Lockheed Martin Space Systems Company Quality Clauses

Lockheed Martin hereinafter shall mean Lockheed Martin Space Systems Company. Notwithstanding any other provisions, all articles furnished hereunder are subject to the General Provisions of the Procurement Document and the following Special Provisions Quality Assurance Clause(s) when indicated by Quality Code(s).

Articles defined in the Procurement Document will not be accepted by Lockheed Martin if the Supplier fails to submit certification, docum

Quality Clauses

| Q-Code | QID | Title | Long-Text |
|--------|-----|-------|-----------|
| | | | |

| QQLS | 1 | PRODUCT ASSURANCE EXHIBIT "S" APPLIES | The applicable Product Assurance requirements are contained in Exhibit "S" to the Statement of Work previously provided to the Supplier. |
|------|---|---|--|
| QT4A | 1 | QMS QUALITY SYSTEM REQUIREMENTS (SAE AS9120) | |

registrar will be accepted. Contractor declaring system compliance with no formal accredited registrar will be

| QA1 | Q | LOCKHEED MARTIN ACCEPTANCE AT DESTINATION | Articles ordered under this Contract are subject to final acceptance at the Lockheed Martin facility as set forth on the face of the Contract. |
|------|---|---|---|
| QA5B | Q | ACCEPTANCE TEST PROCEDURES | The Contractor shall prepare separate detailed test procedures, encompassing tests required for acceptance. Each item of hardware, or part thereof, which requires acceptance testing, shall be covered by an Acceptance Test Procedure. Acceptance Test Procedures require Lockheed Martin approval prior to the delivery of the first unit of hardware. Subsequent changes are subject to Lockheed Martin approval prior to incorporation. Where these tests are performed utilizing equipment controlled by computer software or firmware, the software or firmware associated with, or affecting, those tests require Lockheed Martin approval at the same time(s) as the remainder of the Acceptance Test Procedure. |
| QC4 | | | |

Ship-To Barcode generation tab prior to shipping material.

Definitions:

Special Process: A method controlled by a contractually required specification where:

- 1. A product undergoes a physical, chemical or metallurgical transformation or inspection. Conformance to the specification cannot be readily verified by normal inspection methods, and
- 2. The quality of the product depends on use of specific equipment operated in a specific manner, under controlled conditions, by trained personnel with instructions, procedures or standards.

| QAQC11 | Q | AQC11 CHANGE AUTHORITY | The Organization shall provide in writing advance notification to the Customer of any change(s) to tooling, facilities, materials or processes at the Organization or the Organizations sub-tier that could affect the Customers contracted product. This includes, but is not limited to, fabrication, assembly, handling, testing, facility location or introduction of a new sub-tier supplier. |
|--------|---|--------------------------------------|--|
| QAQC23 | Q | AQC23 NONCONFORMANCE REPORTING | |

| | | | Note: preliminary review does not negate the requirement to identify, segregate, document, report and disposition nonconformances. |
|------|---|---------------------------------|--|
| | | | Nonconformances shall be reported to the customer under the following conditions. When notification is required, notification shall be within 3 working days after the nonconformance is discovered. |
| | | | The problem is detected during one of the following: 1. Certification, acceptance, or qualification testing |
| | | | 3. Turnaround, maintenance, overhaul, and repair of flight, ground test operation or shipping and receipt of hardware delivered to the customer including any test involving hardware previously accepted by the customer and returned for repair, modification, etc. |
| | | | And it is: 1. Flight hardware 2. Flight Hardware Spares 3. Equipment that is representative of flight hardware (flight-like hardware), including prototype and |
| | | | qualification hardware 4. Ground Support Equipment (GSE) that is safety critical |
| QB4F | Q | FAILURE ANALYSIS REPORT | The Contractor shall perform a failure analysis on item(s) returned under this Contract and shall provide to Lockheed Martin, as a minimum, the following information with the shipment or as directed by contract: |
| | | | 1) Date of report; 2) Contract number; 3) Contractor's name and address; |
| | | | 4) Part name, number, revision level, and serial/number; |
| | | | 5) MARS number (if specified by Contract);6) Specific and contributory causes of failure; |
| | | | 7) List of parts required to repair item(s); 8) Corrective action taken to preclude recurrence and effectivity by date or serial number of corrective |
| | | | action;9) Signature and title of Contractor's Quality Representative approving the failure analysis report. |
| QD1 | Q | PRELIMINARY REVIEW AUTHORITY | The supplier is delegated Preliminary Material Review authority (PMR) for hardware nonconformances. This authority is limited to dispositions of Rework to engineering requirements, return to previous operation for reprocessing, Scrap (unless material was |
| | | | supplied by Lockheed Martin), Repair to a Lockheed Martin approved standard repair instruction (SRI), and Return to Subtier Supplier. This authority does not extend to the use of a Material Review Board (MRB) for the purpose of changing engineering criteria, which can only be accomplished by drawing change. |
| QLZ | Q | FAILURE/DISCREPAN | If this Purchase Order is for any of the art types listed below, Supplier shall inform Buyer of test |
| | | CY THRESHOLD | failures/discrepancies on end item acceptance test that exceed the percentage listed below: Capacitors> Failure/Discrepancy Threshold = 20%,Crystal Oscillators> Failure/Discrepancy Threshold = 20%,Diodes |

