

Cherry-picking Coldbox updates

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Test stand

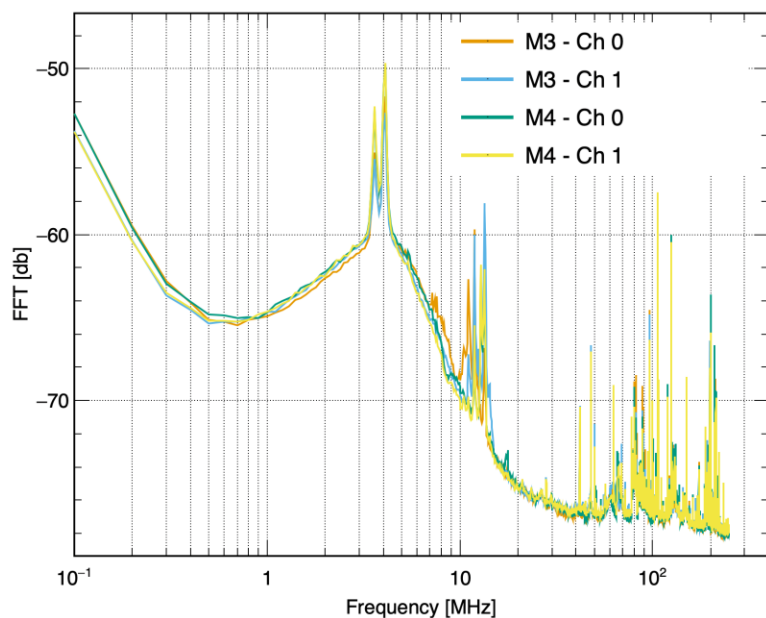
Calibration - DAPHNE

“Preliminary” results

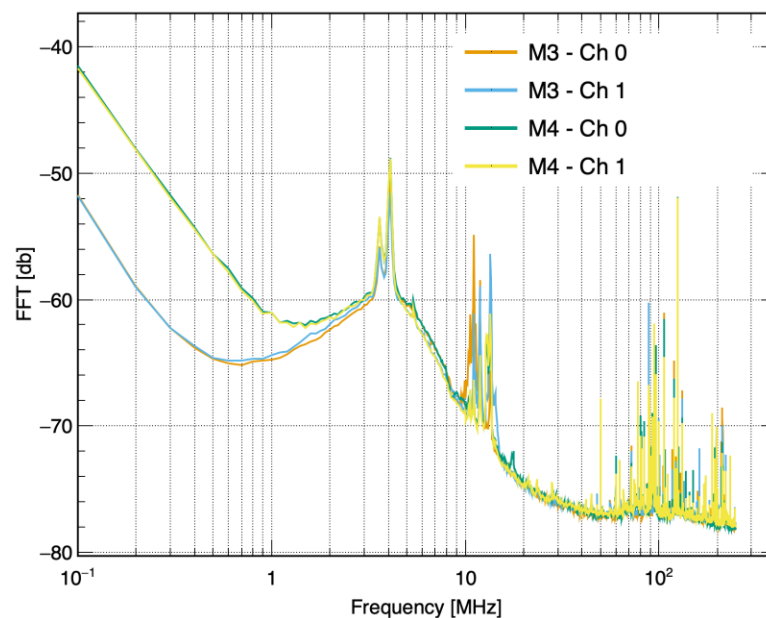
Should fix issues in SPE ampl computation (so also DR)

25 tick																
BIAS VOLT	31,5V						32,5V									
	CH0			CH2			CH0					CH2				
V GAIN	0,566	0,614	0,67	0,566	0,614	0,67	0,6038	0,6519	0,7	0,7087	0,782	0,6038	0,6519	0,7	0,7087	0,782
INT LOW	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625
INT UP	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650
GAIN	273,6	232,2	180,8	285	244,1	193,9	289,9	240,9	193,8	185,8	146,9	312,7	256,1	206,7	201,1	155
SNR	4,2	4,0	3,9	4,2	4,3	4,0	5,1	4,7	4,5	4,5	3,9	5,4	4,7	4,5	4,5	4,0
SPE AMPL*	17	15	15	15	14	13	17	15	11	11,399	10	16	14	11	11	10
DYN RANGE*	855	1039	1053	927	1079	1198	929	1077	1392	1389	1549	930	1089	1369	1433	1599

