

PUBLIC



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

LITENS GLOBAL SUPPLIER QUALITY MANUAL

Litens Automotive Group

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• IATF 16949 REGISTERED • ISO 14001 REGISTERED • ISO 45001 REGISTERED

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**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

Contents

1 Purpose..... 4

2 Scope 4

3 Approach 4

4 Implementation 4

5 Supplier Quality Requirements and Expectations 5

5.1 Supplier Quality System 5

5.1.1 Minimum Requirements..... 5

5.1.2 Quality Systems Audit 5

5.2 Supplier Performance Monitoring 5

5.2.1 Supplier Performance Reporting..... 5

5.2.2 Delivery Performance Ratings 6

5.2.3 Quality Performance Ratings 6

5.2.4 Supplier PPAP Performance..... 7

5.3 Component/Raw Material Handling/Lot Traceability..... 7

5.3.1 Component Handling/Preservation 7

5.3.2 Lot Traceability 7

5.4 Nonconforming Product/Corrective and Preventive Actions 8

5.5 Supplier Initiated Product or Process Changes 9

5.6 Process Audit-Sign-Off (PSO) / VDA 6.3 10

5.7 Delivery Assurance..... 11

5.7.1 Capacity Verification 11

5.7.2 Potential Disruptions to the Supply of Components..... 11

5.7.3 Holidays, Vacations & Shutdowns..... 12

5.7.4 Handling, Storage, Packaging, Preservation and Delivery 12

5.8 Supplier Approval Status..... 13

5.9 Litens Supplier Portal 13

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**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

5.10 Customer Specific Requirements 14

5.10.1 SAQ- Sustainability Requirement 14

5.10.2 TISAX Requirement 15

6 Supplier APQP Process Requirements 15


6.1 General requirements of Supplier APQP process 15


6.2 Design Control 16


6.3 RFQ Submission through Procure Force 16

6.4 Special Characteristics and Special Processes..... 16

6.4.1 Special Characteristics 16

6.4.1.1 SPC Characteristic (S-Cone)  17

6.4.1.2 Major Characteristic (M-Cone)  17

6.4.1.3 Pass-Through Characteristic (PTC): (M-Cone PTC),  PTC 18

6.4.1.4 Standard Characteristic: 18

6.4.1.5 Engineering Specification (ES) and Global Measurement Standard (GMS) 19

6.4.2 Special Characteristics Communication and Approval Form (SCCAF) 19

6.4.3 Error-Proofing 19

6.4.4 Annual Layout 19

6.4.5 Special Processes - AIAG CQI and Customer Specific Assessments 19

6.5 Component/Material Specifications 20

6.6 Prototype Part Submission 20

6.7 Production Part Approval Process 22

6.8 Warranty, Validation or Other Engineering Returns for Supplier Analysis & Report..... 24

7 APPENDIX & FORMS 25



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

1 Purpose

To define Litens' minimum Quality System requirements and expectations by directing the supplier to recognized industry standards for quality systems and providing additional or alternative Litens specific quality system requirements that must be satisfied.

2 Scope

The supplier requirements contained herein apply to all parties who agree to contract to Litens Automotive Group globally for the purpose of supplying products or services that will be used in Litens' products, **including three business units (ICE, EV, and Aftermarket).**

3 Approach

The words "shall," "will" and "must" indicate mandatory requirements. Suppliers choosing other approaches must be able to show that their approach meets the intent of the requirement. Translations of this document, in whole or in part, are intended solely as a convenience to the non-English-reading suppliers. If any questions arise concerning the accuracy of the information presented by a translated version, please refer to the English version which shall be considered as the official document.

4 Implementation

Suppliers are required to implement, maintain and continually improve on all requirements contained herein or referred to in this document. Conformance to such requirements will be evaluated in accordance with a recognized industrial standard (IATF/ISO/VDA) quality system assessment manual.



DELIVERING INNOVATION™

LITENS GLOBAL SUPPLIER QUALITY MANUAL

Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

5 Supplier Quality Requirements and Expectations

5.1 Supplier Quality System

5.1.1 Minimum Requirements

	Minimum Requirement
All components and services for production use	Current version of IATF 16949 and ISO 9001 or VDA standard third party registered by an accredited registrar
All components and services for production use – upon agreement from Litens.	Current ISO 9001 with 2 nd party audit as per IATF Minimum Automotive Quality Management Systems Requirements for Sub-Tier Suppliers (MAQMSR – current version).

5.1.2 Quality Systems Audit

Litens reserves the right to audit a supplier's quality system at any time, upon reasonable notice. Litens reserves the right to audit / visit supplier related operations with a customer or with a party identified by our customer.

5.2 Supplier Performance Monitoring

5.2.1 Supplier Performance Reporting

Litens issues supplier performance report cards. The purpose of the report card is to provide suppliers with feedback for continual improvement activities.

The report card results will be reviewed periodically by Litens' management. Chronic poor performance may result in a change of supplier approval status.

