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Jabil Production Part Approval Process

Approver(S)	Designation
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Distribution List	
Global Document Control Distribution	

Rev	Originator	Change Details		
A to F	N/A	To see history of changes please click HERE .		
G	George Zhou	Section 2.1.3 Added to state the product qualification process substitution option as required by customer.		
		Section 6.5.8 Added "The recommended level of study is 3 operators * 3 trials. ".		
		Section 6.5.8.1 Changed "May be acceptable or Marginally acceptable" to "Gage system is marginally acceptable. Base on customer requirement, or control it not to be used for critical characteristics."		
		Section 6.5.9 Changed "Note: The supplier shall measure all dimensions reflected in the drawing in three (3) samples per cavity/tool. Additionally, the supplier shall report in the FAIR their compliance with all drawing notes)" to "Notes: 1). Supplier shall measure all dimensions (except reference dimensions), characteristics, and specifications as noted on the design record and control plan in three (3) samples per cavity/tool." 2). Supplier shall report in the FAIR their compliance with all drawing notes.		

1. Purpose

- 1.1 To define the Jabil Production Part Approval Process for purchased components.
 - 1.1.1 To ensure that supplier can meet the manufacturability and quality requirements for purchased components.

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Document Scope	EMS, JGP, Capabilities, Strategic Planning & Development
Site Category	Manufacturing, Design Engineering



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2. Scope

- 2.1.1 Suppliers may be requested to provide a Jabil Production Part Approval Process submission maybe based on the following, but not limited to:
 - Jabil Customer Requirements
 - Jabil Site / Business needs
 - Jabil Design needs
 - Jabil New Product Introduction needs
 - Change in material or sub-supplier
 - Production following a location change of manufacture.
- 2.1.2 This procedure applies when a request for submission has been made to a supplier. This procedure applies to sites within EMS, JGP, Strategic Planning and Development AND Capabilities
- 2.1.3 The E-JPPAP process is recommended to follow for purchase component qualification. However, other component qualification processes could be used as a substitution base on customer requirement.

3. Definitions/Terminology

- 3.1 **JPPAP -** Jabil Production Part Approval Process A documentation package that is submitted to provide the evidence needed to show that all customer engineering design record and specification requirements are properly understood by the organization and that the designed process has the potential to produce product consistently meeting these requirements during an actual production run at the quoted production rate.
 - 3.1.1 Other Terms and definitions

E-JPPAP - Electronic Jabil Production Part Approval Process.

CAPA – (<u>Corrective And Preventive Action</u>) – Method for the investigation and resolution of quality concerns.

NPI – New Product Introduction.

Part Submission Warrant (PSW) -- is an industry standard document required for all newly tooled or revised products which the organization confirms that inspections and test on production parts show conformance to customer requirements.

DFMEA - Design Failure Mode and Effects Analysis

PFMEA – Process Failure Mode and Effects Analysis

AAR- Appearance Approval Report

FAIR – First Article Inspection Report

DE – Design Engineer

SOE – Supplier Quality Engineer

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Jabil Representative -- The responsible people from Jabil who request and follow up supplier to submit the PPAP documentation and samples, and/or approve the PPAP. It was assigned by Jabil site.

Design Record -- is the part drawing, specifications, and/or electronic (CAD) data used to convey information necessary to produce a product.

Process Flow Diagram -- is a schematic representation of the process flow.

Control Plan — A document through which a supplier succinctly defines the various means employed to control it's critical and non-critical manufacturing processes as spelled out in its process flow diagram. The Process Control Plan should follow the guidelines identified in the referenced JPPAP template document or an approved equivalent.

Cp-Cpk Studies – A mathematical method of proving that predefined critical manufacturing processes and component features are being maintained by the supplier to Jabil and Customer expectation.

G R&R – Gauge Repeatability and Reproducibility, this is a mathematical method, based on ANOVA (Analysis of Variance), used to determine if a gauging system, employed by a supplier, to measure critical dimensions or features, is robust enough to produce repeatable and reproducible data.

F.A.I.R DEVIATION REPORT - This document is a tool to record all discrepancies and subsequent causes and corrective actions relevant to the JPPAP submission.

CC´s - Critical Characteristics shall be called out in the drawing by Customer and/or design owner. Otherwise, Customer, Jabil and Supplier need to define if CPK values require to be calculated for some special characteristics based in Form, Fit and Function and its affectation to the performance of the part.

Run at Rate - A term used in the final qualification process which defines the approximate speed or production rate from which a process will be qualified, e.g. have samples taken for inspection purposes, Cp - Cpk studies run.

