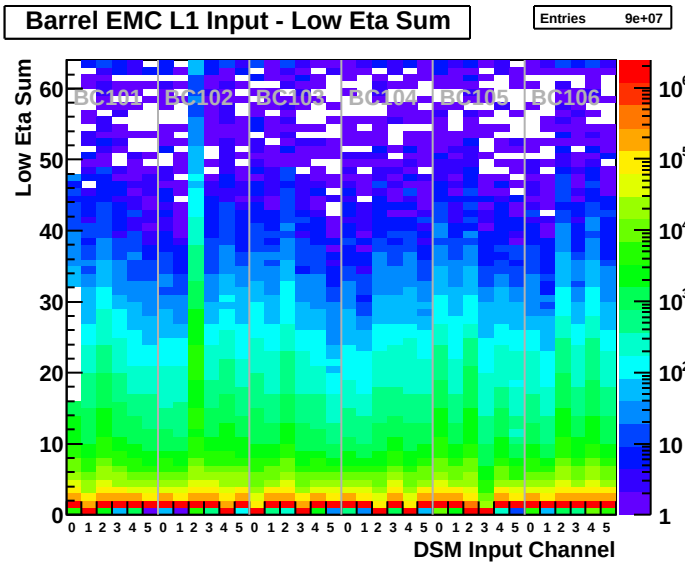
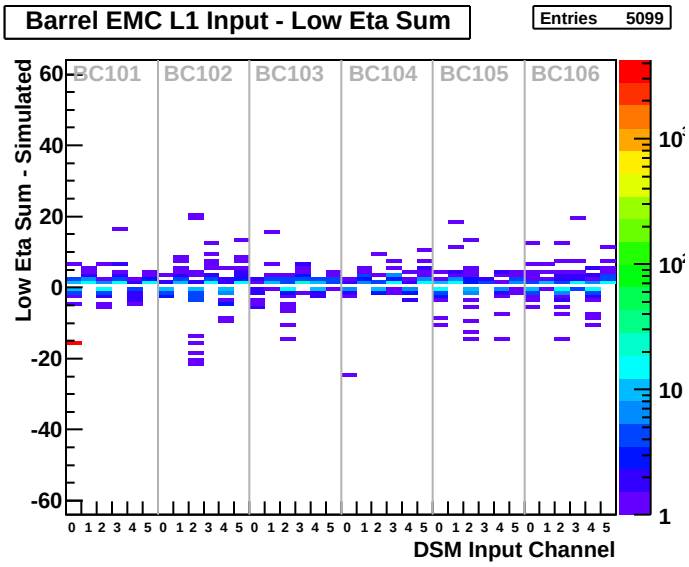
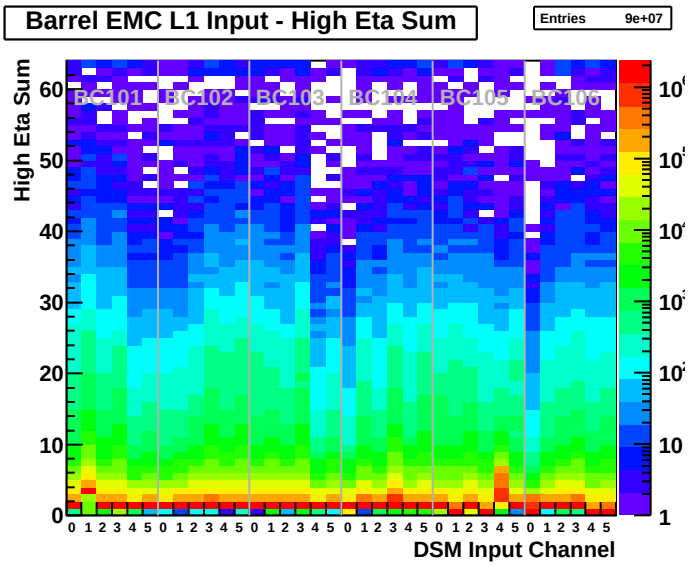
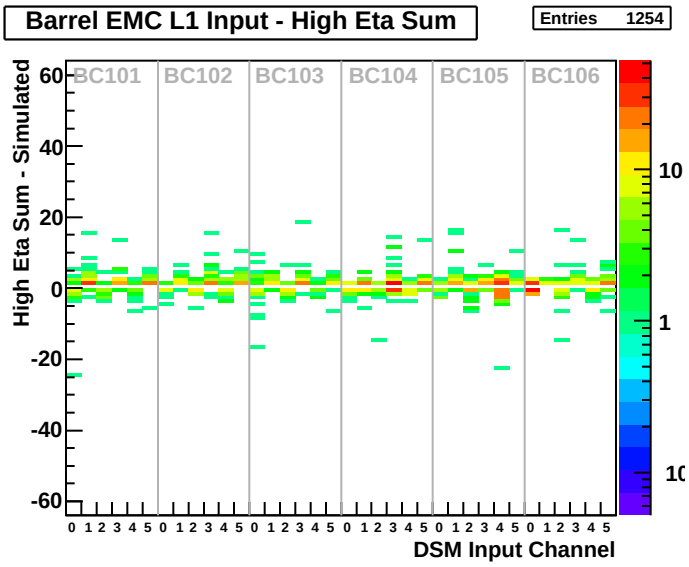
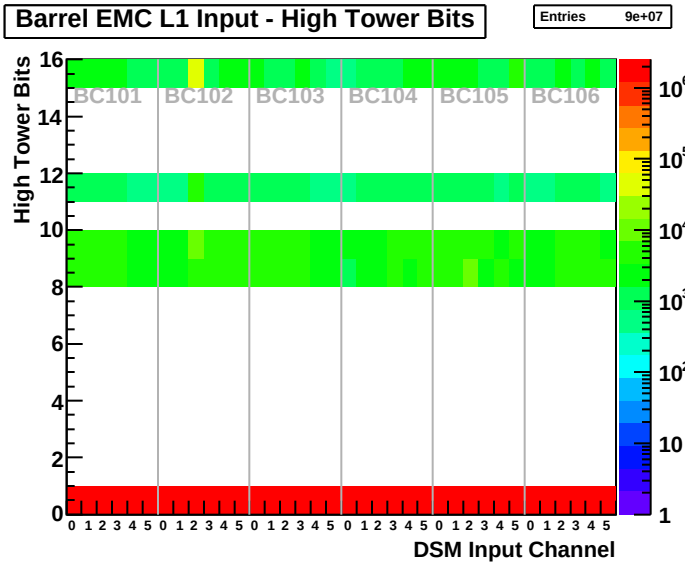
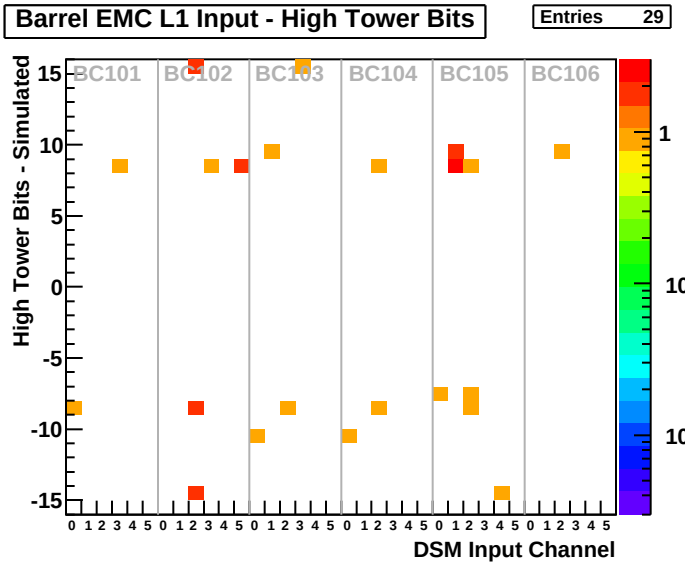

Barrel EMC L1 Input - Low Eta Sum
Entries 9e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

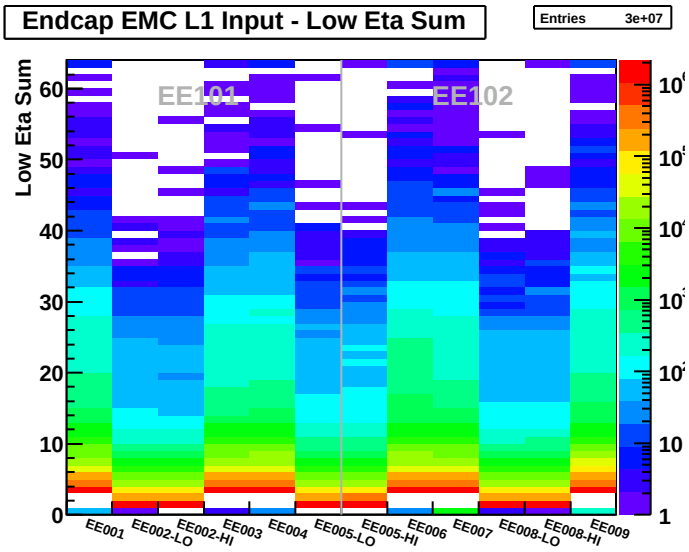

Barrel EMC L1 Input - Low Eta Sum
Entries 5099
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

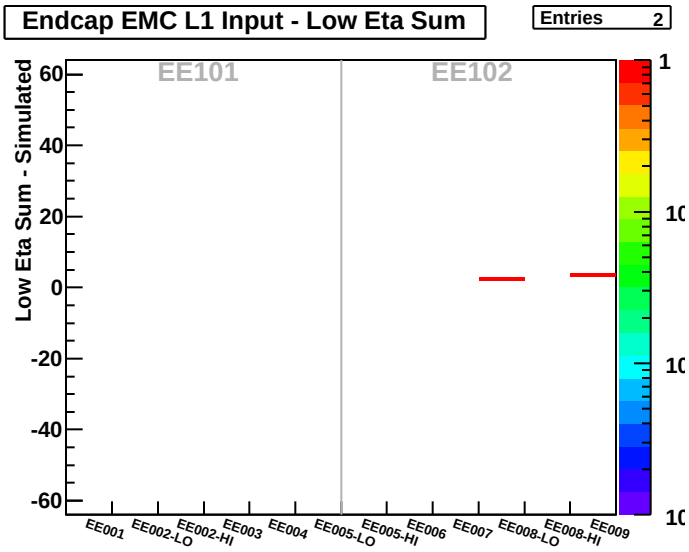

Barrel EMC L1 Input - High Eta Sum
Entries 9e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

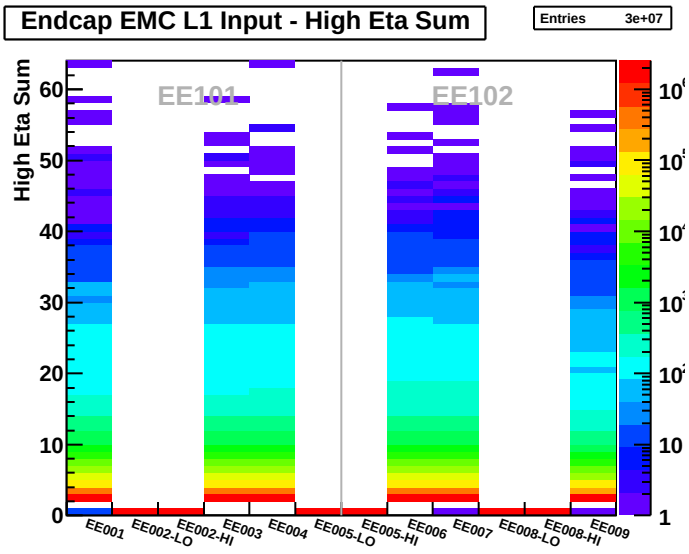

Barrel EMC L1 Input - High Eta Sum
Entries 1254
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

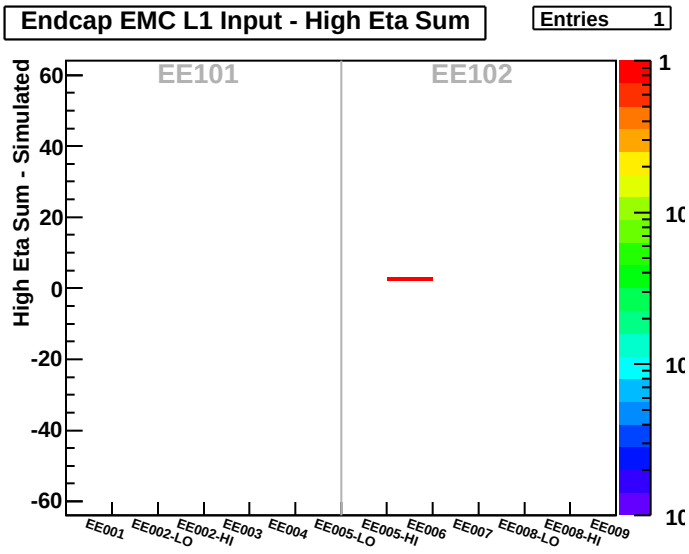

Barrel EMC L1 Input - High Tower Bits
Entries 9e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

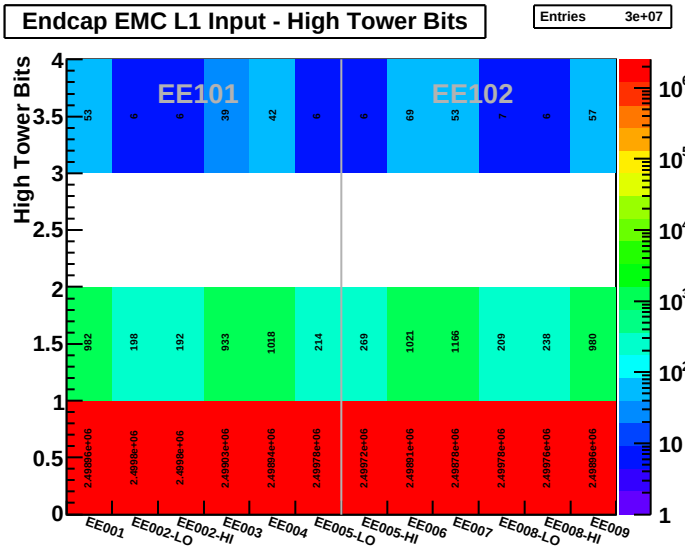

Barrel EMC L1 Input - High Tower Bits
Entries 29
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

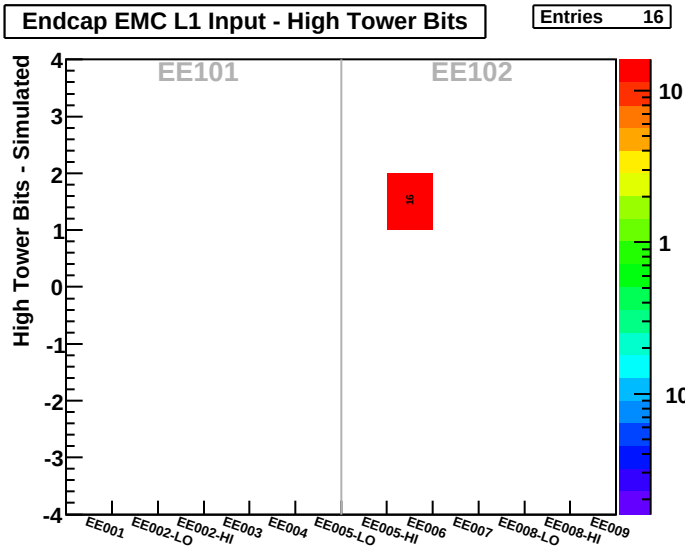

Endcap EMC L1 Input - Low Eta Sum
Entries 3e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

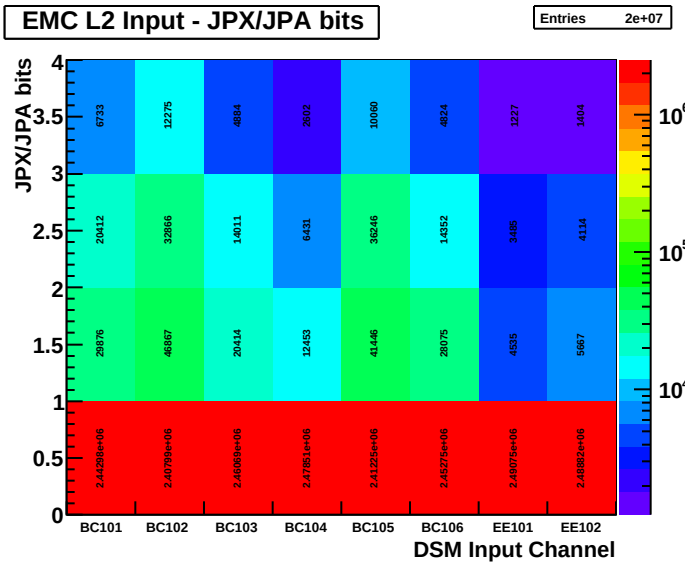

Endcap EMC L1 Input - Low Eta Sum
Entries 2
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

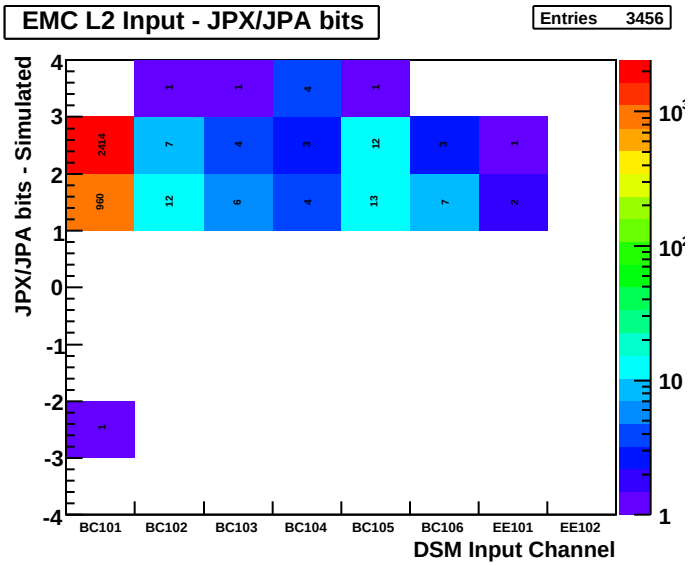

Endcap EMC L1 Input - High Eta Sum
Entries 3e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

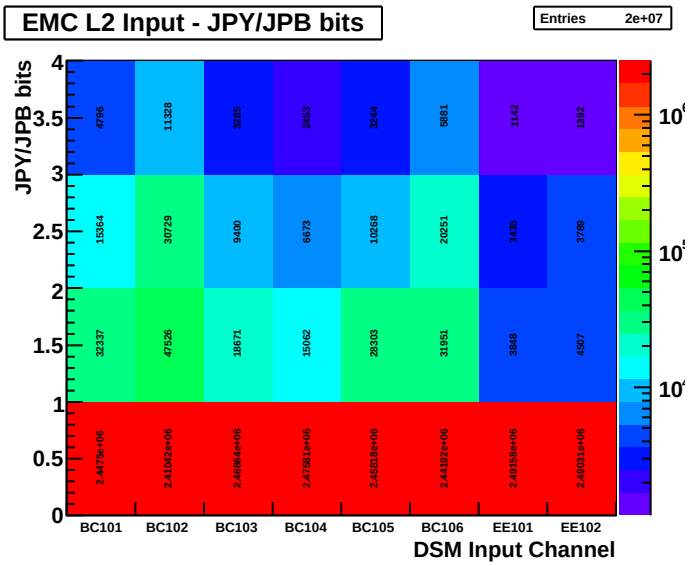

Endcap EMC L1 Input - High Eta Sum
Entries 1
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

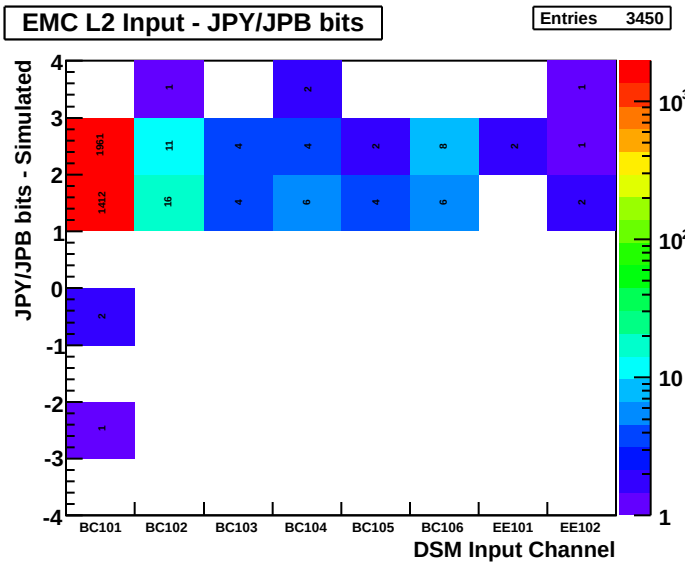

Endcap EMC L1 Input - High Tower Bits
Entries 3e+07
High Tower Bits
EE101
EE102
53 6 6 39 42 6 6 69 53 7 6 57
982 198 192 933 1018 214 269 1021 1166 209 238 980
2.49895e+06 2.4998e+06 2.49898e+06 2.49903e+06 2.49894e+06 2.49878e+06 2.49872e+06 2.49891e+06 2.49878e+06 2.49878e+06 2.49876e+06 2.49895e+06
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

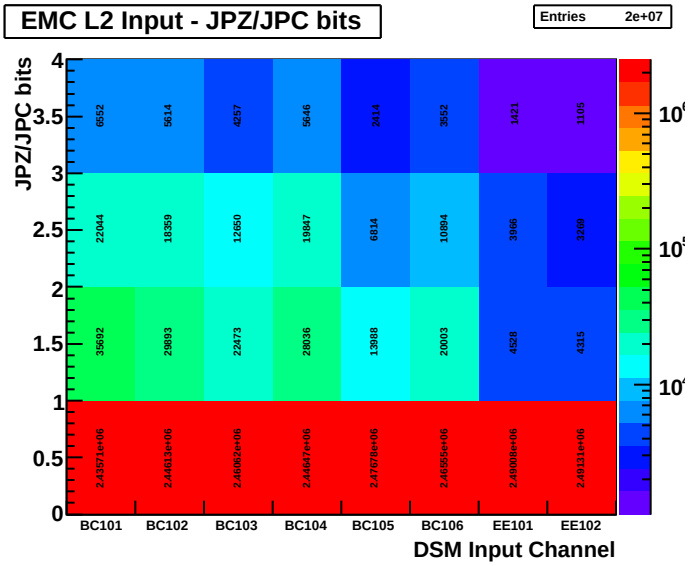

Endcap EMC L1 Input - High Tower Bits
Entries 16
High Tower Bits - Simulated
EE101
EE102
16
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

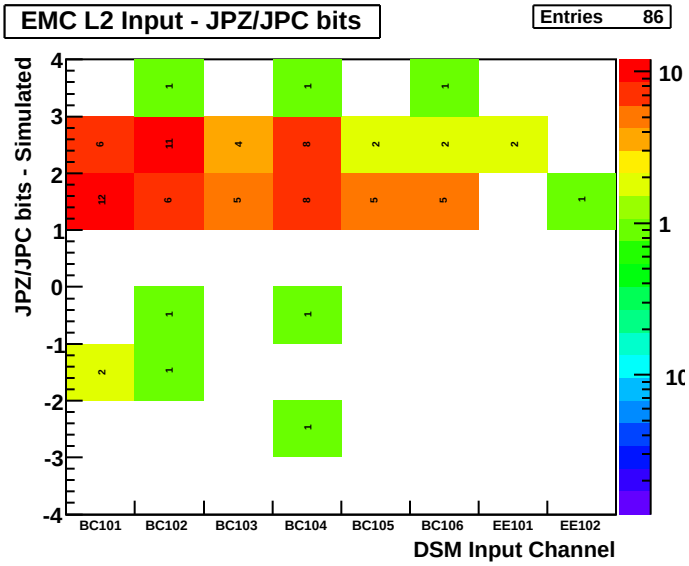

EMC L2 Input - JPX/JPA bits
Entries 2e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

