Supply Chain Quality Requirements for Boeing Equipment

PUR-SOPS-022 Issue: 01

ULTRA PCS

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Owner: **Quality Assurance** BMS change number: BMS736-22 Date: 26 April 2023

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Amendment record sheet

Issue	Summary description of change	BMS change form	Date
3 (DC0069 Sup B Doc)	 Amended to address updated Boeing requirements as detailed in QA-MEM-2018-0054. Main changes: PO Note Q29 Substantial re-write, the applicable clauses of X31764 1 May 2018 have been incorporated in this document, no longer necessary to access Boeing website. PO Note Q31 (FAA PMA Markings). PO Note Q109 added (MAG), only applicable to suppliers with own EASA / FAA approvals. PO Note U40 (Escapes) edited for compatibility with DC0069, remove superfluous text and to require "lot numbers, or other part identifiers". Approved and released together with DC0069_INDEX Issue 3 	BMS258-18	22 May 2018
1	New number PUR-SOPS-022 Previously a flow down for the Greenford site Not changes made to content New Template	BMS736-22	April 2023



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1 Introduction

1.1 Scope of Document

This document flows down additional requirements that are applicable to specific products and services. Some of these are defined by Ultra PCS Ltd customer. This document is intended to be used in conjunction with PUR-SOPS-003

1.2 Acronyms and Abbreviations

Core Acronyms and Abbreviations are listed in PUR-SOPS-003 Supply Chain Quality Requirements.

Terms	Meaning
Buyer	Ultra PCS Purchasing Team
PUR-SOPS-003	Ultra Supply Chain Quality Flow down Requirement Document.
	This contains Buyer's baseline requirements for suppliers /
	sellers.
FAA PMA	Federal Aviation Authority Parts Manufacturer Approval. PMA
	is a combined design and production approval for modified and
	replacement articles. It allows a manufacturer to produce and
	sell these articles for installation on type certificated aircraft
	products. Refer to FAA regulations for further information.
PO Note	Boeing requirement references, these have been included in
	this document to demonstrate traceability to Boeing
	requirements.
Seller	Any organization selling a product / service to which this
	document applies, as indicated by Purchasing Documents. This
	includes the organization selling to Ultra PCS and their sub-
	contractors.
Ultra	Ultra PCS Ltd

The following additional terms are used in this document:

2 Roles and Responsibilities

Where indicated on specific Purchasing documents, the organization is responsible to conforming to this document as well as to the applicable revision of PUR-SOPS-003 Supply Chain Quality Requirements and any other document referenced by Purchasing documentation.

3 Determination of Requirements

The requirements of this document only apply to specific products. They are flowed down either directly through reference on the face of the Purchase order or indirectly via another document.

This document does not cancel any requirement of PUR-SOPS-003 unless the requirement is listed and explicitly cancelled within this document. If requirements conflict between this document and PUR-SOPS-003 then the more stringent requirement shall apply.



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4 Supply Chain Quality Requirements for Boeing Equipment

4.1 PO Note A18 (Changes)

11 Aug 2016 Revised Note

Seller agrees not to make any changes in material, processes, or design details of the part without written approval from Buyer. This shall include changes in materials, processes, or design details by subcontractor. In addition to these with regards to (A) part number identification, (B) physical or functional interchangeability, and (C) Repairs and Overhaul procedures and processes and material changes which affect these procedures without prior written approval of Buyer is prohibited. If such approval is granted, all part numbers and the originals of all drawings or data shall be revised and provided to Buyer accordingly.

Seller will ensure subcontractors include the above requirements from <u>Buyer</u> part numbered items, whether such equipment is supplied to seller as an end item or as a component part of an end item.

4.2 PO Note Q09 (Records)

01 Oct 2016 Revised Note:

Seller shall maintain, and have available on a timely basis, quality records traceable to the conformance of product/part numbers delivered to Buyer. Seller shall make such records available to regulatory authorities and Boeing's authorized representatives. Seller shall retain such records for calendar year + 10 years from the date of shipment under each applicable order for all product/part numbers unless otherwise specified on the order.

