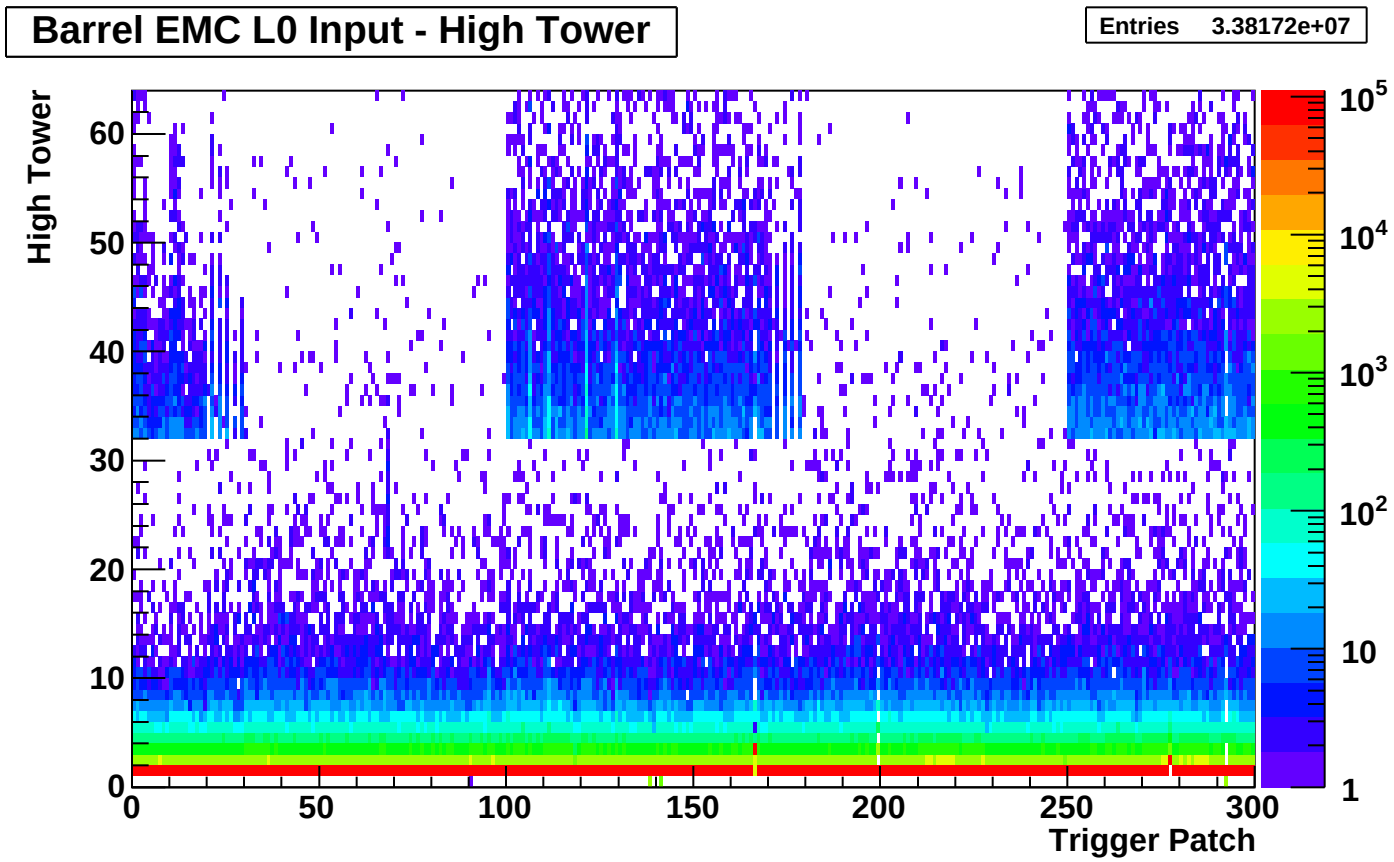
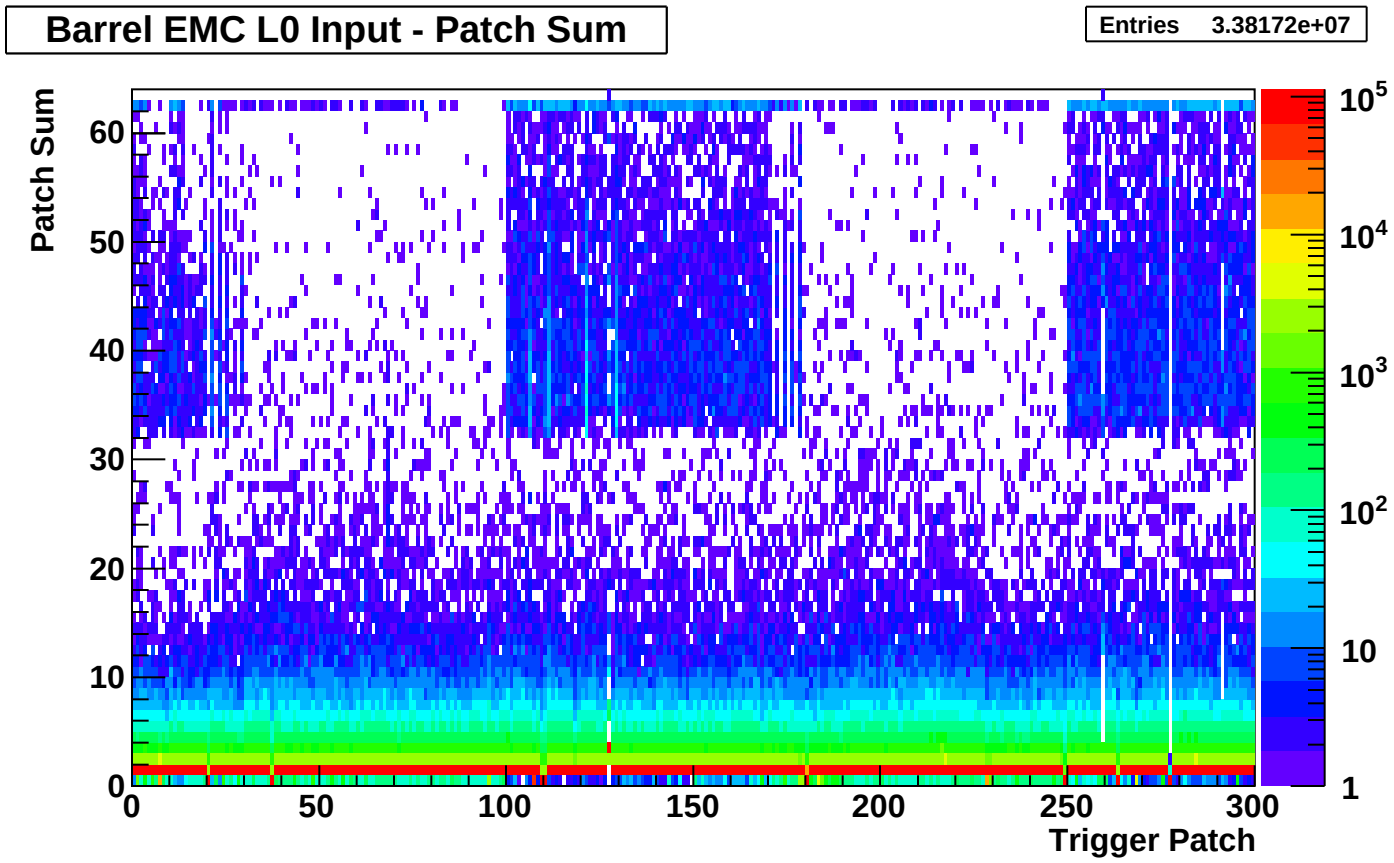
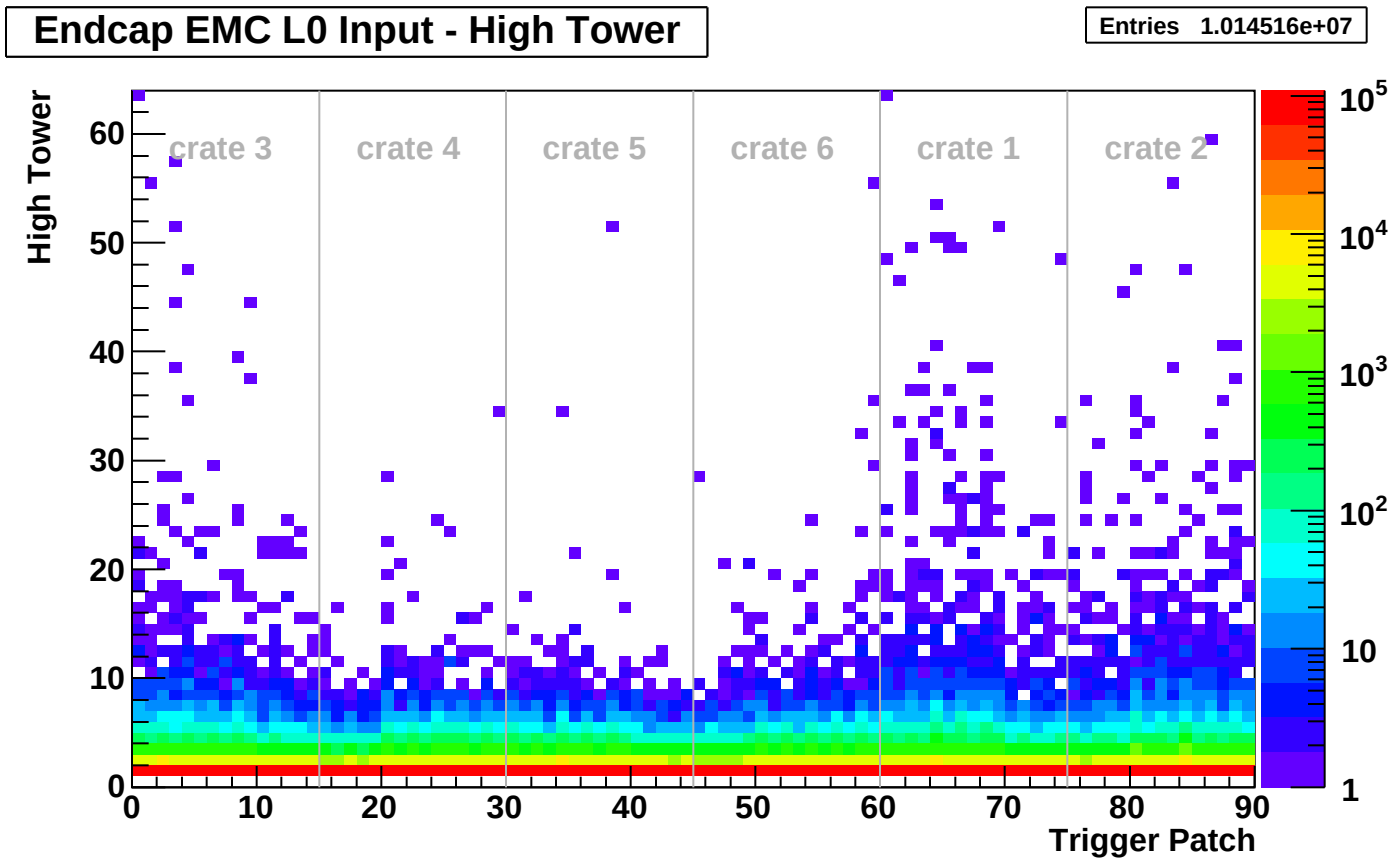
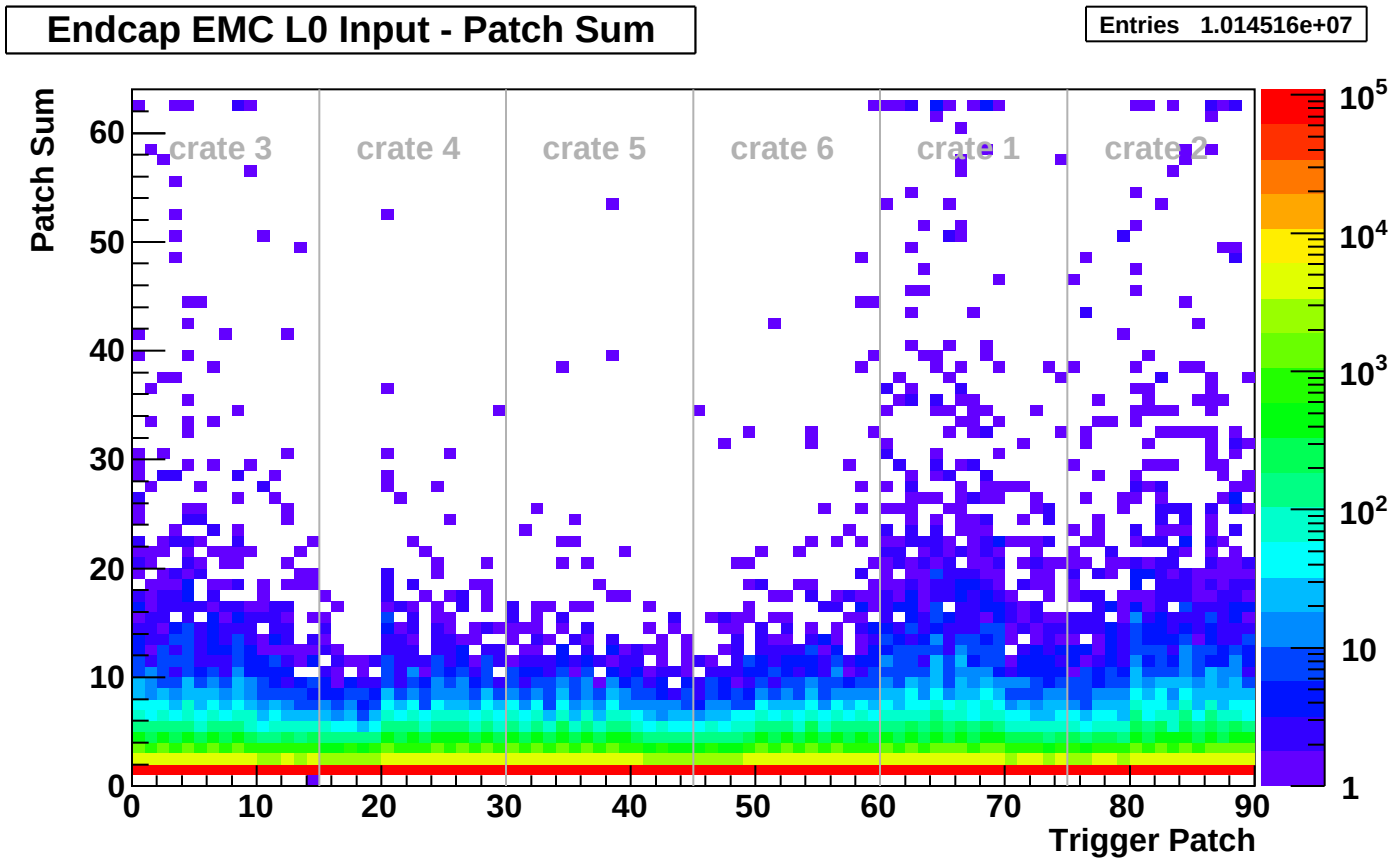
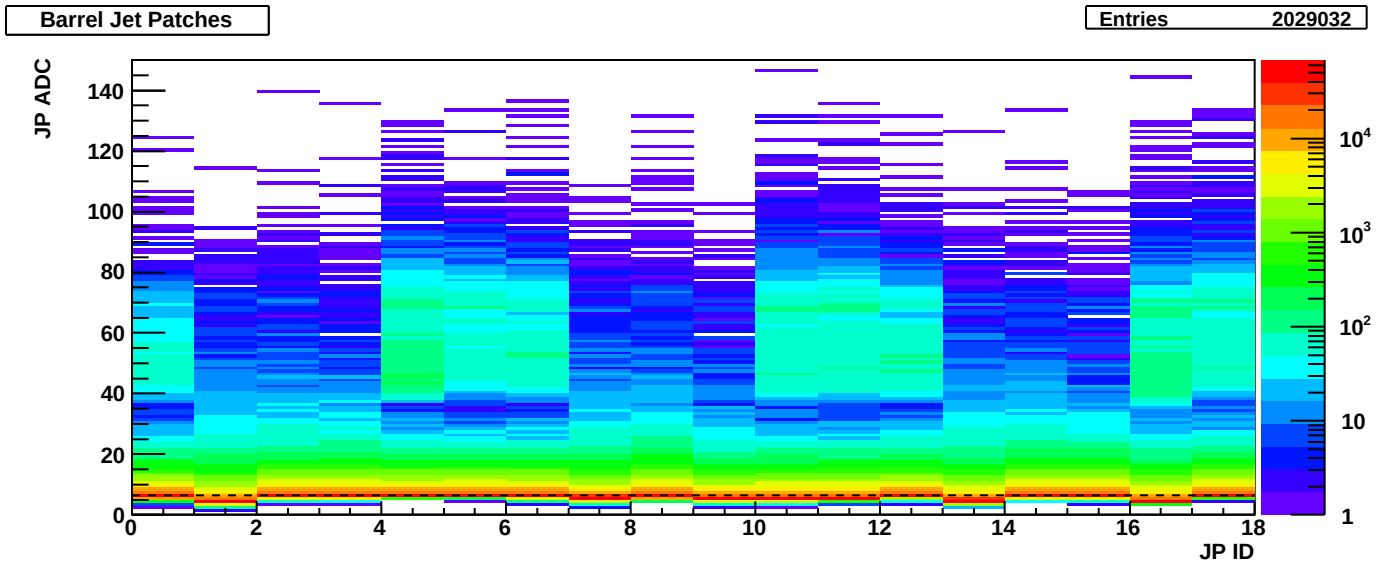
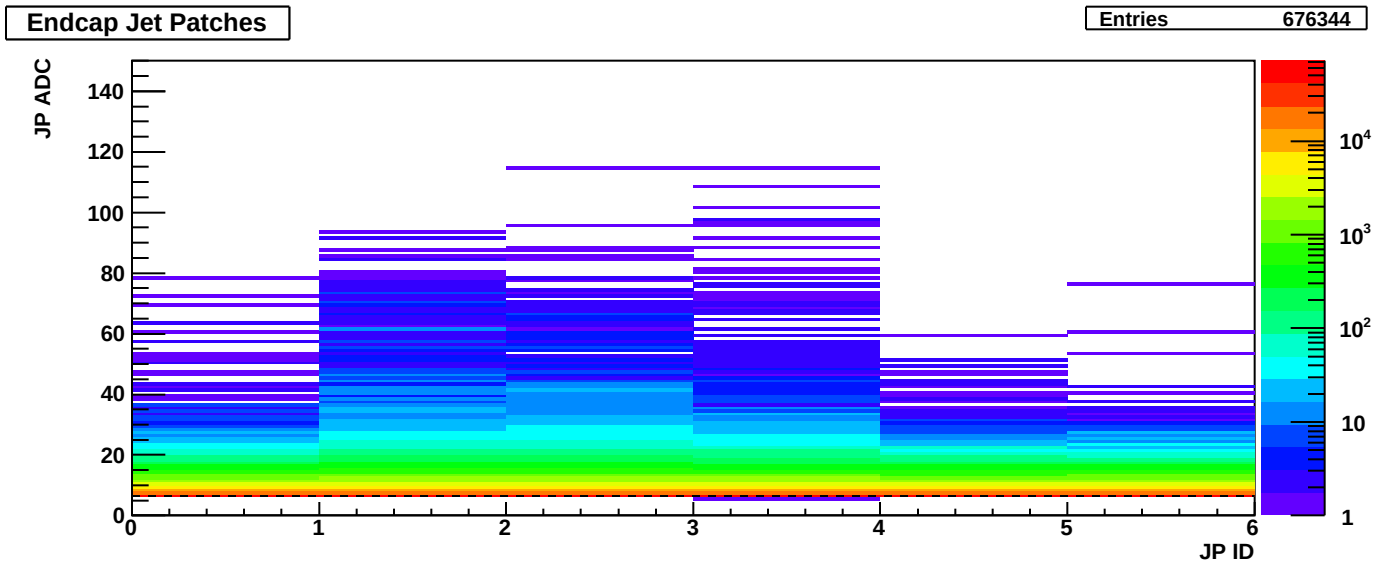

Barrel EMC L0 Input - High Tower
Entries 3.38172e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

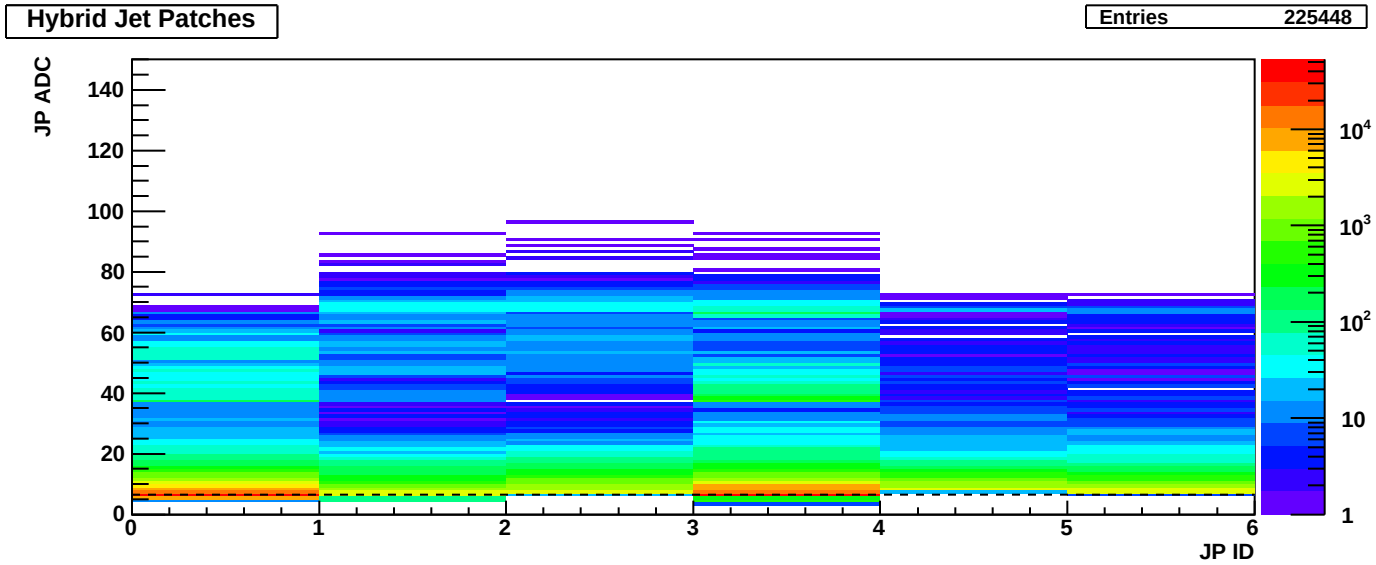

Barrel EMC L0 Input - Patch Sum
Entries 3.38172e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

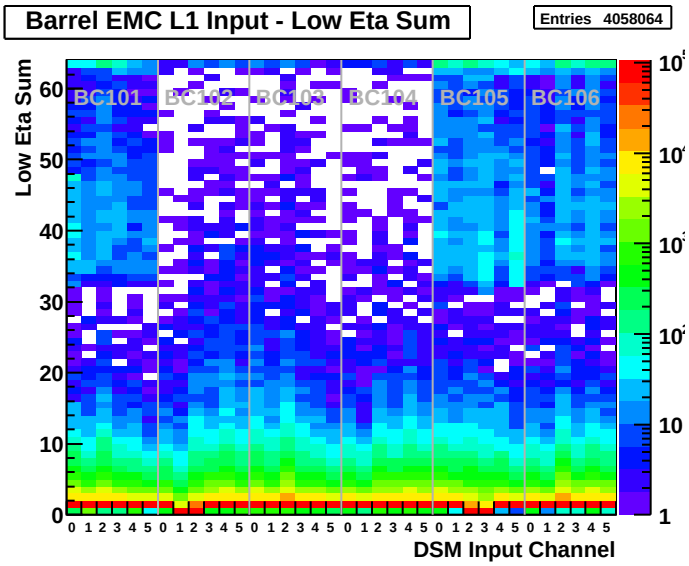

Endcap EMC L0 Input - High Tower
Entries 1.014516e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