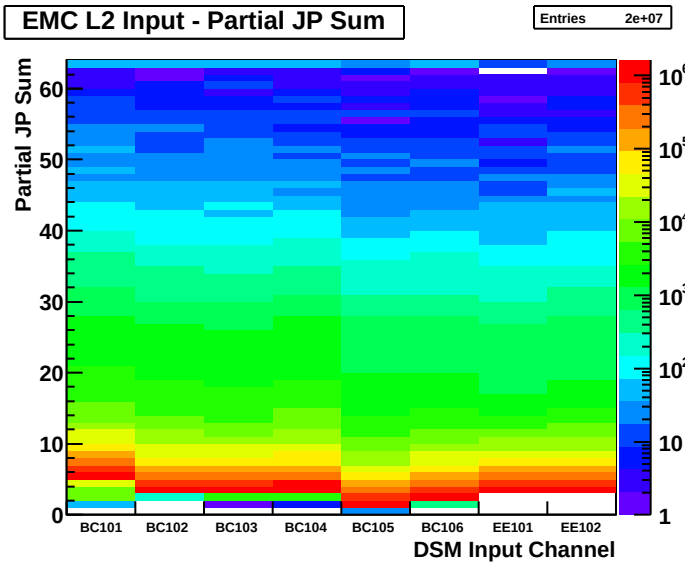

EMC L2 Input - JPX/JPA bits
Entries 3456
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

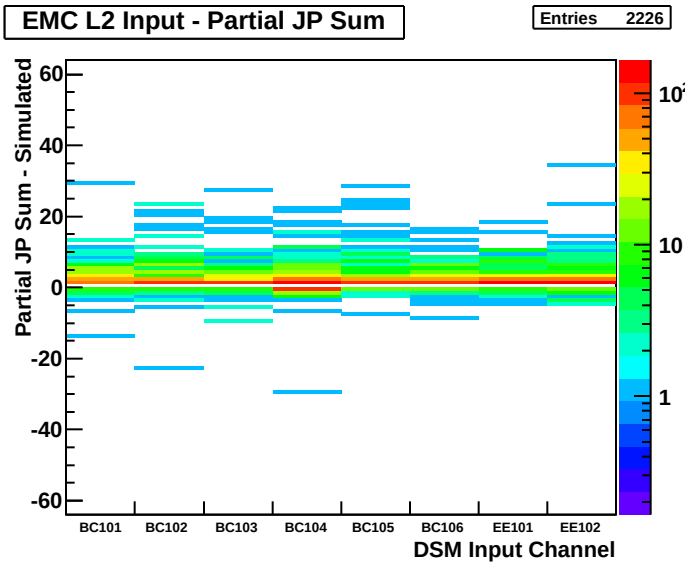

EMC L2 Input - JPY/JPB bits
Entries 2e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

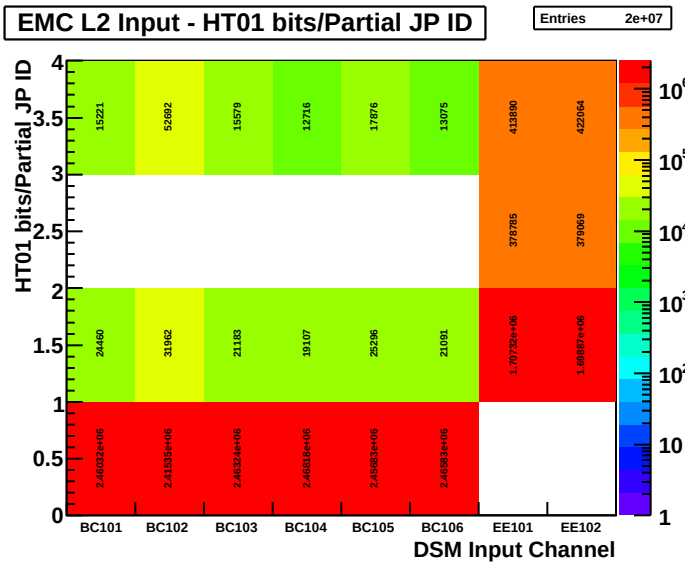

EMC L2 Input - JPY/JPB bits
Entries 3450
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

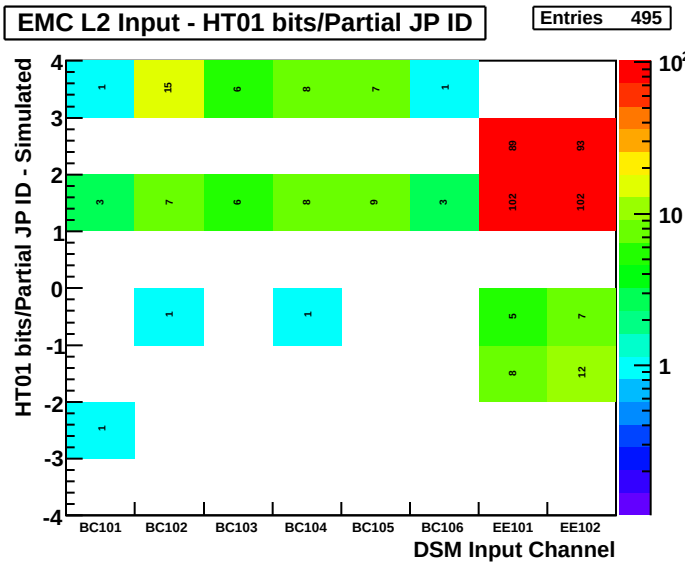

EMC L2 Input - JPZ/JPC bits
Entries 2e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

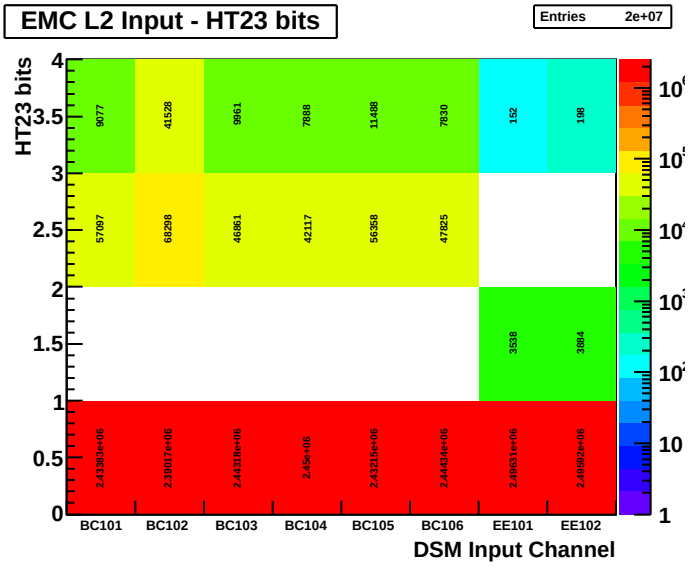

EMC L2 Input - JPZ/JPC bits
Entries 86
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

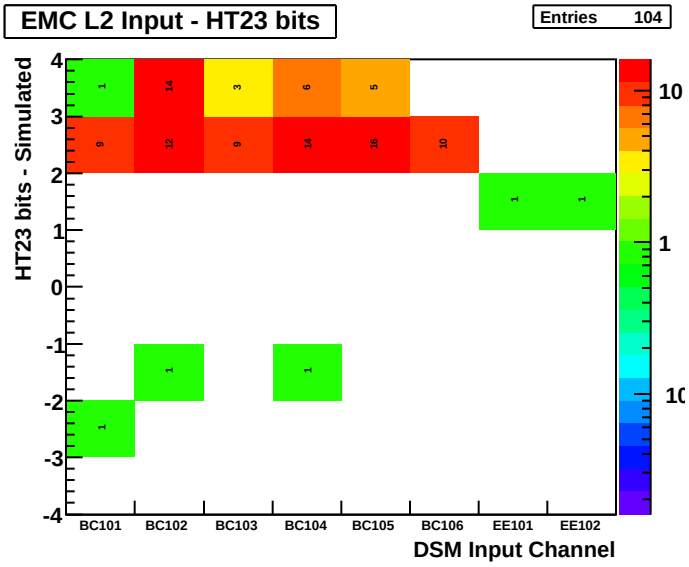

EMC L2 Input - Partial JP Sum
Entries 2e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

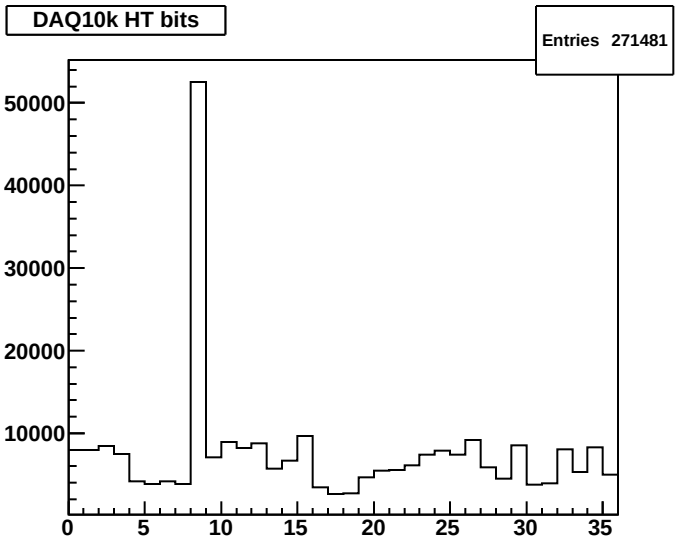

EMC L2 Input - Partial JP Sum
Entries 2226
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

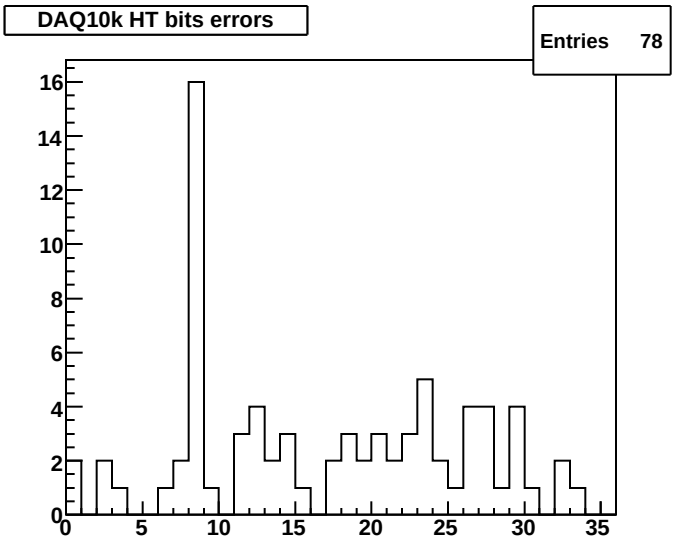

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

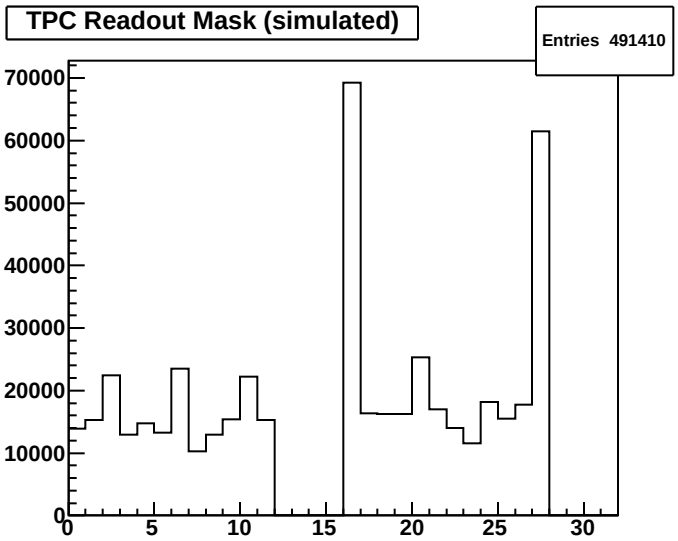

EMC L2 Input - HT01 bits/Partial JP ID
Entries 495
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

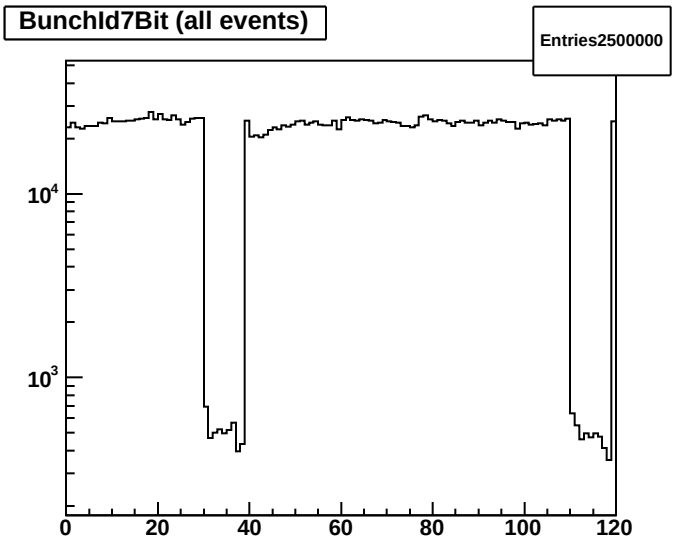

EMC L2 Input - HT23 bits
Entries 2e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

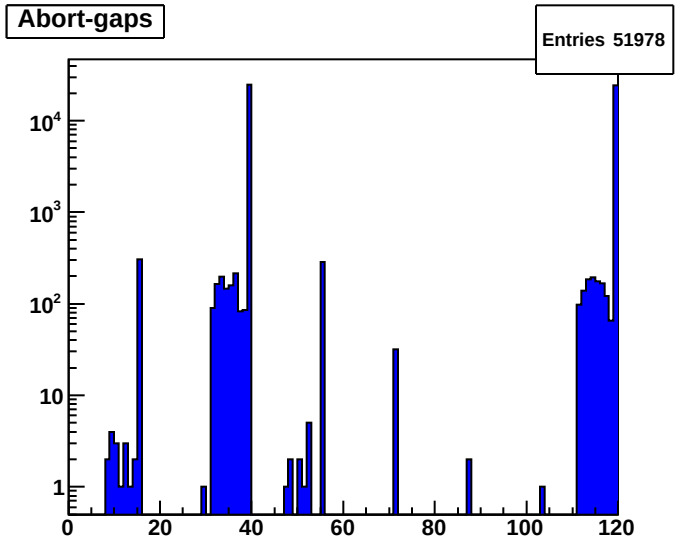

EMC L2 Input - HT23 bits
Entries 104
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

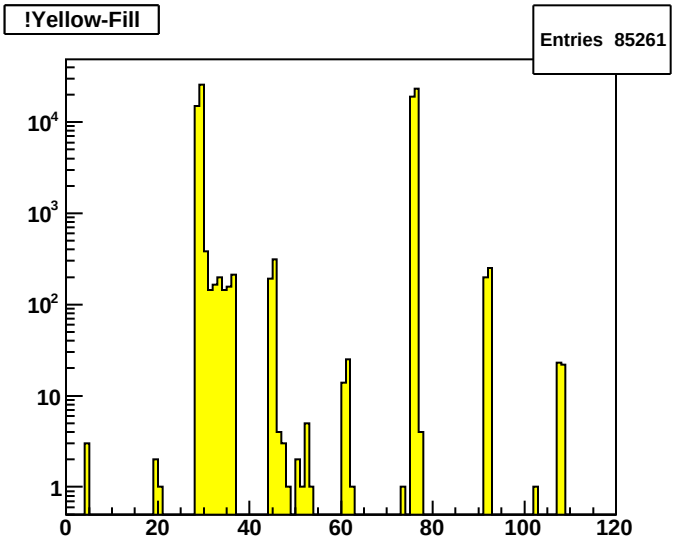

DAQ10k HT bits
Entries 271481
50000
40000
30000
20000
10000
0
5
10
15
20
25
30
35

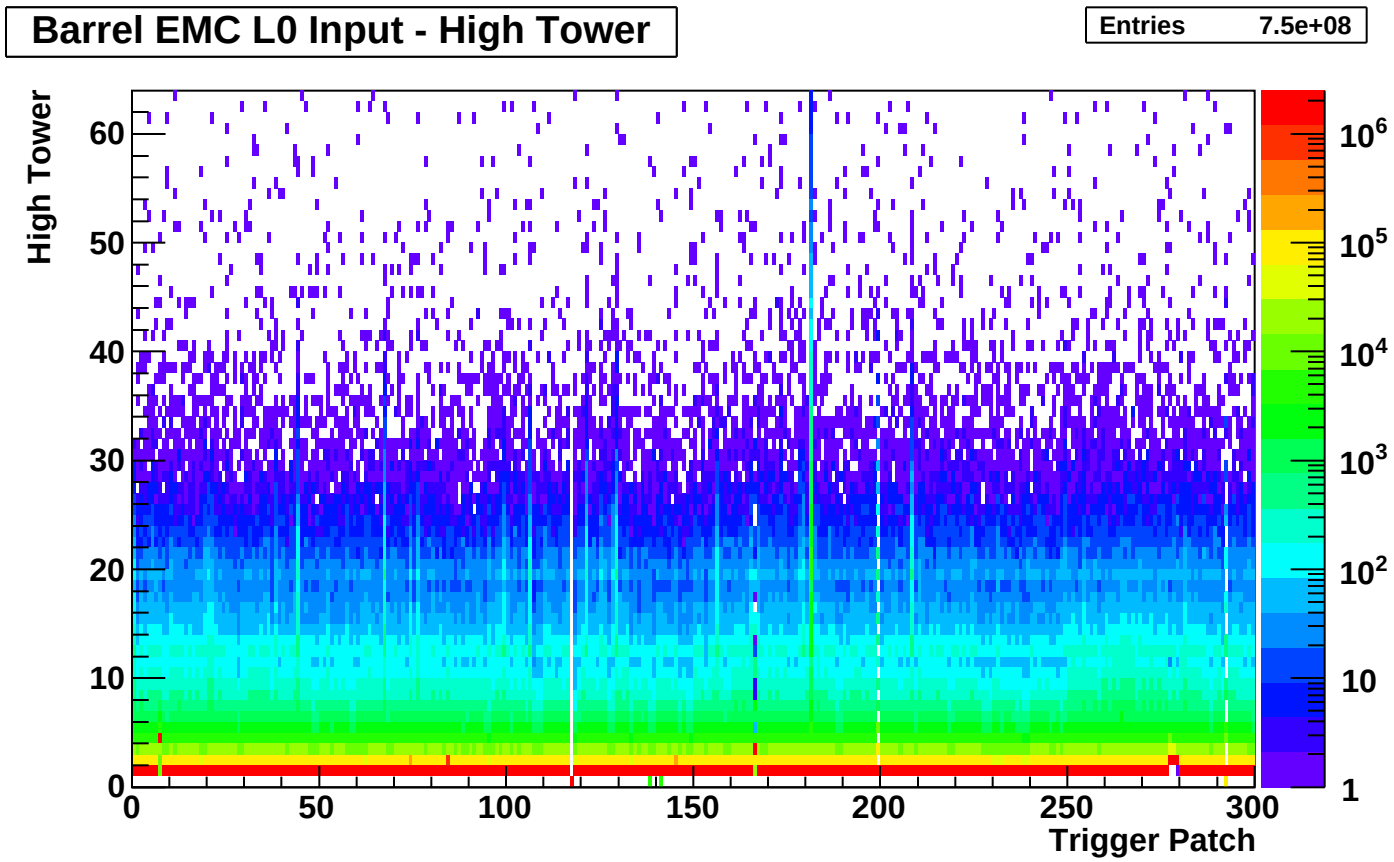

DAQ10k HT bits errors
Entries 78
16
14
12
10
8
6
4
2
0
5
10
15
20
25
30
35

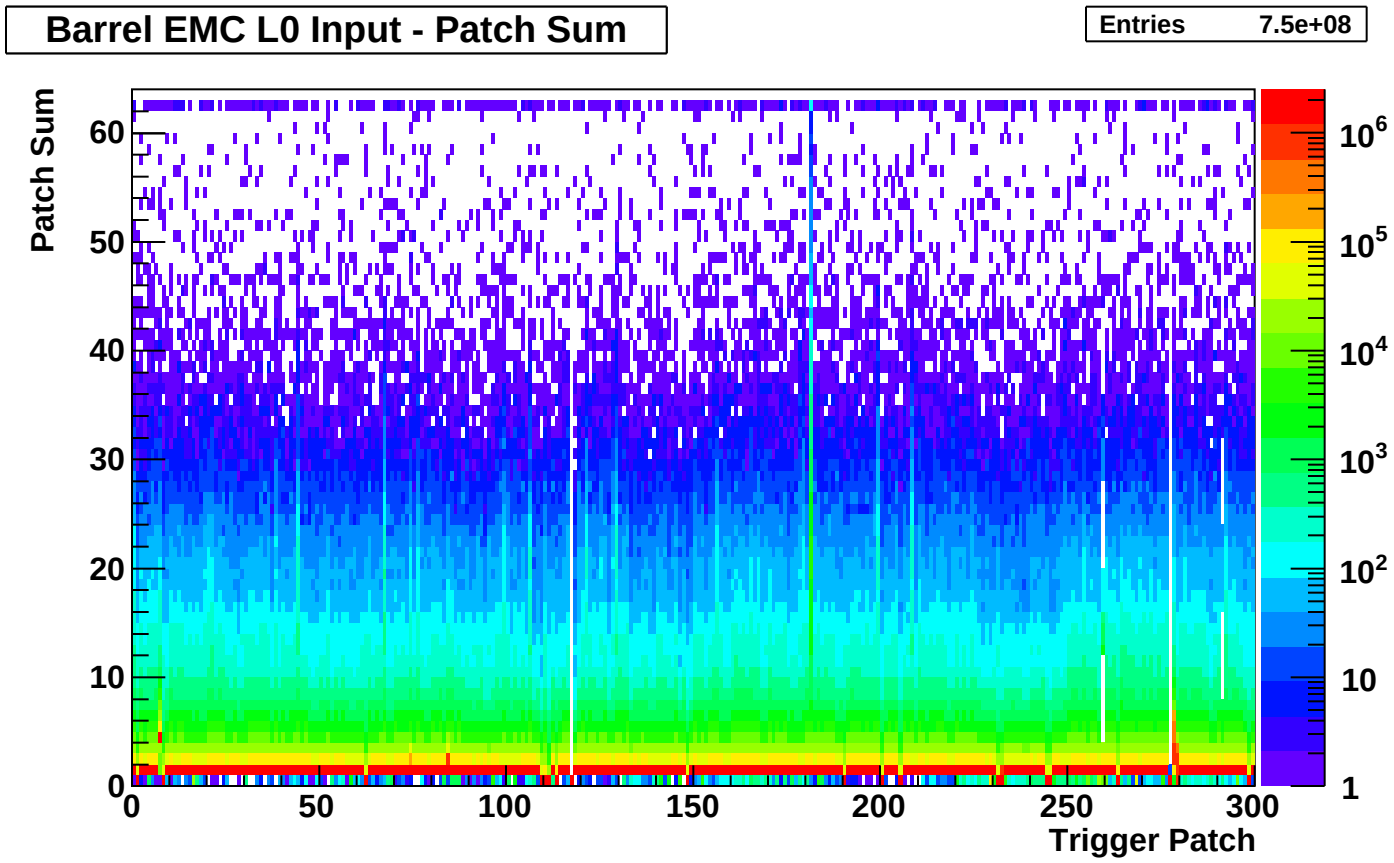

TPC Readout Mask (simulated)
Entries 491410
70000
60000
50000
40000
30000
20000
10000
0
5
10
15
20
25
30

