Name	Signature	Stamp No	Date
Kamal Berberi [Operations Director]			
Robert Hunter [Quality Assurance Manager]			

Document Approval

Approval Authority
Kamal Berberi / Robert Hunter
(OPS Director / QAM)

Document Authority

(QAM)

Introduction

eXception PCB provides Printed Circuit Boards (PCB) through its facility based in Tewkesbury in Gloucestershire. eXception PCB was part of eXception Group which was formed in 2005 as the result of a management buyout from its American parent, DDI, a specialist electronics contract manufacturer. Exception PCB was acquired by Fastprint Hong Kong Co Ltd in May 2013. Fastprint is a publicly listed company on the Shenzhen Stock Exchange and is a rapidly growing global PCB company with long term growth and expansion plans. Fastprint have subsidiaries in China Hong Kong, Europe and America.

Product types are:

- Single sided Printed Circuit Boards.
- Double sided Printed Circuit Boards without plated through holes.
- Double-sided Printed Circuit Boards with plated through holes.
- Multilayer Printed Circuit Boards with plated through holes.
- HDI sequential bonded multilayers with blind and buried vias.

- Single side/Double sided/Multilayer Plated through hole & Flex-Rigid Circuit Boards.

Policies, procedures and documentation described in this manual are mandatory and must be adhered to by all personnel within the company.

Website www.exceptionpcbsolutions.com

Quality Manual Distribution

Our QMS is based upon the organisation size, activities, process interaction and complexity and the competence of personnel employed by it. All documented procedures are accessible at the point of use. An updated copy QMS documented procedures are available to all employees on the company network (read-Only).

Company Organisational Structure

Company Organisational chart F-500-002

Section 1: Scope

1.1 General

The Quality Manual provides the basis for the company's operations in completion of all contracts and orders to ensure conformance with customer requirements. It covers the manufacturing of Printed Circuit Boards at the company's manufacturing premises.

The Quality System Manual (QSM) covers all products manufactured by Exception PCB Solutions Ltd. The QMS includes the requirements of AS 9100 REV D and ISO 9001:2015..

NB:
Should there be any conflict between statutory & regulatory requirements & the requirements of AS 9100D, the statutory & regulatory requirements take precedence.

1.2 Application

eXception PCB has determined that the following requirements are not applicable to the operations at this site and are documented as exclusions:

Clause 8.3 exclusions:
8.3 Design & Development planning
eXception PCB Solutions have no design authority for any product manufactured.
eXception PCB manufacture PCBs using customer supplied design data only.

When clause 8.3 exclusions are made they do not affect exception Solutions Ltd ability to meet Customer & applicable statutory & regulatory requirements.

1.3 Approvals Held

eXception PCB Ltd has gained approval to release boards with Underwriters Laboratories Authority (the American organisation for Testing for Public Safety). This includes single-sided, double-sided, plated through hole and multi-layer printed circuit boards.

Approval was gained in August 1988, and is reviewed every three months by UL. The Manufacturing Approval File is located in the Quality Manager's office.

UL FACTORY CODE:Ex**

Section 2: Normative Reference

The following documents were used as reference during the preparation of the QMS:

- AS9100 Quality Management Systems Requirements for Aviation, Space and Defense Organisations
- AS9102 Aerospace First Article Inspection Requirement
- AS9103 Variation Management of Key Characteristics
- ISO10007 Configuration Management
- ISO19011 Guidelines for Quality and/or Environmental Management Systems Auditing

Section 3: Terminology

Definitions of terminology used within this Quality System Manual

- **QSM:** Quality System Manual
- **QMS:** Quality Management System
- **Senior Management:** General Manager, Manufacturing Director, Other Directors, , Quality Manager, other Managers

- Critical items – those features that have a significant effect on the functionality, performance, reliability, safety, etc. of our product. Critical Items require specific controls or actions to ensure they are adequately Managed and include: Plating thickness, line width, stack-up thickness, Impedance and surface adhesion.
- Customer owned property - Any type of instrumentation, accessories, manuals, or shipping containers that belong to a customer.
- Customer supplied product - Any type of service or material supplied to be utilized in the manufacture, modification or repair of customer-owned property.
- Outsourced Process – a process that is needed for product realisation or that is in support of the management of the quality system and is contracted to be performed by an external party.
- Product – The end item result of meeting all contract terms and conditions. (eg: manufactured goods)
- Process – An activity or set of activities using resources, and managed in order to enable the transformation of inputs into outputs. Note: often the output from one process directly forms the input to the next process.
- Quality Records – Documentation of those activities wherein records of said activities must be maintained will be specified in the procedure or work instruction level documents, as applicable
- Key Characteristics- The features of a material, process, or part whose variation has a significant influence on product fit, performance, or Producibility that require specific actions to control.
- Risk – An undesirable situation or circumstance that has both a likelihood of occurring and a potentially negative consequence.
- Special Requirements – Those requirements identified by the customer, or determined by eXception PCB which have a high probability of not being achieved, and must be considered in the risk management process.
- Special requirements include: product features near the edge of current process capabilities, tightened manufacturing tolerances, designs of significantly increased complexity, and /or have accelerated delivery Commitments.
- Work Environment – those conditions under which work is performed including physical, environmental, and other factors such as noise, temperature, humidity, lighting, or weather.