and Transistors ---

| | | | shipments, these requirements apply to both basic and finished cable. |
|------|---|---|--|
| | | | When the specification requires other inspection or test data to be reported, it shall be included in the test |
| | | | date or change letter, and other data required by the specification, and must be identified to or correlated with the lot shipped. |
| QB1 | Q | RADIOGRAPHS | Radiographs shall be supplied with the material to Lockheed Martin. |
| QB14 | Q | SUPPLIER DATA SHEET | Supplier data sheet shall be provided with shipment. |
| QB2B | Q | SUPPLEMENTAL DATA REQUIREMENTS (CASTINGS/FORGING S) | In addition to chemical/physical test reports stating the actual chemical and mechanical properties for each lot submitted, inspection/test data listed below shall be submitted for each lot of castings or forgings as required by specification or Contract. Certification for Magnetic Particle, Fluorescent Penetrant Inspection, Ultrasonic Inspection, Pressure Test, and Grain Flow shall be submitted with the order. Radiographic Inspection results including film for each casting shall be supplied. These reports shall be validated by an authorized representative of the Contractor's Quality Department, by either an inspection stamp or signature. |
| QB4 | Q | TEST REPORTS - SUBMITTAL | |
| QD26 | Q | ORDNANCE REQUIREMENTS COMPETnBT/F4 TJ belia | B |

can be coordinated.

The supplier shall use EXOSTAR to arrange source inspection. The supplier may view a source inspection request process document using the following link:

http://www.lockheedmartin.com/content/dam/lock

| | | | RECORDS |
|------|---|-----------------|---|
| QM17 | Q | SINGLE DATE/LOT | The contractor shall maintain fabrication records which summarize the identification of elements within an assembly. Records, shall include name of supplier, date of manufacture, screening date and other pertinent information. Parts delivered against this Contract shall be from a single date/lot code. The lot identifier shall be recorded on all certificates and packages for this order. Authorization for shipments with multiple date/lot codes must |
| | | CODE | be pre-coordinated with your Lockheed Martin Buyer. When mixed date/lot codes are authorized, the |

