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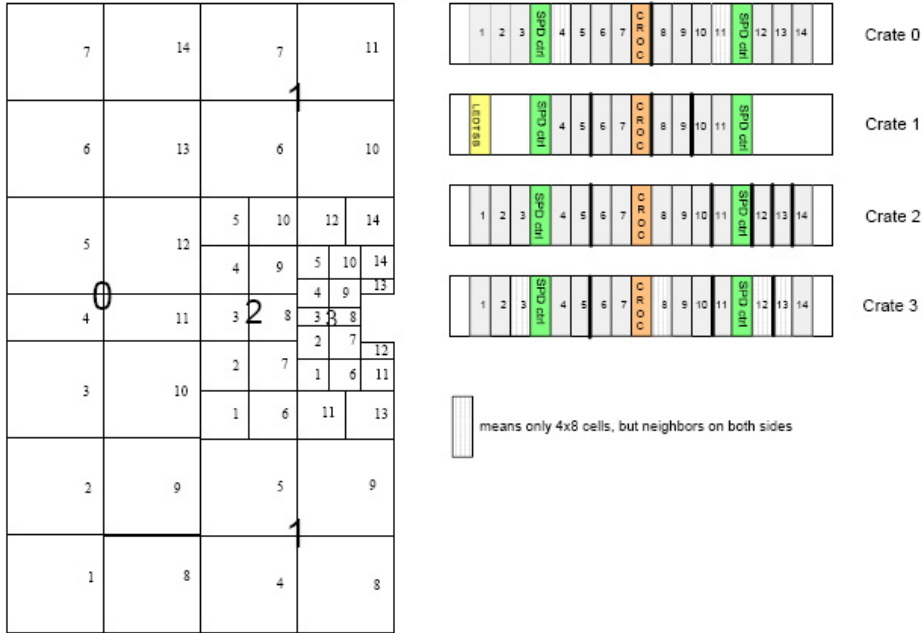
Calorimeter Readout Scheme

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Detailed information about the calorimeter readout can be found [here](#) [↗](#)
Below are compiled the useful informations addressing the calorimeter DAQ set-up. Information about the
current status of the electronics installation can also be found [here](#).

Crates and cards displays

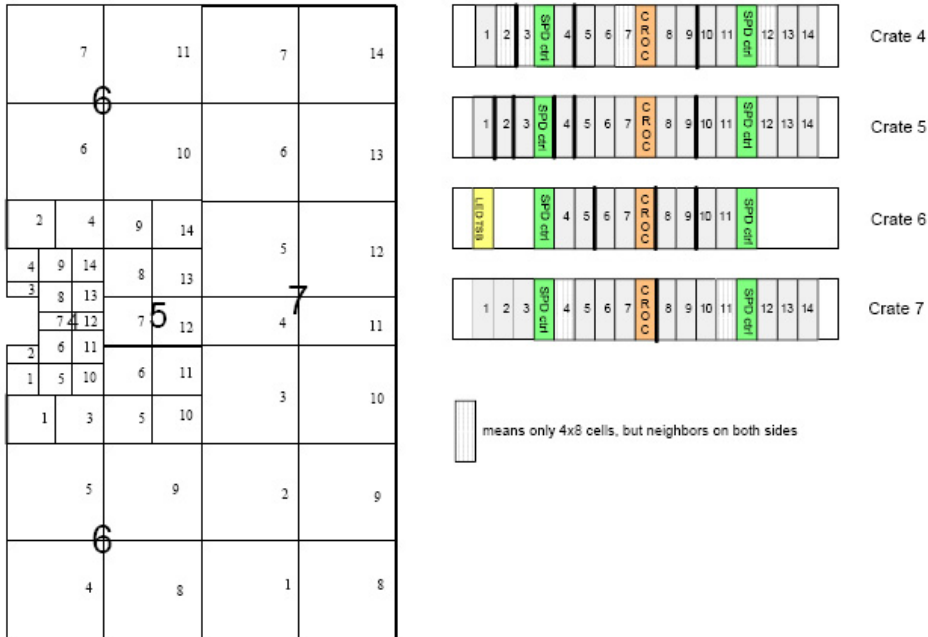
PRS crates and cards for C side



last change : 17 January 2006

PreShower + SPD C side

PRS crates and cards for A side

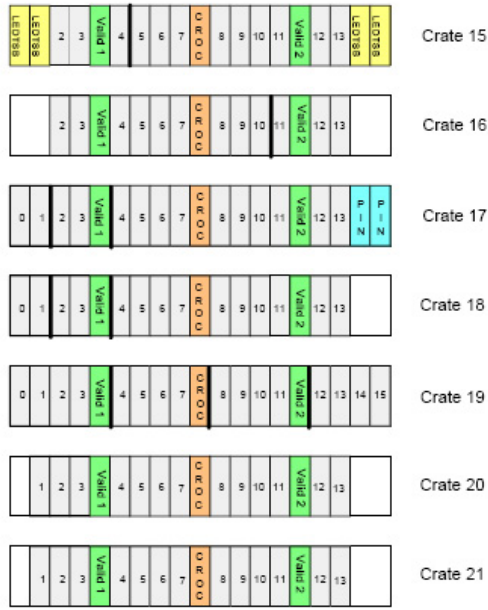


last change : 17 January 2006

PreShower + SPD A side

Ecal crates and cards for A side

		11		15		13		13
		10	19	14		12		12
		9		13		11		11
		8		12		10		10
		1	3		13		13	
		0	2		12		12	
		13	10	13		11		11
		12	9	12		10		10
		11	8	11		9		9
		16	10		9		9	
		6	5		8		8	
		5	4		7		7	
		4	3		6		6	
		15	10	13		11		11
		14	9	12		10		10
		13	8	11		9		9
		12	7	10		8		8
		1	3		5		5	
		0	2		4		4	
		3		7		4		4
		2	19	6		3		3
		1		5		2		2
		0		4		1		1