3.1 Counterfeit Parts

Exception PCB monitor and check all supplier parts / material used in the manufacture of circuits boards. Received goods are checked on receipt for correct specification required by the customer or exception. Material C of C and test reports are available and checked. Products are also tested during manufacture and @ release in Laboratory as deemed necessary for compliance and counterfeit verification. CFSI conflict minerals declaration and end source supply can also be verified.

4.2 Context of the organization and understanding the needs and expectations of interested parties.

Exception have identified and continue to determine external and internal issues which could affect the QMS and the company's strategy. These are monitored and listed and include all interested parties (Legal / supplier / customer and exception PCBs.

Associated docs : See FORM.F-420-003 and SWOT analysis.

4.3 Determining the scope of the QMS

Single sided Printed Circuit Boards.
Double sided Printed Circuit Boards without plated through holes.
Double-sided Printed Circuit Boards with plated through holes.
Multilayer Printed Circuit Boards with plated through holes.
HDI sequential bonded multilayers with blind and buried vias.
Single side/Double sided/Multilayer Plated through hole & Flex-Rigid Circuit Boards.

The above products are supplied to customers with varying complexities and lead times. The acceptance of an order is reviewed against technology (Exceptions DFMs show companies technology and ability to meet customers' needs / PO acceptance.) Lead-time is offered on factory capacity. Legal and other regulatory requirements and reviewed @ quote / contract review. The manufacturability and capability according to customer request will be also reviewed against supplied requirements / specifications. Contract reviews / QA requirements / special instructions / legal requirement are added to production route cards via PCP. EG: Critical features / Export licenses / Specification release requirements. Exception use ACTIV Auto software updates for any changes to associated legal requirements.

Exception are excluded from any design activity. (Clause 8.3) Exception use supplied designed data from customers. This data is loaded into our system which then generates the process route to manufactures.

Quality Management System and its processes.

4.4

eXception PCB has established, documented, implemented and maintains a quality management system and continually improves its effectiveness in accordance with the requirements of AS9100 and ISO 9001:2015..
eXception PCB' quality management system also addresses customer and applicable statutory and regulatory quality management system requirements.
eXception PCB:
a) determines the processes needed for the quality management system and their application throughout the organisation, (inputs and outputs set)
b) determines the sequence and interaction of these processes (see Interaction of Processes),
c) determines criteria and methods needed to ensure that both the operation and control of these processes are effective, (monitored and measured)
d) ensures the availability of resources and information necessary to support the operation and monitoring of these processes,
e) Have assigned responsibilities for the processes.

f. / g / h.) Implements actions to address risks and opportunities as per 6.1 necessary to achieve planned results and continual improvement of these processes.

eXception PCB manages these processes in accordance with the requirements of AS9100.

For items c-f above, refer to the process analysis turtle diagrams for production realisation processes.

When choosing to outsource any process that affects product conformity to requirements, eXception PCB will ensure control over such processes. Controls of these outsourced processes are identified within the quality management system.

Documentation Requirements

4.4.2

The quality management system documentation includes:
a) documented statements of a quality policy and quality objectives and documented information to support the operation of our processes.
b) Retain documented information to verify processes are compliant as planned.
c) documented procedures and records required by AS9100 and ISO 9001:2015. and
d) documents, including records, determined by eXception PCB to be necessary to ensure the effective planning, operation and control of our processes.

Personnel have been given responsibility access to, and are aware of, relevant quality management system documentation and changes.

The Quality Manual

This Quality Manual has been prepared to describe eXception PCB's QMS. The scope and permissible exclusions of the QMS are described in section one of this manual. Each section of the manual references documented QMS procedures relating to the requirements outlined in that section. The Process Flow Diagram at the end of section 4 provides a description of the interaction between the processes of the QMS system.

The relationship between the AS9100 standard and documented procedure has been indicated by use of a numbering system that correlates to the AS9100 standard.

Control of Documents

eXception PCB has established a documented procedure to control documents required by the quality management system.
a) to approve all documents prior to issue,
b) to review, update and re-approve all documents as necessary,
c) to ensure that changes and the current revision status of documents are identified,
d) to ensure that relevant versions of applicable documents are available at points of use,
e) to ensure that documents remain legible and are readily identifiable,
f) to ensure that documents of external origin determined to be necessary for the planning and operation of the quality management system are identified and their distribution controlled, and

g) to prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.
eXception PCB has a system to ensure the review, disposition, implementation, and maintenance of all authorised and released controlled documentation annually.
Document changes are coordinated with customers and/or regulatory authorities in accordance with contract or regulatory requirements.