The supplier's report card may consist of a rating in the following areas:

- Supplier Delivery Performance
- Supplier Quality Performance (PPM)
- SCAR (Supplier Corrective Action Request) occurrences
- Responsiveness to SCARs
- PPAP Performance



DELIVERING INNOVATION™

LITENS GLOBAL SUPPLIER QUALITY MANUAL

Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

5.2.2 Delivery Performance Ratings

It is each supplier's responsibility to establish systems to support 100% on-time delivery and to complete internal corrective actions to improve delivery and communication of delivery problems. It is each supplier's responsibility to ship material according to the specified transportation mode, routing, standard pack, container or other Litens requirements.

Delivery Performance Ratings will be assigned and may require further actions as below:

- 100% - Meets requirement - no action required.
- 90-99% - An internal corrective / preventive action to be completed and documented.
- 89% and below - A full, completed 8D report shall be submitted to Litens with dated action plan. This report shall be sent to Litens within 10 business days of receipt of the Supplier Performance Report card. At Litens' discretion, the supplier's Senior Management may be required to meet with Litens to discuss the documented and dated action plan.

Additional corrective actions may be requested for potential or actual issues concerning delivery, transportation mode, routing, standard pack, container type or any other requirements.

5.2.3 Quality Performance Ratings

PPM Performance Ratings will be as follows:

- 0 ppm - Meets requirement - no action required.
- Above 1 PPM - A documented and dated action plan is required by Litens in response to each SCAR (Supplier Corrective Action Request) issued.
- Suppliers' PPM and SCAR frequency will be monitored. Suppliers with poor performance in these areas may be required to submit a documented and dated action plan. At Litens' discretion, the supplier's Senior Management may be required to meet with Litens to discuss the action plan.
- Regardless of the supplier's Quality Performance Rating, the supplier shall be responsible for all quality issues that may arise.



DELIVERING INNOVATION™

LITENS GLOBAL SUPPLIER QUALITY MANUAL

Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

5.2.4 Supplier PPAP Performance

- 100 % on time, completed PPAP package with conforming parts (approved by Litens) - Meets requirements - no action required.
- Failure to meet the above – Upon request from Litens' Tooling Manager, a full completed Corrective Action response shall be submitted to Litens' Tooling Manager with a dated action plan.

* All responses from the above items must be submitted to Litens within 10 business days of the report being issued to the suppliers.

5.3 Component/Raw Material Handling/Lot Traceability

5.3.1 Component Handling/Preservation

All parts, including those dropped on the floor or those removed from the normal process flow must be scrapped.

The supplier must ensure that all raw material, components, and packaging material is stored in an appropriate location while in their facility and are protected from damage or exposure to negative environmental conditions such as humidity. The supplier is responsible for the preservation and lot control of all Litens owned products that are in their possession.

If any product has a shelf life, this must be described and communicated to Litens PE.

5.3.2 Lot Traceability

All suppliers must have a robust lot traceability system in place as per IATF-16949 / ISO 9001 / VDA requirements,

- The system must effectively record all appropriate production information regarding the component including raw material, processing parameters and inspection records (including sub-components).
- The lot size must be appropriate to allow for effective containment should a quality issue arise.
- The supplier must ensure that all sub-suppliers also maintain an effective lot control system.



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

- All records must be filed so that they can be quickly and accurately accessed. Once a component non-conformance is identified, a response to Litens identifying all suspect material is required within 24 hours.
- The record retention requirement for lot control documentation is 5 years.

5.4 Nonconforming Product/Corrective and Preventive Actions

When parts are declared defective by Litens' Quality Assurance Department:

- 5.4.1.** A SCAR (Supplier Corrective Action Request) will be issued to the supplier. The defective material may need to be replaced.
- 5.4.2.** Once Litens' QA has informed the supplier about the rejected material, the supplier shall provide a Supplier Delivery Schedule for replacement parts to the Litens' Release Analyst/Expeditor. After the schedule has been received and agreed upon, the Release Analyst/Expeditor will issue the appropriate release.
- 5.4.3.** Suppliers shall ship the replacement material to Litens at their own cost.
- 5.4.4.** Suppliers can contact the Release Analyst/Expeditor to request authorization to ship replacement material, or to have defective material returned, using the Pre-Scheduled Delivery Route. If approved, freight charges may not apply.
- 5.4.5.** Where Nonconforming Product has been identified, part replacement costs will be recovered, and all indirect cost will be tracked by Litens. The amount of supplier charge back will be negotiated prior to a debit memo being issued.
- 5.4.6.** It is the supplier's responsibility to contact all other Litens facilities that may be affected by a quality issue. The Litens facility that provides the initial notification of a nonconforming part shall be considered to be the lead plant.
- 5.4.7.** The supplier must follow the individual instructions from any other Litens facility in regard to sorting parts or supplying certified replacement components.
- 5.4.8.** When a SCAR is issued, there is often a need to have suspect components that are in Litens' facility, or in transit, sorted and certified prior to being used.



