

Understanding the HV Scheme with DT1415

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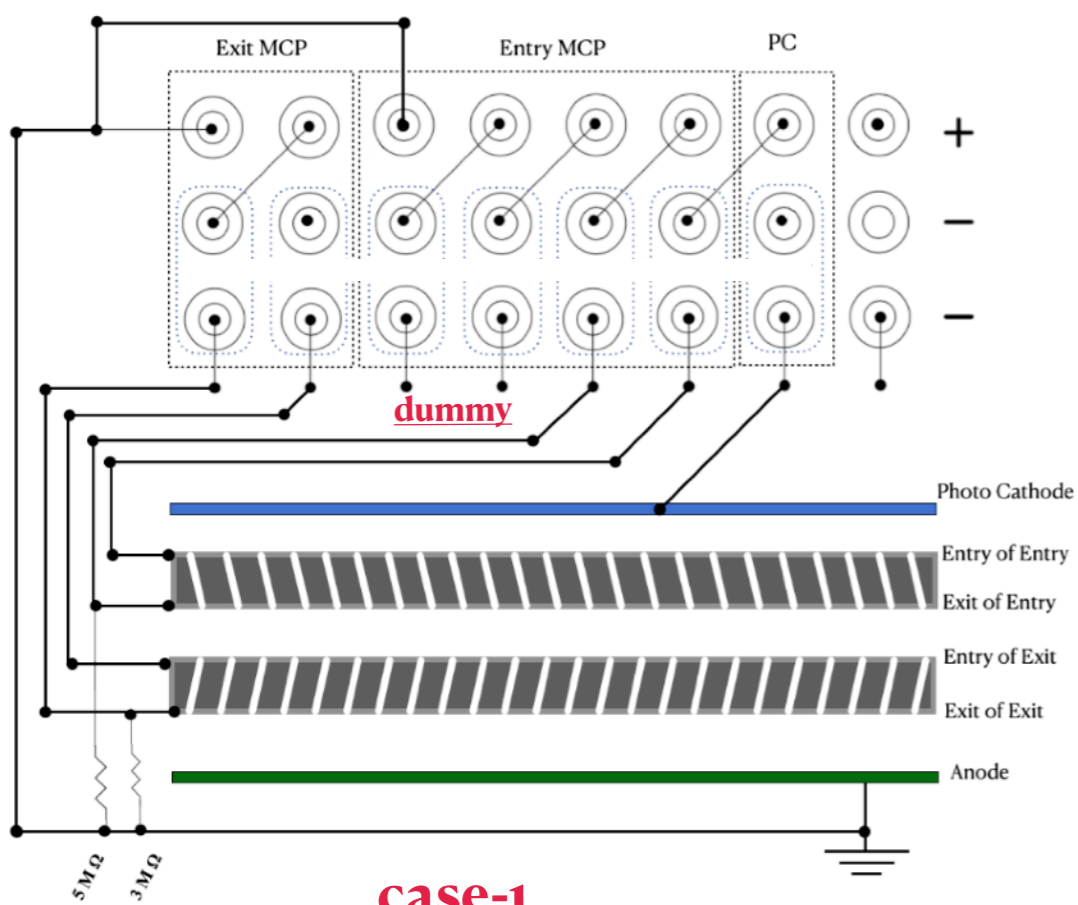
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Richa Rai

