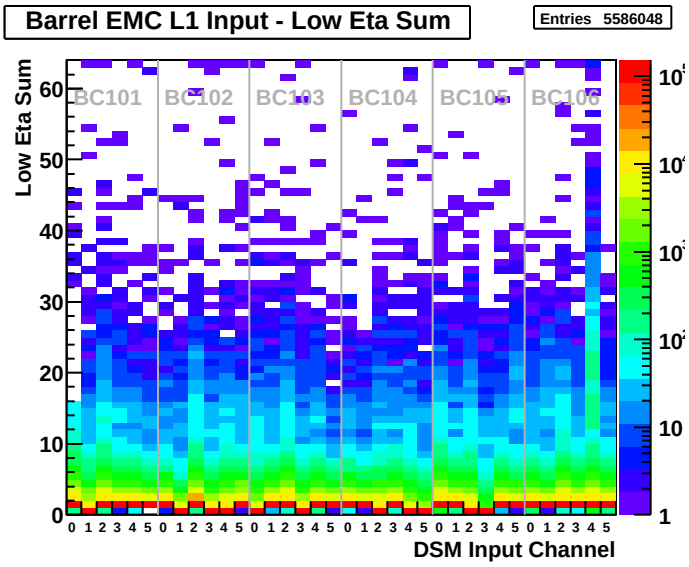
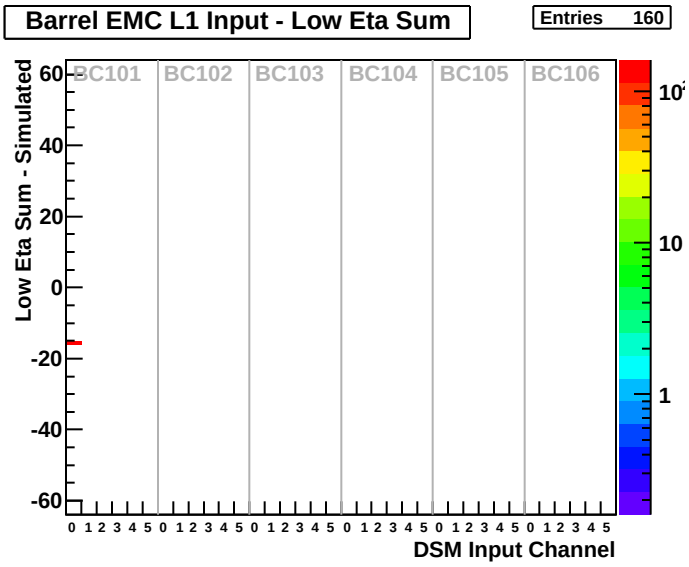
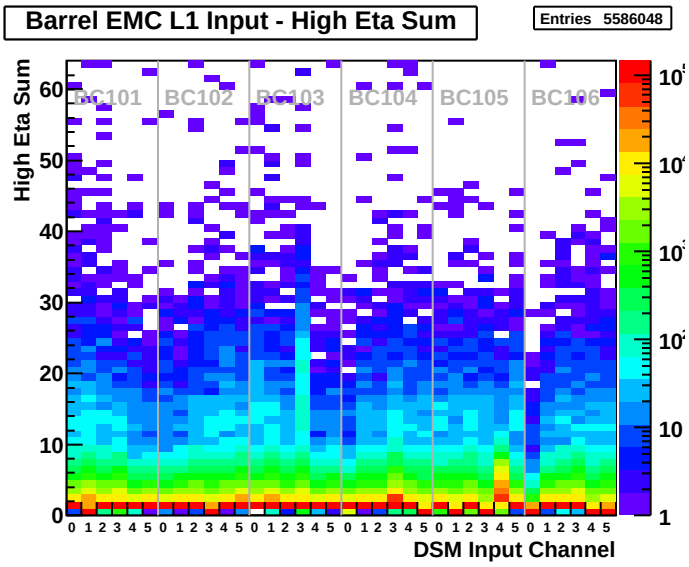
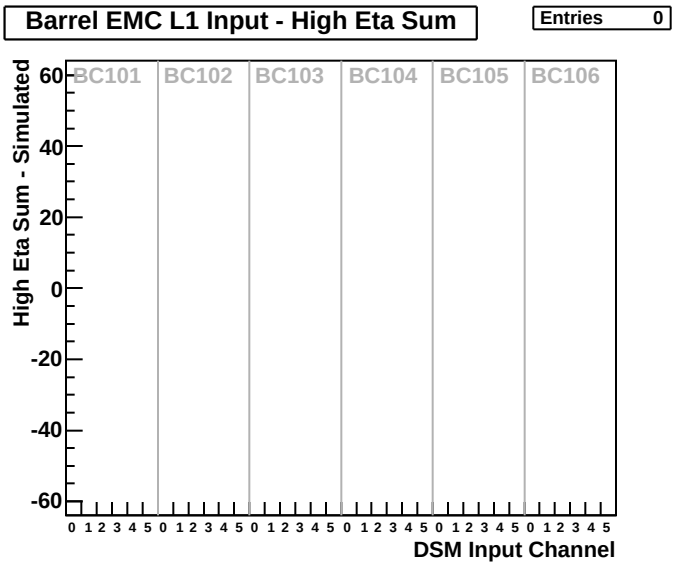
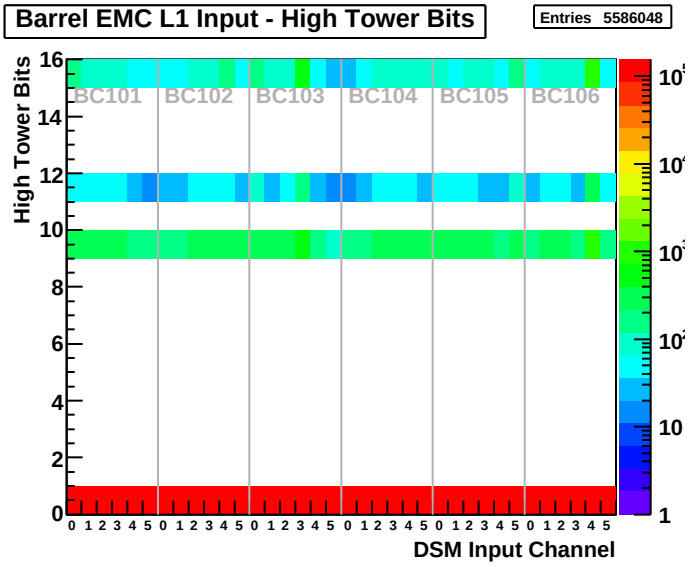
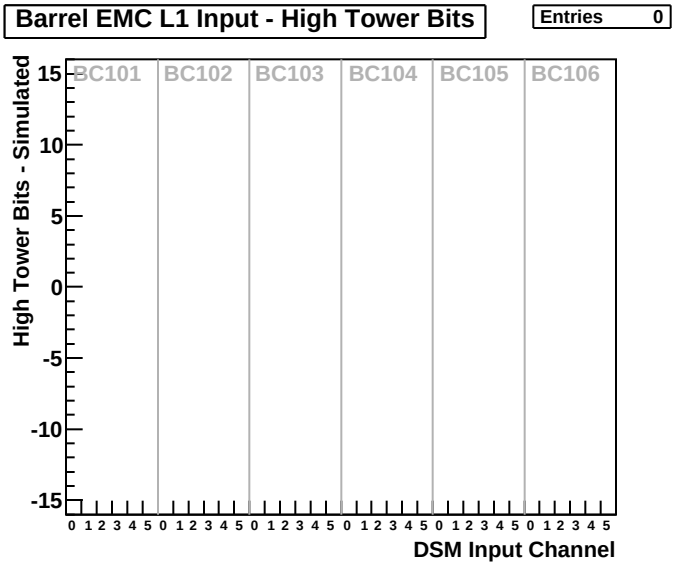

Barrel EMC L1 Input - Low Eta Sum
Entries 5586048
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

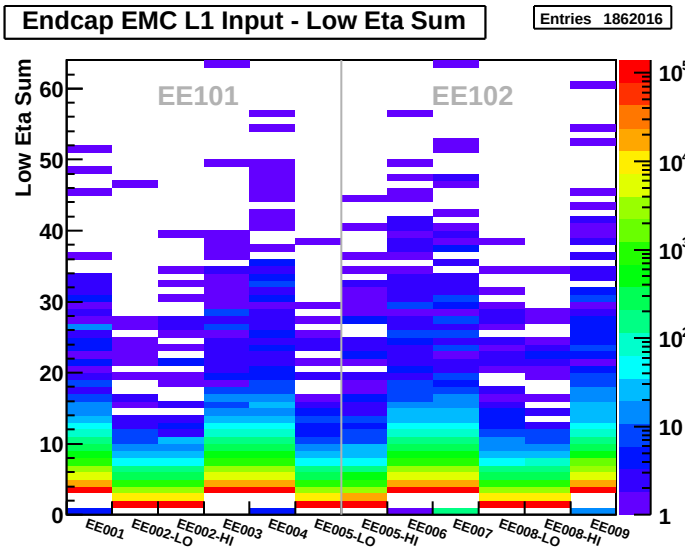

Barrel EMC L1 Input - Low Eta Sum
Entries 160
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

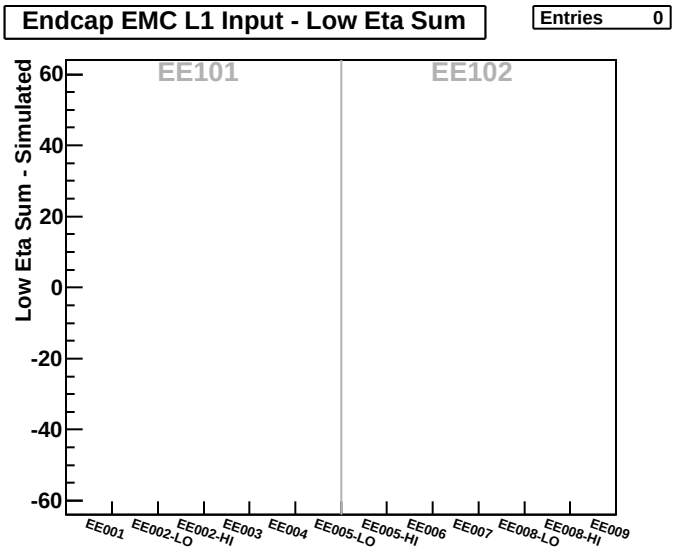

Barrel EMC L1 Input - High Eta Sum
Entries 5586048
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

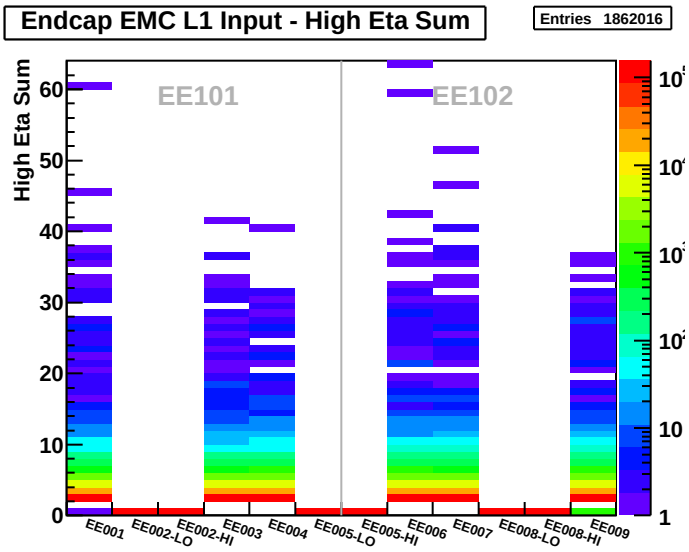

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

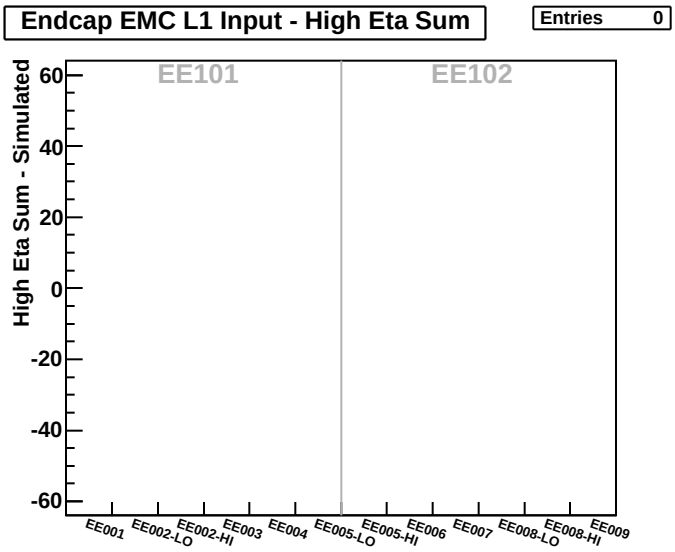

Barrel EMC L1 Input - High Tower Bits
Entries 5586048
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

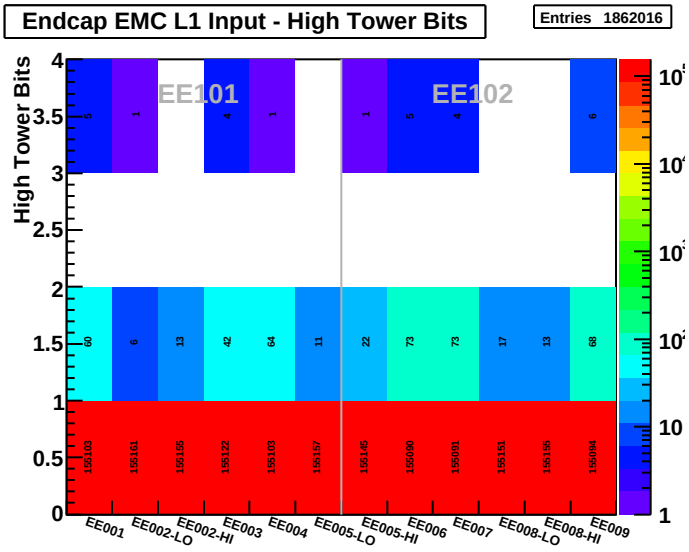

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

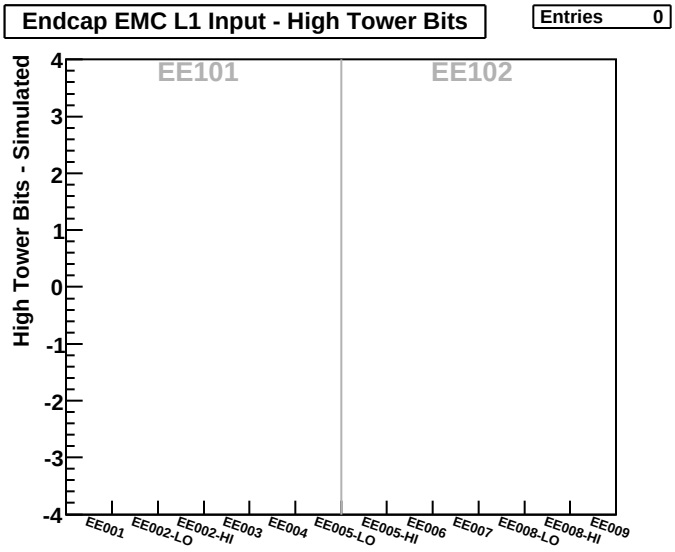

Endcap EMC L1 Input - Low Eta Sum
Entries 1862016
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

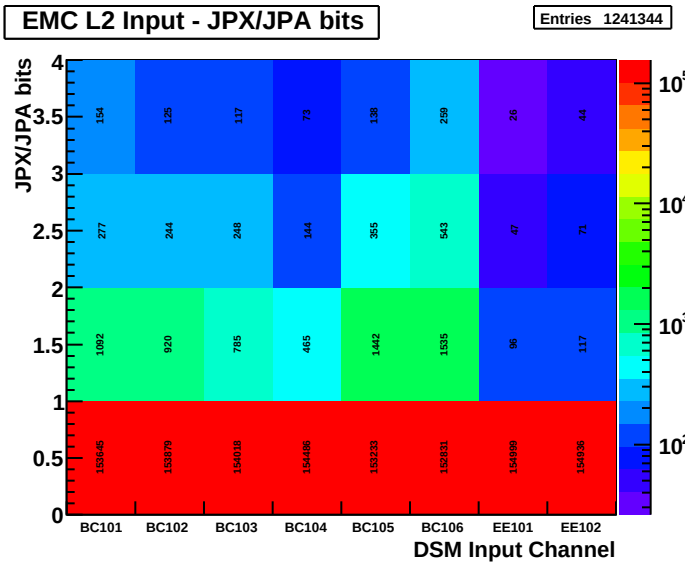

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

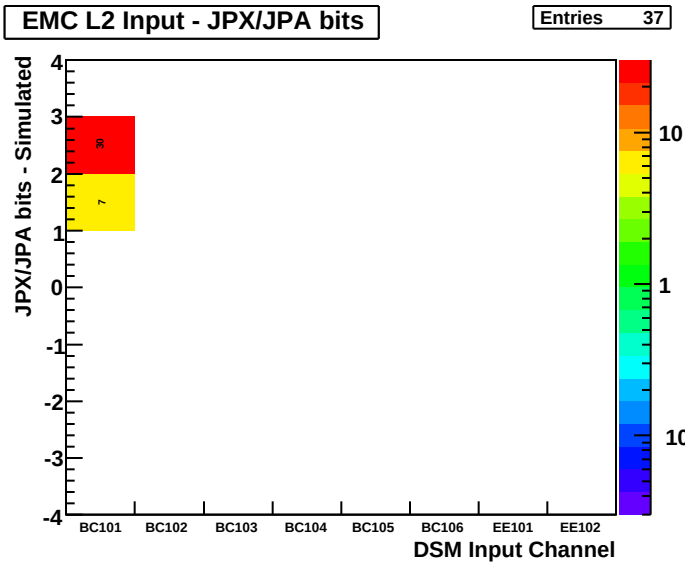

Endcap EMC L1 Input - High Eta Sum
Entries 1862016
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

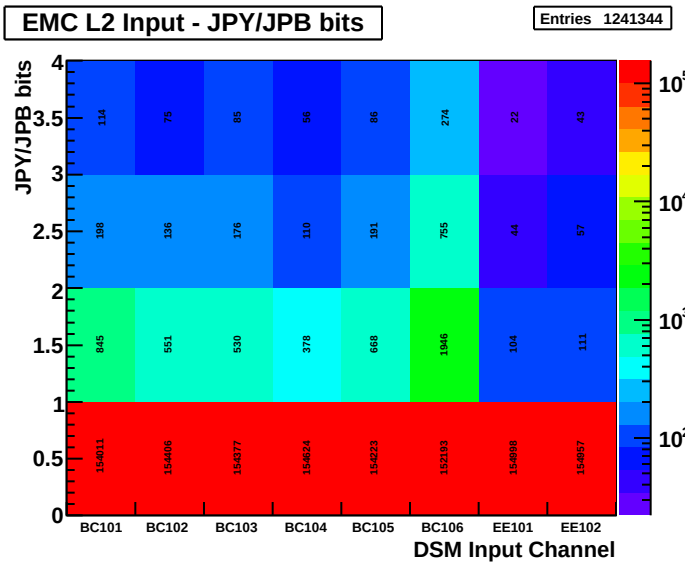

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

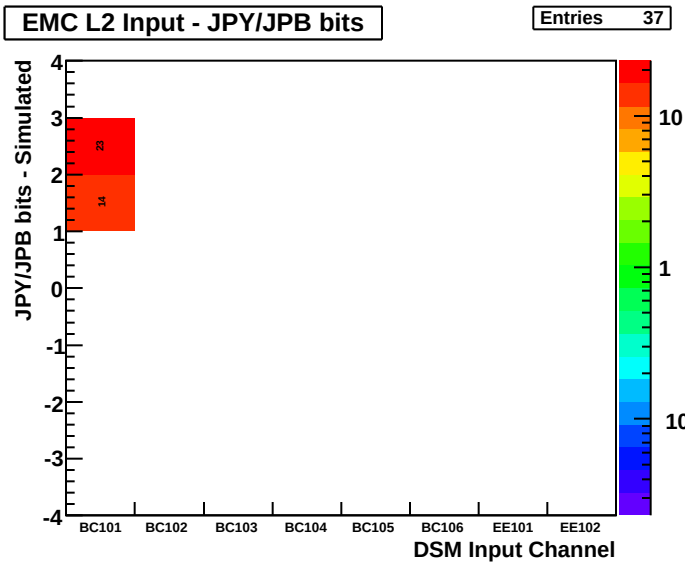

Endcap EMC L1 Input - High Tower Bits
Entries 1862016
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

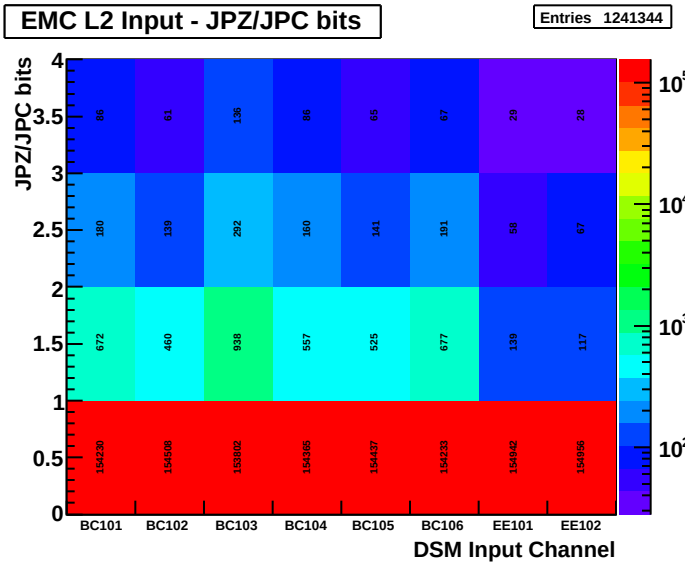

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

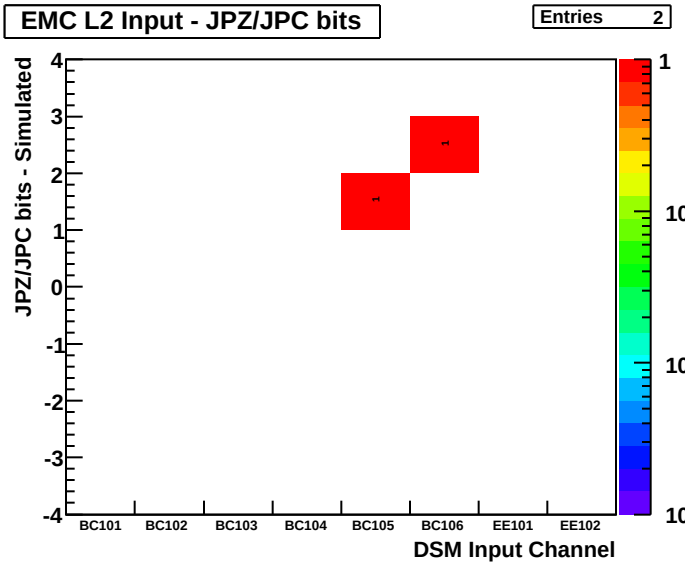

EMC L2 Input - JPX/JPA bits
Entries 1241344
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
154 125 117 73 138 259 26 44
277 244 248 144 355 543 47 71
1092 920 785 465 1442 1535 96 117
153645 153879 154018 154486 153233 152831 154999 154936

