

Tests of the irradiated R5 module in the cold box

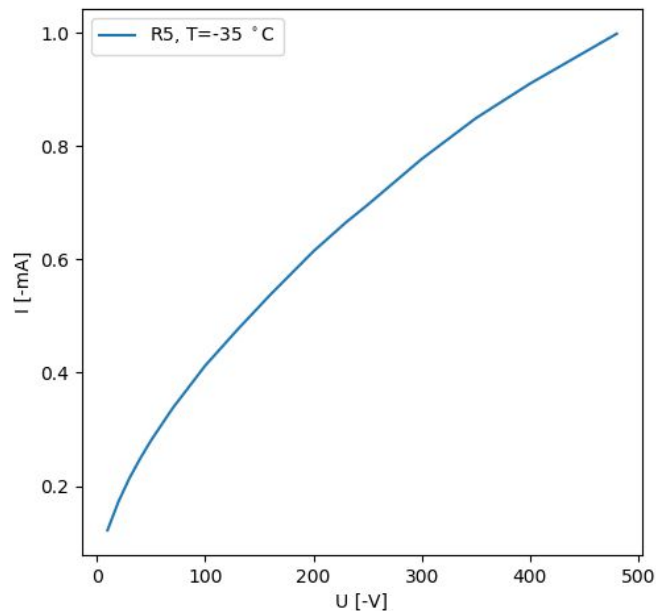
November tests: added PB capacitor and fixed wire bonds

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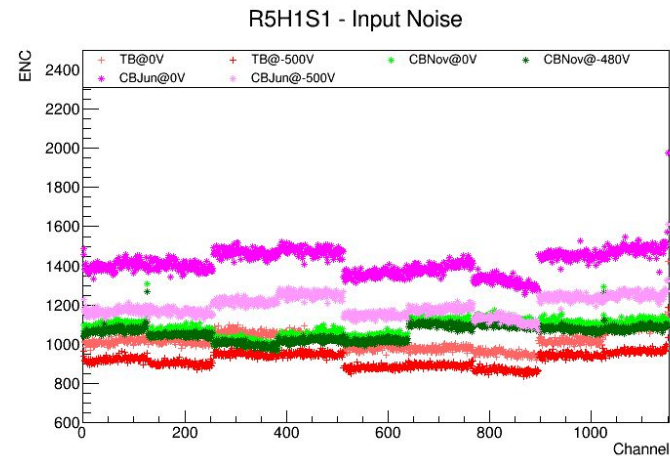
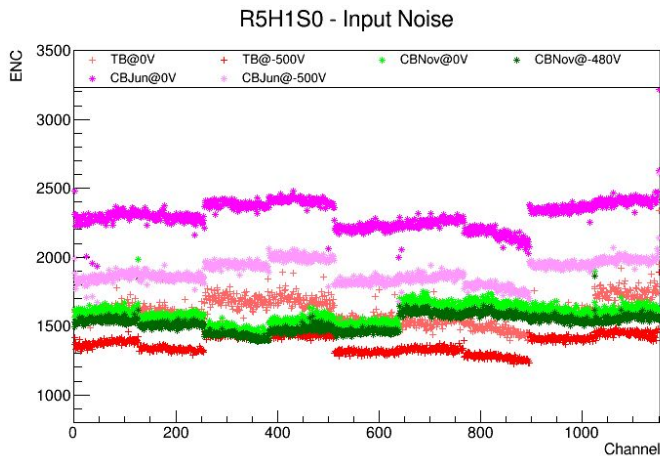
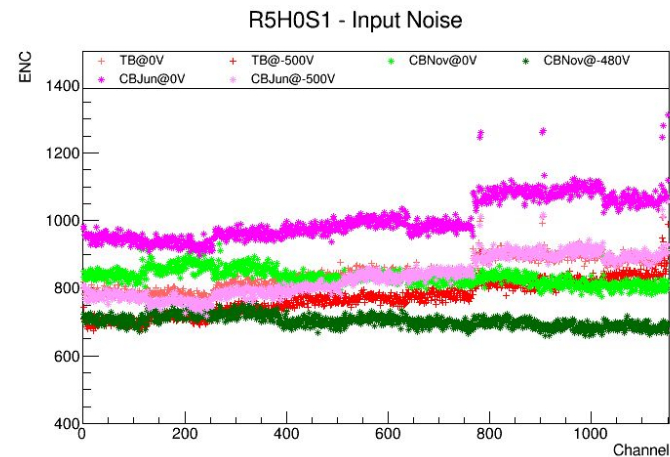
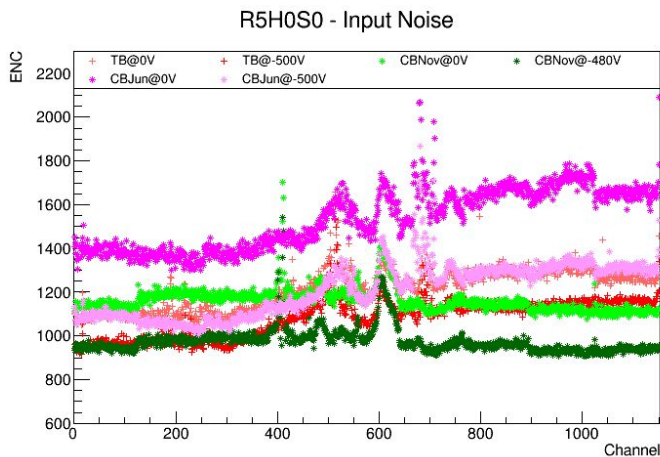
Introduction

