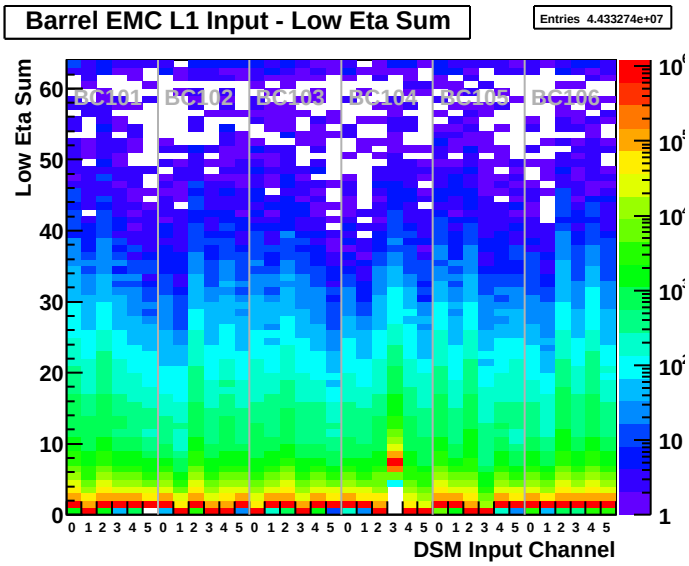
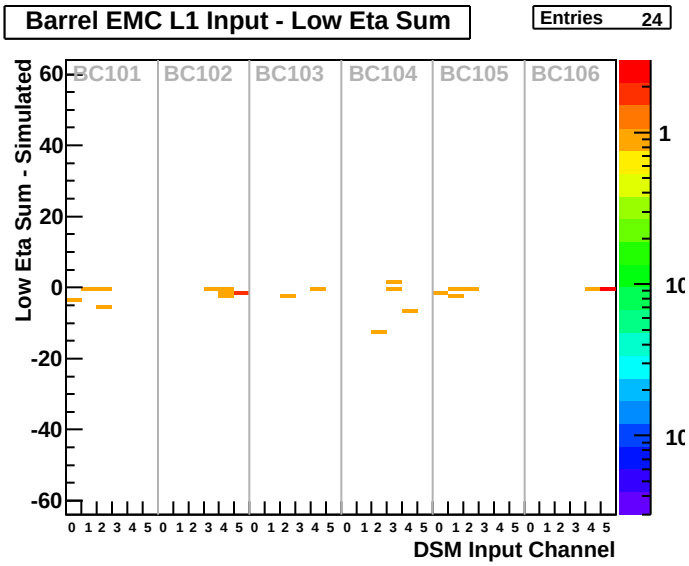
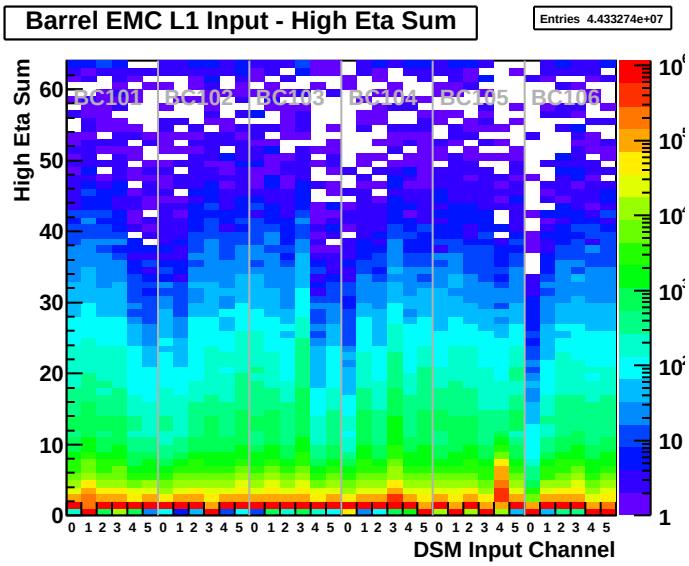
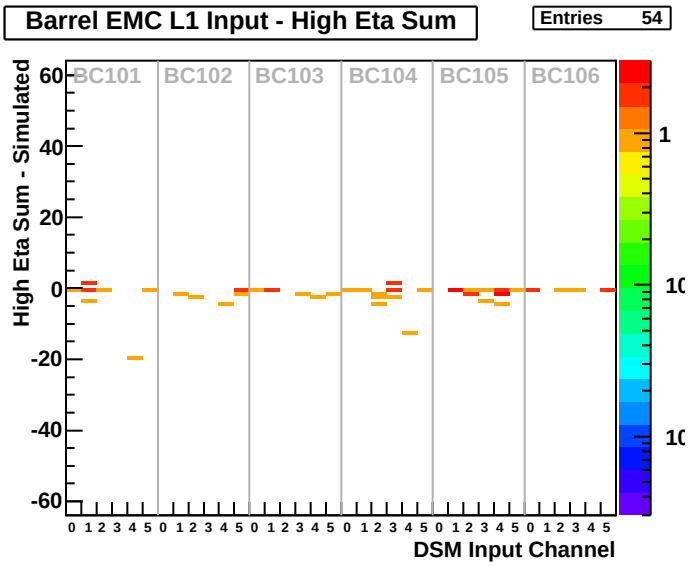
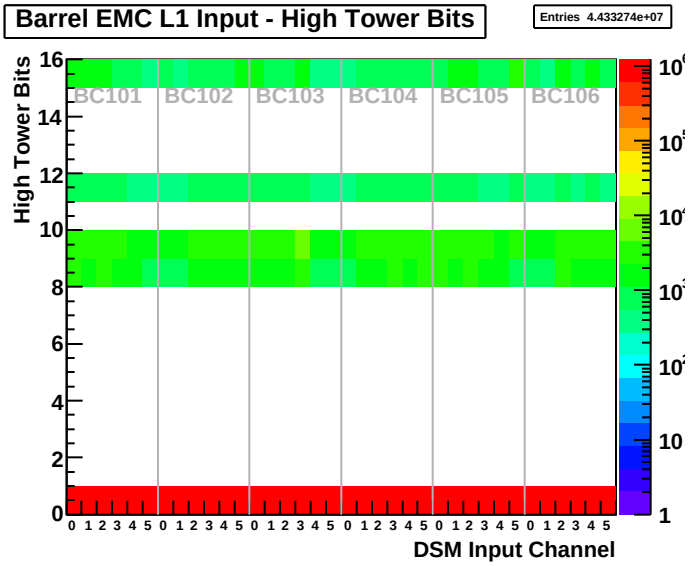
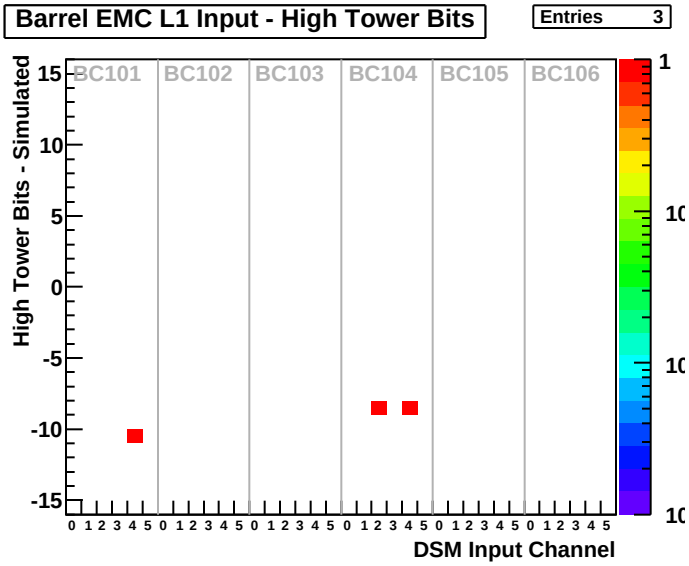

Barrel EMC L1 Input - Low Eta Sum
Entries 4.433274e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

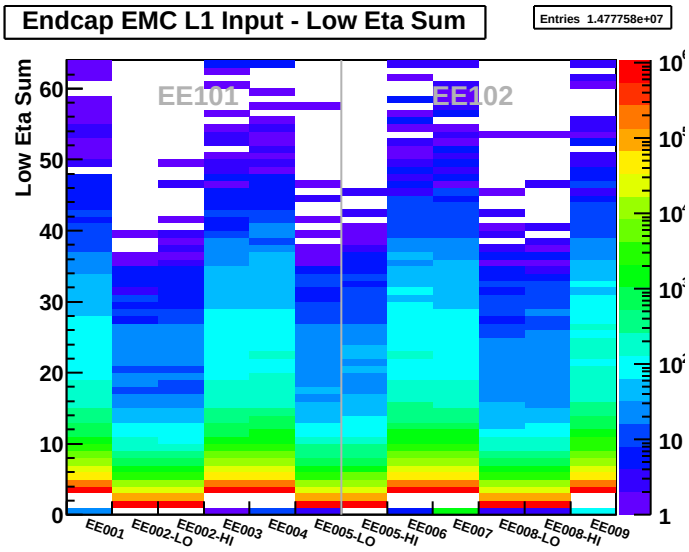

Barrel EMC L1 Input - Low Eta Sum
Entries 24
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

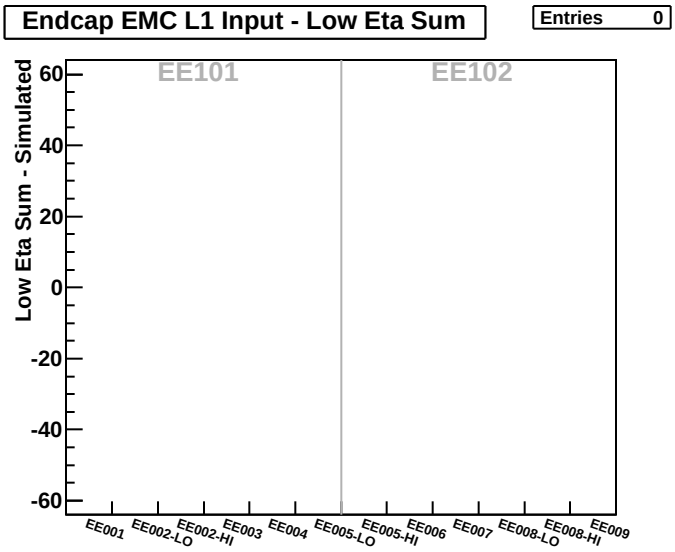

Barrel EMC L1 Input - High Eta Sum
Entries 4.433274e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

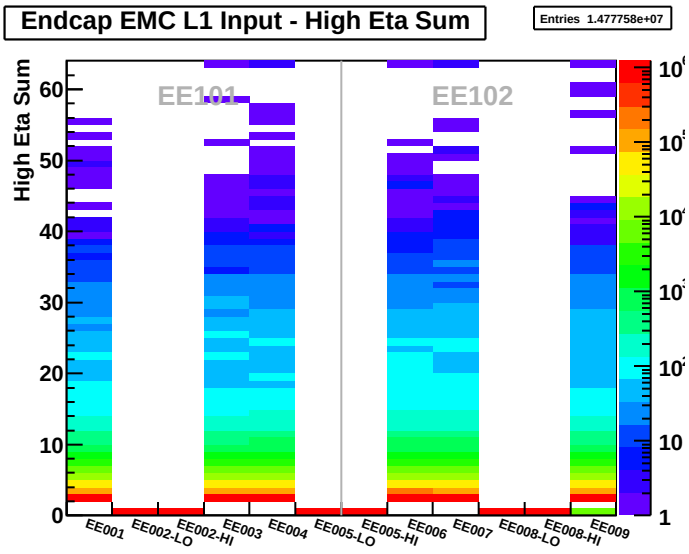

Barrel EMC L1 Input - High Eta Sum
Entries 54
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

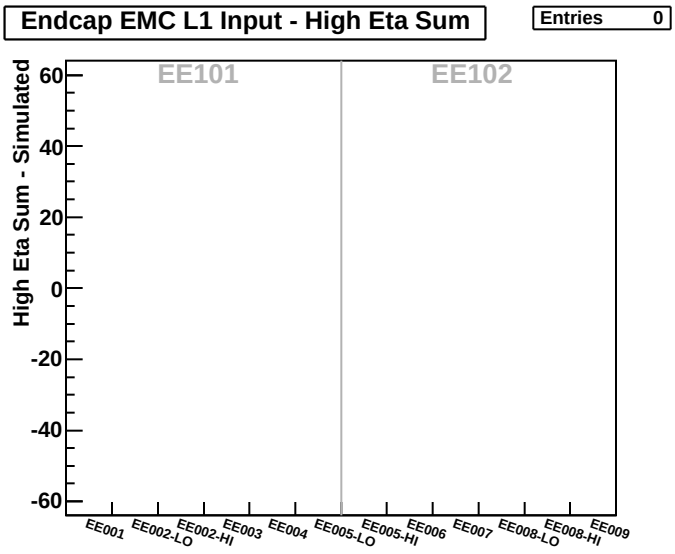

Barrel EMC L1 Input - High Tower Bits
Entries 4.433274e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

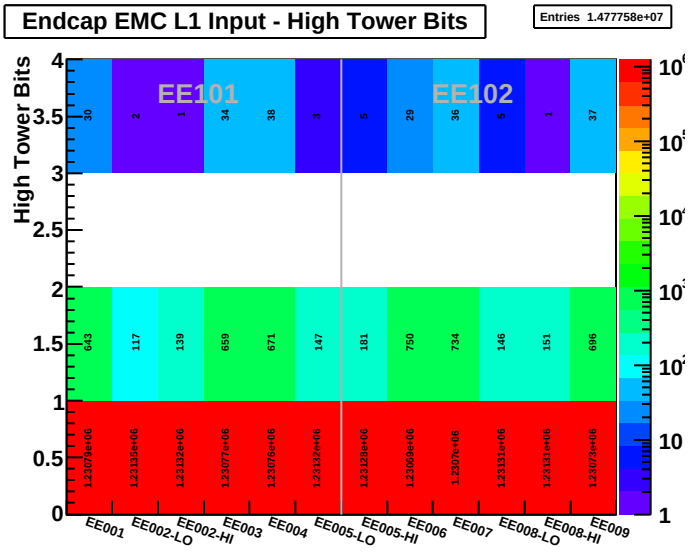

Barrel EMC L1 Input - High Tower Bits
Entries 3
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

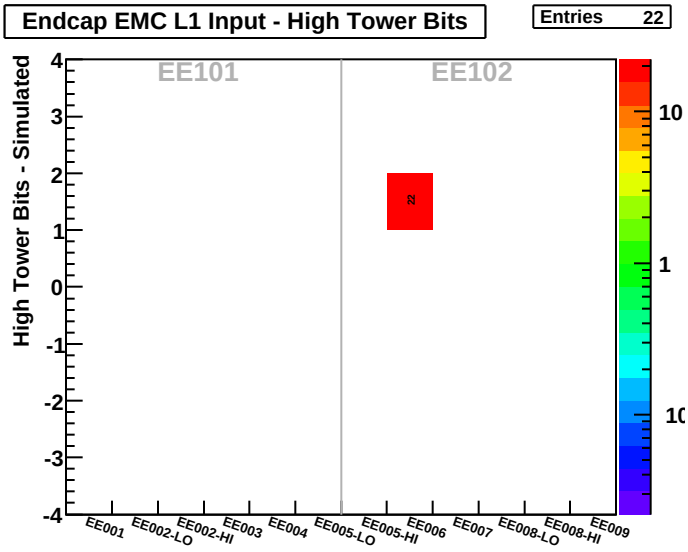

Endcap EMC L1 Input - Low Eta Sum
Entries 1.477758e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

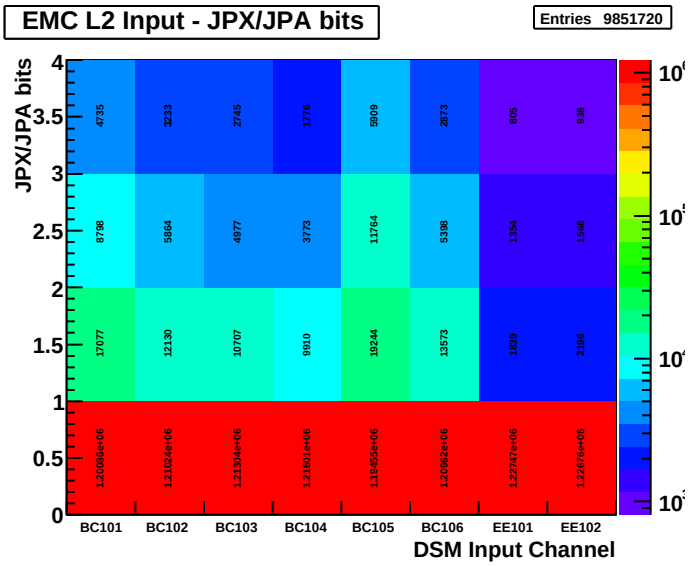

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

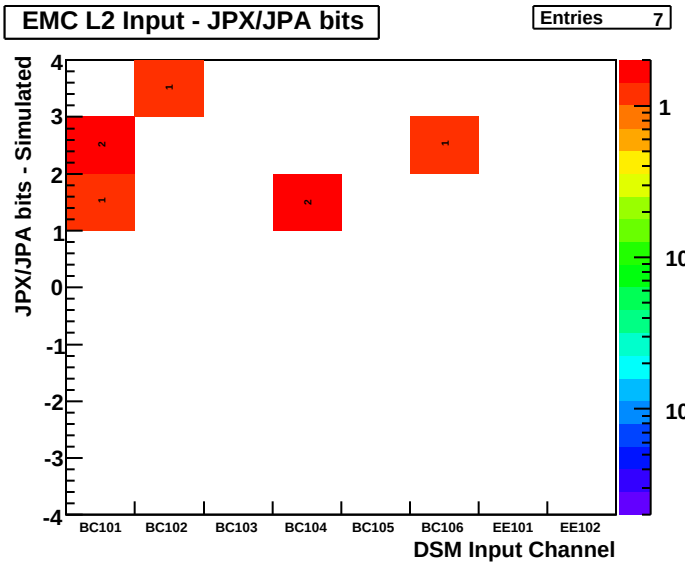

Endcap EMC L1 Input - High Eta Sum
Entries 1.477758e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

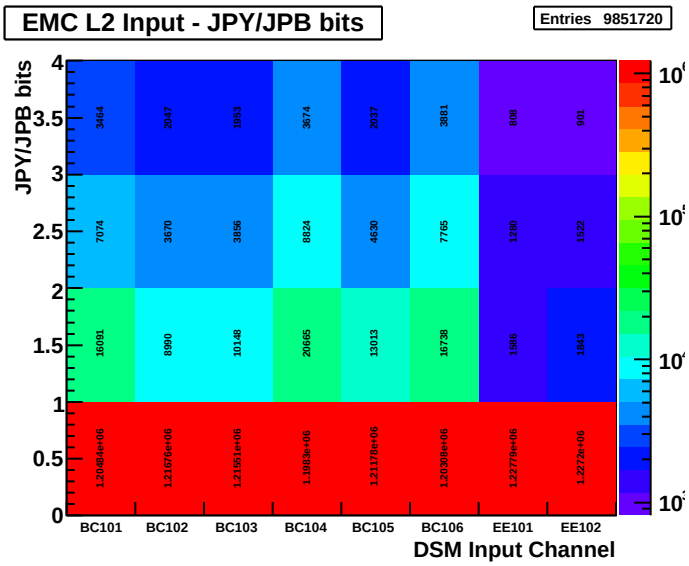

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

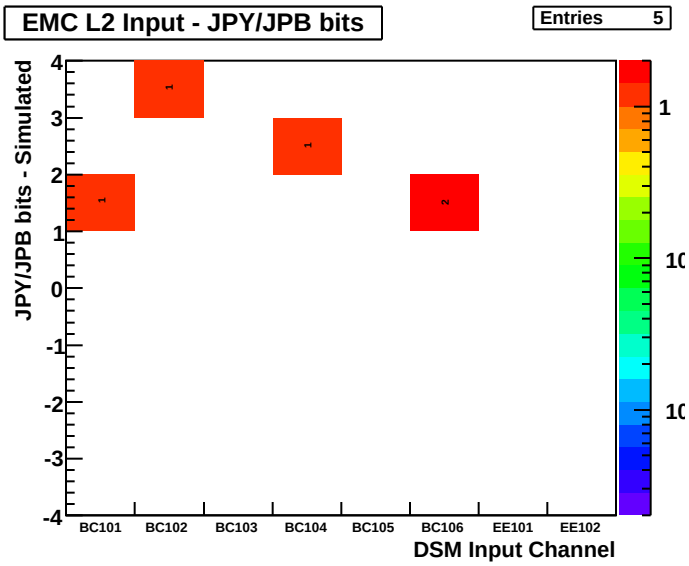

Endcap EMC L1 Input - High Tower Bits
Entries 1.477758e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

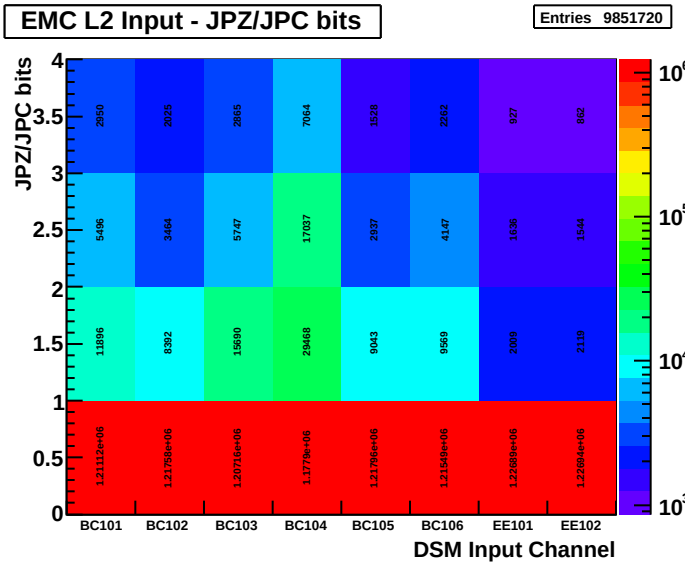

Endcap EMC L1 Input - High Tower Bits
Entries 22
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

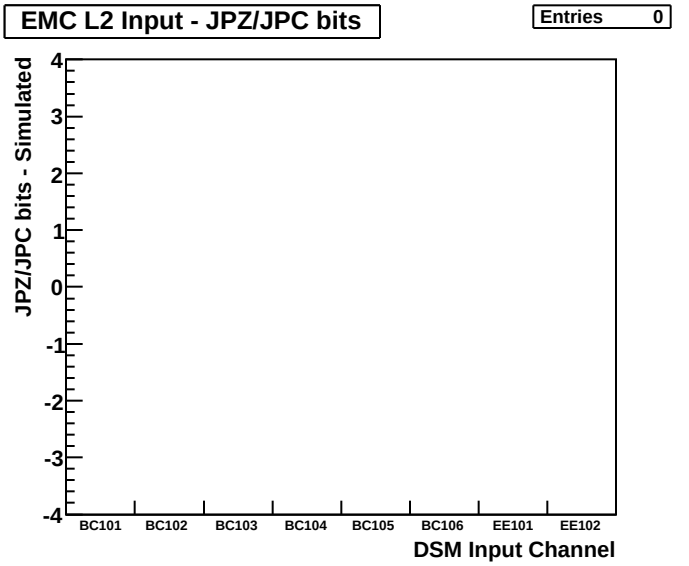

EMC L2 Input - JPX/JPA bits
Entries 9851720
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4735 3233 2745 1776 5909 2873 805 938
8798 5864 4977 3773 11764 5398 1354 1568
17077 12130 10707 9910 19244 13573 1839 2196
1.20086e+06 1.21024e+06 1.21304e+06 1.21601e+06 1.19455e+06 1.20952e+06 1.22747e+06 1.22676e+06

