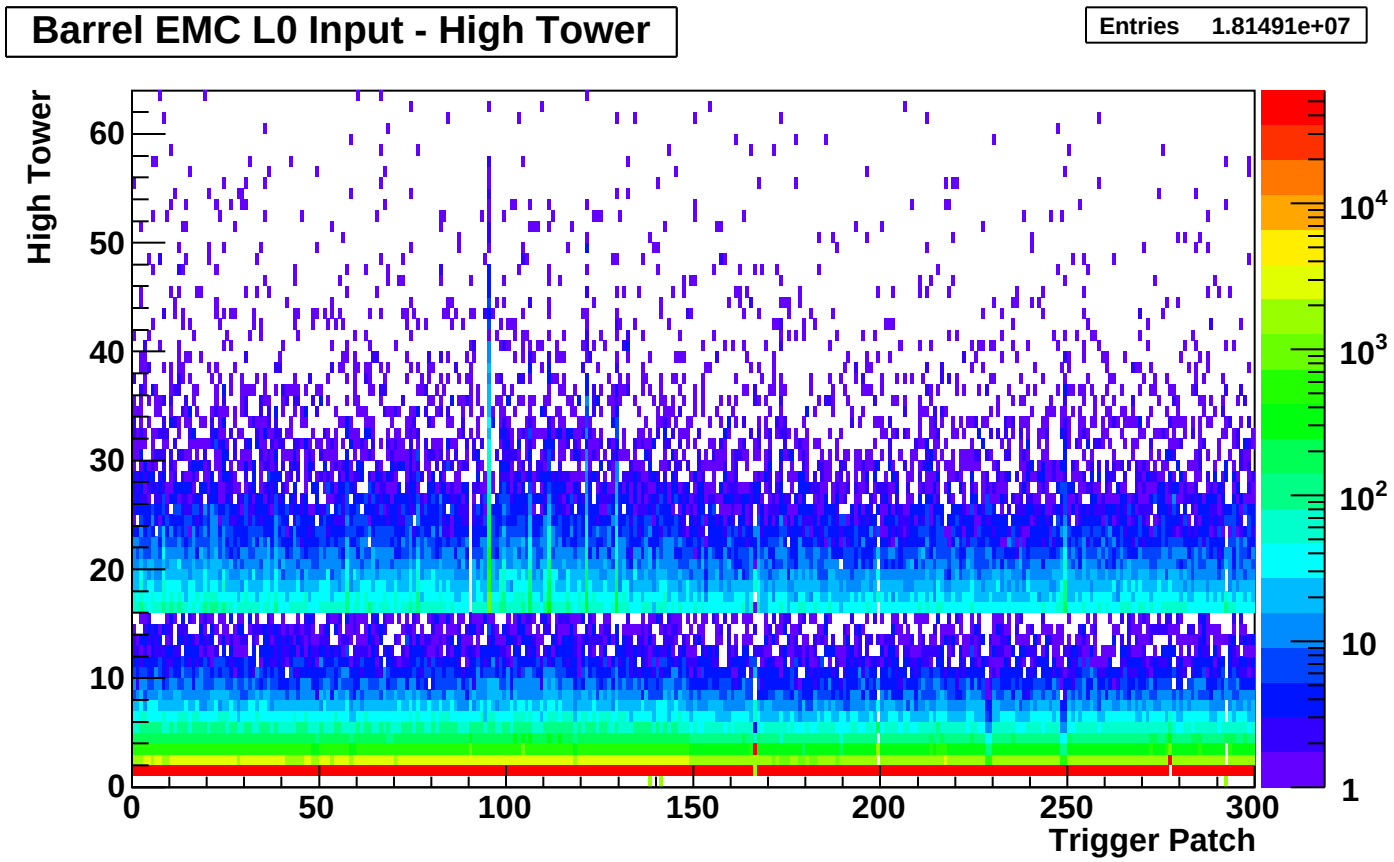
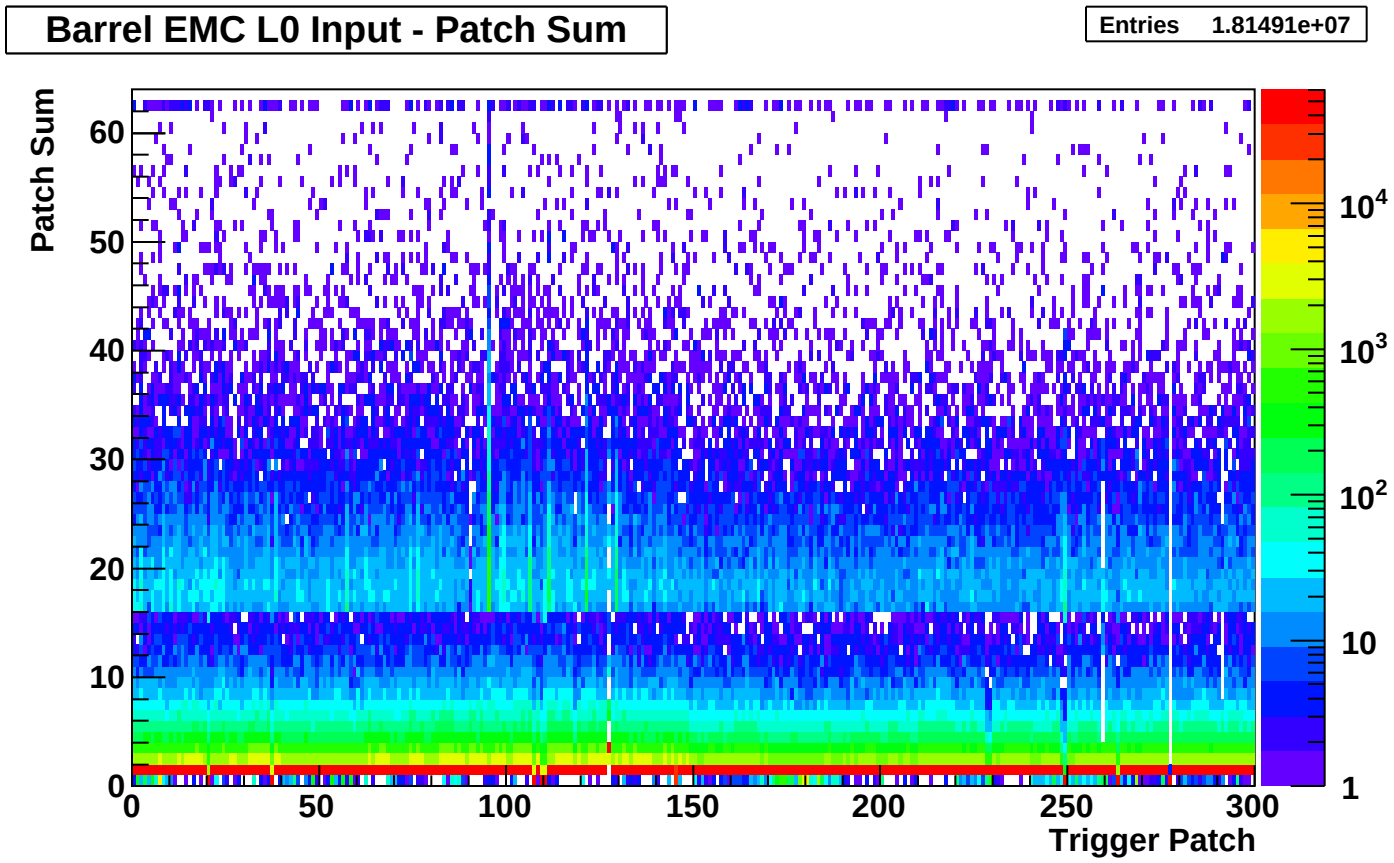
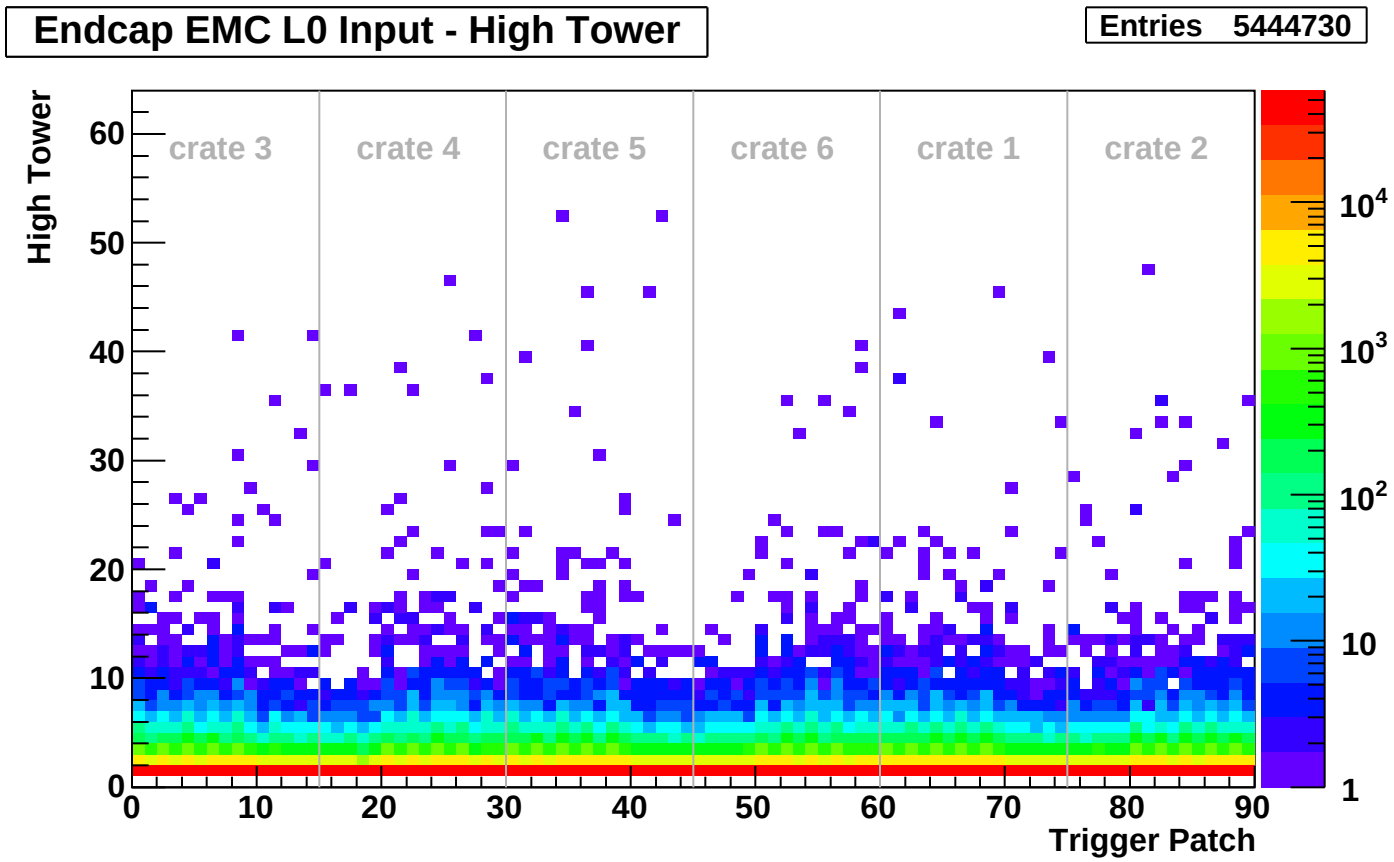
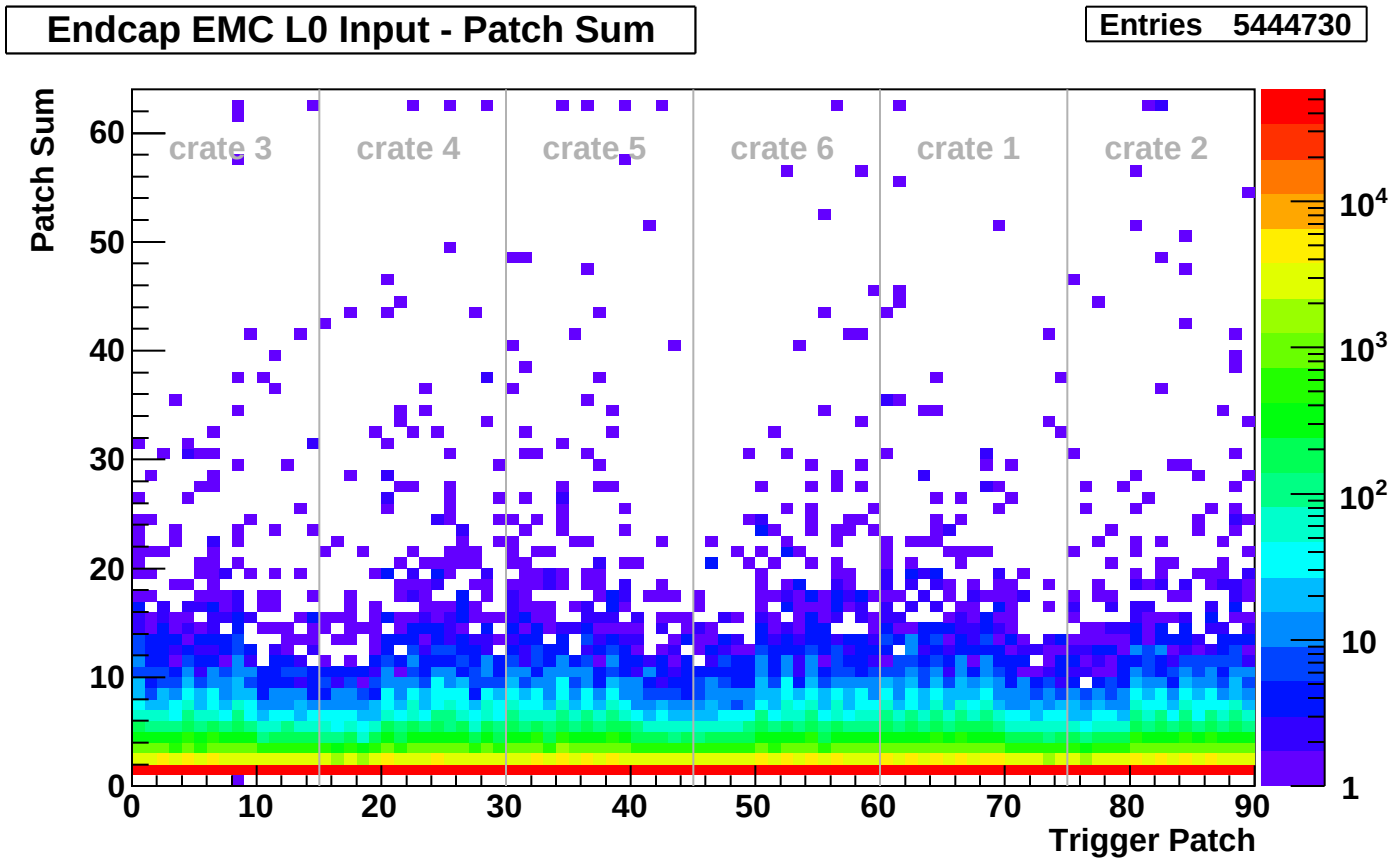
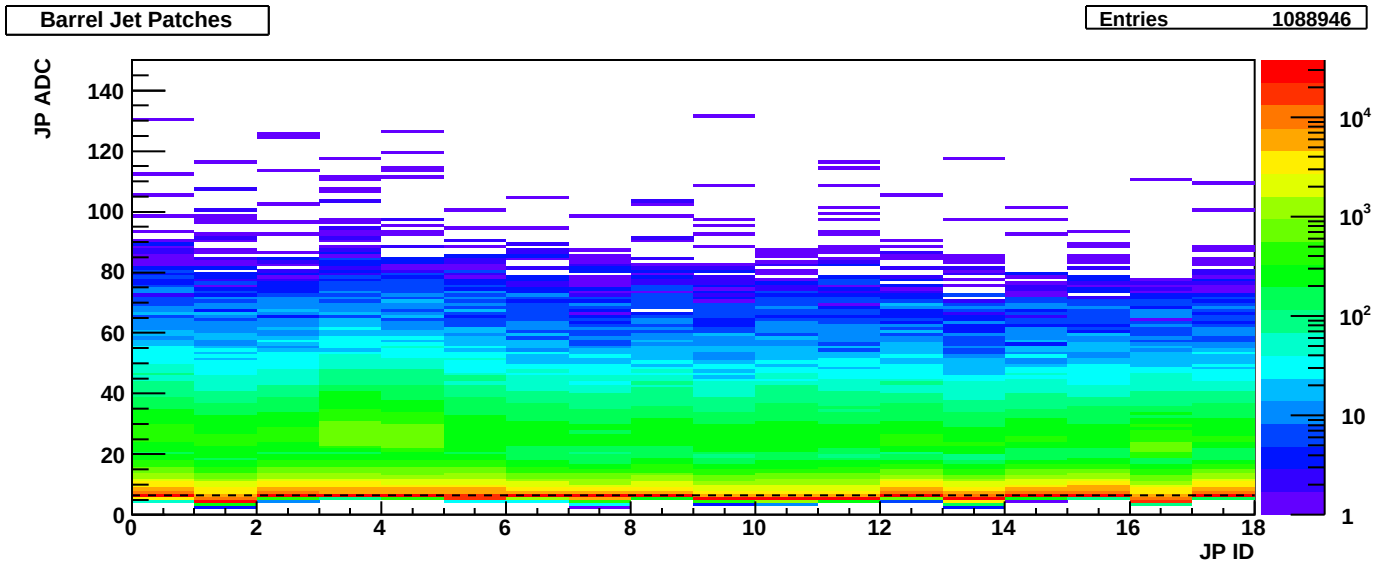
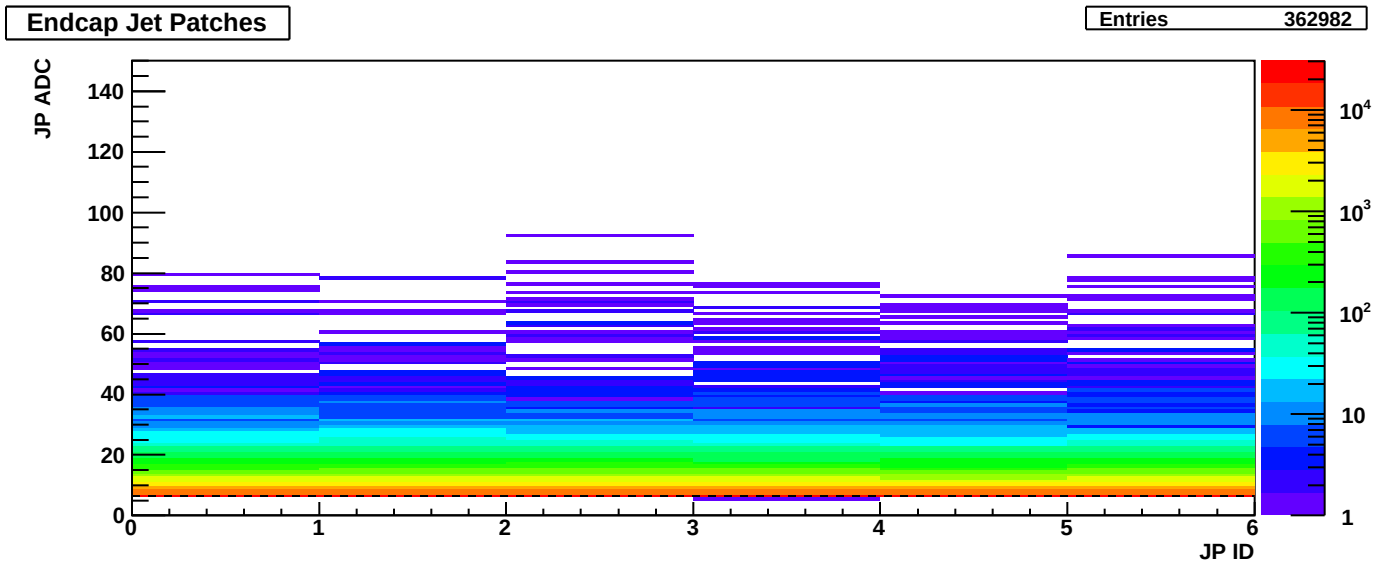

Barrel EMC L0 Input - High Tower
Entries 1.81491e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

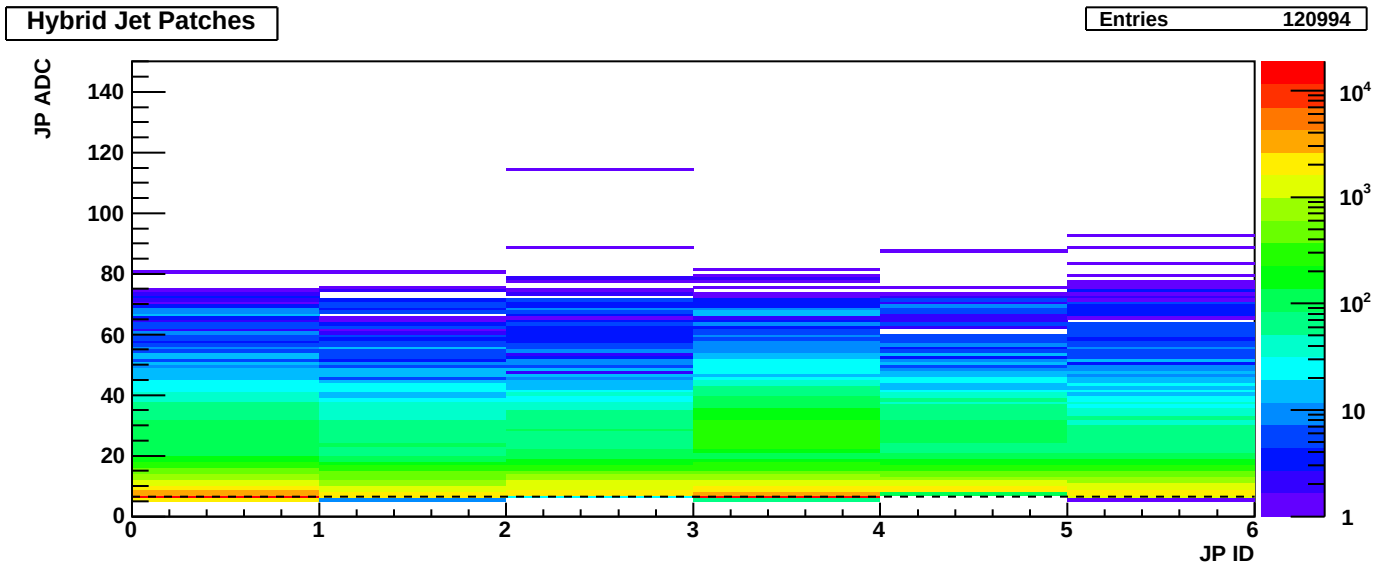

Barrel EMC L0 Input - Patch Sum
Entries 1.81491e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

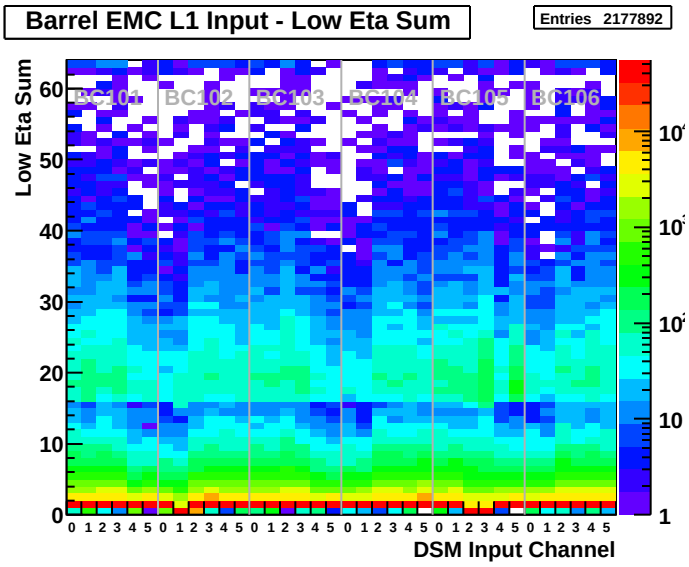

Endcap EMC L0 Input - High Tower
Entries 5444730
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3
10^4