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

- 5.4.9.** In order to control who will conduct the sorting activity, a list of Litens approved third party sorting companies has been compiled and has been posted on Litens' website.
- 5.4.10.** Suppliers are directed to use only the companies identified on this list.
- 5.4.11.** Where defective material has been identified either internally or by Litens' customer, a detailed written corrective action report must be submitted to Litens' Q.A. Department. The supplier must use the most current version of Litens 8D Problem analysis form posted on Litens website (<https://litens.com/suppliers/>).
- 5.4.12.** The initial corrective action report, identifying the containment actions must be submitted in writing within 24 hours of receipt of the notification of nonconformance.
- 5.4.13.** In addition to the formal written initial report, the supplier is expected to use any other form of communication necessary to ensure that appropriate containment activities are implemented as soon as possible. The final report must be submitted within 15 calendar days unless otherwise stated on the SCAR.
- 5.4.14.** The final report must include a detailed description of the corrective actions, including targeted completion dates for any actions that are not yet completed. The supplier must provide updates to Litens describing the status of the completion of the corrective actions.

5.5 Supplier Initiated Product or Process Changes

- 5.5.1** Suppliers must use Supplier Request for Change (SRC) form to notify Litens of any supplier-initiated changes. The SRC form is posted on Litens' website (<https://litens.com/suppliers/>)
- 5.5.2** The AIAG or VDA PPAP manual must be adhered to in regard to customer notification and submission requirements.
- 5.5.3** Suppliers must notify Litens prior to introducing any changes including, but not limited to the following:
 - Changes to the tooling or machines.
 - Additional tooling or machines to increase capacity.
 - Relocation or repositioning of machines or assembly lines.
 - Changes to an existing process.
 - Changes to test or inspection methods.



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

- Changes to sub-suppliers' components or processes.
- Implementation of a new ERP (Enterprise Resource Planning) system.
- Relocation of manufacturing facility. (Note, the timing for a plant move must be appropriate to the scale of the risks and complexity.)

5.5.4 When a supplier anticipates the need to initiate a change, they must download the SRC, enter the required information (including full details and a proposed timing plan), and send it to their primary Litens Buyer to obtain input/approval. If multiple Litens sites are impacted, the supplier is to submit the SRC only to the Litens facility that placed the initial order for the component. Litens will review the request and send a response back to the supplier indicating whether or not their proposal will move forward.

5.5.5 Any impact that a change may have to the fit, function, performance, durability or appearance shall be reviewed by Litens PE. A revalidation plan shall be established and completed prior to implementation.

5.5.6 It is clearly stated that this is only a request for change and the supplier must not implement any change until it is approved by Litens, and they receive instructions and PPAP approval.

5.6 Process Audit-Sign-Off (PSO) / VDA 6.3

A PSO or VDA 6.3 Process Audit may be conducted on any new suppliers or on any new or modified parts or processes. An audit may also be conducted on any current part or process at the discretion of Litens Automotive. The purpose of the audit is to verify that a supplier's quality planning has been successfully executed and that their production processes are capable of producing quality parts in sufficient quantity for production.

A process audit is a systematic review of the supplier's planned and actual manufacturing process at the quoted peak daily line rate, including manpower, facilities, equipment, material, methods, procedures, software level and tooling.



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

Process Audit Requirements and Documentation

Audits will be conducted using either Litens' Process Sign-Off Form (posted on Litens' website (<https://litens.com/suppliers/>) or the VDA 6.3 Audit format. When a supplier is notified that they will be audited to the VDA 6.3 standard, they must prepare for the audit by obtaining the most recent copy of the VDA 6.3 process Audit manual. (Available for purchase at (<http://webshop.vda.de/QMC/en/vda-63-analysis-tool>)).

When the supplier is notified of an upcoming audit, they must prepare documentation. The documents shall be compiled in an electronic file with dividing tabs for each checklist element. This file shall be presented to Litens during the audit. Litens may also request that key documents be provided prior to the scheduled on-site visit to allow Litens' audit team to review and comment on the documentation.

5.7 Delivery Assurance

5.7.1 Capacity Verification

Suppliers are required to verify their ability to produce sufficient components to meet the needs of Litens. Upon request from Litens, suppliers are to complete the Capacity Verification Sheet for Suppliers (posted on Litens website <https://litens.com/suppliers/>) and submit a signed copy to Litens.

5.7.2 Potential Disruptions to the Supply of Components

The supplier shall notify Litens immediately when there is a potential for any disruption to the supply of components. Causes for disruption may include, but are not limited to the following:

- component quality issues (identified internally or externally)
- sub-tier supply chain issues
- natural disasters
- line or plant stoppages
- transportation issues



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

- Widespread pandemics

Suppliers must also maintain a documented contingency plan to ensure that the supply of components to Litens is secured.

