DOCUMENT NUMBER: **QA600006**

DOCUMENT TITLE: **Quality Management Requirements for Suppliers**

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Level	Procedure	Approval Signatures
1	Business Manual Quality and EH&S Policies QM400002, QM400001, EH600011	☐ Touch Leadership Team (TLT)
2	Business Management System Policies – The documents that directly support QM400002 – Quality Manual	☐ Document owner ☐ Department Manager ☐ Director of the Department ☐ Director of Quality Assurance ☐ Quality Assurance Manager ☐ Other
3	Drawings, specifications, product related work instructions, and other documents defining products and processes, including external standards and technical references.	Approval is determined by product. Refer to companies change control system established approval routes
4	Department Procedures (non-product related)	☒ Document owner ☒ Department Manager ☒ Document Control Manager ☒ Quality Assurance Manager ☐ Other
5	Forms	☐ Document owner ☐ Department Manager ☐ Other

Change History

REV	Description of Change	Release Date	Changed By
A	Initial Release	July 20, 1999	Paul Bailey
B	Add sections 6.0 SUPPLIER GUIDE TO SOCIAL RESPONSIBILITY and 7.0 RECORD-KEEPING AND FINANCIAL CONTROLS	Jan 10, 2013	Mike Moran
C	Revise per CO-20-0733 Revised section 5.1 supplier evaluation, and added section 5.2.5 rapid response requirement, 5.11.3 return parts analysis requirement, 5.12.5 rework part management requirement, 5.17 NPI PPAP requirement, 5.18 Notification for Line stops, 5.19 Escalation in the case of non-fulfillment	May 13, 2020	Myron Xiong
D	Revised by CO-23-0497 Revision to Section 6.7 “Conflict Minerals” The changes align the sourcing policy with the OECD’s industry standard “Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas”: -Update the section title from Conflict Mineral to Responsible Mineral Sourcing -Update the list of minerals from 3TG to 3TG, Cobalt, and Mica -Require RMI CMRT/EMRT reporting annually -Broaden the geographical scope to include CAHRAs	Mar 1, 2023	V. Pallaver

1.0 PURPOSE

This document (these "Quality Requirements") has been developed to help suppliers understand the quality requirements necessary to ensure a successful relationship with Elo Touch Solutions, Inc. (including its worldwide subsidiaries, "Elo"). Communication and cooperation are key elements in achieving these high standards. Elo suppliers will implement the following basic business principles and:

1.1 Ensure that materials and services are produced in conformance to the required standards, and that Elo will receive defect-free product, on time, at the agreed upon terms.

1.2 Manage facilities, processes, quality systems and personnel to consistently and cost-effectively manufacture the products and furnish services that meet the product specifications.

1.3 Be committed to continual process improvement by emphasizing reduction of part to part variation and the elimination of all waste.

1.4 Conduct operations in conformance with, or exceeding, all applicable environmental laws and regulations of the jurisdictions in which the supplier does business.

1.5 Ensure all products and materials supplied meet applicable product environmental compliance requirements.

2.0 SCOPE

This specification defines the minimum quality management system requirements for suppliers of production materials, components, and assemblies and service suppliers (test labs, calibration service, tooling, warehousing/logistics) that have an impact on product quality, product environmental compliance, and delivery.

2.1 Revision of this Specification

2.1.1 Elo may change these Quality Requirements and specifications referenced herein and notify suppliers of such changes. Suppliers are responsible for ensuring that they are using the current version of this document. Suppliers shall specify any exceptions to the requirements of this document. Exceptions shall be in writing and must be approved by the Elo Global Quality Leader, and Director of Procurement in writing in advance.

3.0 REFERENCED DOCUMENTS

The following documents and forms constitute a part of these Quality Requirements to the extent specified herein.

3.1 International Standards / Industry Standards (latest revision/edition applies)

3.1.1 **ISO 13485** Medical Devices - Quality Management Systems - Requirements For Regulatory Purposes

3.1.2 **ISO 9001** Quality Management Systems Requirements

3.1.3 **ISO 10012** Measurement Management Systems – Requirements for Measurement Processes and Measuring Equipment

3.1.4 **ISO 14001** Environmental Management Systems - Requirements With Guidance For Use

3.1.5 **ISO/IEC 17025** General Requirements for the Competence Of Testing and Calibration Laboratories

3.1.6 **ISO/TS 16949** Quality Management Systems – Particular Requirements for the Application of **ISO 9001** for Automotive Production and Relevant Service Part Organizations

3.1.7 **IECQ 80000** IEC Quality Assessment System for Electronic Components (IECQ)

3.1.8 **AIAG** Reference Manuals

3.1.8.1 Failure Mode and Effects Analysis Manual (FMEA)

3.1.8.2 Statistical Process Control Manual (SPC)

3.1.8.3 Measurement System Analysis (MSA)

3.1.8.4 Advanced Product Quality Plan(APQP)

3.1.8.5 Production Part Approval Process (PPAP)

3.2 Documents

3.2.1 Supply must abide by the ELO Touch Solutions Supplier Social Responsibility provided to supplier by Elo.

3.3 Reference Documents

3.3.1 Handling, Storage, Packaging & Preservation Requirements attached hereto as **Addendum 3.3.1**.

4.0 DEFINITION OF TERMS

4.1 Certificate of Analysis (C of A)

4.1.1 A document provided by a supplier that reports and certifies the actual results of the tests performed on a shipment of products or materials.