Control of Records

Records established to provide evidence of conformity to requirements and of the effective operation of the quality management system are controlled.
eXception PCB defines the controls needed for the identification, storage, protection, retrieval, retention and disposition of records in addition to the method for controlling records that are created by and/or retained by suppliers.
Records will remain legible, readily identifiable and retrievable.

Section 4 Related Procedures

Document & Record Control Procedure	AP-423

5. Leadership

5.1. Leadership and commitment.
Top management can demonstrate leadership and commitment to the QMS.
The quality policy and objectives is set by top management and is in direction with company strategy.
Promote the use of process approach and supply resource needed for the QMS.
Communicate the importance of the QMS and intended results..
Ensure that intended results are achieved by reviewing outcomes / data.
Top management engage / promote and support all activities in the QMS.

5.1.2 Customer Focus.

Top management will monitor and risks and improvements required meeting customer satisfaction.
Lead control of customer and statutory regulations / requirement / risks and opportunities that can affect products and services.
KPIs: OTIF / Customer complaints / internal yields / input and output / Compliance.

Top management have appointed the Quality Assurance Manager (Rob Hunter) to as authority for over-sight of section 5.

6. Planning

6.1 Actions to address risks and opportunities.

Exception address the above by :
Achieve / enhance and prevent by using contract review / Tech review meetings prior to loading product. This identifies measures / processes / risk avoidance and potential improvements.
All products have measured result to evaluate effectiveness.

6.2.1 Quality objectives.

Quality objectives are set / monitored daily / communicated fully each month to all employees.

6.2.2 Quality objectives link to improvement plan / 8Ds with set dates / requirements / responsibilities / evaluation of results.

6.3 The organisation considers full outcomes and consequences of changes.
Major changes i.e.: Materials are controlled under N.P.Is documents.

7. Support.

7.1.1 The organisation control and monitor capabilities of manufacturing / suppliers and exception personnel (Through DFMs / Capacity planning / Supplier monitoring / Employees skills matrix.)

7.1.2. Exception utilize cross training to ensure capacity of operations can be met.

7.1.3. Infrastructure: Exception has the equipment / processes / resources and information on automated systems to meet product requirements.

7.1.4. Exception supply a working environment suitable for employees making a comfortable environment (See HR procedures covering: all legal requirements / personnel protection / physical controls)

7.1.5. **/ 2**

eXception PCB determines the monitoring and measurement to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of product to determined requirements.
eXception PCB maintains a register of monitoring and measuring equipment and defines the process employed for their calibration/verification including details of equipment type, unique identification, location, frequency checks, check method and acceptance criteria.
Processes have been established to ensure that monitoring and measurement can be carried out and are carried out in a manner that is consistent with the monitoring and measurement requirements.
Environmental conditions are suitable for the calibration, inspection, measurement and testing being carried out.
Where necessary to ensure valid results, measuring equipment is
a) calibrated or verified, or both, at specified intervals, or prior to use, against measurements standards traceable to international or national measurement standards; where no such standards exist, the basis used for calibration or verification is recorded,
b) adjusted or re-adjusted as necessary,
c) identified in order to determine its calibration status,
d) Safeguarded from adjustments that would invalidate the measurement result, and
e) Protected from damage and deterioration during handling, maintenance and storage.

A process for the recall of monitoring and measuring equipment requiring calibration and verification has been established, implemented and is maintained.
When the equipment is found not to conform to requirements, the validity of the previous measuring results are assessed and recorded. Appropriate action is taken on the equipment and any product affected.
Records of the results of calibration and verification are maintained.
If computer software is used in the monitoring and measurement of specified requirements, its ability to satisfy the intended application will be confirmed. It will be undertaken prior to initial use and reconfirmed as necessary.

7.1.6 Organizational knowledge

Exception fully trains all staff with controlled documents / external training eg: IPC / Internal supplier training programs. Exception always promotes training to progression to ensure no knowledge is lost from loss of staff.

7.2 **Competence / 7.3 Awareness**

Exception have a full training matrix covering all employees / fully documented and retained. All employees have set periodic assessments against there working duties.
Employees are aware of QA policy / procedures / QA requirements / product safety and ethical behaviour. All these are covered @ induction stage.

eXception PCB
a) determines the necessary competence for personnel performing work affecting product requirements
b) where applicable, provides training or takes other actions to achieve the necessary competence and assures that personnel are qualified to perform specific tasks on the basis of previous experience, education and/or on the job training,
c) evaluates the effectiveness of actions taken,
d) ensures personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives, and
e) maintains appropriate records of education, training, skills and experience.
As part of new employee orientation, employees shall be informed of the following:

- Quality Policy
- Safety
- Process procedures

7.4. **Communication**

eXception PCB Ltd will ensure communication between its' various levels and functions regarding the processes of the QMS. The primary communication method will be through QMS documentation. Other communication methods will be:

- Training
- Site / Department meetings
- Internal Audits
- Management Reviews.
- KPIs to employees.
- Supplier performance.
- Customer updates.

The communication source determined as appropriate / Department managers are responsible for comms. Monthly / annually depending on process.

