Nordic and KEK module comparison

Modules with ASICs from the same wafer

Nordic	ASIC wafer	S-curves
202203800006	Z39993-W08[80,125]	Large osc
202203800007	Z40617-W03[49,92]	Small osc.
202203800008	Z40617-W03[94,152]	Very small osc.
202203800009	Z40617-W03[153,192]	Large osc.
202203800010	Z40615-W23[73,90]	Small osc.
202203800013	Z40860-W04[68,139]	Small osc.
KEK	**ASIC wafer**	**S-curves**
20220170200057	Z39993-W08[51,79]	M00 small osc.
20220170200061	Z39993-W08[201,227]	Small osc. in Link1
20220170200193	Z40617-W03[194,232]	No osc.
20220170200210	Z40615-W23[28,68]	Small osc. in Link1
20220170200219	other+Z40860-W04[16,58]	No osc.

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Another look of S-curves

ASIC wafer	Nordic	KEK
Z39993-W08	Large osc.	M00 or Link1 small osc.
Z40617-W03	Large and small osc.	No
Z40615-W23	Small osc.	Link1 small osc.
Z40860-W04	Small osc.	No

Observations

1. KEK has seen 50% coincidence in the oscillation/instability

2. Trigger of the oscillation/instability is the chip, see M00 in 20220170200057. If the trigger chip is in the link1 (towards the end of chip chain), it may trigger full chips in the link1.

3. Although the chance is 50%, there may be something in the Nordic testing setup (or module assembling)... Obviously need further investigation.