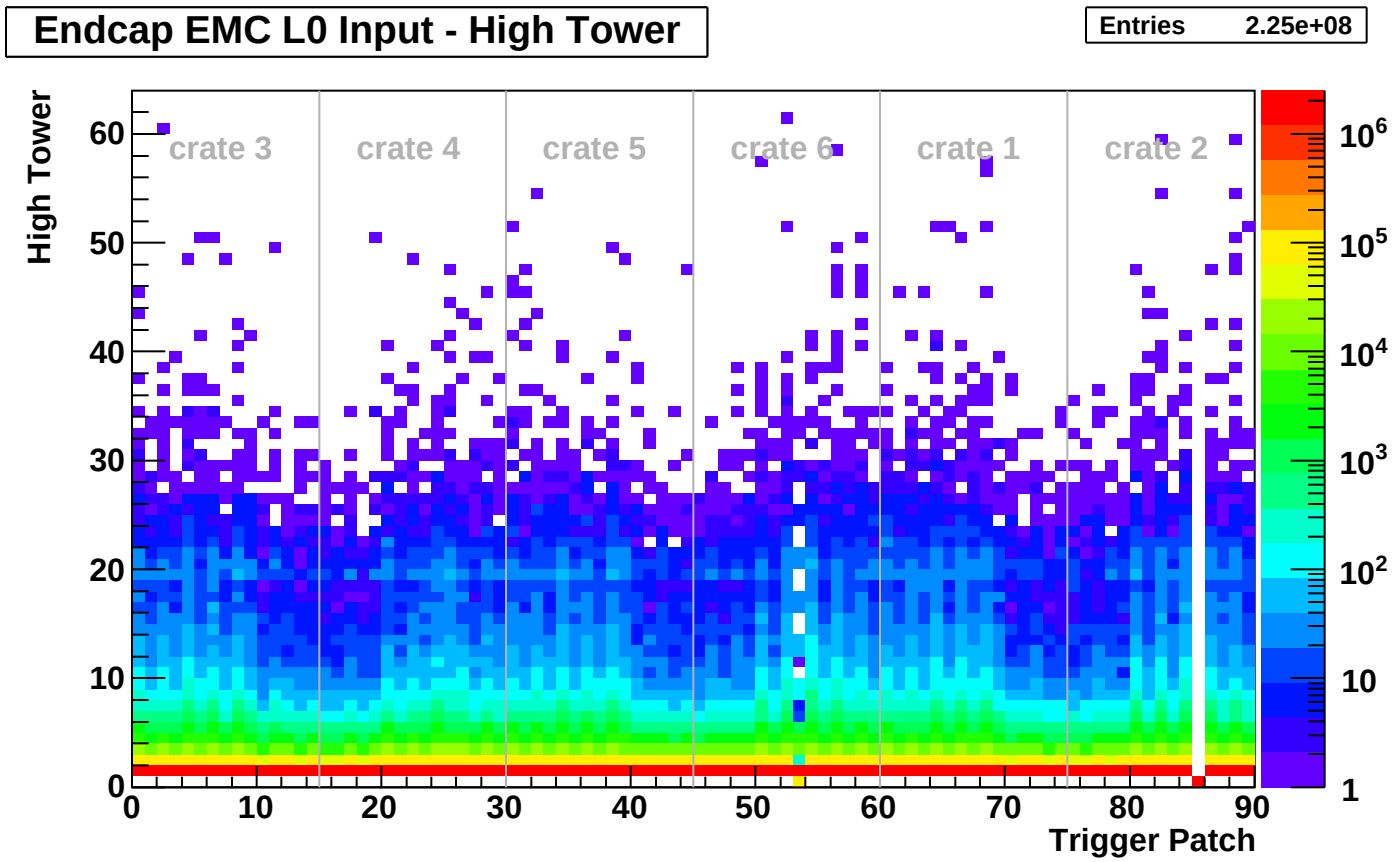

BunchId7Bit (all events)
Entries2500000
10^4
10^3
0
20
40
60
80
100
120

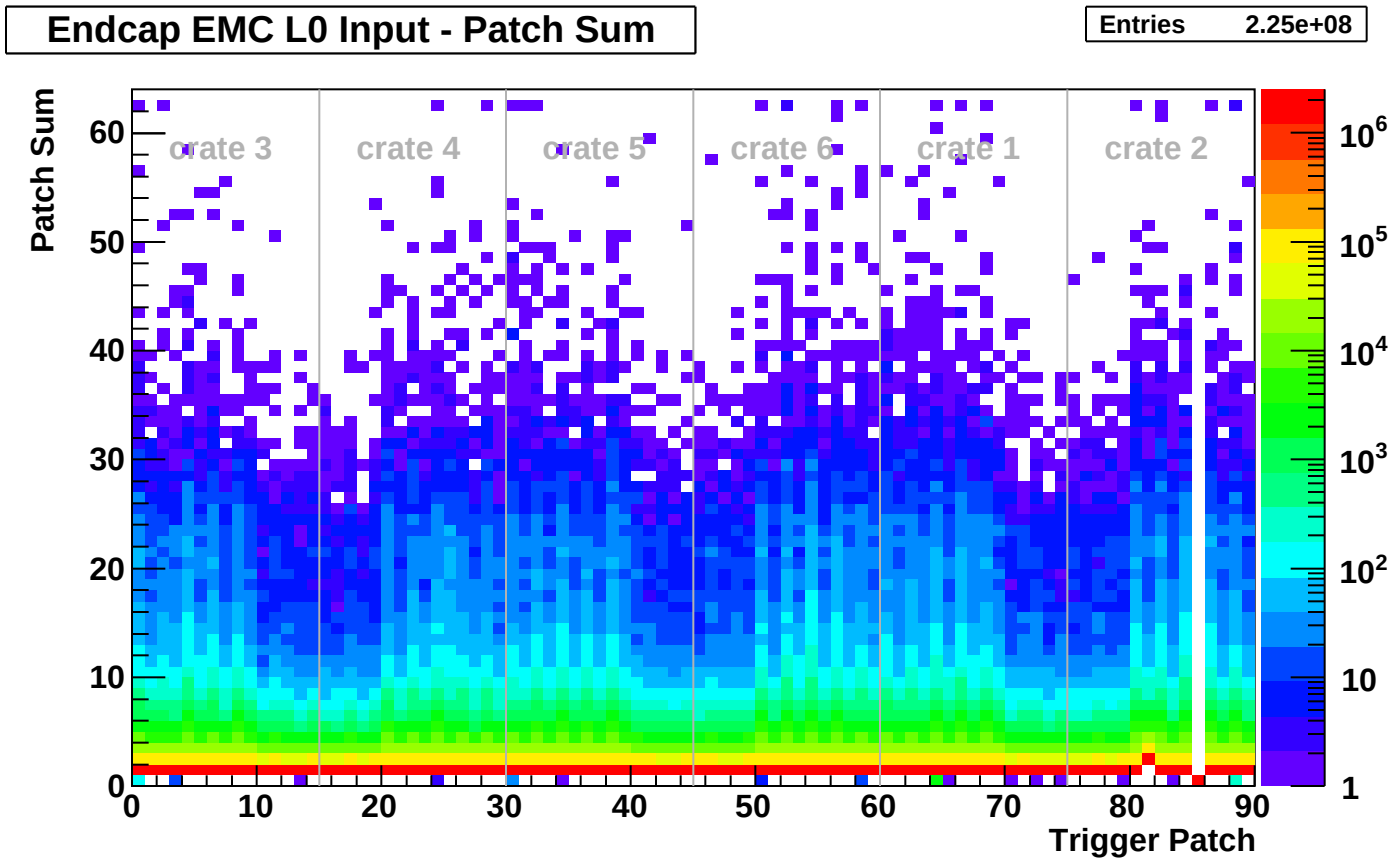

Abort-gaps
Entries 51978
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

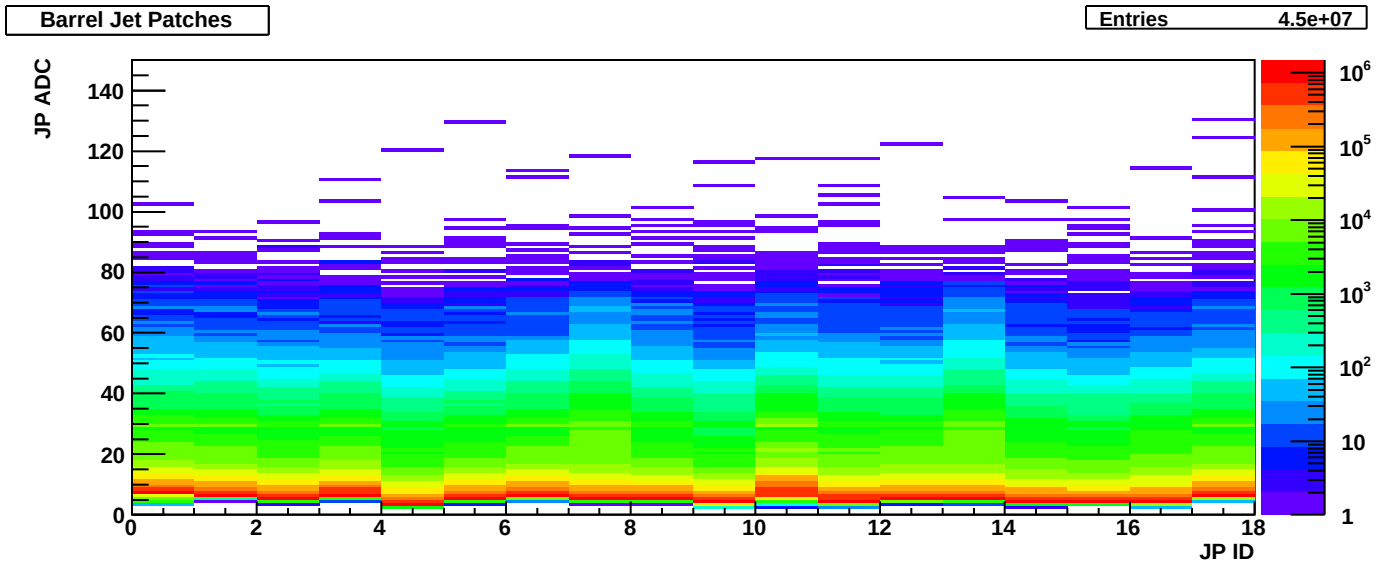

!Yellow-Fill
Entries 85261
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

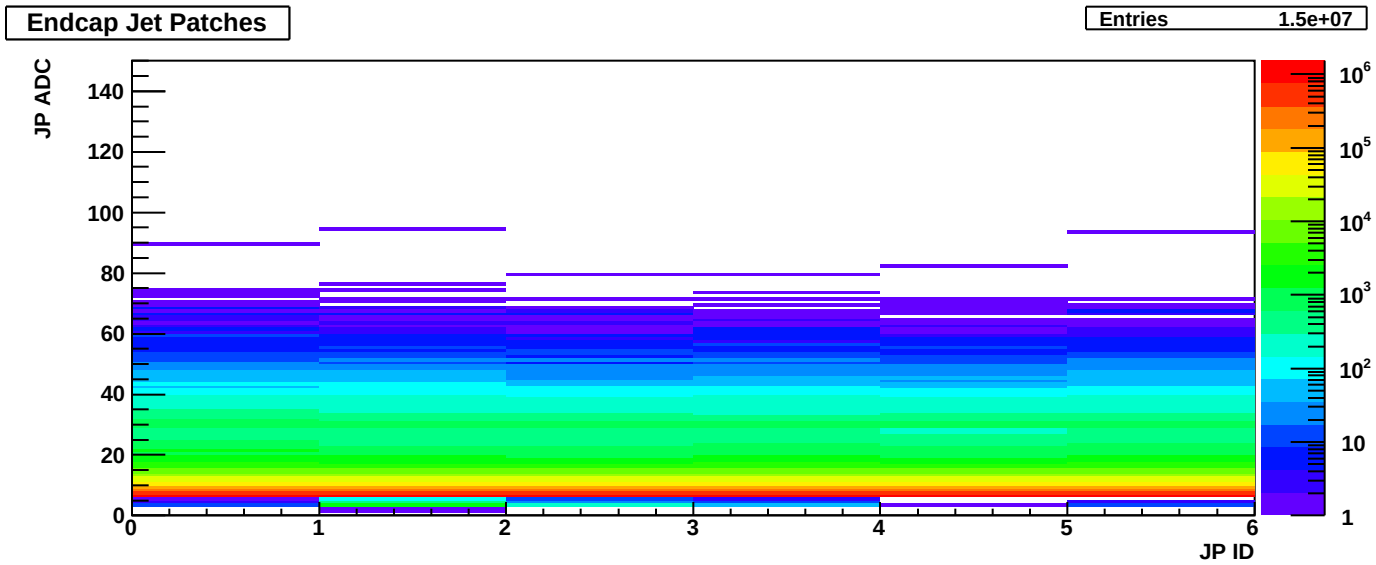

Barrel EMC L0 Input - High Tower
Entries 7.5e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

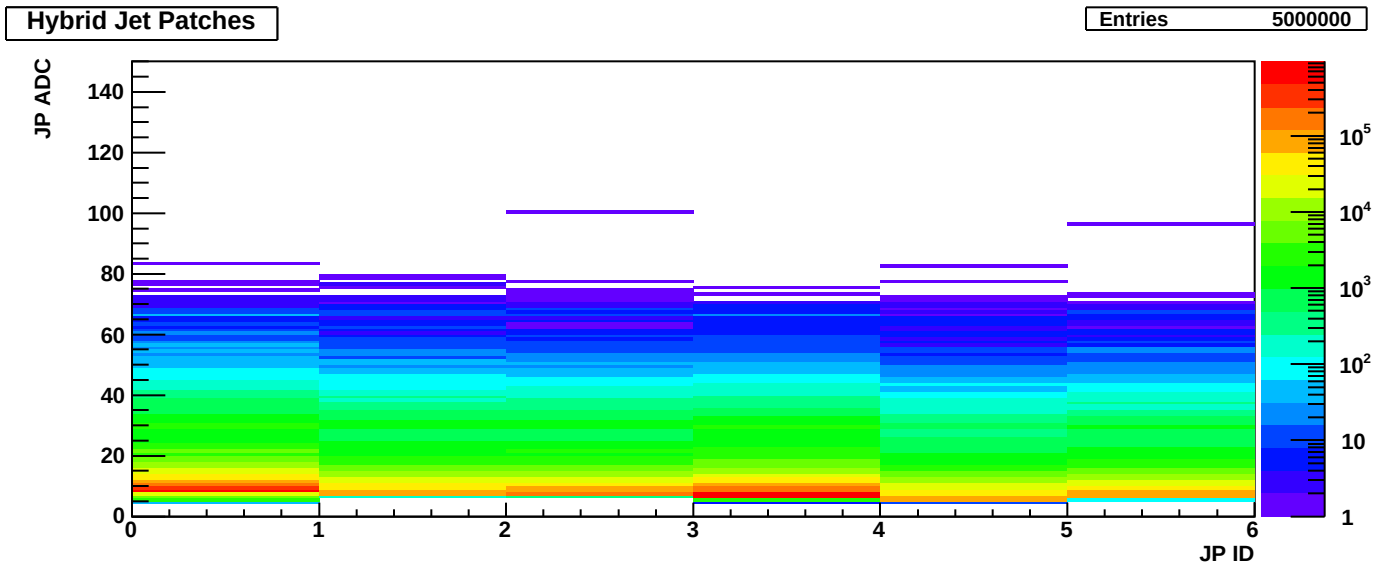

Barrel EMC L0 Input - Patch Sum
Entries 7.5e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

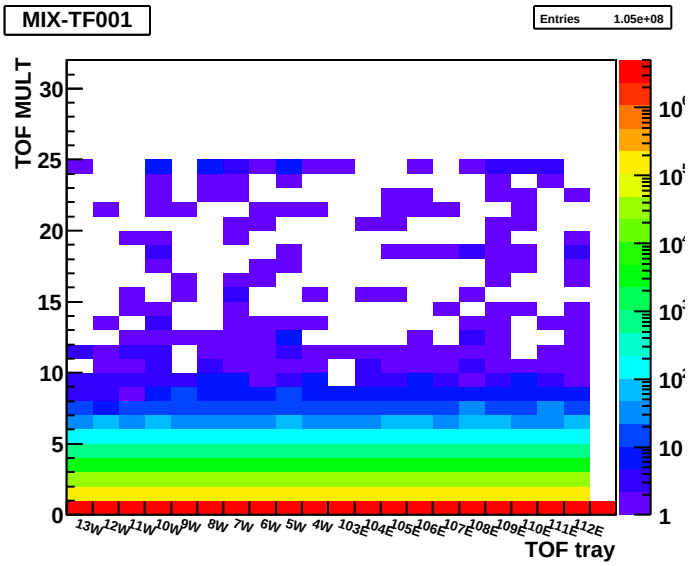

Endcap EMC L0 Input - High Tower
Entries 2.25e+08
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

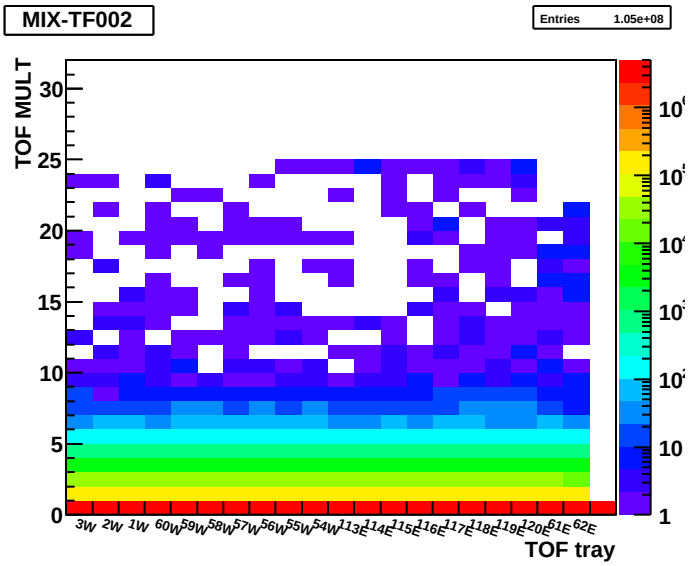

Endcap EMC L0 Input - Patch Sum
Entries 2.25e+08
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