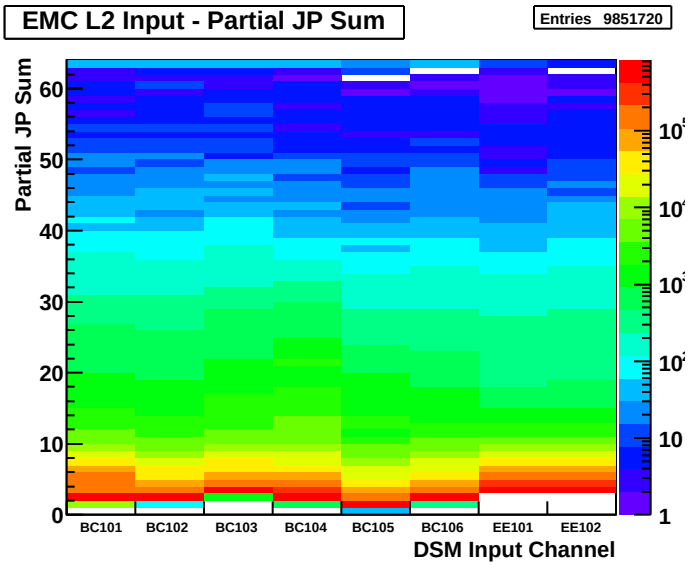

EMC L2 Input - JPX/JPA bits
Entries 7
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

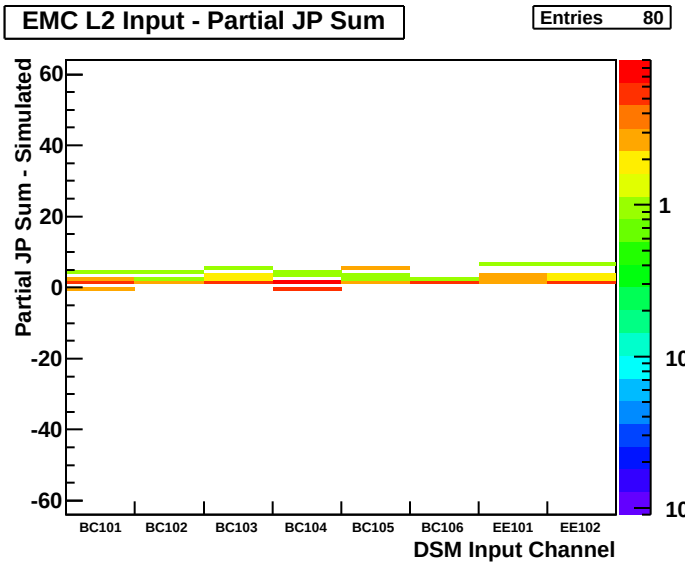

EMC L2 Input - JPY/JPB bits
Entries 9851720
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3464 2047 1953 3674 2037 3881 808 901
7074 3670 3856 8824 4630 7765 1280 1522
16091 8990 10148 20665 13013 16738 1386 1043
1.20434e+06 1.21676e+06 1.21551e+06 1.19936e+06 1.21178e+06 1.20308e+06 1.22779e+06 1.2272e+06

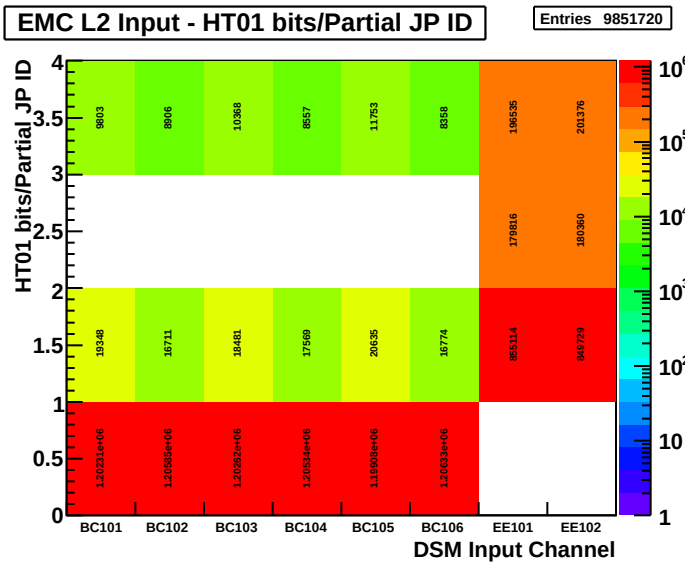

EMC L2 Input - JPY/JPB bits
Entries 5
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

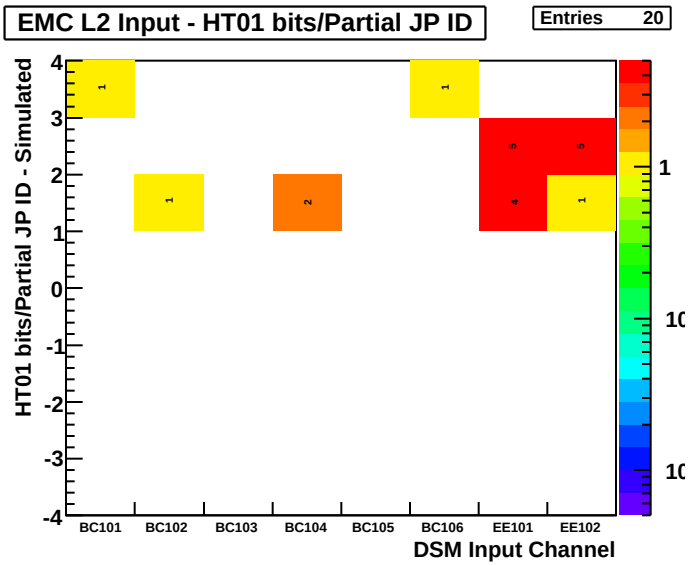

EMC L2 Input - JPZ/JPC bits
Entries 9851720
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2950 2025 2865 7064 1528 2262 927 862
5496 3464 5747 17037 2937 4147 1638 1544
11896 8392 15690 29468 9043 9569 2009 2119
1.21112e+06 1.21758e+06 1.20716e+06 1.1778e+06 1.21796e+06 1.21549e+06 1.22689e+06 1.22694e+06

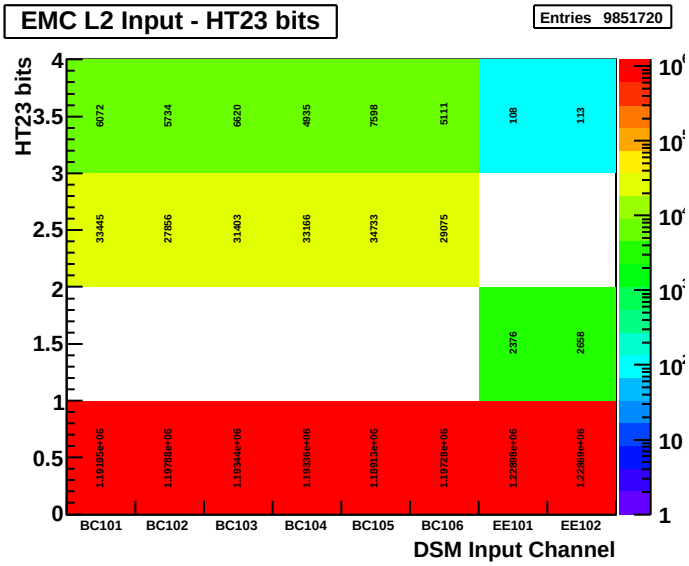

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

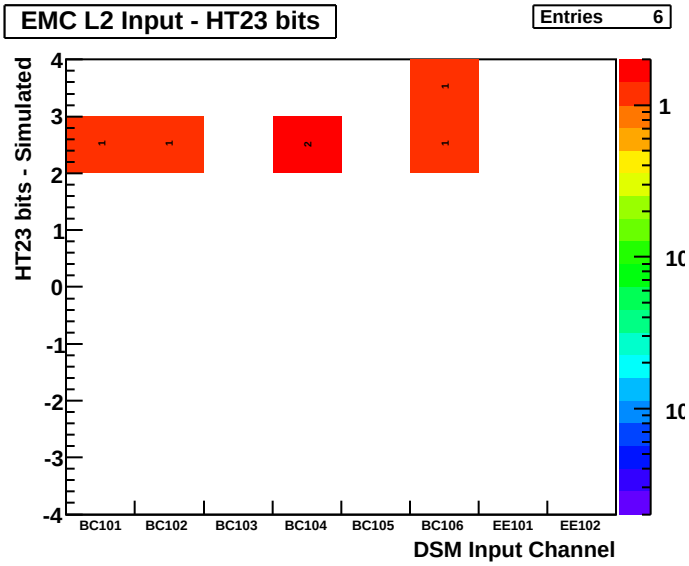

EMC L2 Input - Partial JP Sum
Entries 9851720
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

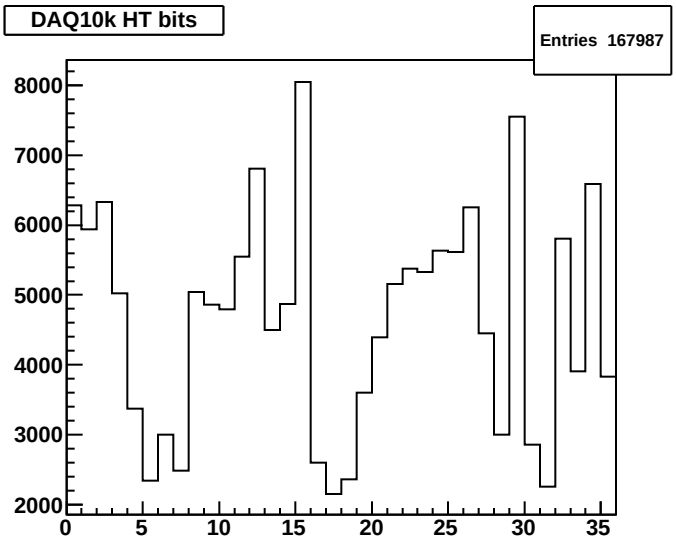

EMC L2 Input - Partial JP Sum
Entries 80
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

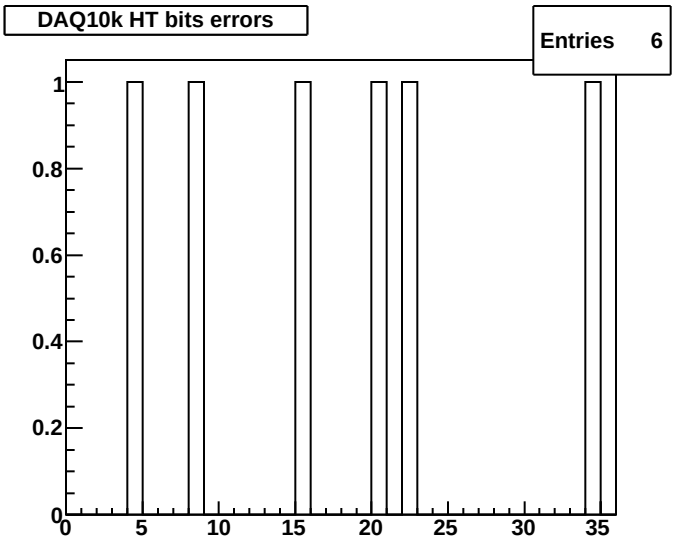

EMC L2 Input - HT01 bits/Partial JP ID
Entries 9851720
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

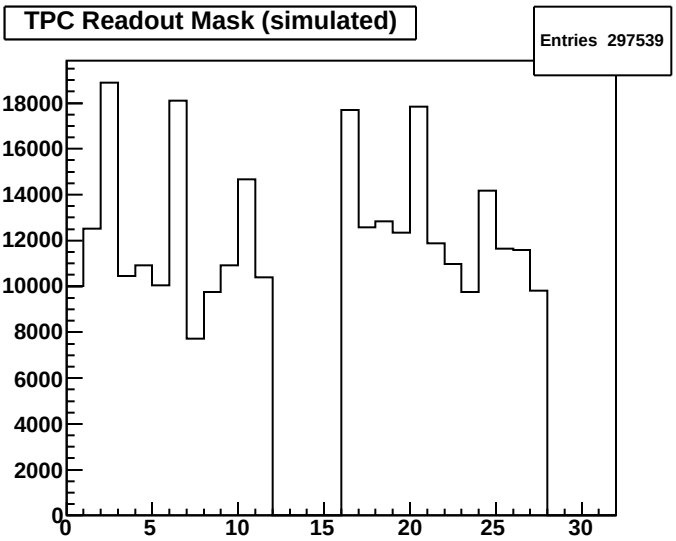

EMC L2 Input - HT01 bits/Partial JP ID
Entries 20
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

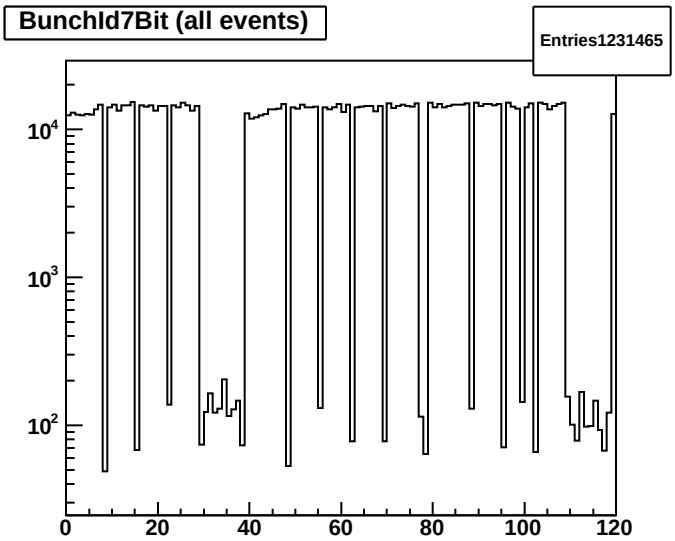

EMC L2 Input - HT23 bits
Entries 9851720
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

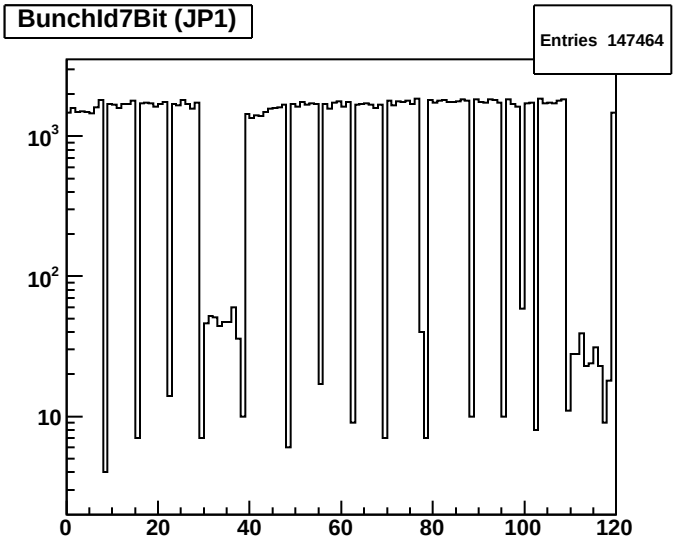

EMC L2 Input - HT23 bits
Entries 6
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

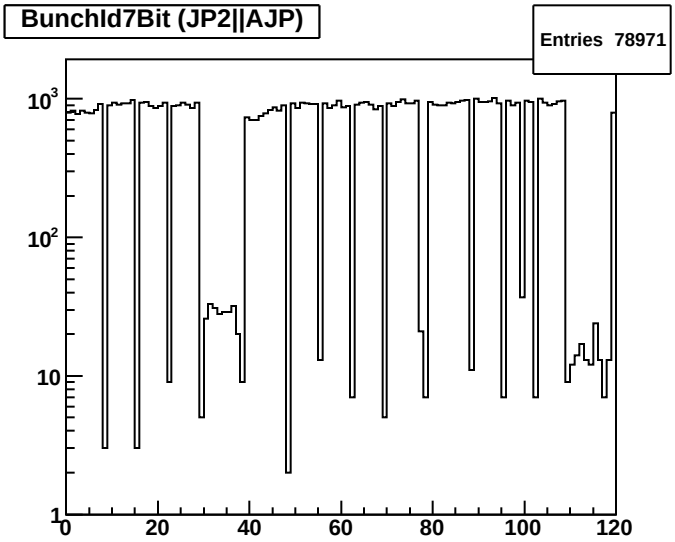

DAQ10k HT bits
Entries 167987
8000
7000
6000
5000
4000
3000
2000
0
5
10
15
20
25
30
35

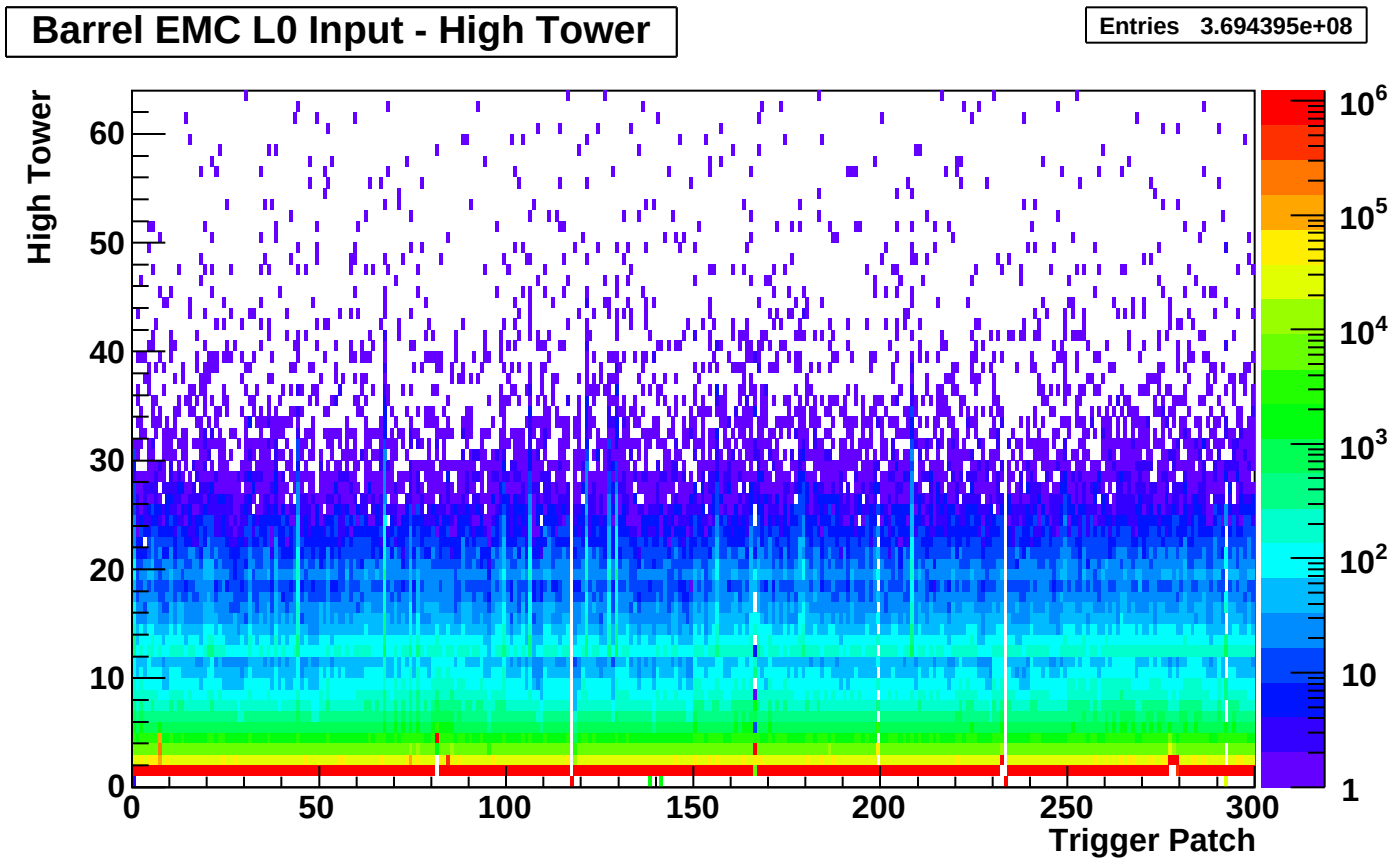

DAQ10k HT bits errors
Entries 6
1
0.8
0.6
0.4
0.2
0
0
5
10
15
20
25
30
35

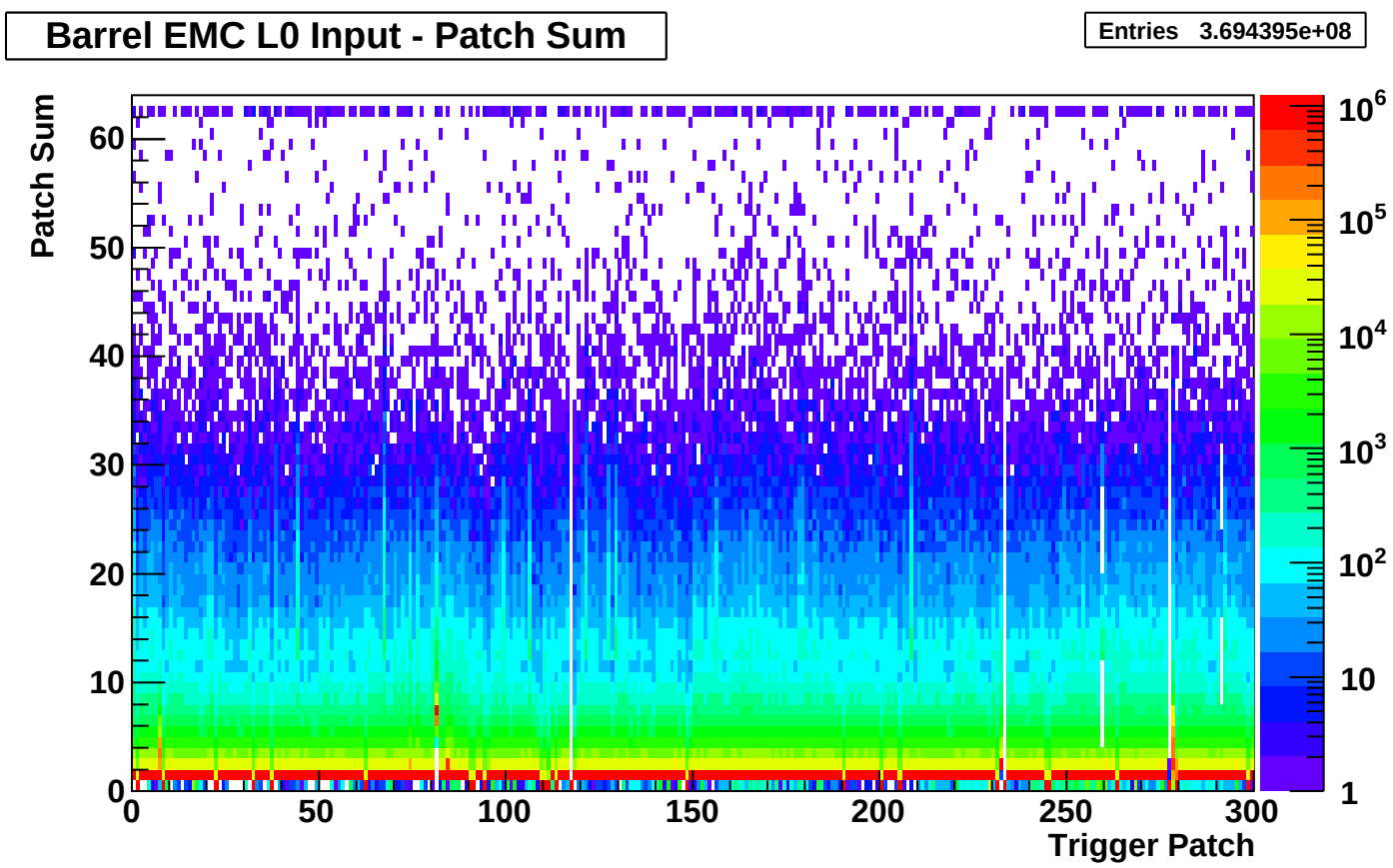

TPC Readout Mask (simulated)
Entries 297539
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0
5
10
15
20
25
30