7.5 Documented Information

7.5.2 / 7.5.3 Creating updating and control

eXception PCB has established a documented procedure to control documents required by the quality management system.
a) to approve all documents prior to issue,
b) to review, update and re-approve all documents as necessary,
c) to ensure that changes and the current revision status of documents are identified,

d) to ensure that relevant versions of applicable documents are available at points of use,
e) to ensure that documents remain legible and are readily identifiable,
f) to ensure that documents of external origin determined to be necessary for the planning and operation of the quality management system are identified and their distribution controlled, and
g) to prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.
eXception PCB has a system to ensure the review, disposition, implementation, and maintenance of all authorised and released controlled documentation annually.
Document changes are coordinated with customers and/or regulatory authorities in accordance with contract or regulatory requirements.
Access is read only / Password protected.
All data is backed up by I.T. each day.

8. Operation.

8.1 Operational planning and control.

Risks / opportunities identified are used during contract review CAM / TCA links to determine product ability / Inspect ability / reliability / handling and packaging.
Exception PCP2000 system has set processes for each operation which include inspection / testing / recording key characteristics / verification and safety of product. Any additional opportunities or risks are added to production route cards to control and verify compliance.
Product obsolescence is continually monitored for materials with suppliers giving information when known (Eg global shortage or market activities)
All materials used a verified for compliance to relevant standards (Eg : IPC4101)

Operational Planning is consistent with the requirements of the other processes of the Quality Management System. While planning product realisation, the following is determined as appropriate:
a) quality objectives and requirements for the product,
b) the need to establish processes and documents and to provide resources specific to product,
c) required verification, validation, monitoring, measurement, inspection and test activities specific to the product and the criteria for product acceptance,
d) records needed to provide evidence that the realisation processes and resulting product meet requirements,
e) configuration management appropriate to the product,
f) Resources needed to support the use and maintenance of the product.
The output of this planning shall be in a form suitable for our method of operations.
The result output aim is a production route card with stepped processes / specific notes / Process control requirement to achieve customer requirements during production and verified on release procedures relevant to that part. .

8.1.1 Operational Risk Management

A risk management process has been established, implemented and to achieve applicable requirements as appropriate to our organisation and product including
a) the assignment of responsibilities for risk management,
b) the definition of risk criteria,
c) the identification, assessment and communication of risks throughout product realisation,

d) the identification, implementation and management of actions to mitigate risks that exceed the defined risk acceptance criteria,
e) the acceptance of risks remaining after implementation of mitigating actions.

For the product realisation process, risk identification and actions to mitigate the risks has been made an integral part of the process analysis. Key processes where risk analysis is quantified, is the design and development, where mean time between failures is calculated to ensure that customer requirements are met or exceeded as appropriate

8.1.2 Configuration Management.

A configuration management process has been established, implemented and maintained that includes, as appropriate to the product
a) Configuration management planning,
b) Configuration identification,
c) Change control,
d) Configuration status accounting, and
e) Configuration audit.

Exception PCB products have traceability back to supplied materials. (Class A) Details of eXception PCB configuration management procedures are outlined in internal documents

8.1.3. Product Safety

Product is preserved during internal processing and delivery to the intended destination in order to maintain conformity to requirements. As applicable, preservation includes identification, handling, packaging, storage and protection. Preservation also applies to the constituent parts of a product.
Preservation of product also includes, where applicable in accordance with product specifications and applicable statutory and regulatory requirements, provisions for
a) cleaning,
b) prevention, detection and removal of foreign objects,
c) special handling for sensitive products,
d) marking and labelling including safety warnings,
e) shelf life control and stock rotation, and
f) special handling for hazardous materials.

8.1.4. Prevention of counterfeit parts

Class A Materials received are checked against PO / C of C for compliance to requirements. Test reports on proof of non-counterfeit material are required from our suppliers. (These are tests which ensure a product is compliant usually to IPC or J-std s) Exception also verify materials prior to release from laboratory tests (Eg : Thermal shock / microsections / Off site purity tests etc)
See Control of NC product procedure for quarantine actions / reporting.

8.2.1 Requirements for products and Services

Communication to customers includes: information relating to products and services / (Web sites / email / customer visits) Handling enquiries, contracts, POs and any changes to processes or business. (Email / meetings) Correspondence relating to products / services and complaints (Email / Meetings) Customer papery (Supplied data) Specific requirements relevant to customer needs (Email / Meetings) Any changes to the

business which affect product / Delivery / Resources / Communication and internal contacts.

8.2.2 Determining requirements for products and services

Products and services are defined within company website and supply DFM's. T&C's are also included within statuary and regulatory requirements. Any special requirements of products and services are determined and communicated to customers. Operational risks, new technology, ability and capacity, delivery times are also identified and communicated to customers and on a quote to quote basis. Annual reviews are conducted on all products and services offered to customers.

8.2.3.1

Full contact reviews are conducted at quote stage prior accepting purchase orders. Any requirements that are deemed 'cannot be met' then Exception will mutually agree an acceptable outcome with the customer.

