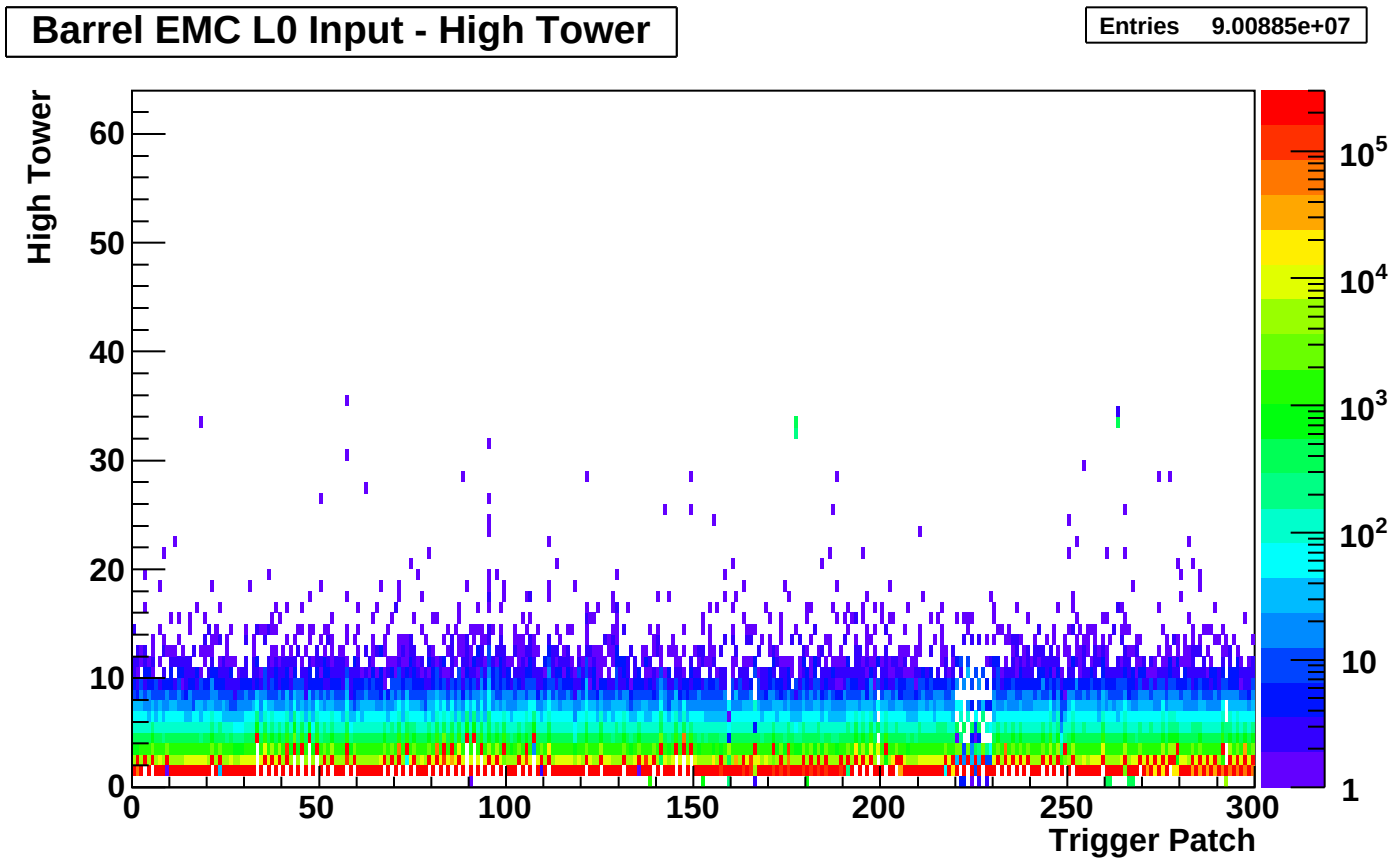
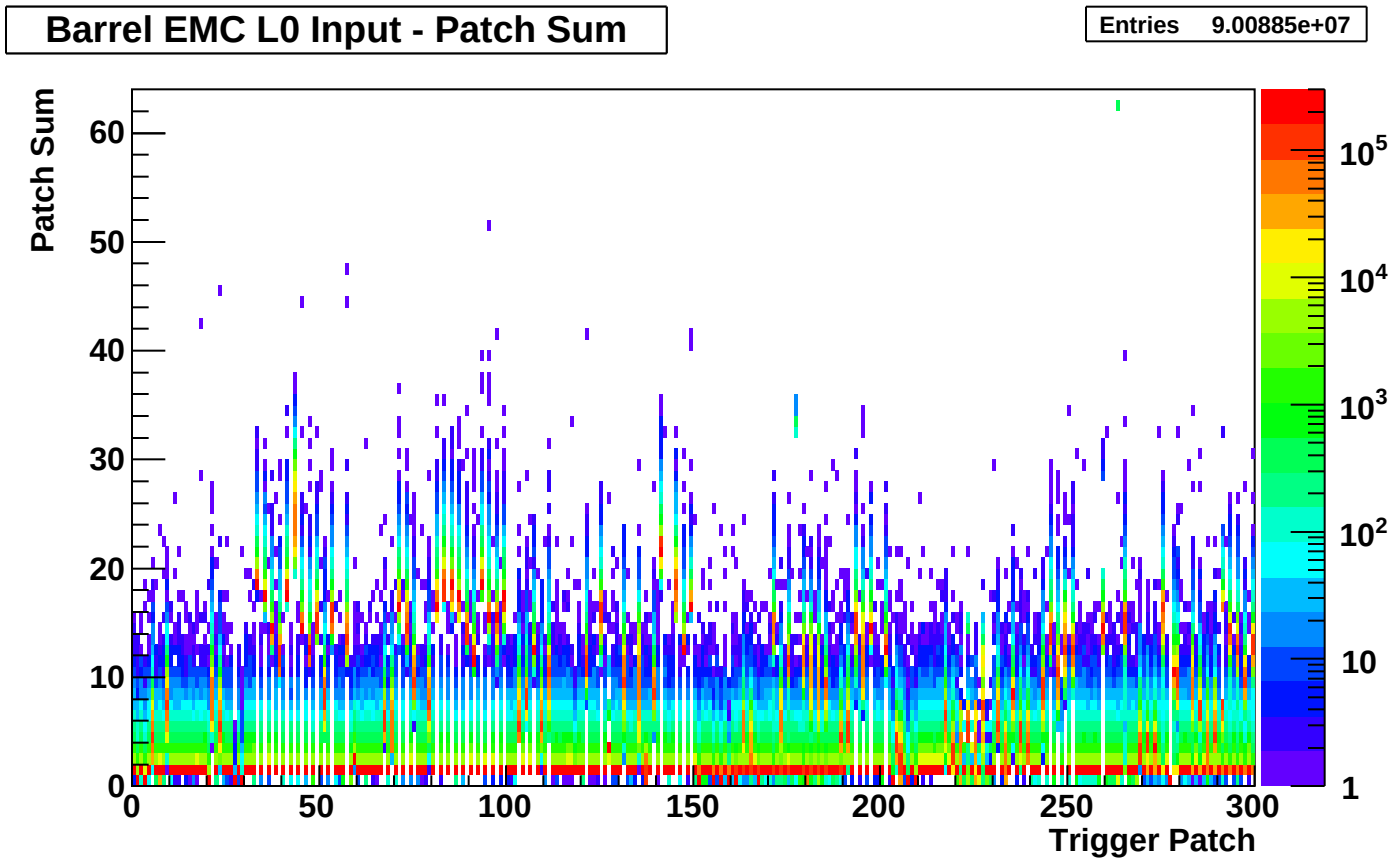
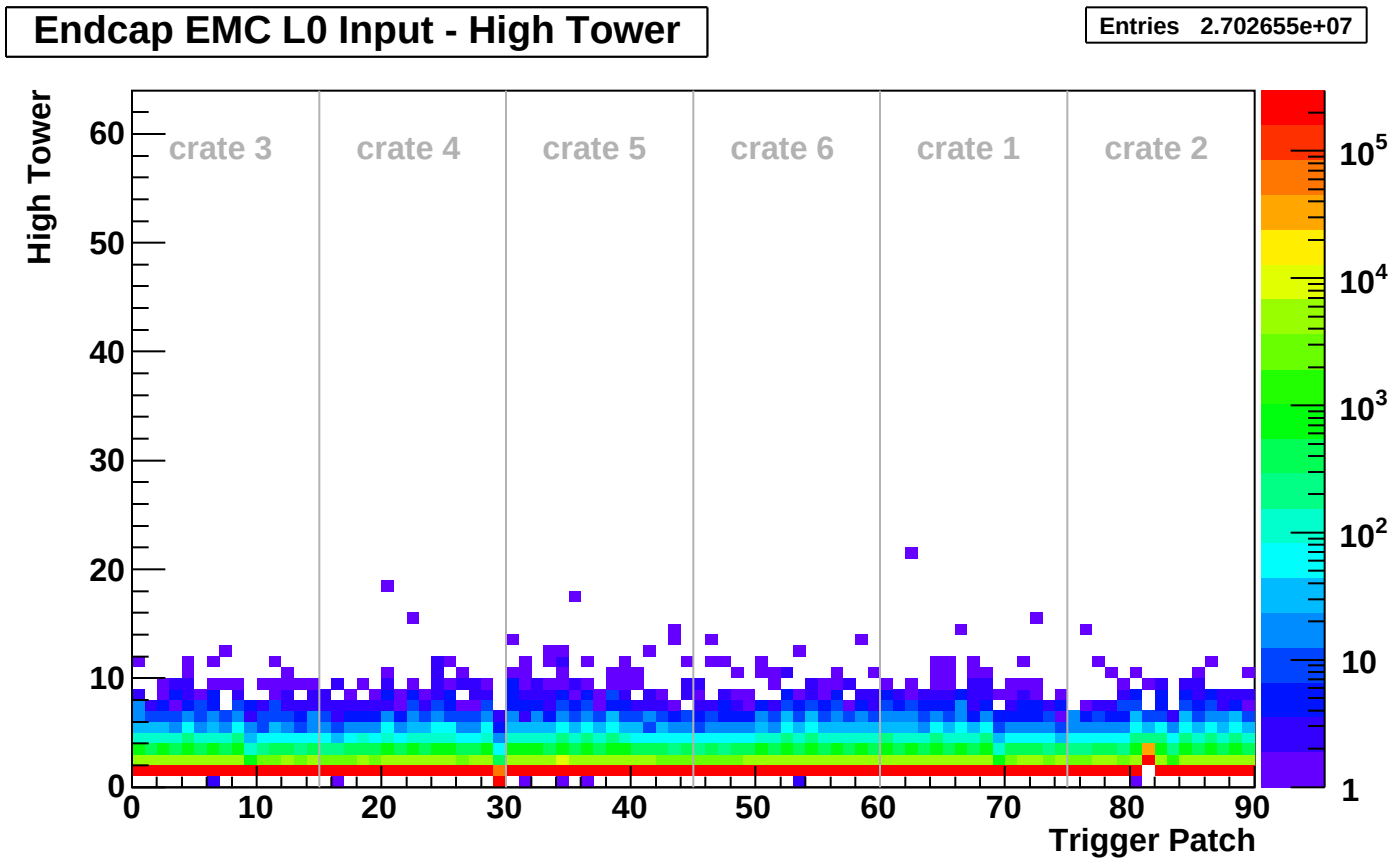
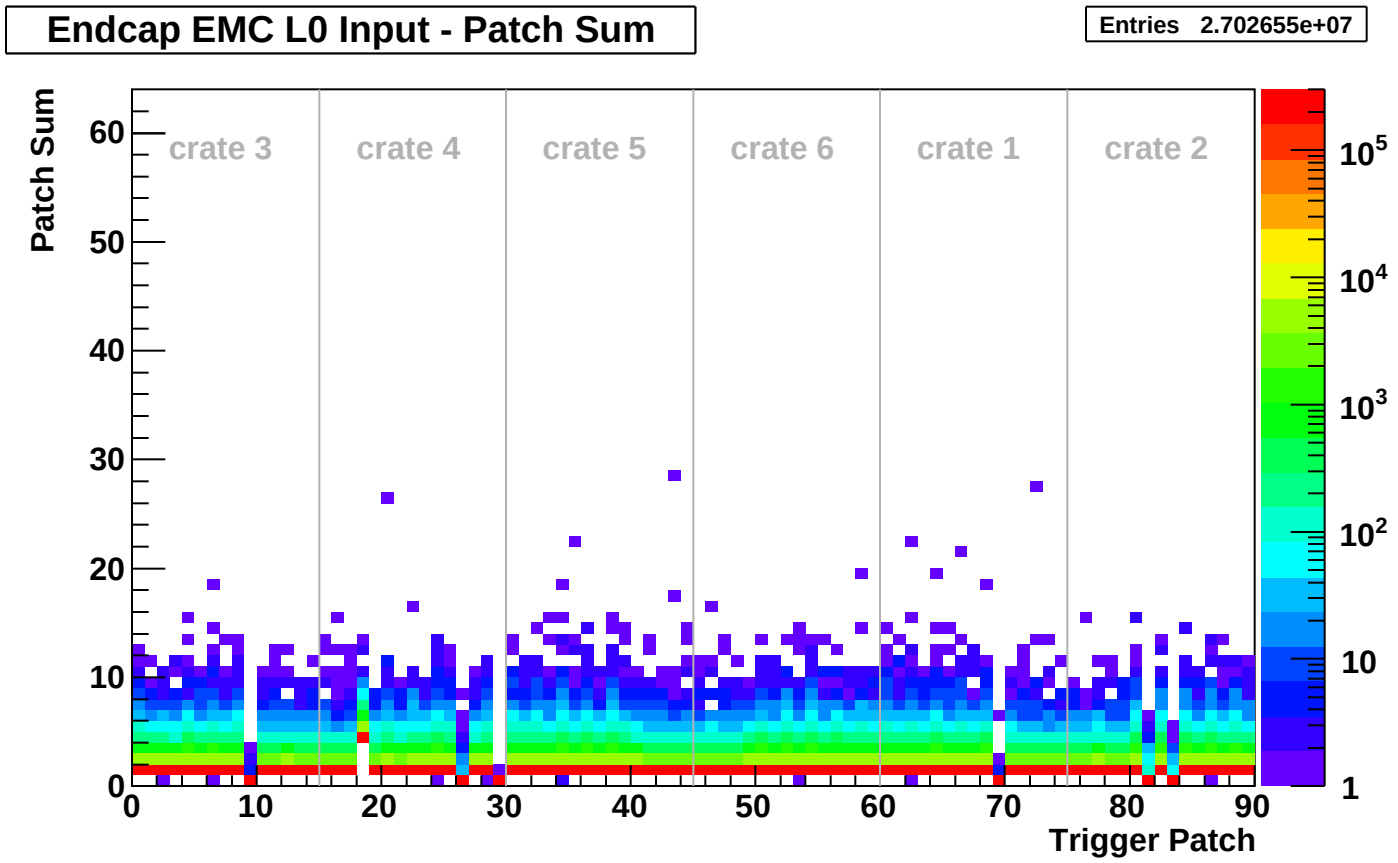
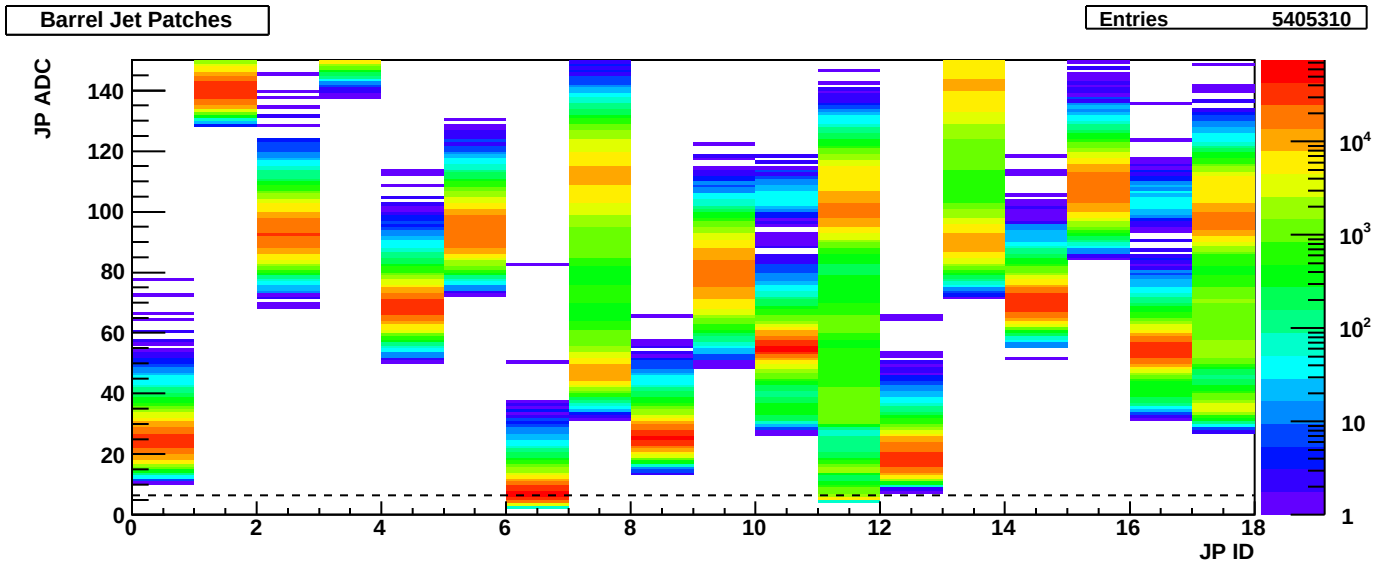
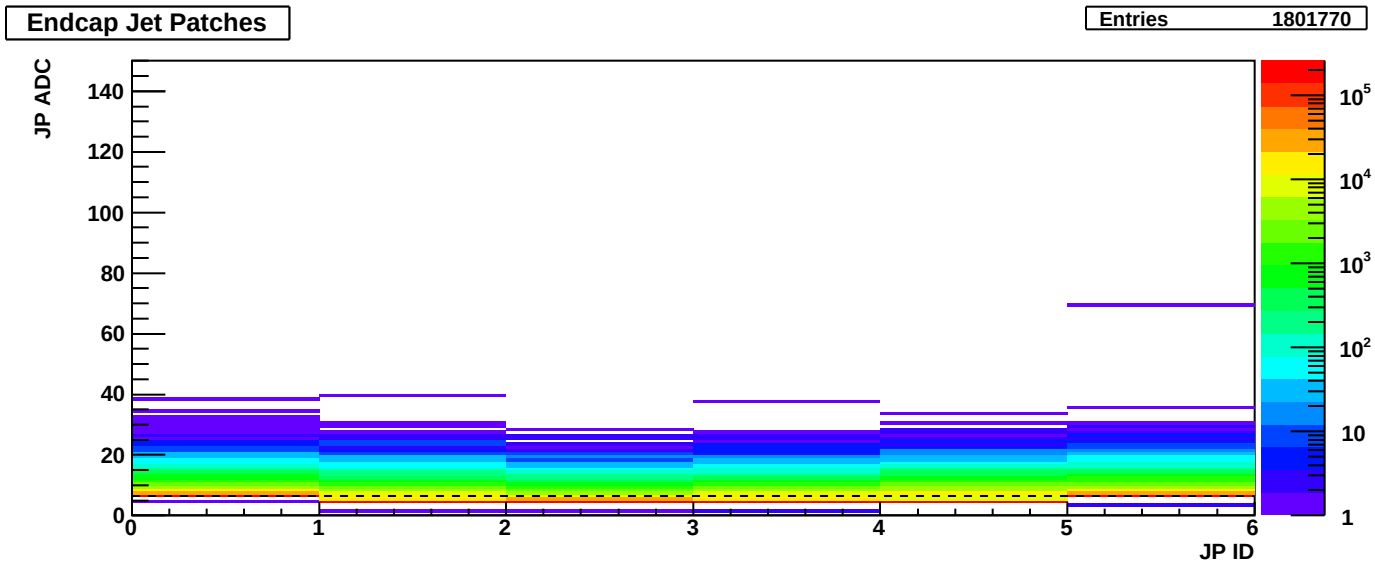

Barrel EMC L0 Input - High Tower
Entries 9.00885e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

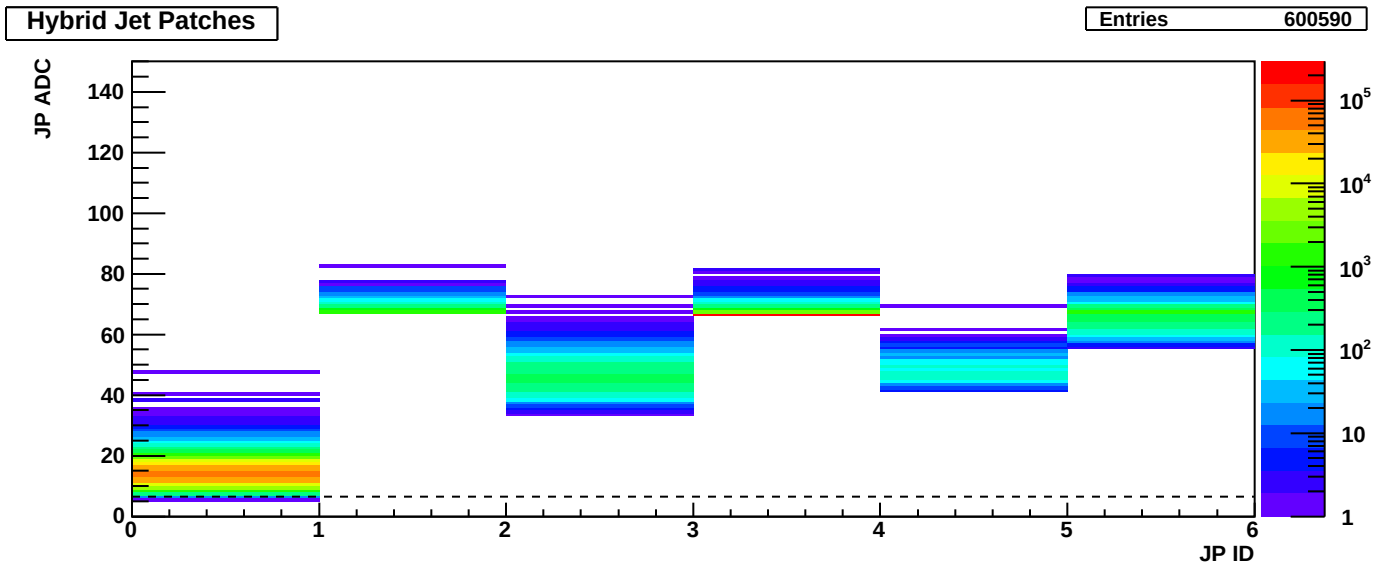

Barrel EMC L0 Input - Patch Sum
Entries 9.00885e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

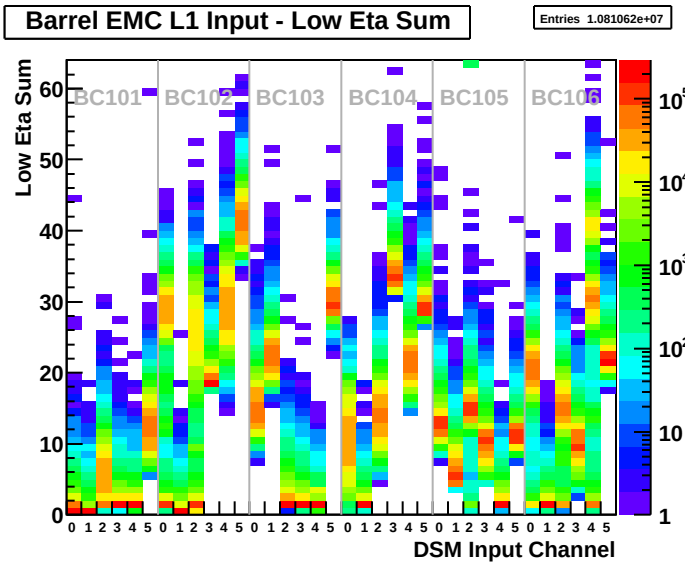

Endcap EMC L0 Input - High Tower
Entries 2.702655e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