4.2 Certificate of Conformance (C of C)

4.2.1 A certificate provided by a Supplier's Quality Assurance department to Elo confirming that all material conforms to all applicable specifications.

5.0 SUPPLIER QUALITY MANAGEMENT SYSTEM REQUIREMENTS

5.1 Supplier Evaluation

Unless waived by an Elo authorized procurement personnel in writing, Suppliers are required to obtain registration to ISO 9001, TL 9000, ISO/TS 16949, SAE AS 9100, ISO 13485, BS EN 9100, ISO 17025, ISO 14001, IECQ 80000 or equivalent national standards.

5.1.1 Supplier survery

Supplier Survey is to generally understand supplier operation status through ELO supplier survey checklist EF600159. Supplier should work with ELO purchasing department or supplier quality enginieer to finish within 3days when needed.

5.1.2 Supplier Audit

ELO will regularly adopt supplier audit based on business needs with official notice in advance, supplier shall support on the aduit activities. A supplier audit could be a systematic examination of the acts and decisions with

respect to quality to independently verify or evaluate compliance to the operational requirements of the quality program, specifications, or contract requirements of the product or service.

5.1.2.1 Supplier Quality System Audit

The supplier quality management system audit is a documented activity performed to verify, by examination and evaluation of objective evidence, that applicable elements of the quality system are suitable and have been developed, documented, and effectively implemented in accordance with specified requirements based on EF600166.

5.1.2.2 Process Audit

The process audit is an analysis of elements of a process and appraisal of completeness, correctness, or conditions, and probable effectiveness based on EF600167/EF600168/EF600172/EF000305 etc.

5.1.2.3 Product Audit

The product audit is a quantitative assessment of conformance to required product characteristics. Simply stated, the product audit verifies that the system and processes used to produce the product are capable of producing a product that conforms to the established VS/specifications/requirements.

5.1.2.4 Audit Findings

An audit "finding" is the "result of an evaluation of the collected audit evidence against audit criteria. Audit findings can indicate either conformance or nonconformance with audit criteria or opportunities for improvement. A nonconformance is made up of four parts:

- Source of the requirement

- The requirement, written verbatim
- Source of the evidence
- Evidence

If missing any one of these components, we don't have a nonconformance; however, we may still have an Observation (an Observation is nothing more than an opportunity for improvement).

5.2 Supplier Responsibilities

5.2.1 Requirements for Quoting

5.2.1.1 Requests for quotation shall be provided by the Elo authorized procurement personnel. Suppliers are to respond to the request for quote within the allocated time to the appropriate - authorized procurement personnel. All requests for exceptions to the requirements shall be documented; otherwise, full compliance with these requirements is expected.

5.2.2 Purchase Order Conditions

5.2.2.1 The supplier must agree to the terms and conditions set forth with the Purchase Order unless there is a written contract executed by Elo and the supplier that governs such purchase.

5.2.3 Confidentiality

5.2.3.1 The supplier understands and agrees to hold in strict confidence all confidential information received from Elo or derived from such proprietary information and no to use it except for the sole purpose of manufacturing Elo products for Elo. When requested by an authorized representative of Elo, the supplier shall return all documents provided by Elo.

5.2.4 Specification and Document Review

5.2.4.1 Prior to acceptance of the purchase order, the supplier shall review all engineering drawings and specifications to ascertain that they are to the engineering revision level specified on the purchase order. The supplier shall notify the appropriate authorized procurement personnel of any errors or omissions within fourteen (14) days of receipt thereof. Elo will either correct the error or arrange for a temporary waiver deviation until correction can be made. The supplier shall not implement changes to any Elo's prior written approval to do so.

5.2.4.2 The supplier is responsible for verifying that they are using the most current revision level of all documents referenced on the engineering drawings and specifications called out on the purchase order.

5.2.4.3 The supplier will establish a process to ensure the timely review, distribution and implementation of authorized drawing and document changes.

5.2.4.4 Contact Elo Touch Solutions Document Control (elocentraldoucmentcontrol@eltouch.com) for engineering drawings and specifications.

5.2.4.5 Suppliers are required to provide product environmental compliance documentation upon request. This documentation may include but is not limited to: surveys to gather compliance status to legislation or customer requirements, material, content disclosure, test results to verify compliance, and disclosure of systems and procedures used to ensure compliant products.

5.2.4.6 Suppliers are required to purchase raw materials from authorized agents or re-sellers.

5.2.5 Rapid Response

Suppliers shall have a fast response problem solving process including minimum criteria for implementation and timeliness to critical external/internal quality issues. Plant quality manager ensures the applicability and the timely completion of the items being tracked. Plant Staff level personnel actively participate in daily meeting. Required documents are reviewed (Fast Response Tracking Sheet, Problem Solving Document, D/PFMEA, Process control plan, standardized WI, ECR etc.).

5.2.5.1 Containment action, including activities of quality block, line stop, sorting, quality breakpoint normally should be finished within 48H.

5.2.5.2 Root Cause identification should be finished within 7days after receiving the failures.

5.2.5.3 Corrective action implemented and validated should be finished within 35days, including the D/PFMEA, CP, WI update, Related training made.

