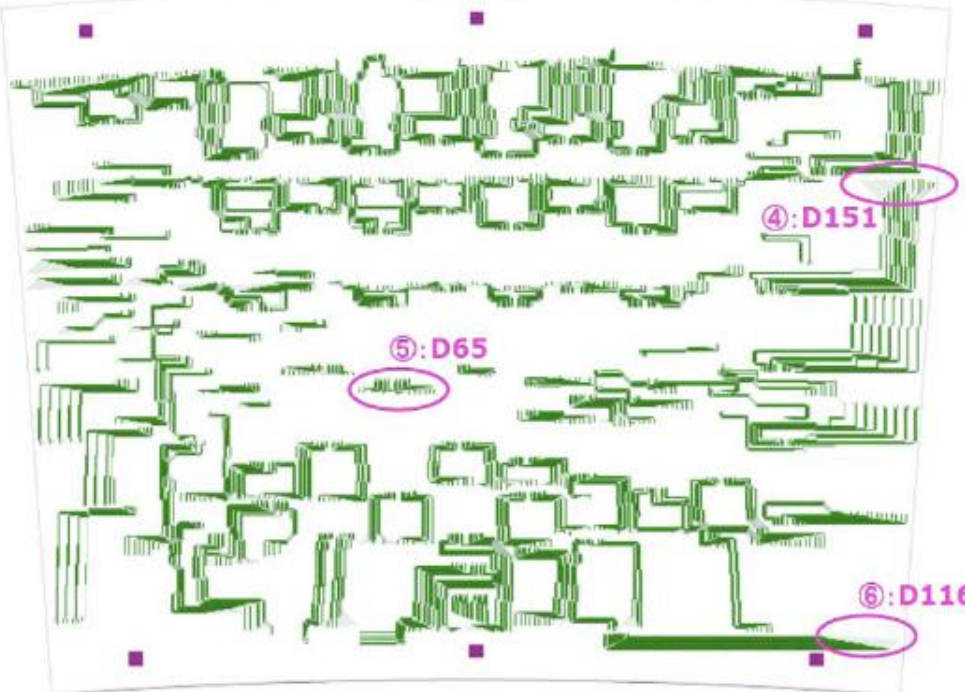


dt1	dt2	dt3	dt4	dt5	dt6	dt7	dt8	dt9	dt10	dt11	dt12
dt1	dt2	dt3	dt4	dt5	dt6	dt7	dt8	dt9	dt10	dt11	dt12
dt5	dt6	dt7	dt8	dt9	dt10	dt11	dt12	dt13	dt14	dt15	dt16
dt5	dt6	dt7	dt8	dt9	dt10	dt11	dt12	dt13	dt14	dt15	dt16
dt3	dt4	dt5	dt6	dt7	dt8	dt9	dt10	dt11	dt12	dt13	dt14
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dt4	dt5	dt6	dt7	dt8	dt9	dt10	dt11	dt12	dt13	dt14	dt15
dt4	dt5	dt6	dt7	dt8	dt9	dt10	dt11	dt12	dt13	dt14	dt15
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dt14	dt15	dt16	dt17	dt18	dt19	dt20	dt21	dt22	dt23	dt24	dt25
dt14	dt15	dt16	dt17	dt18	dt19	dt20	dt21	dt22	dt23	dt24	dt25

