

Aptiv Customer Specific Requirements

*For Use with ISO 9001:2015
and IATF16949:2016*

Effective December 20, 2017

Introduction

Suppliers shall develop a quality management system that meets industry standards and Aptiv's requirements. This Aptiv Customer Specific Requirements (CSR) document sets forth Aptiv's requirements that shall be followed by its suppliers.

The content of this CSR is based upon the ISO 9001:2015 and IATF 16949:2016 quality standards. Additional Aptiv requirements not covered by the quality standards are documented in the corresponding sections. Suppliers shall also follow the latest editions of the Normative Reference Documents listed below.

Exceptions to any of these requirements must be authorized in writing by the appropriate Aptiv functional area manager and the Aptiv buyer. Contact your Aptiv buyer with any questions regarding this document.

Scope

This document applies to Suppliers that provide direct products or materials for Aptiv. This document is available for download from: www.aptiv.com/suppliers. This English language version shall be the official version; any translations of this document are for reference only.

Normative Reference Documents

- IATF 16949 Automotive Quality Management System Standard
- ISO 9001 Quality Management Systems
- ISO 14001 Environmental Management Systems
- ISO 19011 Guidelines for Auditing Management Systems
- ISO 45001 Occupational Health and Safety Management Systems
- Aptiv's Customers' Customer Specific Requirements
- Aptiv Global Packaging and Shipping Manual
- Aptiv Global Container Label Requirements Manual
- Aptiv Supplier Containment Procedure
- Production Part Approval Process (PPAP)
- Statistical Process Control (SPC)
- Potential Failure Mode and Effects Analysis (PFMEA)
- Advanced Product Quality Planning and Control Plan (APQP)
- Measurement Systems Analysis (MSA)
- Minimum Automotive Quality Management System Requirements for Sub-Tier Suppliers (MAQMSR)
- AIAG CQI-8: Layered Process Audit Guideline
- AIAG CQI-9: Special Process / Heat Treat System Assessment
- AIAG CQI-11: Special Process / Plating System Assessment
- AIAG CQI-12: Special Process / Coating System Assessment
- AIAG CQI-14: Consumer-Centric Warranty Management
- AIAG CQI-15: Special Process / Welding System Assessment
- AIAG CQI-17: Special Process / Soldering System Assessment
- AIAG CQI-18: Effective Error Proofing
- AIAG CQI-19: Sub-Tier Supplier Management Guideline
- AIAG CQI-20: Effective Problem Solving Practitioner Guide
- AIAG CQI-21: Effective Problem Solving Leader Guide
- AIAG CQI-22: The Cost of Poor Quality Guide
- AIAG CQI-23: Special Process / Molding System Assessment

Terms and Definitions

AIAG: Automotive Industry Action Group – a not-for-profit association where auto industry members collaborate to develop common global standards for Quality, Supply Chain, and Corporate Responsibility issues.

APV: Annual Purchase Value – The value of the products Supplier provides to Aptiv.

AQE: Advanced Quality Engineer – Aptiv’s engineer responsible for assessing potential Suppliers and directing contracted Suppliers through the APQP process until the product is in production. In some regions, the Supplier Quality Engineer (SQE) may perform this role.

ASN: Advanced Shipment Notification – An Electronic Data Interchange (EDI) transaction that provides the receiving company with specific detailed information about the shipment in advance of delivery.

ASP: Aptiv’s Supplier Portal – A web site (www.aptiv.com/suppliers) allowing Suppliers to access information and interact with Aptiv. It is the single point of electronic contact (eContact) between Aptiv and its supply base.

BCP: Business Continuity Plan – A written plan that details the Supplier’s planned actions in response to a natural and/or man-made disaster or emergency (e.g., natural disasters, utility interruptions, labor shortages, key equipment failure, system failure, field returns, etc.).

Capacity Verification – A verification methodology to demonstrate that a Supplier can meet the capacity planning volume requirements as defined in the Aptiv Request for Quote (RFQ).

Covisint – A business-to-business company that provides services and tools in an on-line environment.