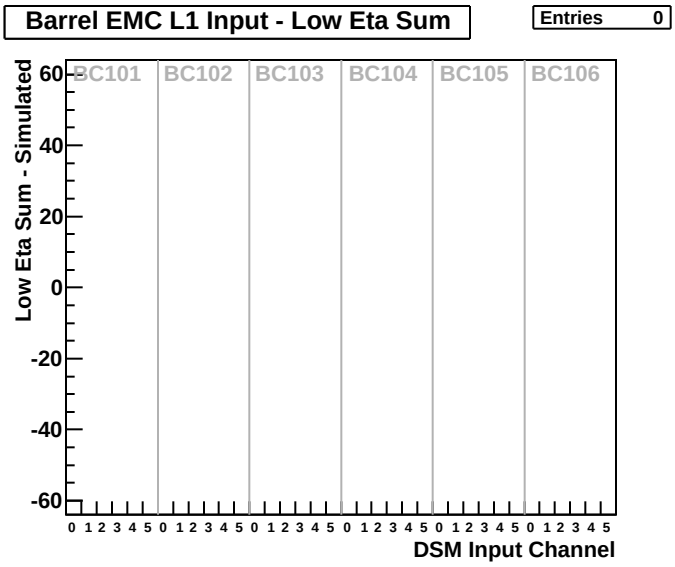

Endcap EMC L0 Input - Patch Sum
Entries 5444730
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3
10^4

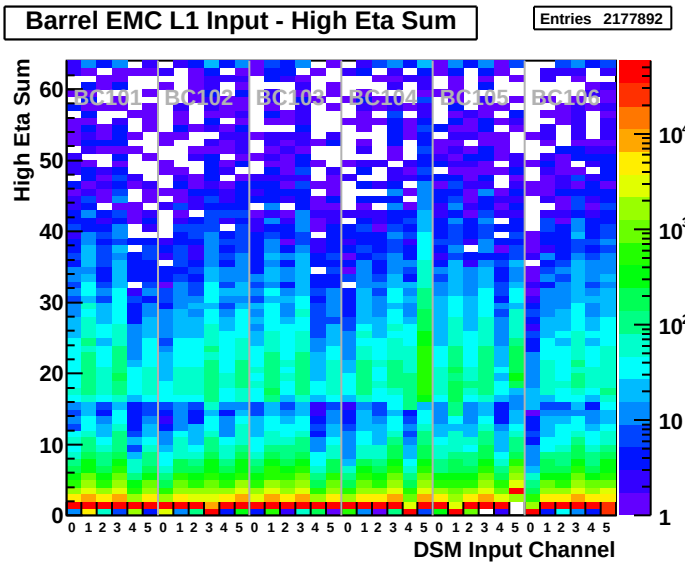

Barrel Jet Patches
Entries 1088946
JP ADC
JP ID

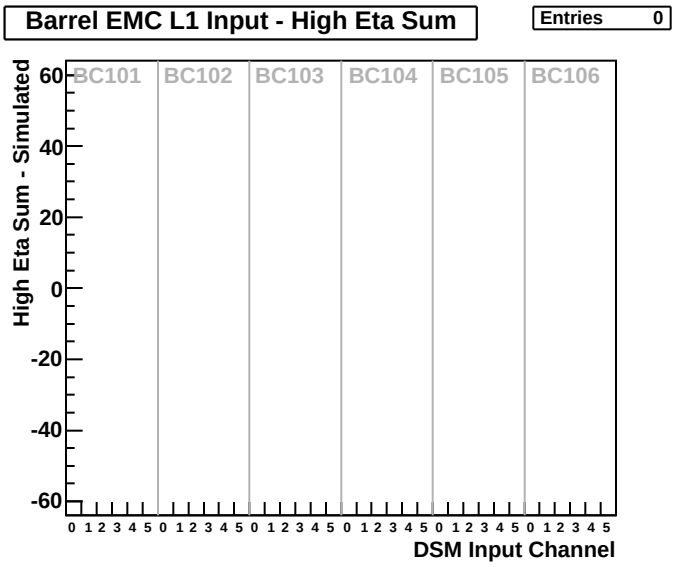

Endcap Jet Patches
Entries 362982
JP ADC
JP ID

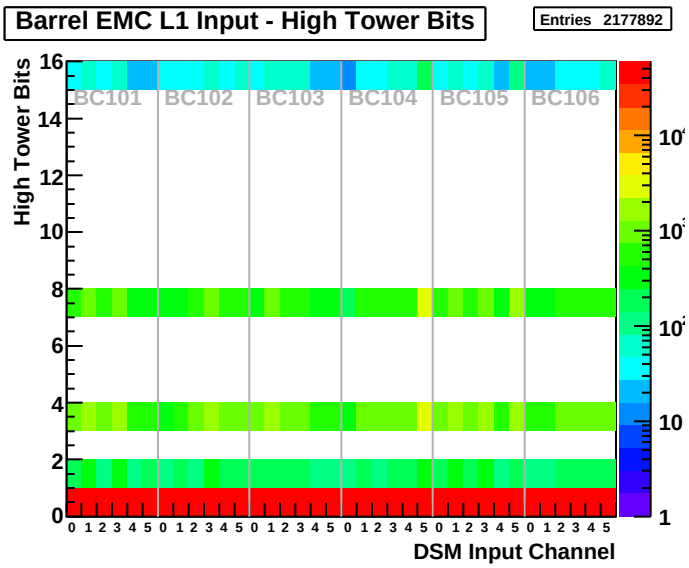

Hybrid Jet Patches
Entries 120994
JP ADC
JP ID

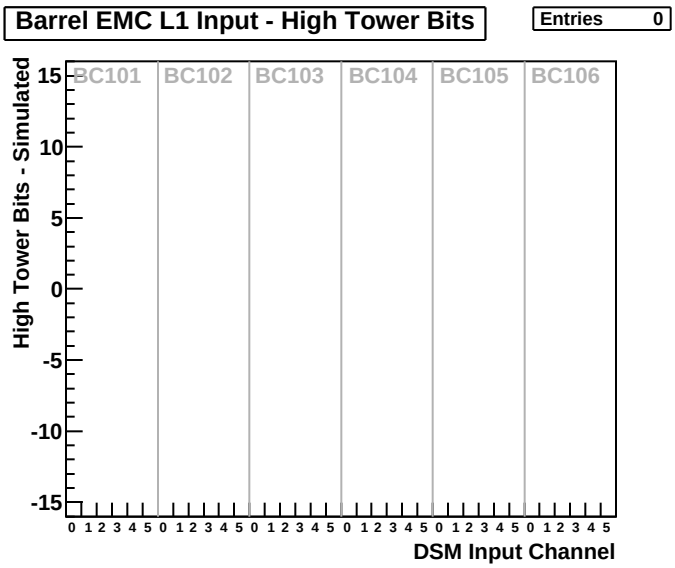

Barrel EMC L1 Input - Low Eta Sum
Entries 2177892
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

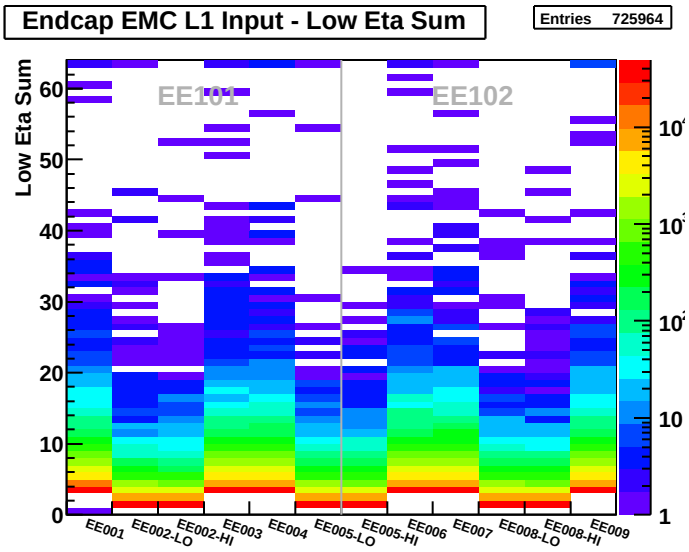

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

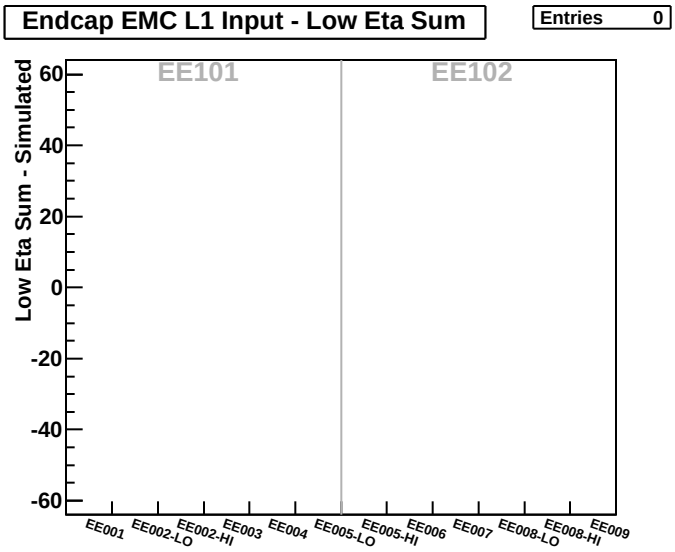

Barrel EMC L1 Input - High Eta Sum
Entries 2177892
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

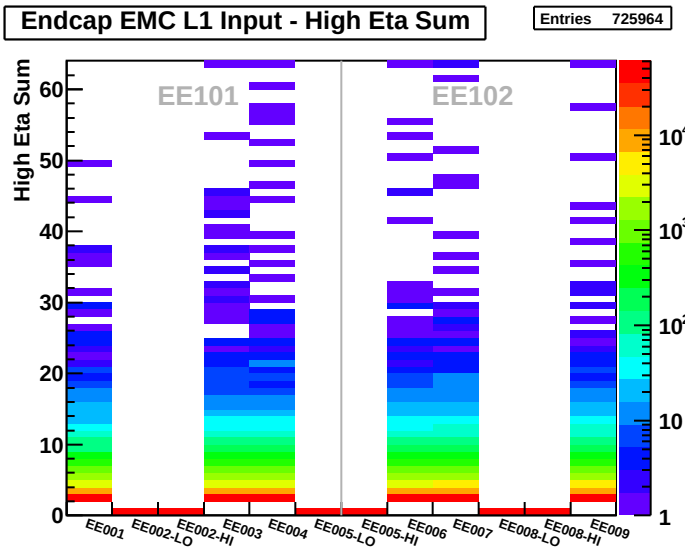

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

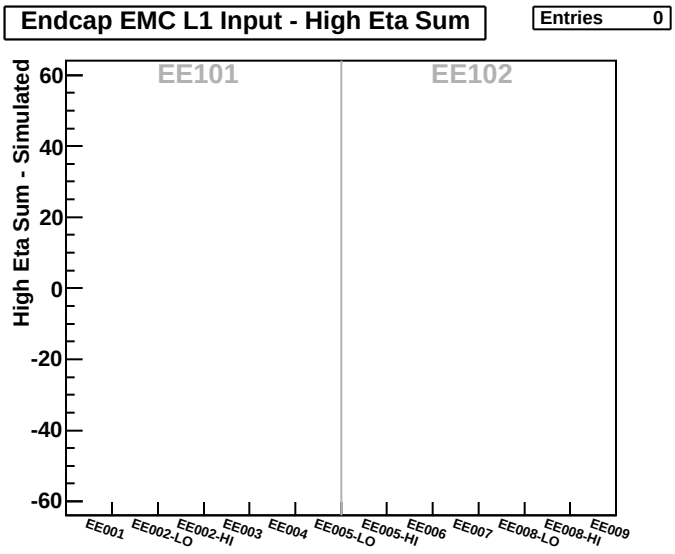

Barrel EMC L1 Input - High Tower Bits
Entries 2177892
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

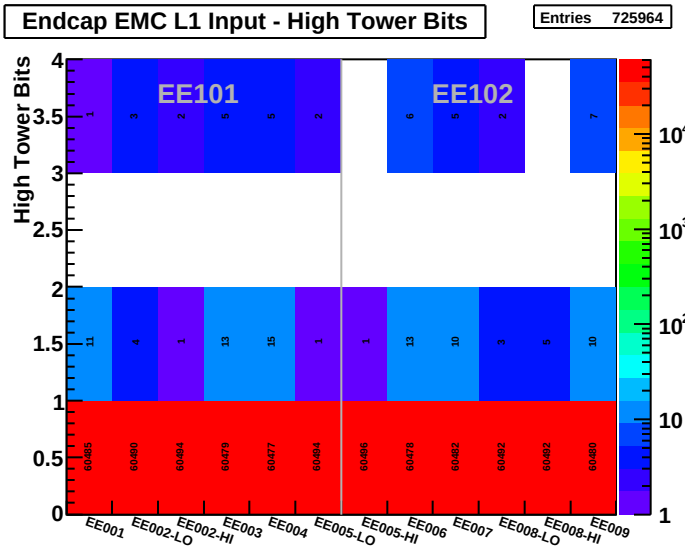

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

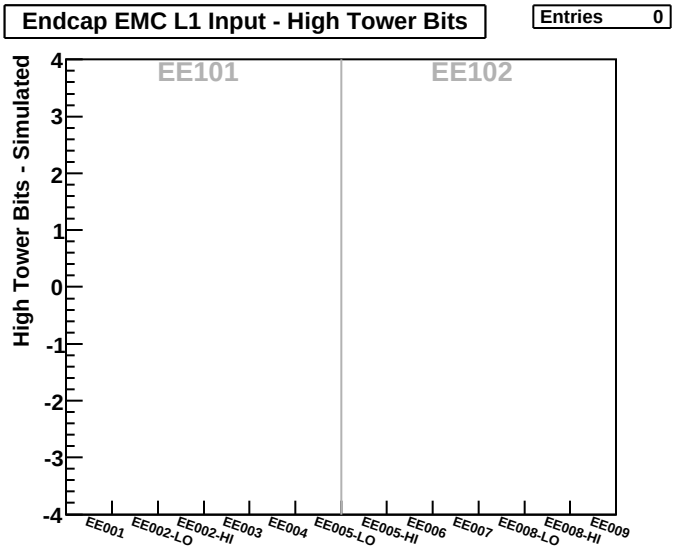

Endcap EMC L1 Input - Low Eta Sum
Entries 725964
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

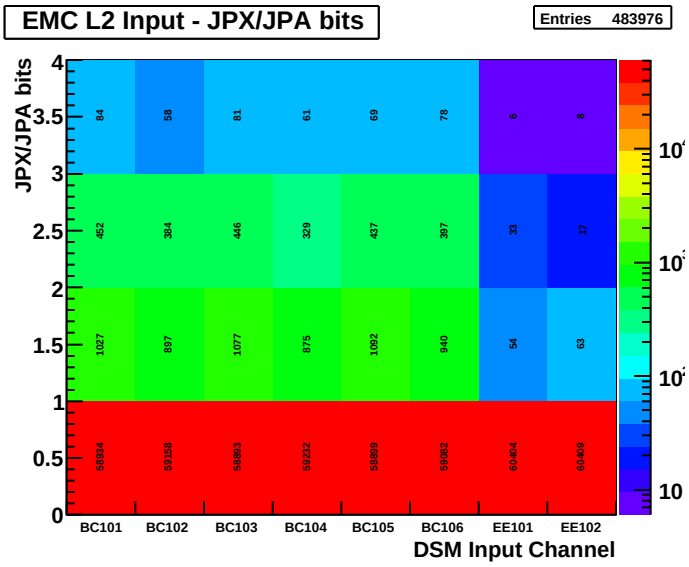

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

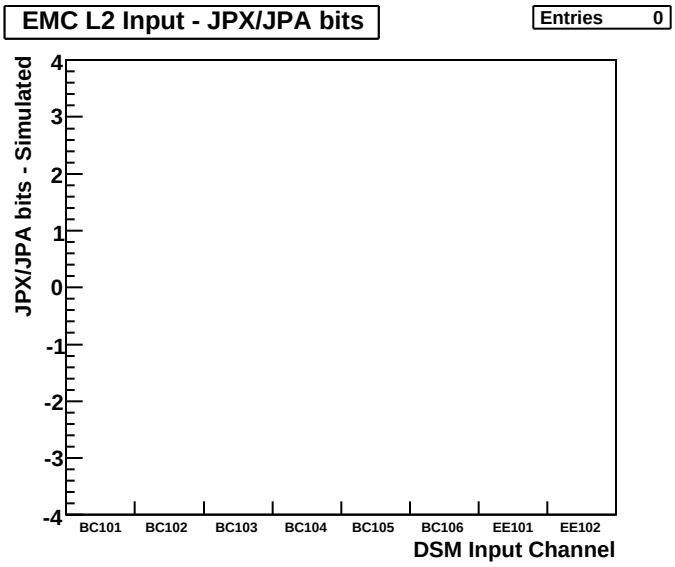

Endcap EMC L1 Input - High Eta Sum
Entries 725964
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

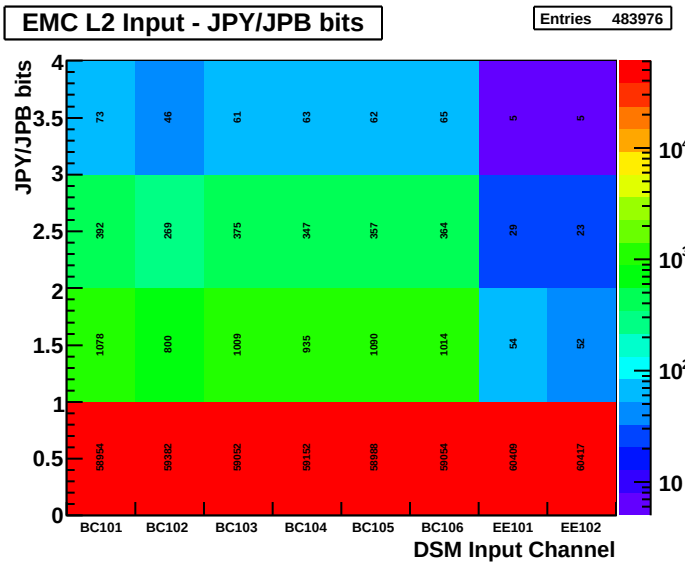

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

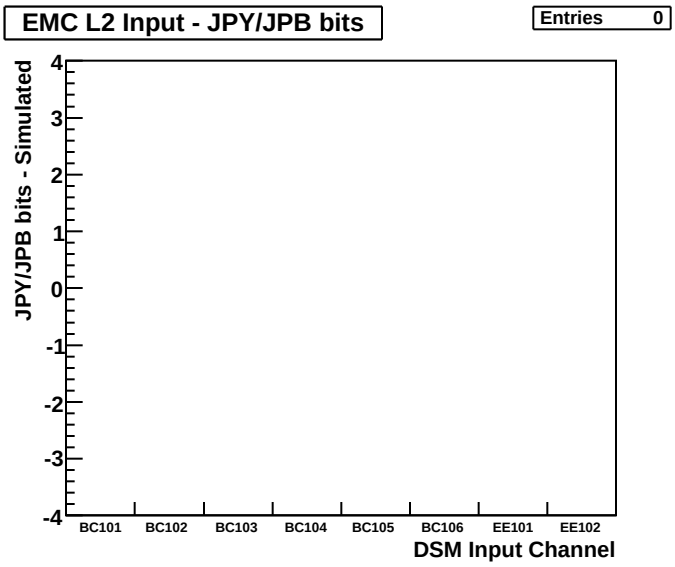

Endcap EMC L1 Input - High Tower Bits
Entries 725964
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

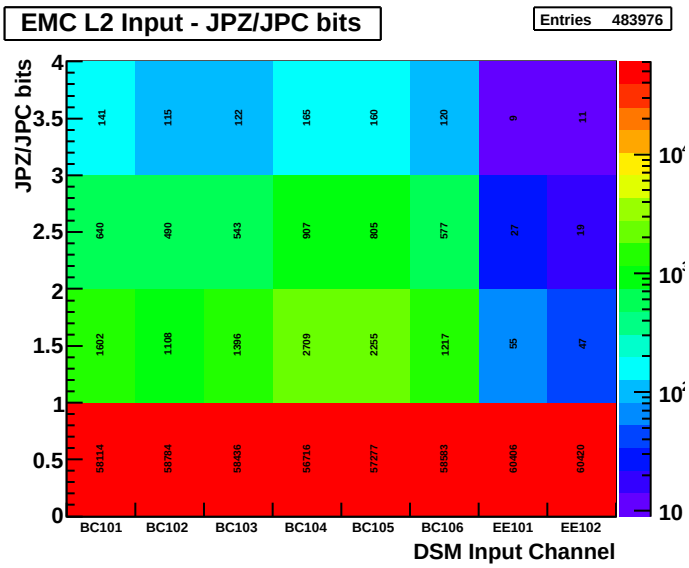

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

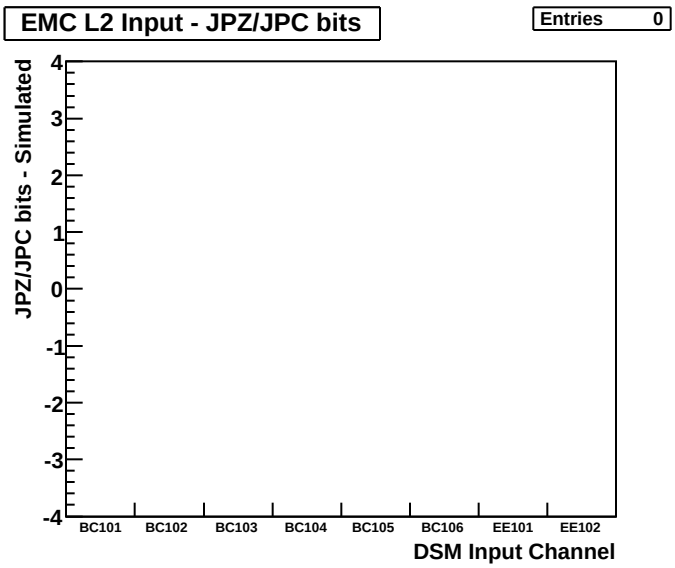

EMC L2 Input - JPX/JPA bits
Entries 483976
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
84 58 81 61 69 78 6 8
452 384 446 329 437 397 33 17
1027 897 1077 875 1092 940 54 63
58934 59158 58893 59232 58899 59082 60404 60409