At the expiration of such period set forth above and prior to any disposal of records, Seller will notify Buyer of records to be disposed of and Buyer reserves the right to request delivery of such records. In the event Buyer choses to exercise this right, Seller shall promptly deliver such records to Buyer at no additional cost on media agreed to by both parties.

<u>Buyer</u> requires that the provisions/requirements set forth above be included in Sellers direct supply contracts related to the Products/Part Numbers. Supply Chain shall mean network of material, equipment, information, and services integrated into products and services for the ultimate customer.

4.3 PO Note Q13 (Certification)

01 OCT 2016 Revised Note:

Seller must provide a statement on the packing sheet certifying its Quality Assurance Department has inspected the parts and they adhere to all requirements, applicable drawings/specifications.

Or, for Sellers that use EASA/JAA/FCAA Form-1 the following applies:



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When the seller is located outside of the United States and they submit an EASA/JAA/FCAA Form-1, the following conditions must exist on the form:

1. Block 11 Status is identified as New

And

2. Block 12 Titled Remarks contains a statement certifying the Seller's Quality Assurance Department has inspected the parts.

And

3. Block 12 Titled Remarks does not contain certification statements of PMA Prototype, not to be installed on certified aircraft, or any statement that does not support PC700 certification.

And

4. Block 13a Certifies that the items identified above were manufactured in conformity to approved design data and are in condition for safe operation.

<u>Buyer</u> requires that the provisions/requirements set forth above be flowed to the subtier supply chain.

4.4 PO Note Q29 (Additional Quality Assurance Requirements) 26 Feb 2018 Revised Note:

A.Boeing Form X31764

1. Seller shall comply with the requirements of Form X31764 as flowed down in the document. Seller shall flow down to its Supply Chain the provisions/requirements.

2. For purpose of this PO Note, Supply Chain means Seller's complete network of material, equipment, information, and services integrated into deliverable products and services provided to Seller by Seller's direct first tier supply contracts and Seller's sub-tier or lower tier supply contracts.



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4.4.1 Requirements of Form X31764

Item	Requirement
Quality Management System (AQMS) Certification:	<u>BUYER</u> recognition of Seller's QMS certification does not affect <u>BUYER</u> 's right to conduct audits and issue findings at the Seller's facility. <u>BUYER</u> reserves the right to provide <u>BUYER</u> -identified quality system findings, associated quality system data, and quality performance data to Seller's certification or registration body (CB).
Application of Acceptance Authority Media	Seller shall comply with the requirements of this section. Suppliers exercising regulatory approvals shall also comply with requirements of 14CFR Part 21.2.
(AAM):	When acceptance authority media are used during Production and Service provision (e.g., stamps, electronic signatures, passwords), the seller shall establish controls for the media.
	Seller shall, within its organization and its supply chain, ensure that the use of AAM is clearly defined within its Quality Management System (QMS).
	Seller shall, upon <u>BUYER</u> request, be able to demonstrate evidence of communication to its employees and to its supply chain; use of AAM must be considered as a personal warranty of compliance and conformity.
	Seller shall maintain compliance to the AAM requirements by assessing its process and supply chain as part of its internal audit activities. The areas of focus of this assessment shall include but not limited to:
	• Authority Media Application Errors (i.e. Omission, Typos, Legibility, etc.)
	• Authority Media Application Untimely Use (i.e. Documentation is not completed as planned, "Stamp/Sign as you go", etc.)
	• Authority Media Application Misrepresentation (i.e., uncertified personnel, Falsification of documentation, Work not performed as planned, etc.)
	Authority Media Application Training Deficiencies (i.e. Ethics, Culture awareness, Proper Use of authority media, etc.)



