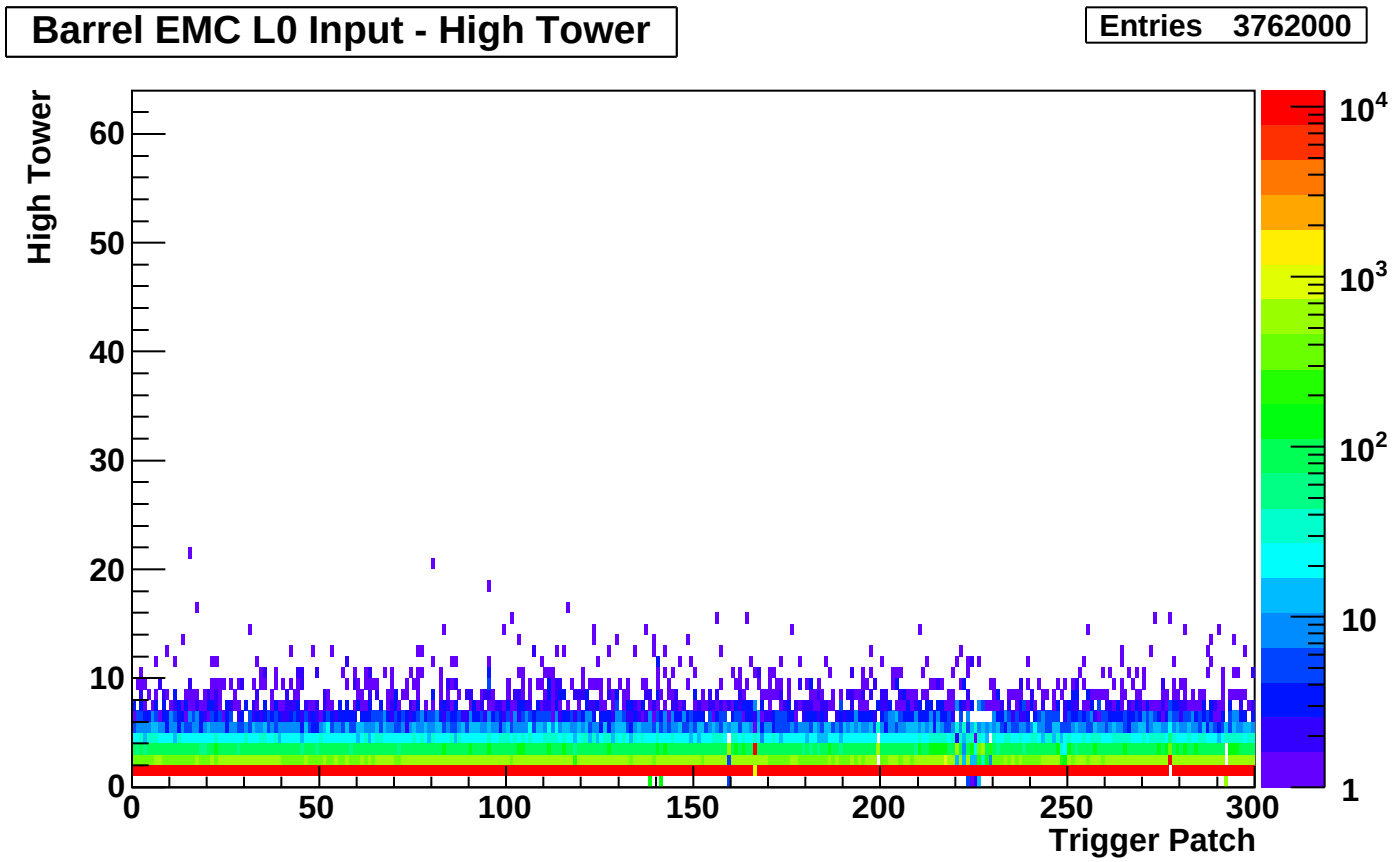
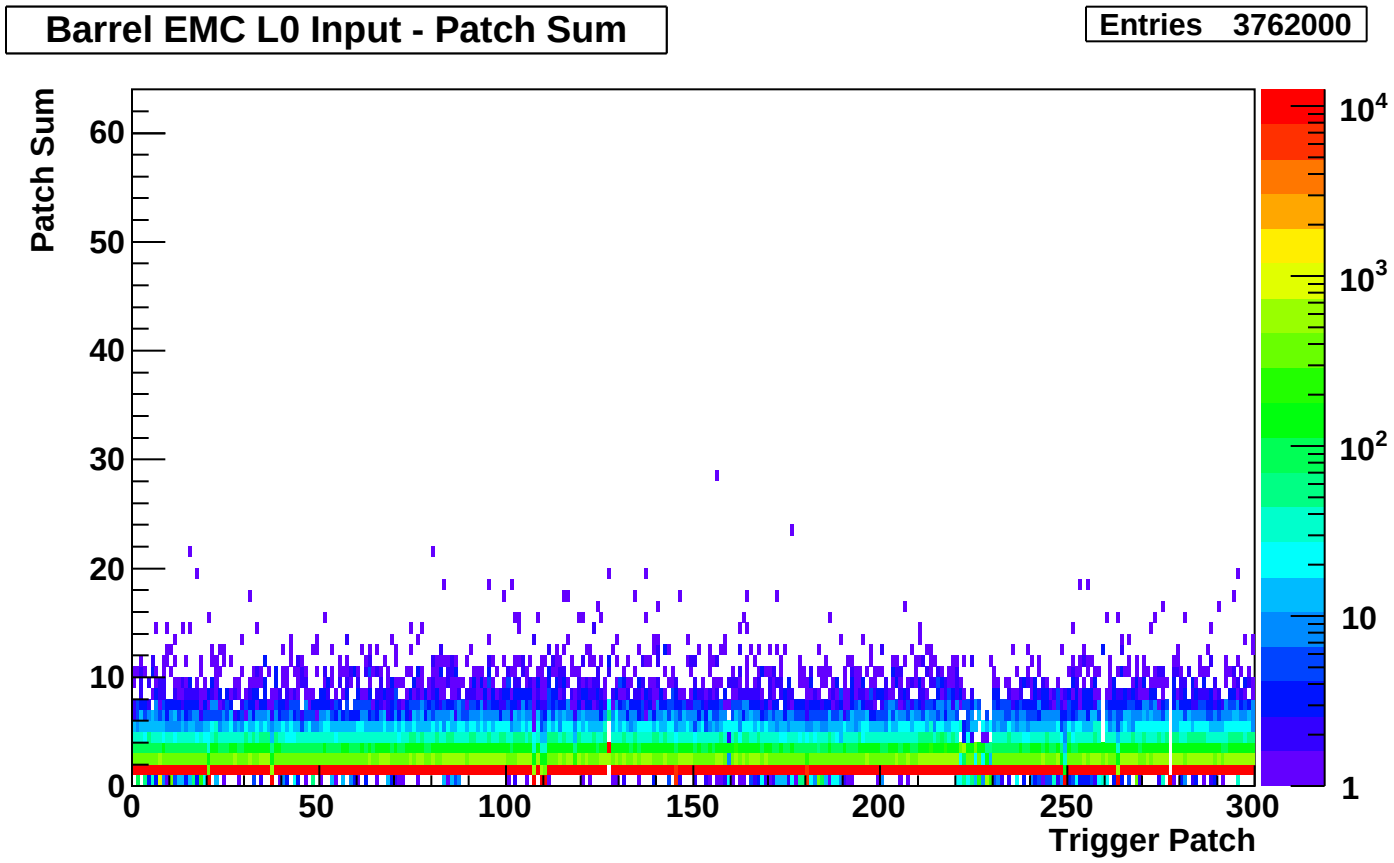
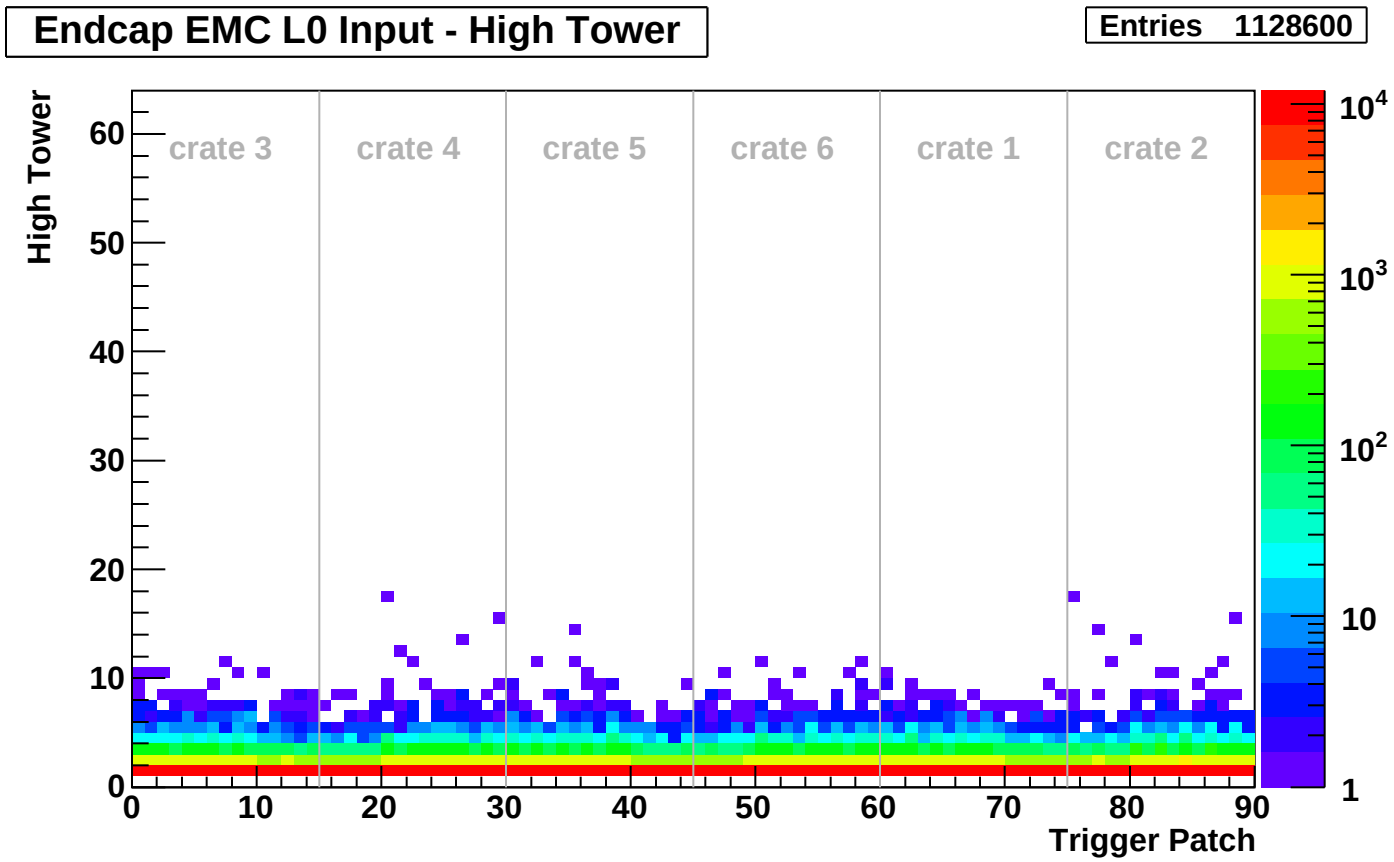
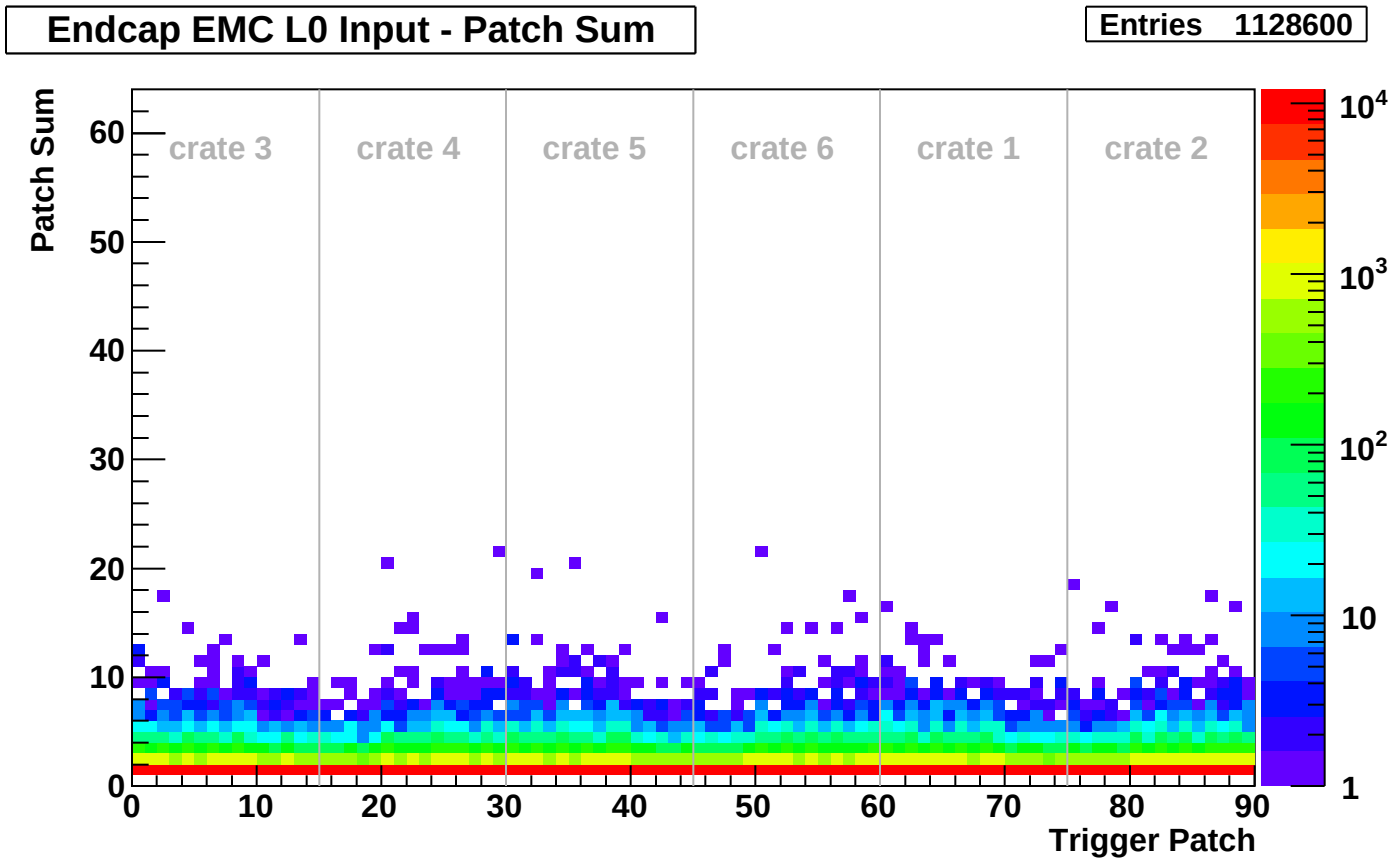
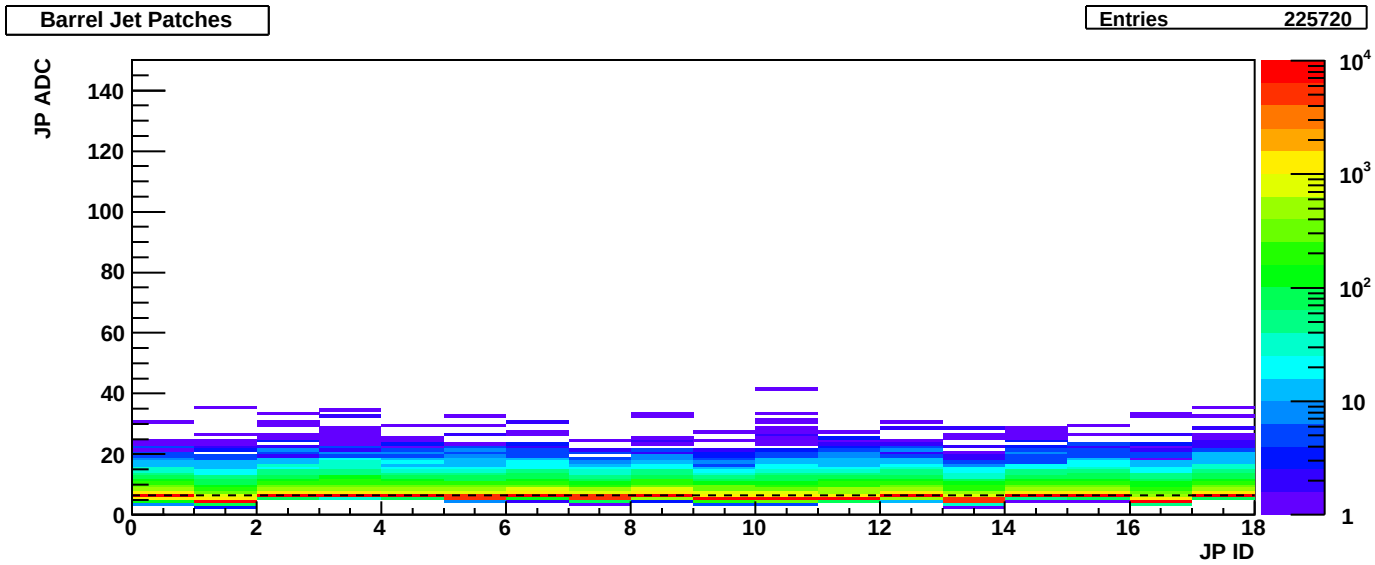
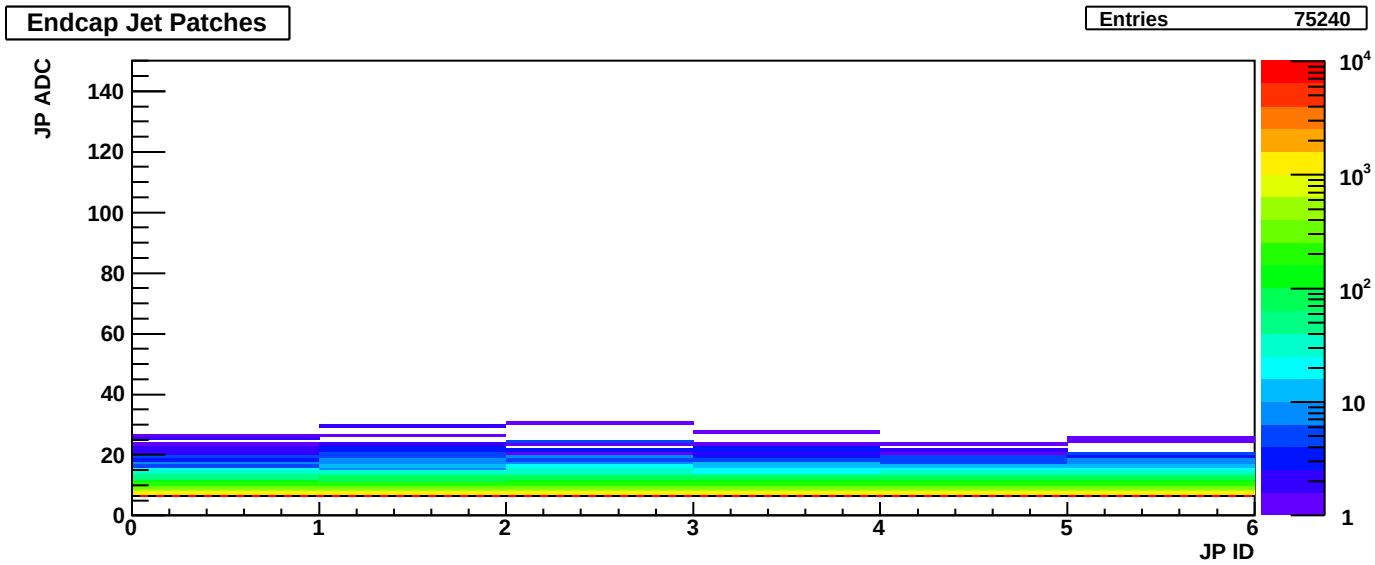