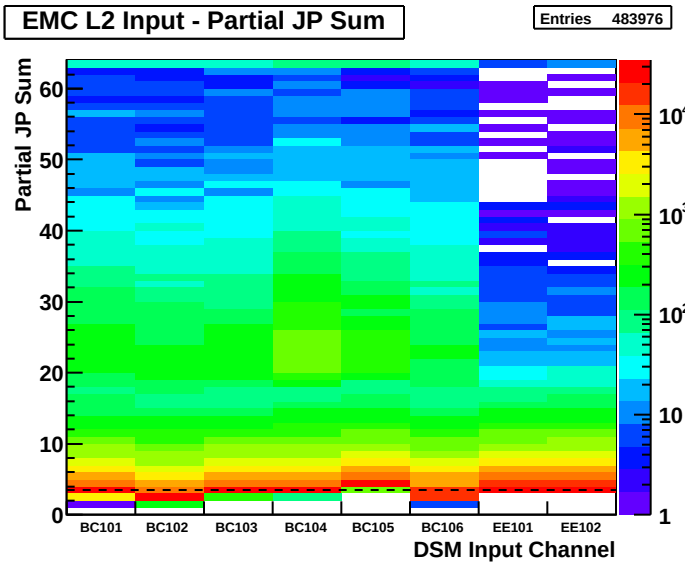

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

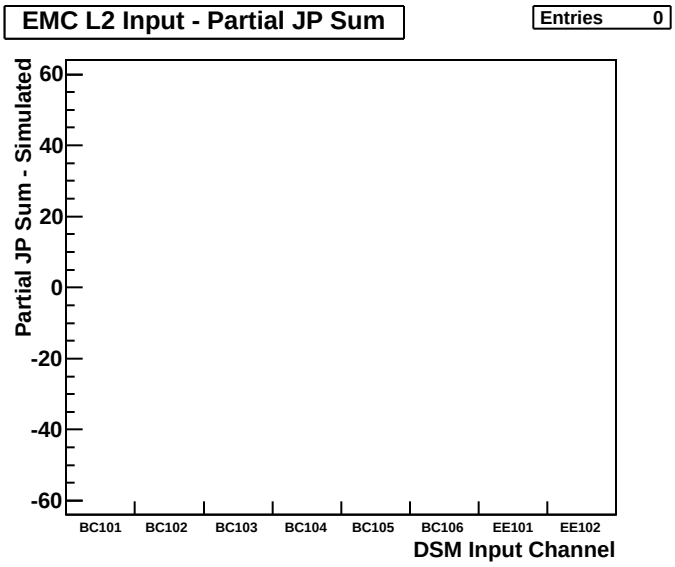

EMC L2 Input - JPY/JPB bits
Entries 483976
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
73 46 61 63 62 65 5 5
392 269 375 347 357 364 29 23
1078 800 1009 935 1090 1014 54 52
58954 59382 59052 59152 58988 59054 60409 60417

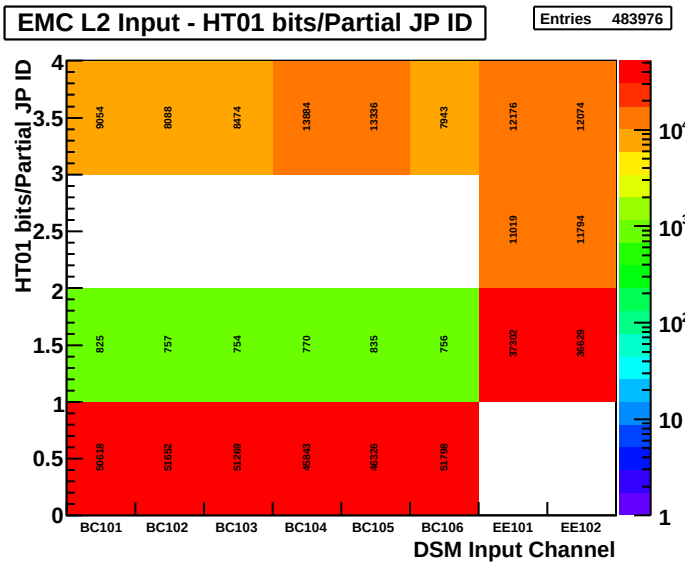

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

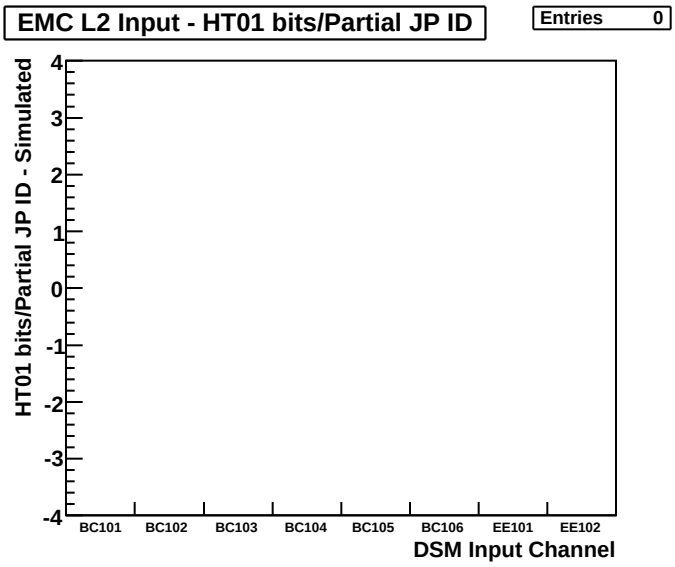

EMC L2 Input - JPZ/JPC bits
Entries 483976
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
141 115 122 165 160 120 9 11
640 490 543 907 805 577 27 19
1602 1108 1396 2709 2255 1217 55 47
58114 58764 58426 56716 57277 58933 60406 60420

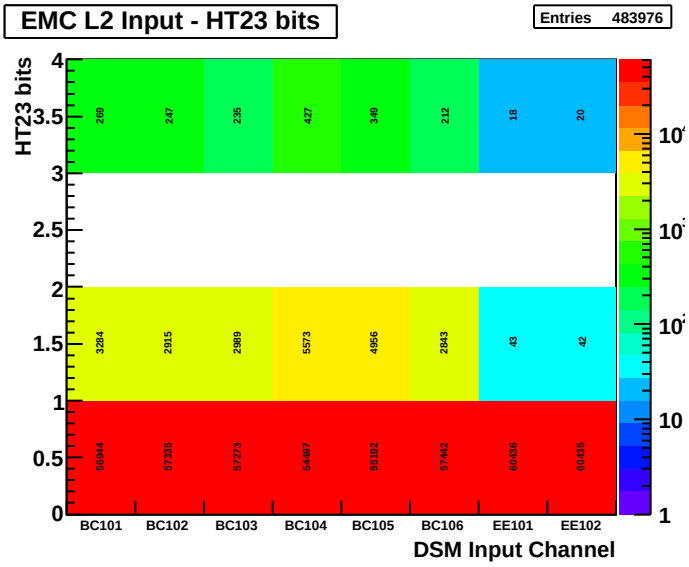

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

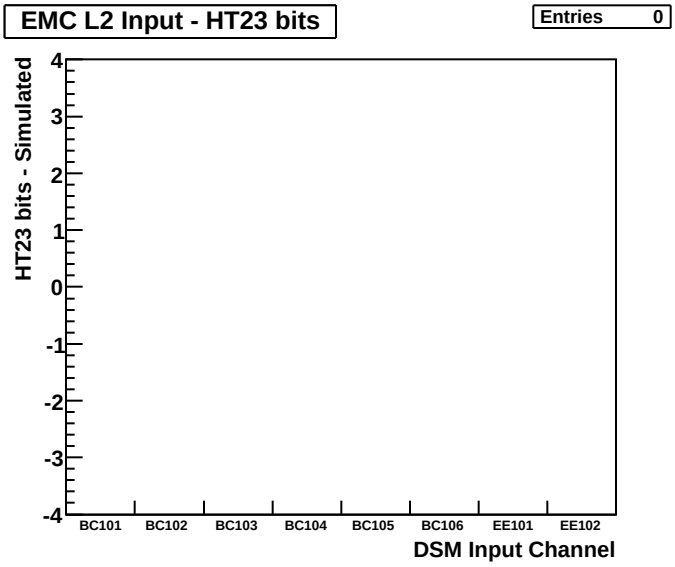

EMC L2 Input - Partial JP Sum
Entries 483976
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

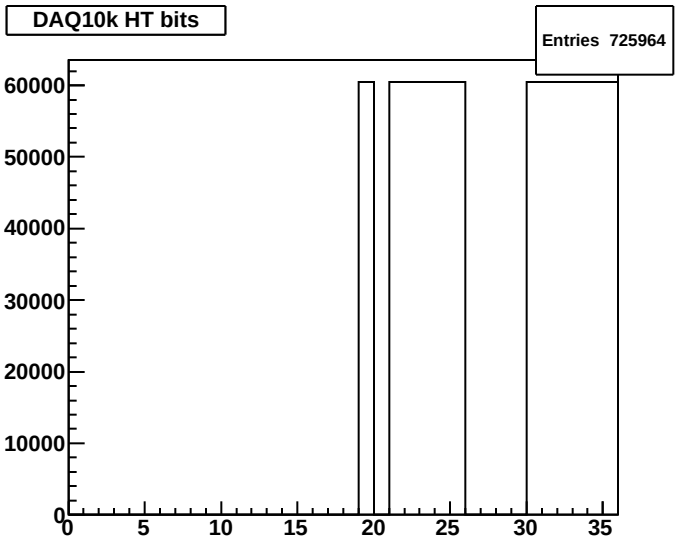

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

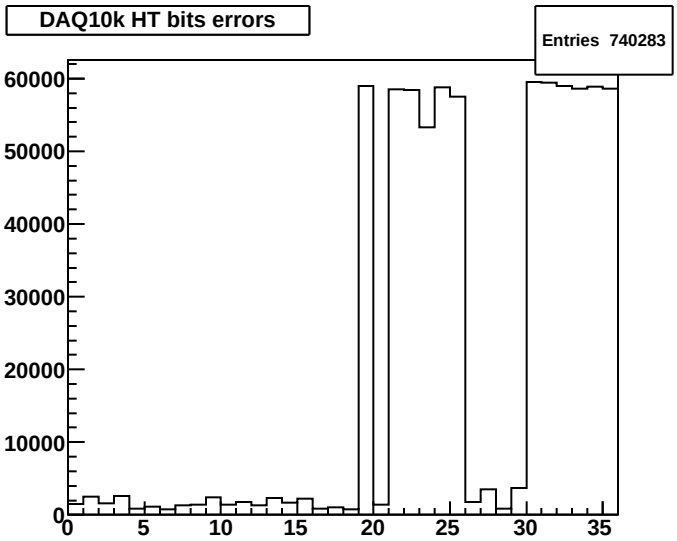

EMC L2 Input - HT01 bits/Partial JP ID
Entries 483976
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

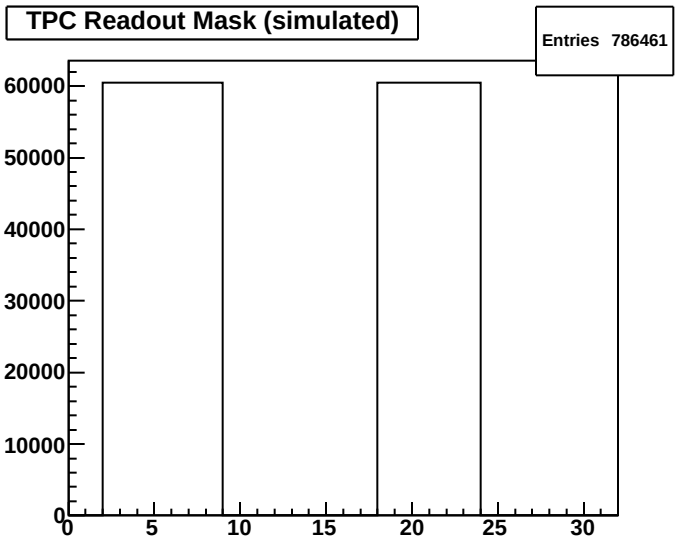

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

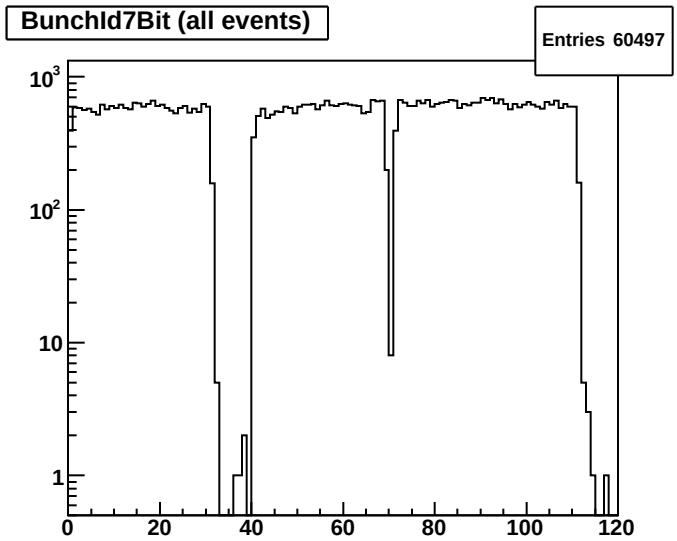

EMC L2 Input - HT23 bits
Entries 483976
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

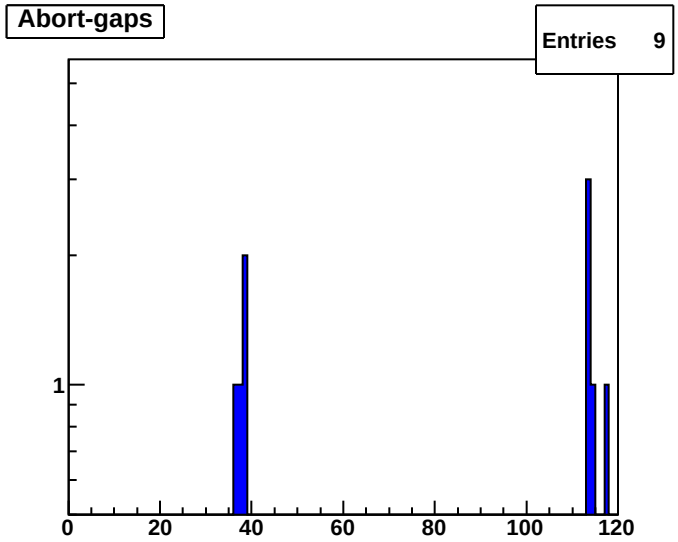

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

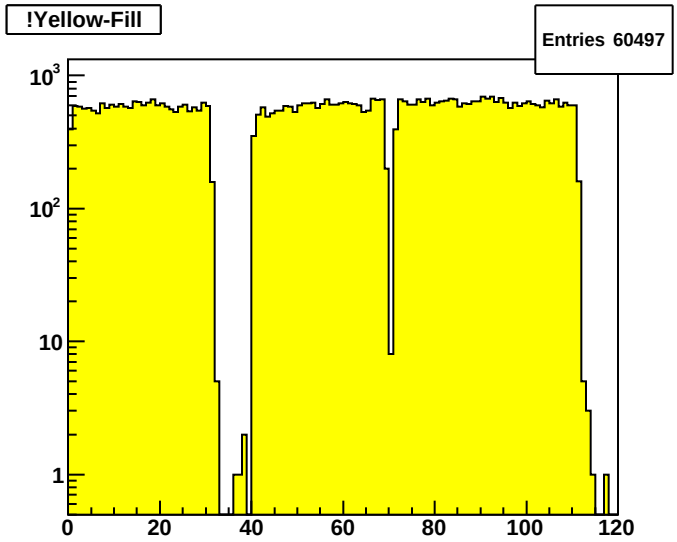

DAQ10k HT bits
Entries 725964
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

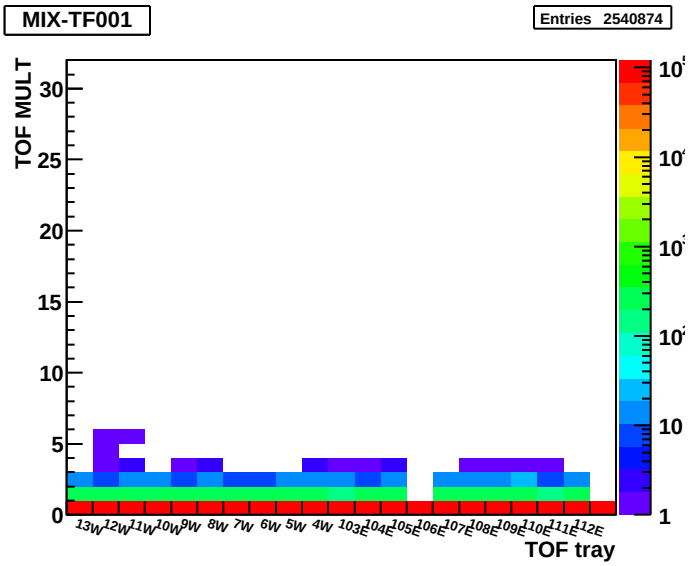

DAQ10k HT bits errors
Entries 740283
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

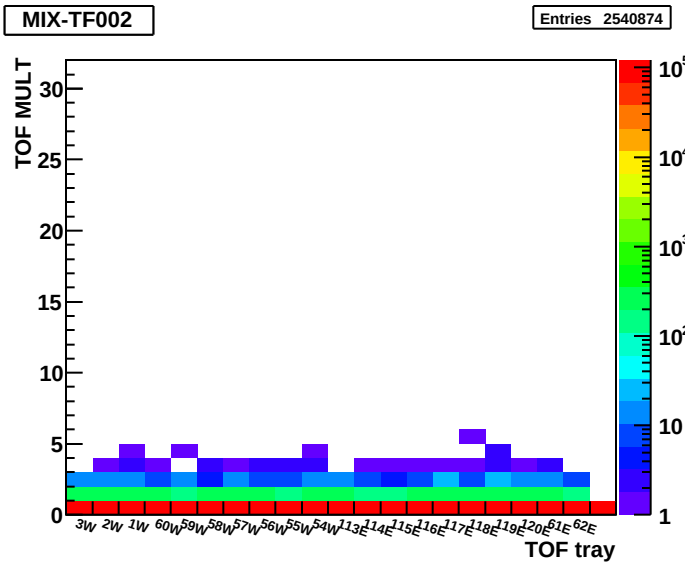

TPC Readout Mask (simulated)
Entries 786461
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

