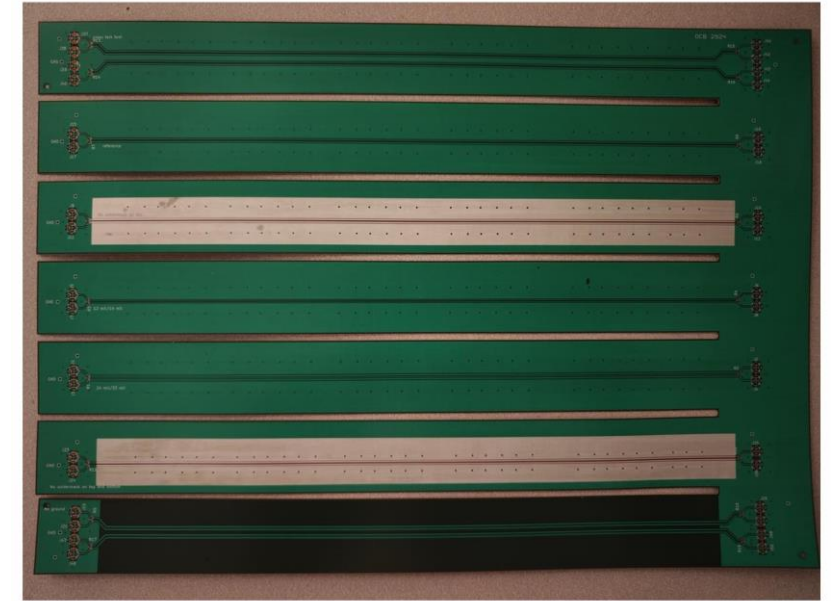


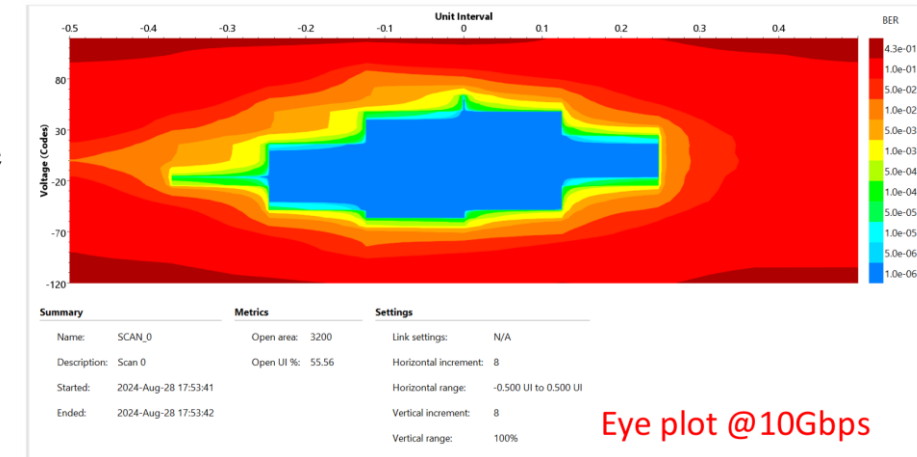
Summary and Outlook from Sep 12, 2024

- Received a 2nd set of AI-based FPC prototypes from OMNI:
 - Double metal layer with 25 cm long differential lines for high-speed data transmission;
 - Soldering and vias facilitated by selective Cu plating;
 - IBERT test done with FPGA suggests that these FPC support GTY communication @10Gbps;
 - Improved high frequency signal transmission property based on S21 measured up to 4 GHz;
 - Total material budget of the FPC is 0.136% X₀ (TBC).



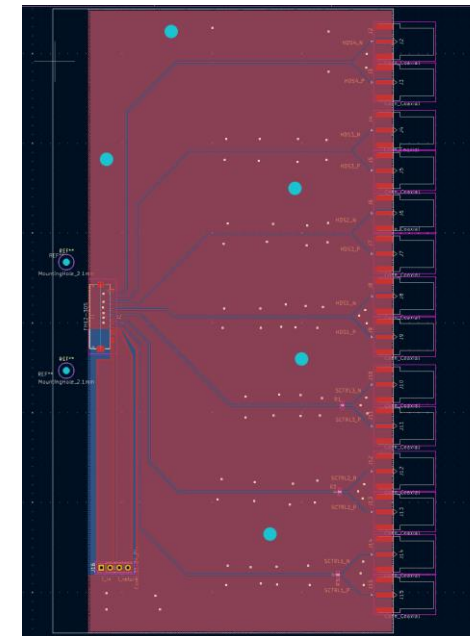
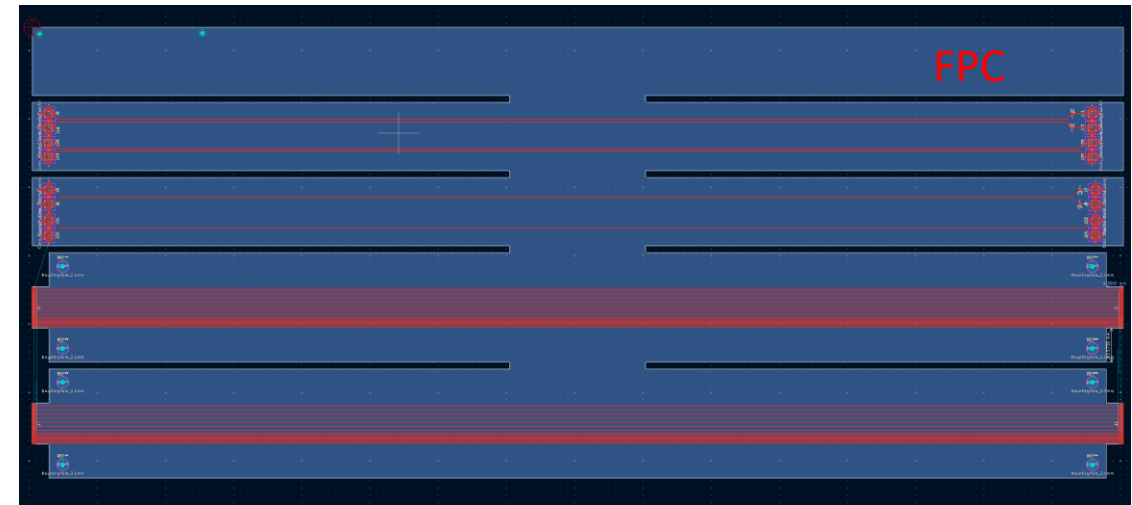
- Plan for the 3rd set

- Reduce total material budget;
- Manufacture FPC based on LTU/STFC design but modified to be consistent with vendor's design rules if there is no objection.



Updates for Today

- The 3rd set of FPC is still under design:
 - Discussing with OMNI about the plan to optimize material budget (in progress);
 - Two strips have interface pins that share the same structure as the LTU/STFC design;
 - Corresponding interface board;
 - Two strips are used to test the effect of AC coupling on the signal;
 - One strip for the physical property test;
 - No spTAB bonding;
 - Minimum trace width/distance is 6/6 mil.
- Plan:
 - Manufacture FPC and interface board as soon as we confirm the material budget optimization plan.



Interface board