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Our ref.

ESA-TECQTM-LE-002170

Noordwijk, 30/06/2016

VISA: T Ghidini (TEC-QTM), M Nikulainen (TEC-QT)
CC: W Veith (TEC-Q) *pp.*

Subject: Qualification Status of Invotec Tamworth

Dear Mr Swarbrick,

Invotec submitted a first PCB of polyimide sequential rigid-flex technology to ESA for qualification renewal in Apr 2015 and a second PCB in Apr 2016.

The first qualification renewal failed due to interconnect defect, as reported in QT-8338. The second submission for qualification renewal was delayed due to inhomogenous aspects of no-flow prepreg. The second submission for qualification renewal included a non-conformance due to insufficient solder coverage, as reported in GS0000471. Investigations and corrective actions for all areas of concern have been completed, and accepted by ESA. The details of this disposition can be found in ESA-TECQTM-LE-001295.

Invotec is considered qualified in accordance with ECSS-Q-ST-70-10C for the manufacture of Printed Circuit Boards as follows:

- Rigid-flex sequential polyimide PCBs in accordance with PID SM19T.iss.02 **until 1 July 2017**

Best regards,

Stan Heltzel
TEC-QTM Material Technology Section