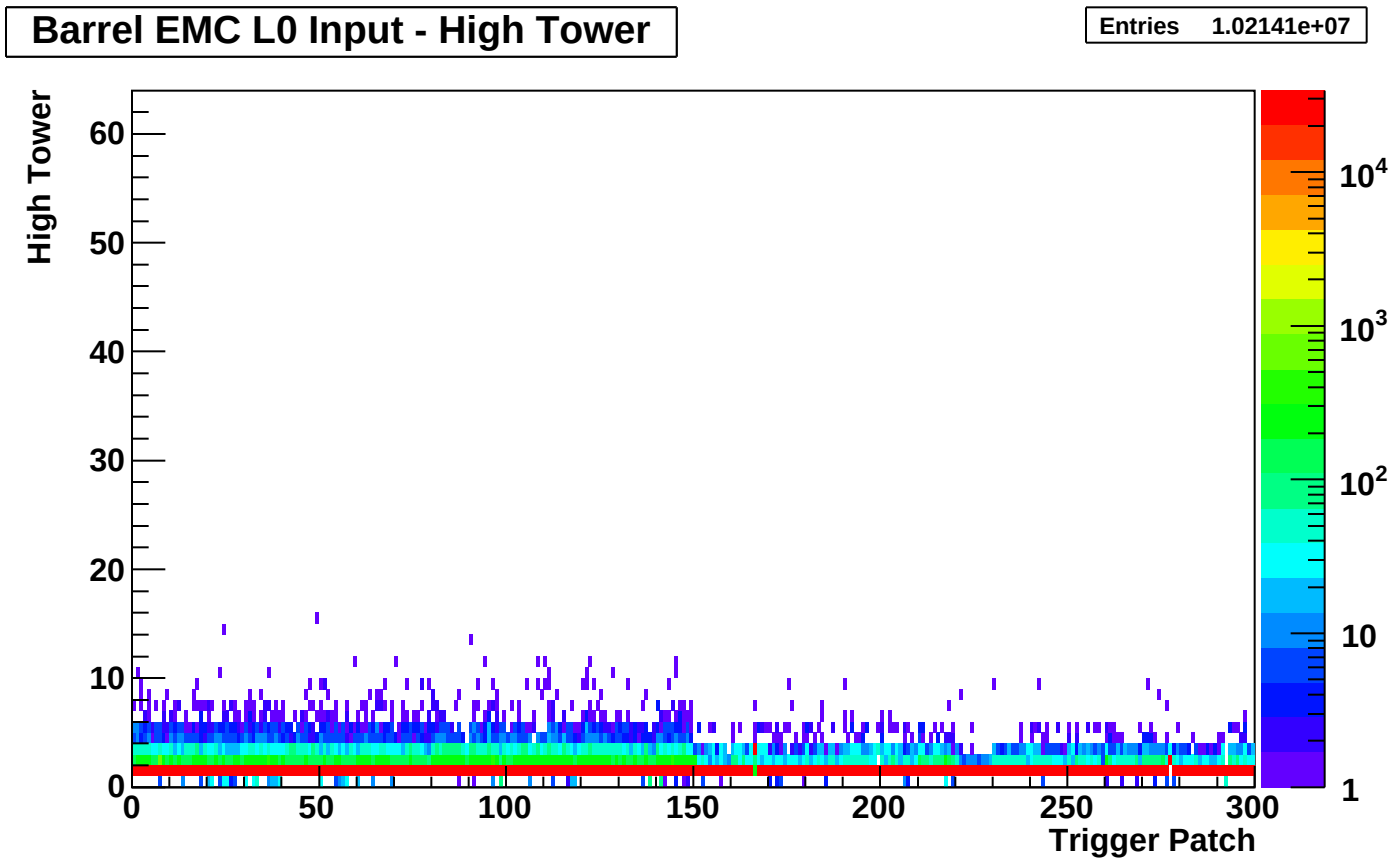
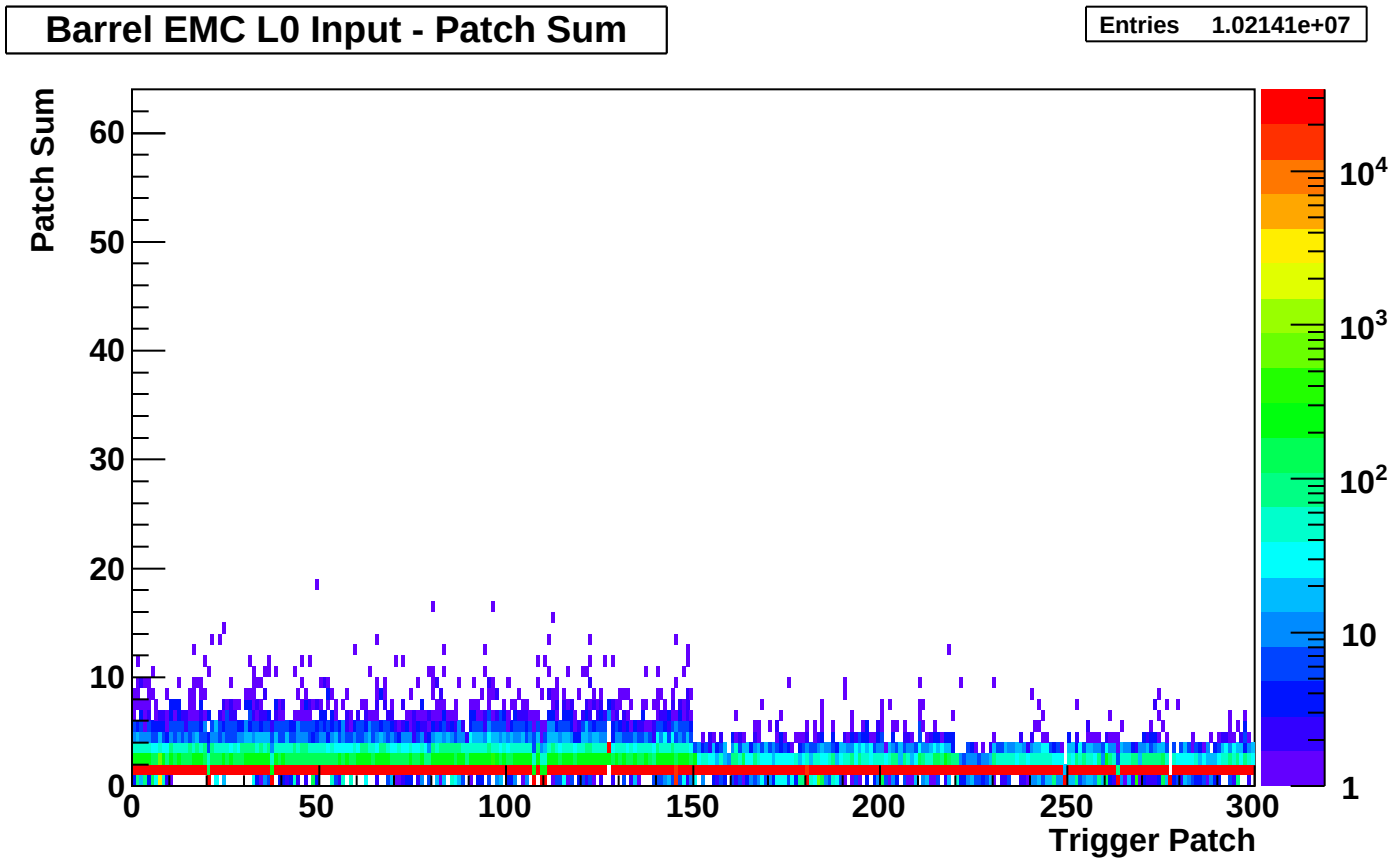
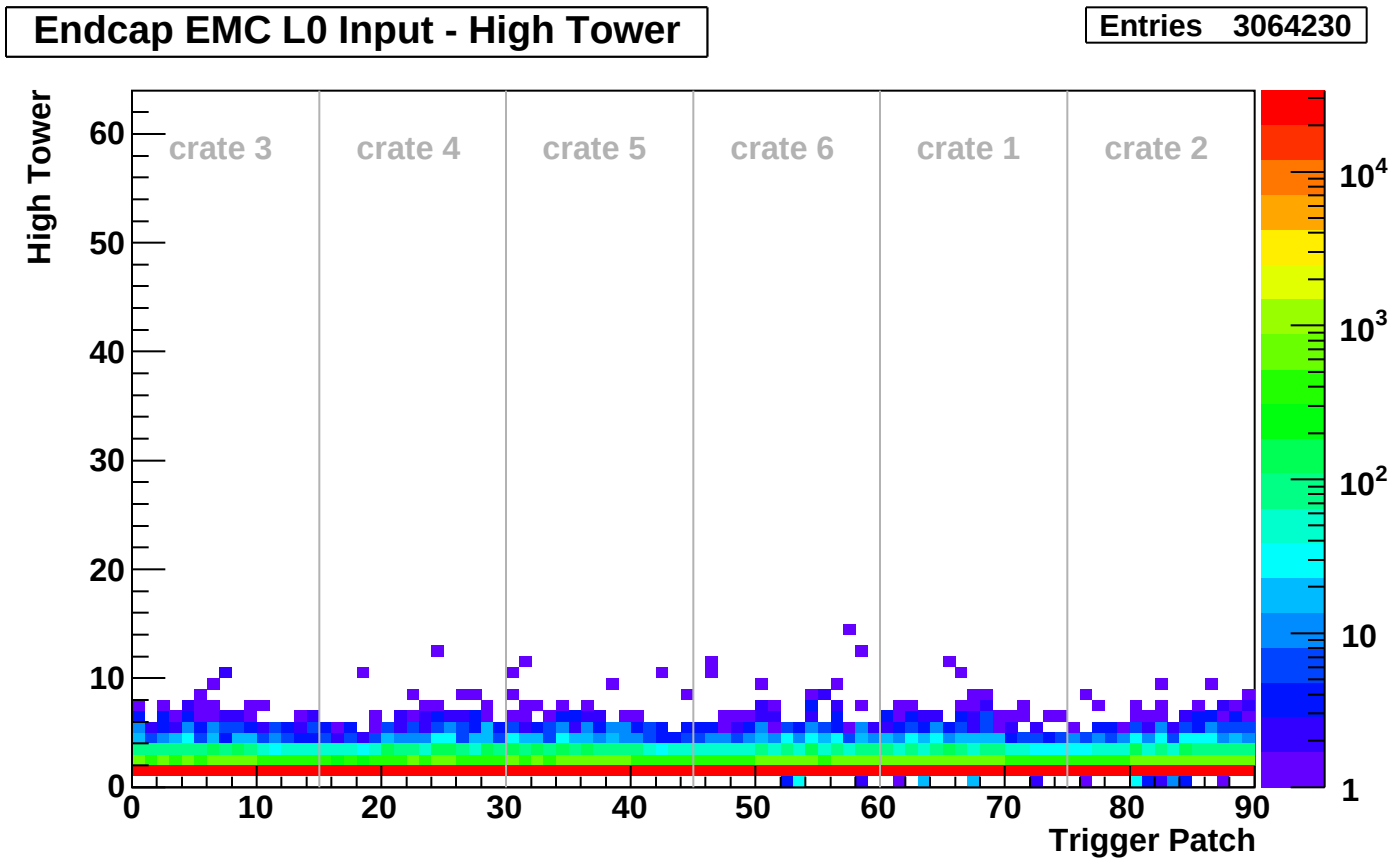
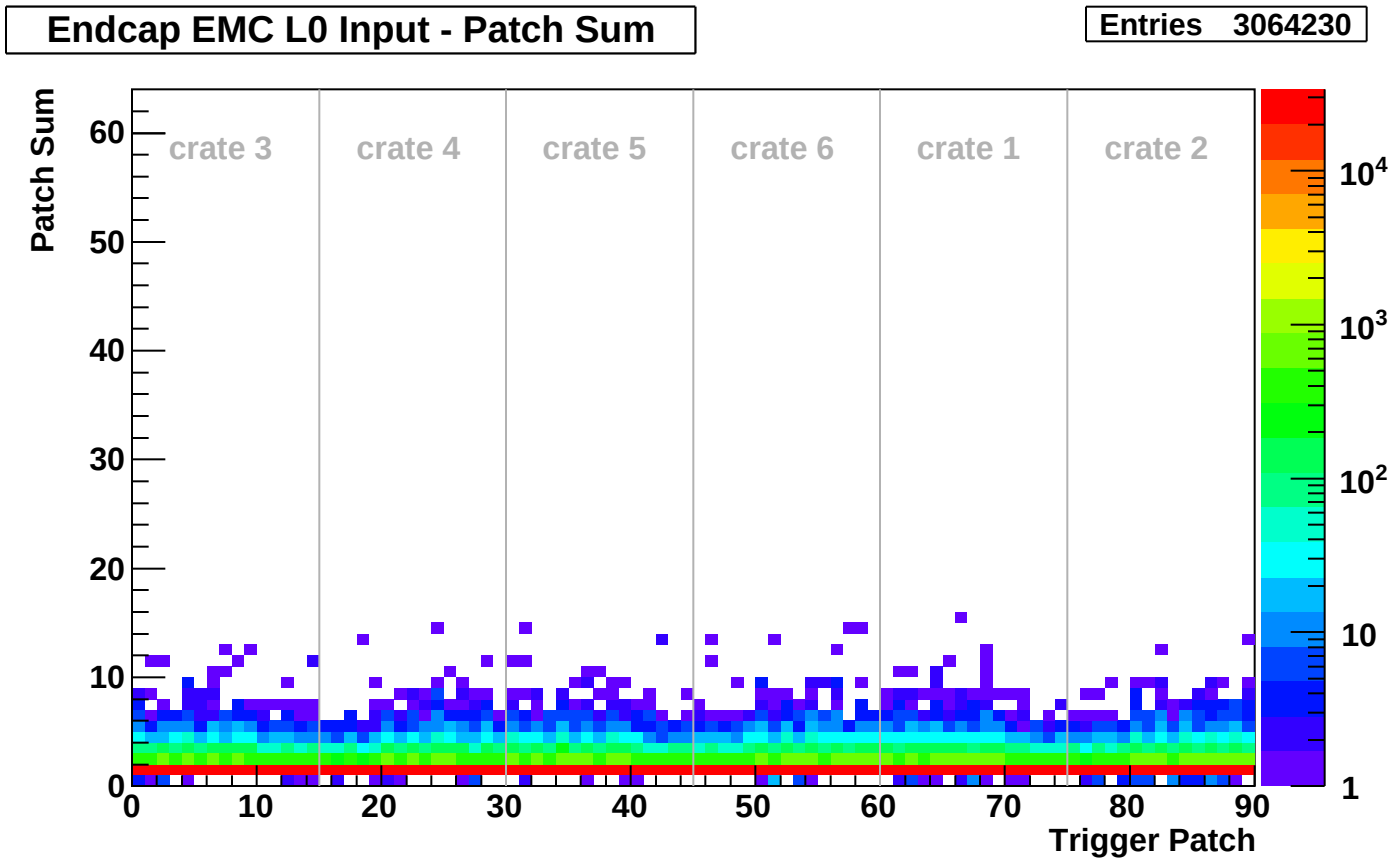
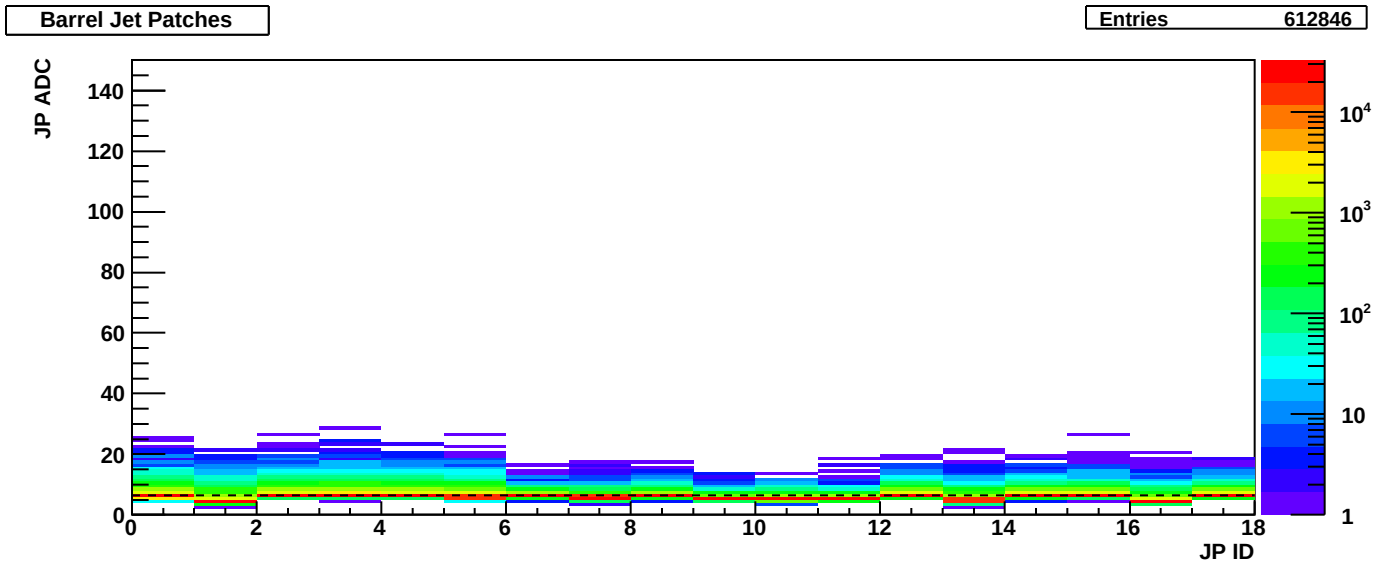
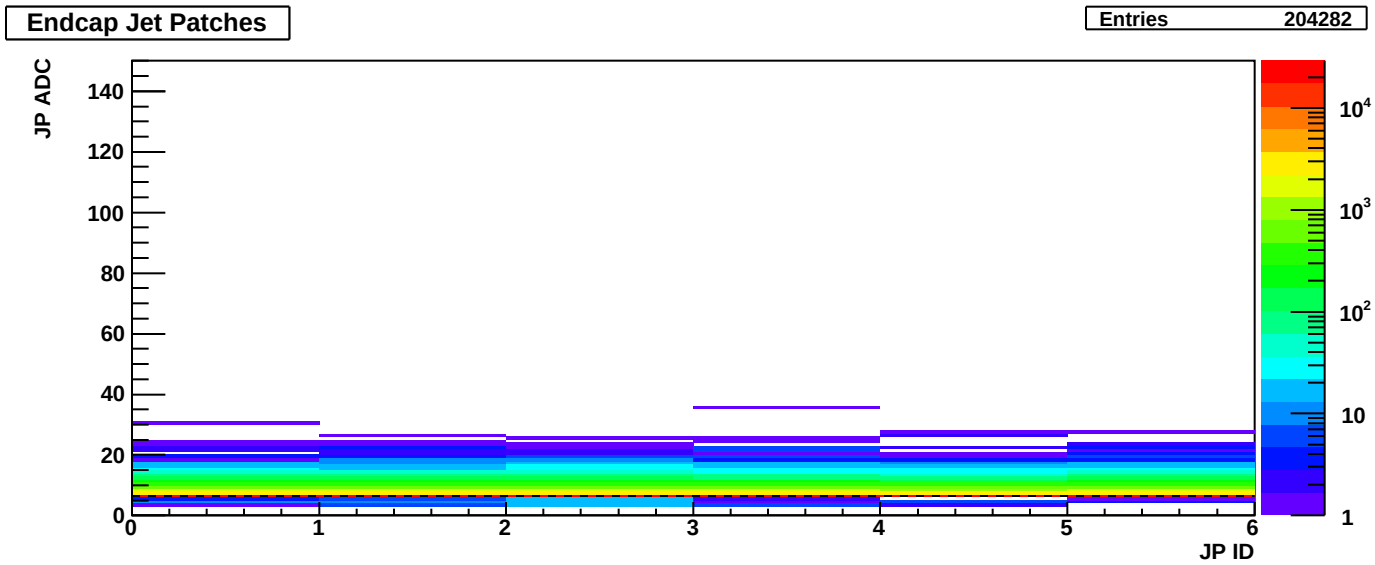

Barrel EMC L0 Input - High Tower
Entries 1.02141e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

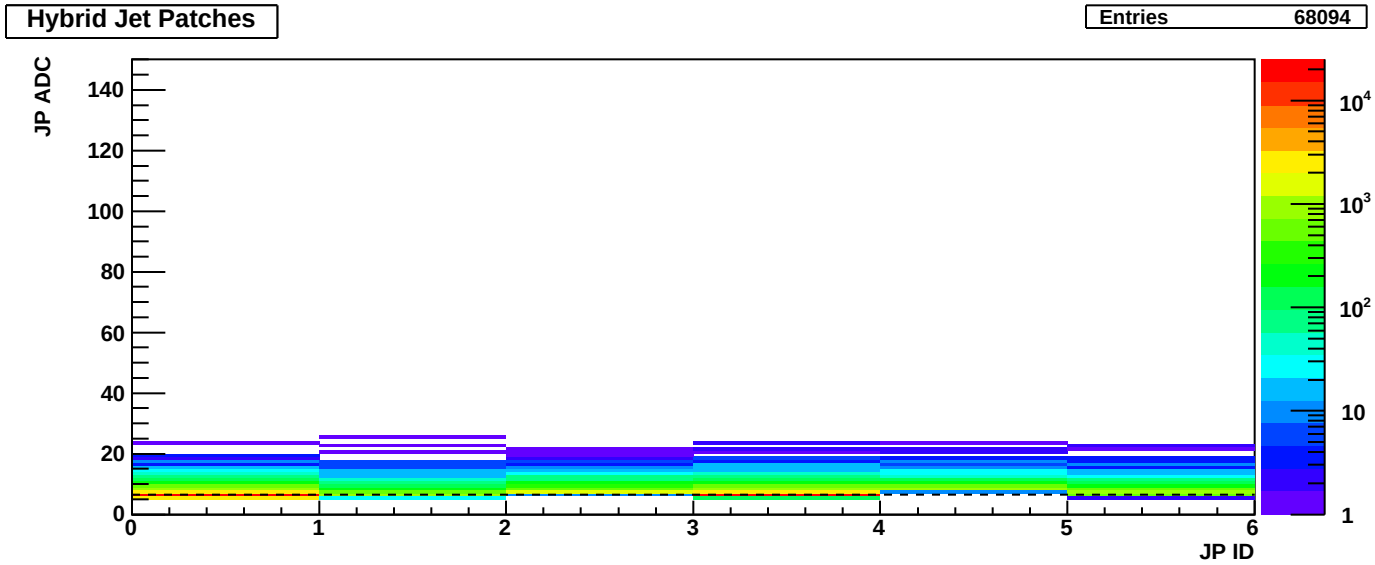

Barrel EMC L0 Input - Patch Sum
Entries 1.02141e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

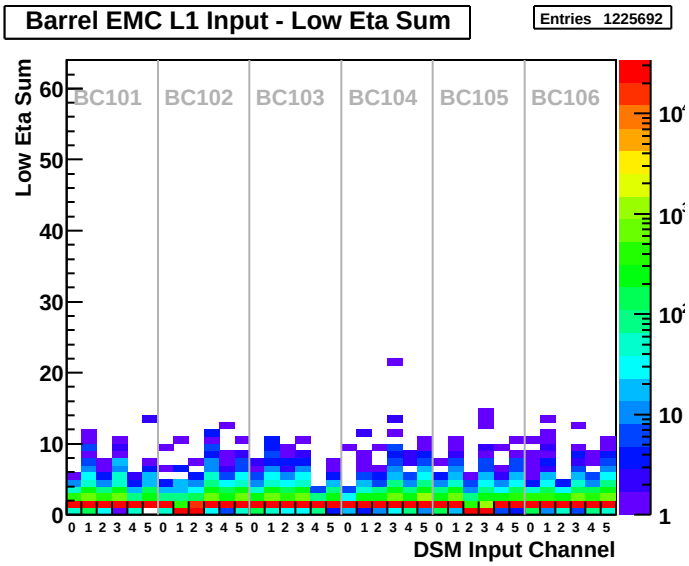

Endcap EMC L0 Input - High Tower
Entries 3064230
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

