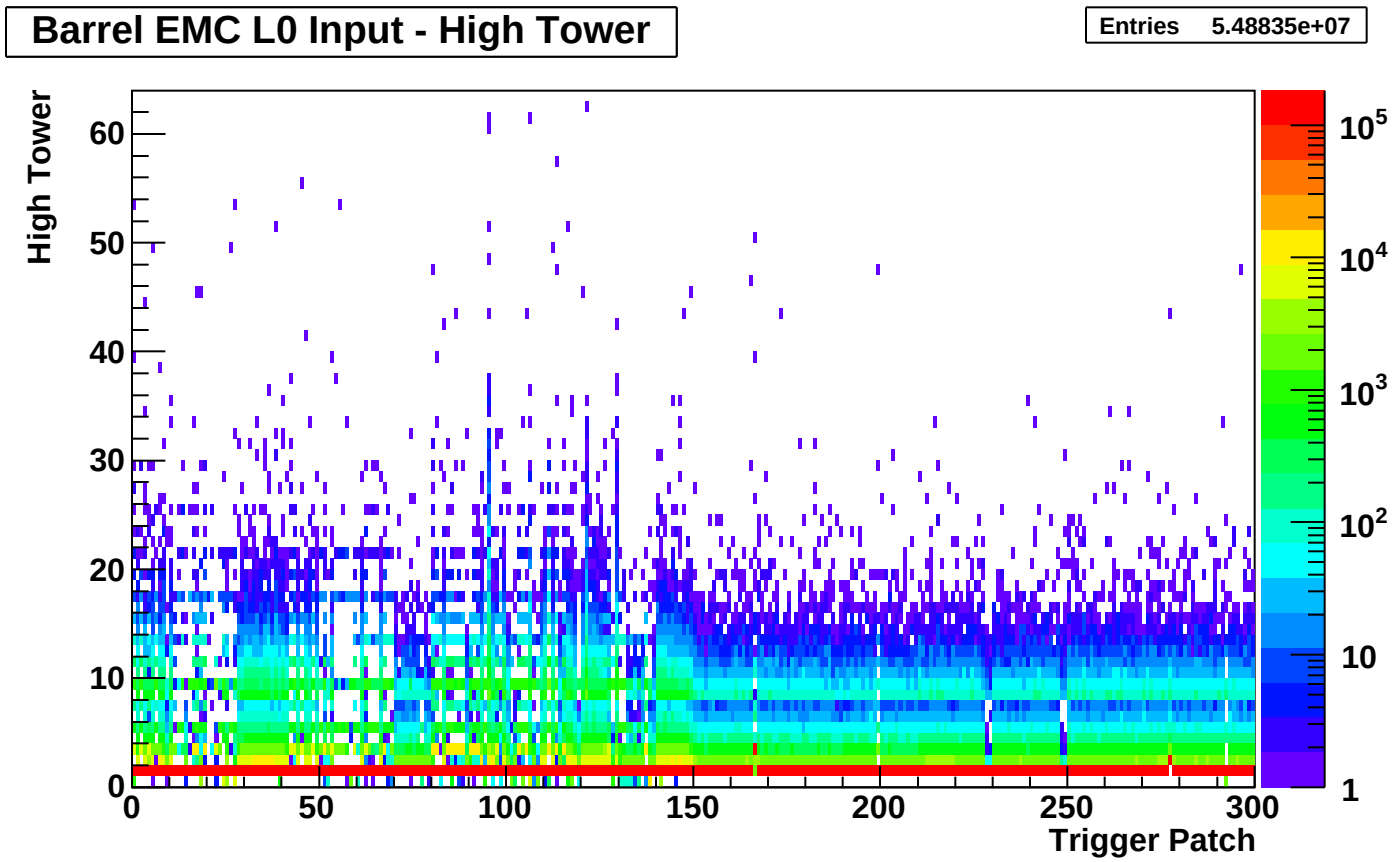
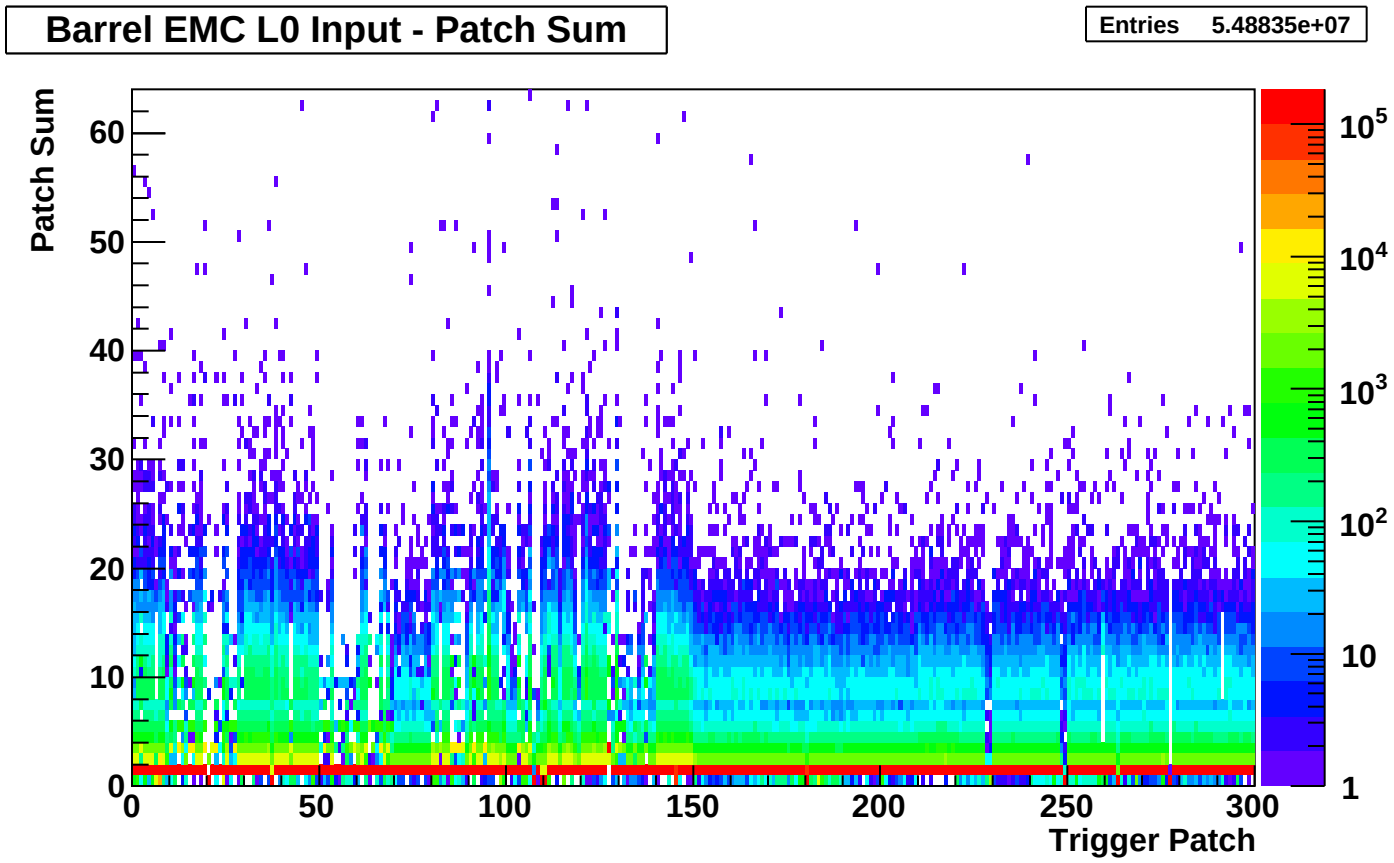
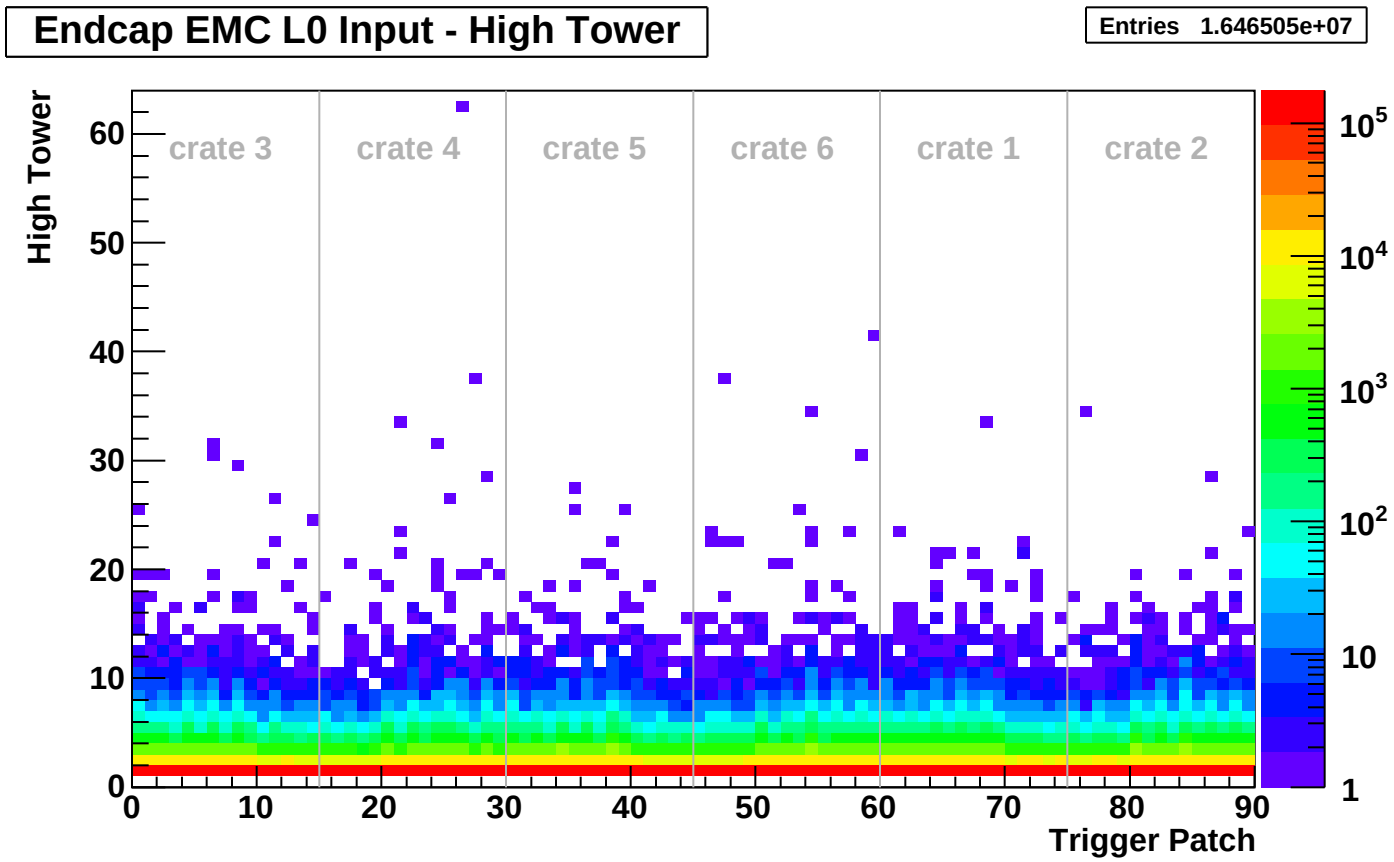
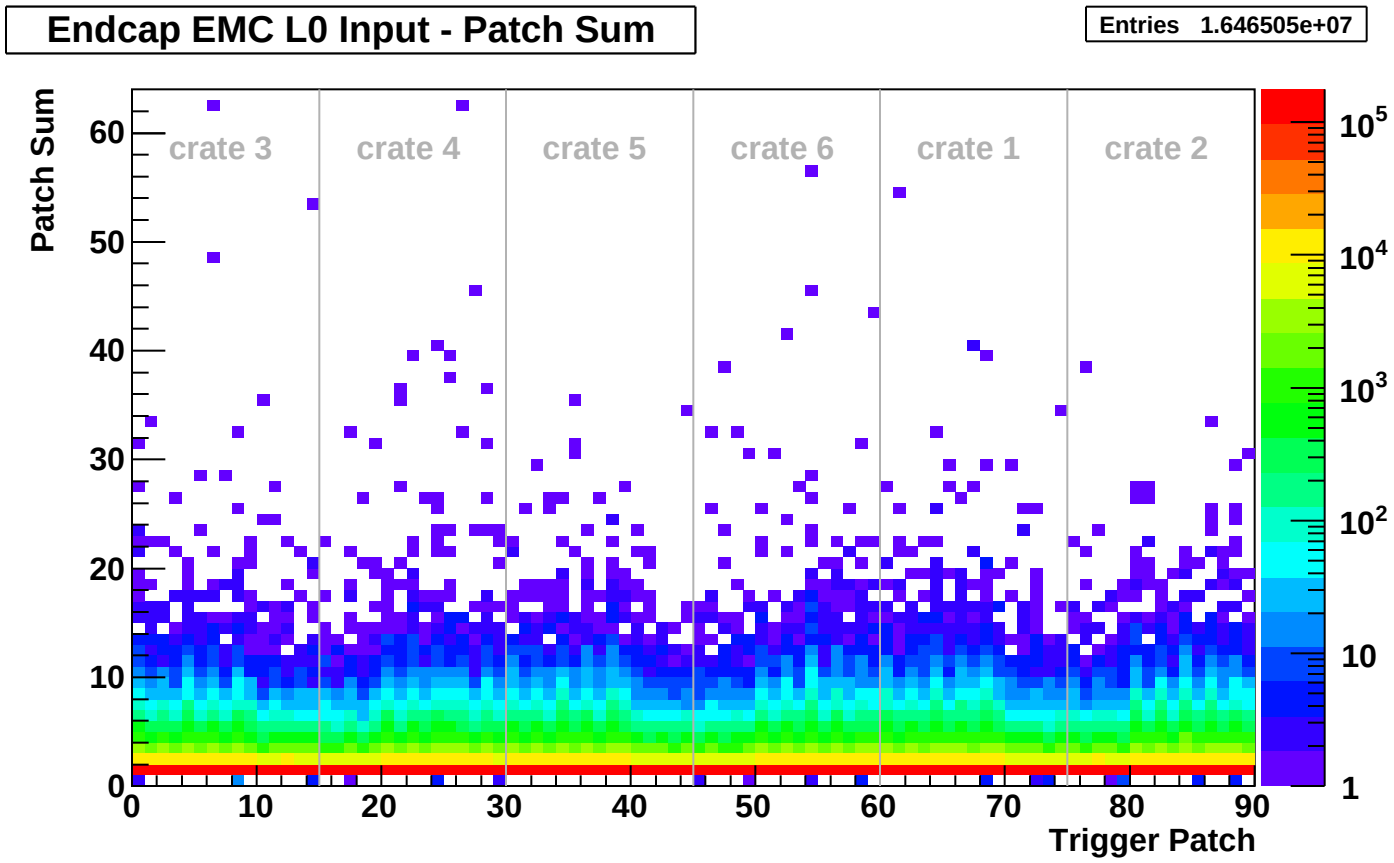
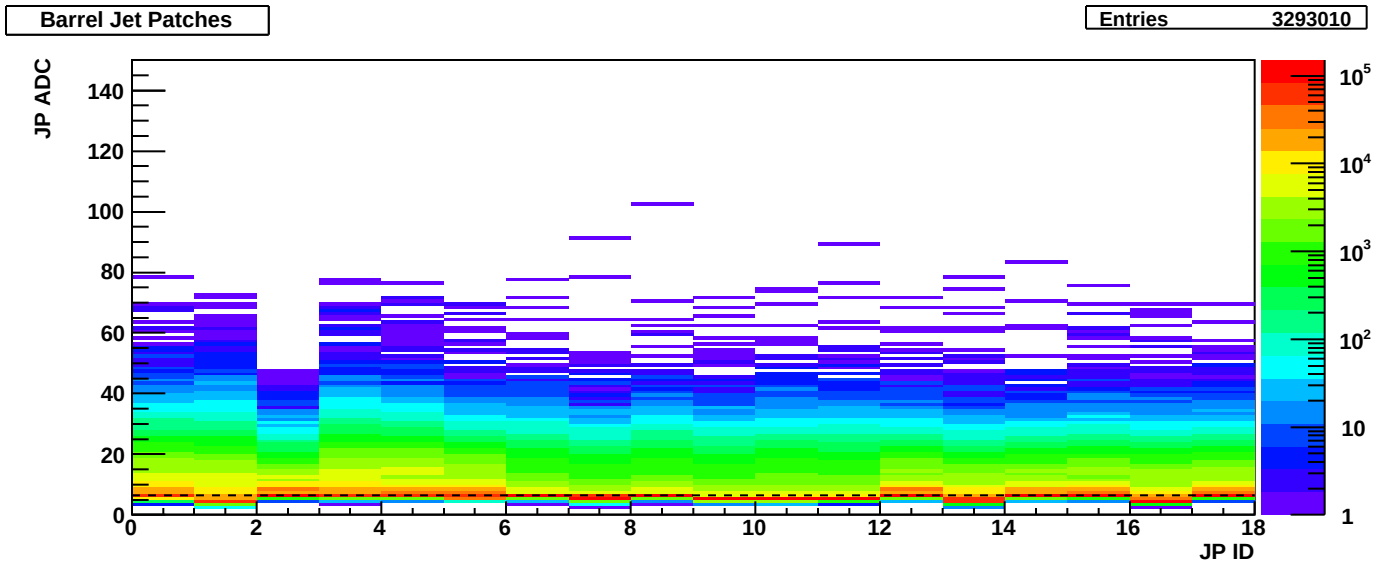
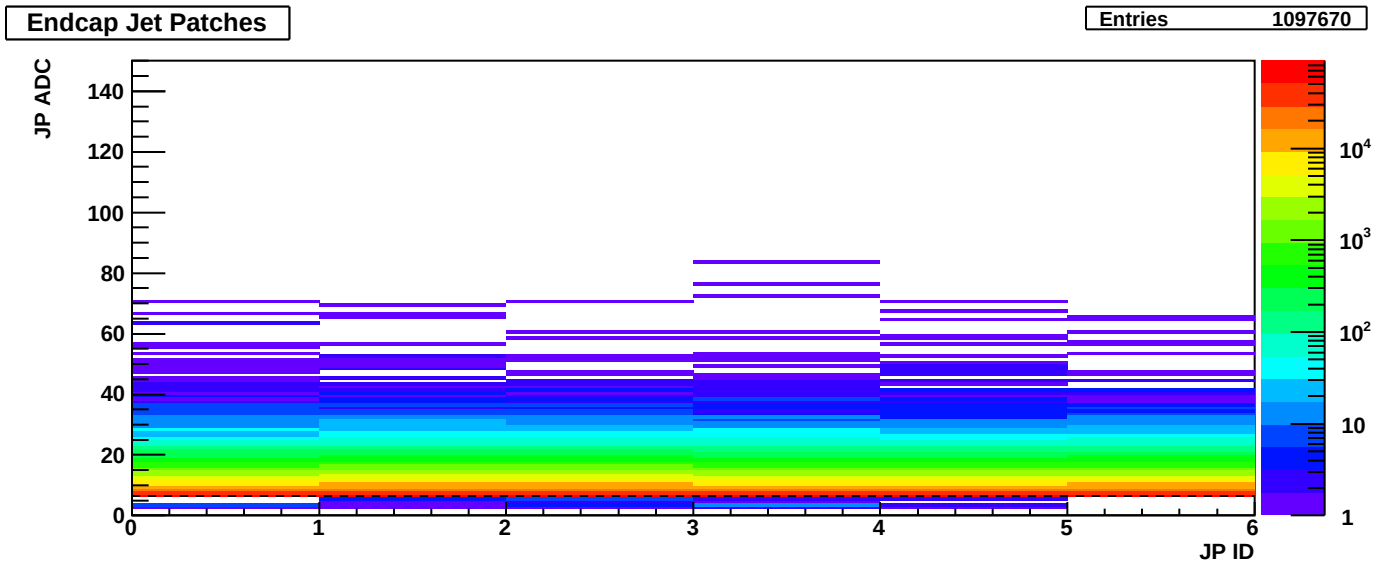

Barrel EMC L0 Input - High Tower
Entries 5.48835e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

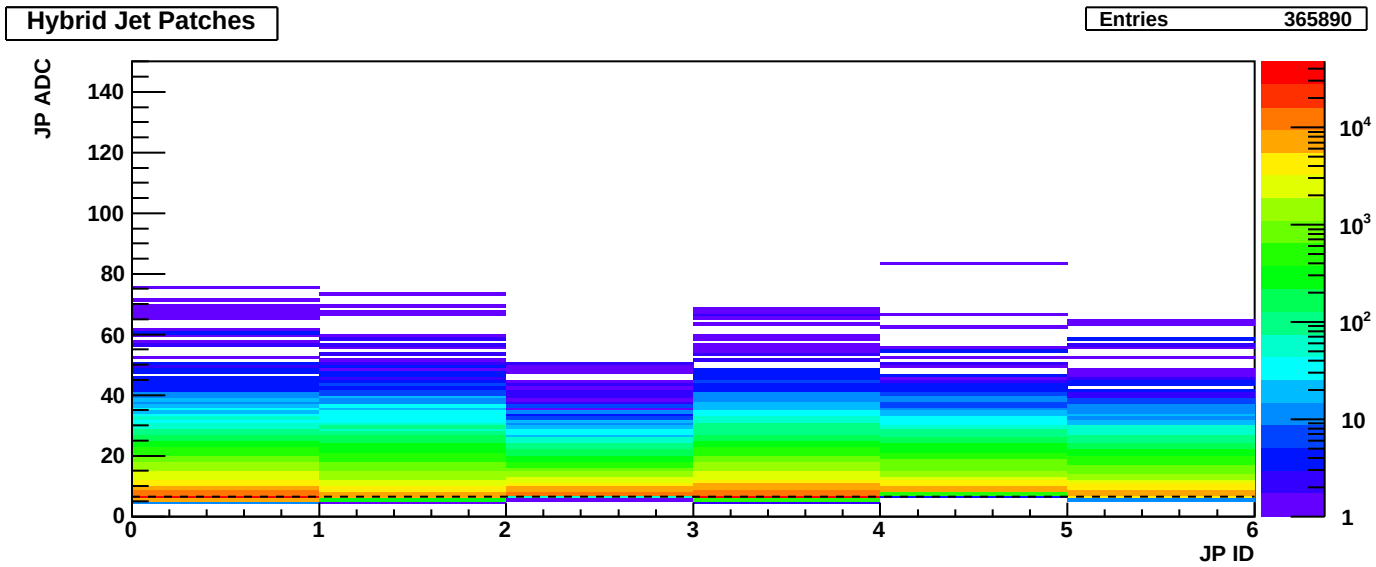

Barrel EMC L0 Input - Patch Sum
Entries 5.48835e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

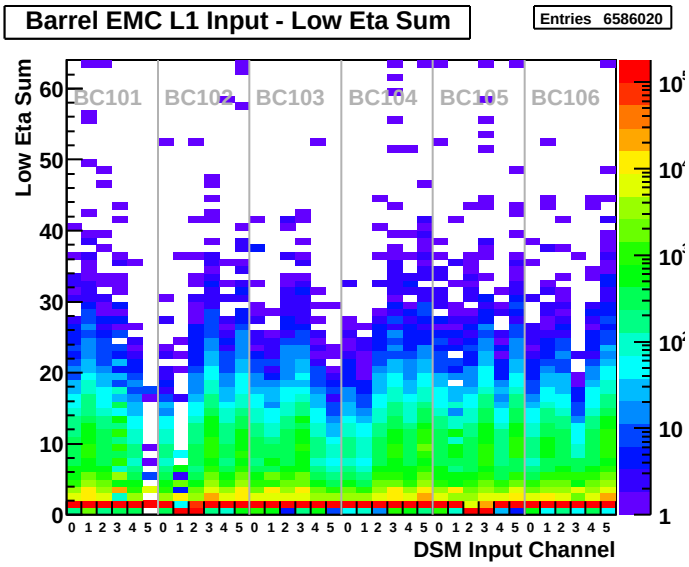

Endcap EMC L0 Input - High Tower
Entries 1.646505e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