5.2.5.4 Lesson Learn and horizontally unfolded finished within 45days

supplier must ensure that those parts are supplied to ELO comply with the specifications. The supplier is responsible for all actions that contribute to the fulfilment of the Spec and must ensure fulfilment during the entire supply period. This includes sub-contractors, internal procedures and packaging.
The incoming goods, process-related and outgoing goods inspections must be carried out in accordance with the production control plan and test instructions. The scope of the inspections and process monitoring must be in tune with the stability and capability of the processes. The methodology of all supplier activities must be geared towards failure prevention, in order to minimize inspection expenditure and to increase process safety.

5.3 Handling and Storage Requirements

5.3.1 The supplier is responsible for the proper handling and storage of all raw material, components, and tooling supplied or consigned from Elo. Any special handling, packaging, and storage requirements requested by Elo will be documented on the purchase order or other appropriate documents when applicable.

5.3.2 Prior to processing, the supplier is responsible for the visual inspection of Elo supplied material and verification of the correct quantity. If Elo supplies nonconforming material to the supplier, the supplier shall be responsible for notifying the respective Elo authorized procurement personnel of the receipt of nonconforming material. Elo authorized procurement personnel shall provide specific instructions regarding the disposition or use of supplied nonconforming material.

5.4 Process Controls

5.4.1 The supplier is responsible for the quality of any process that affects the configuration, assembly, FW/image/OS loading, Test tools, cable routing, heat treatment, plating, and/or metallurgical properties of Elo consigned or stocked material.

5.4.2 The supplier is responsible for adopting the necessary techniques and controls during all phases of manufacturing to ensure that the quality of the product being produced is both known and controlled. As a measure of continual process improvement, a capability study shall be conducted on key product characteristics with target Cpk requirements as agreed to by Elo and the supplier. The supplier shall submit data or evidence of performance when requested by Elo purchasing or quality personnel. Established key processes that affect the form, fit, or function of Elo product may not be modified by a supplier without written approval from Elo authorized procurement personnel.

5.5 Notification of Product or Process Changes

5.5.1 A process change is defined as any significant change to the manufacturing process, equipment modifications or replacements, and/or any changes to process parameters, the purchasing of materials from new sources, and process changes of supplier or its subcontractors that could affect product design form, fit, or function (including status of product environmental compliance status) of the purchased material that has been accepted/approved by Elo (collectively, “Product Change”). By way of example and not limitation, Product Changes include any of the following changes:

5.5.1.1 product design

5.5.1.2 manufacturing process

5.5.1.3 chemicals that are used to manufacture the product

5.5.1.4 materials

5.5.1.5 geographical location change (requires 6 months’ notice)

5.5.1.6 process or manufacturing yield (5% decreases of normal yield)

5.5.1.7 regulatory changes in relation to the product

5.5.1.8 test process, test equipment or packaging related to the product

5.5.1.9 End of life notification on the materials (requires 6 months’ notice)

5.5.2 Elo requires that the supplier provides prior written notice to the Elo authorized procurement personnel and obtains Elo's written approval of any Product Changes. The Elo authorized procurement personnel must be contacted prior to any changes being implemented as the requirements vary for the different Elo business units. The planning and strategy of any agreed changes will be done in strict co-ordination with the Elo authorized procurement personnel. Product Changes cannot be implemented until Elo approval is given.

5.5.3 The supplier is required to provide the initial sample report and samples to Elo for the validation process. For proprietary designs, impact on form, fit and function (including performance and/or durability) shall be reviewed with the customer so that all effects can be properly evaluated. When required by Elo, additional verification requirements, such as those required for new product introduction, shall be met.

5.6 Subcontract Jobs

5.6.1 The supplier is not to subcontract any work related to any given purchase order without notification and written permission from Elo authorized procurement personnel.

5.6.2 The supplier shall not place any Elo tooling with subcontractors without notification and written permission from Elo authorized procurement personnel.

5.7 Packaging and Labeling

5.7.1 The supplier shall maintain unit container traceability and identification of all lots of material (trace number, date code, etc.).

5.7.2 Packaging shall conform to all packaging and labeling requirements documented on the purchase order, product drawings, contract addendum or schedule, or material specifications. When not specified, packaging and labeling are the responsibility of the supplier and shall be adequate to prevent damage or deterioration during shipment. All shipments shall be labeled as a minimum with the following and shall not contain pricing information unless required to do so by an authorized Elo purchasing personnel:

5.7.2.1 Purchase order number

5.7.2.2 ELO part number

5.7.2.3 Product/material revision level

5.7.2.4 Quantity

5.7.2.5 Country of Origin

5.7.2.6 Description

5.7.2.7

5.8 Inspection

5.8.1 When indicated on the purchase order or other appropriate document when applicable, first article inspection data approval shall be obtained from the supplier and approved by Elo in writing prior to initiation of full production. The supplier is responsible for notifying/providing Elo when first article samples and inspection data are available. Elo first article approval does not relieve the supplier of the responsibility of assuring that subsequent production is in accordance with documented requirements.

5.8.2 When specified on the Elo purchase order, one copy of a C of A or C of C shall be submitted by the supplier to the designated location.

5.8.3 The C of C and/or C of A shall certify and provide evidence (as appropriate) that the material meets all specified requirements of quality including conformance to applicable product environmental specifications.

5.9 Calibration System

5.9.1 Responsibility for the supply, maintenance, and calibration of standard measurement and test equipment, such as pin gages, thread gages, micrometers, comparators, multimeters, etc. rests with the supplier.

