

By delivering to the purchaser Celestica Corporation (Celestica) any goods and/or services, the seller agrees that this Agreement sets out the terms and conditions relating to quality of goods which the Seller supplies to Celestica and shall replace any previously agreed terms regarding quality which conflict with these terms.

1. RELATED DOCUMENTS

1.1 The standard documents listed in section 1.2 below (“Related Documents”) are referenced in this Agreement and Seller acknowledges and agrees that it has a copy of the Related Documents in its possession on the Effective Date. Seller agrees to adhere to the terms and standards set out in the Related Documents (as they are updated and amended from time to time) and shall be responsible for ensuring that it is always in possession of the latest update version of the Related Documents.

JEDEC standards are available through www.jedec.org. Celestica Specifications listed in section 1.2 are available through Celestica Internet Web Site: <http://www.celestica.com/SupplyChain/SupplyChain.aspx?id=798>

1.2 The Related Documents are as follows:

- (a) EIA-481 standard – tape and reel specification.
- (b) IPC/JEDEC J-STD-033 – Standard for handling, packing, shipping and use of moisture/reflow sensitive surface mount devices.
- (c) JEDEC standard No. 46 (JESD46) – Guide for product/process changes.
- (d) JEDEC standard No. 671 (JESD671) – Failure Analysis and Corrective Action.
- (e) JEDEC standard No. 48 (JESD48) – Product discontinuance
- (f) JEDEC standard No. 625 (JESD625) – Requirements for handling electrostatic-discharge-sensitive (ESDS) device
- (g) IPC/EIA J-STD-002 – Solderability Tests for Component Leads, Terminations, Lugs, Terminals and Wires
- (h) IPC/EIA J-STD-003 – Solderability Test Methods for Printed Wiring Boards
- (i) IPC/JEDEC J-STD-020 – Moisture/Reflow sensitivity classification for nonhermetic solid state surface mount devices
- (j) CELQ-033-STD-51 – Celestica Bar Coding Standard for Procured Production Goods
- (k) PK0763-1 – Celestica Packaging and Handling Specification
- (l) CELQ-033-POL-2 – Celestica Notification of Products / Process Changes, Discontinued Availability and Product Alerts by Suppliers
- (m) CELQ-033-POL-7 – Celestica Environmental Requirements for Purchased Components
- (n) IPC/JEDEC J-STD-075 - Classification of Non-IC Electronic Components for Assembly Processes
- (o) JEP130 – Guidelines for Packing and Labeling of Integrated Circuits in Unit Container Packing (Tubes, Trays, and Tape and Reel)

1.3 Seller must have a copy of the latest version of the part number specific Celestica QSPEC (Individual QSPEC) in its possession on the effective date of the purchase order. The Individual QSPEC can be requested from the Celestica buyer or downloaded from Celestica's Supplier Web Portal. Seller can request online QSPEC access by sending an email to AskQSPECS@Celestica.com

2. ORDER OF PRECEDENCE

If a conflict arises between the requirements of this document and other Celestica documents, the following order of precedence shall apply:

- (a) Celestica’s Standard Purchasing Terms and Conditions
- (b) Purchase order
- (c) Engineering drawings
- (d) Engineering Specifications and Material Specifications
- (e) The individual QSPEC
- (f) This General Quality Requirements for Purchased Parts
- (g) Referenced standards

3. GENERAL REQUIREMENTS

- 3.1 All goods, which are supplied on tape and reel, conform to the EIA-481 standard.
- 3.2 Seller shall not dispatch any goods to Celestica, which vary from the exact specification ordered by Celestica without receiving a Supplier Waiver from the relevant Celestica purchasing authority.
- 3.3 Seller shall ensure that all goods which are identified as requiring manufactured date codes, carry manufactured date codes that are not older than 18 months at time of receipt by Celestica or as otherwise specified in the Celestica QSPEC.
- 3.4 Seller shall ensure that:
 - (a) All goods comply with relevant technical specifications; either the specification provided by Celestica or if no specification is provided by Celestica, Seller's or manufacturer's own specification.
 - (b) All goods which are identified as electrostatic discharge (ESD) sensitive comply with JESD625 or equivalent standard. In particular, but without limitation, Seller will ensure that Goods are produced, repaired and packed under electrostatically "safe" conditions as advised in such Standard.
 - (c) All solderable goods comply with applicable solderability specifications IPC/EIA J-STD-002 or IPC/EIA J-STD-003.
- 3.5 Seller's quality management systems shall be registered to an industry accepted standard such as ISO9000:2000 by an accredited third-party certification body unless otherwise specified by the customer.