DUNS: Data Universal Number System – A unique nine (9) digit identifier for businesses assigned by Dun&Bradstreet.

Family Parts – Groups of parts processed on the same production line, using the same control plan, PFMEA, and process equipment. The parts differ only in end item value. PPAP for the “family” is approved by using the extreme values of the “family” specification to define the “family” boundaries.

FTQ: First Time Quality – A measure of the number of pieces rejected in a manufacturing process versus the total number of pieces attempted. FTQ can be measured at any step in the manufacturing process where parts are rejected. FTQ is reported in Parts Per Million (PPM) defective.

IATF: International Automotive Task Force – a group of automotive manufacturers and their respective trade associations, formed to provide improved quality products to automotive customers worldwide.

ISO: International Organization for Standardization – an independent, non-governmental international organization that develops voluntary, consensus-based, market relevant International Standards.

Problem Case – Aptiv’s Problem Solver document used to track Supplier performance issues that impact a Supplier’s Scorecard.

Problem Solver – A web-based system designed to quickly communicate problems to Suppliers and a forum for problem resolution.

Site – A specific physical location under one (1) address, such as a manufacturing plant, that can be assigned a DUNS.

SPDP: Supplier Performance Development Process – Aptiv 's process for developing and managing Suppliers' quality.

SQ: Supplier Quality – Aptiv’s organization responsible for working with Suppliers to manage the incoming quality of purchased parts and components.

SQE: Supplier Quality Engineer – Aptiv’s engineer responsible for managing current production quality issues and continuous improvement with Suppliers.

SS/CR: Supplier Suggestion / Change Request – Method which Suppliers must use to notify Aptiv of any design and process changes as defined in the PPAP manual. Supplier Suggestions for Cost Savings - Supplier cost savings suggestions and ideas to Aptiv are also submitted via the SS/CR.

Sub-Supplier – Providers of production materials, service parts, assemblies, heat-treating, welding, painting, plating, or other finishing services directly to any Aptiv Supplier; may also be called a Tier Supplier or Sub-Tier Supplier.

VDA: Verband der Automobilindustrie – the German Association of the Automotive Industry.

ISO 9001 Clause	<i>The IATF 16949 standard is a supplement to ISO 9001, hence, ISO 9001 clause numbers are referenced.</i>
4.3	<p>Quality Management System All ISO 9001 / IATF 16949 requirements and all requirements of this document shall be integrated into Supplier’s quality management system. Unless otherwise authorized, the ultimate objective is for Suppliers to become certified to both ISO 9001 and IATF 16949.</p>
4.4	<p>General Requirements Supplier’s entire facility shall be registered to the applicable standard. Aptiv satisfies the goal of Supplier conformity to ISO 9001 / IATF 16949 as follows:</p> <ol style="list-style-type: none"> a. Registration to ISO 9001 (minimum acceptable level) and IATF 16949 (preferred) applies to Suppliers that manufacture direct products or materials for Aptiv. b. Aptiv shall be added to the scope at Supplier’s initial certification or recertification to ISO 9001 / IATF 16949. c. Only accredited certification bodies shall be used for registration to ISO 9001 / IATF 16949. d. Every manufacturing site of a Supplier shall be individually registered either by single site or by corporate scheme. e. A clear summary definition of what product value added process shall be included in the registration scope (e.g., manufacturing assembly, etc.) along with the address for each manufacturing site. <p>NOTE: Aptiv may waive the ISO 9001 / IATF 16949 requirements when a Supplier to Aptiv either (i) provides less than \$100,000 APV and may not have adequate resources to develop a quality system to ISO 9001 / IATF 16949; or (ii) has automotive sales that are less than 10% of its total business. Aptiv may also consider the type of products supplied, quality system, manufacturing and delivery systems capability and any risk to Aptiv prior to granting any waiver.</p>
6.1.2	<p>Business Continuity and Risk Management Supplier shall assess potential risks that may disrupt its production and/or shipments. Supplier shall develop and maintain a Business Continuity Plan (BCP) with respect to those risk events. Risks include, but are not limited to:</p> <ul style="list-style-type: none"> • Natural disasters – flood, windstorm, earthquake, etc. • Localized events – fires, explosion, terror threats, utility disruption, etc. • Raw material issues • Sub-Supplier issues • Labor issues – strike, illness, training, security, human resource policies, etc. • Information Technology (IT) issues – data security/recovery, systems, cyber-security, etc. • Regulatory or compliance issues

