Hybrid module

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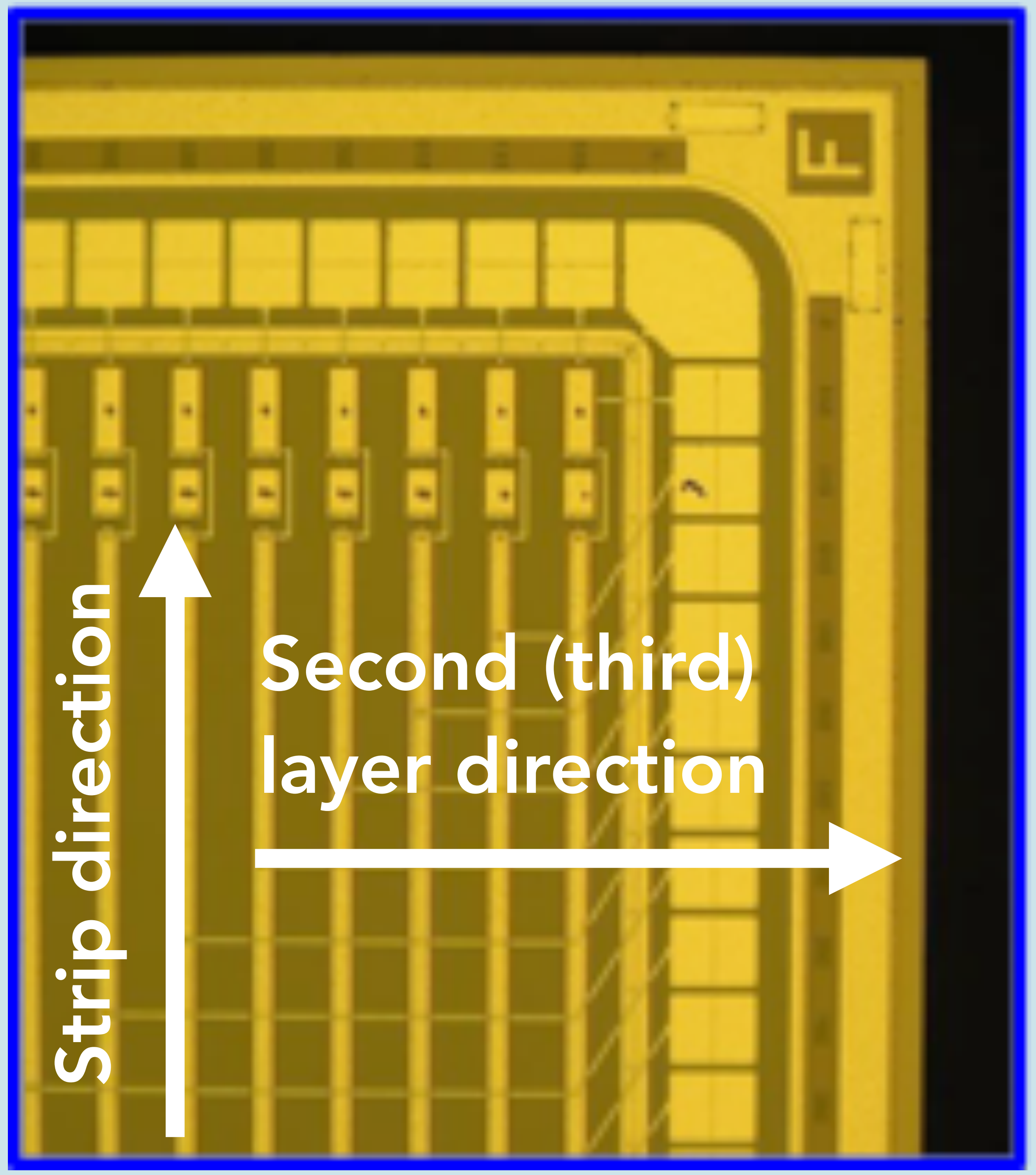
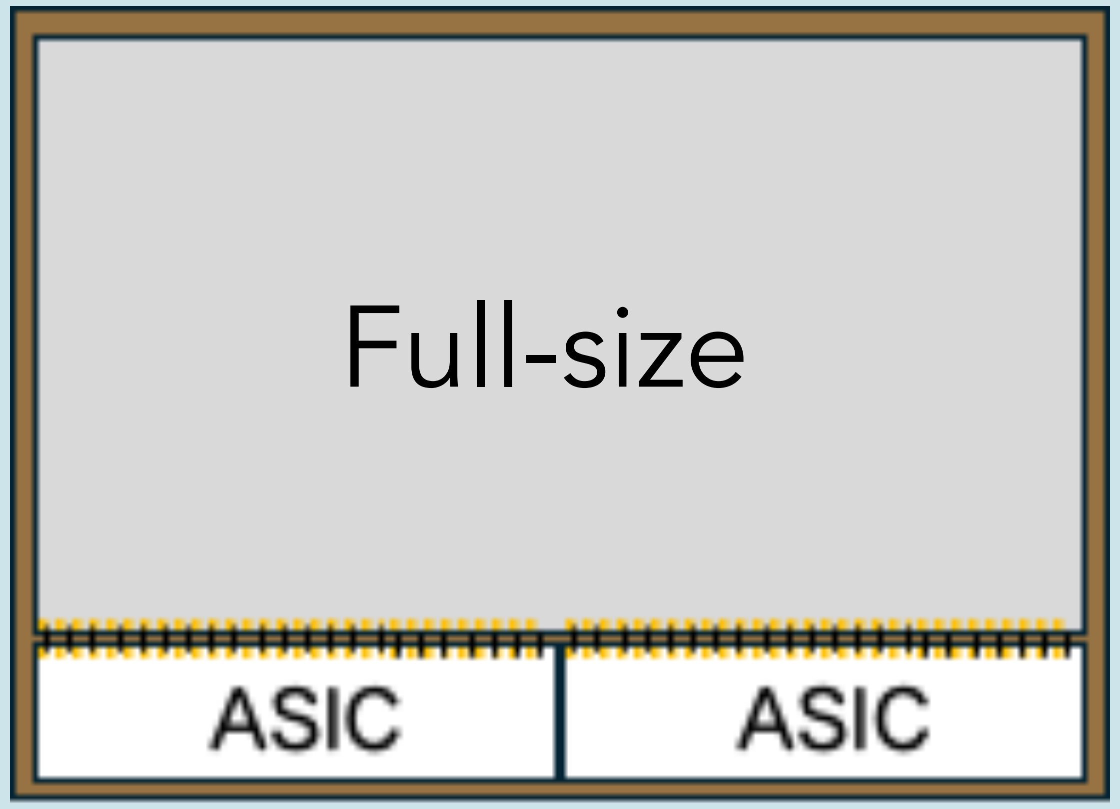
Idea of Hybrid Module
Double (Triple) metal layer