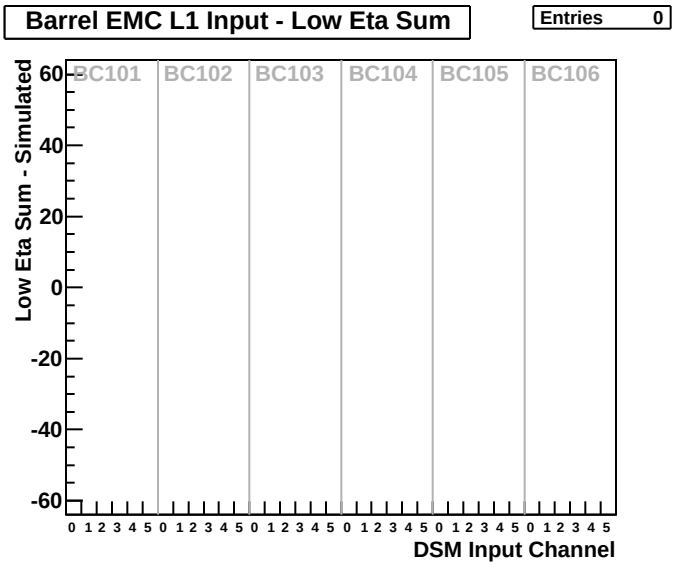

Endcap EMC L0 Input - Patch Sum
Entries 3064230
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

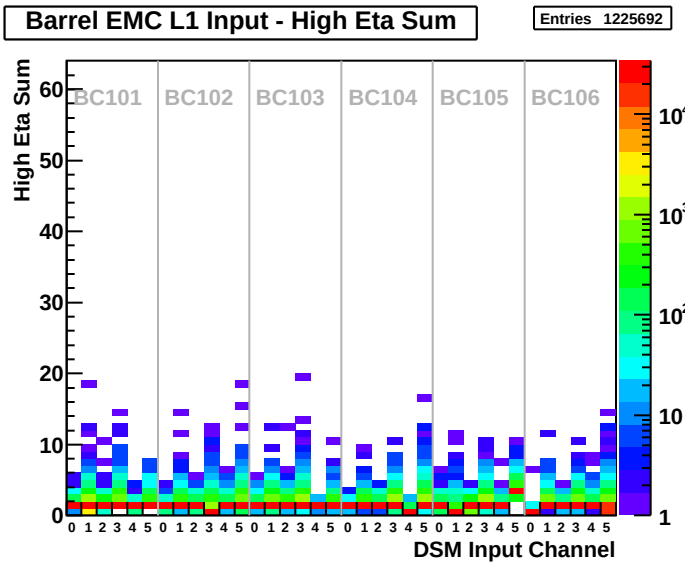

Barrel Jet Patches
Entries 612846
JP ADC
JP ID

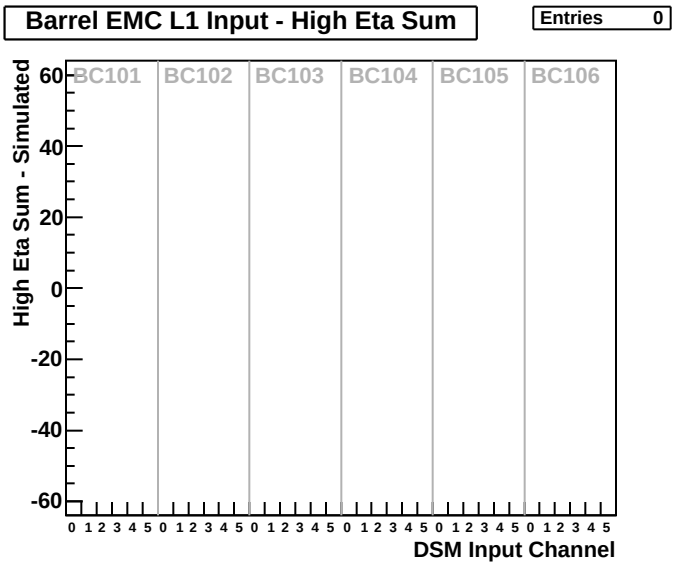

Endcap Jet Patches
Entries 204282
JP ADC
JP ID

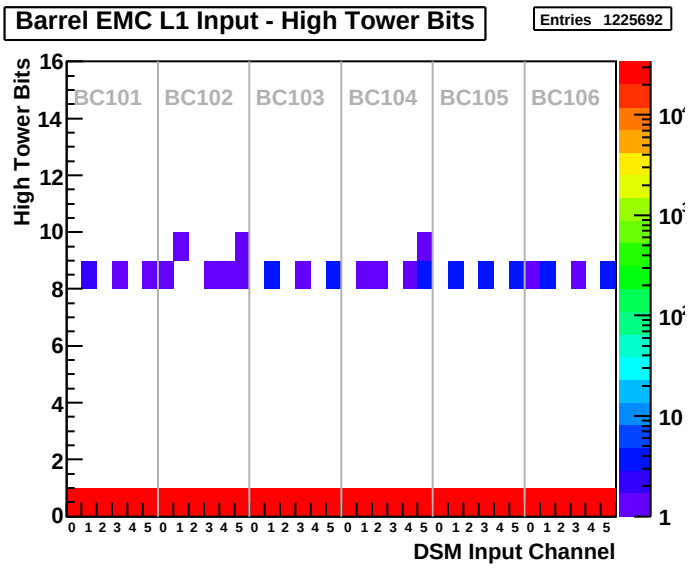

Hybrid Jet Patches
Entries 68094
JP ADC
JP ID

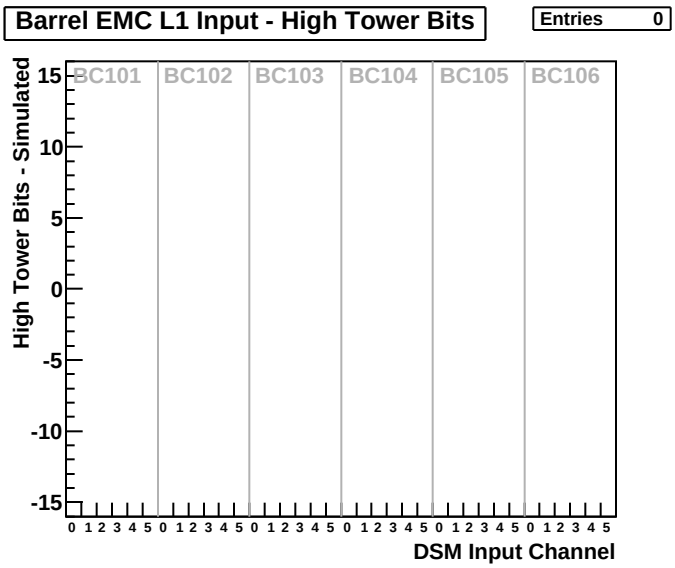

Barrel EMC L1 Input - Low Eta Sum
Entries 1225692
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

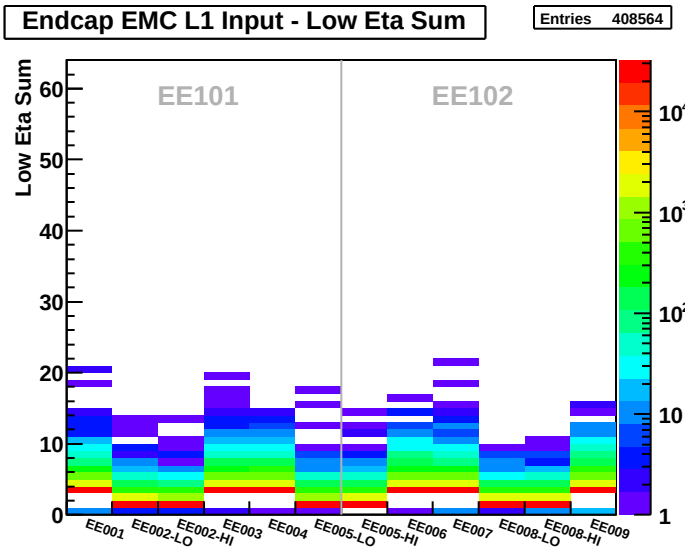

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

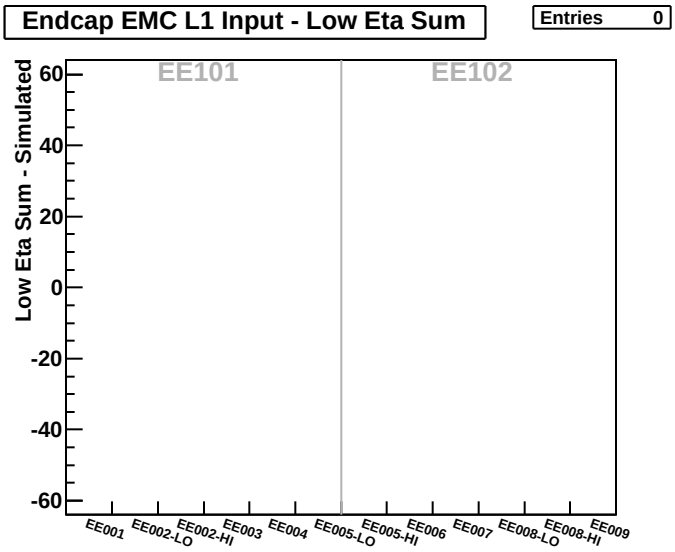

Barrel EMC L1 Input - High Eta Sum
Entries 1225692
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

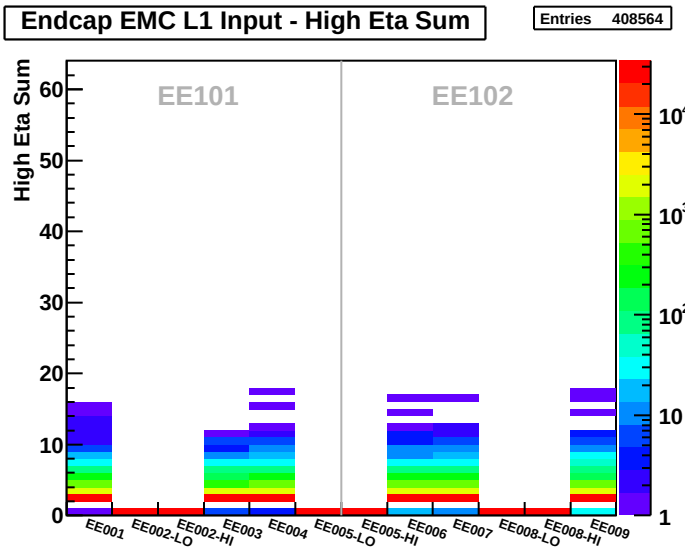

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

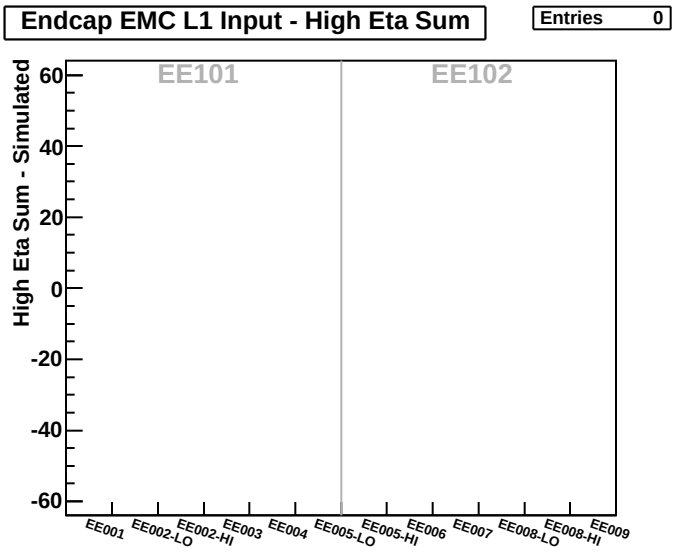

Barrel EMC L1 Input - High Tower Bits
Entries 1225692
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

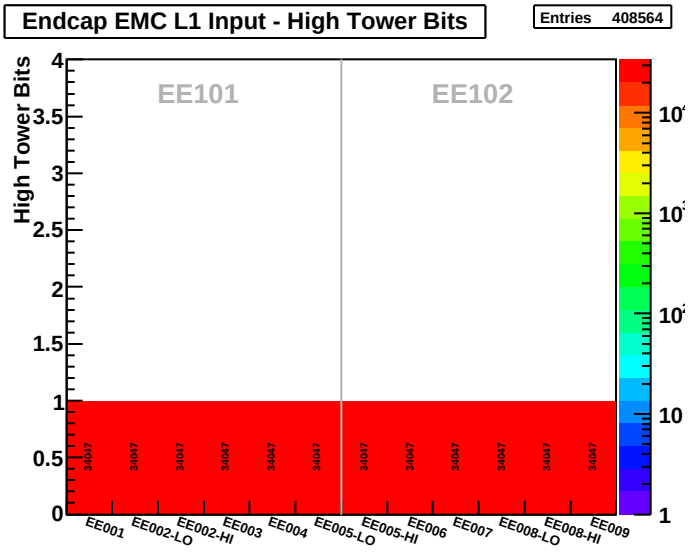

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

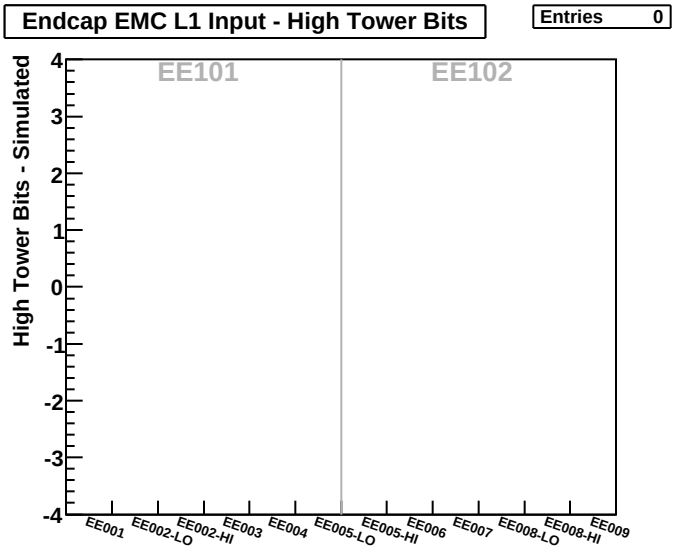

Endcap EMC L1 Input - Low Eta Sum
Entries 408564
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

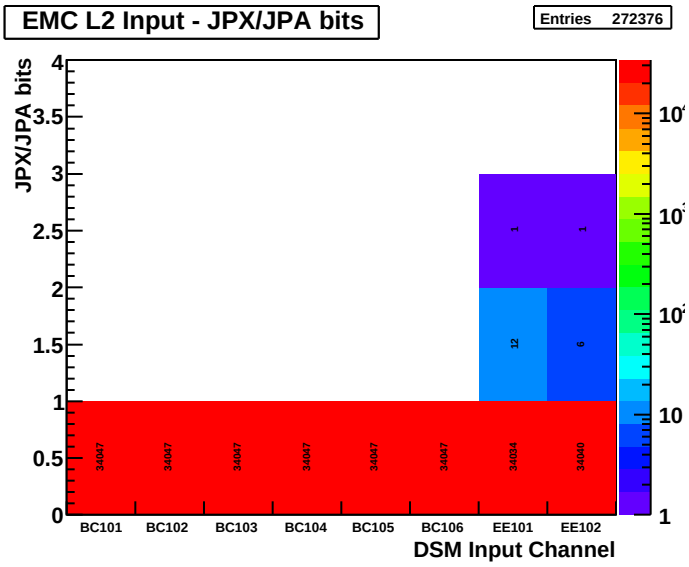

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

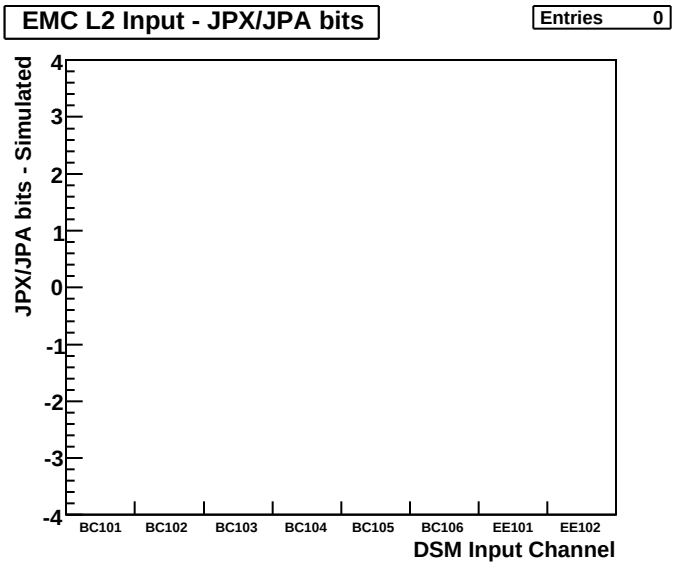

Endcap EMC L1 Input - High Eta Sum
Entries 408564
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

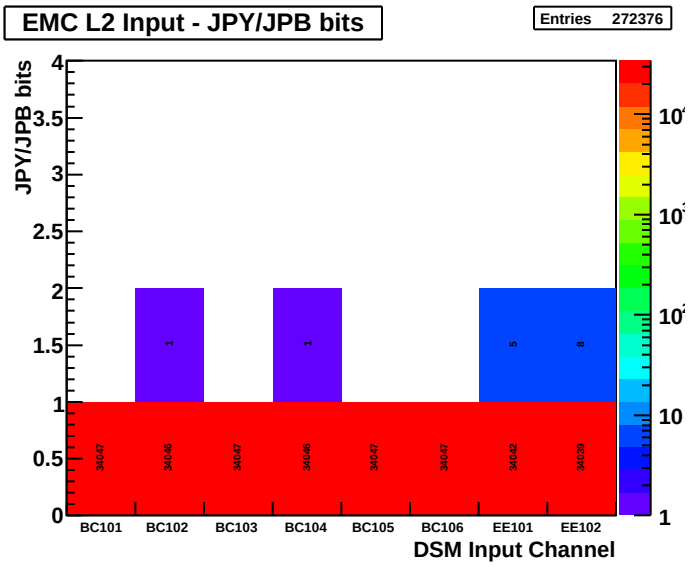

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

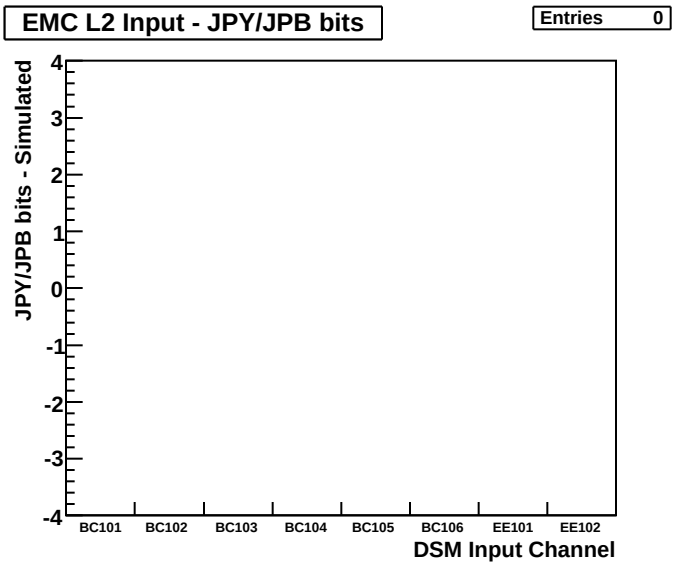

Endcap EMC L1 Input - High Tower Bits
Entries 408564
High Tower Bits
EE101
EE102
34047
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

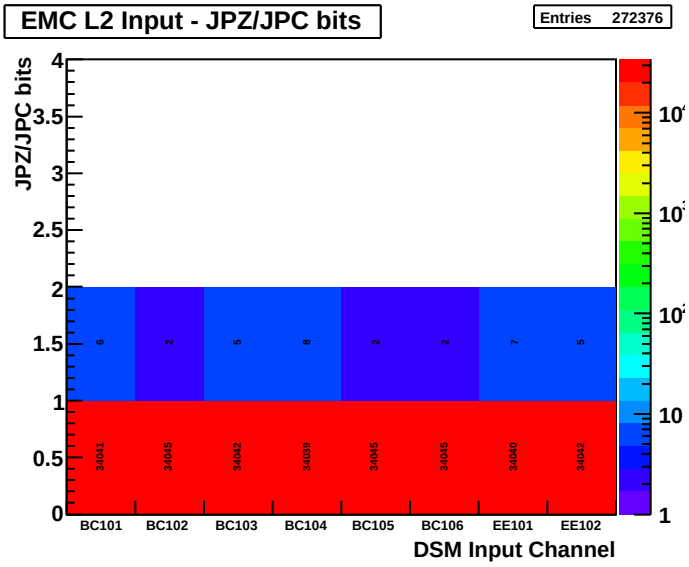

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

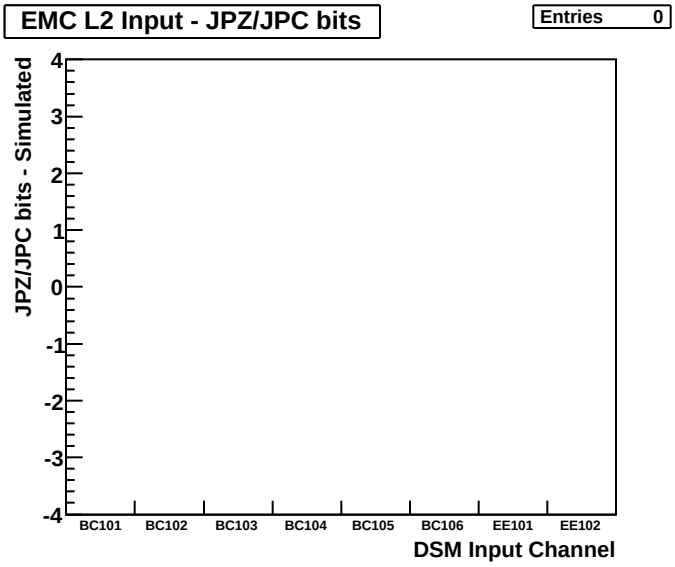

EMC L2 Input - JPX/JPA bits
Entries 272376
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
34047 34047 34047 34047 34047 34047 34034 34040
1 1
12 6