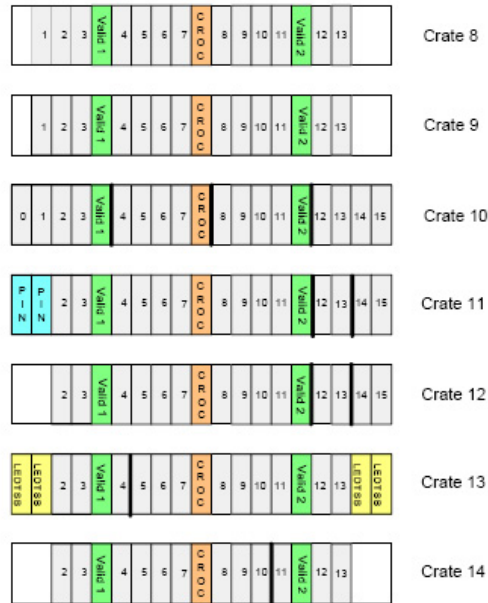


last change : 20 January 2006

ECAL A side

Ecal crates and cards for C side

		13		13		11		15
		12		12		10		14
		11		11		9		13
		10		10		8		12
		9		9		11		11
		10		10		12		14
		8		8		9		12
		9		9		10		13
		12		12		11		13
		13		13		10		13
		12		12		9		12
		11		11		8		11
		8		8		7		10
		7		7		6		9
		9		9		11		11
		8		8		7		10
		7		7		6		9
		6		6		5		8
		5		5		4		7
		4		4		3		6
		3		3		2		5
		2		2		1		4
		1		1		0		3



last change : 17 January 2006

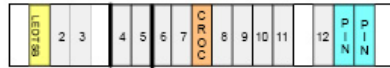
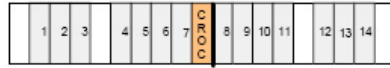
ECAL C side

Hcal crates and cards for A side

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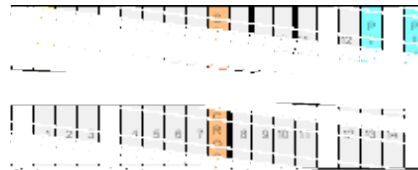
5		12	
4		11	
7	14	10	
6	13		
5	12	9	
4	11		
3	10	8	
2	9		
1	8	7	
3			
2		6	

last change : 17 January 2006



HCAL A side

Hcal crates and cards for C side



FE-Boards

Click on the link to get detailed information about the Ecal/Hcal, Prs FE-cards and about the CROC.

All the calorimeter FE-boards, including monitoring PIN-diode readout, are listed below. The corresponding detector area is specified with (area, first-col, first-row, last-col, last-row) where the column/row numbering follows the standard calorimeter convention.

In order to have a common software readout structure for both the PIN-diode and the PMT-channels, a virtual detector pad is defined for each of the PIN-diode channels. By convention this virtual detector region has area=3.

A valid CaloCellID is built for each PIN-diode channel, accordingly.

Calo	FEB Id	Area	first column	first row	last colum	last row	FE crate	FE slot
Ecal	0	0	0	6	7	9	8	1
Ecal	1	0	0	10	7	13	8	2
Ecal	2	0	0	14	7	17	8	3
Ecal	3	0	0	18	7	21	8	4
Ecal	4	0	0	22	7	25	8	5
Ecal	5	0	0	26	7	29	8	6
Ecal	6	0	0	30	7	33	8	7
Ecal	7	0	0	34	7	37	8	8
Ecal	8	0	0	38	7	41	8	9
Ecal	9	0	0	42	7	45	8	10
Ecal	10	0	0	46	7	49	8	11
Ecal	11	0	0	50	7	53	8	12
Ecal	12	0	0	54	7	57	8	13
Ecal	13	0	8	6	15	9	9	1
Ecal	14	0	8	10	15	13	9	2
Ecal	15	0	8	14	15	17	9	3
Ecal	16	0	8	18	15	21	9	4
Ecal	17	0	8	22	15	25	9	5
Ecal	18	0	8	26	15	29	9	6
Ecal	19	0	8	30	15	33	9	7
Ecal	20	0	8	34	15	37	9	8
Ecal	21	0	8	38	15	41	9	9
Ecal	22	0	8	42	15	45	9	10
Ecal	23	0	8	46	15	49	9	11
Ecal	24	0	8	50	15	53	9	12
Ecal	25	0	8	54	15	57	9	13
Ecal	26	0	16	6	23	9	10	0
Ecal	27	0	16	10	23	13	10	1
Ecal	28	0	16	14	23	17	10	2
Ecal	29	0	16	18	23	21	10	3
Ecal	30	0	24	6	31	9	10	4
Ecal	31	0	24	10	31	13	10	5
Ecal	32	0	24	14	31	17	10	6
Ecal	33	0	24	18	31	21	10	7
Ecal	34	0	16	42	23	45	10	8
Ecal	35	0	16	46	23	49	10	9
Ecal	36	0	16	50	23	53	10	10

