Note before ROC reinstallation

Jaein Hwang

Byungsik Hong

List of half entry chips(updated)

Based on latest beam data during Run 2023 (run number 24767)
- Felix 0 (pid 3001) (total 1)

      module 7 chip 15
- Felix 2 (pid 3003) (total 1)

      Module 9 chip 16
- Felix 3 (pid 3004) (total 3)

      Module 13 chip 21,23,25 (total 3)

 - Felix 7 (pid 3008) (total 20)

      Module 0 chip 1,2,3,4,5,14,15,16,17,18, 7,9,11,13,20,22,24,26 (total 18 chips)
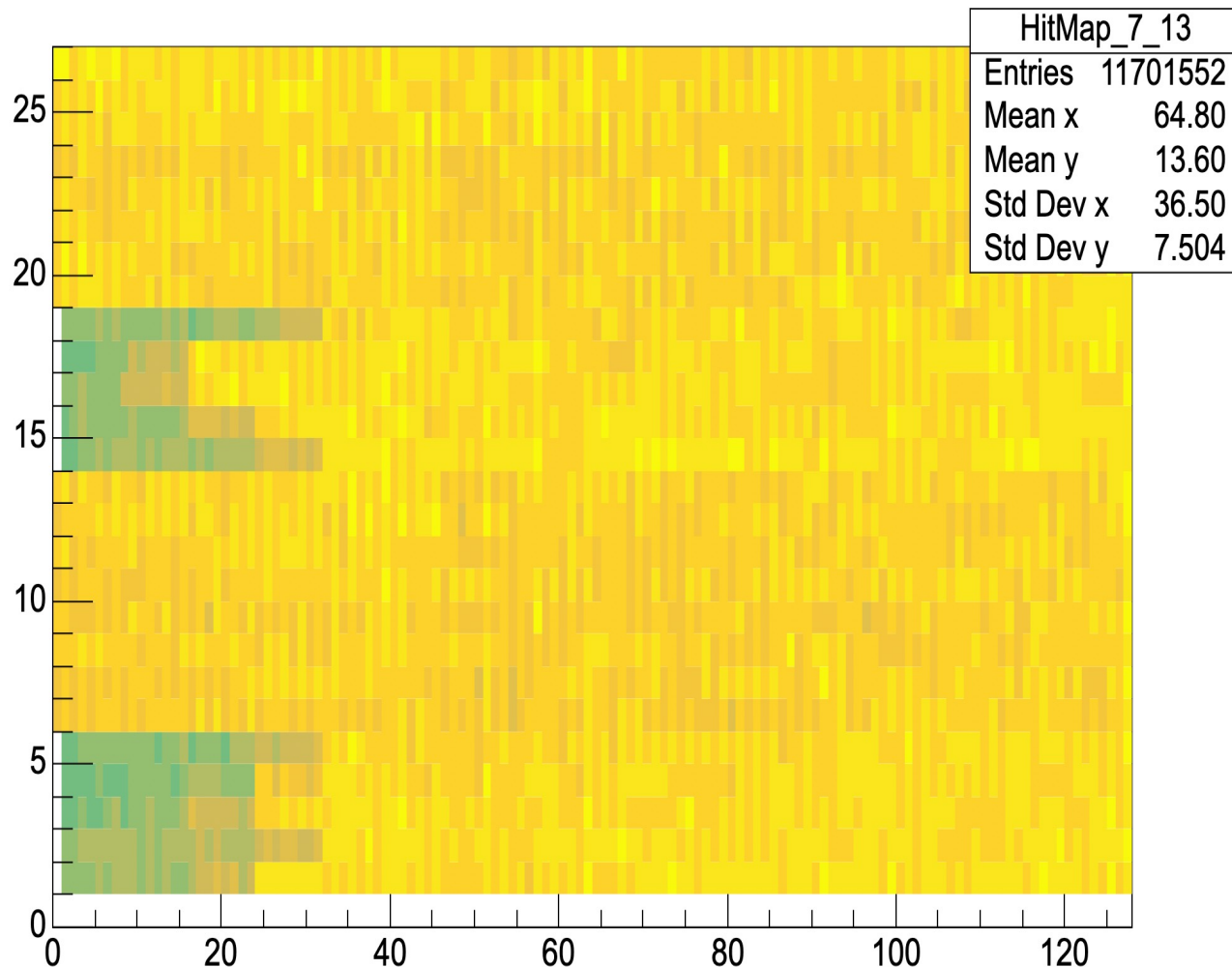
      Module 1 chip 1,2

In total, 25 chips ; 25/26x112 ~ 0.86% of total chips

Let's update after calibration test!
(Since calibration test would be good way to confirm the half entry chips.)

Weird behavior at channel 0 t

Normalized_HitMap_7_13

HitMap_7_13	
Entries	11701552
Mean x	64.80
Mean y	13.60
Std Dev x	36.50
Std Dev y	7.504

It's already reported in Jan 11 2024 INTT meeting.

