

Rack and CR Status

- **Rack-cable status**
- **Counting room**
- **Long cable**
- **Problems**

Level 2 YB+2 Near

U	DT & RPC TRIGGER RACK - X2J22	DP
		[W]
2	DT TR/RO TTC extra lenghts' box	
4	Rack cooling and monitor <i>(Power supplies for 2 racks are in the back, should be tested)</i>	
1	heat exchanger - 1U distr. of cables for RPC LB on front (D: 420 mm)	Sect.
6	RPC LinkBoard	11
1	Alignment (only YB+1) - Benzze (D: 475mm)	
3	Alignment: Endcap + Link	10
1	Distributor of cables 1U, if needed	
1	DT TR/RO Sec Col. - oc (D: 500mm)	Sect.
9	DT TR/RO Sec. Col.	1 2 3 4 5 6
2	Distributor of cables 2U (D: 720 mm) <i>heat exchanger in the shadow, if needed</i>	
1	DT TR/RO Sec Col. - oc (D: 500mm)	Sect.
9	DT TR/RO Sec. Col.	7 8 9 10 11 12
2	Distributor of cables 2U (D: 720 mm) <i>heat exchanger in the shadow, if needed</i>	
6	RPC LinkBoard	10
2	Deflector (D: 420 mm)	Sect.
2	DT TR/RO TTC extra lenghts' box	

53 U used
3 U free

1330 [W]

U	Lowest LV RACK - X2J21	P input	P load	P Diss
		[W]	[W]	[W]
2	DT Slow Ctrl fibres PP (D: ? mm)			
4	Rack ctrl <i>The POWER SUPPLY is to be installed in the back of the nearest rack</i>			
1	heat exchanger (D: 720 mm)			
6	RPC LV crate (D: 500 mm)			
	MODULE	Layer	Sect.	
	4-A3009	all	10	640 480 160
	4-A3009	all	11	640 480 160
	4-A3009	all	12	640 480 160
	2-A3801	all	1,2,3,10,11,12	
	- not used -			
2	Distributor of cables 2U			
3	(D: 500 mm) (not used) AC/DC 2 [KW]		1920	220
6	DT LV crate (D: 500 mm)			
	MODULE	Layer	Sect.	
	4-A3050 DT-DIG3V3	1,2	11	400 300 100
	4-A3050 DT-DIG3V3	3,4	11	400 300 100
	4-A3009 DT-DIG5V, DT-AN:	all	11	320 240 80
	4-A3005F ALIGNMENT	ENDCAP		
	4-A3005F ALIGNMENT	LINK		
2	Distributor of cables 2U (D: 720 mm) <i>heat exchanger in the shadow, if needed</i>			
3	(D: 500 mm) AC/DC [2 kW] (S12 1/2) AC/DC [2k W] (S12 1/2)		1040	120
6	Sect 12 not in use fo MTCC		1040	120
2	Distributor of cables 2U (D: 720 mm) <i>heat exchanger in the shadow, if needed</i>			
3	(D: 500 mm) AC/DC [2 kW] (S10) AC/DC [2k W] (S11)		1400	160
6	DT LV crate (D: 500 mm)			
	MODULE	Layer	Sect.	
	4-A3050 DT-DIG3V3	1,2	10	400 300 100
	4-A3050 DT-DIG3V3	3,4	10	400 300 100
	4-A3050 DT-DIG3V3	4,11	10	200 150 50
	4-A3009 DT-DIG5V	all	10	120 90 30
	4-A3009 DT-ANSV, DT-AN2	all	10	280 210 70
2	Distributor of cables 2U			
3 free U				
1	heat exchanger (D: 720 mm)			
2	Deflector (D: 720 mm)			
2	DT Slow Ctrl fibres PP (D: ? mm)			

