ESA ESTEC
Keplerlaan 1
2201 AZ Noordwijk
The Netherlands

TESAT Spacecom

att. T Baisch
Gerberstrasse 49
71522 Backnang
Germany

Our ref. ESA-TECMSP-LE-2024-003429

Noordwijk, 25/03/2025

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

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Thomas Rohr
Digitally signed by Thomas Rohr
Date: 2025.03.26 16:55:40 +01'00'

Stan Heltzel
2025.03.25 16:29:19 +01'00'

Subject: Qualification of TESAT for High Speed HDI PCBs

Dear Mr Baisch,

TESAT submitted a qualification for sequential rigid High Speed HDI PCBs with ENIPIG finish and Megtron 7N/V dielectric. The qualification plan is documented in 63.0120.200.86QPV and the qualification results are reported in TESAT reports 63.0125.200.86QPR, 63.0125.200.88QPR and 63.0125.200.89QPR. In addition, TESAT has successfully performed several project delta qualifications to demonstrate the capability of the High Speed HDI technology.

TESAT additionally submitted a PCB sample to ESA for evaluation. The evaluation results are reported in ESA-TECMSP-TR-2023-000771. The inspected board and the test coupon showed no deviation from the specification.

In addition, TESAT submitted their PID describing the qualified domain for this High Speed HDI technology. The PID specifies a qualified domain including laser drilled microvias of 150 and 180 um diameter, core vias of min 250 um drill diameter, PPE material Megtron 7N/V from Panasonic, and ENIPIG surface finish with solder mask, among other technology parameters. See TESAT MoM 12th March 2025 for the discussion and agreements.

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

- High Speed HDI PCBs as per PID 63.1500.571.04PID issue C until March 2027

Best regards,

Digitally signed by
Jussi Hokka
Date: 2025.03.25
15:05:06 +01'00'

Jussi Hokka
Materials & Processes Section