5.7.3 Holidays, Vacations & Shutdowns

Litens' Holidays, Vacations & Shutdowns

If a scheduled ship day or delivery day falls on any of Litens' recognized holidays or planned shutdowns, suppliers shall contact the Release Analyst/Expeditor or Inventory Analyst for instructions. The requirements may be brought forward, pushed back, or dropped depending on variables in our production cycle. Do not assume that Litens will not require parts due to the holiday.

Suppliers will be notified of alternate contact(s) when the Release Analyst/ Expeditor will be away on vacation.

Supplier Holidays, Vacations & Shutdowns

If a scheduled ship day falls on a supplier's non-production day, the supplier shall contact Litens' Release Analyst/Expeditor or Inventory Analyst for instructions at least one month in advance. When Litens' normal contact(s) at the supplier is going to be away for vacation or other reasons, suppliers shall provide an alternate contact(s). All supplier requirements including delivery performance cannot be jeopardized or compromised due to vacations.

Suppliers shall provide Litens with dates of holiday shutdowns as soon as they are known so that Litens may plan accordingly.

5.7.4 Handling, Storage, Packaging, Preservation and Delivery

Suppliers must also adhere to additional Litens requirements that are stated in Litens' Material Control, Packaging and Logistics manuals as well as Export Compliance requirements. Refer to Litens website for these documents (<https://litens.com/suppliers/>).

5.8 Supplier Approval Status

The supplier approval status levels are as follows:

Supplier Approval Status	Approval Status Description
Approved Suppliers	Meets all requirements
Approved with Conditions	A supplier is approved with conditions
HOLD – No New Business	May solicit quotes but will not award any new job until the HOLD status is removed
Unapproved	May solicit quotes but will not be awarded any job until the supplier is approved
Discontinued	Exit all business from Litens

An approved supplier may have to re-qualify for approved status in case of changes to ownership or to management responsibility for quality or change in financial standing of the company as appropriate.

Litens reserves the right to enforce, in full or in part, any of the above criteria.

5.9 Litens Supplier Portal

5.9.1 Litens Supplier Portal will be introduced based on the existing Procure Force platform as to share Litens suppliers' information among Litens global operations.

5.9.2 Suppliers are required to provide their latest information when they receive a notification from this portal, such as:

- **Expired QMS or EMS certificate**
- **Expired CQI self-assessment or Ford Specific Machining Assessment**
- **Updated supplier contact (notification is not delivered)**
- **Supplier Financial / Sustainability / TISAX checklist**
- **New Specific Surveys (form to be uploaded)**



DELIVERING INNOVATION™

LITENS GLOBAL SUPPLIER QUALITY MANUAL

Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

5.10 Customer Specific Requirements

Customer requirements will be transmitted and shall be adhered to as applicable by the supply chain. This includes technical drawings, components, tolerances, timing, processes, changes, legal and regulatory requirements. Litens' suppliers are required to convey the requirements to sub-tier suppliers as appropriate to ensure interfaces are identified and secured.

5.10.1 SAQ- Sustainability Requirement

Suppliers required to adhere to Litens Code of Conduct and Ethics for Suppliers as well as Sustainability requirements as posted on Litens website (<https://litens.com/suppliers/>).

This Code of Conduct and Ethics for Suppliers sets forth the basic principles that are committed to with respect to dealings with all Litens Suppliers and acts as a guide to assist suppliers in meeting the ethical standards. Litens has adopted this Code of Conduct and Ethics for Suppliers to highlight Litens commitment to company culture rooted in environmental protection, fairness, integrity, honesty, and concern for people.

Suppliers shall follow this Code of Conduct and Ethics for Suppliers. Failure to comply will lead to commensurate action, proportionate to the breach. In the case of a serious breach, Litens reserves the right to immediately terminate any and all business relationships with the Supplier.

The Code of Conduct and Ethics includes below requirements to suppliers:

- **Conducting Business within Appropriate Laws with Integrity, Fairness and Respect**
- **Protection of Confidential Information**
- **Record-Keeping**
- **Responsible Sourcing of Materials**
- **Counterfeits, Export Controls and Economic Sanctions**
- **Respect for Human Rights and Global Working Conditions**
- **Privacy**
- **Environment, Health, and Safety**
- **Etc.**



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

Litens adapts NQC SUPPLIERASSURANCE as a platform to implement SAQ5.0 requirements to monitor supplier’s sustainability status. Suppliers shall perform continuous improvement on SAQ Scores by accessing to <https://supplierassurance.com/login>.

5.10.2 TISAX Requirement

Supplier shall establish a sustainable information security management system to meet TISAX (Trusted Information Security Assessment Exchange) requirements.

Suppliers are recommended to register to ISO 27001 or a TISAX-Label via the ENX Portal to prove the compliance with information security requirements of the automotive industry.

If a supplier is not registered to ISO 27001 or TISAX-Label, it shall access to Litens on-line survey to complete all the questionnaires for gap analysis annually. Suppliers shall take actions to improve their information security system in the form of confidentiality, integrity, and availability.