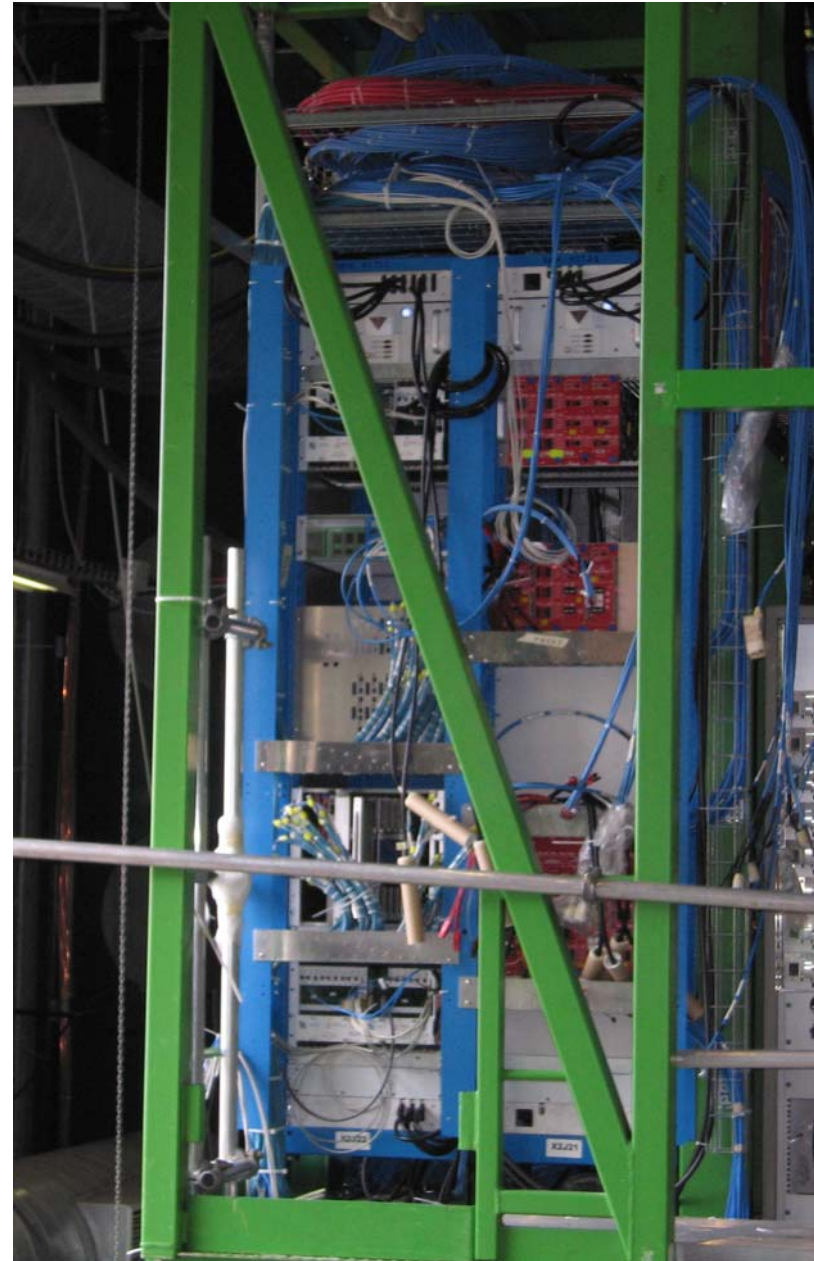
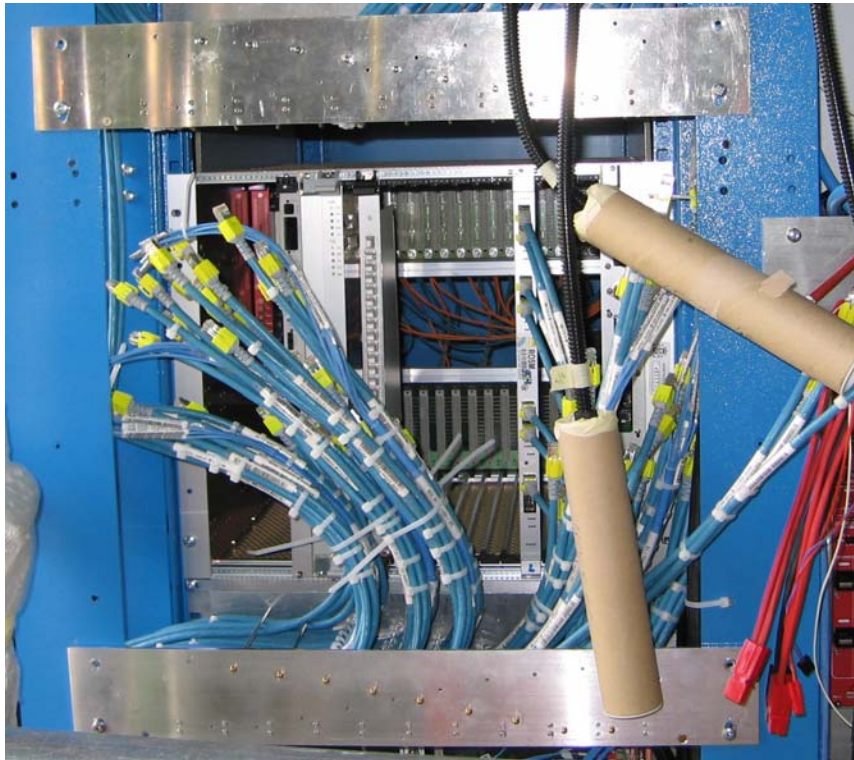
53 U used
3 U free

6520 2380

Legenda:

- Cabled.....
- Crate+cables partial.....
- Crate+cables full.....
- Crate+cables part. tested.....
- Crate+cables fully tested.....