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Ecal	37	0	16	54	23	57	10	11
Ecal	38	0	24	42	31	45	10	12
Ecal	39	0	24	46	31	49	10	13
Ecal	40	0	24	50	31	53	10	14
Ecal	41	0	24	54	31	57	10	15
Ecal	42	0	32	6	39	9	19	0
Ecal	43	0	32	10	39	13	19	1
Ecal	44	0	32	14	39	17	19	2
Ecal	45	0	32	18	39	21	19	3
Ecal	46	0	40	6	47	9	19	4
Ecal	47	0	40	10	47	13	19	5
Ecal	48	0	40	14	47	17	19	6
Ecal	49	0	40	18	47	21	19	7
Ecal	50	0	32	42	39	45	19	8
Ecal	51	0	32	46	39	49	19	9
Ecal	52	0	32	50	39	53	19	10
Ecal	53	0	32	54	39	57	19	11
Ecal	54	0	40	42	47	45	19	12
Ecal	55	0	40	46	47	49	19	13
Ecal	56	0	40	50	47	53	19	14
Ecal	57	0	40	54	47	57	19	15
Ecal	58	0	48	6	55	9	20	1
Ecal	59	0	48	10	55	13	20	2
Ecal	60	0	48	14	55	17	20	3
Ecal	61	0	48	18	55	21	20	4
Ecal	62	0	48	22	55	25	20	5
Ecal	63	0	48	26	55	29	20	6
Ecal	64	0	48	30	55	33	20	7
Ecal	65	0	48	34	55	37	20	8
Ecal	66	0	48	38	55	41	20	9
Ecal	67	0	48	42	55	45	20	10
Ecal	68	0	48	46	55	49	20	11
Ecal	69	0	48	50	55	53	20	12
Ecal	70	0	48	54	55	57	20	13
Ecal	71	0	56	6	63	9	21	1
Ecal	72	0	56	10	63	13	21	2
Ecal	73	0	56	14	63	17	21	3
Ecal	74	0	56	18	63	21	21	4
Ecal	75	0	56	22	63	25	21	5
Ecal	76	0	56	26	63	29	21	6
Ecal	77	0	56	30	63	33	21	7
Ecal	78	0	56	34	63	37	21	8
Ecal	79	0	56	38	63	41	21	9
Ecal	80	0	56	42	63	45	21	10
Ecal	81	0	56	46	63	49	21	11
Ecal	82	0	56	50	63	53	21	12
Ecal	83	0	56	54	63	57	21	13
Ecal	84	1	0	12	7	15	11	2
Ecal	85	1	0	16	7	19	11	3
Ecal	86	1	0	20	7	23	11	4

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Ecal	87	1	0	24	7	27	11	5
Ecal	88	1	0	28	7	31	11	6
Ecal	89	1	0	32	7	35	11	7
Ecal	90	1	0	36	7	39	11	8
Ecal	91	1	0	40	7	43	11	9
Ecal	92	1	0	44	7	47	11	10
Ecal	93	1	0	48	7	51	11	11
Ecal	94	1	16	12	23	15	11	12
Ecal	95	1	16	16	23	19	11	13
Ecal	96	1	24	12	31	15	11	14
Ecal	97	1	24	16	31	19	11	15
Ecal	98	1	8	12	15	15	12	2
Ecal	99	1	8	16	15	19	12	3
Ecal	100	1	8	20	15	23	12	4
Ecal	101	1	8	24	15	27	12	5
Ecal	102	1	8	28	15	31	12	6
Ecal	103	1	8	32	15	35	12	7
Ecal	104	1	8	36	15	39	12	8
Ecal	105	1	8	40	15	43	12	9
Ecal	106	1	8	44	15	47	12	10
Ecal	107	1	8	48	15	51	12	11
Ecal	108	1	16	44	23	47	12	12
Ecal	109	1	16	48	23	51	12	13
Ecal	110	1	24	44	31	47	12	14
Ecal	111	1	24	48	31	51	12	15
Ecal	112	1	32	12	39	15	17	0
Ecal	113	1	32	16	39	19	17	1
Ecal	114	1	40	12	47	15	17	2
Ecal	115	1	40	16	47	19	17	3
Ecal	116	1	56	12	63	15	17	4
Ecal	117	1	56	16	63	19	17	5
Ecal	118	1	56	20	63	23	17	6
Ecal	119	1	56	24	63	27	17	7
Ecal	120	1	56	28	63	31	17	8
Ecal	121	1	56	32	63	35	17	9
Ecal	122	1	56	36	63	39	17	10
Ecal	123	1	56	40	63	43	17	11
Ecal	124	1	56	44	63	47	17	12
Ecal	125	1	56	48	63	51	17	13
Ecal	126	1	32	44	39	47	18	0
Ecal	127	1	32	48	39	51	18	1
Ecal	128	1	40	44	47	47	18	2
Ecal	129	1	40	48	47	51	18	3
Ecal	130	1	48	12	55	15	18	4
Ecal	131	1	48	16	55	19	18	5
Ecal	132	1	48	20	55	23	18	6
Ecal	133	1	48	24	55	27	18	7
Ecal	134	1	48	28	55	31	18	8
Ecal	135	1	48	32	55	35	18	9
Ecal	136	1	48	36	55	39	18	10

