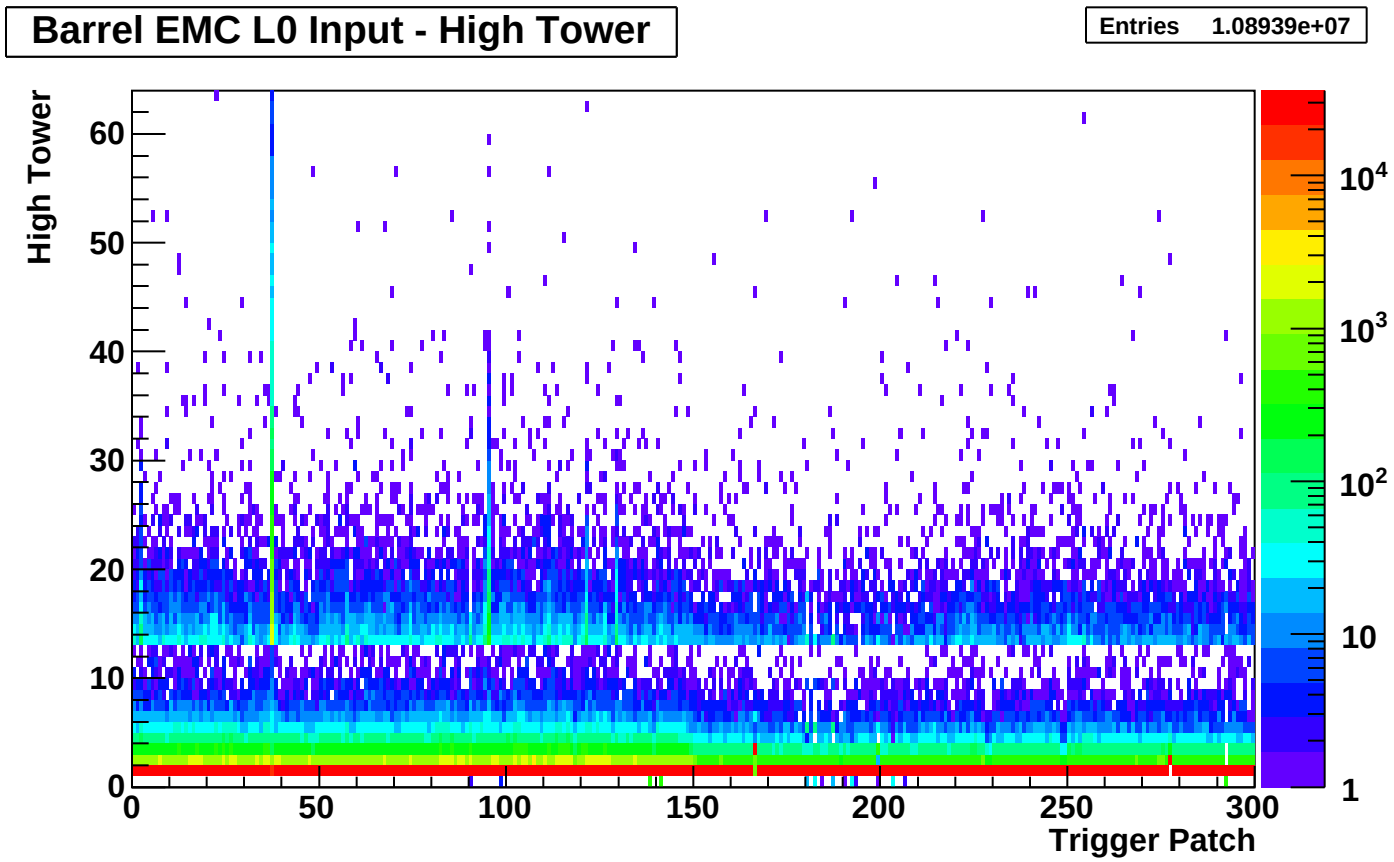
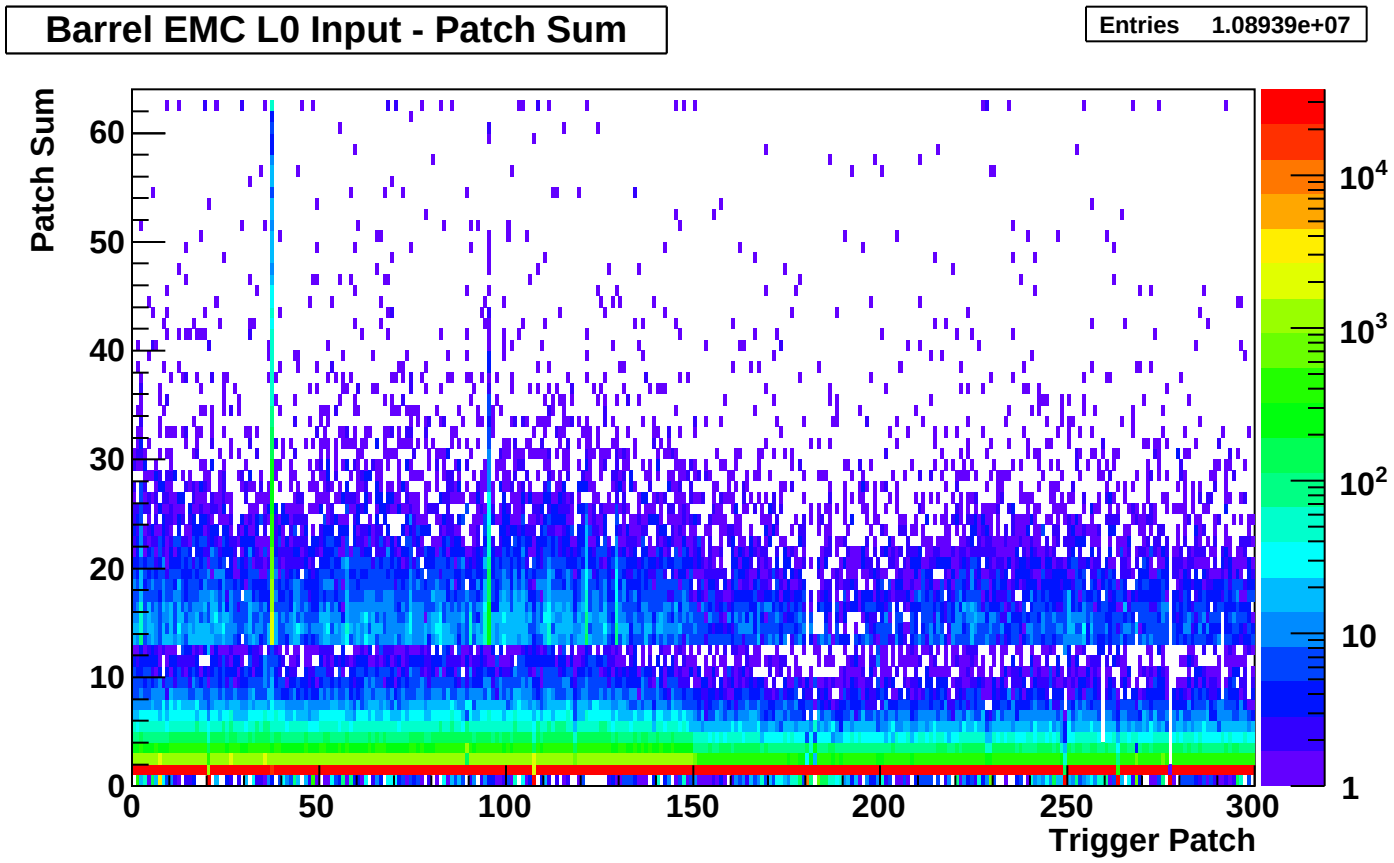
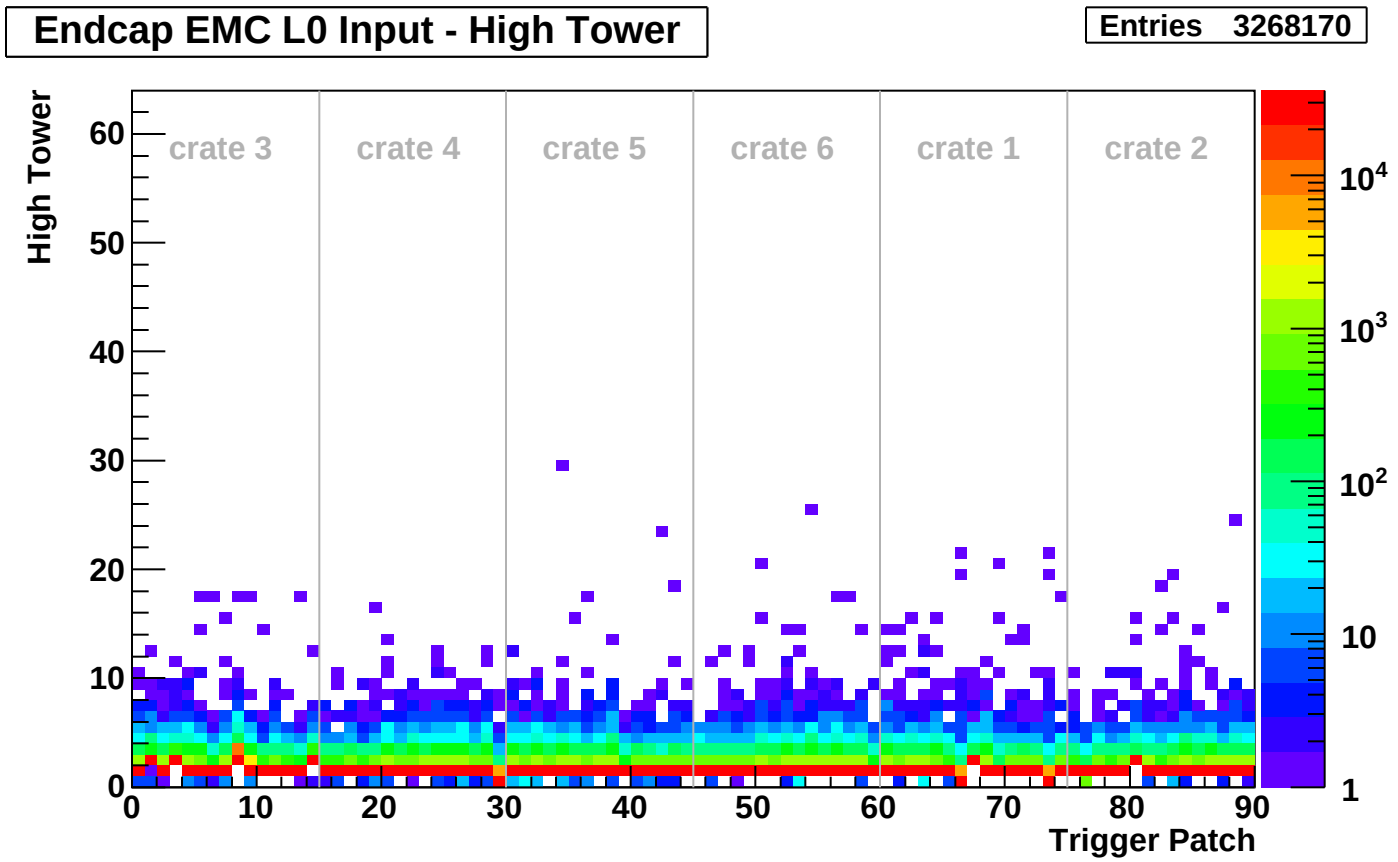
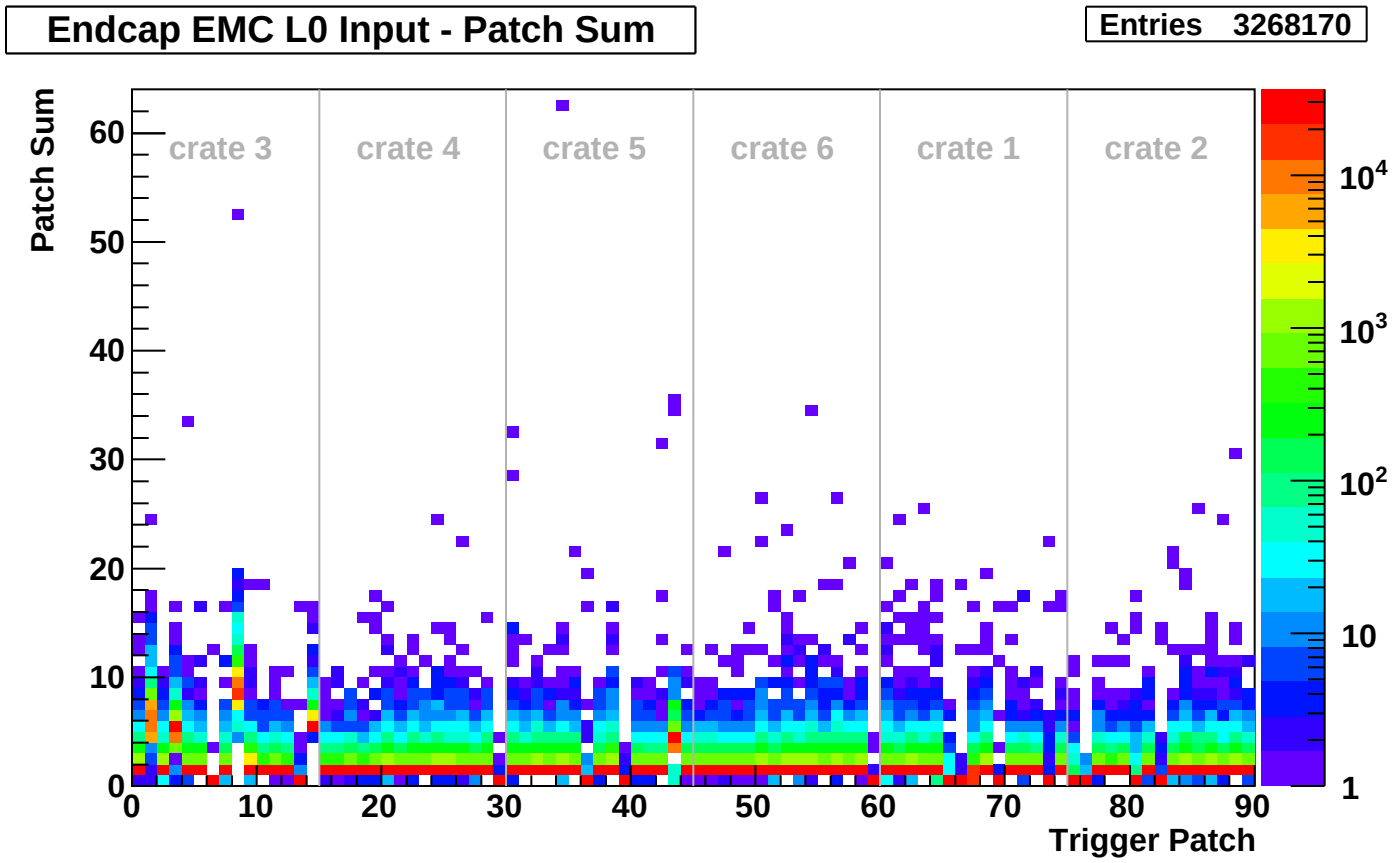
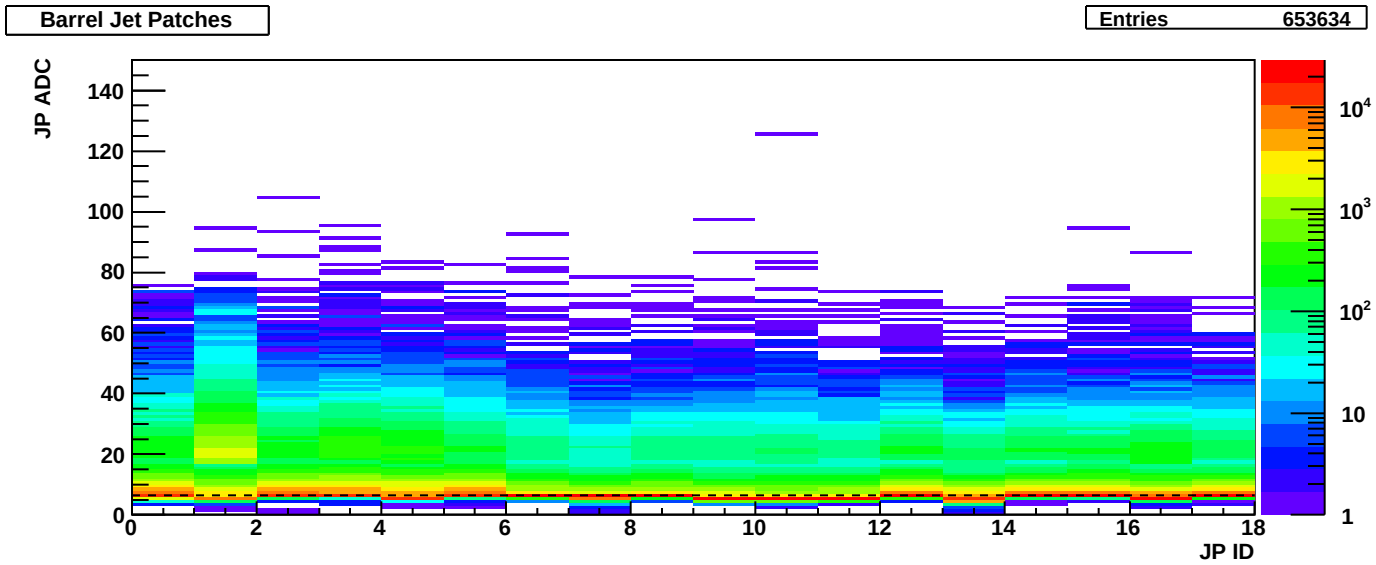
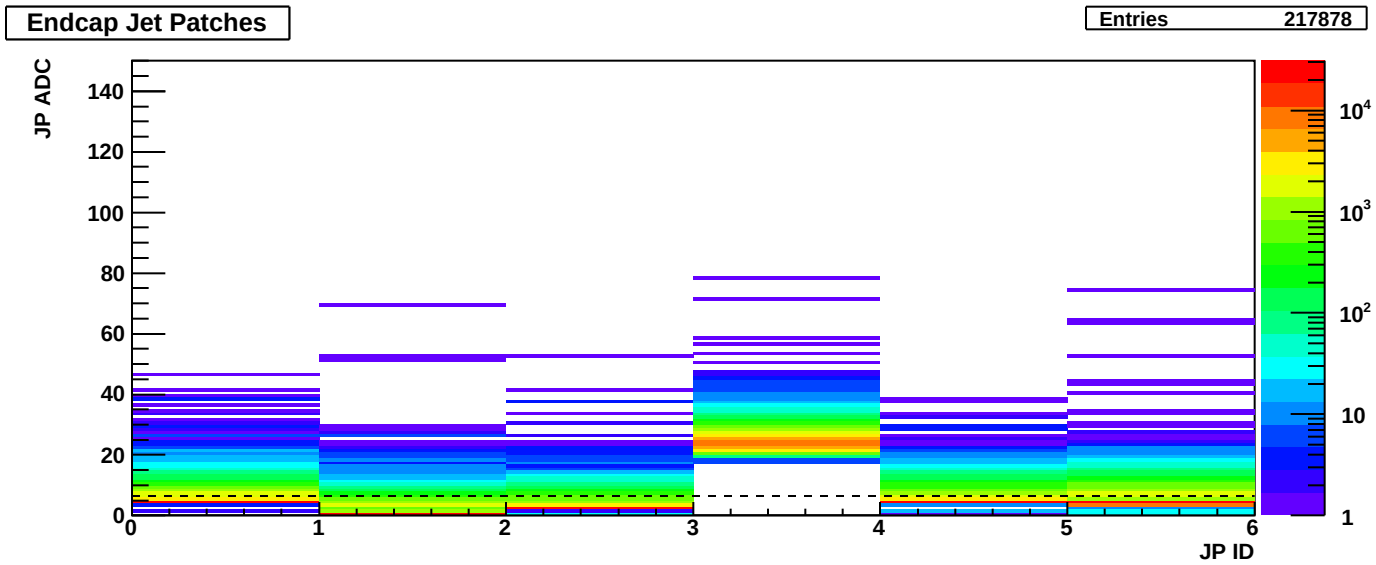

Barrel EMC L0 Input - High Tower
Entries 1.08939e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

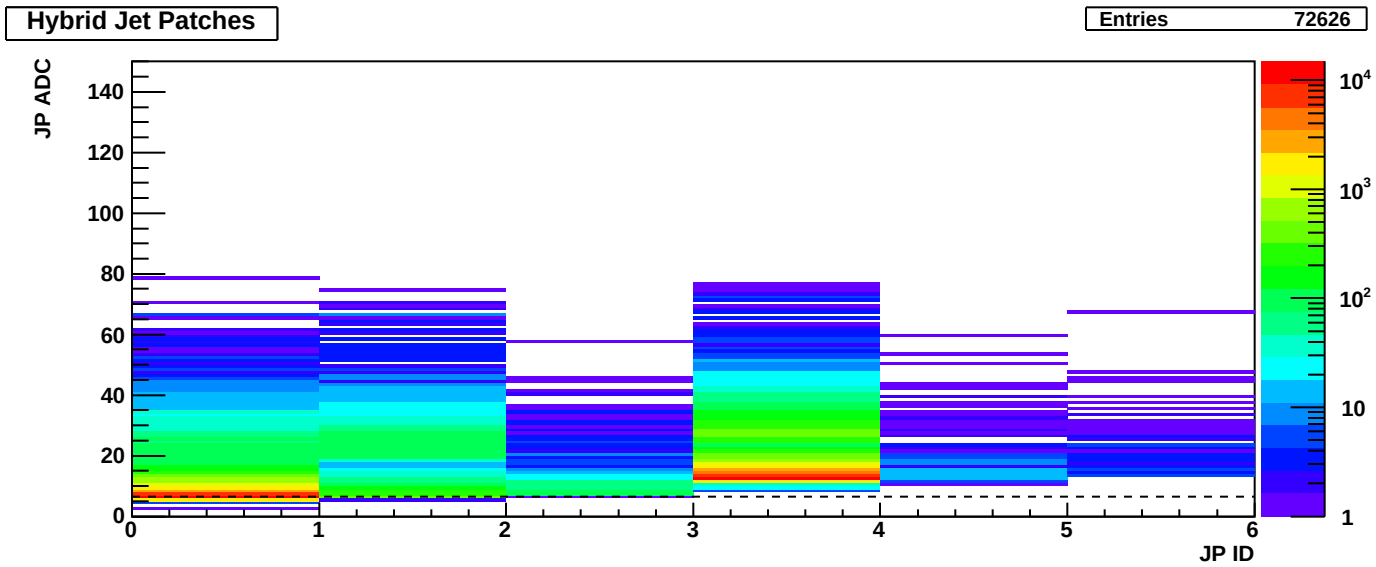

Barrel EMC L0 Input - Patch Sum
Entries 1.08939e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