Fulvio Tessarotto,

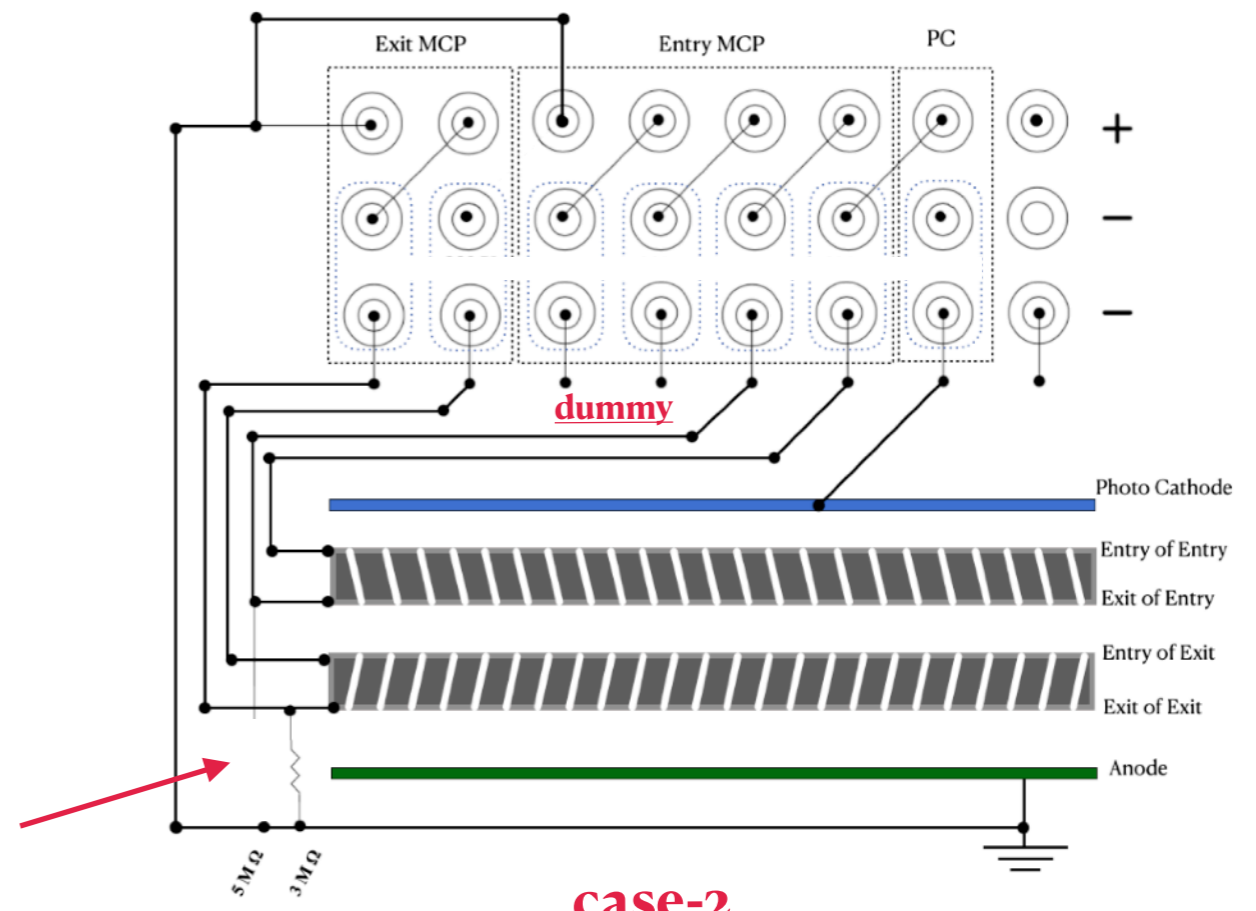
1 Sept 2023,

Internal Group Discussion, INFN, Trieste



case-1

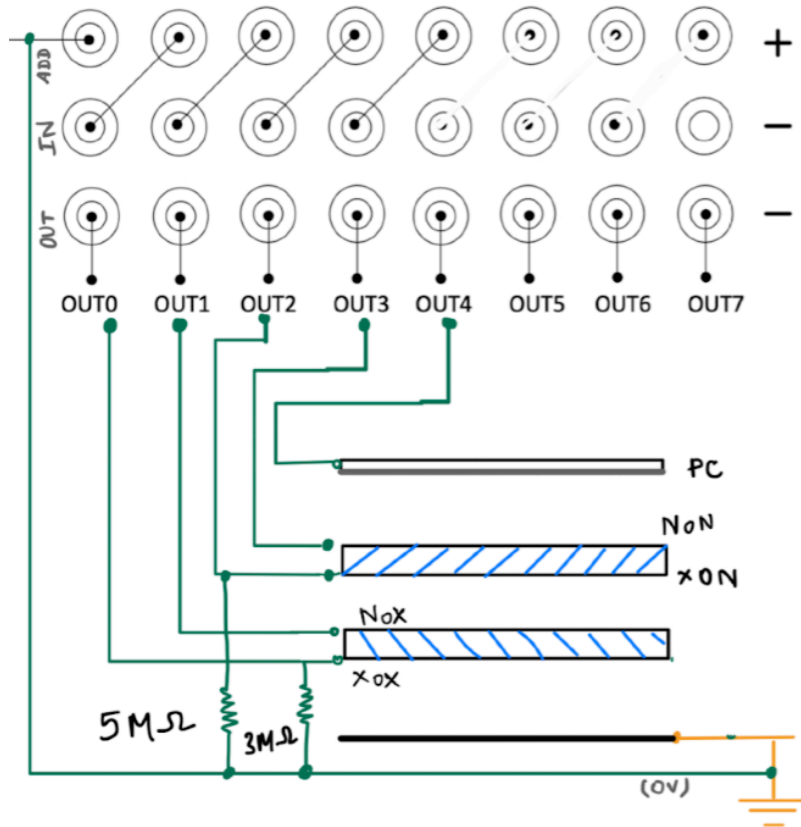
Electrodes	diff V_in [V]	Current [μ A]
Exit of Exit	200	81.15
Entry of Exit	850	258.91
dummy	200	251.66
dummy	850	251.35
<u>Exit of Entry</u>	200	251.05
Entry of Entry	850	217.91
PC	100	0.19



