

The referenced Quality Provision codes (Clauses) specified herein when imposed by the purchase order / subcontract, shall become a part and requirement of that document. Supplier is responsible for compliance to the identified requirements and shall ask for clarification if needed.

The supplier shall:

- Notify Teledyne of nonconforming product,
- Obtain Teledyne approval for nonconforming product disposition,
- Notify Teledyne of changes in product and/or process, changes of suppliers, changes of manufacturing facility location and, when required obtain Teledyne approval, and
- Flow down to the supply chain the applicable requirements including customer requirements,
- Retain records for a minimum of five (5) years
- Records (e.g. inspection, test, Certificates of Conformance (from suppliers), Certificates of Chemical Analysis (COCA) shall be provided to Teledyne when performing Assembly, Manufacturing, Fabrication, Machining, or Acceptance Test, etc.) or delivering product or materials, and
- Allow access by Teledyne, their customer, and regulatory authorities to the applicable areas of all facilities, at any level of the supply chain, involved in the order and to all applicable records as required

Additional specific requirements are defined below by code number on the purchase order or in the Statement of work (SOW) when provided.

#	Description
01	Reserved
02	Reserved
03	Mask Quality Clauses:
	All masks will be inspected upon receipt at Teledyne. QA will team with Operations and verify the acceptance for production. a) Inspect mask for defects b) Inspect mask for striping pattern - this is done under green light c) Verify certifications against PO requirements
04	AS9100 Default Clauses: AS9100 default clauses shall include Quality Provision Codes (Clauses) # 08, 11, 12, & 43 below.
05	Reserved
06	Reserved
07	Reserved

#	Description
08	<p>Prohibited Practices:</p> <ul style="list-style-type: none"> a) Unauthorized Repairs: Seller may not repair by welding, brazing, plating, splicing, soldering, adhesives, or any other methods, items damaged or found to be faulty without Buyer's written approval. b) Change in approved drawings, process, Materials or Procedures: Seller shall not change any drawing, process, material, or procedure without prior Buyer written approval, if such drawing, process, material, or procedure was originally approved by Buyer. Failure to notify the Buyer of these changes may result in rejection of the material. c) Seller shall not change any process, material, or procedure from that used to qualify items or which was used to become a qualified source, without written approval by Buyer d) Unauthorized submittal of production: When the Order authorized Buyer acceptance of a "first article," Seller shall not submit items from a production run for buyer inspection before Buyer's acceptance of such "first article." e) Notification of facility change: Seller shall not use or relocate any production, manufacturing, and/or processing facilities during performance of the work specified on the Order from those production, manufacturing, or processing facilities approved by the Buyer without promptly notifying Buyer and affording Buyer an opportunity to examine such facilities for compliance with Quality Assurance requirements prior to commencement of work. f) Nonconforming Conditions: Final acceptance and formal disposition of all materials will be determined upon receipt as specified in the Order. The Seller, or lower-tier Suppliers, ARE NOT authorized to disposition Minor nonconformance as "repair" or "use as-is" unless Material Review Board authority has been delegated to do so. For this purpose, materials shall be defined as all parts, materials, components, or assemblies of the Seller or lower-tier supplier(s). Nonconforming materials shall be segregated and withheld from shipment unless negotiated and approved by Buyer in advance. When authorized to ship nonconforming materials, the Seller shall ensure that the items are identified (i.e.; tagged) and specifically referenced as being nonconforming in certification statements, and shall be accompanied by a printed copy of the approved Waiver/Deviation. g) Resubmittal of rejected items: Items rejected by Buyer and subsequently resubmitted to Buyer shall not be reshipped without appropriate corrective action completed and then only with a reference being made to the rejection report on new certification of conformance.
09	<p>Measuring and test equipment: Seller must have a calibration system in place for measuring and test equipment which complies with ISO 17025 the latest revision, or an approved equivalent such as ANSI Z540, unless noted otherwise.</p>
10	<p>Serialization Required: Parts delivered on this order shall be marked with unique serial numbers or other identifiers.</p>
11	<p>Document retention: Records created by the supplier or distributor of products produced or delivered to Teledyne Scientific & Imaging (TSI) shall be maintained on file for a minimum of 5 years unless otherwise specified. Records include assembly, test, inspection, and verification/validation data identifying conformance to each of the requirements specified in the referenced drawing and/or specifications as applicable. Records shall be traceable to the TSI purchase order number. Records shall be made available to TSI and/or government/regulatory representative upon request.</p>
12	<p>Buyer surveys / surveillance / audits / and inspections: Buyer reserves the right to:</p> <ul style="list-style-type: none"> a) Conduct surveys, audits, and surveillance of Seller's facilities or those of Seller's subcontractors or suppliers with prior coordination with Seller to determine the capability to comply, and then verify the continuing compliance with the requirements of this Order. b) Perform inspections at Seller's facilities or those of Seller's subcontractors or sub-tier suppliers with prior coordination with Seller, during the period of manufacture and inspection prior to shipment. c) Establish a resident inspector at Seller's facility. d) Waive Buyer Source Inspection by notifying Seller in writing.

