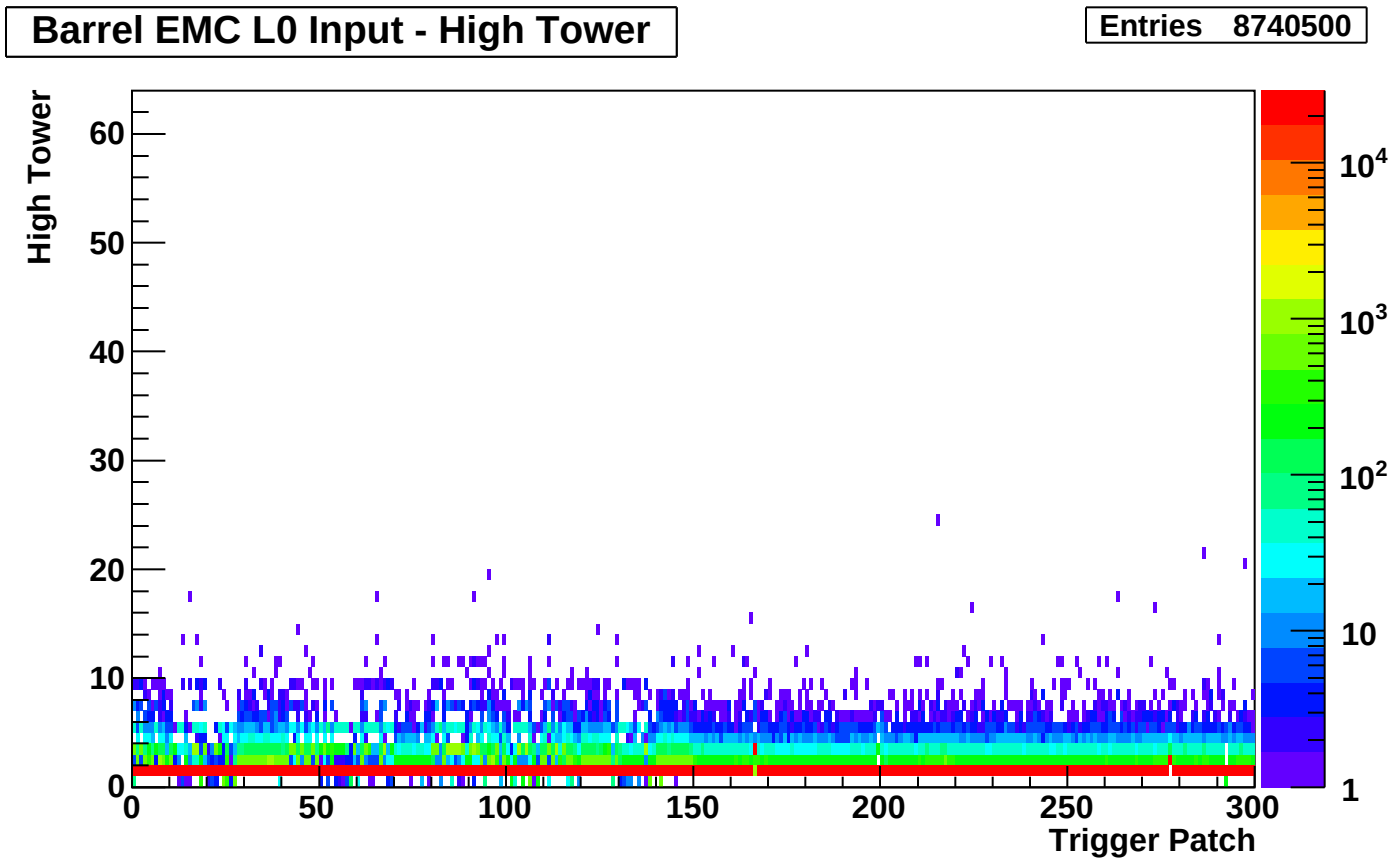
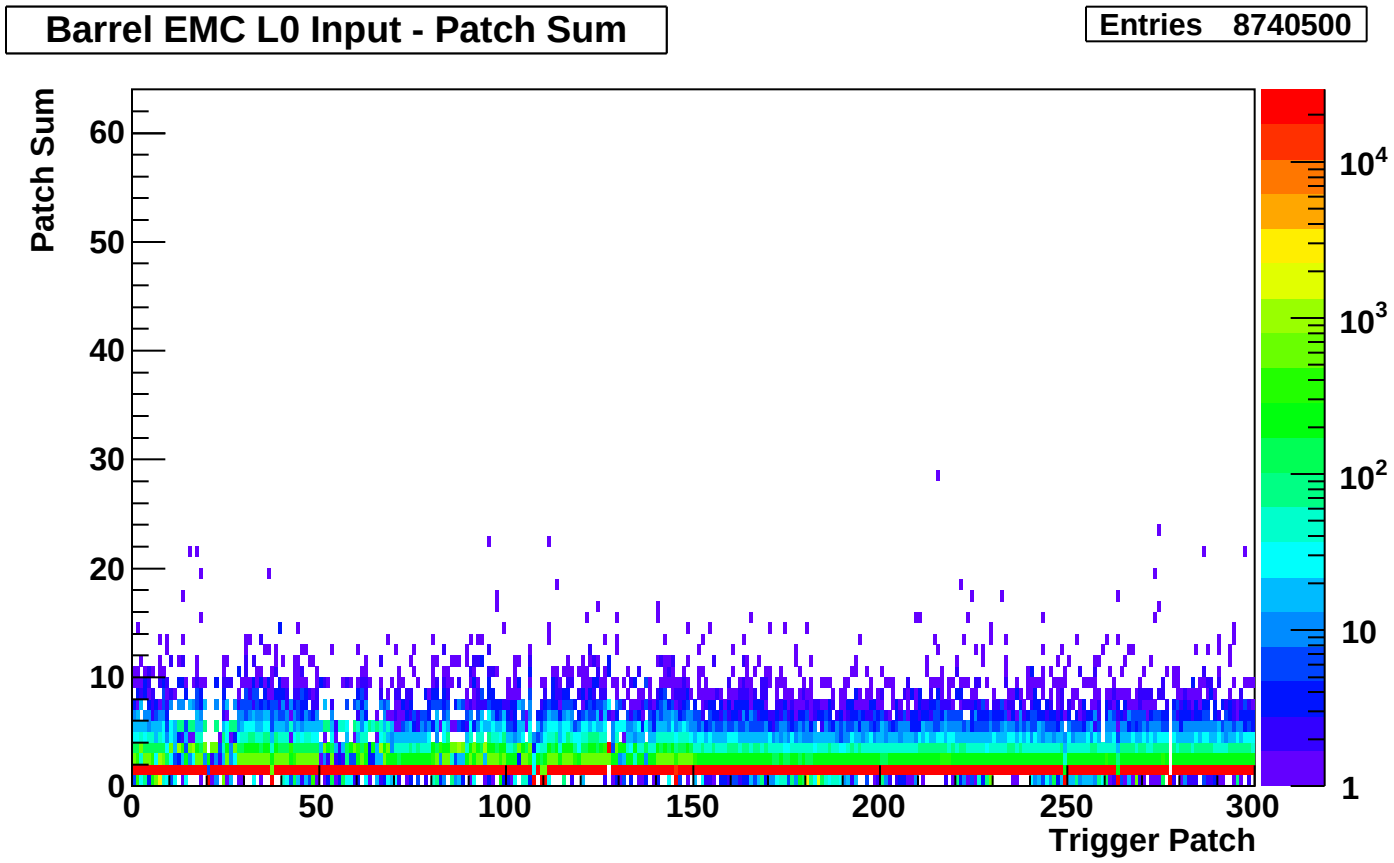
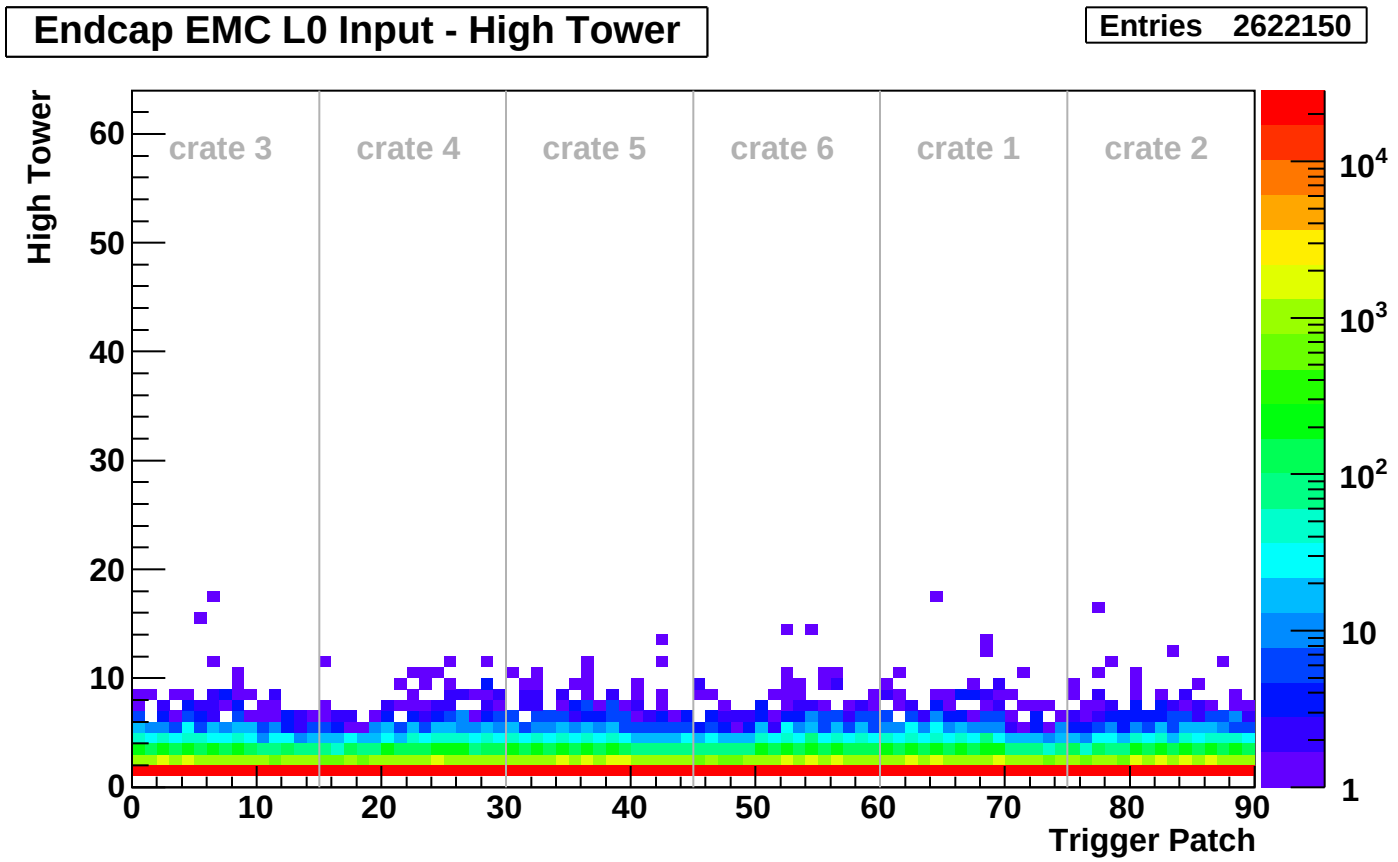
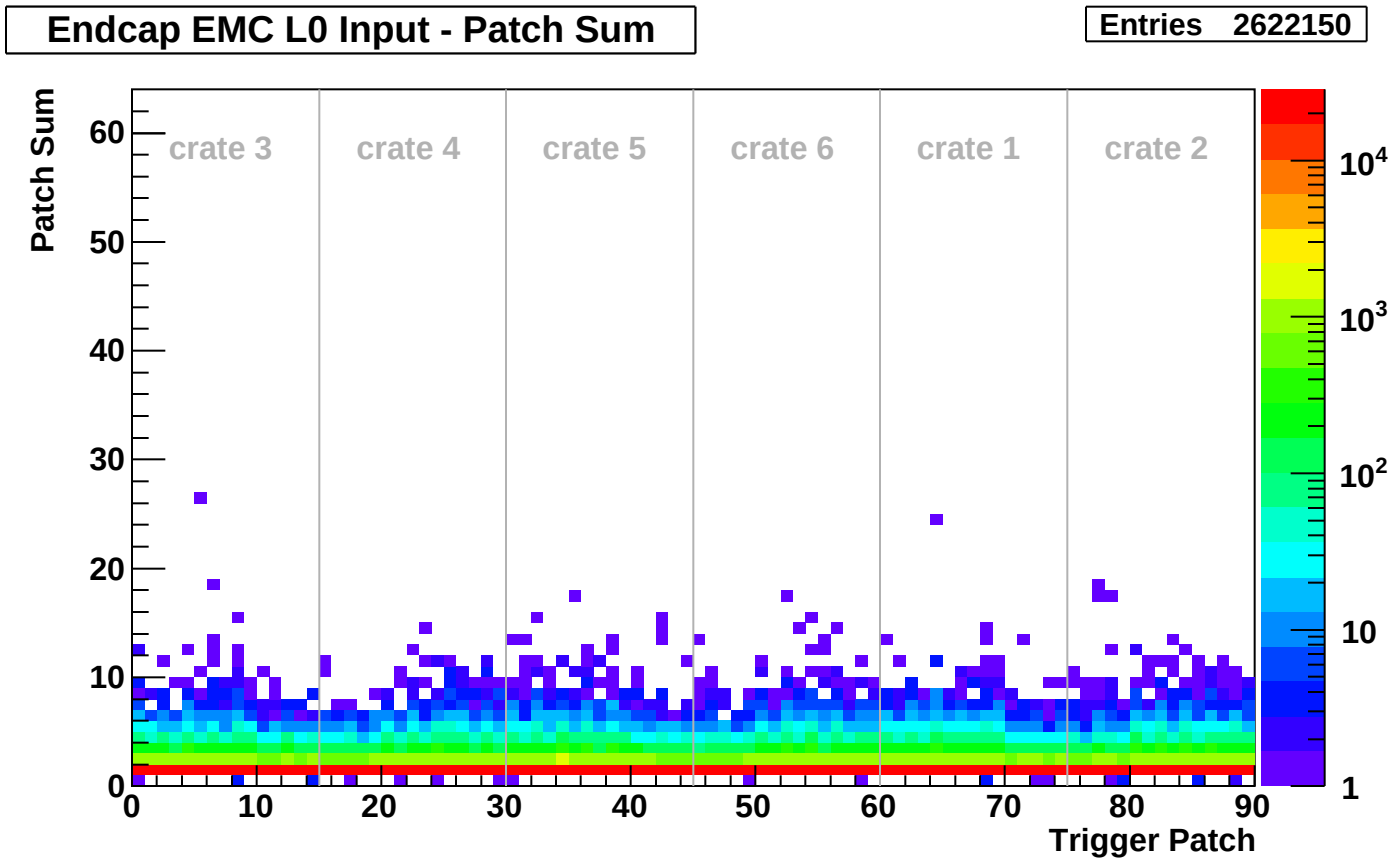
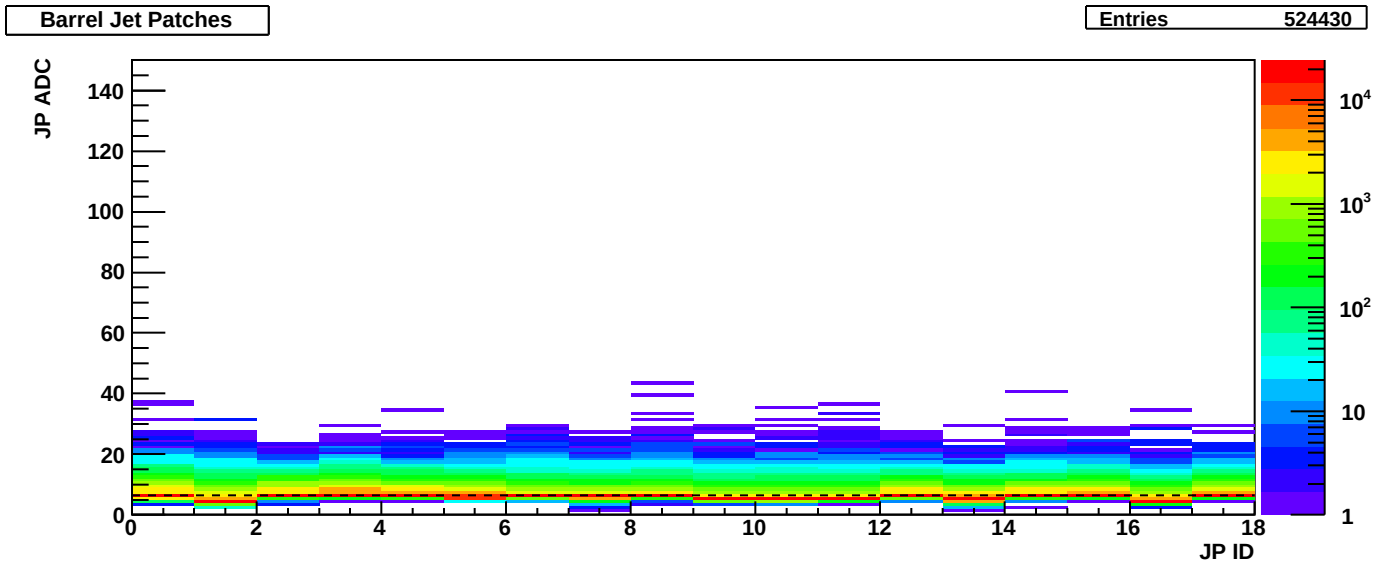
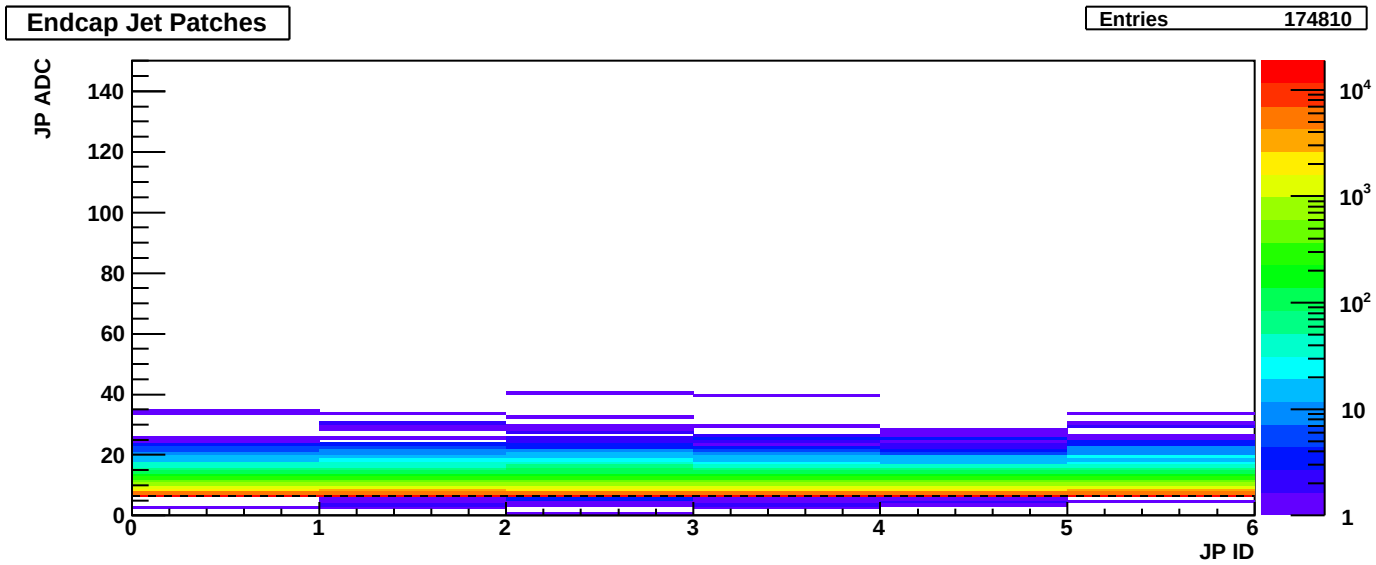

Barrel EMC L0 Input - High Tower
Entries 8740500
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

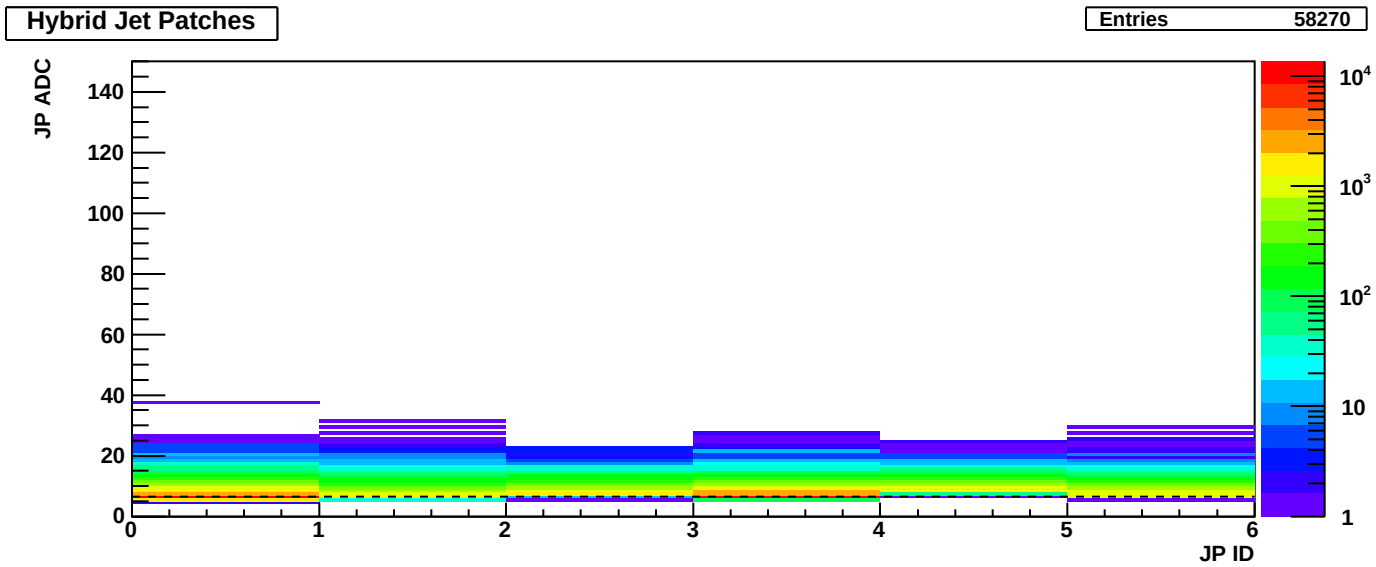

Barrel EMC L0 Input - Patch Sum
Entries 8740500
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

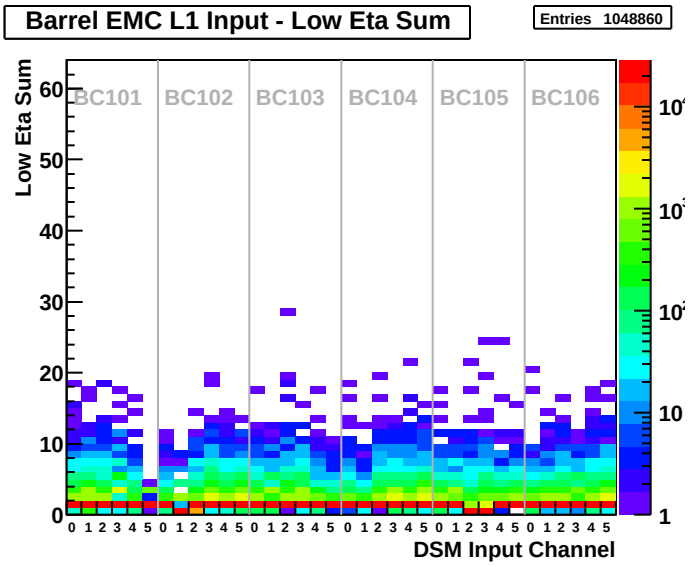

Endcap EMC L0 Input - High Tower
Entries 2622150
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

