

MICHIGAN STATE
UNIVERSITY

L1Calo Fibre-Optic Exchange (FOX)

Update
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eFEX Layout, Connectors, and Naming.

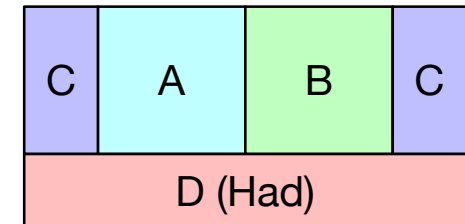
eFEX_C_1	eFEX_B_1	eFEX_A_1
eFEX_C_2	eFEX_B_2	eFEX_A_2
eFEX_C_3	eFEX_B_3	eFEX_A_3
eFEX_C_4	eFEX_B_4	eFEX_A_4
eFEX_C_5	eFEX_B_5	eFEX_A_5
eFEX_C_6	eFEX_B_6	eFEX_A_6
eFEX_C_7	eFEX_B_7	eFEX_A_7
eFEX_C_8	eFEX_B_8	eFEX_A_8

Connector Coverage

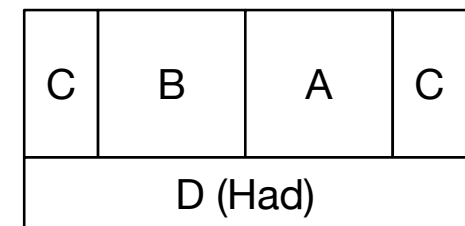
Overlap	Central	Central	Overlap
Hadronic			

Connector Naming

eFEX_C and eFEX_B



eFEX_A



EM

1	3,7
	4,8
2	5
	6

1	13	25	37
2,4	14,16	26,28	38,40
3,5	15,17	27,29	39,41
6	18	30	42
7	19	31	43
8	20	32	44
9	21	33	45
10	22	34	46

1	13	25	37
2,4	14,16	26,28	38,40
3,5	15,17	27,29	39,41
6	18	30	42
7	19	31	43
8	20	32	44
9	21	33	45
10	22	34	46

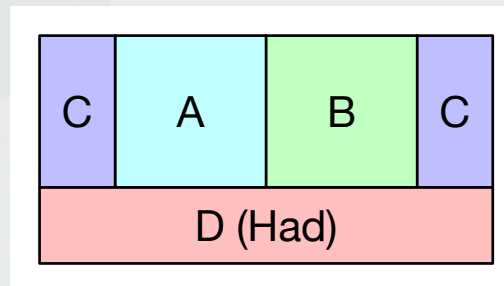
9
10,12
11,13
14
15
16
17
18

eFEX C
Output
Ordering

19-48: Spare
21-48: Spare

Had

1	3,9	5,10	6,11	3,9	12,14	15,17	18,20
2	4	7	8	4	13	16	19



EM

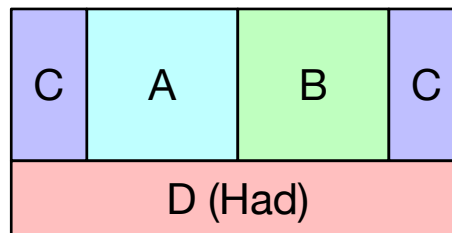
1	1	13	25	37	37
2,4	2,4	14,16	26,28	38,40	38,40
3,5	3,5	15,17	27,29	39,41	39,41
6	6	18	30	42	42
7	7	19	31	43	43
8	8	20	32	44	44
9	9	21	33	45	45
10	10	22	34	46	46

eFEX B
Output
Ordering

Had

1	4	7	10	13	16
2	5	8	11	14	17
3	6	9	12	15	18

11-36: Spare
19-48: Spare



jFEX Layout, Connectors, and Naming.

jFEX_1C Con1	jFEX_2C Con1	jFEX_3C Con1	jFEX_3A Con1	jFEX_2A Con1	jFEX_1A Con1
jFEX_1C Con2	jFEX_2C Con2	jFEX_3C Con2	jFEX_3A Con2	jFEX_2A Con2	jFEX_1A Con2
jFEX_1C Con3	jFEX_2C Con3	jFEX_3C Con3	jFEX_3A Con3	jFEX_2A Con3	jFEX_1A Con3
jFEX_1C Con4	jFEX_2C Con4	jFEX_3C Con4	jFEX_3A Con4	jFEX_2A Con4	jFEX_1A Con4

EM

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24

J1 (1C/1A)
Output
Ordering

Had

25	27	29	31	49	33	35
26	28	30	32		34	36
37	39	41	43	50	45	47
38	40	42	44		46	48

51-72 Spare

EM

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24

J2 (2C/2A)
Output
Ordering

Had

25	27	49	29	31	33	35
26	28		30	32	34	36
37	39	50	41	43	45	47
38	40		42	44	46	48

51-72 Spare

EM

1	3	5	7	9	11
2	4	6	8	10	12
13	15	17	19	21	23
14	16	18	20	22	24

J3 (3C/3A)
Output
Ordering

Had

49	25	27	29	31	33	35
	26	28	30	32	34	36
50	37	39	41	43	45	47
	38	40	42	44	46	48

51-72 Spare

gFEX Layout, Connectors, and Naming.