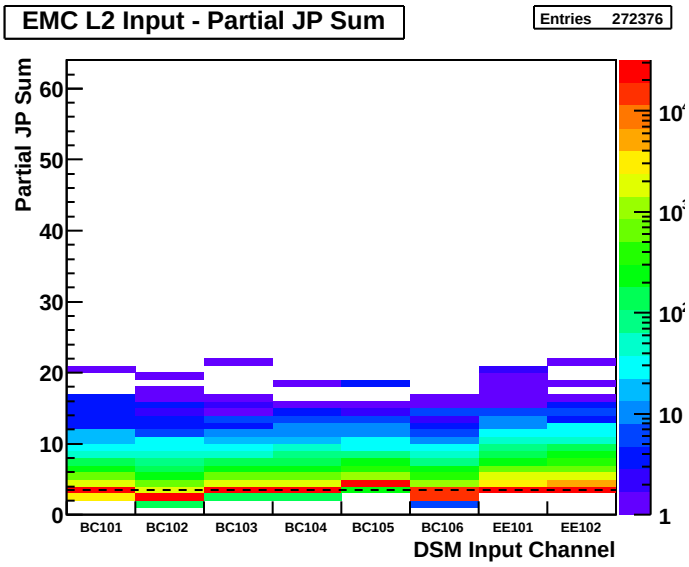

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

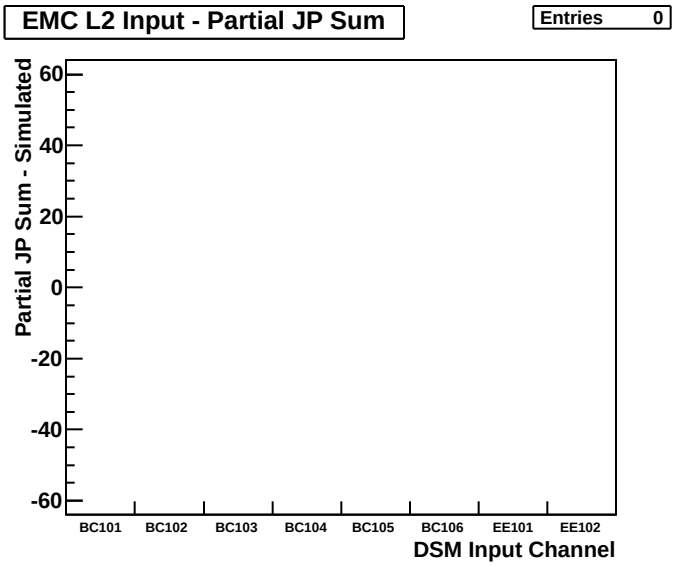

EMC L2 Input - JPY/JPB bits
Entries 272376
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
34047 34046 34047 34046 34047 34047 34042 34039
1 1
5 8

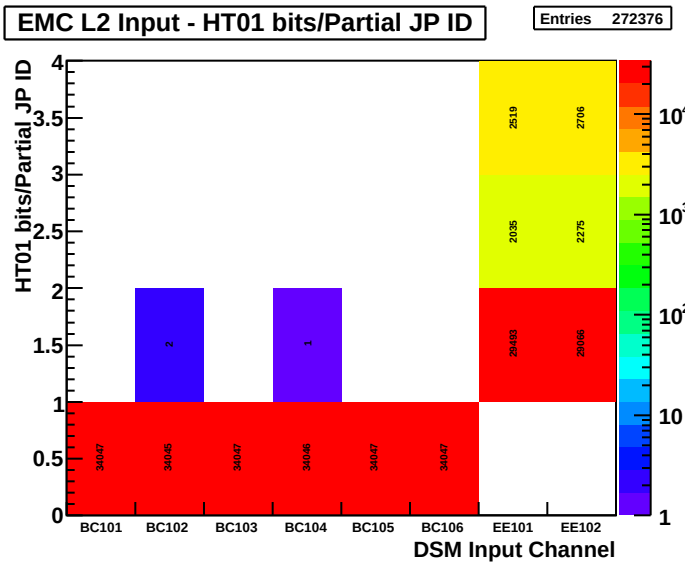

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

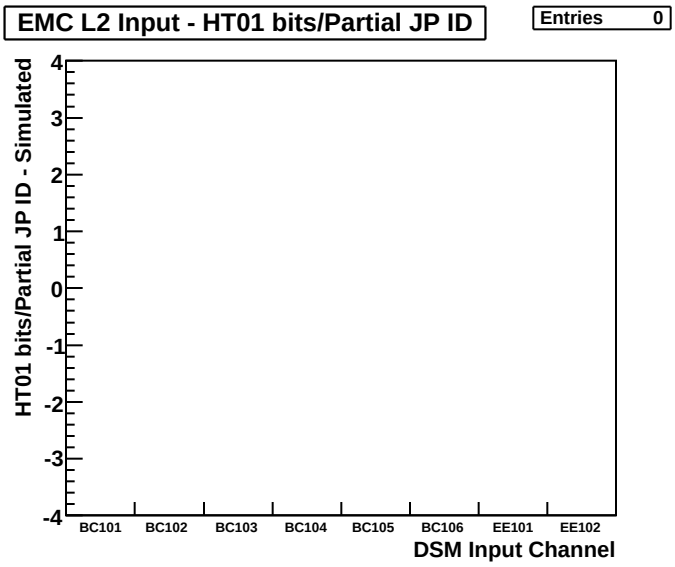

EMC L2 Input - JPZ/JPC bits
Entries 272376
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
34041 34045 34042 34039 34045 34045 34040 34042
6 2 5 8 2 2 7 5

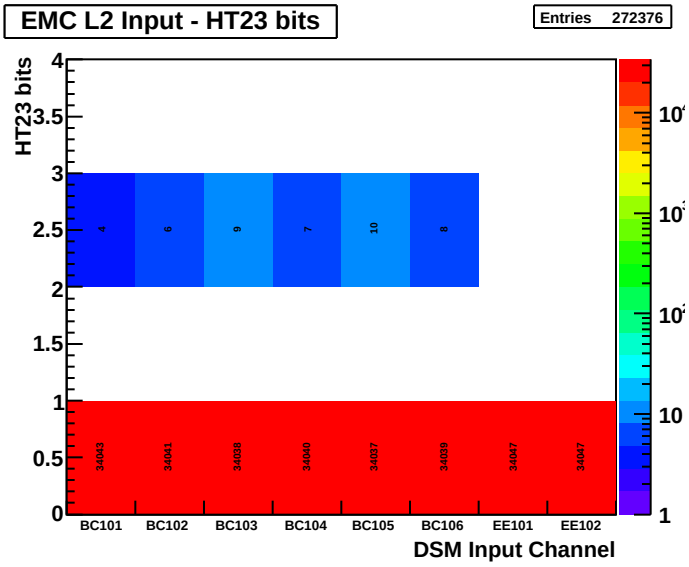

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

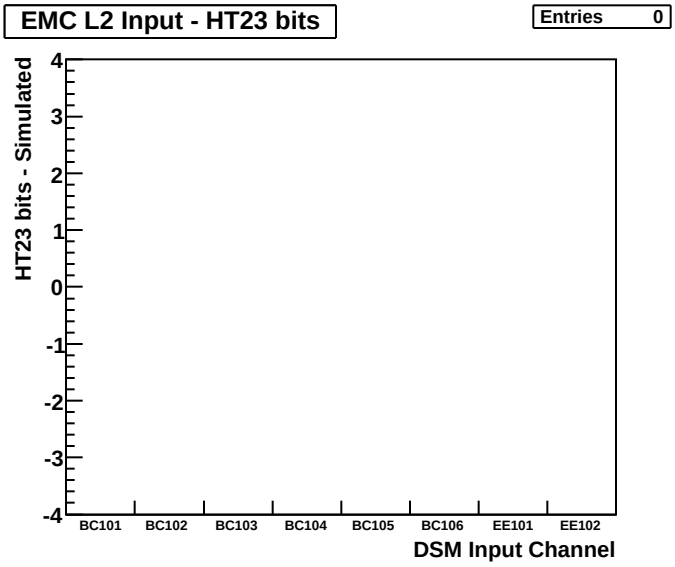

EMC L2 Input - Partial JP Sum
Entries 272376
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

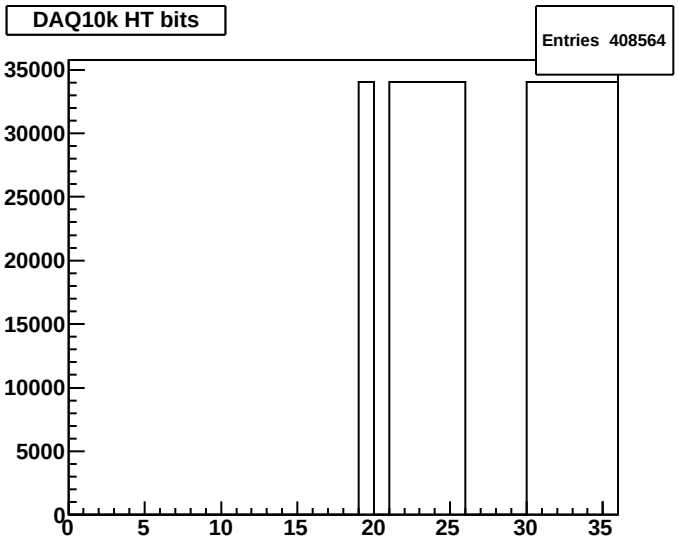

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

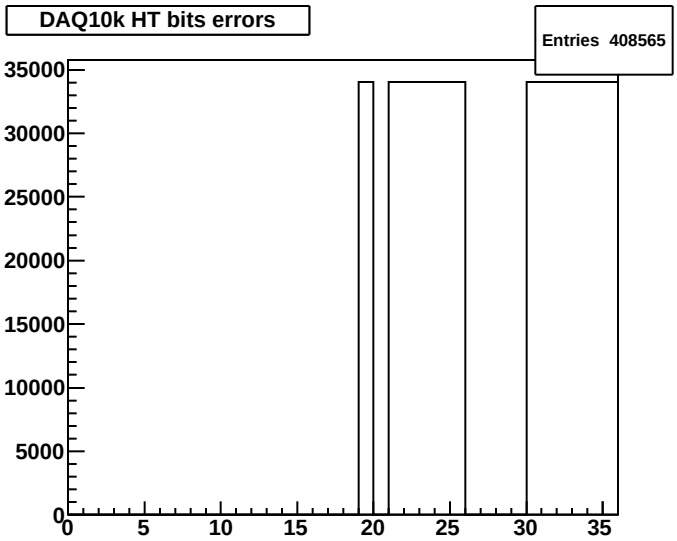

EMC L2 Input - HT01 bits/Partial JP ID
Entries 272376
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

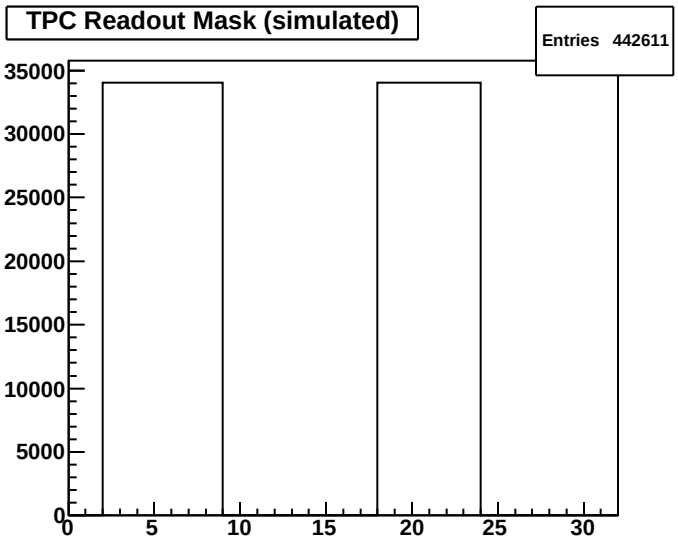

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

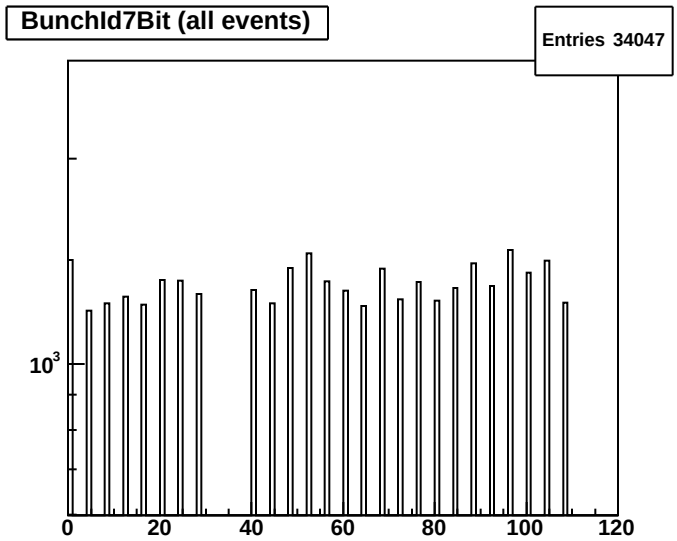

EMC L2 Input - HT23 bits
Entries 272376
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

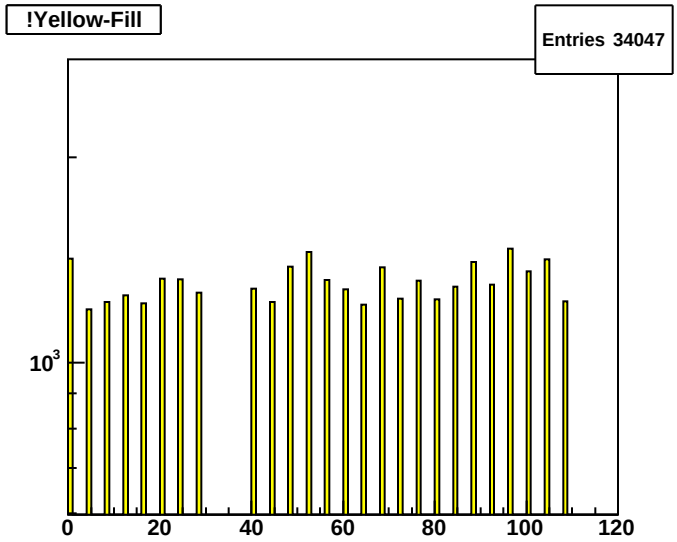

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

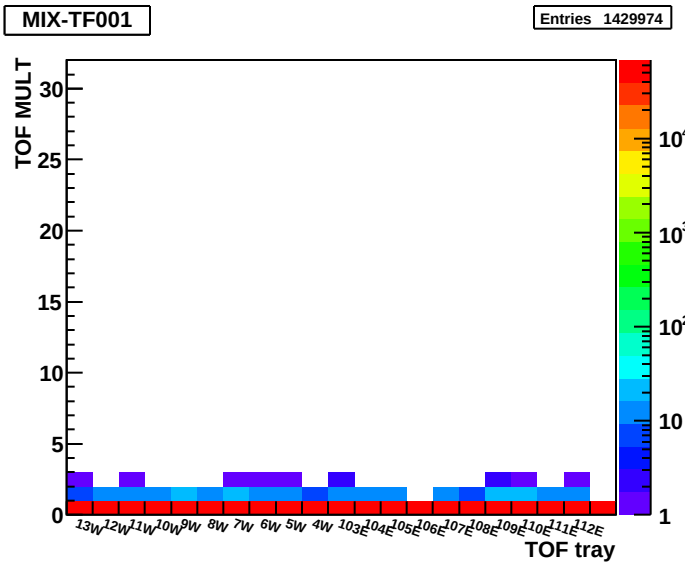

DAQ10k HT bits
Entries 408564
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

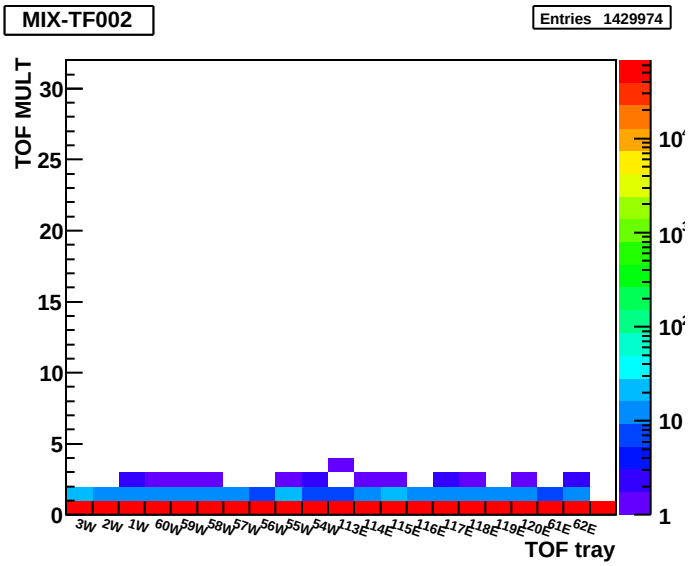

DAQ10k HT bits errors
Entries 408565
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

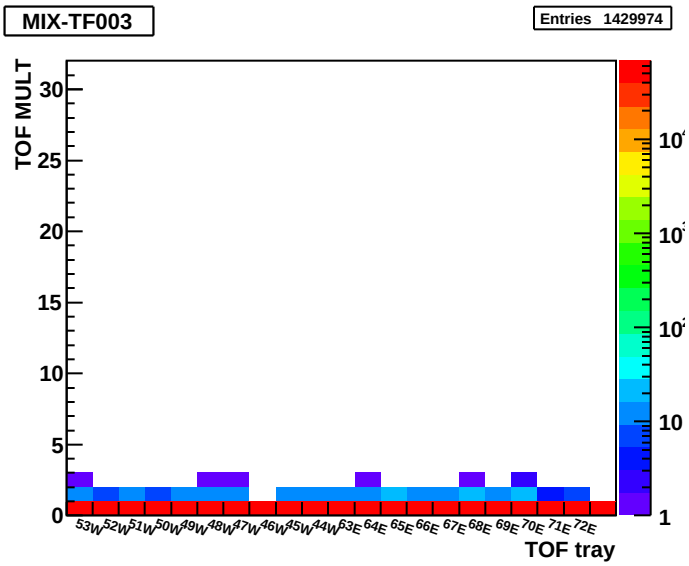

TPC Readout Mask (simulated)
Entries 442611
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