- Confluence page
<https://confluence.desy.de/display/ITkModuleTesting/2021/12/13/Testing+irradiated+R5+for+December+2021+TB>
- Firmware:
nexysv_itsdaq_vb640_FDP_STAR.bit
- Module tested in the cold box at -35°C (at 0 V and -480 V)
NTC temperatures: -27°C , -24°C , -9.7°C
- Compliance of 1 mA reached with -480 V
- Results compared with the cod-box tests from June and the test-beam results from last year.

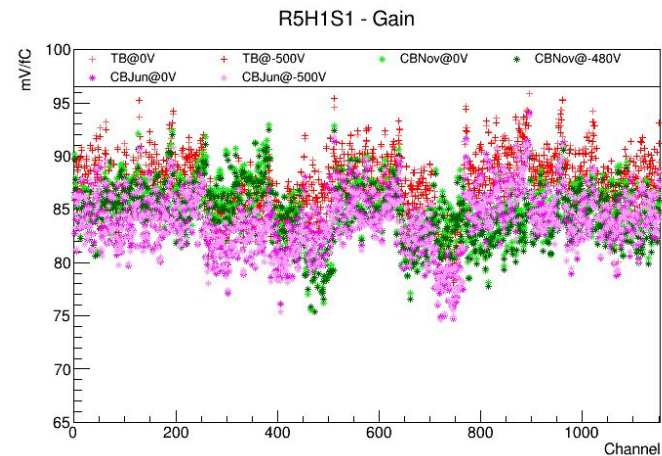
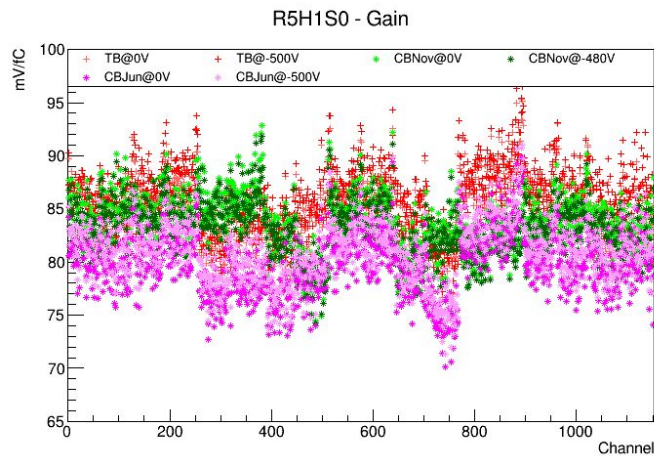
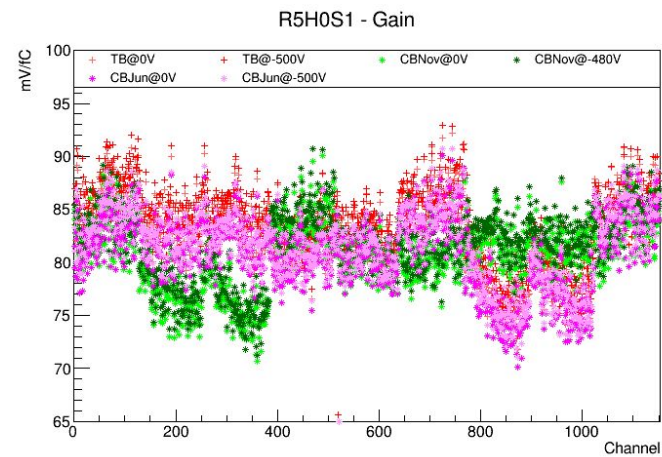
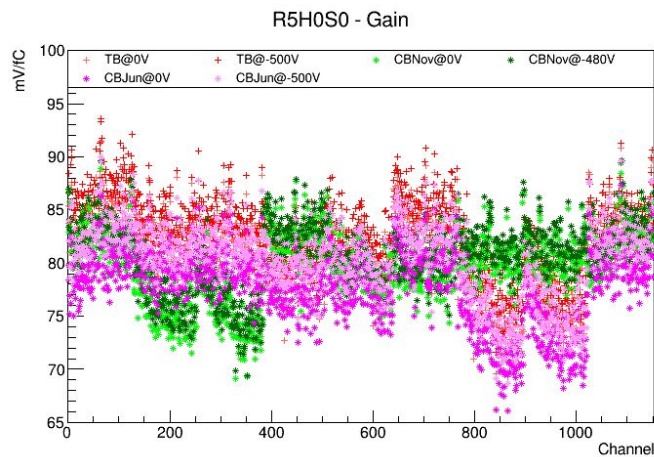


Noise

Improvements in all cases, especially for the R5M0 side



Gain



Vt50

