

Work Domain: Quality Assurance

Revisions Record				
Rev. No.	Written/Updated by	Approved by	Effective date	Main Changes
09	Yoav Gilad	Eyal Frishberg	10.07.12	Full revision of Rev. 09
10	Yoram Shushan	Yacov Sokolovsky	06.04.17	New document template and Full revision of Rev. 09 (adjust the document to these days' processes).

1. General

The quality of the goods that are supplied to AudioCodes by our suppliers, has a significant influence on the quality of the final products delivered to the customers.

In addition, AudioCodes' customers expect that our supply chain will preserve the environment and be committed to social accountability.

2. Objectives

To define and determine the requirements from AudioCodes' suppliers on the subjects of Quality, Environment, Safety and Corporate Social Responsibility (CSR).

The requirements detailed in this document are a mandatory part of every Purchase Order and should be implemented on every delivery.

3. Terms & Abbreviation

- 3.1 Goods-** A general term for raw materials, items, subassemblies, final assemblies, and off-the-shelf products.
- 3.2 Supplier-**A general term for Manufacturer, Agent or S/C supplying goods affecting the product quality.
- 3.3 Manufacturer-** A plant making a defined manufacturing job for AudioCodes (mechanical, packaging, labels, PCB, etc.).
- 3.4 Chips Manufacturer-** Chip manufacturer with whom AudioCodes contracted (in the development stage) for the supply of chips containing AudioCodes design.
- 3.5 Agent -** Business selling/supplying goods (capacitors/resistors/fasteners, etc.).
- 3.6 S/C -** Subcontractor with whom the company contracted to perform a defined assembly work.
 - 3.6.1 OEM (Original Equipment Manufacturer) S/C-** Company that makes a part or subsystem that is used in another company's end product.
 - 3.6.2 ODM (Original Design Manufacturer) S/C-** Company that designs and manufactures a product as specified and eventually rebranded by another firm for sale.
 - 3.6.3 T/K (Turn-Key) S/C-** Provision of a complete purchasing, manufacturing, testing, packaging and shipping of products or services, ready for immediate use.
- 3.7 EXW (Ex Works) -** is an international trade term that describes an agreement in which the seller is required to make goods ready for pickup at his or her own place of business. All other transportation costs and risks are assumed by the buyer.

4. Related Documents

4.1 The latest revision of the following documents constitute an integral part of this document:

- 4.1.1** P-08-04E - S.O.W (Statement of Work) for PCB manufacturers.
- 4.1.2** P-08-11E - S.O.W (Statement of Work) for Electronic sub-contractor assemblers.
- 4.1.3** P-08-13E - Visual inspection of mechanical parts and plastic parts (Criteria).
- 4.1.4** IPC-A-610 - Acceptability of Electronic Assemblies (International Standard).
- 4.1.5** ANSI/ASQC Z1.4 - Sampling Procedures and Tables for Inspection by Attributes.
- 4.1.6** IPC/JEDEC J-STD-033: Handling, Packing, Shipping and Use of Moisture/Reflow Sensitive Surface Mount Devices.
- 4.1.7** RoHS Directive (EU Directive 2011/65/EC on the restriction of hazardous substances)
- 4.1.8** REACH Regulation (EU 1907/2006/EC on the Registration, Evaluation, Authorisation and Restriction of Chemicals).
- 4.1.9** Conflict Minerals Act (Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act).
- 4.1.10** Packaging and Packaging Waste Directive (EU directive 94/62/EC).
- 4.1.11** EICC - Electronic Industry Citizenship Coalition Code of Conduct.
- 4.1.12** ODS Regulation (EU Regulation 1005/2009/EC – Ozone Depleting Substances).
- 4.1.13** Battery Directive (EU Directive 2006/66/EC).
- 4.1.14** IATA lithium Battery Shipping Guidelines and IATA Dangerous Goods Regulations (DGR) documents.
- 4.1.15** IMDG Code (International Maritime Dangerous Goods Code)

5. Method

5.1 General

5.2 In case of conflict between the requirements of this document and any other existing requirements, the following order of preference will prevail:

- Supply agreement/Contract.
- Purchase Order and Terms & Conditions (if exist).
- Drawings and any engineering instructions.
- This document.

5.3 Order Acceptance

5.3.1 Upon receiving the P.O., it is the supplier's responsibility to acknowledge the P.O. receiving within maximum two days.

5.3.2 Supplier needs to confirm delivery date and technical requirements within 3 to maximum 5 working days according to our requested delivery date. In case the supplier can't meet our delivery date, they need to inform the relevant buyer. The buyer will inform the relevant planner, to consider other alternatives if needed.

5.3.3 It is the supplier responsibility to verify that:

5.3.3.1 The revision level of the documentation attached to the order (when applicable) meets the revision indicated in the P.O.