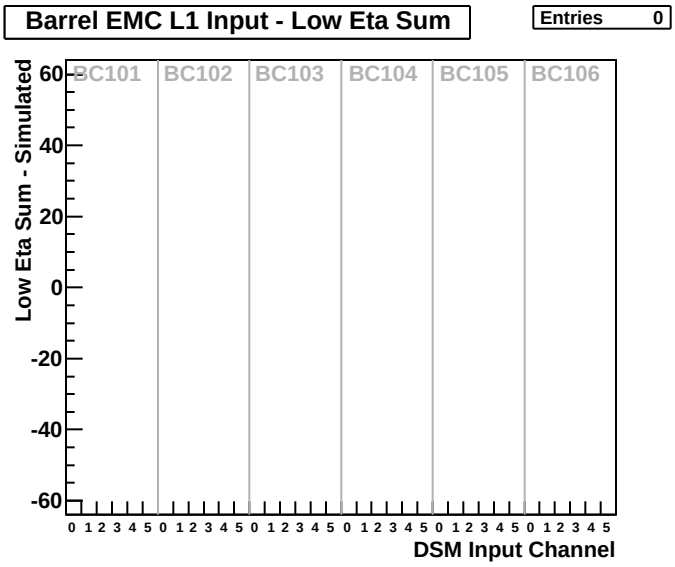

Endcap EMC L0 Input - Patch Sum
Entries 1.646505e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

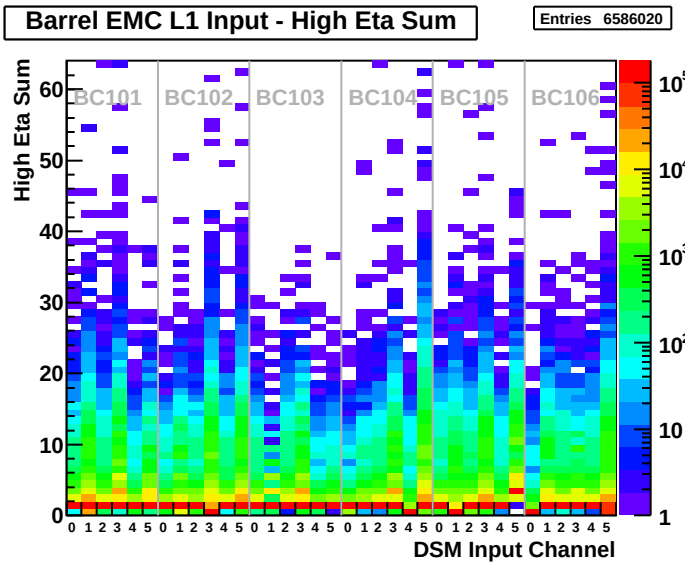

Barrel Jet Patches
Entries 3293010
JP ADC
JP ID

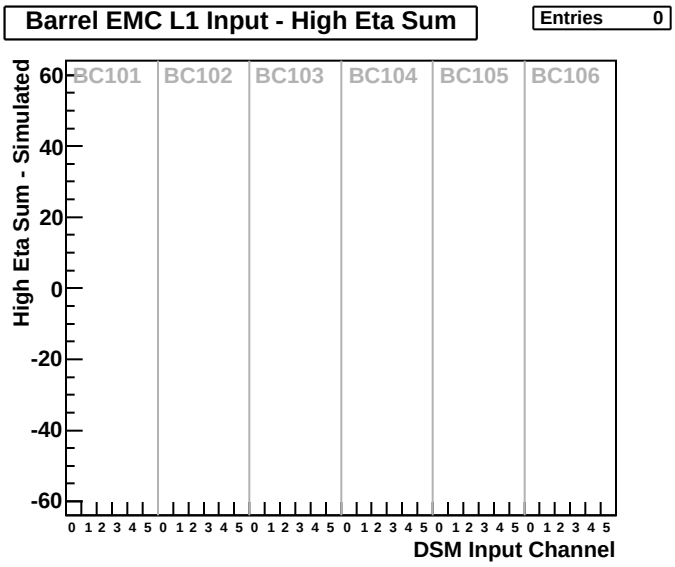

Endcap Jet Patches
Entries 1097670
JP ADC
JP ID

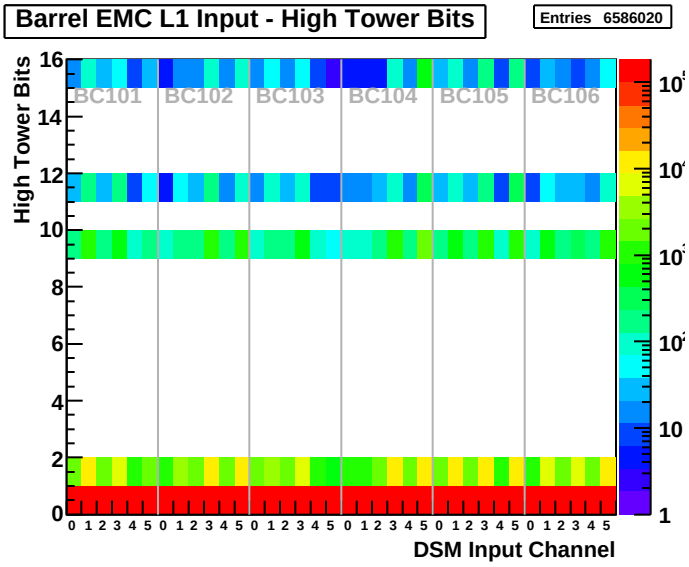

Hybrid Jet Patches
Entries 365890
JP ADC
JP ID

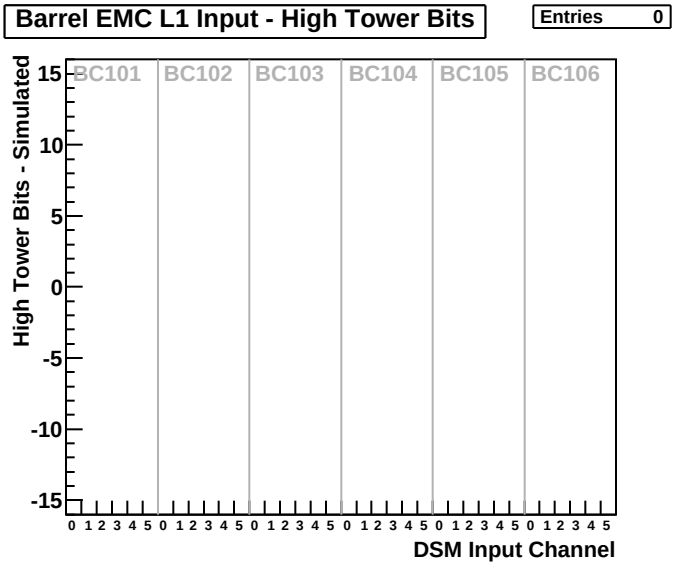

Barrel EMC L1 Input - Low Eta Sum
Entries 6586020
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

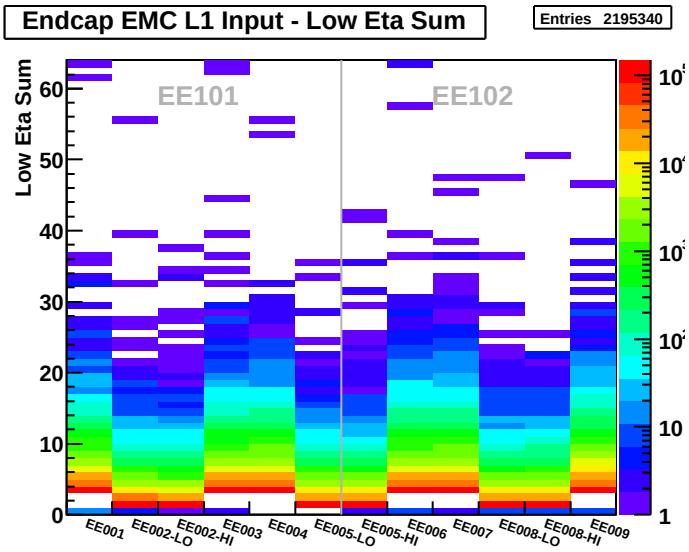

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

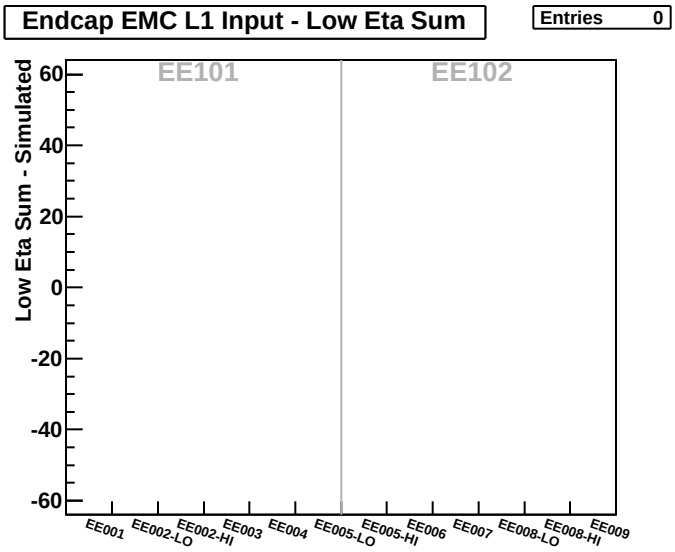

Barrel EMC L1 Input - High Eta Sum
Entries 6586020
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

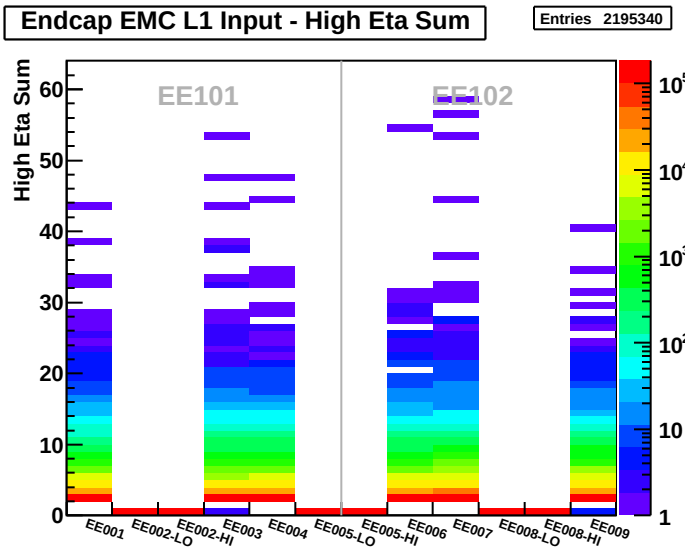

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

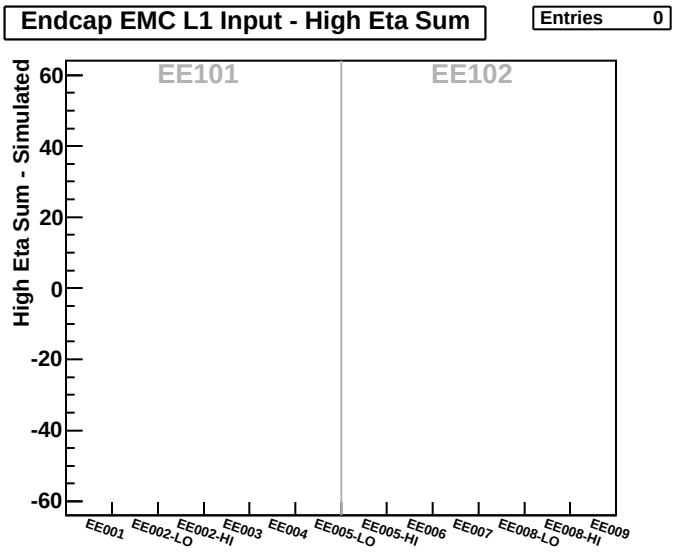

Barrel EMC L1 Input - High Tower Bits
Entries 6586020
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

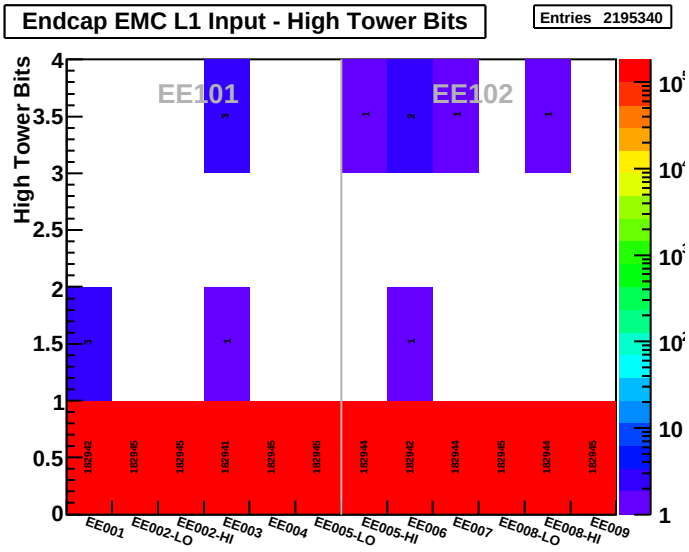

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

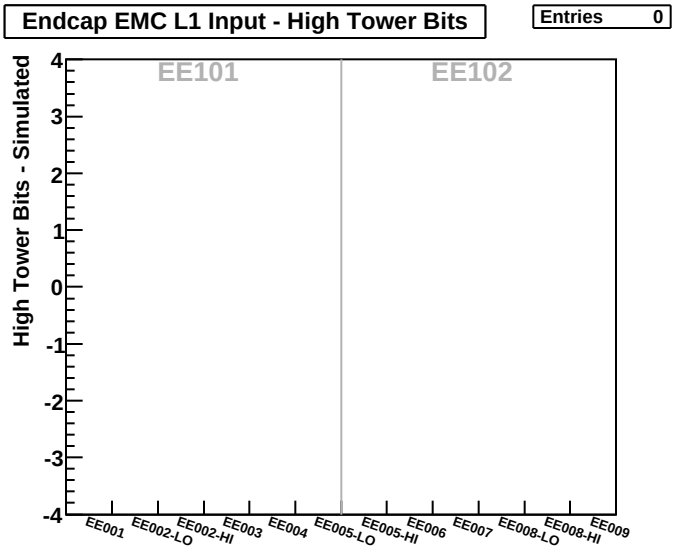

Endcap EMC L1 Input - Low Eta Sum
Entries 2195340
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

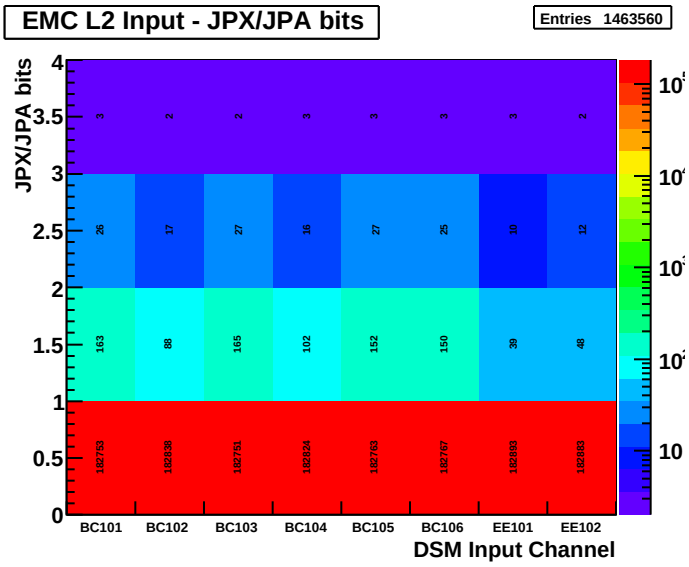

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

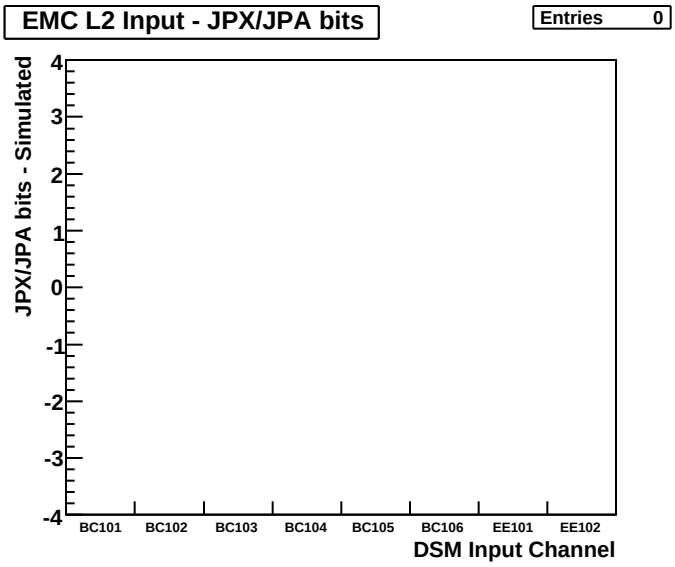

Endcap EMC L1 Input - High Eta Sum
Entries 2195340
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

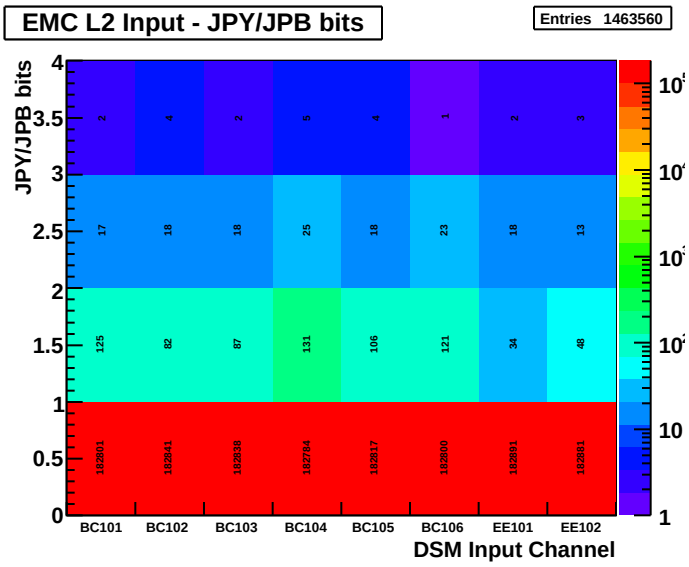

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

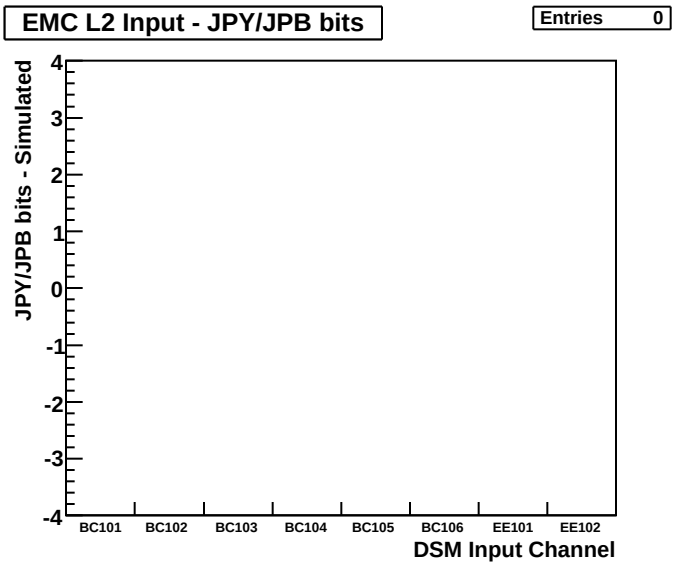

Endcap EMC L1 Input - High Tower Bits
Entries 2195340
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

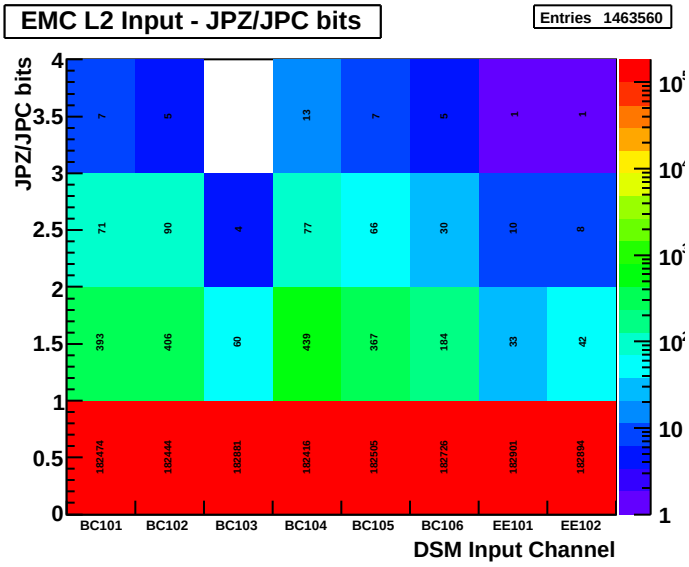

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

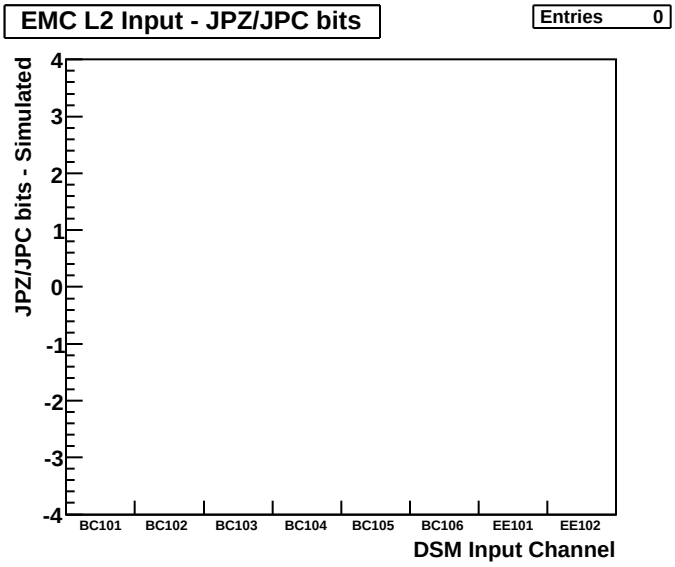

EMC L2 Input - JPX/JPA bits
Entries 1463560
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3 2 2 3 3 3 3 2
26 17 27 16 27 25 10 12
163 88 165 102 152 150 39 48
182753 182838 182751 182824 182753 182767 182893 182883