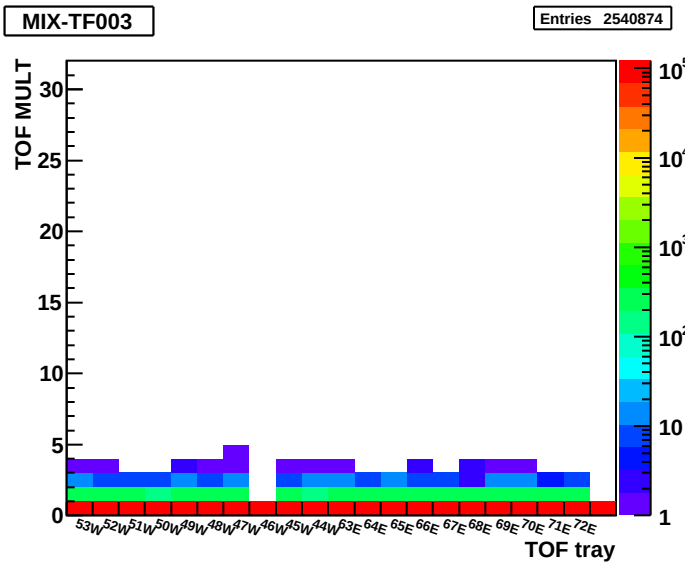

BunchId7Bit (all events)
Entries 60497
10^3
10^2
10
1
0 20 40 60 80 100 120

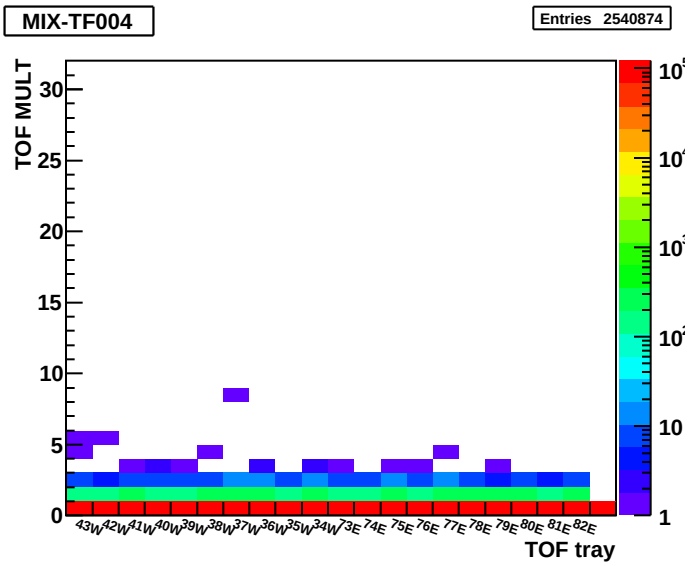

Abort-gaps
Entries 9
1
0 20 40 60 80 100 120

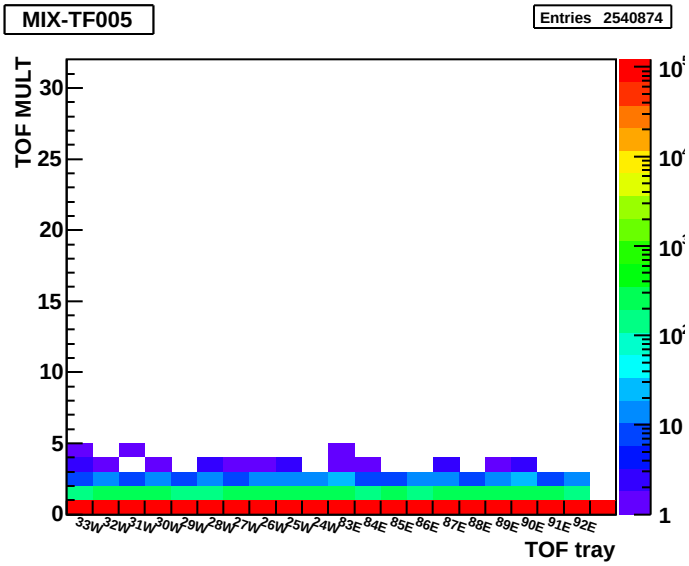

!Yellow-Fill
Entries 60497
10^3
10^2
10
1
0 20 40 60 80 100 120

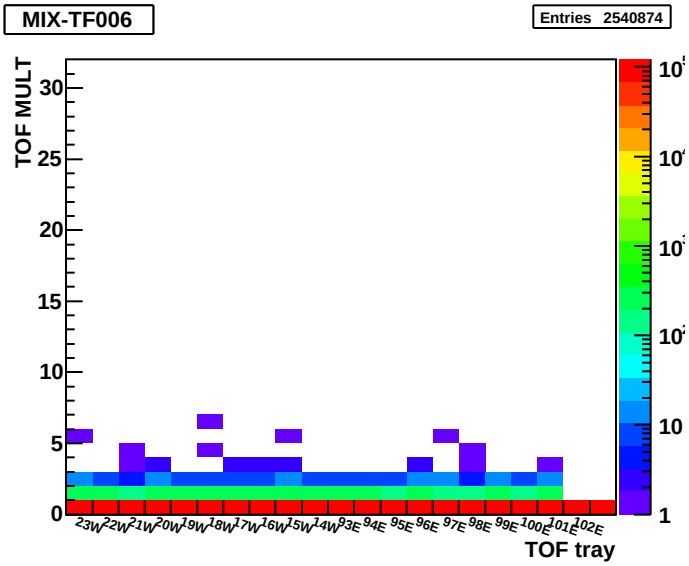

MIX-TF001
Entries 2540874
TOF MULT
TOF tray

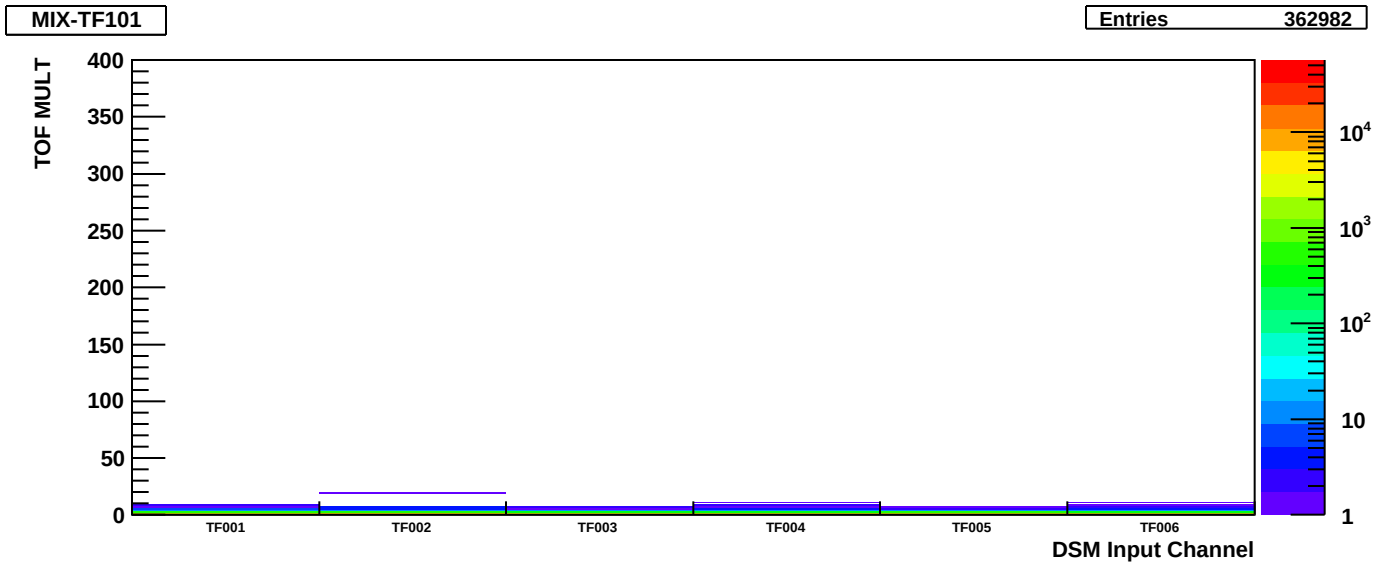

MIX-TF002
Entries 2540874
TOF MULT
TOF tray

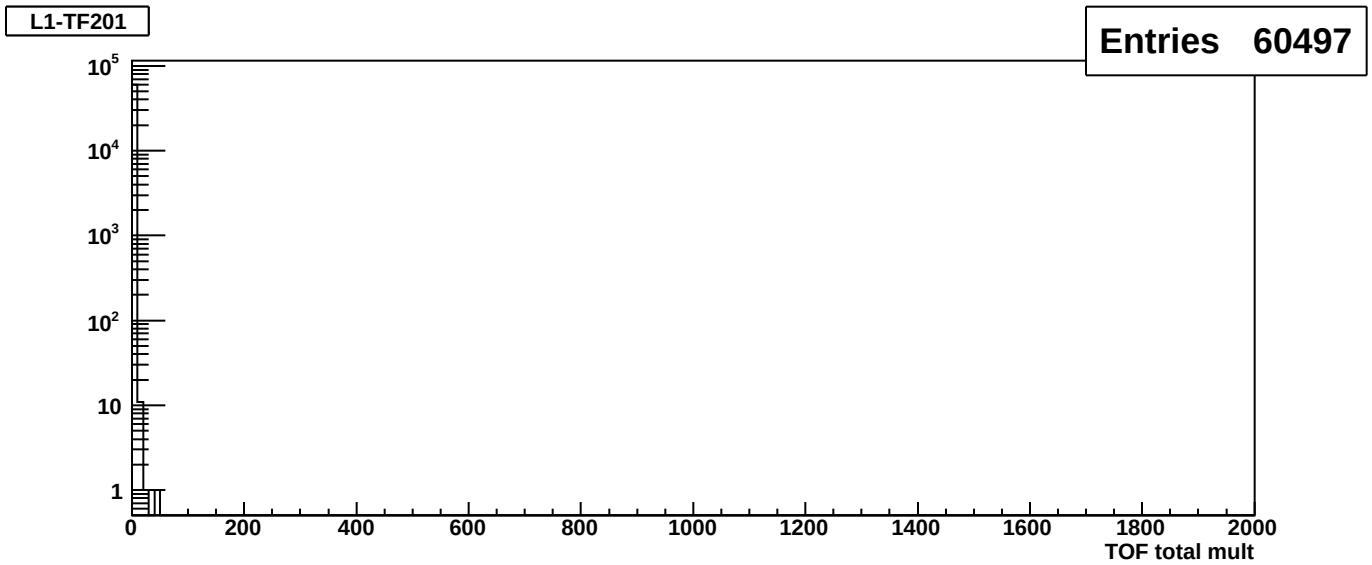

MIX-TF003
Entries 2540874
TOF MULT
TOF tray

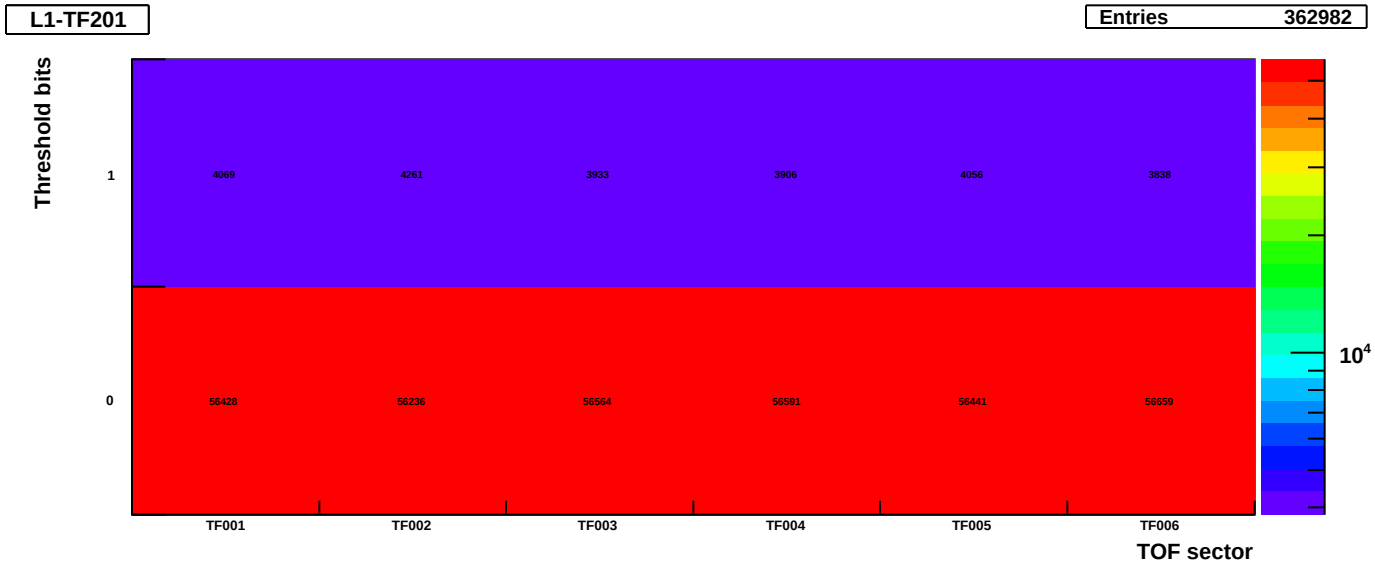

MIX-TF004
Entries 2540874
TOF MULT
TOF tray

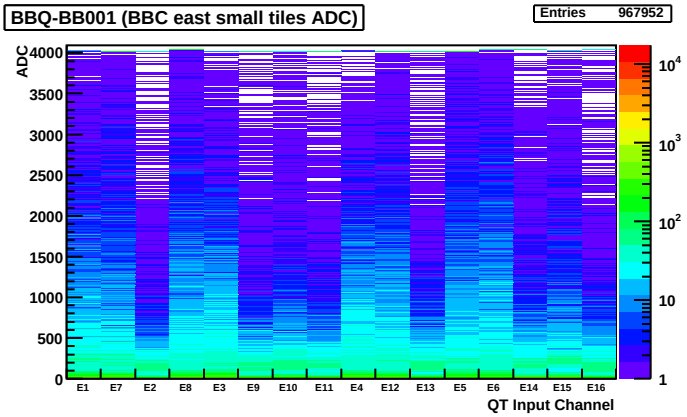

MIX-TF005
Entries 2540874
TOF MULT
TOF tray

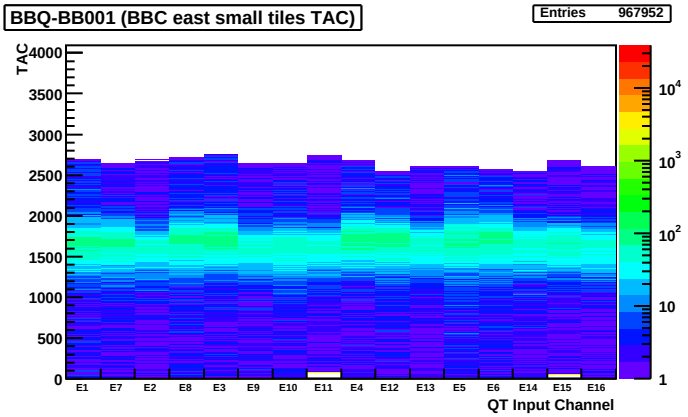

MIX-TF006
Entries 2540874
TOF MULT
TOF tray

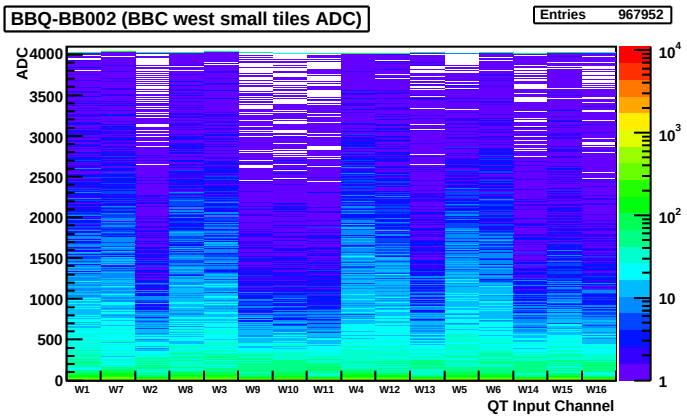

MIX-TF101
Entries 362982
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

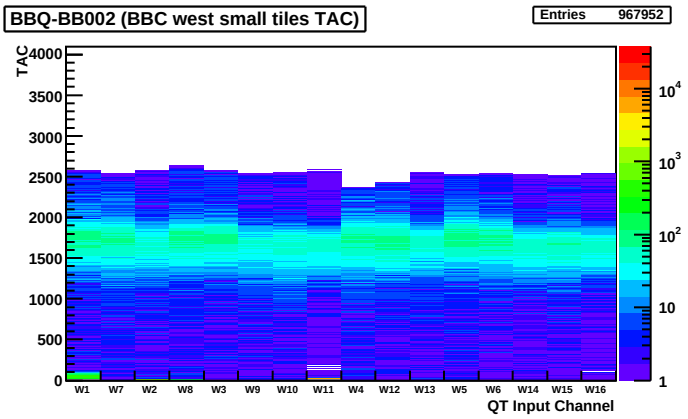

L1-TF201
Entries 60497
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

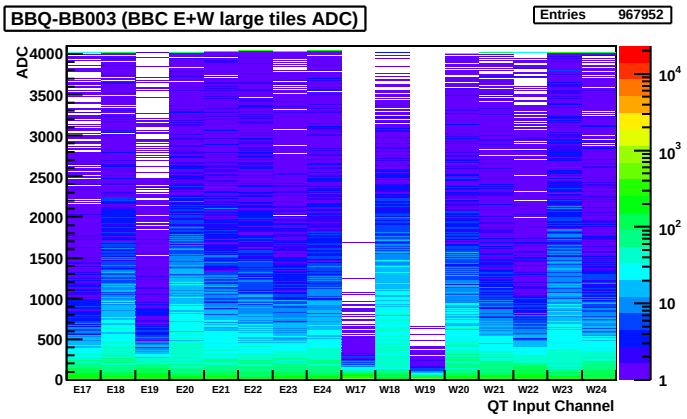

L1-TF201
Entries 362982
Threshold bits
1
0
4069
4261
3933
3906
4056
3838
56428
56236
56564
56591
56441
56659
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

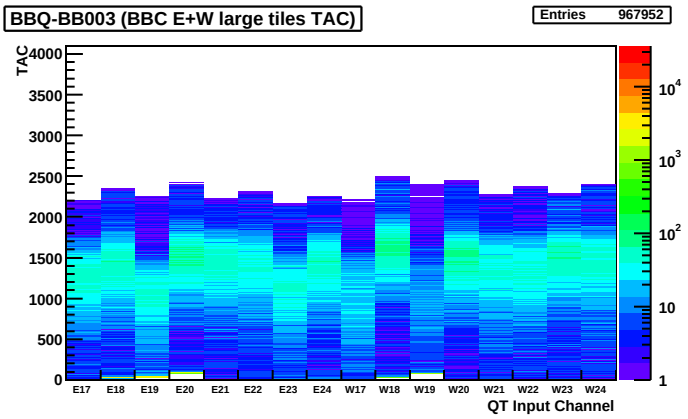

BBQ-BB001 (BBC east small tiles ADC)
Entries 967952
ADC
QT Input Channel

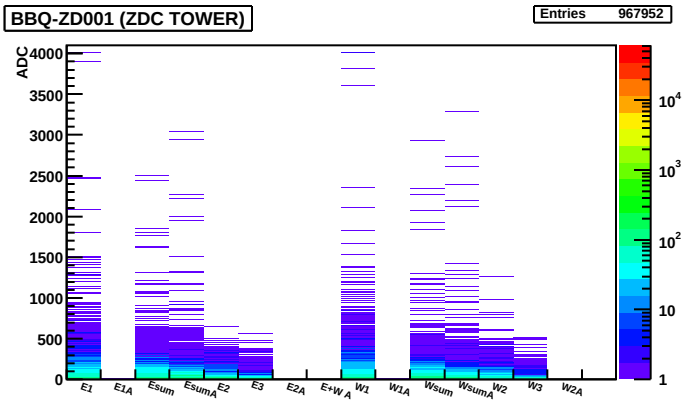

BBQ-BB001 (BBC east small tiles TAC)
Entries 967952
TAC
QT Input Channel

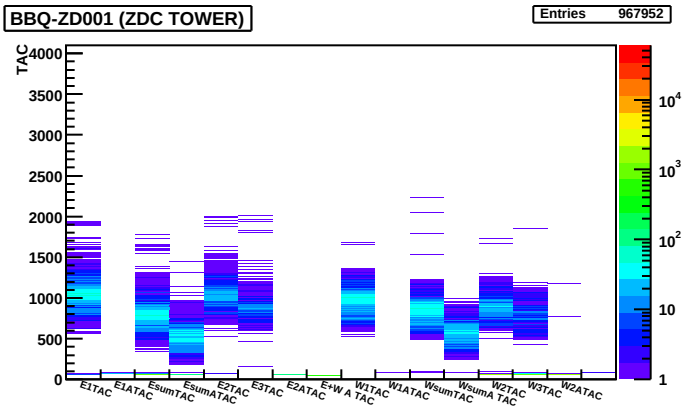

BBQ-BB002 (BBC west small tiles ADC)
Entries 967952
ADC
QT Input Channel

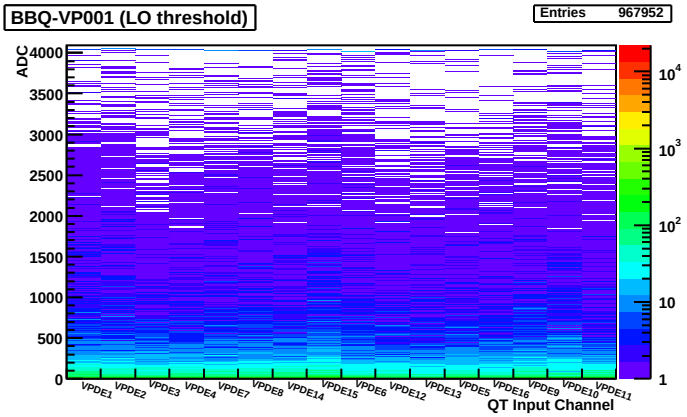

BBQ-BB002 (BBC west small tiles TAC)
Entries 967952
TAC
QT Input Channel

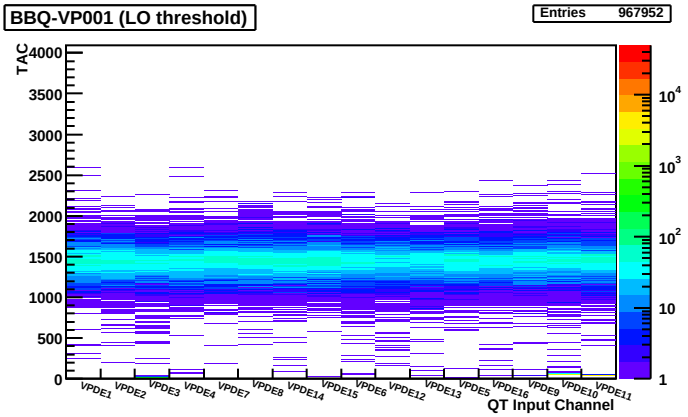

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 967952
ADC
QT Input Channel

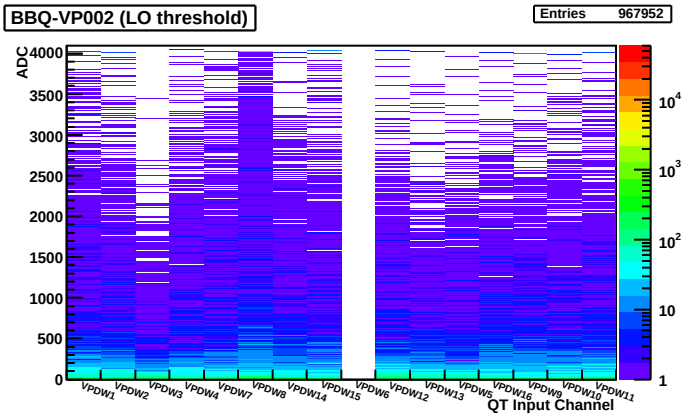

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 967952
TAC
QT Input Channel