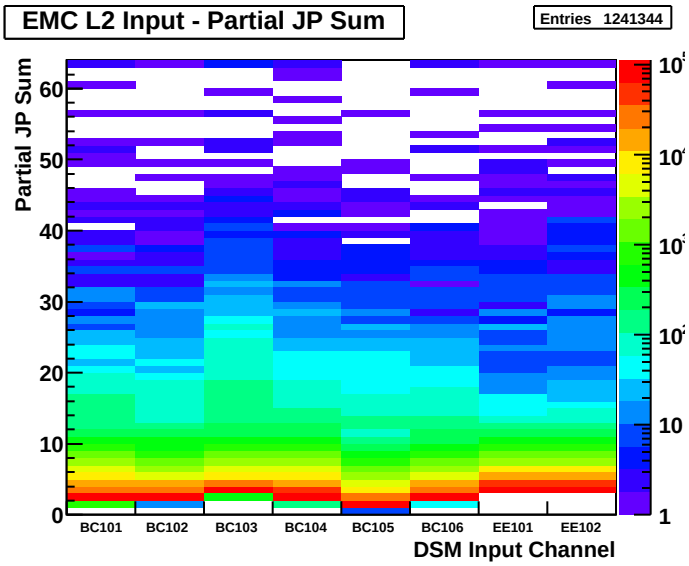

EMC L2 Input - JPX/JPA bits
Entries 37
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
30
7

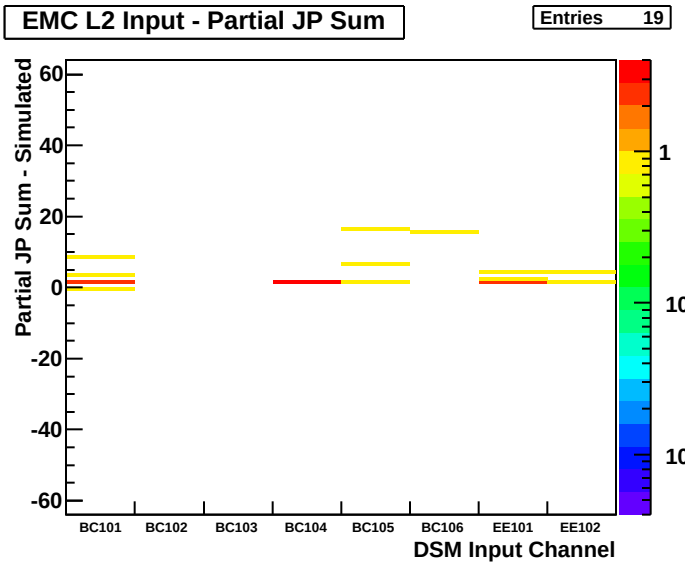

EMC L2 Input - JPY/JPB bits
Entries 1241344
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
114 75 85 56 86 274 22 43
198 136 176 110 191 755 44 57
845 551 530 378 668 1946 104 111
154011 154406 154377 154624 154223 152193 154998 154957

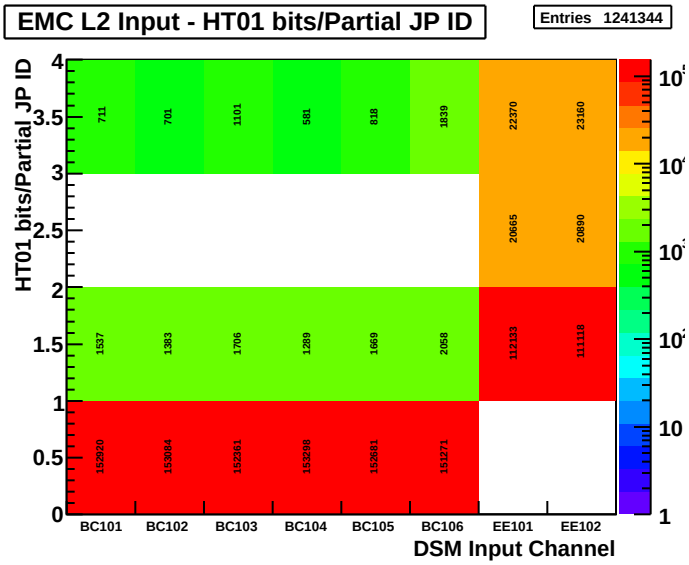

EMC L2 Input - JPY/JPB bits
Entries 37
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
23
14

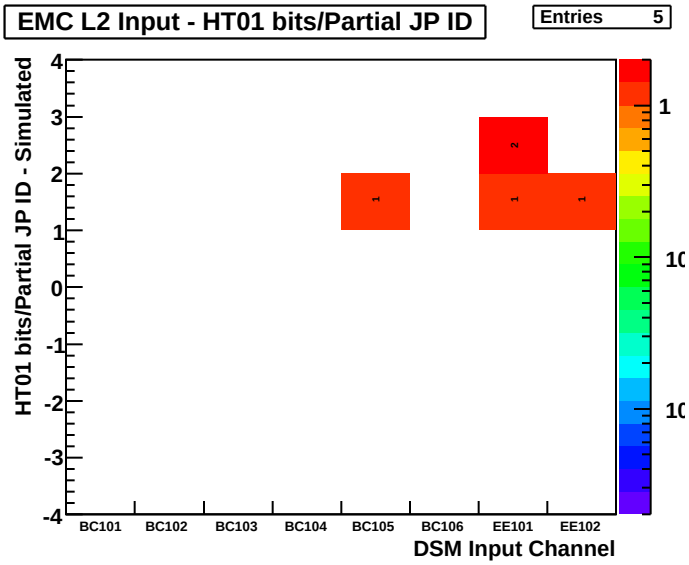

EMC L2 Input - JPZ/JPC bits
Entries 1241344
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
86 61 136 86 65 67 29 28
180 139 292 160 141 191 58 67
672 460 938 557 525 677 139 117
154230 154508 153802 154365 154437 154233 154942 154956

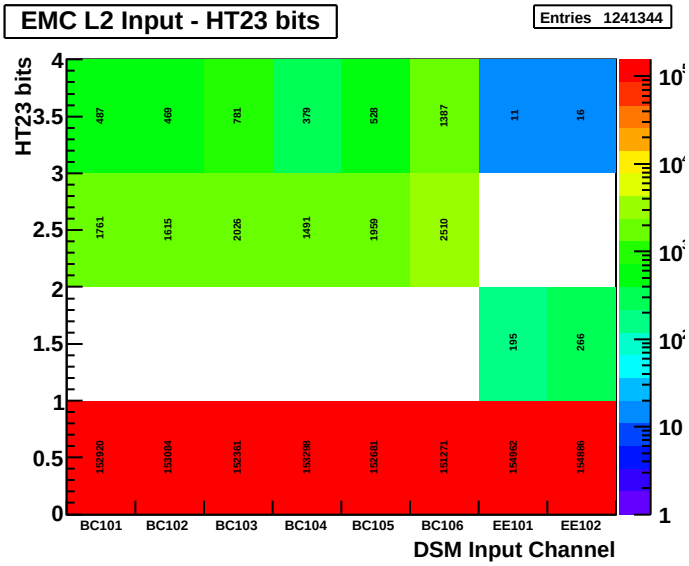

EMC L2 Input - JPZ/JPC bits
Entries 2
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1
1

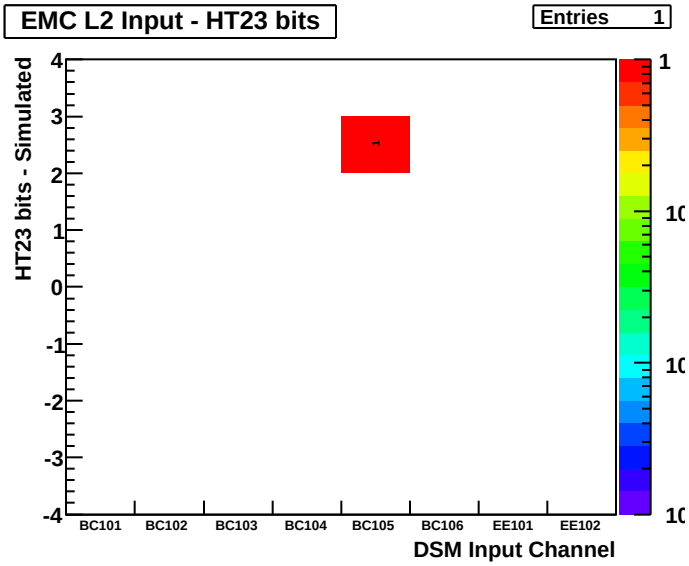

EMC L2 Input - Partial JP Sum
Entries 1241344
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

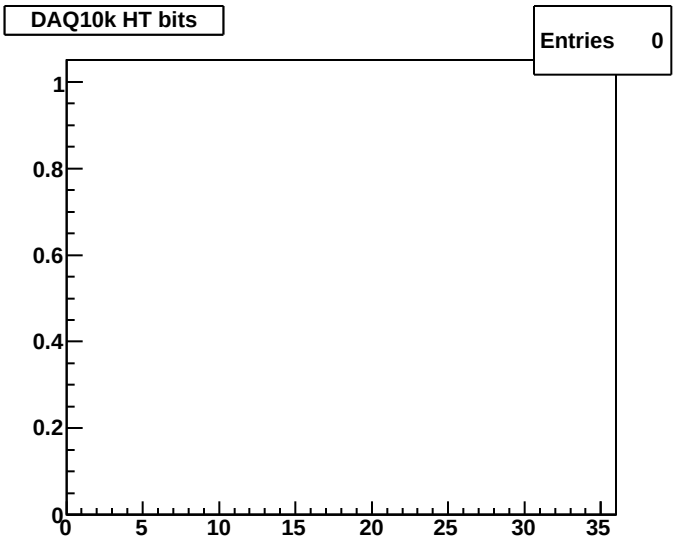

EMC L2 Input - Partial JP Sum
Entries 19
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

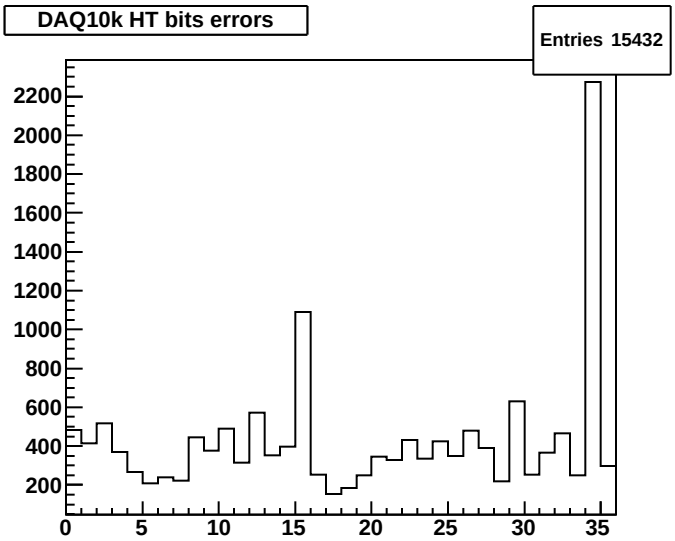

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1241344
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

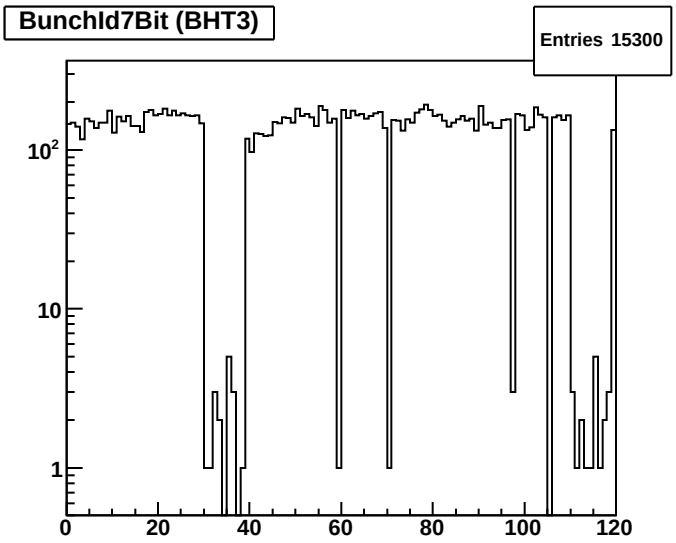

EMC L2 Input - HT01 bits/Partial JP ID
Entries 5
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

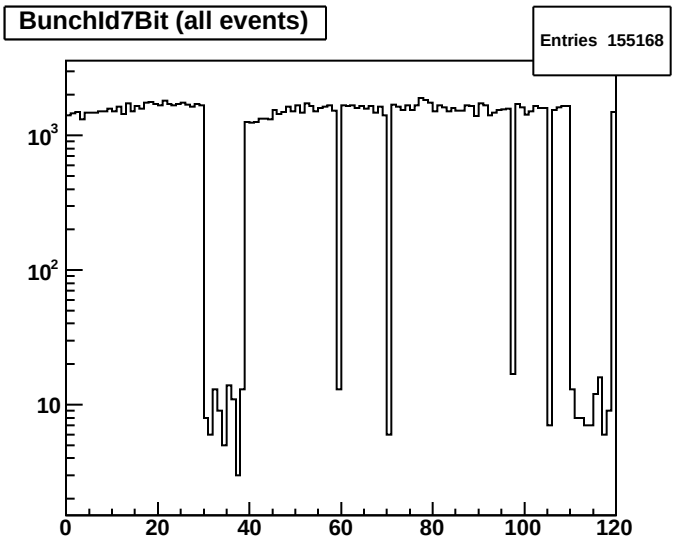

EMC L2 Input - HT23 bits
Entries 1241344
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

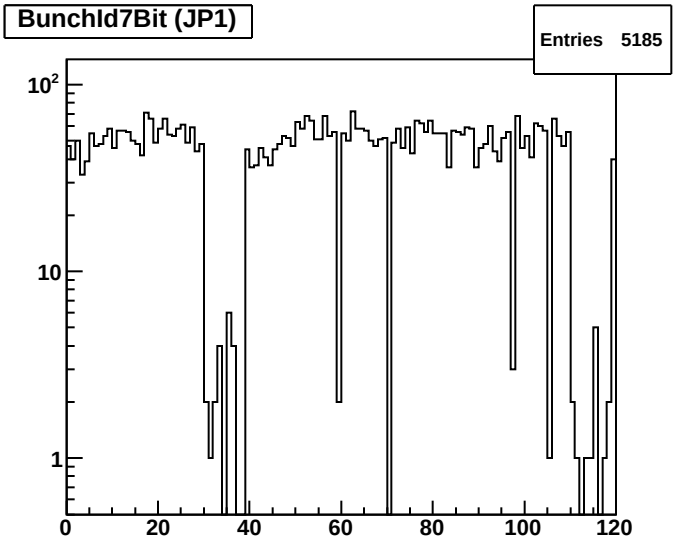

EMC L2 Input - HT23 bits
Entries 1
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