6 Supplier APQP Process Requirements

6.1 General requirements of Supplier APQP process

6.1.1 The supplier shall participate in Litens' Product Realization Process (APQP) and take appropriate actions as requested by Litens. The level of participation will be based on the project timing, project risk assessment, and product complexity. The supplier shall work in conjunction with Litens Product Engineering to verify that sufficient actions are taken in order to reach the reliability target for both the component itself and its manufacturing process.

6.1.2 The supplier shall communicate their internal APQP status to Litens' Tooling Manager as requested. The frequency and method of APQP status reporting will be defined by Litens' Tooling Manager.

6.1.3 Litens reserves the right to take appropriate actions on consistent quality / delivery issues including Controlled Shipping, Enhanced Controlled Shipping, need for improvement Status, New Business Hold, etc. as the situation may warrant or to cascade customer complaints / actions.



DELIVERING INNOVATION™

LITENS GLOBAL SUPPLIER QUALITY MANUAL

Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

Supplier Contact Information [\(APQP X-Function Team\)](#)

It is the supplier's responsibility to ensure that their contact information is kept up to date. The supplier must notify the appropriate Litens manufacturing site(s) whenever there is either a temporary or permanent a change to the suppliers' management team or key contact personnel.

Suppliers who provide components or services that are used on VW products must also nominate a PSCR (Product Safety & Conformity Representative), previously called PSB, and notify Litens of the new representative if any change occurs.

6.2 Design Control

Reference Litens' drawing title block for Litens identified special characteristics.

6.3 RFQ Submission through Procure Force

Litens official method of quoting is through Procure Force, a procurement software used by all Litens Locations globally. New request for quotes will be sent by Litens buyers using this tool, as well as quotes on engineering changes and/or program assumption changes. Quote records history can be easily accessed at any time by buyers and suppliers.

For registering in Procure Force and training information, please contact your Litens designated buyer.

6.4 Special Characteristics and Special Processes

6.4.1 Special Characteristics

The identification of special characteristics on Litens' drawings is intended to communicate design characteristics in which additional attention and controls are required to ensure consistency and compliance to meeting safety, statutory, regulatory, fit, function, or performance requirements. Although these identified characteristics are typically product characteristics (i.e., length, width, diameter, etc.), it is expected that as a tier (n) supplier to Litens, specific process characteristics are established, identified, and controlled to ensure that the respective product characteristics are

achieved by the process. It is the responsibility of the supplier to ensure the ongoing review and analysis of special characteristics and for applying the concept of continual improvement to processes in an effort to reduce variation due to common causes.

Litens designated special characteristics are classified as follows:

6.4.1.1 SPC Characteristic (S-Cone)

A variable characteristic subject to in-process variation. The anticipated variation within specification could significantly affect customer satisfaction with a product (i.e., fit, function, performance). The following specifies the minimum requirements for any dimension designated as an SPC Characteristic:

- Must be statistically monitored using an appropriate control chart method (e.g., X-Bar and Range (R) chart).
- Gauge capability (R&R) must be demonstrated per current AIAG MSA or VDA 5 manual as directed by Litens.
- Performance Index (Ppk) must be equal to or greater than 1.67 for short term studies, (e.g., PPAP submission), unless otherwise specified.
- Capability Index (Cpk) must be equal to or greater than 1.33 for long term studies (e.g., mass production), unless otherwise specified.
- If capability is not met, 100 percent inspection is required until the process is stabilized, and capability can be met.
- Sample size and frequency of inspection must be documented on the Control Plan.
- For multiple cavity tools, measurement data from all cavities must be combined for the capability analysis, unless otherwise specified.
- SPC records and documents are to be readily available upon request.

6.4.1.2 Major Characteristic (M-Cone)

A variable characteristic not subjected to major in-process variations and/or the customer is equally satisfied across the entire specification, with high customer dissatisfaction immediately

outside of the specification. The following specifies the minimum requirements for any dimension designated as a Major Characteristic:

- Dimensions must not exceed engineering specification limits on any part.
- Dimensions should tend to be mean centered and in statistical control.
- Sample size and frequency of inspection must be documented on control plan.
- Records and documents are to be readily available upon request.
- Where required, error-proofing methods must be implemented to ensure that major characteristics are monitored and are compliant.
- A major characteristic symbol may be used with an additional note indicating 100% verification of conformance to requirements (e.g., 100% air gauge inspection required).

6.4.1.3 Pass-Through Characteristic (PTC): (M-Cone PTC),  PTC

Product characteristics for features of parts supplied to Litens that are not controlled or functionally verified by Litens. As a result, defective parts can pass-through Litens to the customer’s assembly plant, vehicle operations or the buying public. The following specifies the minimum requirements for any dimension designated as a Pass-Through Characteristic PTC:

- Pass-Through Characteristics are evaluated jointly between the customer (as required), Litens, and the supplier during the development of the PFMEA / Control Plan.
- Where required, robust error-proofing methods are implemented to ensure that PTC's are monitored and are compliant.
- Records and documents are to be readily available upon request.