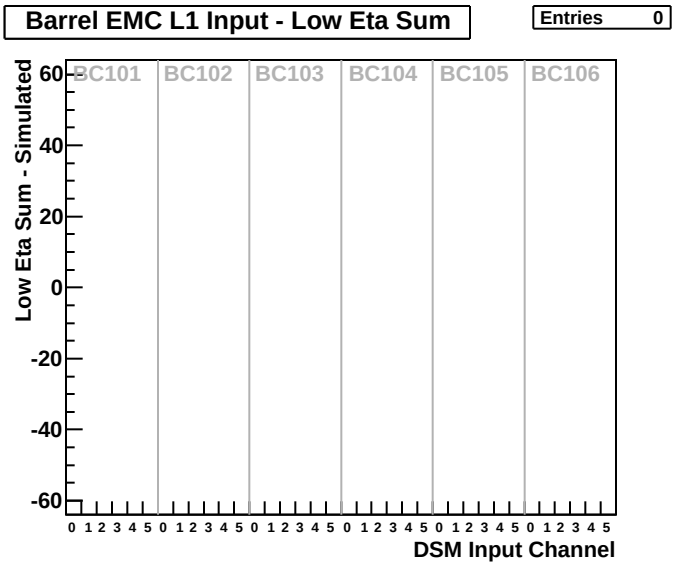

Endcap EMC L0 Input - Patch Sum
Entries 2622150
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

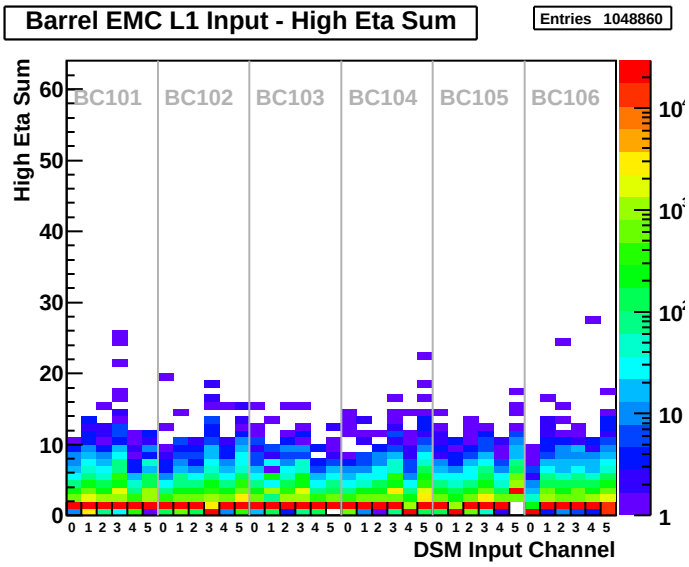

Barrel Jet Patches
Entries 524430
JP ADC
JP ID

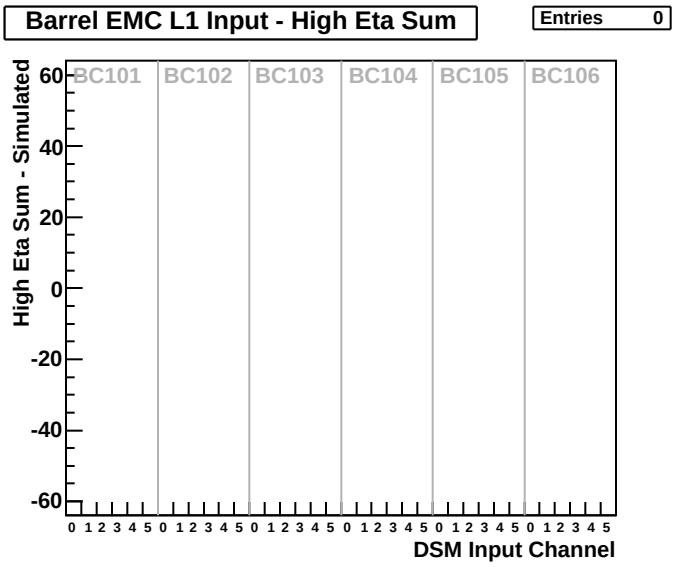

Endcap Jet Patches
Entries 174810
JP ADC
JP ID

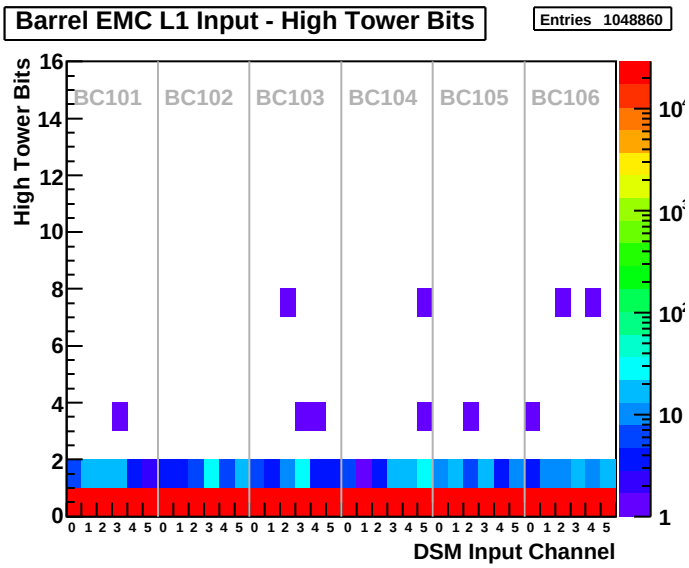

Hybrid Jet Patches
Entries 58270
JP ADC
JP ID

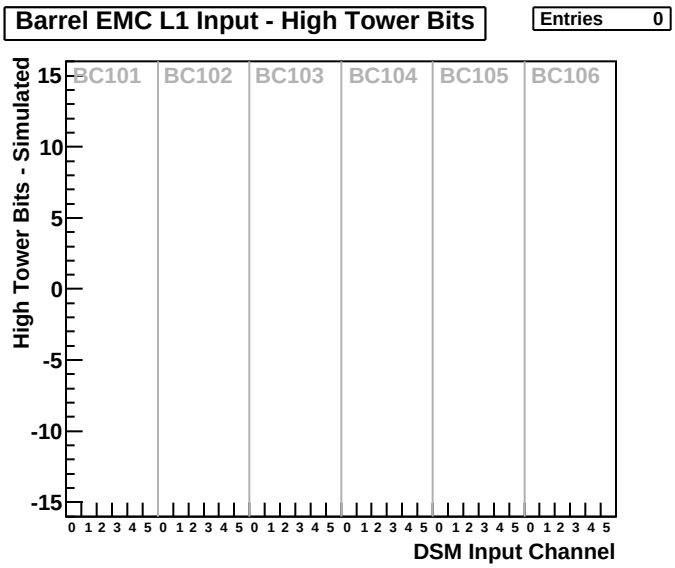

Barrel EMC L1 Input - Low Eta Sum
Entries 1048860
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

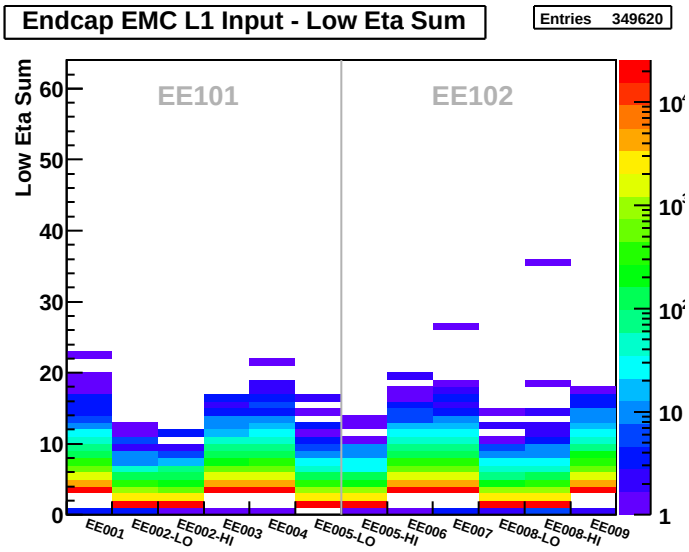

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

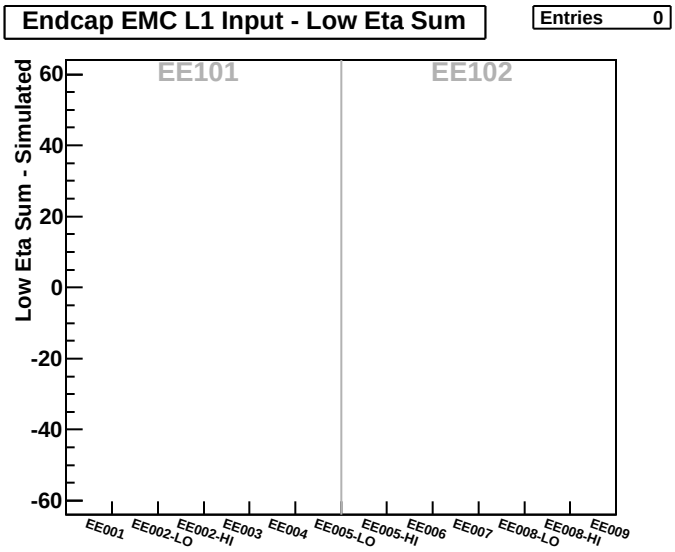

Barrel EMC L1 Input - High Eta Sum
Entries 1048860
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

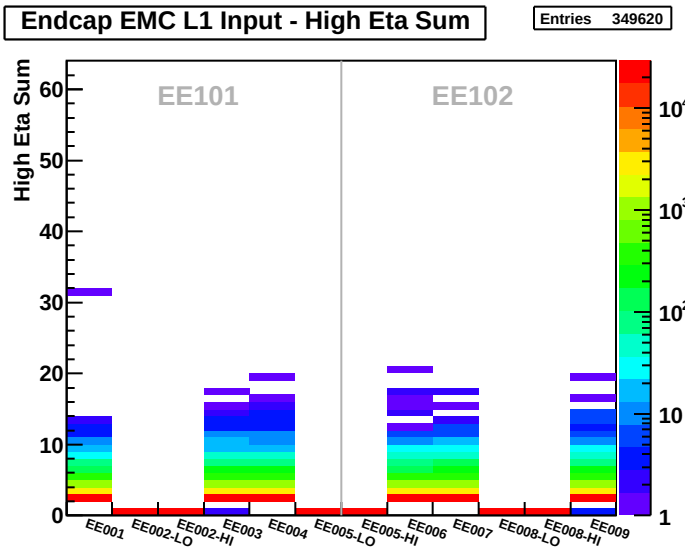

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

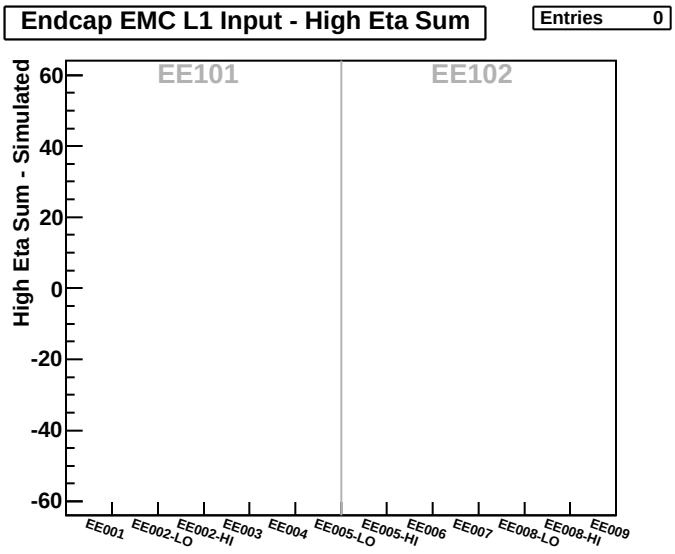

Barrel EMC L1 Input - High Tower Bits
Entries 1048860
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

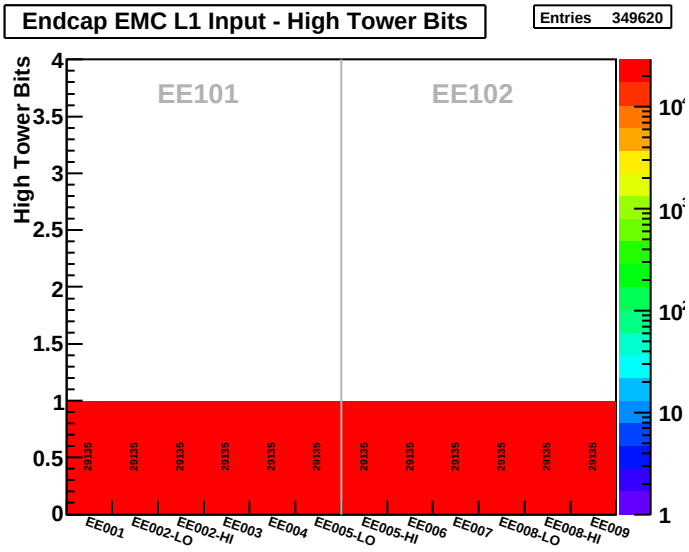

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

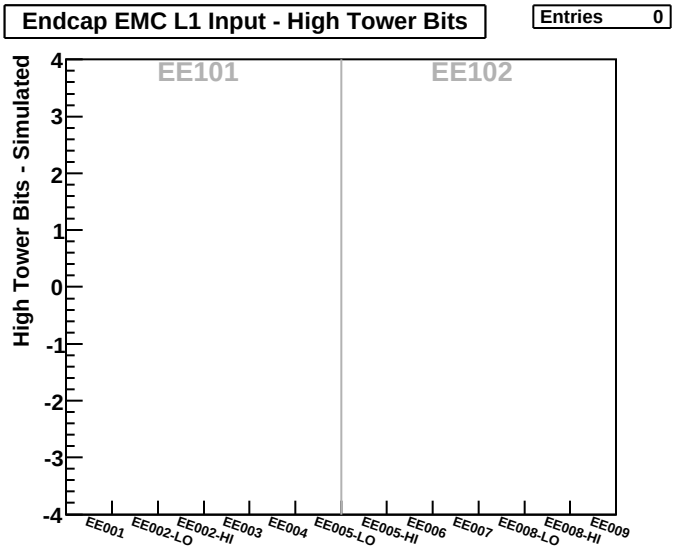

Endcap EMC L1 Input - Low Eta Sum
Entries 349620
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

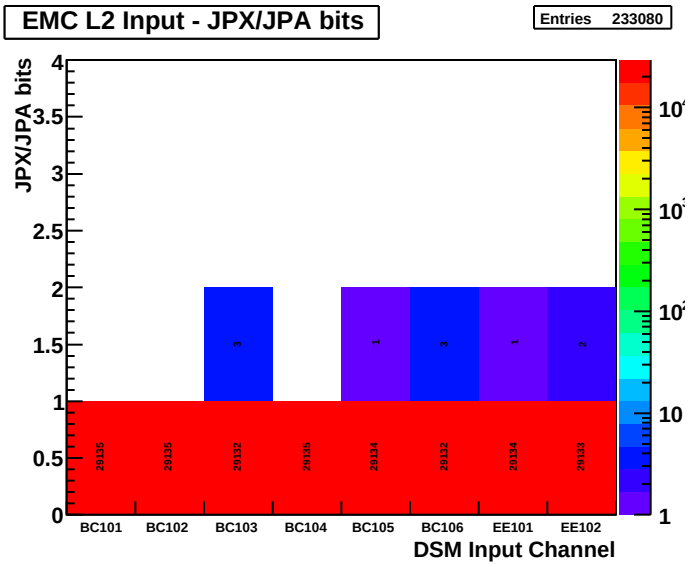

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

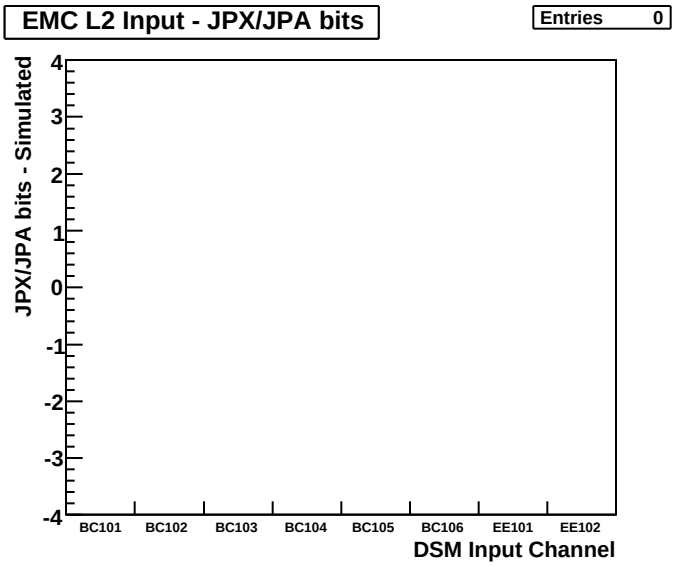

Endcap EMC L1 Input - High Eta Sum
Entries 349620
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

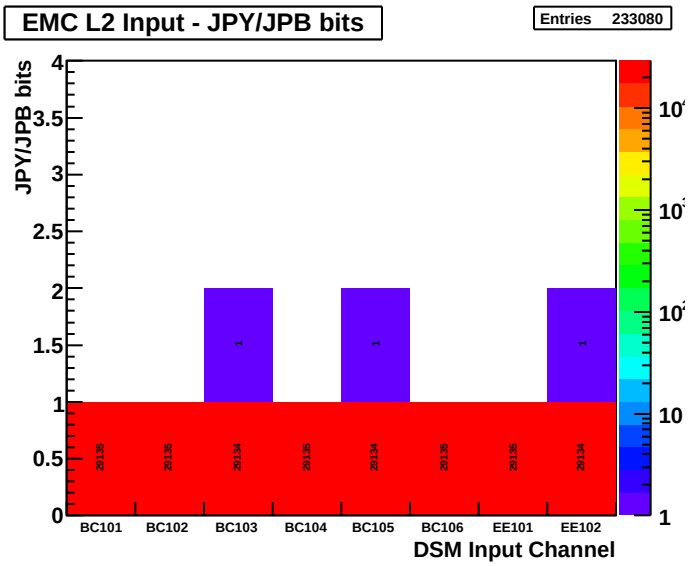

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

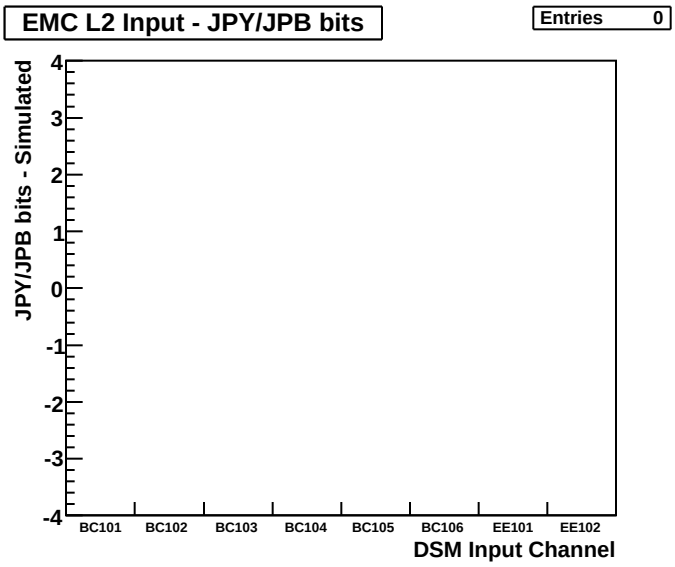

Endcap EMC L1 Input - High Tower Bits
Entries 349620
High Tower Bits
EE101
EE102
29135
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

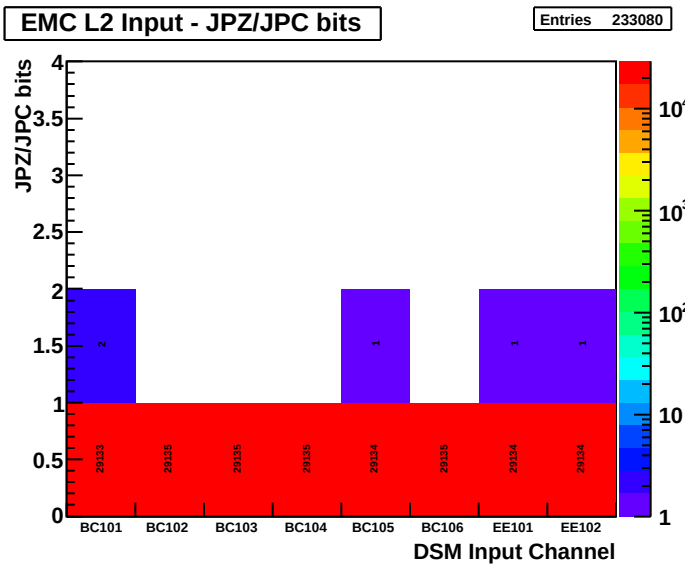

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

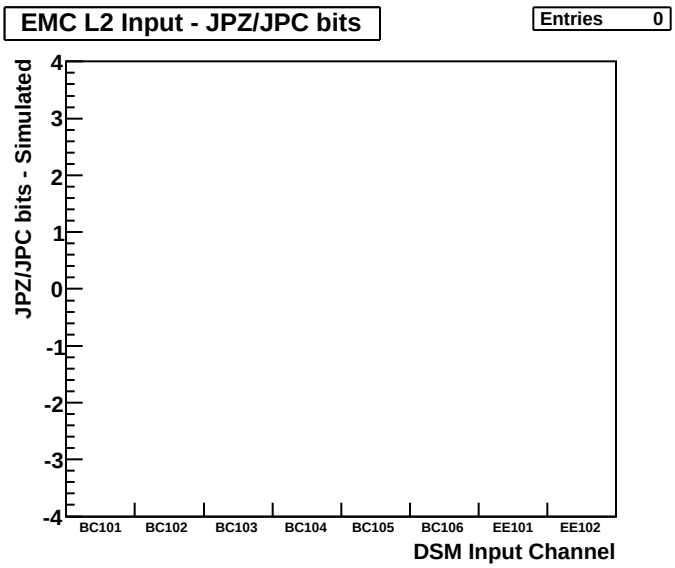

EMC L2 Input - JPX/JPA bits
Entries 233080
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