640 Channels (20 Barcelona boards)



View on connectors



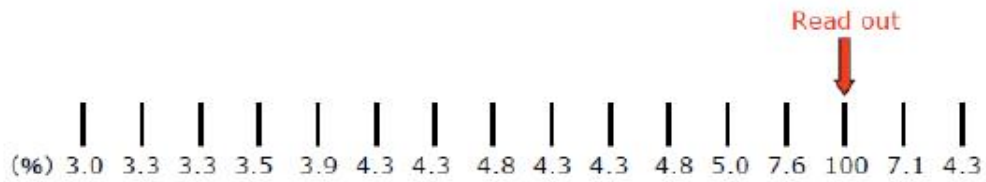
⑦: D100
 MAX: 13.0%
 MIN: 3.9%



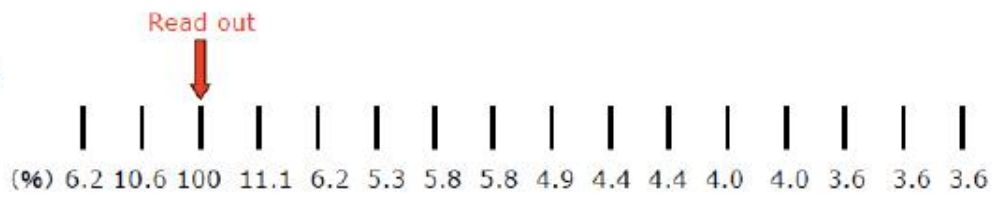
④: 151
 MAX: 9.2%
 MIN: 2.6%



⑤: D65
 MAX: 7.6%
 MIN: 3.0%

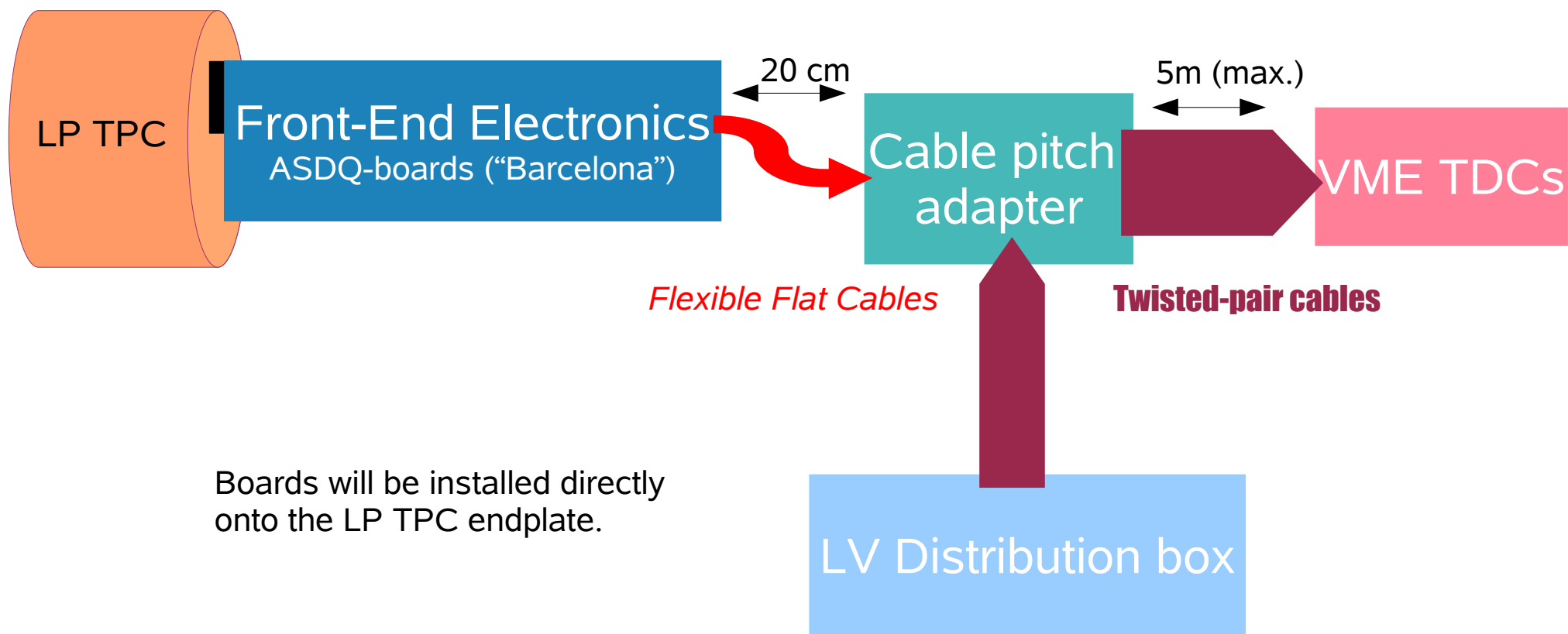


⑥: D116
 MAX: 11.1%
 MIN: 3.6%



~6% at neighbor channel @
 good/nominal routing

10% at neighbor @
 long routing
 (worst 13%)