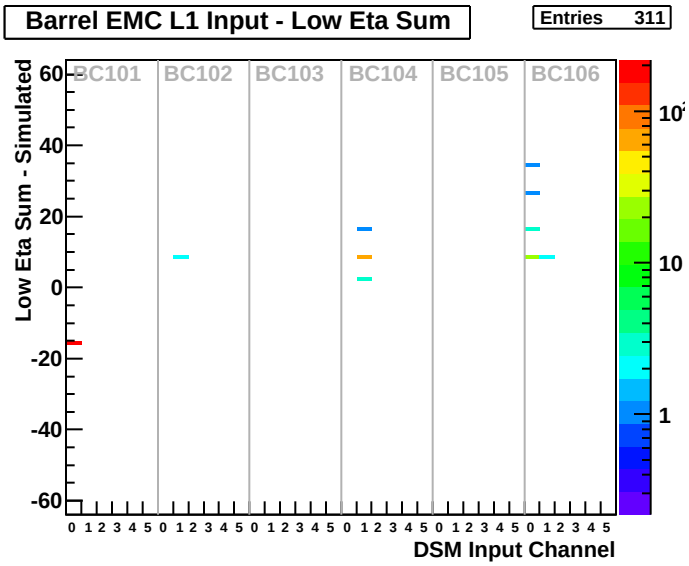

Endcap EMC L0 Input - Patch Sum
Entries 1.014516e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

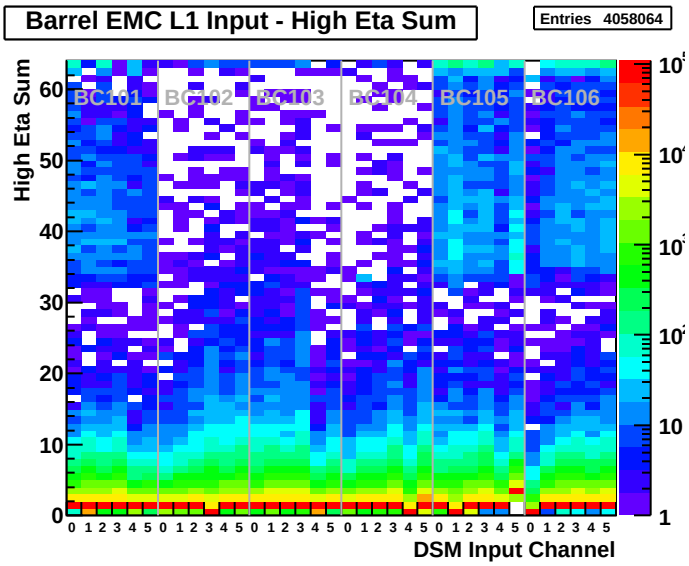

Barrel Jet Patches
Entries 2029032
JP ADC
JP ID

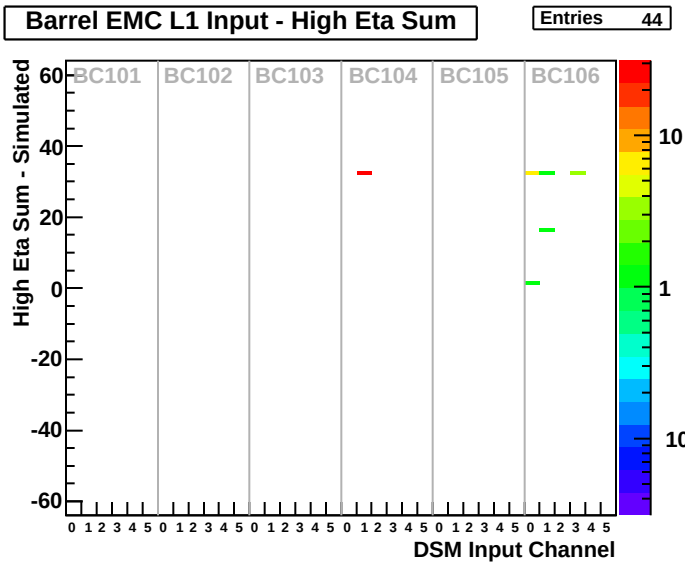

Endcap Jet Patches
Entries 676344
JP ADC
JP ID

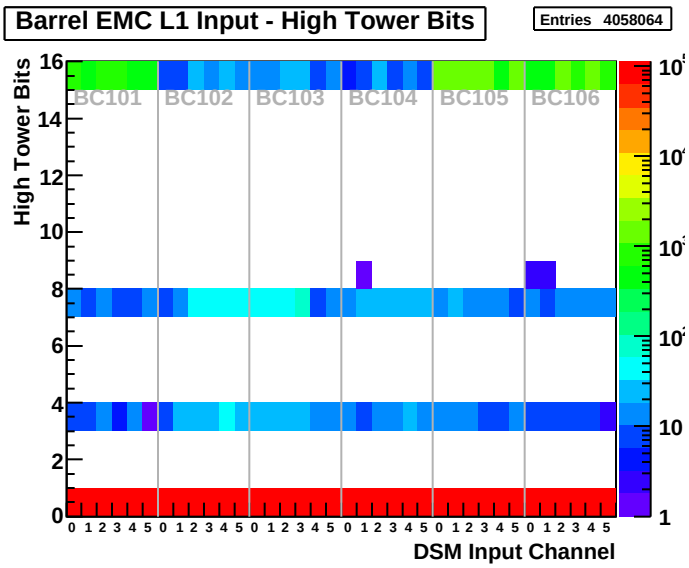

Hybrid Jet Patches
Entries 225448
JP ADC
JP ID

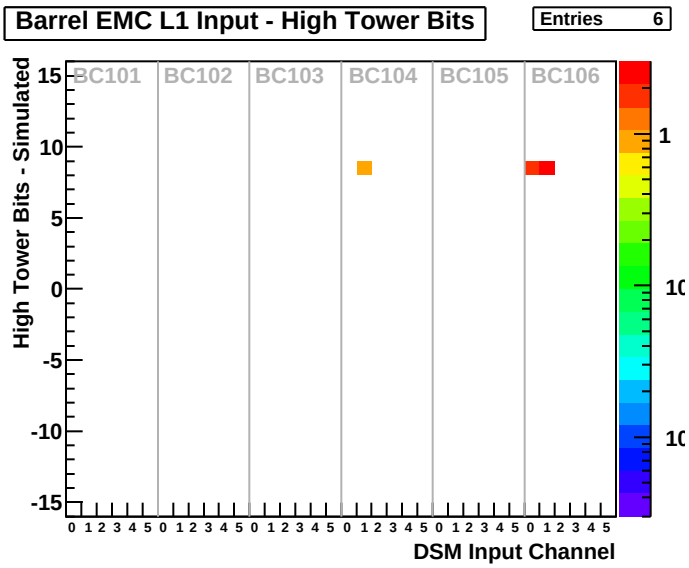

Barrel EMC L1 Input - Low Eta Sum
Entries 4058064
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

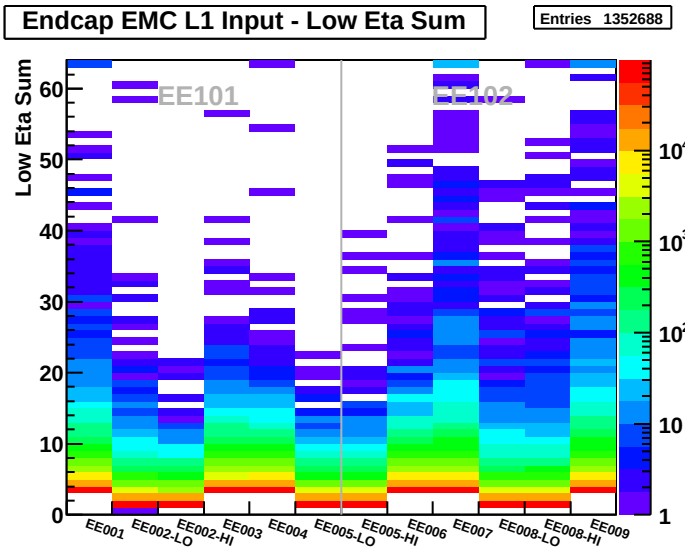

Barrel EMC L1 Input - Low Eta Sum
Entries 311
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

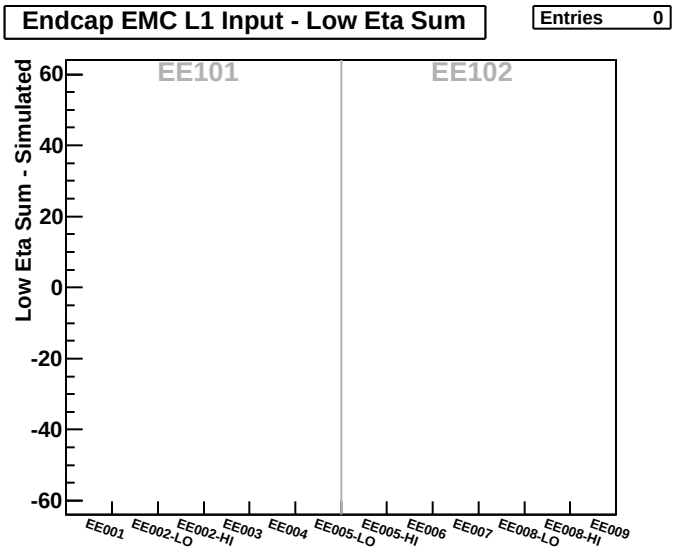

Barrel EMC L1 Input - High Eta Sum
Entries 4058064
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

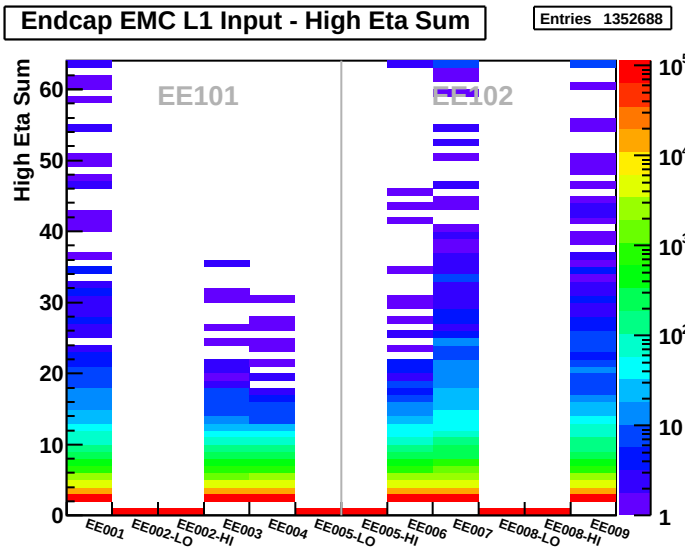

Barrel EMC L1 Input - High Eta Sum
Entries 44
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

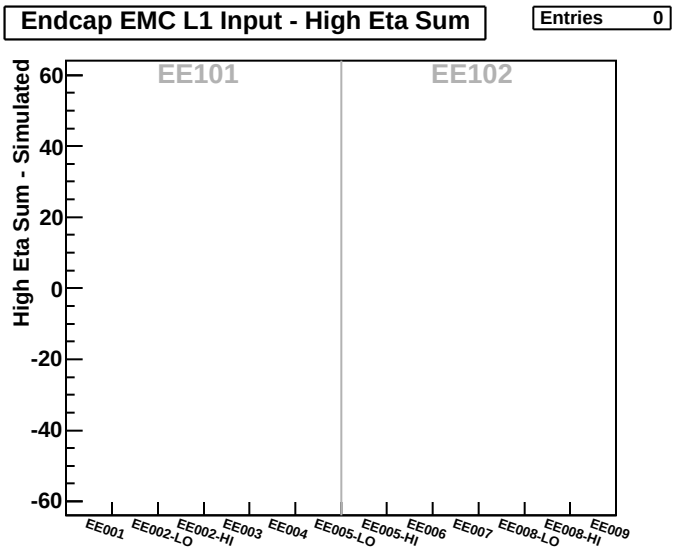

Barrel EMC L1 Input - High Tower Bits
Entries 4058064
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

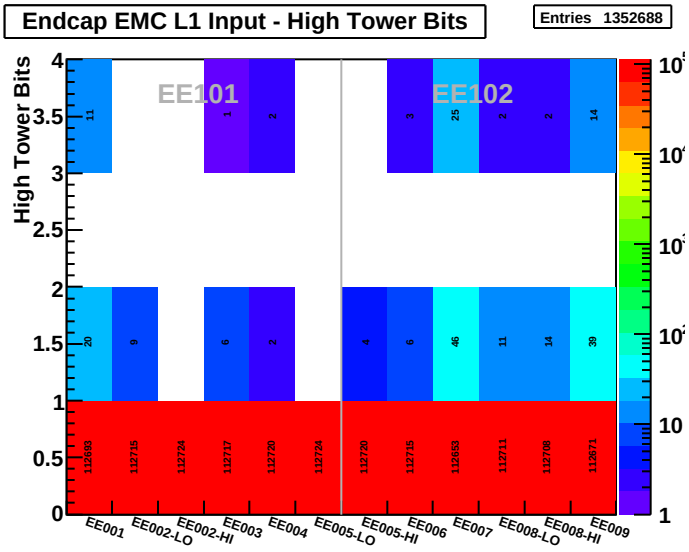

Barrel EMC L1 Input - High Tower Bits
Entries 6
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

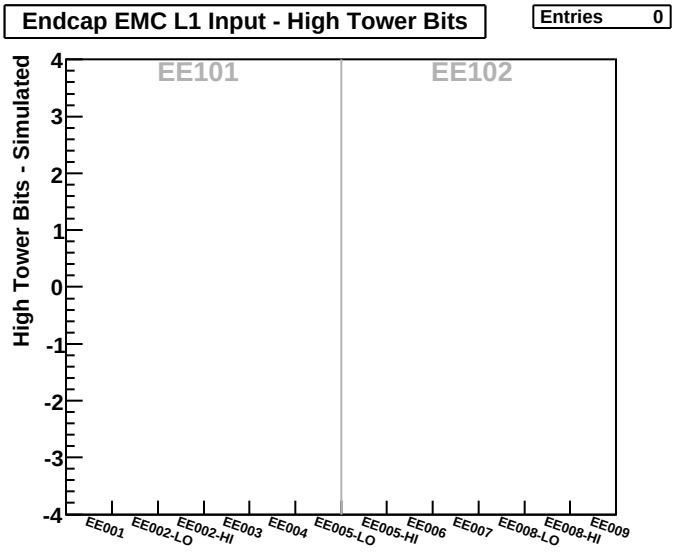

Endcap EMC L1 Input - Low Eta Sum
Entries 1352688
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

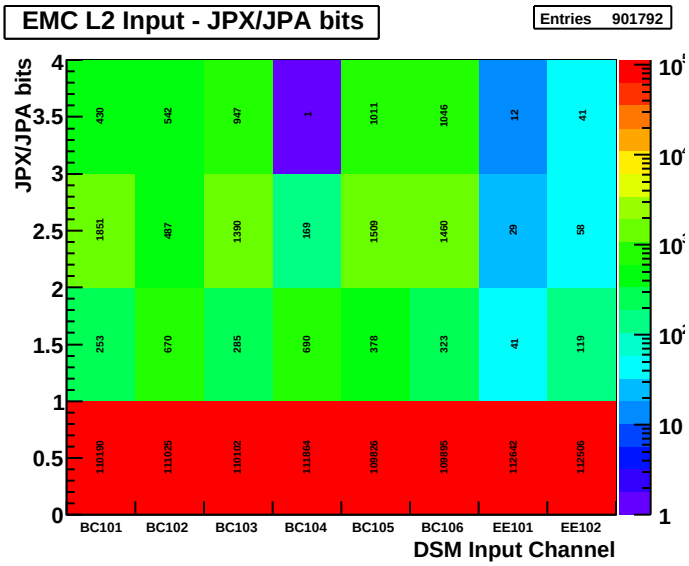

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

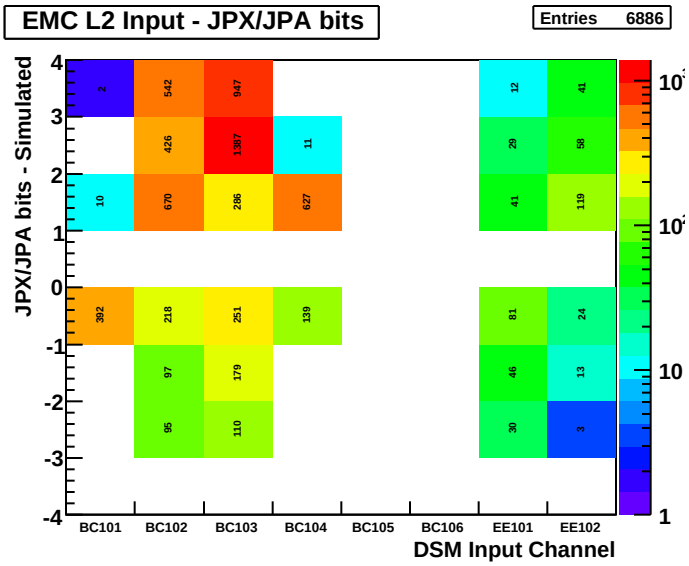

Endcap EMC L1 Input - High Eta Sum
Entries 1352688
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

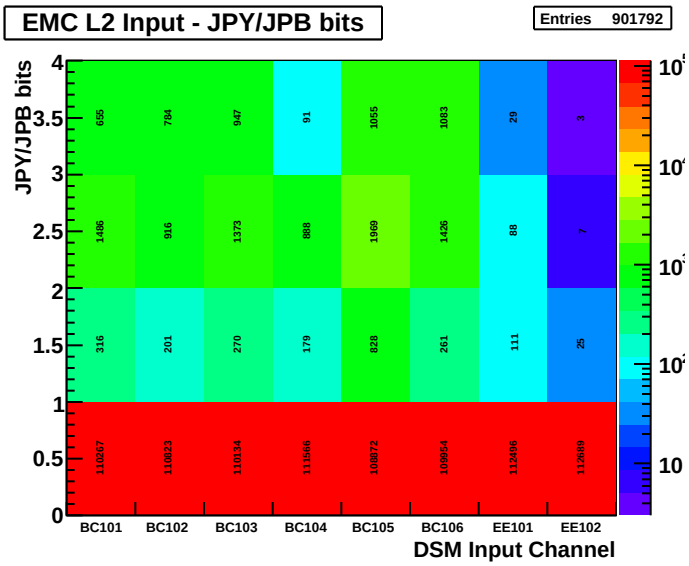

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

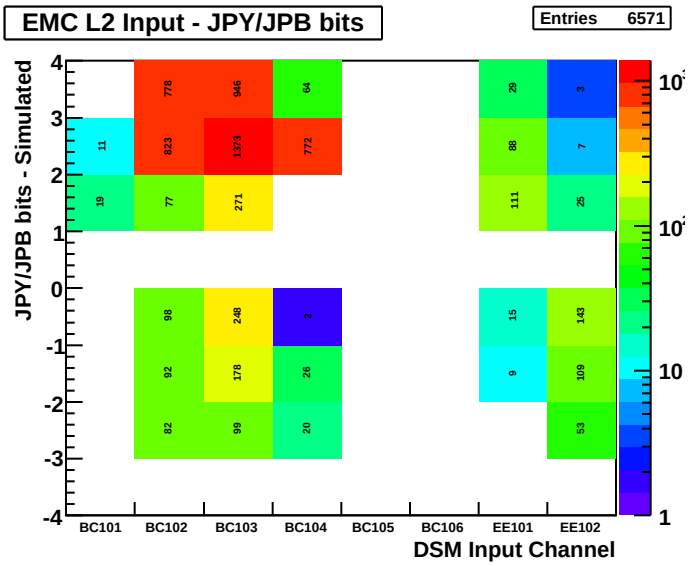

Endcap EMC L1 Input - High Tower Bits
Entries 1352688
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

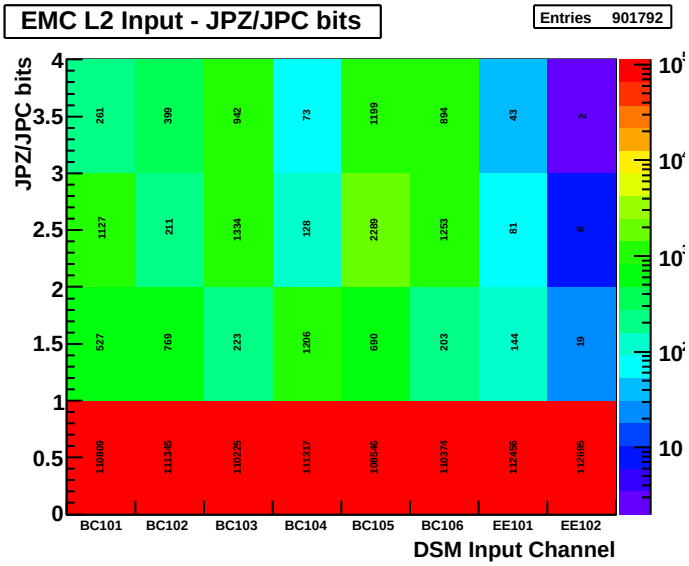

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

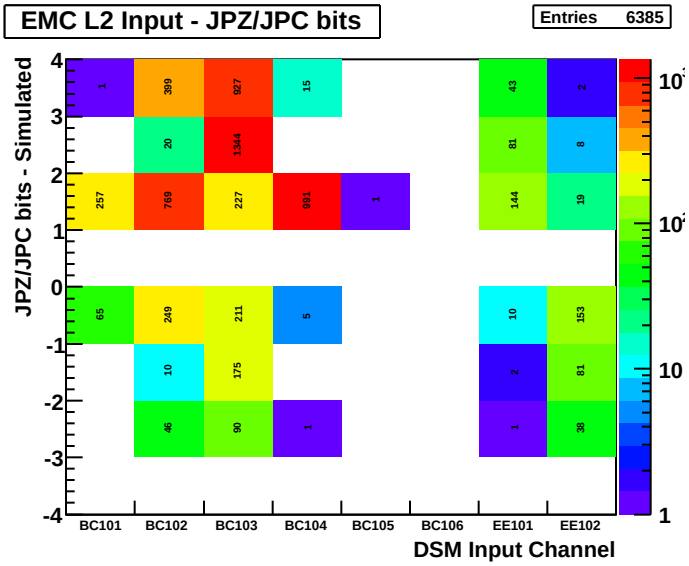

EMC L2 Input - JPX/JPA bits
Entries 901792
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