RFQ – Request For Quote

ROHS - Restricted or Hazardous Substances

IMDS - (International Material Data System) - Also known as Substances Of Concern reporting. When it is required by customer that Jabil provide IMDS for the product delivered, suppliers may submit the required reporting data through the IMDS system. The submission I.D. number may be entered on JPPAP\PSW form under "Materials Reporting". The Jabil IMDS corporate Identification number may be required for submissions, or the customer corporate identification number, depending on agreed method with the customer.

EICC - Electronic Industry Code of Conduct

MSDS - Material Safety Data Sheets

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Feasibility Report - A feasibility study/report is an evaluation of a proposal designed to determine the difficulty in carrying out a designated task. For a JPPAP process, a feasibility study/report precedes technical development and project implementation. *In other words, a feasibility study/report is an evaluation or analysis of the potential impact of a proposed project and it shall be submitted prior to JPPAP submission.*

3.2 JPPAP SUBMISSION LEVELS

- Level 1: Part Submission Warrant (PSW) only, and for designated appearance items, an Appearance Approval Report required.
- Level 2: PSW with product samples and limited supporting data.
- Level 3: PSW with product samples and complete supporting data.
- Level 4: PSW and other items requested.
- Level 5: PSW with product samples and complete supporting data available for review at the manufacturer.

Notes: Detailed submission requirements for each level refer to 6.4.

3.3 **APPROVAL STATUS:** DISPOSITION STATUS SHALL BE COMMUNICATED TO THE SUPPLIER UTILIZING THE PART SUBMISSION WARRANT DOCUMENT, PROPERLY SIGNED BY JABIL REPRESENTATIVE. OR ELECTRIC NOTIFICATION SENDING BY E-JPPAP SYSTEM.

3.3.1 **APPROVED**;

It indicates that the part, including all sub-components, meets all Jabil requirements. The supplier is therefore authorized to ship production quantities of the product, subject to releases from the Jabil scheduling activity.

3.3.2 **REJECTED**;

It means that the submission, the production lot from which it was taken, and/or accompanying documentation do not meet Jabil requirements. Corrected product and/or documentation must be resubmitted and approved before qualification can be given.

NOTES: In case any urgent request for production build, site deviation authorization procedure can be used with condition: (1) root cause of the non-conformities is identified and (2) a completed interim action plan is submitted and agreed to by FINAL CUSTOMER/Jabil.

Resubmission to obtain Approval status is required.

4. **RESPONSIBILITIES**

4.1 **PPAP Requestor**

PPAP requestor is responsible for:

- Initiating a PPAP request for a specific Manufacturing Part Number.
- Enter supplier contact information.
- Defining Jabil JPPAP owner.

4.2 **PPAP Owner**

PPAP owner is responsible for:

Assuring the owner is correctly defined.

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- Defining the team member(s) in Jabil who should review the PPAP.
- Defining the PPAP submission level, and additional requirement if needed. Refer to 6.4.
- Choosing submission reason. Refer to 6.1.
- Confirming supplier contact window information.
- Establishing the completion date that is required from the supplier.
- Reviewing the PPAP general information and documentation that are submitted by the supplier.
- Sample product review and 3F (Form, Fit and Function) test implementation, if needed.
- Obtaining the PPAP approval from customer, if needed.

Notes: PPAP owner is the main contact window to supplier, as the Jabil Representative defined in 3.1.1.

4.3 **PPAP Team Member**

PPAP team member is responsible for:

- Reviewing the PPAP general information and documentation that are submitted by the supplier.
- Sample product review and 3F (Form, Fit and Function) test implementation, if needed.

Notes: PPAP Requestor, PPAP Owner, PPAP Team Member are defined by each Jabil site, it could include, but is not limited to SQE, DE, Sourcing, Purchasing, BU, QE, Engineering, or other supplier business related function team.

4.4 **Jabil Purchasing Representative**

Jabil Purchasing Representative is responsible for:

- Directing the supplier to Jabil Representative for JPPAP document submission.
- Assuring the supplier had submitted the JPPAP document to Jabil, and obtained the approval from Jabil Representative, before issue the first production purchasing order to the supplier.

4.5 Jabil Site Management (Ops Mgr / Purchasing Mgr / Quality Mgr)

Top Site Management is responsible to develop, train and implement the JPPAP activities with the Jabil supply base at their own site. (SQE's, Quality, Engineering, Purchasing, other teams).

4.6 **References**

When critical characteristics (CC's) are not mentioned on the drawing, then Customer/Jabil/Supplier will need to review the drawing and agree to identify them based on Form, Fit and Function and the performance of said part or assembly that is expected in the field.