8.2.3.2

Exception retain documented information on the results of contract review and any special requirements.

8.3 Design and development of products and services

Exception PCB are exempt from this clause as we do not do design and development.

8.4 Control of externally provided processes, products and services

Exception PCB have a controlled supplier selection process for processes and services (see supplier selection and control procedure). All products subcontracted to external providers are verified in house for compliance and acceptability to customer requirements.

8.4.1.1

The Quality Assurance Manager has the authority for the status/conditions for the use of external providers. A register of approved suppliers is constantly monitored (see procedure control of outsourced products and services). All suppliers are reviewed annually or if a non-conforming result occurs.

8.4.3 Information for external providers

The organisation communicates all relevant technical data, specifications, customer requirements etc. to external providers.

8.5. Production and service provision

Exception retain documented information that defines the characteristics of the products, digital data, drawings and process specifications. Production route cards show results achieved within the control plans. Documented information on route cards, control plans, procedures, contains criteria for acceptance and rejection/sequence verification operations/measurement results, sampling plans are in conjunction with IPC 6012 and or customer requirements.

Exception will implement actions to prevent human error, Exception have a defined implementation for the release of products and post-delivery activities (e.g. inspection, laboratory testing, QA approval and release).

j) Production control has accountability for product during production. These are tracked daily in relation to sty / splits. QA are responsible with heads of department for any NC product.

k) Key characteristics / critical parts have controls and verification processes added to the production route cards.

l) Methods of measuring product are identified in inspection procedures / Process control sheets carry upper and lower limits for recording.

m) Production route cards carry instructions for measuring / recording any conformity which cannot be performed @ last stage (EG: AOI)

n) All production route cards and process control forms are signed and booked on the system. (Route cards / process forms are retained)

o) FOD is part of areas routine maintenance schedules (Cleaning and reporting area issues)

p) and supplies are controlled by Facilities Director and purchasing.

q) All material have recorded lot numbers / prod panels are identified with file numbers. All product can be identified and traced within the plant via PCP200 booking process.

The characteristics of the product are monitored and measured to verify that product requirements have been met. This is carried out at appropriate stages of the product realisation process in accordance with the planned arrangements.
Evidence of conformity with the acceptance criteria is maintained.
Measurement requirements for product acceptance is documented and includes
a) criteria for acceptance and/or rejection
b) where in the sequence measurement and testing operations are to be performed,
c) required records of the measurement results (at a minimum, indication of acceptance or rejection), and
d) any specific measurement instruments required and any specific instructions associated with their use.
When critical items, including key characteristics, have been identified, they are controlled and monitored in accordance with the established processes.
When sampling inspection is used as a means of product acceptance, the sampling plan is justified on the basis of recognised statistical principles and appropriate for use.
Where product is released for production use pending completion of all required measurement and monitoring activities, it is identified and recorded to allow recall and replacement if it is subsequently found that the product does not meet requirements.
Records indicate the person(s) authorising release of product for delivery to the customer.
Where required to demonstrate product qualification, records provide evidence that the product meets the defined requirements.
The release of product to the customer does not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the customer.
All documents required to accompany the product are present at delivery.

8.5.1.1 Control of equipment , tools , software.

Equipment / tools / software are verified / tested and serialised prior to use. Tools are stored with prevention of damage.

8.5.1.2. Special processes

The characteristics of the product are monitored and measured to verify that product requirements have been met. This is carried out at appropriate stages of the product realisation process in accordance with the planned arrangements.
Evidence of conformity with the acceptance criteria is maintained.
Measurement requirements for product acceptance is documented and includes
a) criteria for acceptance and/or rejection
b) where in the sequence measurement and testing operations are to be performed,
c) required records of the measurement results (at a minimum, indication of acceptance or rejection), and
d) any specific measurement instruments required and any specific instructions associated with their use.
When critical items, including key characteristics, have been identified, they are controlled and monitored in accordance with the established processes.
When sampling inspection is used as a means of product acceptance, the sampling plan is justified on the basis of recognised statistical principles and appropriate for use.
Where product is released for production use pending completion of all required measurement and monitoring activities, it is identified and recorded to allow recall and replacement if it is subsequently found that the product does not meet requirements.
Records indicate the person(s) authorising release of product for delivery to the customer.
Where required to demonstrate product qualification, records provide evidence that the product meets the defined requirements.
The release of product to the customer does not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the customer.
All documents required to accompany the product are present at delivery.

8.5.1.3 Verification of production process.

Verification of process is done through ensuring process controls are in limits prior to production (Eg Chemical analysis) Maintenance activity sheet on process line require line / material verification prior to production. All new part have addition 1st off requirements on prod route cards to verify the process and requirements prior to batch commencement (Eg 1st of plating check / 1st off AOI)

8.5.2. Identification and traceability.

Where appropriate, product is identified by suitable means throughout product realisation.
Identification of the configuration of the product is maintained in order to identify any differences between the actual configuration and the agreed configuration.
Product status with respect to monitoring and measurement requirements is identified throughout product realisation.
Controls have been established for acceptance authority media, such as stamps, electronic signatures and passwords.

