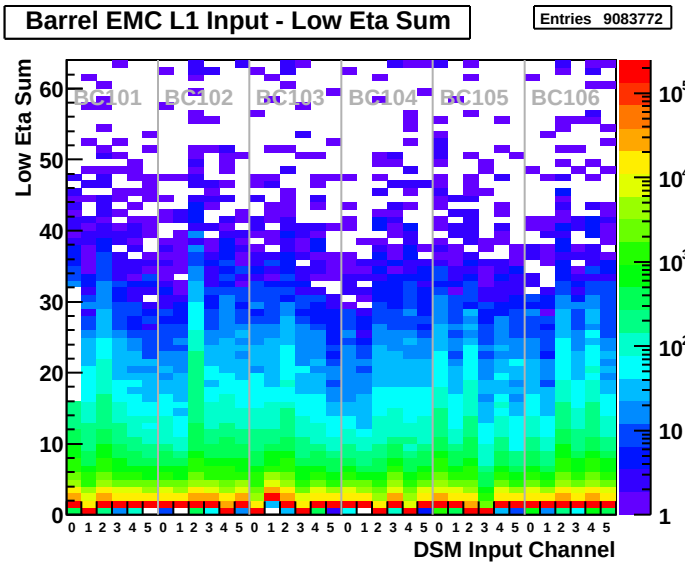
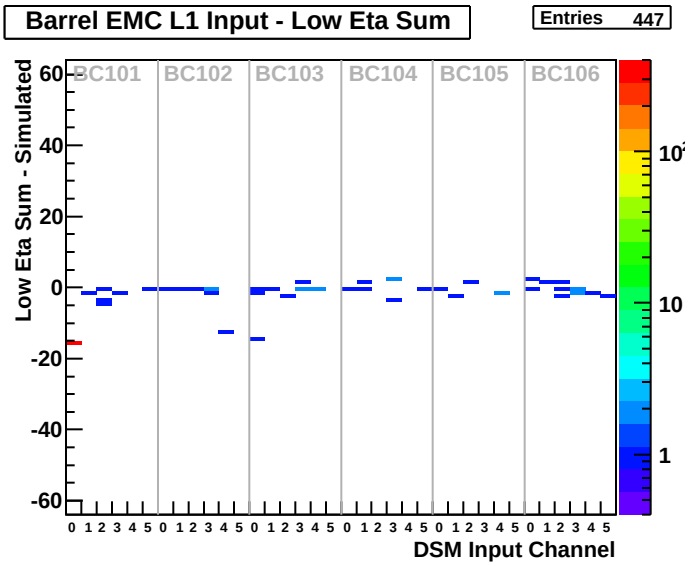
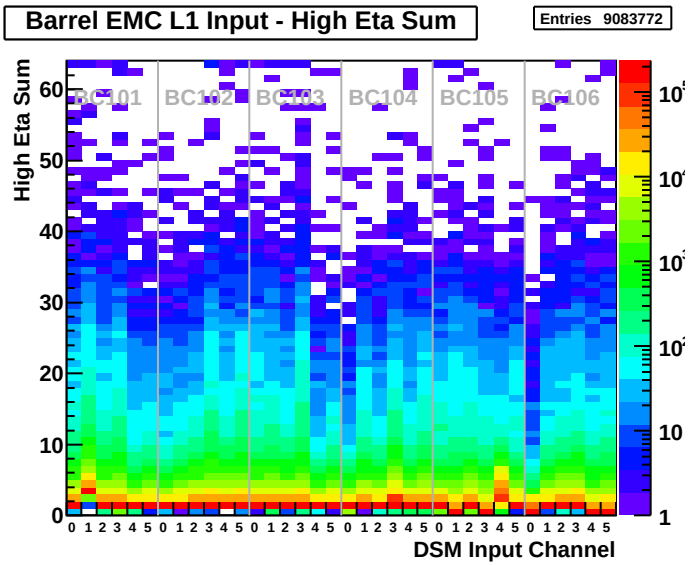
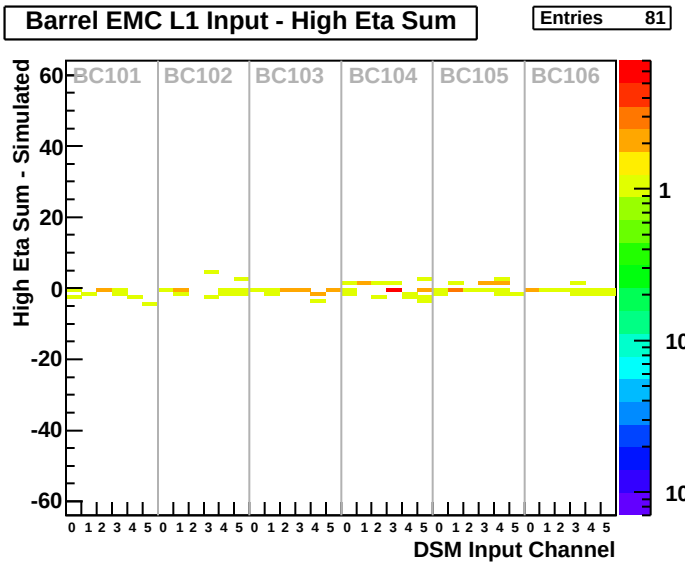
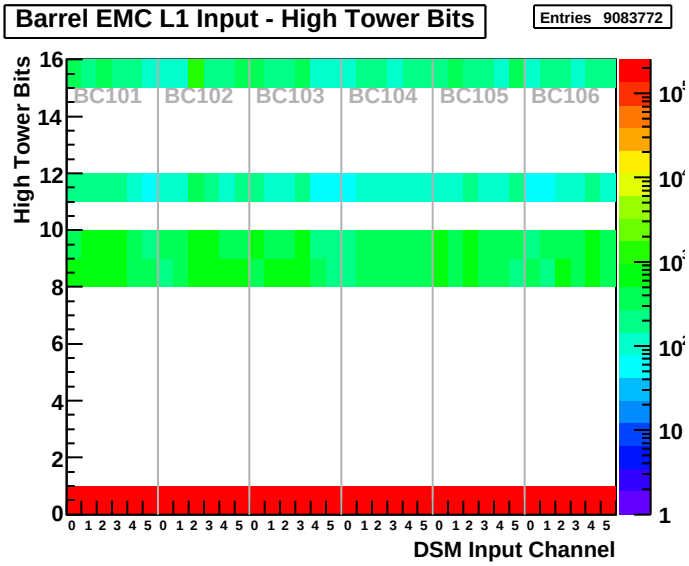
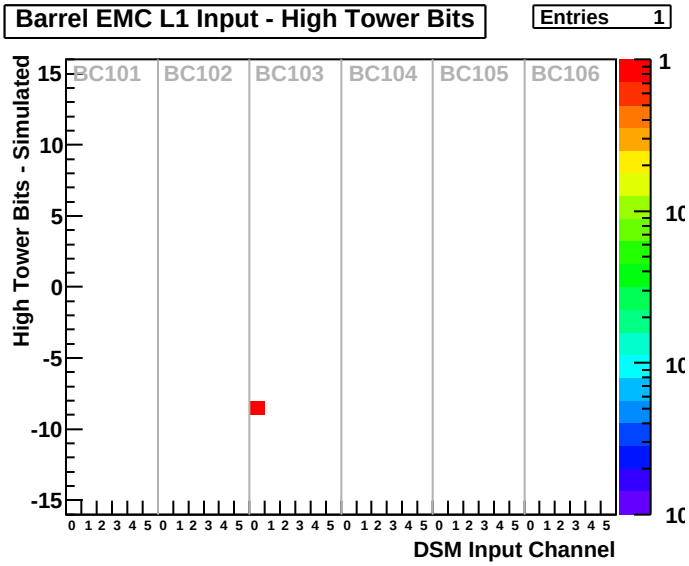

Barrel EMC L1 Input - Low Eta Sum
Entries 9083772
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

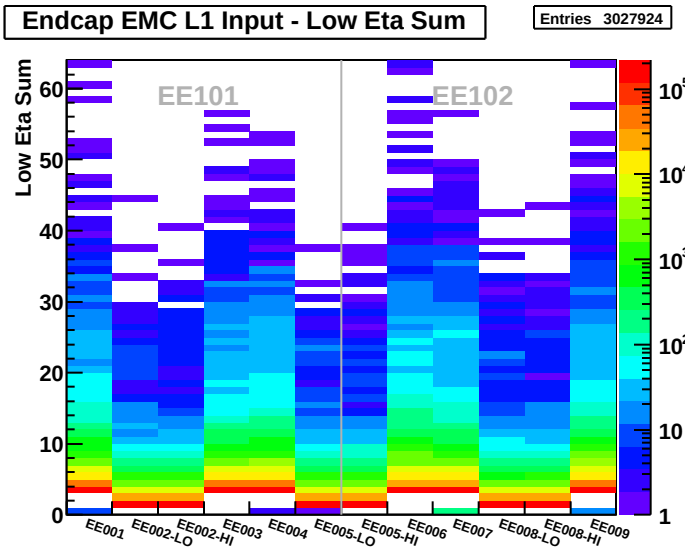

Barrel EMC L1 Input - Low Eta Sum
Entries 447
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

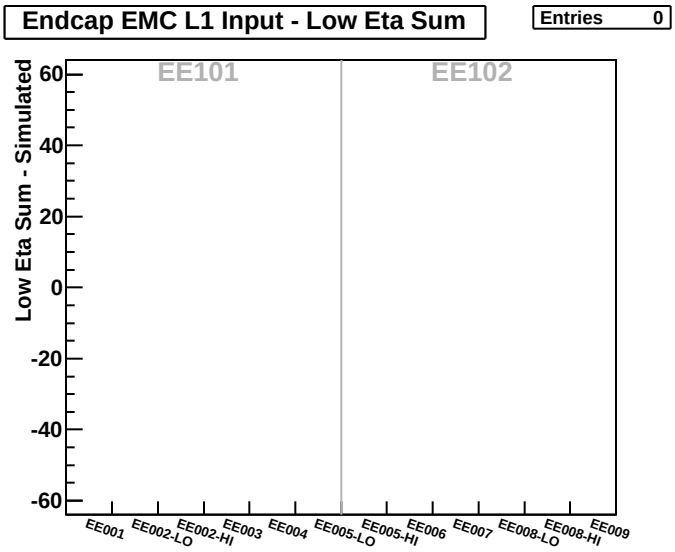

Barrel EMC L1 Input - High Eta Sum
Entries 9083772
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

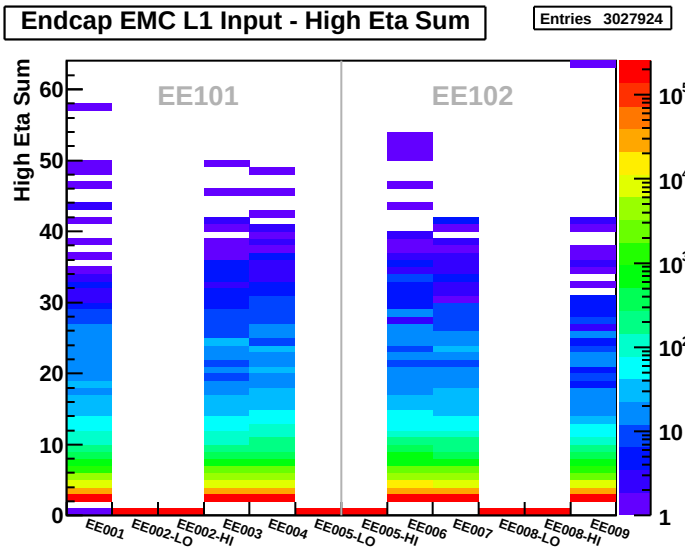

Barrel EMC L1 Input - High Eta Sum
Entries 81
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

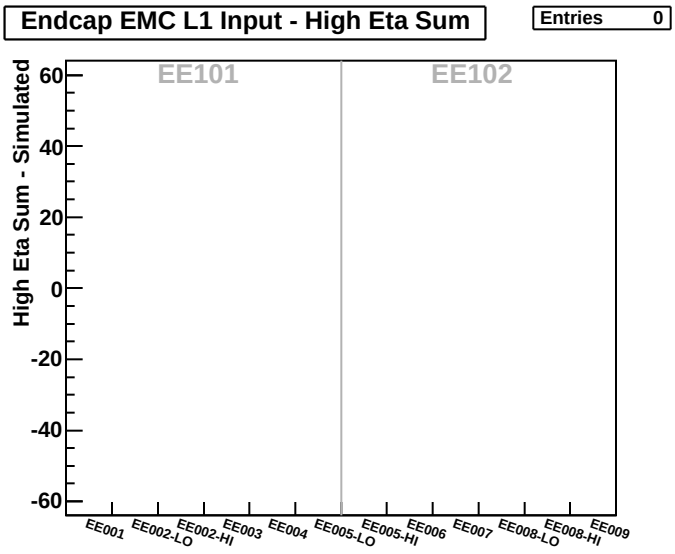

Barrel EMC L1 Input - High Tower Bits
Entries 9083772
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

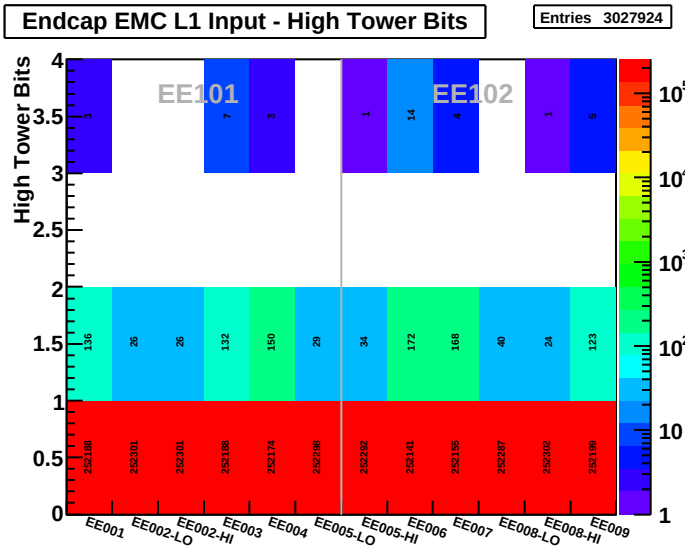

Barrel EMC L1 Input - High Tower Bits
Entries 1
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

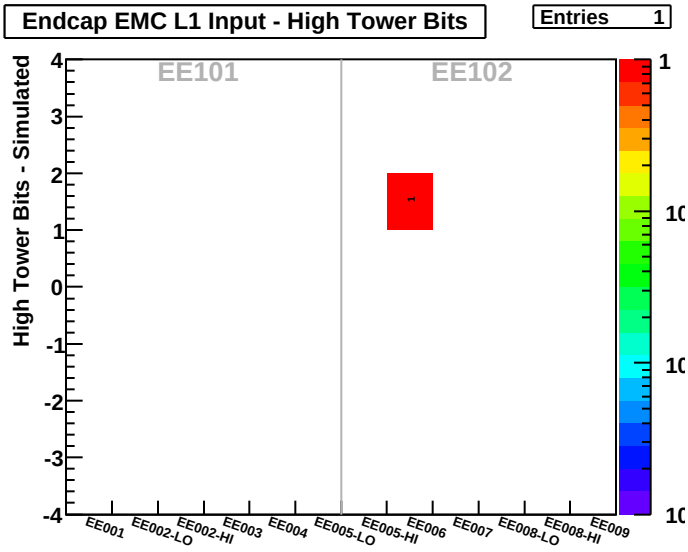

Endcap EMC L1 Input - Low Eta Sum
Entries 3027924
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

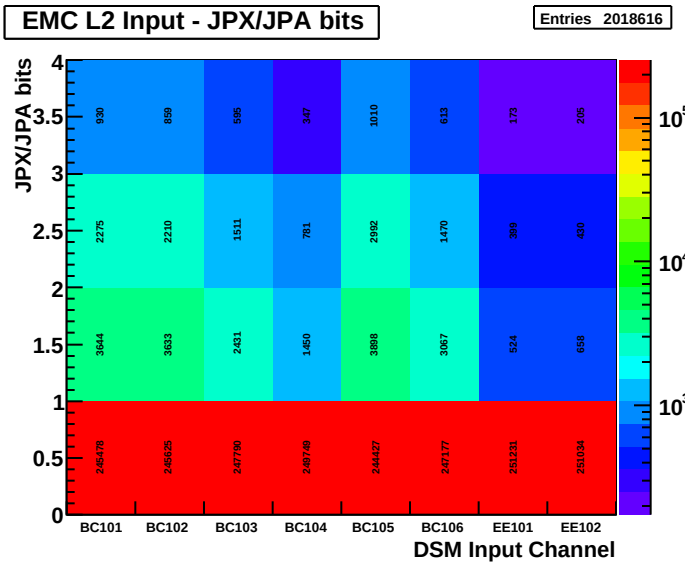

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

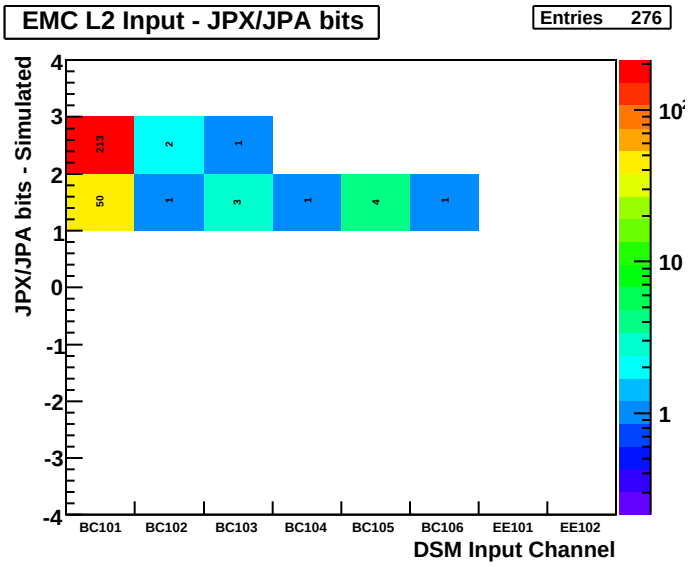

Endcap EMC L1 Input - High Eta Sum
Entries 3027924
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

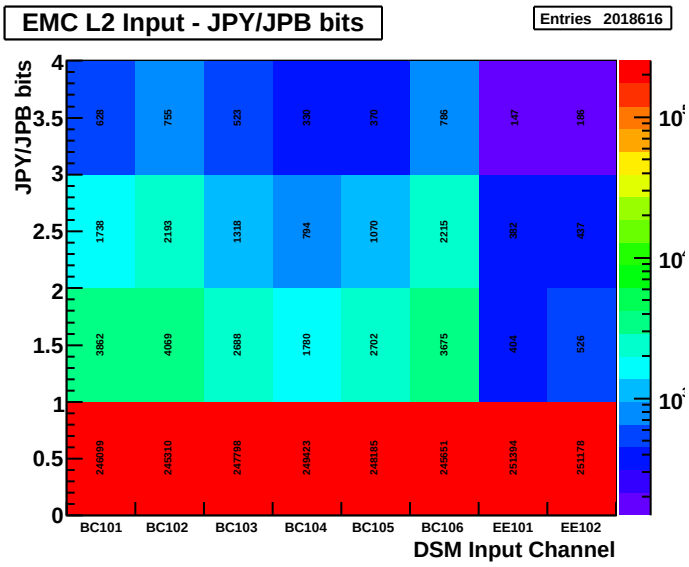

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

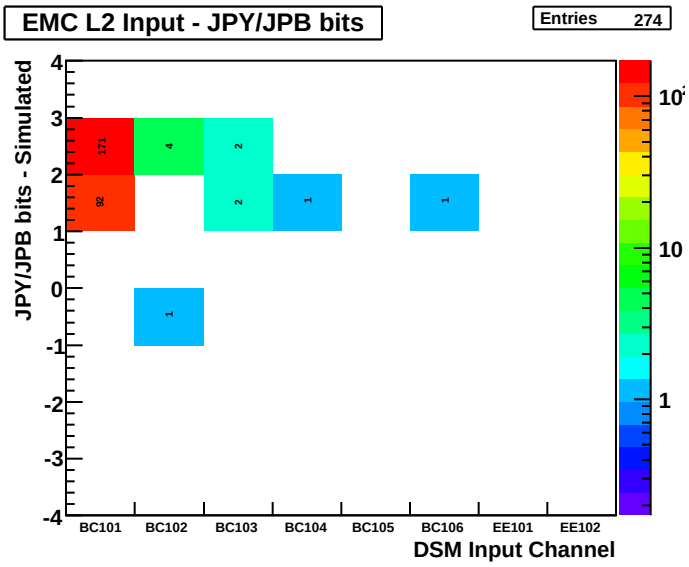

Endcap EMC L1 Input - High Tower Bits
Entries 3027924
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

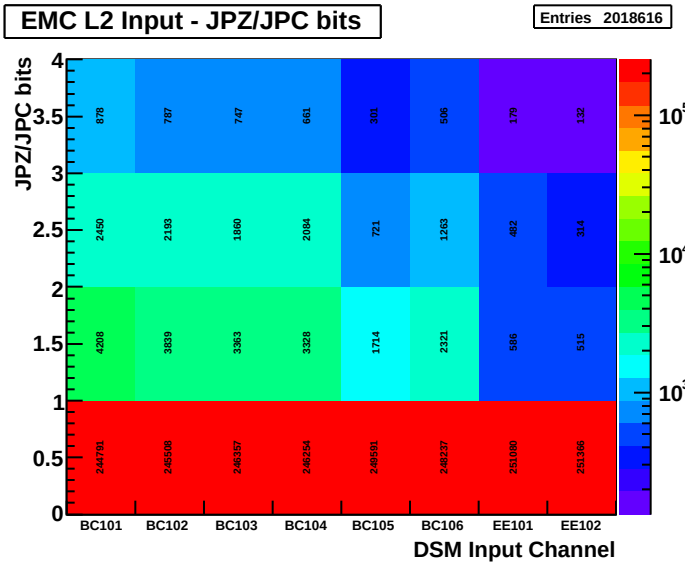

Endcap EMC L1 Input - High Tower Bits
Entries 1
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

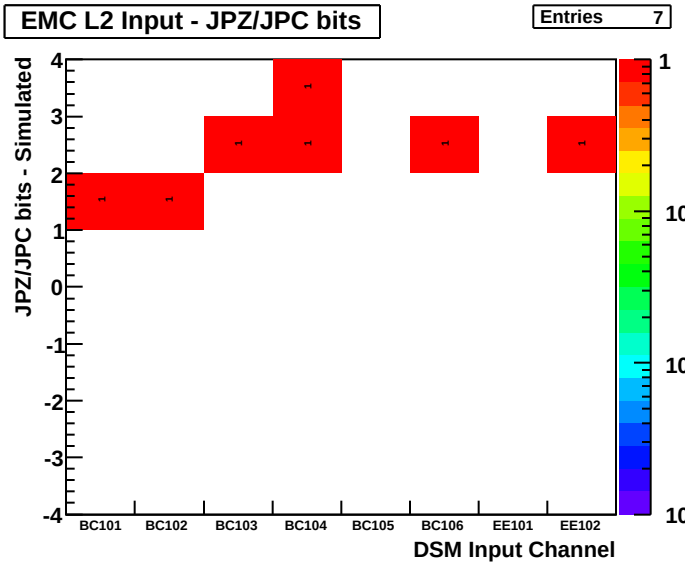

EMC L2 Input - JPX/JPA bits
Entries 2018616
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
930 859 595 347 1010 613 173 205
2275 2210 1511 781 2992 1470 399 430
3644 3633 2431 1450 3898 3067 524 658
245478 245625 247790 249749 244427 247177 251231 251034