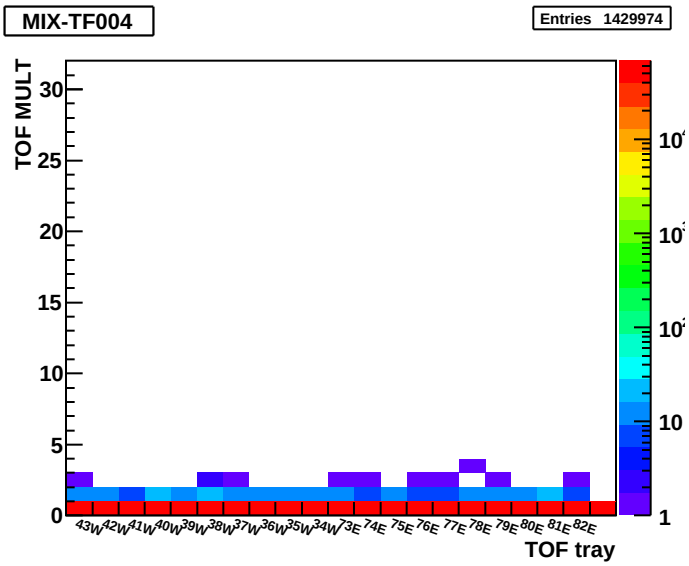

BunchId7Bit (all events)
Entries 34047
10^3
0 20 40 60 80 100 120

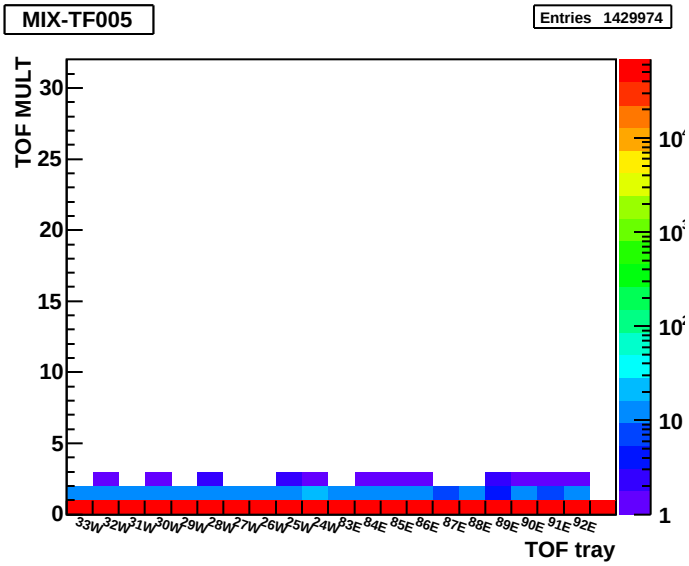

!Yellow-Fill
Entries 34047
10^3
0 20 40 60 80 100 120

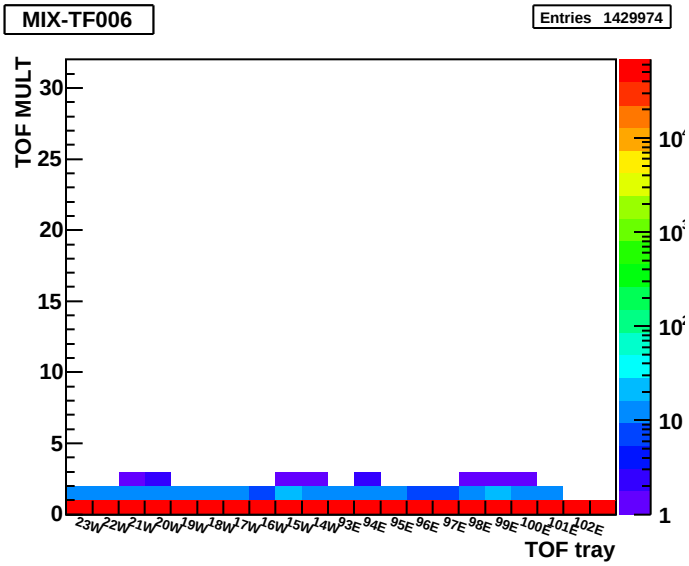

MIX-TF001
Entries 1429974
TOF MULT
TOF tray

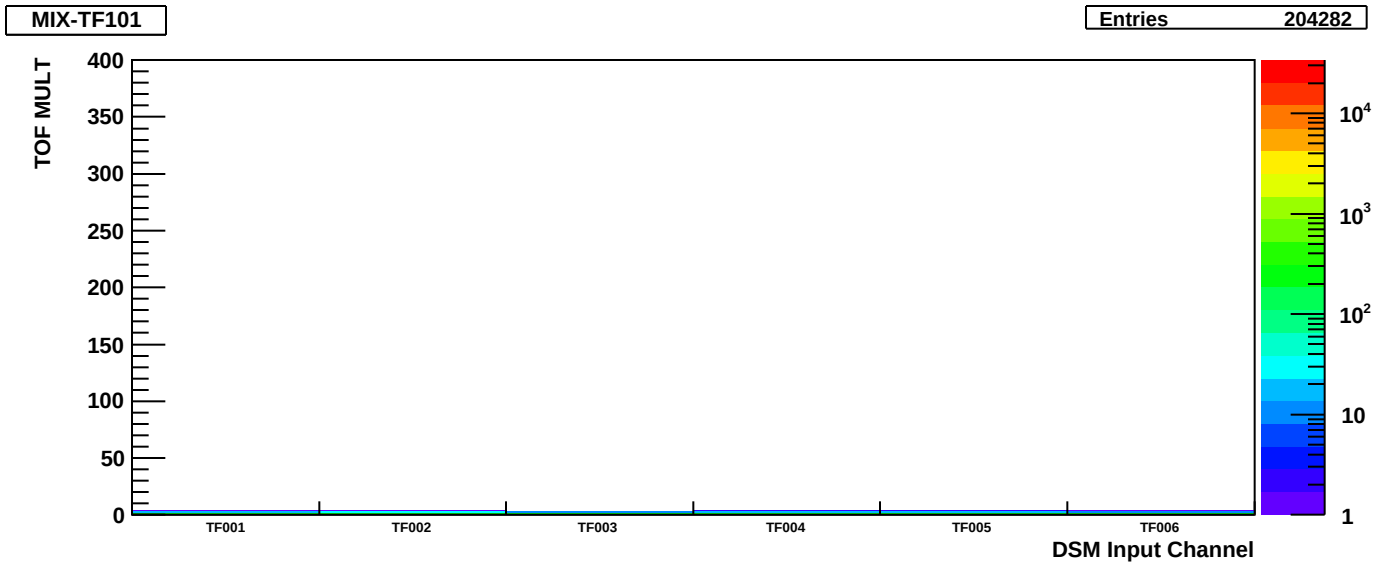

MIX-TF002
Entries 1429974
TOF MULT
TOF tray

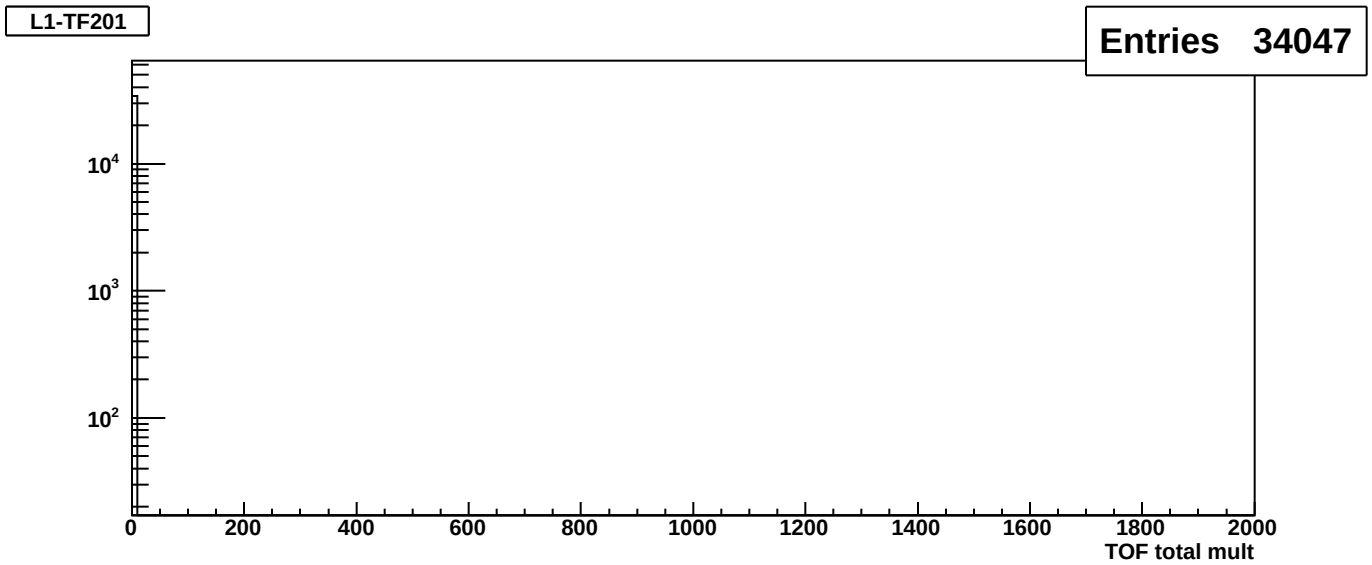

MIX-TF003
Entries 1429974
TOF MULT
TOF tray

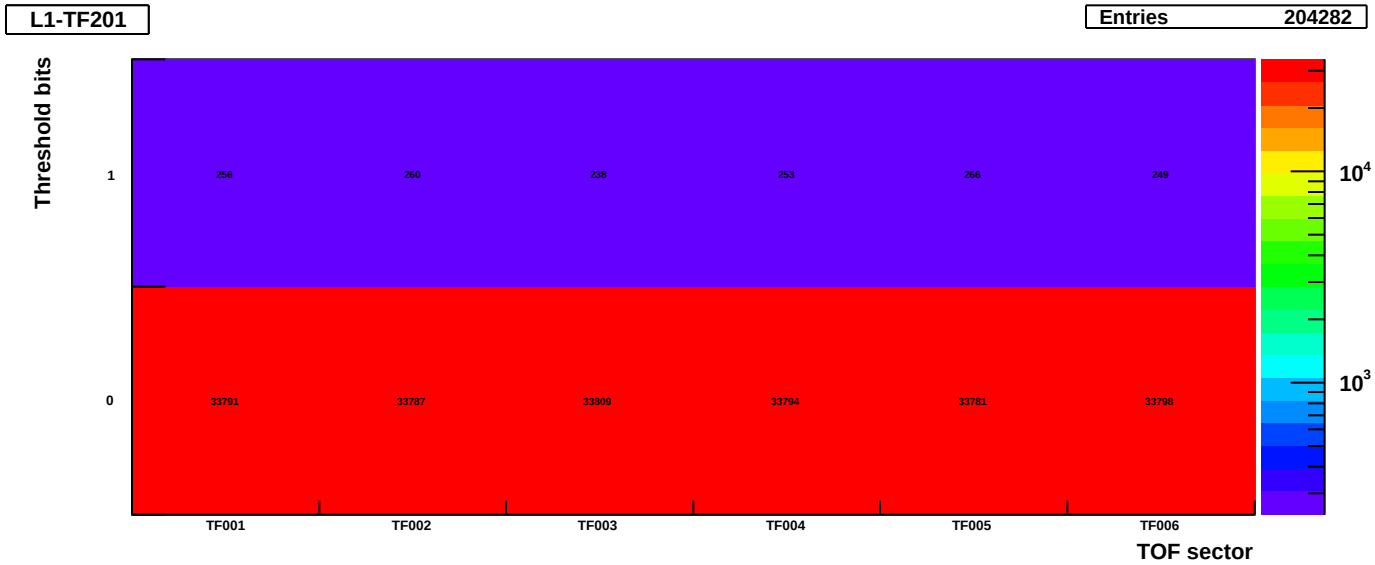

MIX-TF004
Entries 1429974
TOF MULT
TOF tray

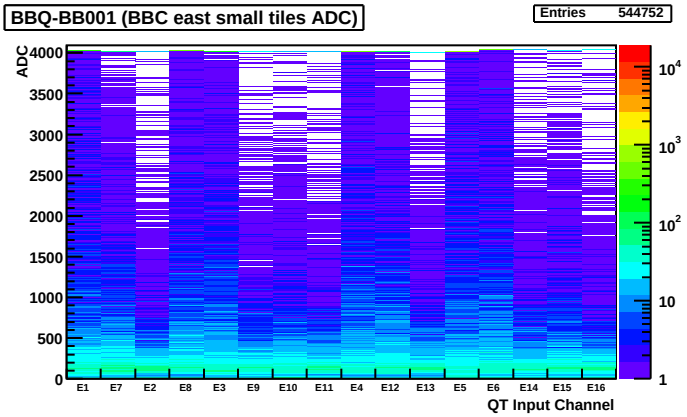

MIX-TF005
Entries 1429974
TOF MULT
TOF tray

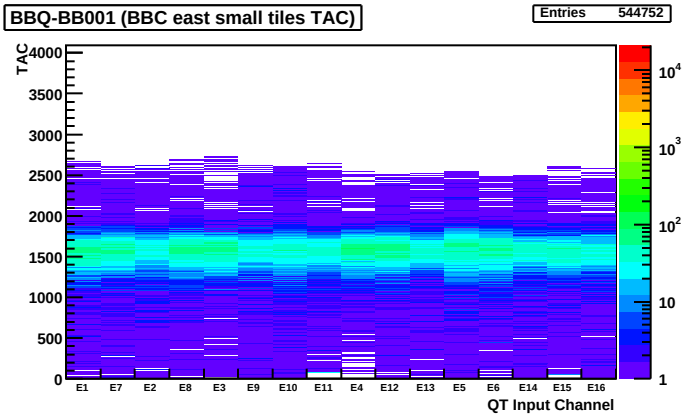

MIX-TF006
Entries 1429974
TOF MULT
TOF tray

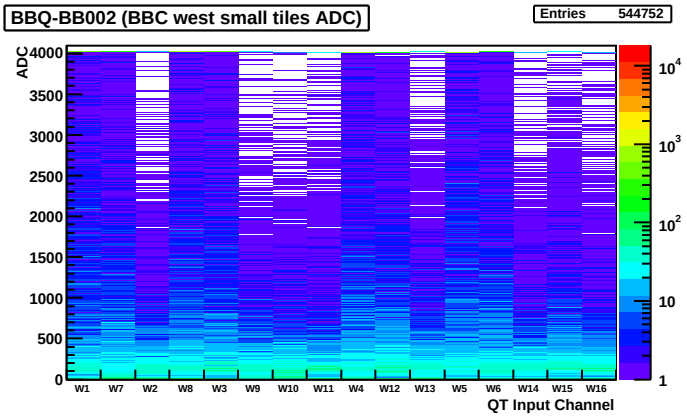

MIX-TF101
Entries 204282
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

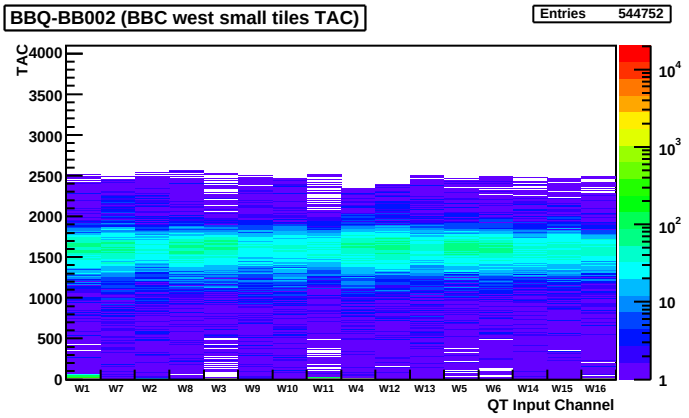

L1-TF201
Entries 34047
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

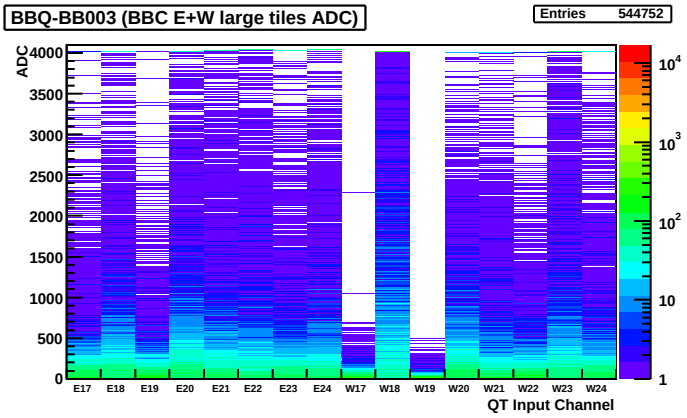

L1-TF201
Entries 204282
Threshold bits
1
0
256
260
238
253
266
249
33791
33787
33809
33794
33781
33798
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

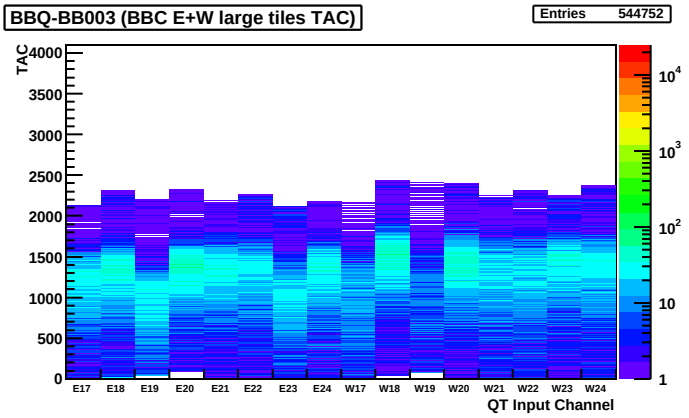

BBQ-BB001 (BBC east small tiles ADC)
Entries 544752
ADC
QT Input Channel

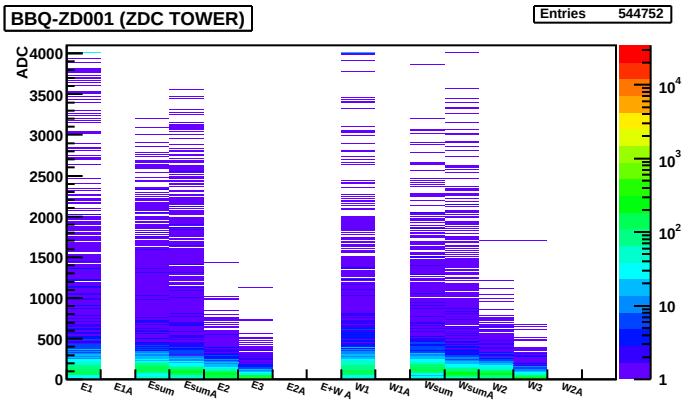

BBQ-BB001 (BBC east small tiles TAC)
Entries 544752
TAC
QT Input Channel

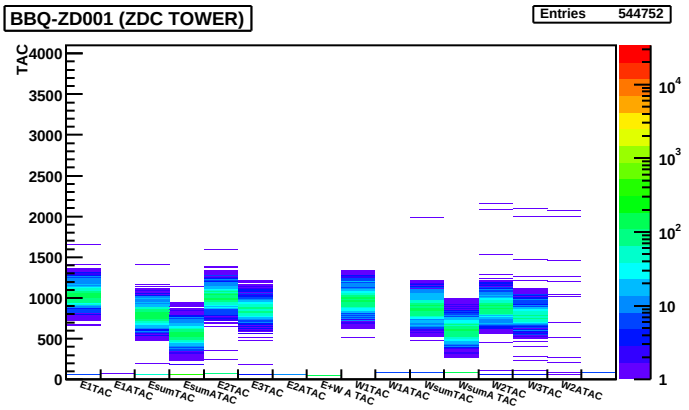

BBQ-BB002 (BBC west small tiles ADC)
Entries 544752
ADC
QT Input Channel

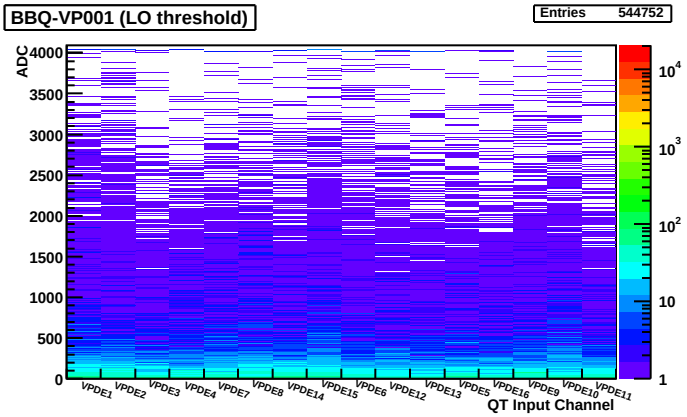

BBQ-BB002 (BBC west small tiles TAC)
Entries 544752
TAC
QT Input Channel

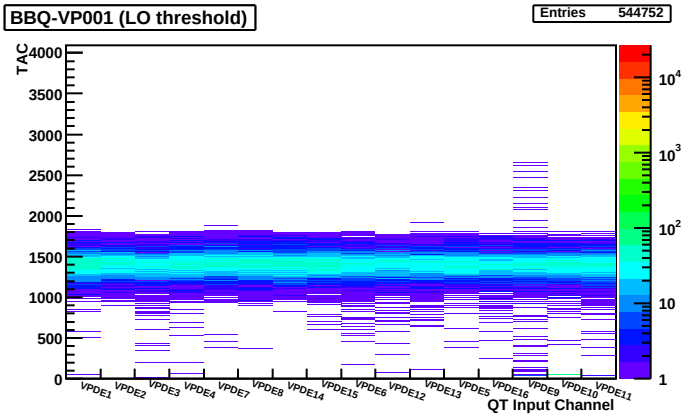

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 544752
ADC
QT Input Channel

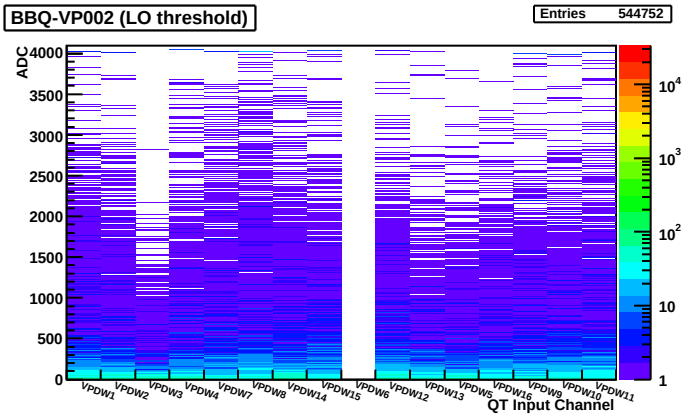

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 544752
TAC
QT Input Channel

