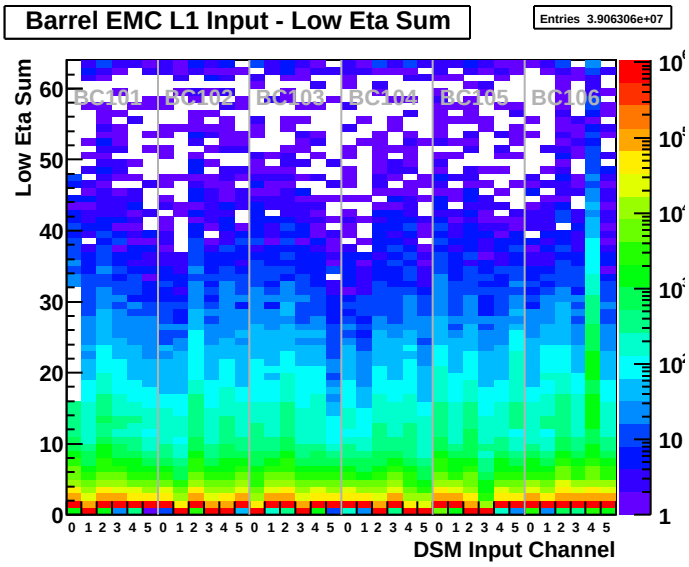
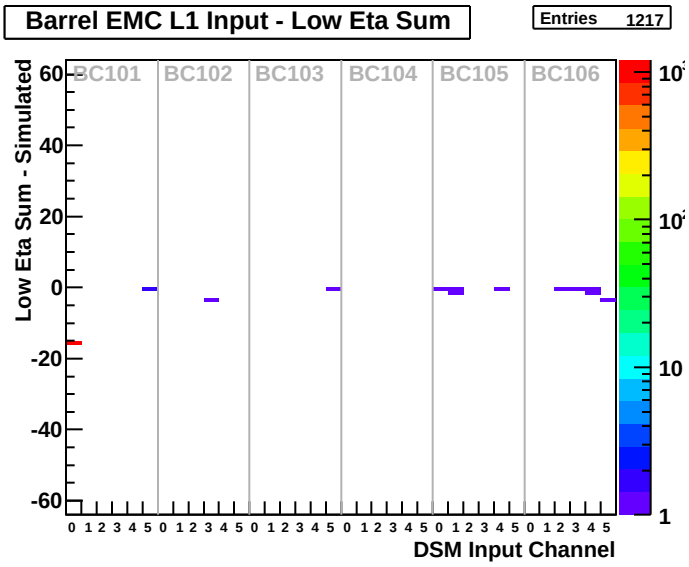
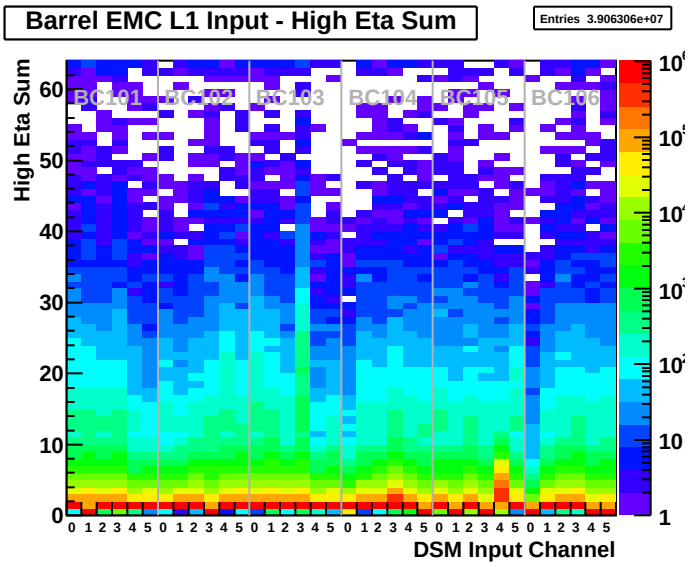
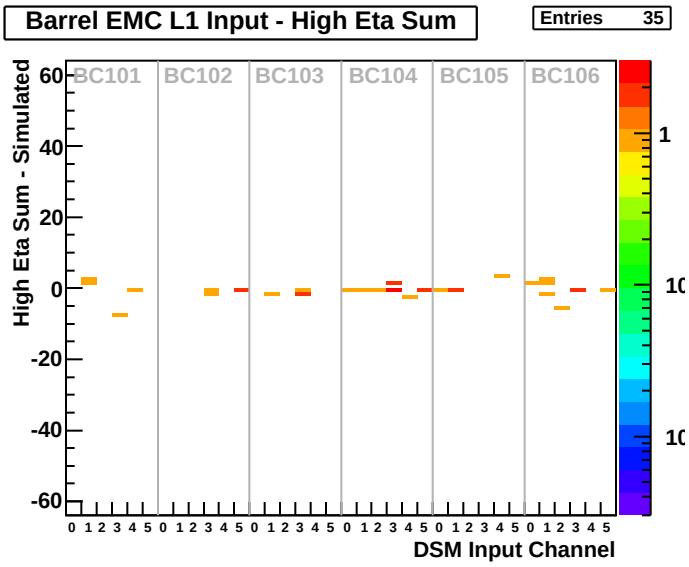
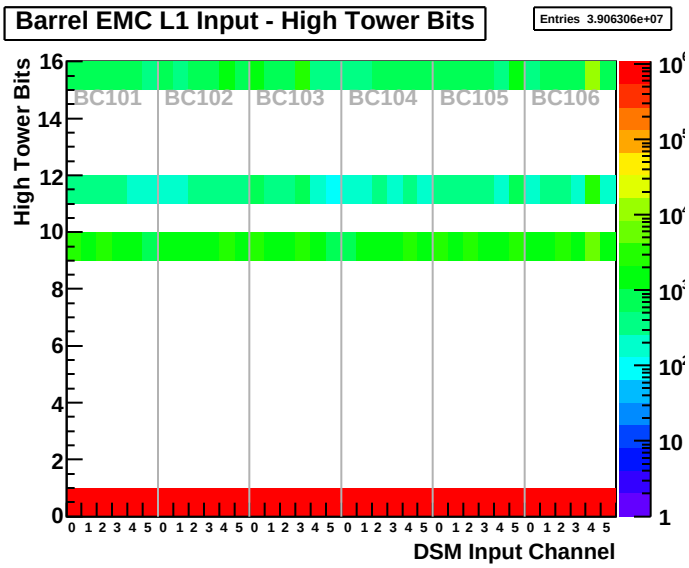
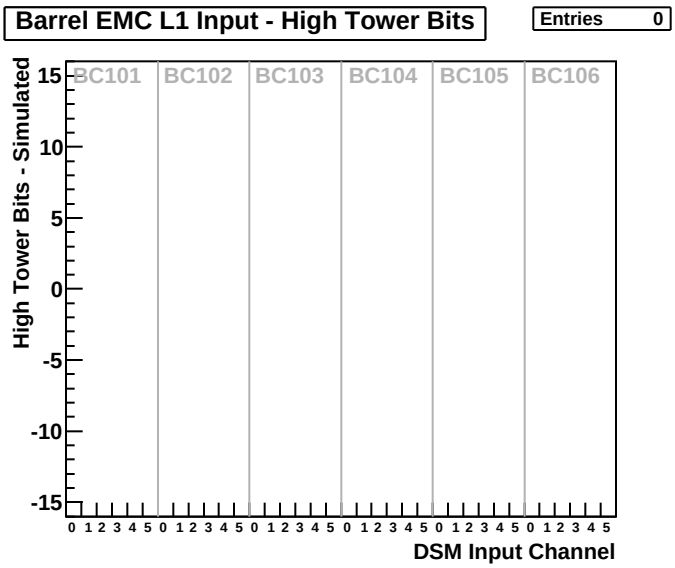

Barrel EMC L1 Input - Low Eta Sum
Entries 3.906306e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

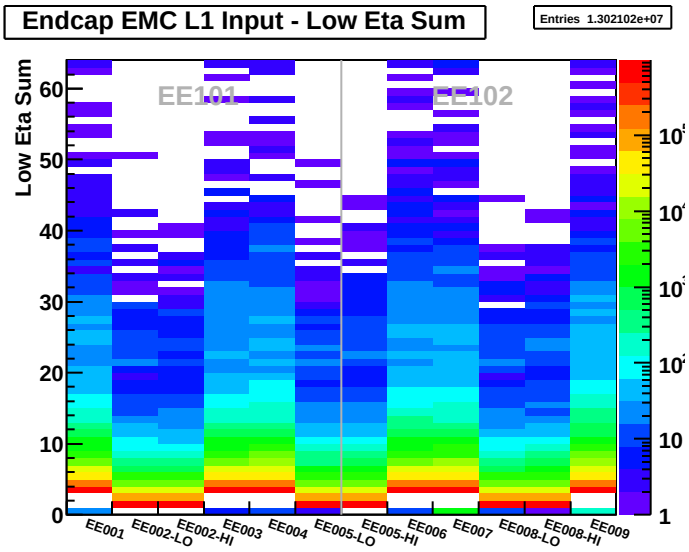

Barrel EMC L1 Input - Low Eta Sum
Entries 1217
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

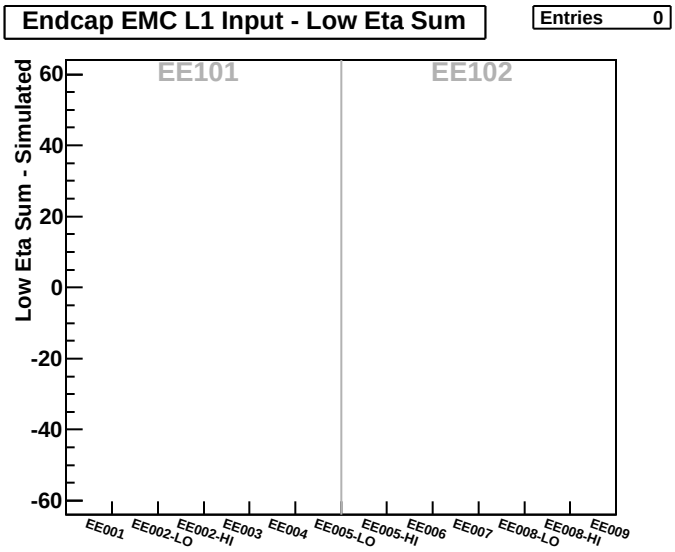

Barrel EMC L1 Input - High Eta Sum
Entries 3.906306e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

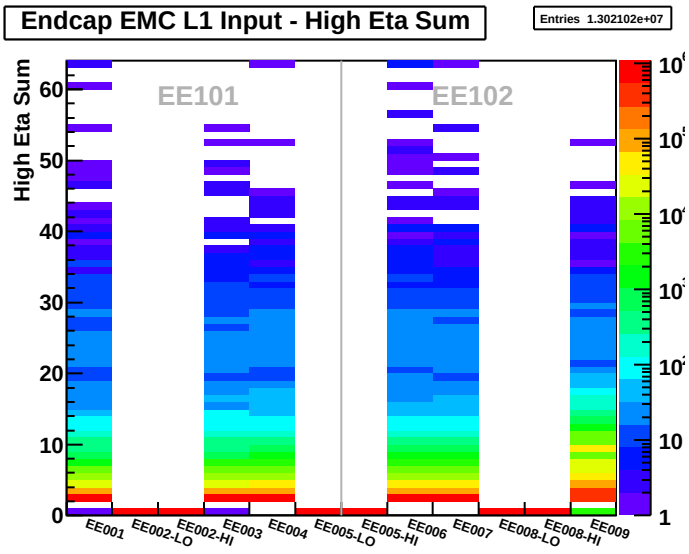

Barrel EMC L1 Input - High Eta Sum
Entries 35
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

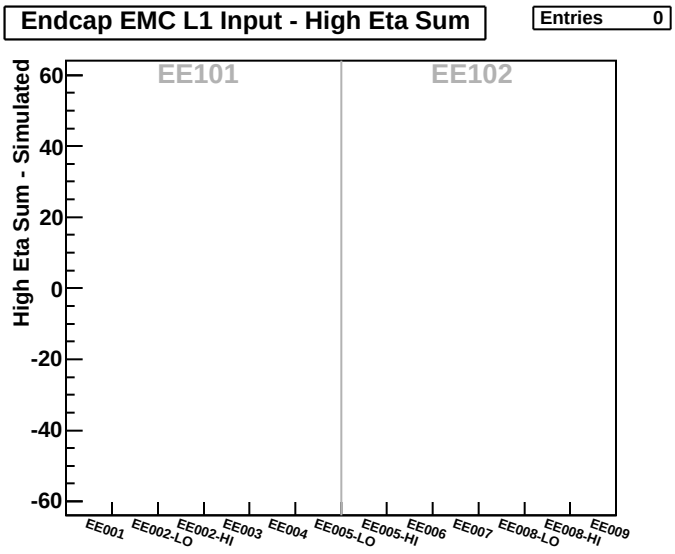

Barrel EMC L1 Input - High Tower Bits
Entries 3.906306e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

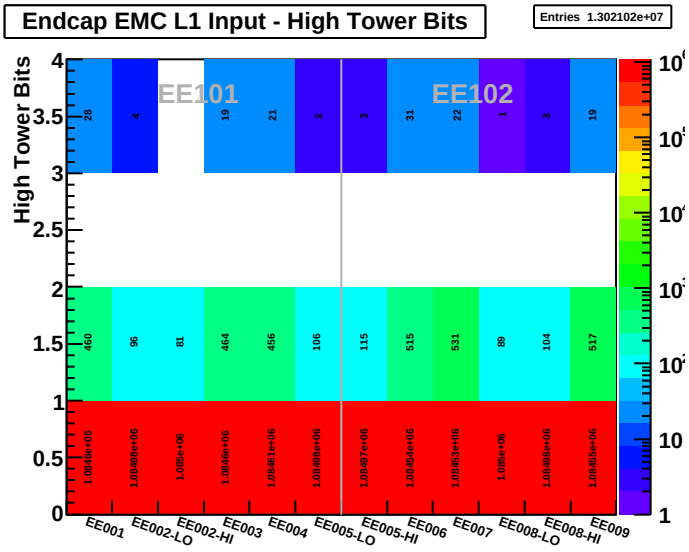

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

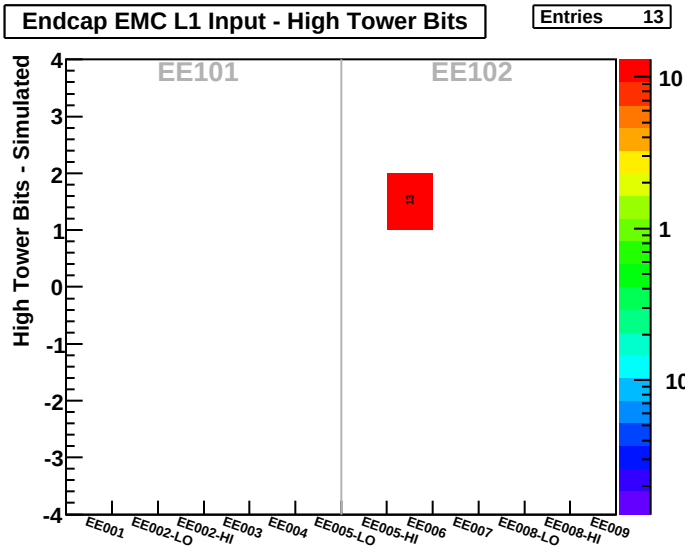

Endcap EMC L1 Input - Low Eta Sum
Entries 1.302102e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

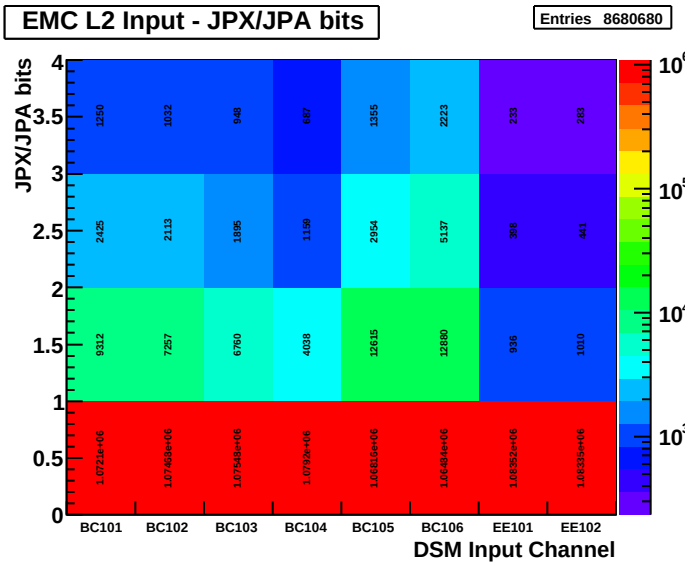

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

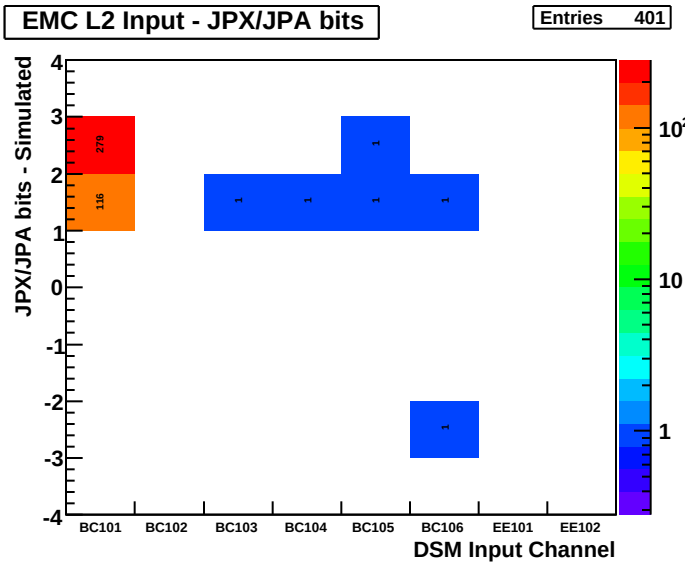

Endcap EMC L1 Input - High Eta Sum
Entries 1.302102e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

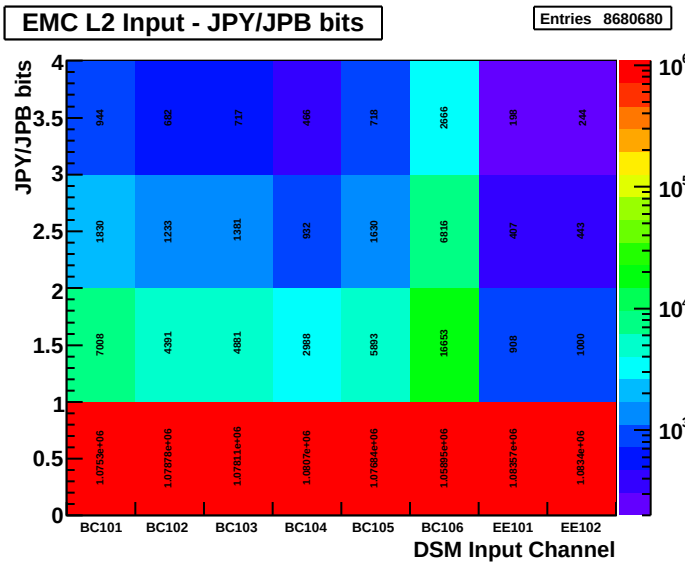

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

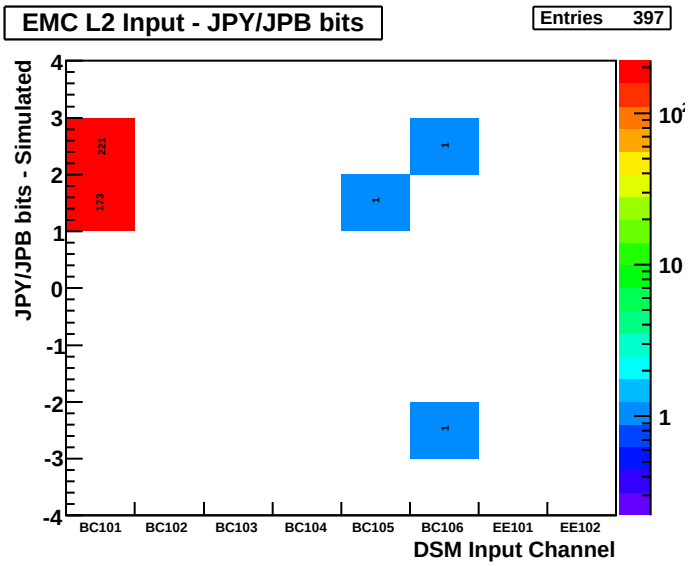

Endcap EMC L1 Input - High Tower Bits
Entries 1.302102e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

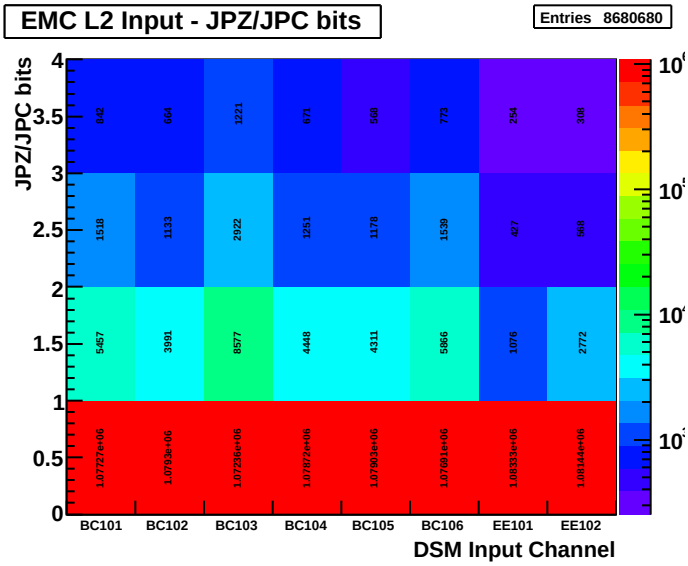

Endcap EMC L1 Input - High Tower Bits
Entries 13
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

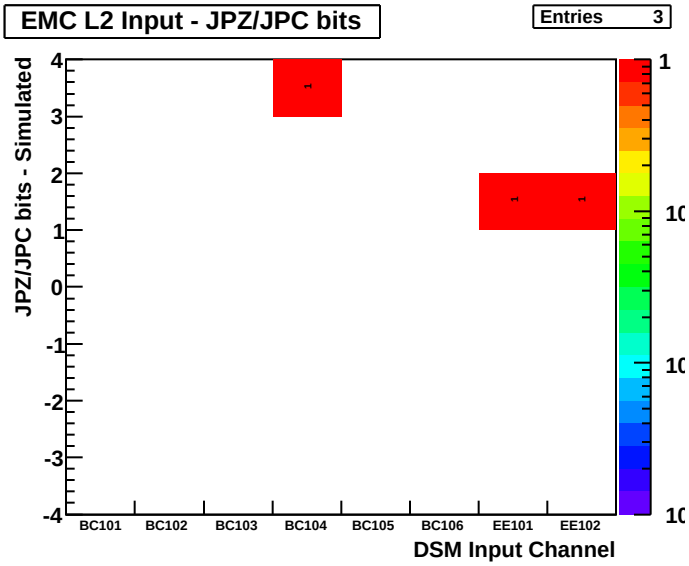

EMC L2 Input - JPX/JPA bits
Entries 8680680
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