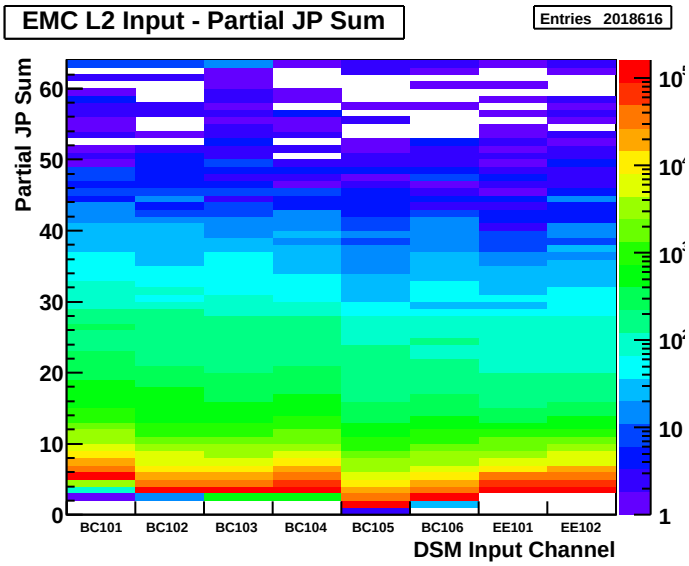

EMC L2 Input - JPX/JPA bits
Entries 276
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
213 2 1
50 1 3 1 4 1

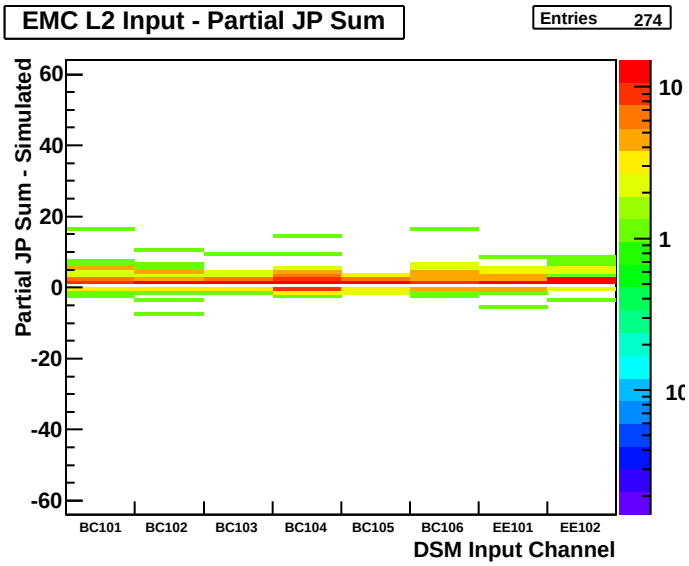

EMC L2 Input - JPY/JPB bits
Entries 2018616
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
628 755 523 330 370 786 147 186
1738 2193 1318 704 1070 2215 382 437
3862 4069 2688 1780 2702 3675 404 526
246099 245310 247798 249423 248185 245651 251394 251178

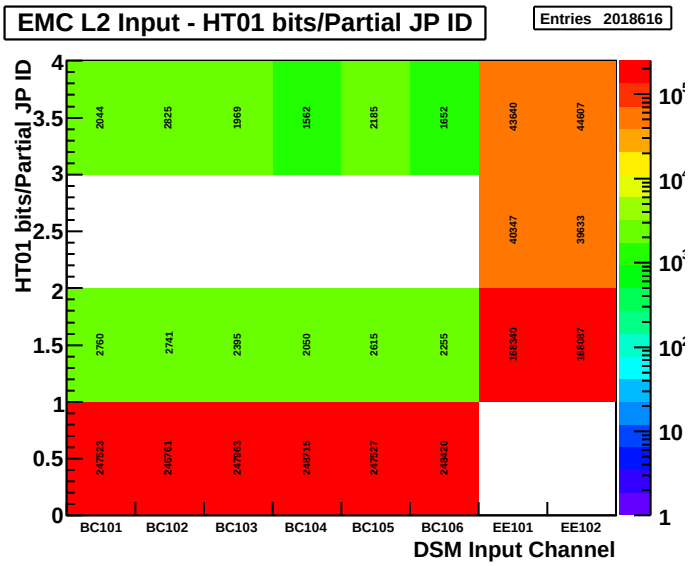

EMC L2 Input - JPY/JPB bits
Entries 274
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
171 4 2
92 2 1 1
1

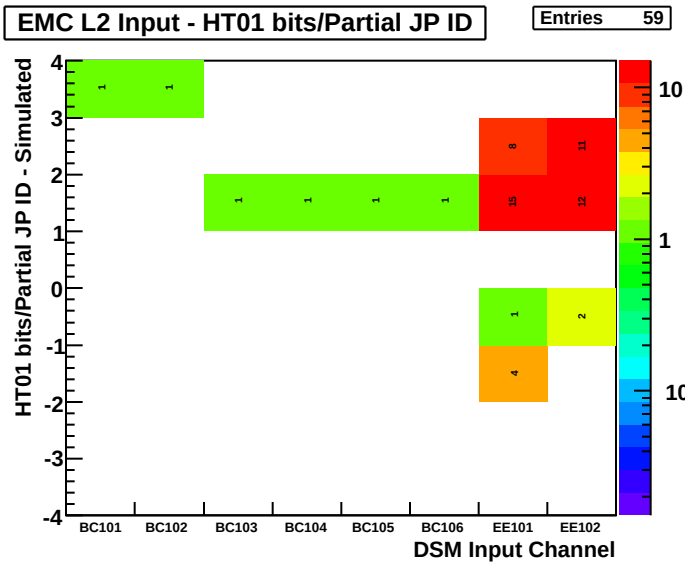

EMC L2 Input - JPZ/JPC bits
Entries 2018616
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
878 787 747 661 301 506 179 132
2450 2193 1860 2084 721 1263 482 314
4208 3839 3363 3328 1714 2321 566 515
244791 245508 246357 246254 249591 248237 251080 251366

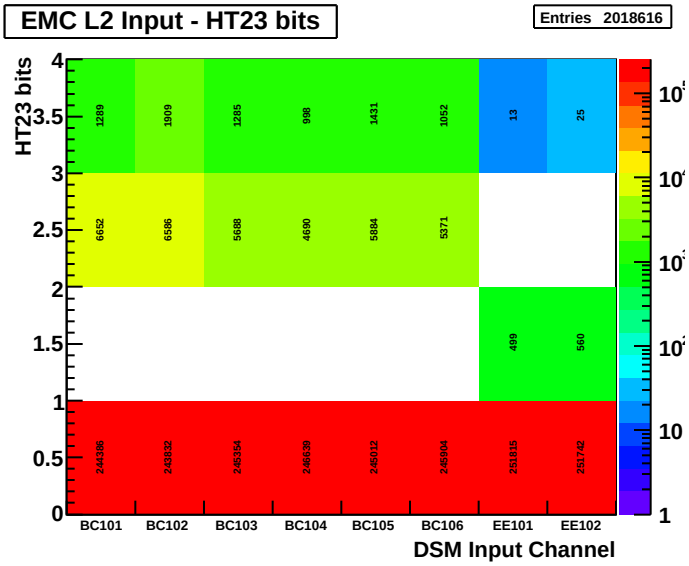

EMC L2 Input - JPZ/JPC bits
Entries 7
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1 1 1 1 1 1 1

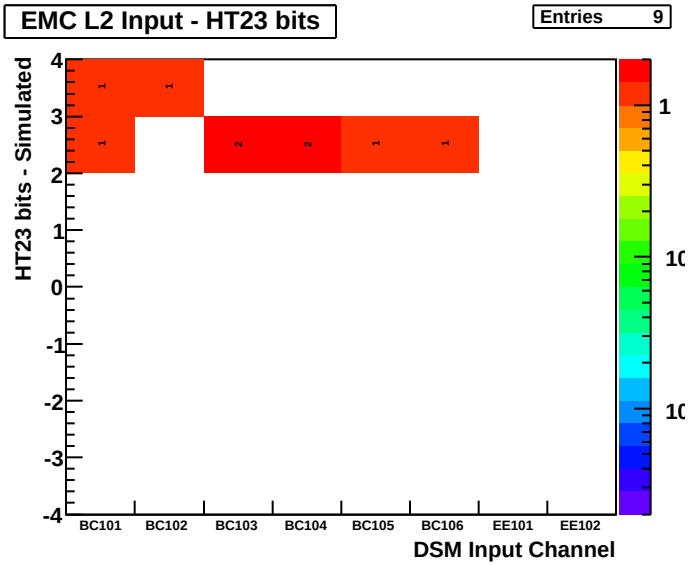

EMC L2 Input - Partial JP Sum
Entries 2018616
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

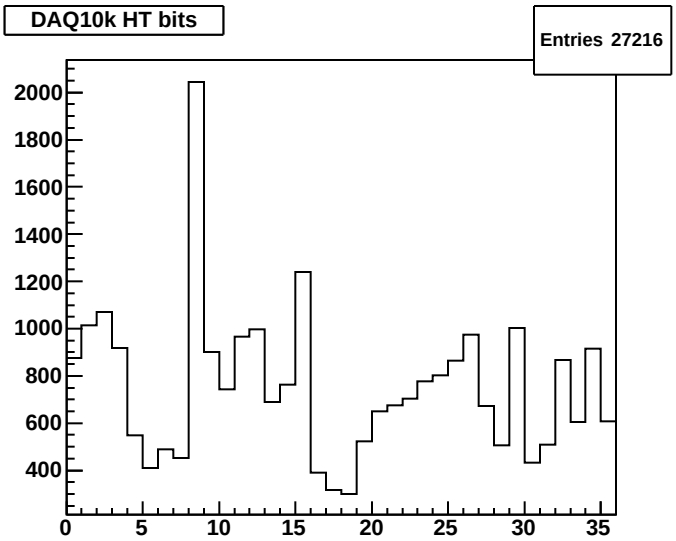

EMC L2 Input - Partial JP Sum
Entries 274
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

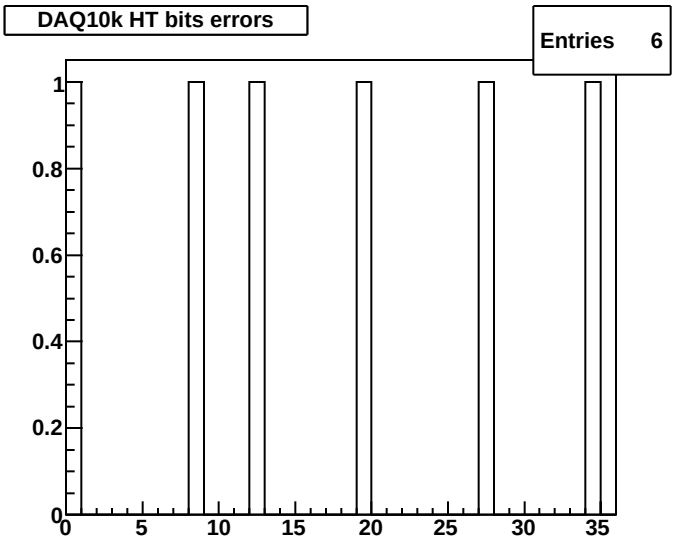

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2018616
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

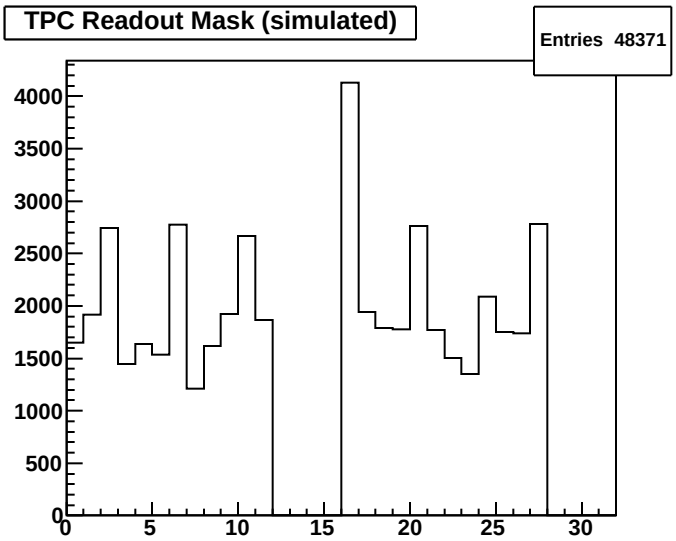

EMC L2 Input - HT01 bits/Partial JP ID
Entries 59
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

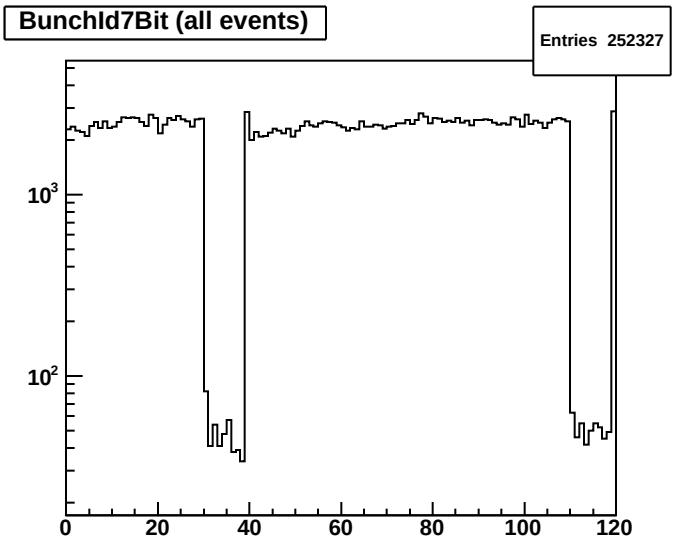

EMC L2 Input - HT23 bits
Entries 2018616
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

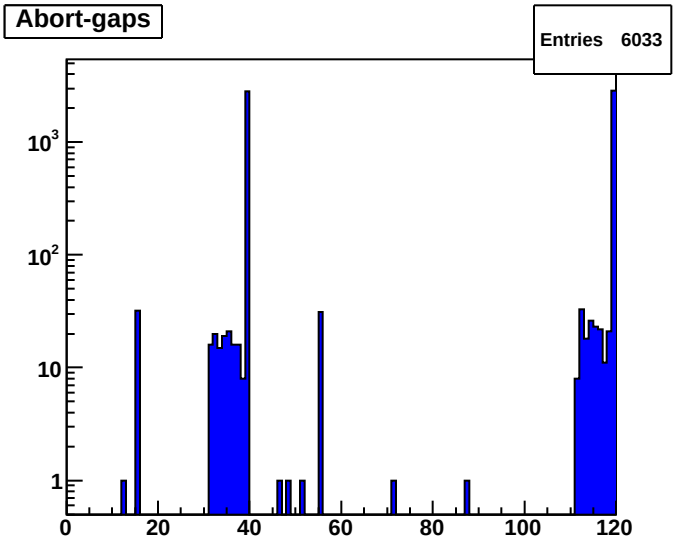

EMC L2 Input - HT23 bits
Entries 9
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

