ABOUT FLEXTRONICS

Flextronics is a leading Electronics Manufacturing Services (EMS) provider focused on delivering complete design, engineering and manufacturing services to automotive, computing, consumer, industrial, infrastructure, medical, clean tech and mobile OEMs. Flextronics helps customers design, build, ship, and service electronics products through a network of facilities in 30 countries on four continents. This global presence provides design and engineering solutions that are combined with core electronics manufacturing and logistics services, and vertically integrated with components technologies, to optimize customer operations by lowering costs and reducing time to market.
1.0 BACKGROUND/INTRODUCTION

This Supplier Quality Special Requirements – Automotive Segment document is defined as the basis of all quality agreements between all Flextronics legal entities (“Buyer”) and Flextronics suppliers (“Seller” or “Supplier”).

2.0 PURPOSE AND SCOPE

Buyer companies serve a variety of industries and business segments and as such, Buyer has unique supplier quality requirements specific to these industries and business markets. This document defines the special automotive industry requirements relating to the quality of all products or services, to be used in automotive applications, purchased by the Buyer from the Supplier during the term of any Agreement referencing this document. Any deviations, exceptions or additional requirements shall be mutually agreed in writing between Buyer and Supplier. Specific quality criteria, targets and similar measures will be mutually agreed in product specific Component Quality Plans (CQP), if not already defined in a product specification. When referenced by the applicable Agreements, all of these requirements will comprise a complete quality agreement between Buyer and Supplier.

The terms of purchase transactions between Buyer and Supplier are governed by a General Business Agreement or Terms and Conditions Checklist. If neither of those Agreements exists the terms governing purchase transactions between Buyer and Supplier are the Buyers Standard Terms and Conditions, which are transmitted with every purchase order.

3.0 DEFINITIONS and ABBREVIATIONS

- QMS: Quality Management System
- SPC: Statistical Process Control
- PPAP: Product Part Approval Procedure
- APQP: Advances Product Quality Planning
- FMEA: Failure Modes Effects Analysis
- MSA: Measurement Systems Analysis

4.0 REFERENCES

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Document Number</th>
<th>Document \ Hyperlink</th>
</tr>
</thead>
<tbody>
<tr>
<td>The latest copies of ISO/TS 16949, CQI, PPAP, APQP, SPC, MSA and other related manuals are available from Automotive Industry Action Group (AIAG)</td>
<td></td>
<td><a href="http://www.aiag.org/">http://www.aiag.org/</a></td>
</tr>
</tbody>
</table>

5.0 SUPPLIER REQUIREMENTS

5.1. SUPPLIERS QUALITY SYSTEM

As a minimum requirement, the supplier shall be certified according to ISO 9001, but must fulfill the requirements of ISO/TS 16949 and referred manuals like Product Part Approval Procedure (PPAP), Advanced Product Quality Planning (APQP), Potential Failure Mode and Effects Analysis (FMEA), Measurement System Analysis (MSA), Statistical Process Control (SPC), and shall have a time phased plan for achieving ISO/TS 16949 certification. Preferably the supplier should also have ISO14001 certification or shall have a time phased plan for achieving certification.

Accreditation by a third party certification body to the current version of QMS standard will be viewed more favorably by Buyer in supplier qualification criteria.

Note: all ISO/AIAG requirements shall be aligned to the latest revision of these documents.
5.2. SUPPLIER REQUIREMENTS

For all deliveries of automotive products the following requirements apply:

- Supplier shall be certified according to ISO/TS16949. ISO9001 is seen as a first step in becoming ISO/TS16949 certified. Supplier shall ensure that the latest valid versions from standards and regulatory frameworks are implemented at all times. (e.g.: ISO, VDA, AIAG, ...
- Suppliers shall use the latest versions of Advanced Product Quality Planning and Control Plan (APQP), Potential Failure Mode and Effects Analysis (FMEA), Measurement System Analysis (MSA), Production Part Approval Process (PPAP) and shall use Statistical Process Control (SPC) as the guideline for their system development.
- Special Processes: Suppliers shall maintain and demonstrate the effectiveness of the special processes (e.g. CQI-9 Special Process: Heat Treat System Assessment)
- The same quality system requirements shall apply to sub-suppliers, and the Supplier is responsible for the compliance of all sub-suppliers.
- Resumption plan: Supplier agrees to provide product availability over the complete customer project lifetime. A Business Resumption plan including all environmentally relevant risks must be submitted before the first delivery for mass production.
- Supplier shall adopt the standards of ZERO DEFECTS and 100% on time delivery to Buyer. Any established PPM-target is not an accepted quality level, but represents an intermediate continuous improvement step towards shipments of products (components/materials) meeting the Zero-defect requirement.
- Supplier shall demonstrate continuous improvement in all business areas. Supplier shall follow problem containment processes, Containment Level 1 (CL1) and Containment level 2 (CL2) as follows:

**Containment Level 1**

Level 1 containment is defined as additional controls implemented at the supplier’s location, upon Flextronics’ request, following the identification of a supplier quality issue. The goal of this containment is to cleanse the entire system of any non-conforming material and to shield Flextronics from receiving any additional defective product. The supplier is required to quarantine and sort all suspect product within their facility, at their subcontractors, in transit, and at Flextronics facilities, and at any customer service parts location which may have parts in inventory.

Upon identification of an issue, the Flextronics site quality contact will initiate containment activities by sending a Level 1 letter to the supplier’s Quality Manager. The letter details the specific nonconformance and required supplier actions, including inspection and exit criteria. (Appendix 1, Entry of CSL1) The Flextronics site quality contact will place a follow-up phone call ensuring that the supplier representative has received the letter and requesting immediate containment activity based at the supplier’s facility. The supplier is responsible for acknowledging the Level 1 notification by returning a copy of the letter with an authorizing signature to the Flextronics site quality contact.

The supplier will be responsible to reply with their implemented containment plan via an initial 8D within 24 hours of Level 1 notification. The containment plan must be reviewed and agreed upon by the Flextronics site quality contact. The supplier is responsible for keeping the customer location advised of ongoing containment results until released from Level 1.

Data from the supplier’s containment activities must be kept on file and available upon Flextronics request. Quality tools such as trend, Pareto, or Paynter charts are expected to be utilized as verification of containment effectiveness. This data will be held in Flextronics product file after completion and exit from Level 1 containment.

Criteria for exiting Level 1 containment will be determined by the Flextronics site quality contact. Exit criteria will be based on reaching a pre-determined quality level, not a number of parts or days sorted. To exit required containment, the supplier must achieve a pre-determined quality level after a minimum of 30
days and, or three production lots. The exit plan must include clear and measurable elements for the specific non-conformance issues being addressed and a timeline for implementation of permanent corrective actions. Flextronics site quality contact will evaluate the exit criteria and will communicate in writing that the supplier has been removed from Level 1 containment (Appendix 3. Exit of Controlled Shipment Level X).

**Containment Level 2**

Level 2 containment is defined as the implementation of additional controls by an impartial third party selected by Flextronics at the expense of the supplier. Level 2 containment is enacted when a supplier's Level 1 containment activity fails to shield Flextronics from receipt of non-conforming material. The Flextronics site quality contact analyzes the non-conformance issue(s) and determines if Level 2 containment is required. The Flextronics site quality contact (or other appropriate personnel such as the Supplier Development representative or commodity buyer) will initiate containment activities by making the selection of who will be doing the 3rd party containment and by sending a Level 2 letter to the supplier's Site Manager and Quality Manager. Flextronics Purchasing Buyer and or Supplier Development Manager are actively involved in the decision to implement Level 2 containment.

The Level 2 letter details the specific non-conformance and required supplier actions, including inspection and exit criteria. In addition, the letter may communicate a kick-off meeting specific to the supplier's failed Level 1 activities.

The Flextronics site quality contact will place a follow-up phone call ensuring that the supplier representative has received the letter. The supplier is responsible for confirming receipt of the Level 2 notification with an authorized signature by returning a copy of the letter to the Flextronics site quality contact. (Appendix 2. Entry of CSL2)

The Flextronics site quality contact assigns a sorting company (third party) to perform the Level 2 containment activities. The supplier's input on the company used will be considered in the decision making process. Flextronics site quality contact will define the required checks and facilitate definition of the exit criteria.