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Ecal	137	1	48	40	55	43	18	11
Ecal	138	1	48	44	55	47	18	12
Ecal	139	1	48	48	55	51	18	13
Ecal	140	2	24	14	31	17	13	2
Ecal	141	2	24	18	31	21	13	3
Ecal	142	2	24	22	31	25	13	4
Ecal	143	2	8	14	15	17	13	5
Ecal	144	2	8	18	15	21	13	6
Ecal	145	2	8	22	15	25	13	7
Ecal	146	2	8	26	15	29	13	8
Ecal	147	2	8	30	15	33	13	9
Ecal	148	2	8	34	15	37	13	10
Ecal	149	2	8	38	15	41	13	11
Ecal	150	2	8	42	15	45	13	12
Ecal	151	2	8	46	15	49	13	13
Ecal	152	2	16	14	23	17	14	2
Ecal	153	2	16	18	23	21	14	3
Ecal	154	2	16	22	23	25	14	4
Ecal	155	2	16	26	23	29	14	5
Ecal	156	2	16	30	23	33	14	6
Ecal	157	2	16	34	23	37	14	7
Ecal	158	2	16	38	23	41	14	8
Ecal	159	2	16	42	23	45	14	9
Ecal	160	2	16	46	23	49	14	10
Ecal	161	2	24	38	31	41	14	11
Ecal	162	2	24	42	31	45	14	12
Ecal	163	2	24	46	31	49	14	13
Ecal	164	2	32	14	39	17	15	2
Ecal	165	2	32	18	39	21	15	3
Ecal	166	2	32	22	39	25	15	4
Ecal	167	2	48	14	55	17	15	5
Ecal	168	2	48	18	55	21	15	6
Ecal	169	2	48	22	55	25	15	7
Ecal	170	2	48	26	55	29	15	8
Ecal	171	2	48	30	55	33	15	9
Ecal	172	2	48	34	55	37	15	10
Ecal	173	2	48	38	55	41	15	11
Ecal	174	2	48	42	55	45	15	12
Ecal	175	2	48	46	55	49	15	13
Ecal	176	2	40	14	47	17	16	2
Ecal	177	2	40	18	47	21	16	3
Ecal	178	2	40	22	47	25	16	4
Ecal	179	2	40	26	47	29	16	5
Ecal	180	2	40	30	47	33	16	6
Ecal	181	2	40	34	47	37	16	7
Ecal	182	2	40	38	47	41	16	8
Ecal	183	2	40	42	47	45	16	9
Ecal	184	2	40	46	47	49	16	10
Ecal	185	2	32	38	39	41	16	11
Ecal	186	2	32	42	39	45	16	12

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Ecal	187	2	32	46	39	49	16	13
Ecal-PIN	188	3	0	0	7	3	11	0
Ecal-PIN	189	3	8	0	15	3	11	1
Ecal-PIN	190	3	48	4	55	7	17	14
Ecal-PIN	191	3	56	4	63	7	17	15
Hcal	0	0	0	1	7	4	22	2
Hcal	1	0	0	5	7	8	22	3
Hcal	2	0	0	9	7	12	22	4
Hcal	3	0	0	13	7	16	22	5
Hcal	4	0	0	17	7	20	22	6
Hcal	5	0	0	21	7	24	22	7
Hcal	6	0	0	25	7	28	22	8
Hcal	7	0	8	1	15	4	22	9
Hcal	8	0	8	5	15	8	22	10
Hcal	9	0	8	21	15	24	22	11
Hcal	10	0	8	25	15	28	22	12
Hcal	11	1	0	2	7	5	23	1
Hcal	12	1	0	6	7	9	23	2
Hcal	13	1	0	10	7	13	23	3
Hcal	14	1	0	14	7	17	23	4
Hcal	15	1	0	18	7	21	23	5
Hcal	16	1	0	22	7	25	23	6
Hcal	17	1	0	26	7	29	23	7
Hcal	18	1	8	2	15	5	23	8
Hcal	19	1	8	6	15	9	23	9
Hcal	20	1	8	10	15	13	23	10
Hcal	21	1	8	14	15	17	23	11
Hcal	22	1	8	18	15	21	23	12
Hcal	23	1	8	22	15	25	23	13
Hcal	24	1	8	26	15	29	23	14
Hcal	25	1	16	2	23	5	24	1
Hcal	26	1	16	6	23	9	24	2
Hcal	27	1	16	10	23	13	24	3
Hcal	28	1	16	14	23	17	24	4
Hcal	29	1	16	18	23	21	24	5
Hcal	30	1	16	22	23	25	24	6
Hcal	31	1	16	26	23	29	24	7
Hcal	32	1	24	2	31	5	24	8
Hcal	33	1	24	6	31	9	24	9
Hcal	34	1	24	10	31	13	24	10
Hcal	35	1	24	14	31	17	24	11
Hcal	36	1	24	18	31	21	24	12
Hcal	37	1	24	22	31	25	24	13
Hcal	38	1	24	26	31	29	24	14
Hcal	39	0	16	1	23	4	25	2
Hcal	40	0	16	5	23	8	25	3
Hcal	41	0	16	21	23	24	25	4
Hcal	42	0	16	25	23	28	25	5
Hcal	43	0	24	1	31	4	25	6
Hcal	44	0	24	5	31	8	25	7

