


Amphenol-Invotec Tamworth
att. H Swarbrick
Hedging Lane
Tamworth
B77 5HH
United Kingdom

Our ref. ESA-TECMSP-LE-007074

Noordwijk, 06/10/2017


VISA: T Ghidini (TEC-MS)

Subject: Qualification Status of Invotec Tamworth

Dear Mr Swarbrick,

Invotec provided a second submission of a PCB of polyimide sequential rigid technology to ESA for qualification renewal in Jul 2017. This PCB is manufactured with Arlon 85N material. ESTEC reported the acceptable evaluation in ESA-TECMSP-RP-006962.

This evaluation followed on from the first submission that failed, as reported in ESA-TECMSP-LE-004562. Invotec provided an investigation and corrective action report with reference ESA/Rigid Qual/2017/C, which was accepted by ESA.

Invotec performed the following delta qualifications which are approved by ESA:

- SDM86T for PCB design in conformance with ECSS-Q-ST-70-12 with reduced track width and spacing;
- SDM87T for asymmetric build-up;
- SDM98T for Ventec polyimide.

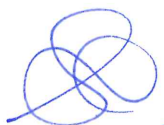
Invotec submitted a PCB of polyimide sequential rigid-flex technology to ESA for delta qualification of Ventec material in June 2017. ESTEC reported the acceptable evaluation in ESA-TECMSP-LAB-RP-006538.

An audit has been conducted and reported in ESA-TECMSP-MIN-5224 and the successful closure of associated actions is reported in ESA-TECMSP-MIN-6309. The technology domain of the delta qualifications has been included in the updated PID.

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

- Rigid sequential polyimide PCBs in accordance with PID SM18T.iss.03 **until 1 Nov 2018**

Best regards,



Stan Heltzel
Materials & Processes Section