| QV15 | Q | THAAD FIRST ARTICLE INSPECTION | Organization is required to perform 100 percent inspection and record the attributes for the first article of this Contract / Purchase Order, and shall be in accordance with AS9100 and AS9102. If the deliverable is an assembly, this inspection shall also include all of the piece parts that make up the assembly. The inspection records and data shall be per AS9102 and shall identify each characteristic and feature required by design data, the allowable tolerance limits, and the actual dimension measured as objective evidence that each characteristic and feature has been inspected and accepted by the Organization's quality and inspection function. When testing is required, the parameters and results of the test shall be recorded in the same manner. The First Article Inspection Report must show evidence of acceptance by the Organization's quality assurance representative. The First Article(s) shall be produced on production equipment and using processes which will be utilized on production runs. Additionally, the Organization shall perform additional First Article Inspection(s) per the requirements of AS9102 (i.e.: following every major tooling, every design change, and subsequent to any evident quality degradation for a specified part or article). Records of all first article activity will be documented as required in AS9102, treated as quality / acceptance records, and made available to Customer if requested. Organization shall notify the Authorized Requester ten (10) working days prior to performing FAI. Organization shall perform a full FAI when there is a lapse in production for One (1) year. |
|--------|---|-----------------------------------|---|
| | | | FBM |
| QZ322 | 1 | SMP010720U11 | SMP010720U11 Letter of Agreement Between Lockheed Martin Space Systems Company (LMSSC) and Universal Propulsion Company, Inc. Pertaining to Procurement Requirements for Ordnance Procurements |
| QQZ1 | 1 | SMP010760U05 | SMP010760U05, Supplier Tech Program Management Requirements for Electrical, Electronic, and Electromechanical (EEE) devices. |
| QQZ11 | 1 | SMP010740U04 | SMP010740U04, Supplier Technical Program Management (Quality and Inspection System Requirements) for Suppliers of Missile System Hardware, SMP010740U04. |
| QQZ111 | 1 | F120689 | F120689, Supplier Technical Program Management (STPM) Requirements for High Control LCTMK Products. |
| QQZ181 | 1 | | · ' |

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| | QZ167 | Q | D062101 | D062101, Surface Equipment Welding Procedure Certification and Welder Performance Qualification, Revision C |
|---|-------|---|--------------|---|
| • | QZ17 | Q | SMP011063U05 | SMP011063U05, ADDENDUM (EXCEPTIONS) TO d915700 FOR APPLICABLE PROCUREMENTS OF TMK RF LINES BETWEEN LOCKHEED MARTIN SPACE SYSTEMS COMPANY SUNNYVALE, CA AND MEGGITT SAFETY SYSTEMS, SIMI VALLEY, CA. |
| İ | QZ170 | O | • | |

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| QZ210 | Q | D824158-04 | D824158-04, Large Scale Integration (LSI) CGA |
|-------|---|------------|--|
| QZ211 | Q | D824158-07 | D824158-07, DRD C & W Transistors, SCR Thyristors, Pin Diode |
| QZ212 | Q | D824158-10 | D824158-10, DRD - Special Pkg Pwr Transistors & Diodes |
| QZ213 | Q | D824158-11 | D824158-11, DRD - Axial Lead Diodes |
| QZ214 | Q | D824158-12 | D824158-12, DRD - Bridge Rectifiers |
| QZ215 | Q | D824158-13 | D824158-13, DRD - Diode Array |
| QZ216 | Q | D824158-14 | D824158-14, DRD - FTS RF Mixer Assembly |
| QZ217 | Q | D824158-16 | D824158-16, DRD - Quartz Crystal |
| QZ218 | Q | D824158-17 | D824158-17, DRD - Filters |
| QZ219 | Q | D824158-18 | D824158-18, DRD - FTS Transformers & Inductors |
| QZ220 | Q | D824158-19 | D824158-19, DRD - Relays |
| QZ221 | Q | D824158-20 | D824158-20, DRD - Resistor Network |
| QZ222 | Q | D824158-21 | D824158-21, DRD - Resistors |
| QZ223 | Q | D824158-22 | D824158-22, DRD - VSLI Command Sequencer |
| QZ224 | Q | D824158-24 | D824158-24, DRD - Transformers & Inductors |
| QZ225 | Q | D824158-25 | D824158-25, DRD - FTS Thermistors |

| QZ250 | Q | D915705 | D915705, PA Quality Requirements for Trident II Batteries |
|-------|---|----------|--|
| QZ251 | Q | D915706C | D915706C, PA Quality Rqmts for Printed Circuit Boards, Multilayer Boards, Rigid Flex Master Interconnect |
| | | | Board & Flex Cables |
| QZ252 | Q | D915709P | D915709P, PAQR - Black Box Subcontractor Piece Part Rqmts |
| QZ256 | Q | D915711 | D915711, Addendum 2 - to Supplier Tech Program Management LMSC/915710A |
| QZ257 | Q | D915720 | LMSSC D915720, Supplier Technical Program Management (STPM) Document for Test Missile Telemetry |
| | | | & Tracking System (including Addendum 1 and Addendum 2) applies. |
| QZ261 | Q | D915722 | D915722, PA Quality Requirements for Instrumentation Electronic Packages |
| QZ262 | Q | D915723 | D915723, PA Quality Rqmts for Transducers and Instruments |
| QZ265 | Q | D915741B | D915741B, PA Quality Rqmts for MSD Hardware |
| QZ266 | Q | D915742 | D915742, PA Quality Rqmts for Trident II (D5) Ordnance Hardware |
| QZ267 | Q | D915743 | D915743, PA Quality Rqmts for PBCS Coupling and Seal |
| QZ268 | | | |