The third party will be responsible for performing the sort function per the established inspection criteria and recording the results. The third party will provide documentation to both the supplier and Flextronics site quality on the progress of containment activity.

The supplier is responsible for issuing the purchase order to the third party source and is responsible for all costs for the sort company performing containment activities. Initiation of Level 2 containment does not relieve the supplier of any relevant Level 1 activities following the aforementioned containment guidelines and responsibilities.

Additionally, the supplier is required to develop a Level 2 communication plan. The plan should address the format and frequency of communication to the affected Flextronics location. The supplier is responsible for communication of all issues identified during Level 2 containment.

Level 2 will not be removed until a review of the data indicates that all significant issues show problem closure as evidenced through no issues found in the Level 1 containment upstream in the process. If applicable, a review meeting will be scheduled at the supplier’s facility to review the data prior to discontinuing the audit.

Following this review, the Flextronics site quality contact will evaluate the exit criteria and communicate in writing that the supplier has been removed from Level 2 containment. Level 1 containment must continue at the supplier's location until the Flextronics site quality contact has given approval for Level 1 to be discontinued (Appendix 3. Exit of Controlled Shipment Level X).
6.0 RESPONSIBILITY

6.1. Changes to this procedure can only be made by approval from either the GPO Supplier Quality Systems team or the Automotive Segment team. Request for changes can be addressed to the team by anyone using this process.

6.2. Site and Segment/BU supplier quality and materials personnel are responsible for ensuring their suppliers are familiar with this document

6.3. GPO Supplier Quality Systems team or the Automotive Segment team is responsible for ensuring this document is referenced in all supplier contract documents and current versions made available on the Flextronics external web page.

7.0 ATTACHMENTS/APPENDICES

Note: these Appendices are not documents but are present to provide Supplier with the expected forms for CSL1, CSL2 and Exit Letters they can expect to receive from Flextronics and which they must acknowledge.

Appendix 1 – Entry of CSL 1

Appendix 2 – Entry of CSL 2

Appendix 3 – CSL Exit Letter
Appendix 1 - Entry of CSL1

ENTRY OF CSL1

<table>
<thead>
<tr>
<th>FLEX Automotive</th>
<th>ENTRY OF CSL1</th>
<th>AUT-SQM-4-011-00</th>
</tr>
</thead>
</table>

**To:**
Add the name of your contact person within supplier's organization
Add supplier name location

**Subject:**
Entry Controlled Shipment Level 1

Dear Valued Supplier,

Controlled Shipping is part of FLEXAUTOMOTIVE Supplier Quality Assurance and is part of the Supplier Quality Improvement Process. FLEXAUTOMOTIVE has determined that current controls by your organization are not sufficient to insulate FLEXAUTOMOTIVE plant **add the location of plant** from the receipt of nonconforming parts produced by your facility. This letter is formal notification and confirms discussion held with you that your supplier name and manuf. location has been placed in Controlled Shipping Level 1 for the non-conformances detailed:

<table>
<thead>
<tr>
<th>Supplier Plant Location(s)</th>
<th>Supplier Name / location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8D</td>
<td>Add 8D Identification</td>
</tr>
<tr>
<td>Non-conformances ***</td>
<td>rejects</td>
</tr>
<tr>
<td>Affected Part Number(s) ***</td>
<td>Add the FlexAutomotive part number(s)</td>
</tr>
<tr>
<td>Affected Part Name(s)</td>
<td>Add the description of the part(s) affected by quality problem</td>
</tr>
<tr>
<td>Affected FLEXAUTOMOTIVE receiving plant(s)***</td>
<td>Add the location of the other affected FlexAutomotive facilities</td>
</tr>
<tr>
<td>Affected FLEXAUTOMOTIVE Project</td>
<td>Add name of the Project</td>
</tr>
<tr>
<td>Intended Start Date</td>
<td>mm/dd/yy</td>
</tr>
<tr>
<td>Intended End Date</td>
<td>mm/dd/yy</td>
</tr>
</tbody>
</table>

***This Controlled Shipping process may be extended on ALL similar part numbers or similar manufacturing processes for these listed non-conformances for ALL possibly affected FLEXAUTOMOTIVE products at the discretion of the FLEXAUTOMOTIVE SQA management.