Level 2 YB+2 Near



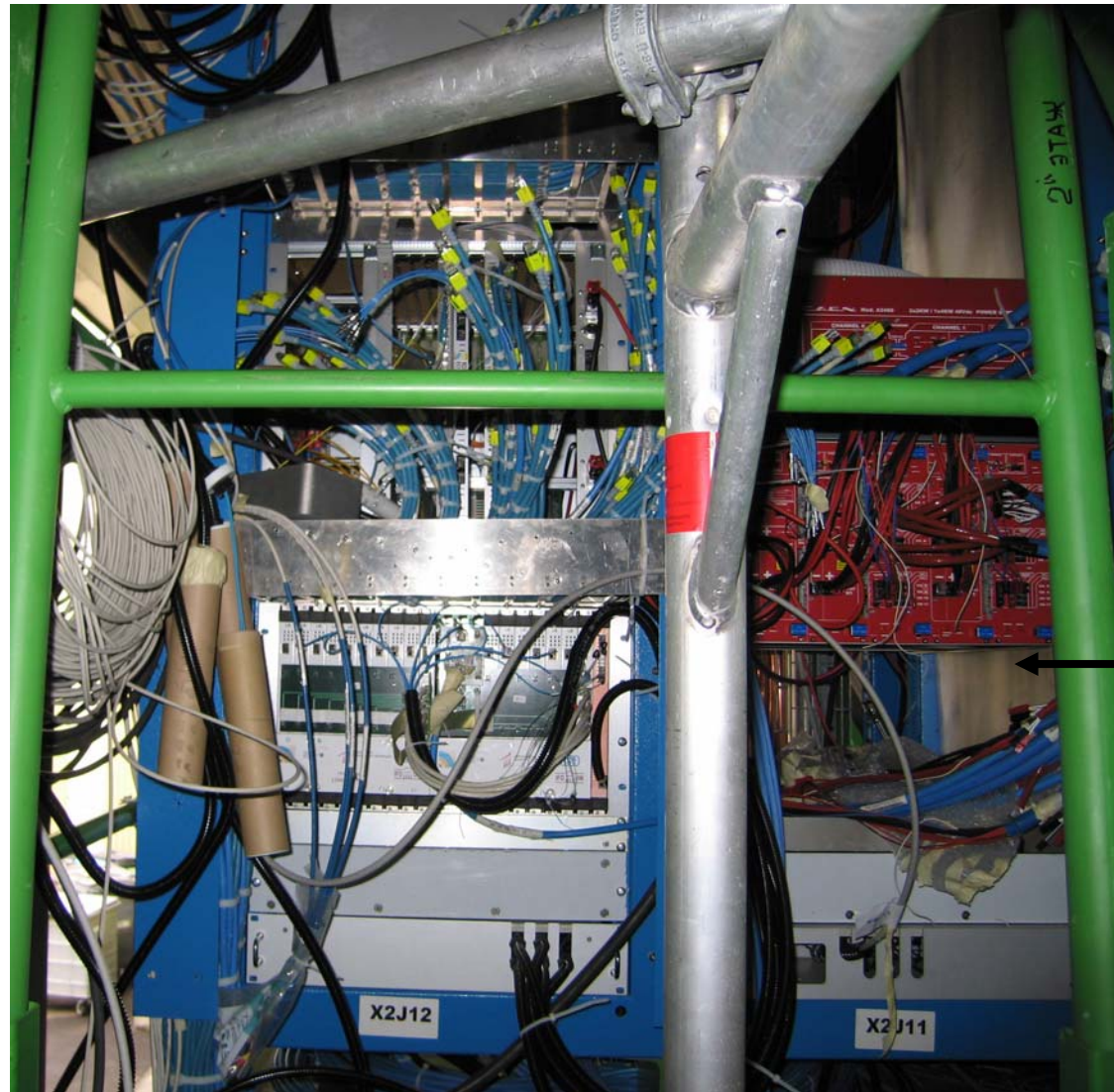
Level 2 YB+1 Near

U	DT & RPC TRIGGER RACK - X2J12		[LW]
2	DT TR/RO TTC extra lenghts's box		
3	(D: 200mm) Power supply for rack		
4	(D: 720mm@3KW or 645mm@2KW) Rack cooling and monitor		
1	(D: 720mm) heat exchanger + 1U distr. of cables for RPC LB on front		
6	(D: 420 mm)	RPC LinkBoard	11 160
3	(D: 475mm)	Alignment: Endcap + Link	10
1	(D: ?? mm)	Alignment (only YB+-1) - Benzze	
1	Distributor of cables 1U, if needed		
9	(D: 500mm)	DT TR/RO Sec. Col.	1 2 3 4 5 6 500
2	Distributor of cables 2U		
1	(D: ?)	DT TR/RO Sec Col. - oc	
9	(D: 500mm)	DT TR/RO Sec. Col.	7 8 9 10 11 12 500
2	Distributor of cables 2U		
1	(D: ?)	RPC TTC oc	
6	(D: 420 mm)	RPC LinkBoard	10 160
1	(D: 720mm)	heat exchanger + 1U distr. of cables for RPC LB on front	
2	Deflector		
2	DT TR/RO TTC extra lenghts' box		

U	Lowest LV RACK X2J11		P input [W]	P load [W]	P Diss [W]
2	(D: ? mm)	DT Slow Ctrl fibres PP			
4	(D: 720mm@3KW or 645mm@2KW) Rack ctrl				
1	(D: 720 mm) heat exchanger				
6	(D: 500 mm)	RPC LV crate	640	480	160
2	Distributor of cables 2U				
3	(D: 500 mm) (not used)	AC/DC 2 [KW]		1920	220
6	(D: 500 mm)	DT LV crate	400	300	100