Data from two consecutive days. SiPM @ 20V (below breakdown)

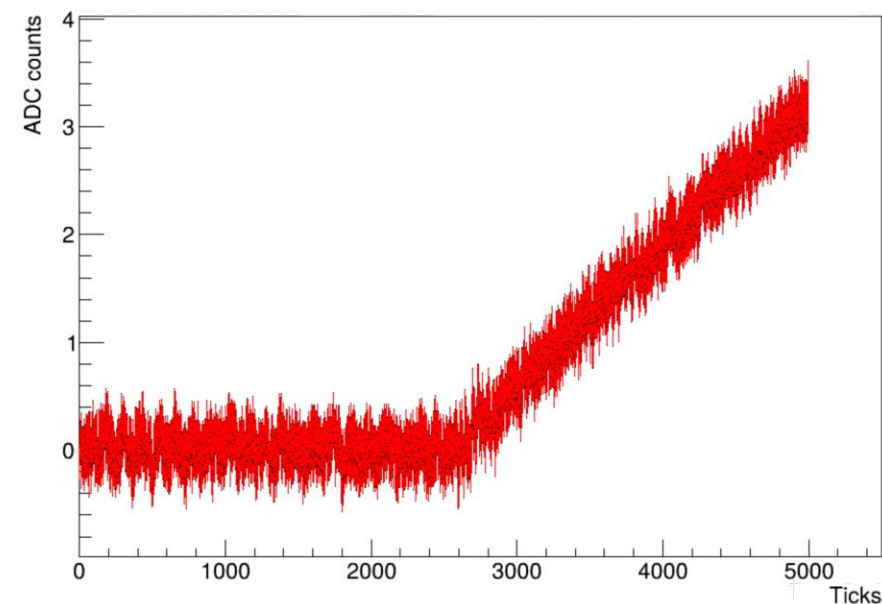


03-12-2024

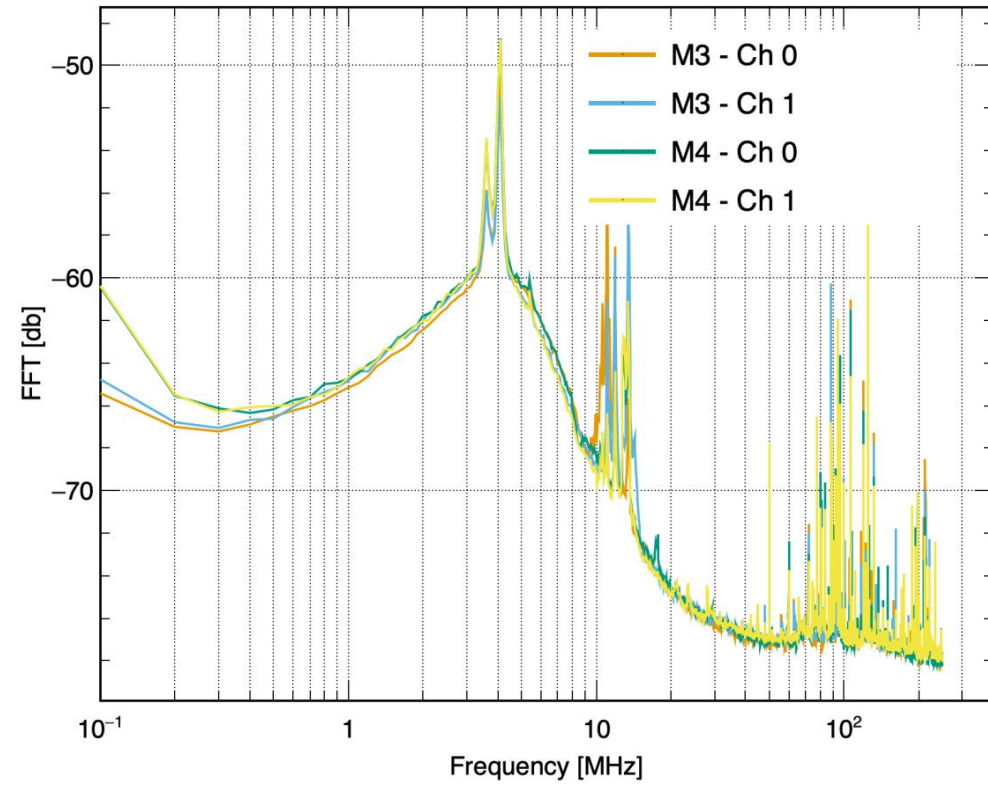
