Clause Number: Q034 Effective: 12/13/2021 Page 1 of 2

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

## Applicability

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

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

The Production Part Approval Process (PPAP) referenced in Table 2 of AS9145 is the output of the APQP process. The following elements of Table 2 are deliverables under this Contract:

Production Part Approval Process (PPAP) Element	APQP Phase	Section References
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 & 4	3.3; 4.5.2; 4.5.6; 4.5.7; 4.6.2; Appendix C
6. Measurement Systems Analysis (MSA)*	4	3.14; 4.6.2; 4.6.3
11. PPAP Approval Form (or equivalent)	4	5.3.2; Appendix D

\* MSA to be performed for all Key Characteristics (KCs) identified in the control plan

Seller is encouraged to use the templates in the International Aerospace Quality Group - Supply Chain Management Handbook (SCMH).

Any changes that affect Form, Fit, Function, Safety, and/or Reliability of the items to be delivered shall require an update to the affected PPAP documents.

All required PPAP artifacts shall be submitted using Customer Supplier Data Transmittal (CSDT) per the specific naming conventions below.

APQP-03 Process Flow Diagram APQP-04 PFMEA APQP-05 Control Plan APQP-06 Measurement System Analysis APQP-11 PPAP Approval Form

Clause Number: Q034 Effective: 12/13/2021 Page 2 of 2

## Approval

Seller is required to have written approval of PPAP deliverables from Buyer's Authorized Procurement Representative for all required Contract Line Items prior to first part shipment, unless otherwise directed by Buyer's Authorized Procurement Representative.

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).