	<p>Supplier's BCP process shall define preventative measures, immediate responses, recovery steps, and timing to resume production of a quality product. Robust plans shall include:</p> <ul style="list-style-type: none"> • Defined roles and responsibilities • Response organization and contact information • Initial actions • Escalation procedures • Communication plans • Recovery plans
7.1.5	<p>Measurement System Analysis</p> <p>Supplier shall perform a gauge study on each gauge used for checking a special characteristic (significant, critical, or Supplier identified) in accordance with the methods and timing described in the latest AIAG Measurement Systems Analysis (MSA) manual to determine measurement system capability. Supplier shall have a containment plan for gauges that do not meet the MSA specification (such as 100% inspection, gauge improvement, etc.). Supplier shall maintain gauge study records. The above requirements apply to all measurement systems referenced in the control plans.</p>
7.5	<p>Control of Records</p> <p>Unless otherwise specified by Aptiv, production part approvals, tooling records, purchase orders and amendments shall be maintained for the length of time that the part (or family of parts) is active for production and service requirements plus one (1) calendar year. This includes any Aptiv owned tooling.</p> <p>Production inspection and test records (e.g., control charts, inspection, test results, etc.) shall be retained for one (1) calendar year after their creation. Records of inspection and actual test result(s) (variables or attributes) shall be recorded and maintained for each inspection or test performed.</p> <p>Records for internal quality audits and management reviews shall be retained for three (3) years.</p> <p>Some programs may require longer retention periods than specified above. Supplier may specify the longer retention period in its procedures and/or specifications. The above retention periods shall not supersede any regulatory requirements.</p>
8.1	<p>Planning of Product Realization</p> <p>The AIAG Advanced Product Quality Planning and Control Plan (APQP) manual shall be used to develop and report progress on new programs. Supplier shall utilize APQP forms and process flows unless otherwise authorized by the responsible Aptiv AQE/SQE.</p> <p>Aptiv's Supplier Performance Development Process (SPDP) contains the major standards for advance quality planning and current production cycle. The Aptiv Supplier Quality Documents (including technical cleanliness, special processes, etc.) are posted on Aptiv's Supplier Portal (ASP). The Aptiv AQE/SQE shall communicate any waivers from the SPDP.</p>
8.2.1	<p>Customer Communication</p> <p>Supplier shall have appropriate hardware and software to access and use ASP applications. Supplier shall complete its registration in ASP and maintain a Supplier Profile Administrator for its locations. Supplier shall obtain and maintain current DUNS numbers in ASP applications for each of its locations.</p> <p>Supplier's registration to Aptiv Problem Solver for all its manufacturing locations is a requirement for conducting business with Aptiv. Supplier shall access Aptiv Problem Solver, monitor its Problem Cases as generated, and respond as required.</p>