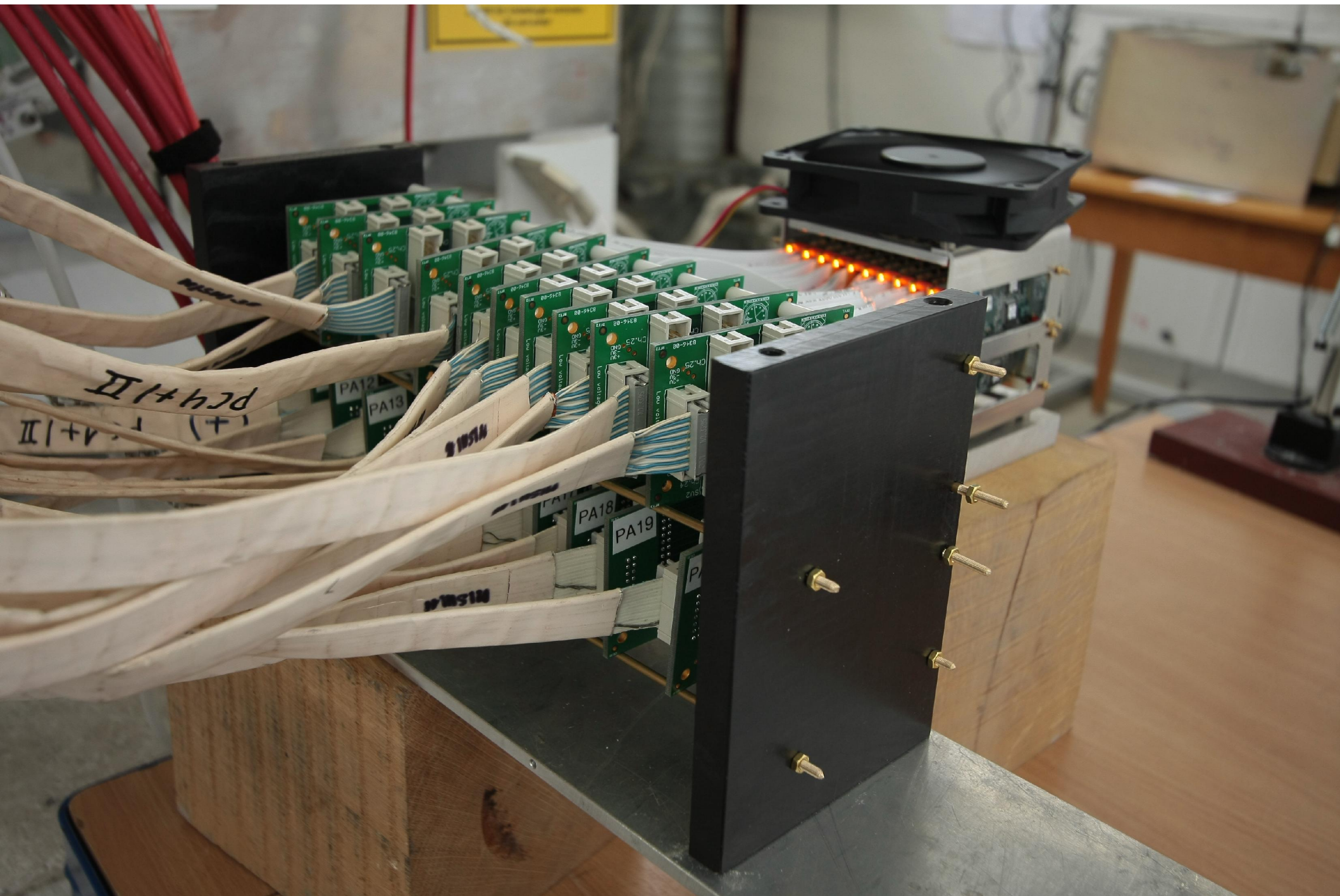
Cabling scheme

PCMAG vertical position
during measurements with 3 JGEMs Panels



