#### **Lockheed Martin Space Quality Clauses**

Lockheed Martin (LM) hereinafter shall mean Lockheed Martin Space. 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, documentation, test data, and reports specified herein.

#### **Quality Clause Cross Reference Instructions:**

Scroll down to find the LM Quality Code, Quality Clause title and text, or use the Microsoft find function in Word to locate the Quality Clause Text. Go to "Edit" and "Find". Type the Quality Code and select "Find Next".

If you have any questions regarding the use of this list, please contact the subcontract administrator as identified on the procurement document.

# **Quality Clauses**

Q-Code	QI	Title	Long-Text
	D		
			QUALITY MANAGEMENT SYSTEMS
QAQC02	1	QMS—QAQC02 QUALITY SYSTEM DESIGN	

			onsite survey and approval. The Manufacturer's Quality System will be subject to review and approval at all times by Lockheed Martin.
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)	The Supplier's Quality System shall conform to the requirements of the elements described in SAE AS9120, Quality Management Systems – Aerospace Requirements for Stocklist Distributors. Certification registration by an accredited registrar may be accepted. Supplier declaring system compliance to AS9120 with no formal accredited registrar will be surveyed for approval. The Supplier's system will be subject to survey and approval at all times by Lockheed Martin.  This Quality System Requirement is not applicable to this product's Original Equipment Manufacturer (OEM)/Original Component Manufacturer (OCM).  Approval to a higher level Quality Management System may also be accepted.
QT4B	1	QMS—QUALITY SYSTEM REQUIREMENTS (SAE AS9003)	The Manufacturer's Quality System shall conform to the requirements described in SAE AS9003, Inspection and Test Quality System; and be approved in EXOSTAR at the time of production. Third party registration by an accredited registrar under the International Accreditation Forum may be accepted; if the Manufacturer changes registrars, loses its registration status, or is put on notice of losing its registration status, it shall notify LM. Quality System certification to AS9100 or ISO 9001 will be accepted as a substitute if approved in EXOSTAR. A Manufacturer declaring system compliance to AS9003 with no accredited registration must be subject to an onsite survey and approval. The Manufacturer's Quality System will be subject to review and approval at all times by Lockheed Martin.
Q4M	1	•	*LM internal note: DO NOT FLOW TO SUPPLIERS ON PO. This Q-

SUBTIER TO APPROVE THEIR OWN SPECIAL PROCESSES

			Highlight the special process
			2. Select special processors
			3. Select <u>yourself</u> as the special processor
			<ul> <li>If your name does not show up as an approved processor, contact your LM buyer to have the hierarchy table updated.</li> </ul>
			For additional information on how to use the ship-to-module, view the downloadable guide here.
			SUPPLIER REQUIREMENTS
QAQC04	Q	QAQC04 FLOWDOWN REQUIREMENTS	This clause mandates that all applicable requirements that are invoked or applied to the customer's

QM8

REQUIREMENTS

PRINTED WIRING Fabrication requirements per 3GPS-RQ-09-0080, for rigid boards, or 3GPS-RQ-09-0081, for flex and rigid BOARD FABRICATION flex boards, are invoked on this order. In the event of a conflict between 3GPS-RQ-09-0080 or 3GPS

QQD4K3 Q

	Contract, drawings, specification and other applicable documentation that all process certifications, chemical and physical test reports, are on file at this facility and are available for review by Lockheed Martin."
QB5A Q LOCKHEED MARTIN FURNISHED MATERIAL CERTIFICATION	

A. The identity and unit weight of explosive(s); B. Maximum sensitivity of the explosive(s) (Mechanical, electrical, and/or thermal); C. Contractor's drawing or part number, lot number, year of manufacture and serial number of each component, if applicable.
Contractor's acceptance test procedures, shall include:  1) Minimum current for "All Fire;"  2) Maximum current for "No Fire;"  3) Recommended checkout procedure;  4) Environmental limitations.