5.9.2 Provision for special measurement and test equipment, unique to a specific purchase order or product, shall be negotiated at time of order placement. Calibration and maintenance of such special equipment rests with the supplier, unless otherwise specified in the purchase order.

5.9.3 Gages, measuring devices, and testing equipment used to determine the acceptability of materials and tooling used in production shall be controlled and calibrated in accordance with the current revision of ISO 10012 or equivalent national standard.

5.10 Verification of Quality

5.10.1 ELO and its customers reserve the right to perform any testing or inspection that may be necessary to determine that the purchase order requirements have been met, including verification at the supplier's location if required. The supplier may be required to submit test or inspection data along with gage Repeatibility and Reproducibility (R&R) study corresponding to the lot(s) being tested or inspected for comparison or correlation purposes.

5.10.2 The supplier shall permit access by representatives of Elo, or at Elo's written request - Elo customers, and applicable regulatory agencies to the supplier's premises (and the premises of Supplier's subcontractors and supplier(s)) for the purpose of evaluating Supplier's facilities, processes, goods, quality system and records.

5.10.3 Product accepted at receiving inspection may be found to be nonconforming during the manufacturing process. The supplier is liable for such product regardless of when a nonconformance is found.

5.11 Product/Material Nonconformance

5.11.1 The supplier shall notify the respective Elo -authorized procurement personnel if nonconforming material, including failure to meet product environmental compliance requirements, has been shipped to Elo. The Elo -authorized procurement personnel shall coordinate the containment and disposition of suspect nonconforming material with Quality and Materials department personnel.

5.11.2 Upon the occurrence of a product nonconformance identified by Elo, upon communication of the details of the nonconformance to the supplier, the supplier is responsible for determining the necessary actions to establish an effective containment plan. The supplier is responsible for immediately initiating containment of any suspect product within their facility or in the supply pipeline. This shall include the impacted lots, including any inventoried lots or lots already used by customers. The supplier shall also notify the Elo authorized procurement personnel of any suspect material that is in transit. Supplier is required to communicate details of containment action to the Elo authorized procurement personnel or Supplier Quality Engineer within 24 hours of receiving the initial nonconformance notification or as specified by the business unit purchasing department. The communication shall be via 8-D Corrective Action Plan or Customer specified Form.

5.11.3 The supplier must analyze the parts that have been returned by ELO(production plants, CMs, service center or customers) in order to establish the cause of the defect, to work out a solution to the problem and to carry out corrective action that will prevent a recurrence. A structured problem-solving methodology must be applied. The approach preferred by ELO is the 8D problem solving process. Comparable methods may also be applied by agreement. The supplier methodology must be defined in writing and must contain the following:

5.11.3.1 An analysis of the underlying cause of the defect as regards product, process and quality system

5.11.3.2 A description of short-term containment and final corrective action that will be undertaken to remove the root cause

5.11.3.3 The inspections and controls applied in order to ensure that corrective action will be under-taken and that it will be effective

5.11.3.4 The extent of similar problems that require preventive action. This includes variations and similar processes.

5.11.3.5 Preventive action and the application of inspections and controls to ensure that they are effective.

5.11.3.6 Statement of responsibilities for all actions and their applicable documents.

5.11.4 Supplier may be charged back for all expenses incurred by Elo as a result of delivery or quality problems attributed to that supplier. Charge backs may be transacted as a debit against open invoices. A supplier will have 60 days from the issue of defective material notification to contest the charge back and provide evidence that the nonconformance was not caused by the supplier or agents of the supplier.

5.12 Request for Deviation

5.12.1 Supplier is responsible for meeting all the requirements of the purchase order, drawings, and Elo specifications or industry standards and specifications (e.g., EIA, ASTM, etc.) when specified or applicable. Material that does not conform to these requirements shall not be shipped to Elo, its customers or other suppliers without prior written approval having been given in the form of an approved deviation request for known nonconformance.

5.12.2 Request for waiver deviation from requirements shall be brought to the attention of the Elo authorized purchasing or engineering personnel. Approval or disapproval of supplier deviation requests will be documented and communicated to the supplier.

5.12.3 Each request for waiver deviation shall include a statement of corrective action, person responsible for the corrective action, and estimated date of implementation of corrective action to prevent recurrence of the nonconformance.

5.12.4 Supplier shall identify, store, and ship approved deviated nonconforming material in such a manner as to keep it separate from conforming material. Where applicable, the waiver deviation number shall be noted on the packing slip, and when requested, on all shipping containers.

5.12.5 Each re-working of parts that are delivered to ELO must be approved in writing by the ELO receiving plant/CM prior to dispatch of these parts. They must be suitably labelled and delivered as a separate delivery. The supplier is obliged to ensure, that the re-worked parts have been fully checked by quality department to ensure that they fulfil entirely with the SPEC. The relevant documentation shall be supplied to ELO on request. If the defective parts cannot be reworked in such a way as to allow them to fulfil all the specifications, the supplier may, in exceptional cases, apply for an ELO written waiver to dispatch these parts.

5.13 Corrective Action

5.13.1 When requested, the supplier will submit an 8-D corrective action plan that provides the details of how the nonconformity will be resolved. Elo expects a supplier to investigate the root cause(s) and respond to the Elo authorized procurement personnel or Supplier Quality Engineer with a corrective action plan within ten business days or as specified by the business unit purchasing department. The details of the investigation, corrective action plan, verification of the effectiveness of the corrective action and preventive actions shall be documented. Should the corrective action be ineffective, untimely, or performance not be restored, Elo may exercise all rights available under contracts or purchase orders.