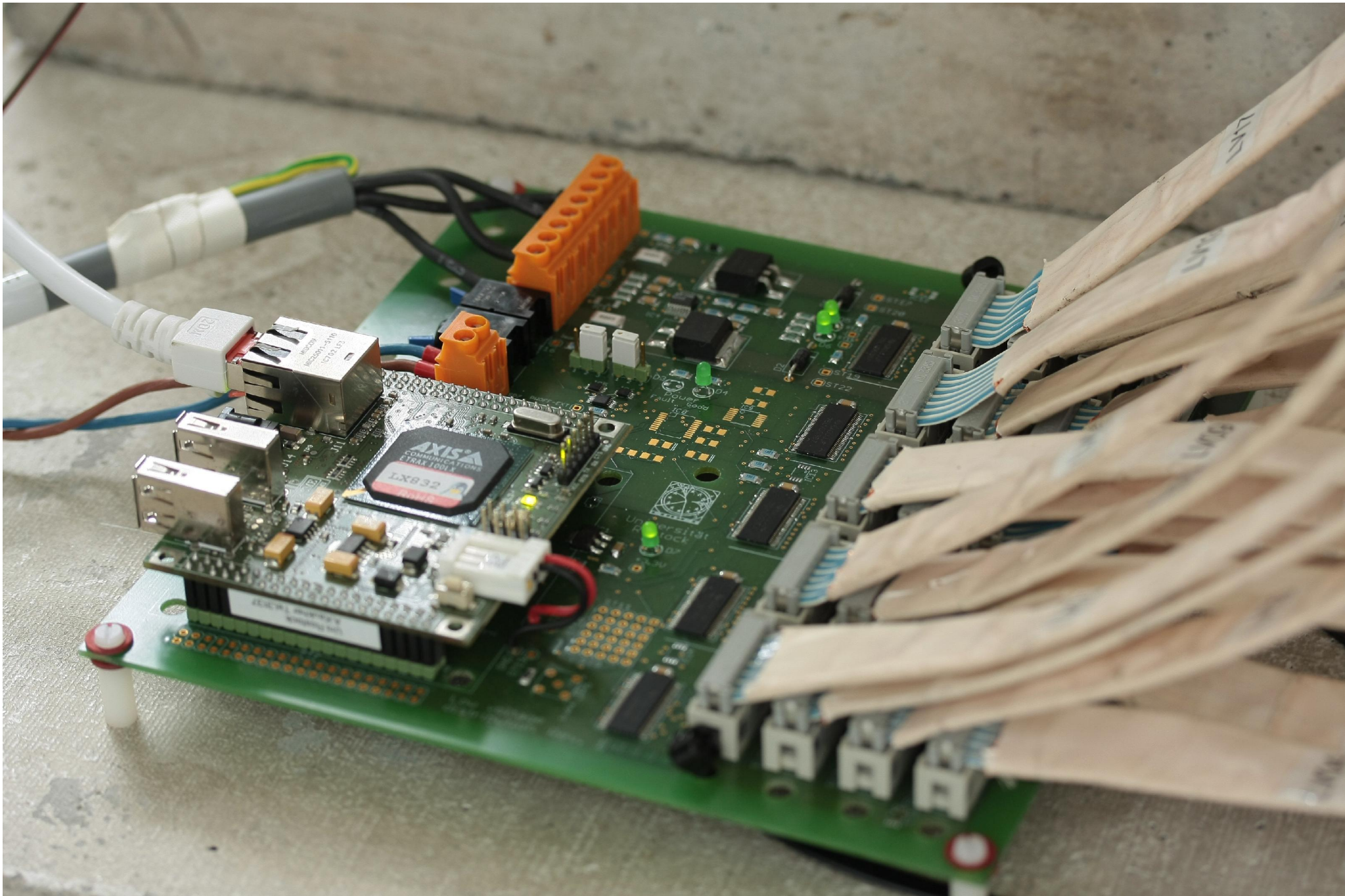
Current position





Low voltage test

Low Voltage distribution board



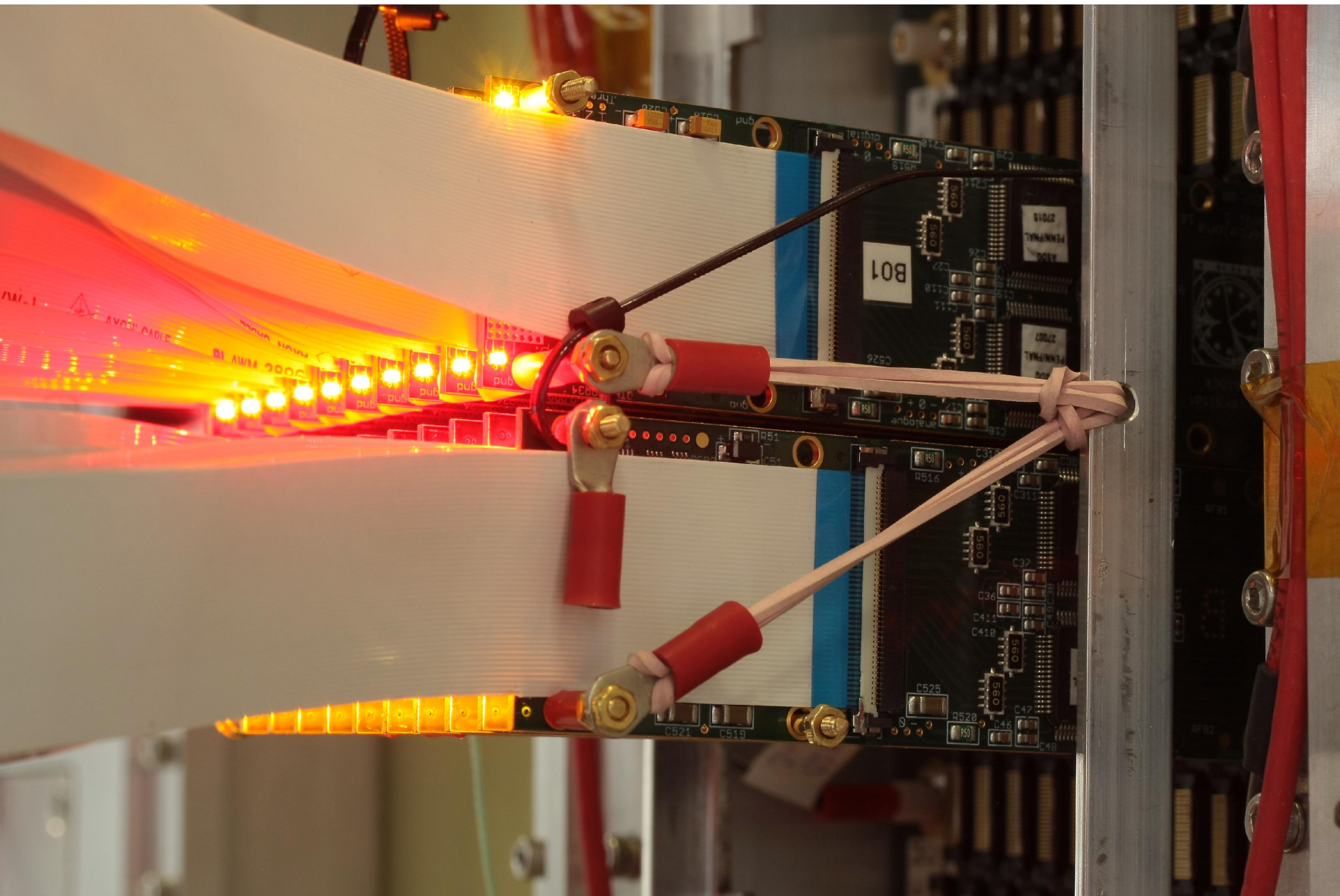
Power consumption of 20 Barcelona boards: $\sim 5.4\text{A}(+3\text{volt})$ and $\sim 7\text{A}(-3\text{ volt})$