			Action" button located at the bottom of the page. On the details and scheduling page that displays, enter the date desired for the visit of our source representative and press the "submit" button. Upon submission, an inspection lot number will be displayed.
QSP	Q		QSP SUBTITLE: SPECIAL PROCESS APPROVAL AND CERTIFICATION
			Special processes are identified in the Purchase Order using a 10-digit PO code.
			The Contractor shall utilize the Ship-To module in LMP2P to fill out the Special Processor ID field under the Ship-To Barcode generation tab prior to shipping material.
			Processor (Contractor and/or Sub-tier) shall have current required Lockheed Martin approval(s) in place at the time of hardware processing. Contractor shall verify such approval in P2P/EXOSTAR prior to performing processing. For suppliers approved to Q4M (SQDANQ4M00), refer to the Q4M definition located in the 253-01 document for specific requirements.
			Lockheed Martin approval of sub-tier special processing does not relieve the Contractor of the responsibility to ensure that work performed by sub-tier contractors is in accordance with specification requirements.
		SPECIAL PROCESS APPROVAL AND CERTIFICATION	A special process certification shall be provided with each delivery of item(s) under this Purchase Order.  Special Process Certifications may be in Contractor's format and shall include the following:  - Purchase Order number  - Part number(s)
			- Serial and/or lot numbers of the hardware processed (if required) - Material process specification & revision number
			Certification stating the special process was performed per the drawing/specification requirements     Processing Organization's name and address
			- Signature and date by a company official of the Processor attesting that the processes were performed to the required drawing/specification(s) and satisfy required acceptance criteria.
			The Contractor shall utilize the Ship-To module in LMP2P to fill out the Special Processor ID field under the Ship-To Barcode generation tab prior to shipping material.
			For reference, Lockheed Martin defines a special Process as 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.

conform to requirements specified in the contract, drawings, specifications, or other approved product description. Includes failures, discrepancies, defects, anomalies, and malfunctions.

Rework: Used when an article can be made to conform to drawing requirements. Detailed instructions must be included or referenced.

Repair: Used when the nonconforming article, material or service can be corrected to a usable condition, although its condition will not be identical with drawing / specification requirements. "The organization shall ensure that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery.

The controls and related responsibilities for dealing with nonconforming product shall be defined in a documented procedure.

QTB5

Q

shall be furnished to Customer upon request. These records shall include all information required in the previous paragraph as well as acceptance / rejection criteria, and related test instrument data used in the NDI/NDT process.  QB2A  Q  Two samples of all raw castings and forgings are required from new or reworked dies or molds and must be approved by Lockheed Martin prior to run of production parts. Unless Lockheed Martin source surveillance is a requirement of the Contract, the samples shall be forwarded to Lockheed Martin Receiving Inspection	QB2A	RAW CASTINGS AND	<ul> <li>Reference to previous NDI/NDT reports for repair/rework if applicable;</li> <li>Reference to attached recordings i.e., films or photographs if applicable; A record of the procedures or techniques used and actual results shall remain on file for at least five years after shipment to Customer and shall be furnished to Customer upon request. These records shall include all information required in the previous paragraph as well as acceptance / rejection criteria, and related test instrument data used in the NDI/NDT process.</li> <li>Two samples of all raw castings and forgings are required from new or reworked dies or molds and must be approved by Lockheed Martin prior to run of production parts. Unless Lockheed Martin source surveillance is a requirement of the Contract, the samples shall be forwarded to Lockheed Martin Receiving Inspection with the actual results of layout inspection, radiographs, and actual chemical and physical test results. Wher</li> </ul>
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QDPA	Q	DPA IDENTIFIER CODE	This line item is for DPA. This DPA quantity shall be from the same date/lot code and be associated and shipped with the identical part number being ordered for production.
QFC	Q	GROUP INSPECTION MOUNTS/COUPONS	All mounts used for Group A Inspections and any remaining part of the coupon that has not been micro sectioned must be included in the shipment and will be stored at LM. Mounts/coupons must be bagged separately from the PWB, but may be attached to the PWB bag. Mounts/coupons are subject to verification by LM Materials & Process Lab prior to final hardware acceptance.
QML	Q	RADIATION LOT ACCEPTANCE TEST	Supplier must accomplish Radiation Lot Acceptance Test (RLAT) testing of items delivered under this PO.
QQTS	Q	PIND TEST REQUIRED	Particle Impact Noise Detection Testing (PIND) Devices listed in this order shall be 100% Particle Impact Noise Detection (PIND)-tested per:  (1) MIL-STD-883, Method 2020, Test Condition "A", for microcircuits,  (2) MIL-STD-883, Method 2020, Test Condition "A" or "B", for hybrids,  (3) Mil-STD-750, Method 2052, Condition "A", for transistors,  (4) Mil-q21 0 0 G[-)]TJETQLa27 11.52 397. nBT/n6 reW* nB9 3975004 Tf0 gW* nBTdm002ceeW* nA 76.86

			workmanship, material, appearance, color, quality, visual, method of construction, packaging, preparation for delivery, labeling, or marking.
QAQC26	Q	AQC26 ELECTRICAL WIRE AND CABLE TEST REPORT	Organization shall provide certification that each shipment of electrical wire or cable furnished under this contract conforms to the applicable specifications.
			For each lot or cable in each shipment, a certified test report or copy thereof shall be included with the packing sheet. The test report shall, at a minimum, include a record of the physical, chemical, or electrical (and in the case of RF cable, electronic) inspections and tests conducted to satisfy the acceptance requirements of applicable specifications, and shall include numerical results when applicable. For cable 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 report. Reports shall provide the Organization or Supplier's name, the specification number and revision 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	