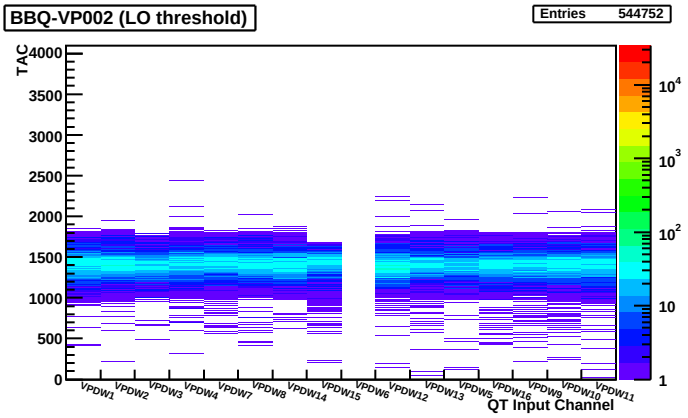

BBQ-ZD001 (ZDC TOWER)
Entries 544752
ADC

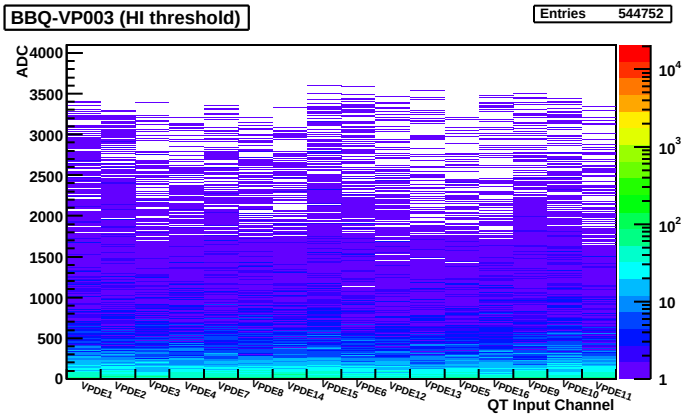

BBQ-ZD001 (ZDC TOWER)
Entries 544752
TAC

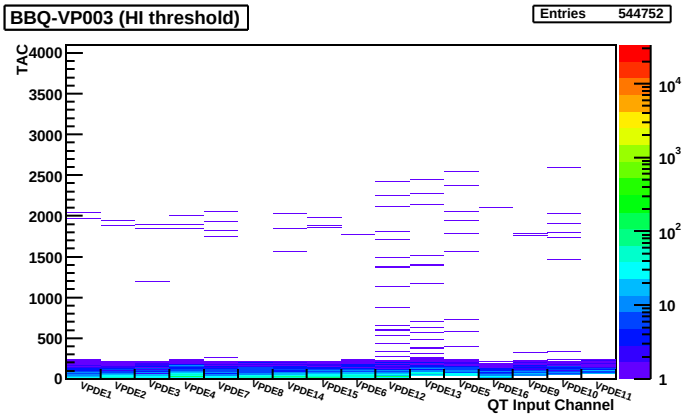

BBQ-VP001 (LO threshold)
Entries 544752
ADC
QT Input Channel

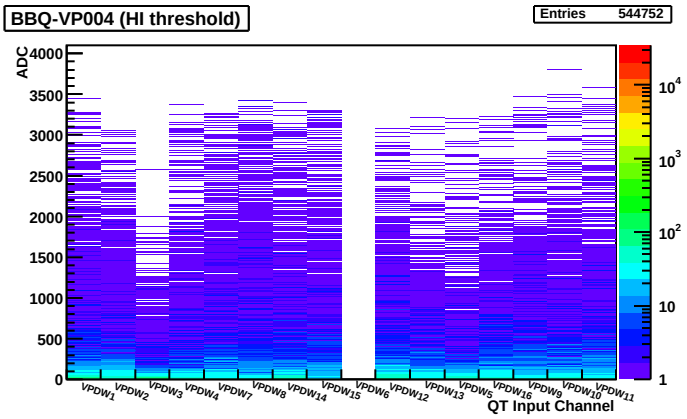

BBQ-VP001 (LO threshold)
Entries 544752
TAC
QT Input Channel

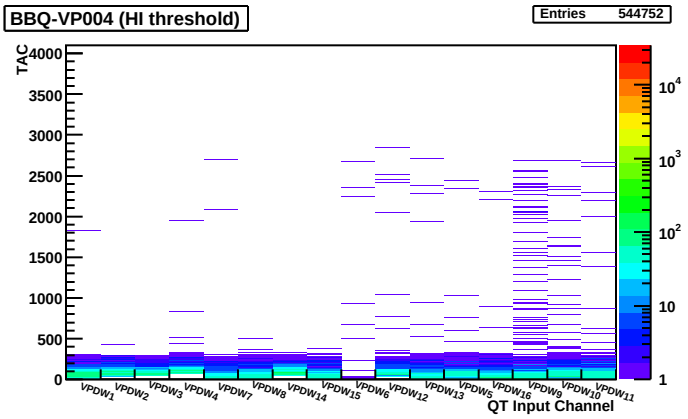

BBQ-VP002 (LO threshold)
Entries 544752
ADC
QT Input Channel

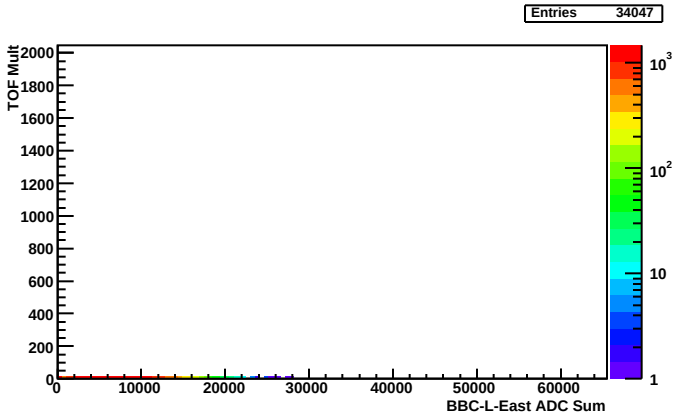

BBQ-VP002 (LO threshold)
Entries 544752
TAC
QT Input Channel

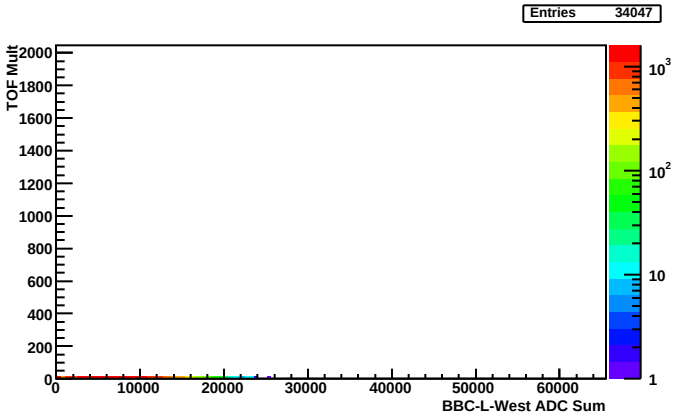

BBQ-VP003 (HI threshold)
Entries 544752
ADC
QT Input Channel

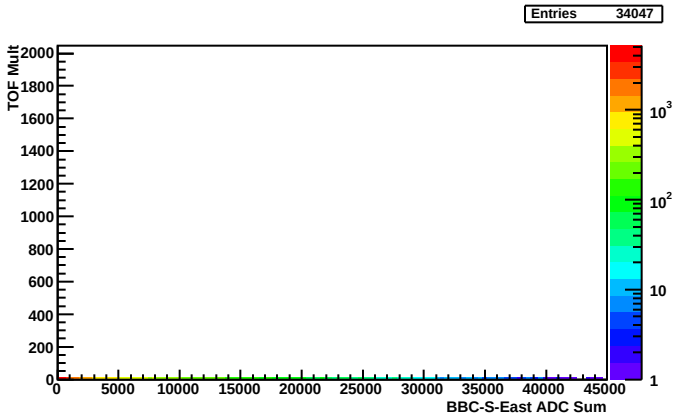

BBQ-VP003 (HI threshold)
Entries 544752
TAC
QT Input Channel

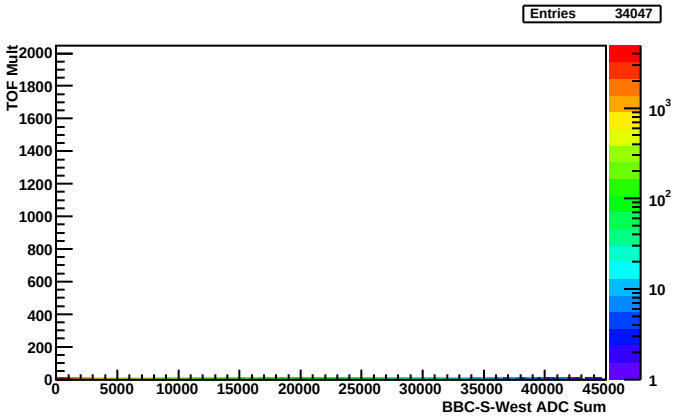

BBQ-VP004 (HI threshold)
Entries 544752
ADC
QT Input Channel

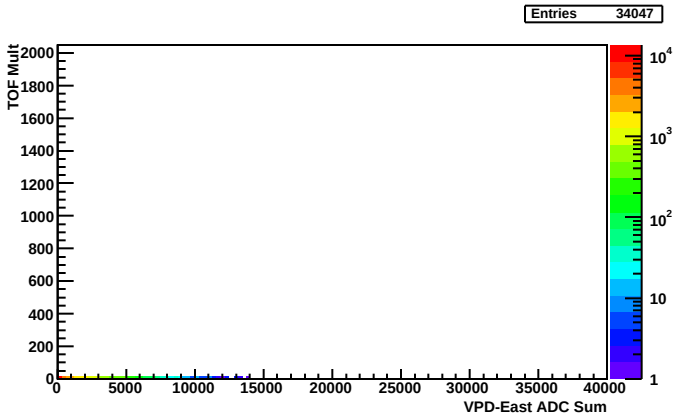

BBQ-VP004 (HI threshold)
Entries 544752
TAC
QT Input Channel

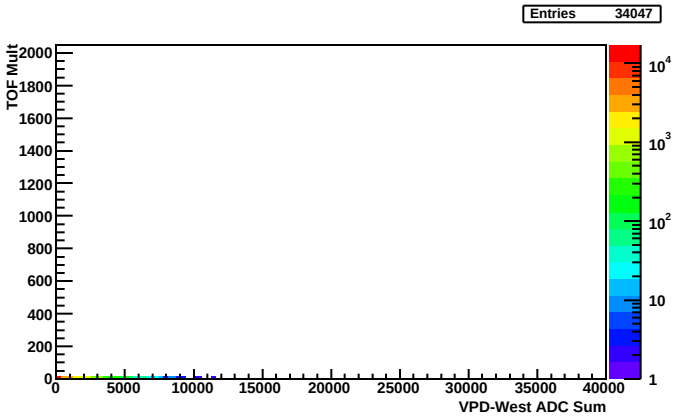

Entries 34047
TOF Mult
BBC-L-East ADC Sum

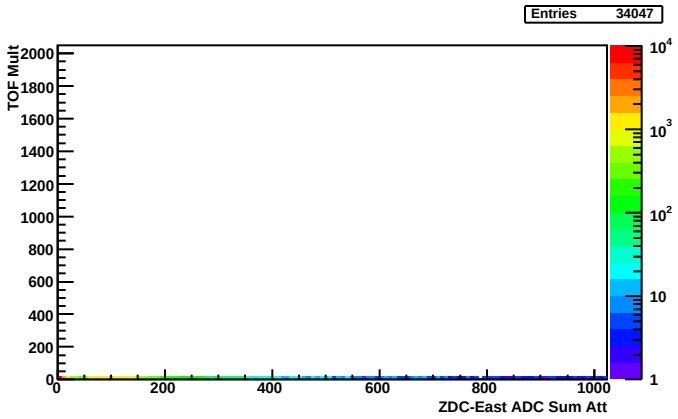

Entries 34047
TOF Mult
BBC-L-West ADC Sum

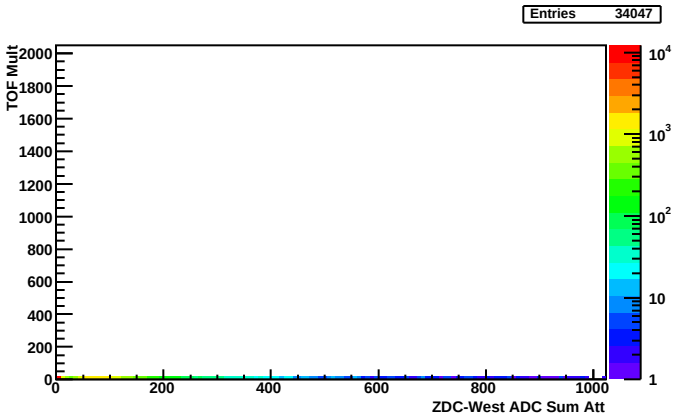

Entries 34047
TOF Mult
BBC-S-East ADC Sum

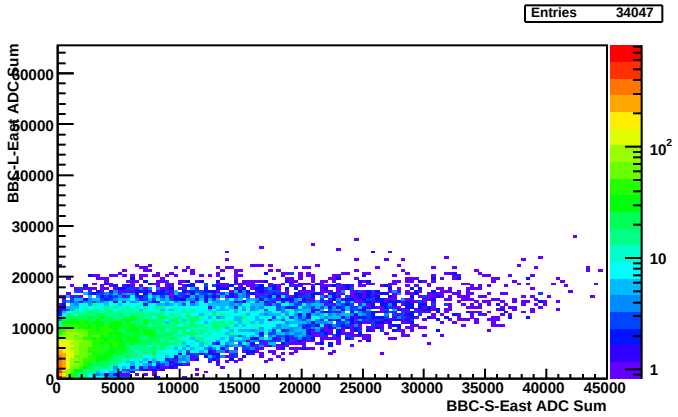

Entries 34047
TOF Mult
BBC-S-West ADC Sum

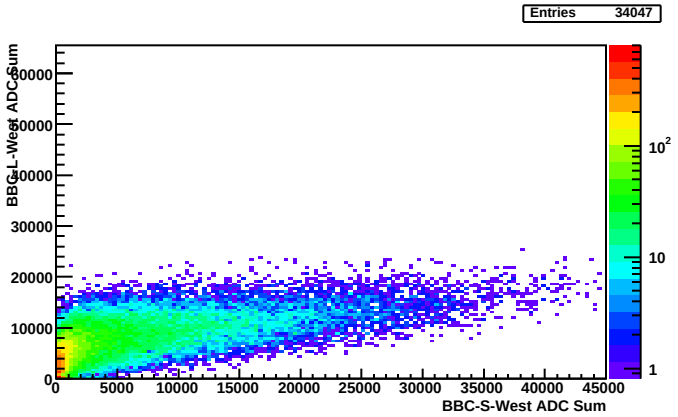

Entries 34047
TOF Mult
VPD-East ADC Sum

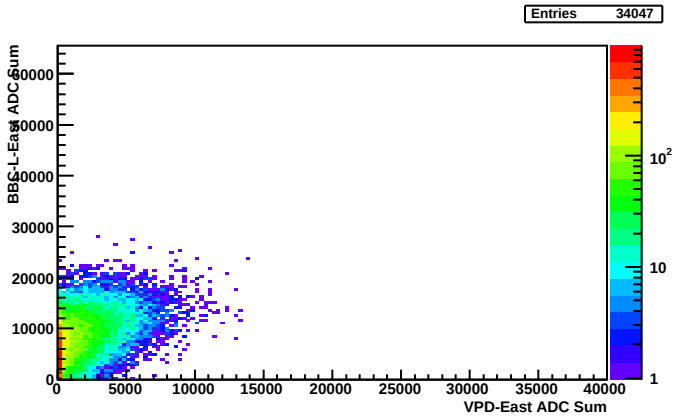

Entries 34047
TOF Mult
VPD-West ADC Sum

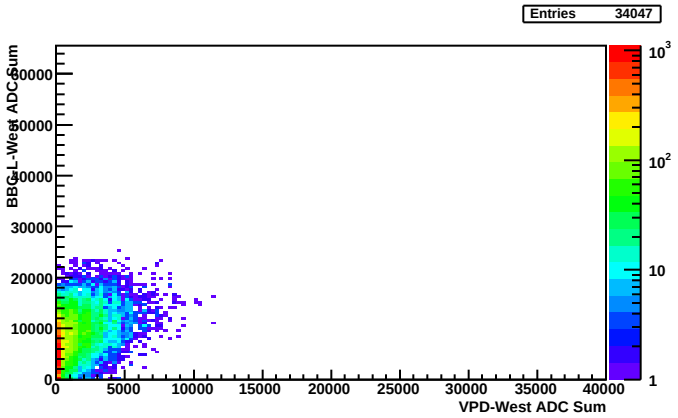

Entries 34047
TOF Mult
ZDC-East ADC Sum Att

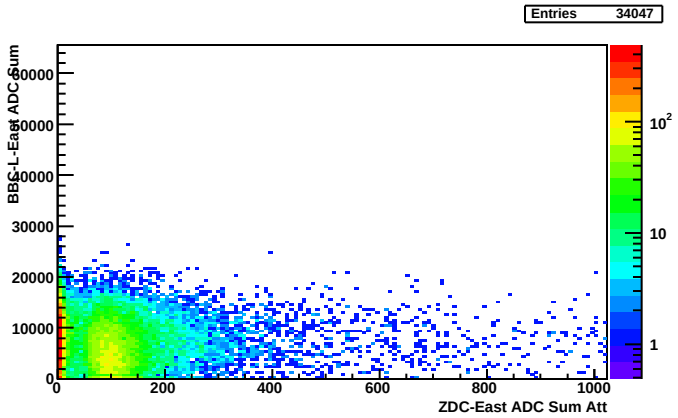

Entries 34047
TOF Mult
ZDC-West ADC Sum Att

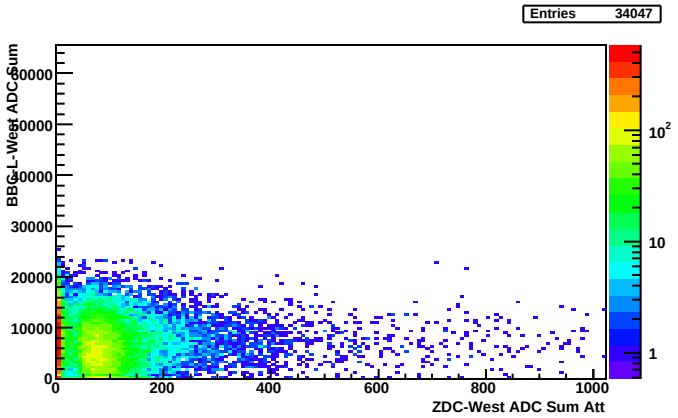

Entries 34047
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 34047
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 34047
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 34047
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 34047
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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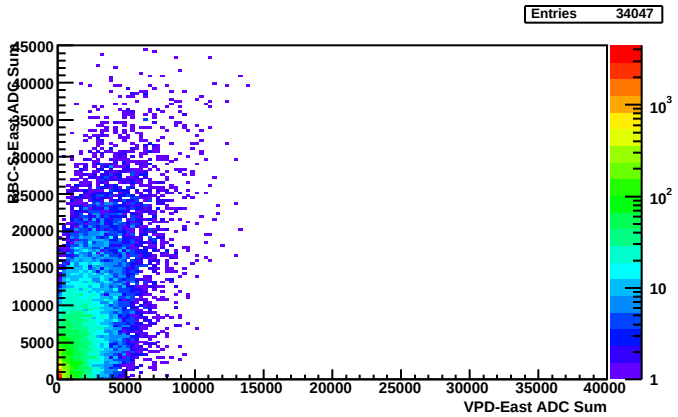
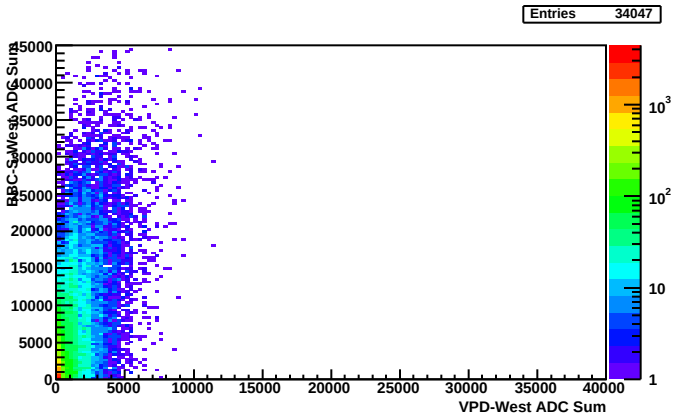
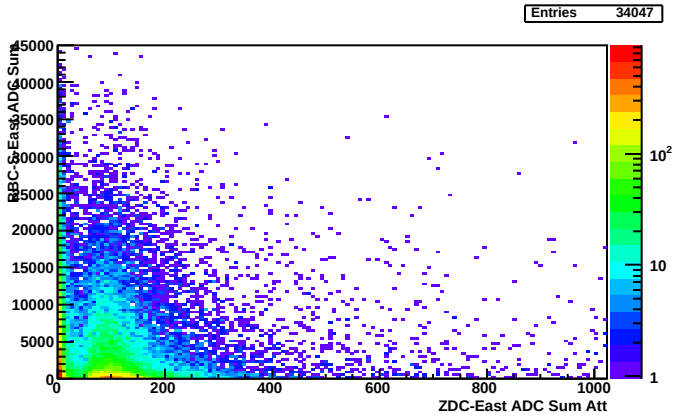
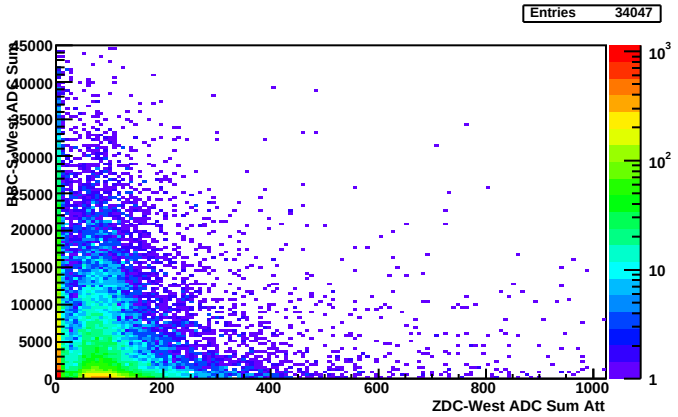
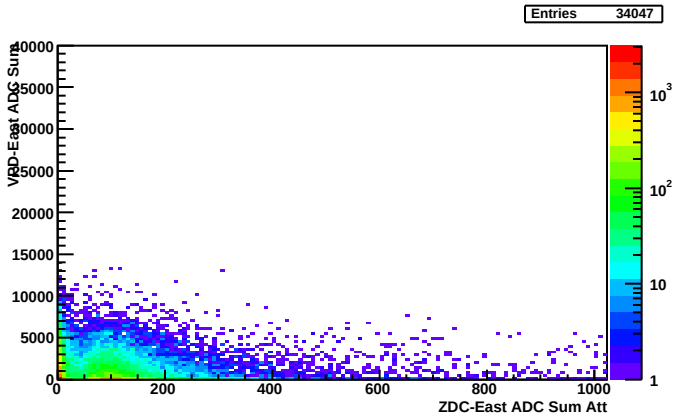
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