The unique identification of the product is controlled and records maintained when traceability is a requirement.
Prod route cards / Maintenance activity sheets / material C of C s are retained, linking to any product

8.5.3. Customer property or external providers

Care is exercised with customer property while it is under our control or being used by us. Customer property for use or incorporation into the product is identified, verified, protected and safeguarded. If any customer property is lost, damaged or otherwise found to be unsuitable for use, we will report it to the customer and maintain records.

8.5.4. Preservation.

Product is preserved during internal processing and delivery to the intended destination in order to maintain conformity to requirements. As applicable, preservation includes identification, handling, packaging, storage and protection. Preservation also applies to the constituent parts of a product.
Preservation of product also includes, where applicable in accordance with product specifications and applicable statutory and regulatory requirements, provisions for
a) cleaning,
b) prevention, detection and removal of foreign objects,
c) special handling for sensitive products,
d) marking and labelling including safety warnings,
e) shelf life control and stock rotation, and
f) special handling for hazardous materials.

8.5.5. Post-Delivery activities

Exception meet the requirements of the standard and customer by :
Adhering to regulatory authorities. Eg : Export controls / Haz Chem transportation
Ensuring product is protected during shipment.
The shelf life of supplied product to our customers.
Auditing verified release data after shipment for compliance.
Responding to any customer feedback.
Actioning any corrective action from customer reported complaints.
Control and updating of any tech documentation.
Verification of external providers against customer requirements.
Reacting to all detected problems with an investigation and report.

8.5.6. Control of changes

Change authorisation personnel are documented. Changes are controlled through TCAs and N.P.Is for material / equipment or customer's data.

8.6. Release of products

All release documentation is signed and retained.
Only authorized IPC600 certified inspectors and or trained inspectors can verify release of product. Acceptance documentation is with product prior to release for second verification EG: Conformity reports / FAIRs.
Exception also has qualified DSQR employee for Aerospace release.

The QAM and Quality Product manager monitor release documents to standards.

8.7 Control on non-conforming out-puts

Nonconforming product is identified and controlled to prevent its unintended use or delivery.
A procedure has been established to define the controls and related responsibilities and authorities for dealing with nonconforming product. This procedure defines the responsibility and authority for the review and disposition of nonconforming product, and the process for approving personnel making these decisions.
Nonconforming product includes product returned from the customer.
Where applicable, nonconforming product is dealt with by one or more of the following ways:
a) by taking action to eliminate the detected nonconformity,
b) by authorising its use, release of acceptance under concession by a relevant authority and,
where applicable, by the customer;
c) by taking action to preclude it original intended use or application,
d) by taking action appropriate to the effects, or potential effects, of the nonconformity when nonconforming product is detected after delivery or use has started,
e) by taking actions necessary to contain the effect of the nonconformity on other processes or products.
Nonconforming product process control provides for timely reporting of delivered nonconforming product.
Dispositions of use-as-is or repair are only used after approval by an authorized representative of the organisation responsible for design.
If the nonconformity results in a departure from contract requirements, dispositions of use-as-is or repair are only used if specifically authorized by the customer.
Product dispositioned for scrap is conspicuously and permanently marked, or positively controlled, until physically rendered unusable.
When nonconforming product is corrected it is re-verified to demonstrate conformity to the requirements.
Records of the nature of the nonconformities and any subsequent actions taken, including concessions obtained, are maintained.

NC product in listed and retained in PCP2000 Quality module (RMAs / Complaints)

9. Performance evaluation

To demonstrate the suitability and effectiveness of the quality management system, appropriate data is determined, collected and analysed and an evaluation is conducted to determine where continual improvement of the effectiveness of the quality management system can be made. This includes data generated as a result of monitoring and measurement and from other relevant sources.
The analysis provides information relating to
a) customer satisfaction,
b) conformity to product requirements,

c) Characteristics and trends of processes and products, including opportunities for preventive action, and improvements.
d) supplier performance.
Measures are : OTIF / Internal scrap / Customer complaints / over-make / reviewed monthly. Suppliers performance yearly or as required. Annual management reviews again cover all above including additional operational performance KPIs (Sales input / Financials / customer satisfaction)

9.1.2 Customer Satisfaction

Top management ensures that the customer requirements are determined and met with the aim of enhancing customer satisfaction.
Top management ensures that product conformity and on-time delivery performance are measured and appropriate action is taken if planned results are not, or will not be, achieved.

Information relating to customer perception to determine if we have met their requirements is monitored. Methods for obtaining and using this information have been determined. Information monitored and used for the evaluation of customer satisfaction includes, but is not limited to,

- product conformity,
- on-time delivery performance,
- customer complaints and corrective action requests,
- customer survey,
- Customer supplied monthly KPI review data.

eXception PCB has developed and implements plans for customer satisfaction improvement that address deficiencies identified by these evaluations, and assesses the effectiveness of the results.