#	Description
13	<p>Limited Shelf Life Items: Materials or articles with limited shelf life or cure dates shall be marked to identify lot and/or batch number and date of manufacture and expiration. Items shall be clearly labeled "Limited Shelf Life."</p> <p>Seller shall identify each item and each outer container with its storage requirements (temperature, humidity, etc.), shelf life (a minimum of 75% of the shelf life period must be remaining at the time of receipt.), special handling conditions, and hazard warnings. A Material Safety Data Sheet (MSDS) must accompany the material.</p>
14	<p>Packaging: Preservation, packaging, packing, handling, and shipment of items shall be in accordance with appropriate procedures to prevent damage, contamination (including silicon), and ensure that original quality is maintained. Packaging material utilized by supplier shall be free of any type of silicone.</p>
15	<p>Electrostatic Discharge Control: Seller shall provide and maintain a program for electrostatic discharge control for all Electronic items furnished on this procurement.</p> <p>Electrostatic discharge control shall be per ANSI/ESD S20.20, Class 0, unless otherwise specified (the latest revision unless noted otherwise). All electrostatic sensitive devices shall be packaged in static shielding packaging that meets the requirements of ESD STM 11.31, ANSI/ESD S541 the latest revisions unless noted otherwise.</p> <p>The seller's ESD control program is subject to review and approval by the buyer.</p>
16	<p>Corrective Action Requests: When a problem exists with Seller's items, Buyer may forward a Corrective Action Request to Seller. Corrective Action Requests require timely responses and must include the following information: analysis of the cause of the problem, statement of the action taken to prevent recurrence, and the effectiveness of the action. When corrective action is required in response to Government Source Inspection, Seller shall immediately notify Buyer of the Government's request and recommended action.</p>
17	<p>Contamination Control: The seller shall provide and maintain a program for contamination control approved by the buyer. The buyer retains the right to audit any of the seller's CC procedures, documents, certifications, and clean room/clean bench environments.</p>
18	<p>Buyer Source Inspection: Inspection by Buyer must be performed at Seller's facility prior to shipment. Seller shall notify Buyer's Quality Assurance representative not less than five (5) working days prior to the time that items are ready for Buyer Source Inspection.</p>
19	<p>First Article Inspection: First Article Inspection (FAI) or test shall be accomplished by seller per AS9102</p>
	<p>First Article Inspection (FAI) or test shall be accomplished by buyers, additional shipments shall be held until approval of first piece.</p>
20	<p>Government Source Inspection: The Government has the right to inspect any or all of the work included in this Procurement at Seller's facilities or at sub-tier Supplier facility. The Seller's Quality Control or Inspection System and Manufacturing processes are subject to review, verification, and analysis by authorized Government Representatives.</p>
21	<p>Seller Destructive Physical Analysis: Seller shall perform destructive physical analysis (DPA). Buyer approval of Seller's DPA procedure is required prior to implementation. If Seller chooses to have DPA performed by an outside supplier, Buyer approval of that supplier is required.</p>
22	Reserved
23	Reserved
24	Reserved
25	<p>Coupon Requirements (PWB): Seller shall provide one coupon from each printed wiring board panel with the first shipment.</p>
26	<p>PWB/Flex Circuit Requirements 6010 Series: PWB/Flex Circuits shall be constructed in accordance with: IPC 6010, IPC 6011, IPC 6012, IPC 6013, IPC 6014 the latest revisions unless noted otherwise as specified on PO line item. PCBs shall not be stacked in packaging without interleaving, or they shall be individually packaged.</p>