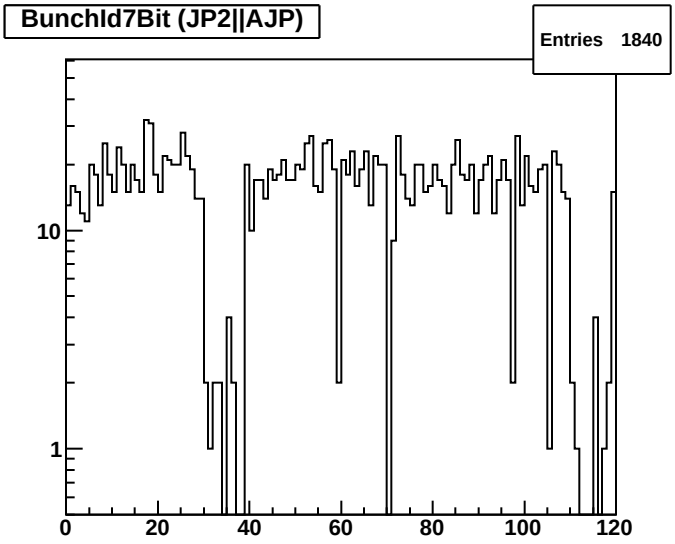

DAQ10k HT bits
Entries 0

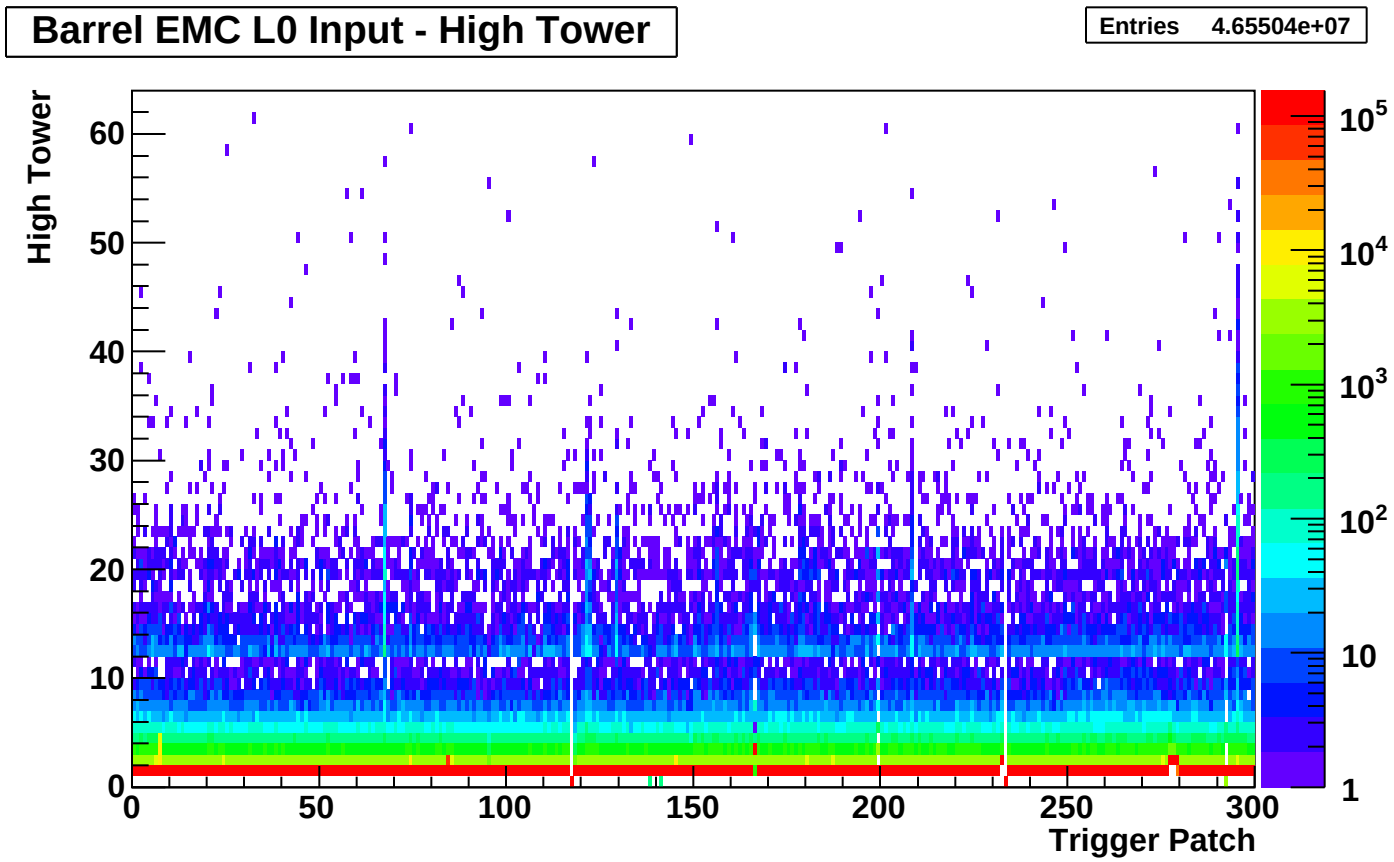

DAQ10k HT bits errors
Entries 15432

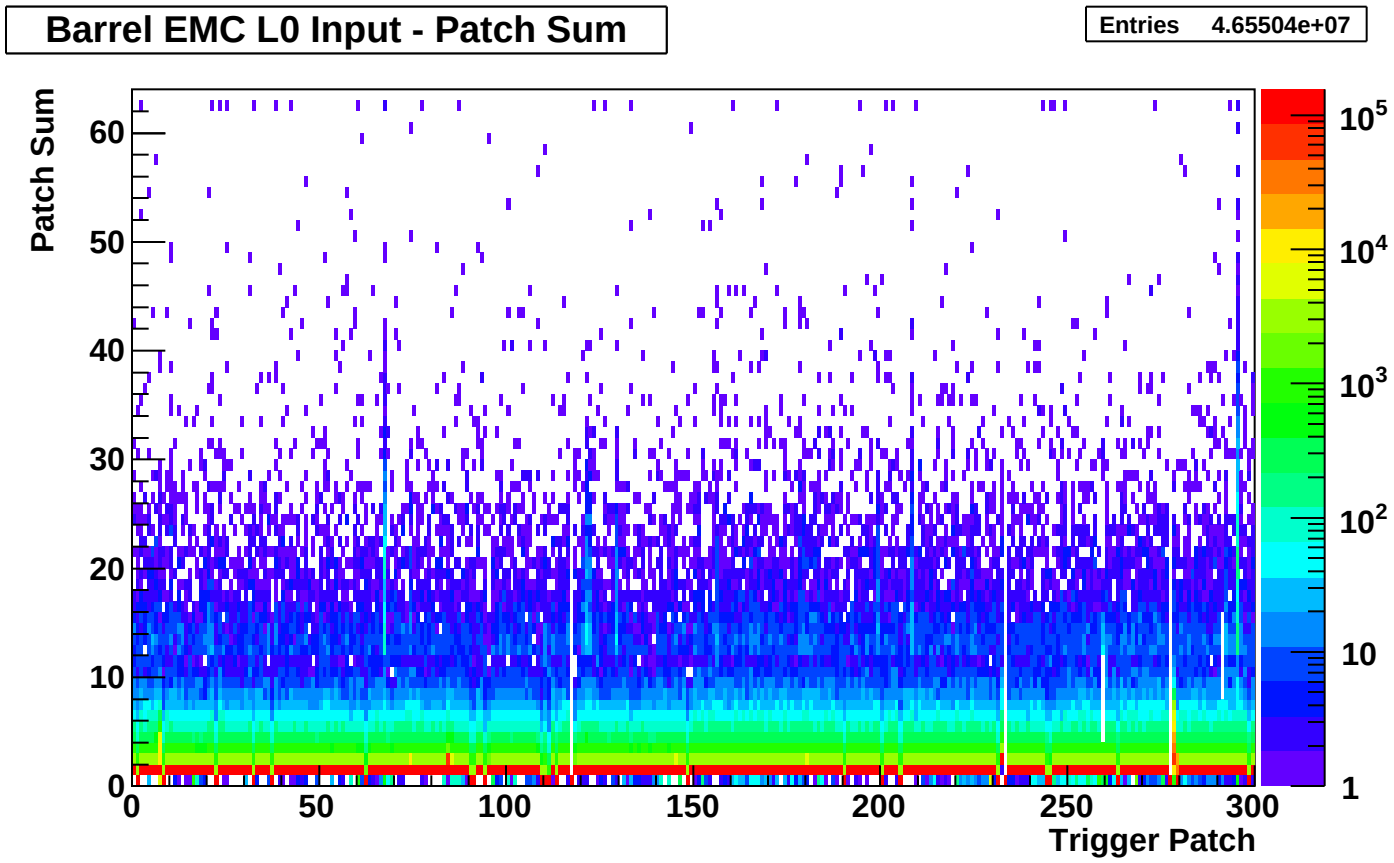

BunchId7Bit (BHT3)
Entries 15300

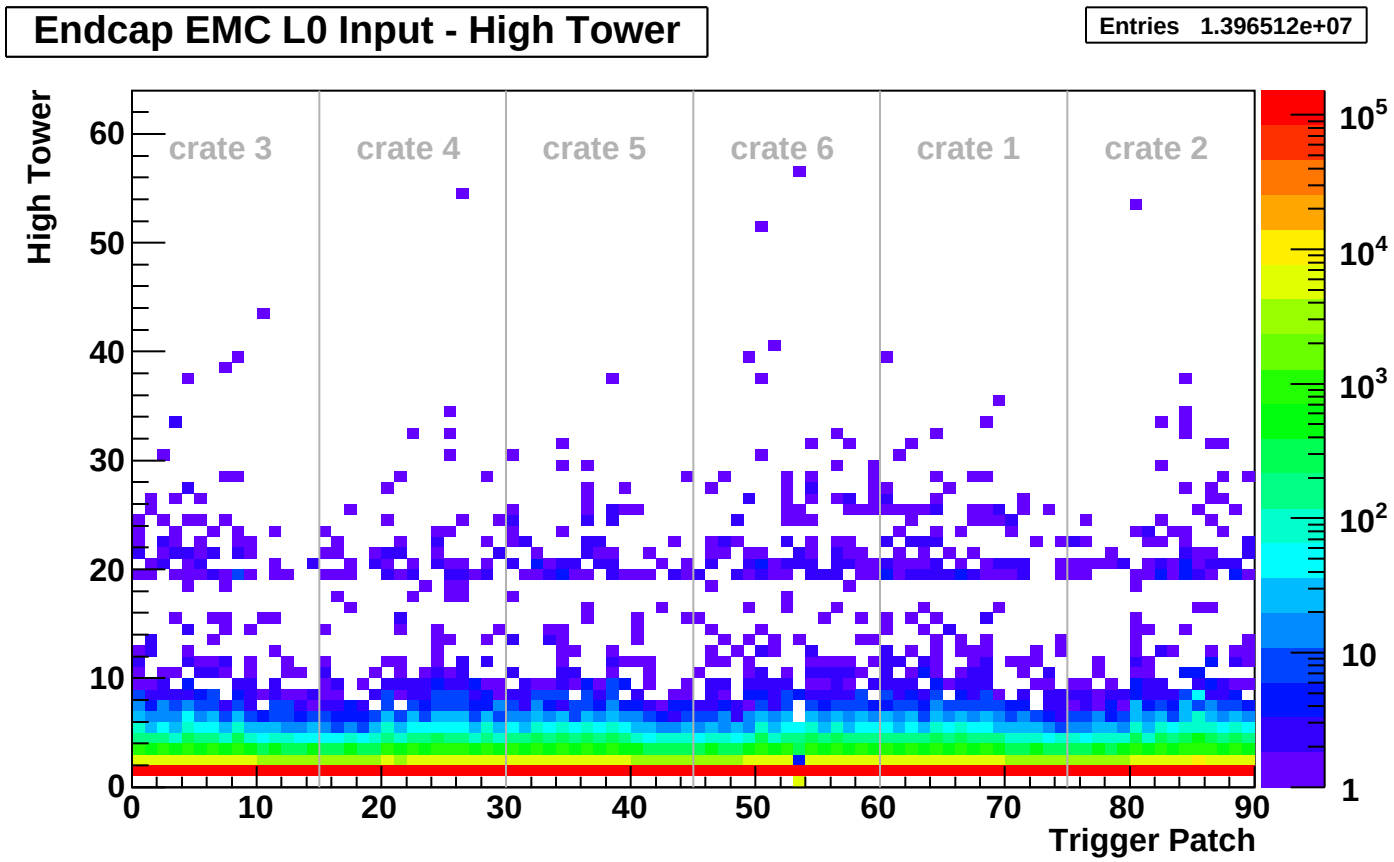

BunchId7Bit (all events)
Entries 155168

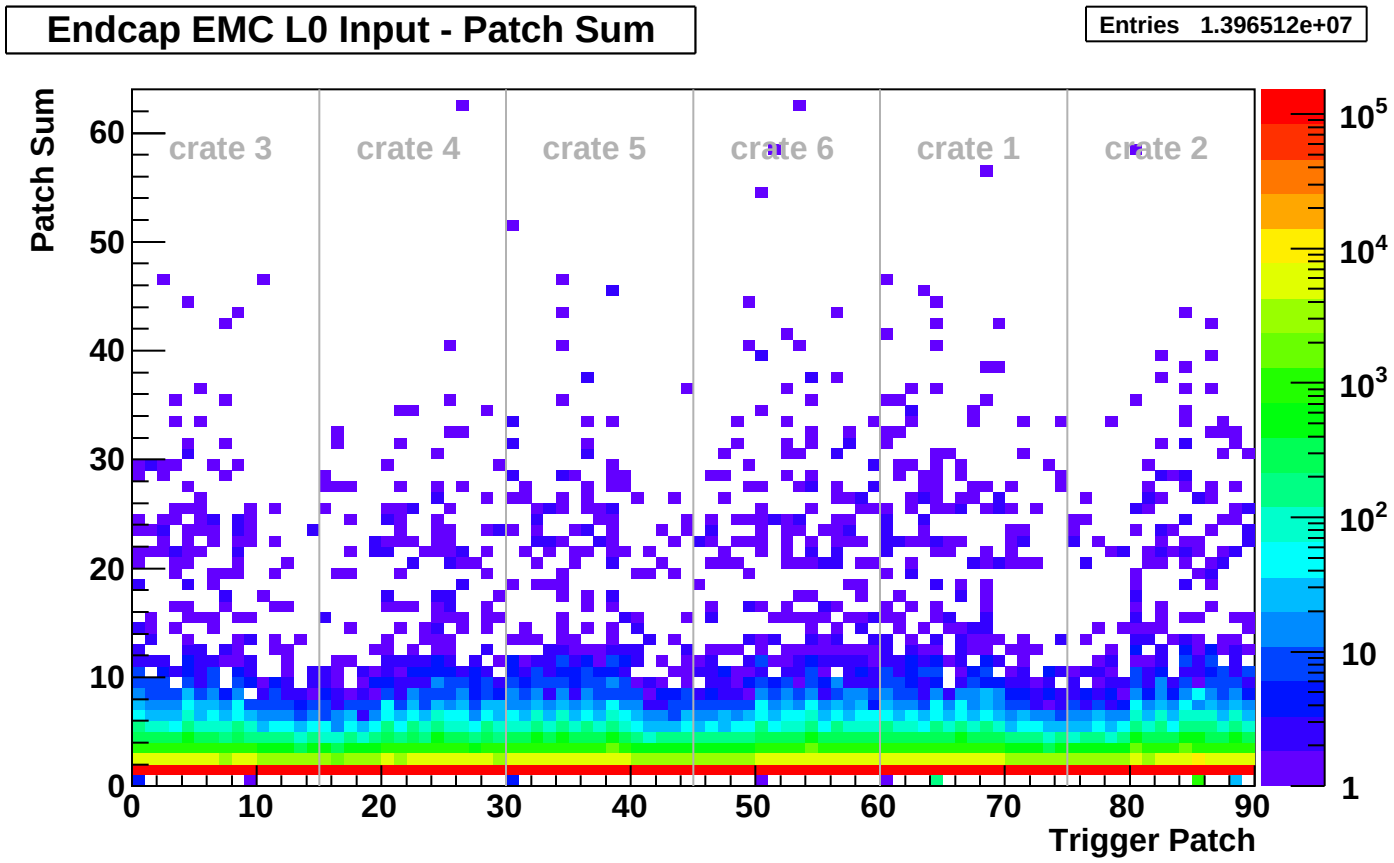

BunchId7Bit (JP1)
Entries 5185

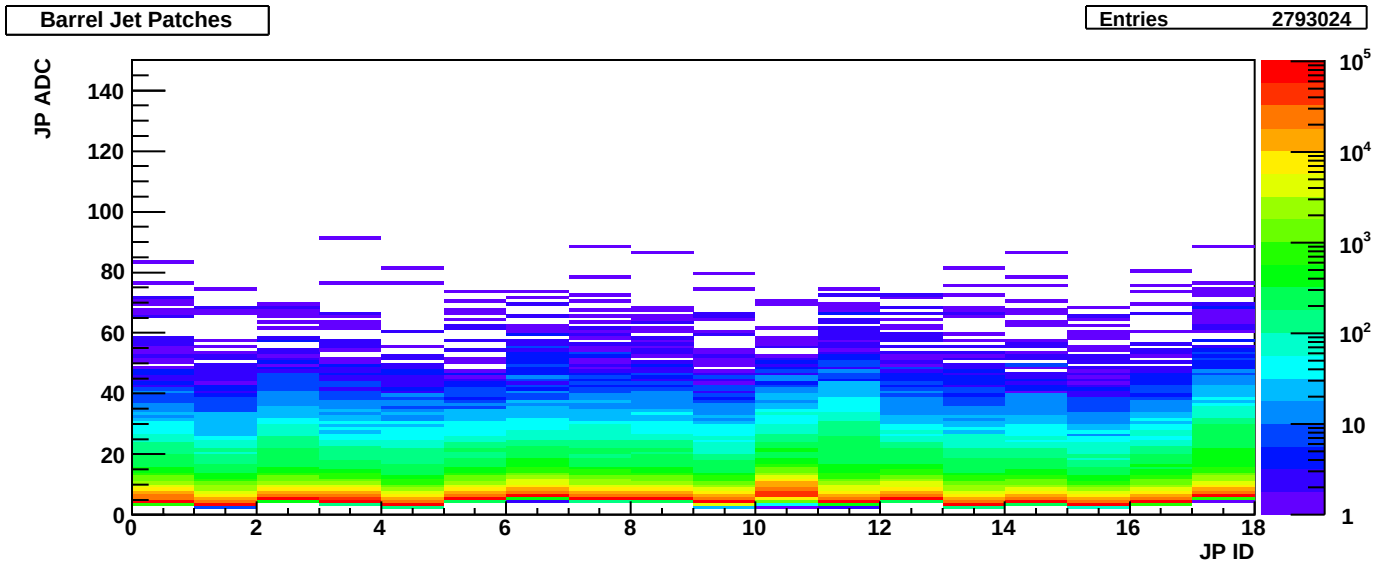

BunchId7Bit (JP2||AJP)
Entries 1840

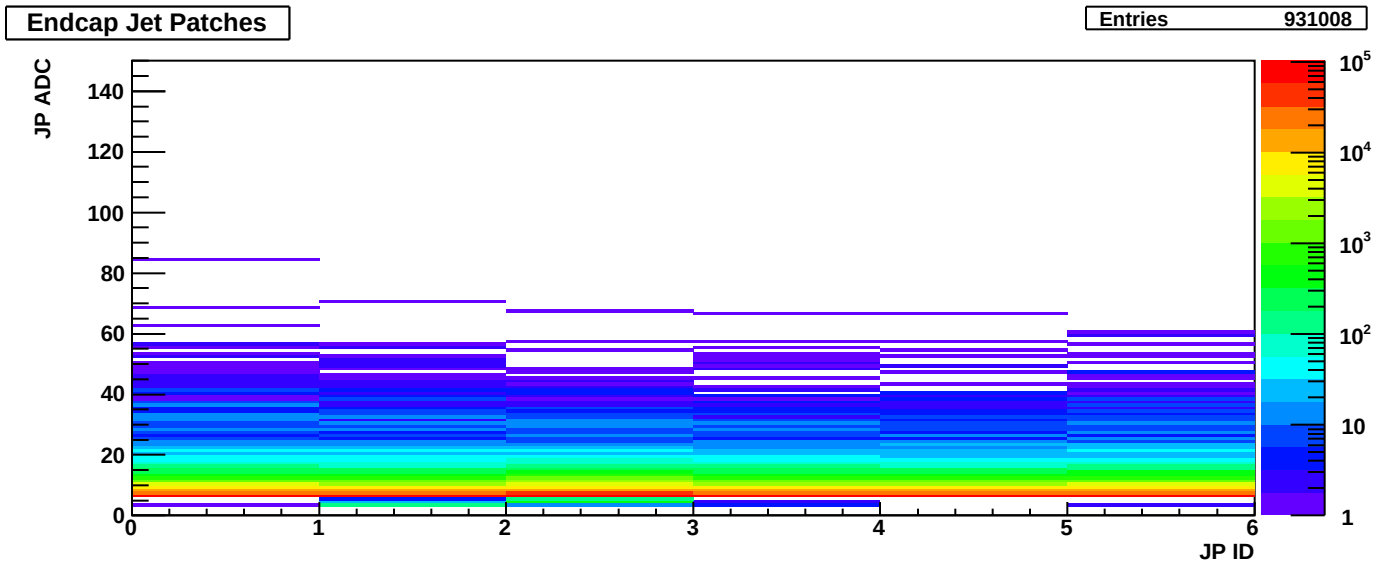

Barrel EMC L0 Input - High Tower
Entries 4.65504e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

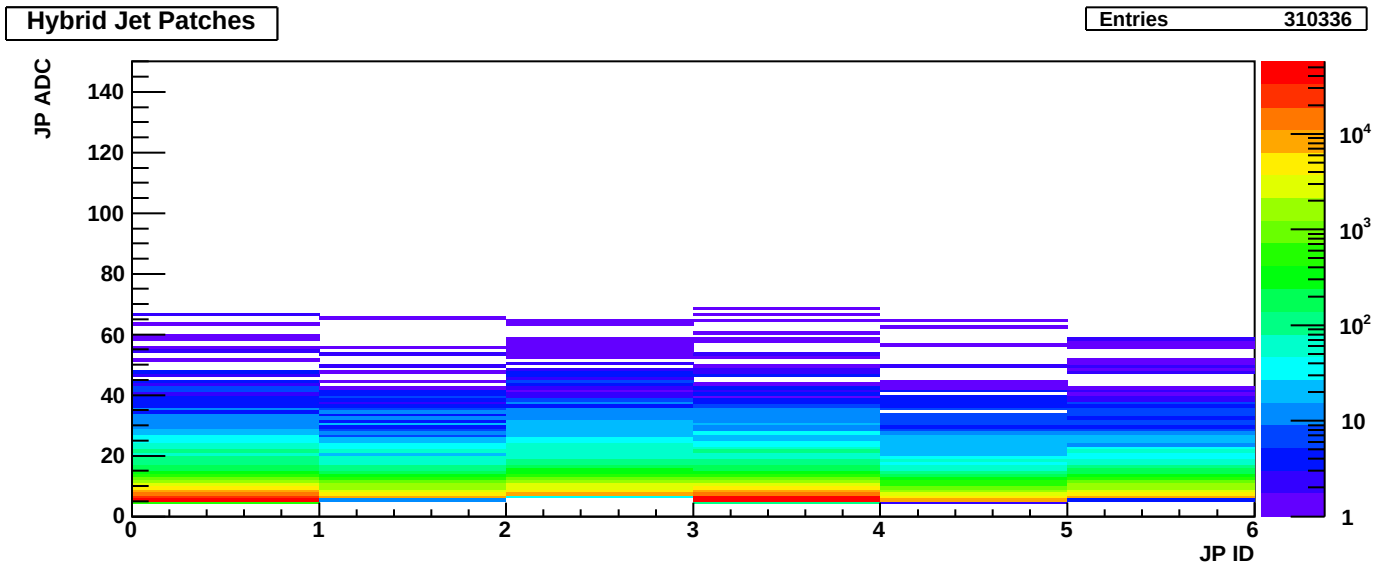

Barrel EMC L0 Input - Patch Sum
Entries 4.65504e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

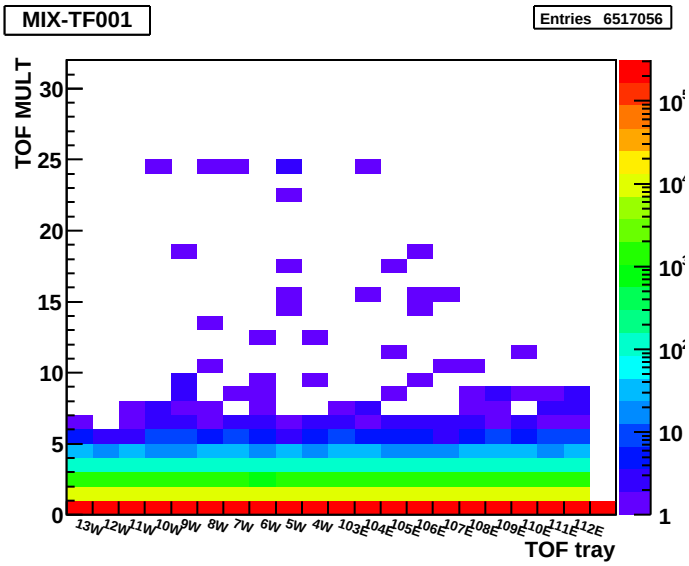

Endcap EMC L0 Input - High Tower
Entries 1.396512e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

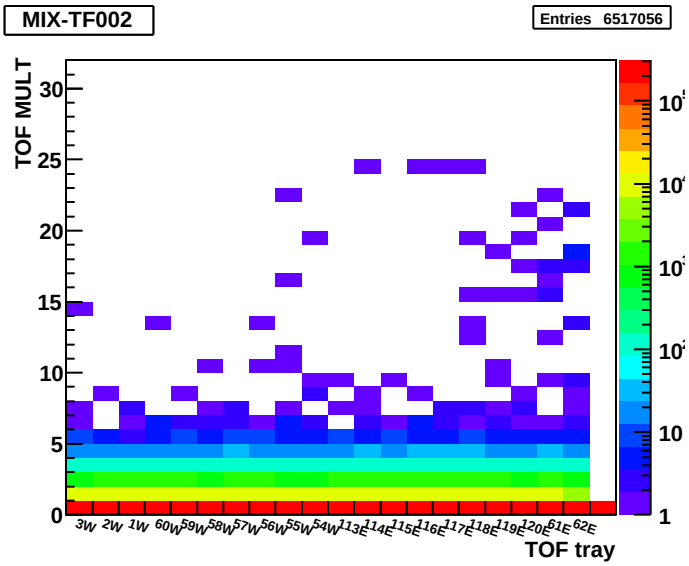

Endcap EMC L0 Input - Patch Sum
Entries 1.396512e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