| QZ302 | Q | SMP010787U06 | SMP010787U06, LOA between LM and IRC (Division of TRW) pertaining to STPM D824156 and STPM SMP010760U05 |
|-------|---|-----------------|---|
| QZ303 | Q | SMP010707U05 | SMP010707U05, PAQR for G&H PMM Connectors (changes from D915703-1, Rev C) |
| QZ305 | Q | SMP010704U05A | SMP010704U05A, Product Assurance Quality Requirements for Nose Cap and Nose Fairing Manufacture |
| | | | Updated. |
| QZ306 | Q | SMP010761U05 | SMP010761U05, Product Assurance Quality Requirements for Electrical, Electronic and Electro-Mechanical |
| | | | (EEE) Devices Updated |
| QZ307 | Q | SMP010782U05-24 | SMP010782U05-24, Detail Requirements Document for Inductors and Transformers for Teident II (D5) |
| | | | Program Updated |
| QZ308 | Q | SMP010782U05-21 | SMP010782U05-21, Detail Requirements Document for Resistors for Trident II (D5) Program - Updated |
| QZ309 | Q | SMP010782U05-19 | SMP010782U05-19, Detail Requirements Document (DRD) for Relays Trident II (D5) Program - Updated |
| QZ31 | Q | F120054 | F120054, PAWS 49 - Using Supplier Use and Control of Pre-Released Hardware |
| QZ310 | Q | SMP010789U06 | SMP010789U06 MOU between LMSSC & OECO pertaining to STPM SMP010782U05-24 |
| QZ311 | Q | SMP010790U06 | SMP010790U06 MOU between LMSSC & OECO pertaining to PAQR SMP010761U05 & DRD |
| | | | SMP010782U05-24 |
| QZ316 | Q | SMP010783U05A | SMP010783U05A Memorandum of Understanding between LMSSC-MSO and Hamilton Sundstrand |
| | | | Aerospace applies. |
| QZ317 | Q | SMP010708U07 | SMP010708U07 Letter of Agreement pertaining to Supplier Technical Program Management |
| | | | requirements (STPM) D915720, between Lockheed Martin Space Systems Company (LMSSC) AND Paine |
| | | | Electronics LLC (Paine). |
| QZ318 | Q | SMP010713U08 | SMP010713U08 Letter of Agreement between Lockheed Martin Space Systems Company and Perkin |
| | | | Elmer OptoElectronics pertaining to quality verification supplier technical program management |
| | | | requirements (STPM) for the D5 high voltage detonator |
| QZ319 | Q | SMP010786U06 | SMP010786U06 - Product Assurance Quality Rqmts for Calibration/Verification Maintenance of Test |
| 0700 | | F400055 | Equipment |
| QZ32 | Q | F120055 | F120055, PAWS 48 - Manufacturing Supplier Control of Pre-Released Hardware |
| QZ323 | Q | SMP010716U09A | SMP010716U09A - Subcontractor Procurement Requirements, for D5 Life Extension Heritage Resistor, |
| 0700 | | 5400050 | Magnetics, Relays Selective Suppliers. |
| QZ33 | Q | F120056 | F120056, PAWS 94 - Advanced Procurement Program LMSC Product Assurance Source Surveillance |
| QZ34 | Q | F120058 | F120058, PAWS 42 - Functional Test Requirements for Support Equipment (SE) Spare Parts |
| QZ35 | Q | F120060 | F120060, PA Quality Rqmts for Reliability Test Data Failure Data Corrective Action Reporting |
| QZ37 | Q | F120062 | F120062, PAWS 8 - Reliability Test Data- Failure Data and Corrective Action Reporting |

QZ47 Q

F120096

F120096, Storage & Surveillance Plan for Pyrotechnic Materials for use in MK4 Thruster Cartridge PN 3065314 and MK4 Low Voltage Initiator PN 3065313.