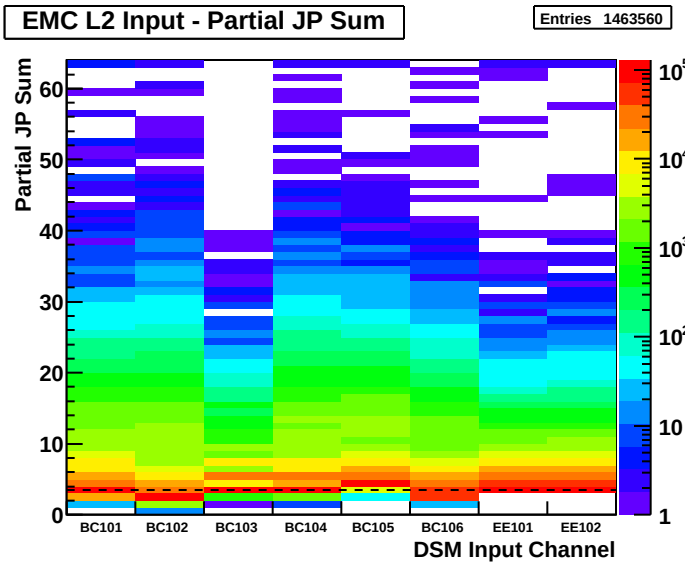

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

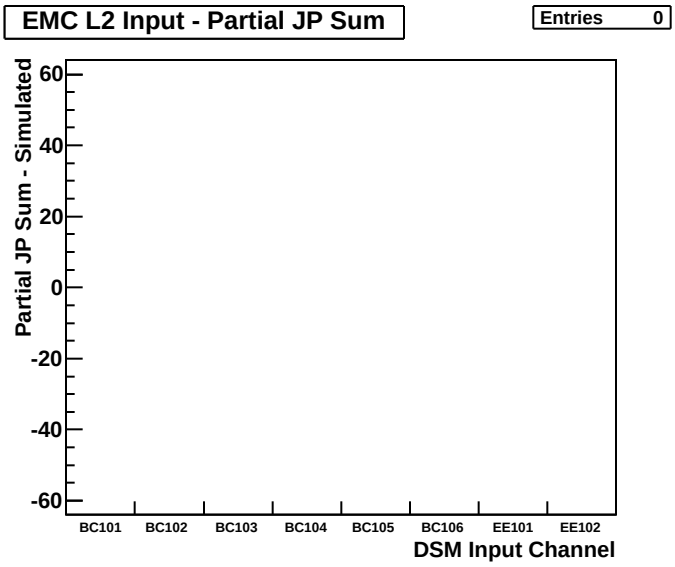

EMC L2 Input - JPY/JPB bits
Entries 1463560
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2 4 2 5 4 1 2 3
17 18 18 25 18 23 18 13
125 82 87 131 106 121 34 48
182801 182841 182838 182784 182817 182800 182891 182881

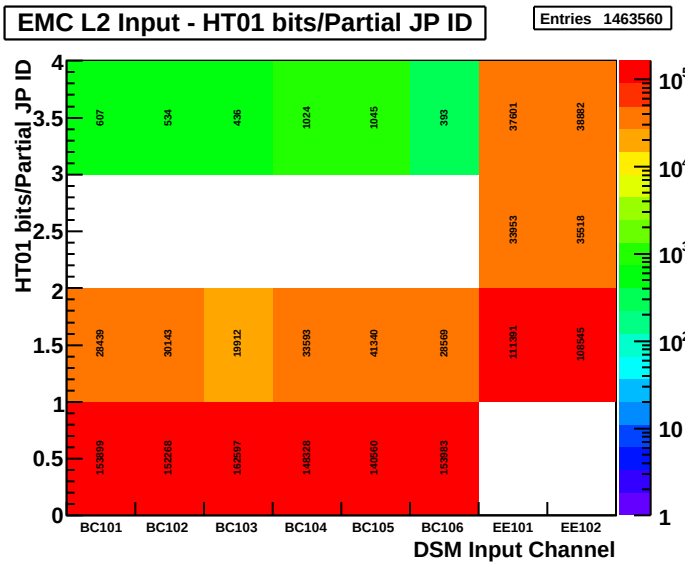

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

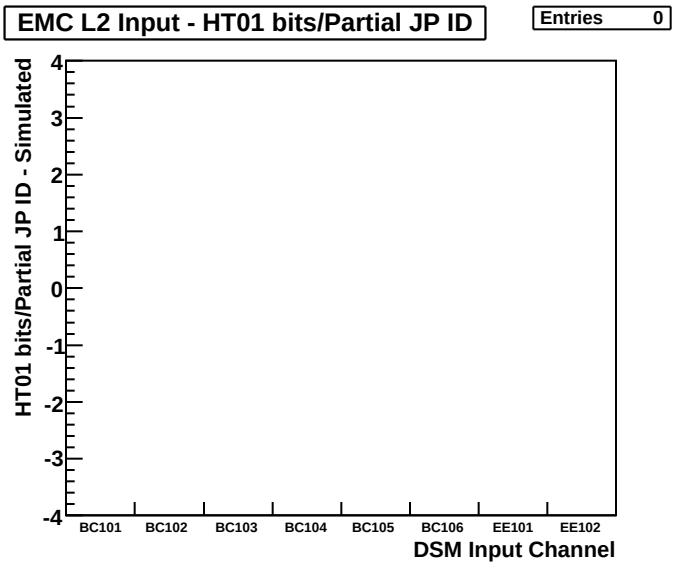

EMC L2 Input - JPZ/JPC bits
Entries 1463560
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
7 5 13 7 5 1 1
71 90 4 77 66 30 10 8
393 406 60 439 367 184 33 42
182474 182444 182481 182416 182505 182726 182901 182894

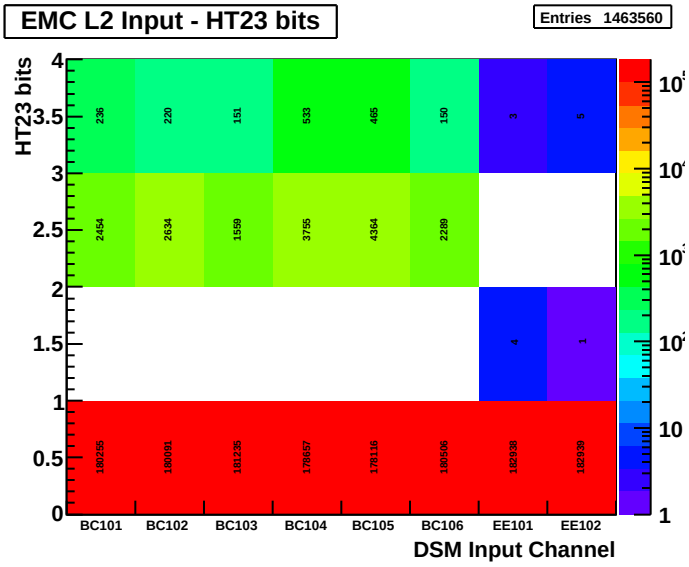

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

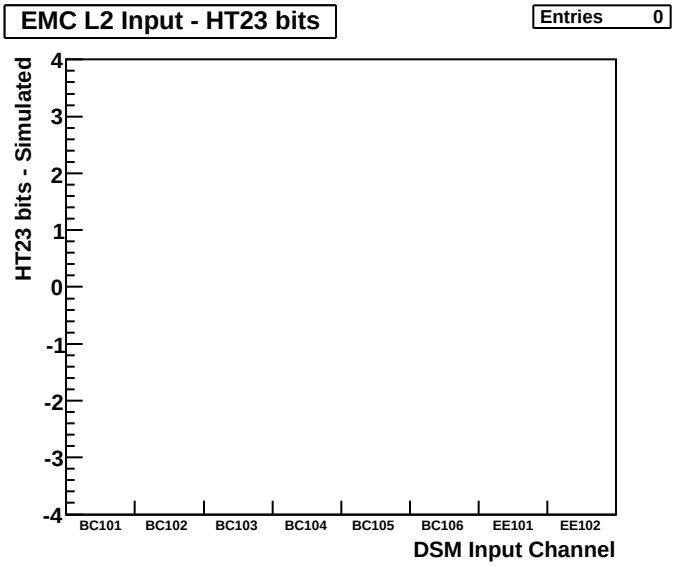

EMC L2 Input - Partial JP Sum
Entries 1463560
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

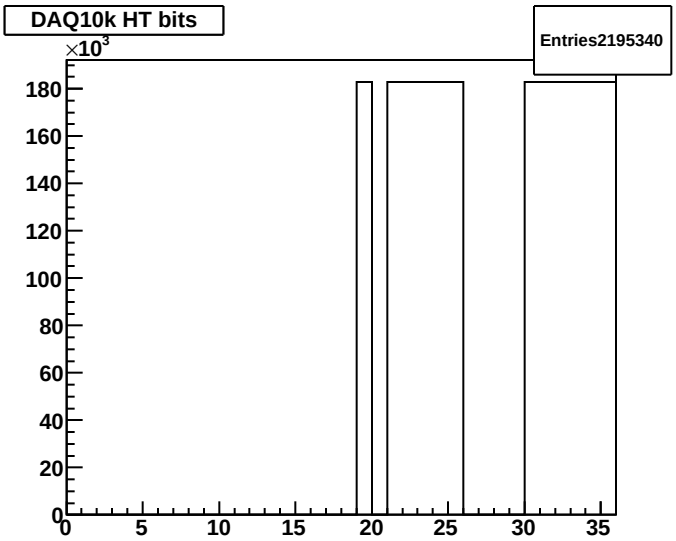

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

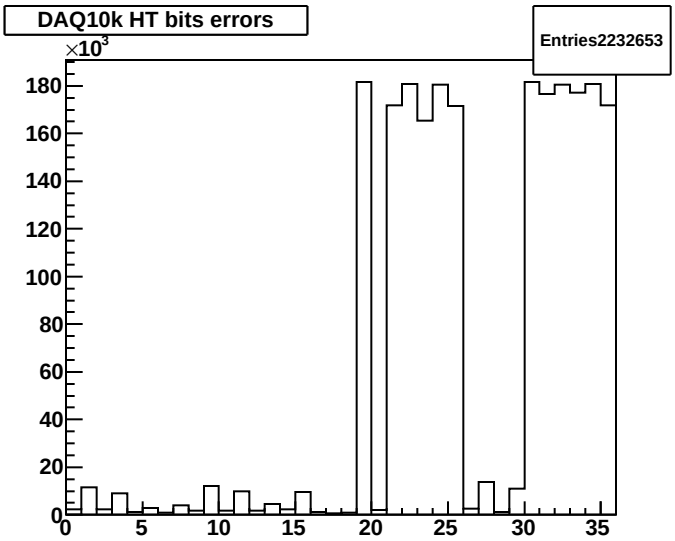

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1463560
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

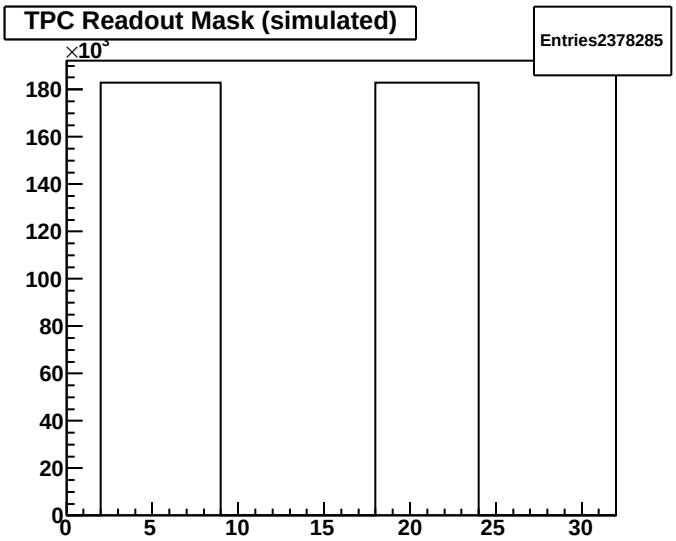

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

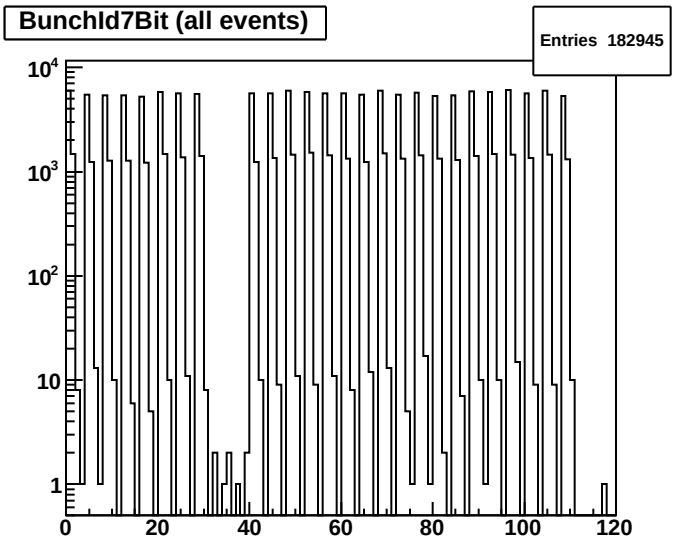

EMC L2 Input - HT23 bits
Entries 1463560
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

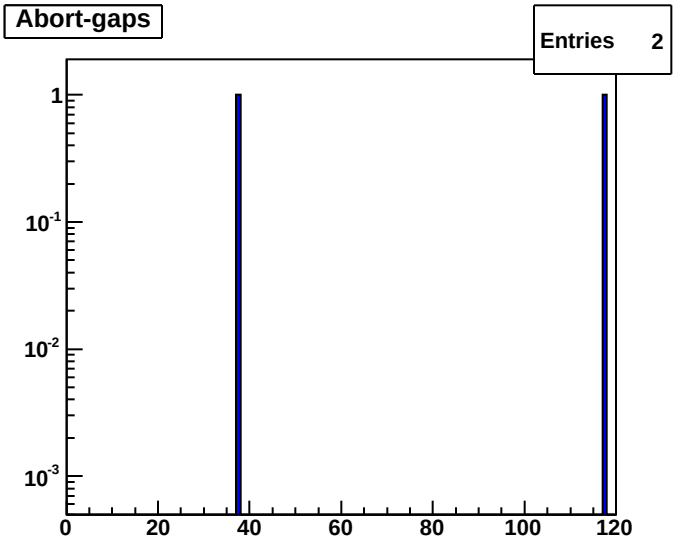

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

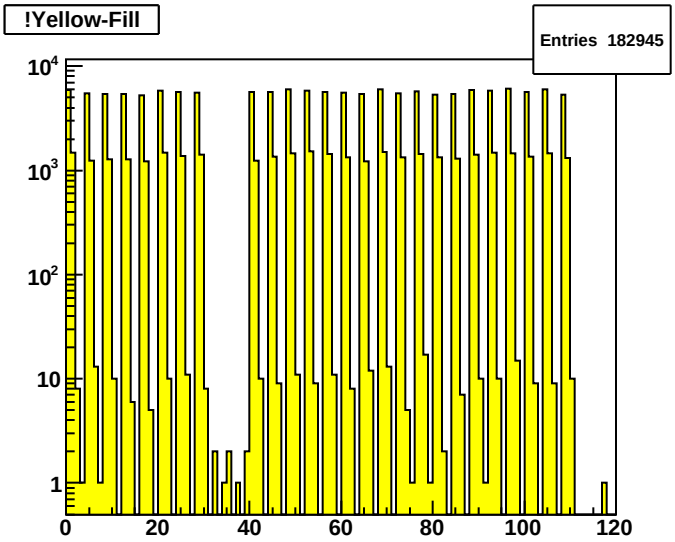

DAQ10k HT bits
Entries2195340
×10^3
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

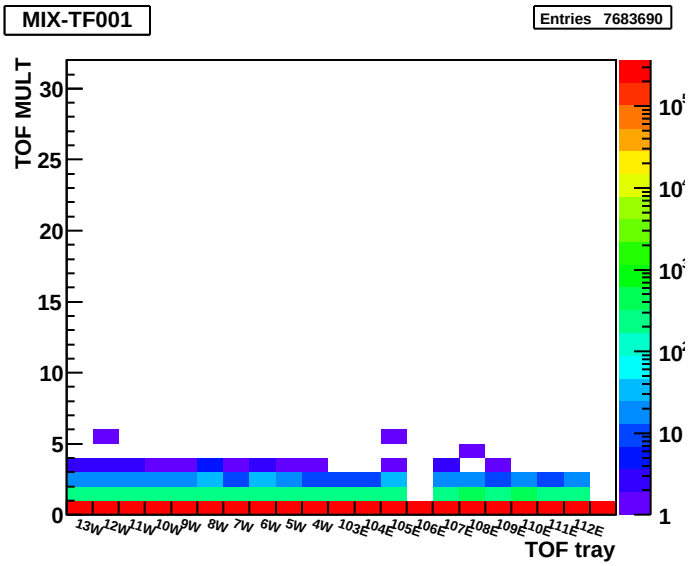

DAQ10k HT bits errors
Entries2232653
×10^3
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

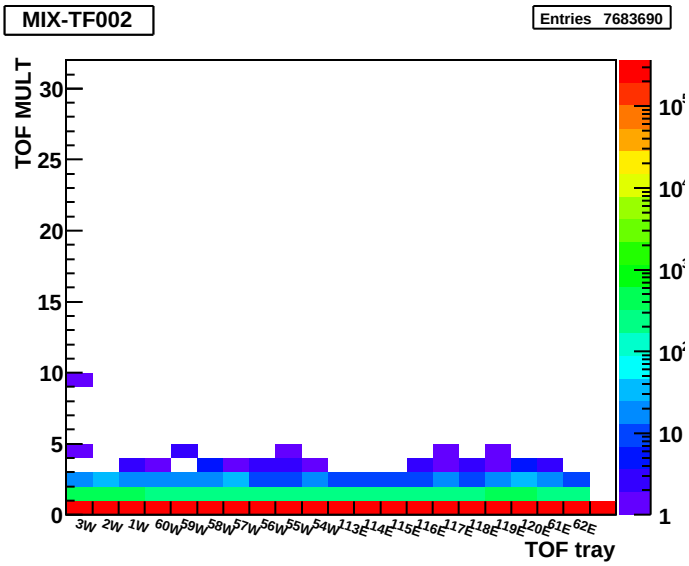

TPC Readout Mask (simulated)
Entries2378285
×10^3
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30

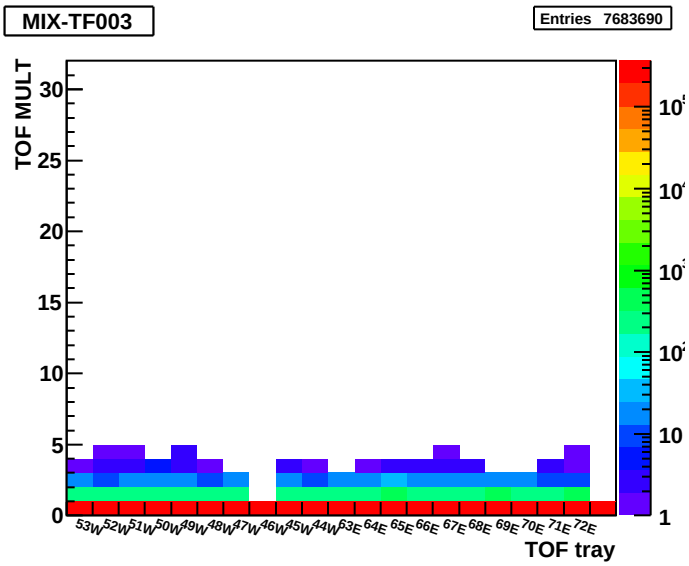

BunchId7Bit (all events)
Entries 182945
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

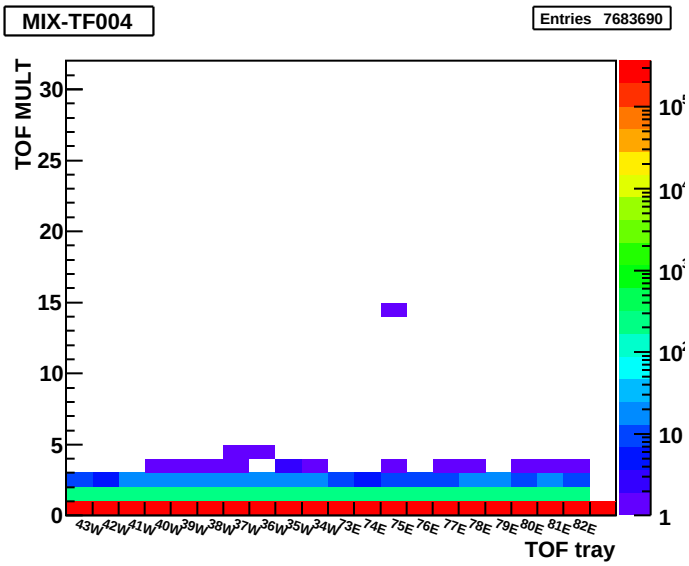

Abort-gaps
Entries 2
1
10^-1
10^-2
10^-3
0 20 40 60 80 100 120

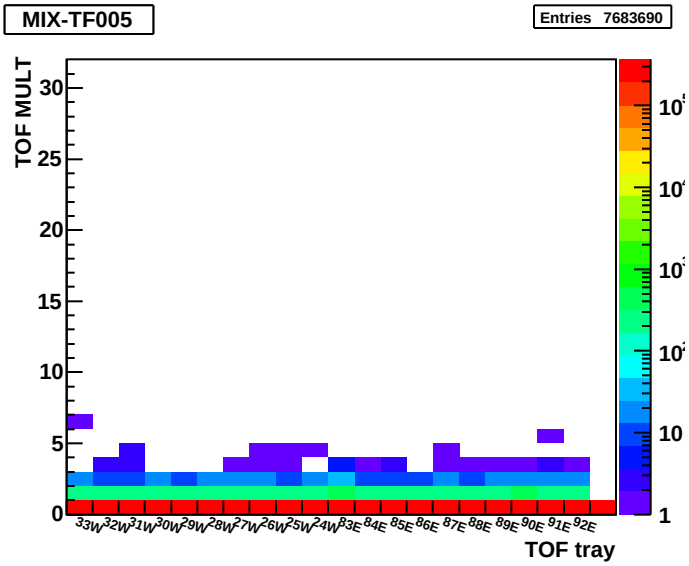

!Yellow-Fill
Entries 182945
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