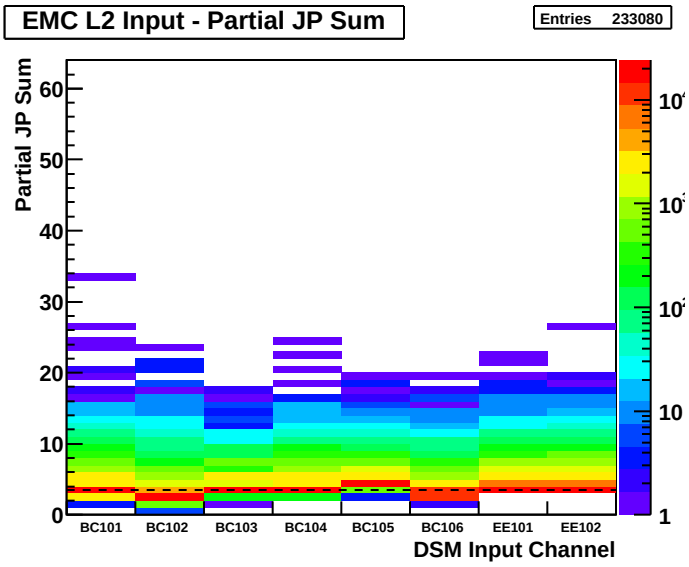

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

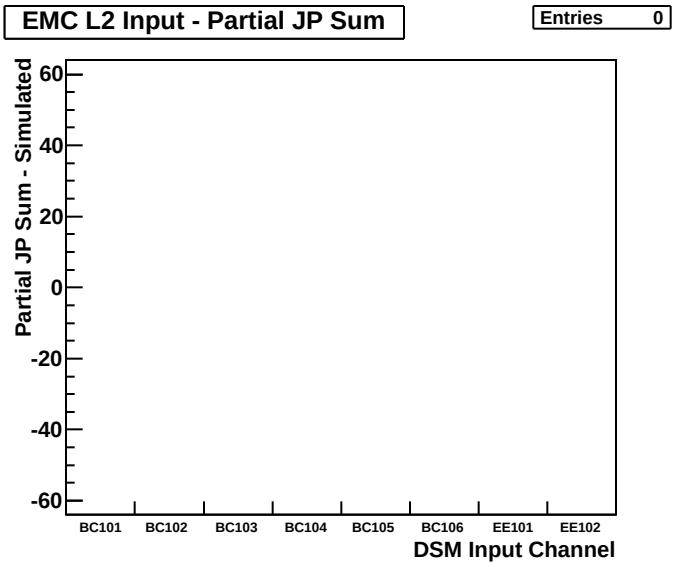

EMC L2 Input - JPY/JPB bits
Entries 233080
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

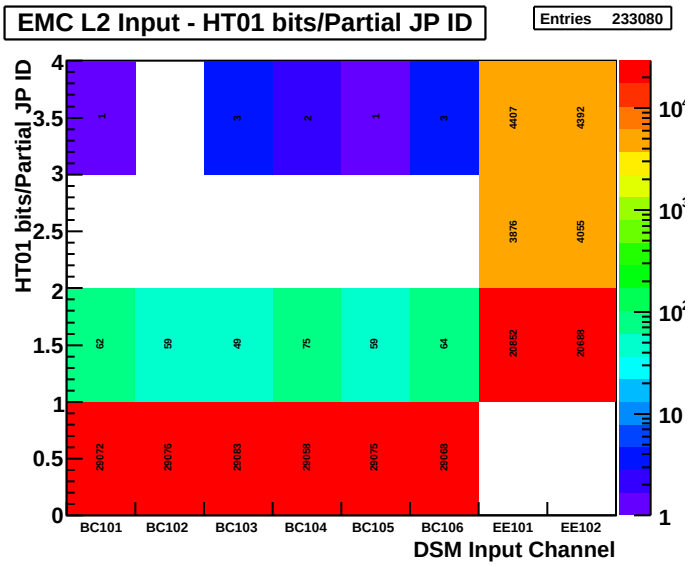

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

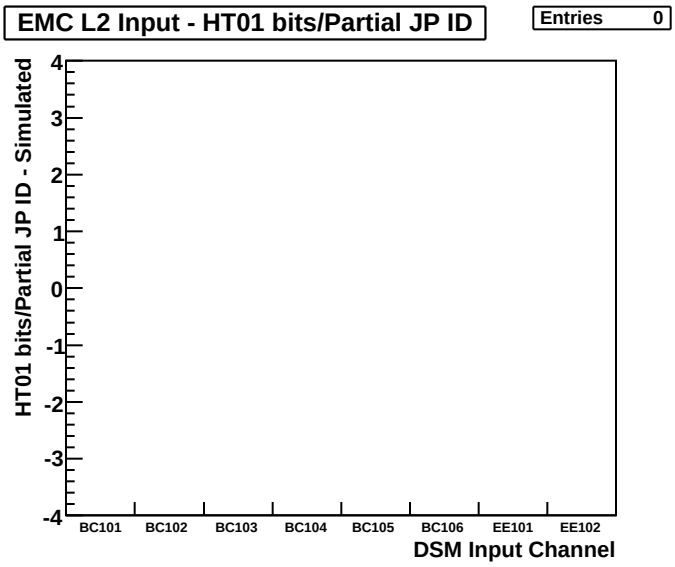

EMC L2 Input - JPZ/JPC bits
Entries 233080
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

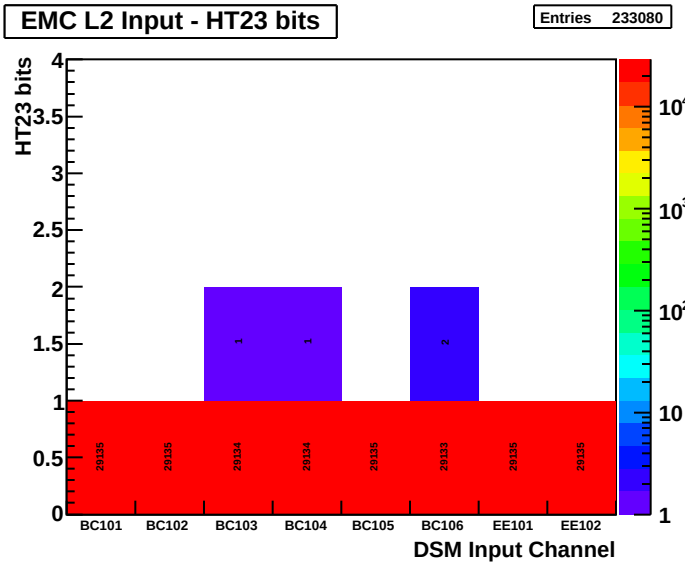

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

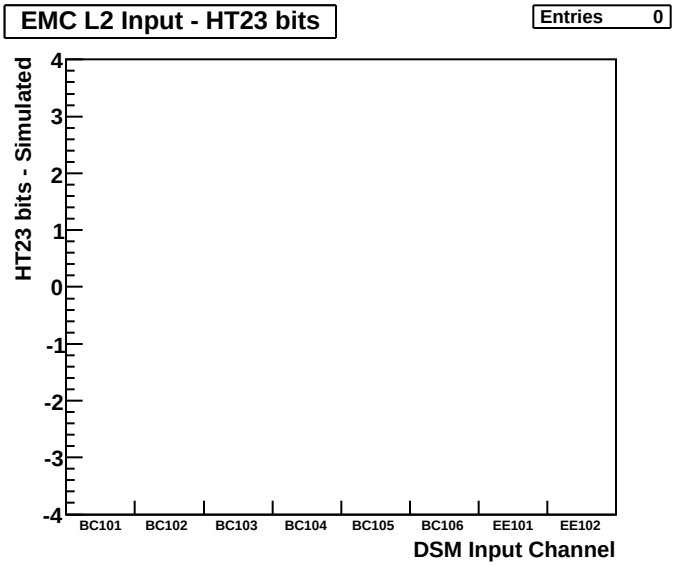

EMC L2 Input - Partial JP Sum
Entries 233080
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

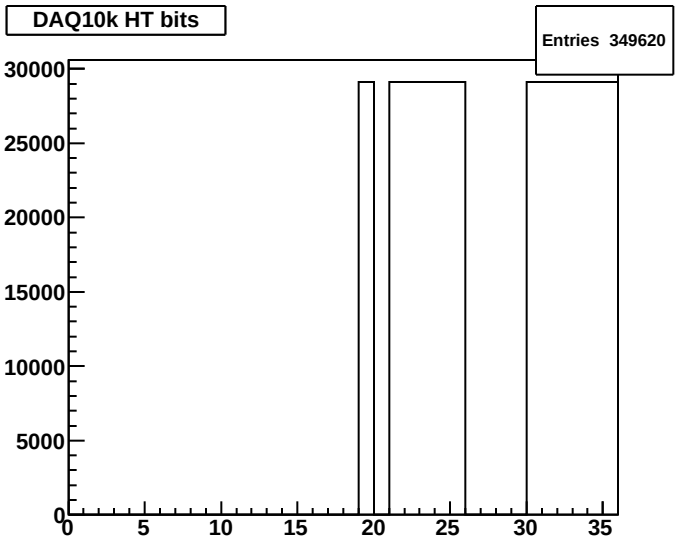

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

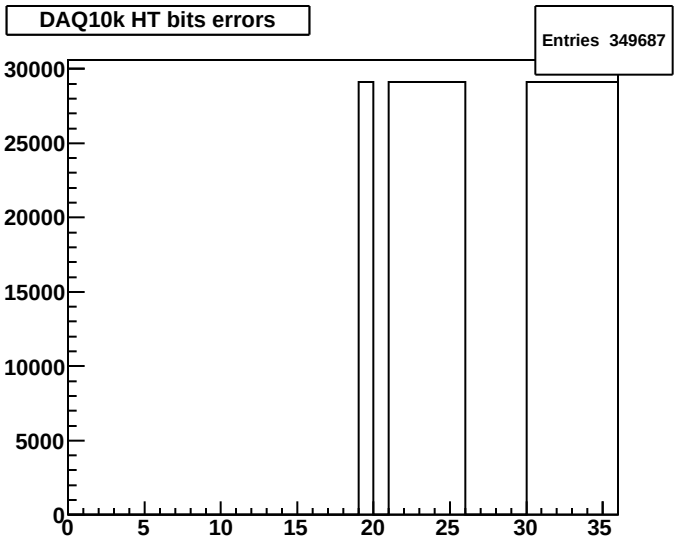

EMC L2 Input - HT01 bits/Partial JP ID
Entries 233080
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

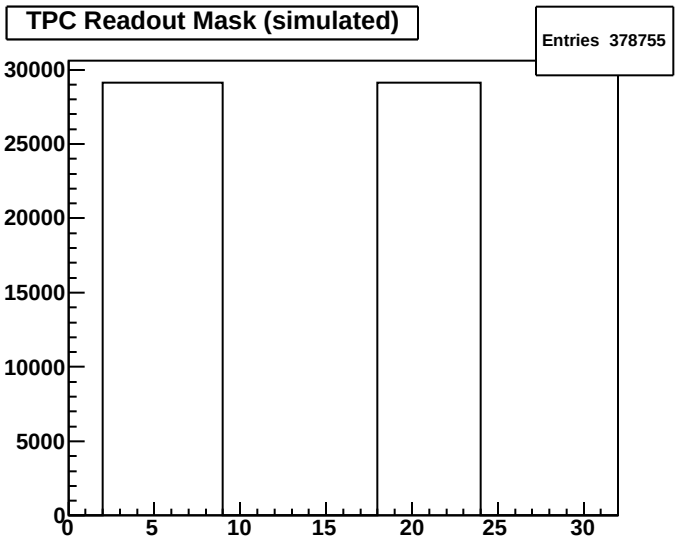

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

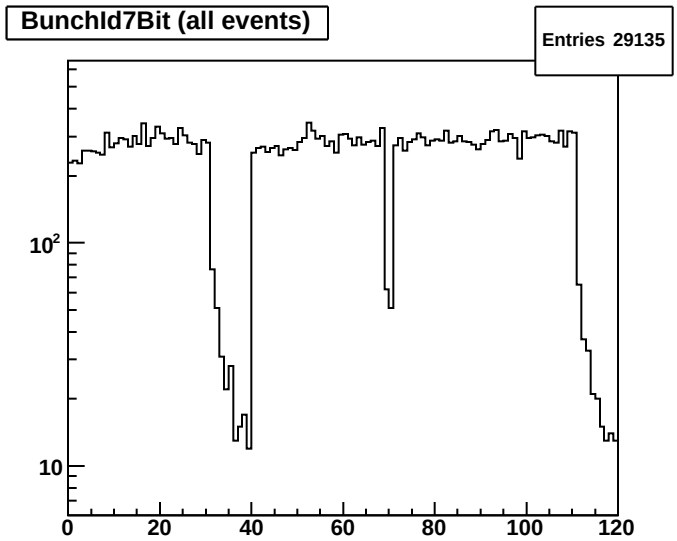

EMC L2 Input - HT23 bits
Entries 233080
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

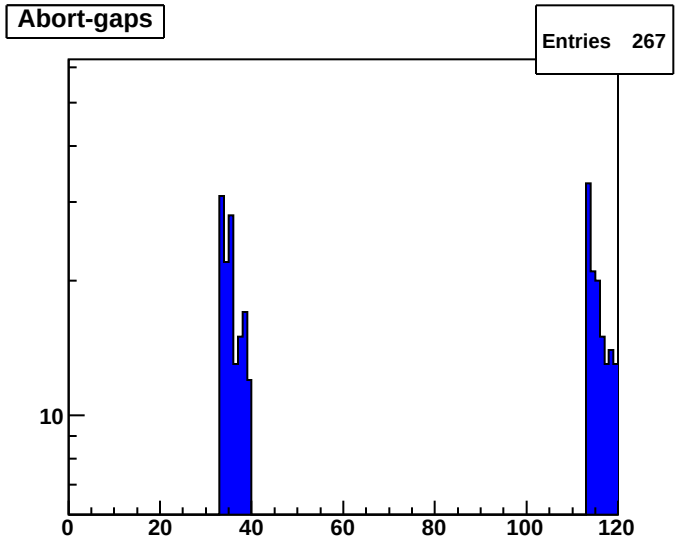

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

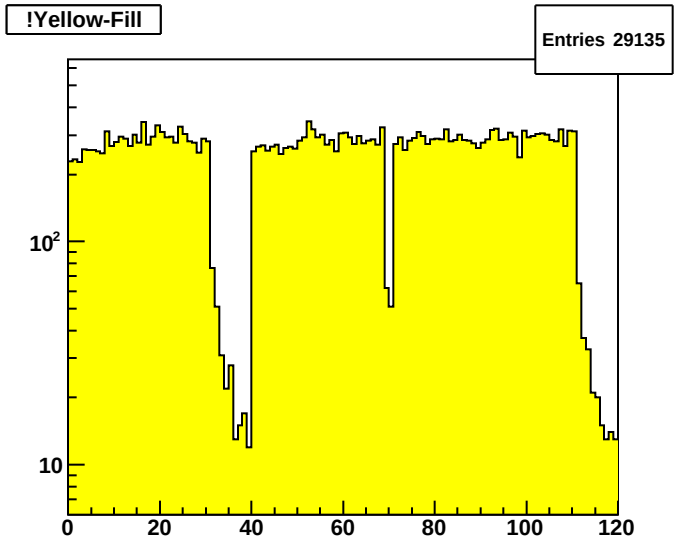

DAQ10k HT bits
Entries 349620
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

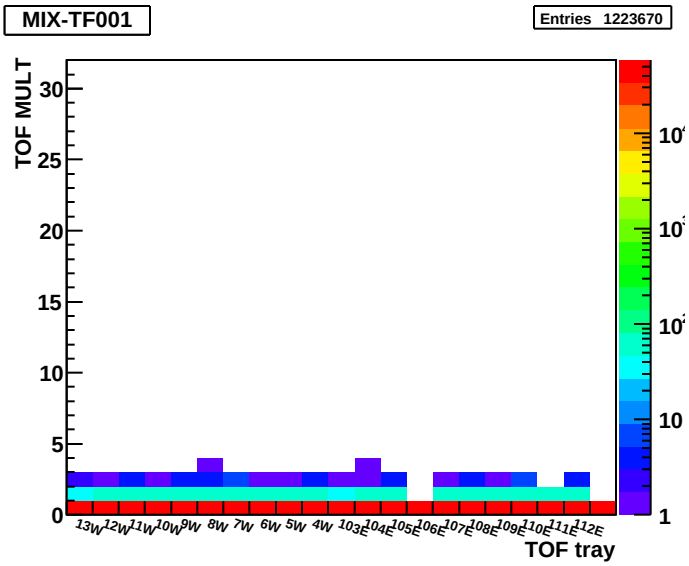

DAQ10k HT bits errors
Entries 349687
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

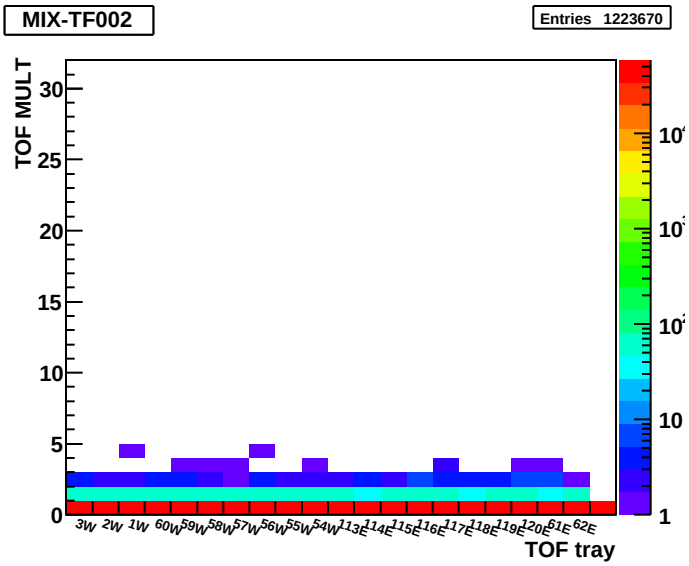

TPC Readout Mask (simulated)
Entries 378755
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