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Item	Requirement
SECTION 2 -	Production Certificate and Business Requirements - General
English Language:	Language: When specifically requested by <u>BUYER</u> , Seller shall make specified quality data and/or approved design data available in the English language.
Seller's Inspection:	Seller shall inspect or otherwise verify that all Products or Services, including those components procured from or furnished by subcontractors or suppliers or <u>BUYER</u> , shall comply with the requirements of the Order prior to shipment to <u>BUYER</u> , Boeing or Customer. Seller shall be responsible for all tests and inspections of the Product during receiving, manufacture and Seller's final inspection. Seller agrees to furnish copies of test and/or control data upon request from <u>BUYER</u> .
Regulatory Approvals:	Unless explicit contractual direction is given to the contrary, no articles (or constituent parts thereof) ordered by <u>BUYER</u> shall contain any Federal Aviation Administration- Parts Manufacturer Approval (FAA-PMA) markings and the accompanying paperwork (e.g., packages, shippers, etc.) shall not contain any FAA-PMA markings.
	If a supplier pursues FAA PMA approval the following shall apply:
	For aircraft regulated by Civil Aviation Authorities, regulatory approval may be required for Seller to make direct sales (does not include "direct ship" sale through Boeing) of modification or replacement parts to owners/operators of type-certificated aircraft. Regulatory approval, such as FAA Parts Manufacturer Approval (PMA), is granted by Civil Aviation Authorities. Seller agrees not to engage in any such direct sales of Products or Services under this Agreement without appropriate regulatory approval. For Seller proprietary parts, Seller agrees to notify <u>BUYER and</u> Boeing of application for regulatory approval and the subsequent approval or denial of same. Upon receipt of proof of applicable regulatory approval, Boeing may list Seller in the illustrated parts catalog as seller of that part.

Item	Requirement
Supplier Funded Source Inspection:	If BUYER becomes subject to supplier funded source inspection as a result of quality issues arising from the seller then BUYER reserves the right to impose supplier funded source inspection (SFSI) upon the Seller.
	<u>Furthermore, if upon BUYER's</u> determination, after coordination with Seller, that Seller's quality failures represent a chronic or substantial impact, then SFSI will be implemented at the Seller's expense.
Verification of Corrective Action:	When <u>BUYER</u> notifies Seller of a detected nonconformance, Seller shall immediately take action to eliminate the nonconformance on all products in Seller's control. Seller shall also maintain verification that root cause corrective action has occurred and has resolved the subject condition. <u>BUYER</u> reserves the right to review the verification data at Seller's facility or have the data submitted to <u>BUYER</u> .
Corrective Action Report	When Seller is requested to submit a corrective action report, the report shall be submitted within the time allotted and format specified by Boeing. In the event Seller is unable to respond within the allotted time frame Seller shall submit a written request for extension, subject to Boeing's approval. The request for extension shall include the reason for the extension and the additional time needed to complete the report. If after initial submittal to Boeing Seller determines a revision is required to the report Seller shall immediately notify Boeing in writing of such revision. The notification of revision must highlight the change from initial submittal and include the purpose of the revision.