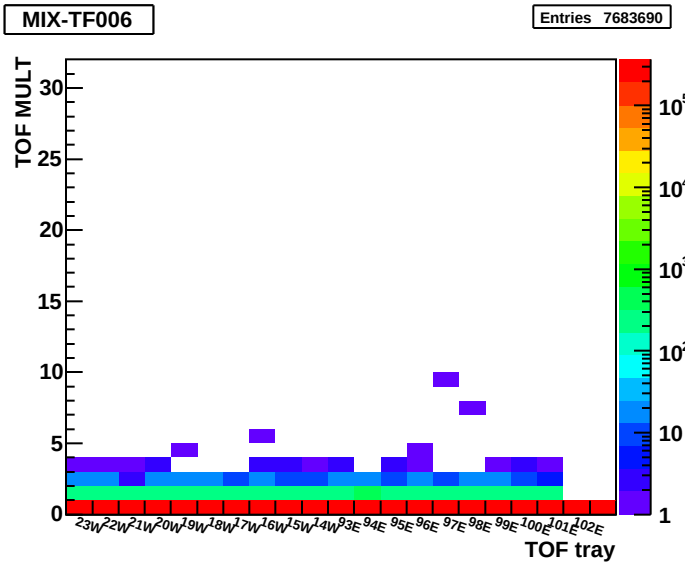

MIX-TF001
Entries 7683690
TOF MULT
TOF tray

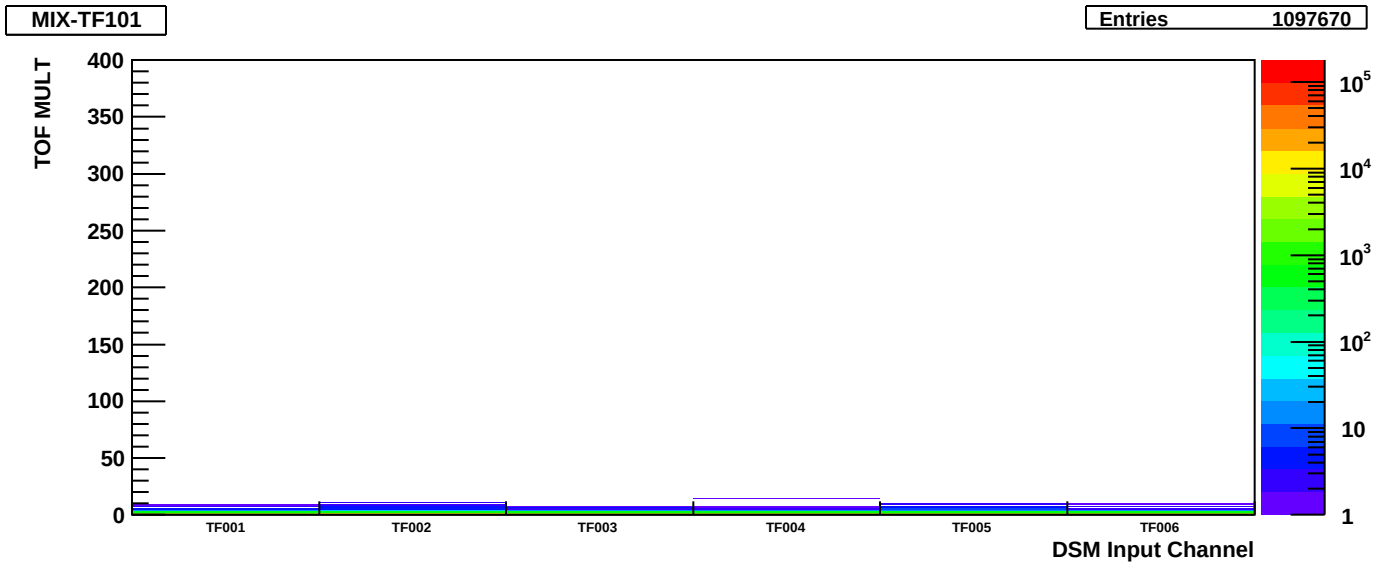

MIX-TF002
Entries 7683690
TOF MULT
TOF tray

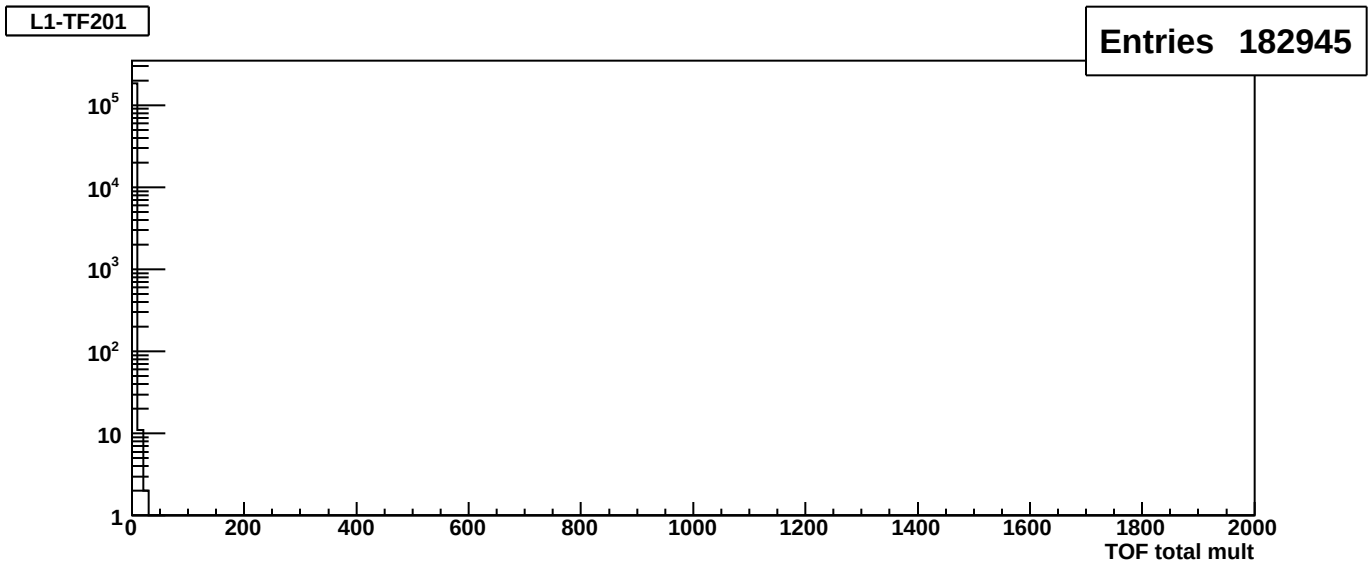

MIX-TF003
Entries 7683690
TOF MULT
TOF tray

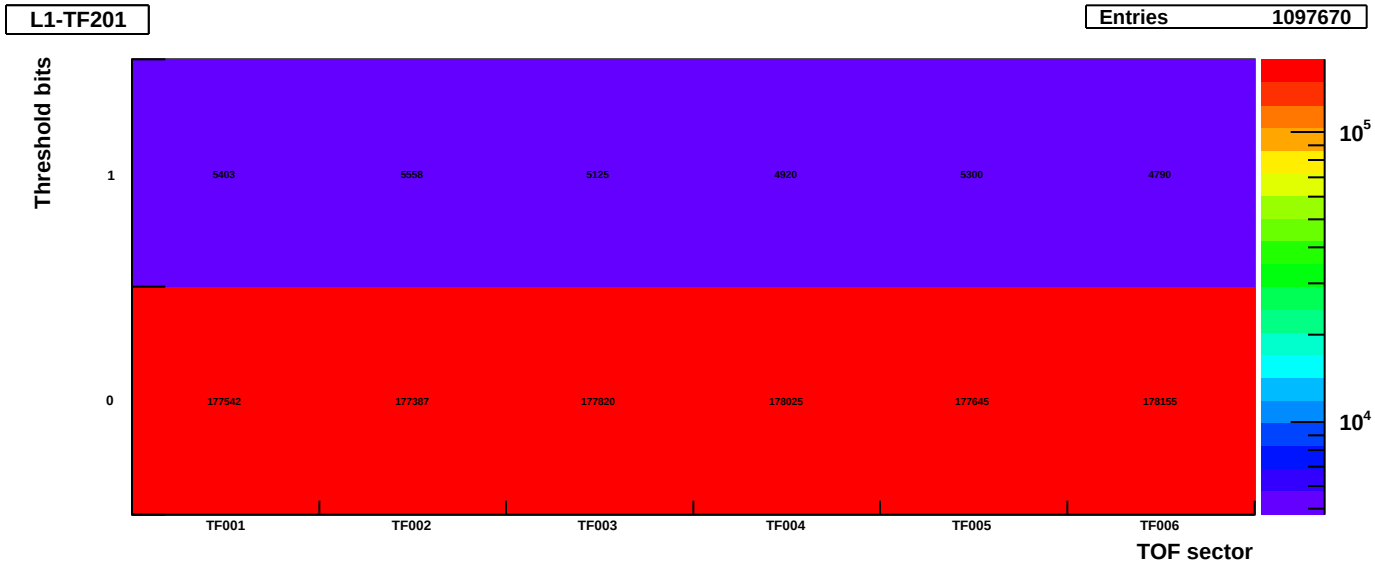

MIX-TF004
Entries 7683690
TOF MULT
TOF tray

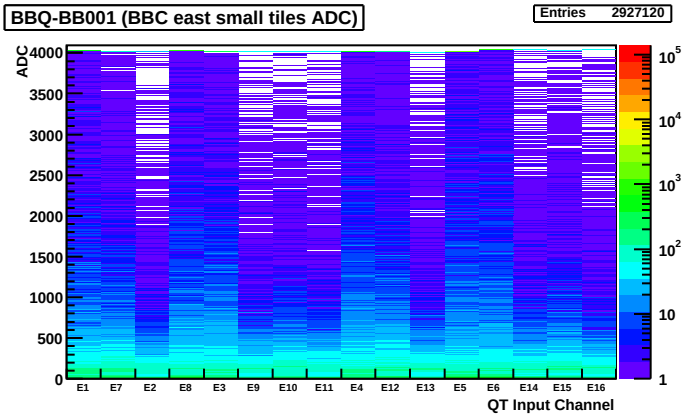

MIX-TF005
Entries 7683690
TOF MULT
TOF tray

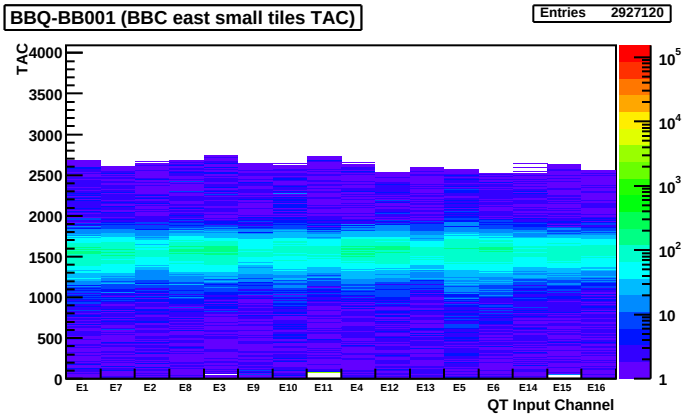

MIX-TF006
Entries 7683690
TOF MULT
TOF tray

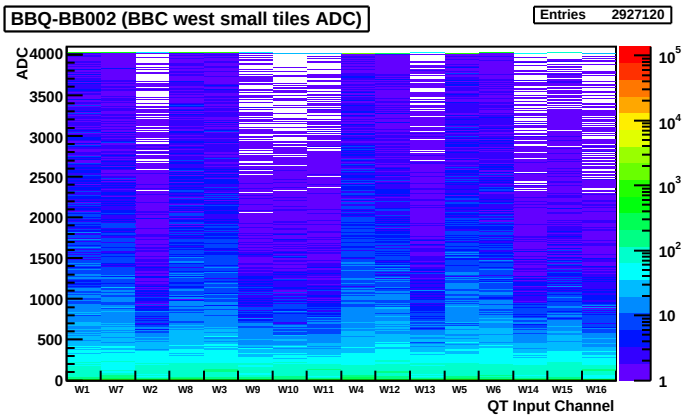

MIX-TF101
Entries 1097670
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

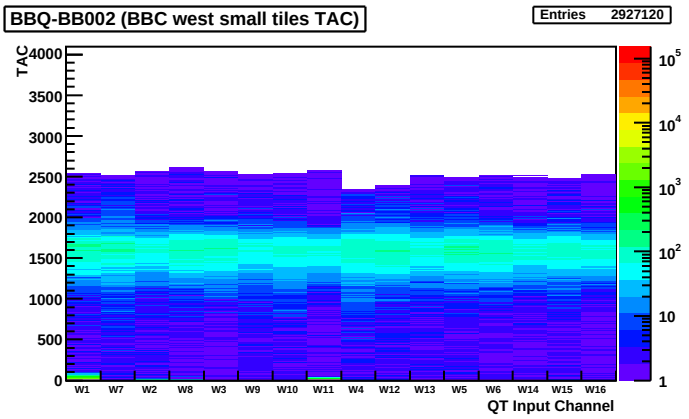

L1-TF201
Entries 182945
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

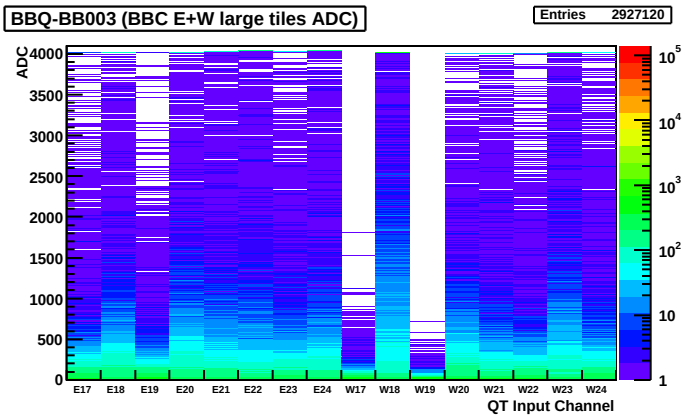

L1-TF201
Entries 1097670
Threshold bits
1
0
5403
5558
5125
4920
5300
4790
177542
177387
177820
178025
177645
178155
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4

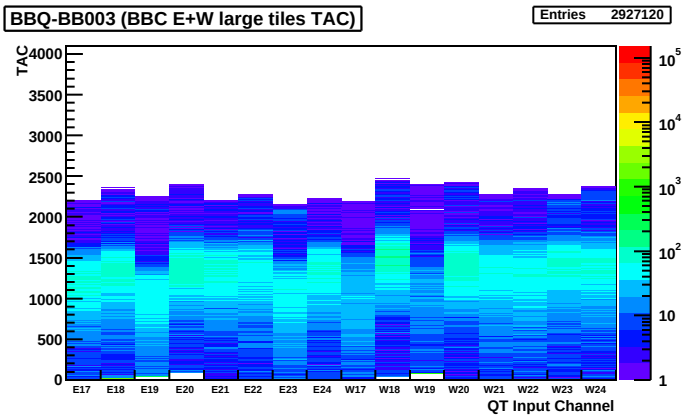

BBQ-BB001 (BBC east small tiles ADC)
Entries 2927120
ADC
QT Input Channel

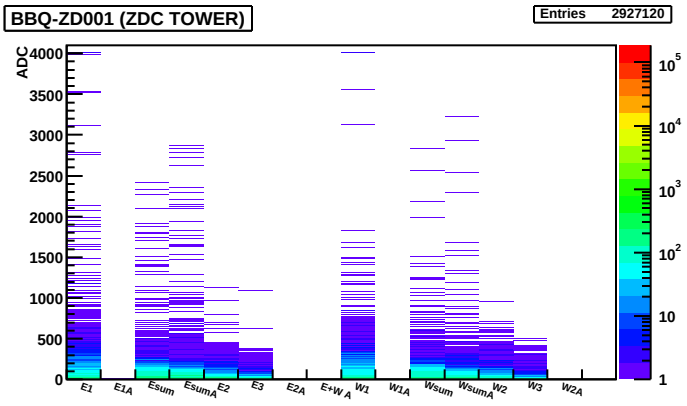

BBQ-BB001 (BBC east small tiles TAC)
Entries 2927120
TAC
QT Input Channel

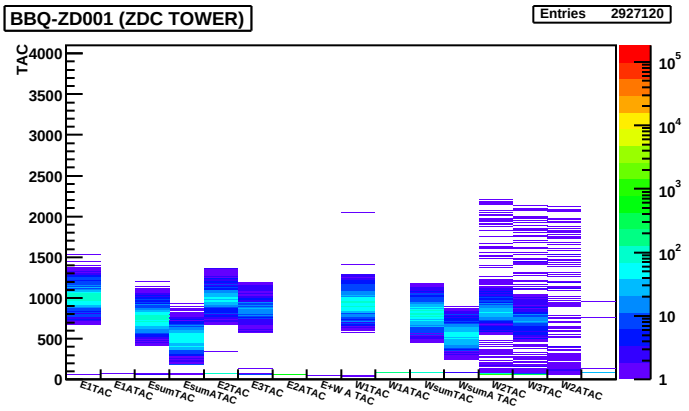

BBQ-BB002 (BBC west small tiles ADC)
Entries 2927120
ADC
QT Input Channel

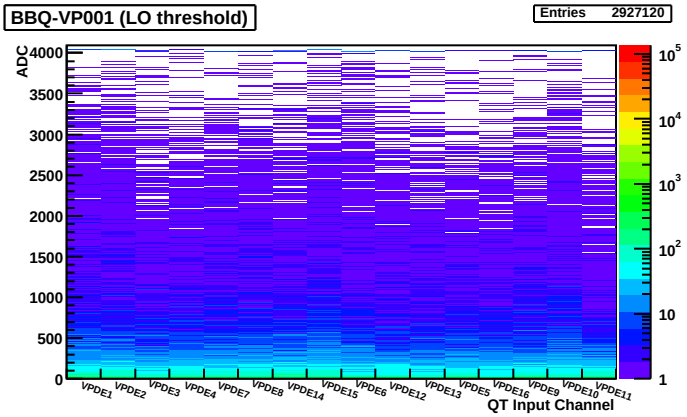

BBQ-BB002 (BBC west small tiles TAC)
Entries 2927120
TAC
QT Input Channel

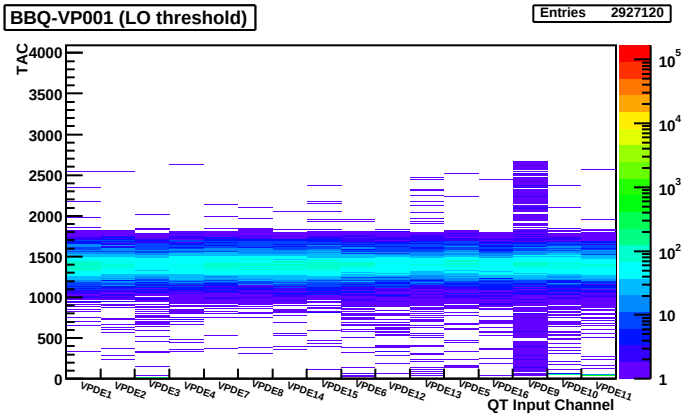

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2927120
ADC
QT Input Channel

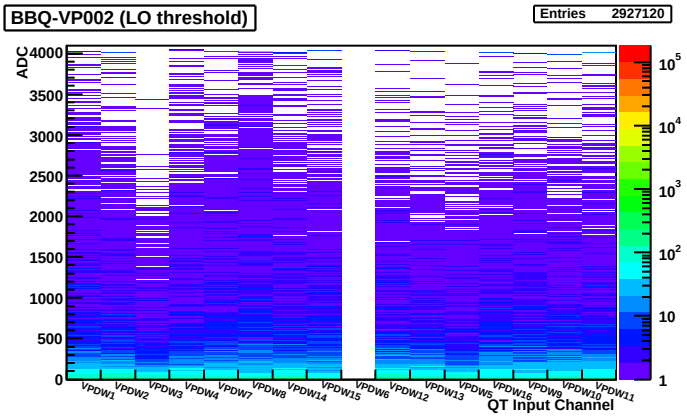

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2927120
TAC
QT Input Channel

