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**Systronic**  
**att. Mr X Mougenot**  
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Our ref.           ESA-TECMSP-LE-017049

Noordwijk, 10/01/2020

VISA:             T Rohr (TEC-MSP)

**Subject: Qualification status of rigid polyimide PCBs from Systronic**

Dear Mr Mougenot,

Systronic submitted a rigid polyimide PCB to ESA for qualification renewal in April 2019. The evaluation of the sample is reported in ESA-TECMSP-RP-014431. A non-conformance was observed because of insufficient annular ring. Corrective actions have been requested to Systronic in letter ESA-TECMSP-LE-015178.

Systronic provided an investigation of preventive and corrective actions in an 8D report with reference NCI n°520, as well as report SY 983-19. Some actions that require investment are ongoing, which is treated as normal work. A third-party evaluation is reported with reference 1943a1 with acceptable outcome.

In addition, Systronic performed delta qualification for a Process Change Notification of electroless copper, as reported in 190108 SY 962-18 ver F. As a result, the PIDs have been updated to issue 10. This has been reviewed and approved by ESA, CNES and Systronic's main customers.

Systronic is considered qualified in accordance with ECSS-Q-ST-70-60C for the manufacture of Printed Circuit Boards as follows:

- Rigid sequential polyimide PCBs as per PID 6 v10 until 1 Feb 2021

Best regards,

Stan Heltzel  
Materials & Processes Section