#	Description
27	PWB/Flex Circuit Requirements IPC-A-600 (Class III): Printed wiring boards shall be constructed and tested in accordance with IPC-A-600 Class III the latest revision unless noted otherwise. PCBs should not be stacked in packaging without interleaving, or they should be individually packaged.
28	PWB/Flex Circuit Requirements IPC-A-600 (Class II): Printed wiring boards shall be constructed and tested in accordance with IPC-A-600 Class II the latest revision unless noted otherwise. PCBs shall not be stacked in packaging without interleaving, or they shall be individually packaged.
29	Reserved
30	Reserved
31	NASA Standard 8739.1: Conformal Coating shall be performed in accordance with NASA Standard 8739.1 the latest revision unless noted otherwise.
32	Reserved
33	Reserved
34	Reserved
35	Certificate of Chemical/Physical Analysis: A Certificate of Physical/Chemical Analysis shall be required with each shipment of material. The certificate shall identify the material by reference to the melt, cast, heat drop, lot or other similar designation and must indicate the applicable specifications, revision, and Purchase Order number as well as Physical Analysis/Chemical Analysis data as applicable.
36	Certificate of Calibration: Each item must be accompanied by a certificate of calibration traceable to the National Institute of Standards and Technology (NIST).
37	Reserved
38	Test Data: When Buyer specifications require test data to be recorded during performance of acceptance testing, a copy of the recorded data, showing evidence of Seller's inspection and verification of conformance, shall accompany shipment of deliverable items to Buyer. Test data shall be identified with: <ul style="list-style-type: none"> a) Buyer Order number b) Buyer specification/drawing number and revision letter c) Part number d) Type of test performed e) Lot numbers, serial numbers, date codes of items tested f) Total quantity tested, quantity accepted, and quantity rejected g) Any codes, keys, or other information necessary to interpret Seller's data Each deliverable device shall be accompanied by the following: <ul style="list-style-type: none"> a) Data necessary to prove compliance to all electrical performance and Group A testing requirements of the specification. b) Summary report of all screening tests performed and Group B, C and D testing (as applicable) including dated indication of completion and compliance.
39	Reserved
40	Reserved
41	Safety Data Sheets (SDS): The Seller must provide the applicable material safety data sheets with the product shipment.

#	Description
42	<p>Certificate of Conformance (Cage Code): Seller must provide certification that the product(s) sold on this order conform to all required specifications. Certificate of Conformance must include, at a minimum:</p> <ul style="list-style-type: none"> a) Manufacturer's name b) Manufacturer's address c) Manufacturer's cage code d) Part number or identification as shown on the purchase order e) Purchase order number f) Serial number (if Quality Code: 10 is imposed on PO) g) Manufacturer's heat, lot, batch number/date code h) Expiration and/or cure date if applicable i) Any special process and inspection/specification (including revision number) <p>Certifications must be signed by an authorized agent of the supplier. Buyer may refuse delivery of items if seller fails to submit proper certification as part of the shipment.</p>
43	<p>Certificate of Conformance (No Cage Code): Seller must provide certification that the product(s) sold on this order conform to all required specifications. Certificate of Conformance must include, at a minimum:</p> <ul style="list-style-type: none"> a) Manufacturer's name b) Manufacturer's address c) Manufacturer's Cage Code if available d) Part number or identification as shown on the purchase order e) Purchase order number f) Serial number (if Quality Code: 10 is imposed on PO) g) Manufacturer's heat, lot, batch number/date code h) Expiration and/or cure date if applicable i) Any special process and inspection/specification (including revision number) <p>Certifications must be signed by an authorized agent of the supplier. Buyer may refuse delivery of items if seller fails to submit proper certification as part of the shipment.</p>
44	Reserved
45	<p>ITAR: EXPORT CONTROLLED – ITAR RESTRICTED Information included herein is considered technical data as defined in 22 CFR 120.10 of the International Traffic in Arms Regulations (ITAR) and is subject to export control laws of the U.S. Government. Retransfer of this data to a foreign person, whether in the U.S. or abroad, requires U.S. Department of State approval.</p>
46	Reserved
47	<p>Counterfeit Parts Plan and Prevention: Suppliers must have a counterfeit parts prevention program. The delivery of suspect/counterfeit, salvaged, remanufactured, or reclaimed components, parts and/or materials is prohibited. To mitigate the possibility of the inadvertent use of these components, parts and/or materials, The Supplier shall only purchase components, parts and/or materials procured directly from the Original Component Manufacturer (OCM)/ Original Equipment Manufacturer (OEM)/ Original Source, or through the authorized franchisee/distributor chain. Procurement through an independent distributor or broker is NOT authorized, unless first approved in writing by the Buyer. Regardless of the source of procurement, the Supplier shall provide original manufacturer documentation that authenticates traceability of the components of the applicable original manufacturer. Further guidance can be found in SAE AS5553.</p>
48	Reserved
49	<p>EAR: Information included herein is controlled by the Export Administration Regulations (EAR) and requires an export license, license exception or other approval from the appropriate U.S. Government agency before being exported from the United States or provided to any foreign person. Diversion contrary to U.S. law is prohibited.</p>
50	See Statement of Work