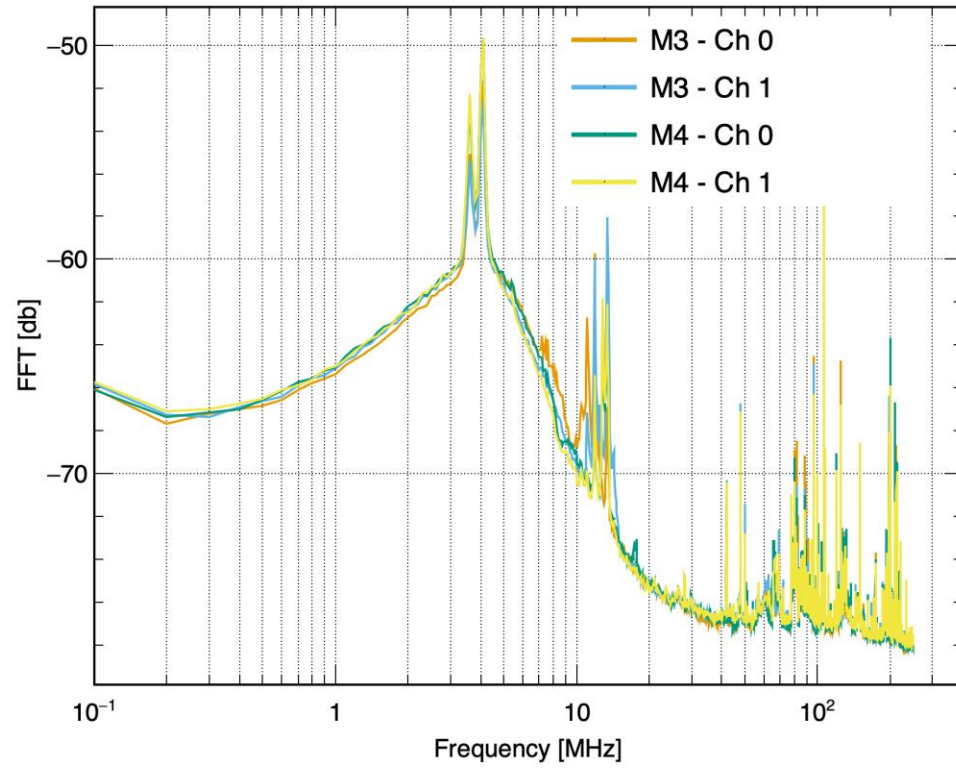


04-12-2024

Coherent noise induced by the LED



Data from two consecutive days. SiPM @ 20V (below breakdown)