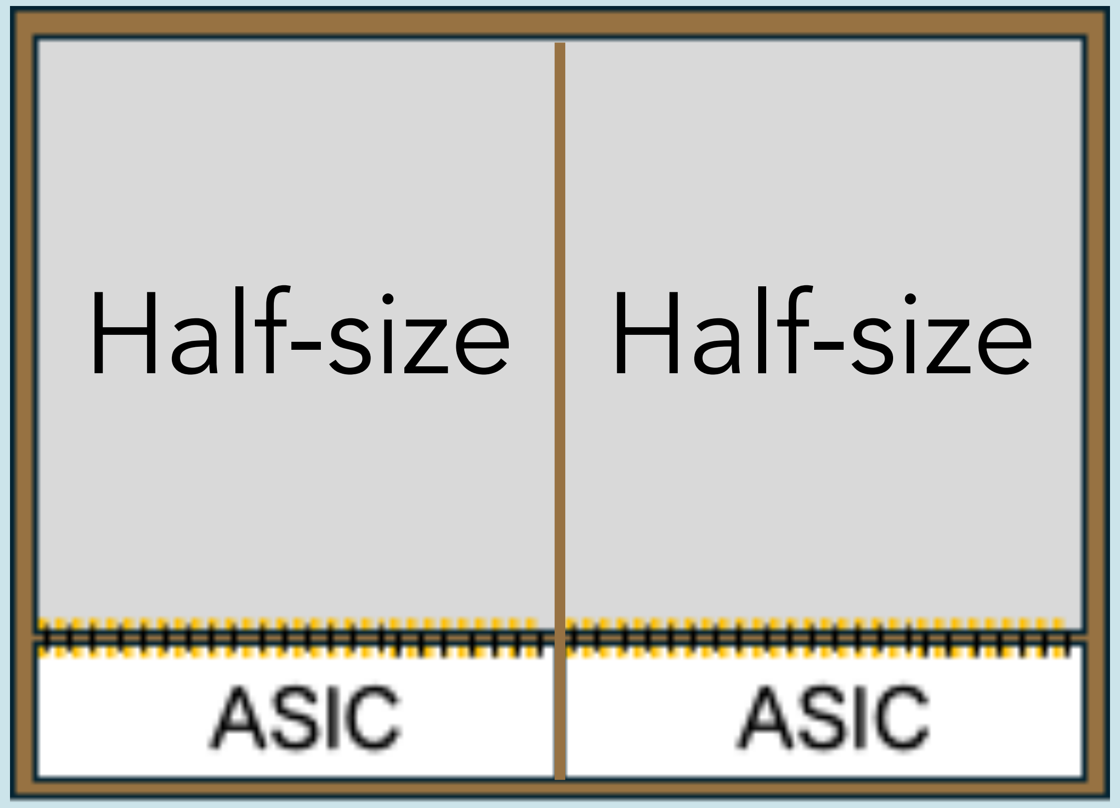


Cross-talk in the second layer possibly occurs
—> need to be check

Double layer case:
Second layer metal pitch is 1 cm / 64 = 156 um

Triple layer case
Second layer metal pitch is 1 cm / 32 = 302 um
Third layer metal pitch is 1 cm / 32 = 302 um