CC's identification, inspection method(s) and cosmetic acceptance criteria shall be agreed during design review and JPPAP process **prior** to start of first production run.

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All relevant data, dimensional studies and Cpk values will be reported in the JPPAP and submitted to Jabil for review and approval.

4.7 **Records**

JPPAP Submission Package

The supplier shall maintain records of all documents identified in Section 6.4.3 (as indicated in Figure 2) for each part produced for use in Jabil product.

In Jabil, the PPAP record will be held in E-JPPAP system. It could be searched by Manufacturing Part Number. If E-JPPAP is not available, individual PPAP Files to be held by the appropriate parties, e.g., Design Engineering, applicable Work Cell Quality Engineer or Supplier Quality Engineer working with the work cell, (ownership is defined by the flow charts). Record retention is based on each Jabil site's own requirements based on site management or customer direction.

5. Documents

- 5.1 Jabil Supplier Requirements Manual 00-MT60-1000-00605
- 5.2 Component Supplier Requirements Contracts and T&C's (T&C's shall be reviewed on a case by case basis depending on customer, Jabil Site, or workcell requirements)
- 5.3 JPPAP Templates 00-MT80-1000-00801
- 5.4 Jabil Workmanship Standard for System Integration 00-QS60-1000-003

6. Process

6.1 **General Guidelines**

PPAP submission, when identified and communicated to supplier via E-JPPAP system notification, or by other methods if E-JPPAP is not available, it must be completed and approval obtained prior to shipment of the first production lot of material. Approval is obtained through submission to Jabil, and Jabil Representative acceptance of the requested documentation and samples. Approval shall be communicated to supplier via E-JPPAP system notification e-mail, or in the form of a Jabil signed Part Submission Warrant if E-JPPAP is not available. PPAP submission may be requested for, but not necessarily limited to, one or more of the following, based on each Jabil site requirements:

- Initial Submission
- Engineering Changes to design records,
- Tooling Transfer, Replacement, Refurbishment
- Correction of Discrepancy
- Change to Optional Construction or Material
- Sub-supplier or Material Source Change
- Change in Part Processing
- Tooling Inactive > than 1 year
- Parts Produced at Additional Location
- Other situation required by Jabil Representative

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Notes: If E-JPPAP system is available, the PPAP request notification e-mail will be sent to supplier by system. In this case, supplier must submit PPAP documentation via E-JPPAP system. And also, PPAP status, Approved or Rejected (Require more information), will be communicated to supplier by E-JPPAP system notification.

6.2 **General Guidelines - CONTINUED**

The default submission level for PPAP submissions to Jabil is Level 3 (described below in Figure 1) unless otherwise specified at the time of request. It is the sole responsibility of the supplier to perform and keep all PPAP elements and have them <u>readily</u> available for Jabil representatives on request. PPAP records should be maintained by the supplier and updated as necessary to reflect current revision documents (i.e. FMEA).

6.3 Level Assignment

- 6.3.1 Jabil default PPAP is level 3, but still Jabil PPAP owner can change the level assignment, base on customer requirement, part complexity, component risk evaluation, change level of part/process, tool, etc.
- 6.3.2 A request for submission at any level or any combination of elements in a level does not relieve the supplier of the responsibility of performing and keeping current all required elements.

6.4 Elements of Each Submission Levels

6.4.1 Figure 1 and Figure 2 identifies specific PPAP submission contents for each submission level. This forms the minimum level of elements that must be included in a PPAP submission. Additional elements may be requested / required and will be communicated at the time of notification of a request for submission.

Notes: Design elements submission requirements only apply to those suppliers who have design responsibility/authority.

6.4.2 FIGURE 1

Figure 1:

Level 1 – Part Submission Warrant (PSW) only. For designated appearance items, an Appearance Approval Report (AAR), if applicable shall be submitted.

Level 2 – PSW with product samples and limited supporting data.

Level 3 – PSW with product samples and complete supporting data. (See figure 2 for most common Level 3 elements. Actual required elements to be determined by Jabil quality representative.)

Level 4 – PSW and other requirements as defined by Jabil.

Level 5 – PSW with product samples and complete supporting data for review at supplier's location.

Notes: Actual required elements to be determined by Jabil representative. Jabil representative can add other additional requirements if needed, but can't remove the default elements defined by chosen level where the requirement is applicable.