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Hcal	45	0	24	9	31	12	25	8
Hcal	46	0	24	13	31	16	25	9
Hcal	47	0	24	17	31	20	25	10
Hcal	48	0	24	21	31	24	25	11
Hcal	49	0	24	25	31	28	25	12
Hcal-PIN	50	3	0	0	7	3	22	13
Hcal-PIN	51	3	8	0	15	3	22	15
Hcal-PIN	52	3	48	4	55	7	25	13
Hcal-PIN	53	3	56	4	63	7	25	14
Prs	0	0	0	6	7	13	0	1
Prs	1	0	0	14	7	21	0	2
Prs	2	0	0	22	7	29	0	3
Prs	3	0	0	30	7	33	0	4
Prs	4	0	0	34	7	41	0	5
Prs	5	0	0	42	7	49	0	6
Prs	6	0	0	50	7	57	0	7
Prs	7	0	8	6	15	13	0	8
Prs	8	0	8	14	15	21	0	9
Prs	9	0	8	22	15	29	0	10
Prs	10	0	8	30	15	33	0	11
Prs	11	0	8	34	15	41	0	12
Prs	12	0	8	42	15	49	0	13
Prs	13	0	8	50	15	57	0	14
Prs	14	0	16	6	23	13	1	4
Prs	15	0	16	14	23	21	1	5
Prs	16	0	16	42	23	49	1	6
Prs	17	0	16	50	23	57	1	7
Prs	18	0	24	6	31	13	1	8
Prs	19	0	24	14	31	21	1	9
Prs	20	0	24	42	31	49	1	10
Prs	21	0	24	50	31	57	1	11
Prs	22	0	32	6	39	13	6	4
Prs	23	0	32	14	39	21	6	5
Prs	24	0	32	42	39	49	6	6
Prs	25	0	32	50	39	57	6	7
Prs	26	0	40	6	47	13	6	8
Prs	27	0	40	14	47	21	6	9
Prs	28	0	40	42	47	49	6	10
Prs	29	0	40	50	47	57	6	11
Prs	30	0	48	6	55	13	7	1
Prs	31	0	48	14	55	21	7	2
Prs	32	0	48	22	55	29	7	3
Prs	33	0	48	30	55	33	7	4
Prs	34	0	48	34	55	41	7	5
Prs	35	0	48	42	55	49	7	6
Prs	36	0	48	50	55	57	7	7
Prs	37	0	56	6	63	13	7	8
Prs	38	0	56	14	63	21	7	9
Prs	39	0	56	22	63	29	7	10
Prs	40	0	56	30	63	33	7	11

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Prs	41	0	56	34	63	41	7	12
Prs	42	0	56	42	63	49	7	13
Prs	43	0	56	50	63	57	7	14
Prs	44	1	0	12	7	19	2	1
Prs	45	1	0	20	7	27	2	2
Prs	46	1	0	28	7	35	2	3
Prs	47	1	0	36	7	43	2	4
Prs	48	1	0	44	7	51	2	5
Prs	49	1	8	12	15	19	2	6
Prs	50	1	8	20	15	27	2	7
Prs	51	1	8	28	15	35	2	8
Prs	52	1	8	36	15	43	2	9
Prs	53	1	8	44	15	51	2	10
Prs	54	1	16	12	23	19	2	11
Prs	55	1	16	44	23	51	2	12
Prs	56	1	24	12	31	19	2	13
Prs	57	1	24	44	31	51	2	14
Prs	58	1	32	12	39	19	5	1
Prs	59	1	32	44	39	51	5	2
Prs	60	1	40	12	47	19	5	3
Prs	61	1	40	44	47	51	5	4
Prs	62	1	48	12	55	19	5	5
Prs	63	1	48	20	55	27	5	6
Prs	64	1	48	28	55	35	5	7
Prs	65	1	48	36	55	43	5	8
Prs	66	1	48	44	55	51	5	9
Prs	67	1	56	12	63	19	5	10
Prs	68	1	56	20	63	27	5	11
Prs	69	1	56	28	63	35	5	12
Prs	70	1	56	36	63	43	5	13
Prs	71	1	56	44	63	51	5	14
Prs	72	2	8	14	15	21	3	1
Prs	73	2	8	22	15	29	3	2
Prs	74	2	8	30	15	33	3	3
Prs	75	2	8	34	15	41	3	4
Prs	76	2	8	42	15	49	3	5
Prs	77	2	16	14	23	21	3	6
Prs	78	2	16	22	23	29	3	7
Prs	79	2	16	30	23	33	3	8
Prs	80	2	16	34	23	41	3	9
Prs	81	2	16	42	23	49	3	10
Prs	82	2	24	14	31	21	3	11
Prs	83	2	24	22	31	25	3	12
Prs	84	2	24	38	31	41	3	13
Prs	85	2	24	42	31	49	3	14
Prs	86	2	32	14	39	21	4	1
Prs	87	2	32	22	39	25	4	2
Prs	88	2	32	38	39	41	4	3
Prs	89	2	32	42	39	49	4	4
Prs	90	2	40	14	47	21	4	5

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Prs	91	2	40	22	47	29	4	6
Prs	92	2	40	30	47	33	4	7
Prs	93	2	40	34	47	41	4	8
Prs	94	2	40	42	47	49	4	9
Prs	95	2	48	14	55	21	4	10
Prs	96	2	48	22	55	29	4	11
Prs	97	2	48	30	55	33	4	12
Prs	98	2	48	34	55	41	4	13
Prs	99	2	48	42	55	49	4	14

TELL1 boards

The specific Tell1 firmware for the calorimeter is discussed [here](#)

List of calorimeter TELL1 and connection to FEB

All calorimeters TELL1 are listed below. The Front-End boards numbering in the 'list of connected FEB' refers to the Front-End list above.