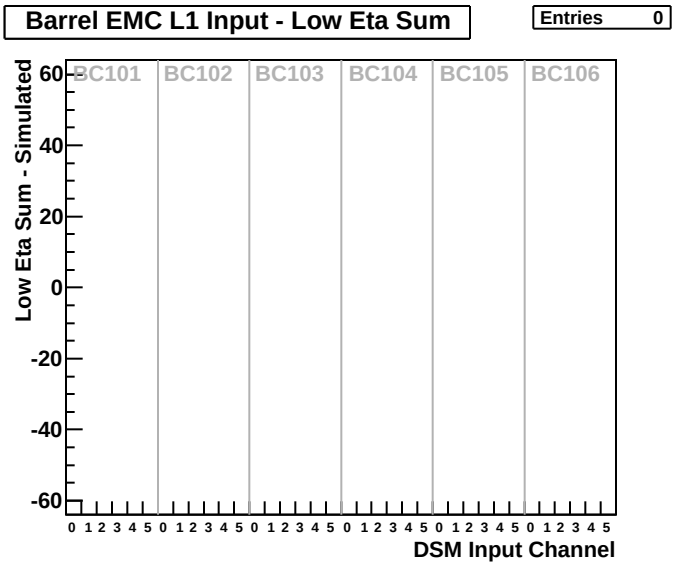

Endcap EMC L0 Input - Patch Sum
Entries 2.702655e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

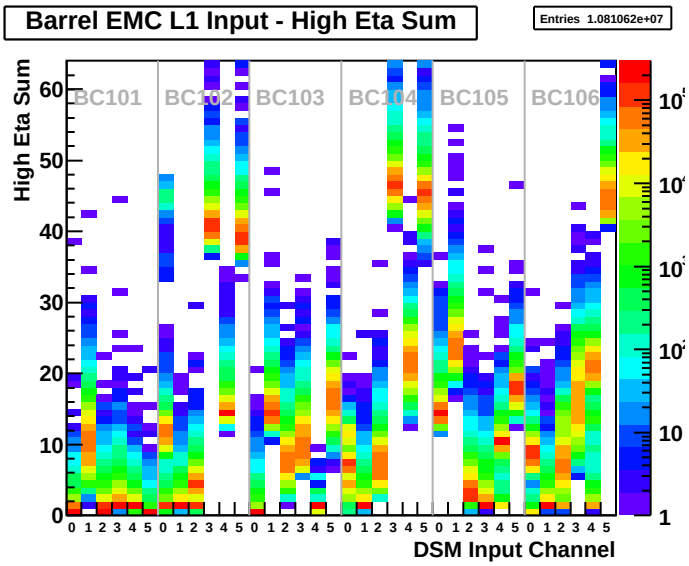

Barrel Jet Patches
Entries 5405310
JP ADC
JP ID

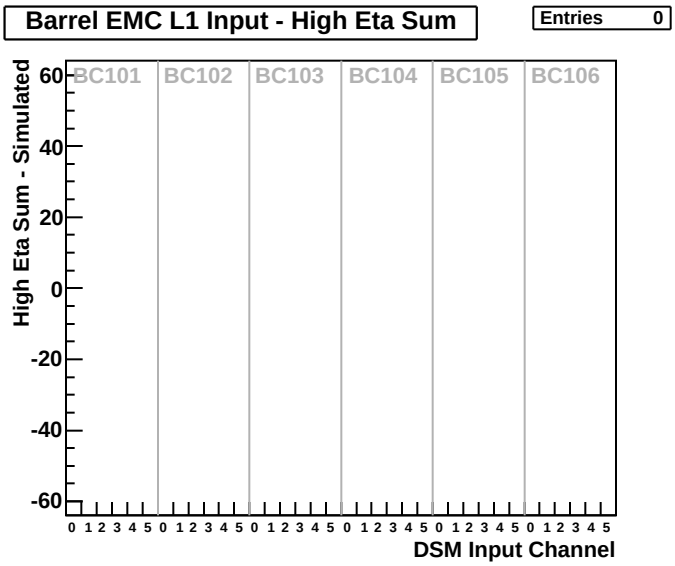

Endcap Jet Patches
Entries 1801770
JP ADC
JP ID

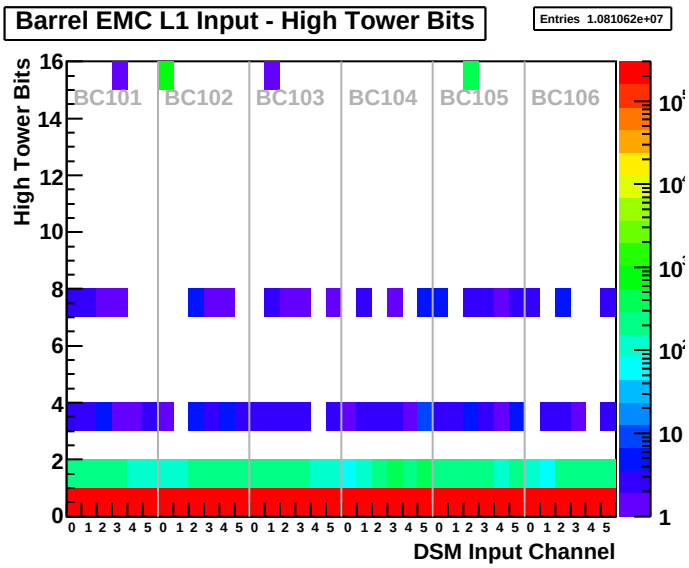

Hybrid Jet Patches
Entries 600590
JP ADC
JP ID

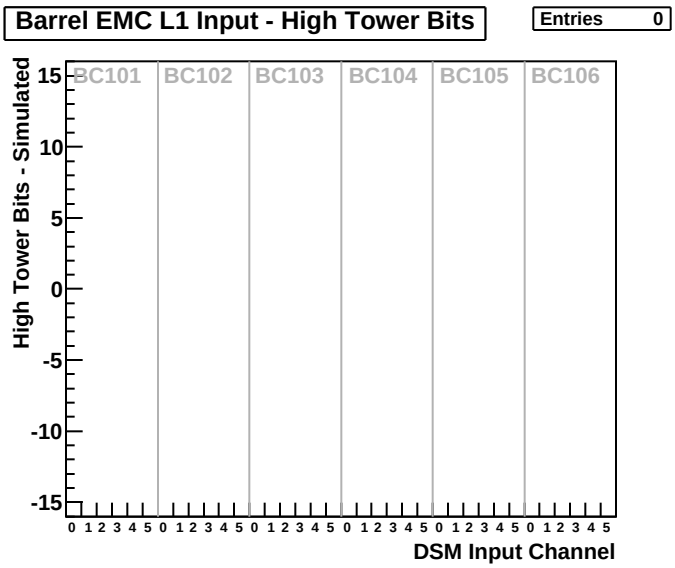

Barrel EMC L1 Input - Low Eta Sum
Entries 1.081062e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

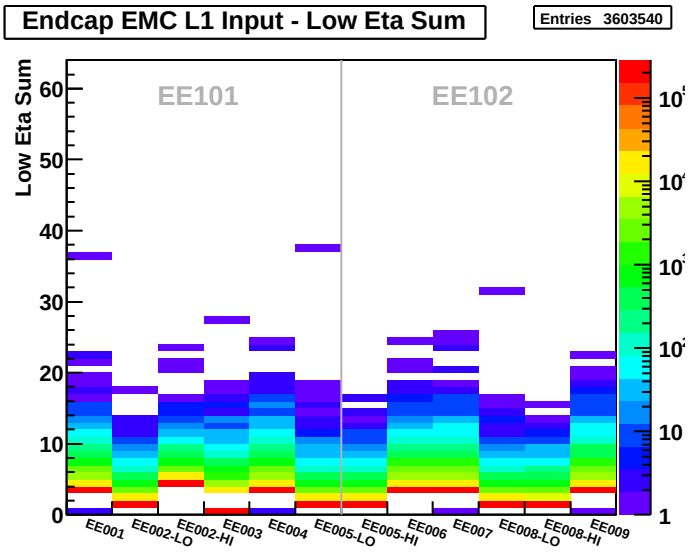

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

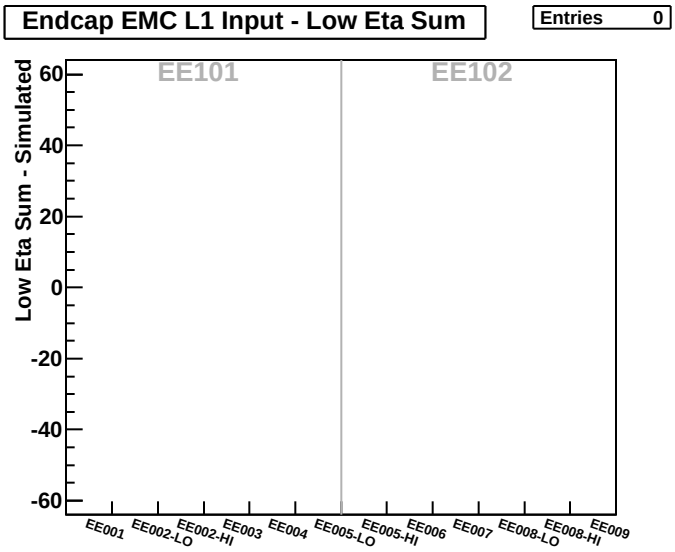

Barrel EMC L1 Input - High Eta Sum
Entries 1.081062e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

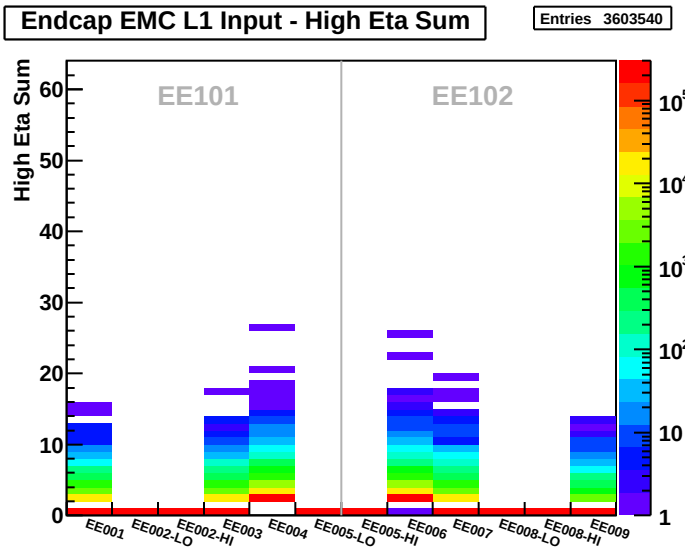

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

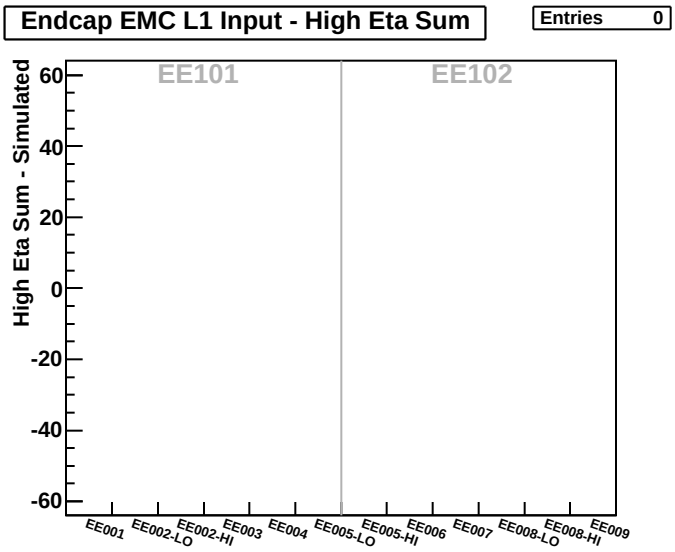

Barrel EMC L1 Input - High Tower Bits
Entries 1.081062e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

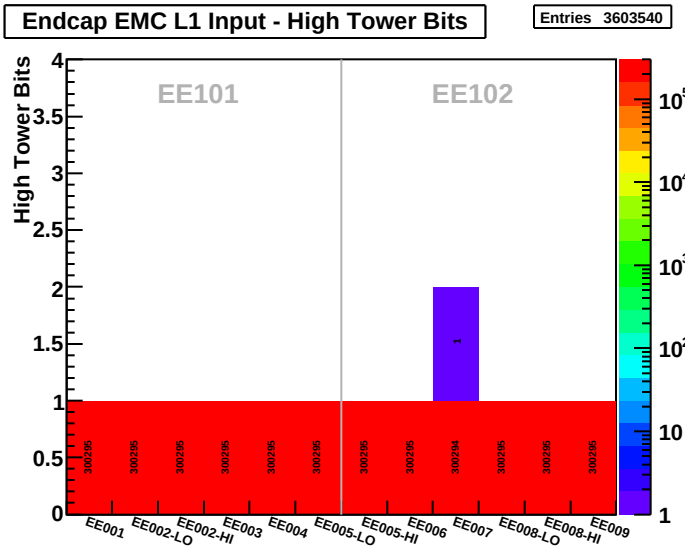

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

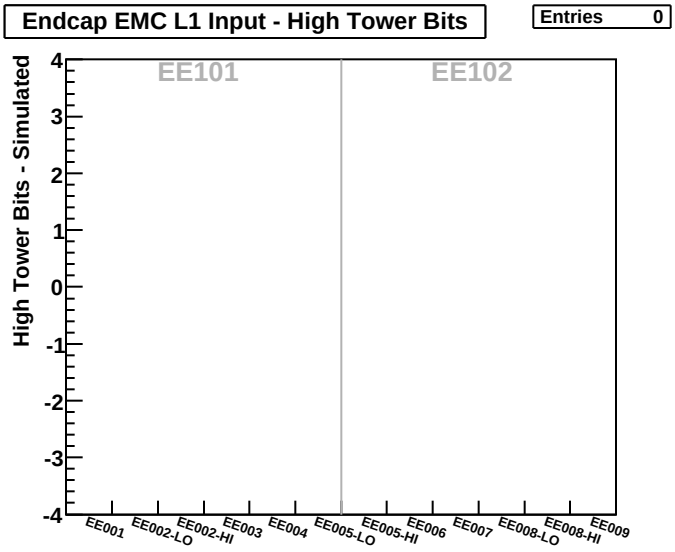

Endcap EMC L1 Input - Low Eta Sum
Entries 3603540
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

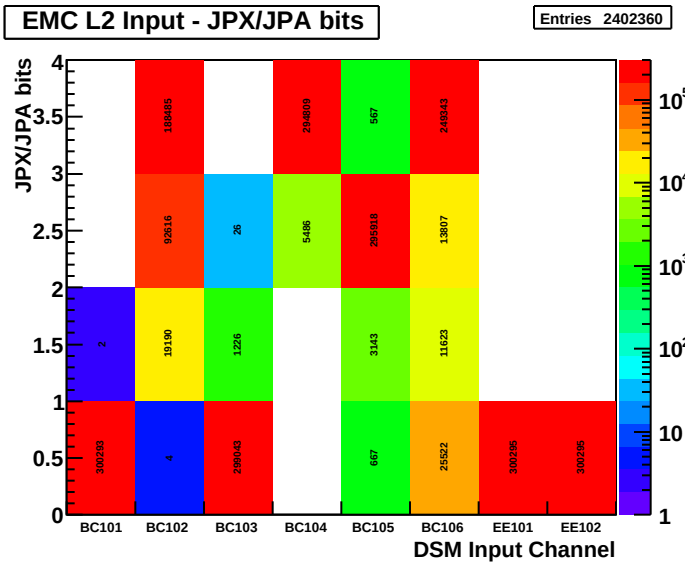

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

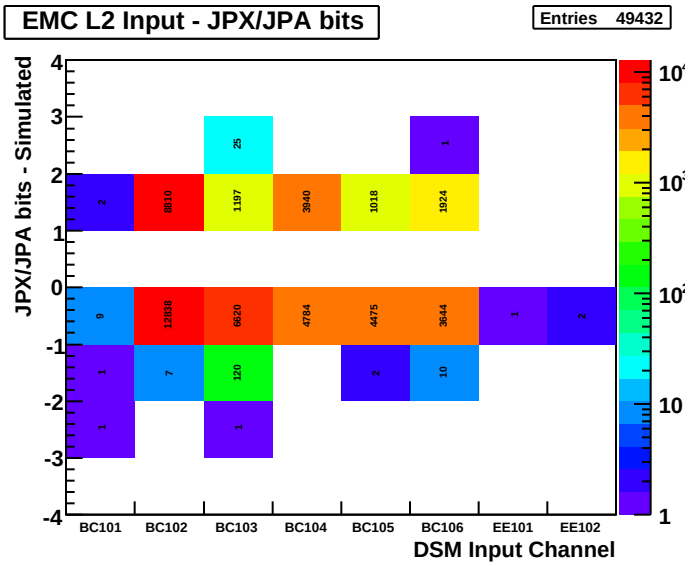

Endcap EMC L1 Input - High Eta Sum
Entries 3603540
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

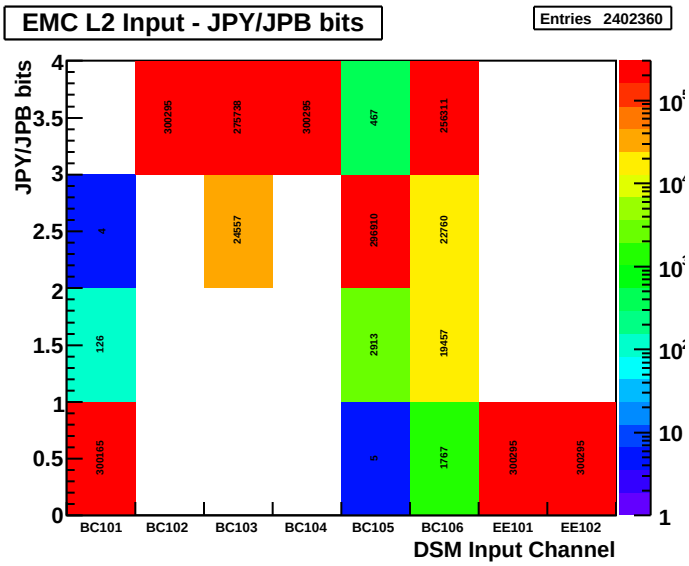

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

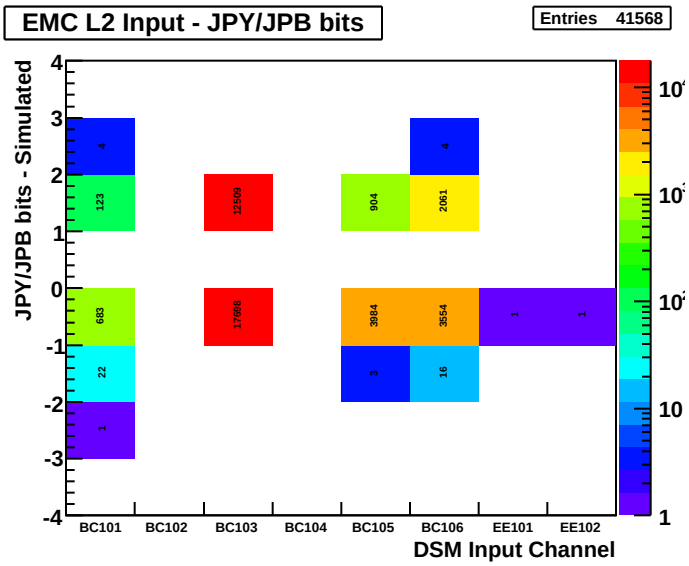

Endcap EMC L1 Input - High Tower Bits
Entries 3603540
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

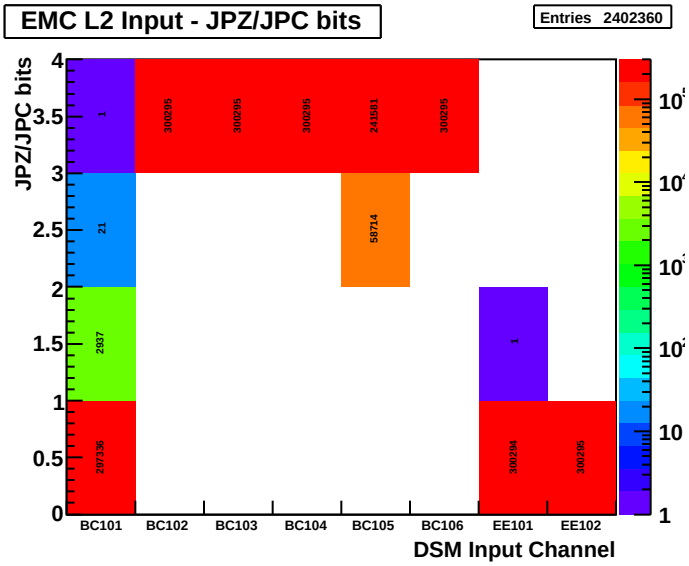

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

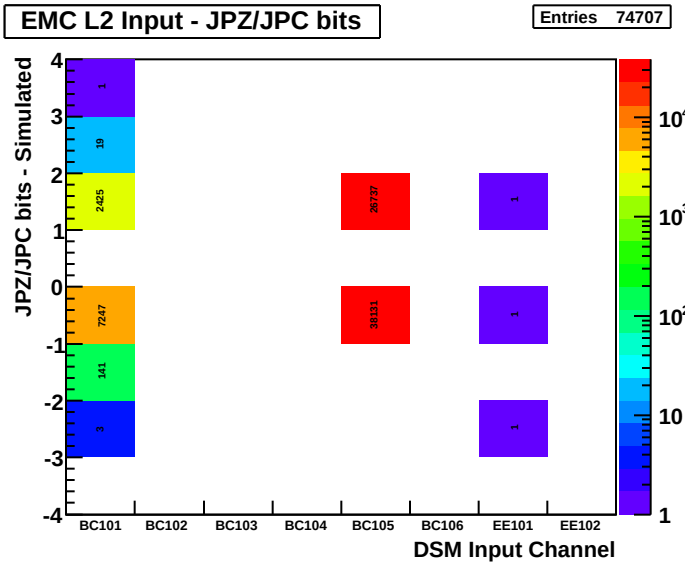

EMC L2 Input - JPX/JPA bits
Entries 2402360
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

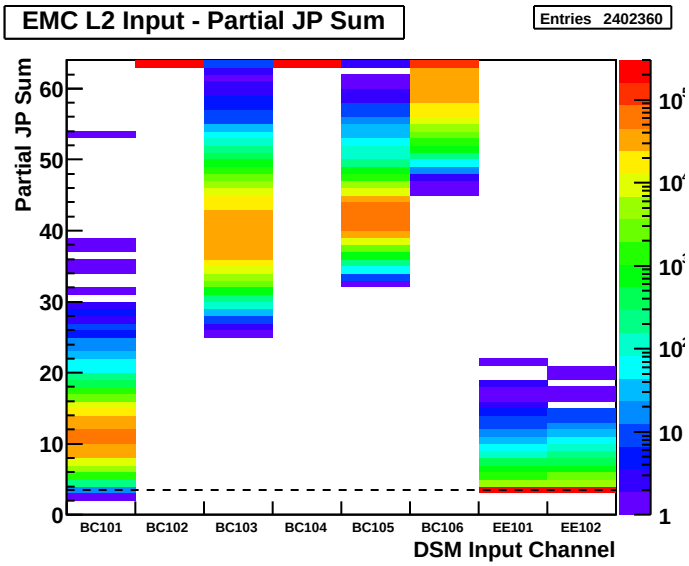

EMC L2 Input - JPX/JPA bits
Entries 49432
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