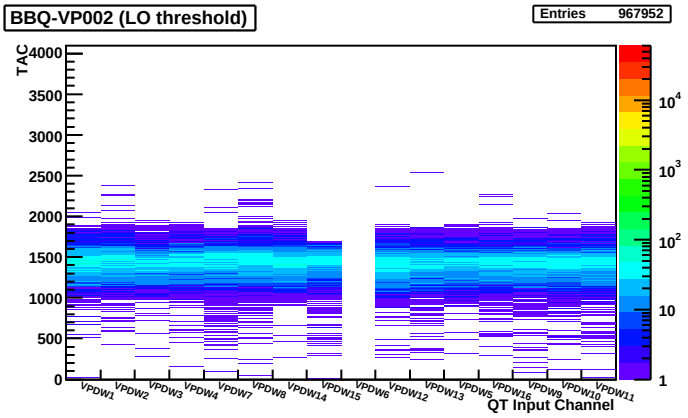

BBQ-ZD001 (ZDC TOWER)
Entries 967952
ADC

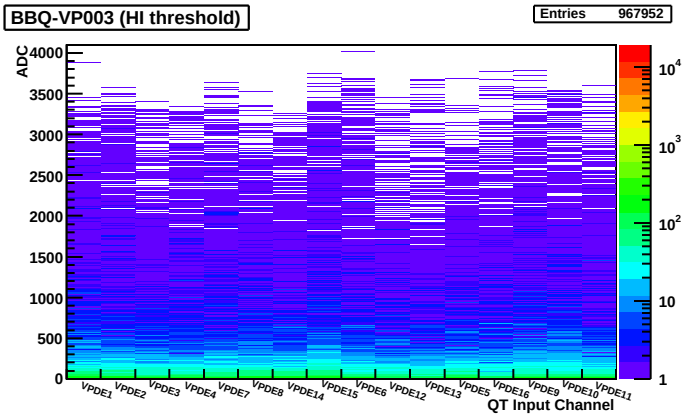

BBQ-ZD001 (ZDC TOWER)
Entries 967952
TAC

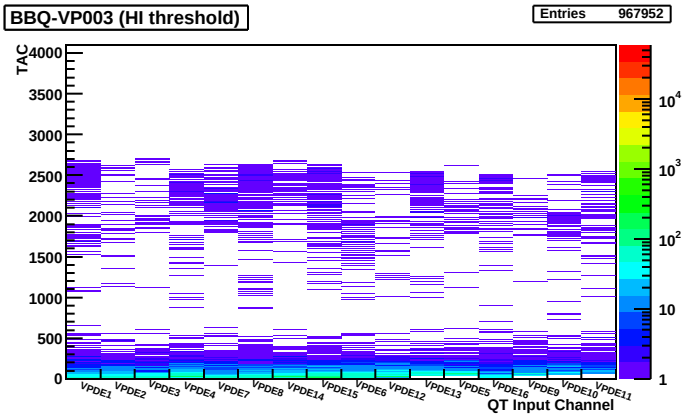

BBQ-VP001 (LO threshold)
Entries 967952
ADC
QT Input Channel

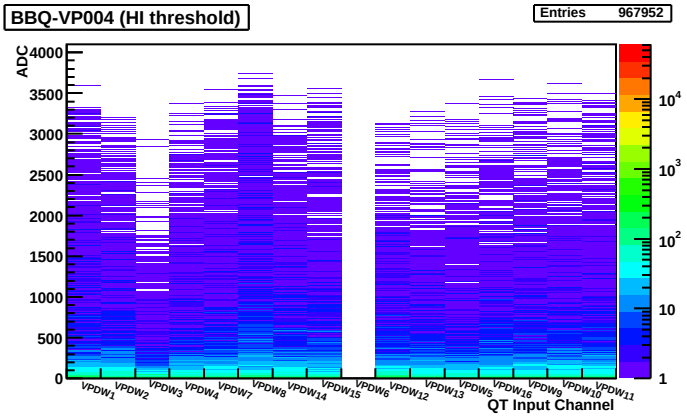

BBQ-VP001 (LO threshold)
Entries 967952
TAC
QT Input Channel

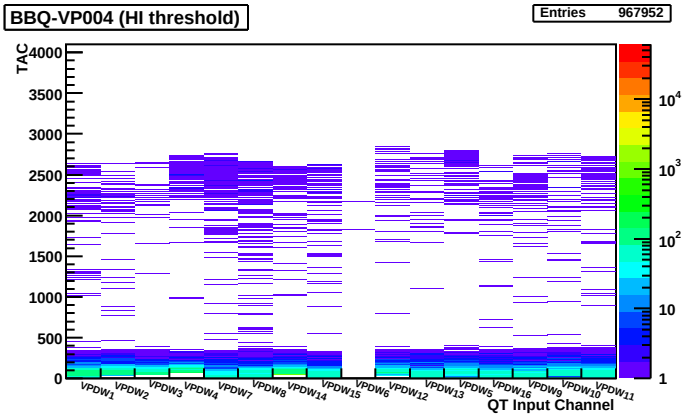

BBQ-VP002 (LO threshold)
Entries 967952
ADC
QT Input Channel

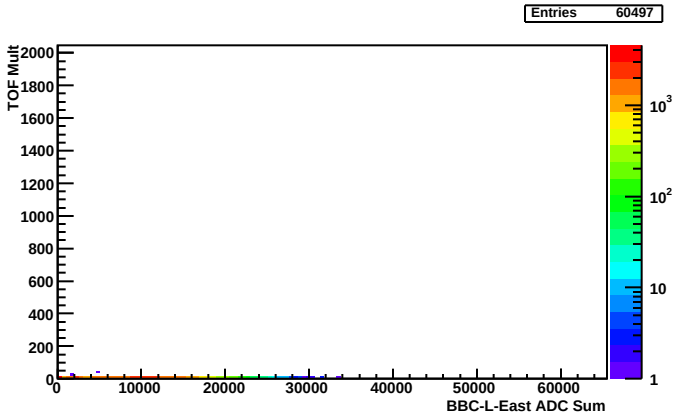

BBQ-VP002 (LO threshold)
Entries 967952
TAC
QT Input Channel

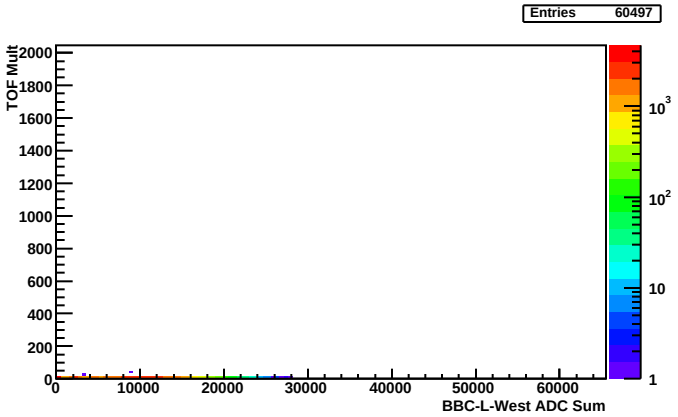

BBQ-VP003 (HI threshold)
Entries 967952
ADC
QT Input Channel

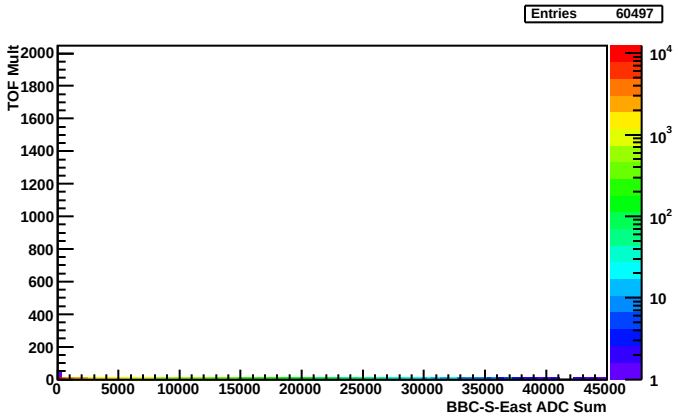

BBQ-VP003 (HI threshold)
Entries 967952
TAC
QT Input Channel

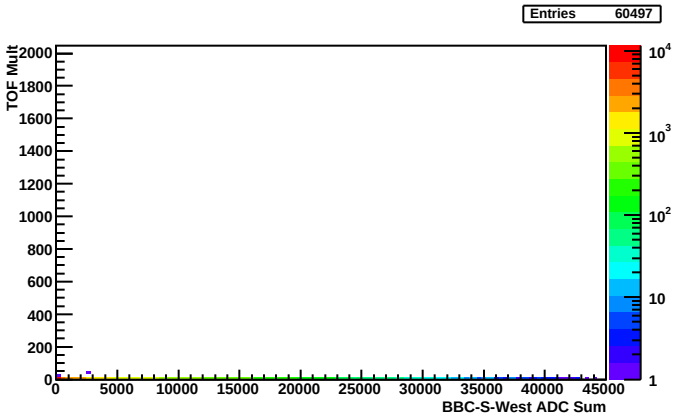

BBQ-VP004 (HI threshold)
Entries 967952
ADC
QT Input Channel

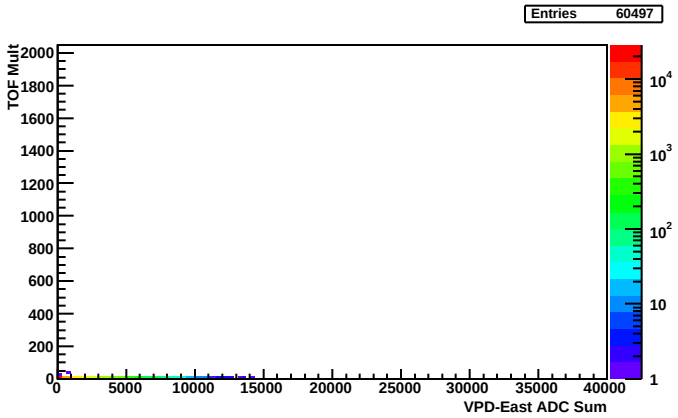

BBQ-VP004 (HI threshold)
Entries 967952
TAC
QT Input Channel

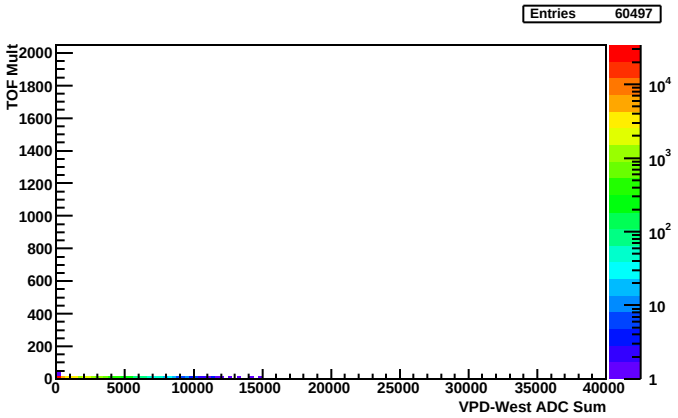

Entries 60497
TOF Mult
BBC-L-East ADC Sum

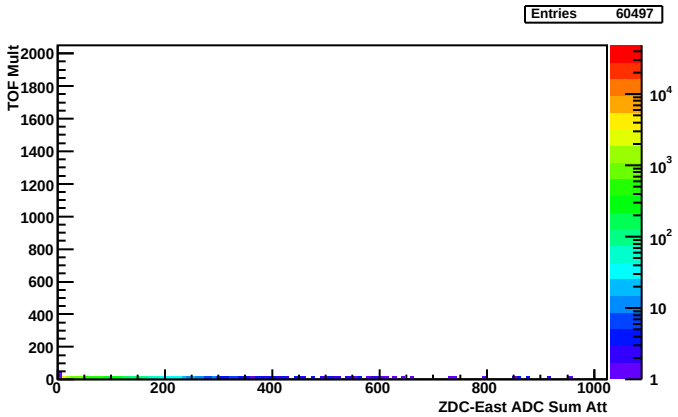

Entries 60497
TOF Mult
BBC-L-West ADC Sum

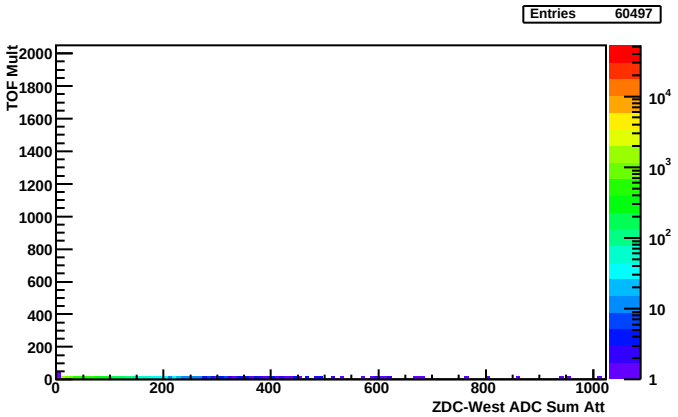

Entries 60497
TOF Mult
BBC-S-East ADC Sum

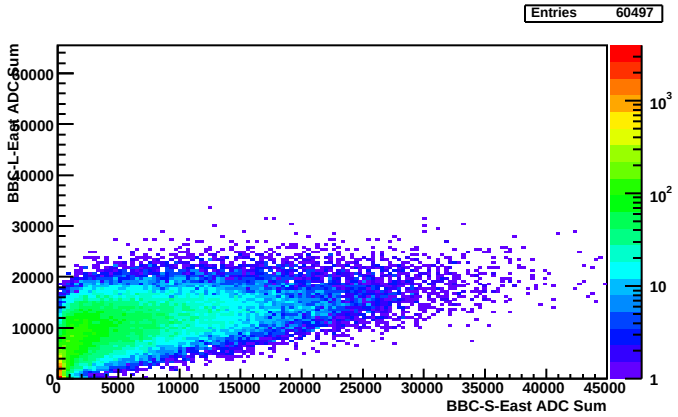

Entries 60497
TOF Mult
BBC-S-West ADC Sum

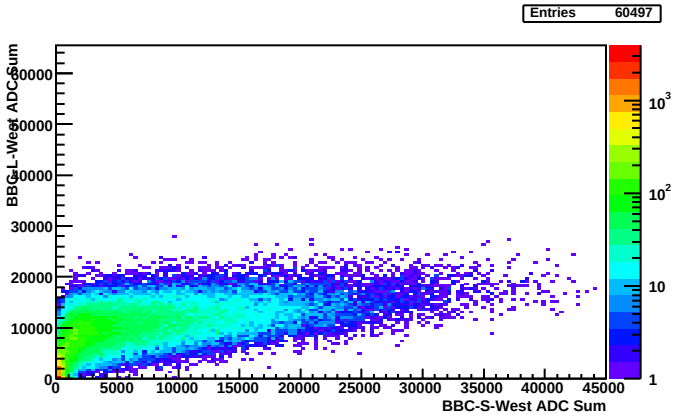

Entries 60497
TOF Mult
VPD-East ADC Sum

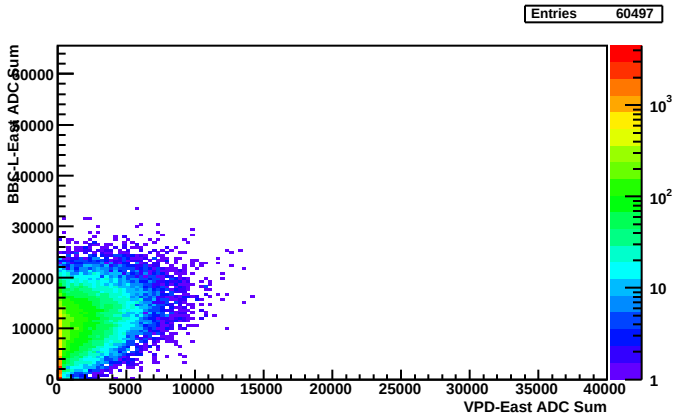

Entries 60497
TOF Mult
VPD-West ADC Sum

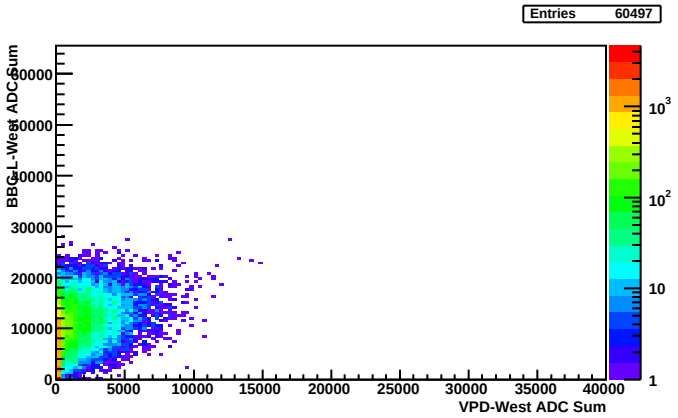

Entries 60497
TOF Mult
ZDC-East ADC Sum Att

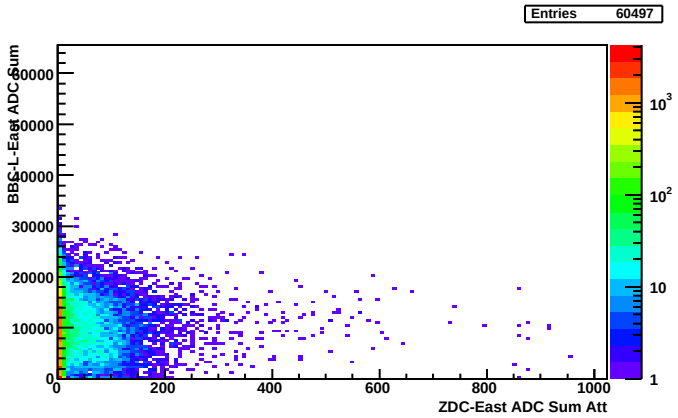

Entries 60497
TOF Mult
ZDC-West ADC Sum Att

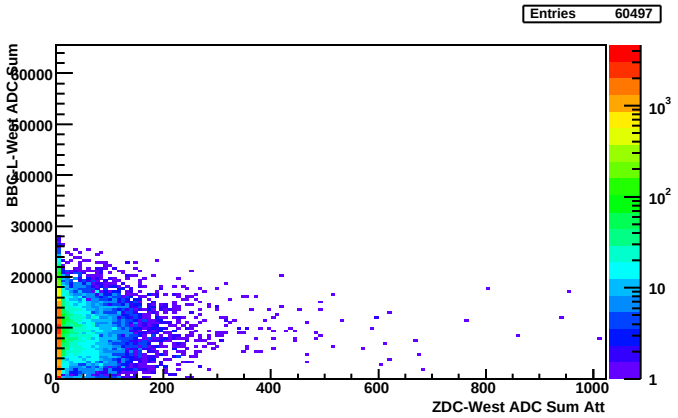

Entries 60497
BBC-L-East ADC Sum
BBC-S-East ADC Sum

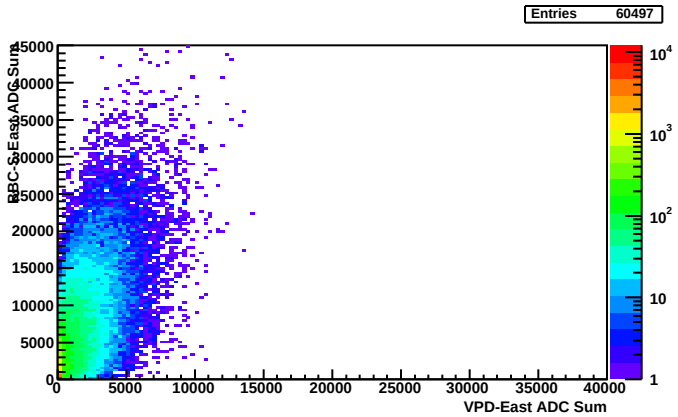

Entries 60497
BBC-L-West ADC Sum
BBC-S-West ADC Sum

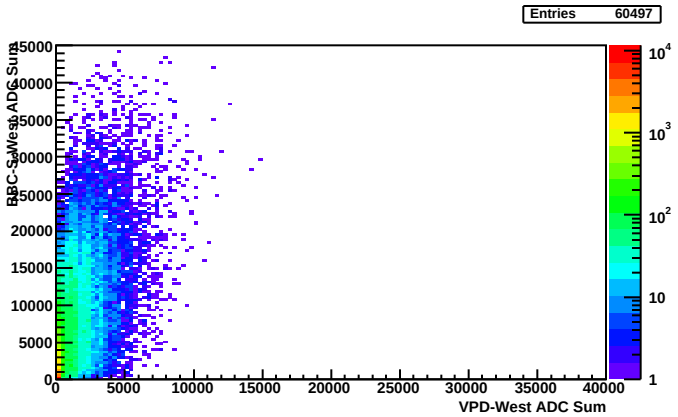

Entries 60497
BBC-L-East ADC Sum
VPD-East ADC Sum

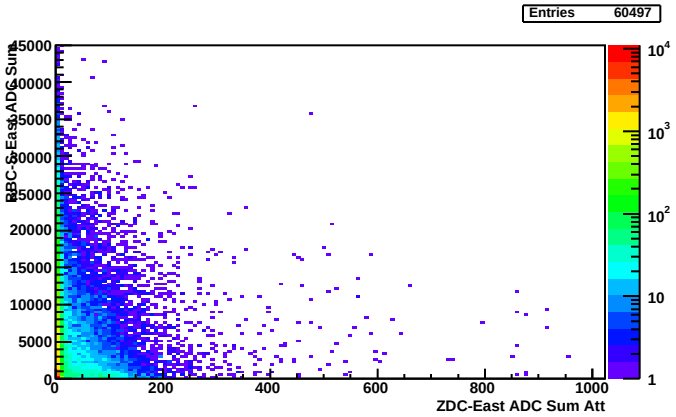

Entries 60497
BBC-L-West ADC Sum
VPD-West ADC Sum

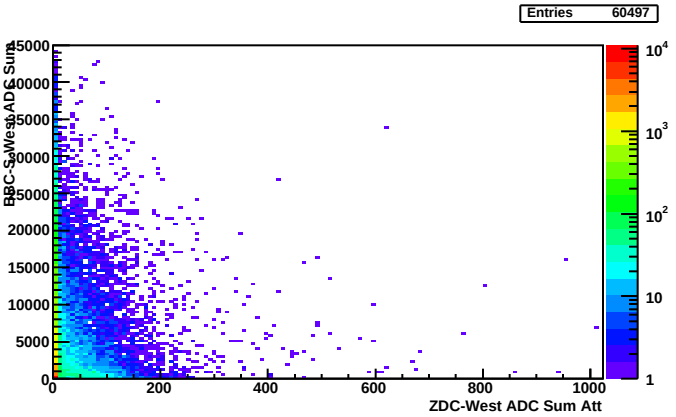

Entries 60497
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

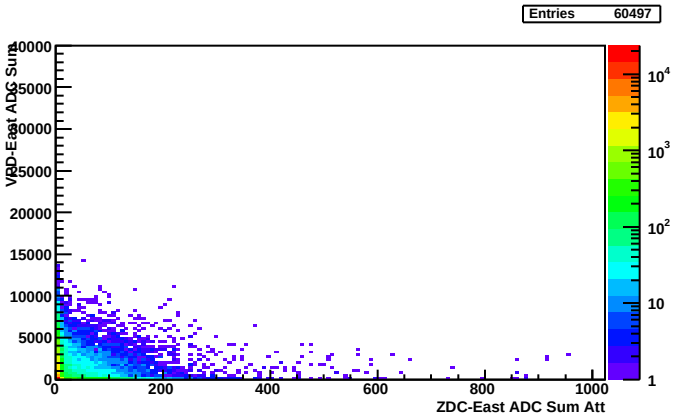

Entries 60497
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

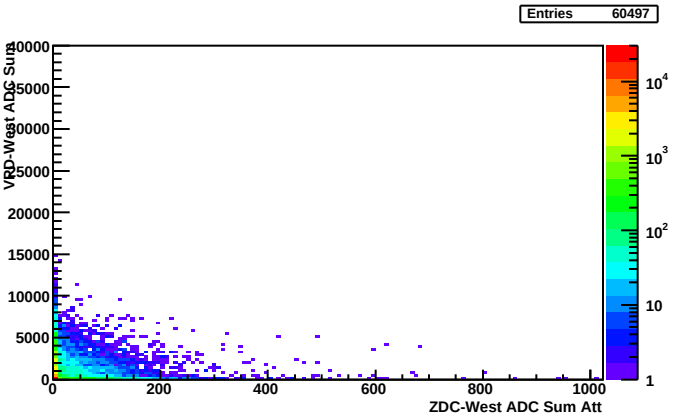

Entries 60497
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 60497
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 60497
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 60497
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 60497
VPD-East ADC Sum
ZDC-East ADC Sum Att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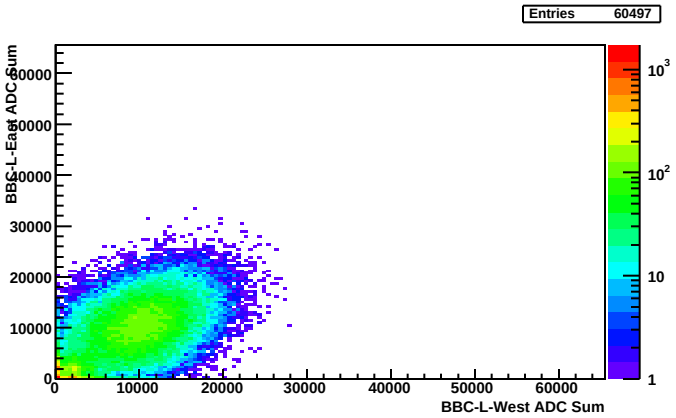
VPD-West ADC Sum
ZDC-West ADC Sum Att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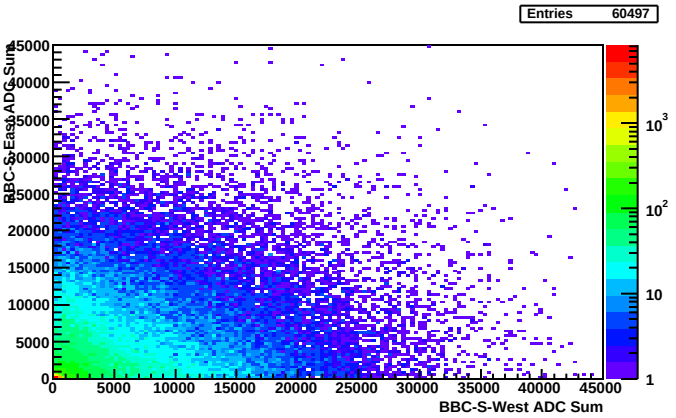
BBC-L-East ADC Sum
BBC-L-West ADC Sum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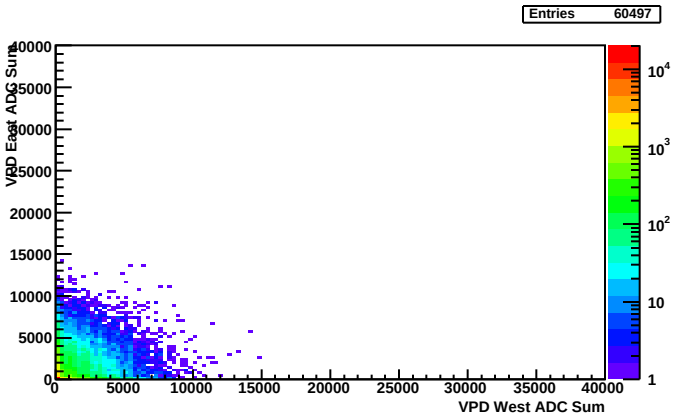
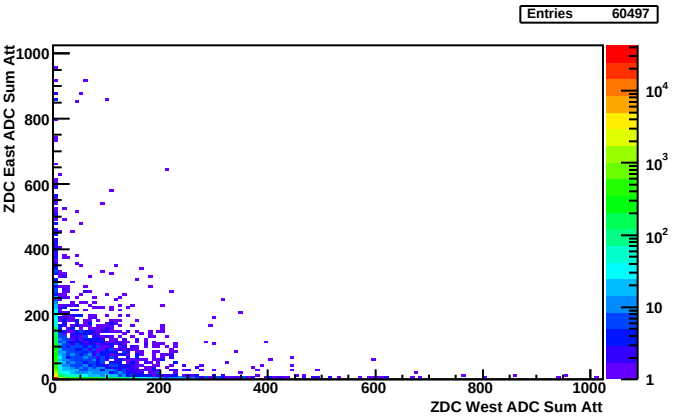
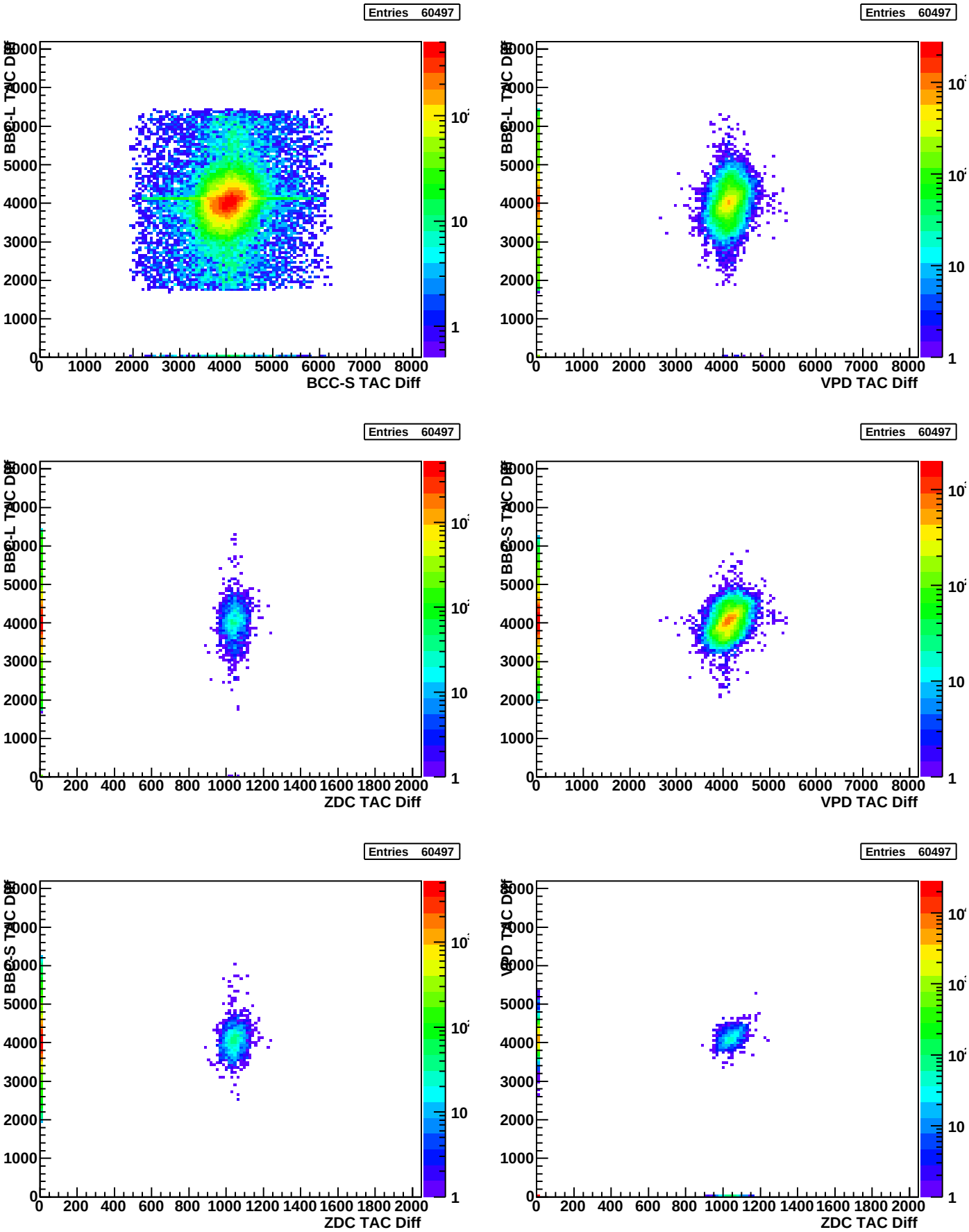
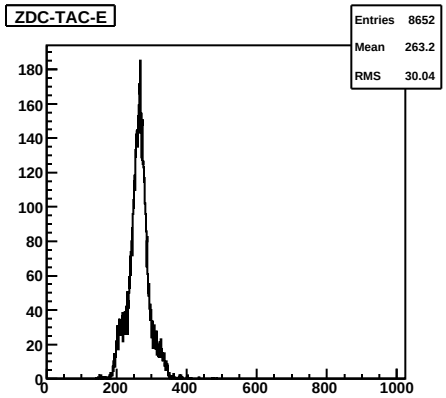
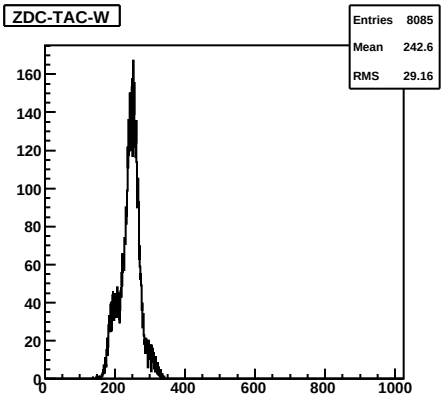
BBC-S-East ADC Sum
BBC-S-West ADC Sum