5.14 Quality Records

The supplier is responsible for maintaining the following records for each production part number manufactured or provided, as applicable:

5.14.1 Inspection records

- 5.14.1.1 First article inspection results
- 5.14.1.2 Incoming inspection
- 5.14.1.3 Set up inspection records
- 5.14.1.4 In process inspection records
- 5.14.1.5 Final inspection records
- 5.14.1.6 Dock audit results

5.14.2 Certificates of analysis

5.14.3 Certificates of compliance

5.14.4 Laboratory analysis test results

5.14.5 SPC data (if applicable)

5.14.6 Purchase orders

5.14.7 Change orders

5.14.8 Approved waiver deviations

5.14.9 Calibration records

5.14.10 Nonconforming material records

5.14.11 Corrective action responses

5.14.12 Shipping records

5.14.13 Environmental record

5.14.14 IMDS registration number (if applicable)

5.14.15 Production record

5.14.16 Tool maintenance/repairing record

These records shall be maintained for a minimum of ten years or as specified by the business unit purchasing department.

5.15 Continual Improvement

Supplier must continue to develop his knowledge of familiar procedures and methodologies for the analysis, monitoring and evaluation of processes, in order to effectively implement the process of continuous improvement. The supplier must identify opportunities to improve quality and productivity and implement suitable projects for improvements, some examples are:

- Machine downtimes, installation times
- Cycle time
- Scrapping, reworking, repairs
- The use of floor space without value added
- Waste of labour and material
- Too high costs as a result of insufficient quality
- Difficult assembly or installation of product
- Risk reduction in procedures/processes
- Inventory reduction

5.16 Business Recovery Plans

Supplier will have a documented business recovery plan. These plans shall include the following items.

5.16.1 Summary of critical business processes

5.16.2 Defined business recovery options

5.16.3 Summary of information resources necessary for business recovery

5.16.4 Summary of physical resources needed for business recovery

5.16.5 Recovery goals for critical business processes

5.16.6 List of Emergency Management Team Members

5.17 NPI PPAP Requirement

5.17.1 NPI PPAP is the output based on supplier APQP, PPAP should be submitted since DVT stage and finalized at PVT stage.

5.17.2 Supplier must ensure to provide sufficient human resource for the NPI project from ELO, if supplier current personnel arrangement can't meet ELO project development needs, supplier should be supplement

corresponding human resource or appropriate training in agreed period of time asap to meet the demand of ELO.

5.17.3 ELO defines 3 PPAP submission level as follows

No.	PPAP Element	Level		
		4.1	4.2	4.3
1	Part submission warrant (PSW)	X	X	X
2	Design records			X
3	Approved Engineering Change Documents, if any			X
4	Customer Engineering approval, if required.			X
5	Design FMEA			X
6	Process flow diagram			X
7	Process FMEA		X	X
8	Control Plan		X	X
9	Measurement System Analysis Studies			X
10	Dimensional measuring result	X	X	X
11	Material, Performance Test Results (Validation Plan and Test Report)	X	X	X
12	Initial Process Capability Studies		X	X
13	Qualified Lab Documentation	X	X	X
14	Appearance approval report, if applicable	X	X	X
15	Samples Product		X	X
16	Master Sample			X
17	List of checking fixtures/checking aids			X
18	Records of Compliance with Customer Specific Requirements			X

Supplier should submit the PPAP related records according to the required submission level defined in the following table, the other document not required submission should be ready at factory.

Category	Change Reason	PPAP Submission Level		
		4.1	4.2	4.3
Design	New product			X
	Design changes to existing product			X
Process	New supplier			X
	Existing supplier with new manufacturing location		X	
	New tooling	X		
	Exist tooling modification / upgrade	X		
	New sub-supplier		X	
	Tooling is inactive for 12 months or more	X		
	Supplier / Sub-supplier mfg. process changes		X	
	Change in test or inspection method	X		
	Change in product appearance attributes	X		
Material	Ingredient/type/substance	X		
	Packaging change	X		

5.18 Notification of Line Stops

Supplier shall have a suitable Line stop handling and customer notice procedure, For timely and effectively handling of supplier production abnormalities and line stop caused by man, machine, material, method, measurement or environment change, or problems caused by design or software/FW, to avoid the issue continue to expand, and completely assess risk range and adopt timely countermeasures to reduce the impact of quality, delivery and cost.

5.19 Escalation in the case of non-fulfilment

If the supplier does not achieve the targets the supplier management must set out a plan of corrective action and submit it to the ELO. The quality of this action plan will determine whether the supplier is placed on probation and how long the probation period will be. If an improvement in the supplier evaluation cannot be expected within a six-month period, the supplier will be put on-hold and new RFQ , new business orders to the supplier may be suspended.

6.0 SUPPLIER GUIDE TO SOCIAL RESPONSIBILITY

Suppliers must comply with these socially important values, principles and guidelines. This Guide applies to all global suppliers of Elo which includes all integrated suppliers, temporary personnel, and third party consultants. Elo practices and demonstrates the values, principles and guidelines stated in this Guide in its day-to-day business operations.

6.1 LABOR AND HUMAN RIGHTS

6.1.1 *Providing Opportunity for All*. Suppliers shall extend equal opportunity and fair treatment to all of its employees. Suppliers must prohibit discrimination on the basis of age, disability, ethnicity, marital or family status, national origin, race, color, religion, sex, sexual orientation, or any other characteristic protected by law.