Barrel EMC L0 Input - High Tower
Entries 3762000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

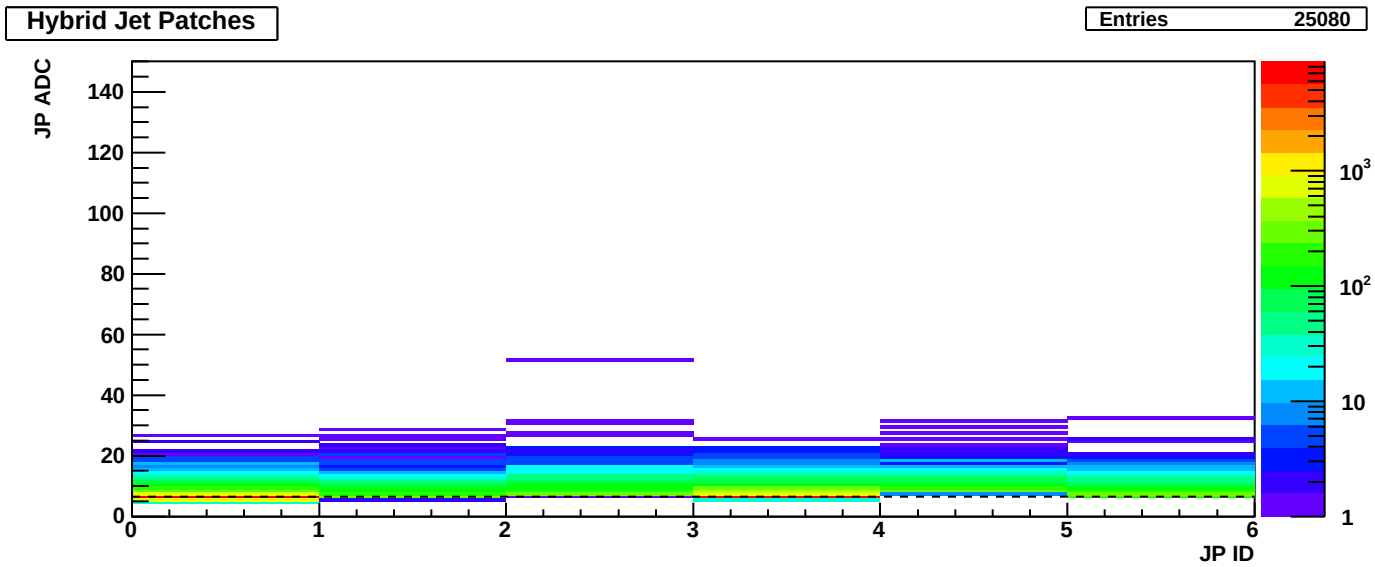

Barrel EMC L0 Input - Patch Sum
Entries 3762000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

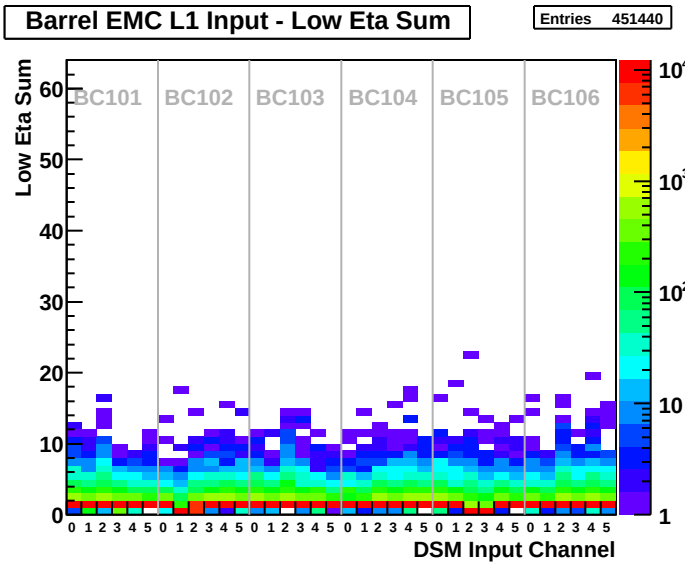

Endcap EMC L0 Input - High Tower
Entries 1128600
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

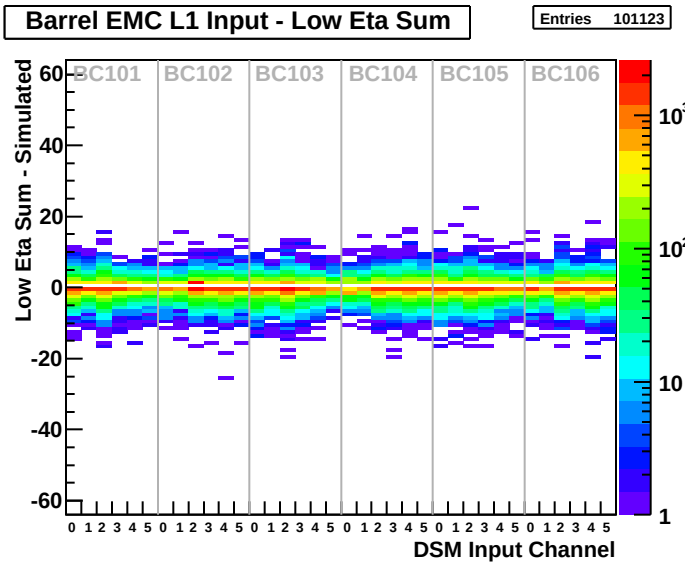

Endcap EMC L0 Input - Patch Sum
Entries 1128600
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

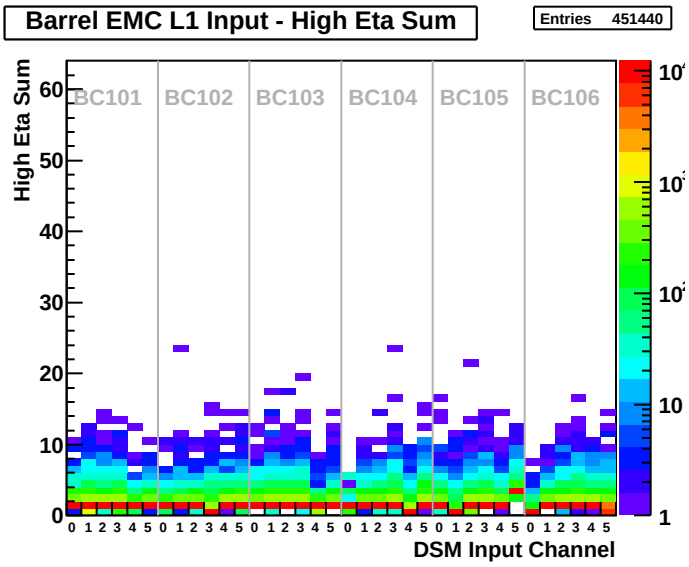

Barrel Jet Patches
Entries 225720
JP ADC
JP ID

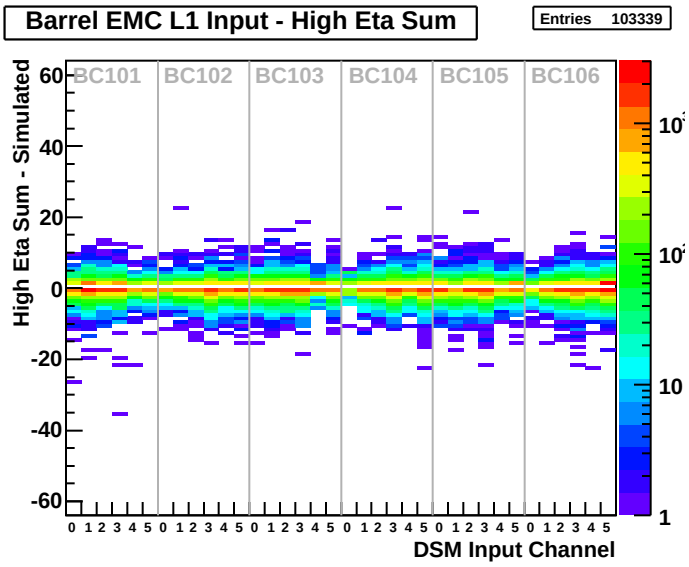

Endcap Jet Patches
Entries 75240
JP ADC
JP ID

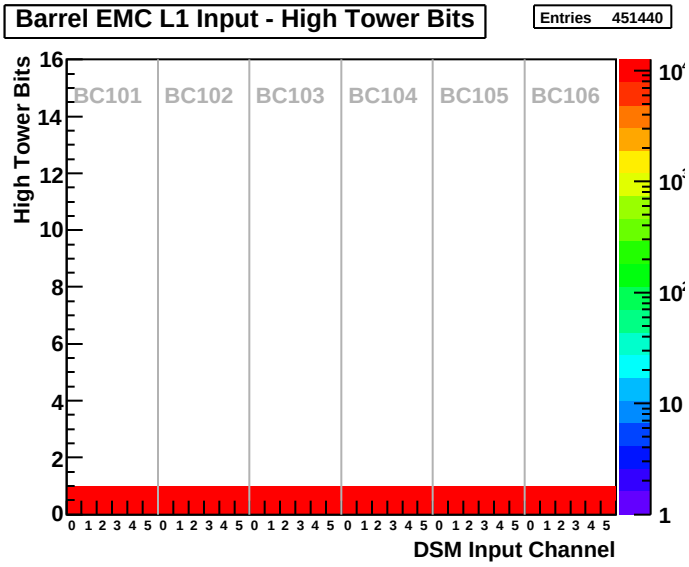

Hybrid Jet Patches
Entries 25080
JP ADC
JP ID

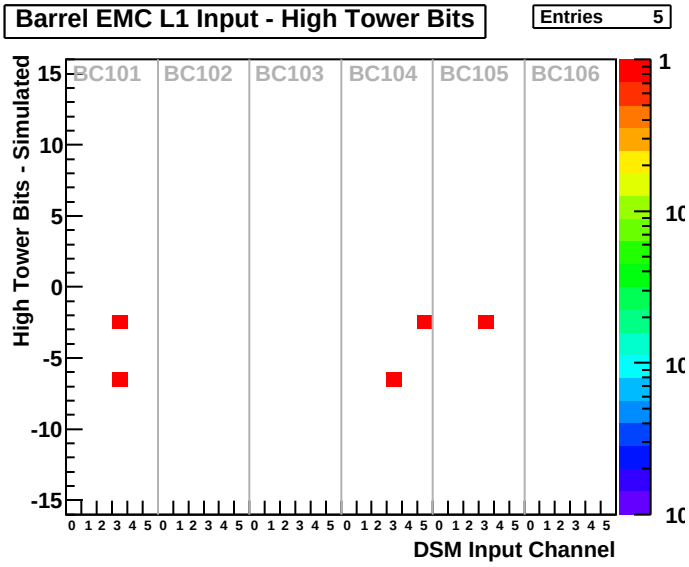

Barrel EMC L1 Input - Low Eta Sum
Entries 451440
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

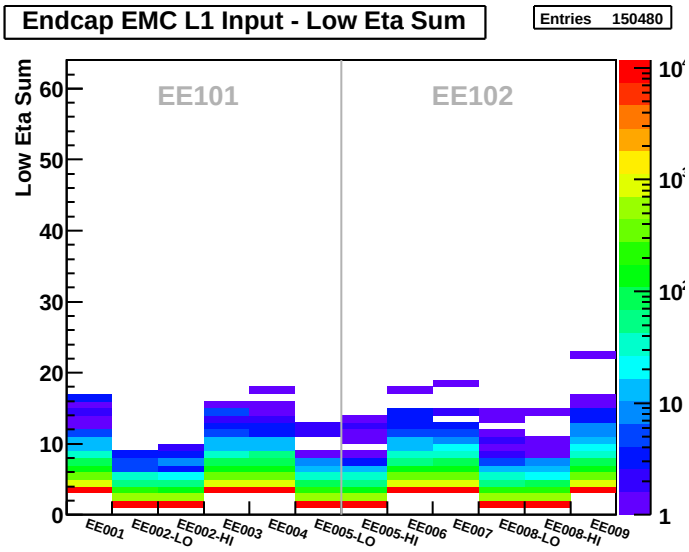

Barrel EMC L1 Input - Low Eta Sum
Entries 101123
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