2	Distributor of cables 2U				
3	(D: 500 mm)	AC/DC [2 kW] (S12 1/2)	1040	120	120
6	(D: 500 mm)	DT LV crate	400	300	100
2	Distributor of cables 2U				
3	(D: 500 mm)	AC/DC [2 kW] (S10)	1400	160	130
6	(D: 500 mm)	DT LV crate	400	300	100
2	Distributor of cables 2U				
3 free U					
1	(D: 720 mm)	heat exchanger			
2	(D: 720 mm)	Deflector			
2	(D: ? mm)	DT Slow Ctrl fibres PP			

53 U used
3 U free

Level 2 YB+1 Near



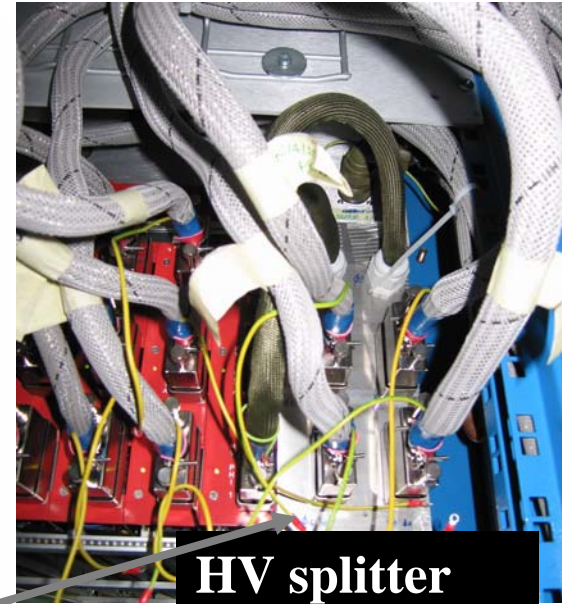
Note: no cable support

Level 3 YB+2 Near



Earth connection missing

U	RACK - X3J22 - proposal	P input [W]	P load [W]	P Diss [W]
4	(D: 720mm@3KW or 645mm@2KW) Rack ctrl			
1	(D: 720 mm) heat exchanger			
6	(D: --) RPC LinkBoard			
6	The back if these 6 U are reserved for the power supply of the rack FRONT IS AVAILABE, i.e. for LV EASY CRATE !			
6	DT HV A881			
4	DT HV Ppanel			
6	DT HV A881			
1	1 U free			
6	6 U			
6	(D: 500 mm) MODULE 4-A3009 all 10 4-A3009 all 11 4-A3009 all 12 AC-DC conv. in common w/ 2-A3801 all 14, 15, 16, 17 not used -			
1	(D: --) Distributor of cables on a 1U (if really needed!)			
6	RPC LinkBoard			
1	(D: 720 mm) heat exchanger			
2	(D: 720 mm) Deflector			



HV splitter

Legenda:

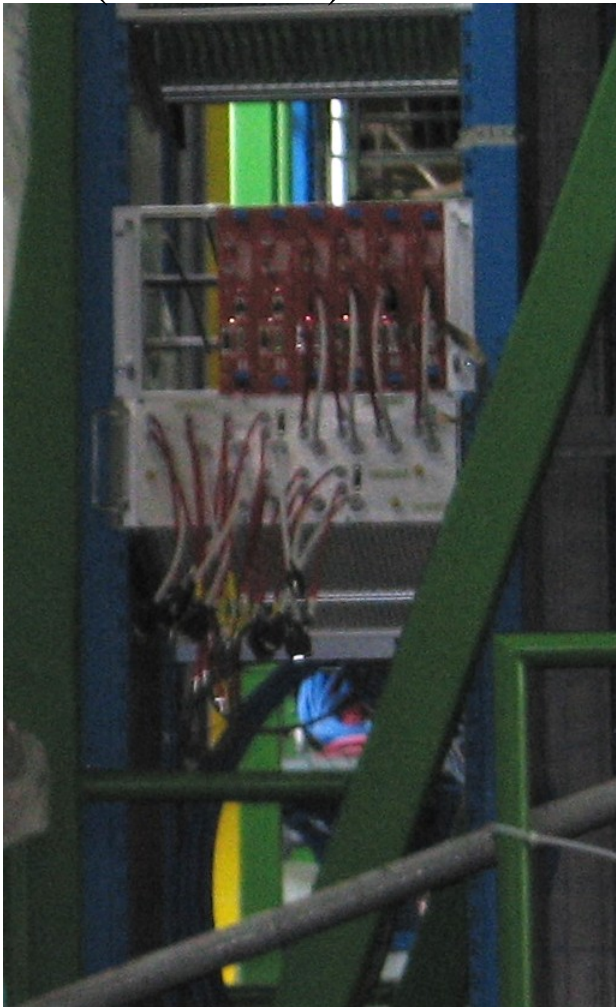
- Cabled.....- - - - -
- Crate+cables partial.....- - - - -
- Crate+cables full.....- - - - -
- Crate+cables part. tested.....- - - - -
- Crate+cables fully tested.....- - - - -

43 U used
13 U free

0 0

Level 3 YB+1 Near

In operation !!!
 HV splitter ready
 (next week)



U	RAC X3J12	oposal	P input [W]	P load [W]	P Diss [W]
4	(D: 720mm@3KW or 645mm@2KW) Rack ctrl				
1	(D: 720 mm) heat exchanger				
6	RPC LinkBoard				
6	The back if these 6 U are reserved for the power supply of the rack FRONT IS AVAILABE, i.e. for LV EASY CRATE!				
6	DT HV A881 *				
4	DT HV Ppanel				
6	DT HV A881				
7	1 U free				
6	6 U				
6	(D: 500 mm) MODULE Layer Sect. 4-A3009 all 10 4-A3009 all 11 4-A3009 all 12 2-A3801 all 1,4,9,10,11,12 not used -				
1	Distributor of cables on a 1U (if really needed!)				
6	RPC LinkBoard				
1	(D: 720 mm) heat exchanger				
2	(D: 720 mm) Deflector				

*sect 10 only, for MTCC

The center of PP is at 31 U from bottom

Legenda:

- Cabled.....- - - - -
- Crate+cables partial.....- - - - -
- Crate+cables full.....- - - - -
- Crate+cables part. tested.....- - - - -
- Crate+cables fully tested.....- - - - -