case-2

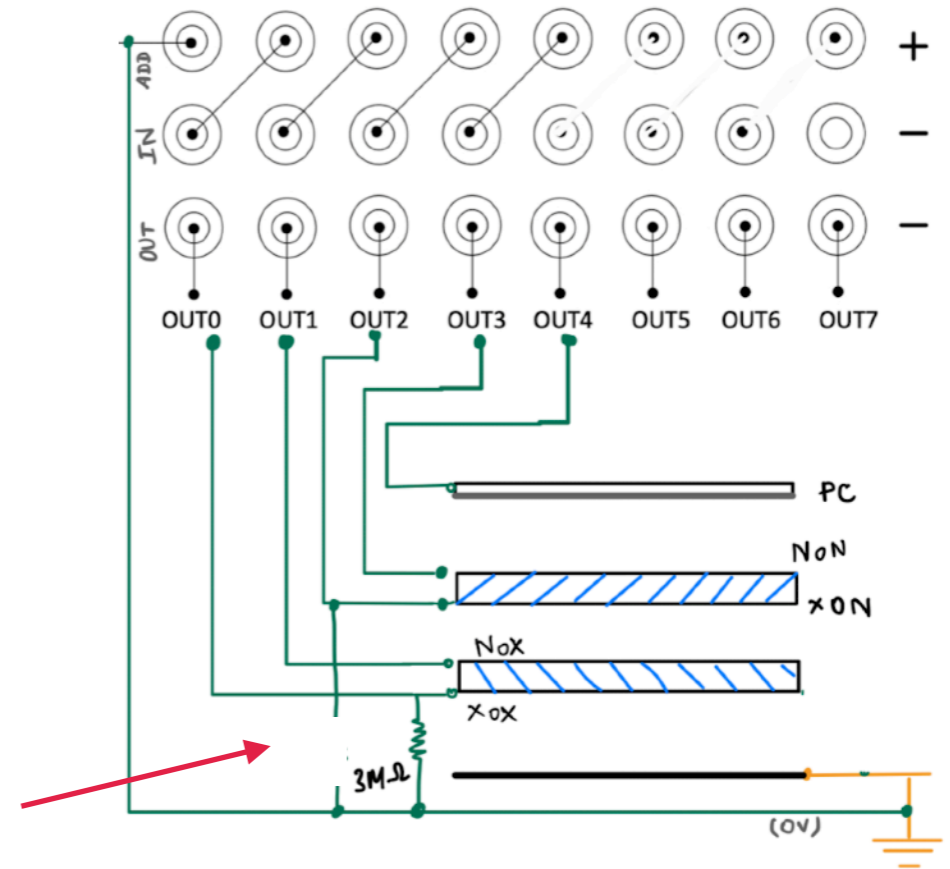
Electrodes	diff V_in [V]	Current [μ A]
Exit of Exit	200	82.96
Entry of Exit	850	258.75
dummy	200	0.58
dummy	850	0.34
<u>Exit of Entry</u>	200	0.11
Entry of Entry	850	216.89
PC	100	0.17