	<p>Supplier shall have at least one (1) primary and one (1) secondary person familiar with ASP supporting all its locations. Supplier shall utilize the Aptiv Help Desk resource to resolve ASP problems as needed.</p> <p>Quality Certification Documentation Supplier should post its latest valid and complete quality management system certificate(s) in the Supplier Profile application in ASP. Quality certificates shall be in English or include an accurate English translation. Supplier shall ensure that its certificate name and address information matches the DUNS location in the Supplier Profile. Supplier shall include all requested quality certification information in the specified fields of the Aptiv RFQ on all quotation submissions.</p> <p>Certification Body/Registrar Notification Suppliers registered to ISO 9001, ISO/TS 16949, and/or IATF 16949 shall notify Aptiv of certificates that are revoked or placed on suspension. Supplier shall notify its Aptiv SQE of plans to change registrars.</p> <p>Manufacturing Site Change Supplier shall not change manufacturing location without prior written authorization from Aptiv’s authorized change management responsible personnel. Any request by Supplier to change manufacturing location shall be submitted via the Supplier Suggestion / Change Request (SS/CR). Any manufacturing site changes require new PPAP.</p> <p>Customer Representative Change If there is a change to the Supplier’s customer representative(s), Supplier shall update contact information in the Supplier Profile application in ASP.</p> <p>Enterprise Resource Planning (ERP) and/or Material Requirement Planning (MRP) Supplier shall inform Aptiv in advance of any changes to its systems that may result in system failures impacting ERP and/or MRP. Notice must be made within a reasonable amount of time to allow for proper planning and include a Business Continuity Plan (BCP) that is to be executed if an interruption to ERP and/or MRP occurs.</p> <p>Inquiries Supplier shall respond to all Aptiv inquiries in writing or via e-mail by the due date stated on the inquiry.</p>
8.2.3	<p>Aptiv-Designated Special Characteristics Aptiv’s AQE/SQE shall notify Supplier of any Aptiv-Designated or Customer-Designated Special Characteristics to be used on control plans, drawings, FMEAs, etc. Supplier shall ensure use of these specific symbols.</p> <p>Manufacturing Feasibility Supplier shall perform manufacturing feasibility reviews and include Supplier and Aptiv team members as appropriate. Requests from Aptiv for volume changes of 20% or more over Supplier’s previously verified volume capability shall require full volume feasibility studies. Supplier’s capacity study shall include identification of the capacity constraints and evaluation of risk to Aptiv. Supplier shall provide the results of studies to the Aptiv AQE/SQE. The capacity information provided with the Supplier’s quote shall reflect its available daily capacity and operating plan (hours per day, days per week).</p> <p>Supplier’s operating plan shall meet Aptiv’s weekly volume requirements and current model service requirements and shall be 100 hours/week or less. Supplier shall notify the Aptiv buyer for approval of any operating plan using more than 100 hours/week. Supplier shall have capability to provide 20% above its quoted volume without additional investment from Aptiv. If, at any time, Supplier detects future capacity issues or constraints based on Aptiv’s forecast, it should immediately inform the Aptiv buyer and Aptiv Production Control and Logistics (PC&L).</p>

8.3.4	<p>Design and Development Review When reviewing product design and development stages, Supplier shall participate in and execute APQP requirements. Suppliers of material containing embedded software shall retain documented information of its software development capability self-assessment (ref: IATF 16949, 8.4.2.3.1).</p> <p>Design and Development Verification Supplier shall perform design verification to show conformance to Aptiv’s design validation and qualification requirements. At a component level, Supplier shall develop a qualification plan with the design engineering activity at Aptiv. Go/No-Go results should be avoided and, where available, the actual value for variables data shall be recorded.</p> <p>Prototype Program The Aptiv buyer shall provide Supplier with relevant prototype requirements for any prototype programs. Supplier shall provide prototype control plans, FMEAs, and other quality documents when requested by Aptiv engineering or Aptiv SQ.</p> <p>Prototype Parts Supplier shall submit inspection reports when delivering sample parts, as instructed by the Aptiv receiving unit. If Aptiv’s review of the inspection report indicates that the parts do not agree with the prints or examination of the parts discloses and unsatisfactory condition not covered by the inspection report, Supplier shall resolve all discrepancies with the Aptiv Product Design Engineer and communicate the resolution in writing to the Aptiv buyer or Aptiv SQ. If resolution of the discrepancy results in a tooling, material, or processing change, Supplier shall correct the situation (at Supplier’s expense), resubmit an inspection report on the revised parts, and communicate the resolution in writing to the Aptiv buyer and Aptiv SQ.</p> <p>Engineering Specification Test Performance Requirements Supplier shall develop a plan to meet in-process testing requirements and submit information for approval as part of its PPAP submission package. Supplier shall include reaction plans to failures in the IP test plan.</p> <p>Product Approval Process Supplier shall comply with the current edition of the AIAG PPAP manual unless otherwise specified by Aptiv. Copies of Supplier’s PPAP documents shall immediately be made available upon request.</p> <p>Run at Rate In accordance with Aptiv’s SPDP and APQP, Supplier shall conduct Run at Rate (R@R) to verify production capacity and quality system effectiveness. Supplier shall develop and implement a First Time Quality (FTQ) improvement process, prioritizing FTQ issues, to achieve continuous improvement.</p>
8.3.6	<p>Control of Design and Development Changes Supplier shall retain documentation of Aptiv approval of all changes implemented during the life of the material. Supplier shall label shipments of new or revised material per instruction from Aptiv Production Control at the receiving location.</p> <p>Supplier Change Requests Supplier shall use the Supplier Suggestion / Change Request (SS/CR) for all change requests. Supplier shall not make changes without prior written approval from Aptiv’s authorized change management responsible personnel.</p>