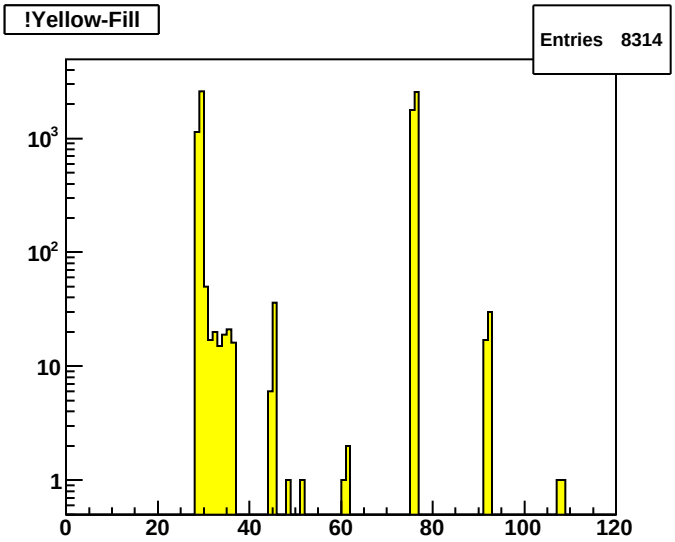

DAQ10k HT bits
Entries 27216

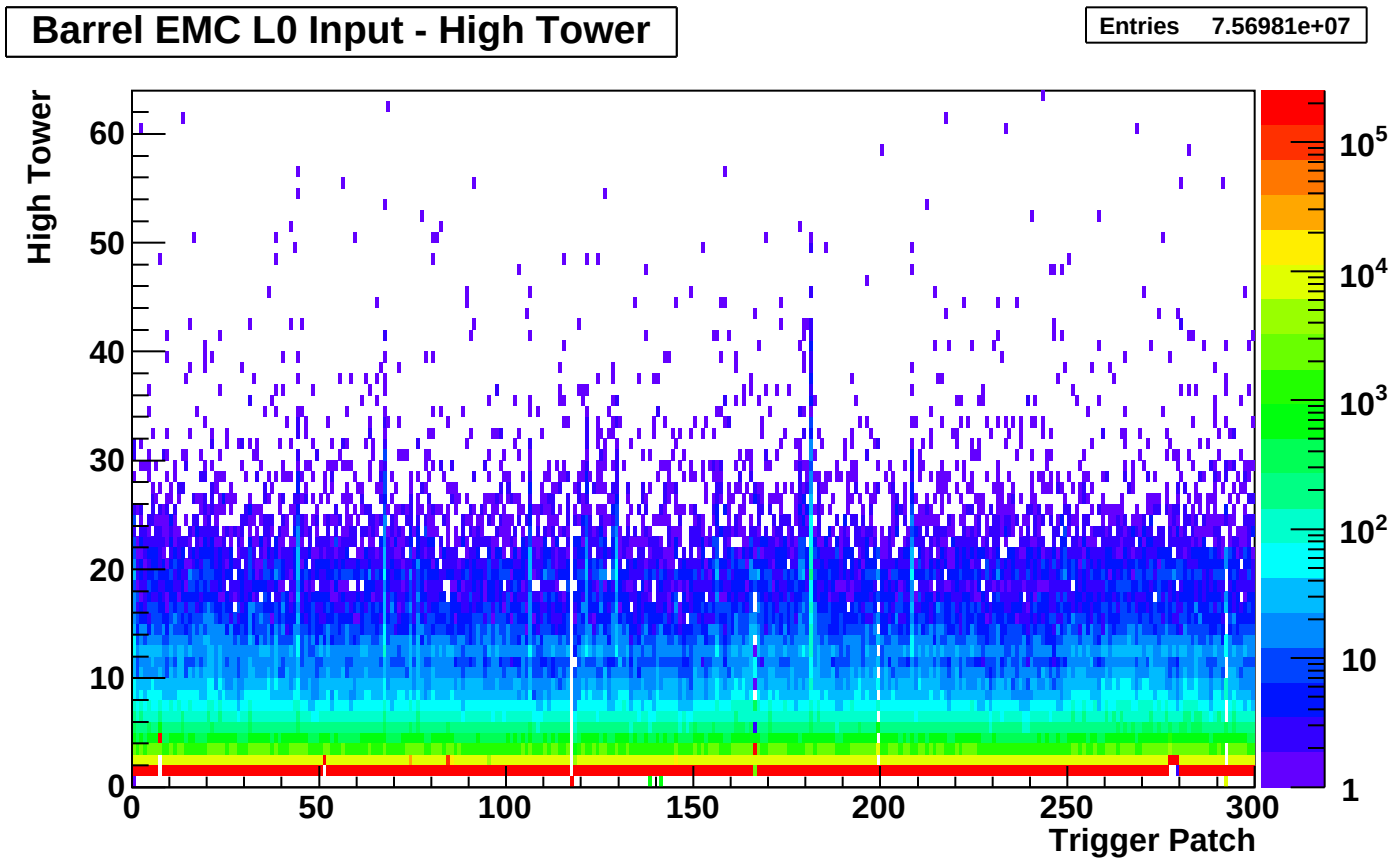

DAQ10k HT bits errors
Entries 6

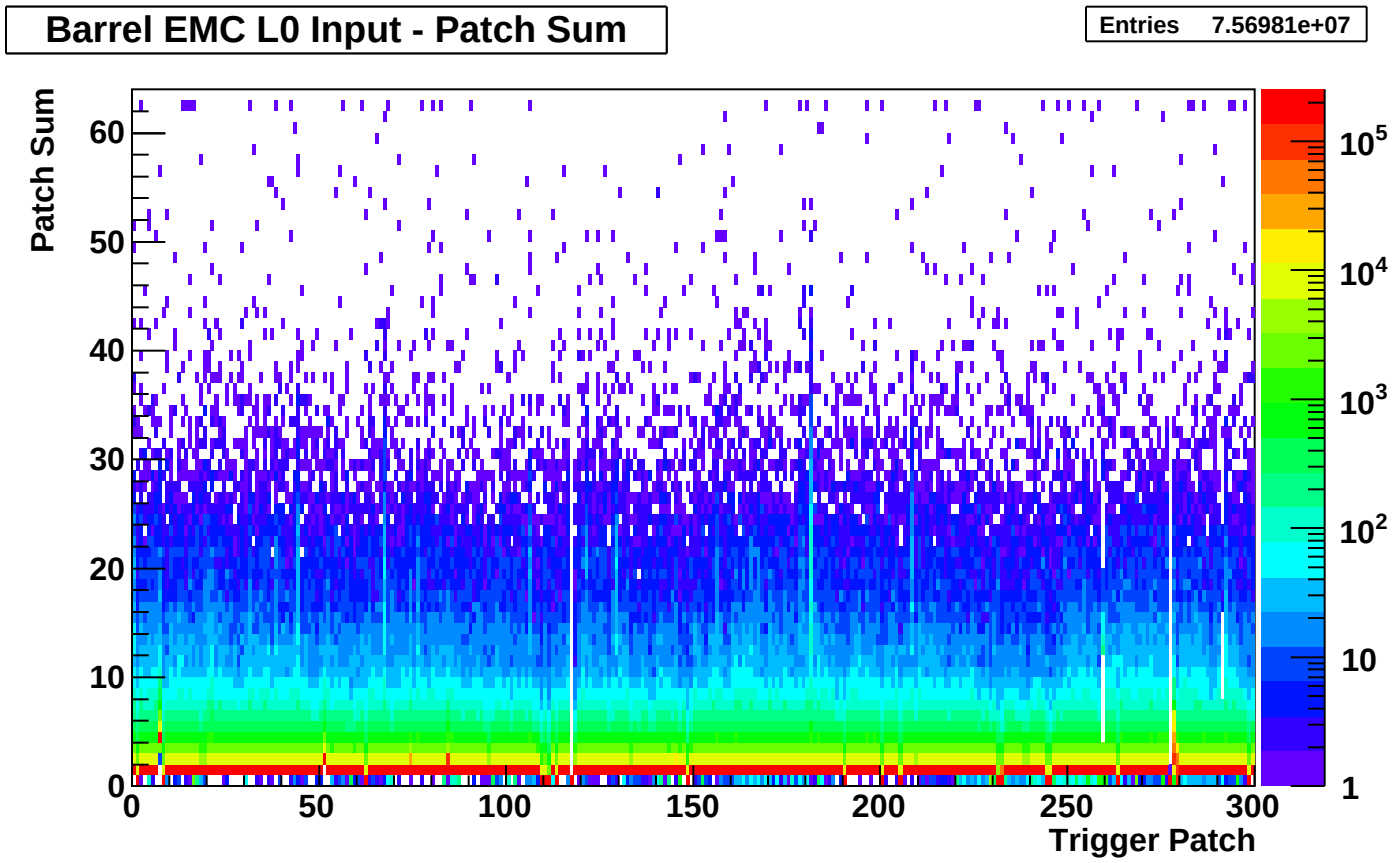

TPC Readout Mask (simulated)
Entries 48371

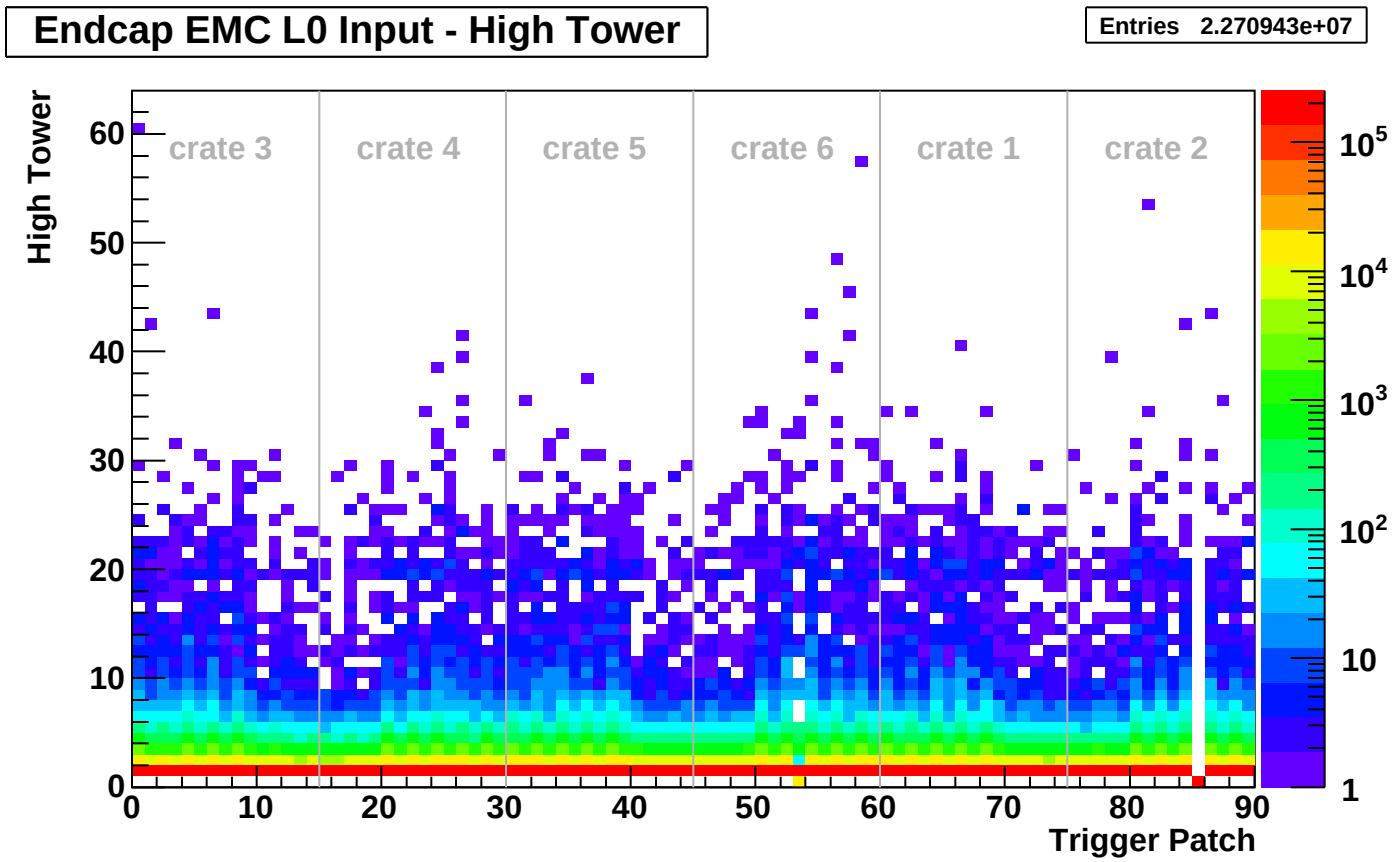

BunchId7Bit (all events)
Entries 252327

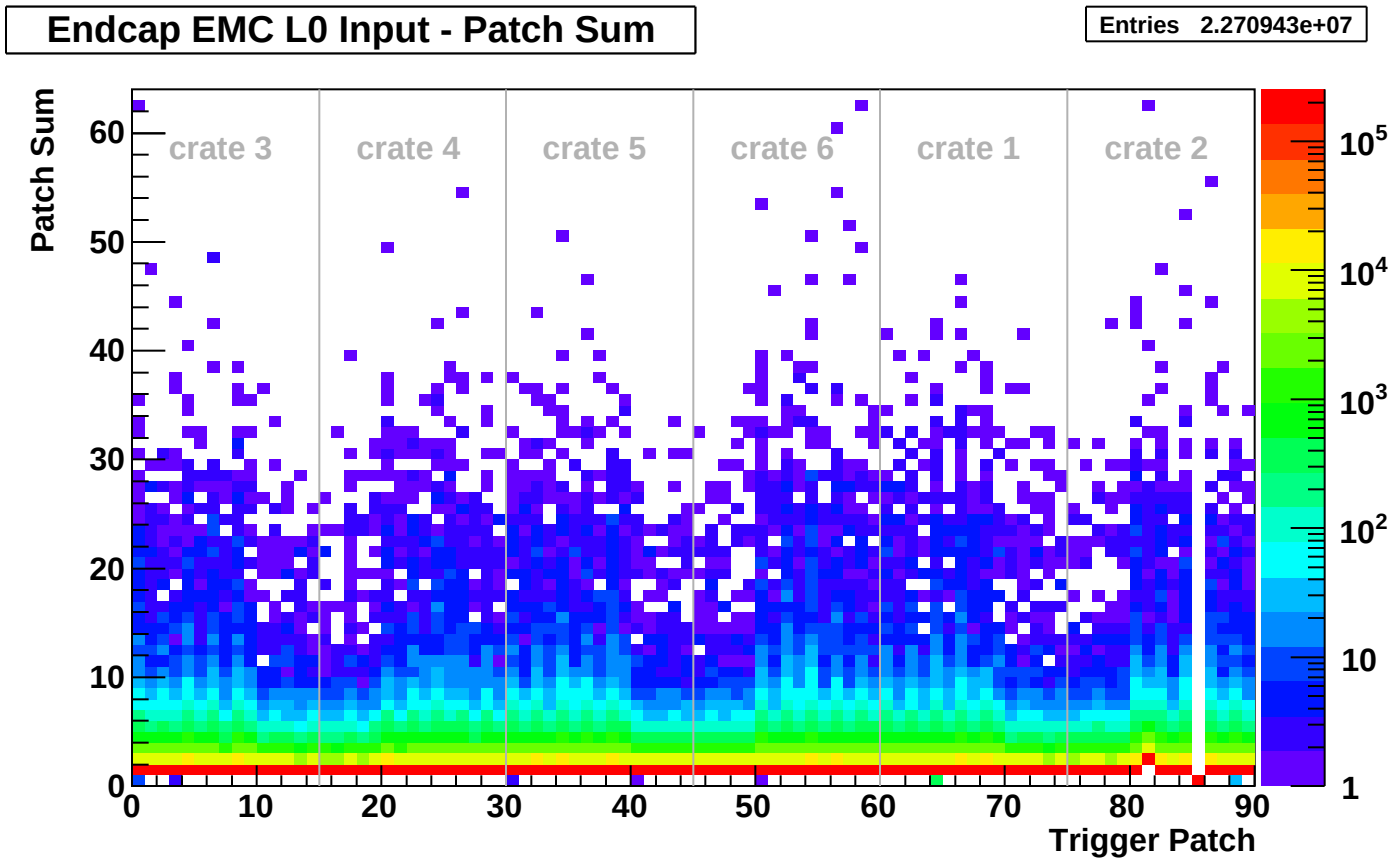

Abort-gaps
Entries 6033

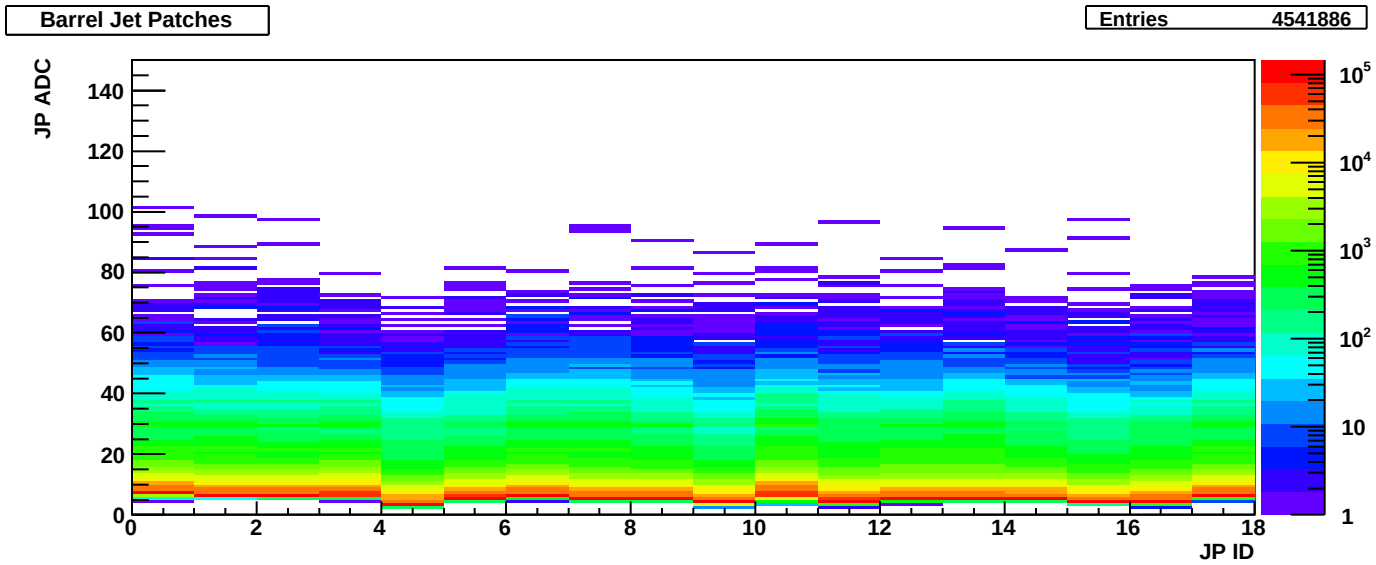

!Yellow-Fill
Entries 8314

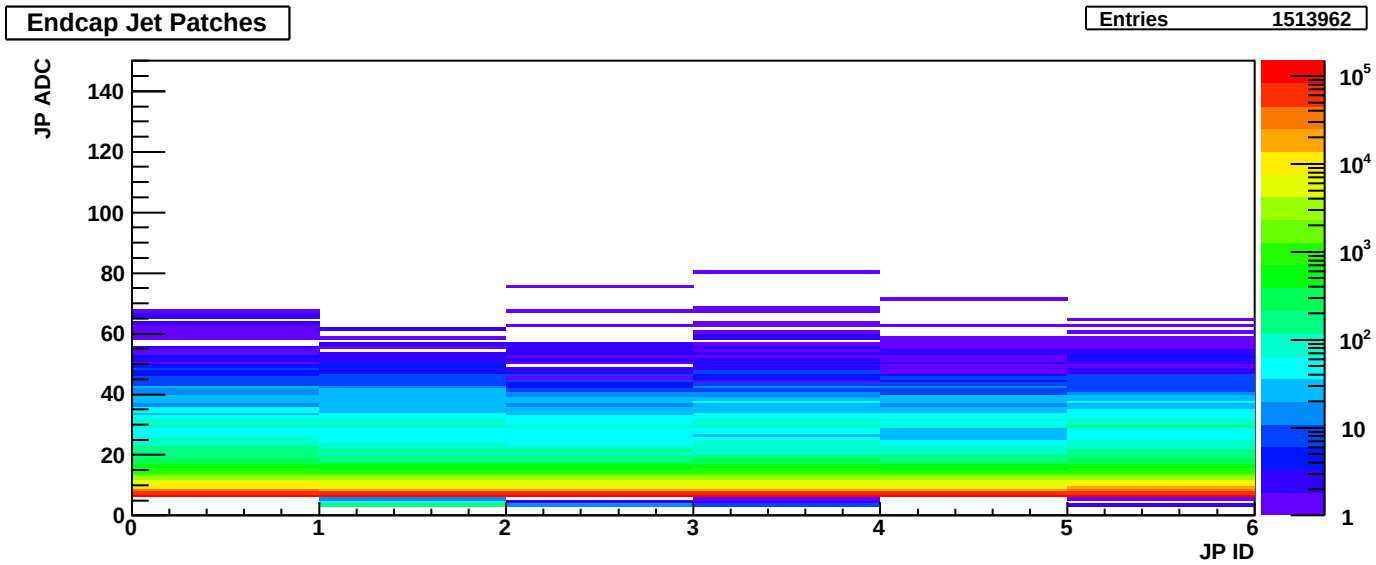

Barrel EMC L0 Input - High Tower
Entries 7.56981e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

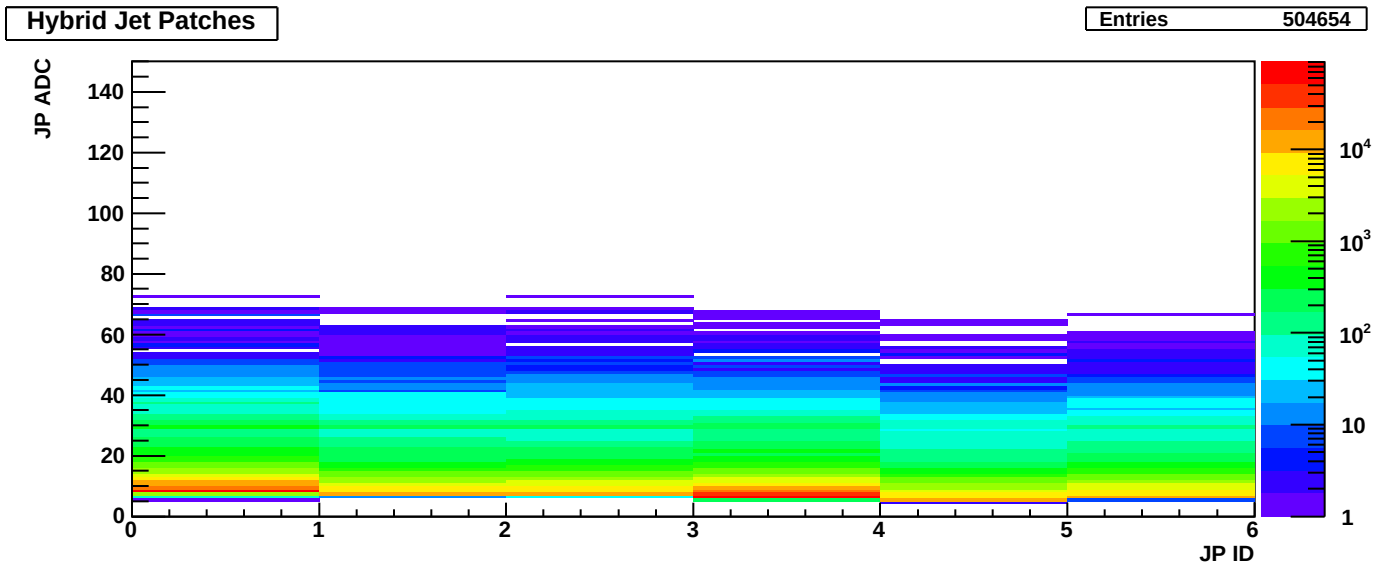

Barrel EMC L0 Input - Patch Sum
Entries 7.56981e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

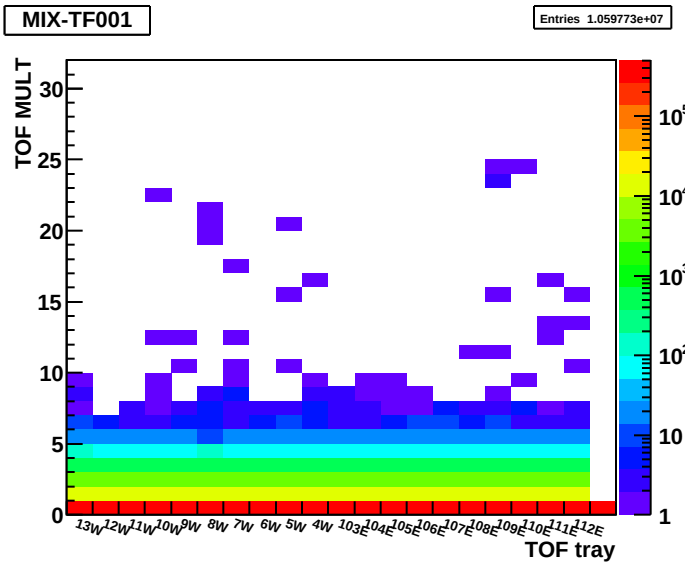

Endcap EMC L0 Input - High Tower
Entries 2.270943e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

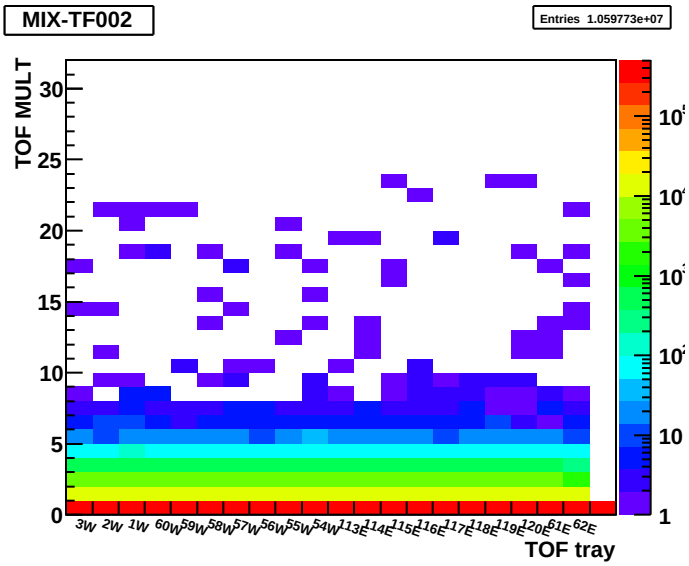

Endcap EMC L0 Input - Patch Sum
Entries 2.270943e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

