

PMI Terms and Conditions and Quality Clauses

PMI Terms and Conditions and Quality Requirements (Quality Codes) for Purchased Items and Services

Introduction

These quality codes serve as the basic quality requirements for Planar Monolithics (hereby referred to as "PMI") to assure the achievement of applicable requirements and end customer satisfaction. Unless otherwise indicated on the Purchase Order (hereby referred to a "PO" without periods), only those requirements whose quality codes are listed on the applicable PO apply to the purchase. Unless otherwise specified on the PO, these codes apply to only Type 1 and Type 2 materials. The codes listed in Table 1 based on the parts or services as well as special codes listed or notes under the "Notes" section of the applicable PO are to be followed. Specific quality clauses specified under **Component and Service Requirements** by suppliers providing associated parts or services to PMI also apply unless otherwise specified.

Definitions

In this document, the term "**purchase order**," often abbreviated "PO" (without periods) is PMI's procurement action document. References to "PO" in this procedure shall apply to any alternative procurement action document such as an electronic request.

General Requirements per PO

The following are general requirements for purchased parts and processes. Any additional quality codes listed on the PO are to be followed as specified.

Product or Services	Quality Codes
Purchased Parts	Q1, Q2, (OCM Parts - Q8, Q10)
Bare PC Boards	Q1, Q2, Q7, Q12
Bare RF Board	Q1, Q2, Q7, Q13
PC Board Assemblies	Q1, Q2, Q7, Q14
RF Assemblies	Q1, Q2, Q7, Q15
Unit Assemblies	Q1, Q2, Q7, Q14, Q15
COTS / Vendor Designed Parts	Q1, Q2, Q7, Q10, Q11, Q12
Reworked Units	Q1, Q2, Q6, Q7, Q10, Q11
Outside Processes	Q1, Q2, Q4, Q5, Q7
Raw Material	Q1, Q2, Q3, Q7, Q8
Equipment Calibration	Q1, Q4, Q9

Table 1

PMI Terms and Conditions and Quality Clauses

PMI Terms and Conditions and Quality Requirements (Quality Codes) for Purchased Items and Services

QUALITY CODES

Quality Code 1 (Q1) - General Requirements

- a. General requirements are related to specific activities or actions to be accomplished by the Supplier which may be derived from PMI contractual obligations, industry specifications and/or standards associated with the products and/or services being procured.
- b. Unless otherwise specified, the information on purchase orders supersedes conflicting information on other purchase documentation. The hierarchy follows:
 - (1) Purchase Order (procurement action document)
 - (2) Codes listed on the PO
 - (3) Quality requirements in design documentation

Additional quality codes and clauses may be made a part of procurement actions (subcontracts, purchase orders, etc.), either directly or by reference. Quality codes describe quality requirements which may be imposed regarding procurement actions. These requirements generally will not be described in any other document and are exclusive to PMI only. Suppliers are to comply with the requirements of all quality codes as noted on PMI's PO. Quality codes listed on PMI's PO do not apply to other companies associated with PMI.

- c. Quality requirements, codes and clauses are intended to be in addition to, not in derogation of, procurement action requirements.
- d. Quality codes 2 and higher are related to specific activities or actions to be accomplished by the Supplier which may be derived from PMI's contractual obligations, industry specifications and/or standards associated with the products and/or services being procured.
- e. A quality clause (statement of requirement) may be noted on the procurement action when a specific quality code does not address a specific requirement.
- f. If a Supplier cannot comply with any applicable quality requirement listed within a quality code or quality clause on a procurement action, then resolution and/or changes to the requirements must be obtained prior to acceptance of PMI's procurement action. The primary point-of-contact for Suppliers is PMI's Purchasing Manager.