8.4.2	<p>Statutory and Regulatory Conformity (Material Expectations) Supplier shall provide samples, testing, environmental, and Safety Data Sheet (SDS) information within the timeframe stated by Aptiv. SDS is required for bulk materials, raw materials, rust preventive, grease, lubricating oil, or any other chemical materials that are on, in, or part of an assembly provided to Aptiv.</p> <p>Substances of Concern and Recycled Content Supplier shall disclose the composition of all parts supplied, or proposed to be supplied, as detailed in the Aptiv 10949001 Substances of Concern and Recycled Content specification on ASP.</p> <p>Incoming Product Quality Supplier shall ensure the quality of the parts it produces, its Sub-Supplier’s quality and delivery performance (including those Sub-Suppliers directed by Aptiv), and subcontracted services meet Aptiv specifications and requirements.</p> <p>When Supplier determines incoming inspection of Sub-Supplier material is necessary, this activity shall be consistent with the risk and quality impact of the Supplier on Aptiv’s product quality. Such incoming inspections shall include variables data, where appropriate, and be used as a key indicator for Sub-Supplier quality management. Where high risk has been identified in the subcontracted process, Supplier shall ensure containment is in place to protect Aptiv. For attribute data sampling, the acceptance level shall be zero defects.</p>
8.5.1	<p>Failure Mode and Effects Analysis (FMEA) FMEAs shall be prepared using the AIAG Potential Failure Mode and Effects Analysis manual, unless otherwise authorized by Aptiv SQ.</p> <p>FMEAs may be written for families of parts where batch processes and/or common tooling is used. Families shall be clearly defined and have a full part number listing. Family designations must be approved by Aptiv engineering and Aptiv SQ.</p> <p>Supplier shall provide a copy of the family FMEA documents for review when requested by Aptiv. If the document is considered proprietary, Supplier may provide the applicable section or provide qualified technical support and bring the FMEA to the Aptiv requestor for review without retention of copies. A letter stating the proprietary nature of the FMEA shall be included in the PPAP submission package.</p> <p>Potential failure modes with a severity of seven (7) or greater shall be continually improved to reduce the occurrence to a one (1) or reduce the detection to a five (5) or lower.</p> <p>Control Plans The APQP manual shall be used as a guide in developing and maintaining control plans. Supplier shall maintain a change history as part of its control plan to document implementation of changes.</p> <p>Supplier shall have control plans for all parts supplied to Aptiv. Family control plans may be used for parts with common processes. Supplier shall clearly define the family on the control plan so that applicability is defined.</p> <p>Supplier’s design and process controls shall focus on prevention rather than detection and correction. Special attention shall be placed on the identification of input control characteristics rather than post-processing inspection and/or containment. Repaired, reworked, or out-of-process products shall be re-inspected to all control plan requirements and documented procedures.</p> <p>Verification of Job Set-ups Supplier’s set-up verification standards shall include exchanges of manual or hand-held tools.</p>

