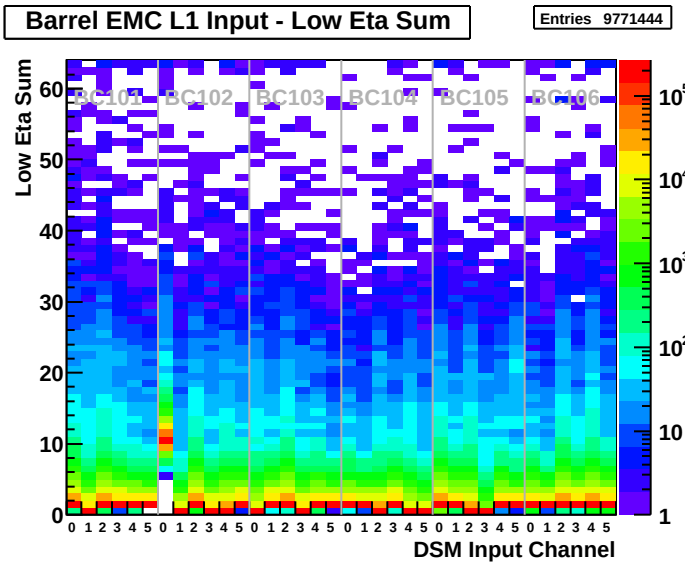
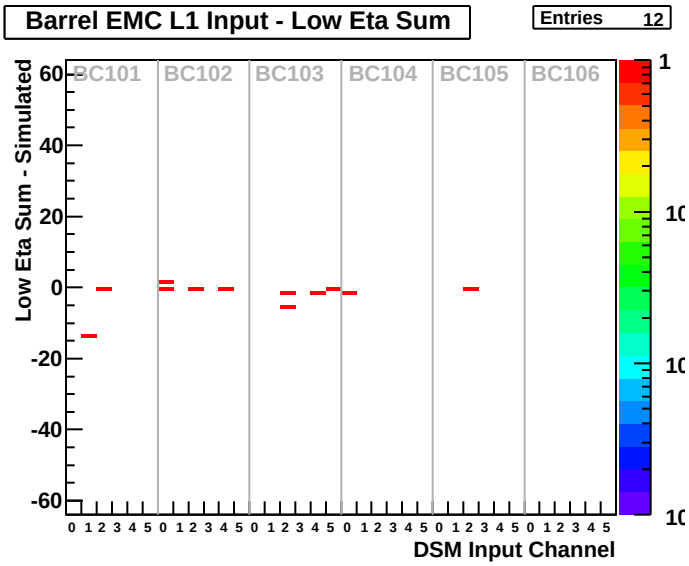
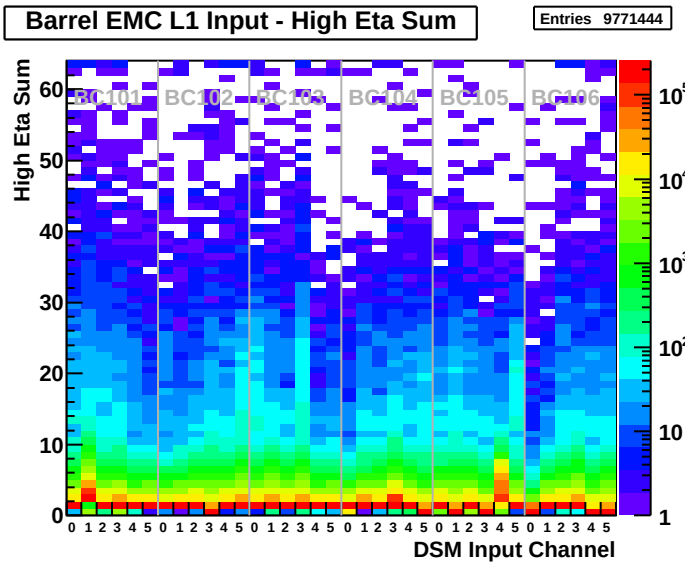
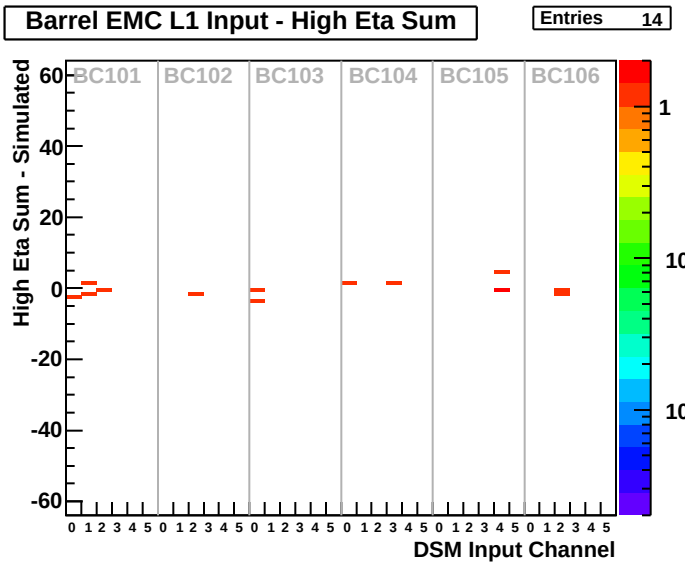
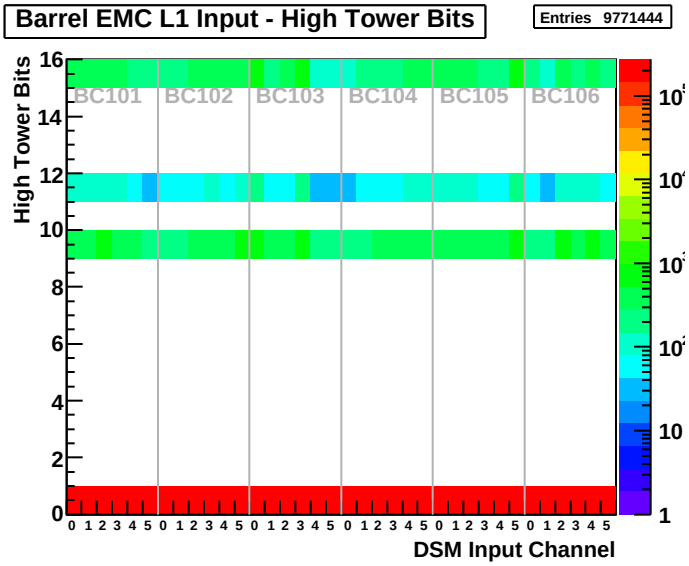
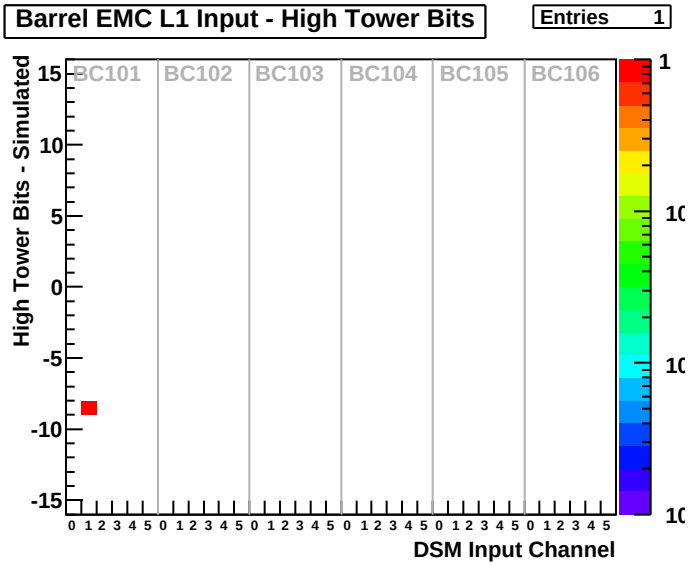

Barrel EMC L1 Input - Low Eta Sum
Entries 9771444
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

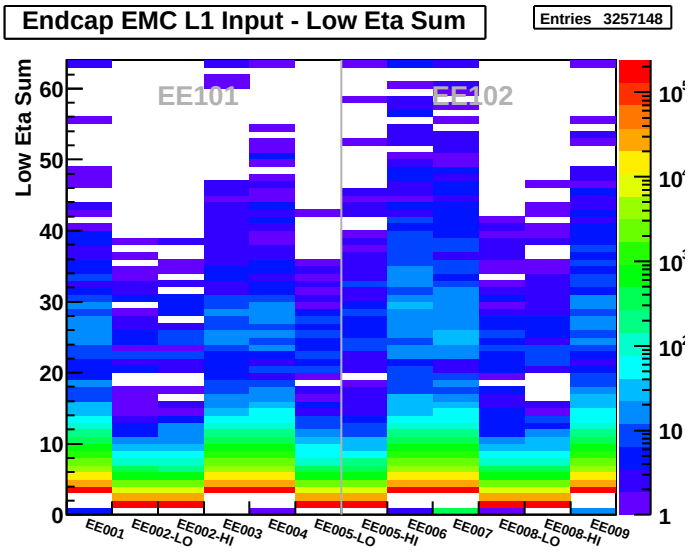

Barrel EMC L1 Input - Low Eta Sum
Entries 12
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

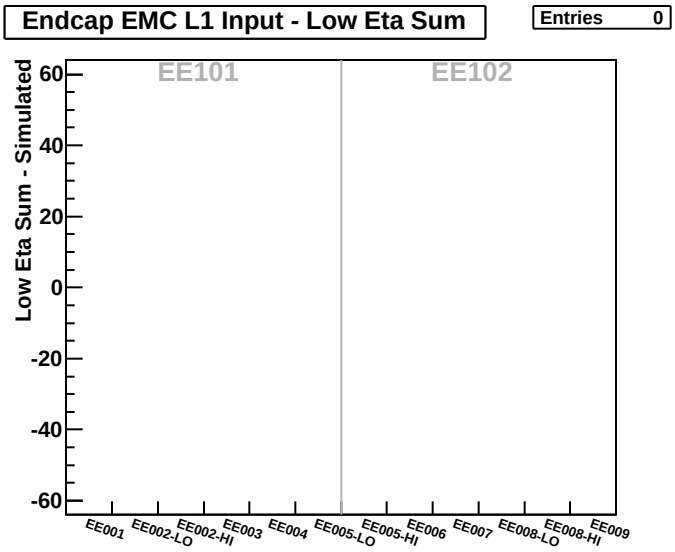

Barrel EMC L1 Input - High Eta Sum
Entries 9771444
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

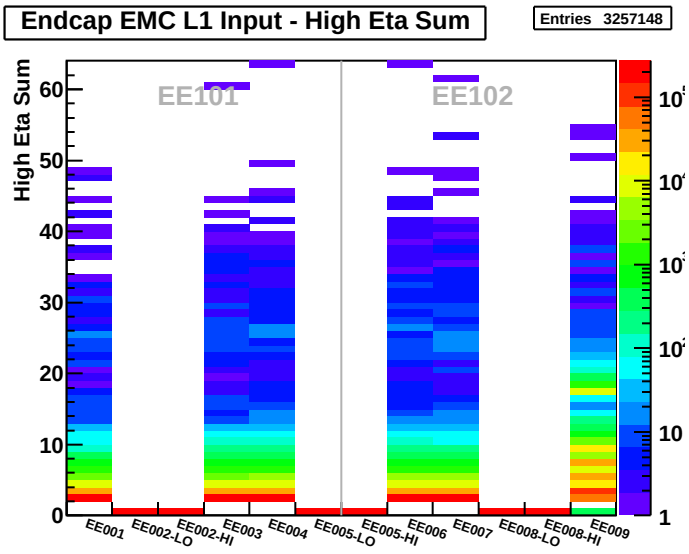

Barrel EMC L1 Input - High Eta Sum
Entries 14
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

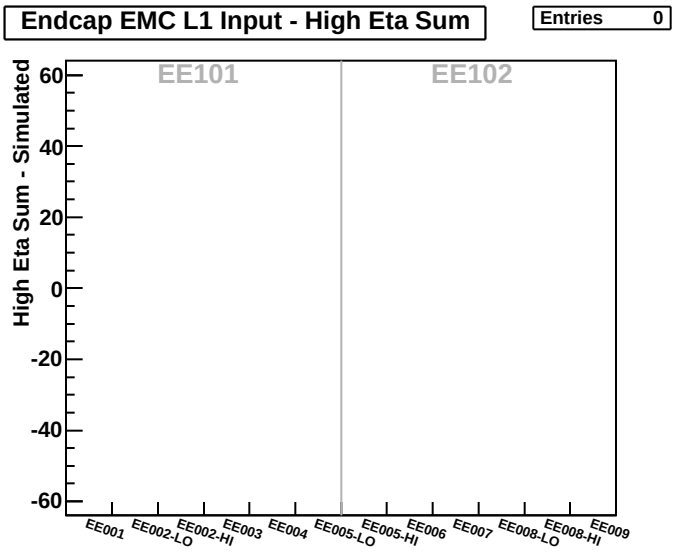

Barrel EMC L1 Input - High Tower Bits
Entries 9771444
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

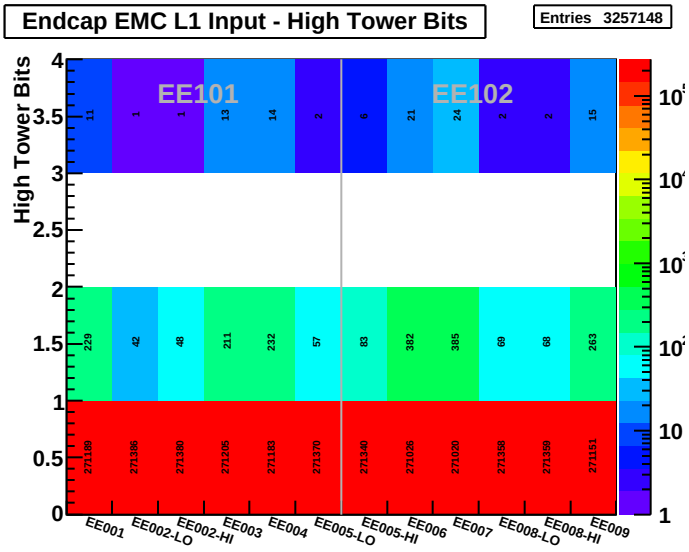

Barrel EMC L1 Input - High Tower Bits
Entries 1
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

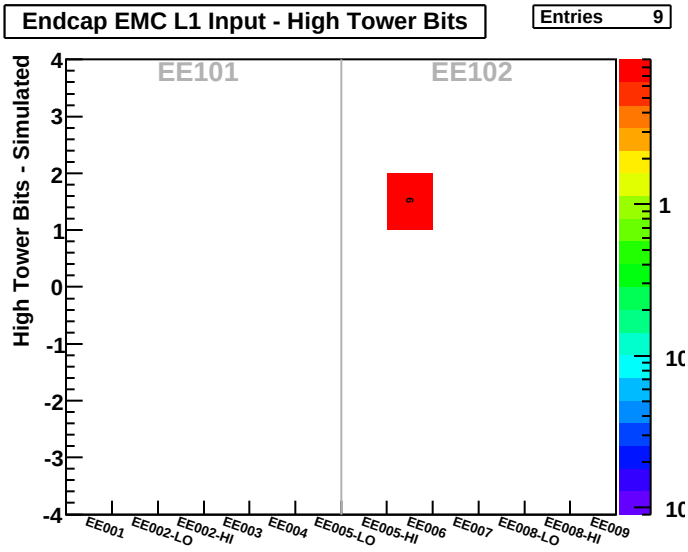

Endcap EMC L1 Input - Low Eta Sum
Entries 3257148
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

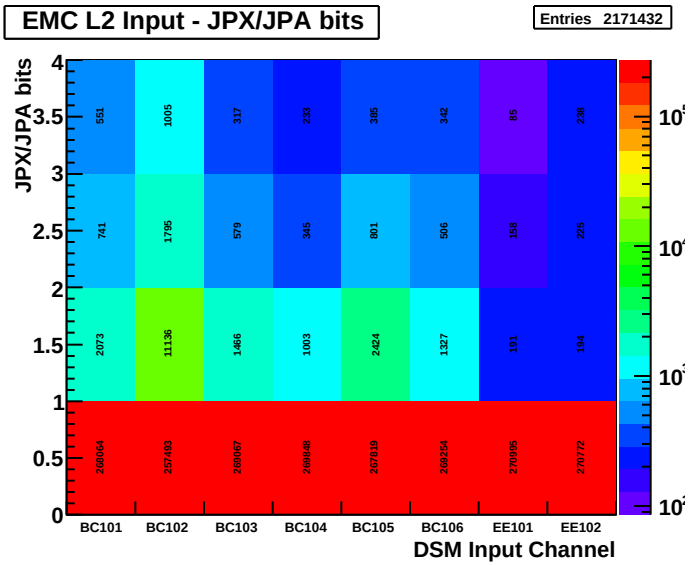

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

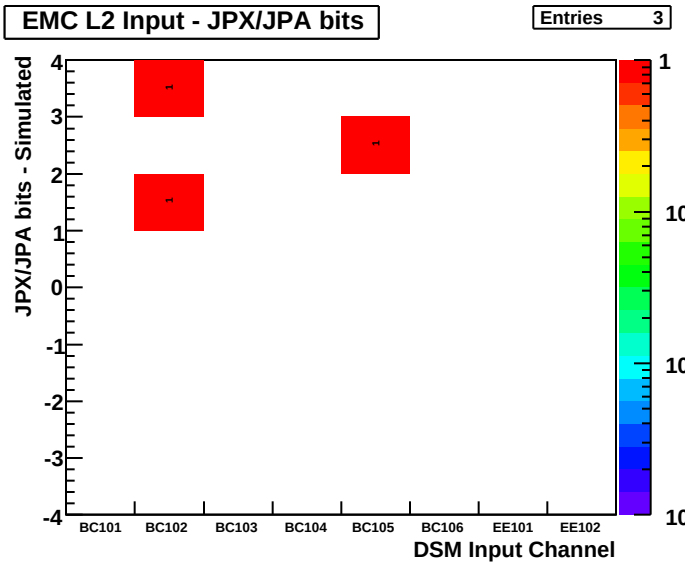

Endcap EMC L1 Input - High Eta Sum
Entries 3257148
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

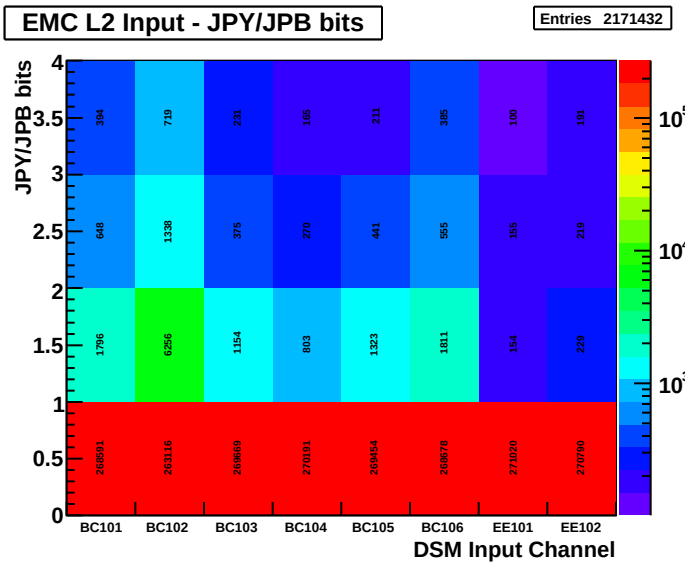

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

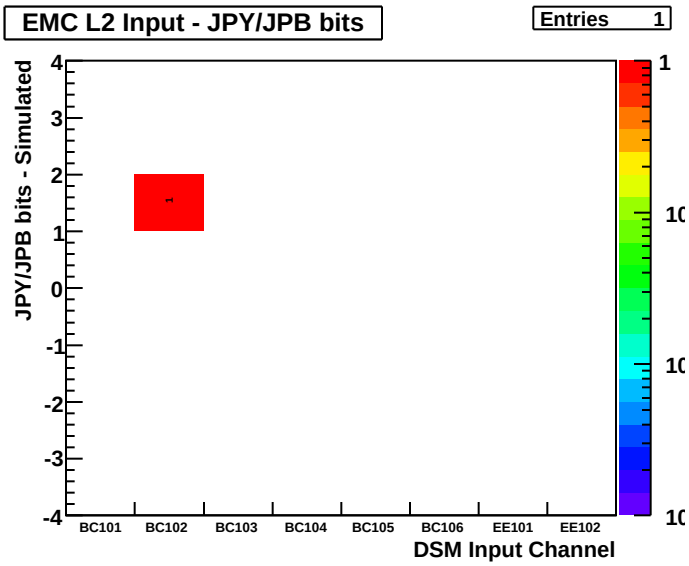

Endcap EMC L1 Input - High Tower Bits
Entries 3257148
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

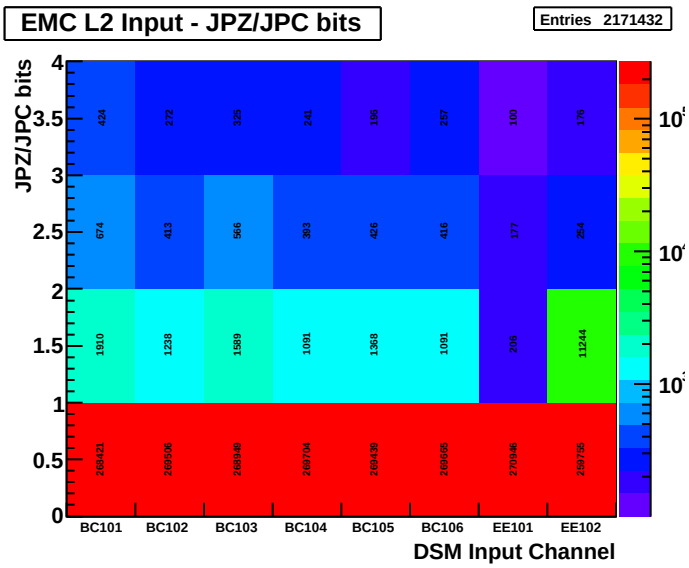

Endcap EMC L1 Input - High Tower Bits
Entries 9
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

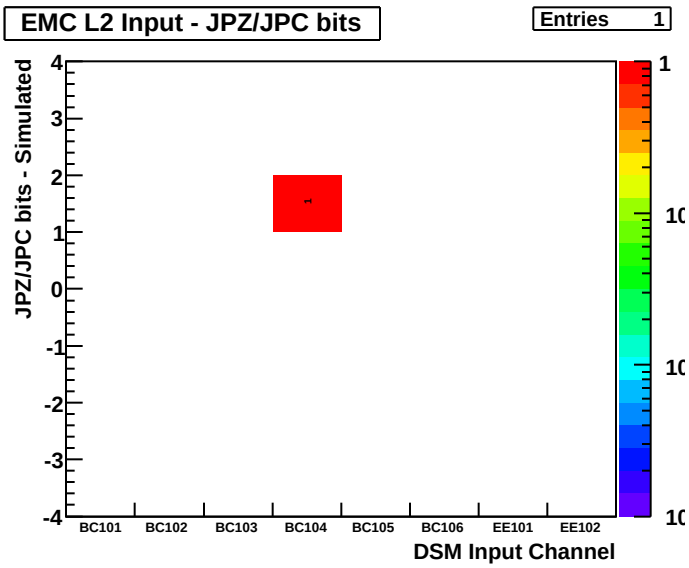

EMC L2 Input - JPX/JPA bits
Entries 2171432
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
551 1005 317 233 385 342 85 238
741 1795 579 345 801 506 158 225
2073 11136 1466 1003 2424 1327 191 194
268064 257493 268067 268048 267819 268254 270995 270772

