NOTES	REVISIONS			
(1) Revision of all sheets is same as the	Rev	Description	Date	Approval
cover page.	SE	E REVISION E FOR PRE	VIOUS REV	VISIONS
	F	5657-292 / UPDATE	10-13-14	R.S.
	G	5657-837 / UPDATE	3-26-15	R.S.
	Н	5658-239 / UPDATE	8-5-15	M.M.
	J	5659-082 / UPDATE	5-20-16	T.L.
	K	5660-218 / UPDATE	5/19/17	T.L.

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DRAW	'ING REVIEW & A	PPROVAL	Q MICROY	VAVE, INC.
Resp	Name	Date	Description	
				, CONDITIONS LAUSES
SEE I	ECO FOR SIGN	ATURES	Drawing Number 000191	
			CAGE Code	Sheet
			1H1Z7	1 of 5

## 1.0 PURPOSE

1.1 The purpose of this procedure is to establish and define the Purchasing and Quality Assurance Clauses that appear on Purchase Orders for material, supplies and services that become a part of shippable product in order to assure that Q Microwave's suppliers deliver product that will fulfill all contractual and regulatory obligations.

#### 2.0 APPLICABLE DOCUMENTS

2.1	Internal	000006, Purchasing
		,,

າາ	External
Z.Z	

LAternar	
ASTM B700-08	Specification, Electrodeposited Silver Plating
AMS 2404	Specification, Electro-less Nickel Plating, Rev G
AMS-C-26074	Specification, Electro-less Nickel Plating, 2013
IPC-4553	Specification, Immersion Silver Plating, Rev A
MIL-C-26074	Specification, Electro-less Nickel Plating, Rev E
MIL-DTL-5541	Specification, Chemical Conversion Coatings, Rev F
MIL-G-45204	Specification, Electrodeposited Gold Plating, Rev D
MIL-PRF-85285	Performance Specification, Coatings, Rev E
QQ-N-290	Specification, Electrodeposited Nickel Plating, Rev C
QQ-S-365	Specification, Electrodeposited Silver Plating, Rev D
J-STD-001	Requirements for Soldered Electronic Assemblies, Rev F

#### 2.0 PROCEDURE

- 2.1 The selection of clauses will be based upon the contractual requirements or as deemed necessary by the Quality Manager or responsible management at the time the Purchase Order is reviewed. The flow-down of these requirements will be accomplished by adding the appropriate clauses to the Purchase Order.
- 2.2 It is the responsibility of Purchasing to ensure the appropriate clauses are provided to vendors to ensure meeting all flow-down requirements.
- 2.3 Purchasing or Quality clauses shall not be changed, added or deleted without approval of the Quality Manager.

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#### 3.0 GENERAL PURCHASING CLAUSES