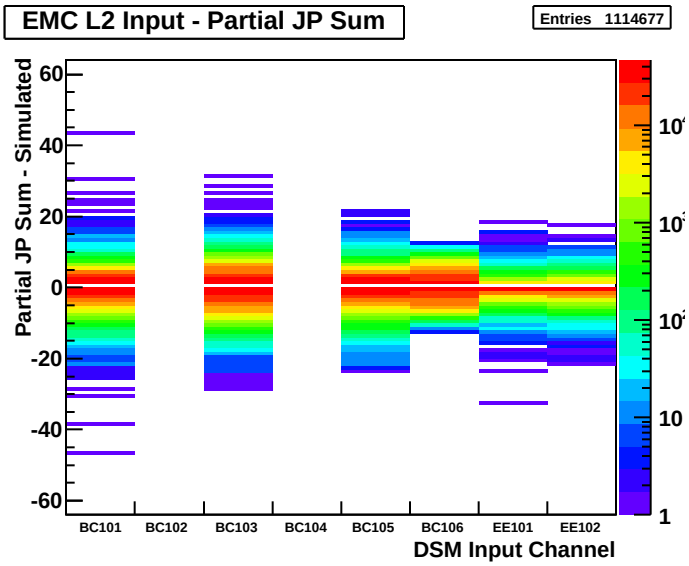

EMC L2 Input - JPY/JPB bits
Entries 2402360
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

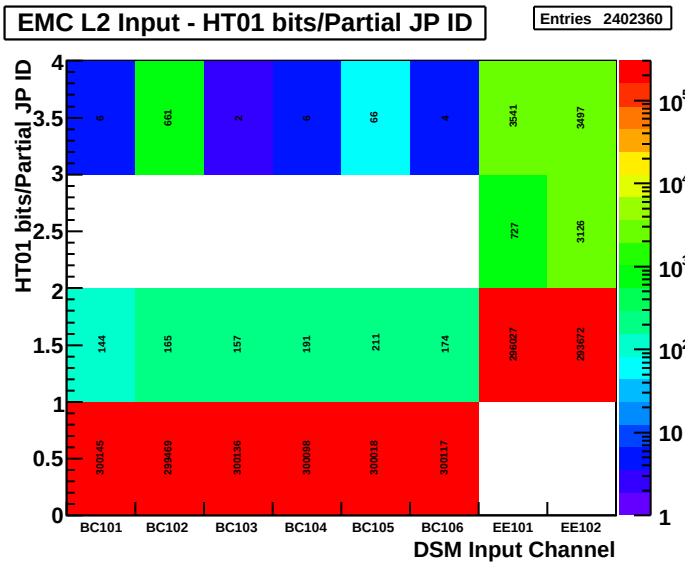

EMC L2 Input - JPY/JPB bits
Entries 41568
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

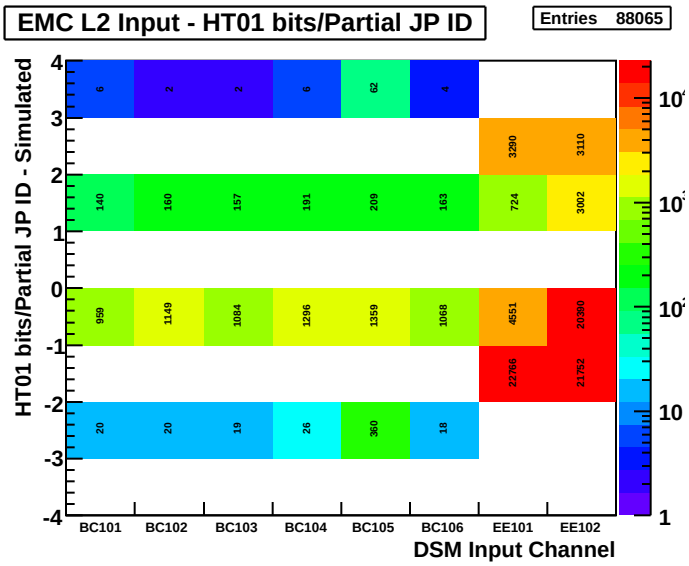

EMC L2 Input - JPZ/JPC bits
Entries 2402360
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

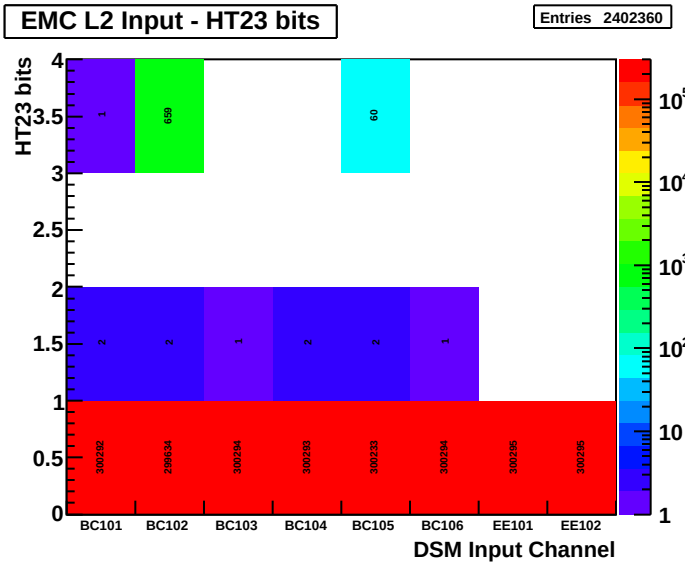

EMC L2 Input - JPZ/JPC bits
Entries 74707
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

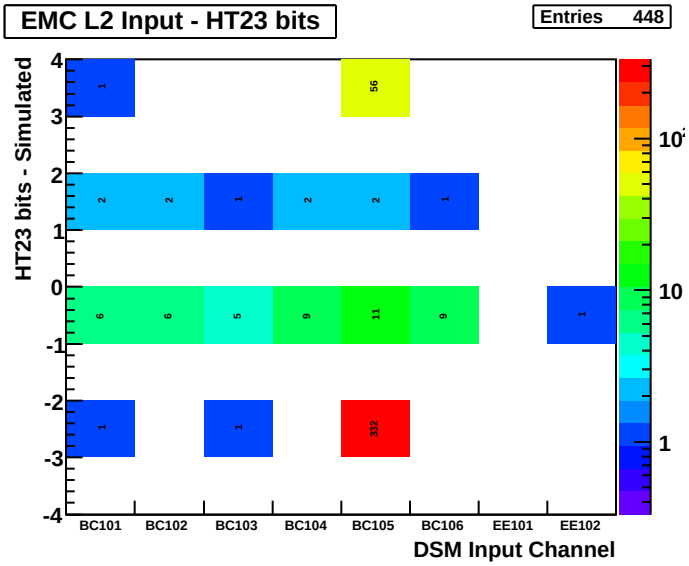

EMC L2 Input - Partial JP Sum
Entries 2402360
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

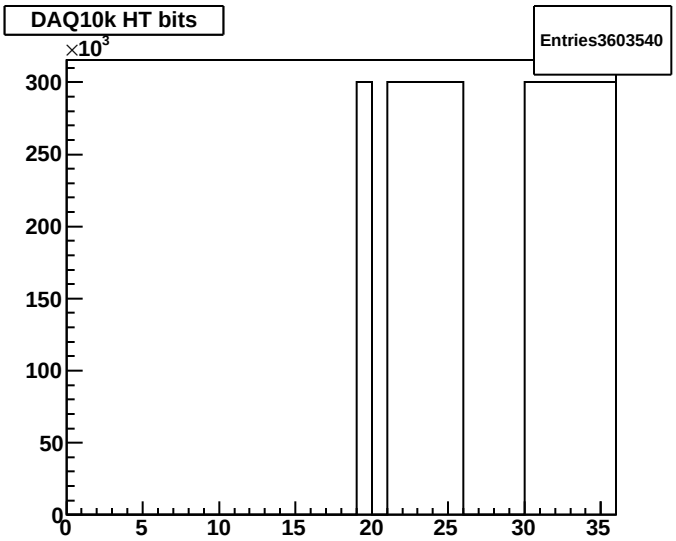

EMC L2 Input - Partial JP Sum
Entries 1114677
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

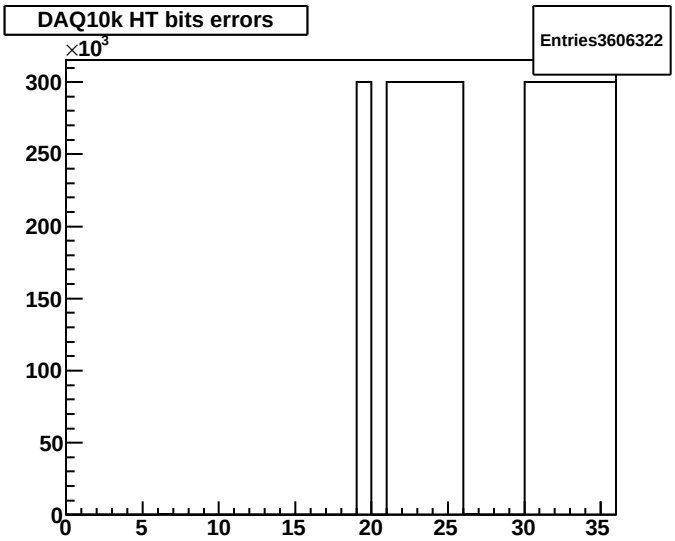

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2402360
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

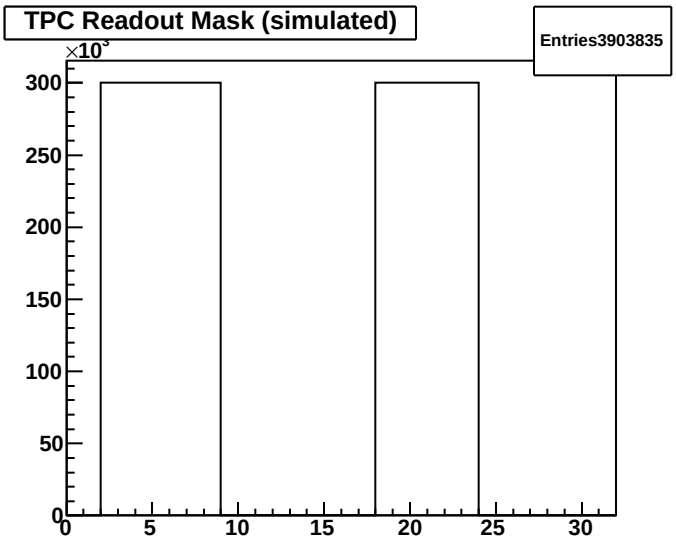

EMC L2 Input - HT01 bits/Partial JP ID
Entries 88065
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

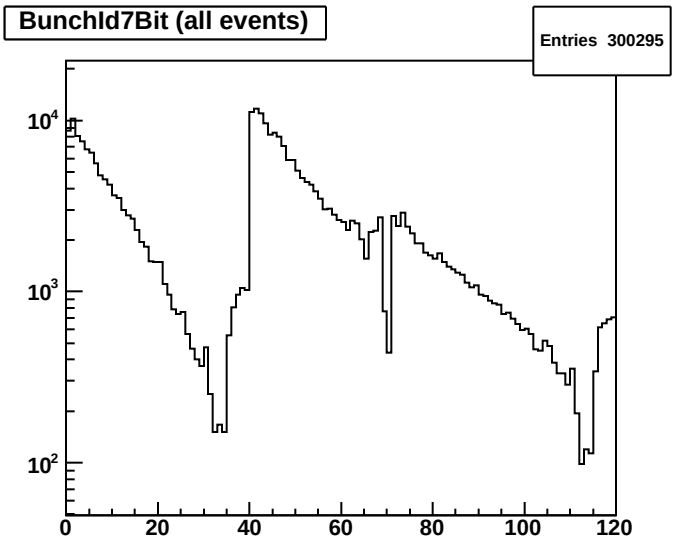

EMC L2 Input - HT23 bits
Entries 2402360
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

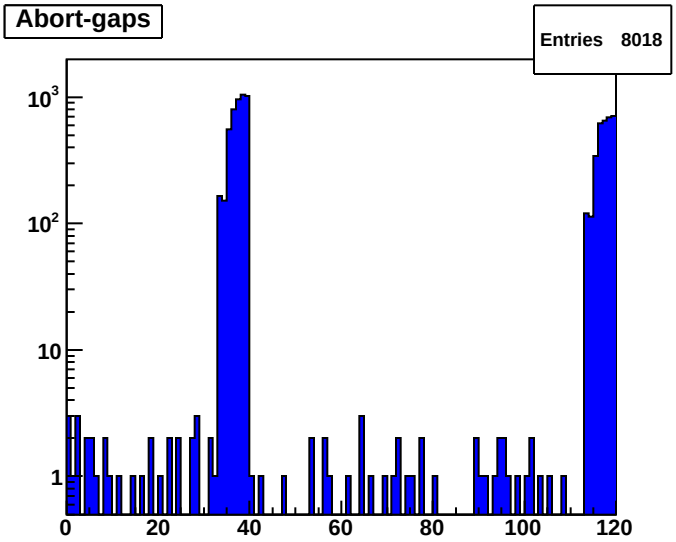

EMC L2 Input - HT23 bits
Entries 448
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102


DAQ10k HT bits
Entries3603540
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

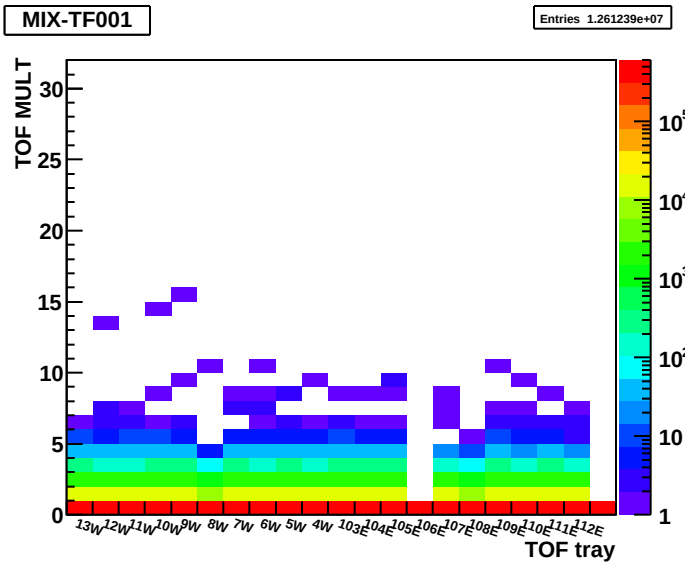

DAQ10k HT bits errors
Entries3606322
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

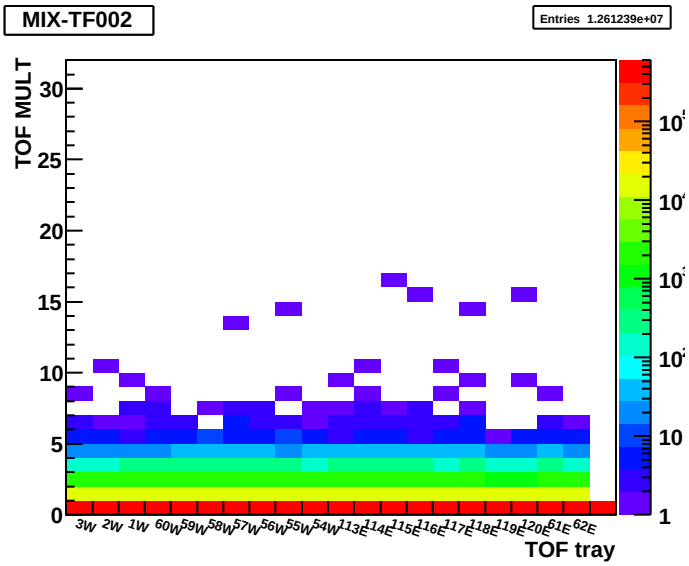

TPC Readout Mask (simulated)
Entries3903835
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30

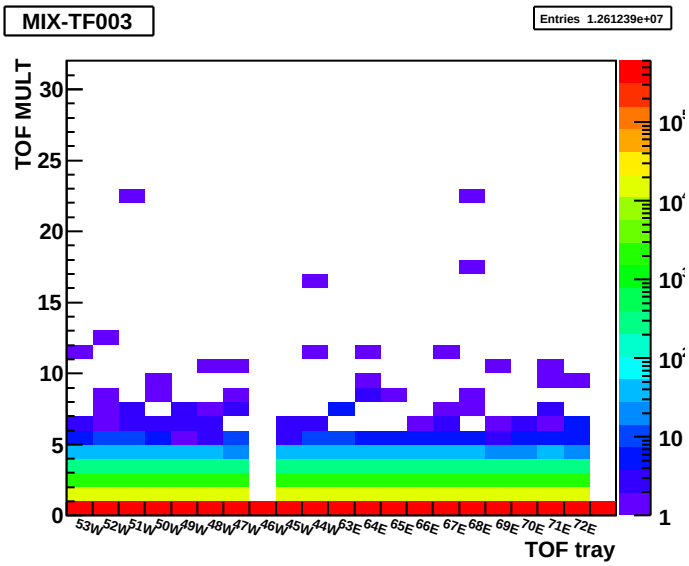

BunchId7Bit (all events)
Entries 300295
10^4
10^3
10^2
0 20 40 60 80 100 120

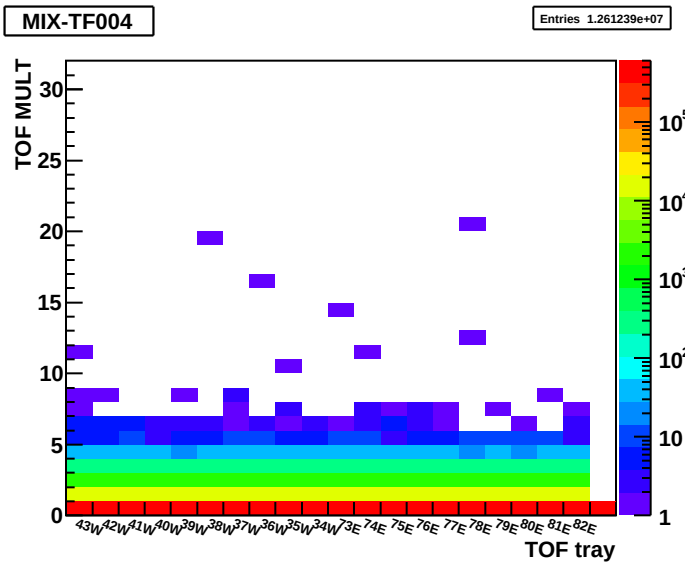

Abort-gaps
Entries 8018
10^3
10^2
10
1
0 20 40 60 80 100 120

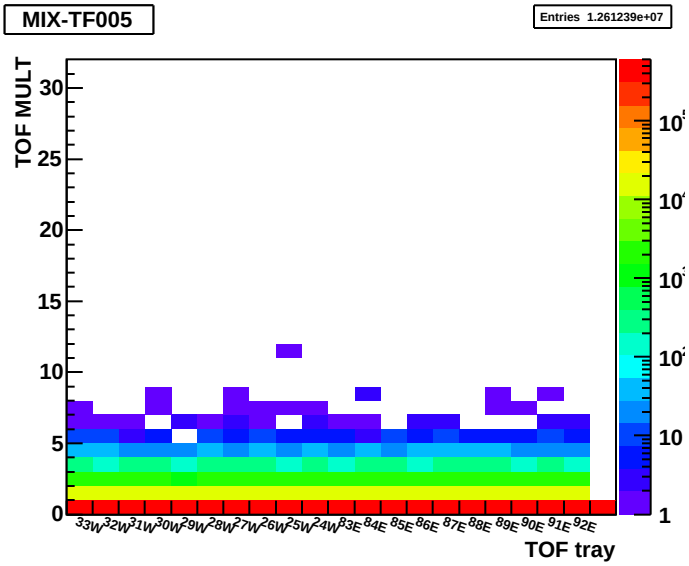
!Yellow-Fill
Entries 300295
10^4
10^3
10^2
0 20 40 60 80 100 120