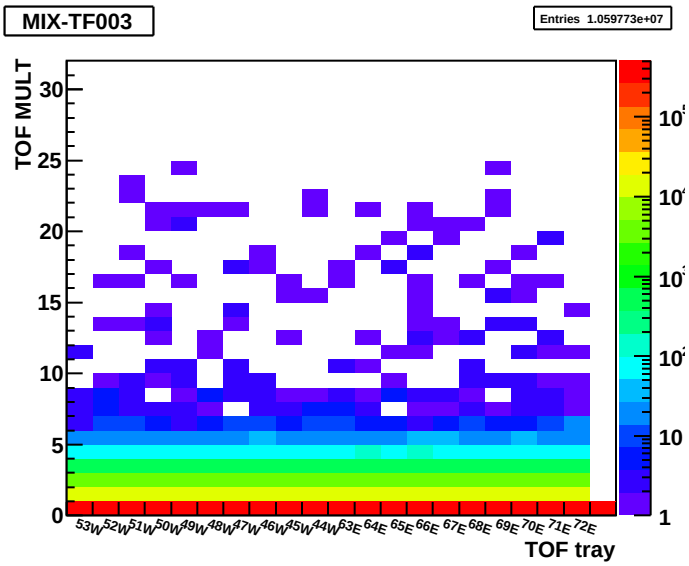

Barrel Jet Patches
Entries 4541886
JP ADC
JP ID

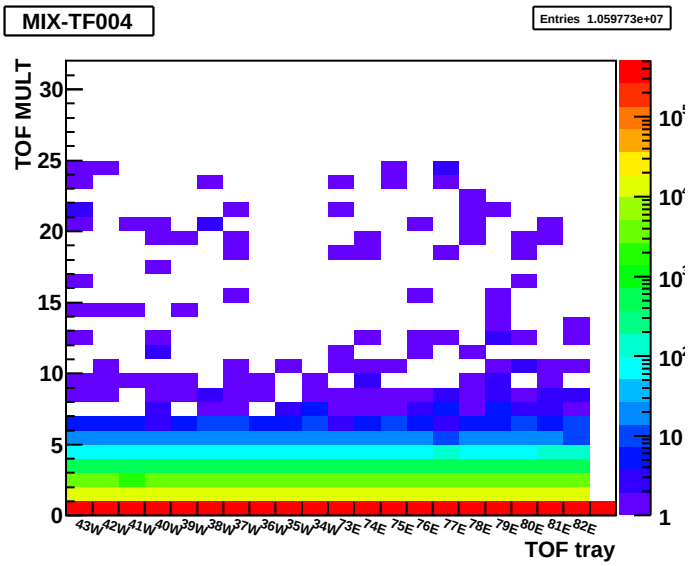

Endcap Jet Patches
Entries 1513962
JP ADC
JP ID

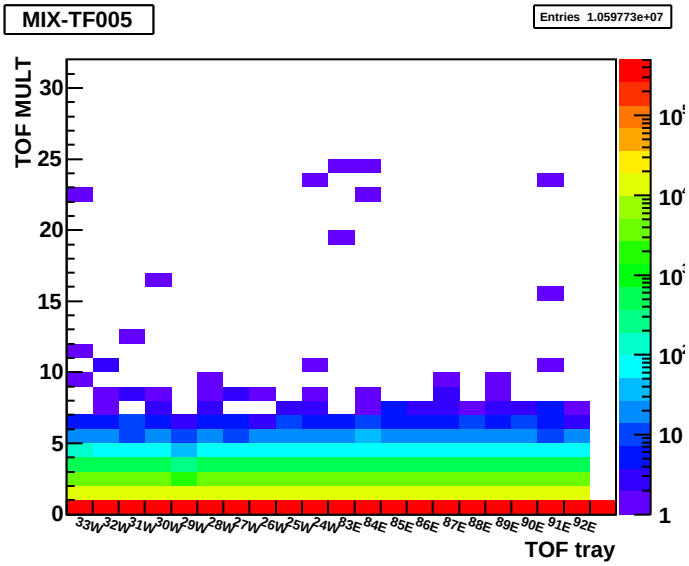

Hybrid Jet Patches
Entries 504654
JP ADC
JP ID

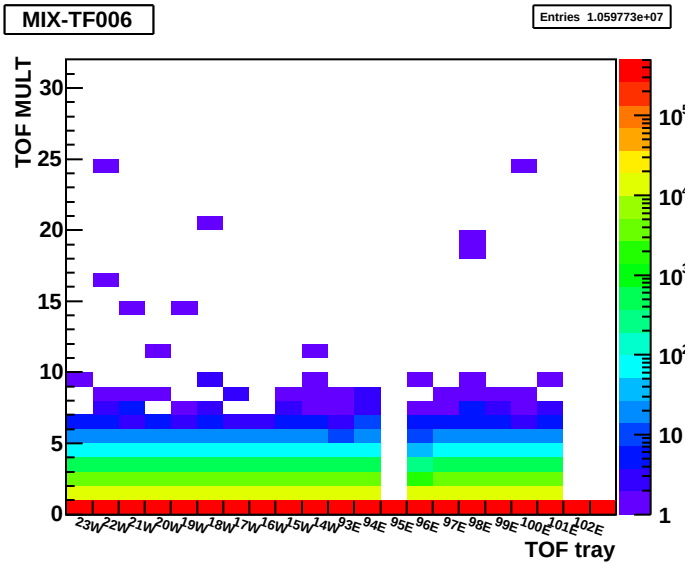

MIX-TF001
Entries 1.059773e+07
TOF MULT
TOF tray

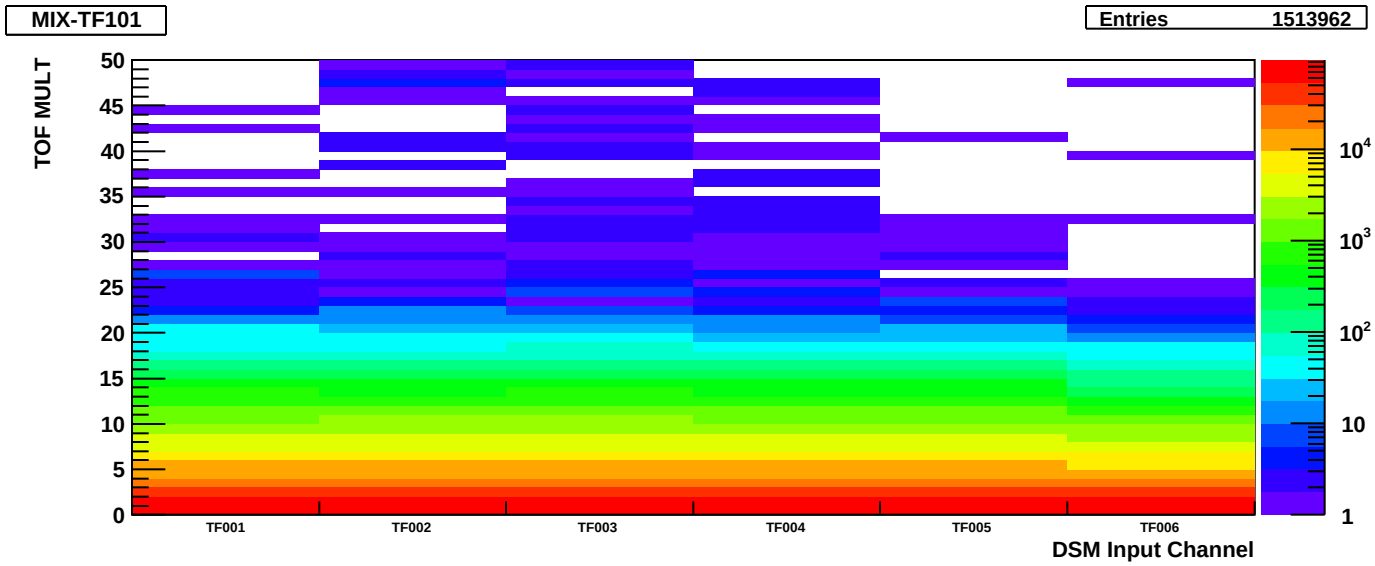

MIX-TF002
Entries 1.059773e+07
TOF MULT
TOF tray

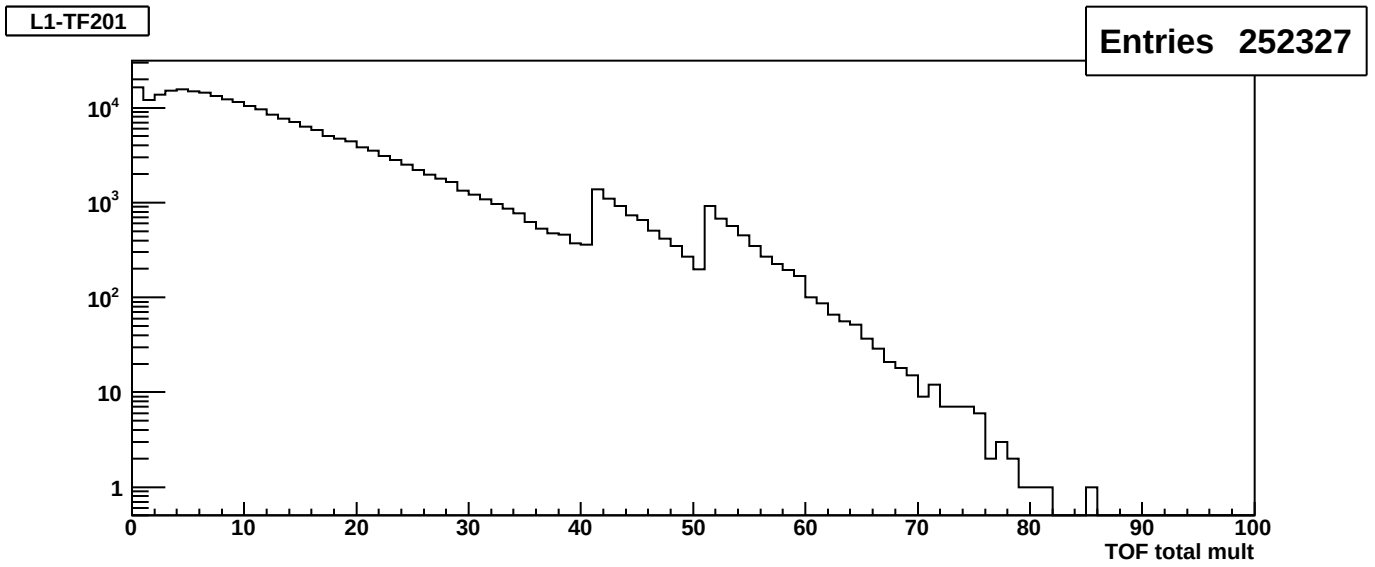

MIX-TF003
Entries 1.059773e+07
TOF MULT
TOF tray

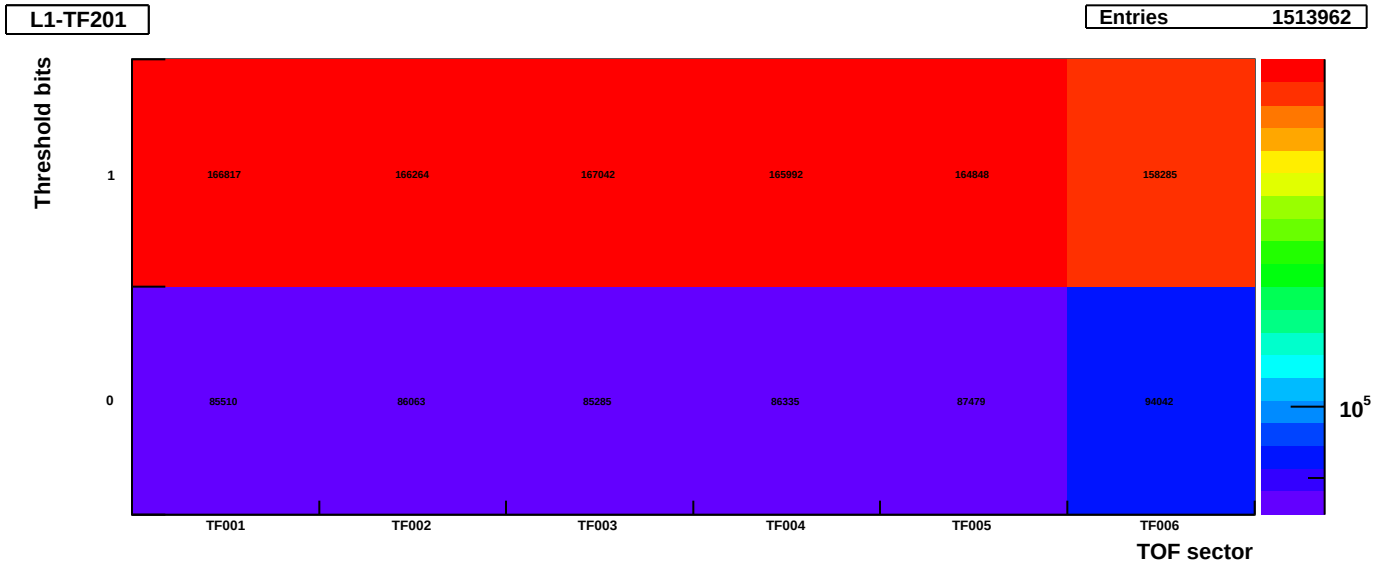

MIX-TF004
Entries 1.059773e+07
TOF MULT
TOF tray

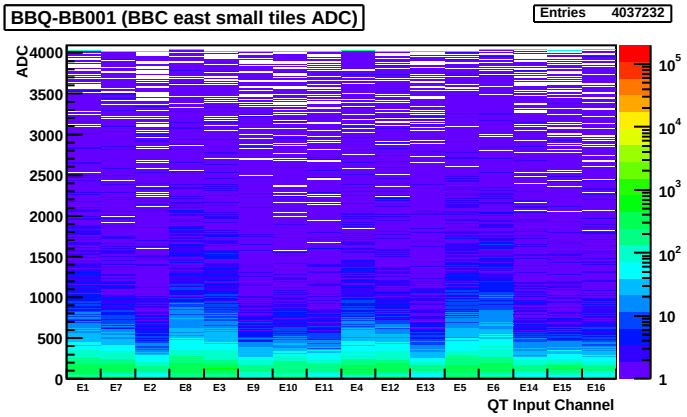

MIX-TF005
Entries 1.059773e+07
TOF MULT
TOF tray

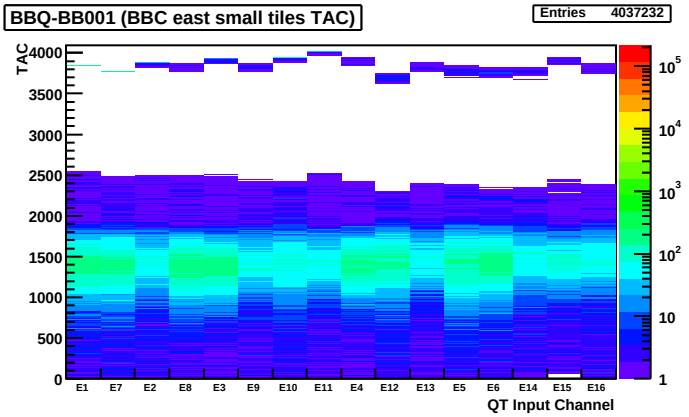

MIX-TF006
Entries 1.059773e+07
TOF MULT
TOF tray

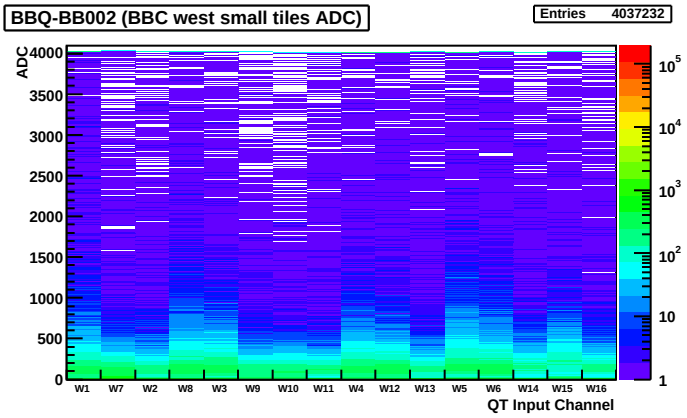

MIX-TF101
Entries 1513962
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

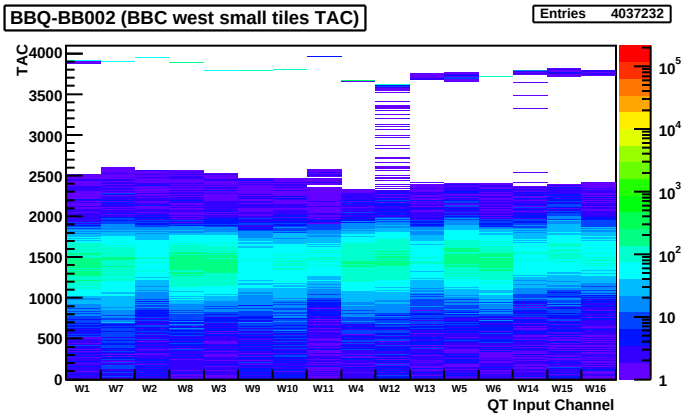

L1-TF201
Entries 252327
10^4
10^3
10^2
10
1
0
10
20
30
40
50
60
70
80
90
100
TOF total mult

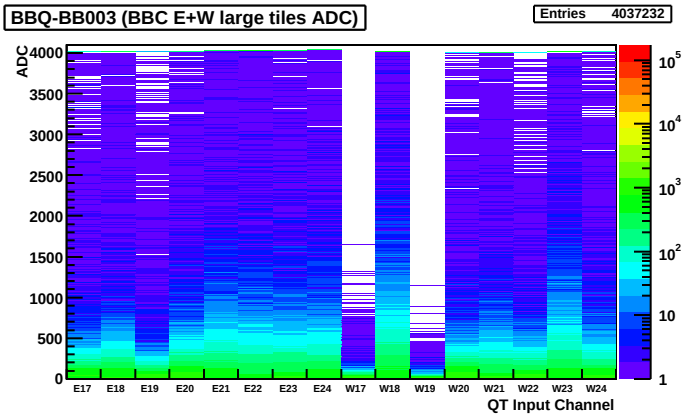

L1-TF201
Entries 1513962
Threshold bits
1
0
166817
166264
167042
165992
164848
158285
85510
86063
85285
86335
87479
94042
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

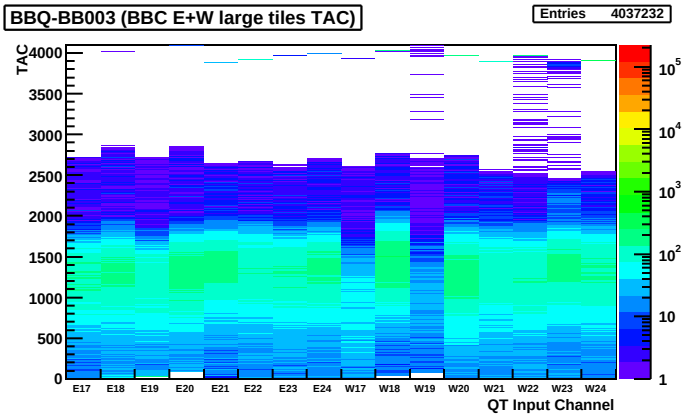

BBQ-BB001 (BBC east small tiles ADC)
Entries 4037232
ADC
QT Input Channel

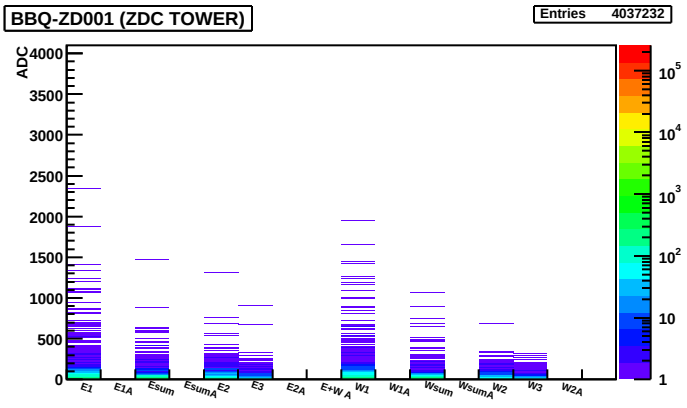

BBQ-BB001 (BBC east small tiles TAC)
Entries 4037232
TAC
QT Input Channel

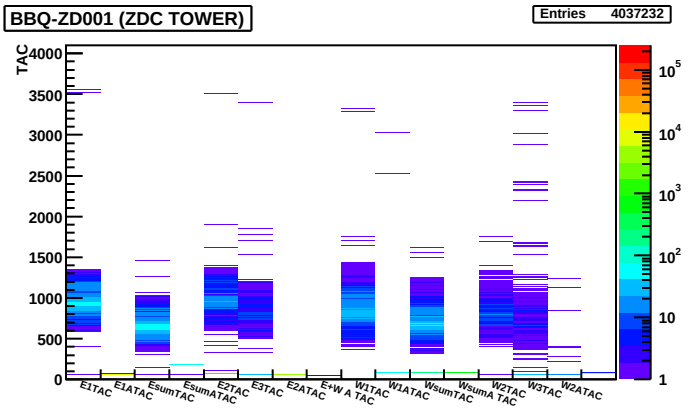

BBQ-BB002 (BBC west small tiles ADC)
Entries 4037232
ADC
QT Input Channel

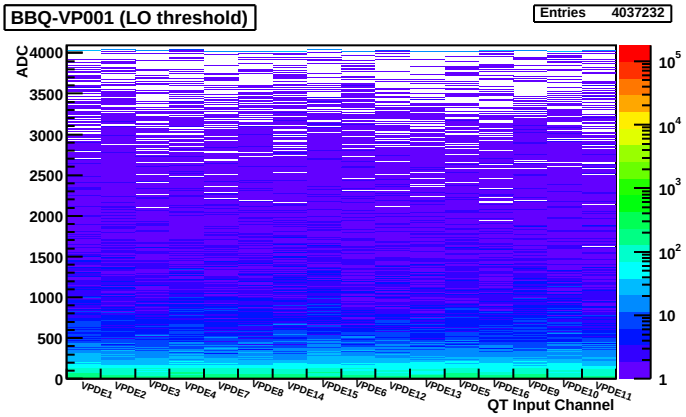

BBQ-BB002 (BBC west small tiles TAC)
Entries 4037232
TAC
QT Input Channel

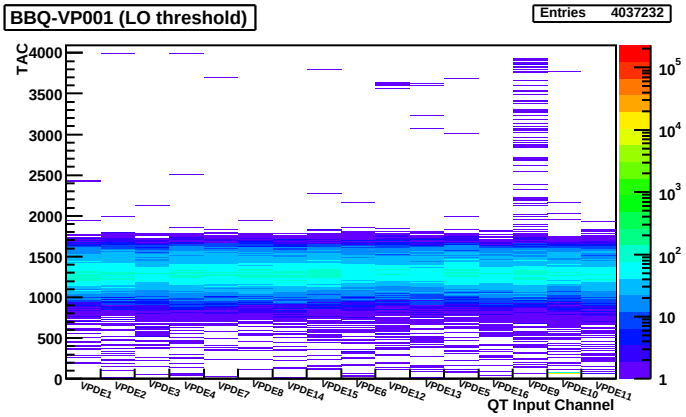

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4037232
ADC
QT Input Channel

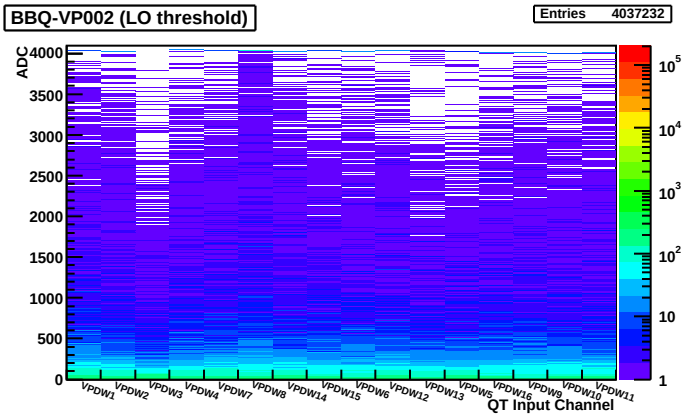

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4037232
TAC
QT Input Channel