no dummy channels



case-3

Electrodes	diff V_in [V]	Current [μ A]
Exit of Exit	200	342.80
Entry of Exit	850	551.39
<u>Exit of Entry</u>	200	253.04
Entry of Entry	850	239.99
PC	100	0.01



case-4

Electrodes	diff V_in [V]	Current [μ A]
Exit of Exit	200	97.65
Entry of Exit	850	304.65
<u>Exit of Entry</u>	200	2.22
Entry of Entry	850	239.32
PC	100	0.05

case-1

Custom	ISet	VSet	IMon	VMon	Pw	Status	RUp
00.000	1010.00	200.00	81.1590	199.86	On	XoX	10
00.001	1000.00	850.00	258.9170	851.48	On	NoX	10
00.002	800.00	200.00	251.6670	200.06	On	dummy	10
00.003	800.00	850.00	251.3560	851.18	On	dummy	10
00.004	1000.00	200.00	251.0560	200.22	On	XoN	10
00.005	800.00	850.00	217.9130	851.38	On	NoN	10
00.006	500.00	100.00	0.1950	100.08	On	PC	1
00.007	100.00	0.00	0.1120	0.00	Off	Disabled	10

case-2

Custom	ISet	VSet	IMon	VMon	Pw	Status	RUp
00.000	1010.00	200.00	82.9670	200.12	On	XoX	10
00.001	1000.00	850.00	258.7550	851.46	On	NoX	10
00.002	800.00	200.00	0.5810	200.08	On	dummy	10
00.003	800.00	850.00	0.3460	850.92	On	dummy	10
00.004	1000.00	200.00	0.1190	200.20	On	XoN	10
00.005	800.00	850.00	216.8980	851.24	On	NoN	10
00.006	500.00	100.00	0.1720	100.08	On	PC	1
00.007	100.00	0.00	0.1130	0.00	Off	Disabled	10

case-3

Custom	ISet	VSet	IMon	VMon	Pw	Status	RUp
00.000	1010.00	200.00	342.8050	200.20	On	XoX	10
00.001	1000.00	850.00	551.3970	851.34	On	NoX	10
00.002	800.00	200.00	253.0450	200.08	On	XoN	10
00.003	800.00	850.00	239.9930	850.96	On	NoN	10
00.004	1000.00	100.00	-0.0110	100.00	On	PC	10
00.005	800.00	850.00	0.1930	0.22	Off	Disabled	10
00.006	500.00	100.00	0.0940	0.00	Off	Disabled	1
00.007	100.00	0.00	0.0940	0.00	Off	Disabled	10

case-4

Custom	ISet	VSet	IMon	VMon	Pw	Status	RUp
00.000	1010.00	200.00	97.6750	200.06	On	XoX	10
00.001	1000.00	850.00	304.6580	851.14	On	NoX	10
00.002	800.00	200.00	2.2270	200.06	On	XoN	10
00.003	800.00	850.00	239.3280	850.94	On	NoN	10
00.004	1000.00	100.00	-0.0580	99.98	On	PC	10
00.005	800.00	850.00	0.1940	0.22	Off	Disabled	10
00.006	500.00	100.00	0.0870	0.00	Off	Disabled	1
00.007	100.00	0.00	0.0850	0.00	Off	Disabled	10

case-1

Electrodes	diff V_in [V]	Current [μA]
Exit of Exit	200	81.15
Entry of Exit	850	258.91
dummy	200	251.66
dummy	850	251.35
<u>Exit of Entry</u>	200	251.05
Entry of Entry	850	217.91
PC	100	0.19