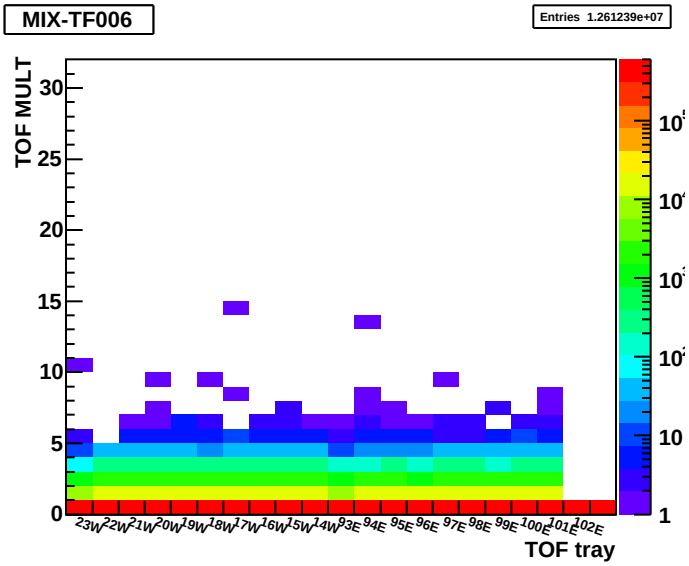

MIX-TF001
Entries 1.261239e+07
TOF MULT
TOF tray

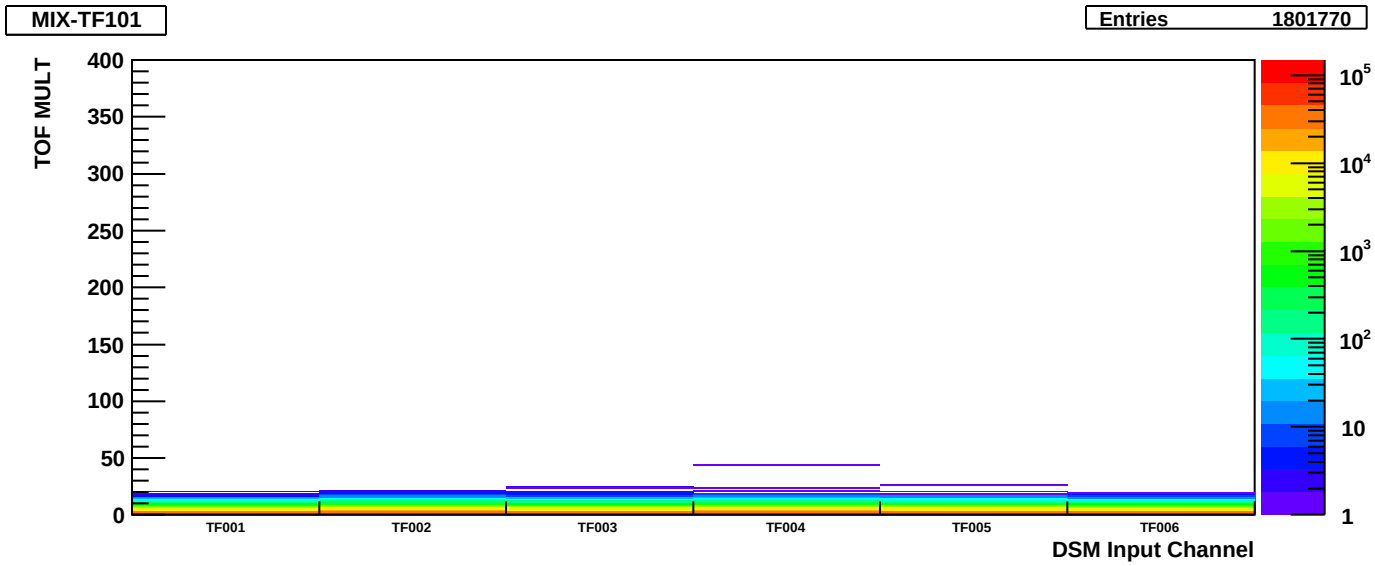

MIX-TF002
Entries 1.261239e+07
TOF MULT
TOF tray

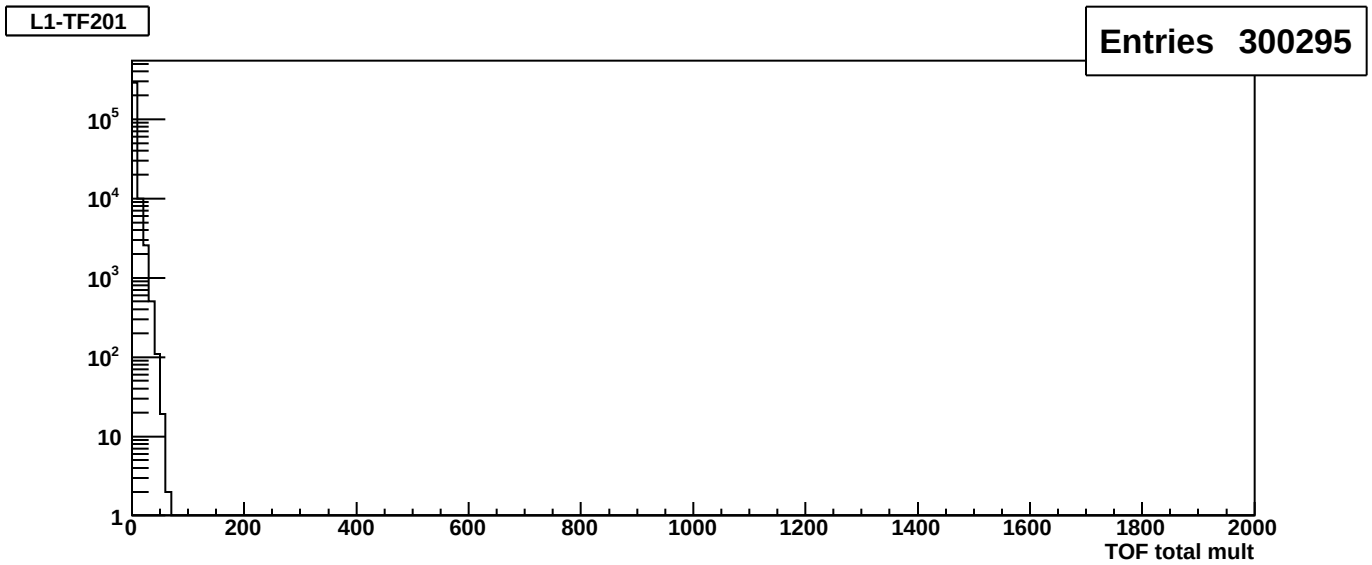

MIX-TF003
Entries 1.261239e+07
TOF MULT
TOF tray

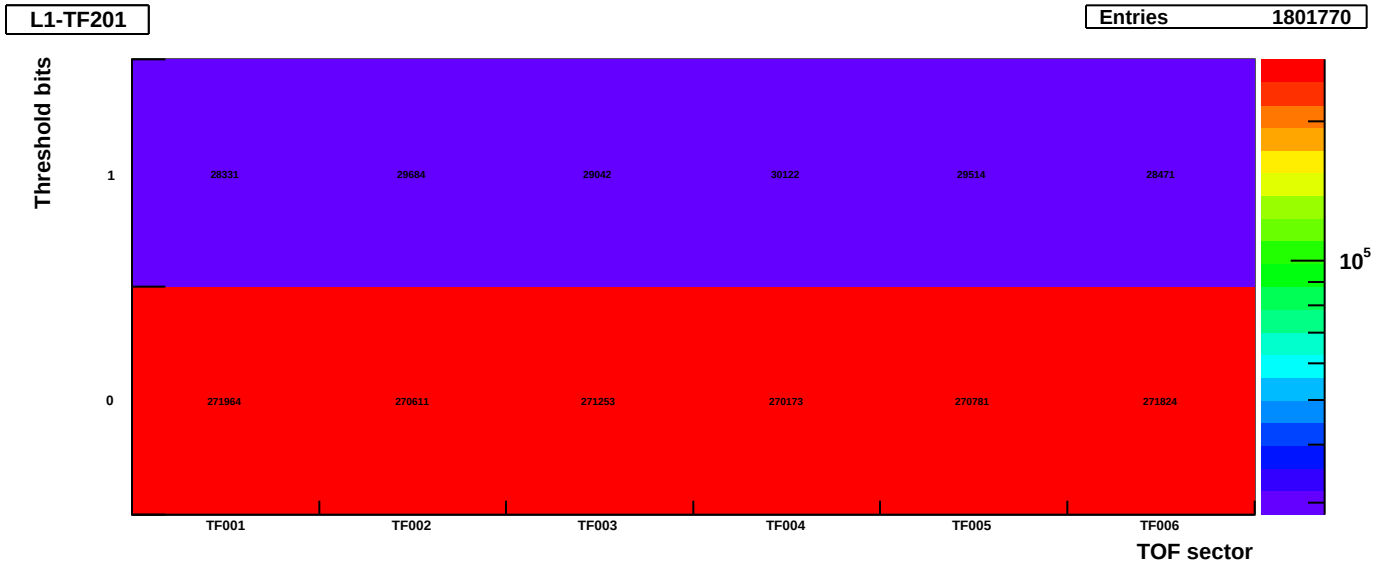

MIX-TF004
Entries 1.261239e+07
TOF MULT
TOF tray

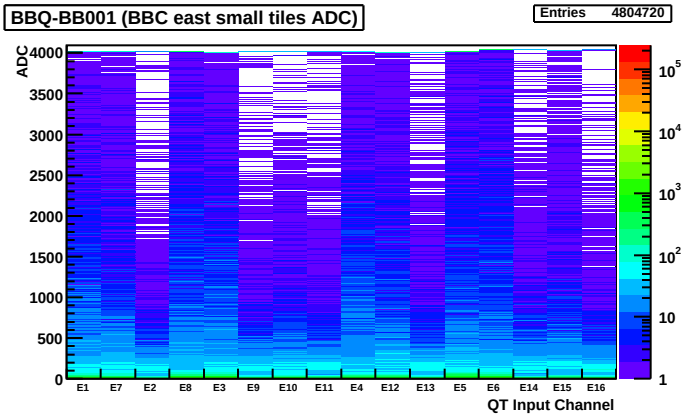

MIX-TF005
Entries 1.261239e+07
TOF MULT
TOF tray

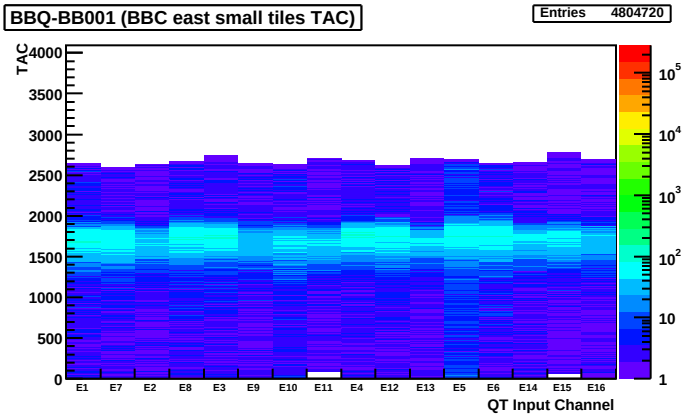

MIX-TF006
Entries 1.261239e+07
TOF MULT
TOF tray

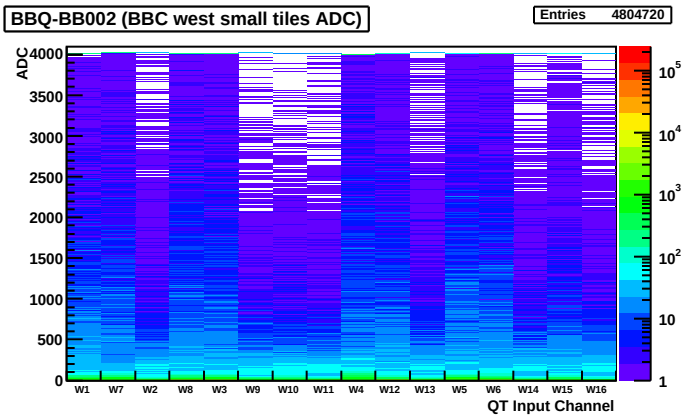

MIX-TF101
Entries 1801770
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

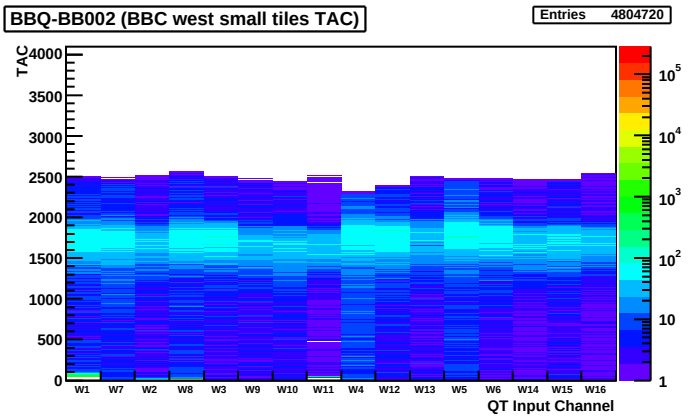

L1-TF201
Entries 300295
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

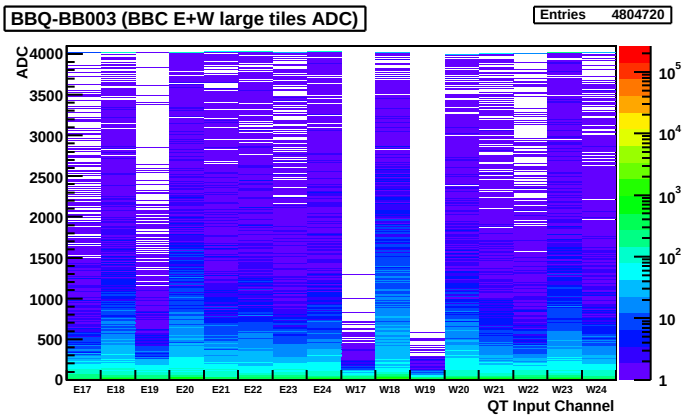

L1-TF201
Entries 1801770
Threshold bits
1
0
28331
29684
29042
30122
29514
28471
271964
270611
271253
270173
270781
271824
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

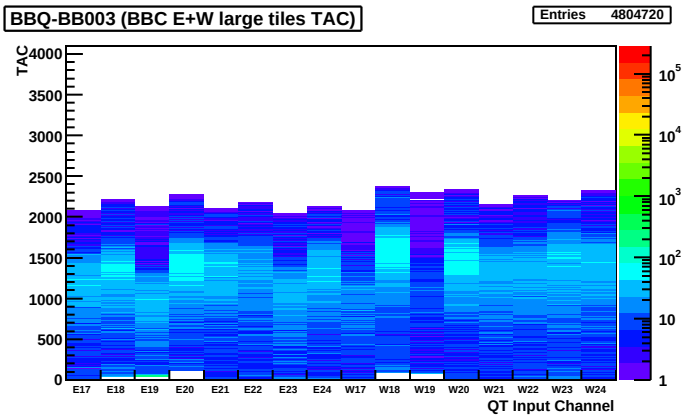

BBQ-BB001 (BBC east small tiles ADC)
Entries 4804720
ADC
QT Input Channel

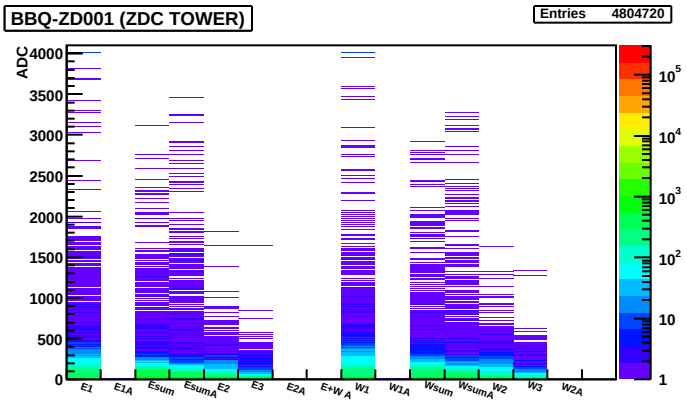

BBQ-BB001 (BBC east small tiles TAC)
Entries 4804720
TAC
QT Input Channel

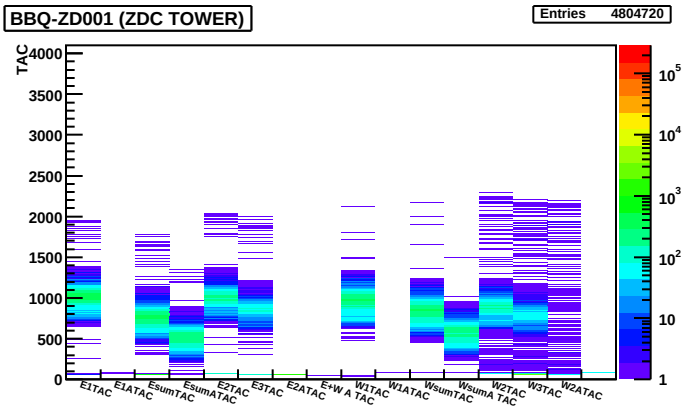

BBQ-BB002 (BBC west small tiles ADC)
Entries 4804720
ADC
QT Input Channel

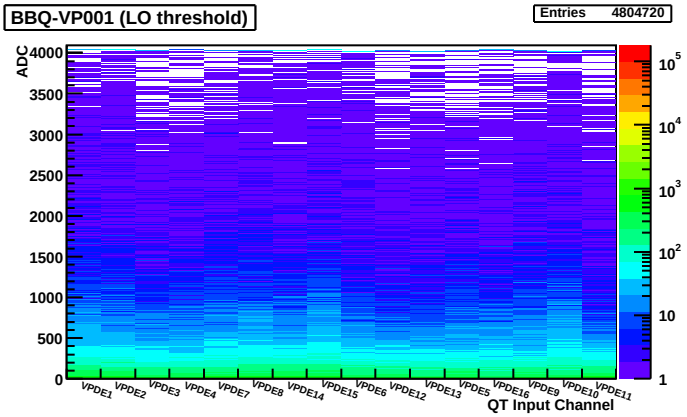

BBQ-BB002 (BBC west small tiles TAC)
Entries 4804720
TAC
QT Input Channel

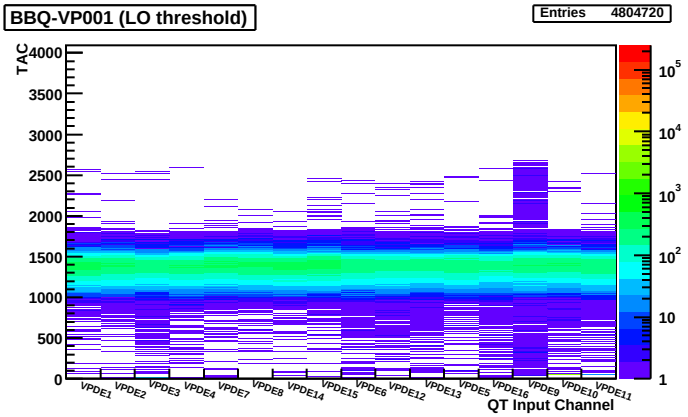

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4804720
ADC
QT Input Channel

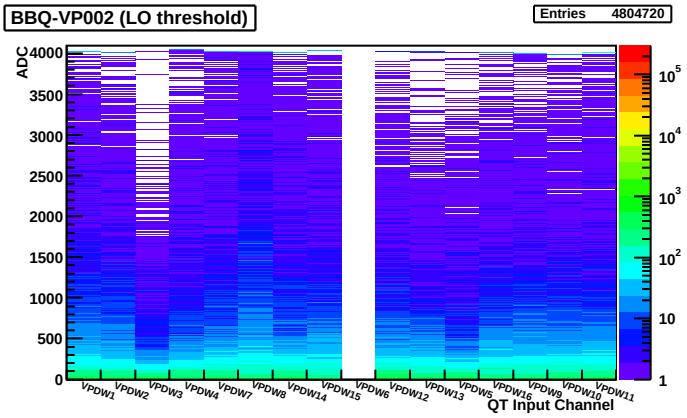

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4804720
TAC
QT Input Channel