QQK	Q	ABBREVIATED RAW MATERIAL CERT	package, mark, and label, in accordance with Department of Transportation Hazardous Materials Regulations and competent authority shall be included in the shipment. Articles defined in this Purchase Agreement are subject to Lockheed Martin inspection at destination and may not be accepted by Lockheed Martin if the contractor fails to ship the above data. Upon receipt at Lockheed Martin, the data will be sent to the LM Ordnance Storage facility operator.  Hardware delivered per this order shall be traceable to the raw material used for manufacture by source (lot, batch or heat number, material type, specification, applicable revision letter or number and records of
QSN	Q		acceptance). The lot identifier shall be recorded on all certificates and packages for this order.

	The Government shall accept or reject supplies as promptly as practical after delivery, unless otherwise provided in the contract. Government failure to inspect and accept or reject the supplies shall not relieve the Contractor from responsibility, nor impose liability on the Government, for nonconforming supplies.
	When manufacturing processing affected by GMIPs is subcontracted by Organization, the provisions of this Clause shall be included in the Organization's Purchase Order verbatim.
QAQC14	

			packaging is in accordance with the drawing, appropriate ASTM, MIL, or other applicable customer specified requirement.
QAQC21	Q	AQC21 PACKAGING, HANDLING AND LABELING	The organization shall provide packaging that maintains the quality of the fabricated item and prevents damage, deterioration, substitution or loss in transit. The organization shall label the exterior of the package to ensure adequate identification of precautions needed to ensure the integrity of the product being shipped. The organization must specify the handling and shipping methods that ensure proper and on-time delivery without damage to the product. The organization shall ensure that special labeling requirements shall also be listed in the appropriate shipping documents and on each package.
QAQC29	Q	AQC29 ESD PROTECTION PROGRAM AND PACKAGING	The organization shall document and implement an ESD Control Program in accordance with ANSI/ESD S20.20, ESD Association Standard for the Development of an Electrostatic Discharge Control Program for

			B. Shipping Data Supplier shall submit the proper shipping classification, flash point, and information necessary to properly ship the articles in compliance with CFR Title 49. Articles defined in this Purchase Agreement are subject to Lockheed Martin inspection at destination and will not be accepted by Lockheed Martin if the contractor fails to ship the above data.
QDTS	Q	DOCK TO STOCK PROCESS	This hardware has been designated to be included in the Dock to Stock process. This hardware will bypass receiving inspection and go straight to stock upon receipt as long as the part number on the Purchase Order (PO) matches the packing slip and there is no gross damage to packaging. As an approved dock to stock supplier to LM, this process does not wave contractual requirements called out within the PO. The Ship-to module in P2P must also be filled out to be accepted.  Exostar Help Guides: http://www.myexostar.com/LMCO-Procure-to-Pay/P2P-Support-Guides/
QM16	Q	DOCUMENTATION ACCEPTANCE (DROP SHIPMENT)	Articles ordered under this contract are to be drop shipped to a destination other than Lockheed Martin. Final acceptance is contingent on the submittal and approval of the Quality data.
QNOWGC	Q	ELECTRONIC DATA SUBMITTALS PROHIBITED	Work Group Collaboration – shall not be used for this purchase order item. All quality records shall be supplied along with hardware.
QPC	Q	UNRELEASED DOCUMENTATION CONTROL	When procurement is to LM unreleased documentation, supplier shall impound hardware upon completion of the build pending receipt of LM released documentation via a Procurement change notice. Once documentation is official released, supplier may ship hardware.

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QZ151	Q	A268124	A268124, PAWS 45 - Production Test and Inspection Plan (PTIP)			
QZ152	Q	A268126	A268126, PAWS 52D Instructions to Suppliers for Preparation of FBM FAI Forms			
			Changes at the supplier that may require a new FAI be performed:			
			1) Change to supplier location or facilities.			
			2) Change to process, or design.			
			3) Two year or more break of production.			
			4) Plant shutdown or labor strike exceeding 90 days.			
			The supplier shall notify in writing the SCA of any circumstances identified above which may necessitate a			
			new FAI by submitting a Vendor Request for Information or Change (VRIC) in accordance with			
			LMSSC/A689426. The supplier must not produce any production hardware until the LMSSC response has			
			been issued.			
QZ153	Q	A268127	A268127, PAWS 65 - Traceability/Lot Control Records (Functional Piece Parts)			
QZ154	Q	A268128				