PMI Terms and Conditions and Quality Clauses

PMI Terms and Conditions and Quality Requirements (Quality Codes) for Purchased Items and Services

- g.** As the direct Supplier to PMI and the representative of the Manufacturer, Distributors are responsible for compliance with all procurement action requirements. The applicable requirements of all quality codes, quality clauses, and any technical requirements listed on the PO will apply to both the Distributor and the Manufacturer of the product.
- h.** Supplier is expected to operate according to a formalized quality management system. Suppliers shall be rated by PMI according to the following criteria.
- Preferred – The supplier has obtained an industry recognized quality system certification such as ISO 9001, AS9100, ISO9001, MIL-Q-9858, ISO10012-1, ANSI-Z-540, FAA Part 145, etc., and has provided appropriate evidentiary documentation to PMI, or PMI has conducted a successful on-site audit of the supplier’s facility and processes sufficient to demonstrate conformance with such a standard.
 - Approved – The supplier has not necessarily obtained an industry recognized quality system certification but has demonstrated consistent and repeated competence in supplying defect free product on time and over time. The supplier has also been approved by PMI through a vendor survey or visit or nominated by a PMI customer.
 - Conditional - The supplier has been nominated by a member of PMI’s Supplier Approval Group as a supplier without passing the criteria to be listed as either Approved or Preferred. The supplier has been added to PMI’s database. The supplier can only be in Conditional status for a year without further action to be promoted to Approved or Preferred.
- i.** All data, documents, and any certificates of conformance from the Supplier and sub-tiers shall be in English or contain an English translation.
- j.** Supplier will maintain quality records for products, equipment or services provided to PMI for a minimum of 5 years after the requirements of the procurement action have been fulfilled.
- k.** Suppliers will notify PMI when changes occur that will affect their management system (address/location, quality system approval level/type). To maintain an accurate Approved Manufacturer’s List, PMI may conduct periodic reviews (e.g., surveys, questionnaires, on- site visit) to ensure a Supplier’s information is correct and current.
- l.** Direct Suppliers to PMI will flow down applicable quality and procurement action requirements to their sub-tier Suppliers to ensure the integrity of the specified requirements are maintained throughout the supply chain (e.g., first piece/article inspection, customer approved special processes, key characteristics, record retention.). Ref: AS9100D Section 8.4.1

PMI Terms and Conditions and Quality Clauses

PMI Terms and Conditions and Quality Requirements (Quality Codes) for Purchased Items and Services

- m.** Supplier will notify PMI, or issue a recall notice, when discrepancies in the Supplier's process or product are discovered or suspected which may affect the form, fit, or function of product Supplier has delivered or will deliver to PMI.
- n.** Supplier is to provide root cause analysis and corrective action when a Supplier Corrective Action Request (SCAR) is issued because of non-conforming products, services, on-site survey/evaluation, or documentation and delivery problems.
- o.** Supplier is NOT granted Material Review Board (MRB) authority for any product that is manufactured to a Company drawing/specification or PMI's Customer's drawing/specification. Any deviations to engineering drawings/specifications must have PMI and/or PMI's Customer approval prior to shipment of product. MRB disposition received from PMI or PMI's Customer is a conditional acceptance of the item(s) and does not relieve the Supplier of any contractual responsibilities if PMI or PMI's Customer is dissatisfied with the product.
- p.** Shelf-life information (i.e., expiration date, cure date) of product/materials subject to degradation with age or varying temperatures must be clearly stated on the certificate of conformance/packing slip or product/packaging. Product/materials shall have a minimum of 75% shelf life remaining at time of receipt by PMI. If the Supplier desires to provide product with less than 75% shelf life, Supplier is required to obtain approval from PMI Purchasing Manager prior to shipment.
- q.** Products/materials which are volatile or toxic in nature shall be properly packaged in accordance with the applicable Code of Federal Regulations. Containers will be plainly marked as to the contents with appropriate warnings, precautions, instructions, and storage conditions. Appropriate documentation (MSDS, handling, etc.) will accompany each shipment.
- r.** Product/material categorized as Electrostatic Sensitive Devices (ESD) shall be packaged and labeled in accordance with the appropriate specification/drawing requirements (i.e., MIL-STD-1686; MIL-STD-129) for the product/material being provided to PMI.
- s.** Product/material categorized as Moisture Sensitive shall be packaged in a Moisture Barrier Bag (MBB) that provides moisture and ESD protection and is heat sealable. (MIL-PRF-81705 Type 1, IPC/JEDEC J-STD-033 or equivalent)
- t.** If Supplier has received product from PMI (customer furnished material) as related to an issued procurement action, Supplier is required to maintain traceability (i.e., lot/batch identification, part marking) of the product through the processes when possible. Product life cycle is inclusive of special processes (electroplating, chemical film, paint/primer, welding, cutting, bending, etc.) testing and assembly.

