## Parameters for noise measurement:

- 10.5 mV per threshold DAC count.
- 6250 electrons per fC.
- Average gain $\approx$ 208 mV/fC.

### Parameters for gain and offset measurement:

- 8.5 mV per Calibration DAC count.
- 10.5 mV per Threshold DAC count.
- Charge injection capictor = 56 fF.
- ***n***-side Cal DAC: 2, 3, 4.
- ***p***-side Cal DAC: 61, 60, 59.

| Noise measurements for 100 ns shaping time | | | | | |
|---|---|---|---|---|---|
| | | Threshold counts | | electrons | |
| HDI | CAL DAC | n-side | p-side | n-side | p-side |
| H1-01 | $Q_n = 2$ | 1.21 | 1.26 | 382 | 397 |
| | $Q_n = 3$ | 1.32 | 1.41 | 417 | 444 |
| | $Q_n = 4$ | 1.51 | 1.53 | 475 | 484 |
| H1-04 | $Q_n = 2$ | 1.18 | 1.26 | 370 | 397 |
| | $Q_n = 3$ | 1.29 | 1.41 | 405 | 443 |
| | $Q_n = 4$ | 1.45 | 1.62 | 455 | 510 |
| H1-25 | $Q_n = 2$ | 1.15 | 1.23 | 362 | 387 |
| | $Q_n = 3$ | 1.28 | 1.38 | 402 | 434 |
| | $Q_n = 4$ | 1.50 | 1.55 | 472 | 487 |

| Noise measurements for 400 ns shaping time | | | | | |
|---|---|---|---|---|---|
| | | Threshold counts | | electrons | |
| HDI | CAL DAC | n-side | p-side | n-side | p-side |
| H1-01 | $Q_n = 2$ | 0.985 | 0.912 | 310 | 290 |
| | $Q_n = 3$ | 1.009 | 0.972 | 318 | 306 |
| | $Q_n = 4$ | 0.995 | 0.968 | 313 | 305 |
| H1-04 | $Q_n = 2$ | 0.987 | 0.909 | 311 | 286 |
| | $Q_n = 3$ | 0.983 | 0.955 | 310 | 301 |
| | $Q_n = 4$ | 0.998 | 0.966 | 314 | 304 |
| H1-25 | $Q_n = 2$ | 0.969 | 0.943 | 305 | 297 |
| | $Q_n = 3$ | 0.976 | 0.960 | 307 | 302 |
| | $Q_n = 4$ | 0.987 | 0.967 | 311 | 305 |

| Measured Gain | | | | | |
|---|---|---|---|---|---|
| | | counts / counts | | mV/fC | |
| HDI | Shaping | n-side | p-side | n-side | p-side |
| H1-01 | 100 ns | -9.27 | -9.79 | 204 | 216 |
| | 400 ns | -9.50 | -9.79 | 210 | 211 |
| H1-04 | 100 ns | -9.51 | -9.85 | 202 | 217 |
| | 400 ns | -9.68 | -9.73 | 213 | 215 |
| H1-25 | 100 ns | -9.05 | -9.18 | 200 | 203 |
| | 400 ns | -9.51 | -9.07 | 203 | 200 |

| Currents in mA | | | | | | |
|---|---|---|---|---|---|---|
| | p-side | | | n-side | | |
| HDI | A5 | D5 | A2 | A5 | D5 | A2 |
| H1-01 | 326 | 427 | 122 | 317 | 440 | 106 |
| H1-04 | 322 | 428 | 119 | 320 | 437 | 109 |
| H1-25 | 334 | 444 | 121 | 327 | 429 | 110 |