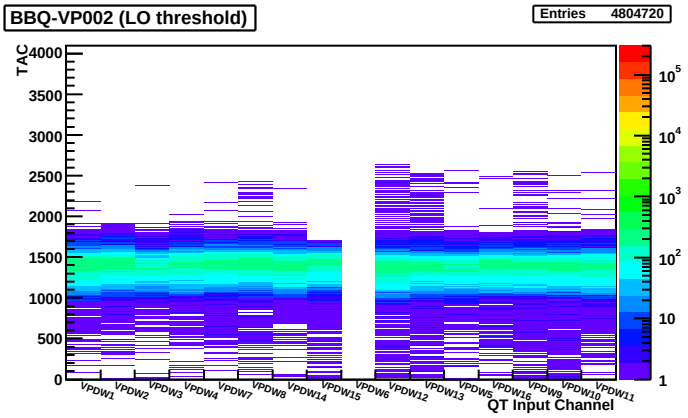

BBQ-ZD001 (ZDC TOWER)
Entries 4804720
ADC

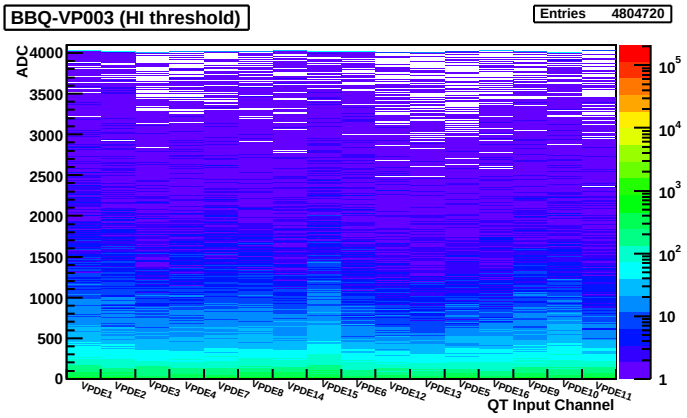

BBQ-ZD001 (ZDC TOWER)
Entries 4804720
TAC

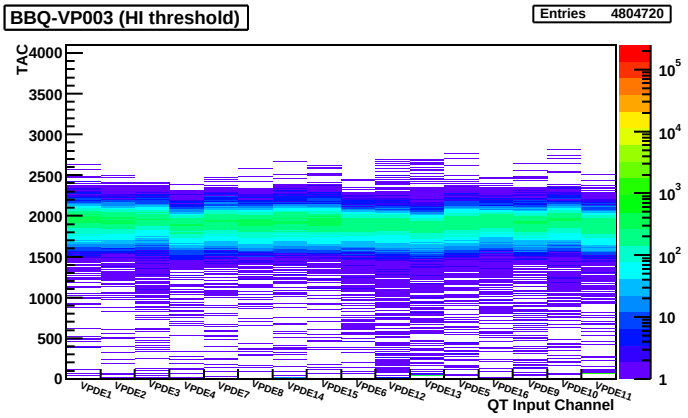

BBQ-VP001 (LO threshold)
Entries 4804720
ADC
QT Input Channel

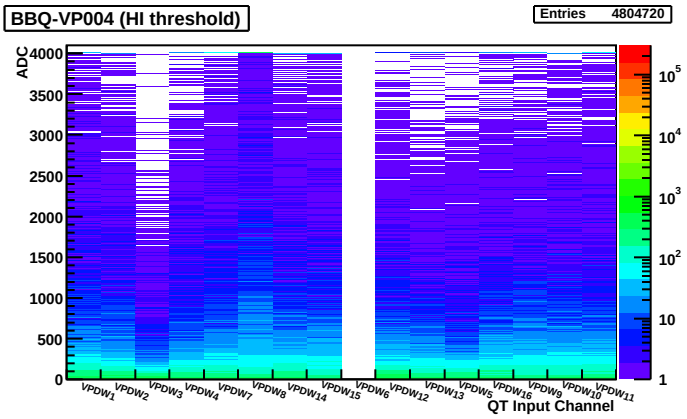

BBQ-VP001 (LO threshold)
Entries 4804720
TAC
QT Input Channel

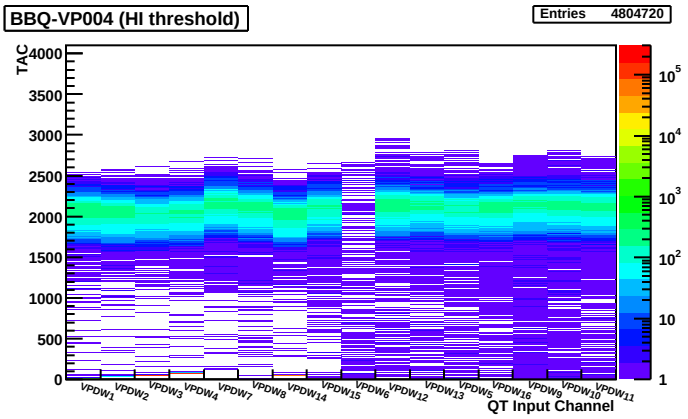

BBQ-VP002 (LO threshold)
Entries 4804720
ADC
QT Input Channel

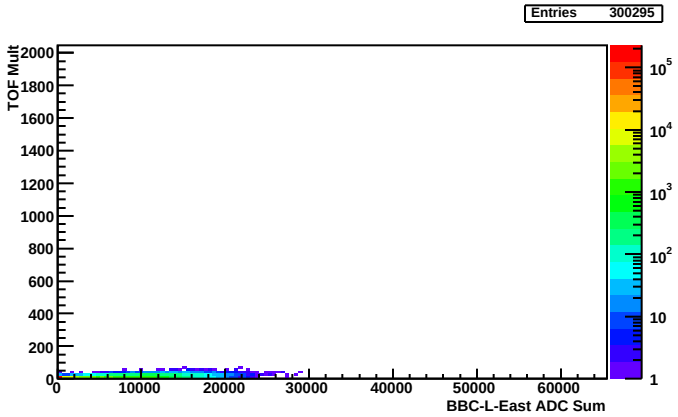

BBQ-VP002 (LO threshold)
Entries 4804720
TAC
QT Input Channel

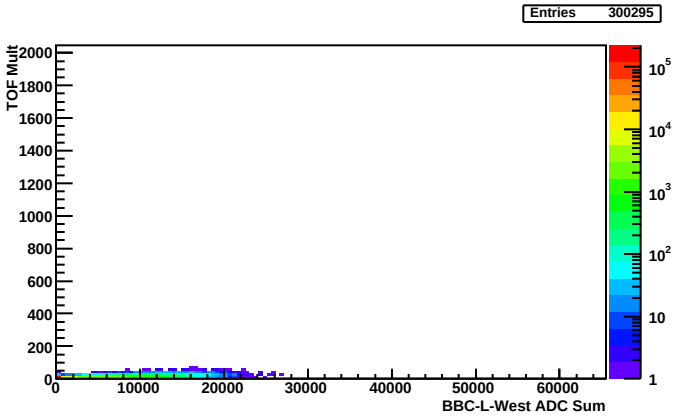

BBQ-VP003 (HI threshold)
Entries 4804720
ADC
QT Input Channel

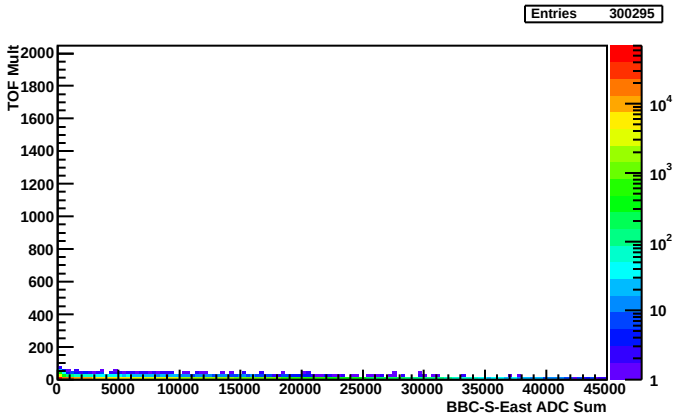

BBQ-VP003 (HI threshold)
Entries 4804720
TAC
QT Input Channel

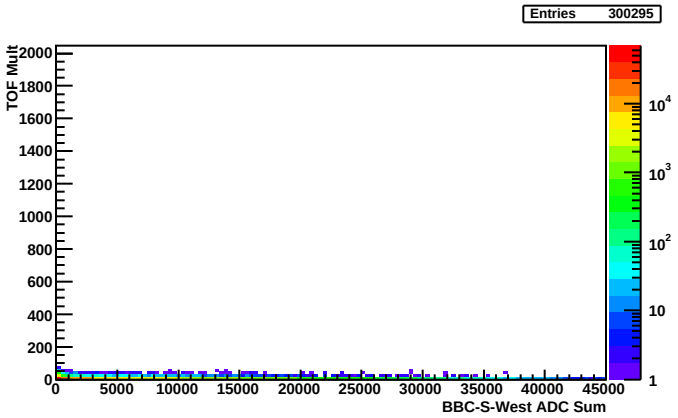

BBQ-VP004 (HI threshold)
Entries 4804720
ADC
QT Input Channel

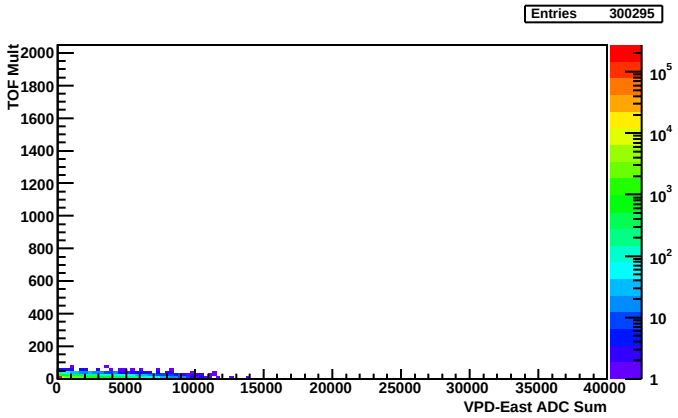

BBQ-VP004 (HI threshold)
Entries 4804720
TAC
QT Input Channel

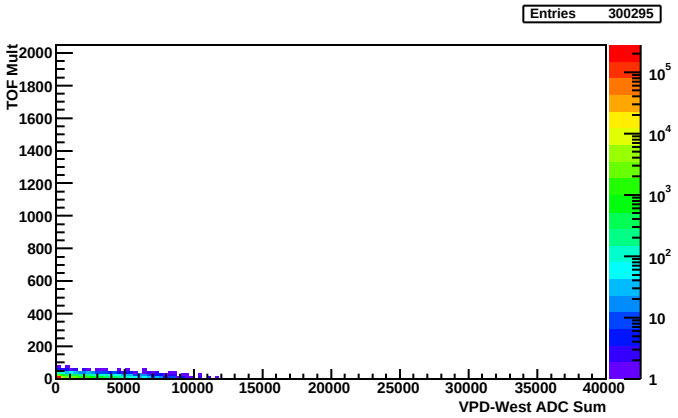

Entries 300295
TOF Mult
BBC-L-East ADC Sum

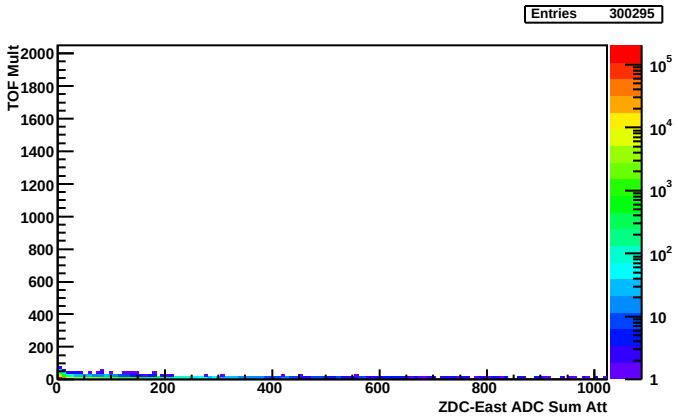

Entries 300295
TOF Mult
BBC-L-West ADC Sum

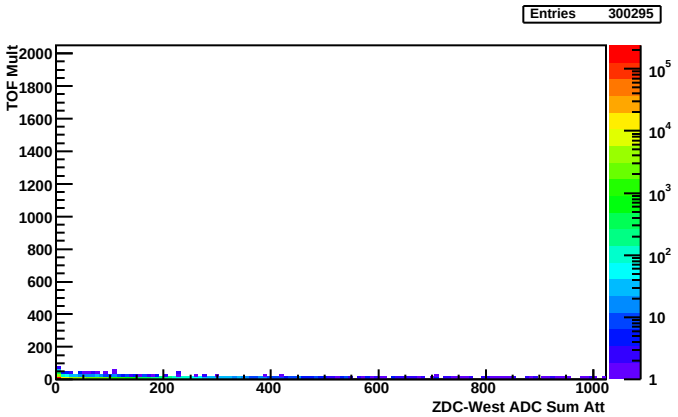

Entries 300295
TOF Mult
BBC-S-East ADC Sum

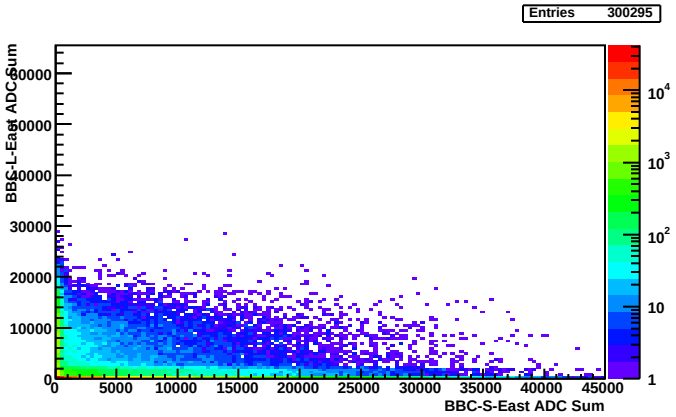

Entries 300295
TOF Mult
BBC-S-West ADC Sum

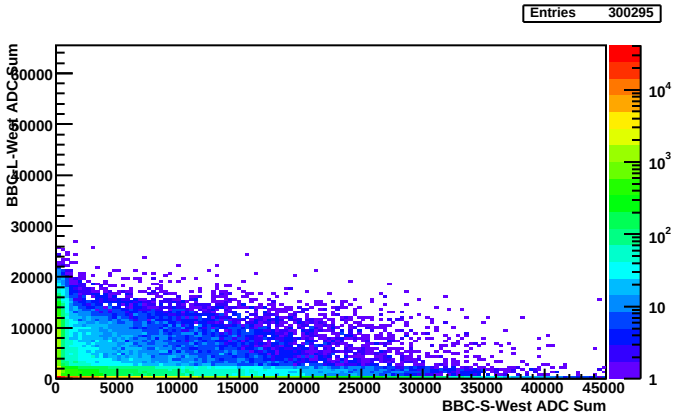

Entries 300295
TOF Mult
VPD-East ADC Sum

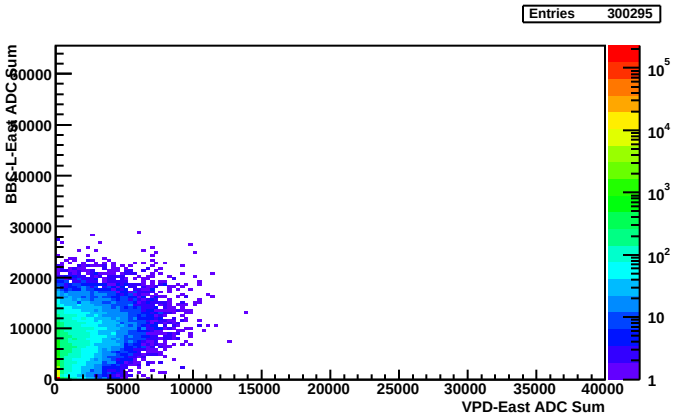

Entries 300295
TOF Mult
VPD-West ADC Sum

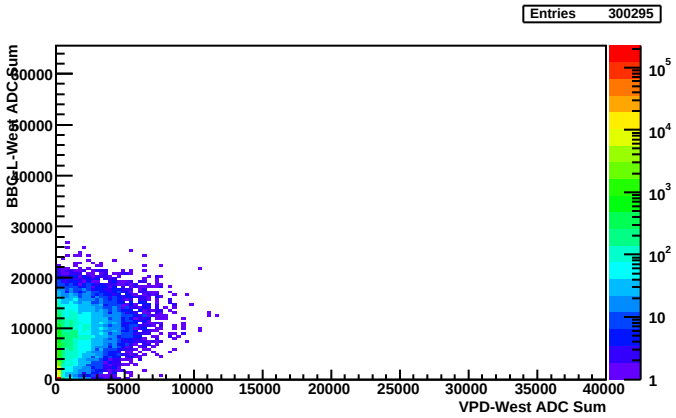

Entries 300295
TOF Mult
ZDC-East ADC Sum Att

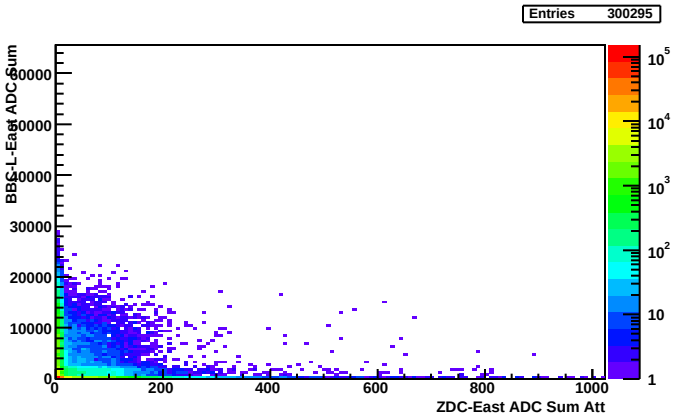

Entries 300295
TOF Mult
ZDC-West ADC Sum Att

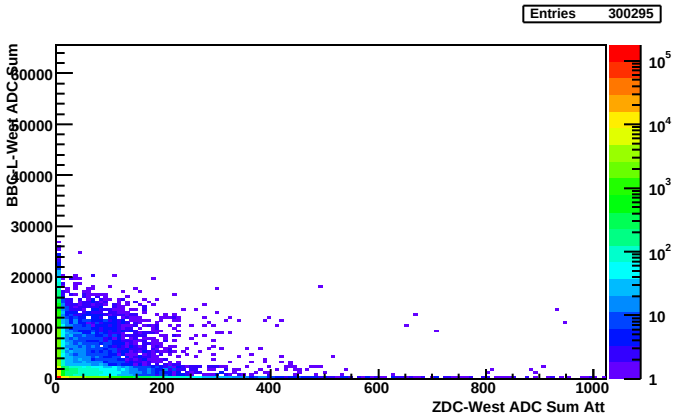

Entries 300295
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 300295
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 300295
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 300295
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 300295
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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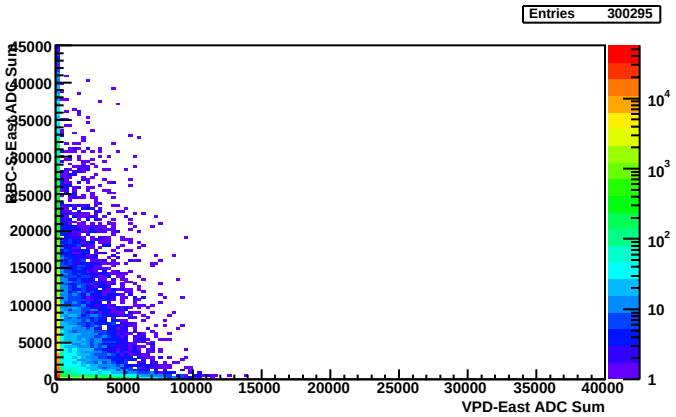
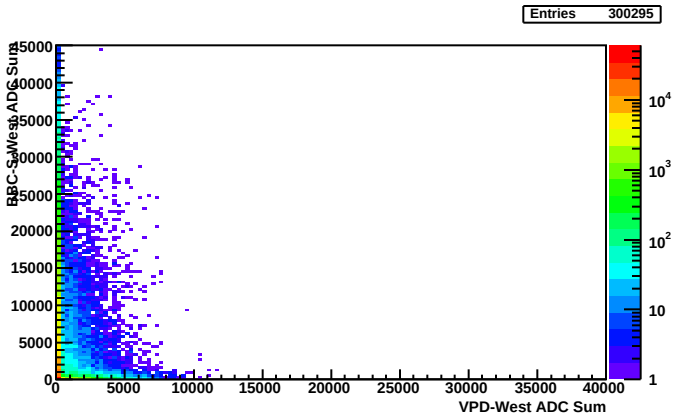
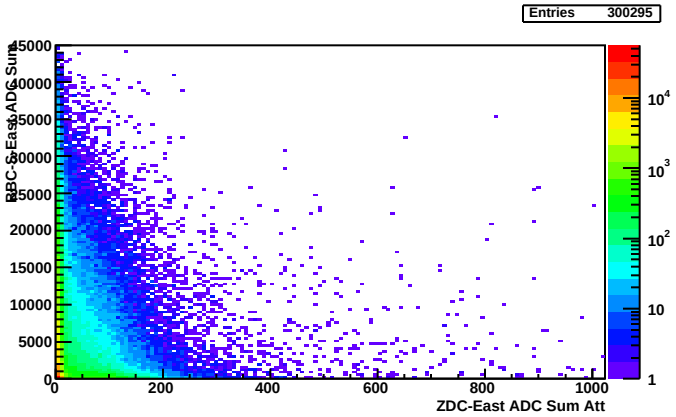
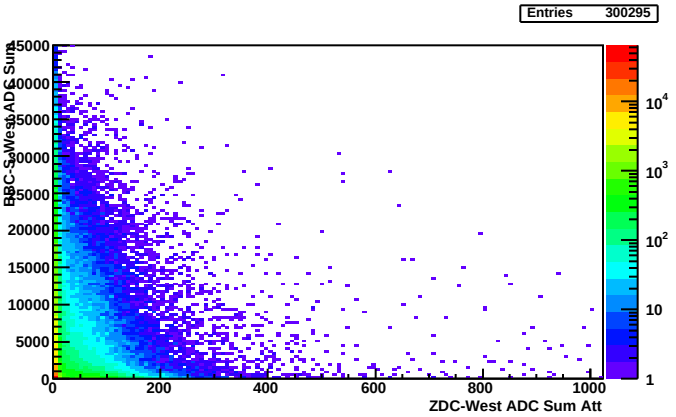
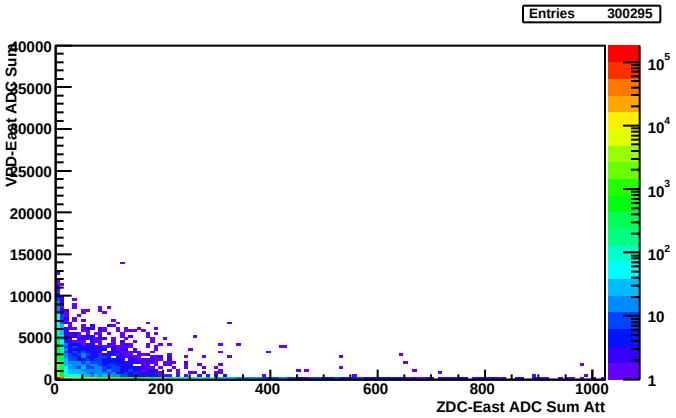
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

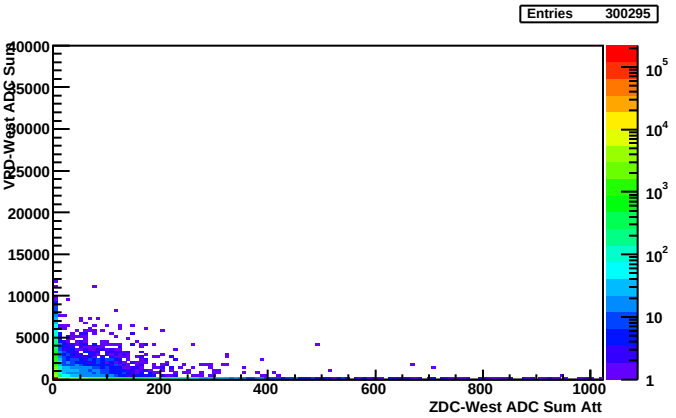

Entries 300295
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 300295
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 300295
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 300295
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 300295
VPD-East ADC Sum
ZDC-East ADC Sum Att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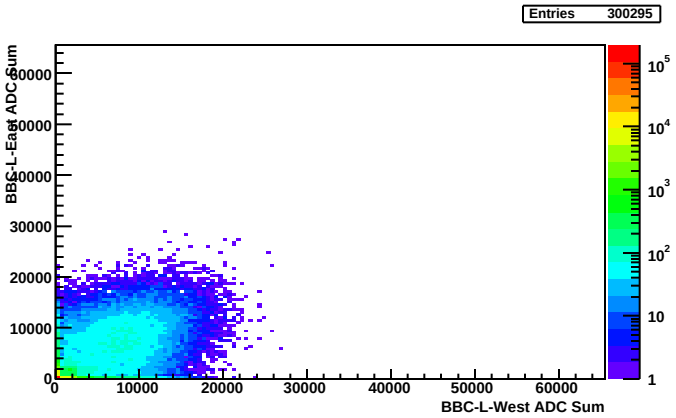
VPD-West ADC Sum
ZDC-West ADC Sum Att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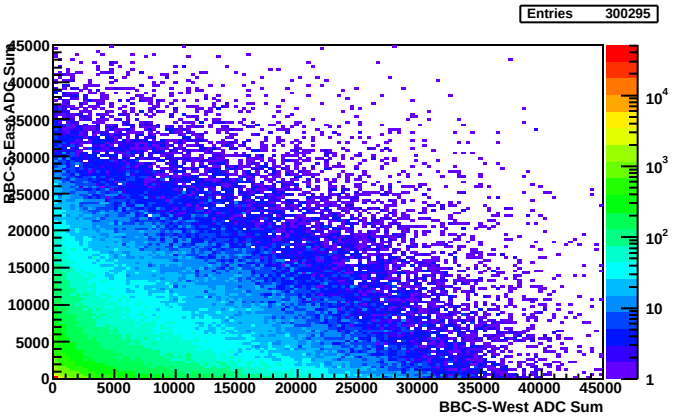
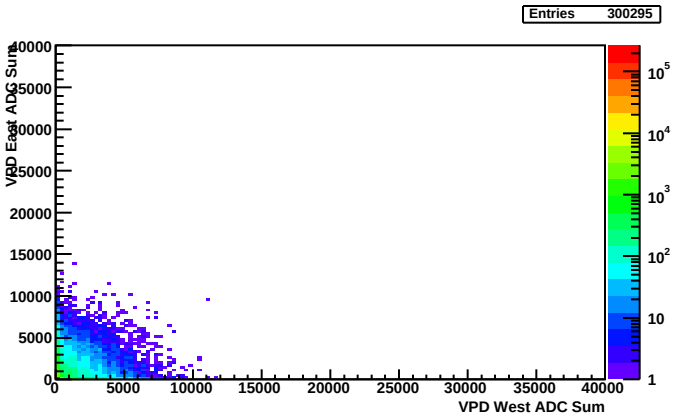
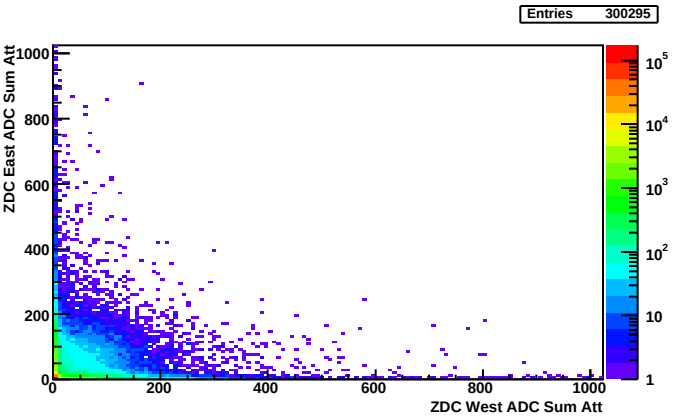
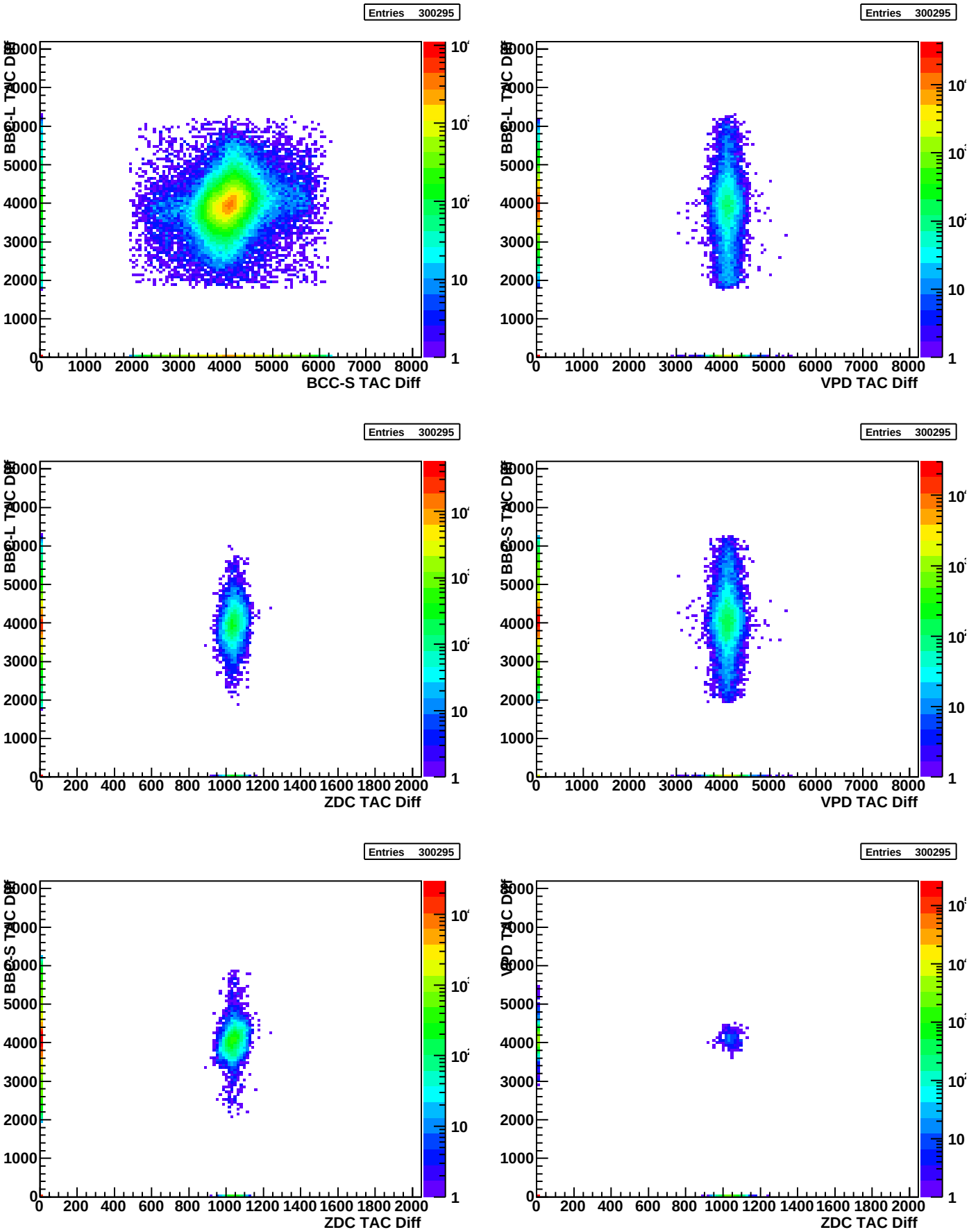
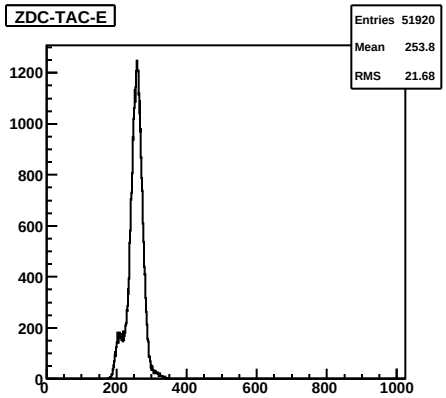
BBC-L-East ADC Sum
BBC-L-West ADC Sum