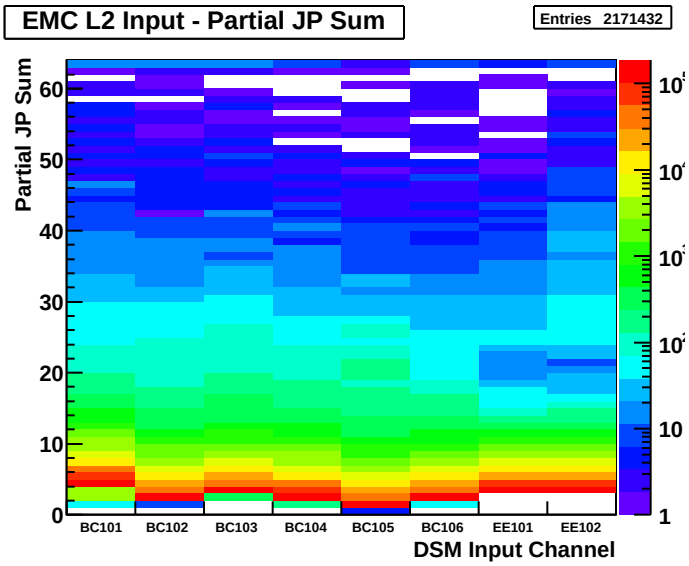

EMC L2 Input - JPX/JPA bits
Entries 3
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1
1
1

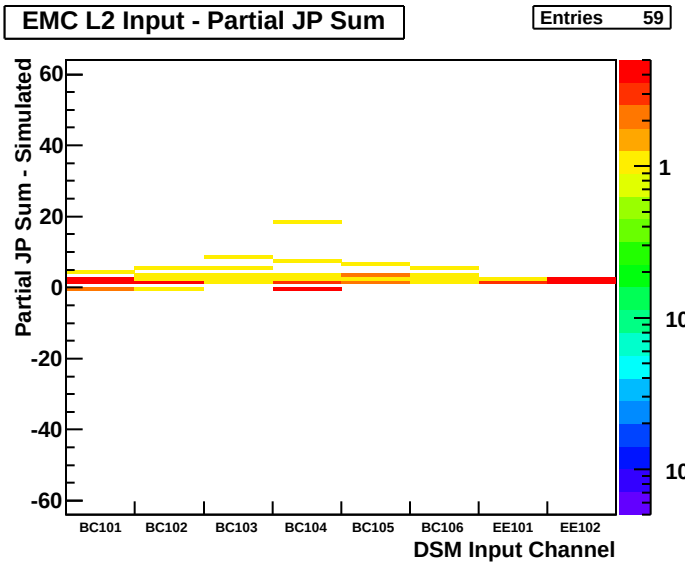

EMC L2 Input - JPY/JPB bits
Entries 2171432
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
394 719 231 165 211 385 100 191
648 1338 375 270 441 555 155 219
1796 6256 1154 803 1323 1811 154 229
266591 263116 269669 270191 269454 268678 271020 270790

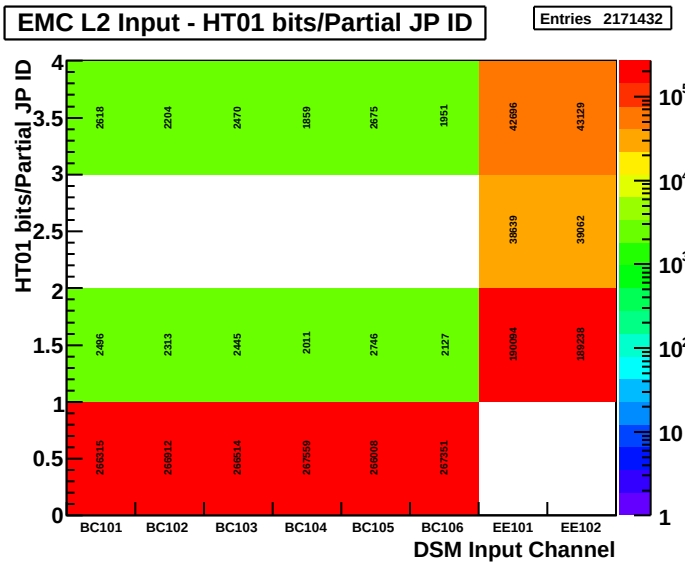

EMC L2 Input - JPY/JPB bits
Entries 1
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1

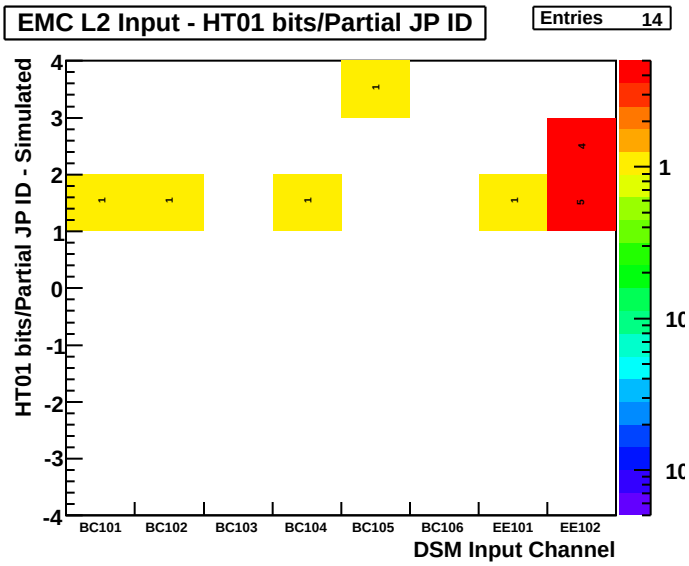

EMC L2 Input - JPZ/JPC bits
Entries 2171432
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
424 272 325 241 196 257 100 176
674 413 566 393 426 416 177 254
1910 1238 1589 1091 1368 1091 206 11244
268421 269506 269349 269704 269439 269665 270946 269755

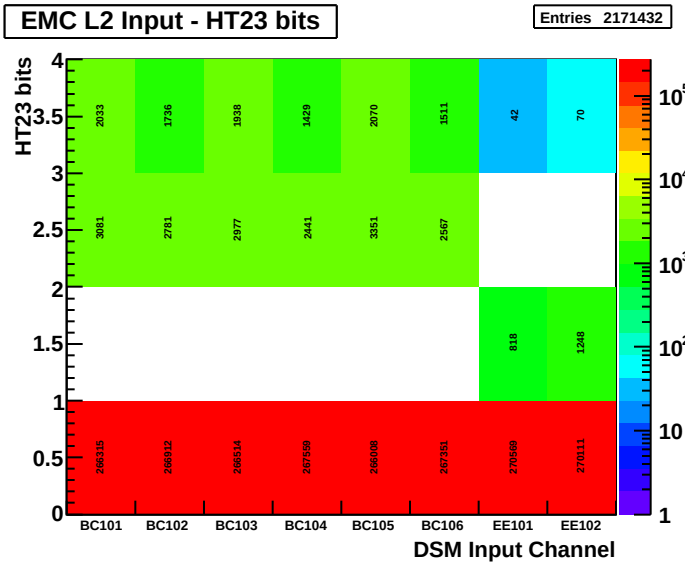

EMC L2 Input - JPZ/JPC bits
Entries 1
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1

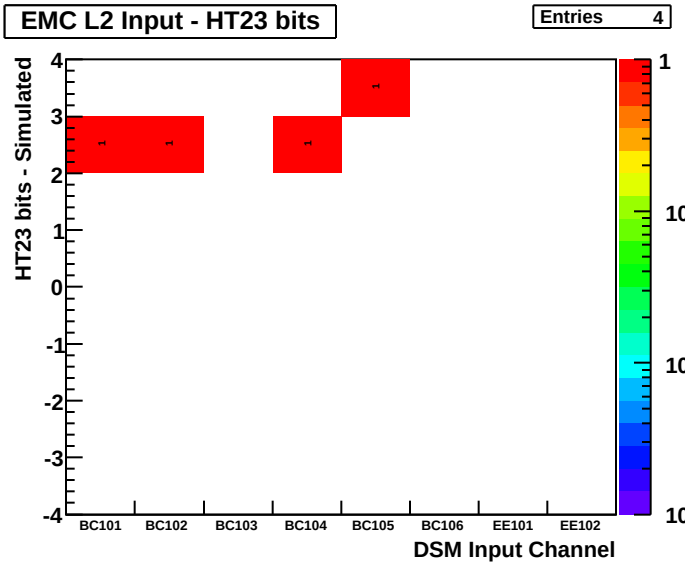

EMC L2 Input - Partial JP Sum
Entries 2171432
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

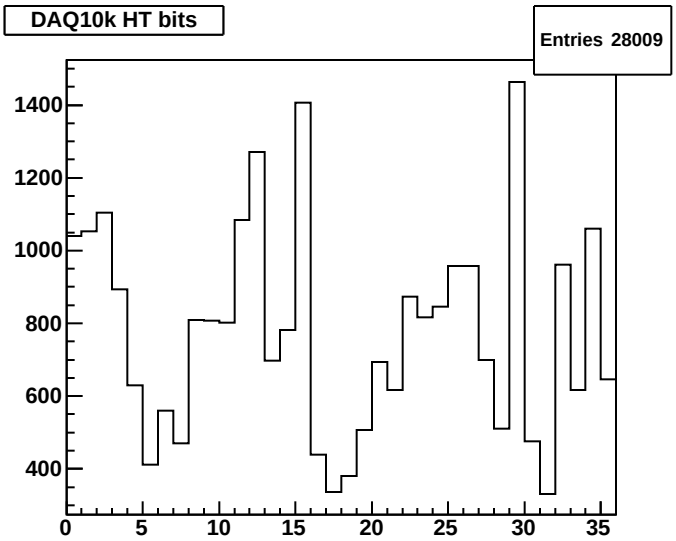

EMC L2 Input - Partial JP Sum
Entries 59
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

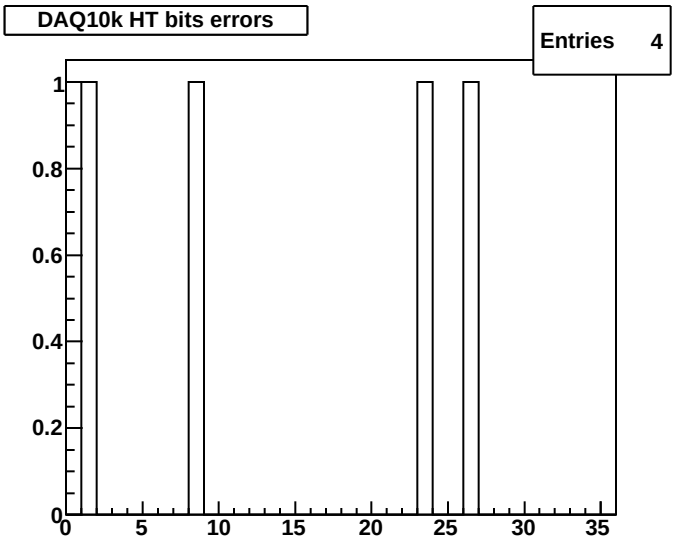

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2171432
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

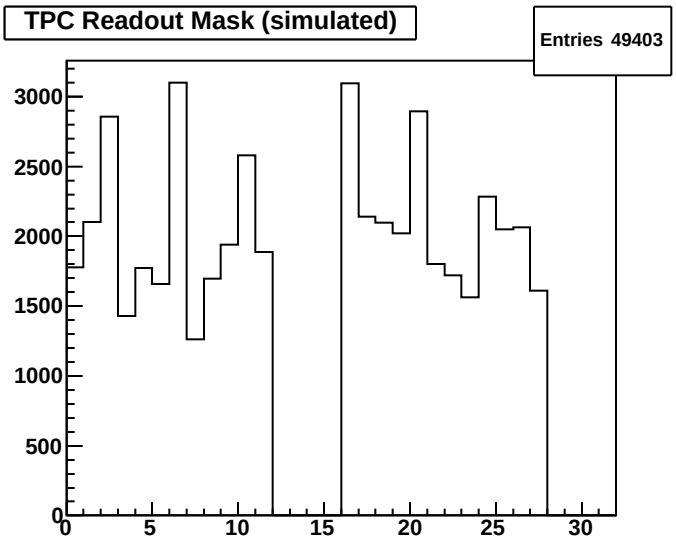

EMC L2 Input - HT01 bits/Partial JP ID
Entries 14
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

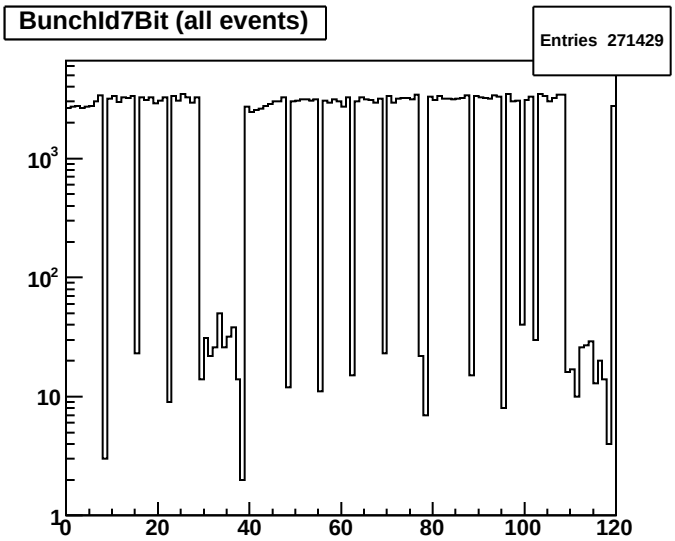

EMC L2 Input - HT23 bits
Entries 2171432
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

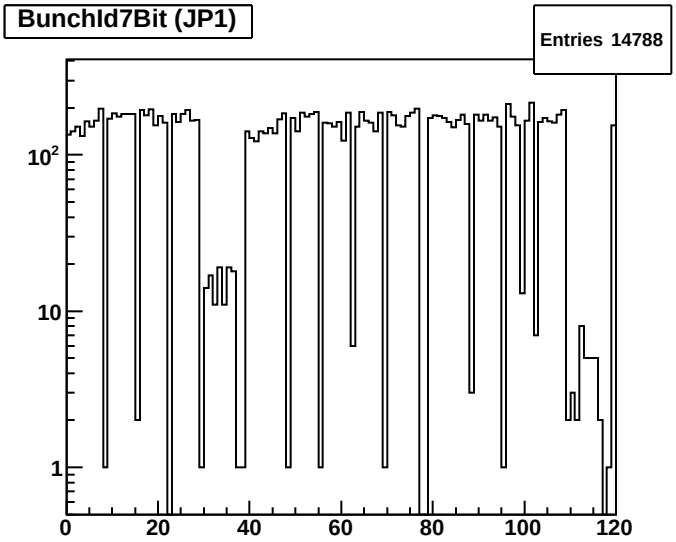

EMC L2 Input - HT23 bits
Entries 4
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

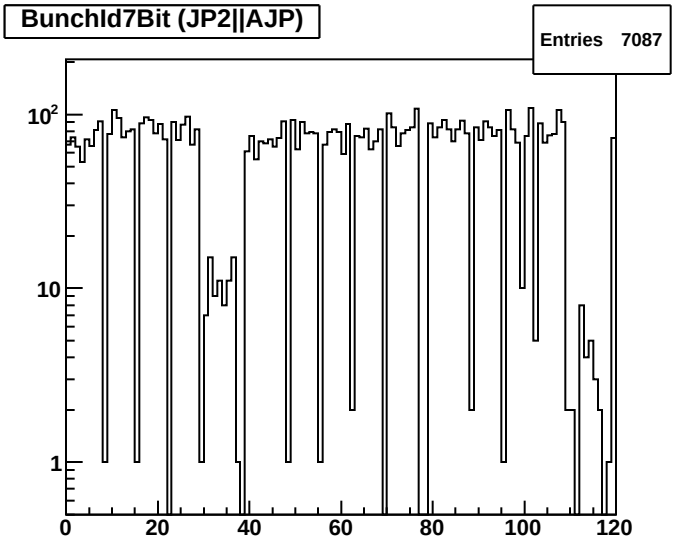

DAQ10k HT bits
Entries 28009
1400
1200
1000
800
600
400
0
5
10
15
20
25
30
35

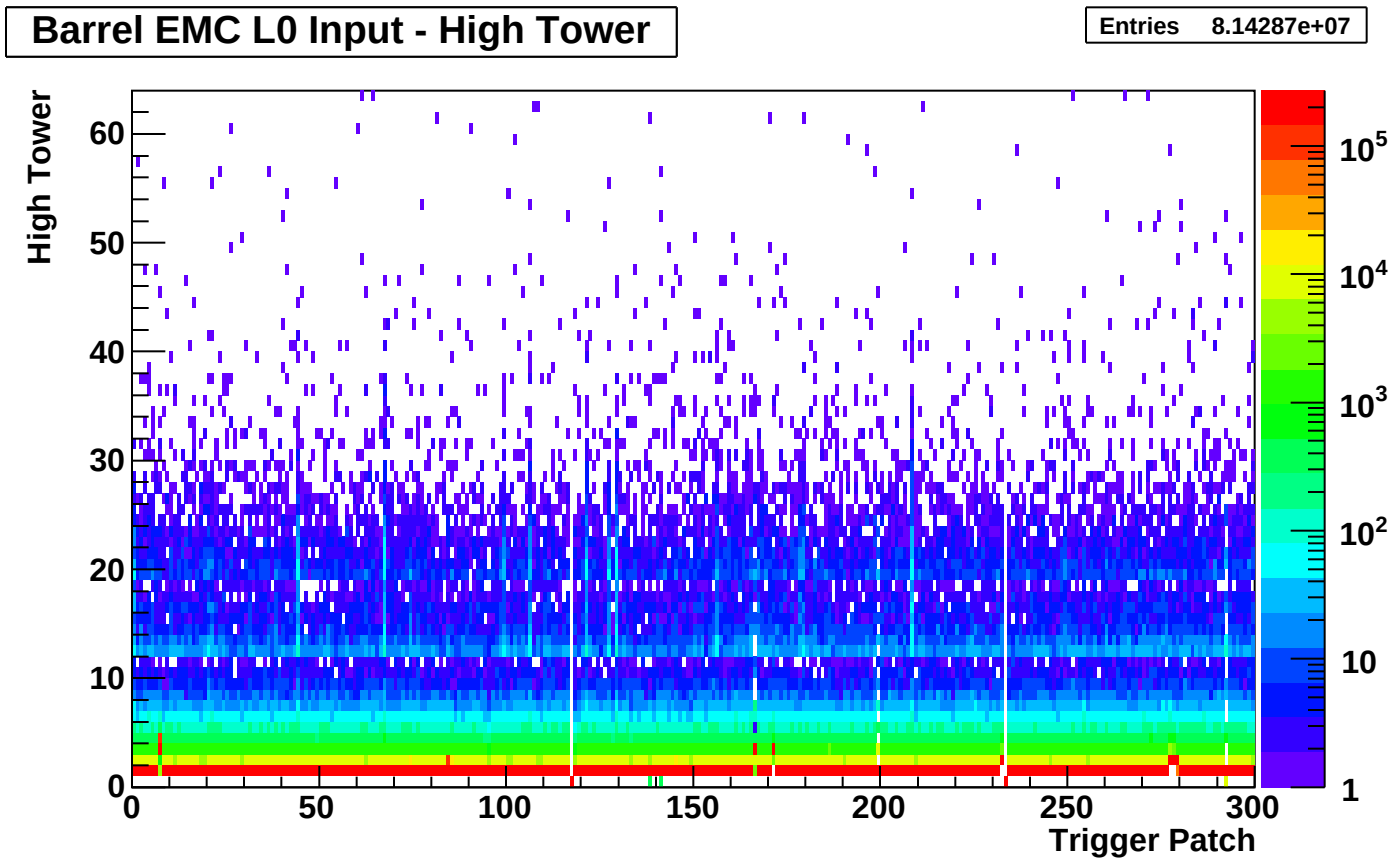

DAQ10k HT bits errors
Entries 4
1
0.8
0.6
0.4
0.2
0
0
5
10
15
20
25
30
35

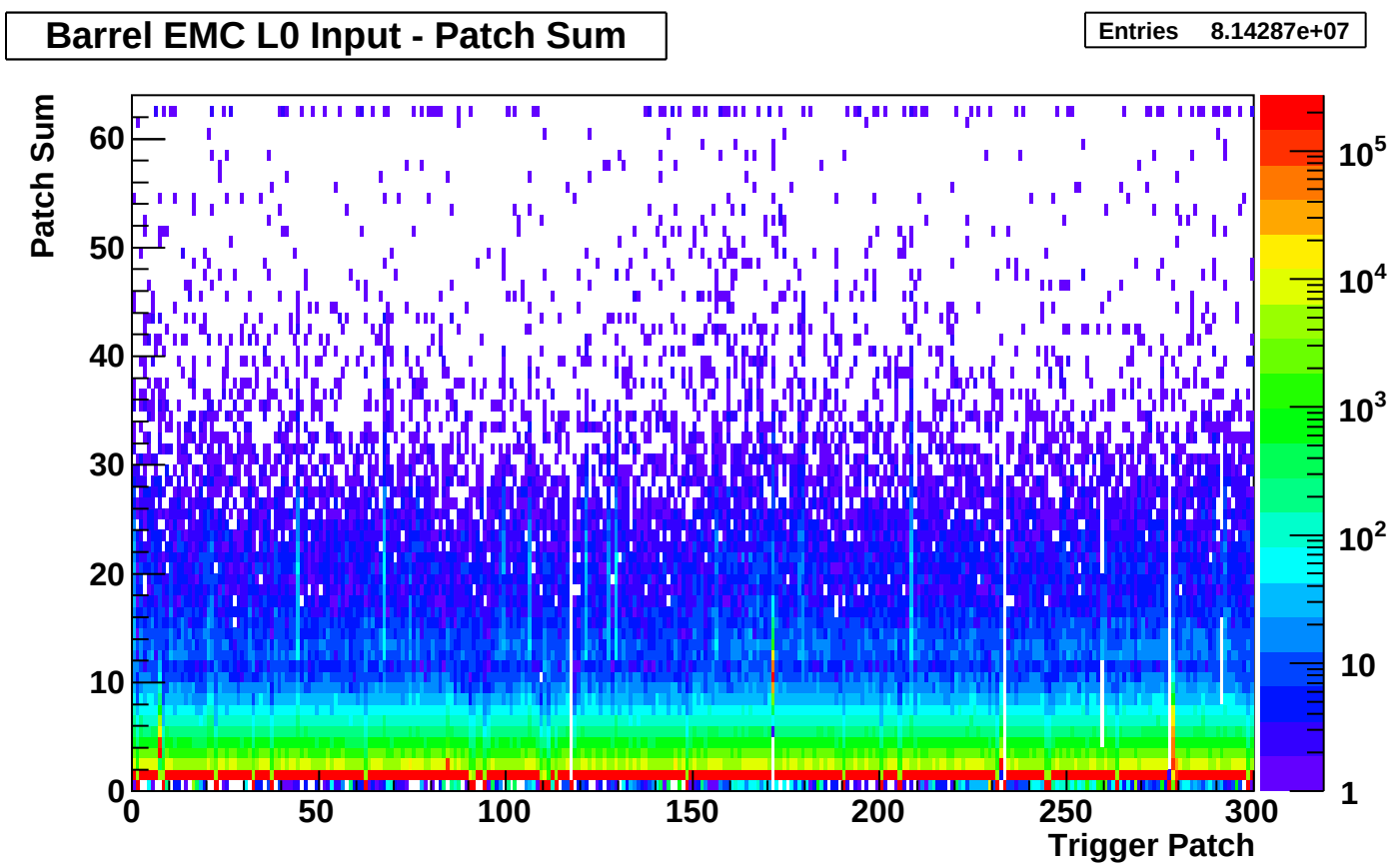

TPC Readout Mask (simulated)
Entries 49403
3000
2500
2000
1500
1000
500
0
0
5
10
15
20
25
30