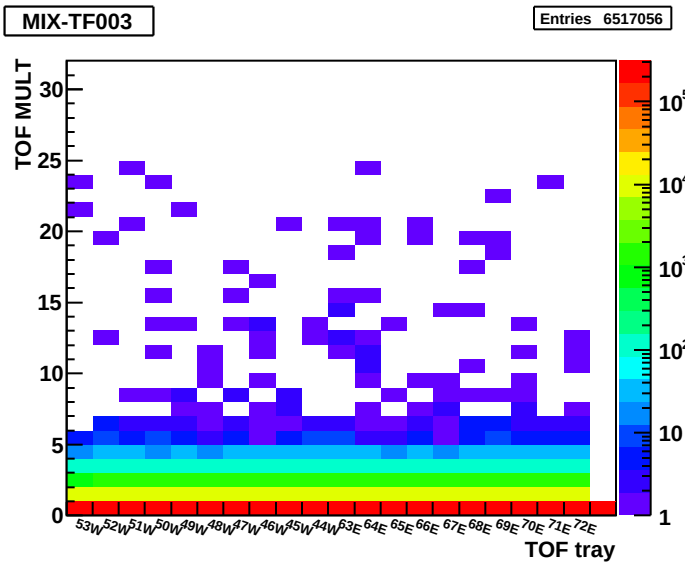

Barrel Jet Patches
Entries 2793024
JP ADC
JP ID

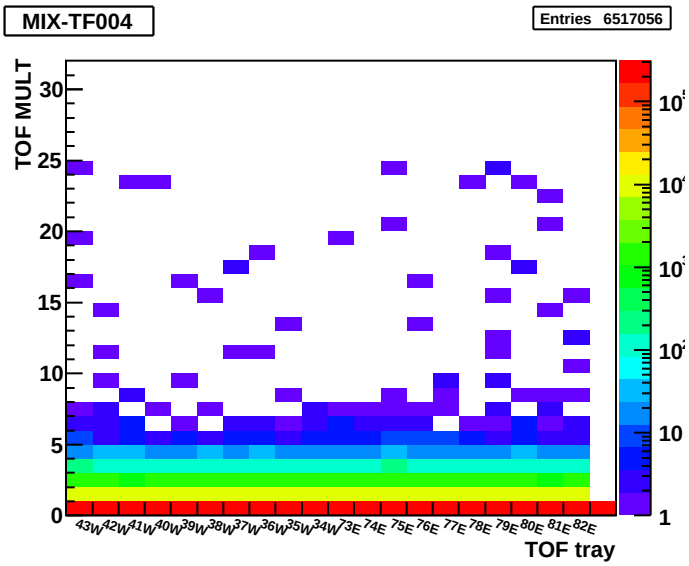

Endcap Jet Patches
Entries 931008
JP ADC
JP ID

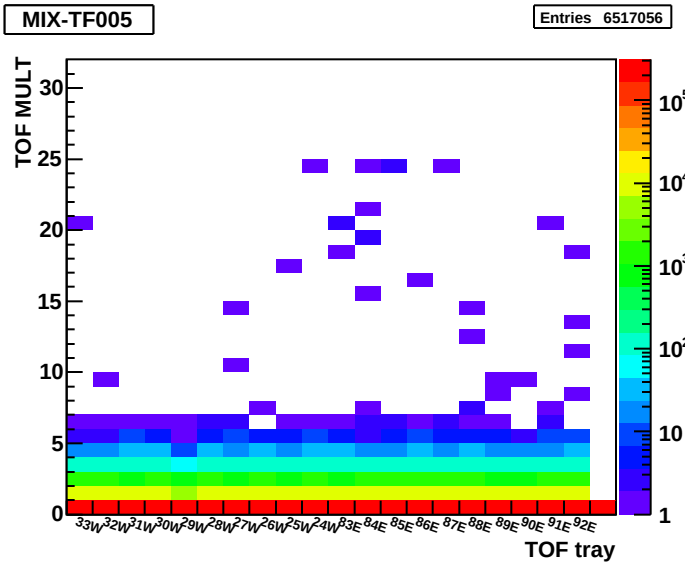

Hybrid Jet Patches
Entries 310336
JP ADC
JP ID

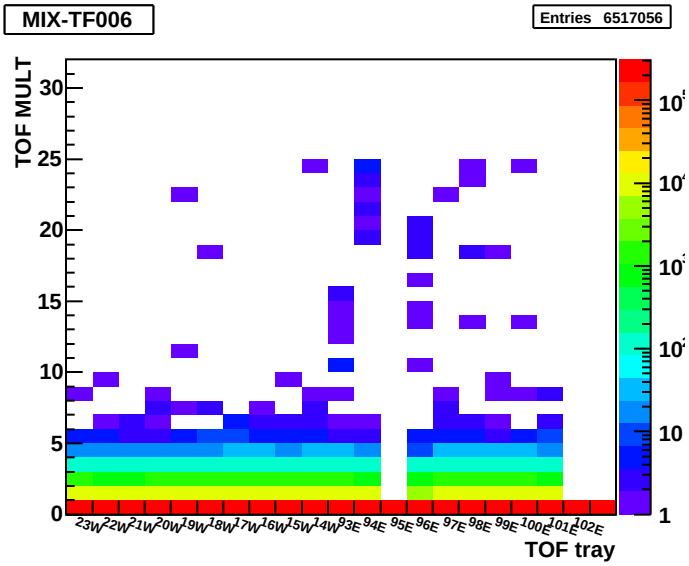

MIX-TF001
Entries 6517056
TOF MULT
TOF tray

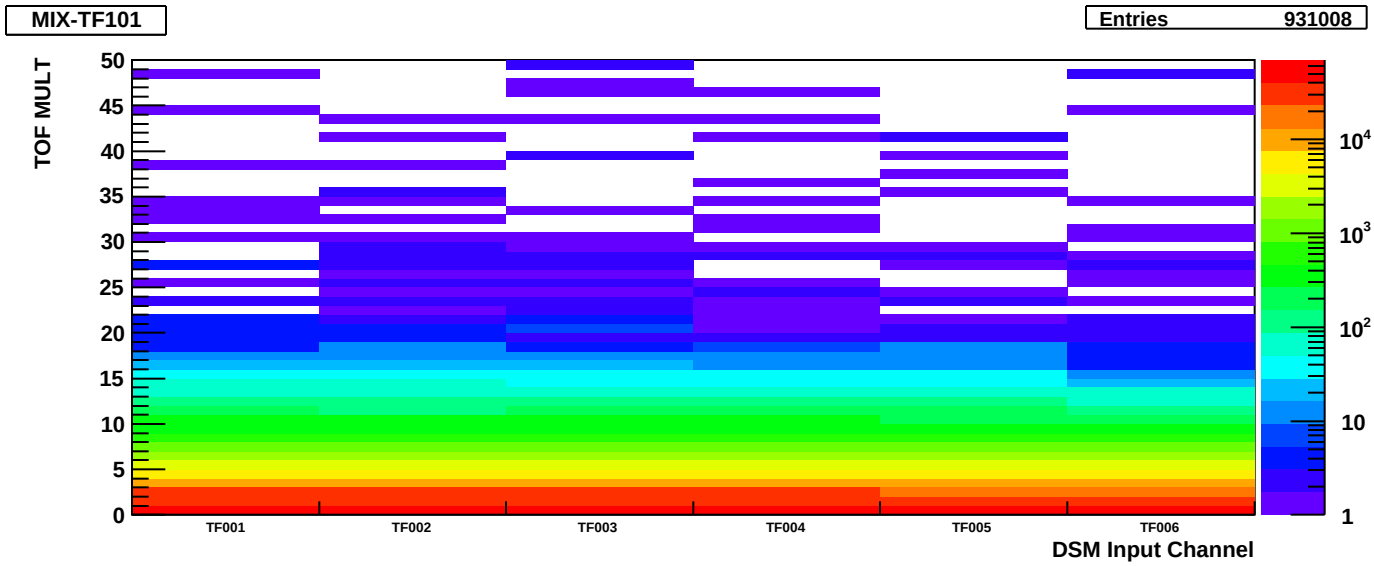

MIX-TF002
Entries 6517056
TOF MULT
TOF tray

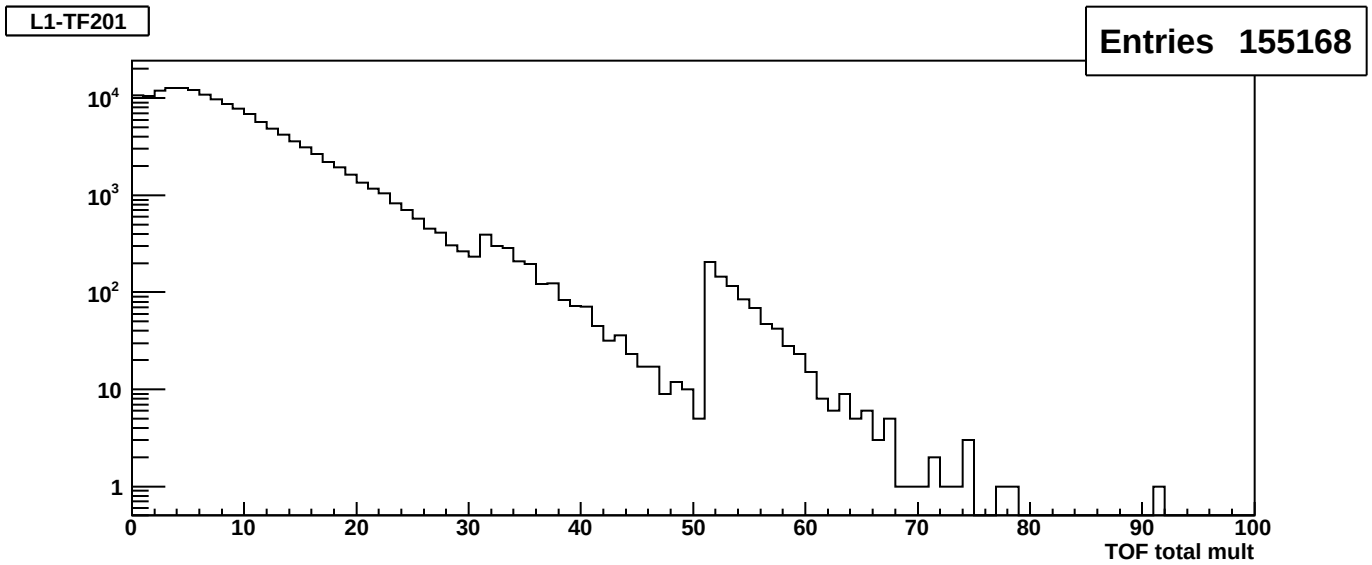

MIX-TF003
Entries 6517056
TOF MULT
TOF tray

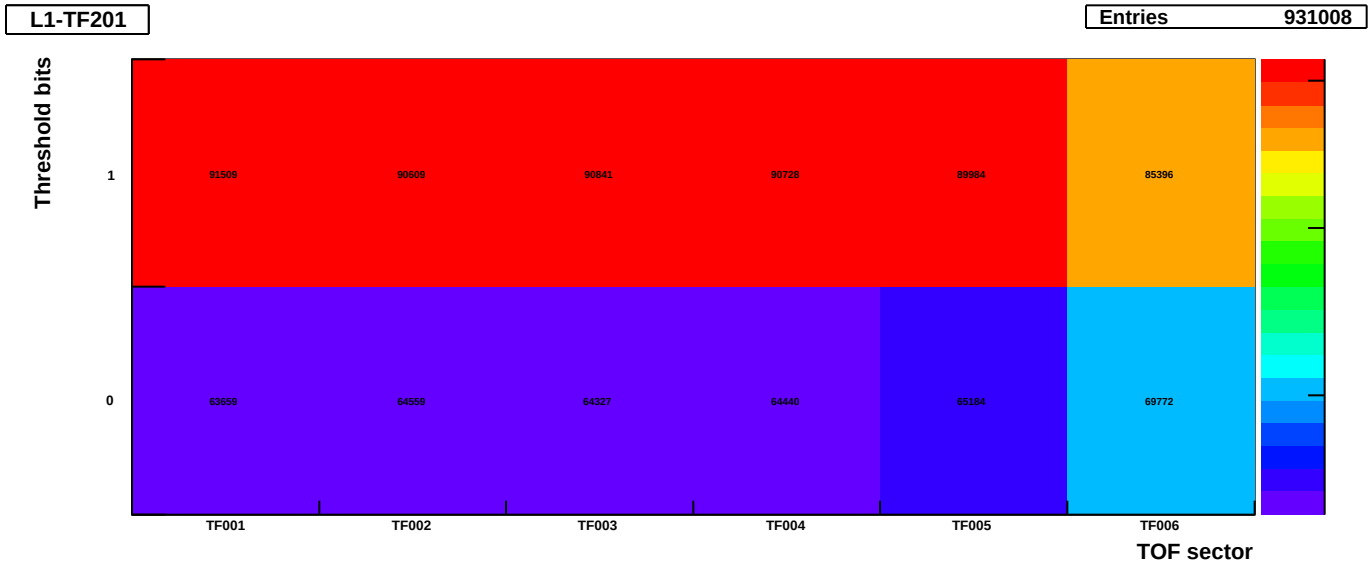

MIX-TF004
Entries 6517056
TOF MULT
TOF tray

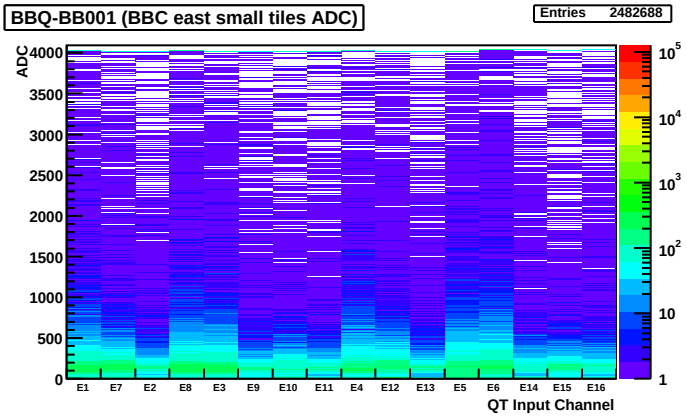

MIX-TF005
Entries 6517056
TOF MULT
TOF tray

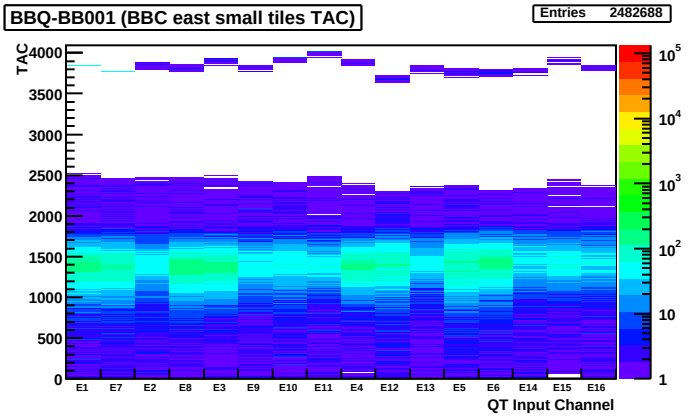

MIX-TF006
Entries 6517056
TOF MULT
TOF tray

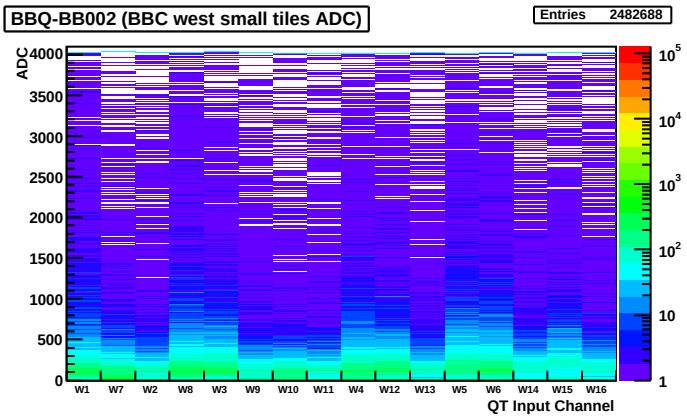

MIX-TF101
Entries 931008
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

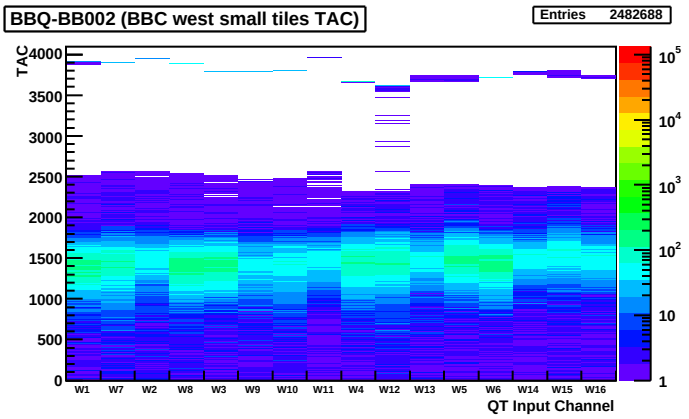

L1-TF201
Entries 155168
TOF total mult

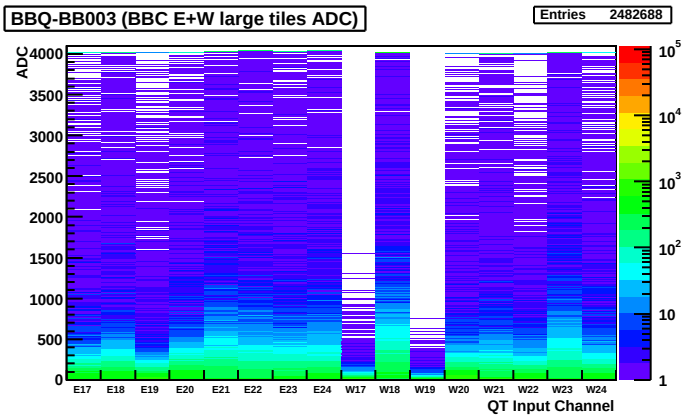

L1-TF201
Entries 931008
Threshold bits
91509
90609
90841
90728
89984
85396
63659
64559
64327
64440
65184
69772
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

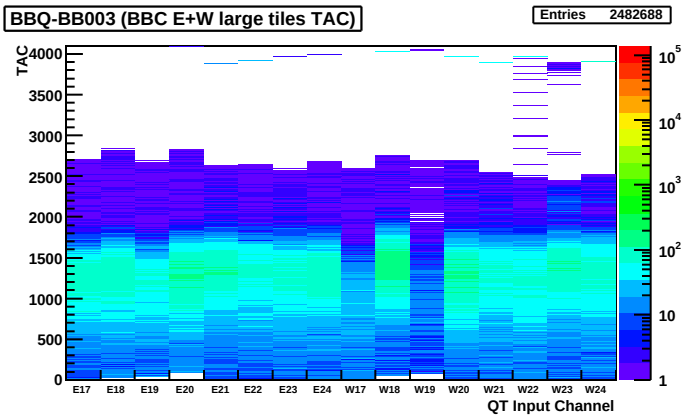

BBQ-BB001 (BBC east small tiles ADC)
Entries 2482688
ADC
QT Input Channel

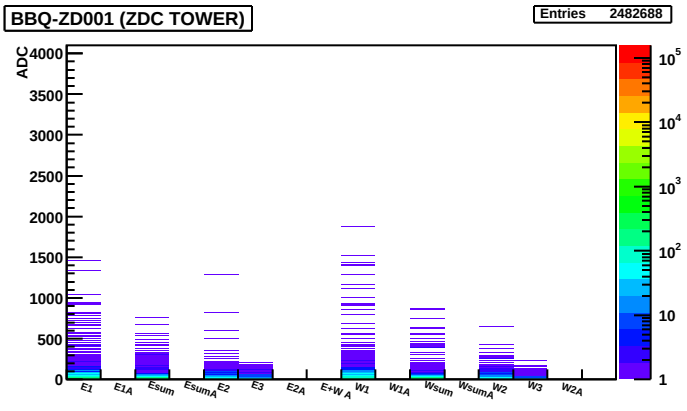

BBQ-BB001 (BBC east small tiles TAC)
Entries 2482688
TAC
QT Input Channel

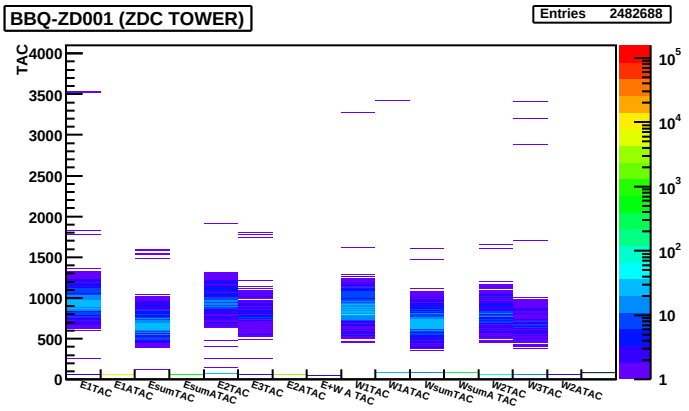

BBQ-BB002 (BBC west small tiles ADC)
Entries 2482688
ADC
QT Input Channel

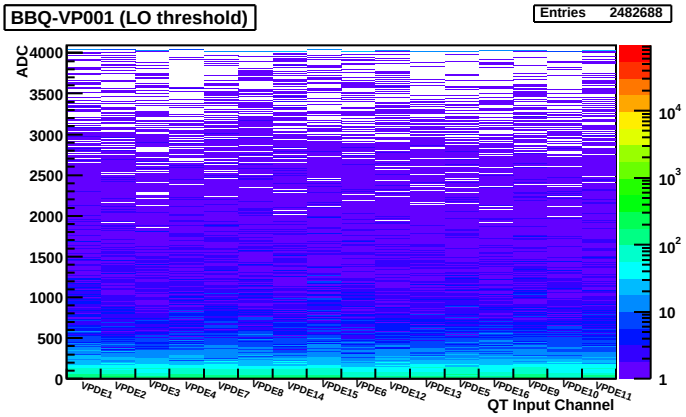

BBQ-BB002 (BBC west small tiles TAC)
Entries 2482688
TAC
QT Input Channel

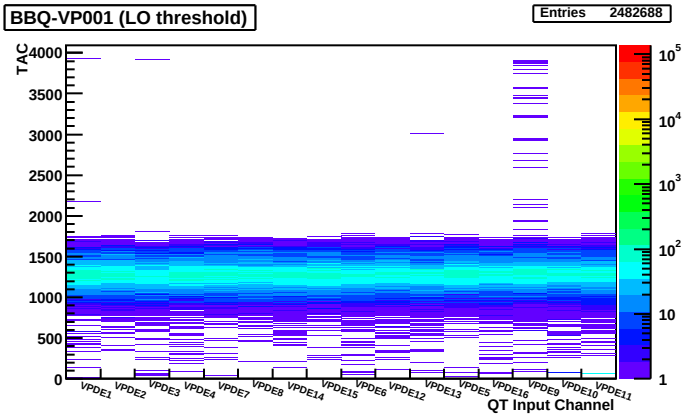

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2482688
ADC
QT Input Channel

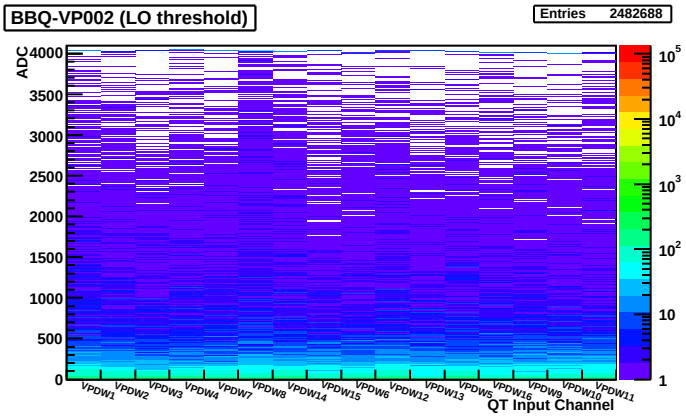

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2482688
TAC
QT Input Channel

