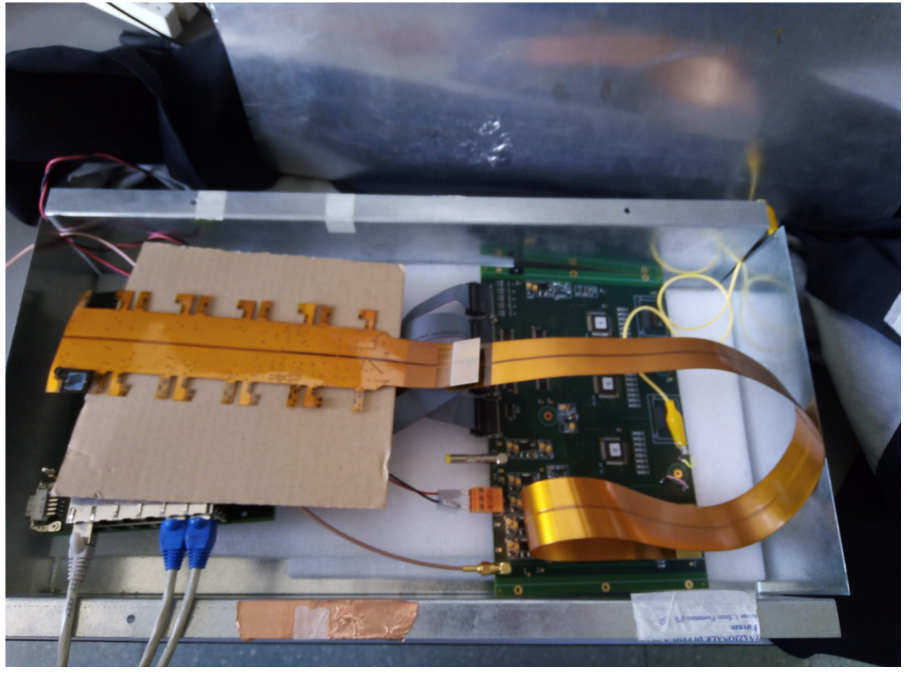
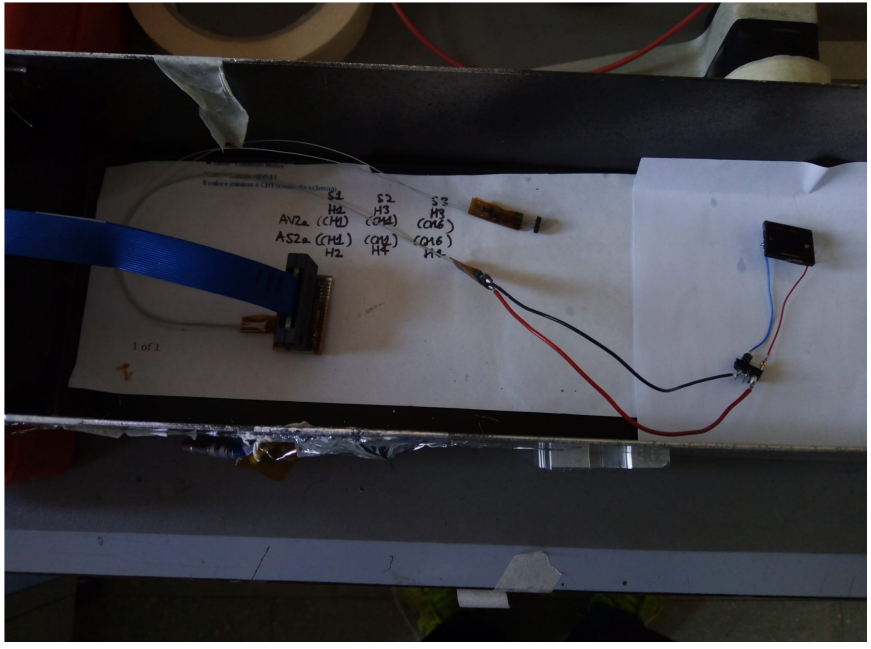
Studio del rumore

Board 4
oldLPD → chip 0, chan 0
SPD → chip 1, chan 0
Scolopendra A1 (new)
Measure of pedestals





	Std dev [ADC]→ oldLPD	Std dev [ADC] → SPD	Correlation
Microcoaxial cable + samtec blue cable	18	16	0.68
Scolpendra + samtec blue cable	22.5	19.5	0.60
Scolopendra (HIDRA and ROC2 inside Faraday cage)	15	12.5	0.18
Microcoaxial cable (HIDRA and ROC2 inside Faraday cage)	12.5	9	0.26
Scolopendra + kapton neck (HIDRA and ROC2 inside Faraday cage)	23	19.5	0.09
Scolopendra + kapton neck (a fraction long circa as the samtec blue cable is outside the Faraday cage)	23	20	0.12