6.4.3 FIGURE 2

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Figure 2: (Common elements of a JPPAP Submission)

	SUBMISSION LEVEL					
	Requirement	Level 1	Level 2	Level 3	Level 4	Level 5
1.	Design Record	R	S	S	*	R
2.	Authorized Engineering Change Documents, if any	R	S	S	*	R
3.	Customer Engineering Approval, if required	R	R	S	*	R
4.	Design FMEA	R	R	S	*	R
5.	Process Flow Diagrams	R	R	S	*	R
6.	Process FMEA	R	R	S	*	R
7.	Process Control Plan	R	R	S	*	R
8.	Gage Repeatability and Reproducibility Report	R	R	S	*	R
9.	Dimensional Results - FAIR	R	S	S	*	R
10.	Material, Performance Test Results	R	S	S	*	R
11.	Initial Process Studies - Cpk	R	R	S	*	R
12.	Qualified Laboratory Documentation	R	S	S	*	R
13.	Appearance Approval Report (AAR), if applicable	S	S	S	*	R
14.	Sample Product	R	S	S	*	R
15.	Master Sample	R	R	R	*	R
16.	Checking Aids-Gauge List	R	R	R	*	R
17.	Record of Compliance With Jabil - Specific Requirements, if any	R	R	S	*	R
18.	Part Submission Warrant (PSW)	S	S	S	S	R

S = The supplier shall submit designated product approval activity and **retain** a copy of records or documentation items at appropriate locations including manufacturing.

- 6.4.3.1 COMMENTS:JPPAP Evidence Table is based on AIAG PPAP Forth Edition which is effective from 2006.
- 6.4.3.2 Jabil specific requirements refer to 6.5.17.

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R = Supplier shall retain at appropriate locations, including manufacturing, and make **readily** available to Jabil representative upon request.

^{* =} If required or applicable.



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6.5 **ELEMENTS**

Supplier shall meet all applicable PPAP elements listed in Section 6.5.1 through 6.5.18. For elements which supplier internal review / approval is required (as defined in Part Submission Warrant (PSW)), ownership for review / approval must be finished by supplier assigned representative before submission. Jabil ownership for approval is assigned by each Jabil site.

Notes: Elements from 6.6.1 through 6.5.18 may not necessarily apply to every part number from every supplier, e.g. Design element requirement only applies to the suppliers who have design responsibility/authority; Appearance Approval Report only applies to cosmetic items, etc. Refer to the detail of the elements' requirement in Figure 2 above for more information.

6.5.1 Design Record

Supplier shall have the design record for the saleable product/part, including design record for components or details of the saleable product/part. Where the design record is in electronic format, supplier shall produce a hard copy to identify measurements taken.

Notes: 1). This only applies to the suppliers who have design responsibility / authority.

- 2). This will utilize the supplier specific format.
- 3). In E-JPPAP system, when defining the submission requirement, Jabil PPAP owner shall select this requirement manually.

6.5.2 Authorized Engineering Change Documents.

Supplier shall have any authorized engineering change documents for those changes not yet recorded in the design record but incorporated in the product, part or tooling.

Notes: 1). The Engineering Change(s) must be approved by Customer/Jabil.

- 2). It only applies to the Engineering Change(s) which <u>have not been recorded</u> <u>in the design record.</u>
- 3). This will utilize the supplier specific format.

6.5.3 Customer Engineering Approval

Where specified by Customer/Jabil, the supplier shall have evidence of Customer/Jabil engineering Approval. e.g., a). Supplier has design responsibility, and customer requires the design records, the supplier must get customer engineering approval before release. b). For supplier raised ECN(s), the ECN(s) must get customer engineering approval before incorporation into product, part, or tooling. etc.

Notes: 1). This only applies to where designated by customer as required.

2). This will utilize the supplier specific format.

6.5.4 Design FMEA

The product design-responsible supplier shall develop a Design FMEA in accordance with, and compliant to, customer requirements.

Notes: 1). This only applies to the suppliers who have design responsibility / authority.

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- 2). This will utilize the Jabil template or equivalent format.
- 3). In E-JPPAP system, when defining the submission requirements, Jabil PPAP owner shall select this requirement manually.

6.5.5 Process Flow Diagram(s)

Supplier shall have a process flow diagram that clearly describe the production process steps and sequence. This process flow once submitted and accepted cannot be altered without Jabil approval and resubmission of JPPAP

Notes: This will utilize the supplier specific format.

6.5.6 Process FMEA

A Process FMEA shall be executed for each part and shall be the basis for stipulated process controls stated on the "Control Plan". Actions shall be taken by suppliers for RPN >= 100 (Risk Priority Number), to reduce the RPN to lower than 100, and these actions shall also be reflected in the Control Plan.