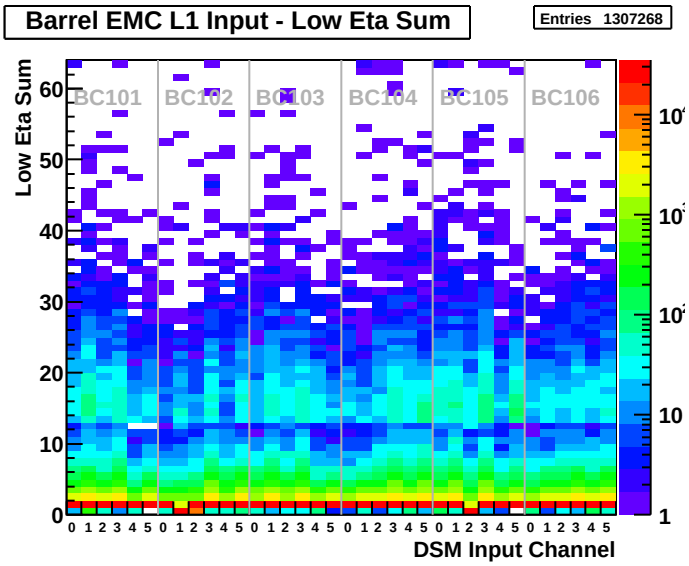

Endcap EMC L0 Input - High Tower
Entries 3268170
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

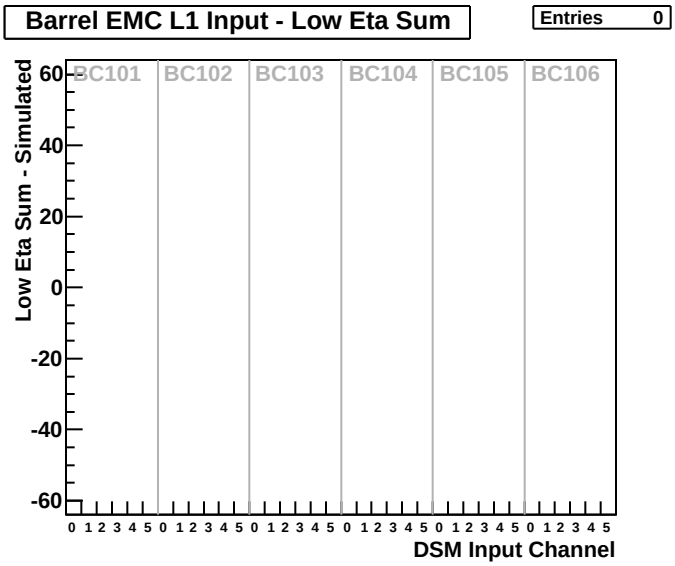

Endcap EMC L0 Input - Patch Sum
Entries 3268170
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

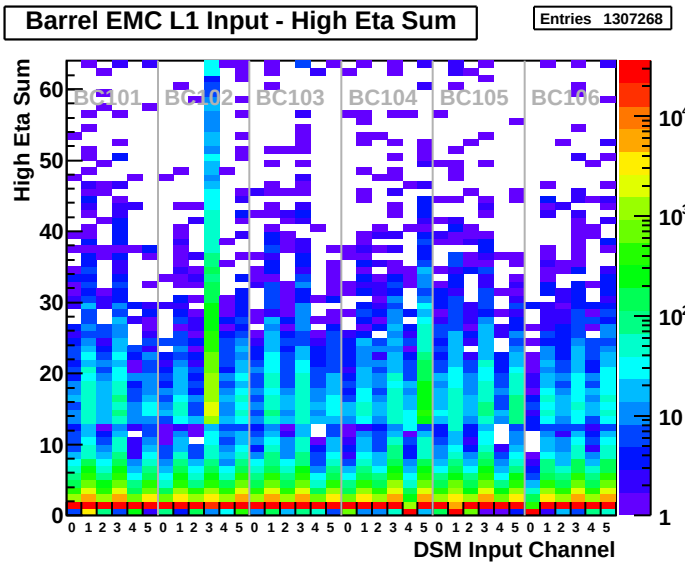

Barrel Jet Patches
Entries 653634
JP ADC
JP ID

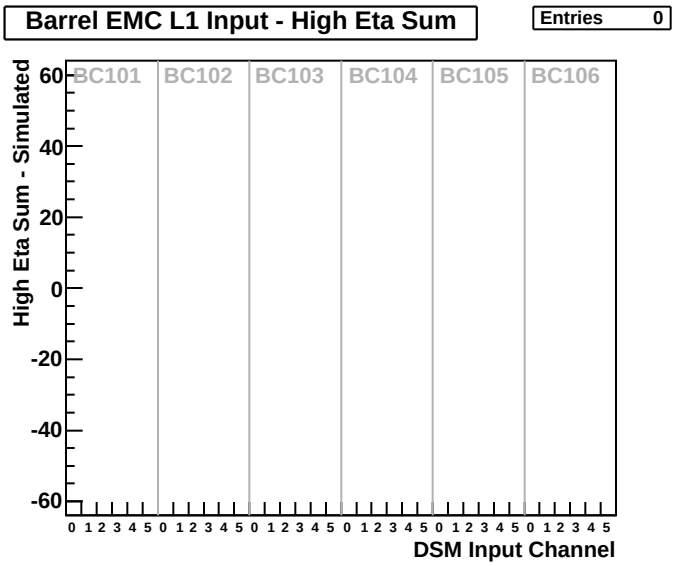

Endcap Jet Patches
Entries 217878
JP ADC
JP ID

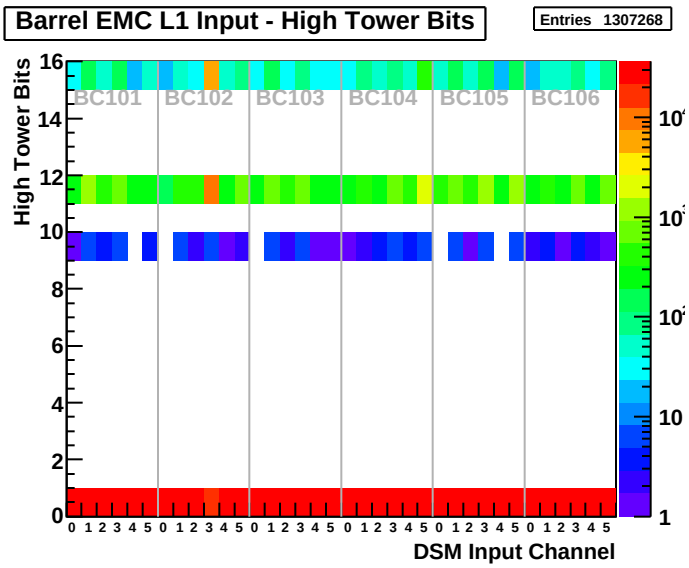

Hybrid Jet Patches
Entries 72626
JP ADC
JP ID

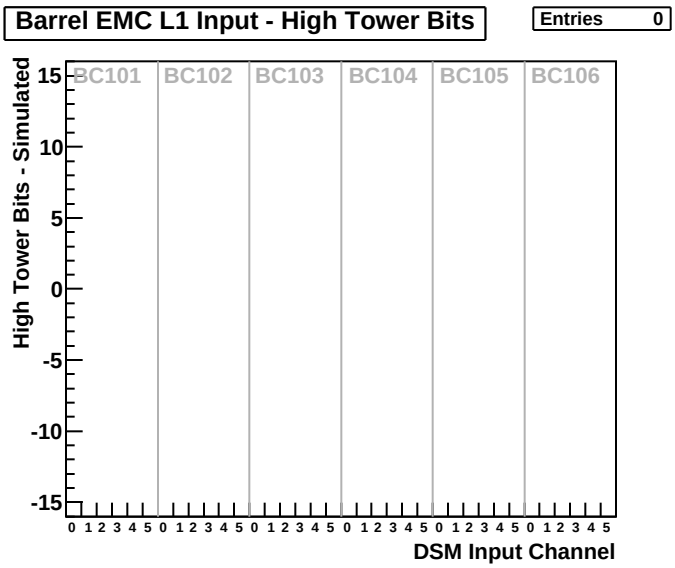

Barrel EMC L1 Input - Low Eta Sum
Entries 1307268
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

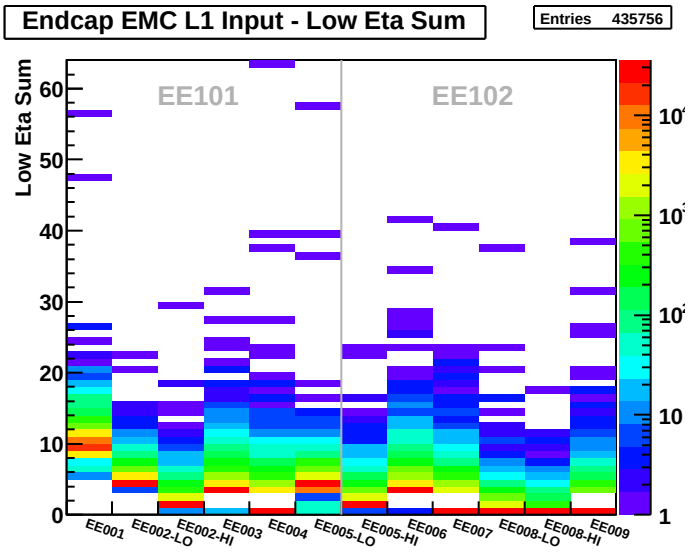

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

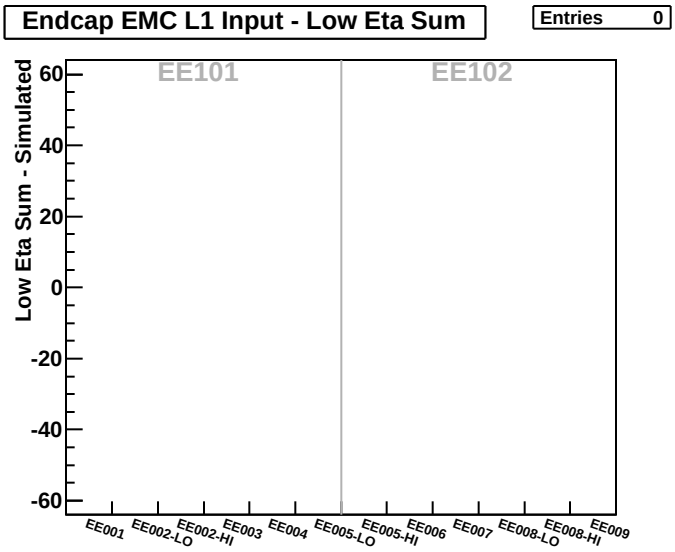

Barrel EMC L1 Input - High Eta Sum
Entries 1307268
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

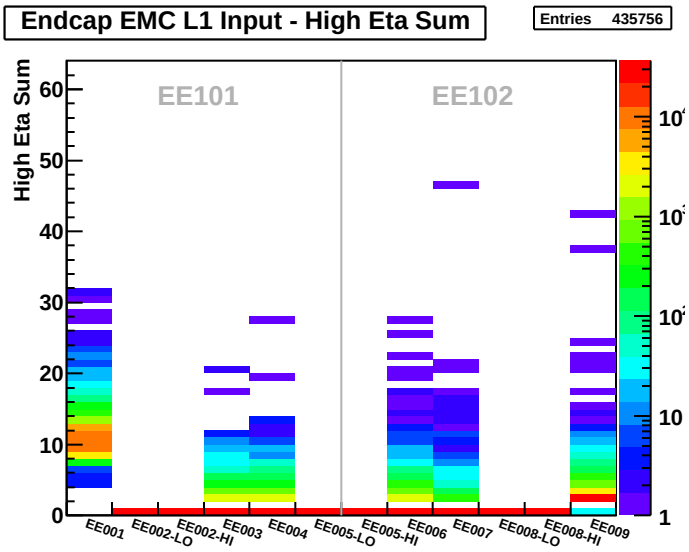

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

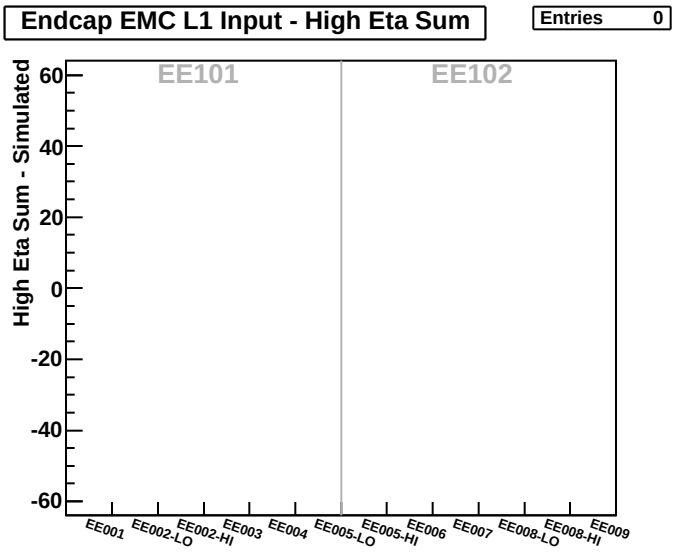

Barrel EMC L1 Input - High Tower Bits
Entries 1307268
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

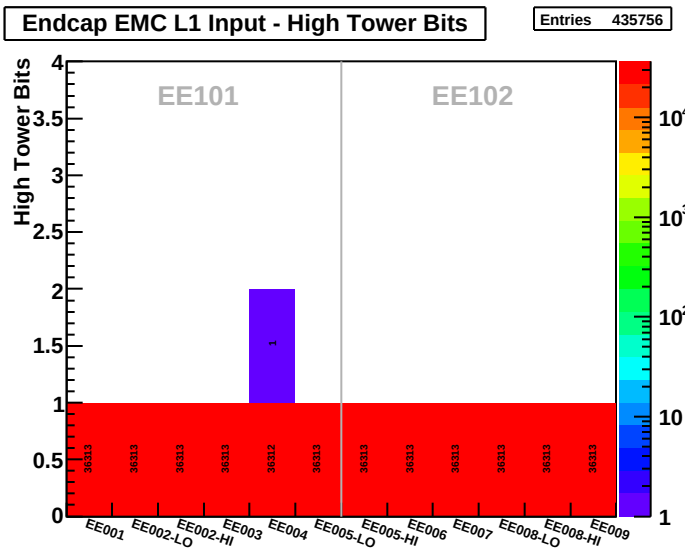

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

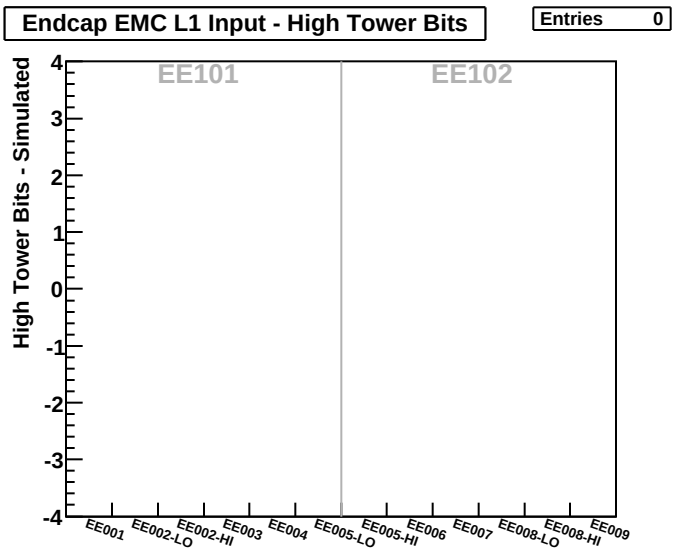

Endcap EMC L1 Input - Low Eta Sum
Entries 435756
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

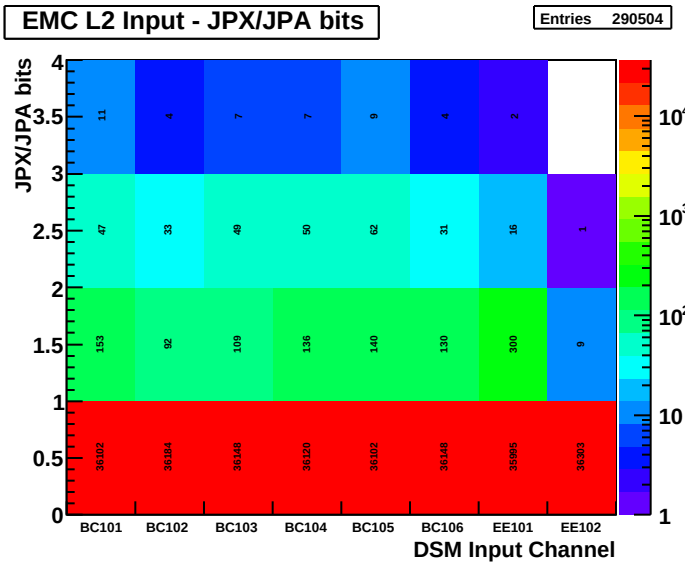

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

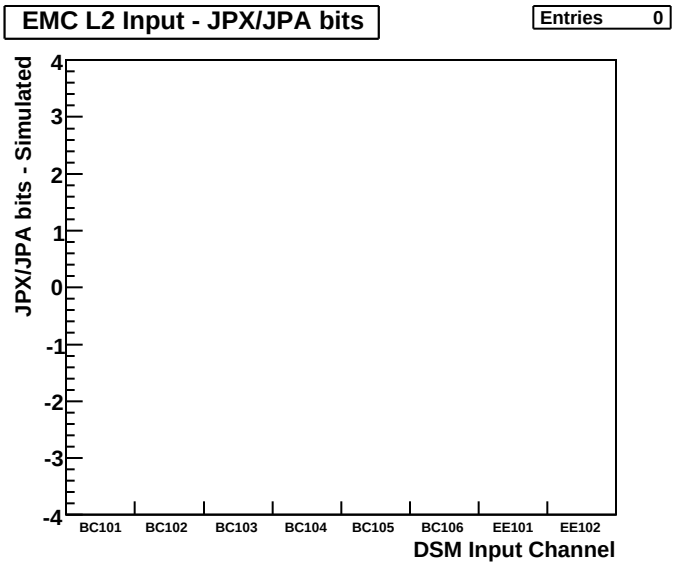

Endcap EMC L1 Input - High Eta Sum
Entries 435756
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

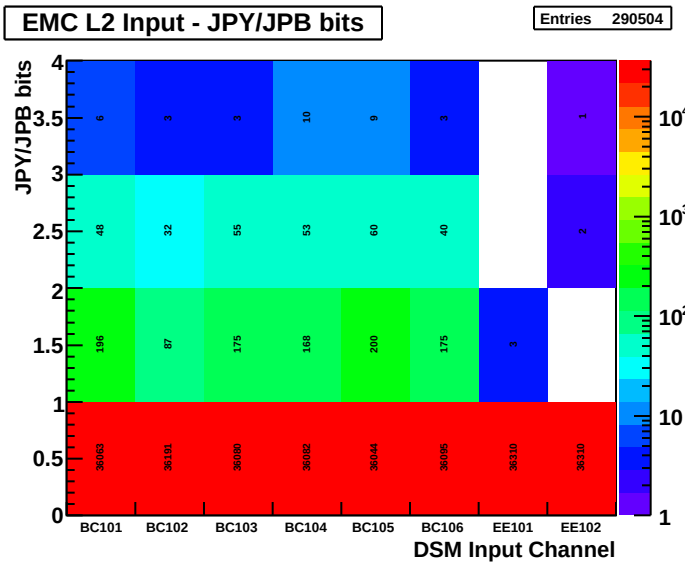

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

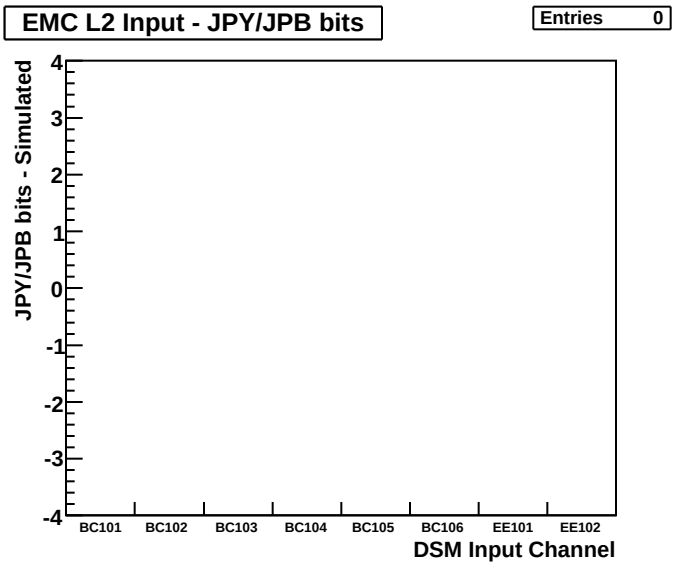

Endcap EMC L1 Input - High Tower Bits
Entries 435756
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

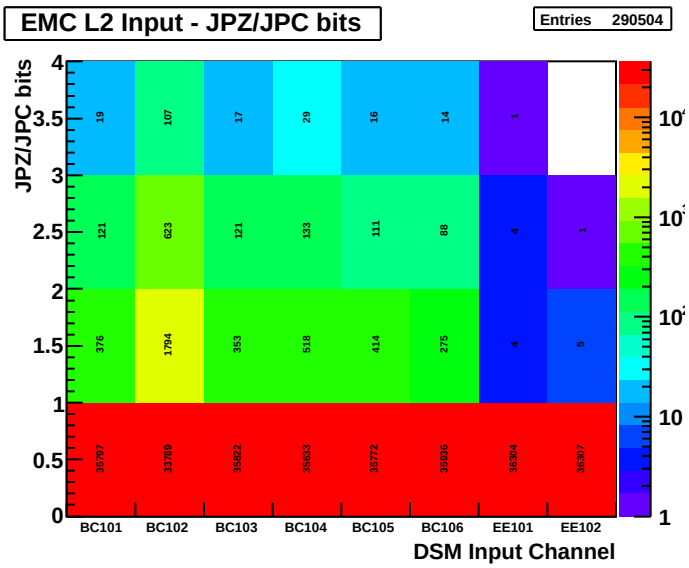

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

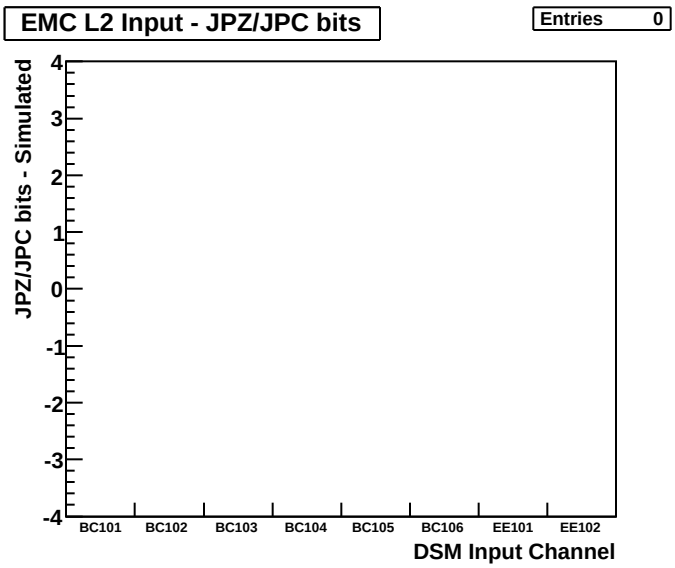

EMC L2 Input - JPX/JPA bits
Entries 290504
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
11 4 7 7 9 4 2
47 33 49 50 62 31 16 1
153 92 109 136 140 130 300 9
36102 36184 36148 36120 36102 36148 35995 36303