If you have any questions please contact Flextronics Global Supplier Quality Assurance Manager, who will be monitoring and defining controlled shipping activities.

The procedures you have enacted to date have been insufficient in stopping the flow of non-conforming material to our plant. **Therefore, you must immediately:**

1. Develop, define and implement an agreed-upon containment activity over and above your current process controls and containment activity.
2. Clearly identify the qualified shipments.
3. Meet the defined exit criteria.
Note: Failure to comply with this process, or the inability to implement a successful action plan or containment activity, will result in the implementation of Controlled Shipping 2 and/or New Business Hold-Quality.

**Supplier Responsibilities during Controlled Shipping 1:**

- Provide a list of similar part numbers affected by the Controlled Shipping action to FlexAutomotive SQA Engineer – add the name of the relevant SQA Engineer/location
- Contain all non-conforming parts at the supplier, warehouses, in transit and at any FLEXAUTOMOTIVE locations immediately upon notification of Controlled Shipping status.
- Provide an additional inspection for the defect(s) noted in an inspection area which is separated from the normal production area. (The inspection area may be located within the normal production area if the FLEXAUTOMOTIVE representatives approve the location based on material flow, possible damage from excessive handling or product design considerations).

Provide inspection by using the attached chart Containment workplace layout and the PARTS SORTING RESULT SHEET at a frequency of whole volume of produced parts which should be sent to name of SQA Engineer /location.

- Implement irreversible, permanent corrective action in a timely manner, i.e. implement error proofing.
- Requalification for the parts is necessary
- Pay for all additional costs due to Controlled Shipping.

**Exit Criteria:**

Inspection data of the redundant outgoing inspection shows no rejects in the inspection area for a minimum of 30 days or 3 production lots after implementation of CSL 1.

Implement error proofing as appropriate within your process for the defect(s) noted above.

Evidence, that a thorough problem-solving process was used, the true root cause of the problem was discovered and the irreversible corrective actions were implemented and validated.

Statistical process control used when appropriate, to confirm a stable and capable process 30 days after implementation of irreversible corrective action.

All documentation (Potential Failure Mode and Effects Analysis (PFMEA), Process Control Plan, Process Flow Diagram, Operator Work Instructions) is modified and PPAP submission executed, if required.

The supplier will remain in CSL 1 status until written authorization to exit from CSL 1 is received from the FLEXAUTOMOTIVE SQA Management.

Sincerely,

FlexAutomotive
Global Supplier Quality Assurance Manager
Appendix 2 - Entry of CSL2

To:
Add the name of your contact person within supplier’s organization
Add the name of supplier
Add the address of supplier

Subject:
Entry Controlled Shipping Level 2

Dear Valued Supplier,

Controlled Shipping is a part of FLEXAUTOMOTIVE’s Supplier Quality Escalation Process. FLEXAUTOMOTIVE has determined, that current controls by your organization are not sufficient to insulate FLEXAUTOMOTIVE plant add the location of plant from the receipt of nonconforming PCBAs produced by your facility. This letter is a formal notification and confirms discussion held with you, add the manufacturing location of supplier has been placed in Controlled Shipping Level 2 for the non-conformances detailed:

<table>
<thead>
<tr>
<th>Supplier Plant Location(s)</th>
<th>Add supplier’s plant location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8D</td>
<td>Add the number of the complaint</td>
</tr>
<tr>
<td>Non-conformances ***</td>
<td>Describe the failure</td>
</tr>
<tr>
<td>Affected Part Number(s) ***</td>
<td>Add the affected FlexAutomotive part number(s)</td>
</tr>
<tr>
<td>Affected Part Name(s)</td>
<td>Add the description of the affected part(s)</td>
</tr>
<tr>
<td>Affected FLEXAUTOMOTIVE receiving plant(s)***</td>
<td>Add here the location of other FlexAutomotive plants affected by the problem</td>
</tr>
<tr>
<td>Affected FLEXAUTOMOTIVE Project</td>
<td>Add the name of the Project</td>
</tr>
<tr>
<td>Intended Start Date</td>
<td>mm/dd/yy</td>
</tr>
<tr>
<td>Intended End Date</td>
<td>mm/dd/yy</td>
</tr>
</tbody>
</table>

***This Controlled Shipping process may be extended on ALL similar part numbers or similar manufacturing processes for those listed non-conformances for ALL possibly affected FLEXAUTOMOTIVE products at the discretion of the FLEXAUTOMOTIVE SQA management.