case-3

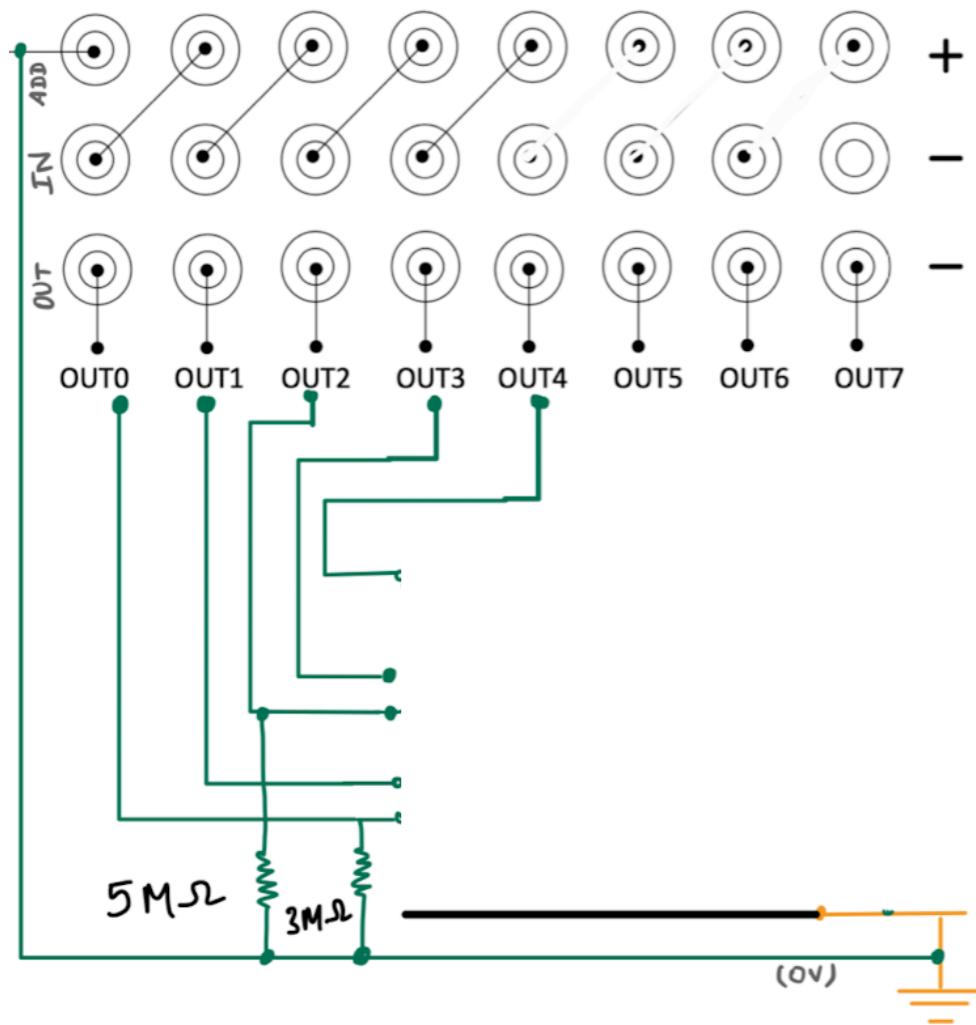
Electrodes	diff V_in [V]	Current [μA]
Exit of Exit	200	342.80
Entry of Exit	850	551.39
<u>Exit of Entry</u>	200	253.04
Entry of Entry	850	239.99
PC	100	0.01

case-2

Electrodes	diff V_in [V]	Current [μA]
Exit of Exit	200	82.96
Entry of Exit	850	258.75
dummy	200	0.58
dummy	850	0.34
<u>Exit of Entry</u>	200	0.11
Entry of Entry	850	216.89
PC	100	0.17

case-4

Electrodes	diff V_in [V]	Current [μA]
Exit of Exit	200	97.65
Entry of Exit	850	304.65
<u>Exit of Entry</u>	200	2.22
Entry of Entry	850	239.32
PC	100	0.05