6.4.1.4 Standard Characteristic:

A characteristic not identified as special (i.e., standard care). The following specifies the minimum requirements for standard characteristics:

- The production system is designed to manufacture products that meet all requirements as well as protect Litens, customer, and end user, from any nonconforming material.
- Records and documents are to be readily available upon request.



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

6.4.1.5 Engineering Specification (ES) and Global Measurement Standard (GMS)

Litens drawings may call out an ES (Engineering Specification) as well as GMS (Global Measurement Standard) requirements. Suppliers must ensure that they adhere to the requirements of these standards.

6.4.2 Special Characteristics Communication and Approval Form (SCCAF)

When requested by Litens, the supplier must complete a Special Characteristics Communication and Approval form (SCCAF) and submit it to Litens for review and approval. An approved copy of the SCCAF must be included in the PPAP documentation package.

6.4.3 Error-Proofing

Process control techniques which assure that all parts manufactured meet the design specification. Examples include:

- Error-proofing in design or process to prevent manufacture of discrepant parts.
- Error detection in-station (automatic gauging with auto stop feature) to prevent pass through of discrepant parts.
- Error detection in-station or subsequent operation by multiple layers of acceptance (e.g., supply, select, install, verify), so discrepant part cannot be accepted.
- 100% inspection in-station or subsequent operations.

6.4.4 Annual Layout

The supplier must conduct a complete layout (this must be identified in all supplier Control Plans) on each component annually to verify that the component meets all dimensional requirements and specifications identified on the drawing. This report must be kept on file by the supplier and provided to Litens within 24 hours upon request.

6.4.5 Special Processes - AIAG CQI and Customer Specific Assessments

The supplier must complete the current versions of all appropriate AIAG CQI and Customer Specific Assessments annually.



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

These assessments include:

- CQI-9 Heat Treat System Assessment
- CQI-11 Plating System Assessment.
- CQI-12 Coating System Assessment
- CQI-15 Welding Assessment
- CQI-17 Soldering System Assessment
- CQI-23 Molding System Assessment
- CQI-27 Casting System Assessment
- CQI-30 Rubber Processing System Assessment
- Other CSR's as required.

A full copy of each assessment must be forwarded to Litens upon completion. When any of these processes are outsourced, the supplier shall ensure that these assessments are completed/acted upon by the sub-tier suppliers.

For the CQI assessments, if any “Not Satisfactory” or “Needs Immediate Action” findings are identified, an action plan must be submitted to identify the corrective actions and the timing for completion.

The supplier must be able to provide information regarding the assessor’s qualifications. All assessments must be submitted using the most current version of the assessment document.

6.5 Component/Material Specifications

The supplier is required to ensure that all components meet all specifications that are indicated on the drawing. This includes Litens ES (Engineering Specification) requirements when they are stated on drawing. Conformance to all specifications must be verified by the supplier annually at minimum. A record of this conformance must be maintained by the supplier and provided to Litens upon request.

6.6 Prototype Part Submission



6.6.1 Suppliers are required to complete the Part Submission Warrant in accordance with the AIAG or VDA PPAP Manual as directed by Litens.



DELIVERING INNOVATION™

**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group
DOCUMENT NUMBER

MAN-00007 / 12

- 6.6.2** Suppliers must perform a complete dimensional layout of all characteristics on one piece per cavity for each "run" produced. A run is a continuous flow of manufacturing with one setup. If a component does not meet all drawing specifications, the supplier must obtain written approval from the responsible Litens engineer before the part is shipped to Litens. A cover letter, prepared by the supplier and concurred with the Litens engineer, must accompany each shipment of prototype parts that do not meet Litens' requirements.
- 6.6.3** Plating/finishing and material certifications/warrants must be submitted with the prototype components.
- 6.6.4** For prototypes with a run size of 1 to 29 pieces, 100% variable inspection is required for all statistically designated characteristics (S cone ). For prototypes with a run size of 30 or more, variable inspection is required on a minimum of 30 pieces. If capability cannot be demonstrated for a statistically designated characteristic, 100% variable inspection of the characteristic is required.
- 6.6.5** For prototype parts, 100% inspection is required for characteristics designated with an M-Cone  due to the smaller batch size associated with prototype parts.
- 6.6.6** Each sample submission must be packaged separately and clearly identified as Prototype Build Material.
- 6.6.7** All prototypes and samples supplied for testing must meet all requirements and specifications on the drawings including ES requirements. Any deviation from this must be communicated to and approved in writing by Litens' PE.
- 6.6.8** Each sample submission must be packaged separately and clearly identified as Prototype Build Material.
- 6.6.9** All prototypes and samples supplied for testing must meet all requirements and specifications on the drawings including ES requirements. Any deviation from this must be communicated to and approved in writing by Litens' PE.
- 6.6.10** Prototypes or samples may be produced by via limited production runs or by a prototype process. Suppliers must have in place appropriate Control Plans, process set up parameter records, lot traceability records and dimensional inspection sheets.
- 6.6.11** All prototypes and samples are to be produced using a regular series production representative manufacturing processes and raw materials. Any deviations to this must be communicated to and



DELIVERING INNOVATION™

LITENS GLOBAL SUPPLIER QUALITY MANUAL

Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

approved in writing by Litens' PE. Samples commonly known as "ringers" (i.e., imposters, similar to other samples, special process built or special build (non-production intent or non-representative process and/or materials) that are used to gain a competitive advantage over and above regular series production) are strictly forbidden, not allowed to be provided by or used by the supplier.