- P-1 Vendor or their sub-tier vendors will allow QMI personnel, QMI customers and regulatory authorities, access to enter and inspect the applicable areas of all facilities, at any level of the supply chain involved in this order and access to records involved with this order upon request.
- P-2 Vendor shall retain all quality records relating to this order, including material test reports and any processing records, for a minimum of 7 years, unless otherwise specified in the Purchase Order.
- P-3 Vendor shall ensure that product is inspected and validated using acceptable monitoring and measuring equipment prior to shipment. When required, QMI will define requirements for approval of product, procedures, processes, and equipment.
- P-4 Vendor shall flow down the applicable information and requirements including customer requirements specified on this purchase order to sub-tier vendors, sub-contractors, etc., paying particular attention to key characteristics or special requirements. This is to include all applicable counterfeit avoidance and detection requirements.
- P-5 All materials supplied to QMI must comply with current part specifications, drawings and drawing notes unless otherwise specified.
- P-6 QMI purchasing must be notified of non-conforming product, for approval of non-conforming product disposition, changes to product and/or processes, changes in manufacturing facility location, changes of suppliers, price, quantity, or delivery, and where required, obtain QMI approval.
- P-7 Vendor shall acknowledge purchase order acceptance by signing and returning or by sending an order acknowledgement.
- P-8 With each shipment of items covered by this Purchase Order, vendor shall submit a certificate of conformance signed by the Manager/Director of Quality or authorized designate, which shall attest that the parts, materials and/or processes used are in compliance with the Purchase Order and applicable Specifications and Drawings. When specified, test or process records are also required.
- P-9 Vendor shall maintain a Quality Management and Inspection System in compliance with ISO 9001:2008, AS9100, or as approved by QMI.
- P-10 Each part, component or material furnished shall be identified by lot or batch number, traceable to the actual manufacturing process. The lot or batch number may be by date of shop order.
- P-11 Equal Employment Opportunity Seller hereby agrees to comply with Executive Order 11246, as amended, and its implementing Regulations (including the equal opportunity clause set forth in section 202 of such order) and Section 60-1.4(a) of the Regulations of the Secretary of Labor, Title 41 CFR, Chapter 60, Parts 1-60, which are incorporated into this PO as reference. In addition, this Purchase Order incorporates by reference the Affirmative Action clauses of the Rehabilitation Act of 1973 at 41 CFR Section 60-741.1 and the Vietnam Era Veterans, Readjustment Act of 1974, at 41 CFR Section 60-2050.4 as amended.
- P-12 Supplier certifies that they are in compliance Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) if applicable to the manufacturing of their product(s) and certifies that they have conducted a reasonable country of origin inquiry for the "conflict minerals utilized in the manufacturing of their products. Conflict minerals include Tantalum, Tin, Gold or Tungsten that originate in the Democratic Republic of the Congo (DCR) or an adjoining country.
- P-13 Vendor shall comply with the exporting conditions defined in Appendix B of this document. Additionally, by accepting an order for any item identified by Q Microwave as containing export controlled information, the vendor certifies it is "ITAR compliant". This includes vendor registration with the State Department's DDTC and compliance to DFARS 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting.

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- P-14 Vendor shall mark all internal packaging with the appropriate QMI part number. Differing part numbers shall be segregated and packaged separately.
- P-15 Vendor shall notify QMI when end of product life has been established and provide last buy date and potential replacement sources or alternatives.
- P-16 Vendor shall comply and ensure all sub-tier vendors comply with FAR 52.222-50 Combatting, Trafficking in Persons
- P-17 Vendor shall ensure all sub-tier vendors used for special processes are selected from the QMI approved vendors list (AVL).
- P-18 For solder and flux products, vendor shall provide certificates stating compliance to J-STD-004, J-STD-005, or J-STD-006 as stated on QMI drawings.