	<p>Production Scheduling</p> <p>Supplier shall be certified by Aptiv as a capable and compliant EDI trading partner. Supplier shall send ASNs to Aptiv on the shipment date and no later than thirty (30) minutes after Supplier ships products to Aptiv. Supplier shall notify Aptiv within the same working day if Supplier encounters any EDI transmission failures and call Aptiv to resolve EDI issues.</p> <p>Aptiv shall provide Supplier with rolling forecast information for Supplier’s planning purposes. Supplier shall make shipments adhering to Aptiv’s current ship authorization (examples: DELJIT, Call-Off, pick-up sheet, kanban, etc.). Supplier shall deliver products as released, including fluctuations equal to +/- twenty percent (20%) of the scheduled amount. Supplier shall immediately contact its Aptiv plant scheduler if unable to meet requirements or if there are questions. For contract issues, Supplier should contact its Aptiv buyer.</p> <p>Scheduling Lead Time. For purposes of this Agreement, “lead time” is the amount of time in calendar days permitted between Supplier’s receipt of Aptiv’s firm schedule and when Supplier shall have products available for shipment. Standard lead time allotted to Supplier during regular production is one (1) week. Any exceptions to this standard lead time shall be agreed upon by Aptiv and Supplier during the quoting process and documented in the purchase order(s).</p> <p>Standard Fabrication Authorization is two (2) weeks and standard Material Authorization is two (2) additional weeks, for a total of four (4) weeks. All information provided by Aptiv beyond four (4) weeks is for planning purposes only. Any exceptions to these time periods shall be agreed upon by Aptiv and Supplier during the quoting process and documented in the purchase order(s).</p>
8.5.2	<p>Identification and Traceability Labels</p> <p>Supplier shall package and label products in accordance with Aptiv’s written requirements (including, without limitation, Aptiv Global Packaging and Shipping Manual, Aptiv Global Container Label Requirements Standard and Aptiv European Odette Label Requirements Standard) located on www.aptiv.com.</p>
8.5.3	<p>Tool Inventory / Disposal</p> <p>Supplier shall furnish a tool inventory of all Aptiv-owned tools (active and inactive) in its possession (or in the possession of its Sub-Supplier(s)). The tool inventory shall be submitted to the Aptiv buyer annually by January 31st.</p> <p>The inventory shall contain the following information for each Aptiv-owned tool:</p> <ul style="list-style-type: none"> • Tool part number(s) – typed in numerical order • Current tool revision • Description • Date of parts last ordered • Total cost of tool • Quantity of parts produced from tool • Remaining tool life • Previous part number – if tool has been changed to produce a different part number • Aptiv Design Engineer’s name <p>Aptiv shall determine the disposition of all Aptiv-owned tooling and such disposition shall be communicated to Supplier in writing by Aptiv and include a Return Material Authorization.</p> <p>If requested by Aptiv, Supplier shall mark tooling as Property of Aptiv (or, when applicable, Property of Aptiv’s Customer).</p>