Notes: This will utilize the Jabil template or equivalent format.

6.5.7 Control Plan

Supplier shall have a Control Plan that defines all methods used for process control and complies with customer-specified requirements.

Notes: This will utilize the Jabil template or equivalent format.

6.5.8 Gage Repeatability and Reproducibility Report

To be executed on all critical process control features (to control identified product critical characteristics) identified on engineering documentation, including continued use of data for process characterization. The recommended level of study is 3 operators * 3 trials. The minimum level of study shall include 2 operators x 2 trials. See JPPAP Templates for additional information.

6.5.8.1 Gage R&R System Acceptability

- % R&R<10% *Gage* System is acceptable.
- 10%<% R&R<30% Gage system is marginally acceptable. Base on customer requirement, or control it not to be used for critical characteristics.
- % R&R>30% *Gage* system needs improvement or not acceptable.

NOTE: 1). These are general values, an individual site may establish their own criteria.

2). This will utilize the Jabil template or equivalent format.

6.5.9 Dimensional Results - FAIR

Suppliers shall submit a minimum of three (3) samples of each part or assembly, from each tool and or cavity, for approval prior to producing production units. Samples shall be taken from normal settings or parameters established by the supplier to be used

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during normal production. The submission shall include components and sub-assemblies supplied by supplier's own suppliers and/or sub-contractors and shall be produced by means following the referenced production Process Flow Diagram and Control Plan from the JPPAP.

Each sample must be numbered and supplied with data taken on each dimension (from each sample) identified on the print. In the case of multi-cavity tooling, samples must be segregated and measurements recorded individually by cavity.

If the values identified in the Dimensional report do not meet the requirements as defined on the piece part print, the Supplier must notify Jabil Representative via the "Parts Submission Warrant" block titled: "Submission Results."

If the parts fail to meet any JPPAP requirements, the supplier must address, with cause and corrective action, all discrepancies via the F.A.I.R. (First Article Inspection Report) Deviation Report Template.

Notes:

- 1). Supplier shall measure all dimensions (except reference dimensions), characteristics, and specifications as noted on the design record and control plan in three (3) samples per cavity/tool.
- 2). Supplier shall report in the FAIR their compliance with all drawing notes.
- 3). Actual sample size should follow customer or Jabil sites requirement.
- 4). This will utilize the Jabil template or equivalent format.

6.5.10 Material, Performance Test Results

Supplier shall have records of material and/or performance test results for tests specified on the design record or Control Plan, in supplier-specified format.

6.5.10.1 Material test results shall indicate and include:

- the design record change level of the parts tested;
- any authorized engineering change documents that have not yet been incorporated in the design record;
- the number, date, and change level of the specifications to which the part was tested;
- the date on which the testing took place;
- the quantity tested;
- the actual results;
- the material supplier's name.

6.5.10.2 Performance test results shall indicate and include:

- the design record change level of the parts tested;
- any authorized engineering change documents that have not yet been incorporated in the design record;

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- the number, date, and change level of the specifications to which the part was tested;
- the date on which the testing took place;
- the quantity tested;
- the actual results;

Notes: This will utilize the supplier specific format.

6.5.11 Initial Process Studies - Cpk

The critical process control and/or significant dimensions (characteristics) for the capability studies are identified and/or agreed between supplier and a Jabil/Customer representative on the engineering documentation such as drawings, specifications, specific requirements and others. The study shall be done on a minimum sample of 30 random pieces taken from a minimum population of 300 and should be submitted using the form in the JPPAP Template document or Jabil approved equivalent. In the case of multi-cavity tooling, samples submitted, FAIR(s), and capability studies are to be ran and measurements identified as per each cavity or tool. If expected production or quantities of parts ordered do not lend themselves to the 300 piece minimum sample population, then written authorization is required from Jabil Representative.

Minimum level of Cpk is: Cpk >/= 1.67. Cpk level might be different if a specific value is required by final customer. If the statistical data on the capability study does not meet Jabil specified goals the supplier must notify Jabil Representative via the "Parts Submission Warrant". Additionally, the supplier shall provide an explanation as to why the finished units do not meet the requirements and propose possible solutions, which could include containment efforts (e.g. 100% sorting /screening) to enable the process to be classified as capable.

If the Customer requires, the results of Form, Fit & Function tests performed by supplier might drive drawing and/or tolerance adjustments to meet CPK requirements. After dimensional adjustments the supplier is responsible to meet and maintain their process capability within specified ranges and re-submit JPPAP.

