

BDS Terms and Conditions

Clause Number: Q017

Effective: 09/28/2020

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ADVANCED PRODUCT QUALITY PLANNING (APQP) AND PRODUCTION PART APPROVAL PROCESS (PPAP)

Applicability

Compliance with Aerospace Standard AS9145 (*Aerospace Series – Requirements for Advanced Product Quality Planning and Production Part Approval Process*), for all indicated line items in this Procurement Contract, is required.

The Production Part Approval Process (PPAP) Element deliverables, are listed below. This requirement does not apply to standard hardware or Commercial off-the-shelf (COTS) items. Utilize templates in the IAQG - Supply Chain Management Handbook (SCMH).

Any changes that affect Fit, Form, Function, Safety, and/or Reliability require re-accomplishment of all affected PPAP documents.

Buyer requires AS9145 (APQP) compliance as the realization of the requirements in AS9100 Rev D, which is part of the approval required to do business with Buyer. This is not an expansion or increase in requirements or work scope.

Deliverables

Production Part Approval Process (PPAP) is the output of the APQP process as described in AS9145, Section 5.1 reference Table 2:

Table 2 – Production part approval process file contents

Production Part Approval Process (PPAP) Element		APQP Phase	Section References
1.	Design Records	2	3.9
2.	Design Risk Analysis (e.g., DFMEA); only applicable to design organization	2	3.10; 4.4.2; 4.4.4
3.	Process Flow Diagram	3	4.5.2; 4.5.3
4.	Process Failure Mode and Effects Analysis (PFMEA)	3	3.11; 4.5.2; 4.5.4
5.	Control Plan	3	3.3; 4.5.2; 4.5.6; 4.5.7; 4.6.2; Appendix C
6.	Measurement System Analysis (MSA)	4	3.14; 4.6.2; 4.6.3
7.	Initial Process Capability Studies	4	3.20; 4.6.2; 4.6.5
8.	Packaging, Preservation, and Labelling Approvals	3	4.5.2; 4.5.8
9.	First Article Inspection Report (FAIR)	4	4.6.3; 4.6.4
10.	Customer PPAP Requirements	4	4.6.7
11.	PPAP Approval Form (or equivalent)	4	5.3.2; Appendix D

Note: if the product to be supplied is “build to print,” then element 2, design risk analysis, is not a required element. If the product to be supplied is “build to specification,” the supplier will be responsible to provide a DFMEA per element 2.

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Approval

Seller is required to have written approval of PPAP deliverables from Buyer's procurement agent for all required Purchase Order Line Items prior to first part shipment, unless otherwise directed by Buyer's procurement agent.

Seller shall maintain complete records of all APQP and PPAP documents for the life of the product.

Seller can obtain a copy of AS9145 Aerospace Standard for APQP/PPAP from the following source:

SAE International (formally known as Society of Automotive Engineers), *"AS9145 Aerospace Series – Requirements for Advanced Product Quality Planning and Production Part Approval Process"*

Seller can obtain a copy of APQP/PPAP Checklists and Templates from the following source:

International Aerospace Quality Group (IAQG), Supply Chain Management Handbook (SCMH)