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**Systronic**  
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**France**

Our ref.            ESA-TECMSP-LE-013945

Noordwijk, 06/05/2019

VISA: T Rohr (TEC-MSP)

**Subject: Qualification renewal of epoxy PCBs from Systronic**

Dear Mr Mougenot,

Systronic submitted two PCBs of rigid and rigid-flex FR4 epoxy technology to ESA for qualification renewal in May and Jun 2018.

The rigid technology was found acceptable as reported in ESA-TECMSP-RP-010239.

The rigid-flex PCB showed two nonconformances for pad lift and for delamination of the coverlay, as reported in ESA-TECMSP-RP-010748. ESA requested root cause investigation and corrective actions in ESA-TECMSP-LE-010850. Systronic provided this in SY 955-18 - rev 6. This describes a process change for adhesion promotion of coverlay for all epoxy and polyimide technology. In addition, the report shows a comprehensive evaluation of pad lift after incremental rework, without non-conforming results. Systronic has implemented information to customers about the propensity for pad lift of epoxy PCBs in the MRR and the applicable PIDs.

Furthermore, Systronic has completed a Process Change Notification on electroless copper, as reported in 190108-PCN electroless copper change ver F. This affects all PCB technology.

The qualification renewal, corrective actions and the PCN have been reviewed and approved by CNES, ESA and Systronic's main industrial customers. Systronic is considered qualified in accordance with ECSS-Q-ST-70-60C for the manufacture of Printed Circuit Boards as follows:

- Rigid non-sequential FR4 epoxy PCBs in accordance with PID 1 v11 **until 1 Sep 2020**
- Rigid-flex non-sequential FR4 epoxy PCBs in accordance with PID 4 v11 **until 1 Jun 2020**

Best regards,

Stan Heltzel  
Materials & Processes Section