6.1.2 *Human Rights*. In addition to complying with Equal Employment Opportunities (EEO) laws in the United States of America, suppliers must comply with all other applicable civil rights, human rights, environmental and labor laws in the locations where the company operates around the world.

Suppliers must provide clean and safe working environments and conditions for employees, forbid child labor at its facilities or at the facilities of supplier subcontractors, and require that employees receive all benefits mandated by applicable laws. Regardless of location, each supplier must prohibit business units or supplier associates from engaging in activities that do not maintain individual dignity and respect, even if permissible under applicable law. A supplier's core values must show commitment to being good global citizens and acting in a socially responsible manner in the communities where the supplier conducts its business.

Suppliers must support the following specific labor and human rights related principles:

i. FREELY CHOSEN EMPLOYMENT. All employment will be voluntary, and workers should be free to leave upon reasonable notice. Workers shall not be required to surrender government-issued identification, passports or work permits as a condition of employment, except for the purpose of legal status verification, in which case the documents must be promptly returned to the worker.

ii. CHILD LABOR. Child labor is not to be used in any stage of manufacturing. The term "child" refers to any person employed under the age of 15 (or 14 where the law of the country permits), or under the age for completing compulsory education, or under the minimum age for employment in the country, whichever is greatest. The use of legitimate workplace apprenticeship programs, which comply with all laws and regulations, is supported. Workers under the age of 18 should not perform hazardous work and may be restricted from night work with consideration given to educational needs.

iii. WAGES AND BENEFITS. Compensation paid to workers shall comply with all appropriate wage laws, including those relating to minimum wages, and legally mandated benefits. In compliance with local laws, workers shall be compensated for overtime at pay rates greater than regular hourly rates.

iv. HUMANE TREATMENT. Suppliers shall not treat anyone harshly and inhumane, including any sexual harassment, sexual abuse, corporal punishment, mental or physical coercion or verbal abuse of workers; nor is there to be the threat of any such treatment.

v. NON-DISCRIMINATION. Suppliers must be committed to a workforce free of harassment and unlawful discrimination. Suppliers shall not engage in discrimination based on race, color, age, gender, sexual orientation, ethnicity, disability, pregnancy, religion, political affiliation, union membership or marital status in hiring and employment practices such as promotions, rewards, and access to training. In addition, workers or potential workers should not be subjected to medical tests that could be used in a discriminatory way as a condition of employment.

6.2 HEALTH AND SAFETY

6.2.1 *Making Workplace Safety and Security a Priority*. Suppliers must provide a safe working environment for all employees. Suppliers must follow strict safety and security rules and practices including:

6.2.2 Identifying workplace hazards and implementing effective controls to reduce, or eliminate where possible, risk of injury and illness.

6.2.3 Requiring employees to take an active role in working safely by adhering to safety procedures.

6.2.4 Prohibiting the possession of weapons and other dangerous devices by employees, contractors, suppliers, and visitors at all times on the company's, customers', or suppliers' property, including parking lots and company-owned vehicles.

While compliance with all applicable laws, regulations, and record-keeping requirements is mandatory, Suppliers must seek to exceed the minimum legal standards. Suppliers should seek to be recognized as an industry leader in safety.

Worker exposure to potential safety hazards (e.g., electrical and other energy sources, chemical, machine, fire, vehicle, and fall hazards) is to be controlled through proper design, engineering and administrative controls, preventative maintenance and safe work procedures (including lockout/tag-out). Where hazards cannot be adequately controlled by these means, workers are to be provided with appropriate personal protective equipment. Workers shall not be disciplined for raising safety concerns.

6.3 *Substance-Free Workplace for the Well-Being of Employees and Visitors*. Substance abuse, whether alcohol or drug abuse, poses a serious threat to the safety, health, and productivity. Suppliers must not allow or tolerate substance abuse within the organization by anyone. Suppliers must maintain a substance-free workplace in all locations worldwide.

6.4 ENVIRONMENTAL CONCERNS. Suppliers must adhere to the following environmental principles:

6.4.1 ENVIRONMENTAL PERMITS AND REPORTING. All required environmental permits (e.g. discharge monitoring) and registrations (including, but not limited to, general, air, water, and waste) are to be obtained, maintained and kept current and their operational, monitoring and reporting requirements are to be followed.

6.4.2 POLLUTION PREVENTION AND RESOURCE REDUCTION. Waste of all types, including water and energy, is to be reduced or eliminated at the source or by practices such as modifying production, maintenance and facility processes, materials substitution, conservation, recycling and re-using materials.

6.4.3 HAZARDOUS SUBSTANCES. Chemical and other materials posing a hazard if released to the environment are to be identified and managed to ensure their safe handling, movement, storage, recycling or reuse and disposal. Suppliers must comply with all applicable-environmental requirements for the elimination of hazardous substances, as in the various evolving global RoHS (Restriction of Hazardous Substances), REACH (Registration, Evaluation and Authorization of Chemicals) regulations, and as required per the Elo Green Procurement Guidelines document ES600973.