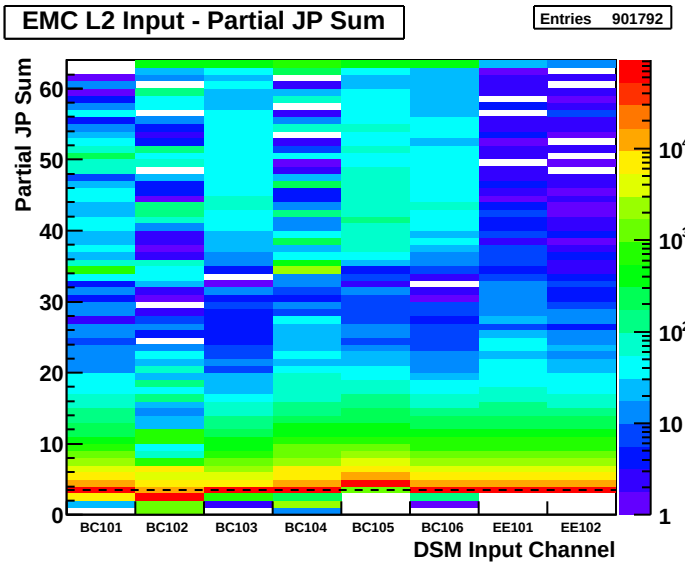

EMC L2 Input - JPX/JPA bits
Entries 6886
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

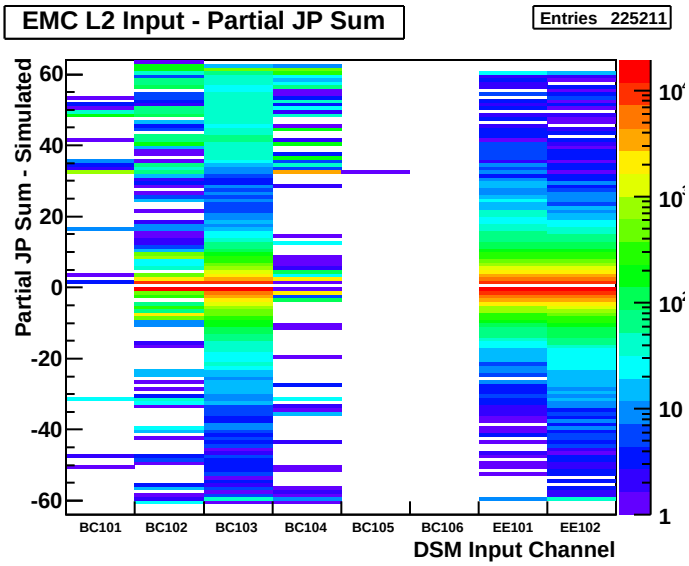

EMC L2 Input - JPY/JPB bits
Entries 901792
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

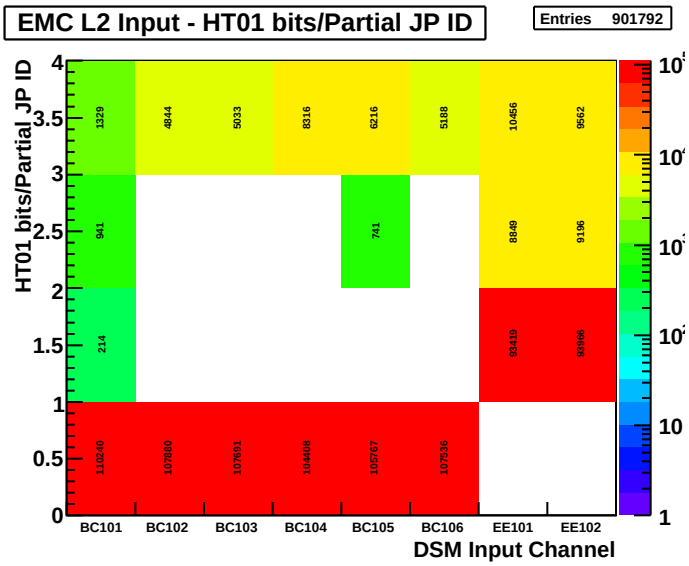

EMC L2 Input - JPY/JPB bits
Entries 6571
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

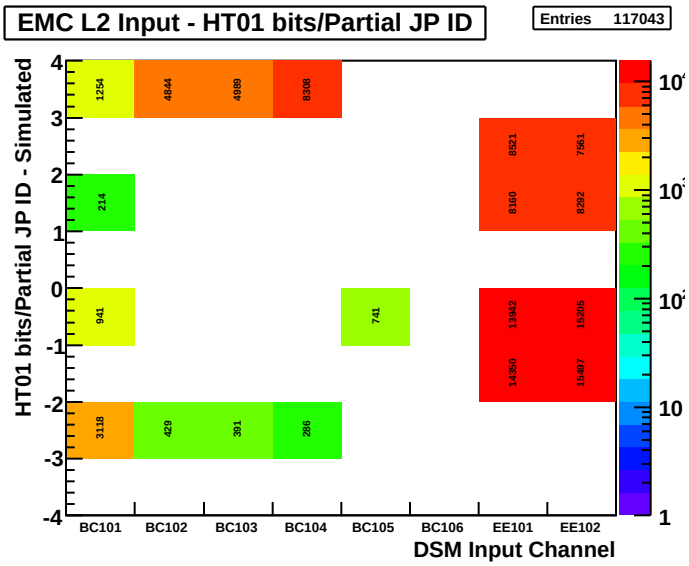

EMC L2 Input - JPZ/JPC bits
Entries 901792
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

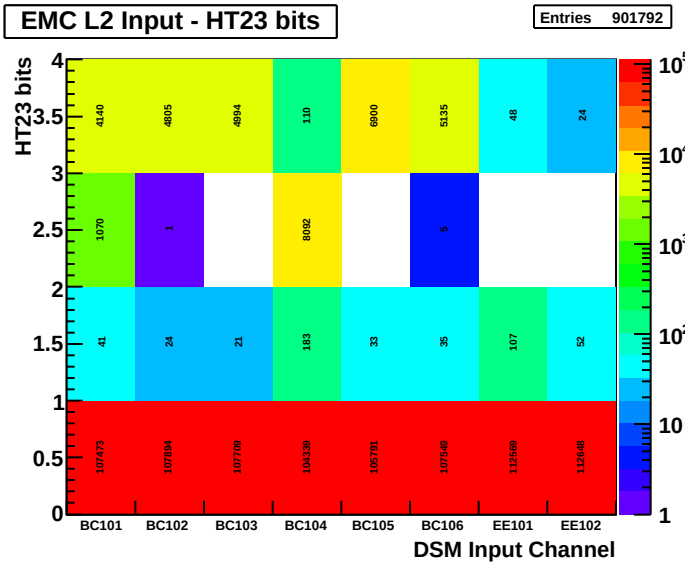

EMC L2 Input - JPZ/JPC bits
Entries 6385
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

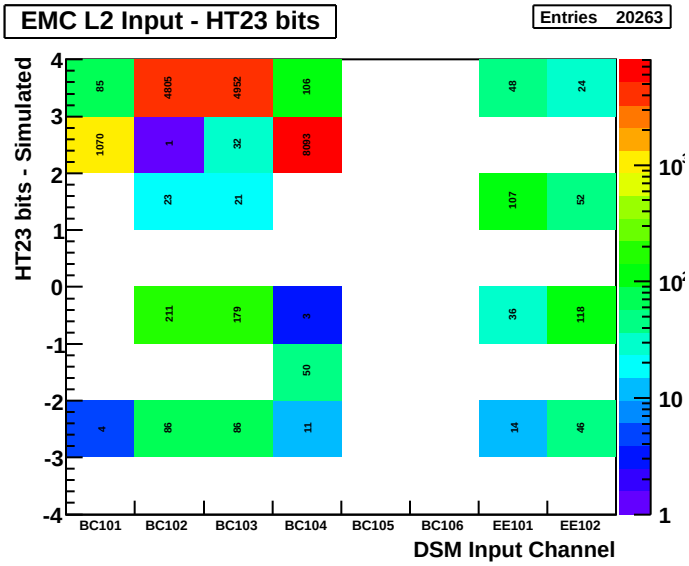

EMC L2 Input - Partial JP Sum
Entries 901792
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

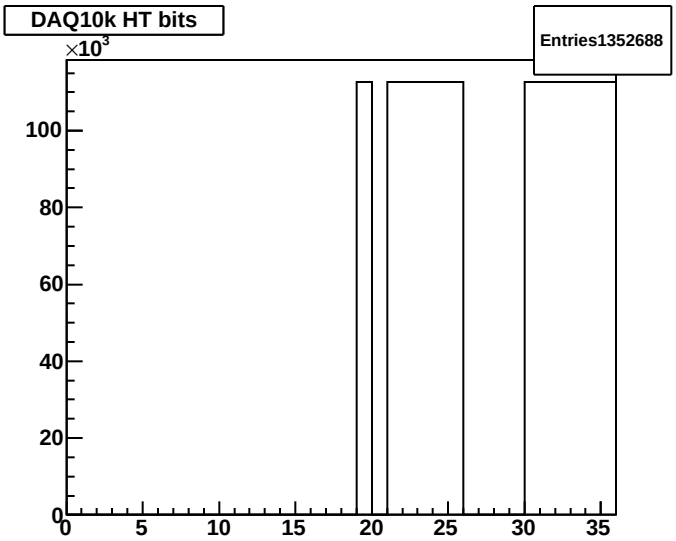

EMC L2 Input - Partial JP Sum
Entries 225211
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

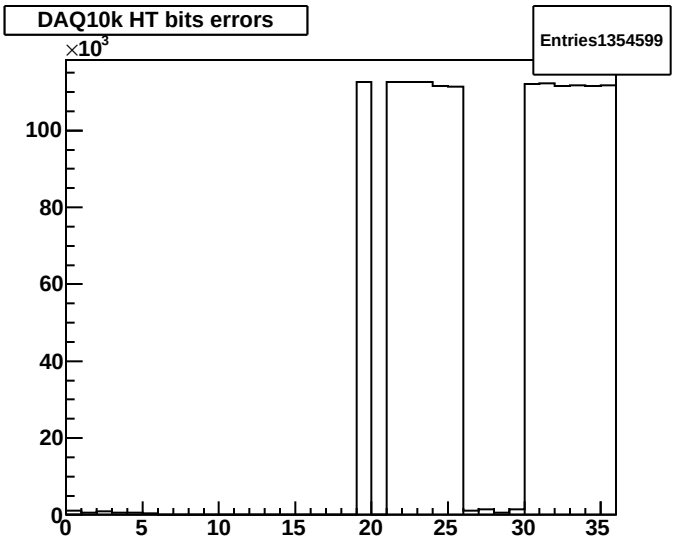

EMC L2 Input - HT01 bits/Partial JP ID
Entries 901792
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

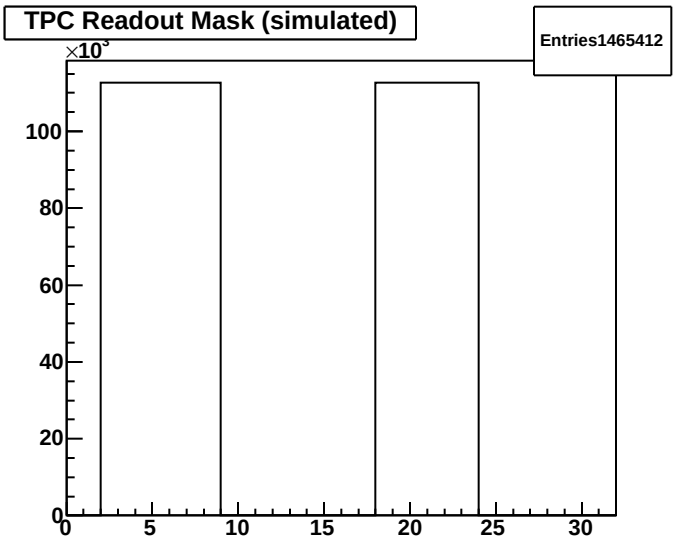

EMC L2 Input - HT01 bits/Partial JP ID
Entries 117043
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

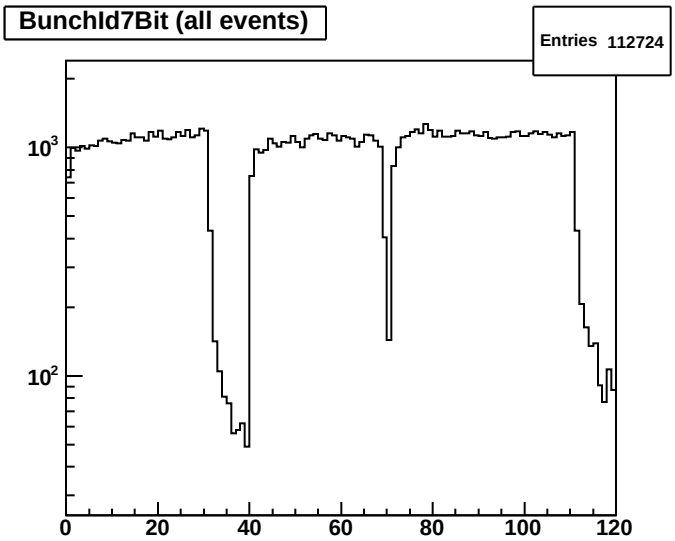

EMC L2 Input - HT23 bits
Entries 901792
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

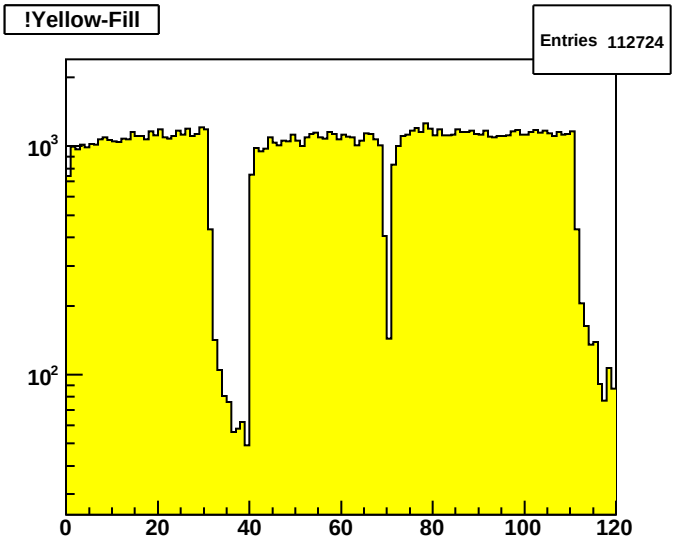

EMC L2 Input - HT23 bits
Entries 20263
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

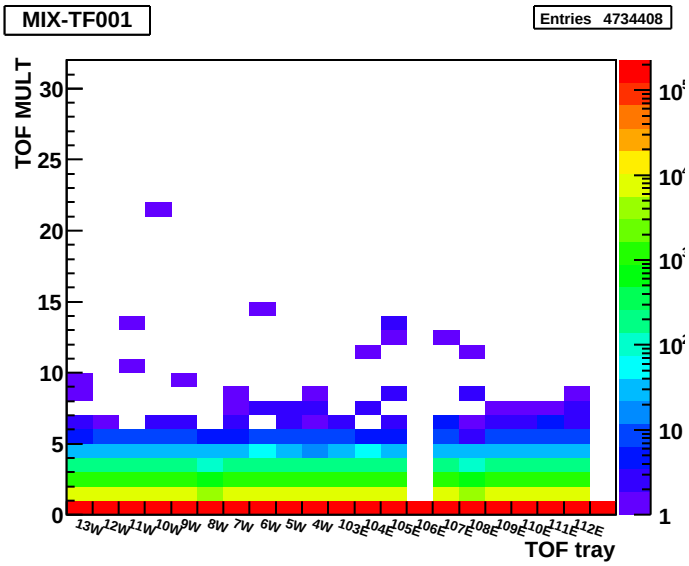

DAQ10k HT bits
Entries1352688
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35

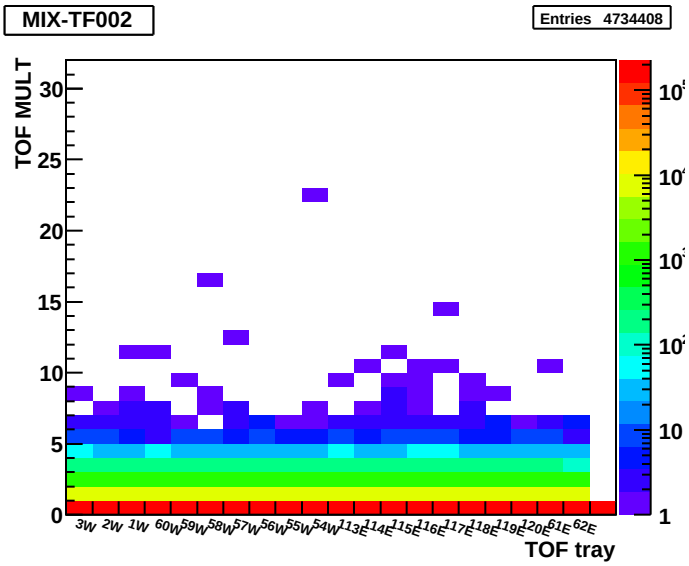

DAQ10k HT bits errors
Entries1354599
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35

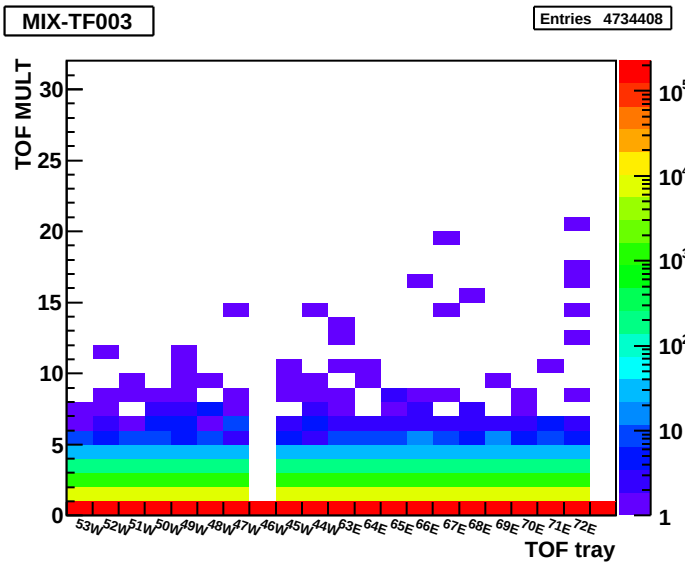

TPC Readout Mask (simulated)
Entries1465412
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30