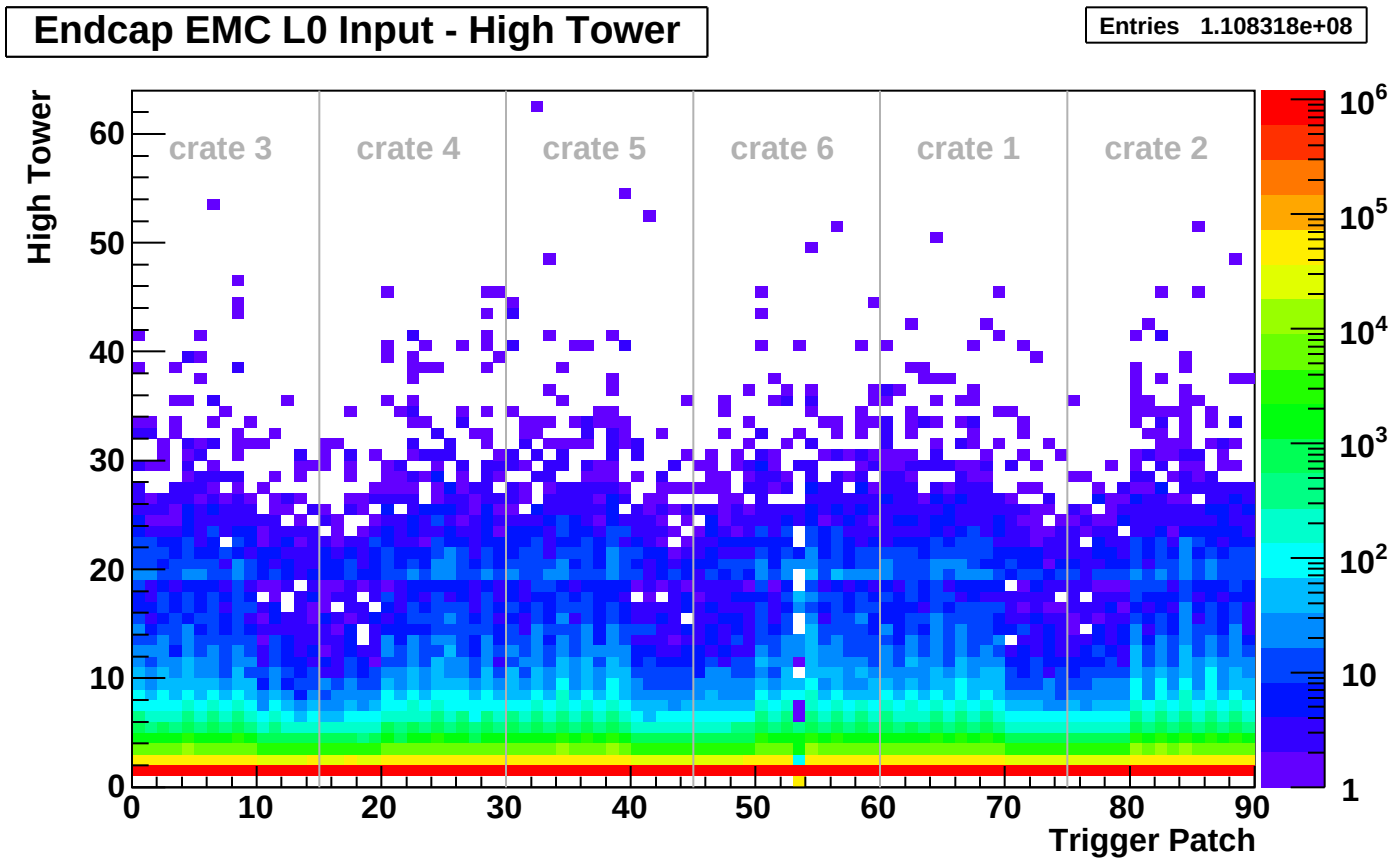

BunchId7Bit (all events)
Entries1231465
10^4
10^3
10^2
0
20
40
60
80
100
120

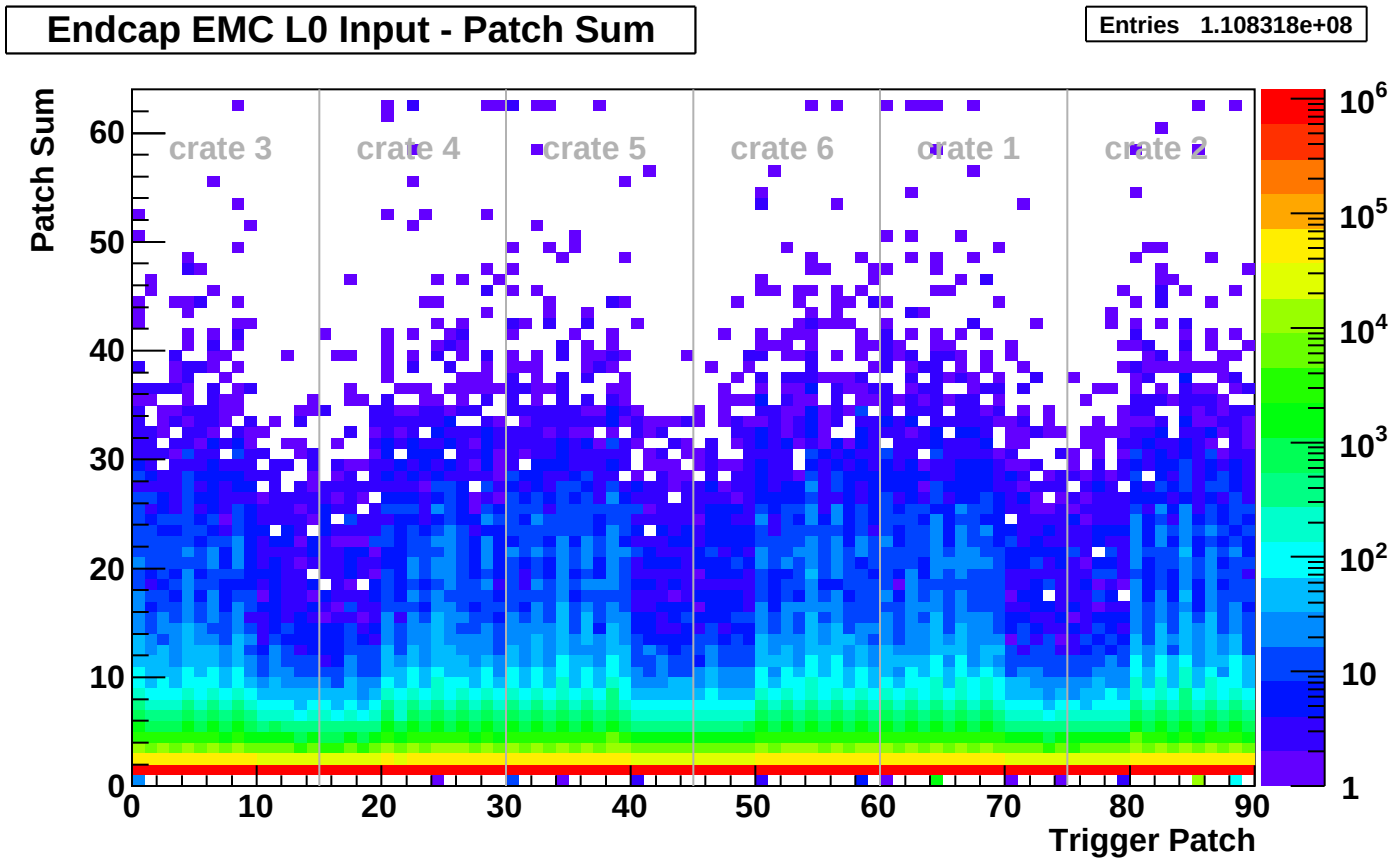

BunchId7Bit (JP1)
Entries 147464
10^3
10^2
10
0
20
40
60
80
100
120

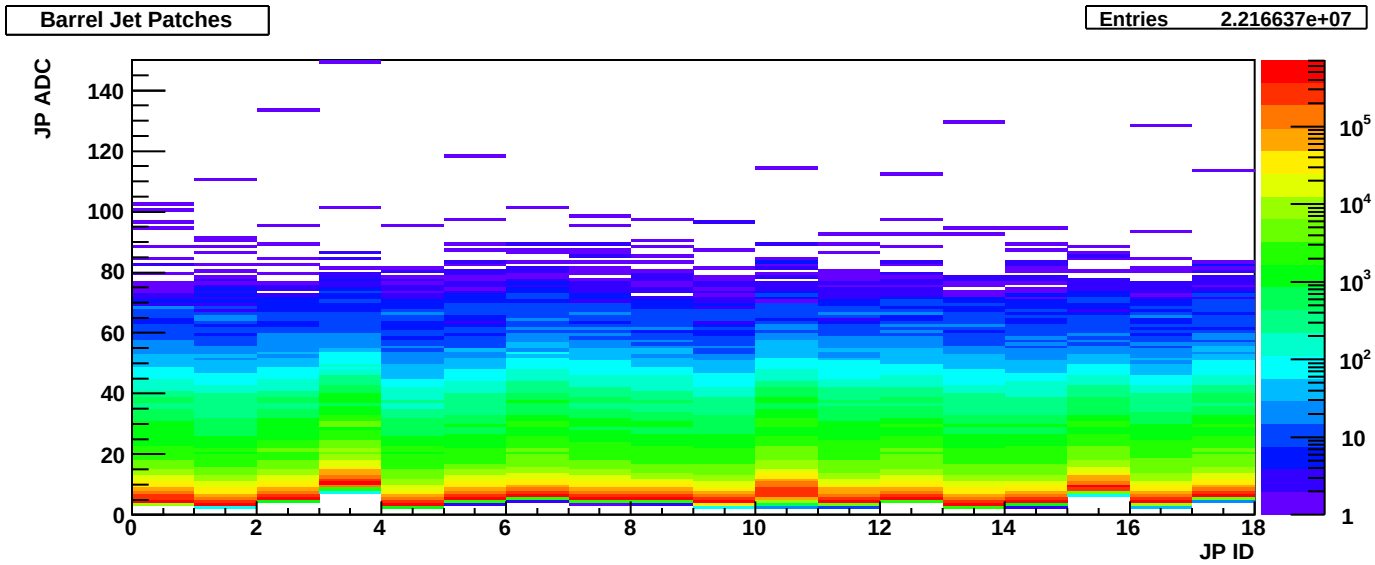

BunchId7Bit (JP2||AJP)
Entries 78971
10^3
10^2
10
1
0
20
40
60
80
100
120

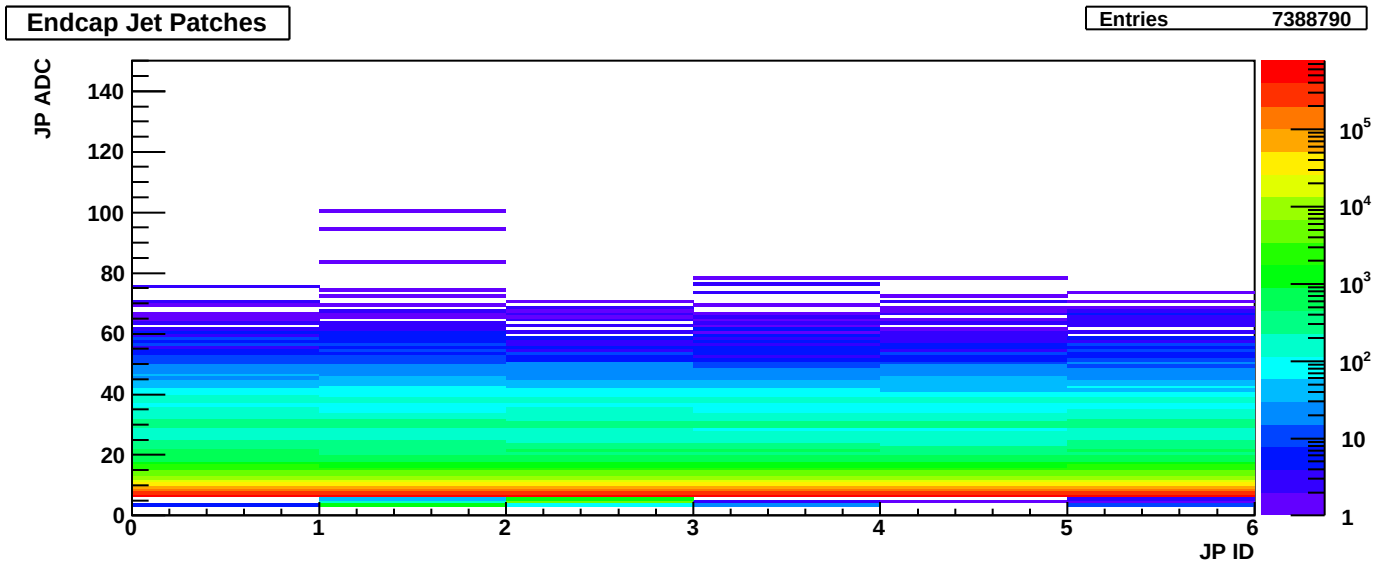

Barrel EMC L0 Input - High Tower
Entries 3.694395e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

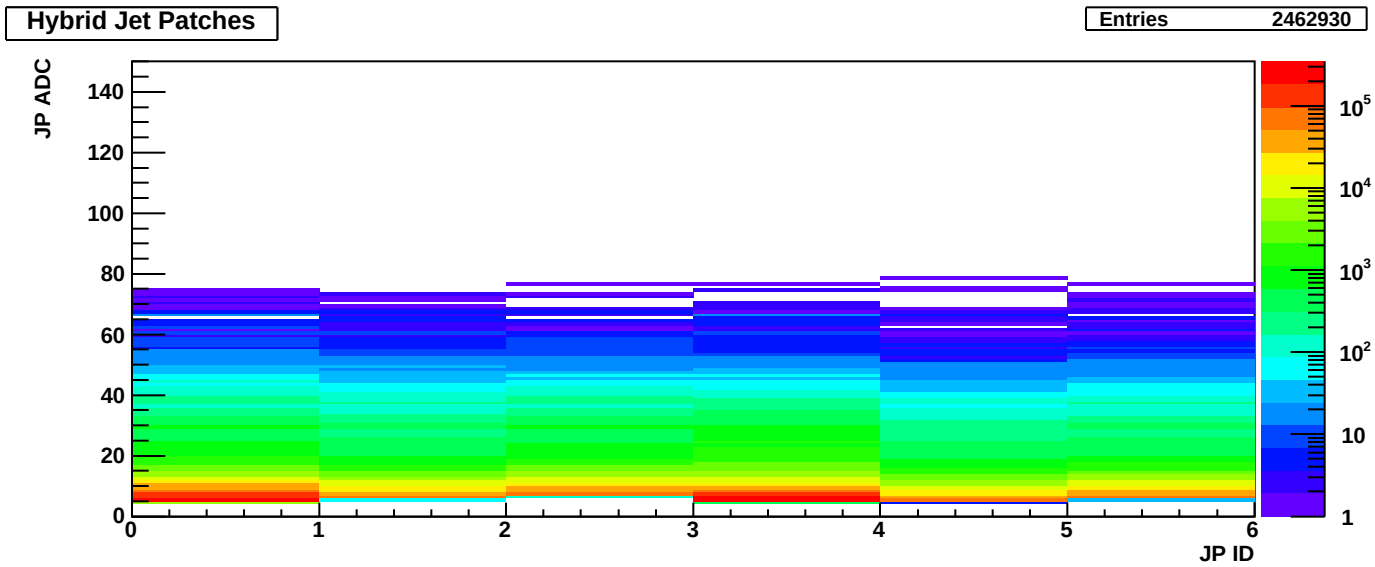

Barrel EMC L0 Input - Patch Sum
Entries 3.694395e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

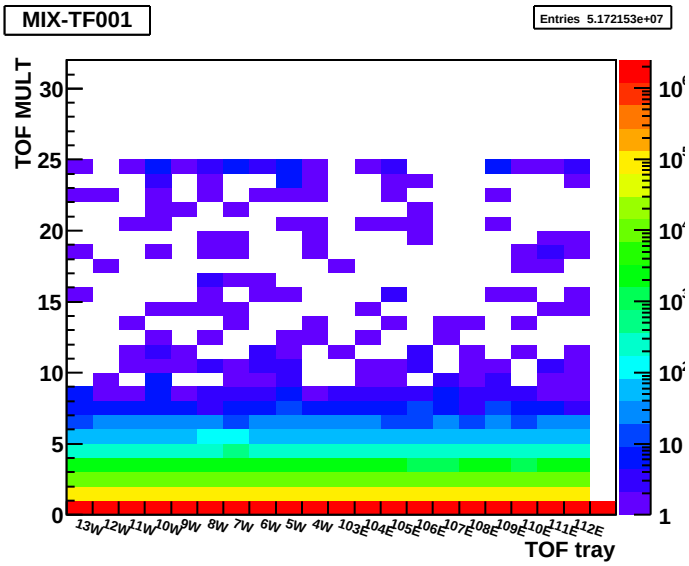

Endcap EMC L0 Input - High Tower
Entries 1.108318e+08
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

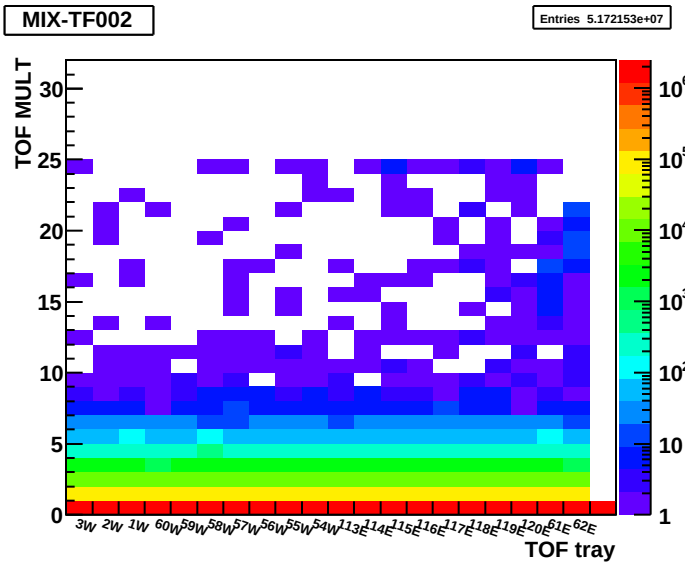

Endcap EMC L0 Input - Patch Sum
Entries 1.108318e+08
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