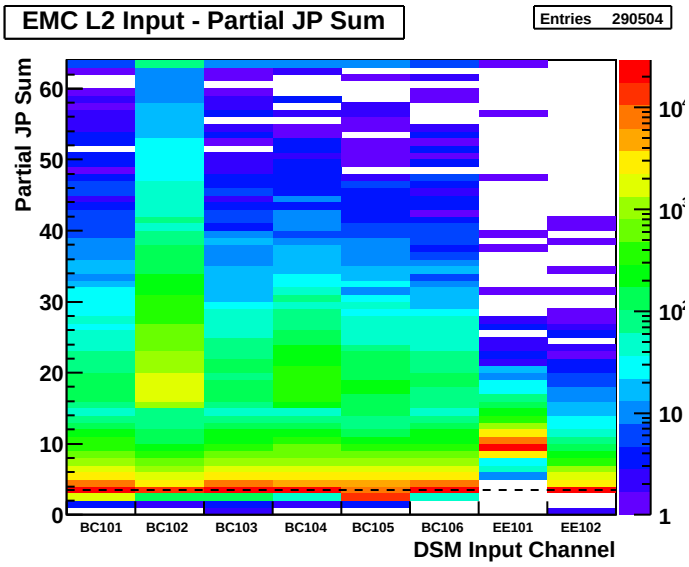

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

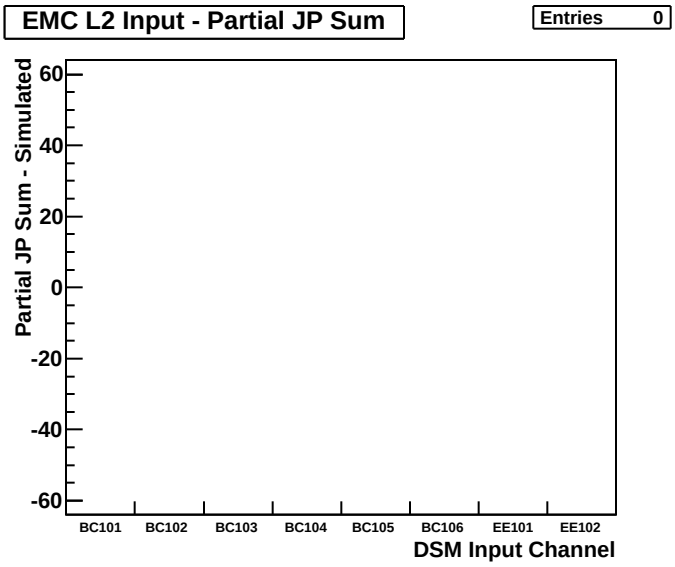

EMC L2 Input - JPY/JPB bits
Entries 290504
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6 3 3 10 9 3 1
48 32 55 53 60 40 2
196 87 175 168 200 175 3
36063 36191 36080 36082 36044 36095 36310 36310

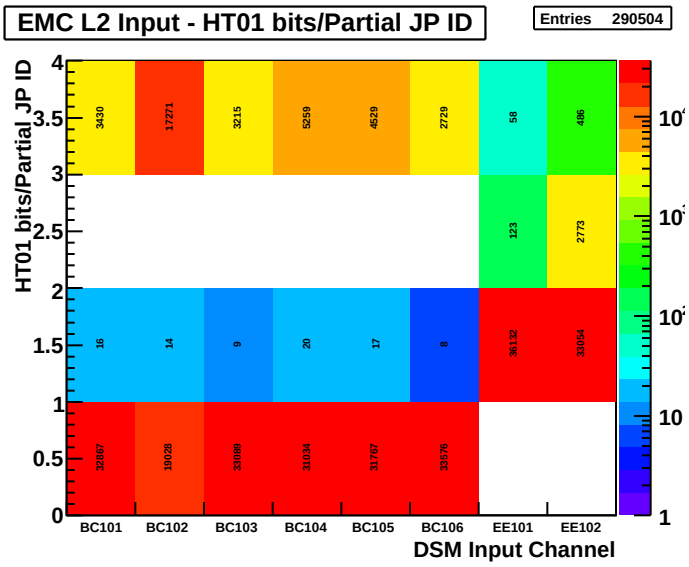

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

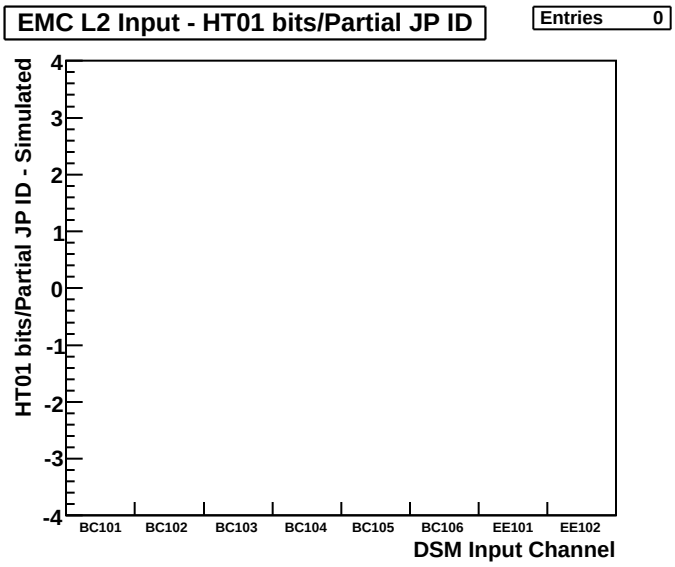

EMC L2 Input - JPZ/JPC bits
Entries 290504
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
19 107 17 29 16 14 1
121 623 121 133 111 88 4 1
376 1794 353 518 414 275 4 5
35797 33789 35822 35633 35772 35936 36304 36307

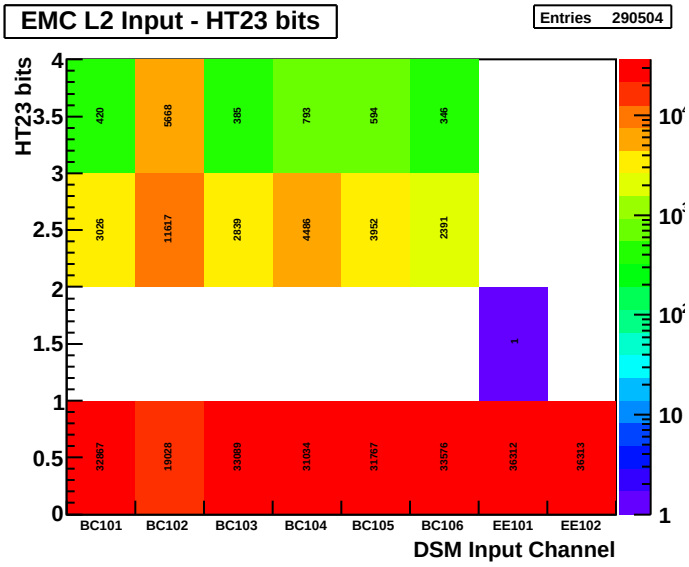

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

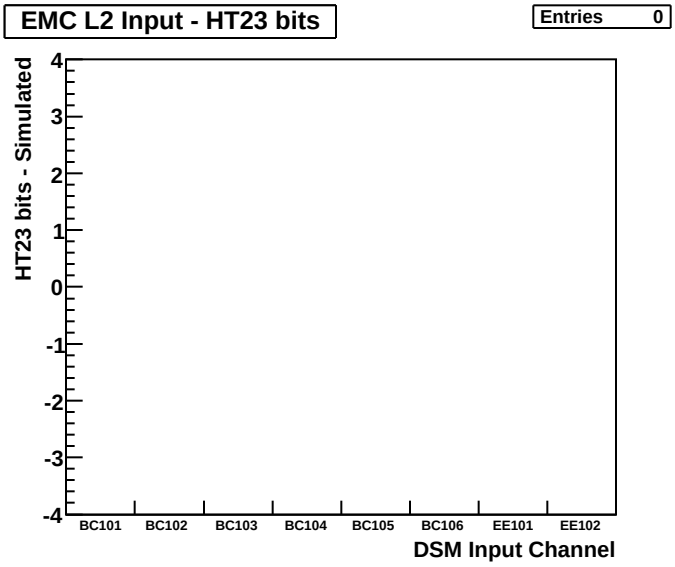

EMC L2 Input - Partial JP Sum
Entries 290504
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

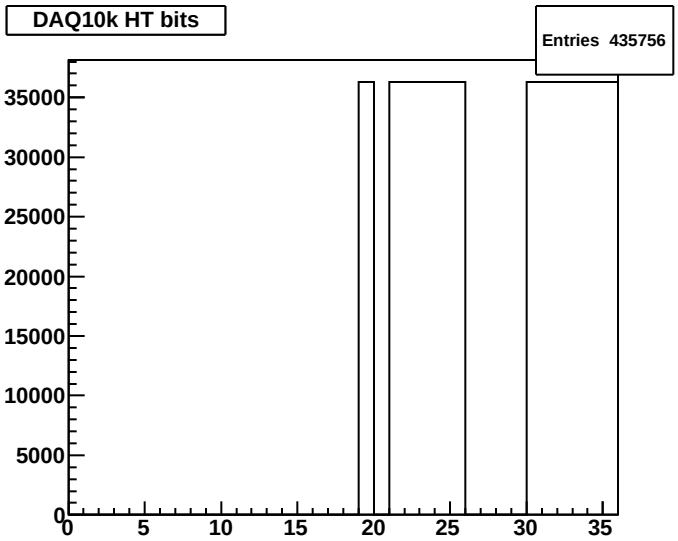

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

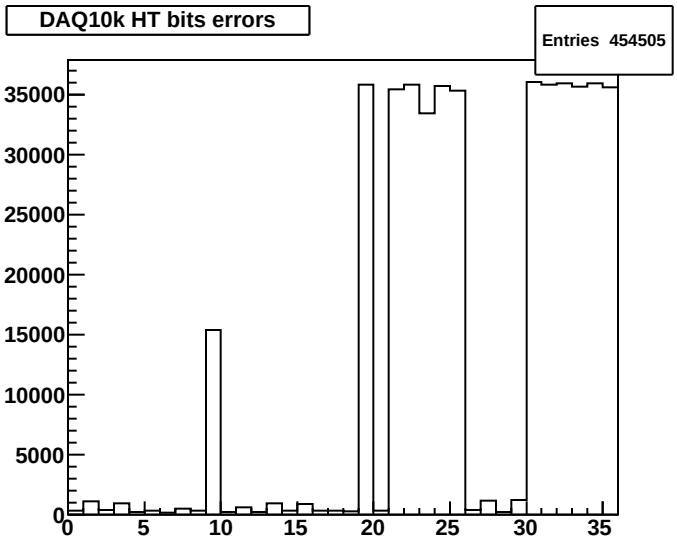

EMC L2 Input - HT01 bits/Partial JP ID
Entries 290504
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

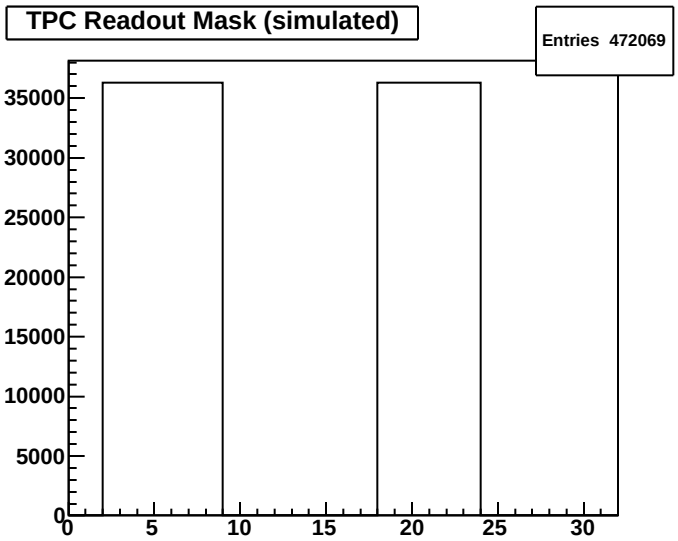

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

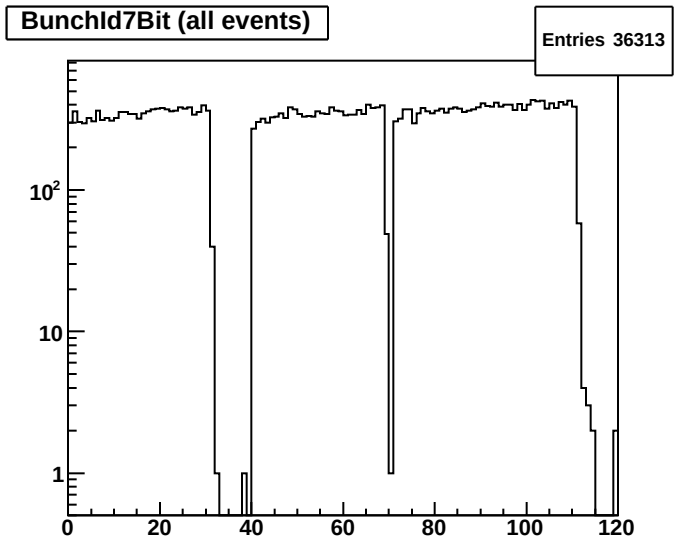

EMC L2 Input - HT23 bits
Entries 290504
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

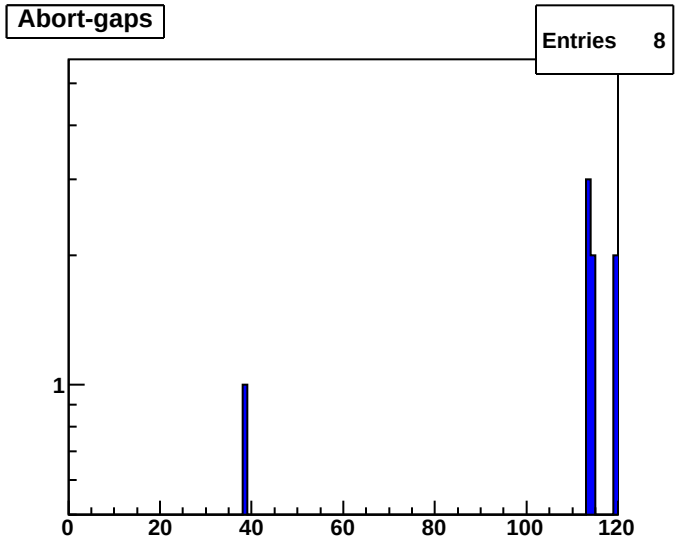

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

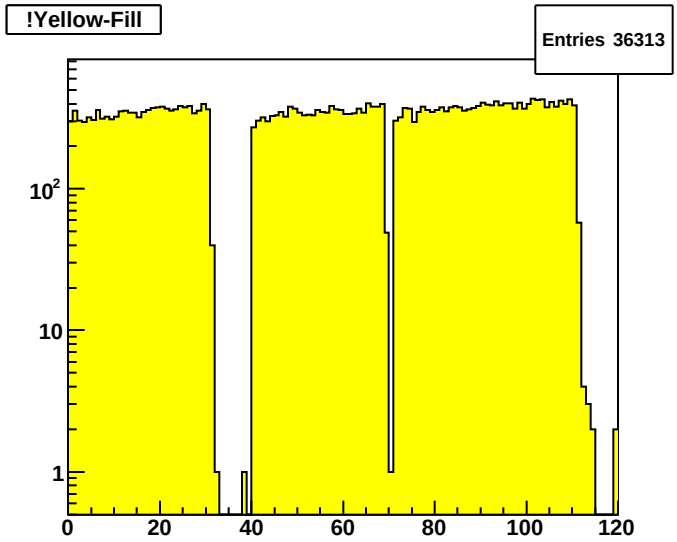

DAQ10k HT bits
Entries 435756
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

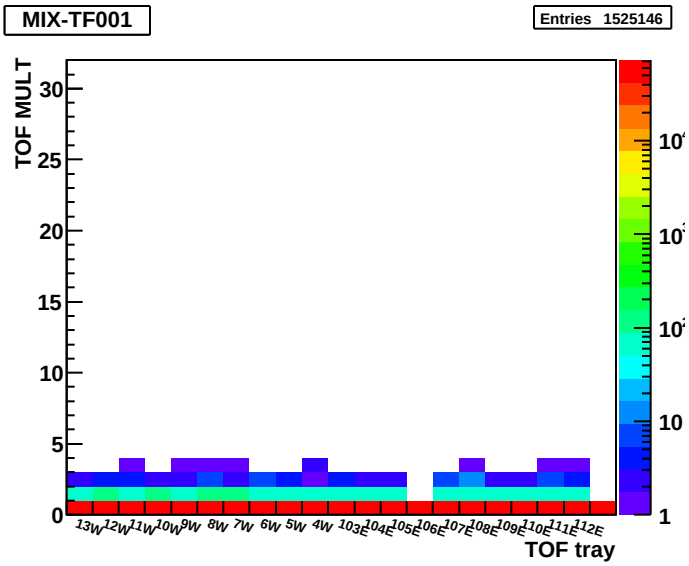

DAQ10k HT bits errors
Entries 454505
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

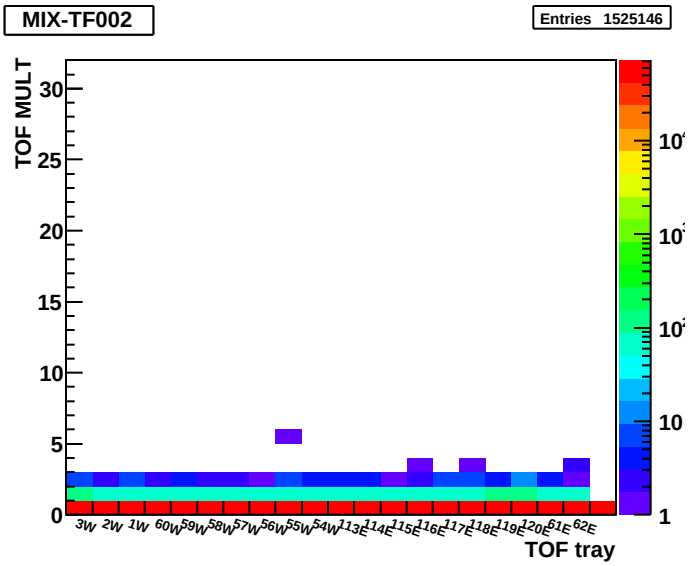

TPC Readout Mask (simulated)
Entries 472069
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