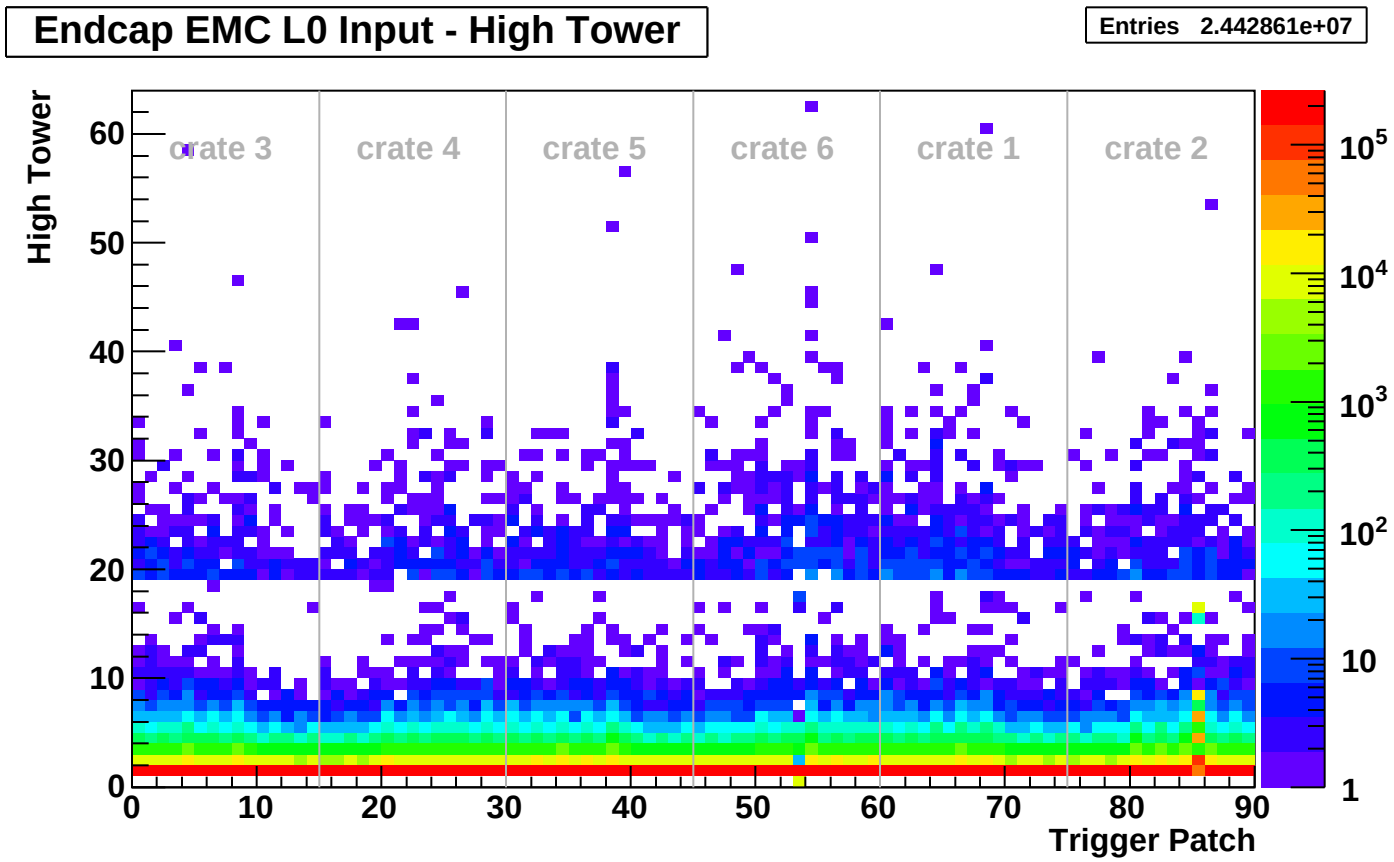

BunchId7Bit (all events)
Entries 271429
10^3
10^2
10
1
0
20
40
60
80
100
120

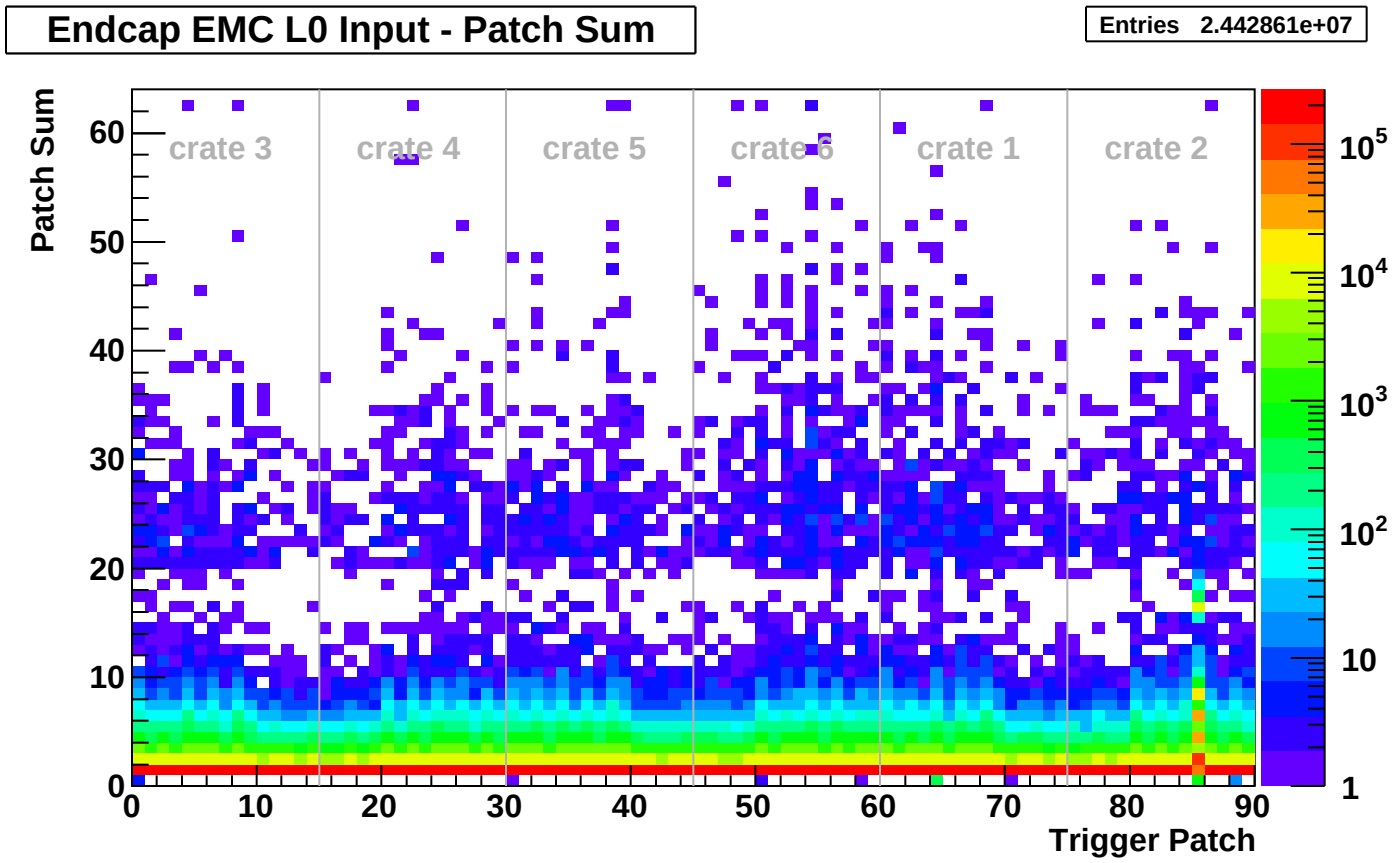

BunchId7Bit (JP1)
Entries 14788
10^2
10
1
0
20
40
60
80
100
120

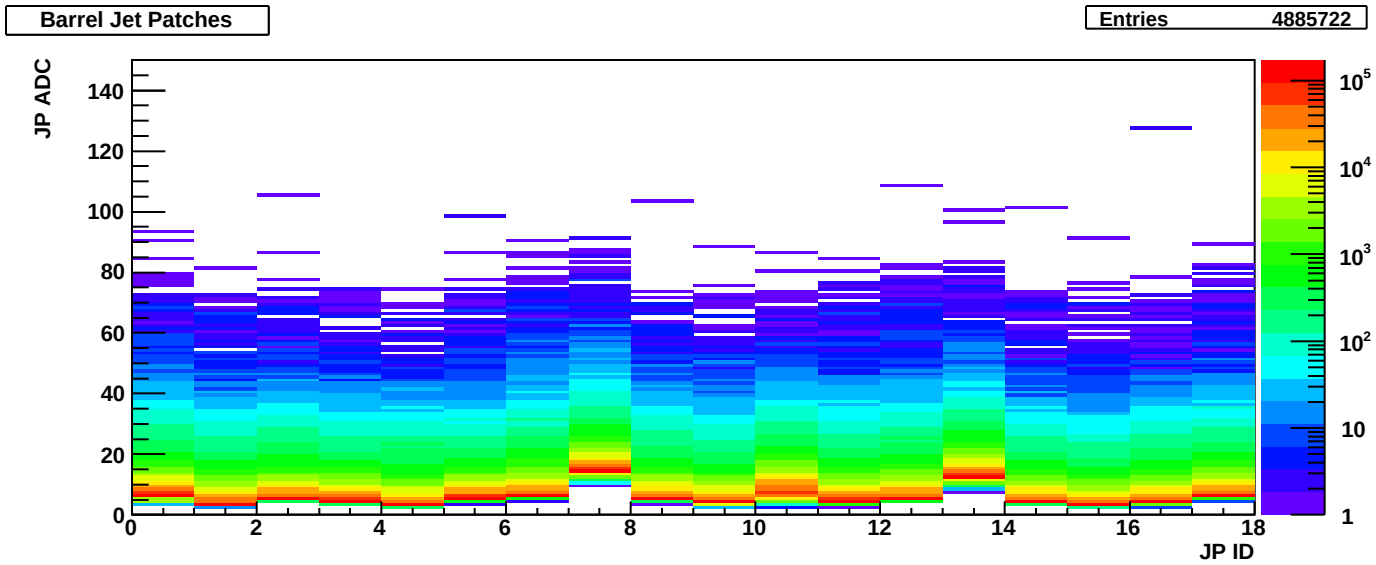

BunchId7Bit (JP2||AJP)
Entries 7087
10^2
10
1
0
20
40
60
80
100
120

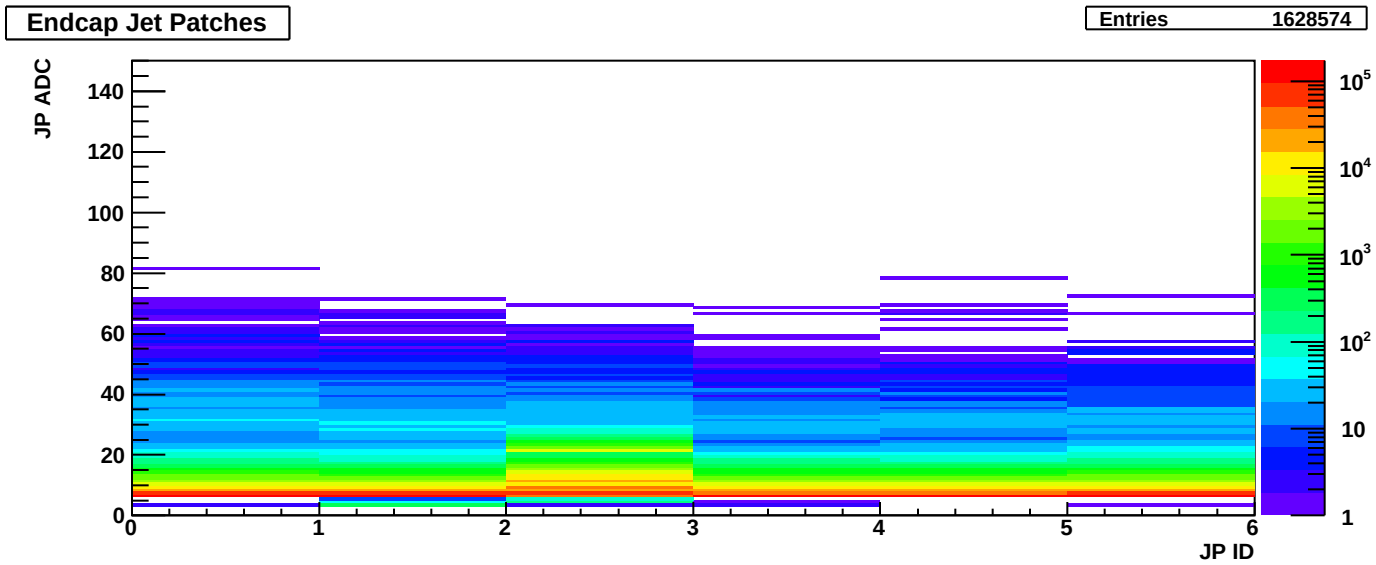

Barrel EMC L0 Input - High Tower
Entries 8.14287e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

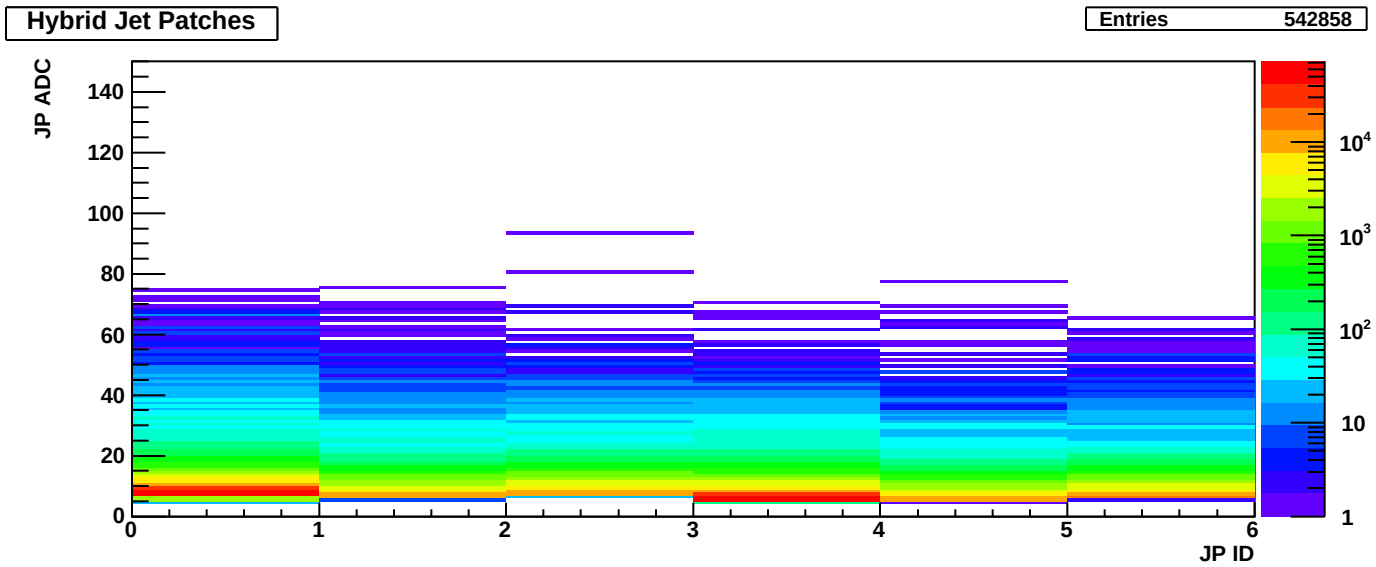

Barrel EMC L0 Input - Patch Sum
Entries 8.14287e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

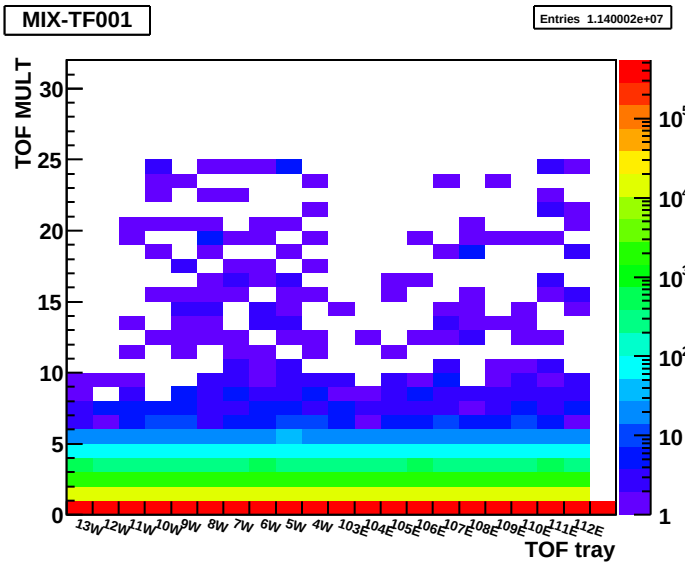

Endcap EMC L0 Input - High Tower
Entries 2.442861e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

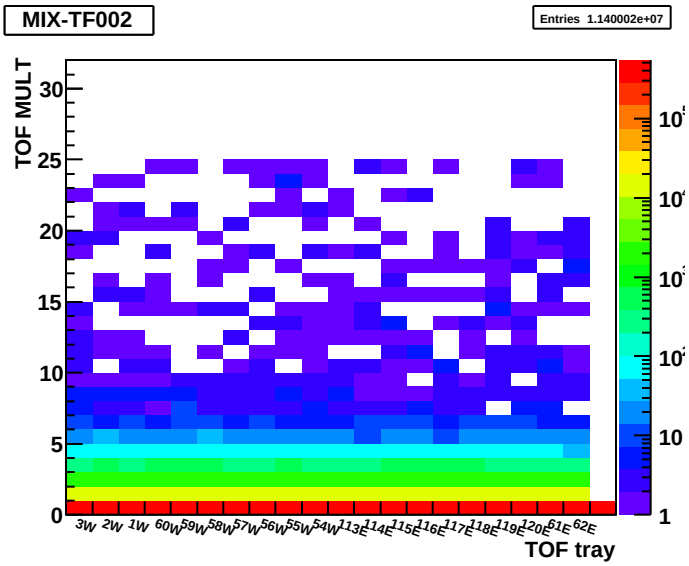

Endcap EMC L0 Input - Patch Sum
Entries 2.442861e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