4. PACKAGING REQUIREMENTS

- 4.1 Packaging of goods supplied to Celestica must conform to Packaging and Handling Specification PK0763-1.
- 4.2 Each unit of parts i.e. each reel, tube, tray, etc., should have an ESD warning on it where applicable, and should also be labelled with the following information in the bar code format set out in CELQ-033-STD-051:
 - (a) Celestica's Part Number. (b) Manufacturer's Part Number. (c) Quantity in unit. (d) Date Code and Lot Code. (e) Supplier Code.
- 4.3 For goods that Seller identifies as moisture sensitive, the following requirements apply:
 - 4.3.1 The product should be packaged in an ESD moisture free pack (dry pack).
 - 4.3.2 The dry pack should be bar-coded having Celestica's Part Number, Supplier Code, Quantity, Date Code and Lot Code.
 - 4.3.3 The dry pack should have an ESD warning on it.
 - 4.3.4 The dry pack must contain a moisture indicator that conforms to J-STD-033 or equivalent EIAJ standard.
 - 4.3.5 The dry pack should have a label indicating the dry pack date and usage window (after dry pack is opened 'hold-on time'), re-baking requirements (temperature, time and number of re-bakes permitted), and where shipments of 500 units or less are packaged in trays, the trays must be bakeable to 125 degrees C.
 - 4.3.6 All moisture sensitive components should comply with J-STD-033 , J-STD-075 and J-STD-020 (or EIAJ ED-4701/300-3) requirements where applicable.
 - 4.3.7 Notification of changes to the moisture sensitivity rating by the supplier is required through the Celestica Notification of Change process, which is referenced in section 7 below.
- 4.4 It is a requirement of Celestica that Seller shall provide Celestica with goods that have reels or internal boxes that do not contain mixed date and/or lot codes. If this is not possible, then there should be no more than two date codes in one unit pack container (reel, tube or tray) per internal box. If two date codes are used, the unit pack container and the outside of the internal box should be clearly identified as having mixed date codes and labels must indicate the quantity for each date code.
- 4.5 Seller shall ensure that all packaging is clearly marked in written form with Celestica's name and the relevant delivery address as well as showing Celestica's order number, quantity or gross and net weights.
- 4.6 Seller shall comply with all relevant provisions of applicable health and safety legislation, and shall ensure that goods which are potentially dangerous to health or safety shall be delivered only in suitable protective packing or containers, and that the external surface of such packing and/or containers shall be clearly labelled so as to indicate any hazards to health or safety involved in handling and using goods and as to the method of safe handling of goods.

5. BAR CODE REQUIREMENTS FOR ALL SHIPMENTS TO CELESTICA

Unless otherwise agreed in writing Seller shall ensure that the bar code format as described in Celestica standard CELQ-033-STD-051 is used for the inner most level of part packaging and outer levels of packaging. In particular Celestica requires that the barcode format is CODE 39.