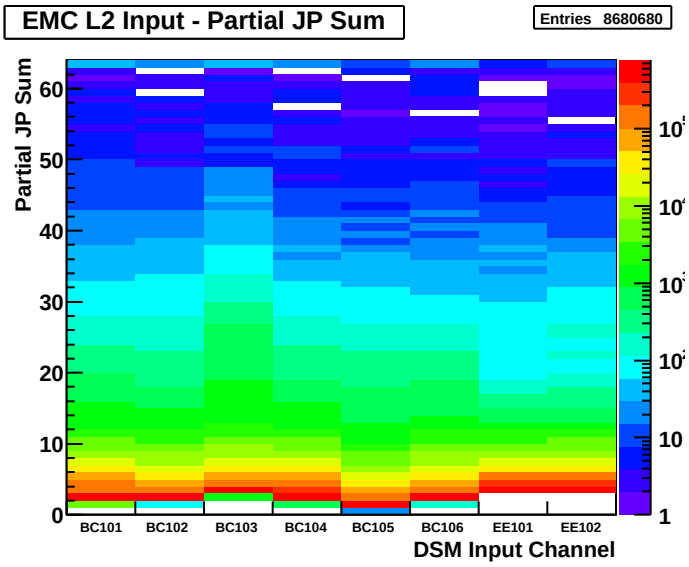

EMC L2 Input - JPX/JPA bits
Entries 401
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

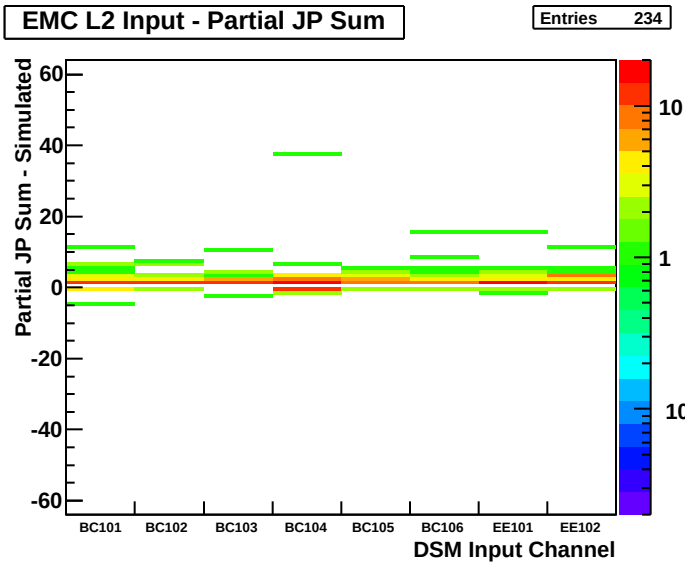

EMC L2 Input - JPY/JPB bits
Entries 8680680
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

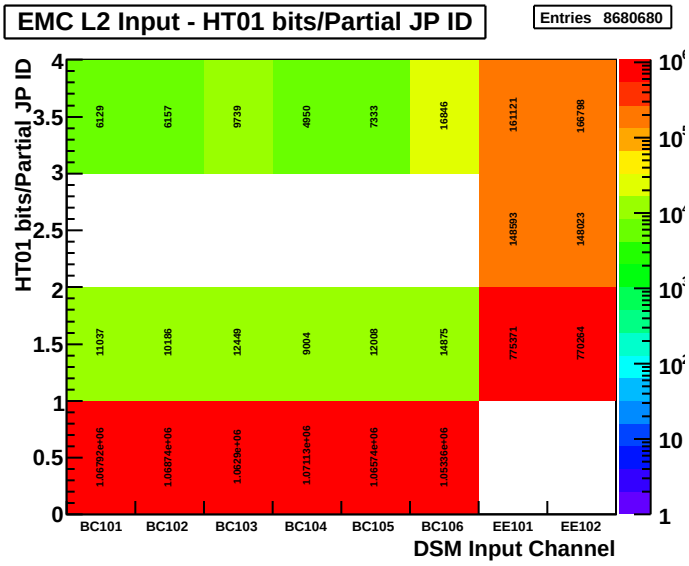

EMC L2 Input - JPY/JPB bits
Entries 397
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

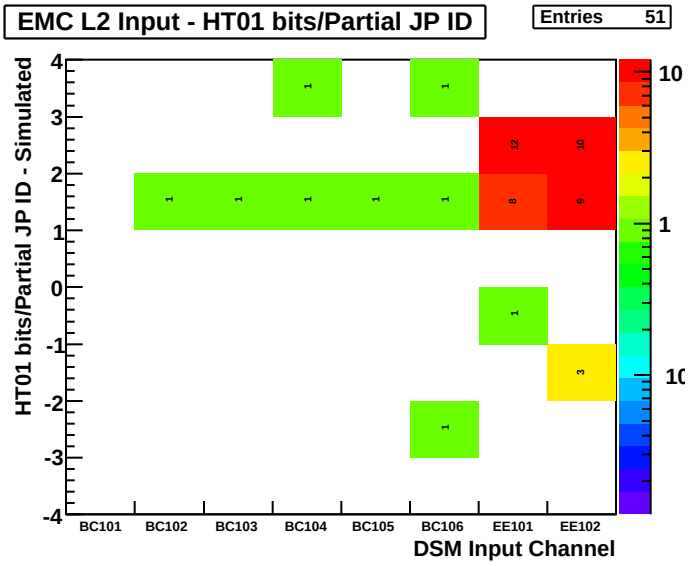

EMC L2 Input - JPZ/JPC bits
Entries 8680680
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

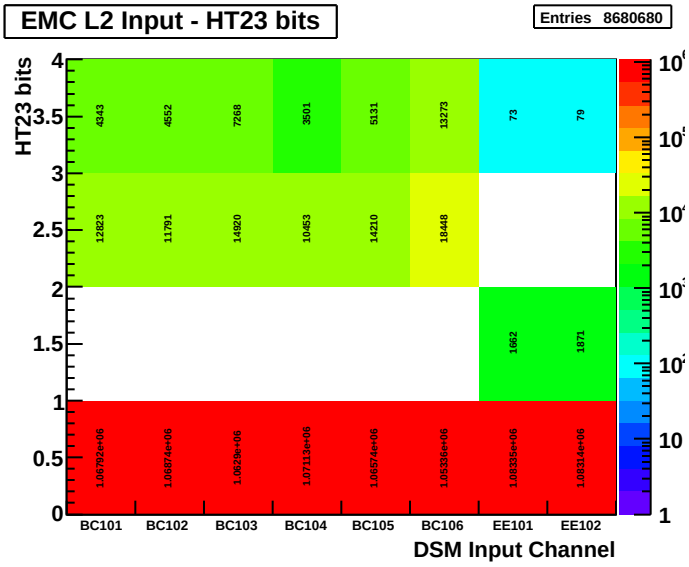

EMC L2 Input - JPZ/JPC bits
Entries 3
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

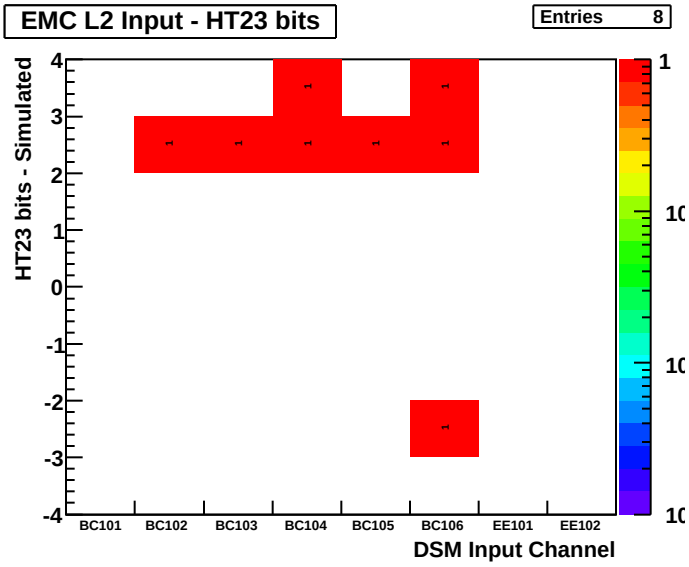

EMC L2 Input - Partial JP Sum
Entries 8680680
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

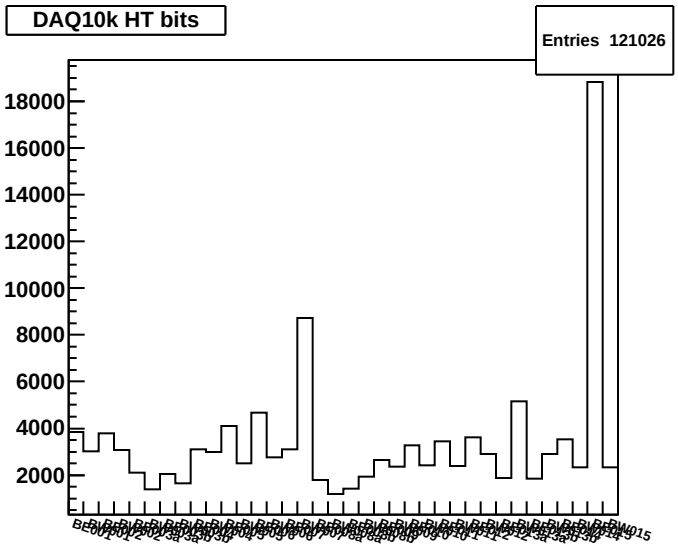

EMC L2 Input - Partial JP Sum
Entries 234
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

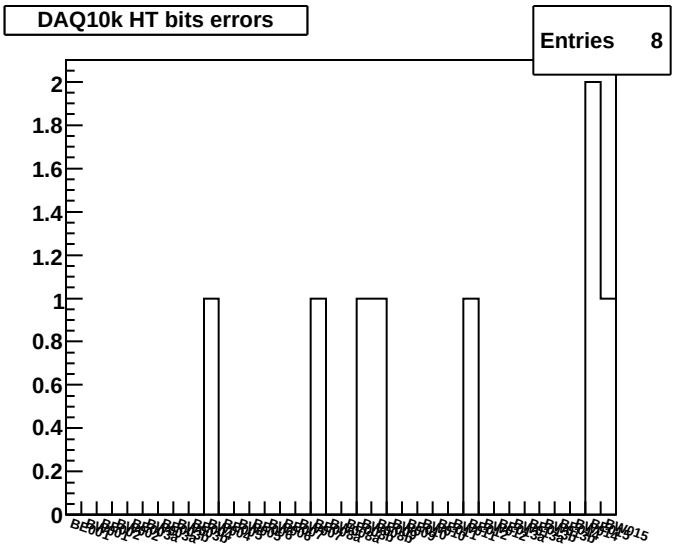

EMC L2 Input - HT01 bits/Partial JP ID
Entries 8680680
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

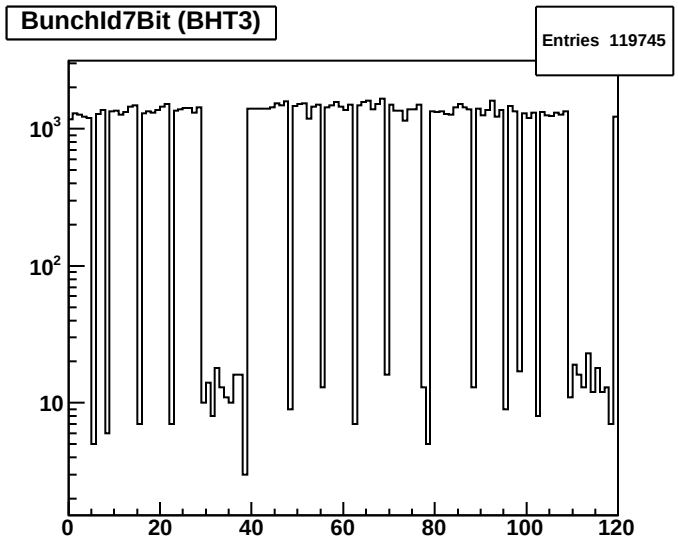

EMC L2 Input - HT01 bits/Partial JP ID
Entries 51
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

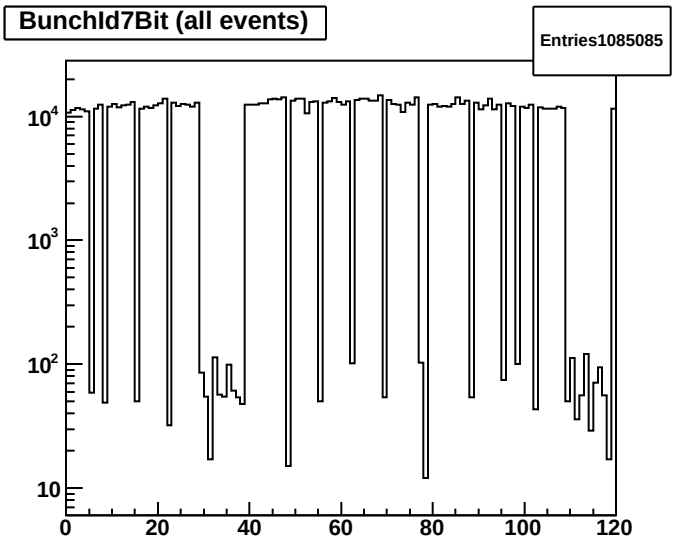

EMC L2 Input - HT23 bits
Entries 8680680
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

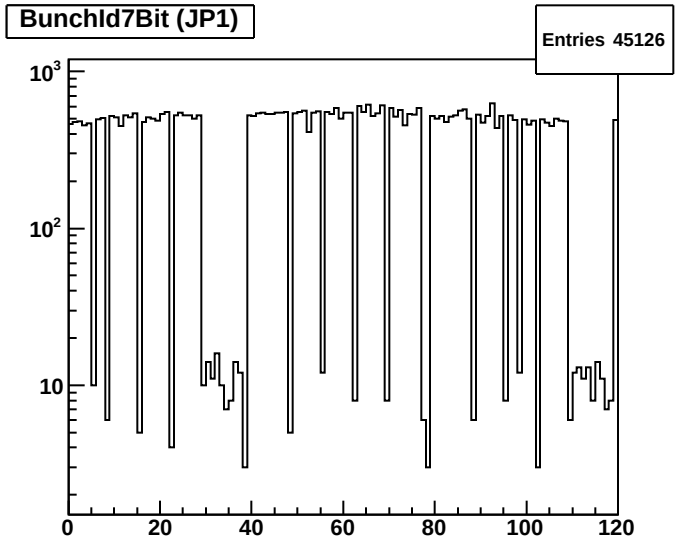

EMC L2 Input - HT23 bits
Entries 8
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

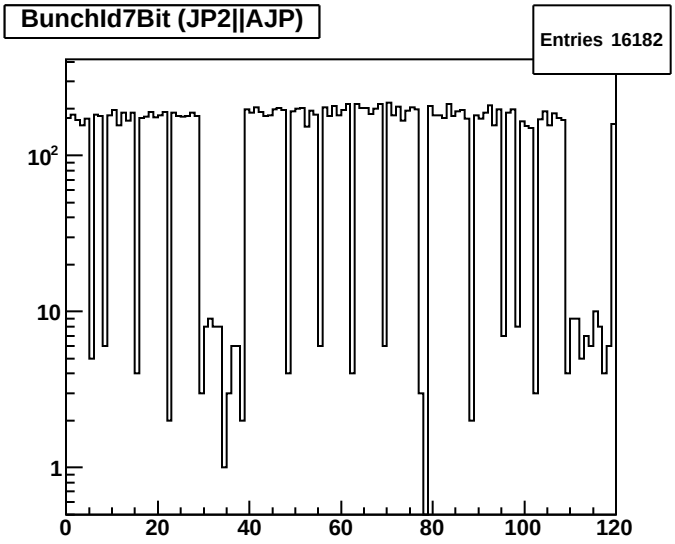

DAQ10k HT bits
Entries 121026
18000
16000
14000
12000
10000
8000
6000
4000
2000

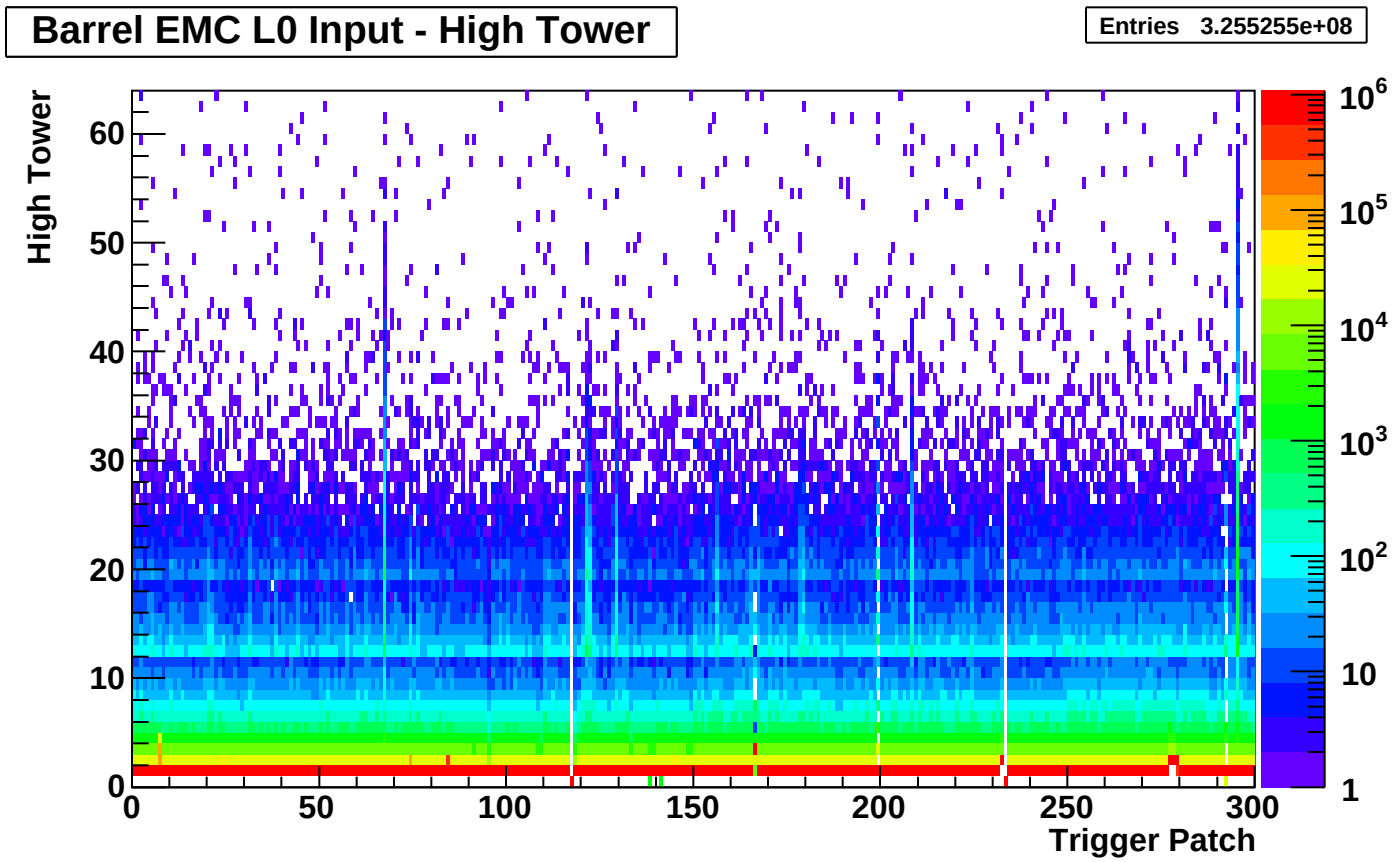

DAQ10k HT bits errors
Entries 8
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0