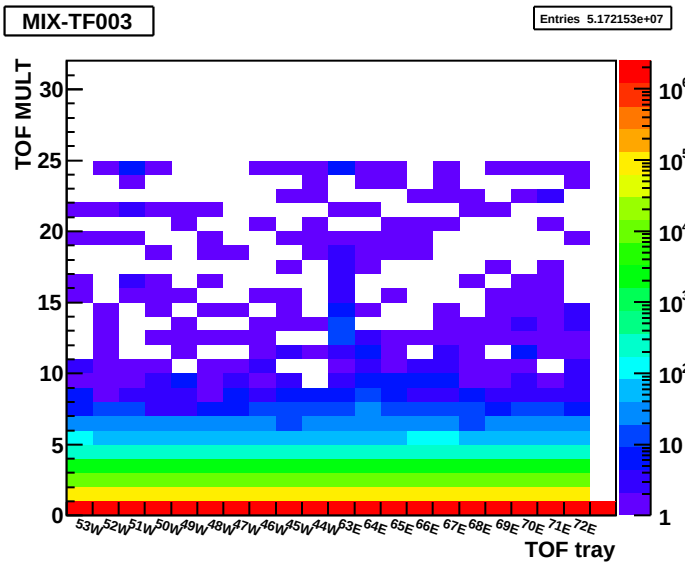

Barrel Jet Patches
Entries 2.216637e+07
JP ADC
JP ID

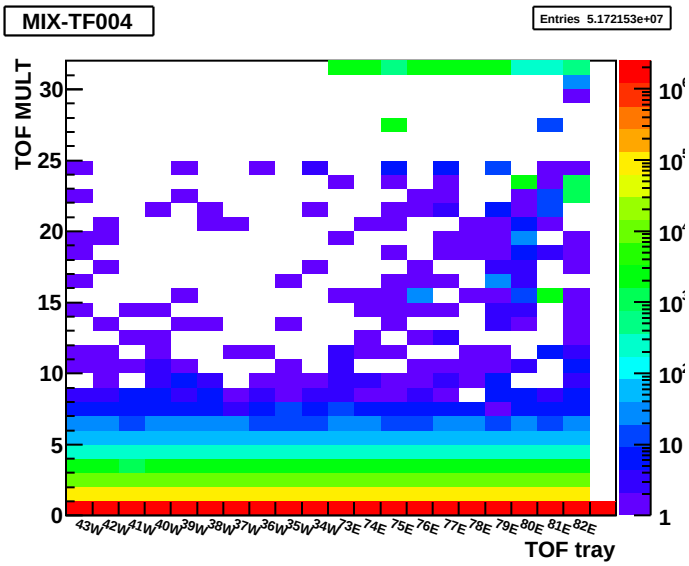

Endcap Jet Patches
Entries 7388790
JP ADC
JP ID

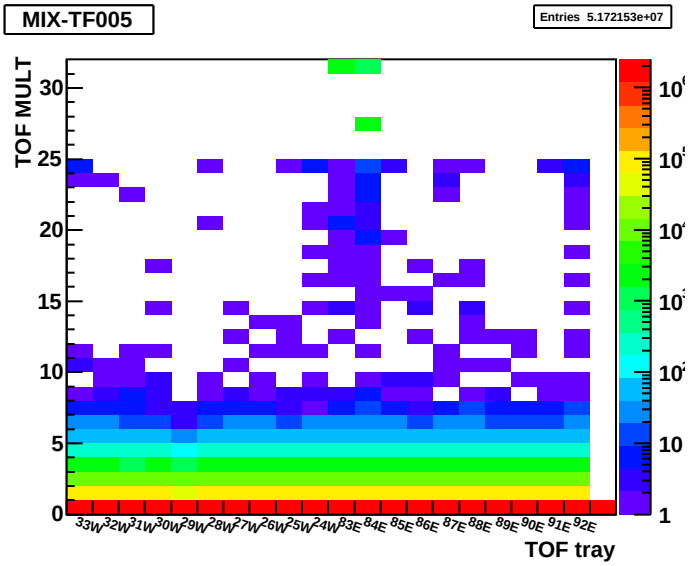

Hybrid Jet Patches
Entries 2462930
JP ADC
JP ID

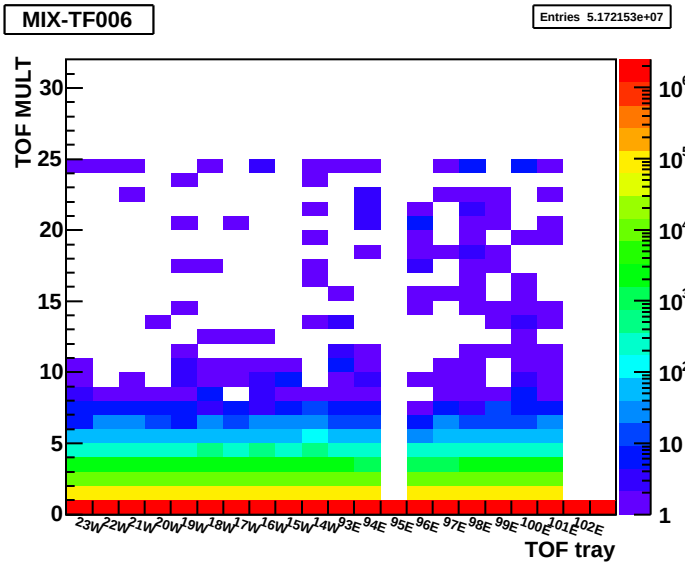

MIX-TF001
Entries 5.172153e+07
TOF MULT
TOF tray

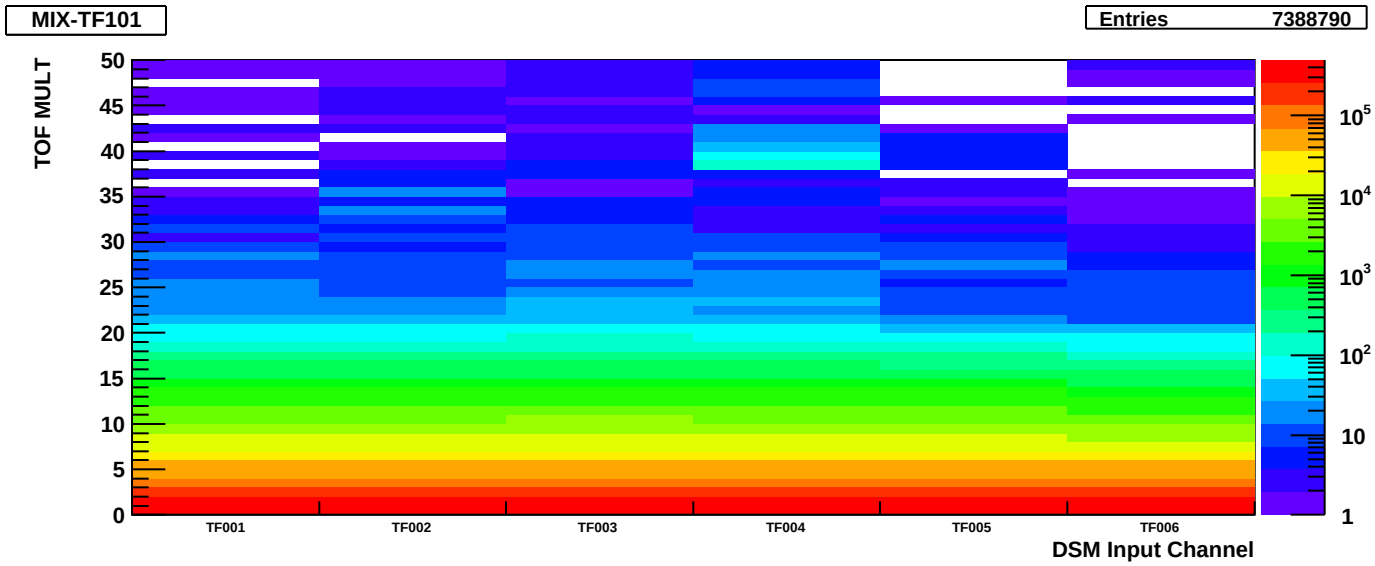

MIX-TF002
Entries 5.172153e+07
TOF MULT
TOF tray

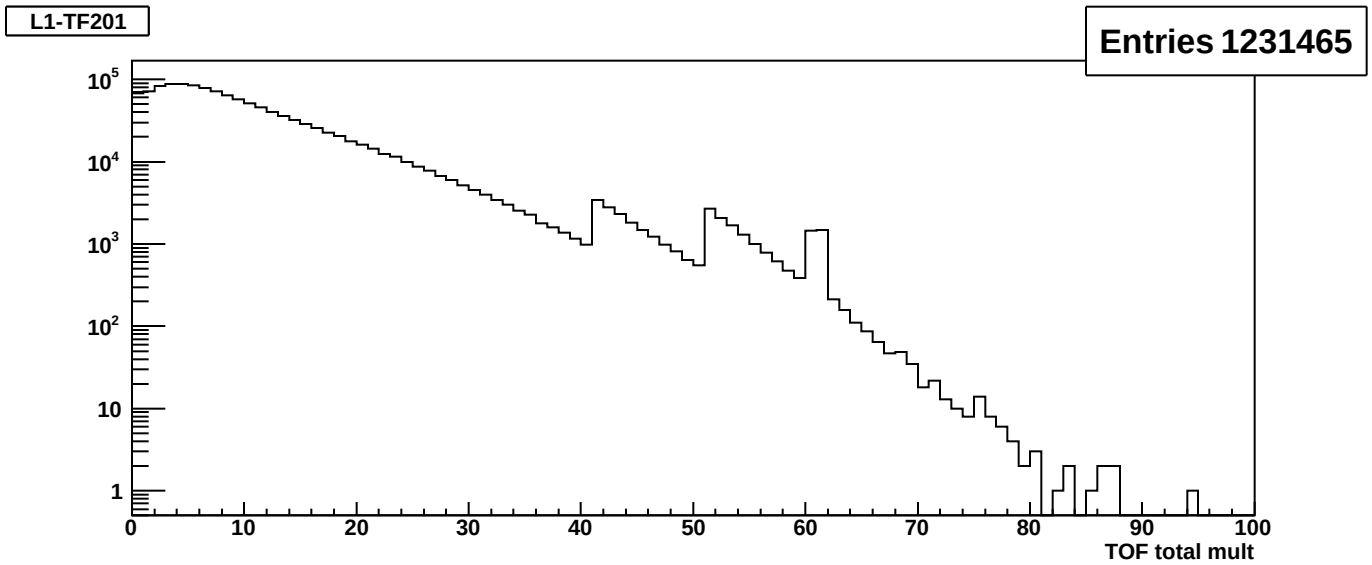

MIX-TF003
Entries 5.172153e+07
TOF MULT
TOF tray

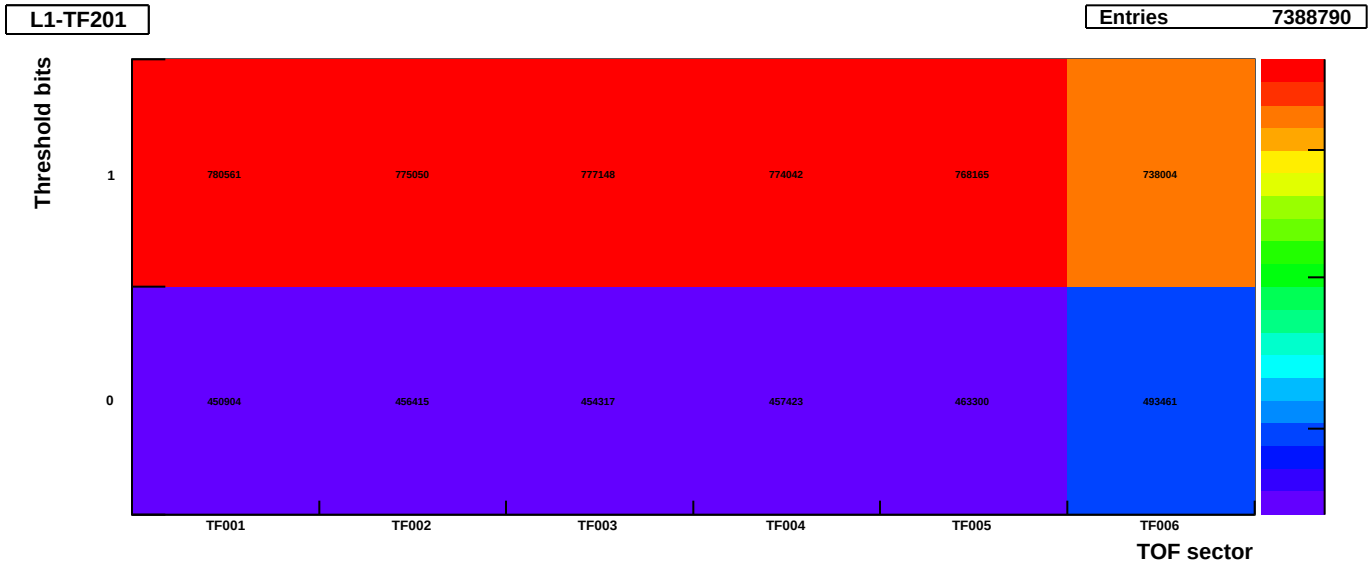

MIX-TF004
Entries 5.172153e+07
TOF MULT
TOF tray

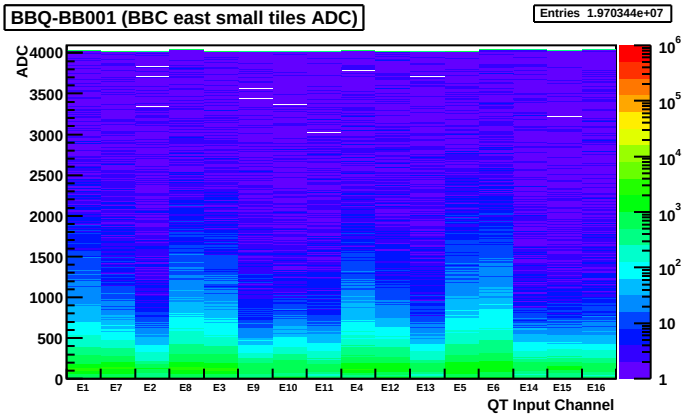

MIX-TF005
Entries 5.172153e+07
TOF MULT
TOF tray

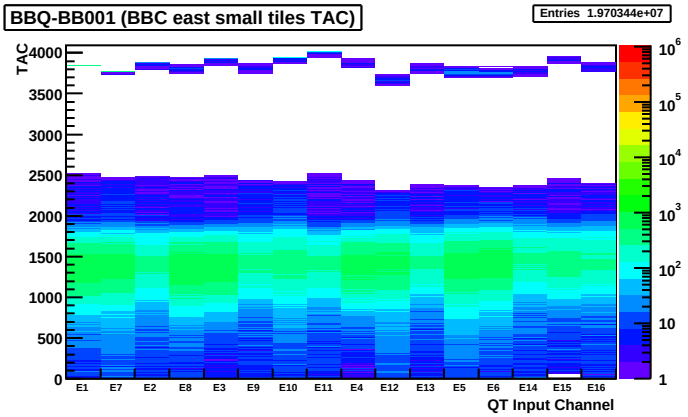

MIX-TF006
Entries 5.172153e+07
TOF MULT
TOF tray

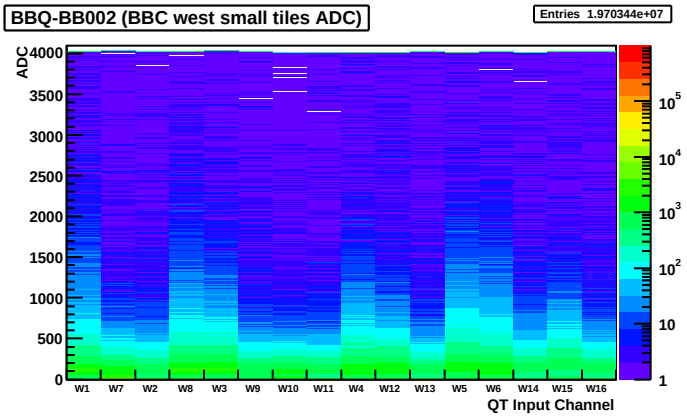

MIX-TF101
Entries 7388790
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

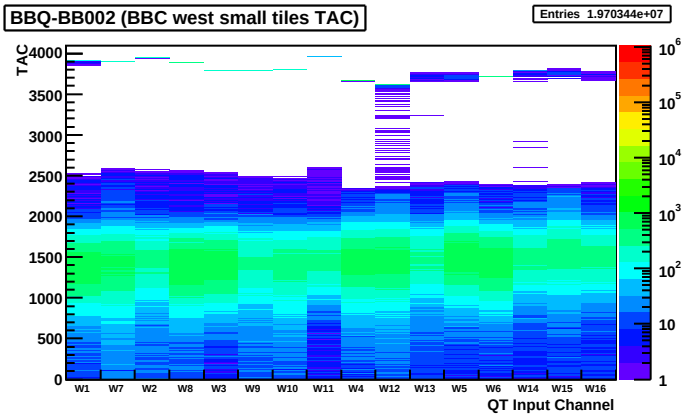

L1-TF201
Entries 1231465
TOF total mult

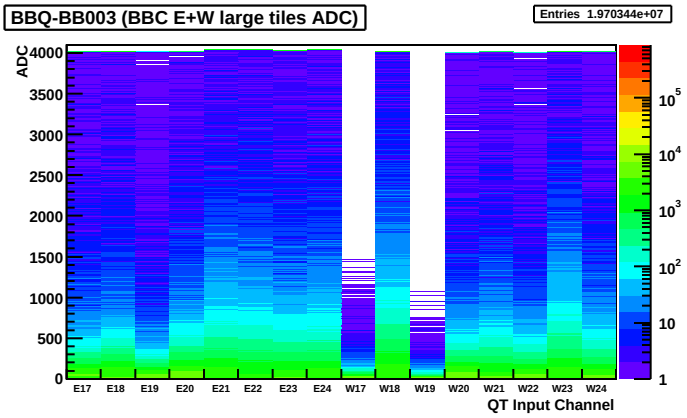

L1-TF201
Entries 7388790
Threshold bits
780561
775050
777148
774042
768165
738004
450904
456415
454317
457423
463300
493461
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

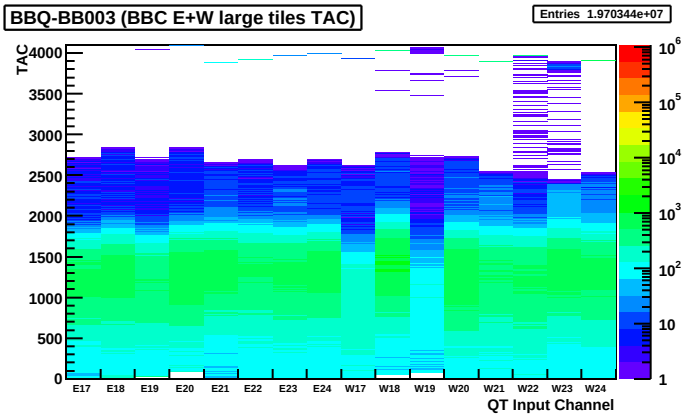

BBQ-BB001 (BBC east small tiles ADC)
Entries 1.970344e+07
ADC
QT Input Channel

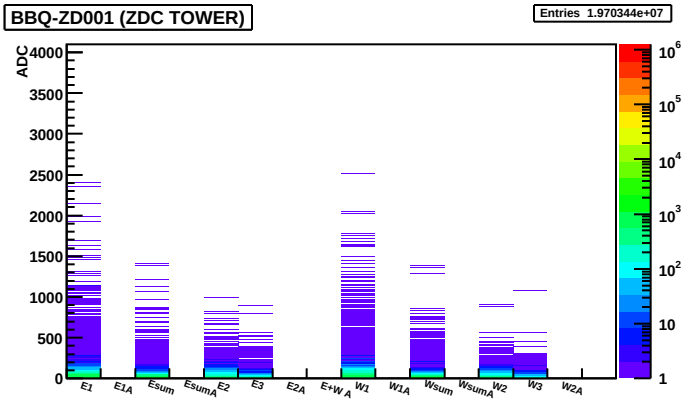

BBQ-BB001 (BBC east small tiles TAC)
Entries 1.970344e+07
TAC
QT Input Channel

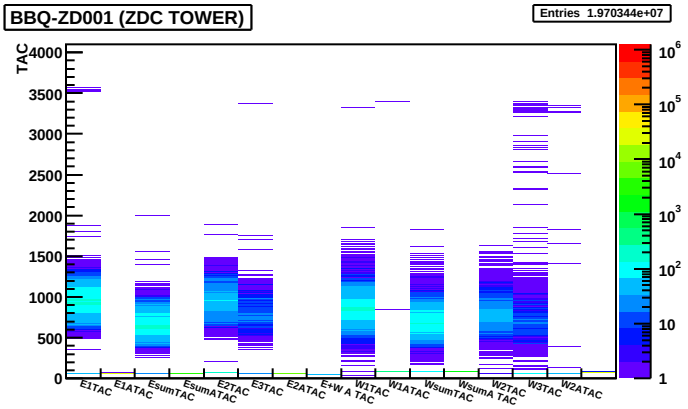

BBQ-BB002 (BBC west small tiles ADC)
Entries 1.970344e+07
ADC
QT Input Channel

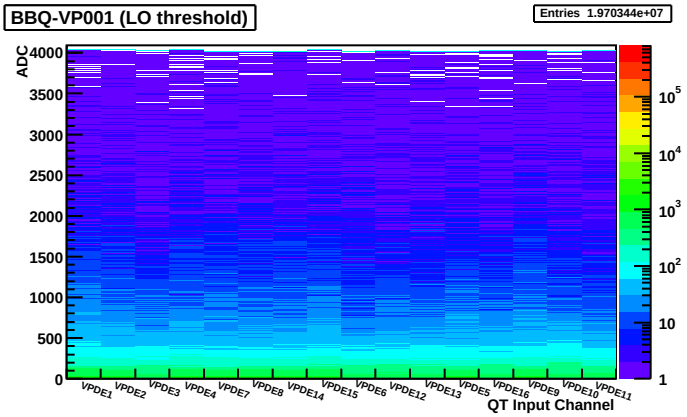

BBQ-BB002 (BBC west small tiles TAC)
Entries 1.970344e+07
TAC
QT Input Channel

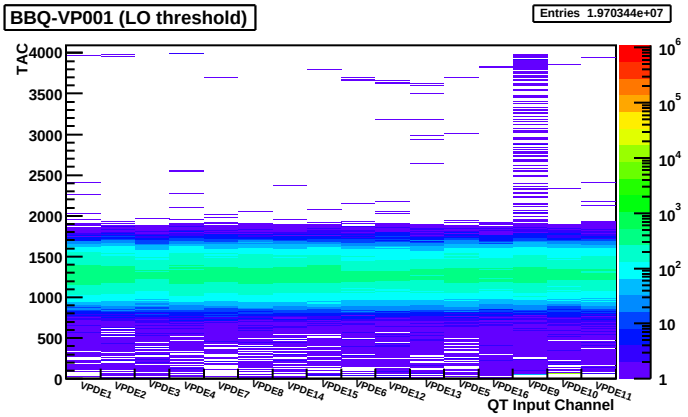

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1.970344e+07
ADC
QT Input Channel

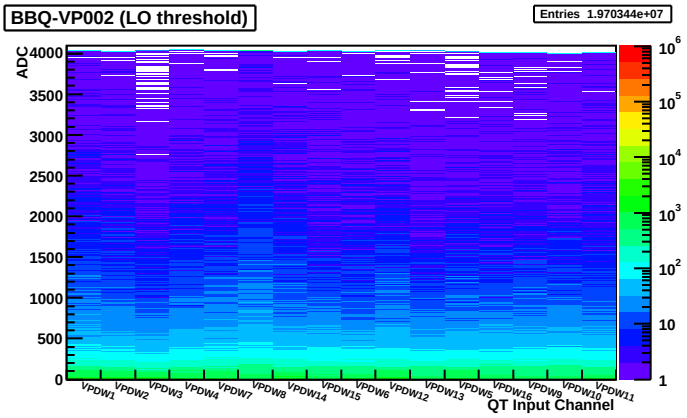

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1.970344e+07
TAC
QT Input Channel