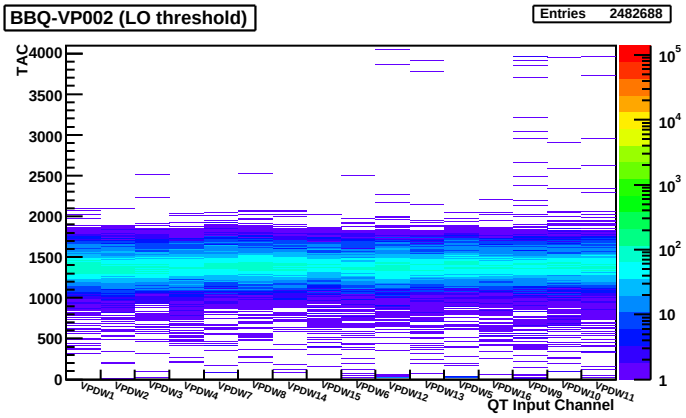

BBQ-ZD001 (ZDC TOWER)
Entries 2482688
ADC

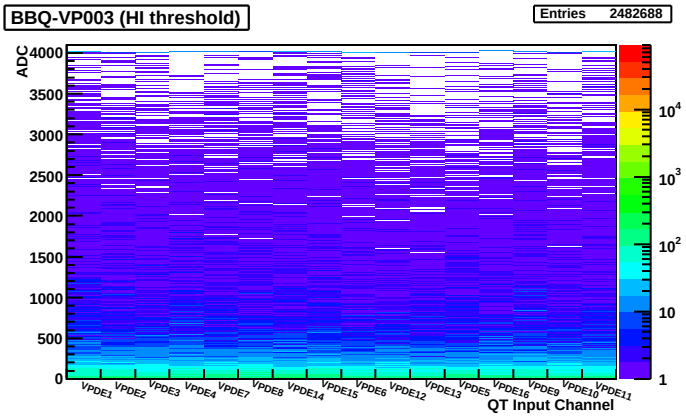

BBQ-ZD001 (ZDC TOWER)
Entries 2482688
TAC

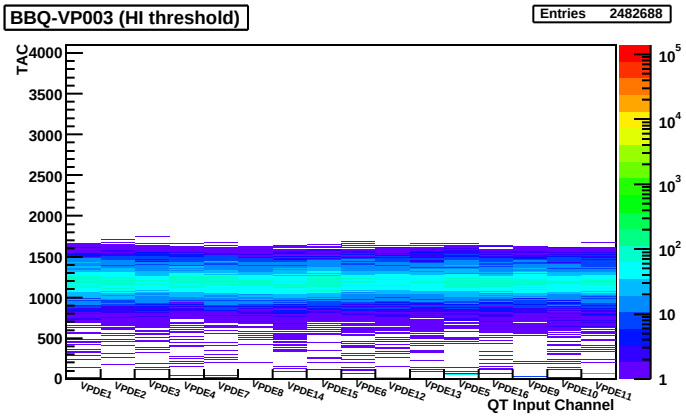

BBQ-VP001 (LO threshold)
Entries 2482688
ADC
QT Input Channel

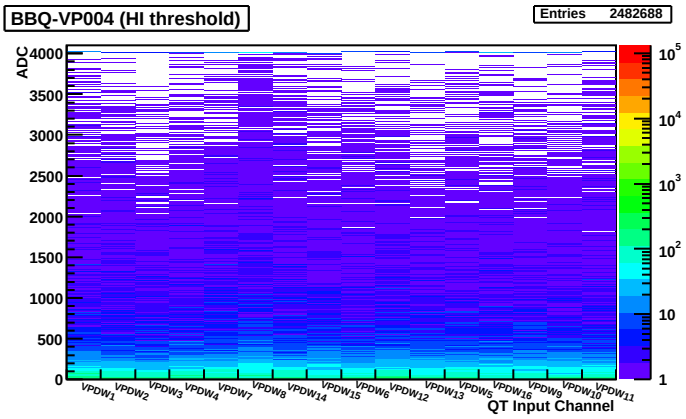

BBQ-VP001 (LO threshold)
Entries 2482688
TAC
QT Input Channel

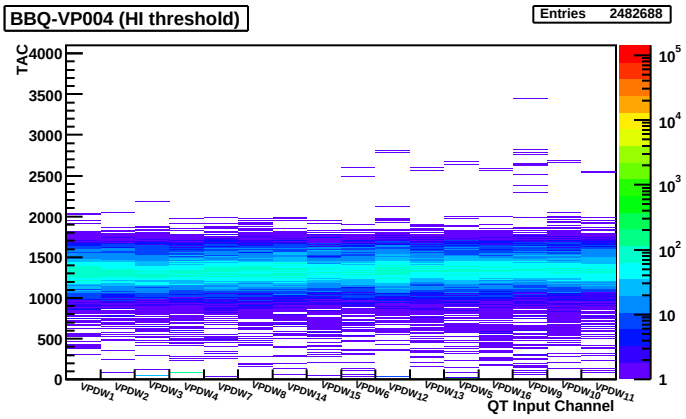

BBQ-VP002 (LO threshold)
Entries 2482688
ADC
QT Input Channel

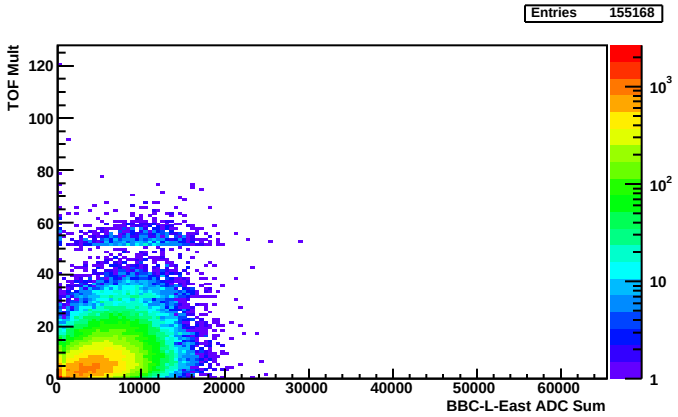

BBQ-VP002 (LO threshold)
Entries 2482688
TAC
QT Input Channel

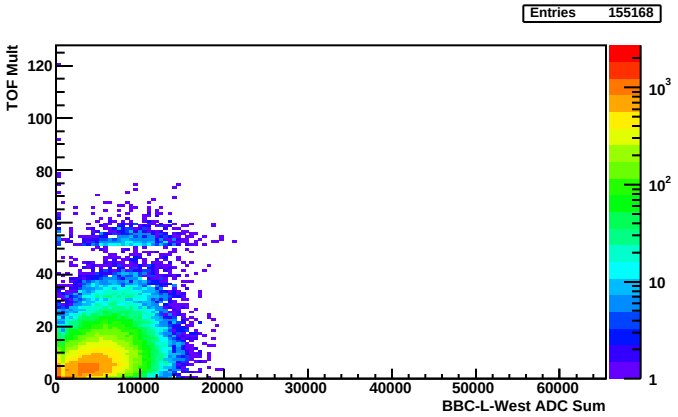

BBQ-VP003 (HI threshold)
Entries 2482688
ADC
QT Input Channel

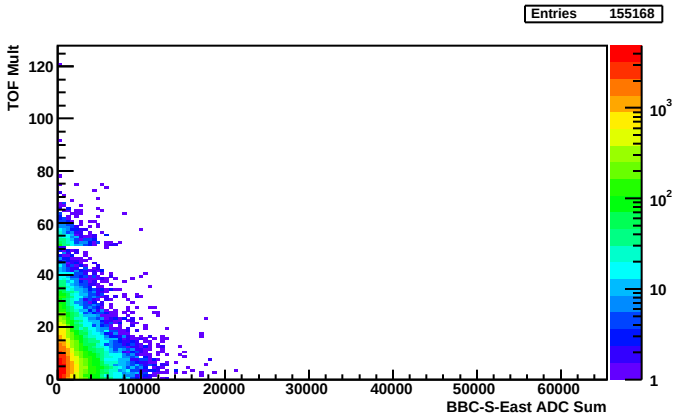

BBQ-VP003 (HI threshold)
Entries 2482688
TAC
QT Input Channel

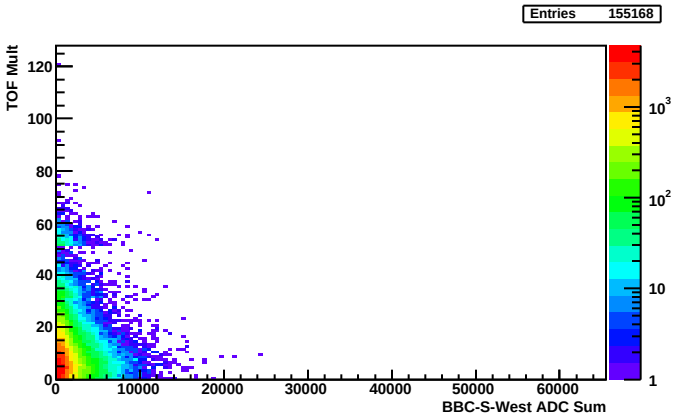

BBQ-VP004 (HI threshold)
Entries 2482688
ADC
QT Input Channel

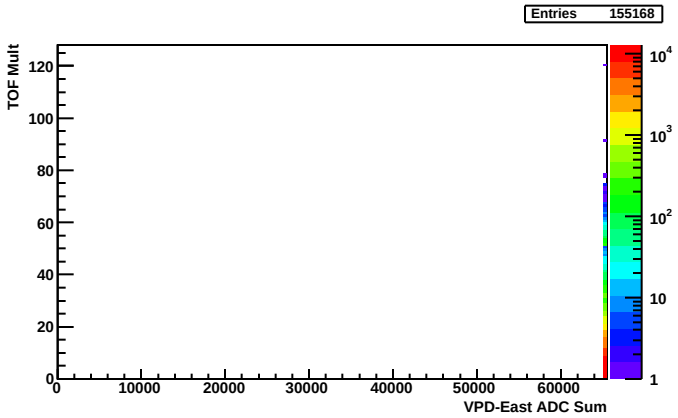

BBQ-VP004 (HI threshold)
Entries 2482688
TAC
QT Input Channel

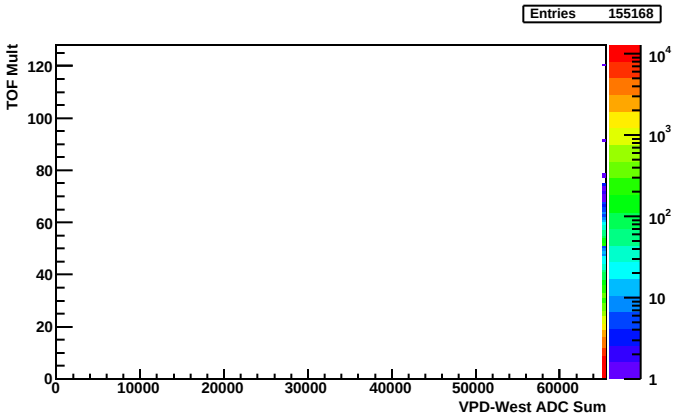

Entries 155168
TOF Mult
BBC-L-East ADC Sum

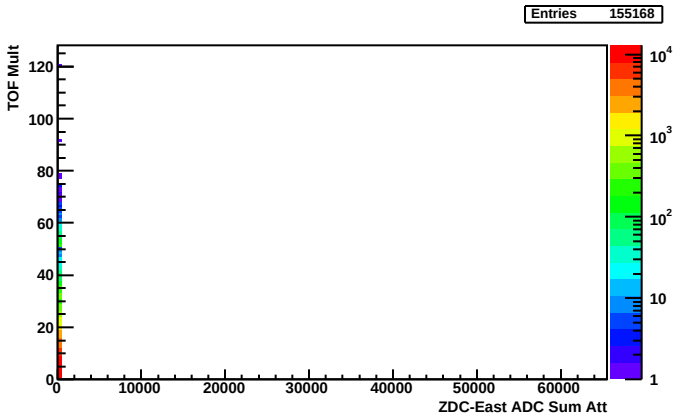

Entries 155168
TOF Mult
BBC-L-West ADC Sum

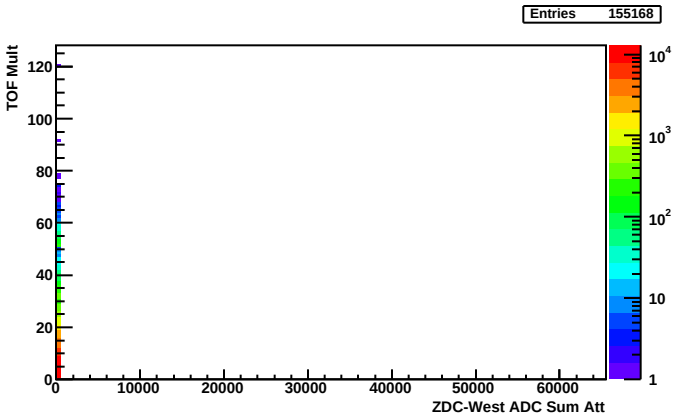

Entries 155168
TOF Mult
BBC-S-East ADC Sum

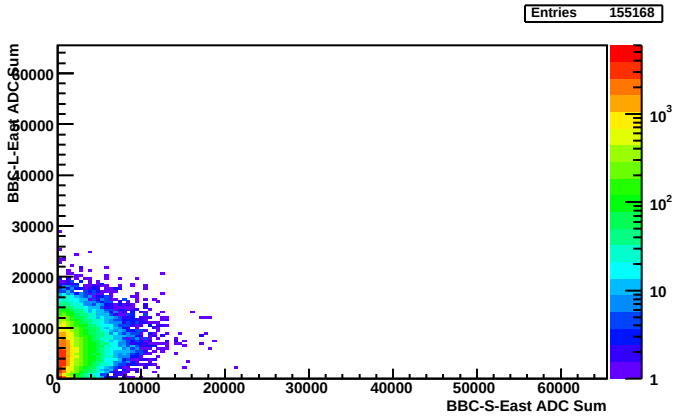

Entries 155168
TOF Mult
BBC-S-West ADC Sum

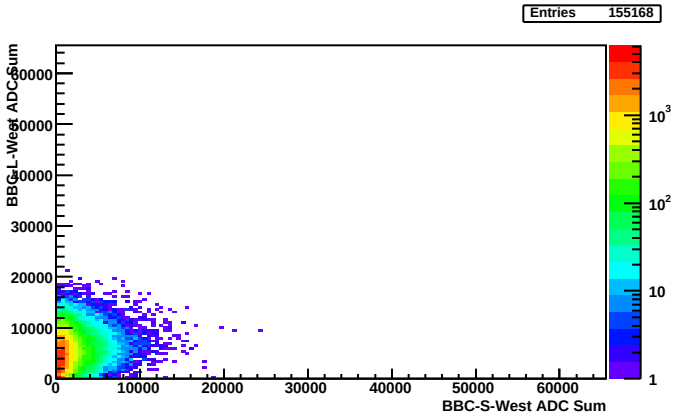

Entries 155168
TOF Mult
VPD-East ADC Sum

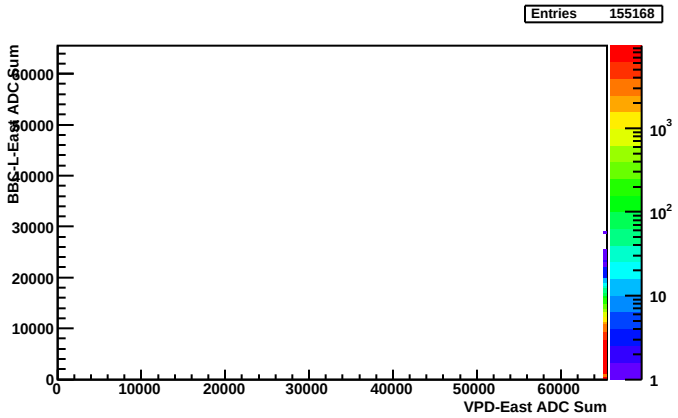

Entries 155168
TOF Mult
VPD-West ADC Sum

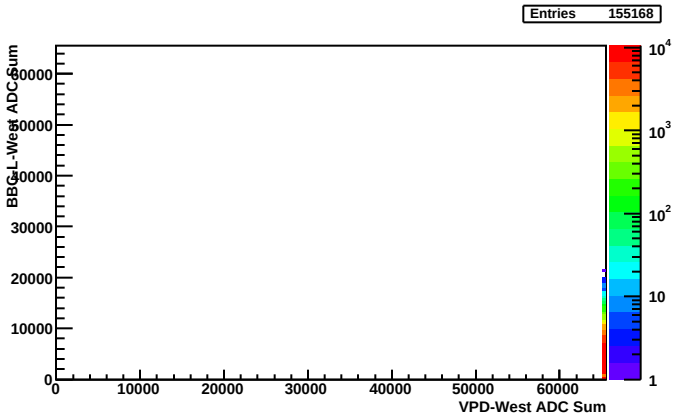

Entries 155168
TOF Mult
ZDC-East ADC Sum Att

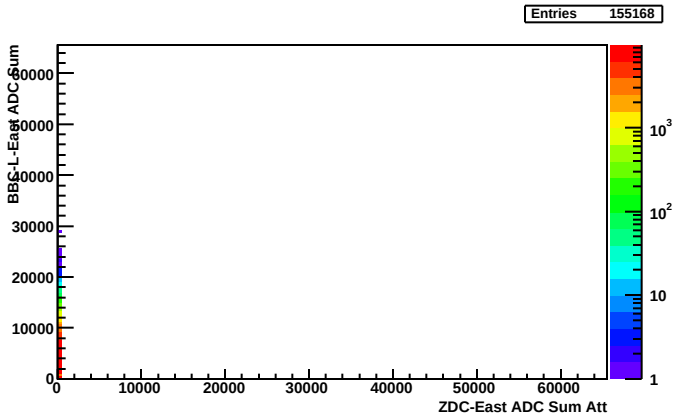

Entries 155168
TOF Mult
ZDC-West ADC Sum Att

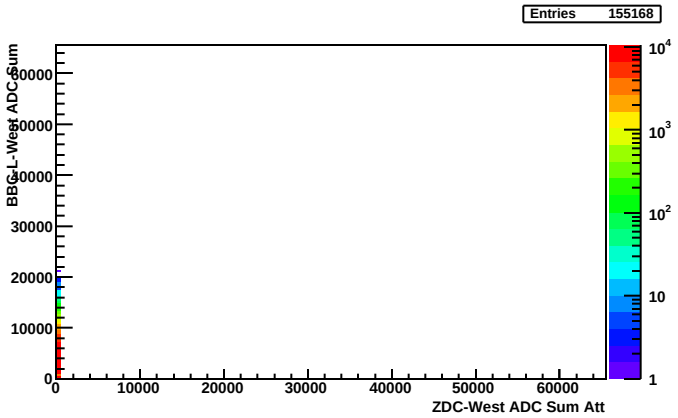

Entries 155168
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 155168
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 155168
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 155168
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 155168
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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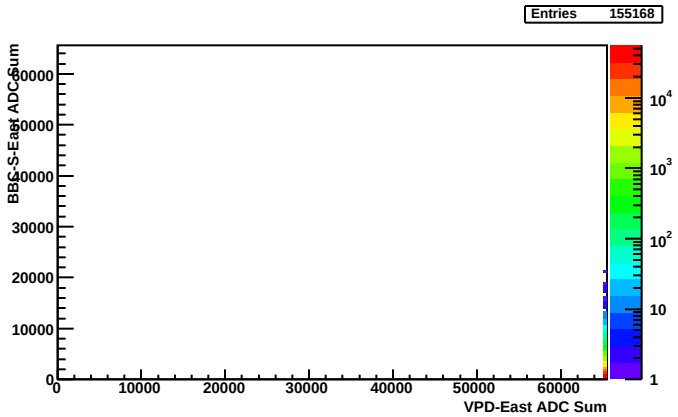
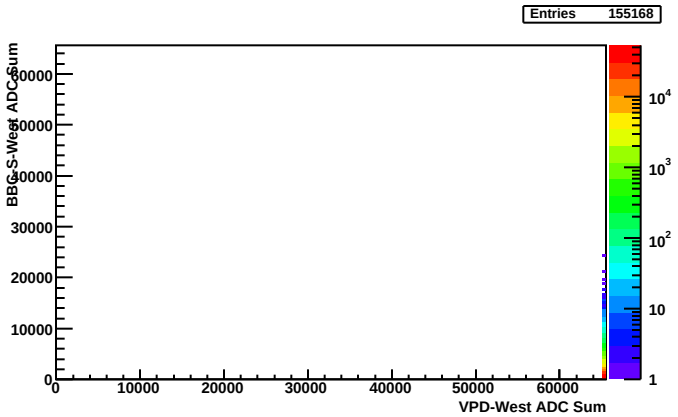
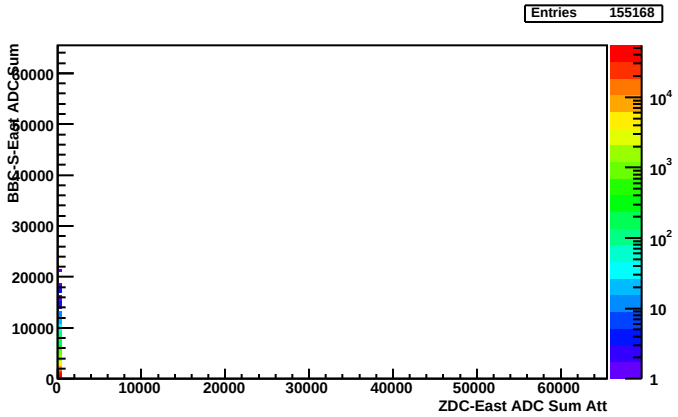
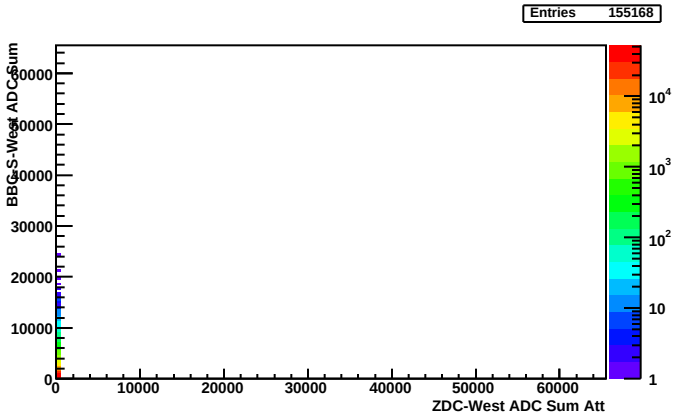
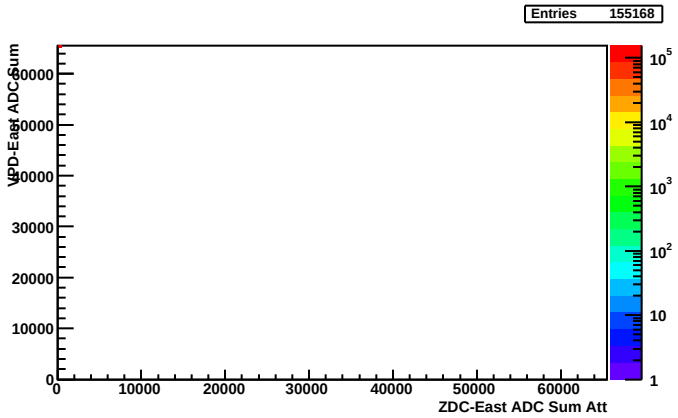
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