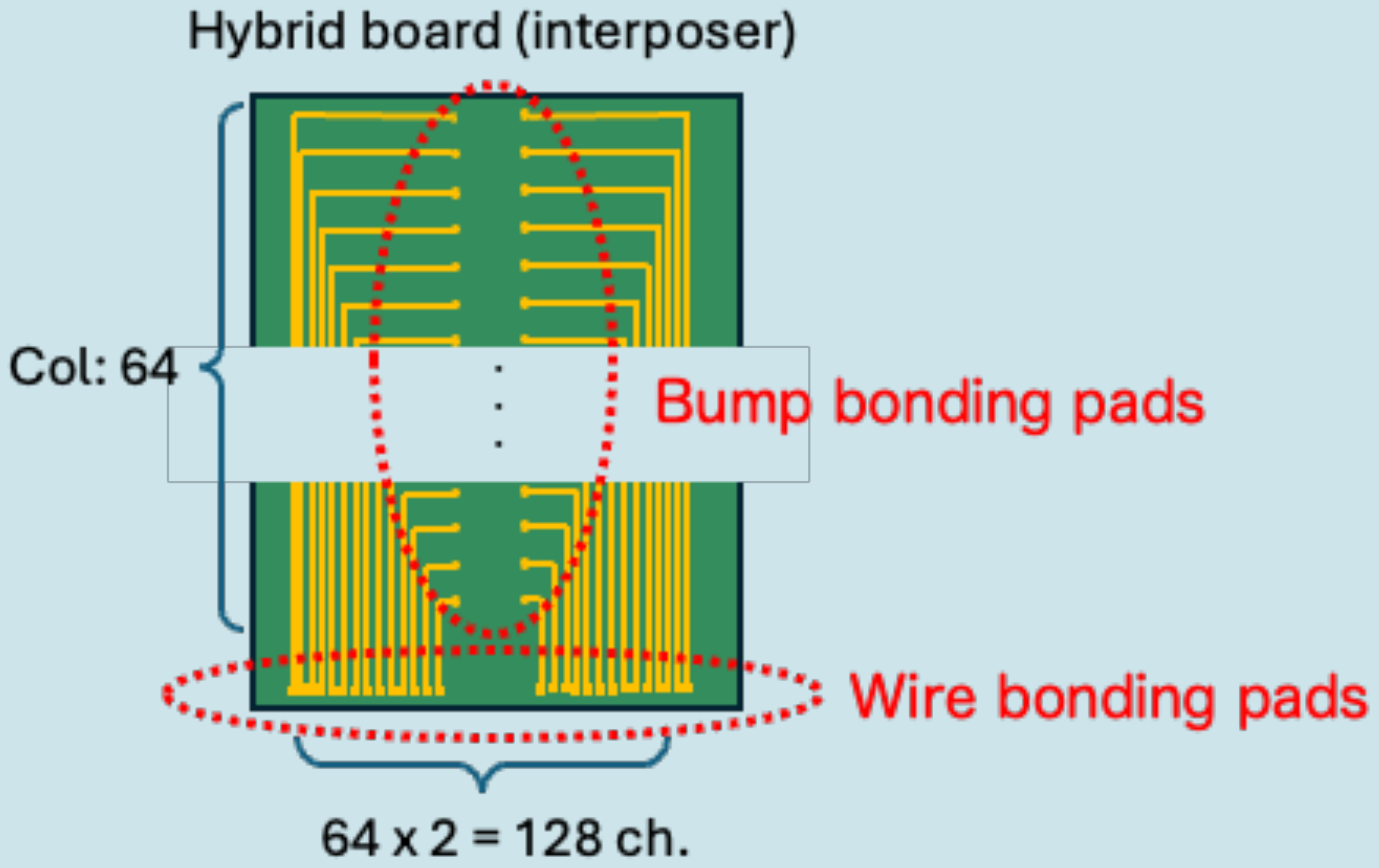


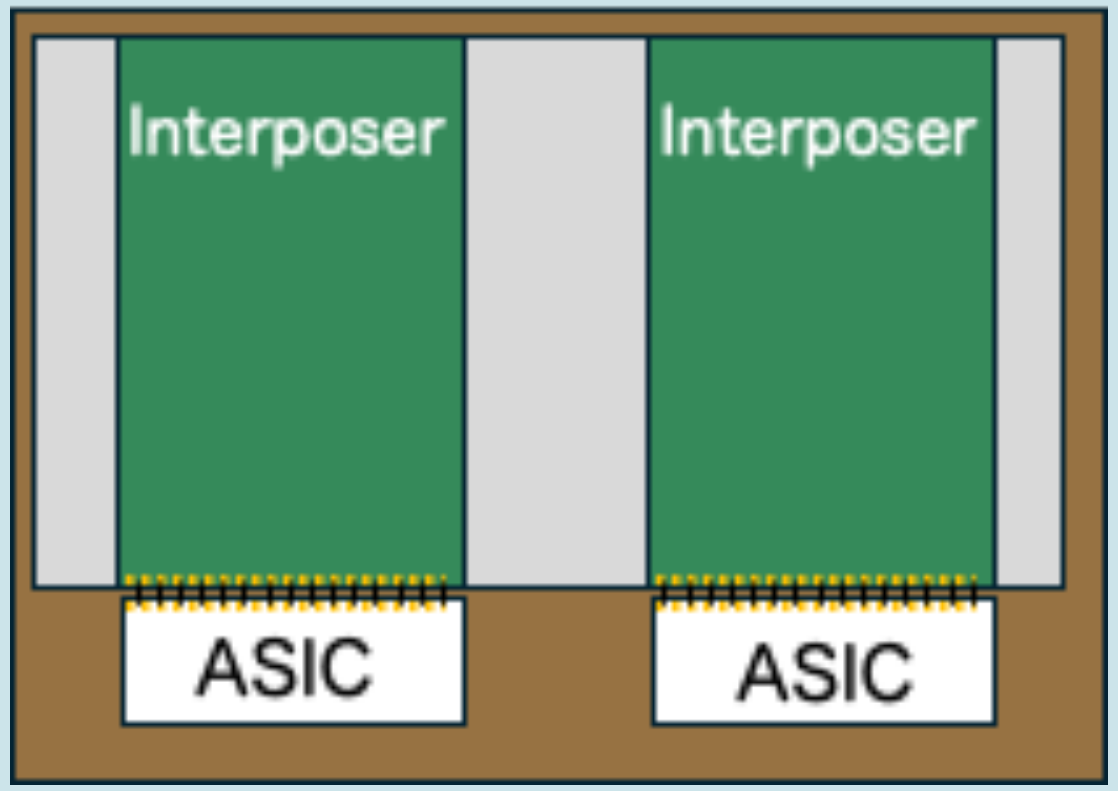


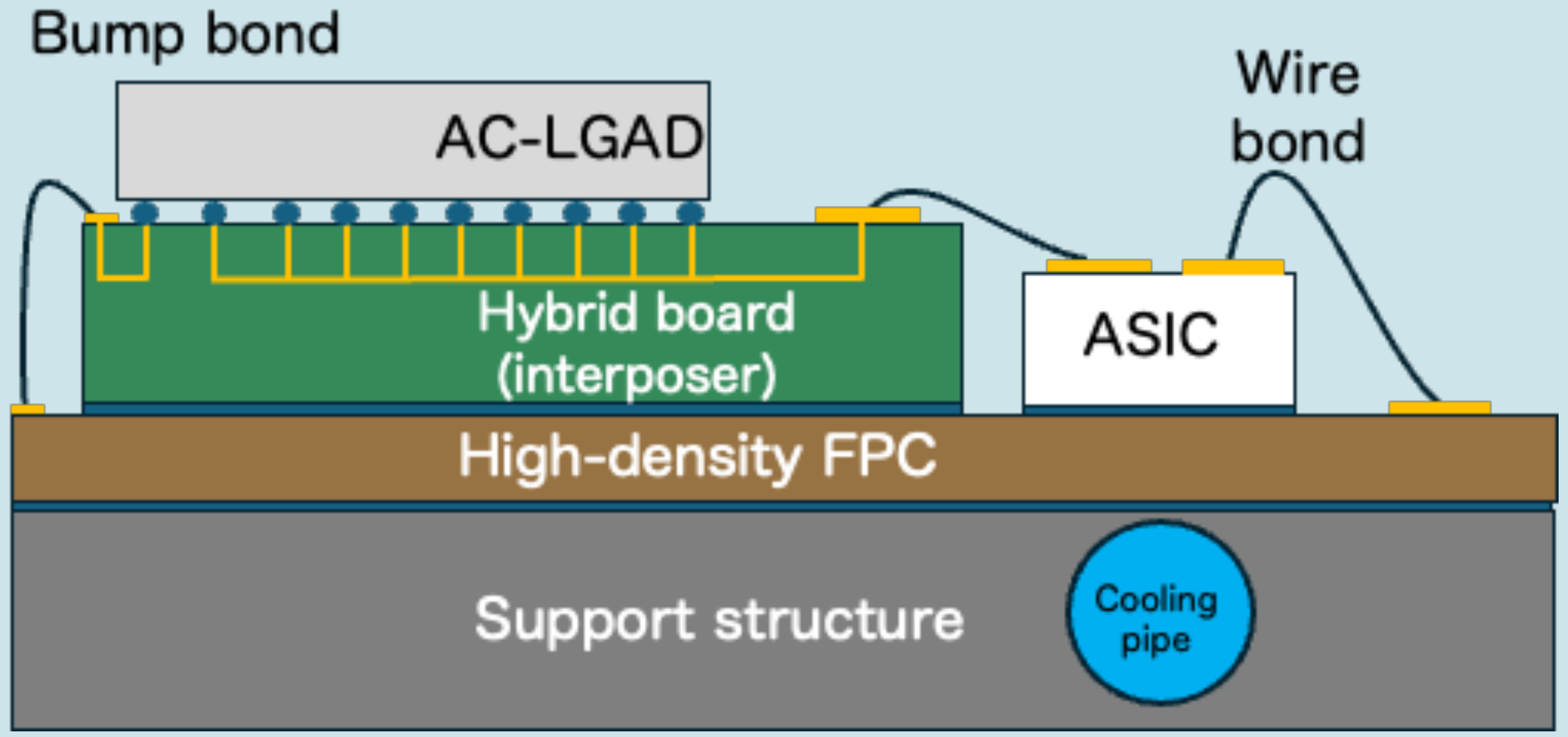
Low material budget with keeping ASICs away from a sensor