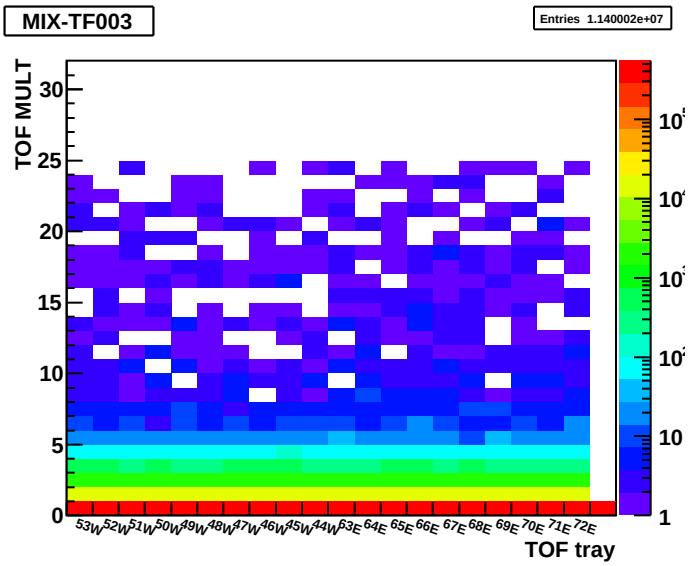

Barrel Jet Patches
Entries 4885722
JP ADC
JP ID

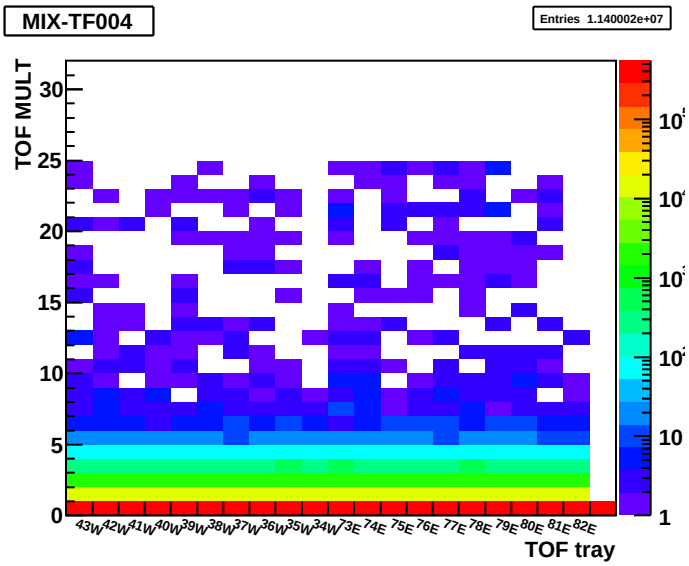

Endcap Jet Patches
Entries 1628574
JP ADC
JP ID

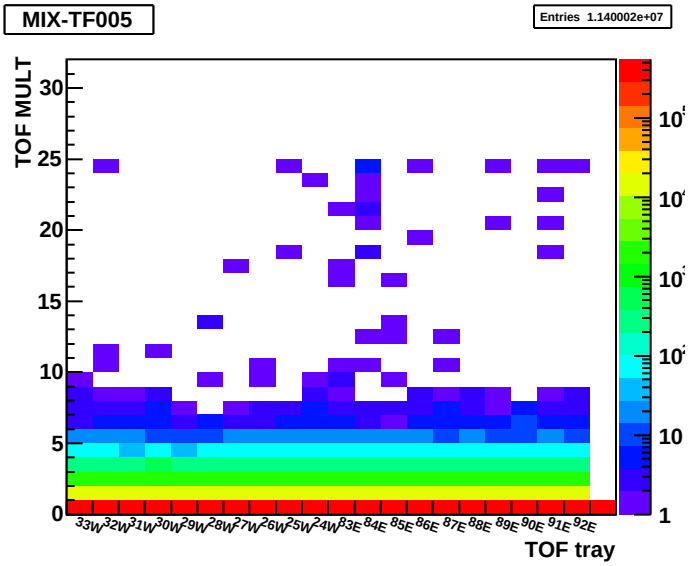

Hybrid Jet Patches
Entries 542858
JP ADC
JP ID

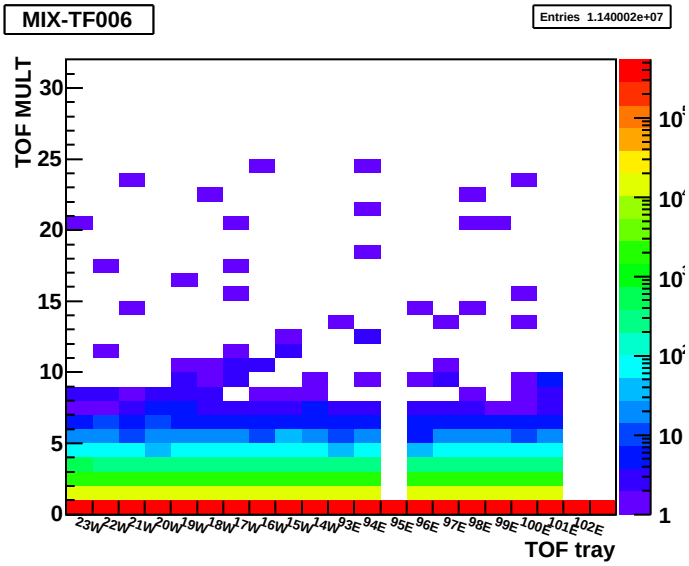

MIX-TF001
Entries 1.140002e+07
TOF MULT
TOF tray

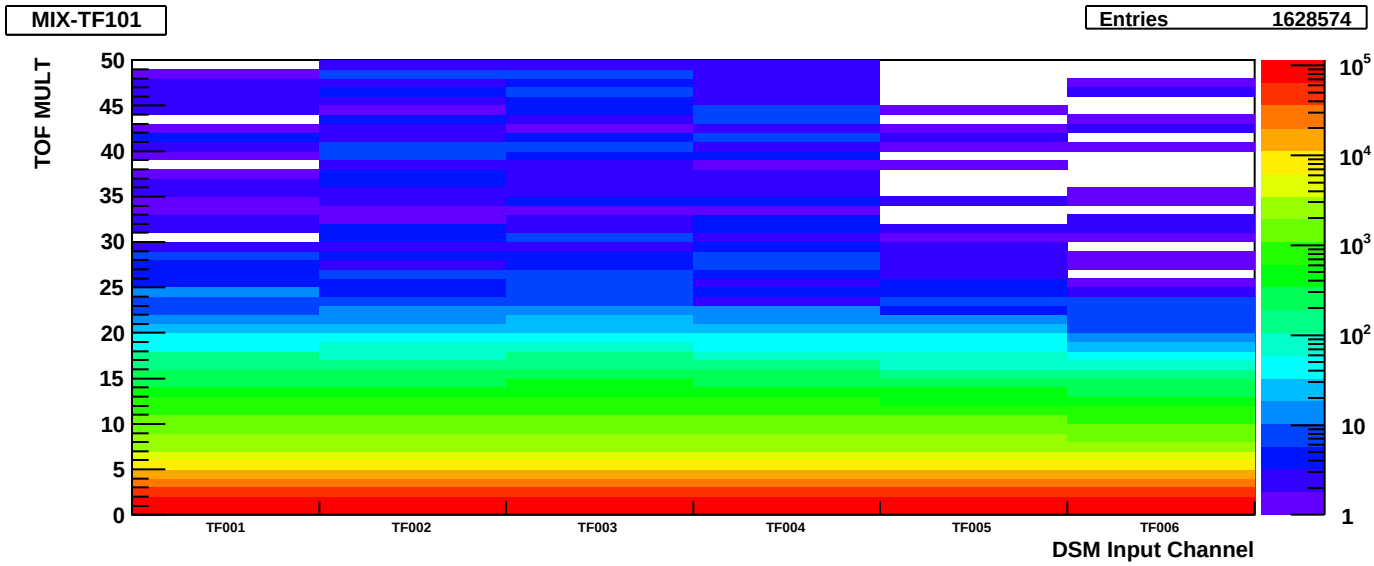

MIX-TF002
Entries 1.140002e+07
TOF MULT
TOF tray

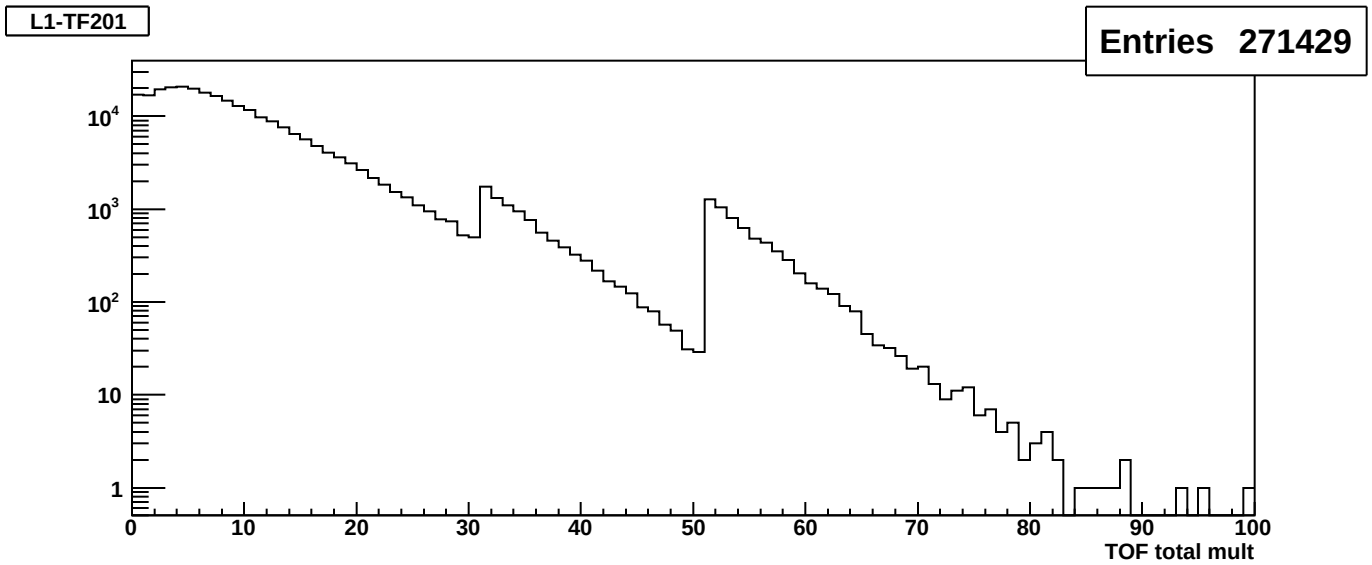

MIX-TF003
Entries 1.140002e+07
TOF MULT
TOF tray

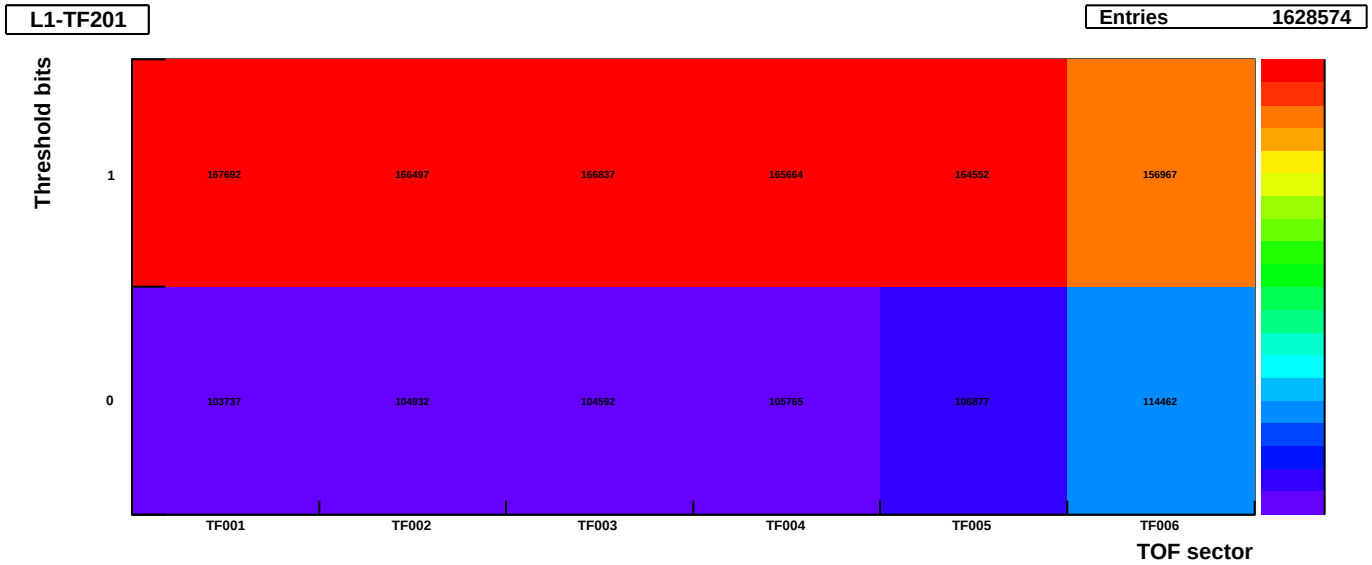

MIX-TF004
Entries 1.140002e+07
TOF MULT
TOF tray

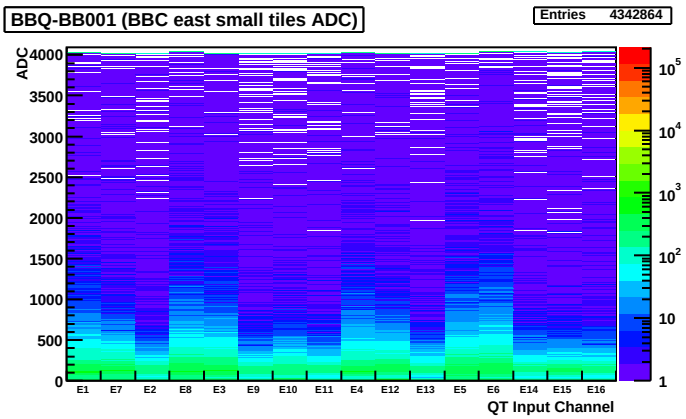

MIX-TF005
Entries 1.140002e+07
TOF MULT
TOF tray

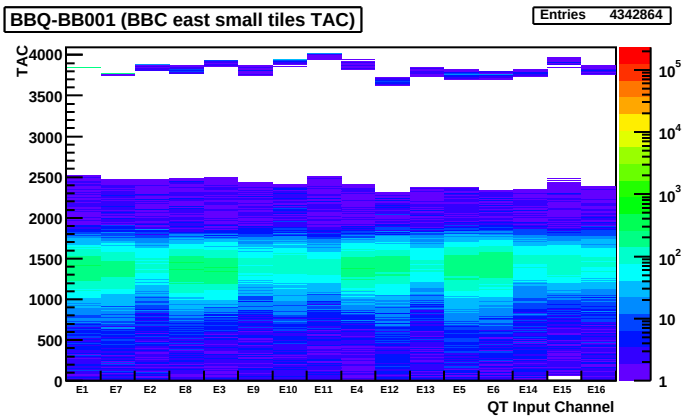

MIX-TF006
Entries 1.140002e+07
TOF MULT
TOF tray

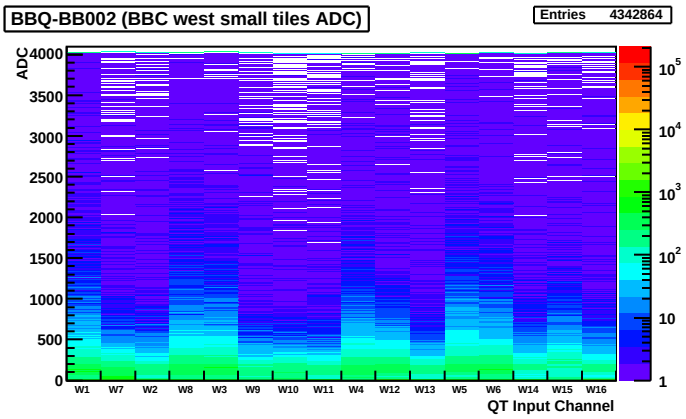

MIX-TF101
Entries 1628574
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

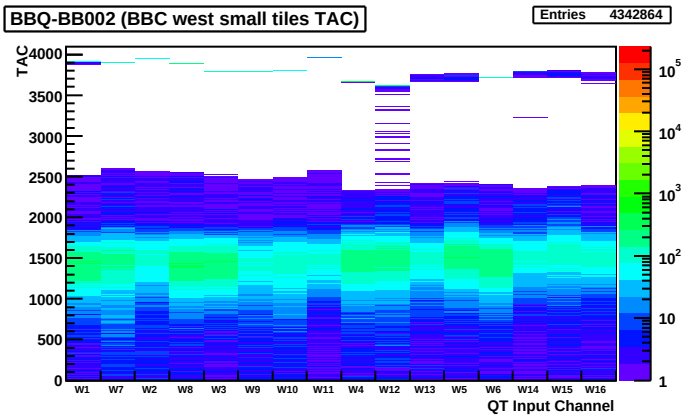

L1-TF201
Entries 271429
TOF total mult

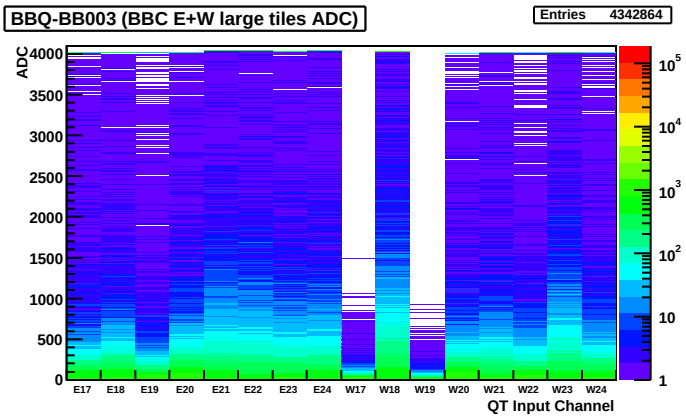

L1-TF201
Entries 1628574
Threshold bits
167692
166497
166837
165664
164552
156967
103737
104932
104592
105765
106877
114462
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

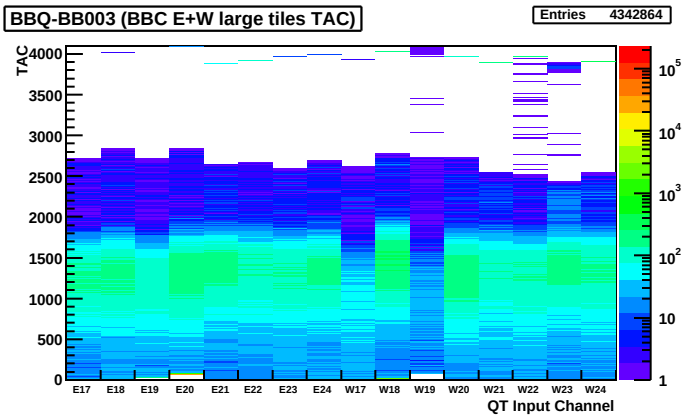

BBQ-BB001 (BBC east small tiles ADC)
Entries 4342864
ADC
QT Input Channel

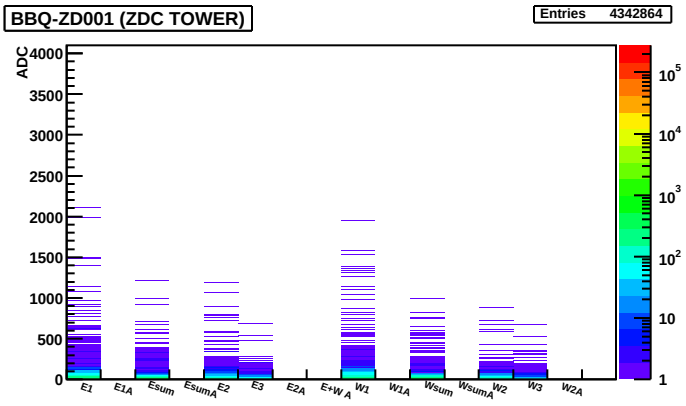

BBQ-BB001 (BBC east small tiles TAC)
Entries 4342864
TAC
QT Input Channel

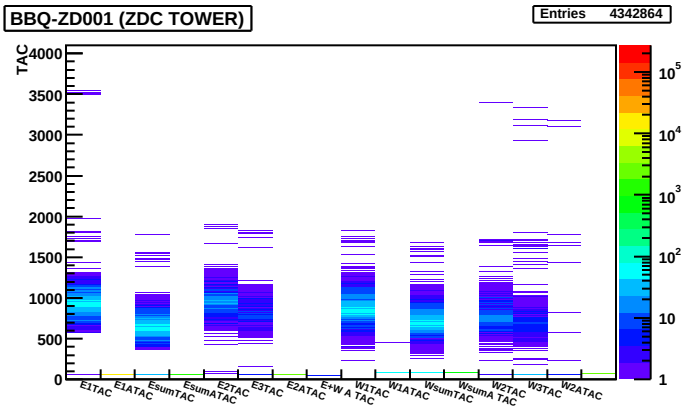

BBQ-BB002 (BBC west small tiles ADC)
Entries 4342864
ADC
QT Input Channel

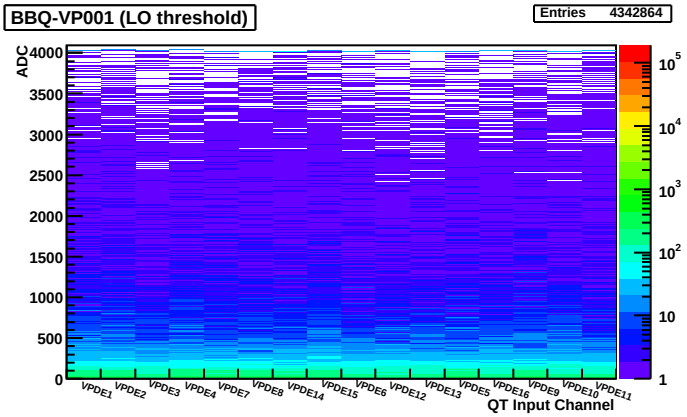

BBQ-BB002 (BBC west small tiles TAC)
Entries 4342864
TAC
QT Input Channel

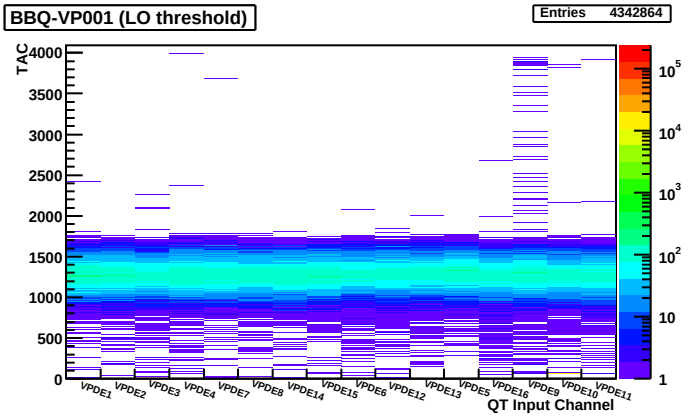

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4342864
ADC
QT Input Channel

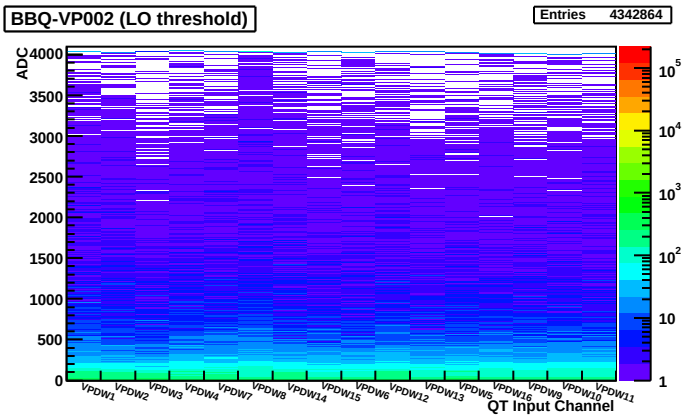

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4342864
TAC
QT Input Channel