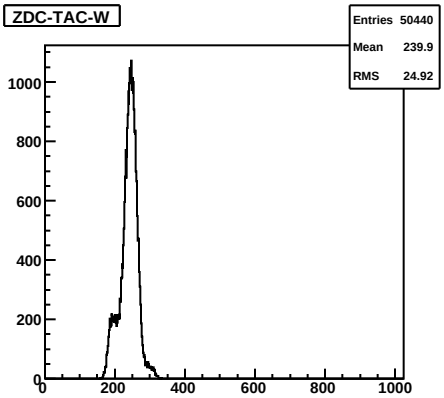

Entries 300295
BBC-S-East ADC Sum
BBC-S-West ADC Sum

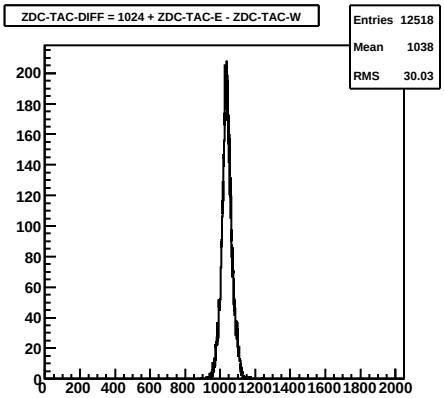

Entries 300295
VPD East ADC Sum
VPD West ADC Sum

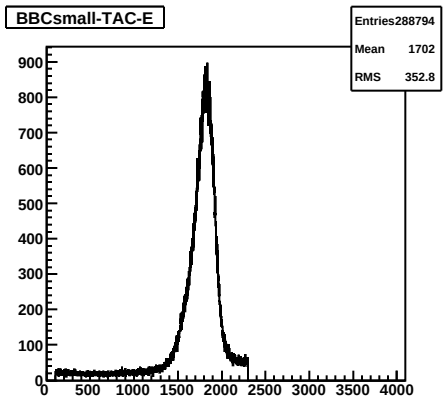

Entries 300295
ZDC East ADC Sum Att
ZDC West ADC Sum Att

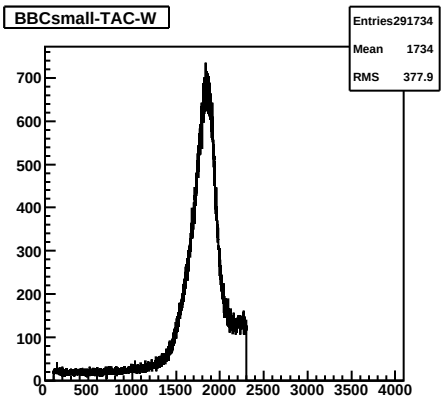

Entries 300295
BBC-L TAC Diff
BCC-S TAC Diff
Entries 300295
BBC-L TAC Diff
VPD TAC Diff
Entries 300295
BBC-L TAC Diff
ZDC TAC Diff
Entries 300295
BBC-S TAC Diff
VPD TAC Diff
Entries 300295
BBC-S TAC Diff
ZDC TAC Diff
Entries 300295
VPD TAC Diff
ZDC TAC Diff