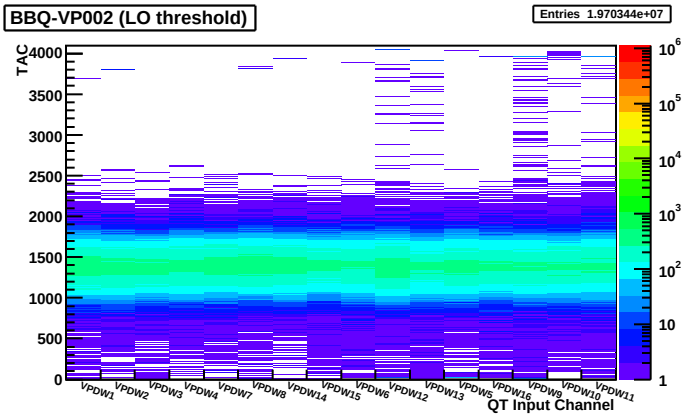

BBQ-ZD001 (ZDC TOWER)
Entries 1.970344e+07
ADC

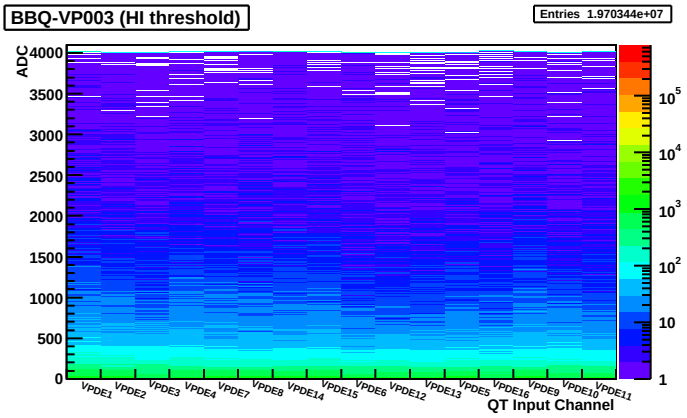

BBQ-ZD001 (ZDC TOWER)
Entries 1.970344e+07
TAC

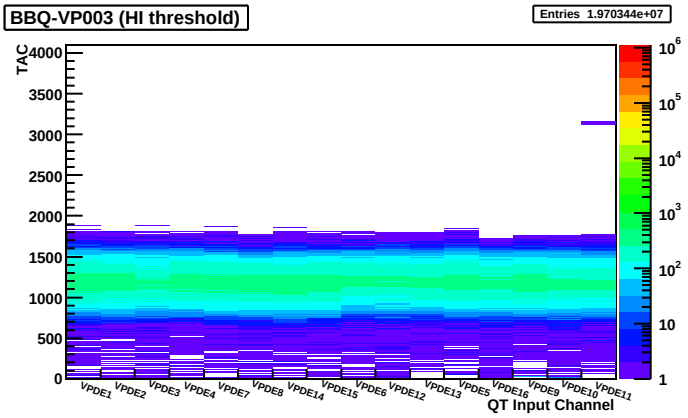

BBQ-VP001 (LO threshold)
Entries 1.970344e+07
ADC
QT Input Channel

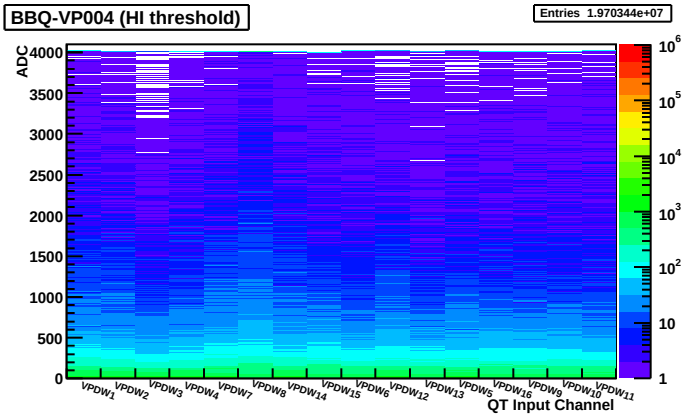

BBQ-VP001 (LO threshold)
Entries 1.970344e+07
TAC
QT Input Channel

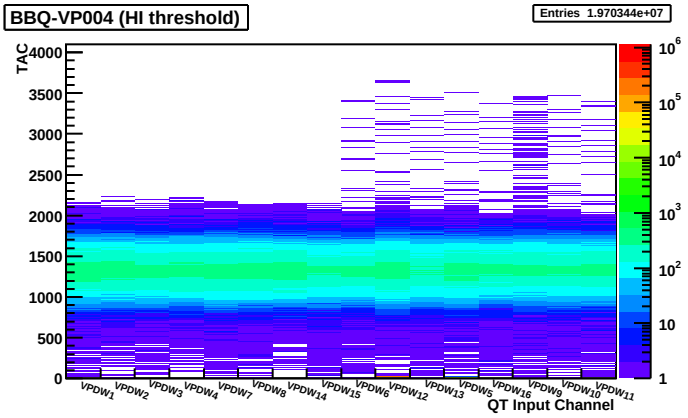

BBQ-VP002 (LO threshold)
Entries 1.970344e+07
ADC
QT Input Channel

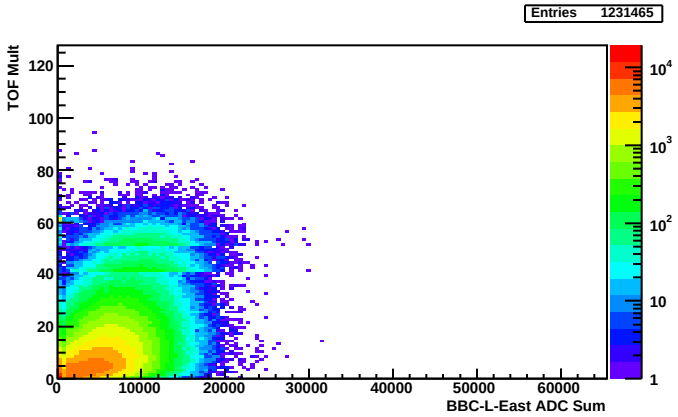

BBQ-VP002 (LO threshold)
Entries 1.970344e+07
TAC
QT Input Channel

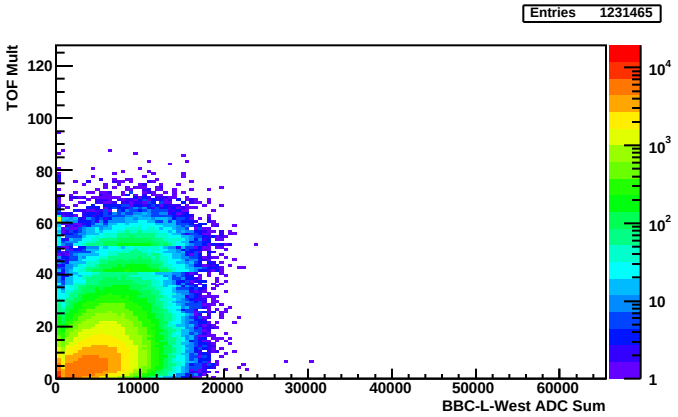

BBQ-VP003 (HI threshold)
Entries 1.970344e+07
ADC
QT Input Channel

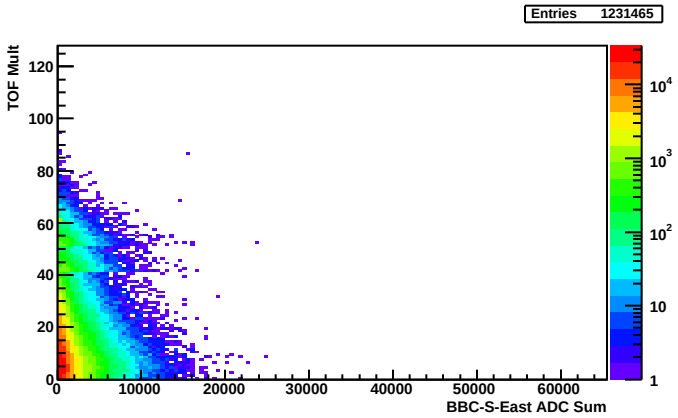

BBQ-VP003 (HI threshold)
Entries 1.970344e+07
TAC
QT Input Channel

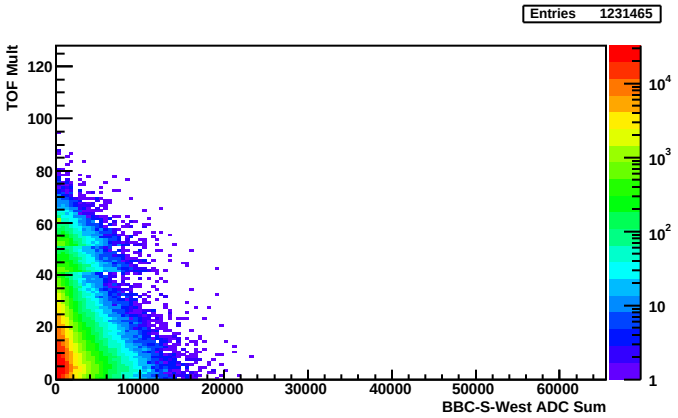

BBQ-VP004 (HI threshold)
Entries 1.970344e+07
ADC
QT Input Channel

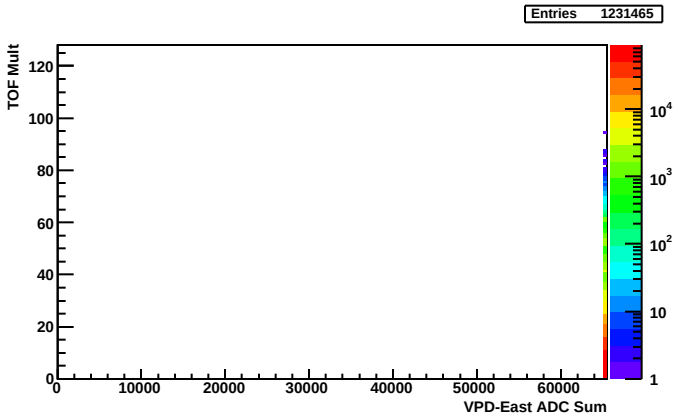

BBQ-VP004 (HI threshold)
Entries 1.970344e+07
TAC
QT Input Channel

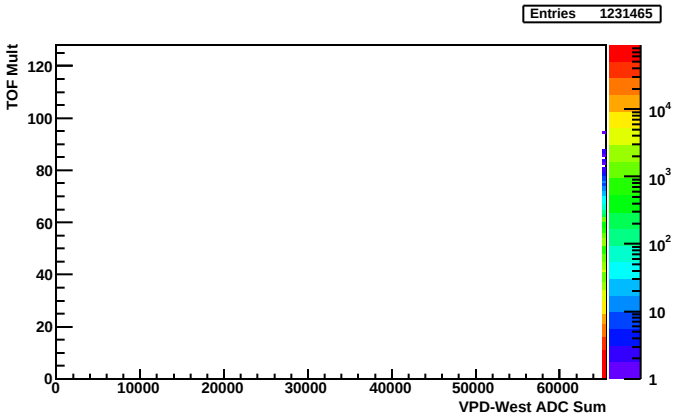

Entries 1231465
TOF Mult
BBC-L-East ADC Sum

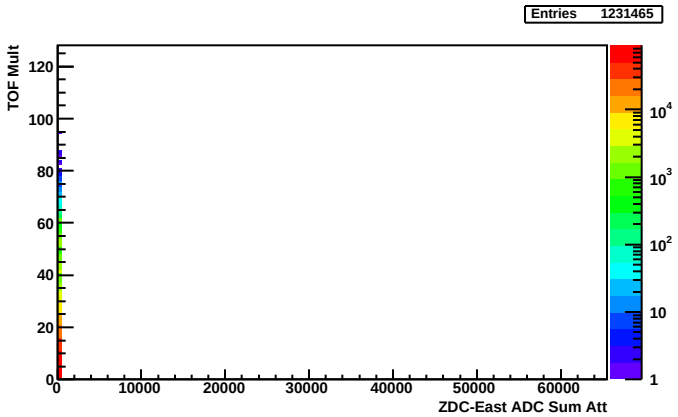

Entries 1231465
TOF Mult
BBC-L-West ADC Sum

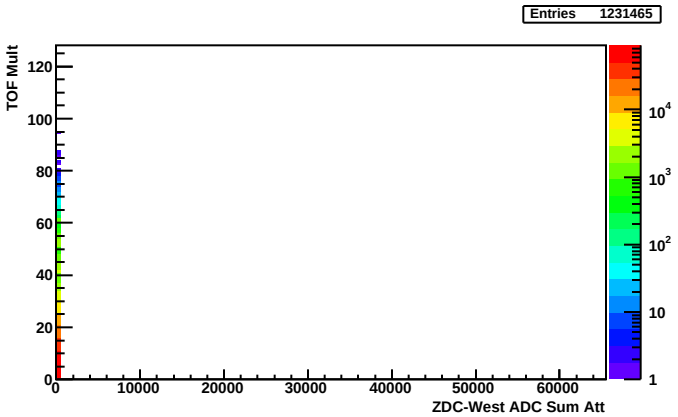

Entries 1231465
TOF Mult
BBC-S-East ADC Sum

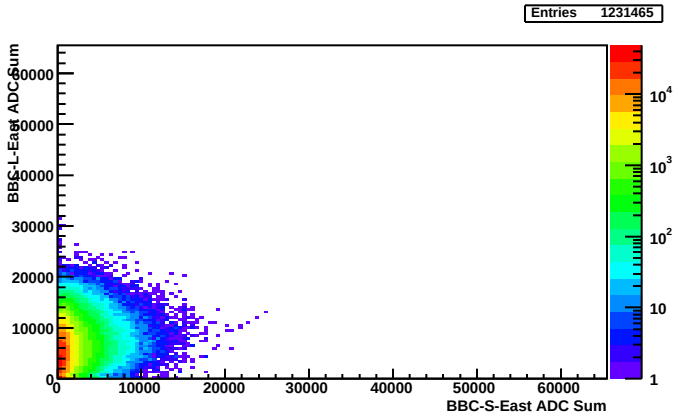

Entries 1231465
TOF Mult
BBC-S-West ADC Sum

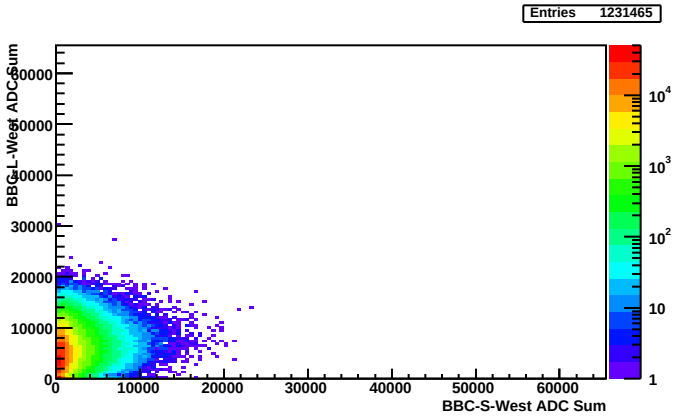

Entries 1231465
TOF Mult
VPD-East ADC Sum

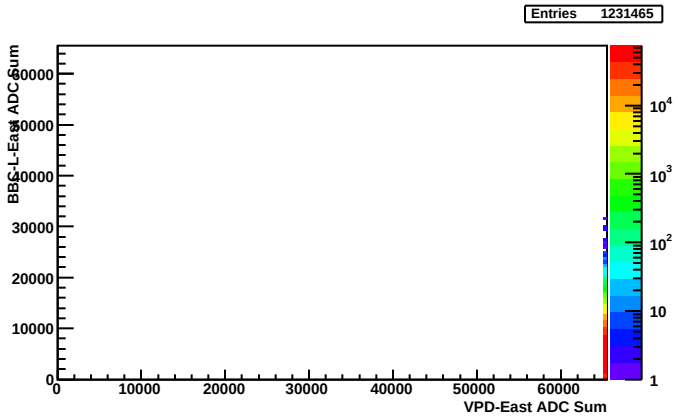

Entries 1231465
TOF Mult
VPD-West ADC Sum

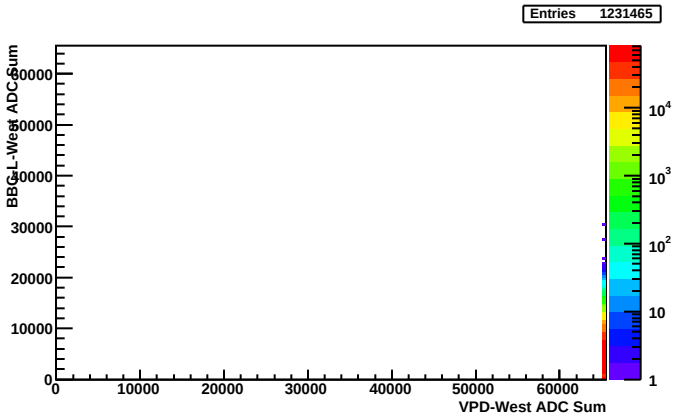

Entries 1231465
TOF Mult
ZDC-East ADC Sum Att

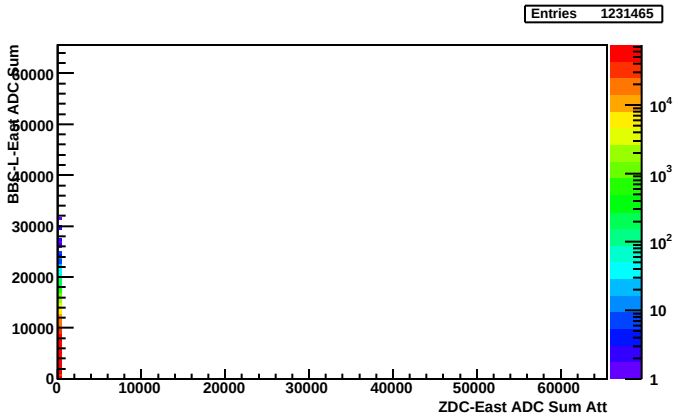

Entries 1231465
TOF Mult
ZDC-West ADC Sum Att

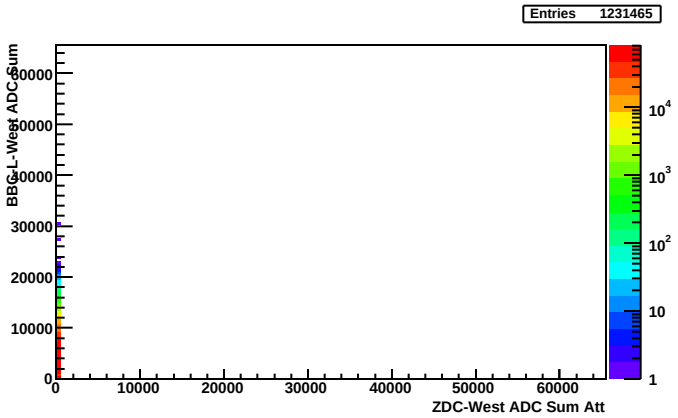

Entries 1231465
BBC-L-East ADC Sum
BBC-S-East ADC Sum

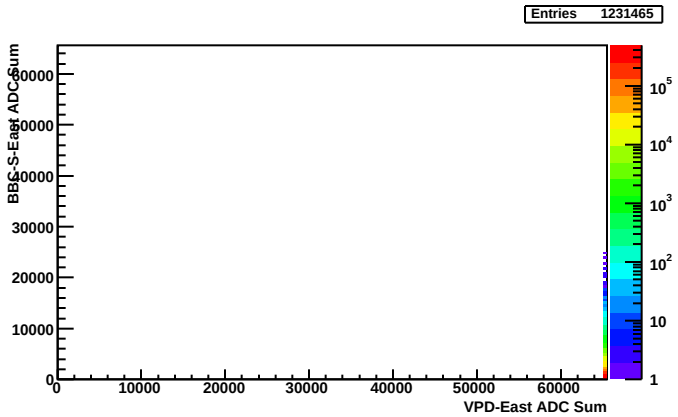

Entries 1231465
BBC-L-West ADC Sum
BBC-S-West ADC Sum

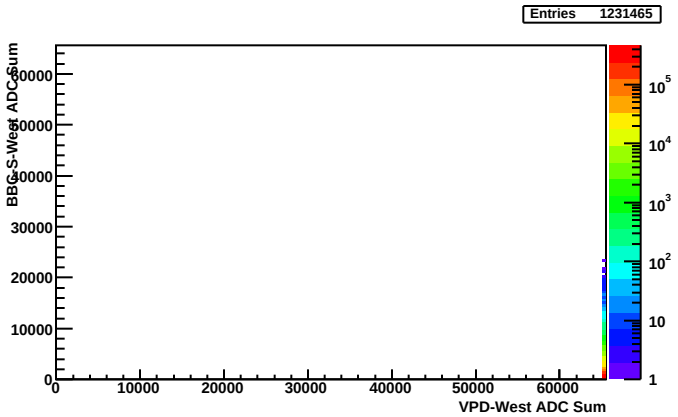

Entries 1231465
BBC-L-East ADC Sum
VPD-East ADC Sum

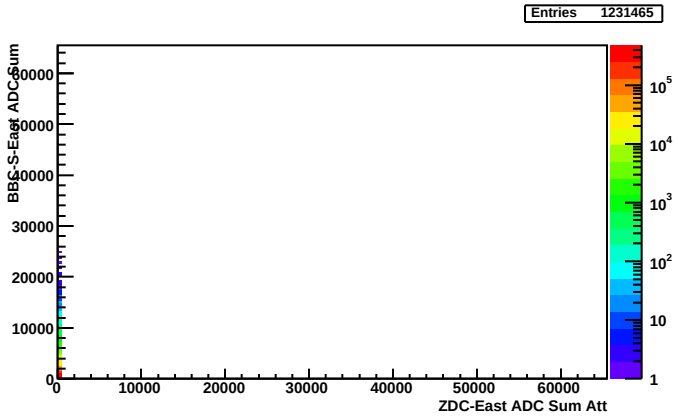

Entries 1231465
BBC-L-West ADC Sum
VPD-West ADC Sum