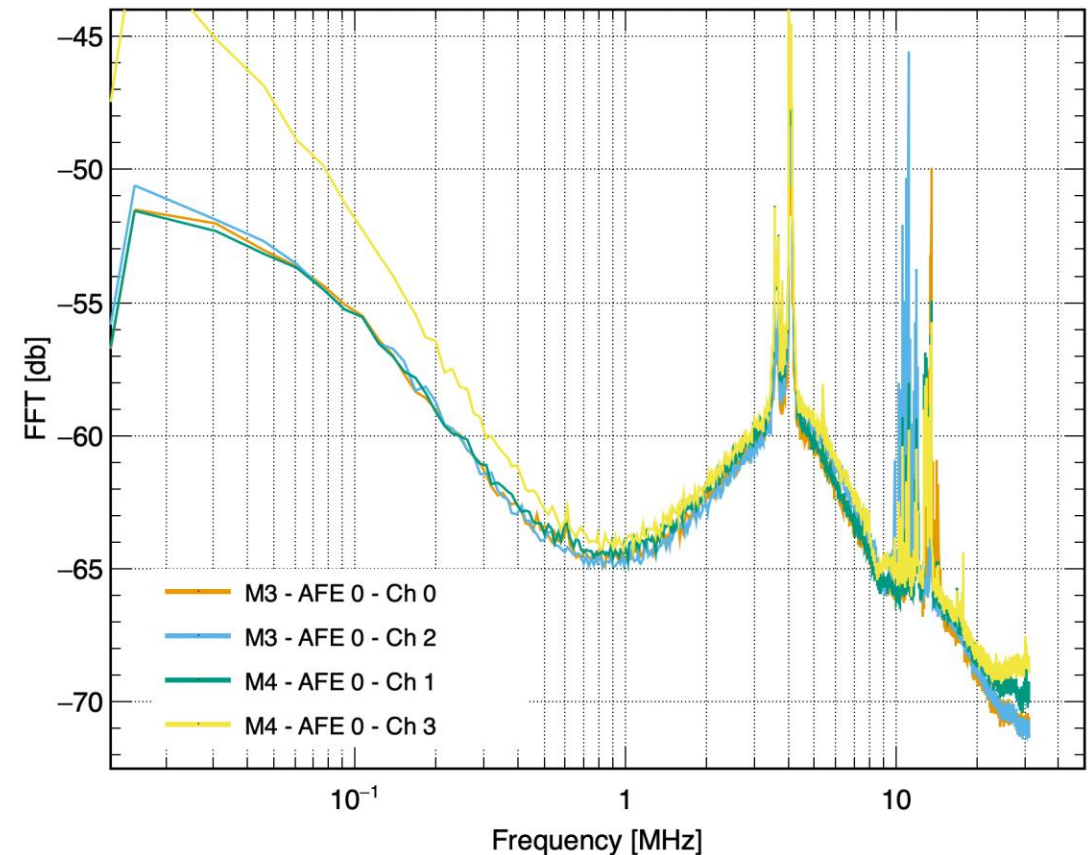
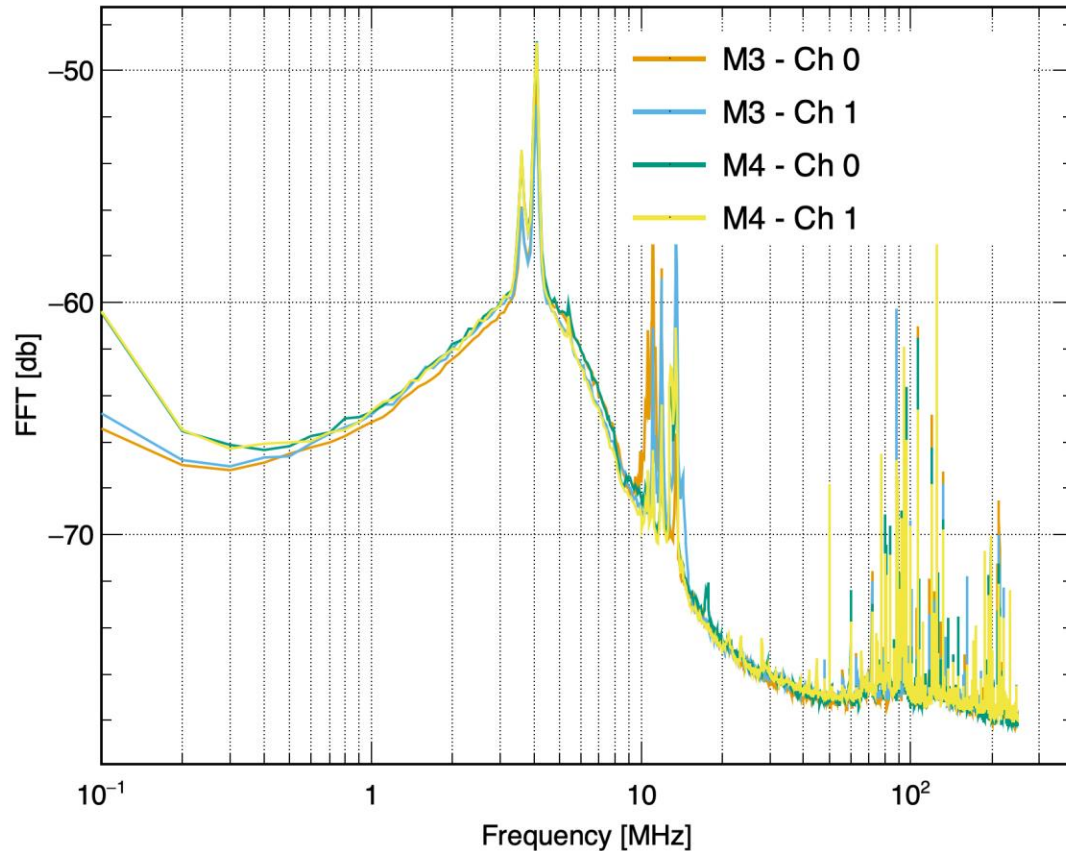