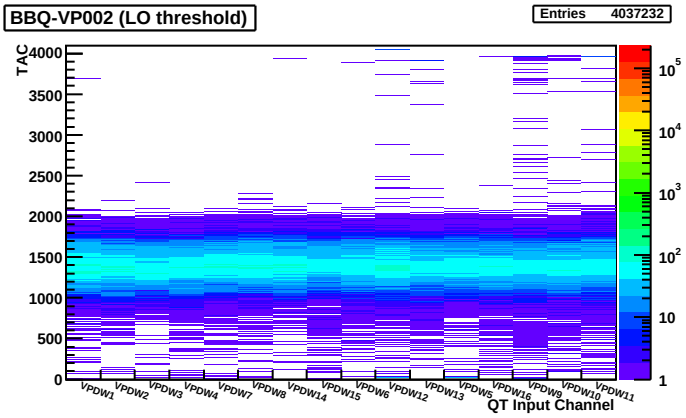

BBQ-ZD001 (ZDC TOWER)
Entries 4037232
ADC

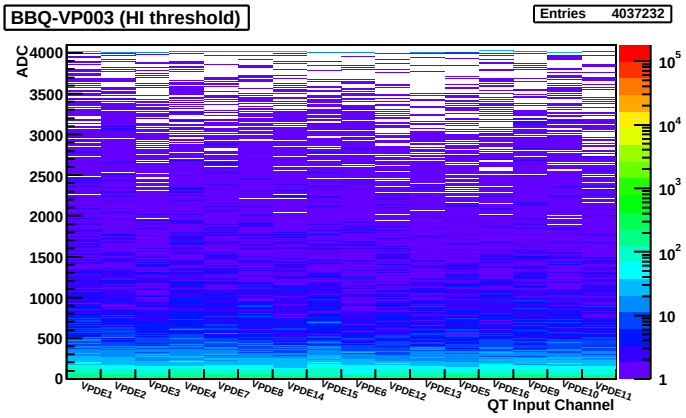

BBQ-ZD001 (ZDC TOWER)
Entries 4037232
TAC

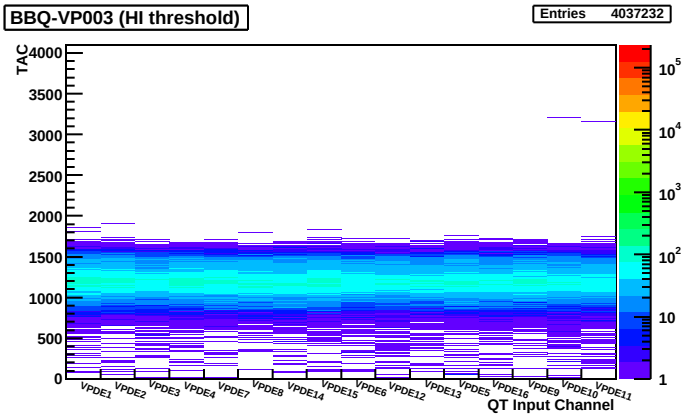

BBQ-VP001 (LO threshold)
Entries 4037232
ADC
QT Input Channel

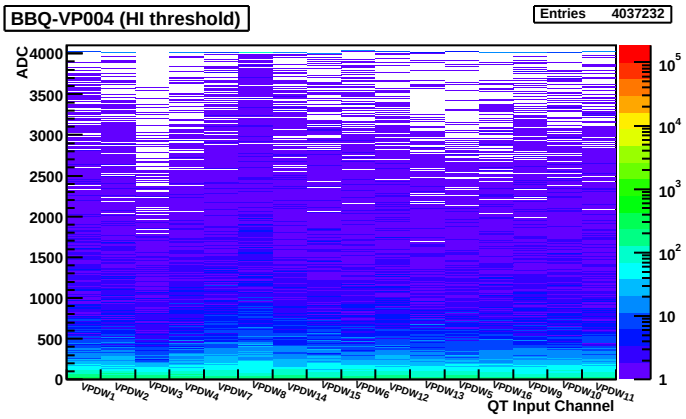

BBQ-VP001 (LO threshold)
Entries 4037232
TAC
QT Input Channel

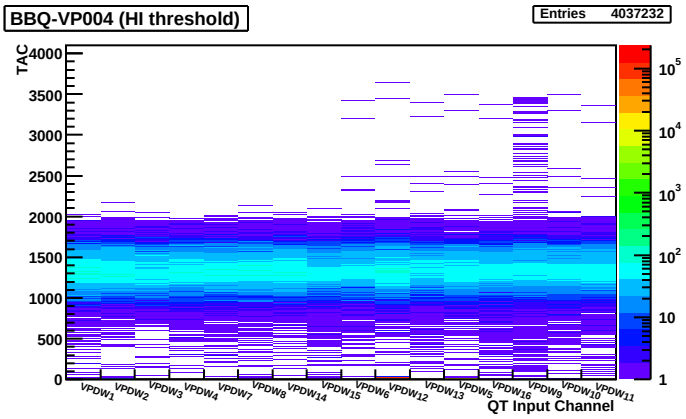

BBQ-VP002 (LO threshold)
Entries 4037232
ADC
QT Input Channel

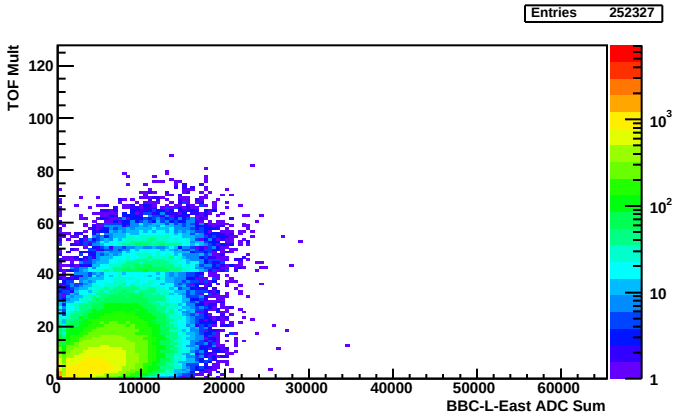

BBQ-VP002 (LO threshold)
Entries 4037232
TAC
QT Input Channel

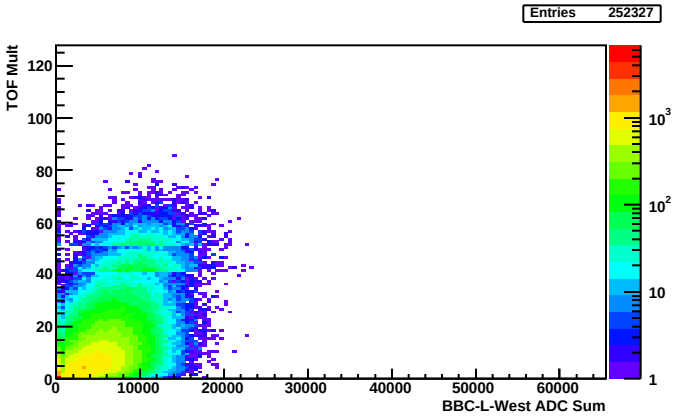

BBQ-VP003 (HI threshold)
Entries 4037232
ADC
QT Input Channel

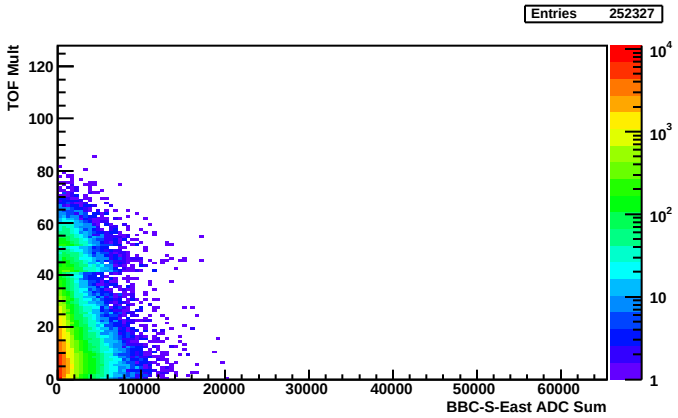

BBQ-VP003 (HI threshold)
Entries 4037232
TAC
QT Input Channel

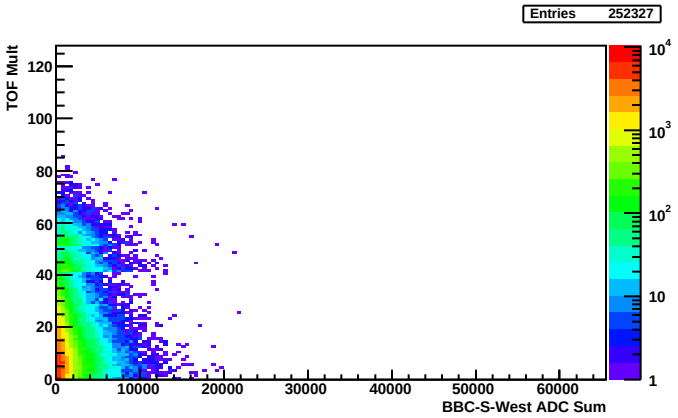

BBQ-VP004 (HI threshold)
Entries 4037232
ADC
QT Input Channel

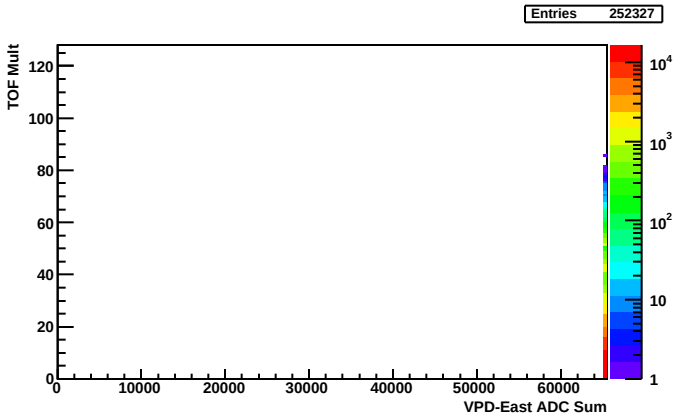

BBQ-VP004 (HI threshold)
Entries 4037232
TAC
QT Input Channel

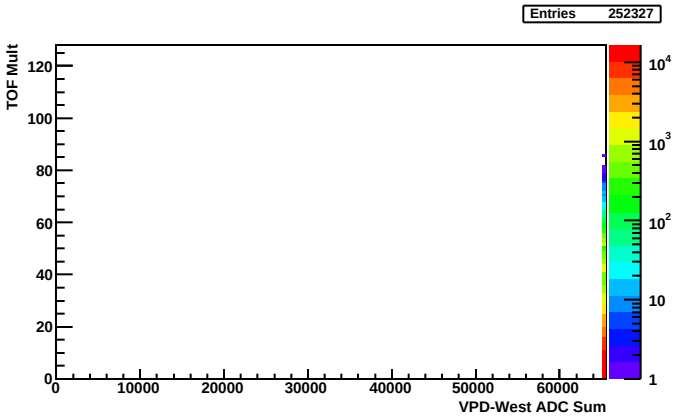

Entries 252327
TOF Mult
BBC-L-East ADC Sum

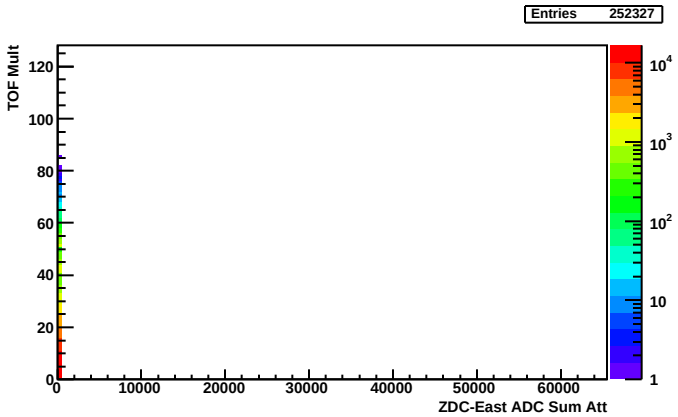

Entries 252327
TOF Mult
BBC-L-West ADC Sum

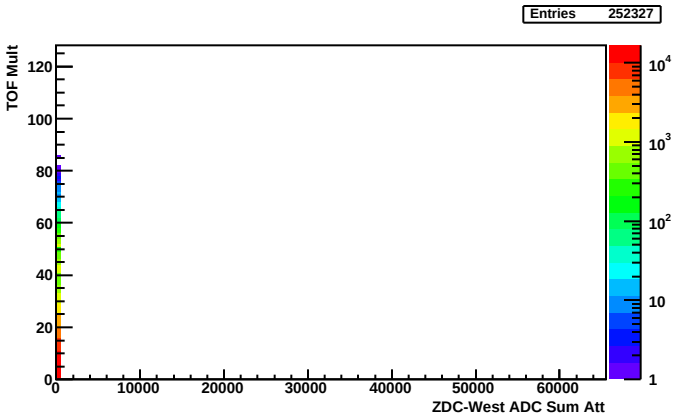

Entries 252327
TOF Mult
BBC-S-East ADC Sum

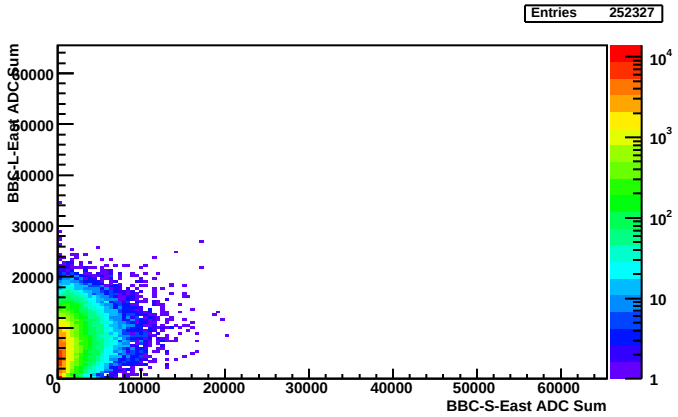

Entries 252327
TOF Mult
BBC-S-West ADC Sum

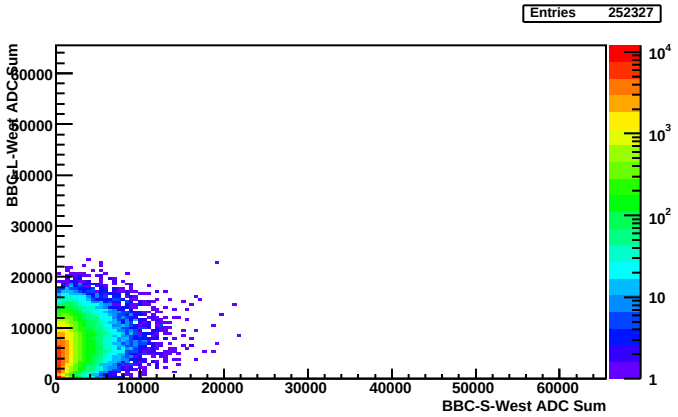

Entries 252327
TOF Mult
VPD-East ADC Sum

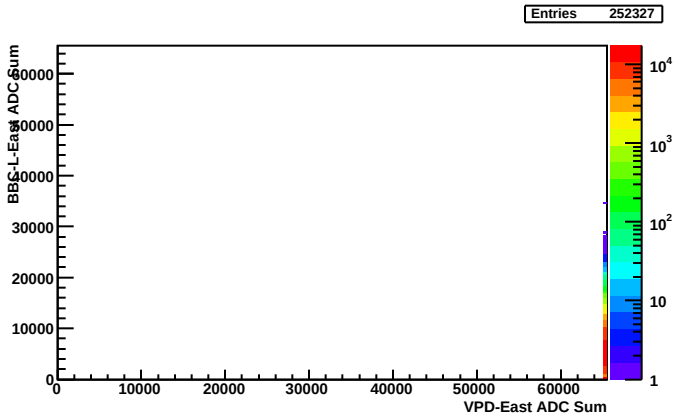

Entries 252327
TOF Mult
VPD-West ADC Sum

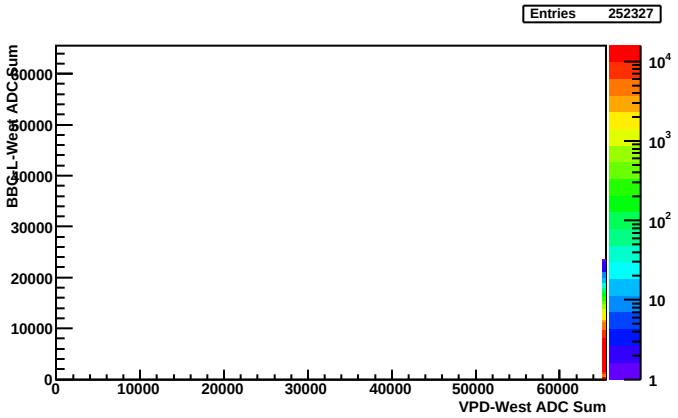

Entries 252327
TOF Mult
ZDC-East ADC Sum Att

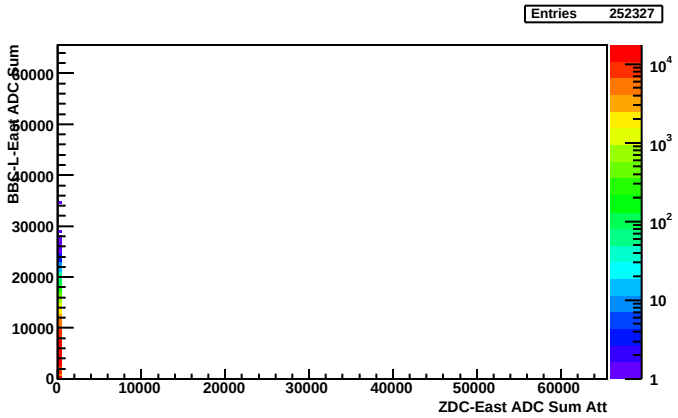

Entries 252327
TOF Mult
ZDC-West ADC Sum Att

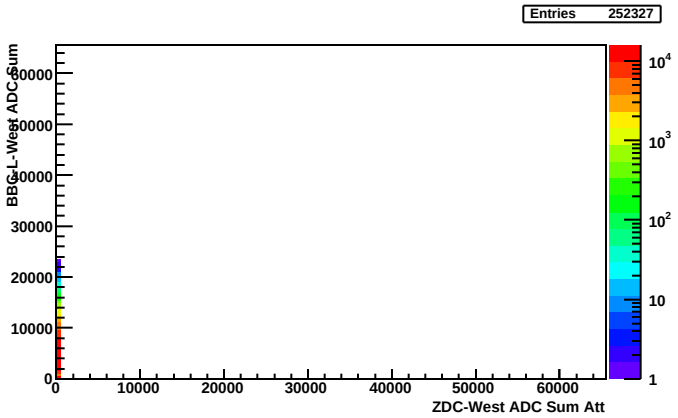

Entries 252327
BBC-L-East ADC Sum
BBC-S-East ADC Sum

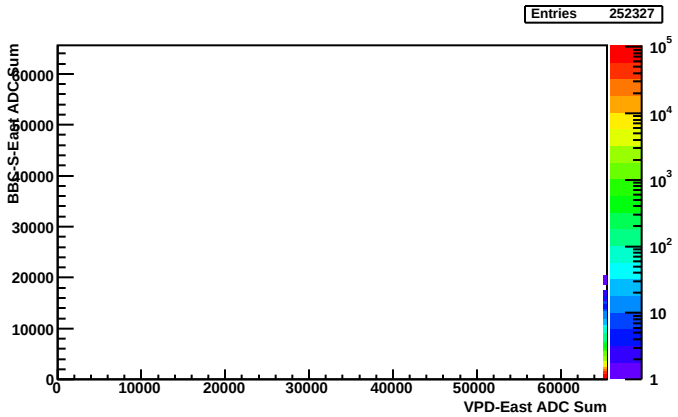

Entries 252327
BBC-L-West ADC Sum
BBC-S-West ADC Sum

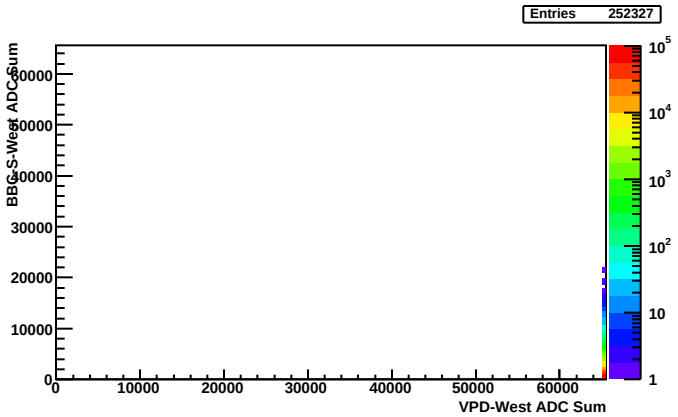

Entries 252327
BBC-L-East ADC Sum
VPD-East ADC Sum

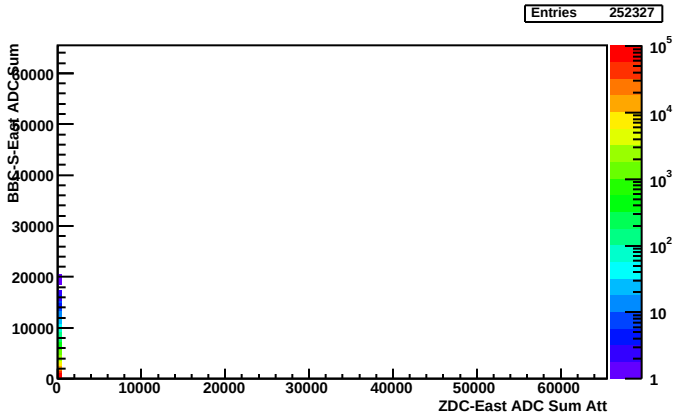

Entries 252327
BBC-L-West ADC Sum
VPD-West ADC Sum

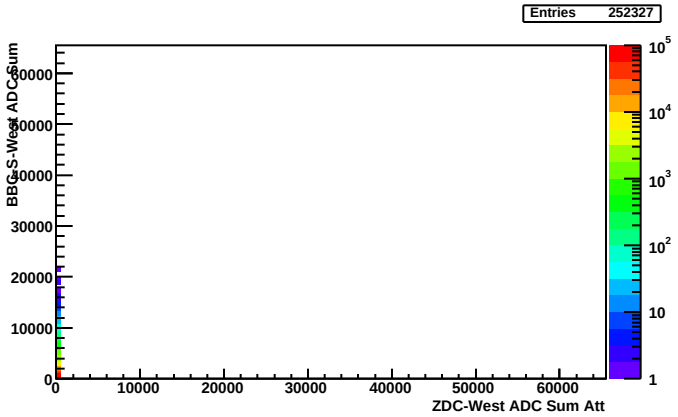

Entries 252327
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

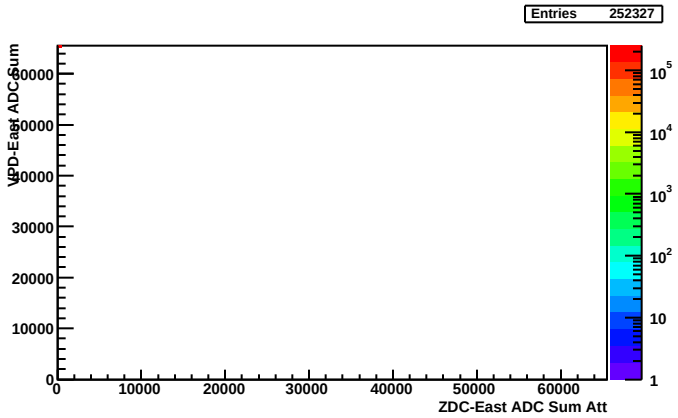

Entries 252327
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

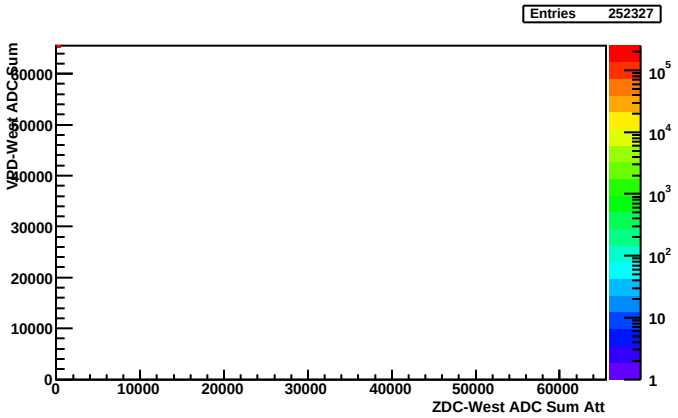

Entries 252327
BBC-S-East ADC Sum
VPD-East ADC Sum

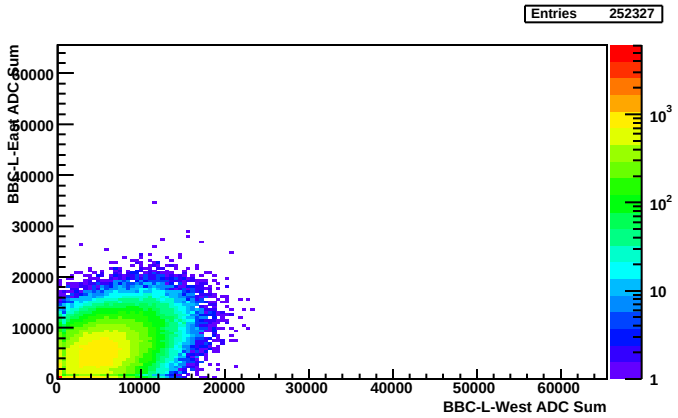

Entries 252327
BBC-S-West ADC Sum
VPD-West ADC Sum

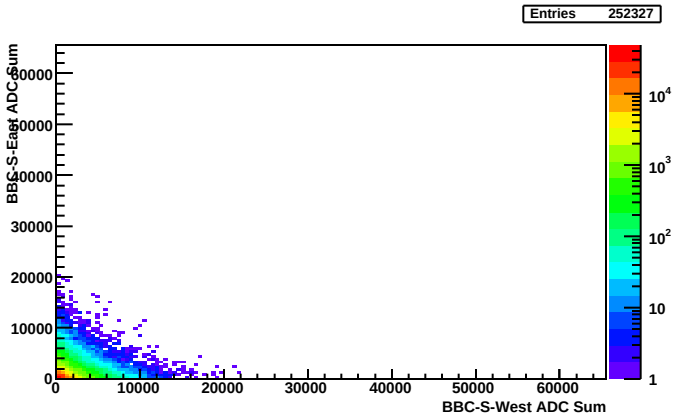

Entries 252327
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

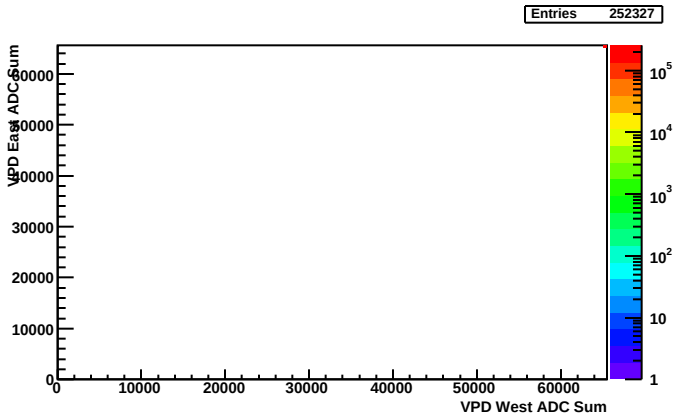

Entries 252327
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

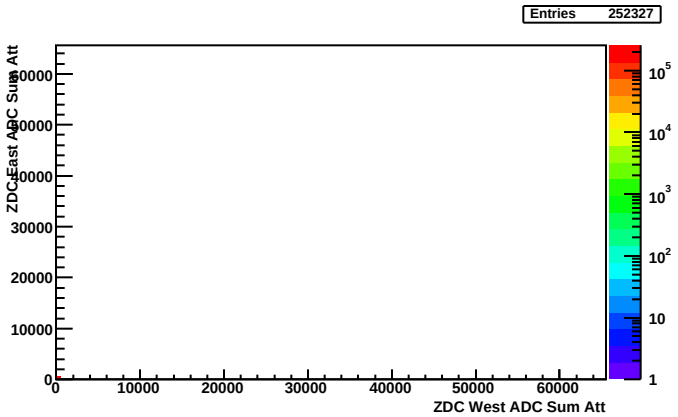

Entries 252327
VPD-East ADC Sum
ZDC-East ADC Sum Att

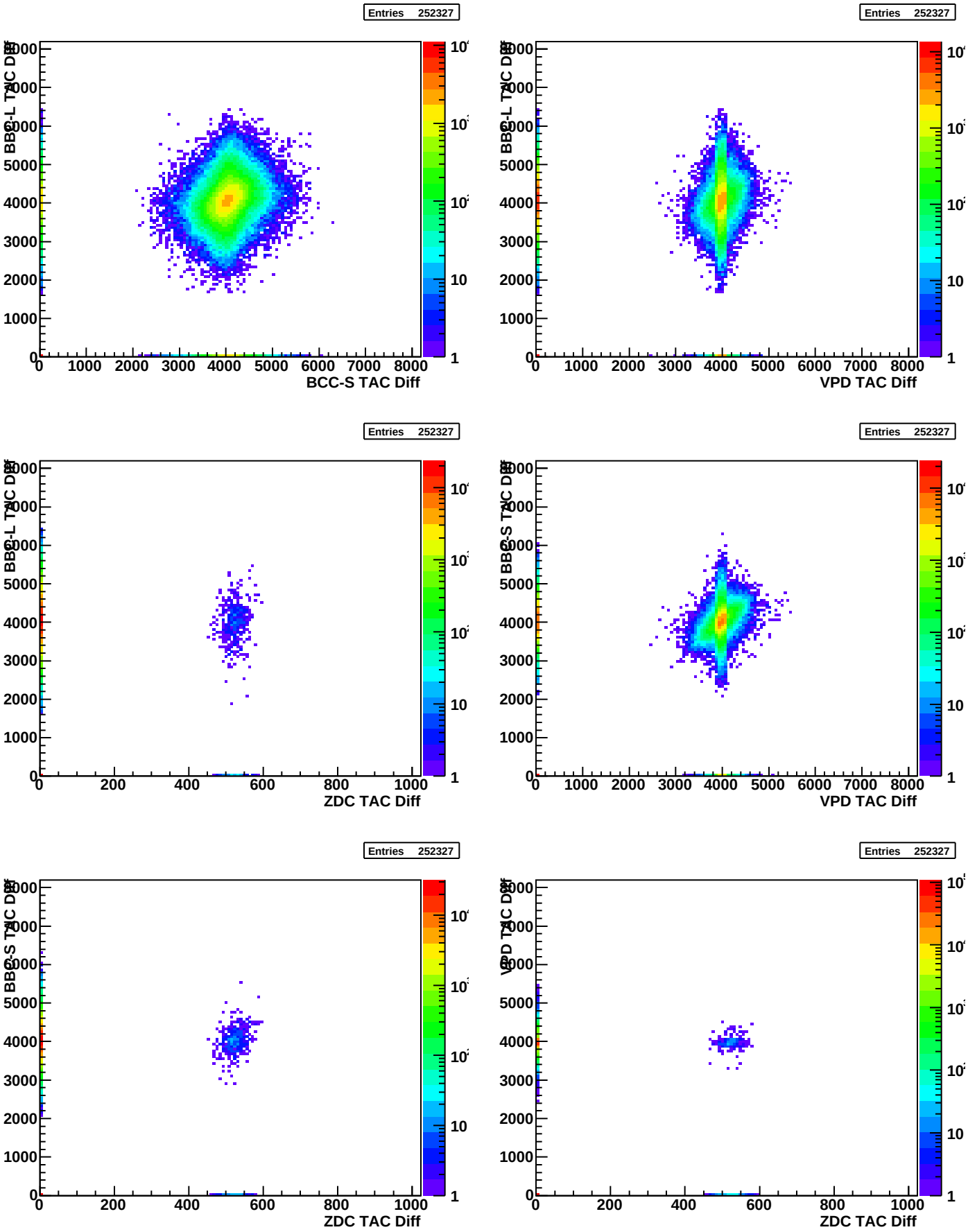

Entries 252327
VPD-West ADC Sum
ZDC-West ADC Sum Att

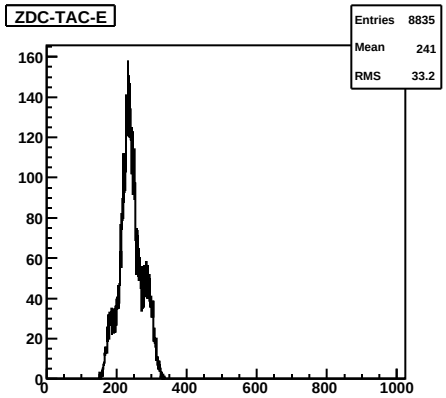

Entries 252327
BBC-L-East ADC Sum
BBC-L-West ADC Sum

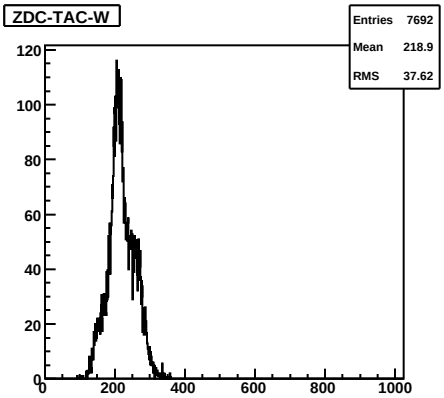

Entries 252327
BBC-S-East ADC Sum
BBC-S-West ADC Sum

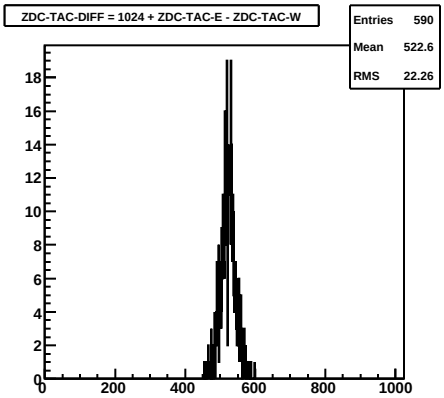

Entries 252327
VPD East ADC Sum
VPD West ADC Sum

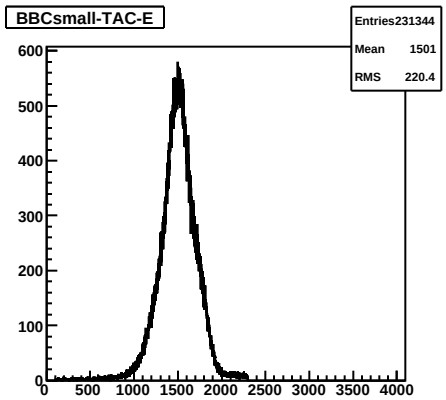

Entries 252327
ZDC East ADC Sum Att
ZDC West ADC Sum Att

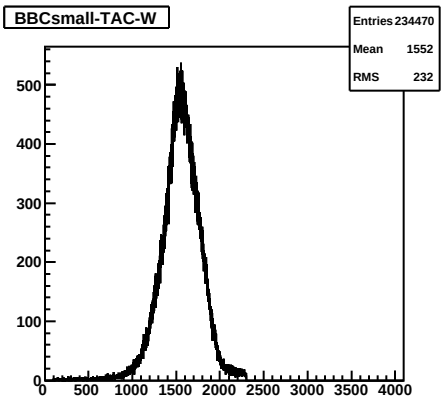

Entries 252327
BBC-L TAC Diff
BCC-S TAC Diff
Entries 252327
BBC-L TAC Diff
VPD TAC Diff
Entries 252327
BBC-L TAC Diff
ZDC TAC Diff
Entries 252327
BBC-S TAC Diff
VPD TAC Diff
Entries 252327
BBC-S TAC Diff
ZDC TAC Diff
Entries 252327
VPD TAC Diff
ZDC TAC Diff