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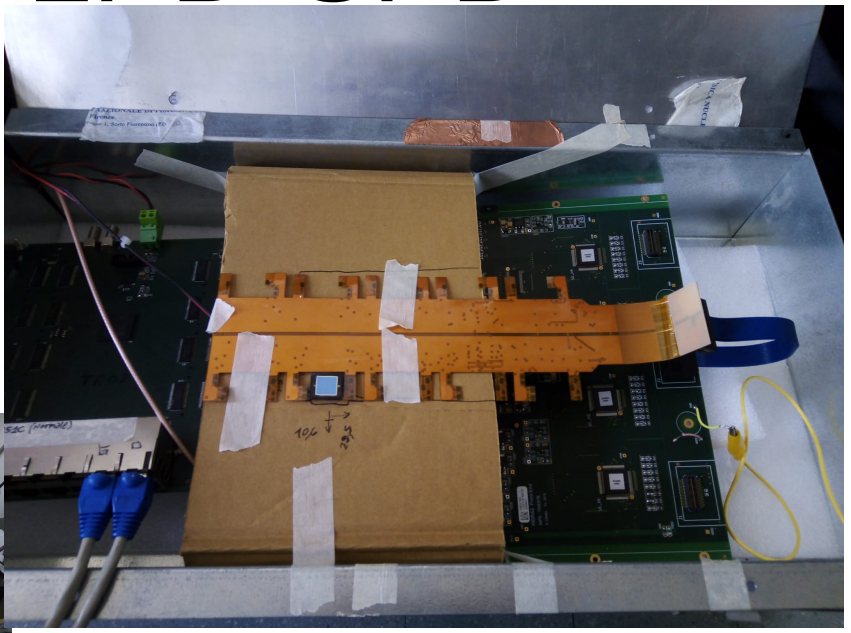
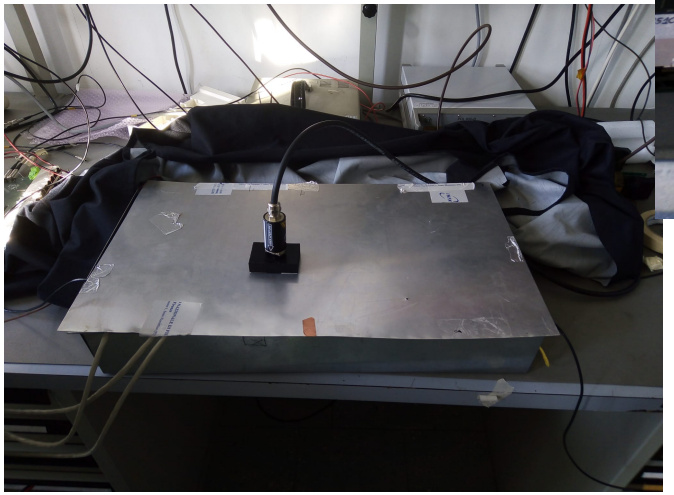
Samtec blue cable	+7 ADC
Microcoaxial cable	-(3~4) ADC

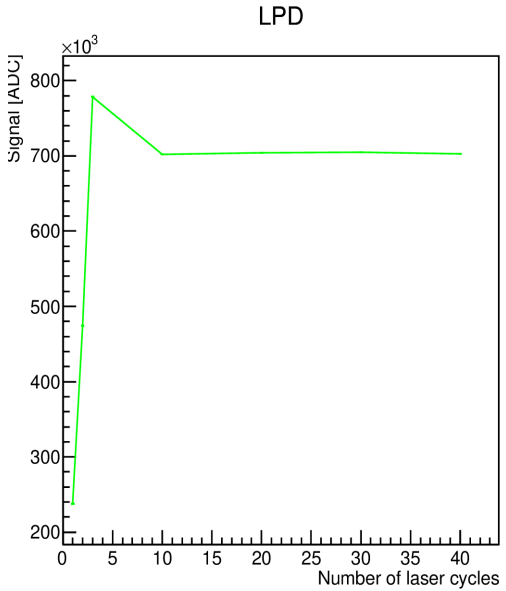
Measures on the coupling of adjacent channels LPD-SPD