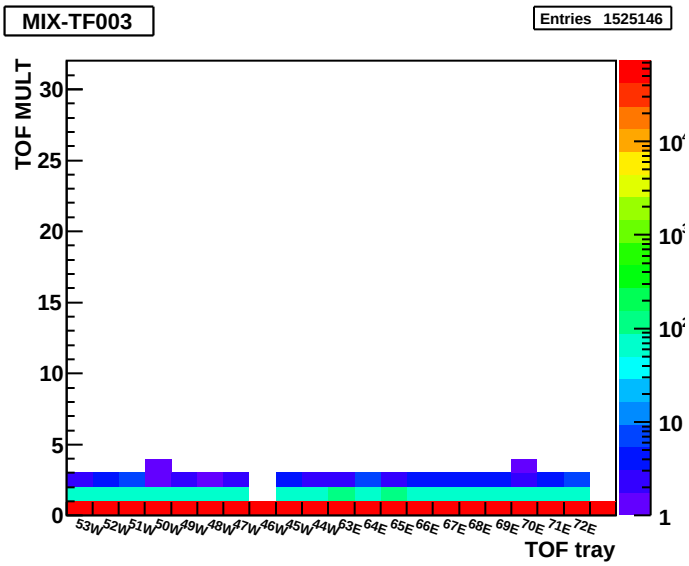

BunchId7Bit (all events)
Entries 36313
10^2
10
1
0 20 40 60 80 100 120

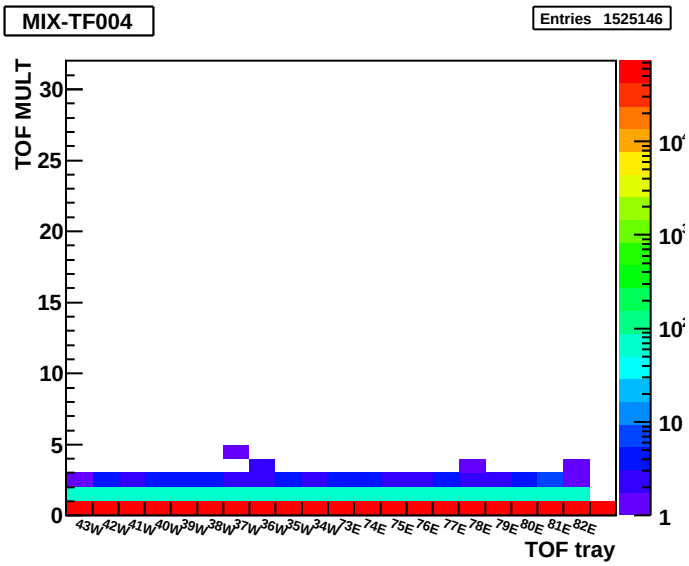

Abort-gaps
Entries 8
1
0 20 40 60 80 100 120

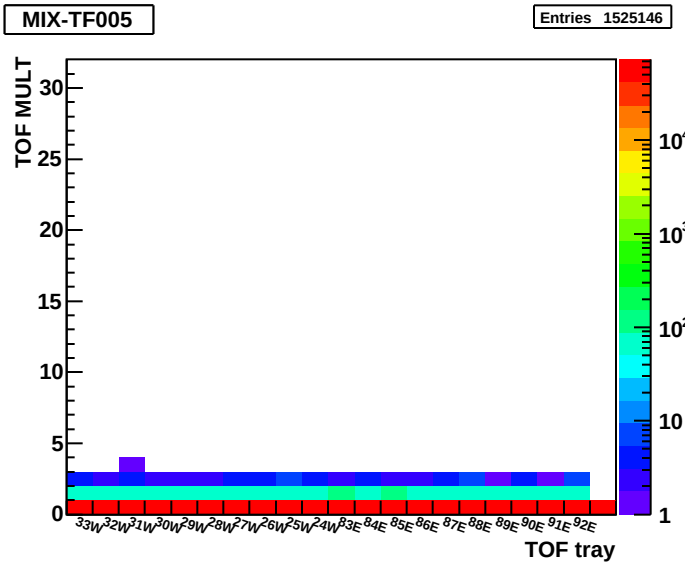

!Yellow-Fill
Entries 36313
10^2
10
1
0 20 40 60 80 100 120

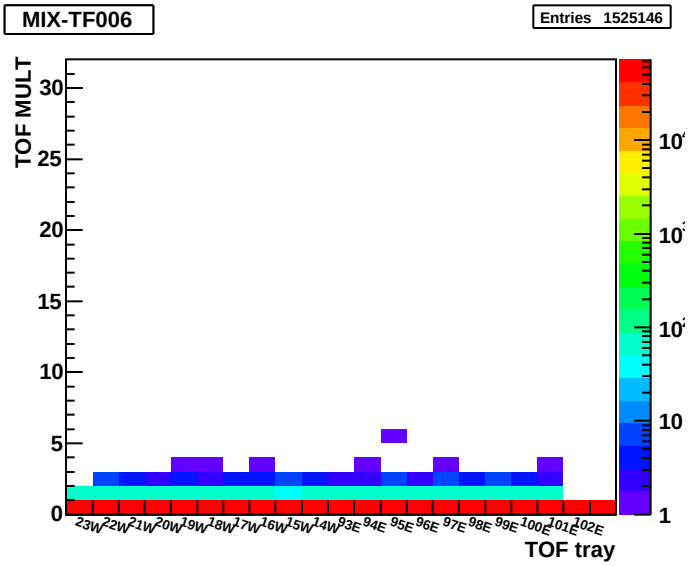

MIX-TF001
Entries 1525146
TOF MULT
TOF tray

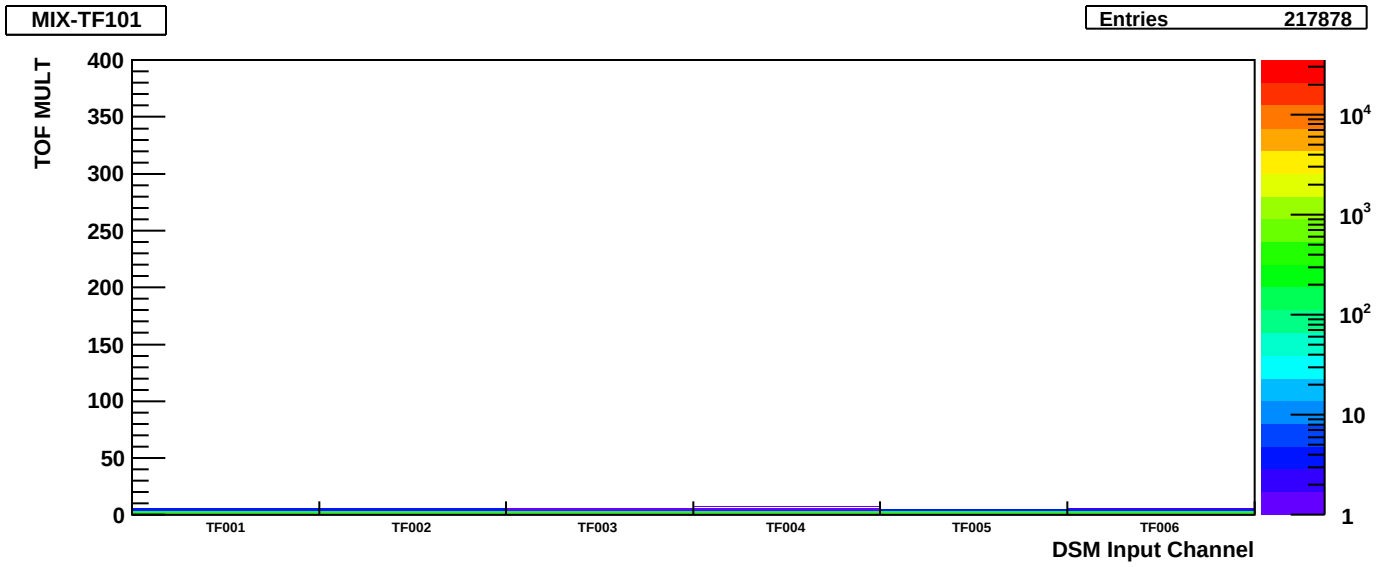

MIX-TF002
Entries 1525146
TOF MULT
TOF tray

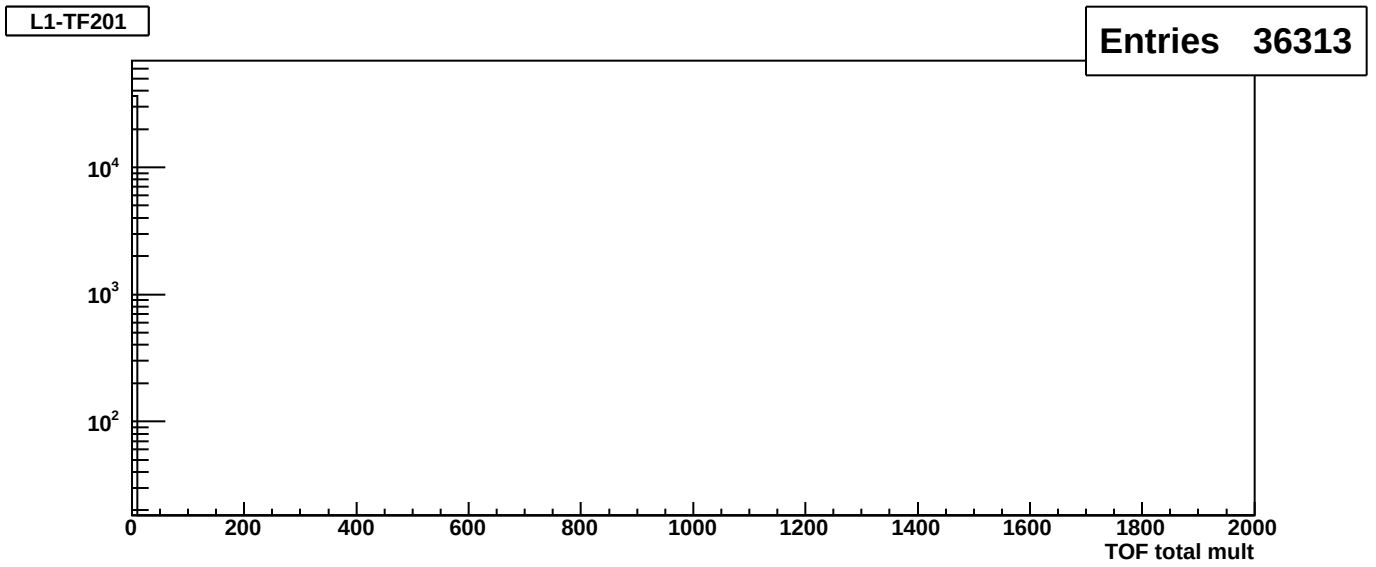

MIX-TF003
Entries 1525146
TOF MULT
TOF tray

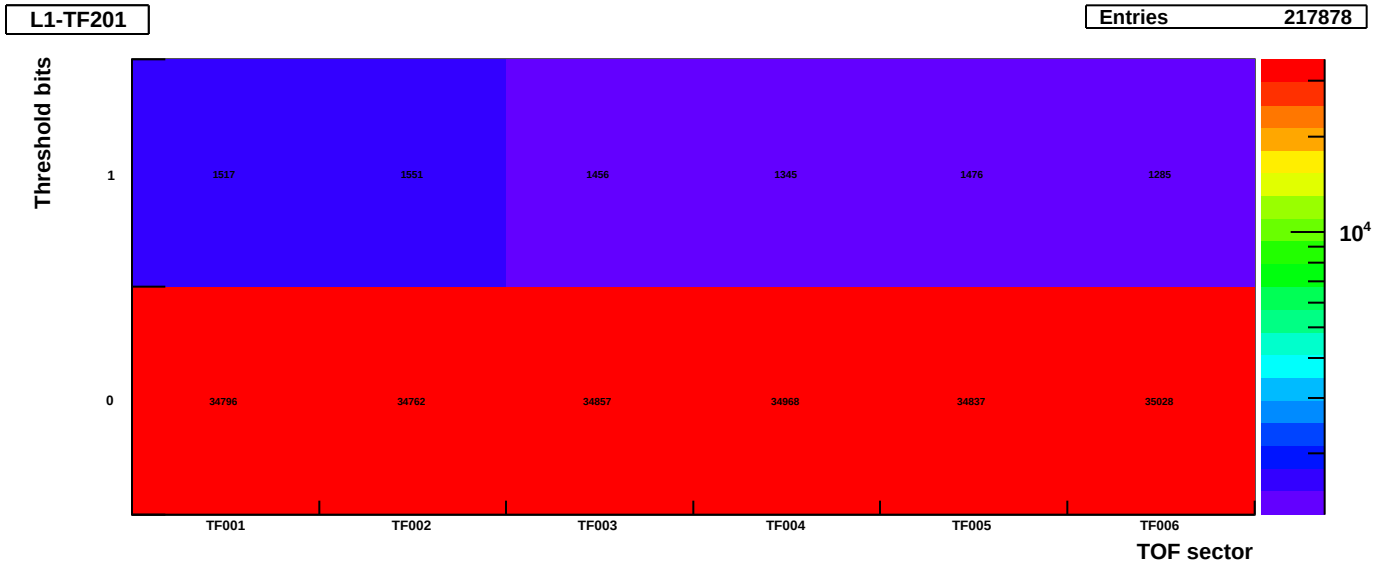

MIX-TF004
Entries 1525146
TOF MULT
TOF tray

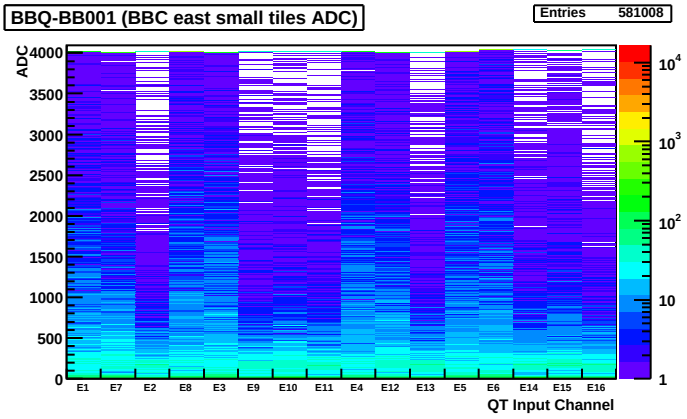

MIX-TF005
Entries 1525146
TOF MULT
TOF tray

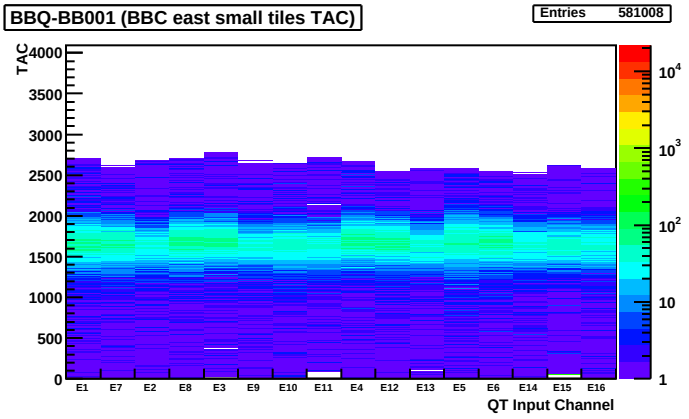

MIX-TF006
Entries 1525146
TOF MULT
TOF tray

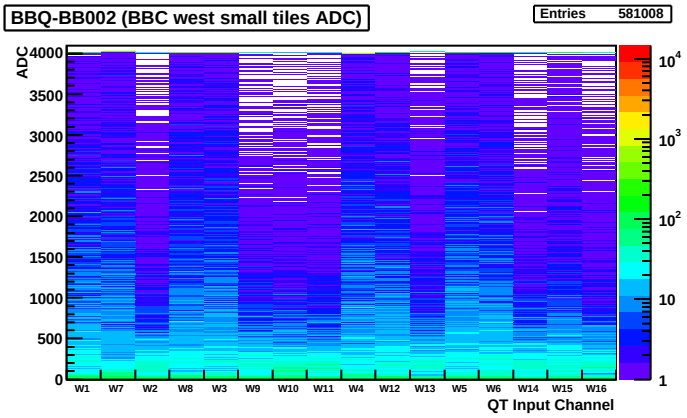

MIX-TF101
Entries 217878
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

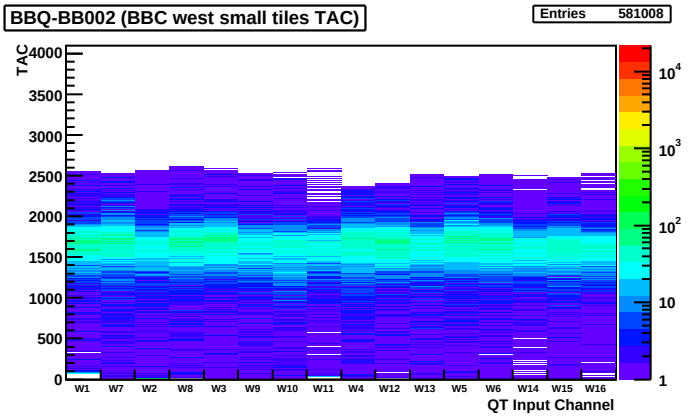

L1-TF201
Entries 36313
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

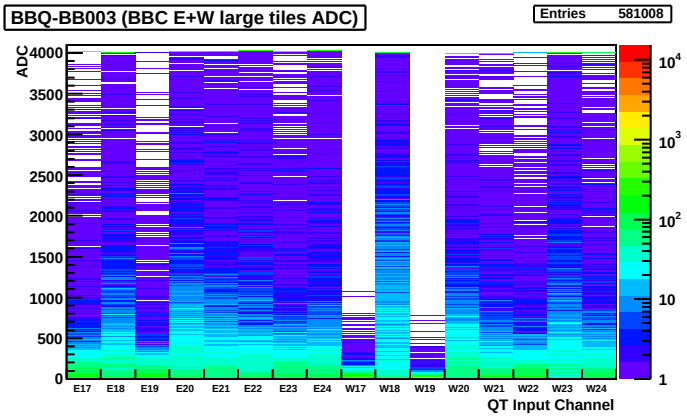

L1-TF201
Entries 217878
Threshold bits
1
0
1517
1551
1456
1345
1476
1285
34796
34762
34857
34968
34837
35028
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

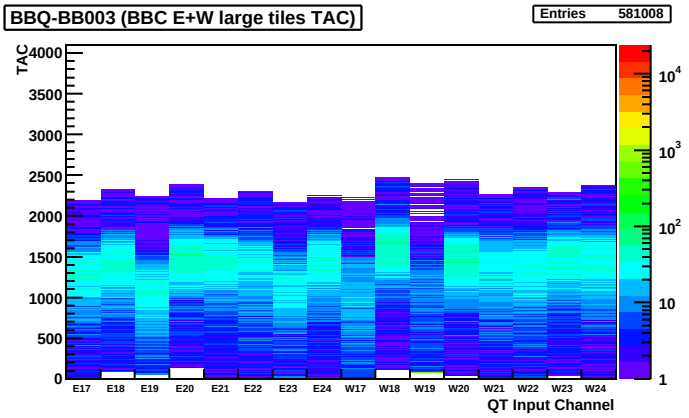

BBQ-BB001 (BBC east small tiles ADC)
Entries 581008
ADC
QT Input Channel

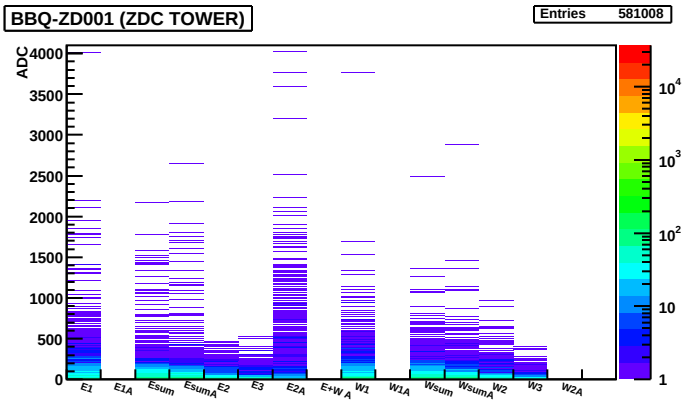

BBQ-BB001 (BBC east small tiles TAC)
Entries 581008
TAC
QT Input Channel

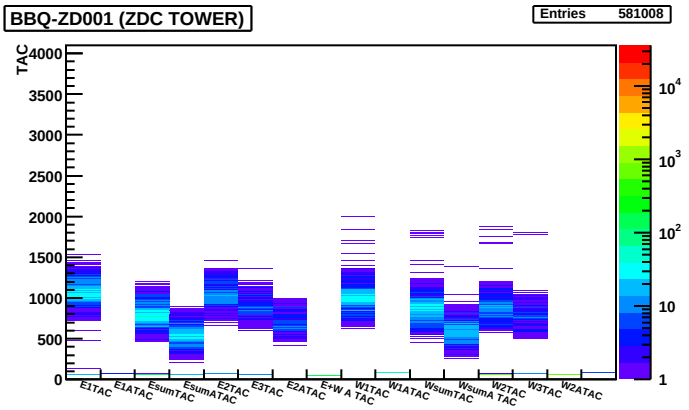

BBQ-BB002 (BBC west small tiles ADC)
Entries 581008
ADC
QT Input Channel

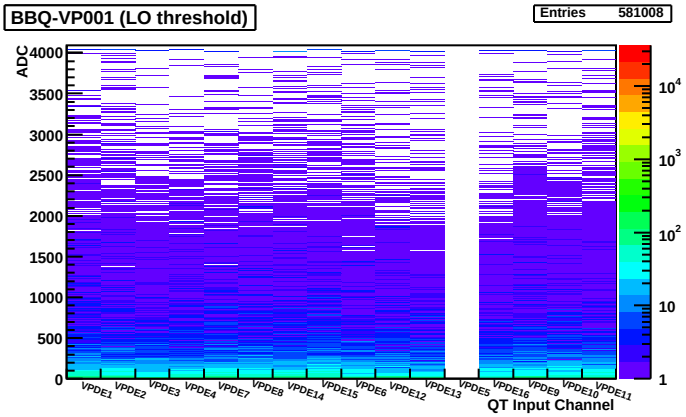

BBQ-BB002 (BBC west small tiles TAC)
Entries 581008
TAC
QT Input Channel

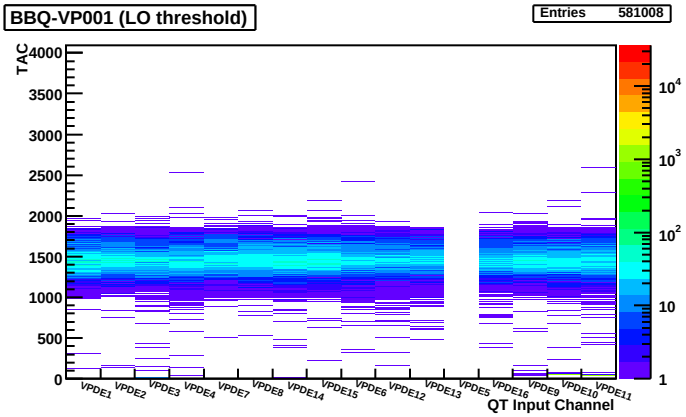

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 581008
ADC
QT Input Channel

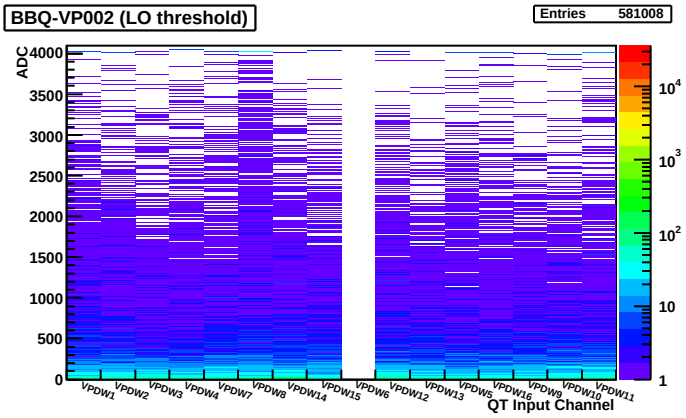

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 581008
TAC
QT Input Channel