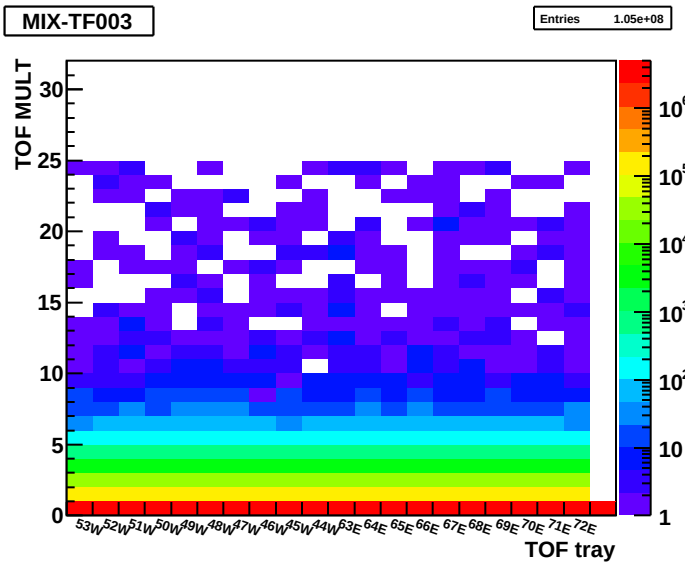

Barrel Jet Patches
Entries 4.5e+07
JP ADC
JP ID

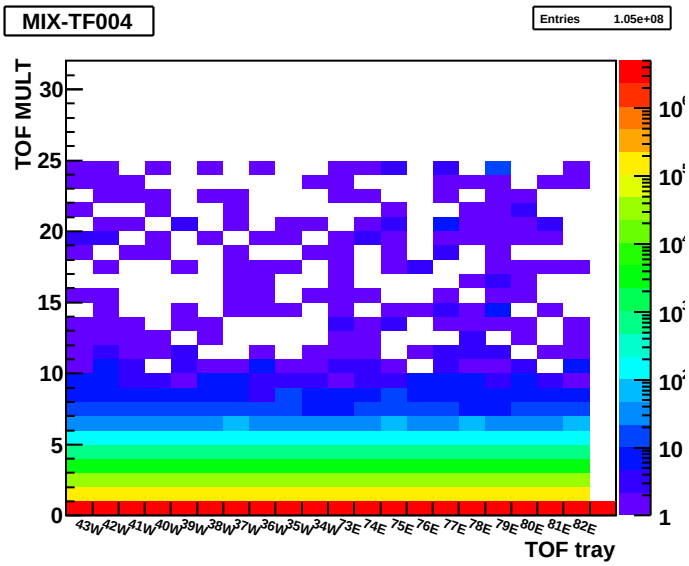

Endcap Jet Patches
Entries 1.5e+07
JP ADC
JP ID

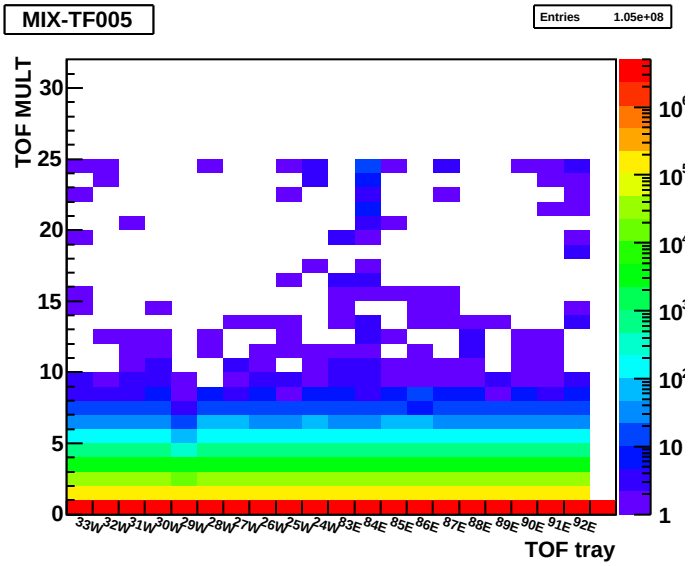

Hybrid Jet Patches
Entries 5000000
JP ADC
JP ID

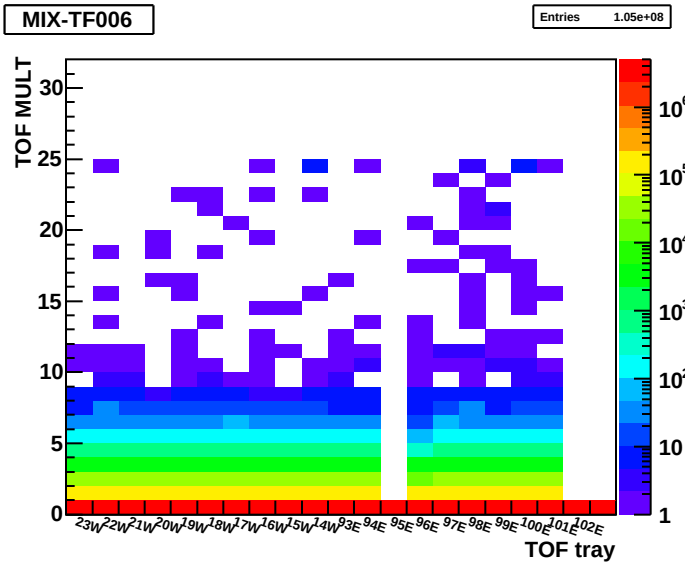

MIX-TF001
Entries 1.05e+08
TOF MULT
TOF tray

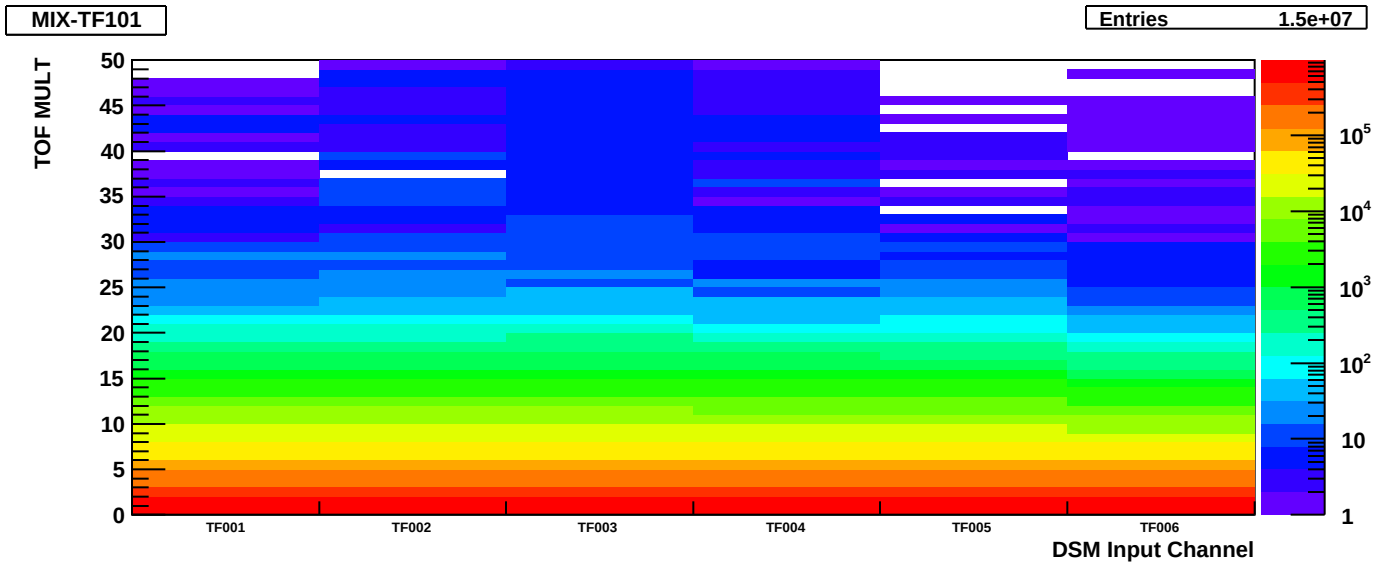

MIX-TF002
Entries 1.05e+08
TOF MULT
TOF tray

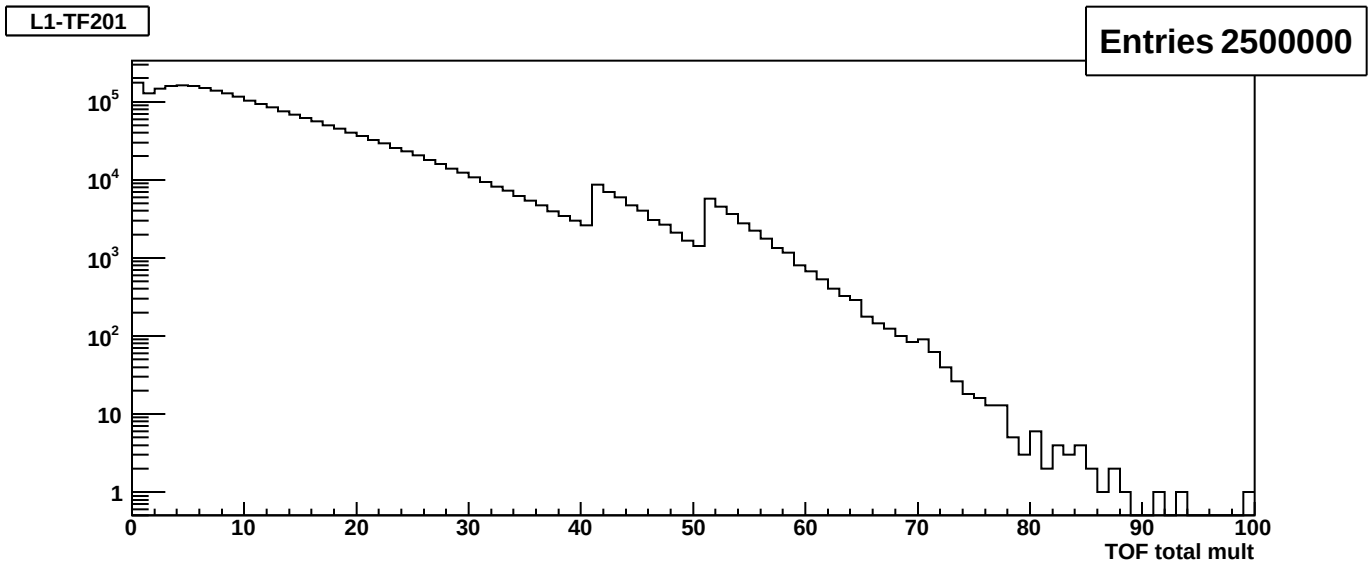

MIX-TF003
Entries 1.05e+08
TOF MULT
TOF tray

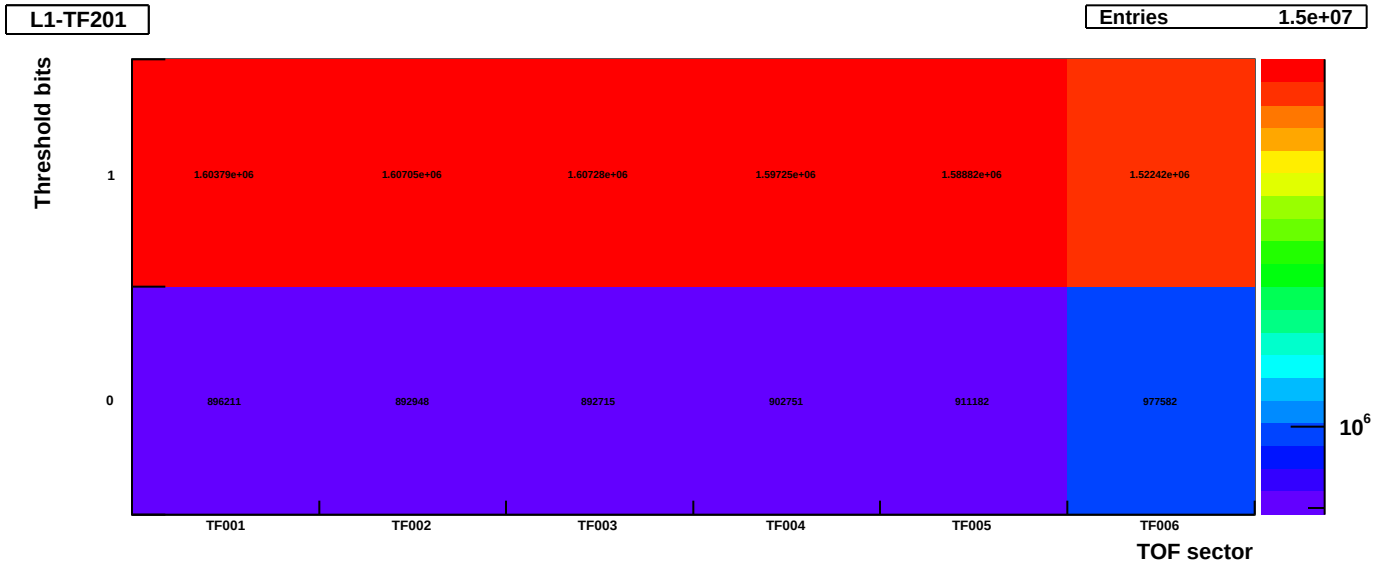

MIX-TF004
Entries 1.05e+08
TOF MULT
TOF tray

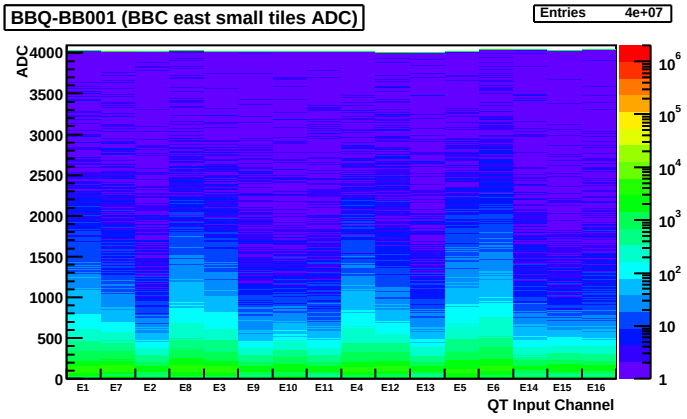

MIX-TF005
Entries 1.05e+08
TOF MULT
TOF tray

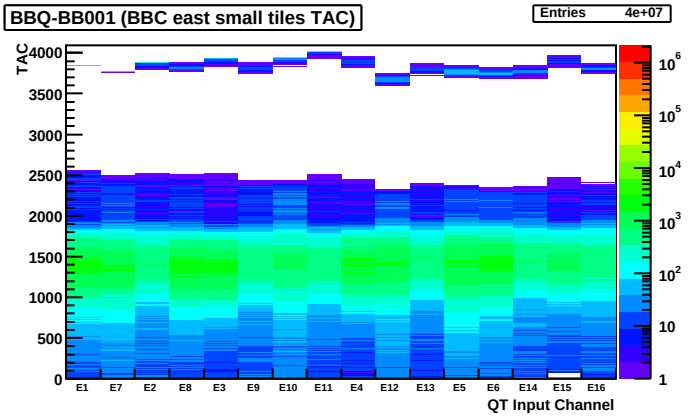

MIX-TF006
Entries 1.05e+08
TOF MULT
TOF tray

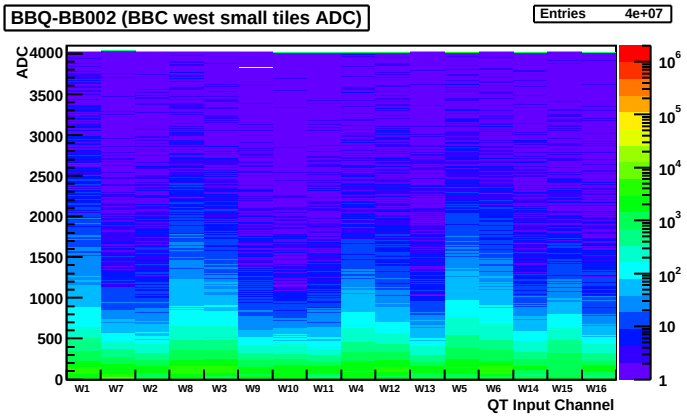

MIX-TF101
Entries 1.5e+07
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

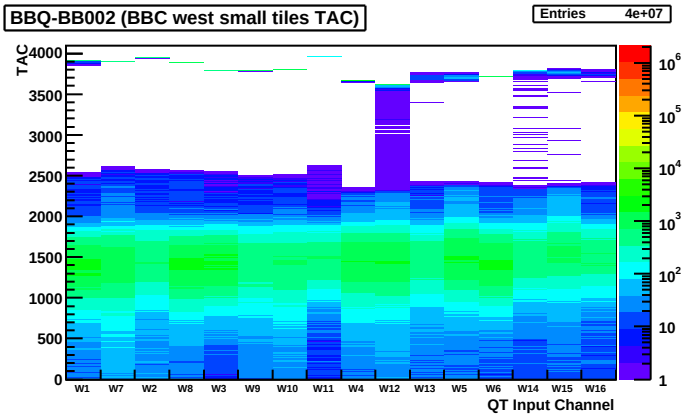

L1-TF201
Entries 2500000
10^5
10^4
10^3
10^2
10
1
0
10
20
30
40
50
60
70
80
90
100
TOF total mult

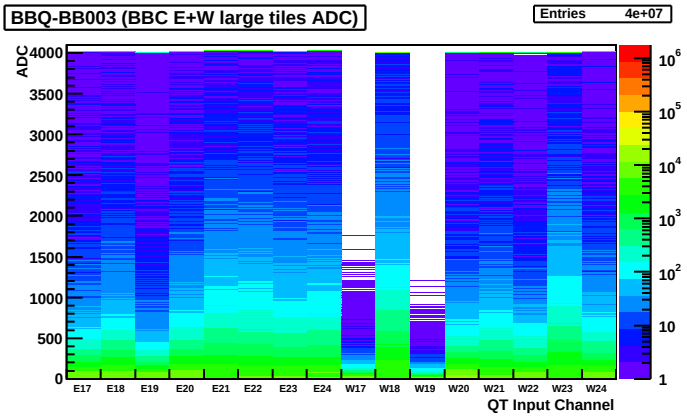

L1-TF201
Entries 1.5e+07
Threshold bits
1
0
1.60379e+06
1.60705e+06
1.60728e+06
1.59725e+06
1.58882e+06
1.52242e+06
896211
892948
892715
902751
911182
977582
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^6