<p><u>EM+Had</u> <u>+FCAL</u> Con gFEX5 $\eta < -2.5$</p>	<p><u>EM</u> Con gFEX1 $-2.4 < \eta < 0.0$</p> <p><u>Had</u> Con gFEX3 $-2.5 < \eta < 0.0$</p>	<p><u>EM</u> Con gFEX2 $0.0 < \eta < 2.4$</p> <p><u>Had</u> Con gFEX4 $0.0 < \eta < 2.5$</p>	<p><u>EM+Had</u> <u>+FCAL</u> Con gFEX6 $\eta > 2.5$</p>
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Only one gFEX, so name the connectors.

EM

1	9	17
2	10	18
3	11	19
4	12	20
5	13	21
6	14	22
7	15	23
8	16	24
25	33	41
26	34	42
27	35	43
28	36	44
29	37	45
30	38	46
31	39	47
32	40	48

Had

9				
10	1	2	3	4
11				
12				
13	5	6	7	8
14				
15				
16				
33	25	26	27	28
34				
35				
36				
37	29	30	31	32
38				
39				
40				

gFEX_1/2 (EM)
G3-Type

Part 1 (24w)

Part 2 (24w)

gFEX_3/4 (Had)
G4-Type

Part 1 (24w)

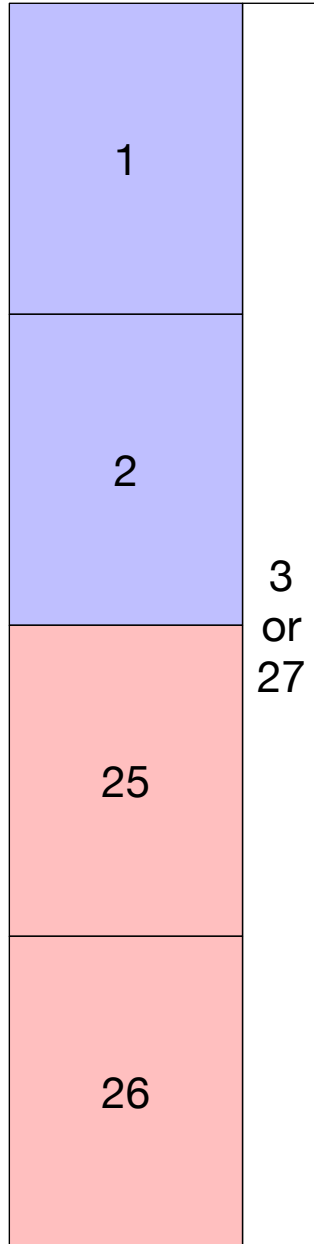
17-24: Spare

Part 2 (24w)

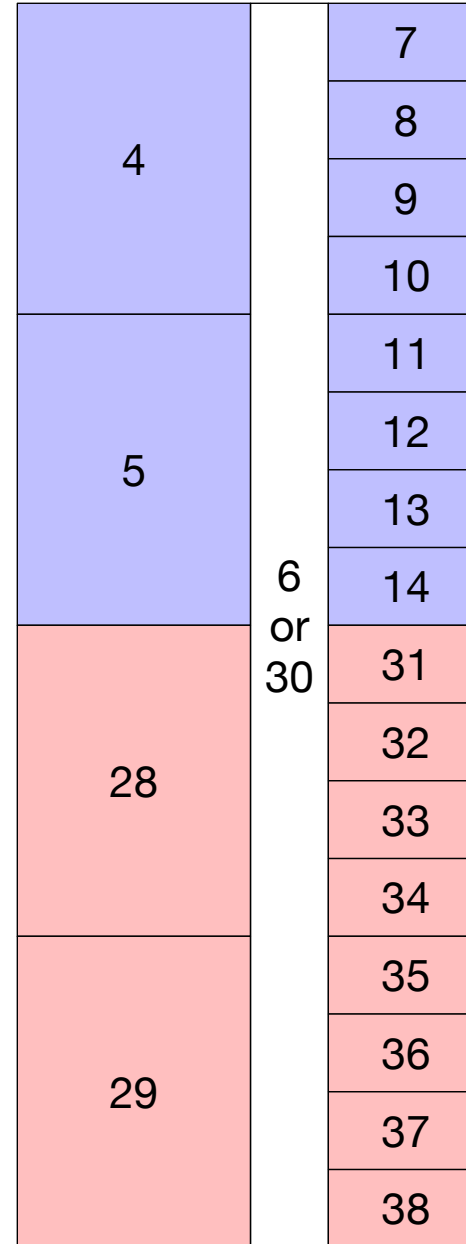
41-48: Spare

Output
Ordering

EM



Had



gFEX_5/6
G2-Type
Output
Ordering

Part 1 (24w)

15-24: Spare

Part 2 (24w)

39-48: Spare