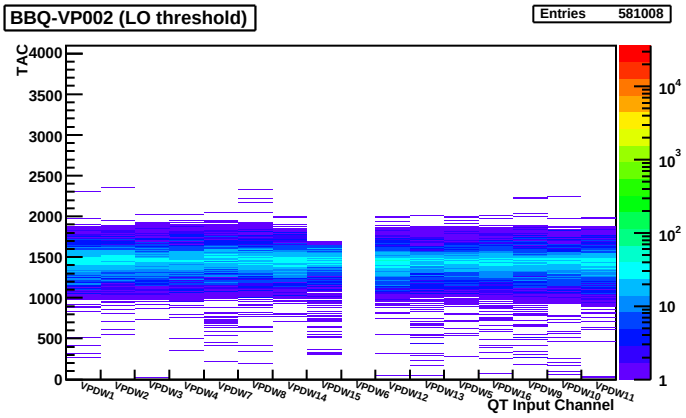

BBQ-ZD001 (ZDC TOWER)
Entries 581008
ADC

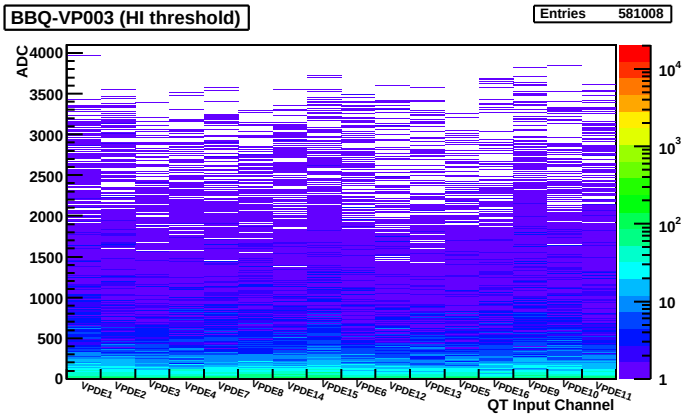

BBQ-ZD001 (ZDC TOWER)
Entries 581008
TAC

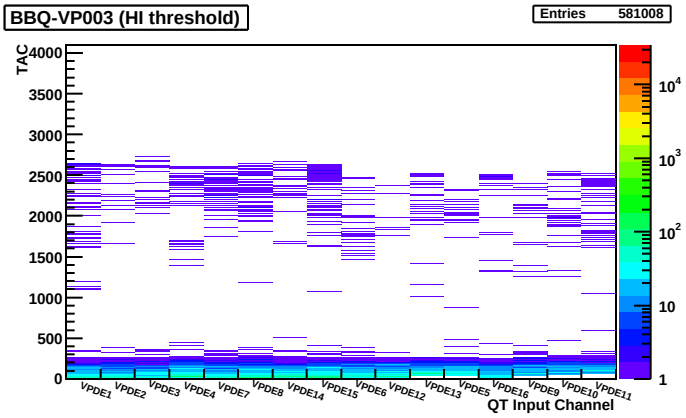

BBQ-VP001 (LO threshold)
Entries 581008
ADC
QT Input Channel

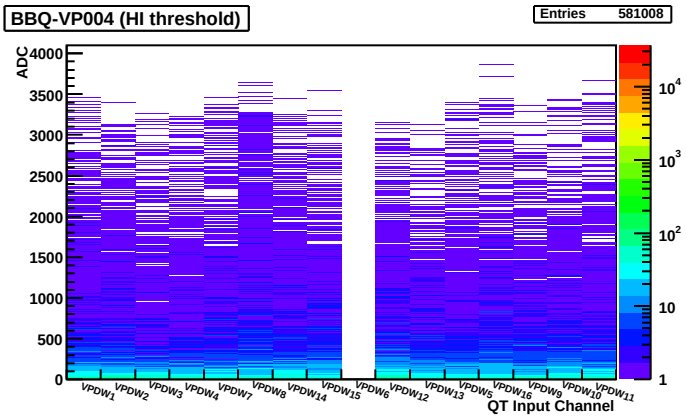

BBQ-VP001 (LO threshold)
Entries 581008
TAC
QT Input Channel

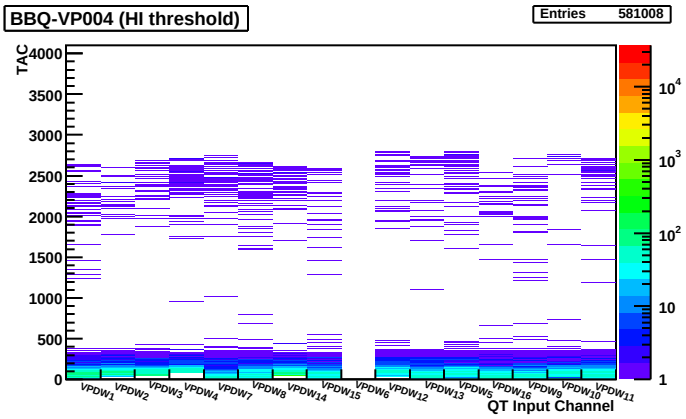

BBQ-VP002 (LO threshold)
Entries 581008
ADC
QT Input Channel

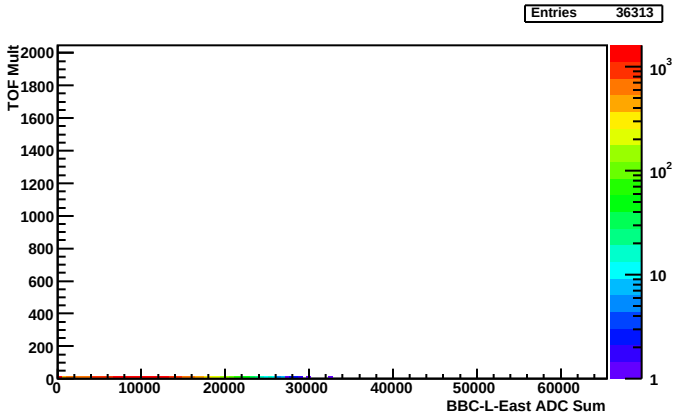

BBQ-VP002 (LO threshold)
Entries 581008
TAC
QT Input Channel

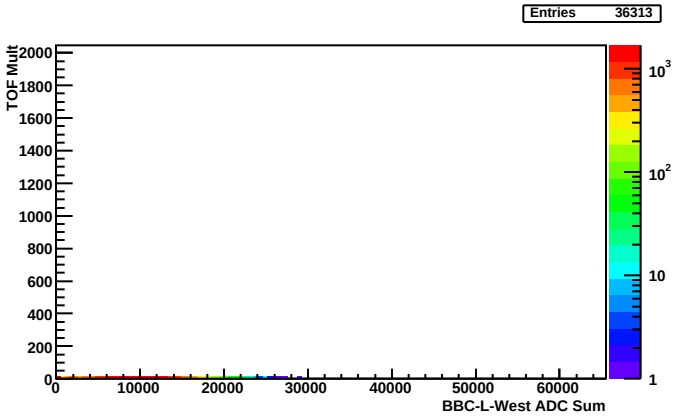

BBQ-VP003 (HI threshold)
Entries 581008
ADC
QT Input Channel

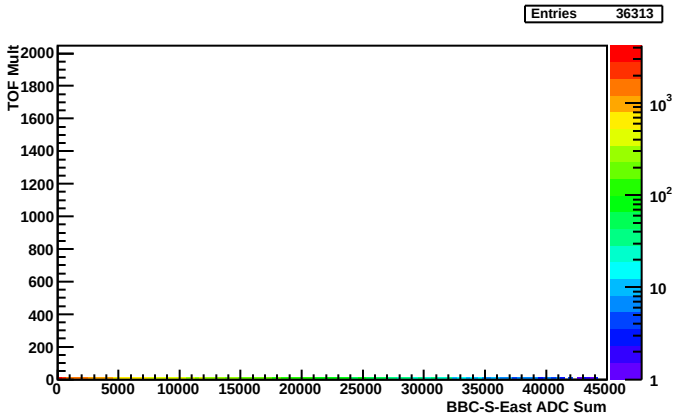

BBQ-VP003 (HI threshold)
Entries 581008
TAC
QT Input Channel

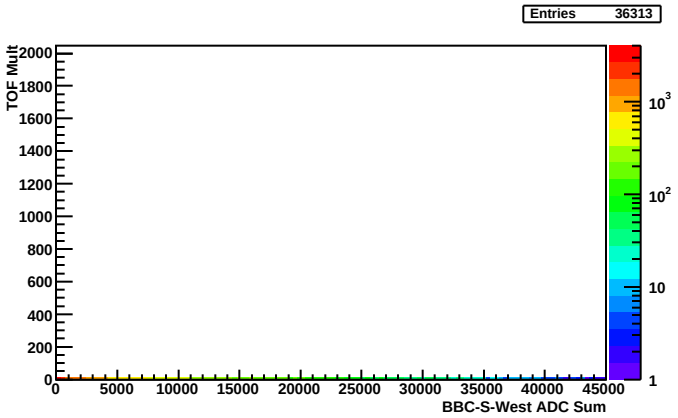

BBQ-VP004 (HI threshold)
Entries 581008
ADC
QT Input Channel

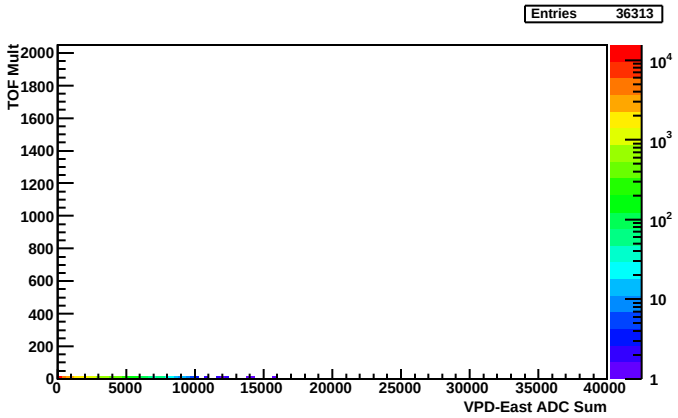

BBQ-VP004 (HI threshold)
Entries 581008
TAC
QT Input Channel

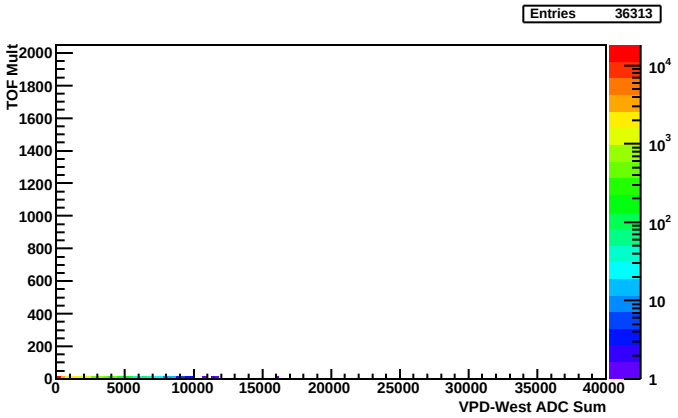

Entries 36313
TOF Mult
BBC-L-East ADC Sum

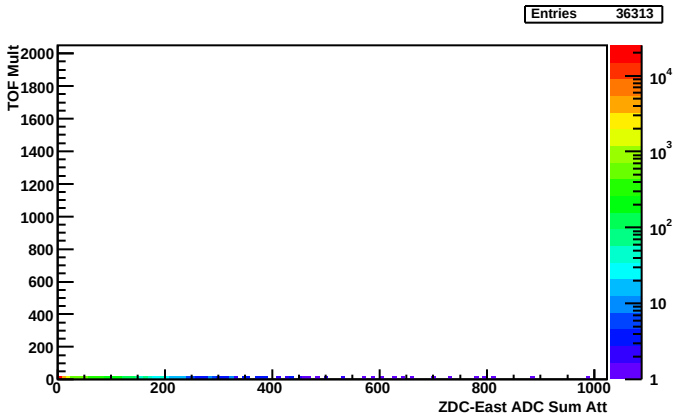

Entries 36313
TOF Mult
BBC-L-West ADC Sum

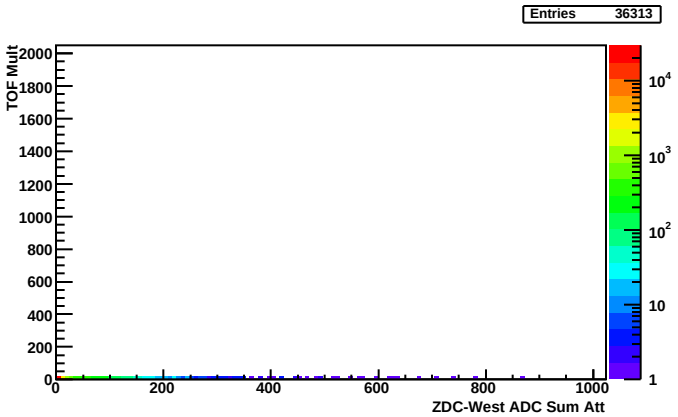

Entries 36313
TOF Mult
BBC-S-East ADC Sum

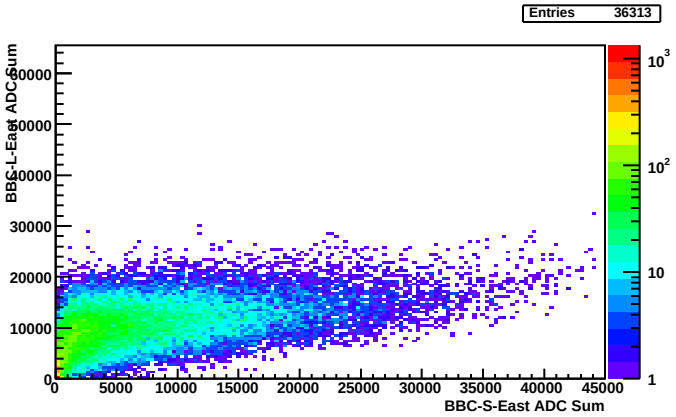

Entries 36313
TOF Mult
BBC-S-West ADC Sum

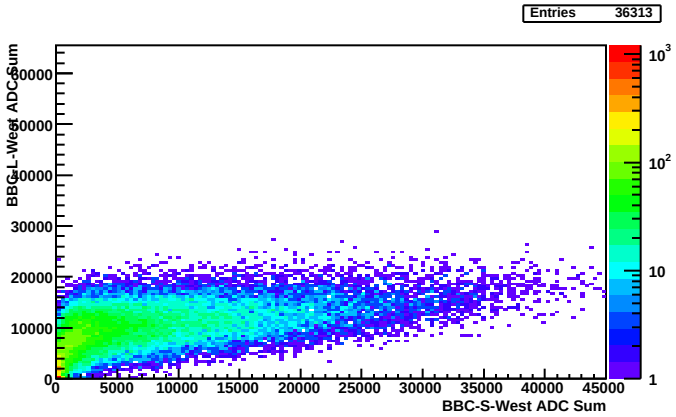

Entries 36313
TOF Mult
VPD-East ADC Sum

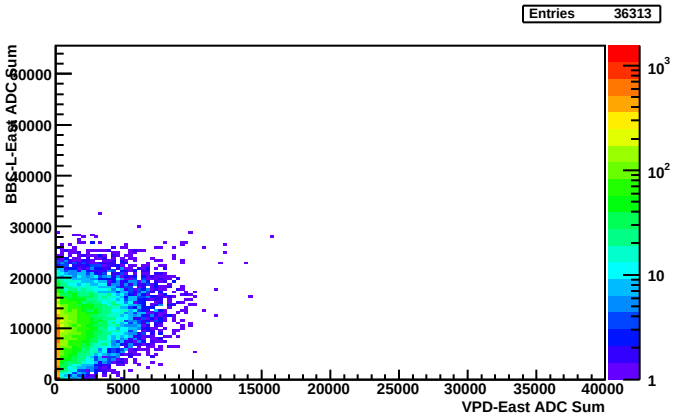

Entries 36313
TOF Mult
VPD-West ADC Sum

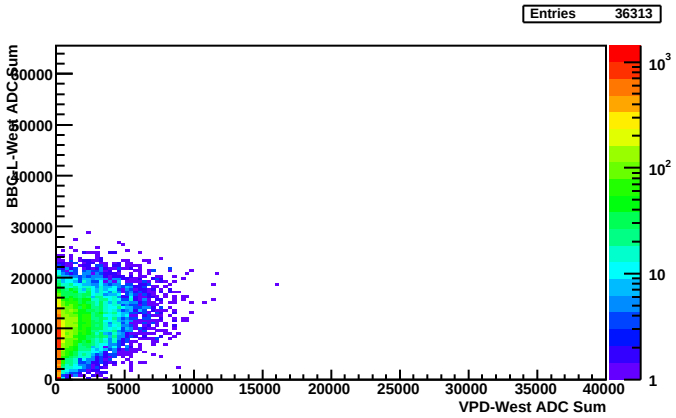

Entries 36313
TOF Mult
ZDC-East ADC Sum Att

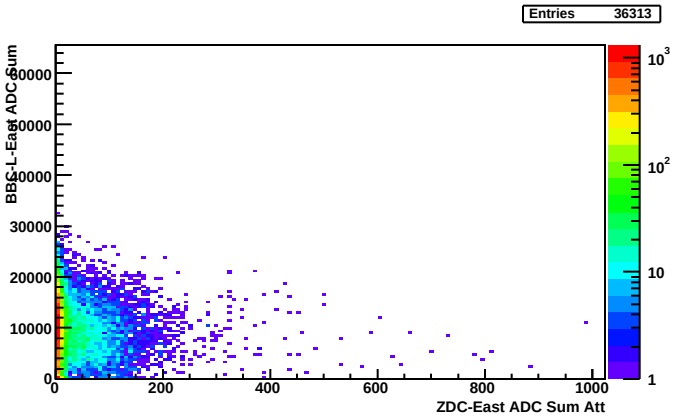

Entries 36313
TOF Mult
ZDC-West ADC Sum Att

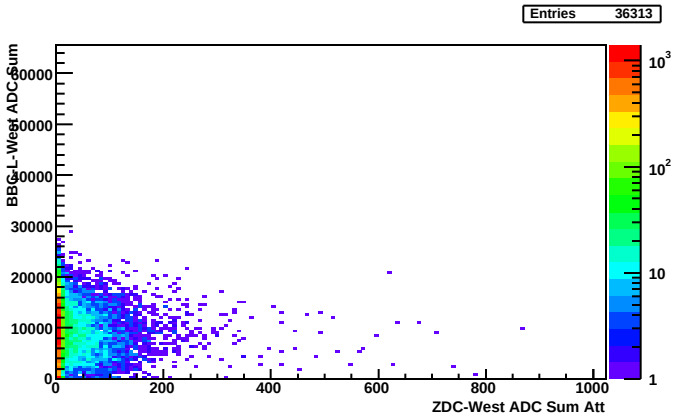

Entries 36313
BBC-L-East ADC Sum
BBC-S-East ADC Sum

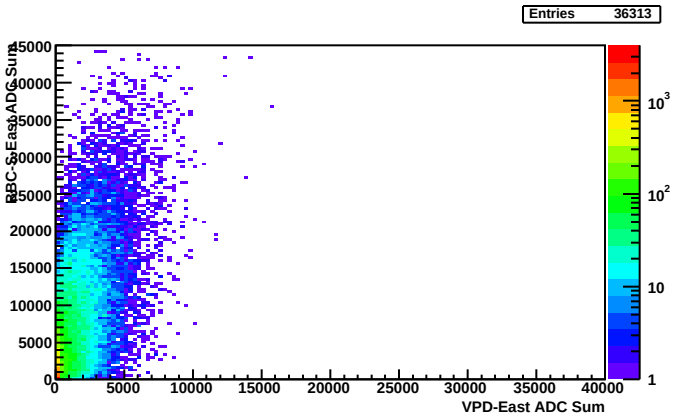

Entries 36313
BBC-L-West ADC Sum
BBC-S-West ADC Sum

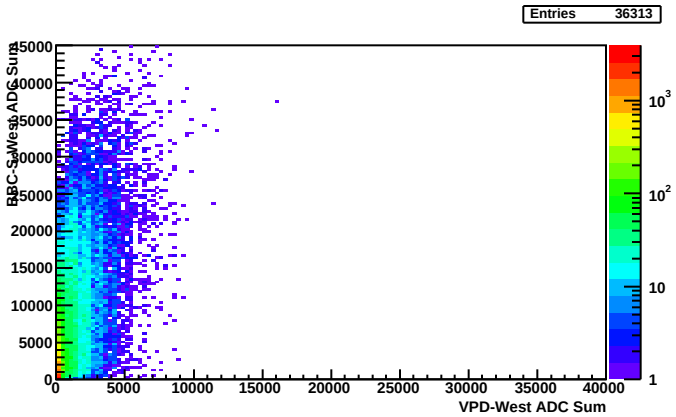

Entries 36313
BBC-L-East ADC Sum
VPD-East ADC Sum

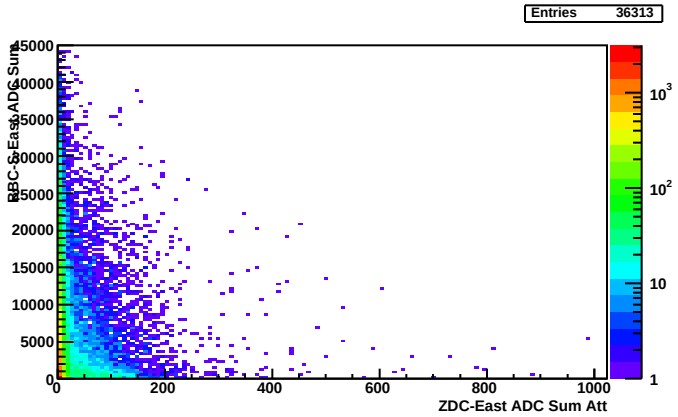

Entries 36313
BBC-L-West ADC Sum
VPD-West ADC Sum

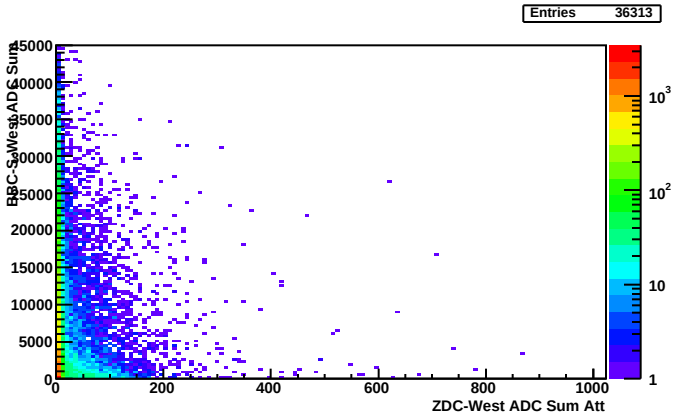

Entries 36313
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

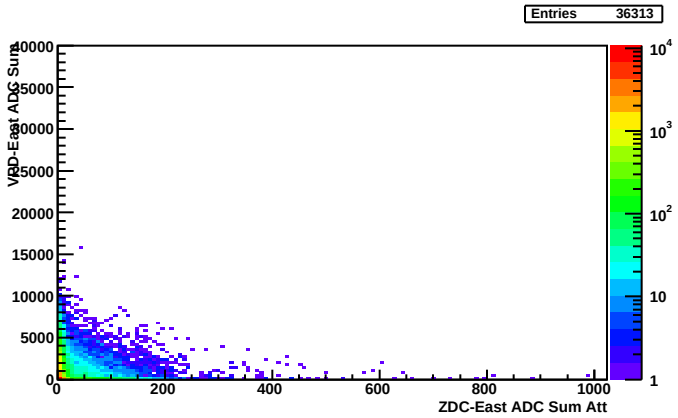

Entries 36313
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

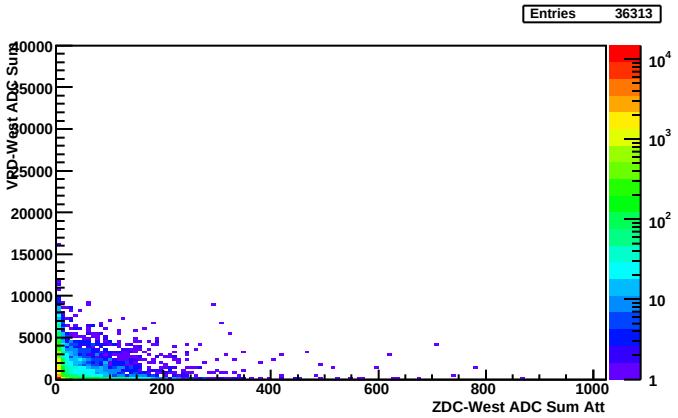

Entries 36313
BBC-S-East ADC Sum
VPD-East ADC Sum

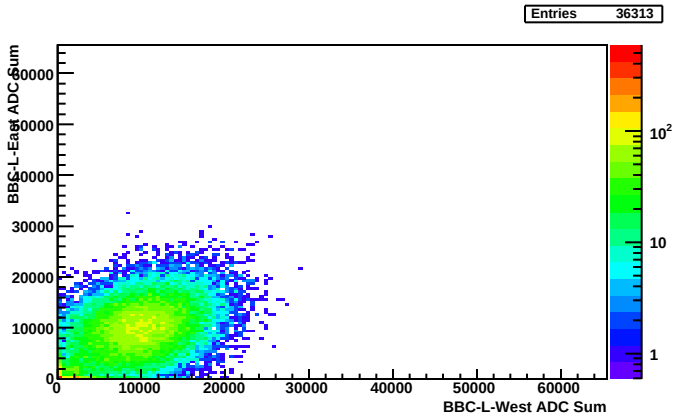

Entries 36313
BBC-S-West ADC Sum
VPD-West ADC Sum

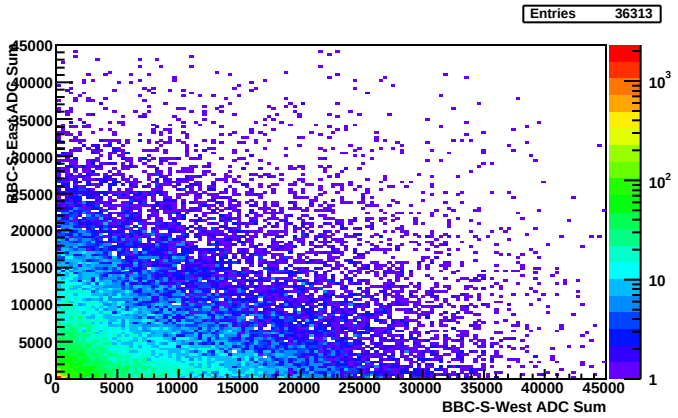

Entries 36313
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

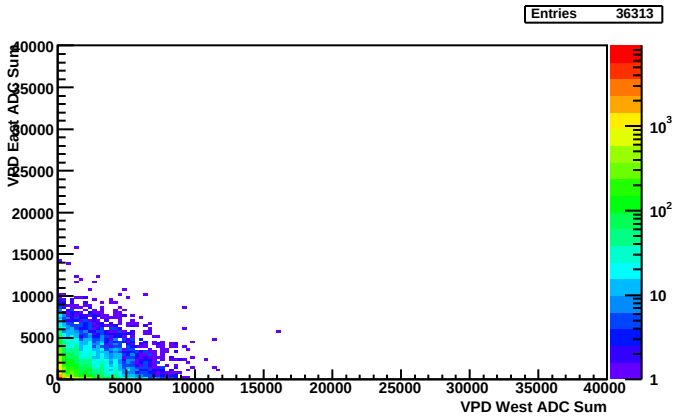

Entries 36313
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

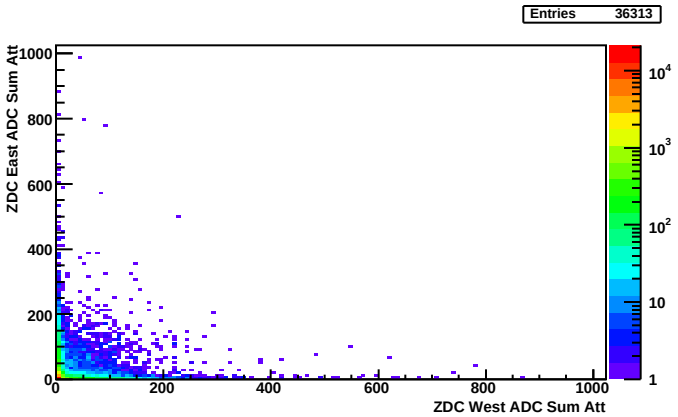

Entries 36313
VPD-East ADC Sum
ZDC-East ADC Sum Att

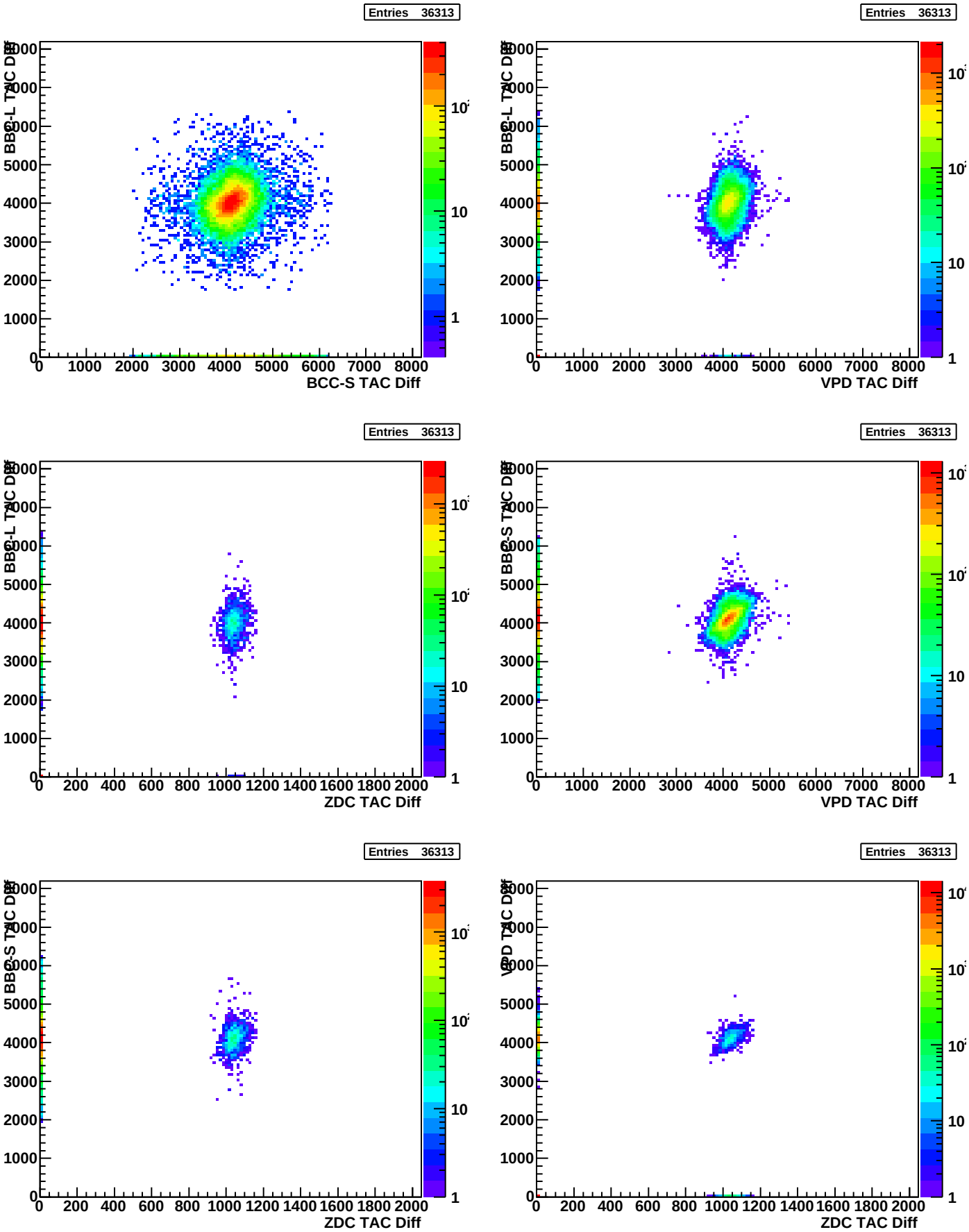

Entries 36313
VPD-West ADC Sum
ZDC-West ADC Sum Att

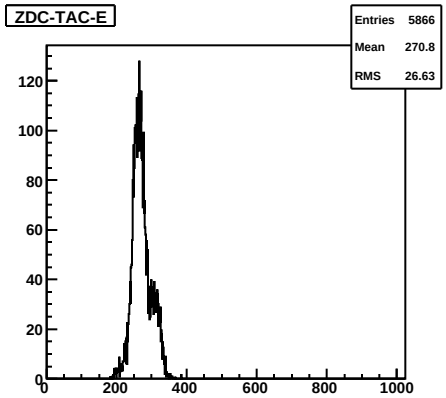

Entries 36313
BBC-L-East ADC Sum
BBC-L-West ADC Sum

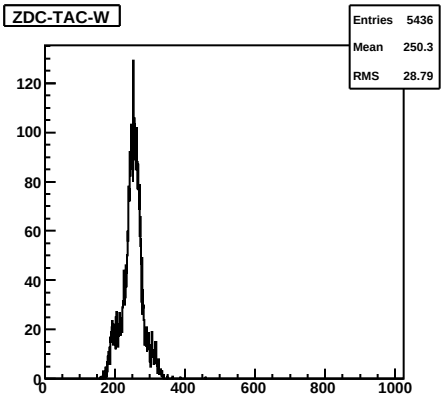

Entries 36313
BBC-S-East ADC Sum
BBC-S-West ADC Sum

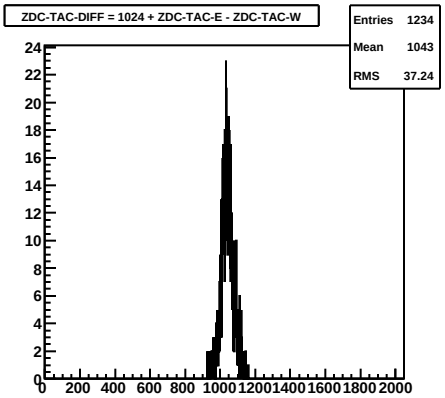

Entries 36313
VPD East ADC Sum
VPD West ADC Sum

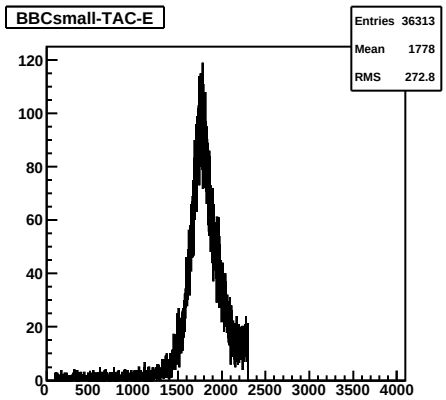

Entries 36313
ZDC East ADC Sum Att
ZDC West ADC Sum Att

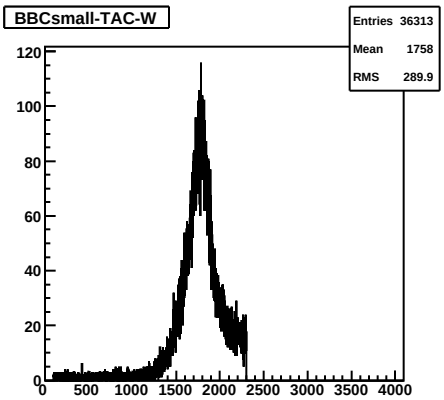

Entries 36313
BBC-L TAC Diff
BCC-S TAC Diff
Entries 36313
BBC-L TAC Diff
VPD TAC Diff
Entries 36313
BBC-L TAC Diff
ZDC TAC Diff
Entries 36313
BBC-S TAC Diff
VPD TAC Diff
Entries 36313
BBC-S TAC Diff
ZDC TAC Diff
Entries 36313
VPD TAC Diff
ZDC TAC Diff