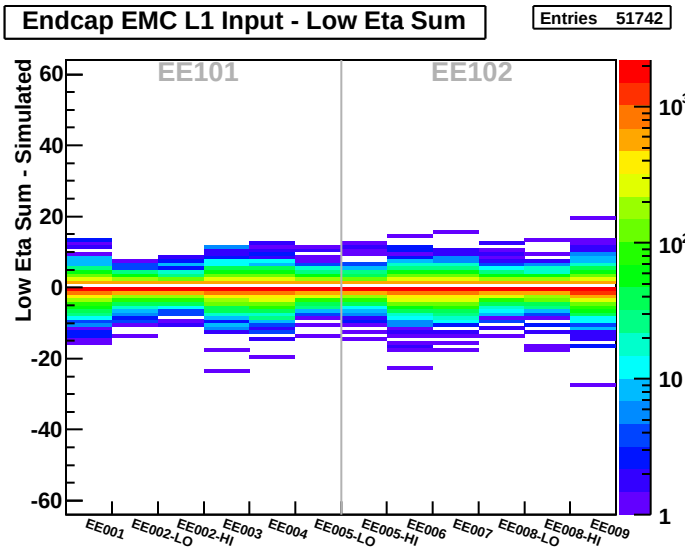

Barrel EMC L1 Input - High Eta Sum
Entries 451440
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

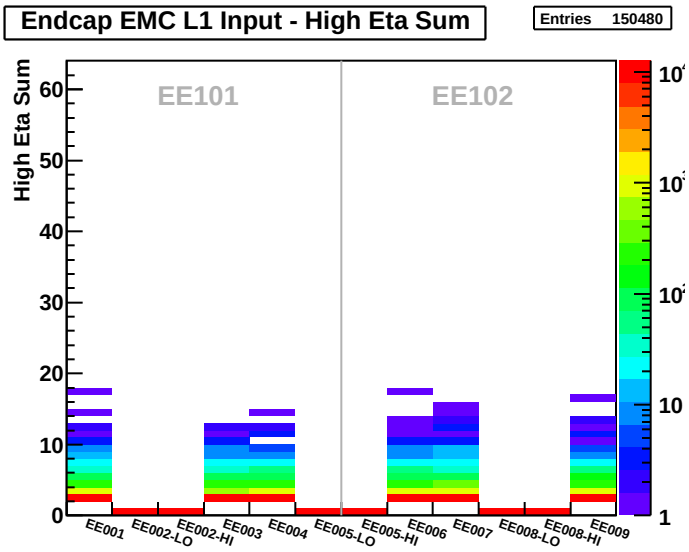

Barrel EMC L1 Input - High Eta Sum
Entries 103339
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

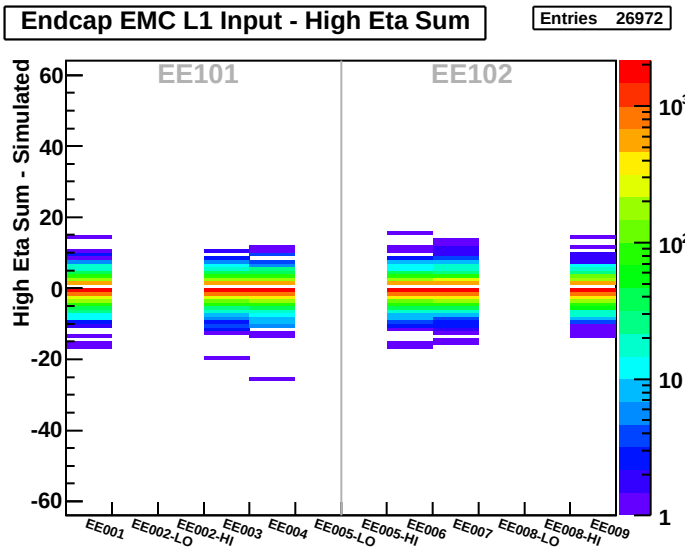

Barrel EMC L1 Input - High Tower Bits
Entries 451440
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

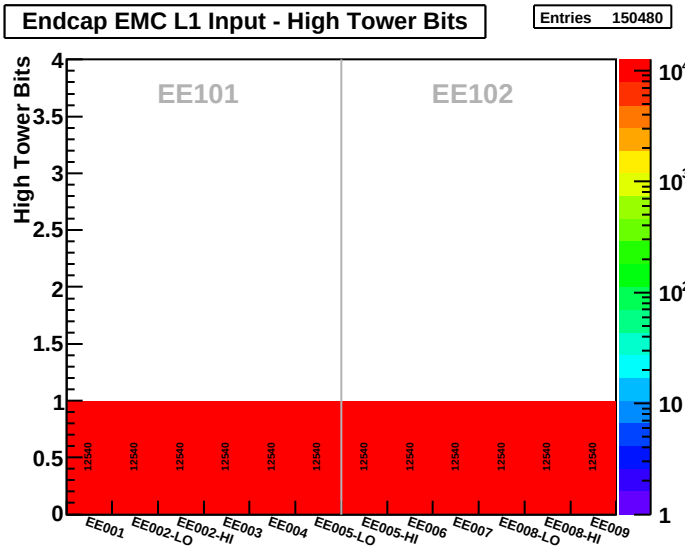

Barrel EMC L1 Input - High Tower Bits
Entries 5
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

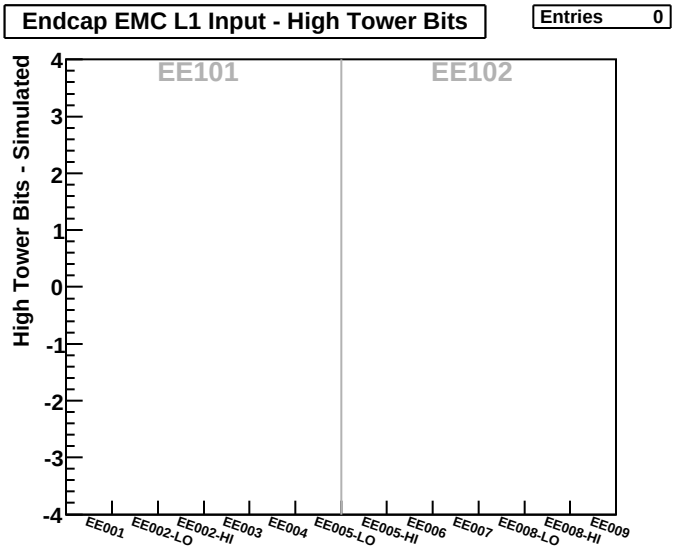

Endcap EMC L1 Input - Low Eta Sum
Entries 150480
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

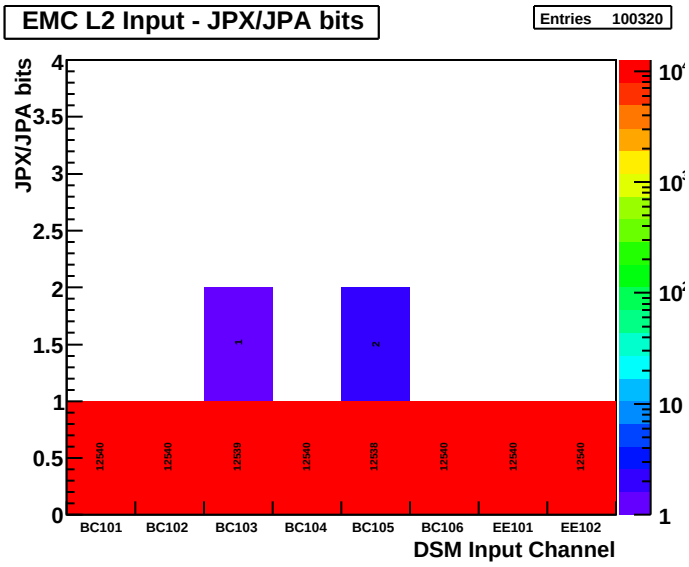

Endcap EMC L1 Input - Low Eta Sum
Entries 51742
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

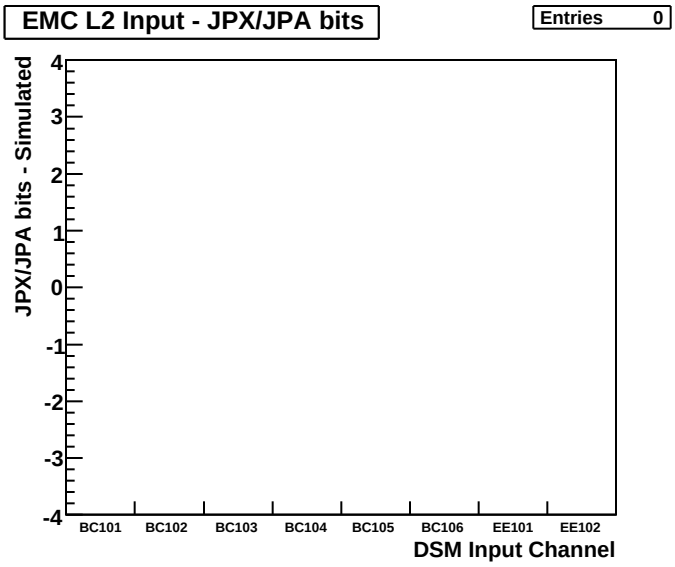

Endcap EMC L1 Input - High Eta Sum
Entries 150480
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

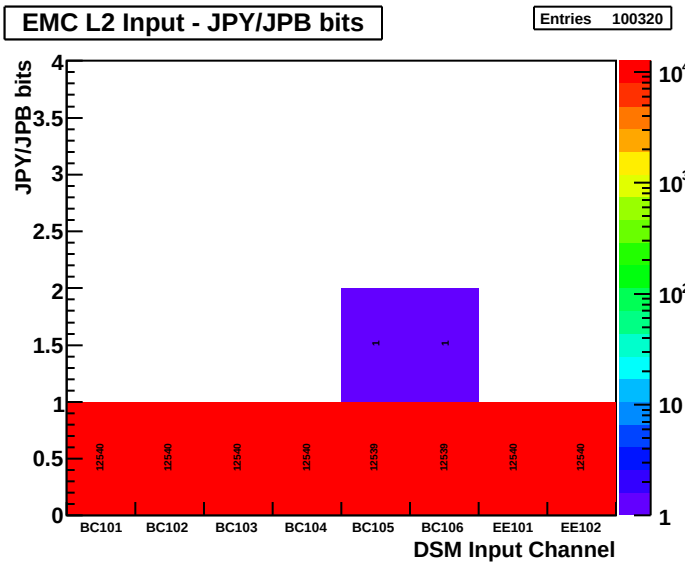

Endcap EMC L1 Input - High Eta Sum
Entries 26972
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

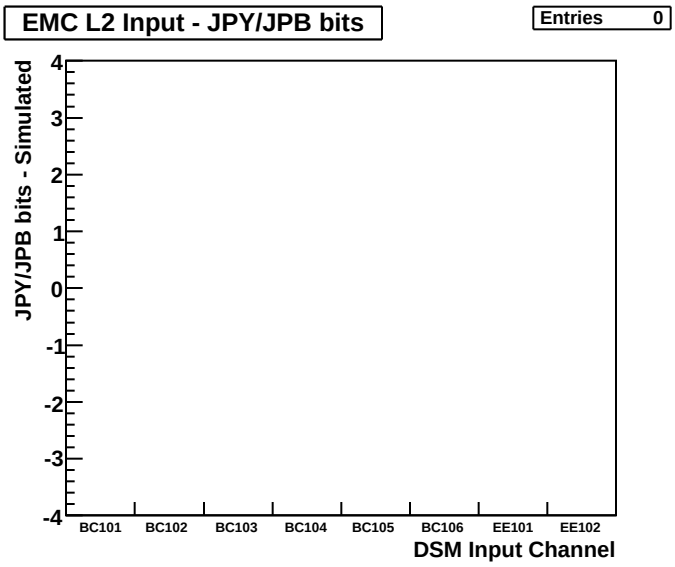

Endcap EMC L1 Input - High Tower Bits
Entries 150480
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

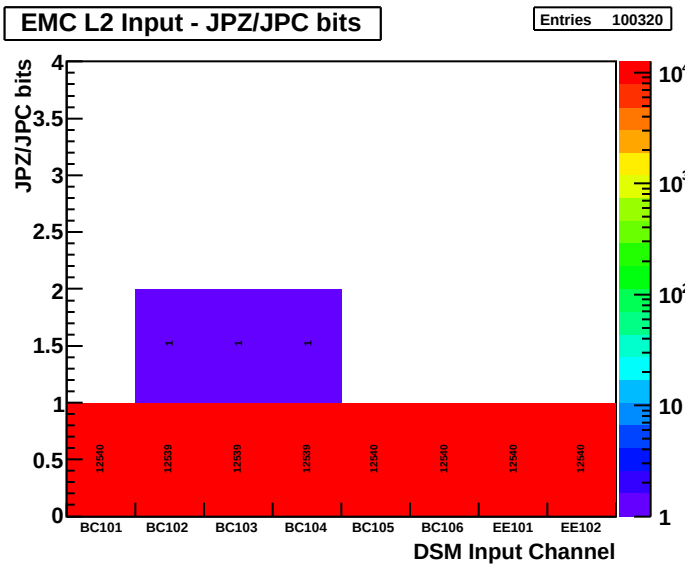

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

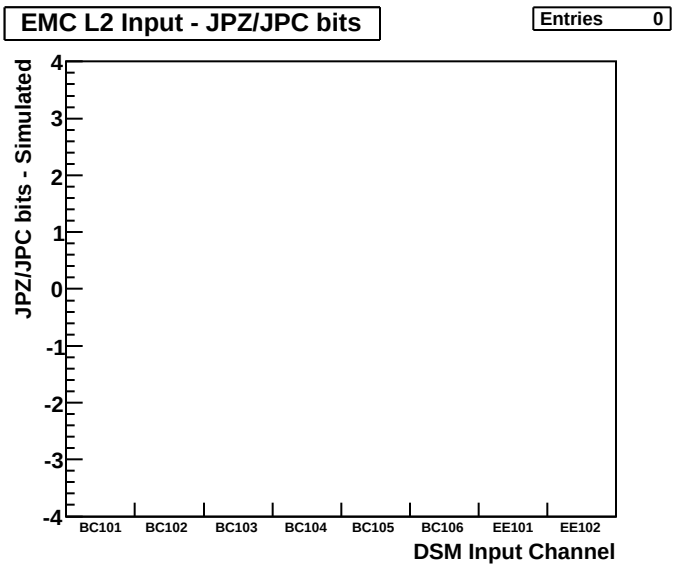

EMC L2 Input - JPX/JPA bits
Entries 100320
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

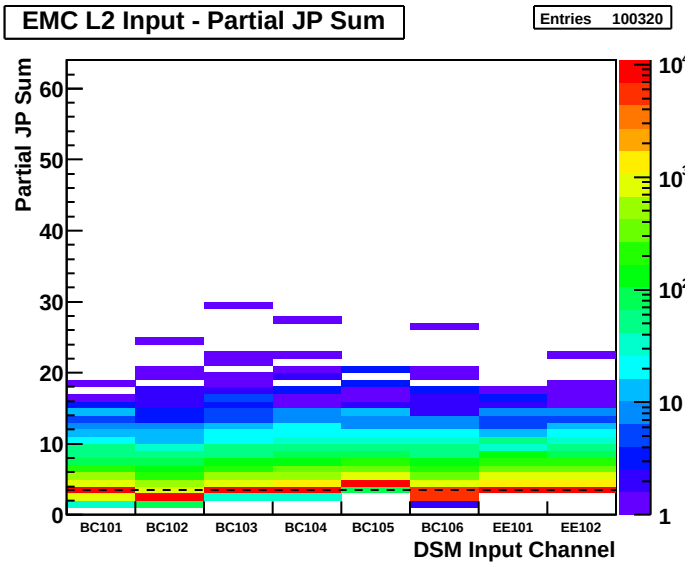

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

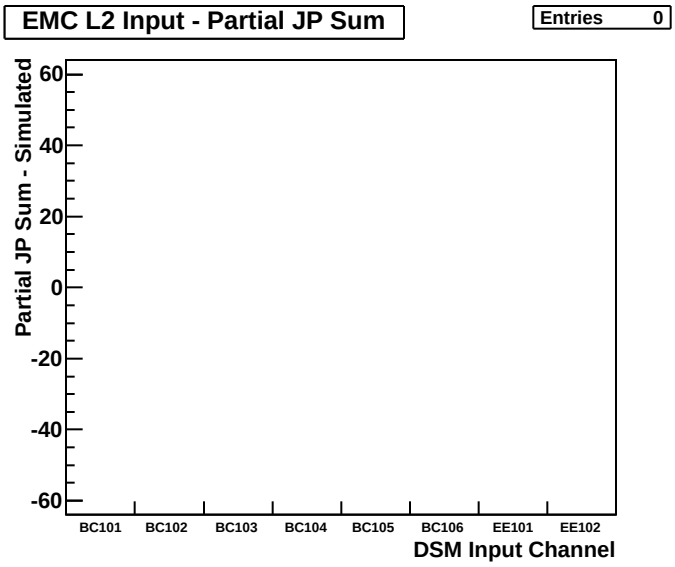

EMC L2 Input - JPY/JPB bits
Entries 100320
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