6.4.4 PRODUCT CONTENT RESTRICTIONS. Suppliers must adhere to all applicable laws and regulations regarding prohibition or restriction of specific substances including labeling laws and regulations for recycling and disposal. Suppliers must comply with various evolving global RoHS (Restriction of Hazardous Substance) and REACH (Registration, Evaluation, and Authorization of Chemicals) regulations. Suppliers must conform to the specifications and processes necessary to comply with customer-specific content restrictions. These requirements are identified in Elo's Green Procurement Guidelines document ES600973. Suppliers must also adhere to all regulations concerning radioactive substances in metals. Specifically, regarding stainless steel or other nickel bearing alloy contamination of Cobalt 60, suppliers must routinely test and audit their supply chain for potential radioactive contamination. Elo reserves the right to request verifications from suppliers detailing their ongoing testing and auditing of supply base to ensure compliance with all regulations and customer-specific requirements.

6.4.5 WASTEWATER AND SOLID WASTE. Wastewater, e-waste and solid waste generated from operations, industrial processes and sanitation facilities are to be monitored, controlled and treated as required prior to discharge or disposal.

6.4.6 AIR EMISSIONS. Air emissions of volatile organic chemicals, aerosols, corrosives, particulates, ozone depleting chemicals and combustion by-products generated from operations are to be characterized, monitored, controlled and treated as required prior to discharge.

6.4.7 NO UNAUTHORIZED DISCHARGES OR DISPOSAL. Suppliers shall not directly or indirectly dispose of liquid or solid waste onto or into the ground, into any body of water or into a wastewater disposal system except in compliance with a permit or other express regulatory authorization.

6.5 **ETHICS**. Suppliers shall comply with:

6.5.1 *Compliance with Laws*. Suppliers must conduct its business in accordance with all applicable laws, rules and regulations wherever the supplier does business. Suppliers must carry out their responsibilities in accordance with the law and to refrain from illegal conduct.

6.5.2 Payment Practices.

Suppliers shall not violate any anti-bribery or anti-corruption law of any jurisdiction, including but not limited to the United States of America's Foreign Corrupt Practices Act, the UK Bribery Act and any country which is or will become a signatory to the OCED Convention on Combating Bribery of Foreign Public Officials, and in particular, suppliers:

i. Shall not pay, offer or promise to pay, or authorize the payment of, any monies or anything of value, directly or indirectly, to any government official or employee, any official or employee of a state-run or state-owned or controlled enterprise or entity, any official or employee of a public international organization, any candidate for political or public office, any official or employee of any political party, or any family member or relative of such persons or any political party for the purpose of influencing any act or decision of any such official, employee, candidate, political party, enterprise or entity, public organization, or government to obtain or retain business, or direct business to any person or entity, or for any other improper advantage or purpose;

ii. Shall notify Elo promptly if supplier or any of its agents have knowledge that a violation has occurred or is likely to occur.

6.5.3 *Antitrust*. Competition laws and regulations throughout the world are designed to foster a competitive marketplace and prohibit activities that restrain trade. Generally, actions taken in combination with other companies that restrain competition may violate the antitrust laws. Certain antitrust violations involving agreements with competitors are crimes and can result in large fines and prison terms for the individuals involved. In addition, actions taken by an individual company in market segments in which it has a particularly strong position may violate competition laws if they have the effect of excluding competition through unfair means. Elo's success depends on competing independently and fairly at all times. Elo competes vigorously but within the bounds of fair competition. In this regard, the following practices are to be followed:

6.5.4 Suppliers are not to enter into any arrangements or understandings with competitors or potential competitors concerning prices, terms or conditions of sale or license, sales or marketing practices or plans, or research and development plans.

6.5.5 Suppliers are not to enter into any arrangements or understandings with a particular competitor to not deal with a particular customer or supplier.

6.5.6 Suppliers are not to enter into agreements or understandings that control the prices charged by a distributor.

6.6 *Export/Import Controls*.

6.6.1 Most countries, including the United States, have export/import control laws in place to protect strategically necessary products and technologies (these include, but are not limited to, production materials, finished goods, capital equipment, molds and tooling, samples and prototypes, repaired or returned products and technical information). When importing or exporting products, services, information or technology, suppliers must comply with applicable U.S. and other national laws, regulations and restrictions worldwide.

6.6.2 It is important to understand that, with few exceptions, U.S. origin products and/or technology are subject to U.S. export controls no matter where they are located in the world. The U.S. controls the export of defense articles and certain commercial items that have both commercial and military applications.

6.6.3 Suppliers are required to exercise due diligence to ensure that proper import/ export related policies, procedures and controls are adopted. Failure to do so could expose Elo, along with our customers and suppliers, to increased scrutiny from government agencies and associated negative publicity. Elo's ability to conduct business on a global basis must not be jeopardized.

6.6.4 In addition to U.S. export and import control regulations, countries around the world have their own regulations pertaining to exports and imports. Suppliers' policies on export/ import controls and economic sanctions must contain specific guidelines regarding:

6.6.4.1 Obtaining proper export and import authorization;

6.6.4.2 Disclosing or transferring technical data to foreign nationals either in the U.S. or abroad;

6.6.4.3 Establishing eligibility of export/import recipients;

6.6.4.4 Executing, controlling, and delivering required documentation; and

6.6.4.5 Retaining records for the above.

6.6.4.6 Suppliers should also comply with the minimum Security Criteria of the U.S. Bureau of Customs and Border Protection's Customs-Trade Partnership Against Terrorism (C-TPAT) program and/or other applicable global supply chain security programs, to the extent that these criteria are relevant for supplier's operations. Further information about the CTPAT program may be found on Customs website at http://www.cbp.gov.