Notes: This will utilize the Jabil template or equivalent format.

6.5.12 Qualified Laboratory Documentation

Inspection and testing for PPAP shall be performed by a qualified laboratory as defined by customer (e.g., an accredited laboratory). The qualified laboratory shall have a laboratory scope and documentation showing that the laboratory is qualified for the type of measurements or tests conducted.

When an external/commercial laboratory is used, supplier shall submit the test results on the laboratory letterhead or the normal laboratory report format. The name of laboratory that performed the tests, the date of the tests, and the standards used to run the tests shall be identified.

Notes: This will utilize the supplier specific format.

6.5.13 Appearance Approval Report

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For all submissions dealing with part cosmetics, samples should accompany or follow the warrant and PPAP data. Samples should be submitted to Jabil Design Engineering or Site SQE or other designated appropriate Jabil personnel for approval for initial product launches (NPI). Signed copies of the approval document(s) along with the sample(s) signed by Jabil Design Engineering / SQE, for which the document represents, shall be maintained on file at each of the supplier's sites which manufacture the part. Note: Samples are returned to the supplier for reference. Jabil site shall decide on any sample retention at site and its duration based on any customer or sector requirements, as applicable.. Note: Sample size in such cases should not be less than 2

For guidance on the application of cosmetic standards, Jabil customer standards have priority. If no customer standards exist, reference Jabil Workmanship Standards For Systems Integration,00-QS60-1000-003.

Notes: This will utilize the Jabil template.

6.5.14 Sample Product

Supplier shall provide sample products as specified by Jabil. Refer to 6.5.9 and 6.5.13, and/or other sample products required by Jabil Representative.

6.5.15 Master Sample

Supplier shall retain a master sample for the same period as the production part approval records, or a) until a new master sample is produced for the same customer part number for customer approval, or b) where a master sample is required by the design record, Control Plan or inspection criteria, as reference standard. The master sample shall be identified as such, and shall show the customer approval date on the sample. Supplier shall retain a master sample for each position of a multiple cavity die, mold, tool, or pattern, or production process, unless otherwise specified by Jabil.

6.5.16 Checking Aids - Gauge List

Supplier shall retain a master gauge list (or submit if required by Jabil), which include all checking aid gauges used for part inspection, measuring and test. Supplier shall certify that all aspects of the checking aid agree with part dimensional requirements. And supplier shall document all released engineering design changes that have incorporated in the checking aid at the time of submission. GR&R shall be conducted in compliance with requirements defined in 5.5.8

Notes: This will utilize the supplier specific format.

6.5.17 Jabil-Specific Requirements

Supplier shall submit all applicable Jabil-specific requirements which required by Jabil Representative.

6.5.17.1 Jabil Specific Requirements may include, but not limited to:

- Feasibility Report.
- Packaging Design and Evaluation Studies.
- Attribute GR&R.
- Master Sample.

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- Checking Aids Gauge List.
- Ballooned drawing which should be marked up in a clockwise direction.
- Process Parameters Sheet.
- Work Instructions for all operations reflected in the Process Flow.
- Training Matrix of personnel related with manufacturing process described in the quality documentation. (Process Flow, Control Plan).
- Org-chart of process management.
- List of tooling, and key equipment to manufacture part(s).
- Material Flammability.
- UL requirements.
- ROHS (Restricted or Hazardous Substances) or other Hazardous Material Certification/Documentation such as IMDS.
- Conflict Minerals Declaration.
- MSDS (Material Safety Data Sheets).
- SPC.
- Error Proofing.
- Form, Fit and Function Test.
- Yield and other important and/or critical activities to mitigate during validation/production stages.
- EICC (Electronic Industry Code of Conduct) Certification/Compliance
- Other specific requirements required by Jabil Representative.

Notes: 1). Feasibility Report, Attribute GR&R and Training Matrix utilize the Jabil template or equivalent format, others use supplier specific format.

2). In E-JPPAP system, when Jabil Specific Requirement required, Jabil PPAP owner shall select this requirement manually, and describe what specific requirements are needed.

6.5.18 Part Submission Warrant (PSW)

Upon completion of all PPAP requirements, supplier shall complete the Part Submission Warrant(PSW). A separate PSW shall be completed for each Jabil part number unless agreed to by the authorized Jabil Representative. Supplier shall verify that all of the measurement and test results show conformance with Jabil requirements, otherwise, supplier must notify the Jabil Representative via the "Parts Submission Warrant" block titled: "Submission Results." And a responsible official of the supplier shall approve the PSW and provide contact information.

Notes: This will utilize the Jabil template.