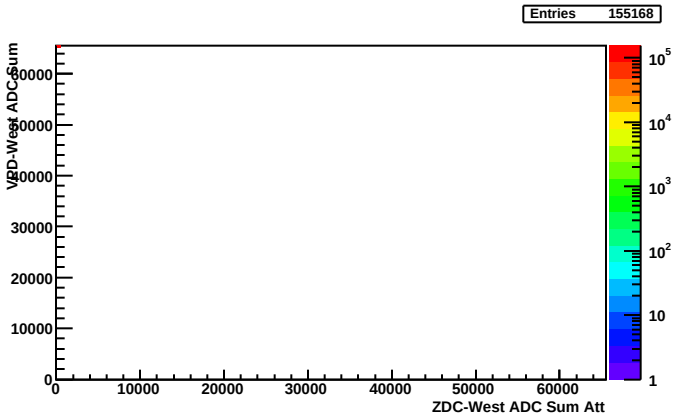

Entries 155168
BBC-S-East ADC Sum
VPD-East ADC Sum

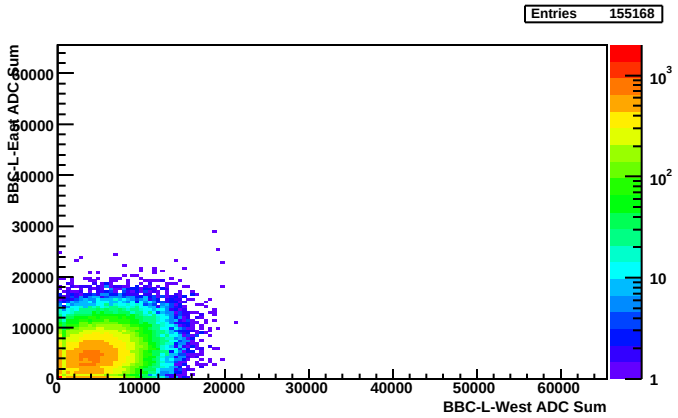

Entries 155168
BBC-S-West ADC Sum
VPD-West ADC Sum

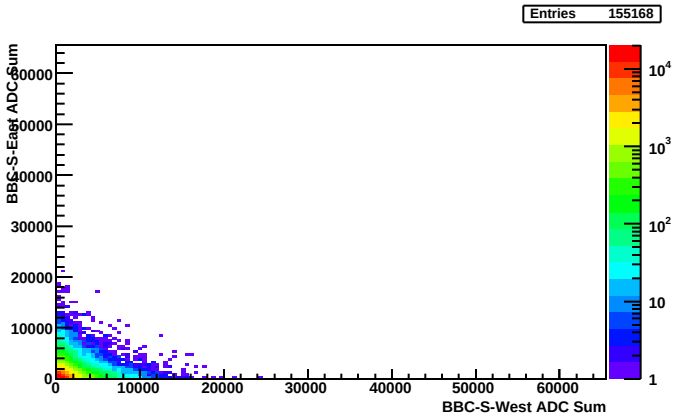

Entries 155168
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

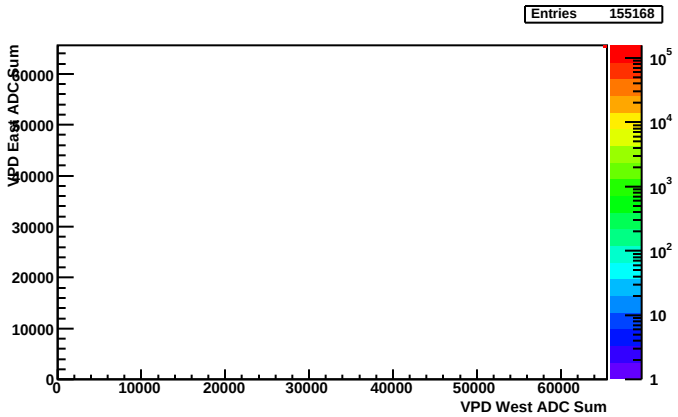

Entries 155168
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

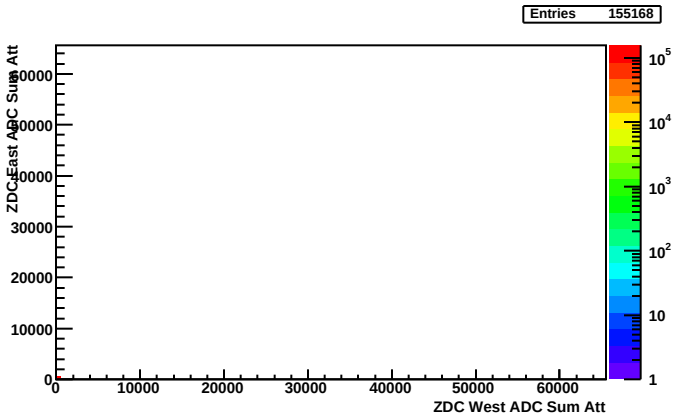

Entries 155168
VPD-East ADC Sum
ZDC-East ADC Sum Att

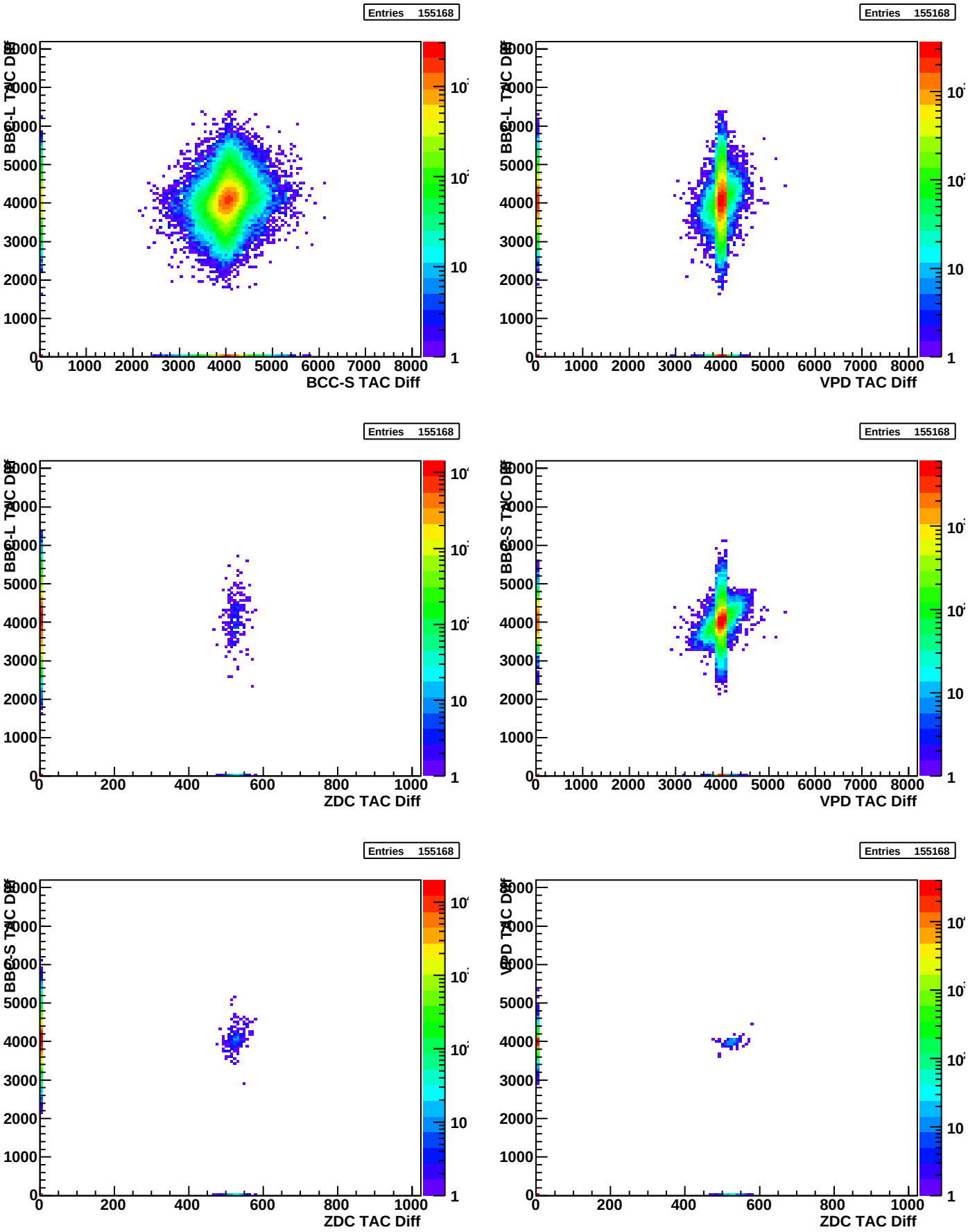

Entries 155168
VPD-West ADC Sum
ZDC-West ADC Sum Att

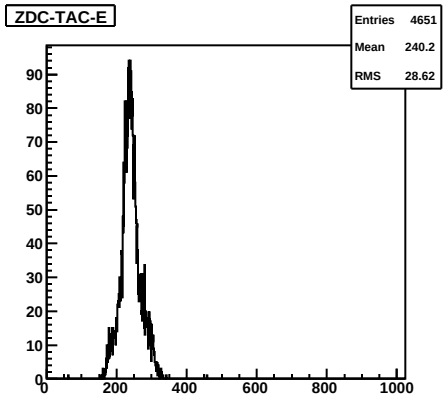

Entries 155168
BBC-L-East ADC Sum
BBC-L-West ADC Sum

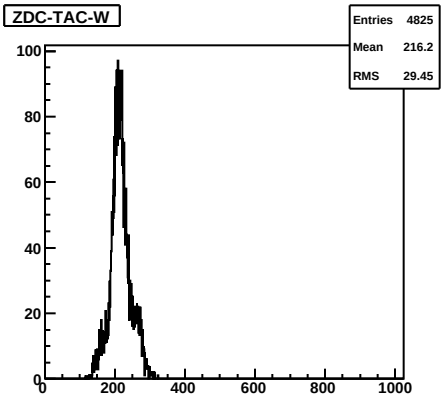

Entries 155168
BBC-S-East ADC Sum
BBC-S-West ADC Sum

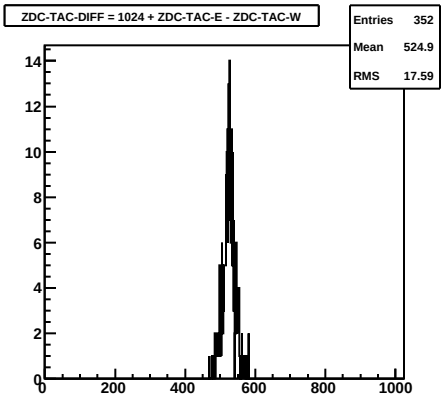

Entries 155168
VPD East ADC Sum
VPD West ADC Sum

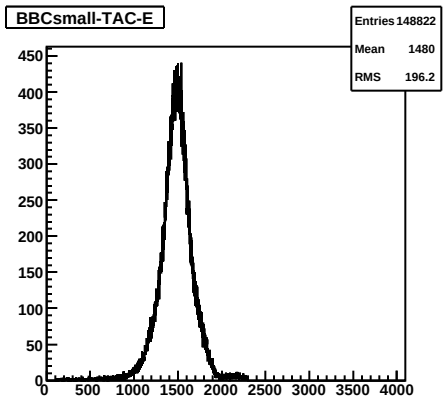

Entries 155168
ZDC East ADC Sum Att
ZDC West ADC Sum Att

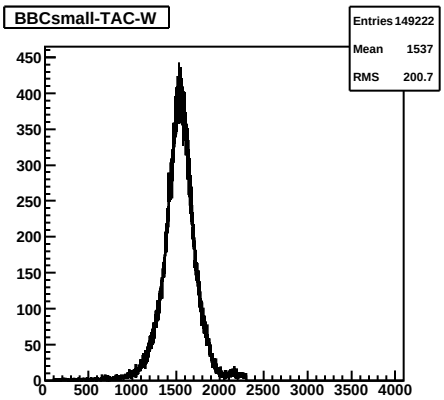

Entries 155168
BBC-L TAC Diff
BCC-S TAC Diff
Entries 155168
BBC-L TAC Diff
VPD TAC Diff
Entries 155168
BBC-L TAC Diff
ZDC TAC Diff
Entries 155168
BBC-S TAC Diff
VPD TAC Diff
Entries 155168
BBC-S TAC Diff
ZDC TAC Diff
Entries 155168
VPD TAC Diff
ZDC TAC Diff