If you have any questions please contact Flextronics Global Supplier Quality Assurance Manager, who will be monitoring and defining your controlled shipping activities.
The procedures you have enacted to date have been insufficient in stopping the flow of non-conforming material to our plant. Therefore, you must immediately:

1. Develop, define and implement an agreed-upon corrective action activity for the concrete occurrence (root cause).
2. Clearly identify and mark with CSL 2 label the selected shipments.
3. Meet the defined exit criteria of CSL 2.

Note: Failure to comply with this process or the inability to implement a successful action plan or containment activity, will result in the implementation of New Business Hold-Quality.

Supplier responsibilities during Controlled Shipping Level 2:

Contain all non-conforming parts at the supplier, warehouses, in transit and at any FLEXAUTOMOTIVE locations immediately upon notification of Controlled Shipping status.

Contract immediately with purchase order the services of the 3rd party provider company selected by the customer and provide a copy to add the name of FlexAutomotive SQA Engineer.

Provide an additional place for inspection for the 3rd party provider defined by customer according to the Quality Agreement signed.

Cooperate with the 3rd party provider company on the interface area.

Enable 3rd party provider the execution of the inspection by using the attached scheme chart of the redundant inspection (see below). The provider supplies the PARTS SORTING RESULT SHEET at a defined frequency to FLEXAUTOMOTIVE - add the name of FlexAutomotive SQA Engineer.

Implement irreversible, permanent corrective action in a timely manner, i.e. implement error proofing.

Revise all PPAP documentation, if required.

Pay for all additional costs due to Controlled Shipping Level 2.

Establish and communicate the status of improvement plans with FLEXAUTOMOTIVE Supplier Quality Assurance - add the name of FlexAutomotive SQA Engineer.

Exit Criteria:

Inspection data of the redundant outgoing inspection of 3rd party provider shows no rejects in the inspection area for a minimum of 5 weeks after implementation of CSL 2. In case of failure found within 5 weeks time frame at the CSL 2 activity, the CSL 2 will be restarted.
Implement error proofing as appropriate within your process for the defect(s) noted above.

Evidence, that a thorough problem-solving process was used, the true root cause of the problem was discovered and the irreversible corrective actions were implemented and validated.

Statistical process control used when appropriate, to confirm a stable and capable process during 5 weeks after implementation of irreversible corrective action.

All documentation (Potential Failure Mode and Effects Analysis (PFMEA), Process Control Plan, Process Flow Diagram, Operator Work Instructions) is modified and PPAP submission executed, if required.

The supplier will remain in CSL 2 status until written authorization to exit from CSL 2 is received from the FLEXAUTOMOTIVE SQA Management.

Sincerely,

FlexAutomotive
Global Supplier Quality Assurance Manager
Appendix 3 - Exit of Controlled Shipment Level

<table>
<thead>
<tr>
<th>Supplier Plant Location(s)</th>
<th>Add supplier’s plant locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>8D</td>
<td>Add the identification number of Quality Complaint</td>
</tr>
<tr>
<td>Non-conformances</td>
<td>Describe the failure here</td>
</tr>
<tr>
<td>Affected Part Number(s)</td>
<td>Add the FlexAutomotive partnumber(s)</td>
</tr>
<tr>
<td>Affected Part Name(s)</td>
<td>Add description of the part(s) affected by the quality problem</td>
</tr>
<tr>
<td>Affected FlexAutomotive receiving plant(s)</td>
<td>Add the FlexAutomotive location (city/country)</td>
</tr>
<tr>
<td>Intended END date</td>
<td>mm/dd/yy</td>
</tr>
</tbody>
</table>

Sincerely,
FlexAutomotive
Global Supplier Quality Assurance Manager