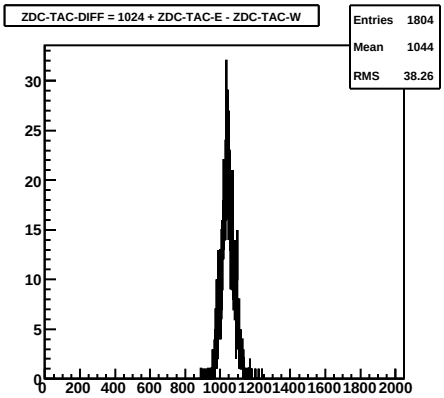

Entries 60497
VPD East ADC Sum
VPD West ADC Sum

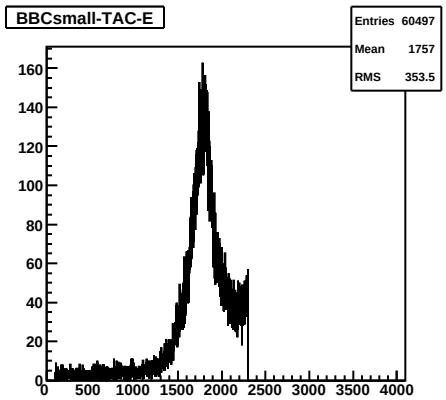

Entries 60497
ZDC East ADC Sum Att
ZDC West ADC Sum Att

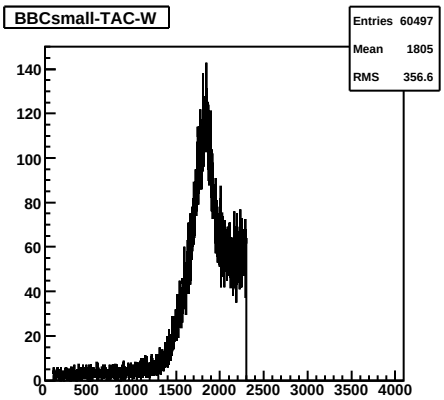

Entries 60497
BBC-L TAC Diff
BCC-S TAC Diff
Entries 60497
BBC-L TAC Diff
VPD TAC Diff
Entries 60497
BBC-L TAC Diff
ZDC TAC Diff
Entries 60497
BBC-S TAC Diff
VPD TAC Diff
Entries 60497
BBC-S TAC Diff
ZDC TAC Diff
Entries 60497
VPD TAC Diff
ZDC TAC Diff

