

ROC status

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ROC repair at RIKEN

- So far 3 ROC are successfully repaired by Kazuma (he will be coming to BNL Feb-Mar) at RIKEN and classified as class-1 or class-2 as follows:
 - ROC 9 (class-1) already at BNL
 - ROC 14 (class-2) already at BNL
 - ROC 21 (class-2) will be shipped to BNL soon
- In total we have four (five?) class-1/class-2 ROC spares
- ROC#11 will be shipped to LANL (AMBER group), and ROC#3 will be kept at RIKEN for test purpose
 - Both are class-4

ROC status (Itaru's log sheet as of now)

	ROC #	FVTX	Regulator Upgrade	TLK Replacement	Location	Class	Barrel	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3	Issue
1	6	NW2	✓		BNL	1	0S													
2	19	NE5	✓		BNL	1	1S										R			
3	28	SE0	✓		BNL	1	2S													
4	20	SW5	✓		BNL	1	3S													
5	29	-	✓		BNL	1	4S													
6	23	SE1	✓		BNL	1	5S													
7	13	NE4	✓		BNL	1	6S													
8	3	NW5	✓	D3	BNL	2	7S	R		R	R	R	F				R	R	R	Fiber Sync
9	8 (10)	-	✓		BNL	1	0N					R		R						
10	27	SE5	✓		BNL	1	1N							R			R	R	R	
11	31	NW1	✓		BNL	1	2N	R	R	R										
12	32	NE2	✓		BNL	1								R	R	R				
13	17	NW3	✓	SC,B1	BNL	2	4N		F	F	R							R		Fiber Sync (SC FPGA)
14	2	NW4	✓	D1	BNL	2	5N					R		F			R	R		
15	24	SE4	✓	A2	BNL	2	6N		R	R								F		Fiber Sync
16	22	SE2	✓	A1	BNL	2	7N										F	F		
17	18	(NE1)	✓	SC	BNL	1	3N													
18	9	-	✓	SC	BNL	2				R		R								
19	15	NE0	✓		BNL	2		R									F	F		Fiber Sync
20	14	NE1	✓		BNL	2						R		H	R	R	R	R	R	D: All chip over15
21	26	SE3	✓		RIKEN	4					F	F	F							
22	5	-	✓		RIKEN	4		F						R	F	F				
23	11	-	-		RIKEN	4		H		F	H	F	R	F			F	F	R	Fiber Sync
24	21	-	✓	C3	RIKEN	2		R		R	R		R		R	R	R			
25	7	-	✓		NWU	3			R	R		H	R	H			R	H		
26	16	NE3	✓		NWU	3					C	C	C							Calib Pulse
27	4	-	-		BNL															

How to check the ROC stability during Run23?

- Since the instability of data readout is mostly caused by the connection of the conversion cable, we need to carefully check the stability after the installation.
- But if any of the ROC boards has the instability during run23, it maybe a good idea to check if the problem caused by connection or not at the testbench before installation, then replace with spare ROC if necessary.
- But how to check the instability of ROC during run23?
 - Is it possible to create hot and dead channel maps for several runs? Can Jaein/Joseph/Yuka can make the maps?
 - Or just doing eyeball check on the online plots is enough?