C	QZ225	Q	D824158-25	D824158-25, DRD - FTS Thermistors
C	QZ226	Q	D824158-27	D824158-27, DRD - Capacitors
C	QZ227	Q	D824158-29	D824158-29, DRD - RF Termination Unit (EMC)
C	QZ228	Q	D824158-30	D824158-30, DRD - Hybrid, Optically Coupled Isolator
C	QZ229	Q	D824158-32	D824158-32, DRD - Special Package Power Transistor & Diode
	QZ23	Q	F120009	F120009, Product Assurance Program Plan (PAPP) for LMSC Field Operations at Boost Propulsion
				Subcontractor Facilities
C	QZ230	Q	D824158-33	D824158-33, DRD - Memory & Linear Microcircuits
C	QZ231	Q	D824158-34	D824158-34, DRD - RF Termination (KDI)
C	QZ232	Q	D824158-35	D824158-35, DRD - Quad Fet Switch Driver
C	QZ234	Q	D900341	D900341, Technical Program Management Requirements for Trident II Boost Propulsion Subcontracts
C	QZ235	Q	D900341 CHKLIST	D900341, CHECKLIST - Technical Program Management Requirements Checklist for Trident II Boost
				Propulsion Follow-On Production
C	QZ237	Q	D914110	D914110, LOA - LMSC & Ensign Bickford Co. Pertaining to Procurement Rqmts for Flexible Confined
				Detonating Cord PN 3063530 Detonating Cord WS 15120 Linear Shaped Charge WS 17888MOU Between
				Ensign Bickford Aerospace & Defense Company and LMSSC Inspection Stamping at Ensign Bickford
				Aerospace & Defense Company
	QZ24	Q	F120012	

QZ58	Q	F120143	F120143, LOA Btwn LMSC & SPL-44, Checklisting STPM Document LMSC/D915750, Pertaining to D5 Missile Test & Readiness Equipment (MTRE) Follow-On Effort
QZ59	Q	F120159	F120159, Addendum (Exceptions) to D824156C Applicable to Contracts Btwn LMSC MSD & Sertech Labs Pertaining to STPM Rqmts for Trident II (D5) Flight Termination System Integrated Circuits
QZ60	Q	F120160	F120160, Addendum (Exceptions) to LMSC/D824156C Applicable to Contracts Btwn LMSC MSD & Harris Semiconductor Pertaining to STPM Rqmts for Trident II (D5) Integrated Circuits
QZ61	Q	F120161	F120161, Letter of Agreement Between LMMS & Martin Marietta, Aero & Naval Systems Checklisting D915700 & D915704
QZ62	Q	F120162	F120162, Addendum (Exceptions) to LMSC MSD & Raytheon Semiconductor Pertaining to STPM Rqmts for Trident II (D5) Configurable Gate Arrays
QZ63	Q	F120164	

QZ86	Q	F120224	F120224, Addendum (exceptions) to LMSC/D824125 applicable to contracts between LMSC and Croven
			Crystals, LTD
QZ87	Q	F120233	F120233, LOA between LMSC and Sundstrand Aerospace Rockford for first and second stage gas
			hydraulic assemblies
QZ88	Q	F120234	F120234, Storage & Surveillance Plan for Connector Castings. Supplier Location: Smith Tubular Systems
QZ90	Q	F120246	F120246, Storage & Surveillance Plan for Tubes. Supplier Location: Ensign Bickford
QZ91	Q	F120247	F120247, Storage & Surveillance Plan for Op Amp Chip. Supplier Location: Paine Corporation
QZ92	Q	F120248	F120248, LOA between LMSC and Honeywell AlliedSignal Inc., Aerospace Systems and Equipment for
			Stage Hydraulic Assemblies
QZ93	Q	F120250	F120250, LOA between LMSC and AlliedSignal Aerospace, Redmond WA
0794	O	F120252	F120252 PAWS 101 Requalification Considerations for Trident II Program

## **39** | P a g e

	Updated: QZ92	Per FBM Request		
6/14/2007	Edited: QCF	dited: 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	O9 Added QZ319 Product Assurance Quality RQMTS For Calibration/Verification Management of 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		
6/3/2009	Removed: QD12	Old SCID code used for the TITAN program; Have been directed by customer to not apply code.		

Removed: QASL

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	Updated: QZ320 Added: Q4M	QZ320 updated to replace SMP010762U08 with SMP10764U09 (per FBM request) Q4M code added for supplier requirement clarification. Q4M is NOT to be flowed on PO; the sole purpose is to provide information to suppliers that are Q4M approved.
		*An additional update to the doc was made to remove "Systems Company" from Lockheed Martin Space references.
06/01/2020	Updated: QC2	QC2 updated to require a minimum 1" font size and placement of time and temperature sensitive label.
•	Undated: 07299	