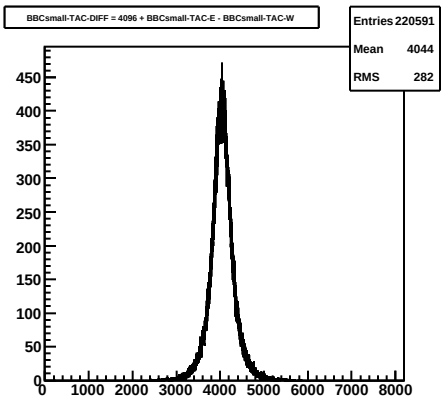

ZDC-TAC-E
Entries 8835
Mean 241
RMS 33.2

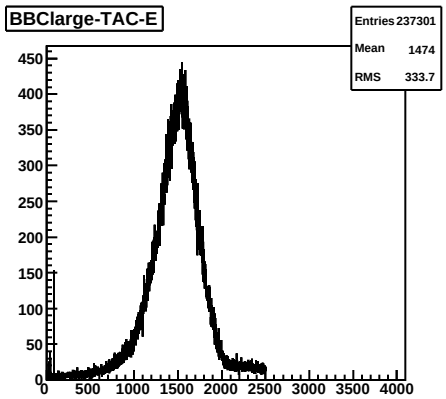

ZDC-TAC-W
Entries 7692
Mean 218.9
RMS 37.62

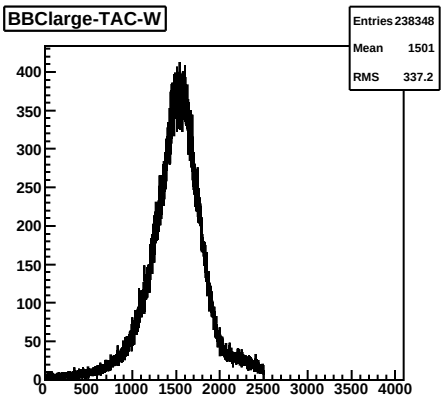

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 590
Mean 522.6
RMS 22.26

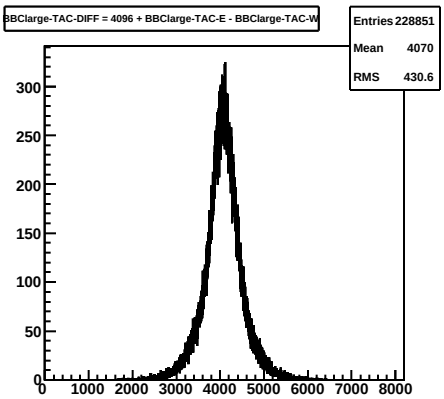

BBCsmall-TAC-E
Entries 231344
Mean 1501
RMS 220.4

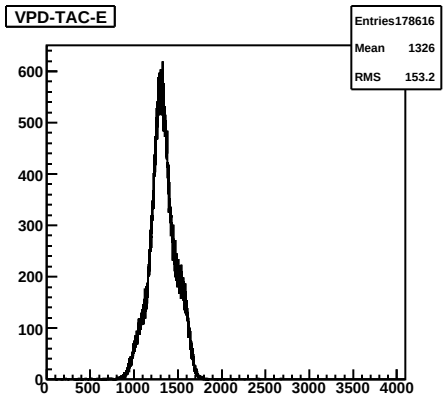

BBCsmall-TAC-W
Entries 234470
Mean 1552
RMS 232

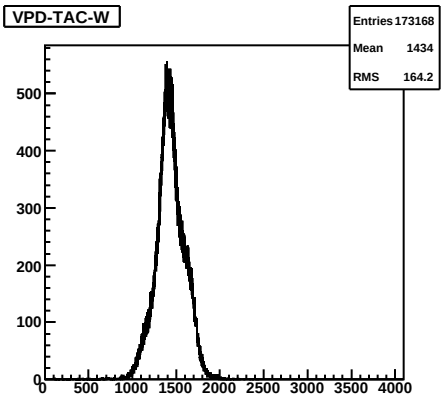

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 220591
Mean 4044
RMS 282

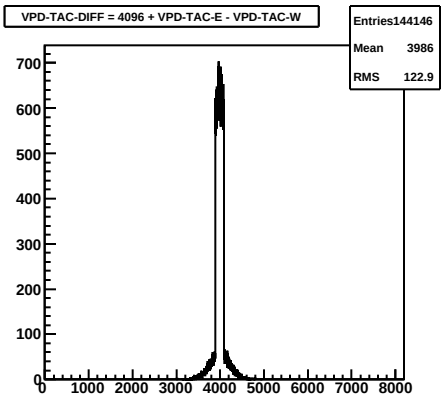

BBClarge-TAC-E
Entries 237301
Mean 1474
RMS 333.7

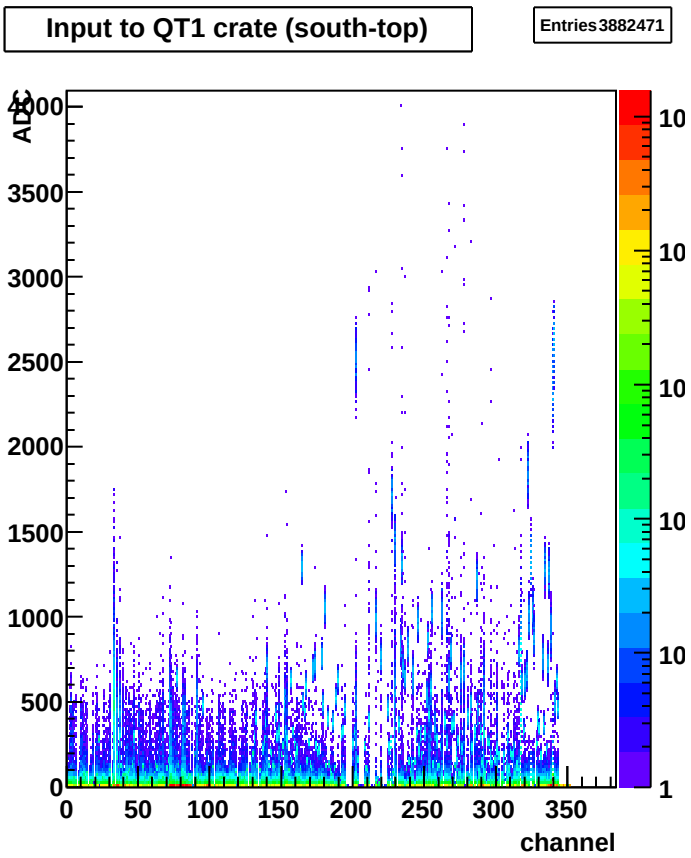

BBClarge-TAC-W
Entries 238348
Mean 1501
RMS 337.2

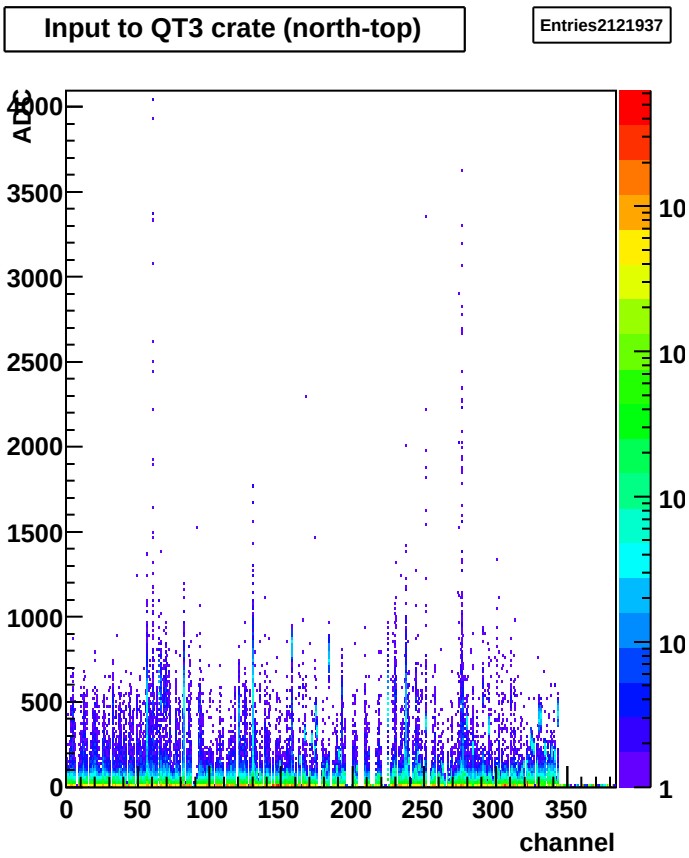

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 228851
Mean 4070
RMS 430.6

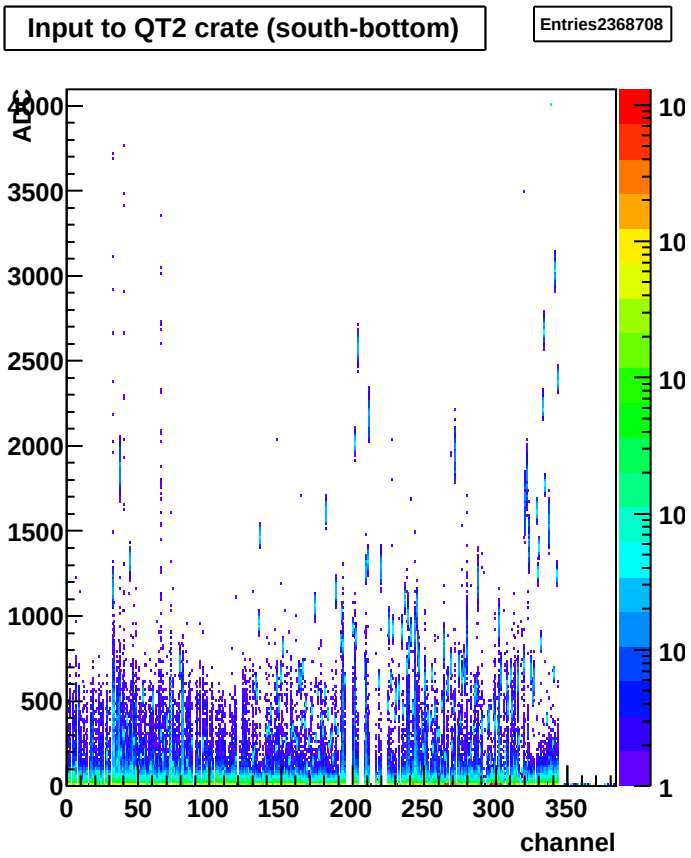

VPD-TAC-E
Entries 178616
Mean 1326
RMS 153.2

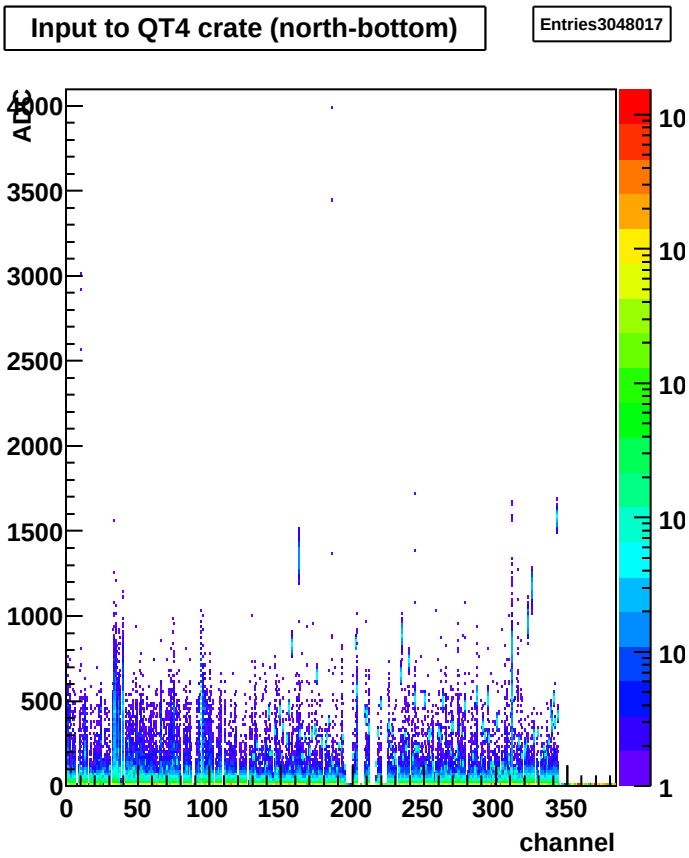

VPD-TAC-W
Entries 173168
Mean 1434
RMS 164.2

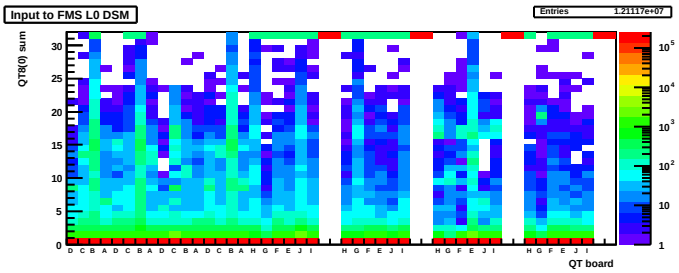

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 144146
Mean 3986
RMS 122.9

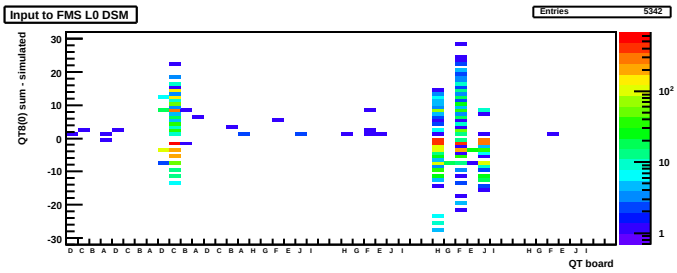

Input to QT1 crate (south-top)
Entries3882471
ADC
channel

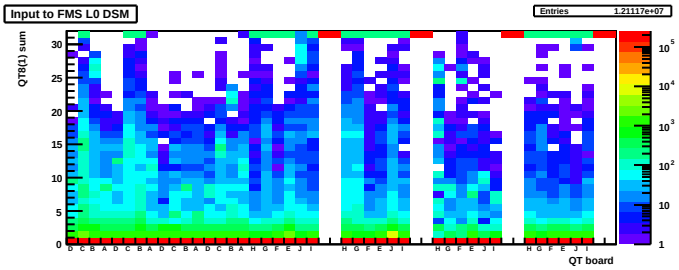

Input to QT3 crate (north-top)
Entries2121937
ADC
channel

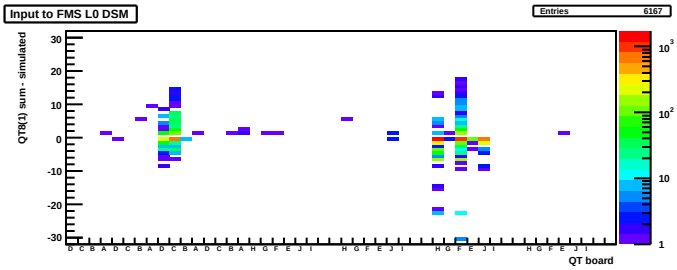

Input to QT2 crate (south-bottom)
Entries2368708
ADC
channel

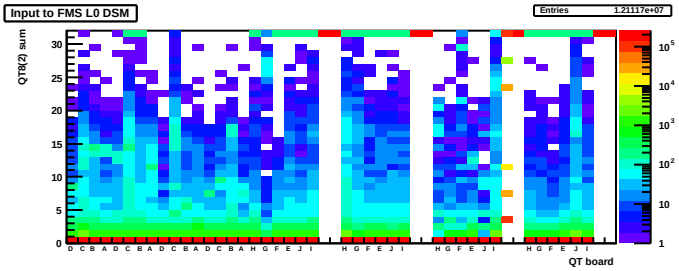

Input to QT4 crate (north-bottom)
Entries3048017
ADC
channel

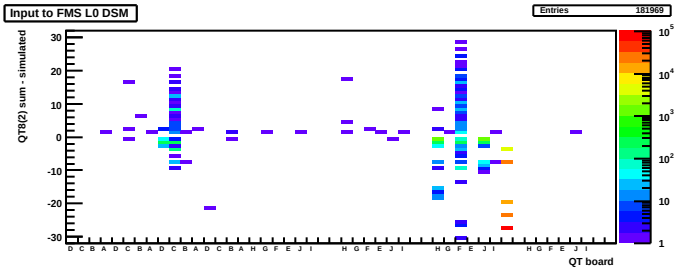

Input to FMS L0 DSM
Entries 1.21117e+07
QT8(0) sum
QT board

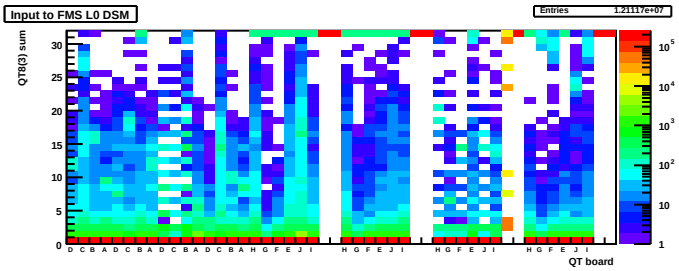

Input to FMS L0 DSM
Entries 5342
QT8(0) sum - simulated
QT board

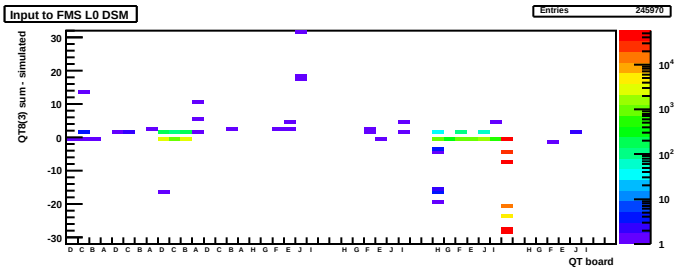

Input to FMS L0 DSM
Entries 1.21117e+07
QT8(1) sum
QT board

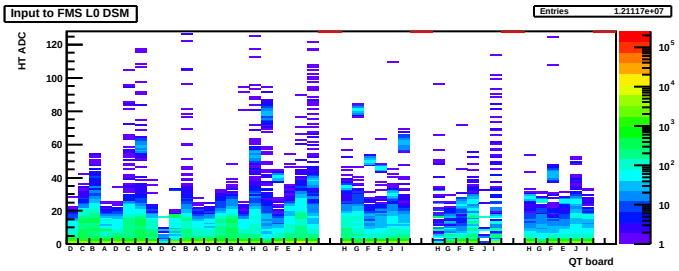

Input to FMS L0 DSM
Entries 6167
QT8(1) sum - simulated
QT board

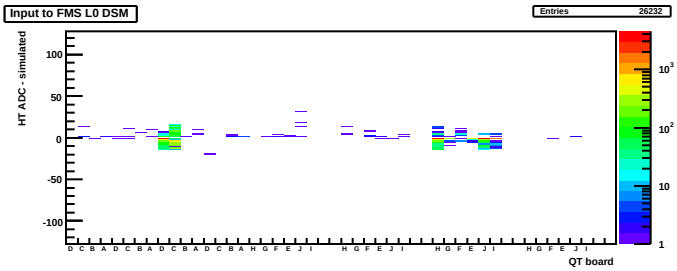

Input to FMS L0 DSM
Entries 1.21117e+07
QT8(2) sum
QT board

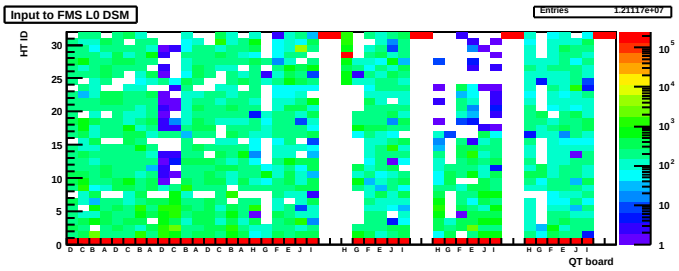

Input to FMS L0 DSM
Entries 181969
QT8(2) sum - simulated
QT board