43 U used
 13 U free

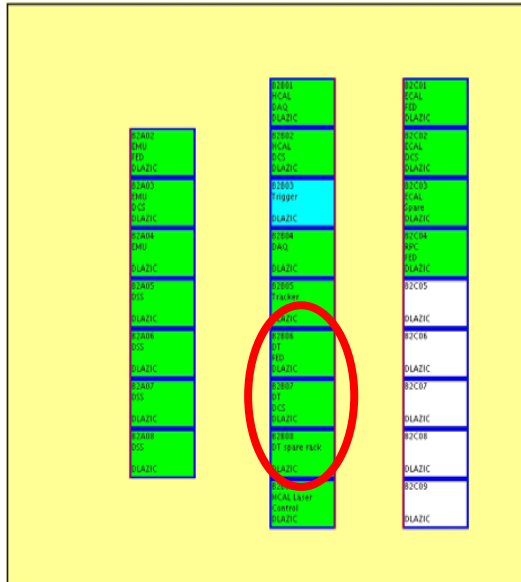
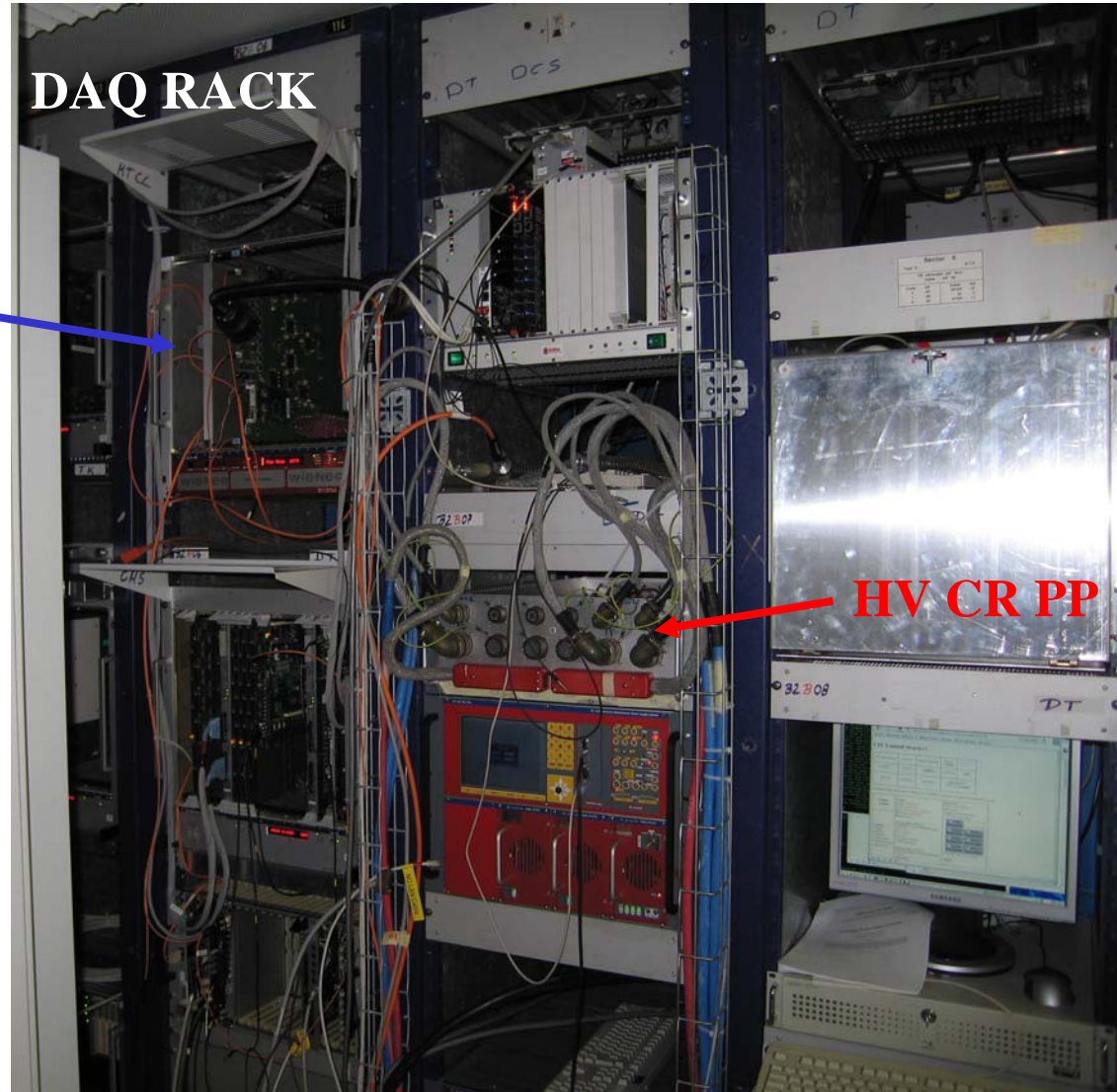
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Counting Room

DAQ RACK

DDU crate

HV CR PP



MTCC Long cables

Estimation on lengths needed for MTCC

Green barrack->ground NEAR tower YB+2 (magnet closed) **116 m**
 ground NEAR tower YB+2->TOP CABLE CHAIN PP (max) **4 m**
 TOP CABLE CHAIN PP (max) -> HV PP Inside X3 HV rack (X3J#2) **11 m**

	YB+2			YB+1			remark	TOT m
	q.ty	Lmin MTCC [m]	Lcut	q.ty	Lmin MTCC [m]	Lcut		
<u>Cables from C-room</u>								
MB.HV.main_uxus	1	134	170	1	131	165	1x rack HV	335
MB.LV.hv_uxus	2	123	160	1	120	160	1 x sector	480
MB.CA.hv-ctrl_uxus	2	123	160	1	120	160	1 x sector	480
<u>Cables inside tower</u>								
MB.LV.hv_ux	2	15	15	1	15	15	1 x sector	
MB.CA.hv-ctrl_ux	2	15	15	1	15	15	1 x sector	