Calo	Tell1	sourceID	#FEB	list of connected FEB													
				0	1	2	3	4	5	6							
Ecal	ectell01	0	7	0	1	2	3	4	5	6							
Ecal	ectell02	1	6	7	8	9	10	11	12								
Ecal	ectell03	2	7	13	14	15	16	17	18	19							
Ecal	ectell04	3	6	20	21	22	23	24	25								
Ecal	ectell05	4	8	26	27	28	29	30	31	32	33						
Ecal	ectell06	5	8	34	35	36	37	38	39	40	41						
Ecal	ectell07	6	8	84	85	86	87	88	89	188	189						
Ecal	ectell08	7	8	90	91	92	93	94	95	96	97						
Ecal	ectell09	8	6	98	99	100	101	102	103								
Ecal	ectell10	9	8	104	105	106	107	108	109	110	111						
Ecal	ectell11	10	8	144	145	146	147	148	149	150	151						
Ecal	ectell12	11	8	140	141	142	143	152	153	154	155						
Ecal	ectell13	12	8	156	157	158	159	160	161	162	163						
Ecal	ectell14	13	8	168	169	170	171	172	173	174	175						
Ecal	ectell15	14	8	164	165	166	167	176	177	178	179						
Ecal	ectell16	15	8	180	181	182	183	184	185	186	187						
Ecal	ectell17	16	8	112	113	114	115	116	117	118	119						
Ecal	ectell18	17	8	120	121	122	123	124	125	190	191						
Ecal	ectell19	18	8	126	127	128	129	130	131	132	133						
Ecal	ectell20	19	6	134	135	136	137	138	139								
Ecal	ectell21	20	8	42	43	44	45	46	47	48	49						
Ecal	ectell22	21	8	50	51	52	53	54	55	56	57						
Ecal	ectell23	22	7	58	59	60	61	62	63	64							
Ecal	ectell24	23	6	65	66	67	68	69	70								
Ecal	ectell25	24	7	71	72	73	74	75	76	77							
Ecal	ectell26	25	6	78	79	80	81	82	83								
Hcal	htell01	0	6	0	1	2	3	4		5							
Hcal	htell02	1	7	6	7	8	9	10	50	51							
Hcal	htell03	2	7	11	12	13	14	15	16	17							
Hcal	htell04	3	7	18	19	20	21	22	23	24							
Hcal	htell05	4	7	25	26	27	28	29	30	31							
Hcal	htell06	5	7	32	33	34	35	36	37	38							
Hcal	htell07	6	6	39	40	41	42	43	44								
Hcal	htell08	7	7	45	46	47	48	49	52	53							
Prs	pstell01	0	14	0	1	2	3	4	5	6	7	8	9	10	11	12	13
Prs	pstell02	1	8	14	15	16	17	18	19	20	21						
Prs	pstell03	2	14	44	45	46	47	48	49	50	51	52	53	54	55	56	57
Prs	pstell04	3	14	72	73	74	75	76	77	78	79	80	81	82	83	84	85
Prs	pstell05	4	14	86	87	88	89	90	91	92	93	94	95	96	97	98	99
Prs	pstell06	5	14	58	59	60	61	62	63	64	65	66	67	68	69	70	71

Prs	pstell07	6	8	22	23	24	25	26	27	28	29								
Prs	pstell08	7	14	30	31	32	33	34	35	36	37	38	39	40	41	42	43		

CROC to TELL1 connection rule

Reverse path from TELL1 PP-FPGA to FEB.

Warning : this matching actually depends on the multiplexer configuration.

PP-FPGA	input	Gol	FEB in crate
0	0	0	1
0	1	1	3
0	2	2	0
0	3	3	2
0	-	4	-
0	-	5	-

1	0	6	6
1	-	7	-
1	-	8	-
1	1	9	4
1	2	10	7
1	3	11	5

2	0	0	9
2	1	1	11
2	2	2	8
2	3	3	10
2	-	4	-
2	-	5	-

3	0	6	14
3	-	7	-
3	-	8	-
3	1	9	12
3	2	10	15
3	3	11	13

TELL1 crates

The calorimeter TELL1 cabling scheme has been proposed by Bolek, here [↗](#).

The installation status is summarized below.