8.6	<p>Layout Inspection and Functional Testing</p> <p>Supplier shall annually perform a layout inspection and functional verification to all engineering material and performance requirements. If discrepancies are found, Supplier shall contact Aptiv SQ for resolution. Supplier shall submit corrective action and communication of the updated inspection and verification to Aptiv SQ for approval.</p> <p>Suppliers shall annually perform a raw material certification with updated laboratory scope of accreditation.</p>
8.7.1	<p>Control of Non-Conforming Product</p> <p>Supplier shall have an internal containment procedure that integrates the requirements of the Aptiv Supplier Containment Procedure located on <i>www.aptiv.com</i>.</p>
9.1.1	<p>Identification of Statistical Tools</p> <p>Supplier shall use the latest AIAG Statistical Process Control (SPC) manual for manufacturing process controls and the latest AIAG MSA for measurement system equipment management.</p>
9.1.2	<p>Customer Satisfaction</p> <p>Supplier shall establish processes and designs to achieve zero defects, 100% on-time delivery, green quality and shipping scorecards.</p> <p>Scorecards</p> <p>Aptiv monitors Supplier quality and shipping performance and drives corrective actions for improvements through Supplier Scorecards. Supplier shall review and verify monthly updates and ensure action plans are developed to achieve green quality and shipping scorecards.</p> <p>Scorecard Usage to Drive Improvement</p> <p>If Supplier's scorecard has a red indicator(s), quality score(s), or shipping score(s), Supplier shall establish aggressive action plans to drive improvement to green. If Supplier's scorecard has a yellow quality score(s) or shipping score(s), Supplier shall develop and implement action plans to drive improvement to green.</p> <p>If Supplier is on Controlled Shipping Level 2, on New Business Hold, or has a twelve (12) month red average on its quality or shipping scorecard, Supplier shall expedite appropriate corrective action steps. NOTE: Supplier shall notify its Registrar in writing within five (5) calendar days of being placed on Controlled Shipping Level 2 and/or New Business Hold.</p>
9.2.2	<p>Internal Audit</p> <p>Supplier's internal auditors shall be qualified as recommend in ISO 19011 Guidelines for Auditing Management Systems. In addition, its internal auditors shall be competent in understanding applicable ISO 9001, IATF 16949, VDA 6.3, and AIAG requirements.</p> <p>Supplier Development of Specially Designated Small Sub-Suppliers of Direct Automotive Product and Materials (Normative Reference: MAQMSR)</p> <p>When a Supplier has a Sub-Supplier that (i) is so small as to not have adequate resources to develop a system according to ISO 9001 / IATF 16949 or (ii) supplies non-engineered products, certain specified elements may be waived by Supplier.</p> <p>In the above, 'Small' refers to the volume supplier to the automotive industry or to the Sub-Supplier's annual sales volume. Supplier shall consistently apply the assessment criteria below to determine the specially designated Sub-Suppliers to which this provision may apply. At a minimum, Supplier shall (i) assess the Sub-Supplier's size, (ii) dollar value of the business, (iii) type of products supplied, (iv) quality</p>

	system, (v) manufacturing and delivery systems capability, and (vi) any risk to Aptiv cause by the Sub-Supplier's failure to develop a quality system. In addition, Supplier shall ensure that Sub-Supplier(s) develop a quality management system that facilitates defect prevention, monitoring, and improvement.
9.3	<p>Management Review</p> <p>Supplier's Management shall hold regularly scheduled quality/business operating system performance meetings to review:</p> <ul style="list-style-type: none"> (i) customer-focused metrics (ii) objectives and performance trends (iii) quality and delivery metrics; with the goal of zero defects and 100% on-time delivery performance
10.2	<p>Corrective Action and Problem Case Response</p> <p>Supplier shall monitor and respond to all Problem Cases issued by Aptiv within the required timeframe unless additional time has been requested and authorized by the Aptiv problem owner.</p> <ul style="list-style-type: none"> • Initial response due within 24-hours • Final response with verified root-cause analysis due within fifteen (15) calendar days <p>Supplier shall complete a 5-Why Analysis as a means of ascertaining and verifying root cause analysis.</p> <p>Aptiv communicates cost recoveries to Supplier with a Problem Case and through a Cost Recovery notice in Aptiv Problem Solver. Supplier shall respond to Cost Recoveries within seven (7) calendar days.</p>
10.3	<p>Continual Improvement</p> <p>Supplier shall use the Supplier Suggestion / Change Request (SS/CR) in conjunction with continual improvement activities.</p>

Additional Aptiv Requirements

Subject	Requirement
Payment	For North America, new Suppliers shall complete an Enterprise Activities Group "EFT Payment Authorization" to effect electronic funds transfer.
Tooling	<p>If tooling will be paid by Aptiv, Supplier shall be paid for tooling upon completion of full PPAP approval of the parts produced by tooling. Aptiv may require additional documentation of Supplier's actual tooling cost prior to issuing payment for tooling.</p> <p>If Supplier is tool design responsible, then Supplier shall complete reproducible tooling prints within six (6) weeks after PPAP approval (or at a start of regular production, whichever comes first) on all new program tools, tools undergoing an engineering change, and current tools that are revised.</p> <p>Supplier shall provide reproducible tooling prints for existing tools when requested by Aptiv.</p>
Transportation	For premium freight for which Aptiv is responsible, the Aptiv receiving plant will assign a Premium Transportation Authorization (PTA) number. Supplier shall document the PTA on its bills of lading.
Shipping	Aptiv shall name the applicable Incoterms in its purchase order(s). For shipments paid by Aptiv, it shall define the logistics routing, mode, and shipping frequency. At a minimum, Supplier shall be able to ship products daily. When required, Supplier shall utilize Aptiv's selected Transportation Management System. Supplier shall include proper documentation with all products shipped.