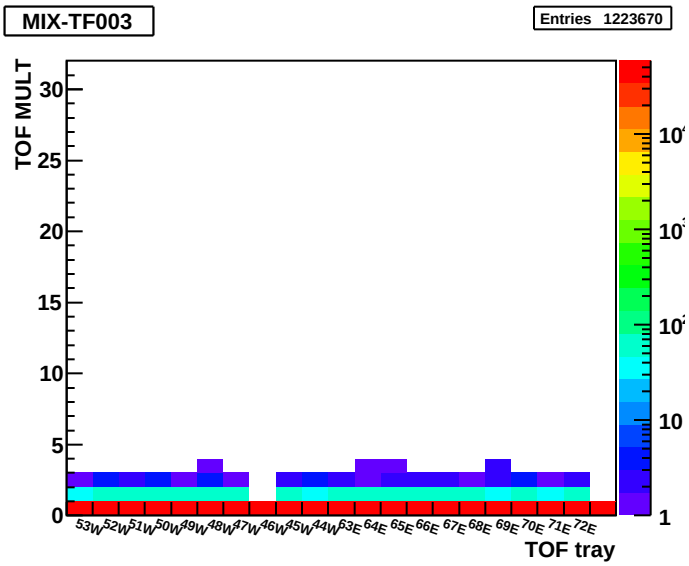

BunchId7Bit (all events)
Entries 29135
10^2
10
0 20 40 60 80 100 120

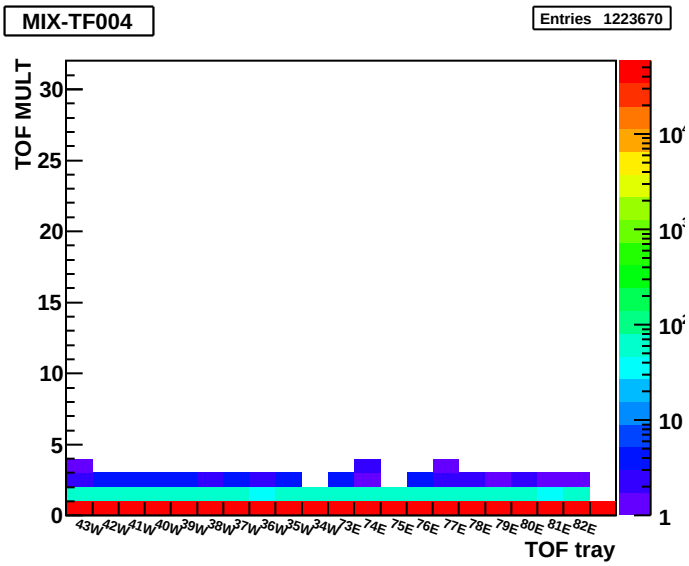

Abort-gaps
Entries 267
10
0 20 40 60 80 100 120

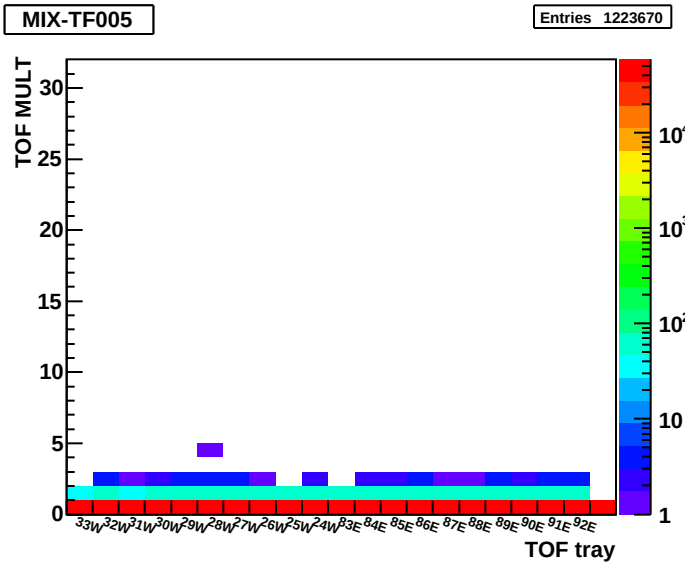

!Yellow-Fill
Entries 29135
10^2
10
0 20 40 60 80 100 120

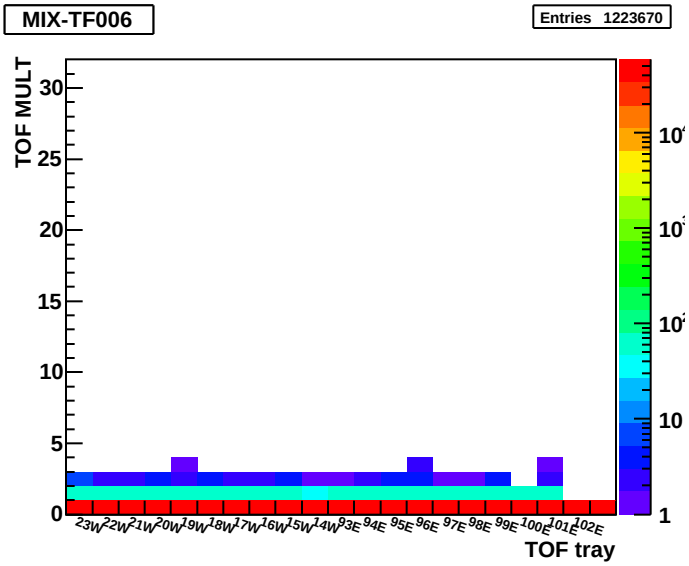

MIX-TF001
Entries 1223670
TOF MULT
TOF tray

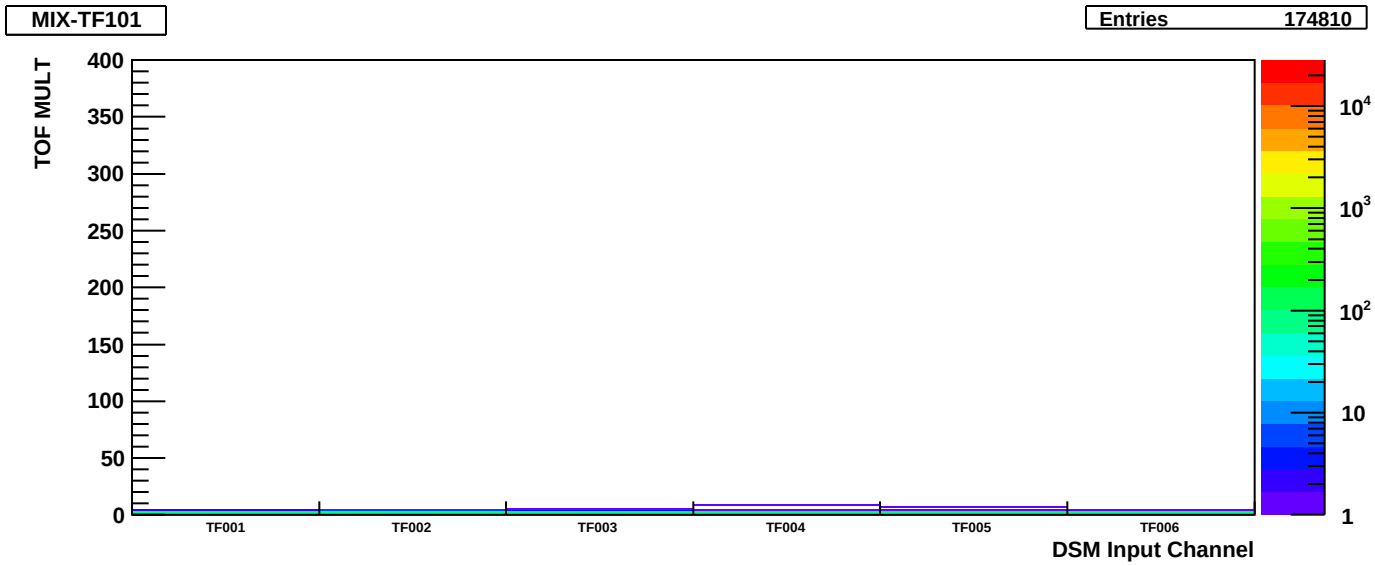

MIX-TF002
Entries 1223670
TOF MULT
TOF tray

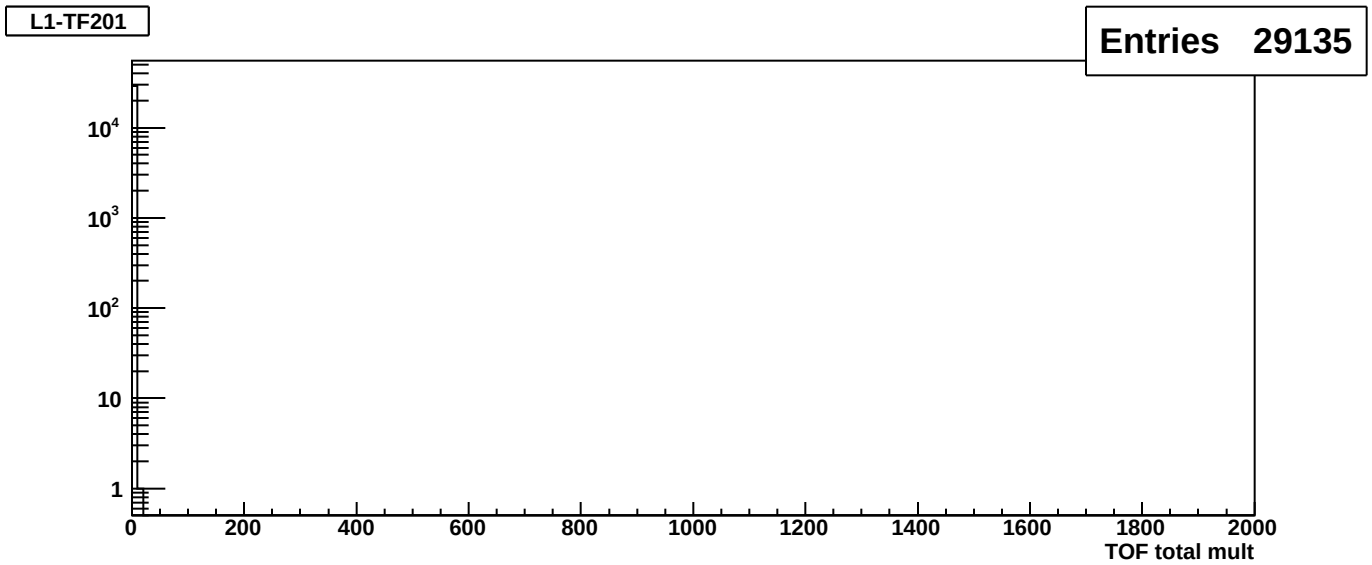

MIX-TF003
Entries 1223670
TOF MULT
TOF tray

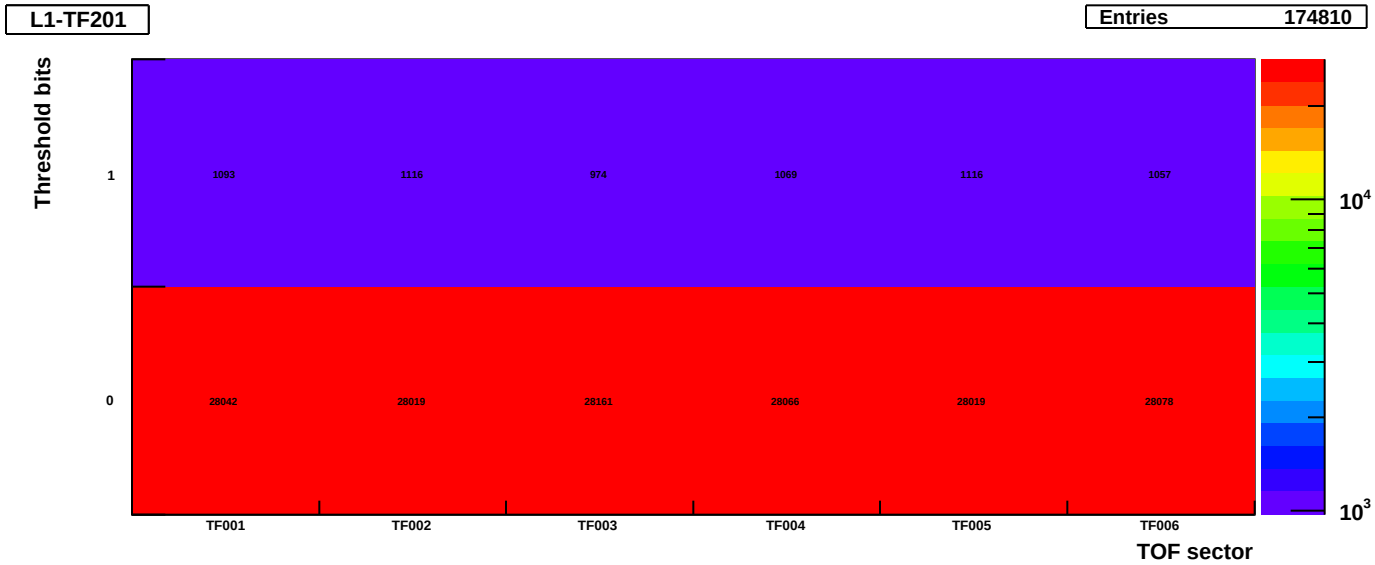

MIX-TF004
Entries 1223670
TOF MULT
TOF tray

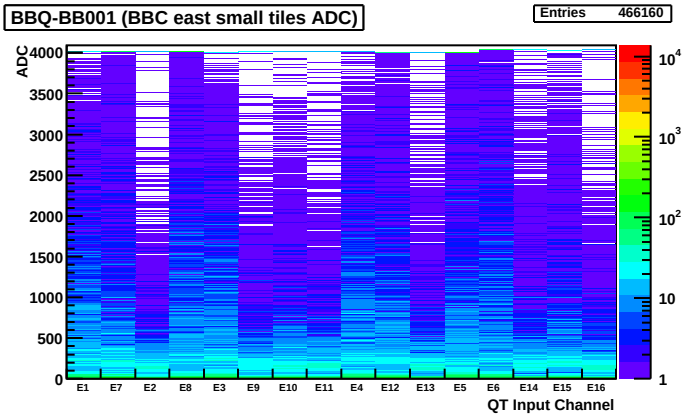

MIX-TF005
Entries 1223670
TOF MULT
TOF tray

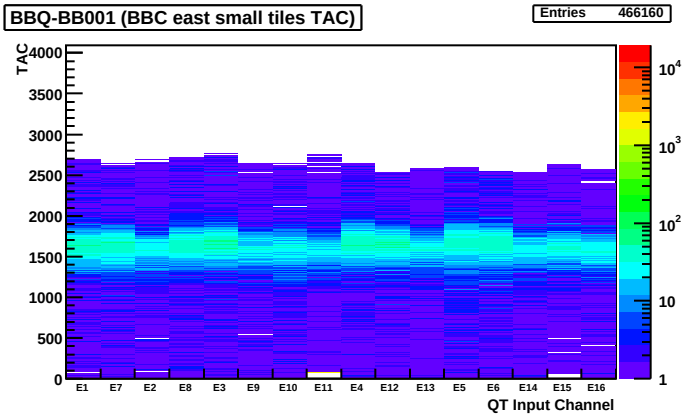

MIX-TF006
Entries 1223670
TOF MULT
TOF tray

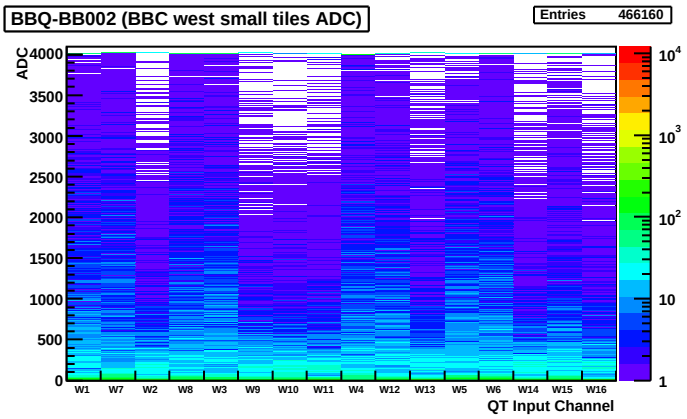

MIX-TF101
Entries 174810
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

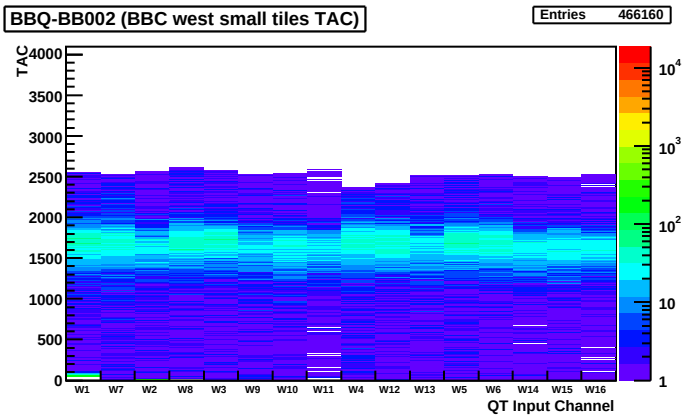

L1-TF201
Entries 29135
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

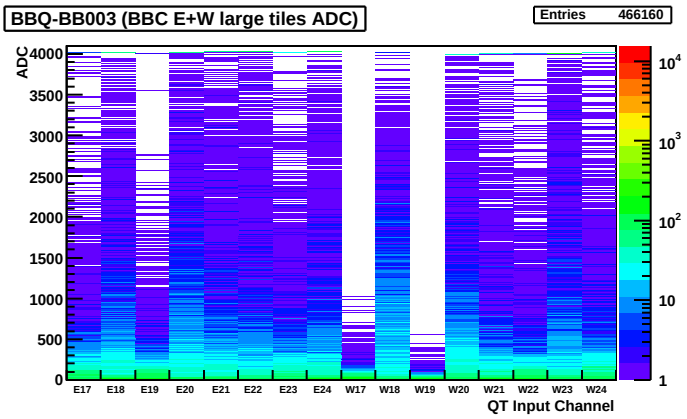

L1-TF201
Entries 174810
Threshold bits
1
0
1093
1116
974
1069
1116
1057
28042
28019
28161
28066
28019
28078
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

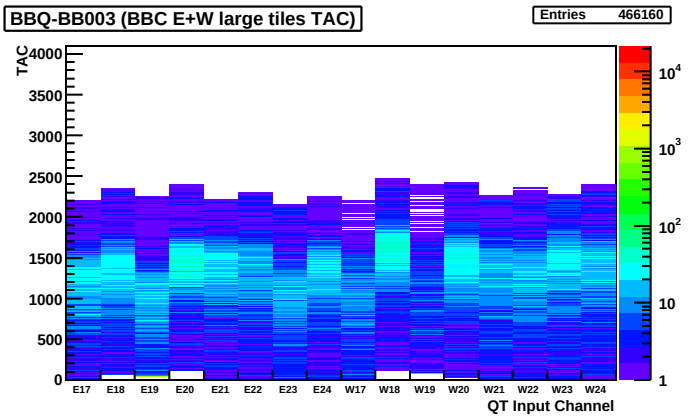

BBQ-BB001 (BBC east small tiles ADC)
Entries 466160
ADC
QT Input Channel

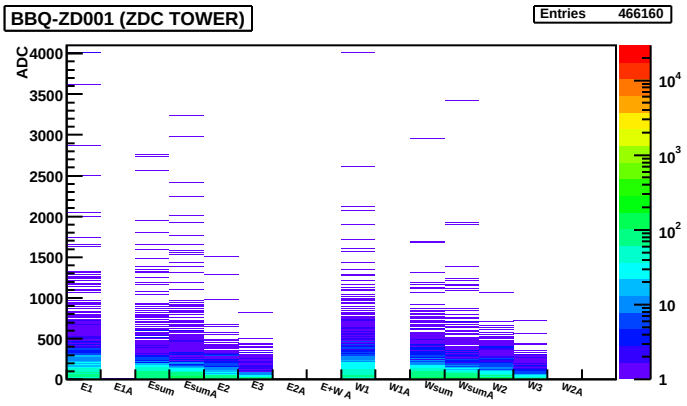

BBQ-BB001 (BBC east small tiles TAC)
Entries 466160
TAC
QT Input Channel

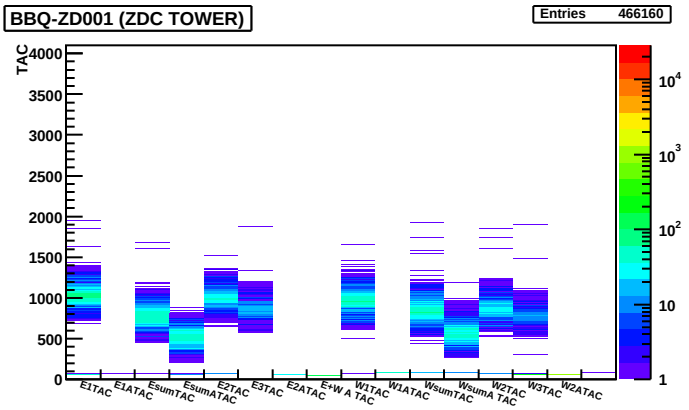

BBQ-BB002 (BBC west small tiles ADC)
Entries 466160
ADC
QT Input Channel

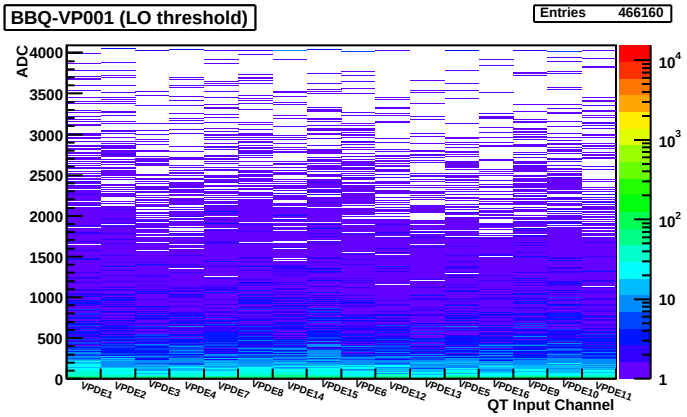

BBQ-BB002 (BBC west small tiles TAC)
Entries 466160
TAC
QT Input Channel

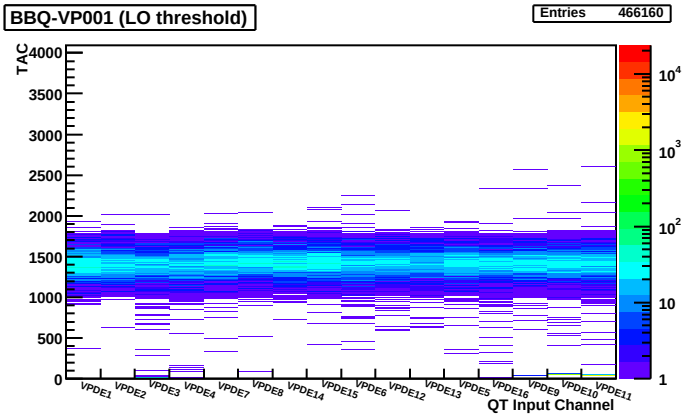

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 466160
ADC
QT Input Channel

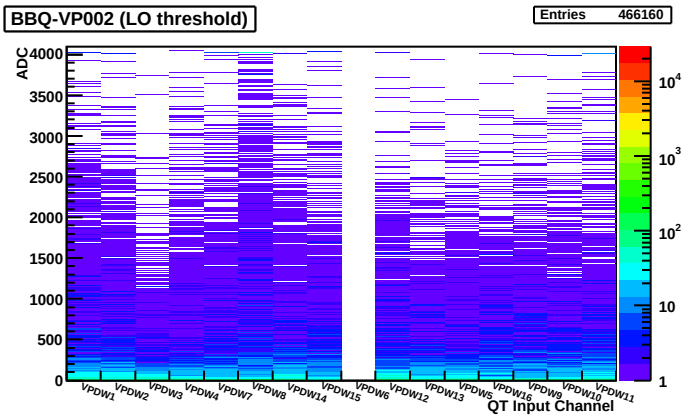

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 466160
TAC
QT Input Channel