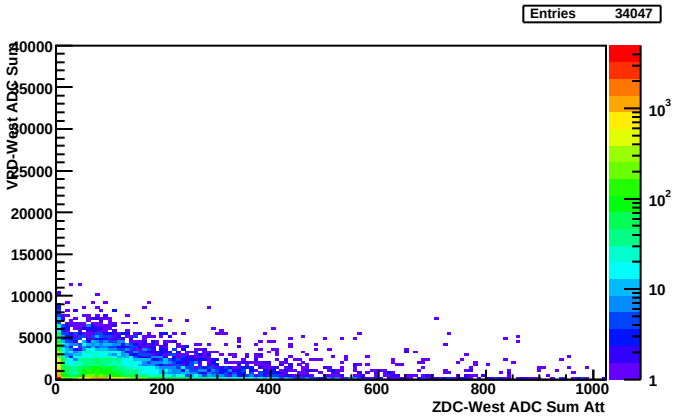

Entries 34047
BBC-S-East ADC Sum
VPD-East ADC Sum

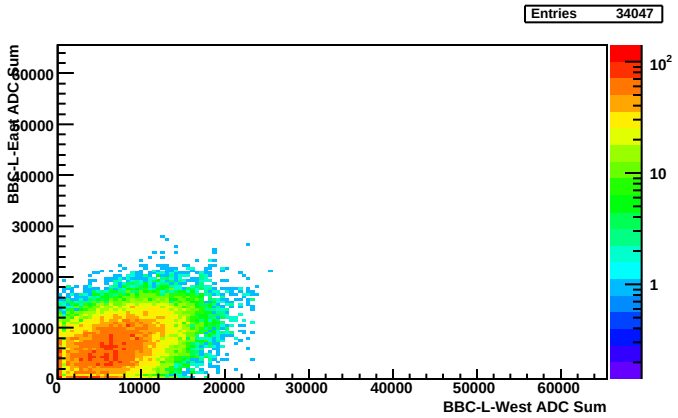

Entries 34047
BBC-S-West ADC Sum
VPD-West ADC Sum

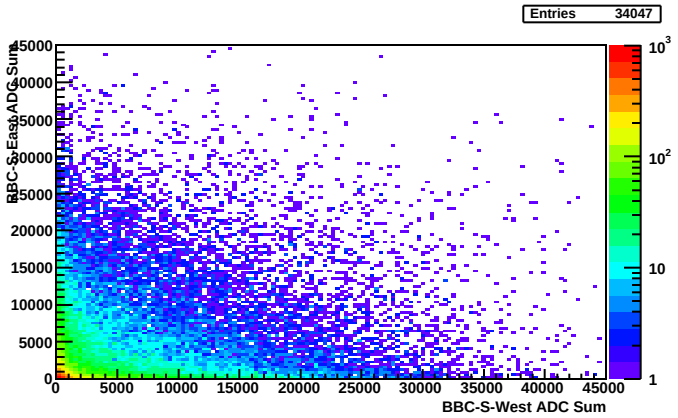

Entries 34047
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

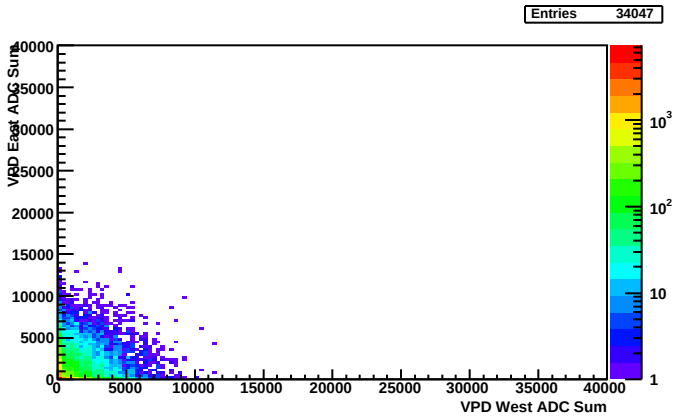

Entries 34047
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

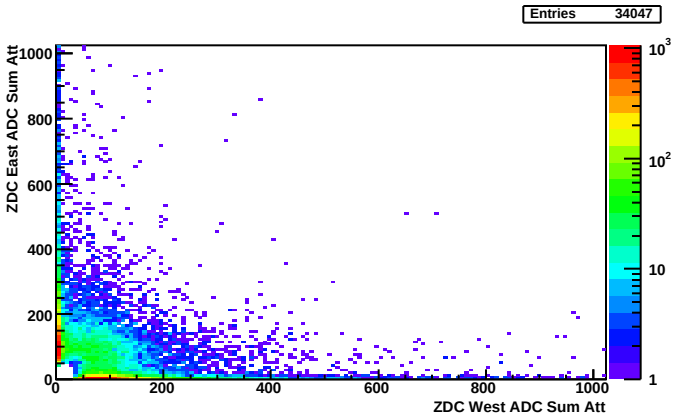

Entries 34047
VPD-East ADC Sum
ZDC-East ADC Sum Att

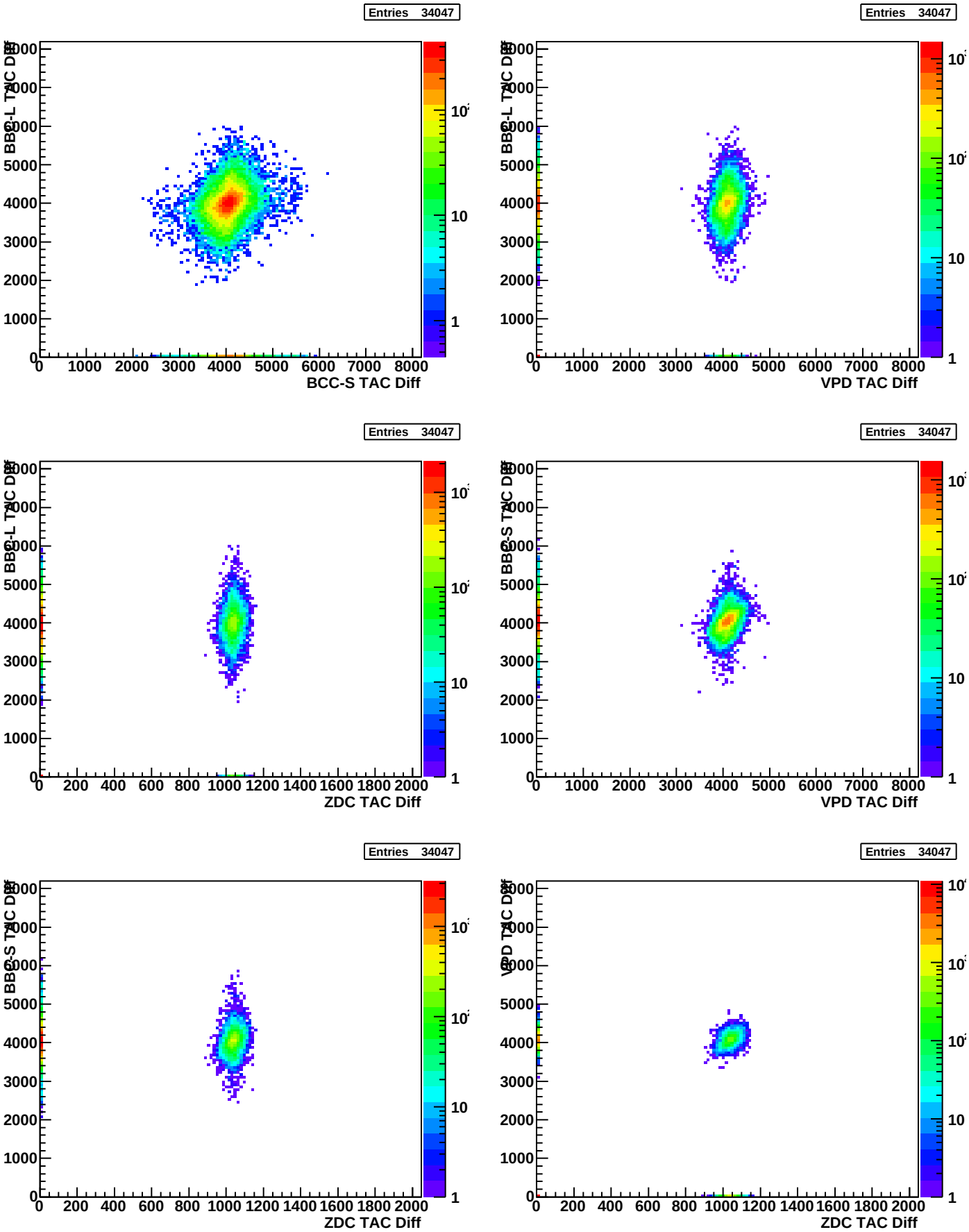

Entries 34047
VPD-West ADC Sum
ZDC-West ADC Sum Att

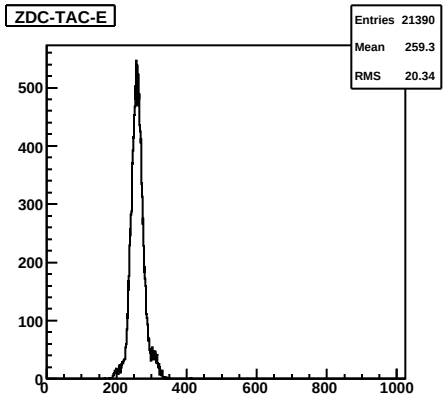

Entries 34047
BBC-L-East ADC Sum
BBC-L-West ADC Sum

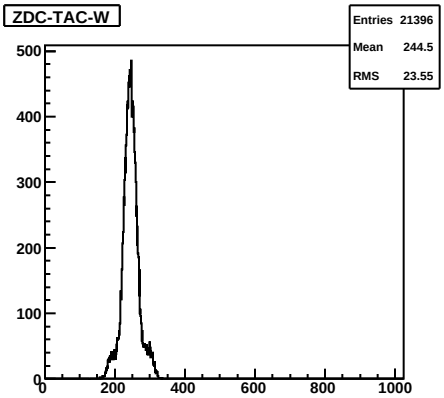

Entries 34047
BBC-S-East ADC Sum
BBC-S-West ADC Sum

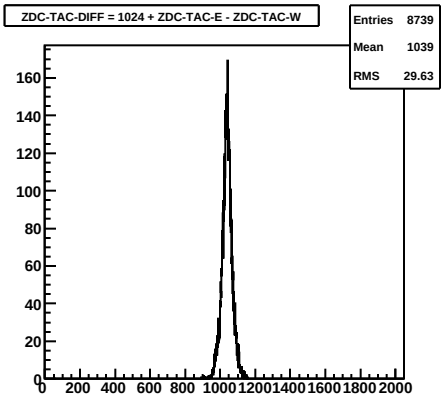

Entries 34047
VPD East ADC Sum
VPD West ADC Sum

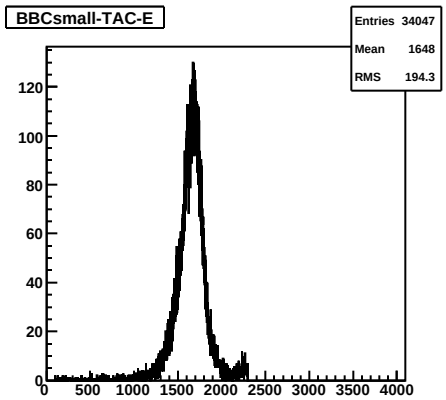

Entries 34047
ZDC East ADC Sum Att
ZDC West ADC Sum Att

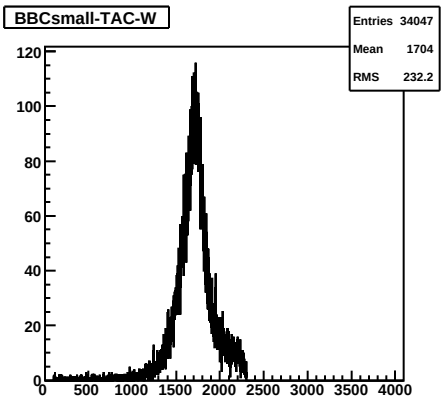

Entries 34047
BBC-L TAC Diff
BCC-S TAC Diff
Entries 34047
BBC-L TAC Diff
VPD TAC Diff
Entries 34047
BBC-L TAC Diff
ZDC TAC Diff
Entries 34047
BBC-S TAC Diff
VPD TAC Diff
Entries 34047
BBC-S TAC Diff
ZDC TAC Diff
Entries 34047
VPD TAC Diff
ZDC TAC Diff