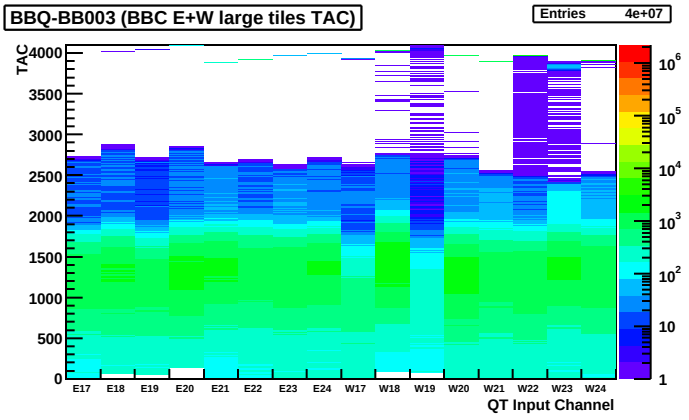

BBQ-BB001 (BBC east small tiles ADC)
Entries 4e+07
ADC
QT Input Channel

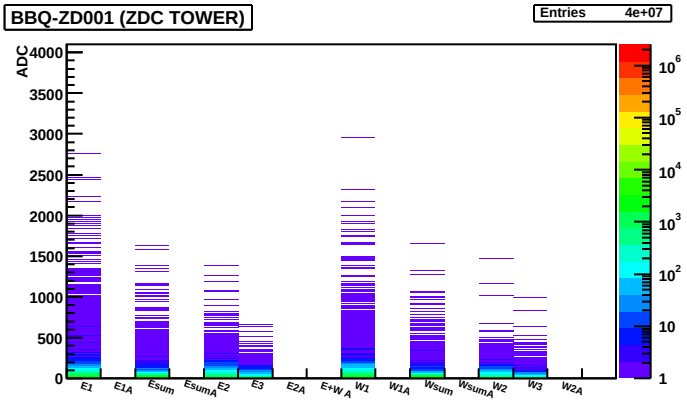

BBQ-BB001 (BBC east small tiles TAC)
Entries 4e+07
TAC
QT Input Channel

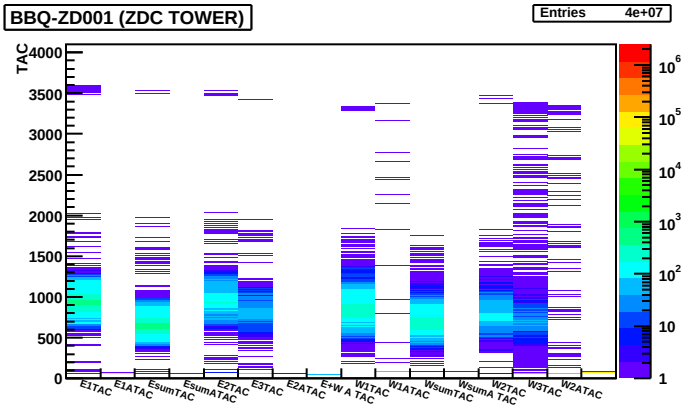

BBQ-BB002 (BBC west small tiles ADC)
Entries 4e+07
ADC
QT Input Channel

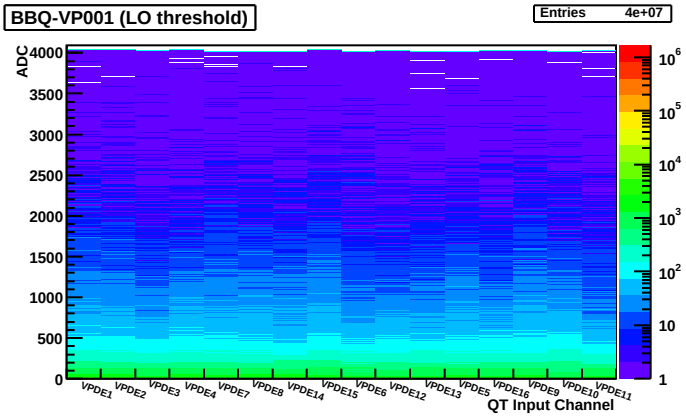

BBQ-BB002 (BBC west small tiles TAC)
Entries 4e+07
TAC
QT Input Channel

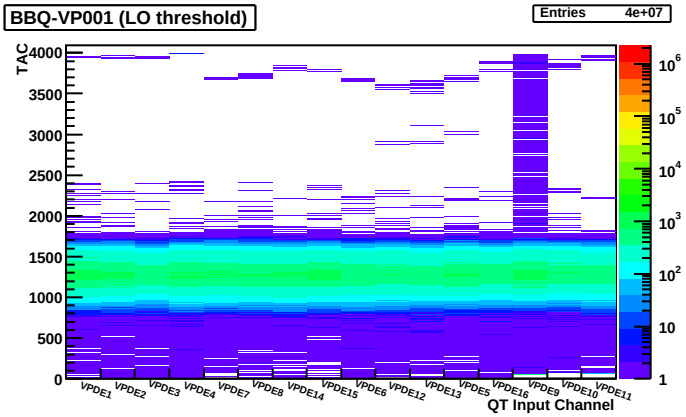

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4e+07
ADC
QT Input Channel

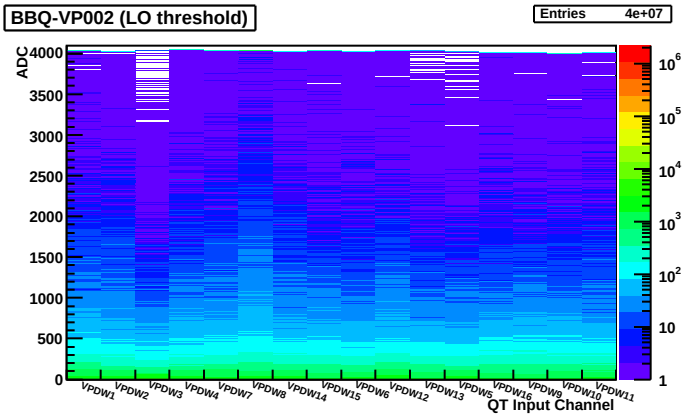

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4e+07
TAC
QT Input Channel

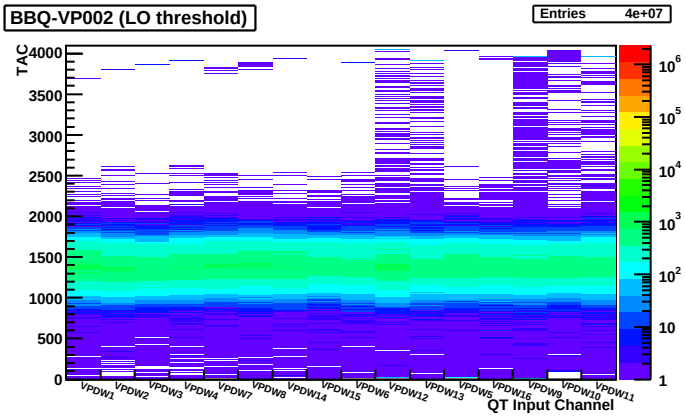

BBQ-ZD001 (ZDC TOWER)
Entries 4e+07
ADC

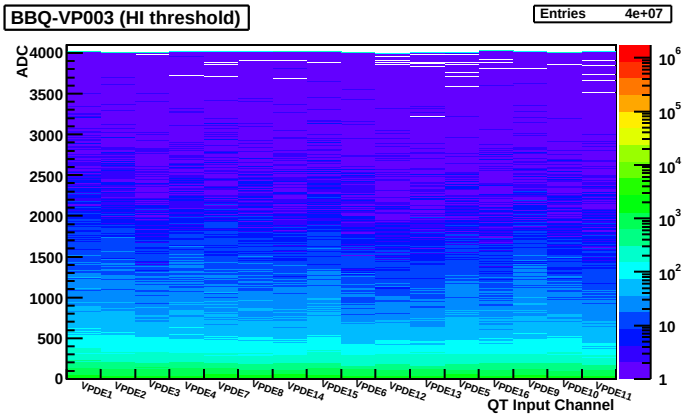

BBQ-ZD001 (ZDC TOWER)
Entries 4e+07
TAC

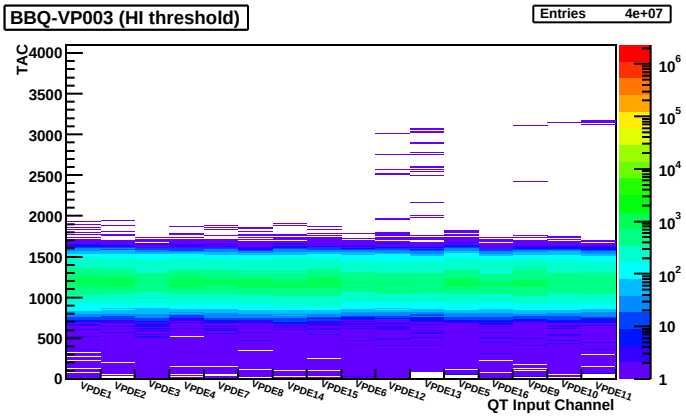

BBQ-VP001 (LO threshold)
Entries 4e+07
ADC
QT Input Channel

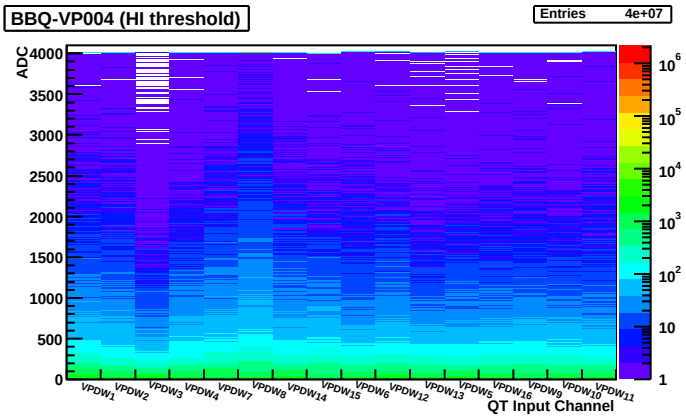

BBQ-VP001 (LO threshold)
Entries 4e+07
TAC
QT Input Channel

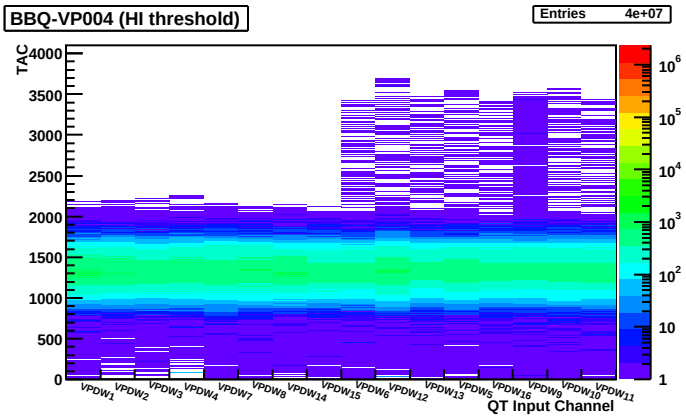

BBQ-VP002 (LO threshold)
Entries 4e+07
ADC
QT Input Channel

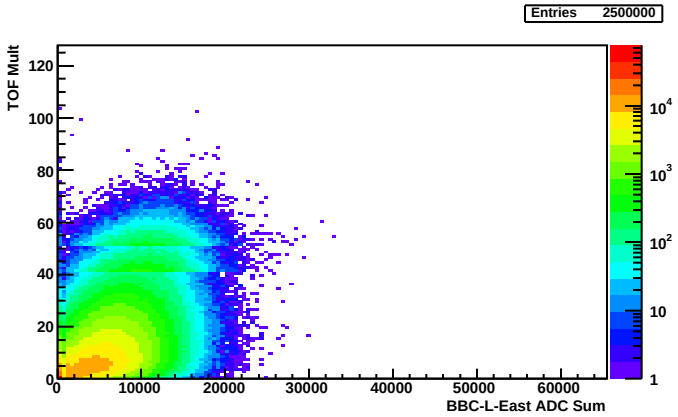

BBQ-VP002 (LO threshold)
Entries 4e+07
TAC
QT Input Channel

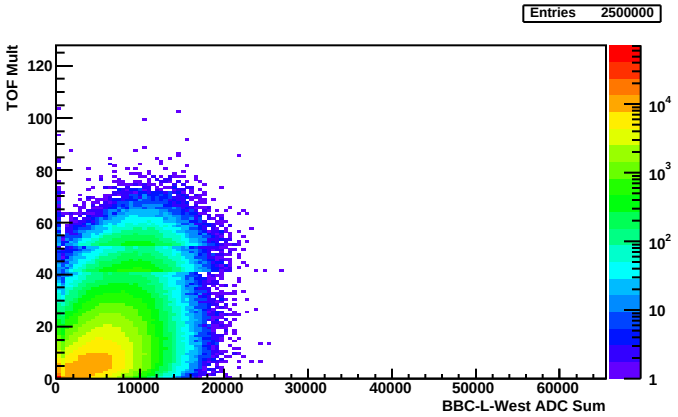

BBQ-VP003 (HI threshold)
Entries 4e+07
ADC
QT Input Channel

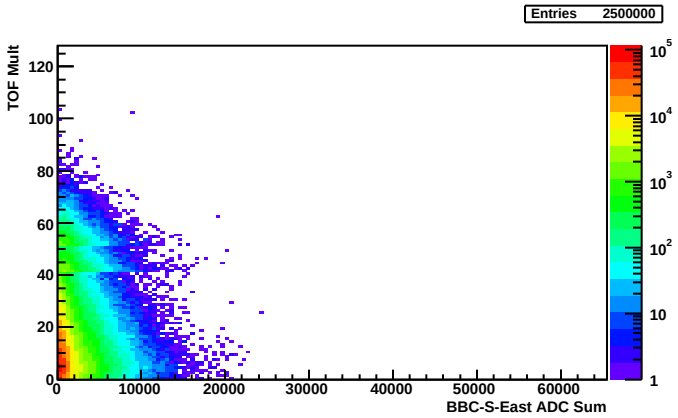

BBQ-VP003 (HI threshold)
Entries 4e+07
TAC
QT Input Channel

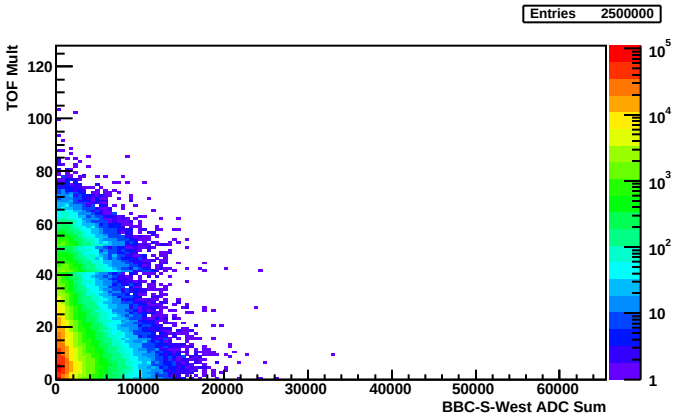

BBQ-VP004 (HI threshold)
Entries 4e+07
ADC
QT Input Channel

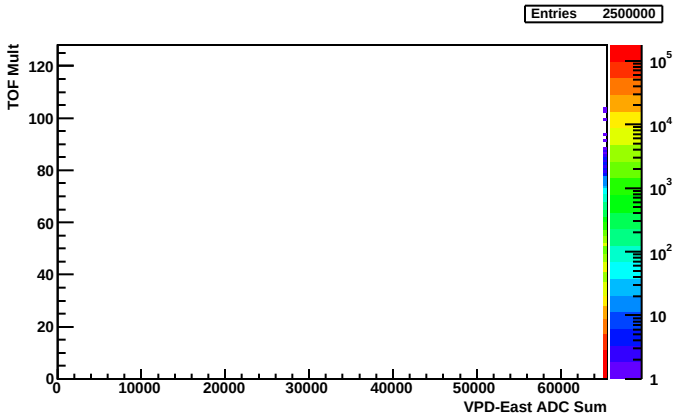

BBQ-VP004 (HI threshold)
Entries 4e+07
TAC
QT Input Channel

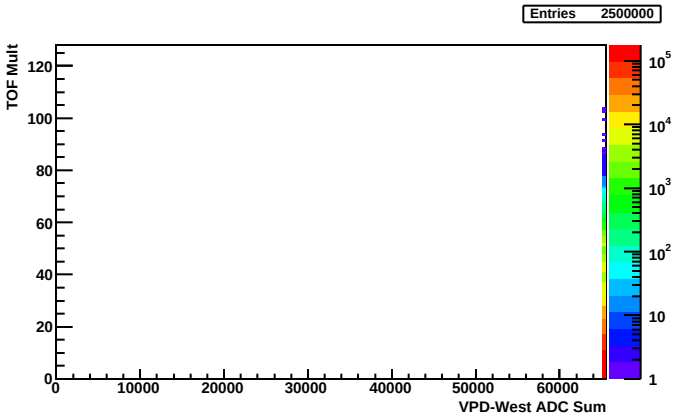

Entries 2500000
TOF Mult
BBC-L-East ADC Sum

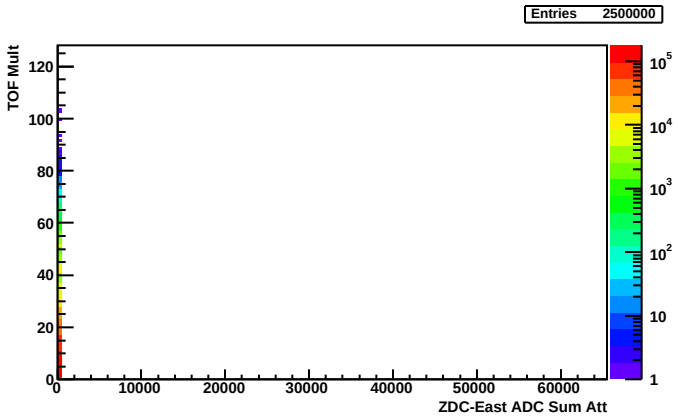

Entries 2500000
TOF Mult
BBC-L-West ADC Sum

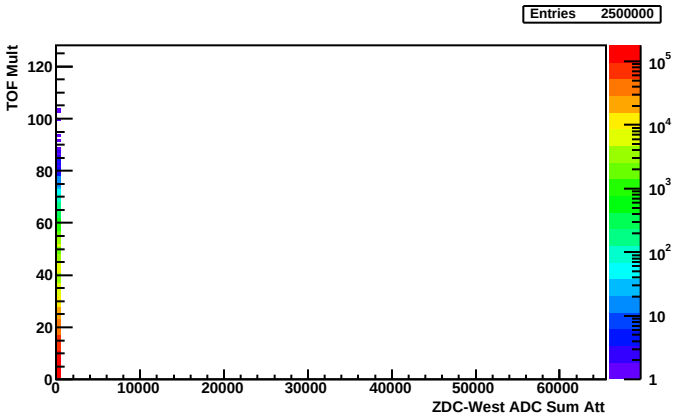

Entries 2500000
TOF Mult
BBC-S-East ADC Sum

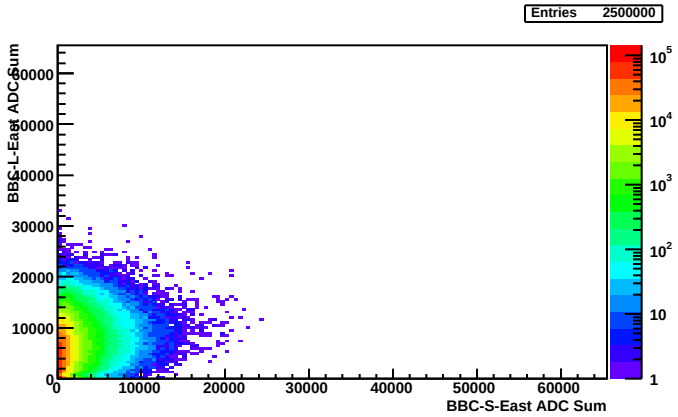

Entries 2500000
TOF Mult
BBC-S-West ADC Sum

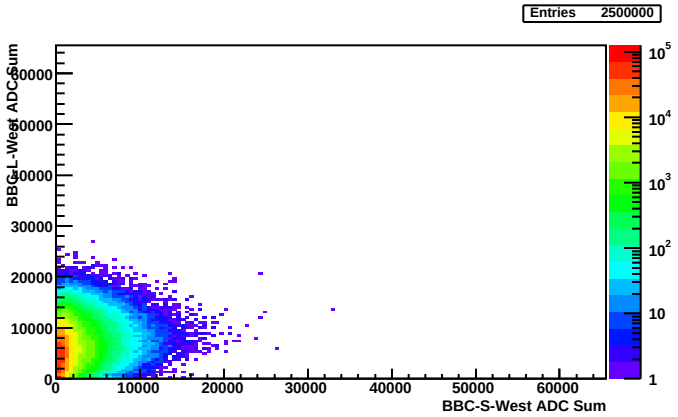

Entries 2500000
TOF Mult
VPD-East ADC Sum

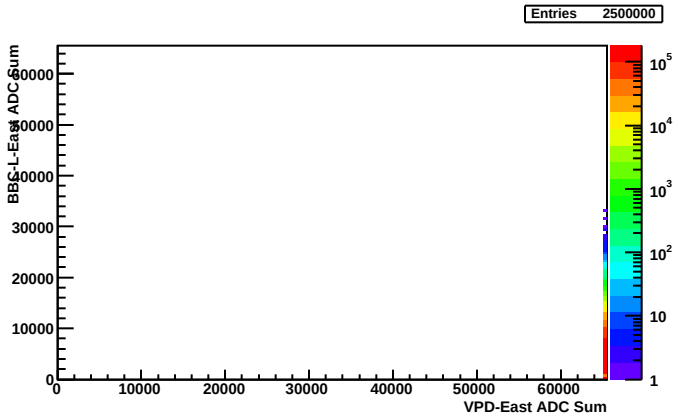

Entries 2500000
TOF Mult
VPD-West ADC Sum

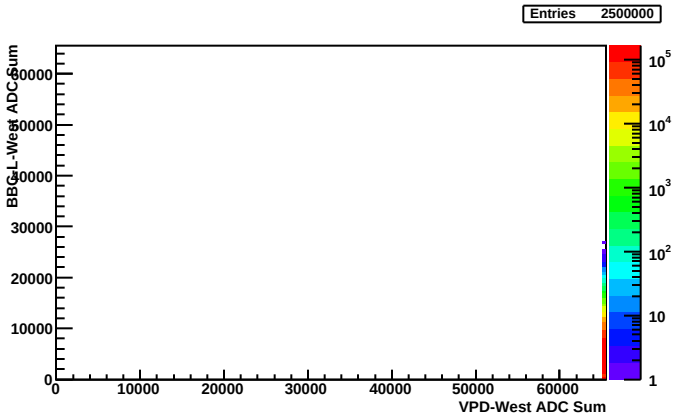

Entries 2500000
TOF Mult
ZDC-East ADC Sum Att

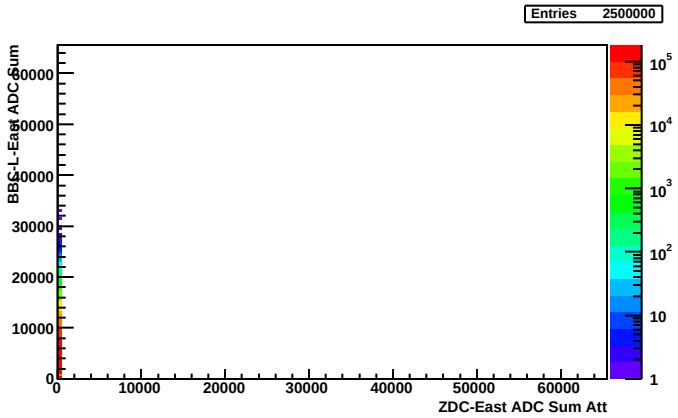

Entries 2500000
TOF Mult
ZDC-West ADC Sum Att

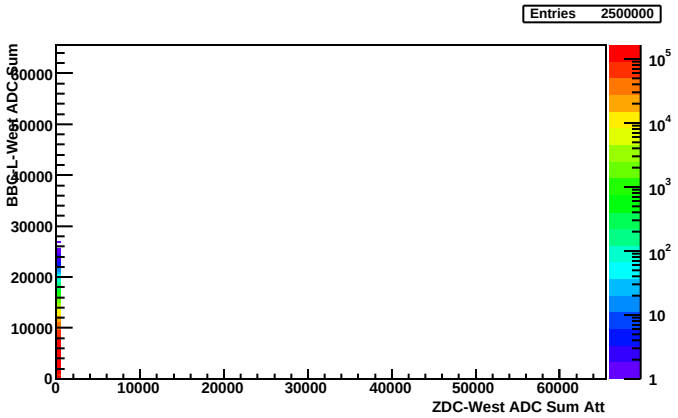

Entries 2500000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

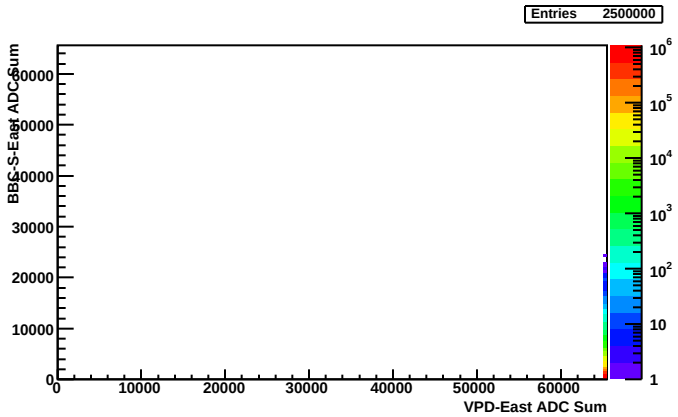

Entries 2500000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

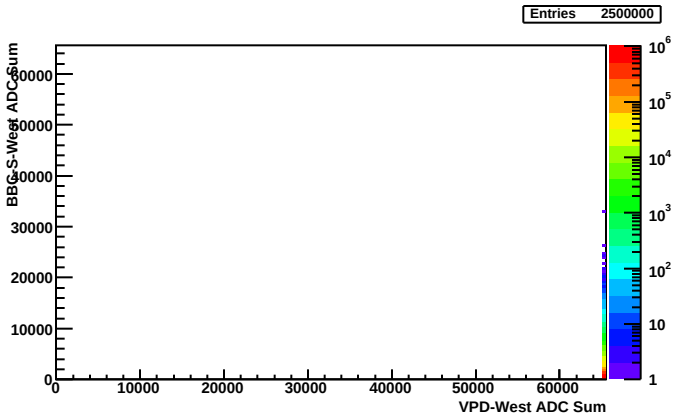