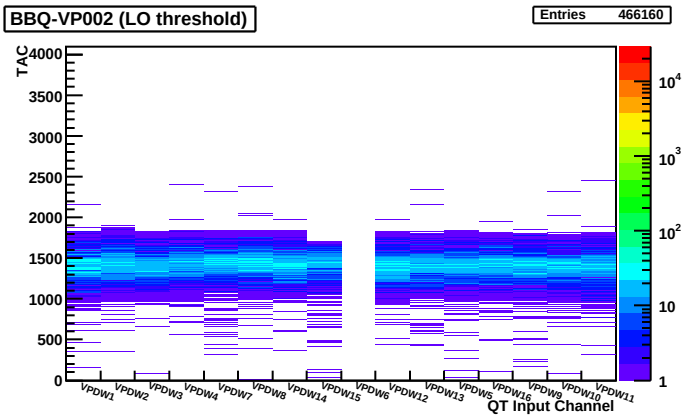

BBQ-ZD001 (ZDC TOWER)
Entries 466160
ADC

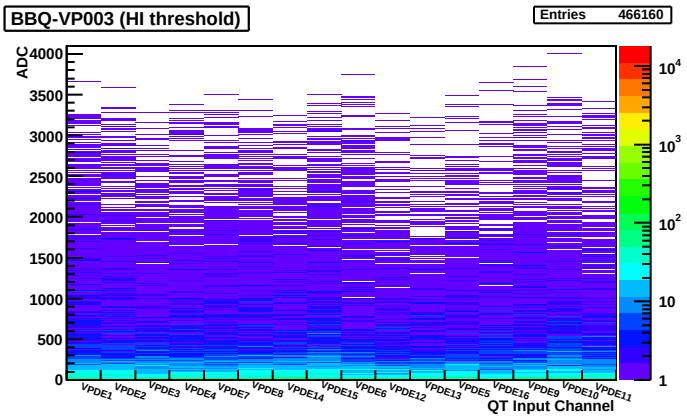

BBQ-ZD001 (ZDC TOWER)
Entries 466160
TAC

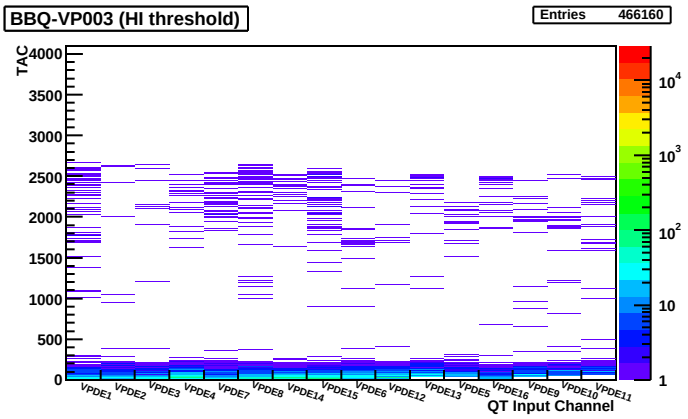

BBQ-VP001 (LO threshold)
Entries 466160
ADC
QT Input Channel

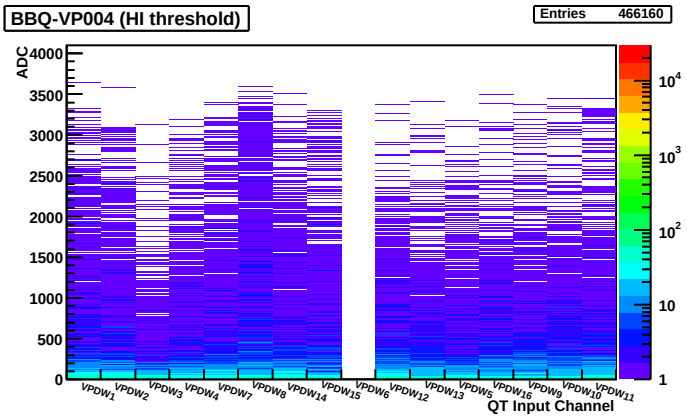

BBQ-VP001 (LO threshold)
Entries 466160
TAC
QT Input Channel

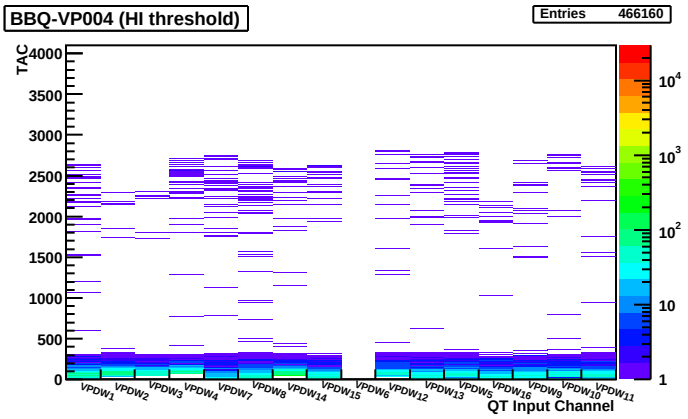

BBQ-VP002 (LO threshold)
Entries 466160
ADC
QT Input Channel

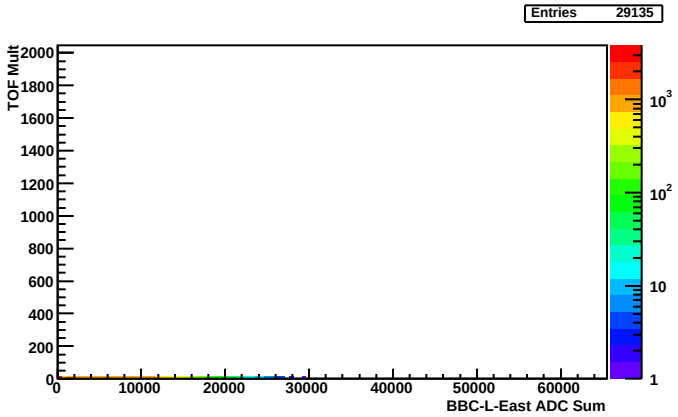

BBQ-VP002 (LO threshold)
Entries 466160
TAC
QT Input Channel

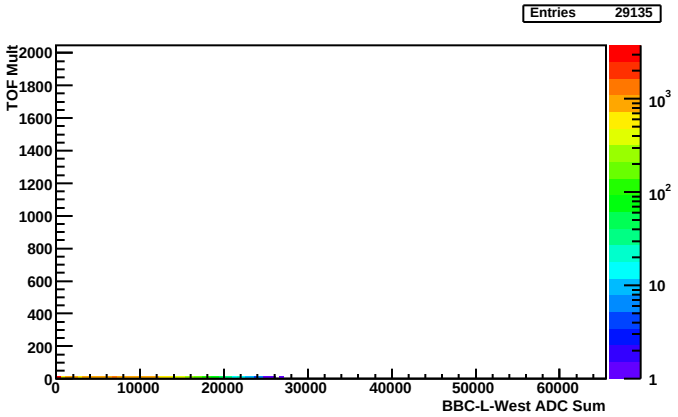

BBQ-VP003 (HI threshold)
Entries 466160
ADC
QT Input Channel

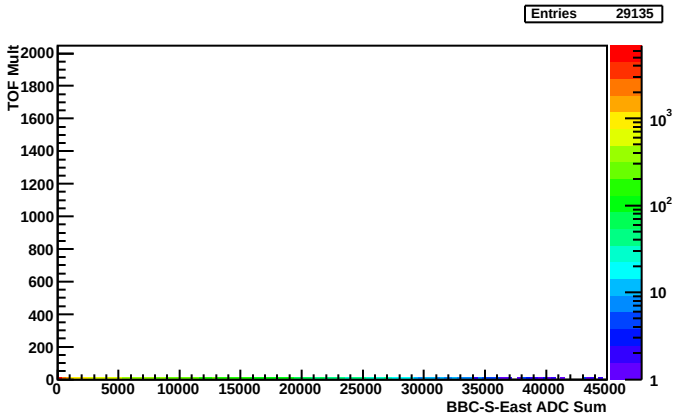

BBQ-VP003 (HI threshold)
Entries 466160
TAC
QT Input Channel

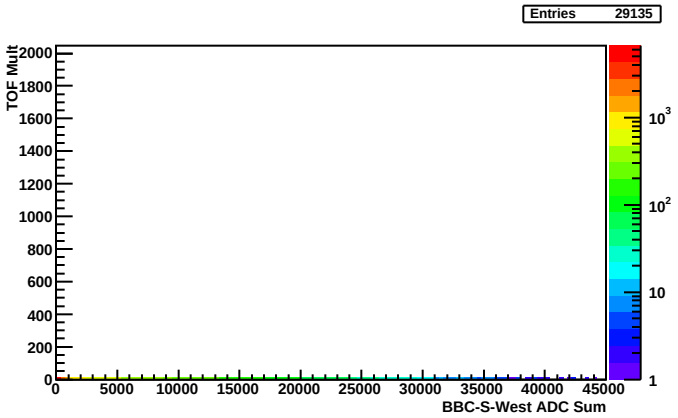

BBQ-VP004 (HI threshold)
Entries 466160
ADC
QT Input Channel

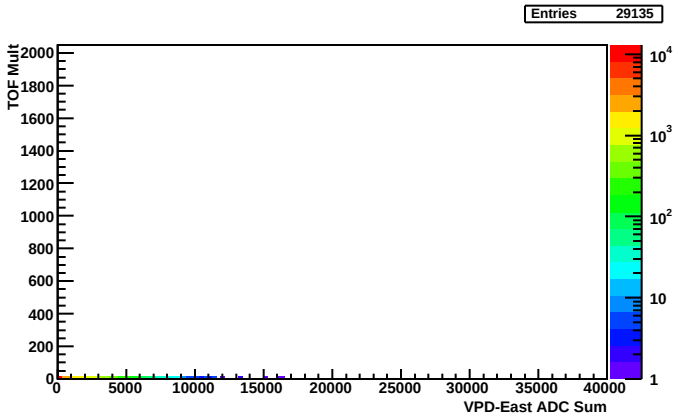

BBQ-VP004 (HI threshold)
Entries 466160
TAC
QT Input Channel

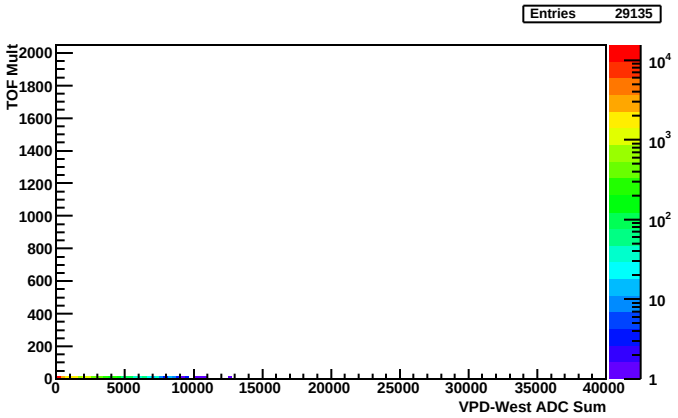

Entries 29135
TOF Mult
BBC-L-East ADC Sum

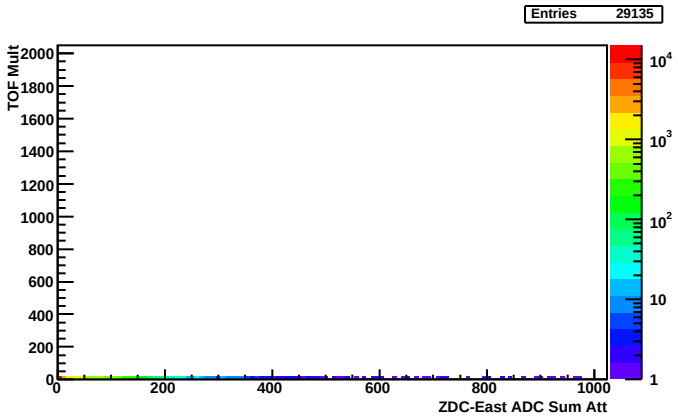

Entries 29135
TOF Mult
BBC-L-West ADC Sum

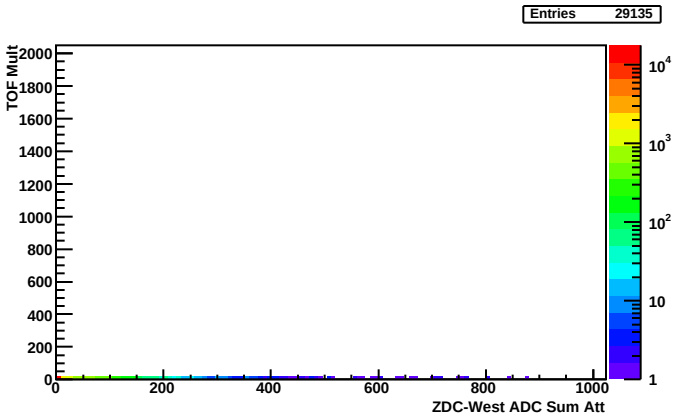

Entries 29135
TOF Mult
BBC-S-East ADC Sum

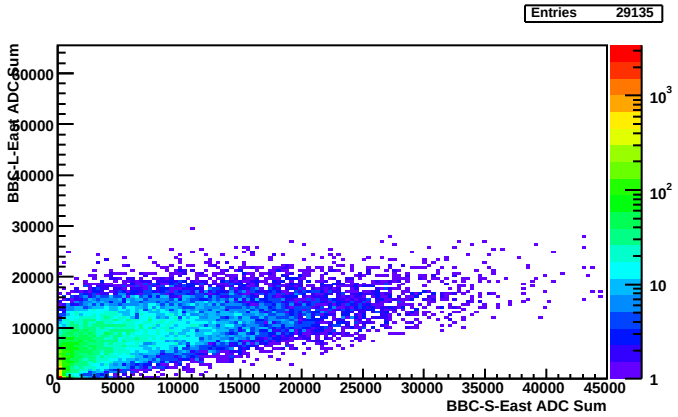

Entries 29135
TOF Mult
BBC-S-West ADC Sum

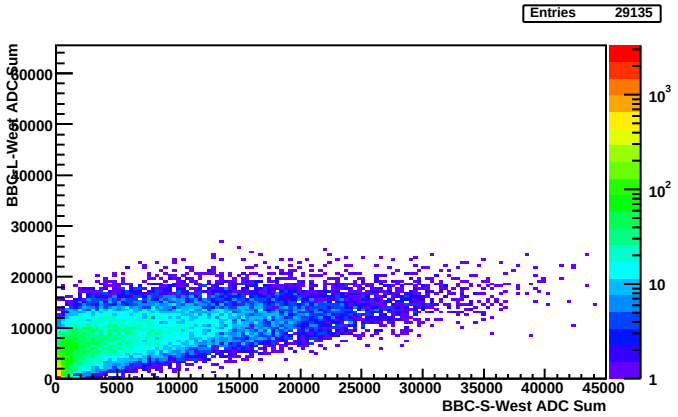

Entries 29135
TOF Mult
VPD-East ADC Sum

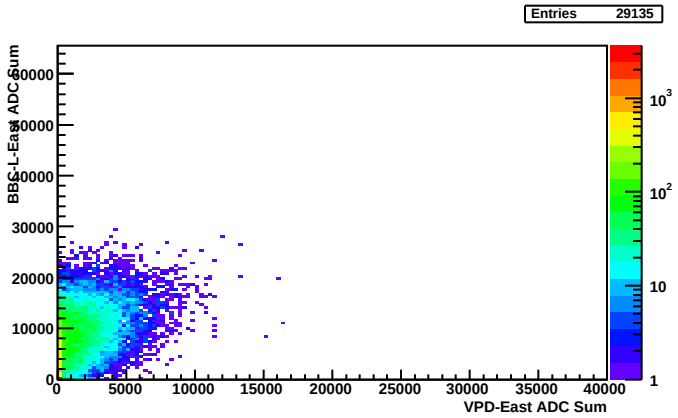

Entries 29135
TOF Mult
VPD-West ADC Sum

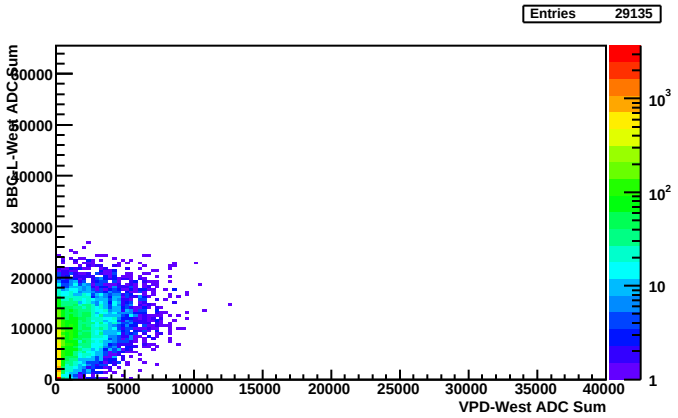

Entries 29135
TOF Mult
ZDC-East ADC Sum Att

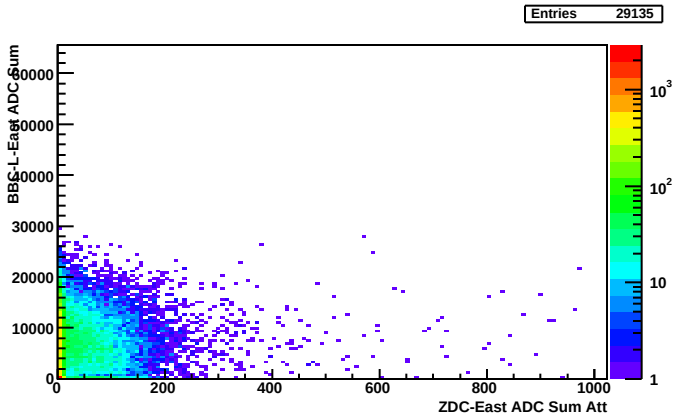

Entries 29135
TOF Mult
ZDC-West ADC Sum Att

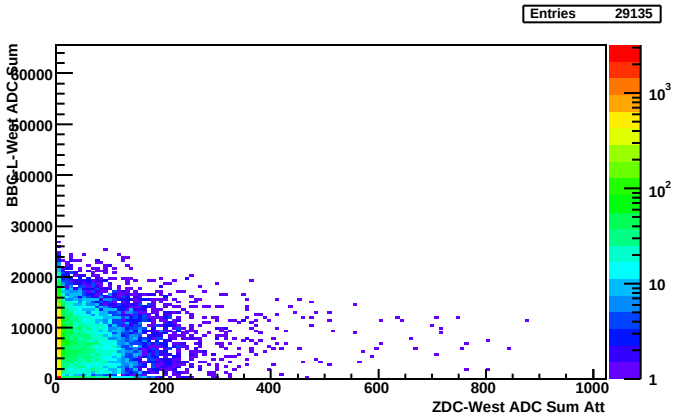

Entries 29135
BBC-L-East ADC Sum
BBC-S-East ADC Sum

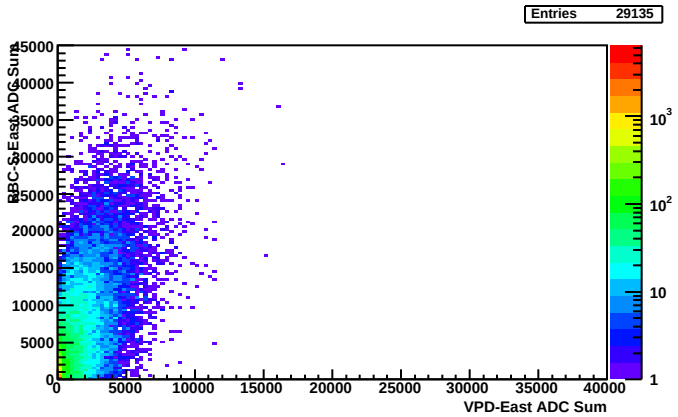

Entries 29135
BBC-L-West ADC Sum
BBC-S-West ADC Sum

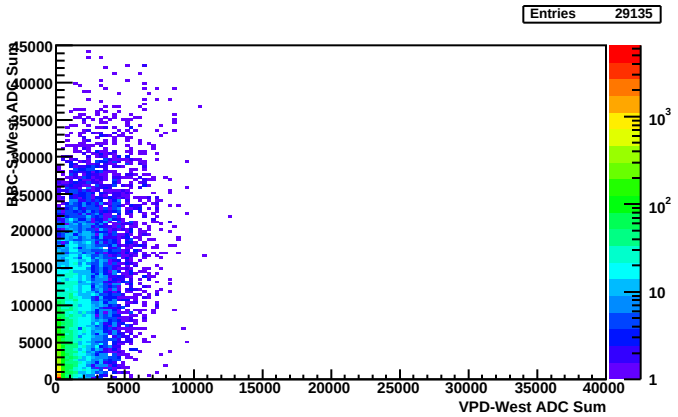

Entries 29135
BBC-L-East ADC Sum
VPD-East ADC Sum

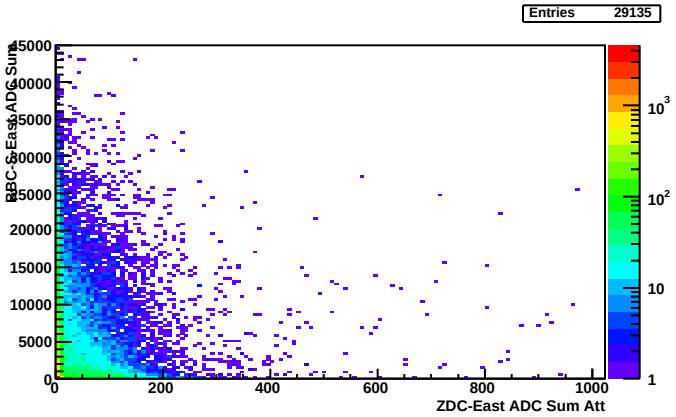

Entries 29135
BBC-L-West ADC Sum
VPD-West ADC Sum

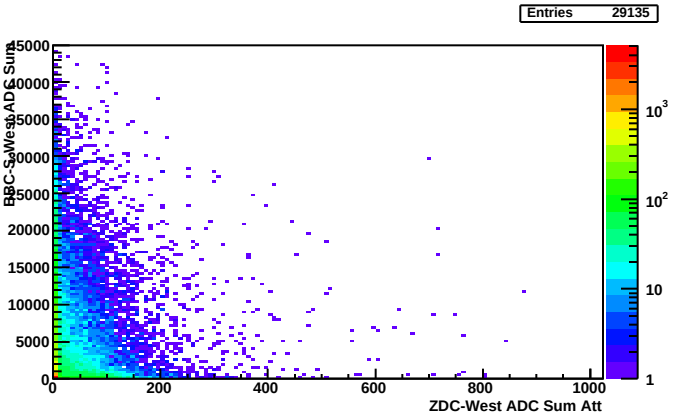

Entries 29135
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

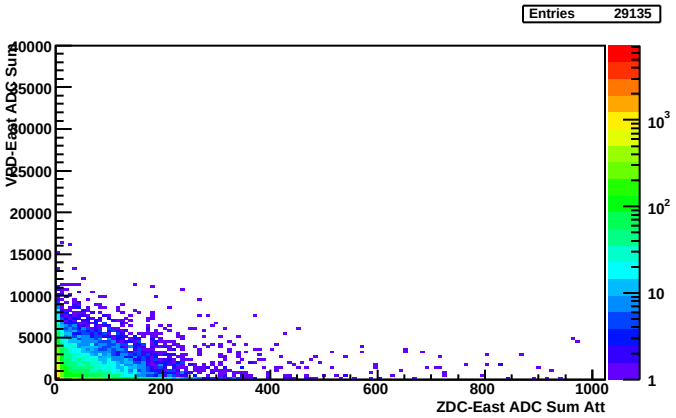

Entries 29135
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

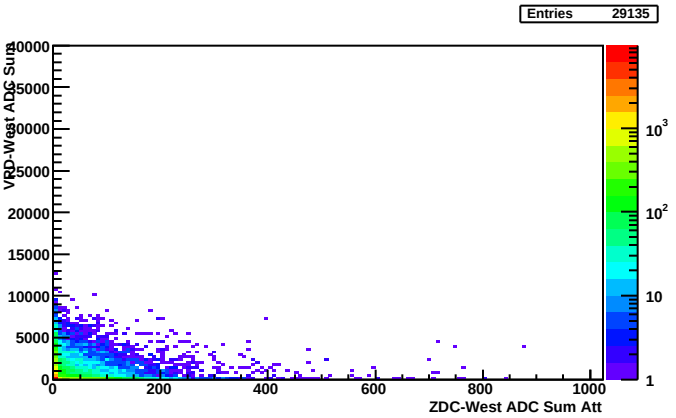

Entries 29135
BBC-S-East ADC Sum
VPD-East ADC Sum

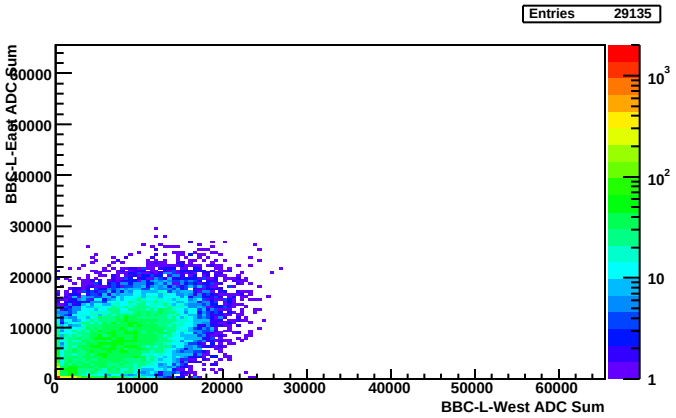

Entries 29135
BBC-S-West ADC Sum
VPD-West ADC Sum

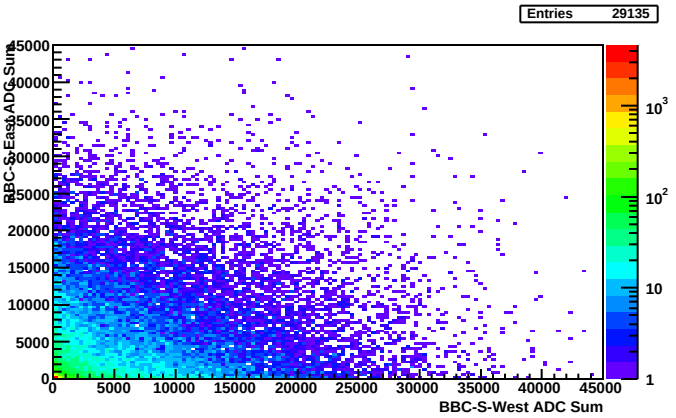

Entries 29135
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

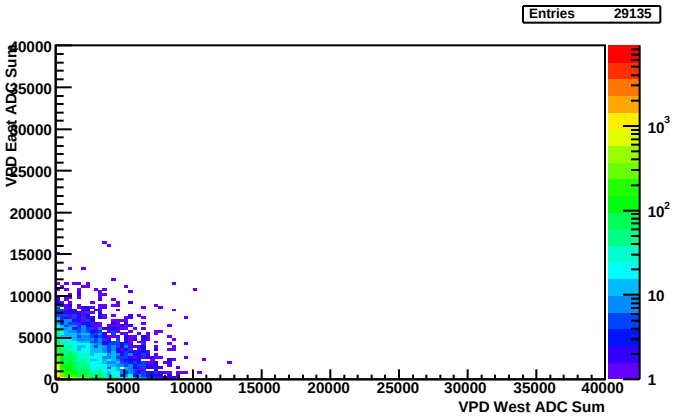

Entries 29135
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

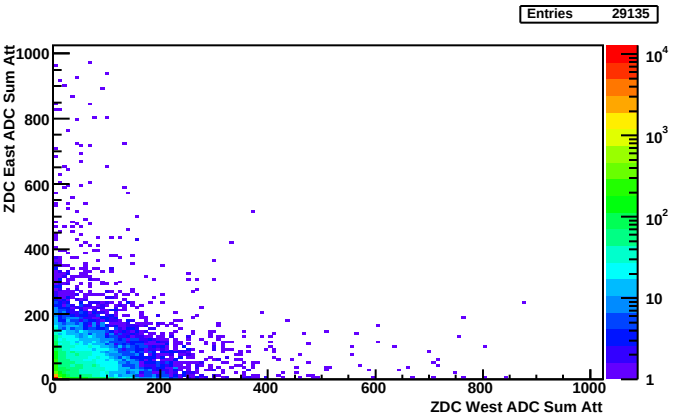

Entries 29135
VPD-East ADC Sum
ZDC-East ADC Sum Att

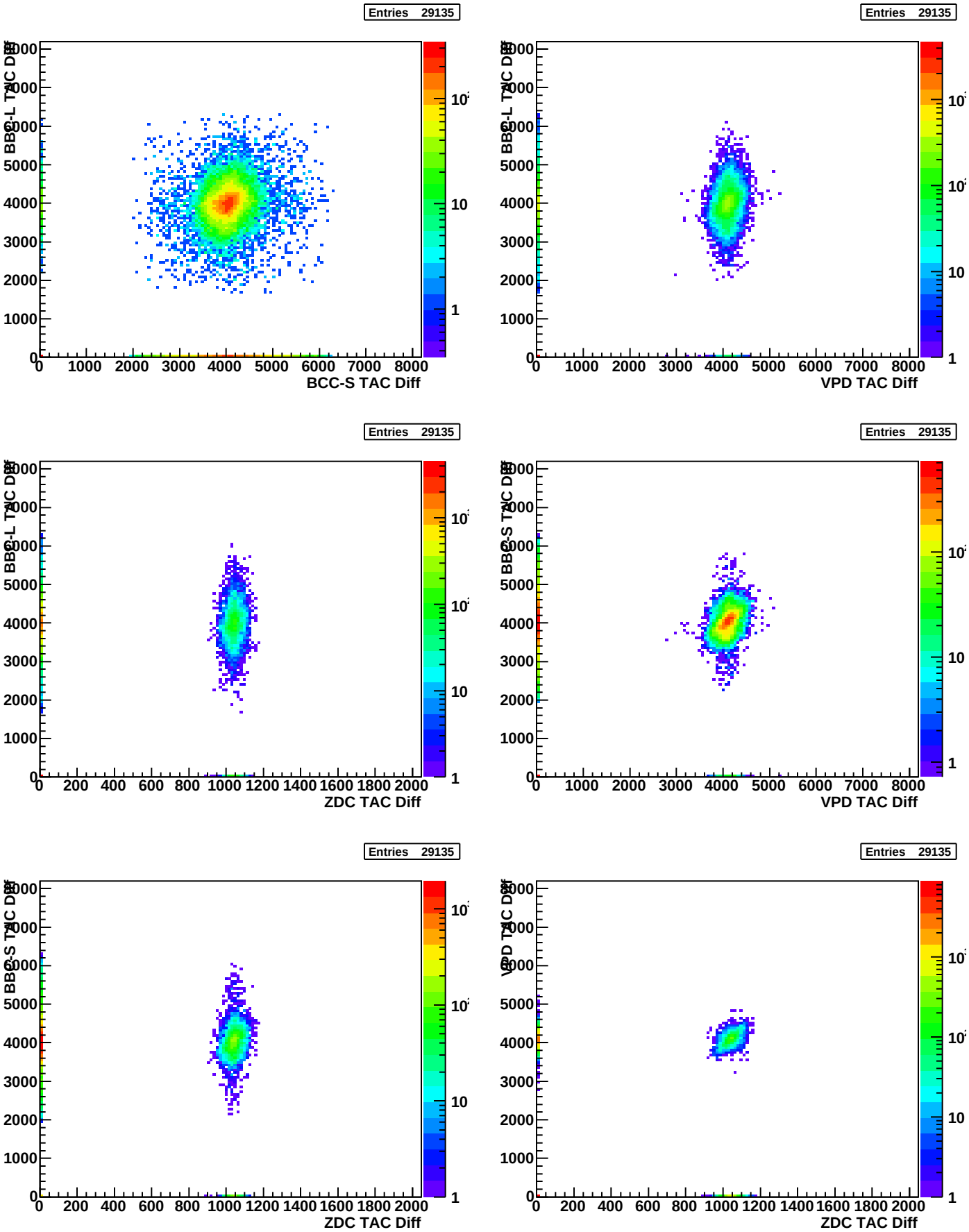

Entries 29135
VPD-West ADC Sum
ZDC-West ADC Sum Att

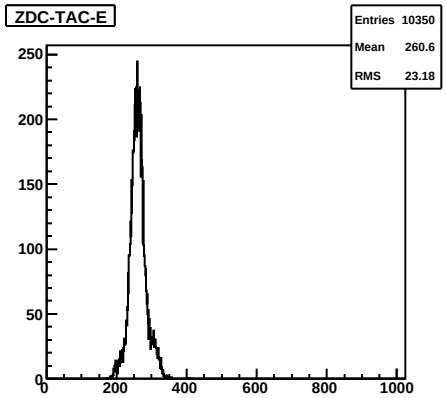

Entries 29135
BBC-L-East ADC Sum
BBC-L-West ADC Sum

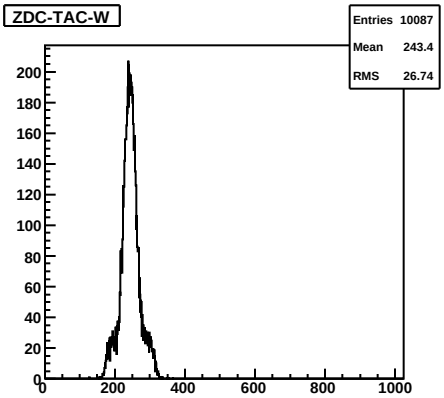

Entries 29135
BBC-S-East ADC Sum
BBC-S-West ADC Sum

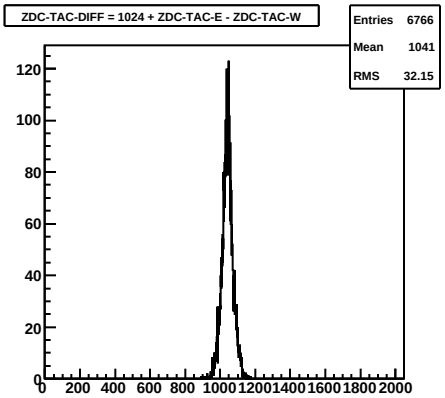

Entries 29135
VPD East ADC Sum
VPD West ADC Sum

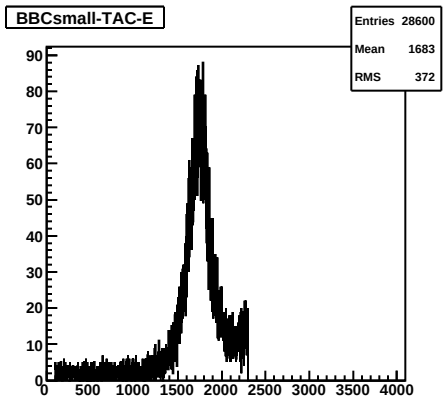

Entries 29135
ZDC East ADC Sum Att
ZDC West ADC Sum Att

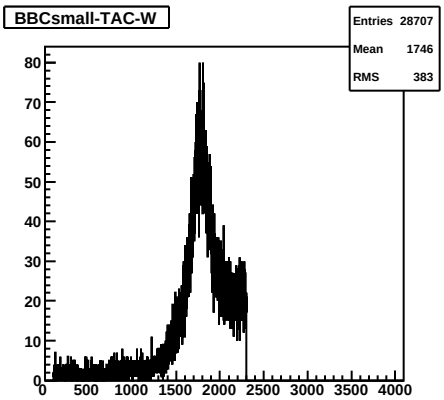

Entries 29135
BBC-L TAC Diff
BCC-S TAC Diff
Entries 29135
BBC-L TAC Diff
VPD TAC Diff
Entries 29135
BBC-L TAC Diff
ZDC TAC Diff
Entries 29135
BBC-S TAC Diff
VPD TAC Diff
Entries 29135
BBC-S TAC Diff
ZDC TAC Diff
Entries 29135
VPD TAC Diff
ZDC TAC Diff