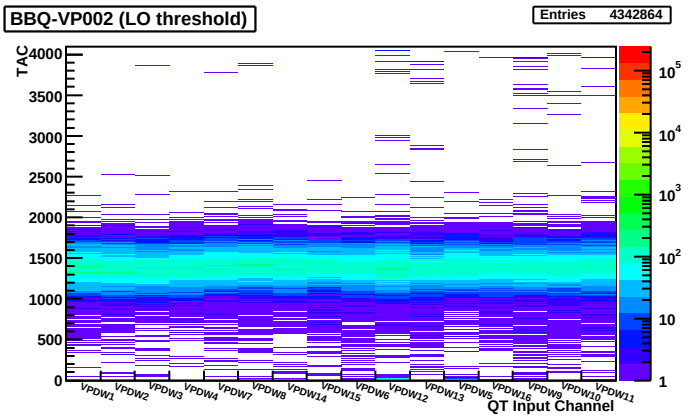

BBQ-ZD001 (ZDC TOWER)
Entries 4342864
ADC

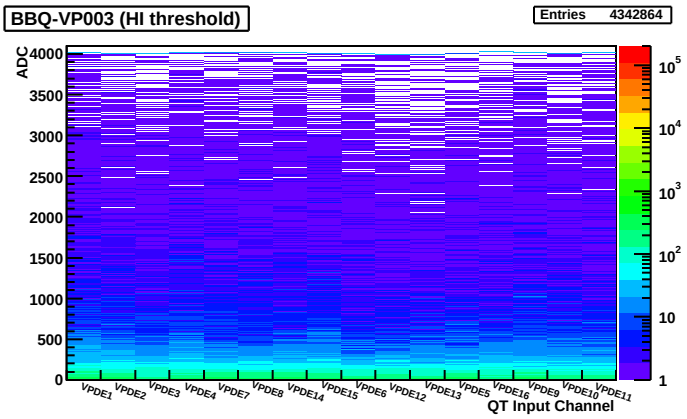

BBQ-ZD001 (ZDC TOWER)
Entries 4342864
TAC

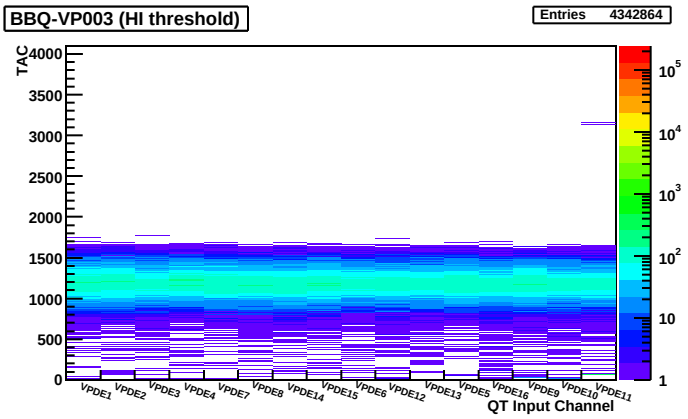

BBQ-VP001 (LO threshold)
Entries 4342864
ADC
QT Input Channel

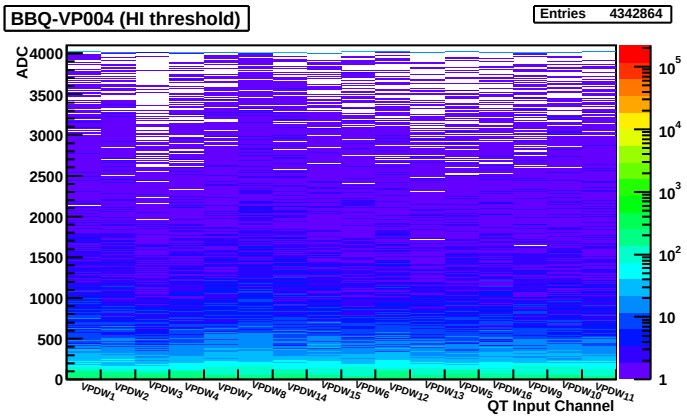

BBQ-VP001 (LO threshold)
Entries 4342864
TAC
QT Input Channel

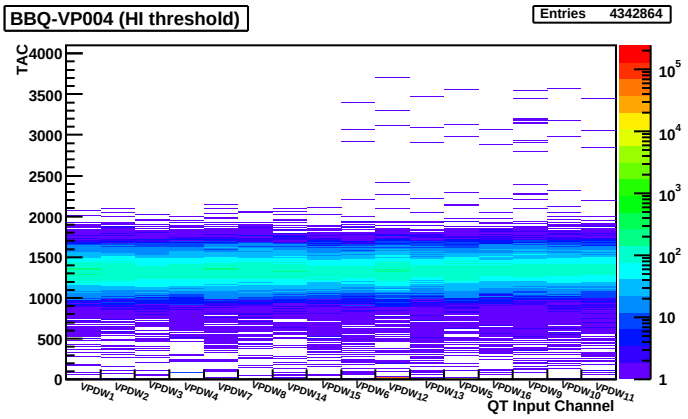

BBQ-VP002 (LO threshold)
Entries 4342864
ADC
QT Input Channel

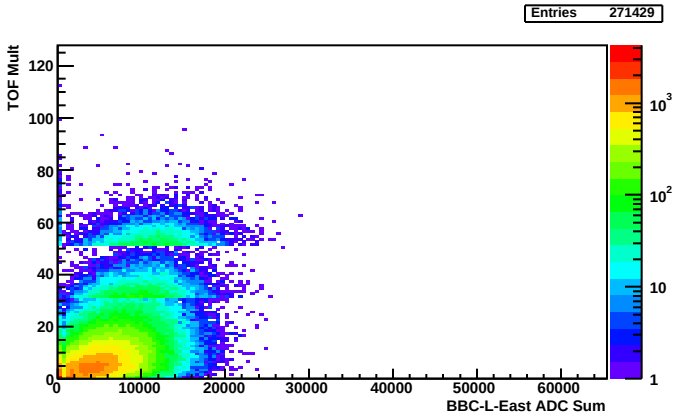

BBQ-VP002 (LO threshold)
Entries 4342864
TAC
QT Input Channel

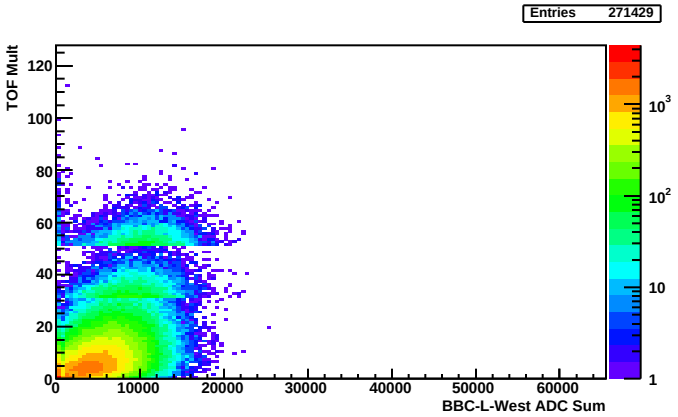

BBQ-VP003 (HI threshold)
Entries 4342864
ADC
QT Input Channel

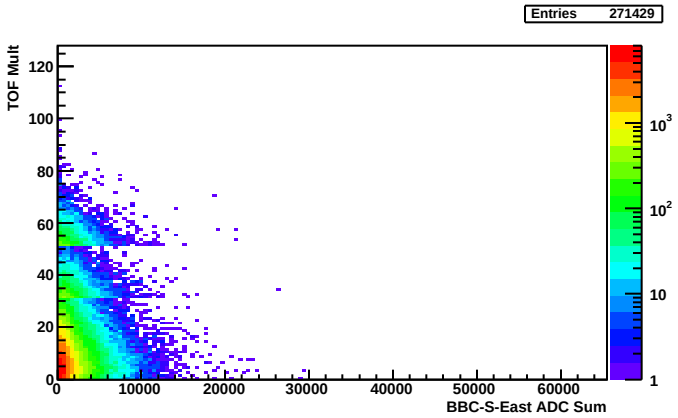

BBQ-VP003 (HI threshold)
Entries 4342864
TAC
QT Input Channel

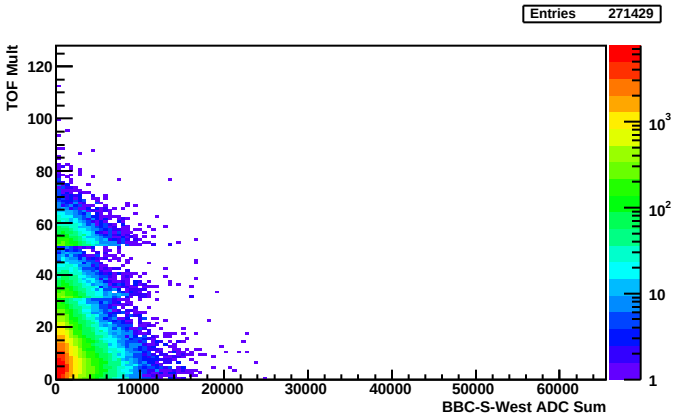

BBQ-VP004 (HI threshold)
Entries 4342864
ADC
QT Input Channel

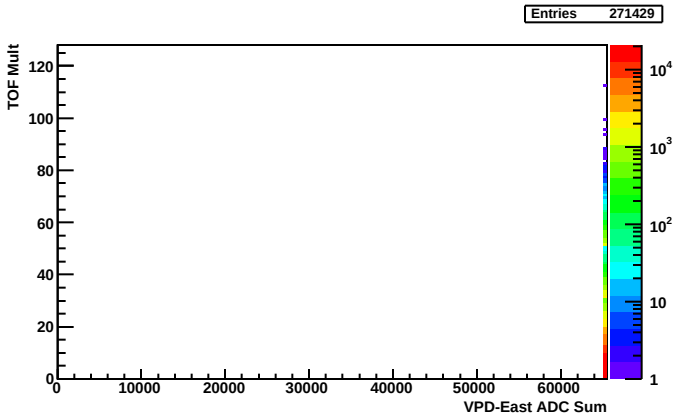

BBQ-VP004 (HI threshold)
Entries 4342864
TAC
QT Input Channel

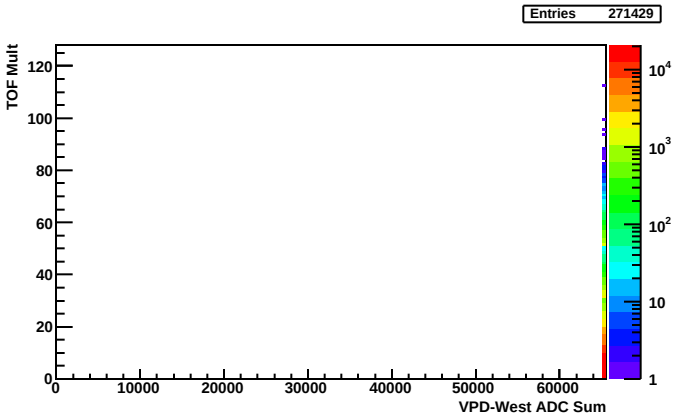

Entries 271429
TOF Mult
BBC-L-East ADC Sum

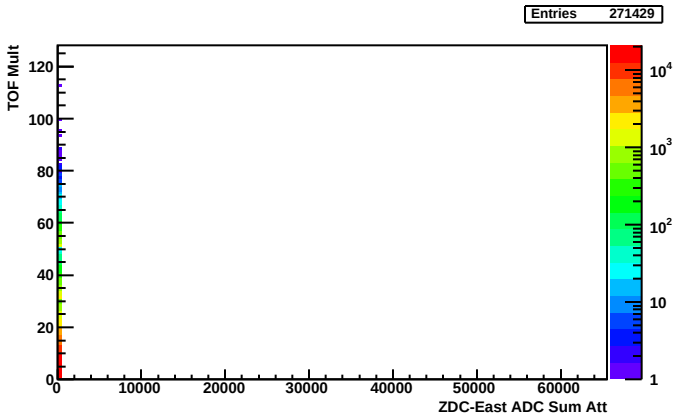

Entries 271429
TOF Mult
BBC-L-West ADC Sum

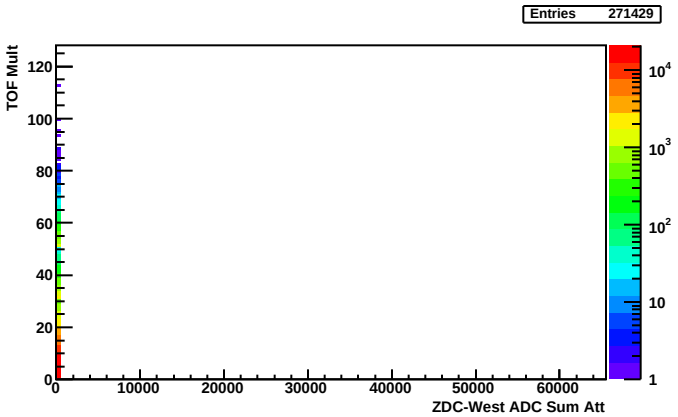

Entries 271429
TOF Mult
BBC-S-East ADC Sum

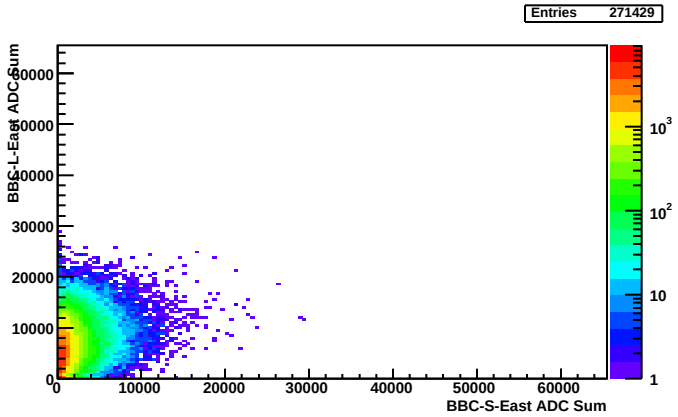

Entries 271429
TOF Mult
BBC-S-West ADC Sum

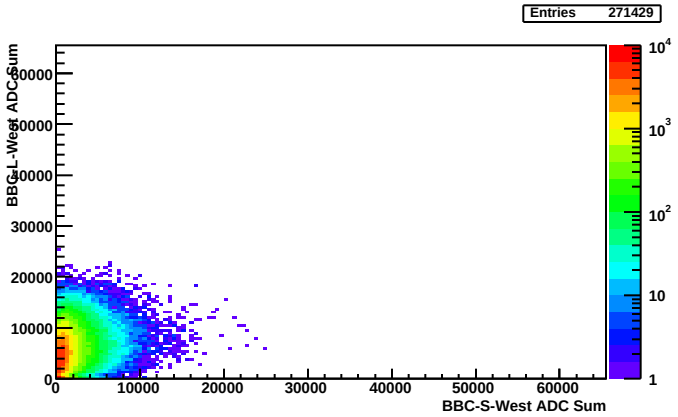

Entries 271429
TOF Mult
VPD-East ADC Sum

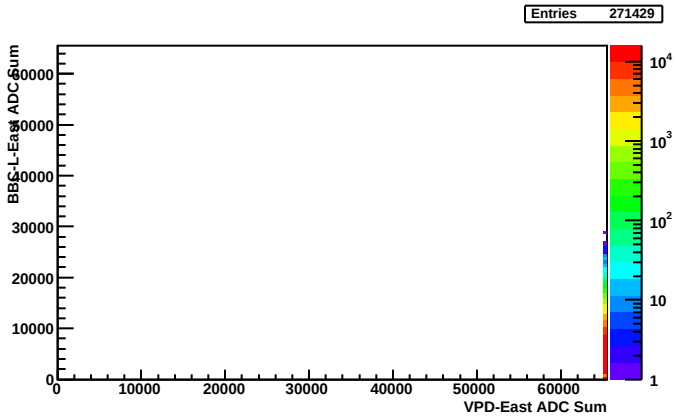

Entries 271429
TOF Mult
VPD-West ADC Sum

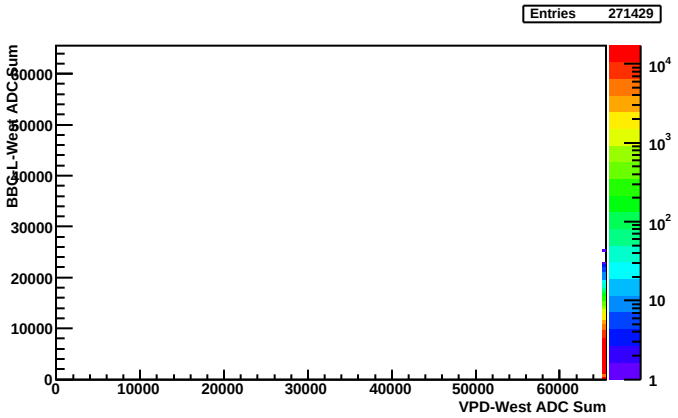

Entries 271429
TOF Mult
ZDC-East ADC Sum Att

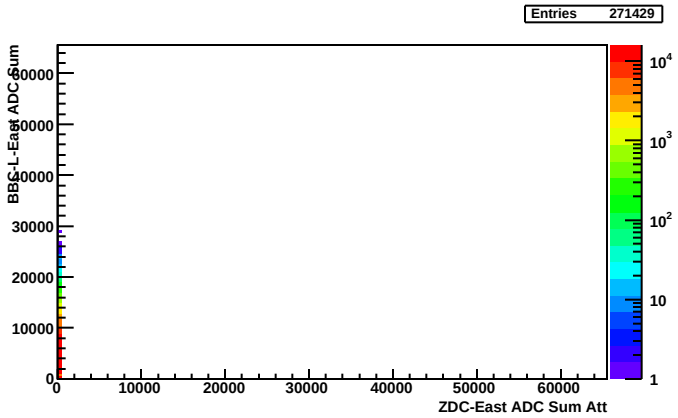

Entries 271429
TOF Mult
ZDC-West ADC Sum Att

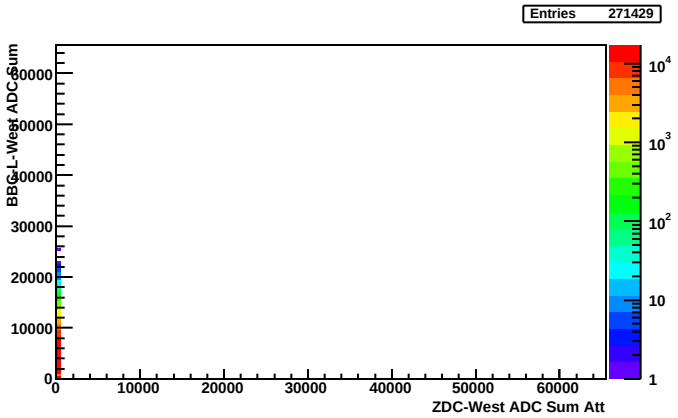

Entries 271429
BBC-L-East ADC Sum
BBC-S-East ADC Sum

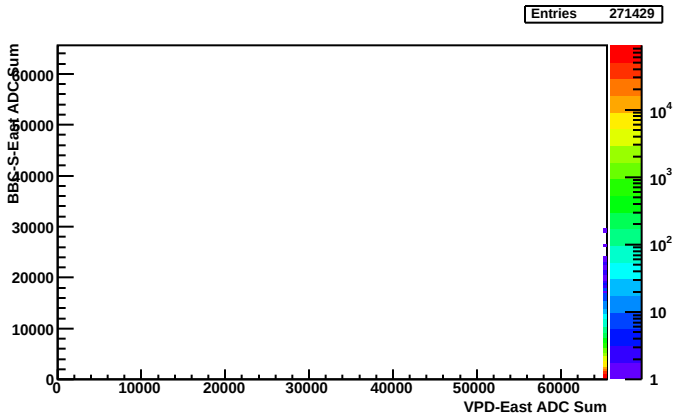

Entries 271429
BBC-L-West ADC Sum
BBC-S-West ADC Sum

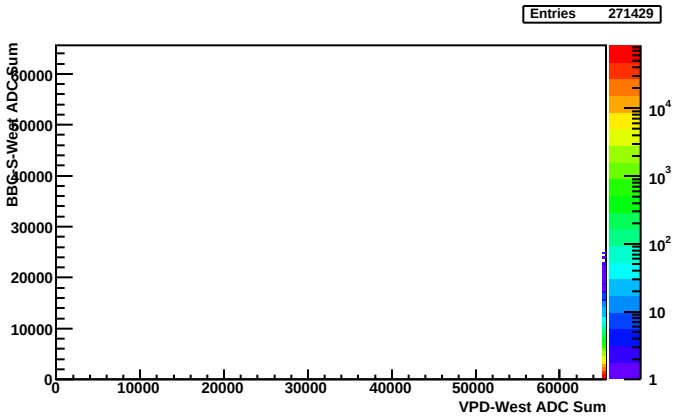

Entries 271429
BBC-L-East ADC Sum
VPD-East ADC Sum

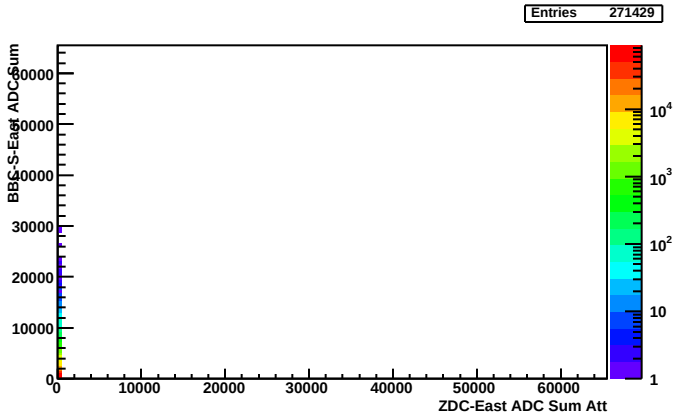

Entries 271429
BBC-L-West ADC Sum
VPD-West ADC Sum

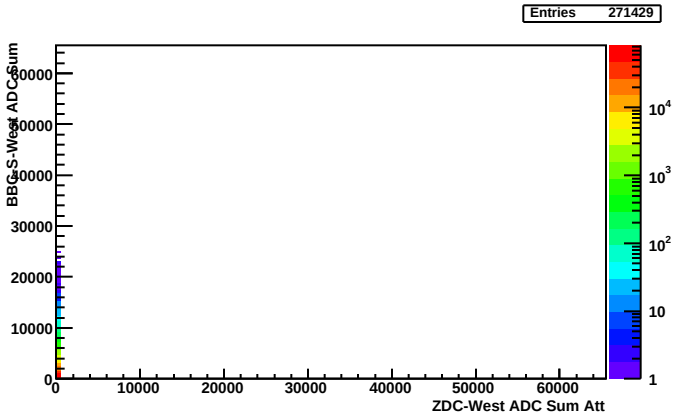

Entries 271429
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

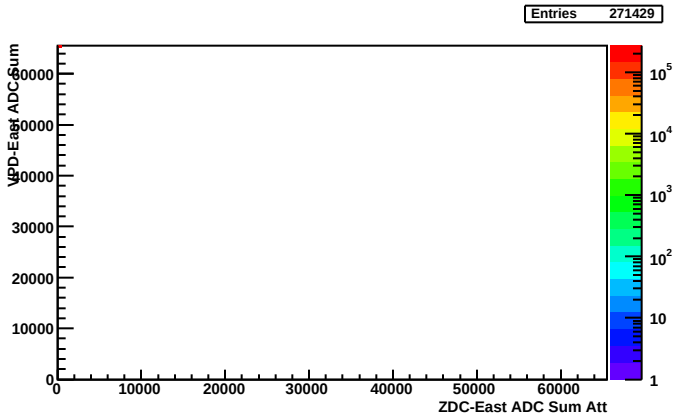

Entries 271429
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

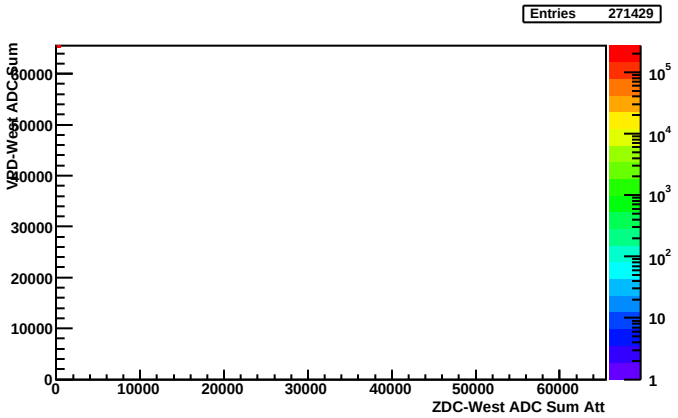

Entries 271429
BBC-S-East ADC Sum
VPD-East ADC Sum

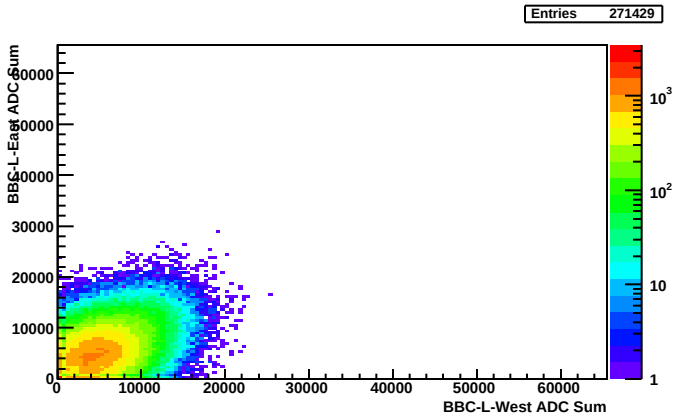

Entries 271429
BBC-S-West ADC Sum
VPD-West ADC Sum

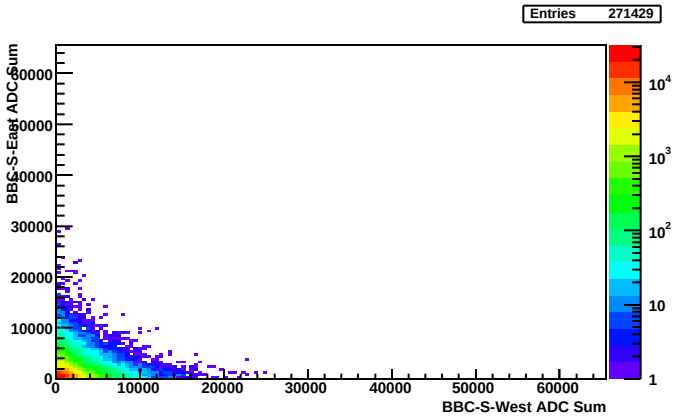

Entries 271429
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

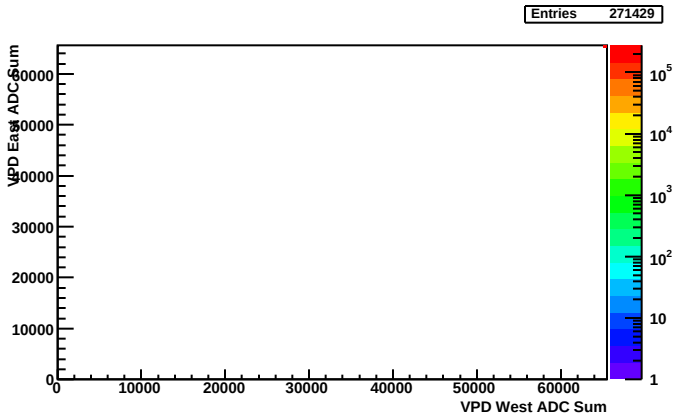

Entries 271429
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

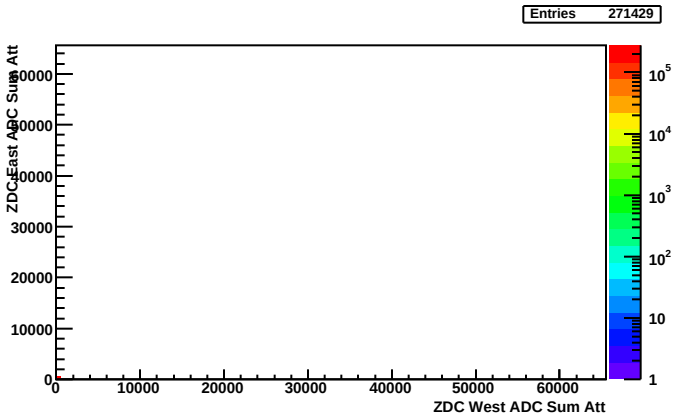

Entries 271429
VPD-East ADC Sum
ZDC-East ADC Sum Att

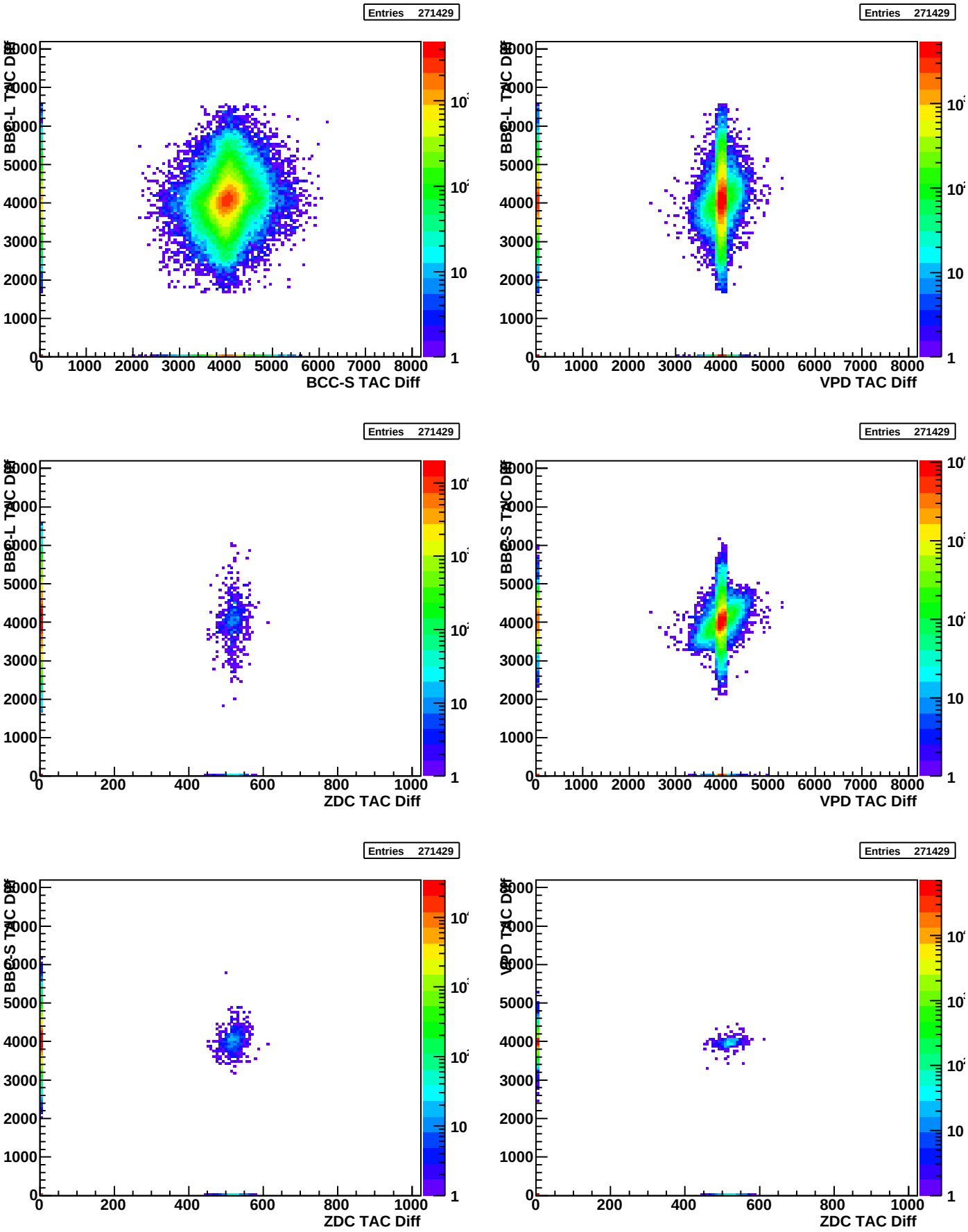

Entries 271429
VPD-West ADC Sum
ZDC-West ADC Sum Att

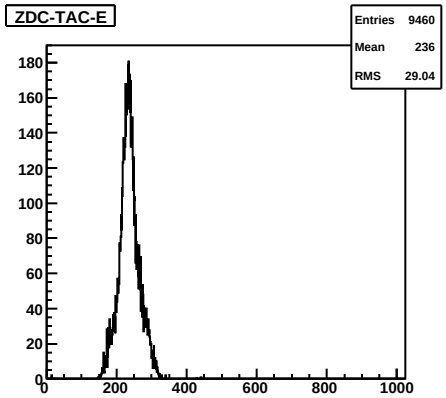

Entries 271429
BBC-L-East ADC Sum
BBC-L-West ADC Sum

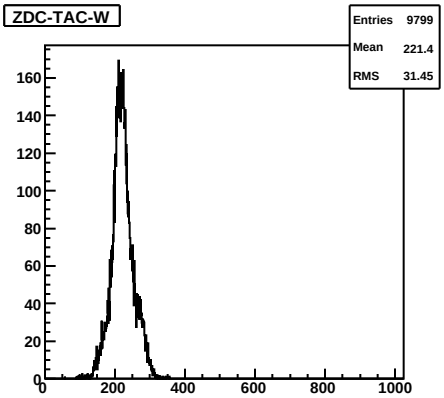

Entries 271429
BBC-S-East ADC Sum
BBC-S-West ADC Sum

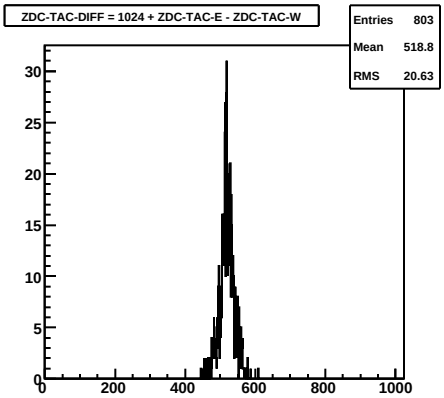

Entries 271429
VPD East ADC Sum
VPD West ADC Sum

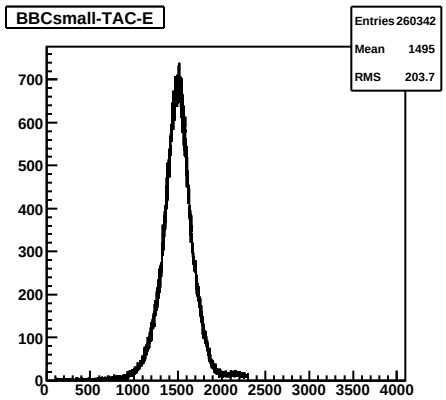

Entries 271429
ZDC East ADC Sum Att
ZDC West ADC Sum Att

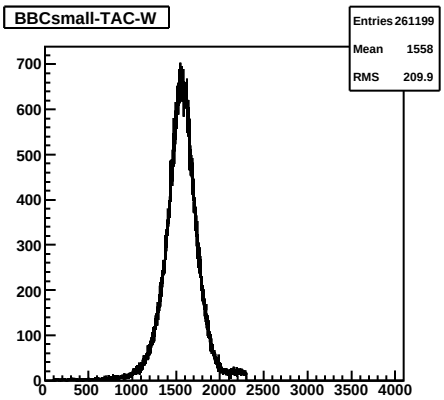

Entries 271429
BBC-L TAC Diff
BCC-S TAC Diff
Entries 271429
BBC-L TAC Diff
VPD TAC Diff
Entries 271429
BBC-L TAC Diff
ZDC TAC Diff
Entries 271429
BBC-S TAC Diff
VPD TAC Diff
Entries 271429
BBC-S TAC Diff
ZDC TAC Diff
Entries 271429
VPD TAC Diff
ZDC TAC Diff