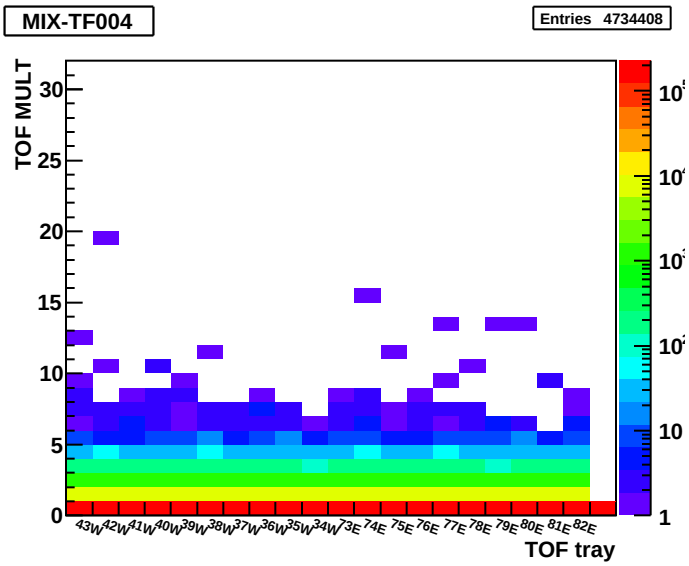

BunchId7Bit (all events)
Entries 112724
10^3
10^2
0 20 40 60 80 100 120

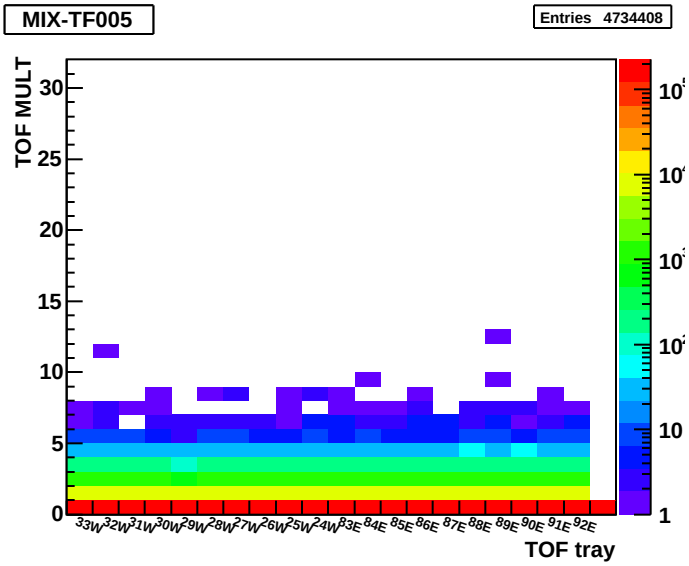

!Yellow-Fill
Entries 112724
10^3
10^2
0 20 40 60 80 100 120

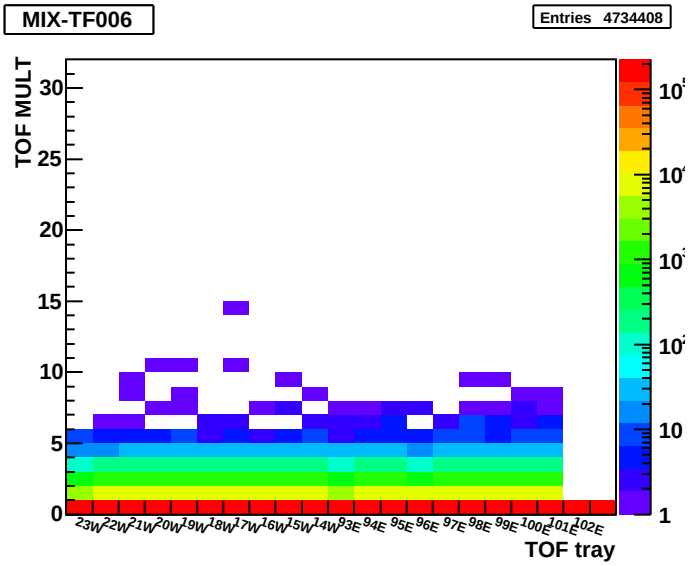

MIX-TF001
Entries 4734408
TOF MULT
TOF tray

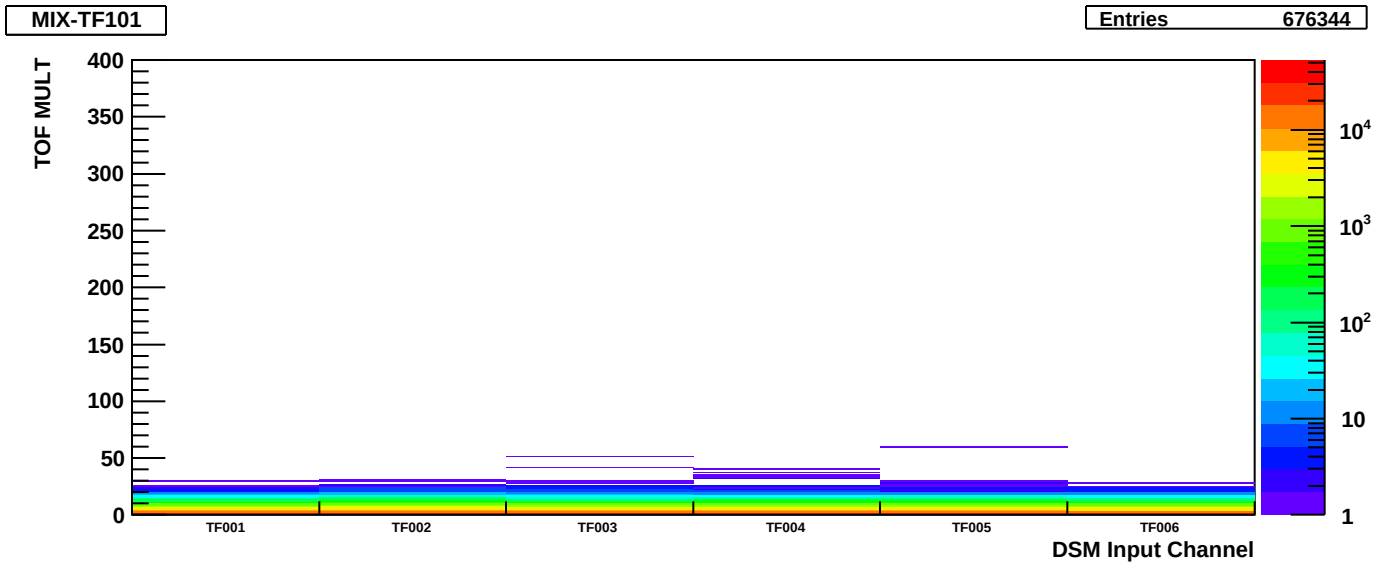

MIX-TF002
Entries 4734408
TOF MULT
TOF tray

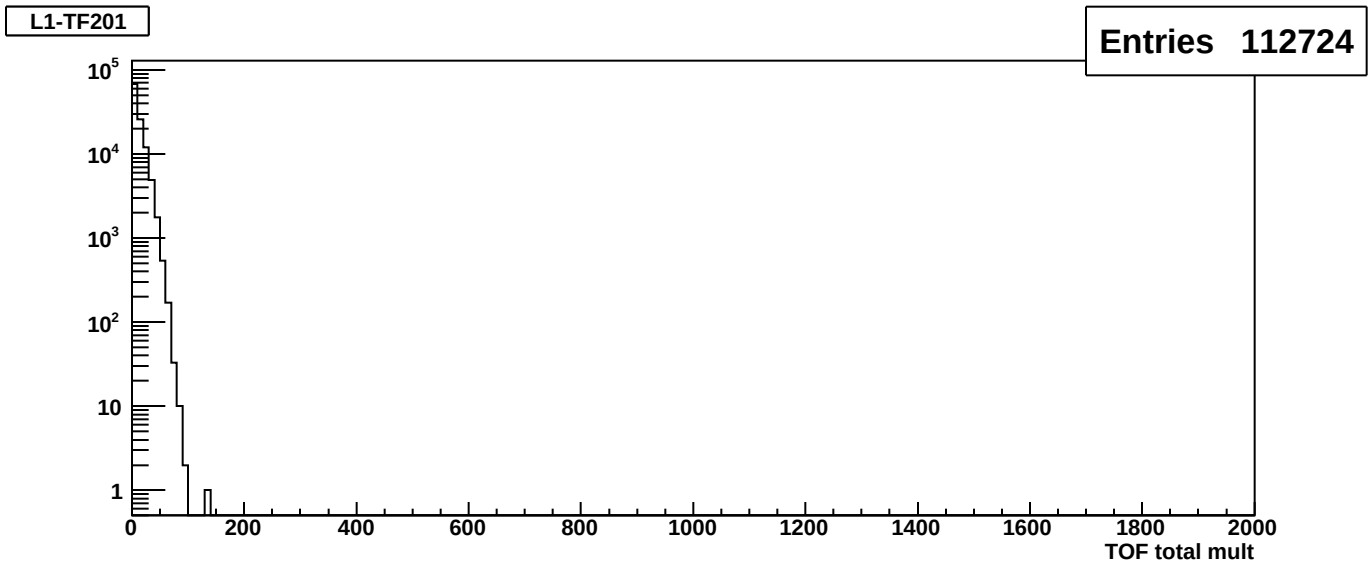

MIX-TF003
Entries 4734408
TOF MULT
TOF tray

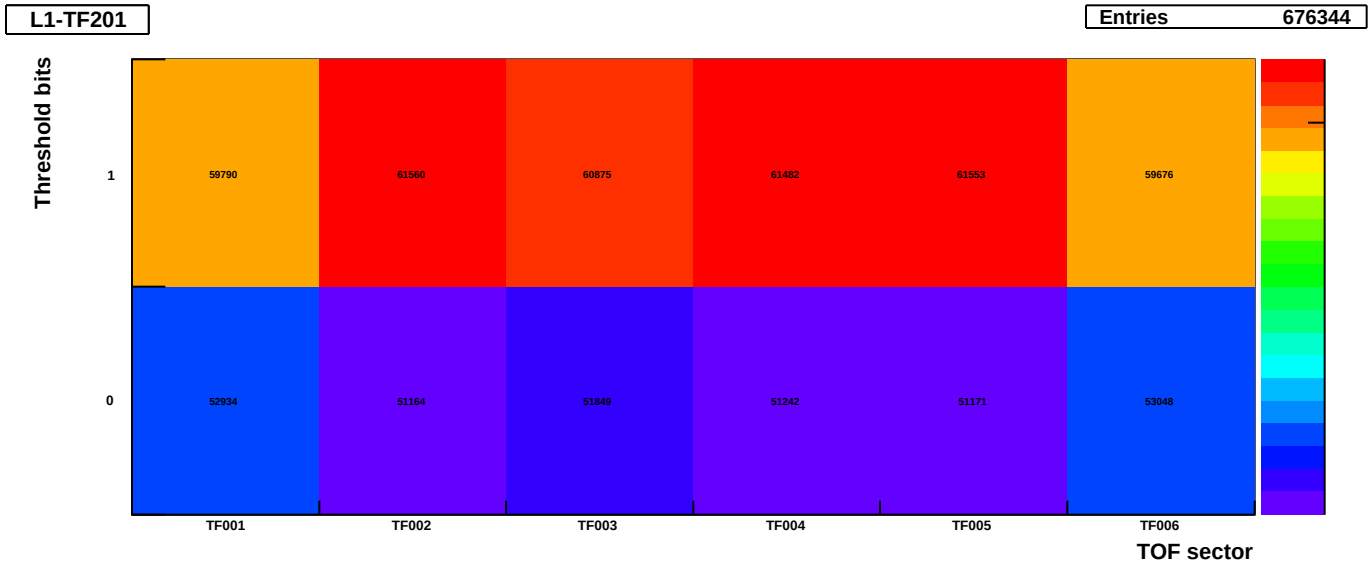

MIX-TF004
Entries 4734408
TOF MULT
TOF tray

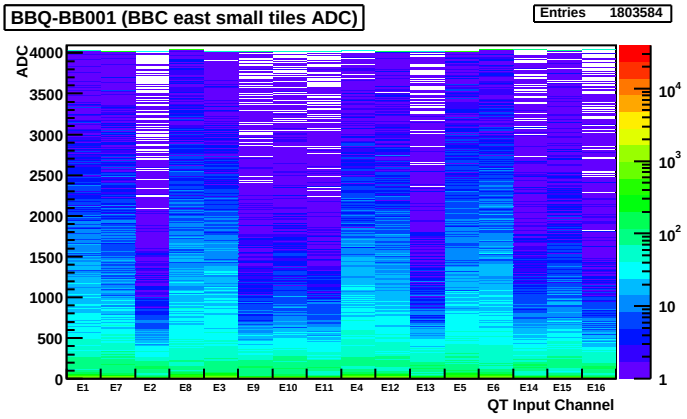

MIX-TF005
Entries 4734408
TOF MULT
TOF tray

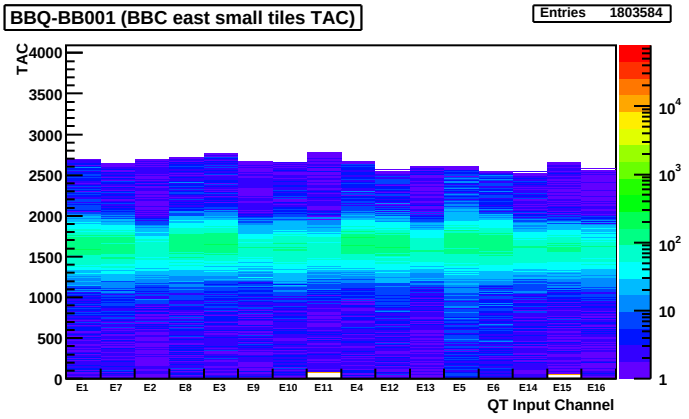

MIX-TF006
Entries 4734408
TOF MULT
TOF tray

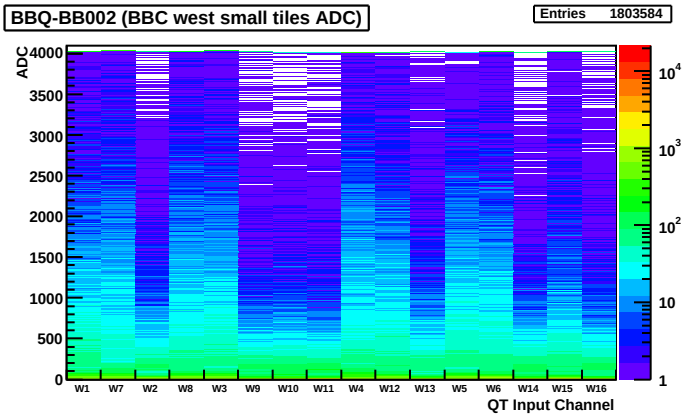

MIX-TF101
Entries 676344
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

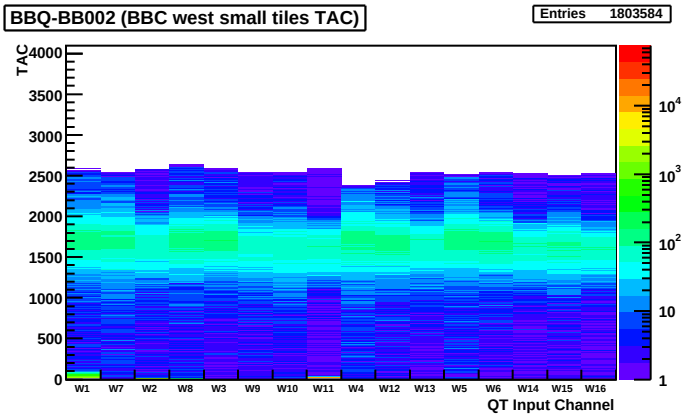

L1-TF201
Entries 112724
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

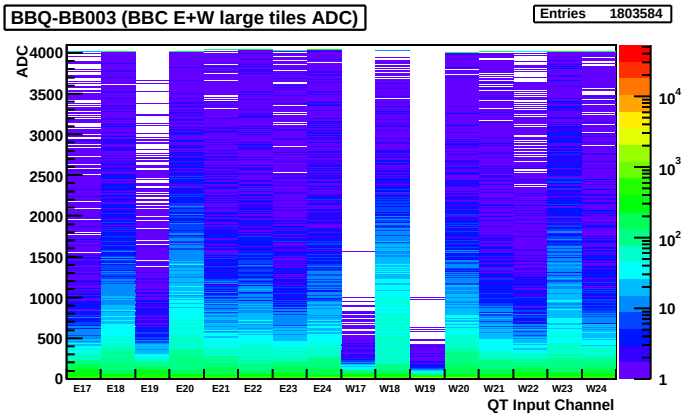

L1-TF201
Entries 676344
Threshold bits
1
0
59790
61560
60875
61482
61553
59676
52934
51164
51849
51242
51171
53048
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

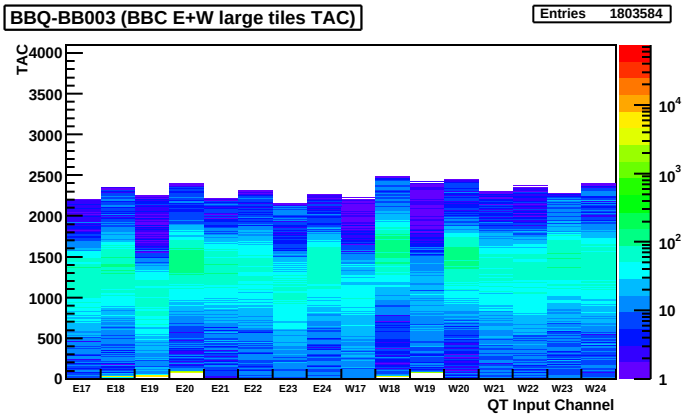

BBQ-BB001 (BBC east small tiles ADC)
Entries 1803584
ADC
QT Input Channel

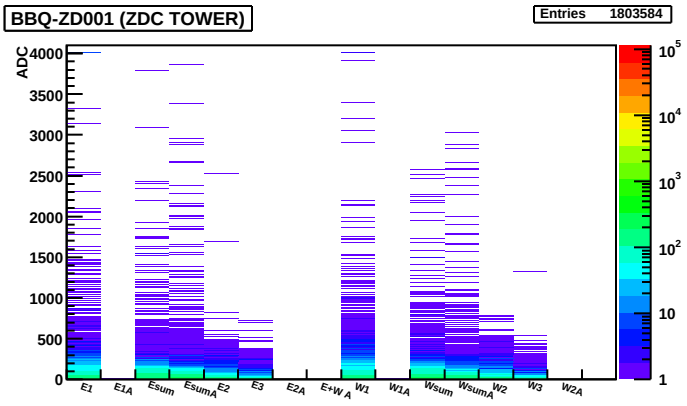

BBQ-BB001 (BBC east small tiles TAC)
Entries 1803584
TAC
QT Input Channel

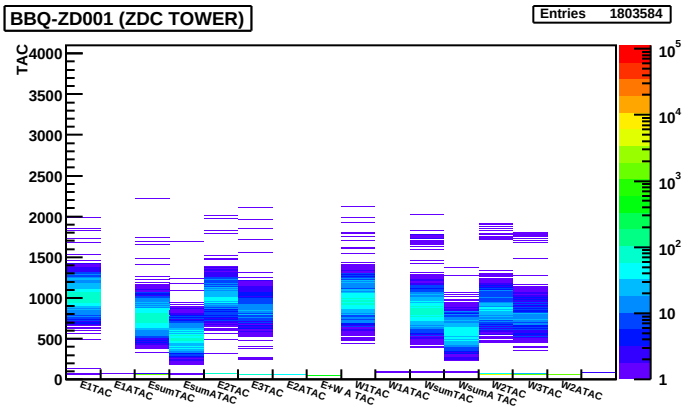

BBQ-BB002 (BBC west small tiles ADC)
Entries 1803584
ADC
QT Input Channel

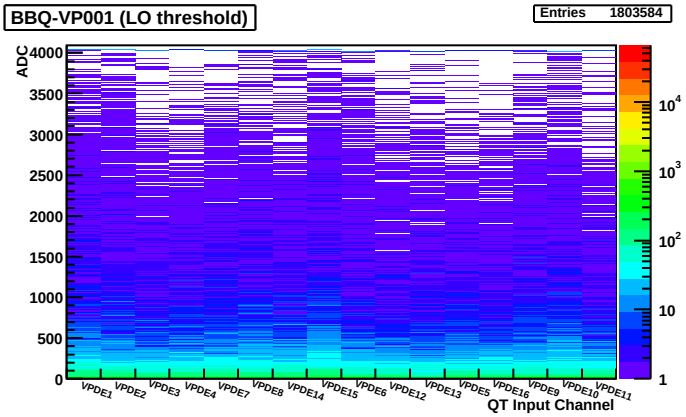

BBQ-BB002 (BBC west small tiles TAC)
Entries 1803584
TAC
QT Input Channel

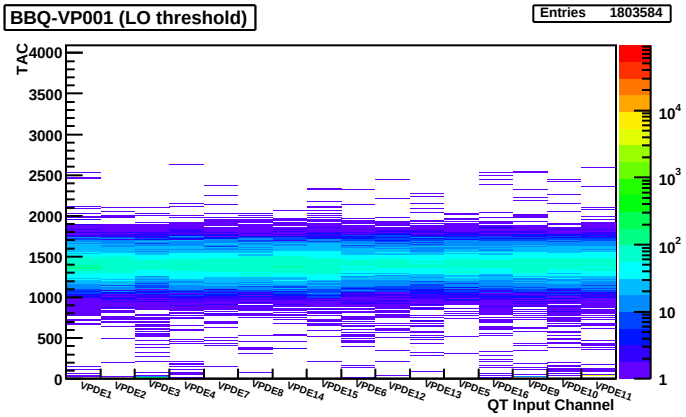

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1803584
ADC
QT Input Channel

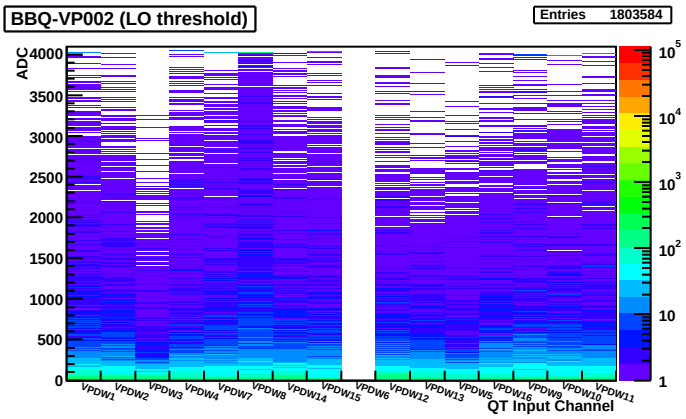

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1803584
TAC
QT Input Channel