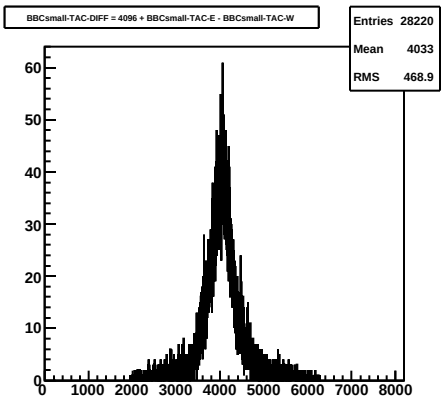

ZDC-TAC-E
Entries 10350
Mean 260.6
RMS 23.18

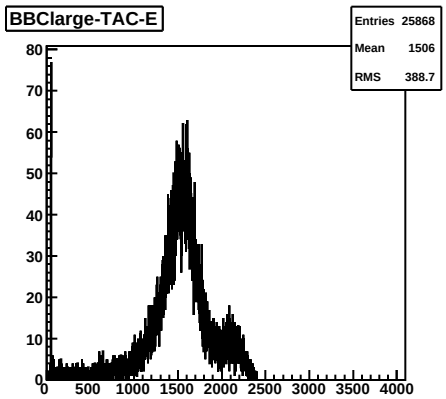

ZDC-TAC-W
Entries 10087
Mean 243.4
RMS 26.74

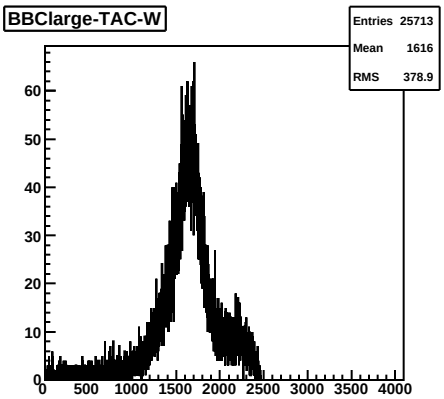

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 6766
Mean 1041
RMS 32.15

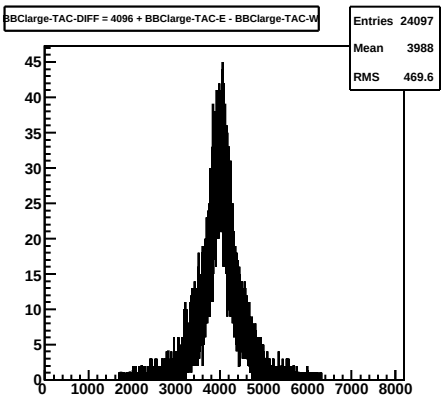

BBCsmall-TAC-E
Entries 28600
Mean 1683
RMS 372

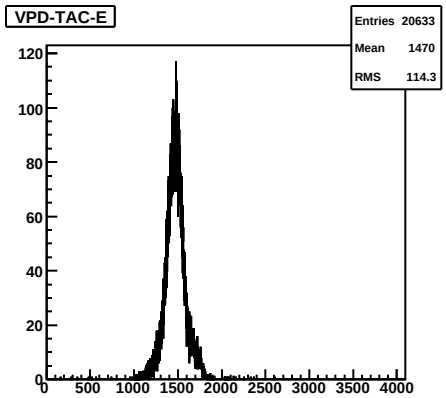

BBCsmall-TAC-W
Entries 28707
Mean 1746
RMS 383

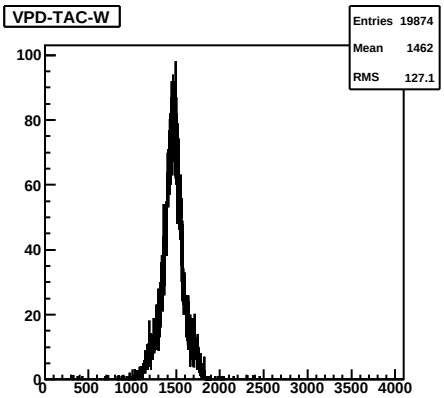

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 28220
Mean 4033
RMS 468.9

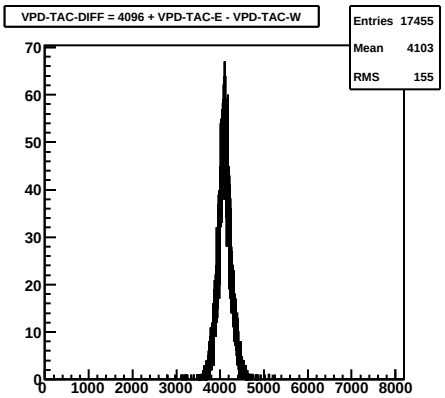

BBClarge-TAC-E
Entries 25868
Mean 1506
RMS 388.7

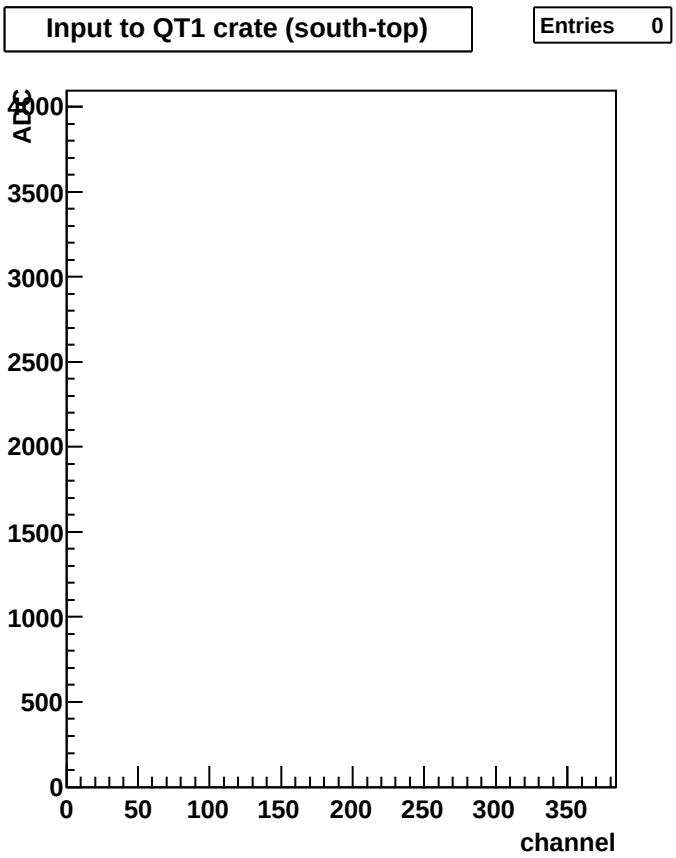

BBClarge-TAC-W
Entries 25713
Mean 1616
RMS 378.9

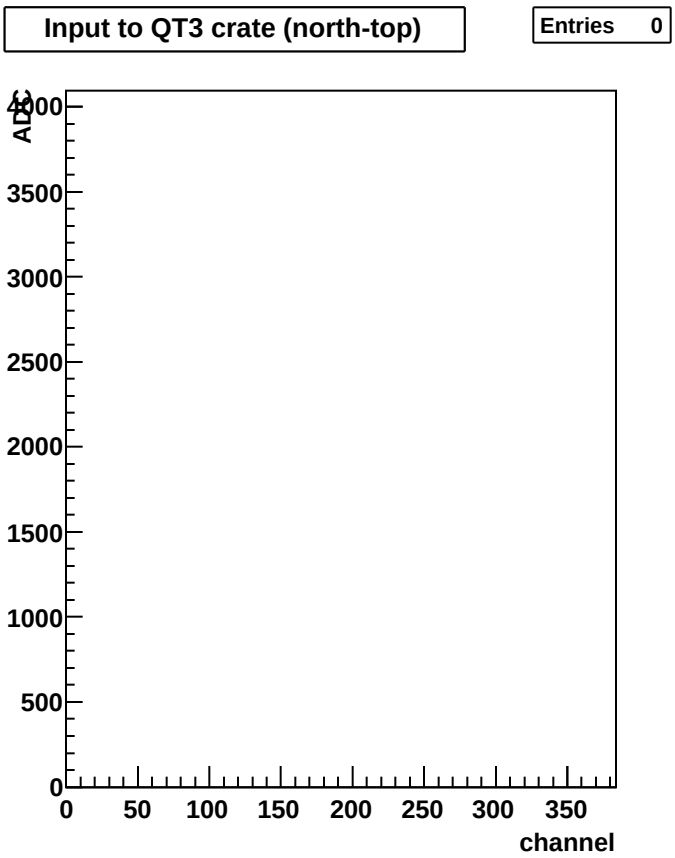

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 24097
Mean 3988
RMS 469.6

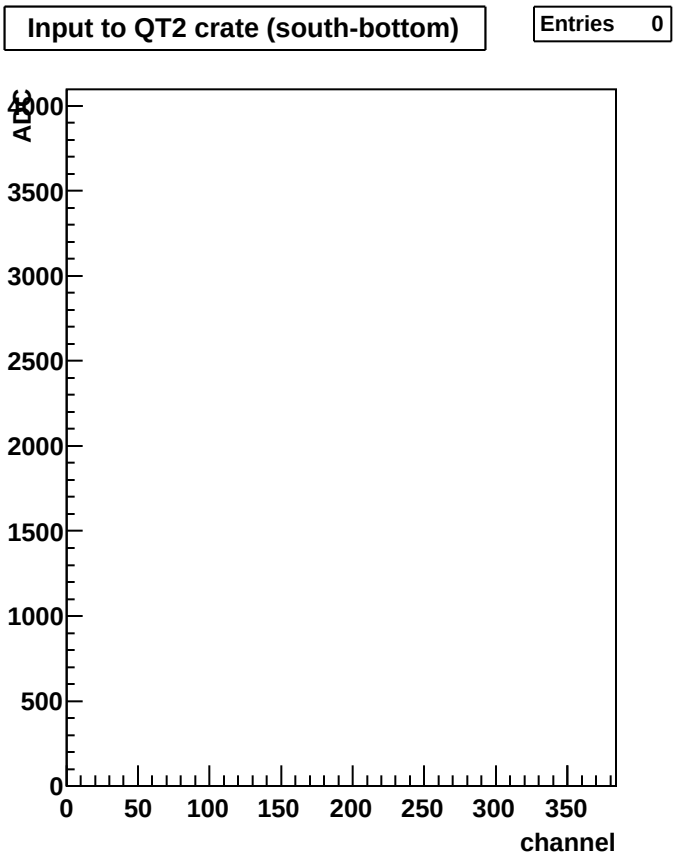

VPD-TAC-E
Entries 20633
Mean 1470
RMS 114.3

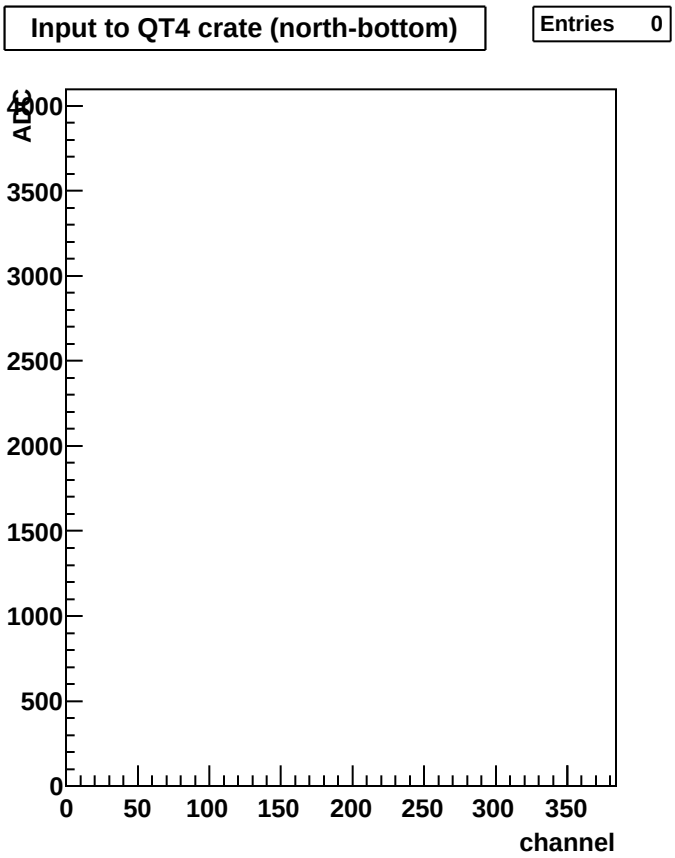

VPD-TAC-W
Entries 19874
Mean 1462
RMS 127.1

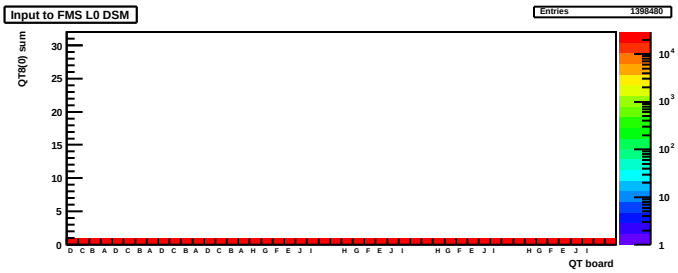

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 17455
Mean 4103
RMS 155

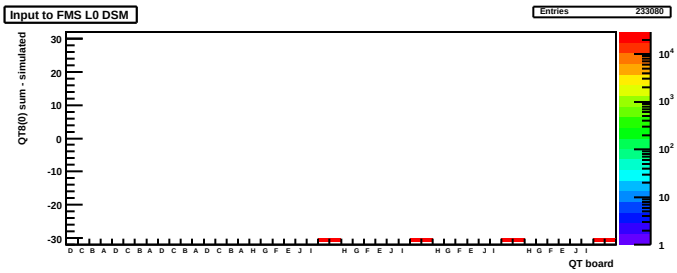

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

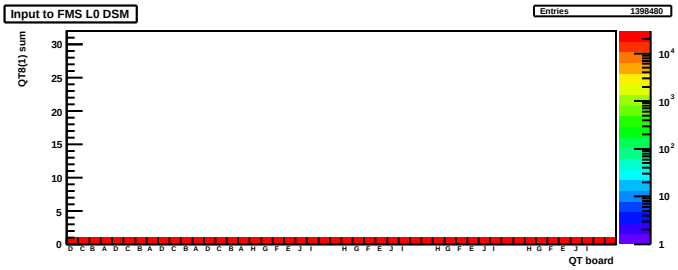

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

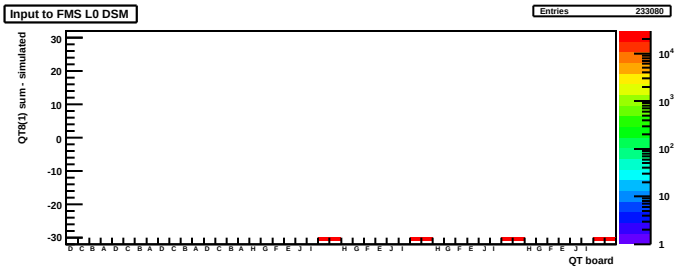

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

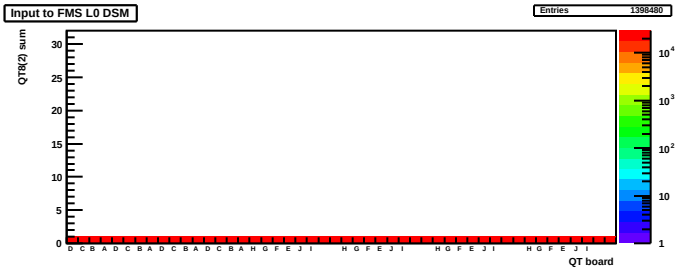

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

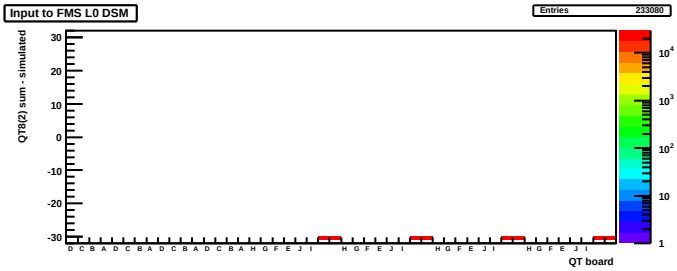

Input to FMS L0 DSM
Entries 1398480
QT8(0) sum
QT board

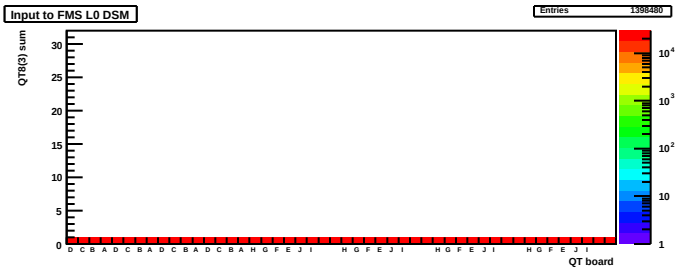

Input to FMS L0 DSM
Entries 233080
QT8(0) sum - simulated
QT board

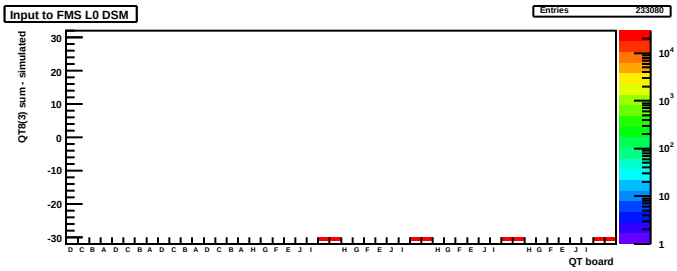

Input to FMS L0 DSM
Entries 1398480
QT8(1) sum
QT board

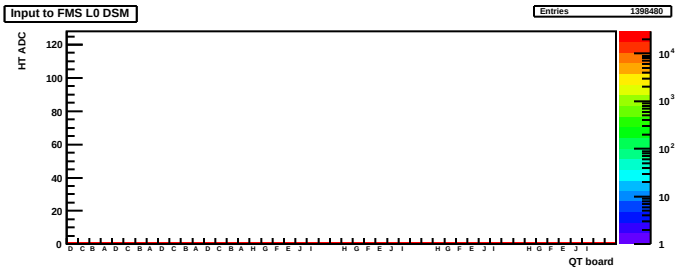

Input to FMS L0 DSM
Entries 233080
QT8(1) sum - simulated
QT board

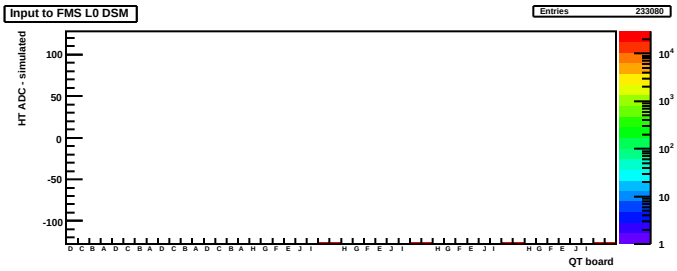

Input to FMS L0 DSM
Entries 1398480
QT8(2) sum
QT board

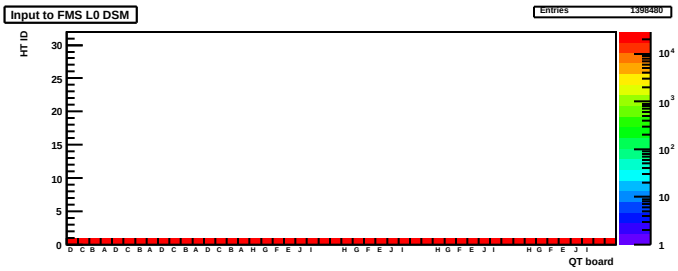

Input to FMS L0 DSM
Entries 233080
QT8(2) sum - simulated
QT board

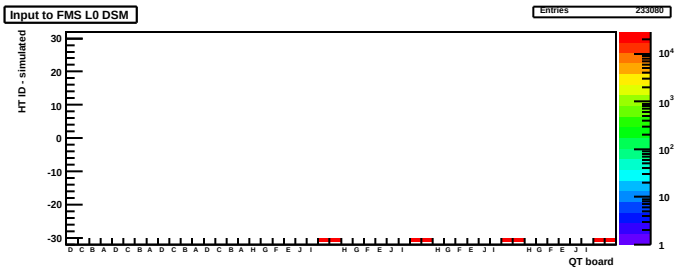

Input to FMS L0 DSM