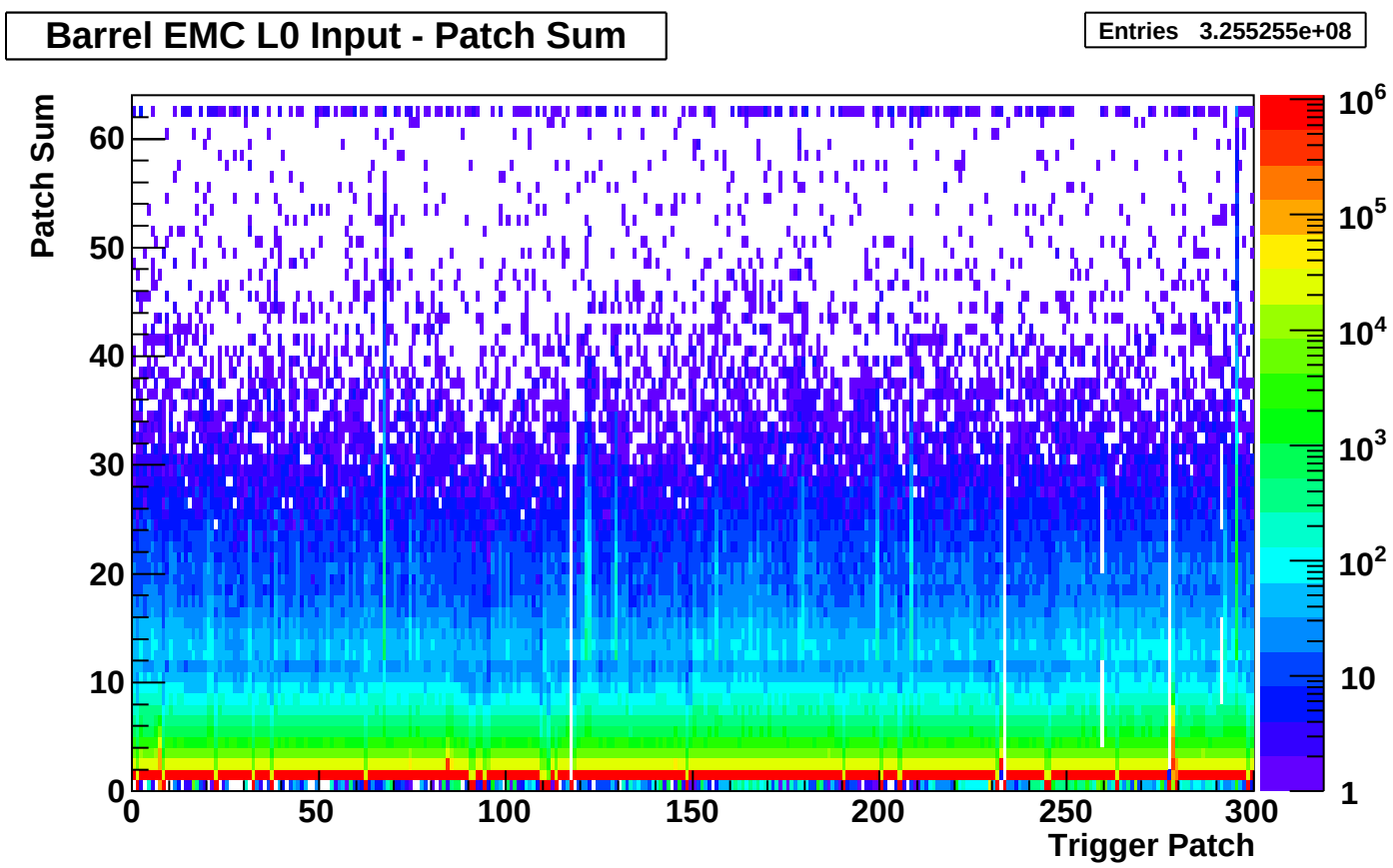

BunchId7Bit (BHT3)
Entries 119745
10^3
10^2
10
0
20
40
60
80
100
120

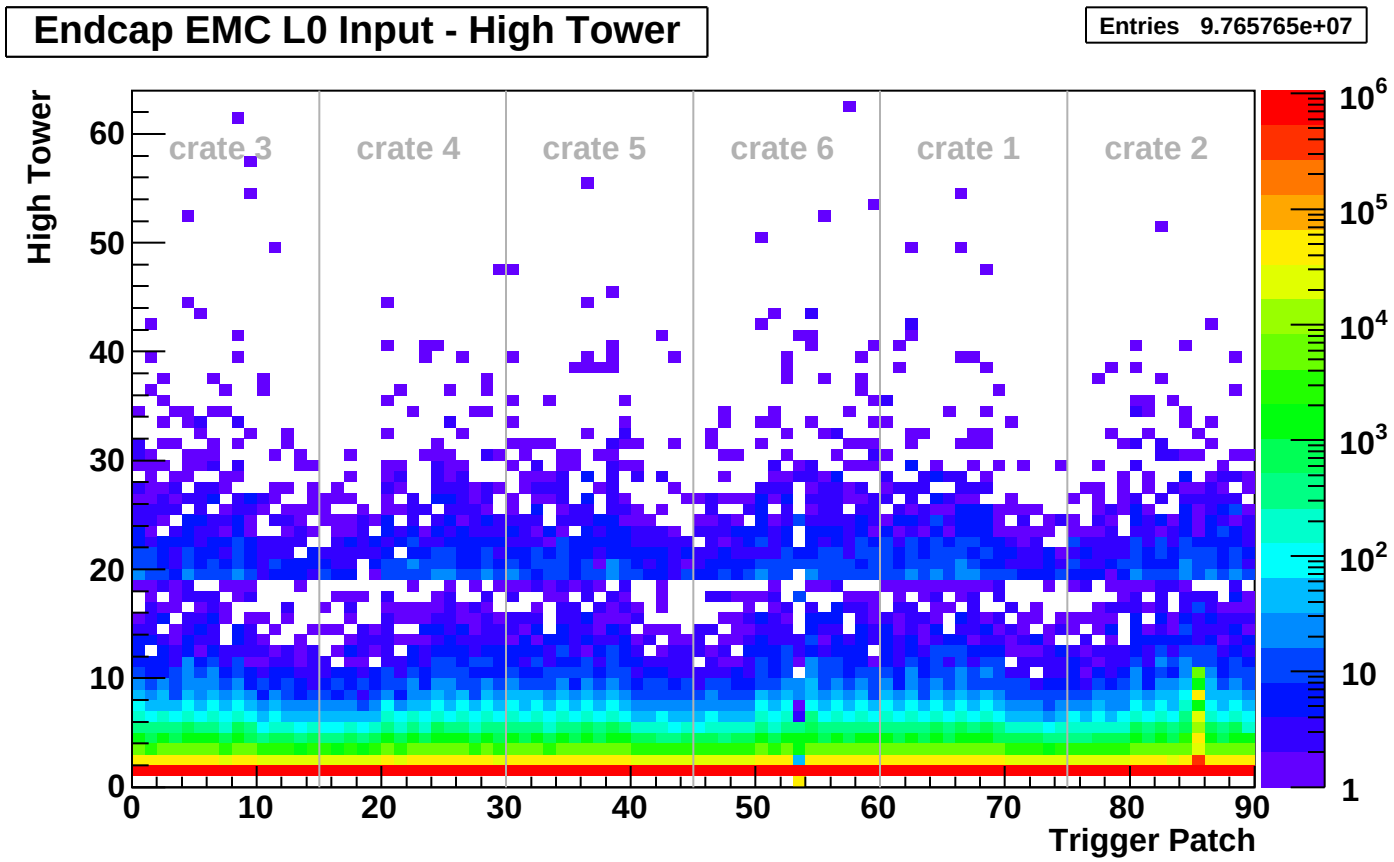

BunchId7Bit (all events)
Entries1085085
10^4
10^3
10^2
10
0
20
40
60
80
100
120

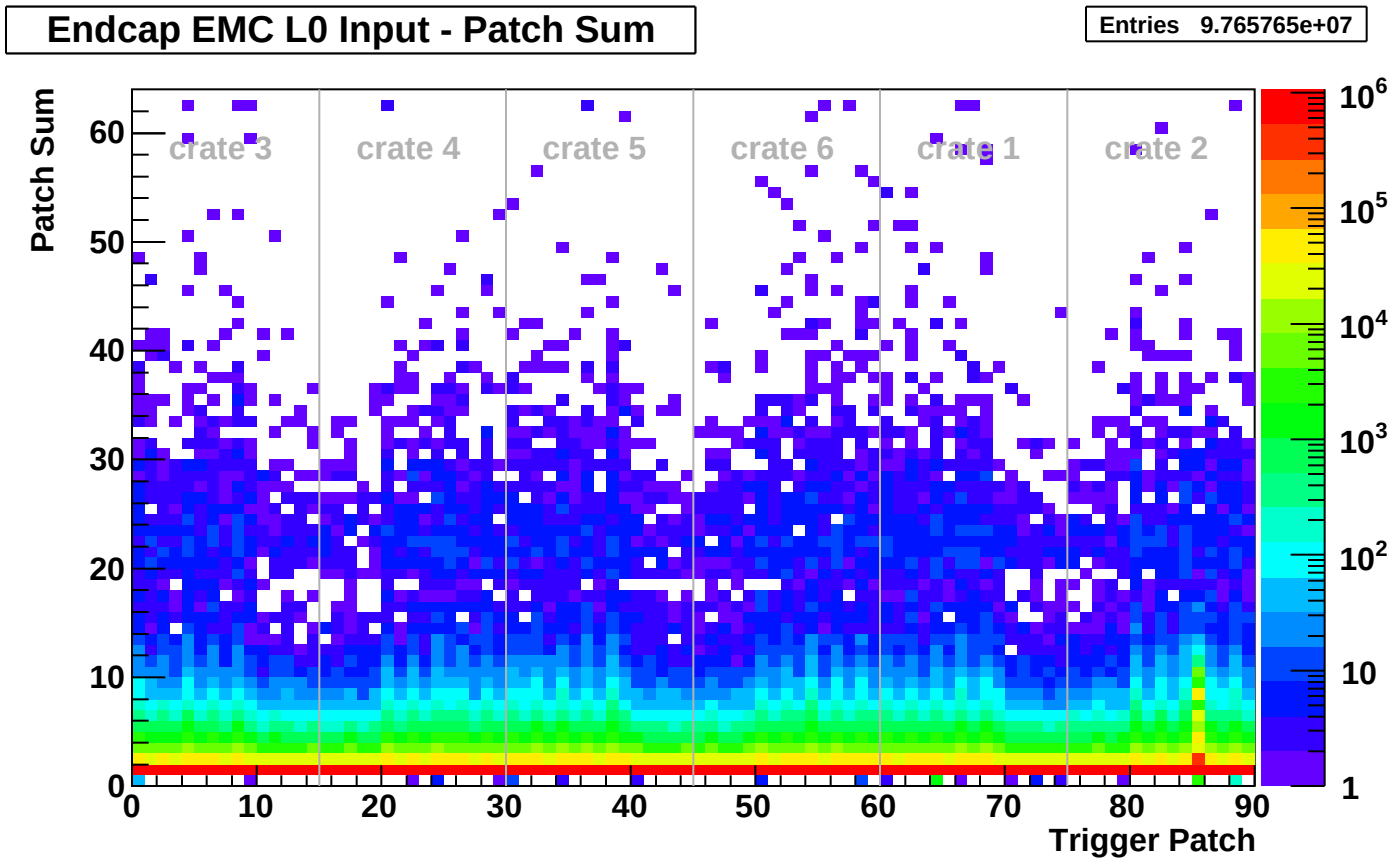

BunchId7Bit (JP1)
Entries 45126
10^3
10^2
10
0
20
40
60
80
100
120

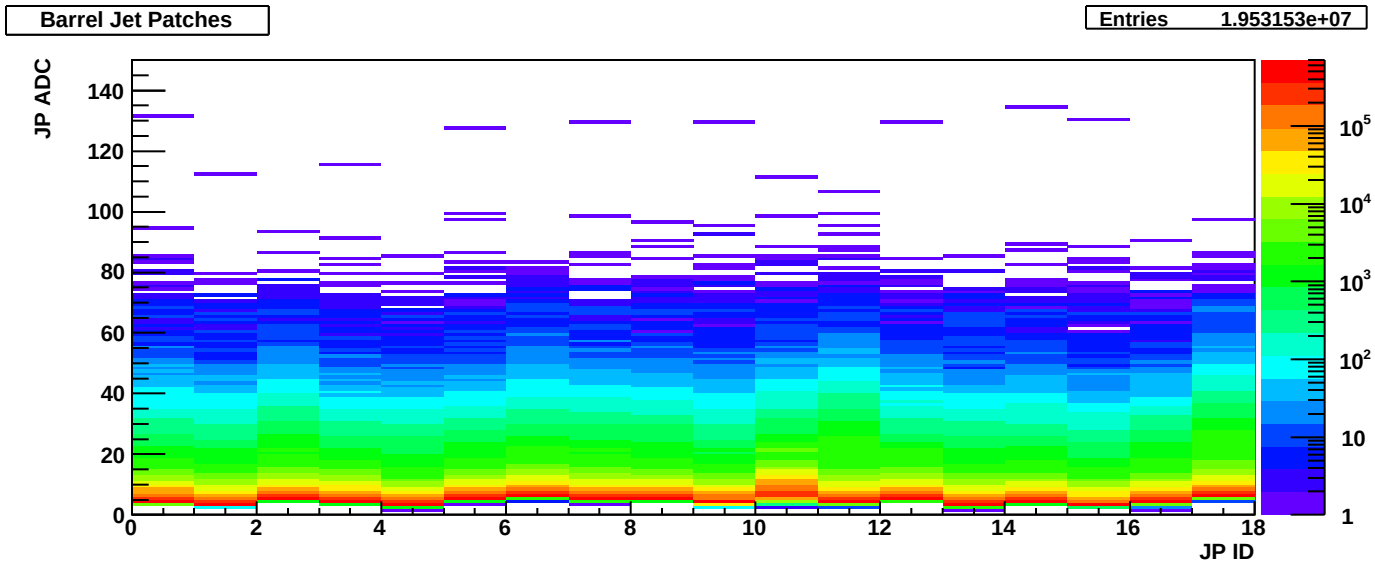

BunchId7Bit (JP2||AJP)
Entries 16182
10^2
10
1
0
20
40
60
80
100
120

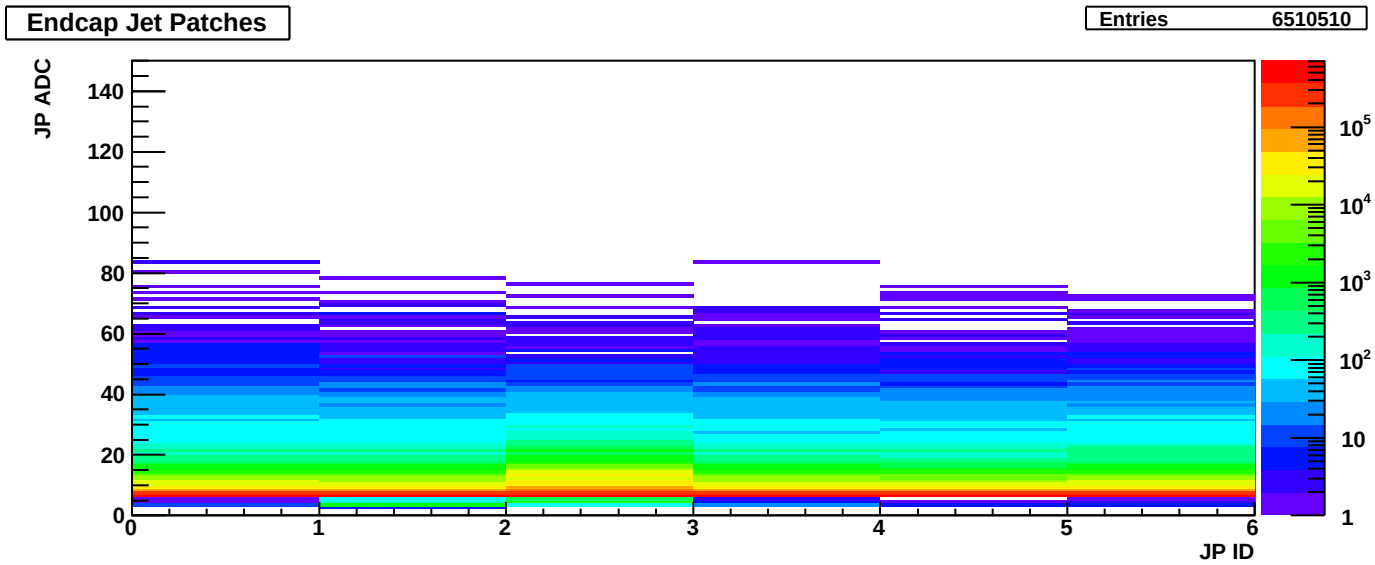

Barrel EMC L0 Input - High Tower
Entries 3.255255e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

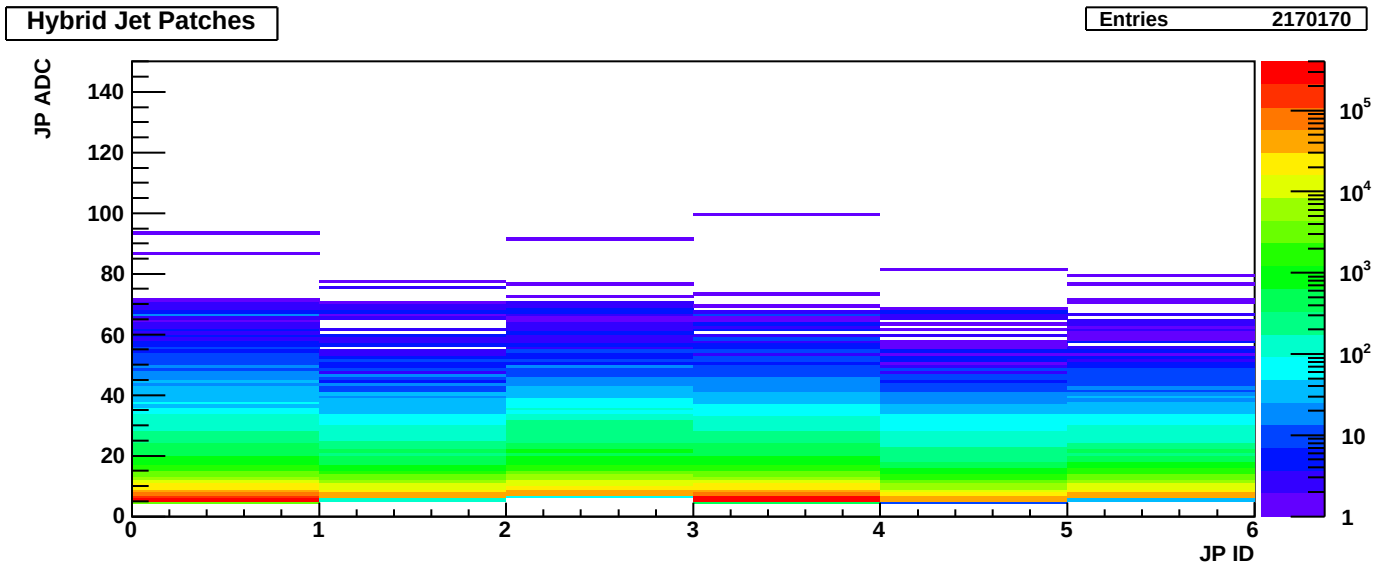

Barrel EMC L0 Input - Patch Sum
Entries 3.255255e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

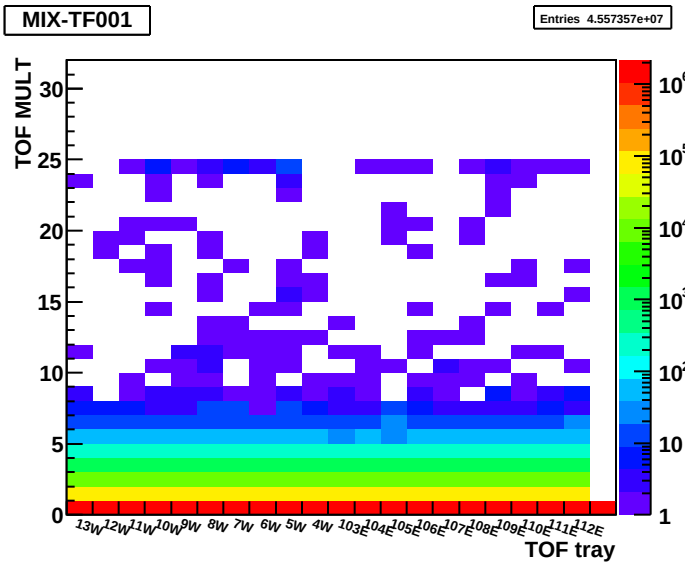

Endcap EMC L0 Input - High Tower
Entries 9.765765e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

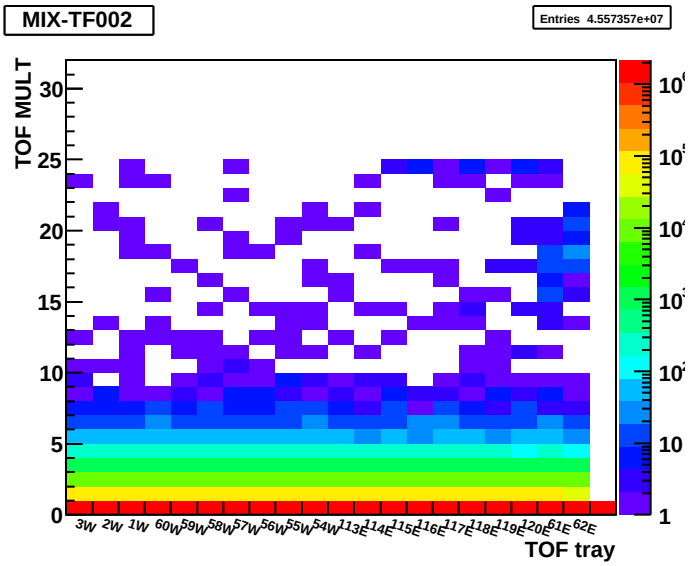

Endcap EMC L0 Input - Patch Sum
Entries 9.765765e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