# 4.0 QUALITY CLAUSES

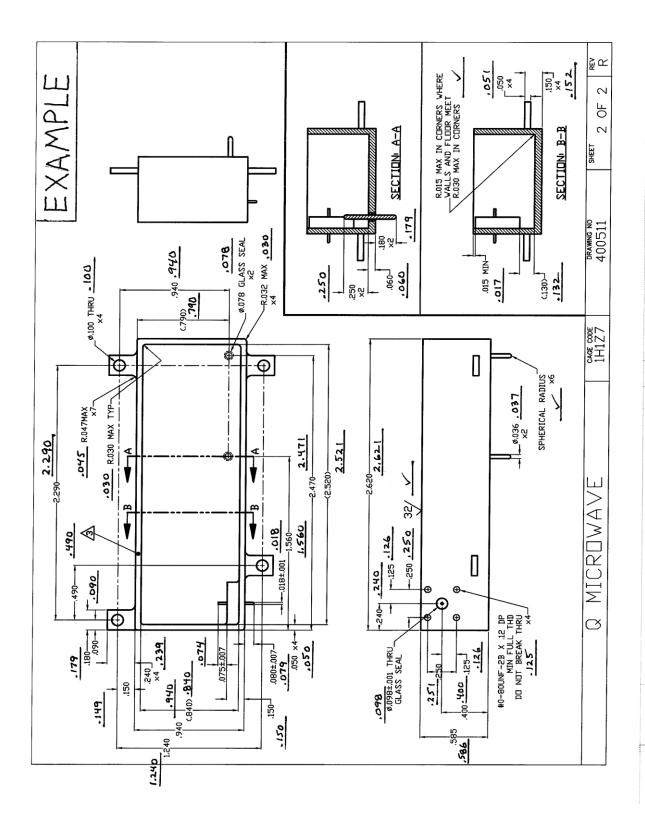
- Q-1 Parts are considered static sensitive and must be packaged in anti-static packaging and marked with an ESD warning.
- Q-2 Counterfeit parts prevention and avoidance IAW AS5553 is required. Seller shall ensure only new product is delivered and that product shall be supplied by only OEM or authorized distributors. Seller shall flow down these requirements to sub-tier vendors and sub-contractors. QMI is to be notified immediately if these conditions cannot be met.
- Q-3 Materials require ROHS compliance certification.
- Q-4 Any Stainless Steel or Kovar type alloys purchased under this order must be certified to DFARS 252.225-7014, Alt 1 or DFARS 252.225-7009. These metals must have been melted in the US or qualified country per DFARS 225.872-1.
- Q-5 Material certification and analysis sheets for raw material or processed raw material are required on this order
- Q-6 Key characteristics or critical items exist and are identified on drawing(s) for this order.
- Q-7 Calibration certificates required for all items.
- Q-8 All calibrations must be traceable to NIST, and conform to ISO 17025 or ANSI-Z-540
- Q-9 Sample test data required for each lot produced on this order.
- Q-10 Sample test data for a 25 piece sample is required for each part number produced on this order for each lot shipped.
- Q-11 Manufacturing date, shelf life and/or expiration date required. Material shall have a minimum of 75% of shelf life remaining unless otherwise noted.
- Q-12 Thickness report required for all plating layers
- Q-13 All parts, (100% of order) must be baked for 20 minutes minimum at 250°C +/- 10°
- Q-14 No pure tin finishes >97% allowed
- Q-15 MLC marking shall meet criteria defined on drawing 400280 unless an exception is stated on this purchase order.
- Q-16 This product requires design, testing, inspection, verification (including production process verification), use of statistical techniques for product acceptance, and related instructions for acceptance from QMI, and as applicable critical items including key characteristics, or qualification as defined.
- Q-17 All solder paste shall be packaged to withstand exposure to temperatures incurred during shipment. Solder paste shall be shipped to ensure delivery on Monday through Thursday only. No shipments are allowed during holiday periods.

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- Q-18 All hazardous materials shall be shipped to ensure delivery on Monday through Thursday only. No shipments are allowed during holiday periods. Current MSDS required. Certificate of analysis required.
- Q-19 Verification (FAI) is delegated to supplier, recorded results and certification is required.
- Q-20 QMI, our customer, and/or government intend to perform verification/inspection (FAI) at supplier facility. Arrangements and method of product release are stated on this order.
- Q-21 Requirements for qualification of personnel.
- Q-22 Test specimens (e.g. production method, number, storage conditions) for design approval, inspection/verification, investigation or auditing are required.
- Q-23 Vendor is required to provide recorded dimensional measurement verification of all drawing features on a sample basis of 1 piece per lot. (See Appendix A for example).
- Q-24 Soldering processes, solders, and fluxes shall be in accordance with J-STD-001, Class 3 requirements.
- Q-25 Seller shall immediately notify Q Microwave with the pertinent facts if seller becomes aware or suspects it has delivered counterfeit work. Seller shall also disclose the source of such parts if the parts become the subject of legal or counterfeit issues. When requested by Q Microwave, seller shall provide OCM/OEM documentation that authenticates traceability of the affected items to the applicable OCM/OEM.

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# **APPENDIX A (Q-23 sample dimensional verification)**



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## **APPENDIX B (P-13 Exporting Conditions)**

#### **TERMS & CONDITIONS: EXPORTING**

- (a) <u>APPLICABLE LAWS</u> SELLER shall comply with all applicable U.S. export control laws and economic sanctions laws and regulations (collectively referred to as "Trade Control Laws"), specifically including but not limited to the following:
  - a. International Traffic in Arms Regulations (ITAR), 22 C.F.R. 120 et seq.
  - b. The Export Administration Regulations, 15 C.F.R. 730-774; and
  - c. The Foreign Assets Control Regulations, 31 C.F.R. 500-598

<u>EXPORT LICENSING</u> - Without limiting these "Trade Control Laws", SELLER shall not transfer any export controlled item, technical data, technology, or service, including transfers to foreign persons employed by or associated with, or under contract to SELLER or SELLER's lower tier suppliers, unless authorized in advance by an export license.