6.7 *Responsible Mineral Sourcing*.

Elo is not subject to the SEC Section 1502 Conflict Mineral Rules nor to EU's CAHRA Regulation 2017/821. However, Elo is committed to responsible sourcing of minerals and to supporting our customers in meeting these regulations.

The minerals this policy pertains to are tin, tantalum, tungsten, and gold (collectively known as 3TG), as well as cobalt and mica.

Elo's suppliers shall

6.7.1. Adopt and share with Elo a responsible mineral sourcing policy that:

- aligns with OECD's Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (https://www.oecd.org/corporate/mne/mining.htm). In particular, all risks in Annex II's Model Supply Chain Policy (Human Rights, Conflict, and Good Governance) should be considered.
- Addresses minerals sourced from the "Covered Countries" of Section 1502 of the United States' Dodd-Frank Act (3TG originating in the Democratic Republic of Congo and its Adjoining Countries)
- Addresses minerals sourced from the EU 2017/821 list of Conflict-Affected and High-Risk Areas (CAHRAs) (https://www.cahraslist.net/)
- Includes a commitment to, and description of, the due diligence to be performed and the steps, tools, and governance used.
- Makes similar requirements of their suppliers

6.7.2. Annually declare the use and origins of the minerals that are present in the products they sell to us using the Responsible Mineral Institute's CMRT and EMRT reporting templates.

7.0 RECORD-KEEPING AND FINANCIAL CONTROLS.

Suppliers must be of sound financial stability and capable of complying with its obligations to Elo. Upon Elo's request, supplier will furnish financial statements to demonstrate its financial condition. If supplier's audit reports are publicly available, in lieu of providing written copies thereof, suppliers may inform Elo of where and when they may be obtained. If Elo's review of financial statements causes Elo to question a supplier's ability to perform its duties and obligations to Elo, Elo may request, and suppliers shall provide, reasonable assurances of the supplier's ability to perform its duties. Furthermore, suppliers shall notify Elo immediately if there is a material adverse change in supplier's business or financial condition including of there is the filing of insolvency or bankruptcy proceedings or concerning liquidation of assets. To the extent Elo reasonably believes that a supplier is not of sound financial stability, after reasonable consultation with supplier Elo may require a supplier to collaborate with another supplier to ensure that the know-how of the manufacturing of Elo products is smoothly transitioned to another source to ensure Elo's continuous operations.

8.0 Additional quality control Requirement for Panel module suppliers

In order to standardize the panel module suppliers quality management, supplier need also to follow following quality control requirements,

NO.	Item	Elo requirement
1	Epidemic Defect	-Epidemic Defect is defined as a defect in the product sold to buyer hereunder with the defect attributable to substantially the same root cause that(i)occurs in products within 24 months following manufacture date of a product.(ii)in more than 1.5% of similar products delivered by supplier during a 6 month period.(iii) is caused by the violation of one or more of the performance warranties listed in MSA -For the epidemic defect, supplier have to take below items a. do FA/CA for the failure b. repair/handle all the failed/risk products, include the inventory/on the way of shipment /re-call from end-user c. Supplier have to take all the cost because of the epidemic defect, including shipping/handling/testing/re-working/the necessary components/claims from customer/and so on)
2	Burn-in test	-Suppliers have to do the 100% burn-in for all Elo panel modules -The suggested Burn-in Test condition is, if the specification have the burn-in condition definition, we should follow spec as first priority Burn-in->100% test,12H & 50℃
3	ORT (On-going Reliability Test)	Sample size 5pcs/lot, test condition based on reliability test requirement in product SPEC
4	Special Characteristic SPC/CPK	-The key parameters and dimension defined in the drawing should be monitored by SPC -The CPK should ⩾1.33 The following process & parameters, but not limit to, should be SPC monitored, like the critical dimensions of cell cutting, outline of cell/LCM/frame/Bezel, FOG/COG bonding strength & shift etc. -Supplier should do FA/CA and provide the 8D report to Elo when the CPK of key item less than 1.33
5	Rework requirement	Each reworked panel that delivered to ELO must be approved in written by ELO SQE prior to dispatch, they must be suitably labelled and delivered as a separate delivery every quarter, the supplier is obliged to ensure that the reworked panels have been fully checked and entirely meet to spec. -Supplier should have the tracking system to save the SN/defects/rework history of all the rework products. -Supplier should do the reliability test and provide the test report to Elo for the rework defects. -below failed items are not allowed to rework

		a. the failure about IC/FPC/PCB bonding(related to FOG, COG process) b. PCBAs(such as L/B,PCBA/FPCA) c. Cell/filter material in exceptional cases, supplier should apply for an ELO written waiver to dispatch these parts.
6	DPPM Goal	-online DPPM should meet the quality goal(1300DPPM) Supplier has the responsibility to take all effective measures to ensure realization of DPPM target
7	Fly-audit requirement	-Supplier should support ELO randomly on-site audit the factory, 1-2 times/month -Supplier should ensure Elo guys start the audit activity within 4 hours when they get the requirement information of fly-audit. -Supplier should arrange related department guys support the fly-audit running.
8	Claim Rules	-When ELO receives on-line or after-sale quality complaints, but duties is caused by supplier product quality issues, ELO owns rights to claim related rework/repair, travel/transportation or freight costs to supplier.