5.3.3.2 All documentation is in proper and legible condition.

5.3.3.3 All requirements and definitions are clear. (Price, Qty, Delivery, PN...).

5.3.3.4 He has the technical ability to perform the work ordered.

5.3.4 In any case of unclear or unfinished definitions, inability to perform the processes indicated in the drawings/specifications, lack of material or absence of any document, the supplier should promptly notify AudioCodes' Purchasing relevant Buyer and Engineering Director by E-Mail/Fax accordingly.

5.3.5 A supplier which work with sub-contractors will submit the list of his custom-made products' sub-contractors to AudioCodes' approval before work starts. It is his responsibility to request his S/C to supply the goods with inspection reports and compliance reports. This documentation will be kept at the supplier's possession and will be available to audit by AudioCodes' representative at all times.

Notes:

5.3.5.1 By all means, the responsibility for the work performed by the S/C lies with the S/C to whom the P.O. was addressed.

5.3.5.2 It is the supplier's responsibility to require his sub-contractors to meet the requirements of para 5.9 & 5.10 of this document.

5.3.6 AudioCodes reserves the right to increase, decrease or cancel the P.O. up to two months before the supply date listed in the P.O.

5.3.7 Any deviation from AudioCodes manufacturing instructions as well as usage of unauthorized components, will be considered legitimate cause for termination of the contract with the supplier, rejection of the goods and returning them to the supplier (on his expense) without paying good's invoice.

5.4 Manufacturing

5.4.1 The supplier will perform the work ordered or supply the required goods as detailed in the order and/or the technical documents attached to it.

5.4.2 In case the manufacturing file or its attached documents contain any handwritten corrections/omission/addition, it is the supplier's responsibility to inform AudioCodes' Q.A. Manager or Engineering Manager, and receive written authorization to continue production in the current situation.

5.4.3 PCBs manufacturing will meet all the requirements of AudioCodes' Process Specification P-08-04.

5.4.4 Assembly, soldering and inspection of PCBs and assemblies will meet the requirements of AudioCodes' Process Specification P-08-11.

5.5 Quality Control

- 5.5.1** It is the supplier's responsibility to perform quality control of the goods before shipment to AudioCodes.
- 5.5.2** It is the agent responsibility to verify compatibility to AudioCode's order, including the following points: type of goods, quantity, packaging and accompanying documentation.
- 5.5.3** In their quality control, Manufacturers and S/Cs will include the requirements of para. 5.5.2 and a physical final inspection of the products. Unless otherwise agreed, the final inspection results will be attached to the documentation sent with the goods (see para. 5.8).
- 5.5.4** Unless otherwise specified in the P.O., final inspection will be based on ANSI/SQC Z1.4-2008, General Inspection Level II, A.Q.L. of 0.65%. PCBs will be inspected per Table 4-2, C=0 (Class 2), per IPC-6012 and IPC-6016, according to the PCB type.
- 5.5.5** The quality of mechanical and plastic parts will meet the requirements of AudioCodes' Process Specification P-08-13.

5.6 Documentation Control

- 5.6.1** Manufacturing files/drawings/computer files which are part of the P.O. will be kept by the supplier in a controlled manner. Whenever a revision is made to any of the manufacturing documentation terms, it is the responsibility of AudioCodes' Purchasing Director or the applicable buyer to send the supplier the most up to date documentation, together with the P.O.

5.7 Storage and kitting

- 5.7.1** In case Manufacturer/Sub-Contractor stores items belonging to AudioCodes and/or intended to be installed in AudioCodes product, it is their responsibility to hold and manage a logistic system enabling full stocks control and identification of the stored goods. It is the manufacturer/Sub-Contractor responsibility to insure these goods are kept in its full value as well as to assure proper storage conditions.

5.8 Packaging and shipment

- 5.8.1** All Product packaging shall comply with the requirements of Packaging and Packaging Waste Directive (EU directive 94/62/EC) especially in respect of its design and composition, including the Directive's restrictions on the use of certain hazardous substances in the manufacturing of the packaging and the marking requirements.
- 5.8.2** Items (not including products) will be shipped in their original package only. Package will contain manufacturer name, quantity, and the item catalogue number. When, under certain circumstances, it is impossible to supply the goods in its original packaging, or when the ordered quantity do not match the standard packaging quantity of the item (e.g. the ordered quantity is not an accurate multiplication of the standard quantity of items in a tray/ruler), it is the supplier's responsibility to call Purchasing Director's and pay his attention to this deviating condition and receive his prior permission to the supply of the goods.
- 5.8.3** Non-hermetic humidity sensitive components will be packed in vacuum packaging as defined in the latest revision of IPC/JEDEC J-STD-033. The MSL of the component will be clearly printed on the product label. If the original vacuum package was opened in order to ship partial quantity of components, than both quantities (the remaining and the quantity shipped) should be re-packed in vacuum within the time limit dictated in the above spec, and product data as well as its MSL should be kept on both packages.
- 5.8.4** It is the supplier's responsibility to attach Shipping Certificate/Invoice to every shipment, detailing the following: AudioCodes' P.O. number, AudioCodes' catalogue number and the quantity.
- 5.8.4.1** Agent and Manufacturer will also include a Certificate of Compliance (C.O.C.).
- 5.8.4.2** Manufacturer will add a Test Report.
- Note: In case that part of the job is done by a S/C, then its S/C Certificate of Analysis (C.O.A.) should also be included.



