

ESA ESTEC Keplerlaan 1 2201 AZ Noordwijk The Netherlands

TESAT Spacecom

att. T Baisch Gerberstrasse 49 71522 Backnang Germany Our ref. ESA-TECMSP-LE-2024-001736

Noordwijk, 25/03/2025

VISA: T Rohr, S Heltzel (TEC-MSP)

Subject: Delta qualification TESAT rigid epoxy HTg PCBs

Dear Mr Baisch,

TESAT submitted a sequential rigid epoxy HTg PCB with molybdenum core and SnPb finish for qualification renewal to ESA. The results are reported in ESA-TECMSP-TR-2024-001691. The inspected board is acceptable for qualification renewal according to ECSS-Q-ST-70-60C.

In addition, TESAT has updated the PID to include delta qualified parameters. The qualified parameters are reported in TESAT qual reports (ref. TD01983971, TD01919026, TD01936308 and 63.0120.200.70QPR). See TESAT MoM 12th March 2025 for the discussion and agreements.

Parameters delta qualified include:

- Reduction of min internal track width to 100µm
- AIN-inlays
- Soldermask

Additionally, TESAT has qualified epoxy HTg PCBs with HDI technology to include laser drilled microvias of 180 um diameter. The qualification results are reported in TESAT reports 63.0125.200.88QPR and 63.0125.200.89QPR.

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

- Rigid standard epoxy HTg PCBs as per paragraph 4.1 of PID 63.1500.571.03PID issue E until March 2027
- Rigid HDI epoxy HTg PCBs as per paragraph 4.2 of PID 63.1500.571.03PID issue E until March 2027

Best regards,

Jussi Hokka Materials & Processes Section