9.1.3. Analysis and Evaluation

Management reviews are conducted at least annually to review the quality management system to ensure its continuing suitability, adequacy and effectiveness. The review included assessing opportunities for improvement and the need for changes to the quality management system, including the quality policy and quality objectives. Minutes of management reviews are maintained.

Management review inputs include:
a) results of audits,
b) customer feedback,
c) process performance and product conformity,
d) preventive and corrective action reports,
e) follow-up actions from previous management reviews,
f) changes that could affect the Quality Management System, and
g) recommendations for improvement.
h)The effectiveness of actions taken to address risks / opportunities.
i) Performance of suppliers.

Management review outputs may include decisions and actions relating to
a) improvements of the effectiveness of the Quality Management System and its processes,
b) improvements to products related to customer requirements, and
c) resource needs.

9.2 Internal Audits

Internal audits are conducted at planned intervals to determine whether the quality management system
a) Conforms to the planned arrangements, to the requirements of AS9100 and ISO 9001:2015 and to the quality management system requirements we have established, and
b) is effectively implemented and maintained.
An audit program is planned, taking into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency and methods shall be defined. The selection of auditors ensures objectivity and impartiality of the audit process. Auditors shall not audit their own work.

A Procedure has been established to define the responsibilities and requirements for planning and conducting audits, establishing records and reporting results. Records of the audits and their results are maintained.
The management responsible for the area being audited ensures that any necessary corrections and corrective actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow-up activities shall include the verification of the actions taken and the reporting of verification results.

9.3 Management review

Management reviews are conducted at least annually to review the quality management system to ensure its continuing suitability, adequacy and effectiveness. The review included assessing opportunities for improvement and the need for changes to the quality management system, including the quality policy and quality objectives. Minutes of management reviews are maintained.

Management review inputs includes:
a) results of audits,
b) customer feedback,
c) process performance and product conformity,
d) preventive and corrective action reports,
e) follow-up actions from previous management reviews,
f) changes that could affect the Quality Management System, and
g) recommendations for improvement.
h)The effectiveness of actions taken to address risks / opertunities.
i) Performance of suppliers.
j) Monitoring and measurement results.
k) Audit results.
l) OTIF.
m) Resource adequacy.
n) Safety risks and policy.

Management review outputs may include decisions and actions relating to
a) improvements of the effectiveness of the Quality Management System and its processes,
b) improvements to products related to customer requirements, and
c) Any required changes to QMS.
d) Resources.
e) Risks identified.

10 Improvement

Continual Improvement

eXception PCB continually improves the effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review.
The implementation of improvement activities are monitored and evaluated for effectiveness of the results.

10.2 Corrective Action

Actions are taken to eliminate the causes of nonconformities in order to prevent recurrence.
Corrective actions are appropriate to the effects of the nonconformities encountered.
A Procedure has been established to define requirements for
a) reviewing nonconformities (including customer complaints),
b) determining the causes of the nonconformities,
c) evaluating the need for action to ensure that nonconformities do not recur,
d) determining and implementing action needed,
e) records of the results of action taken,
f) reviewing the effectiveness of the corrective action taken,
g) flowing down corrective action requirements to a supplier when it is determined that the supplier is responsible for the nonconformity,
h) specific actions where timely and/or effective corrective actions are not achieved, and
i) determining if additional nonconforming product exists based on the causes of the nonconformities and taking further action when required.