FM 22.03.2006 - r1 -

About lengths of _uxus cables:

- * **Lmin MTCC** is the length with the barrel closed
- * **Lcut** is surely enough in order to let the barrel to be opened.
- * About extra L to be stored in SX5:
 YB+2: 180 m
 YB+1: 110 m

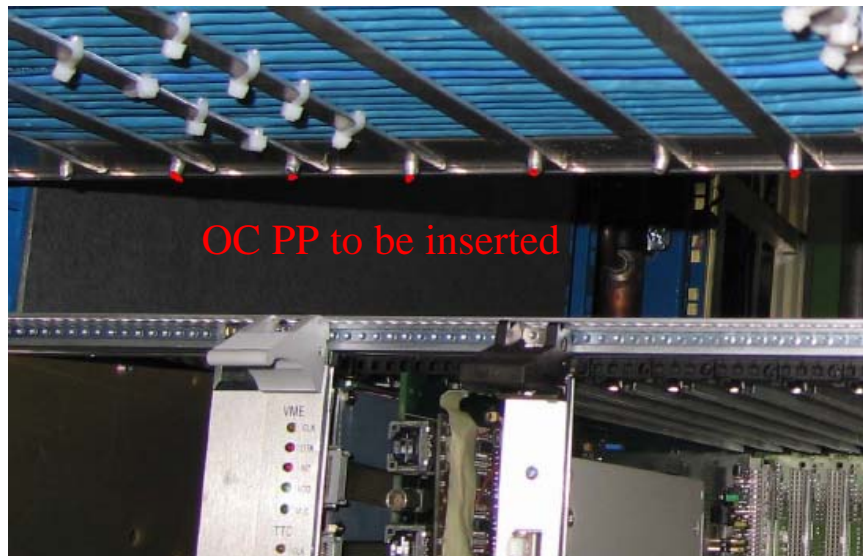
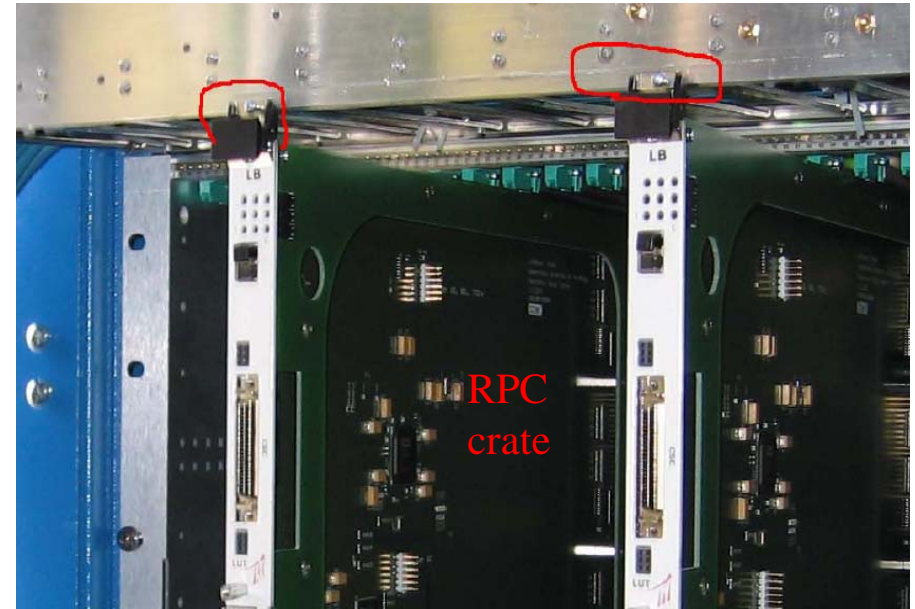
F. Montecassiano 22.03.06

Who left fibers under thick cables on the floor?



Problems

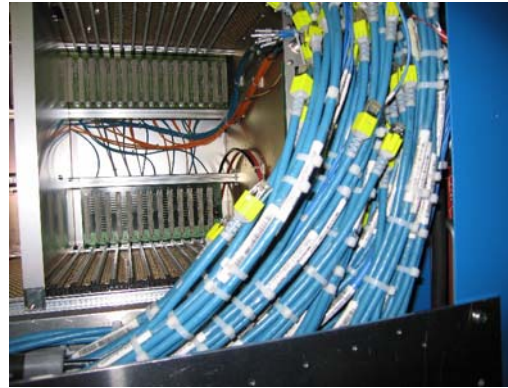
- TR rack X2Jn2: cable support: at least **3 points of interference** with up/down crates+cards and with PP Optical F.