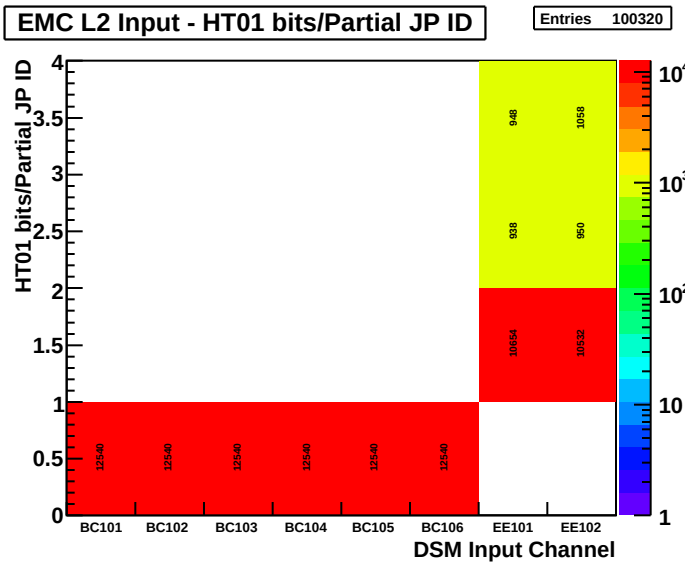

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

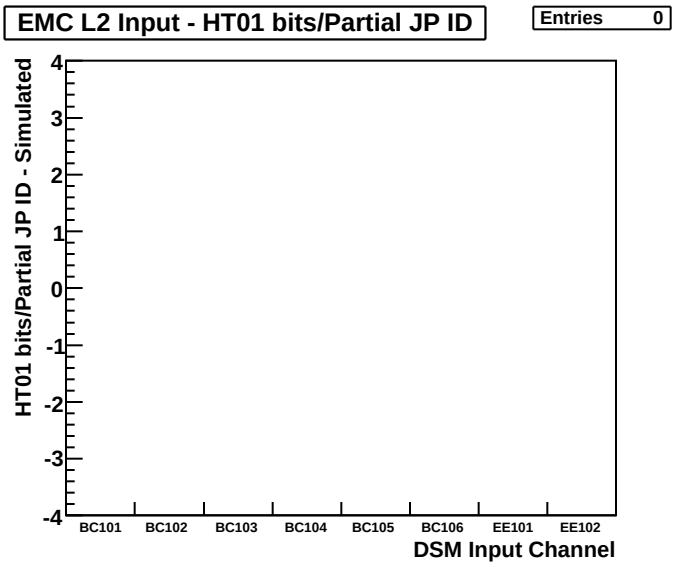

EMC L2 Input - JPZ/JPC bits
Entries 100320
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

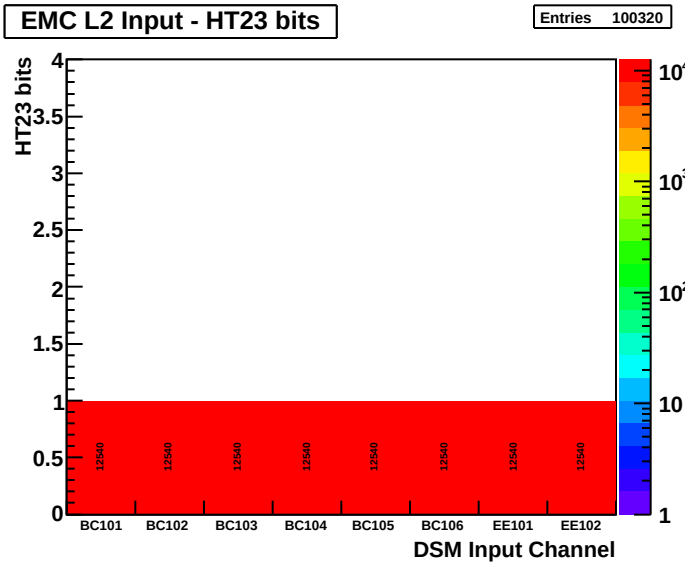

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

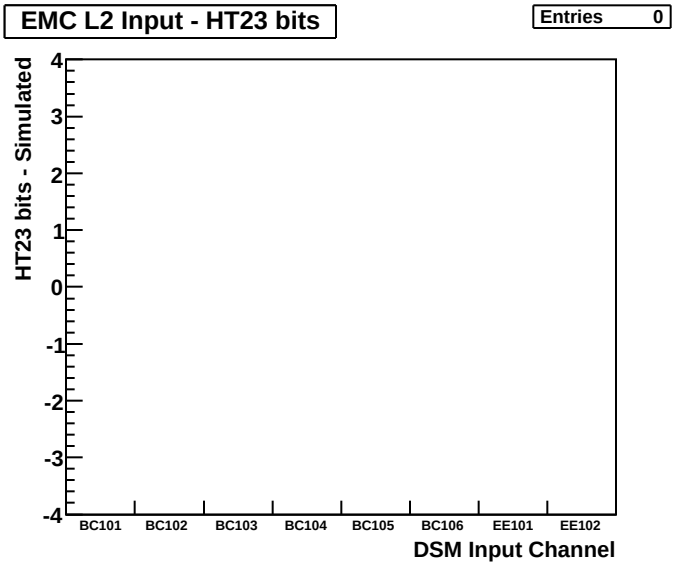

EMC L2 Input - Partial JP Sum
Entries 100320
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

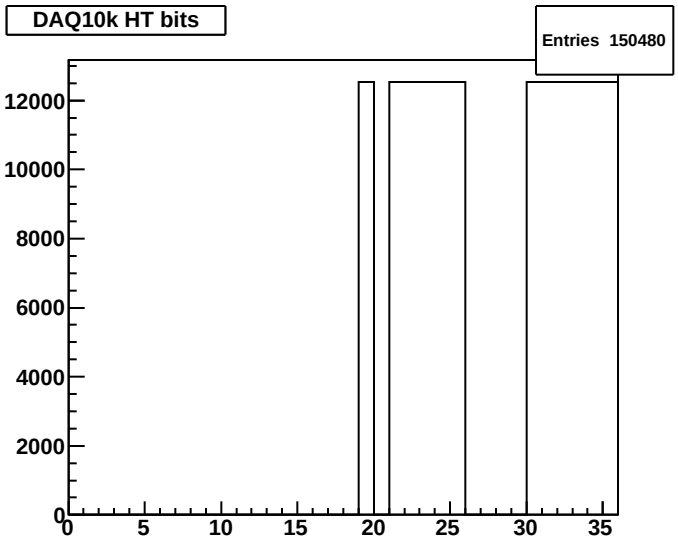

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

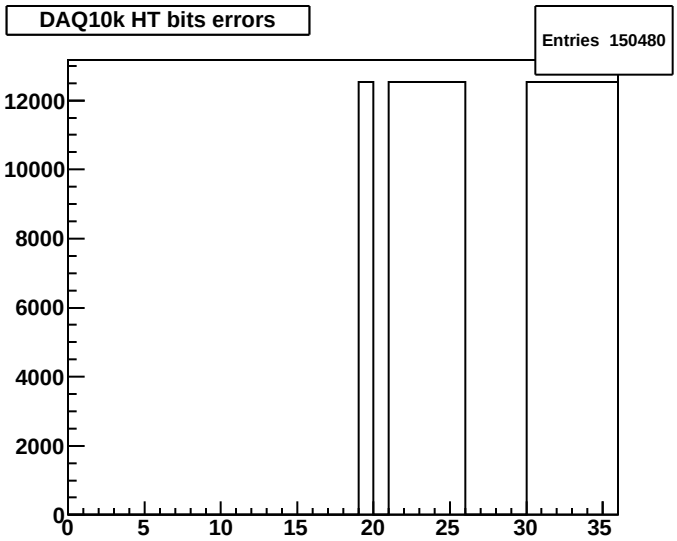

EMC L2 Input - HT01 bits/Partial JP ID
Entries 100320
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

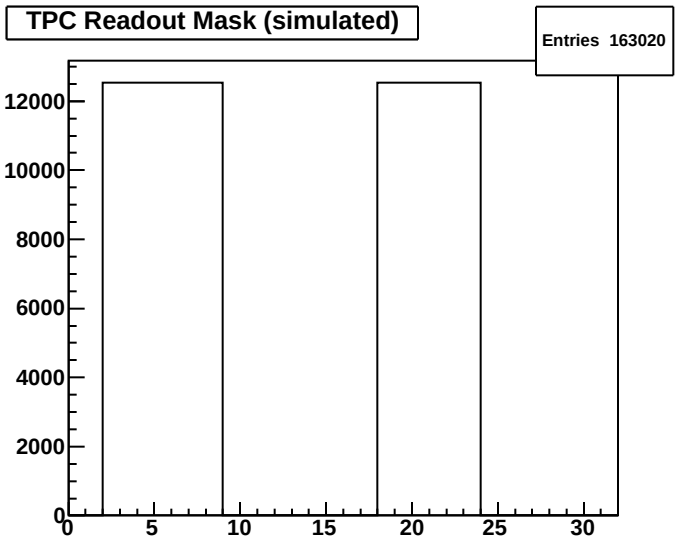

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

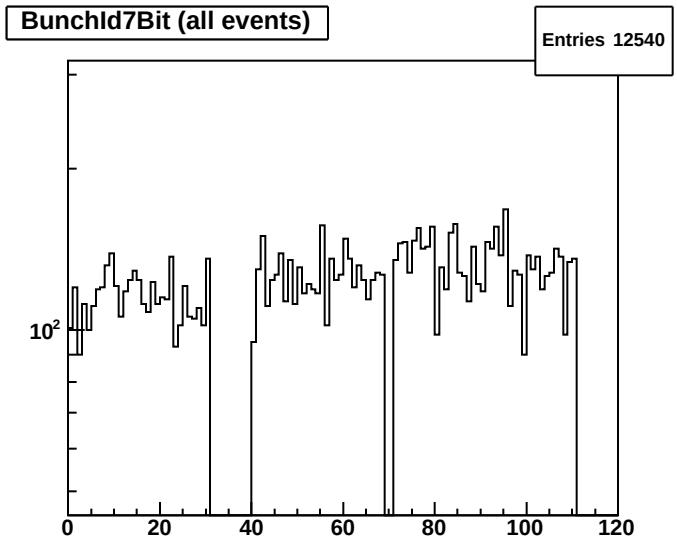

EMC L2 Input - HT23 bits
Entries 100320
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

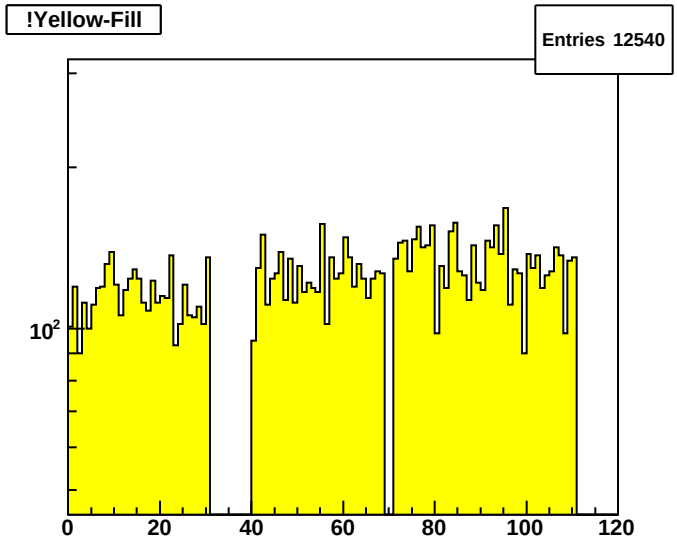

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

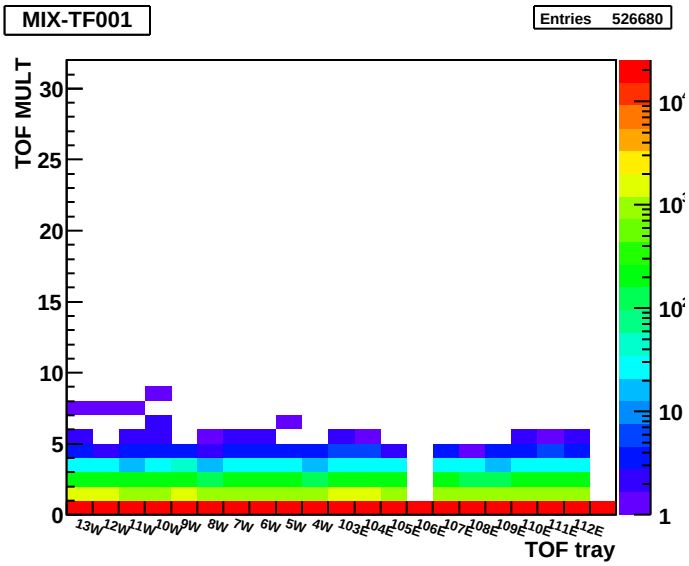

DAQ10k HT bits
Entries 150480
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

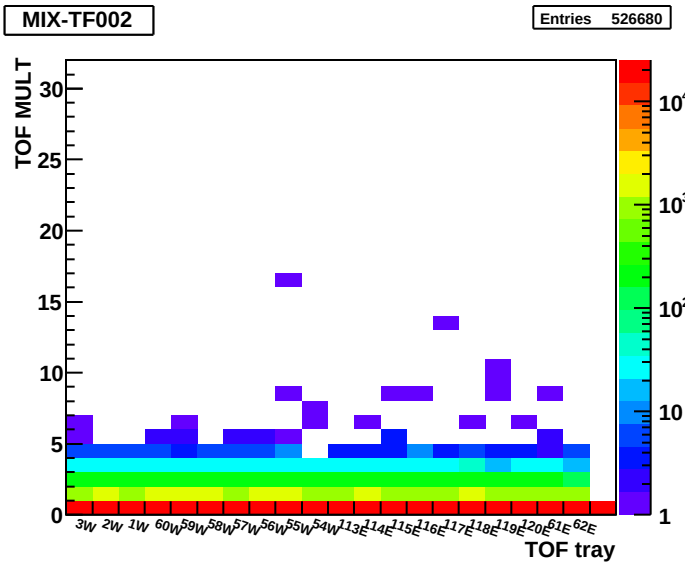

DAQ10k HT bits errors
Entries 150480
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

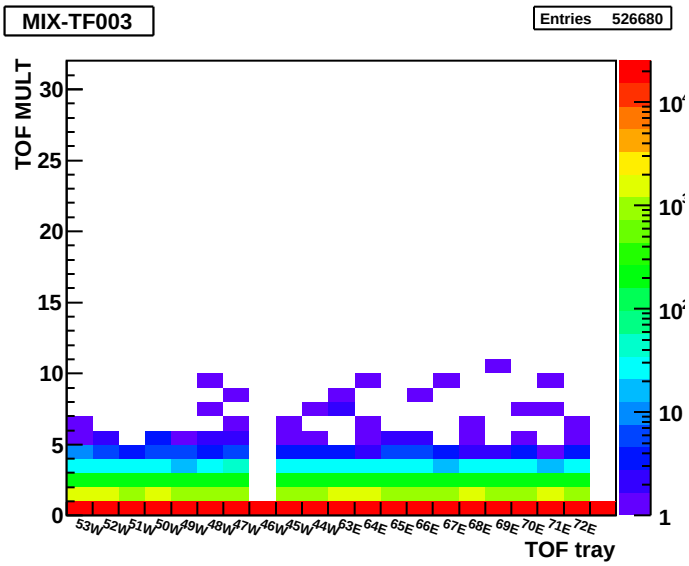

TPC Readout Mask (simulated)
Entries 163020
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