CAEN - DAPHNE

Noise – HD modules

Comparison between CAEN (left, 500 Ms/s, 10 μ s) and DAPHNE data (right, 62.5MS/s, 65.5 μ s)

Same feature after coherent noise removal, that affected only the CAEN

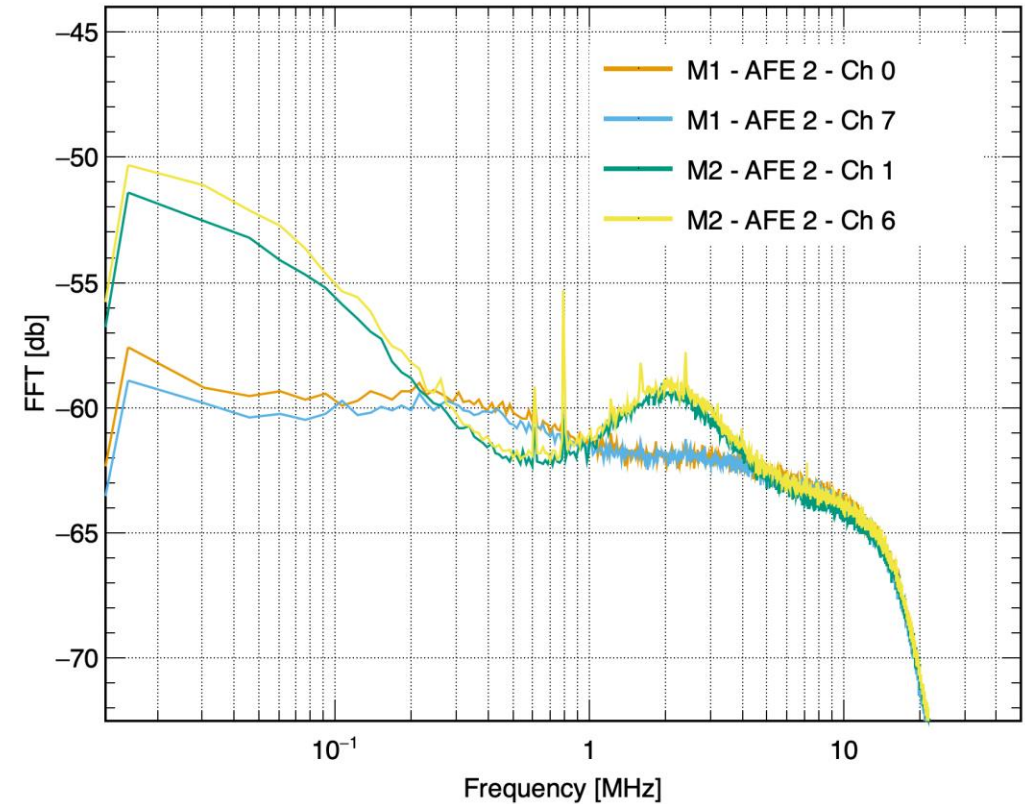
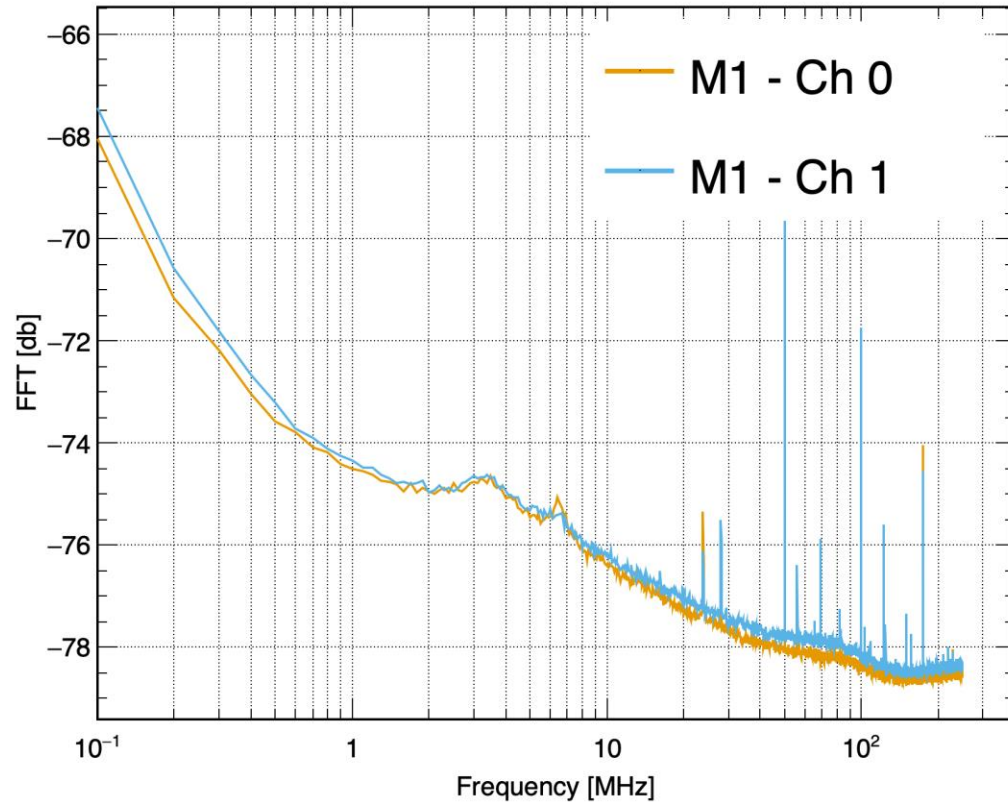


CAEN - DAPHNE

Noise – VD modules

M? has only 3 flexes

To do: list the differences between the two modules



Coldbox

Calibration – CAEN – M3

“Preliminary” results

We will give a complete overview next week

3/12/2024												
INT LOW	2650											
INT UP	2850											
	CHO											
BIAS VOLT	31	31,5	32	32,5	33	33,5	31	31,5	32	32,5	33	33,5
GAIN	1439	1614	1812	1989	2168	2333,0	1448	1629	1798	1984	2176	2351
SNR	6,8	7,9	8,5	9,2	10,2	9,2	6,3	7,3	8,0	9,3	9,7	10,5
SPE AMPL	6	5	6	6	6	7	5,06	5,67	4,98	5,42	6,37	7,09
DYN RANGE	2397	2560	2234	2170	2140	1899	2567	2306	2572	2324	2101	1912