PMI Terms and Conditions and Quality Clauses

PMI Terms and Conditions and Quality Requirements (Quality Codes) for Purchased Items and Services

- u.** Suppliers will ensure that persons fulfilling this purchase order are aware of: Their contribution to product or service conformity, their contribution to product safety, and the importance of ethical behavior.
- v.** The supplier shall make every effort to avoid counterfeit parts if the parts are not supplied by PMI. A membership to GIDEP is preferred. If there are any concerns about possible counterfeit parts, the supplier shall contact PMI to work to resolve the issues raised.
- w.** PMI, our Customers and Government regulatory agencies, may visit the Supplier's facility and/or their sub-tier Suppliers for the purpose of verifying contract compliance and product conformity (e.g., source inspection, witness testing, product audit, quality system audit). Supplier will provide the necessary support to the visiting personnel. Arrangements for such visits will be coordinated through PMI's Quality Manager.
- x.** Terms and Conditions are related to specific activities or actions to be accomplished by the Supplier which may be derived from PMI contractual obligations, industry specifications and/or standards associated with the products and/or services being procured.
- y.** Adherence to PMI's Mineral Requirements (reference Planar Monolithics Industries Conflict Minerals and DFARS Compliance Policy)

Quality Code 2 (Q2) – Certification of Conformance Required Requirements

Dependent upon the type of product procured by PMI, the Supplier is required to provide with each shipment of product a Certificate of Conformance or equivalent that contains the following:

- 1) PMI purchase order number
- 2) Part number and/or description of the ordered item
- 3) Revision number/letter of the item being provided, when applicable
- 4) Signature and/or stamp of the Supplier's representative.

NOTE: A Certificate of Conformance document that includes company's letterhead and a Certificate of Conformance statement may be deemed acceptable, at PMI's discretion, in lieu of providing a Supplier representative's signature and/or stamp.

Distributors – A Manufacturer Certificate of Conformance is the preferred document for the ordered item. If a Manufacturer Certificate of Conformance is not provided with the shipment of product, PMI reserves the right to receive from the Distributor, at the time of or after receipt of product, a Manufacturer's Certificate of Conformance.

PMI Terms and Conditions and Quality Clauses

PMI Terms and Conditions and Quality Requirements (Quality Codes) for Purchased Items and Services

Quality Code 3 (Q3) – Demonstrated Raw Material Compliance Requirements

Supplier is to provide a copy of the raw material test data (e.g., chemical, physical, heat treatment) for the ordered product that demonstrates compliance with applicable specifications (QQ-N-; AMS-; SAE-; etc.) and/or drawing requirements. If PMI's procurement action and/or provided drawing do not call out any material specification for the material type being ordered, then the Supplier may provide material to a specification of their choice.

Quality Code 4 (Q4) – C of Cs and Proof of Qualifications for Special Processes Requirements

Supplier is to furnish certificates of conformance for special processes or testing (e.g., NDT, spectral scans, coatings such as electroplating, chemical film, paint) that includes the specification(s) associated with the performed process(es) if requested.

PMI reserves the right to receive documented evidence of compliance to specification requirements (e.g., training, qualifications) for any employee or subcontractor that performed a special process associated with an ordered item.

Quality Code 5 (Q5) – Raw Material Certification Requirements

Supplier is required to provide an independent lab/test report that validates the raw material being provided conforms to the mill certification/test report and applicable specifications.

Quality Code 6 (Q6) – Rework or Repair Documentation Requirement

Supplier is to provide copies of applicable documents (teardown reports, analysis, work orders, repair reports, etc.) as related to the analysis, testing rework, or repair of product on this purchase order.

Quality Code 7 (Q7) – Environmental, Health & Safety Terms and Conditions Requirement

The supplier's Environmental Health and Safety Terms and Conditions apply to the services/work to be performed under this Purchase Order. Ensure commitment and upstream due diligence to not directly purchase any Per- and polyfluorinated alkyl substances (hereafter abbreviated as PFAS) and that they are not to be used directly in the products or services provided to PMI.