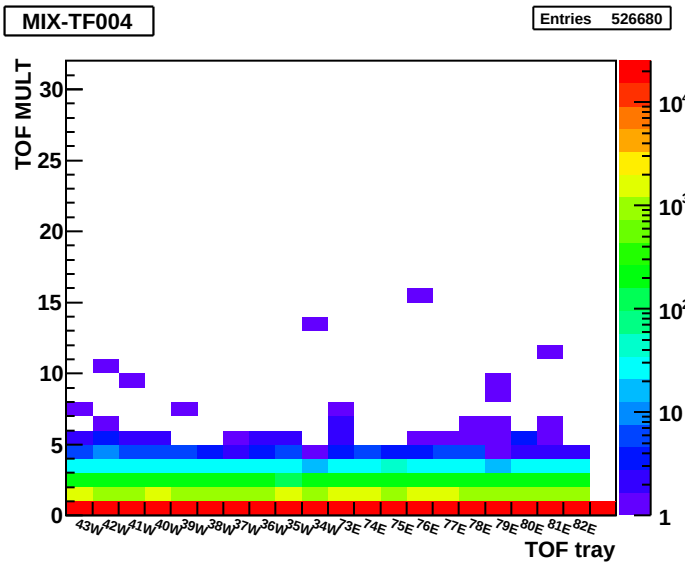

BunchId7Bit (all events)
Entries 12540
10^2
0 20 40 60 80 100 120

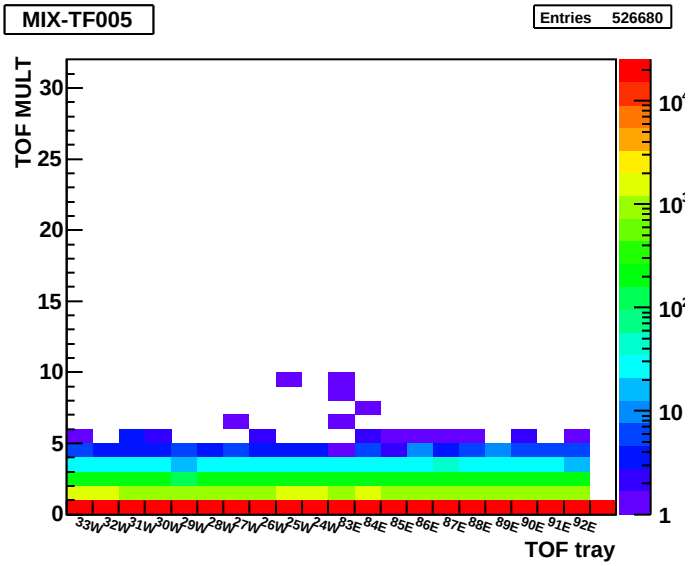

!Yellow-Fill
Entries 12540
10^2
0 20 40 60 80 100 120

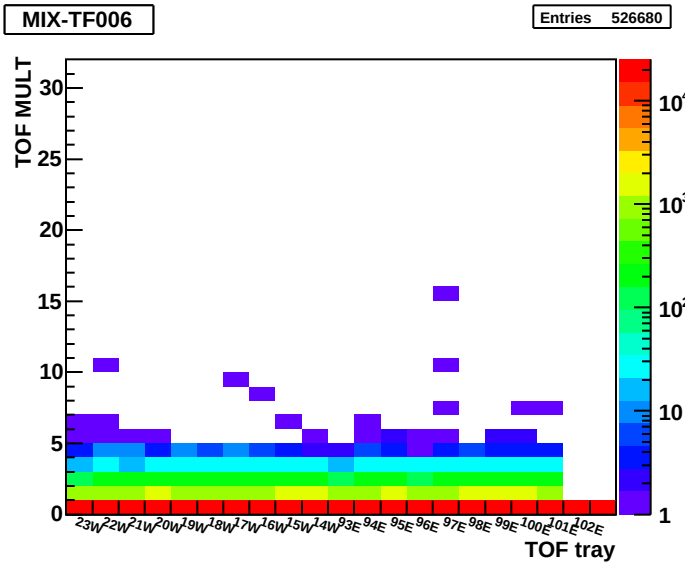

MIX-TF001
Entries 526680
TOF MULT
TOF tray

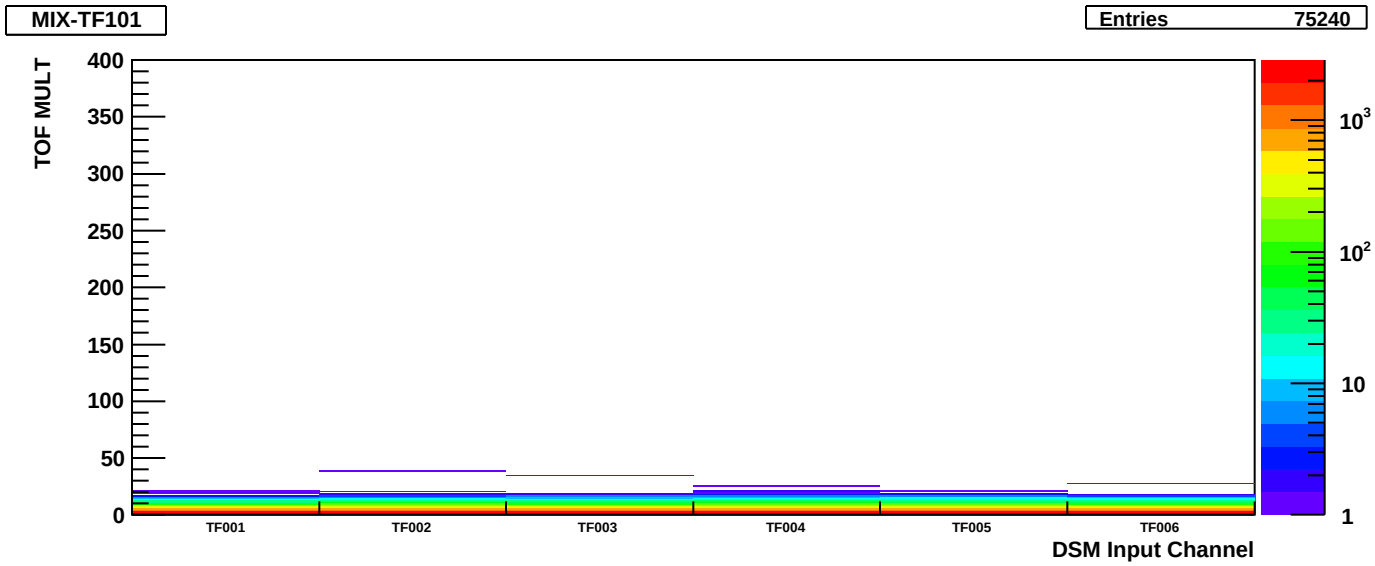

MIX-TF002
Entries 526680
TOF MULT
TOF tray

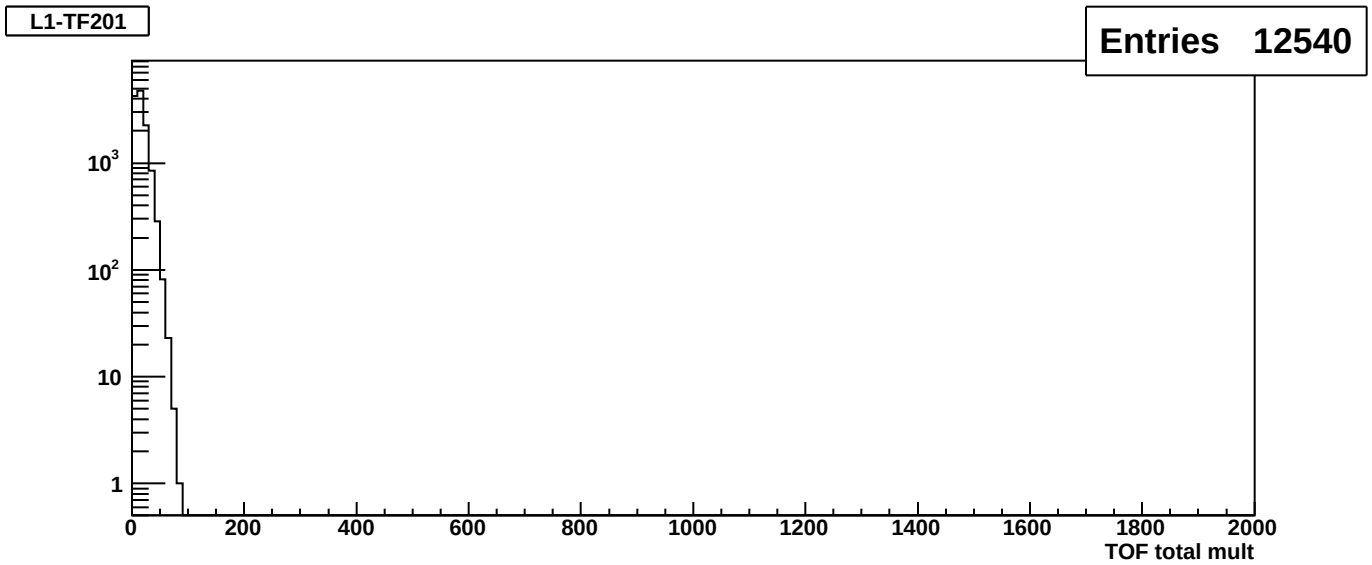

MIX-TF003
Entries 526680
TOF MULT
TOF tray

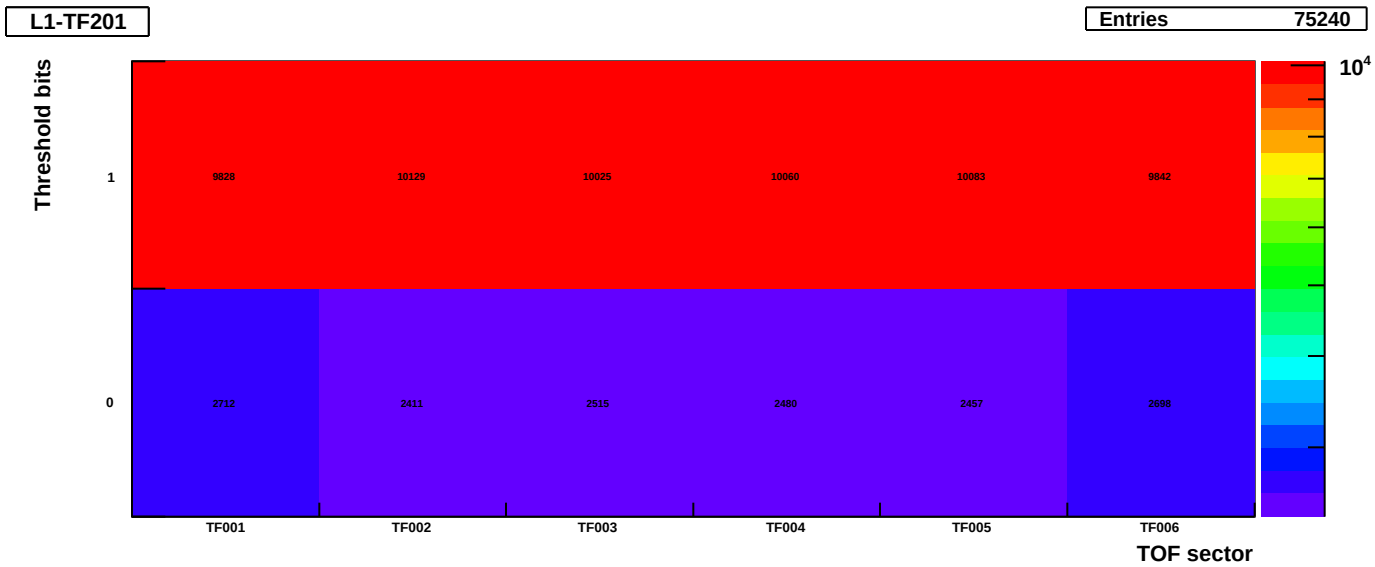

MIX-TF004
Entries 526680
TOF MULT
TOF tray

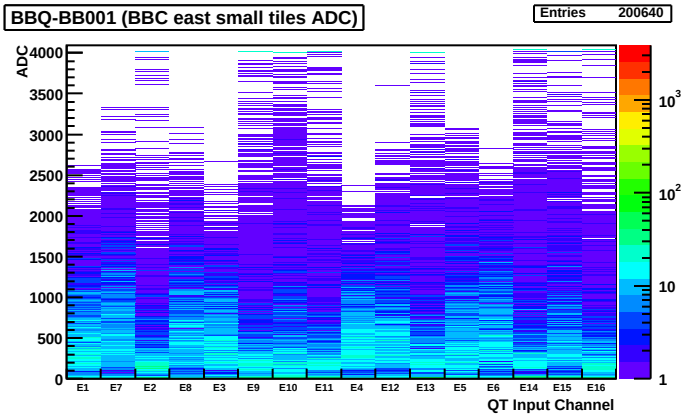

MIX-TF005
Entries 526680
TOF MULT
TOF tray

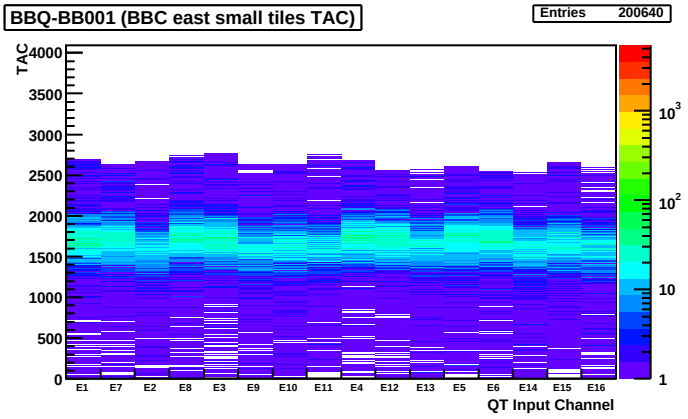

MIX-TF006
Entries 526680
TOF MULT
TOF tray

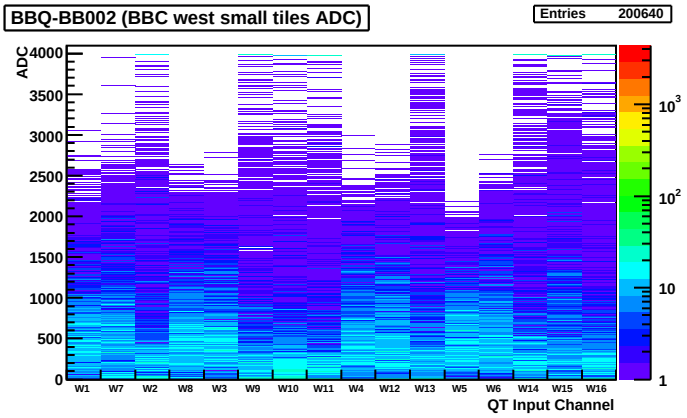

MIX-TF101
Entries 75240
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^3
10^2
10
1

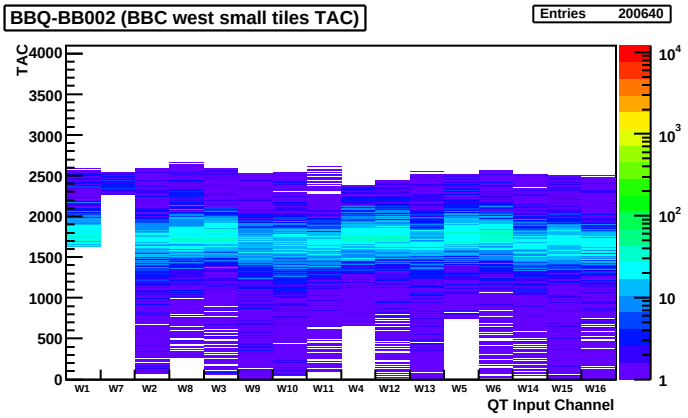

L1-TF201
Entries 12540
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

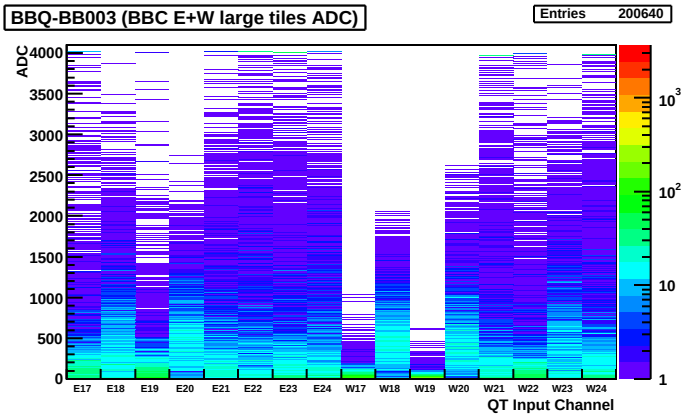

L1-TF201
Entries 75240
Threshold bits
1
0
9828
10129
10025
10060
10083
9842
2712
2411
2515
2480
2457
2698
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