	<p>Supplier shall ship products in standard pack quantities in the smallest shipping container approved by Aptiv. Supplier shall ship quantities of less than one (1) standard pack only if agreed to in writing by Aptiv; no minimum order quantities shall be accepted.</p> <p>Supplier shall allow the authorized carrier’s agent to verify the shipped quantities against the scheduled quantities at the time the products are delivered to, or placed at the disposal of, the authorized carrier.</p> <p>If Supplier’s ship window compliance metric is not 100%, Aptiv may require Supplier to carry buffer stock as defined by Aptiv (at Supplier’s facility or Aptiv approved facility) until Supplier’s twelve (12) month average compliance is 100% per its supplier scorecard.</p>
<p>Product Safety Officer (PSO)</p>	<p>Supplier shall identify a Product Safety Officer (PSO) for each manufacturing site and enter this information in the Supplier Profile application in ASP. The PSO is the first point of contact for the product and reports directly to and/or is a member of its management team.</p>

Aptiv Customer Specific Requirements Change Log	Date
Revisions throughout the manual to reflect new company name, Aptiv (formerly Delphi). During the transition period, documents on <i>www.delphi.com</i> and <i>www.aptiv.com</i> (referenced within this manual) may still be converting to the new company name. Revisions to sections made in accordance with ISO 9001 and IATF 16949 updated requirements; content added for BCP, internal Audit, MAQMSR, new definitions; removed note relating to use of Delphi's rating table for PFMEA; updated Manufacturing Feasibility section.	19-Dec-17
Revisions made to the following sections: Quality Manual (Section 4.2.2); Technical Cleanliness (Section 7.1); ERP/MRP Changes (Section 7.2.3); ERP/PPAP for Mfg. Location (Section 7.2.3); Design and Development Review (Section 7.3.4); Supplier Change Approval (Section 7.3.7); Production Scheduling (Section 7.5.1.6); Supplier Audit (Section 8.2.2)	6-Sep-17
Clarified scope limited to direct material suppliers; deleted GSM – Global Supply Management from Section 3. Terms and Definitions; modified Section 7.2.3 regarding supplier administration of Delphi Supplier Portal requirement; modified first paragraph of "Shipping" section	8-Aug-16
Added CQI 8, 16 and 18-23 to Section 2; added Supplier Quality definition to Section 3; Added "SQ" in three places to Section 7.3.6.2; removed reference to SPDP Appendix 28 from Section 7.6.1; Added requirement to notify registrar to Section 8.2.1; Modified language regarding requirements for payment of tooling costs; Added Supplement Section Product Safety Officer (PSO) to the "Other Requirements."	1-Dec-15
Eliminated the following language from Section 7.6.1: The complete MSA shall be performed on critical characteristic features or dimensions (Bias, Linearity, Stability, Reproducibility and Repeatability) of the gauge or equipment used to evaluate the characteristic. (NOTE: A Supplier-defined adequate method may be used for evaluating Linearity)	1-Dec-14
Added language to section 7.2.3, Quality Certification Documentation, requiring inclusion of quality certification expiration date on all supplier quotations	1-Sep-14
Introduction modified instructing supplier to direct questions to Delphi buyer and reference to AIAG CQI-13 deleted due to obsolescence; Section 7.5.1.6 modified to clarify requirement; Shipping section modified to include advance confirmation of ship quantity	1-Jun-14
Prior revisions have been removed and placed in archive.	