Entries 2500000
BBC-L-East ADC Sum
VPD-East ADC Sum

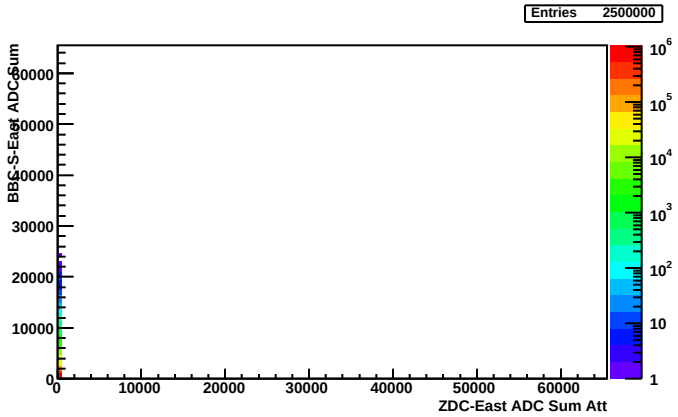

Entries 2500000
BBC-L-West ADC Sum
VPD-West ADC Sum

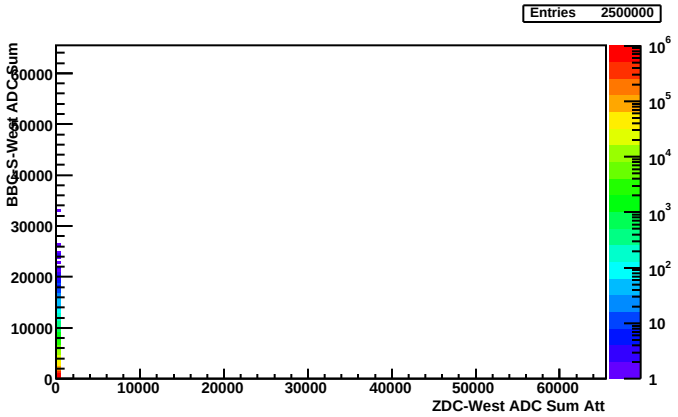

Entries 2500000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

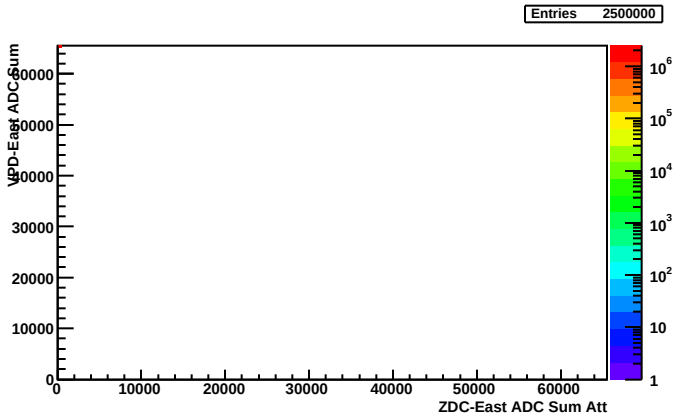

Entries 2500000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

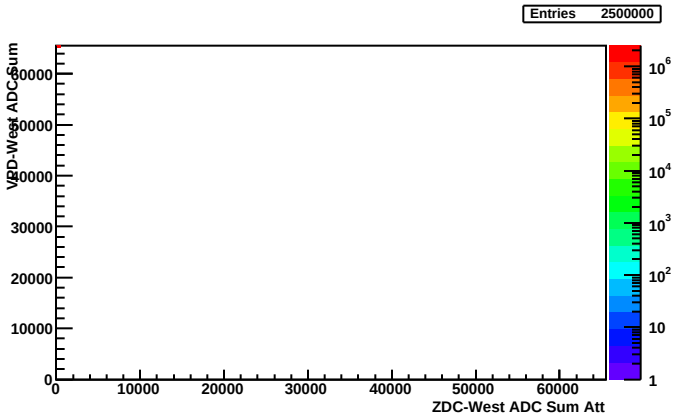

Entries 2500000
BBC-S-East ADC Sum
VPD-East ADC Sum

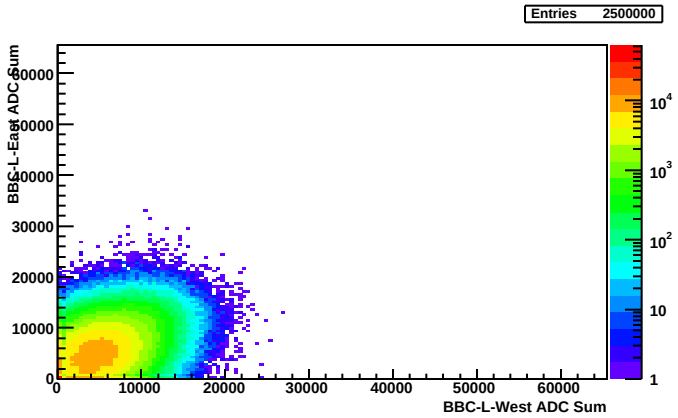

Entries 2500000
BBC-S-West ADC Sum
VPD-West ADC Sum

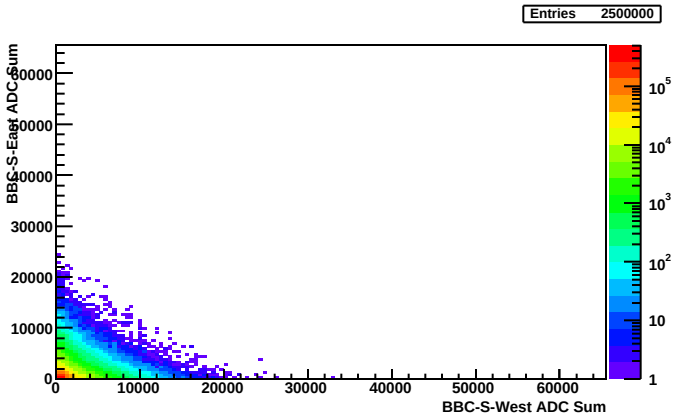

Entries 2500000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

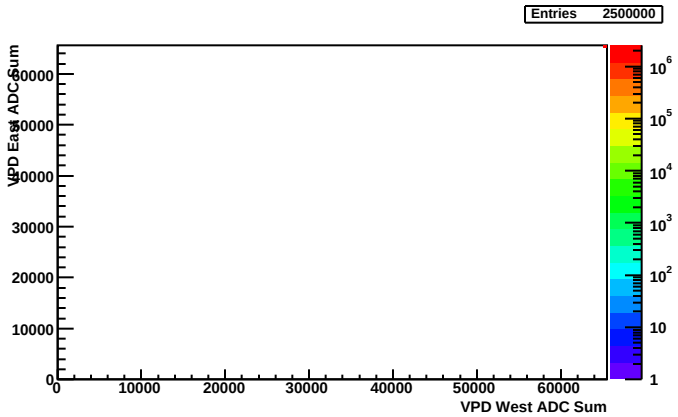

Entries 2500000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

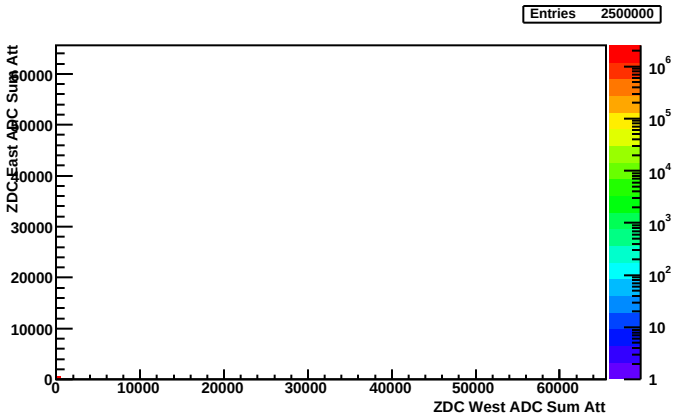

Entries 2500000
VPD-East ADC Sum
ZDC-East ADC Sum Att

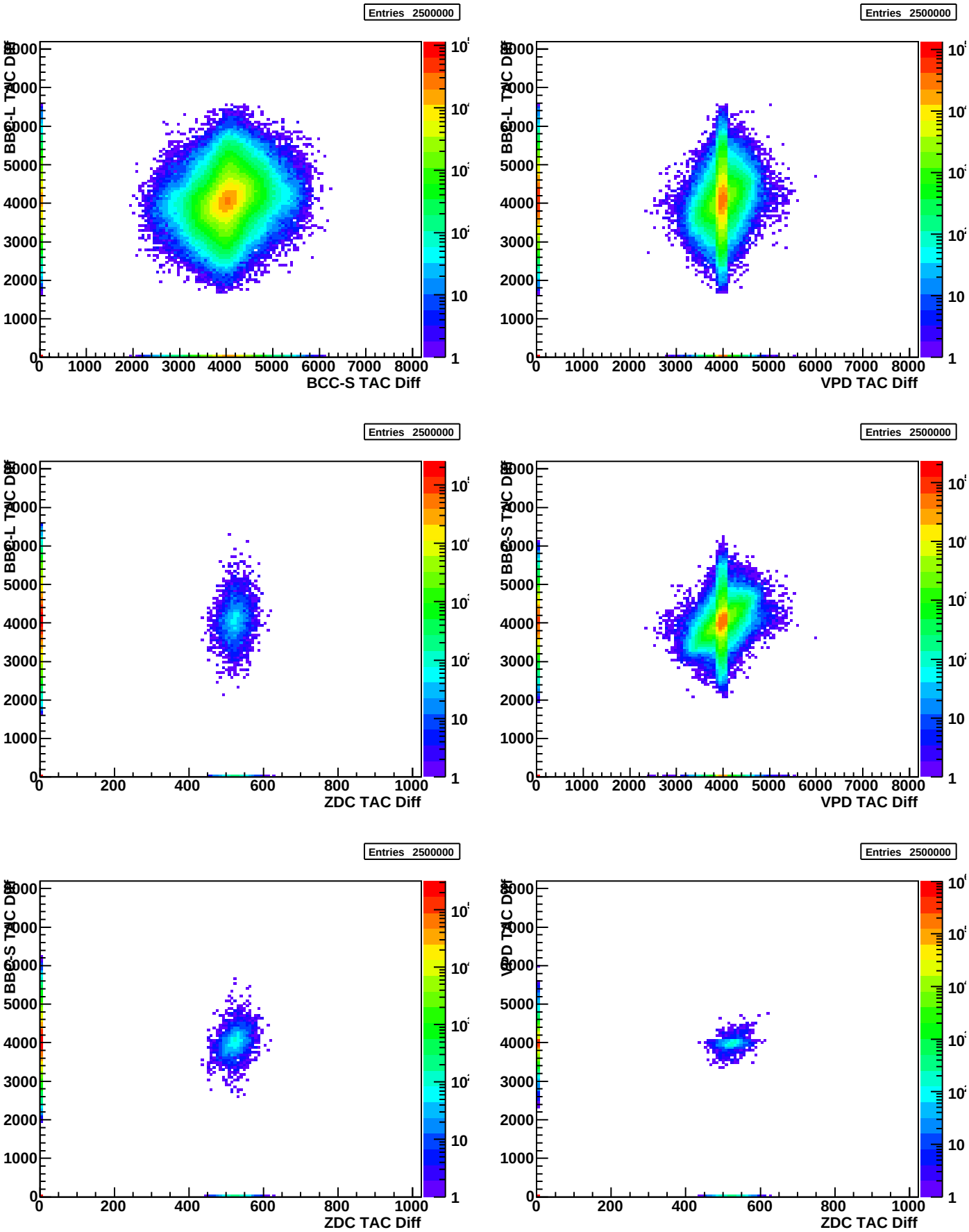

Entries 2500000
VPD-West ADC Sum
ZDC-West ADC Sum Att


Entries 2500000
BBC-L-East ADC Sum
BBC-L-West ADC Sum


Entries 2500000
BBC-S-East ADC Sum
BBC-S-West ADC Sum


Entries 2500000
VPD East ADC Sum
VPD West ADC Sum


Entries 2500000
ZDC East ADC Sum Att
ZDC West ADC Sum Att


Entries 2500000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 2500000
BBC-L TAC Diff
VPD TAC Diff
Entries 2500000
BBC-L TAC Diff
ZDC TAC Diff
Entries 2500000
BBC-S TAC Diff
VPD TAC Diff
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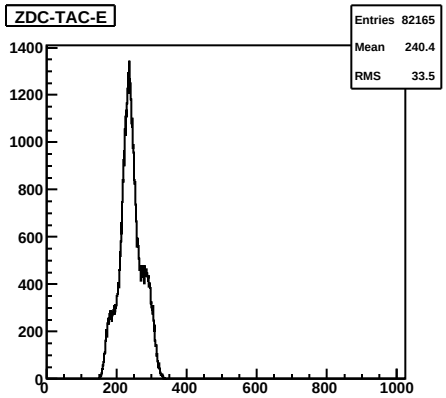
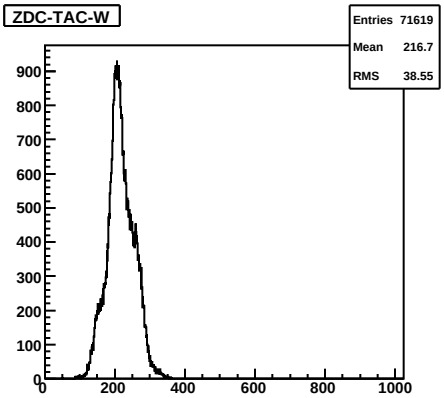
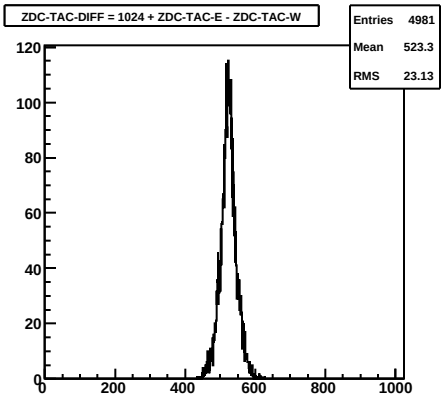
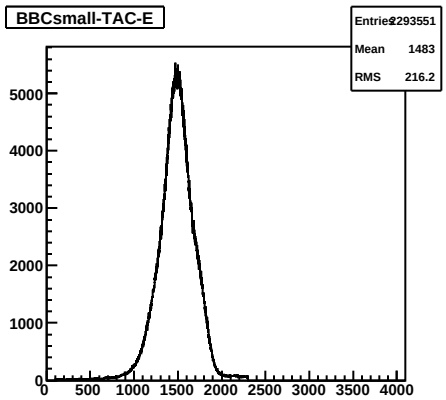
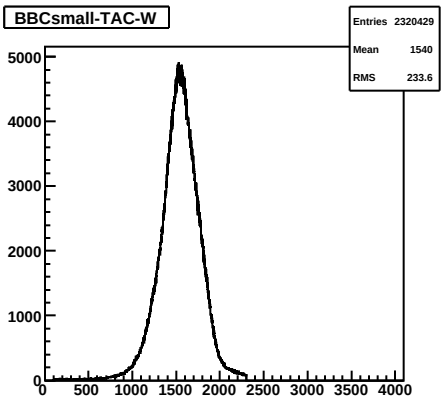
BBC-S TAC Diff
ZDC TAC Diff
Entries 2500000
VPD TAC Diff
ZDC TAC Diff

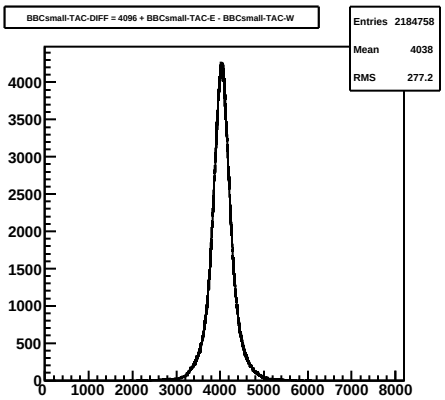

ZDC-TAC-E
Entries 82165
Mean 240.4
RMS 33.5

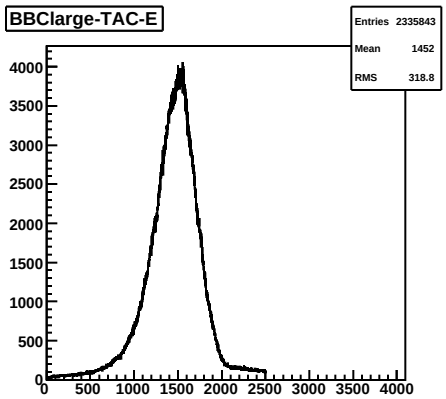

ZDC-TAC-W
Entries 71619
Mean 216.7
RMS 38.55

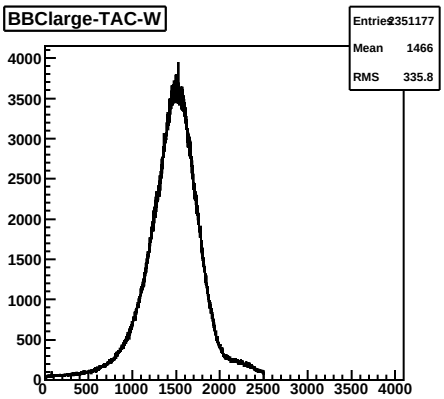

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 4981
Mean 523.3
RMS 23.13

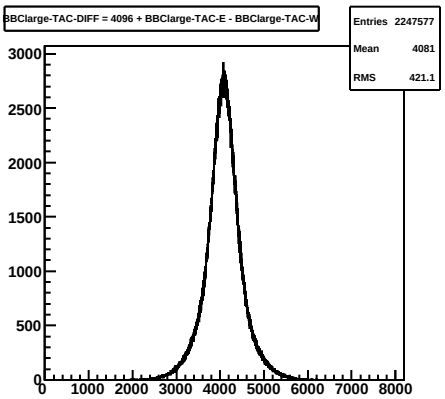

BBCsmall-TAC-E
Entries 2293551
Mean 1483
RMS 216.2

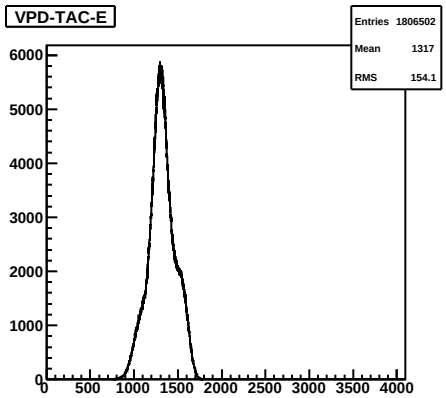

BBCsmall-TAC-W
Entries 2320429
Mean 1540
RMS 233.6

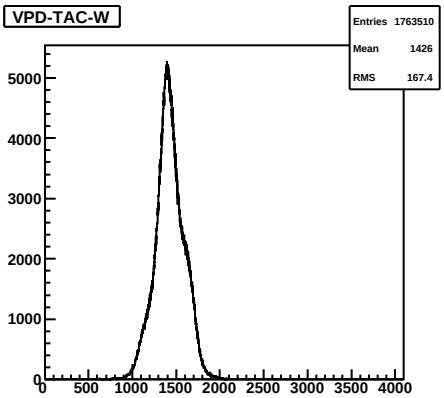

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 2184758
Mean 4038
RMS 277.2

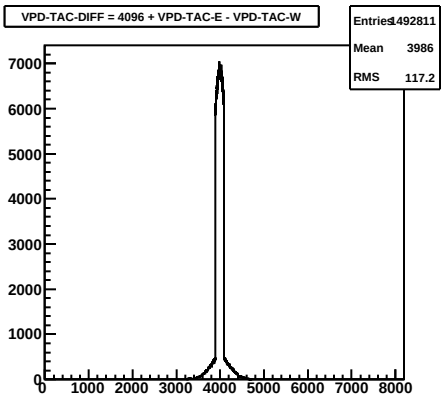

BBClarge-TAC-E
Entries 2335843
Mean 1452
RMS 318.8

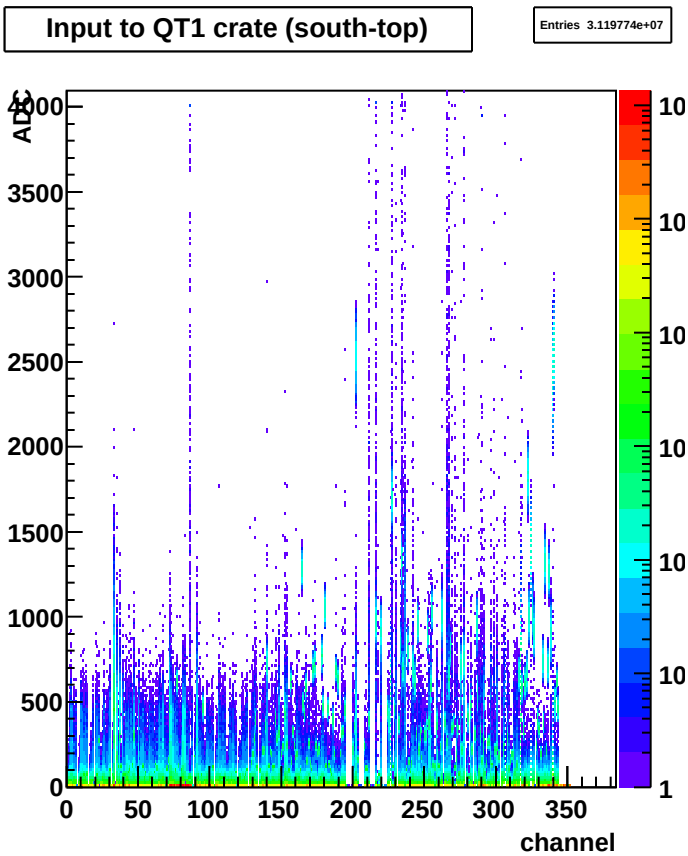

BBClarge-TAC-W
Entries 2351177
Mean 1466
RMS 335.8

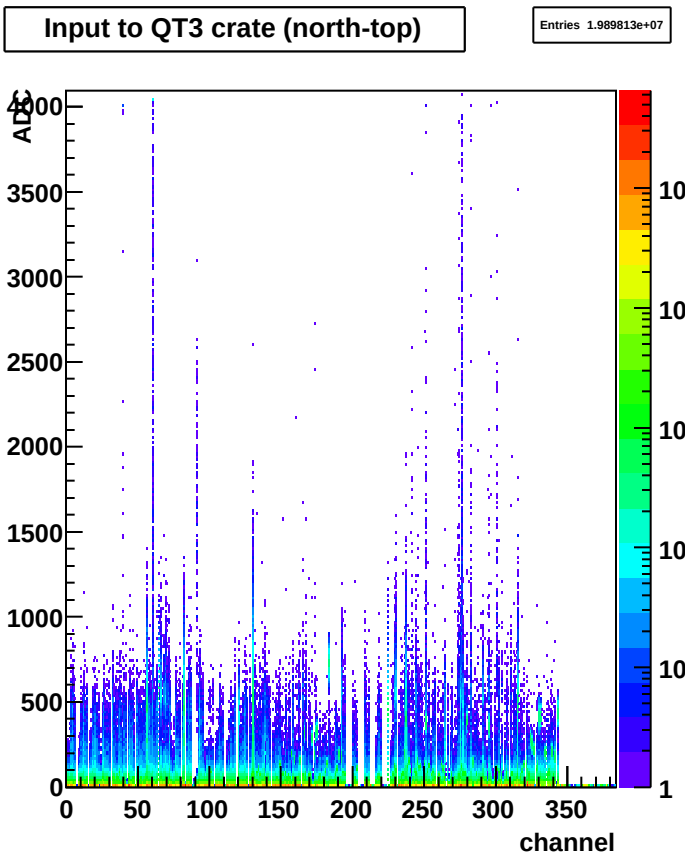

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 2247577
Mean 4081
RMS 421.1