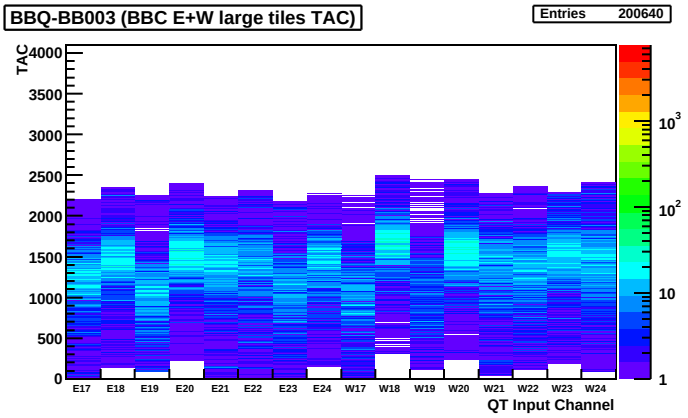

BBQ-BB001 (BBC east small tiles ADC)
Entries 200640
ADC
QT Input Channel

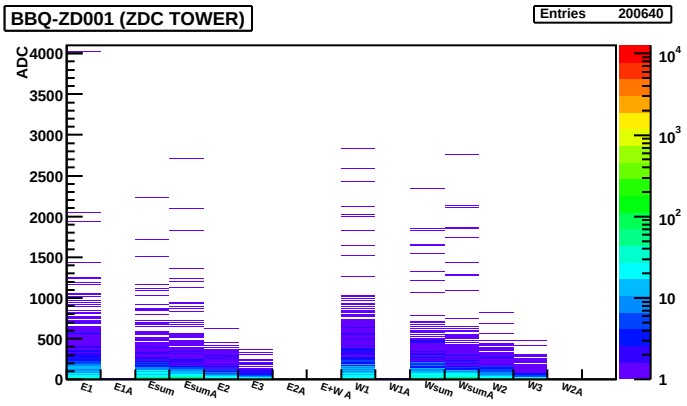

BBQ-BB001 (BBC east small tiles TAC)
Entries 200640
TAC
QT Input Channel

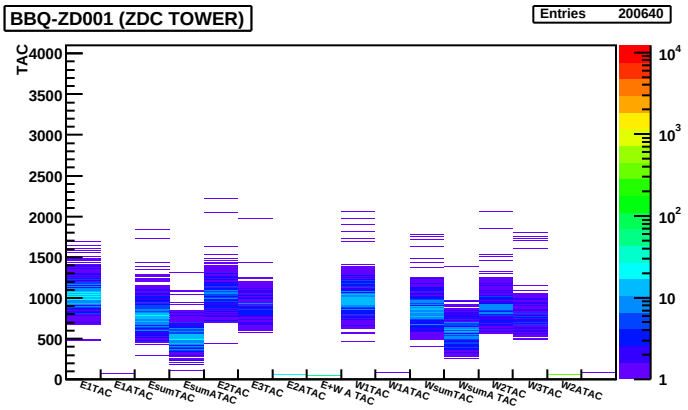

BBQ-BB002 (BBC west small tiles ADC)
Entries 200640
ADC
QT Input Channel

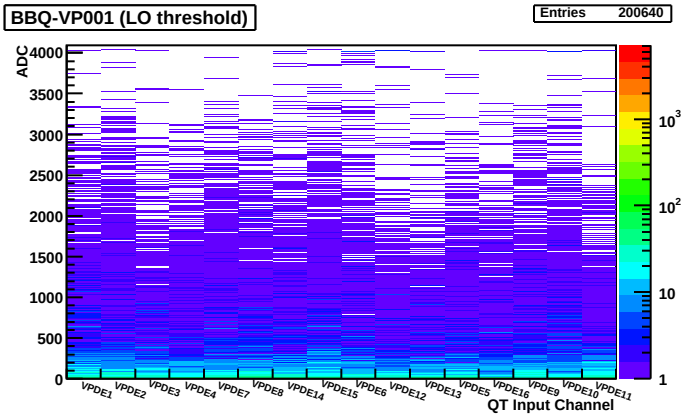

BBQ-BB002 (BBC west small tiles TAC)
Entries 200640
TAC
QT Input Channel

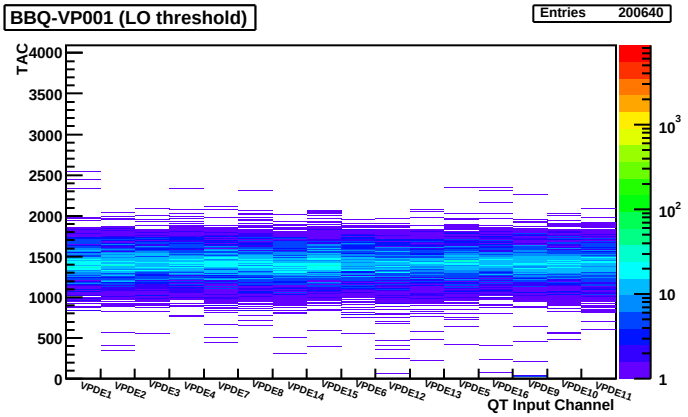

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 200640
ADC
QT Input Channel

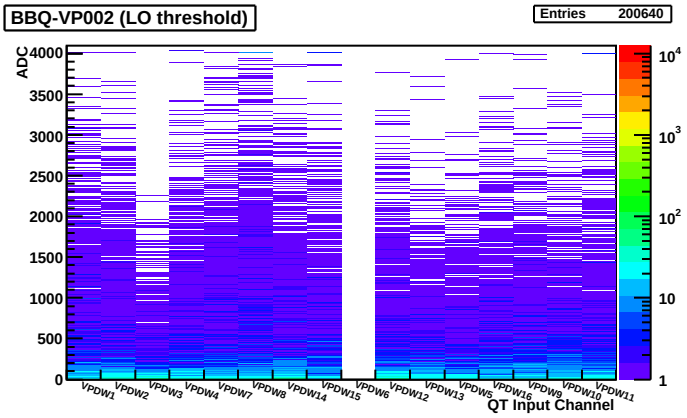

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 200640
TAC
QT Input Channel