Need to ask HPK/BNL for a prototype

Idea of Hybrid Module
Hybrid FPC (Interposer)

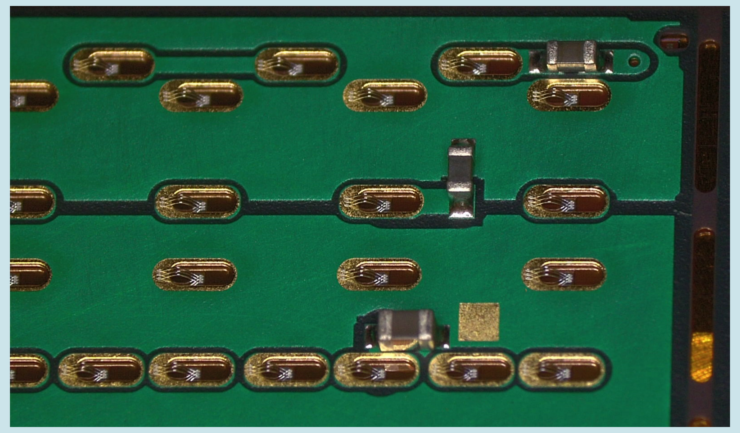
Cross-talk in the interposer possibly occurs
—> need to be check
Material budget increases







ALICE MFT FPC with wire bonding hole



We can check the feasibility with the sensors we already have
Increase material budget and signal decay