requirements of the process

#### 8.2.2 Requirements for the content of a Quality Plan Summary (Process Manual)

The organization shall provide the IECQ CB with their Quality Plan Summary, relevant to the range of activity (activities), and/or technical service(s) for which they are seeking IECQ Approved Process Certificate. Where confidential processes or services are involved, the organization is only required to provide the information necessary for the IECQ Approved Process Certificate.

The IECQ CB shall not copy company confidential documents, to remove them from the organization's premises, or to disclose such information to third parties without the organization's prior approval.

The Quality Plan Summary shall, either directly or by reference to the organization's internal documents as appropriate

- a) state compliance with the minimum requirements for quality factors given in the international accepted standard or specification and related Process Specification(s);
- b) define in accordance with the international accepted standard or specification the process(es) or technical service(s) for which they are seeking certification;

NOTE When required by the international accepted standard or specification, these statements shall take the form of a Process Specification.

- c) state the design rules when required by the relevant international accepted standard or specification and/or Process Specification(s);
- d) provide a description of the main features of the process(es), technical service(s), the construction of the components, piece part(s) or material (as applicable);
- e) provide a process flow chart of the process(es) for which IECQ Approved Process certification is sought;

- f) list the processing facilities and the inspection, measuring and test equipment relevant to the range of activity(ies), technology(ies) and/or technical service(s) for which they are seeking certification;
- g) list or make reference to the specifications for the raw material, piece parts, incorporated components and/or part-finished components used as applicable;
- h) list or make reference to the specifications for the inspection to be carried out during the operations which are described in the Quality Plan Summary;
- i) define their procedures for identification and traceability;
- j) define how modifications are notified (as applicable);
- k) describe their training policy; and
- l) describe their internal auditing procedure.

The relevant international accepted standard or specification shall give more detailed information concerning the description of process capability to be supplied by the organization.

### 8.3 IECQ CB Assessment Team for IECQ Approved Process Assessments

The IECQ CB assessment team for IECQ Approved Process assessments shall be comprised as follows:

Assessment team members	Function	Qualifications
IECQ CB assessors	Assessment of general IECQ Approved Process elements; and management of audit process	IECQ Lead Assessor – Quality Systems and Electronic Components and Systems. Qualified to IECQ OD 010
IECQ CB assessors shall be electrical and electronic component expert	As necessary to form assessment team	IECQ Assessor or Lead Assessor – Quality Systems and Electronic Components
Specialist	Provide specific knowledge and understanding	Relevant experience and knowledge of the organization's industry and product involvement

The number of assessors and assessment days is dependent on the size of the enterprise and the complexity of the assessment.

An IECQ CB assessment team shall be led by a qualified IECQ CB Lead Assessor with expertise and competence in the IECQ Approved Process Scheme and the technology under assessment with responsibility for assuring all elements of the assessment plan are covered including IECQ requirements, applicable IECQ Approved Process processes.

NOTE The term "IECQ Lead Assessor" is detailed in IECQ OD 010.

### 8.4 Extension of Scope for IECQ Approved Process certification

On application, an organization's IECQ Approved Process certification shall be extended as described in an undated Quality Plan Summary in accordance with the relevant international accepted standard or specification, when the IECQ CB, responsible for issuing the IECQ Approved Process Certificate, has determined that the extension meets the requirements of this scheme.

### 8.5 Subcontracting in the IECQ Approved Process Scheme

**8.5.1** The approved organization shall not subcontract operations which are covered by the scope of their IECQ Approved Process Certification, as defined in their Quality Plan Summary and the relevant PAS or with any internationally accepted standard or specification.

The organization may subcontract operations outside the scope of their IECQ Approved Process Certification to non-approved organizations, provided that the DMR is able to demonstrate to the IECQ CB that the process(es) concerned is (are) performed in a manner which satisfies the appropriate requirements of the Scheme and nominated specification.

**8.5.2** The organization, when applying for IECQ Approved Process Certification, shall state whether any individual operations of their process(es) and/or services are subcontracted and shall identify these operations.

**8.5.3** When the conditions of 8.5.2 apply, the application for IECQ Approved Process Certification shall contain:

- details of the division of individual operations between the organization and the subcontractor; and
- details of the arrangements agreed with the IECQ CB for the approval of the quality of subcontracted operations. These details should take into account the transfer of products or services between the organization and the subcontractor; and in particular
  - the procedures for the assessment of quality of the subcontracted operations; and
  - details of the means whereby changes to the agreed arrangements are communicated to the IECQ CB.

The organization shall demonstrate to the IECQ CB that the quality of the process(es) and/or services will not be adversely affected by the use of these subcontracted operations.

The IECQ CB of the organization seeking IECQ Approved Process Certification shall ensure that the specialist contractor's DMR is able to verify the satisfactory maintenance of the quality control procedures performed by their subcontractor.

IECQ Certification Body (IECQ CB) shall confirm that the details contained in the application for IECQ Approved Process Certification satisfy the requirements of the Scheme.

## **9 Acceptance of IECQ Certification Bodies (IECQ CB)**

### **9.1 General**

New IECQ CBs or existing IECQ CBs seeking to participate in the IECQ Approved Component Products, Related Materials & Assemblies Scheme shall comply with the general requirements of IECQ 02 along with the following additional requirements.

### **9.2 Specific requirements for IECQ Approved Process Scheme**

IECQ CBs shall be assessed and approved by the IECQ for specific areas of competence, e.g. ESD.

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INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

3, rue de Varembé  
PO Box 131  
CH-1211 Geneva 20  
Switzerland

Tel: + 41 22 919 02 11  
Fax: + 41 22 919 03 00  
info@iec.ch  
www.iec.ch