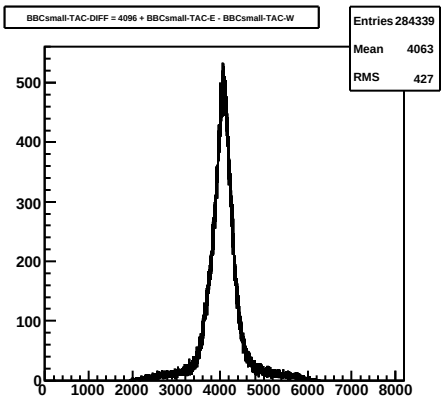

ZDC-TAC-E
Entries 51920
Mean 253.8
RMS 21.68

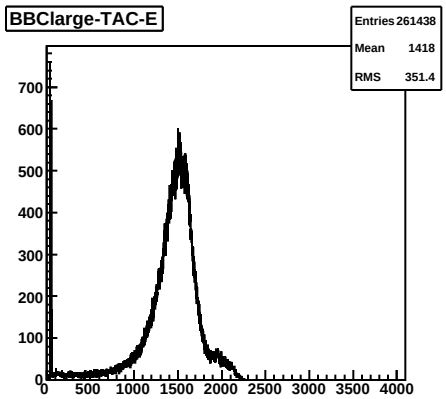

ZDC-TAC-W
Entries 50440
Mean 239.9
RMS 24.92

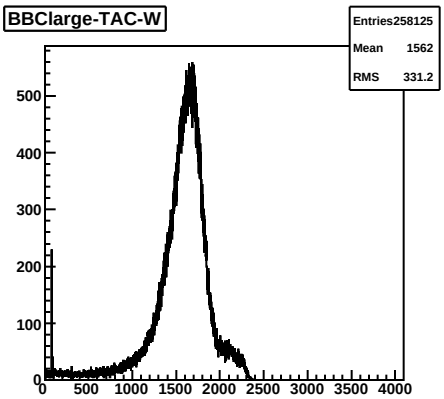

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 12518
Mean 1038
RMS 30.03

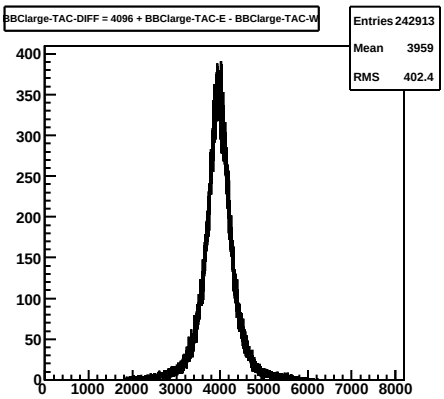

BBCsmall-TAC-E
Entries 288794
Mean 1702
RMS 352.8

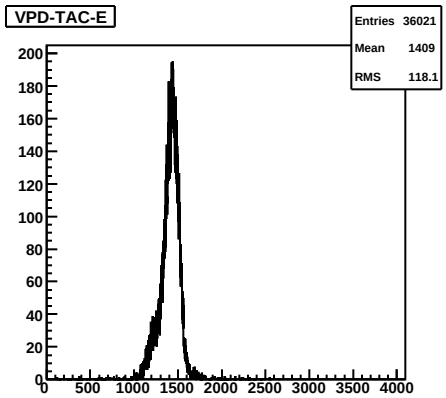

BBCsmall-TAC-W
Entries 291734
Mean 1734
RMS 377.9

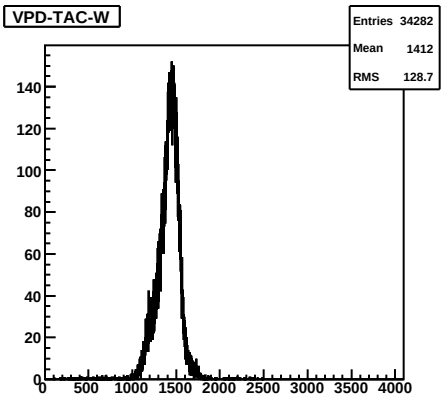

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 284339
Mean 4063
RMS 427

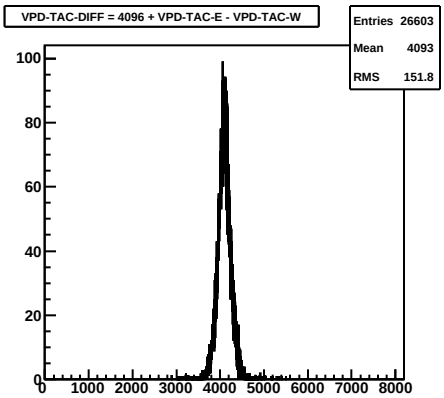

BBClarge-TAC-E
Entries 261438
Mean 1418
RMS 351.4

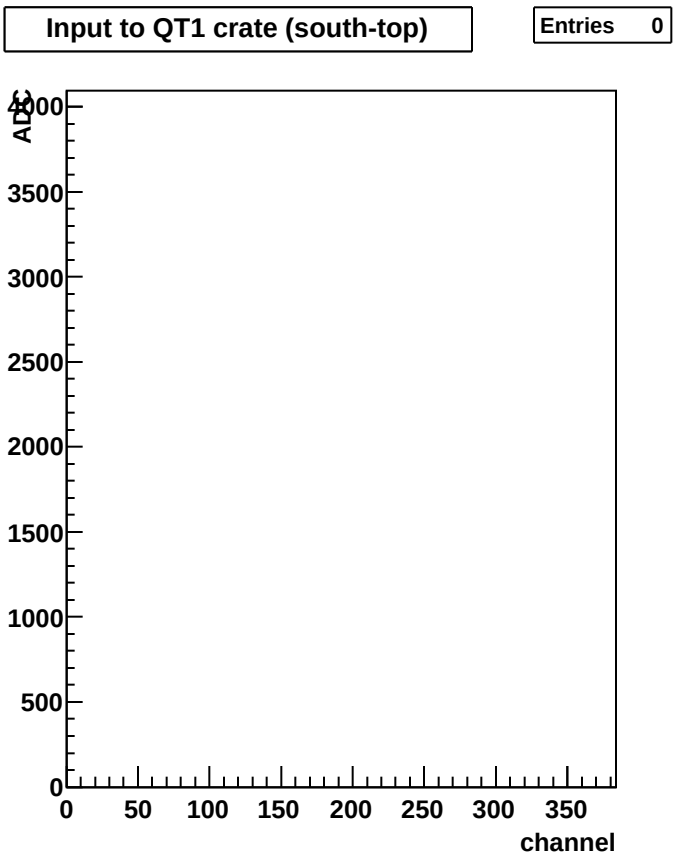

BBClarge-TAC-W
Entries 258125
Mean 1562
RMS 331.2

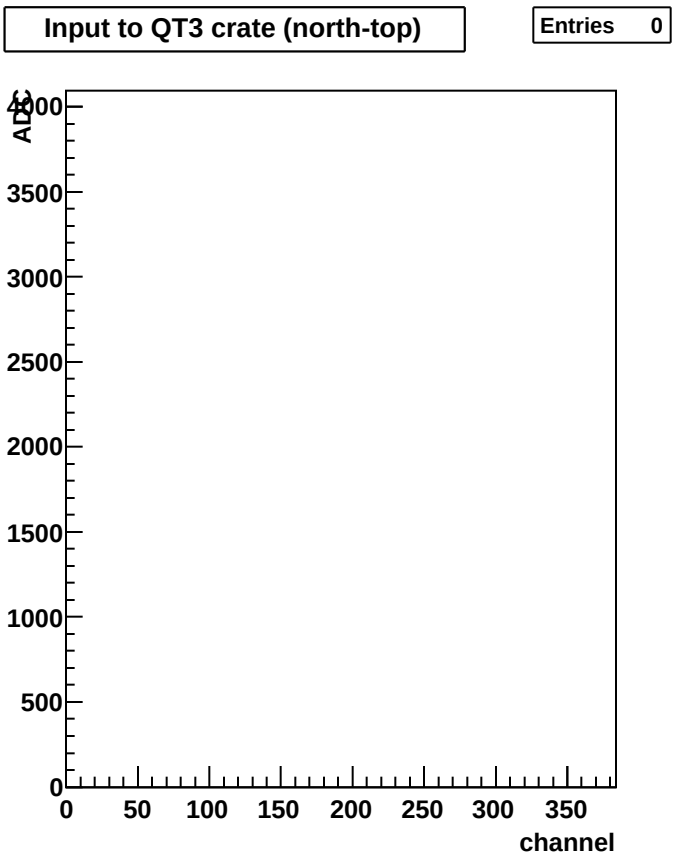

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 242913
Mean 3959
RMS 402.4

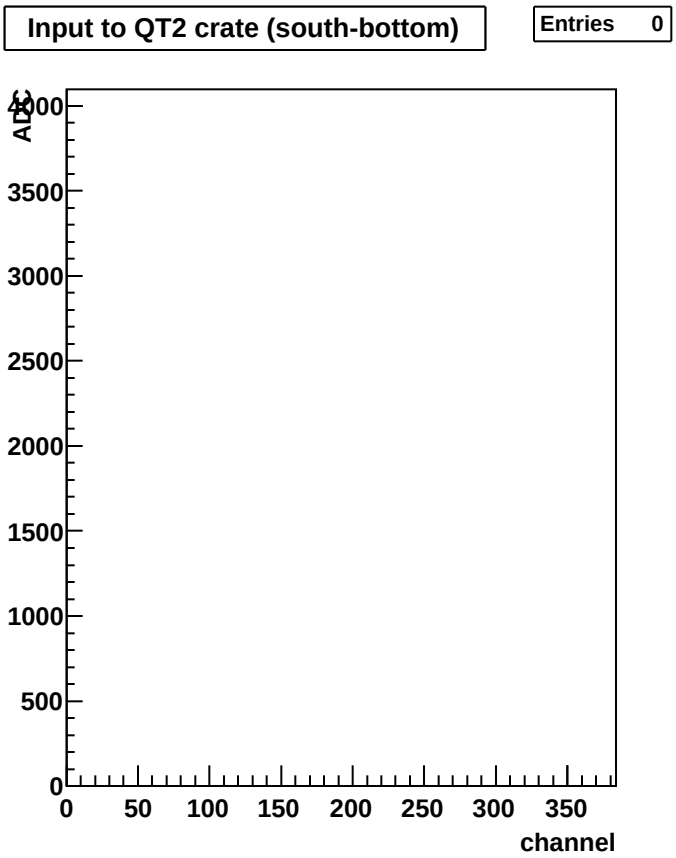

VPD-TAC-E
Entries 36021
Mean 1409
RMS 118.1

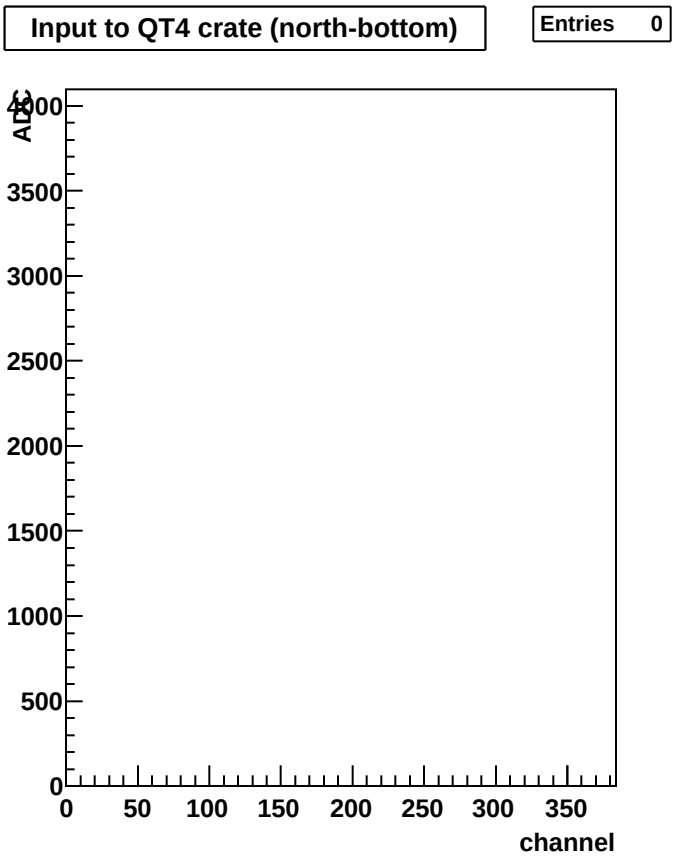

VPD-TAC-W
Entries 34282
Mean 1412
RMS 128.7

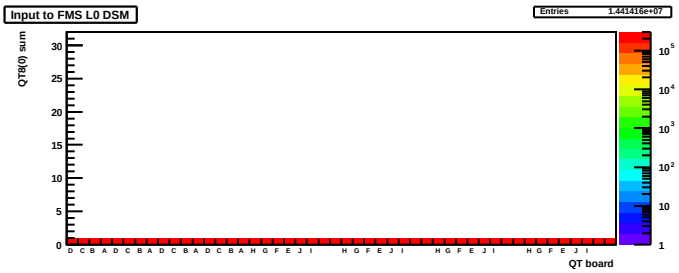

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 26603
Mean 4093
RMS 151.8

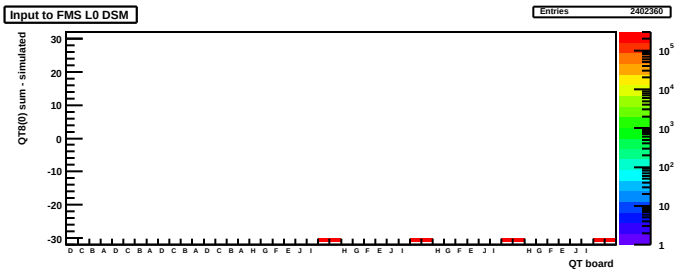

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

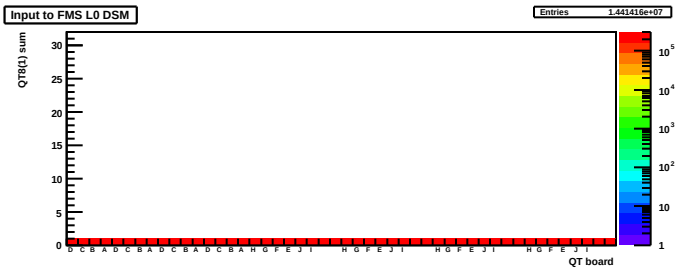

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

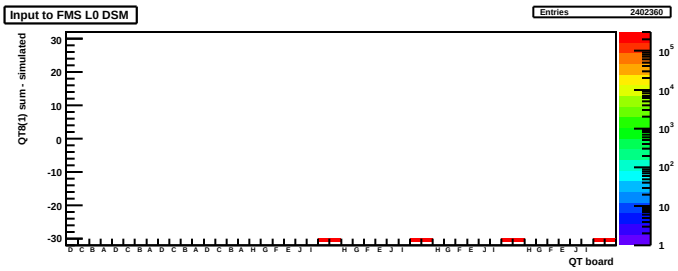

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

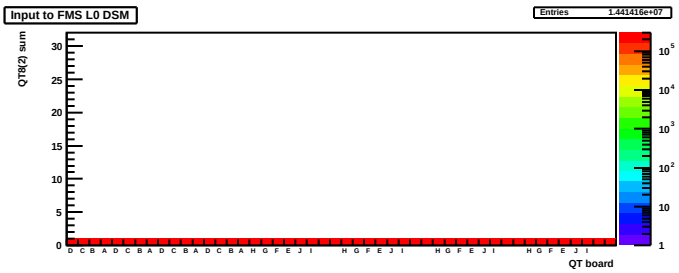

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

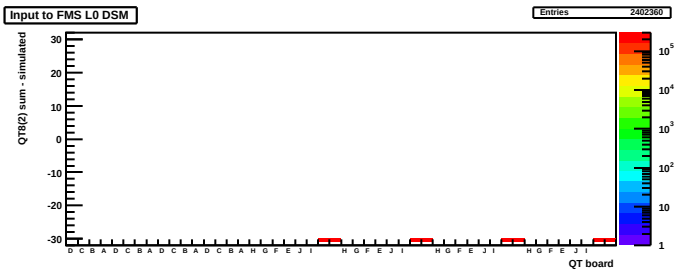

Input to FMS L0 DSM
Entries 1.441416e+07
QT8(0) sum
QT board

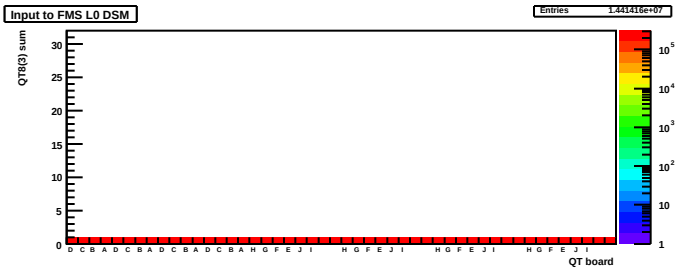

Input to FMS L0 DSM
Entries 2402360
QT8(0) sum - simulated
QT board

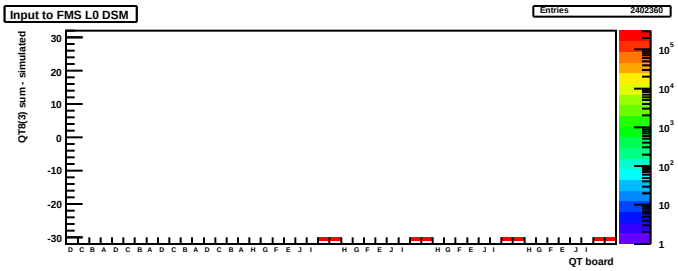

Input to FMS L0 DSM
Entries 1.441416e+07
QT8(1) sum
QT board

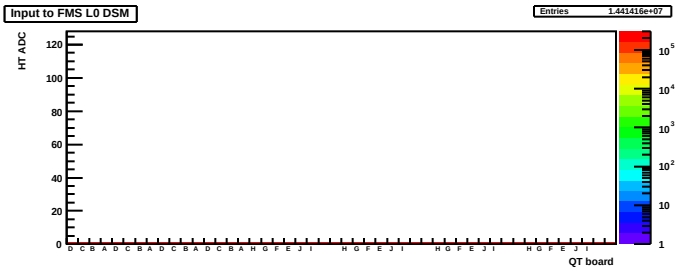

Input to FMS L0 DSM
Entries 2402360
QT8(1) sum - simulated
QT board

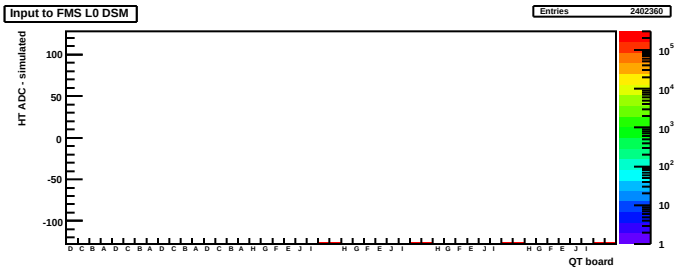

Input to FMS L0 DSM
Entries 1.441416e+07
QT8(2) sum
QT board

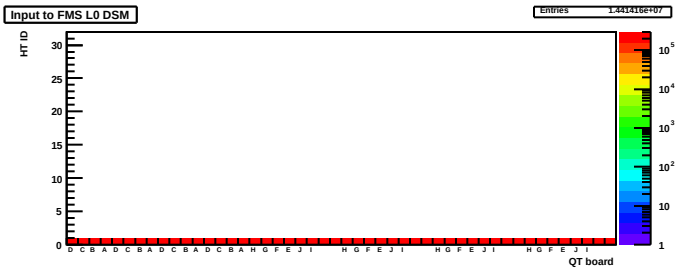

Input to FMS L0 DSM
Entries 2402360
QT8(2) sum - simulated
QT board

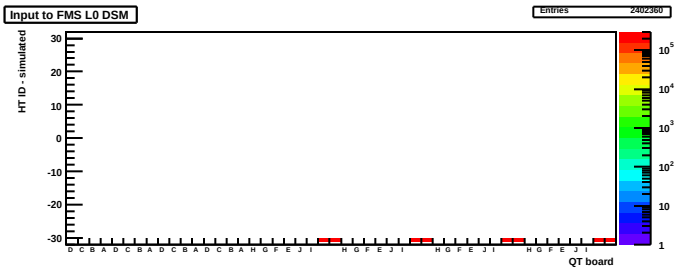

Input to FMS L0 DSM
Entries 1.441416e+07
QT8(3) sum
QT board

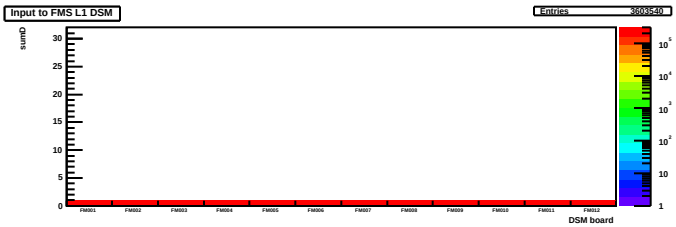

Input to FMS L0 DSM
Entries 2402360
QT8(3) sum - simulated
QT board

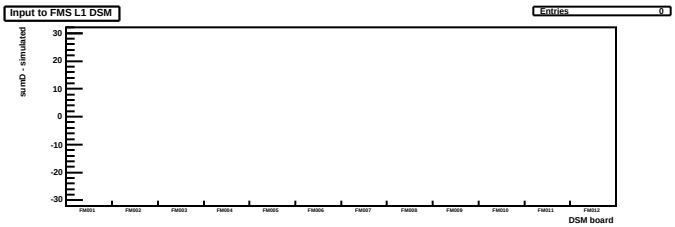

Input to FMS L0 DSM
Entries 1.441416e+07
HT ADC
QT board

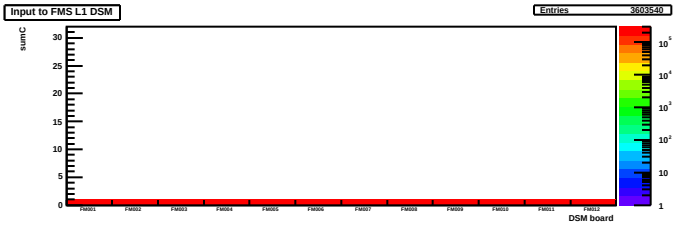

Input to FMS L0 DSM
Entries 2402360
HT ADC - simulated
QT board

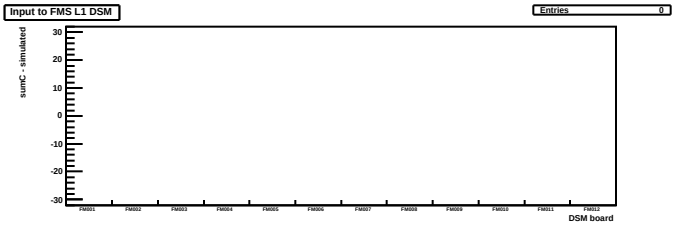

Input to FMS L0 DSM
Entries 1.441416e+07
HT ID
QT board

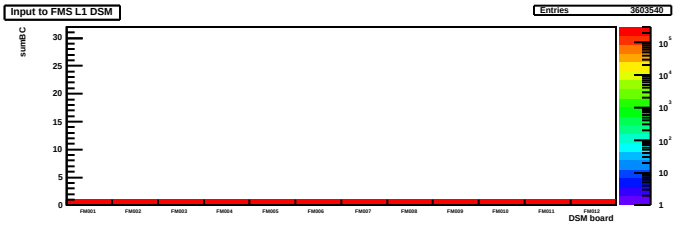

Input to FMS L0 DSM
Entries 2402360
HT ID - simulated
QT board

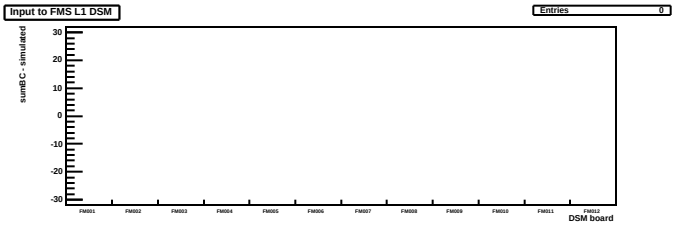

Input to FMS L1 DSM
Entries 3603540
sumD
DSM board

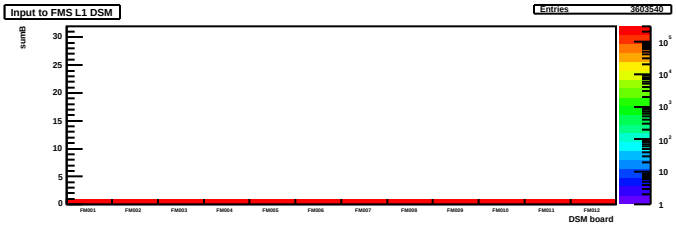

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

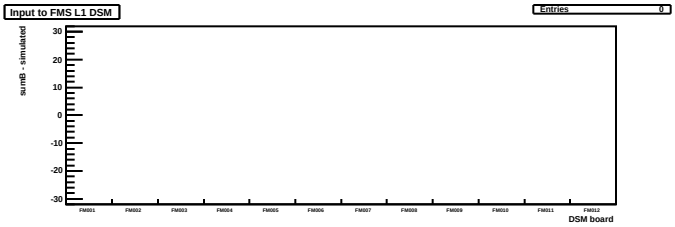

Input to FMS L1 DSM
Entries 3603540
sumC
DSM board

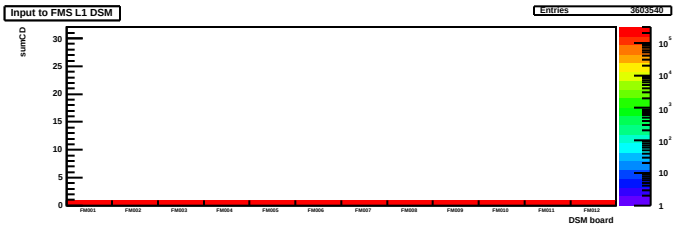

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

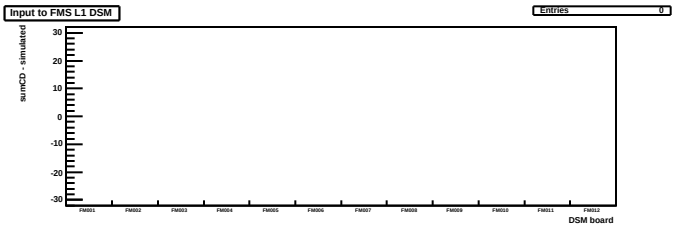

Input to FMS L1 DSM
Entries 3603540
sumBC
DSM board

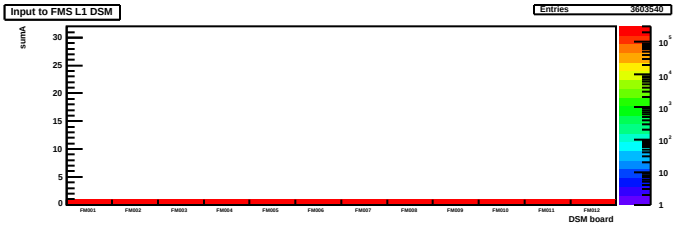

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

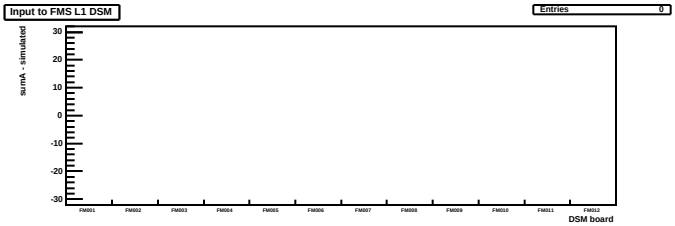

Input to FMS L1 DSM
Entries 3603540
sumB
DSM board

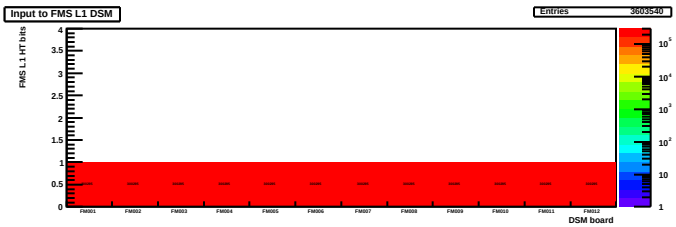

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

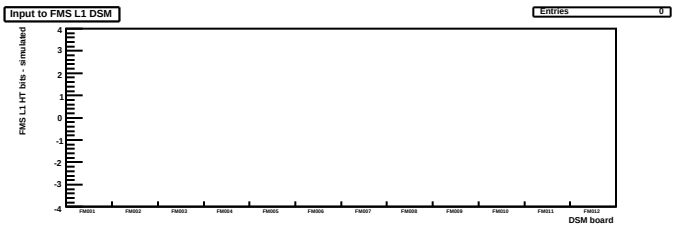

Input to FMS L1 DSM
Entries 3603540
sumCD
DSM board

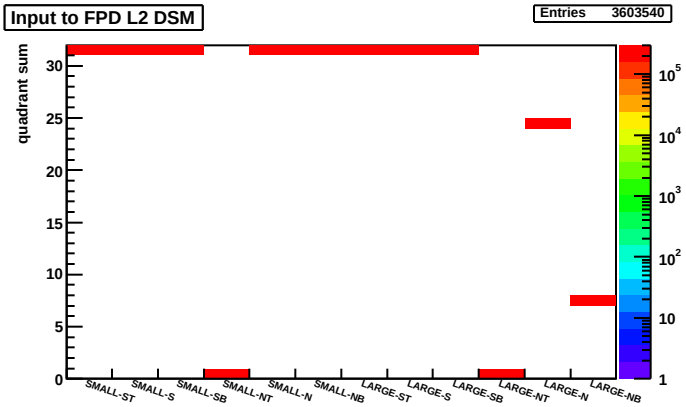

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

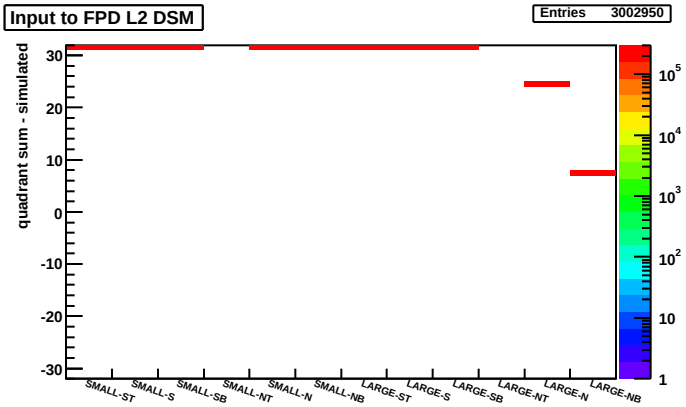

Input to FMS L1 DSM
Entries 3603540
sumA
DSM board

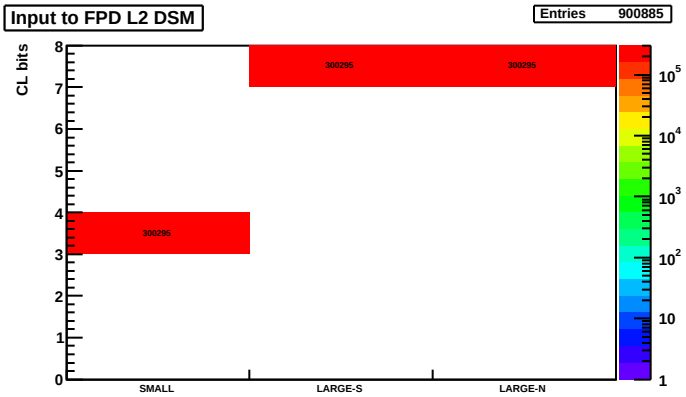

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

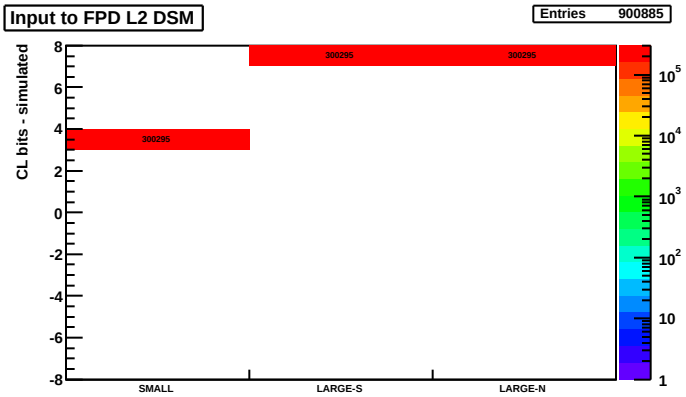

Input to FMS L1 DSM
Entries 3603540
FMS L1 HT bits
DSM board

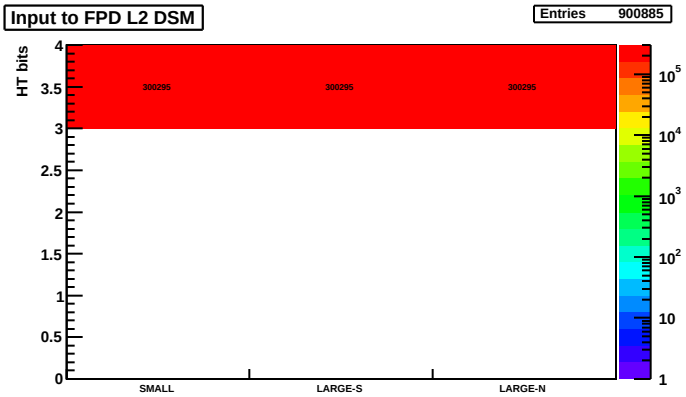

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

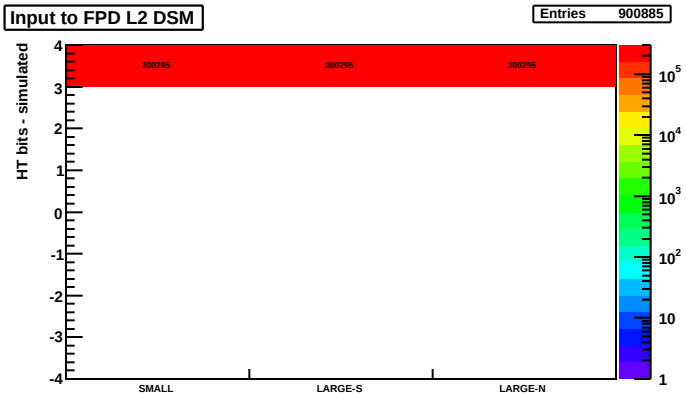

Input to FPD L2 DSM
Entries 3603540
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

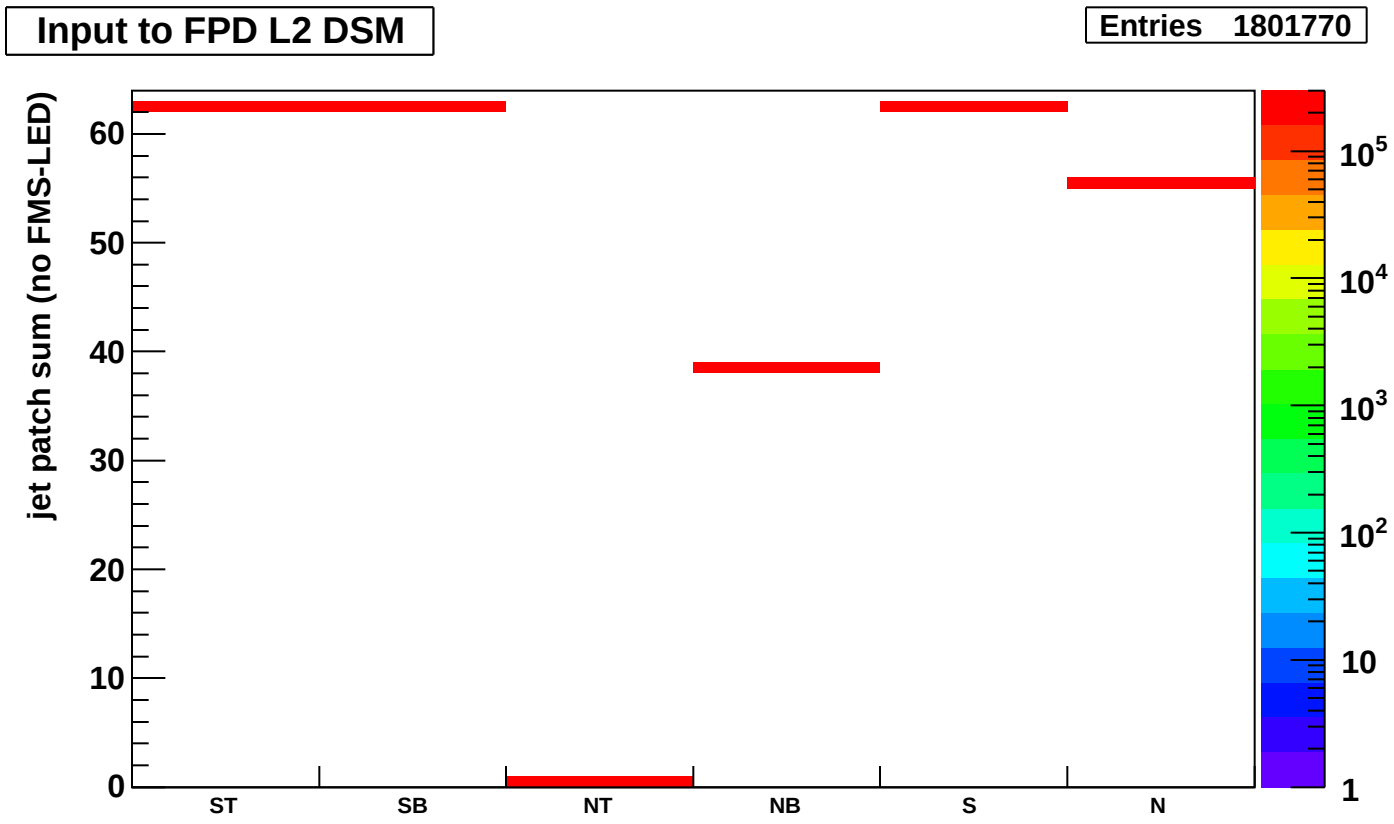

Input to FPD L2 DSM
Entries 3002950
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

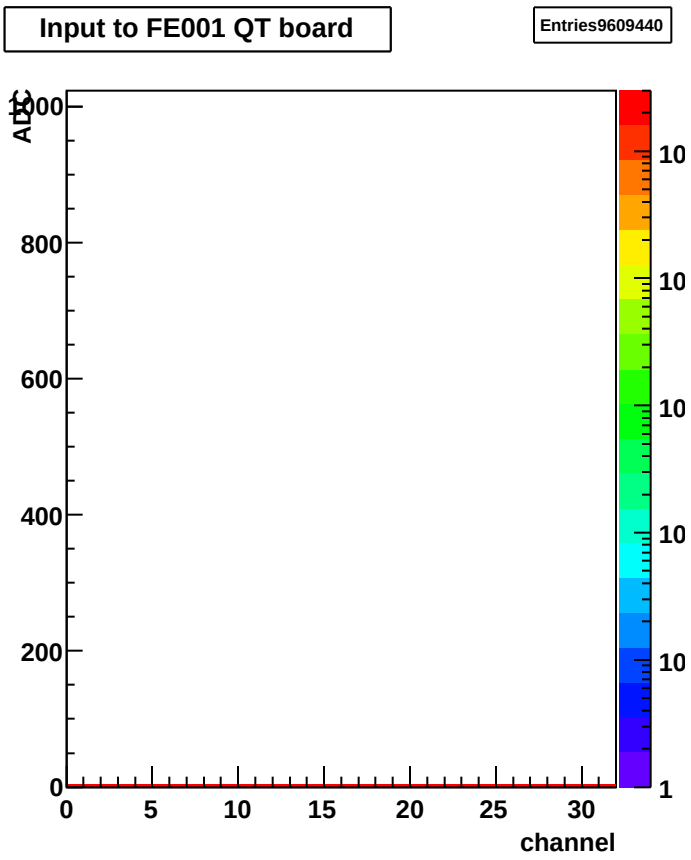

Input to FPD L2 DSM
Entries 900885
CL bits
300295
300295
300295
SMALL
LARGE-S
LARGE-N

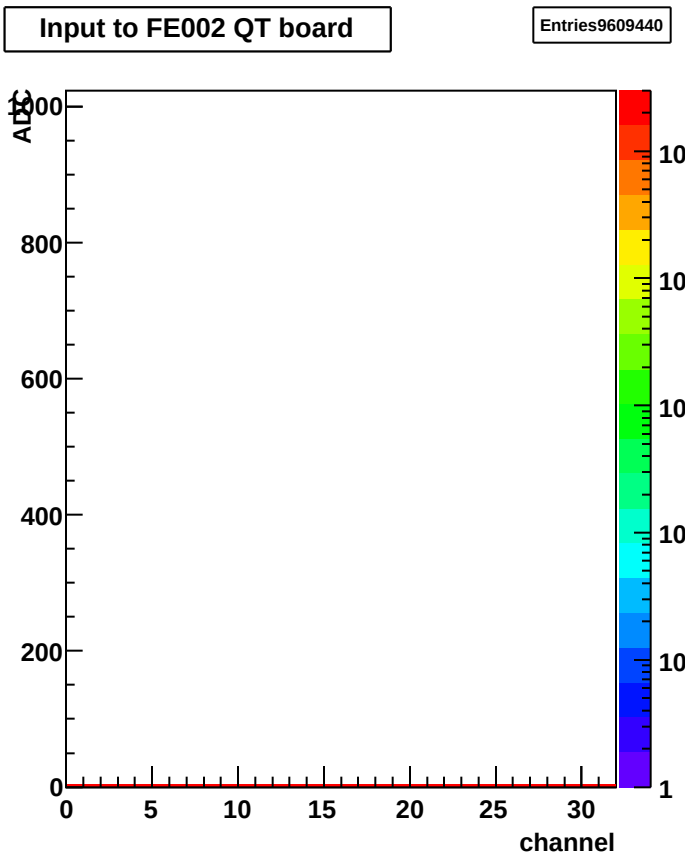

Input to FPD L2 DSM
Entries 900885
CL bits - simulated
300295
300295
300295
SMALL
LARGE-S
LARGE-N