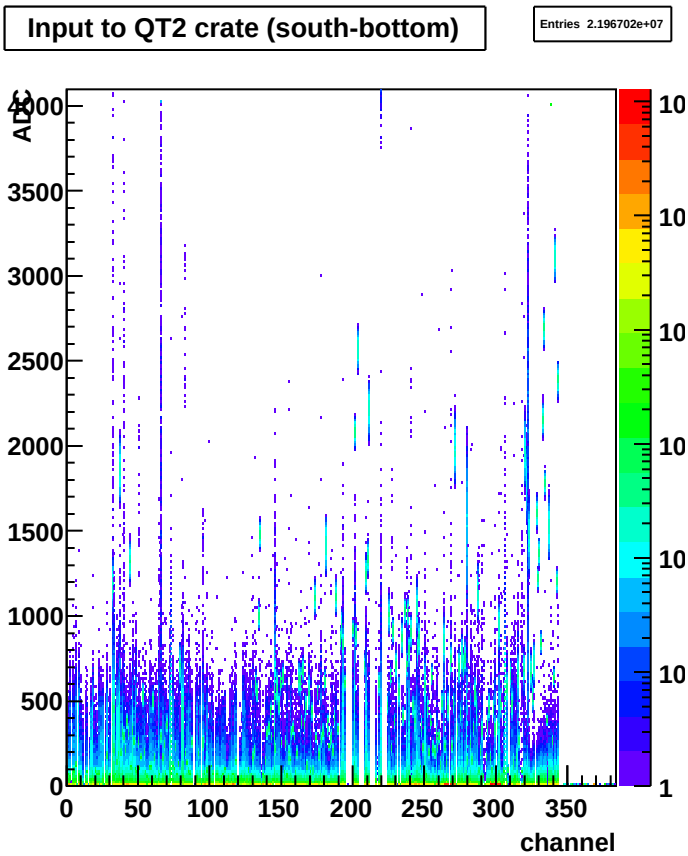

VPD-TAC-E
Entries 1806502
Mean 1317
RMS 154.1

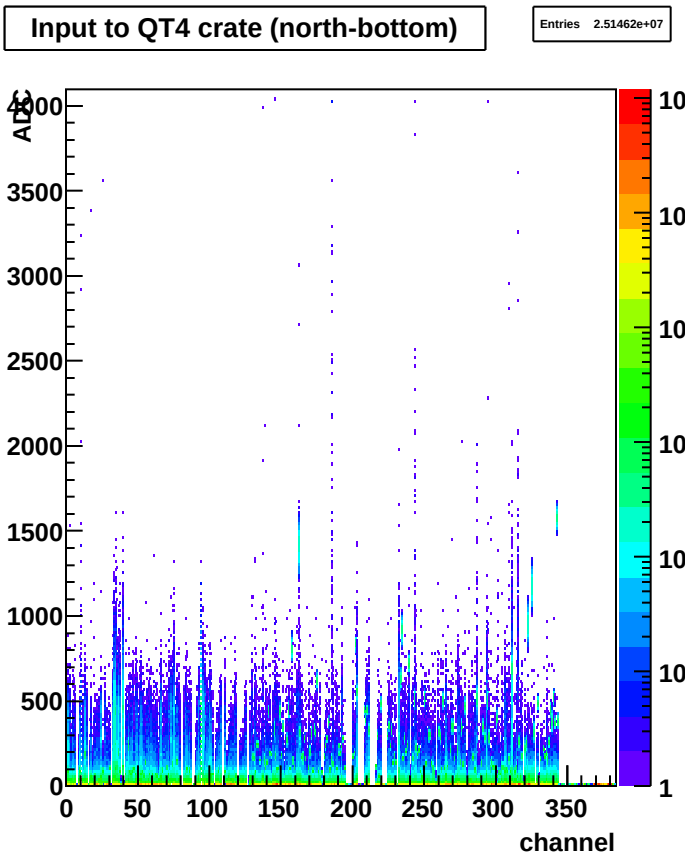

VPD-TAC-W
Entries 1763510
Mean 1426
RMS 167.4

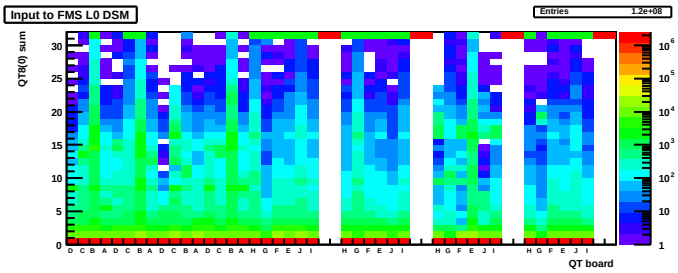

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1492811
Mean 3986
RMS 117.2

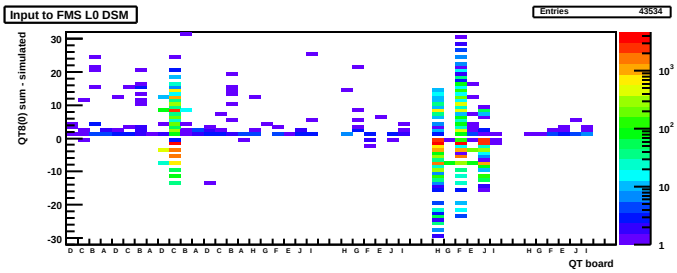

Input to QT1 crate (south-top)
Entries 3.119774e+07
ADC
channel

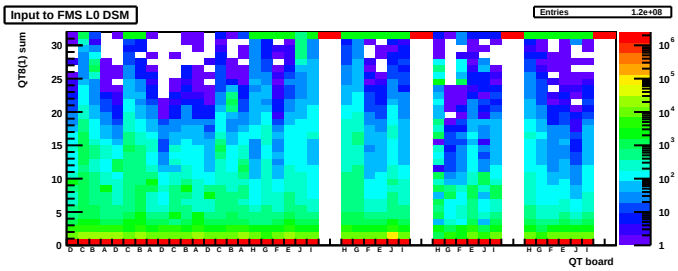

Input to QT3 crate (north-top)
Entries 1.989813e+07
ADC
channel

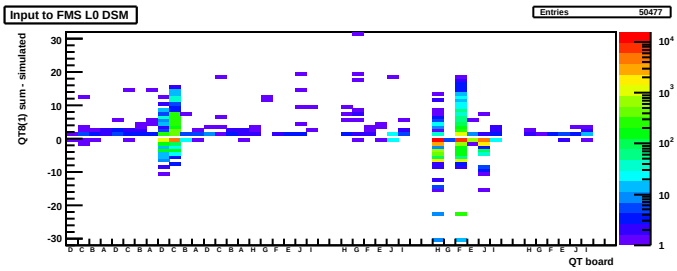

Input to QT2 crate (south-bottom)
Entries 2.196702e+07
ADC
channel

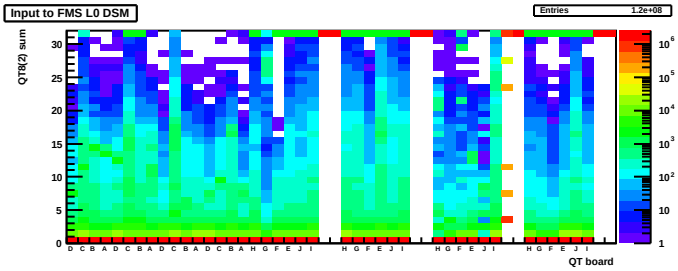

Input to QT4 crate (north-bottom)
Entries 2.51462e+07
ADC
channel

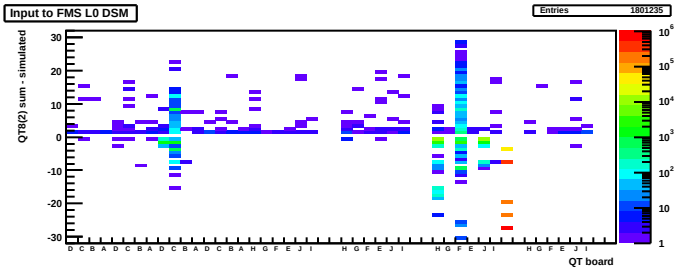

Input to FMS L0 DSM
Entries 1.2e+08
QT8(0) sum
QT board

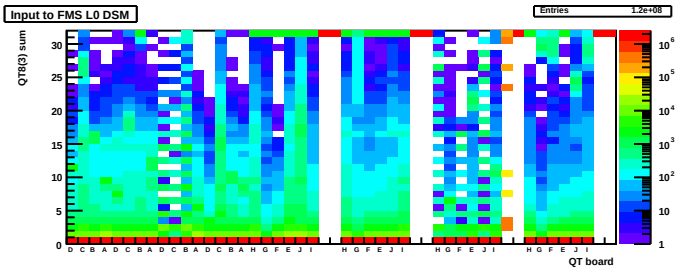

Input to FMS L0 DSM
Entries 43534
QT8(0) sum - simulated
QT board

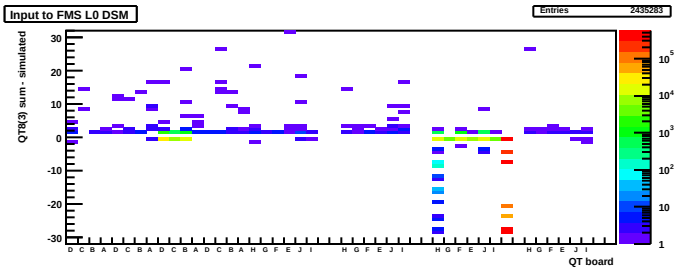

Input to FMS L0 DSM
Entries 1.2e+08
QT8(1) sum
QT board

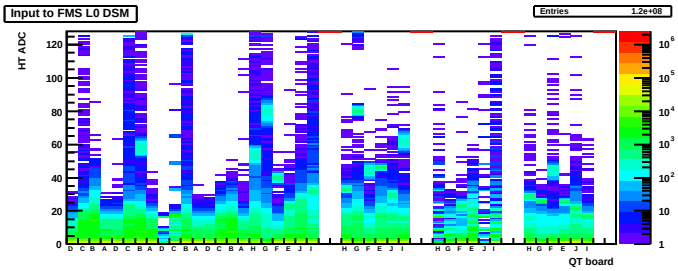

Input to FMS L0 DSM
Entries 50477
QT8(1) sum - simulated
QT board

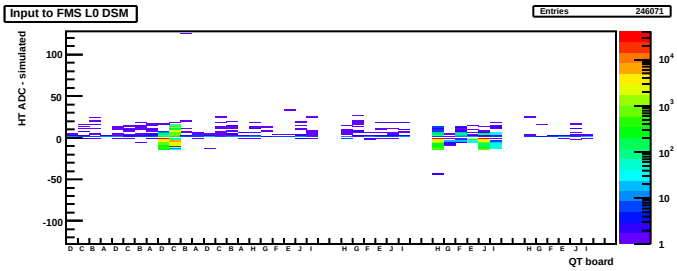

Input to FMS L0 DSM
Entries 1.2e+08
QT8(2) sum
QT board

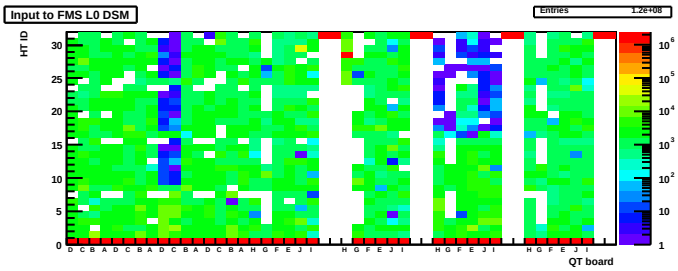

Input to FMS L0 DSM
Entries 1801235
QT8(2) sum - simulated
QT board

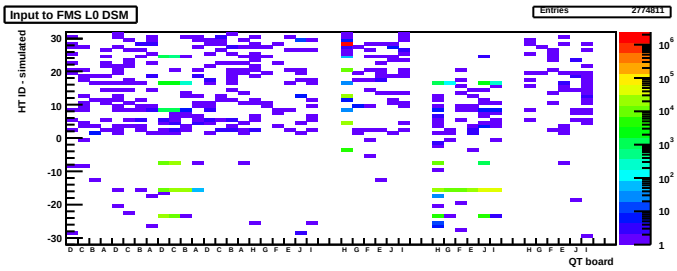

Input to FMS L0 DSM
Entries 1.2e+08
QT8(3) sum
QT board

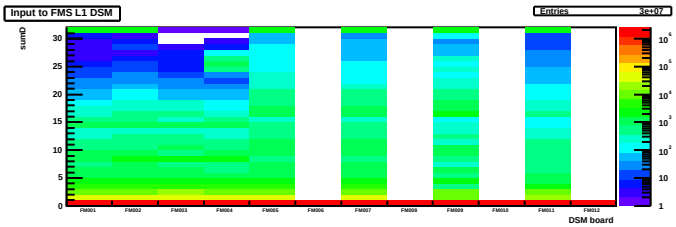

Input to FMS L0 DSM
Entries 2435283
QT8(3) sum - simulated
QT board

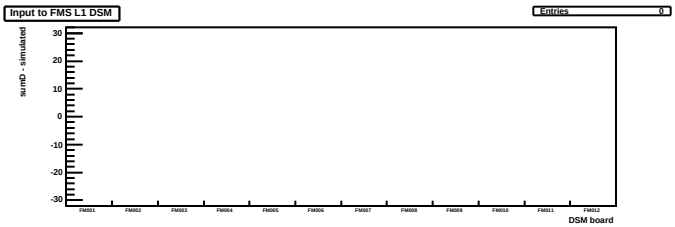

Input to FMS L0 DSM
Entries 1.2e+08
HT ADC
QT board

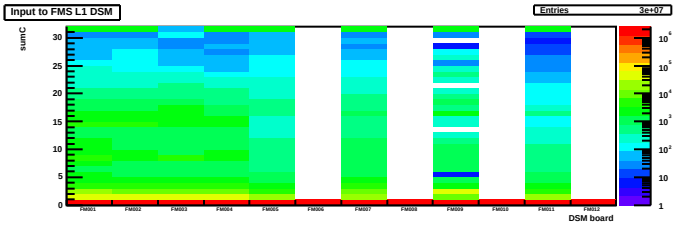

Input to FMS L0 DSM
Entries 246071
HT ADC - simulated
QT board

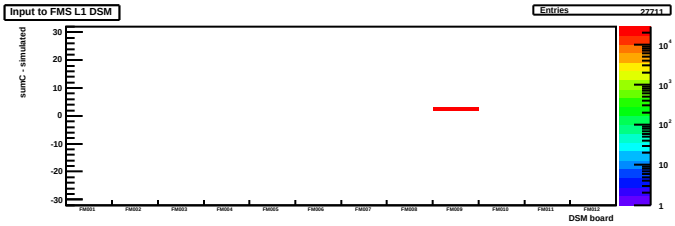

Input to FMS L0 DSM
Entries 1.2e+08
HT ID
QT board

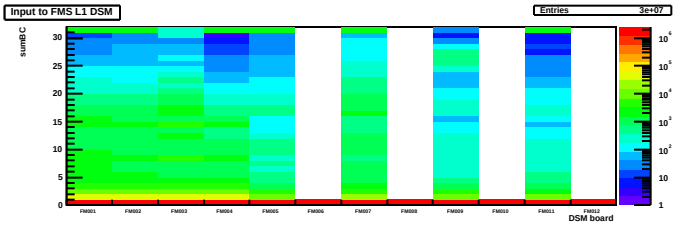

Input to FMS L0 DSM
Entries 2774811
HT ID - simulated
QT board

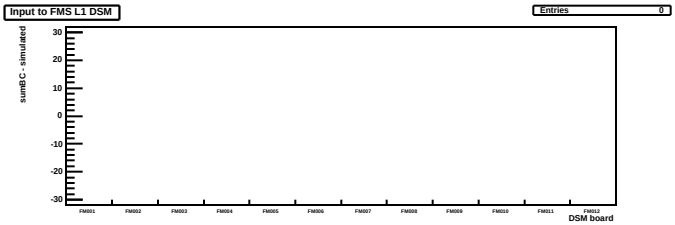

Input to FMS L1 DSM
Entries 3e+07
sumD
DSM board

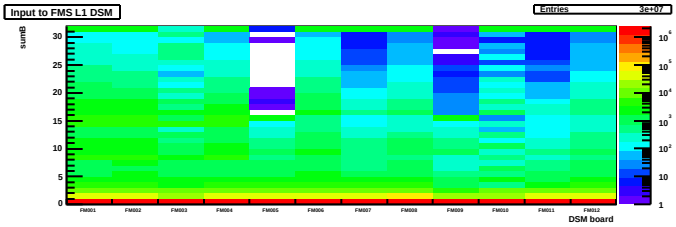

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

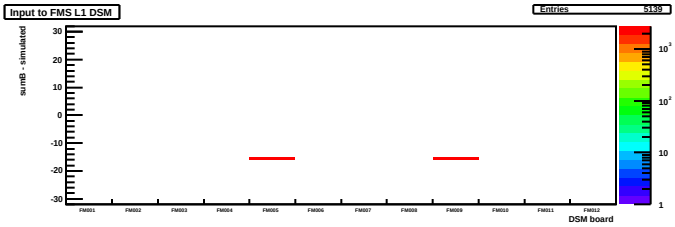

Input to FMS L1 DSM
Entries 3e+07
sumC
DSM board

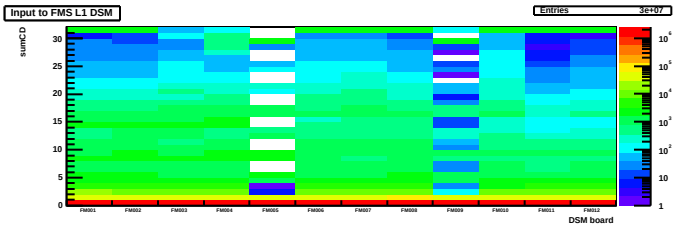

Input to FMS L1 DSM
Entries 27211
sumC - simulated
DSM board

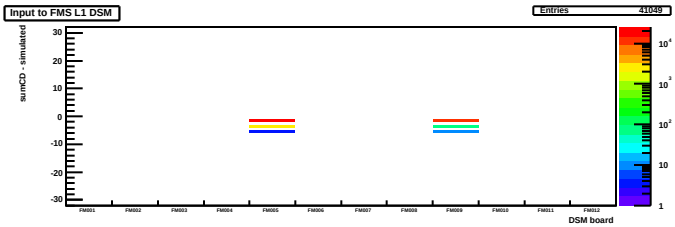

Input to FMS L1 DSM
Entries 3e+07
sumBC
DSM board

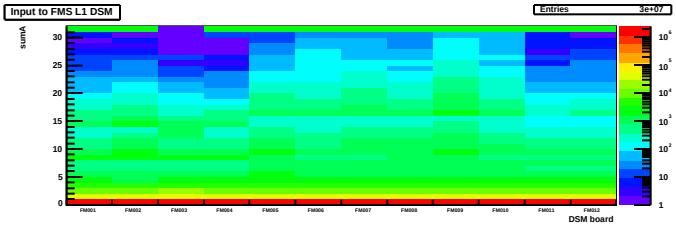

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

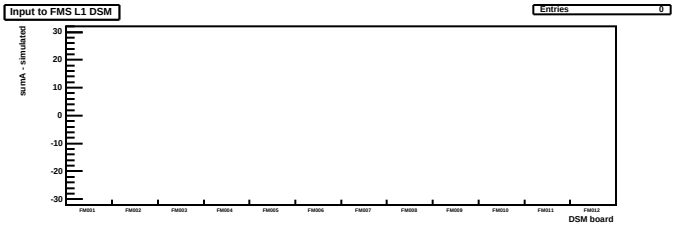

Input to FMS L1 DSM
Entries 3e+07
sumB
DSM board

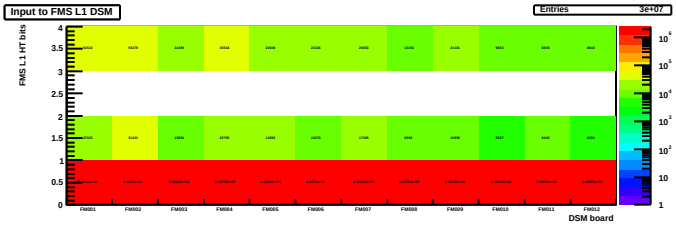

Input to FMS L1 DSM
Entries 5139
sumB - simulated
DSM board

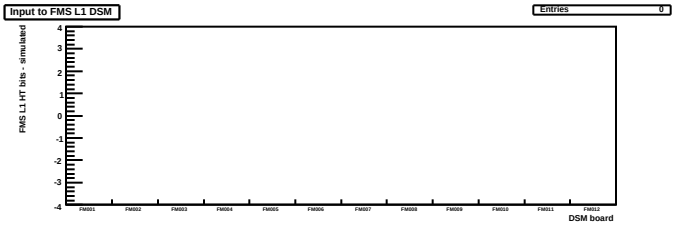

Input to FMS L1 DSM
Entries 3e+07
sumCD
DSM board

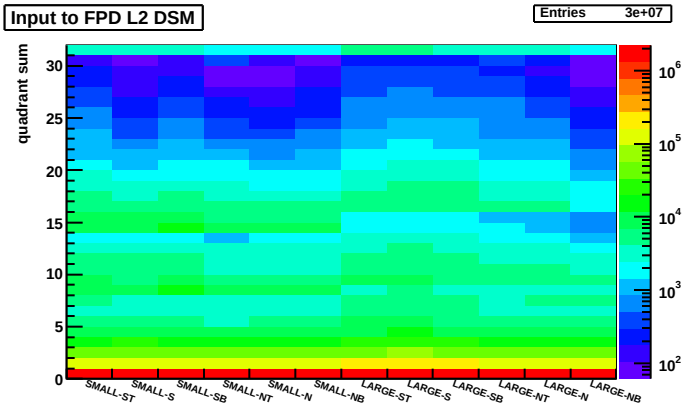

Input to FMS L1 DSM
Entries 41049
sumCD - simulated
DSM board

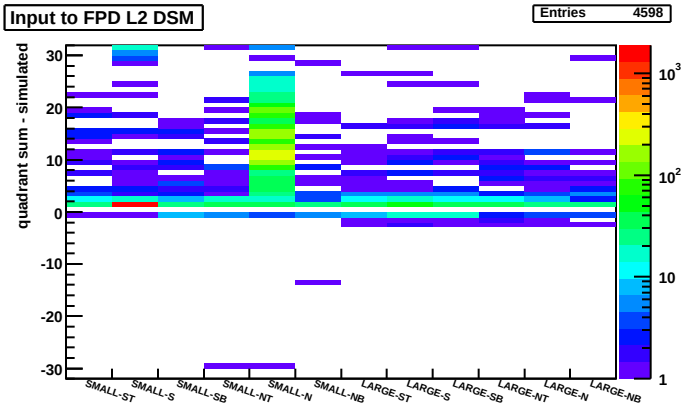

Input to FMS L1 DSM
Entries 3e+07
sumA
DSM board

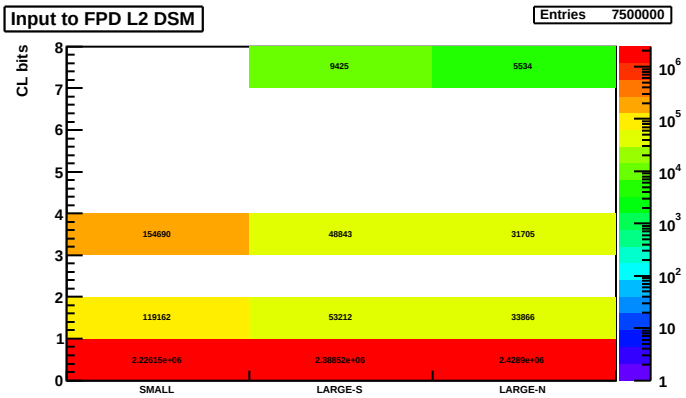

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

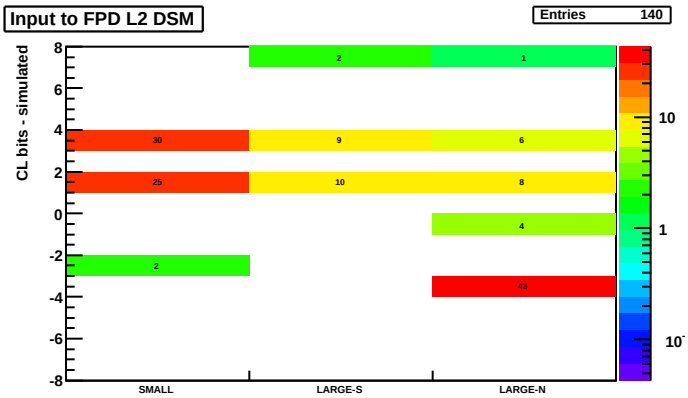

Input to FMS L1 DSM
Entries 3e+07
FMS L1 HT bits
DSM board

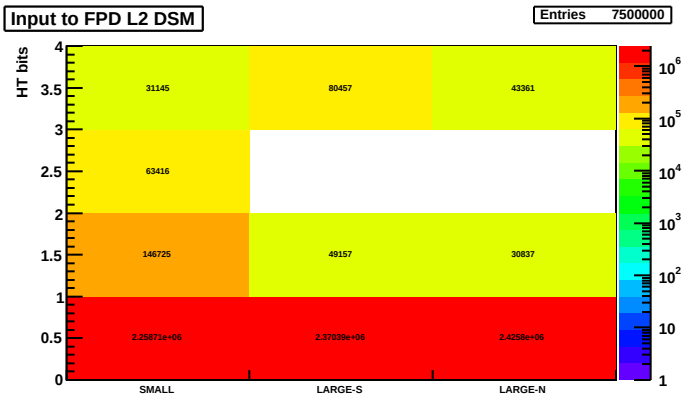

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

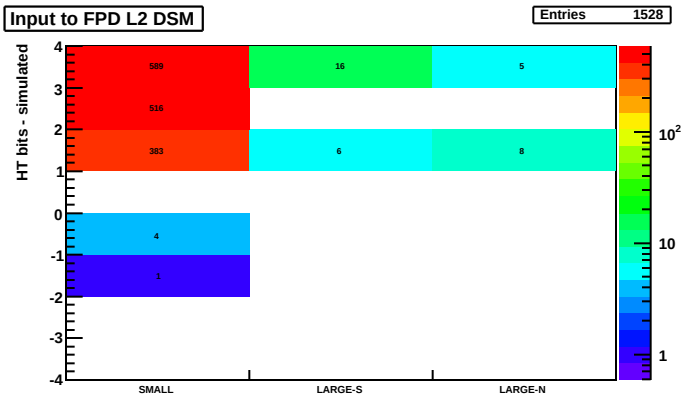

Input to FPD L2 DSM
Entries 3e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

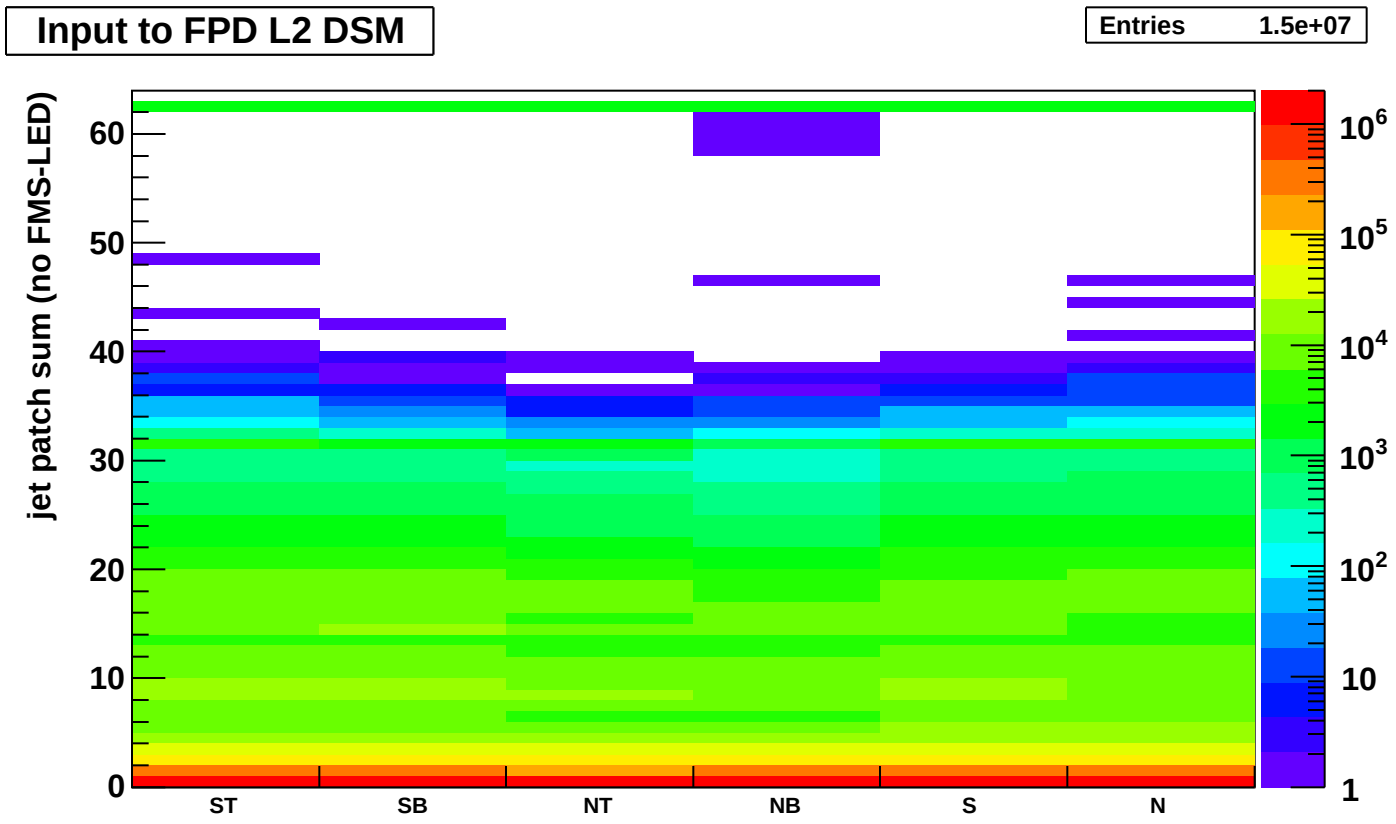

Input to FPD L2 DSM
Entries 4598
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

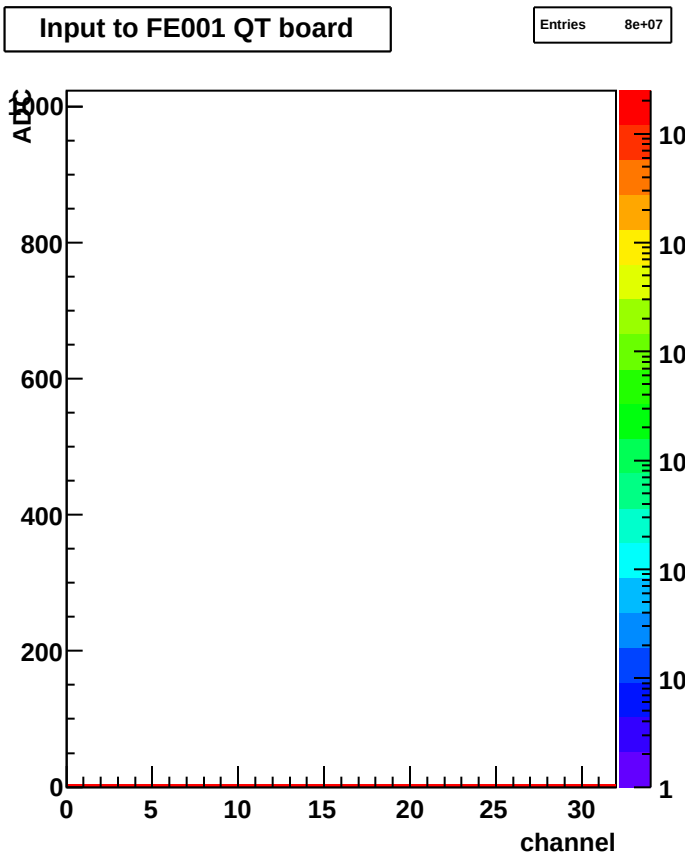

Input to FPD L2 DSM
Entries 7500000
CL bits
9425
5534
154690
48843
31705
119162
53212
33866
2.22615e+06
2.38852e+06
2.4289e+06
SMALL
LARGE-S
LARGE-N