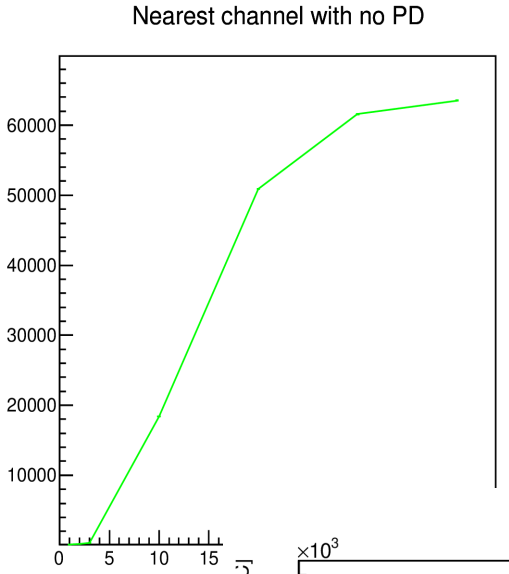
Only 1 oldLPD connected
Tunable laser source

Configurations:
-Kapton cable+samtec blue cable
-Kapton cable
-Microcoaxial cables
  +samtec blu cable



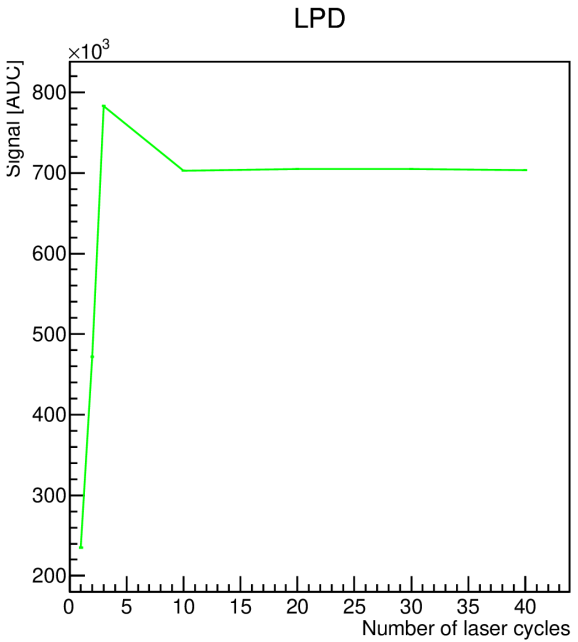


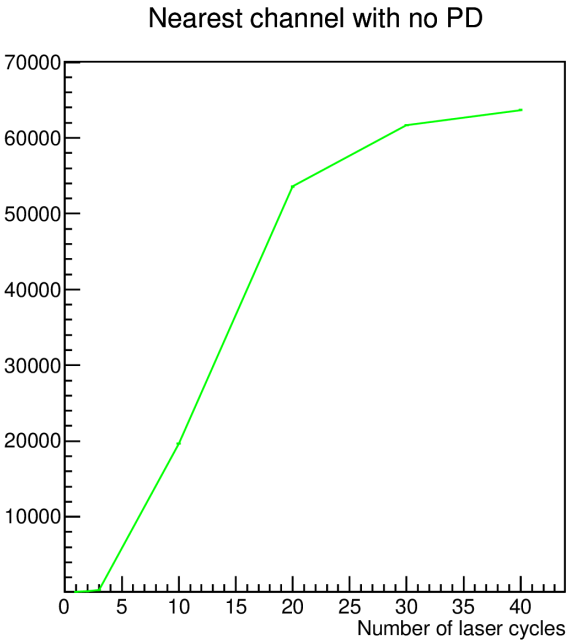




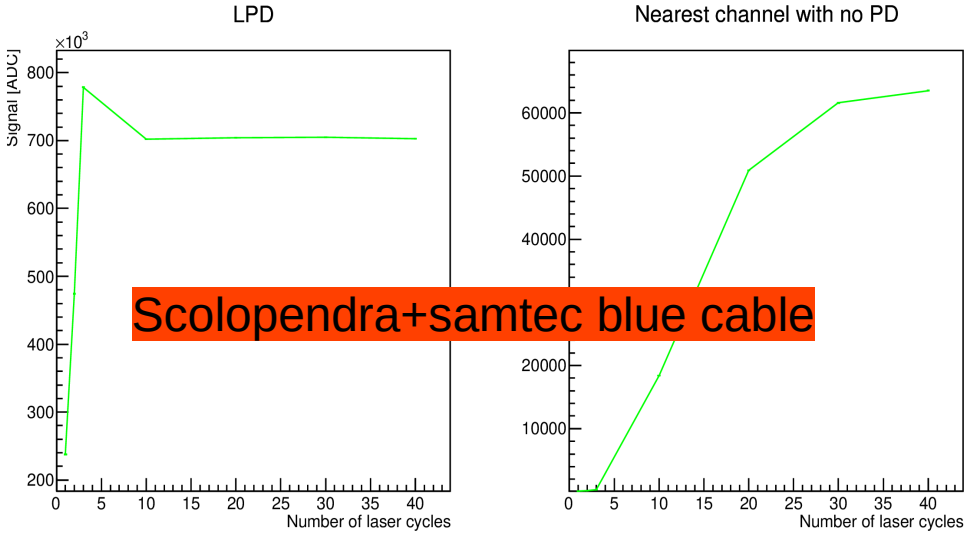
Scolopendra+samtec blue cable

Scolopendra

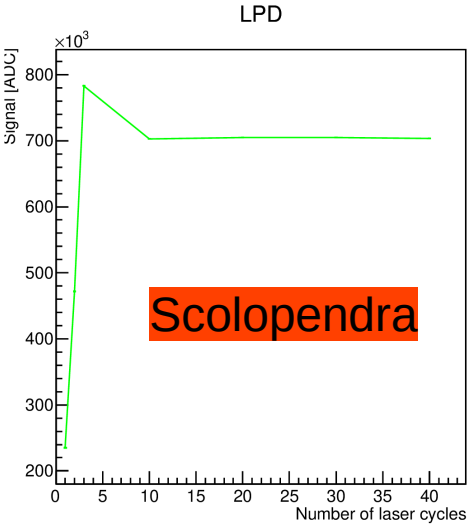