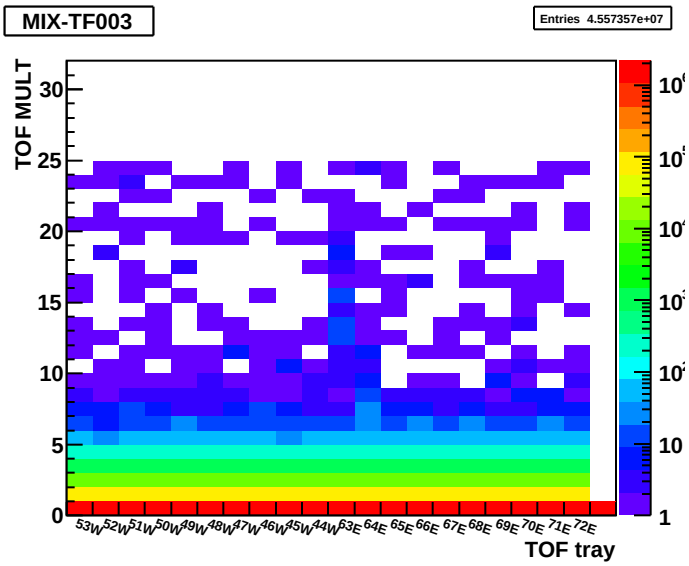

Barrel Jet Patches
Entries 1.953153e+07
JP ADC
JP ID

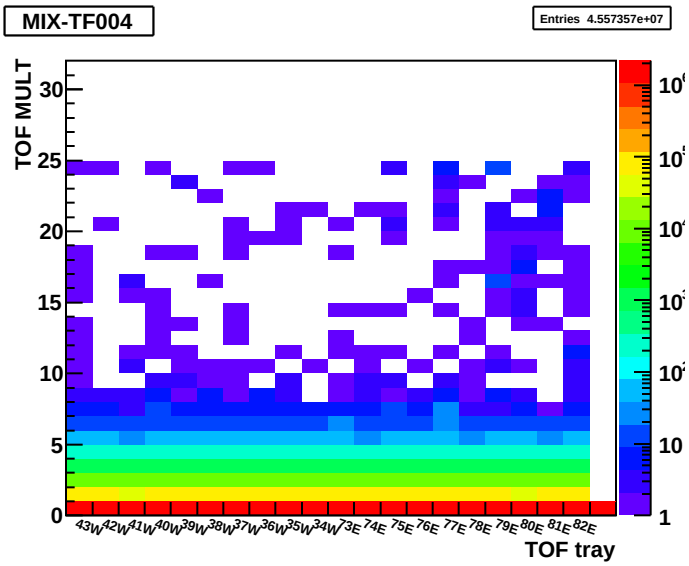

Endcap Jet Patches
Entries 6510510
JP ADC
JP ID

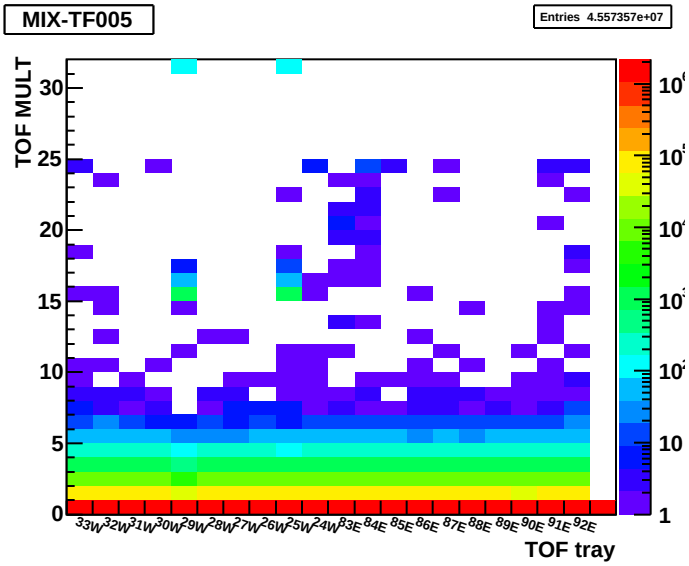

Hybrid Jet Patches
Entries 2170170
JP ADC
JP ID

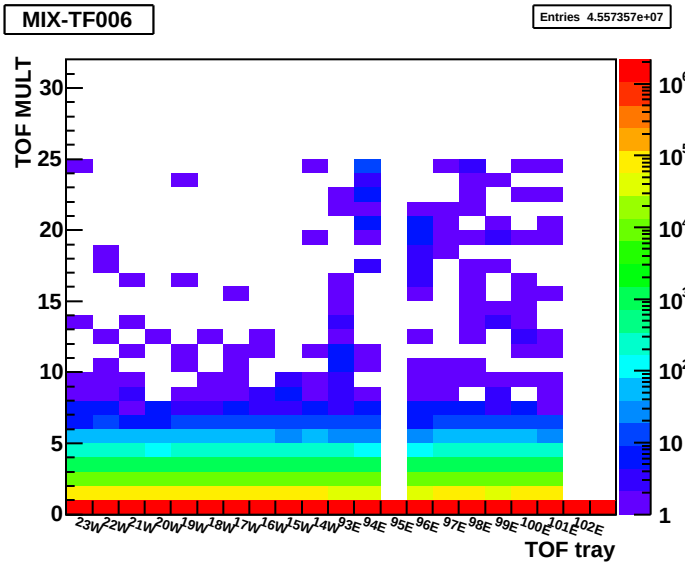

MIX-TF001
Entries 4.557357e+07
TOF MULT
TOF tray

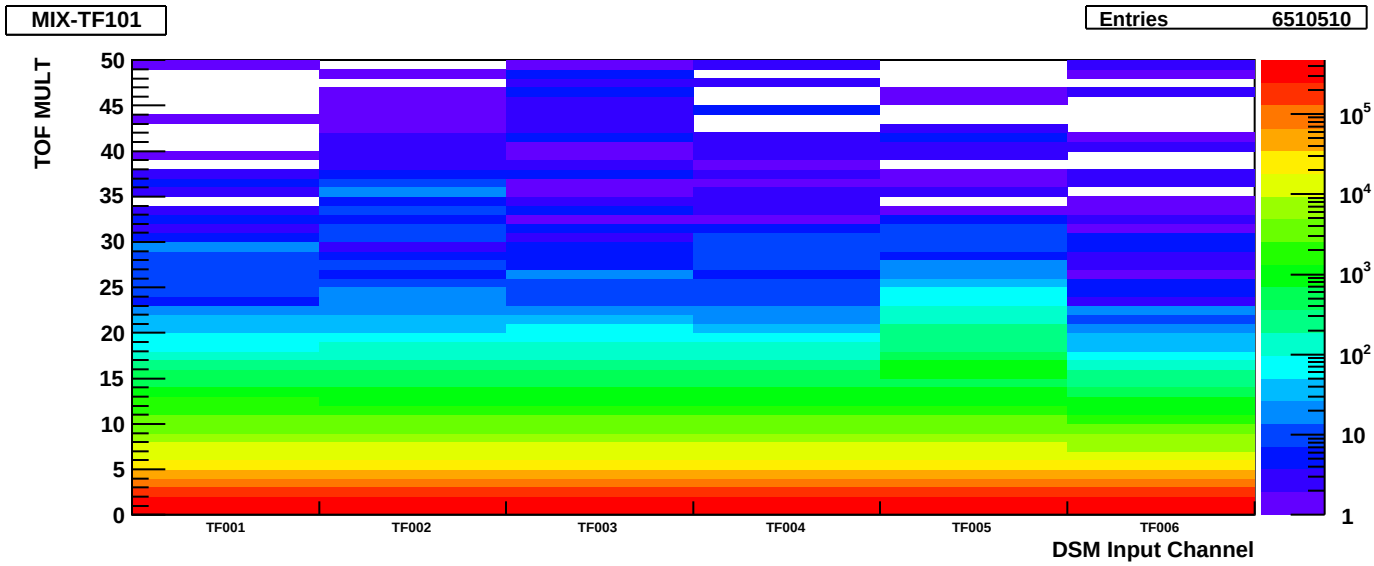

MIX-TF002
Entries 4.557357e+07
TOF MULT
TOF tray

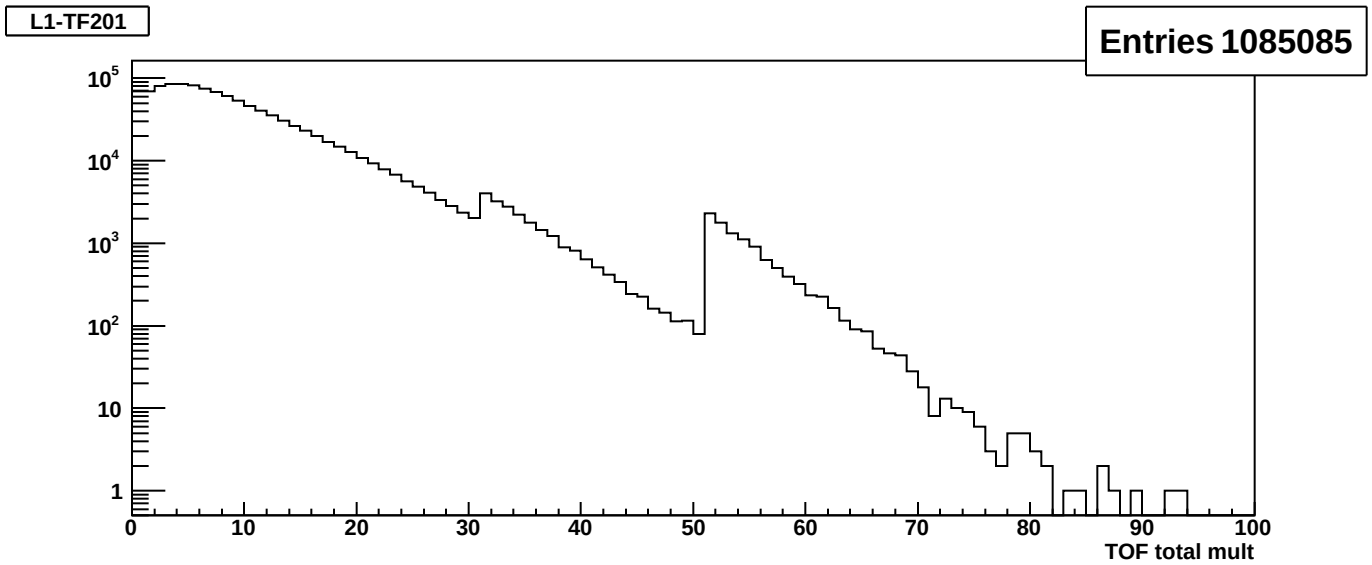

MIX-TF003
Entries 4.557357e+07
TOF MULT
TOF tray

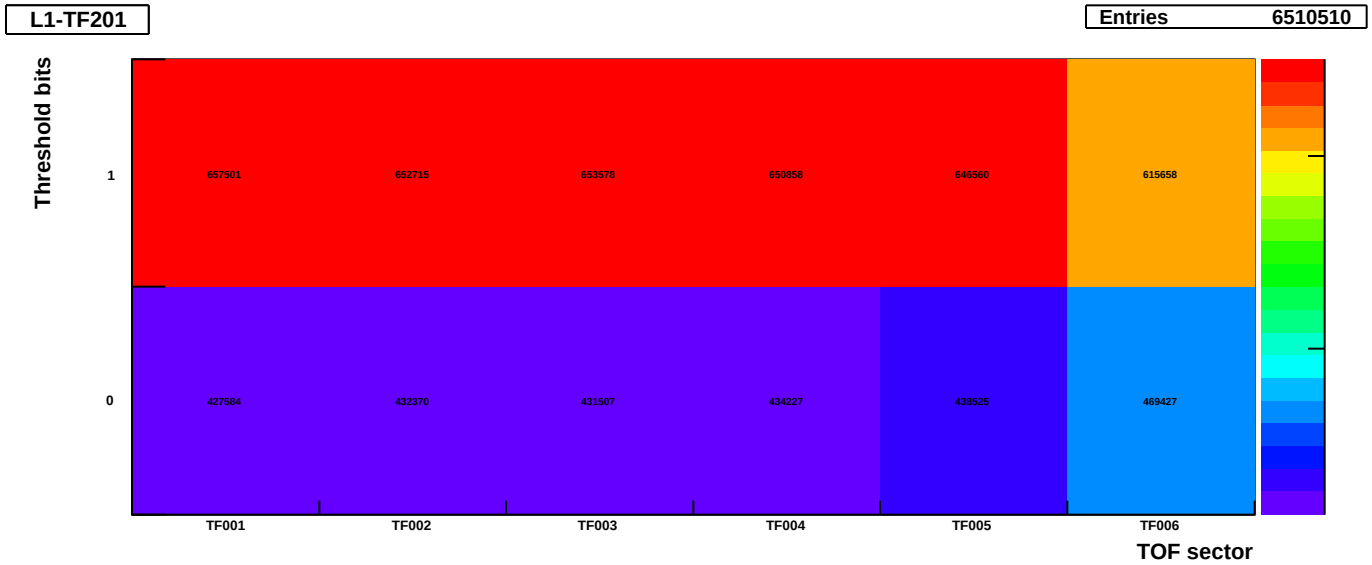

MIX-TF004
Entries 4.557357e+07
TOF MULT
TOF tray

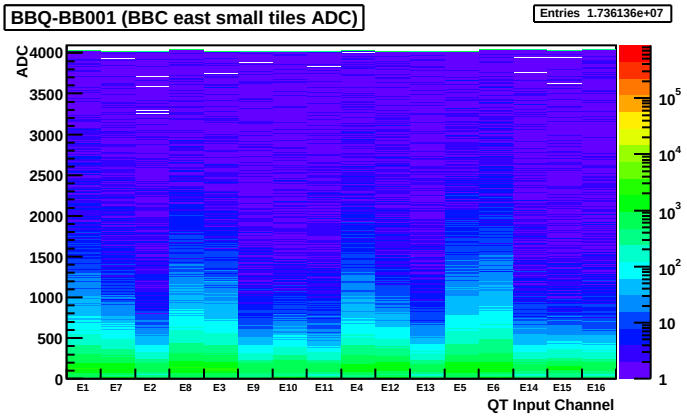

MIX-TF005
Entries 4.557357e+07
TOF MULT
TOF tray

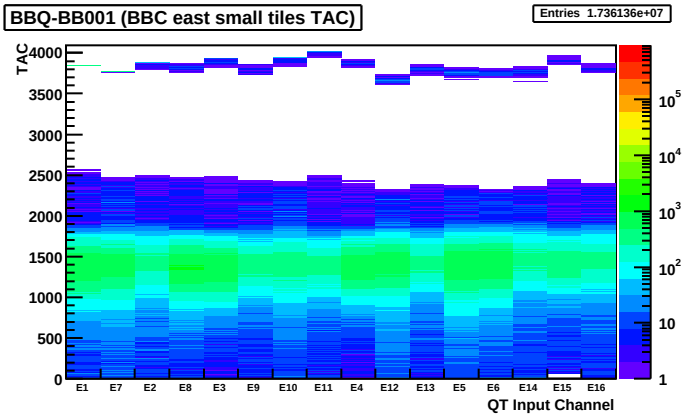

MIX-TF006
Entries 4.557357e+07
TOF MULT
TOF tray

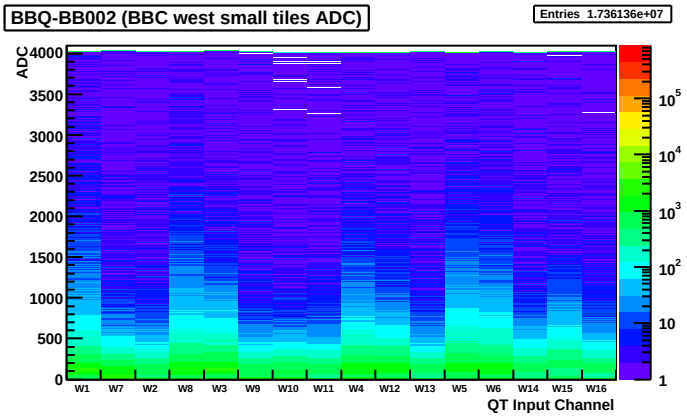

MIX-TF101
Entries 6510510
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

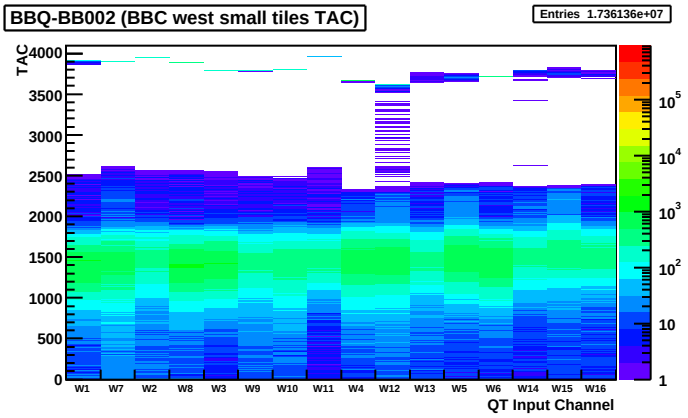

L1-TF201
Entries 1085085
10^5
10^4
10^3
10^2
10
1
0
10
20
30
40
50
60
70
80
90
100
TOF total mult

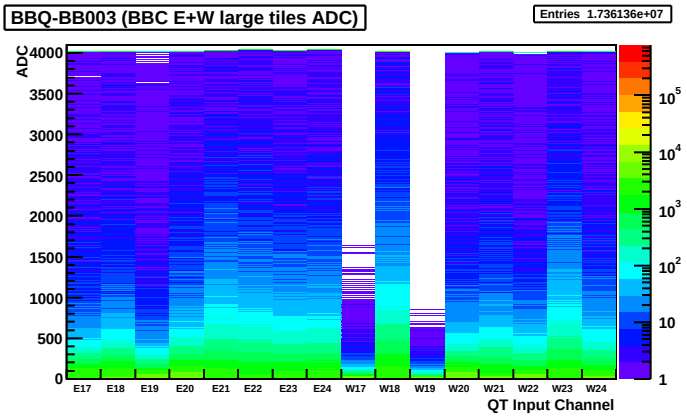

L1-TF201
Entries 6510510
Threshold bits
1
0
657501
652715
653578
650858
646560
615658
427584
432370
431507
434227
438525
469427
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

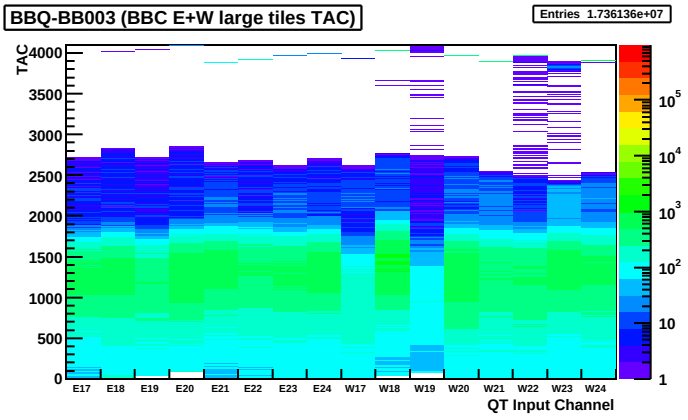

BBQ-BB001 (BBC east small tiles ADC)
Entries 1.736136e+07
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

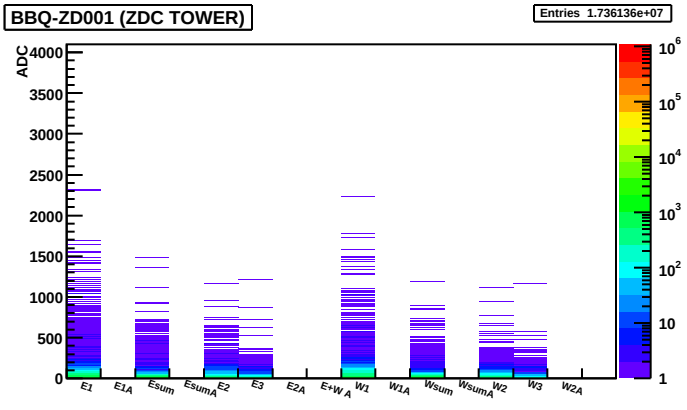

BBQ-BB001 (BBC east small tiles TAC)
Entries 1.736136e+07
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

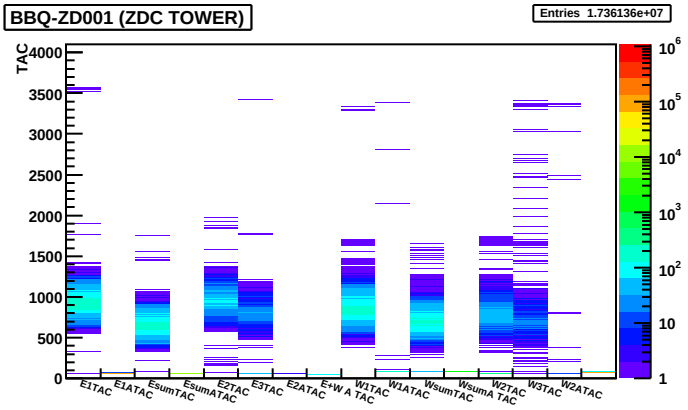

BBQ-BB002 (BBC west small tiles ADC)
Entries 1.736136e+07
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

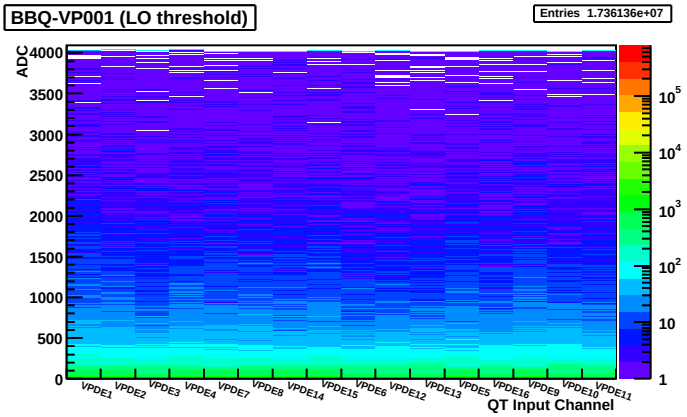

BBQ-BB002 (BBC west small tiles TAC)
Entries 1.736136e+07
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

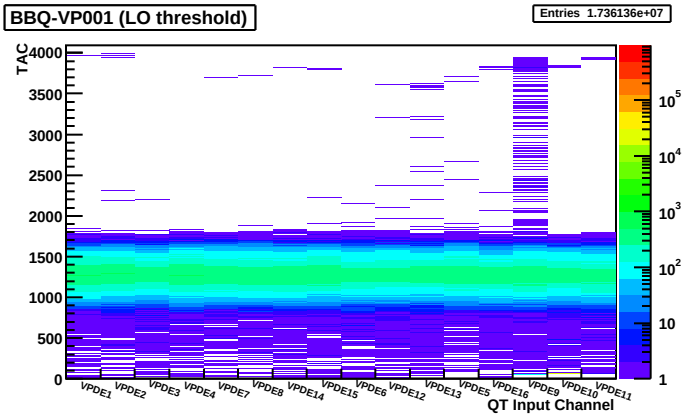

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1.736136e+07
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

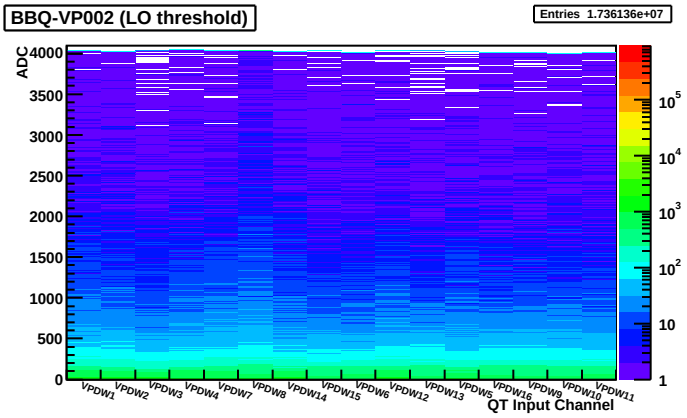

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1.736136e+07
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

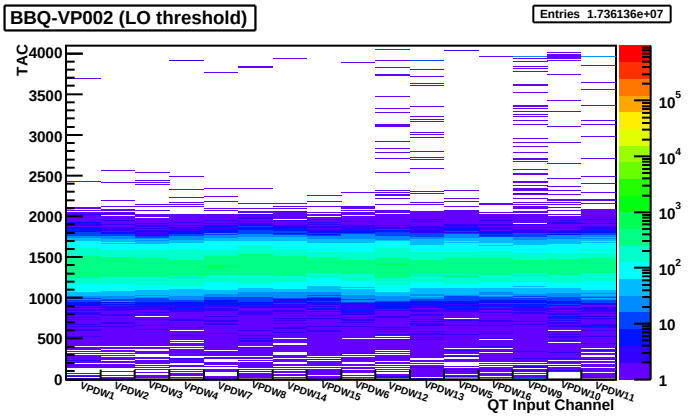

BBQ-ZD001 (ZDC TOWER)
Entries 1.736136e+07
ADC
E1 E1A Esum EsumA E2 E3 E2A E+W A W1 W1A Wsum WsumA W2 W3 W2A

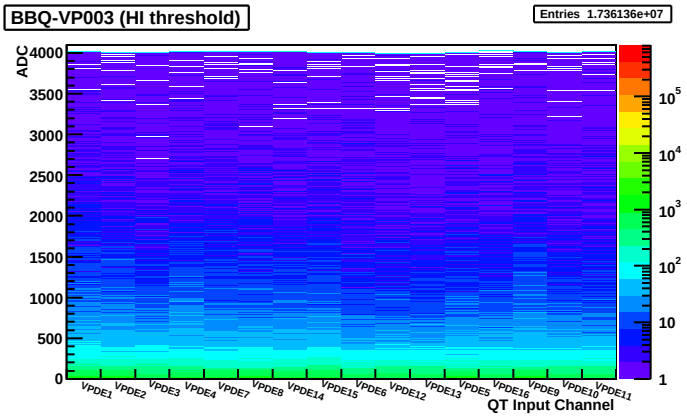

BBQ-ZD001 (ZDC TOWER)
Entries 1.736136e+07
TAC
E1TAC E1ATAC EsumTAC EsumATAC E2TAC E3TAC E2ATAC E+W A TAC W1TAC W1ATAC WsumTAC WsumA TAC W2TAC W3TAC W2ATAC