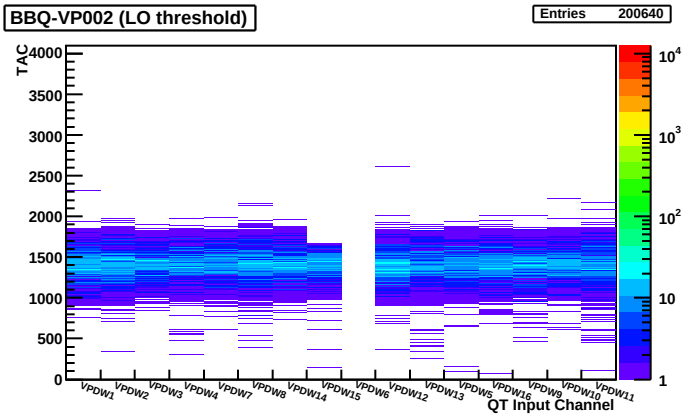

BBQ-ZD001 (ZDC TOWER)
Entries 200640
ADC

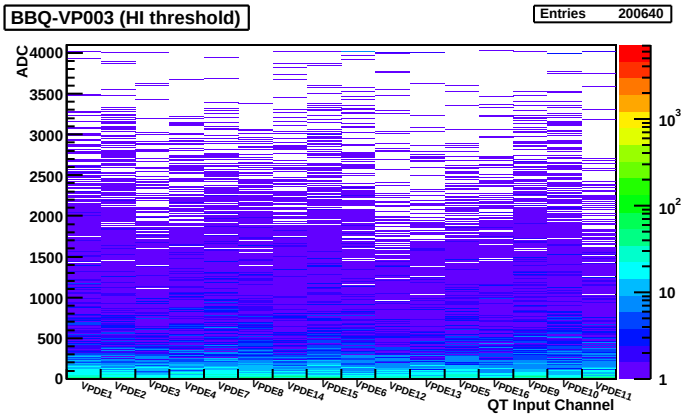

BBQ-ZD001 (ZDC TOWER)
Entries 200640
TAC

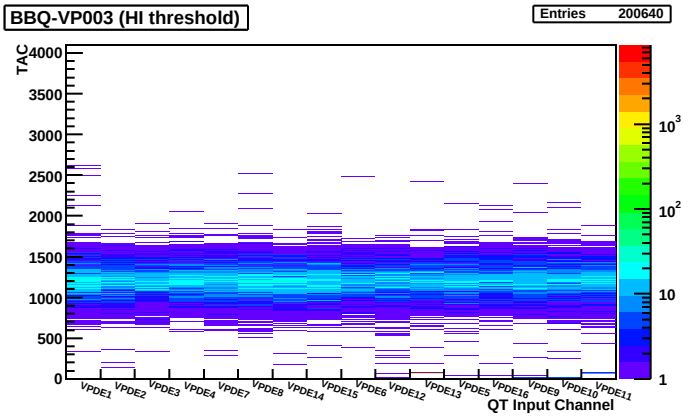

BBQ-VP001 (LO threshold)
Entries 200640
ADC
QT Input Channel

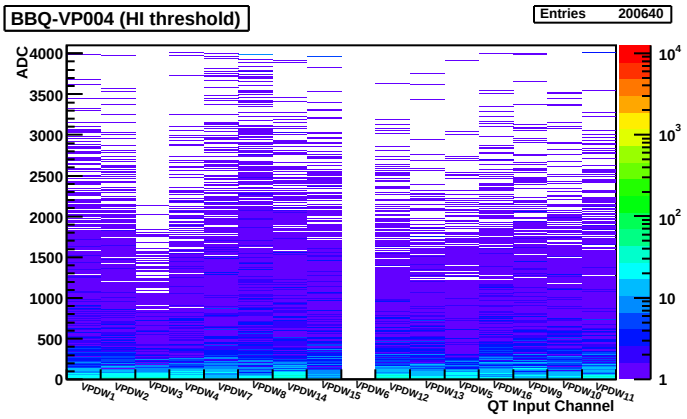

BBQ-VP001 (LO threshold)
Entries 200640
TAC
QT Input Channel

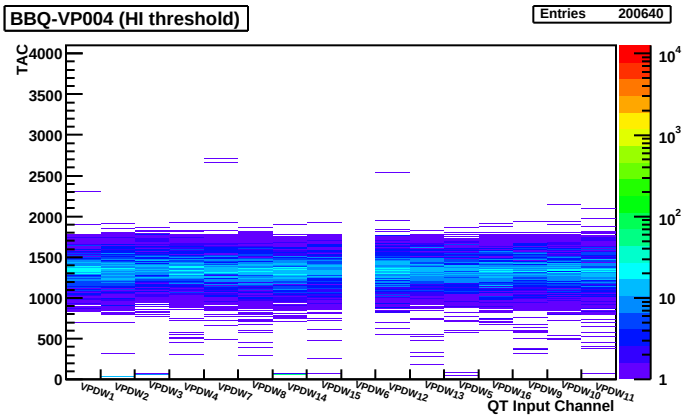

BBQ-VP002 (LO threshold)
Entries 200640
ADC
QT Input Channel

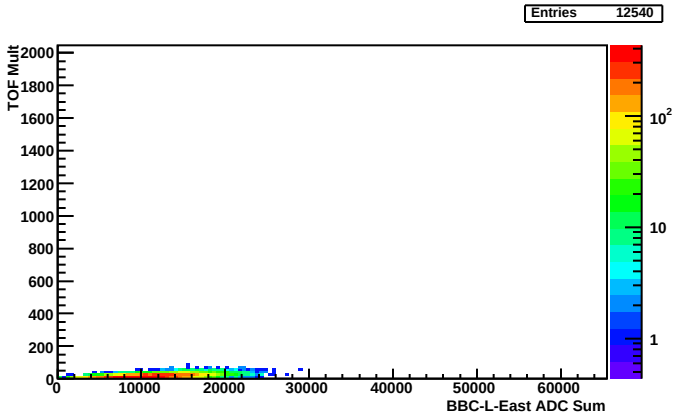

BBQ-VP002 (LO threshold)
Entries 200640
TAC
QT Input Channel

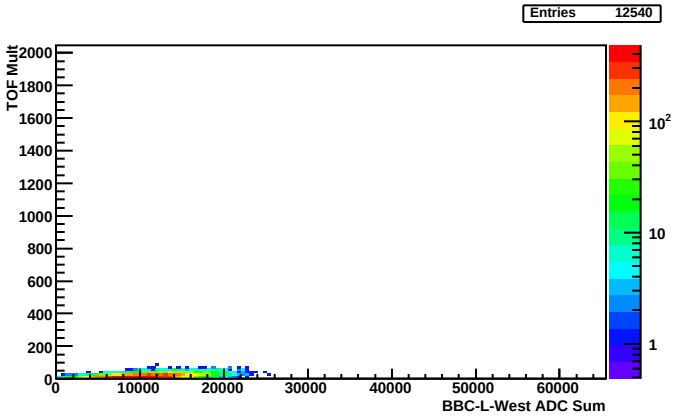

BBQ-VP003 (HI threshold)
Entries 200640
ADC
QT Input Channel

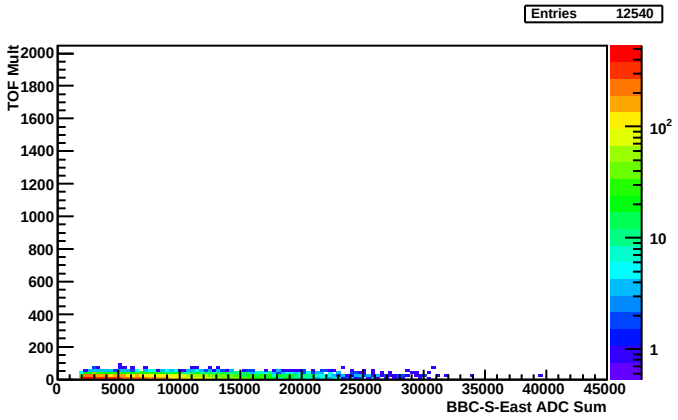

BBQ-VP003 (HI threshold)
Entries 200640
TAC
QT Input Channel

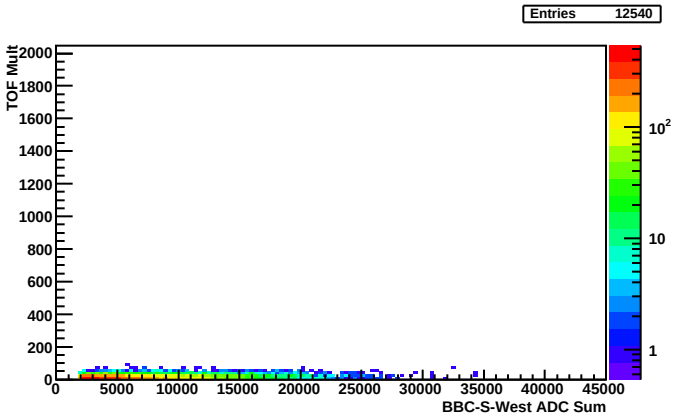

BBQ-VP004 (HI threshold)
Entries 200640
ADC
QT Input Channel

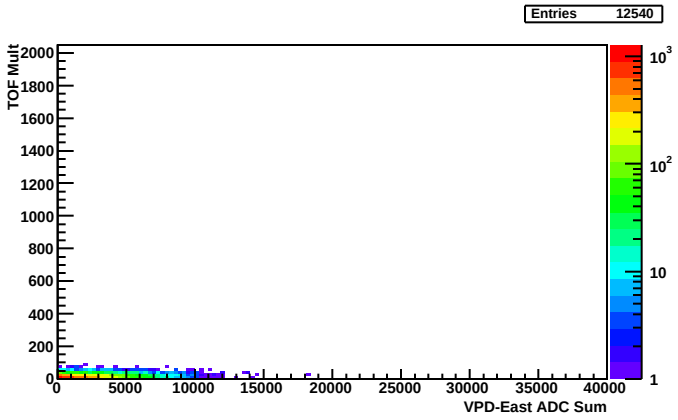

BBQ-VP004 (HI threshold)
Entries 200640
TAC
QT Input Channel

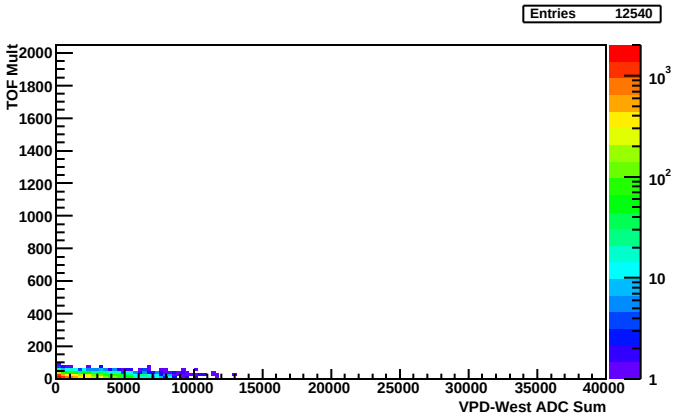

Entries 12540
TOF Mult
BBC-L-East ADC Sum

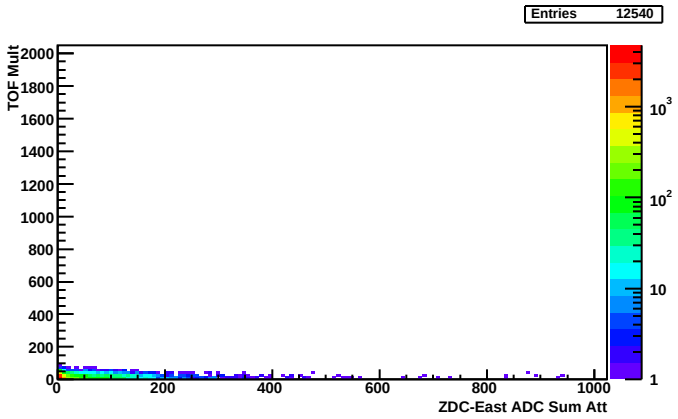

Entries 12540
TOF Mult
BBC-L-West ADC Sum

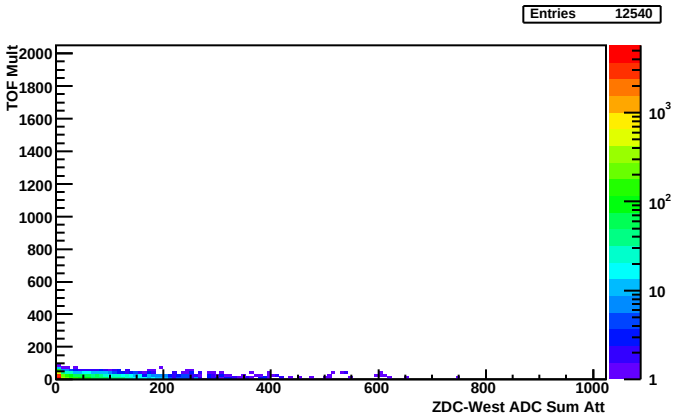

Entries 12540
TOF Mult
BBC-S-East ADC Sum

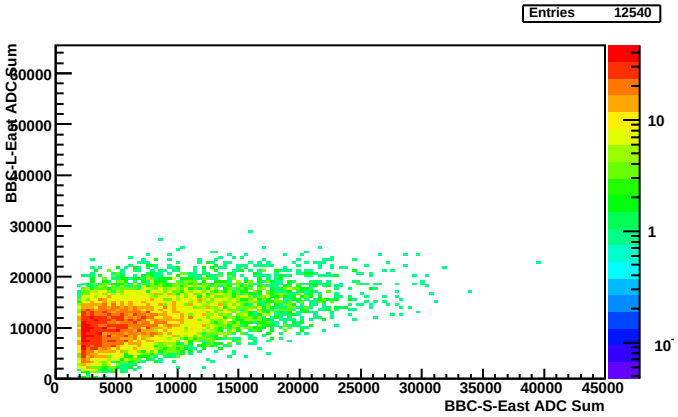

Entries 12540
TOF Mult
BBC-S-West ADC Sum

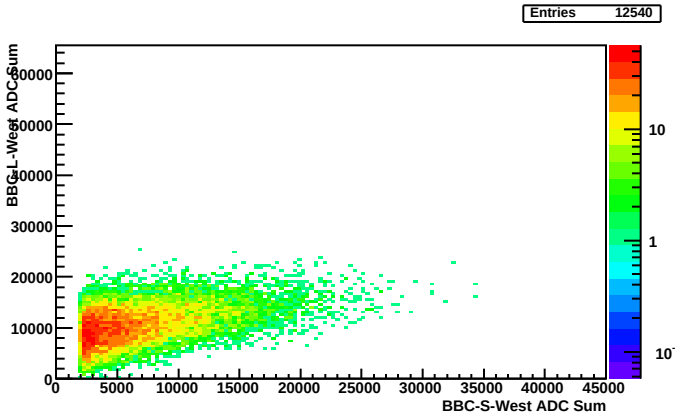

Entries 12540
TOF Mult
VPD-East ADC Sum

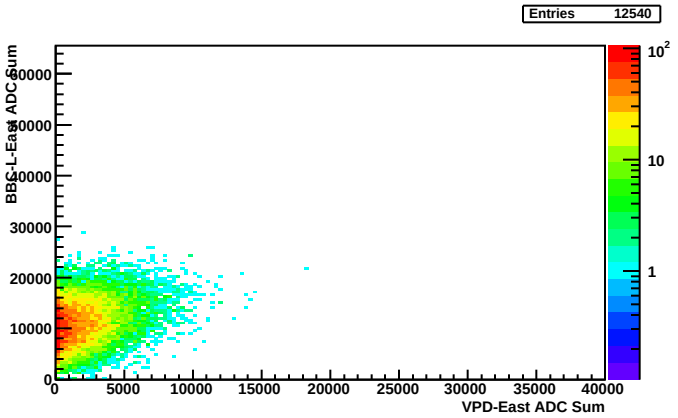

Entries 12540
TOF Mult
VPD-West ADC Sum

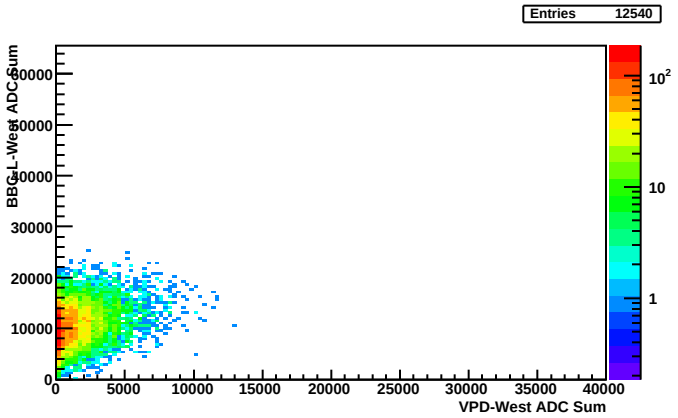

Entries 12540
TOF Mult
ZDC-East ADC Sum Att

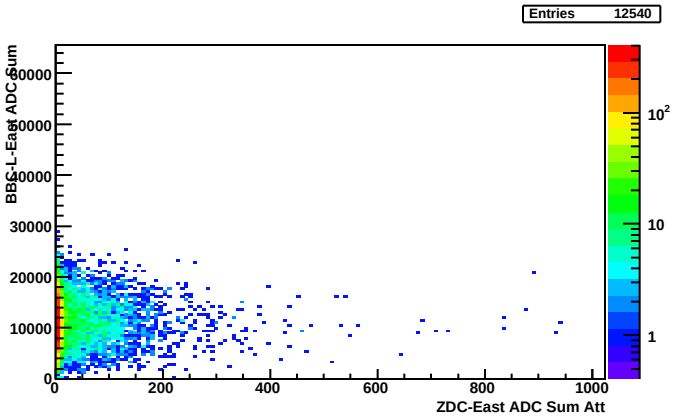

Entries 12540
TOF Mult
ZDC-West ADC Sum Att

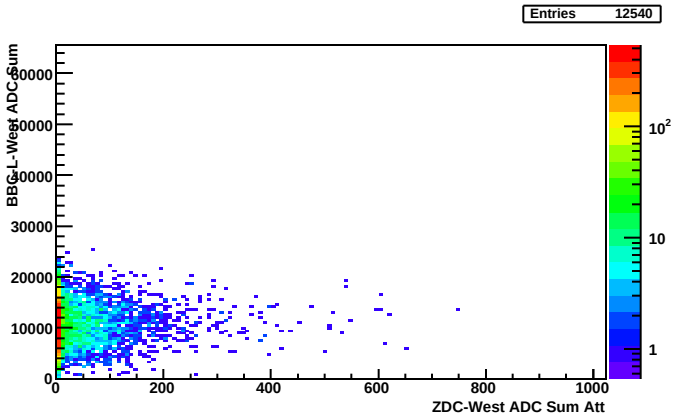

Entries 12540
BBC-L-East ADC Sum
BBC-S-East ADC Sum

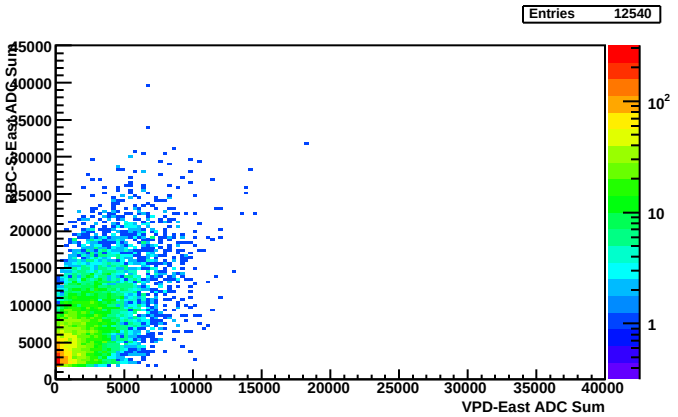

Entries 12540
BBC-L-West ADC Sum
BBC-S-West ADC Sum

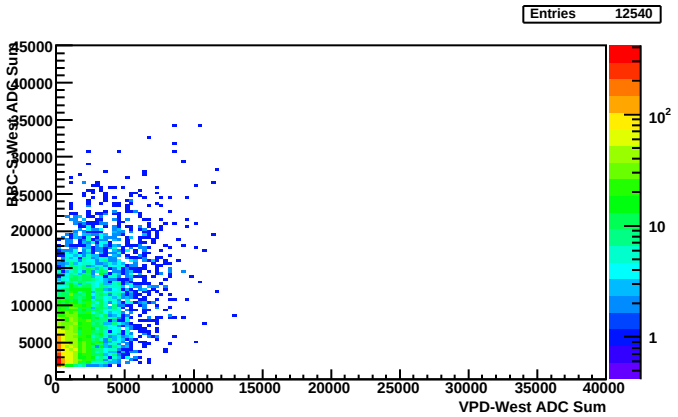

Entries 12540
BBC-L-East ADC Sum
VPD-East ADC Sum

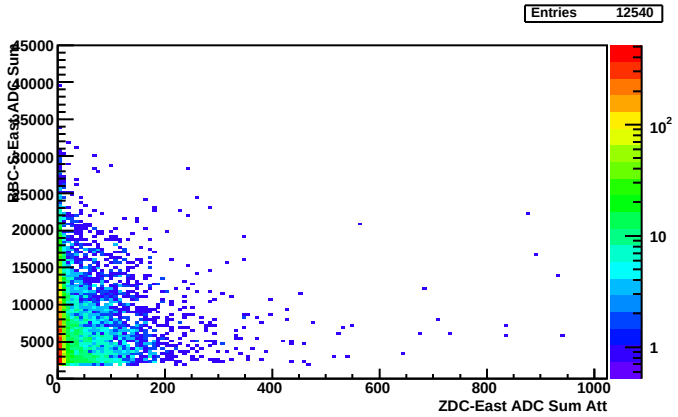

Entries 12540
BBC-L-West ADC Sum
VPD-West ADC Sum

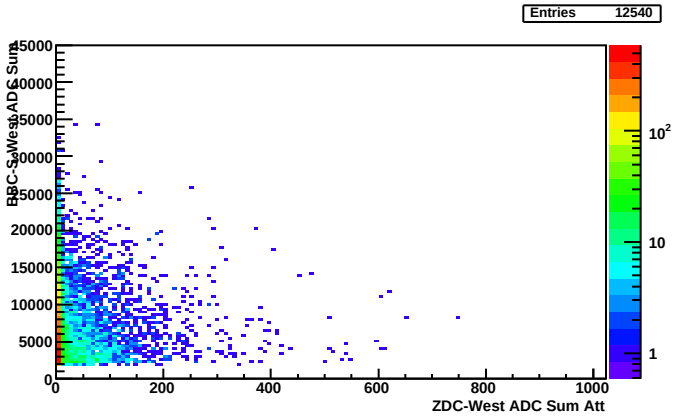

Entries 12540
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