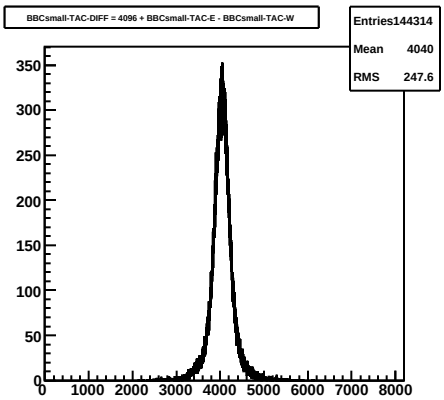

ZDC-TAC-E
Entries 4651
Mean 240.2
RMS 28.62

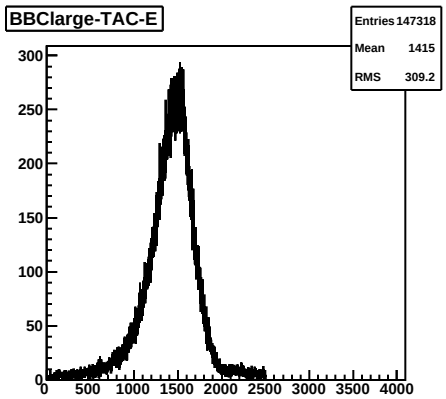

ZDC-TAC-W
Entries 4825
Mean 216.2
RMS 29.45

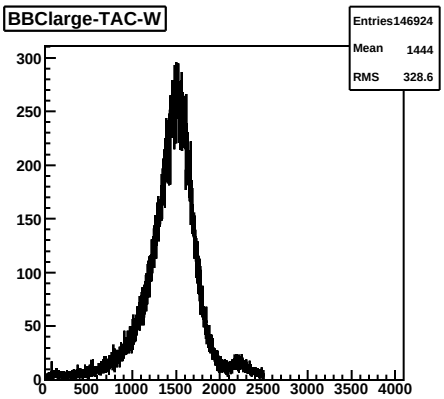

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 352
Mean 524.9
RMS 17.59

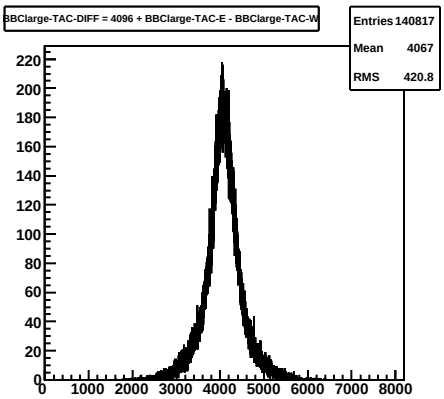

BBCsmall-TAC-E
Entries 148822
Mean 1480
RMS 196.2

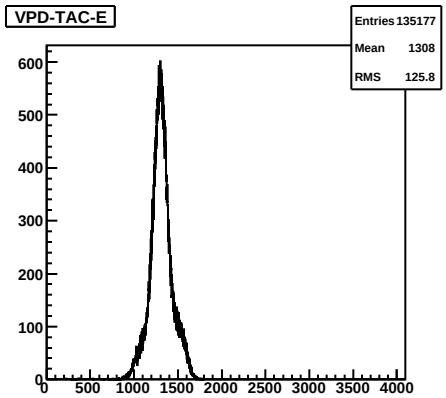

BBCsmall-TAC-W
Entries 149222
Mean 1537
RMS 200.7

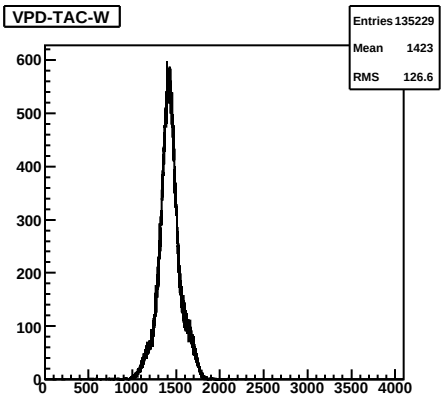

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 144314
Mean 4040
RMS 247.6

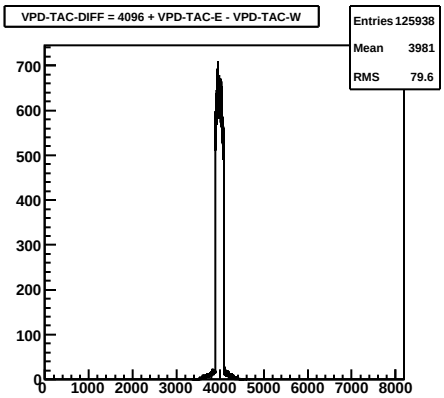

BBClarge-TAC-E
Entries 147318
Mean 1415
RMS 309.2

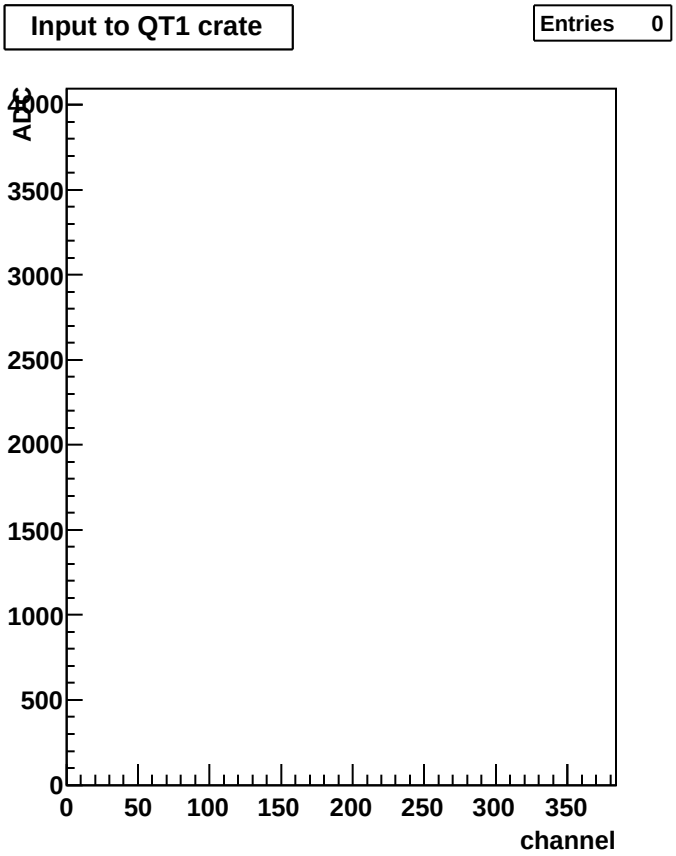

BBClarge-TAC-W
Entries 146924
Mean 1444
RMS 328.6

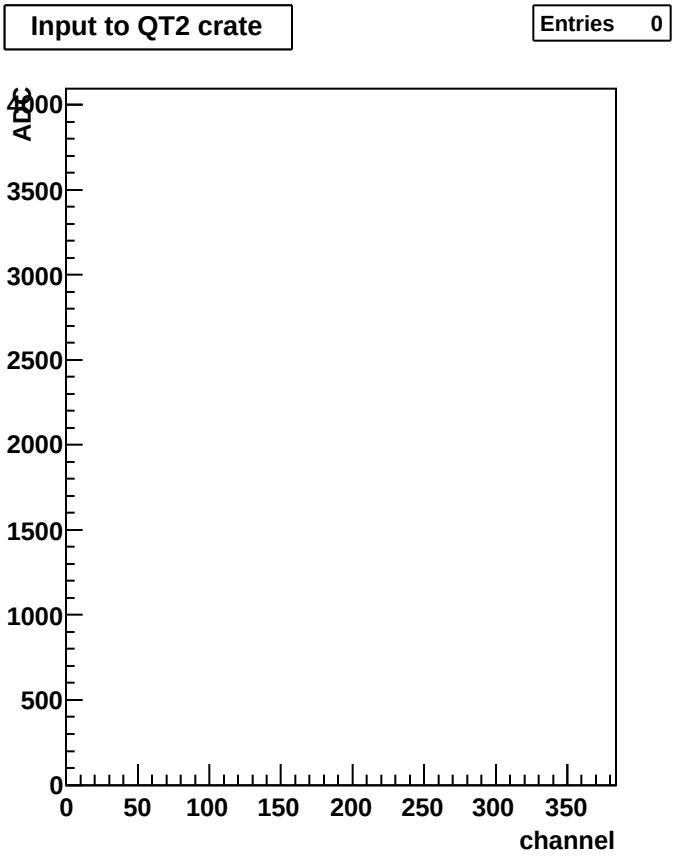

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 140817
Mean 4067
RMS 420.8

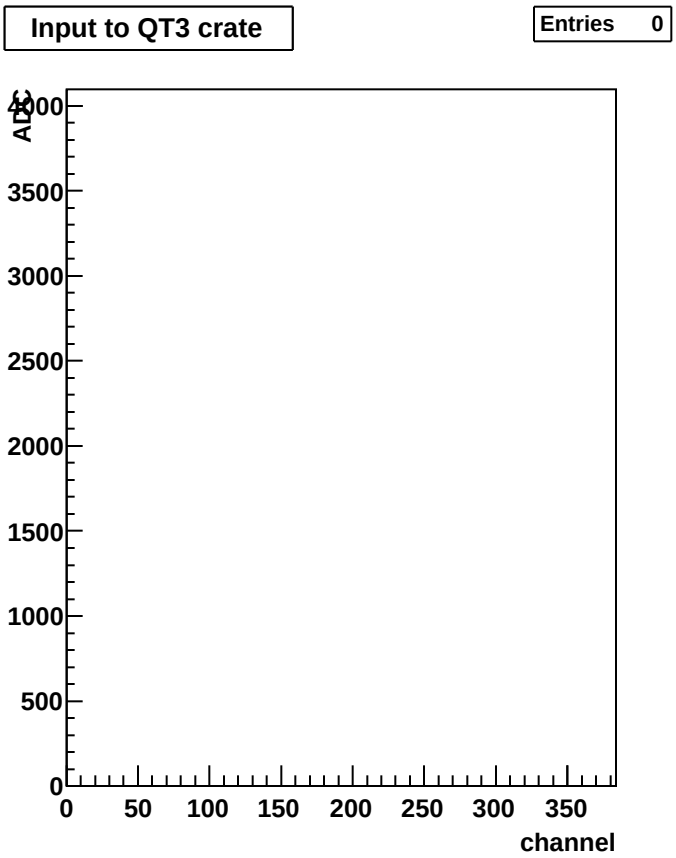

VPD-TAC-E
Entries 135177
Mean 1308
RMS 125.8

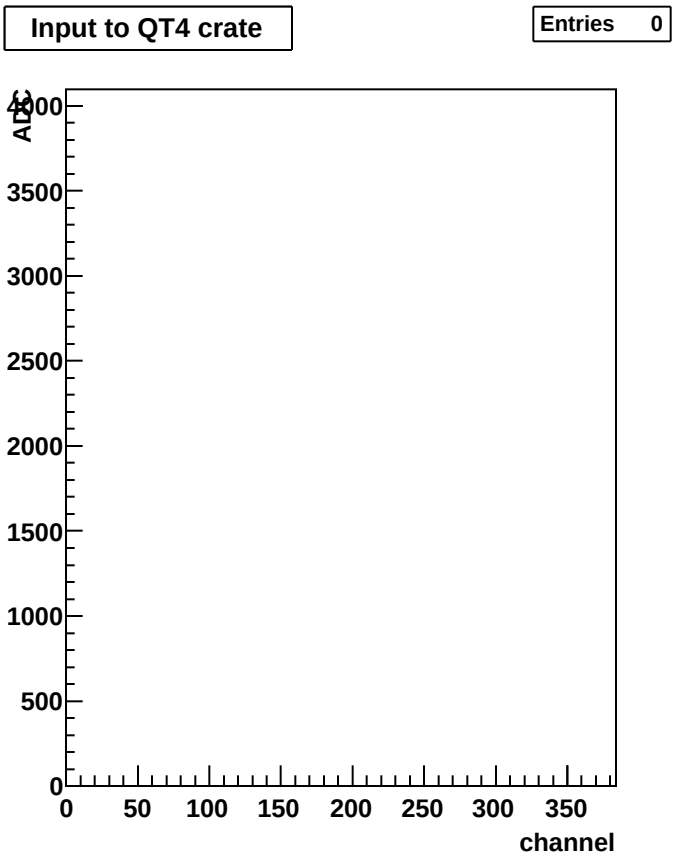

VPD-TAC-W
Entries 135229
Mean 1423
RMS 126.6

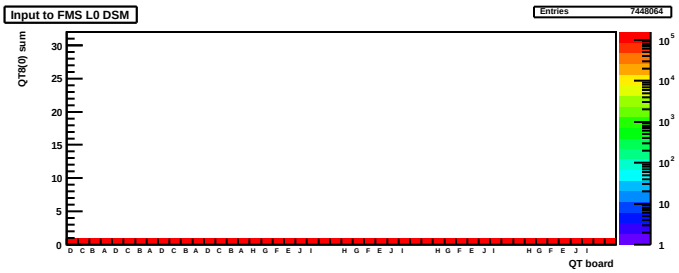

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 125938
Mean 3981
RMS 79.6

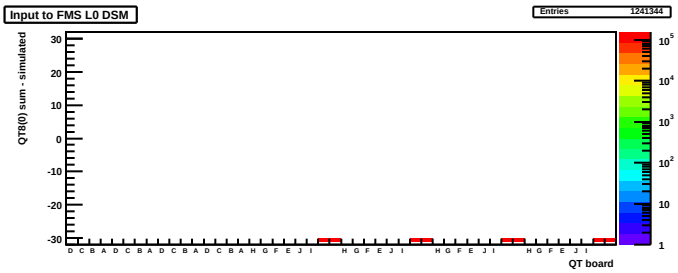

Input to QT1 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

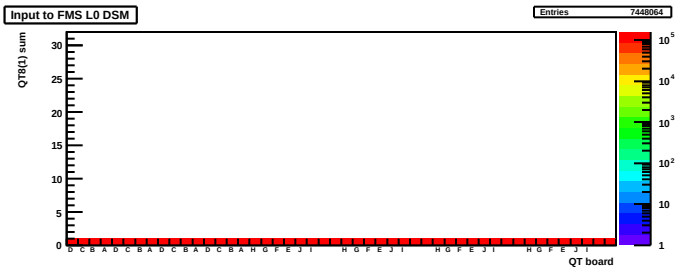

Input to QT2 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

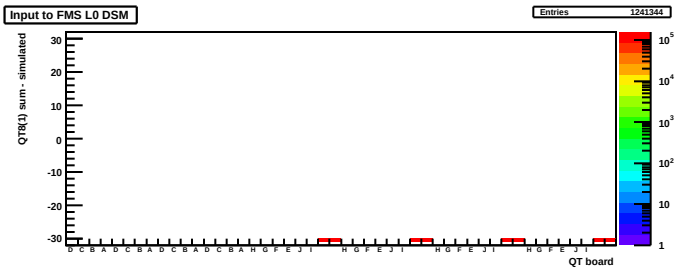

Input to QT3 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

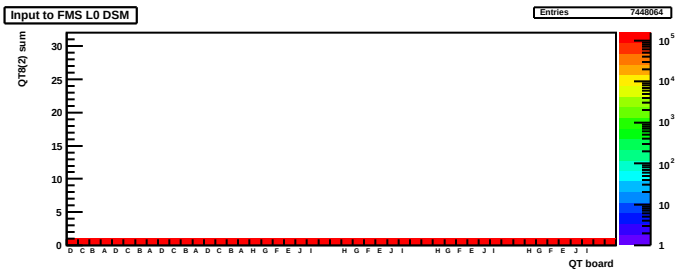

Input to QT4 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

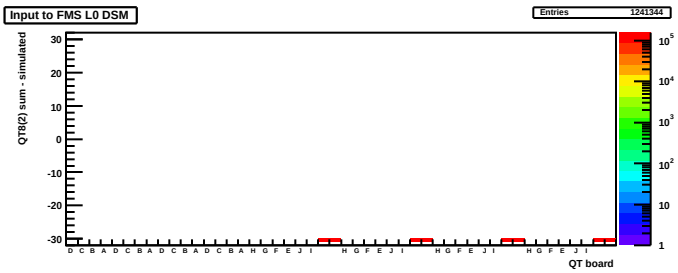

Input to FMS L0 DSM
Entries 7448064
QT8(0) sum
QT board

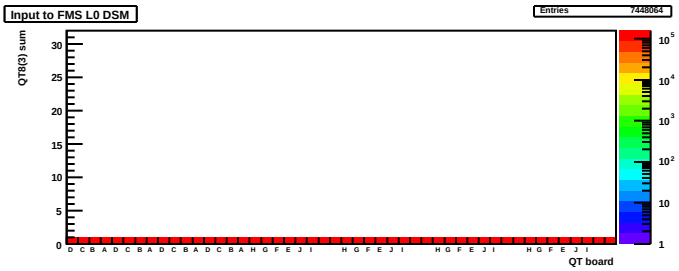

Input to FMS L0 DSM
Entries 1241344
QT8(0) sum - simulated
QT board

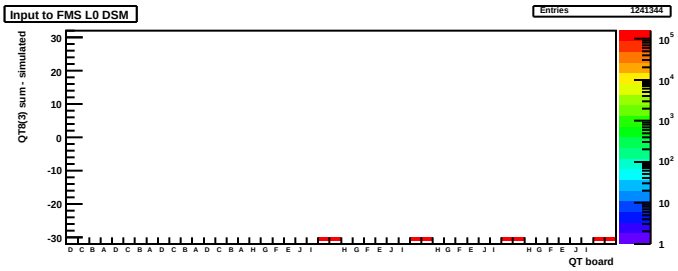

Input to FMS L0 DSM
Entries 7448064
QT8(1) sum
QT board

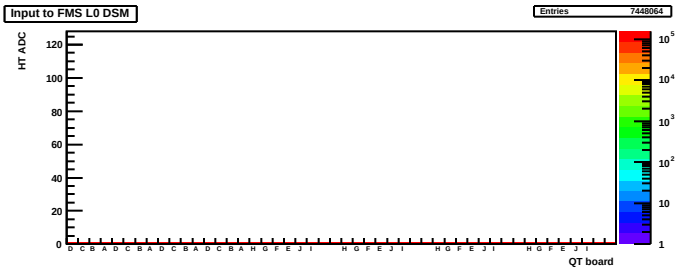

Input to FMS L0 DSM
Entries 1241344
QT8(1) sum - simulated
QT board

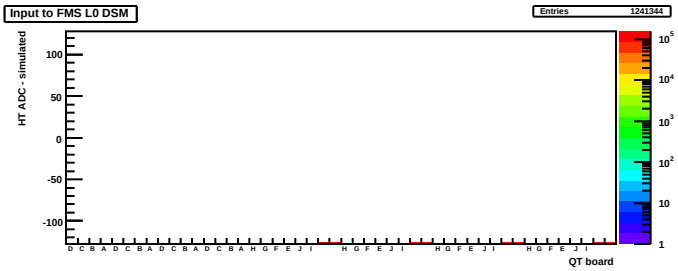

Input to FMS L0 DSM
Entries 7448064
QT8(2) sum
QT board

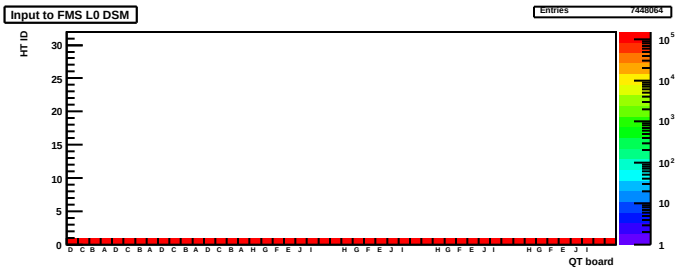

Input to FMS L0 DSM
Entries 1241344
QT8(2) sum - simulated
QT board

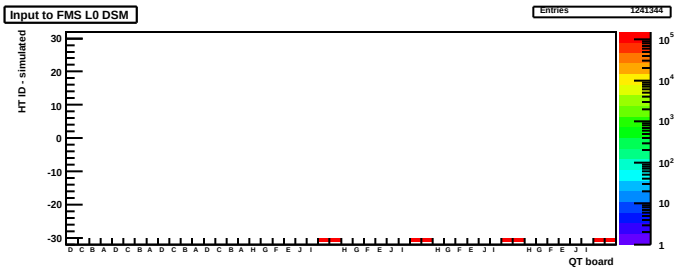

Input to FMS L0 DSM
Entries 7448064
QT8(3) sum
QT board

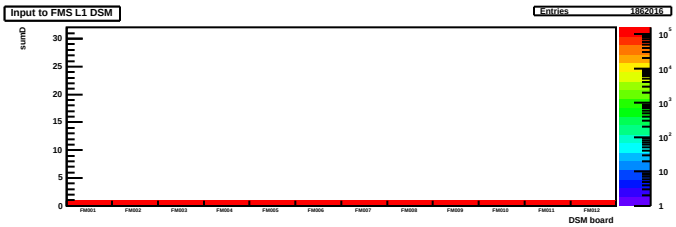

Input to FMS L0 DSM
Entries 1241344
QT8(3) sum - simulated
QT board

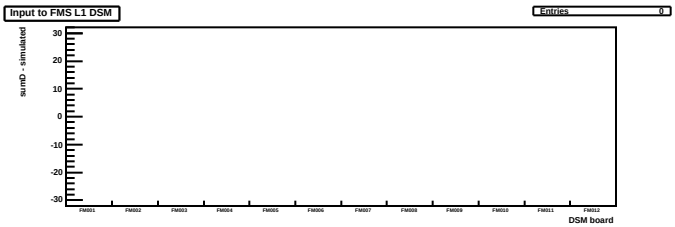

Input to FMS L0 DSM
Entries 7448064
HT ADC
QT board

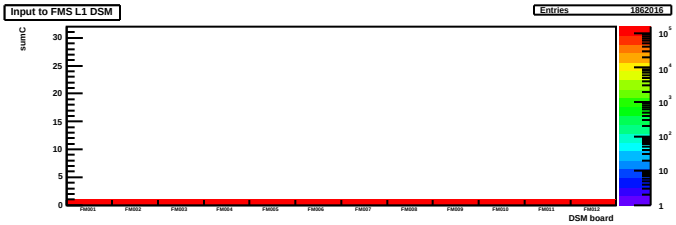

Input to FMS L0 DSM
Entries 1241344
HT ADC - simulated
QT board

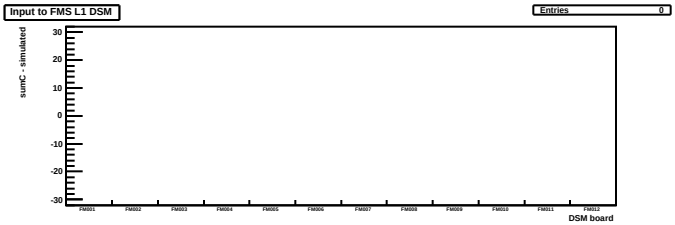

Input to FMS L0 DSM
Entries 7448064
HT ID
QT board

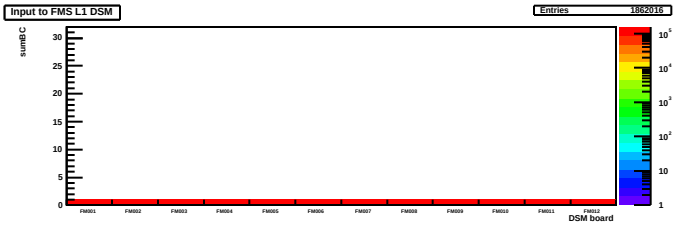

Input to FMS L0 DSM
Entries 1241344
HT ID - simulated
QT board

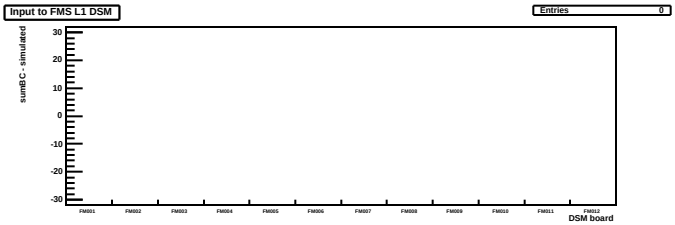

Input to FMS L1 DSM
Entries 1862016
sumD
DSM board

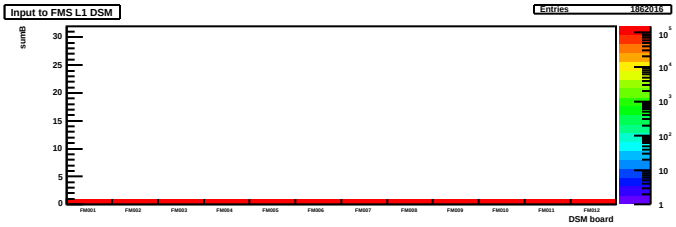

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

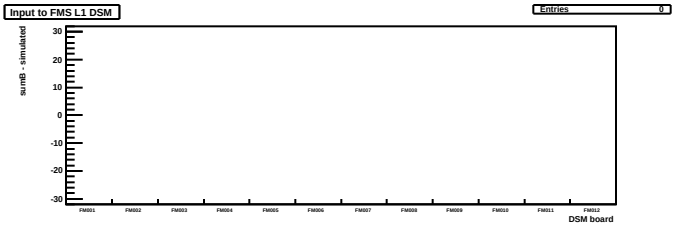

Input to FMS L1 DSM
Entries 1862016
sumC
DSM board

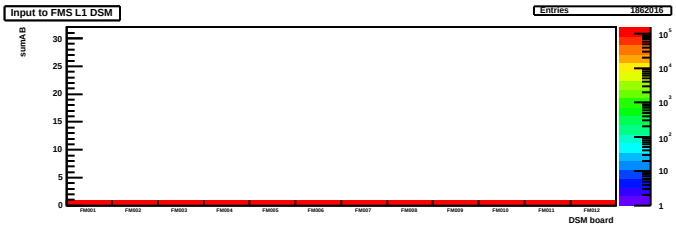

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

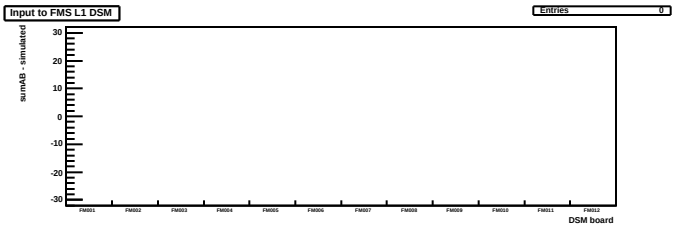

Input to FMS L1 DSM
Entries 1862016
sumBC
DSM board

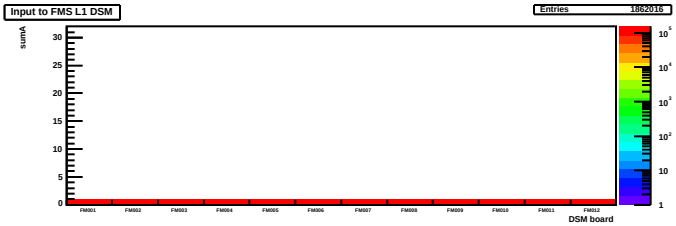

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

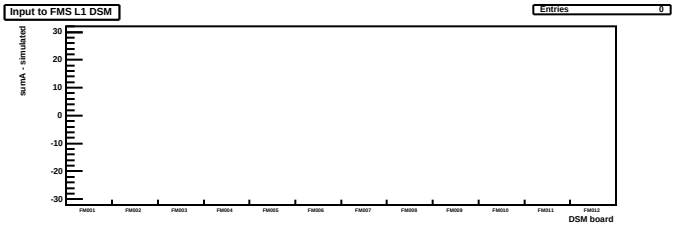

Input to FMS L1 DSM
Entries 1862016
sumB
DSM board

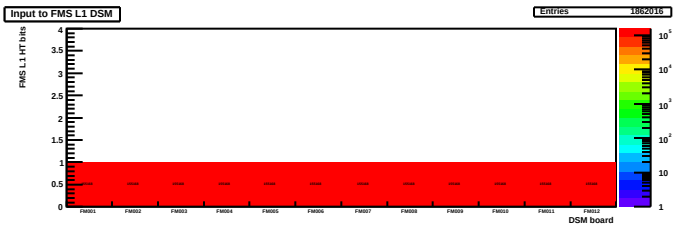

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

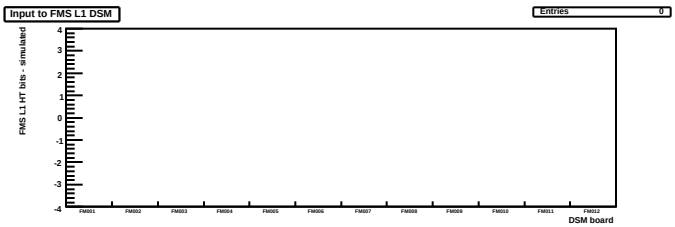

Input to FMS L1 DSM
Entries 1862016
sumAB
DSM board

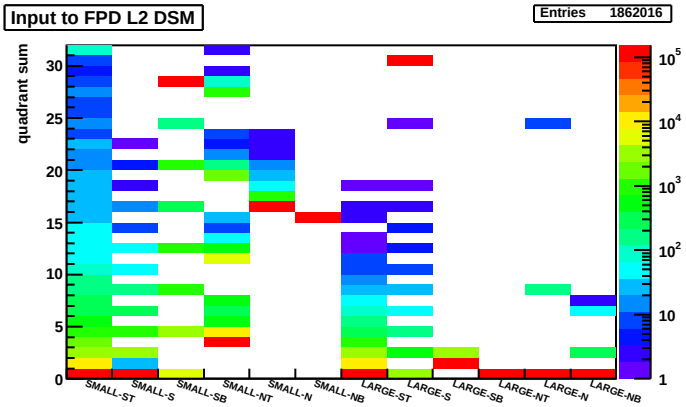

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

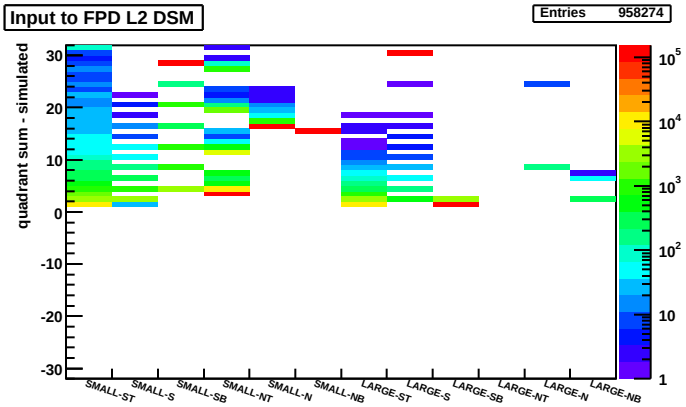

Input to FMS L1 DSM
Entries 1862016
sumA
DSM board

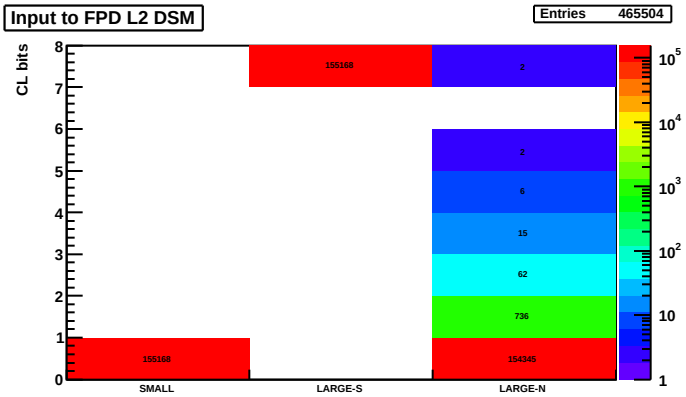

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

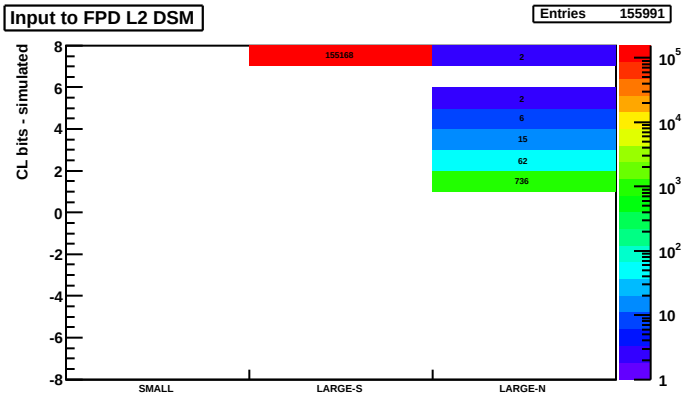

Input to FMS L1 DSM
Entries 1862016
FMS L1 HT bits
DSM board

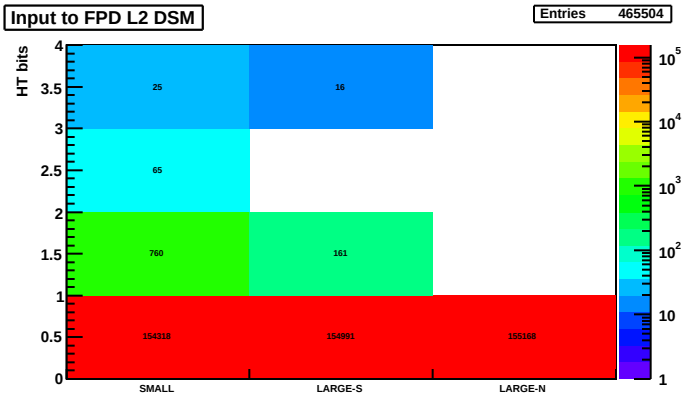

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

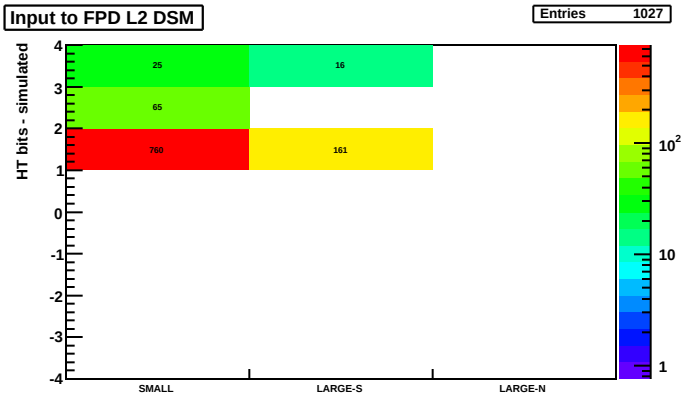

Input to FPD L2 DSM
Entries 1862016
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

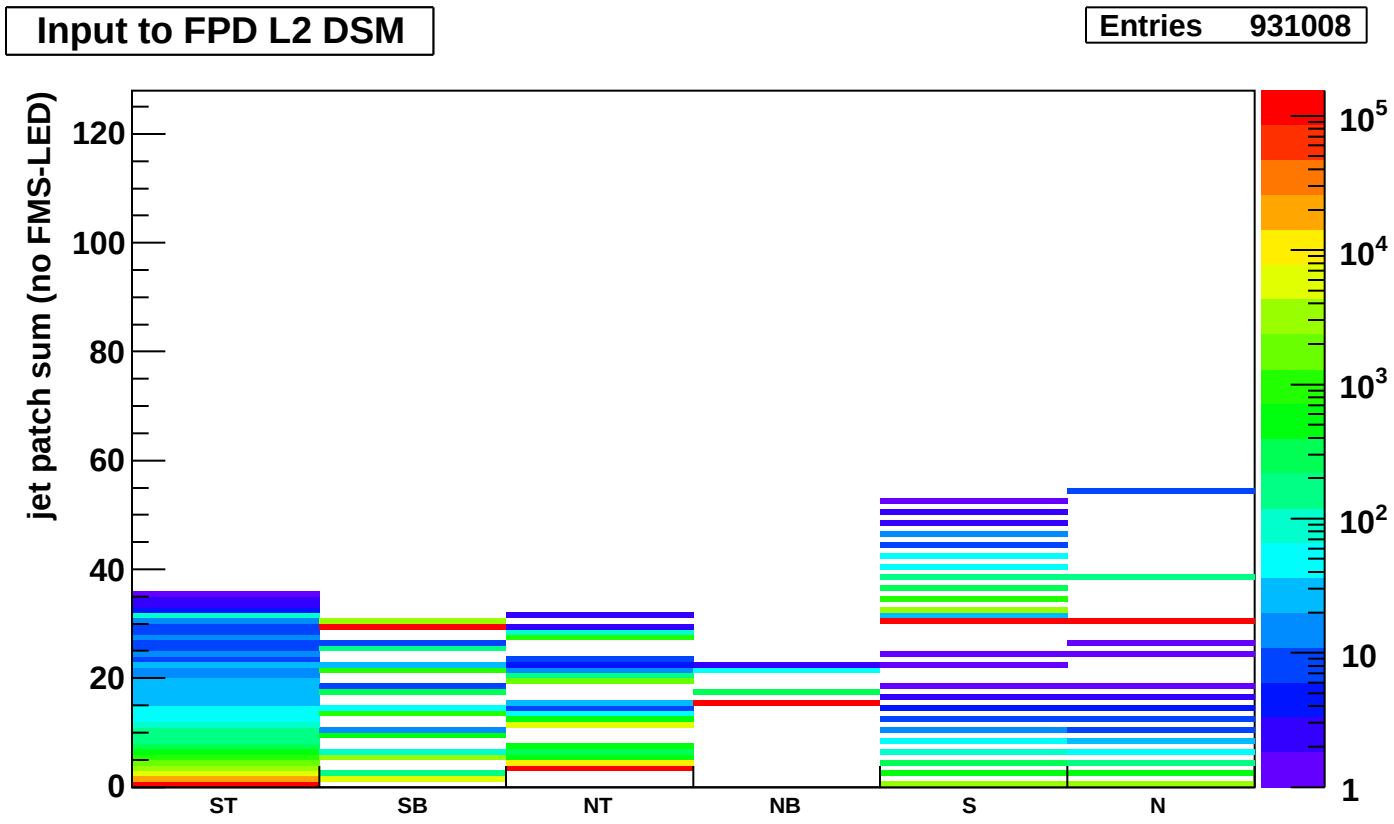

Input to FPD L2 DSM
Entries 958274
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

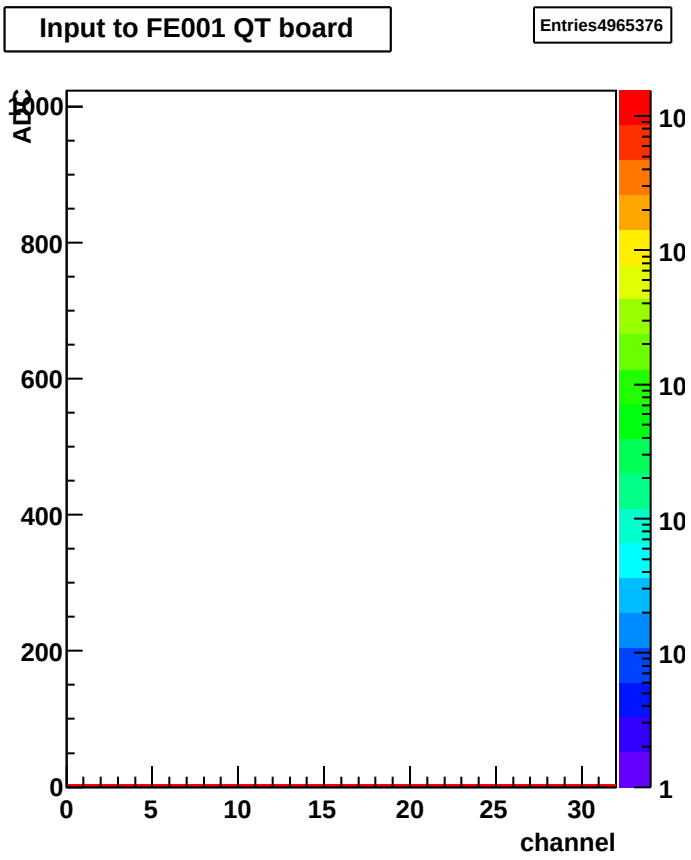

Input to FPD L2 DSM
Entries 465504
CL bits
155168
2
2
6
15
62
736
155168
154345
SMALL
LARGE-S
LARGE-N