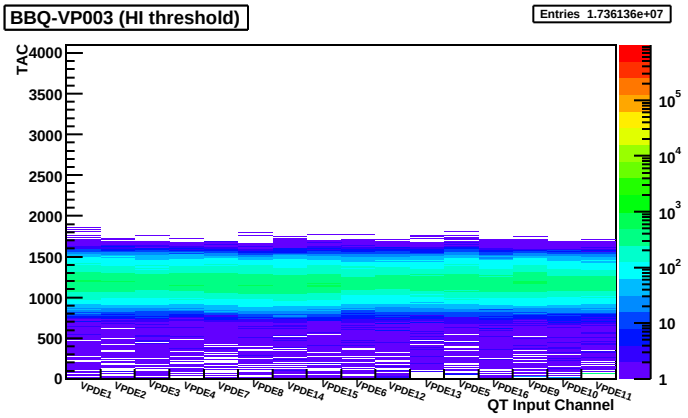

BBQ-VP001 (LO threshold)
Entries 1.736136e+07
ADC
QT Input Channel

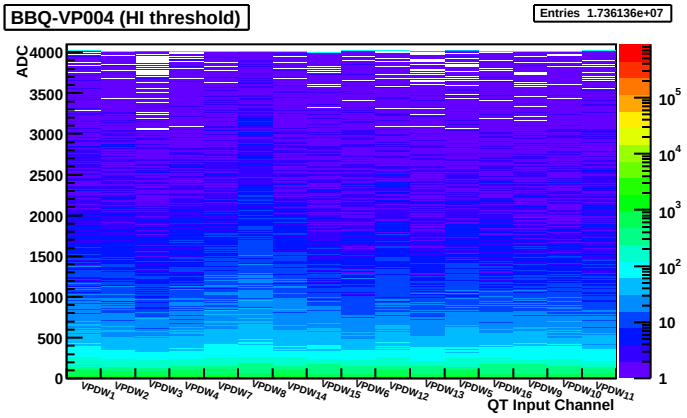

BBQ-VP001 (LO threshold)
Entries 1.736136e+07
TAC
QT Input Channel

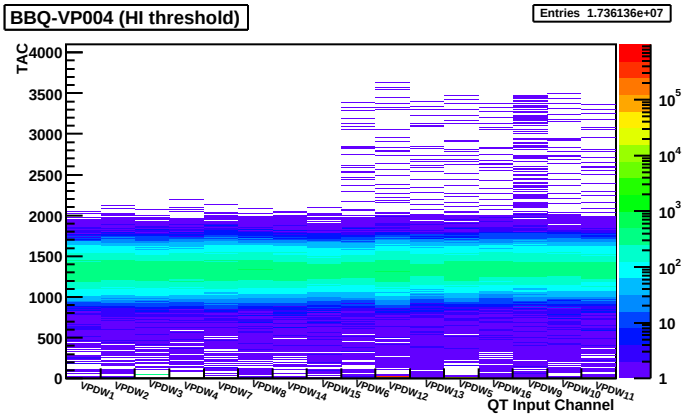

BBQ-VP002 (LO threshold)
Entries 1.736136e+07
ADC
QT Input Channel

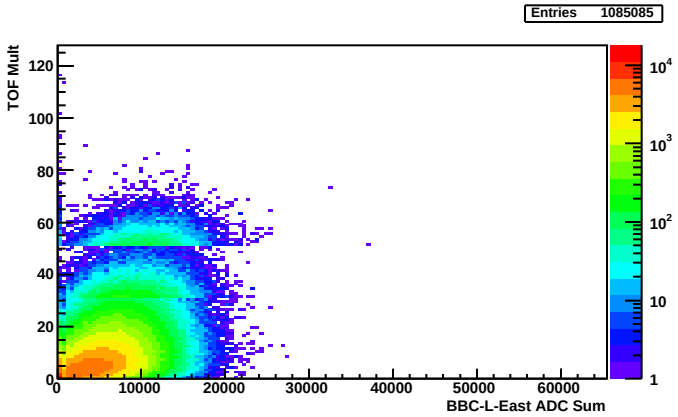

BBQ-VP002 (LO threshold)
Entries 1.736136e+07
TAC
QT Input Channel

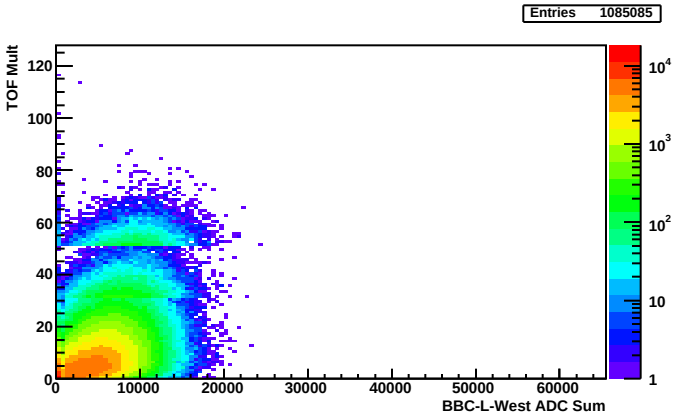

BBQ-VP003 (HI threshold)
Entries 1.736136e+07
ADC
QT Input Channel

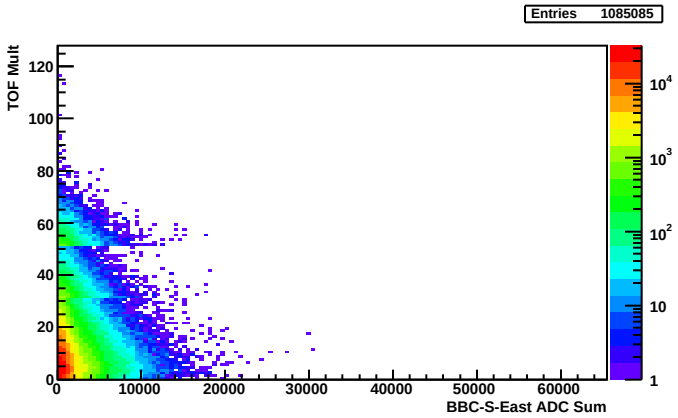

BBQ-VP003 (HI threshold)
Entries 1.736136e+07
TAC
QT Input Channel

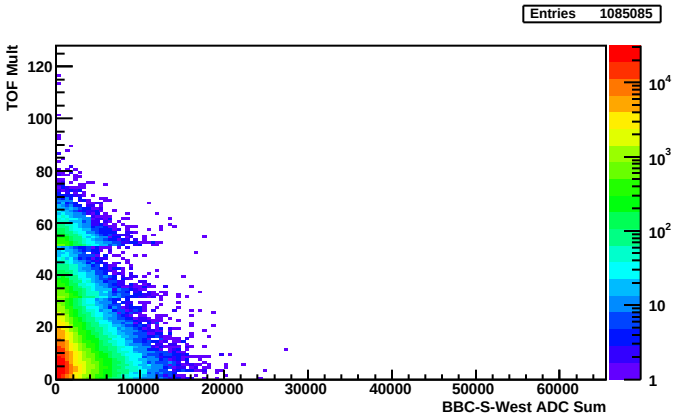

BBQ-VP004 (HI threshold)
Entries 1.736136e+07
ADC
QT Input Channel

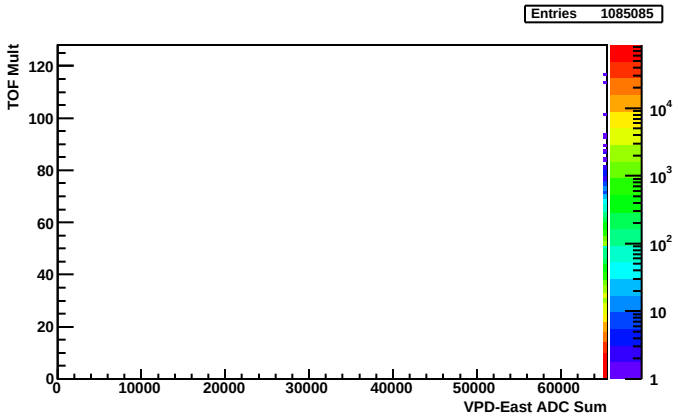

BBQ-VP004 (HI threshold)
Entries 1.736136e+07
TAC
QT Input Channel

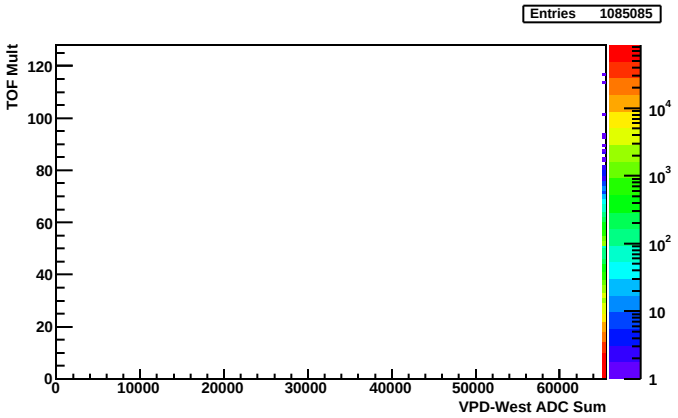

Entries 1085085
TOF Mult
BBC-L-East ADC Sum

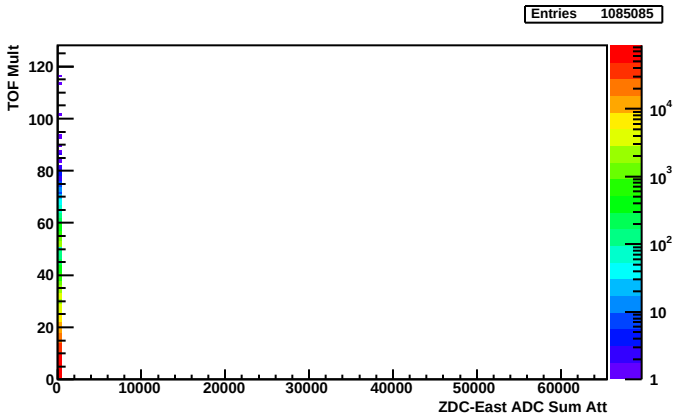

Entries 1085085
TOF Mult
BBC-L-West ADC Sum

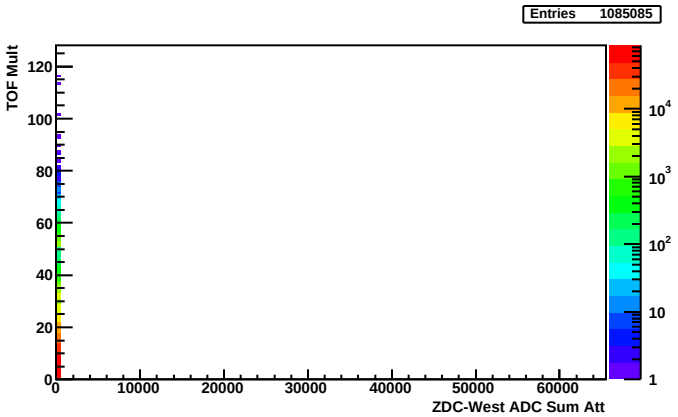

Entries 1085085
TOF Mult
BBC-S-East ADC Sum

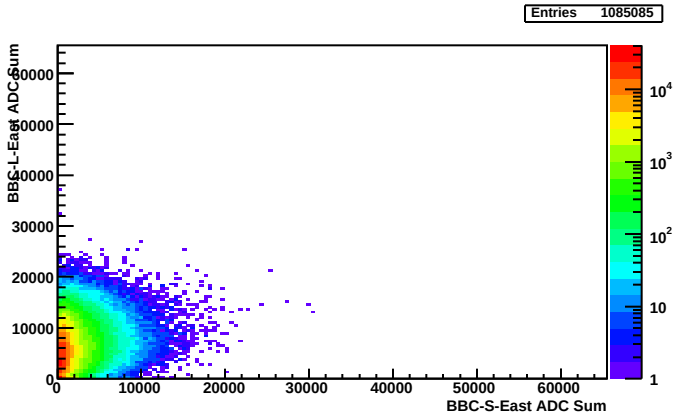

Entries 1085085
TOF Mult
BBC-S-West ADC Sum


Entries 1085085
TOF Mult
VPD-East ADC Sum


Entries 1085085
TOF Mult
VPD-West ADC Sum


Entries 1085085
TOF Mult
ZDC-East ADC Sum Att


Entries 1085085
TOF Mult
ZDC-West ADC Sum Att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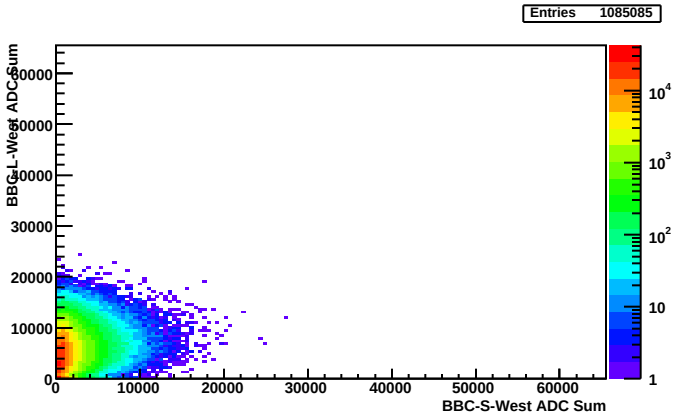
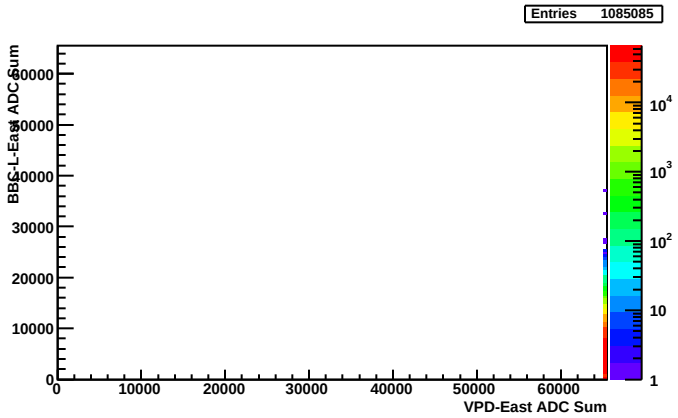
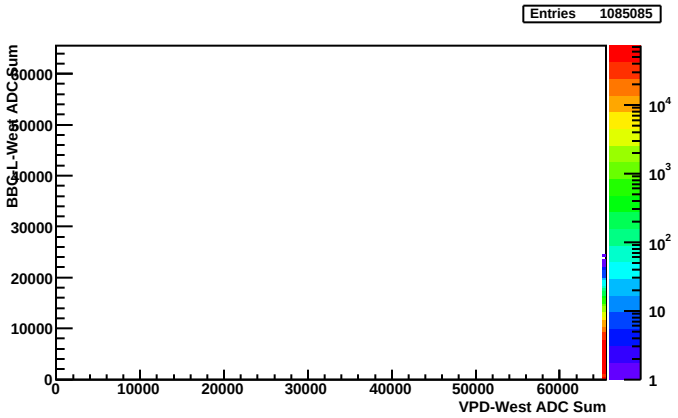
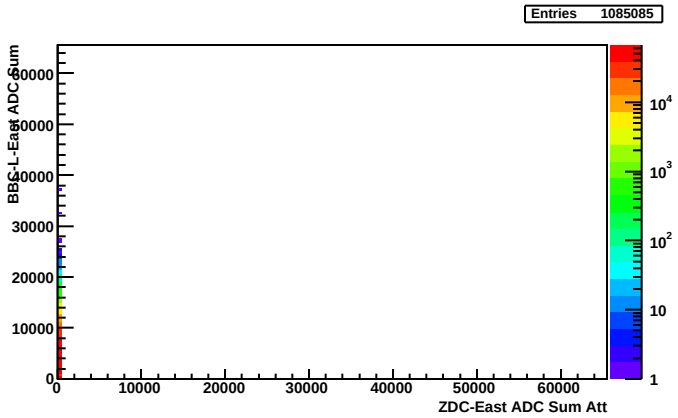
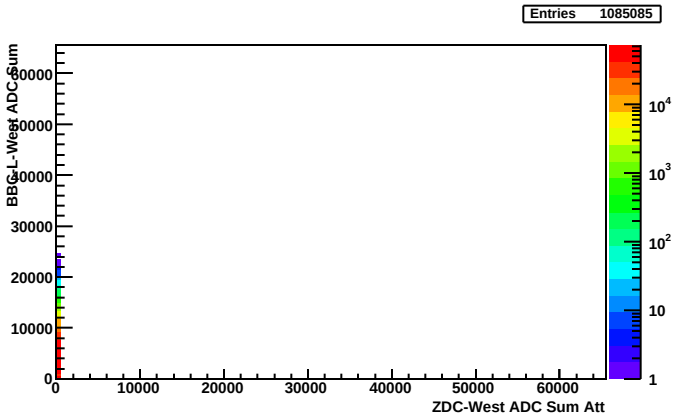
BBC-L-East ADC Sum
BBC-S-East ADC Sum