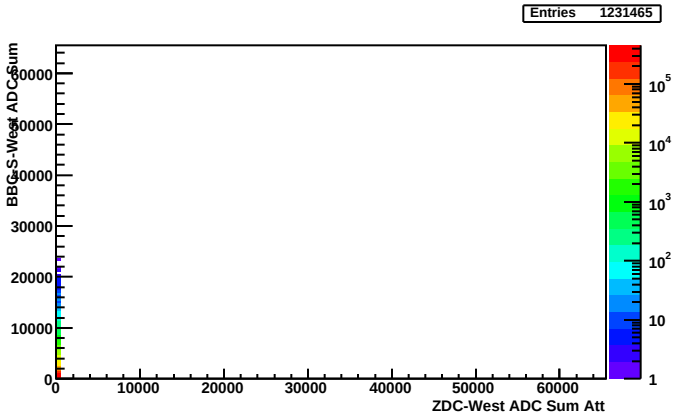

Entries 1231465
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

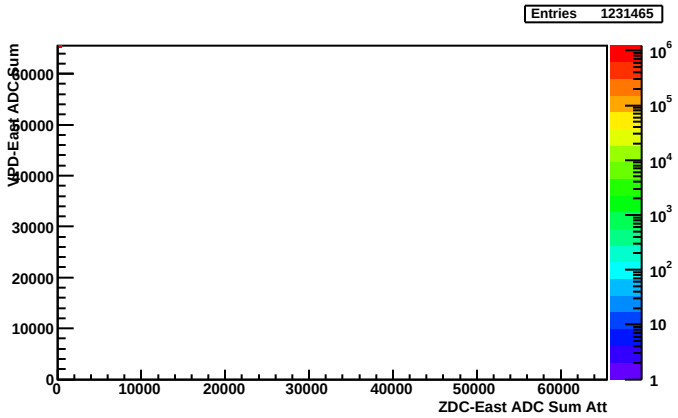

Entries 1231465
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

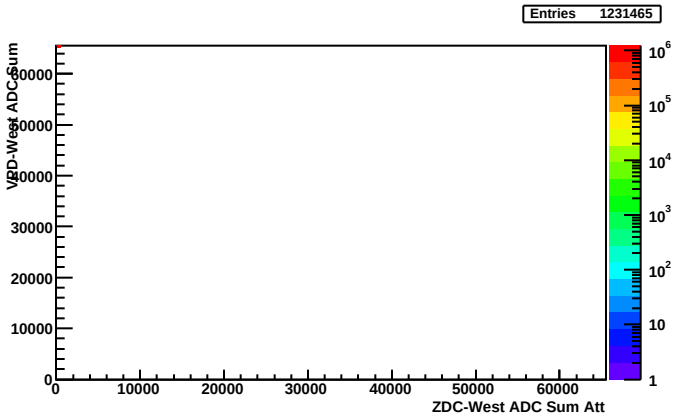

Entries 1231465
BBC-S-East ADC Sum
VPD-East ADC Sum

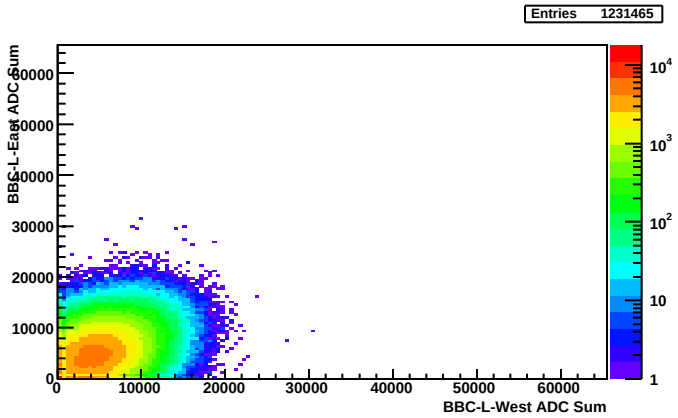

Entries 1231465
BBC-S-West ADC Sum
VPD-West ADC Sum

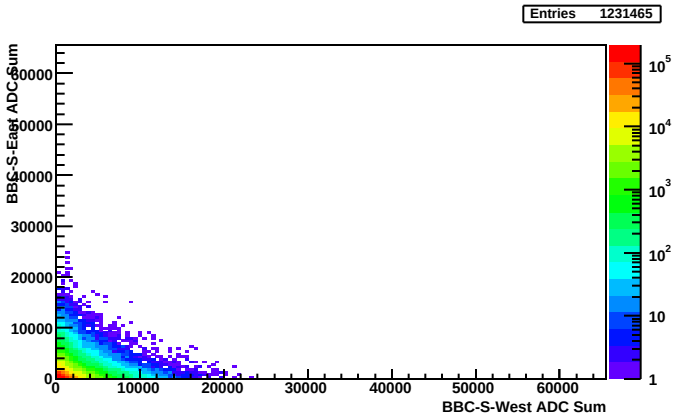

Entries 1231465
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

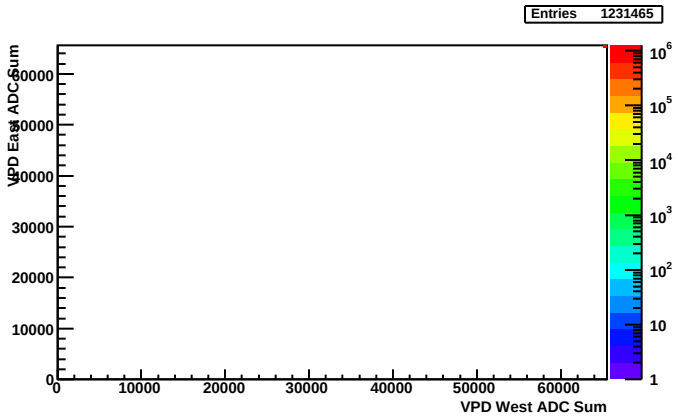

Entries 1231465
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

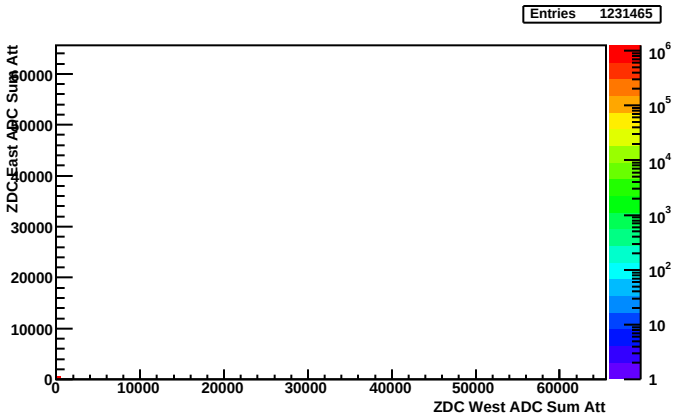

Entries 1231465
VPD-East ADC Sum
ZDC-East ADC Sum Att

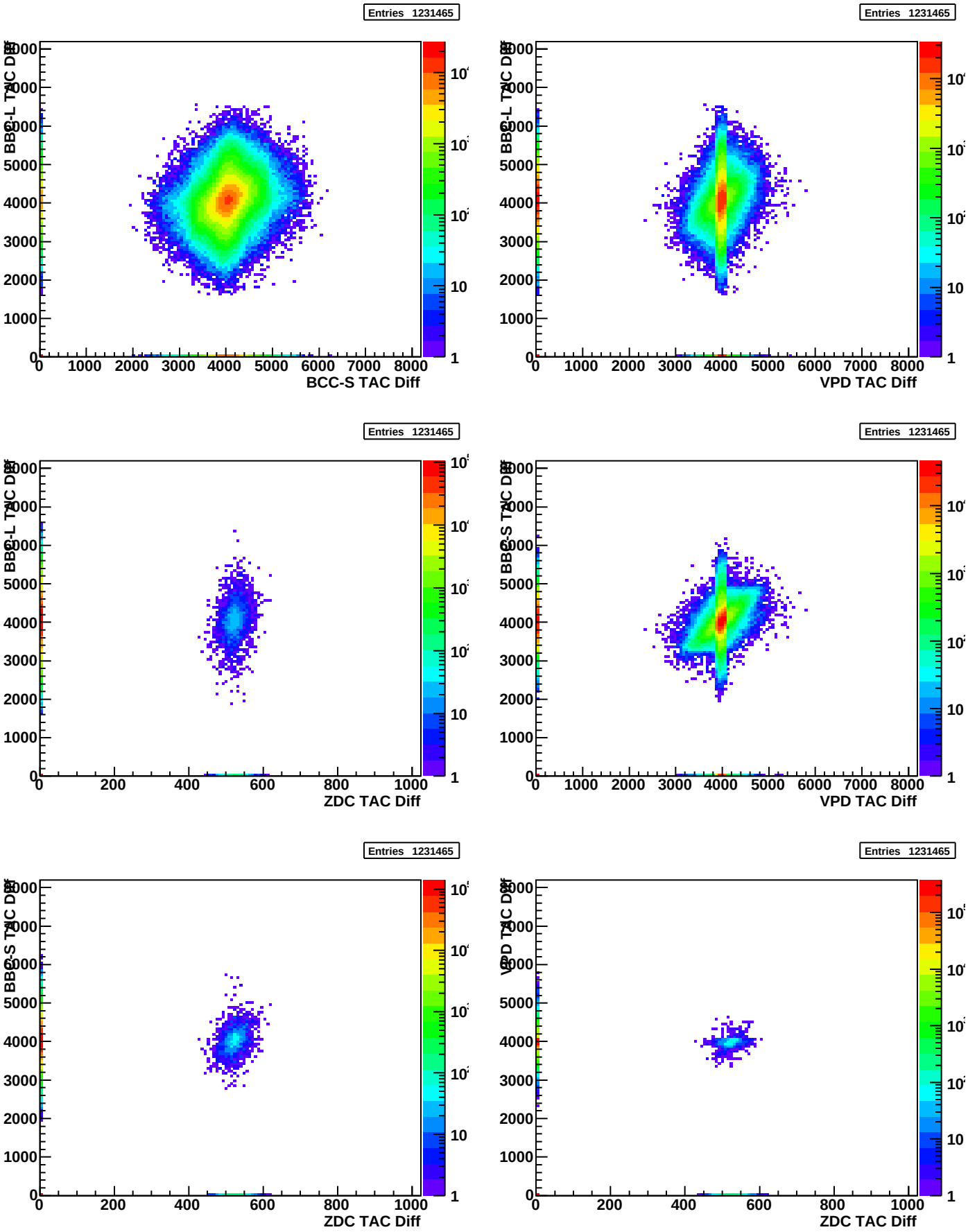

Entries 1231465
VPD-West ADC Sum
ZDC-West ADC Sum Att

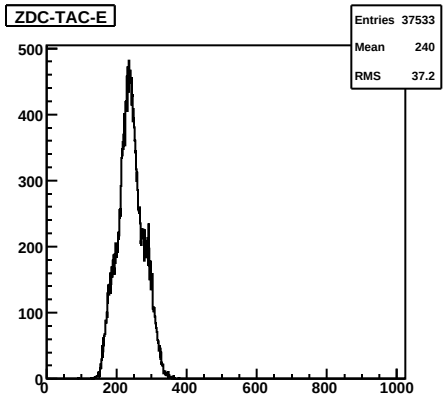

Entries 1231465
BBC-L-East ADC Sum
BBC-L-West ADC Sum

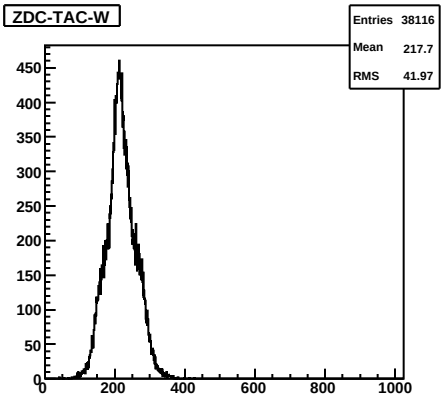

Entries 1231465
BBC-S-East ADC Sum
BBC-S-West ADC Sum

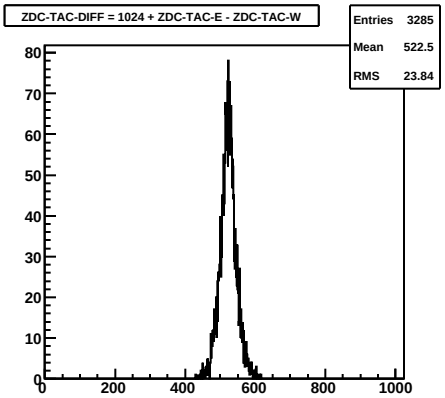

Entries 1231465
VPD East ADC Sum
VPD West ADC Sum

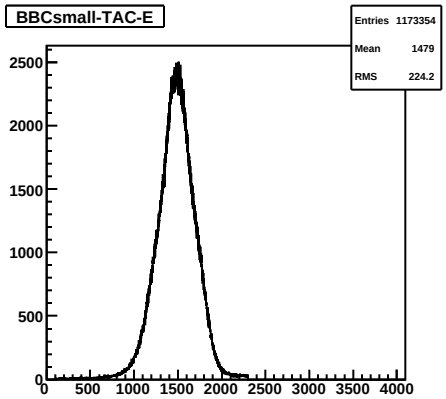

Entries 1231465
ZDC East ADC Sum Att
ZDC West ADC Sum Att

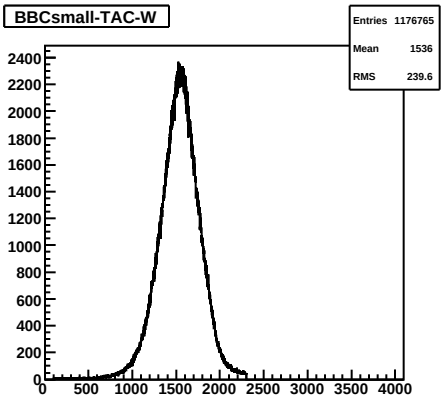

Entries 1231465
BBC-L TAC Diff
BCC-S TAC Diff
Entries 1231465
BBC-L TAC Diff
VPD TAC Diff
Entries 1231465
BBC-L TAC Diff
ZDC TAC Diff
Entries 1231465
BBC-S TAC Diff
VPD TAC Diff
Entries 1231465
BBC-S TAC Diff
ZDC TAC Diff
Entries 1231465
VPD TAC Diff
ZDC TAC Diff

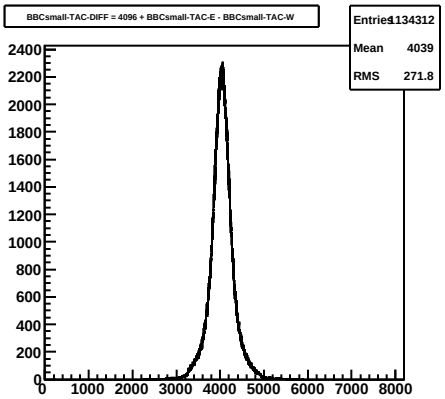

ZDC-TAC-E
Entries 37533
Mean 240
RMS 37.2

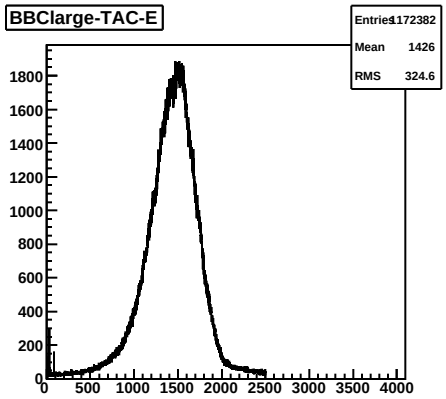

ZDC-TAC-W
Entries 38116
Mean 217.7
RMS 41.97

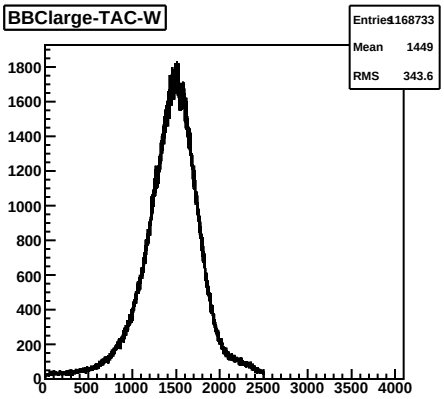

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 3285
Mean 522.5
RMS 23.84

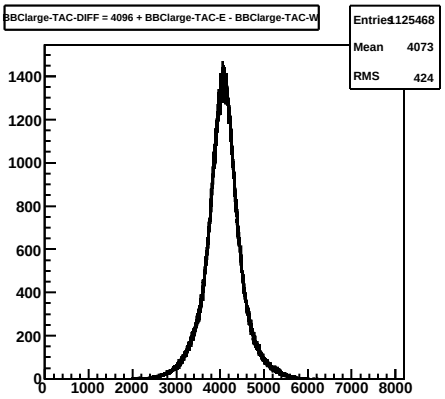

BBCsmall-TAC-E
Entries 1173354
Mean 1479
RMS 224.2

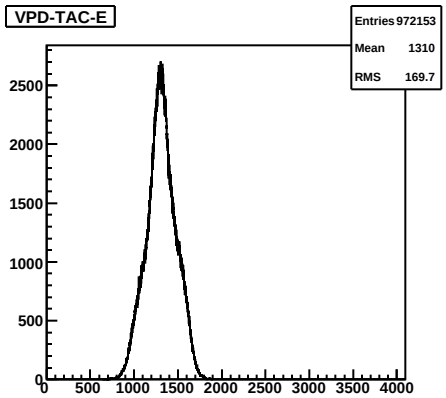

BBCsmall-TAC-W
Entries 1176765
Mean 1536
RMS 239.6

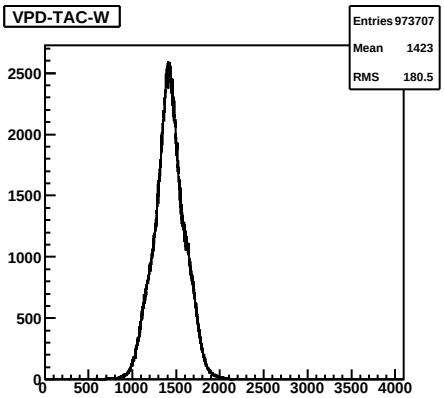

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 1134312
Mean 4039
RMS 271.8