Hcal/Prs crate (D3B01L : [41LCERCT080010])

Tell1 CCPC IP	Stick=Tell1 ID	Slot	MAC CCPC	Source IP	MAC Gbe	SourceID
pstell01 (10.130.36.11)	4ODLAUTL000254	02	00:30:59:01:C8:AF	192.169.8.1	00:CC:BB:08:01:00	0
pstell02 (10.130.36.12)	4ODLAUTL000320	03	00:30:59:03:55:17	192.169.8.2	00:CC:BB:08:02:00	1

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	[4ODLAUTL000250]		[00:30:59:01:C8:A8]			
pstell03 (10.130.36.13)	4ODLAUTL000052	04	00:30:59:01:XX:XX	192.169.8.3	00:CC:BB:08:03:00	2
	[4ODLAUTL000159]		[00:30:59:01:C8:A7]			
pstell04 (10.130.36.14)	4ODLAUTL000130	05	00:30:59:01:C8:37	192.169.8.4	00:CC:BB:08:04:00	3
pstell05 (10.130.36.15)	4ODLAUTL000211	06	00:30:59:01:C8:AC	192.169.8.5	00:CC:BB:08:05:00	4
pstell06 (10.130.36.16)	4ODLAUTL000090	07	00:30:59:01:C8:D6	192.169.8.6	00:CC:BB:08:06:00	5
pstell07 (10.130.36.17)	4ODLAUTL000212	08	00:30:59:01:C8:B9	192.169.8.7	00:CC:BB:08:07:00	6
pstell08 (10.130.36.18)	4ODLAUTL000101	09	00:30:59:01:C4:19	192.169.8.8	00:CC:BB:08:08:00	7
	[4ODLAUTL000106]		[00:30:59:01:C7:D4]			ORx PP3link5 pb
	[4ODLAUTL000210]		[00:30:59:01:C8:AD]			no pb - underflow FIFO
hctell01 (10.130.36.1)	4ODLAUTL000248	10	00:30:59:01:C7:F8	192.169.2.1	00:CC:BB:02:01:00	0
hctell02 (10.130.36.2)	4ODLAUTL000402	11	00:30:59:01:C8:90	192.169.2.2	00:CC:BB:02:02:00	1
hctell03 (10.130.36.3)	4ODLAUTL000070	12	00:30:59:01:C8:8F	192.169.2.3	00:CC:BB:02:03:00	2
hctell04 (10.130.36.4)	4ODLAUTL000125	13	00:30:59:01:C4:1F	192.169.2.4	00:CC:BB:02:04:00	3
	[4ODLAUTL000144]		00:30:59:01:C8:8E			
hctell05 (10.130.36.5)	4ODLAUTL000124	14	00:30:59:01:C8:8D	192.169.2.5	00:CC:BB:02:05:00	4
hctell06 (10.130.36.6)	4ODLAUTL000168	15	00:30:59:01:C7:F3	192.169.2.6	00:CC:BB:02:06:00	5
hctell07 (10.130.36.7)	4ODLAUTL000348	16	00:30:59:01:C8:27	192.169.2.7	00:CC:BB:02:07:00	6
	[4ODLAUTL000237]		[00:30:59:01:C8:91]			
hctell08 (10.130.36.8)	4ODLAUTL000165	17	00:30:59:01:C8:92	192.169.2.8	00:CC:BB:02:08:00	7

Ecal crate (D3B02L : [Sticker is missing !])

Tell1 ID	Stick=Tell1 ID	Slot	MAC CCPC	Source IP	MAC Gbe	SourceID
ectell01 (10.130.36.21)	4ODLAUTL000262	04	00:30:59:01:C9:5D	192.169.3.1	00:CC:BB:03:01:00	0
ectell02 (10.130.36.22)	4ODLAUTL000062	05	00:30:59:01:C8:A3	192.169.3.2	00:CC:BB:03:02:00	1
	[4ODLAUTL000348]		[00:30:59:01:C8:27]			
ectell03 (10.130.36.23)	4ODLAUTL000405	06	00:30:59:01:C7:A1	192.169.3.3	00:CC:BB:03:03:00	2
ectell04 (10.130.36.24)	4ODLAUTL000351	07	00:30:59:01:C3:E6	192.169.3.4	00:CC:BB:03:04:00	3
ectell05 (10.130.36.25)	4ODLAUTL000350	08	00:30:59:01:C3:E4	192.169.3.5	00:CC:BB:03:05:00	4

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ectell06 (10.130.36.26)	4ODLAUTL000074	09	00:30:59:01:C7:9F	192.169.3.6	00:CC:BB:03:06:00	5
ectell07 (10.130.36.27)	4ODLAUTL000356	10	00:30:59:01:C8:34	192.169.3.7	00:CC:BB:03:07:00	6
	[4ODLAUTL000352]		[00:30:59:01:C3:E5]			
ectell08 (10.130.36.28)	4ODLAUTL000343	11	00:30:59:01:C8:44	192.169.3.8	00:CC:BB:03:08:00	7
ectell09 (10.130.36.29)	4ODLAUTL000226	12	00:30:59:01:C8:8C	192.169.3.9	00:CC:BB:03:09:00	8
ectell10 (10.130.36.30)	4ODLAUTL000150	13	00:30:59:01:C8:8A	192.169.3.10	00:CC:BB:03:0A:00	9
ectell11 (10.130.36.31)	4ODLAUTL000325	14	00:30:59:01:C8:89	192.169.3.11	00:CC:BB:03:0B:00	10
ectell12 (10.130.36.32)	4ODLAUTL000420	15	00:30:59:03:55:44	192.169.3.12	00:CC:BB:03:0C:00	11
	[4ODLAUTL000250]		[00:30:59:01:C3:F9]			PP-FPGA3 Pb
	[4ODLAUTL000307]		[00:30:59:01:C8:2E]			
ectell13 (10.130.36.33)	4ODLAUTL000277	16	00:30:59:03:55:14	192.169.3.13	00:CC:BB:03:0D:00	12