I thought that if we mask the channel 0,
Some **adjacent channels(from 1 to 32)** will drop some hits and will be classified as cold channel.
Fraction of cold channel due to that ~ 4%

I checked masking lists
/home/phnxrc/INTT/sphenix_inttpy/run_scripts/bkp/mask_ch_north(south)_v1.txt.230720
and confirmed that **we did not problematic mask channel 0 during run2023.**

One idea we can try is :
Try to really mask the weird channel 0 and see whether if this issue would disappear.
Of course, let see the calibration plot first!
See also :
https://wiki.sphenix.bnl.gov/index.php/To_do_list_of_run_24_commissioning

Comment on ROC-18
(will be install at IR soon at ROC-0S)

jaeinhwang213@gmail.com
Re: [Sphenix-intt-l] ROC-18 test at silicon lab
받는 사람: nouicer

2023 May 1

2023년 5월 1일 오전 9:49

Dear Rachid,

Sorry for the late response.
As you know, ROC-18 got damaged at the regulator for column B.
And we can take the good data from column B after the replacement of the regulator.
D1 and D2 ports have some missing channel chips(one or two chips).
But, columns A, B, and C are good.

Thank you,
Best Regards,

Jaein
4/28/23 오전 9:15, nouicer <rachid.nouicer@bnl.gov> 작성:

받은 편지함 - Google 메일상자에서 찾음

Just mention it again before the ROC-reinstallation
to ensure that we may need to avoid to use port D.
Of course, let see the calibration plot first!

INTT - DAQ[0-7]	000.000.000.000	[3001 - 3999]		[0-1]	[0-13]	[A-D][0-3]	B[0-1]L[0-1] [00-15]	[1-16]	RC[0-7][N/S]
Server Label	Server IP Addr	Packet ID	MPT48-58m	Felix Port	Felix Channel	ROC Port Name	Ladder Name	Breakout Cable 15m	ROC Name
INTT - DAQ0		3001	99	0	0	D2	B1L1 01S	1	RC-0S
INTT - DAQ0		3001	99	0	1	C1	B0L1 01S	1	RC-0S
INTT - DAQ0		3001	99	0	2	C2	B1L0 01S	1	RC-0S
INTT - DAQ0		3001	99	0	3	B3	B1L0 00S	1	RC-0S
INTT - DAQ0		3001	99	0	4	A2	B1L1 00S	1	RC-0S
INTT - DAQ0		3001	99	0	5	B1	B0L0 00S	1	RC-0S
INTT - DAQ0		3001	99	0	6	A1	B0L1 00S	1	RC-0S

nouicer
[Sphenix-intt-l] Fwd: Re: ROC-18 test at silicon lab
받는 사람: sphenix-intt-l@lists.bnl.gov

2024 Jan 1
Reminder from Rachid

2024년 1월 31일 오전 10:26

Dear Jaein,

See below the e-mail that you sent me about ROC-18 status.
I hope you agree that we can put ROC-18 in position RC-0S for Run-24?

Sincerely,
Rachid

See also INTT e-log
https://sphenix-intra.sdcc.bnl.gov/WWW/elog/INTT/98

2024. 2. 21.

We used Port D2 on ROC-0S.
Based on the test I did at silicon lab.
There would be one or two empty chips.
We may need to switch it to other port.
(B2 can be good candidate)

See also INTT Full Mapping document

https://docs.google.com/spreadsheets/d/1
9PSvkhAQA8rnkP0z_wpN87CWQ6O-
f3bT/edit#gid=1658598300

DAQ operation guide (need to be update)

Unfortunately, we could not get reasonable data through the test bench system at rack room.
We have more information we may need in future.

For example, one more thing I've added : How to switch to spare GTM.

How to change setup for different GTM configuration [edit I edit source]

For different GTM, most likely spare GTM (GTM1)   [edit I edit source]

Since we have two GTM, the one is main GTM, another is the spare GTM(GTM1) normally for test purpose.

The below procedure is how to setup for spare GTM in LOCAL mode
Note : In global mode, DO NOTHING without permission from DAQ operator.

0. Contact to DAQ operator whether if we are ready to use the spare GTM or not.

1. ssh inttX (connect to intt servers you want to use.)

2. export GTMHOST=gtm1.sphenix.bnl.gov
(note : gtm.sphenix.bnl.gov = main GTM,gtm1.sphenix.bnl.gov = spare GTM)

3. Open operation/INTT/rc_setup_local.sh and changeGTMHOST=gtm.sphenix.bnl.gov toGTMHOST=gtm1.sphenix.bnl.gov

https://wiki.sphenix.bnl.gov/index.php/INTT_Felix_DAQ

2024. 2. 21.

backup