| QZ76 | Q | F120199 | F120199, Addendum (Exceptions) to LMSC/D824156C applicable to Contracts Btwn LMSC MSD & Angstrohmn Precision, Inc., Pertaining to STPM Rqmts for Trident II (D5) Resistors |
|------|---|---------|--|
| QZ77 | Q | F120200 | F120200, PA Quality Rqmts (PAQR) for Linear, Single-Axis Accelerometers |
| QZ78 | Q | F120201 | F120201, LOA - LMSSC & ATI Wah Chang pertaining to procurement requirements for D5 PBCS Manifold |
| QZ79 | Q | F120204 | F120204, Letter of Agreement Btwn LMSC & Moog, Inc., Seneca & Jamieson Rds., Pertaining to Quality Verification (STPM) Rqmts for Servoactuator Assemblies |
| QZ80 | Q | F120215 | F120215, Memo of Understanding Btwn LMSC & Loral Aeronutronic Pertaining to Procurement Rqmts for Loral Aeronutronic Integrated Valve Assem. and Sequencer Valve Assem. |
| QZ81 | Q | F120218 | F120218, Storage & Surveillance Plan for TVC Gas Generator Materials. Supplier Location: ATK Alliant Systems Co. LLC |
| QZ82 | Q | F120219 | F120219, Storage & Surveillance Plan for Propellant. Supplier Location: Crane Division (Naval Surface Warfare Center) |
| QZ83 | Q | F120220 | F120220, Storage & Surveillance Plan for Coils. Supplier Location: Tyco Electronics Corporation |
| QZ84 | Q | F120221 | F120221, STPM requirements for Reentry Body Inertial Measurement Unit (RIMU) |
| QZ85 | Q | F120223 | F120223, Addendum (exceptions) to LMSC/D824156 applicable to contracts between LMSC and Dale |

REVISION LOG

| Date | Change | Details |
|------------|-----------------------------------|--|
| 10/17/2006 | Added: QZ299 | SMP010700U04 FBM program specific |
| | Added: QD4K6 | Test Facility Requirements requested by Palo Alto, CA |
| | Added: QTC5 | Authorized Dealer Dist OEM requested by Special Programs Sunnyvale, CA |
| | Added: QZ304 | SMP012701U05 FBM program specific |
| | Added: QZ305 | SMP010704U05A FBM program specific |
| | Added: QZ306 | SMP010761U05 FBM program specific |
| | Added: QZ307 | SMP010782U05-24 FBM program specific |
| | Added: QZ308 | SMP010782U05-21 FBM program specific |
| | Added: QZ309 | SMP 010782U05-19 FBM program specific |
| | Updated: QN5 | Updated F120061 to Rev E, updated F120172 to Rev C |
| | Updated: QT8 | Updated to reflect Parts, Materials & Processes |
| | Updated: QASLA | Updated to reflect PMP |
| | Updated: QZ241 | Updated to reflect D915701 instead of D915700 |
| | Edited: QZ94 | Previously was not a complete sentence FBM program specific |
| 11/16/2006 | Added: QT4E | Per FBM Request |
| | Added: QZ310 | SMP010789U06 FBM program specific |
| | Added: QZ311 | SMP010790U06 FBM program specific |
| | Updated: QYX | Per FBM Request |
| 11/21/2006 | Updated: QYX | FBM request |
| | Updated: QYW | accredited registrar will be accepted. Contractor declaring system compliance to AS9003 with no formal accredited registrar will be revi FBM request |
| | Updated: QZ287 | Updated to reflect Rev B FBM request |
| | Updated: QASLB | Added reference to PMP Database |
| 1/31/2007 | Added: QZ312, QZ313, QZ314, QZ315 | Per FBM Request |
| | Added: Q7Z | Lot Date Code 10 years |
| 3/28/2007 | Updated: QZ237 | Per FBM Request |
| | Updated QTC2 | Per R.Ormond (PQAR issue) |
| | Updated QZ286 | Updated to reflect Rev C per FBM request |
| | Updated: QZ109 | Corrected document number per FBM request |
| 6/11/2007 | Added QTM5 | Rejected Material Resubmission per FBM request |
| | Added QZ316 | SMP010783U05A FBM program specific |
| | Added QTM6 | per FBM request |