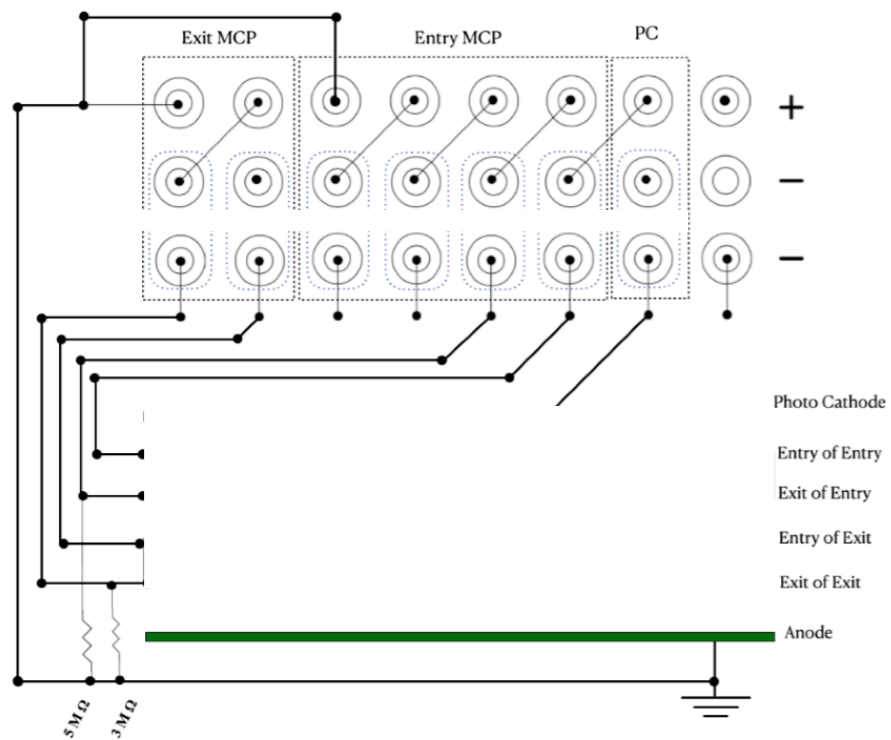
case-6

WITHOUT dummy channels

All LAPPD electrodes are open

Resistances (to ground) are still connected

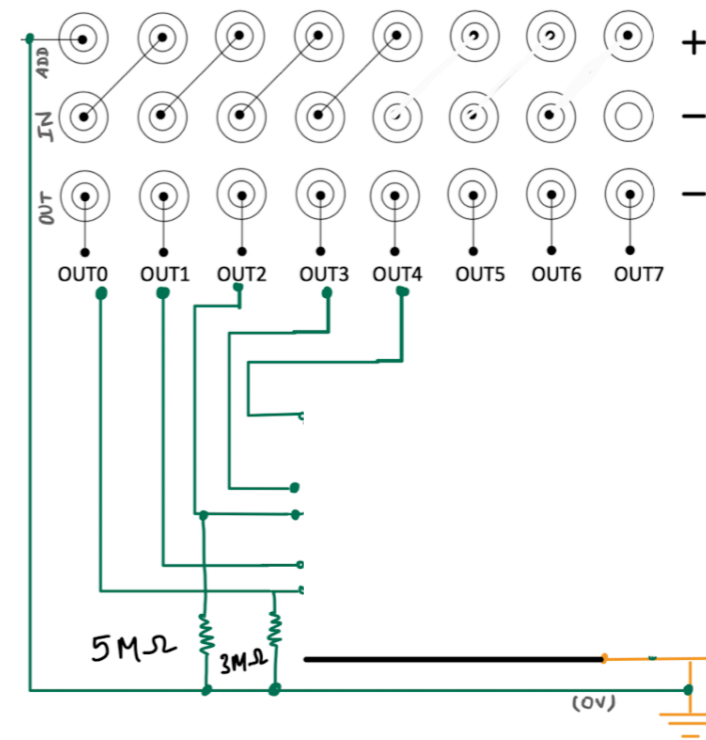
Electrodes	diff V_in [V]	Current [μA]
Exit of Exit	200	317.51
Entry of Exit	850	251.40
<u>Exit of Entry</u>	200	251.39
Entry of Entry	850	0.13
PC	100	0.11



case-5

- **WITH** dummy channels
- All LAPPD electrodes are open
- Resistances (to ground) are still connected

Electrodes	diff V_in [V]	Current [μ A]
Exit of Exit	200	66.65
Entry of Exit	850	0.23
dummy	200	251.28
dummy	850	251.00
<u>Exit of Entry</u>	200	250.83
Entry of Entry	850	0.70
PC	100	0.18



case-6

- **WITHOUT** dummy channels
- All LAPPD electrodes are open
- Resistances (to ground) are still connected

Electrodes	diff V_in [V]	Current [μ A]
Exit of Exit	200	317.51
Entry of Exit	850	251.40
<u>Exit of Entry</u>	200	251.39
Entry of Entry	850	0.13
PC	100	0.11