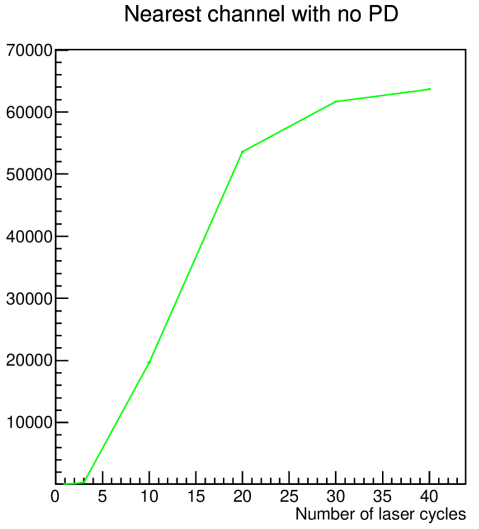
The difference between the two configurations is less tha 1%.

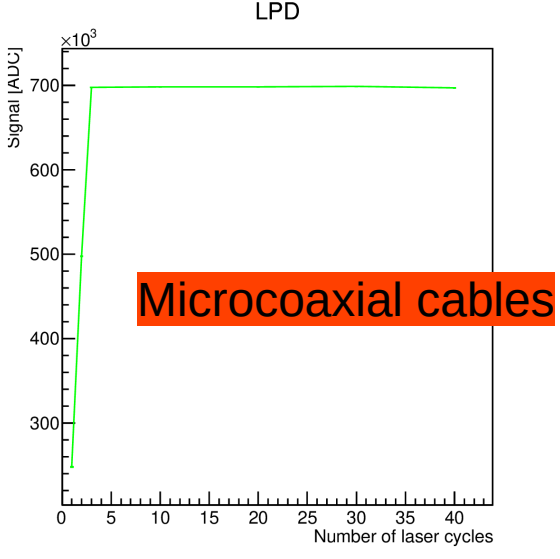


Scolopendra+samtec blue cable

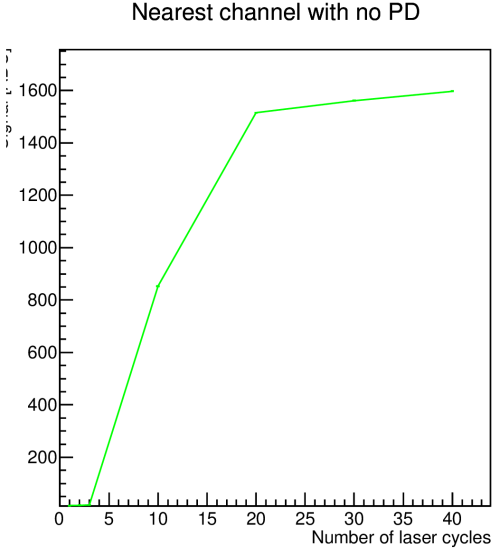


Scolopendra





Microcoaxial cables



In high saturation the value of the oldLPD channel is 7x10^5 ADC.

In the SMP channel:
-kapton cable: 63500 ADC
-microcoaxial: 1600 ADC