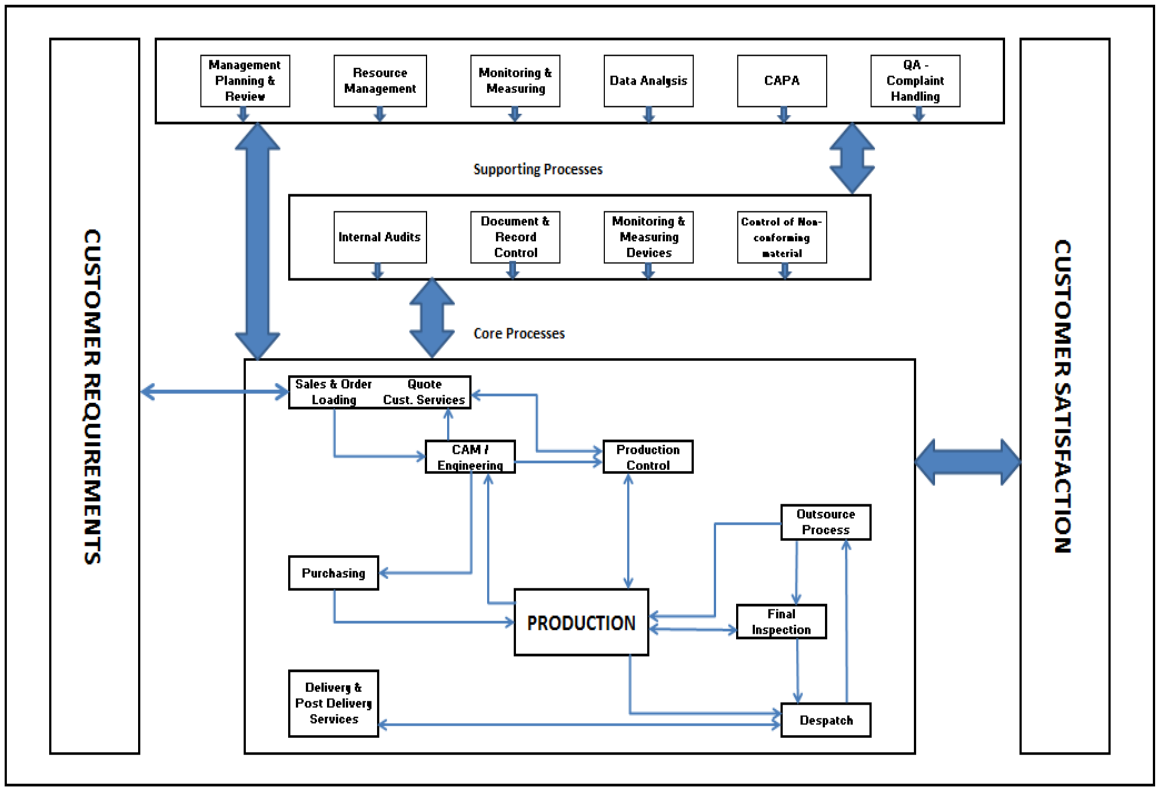
Preventive Action

Actions are determined to eliminate the causes of potential nonconformities in order to prevent their occurrence. Preventive actions will be appropriate to the effects of the potential problems.
A Procedure has been established to define requirements for
a) determining potential nonconformities and their causes,
b) evaluating the need for action to prevent occurrence of nonconformities,
c) determining and implementing action needed,
d) records of results of action taken, an
e) reviewing the effectiveness of the preventive action taken.

Exception also run C.I.P.s with Engineers and employees to address any internal issues deemed significant (See Intranet CIPS folder)

Exception also motivate staff by payment against improvement and new ideas (Golden Idea / Employee of the month)
A payment related bonus scheme is also in place when set targets are met.

Process Flow & Interactions



Management Representative

Top management has appointed the Quality Assurance Manager (Rob Hunter) as the AS/ISO Management Representative who, irrespective of other responsibilities, has responsibility and authority that includes
a) ensuring that the processes as needed for the Quality Management System are established, implemented and maintained,
b) reporting to top management on the performance of the Quality Management System and any need for improvement,
c) ensuring the promotion of awareness of customer requirements throughout the organisation, and
d) the organisational freedom and unrestricted access to top management to resolve matters pertaining to quality management.
e) Advising and communicating to all customers any changes to the QMS or management structure / processes / equipment / including QA representatives which will be from Exception QAM to customer QAM.

Related Procedures:

Management Responsibility	AP-500
Quality Policy	F-500-001
Planning of Product Realisation Processes	MP-710
Risk register and interested parties	FORM F-420-003
Planning of Product Realisation Processes	MP-710
Purchasing	AP-740
Control of Monitoring and Measuring Equipment	QP-760
Product Identification and Traceability	MP-753
Customer Property	MP-754
Configuration Management	MP-713

Management Responsibility	AP-500
Internal Audits	QP-822
Control of Nonconforming Product	QP-830
Corrective / Preventive Action	QP-852
Monitoring & Measuring of Product Realisation Process	MP-824

AS9100 and ISO 9001:2015 and to the quality management system requirements we have established,

QUALITY MANUAL REVISIONS

REV.	SECTION	CHANGES MADE	DATE
9	ALL	Compliance to AS9100 Rev B	Aug 2010
10	QLL	Compliance to AS9100 Rev C	Jan 2012
11	3.1	Scope : Add comment on manufacturing activities	July 2012
12	7.5	Note: 7.1.5.4 is excluded (Post-Delivery Support)	Sept 2013
13	ALL	General Review of procedure. Removal of Quality Policy and Organisational chart – created as stand-alone documents.	Oct 2014
14	ALL	Document format changed	Jan 15
15	6	1.2 Application – Further explanation of exemption of clause 7.5 Design & development.	Jan 15
16	ALL	QMS PROC.QUALITY.001 Renamed AP-50. Document reference numbers changed to be in line with clauses in the standard: AP-500 Management Responsibility replaced PROC.QUALITY.016, QP-760 Control of Monitoring & Measuring Equipment replaced PROC.QUALITY.115, MP-753 Identification & Traceability replaces PROC.QUALITY.004 and QP-822 Internal Audit replaces PROC.QUALITY.010. Includes reference to QP-830 Control of Non-conforming materials, QP-852 corrective & Preventative Action, MP-754 Customer Property, MP-713 Configuration Management, MP-824 Monitoring & Measuring of Product Realisation Process.	Nov 15
17	ALL	Full document review performed against requirement of AS9101. Document flow charts removed and updated process flow & interaction diagram included.	July 16
18	All	Full document review against AS9100 2015 REV D	June 17