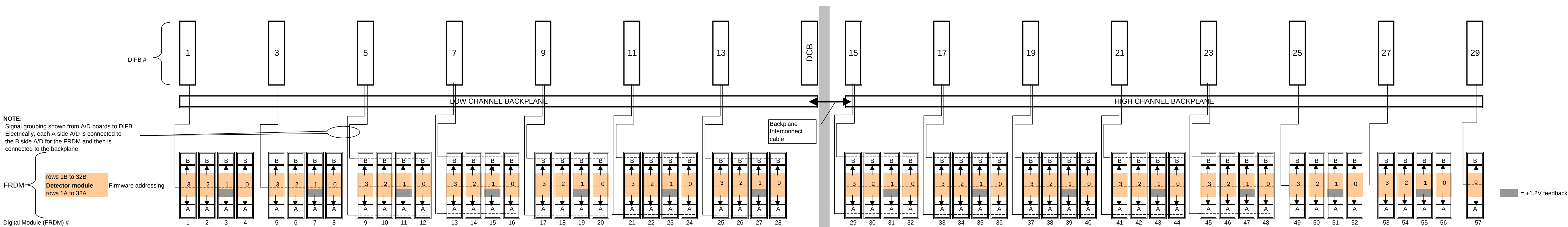
VCT HDAS_Saturn DAS/Detector Block Diagram

VCT DAS/Detector shown at 12 o'clock
Looking from the Table side of the Gantry



FRDM #	Detector Channels Start	Detector Channels End	Das Detector Interface	DAS Channels		Scan Data Channels (DIFB's duplicate ganged channels)		Tracking Channels	Reference Channels
1	1	16	Cells ganged 2 to 1 (8x32 modules)	1	8	1	16	3-14	
2	17	32		9	16	17	32		
3	33	48		17	24	33	48		
4	49	64		24	32	49	64		
5	65	80	Cells ganged 2 to 1 (8x32 modules)	33	40	65	80		
6	81	96		41	48	81	96		
7	97	112		49	56	97	112		
8	113	128		57	64	113	128		
9	129	144	No ganging 1 to 1 (16x64 modules)	65	80	129	144		
10	145	160		81	96	145	160		
11	161	176		97	112	161	176		
12	177	192		113	128	177	192		
13	193	208	No ganging 1 to 1 (16x64 modules)	129	144	193	208		
14	209	224		145	160	209	224		
15	225	240		161	176	225	240		
16	241	256		177	192	241	256		
17	257	272	No ganging 1 to 1 (16x64 modules)	193	208	257	272		
18	273	288		209	224	273	288		
19	289	304		225	240	289	304		
20	305	320		241	256	305	320		
21	321	336	No ganging 1 to 1 (16x64 modules)	257	272	321	336		
22	337	352		273	288	337	352		
23	353	368		289	304	353	368		
24	369	384		305	320	369	384		
25	385	400	No ganging 1 to 1 (16x64 modules)	321	336	385	400		
26	401	416		337	352	401	416		
27	417	432		353	368	417	432		
28	433	448		369	384	433	448		
29	449	464	No ganging 1 to 1 (16x64 modules)	385	400	449	464		
30	465	480		401	416	465	480		
31	481	496		417	432	481	496		
32	497	512		433	448	497	512		
33	513	528	No ganging 1 to 1 (16x64 modules)	449	464	513	528		
34	529	544		465	480	529	544		
35	545	560		481	496	545	560		
36	561	576		497	512	561	576		
37	577	592	No ganging 1 to 1 (16x64 modules)	513	528	577	592		
38	593	608		529	544	593	608		
39	609	624		545	560	609	624		
40	625	640		561	576	625	640		
41	641	656	No ganging 1 to 1 (16x64 modules)	577	592	641	656		
42	657	672		593	608	657	672		
43	673	688		609	624	673	688		
44	689	704		625	640	689	704		
45	705	720	No ganging 1 to 1 (16x64 modules)	641	656	705	720		
46	721	736		657	672	721	736		
47	737	752		673	688	737	752		
48	753	768		689	704	753	768		
49	769	784	Cells ganged 2 to 1 (8x32 modules)	705	712	769	784		
50	785	800		713	720	785	800		
51	801	816		721	728	801	816		
52	817	832		729	736	817	832		
53	833	848	Cells ganged 2 to 1 (8x32 modules)	737	744	833	848		
54	849	864		745	752	849	864		
55	865	880		753	760	865	880		
56	881	896		761	768	881	896		
57	897	912		769	776	897	912	897-904	897-908

Detector heaters
Heater on each side of the detector

Zone 2 (FRDM 1–6)	Zone 3	Zone 5 (FRDM 53–57)
Thermistor	Thermistor	Thermistor

Plenum Fan zones for Detector modules

Fan 1	Fan 2	Fan 3	Fan 4	Fan 5

ISO Center

Backplane Signal Mapping (same scale as above diagram)

	LOW CHANNEL BACKPLANE		HIGH CHANNEL BACKPLANE	
CLK (from DCB)	**0** (FRDM 1 - 16, DIFB 1 - 7)	**1** (FRDM 17 - 28, DIFB 9 - 13)	**2** (FRDM 29 - 44, DIFB 15 - 21)	**3** (FRDM 45 - 57, DIFB 23 - 29)
TRIG (from DCB)	**0** (FRDM 1 - 16, DIFB 1 - 7)	**1** (FRDM 17 - 28, DIFB 9 - 13)	**2** (FRDM 29 - 44, DIFB 15 - 21)	**3** (FRDM 45 - 57, DIFB 23 - 29)
48V POWER (from fuse board)	**P48V_A (J6)** (FRDM 1 - 16, DIFB 1 - 7)	**P48V_B (J7)** (FRDM 17 - 28, DIFB 9 - 13)	**P48V_C (J8)** (FRDM 29 - 44, DIFB 15 - 21)	**P48V_D (J9)** (FRDM 45 - 57, DIFB 23 - 29)

DCB signals Clk and Trig are split into 4 outputs (0-3) for signal load reduction on the DCB.

48V input power from the 48V fuse board is split into 4 inputs (A-D) for current handling.

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