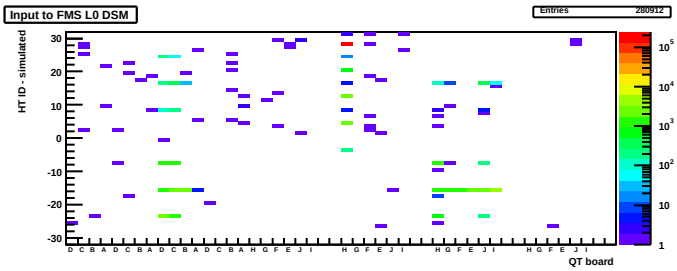

Input to FMS L0 DSM
Entries 1.21117e+07
QT8(3) sum
QT board

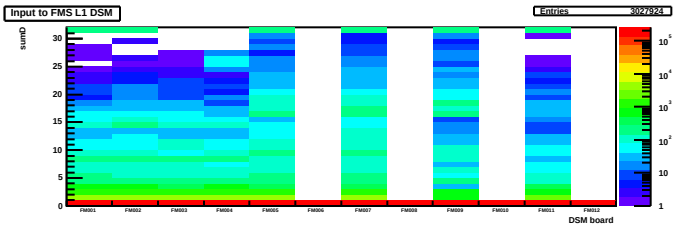

Input to FMS L0 DSM
Entries 245970
QT8(3) sum - simulated
QT board

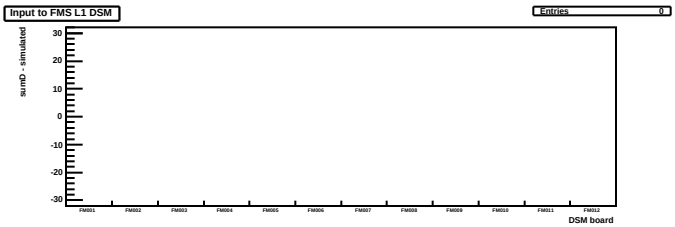

Input to FMS L0 DSM
Entries 1.21117e+07
HT ADC
QT board

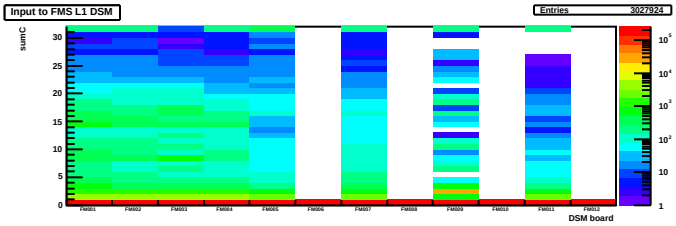

Input to FMS L0 DSM
Entries 26232
HT ADC - simulated
QT board

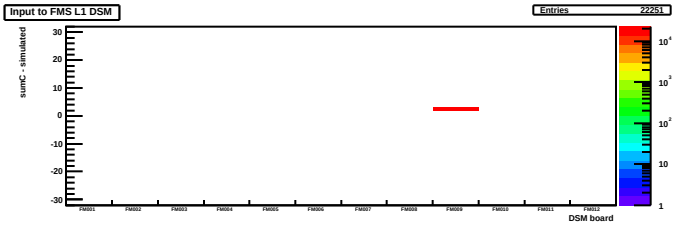

Input to FMS L0 DSM
Entries 1.21117e+07
HT ID
QT board

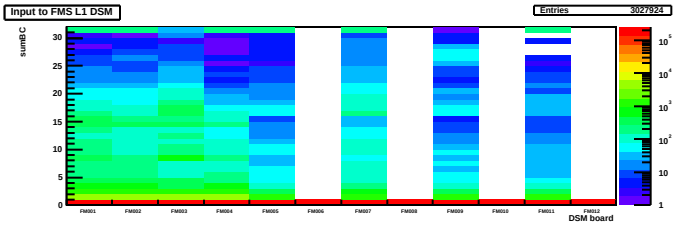

Input to FMS L0 DSM
Entries 280912
HT ID - simulated
QT board

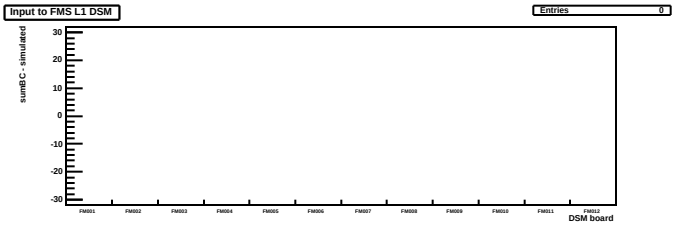

Input to FMS L1 DSM
Entries 3027924
sumD
DSM board

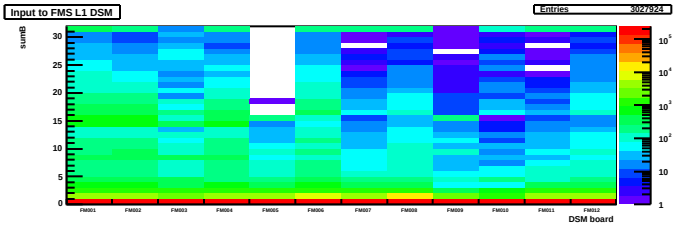

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

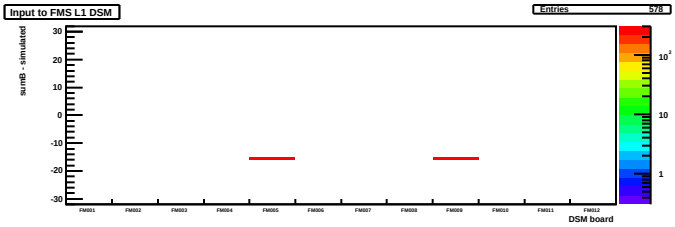

Input to FMS L1 DSM
Entries 3027924
sumC
DSM board

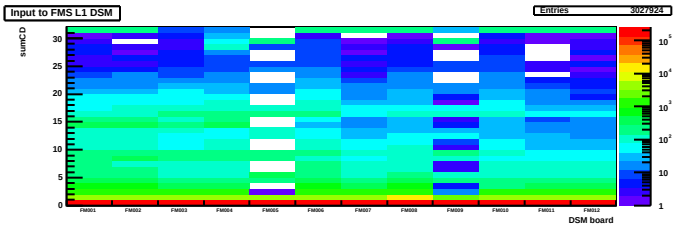

Input to FMS L1 DSM
Entries 22251
sumC - simulated
DSM board

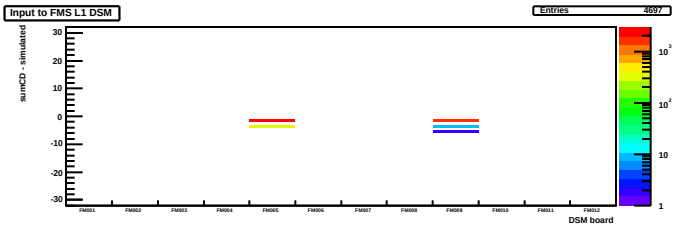

Input to FMS L1 DSM
Entries 3027924
sumBC
DSM board

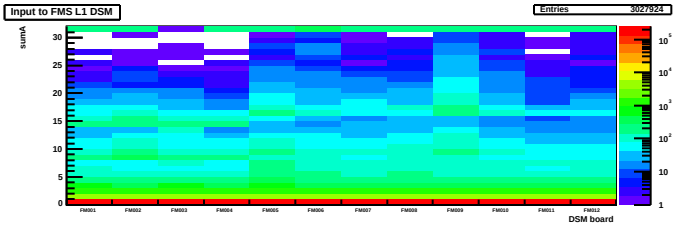

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

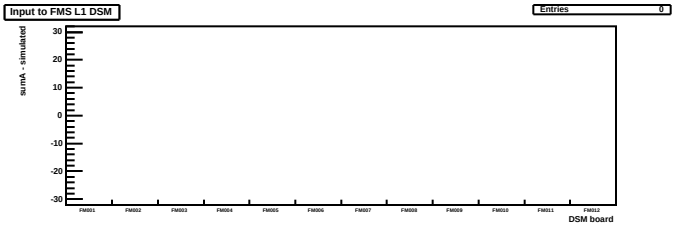

Input to FMS L1 DSM
Entries 3027924
sumB
DSM board

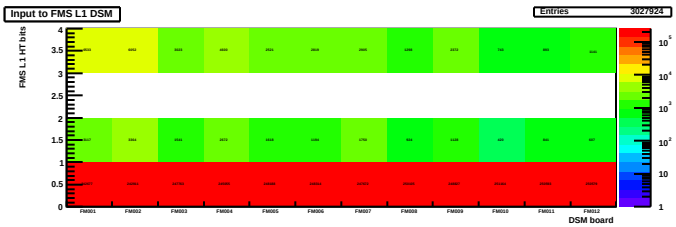

Input to FMS L1 DSM
Entries 578
sumB - simulated
DSM board

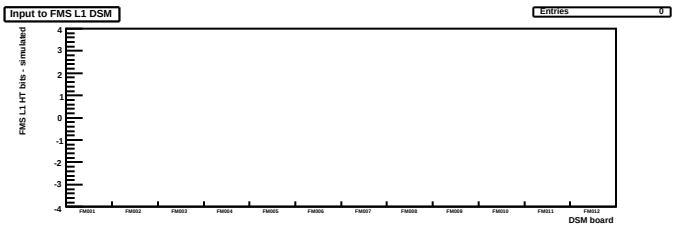

Input to FMS L1 DSM
Entries 3027924
sumCD
DSM board

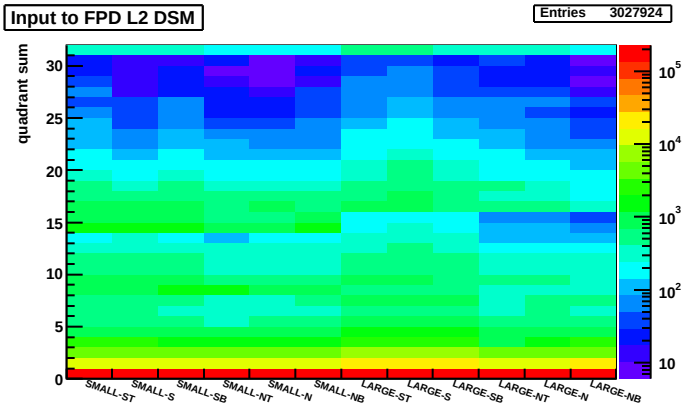

Input to FMS L1 DSM
Entries 4697
sumCD - simulated
DSM board

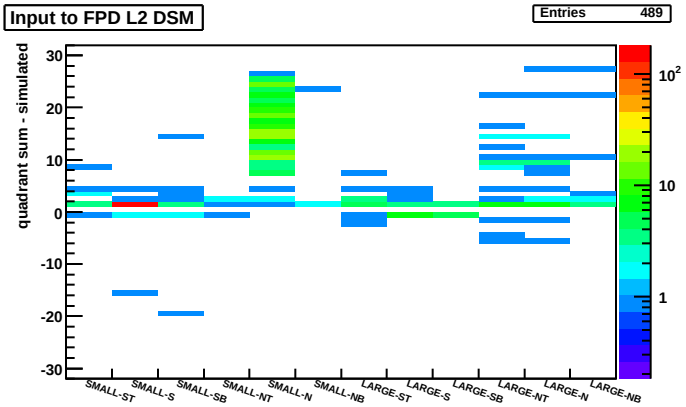

Input to FMS L1 DSM
Entries 3027924
sumA
DSM board

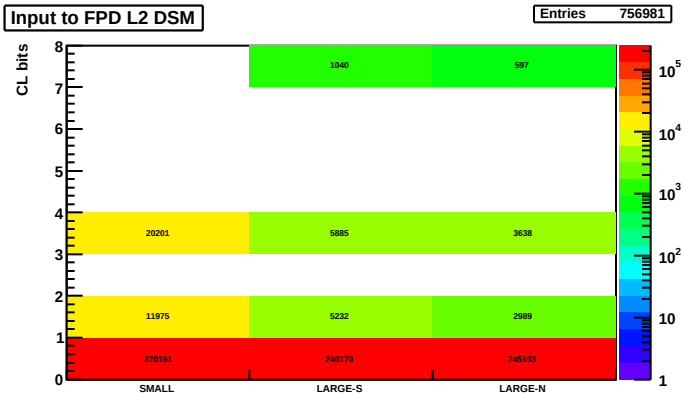

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

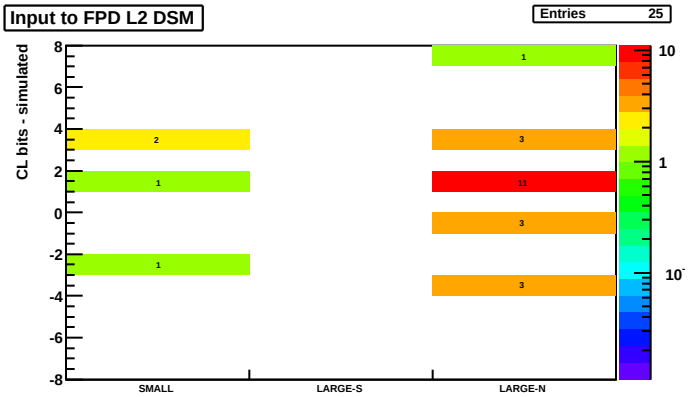

Input to FMS L1 DSM
Entries 3027924
FMS L1 HT bits
DSM board

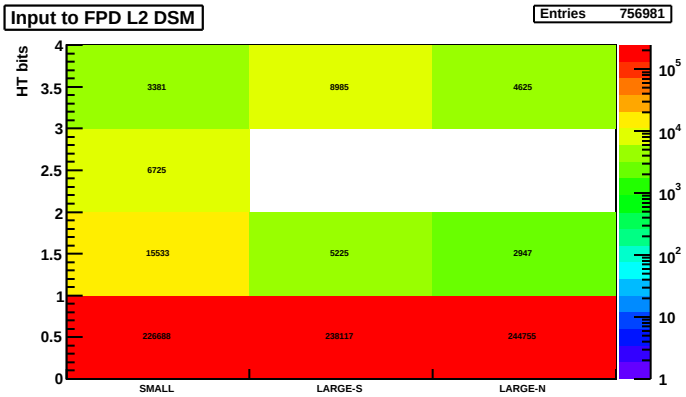

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

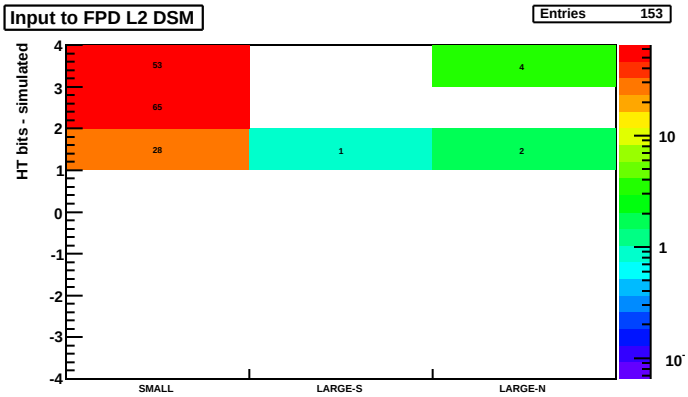

Input to FPD L2 DSM
Entries 3027924
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

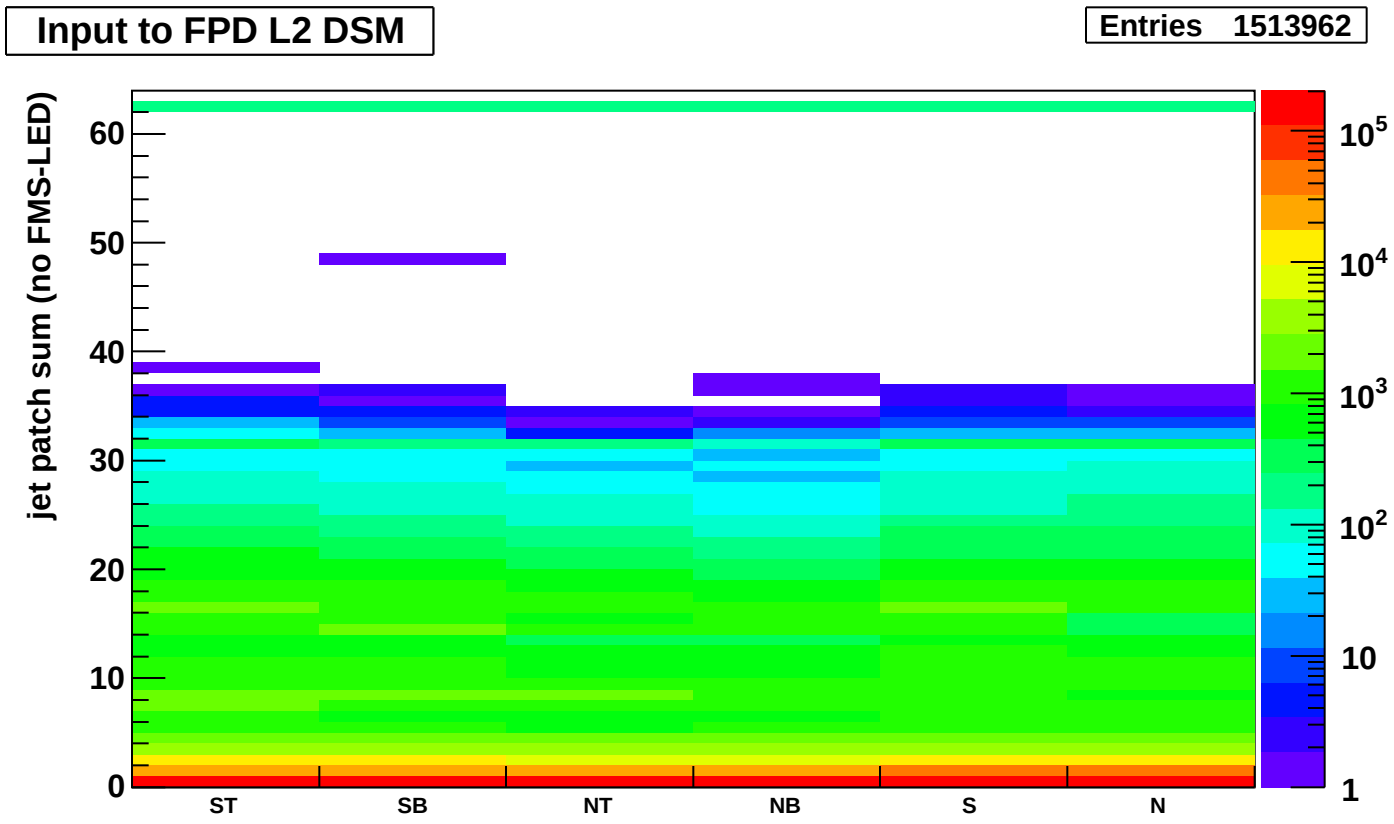

Input to FPD L2 DSM
Entries 489
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