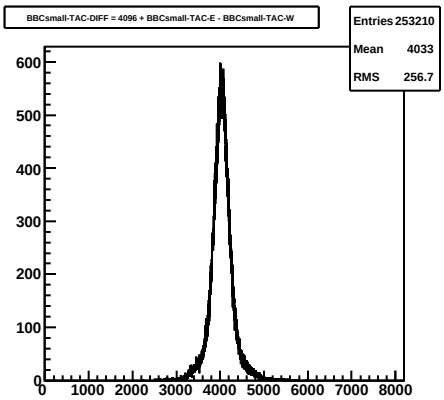

ZDC-TAC-E
Entries 9460
Mean 236
RMS 29.04

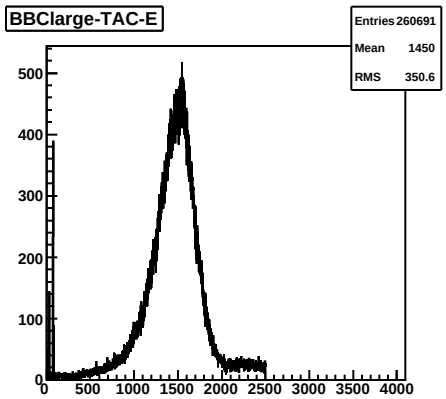

ZDC-TAC-W
Entries 9799
Mean 221.4
RMS 31.45

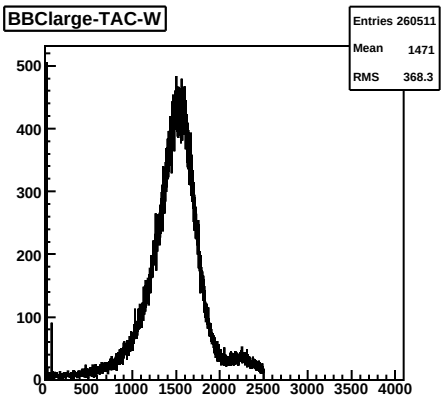

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 803
Mean 518.8
RMS 20.63

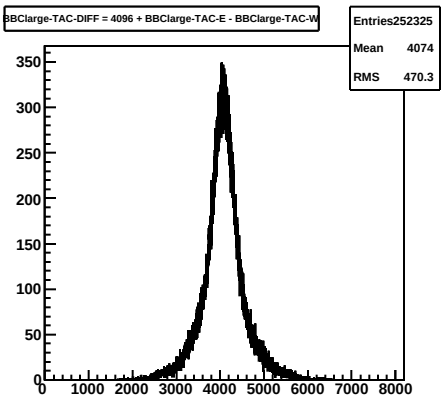

BBCsmall-TAC-E
Entries 260342
Mean 1495
RMS 203.7

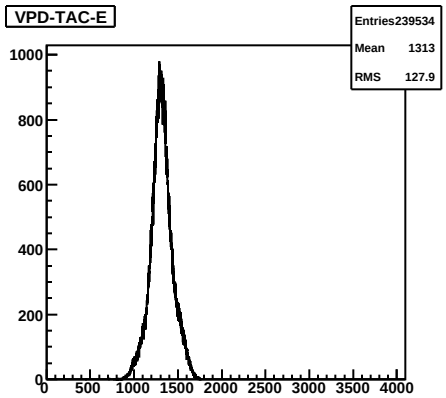

BBCsmall-TAC-W
Entries 261199
Mean 1558
RMS 209.9

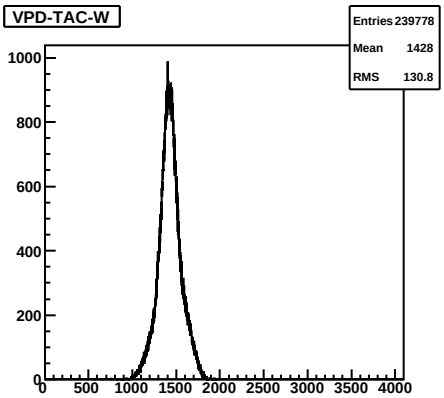

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 253210
Mean 4033
RMS 256.7

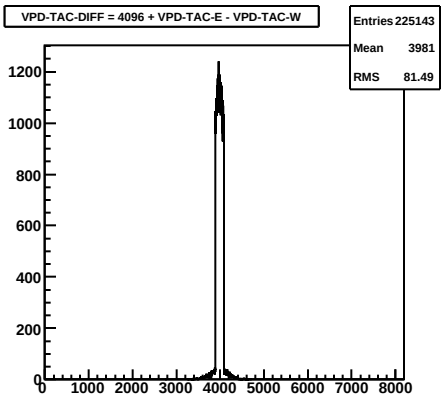

BBClarge-TAC-E
Entries 260691
Mean 1450
RMS 350.6

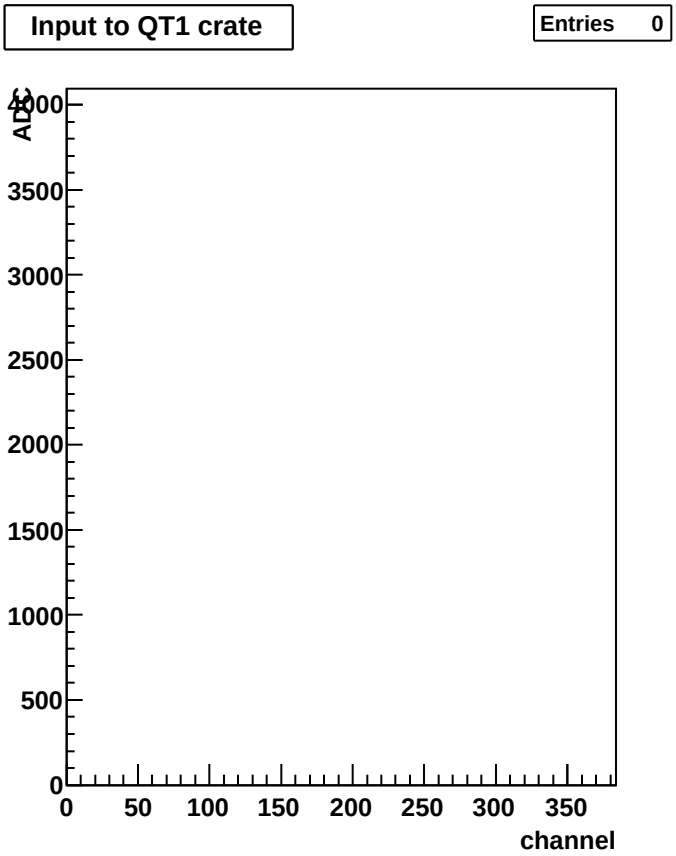

BBClarge-TAC-W
Entries 260511
Mean 1471
RMS 368.3

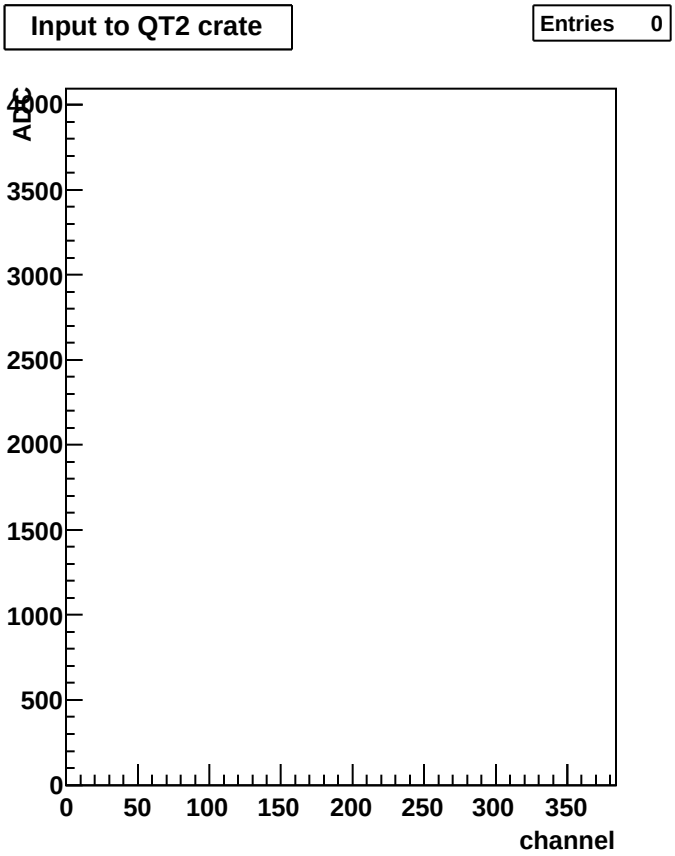

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 252325
Mean 4074
RMS 470.3

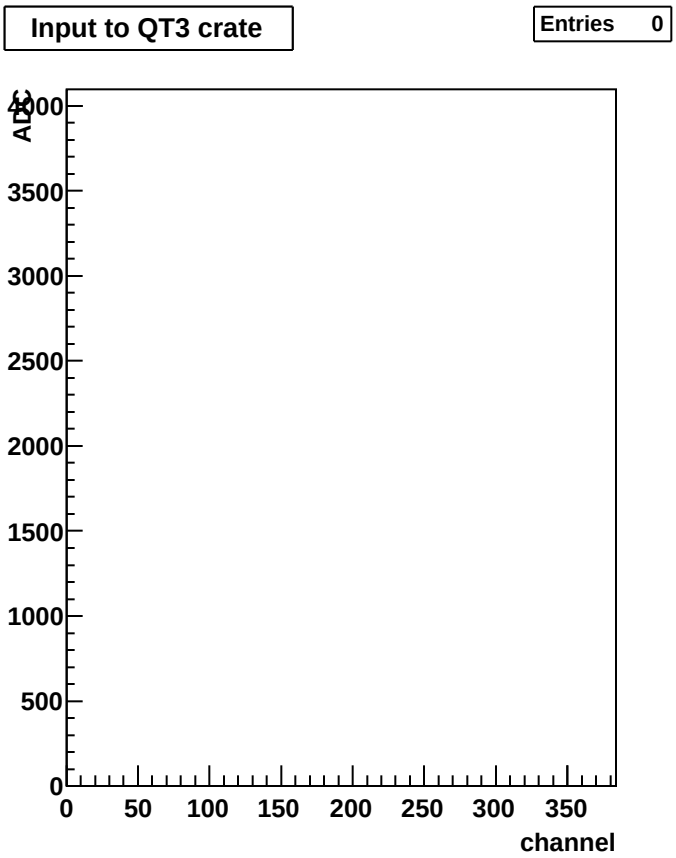

VPD-TAC-E
Entries 239534
Mean 1313
RMS 127.9

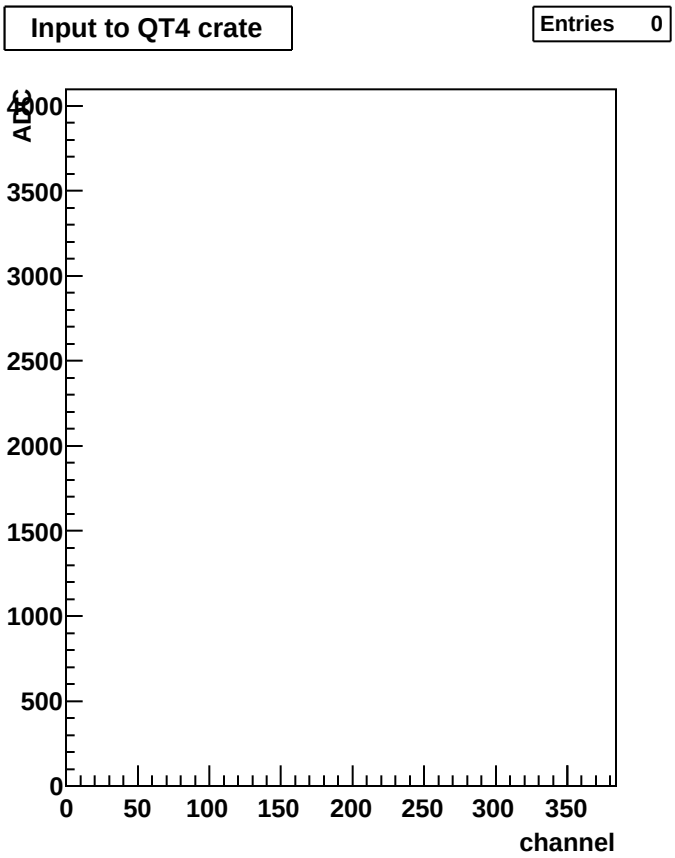

VPD-TAC-W
Entries 239778
Mean 1428
RMS 130.8

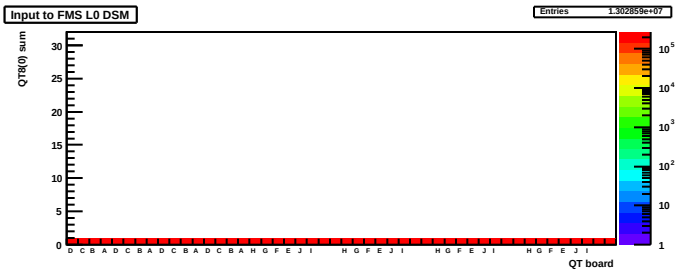

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 225143
Mean 3981
RMS 81.49

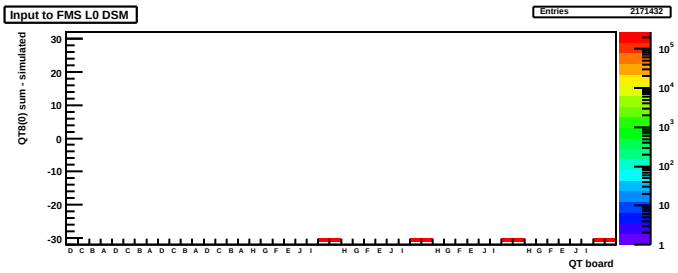

Input to QT1 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

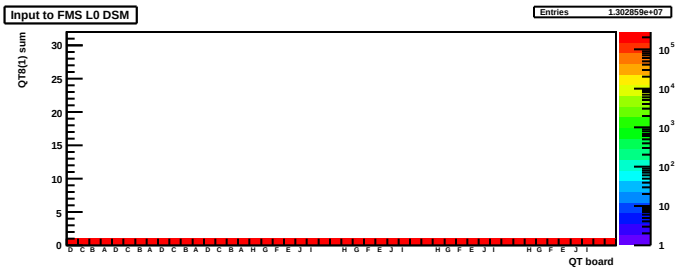

Input to QT2 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

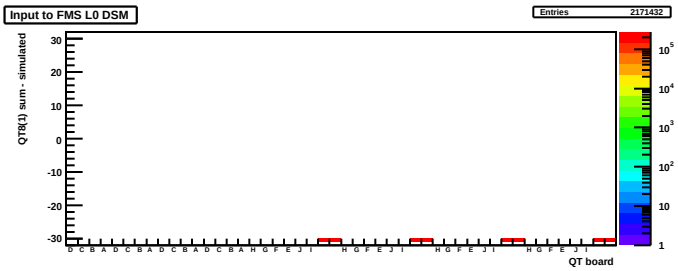

Input to QT3 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

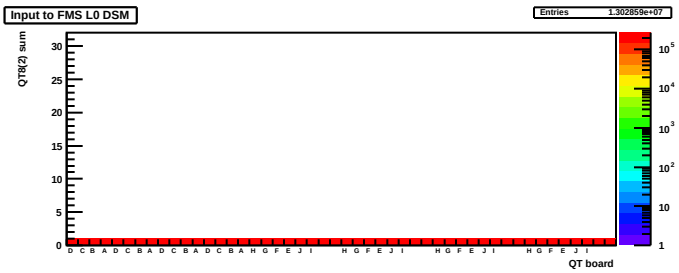

Input to QT4 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

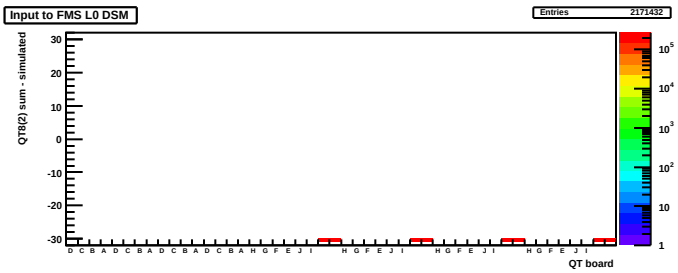

Input to FMS L0 DSM
Entries 1.302859e+07
QT8(0) sum
QT board

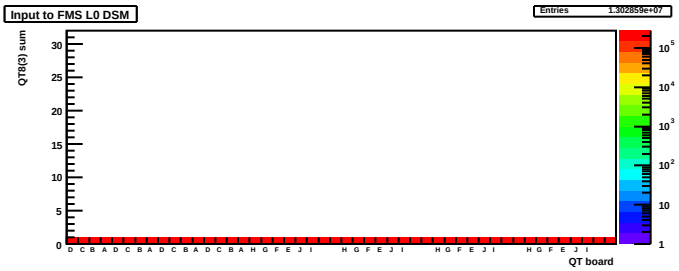

Input to FMS L0 DSM
Entries 2171432
QT8(0) sum - simulated
QT board

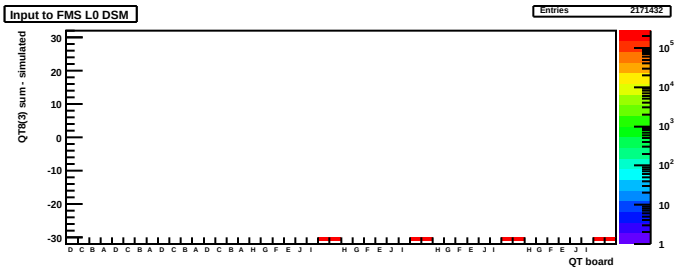

Input to FMS L0 DSM
Entries 1.302859e+07
QT8(1) sum
QT board

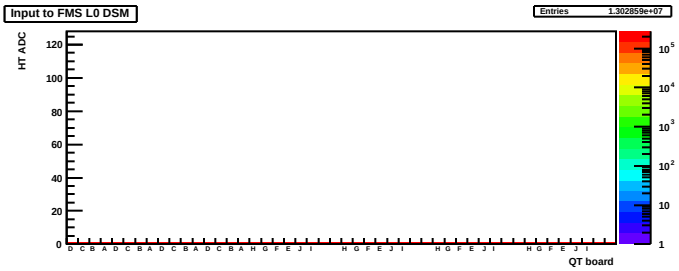

Input to FMS L0 DSM
Entries 2171432
QT8(1) sum - simulated
QT board

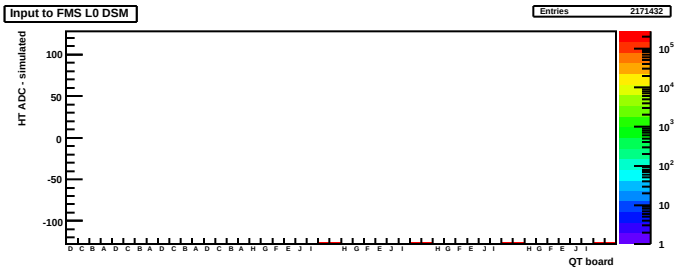

Input to FMS L0 DSM
Entries 1.302859e+07
QT8(2) sum
QT board

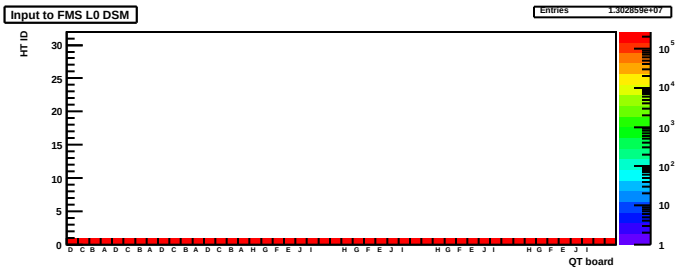

Input to FMS L0 DSM
Entries 2171432
QT8(2) sum - simulated
QT board

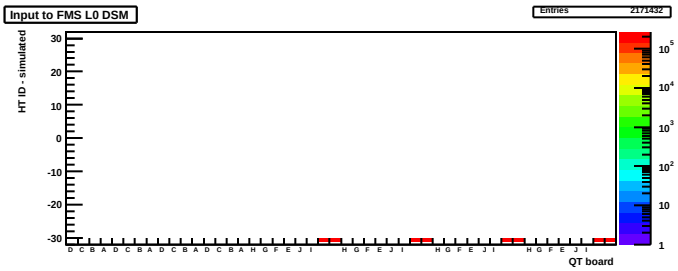