Samples that are used for testing shall be selected at random from a given lot of parts.

6.6.12 All Prototype tooling owned by Litens cannot be disposed of or modified without written authorization from Litens.

6.7 Production Part Approval Process

6.7.1 The request for PPAP's will be issued by Litens' Tooling Manager who will also supply an approved production drawing which will be identified with a watermark containing the words "Final Approval Production". This drawing shall be used to produce the PPAP parts and all subsequent production components. Any other drawings or models provided by any other Litens personnel shall be considered as reference material only.

6.7.2 PPAP samples to Litens are to be submitted in accordance with the requirements as stated in the latest edition of the AIAG or VDA PPAP manuals. Unless otherwise stated, the default PPAP submission is Level 3 and the corresponding sample quantity to be submitted is 1000 pieces or as specified by Litens' Tooling Manager.

6.7.3 A Litens production approved drawing must be included with all sample submissions unless specifically waived (in writing) by Litens' Quality Assurance Manager.

6.7.4 Reference Litens' drawing title block for Litens-identified special characteristics.

6.7.5 Material and finish certifications must be submitted to Litens with each sample submission as per the AIAG or VDA PPAP Manual, and shall be supported by inspection and test data for specifications covering raw material, processed material, plating, finishing, heat treating, etc. Thereafter, all material certifications must be made available within 24 hours, upon request. All Material Certifications must be no more than 1 year old. A certificate of Origin must also be submitted for the sample part. Refer to Litens Country of Origin Guideline (<https://litens.com/suppliers/>).

6.7.6 Each sample submission must be packaged separately and identified as "Sample Submission for PPAP Approval".



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

- 6.7.7** All submissions shall provide an IMDS number on the PSW. Suppliers must ensure that the IMDS is submitted and approved at least two weeks prior to the PPAP submission date.
- 6.7.8** Material compliance - chemicals or substances (including recyclability) as related to parts / components supplied must fulfill the latest End of Life Vehicle Directive (ELV). Specifically, all delivered parts/components shall not contain any prohibited substances as deemed to be banned by the ELV. Any presence of restricted materials/substances must be declared and will require phase-out plans to meet specific compliance deadlines as indicated in the ELV. Refer to Litens web site and refer to the direct link to the ELV Directive 2000/53/EC, for the latest specific environmental requirements.
- 6.7.9** When requested, a supplier is required to submit a completed timeline on all new production releases as well as current components which are receiving physical revision. When requested, the supplier must also complete the Supplier PPAP Requirement Form that will be provided to them by Litens Tooling Manager at the time of PPAP request. The supplier must also update the form at each milestone date and send the form, along with an updated timing plan to Litens Tooling Manager. A completed version of this form must be included with the PPAP documentation package.
- 6.7.10** After an electronic drawing for a new or revised part has been issued to the supplier, a reply e-mail is required to verify acceptance.
- 6.7.11** All Litens owned tools must be identified with a "Property of Litens Automotive" tag. The supplier may be required to attach other tags to the tools as directed by Litens' Tooling Manager. The supplier is responsible for the preservation and secure storage of Litens owned tools or gauges. No Litens or Litens' customer owned tooling are to be disposed of without written authorization from Litens Tooling Manager.
- 6.7.12** A Tooling Bailee Acknowledgment, signed by a binding member of the company along with a tooling record must be submitted with the PPAP package.
- 6.7.13** For all new components, a Packaging Approval Form (<https://litens.com/suppliers/>) must be included in PPAP documentation packages. This form must be approved and signed by the appropriate Litens personnel at least two weeks prior to the PPAP submission date.



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

6.7.14 If a component is PPAP approved by any Litens location, the supplier may ship the same component (same Engineering revision level) to any other Litens location globally without an additional PPAP submission.

6.7.15 Language

Litens reserves the right to determine the language to be used on correspondence and documentation. In most cases the language will be determined by the Litens design responsible or manufacturing site. In some cases, it will be acceptable to use the suppliers' local language for internal documents. However, Litens may request that these be translated.

6.8 Warranty, Validation or Other Engineering Returns for Supplier Analysis & Report

6.8.1 When parts are returned to the supplier for analysis from Litens Engineering Department a report is required. Report may be in the supplier's own format and/or appropriate 8D if requested.

6.8.2 Parts may be returned for the following reasons, but not limited to: Warranty return, customer or Litens concern, End of Test (EOT at customer or Litens), continuous conformance, test or monitor vehicle usage, research and development or other RPA (Returned Part Analysis) purposes.