6. QUALITY ACCEPTANCE

- 6.1 Incoming Quality Level (IQL) is the defect level measured in Celestica's internal process. Component IQL is an ongoing measurement and is reviewed regularly by Celestica. Celestica and Seller's goal is to achieve and maintain a Zero defect level of IQL. Seller shall maintain outgoing quality inspection and reliability records for a minimum of two (2) years from the date of goods shipment.
- 6.2 Seller shall use statistical process controls and a supporting process capability analysis to achieve continuous quality improvement and failure rate reductions. Seller shall, upon request, provide Celestica with evidence of such process controls and capabilities, including all supporting documentation.
- 6.3 For custom mechanical parts, suppliers are required to perform a Ship Lot Audit before shipment by randomly selecting a representative sample of finished goods and inspecting them to the Celestica QSPEC. The Critical to Function (CTF) dimensions will be shown on the QSPEC and/or referenced drawings. A statistically valid sampling plan shall be used for the Ship Lot audit based on an industry recognised standard (MIL-STD-105E, ANSI/ASQC Z1.4 or ISO2859). Results are to be documented, maintained by the supplier for a min. of 2 years, and made available to Celestica upon request.
- 6.4 When a lot fails the Ship Lot Audit but in the opinion of the seller might be 'fit for use', the seller is required to notify the Celestica buyer of the non-compliance and ask for a Supplier Waiver prior to shipment. Without a documented Supplier Waiver, the lot is NOT to be shipped. If the failed lot is not deemed to be 'fit for use' or the Supplier Waiver is rejected, the seller must not ship the material without some form of remedy (i.e. 100% screening, rework, or manufacture new lot).

7. NOTIFICATION OF CHANGE (CELQ-033-POL-2)

- 7.1 Seller will provide Celestica with ninety (90) days written notice prior to the introduction of any change that may affect form, fit, function, quality, reliability or safety of the relevant goods as per JEDEC Standard 46 (JESD-46). For example, changes in component termination finish or solder ball composition are considered to be major changes which require seller notifications. Seller will advise Celestica in writing with the description of the change and the intended date code of the implementation of the change. All changes must be communicated to Celestica's Global PCN Co-ordinator as detailed below or as otherwise notified by Celestica in writing.
- 7.2 Seller shall send Celestica any documentation pertaining to the change to:
Internet: pcn@celestica.com
- 7.3 Seller shall get approval from Celestica before implementing any changes to the documented processes or materials of those goods that are manufactured to specification provided by Celestica or Celestica's customer.

8. PRODUCT DISCONTINUANCE (CELQ-033-POL-2)

Seller shall provide written notice of planned product discontinuation per JEDEC standard JESD48 to Celestica as follows:

- (a) 6 months minimum from the notice for last order dates.
- (b) 12 months minimum from the notice for final shipments.

9. PRODUCT QUALITY ALERT (CELQ-033-POL-2)

Seller shall immediately send a written quality alert to Celestica's Global PCN Co-ordinator whenever the supplier suspects that non-conforming product has been shipped to Celestica.

10. FAILURE ANALYSIS RESPONSE AND CORRECTIVE ACTION PLAN

10.1 Failure analysis response times must comply with the guidelines in section 6.8 of JESD671 or as otherwise reasonably requested by Celestica. Celestica considers the following internal priorities as equivalent to URGENT in JESD671:

(a) Priority 1 - Stop Ship or Stop Build, (b) Priority 2 - Field or Boxline failure, (c) Priority 3 - High line fallout, and Celestica considers the following internal priority as equivalent to STANDARD in JESD671: (d) Priority 4 - Routine line fallout analysis

The failure analysis response time is being used as part of the supplier rating measurement.

Note: The seller is required to provide lot/date code information within 24 hours upon request.

10.2 Seller shall provide corrective action on goods returned for failure analysis. Corrective action must be in a format that specifically addresses:

(a) Definition of problem. (b) Verification of the defect. (c) Containment action. (d) Definition and verification of the root cause. (e) Permanent corrective action. (f) Verification of corrective action.

Revision History

Revision	Date	Change Descriptions
14	11/02/2007	<ol style="list-style-type: none"> 1. Celestica Internet Web Link updated. 2. Deleted document revision of all reference documents. 3. Added reference standard EIAJ ED-4701/300 to section 4.4.7 4. Changed attached document title from quality 'agreement' to quality 'requirements'. 5. Section 6.3 revised to clarify the ship lot audit requirement. 6. Example added to section 7 Notification of change.
15	04/14/2009	Corrected numbering errors.
16	11/09/2009	<ol style="list-style-type: none"> 1. Section 1.2 - Added reference documents, J-STD-075 and JEP130 2. Section 3.3 - Date code restriction changed from 24 months to 18 months. 3. Section 3.4b - Added "which are identified as electrostatic discharge sensitive" for clarity. 4. Section 4.3.6 - Added reference to J-STD-075. 5. Section 4.4 - Revised to align with JEP130 packing and labeling standard.