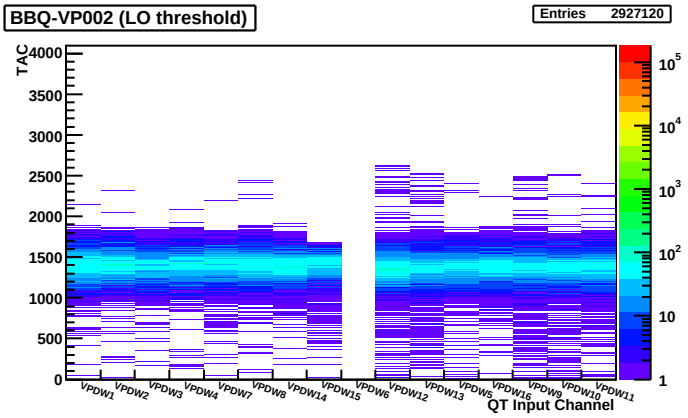

BBQ-ZD001 (ZDC TOWER)
Entries 2927120
ADC

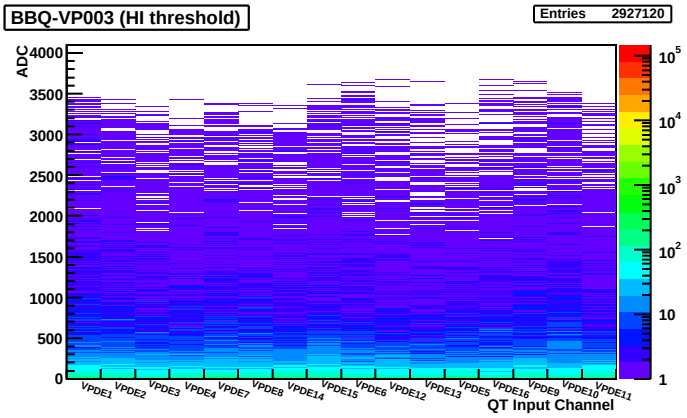

BBQ-ZD001 (ZDC TOWER)
Entries 2927120
TAC

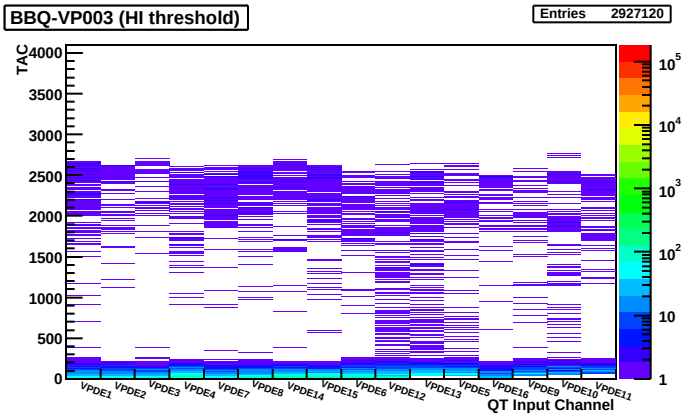

BBQ-VP001 (LO threshold)
Entries 2927120
ADC
QT Input Channel

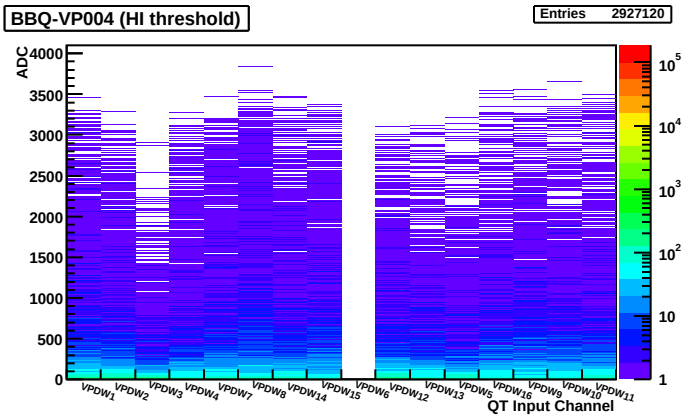

BBQ-VP001 (LO threshold)
Entries 2927120
TAC
QT Input Channel

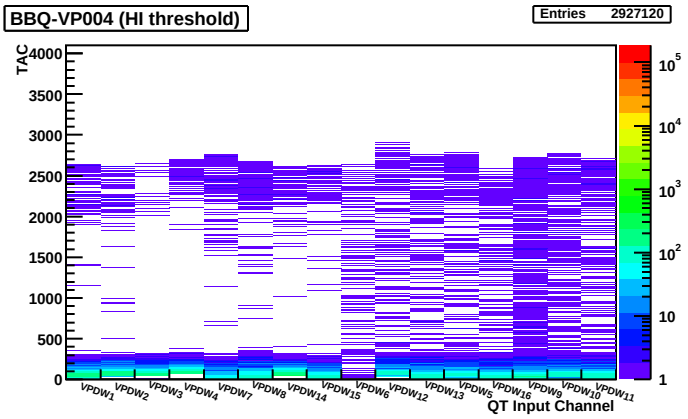

BBQ-VP002 (LO threshold)
Entries 2927120
ADC
QT Input Channel

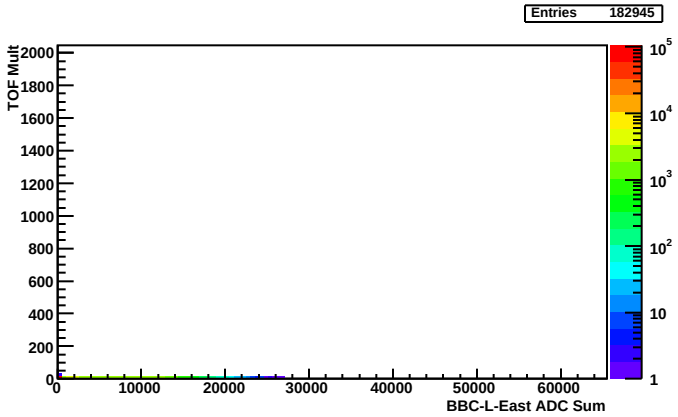

BBQ-VP002 (LO threshold)
Entries 2927120
TAC
QT Input Channel

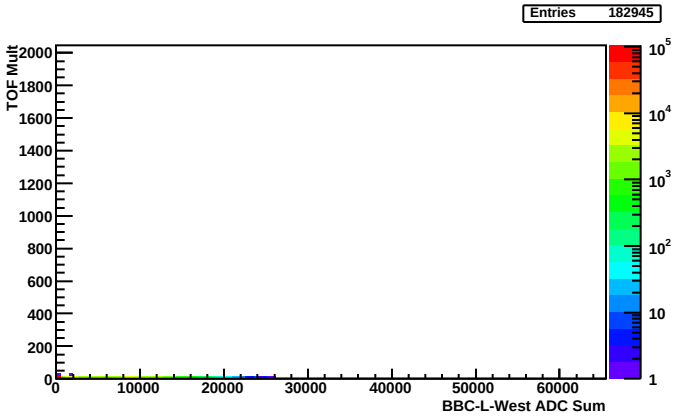

BBQ-VP003 (HI threshold)
Entries 2927120
ADC
QT Input Channel

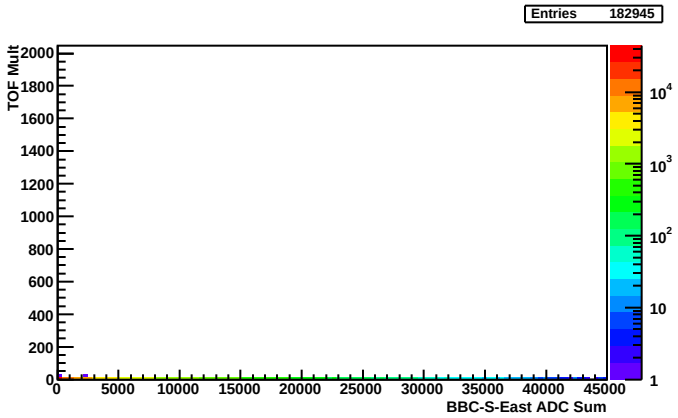

BBQ-VP003 (HI threshold)
Entries 2927120
TAC
QT Input Channel

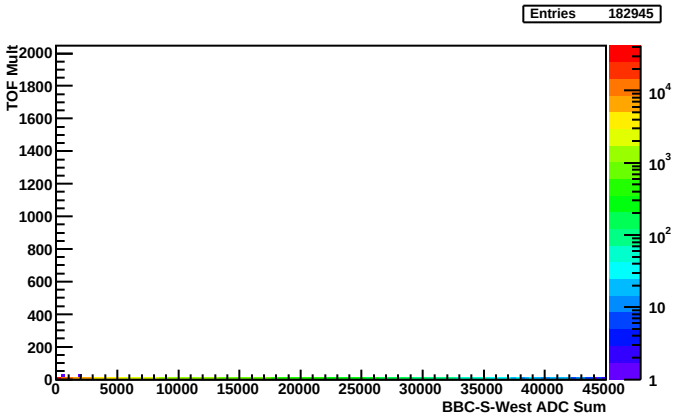

BBQ-VP004 (HI threshold)
Entries 2927120
ADC
QT Input Channel

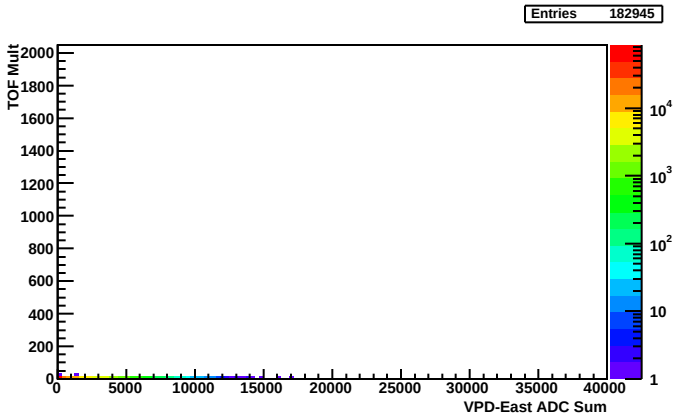

BBQ-VP004 (HI threshold)
Entries 2927120
TAC
QT Input Channel

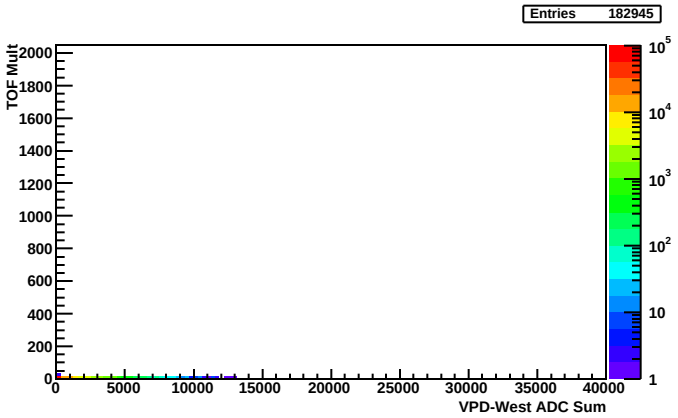

Entries 182945
TOF Mult
BBC-L-East ADC Sum

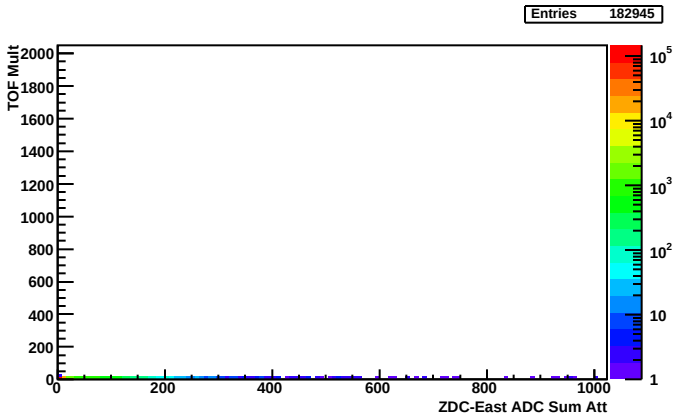

Entries 182945
TOF Mult
BBC-L-West ADC Sum

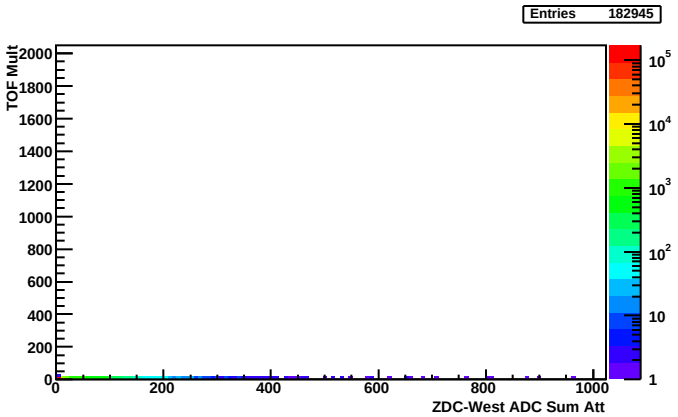

Entries 182945
TOF Mult
BBC-S-East ADC Sum

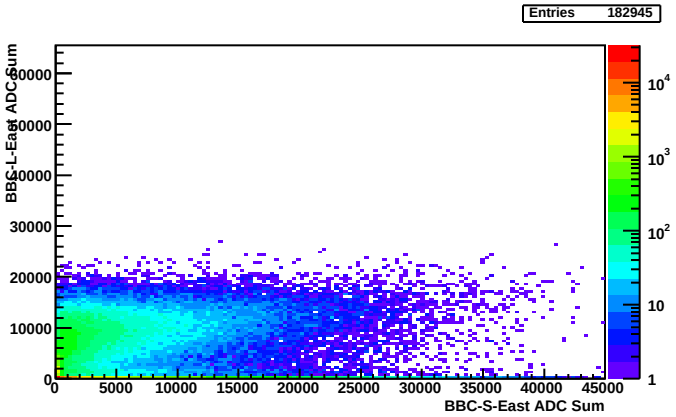

Entries 182945
TOF Mult
BBC-S-West ADC Sum

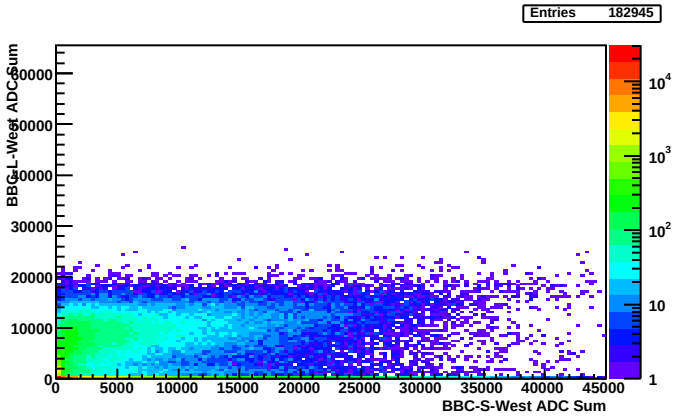

Entries 182945
TOF Mult
VPD-East ADC Sum

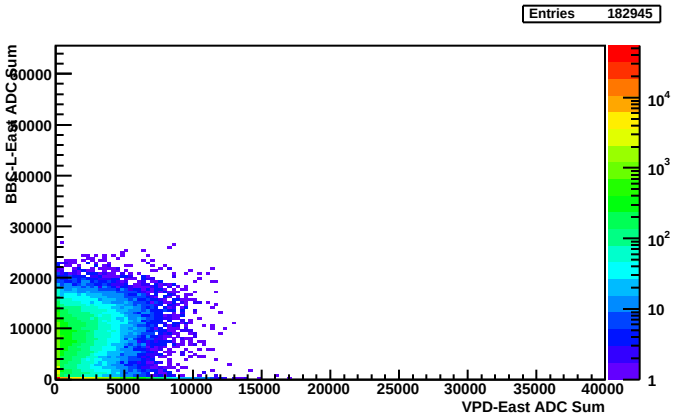

Entries 182945
TOF Mult
VPD-West ADC Sum

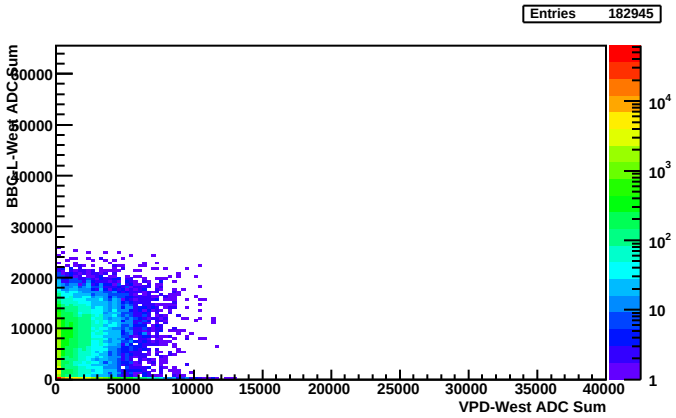

Entries 182945
TOF Mult
ZDC-East ADC Sum Att

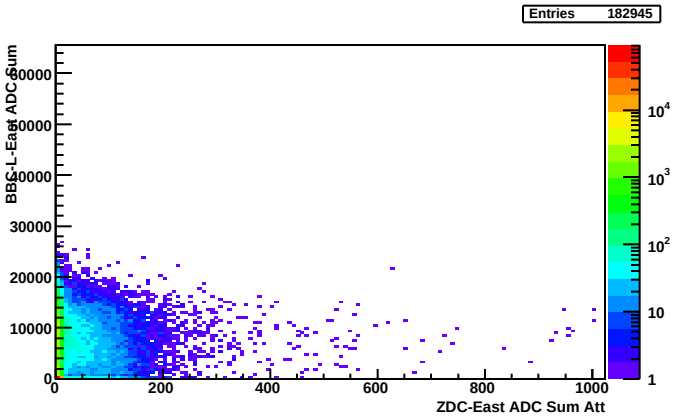

Entries 182945
TOF Mult
ZDC-West ADC Sum Att

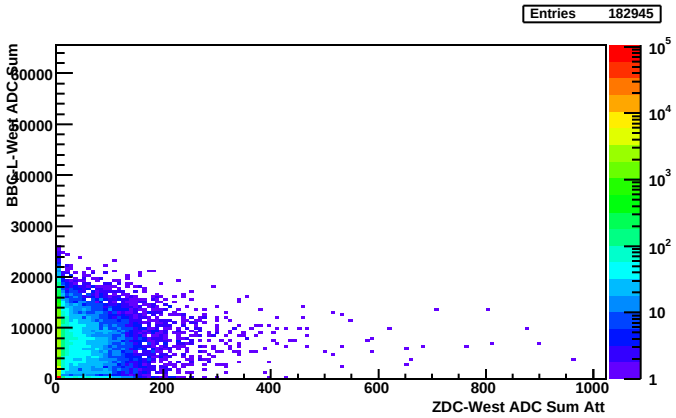

Entries 182945
BBC-L-East ADC Sum
BBC-S-East ADC Sum

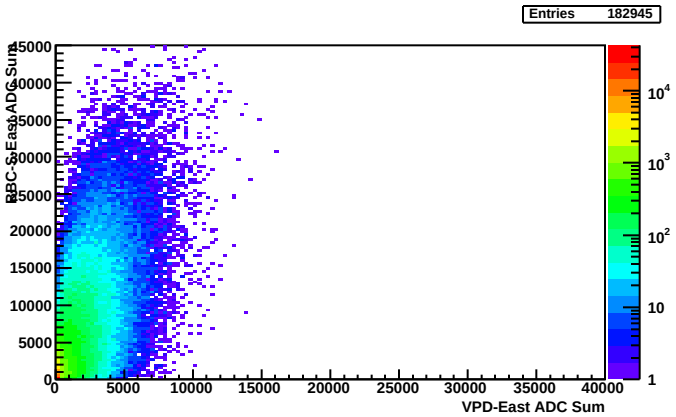

Entries 182945
BBC-L-West ADC Sum
BBC-S-West ADC Sum

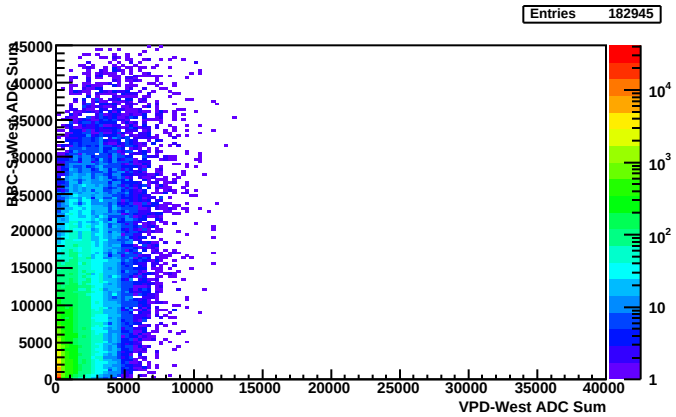

Entries 182945
BBC-L-East ADC Sum
VPD-East ADC Sum

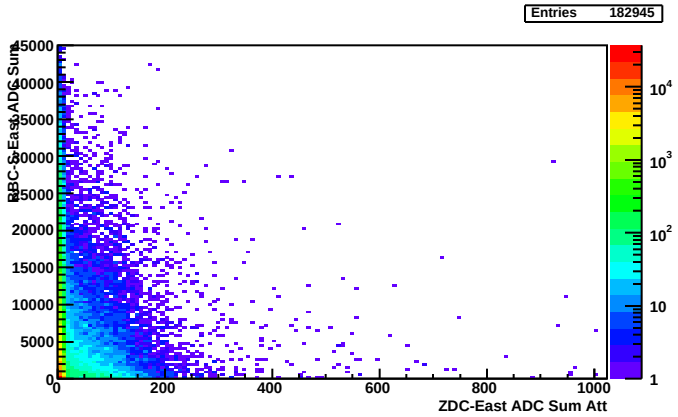

Entries 182945
BBC-L-West ADC Sum
VPD-West ADC Sum

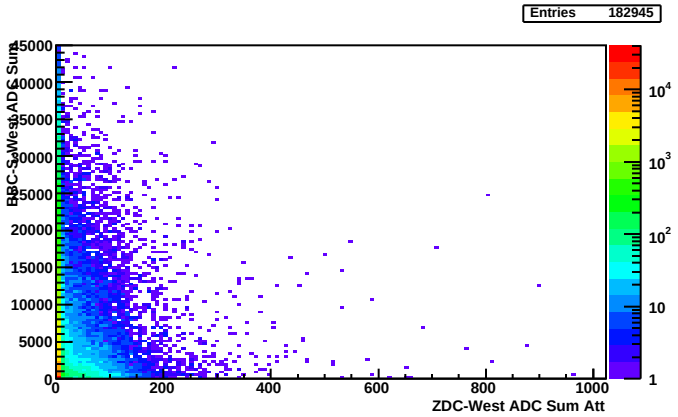

Entries 182945
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

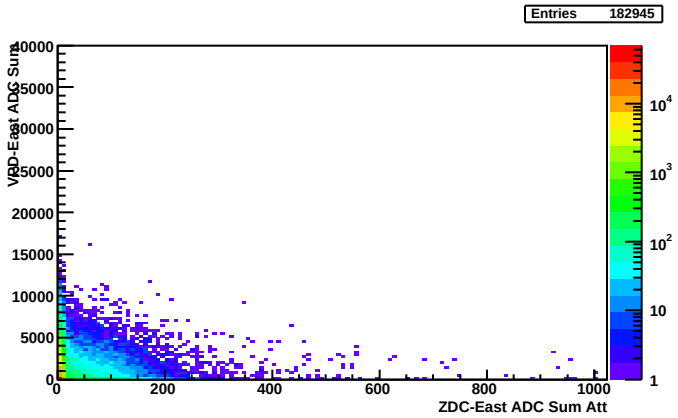

Entries 182945
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

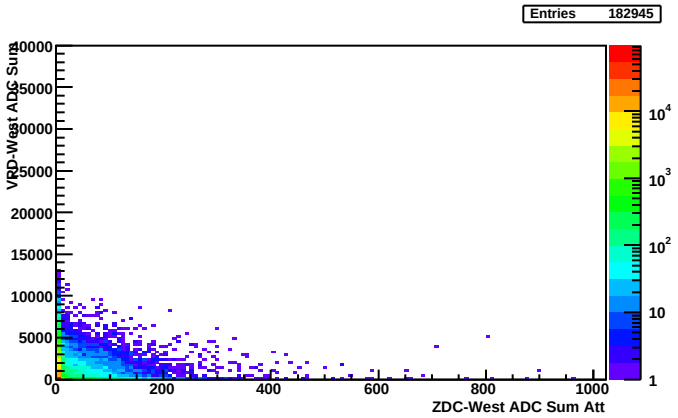

Entries 182945
BBC-S-East ADC Sum
VPD-East ADC Sum