PMI Terms and Conditions and Quality Clauses

PMI Terms and Conditions and Quality Requirements (Quality Codes) for Purchased Items and Services

Quality Code 8 (Q8) – Manufacturer’s C of C Required Requirement

Distributor is to provide the Manufacturer’s Certificate of Conformance for ordered item. The certificate of conformance should, at a minimum, contain:

- 1) Part number and/or description of the ordered item,
- 2) Revision number/letter, date code, batch number, date of manufacture, expiration date, etc., of the item being provided, when applicable,
- 3) Signature and/or stamp of the Manufacturer’s representative.

Quality Code 9 (Q9) – Certificate of Calibration for Item Requirement

A certificate of calibration that meets the requirements of ANSI-Z-540, ISO 10012-1 or other applicable standard is required to be provided for this item. Equipment or calibration standards are to be traceable to the NIST.

Quality Code 10 (Q10) – Test Report Requirement

Test Report(s) for Line items must accompany the delivery. If possible, test data will be traceable to individual components.

Quality Code 11 (Q11) – Serialization and Marking Requirements

Items delivered must be individually serialized preferably with the marking on the item. Marking for part location, identification, etc. shall be legible and not affected by cleaning solvents commonly used in cleaning operations for electronic parts such as Isopropyl Alcohol, Flux-Off, etc. If marking on the part is not possible, individual packaging marking is acceptable.

Quality Code 12 (Q12) – High Reliability Assembly Workmanship (Single Sided and Double Sided PCB / PWBA Boards)

PCB / PWBA assembly workmanship shall meet the requirements of ANSI/IPC-A-600 Class 3 and those of the PMI drawings and Parts Lists.

PMI Terms and Conditions and Quality Clauses

PMI Terms and Conditions and Quality Requirements (Quality Codes) for Purchased Items and Services

Quality Code 13 (Q13) – Hybrid Microelectronic Boards

The Hybrid Microelectronic Board shall meet the requirements of IPC-6012 and those of the PMI drawings and Parts Lists.

Quality Code 14 (Q14) – High Reliability Assembly Workmanship Requirements

General assembly workmanship shall meet the requirements of ANSI/IPC-A-610 Class 3 and those of PMI drawings and Parts Lists

Quality Code 15 (Q15) – Hybrid Microelectronic Workmanship Requirements

The Hybrid Microelectronic Assembly Workmanship shall meet the requirements of MIL-STD-883 Class B Method 2010.10 and Method 2017.7 as well as those of the PMI drawings and Parts Lists.

SPECIAL QUALITY CODES

Special Quality Code 1 (SQ1) – FARs and DFARs Clauses

All applicable FARs and DFARs clauses flowed down from Government contracts shall be followed as required. Details of FAR and DFAR Clauses can be provided as requested.

Special Quality Code 2 (SQ2) – NIST 800-171 and / or CMMC Requirements

NIST 800-171 and / or CMMC requirements for PMI or Vendor designs details and test data shall be in place on the contract in work at a minimum. The CMMC / NIST 800-171 SPRS score shall be provided as requested.

PMI Terms and Conditions and Quality Clauses

PMI Terms and Conditions and Quality Requirements (Quality Codes) for Purchased Items and Services

Special Quality Code 3 (SQ3) – First Article Inspection Requirements

First Piece/Article Inspection report is required for the ordered item/service. Report should contain, at a minimum, the following:

- a) Engineering drawing number, configuration, and revision,
- b) Notation of applicable material and process specifications used,
- c) Notation and verification of all dimensions and applicable notes on the drawing(s),
- d) Notation of any document generated during the FPI/FAI process related to any nonconforming condition,
- e) Copies of certificates of conformance for all materials, processes, parts used in the production of the ordered item(s), where applicable.

If the quantity of the ordered item consists of more than one piece, the item from which the First Piece/Article Inspection report was generated shall be identified (e.g., tagged, bagged, labeled).

First piece/article inspection (FPI/FAI) reports are to be maintained for an indefinite period of time. When required, first piece/article inspection (FPI/FAI) reports are to be maintained for a minimum of 7 years.

Special Quality Code 4 (SQ4) – Source Inspection Requirement

Source Inspection by PMI and/or PMI's Customer is required prior to shipment of product. Supplier is to contact PMI Procurement representative in advance of product shipment to make arrangements for the source inspection activity.