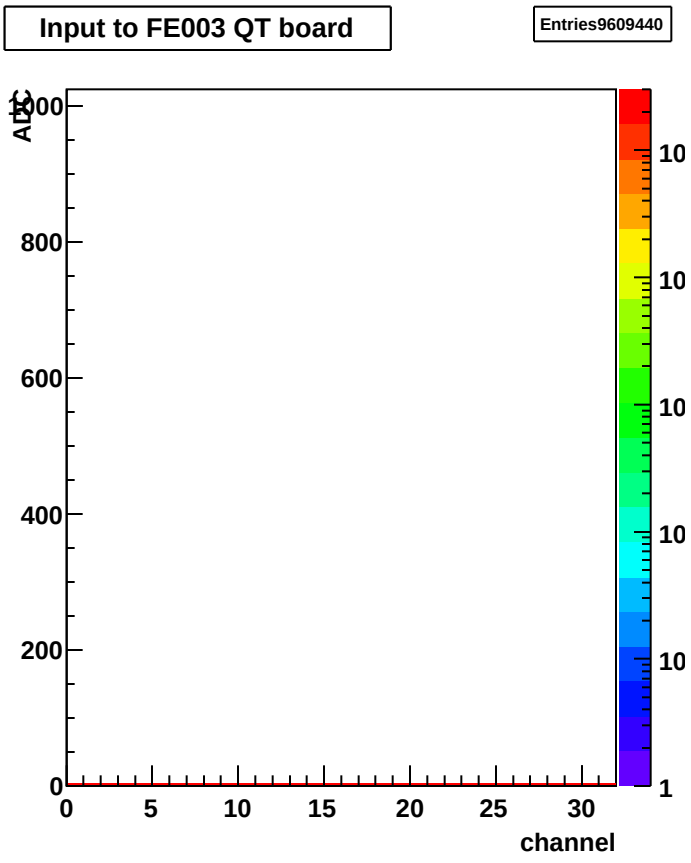

Input to FPD L2 DSM
Entries 900885
HT bits
300295
300295
300295
SMALL
LARGE-S
LARGE-N

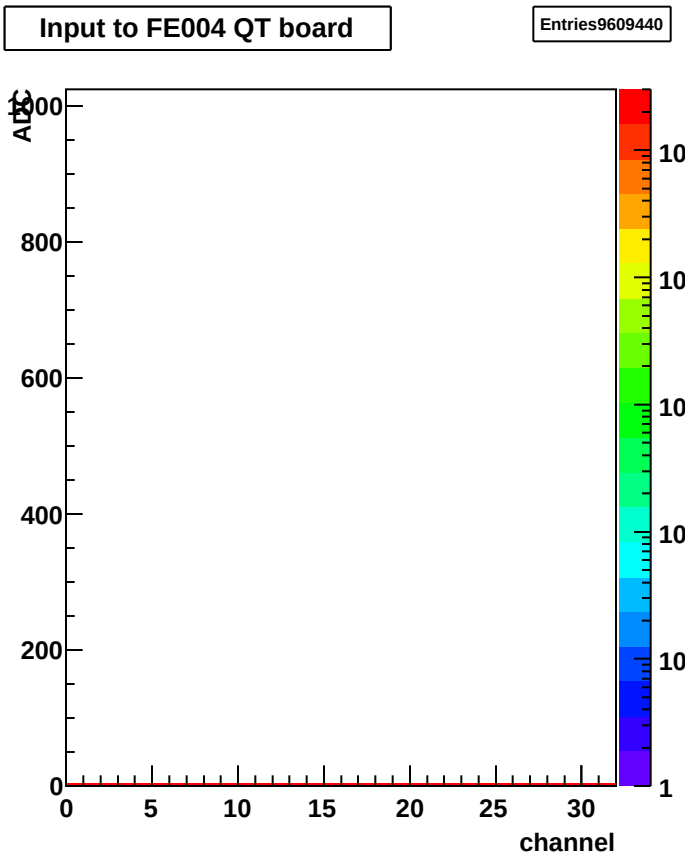

Input to FPD L2 DSM
Entries 900885
HT bits - simulated
300295
300295
300295
SMALL
LARGE-S
LARGE-N

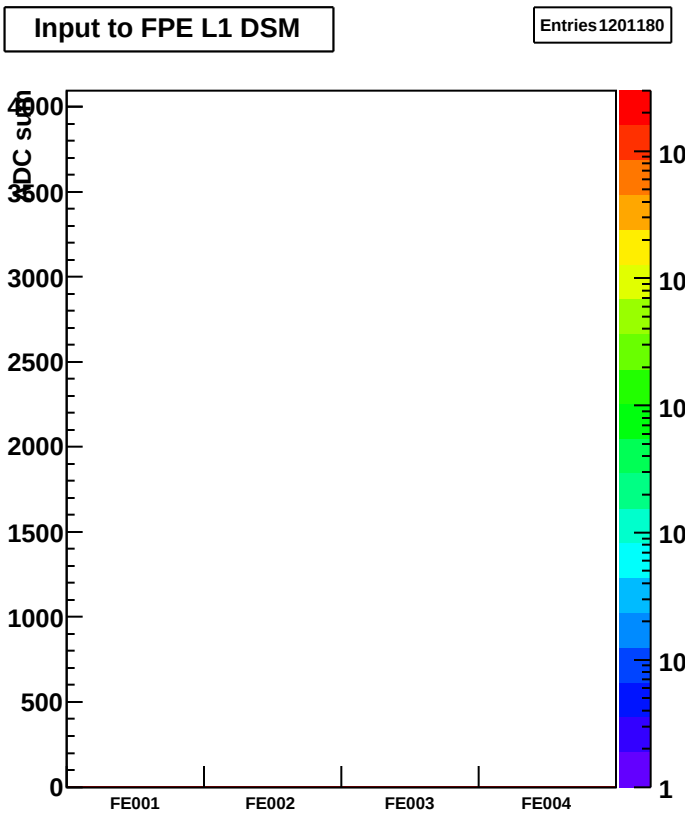

Input to FPD L2 DSM
Entries 1801770
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

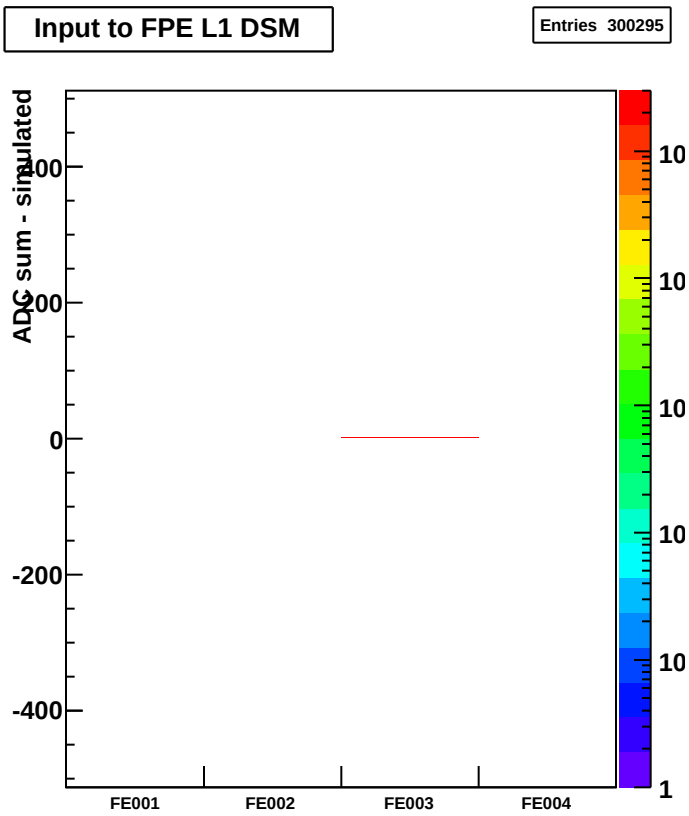

Input to FE001 QT board
Entries9609440
ADC
channel

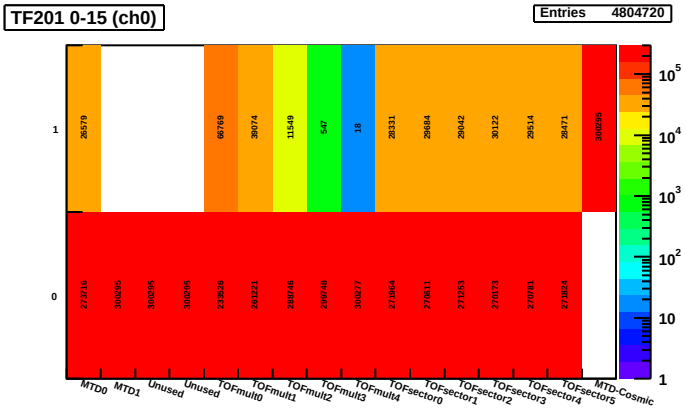

Input to FE002 QT board
Entries9609440
ADC
channel

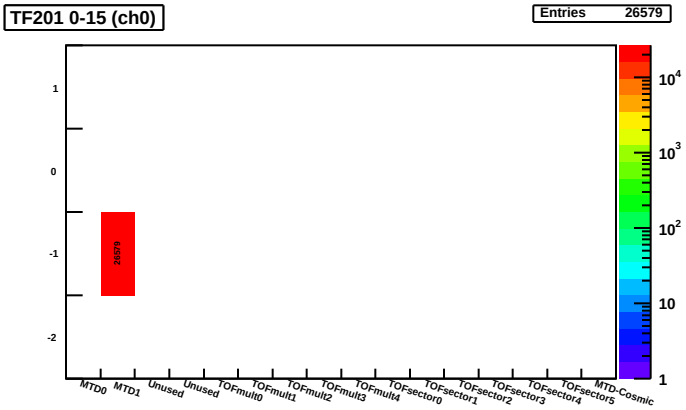

Input to FE003 QT board
Entries9609440
ADC
channel

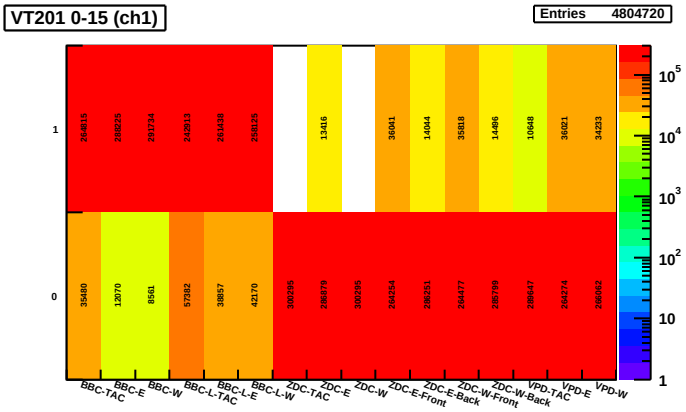

Input to FE004 QT board
Entries9609440
ADC
channel

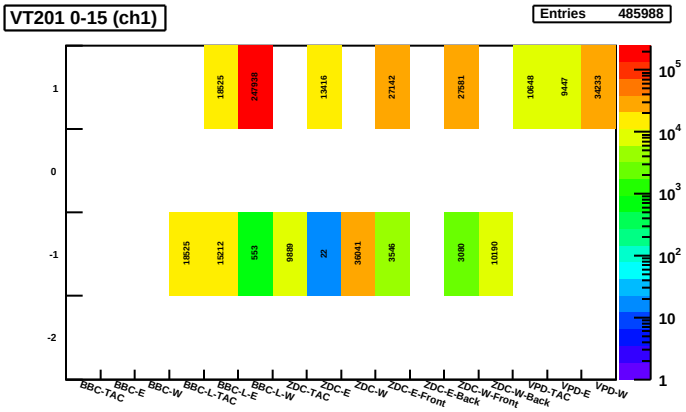

Input to FPE L1 DSM
Entries 1201180
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

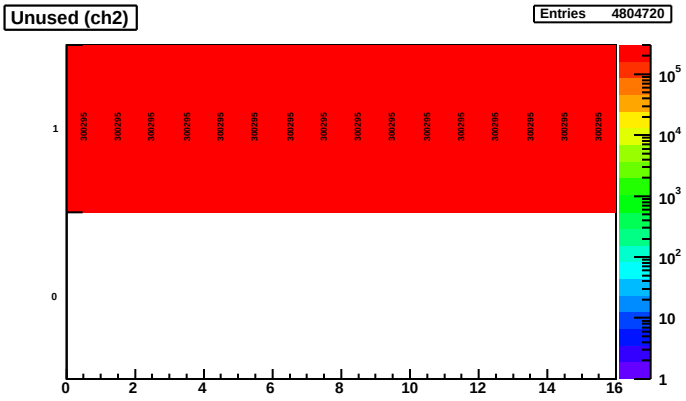

Input to FPE L1 DSM
Entries 300295
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

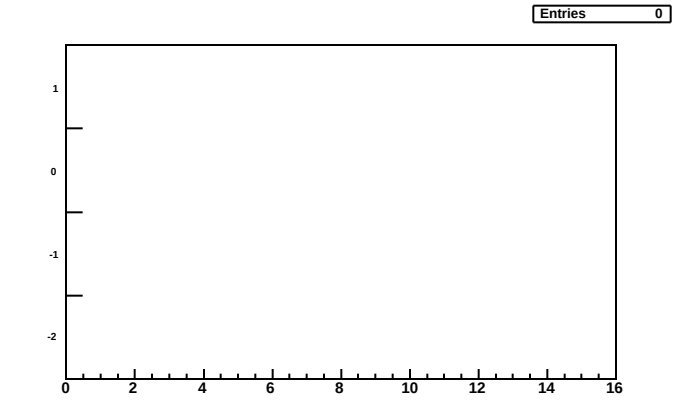

TF201 0-15 (ch0)
Entries 4804720
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

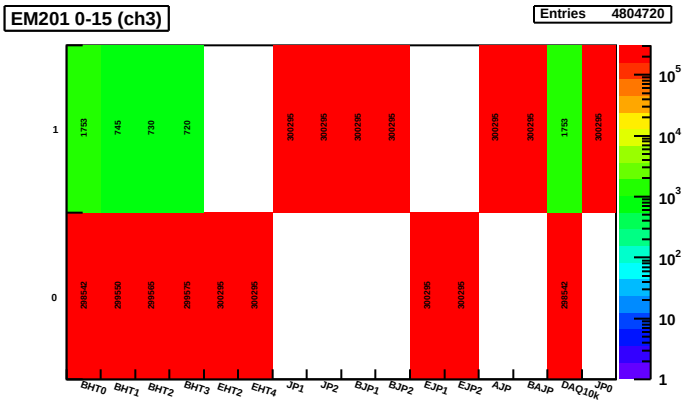

TF201 0-15 (ch0)
Entries 26579
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

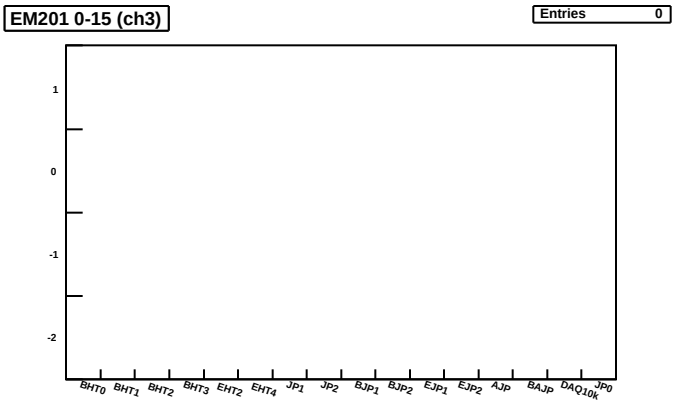

VT201 0-15 (ch1)
Entries 4804720
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 485988
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

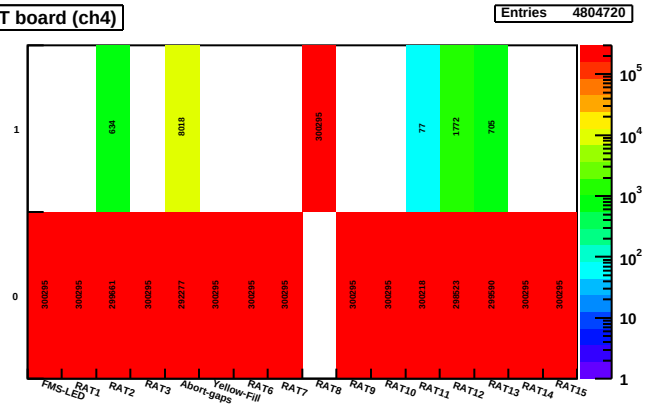

Unused (ch2)
Entries 4804720

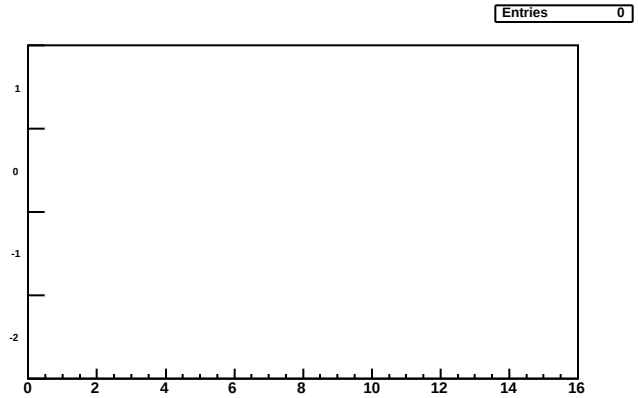

Entries 0


EM201 0-15 (ch3)
Entries 4804720
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

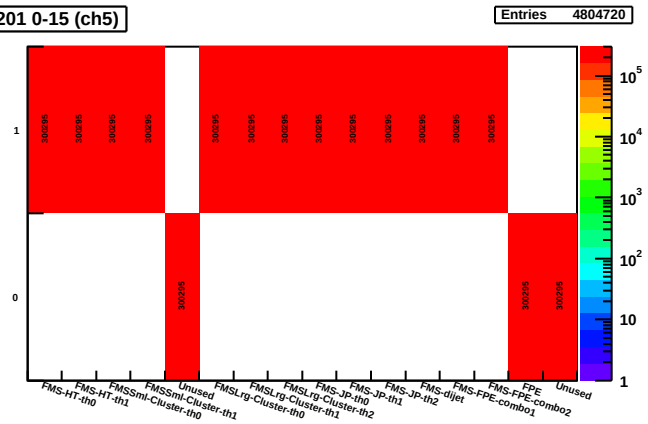

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

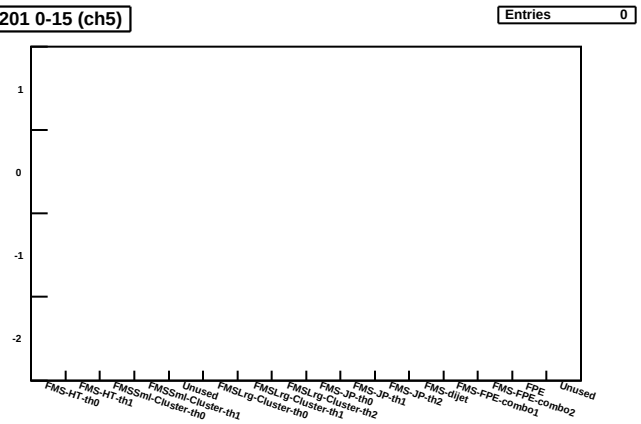




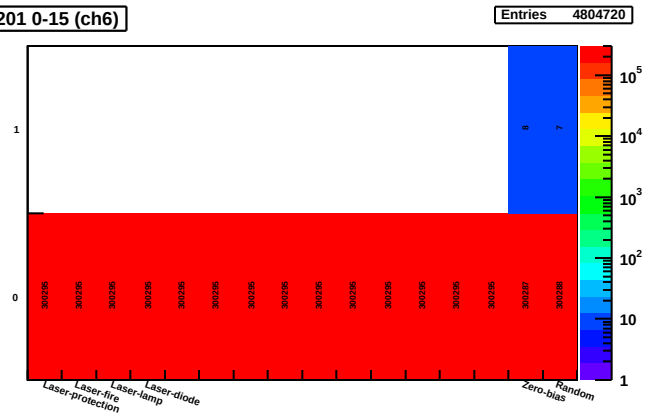
FP201 0-15 (ch5)

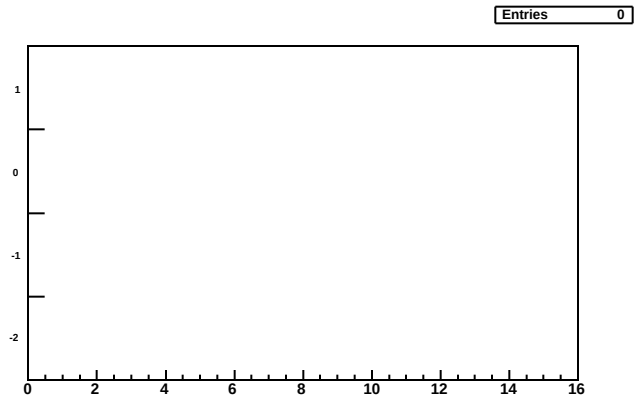
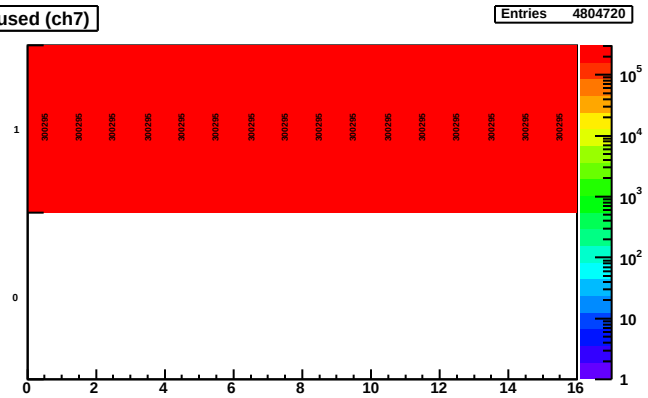
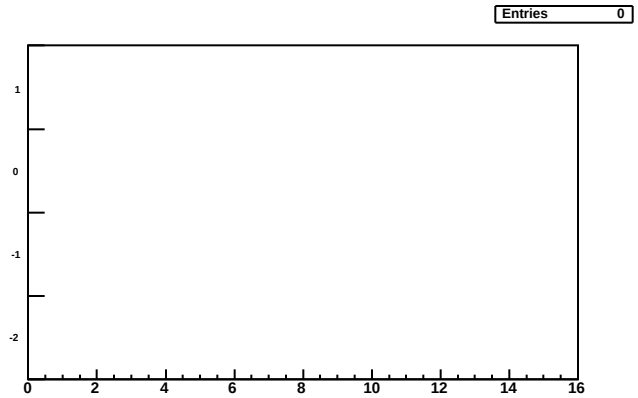


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)