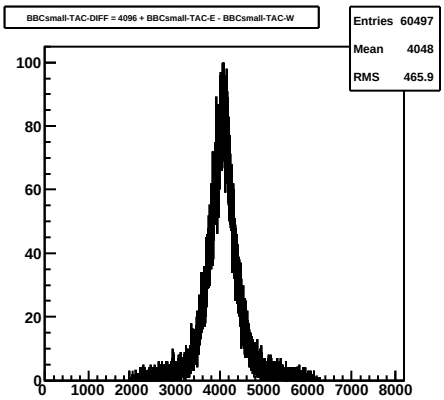

ZDC-TAC-E
Entries 8652
Mean 263.2
RMS 30.04

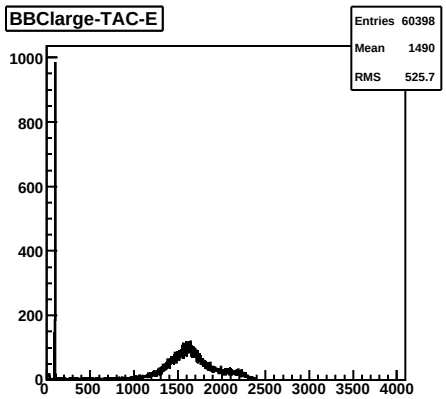

ZDC-TAC-W
Entries 8085
Mean 242.6
RMS 29.16

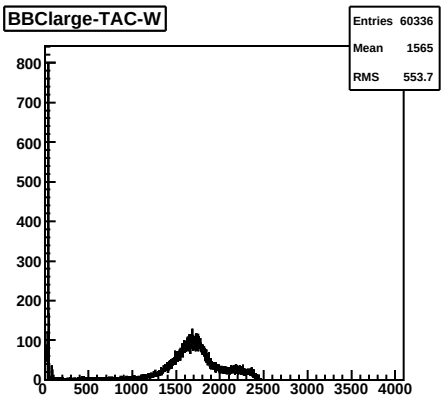

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1804
Mean 1044
RMS 38.26

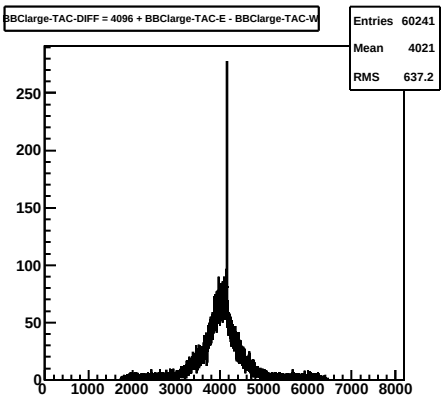

BBCsmall-TAC-E
Entries 60497
Mean 1757
RMS 353.5

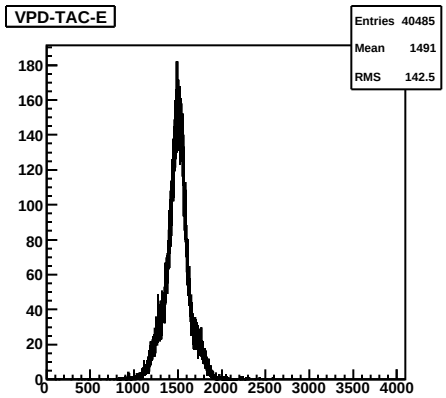

BBCsmall-TAC-W
Entries 60497
Mean 1805
RMS 356.6

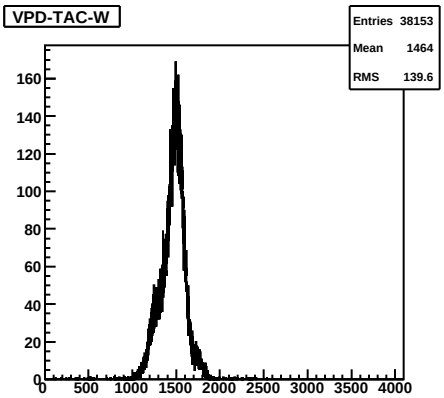

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 60497
Mean 4048
RMS 465.9

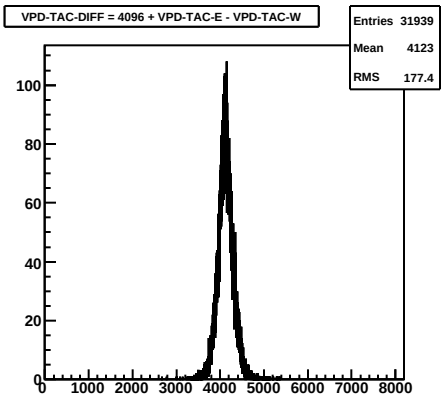

BBClarge-TAC-E
Entries 60398
Mean 1490
RMS 525.7

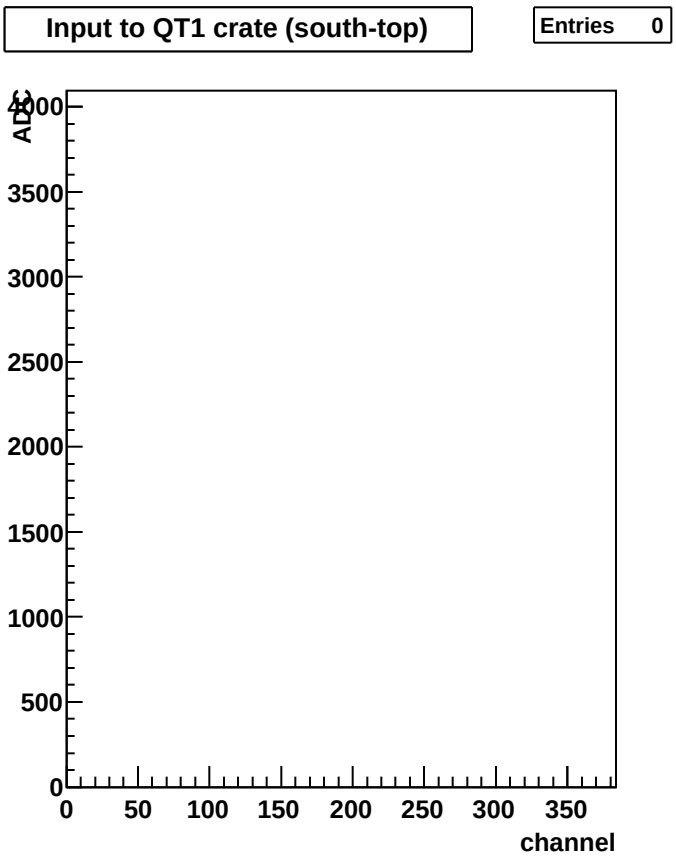

BBClarge-TAC-W
Entries 60336
Mean 1565
RMS 553.7

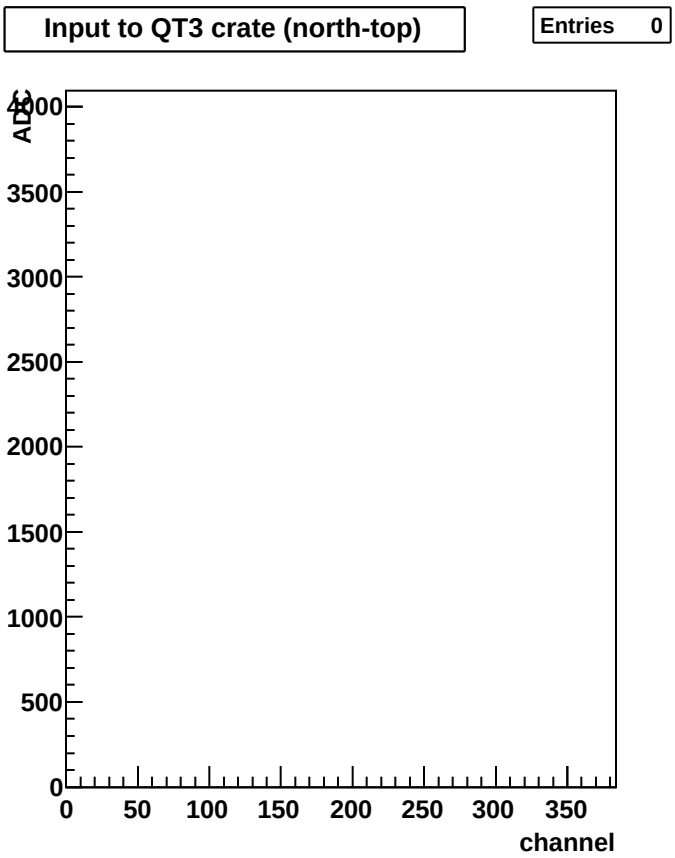

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 60241
Mean 4021
RMS 637.2

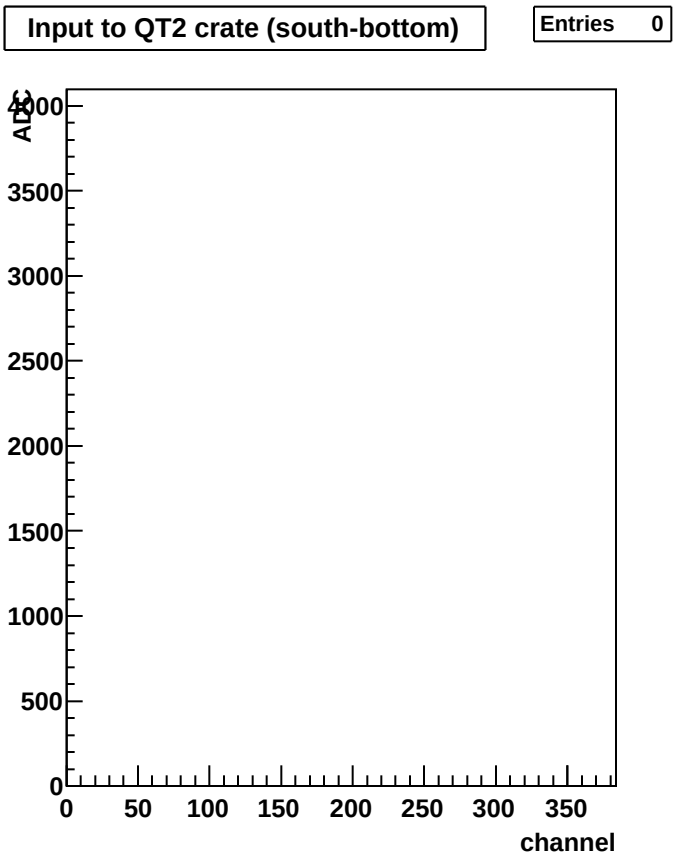

VPD-TAC-E
Entries 40485
Mean 1491
RMS 142.5

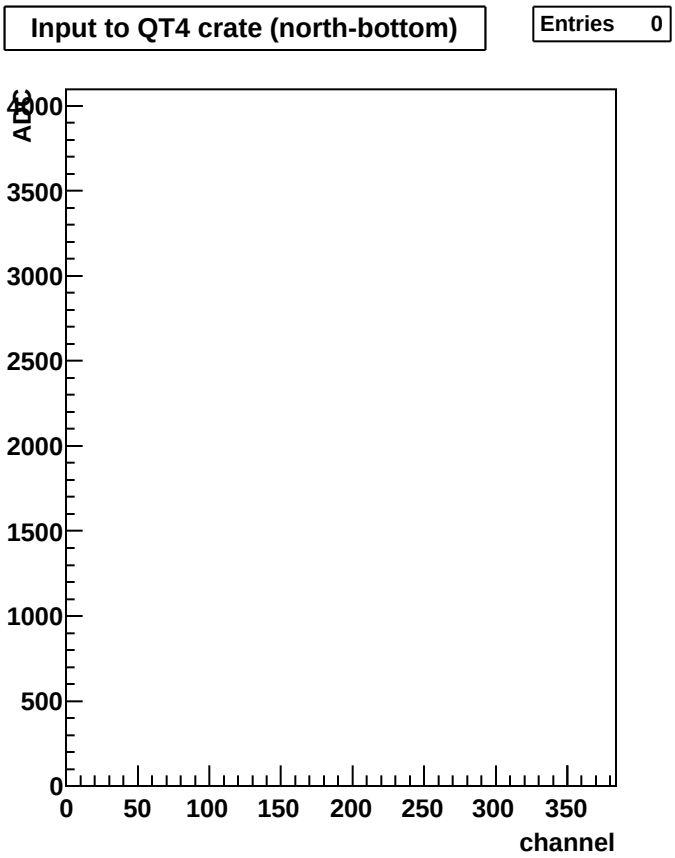

VPD-TAC-W
Entries 38153
Mean 1464
RMS 139.6

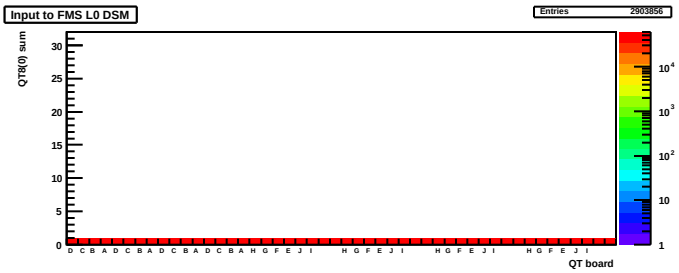

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 31939
Mean 4123
RMS 177.4

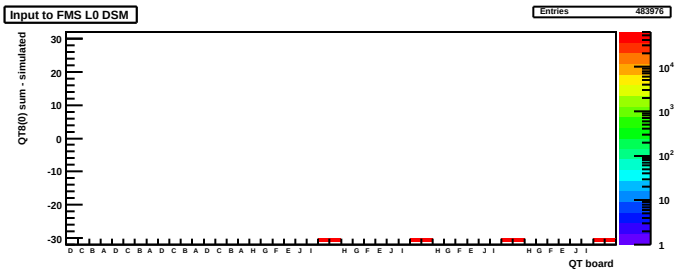

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

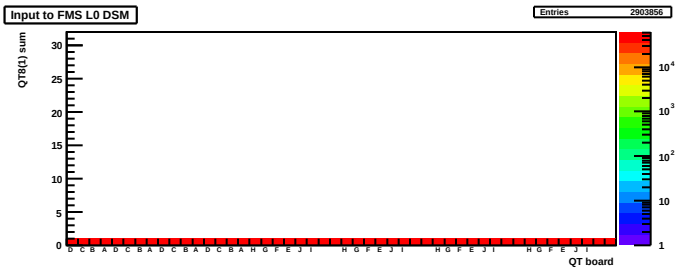

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

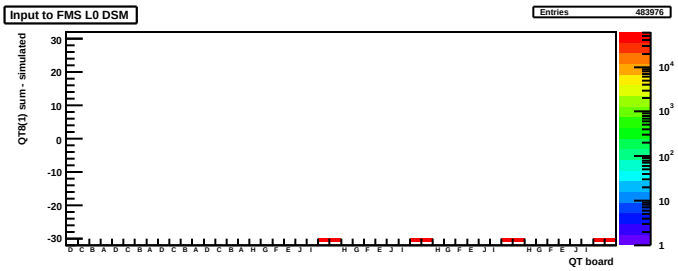

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

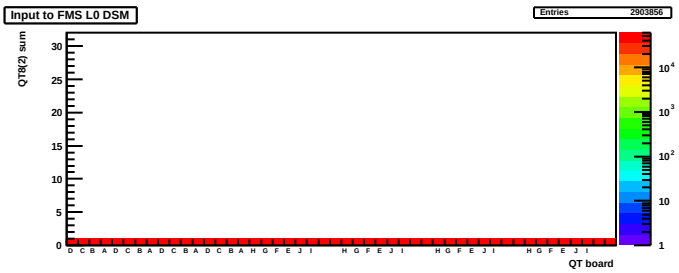

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

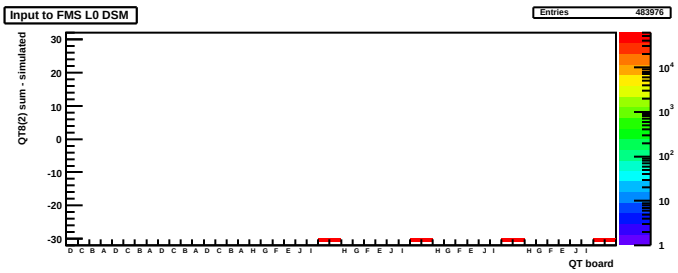

Input to FMS L0 DSM
Entries 2903856
QT8(0) sum
QT board

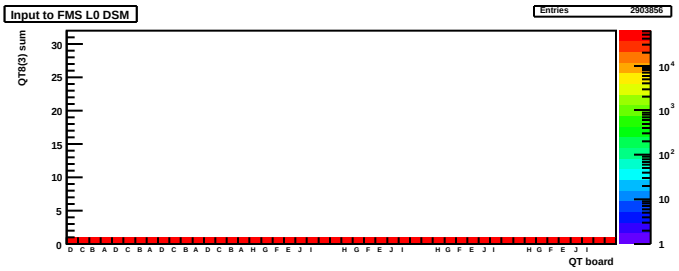

Input to FMS L0 DSM
Entries 483976
QT8(0) sum - simulated
QT board

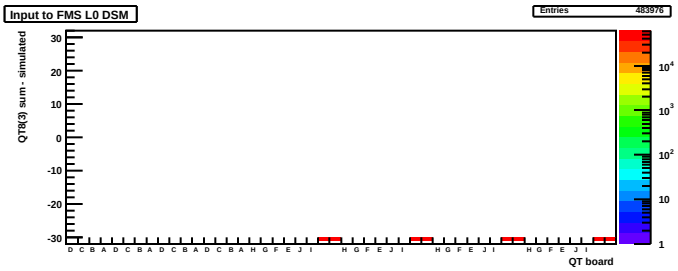

Input to FMS L0 DSM
Entries 2903856
QT8(1) sum
QT board

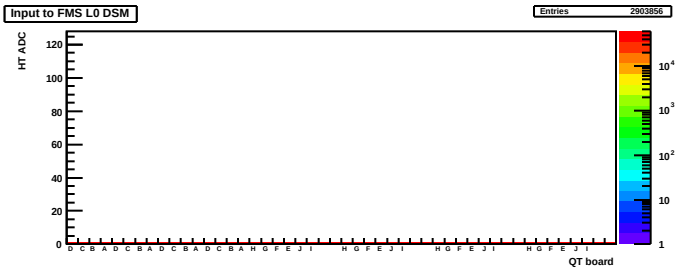

Input to FMS L0 DSM
Entries 483976
QT8(1) sum - simulated
QT board

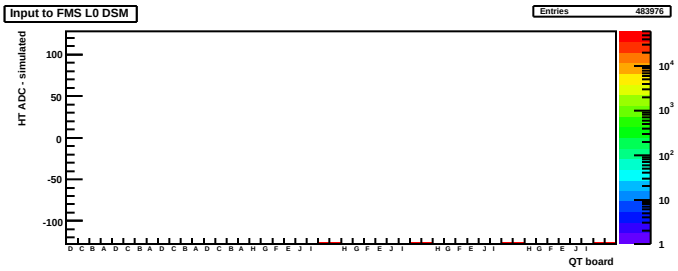

Input to FMS L0 DSM
Entries 2903856
QT8(2) sum
QT board

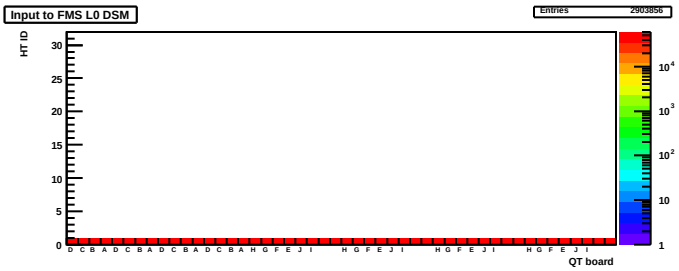

Input to FMS L0 DSM
Entries 483976
QT8(2) sum - simulated
QT board

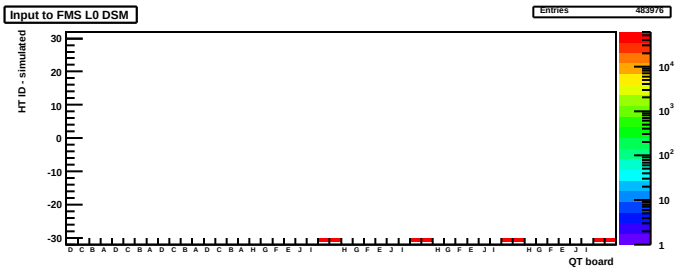

Input to FMS L0 DSM
Entries 2903856
QT8(3) sum
QT board

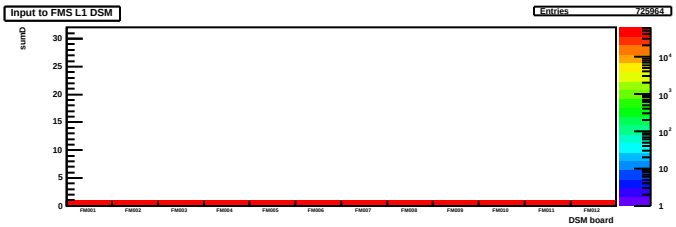

Input to FMS L0 DSM
Entries 483976
QT8(3) sum - simulated
QT board

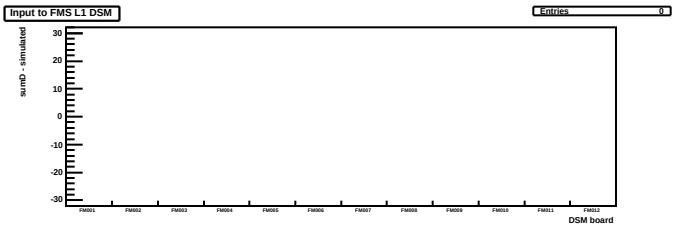

Input to FMS L0 DSM
Entries 2903856
HT ADC
QT board

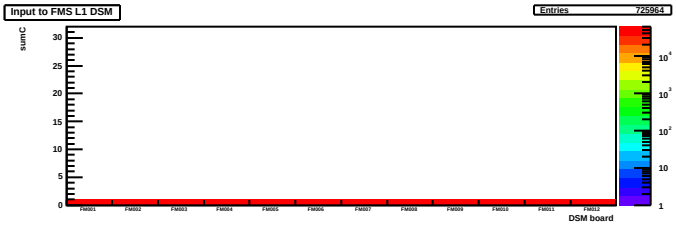

Input to FMS L0 DSM
Entries 483976
HT ADC - simulated
QT board

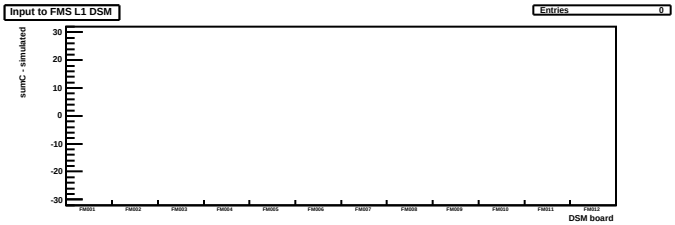

Input to FMS L0 DSM
Entries 2903856
HT ID
QT board

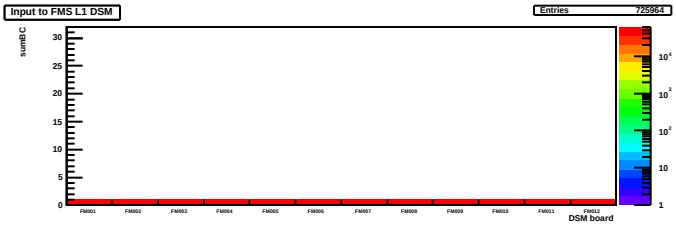

Input to FMS L0 DSM
Entries 483976
HT ID - simulated
QT board

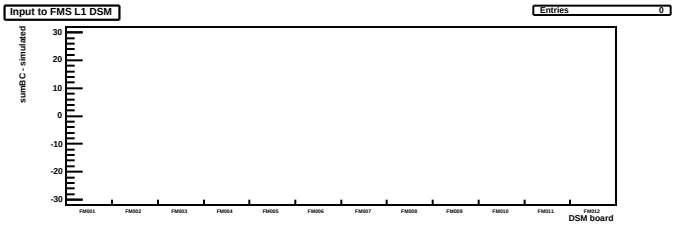

Input to FMS L1 DSM
Entries 725964
sumD
DSM board

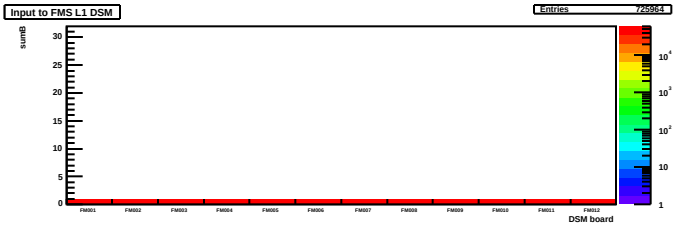

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

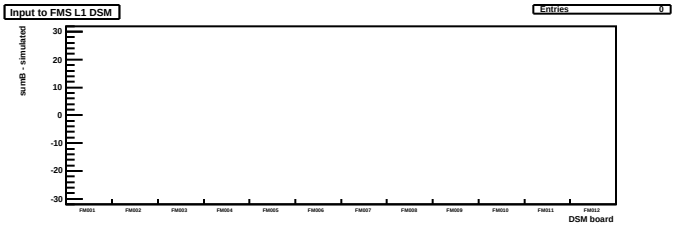

Input to FMS L1 DSM
Entries 725964
sumC
DSM board

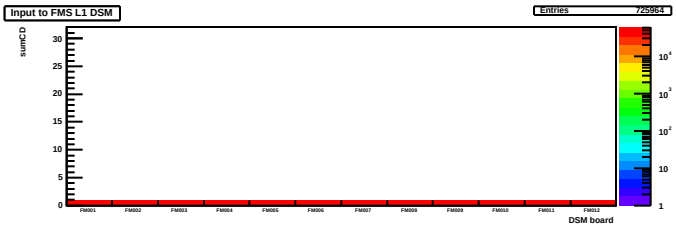

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

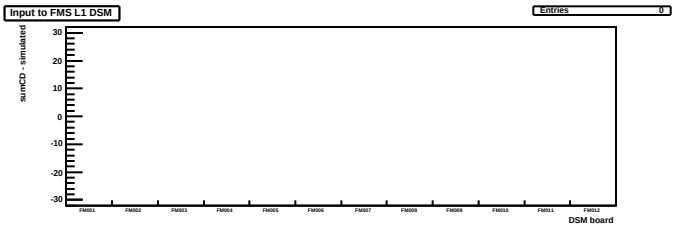

Input to FMS L1 DSM
Entries 725964
sumBC
DSM board

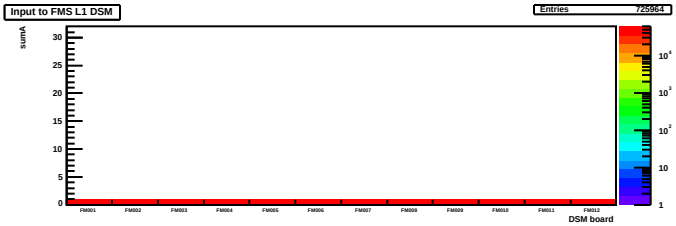

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

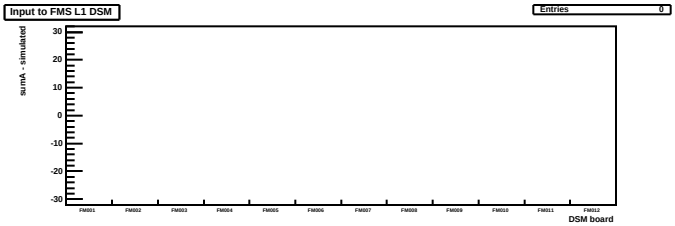

Input to FMS L1 DSM
Entries 725964
sumB
DSM board

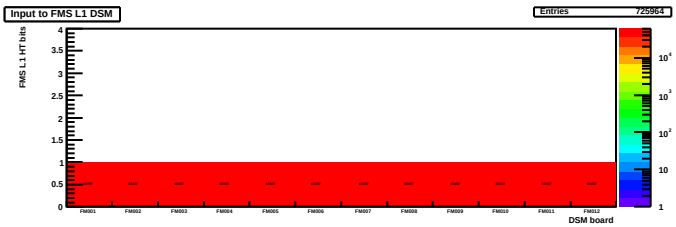

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

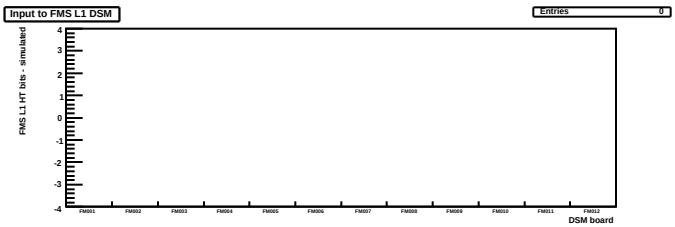

Input to FMS L1 DSM
Entries 725964
sumCD
DSM board

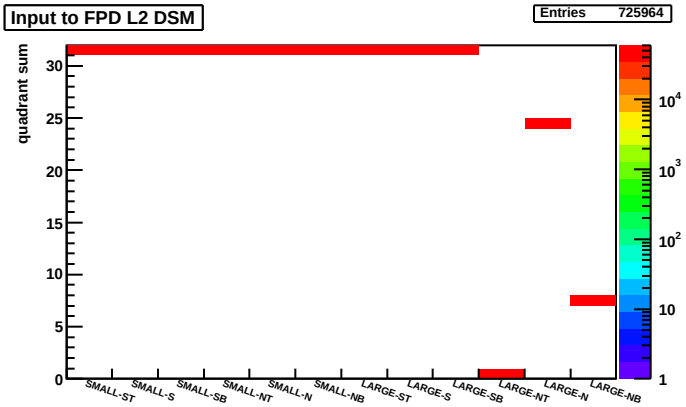

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

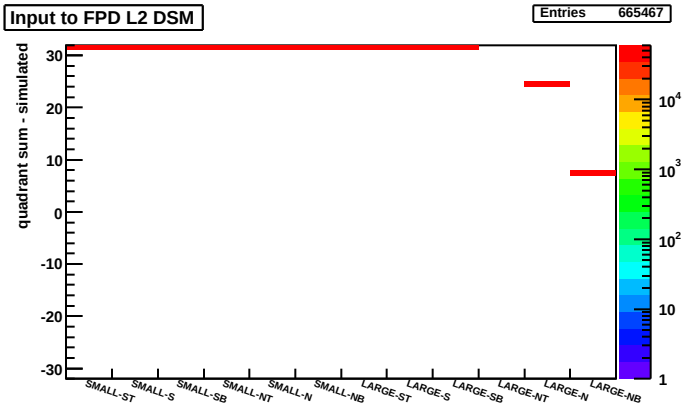

Input to FMS L1 DSM
Entries 725964
sumA
DSM board

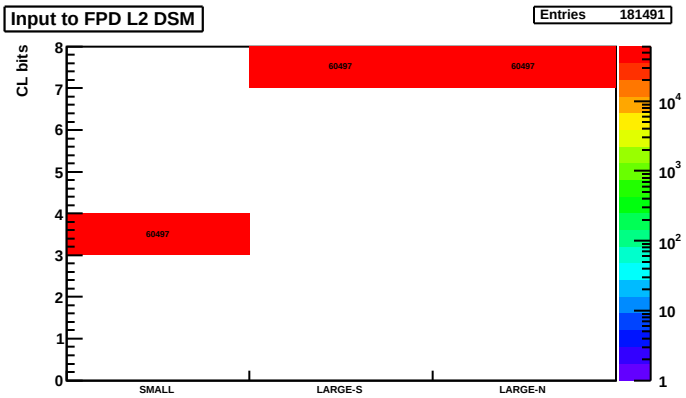

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

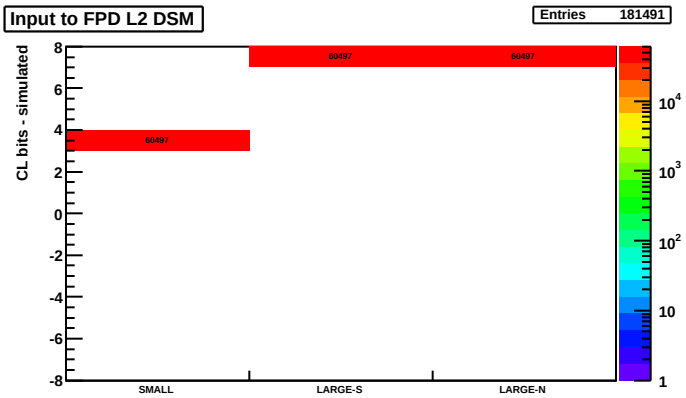

Input to FMS L1 DSM
Entries 725964
FMS L1 HT bits
DSM board

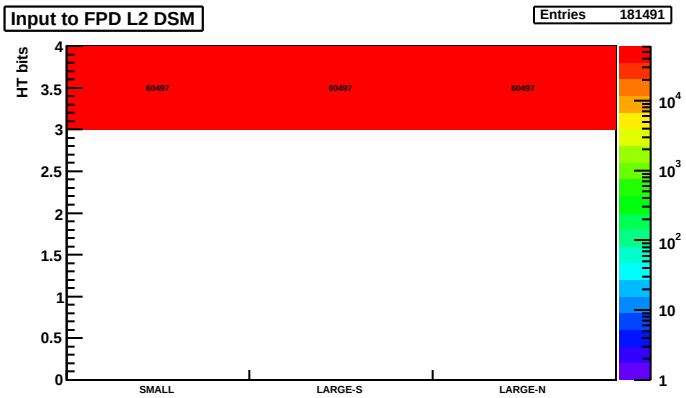

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

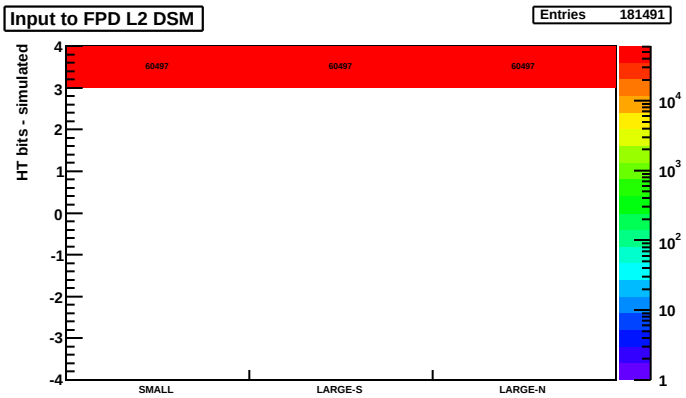

Input to FPD L2 DSM
Entries 725964
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

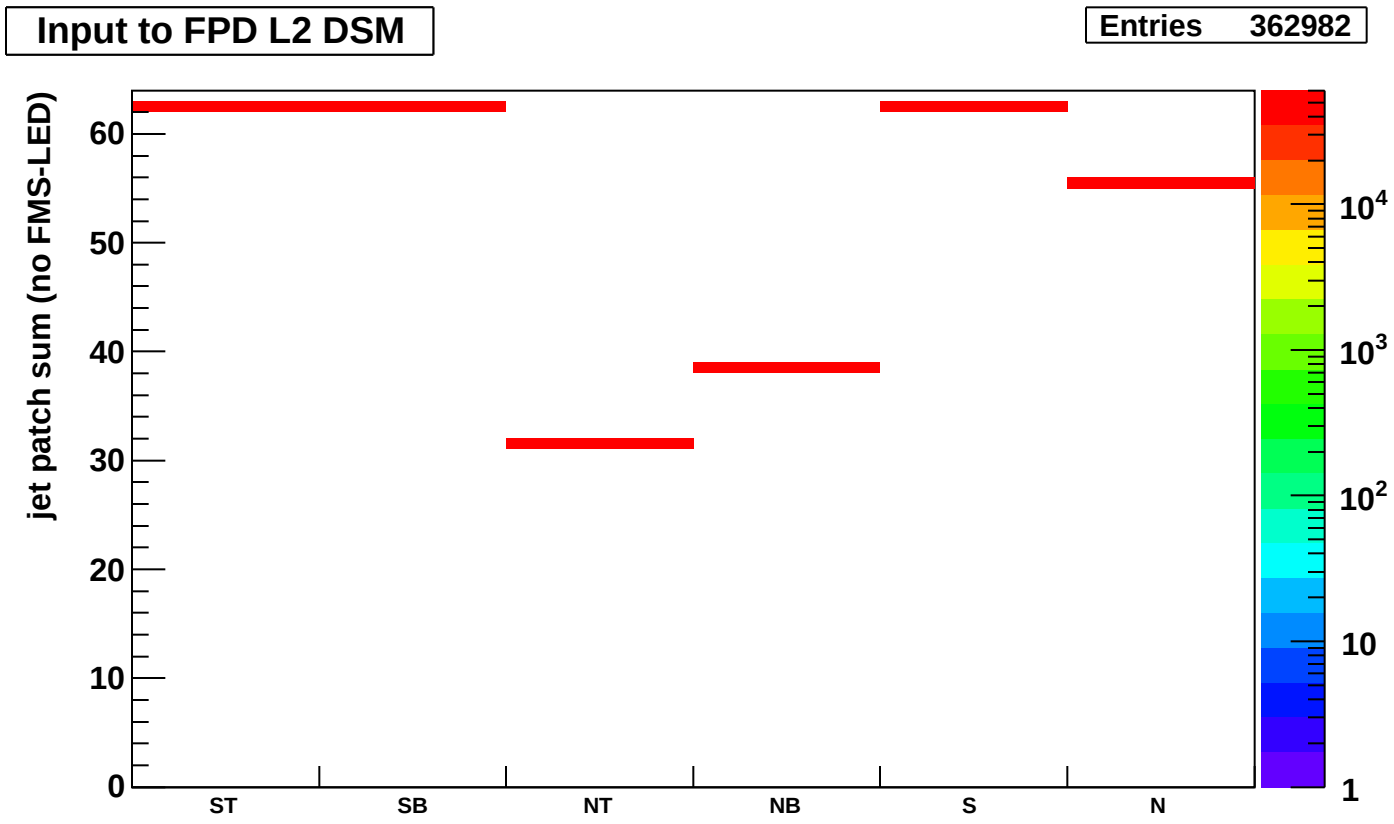

Input to FPD L2 DSM
Entries 665467
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

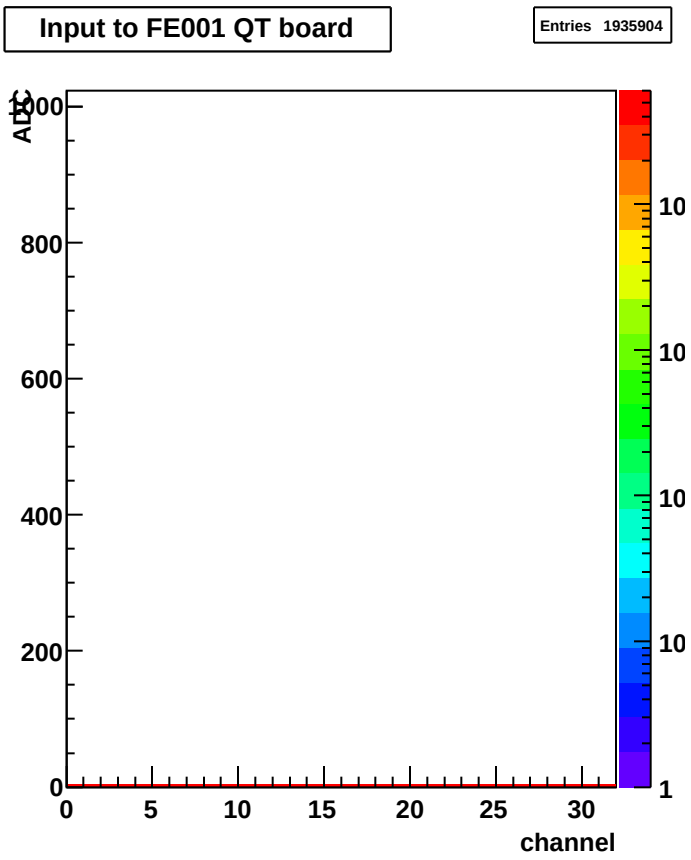

Input to FPD L2 DSM
Entries 181491
CL bits
60497
60497
60497
SMALL
LARGE-S
LARGE-N