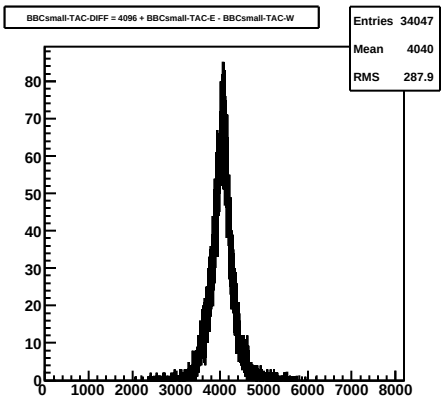

ZDC-TAC-E
Entries 21390
Mean 259.3
RMS 20.34

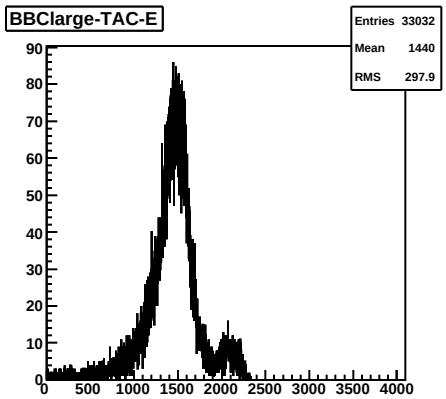

ZDC-TAC-W
Entries 21396
Mean 244.5
RMS 23.55

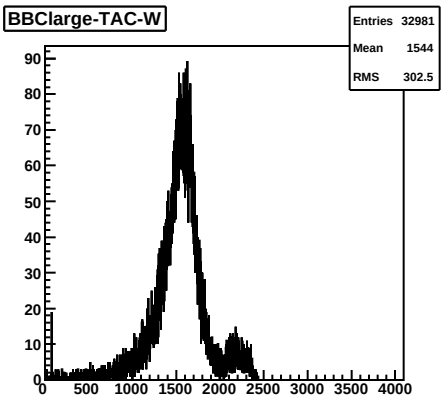

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 8739
Mean 1039
RMS 29.63

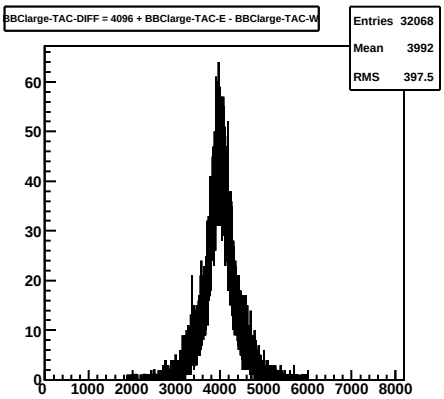

BBCsmall-TAC-E
Entries 34047
Mean 1648
RMS 194.3

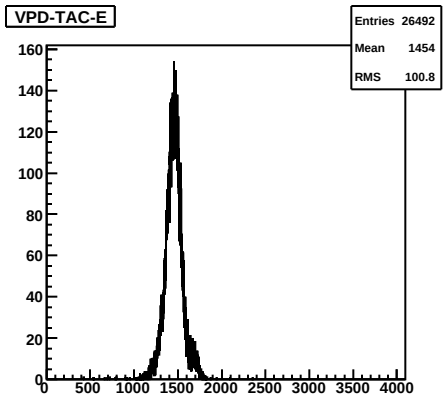

BBCsmall-TAC-W
Entries 34047
Mean 1704
RMS 232.2

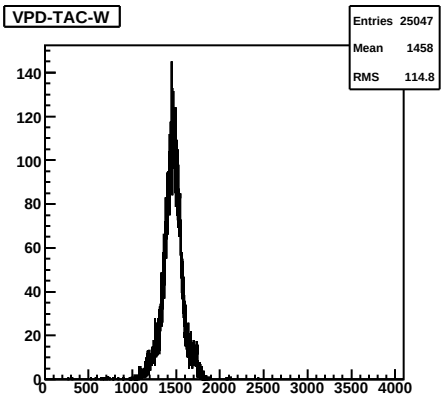

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 34047
Mean 4040
RMS 287.9

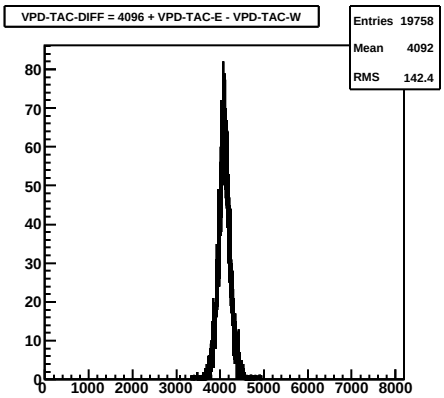

BBClarge-TAC-E
Entries 33032
Mean 1440
RMS 297.9

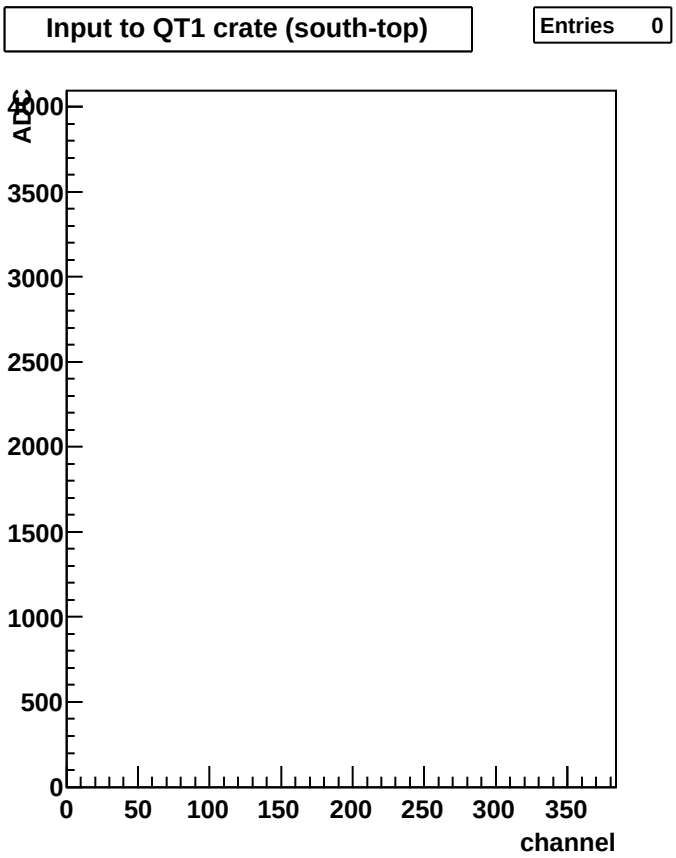

BBClarge-TAC-W
Entries 32981
Mean 1544
RMS 302.5

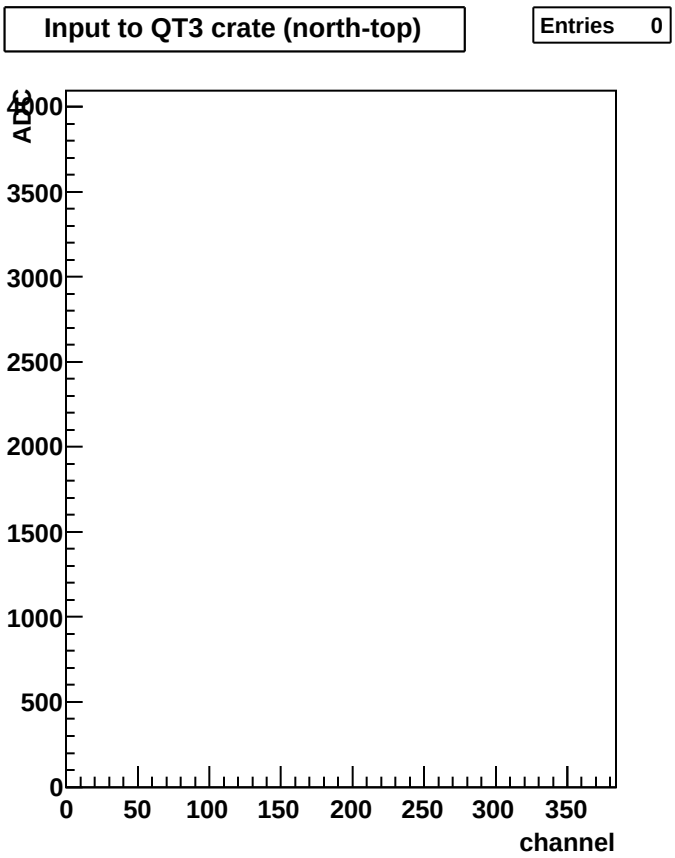

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 32068
Mean 3992
RMS 397.5

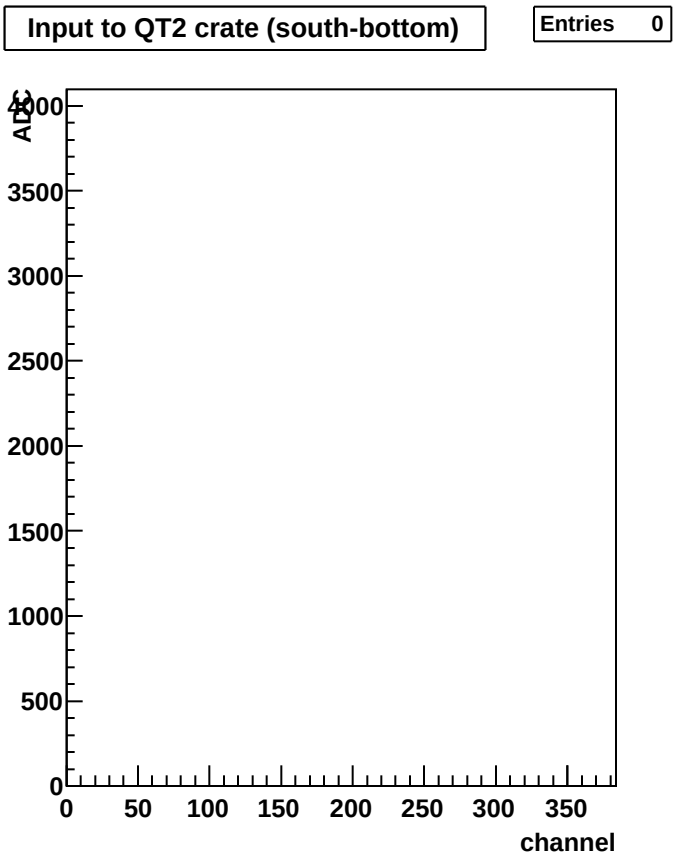

VPD-TAC-E
Entries 26492
Mean 1454
RMS 100.8

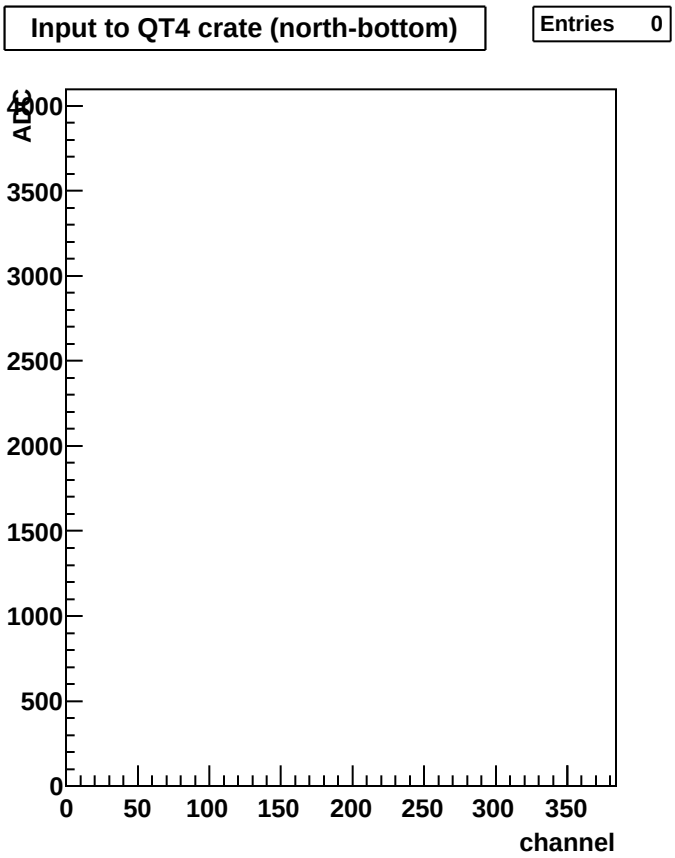

VPD-TAC-W
Entries 25047
Mean 1458
RMS 114.8

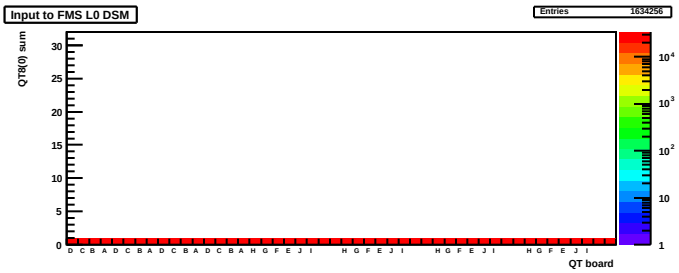

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 19758
Mean 4092
RMS 142.4

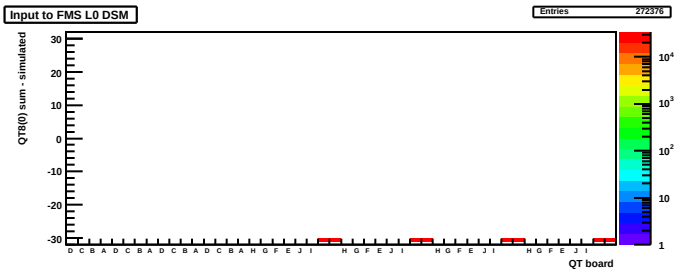

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

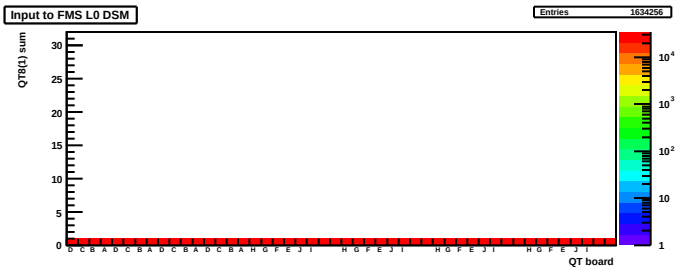

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

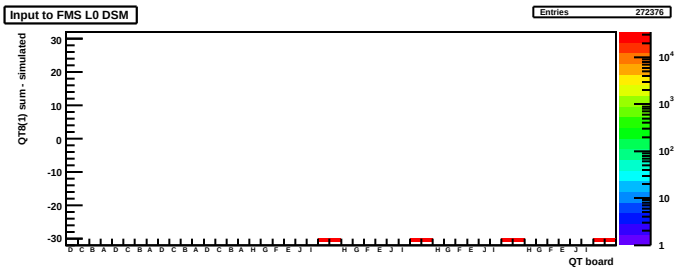

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

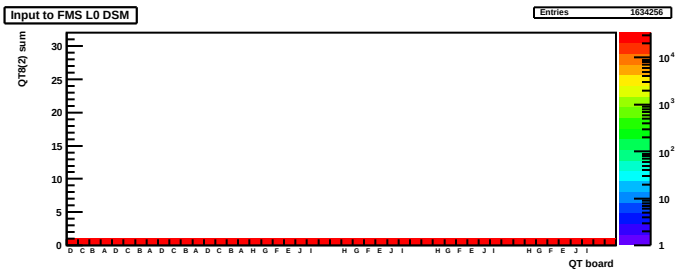

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

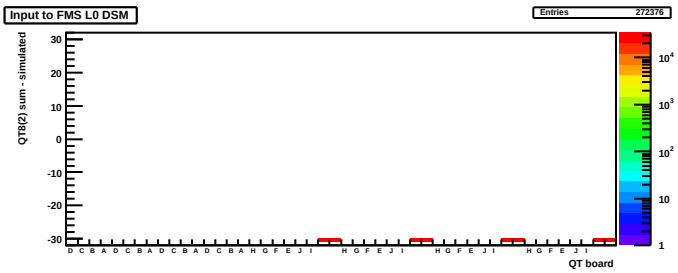

Input to FMS L0 DSM
Entries 1634256
QT8(0) sum
QT board

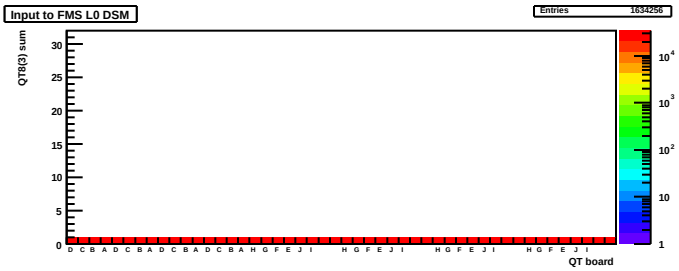

Input to FMS L0 DSM
Entries 272376
QT8(0) sum - simulated
QT board

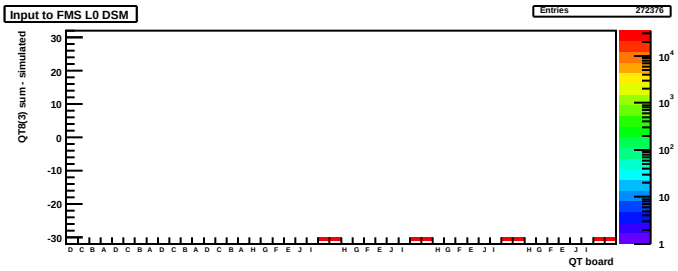

Input to FMS L0 DSM
Entries 1634256
QT8(1) sum
QT board

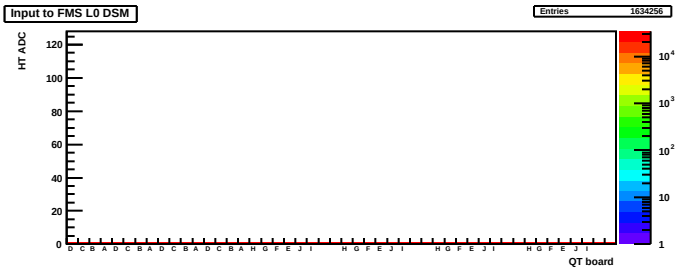

Input to FMS L0 DSM
Entries 272376
QT8(1) sum - simulated
QT board

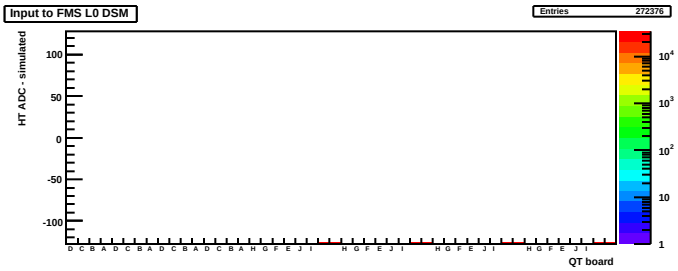

Input to FMS L0 DSM
Entries 1634256
QT8(2) sum
QT board

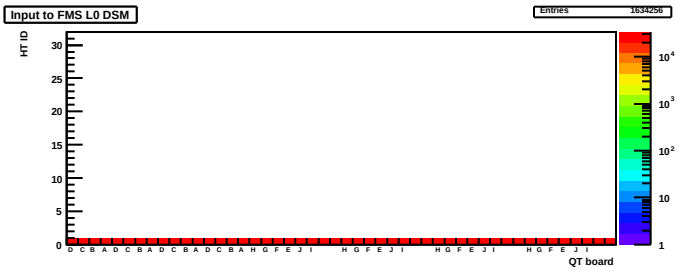

Input to FMS L0 DSM
Entries 272376
QT8(2) sum - simulated
QT board

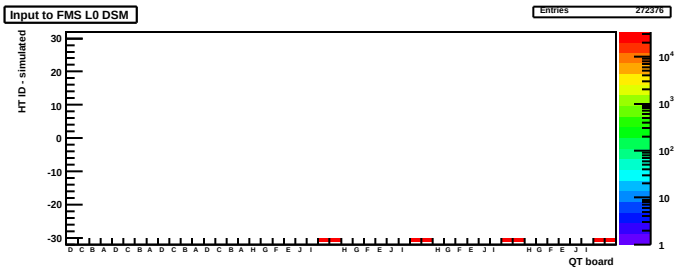

Input to FMS L0 DSM
Entries 1634256
QT8(3) sum
QT board

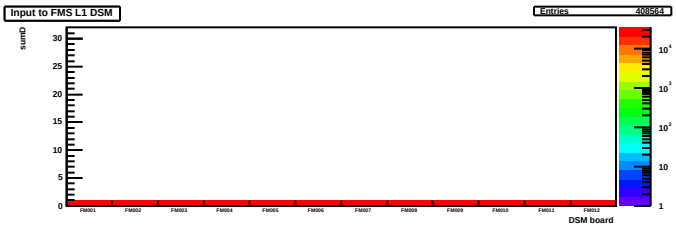

Input to FMS L0 DSM
Entries 272376
QT8(3) sum - simulated
QT board

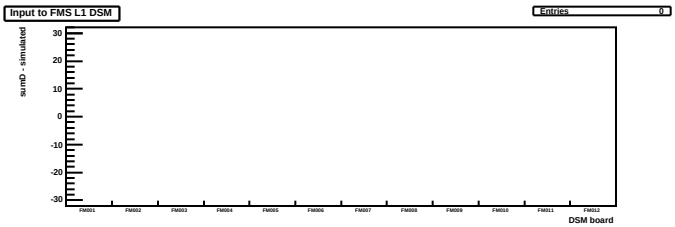

Input to FMS L0 DSM
Entries 1634256
HT ADC
QT board

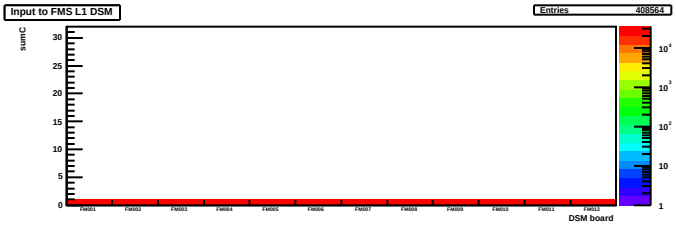

Input to FMS L0 DSM
Entries 272376
HT ADC - simulated
QT board

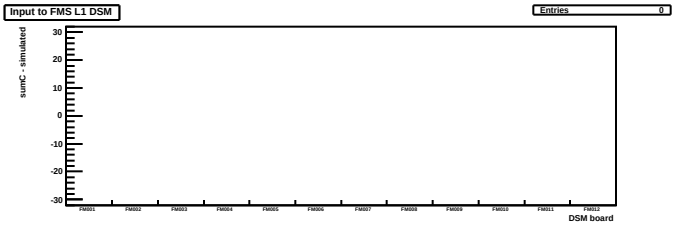

Input to FMS L0 DSM
Entries 1634256
HT ID
QT board

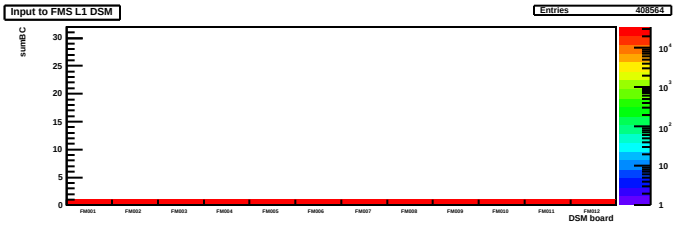

Input to FMS L0 DSM
Entries 272376
HT ID - simulated
QT board

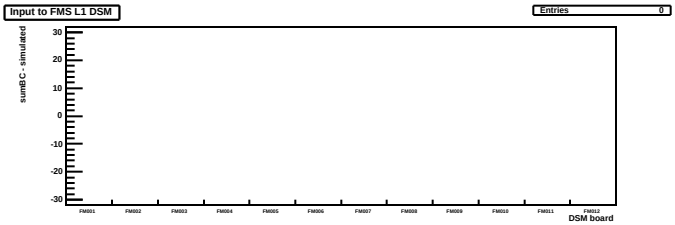

Input to FMS L1 DSM
Entries 408564
sumD
DSM board

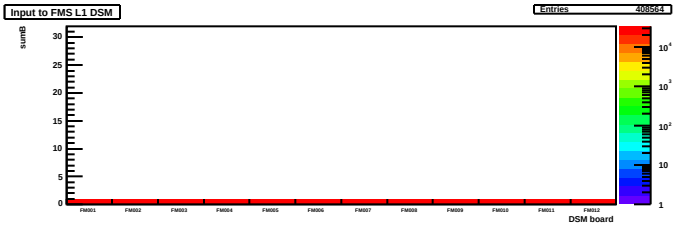

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

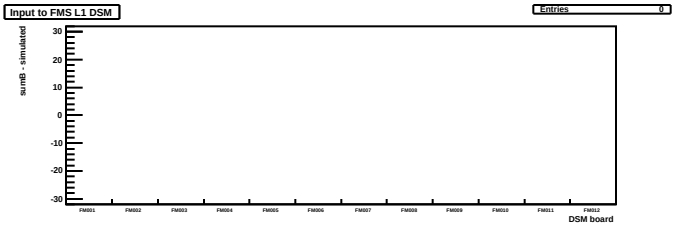

Input to FMS L1 DSM
Entries 408564
sumC
DSM board

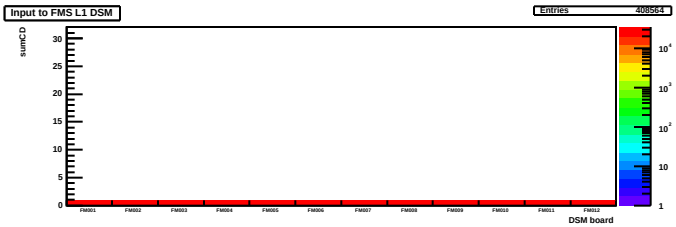

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

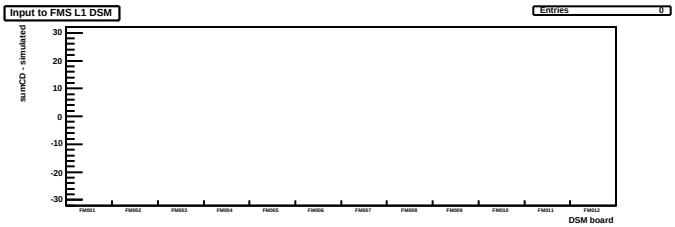

Input to FMS L1 DSM
Entries 408564
sumBC
DSM board

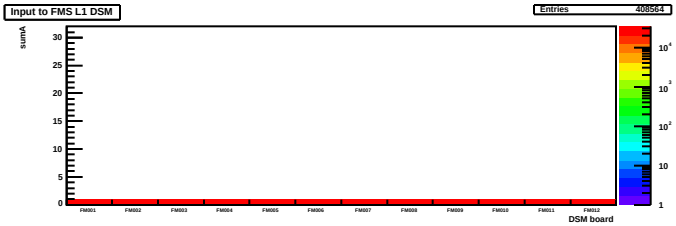

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

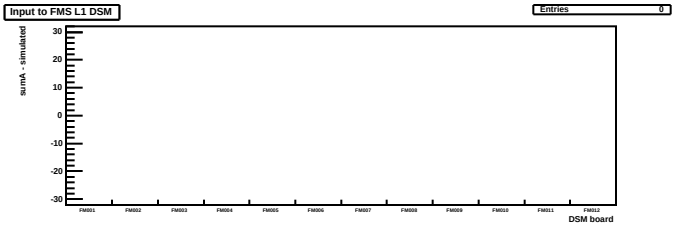

Input to FMS L1 DSM
Entries 408564
sumB
DSM board

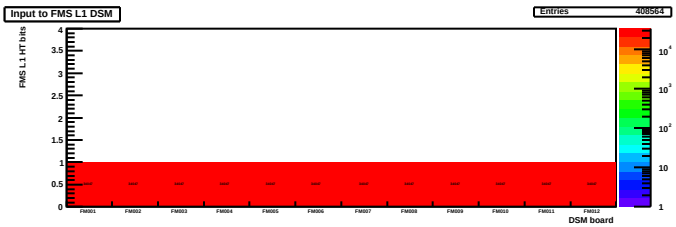

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

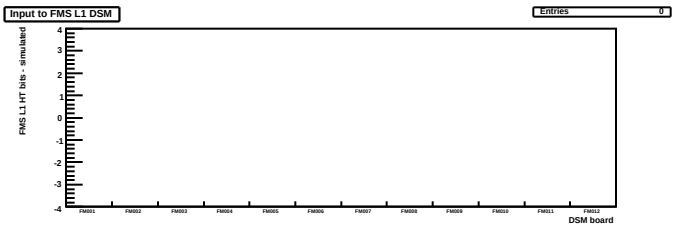

Input to FMS L1 DSM
Entries 408564
sumCD
DSM board

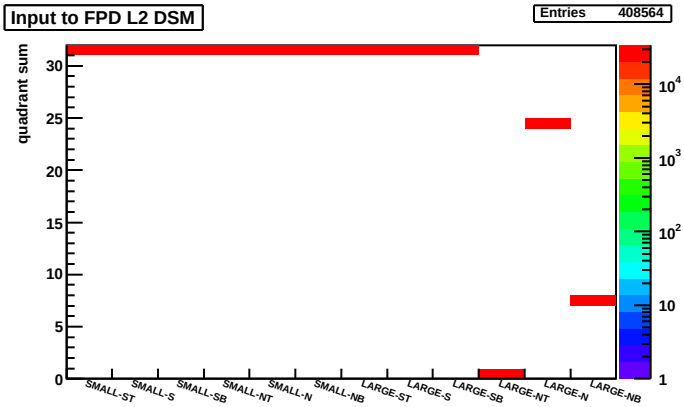

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

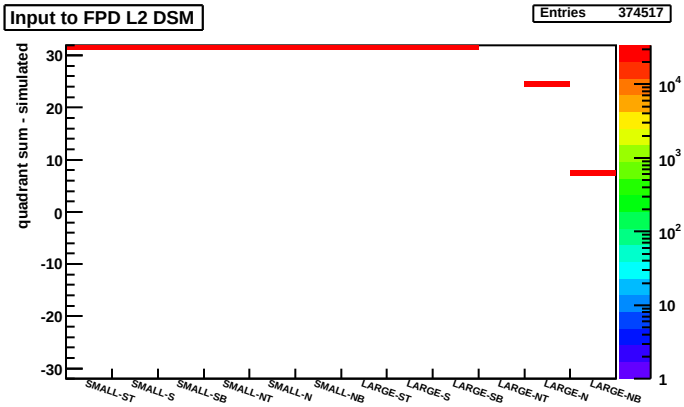

Input to FMS L1 DSM
Entries 408564
sumA
DSM board

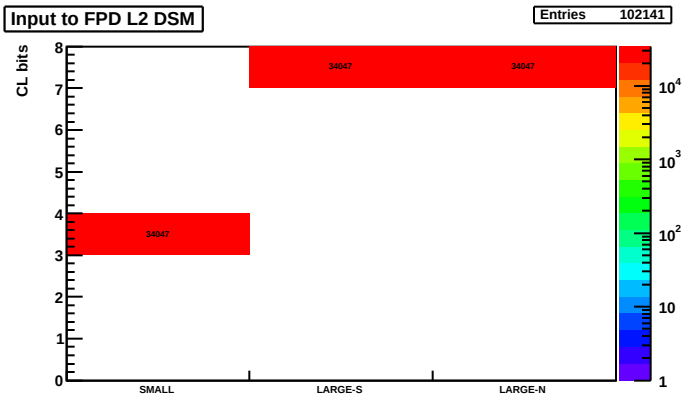

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

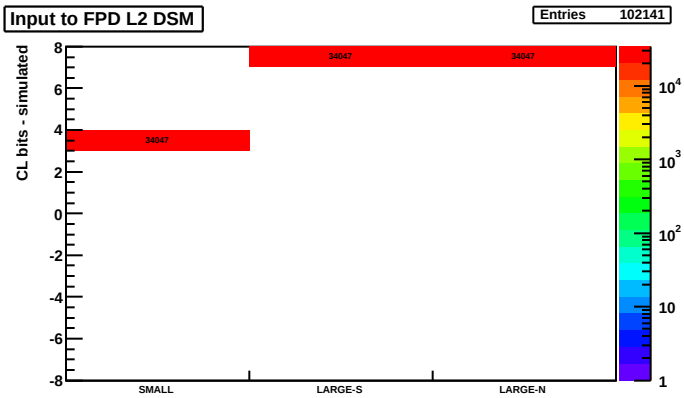

Input to FMS L1 DSM
Entries 408564
FMS L1 HT bits
DSM board

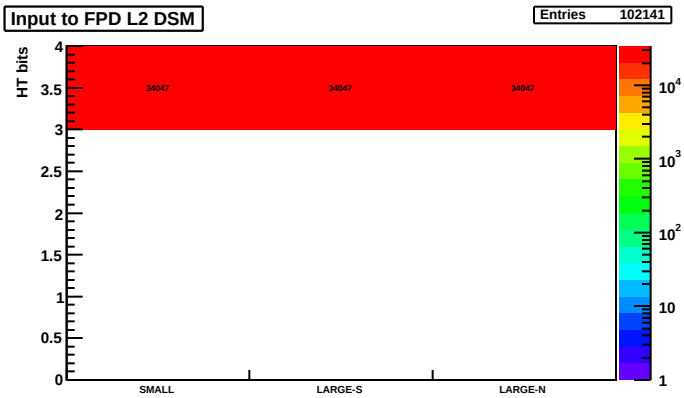

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

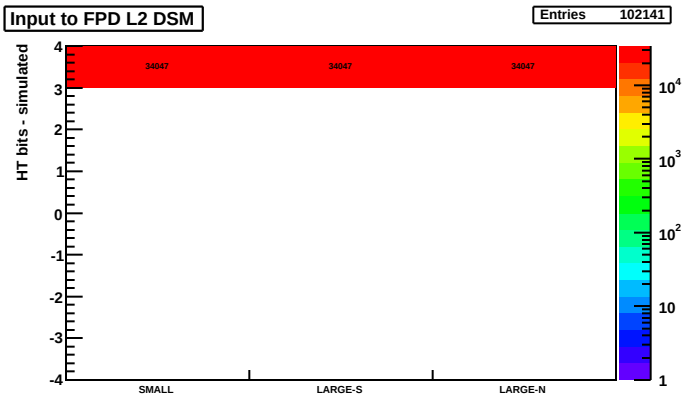

Input to FPD L2 DSM
Entries 408564
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

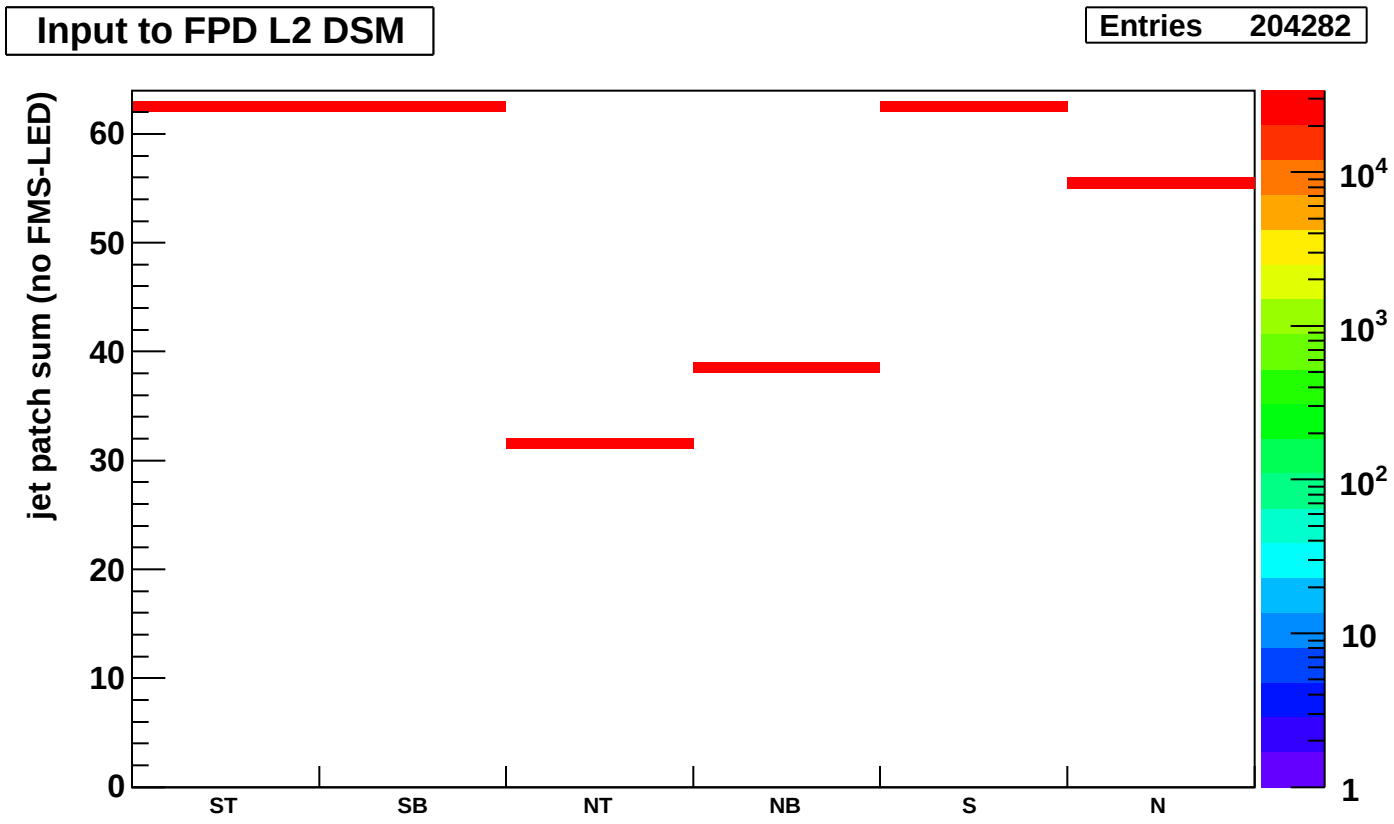

Input to FPD L2 DSM
Entries 374517
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

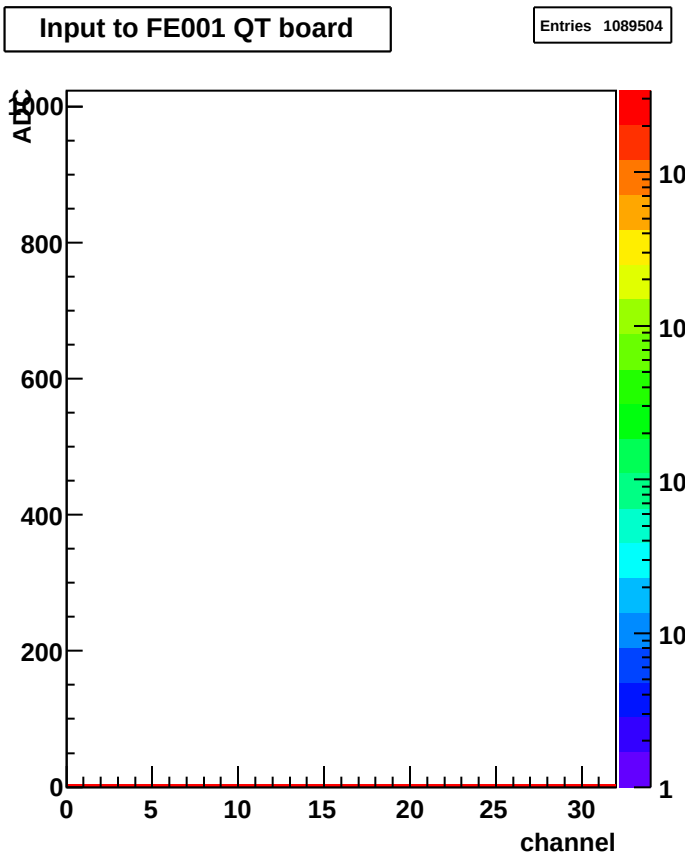

Input to FPD L2 DSM
Entries 102141
CL bits
34047
34047
34047
SMALL
LARGE-S
LARGE-N