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Item	Requirement
First Article Inspection/Boeing First Article Requirement	BUYER reserves the right to conduct surveillance of the Seller's FAI, referred to as BUYER First Article Inspection (BFAI). BFAI may include in-process inspections to be accomplished during performance of Seller's FAI. <u>When advised of BFAI</u> seller shall coordinate and schedule BFAI activity with <u>BUYER</u> prior to further related procurement, manufacturing, and/or processing.
	In the event a BFAI of Seller's FAI is scheduled, supplier shall make available to <u>BUYER</u> the following:
	1) Applicable Purchase Document, material/process certifications, manufacturing and inspection records; including inspection plans developed to identify progressive inspection checkpoints for the FAI as a result of coordination and planning with <u>BUYER.</u>
	2) Applicable Design Data
	3) Applicable material review actions
	4) Applicable acceptance and qualification test results
	5) Applicable record(s) of Buyer approval for non-Buyer drawing and test procedures.
FOD Prevention Program:	Seller shall supply products to BUYER free from foreign object debris or foreign object damage.
	Where ULTRA determines there is a risk of foreign objects affecting quality levels BUYER can require Seller to establish and maintain a FOD prevention program in compliance with AS/EN/SJAC 9146 Foreign Object Damage (FOD) Prevention Program Requirements for Aviation, Space, and Defense Organizations.
	Aerospace standards such as AS9146 can be obtained from SAE International at <u>http://standards.sae.org</u>
Tooling:	This requirement concerns Boeing Tooling. ULTRA and ULTRA's sub-contractors are not currently in receipt of any Boeing Tooling.



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Item	Requirement	
SECTION 3 -	Production Certificate and Business Requirements Specific to Seller's Statement of Work	
AS9117 Delegated Product Release Verification:	When Seller delegates product verification, Seller shall conform to the requirements of AS9117, "Delegated Product Release Verification," as may be amended from time to time. Buyer reserves the right to conduct surveillance at Seller's facility to determine that Seller's quality system conforms to the requirements of AS9117	
	AS9117 establishes minimum requirements for Seller's delegation of product verification. When delegating product verification, Seller is not relieved of its obligations under this contract.	
	Aerospace standards such as AS9117 can be obtained from SAE International at: <u>http://standards.sae.org</u>	
Operator Self- Verification Program	If Seller uses an Operator Self-Verification (OSV) program (i.e. operators work is not independently verified):	
	 <u>BUYER can require seller to</u> comply with the requirements set forth in SAE industry standard AS9162, "Aerospace Operator Self Verification Programs", as may be amended from time to time; <u>This will normally apply where ULTRA determines there</u> 	
	is a risk of OSV affecting quality levels;	
	 Buyer reserves the right to conduct surveillance at Seller's facility to determine that Seller is compliant to the requirements of AS9162. 	
SECTION 4 -	Site Unique Quality Purchasing Data Requirements	
Material Review Authority:	Per PUR_SOPS-003 the Seller shall not apply dispositions of use-as-is or repair to nonconforming products without ULTRA concession / permit or repair approval.	



4.5 PO Note Q31 (FAA PMA Markings)

01 Jul 2017 Revised Note

This procurement is under Boeing's Federal Aviation Administration (FAA) issued Production Certificate 700 quality system supplier control program. Unless explicit contractual direction is given to the contrary <u>by both Boeing and BUYER</u>, no articles (or constituent parts thereof) ordered by <u>BUYER</u> shall contain any Federal Aviation Administration- Parts Manufacturer Approval (FAA-PMA) markings and the accompanying paperwork (e.g., packages, shippers, etc.) shall not contain any FAA-PMA markings.

4.6 PO Note Q109 (Maintenance, Repair, Overhaul and Modification)

4.6.1 Maintenance Annex Guidance (MAG) Clarification

This PO NOTE only applies to suppliers performing work under their own FAA or EASA regulatory maintenance approvals. Normally ULTRA's own regulatory approvals will apply to all work done for BUYER and suppliers should seek clarification with ULTRA before exercising their own.

4.6.2 Maintenance Annex Guidance (MAG) Requirement

18 May 2017 Revised Note

In all cases the work performed for the maintenance, repair, overhaul and modification of inservice components that are intended for use on US and European Union aircraft will meet the most current regulatory requirements of the maintenance annex guidance (MAG) between the federal aviation administration for the United States of America and The European Aviation Safety Agency for the European Union and any authorised addenda to the MAG at the time of the maintenance activity.

Seller shall ensure that the records for the article(s) serviced in accordance with this purchase document retain on file all components (new and used) consumed in the repair and are able to demonstrate upon request, traceability to the source from which articles were obtained and compliance to the requirements of the maintenance annex guidance at the time of the maintenance activity.