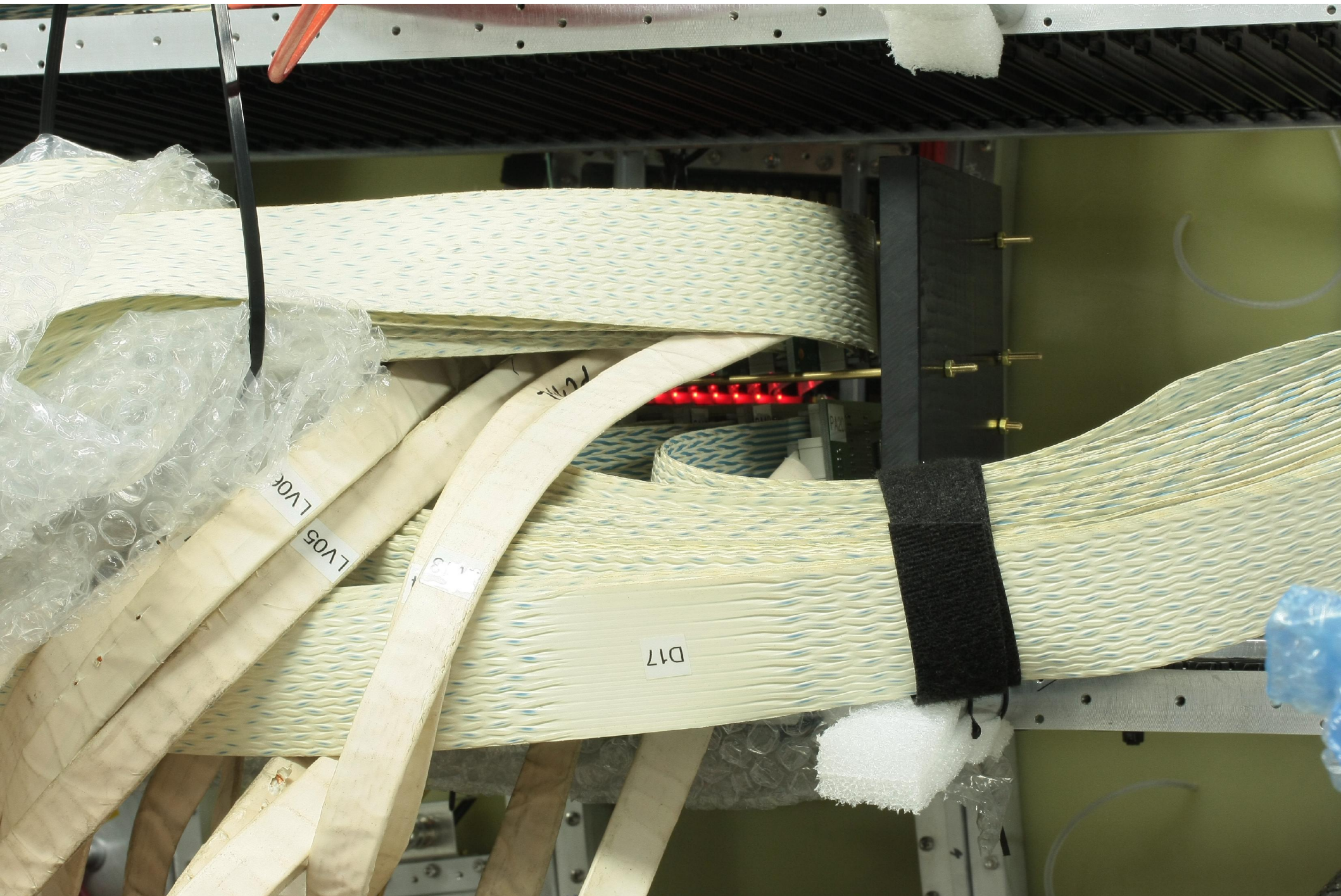
Barcelona board B09: cable displaced during assembly – no LV control available