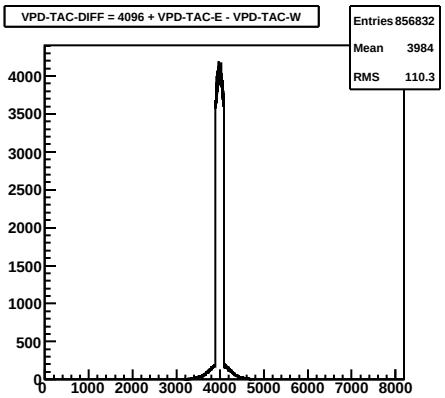

BBClarge-TAC-E
Entries 1172382
Mean 1426
RMS 324.6

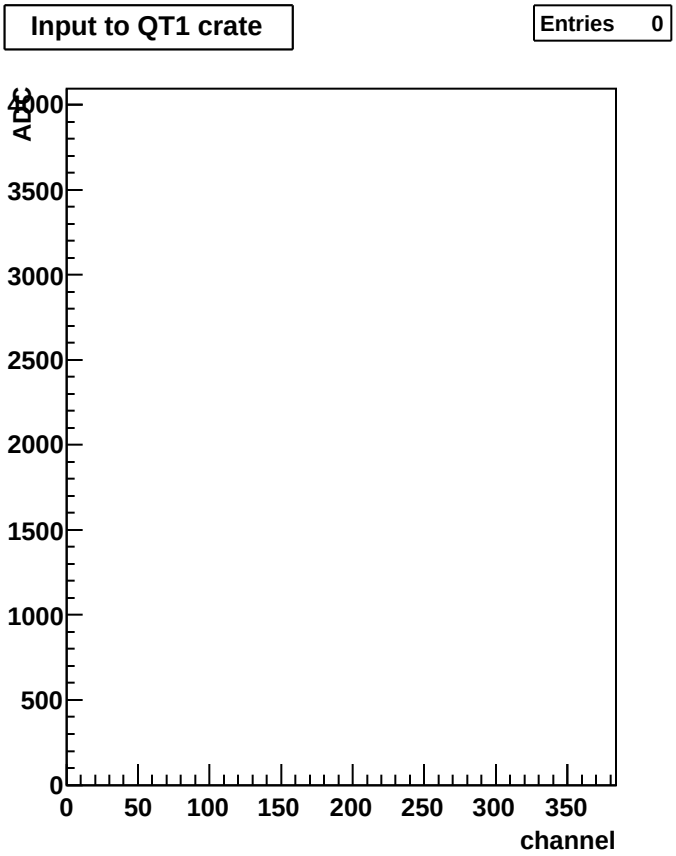

BBClarge-TAC-W
Entries 1168733
Mean 1449
RMS 343.6

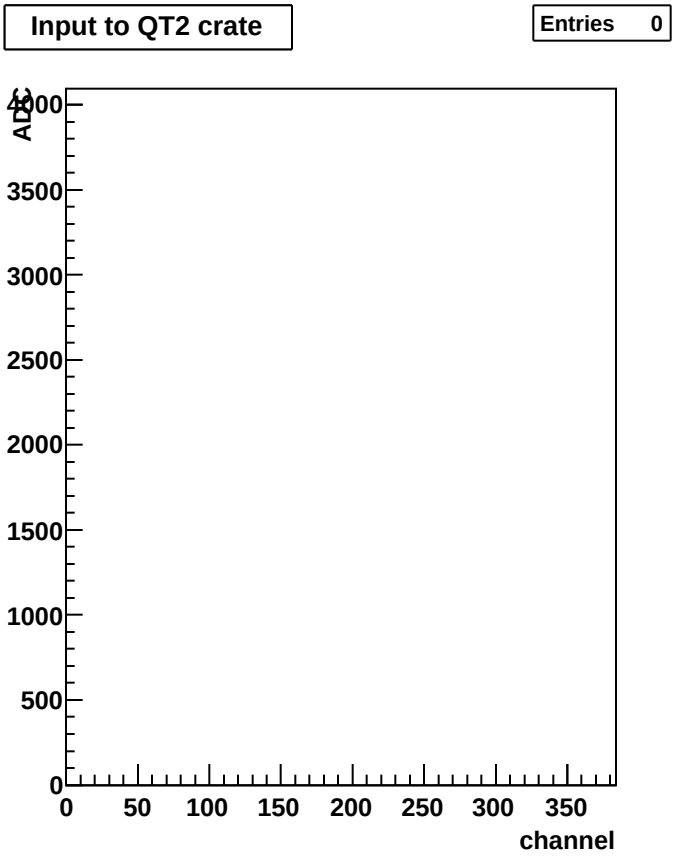

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 1125468
Mean 4073
RMS 424

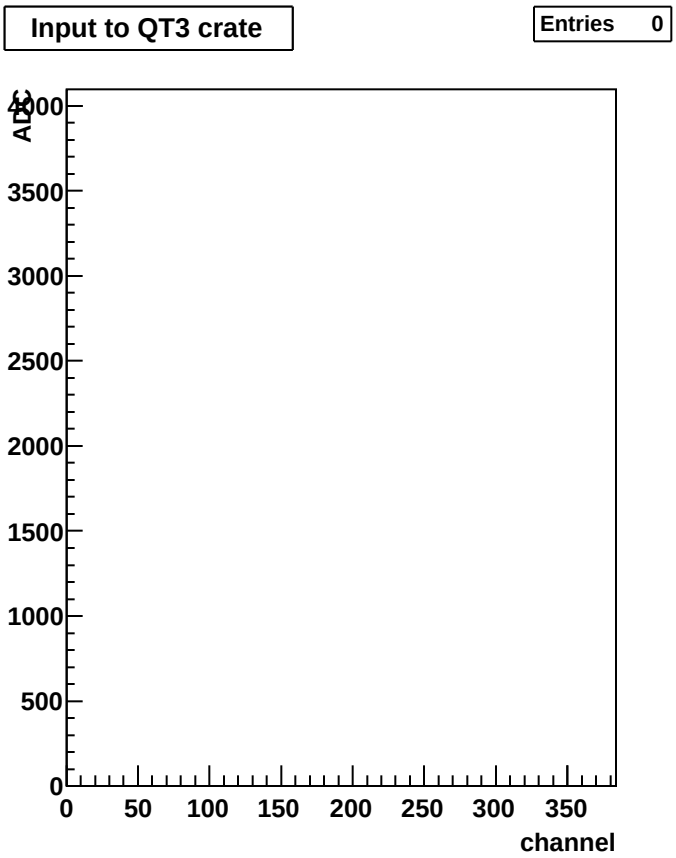

VPD-TAC-E
Entries 972153
Mean 1310
RMS 169.7

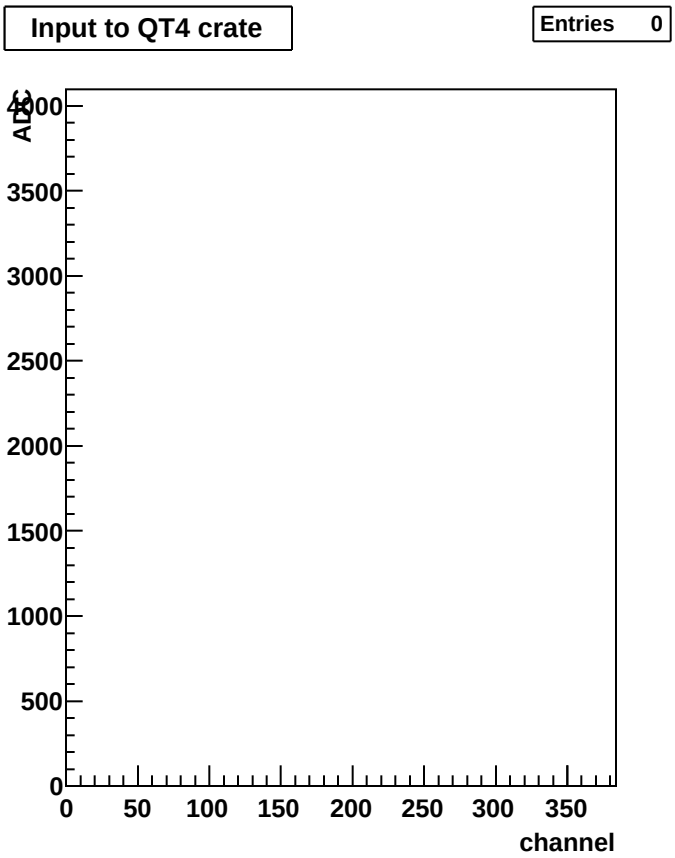

VPD-TAC-W
Entries 973707
Mean 1423
RMS 180.5

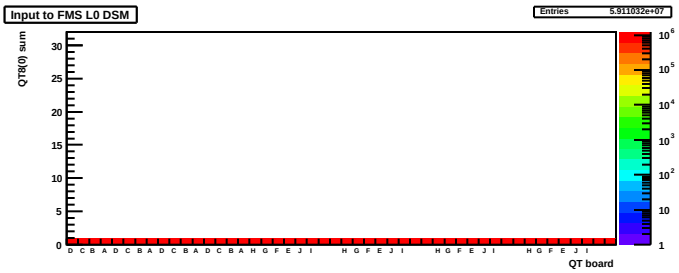

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 856832
Mean 3984
RMS 110.3

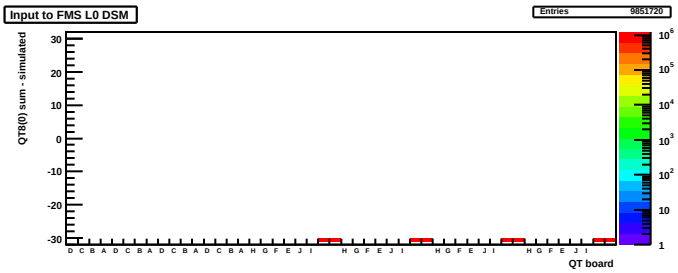

Input to QT1 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

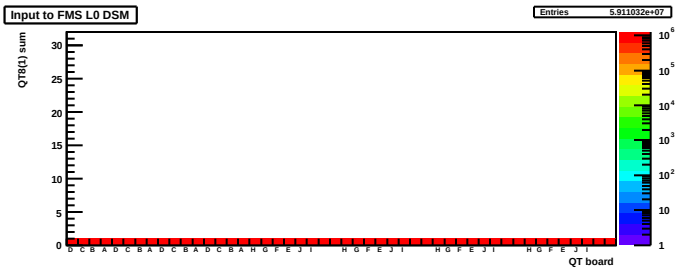

Input to QT2 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

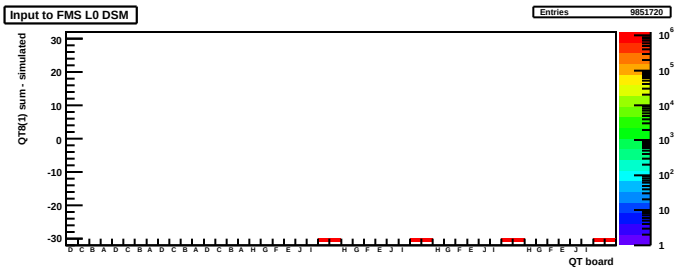

Input to QT3 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

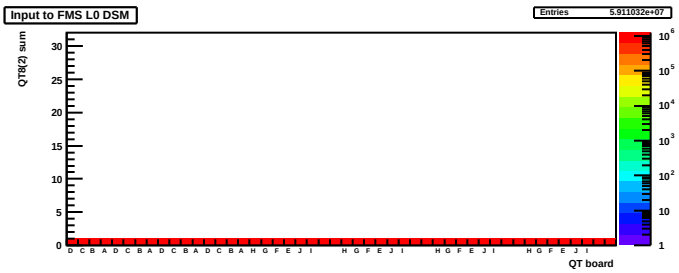

Input to QT4 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

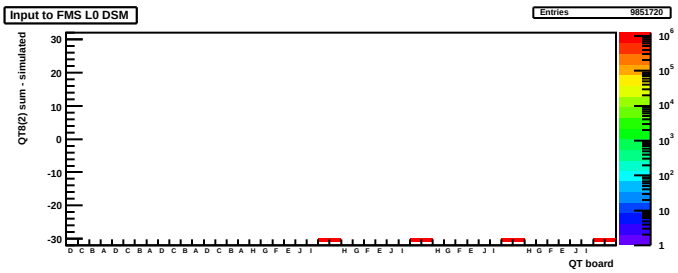

Input to FMS L0 DSM
Entries 5.911032e+07
QT8(0) sum
QT board

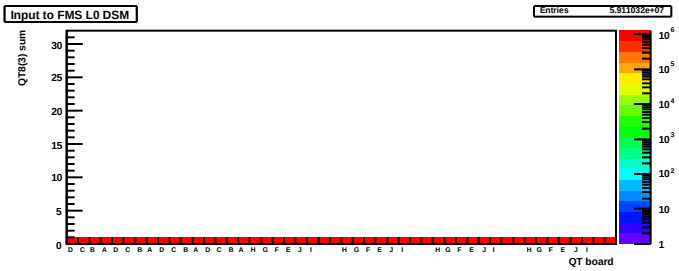

Input to FMS L0 DSM
Entries 9851720
QT8(0) sum - simulated
QT board

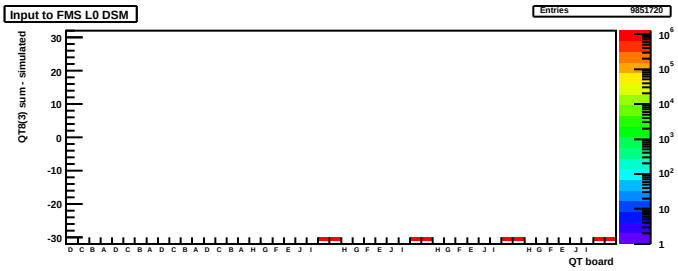

Input to FMS L0 DSM
Entries 5.911032e+07
QT8(1) sum
QT board

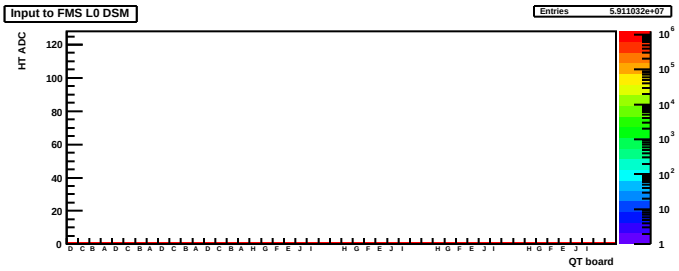

Input to FMS L0 DSM
Entries 9851720
QT8(1) sum - simulated
QT board

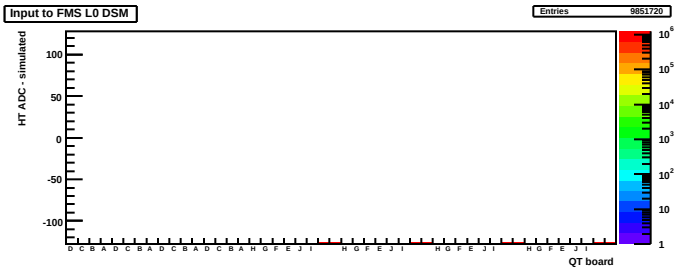

Input to FMS L0 DSM
Entries 5.911032e+07
QT8(2) sum
QT board

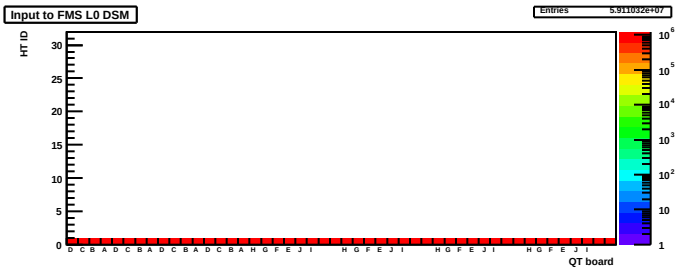

Input to FMS L0 DSM
Entries 9851720
QT8(2) sum - simulated
QT board

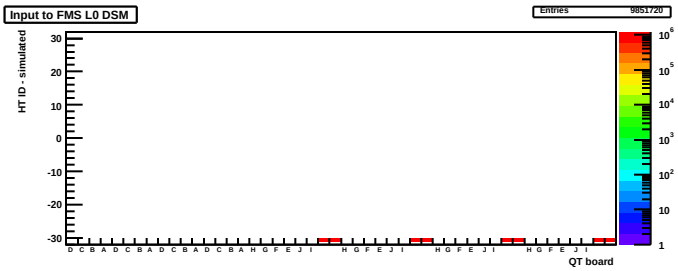

Input to FMS L0 DSM
Entries 5.911032e+07
QT8(3) sum
QT board

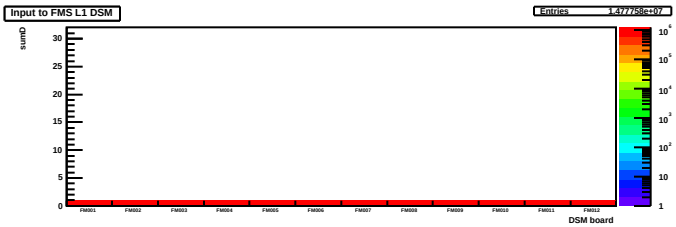

Input to FMS L0 DSM
Entries 9851720
QT8(3) sum - simulated
QT board

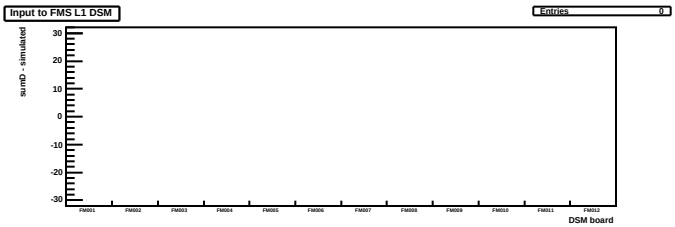

Input to FMS L0 DSM
Entries 5.911032e+07
HT ADC
QT board

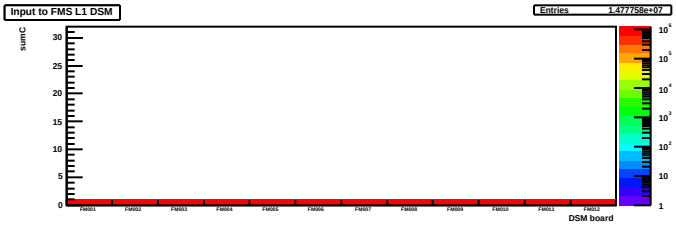

Input to FMS L0 DSM
Entries 9851720
HT ADC - simulated
QT board

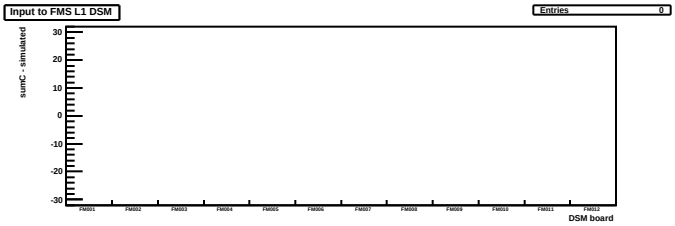

Input to FMS L0 DSM
Entries 5.911032e+07
HT ID
QT board

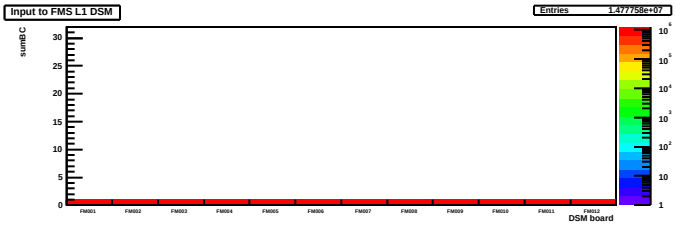

Input to FMS L0 DSM
Entries 9851720
HT ID - simulated
QT board

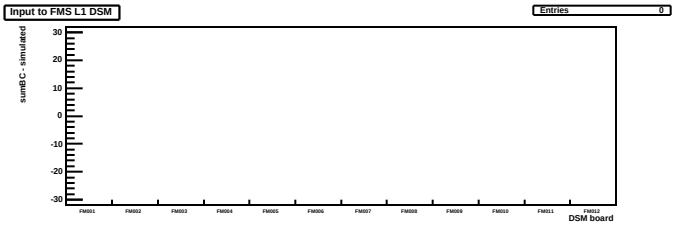

Input to FMS L1 DSM
Entries 1.477758e+07
sumD
DSM board

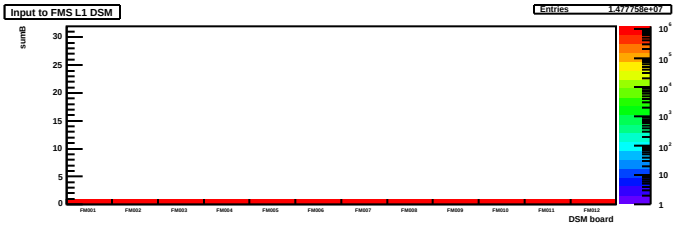

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

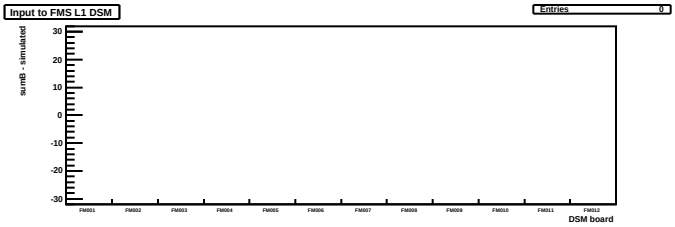

Input to FMS L1 DSM
Entries 1.477758e+07
sumC
DSM board

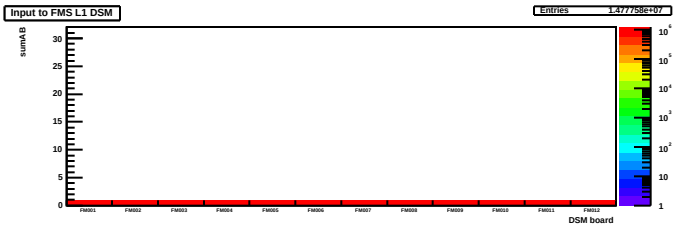

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

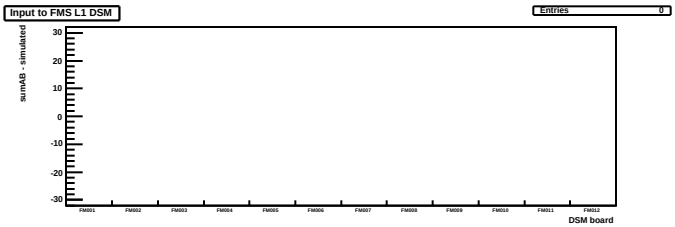

Input to FMS L1 DSM
Entries 1.477758e+07
sumBC
DSM board

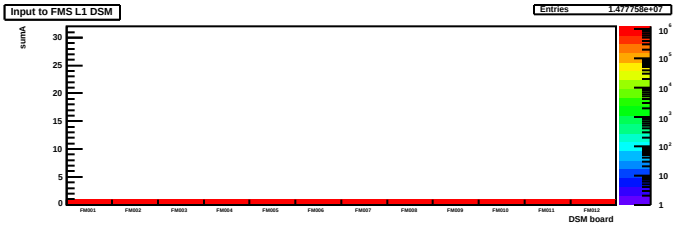

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

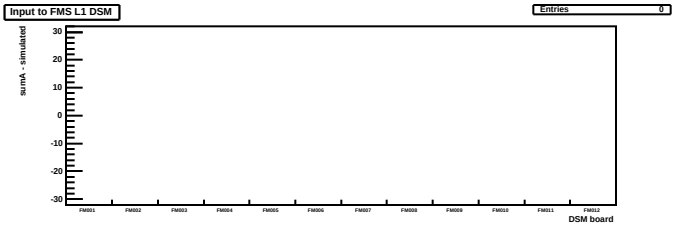

Input to FMS L1 DSM
Entries 1.477758e+07
sumB
DSM board

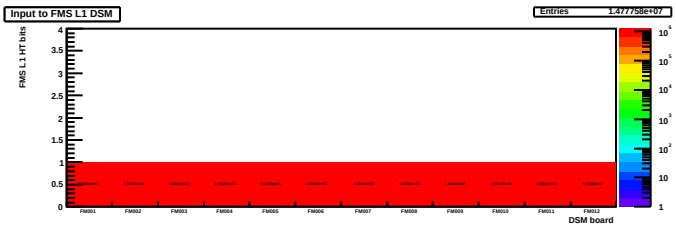

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

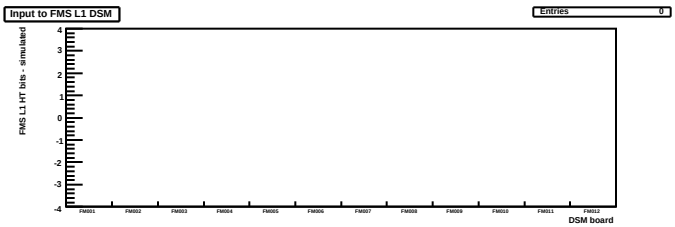

Input to FMS L1 DSM
Entries 1.477758e+07
sumAB
DSM board

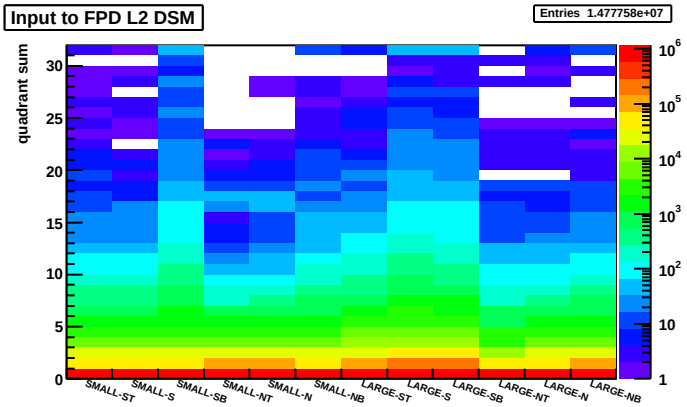

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

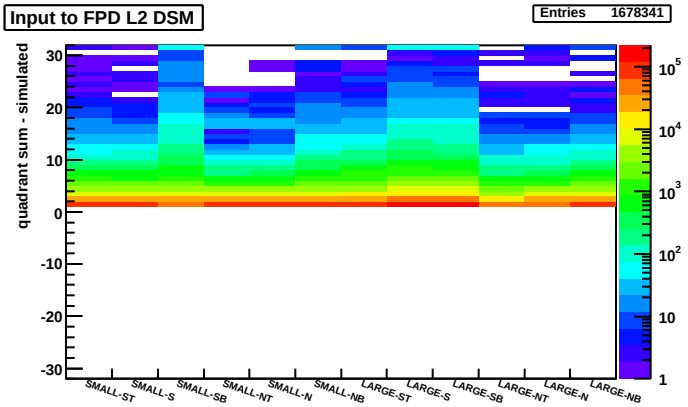

Input to FMS L1 DSM
Entries 1.477758e+07
sumA
DSM board

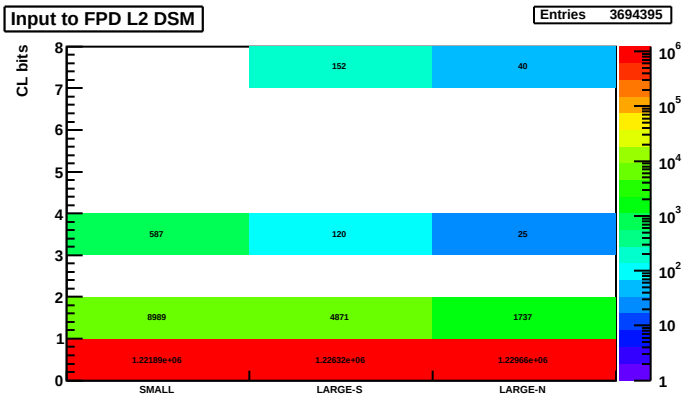

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

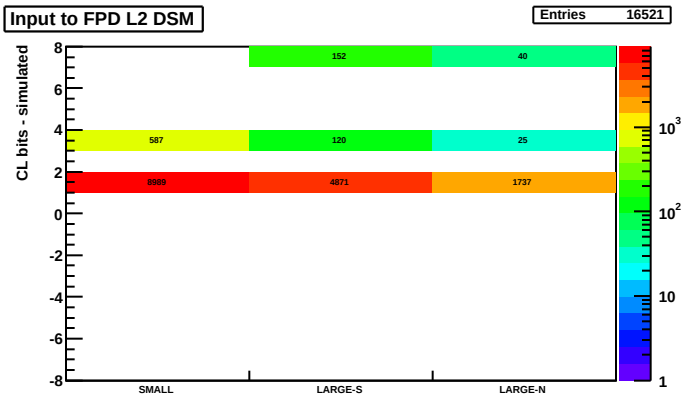

Input to FMS L1 DSM
Entries 1.477758e+07
FMS L1 HT bits
DSM board

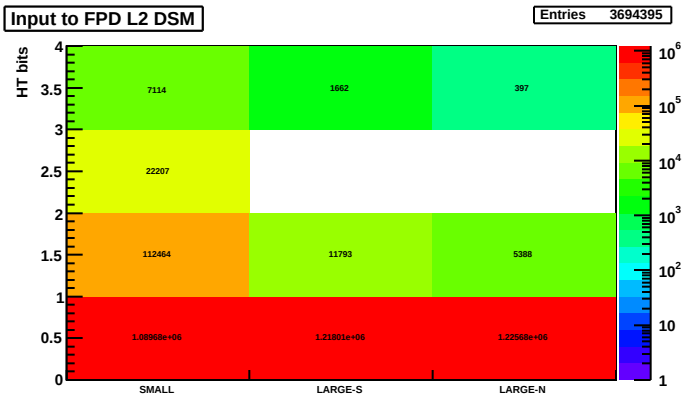

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

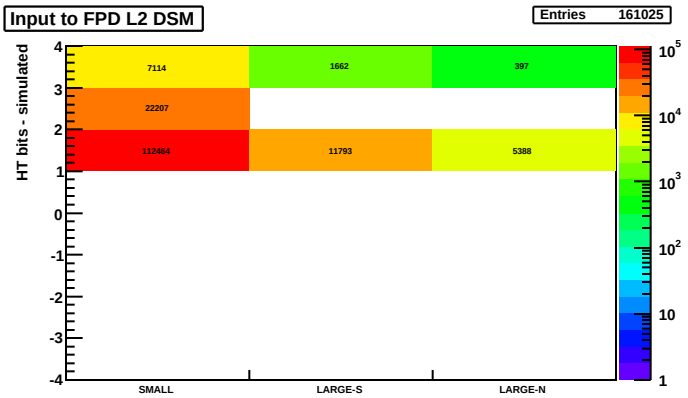

Input to FPD L2 DSM
Entries 1.477758e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

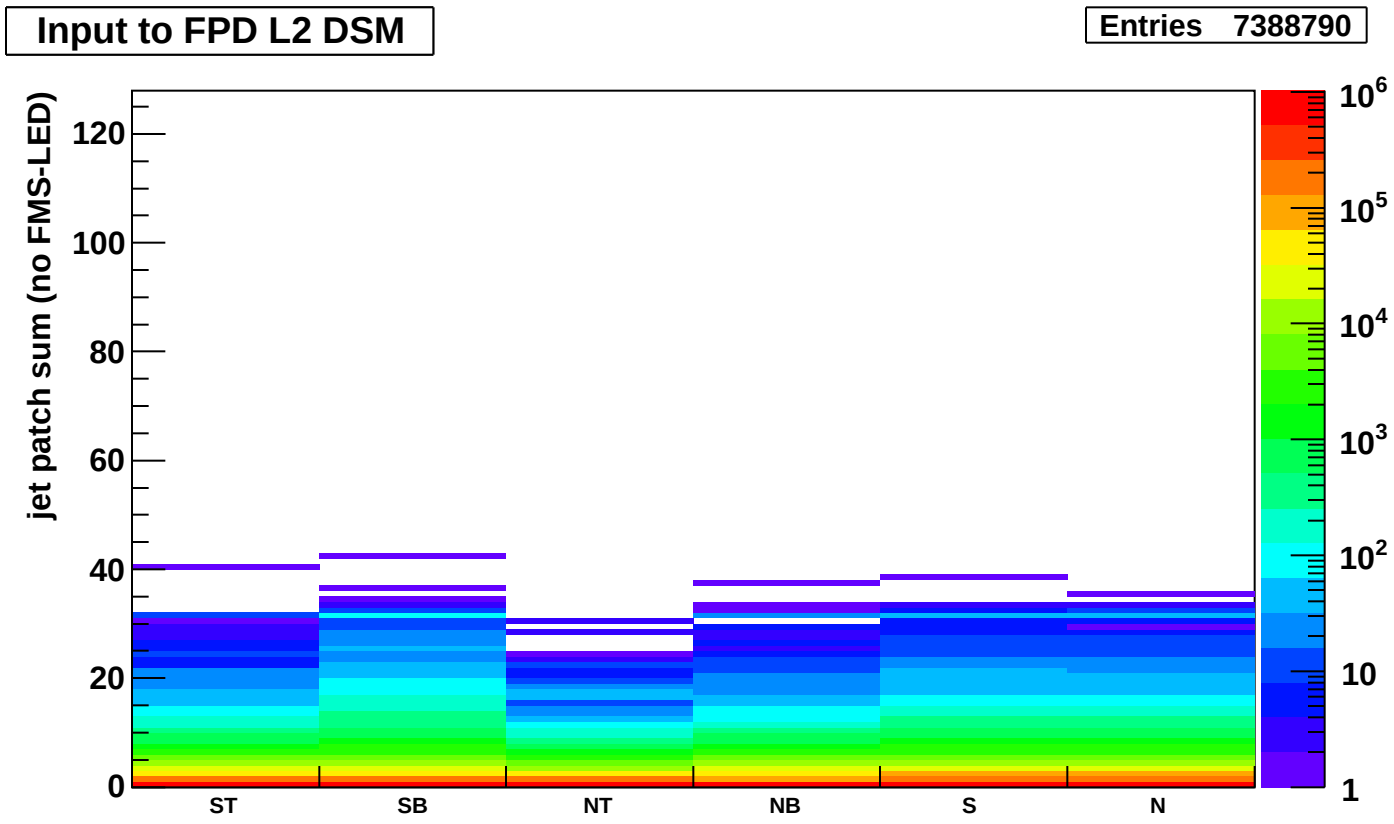

Input to FPD L2 DSM
Entries 1678341
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

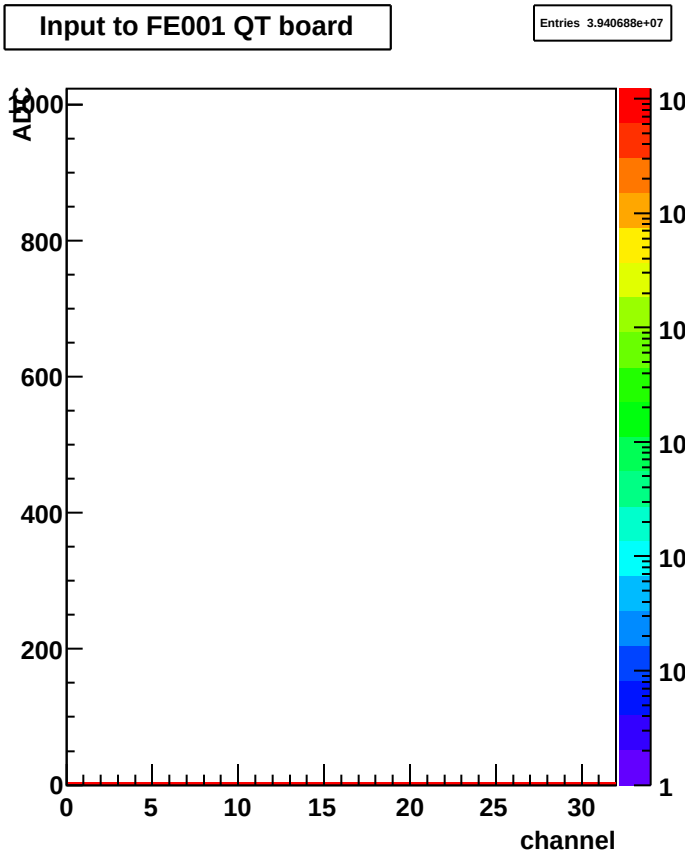

Input to FPD L2 DSM
Entries 3694395
CL bits
152
40
587
120
25
8989
4871
1737
1.22189e+06
1.22632e+06
1.22966e+06
SMALL
LARGE-S
LARGE-N