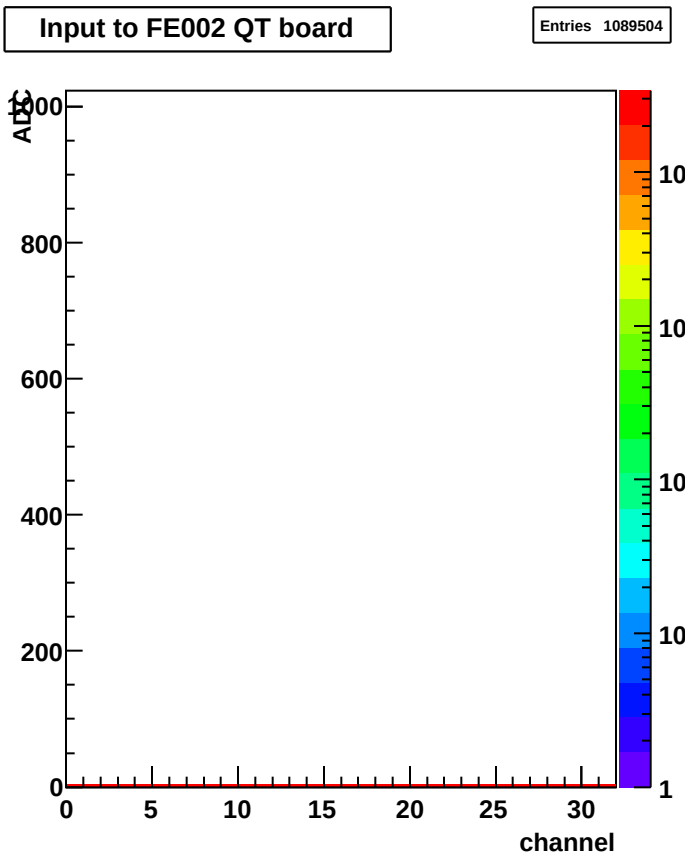

Input to FPD L2 DSM
Entries 102141
CL bits - simulated
34047
34047
34047
SMALL
LARGE-S
LARGE-N

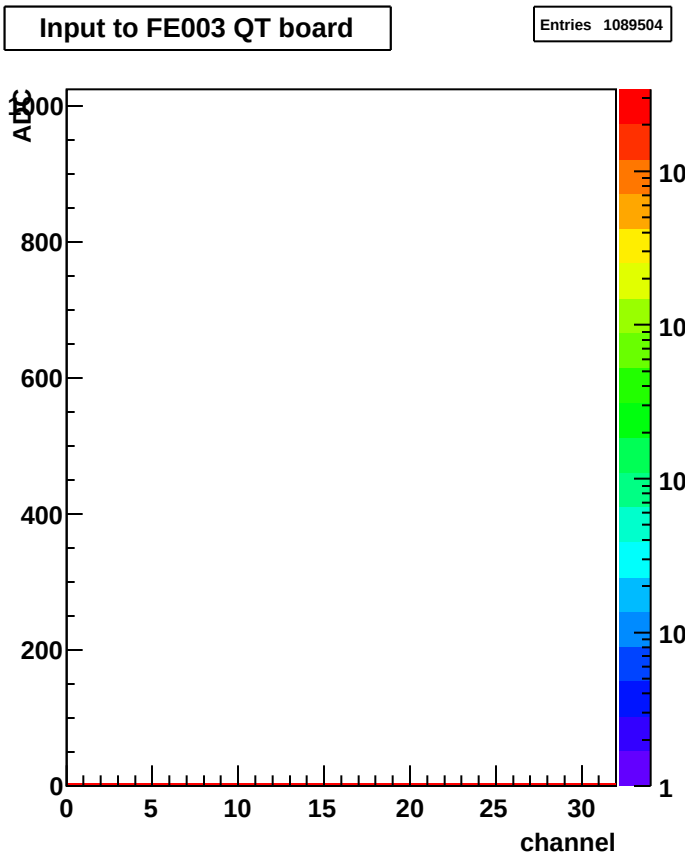

Input to FPD L2 DSM
Entries 102141
HT bits
34047
34047
34047
SMALL
LARGE-S
LARGE-N

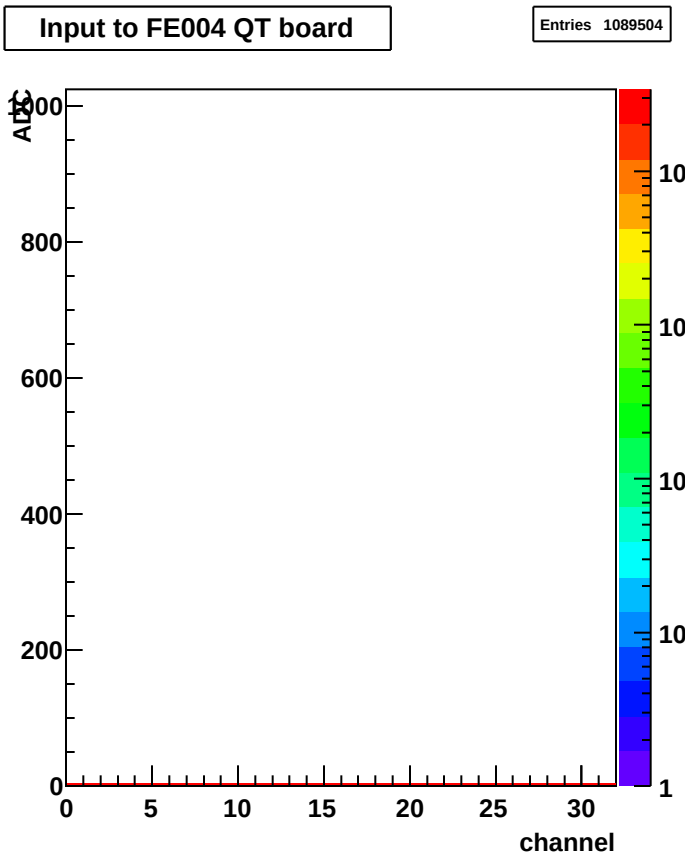

Input to FPD L2 DSM
Entries 102141
HT bits - simulated
34047
34047
34047
SMALL
LARGE-S
LARGE-N

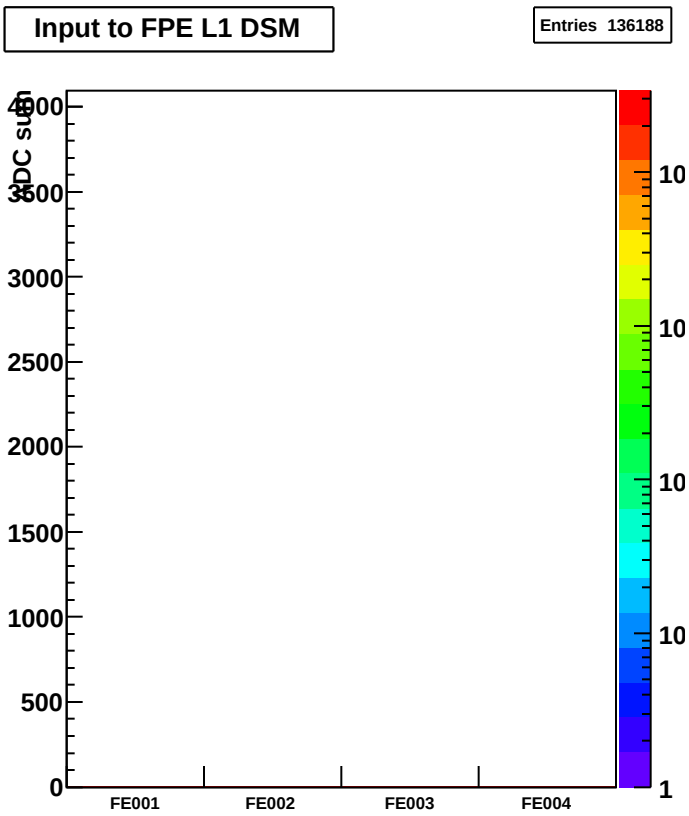

Input to FPD L2 DSM
Entries 204282
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

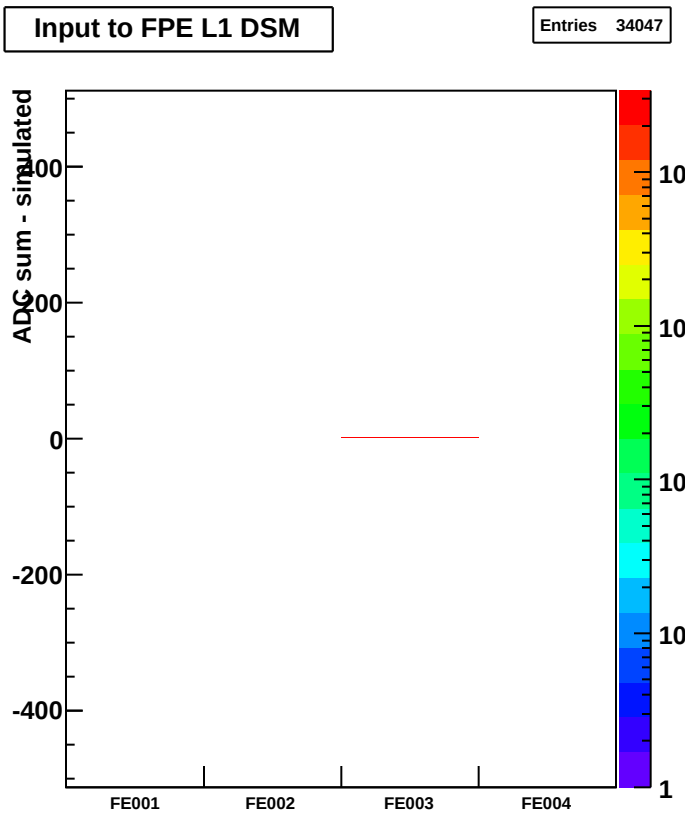

Input to FE001 QT board
Entries 1089504
ADC
channel

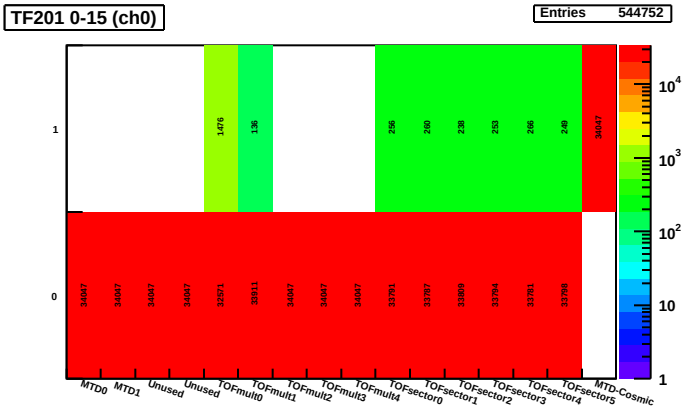

Input to FE002 QT board
Entries 1089504
ADC
channel

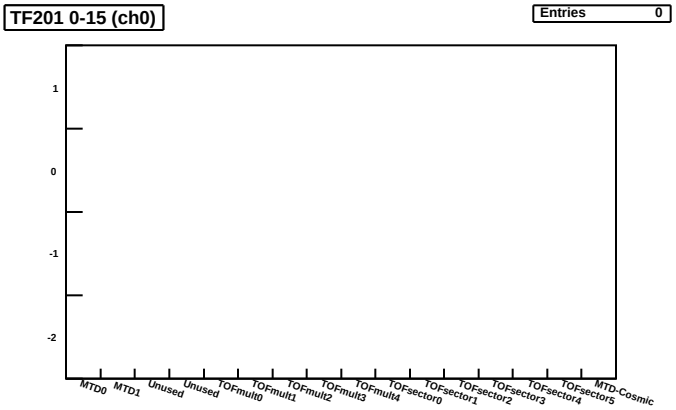

Input to FE003 QT board
Entries 1089504
ADC
channel

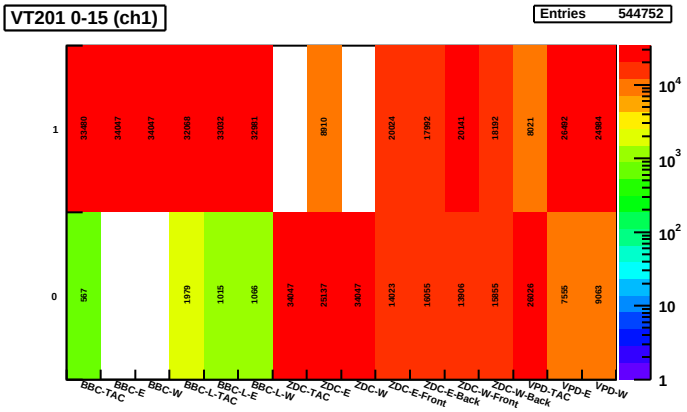

Input to FE004 QT board
Entries 1089504
ADC
channel

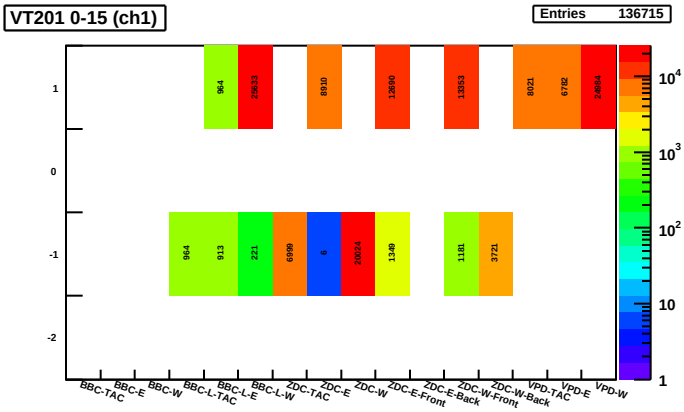

Input to FPE L1 DSM
Entries 136188
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

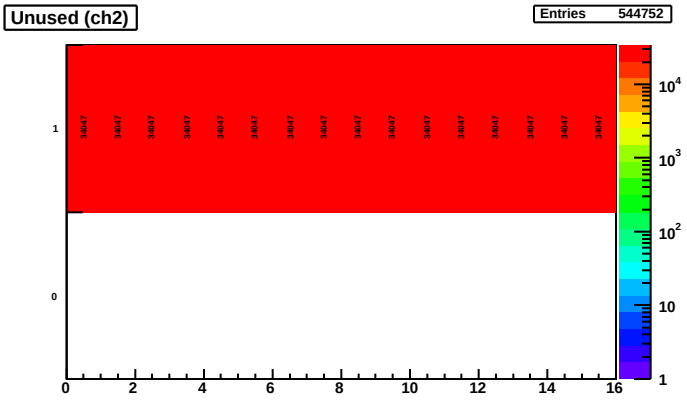

Input to FPE L1 DSM
Entries 34047
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

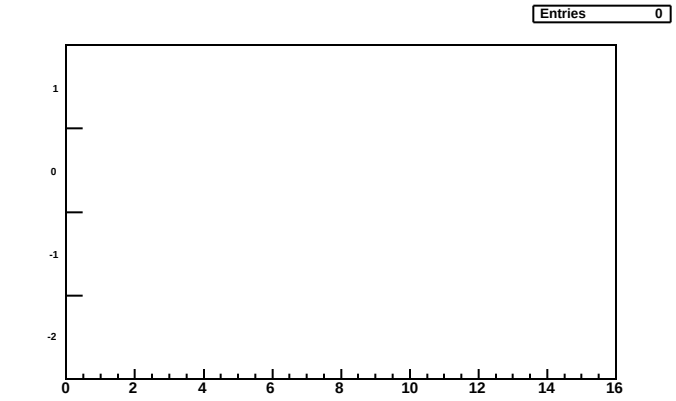

TF201 0-15 (ch0)
Entries 544752
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

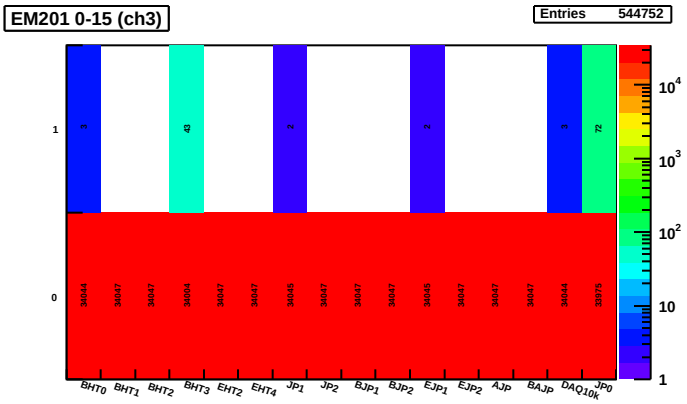

TF201 0-15 (ch0)
Entries 0
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 544752
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 136715
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 544752


Entries 0


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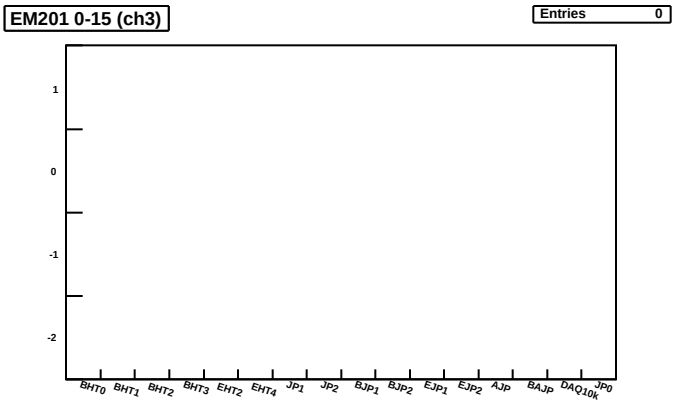
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


EM201 0-15 (ch3)
Entries 0
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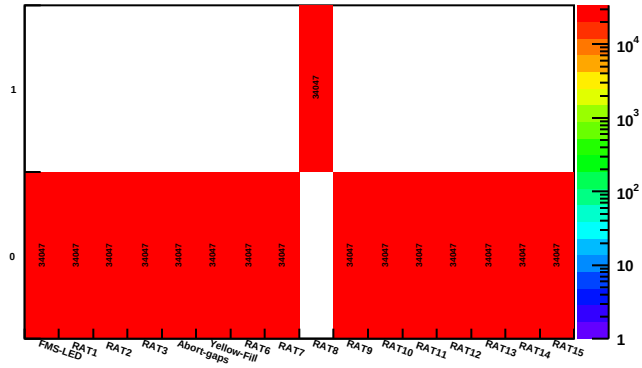
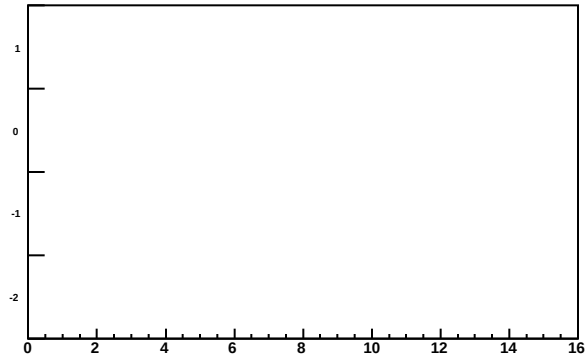
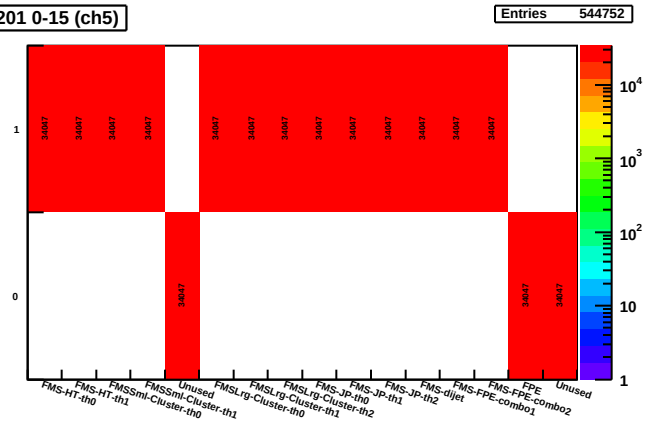
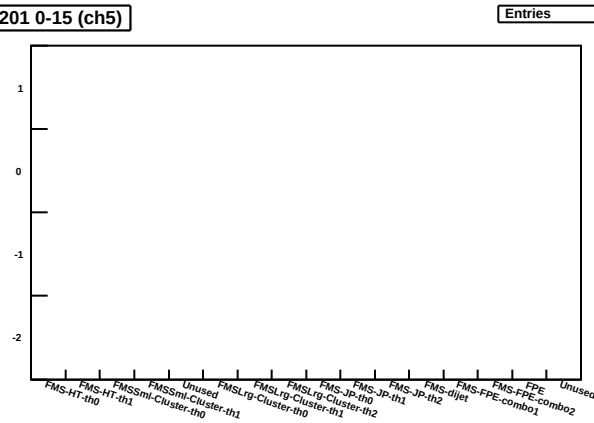
RAT board (ch4)



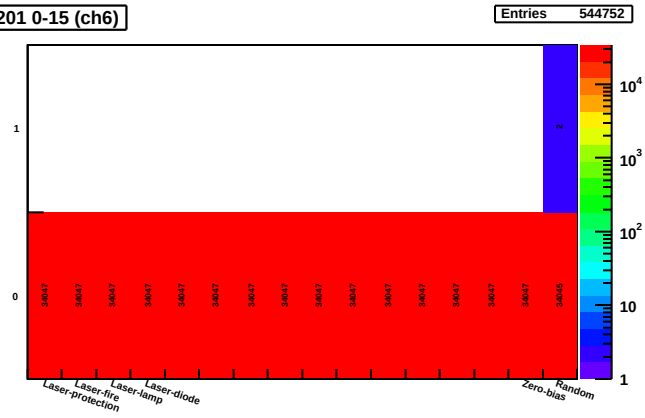


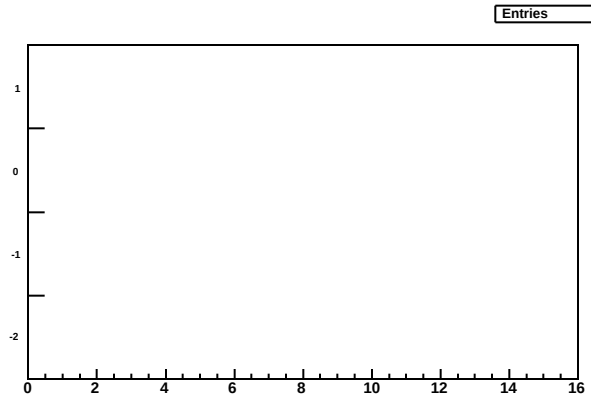
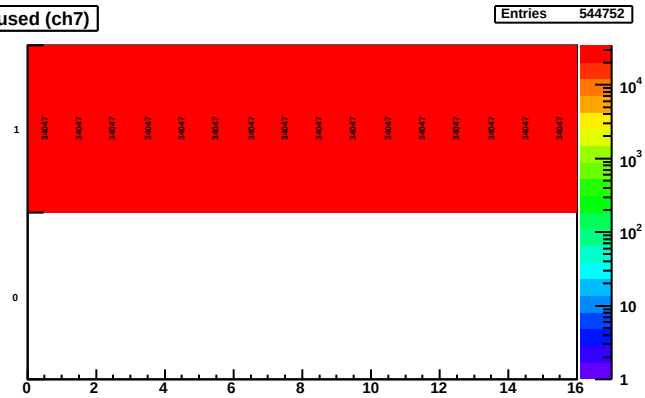
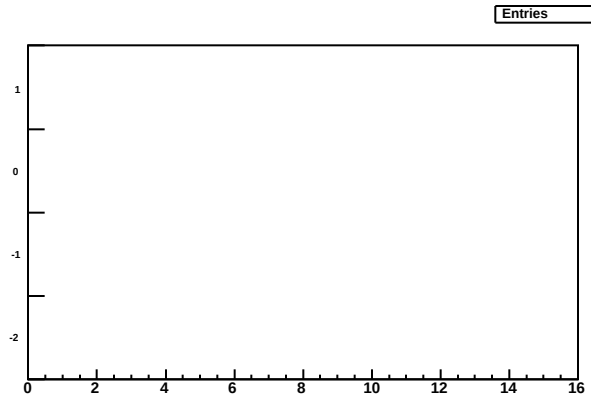
FP201 0-15 (ch5)





ST201 0-15 (ch6)





Unused (ch7)