Actions: the 1st problem to be solved is this one which may imply to destroy all the 10 supports which were prepared and mounted. But 4 crates are already cabled and any action on their supports requires to loose weeks of work by David et. al.. Let's wait for the OC to try.

Problems

- TR rack X2Jn2: cables and cable support: once cabled very difficult to insert crates-cards



But when the rack will be fully equipped with other crates the movements could be difficult!

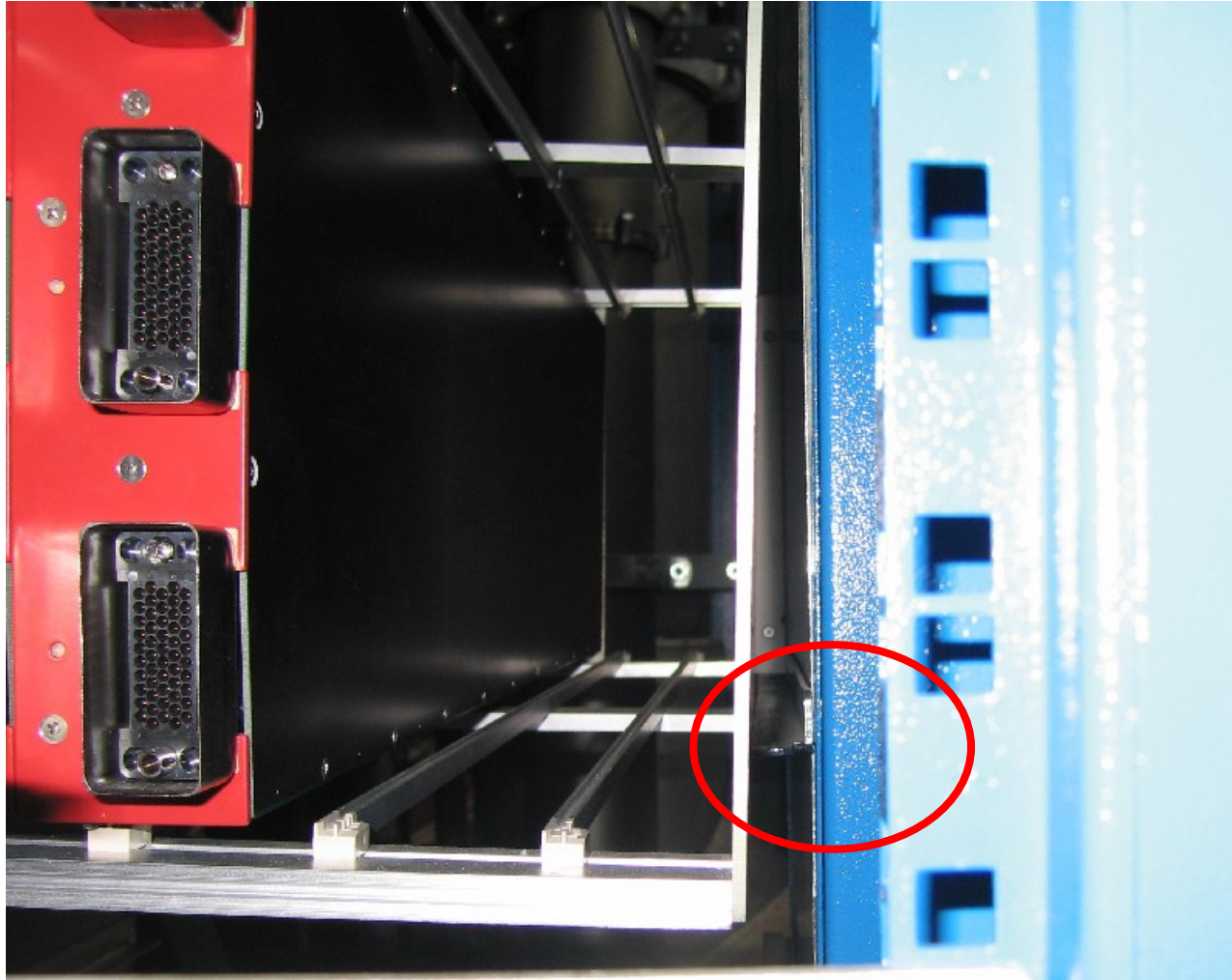
- Cables quite rigid for the ROS/SC connectors



Better with all cables connected (but....)

Problems

- HV rack X3Jn2:



Well known problem:
all the L-shaped
supports for rack too
narrow to hold
CAEN racks (which
are also at the limit in
height).
Enrico Borsato is
taking care of that.