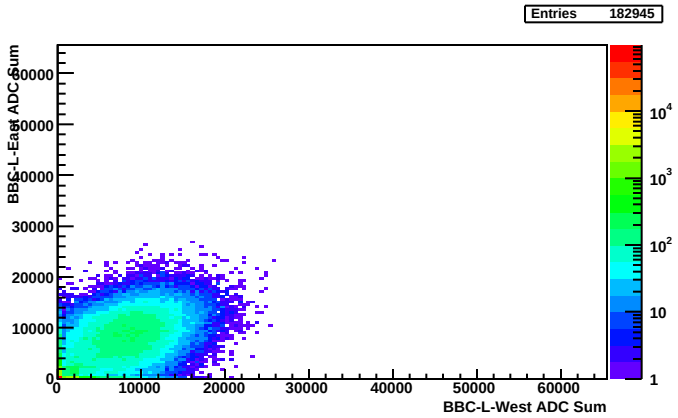

Entries 182945
BBC-S-West ADC Sum
VPD-West ADC Sum

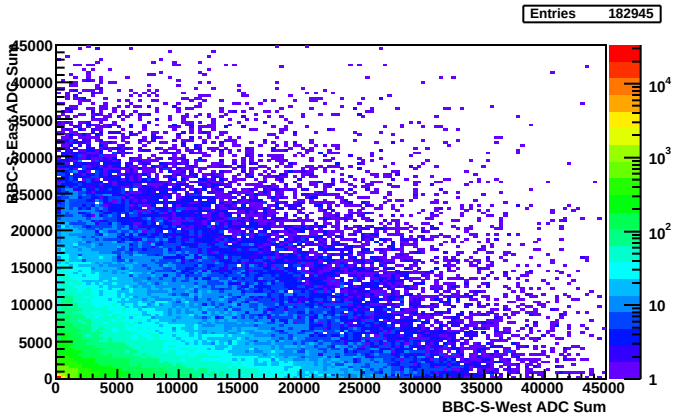

Entries 182945
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

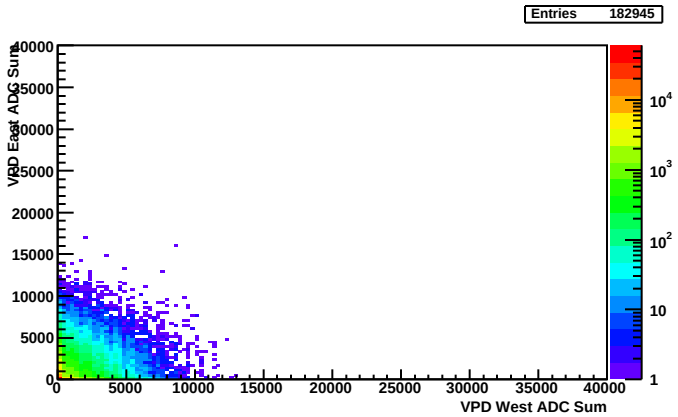

Entries 182945
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

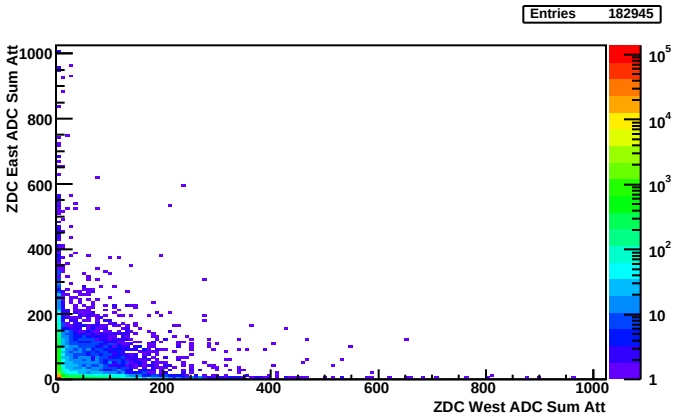

Entries 182945
VPD-East ADC Sum
ZDC-East ADC Sum Att

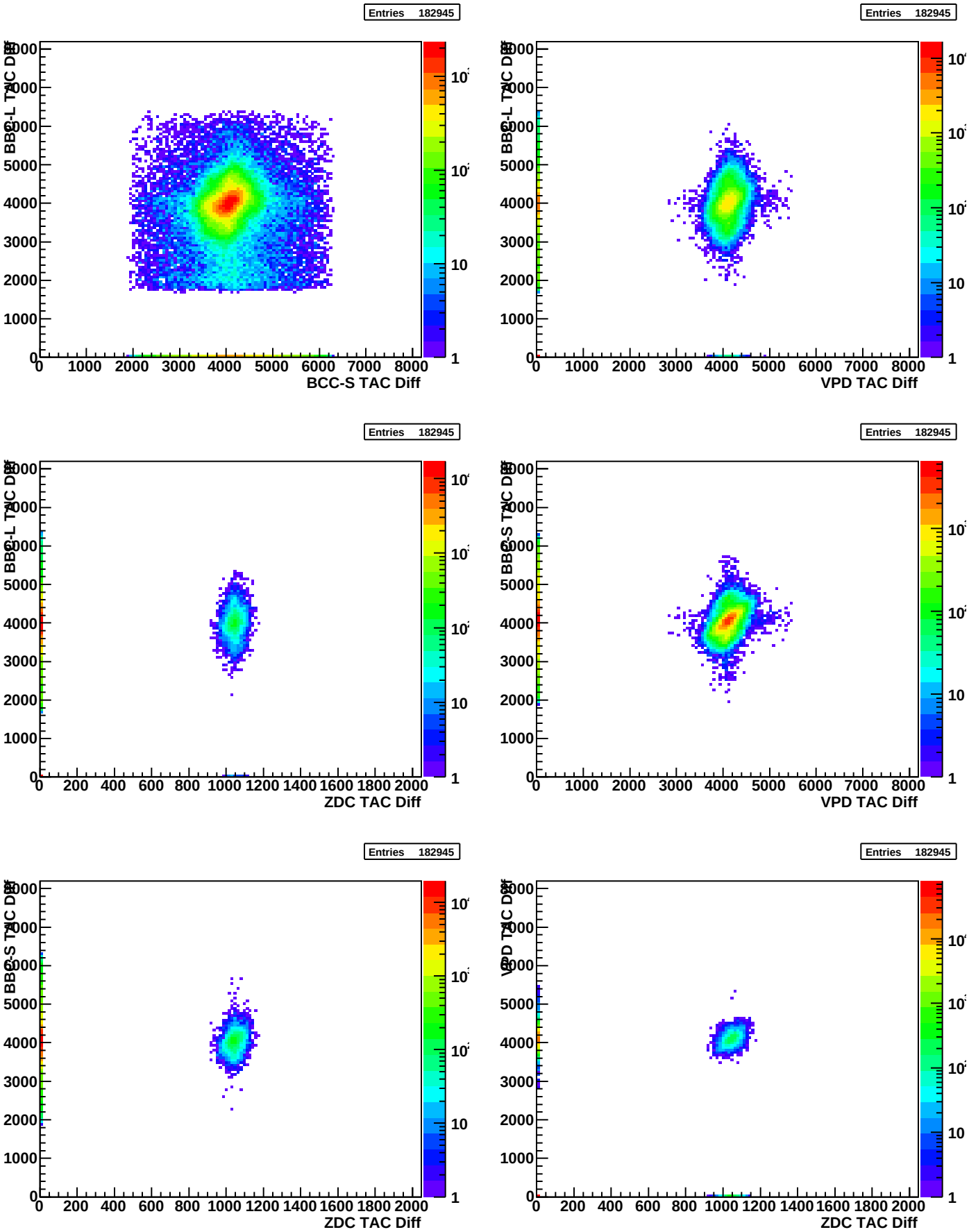

Entries 182945
VPD-West ADC Sum
ZDC-West ADC Sum Att

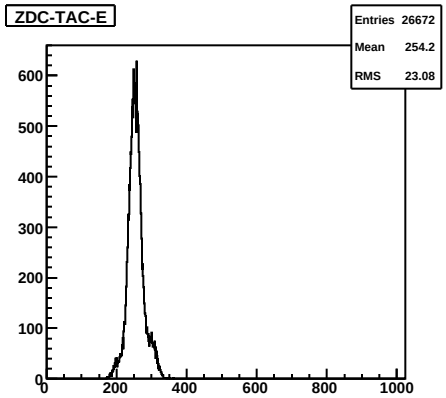

Entries 182945
BBC-L-East ADC Sum
BBC-L-West ADC Sum

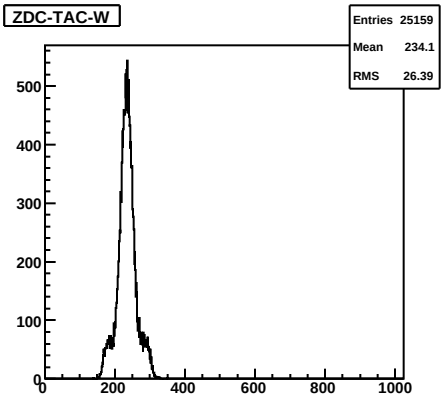

Entries 182945
BBC-S-East ADC Sum
BBC-S-West ADC Sum

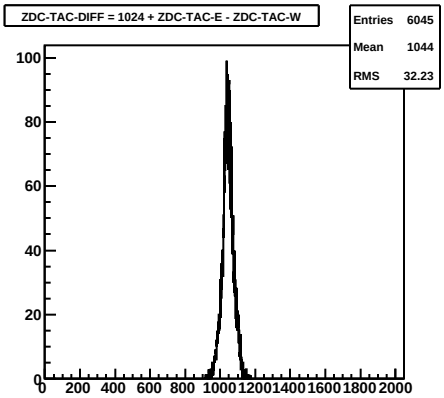

Entries 182945
VPD East ADC Sum
VPD West ADC Sum

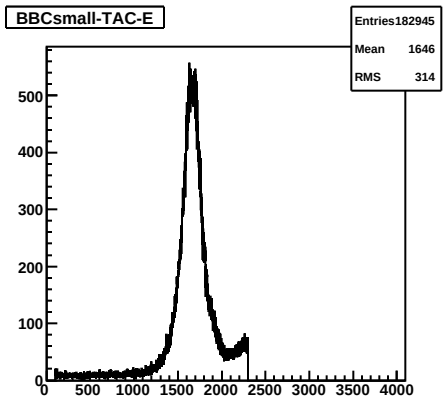

Entries 182945
ZDC East ADC Sum Att
ZDC West ADC Sum Att

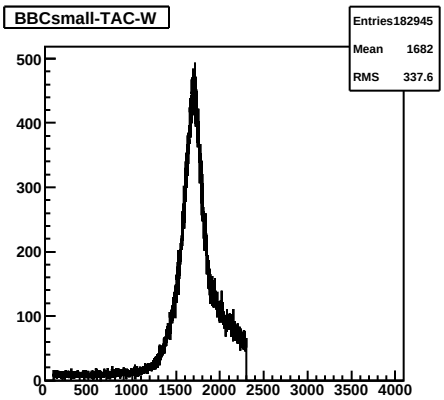

Entries 182945
BBC-L TAC Diff
BCC-S TAC Diff
Entries 182945
BBC-L TAC Diff
VPD TAC Diff
Entries 182945
BBC-L TAC Diff
ZDC TAC Diff
Entries 182945
BBC-S TAC Diff
VPD TAC Diff
Entries 182945
BBC-S TAC Diff
ZDC TAC Diff
Entries 182945
VPD TAC Diff
ZDC TAC Diff

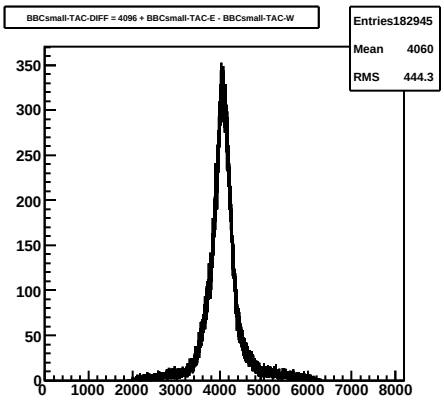

ZDC-TAC-E
Entries 26672
Mean 254.2
RMS 23.08

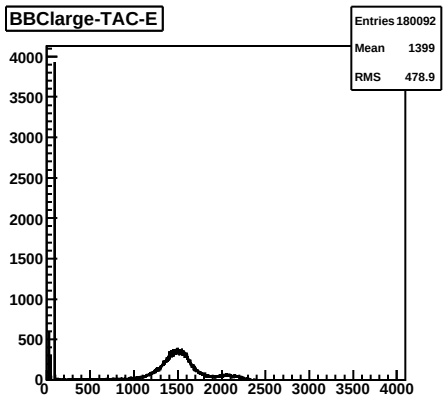

ZDC-TAC-W
Entries 25159
Mean 234.1
RMS 26.39

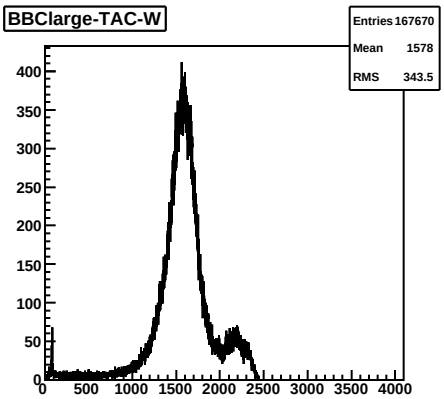

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 6045
Mean 1044
RMS 32.23

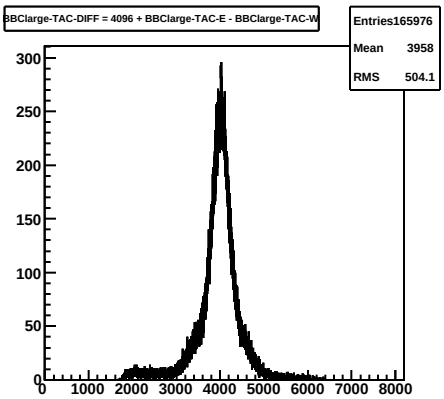

BBCsmall-TAC-E
Entries182945
Mean 1646
RMS 314

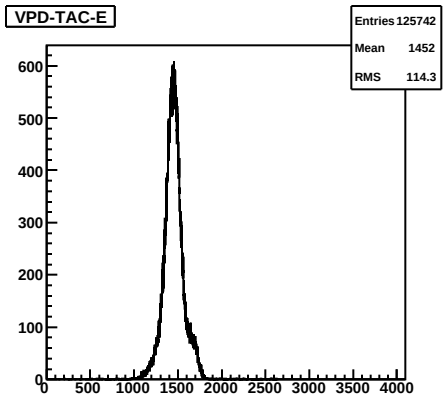

BBCsmall-TAC-W
Entries182945
Mean 1682
RMS 337.6

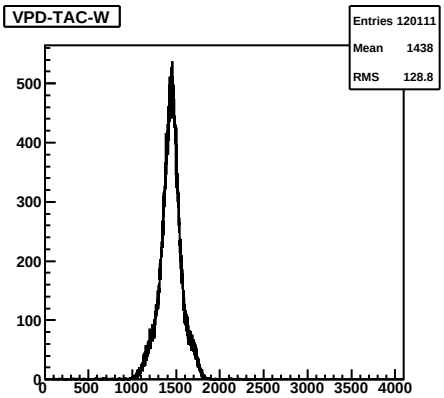

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries182945
Mean 4060
RMS 444.3

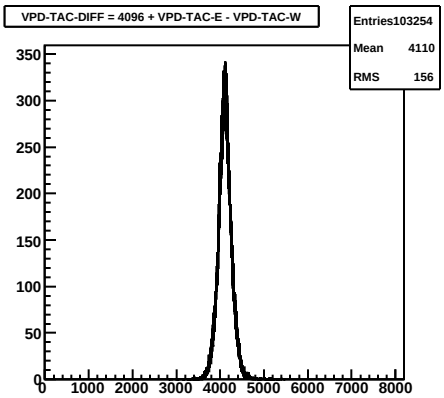

BBClarge-TAC-E
Entries180092
Mean 1399
RMS 478.9

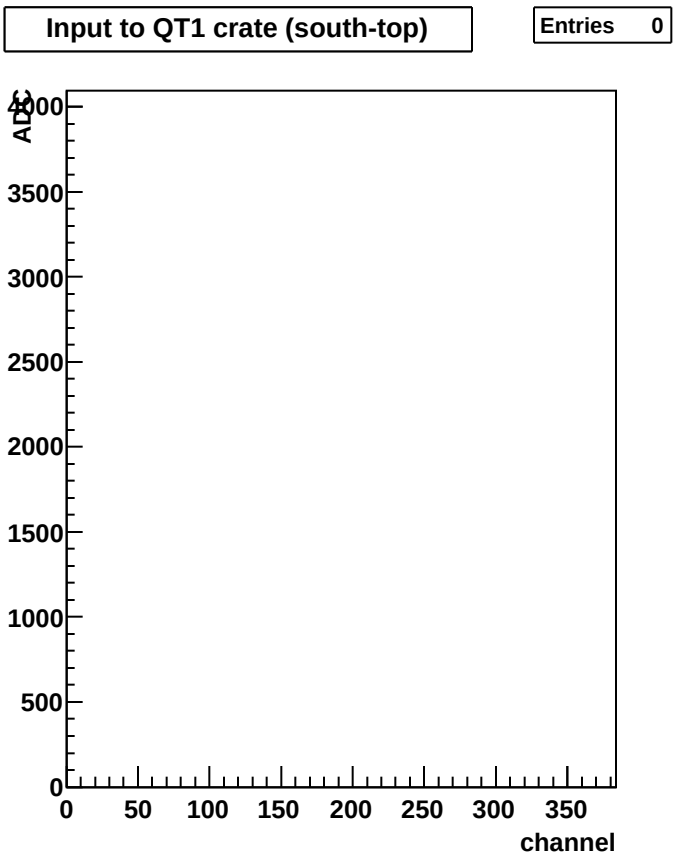

BBClarge-TAC-W
Entries167670
Mean 1578
RMS 343.5

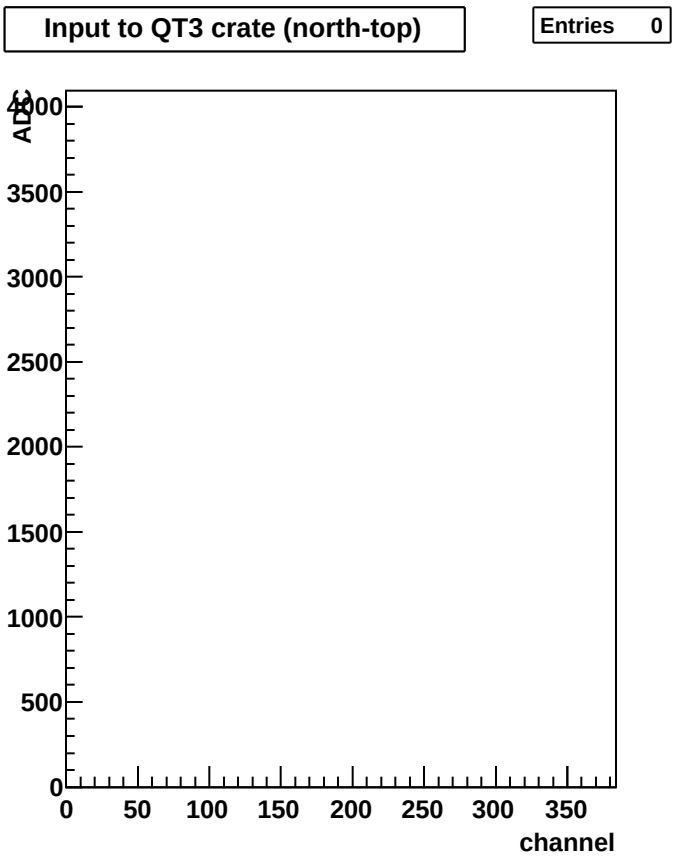

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries165976
Mean 3958
RMS 504.1

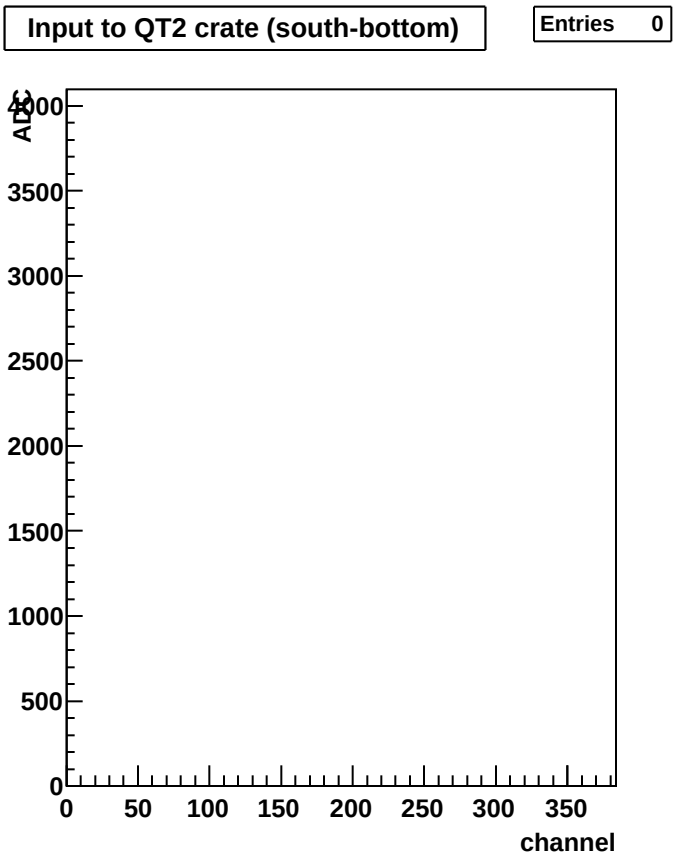

VPD-TAC-E
Entries125742
Mean 1452
RMS 114.3

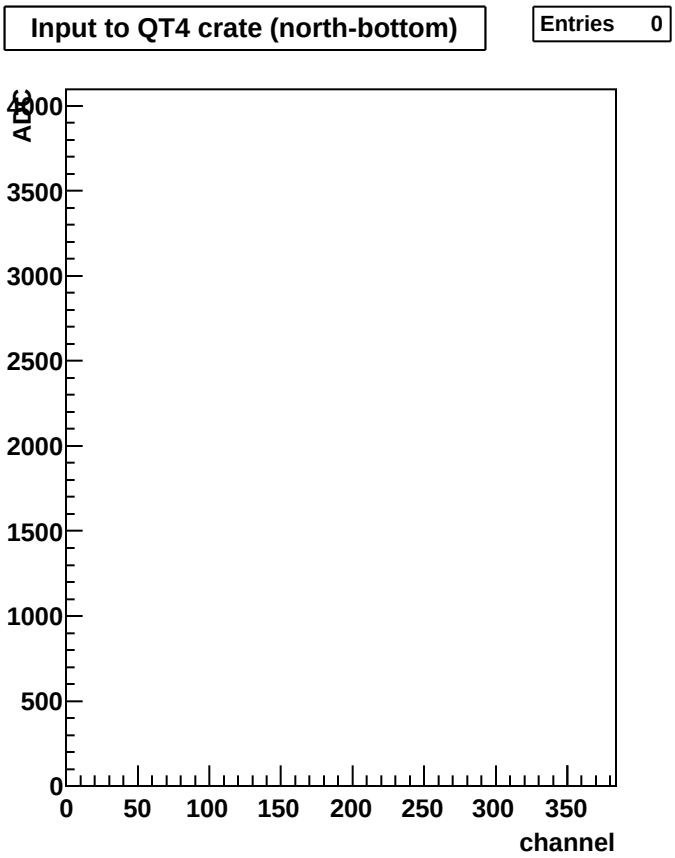

VPD-TAC-W
Entries 120111
Mean 1438
RMS 128.8

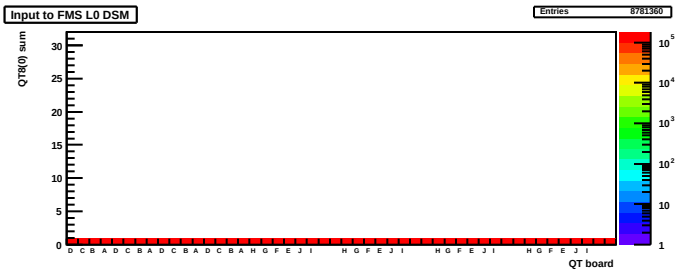

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries103254
Mean 4110
RMS 156