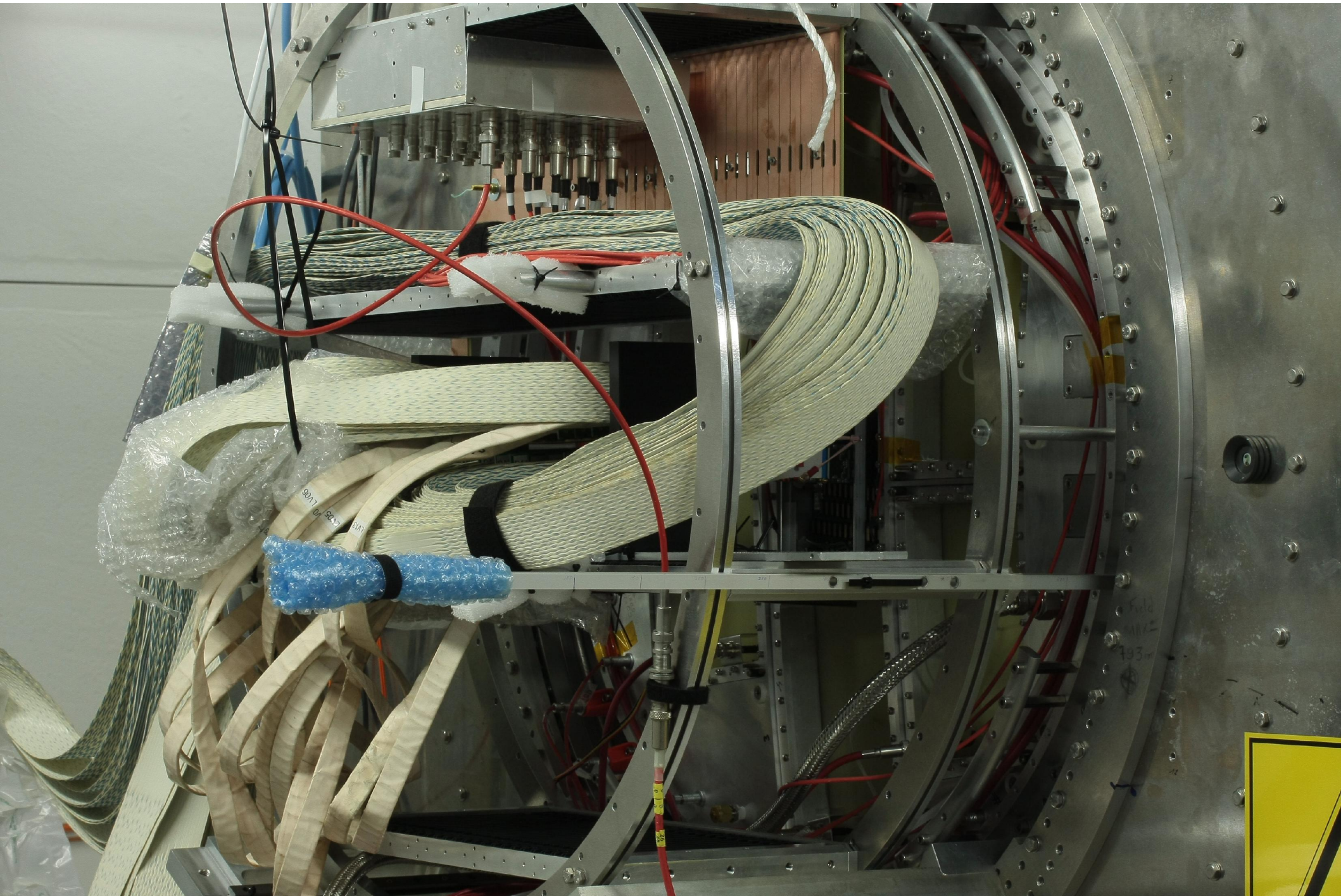
10 Barcelona boards connected to the GEM panel