#	Description
51	IPC-J-STD-001 Class 2 Dedicated Service Electronic Products
52	IPC-J-STD-001 Class 3 High Performance Electronic Products
53	IPC-J-STD-001 Space Addendum High Performance Electronic Products for use in Space Addendum
54	<p>REACH: Items delivered must be REACH compliant (EU)</p> <p>The following can be referenced for an understanding of REACH requirements: https://echa.europa.eu/regulations/reach/understanding-reach</p> <p>A list of registered substances can be found here: https://echa.europa.eu/information-on-chemicals/registered-substances</p>
55	<p>RoHS: As stated in the European Union's Restriction on Hazardous Substances (RoHS) Directive 2002/95/EC, materials provided to Buyer must not contain more than the described amount of restricted substances. If materials do not comply with the restrictions noted, the Seller shall notify the Buyer for direction prior to acceptance of order, or shipment.</p> <p>A guide to understanding RoHS and a list of restricted substances can be found here: https://www.rohsguide.com/</p>
56	<p>TSCQ156 NADCAP-Approved Special Processors Required Special Processes shall be performed by a NADCAP Approved supplier or sub-tier supplier in the case that the special process is not performed by a direct TIS supplier. More information about NADCAP can be found here: https://p-r-i.org/nadcap/</p>
57	<p>DRC: Items delivered shall not contain "conflict minerals"</p> <p>The supplier must comply with the Conflict Minerals reporting requirements established by the Dodd-Frank Wall Street Reform and Consumer Protection Act.</p> <p>More information on the requirements can be found here: https://www.sec.gov/rules/final/2012/34-67716.pdf</p>
58	<p>Dimensional Inspection 100%: A copy of the recorded data, showing evidence of Seller's inspection and verification of conformance, shall accompany shipment of deliverable items to Buyer. Data shall be identified with:</p> <ul style="list-style-type: none"> a) Buyer Order number. b) Buyer specification/drawing number and revision letter. c) Part number. e) Lot numbers, serial numbers, date codes of items inspected. f) Total quantity inspected, quantity accepted, and quantity rejected. g) Any codes, keys, or other information necessary to interpret Seller's data. <p>Each deliverable device shall be accompanied by the following:</p> <ul style="list-style-type: none"> I. Data necessary to prove compliance to all requirements of the specification. II. Summary report of all inspections performed including dated indication of completion and compliance.
59	<p>Incoming Dimensional Inspections by Teledyne Imaging Sensors: Items delivered shall be dimensionally inspected to requirements prior to acceptance</p>
60	<p>Lot Date Code Five Years: Supplier shall provide all parts with a lot-date-code no more than five (5) years prior to the date of the Purchase Order</p>