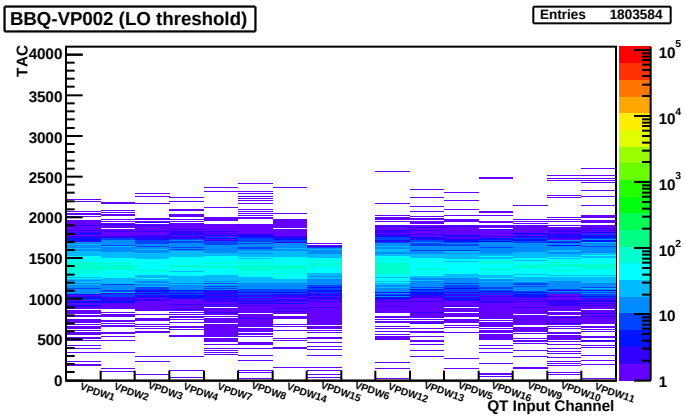

BBQ-ZD001 (ZDC TOWER)
Entries 1803584
ADC

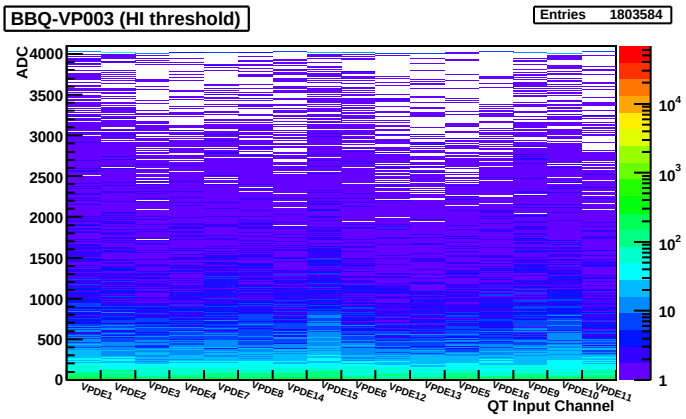

BBQ-ZD001 (ZDC TOWER)
Entries 1803584
TAC

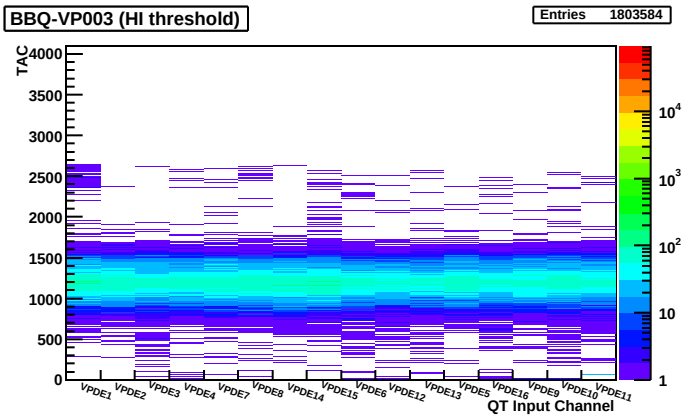

BBQ-VP001 (LO threshold)
Entries 1803584
ADC
QT Input Channel

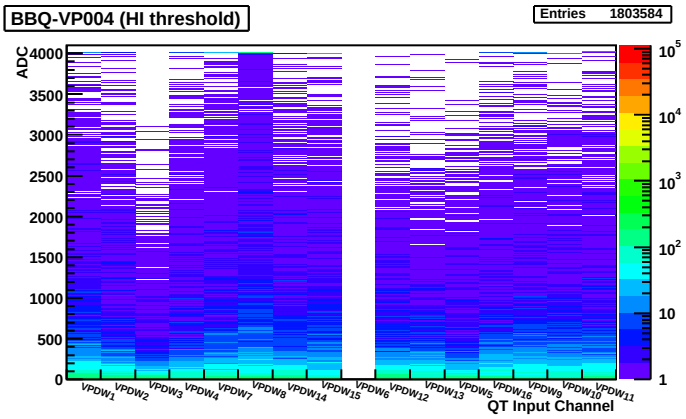

BBQ-VP001 (LO threshold)
Entries 1803584
TAC
QT Input Channel

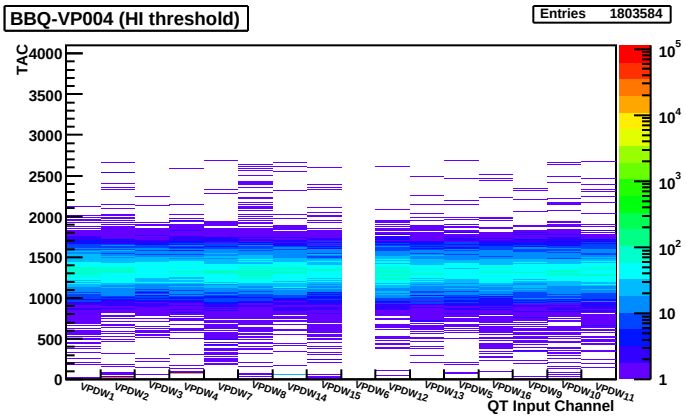

BBQ-VP002 (LO threshold)
Entries 1803584
ADC
QT Input Channel

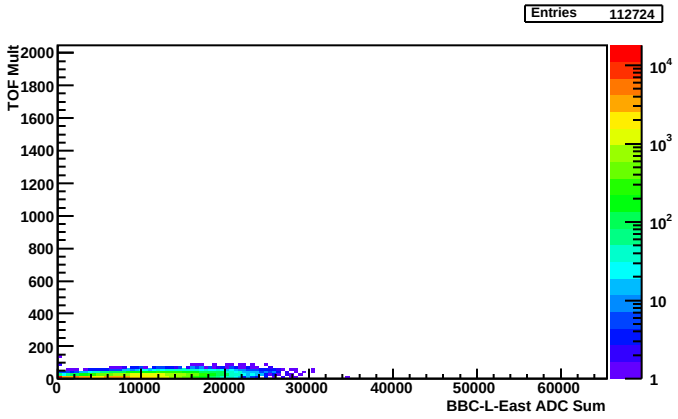

BBQ-VP002 (LO threshold)
Entries 1803584
TAC
QT Input Channel

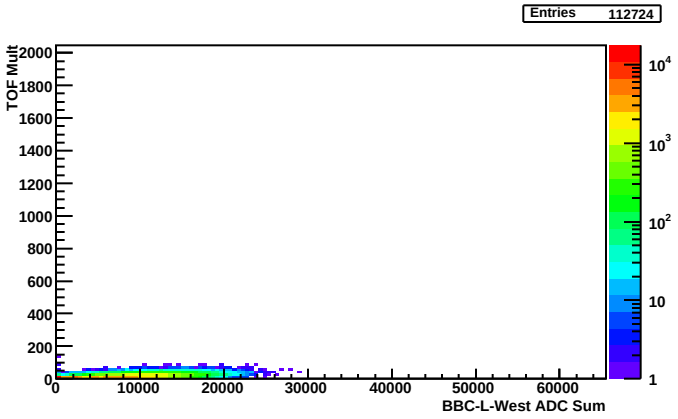

BBQ-VP003 (HI threshold)
Entries 1803584
ADC
QT Input Channel

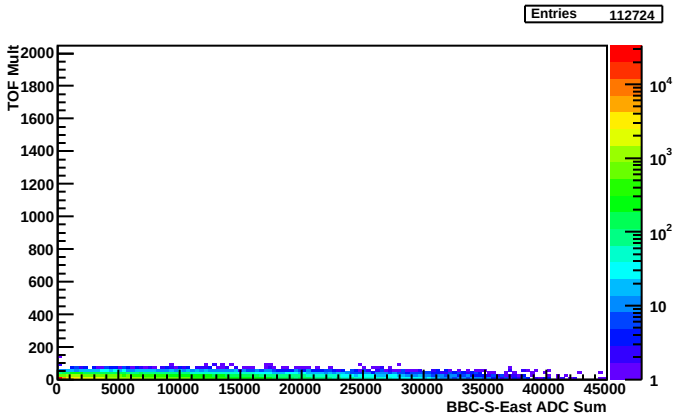

BBQ-VP003 (HI threshold)
Entries 1803584
TAC
QT Input Channel

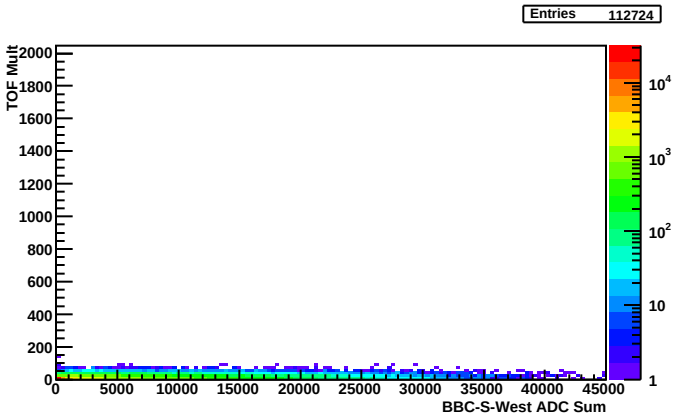

BBQ-VP004 (HI threshold)
Entries 1803584
ADC
QT Input Channel

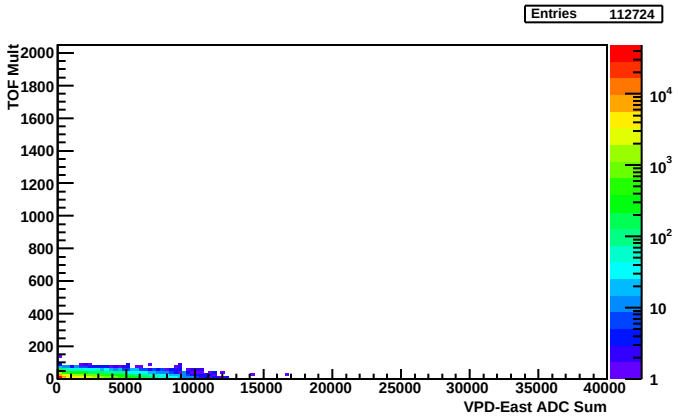

BBQ-VP004 (HI threshold)
Entries 1803584
TAC
QT Input Channel

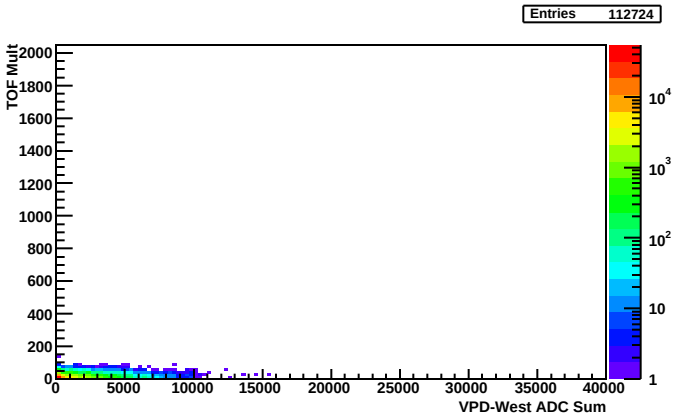

Entries 112724
TOF Mult
BBC-L-East ADC Sum

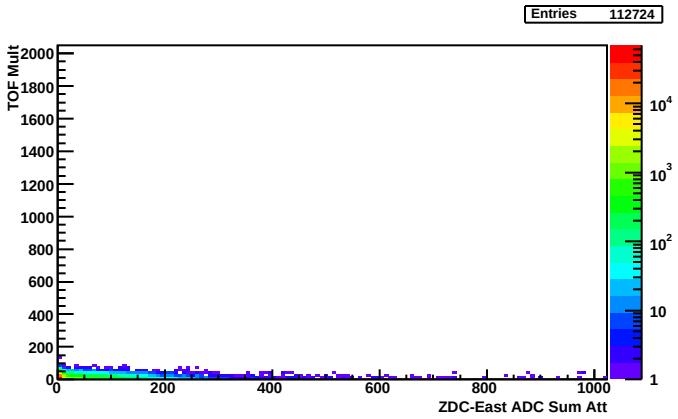

Entries 112724
TOF Mult
BBC-L-West ADC Sum

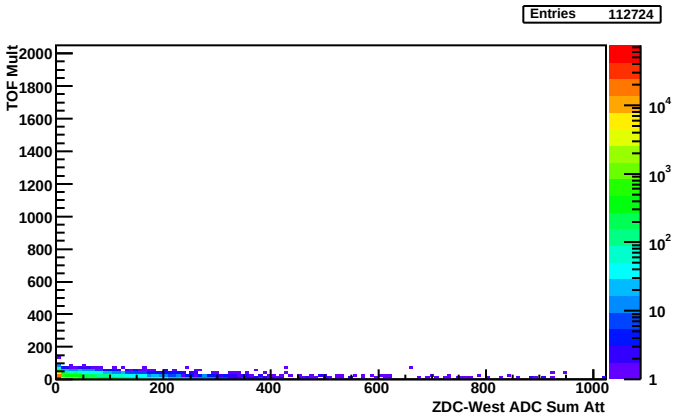

Entries 112724
TOF Mult
BBC-S-East ADC Sum

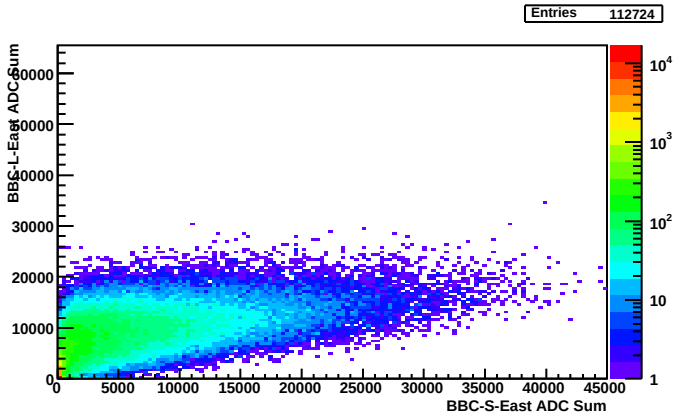

Entries 112724
TOF Mult
BBC-S-West ADC Sum

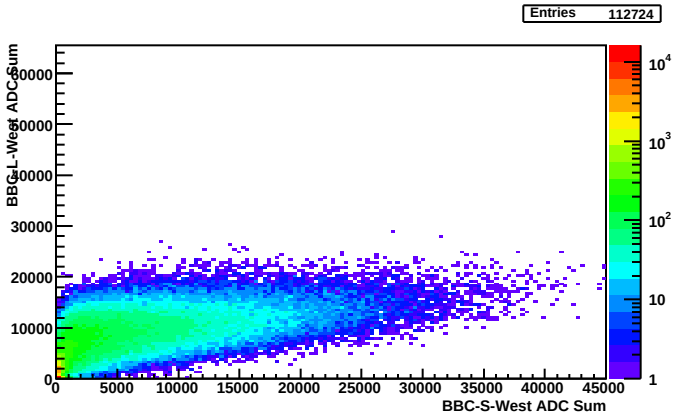

Entries 112724
TOF Mult
VPD-East ADC Sum

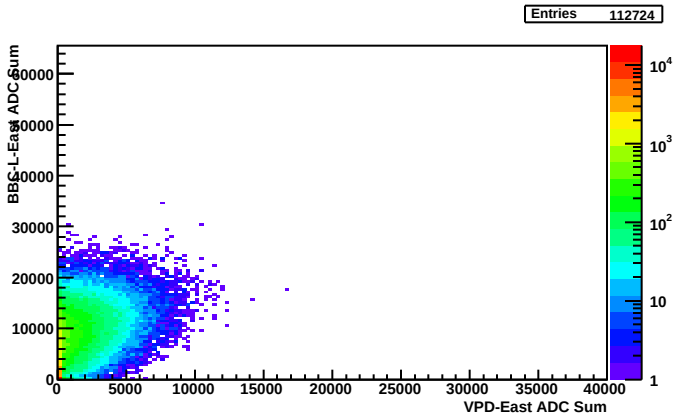

Entries 112724
TOF Mult
VPD-West ADC Sum

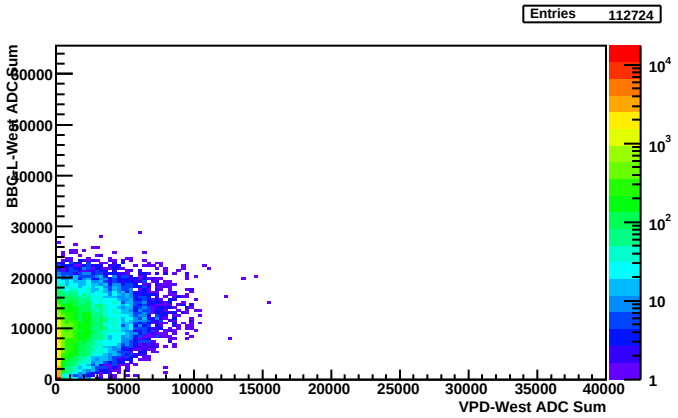

Entries 112724
TOF Mult
ZDC-East ADC Sum Att

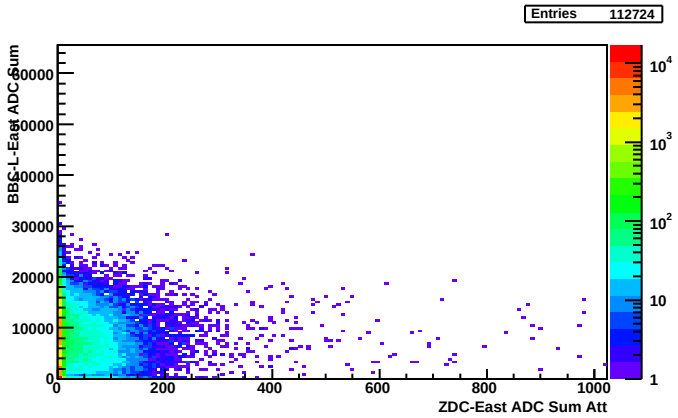

Entries 112724
TOF Mult
ZDC-West ADC Sum Att


Entries 112724
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 112724
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 112724
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 112724
BBC-L-West ADC Sum
VPD-West ADC Sum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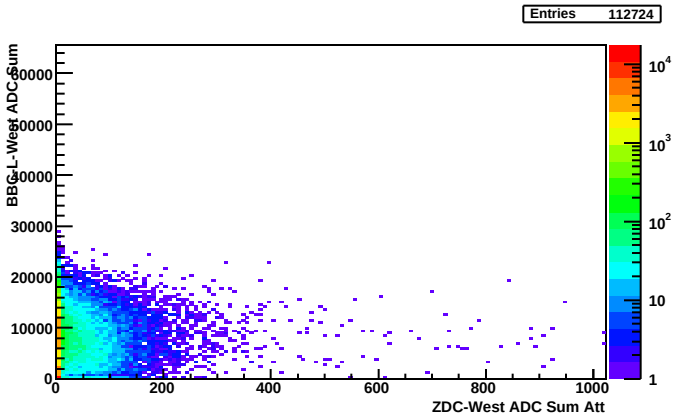
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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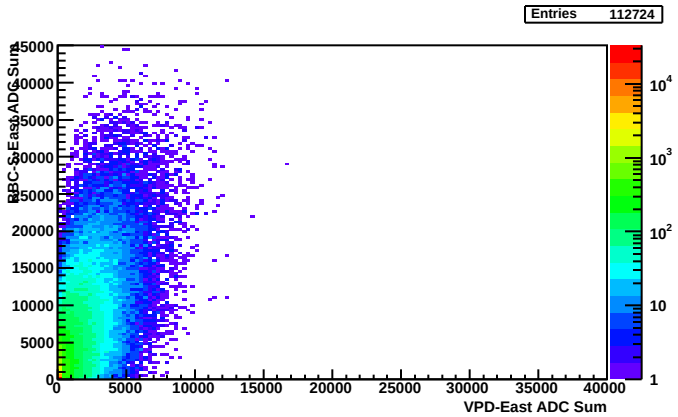
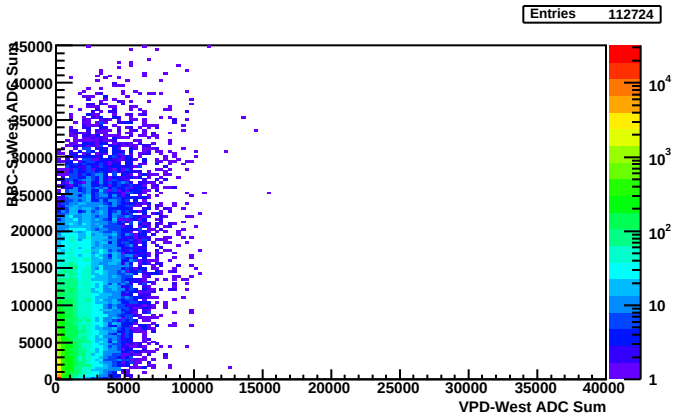
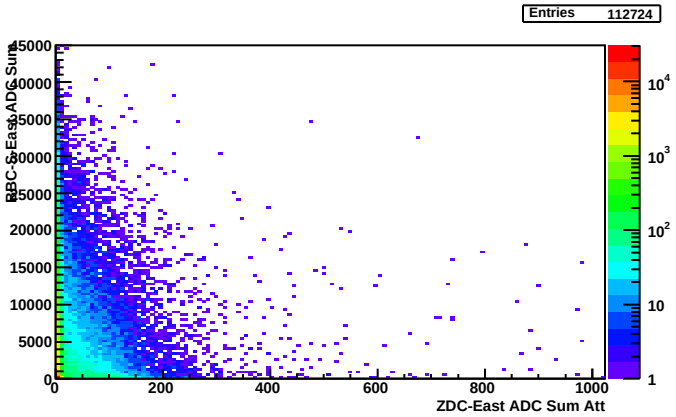
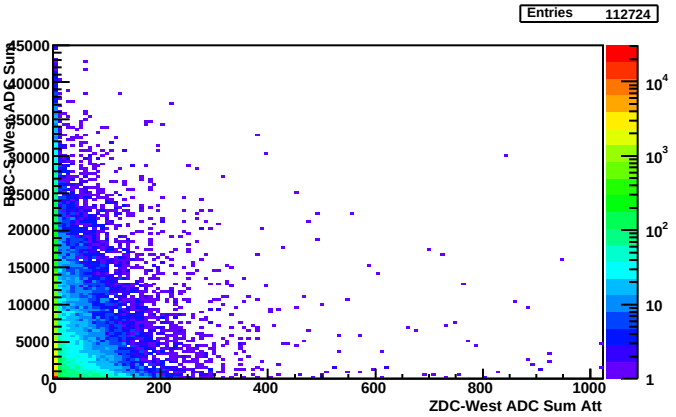
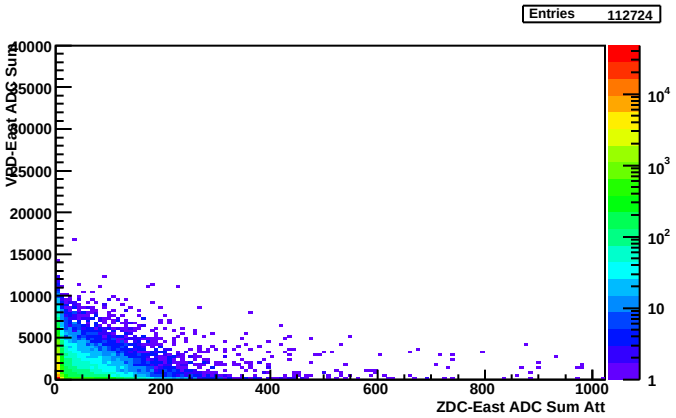
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