6.8.3 Once Litens has informed supplier of about the request for analysis and the component has been returned to the supplier, the supplier shall then confirm receipt of parts and provide preliminary analysis within 3 business days. The supplier shall consider containment activities as appropriate to the case. Final formal report must be submitted within 10 business days unless otherwise stated on analysis request and as agreed upon. [Please keep in mind that Litens is expected to reply to our customer within 3-week window with RPA report.] In certain cases of critical or urgent customer circumstances, reports may be requested within 1 week of receipt of part.

6.8.4 The supplier shall inform Litens immediately of any potential delays from meeting the agreed upon target timing. The supplier shall provide regular status updates appropriate to the criticality or nature of the concern (as directed by Litens).

6.8.5 Third party accredited laboratory service(s) may be used for further analysis if outside of the capabilities of the supplier. Any such service(s) shall be agreed upon in advance. Third party reports shall be forwarded to Litens.



**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group

DOCUMENT NUMBER

MAN-00007 / 12

6.8.6 Litens may request to have the sample(s) returned to Litens. Samples shall be adequately marked/labelled and suitably packaged for shipping.

7 APPENDIX & FORMS

- 7.1 MAN-00007 - Global Supplier Quality Manual
- 7.2 MAN-00004 - The 8D Process (for Litens Suppliers) English
- 7.3 MAN-00004 - The 8D Process (for Litens Suppliers) Chinese
- 7.4 MAN-00004 - The 8D Process (for Litens Suppliers) Portuguese
- 7.5 Suppliers Code of Conduct
- 7.6 Suppliers Code of Conduct Chinese
- 7.7 Suppliers Code of Conduct German
- 7.8 Suppliers Code of Conduct Portuguese
- 7.9 Suppliers Code of Conduct Romanian
- 7.10 IMDS Guidelines
- 7.11 Litens Country of Origin Guideline (Excel)
- 7.12 End-of-Life-Vehicles (ELV) Directive 2000/53/EC
- 7.13 Litens Terms and Conditions (2019)
- 7.14 Litens Approved 3rd Party Sorting Companies
- 7.15 Litens Global Contact List
- 7.16 MAN-00011 MBD Technical Data Package Guide for Suppliers (English)
- 7.17 MAN-00011 MBD Technical Data Package Guide for Suppliers (Chinese)
- 7.18 MAN-00011 MBD Technical Data Package Guide for Suppliers (German)
- 7.19 MAN-00040 Surface Profile Inspection Guideline for CMM – English
- 7.20 MAN-00040 Surface Profile Inspection Guideline for CMM – Chinese
- 7.21 MAN-00040 Surface Profile Inspection Guideline for CMM – German
- 7.22 MAN-00040 Surface Profile Inspection Guideline for CMM – Portuguese
- 7.23 MAN-00005 - Litens Packaging Handbook – LAP
- 7.24 Litens China Packaging Handbook 3.0
- 7.25 Material Control Systems Requirement and Information – LAP



DELIVERING INNOVATION™

**LITENS GLOBAL SUPPLIER QUALITY
MANUAL**
Litens Automotive Group
DOCUMENT NUMBER

MAN-00007 / 12

- 7.26** Litens Automotive GmbH Co. KG _ Logistic Manual _ ENG
- 7.27** Litens Automotive GmbH Co. KG _ Logistik Handbuch _ GER
- 7.28** Contractor Health, Safety & Environment Package (FRM-00112)
- 7.29** 8D Problem Analysis (FRM-00483)
- 7.30** New Supplier Assessment & Information – (FRM-00005)
- 7.31** Litens Supplier Financial Evaluation – (FRM-01451)
- 7.32** Capacity Verification Sheet for Suppliers – FRM-01664
- 7.33** Vendor Contact Form – FRM-00530
- 7.34** Packaging Approval Specification Data Sheet (SMF-037)
- 7.35** Packaging Approval Data Sheet for Litens Germany (FRM-01037)
- 7.36** Standard Pack Request Form (MCF-059)
- 7.37** Process Sign-Off (PSO) Audit Form (English) – FRM-00004
- 7.38** Tooling Bailee Acknowledgment – FRM-00536 (English)
- 7.39** Tooling Bailee Acknowledgment – FRM-00536 (Chinese)
- 7.40** Verwahrungsvertrag für Werkzeuge – FRM-00536 (German)
- 7.41** Supplier Request for Tooling Disposition (FRM-01845)
- 7.42** Supplier Request for Change Form FRM-00538 – English
- 7.43** Supplier Request for Change Form (FRM-00538) – Chinese
- 7.44** Supplier Request for Change Form FRM-00538 – German
- 7.45** Supplier Request for Change Form FRM-00538 – Portuguese
- 7.46** Purchasing-Terms-and-Conditions – LAC
- 7.47** EDI web portal guideline – LAC (English)
- 7.48** EDI web portal guideline – LAC (Chinese)

REFERENCE LITENS WEBSITE (<https://litens.com/suppliers/>) or CONTACT LITENS.