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7. Required Outputs

7.1 Employees responsible for creating/maintaining the JPPAP procedure and guidelines within their own site. Jabil Site Management is responsible to develop, train and implement the scope and importance of the JPPAP activity.

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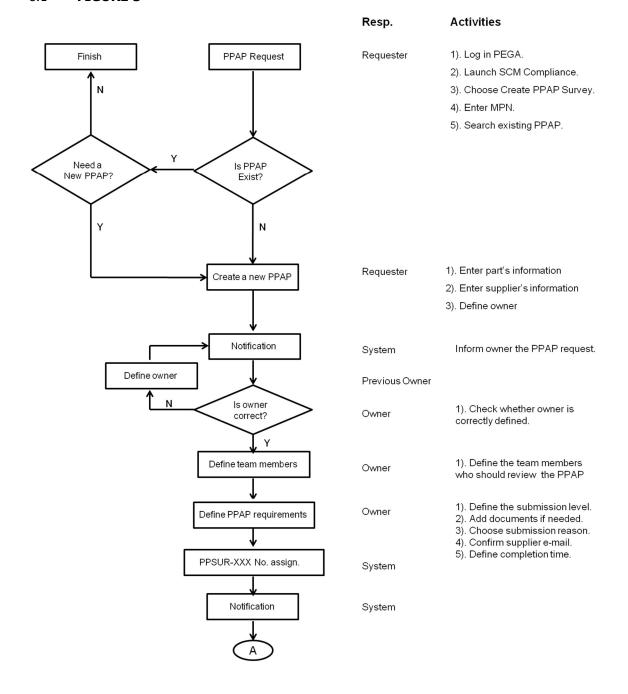
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Jabil Production Part Approval Process

8. JPPAP Process Flow Chart

8.1 **FIGURE 3**

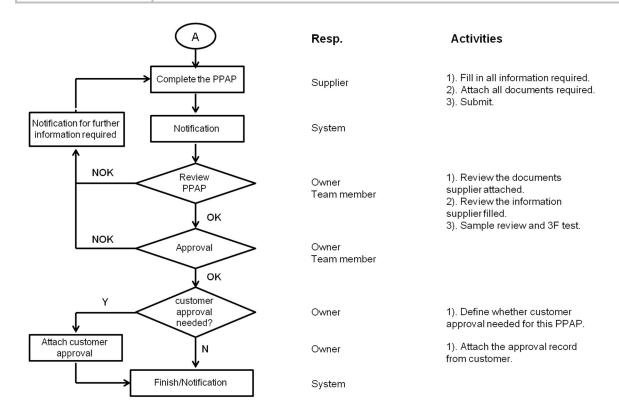


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Jabil Production Part Approval Process

9. Revisions History & Change Details: Go back to cover page – click <u>HERE</u>

Rev	Date	Originator(s)	Change Details
А	02/19/2009	C. Aguilar G. Santillan E. Porter	Initial release.
В	10/18/2010	C. Aguilar	Section 3.1.1 Added Feasibility Report definition. Section 5.4.3 Added Feasibility Report into JPPAP package Section 5.4.3 Added Packaging Proposal for Customer Approval into JPPAP package. (It makes reference to Section 5.6.6) Section 6.3 Added Top Management responsibility to develop, train and implement JPPAP activities in their own site. Section 6.5 Added JPPAP and removed FAIR.
С	12/13/2010	C. Aguilar	Section 5.4.3 .2 Adjusted based in customer Feedback / requirement. Unlimited scope for Customer/Jabil requirements and Yield Were added.
D	MAY/15/11	Cesar Aguilar	Section 5.4.3 The item "Engineering Change Documents" was identified as 'R' for level 3 and it was adjusted to "S". (Figure 2, Page 7) Section 8.4 FAIR sketch in Page 22 and template included in JPPAP Templates were updated.
E	AUG/17/15	Roney Abraham	Section 5.6.1.2 Sample retention requirement revised.
	Jul/01/16	Roney Abraham	Section 2.1.2 Added to state clearly for the document scope Section 3.1.1 1). Added terms of: E-JPPAP, Jabil Representative, Design Record, Process Flow Diagram, Part Submission Warrant (PSW), F.A.I.R DEVIATION REPORT 2). Changed "PSW-Product Submission Warrant" to "Part Submission Warrant (PSW)" and updated the definition. 3). For PFMEA's definition, added the word "Failure".
F			Section 3.2 Deleted original section 3.2: "High Risk Components".Original section 3.3 changed to section 3.2. Section 3.2 1). Added: "and for designated appearance items, an Appearance Approval Report required." for level 1.
			2). Added "Notes: Detailed submission requirements for each level refer to 5.4." Section 3.3 1). Changed "Disposition Status" to "Approval Status" 2). Added "Or ELECTRIC NOTIFICATION SENDING BY E-JPPAP SYSTEM"
			Section 3.3.1 Changed "Full Qualification" to "Approved", and defined the "Approved" status.
			Section 3.3.2 1). Deleted original section 3.4.2: Restricted Qualification. 2). Added "Notes" about how to handle the case