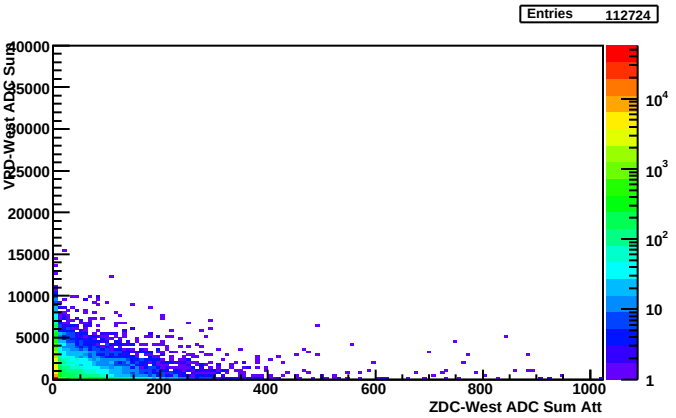

Entries 112724
BBC-S-East ADC Sum
VPD-East ADC Sum

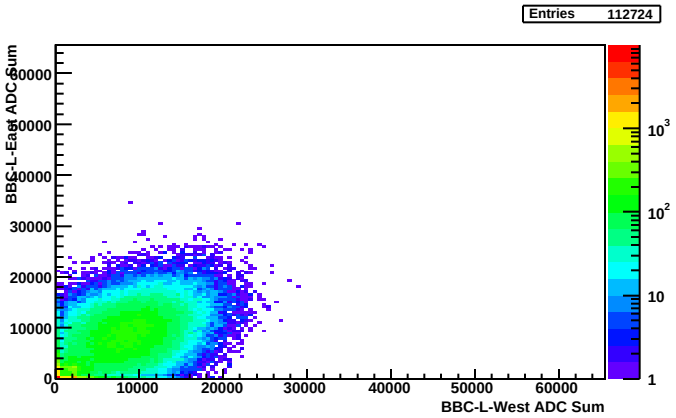

Entries 112724
BBC-S-West ADC Sum
VPD-West ADC Sum

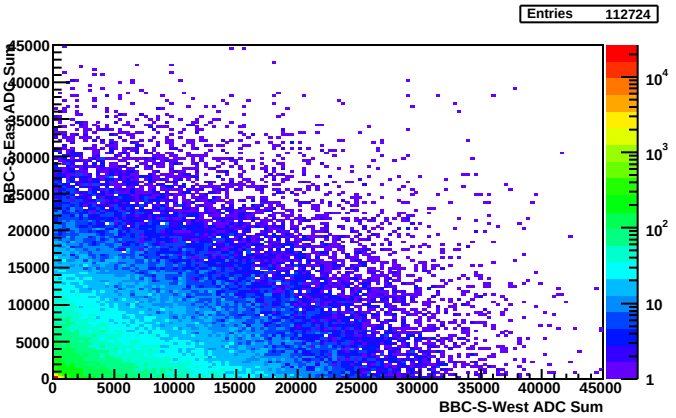

Entries 112724
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

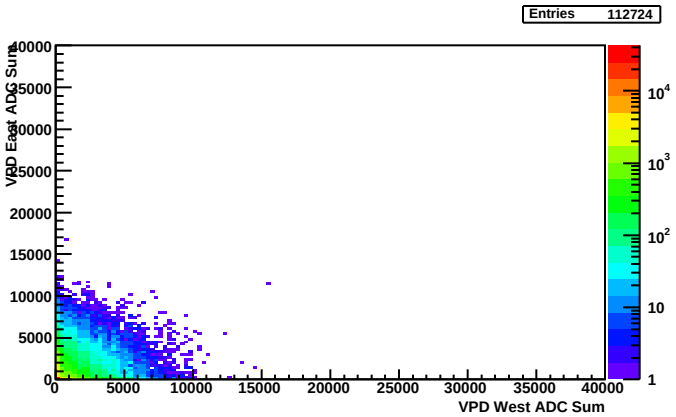

Entries 112724
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

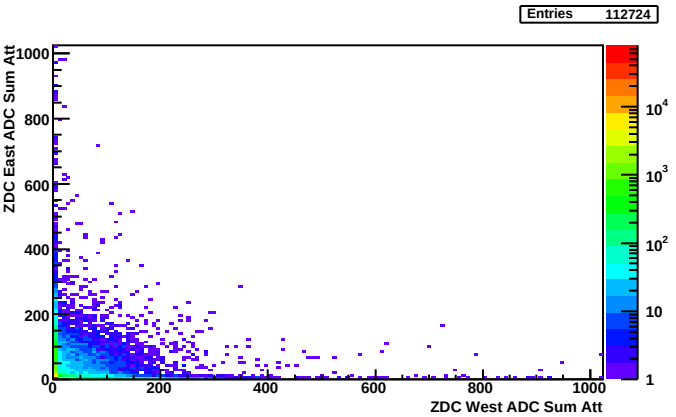

Entries 112724
VPD-East ADC Sum
ZDC-East ADC Sum Att

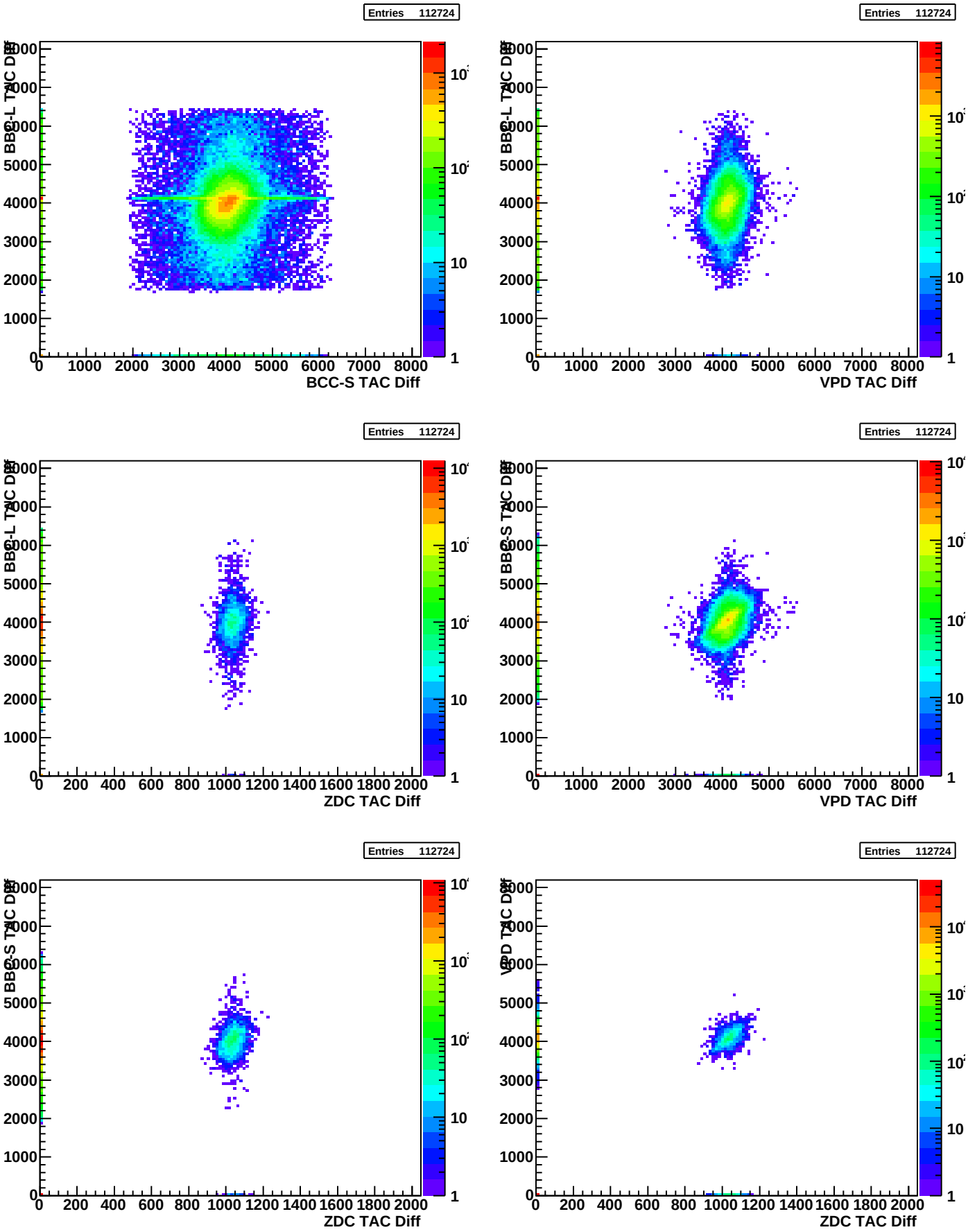

Entries 112724
VPD-West ADC Sum
ZDC-West ADC Sum Att

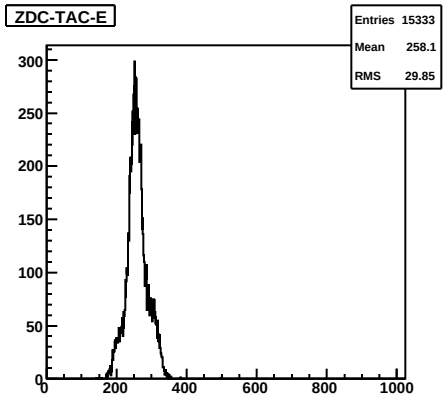

Entries 112724
BBC-L-East ADC Sum
BBC-L-West ADC Sum

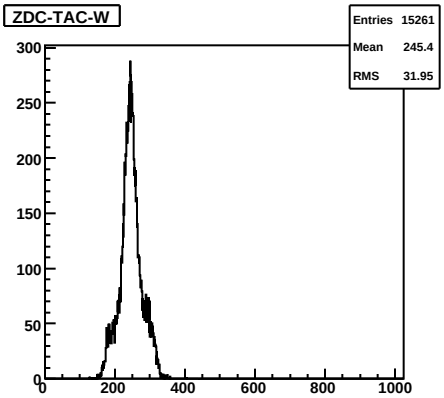

Entries 112724
BBC-S-East ADC Sum
BBC-S-West ADC Sum

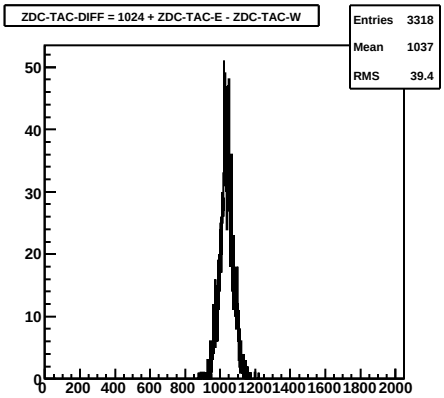

Entries 112724
VPD East ADC Sum
VPD West ADC Sum

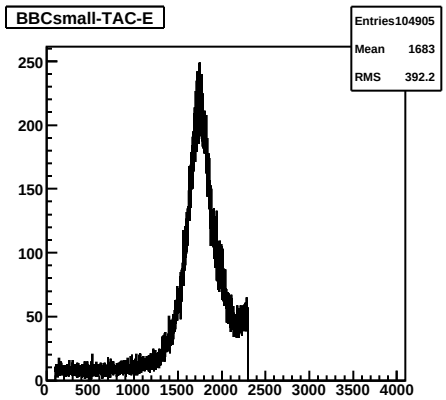

Entries 112724
ZDC East ADC Sum Att
ZDC West ADC Sum Att

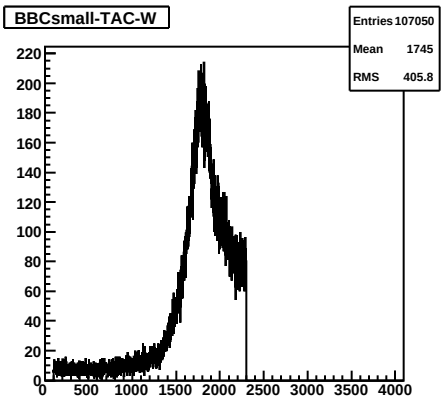

Entries 112724
BBC-L TAC Diff
BCC-S TAC Diff
Entries 112724
BBC-L TAC Diff
VPD TAC Diff
Entries 112724
BBC-L TAC Diff
ZDC TAC Diff
Entries 112724
BBC-S TAC Diff
VPD TAC Diff
Entries 112724
BBC-S TAC Diff
ZDC TAC Diff
Entries 112724
VPD TAC Diff
ZDC TAC Diff