Input to FMS L0 DSM
Entries 1.302859e+07
QT8(3) sum
QT board

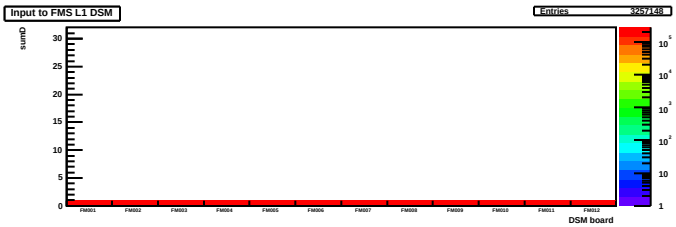

Input to FMS L0 DSM
Entries 2171432
QT8(3) sum - simulated
QT board

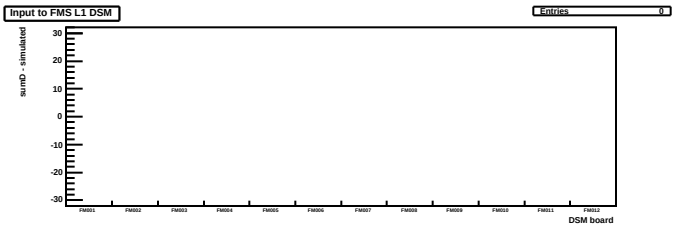

Input to FMS L0 DSM
Entries 1.302859e+07
HT ADC
QT board

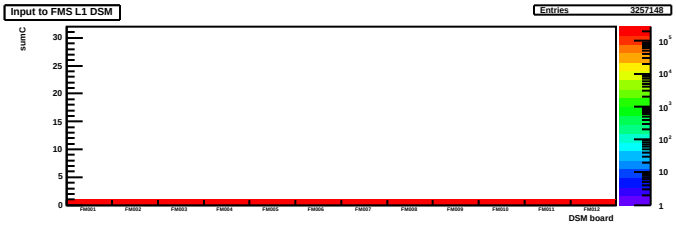

Input to FMS L0 DSM
Entries 2171432
HT ADC - simulated
QT board

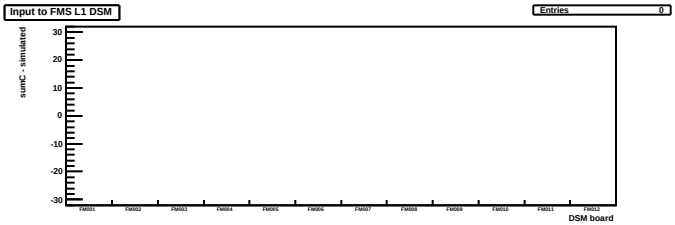

Input to FMS L0 DSM
Entries 1.302859e+07
HT ID
QT board

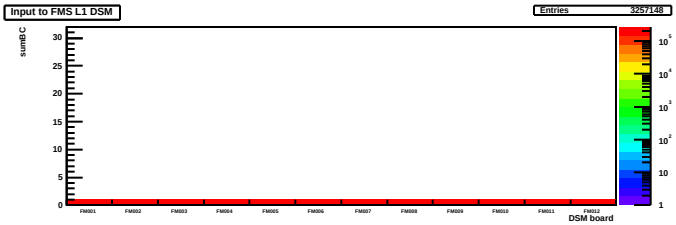

Input to FMS L0 DSM
Entries 2171432
HT ID - simulated
QT board

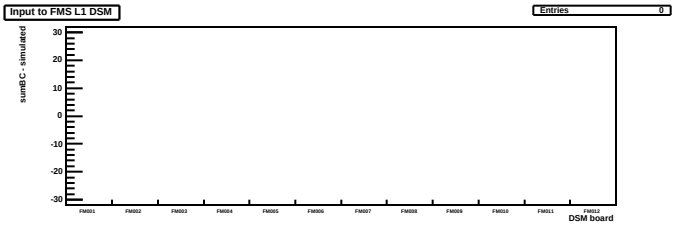

Input to FMS L1 DSM
Entries 3257148
sumD
DSM board

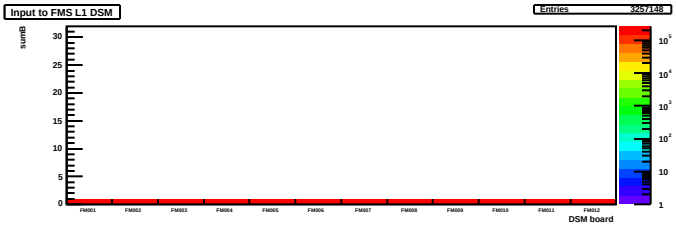

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

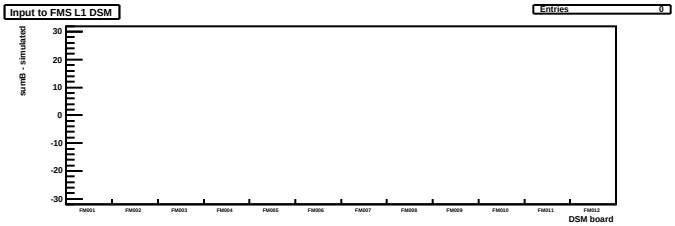

Input to FMS L1 DSM
Entries 3257148
sumC
DSM board

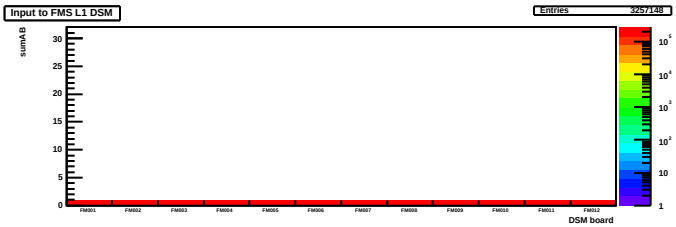

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

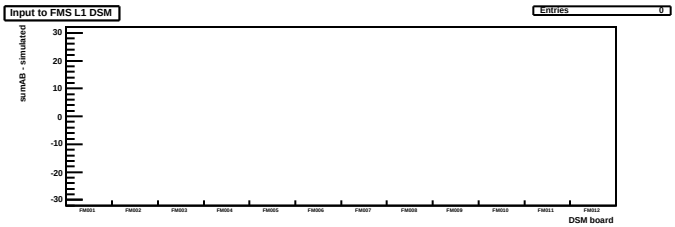

Input to FMS L1 DSM
Entries 3257148
sumBC
DSM board

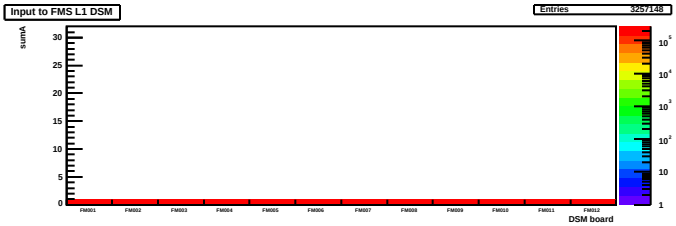

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

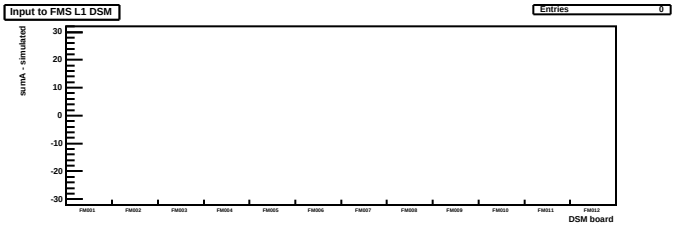

Input to FMS L1 DSM
Entries 3257148
sumB
DSM board

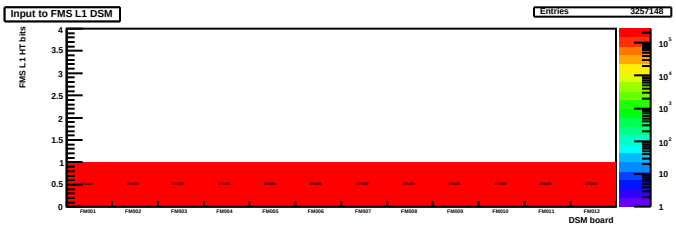

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

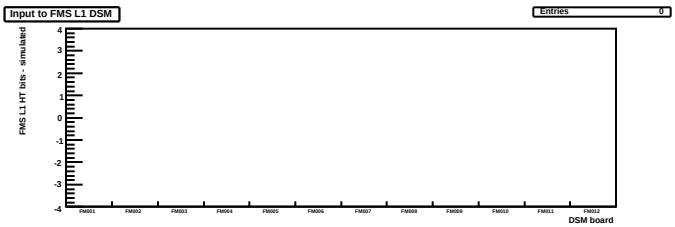

Input to FMS L1 DSM
Entries 3257148
sumAB
DSM board

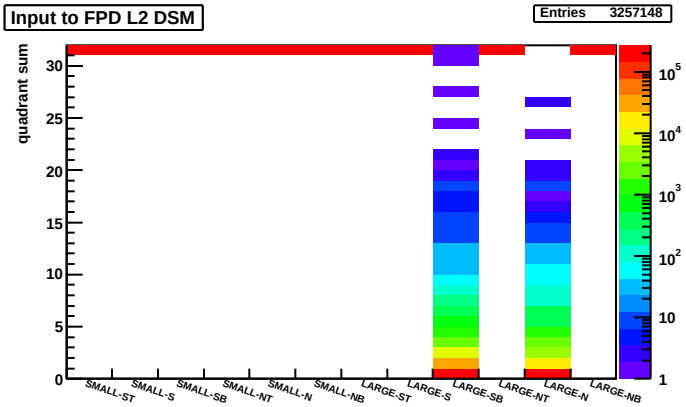

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

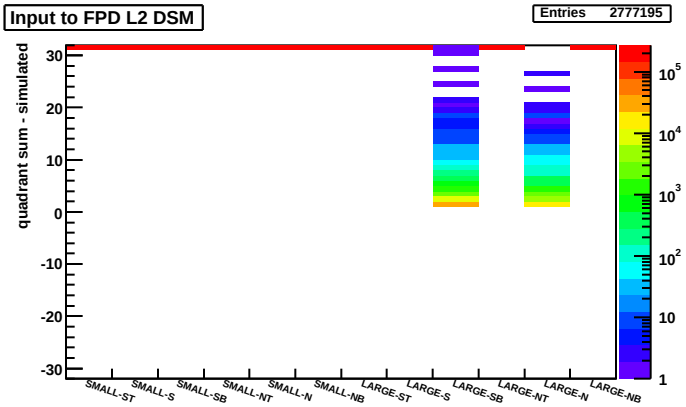

Input to FMS L1 DSM
Entries 3257148
sumA
DSM board

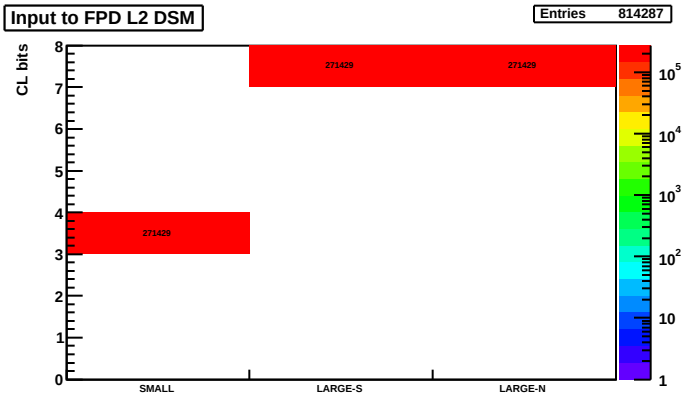

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

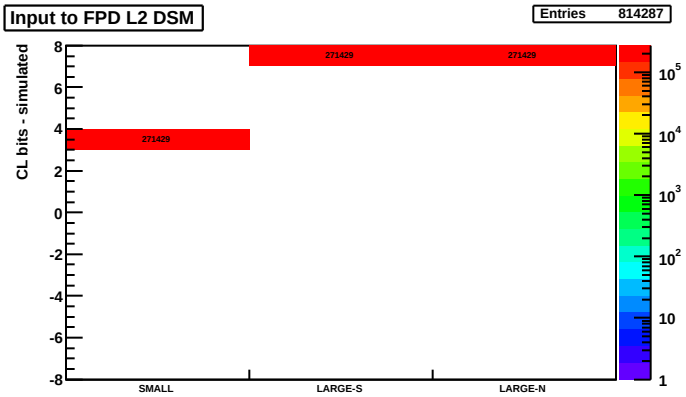

Input to FMS L1 DSM
Entries 3257148
FMS L1 HT bits
DSM board

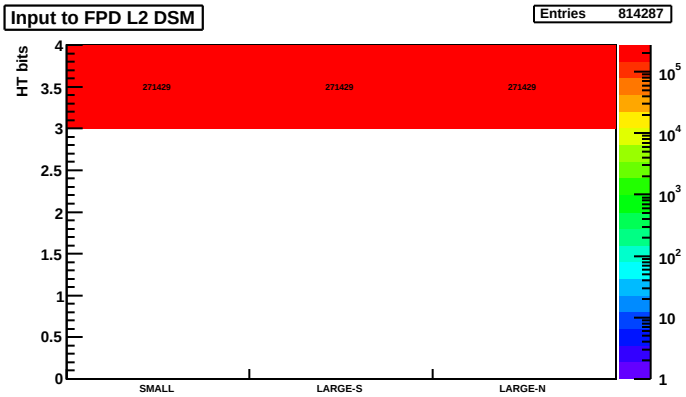

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

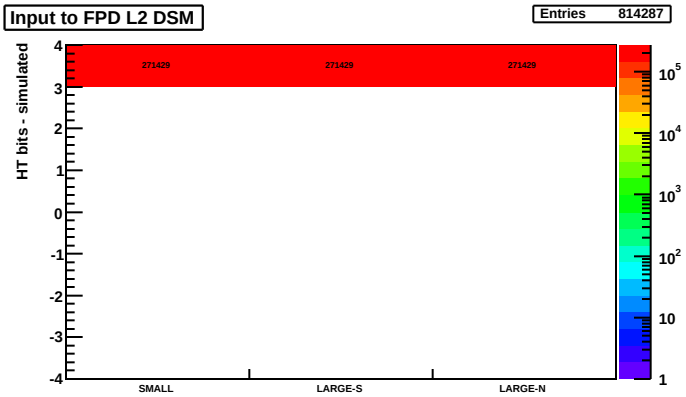

Input to FPD L2 DSM
Entries 3257148
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

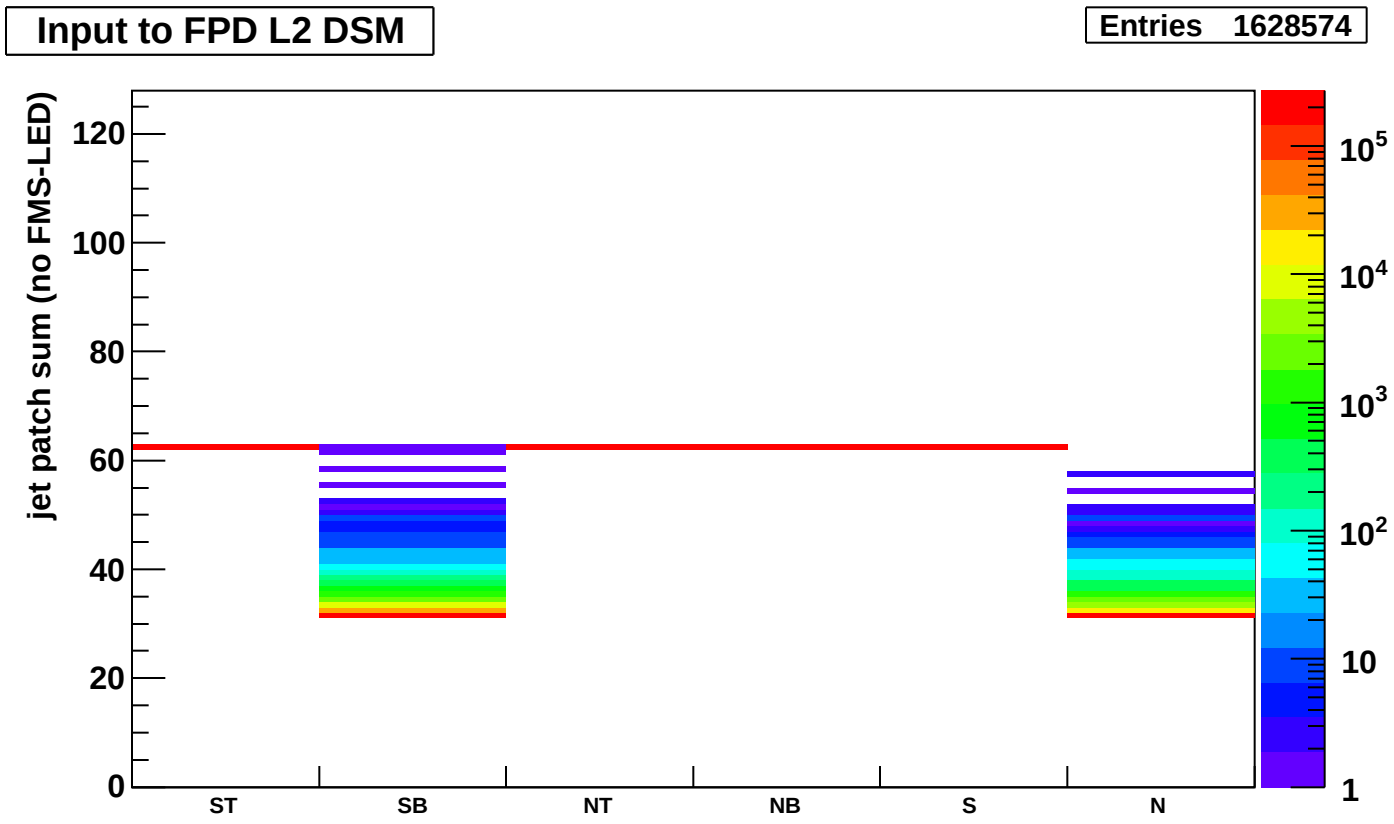

Input to FPD L2 DSM
Entries 2777195
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

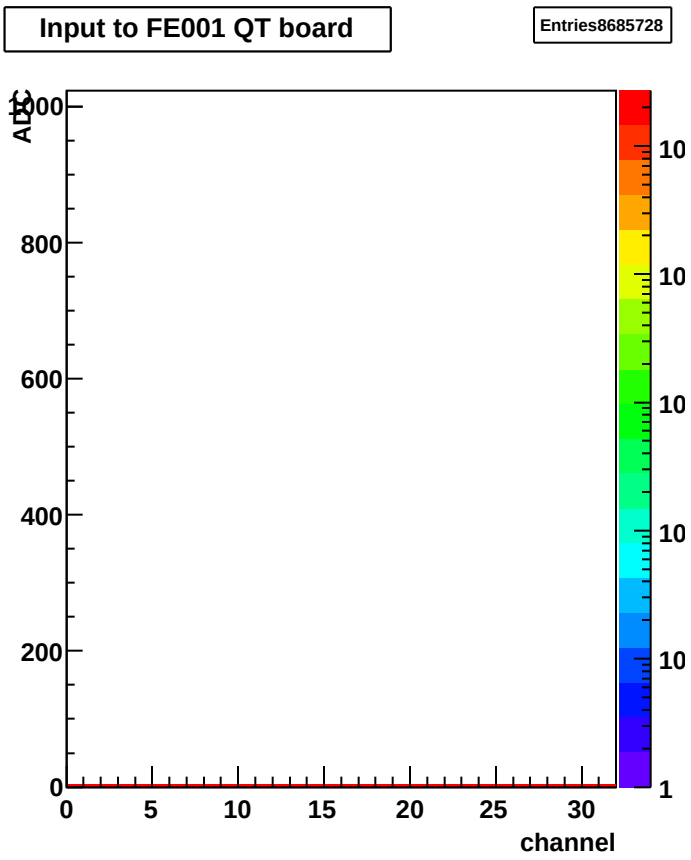

Input to FPD L2 DSM
Entries 814287
CL bits
271429
271429
271429
SMALL
LARGE-S
LARGE-N