| | Updated: QZ92 | Per FBM Request |
|------------|---------------|--|
| 6/14/2007 | Edited: QCF | Edit to wording per FBM Request |
| 6/28/2007 | Edited: QCF | Returned to original wording |
| 8/20/2007 | Update: QTP | Removed reference to Addendum 1 and 2 |
| 10/31/2007 | Added: QTD2 | Per FBM Request |
| 1/31/2008 | Added: QZ317 | SMP010708U07 FBM program specific |
| 2/21/2008 | Added: QT12 | Seller Rating Test Documentation Twelve Years - per Special Programs Request |
| | Edited: Q0W | Changed the word "record" to "mark/identify" - per Central Procurement Request |
| 7/28/2008 | Added: QZ318 | SMP010713U08 FBM program specific |
| | Added: QA5 | Certification of Conformance Required By LMSSC |
| 9/24/2008 | Added: QTC6 | Counterfeit Part Avoidance |
| 12/15/2008 | Added: QWGC | Work Group Collaboration (Online data submittal) |
| 2/13/2009 | Added QZ319 | Product Assurance Quality RQMTS For Calibration/Verification Management of Test Equipment (Reflect the creation of SMP010786U06) |
| | Edited: QB4 | Removed "Functional" From Code Text |
| 3/9/2009 | Edited: QZ152 | Title correction |
| 3/17/2009 | Edited: QTP | Edited to align with SAP text |
| 4/7/2009 | Edited: QN5 | Correction to remove previous revision letters |
| 4/20/2009 | Added: QDPA | DPA Identifier Code |
| 4/22/2009 | Edited: QTP | Modification per FBM request |

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| | Added: QA10 | CLASS 1 or CLASS 2 Changes; GPS3 Program Specific |
|-----------|---------------------|---|
| | Added: QSQAP | QPS3 Quality Assurance Plan; GPS3 Program Specific |
| | Edited: QAQC09 | Included approval requirements for Calibration System. |
| 10/5/2009 | Added: QT4F | Counterfeit EEE Part Avoidance, Detection, Mitigation, Disposition (SAE AS5553) |
| 2/16/2010 | Edited: QZ72, QZ318 | Edited clause text to align with document text |
| | Edited: QZ109 | Edited clause title and text to align with document text |
| 5/4/2010 | Added: QM8 | 3GPS-RQ-09-0080 and 3GPS-RQ-09-0081 for GPS111 for PWB |
| | Added: QB12 | Certificate of Compliance for Subcontract Tin Mitigation |
| | Updated: QA7 | Requirement clarification |
| 5/11/2010 | Edited: Q0W | Minor language edits |

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| 3/8/2013 | Added: QQ32A | *Added duplicate codes to accommodate required changes for P2P Use Replacement for Q32A |
|------------|-----------------------------|---|
| | Added: QTC2A | PreCap Inspection - for use with non-material procurement activity (similar to QAQC14A) |
| 3/19/2013 | Added: QV15 | THAAD First Article Inspection (QAQC15 with additional text regarding notification) |
| | Added: QD4K7 | Quality Program Requirements (ANSI/NCSL Z540.3) |
| 4/18/2013 | Updated: QV15 | FAI Production Lapse Clarification |
| 5/21/2013 | Updated: QPMT | Removed CoC submittal to a source inspector |
| 6/5/2013 | Updated: QZ152 | Additional clarification regarding A268126 requirements for FBM |
| 7/21/2013 | Added: QQZ6 | Duplicate text for QZ6 to correct P2P setup error |
| 8/26/2013 | Edited: QZ99 | Replaced the word "transformer" with "transducers" for FBM |
| 10/9/2013 | Removed: Commercial Q-Codes | No longer in use by Space Systems |
| 10/25/2013 | Edited: QQWGC | Added referral to EDSS (Electronic Data Supplier Submittal) |
| 12/12/2013 | Removed: QTC7 | Code Deactivated |
| | Updated: QTC6 | Counterfeit Q-Code now applies to all materials for customer deliverables |
| 2/11/2014 | Removed: QTC4 | Code Deactivated |