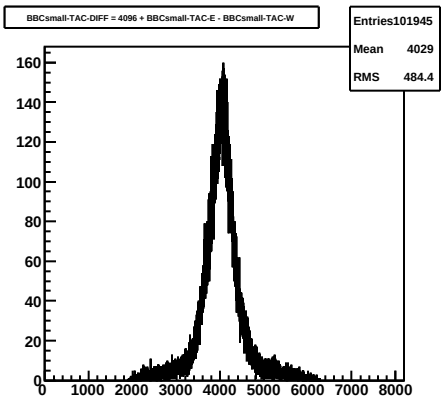

ZDC-TAC-E
Entries 15333
Mean 258.1
RMS 29.85

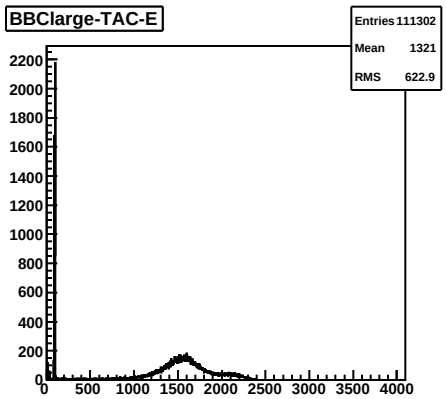

ZDC-TAC-W
Entries 15261
Mean 245.4
RMS 31.95

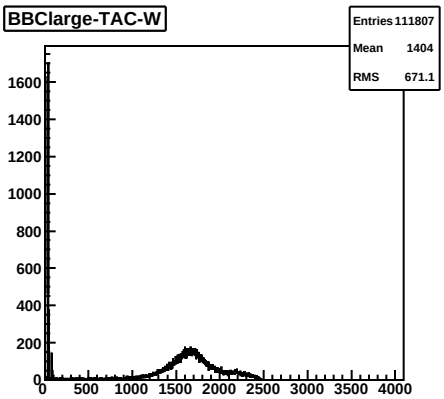

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 3318
Mean 1037
RMS 39.4

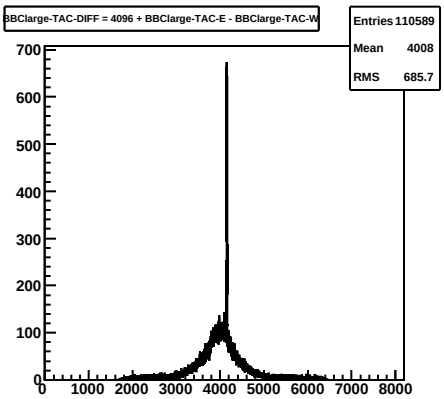

BBCsmall-TAC-E
Entries 104905
Mean 1683
RMS 392.2

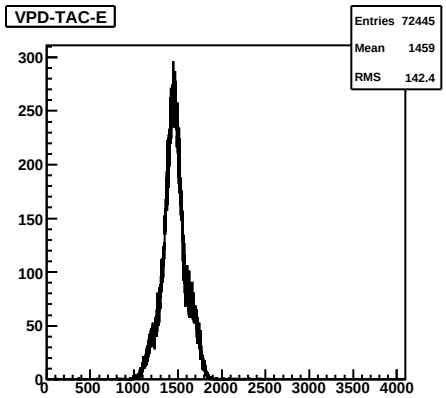

BBCsmall-TAC-W
Entries 107050
Mean 1745
RMS 405.8

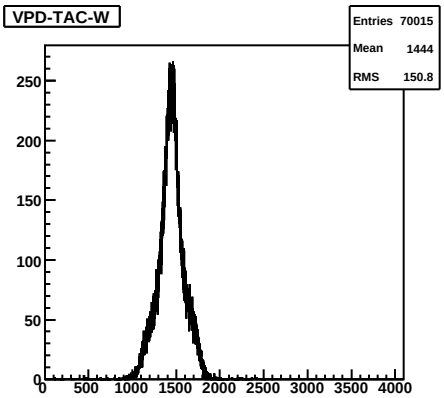

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 101945
Mean 4029
RMS 484.4

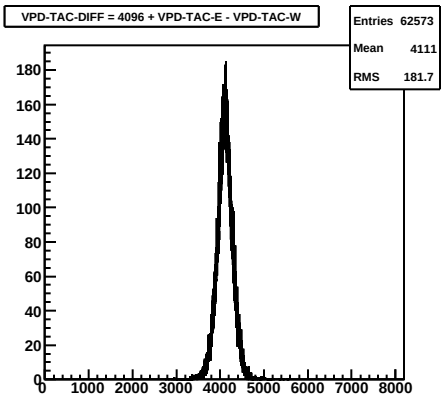

BBClarge-TAC-E
Entries 111302
Mean 1321
RMS 622.9

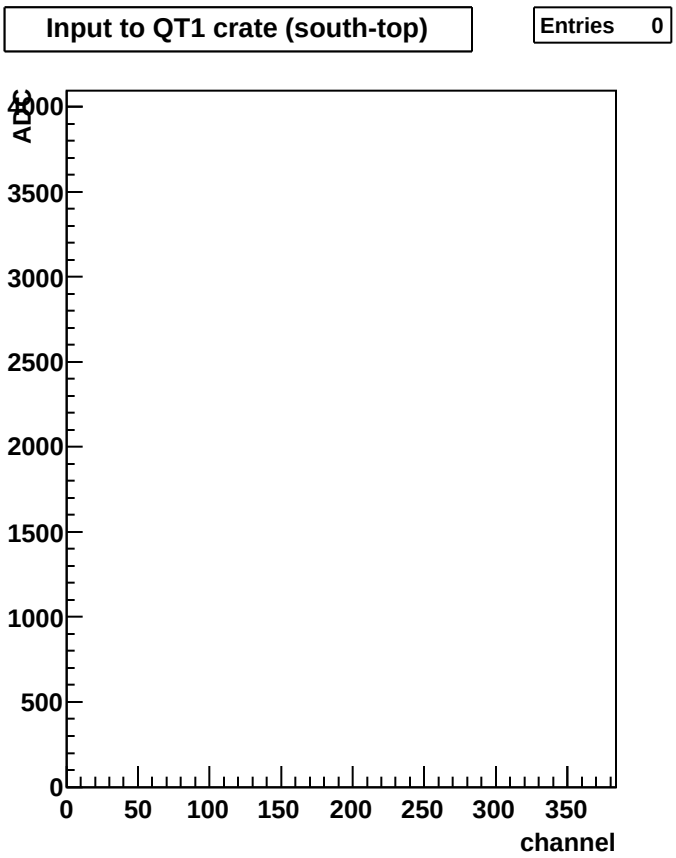

BBClarge-TAC-W
Entries 111807
Mean 1404
RMS 671.1

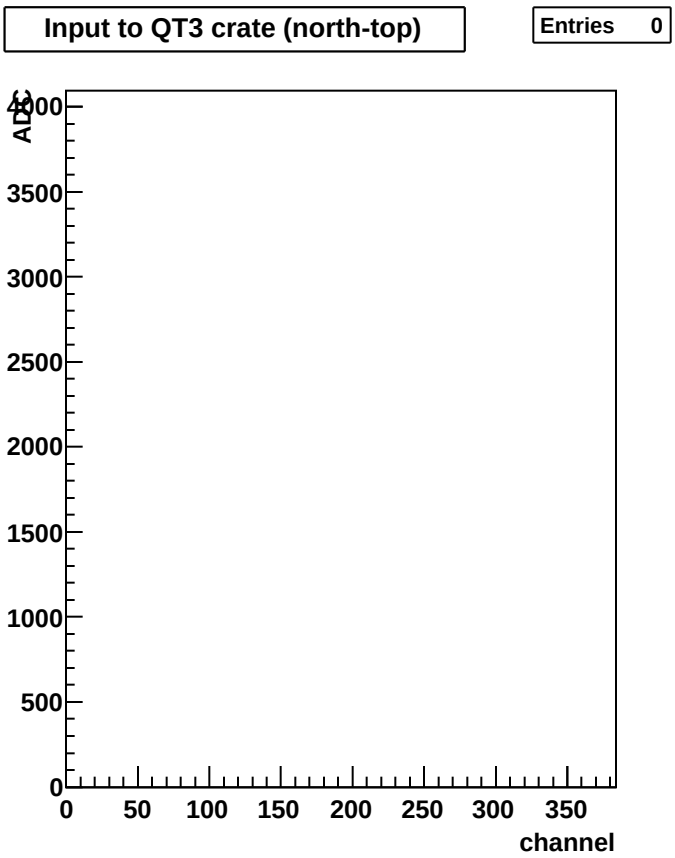

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 110589
Mean 4008
RMS 685.7

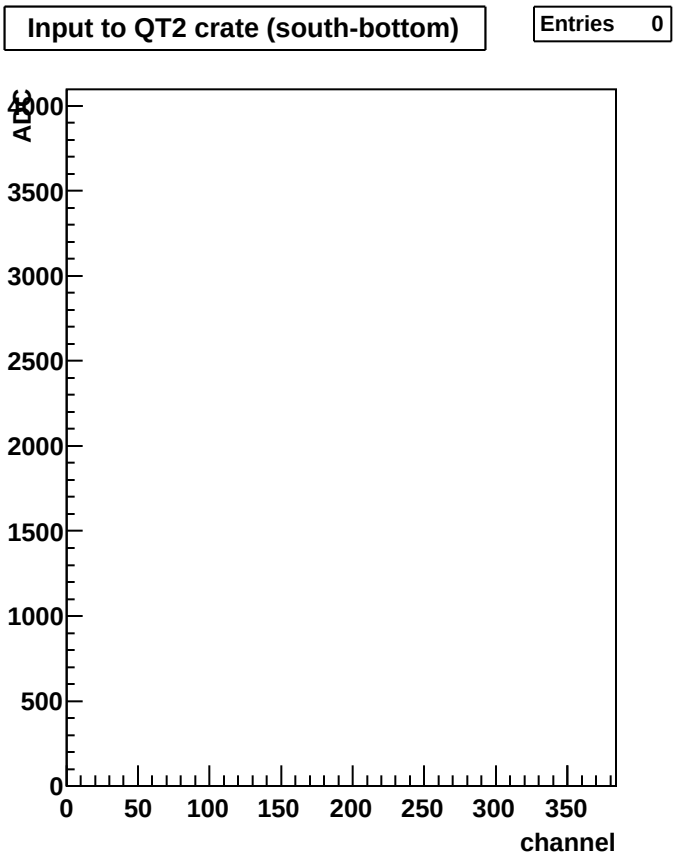

VPD-TAC-E
Entries 72445
Mean 1459
RMS 142.4

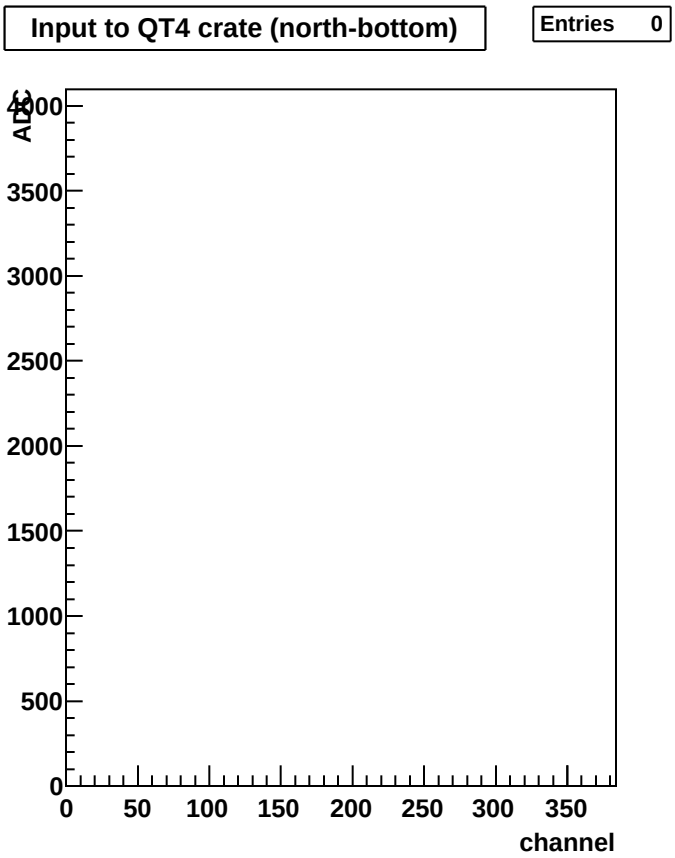

VPD-TAC-W
Entries 70015
Mean 1444
RMS 150.8

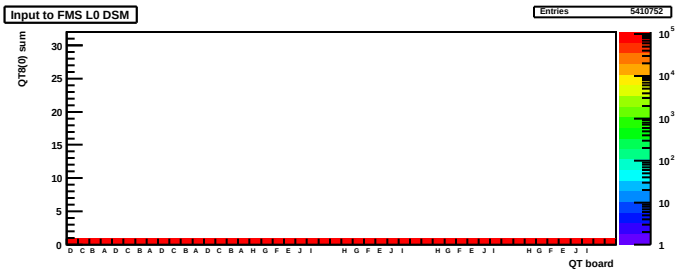

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 62573
Mean 4111
RMS 181.7

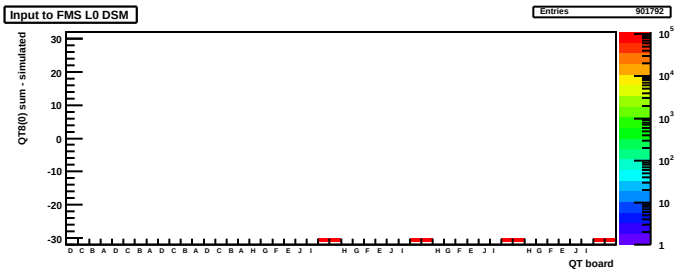

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

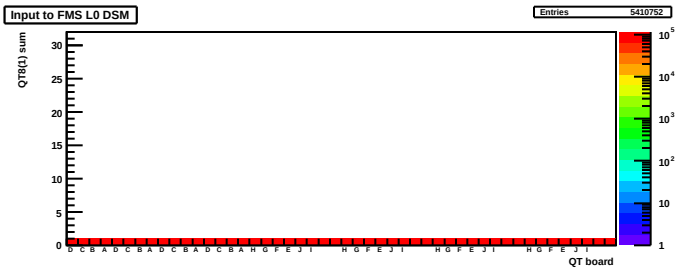

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

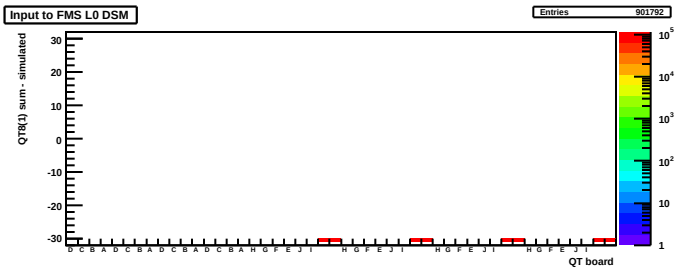

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

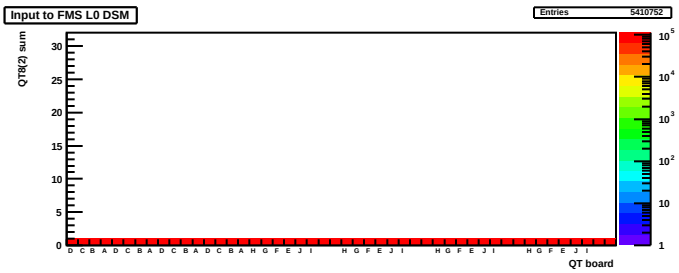

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

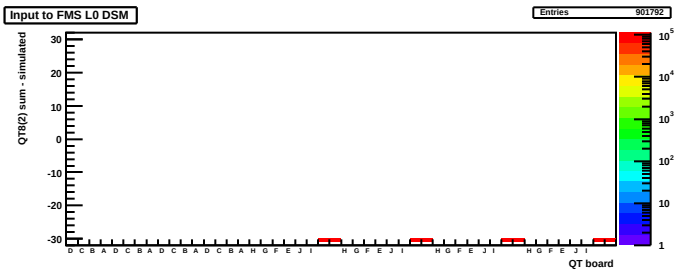

Input to FMS L0 DSM
Entries 5410752
QT8(0) sum
QT board

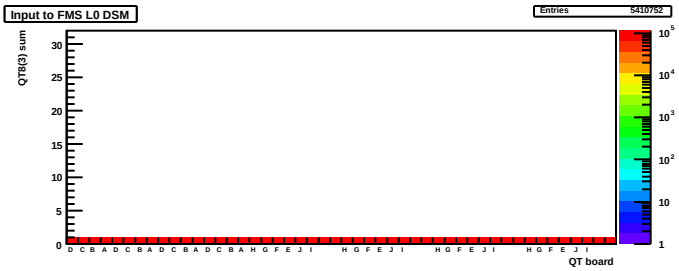

Input to FMS L0 DSM
Entries 901792
QT8(0) sum - simulated
QT board

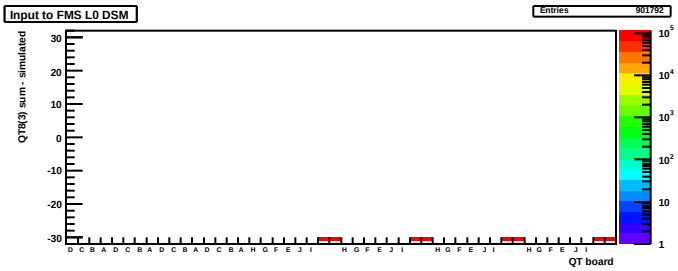

Input to FMS L0 DSM
Entries 5410752
QT8(1) sum
QT board

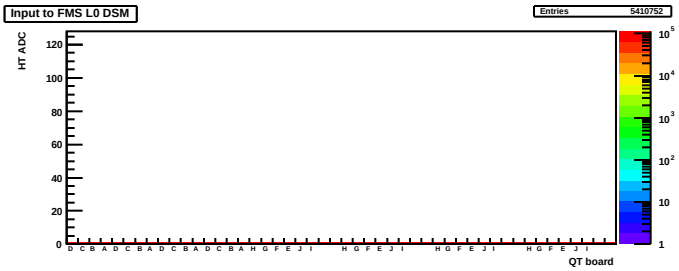

Input to FMS L0 DSM
Entries 901792
QT8(1) sum - simulated
QT board

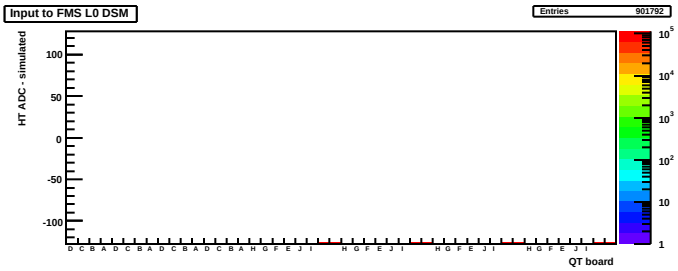

Input to FMS L0 DSM
Entries 5410752
QT8(2) sum
QT board

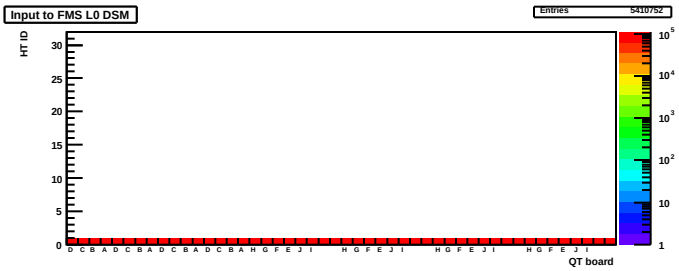

Input to FMS L0 DSM
Entries 901792
QT8(2) sum - simulated
QT board

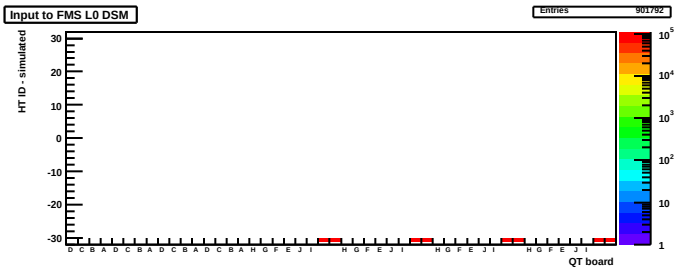

Input to FMS L0 DSM
Entries 5410752
QT8(3) sum
QT board

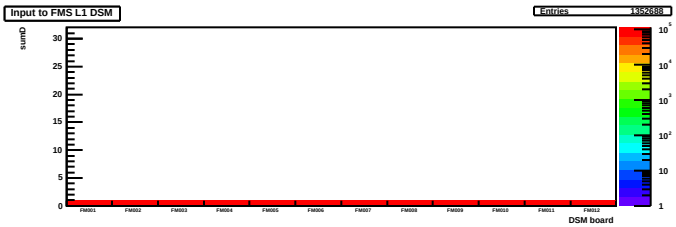

Input to FMS L0 DSM
Entries 901792
QT8(3) sum - simulated
QT board

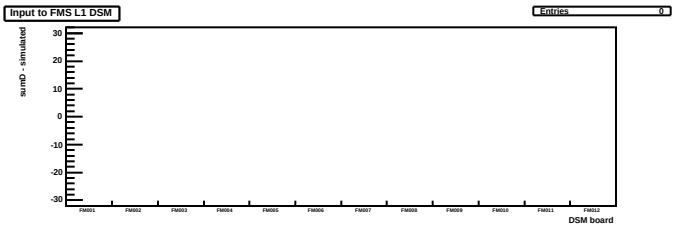

Input to FMS L0 DSM
Entries 5410752
HT ADC
QT board

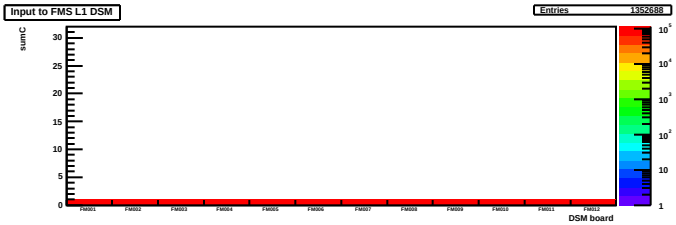

Input to FMS L0 DSM
Entries 901792
HT ADC - simulated
QT board

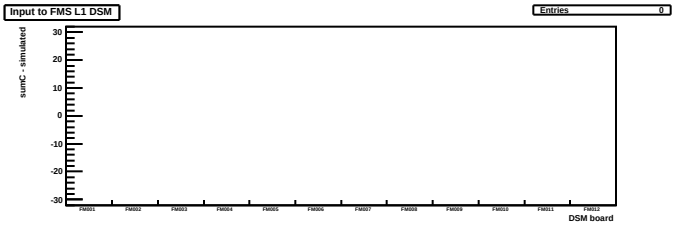

Input to FMS L0 DSM
Entries 5410752
HT ID
QT board

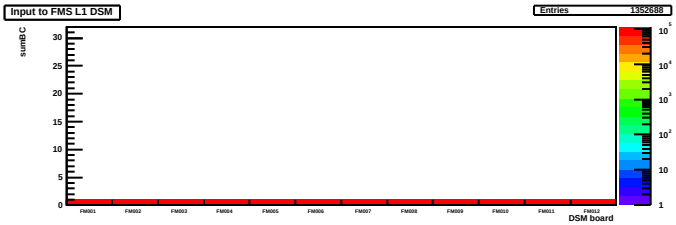

Input to FMS L0 DSM
Entries 901792
HT ID - simulated
QT board

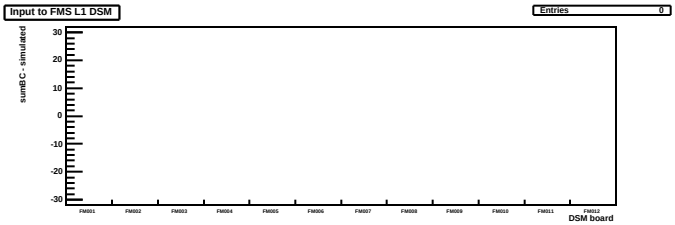

Input to FMS L1 DSM
Entries 1352688
sumD
DSM board

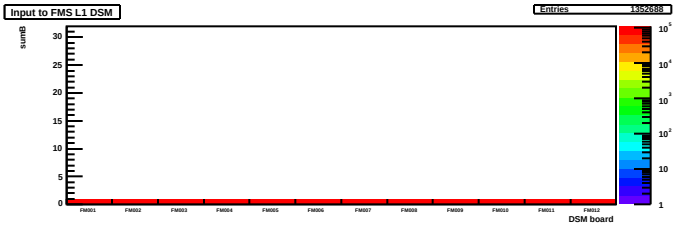

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

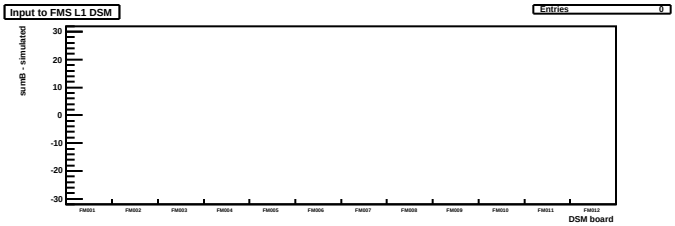

Input to FMS L1 DSM
Entries 1352688
sumC
DSM board

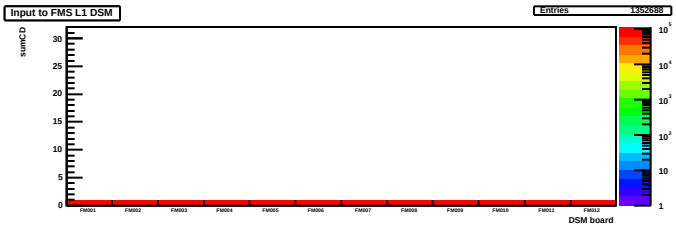

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

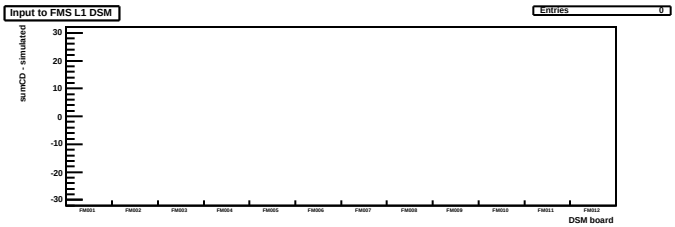

Input to FMS L1 DSM
Entries 1352688
sumBC
DSM board

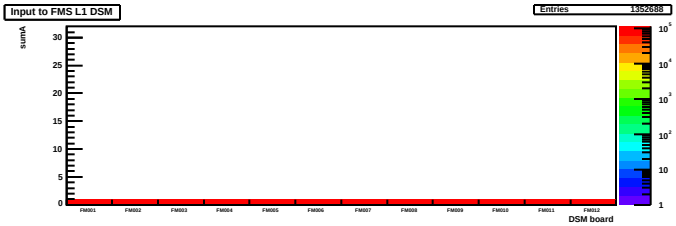

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

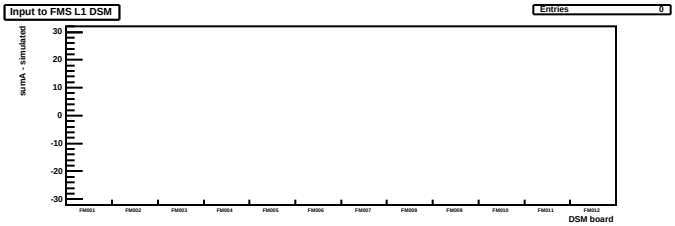

Input to FMS L1 DSM
Entries 1352688
sumB
DSM board

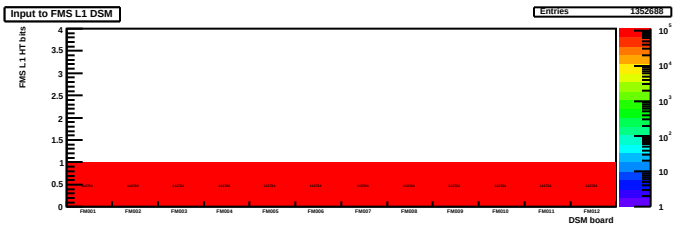

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

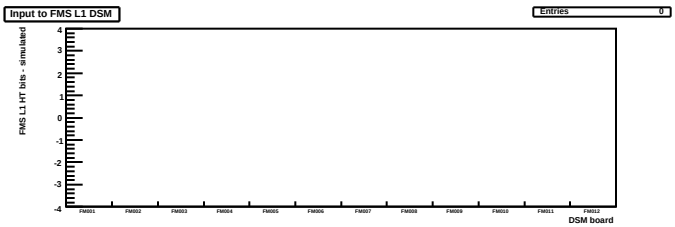

Input to FMS L1 DSM
Entries 1352688
sumCD
DSM board

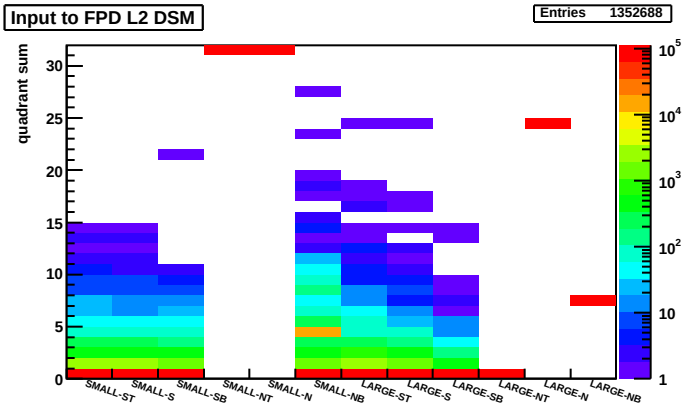

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

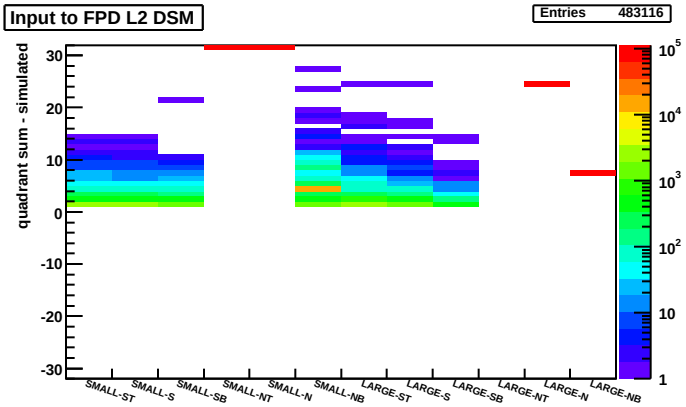

Input to FMS L1 DSM
Entries 1352688
sumA
DSM board

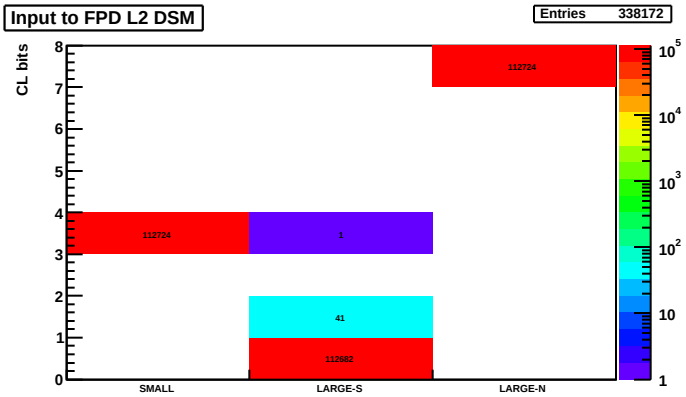

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

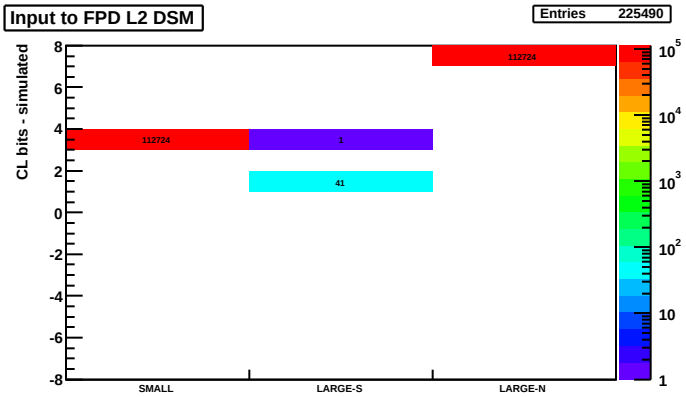

Input to FMS L1 DSM
Entries 1352688
FMS L1 HT bits
DSM board

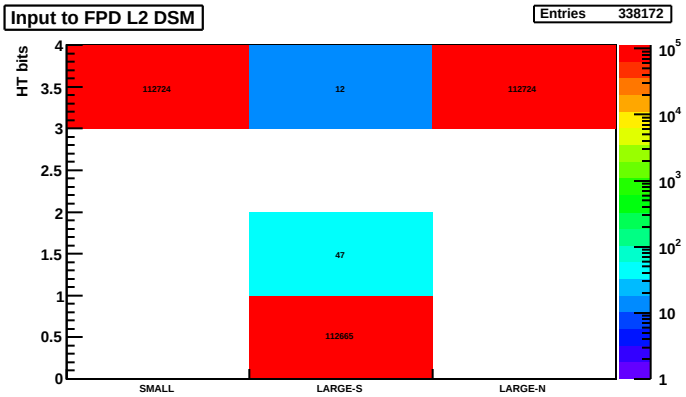

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

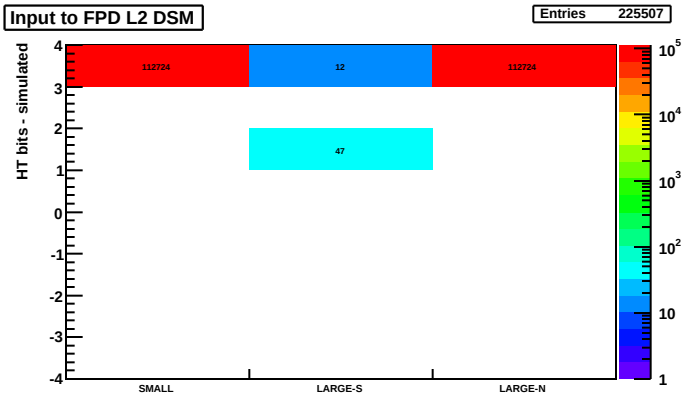

Input to FPD L2 DSM
Entries 1352688
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

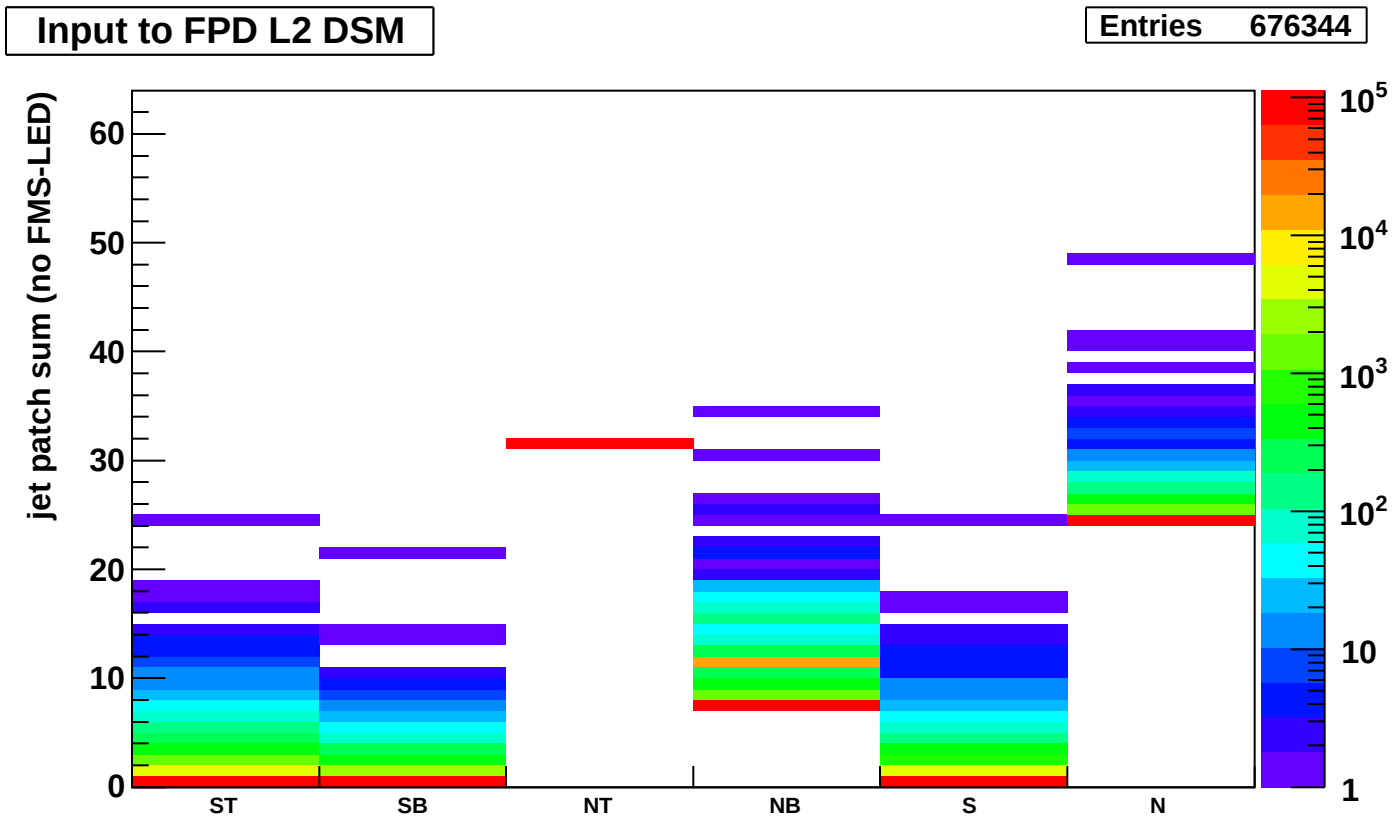

Input to FPD L2 DSM
Entries 483116
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

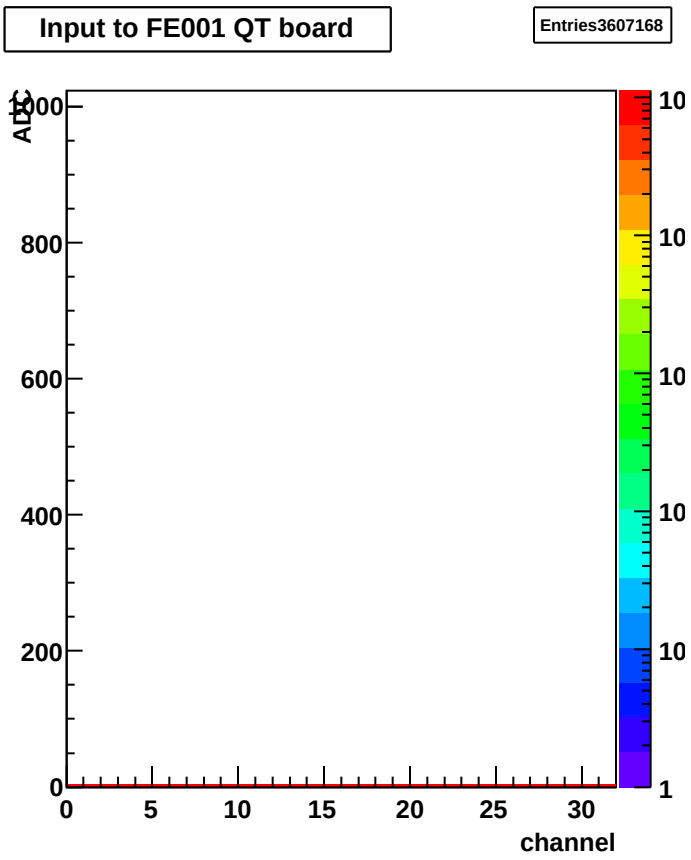

Input to FPD L2 DSM
Entries 338172
CL bits
112724
1
41
112682
SMALL
LARGE-S
LARGE-N

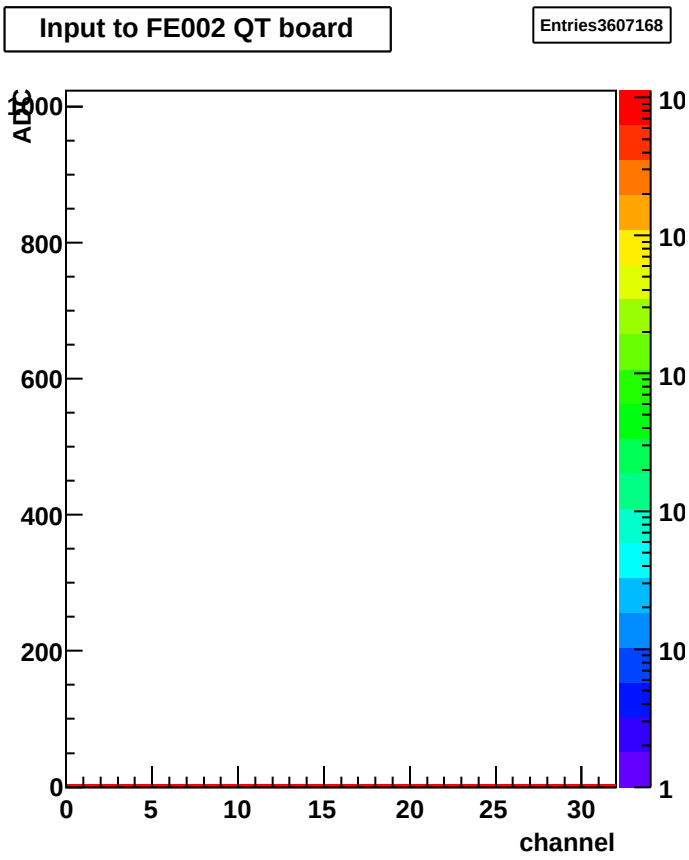

Input to FPD L2 DSM
Entries 225490
CL bits - simulated
112724
1
41
SMALL
LARGE-S
LARGE-N