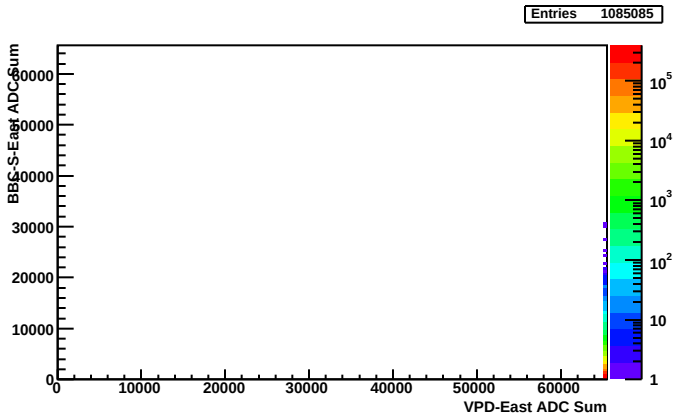

Entries 1085085
BBC-L-West ADC Sum
BBC-S-West ADC Sum

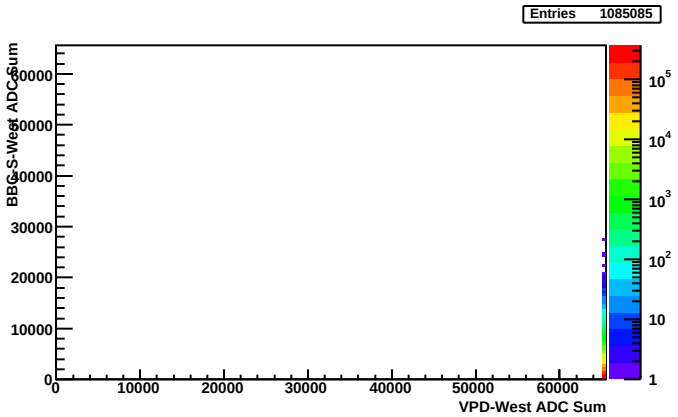

Entries 1085085
BBC-L-East ADC Sum
VPD-East ADC Sum

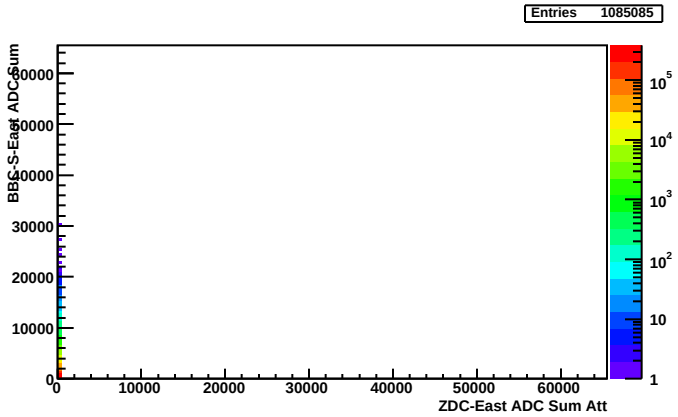

Entries 1085085
BBC-L-West ADC Sum
VPD-West ADC Sum

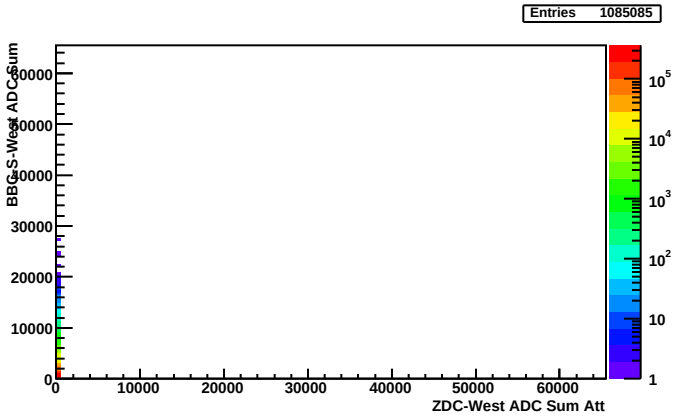

Entries 1085085
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

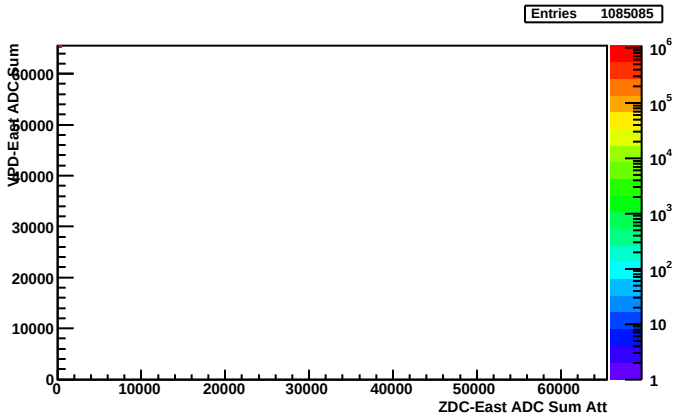

Entries 1085085
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

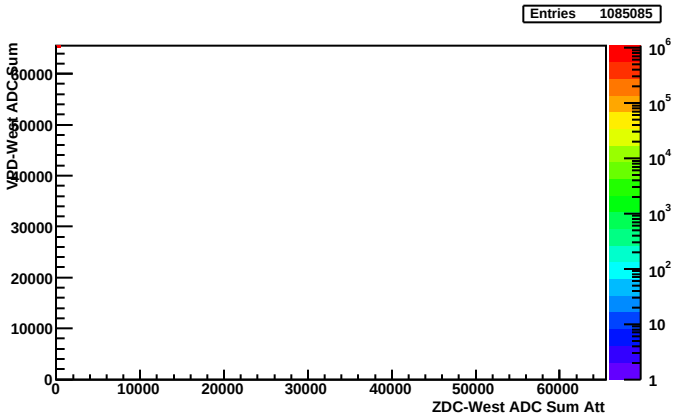

Entries 1085085
BBC-S-East ADC Sum
VPD-East ADC Sum

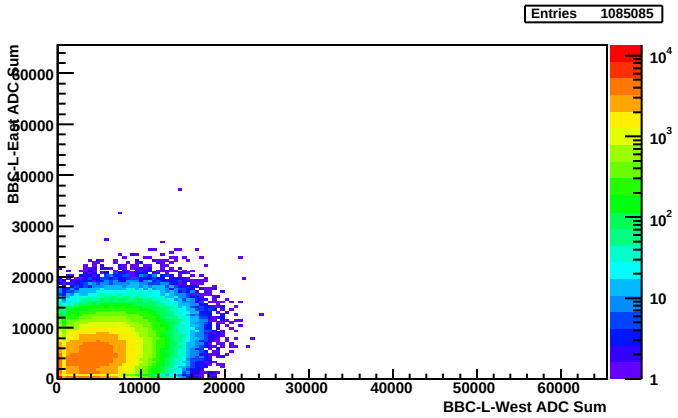

Entries 1085085
BBC-S-West ADC Sum
VPD-West ADC Sum

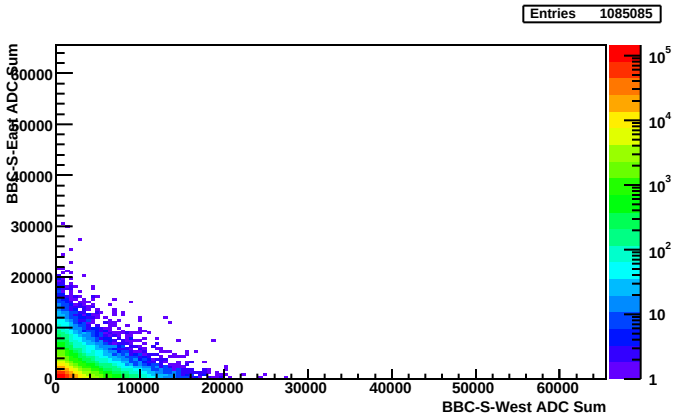

Entries 1085085
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

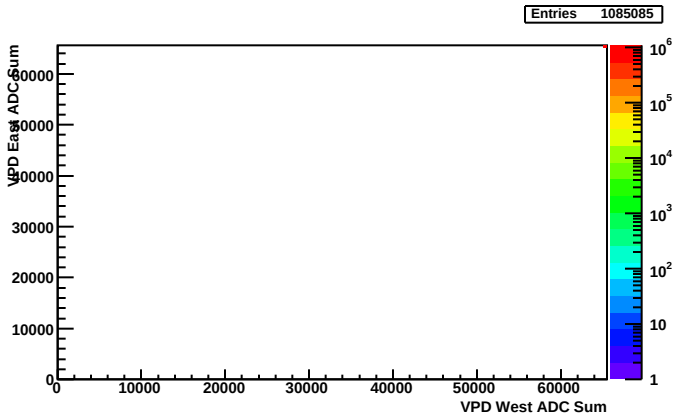

Entries 1085085
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

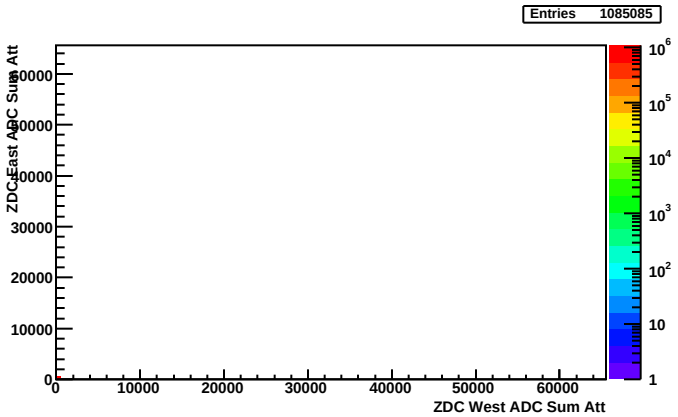

Entries 1085085
VPD-East ADC Sum
ZDC-East ADC Sum Att

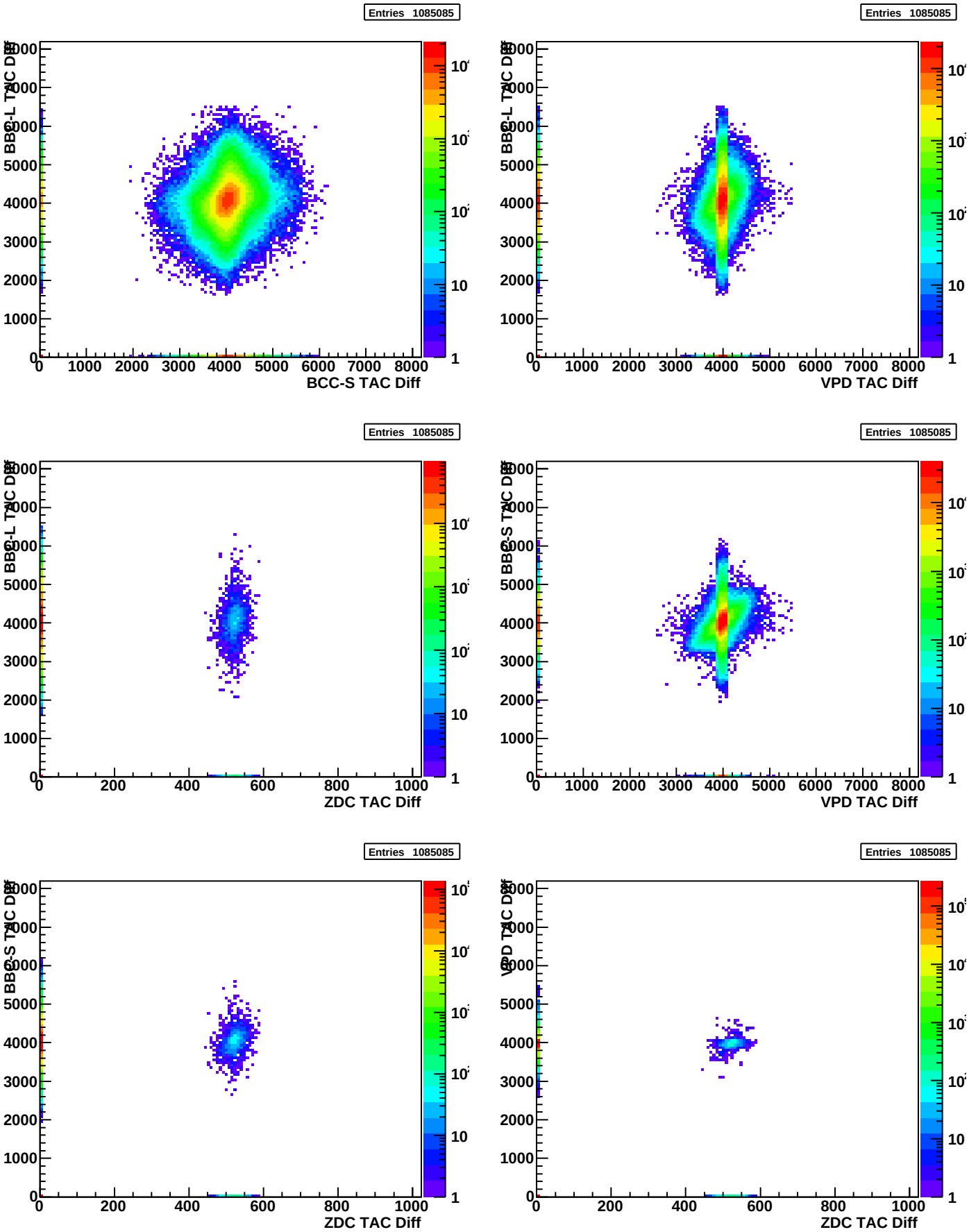

Entries 1085085
VPD-West ADC Sum
ZDC-West ADC Sum Att


Entries 1085085
BBC-L-East ADC Sum
BBC-L-West ADC Sum


Entries 1085085
BBC-S-East ADC Sum
BBC-S-West ADC Sum


Entries 1085085
VPD East ADC Sum
VPD West ADC Sum


Entries 1085085
ZDC East ADC Sum Att
ZDC West ADC Sum Att


Entries 1085085
BBC-L TAC Diff
BCC-S TAC Diff
Entries 1085085
BBC-L TAC Diff
VPD TAC Diff
Entries 1085085
BBC-L TAC Diff
ZDC TAC Diff
Entries 1085085
BBC-S TAC Diff
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BBC-S TAC Diff
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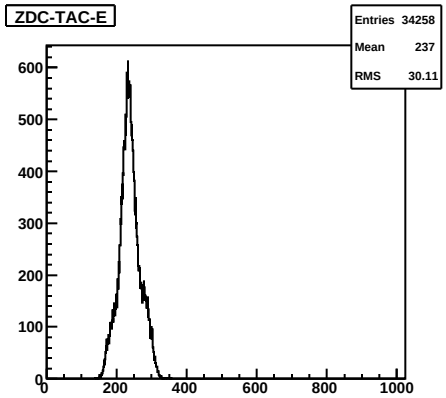
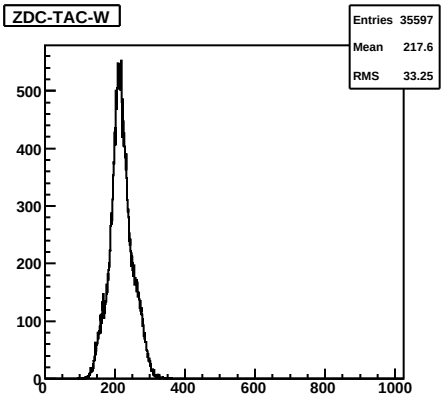
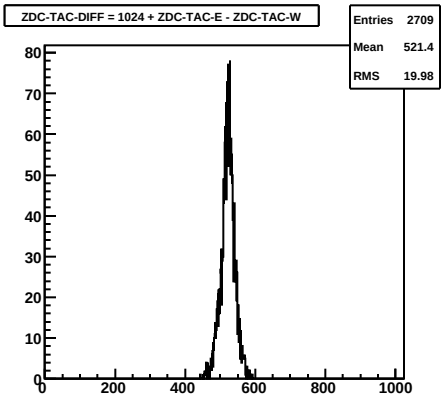
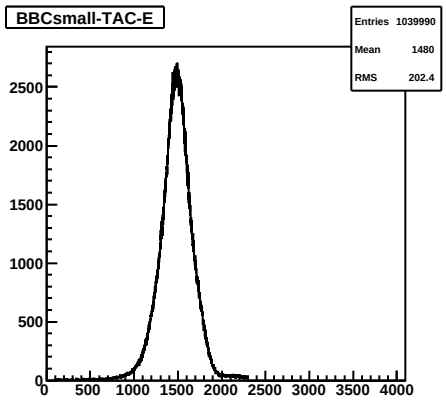
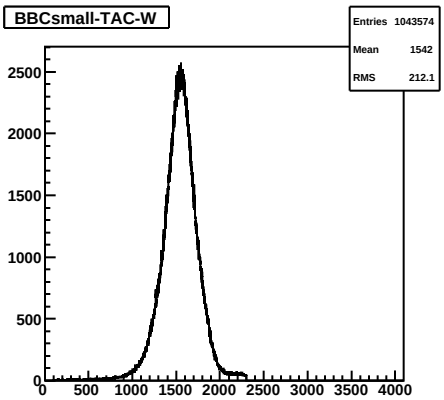
VPD TAC Diff
ZDC TAC Diff

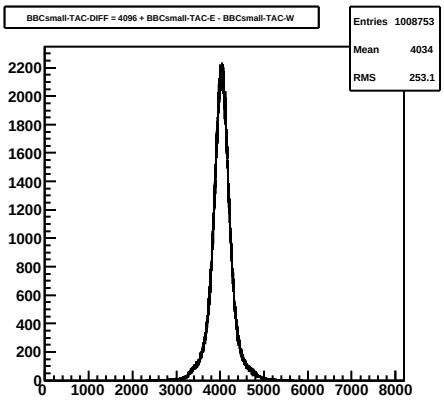

ZDC-TAC-E
Entries 34258
Mean 237
RMS 30.11

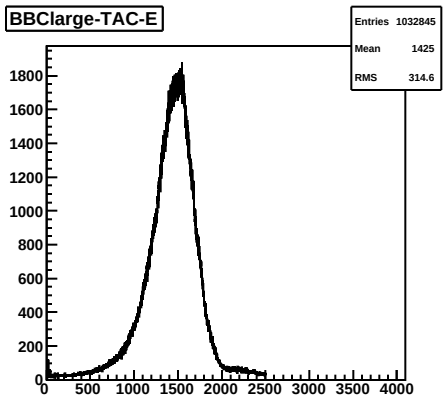

ZDC-TAC-W
Entries 35597
Mean 217.6
RMS 33.25

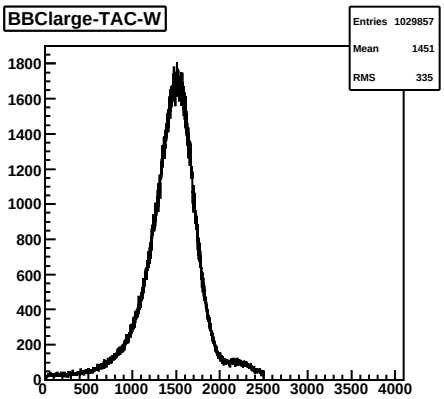

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2709
Mean 521.4
RMS 19.98

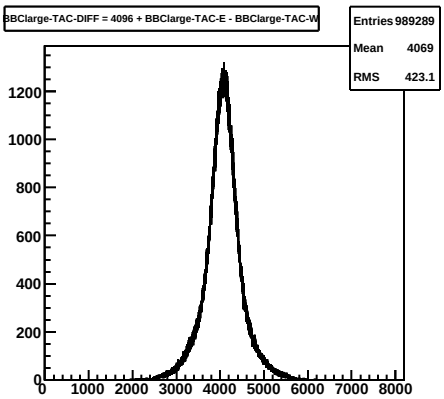

BBCsmall-TAC-E
Entries 1039990
Mean 1480
RMS 202.4

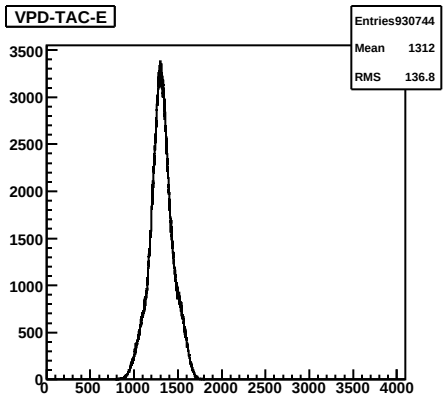

BBCsmall-TAC-W
Entries 1043574
Mean 1542
RMS 212.1

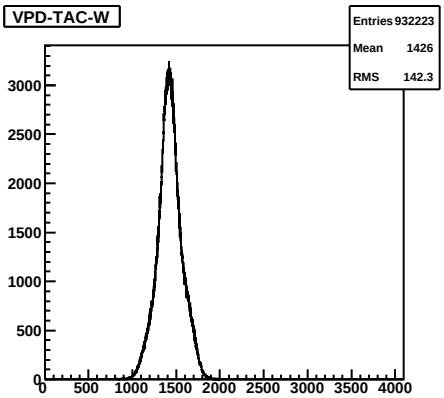

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 1008753
Mean 4034
RMS 253.1