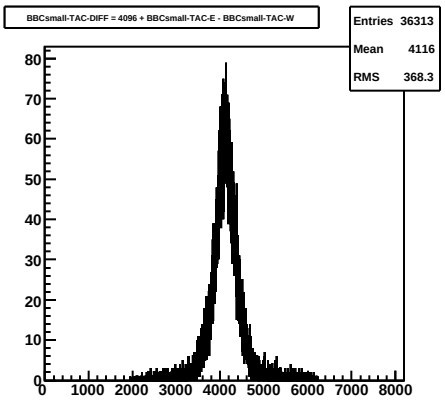

ZDC-TAC-E
Entries 5866
Mean 270.8
RMS 26.63

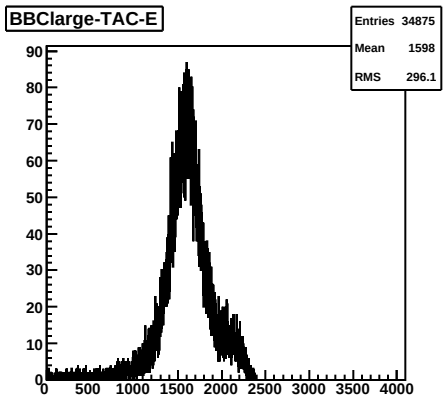

ZDC-TAC-W
Entries 5436
Mean 250.3
RMS 28.79

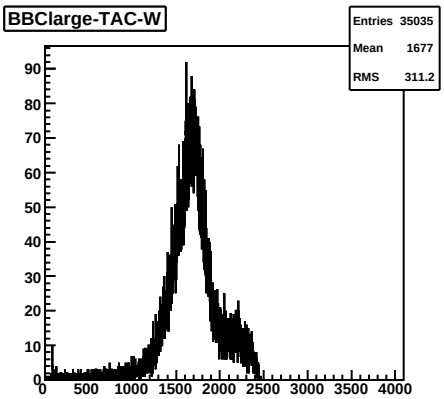

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1234
Mean 1043
RMS 37.24

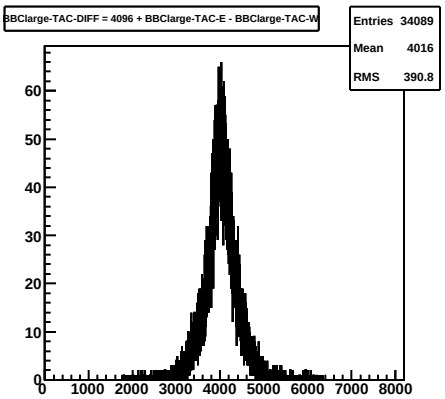

BBCsmall-TAC-E
Entries 36313
Mean 1778
RMS 272.8

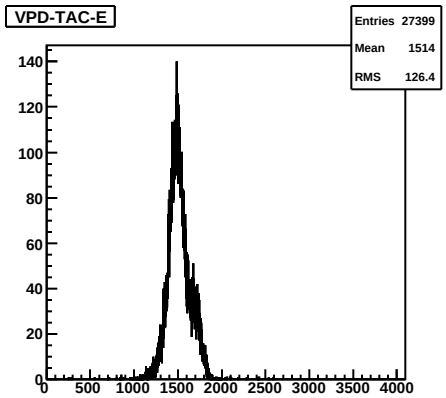

BBCsmall-TAC-W
Entries 36313
Mean 1758
RMS 289.9

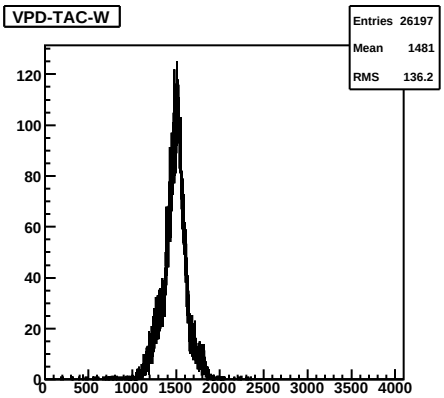

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 36313
Mean 4116
RMS 368.3

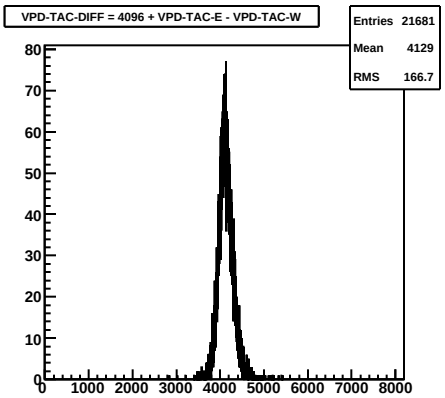

BBClarge-TAC-E
Entries 34875
Mean 1598
RMS 296.1

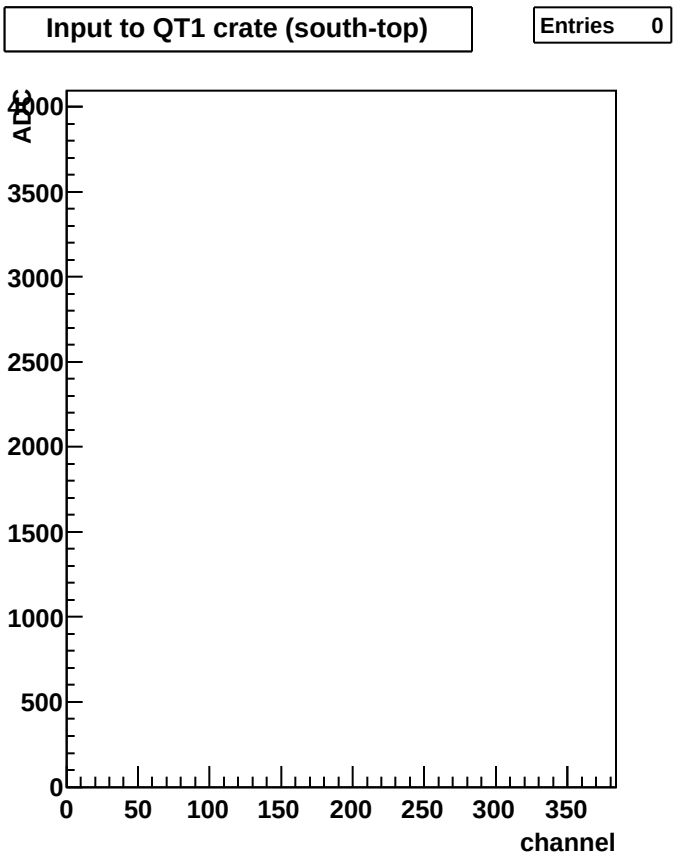

BBClarge-TAC-W
Entries 35035
Mean 1677
RMS 311.2

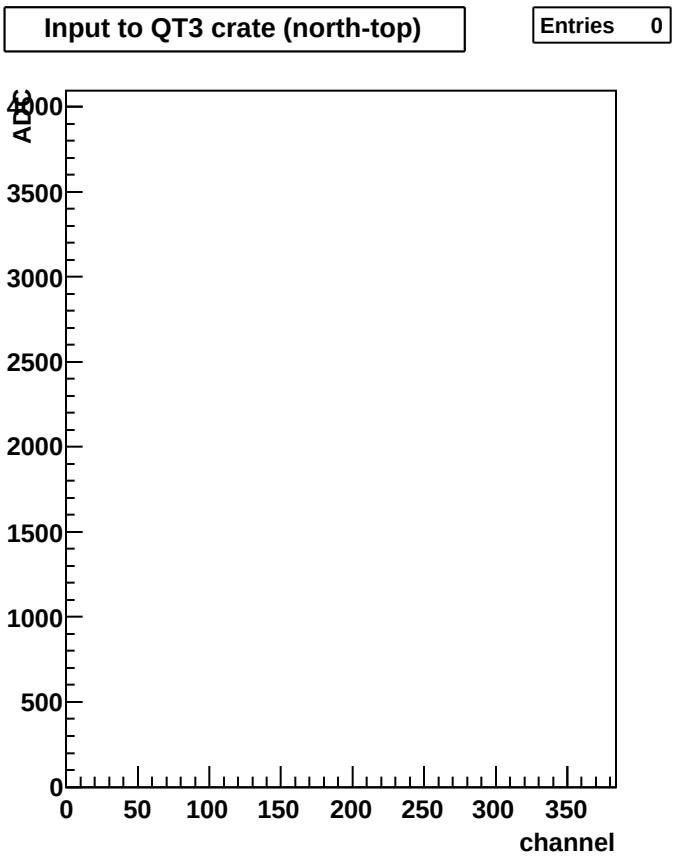

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 34089
Mean 4016
RMS 390.8

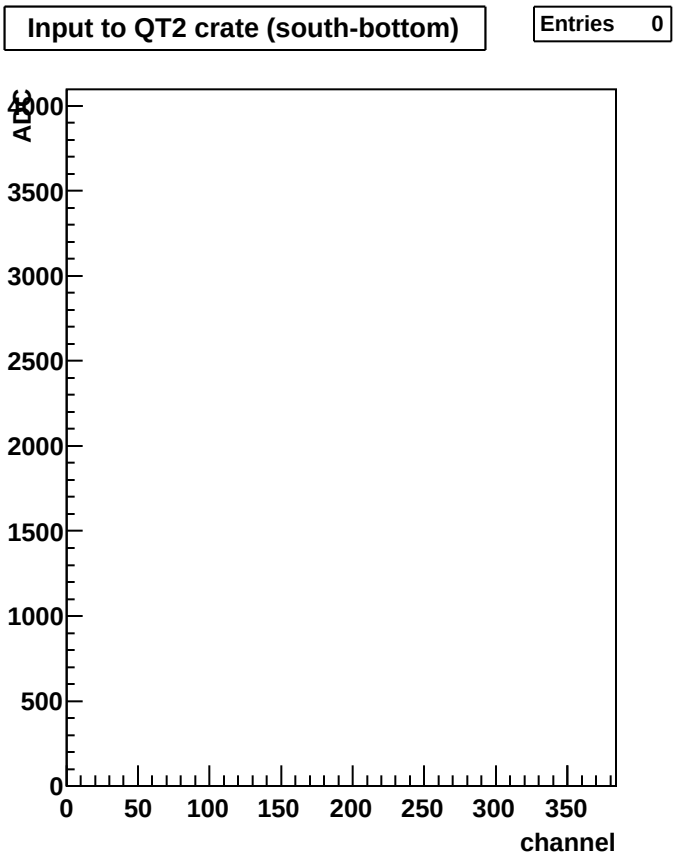

VPD-TAC-E
Entries 27399
Mean 1514
RMS 126.4

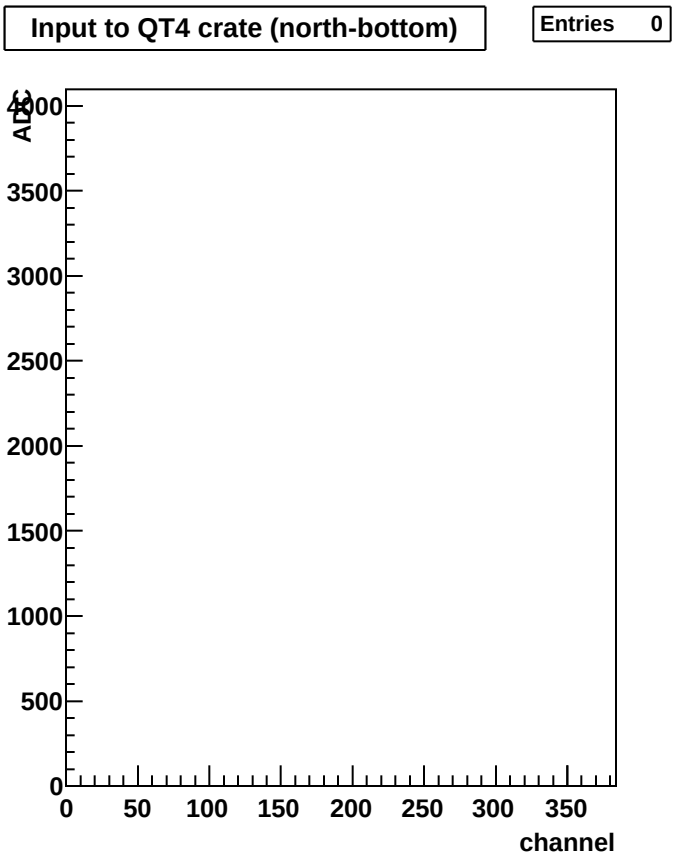

VPD-TAC-W
Entries 26197
Mean 1481
RMS 136.2

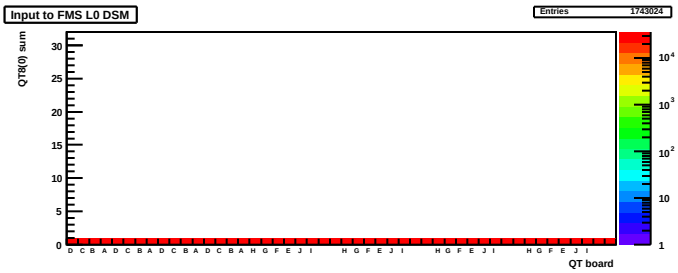

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 21681
Mean 4129
RMS 166.7

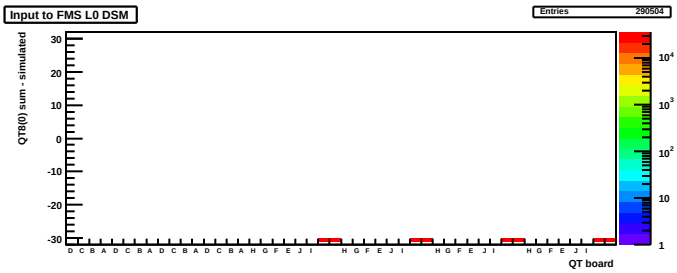

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

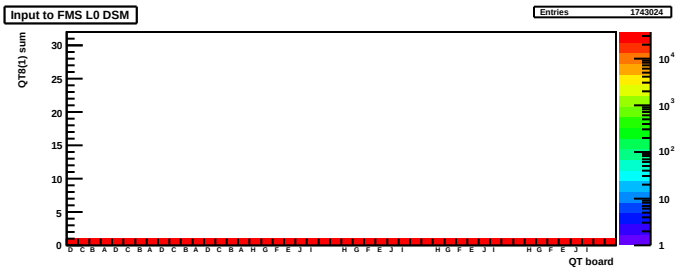

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

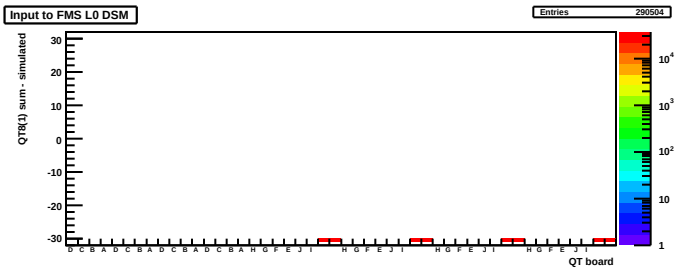

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

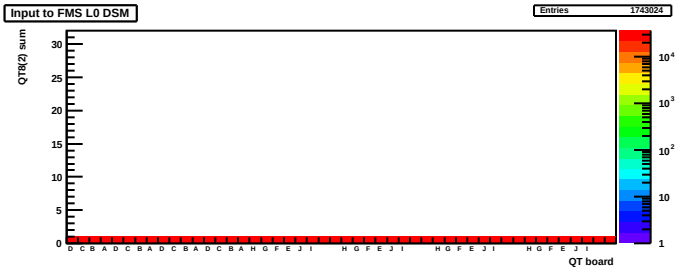

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

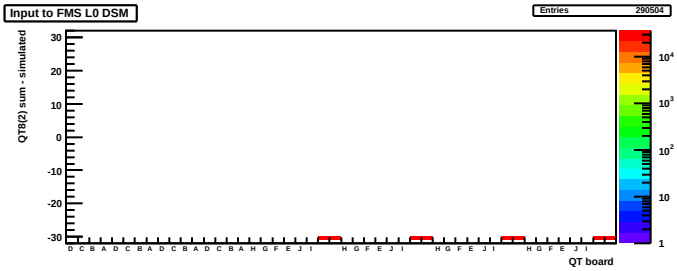

Input to FMS L0 DSM
Entries 1743024
QT8(0) sum
QT board

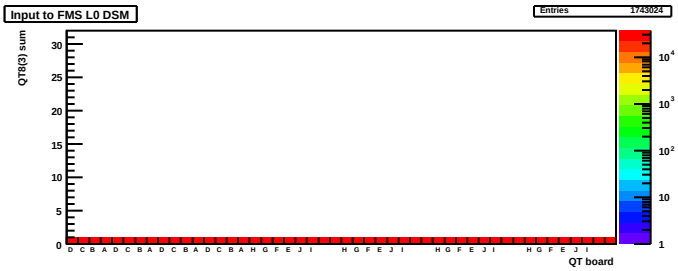

Input to FMS L0 DSM
Entries 290504
QT8(0) sum - simulated
QT board

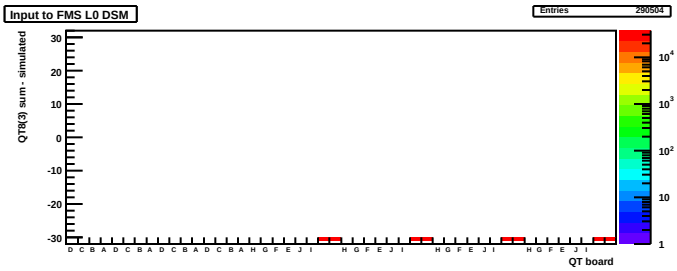

Input to FMS L0 DSM
Entries 1743024
QT8(1) sum
QT board

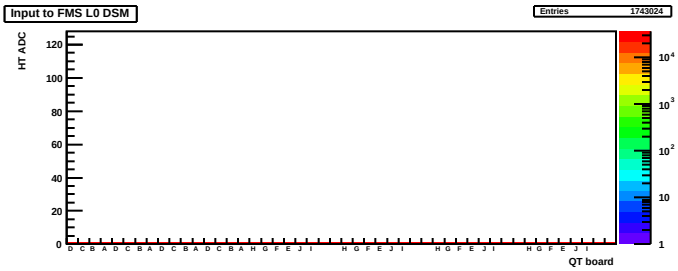

Input to FMS L0 DSM
Entries 290504
QT8(1) sum - simulated
QT board

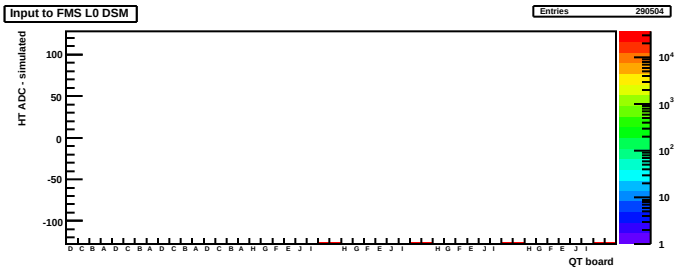

Input to FMS L0 DSM
Entries 1743024
QT8(2) sum
QT board

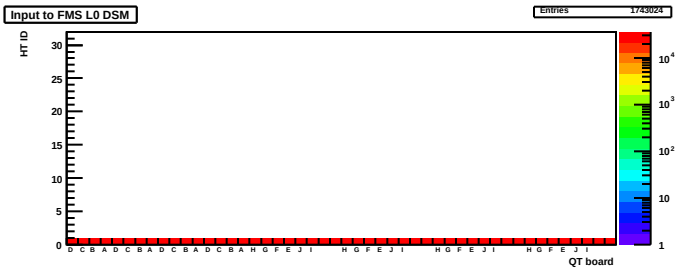

Input to FMS L0 DSM
Entries 290504
QT8(2) sum - simulated
QT board