#	Description
61	Foreign Object Debris (FOD) Elimination Program Requirement: The supplier shall develop and maintain a Foreign Object Debris Elimination Program to prevent the introduction of foreign objects or materials into any item delivered under this purchase order. The supplier shall determine the necessary level of controls required to ensure products are processed in an appropriately clean environment and remain free of Foreign Object Debris (FOD). The requirements of the supplier's FOD Elimination Program, as well as any relevant work products (e.g., work instructions, forms, or metrics), shall be documented and available to Teledyne upon request. The supplier's Certification of Conformance represents that all delivered products are free of any loose or foreign materials that could result in Foreign Object Damage.
62	EEE-INST-002 Level 1: Parts shall meet EEE-INST-002 Level 1
63	EEE-INST-002 Level 2: Parts shall meet EEE-INST-002 Level 2
64	EEE-INST-002 Level 3: Parts shall meet EEE-INST-002 Level 3
65	IEST-STD-CC1246 Cleanliness Level 100 R2.5E-1(Formerly A/4) Parts shall meet a Cleanliness Level 100 R2.5E-1 (Formerly A/4) per IEST-STD-CC1246.
66	IEST-STD-CC1246 Cleanliness Level 200 R5E-1 (Formerly A/2) Parts shall meet a Cleanliness Level 200 R5E-1 (Formerly A/2) per IEST-STD-CC1246.
67	IEST-STD-CC1246 Cleanliness Level 250 R5E-1 (Formerly A/2) Parts shall meet a Cleanliness Level 250 R5E-1 (Formerly A/2) per IEST-STD-CC1246.
68	IEST-STD-CC1246 Cleanliness Level 250 R3.3E-1 (Formerly A/3) Parts shall meet a Cleanliness Level 250 R3.3E-1 (Formerly A/3) per IEST-STD-CC1246.
69	Single Lot Requirement: Seller shall provide all parts of the same part number from a single Lot Date code. If this is not possible, Buyer's Quality and Procurement representatives are to be made aware and their approval is required prior to any fabrication of parts.
70	Precision Cleaning w/De-I Water Only Supplier shall clean parts using only deionized water at a temperature no greater than 120°F
71	Rockwell hardness testing Perform Rockwell hardness testing per material requirements
72	Tensile testing Perform Tensile testing per material requirements
73	Yield testing Perform Yield testing per material requirements
74	Elongation testing Perform Elongation testing per material requirements
75	Reduction in Area Perform Reduction in Area testing per material requirements

#	Description
76	Chemical Analysis testing Perform Chemical Analysis testing per material requirements
77	Heat Treat Documentation Heat treated material shall have documentation required including temperature charts or recorded data
78	Cryogenic material documentation Cryogenically treated materials shall reference QAP-0338
79	Chemical/Physical property testing Perform Chemical/Physical property testing per material requirements
80	Dye Penetrant inspection Perform Dye Penetrant inspection per requirements
81	CT Scan inspection Perform CT Scan inspection per requirements
82	XRF testing Perform XRF testing per plating requirements
83	Adhesion testing Perform adhesion testing per ASTM B571
84	Salt Spray testing Perform Salt Spray testing per MIL-STD-202 Method 101
85	85/85 temperature and humidity testing Perform 85/85 temperature and humidity testing per MIL-STD-810
86	Machined Material from U.S. Source All raw material that is fabricated into a machined product must be procured on shore (U.S.A.)
87	Raw Material Witness Sample Raw Material Witness Sample required, minimum quantity of 3, size 2 inch height x 2 inch wide x 1 inch thick, rod shall be a minimum of 3 inches long
88	Raw material samples Manufacturing supplier to request raw material samples from material foundry for Rockwell hardness testing, minimum quantity of 3, size 2 inch height x 2 inch wide x 1 inch thick, rod shall be a minimum of 3 inches long
89	Transmittance testing Perform Transmittance testing per requirements
90	Measure coating thickness Measure coating thickness and generate a report with measurement data
91	Plating witness samples Require plating witness sample, minimum quantity of 2, minimum size 1 inch height x 1 inch wide x ¼ inch thick
92	Reflective testing for black oxide Perform Reflective testing for black oxide per requirements
93	Emissivity testing Perform Emissivity testing per requirements
94	Unprocessed Coupon Requirements (PWB): Seller shall provide two unprocessed coupons from at least one printed wiring board panel with the first shipment.
95	Outgassing: Seller shall provide certification declaring the manufacturer's recommended cure/bakeout processes were followed during manufacturing to ensure compliance to outgassing specifications.

#	Description
96	Insulating Compound: CF3003-80 Or Equivalent: If equivalent is used seller shall name it on the C of C.
97	Critical Inspection: Perform dimensional inspection on only critical requirements for all deliverable lines effected. If there are no critical requirements specified on the drawing, then QF-0349 shall accompany the purchase order with noted critical requirements.