<u>Buyer</u> requires that the provisions/requirements set forth above (contracted maintenance) be flowed to the sub-tier supply chain. For purpose of this note, supply chain shall mean Seller's complete network of materials equipment, information, and services integrated into Product and Services. It focuses on direct and lower-tier suppliers. Seller shall retain such records as stated in the Q09 Clause of this document.

4.7 PO Note S68 (Access)

01 JUL 2016 Revised Note:

Representatives of Buyer, Boeing and/or the federal aviation administration (If non domestic, Boeing and/or the federal aviation administration and/or equivalent foreign civil aviation authorities) may inspect and evaluate Seller's facilities systems, data, equipment, personnel



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and all completed articles manufactured for installation on Boeing commercial production airplanes. Right of entry/Access includes meeting the requirements of the FAA and/or applicable equivalent foreign civil aviation authorities to perform oversight of the facility.

<u>Buyer</u> requires that the provisions/requirements set forth above be flowed to the subtier supply chain.

4.8 PO Note U40 (Escapes and Design Errors)

18 May 2017 Revised Note

4.8.1 Notification of Escapement (NoE) Process

<u>Ultra must be informed immediately (not to exceed 24 hours or the next business day) of</u> <u>suspect nonconforming product shipped regardless of destination</u>. Notification shall pass <u>through BUYER (and not made direct from supply chain to Boeing)</u>.

Seller shall <u>also</u> provide written notification which shall include:

- A. Affected process(es) or product number(s) and name(s)
- B. Description of the Non-Conforming condition and the affected Engineering Requirements (I.E, what it is and what it should be)
- C. Quantities, shipping dates, purchase orders and destinations of delivered shipments
- D. Suspect/affected Serial number(s) or Date codes, Lot numbers, or other part identifiers and airplane line units when applicable

Submit all available information immediately. Written notification must be completed within three business days.

Note: Suppliers maybe requested to complete applicable Boeing form as necessary.

Seller shall notify the following:

- The Buyer procurement representative
- The Buyer Quality representative that has oversight of Seller's facility

If the Non-Conforming condition has been previously identified by Buyer using a Non-Conformance record and a corrective action has been requested, the Seller shall notify the Buyer Quality Department additional part numbers or new non-Conforming conditions are in scope for the NoE process.

A NoE can only be used when there is a Non-Conformance. A NoE is not appropriate when the component does not meet airplane level requirements (Non-Compliant). Parts that conform, but do not meet requirements, can be addressed with part number roll initiated by change request (CR) and/or Engineering Coordination memo (ECM) submitted to the applicable Buyer Procurement and Quality representatives.

4.8.2 Engineering Design Errors

Do not send Engineering Design Errors to BCA Supplier Quality Special Investigation Group Using The NoE Process



For product delivered which had been determined to contain Engineering errors. Seller shall provide written notification to Buyer within three business working days when it is determined that product shipped, while meeting the supplier product definition, does not meet, or is suspected to not meet, the airplane design requirements.

When the following is known, written notification shall include:

- Affected process or product number and name
- Description of the problem (I.E what it is and what it should be)
- Quantity, dates, purchase orders and destination of shipment delivered
- Suspect/Affected serial number(s) or date codes, when applicable

Written notification by the Seller shall be to

- The Buyer Procurement Representative, and
- The Buyer Quality Representative that has oversight of Seller's facility

4.8.3 Supply Chain Flow down

The requirements set forth in this PO note shall be flowed down by Seller to Seller's supply chain with the modification that all supply chain notification shall pass through Seller and Ultra) and not made direct from supply chain to Boeing). Seller shall notify Buyer of all subtier escapes and Design errors in accordance with respective communication process set forth herein. For purpose of this note, supply chain shall mean Seller's complete network of material, equipment, information, and services integrated into Products and Services.



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