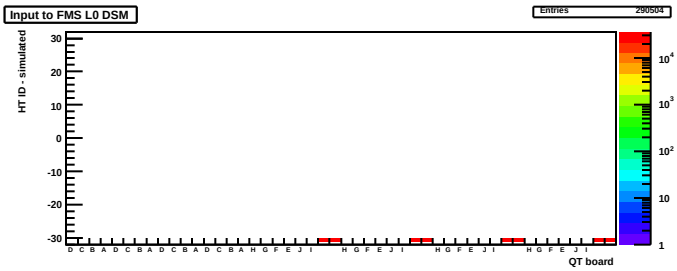

Input to FMS L0 DSM
Entries 1743024
QT8(3) sum
QT board

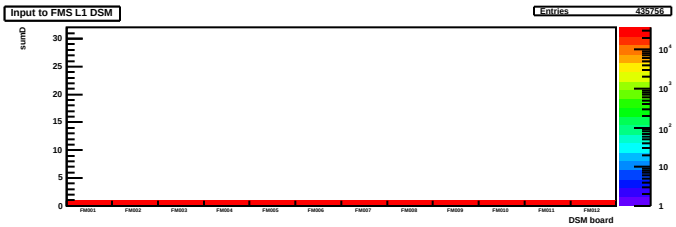

Input to FMS L0 DSM
Entries 290504
QT8(3) sum - simulated
QT board

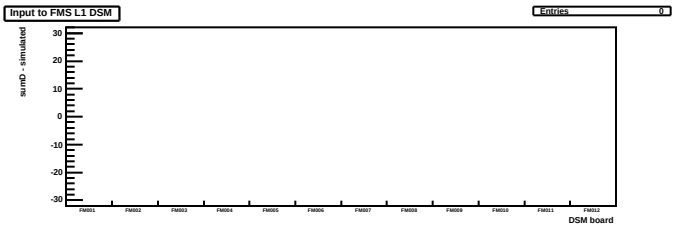

Input to FMS L0 DSM
Entries 1743024
HT ADC
QT board

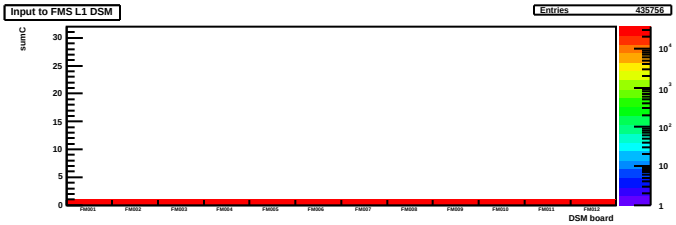

Input to FMS L0 DSM
Entries 290504
HT ADC - simulated
QT board

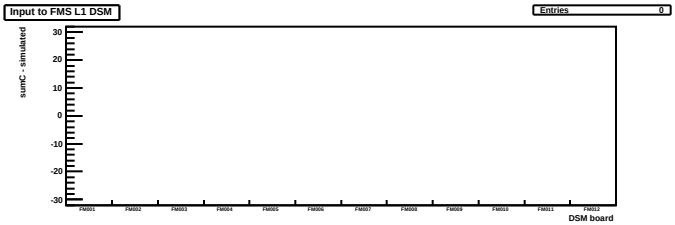

Input to FMS L0 DSM
Entries 1743024
HT ID
QT board

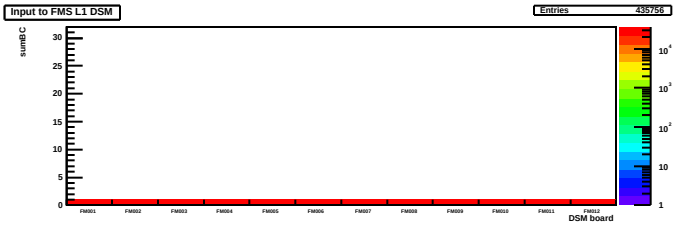

Input to FMS L0 DSM
Entries 290504
HT ID - simulated
QT board

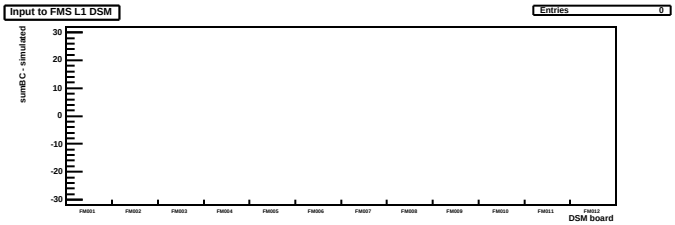

Input to FMS L1 DSM
Entries 435756
sumD
DSM board

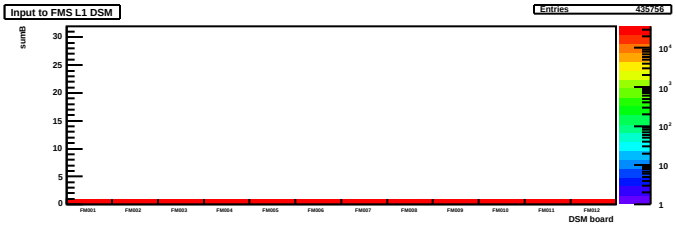

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

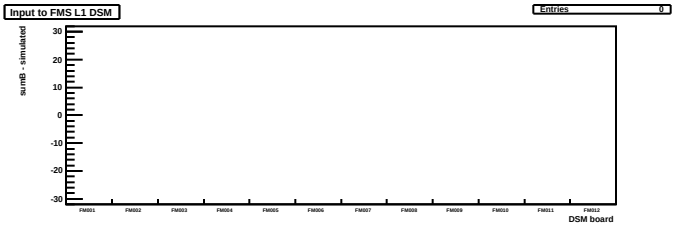

Input to FMS L1 DSM
Entries 435756
sumC
DSM board

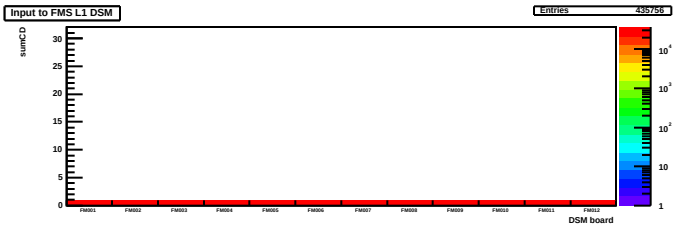

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

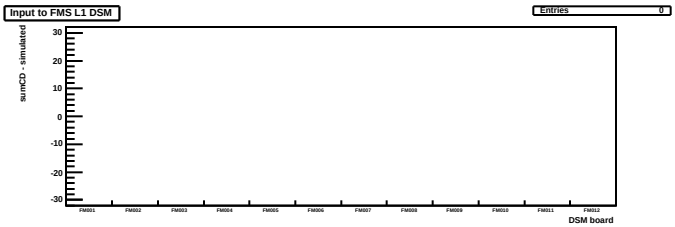

Input to FMS L1 DSM
Entries 435756
sumBC
DSM board

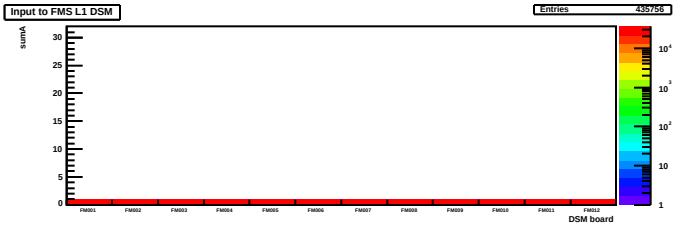

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

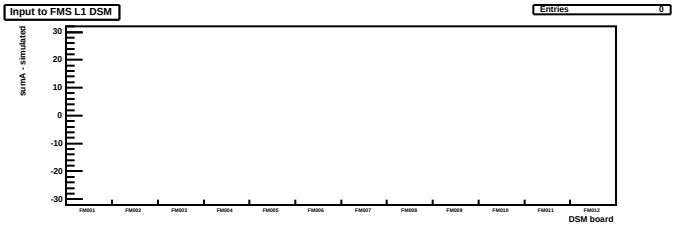

Input to FMS L1 DSM
Entries 435756
sumB
DSM board

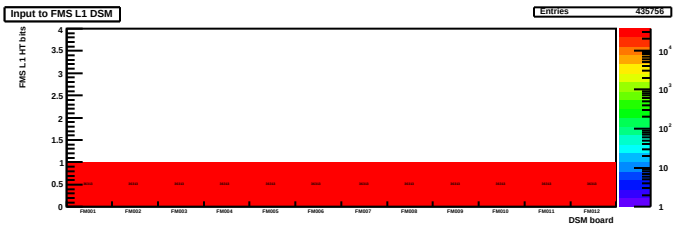

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

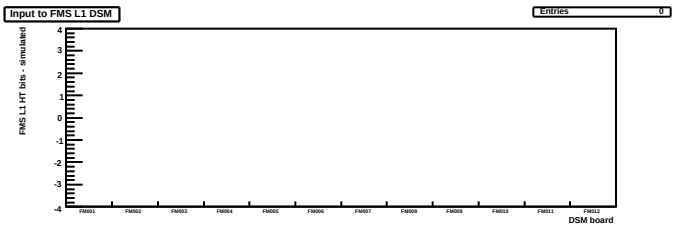

Input to FMS L1 DSM
Entries 435756
sumCD
DSM board

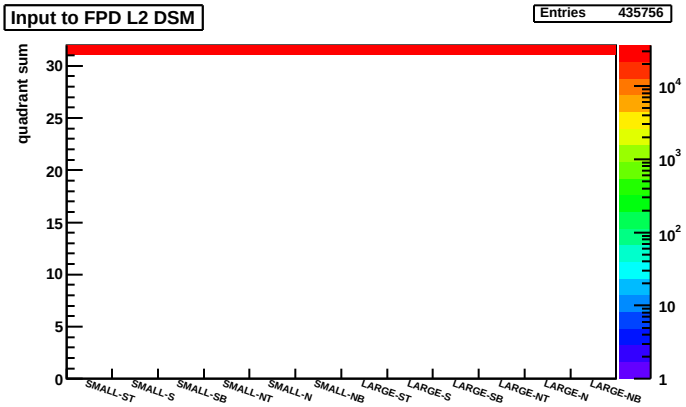

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

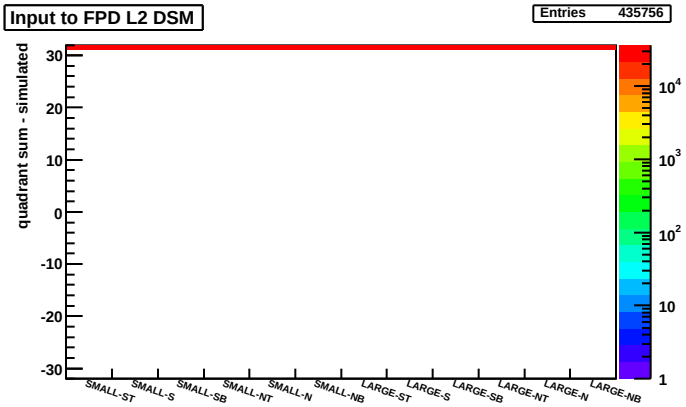

Input to FMS L1 DSM
Entries 435756
sumA
DSM board

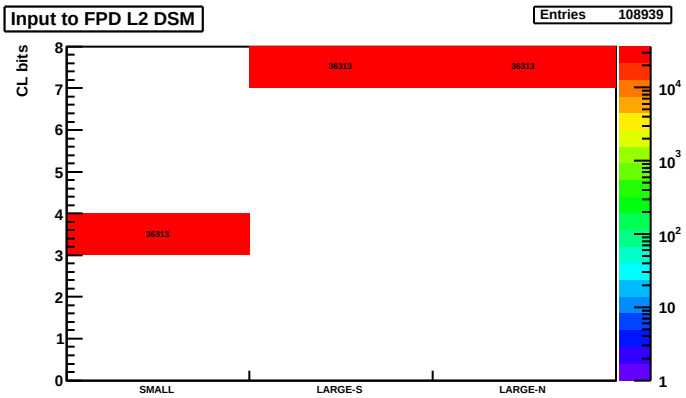

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

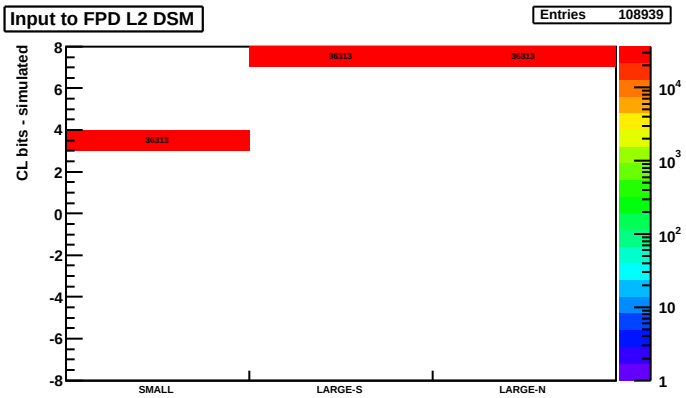

Input to FMS L1 DSM
Entries 435756
FMS L1 HT bits
DSM board

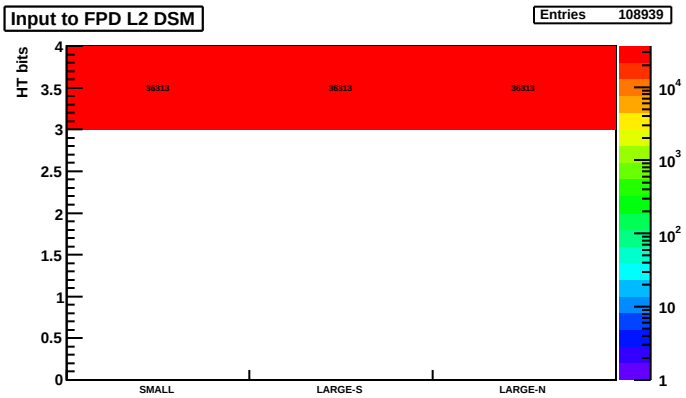

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

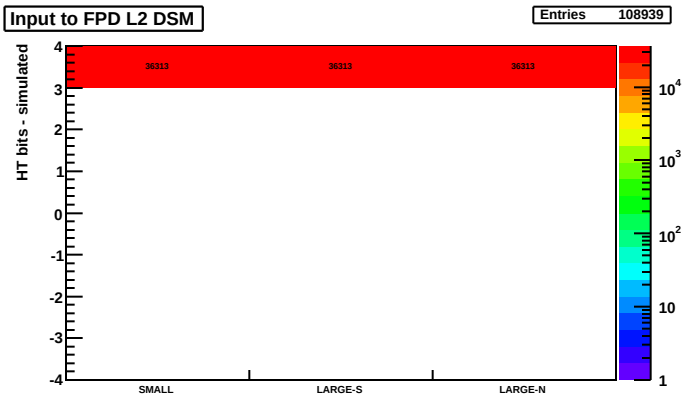

Input to FPD L2 DSM
Entries 435756
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

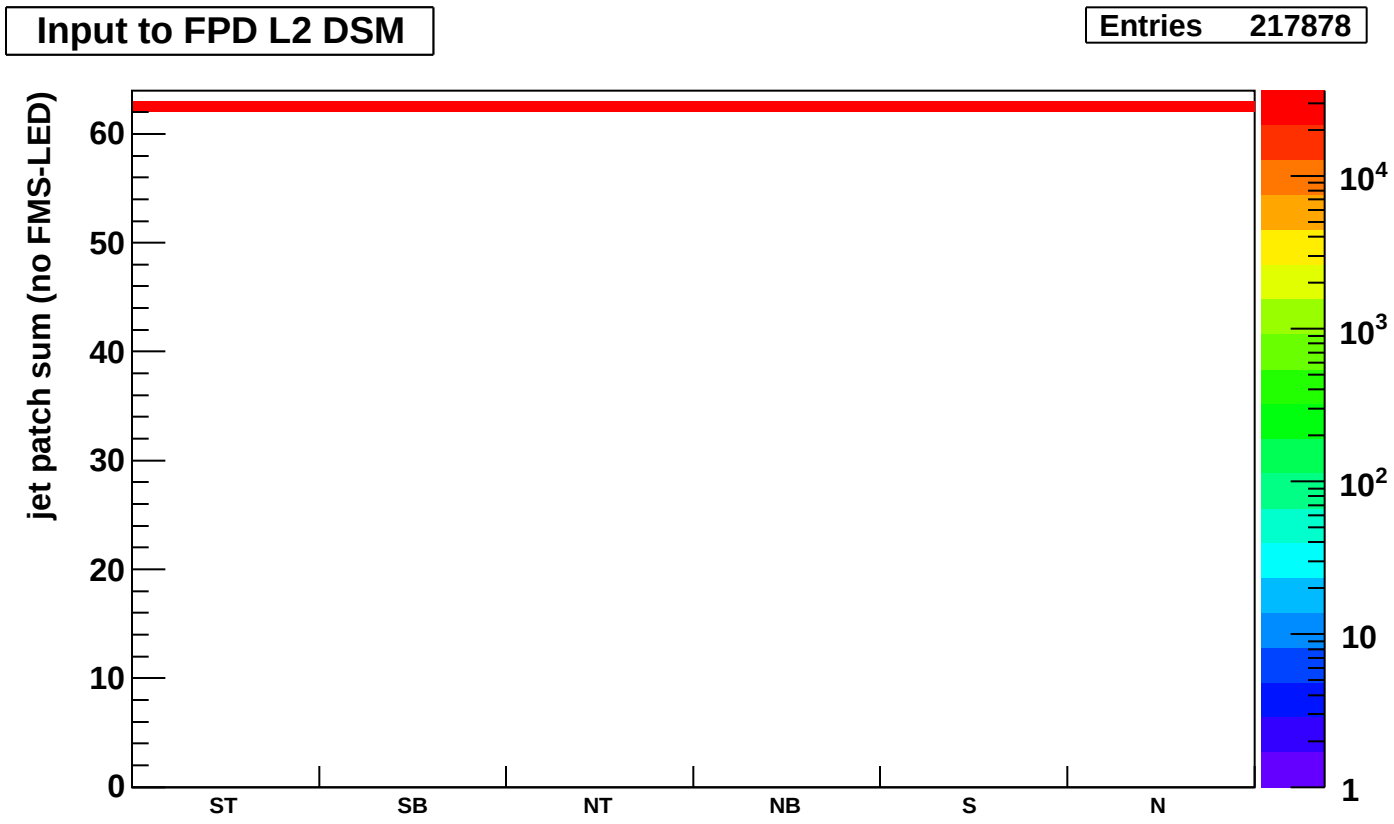

Input to FPD L2 DSM
Entries 435756
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