- 5.8.5** Serial Numbered goods: In cases of S/N controlled goods, the outer package must have relevant bar-coded S/N label. A list of the S/Ns of the shipment must also be supplied as part of the accompanying documents. If possible, supply the S/N list by Excel file directly to ACL warehouse.
- 5.8.6** Supplier will pack the ordered goods in a proper package to avoid any damage to the goods during shipping and transportation. The outside package marking will include AudioCodes' P.O. number, AudioCodes catalogue number and quantity. Shipment from overseas will also include the country of origin.
- 5.8.7** For purchase orders whose shipping terms are EXW, AudioCodes' purchasing/shipping department will provide vendor/supplier/sub-contractor with shipping instructions and/or forwarder account number (if relevant/needed).
- 5.8.8** European suppliers shipping EU manufactured goods will attach an EUR1 Certificate to the shipment or a document of equal value, as permitted under the IL-EU trade agreement.
- 5.8.9** US suppliers shipping US manufactured goods will attach a Certificate of Origin to the shipment or a document of equal value, as permitted under the IL-US trade agreement.
- 5.8.10** Any costs incurred to AudioCodes due to supplier's failure to comply with shipping instructions/requirements presented by AudioCodes will be billed to supplier.
- 5.8.11** Special requirements to suppliers of electronic components:

 - 5.8.11.1** The manufacturing date of the components will be marked on their packaging. This date will not be earlier than 18 months from the date received to AudioCodes' warehouse. In case of vacuum packed devices, the date won't be earlier than 30 months from the date received to AudioCodes' warehouse.
 - 5.8.11.2** Active components and IC components will be packed in anti-static packaging.

5.9 Environmental Quality

- 5.9.1** AudioCodes will give preference to suppliers whose environmental management system is qualified to ISO-14001 or equivalent international standard.
- 5.9.2** As a basic and generic requirement, the supplier must be familiar and meet all the environmental legislation requirements as per its location.
- 5.9.3** All goods supplied to AudioCodes must meet the requirements of the European Directive 2011/65/EC on the restriction of hazardous substances (RoHS) and of the REACH Regulation (EC) 1907/2006 or any amendment to those Directives.
- 5.9.4** Upon shipment of every first time delivery of goods (every AudioCodes' Cat. No. or every purchased item), the manufacturer/supplier will supply RoHS and REACH compliance statements and FMD (Full Material Declaration). Other relevant technical data (e.g. laboratory tests, raw materials' suppliers declarations, etc.) will be sent in case AudioCodes or its authorized representative will ask to get them. It is the manufacturer/supplier responsibility in case its product does not meet the updated RoHS Directive or REACH Regulation requirements, to update AudioCodes Quality Manager and Purchasing Director immediately.
- 5.9.5** Conflict Minerals Act:
AudioCodes is committed to comply with the CM Act and expect its supply chain to support this commitment.
- 5.9.5.1** The manufacturer, supplier or S/C will identify and verify his sources of tin, tantalum, tungsten and gold incorporated into products/components sold to AudioCodes are conflict-minerals free.
- 5.9.5.2** The manufacturer, Supplier or S/C will report his data annually or when requested by AudioCodes or by AudioCodes' authorized representative on an updated CMRT template to AudioCodes or to AudioCodes' authorized representative.

5.9.6 When shipping materials designated as dangerous materials and or batteries (as a stand alone or as part of a product), it is the manufacturer/supplier or S/C responsibility to:

5.9.6.1 Pack and label the material in a way it can be shipped either by air or by maritime shipping as per IATA and/or IMDG most updated rules.

5.9.6.2 Send an updated material's SDS (Safety Data Sheets) to Q.A. department. The SDS format must meet the most updated OSHA and GHS 16 Section SDS format.

5.9.6.3 Special attention should be given to Section 14 (Transportation information) in the SDS and accurate and full information should be given about the ways allowed to deliver the material in air or by maritime shipping.

5.10 Corporate Social Responsibility (CSR)

5.10.1 The Electronic Industry Code of Conduct (EICC) establishes standards to ensure that working conditions in the electronics industry supply chain are safe, that workers are treated with respect and dignity, that business operations are environmentally responsible and that business ethics is strictly implemented.

5.10.2 AudioCodes requests its suppliers to take all necessary action to comply with EICC Electronic Industry Citizenship Coalition Code of Conduct and to further force this code down to its supply chain.

6. Responsibility & Authority

As specified in this procedure

7. Records

As specified in para. 5.6.1

8. Appendices

N/A