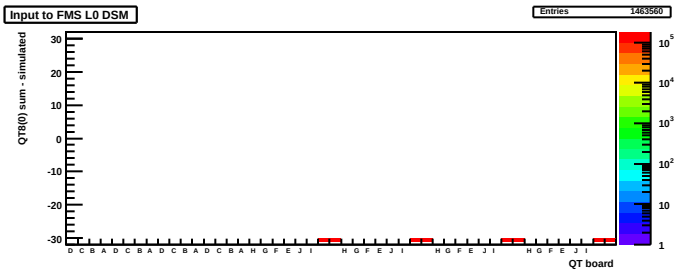

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

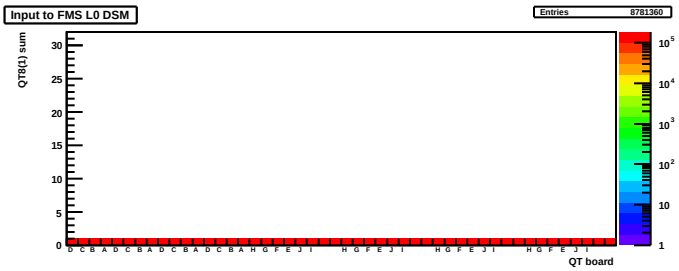

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

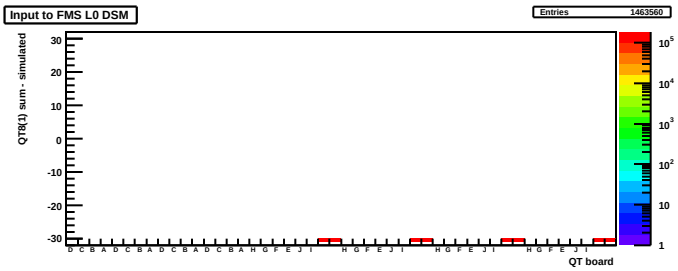

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

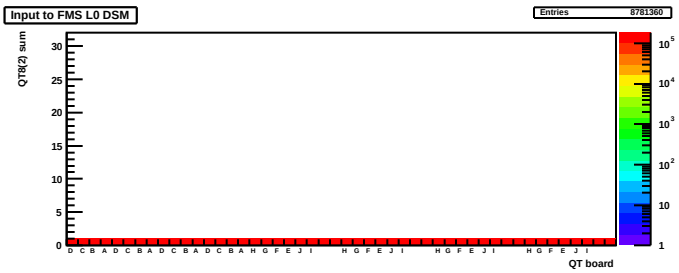

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

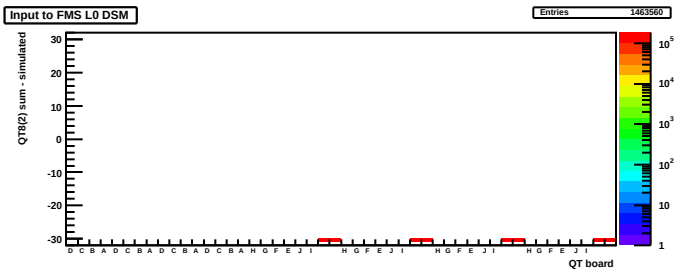

Input to FMS L0 DSM
Entries 8781360
QT8(0) sum
QT board

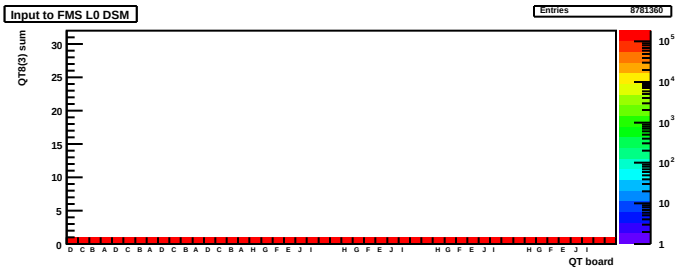

Input to FMS L0 DSM
Entries 1463560
QT8(0) sum - simulated
QT board

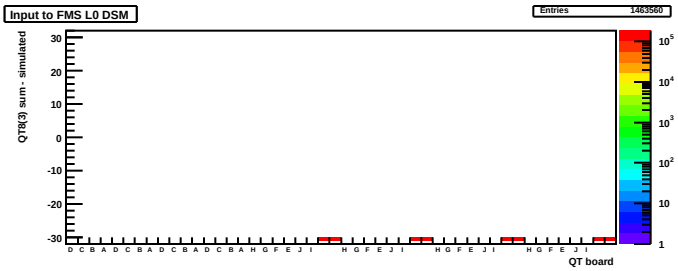

Input to FMS L0 DSM
Entries 8781360
QT8(1) sum
QT board

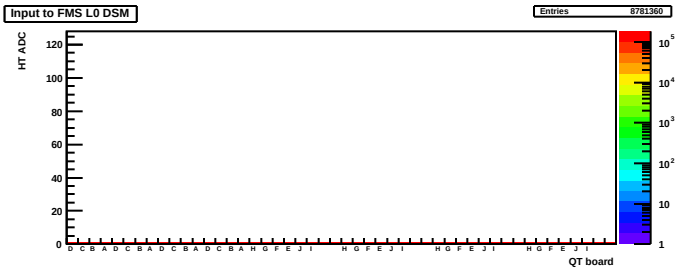

Input to FMS L0 DSM
Entries 1463560
QT8(1) sum - simulated
QT board

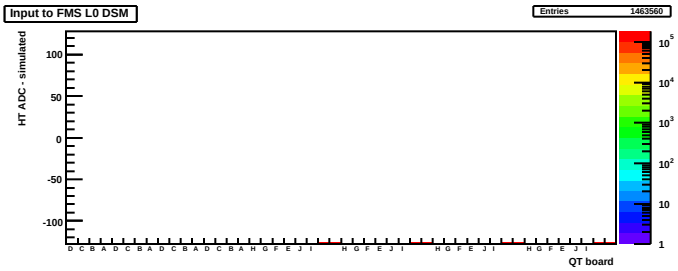

Input to FMS L0 DSM
Entries 8781360
QT8(2) sum
QT board

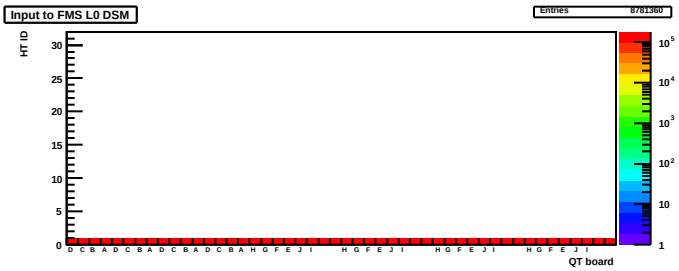

Input to FMS L0 DSM
Entries 1463560
QT8(2) sum - simulated
QT board

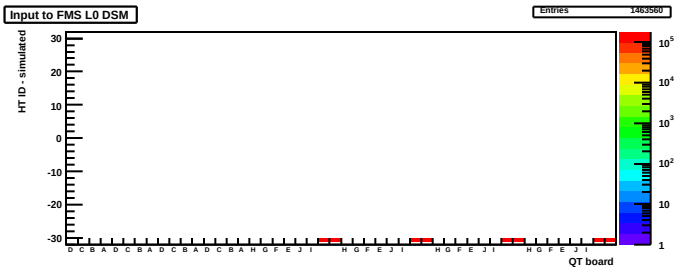

Input to FMS L0 DSM
Entries 8781360
QT8(3) sum
QT board

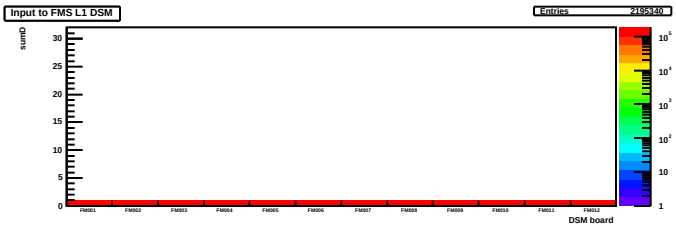

Input to FMS L0 DSM
Entries 1463560
QT8(3) sum - simulated
QT board

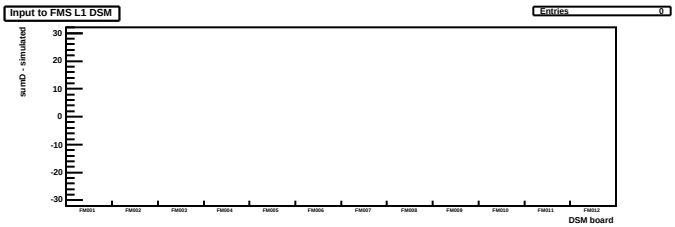

Input to FMS L0 DSM
Entries 8781360
HT ADC
QT board

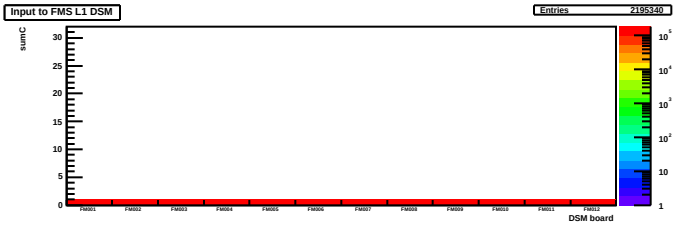

Input to FMS L0 DSM
Entries 1463560
HT ADC - simulated
QT board

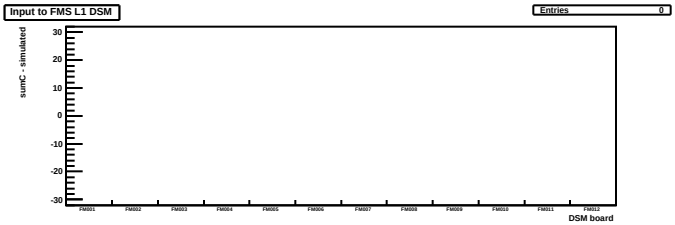

Input to FMS L0 DSM
Entries 8781360
HT ID
QT board

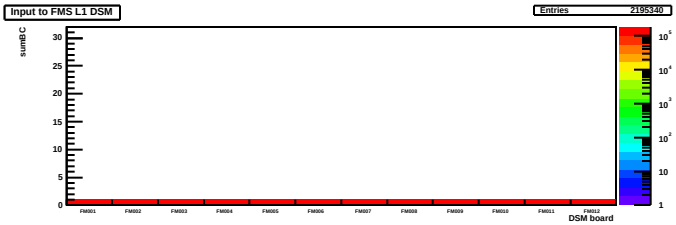

Input to FMS L0 DSM
Entries 1463560
HT ID - simulated
QT board

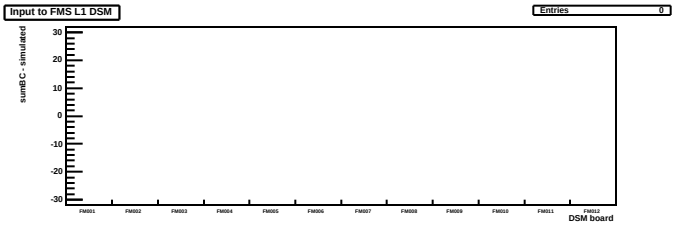

Input to FMS L1 DSM
Entries 2195340
sumD
DSM board

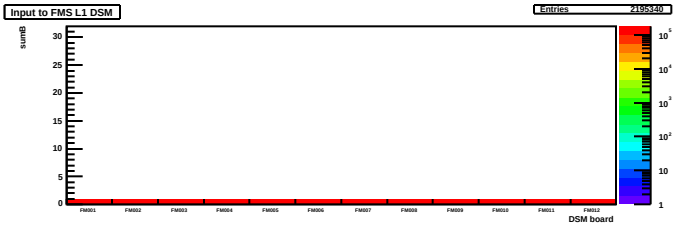

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

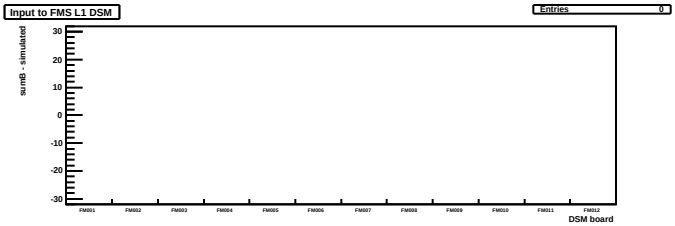

Input to FMS L1 DSM
Entries 2195340
sumC
DSM board

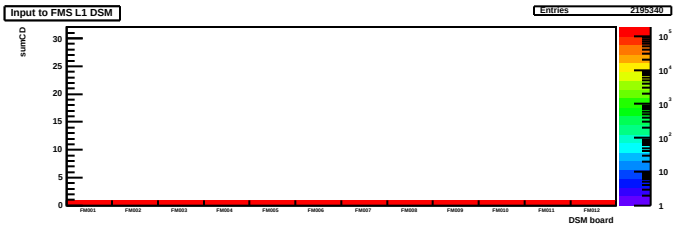

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

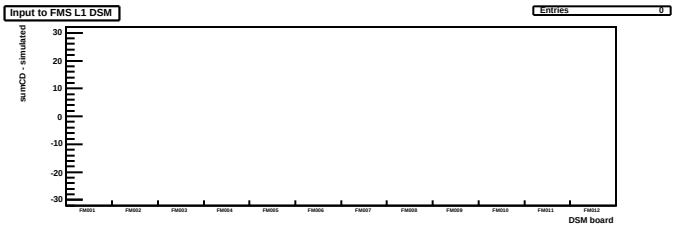

Input to FMS L1 DSM
Entries 2195340
sumBC
DSM board

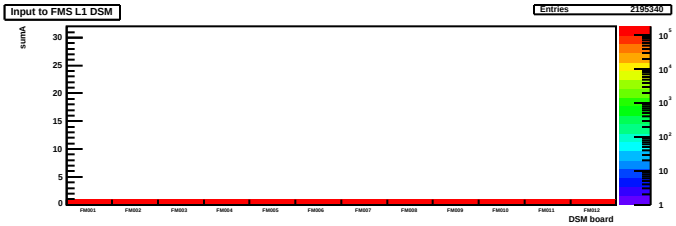

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

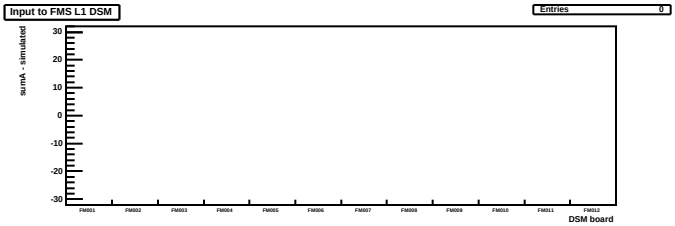

Input to FMS L1 DSM
Entries 2195340
sumB
DSM board

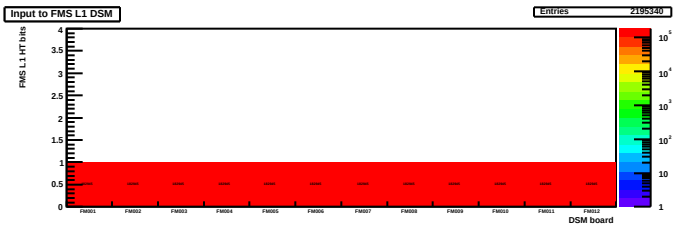

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

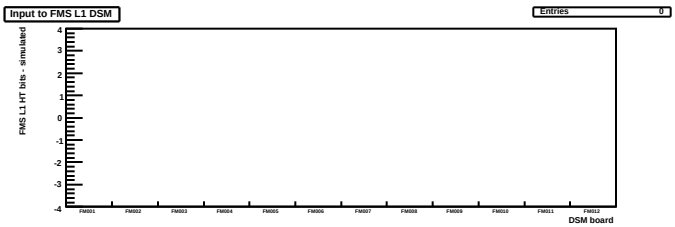

Input to FMS L1 DSM
Entries 2195340
sumCD
DSM board

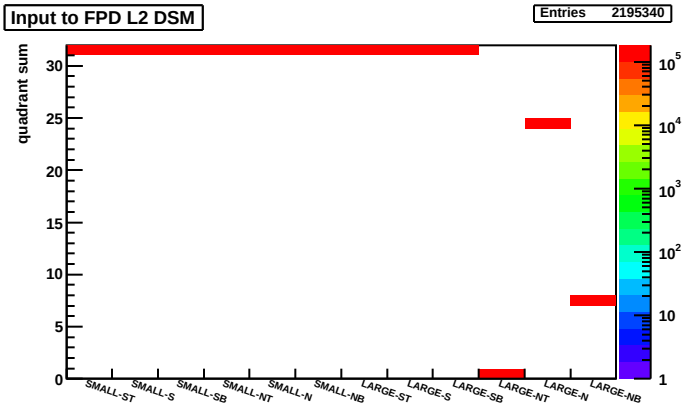

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

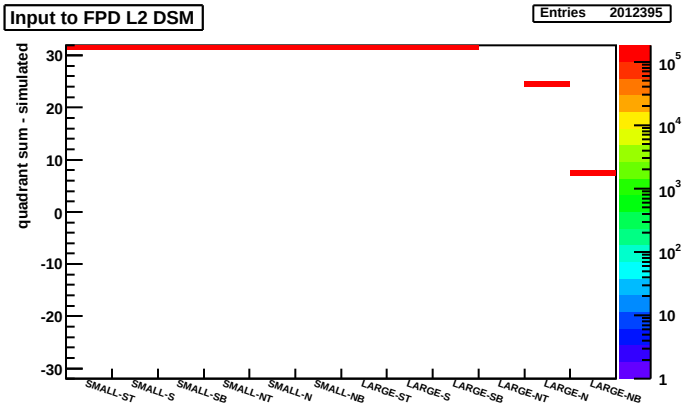

Input to FMS L1 DSM
Entries 2195340
sumA
DSM board

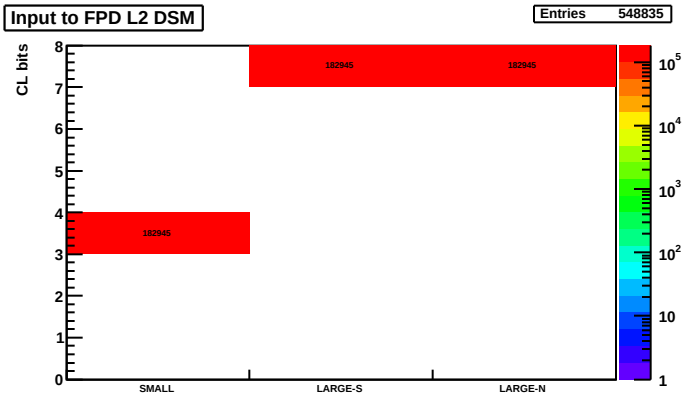

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

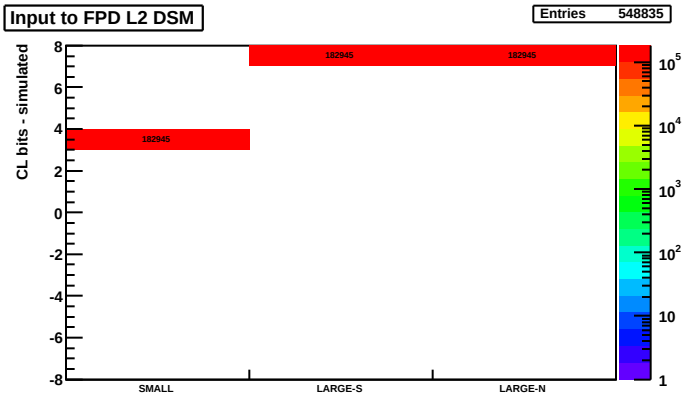

Input to FMS L1 DSM
Entries 2195340
FMS L1 HT bits
DSM board

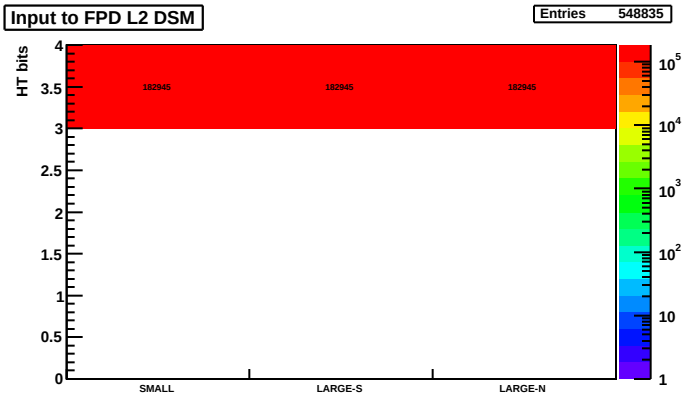

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

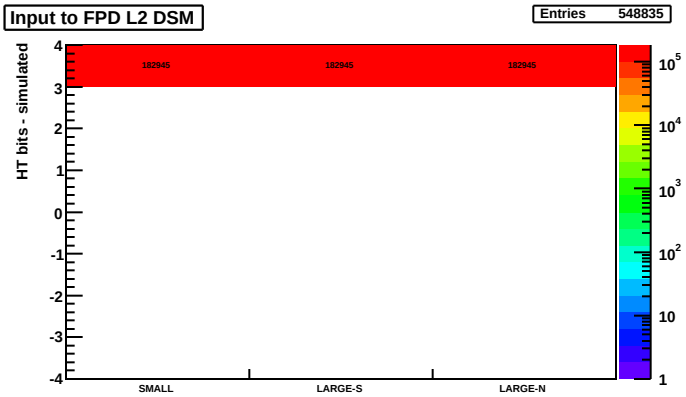

Input to FPD L2 DSM
Entries 2195340
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

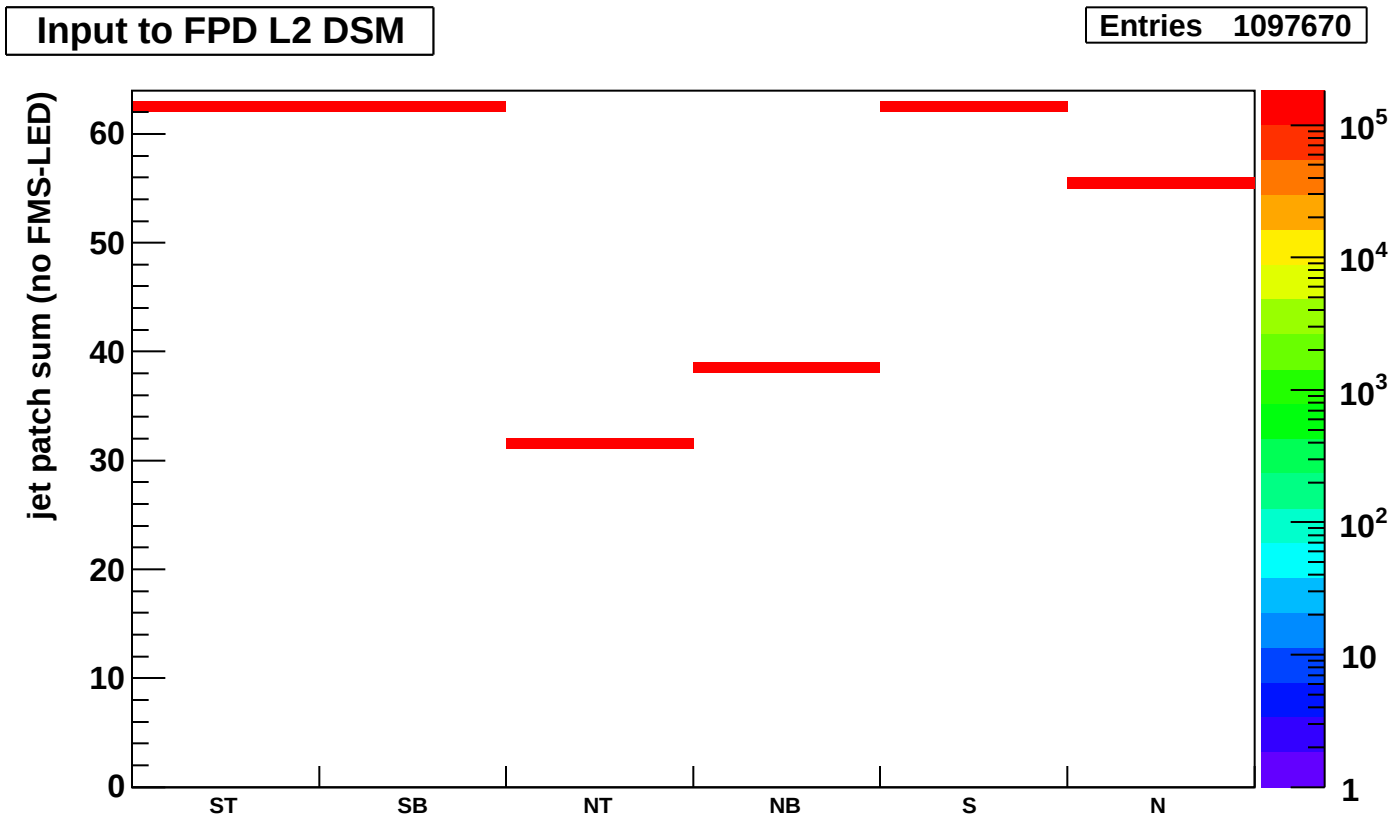

Input to FPD L2 DSM
Entries 2012395
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

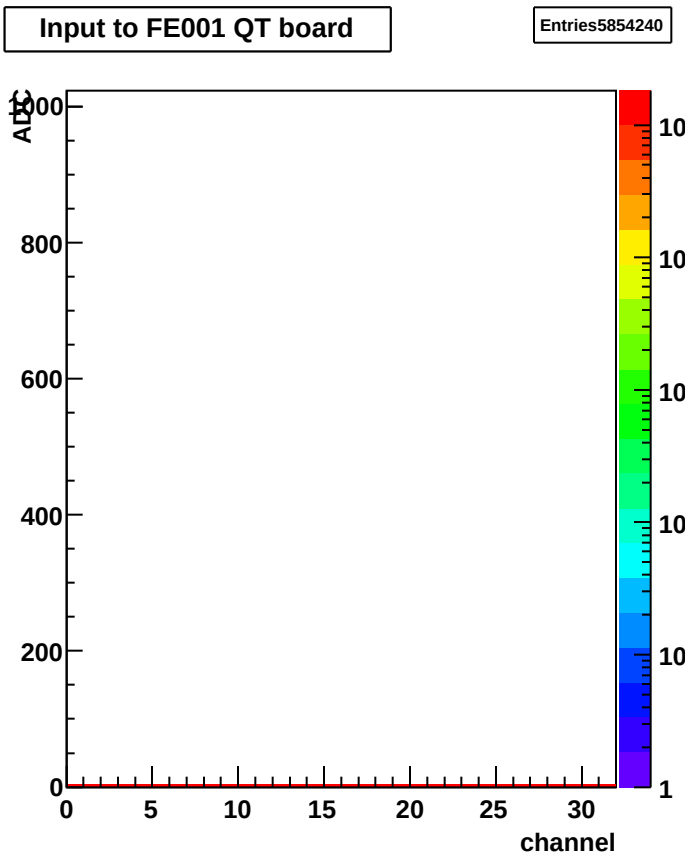

Input to FPD L2 DSM
Entries 548835
CL bits
182945
182945
182945
SMALL
LARGE-S
LARGE-N