- (b) <u>EXPORT CLASSIFICATION</u> SELLER shall notify Q MICROWAVE if any deliverable under this Contract is restricted by applicable "Trade Control Laws":
  - a. SELLER represents that an official authorized to bind the SELLER has determined that the SELLER or the designer, manufacturer, supplier or other source of the deliverable has properly determined their export classification.
  - b. SELLER shall provide the export classification of any deliverable in writing to the Q MICROWAVE Procurement Representative before providing it to Q MICROWAVE.
  - c. SELLER shall provide export classification changes of any delivered items in writing to the Q MICROWAVE Procurement Representative.
- (c) <u>RESTRICTED PARTIES</u> SELLER hereby represents that neither SELLER nor any parent, subsidiary or affiliate of SELLER is included on any of the restricted party lists maintained by the U.S. Government (collectively referred to as "Restricted Party Lists"), including:
  - a. The Specially Designated Nationals List administered by the U.S. Treasury Department's Office of Foreign Assets Control ("OFAC"),
  - b. Denied Parties List, Unverified List or Entity List maintained by the U.S. Commerce Department's Bureau of Industry and Security ("BIS"), or
  - c. The List of Statutorily Debarred Parties maintained by the U.S. State Department's Directorate of Defense Trade Controls, or

<u>NOTIFICATION</u> - SELLER shall immediately notify the Q MICROWAVE Procurement Representative if SELLER, or any parent, subsidiary or affiliate of SELLER becomes listed on any "Restricted Party List" or export privileges are otherwise denied, suspended or revoked in whole or in part by any U.S. government entity or agency.

- (d) <u>REGISTRATION</u> If SELLER is engaged in the business of manufacturing or brokering defense articles or services (whether exporting or not), SELLER represents that it is and will continue to be registered with the Directorate of Defense Trade Controls, as required by the ITAR, and it maintains an effective export/import compliance program in accordance with the ITAR.
- (e) <u>FLOWDOWN</u> SELLER shall include paragraphs (a) through (e) of this clause or equivalent provisions in lower tier contracts for the items that will be included in work provided to Q MICROWAVE.

  <u>NOTIFICATION</u> SELLER shall immediately notify Q MICROWAVE upon learning that any lower tier subcontractor with which it engages has become listed on the Restricted Parties List.
- (g) <u>LIABILITY</u> SELLER shall be responsible for all losses, costs, claims, causes of action, damages, liabilities and expense, including attorneys' fees, all expense of litigation and/or settlement, and court costs, arising from any act or omission of SELLER, its officers, employees, agents, suppliers, or subcontractors at any tier, in the performance of any of its obligations under this clause.

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# **APPENDIX** C (Internal Use Only)