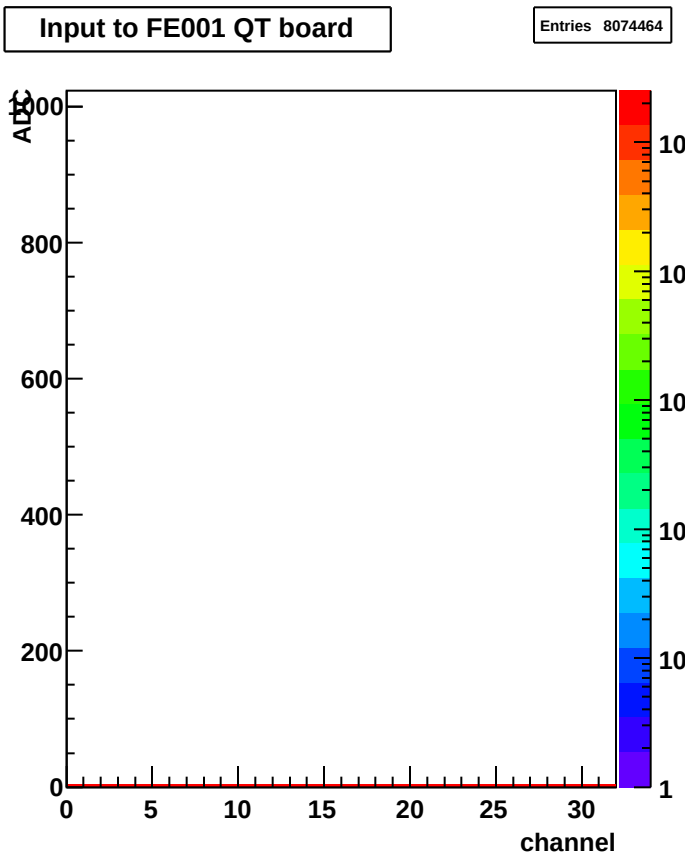

Input to FPD L2 DSM
Entries 756981
CL bits
1040
597
20201
5885
3638
11975
5232
2989
220151
240170
245103
SMALL
LARGE-S
LARGE-N

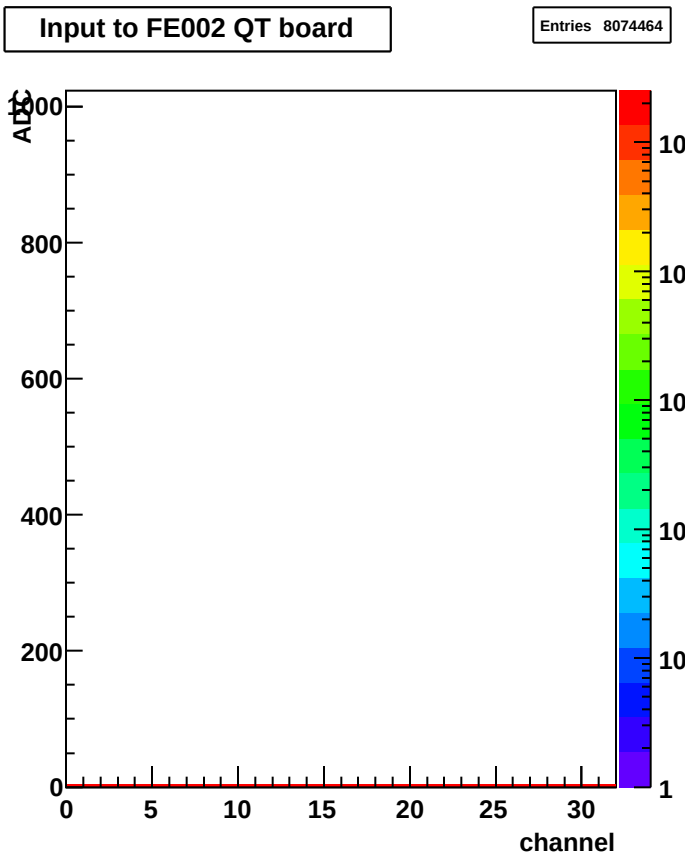

Input to FPD L2 DSM
Entries 25
CL bits - simulated
SMALL
LARGE-S
LARGE-N

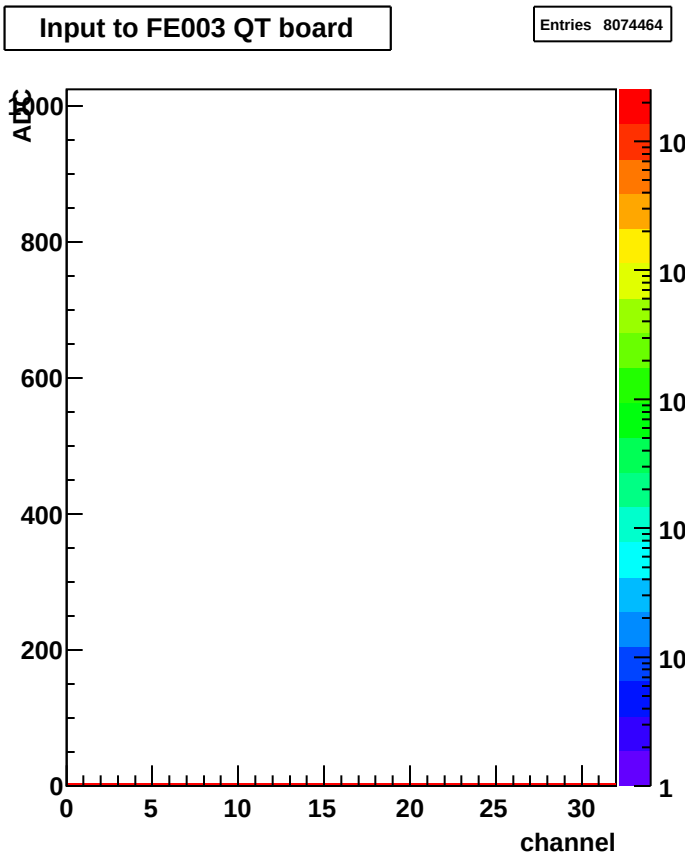

Input to FPD L2 DSM
Entries 756981
HT bits
3381
8985
4625
6725
15533
5225
2947
226688
238117
244755
SMALL
LARGE-S
LARGE-N

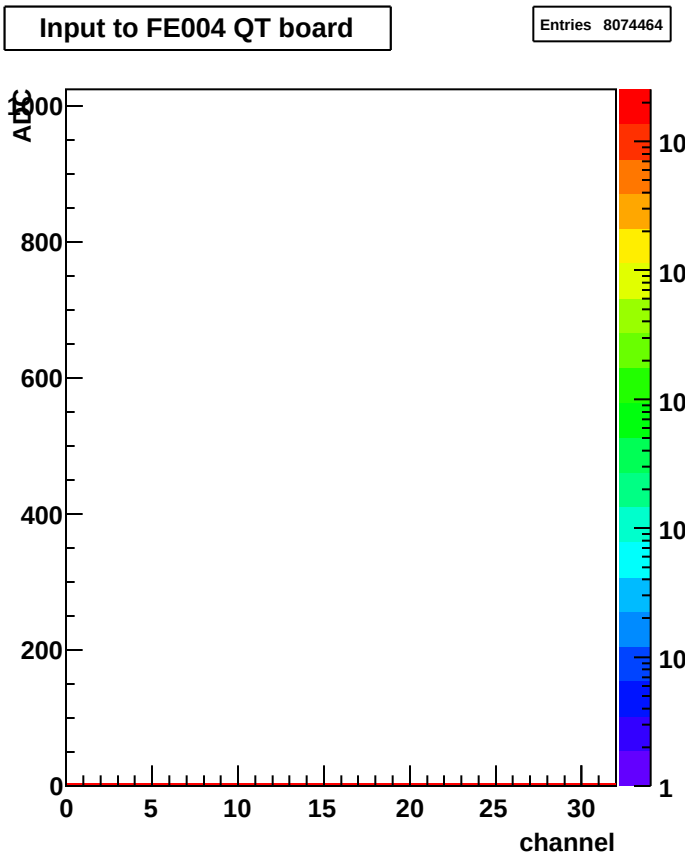

Input to FPD L2 DSM
Entries 153
HT bits - simulated
53
4
65
28
1
2
SMALL
LARGE-S
LARGE-N

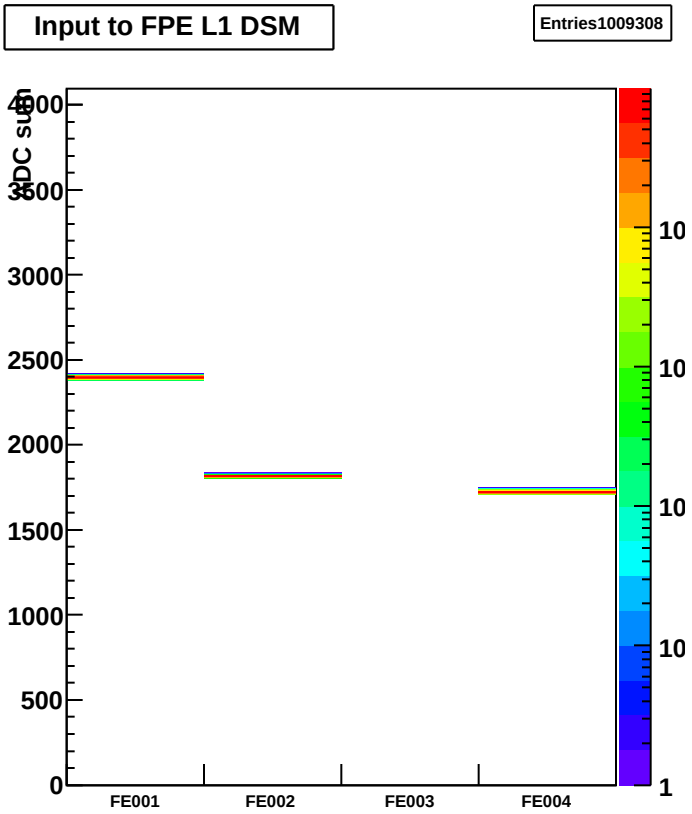

Input to FPD L2 DSM
Entries 1513962
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5


Input to FE001 QT board
Entries 8074464
ADC
channel

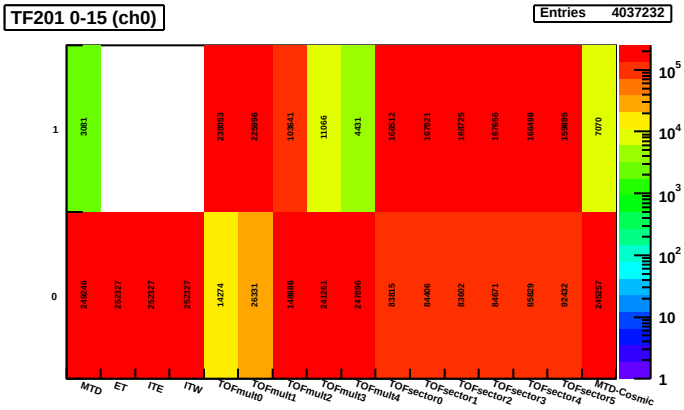

Input to FE002 QT board
Entries 8074464
ADC
channel


Input to FE003 QT board
Entries 8074464
ADC
channel

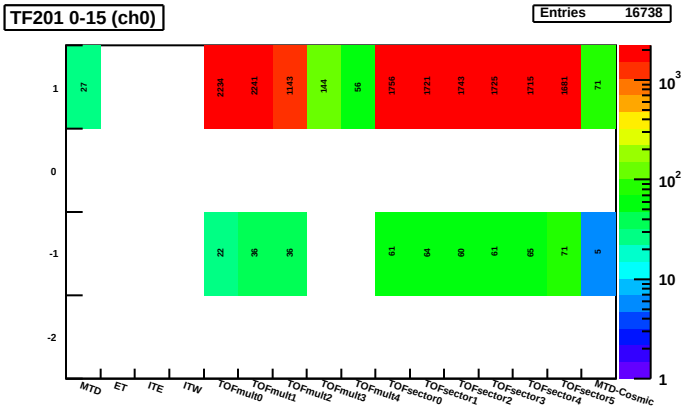

Input to FE004 QT board
Entries 8074464
ADC
channel


Input to FPE L1 DSM
Entries1009308
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

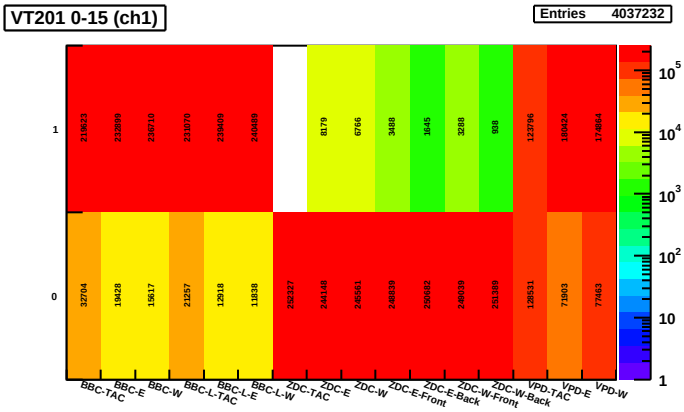
TF201 0-15 (ch0)



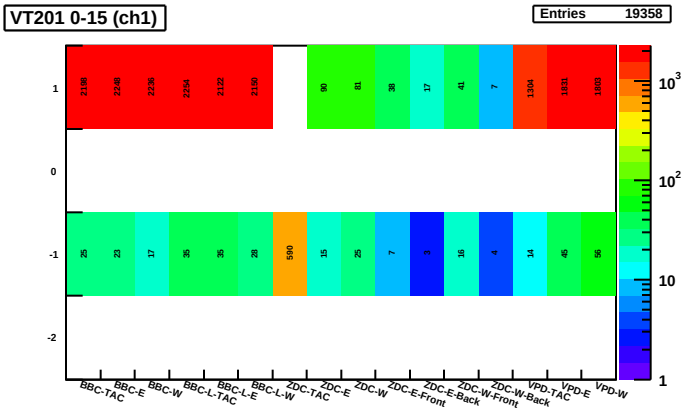
TF201 0-15 (ch0)



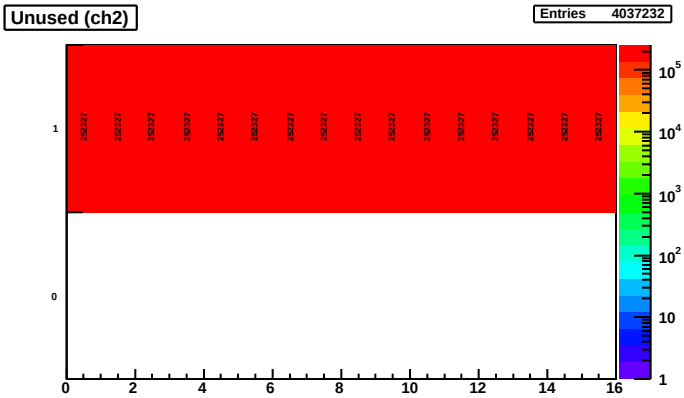
VT201 0-15 (ch1)

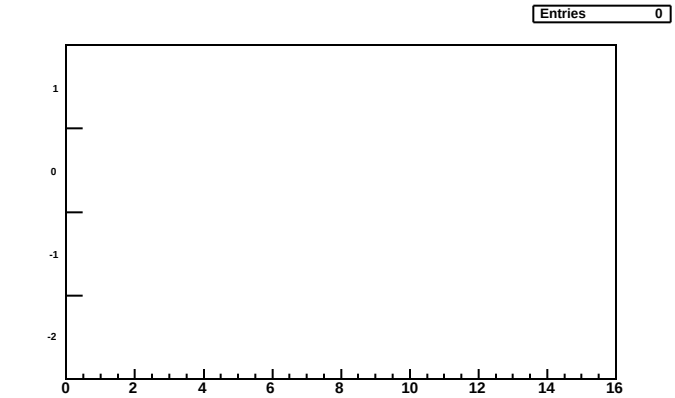


VT201 0-15 (ch1)

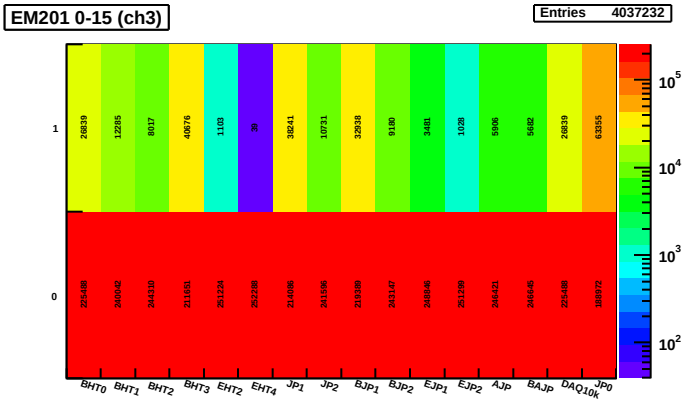


Unused (ch2)





EM201 0-15 (ch3)



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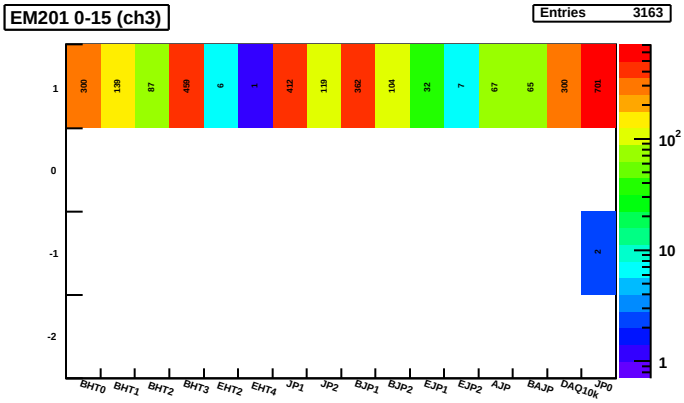
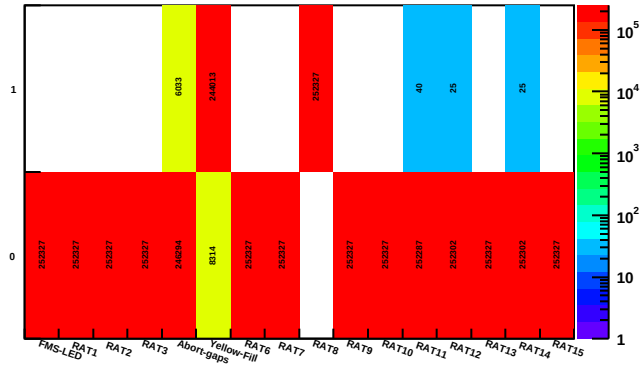
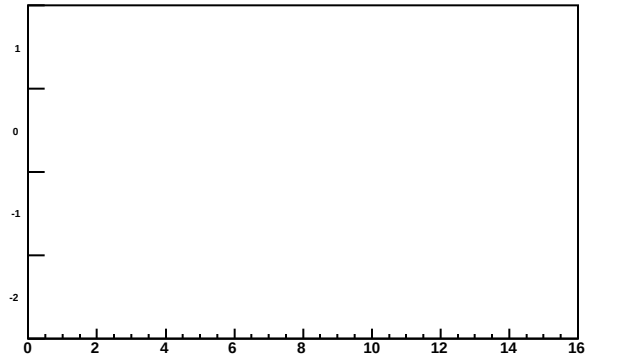


RAT board (ch4)





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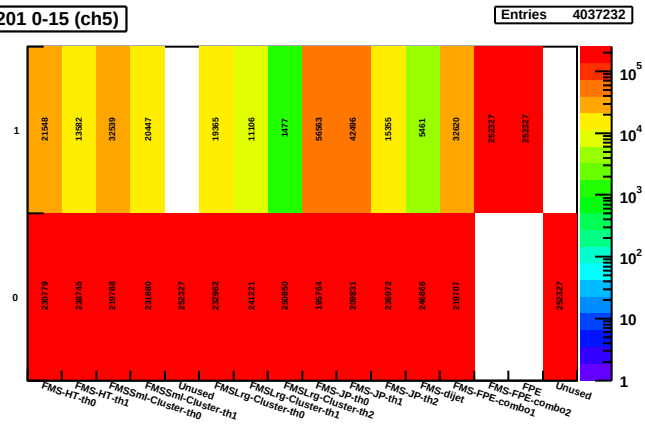

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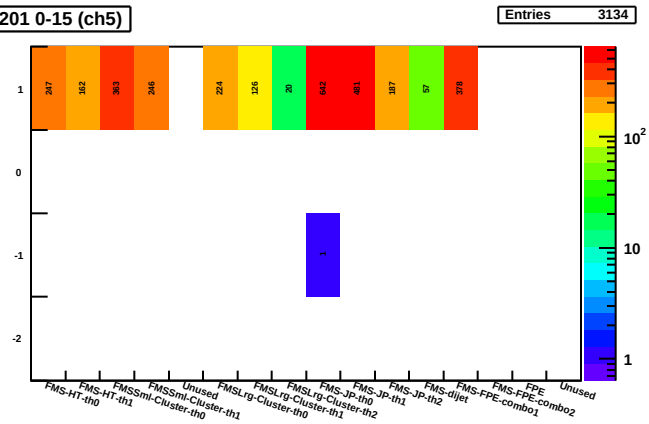

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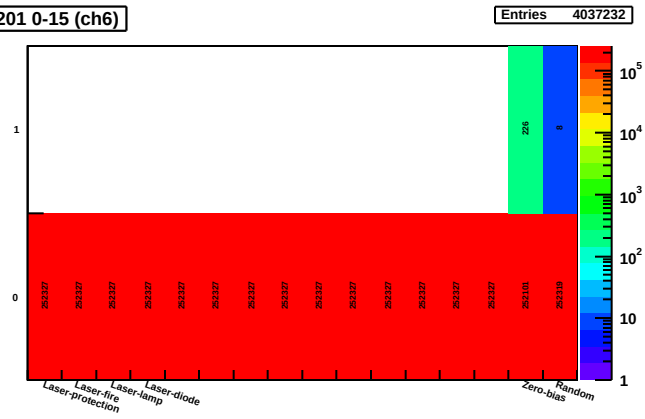

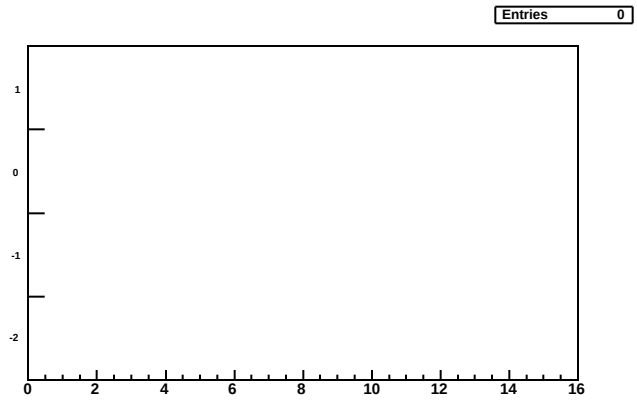
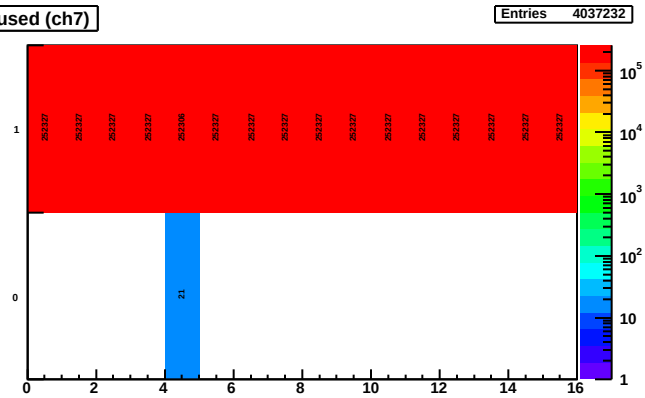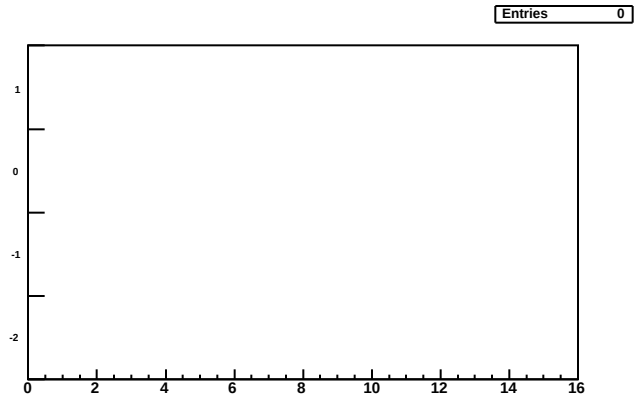
Unused (ch7)