On-wafer DfMUX

Advantages
- Relatively minor modification to an existing/proven system.
- Simple MUX structure (LC resonator) for focal plane integration.
- Current system already satisfies some of the requirements. (e.g., thermal loading on the focal plane)

Development need
- Simplification of interconnect: current system requires bonding \( \sim N_{\text{TES}} \).
- High-frequency \( \rightarrow \) Small feature size \( \rightarrow \) integrated focal plane.
- High-quality high-frequency resonators development in progress.
- Need TES operation be confirmed, and low parasitic to be achieved. (10~20 MHz confirmed by Phil)

Possible arrangement for a resonator-integrated pixel

![Possible arrangement for a resonator-integrated pixel](image)

Development / evaluation in progress for high-frequency low-ESR LC resonators

![Development / evaluation in progress for high-frequency low-ESR LC resonators](image)