Ecal crate (D3B02U : [41LCERCT080009])

Tell1 CCPC IP	Stick=Tell1 ID	Slot	MAC CCPC	Source IP	MAC Gbe	SourceID
ectell14 (10.130.36.34)	4ODLAUTL000237	04	00:30:59:01:C8:91	192.169.3.14	00:CC:BB:03:0E:00	13
	[4ODLAUTL000084]		[00:30:59:01:C4:04]			
ectell15 (10.130.36.35)	4ODLAUTL000221	05	00:30:59:01:C7:B7	192.169.3.15	00:CC:BB:03:0F:00	14
ectell16 (10.130.36.36)	4ODLAUTL000293	06	00:30:59:01:C7:9C	192.169.3.16	00:CC:BB:03:10:00	15
ectell17 (10.130.36.37)	4ODLAUTL000092	07	00:30:59:01:C8:D4	192.169.3.17	00:CC:BB:03:11:00	16
ectell18 (10.130.36.38)	4ODLAUTL000292	08	00:30:59:01:C7:9D	192.169.3.18	00:CC:BB:03:12:00	17
ectell19 (10.130.36.39)	4ODLAUTL000318	09	00:30:59:01:C7:9A	192.169.3.19	00:CC:BB:03:13:00	18
ectell20 (10.130.36.40)	4ODLAUTL000314	10	00:30:59:01:C7:9B	192.169.3.20	00:CC:BB:03:14:00	19
ectell21 (10.130.36.41)	4ODLAUTL000182	11	00:30:59:01:C4:22	192.169.3.21	00:CC:BB:03:15:00	20
ectell22 (10.130.36.42)	4ODLAUTL000068	12	00:30:59:01:C8:D5	192.169.3.22	00:CC:BB:03:16:00	21
ectell23 (10.130.36.43)	4ODLAUTL000089	13	00:30:59:01:C8:CF	192.169.3.23	00:CC:BB:03:17:00	22
ectell24 (10.130.36.44)	4ODLAUTL000187	14	00:30:59:01:C9:5C	192.169.3.24	00:CC:BB:03:18:00	23
ectell25 (10.130.36.45)	4ODLAUTL000081	15	00:30:59:01:C8:D7	192.169.3.24	00:CC:BB:03:19:00	24
ectell26 (10.130.36.46)	4ODLAUTL000091	16	00:30:59:01:C8:D0	192.169.3.26	00:CC:BB:03:1A:00	25

*TO BE SOLVED *

pstell05 hard code does not match the stick (4ODLAUTL000206 instead)

ectell02 hard code does not match the stick (4ODLAUTL000058 instead)

Readout for the Ecal/Hcal PIN-diodes monitoring system

information about the PIN-diode readout can be found in a dedicated twiki page.

L0Calo readout

information about Selection Boards input connections can be found in a dedicated twiki page

Calorimeter rawBanks

The calorimeter TELL1s produce loseless (non zero-suppressed) data for Ecal and Hcal. A zero-suppression is applied for Prs data. In order to keep the link load in the budget, a compression algorithm is applied in the TELL1 firmware to produce data in the so-called 'packed format'. Both physics and trigger data are embedded in this packed banks.

The result of the L0Calo processing (L0CaloCandidates) is stored in a dedicated rawBank. The following types are defined for the packed and L0 calo banks :

Calo rawBanks	bankType	coding version	description
LHCb::EcalPacked	0x15	2	Ecal ADC and trigger ADC
LHCb::HcalPacked	0x16	2	Hcal ADC and trigger ADC
LHCb::PrsPacked	0x17	3	Prs/SPD ADC and/or trigger bit
LHCb::L0Calo	0x0	0	L0Calo candidates

In case of synchronisation problem or dead link the TELL1 can be configured to produce a full Error_Bank to help debugging. The following types are defined for Calo error banks:

Error rawBanks	bankType	description
LHCb::EcalPackedError	0x22	Ecal error bank
LHCb::HcalPackedError	0x23	Hcal error bank
LHCb::PrsPackedError	0x24	Prs/SPD error bank

During the HLT processing, a zero-suppression algorithm (software) is applied on Ecal and Hcal data and the packed banks are converted into the so-called 'compressed' (or 'short') banks. In addition physics and trigger data are stored in separate banks as defined below.

short rawBank	bankType	coding version	description
LHCb::PrsE	0x2	1	Prs ADC
LHCb::EcalE	0x3	1	Ecal ADC
LHCb::HcalE	0x4	1	Hcal ADC
LHCb::PrsTrig	0x5	2	Prs and Spd L0trigger bit
LHCb::EcalTrig	0x6	0	Ecal trigger ADC
LHCb::HcalTrig	0x7	0	Hcal trigger ADC

The calorimeter data formats are described here [↗](#)

Additional information about Error bank format can be found here [↗](#).

The L0Calo data format is described here [↗](#).

The commissioning status of the LHCb rawBanks is summarized here [↗](#)

-- Main.odescham - 23 May 2007

This topic: LHCb > LHCbCaloReadout

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