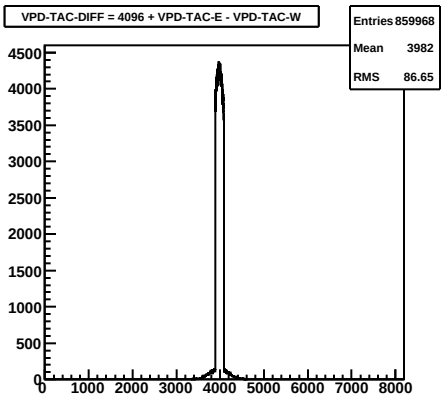

BBClarge-TAC-E
Entries 1032845
Mean 1425
RMS 314.6

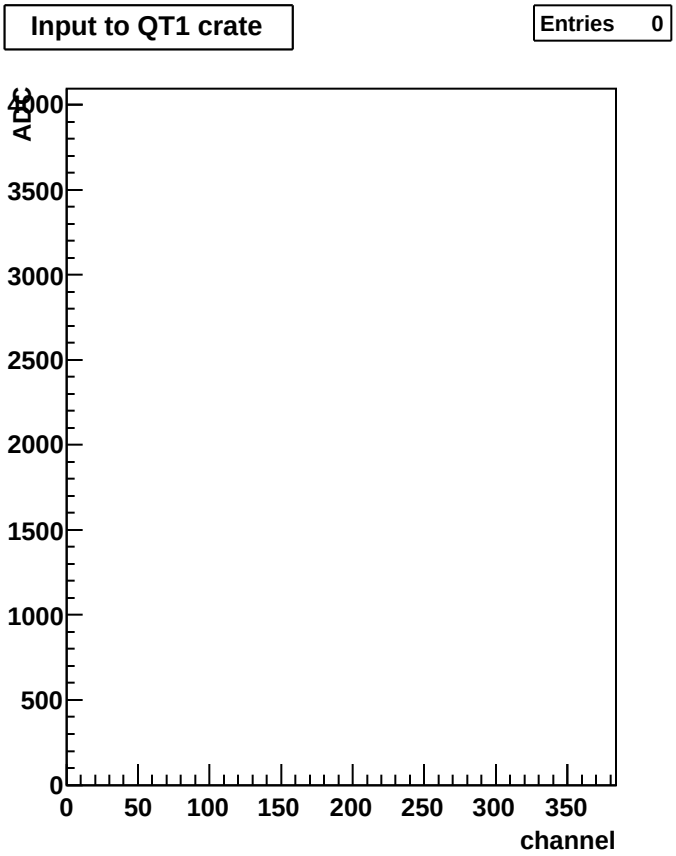

BBClarge-TAC-W
Entries 1029857
Mean 1451
RMS 335

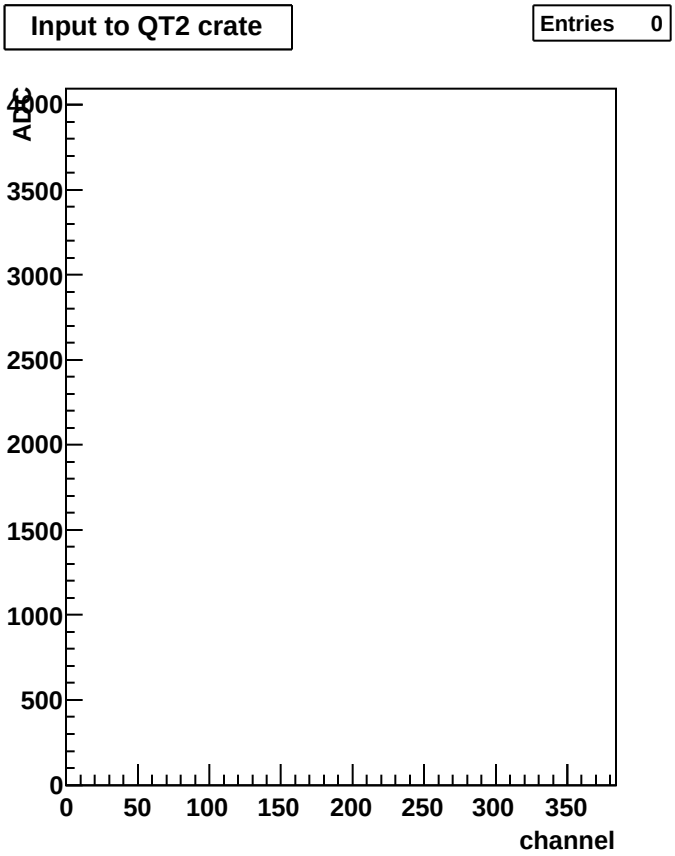

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 989289
Mean 4069
RMS 423.1

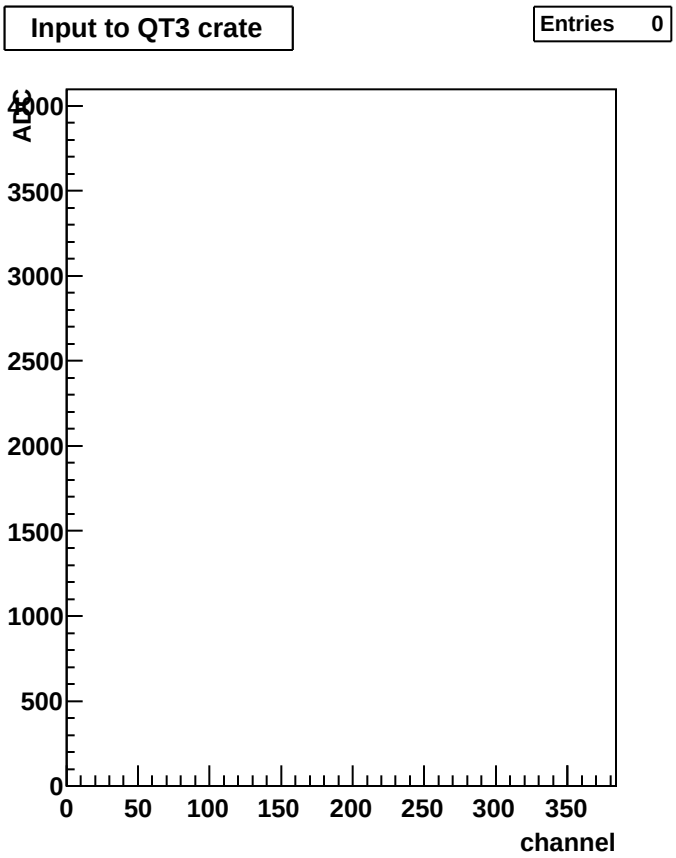

VPD-TAC-E
Entries 930744
Mean 1312
RMS 136.8

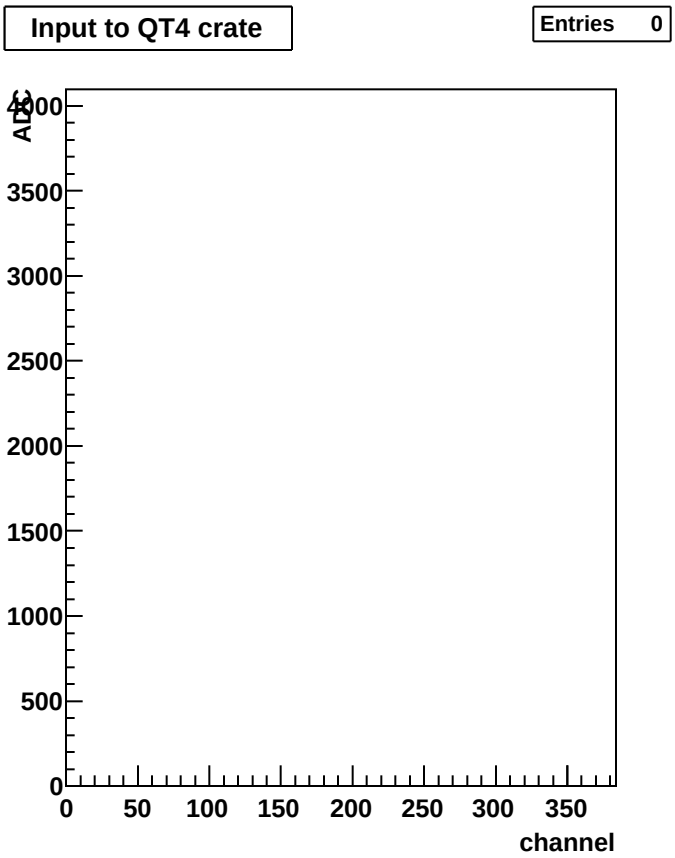

VPD-TAC-W
Entries 932223
Mean 1426
RMS 142.3

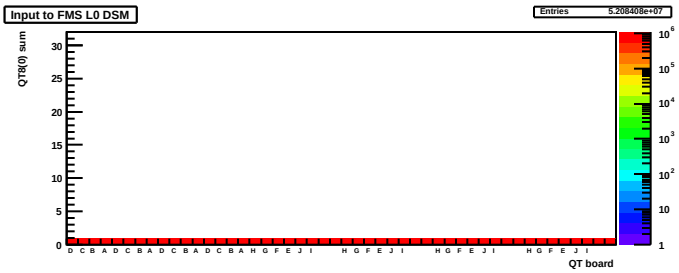

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 859968
Mean 3982
RMS 86.65

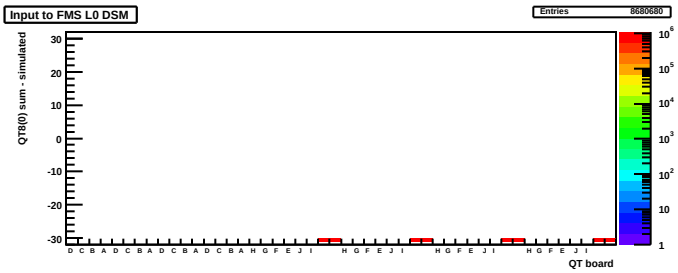

Input to QT1 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

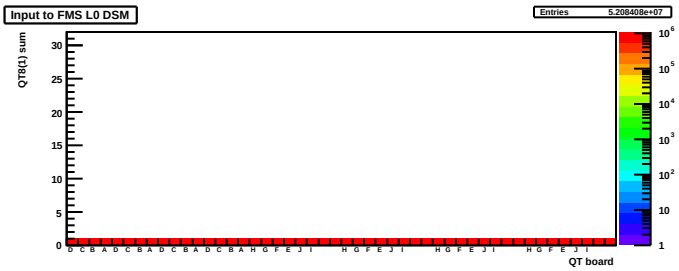

Input to QT2 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

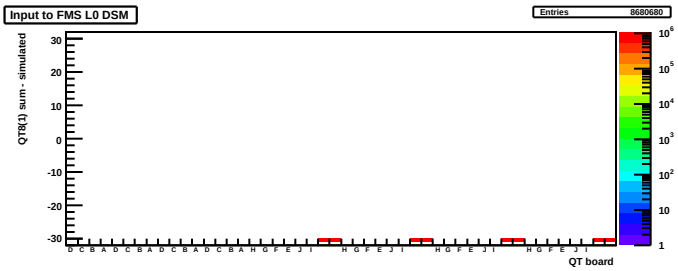

Input to QT3 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

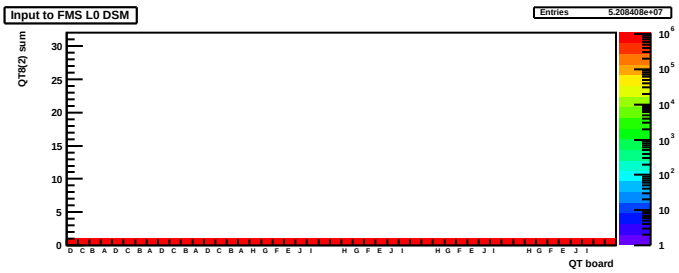

Input to QT4 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

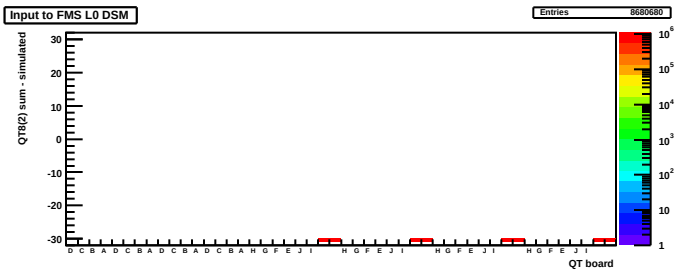

Input to FMS L0 DSM
Entries 5.208408e+07
QT8(0) sum
QT board

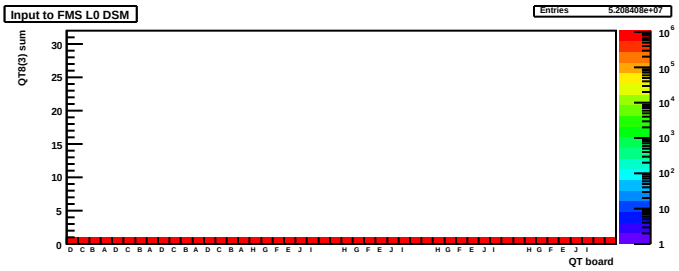

Input to FMS L0 DSM
Entries 8680680
QT8(0) sum - simulated
QT board

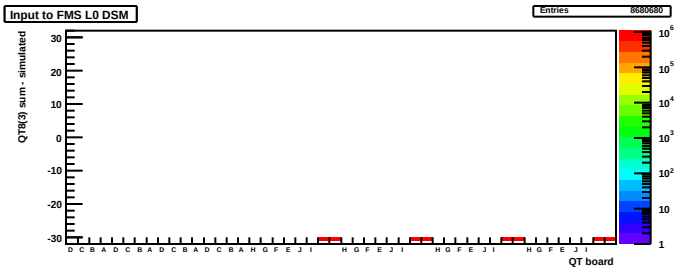

Input to FMS L0 DSM
Entries 5.208408e+07
QT8(1) sum
QT board

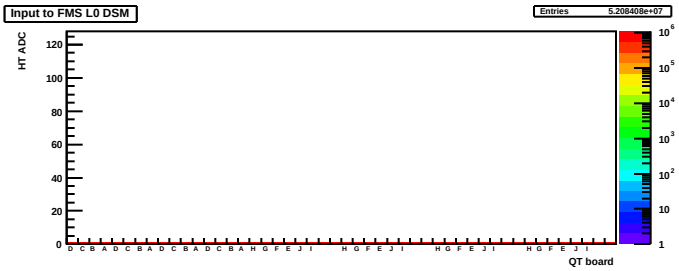

Input to FMS L0 DSM
Entries 8680680
QT8(1) sum - simulated
QT board

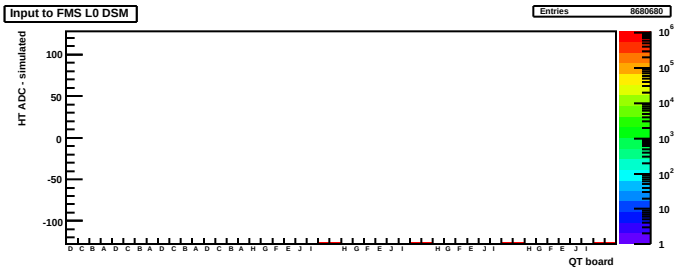

Input to FMS L0 DSM
Entries 5.208408e+07
QT8(2) sum
QT board

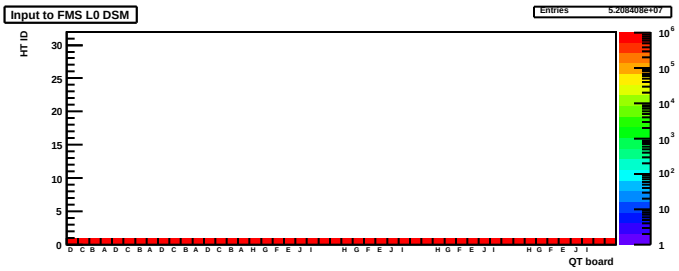

Input to FMS L0 DSM
Entries 8680680
QT8(2) sum - simulated
QT board

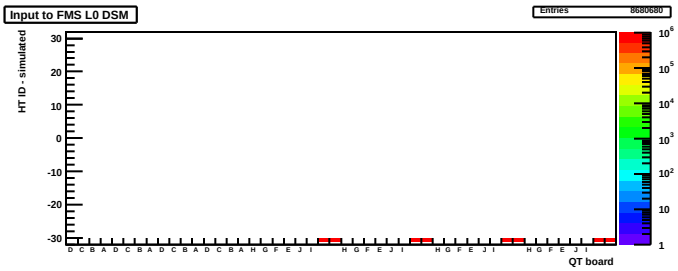

Input to FMS L0 DSM
Entries 5.208408e+07
QT8(3) sum
QT board

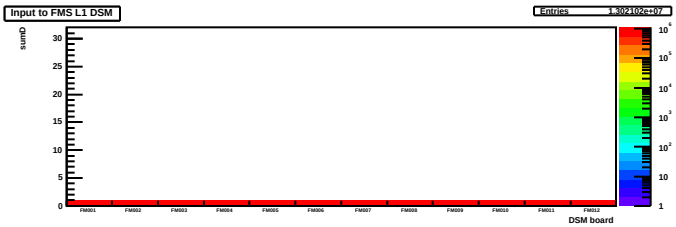

Input to FMS L0 DSM
Entries 8680680
QT8(3) sum - simulated
QT board

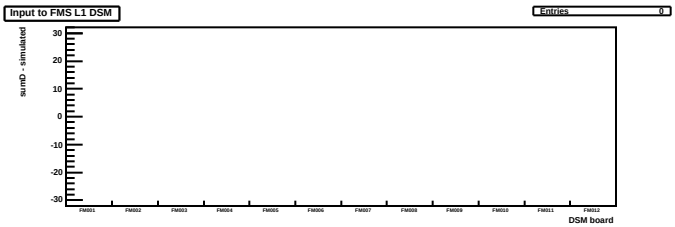

Input to FMS L0 DSM
Entries 5.208408e+07
HT ADC
QT board

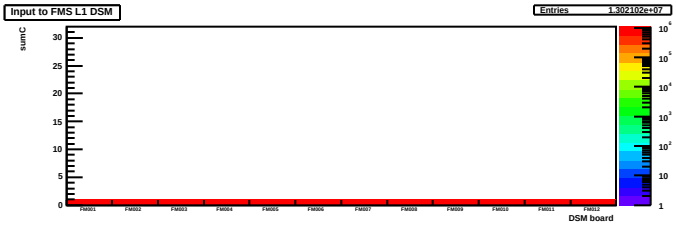

Input to FMS L0 DSM
Entries 8680680
HT ADC - simulated
QT board

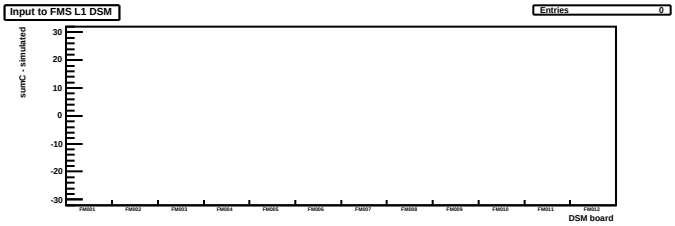

Input to FMS L0 DSM
Entries 5.208408e+07
HT ID
QT board

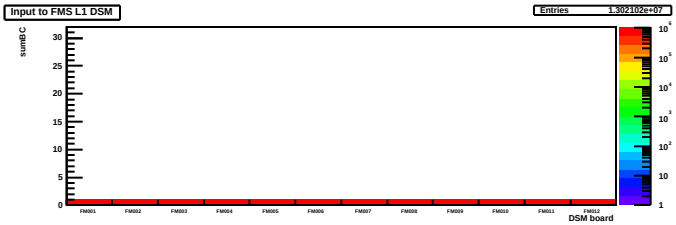

Input to FMS L0 DSM
Entries 8680680
HT ID - simulated
QT board

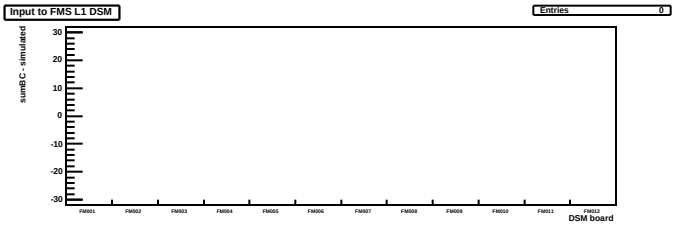

Input to FMS L1 DSM
Entries 1.302102e+07
sumD
DSM board

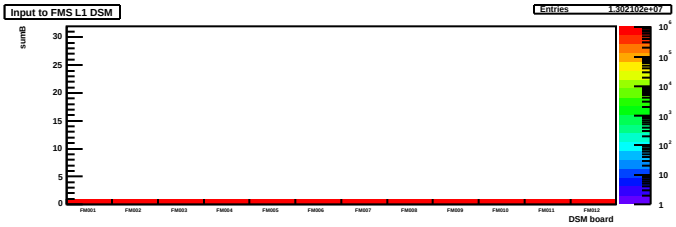

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

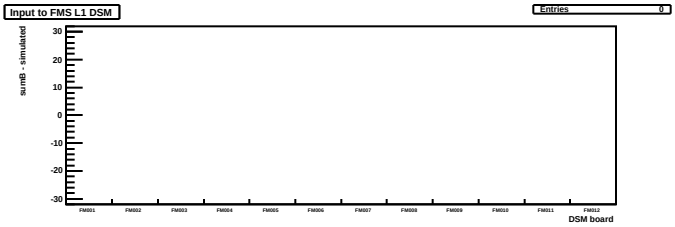

Input to FMS L1 DSM
Entries 1.302102e+07
sumC
DSM board

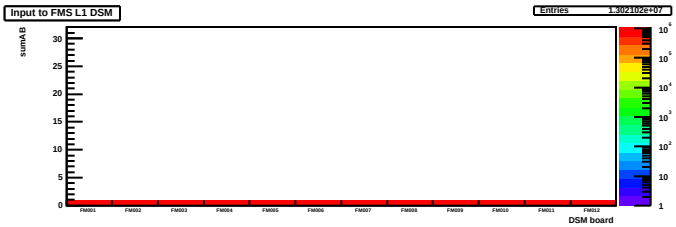

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

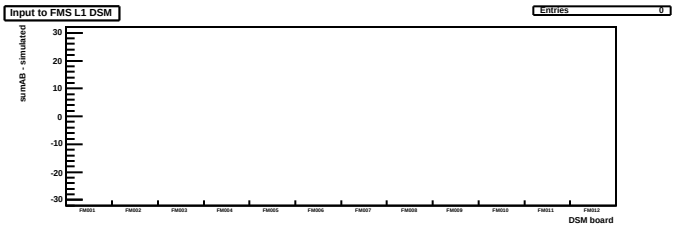

Input to FMS L1 DSM
Entries 1.302102e+07
sumBC
DSM board

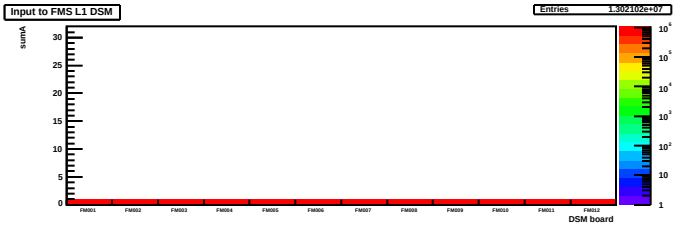

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

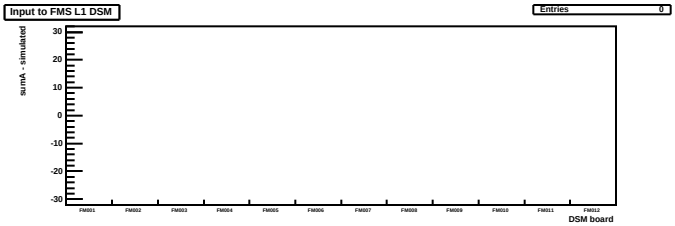

Input to FMS L1 DSM
Entries 1.302102e+07
sumB
DSM board

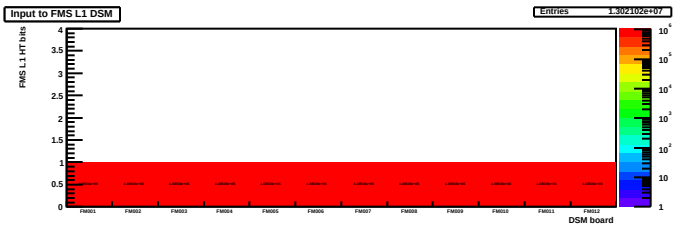

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

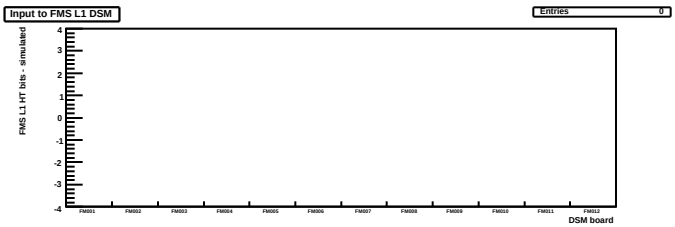

Input to FMS L1 DSM
Entries 1.302102e+07
sumAB
DSM board

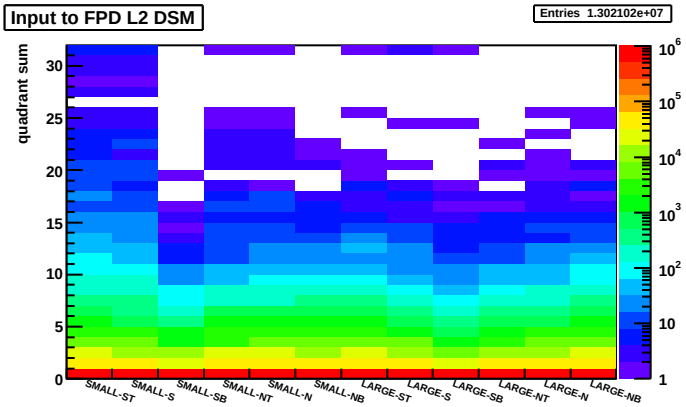

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

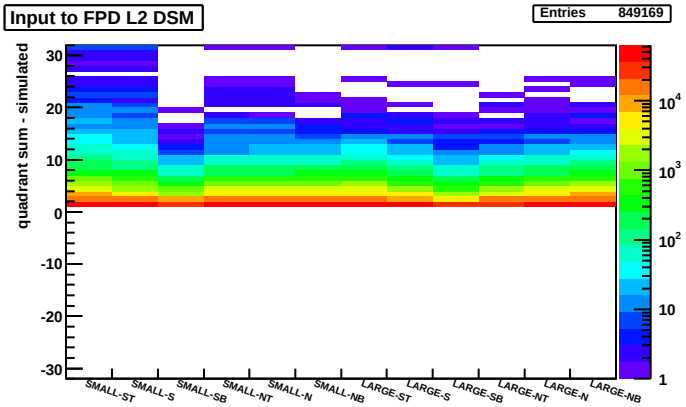

Input to FMS L1 DSM
Entries 1.302102e+07
sumA
DSM board

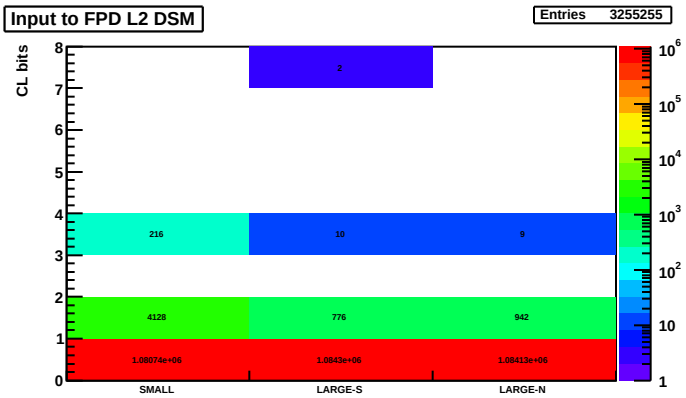

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

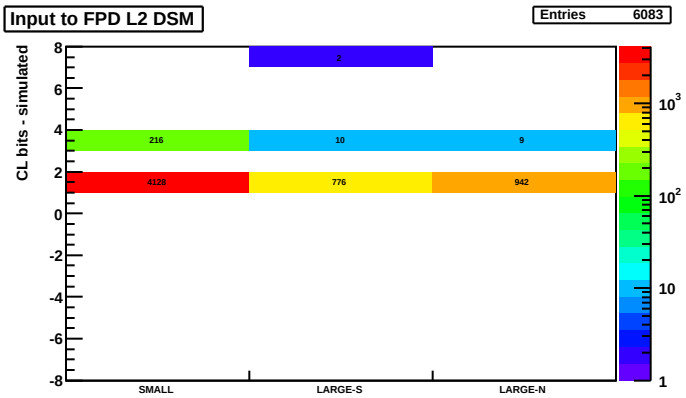

Input to FMS L1 DSM
Entries 1.302102e+07
FMS L1 HT bits
DSM board

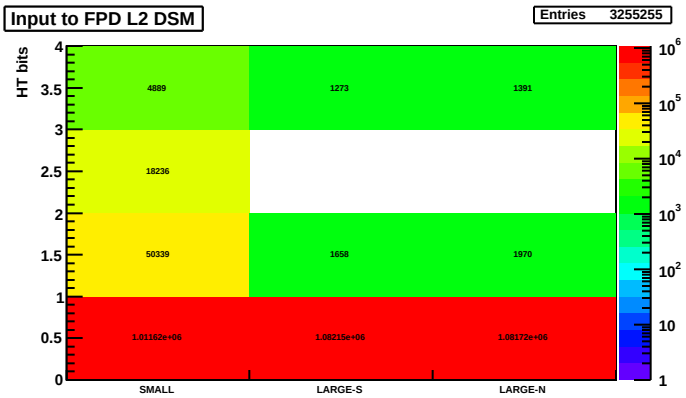

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

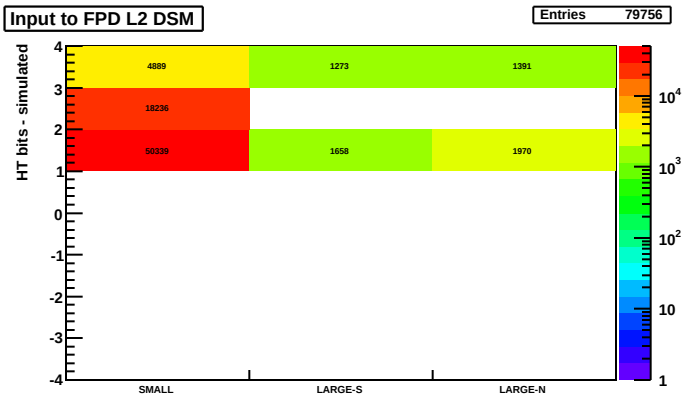

Input to FPD L2 DSM
Entries 1.302102e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

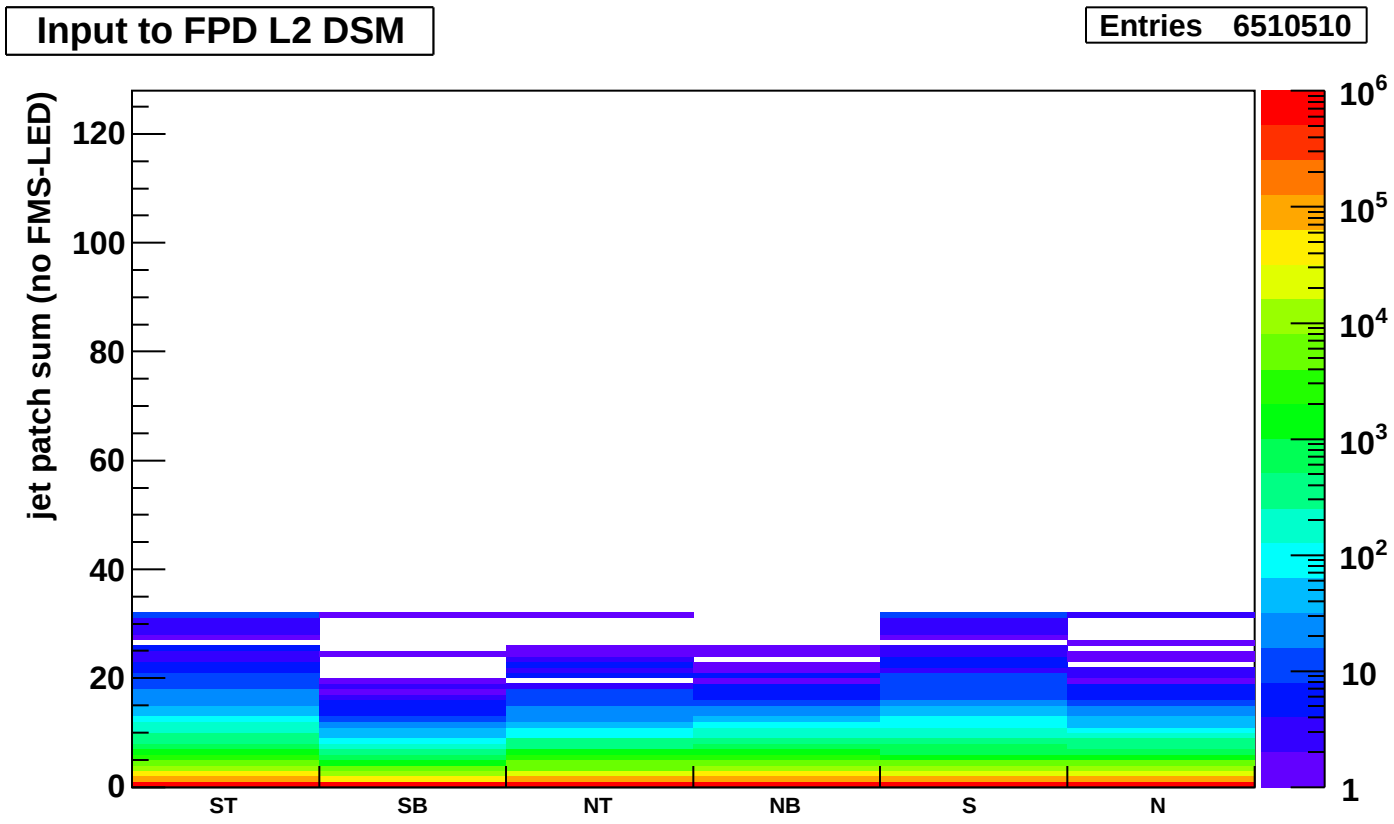

Input to FPD L2 DSM
Entries 849169
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

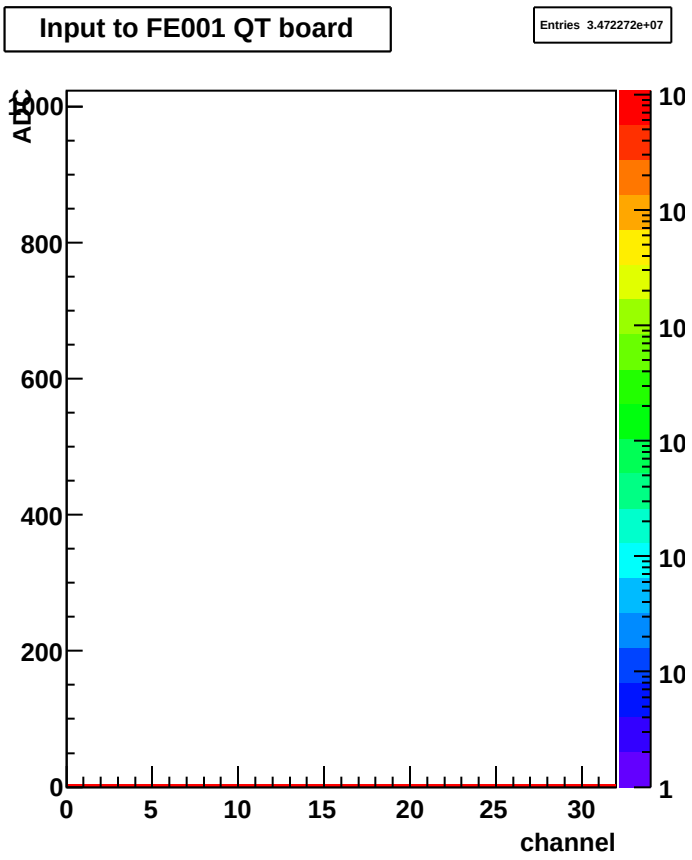

Input to FPD L2 DSM
Entries 3255255
CL bits
2
216
10
9
4128
776
942
1.08074e+06
1.0843e+06
1.08413e+06
SMALL
LARGE-S
LARGE-N