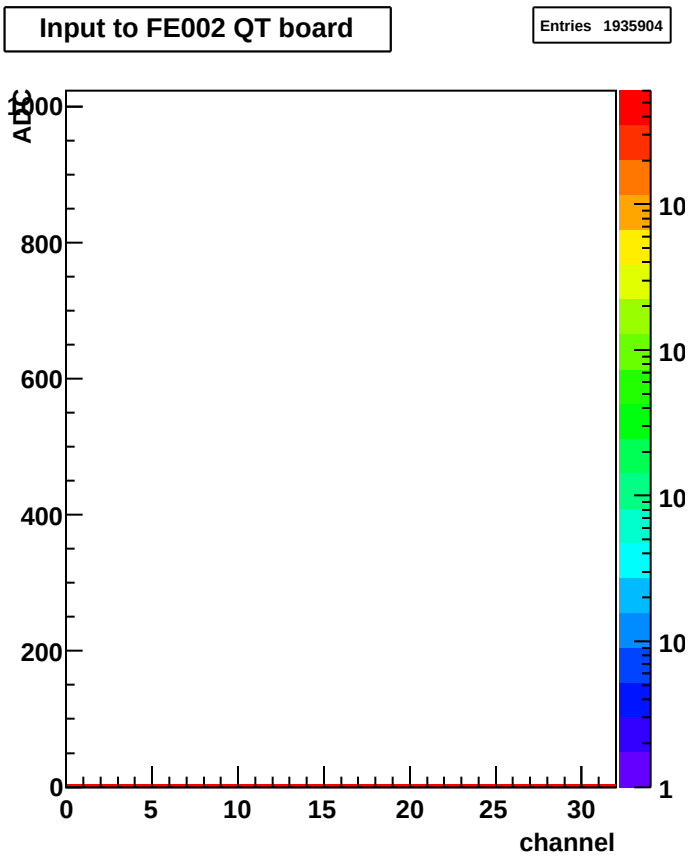

Input to FPD L2 DSM
Entries 181491
CL bits - simulated
60497
60497
60497
SMALL
LARGE-S
LARGE-N

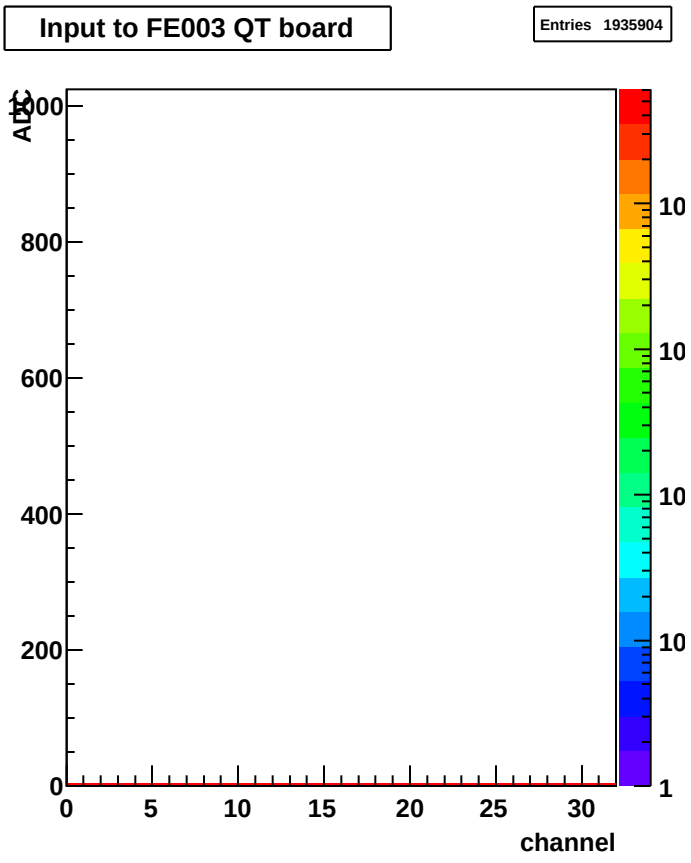

Input to FPD L2 DSM
Entries 181491
HT bits
60497
60497
60497
SMALL
LARGE-S
LARGE-N

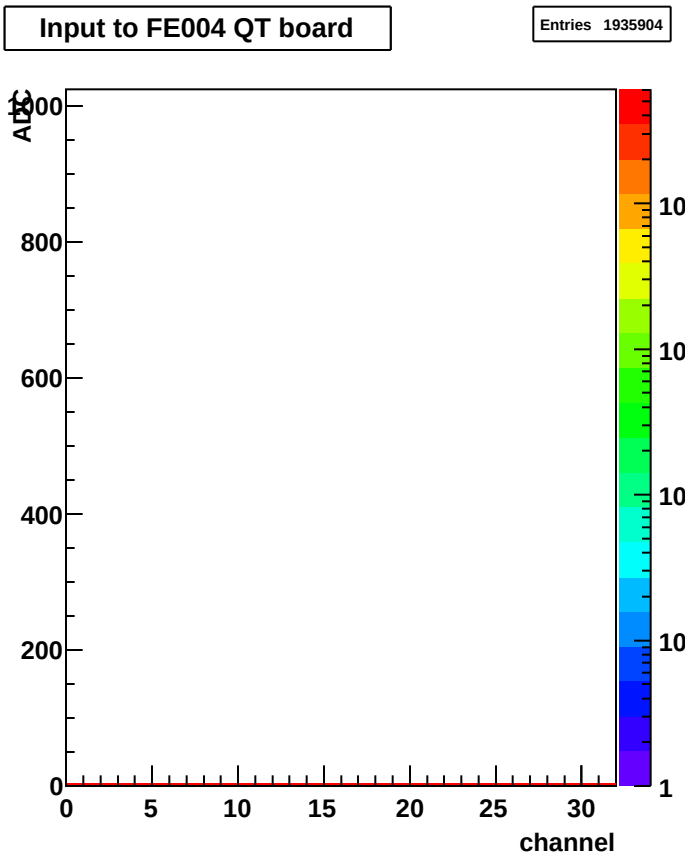

Input to FPD L2 DSM
Entries 181491
HT bits - simulated
60497
60497
60497
SMALL
LARGE-S
LARGE-N

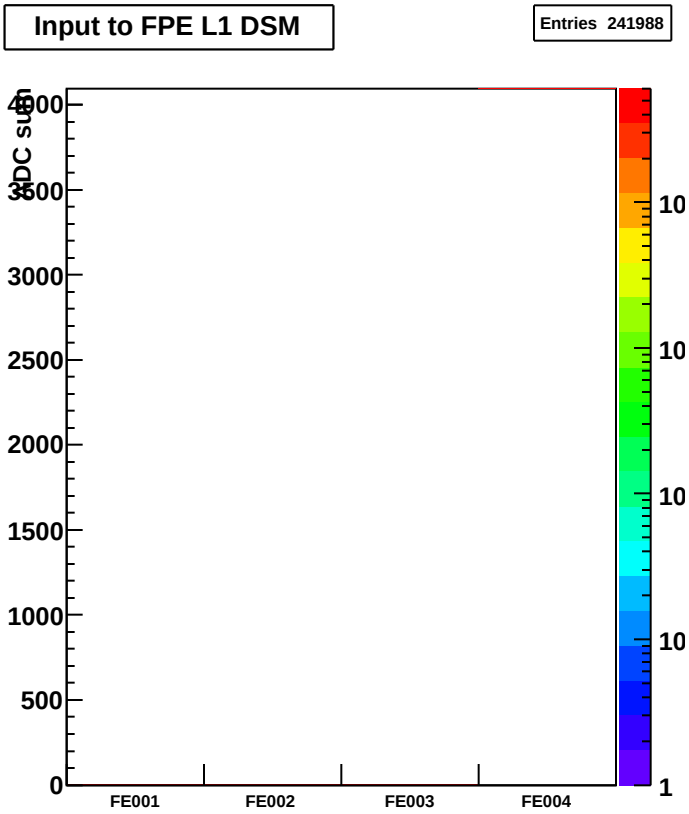

Input to FPD L2 DSM
Entries 362982
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

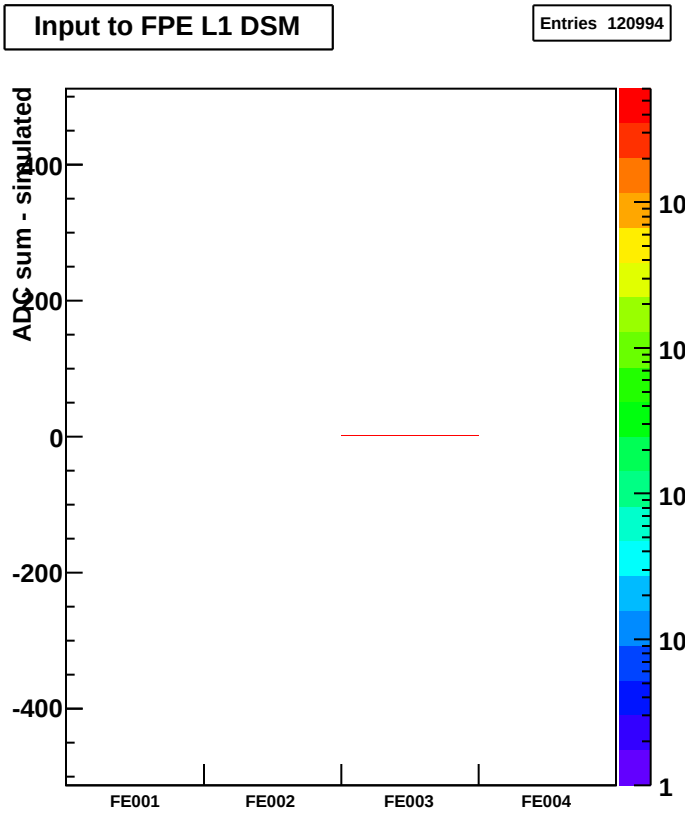

Input to FE001 QT board
Entries 1935904
ADC
channel


Input to FE002 QT board
Entries 1935904
ADC
channel

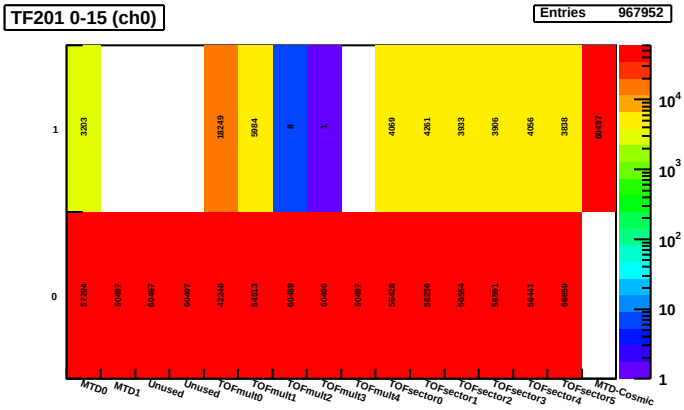

Input to FE003 QT board
Entries 1935904
ADC
channel


Input to FE004 QT board
Entries 1935904
ADC
channel

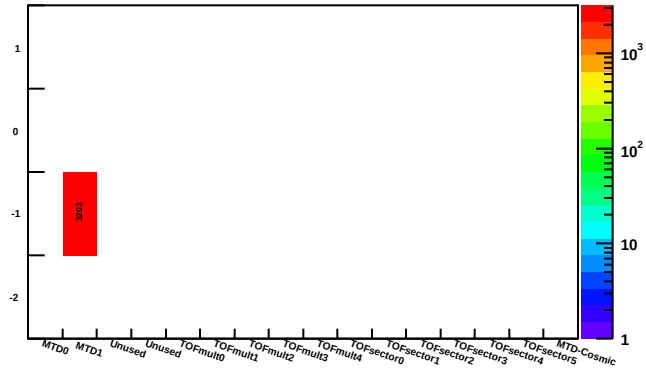

Input to FPE L1 DSM
Entries 241988
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 120994
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

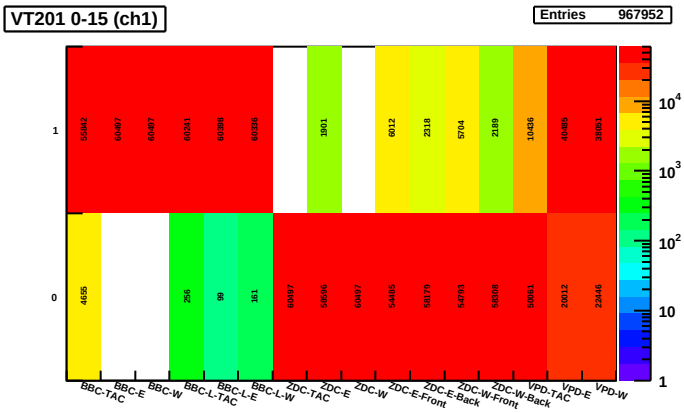
TF201 0-15 (ch0)



TF201 0-15 (ch0)



VT201 0-15 (ch1)



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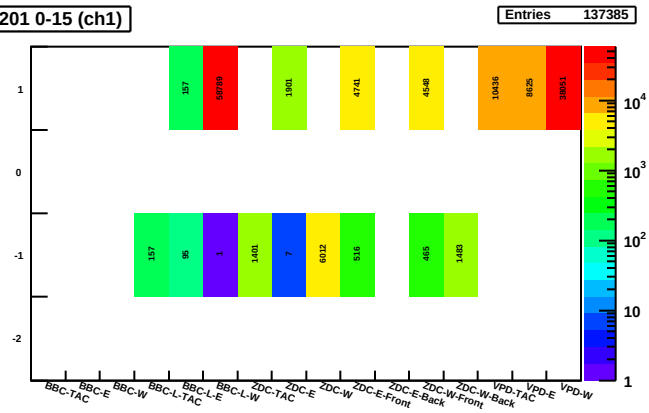

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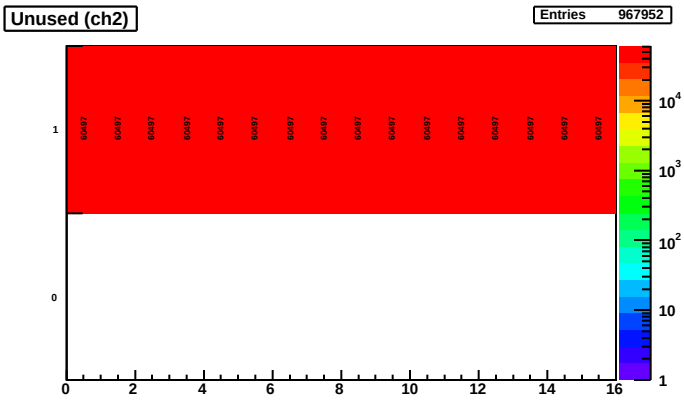
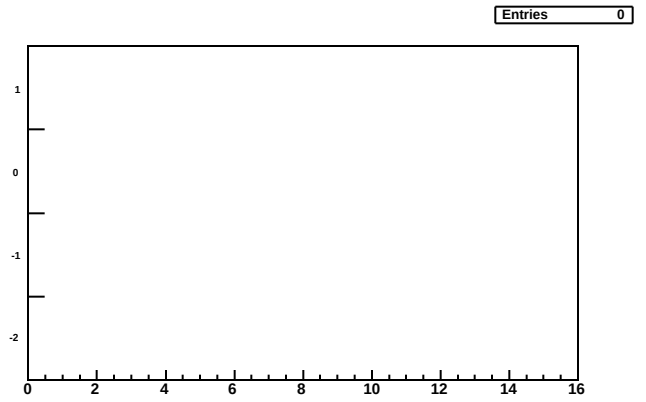
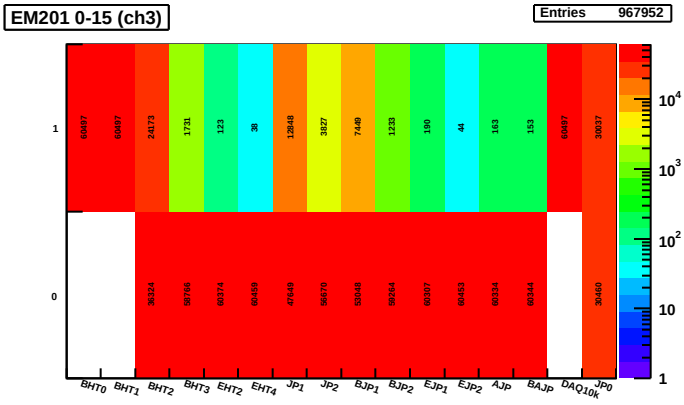
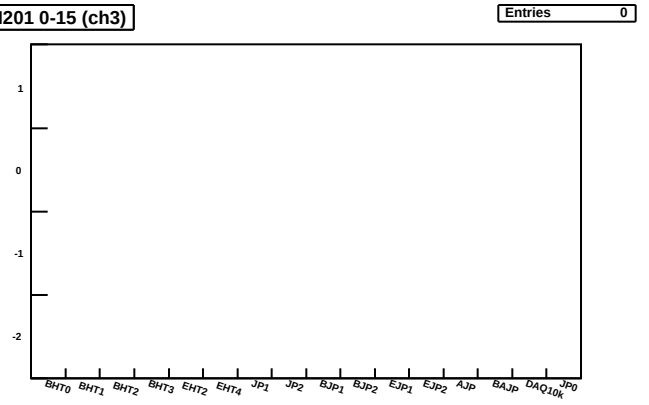


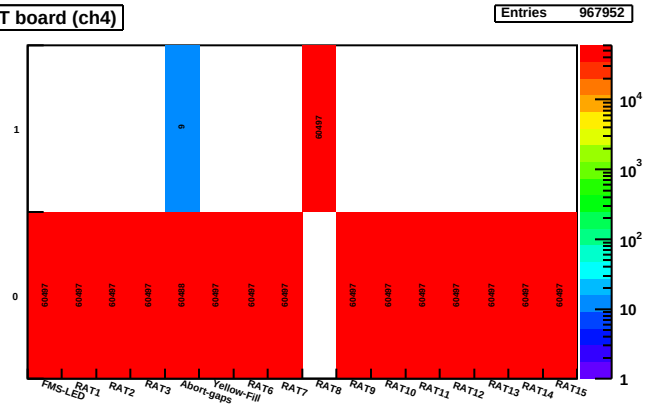


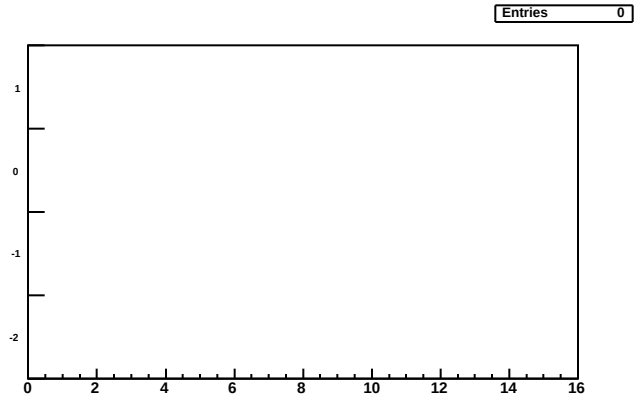
EM201 0-15 (ch3)



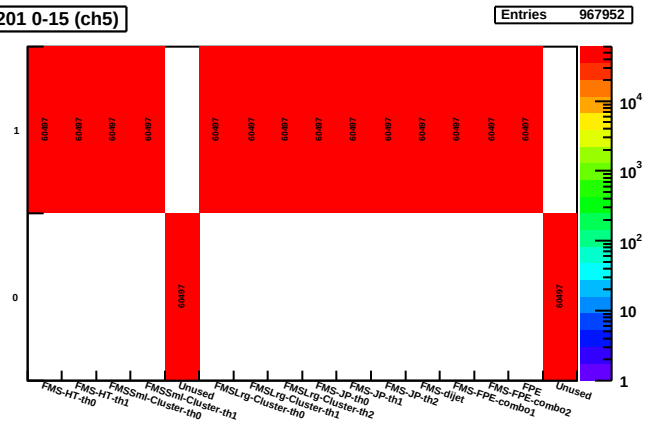


RAT board (ch4)

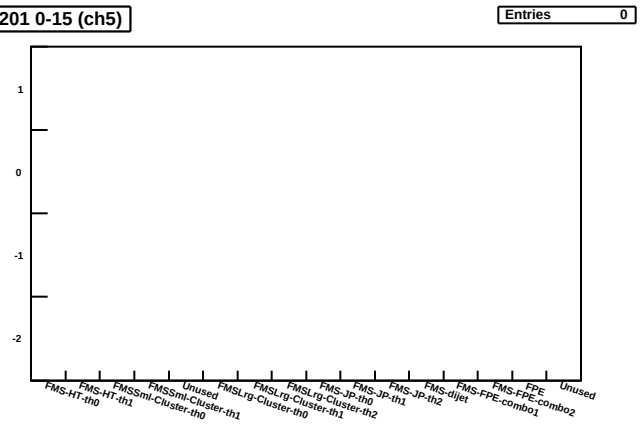




FP201 0-15 (ch5)



FP201 0-15 (ch5)



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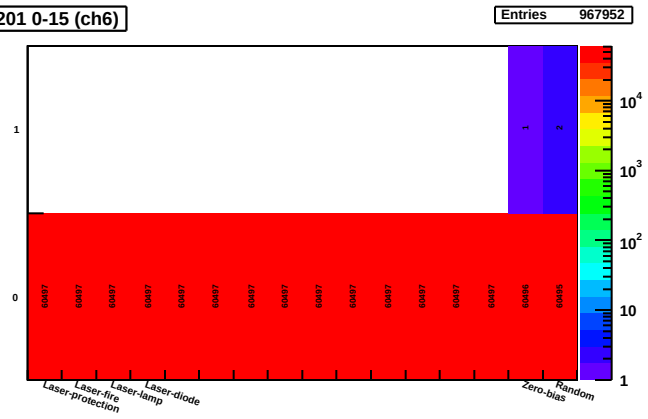

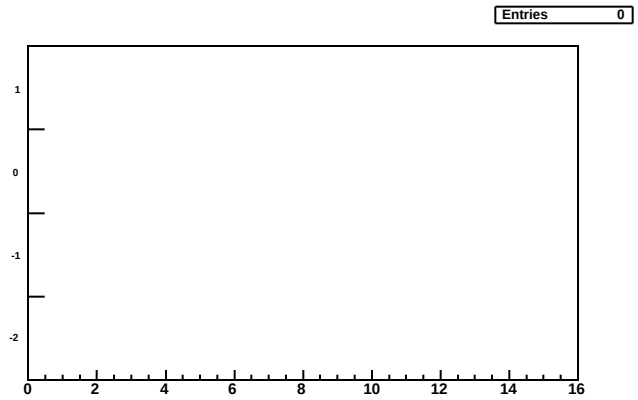
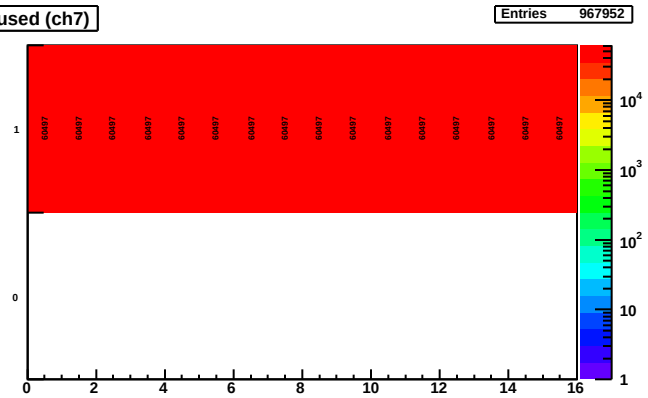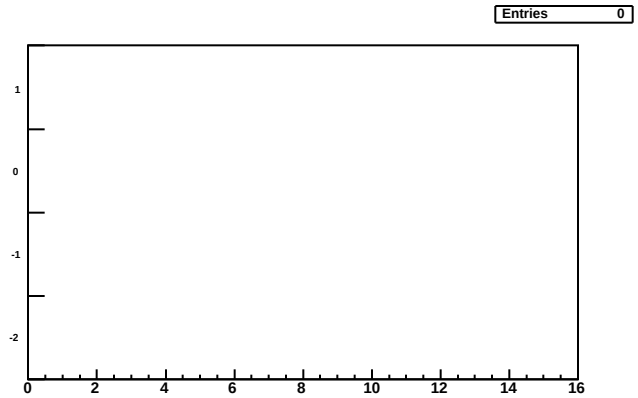
Unused (ch7)