Special Quality Code 5 (SQ5) – Acceptance Testing at Supplier's Facility Requirement

PMI and/or PMI's Customer are to witness acceptance testing at Supplier facility. Supplier is to contact PMI Procurement representative in advance of acceptance testing activities to make arrangements for witnessing of testing.

Special Quality Code 6 (SQ6) – Requirement for Test Specimen

A fully functional unit or units of the subject product shall be provided to PMI as test specimens using the same production methods and machines that are designated for the production run. Such test specimen(s) may be used for destructive tests or for design approval, inspection/verification, investigating or auditing. When required, the Supplier shall provide information to PMI regarding storage conditions of any such test specimen.

PMI Terms and Conditions and Quality Clauses

PMI Terms and Conditions and Quality Requirements (Quality Codes) for Purchased Items and Services

Special Quality Code 7 (SQ7) – Proof of Calibration Requirement

For each item or service a Supplier shall be able to provide what is used to monitor conditions or validate dimensions, the Supplier shall also be able to provide a certificate of calibration that meets the requirements of ANSI-Z-540 or ISO 10012-1 if required. Equipment or calibration standards are to be traceable to the National Institute of Standards and Technology (NIST). Certificates of calibration will include of when the equipment was last calibrated and when it is due for calibration.

Special Quality Code 8 (SQ8) – Potentially Suspect/Counterfeit Material Requirements

PMI has identified the ordered item to be electronic in nature which is now classified by the U.S. DOD (Department of Defense) as a potential high risk for being suspect/counterfeit material.

Procurement of this product type may now only be obtained via the Manufacturer direct or their authorized distributor.

The supplier is to provide a Certificate of Conformance based on their type of organization:

- A. If an OEM / OCM - Provide an OEM / OCM Certificate of Conformance
- B. If an Authorized Franchised Distributor – Provide an Authorized Franchise Distributor Certificate of Conformance

The Certificate of Conformance should, at a minimum, contain the following information:

- 1) PMI procurement action number,
- 2) Part number and/or description of the ordered item,
- 3) Revision number/letter of the item being provided, when applicable,
- 4) Signature and/or stamp of the Supplier's representative.

NOTE: A Certificate of Conformance document that includes the Supplier's letterhead and a Certificate of Conformance statement may be deemed acceptable, at PMI's discretion, in lieu of providing a Supplier representative's signature and/or stamp.

Distributors – A Manufacturer Certificate of Conformance is the preferred document to be provided for the ordered item. If a Manufacturer Certificate of Conformance is not provided with the shipment of product, PMI reserves the right to receive from the Distributor, at the time of or after receipt of product, a Manufacturer's Certificate of

Planar Monolithics Industries, Inc. (PMI)
7309-A Grove Road, Frederick, MD 21704 **Tel.** 301-662-5019
Website: www.pmi-rf.com

Conformance.

PMI Terms and Conditions and Quality Clauses

PMI Terms and Conditions and Quality Requirements (Quality Codes) for Purchased Items and Services

Special Quality Code 9 (SQ9) – Qualified Products List Item Requirements

PMI has identified the ordered item is subject to meeting the requirements of a QPL (Qualified Products List). As such, the ordered item may only be provided via the Manufacturer direct, or their authorized distributor as posted/published in the applicable QPL.

Supplier is to provide a Certificate of Conformance that, at a minimum, contains the following information:

- 1) PMI PO number,
- 2) Part number and/or description of the ordered item,
- 3) Revision number/letter and/or Date/lot code of the item being provided, when applicable,
- 4) Signature and/or stamp of the Supplier's representative.

Distributors – A Manufacturer Certificate of Conformance is the preferred document to be provided for the ordered item. If a Manufacturer Certificate of Conformance is not provided with the shipment of product, PMI reserves the right to receive from the Distributor, at the time of or after receipt of product, a Manufacturer's Certificate of Conformance.

Special Quality Code 10 (SQ10) – Selective Evaluation Requirement

The Government imposes Selective Evaluation on this order. During performance of this order, supplier quality control or inspection system and manufacturing processes are subject to review, verification, and analysis by authorized Government representatives.