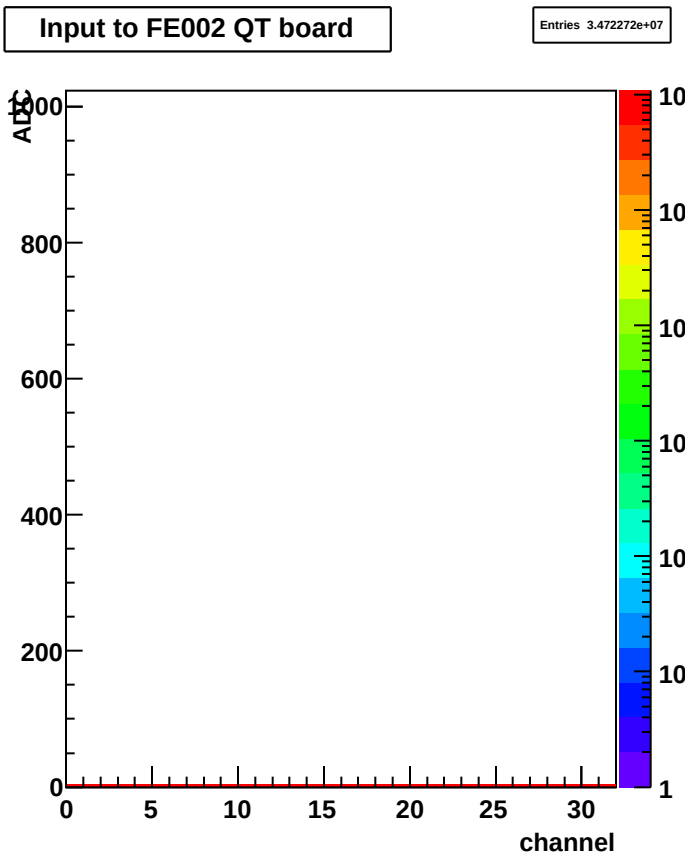

Input to FPD L2 DSM
Entries 6083
CL bits - simulated
2
216
10
9
4128
776
942
SMALL
LARGE-S
LARGE-N

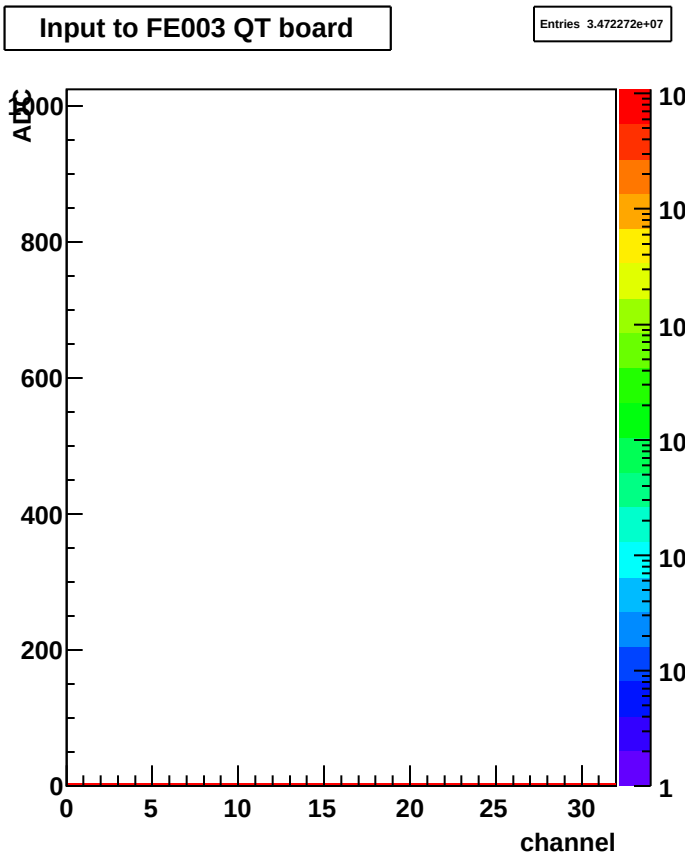

Input to FPD L2 DSM
Entries 3255255
HT bits
4889
1273
1391
18236
50339
1658
1970
1.01162e+06
1.08215e+06
1.08172e+06
SMALL
LARGE-S
LARGE-N

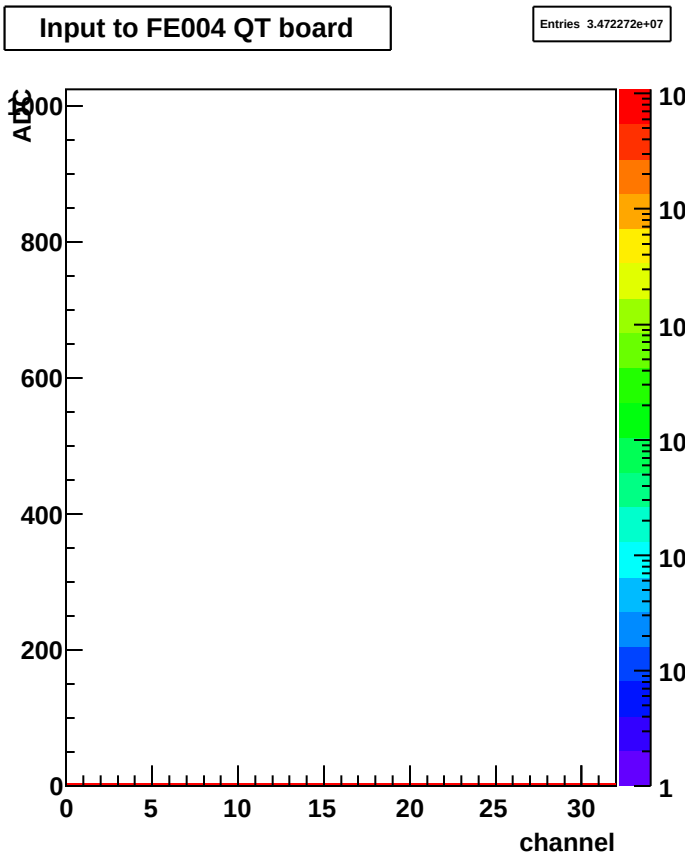

Input to FPD L2 DSM
Entries 79756
HT bits - simulated
4889
1273
1391
18236
50339
1658
1970
SMALL
LARGE-S
LARGE-N

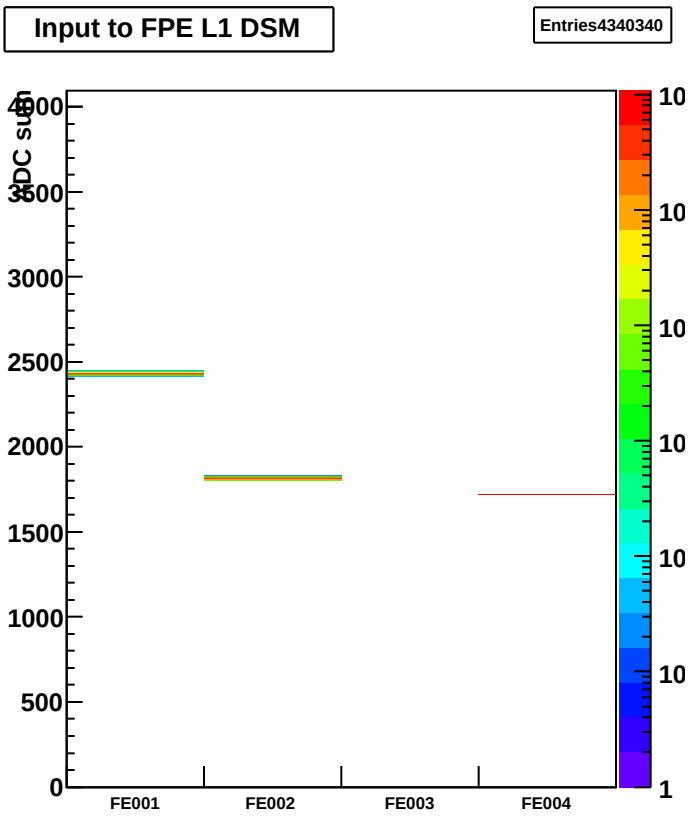

Input to FPD L2 DSM
Entries 6510510
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6


Input to FE001 QT board
Entries 3.472272e+07
ADC
channel

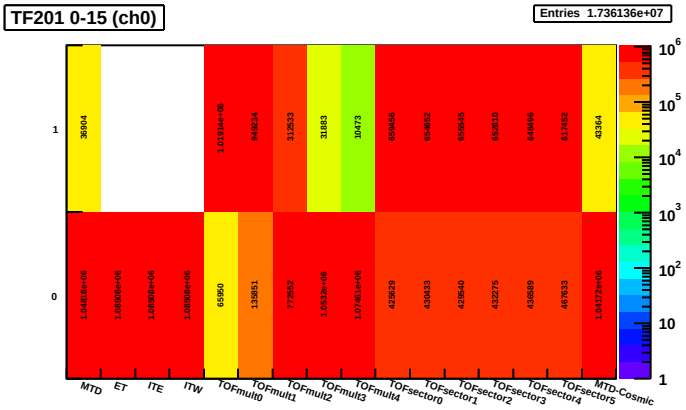

Input to FE002 QT board
Entries 3.472272e+07
ADC
channel


Input to FE003 QT board
Entries 3.472272e+07
ADC
channel

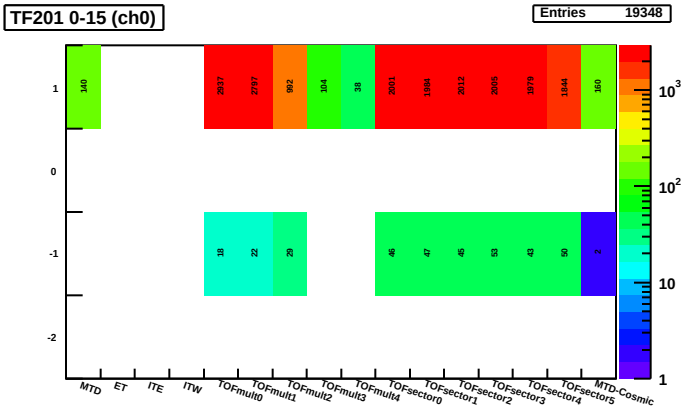

Input to FE004 QT board
Entries 3.472272e+07
ADC
channel


Input to FPE L1 DSM
Entries4340340
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
10
1

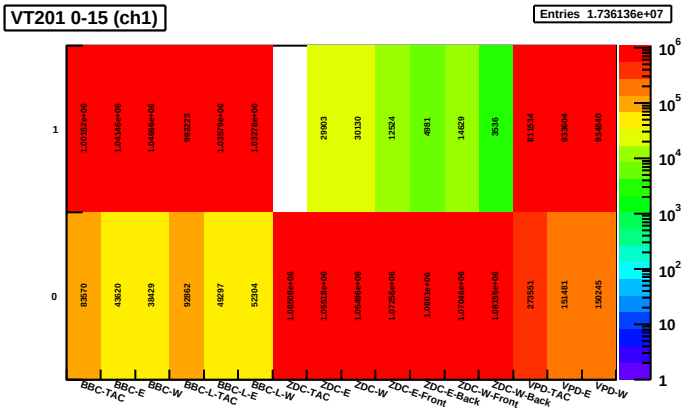
TF201 0-15 (ch0)



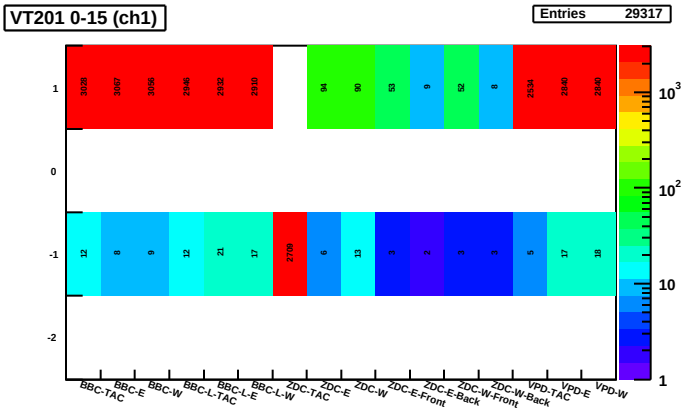
TF201 0-15 (ch0)



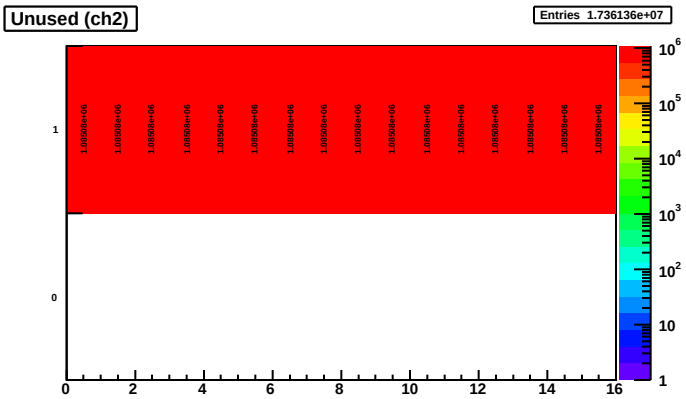
VT201 0-15 (ch1)

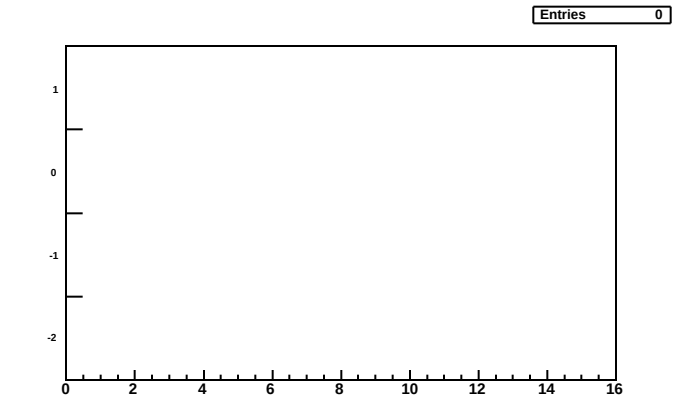


VT201 0-15 (ch1)

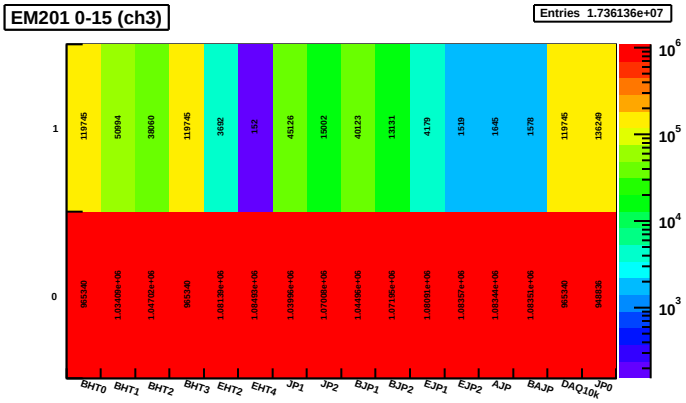


Unused (ch2)

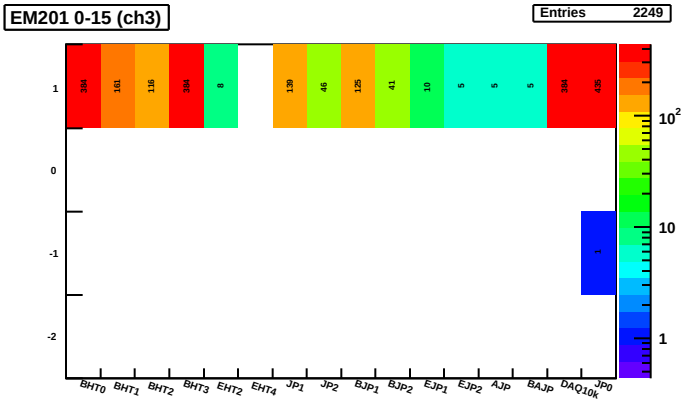


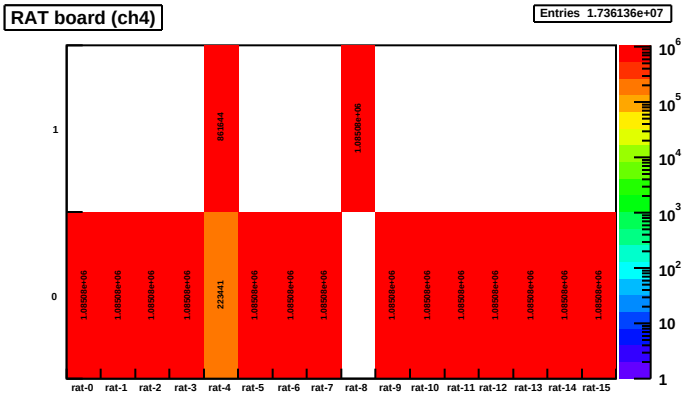


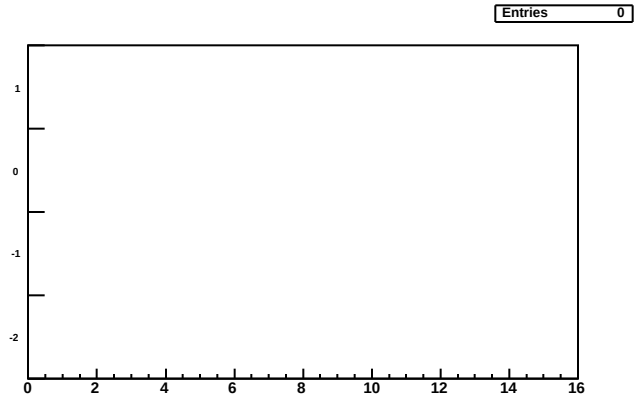
EM201 0-15 (ch3)

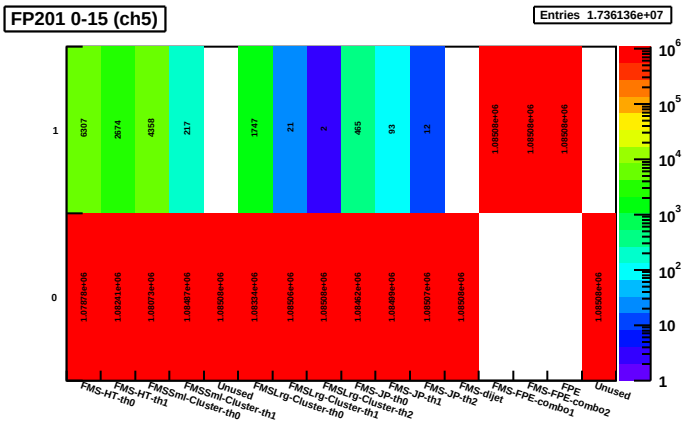


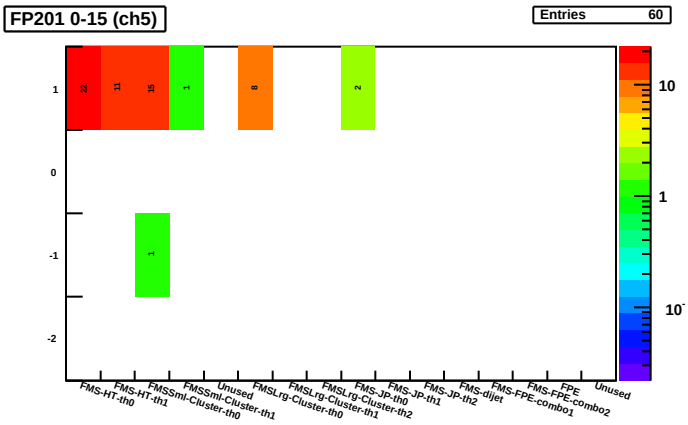
EM201 0-15 (ch3)

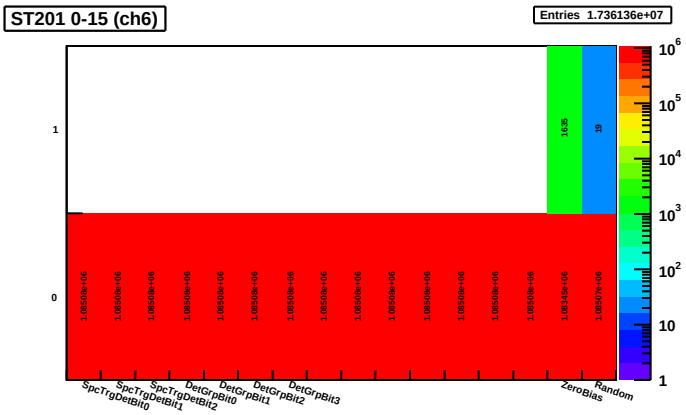


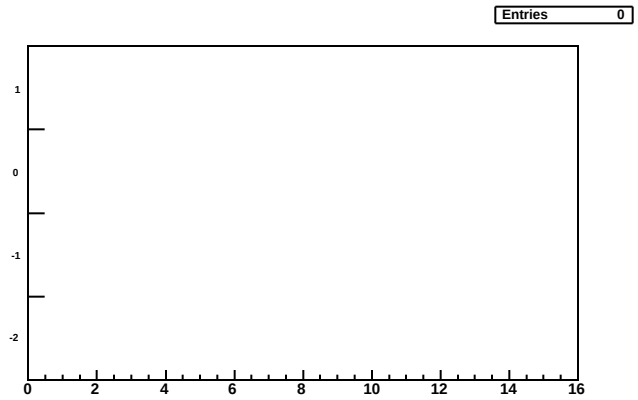

RAT board (ch4)
Entries 1.736136e+07
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

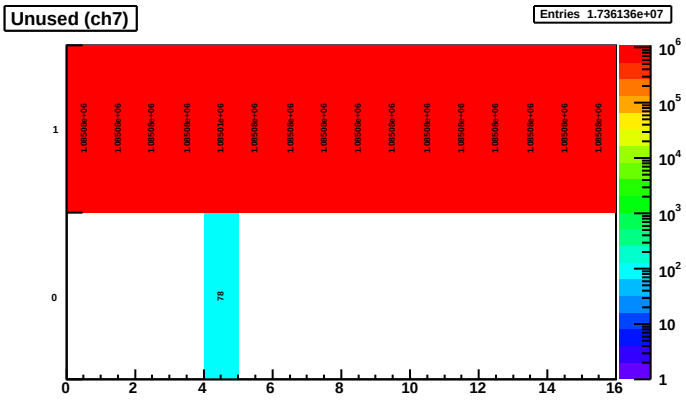

Entries 0

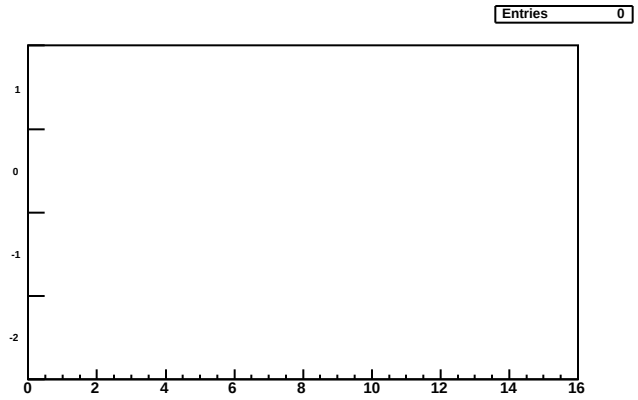

FP201 0-15 (ch5)
Entries 1.736136e+07
FMS-HT-th0 FMS-HT-th1 FMSSml-Cluster-th0 FMSSml-Cluster-th1 Unused FMSLrg-Cluster-th0 FMSLrg-Cluster-th1 FMSLrg-Cluster-th2 FMS-JP-th0 FMS-JP-th1 FMS-JP-th2 FMS-diJet FMS-FPE-combo1 FMS-FPE-combo2 FPE Unused


FP201 0-15 (ch5)
Entries 60
FMS-HT-th0 FMS-HT-th1 FMSSml-Cluster-th0 FMSSml-Cluster-th1 Unused FMSLrg-Cluster-th0 FMSLrg-Cluster-th1 FMSLrg-Cluster-th2 FMS-JP-th0 FMS-JP-th1 FMS-JP-th2 FMS-diJet FMS-FPE-combo1 FMS-FPE-combo2 FPE Unused


ST201 0-15 (ch6)
Entries 1.736136e+07
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random


Entries 0


Unused (ch7)
Entries 1.736136e+07


Entries 0