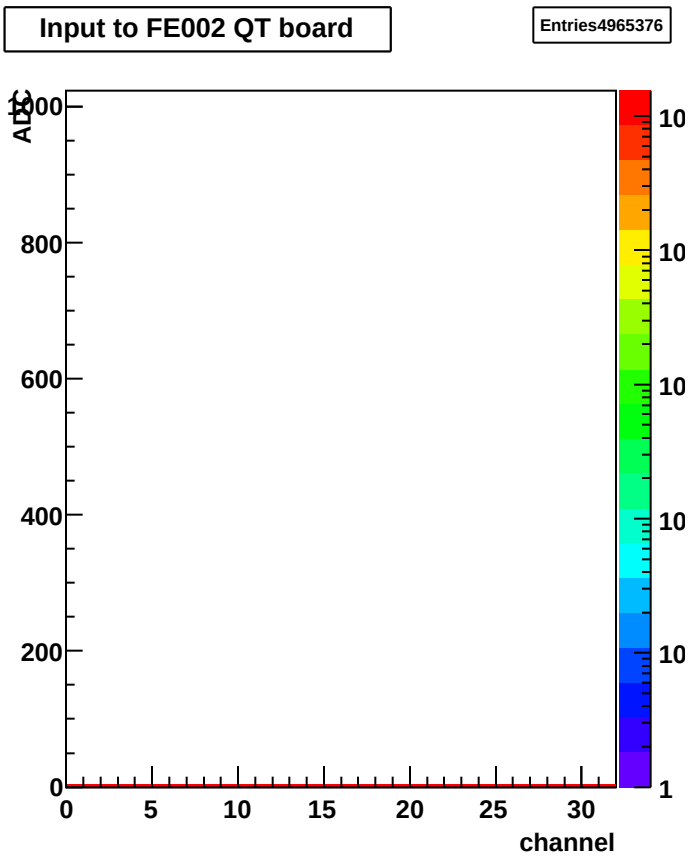

Input to FPD L2 DSM
Entries 155991
CL bits - simulated
155168
2
2
6
15
62
736
SMALL
LARGE-S
LARGE-N

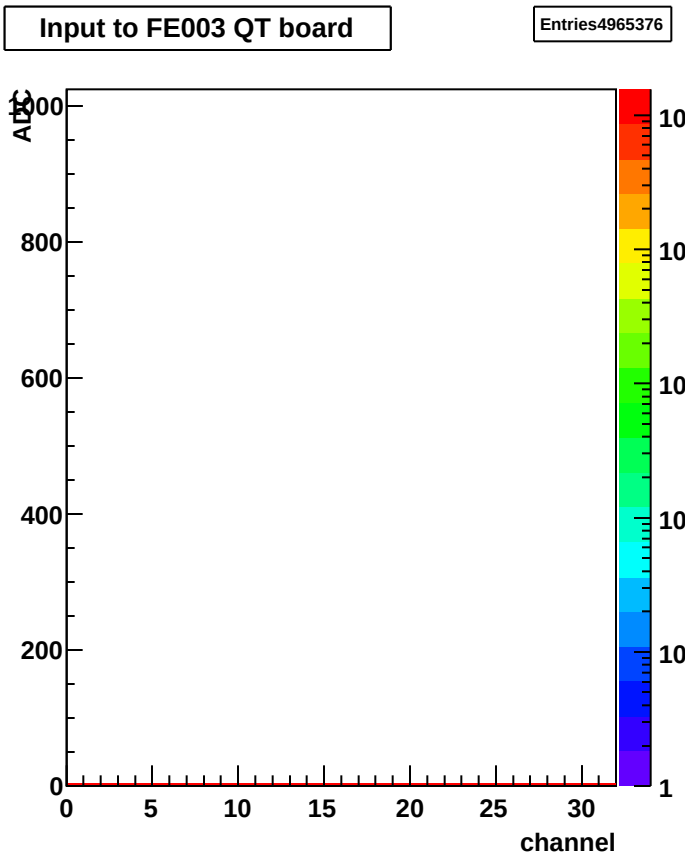

Input to FPD L2 DSM
Entries 465504
HT bits
25
16
65
760
161
154318
154991
155168
SMALL
LARGE-S
LARGE-N

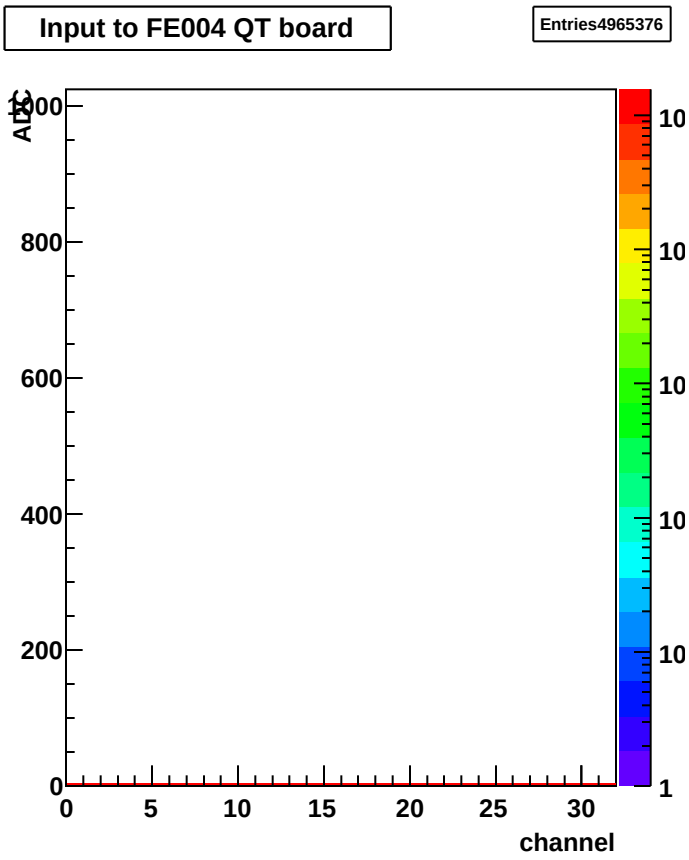

Input to FPD L2 DSM
Entries 1027
HT bits - simulated
25
16
65
760
161
SMALL
LARGE-S
LARGE-N

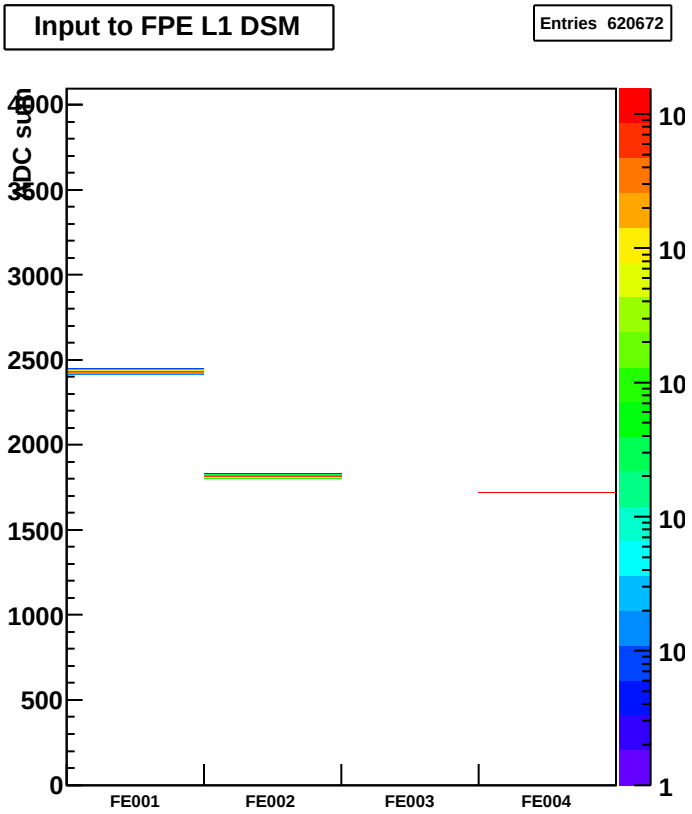

Input to FPD L2 DSM
Entries 931008
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

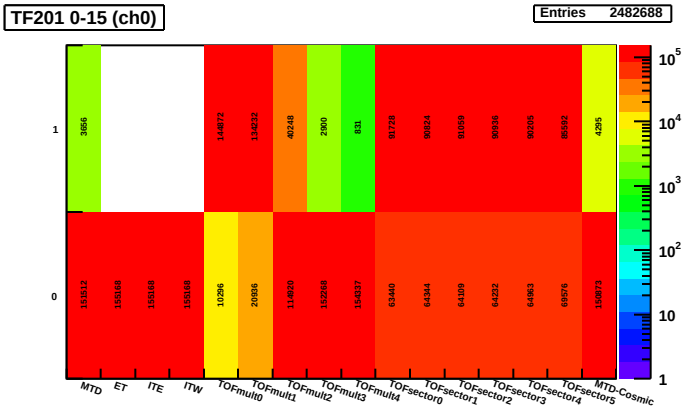

Input to FE001 QT board
Entries4965376
ADC
channel

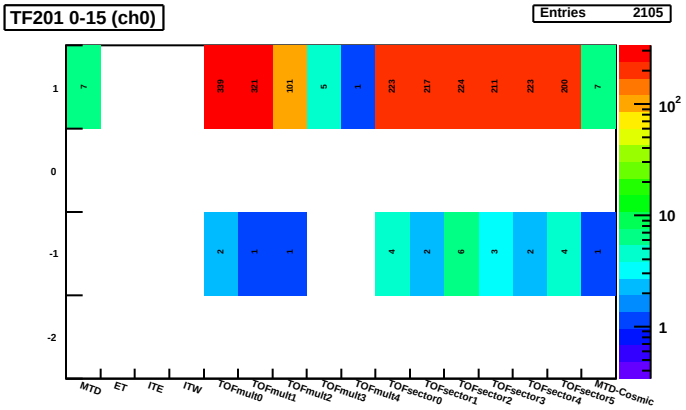

Input to FE002 QT board
Entries4965376
ADC
channel

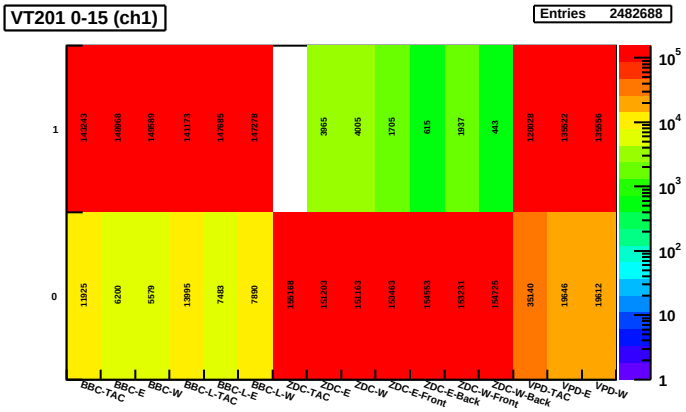

Input to FE003 QT board
Entries4965376
ADC
channel

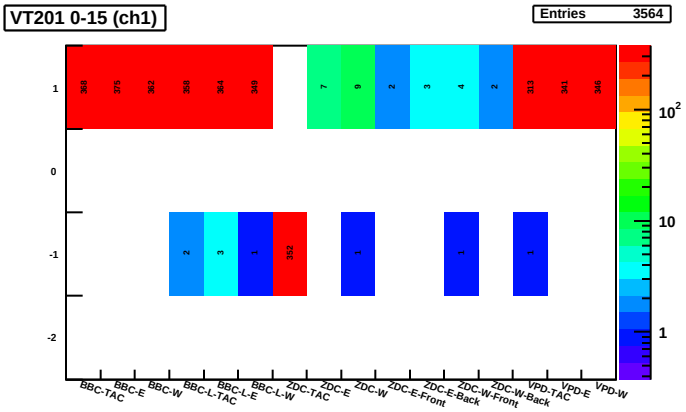

Input to FE004 QT board
Entries4965376
ADC
channel

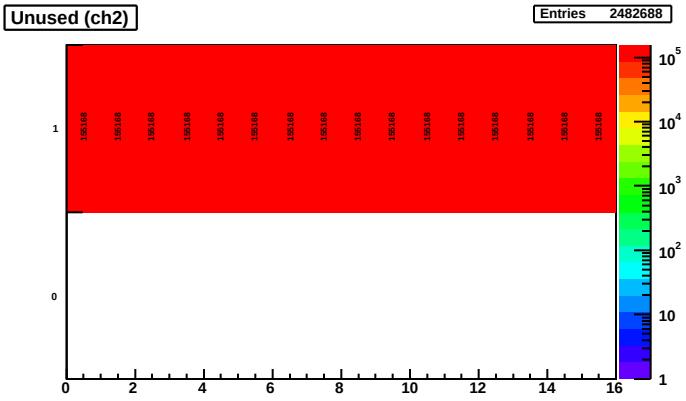

Input to FPE L1 DSM
Entries 620672
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

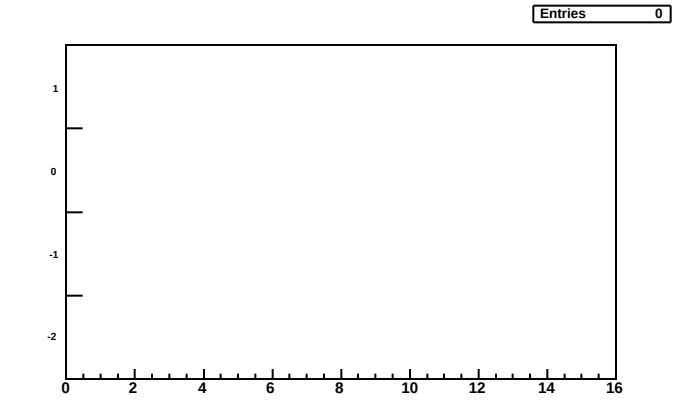

TF201 0-15 (ch0)
Entries 2482688
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 2105
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 2482688
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 3564
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


Unused (ch2)
Entries 2482688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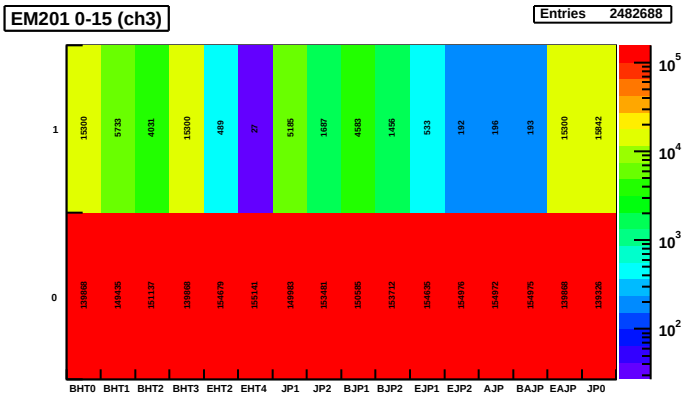
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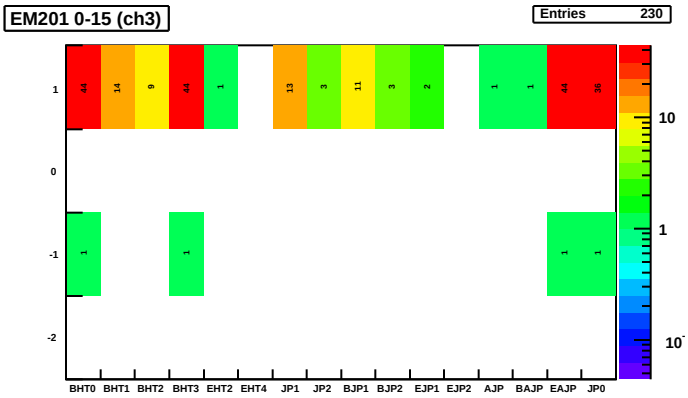
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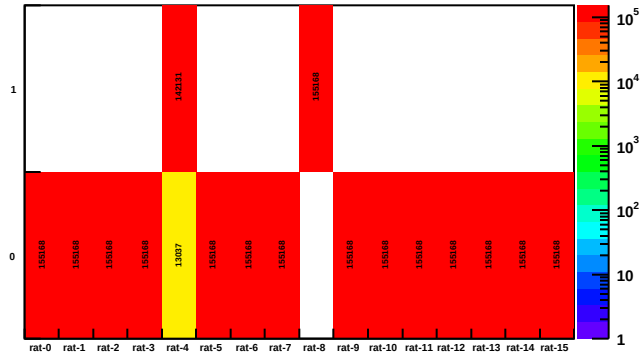
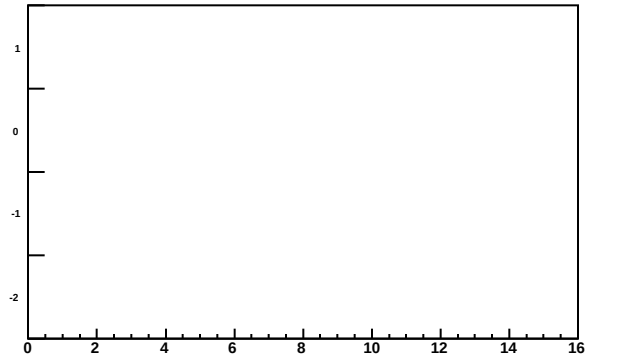
RAT board (ch4)





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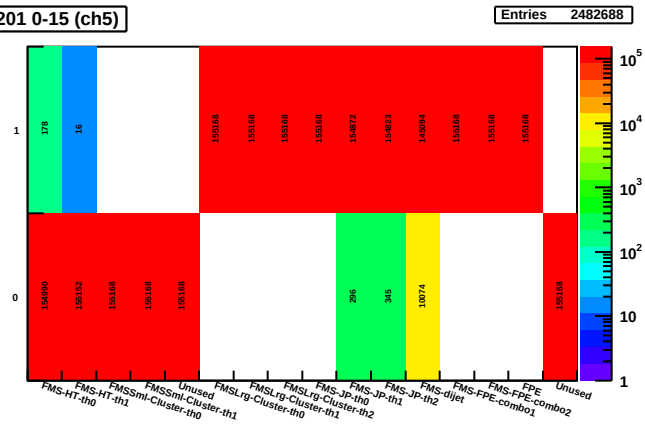

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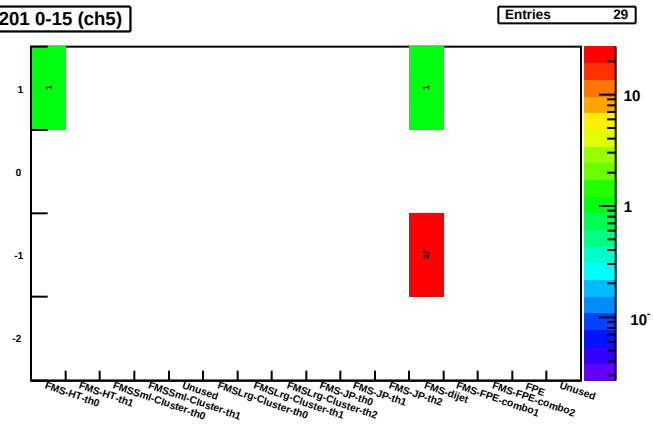

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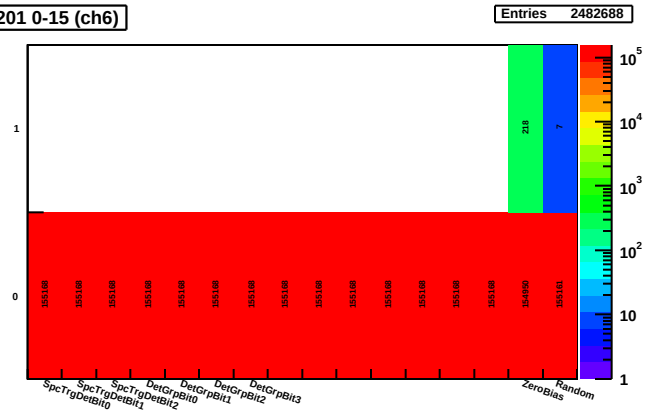

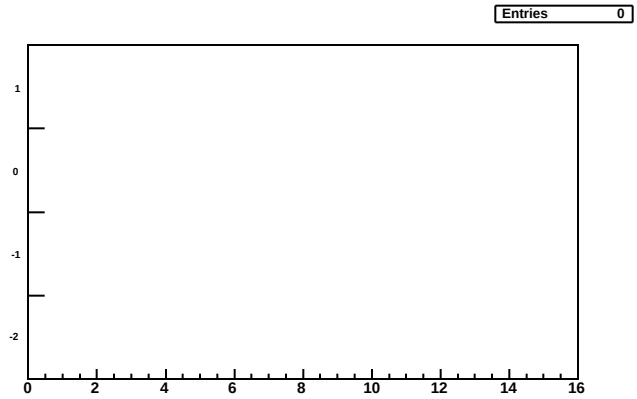
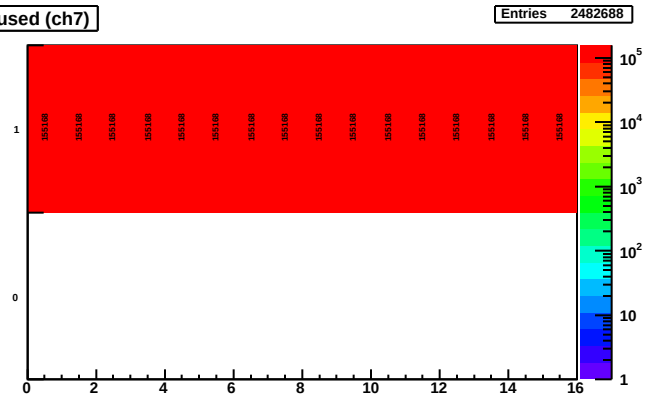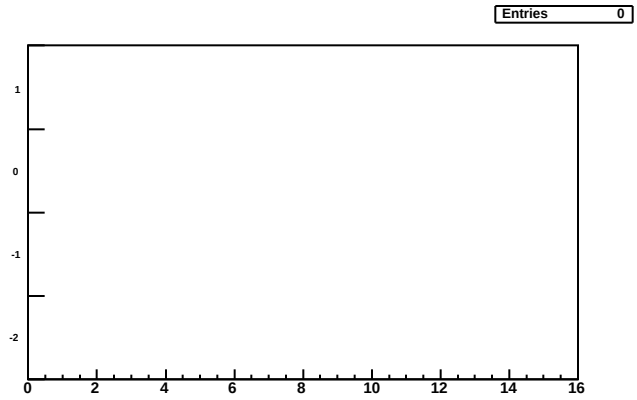
Unused (ch7)