Entries 1398480
QT8(3) sum
QT board

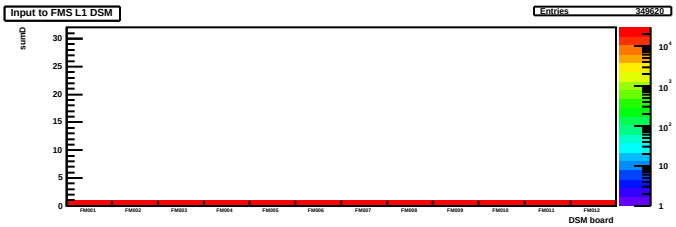

Input to FMS L0 DSM
Entries 233080
QT8(3) sum - simulated
QT board

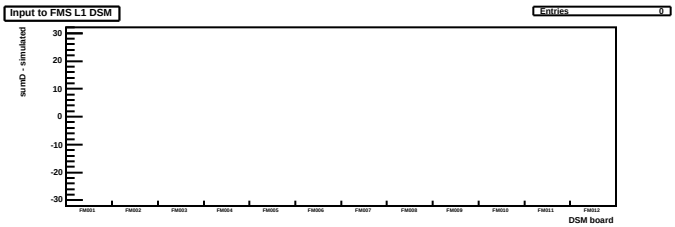

Input to FMS L0 DSM
Entries 1398480
HT ADC
QT board

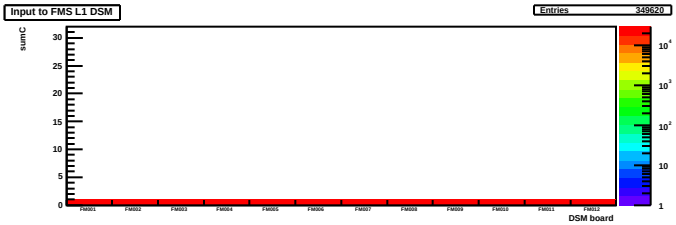

Input to FMS L0 DSM
Entries 233080
HT ADC - simulated
QT board

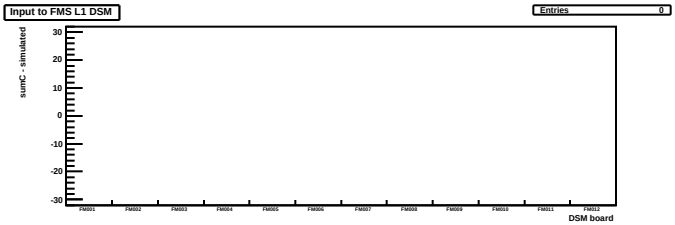

Input to FMS L0 DSM
Entries 1398480
HT ID
QT board

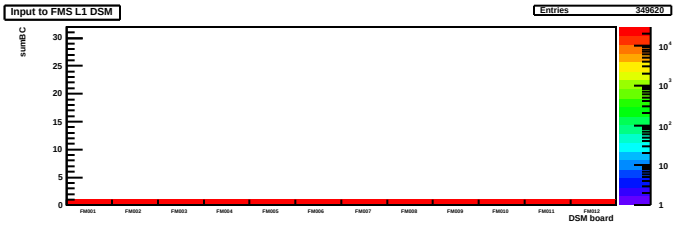

Input to FMS L0 DSM
Entries 233080
HT ID - simulated
QT board

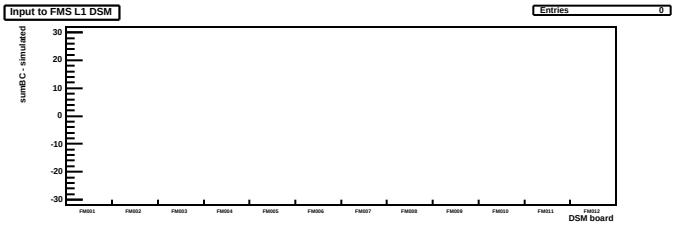

Input to FMS L1 DSM
Entries 349620
sumD
DSM board

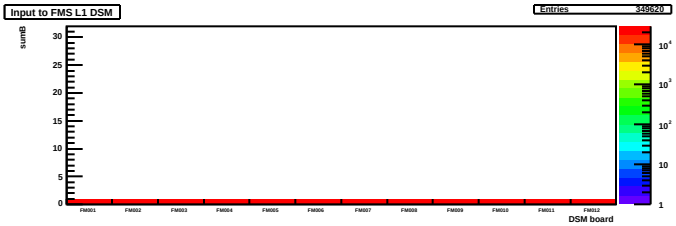

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

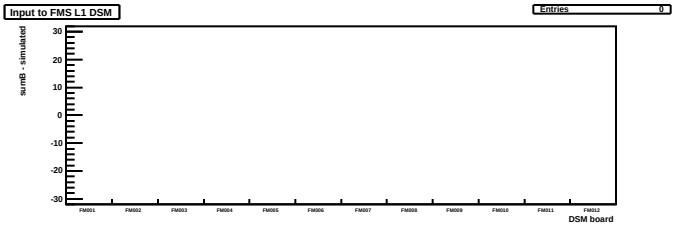

Input to FMS L1 DSM
Entries 349620
sumC
DSM board

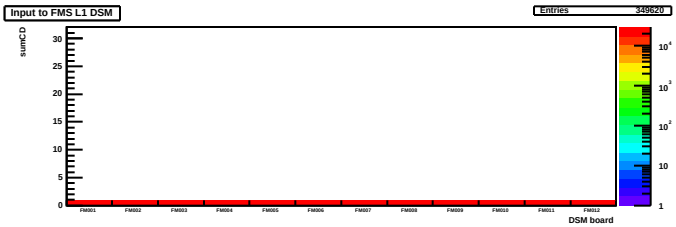

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

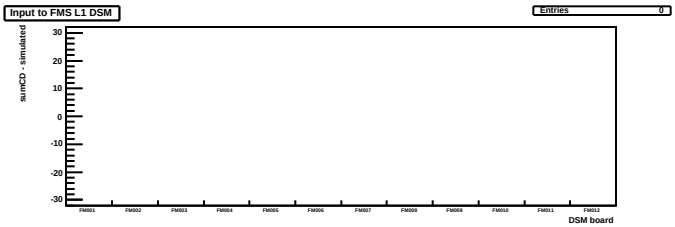

Input to FMS L1 DSM
Entries 349620
sumBC
DSM board

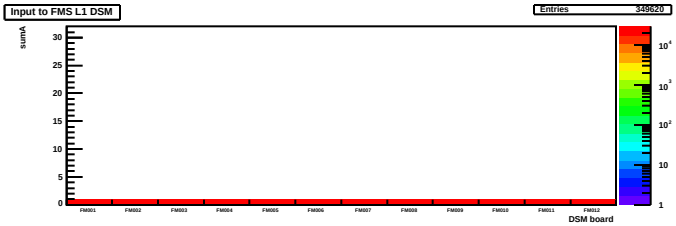

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

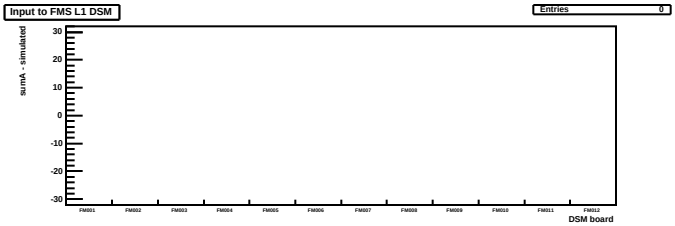

Input to FMS L1 DSM
Entries 349620
sumB
DSM board

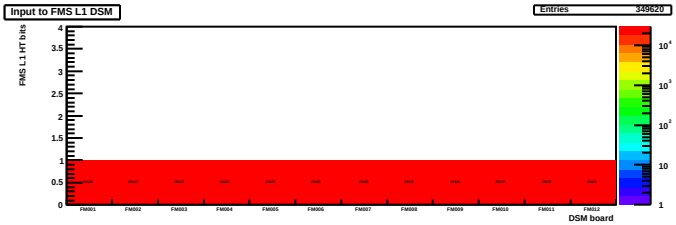

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

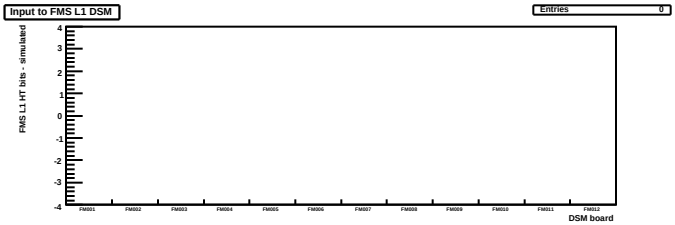

Input to FMS L1 DSM
Entries 349620
sumCD
DSM board

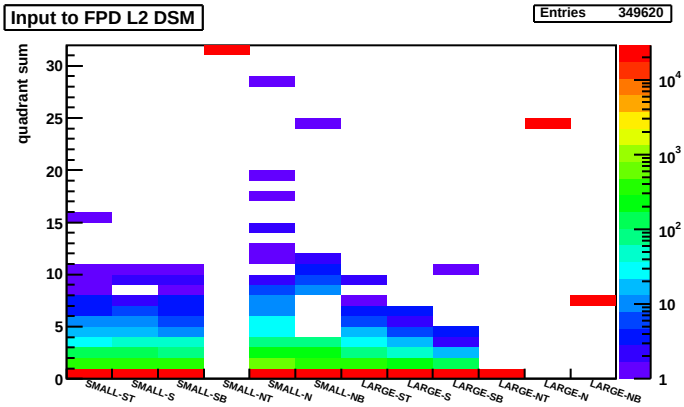

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

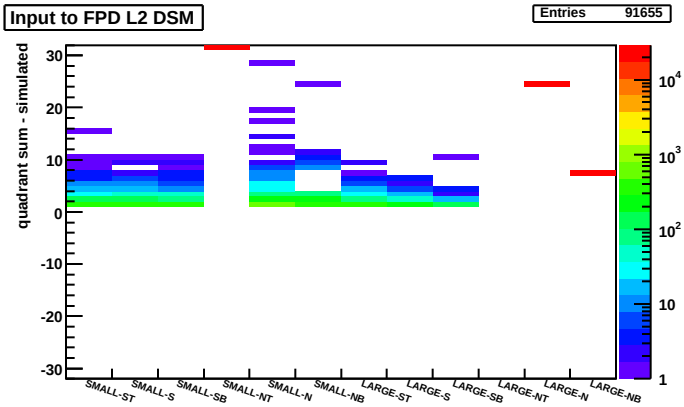

Input to FMS L1 DSM
Entries 349620
sumA
DSM board

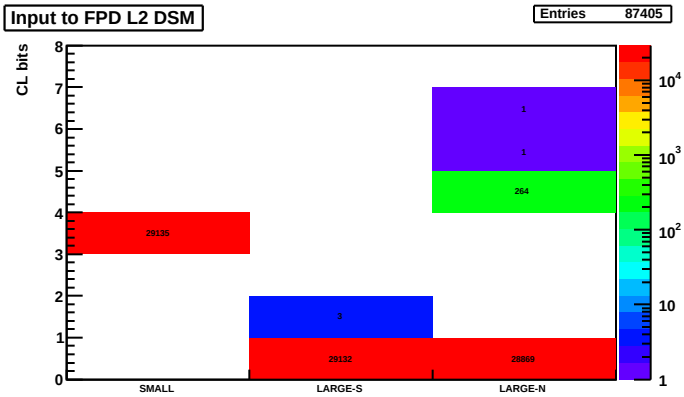

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

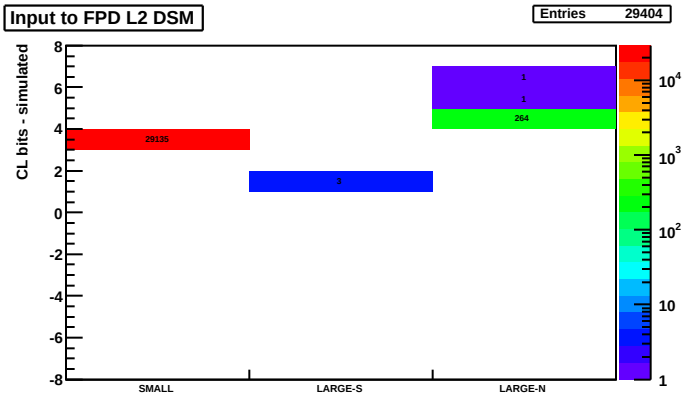

Input to FMS L1 DSM
Entries 349620
FMS L1 HT bits
DSM board

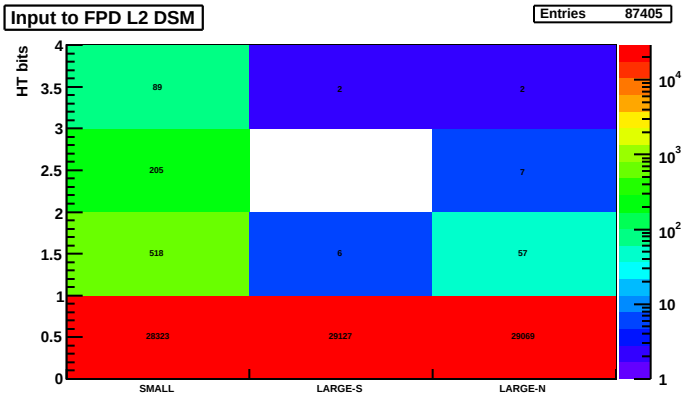

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

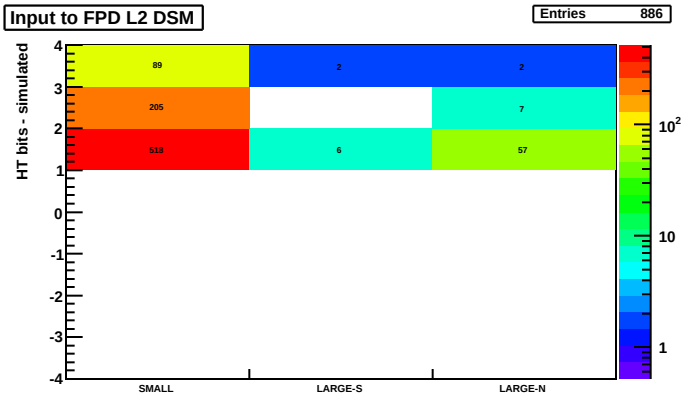

Input to FPD L2 DSM
Entries 349620
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

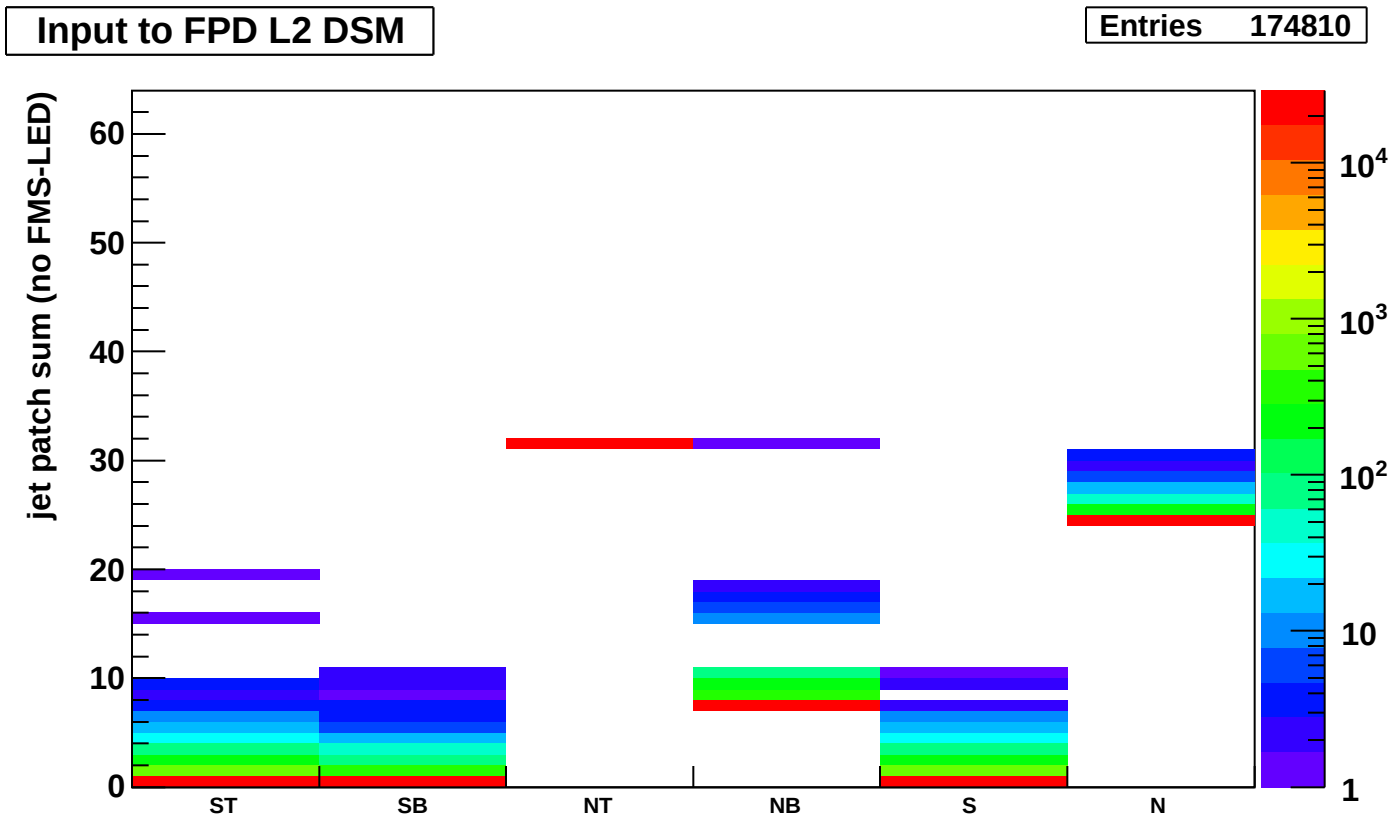

Input to FPD L2 DSM
Entries 91655
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

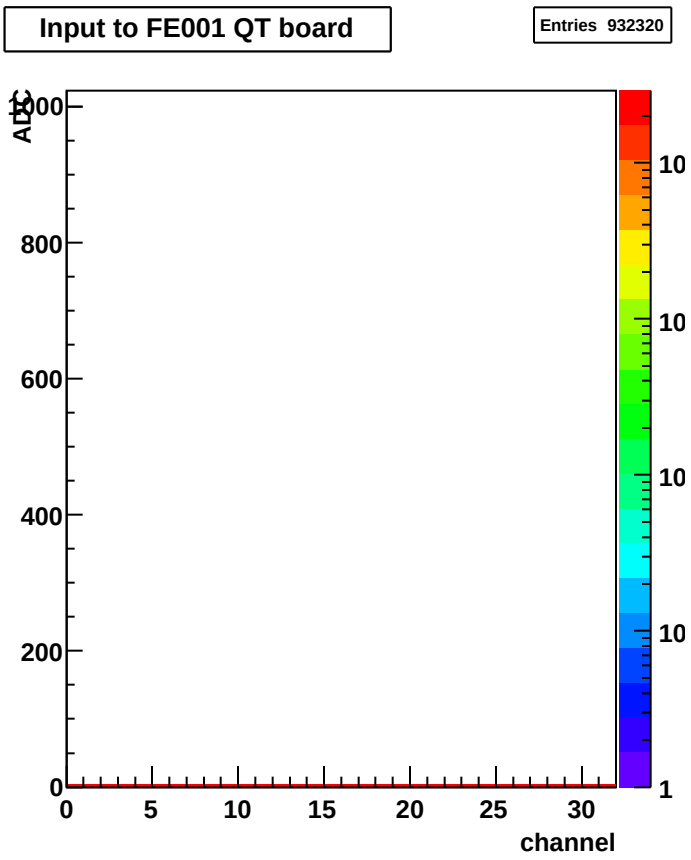

Input to FPD L2 DSM
Entries 87405
CL bits
29135
3
29132
1
1
264
28869
SMALL
LARGE-S
LARGE-N