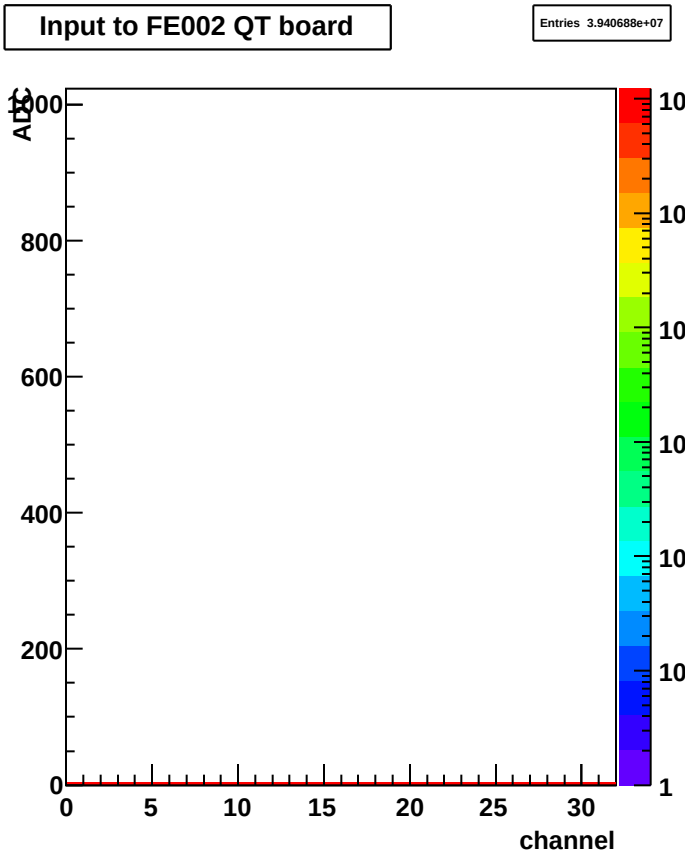

Input to FPD L2 DSM
Entries 16521
CL bits - simulated
152
40
587
120
25
8989
4871
1737
SMALL
LARGE-S
LARGE-N

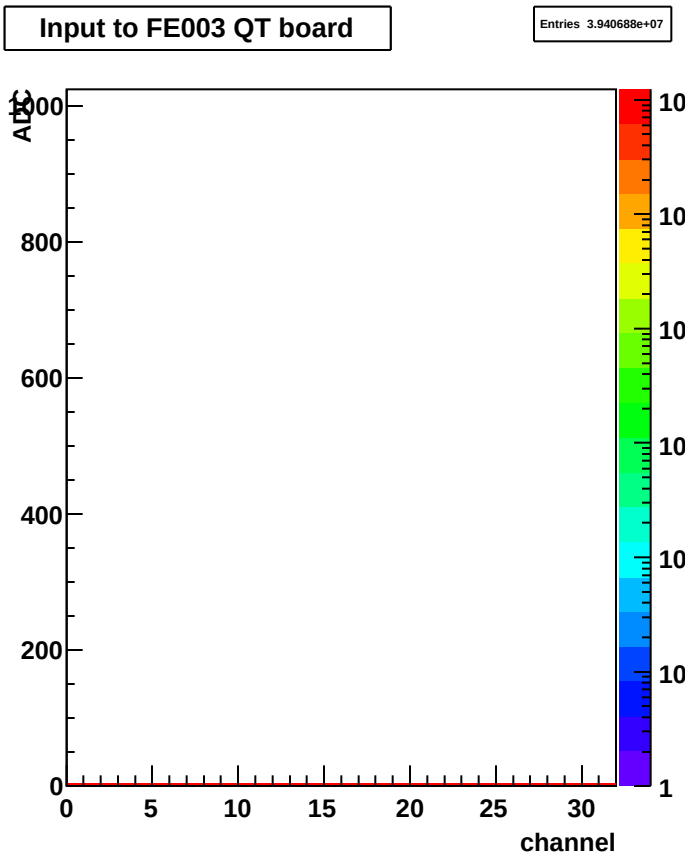

Input to FPD L2 DSM
Entries 3694395
HT bits
7114
1662
397
22207
112464
11793
5388
1.08968e+06
1.21801e+06
1.22568e+06
SMALL
LARGE-S
LARGE-N

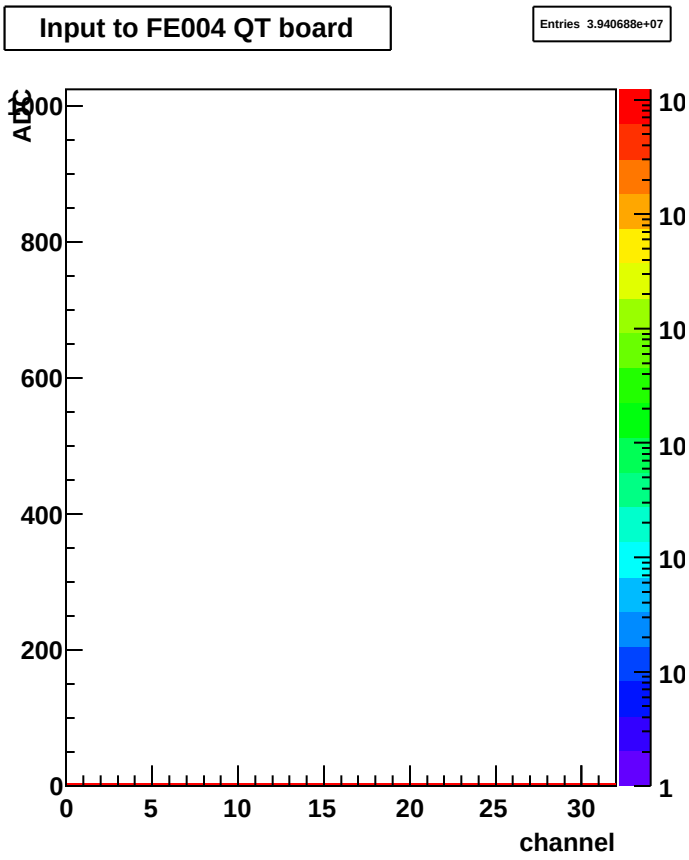

Input to FPD L2 DSM
Entries 161025
HT bits - simulated
7114
1662
397
22207
112464
11793
5388
SMALL
LARGE-S
LARGE-N

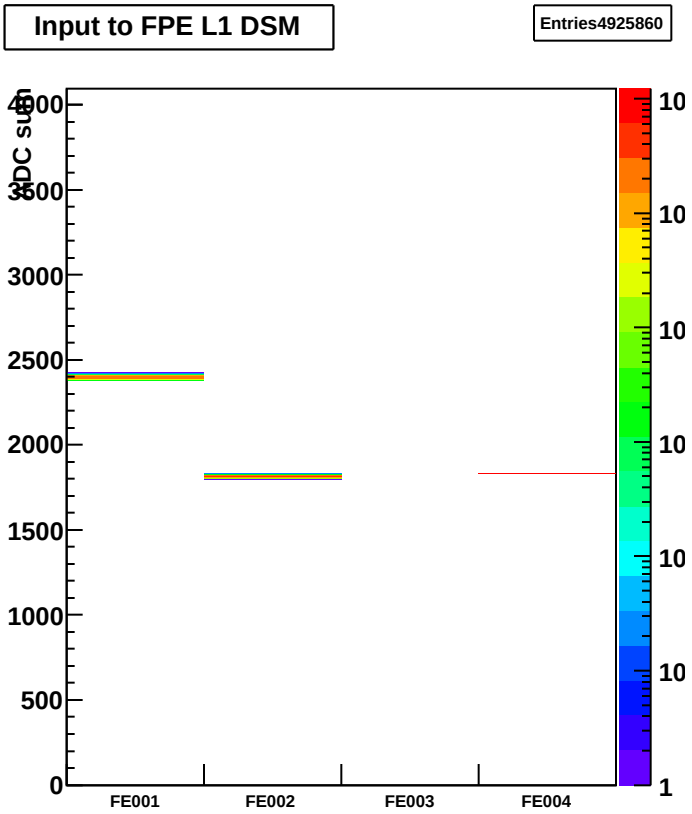

Input to FPD L2 DSM
Entries 7388790
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6


Input to FE001 QT board
Entries 3.940688e+07
ADC
channel

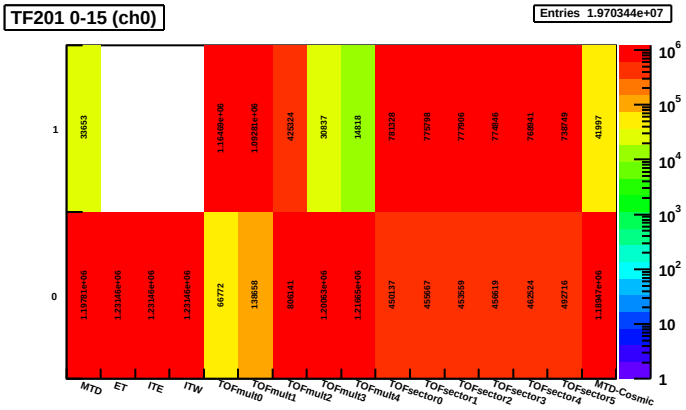

Input to FE002 QT board
Entries 3.940688e+07
ADC
channel


Input to FE003 QT board
Entries 3.940688e+07
ADC
channel

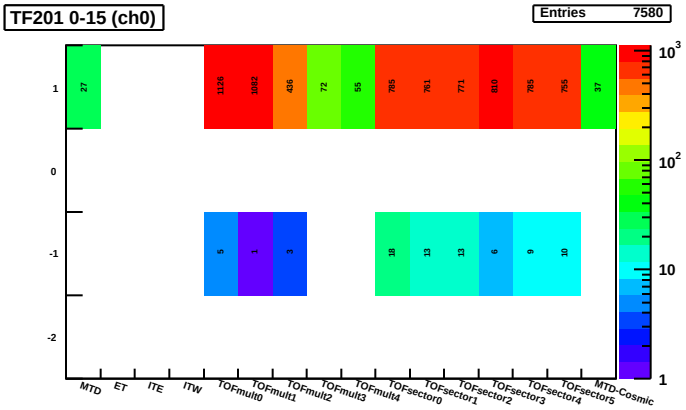

Input to FE004 QT board
Entries 3.940688e+07
ADC
channel


Input to FPE L1 DSM
Entries4925860
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
10
1

TF201 0-15 (ch0)



TF201 0-15 (ch0)



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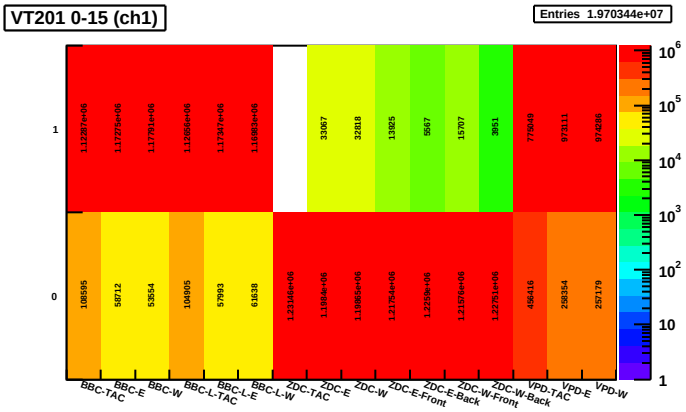

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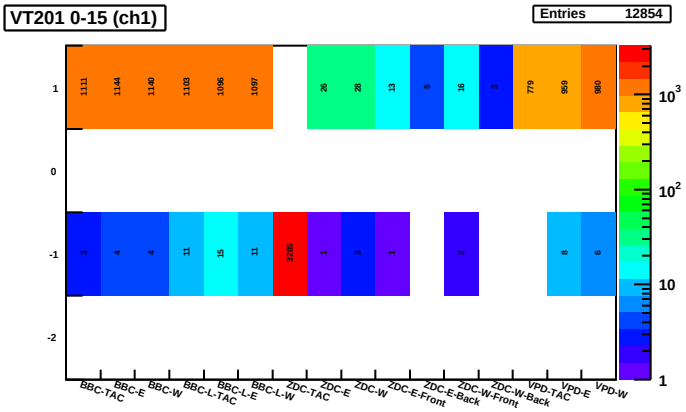

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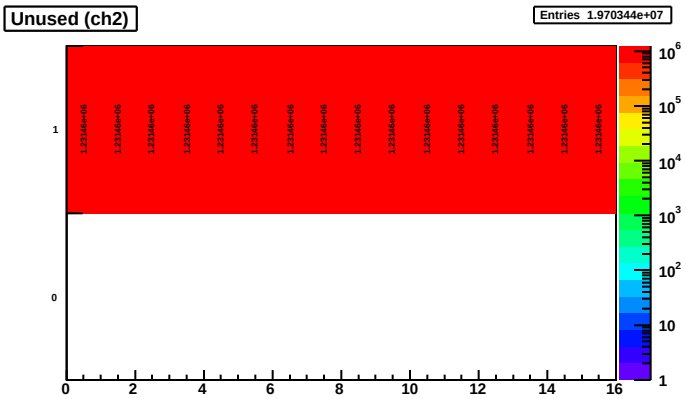
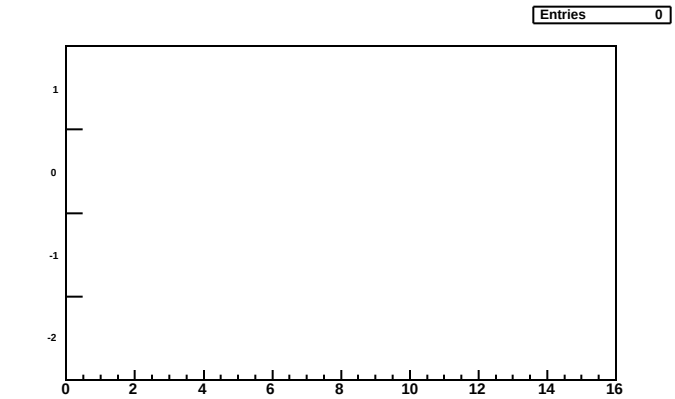
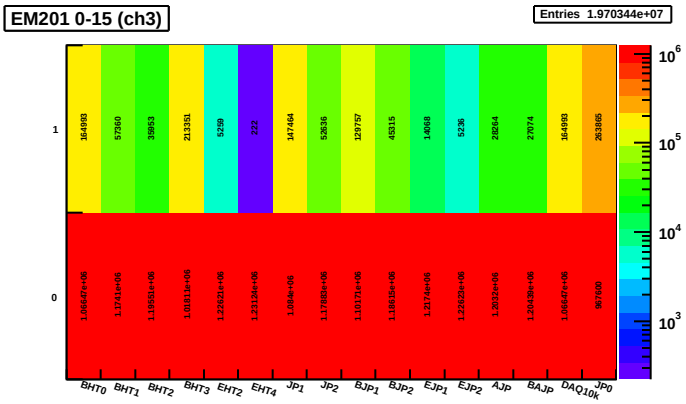
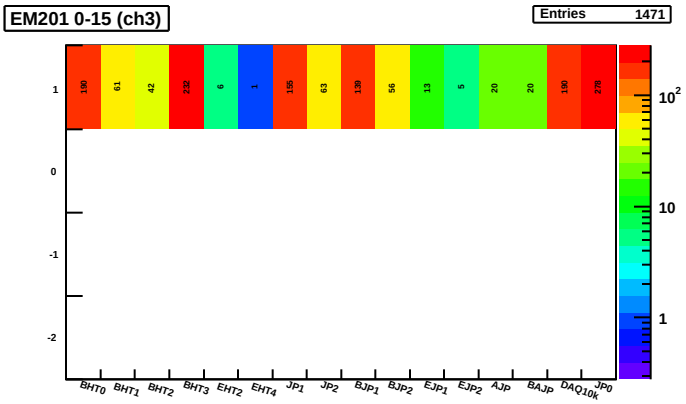




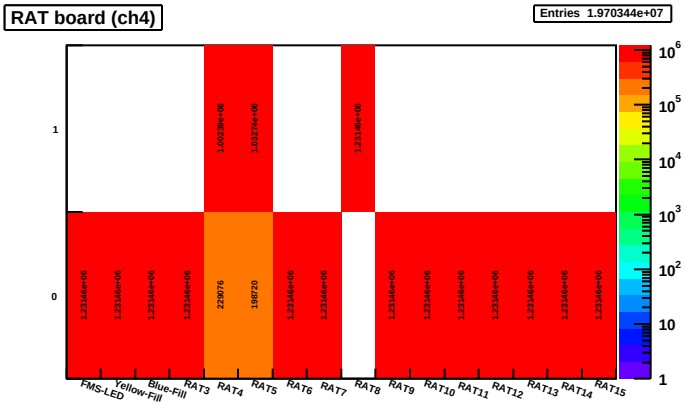
EM201 0-15 (ch3)

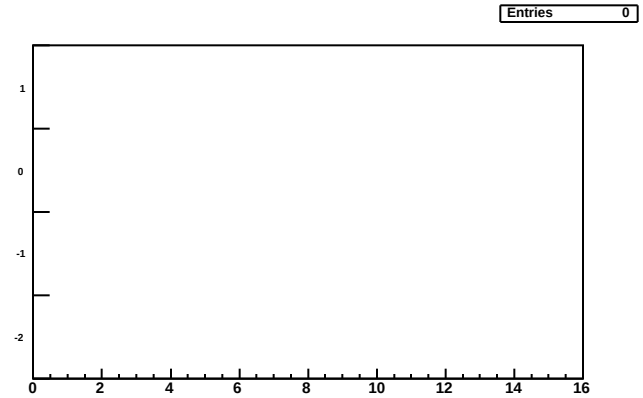


EM201 0-15 (ch3)

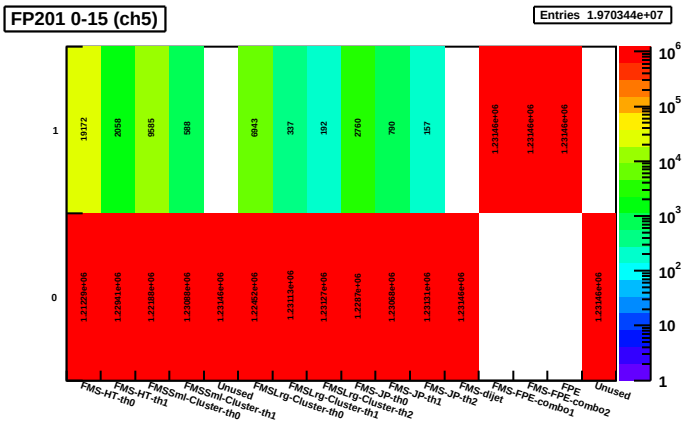


RAT board (ch4)





FP201 0-15 (ch5)



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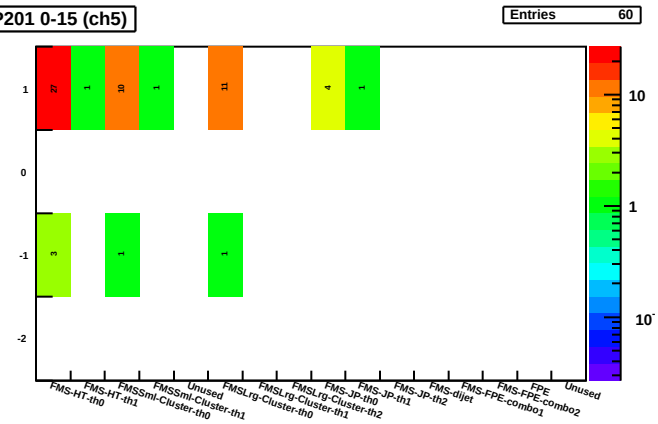
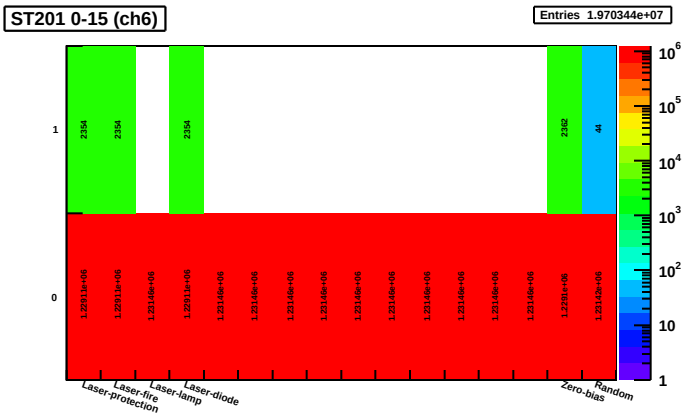
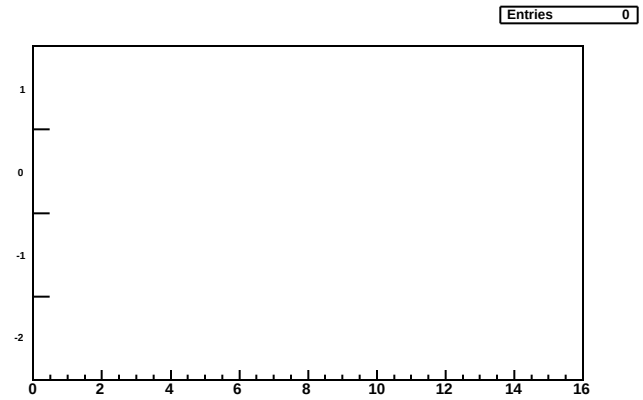
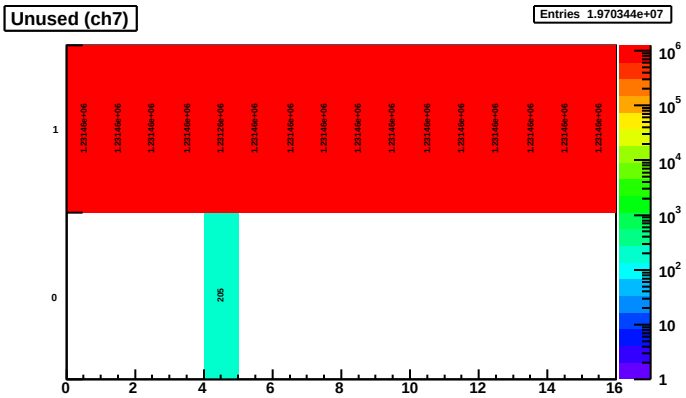
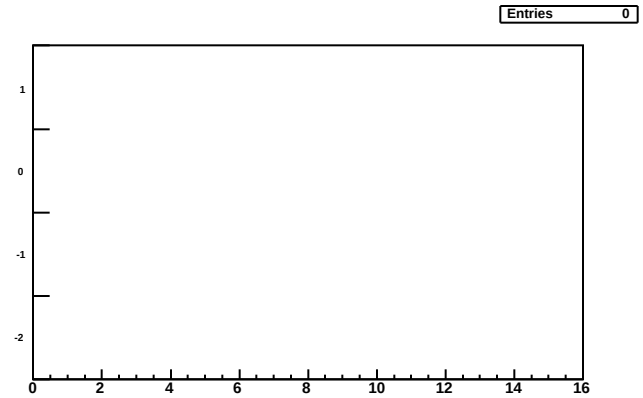


ST201 0-15 (ch6)





Unused (ch7)