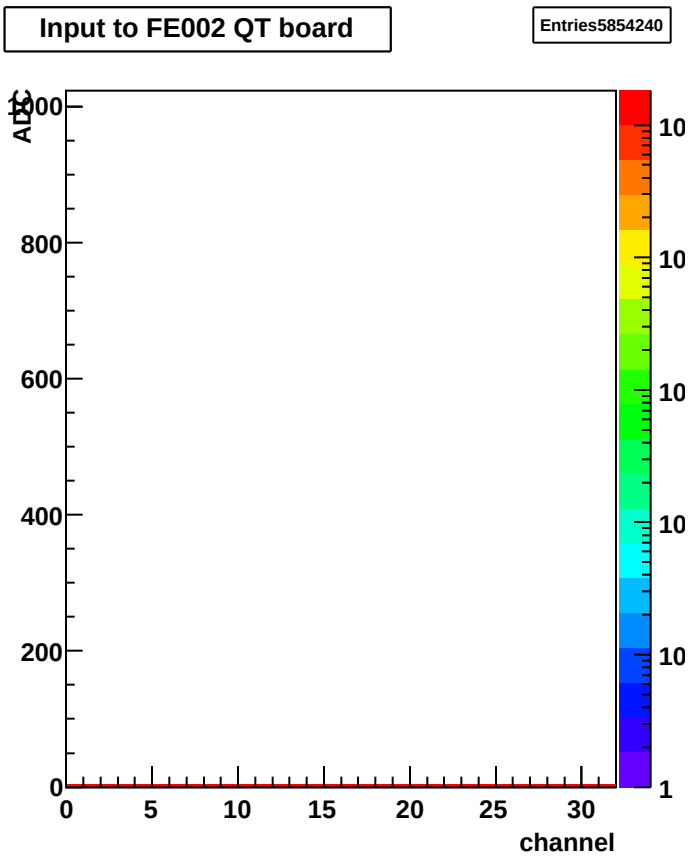

Input to FPD L2 DSM
Entries 548835
CL bits - simulated
182945
182945
182945
SMALL
LARGE-S
LARGE-N

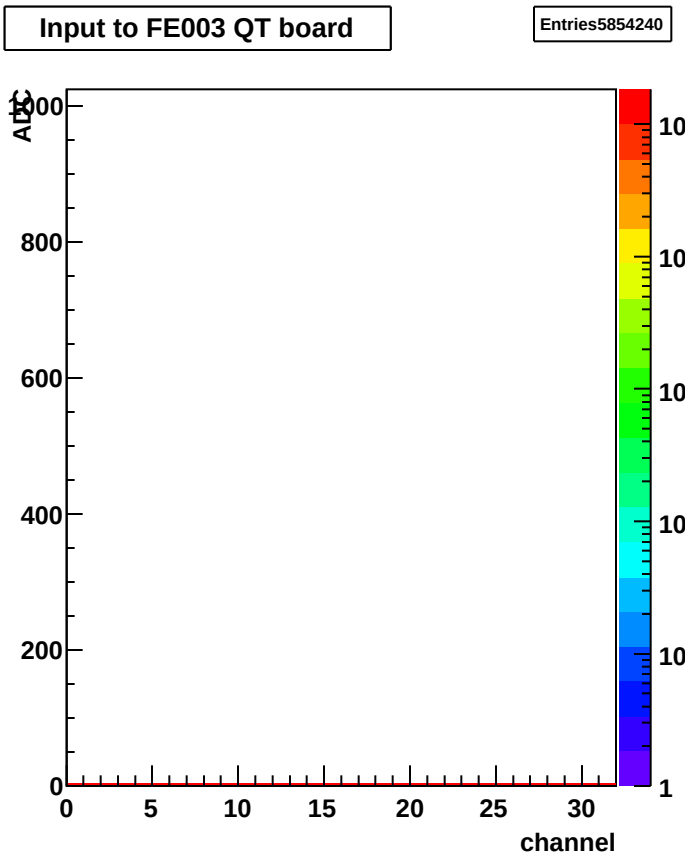

Input to FPD L2 DSM
Entries 548835
HT bits
182945
182945
182945
SMALL
LARGE-S
LARGE-N

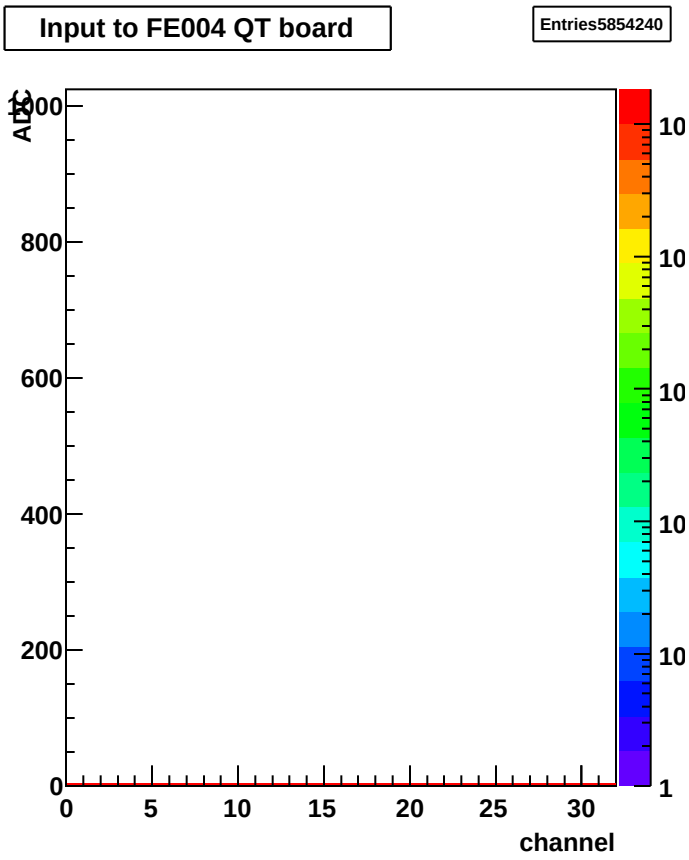

Input to FPD L2 DSM
Entries 548835
HT bits - simulated
182945
182945
182945
SMALL
LARGE-S
LARGE-N

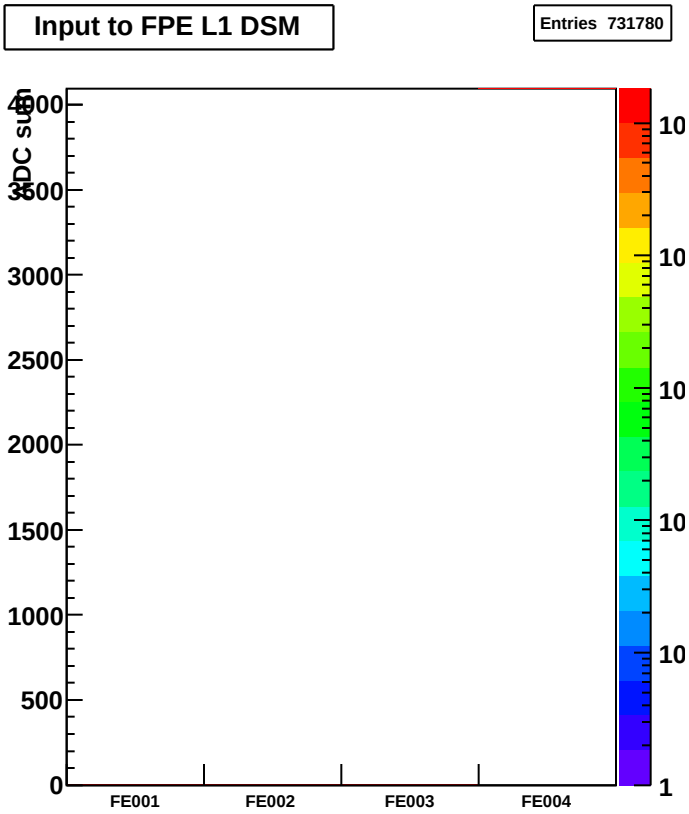

Input to FPD L2 DSM
Entries 1097670
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

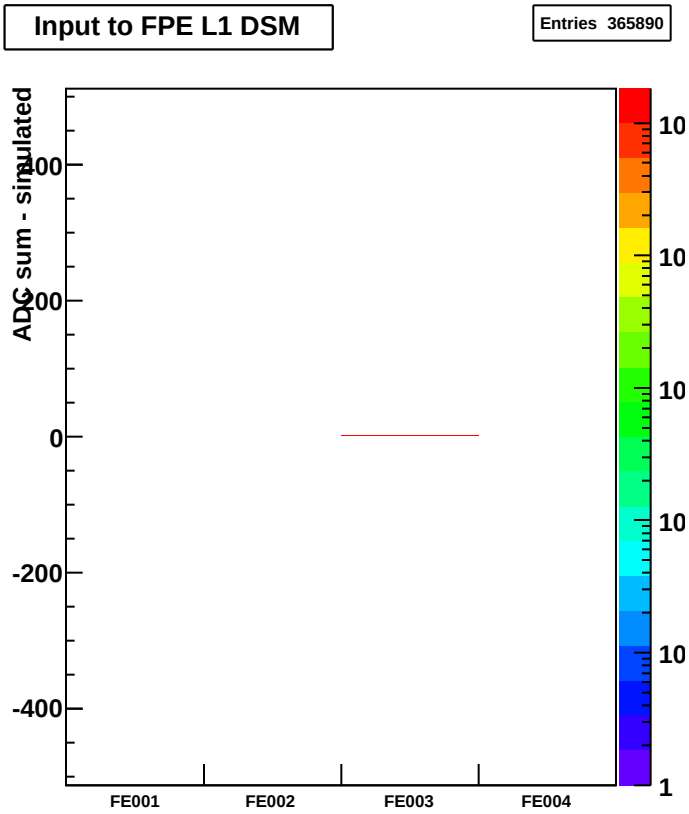

Input to FE001 QT board
Entries5854240
ADC
channel


Input to FE002 QT board
Entries5854240
ADC
channel

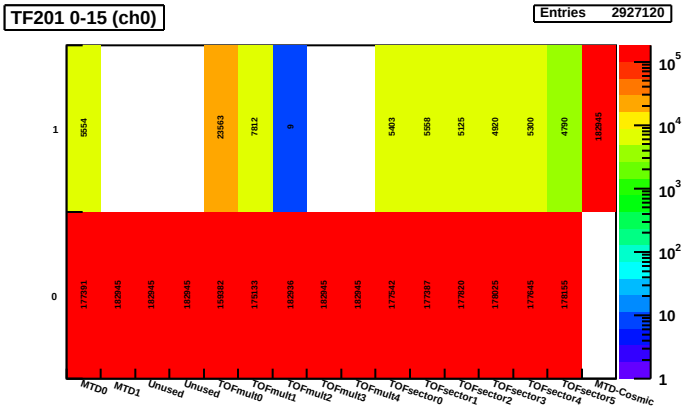

Input to FE003 QT board
Entries5854240
ADC
channel


Input to FE004 QT board
Entries5854240
ADC
channel

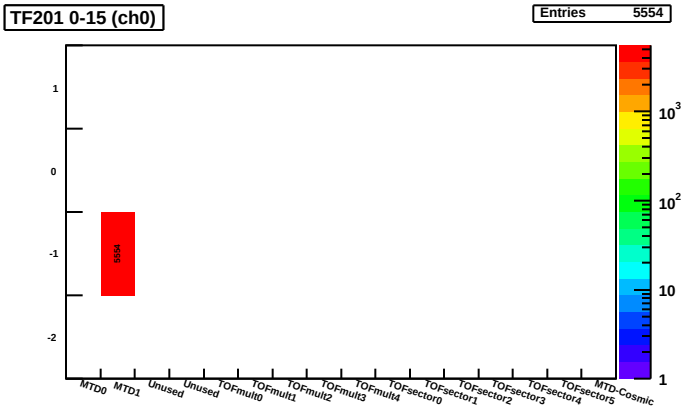

Input to FPE L1 DSM
Entries 731780
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 365890
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

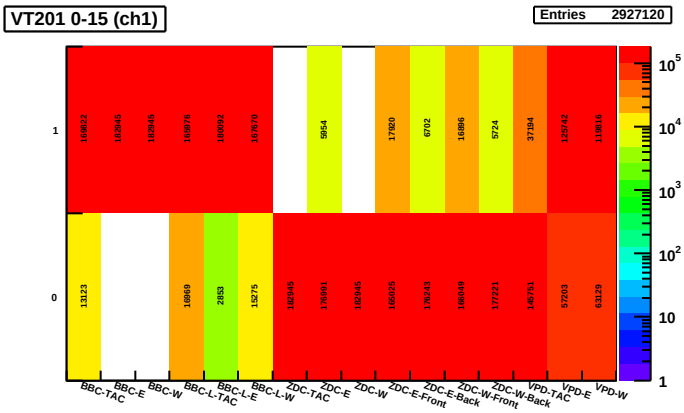
TF201 0-15 (ch0)



TF201 0-15 (ch0)



VT201 0-15 (ch1)



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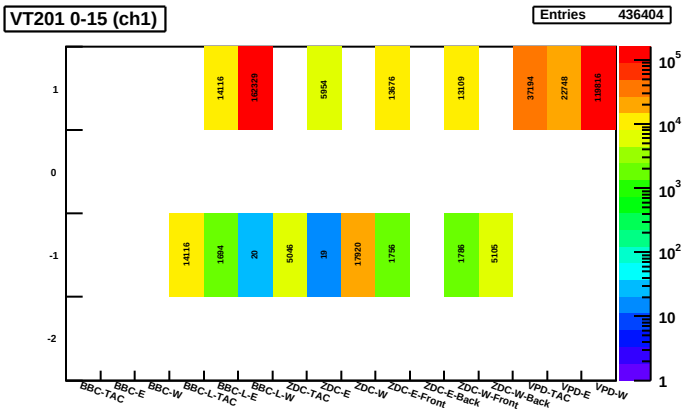

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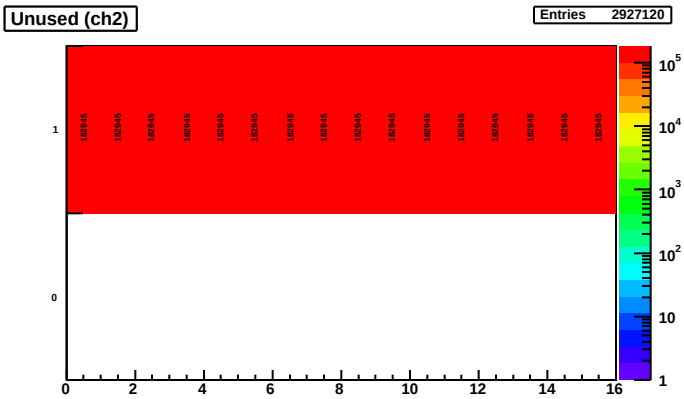

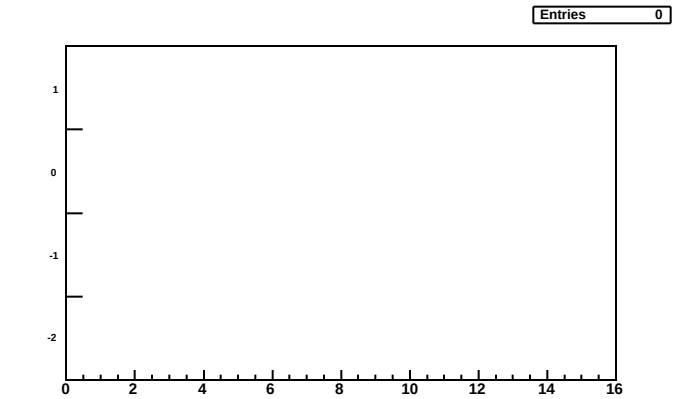

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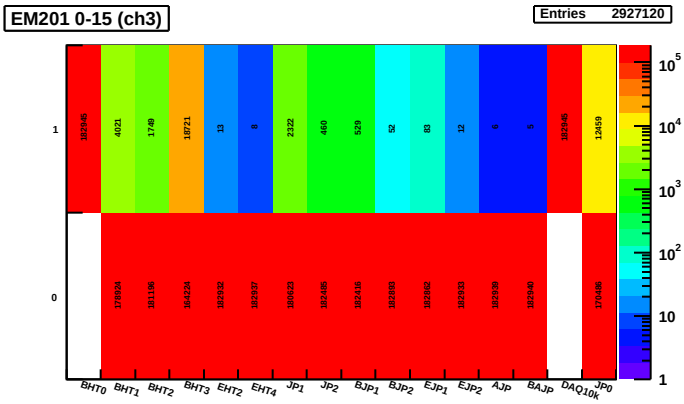

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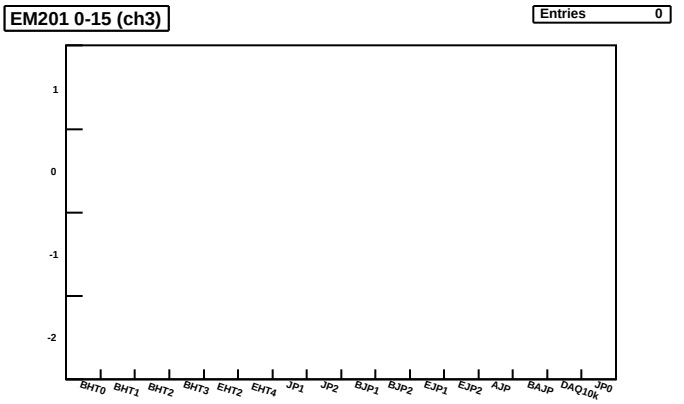
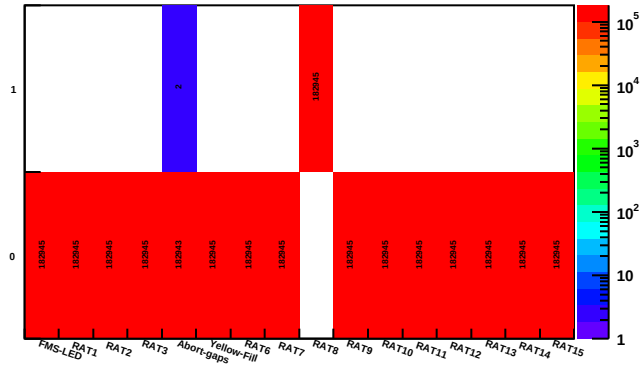
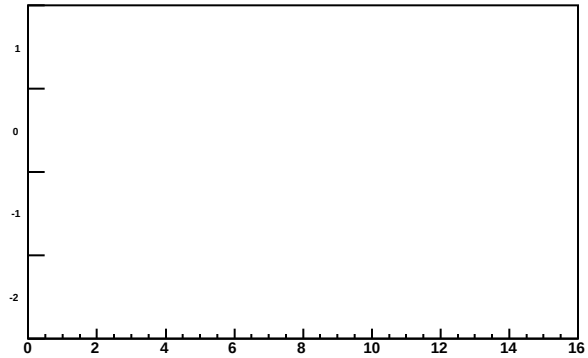


RAT board (ch4)





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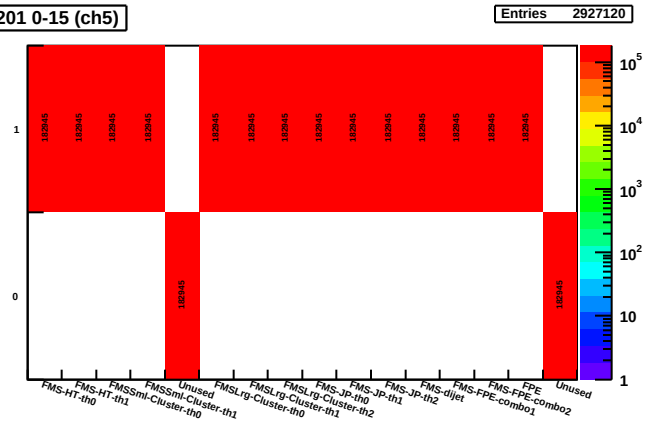

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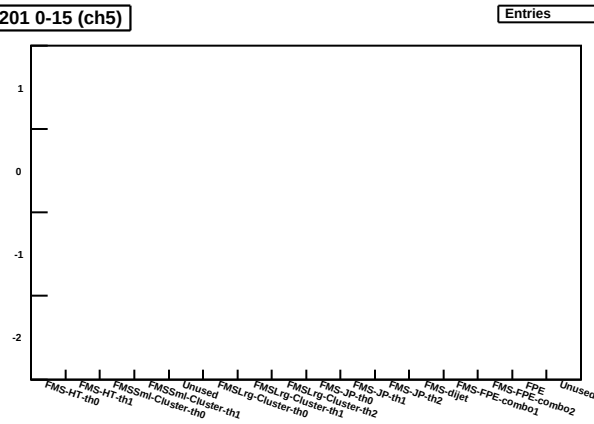

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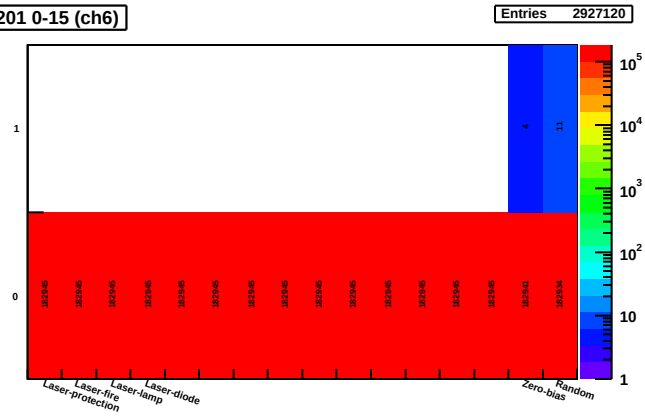

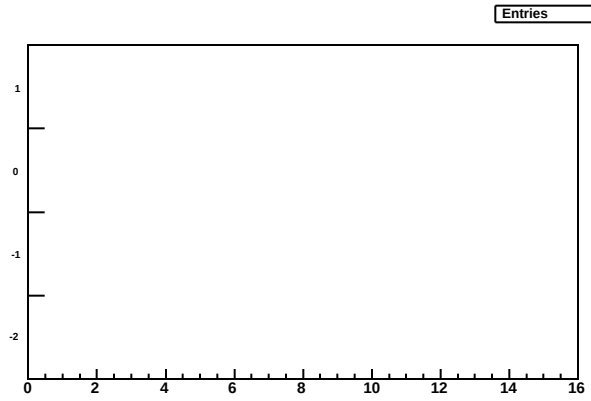
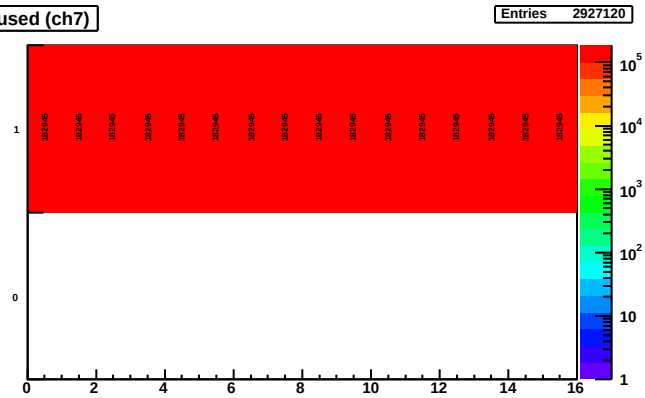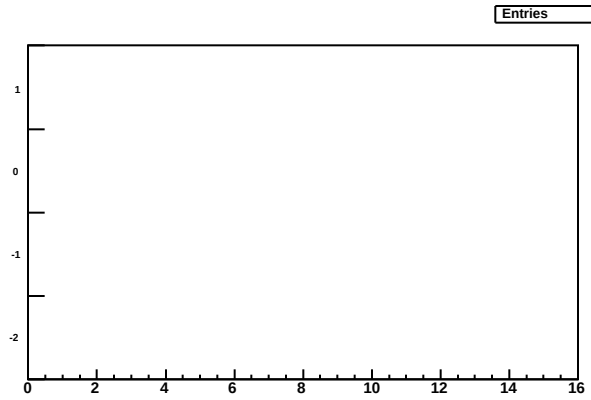
Unused (ch7)