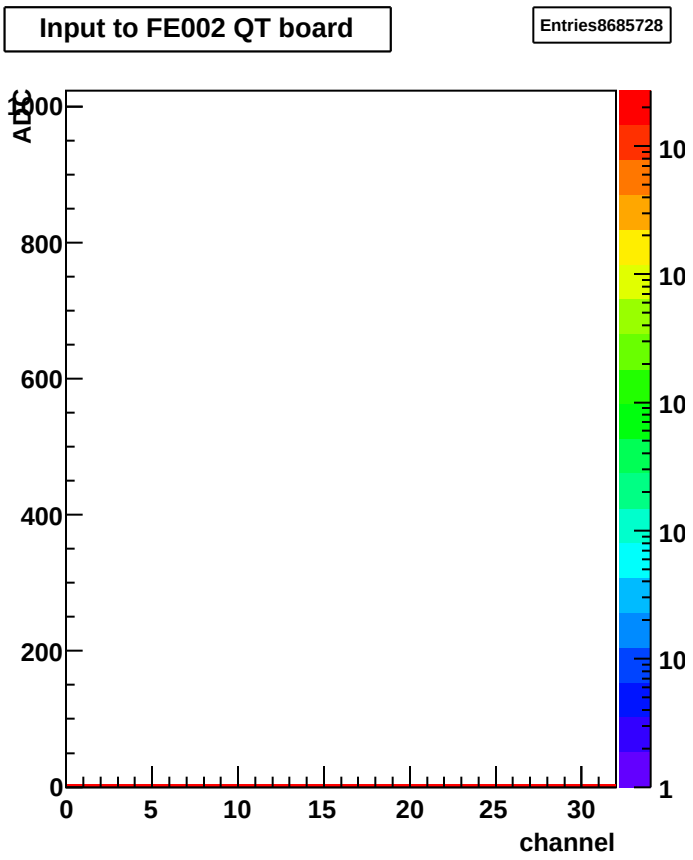

Input to FPD L2 DSM
Entries 814287
CL bits - simulated
271429
271429
271429
SMALL
LARGE-S
LARGE-N

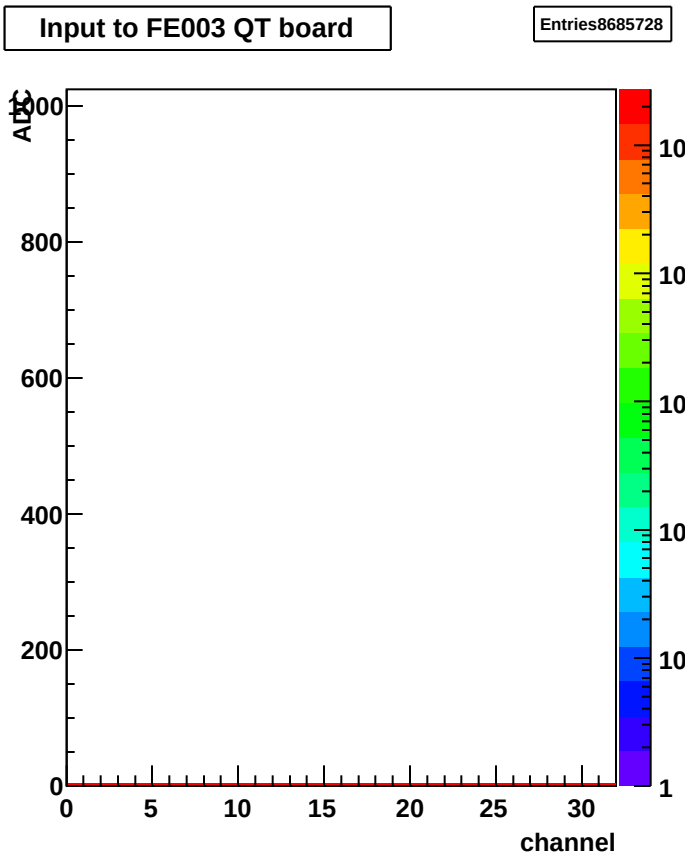

Input to FPD L2 DSM
Entries 814287
HT bits
271429
271429
271429
SMALL
LARGE-S
LARGE-N

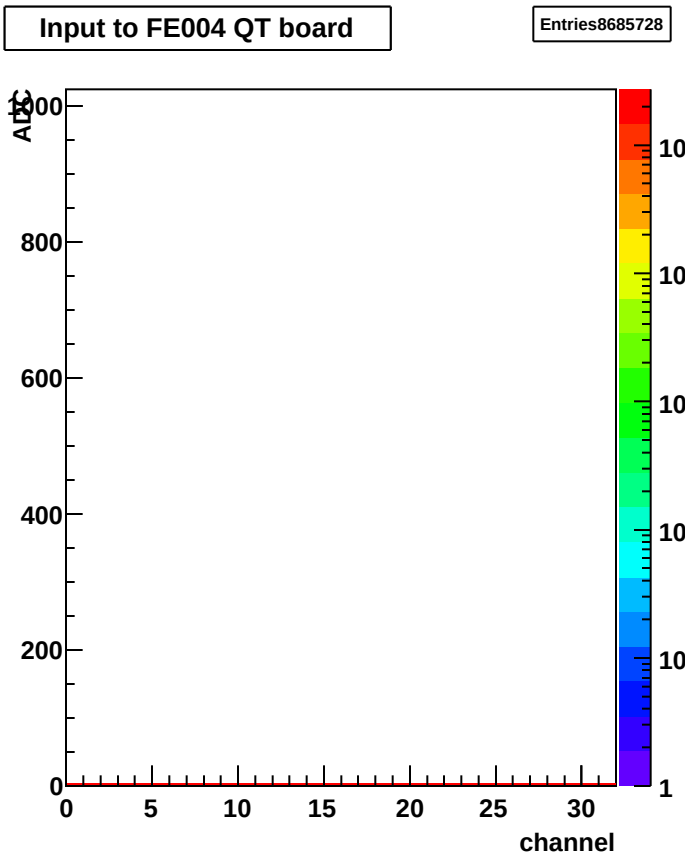

Input to FPD L2 DSM
Entries 814287
HT bits - simulated
271429
271429
271429
SMALL
LARGE-S
LARGE-N

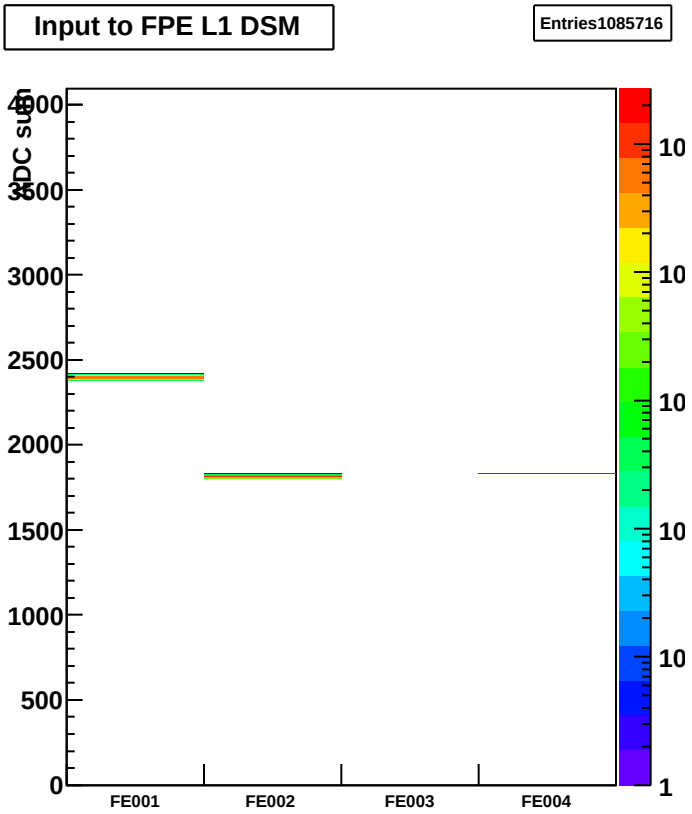

Input to FPD L2 DSM
Entries 1628574
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5


Input to FE001 QT board
Entries8685728
ADC
channel

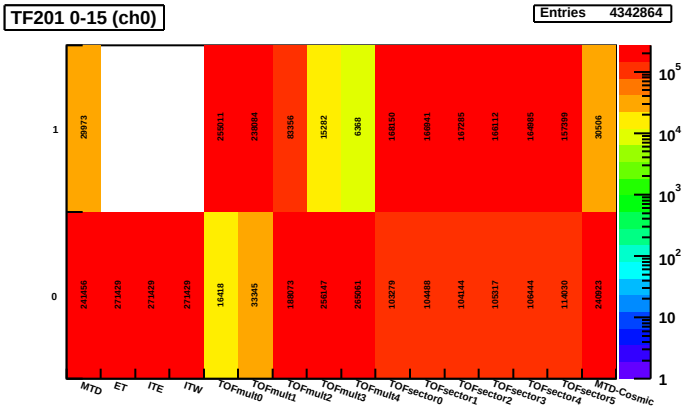

Input to FE002 QT board
Entries8685728
ADC
channel


Input to FE003 QT board
Entries8685728
ADC
channel

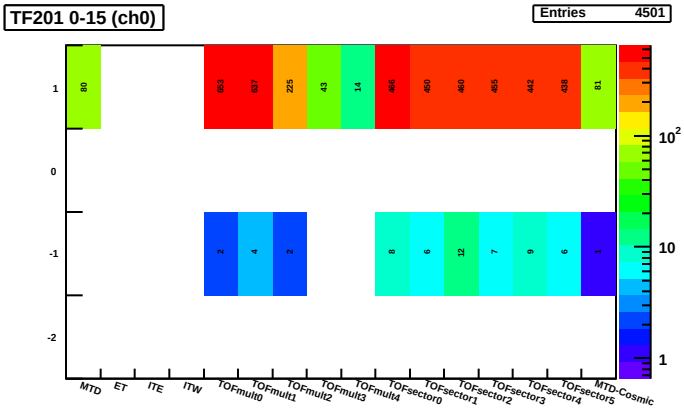

Input to FE004 QT board
Entries8685728
ADC
channel


Input to FPE L1 DSM
Entries1085716
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

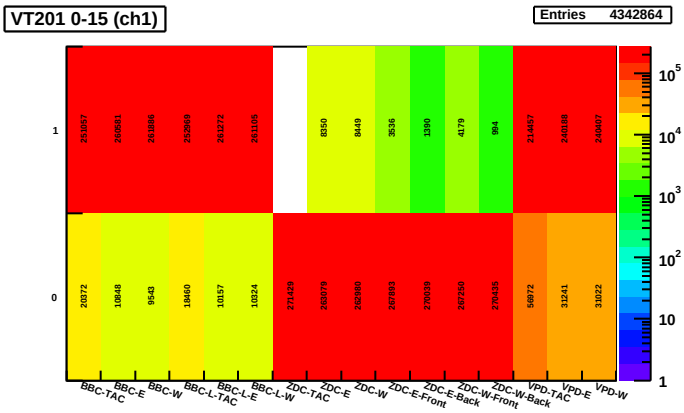
TF201 0-15 (ch0)



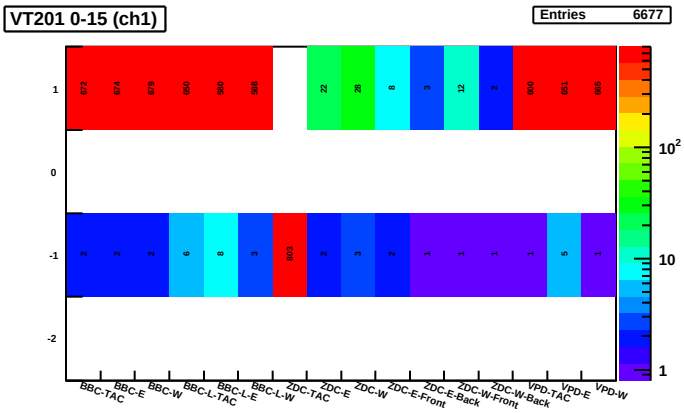
TF201 0-15 (ch0)



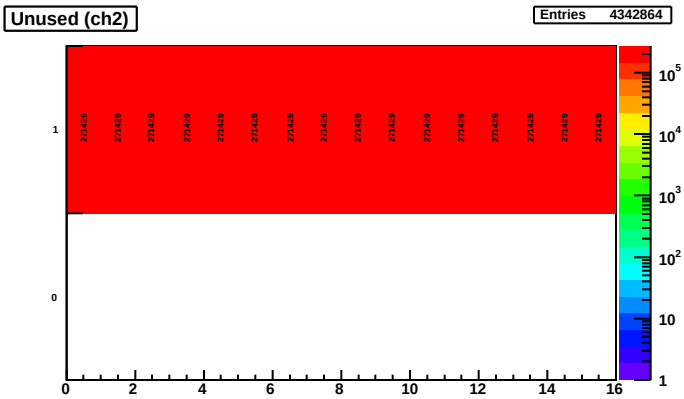
VT201 0-15 (ch1)

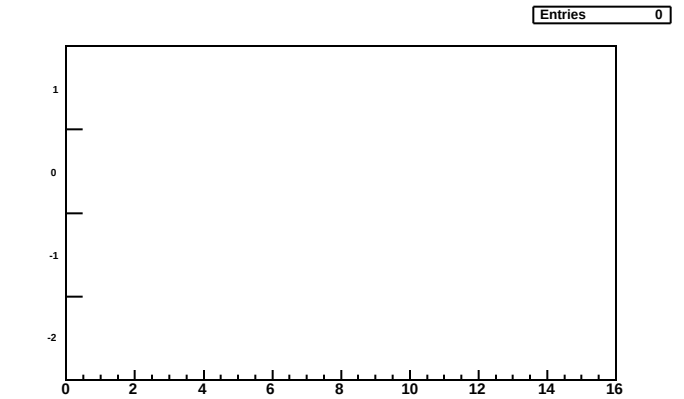


VT201 0-15 (ch1)

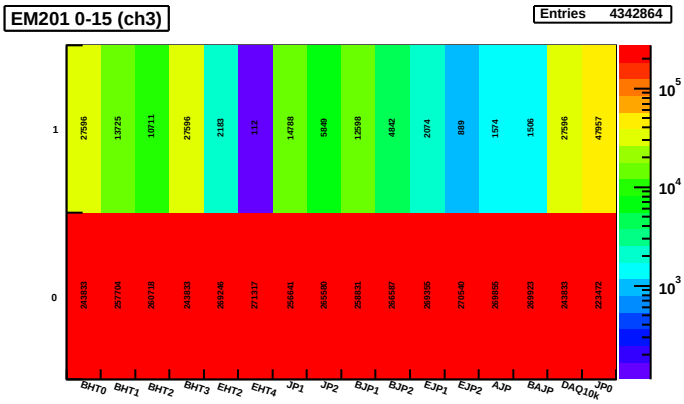


Unused (ch2)





EM201 0-15 (ch3)



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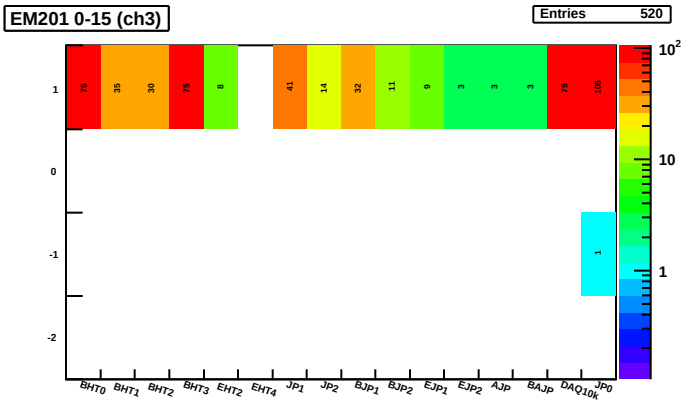
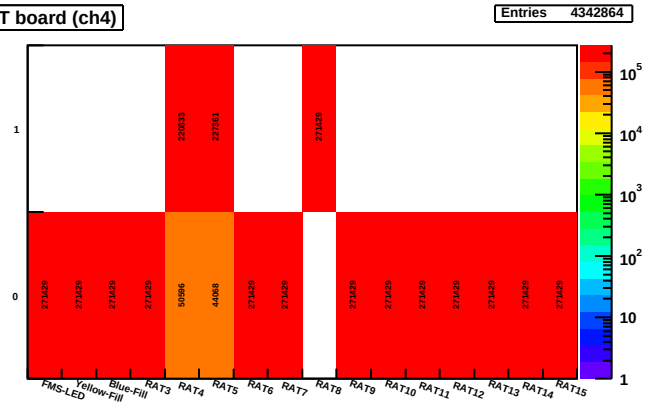
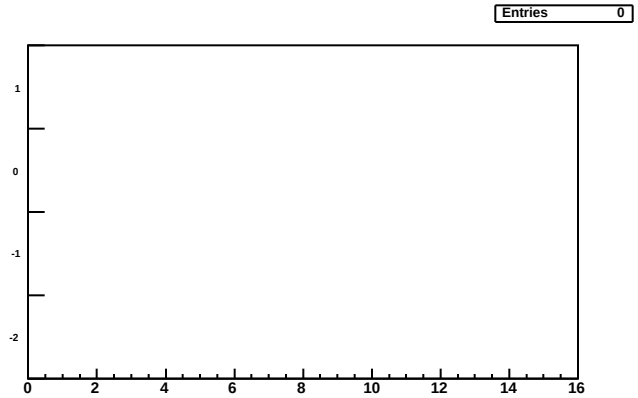
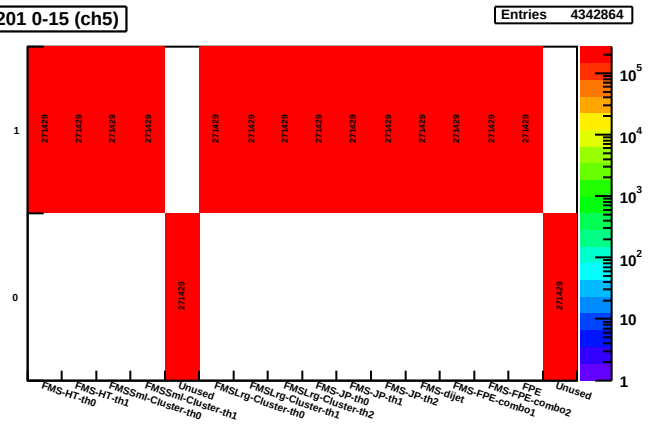


RAT board (ch4)

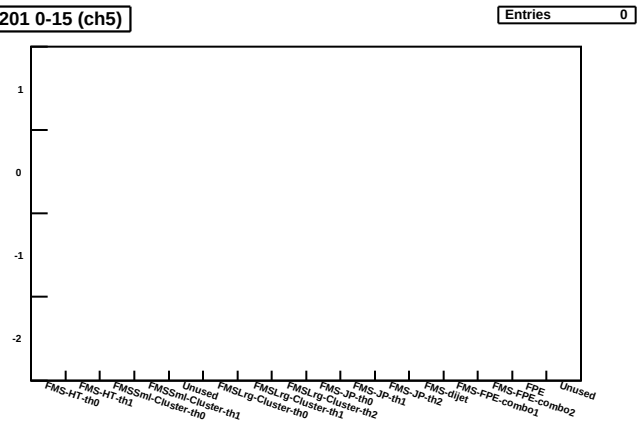




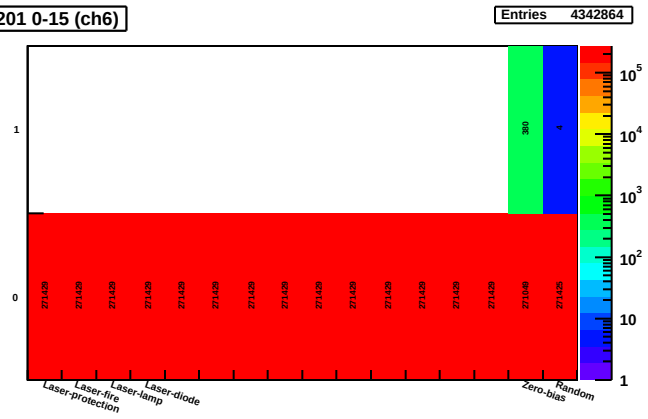
FP201 0-15 (ch5)

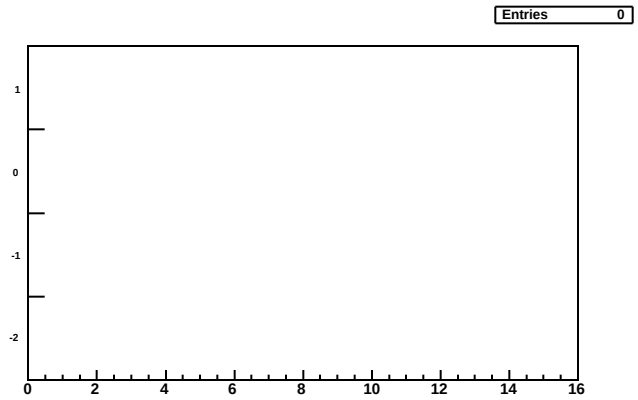
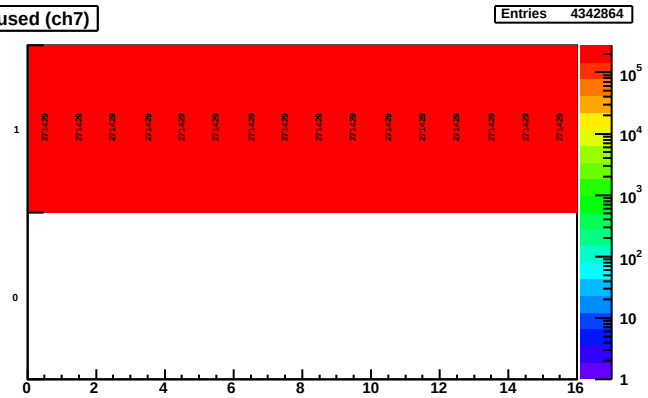
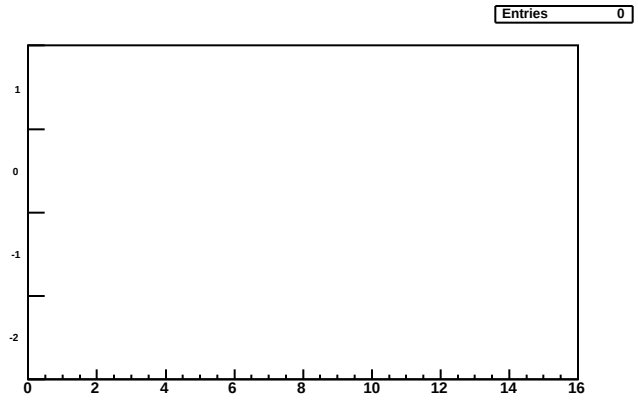


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)