Class	DBA Title	Clauses	Drawing
ACTV	000191-ACTV	Purchasing Clauses P1-P16 apply to this order QA Clauses Q-1, ESD, Q-2, Q-25 Counterfeit, Q-14 Pure Tin apply	500xxx
ASSY	000191-ASSY	Purchasing Clauses P1-P14, P16 apply to this order QA Clauses Q-1, ESD, Q-2, Counterfeit, apply	300xxx
BLDG	000191-BLDG	Purchasing Clauses P5, P7, P11 apply to this order	
CALB	000191-CALB	Purchasing Clauses P1-P11, P16 apply to this order QA Clauses Q-7, Certificates, Q-8, Traceability apply	
CAPX	000191-CAPX	Purchasing Clauses P1-P11 apply to this order QA Clauses Q-7, Certificates, Q-8, Traceability apply	
CERM	000191-CERM	Purchasing Clauses P1-P14, P16 apply to this order QA Clause Q-9, Lot Data applies	400xxx
CHEM	000191-CHEM	Purchasing Clauses P5, P7, P11, P16 apply to this order QA Clauses Q-11 Shelf Life, Q-18 Chem shipments apply	700xxx
CMIL	000191-CMIL	Purchasing Clauses P1-P14, P16, P17 apply to this order QA Clauses Q-4 Specialty Metals Q-5 Certs apply to (-U unfinished) QA Clauses Q-4 Specialty Metals, Q-5 Certs, Q-12 Thickness, Q-14 Pure Tin (excluding Chem-Film) apply to finished products Q-23 Recorded dimensional measurement verification required	400xxx
CSA	000191-CSA	Purchasing Clauses P1-P14, P16 apply to this order QA Clauses Q-10, Lot Data 25 pcs, Q-14, Pure Tin apply	400209
COIL	000191-COIL	Purchasing Clauses P1-P14, P16 apply to this order QA Clause Q-9, Lot Data applies	400xxx
CONN	000191-CONN	Purchasing Clauses P1-P14, P16 apply to this order QA Clause Q-4, Specialty Metals applies	400xxx
EPOXY	000191-EPOXY	Purchasing Clauses P1-P11, P13, P14, P16 apply to this order QA Clause Q-11, Shelf Life, Q-18 MSDS apply	700xxx
FDTH	000191-FDTH	Purchasing Clauses P1-P14, P16 apply to this order QA Clause Q-4, Specialty Metals applies	400xxx
FNSH	000191-FNSH	Purchasing Clauses P1-P14, P16 apply to this order QA Clauses Q-12 Thickness, Q-13 Baking, Q-14 Pure Tin apply to all finishes (excluding paint and Chem-Film)	000114
FSTN	000191-FSTN	Purchasing Clauses P1-P14, P16 apply to this order QA Clause Q-4, Specialty Metals applies	400xxx
FXTR	000191-FXTR	Purchasing Clauses P1-P14, P16, P17 apply to this order QA Clauses Q-4, Specialty Metals, Q-5 Certs apply	200xxx
МАСН	000191-MACH	Purchasing Clauses P1-P14, P16, P17 apply to this order QA Clauses Q-4 Specialty Metals Q-5 Certs apply to (–U unfinished) QA Clauses Q-4 Specialty Metals, Q-5 Certs, Q-12 Thickness, Q-14 Pure Tin apply to finished products, (excluding Chem-Film) Q-23 Recorded dimensional measurement verification required	400xxx
MARK	000191-MARK	Purchasing Clauses P1-P11, P13, P14, P16 apply to this order QA Clause Q-11, Shelf Life, Q-18 MSDS apply	700xxx
MISC	000191-MISC	Purchasing Clauses P5, P7, P11, P13, P14, P16 apply to this order	
MLC	000191-MLC	Purchasing Clauses P1-P14, P16 apply to this order QA Clauses Q-14, Pure tin, Q-15, Marking apply	400280
OFFI	000191-OFFI	Purchasing Clauses P5, P7, P11 apply to this order	
PASS	000191-PASS	Purchasing Clauses P1-P14, P16 apply to this order QA Clause Q-14, Pure tin applies	400xxx
QMIMACH	000191- QMIMACH	QA Clause Q-23, Recorded dimensional measurement verification required applies	400xxx

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Class	DBA Title	Clauses	Drawing	
RENT	000191-RENT	Purchasing Clauses P1-P11 apply to this order QA Clauses Q-7, Certificates, Q-8, Traceability apply		
RMTL	000191-RMTL	Purchasing Clauses P1-P14, P16 apply to this order QA Clause Q-5, Certification applies	700xxx	
SBST	000191-SBST	Purchasing Clauses P1-P14, P16 apply to this order QA Clause Q-14, Pure Tin applies	600xxx	
SLDR	000191-SLDR	Purchasing Clauses P1-P14, P16, P18 apply to this order  QA Clause Q-11 Shelf Life, Q-18 MSDS apply for all solder  QA Clauses Q-11 Shelf Life, Q17 Paste apply for solder paste		
SUB	000191-SUB	Purchasing Clauses P1-P14, P16 apply to this order QA Clause Q-14, Pure Tin applies		
TEST	000191-TEST	Purchasing Clauses P1,P2,P3,P5,P7,P8,P9,P11, P13, P16 apply to this order QA Clauses Q-1 ESD, Q-8 Calibration apply.		
TOOL	000191-TOOL	Purchasing Clauses P5, P7, P12 apply to this order		
TORO	000191-TORO	Purchasing Clauses P1-P14, P16 apply to this order QA Clause Q-9, Lot Data applies ONLY for PN 400914T16-17A	400914	
WIRE	000191-WIRE	Purchasing Clauses P1-P14, P16 apply to this order	700007	

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