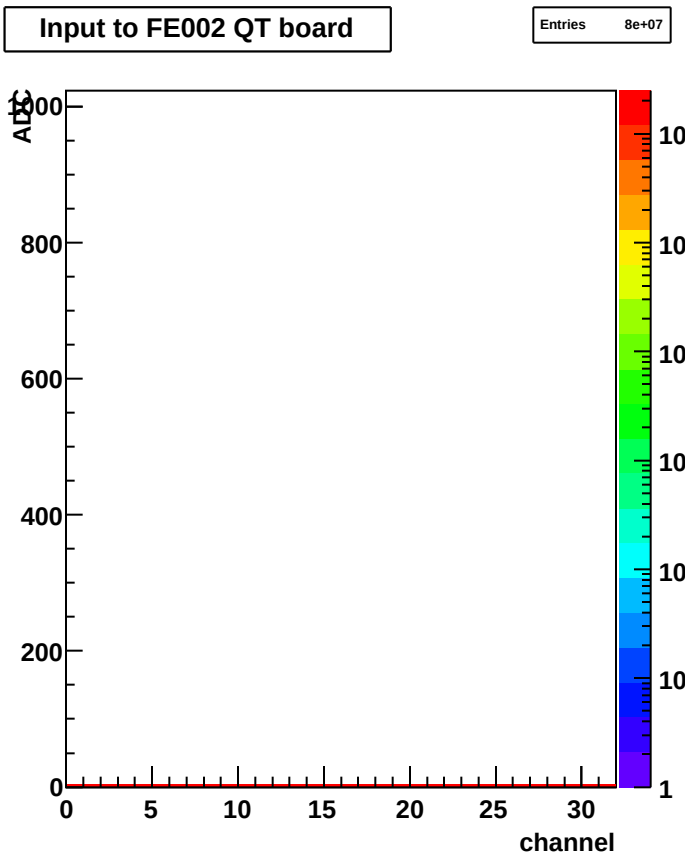

Input to FPD L2 DSM
Entries 140
CL bits - simulated
2
1
30
9
6
25
10
8
4
2
43
SMALL
LARGE-S
LARGE-N

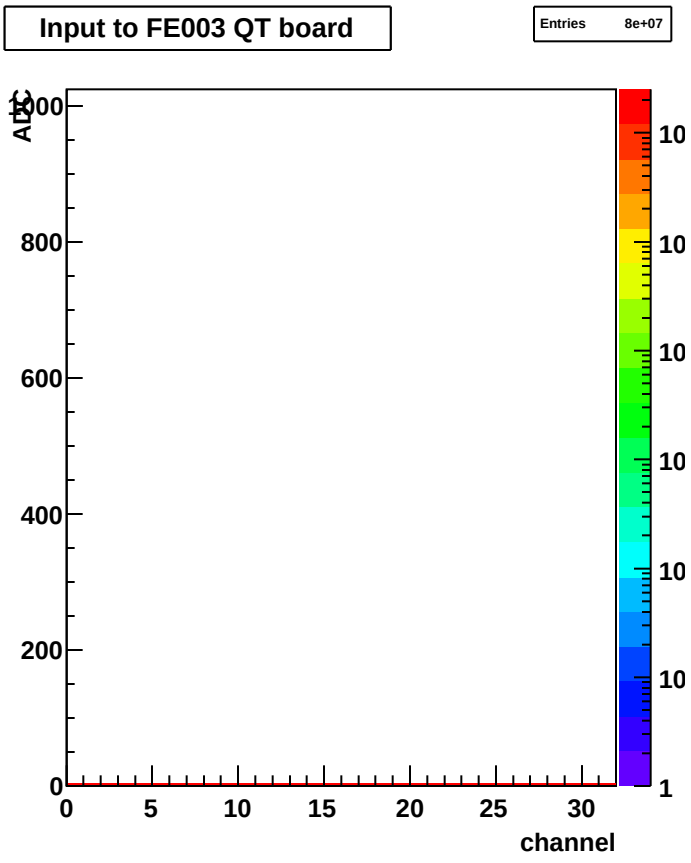

Input to FPD L2 DSM
Entries 7500000
HT bits
31145
80457
43361
63416
146725
49157
30837
2.25871e+06
2.37039e+06
2.4258e+06
SMALL
LARGE-S
LARGE-N

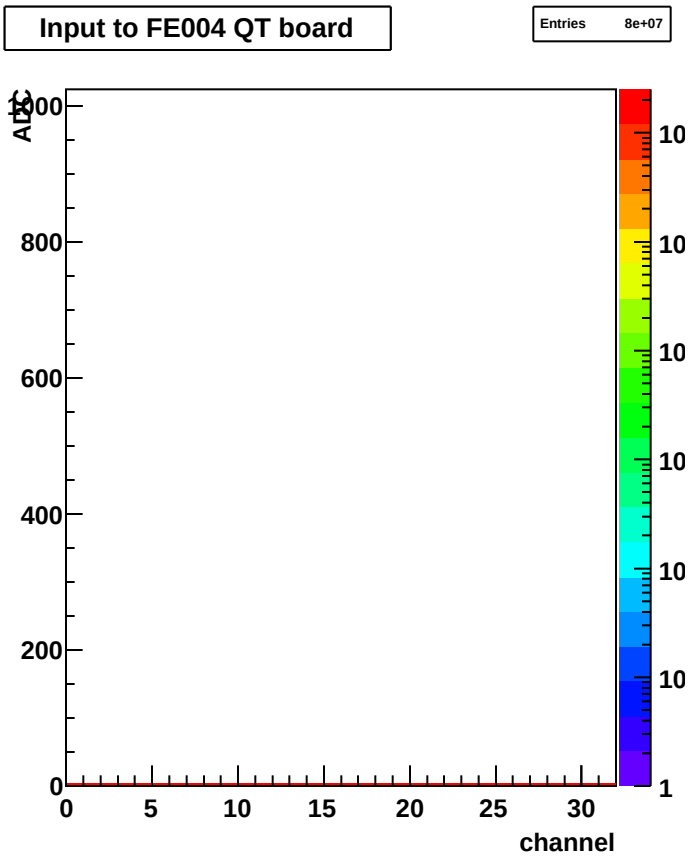

Input to FPD L2 DSM
Entries 1528
HT bits - simulated
589
16
5
516
383
6
8
4
1
SMALL
LARGE-S
LARGE-N

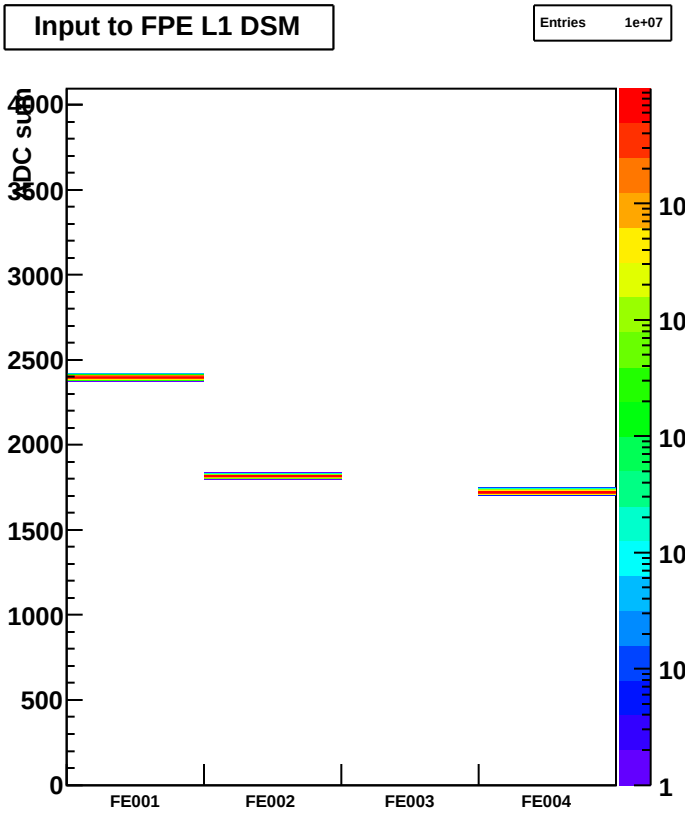

Input to FPD L2 DSM
Entries 1.5e+07
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6


Input to FE001 QT board
Entries 8e+07
ADC
channel

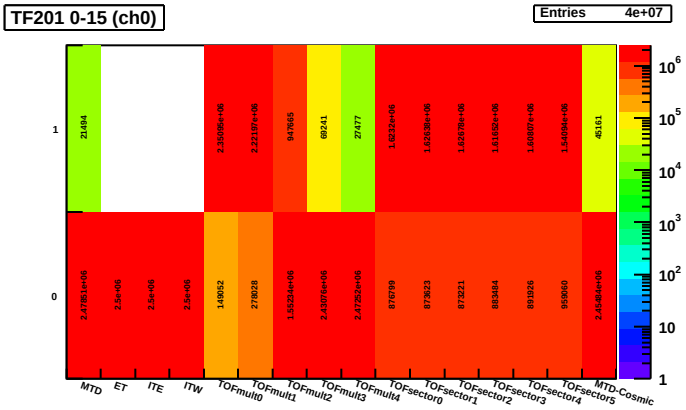

Input to FE002 QT board
Entries 8e+07
ADC
channel


Input to FE003 QT board
Entries 8e+07
ADC
channel

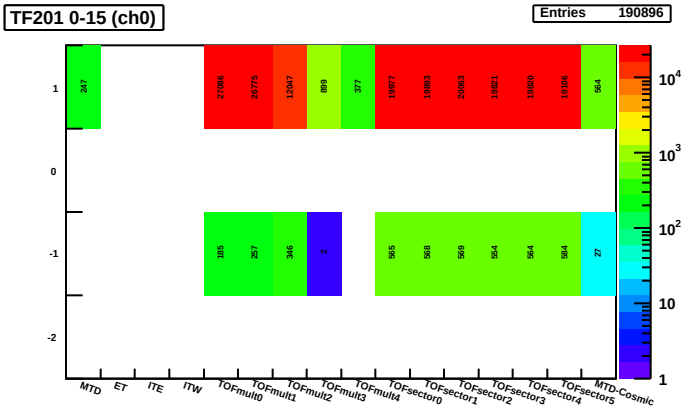

Input to FE004 QT board
Entries 8e+07
ADC
channel


Input to FPE L1 DSM
Entries 1e+07
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

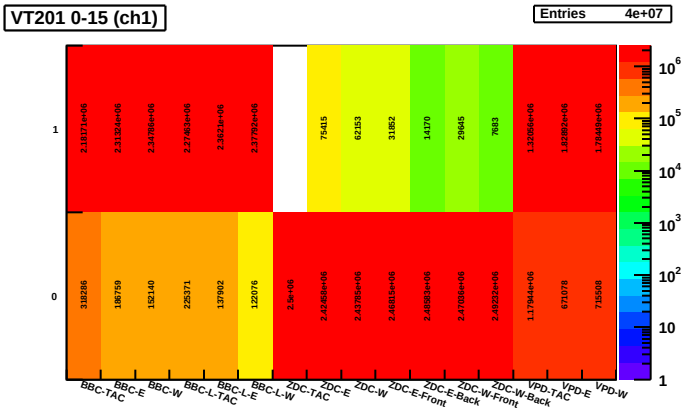
TF201 0-15 (ch0)



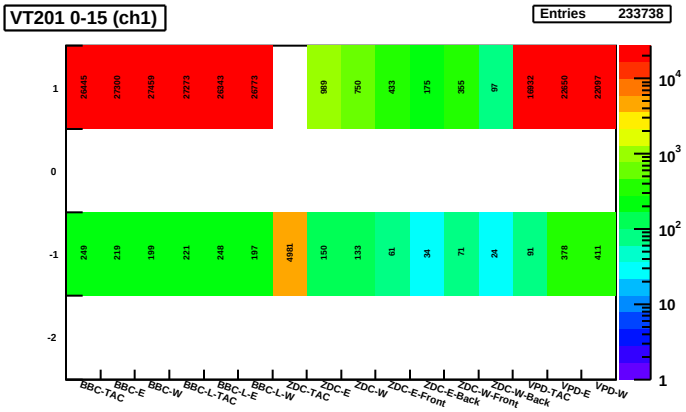
TF201 0-15 (ch0)



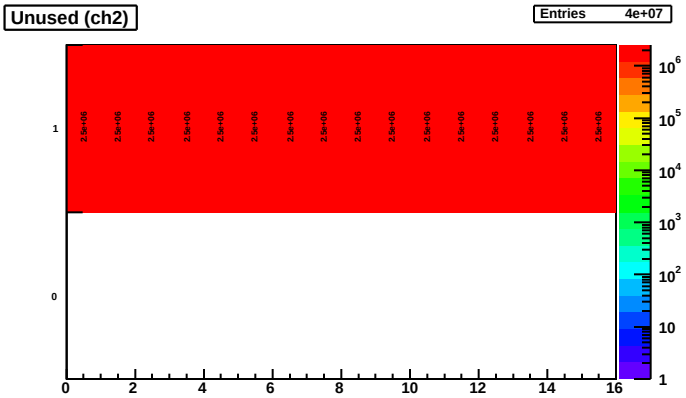
VT201 0-15 (ch1)

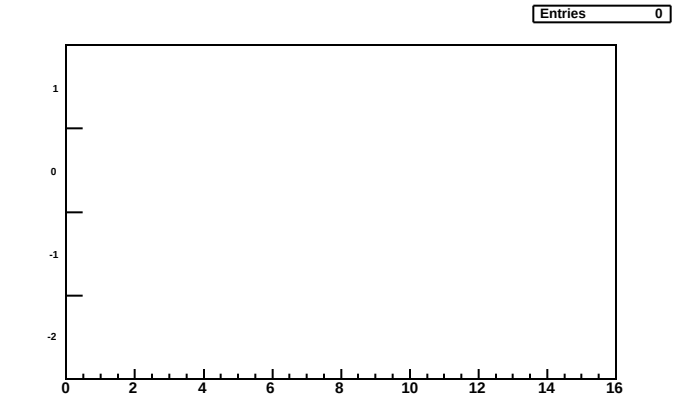


VT201 0-15 (ch1)

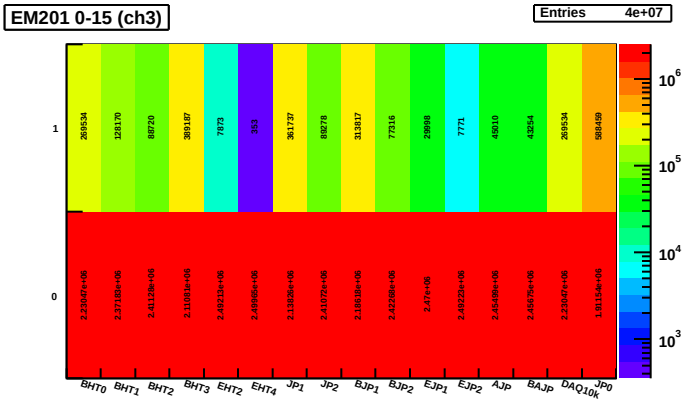


Unused (ch2)

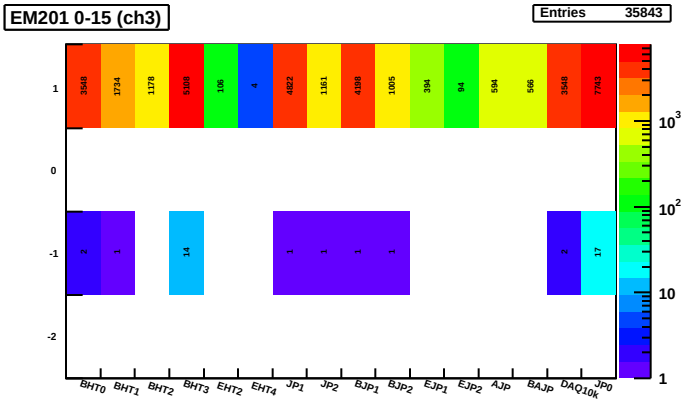




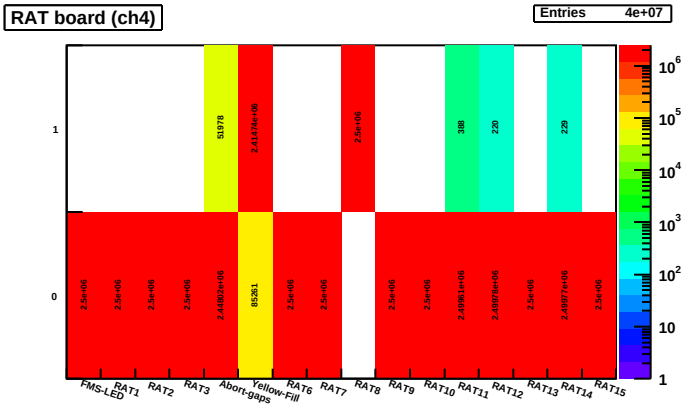
EM201 0-15 (ch3)

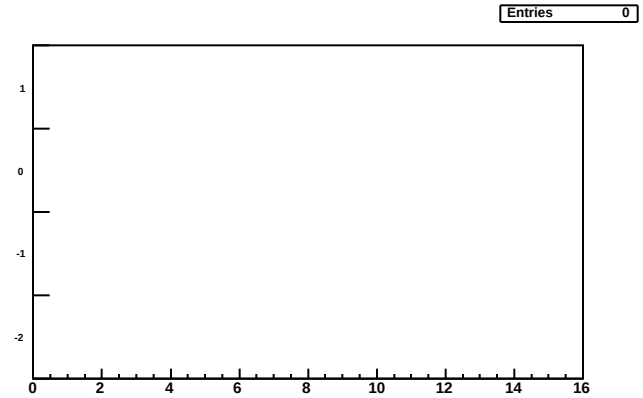


EM201 0-15 (ch3)

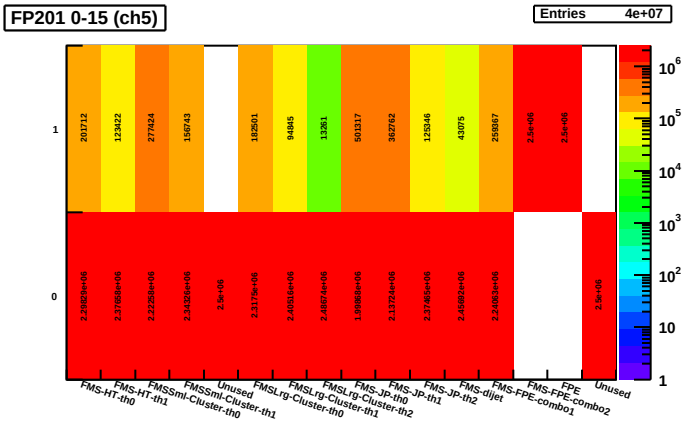


RAT board (ch4)

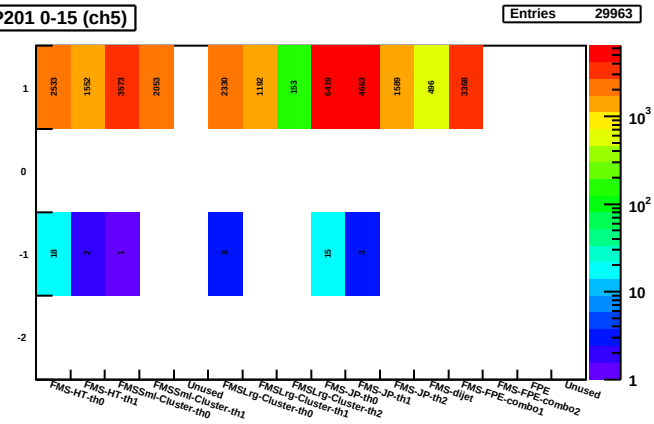




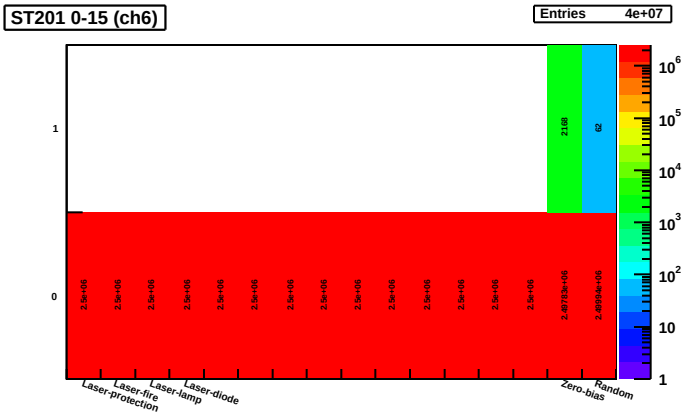
FP201 0-15 (ch5)

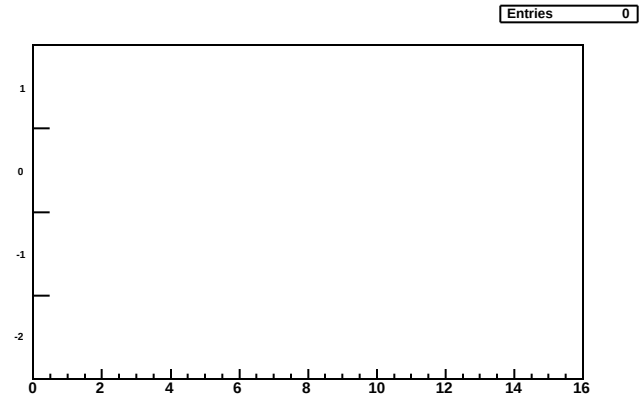
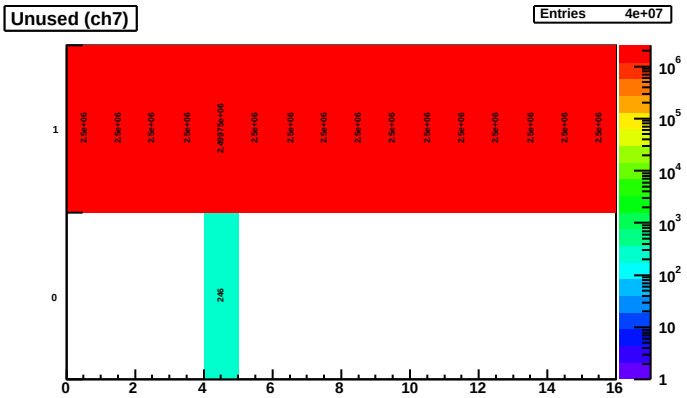
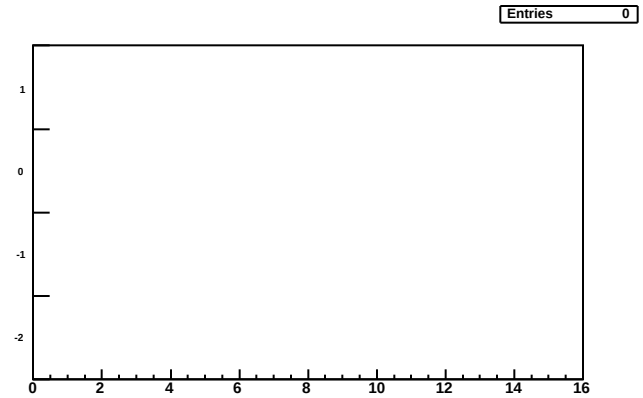


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)