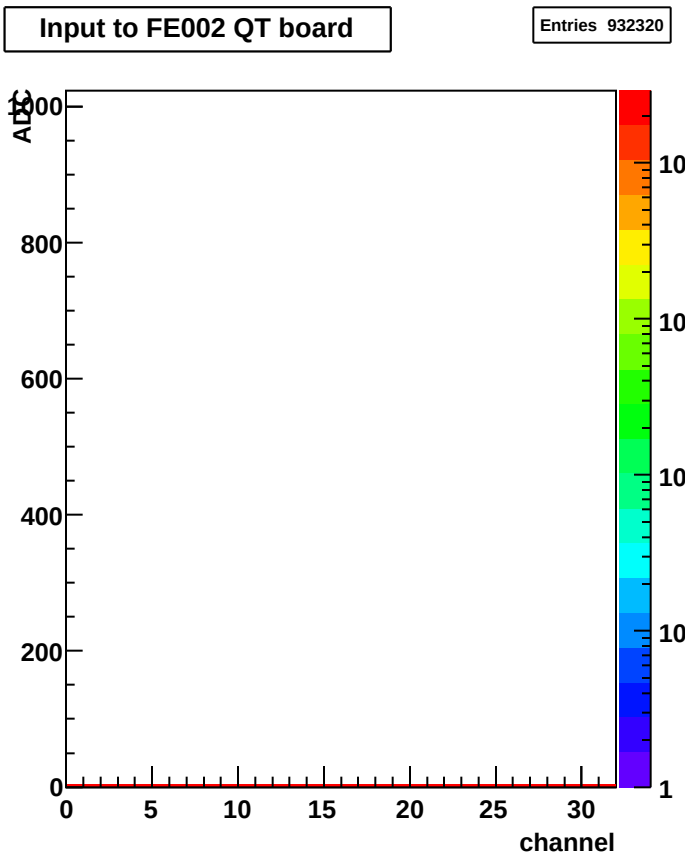

Input to FPD L2 DSM
Entries 29404
CL bits - simulated
29135
3
1
1
264
SMALL
LARGE-S
LARGE-N

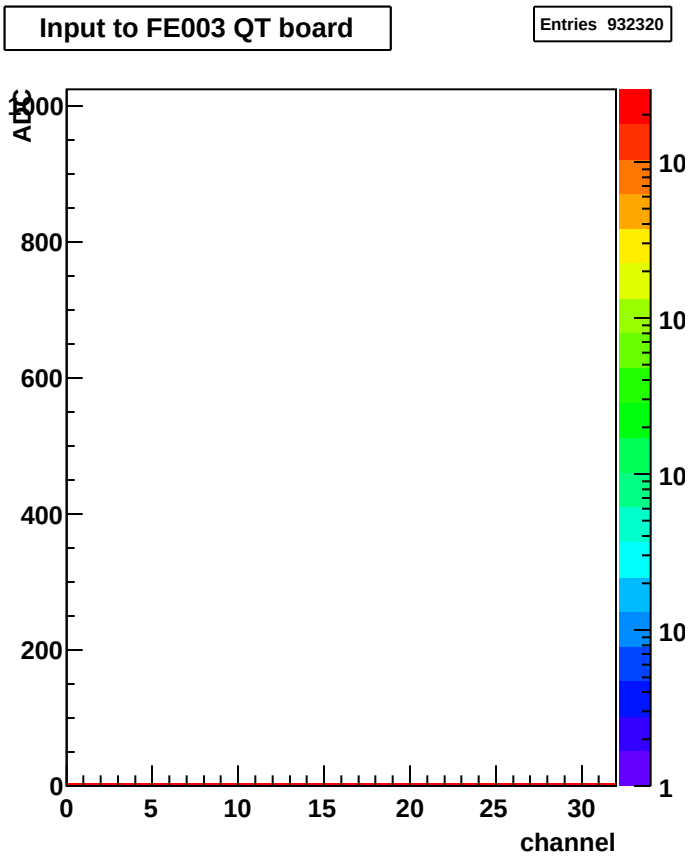

Input to FPD L2 DSM
Entries 87405
HT bits
89
205
518
28323
2
6
29127
2
7
57
29069
SMALL
LARGE-S
LARGE-N

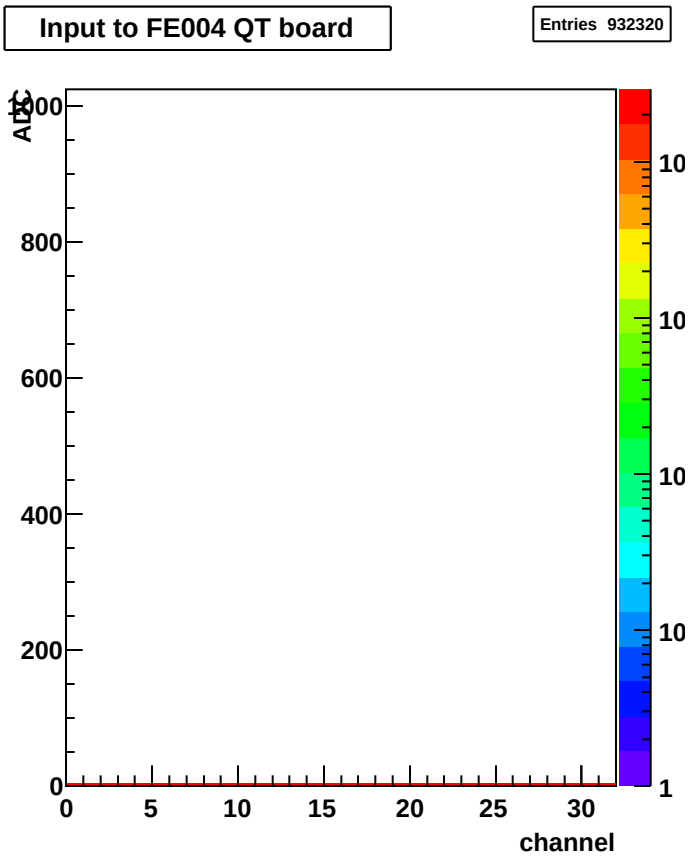

Input to FPD L2 DSM
Entries 886
HT bits - simulated
89
205
518
2
6
2
7
57
SMALL
LARGE-S
LARGE-N

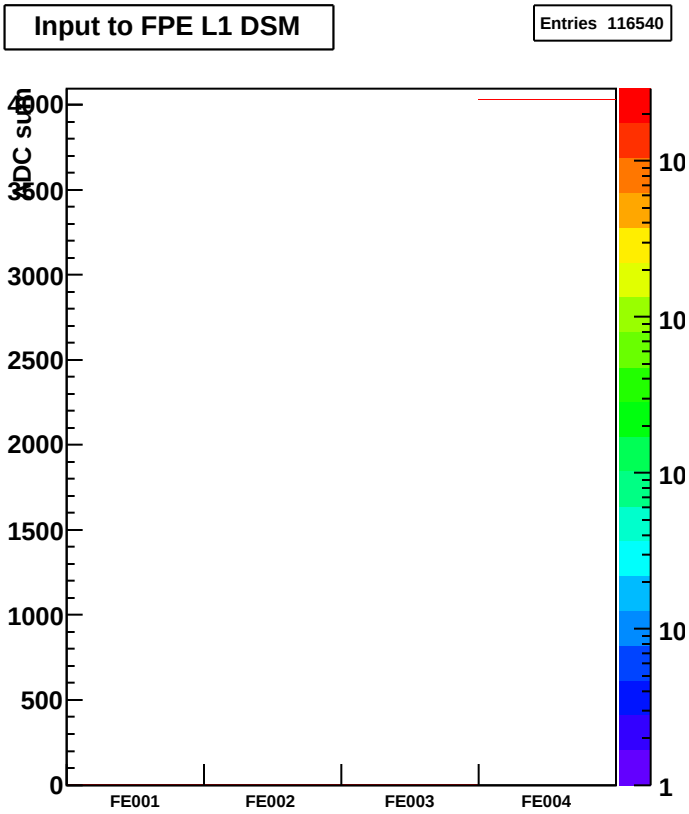

Input to FPD L2 DSM
Entries 174810
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

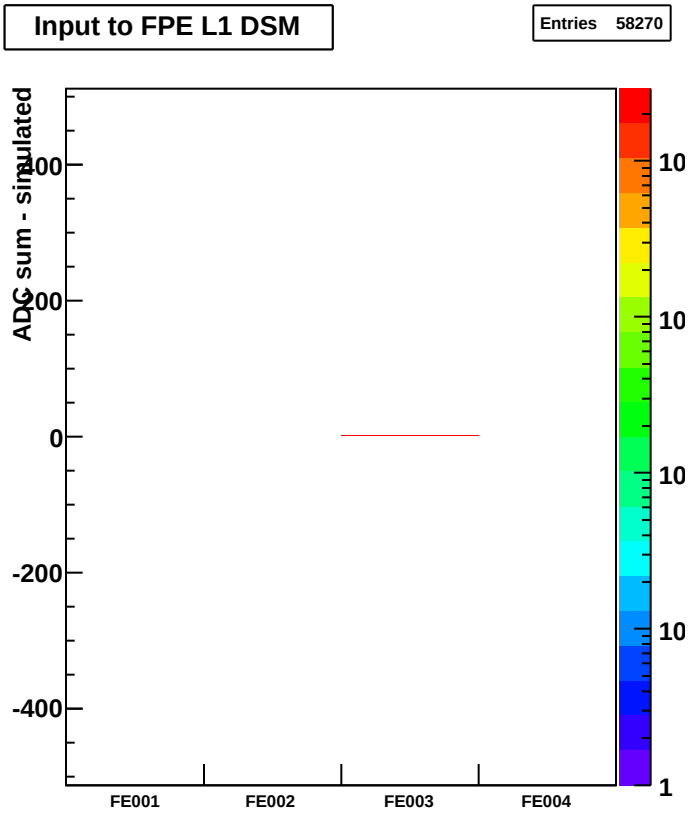

Input to FE001 QT board
Entries 932320
ADC
channel

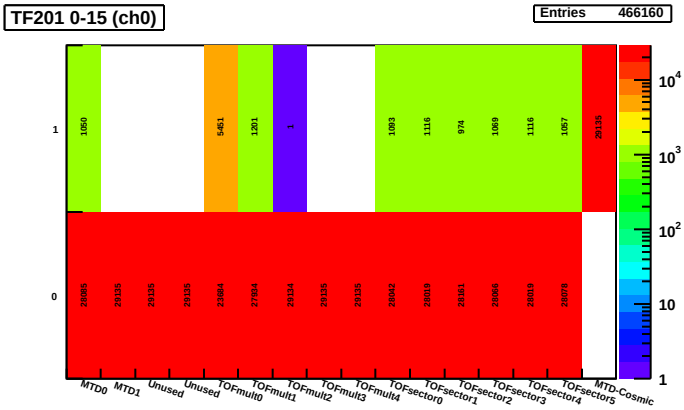

Input to FE002 QT board
Entries 932320
ADC
channel

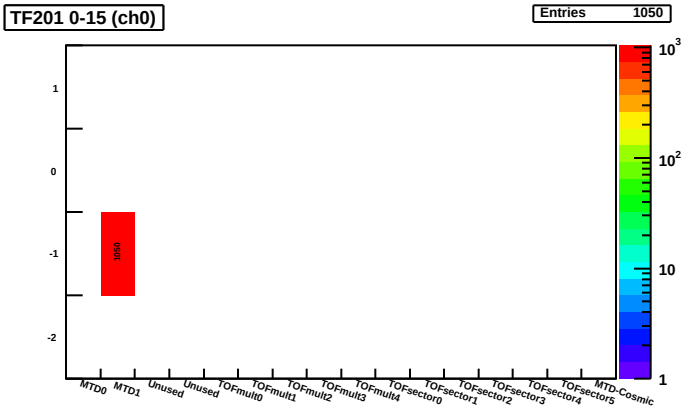

Input to FE003 QT board
Entries 932320
ADC
channel

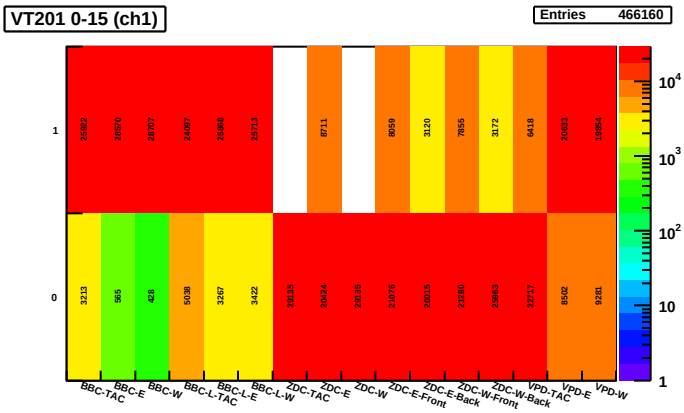

Input to FE004 QT board
Entries 932320
ADC
channel

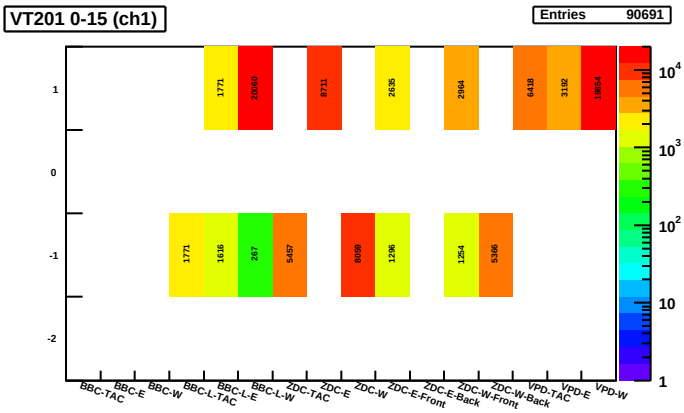

Input to FPE L1 DSM
Entries 116540
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 58270
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 466160
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 1050
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 466160
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 90691
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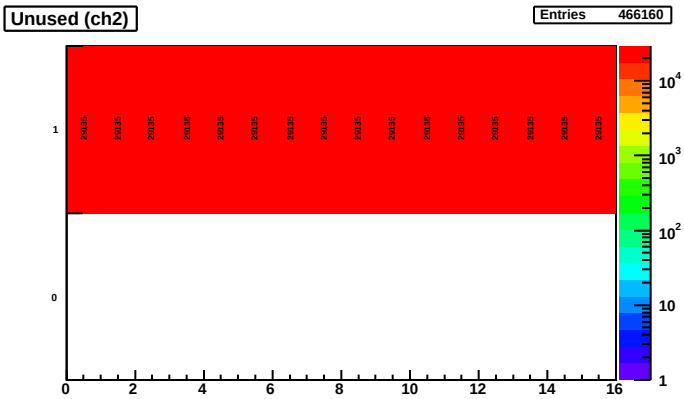
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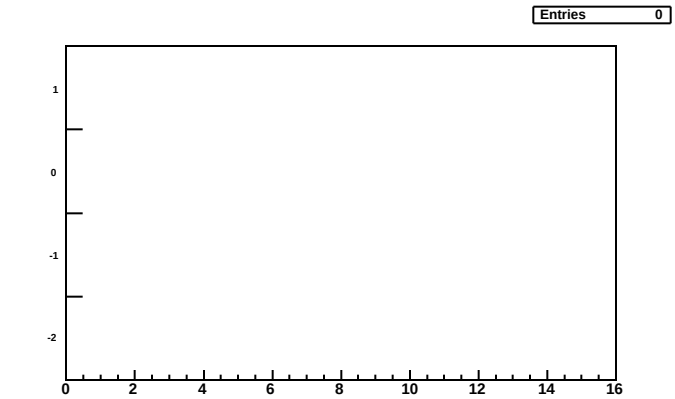
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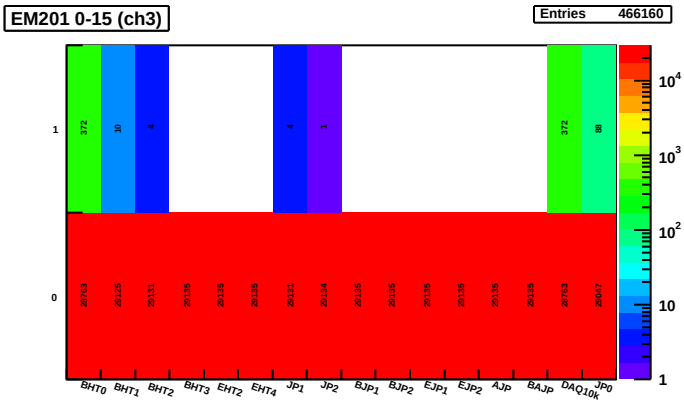
EM201 0-15 (ch3)
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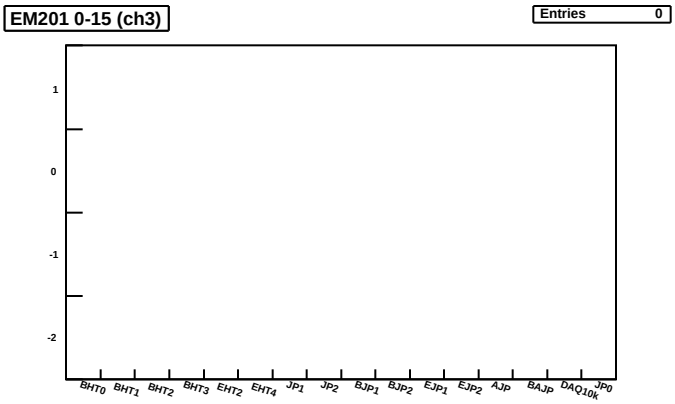
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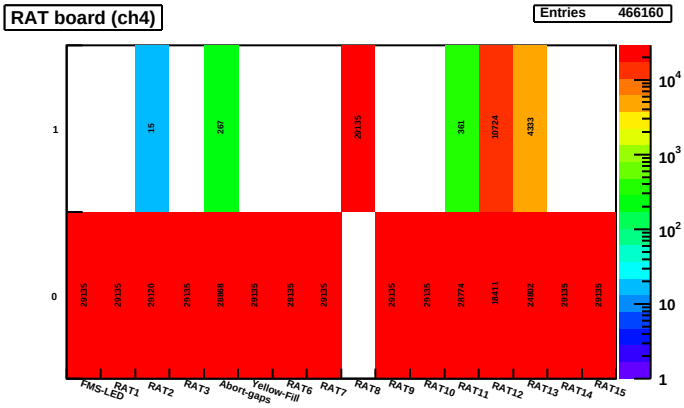
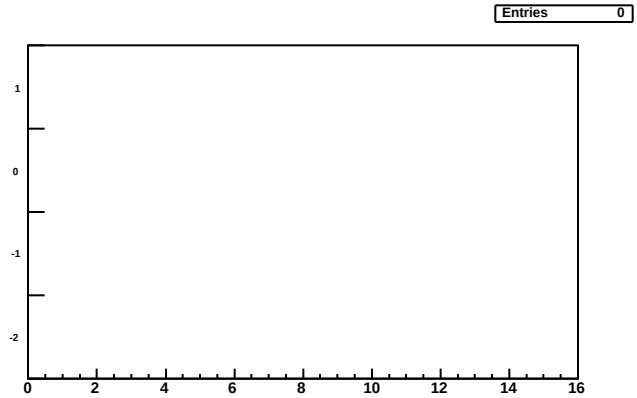
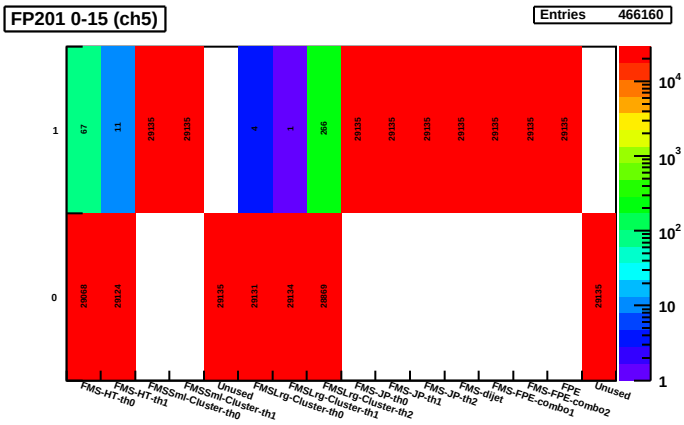
RAT board (ch4)

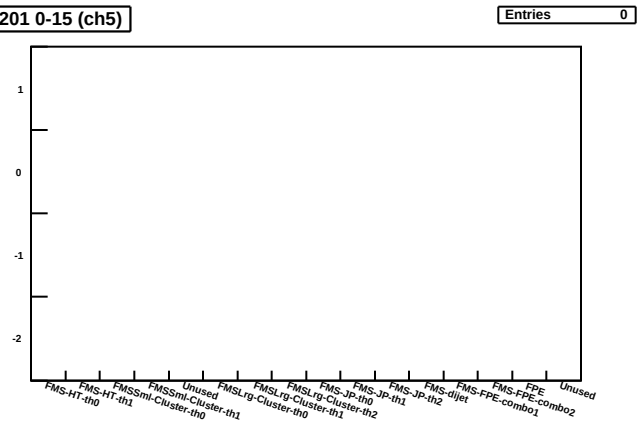




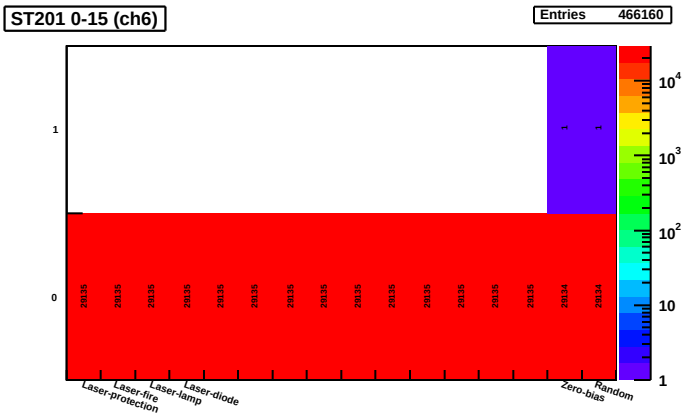
FP201 0-15 (ch5)

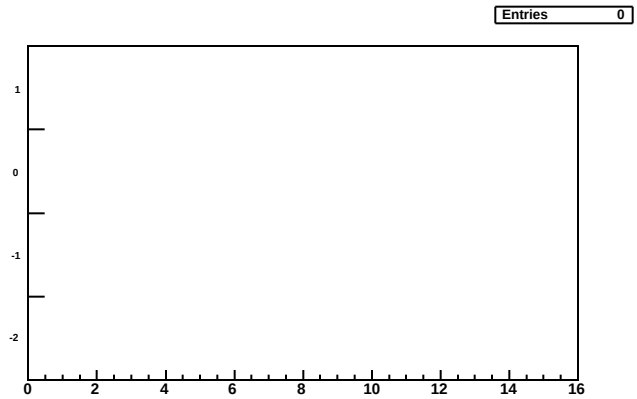
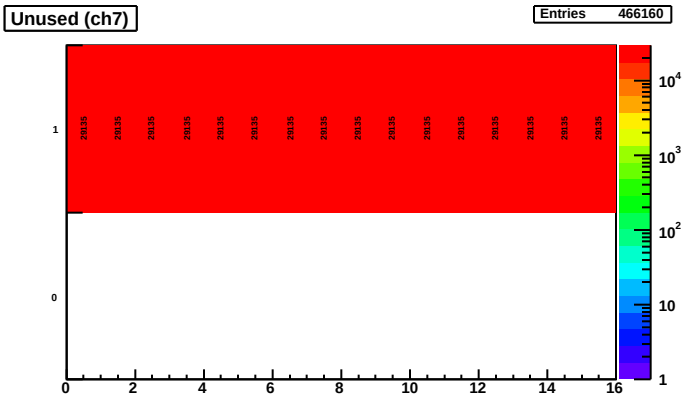
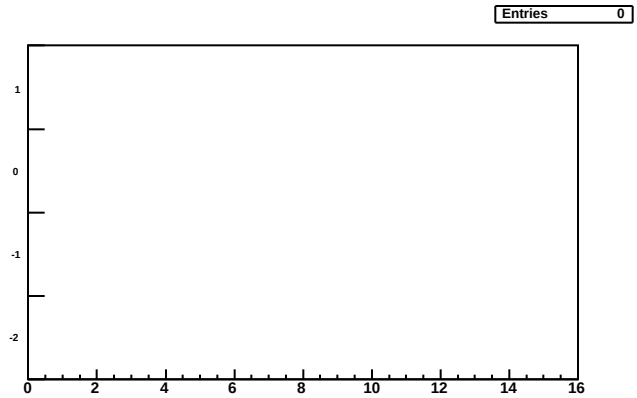


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)