esa

estec

European Space Research
and Technology Centre
Keplerlaan 1
2201 AZ Noordwijk
The Netherlands
T +31 (0)71 565 6565
F +31 (0)71 565 6040
www.esa.int

MEMO

Date	04/07/2014	**Ref**	QT/2014/172/SH
From	Stan Heltzel	**Visa**	T Ghidini, M Nikulainen
To	PCB manufacturers	**Copy**	PCB/SMT WG

Subject: Quarterly QA reports from PCB manufacturers

1 INTRODUCTION

PCB manufacturers qualified in accordance with ECSS-Q-ST-70-10C are listed on www.escies.org/pcb/. The qualification authority performs periodic audits of the PCB manufacturer as specified in clause 6.7.d. However, the PCB manufacturer has the responsibility to inform the qualification authority during the period of qualification in case of nonconformances or in case of process changes, as specified in clauses 6.7.a and 6.7.e.3. The present memo specifies requirements for this information to be provided in quarterly Quality Assurance (QA) reports.

2 PROCESS CHANGES

The qualified PCB manufacturing processes are specified in the Process Identification Document (PID), which is approved by the qualification authority. Changes in processes can include process parameters, chemistry, materials, process flow, inspections, etc. It is the responsibility of the PCB manufacturer to categorise process changes as "minor" or "major".

Minor changes may be implemented without prior approval of the qualification authority, provided that the notification of change includes acceptable verification results as specified in §3/1. However, it is recommended to request prior approval to the qualification authority, even when changes are classified as minor.

Requests for major changes shall be submitted to the qualification authority for approval, as specified in §3/2.

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3 QA REPORTS

The PCB manufacturer shall issue to the qualification authority on the first working day of every quarter a QA report. It is recommended that the PCB manufacturer organises a telecon with the qualification authority to review the QA report. The contents of the QA report shall include the following information, as a minimum:

1. Notifications of minor process changes, including:
   a. Description of old and new process
   b. Justification for change
   c. Justification for categorisation as "minor"
   d. Reference to process instruction in PID
   e. Results of verification tests and inspections
   f. Notification of change to main customer for ECSS PCBs

2. Request for major process changes, including:
   a. Description of old and new process
   b. Justification for change
   c. Justification for categorisation as "major"
   d. Reference to process instruction in PID
   e. Qualification test plan, for approval by the qualification authority
   f. Notification of change request to main customer for ECSS PCBs

3. Notification of major process changes, including:
   a. The approved request for major process changes (as specified in §3/2)
   b. Qualification test report
   c. Approval of change from main customer for ECSS PCBs

4. Overview of internal nonconformances, scrap, cause, yield and corrective action. This should be expressed per month in absolute numbers and relative to the production in accordance with applicable PIDs for each technology.

5. Overview of external nonconformances, cause and corrective action. This should be expressed per month in absolute numbers and relative to the production in accordance with applicable PIDs for each technology.

6. Overview of Key Performance Indicators (KPI) such as On Time Delivery (OTD). This should be expressed per month relative to the production in accordance with applicable PIDs for each technology.

7. Overview of planned and implemented investments.

8. Changes in personnel and organigram.

9. Overview of major visits by customers or by certification bodies.