10 Barcelona boards connected to the GEM panel



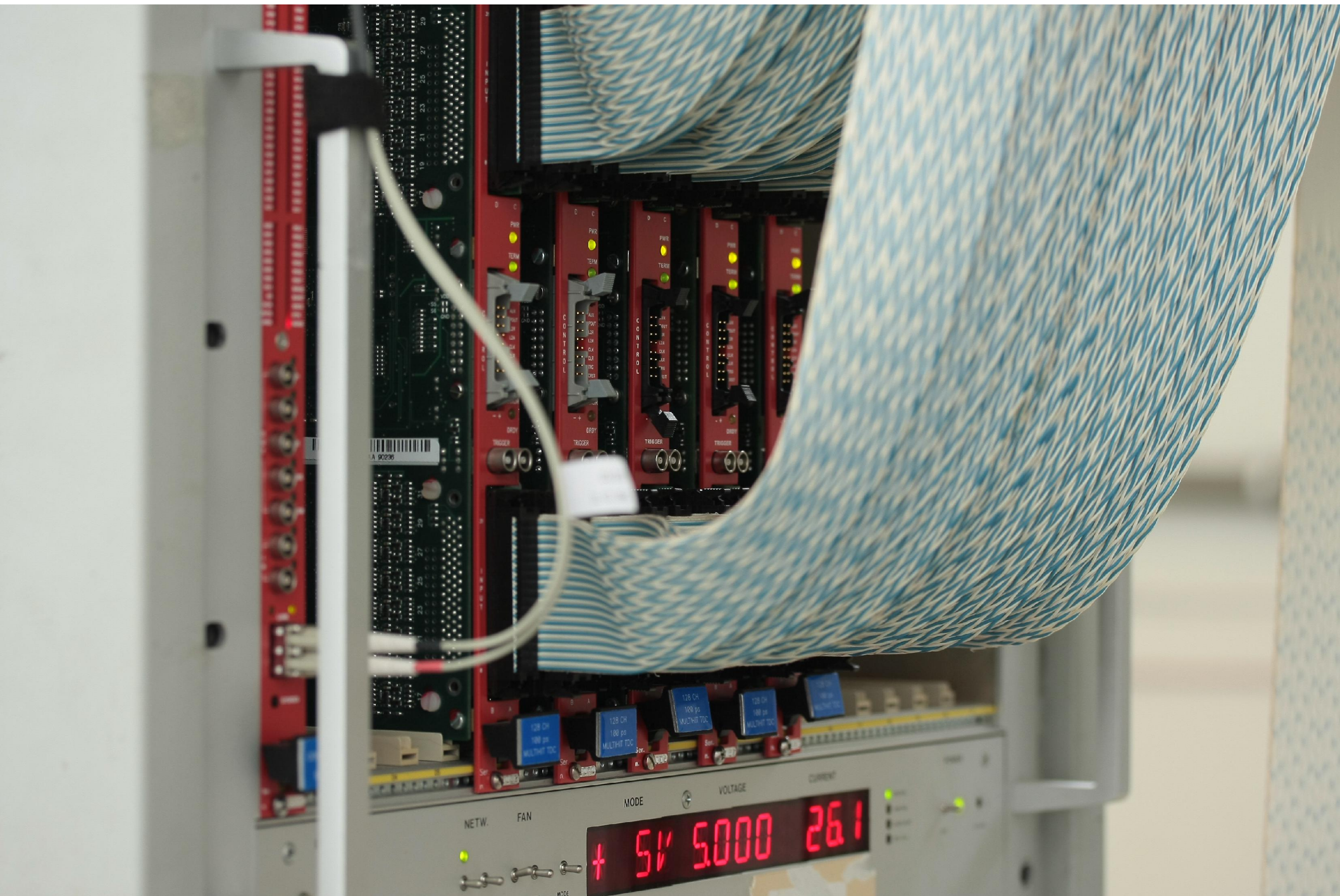
Cabling is fun



More fun



Complete assembly



5 TDC modules and a VME-bridge. Current consumption before TDC initialization: 26.1 A