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				of urgent request for production build.
		:	Section 4 to Se	ection 6: Changed the sequence.
				1). Changed original section 6 to section 4
				2). Changed original section 4 to section 5
				3). Changed original section 5 to section 6
			Section 4	1). Deleted original whole section "6.1 Jabil
				Design Engineering", "6.2 Supplier Quality
				Engineering", "6.4 Disposition Status", "6.7 Jabil
				Business Unit".
				2). Added new whole section "4.1 PPAP
				Requestor","4.2 PPAP Owner", "4.3 PPAP Team
				Member".
				3). Move original "6.8 Jabil Purchasing
				Representative" to"4.4", and re-defined the
				responsibility.
				4). Changed original section 6.3 to section 4.5.
				5). Changed original section 6.5 to section 4.6
				6). Changed original section 6.6 to section 4.7,
			-	and changed "6.4.3" to "4.4.3".
				Deleted original 4.5
		;	Section 6.1	1). Changed "and/or" to "and".
				2). Changed "as required" to "to supplier via E-
				JPPAP system notification, or by other methods if
				J-PPAP is not available"
				3). Added: "via E-JPPAP system notification e-
				mail, or", "if E-JPPAP is not available", and "based
				on each Jabil site requirements"
				4). Changed: "New Part/Product or New Tool" to
				"Initial Submission"
				5). Added "Construction or".
				6). Changed: "Annual verification" to "Tooling
				Inactive > than 1 year."
				7). Changed: " Production from tooling and/or
				equipment transferred from or to a different plant
				location" to " Parts Produced at Additional
				Location".
				8). Added: " Other situation required by Jabil
				Representative."
				9). Added "Notes" about the method of PPAP
				status communicating to supplier.
			Section 6.2	1). Deleted: " Regardless of the submission level
				requested, the supplier's quality records (PPAP
				Records) should contain the necessary elements
				for a Level 3 submission."
				2). Changed: "current these elements" to "all
				PPAP elements"
			Section 6.3.1	Changed: "Guidelines for determining an
				appropriate submission level are presented in
				section 6.4 (below)" to "Jabil default PPAP is level
				3, but still Jabil PPAP owner can change the level
				assignment base on customer requirement, part
				complexity, component risk evaluation, change
				level of part/process, tool, etc."
			Section 6.4	Changed: "Default" to "Each Submission"
				<u> </u>
			Jection 0.4.1	1). Added: "and figure 2". 2). Added: "Notes: Design elements submission.
				2). Added: "Notes: Design elements submission
				requirement only apply to those suppliers who
1				have design responsibility/authority.

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Section 6.4	2 1). Added frame line for Figure 1
55551011 01 112	2). Added: " Notes: Actual required elements to
	be determined by Jabil representative. Jabil
	representative can add other additional
	•
	requirements if needed, but can't remove the
	default elements defined by chosen level where
	the requirement is applicable."
Section 6.4.	3 1). Deleted word: "Level 3".
	2). Redefined the submission level per AIAG PPAP
	Forth Edition which is effective from 2006.
Section 6.4.3	3.1 Changed: "AIAG Guideline-book" to " AIAG PPAP
	Forth Edition which is effective from 2006.
Section 6.4.3	3.2 1). Changed: "Notes: Some other Customer /
	Jabil applicable requirements are – but not
	limited to-" to" Customer / Jabil specific
	requirements refer to 6.5.17."
	2). Moved the requirements to section 6.5.17.
Section 6.5	The whole section was re-defined per AIAG PPAP
	Forth Edition.
Section 8	Deleted original section 8, they will be in 00-MT80-
	1000- 00801_JPPAP Templates
Section 8	Changed original section 10 to section 8.Deleted
	original section 10 "JPPAP Process Flow
	Chart"Figure 4, added new "JPPAP Process Flow
	Chart" Figure 3.
Section 9	Deleted original section 9: "Quality Support
	Documentation", combined it to section 6.5.17
	Section 6.4.3 Section 6.4.3 Section 6.5 Section 8

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