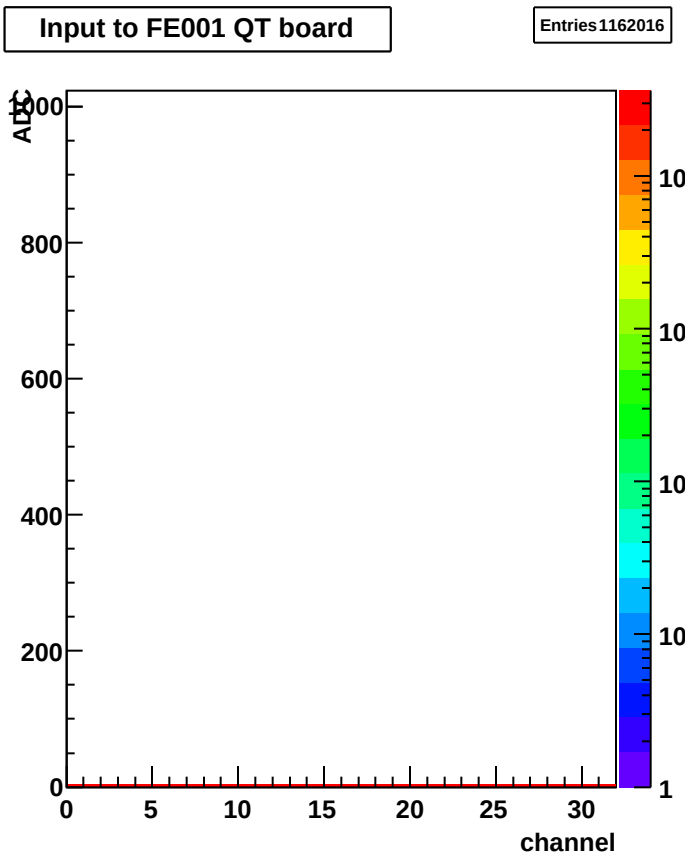

Input to FPD L2 DSM
Entries 108939
CL bits
36313
36313
36313
SMALL
LARGE-S
LARGE-N

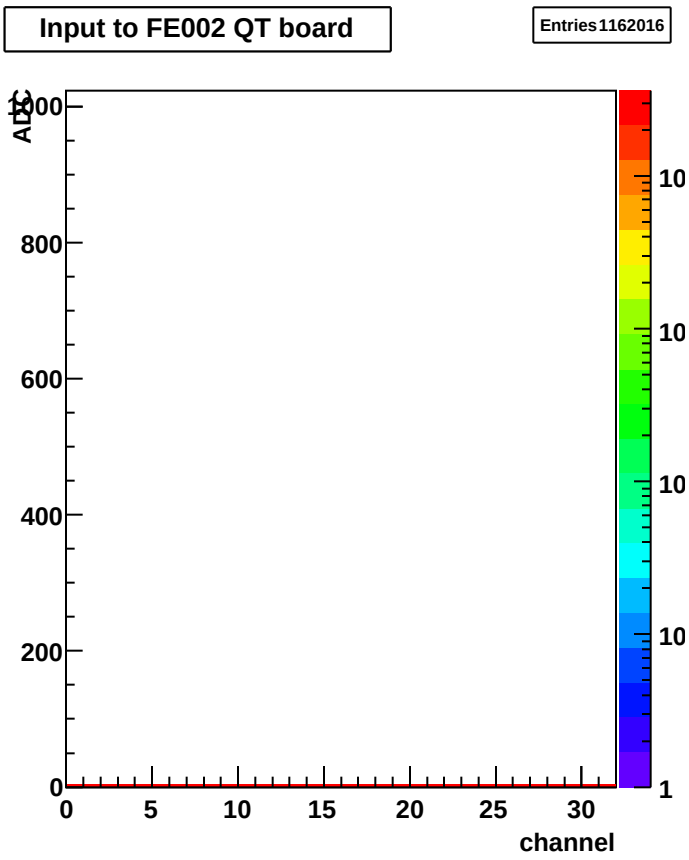

Input to FPD L2 DSM
Entries 108939
CL bits - simulated
36313
36313
36313
SMALL
LARGE-S
LARGE-N

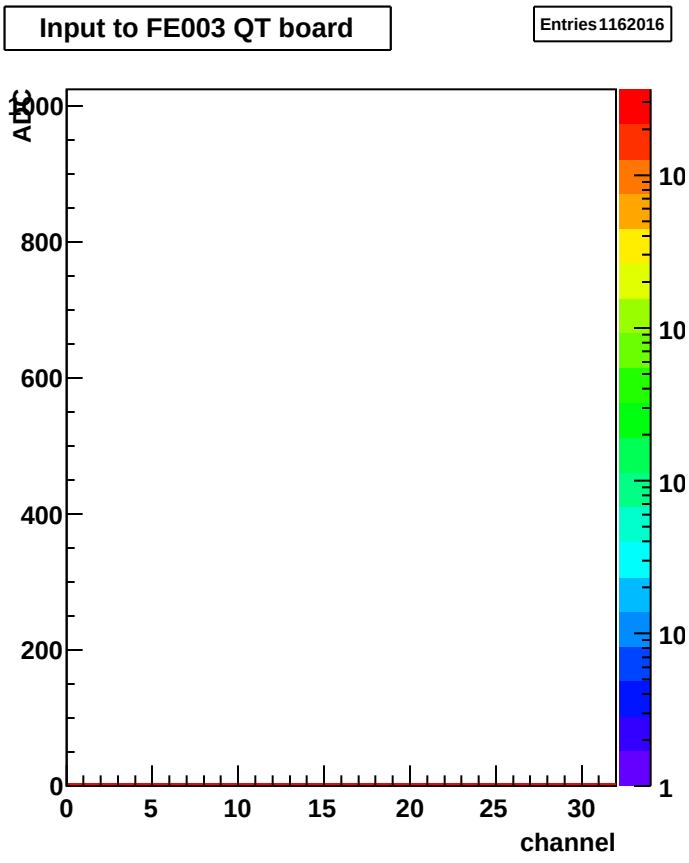

Input to FPD L2 DSM
Entries 108939
HT bits
36313
36313
36313
SMALL
LARGE-S
LARGE-N

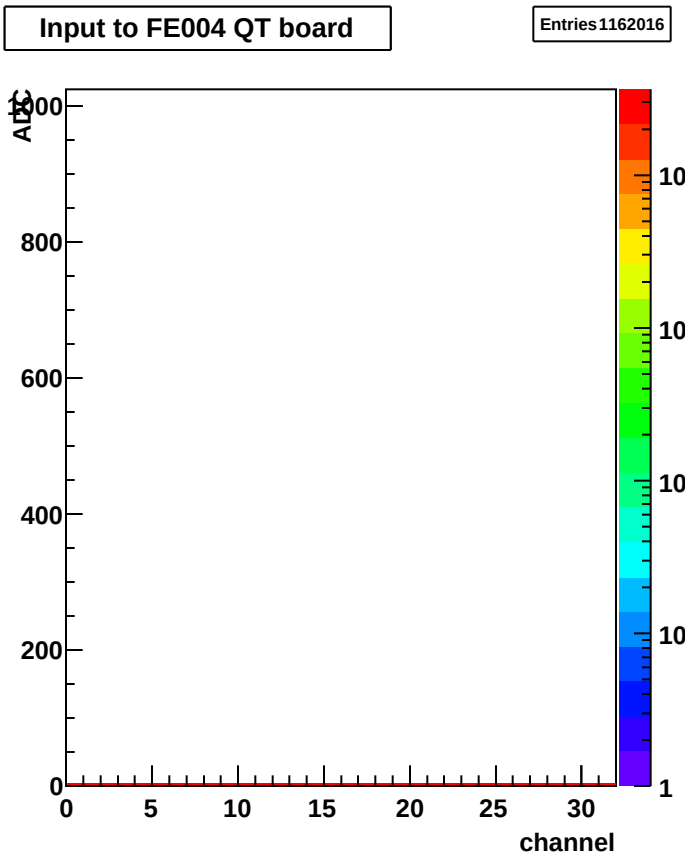

Input to FPD L2 DSM
Entries 108939
HT bits - simulated
36313
36313
36313
SMALL
LARGE-S
LARGE-N

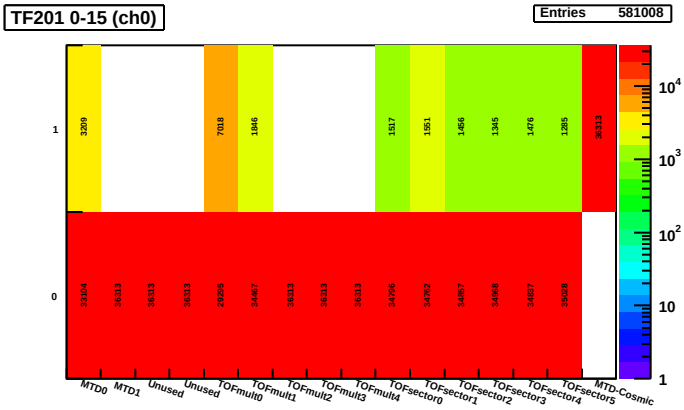

Input to FPD L2 DSM
Entries 217878
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

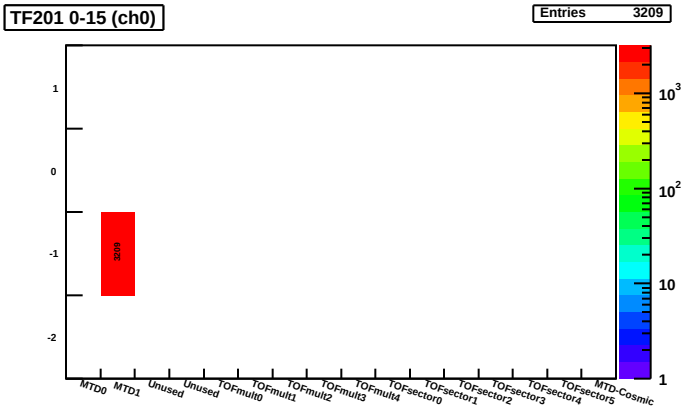

Input to FE001 QT board
Entries 1162016
ADC
channel

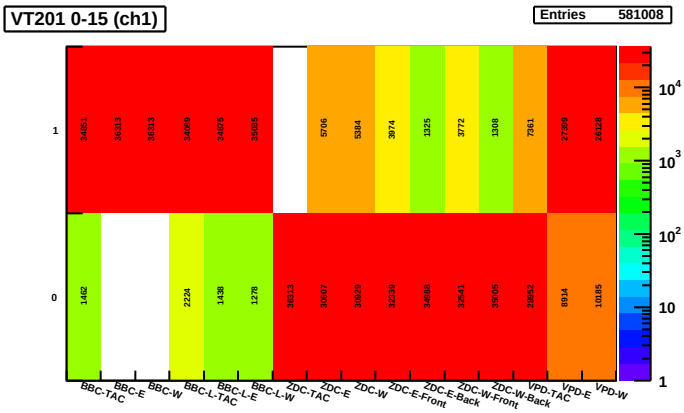

Input to FE002 QT board
Entries 1162016
ADC
channel

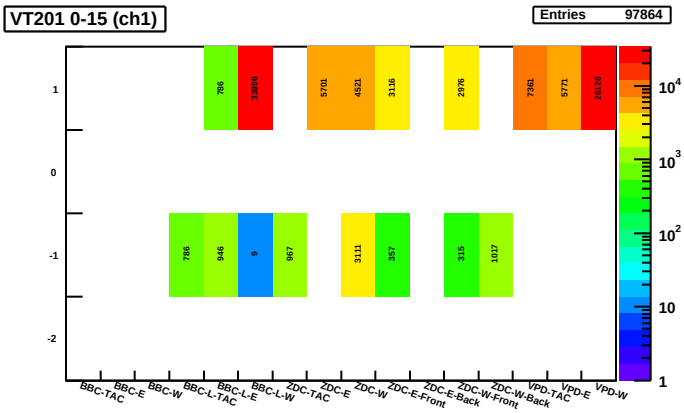

Input to FE003 QT board
Entries 1162016
ADC
channel

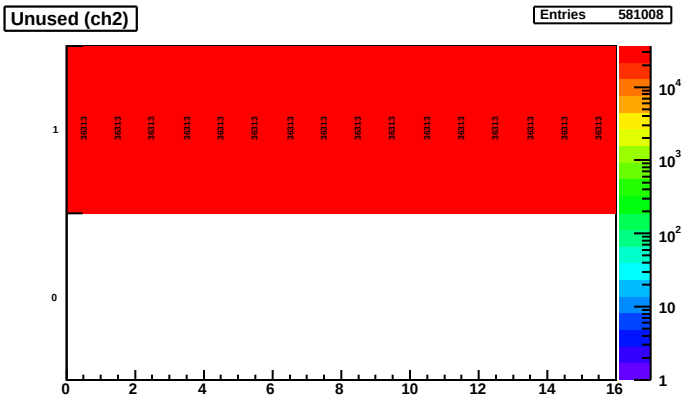

Input to FE004 QT board
Entries 1162016
ADC
channel


TF201 0-15 (ch0)
Entries 581008
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 3209
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 581008
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 97864
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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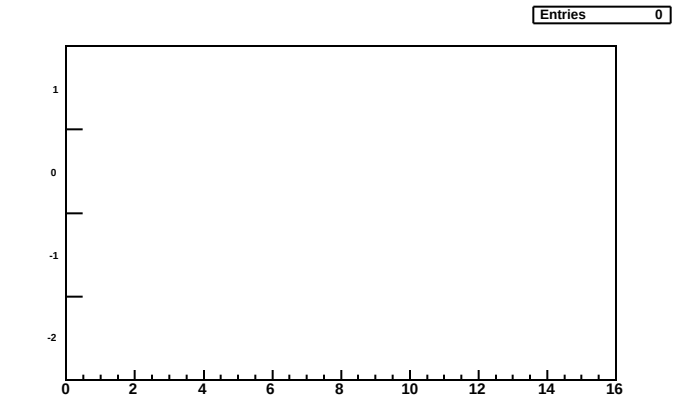
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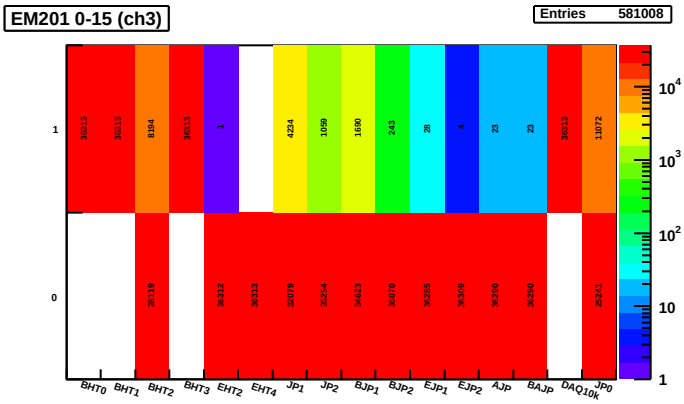
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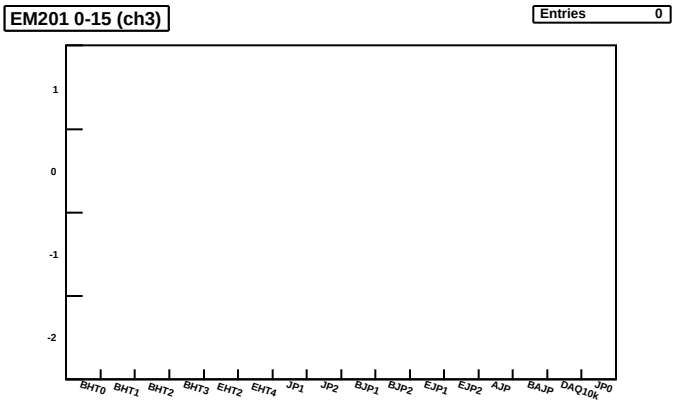
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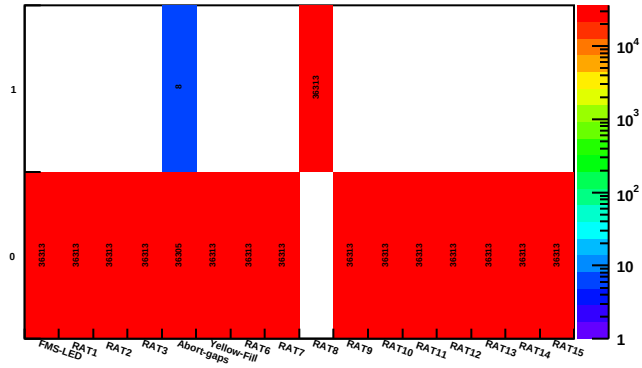
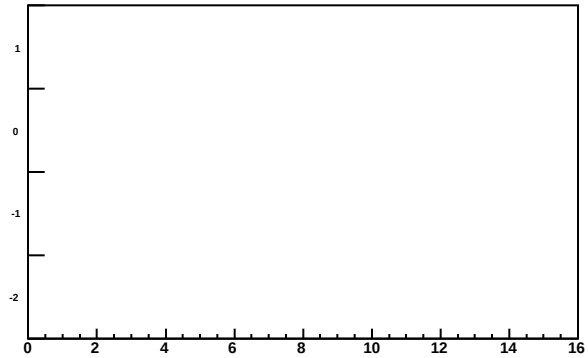
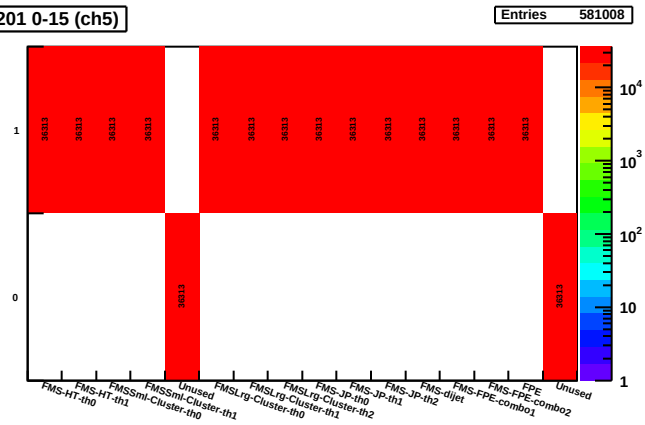
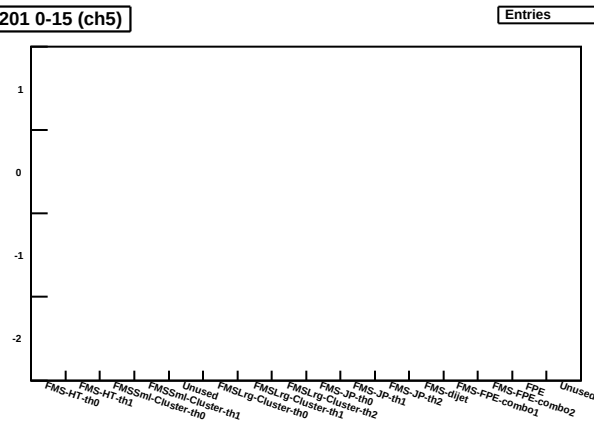
RAT board (ch4)



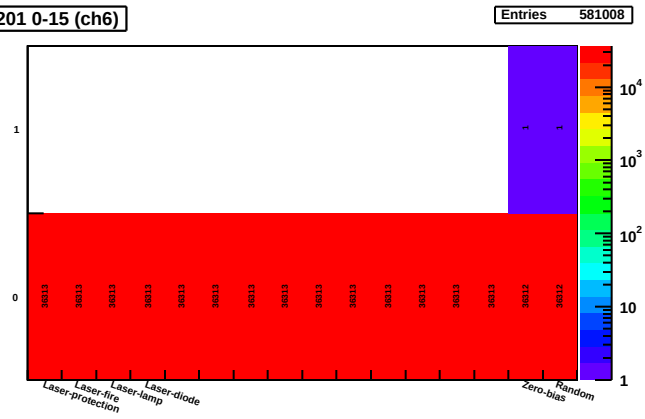


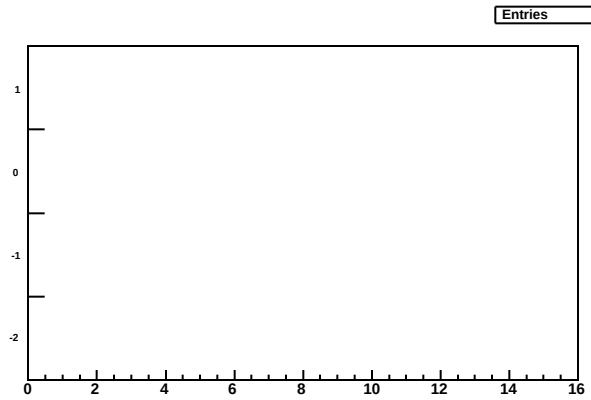
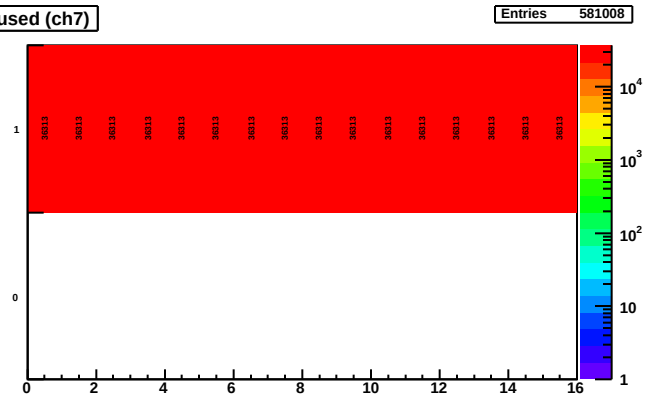
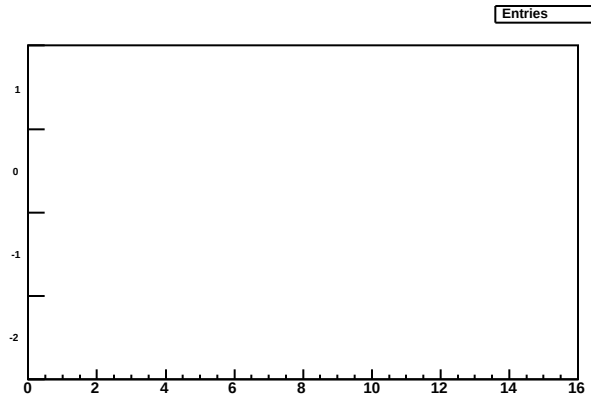
FP201 0-15 (ch5)





ST201 0-15 (ch6)





Unused (ch7)