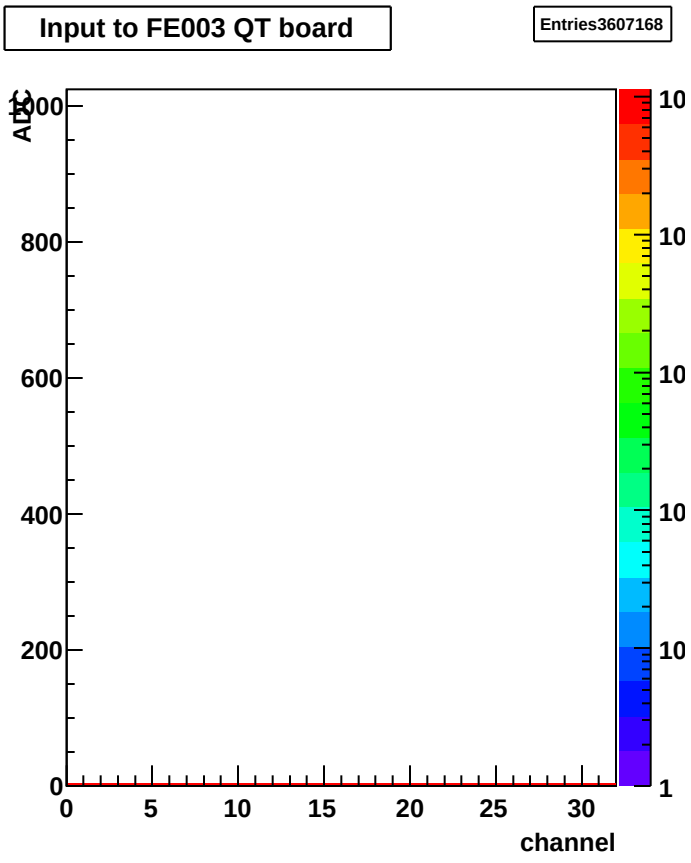

Input to FPD L2 DSM
Entries 338172
HT bits
112724
12
47
112665
SMALL
LARGE-S
LARGE-N

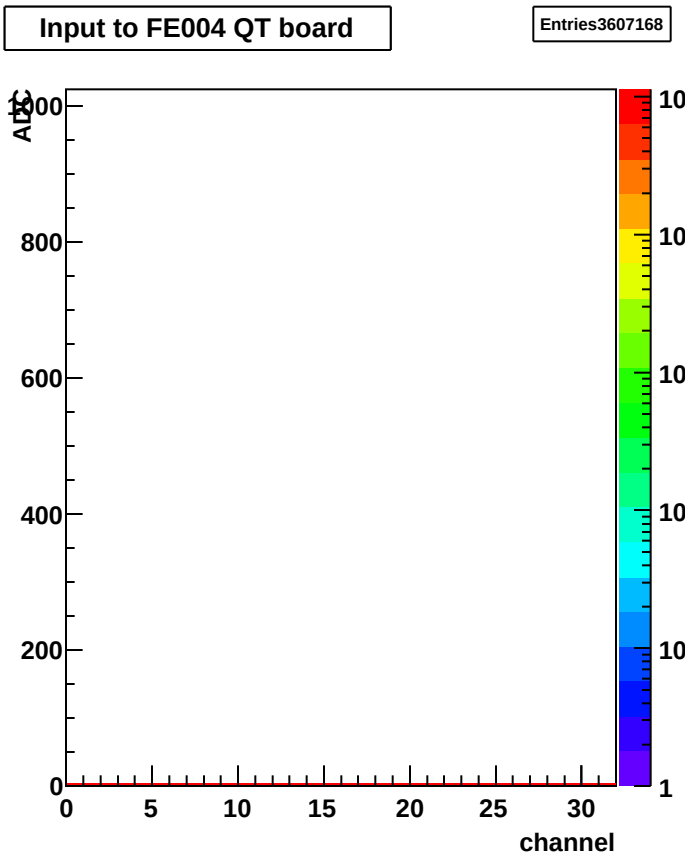

Input to FPD L2 DSM
Entries 225507
HT bits - simulated
112724
12
47
SMALL
LARGE-S
LARGE-N

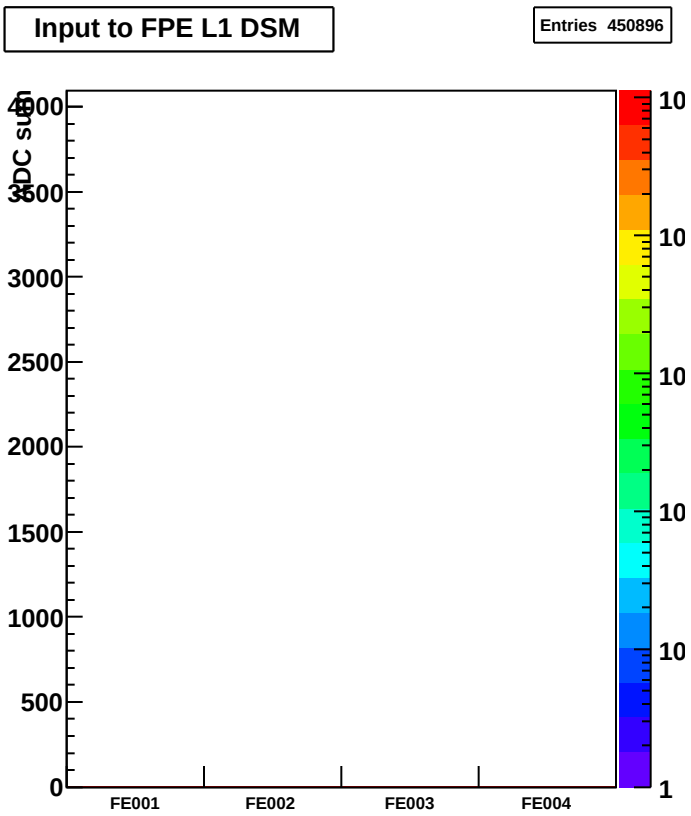

Input to FPD L2 DSM
Entries 676344
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

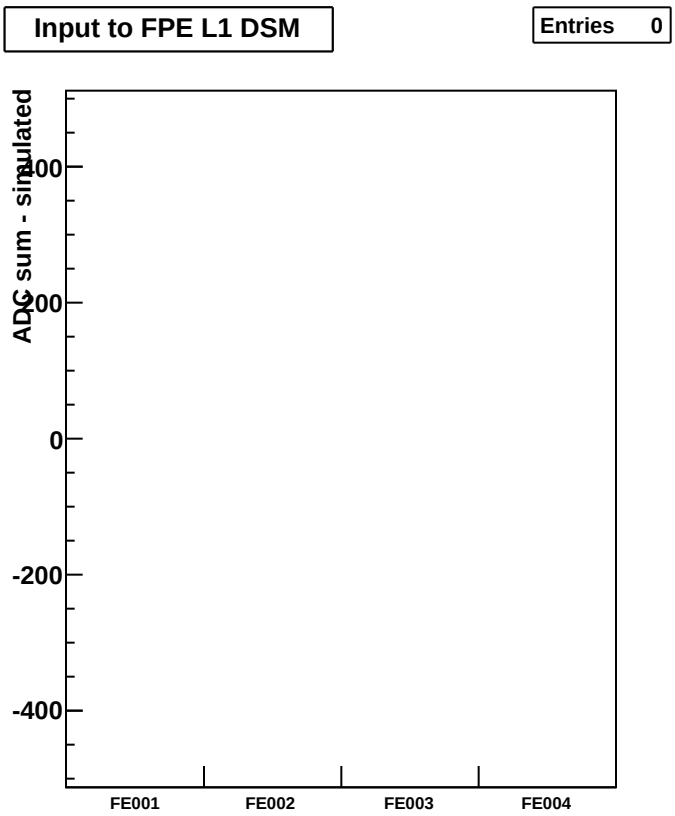

Input to FE001 QT board
Entries3607168
ADC
channel

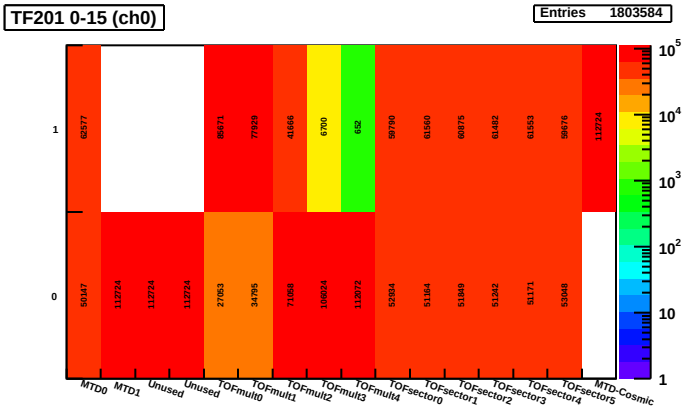

Input to FE002 QT board
Entries3607168
ADC
channel

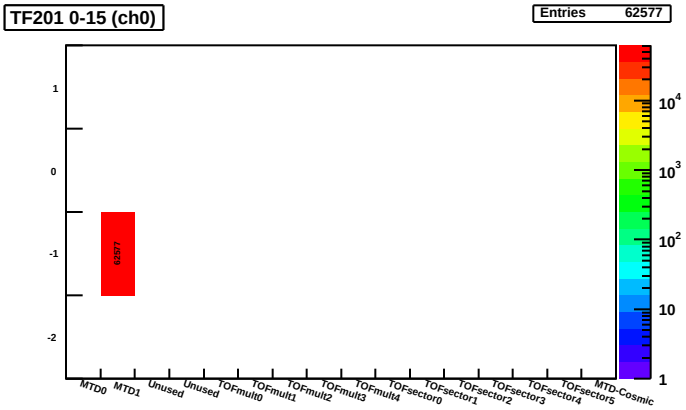

Input to FE003 QT board
Entries3607168
ADC
channel

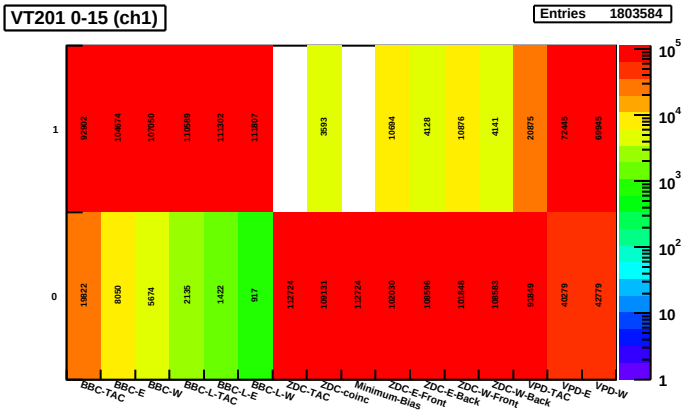

Input to FE004 QT board
Entries3607168
ADC
channel

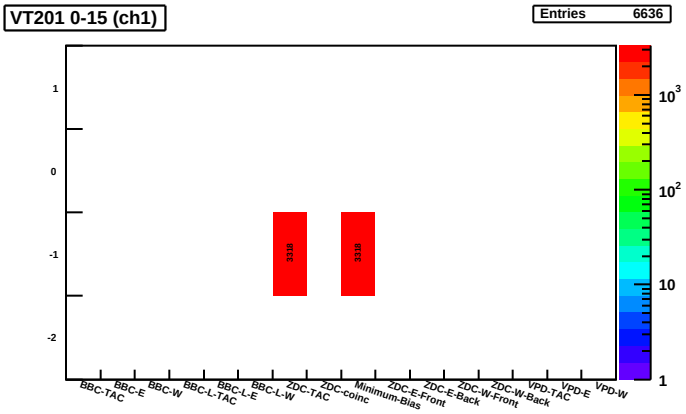

Input to FPE L1 DSM
Entries 450896
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

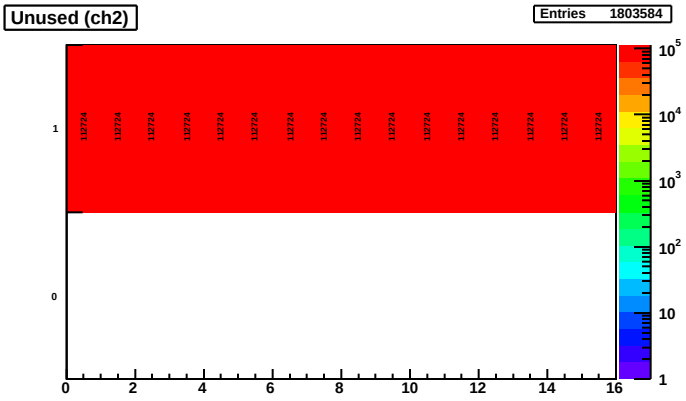

Input to FPE L1 DSM
Entries 0
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004

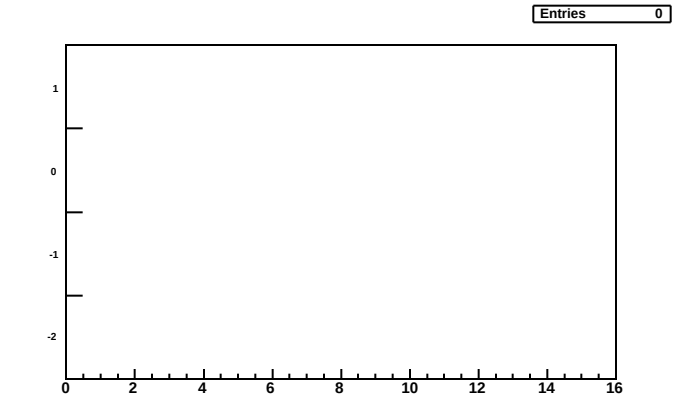

TF201 0-15 (ch0)
Entries 1803584
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

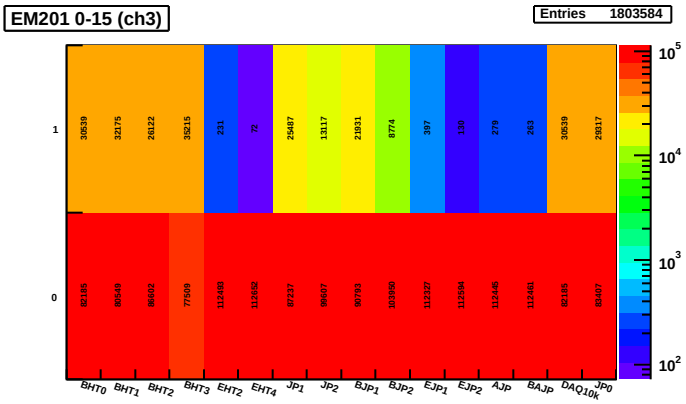

TF201 0-15 (ch0)
Entries 62577
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

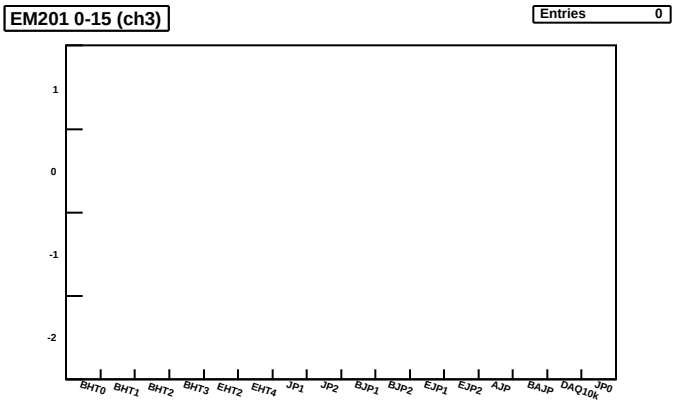

VT201 0-15 (ch1)
Entries 1803584
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 6636
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

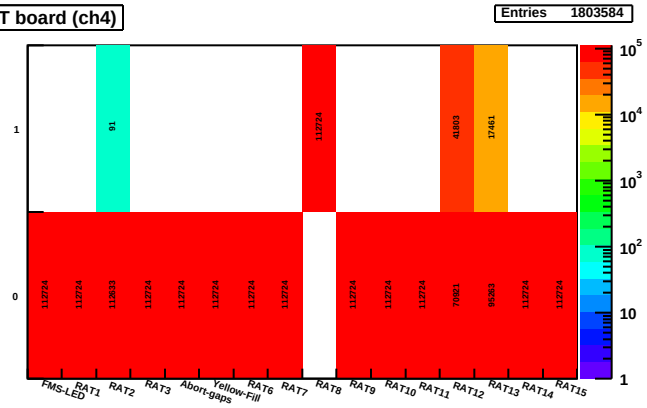

Unused (ch2)
Entries 1803584

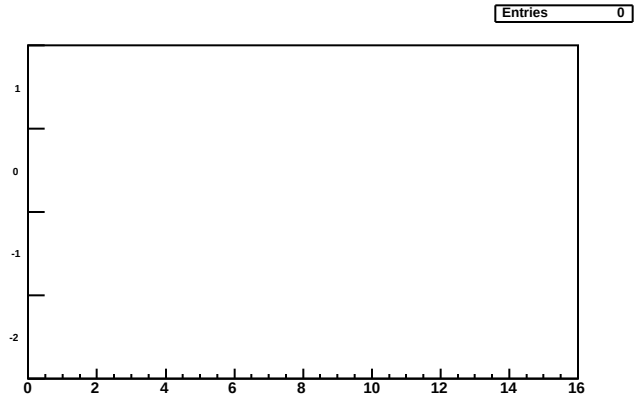

Entries 0


EM201 0-15 (ch3)
Entries 1803584
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

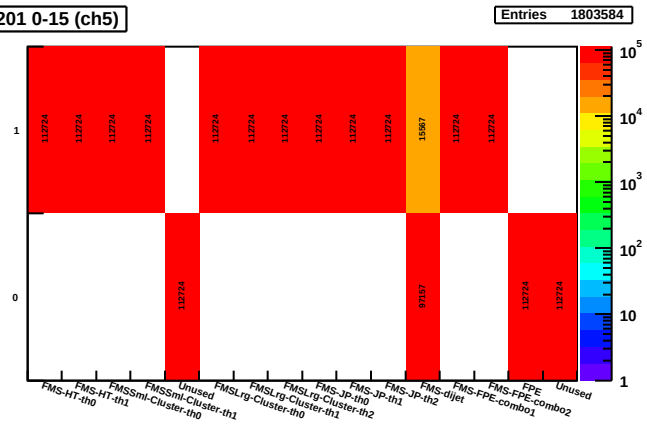

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

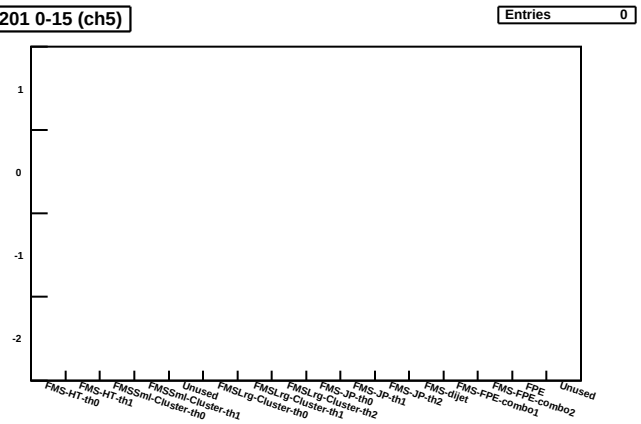




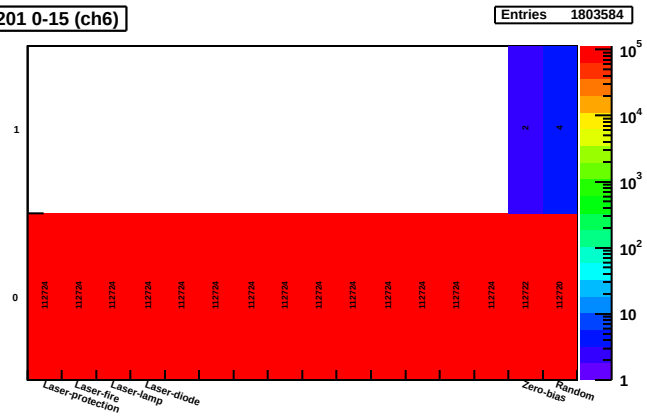
FP201 0-15 (ch5)

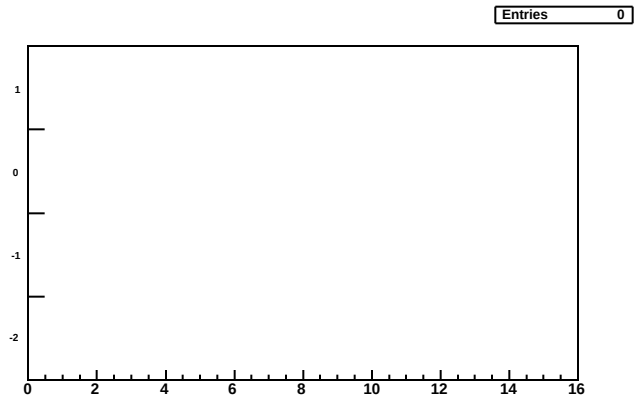
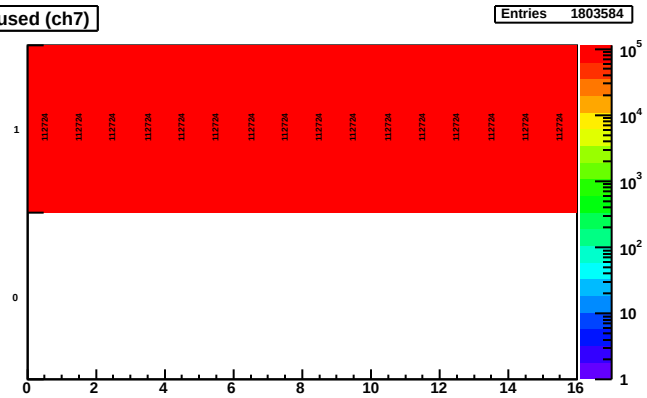
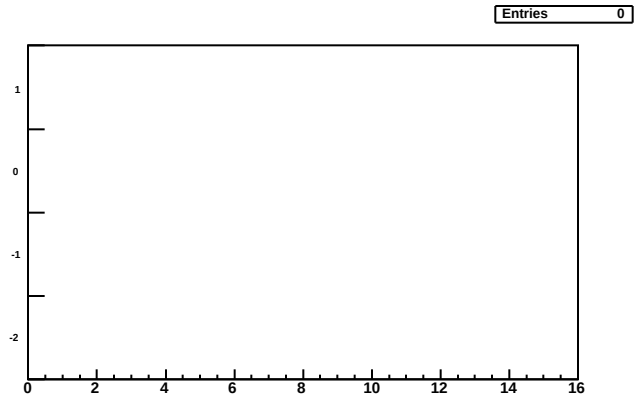


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)