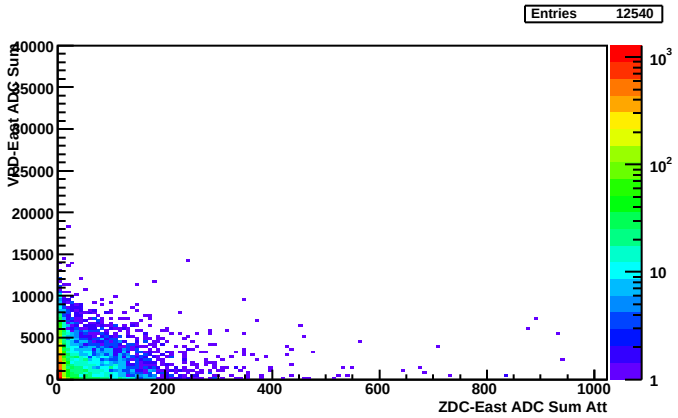

Entries 12540
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

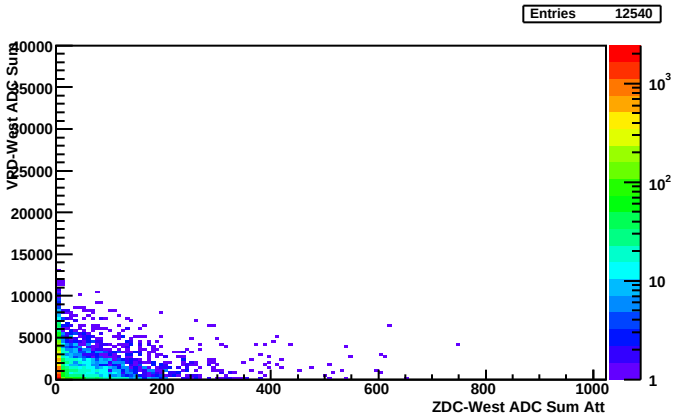

Entries 12540
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 12540
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 12540
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 12540
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 12540
VPD-East ADC Sum
ZDC-East ADC Sum Att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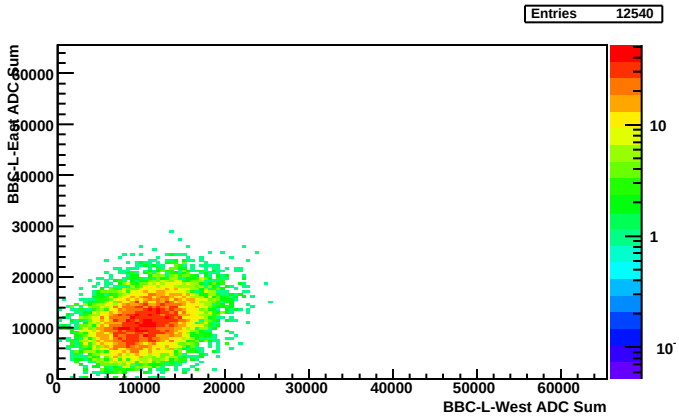
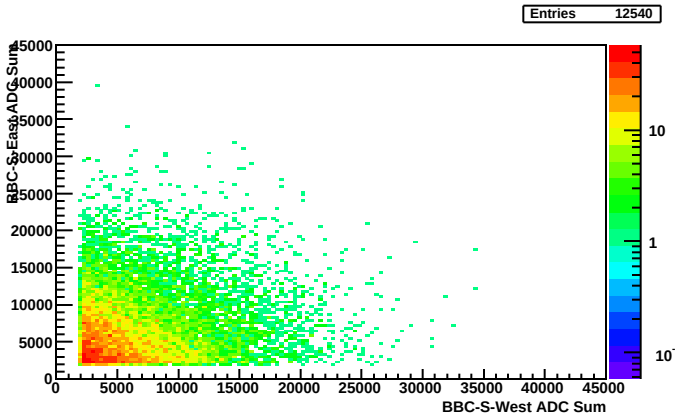
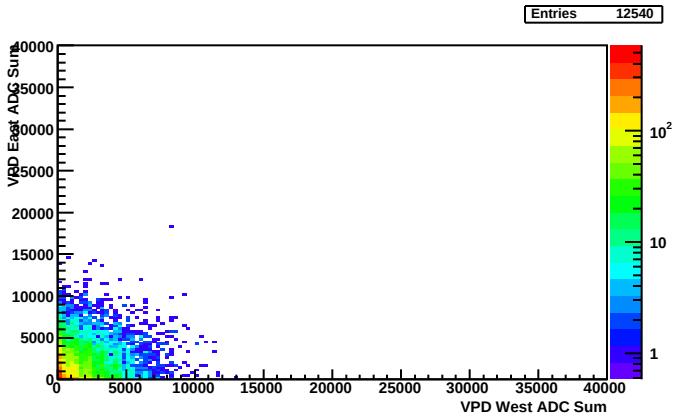
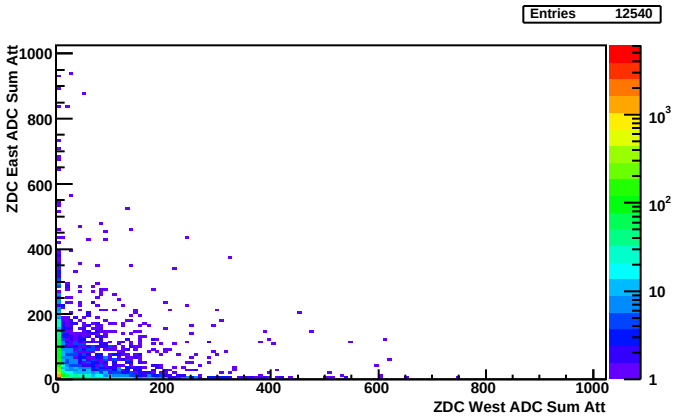
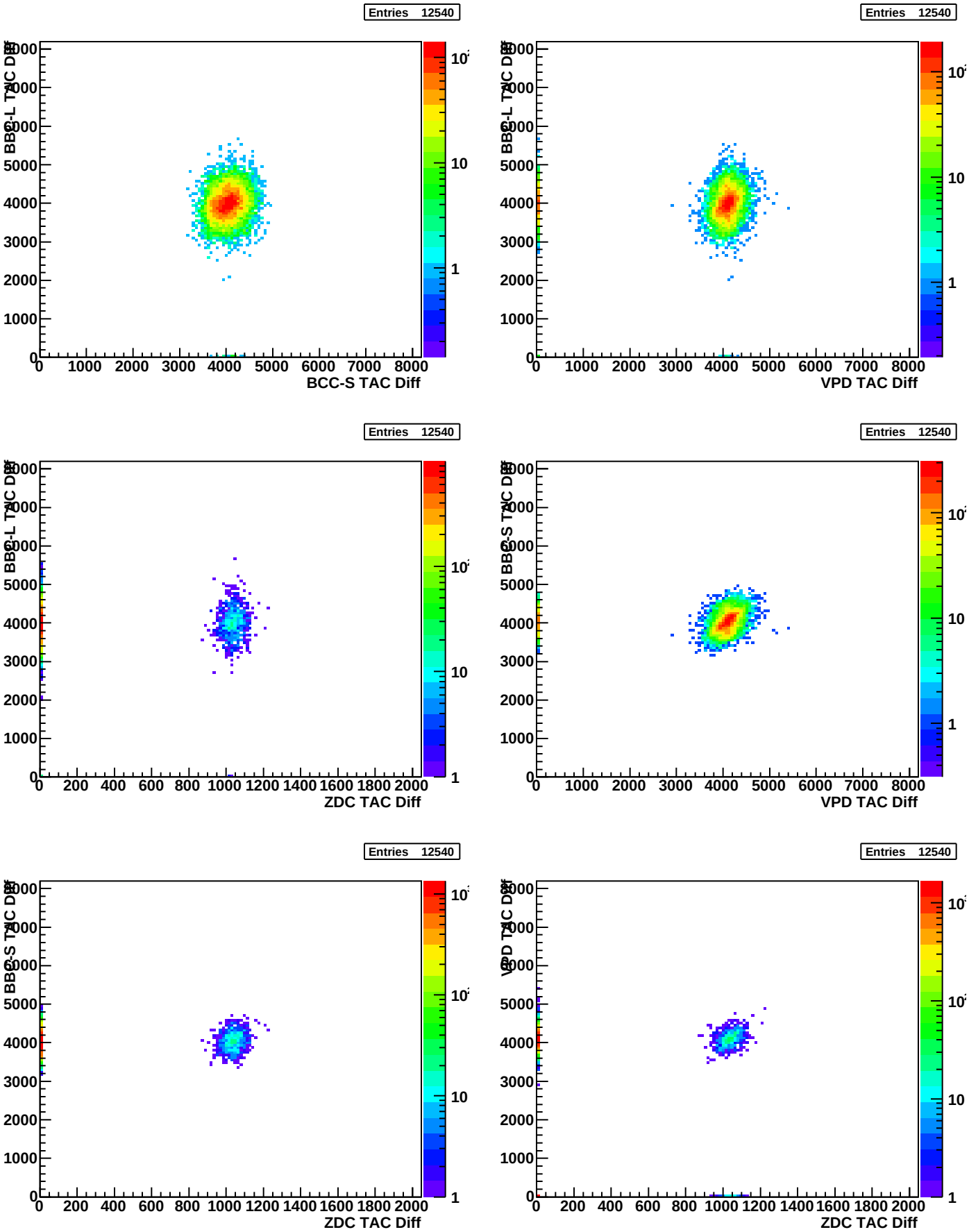
VPD-West ADC Sum
ZDC-West ADC Sum Att

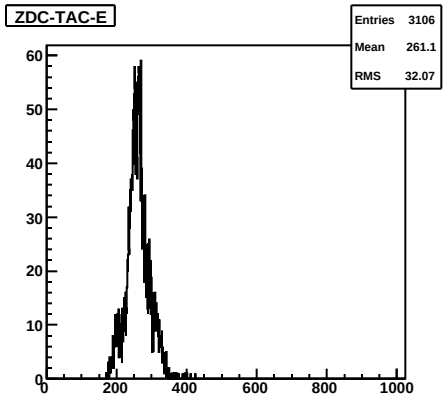

Entries 12540
BBC-L-East ADC Sum
BBC-L-West ADC Sum

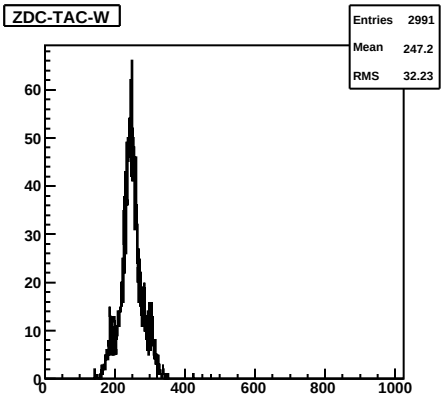

Entries 12540
BBC-S-East ADC Sum
BBC-S-West ADC Sum

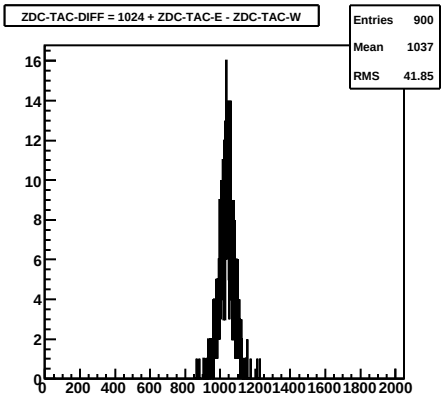

Entries 12540
VPD East ADC Sum
VPD West ADC Sum

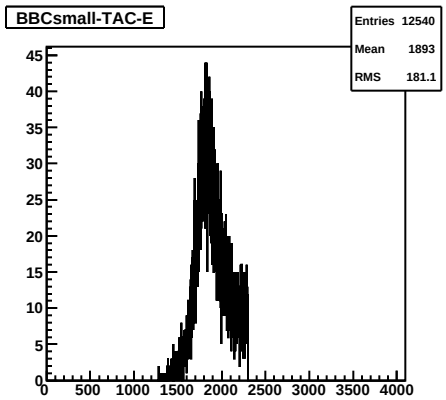

Entries 12540
ZDC East ADC Sum Att
ZDC West ADC Sum Att

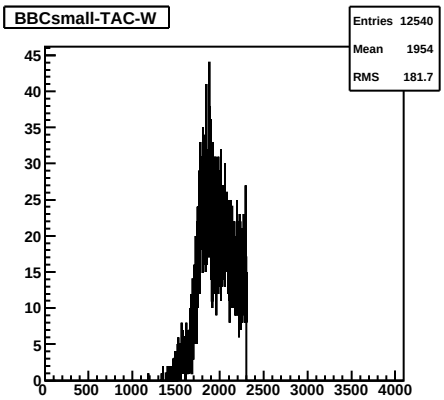

Entries 12540
BBC-L TAC Diff
BCC-S TAC Diff
Entries 12540
BBC-L TAC Diff
VPD TAC Diff
Entries 12540
BBC-L TAC Diff
ZDC TAC Diff
Entries 12540
BBC-S TAC Diff
VPD TAC Diff
Entries 12540
BBC-S TAC Diff
ZDC TAC Diff
Entries 12540
VPD TAC Diff
ZDC TAC Diff

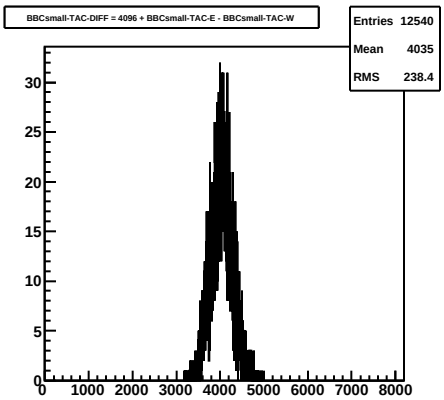

ZDC-TAC-E
Entries 3106
Mean 261.1
RMS 32.07

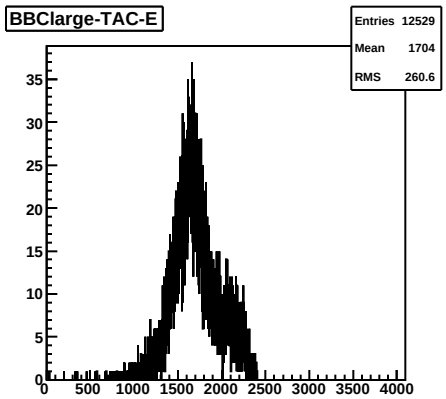

ZDC-TAC-W
Entries 2991
Mean 247.2
RMS 32.23

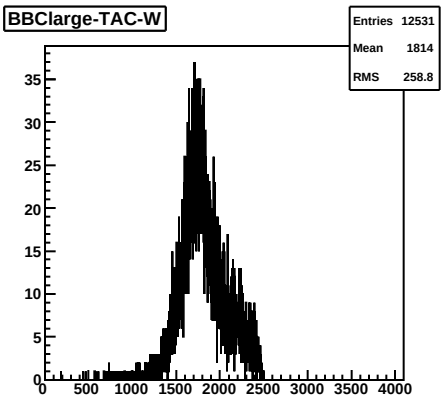

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 900
Mean 1037
RMS 41.85

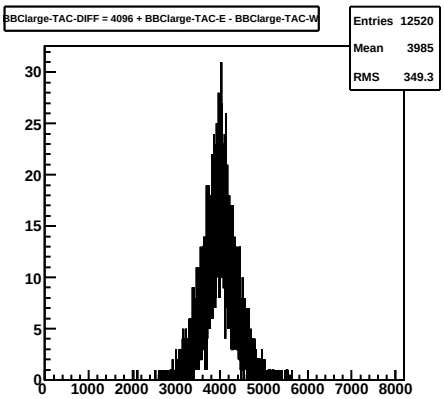

BBCsmall-TAC-E
Entries 12540
Mean 1893
RMS 181.1

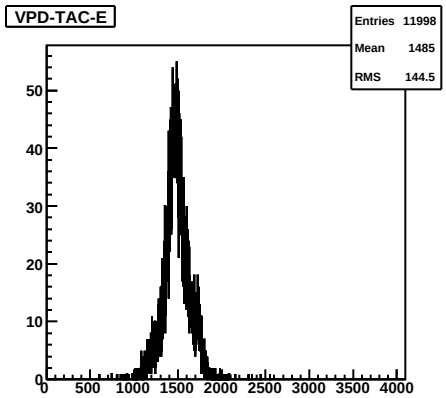

BBCsmall-TAC-W
Entries 12540
Mean 1954
RMS 181.7

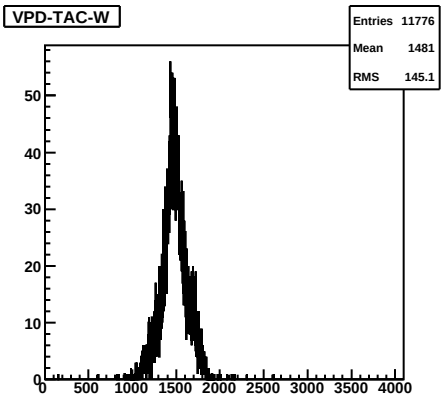

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 12540
Mean 4035
RMS 238.4

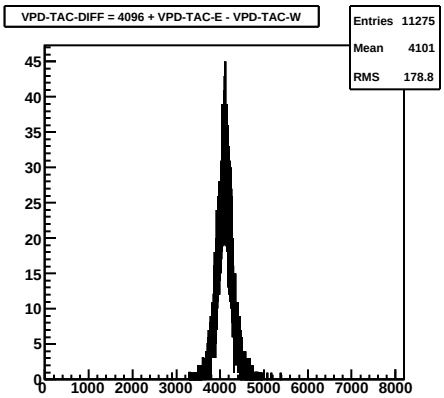

BBClarge-TAC-E
Entries 12529
Mean 1704
RMS 260.6

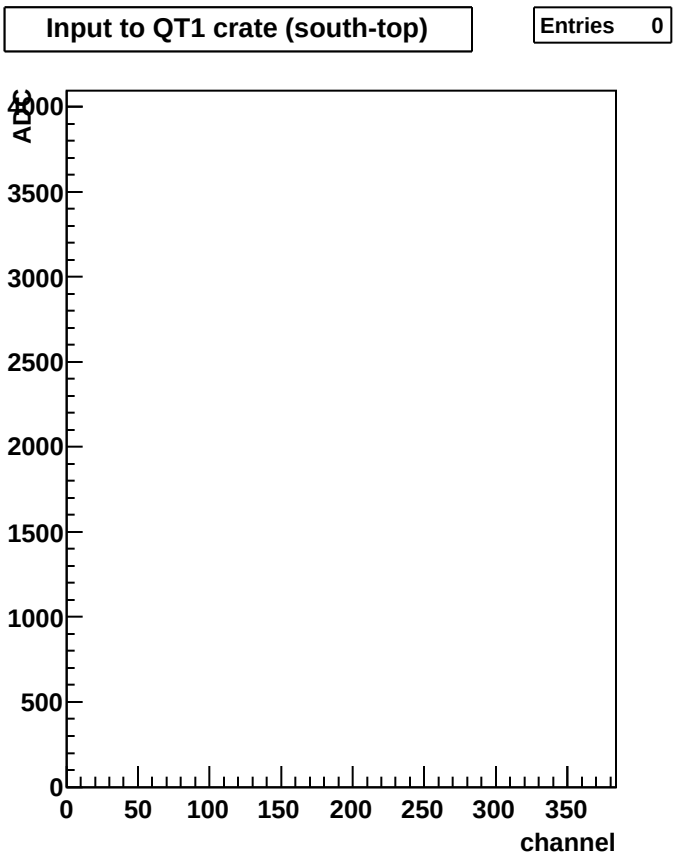

BBClarge-TAC-W
Entries 12531
Mean 1814
RMS 258.8

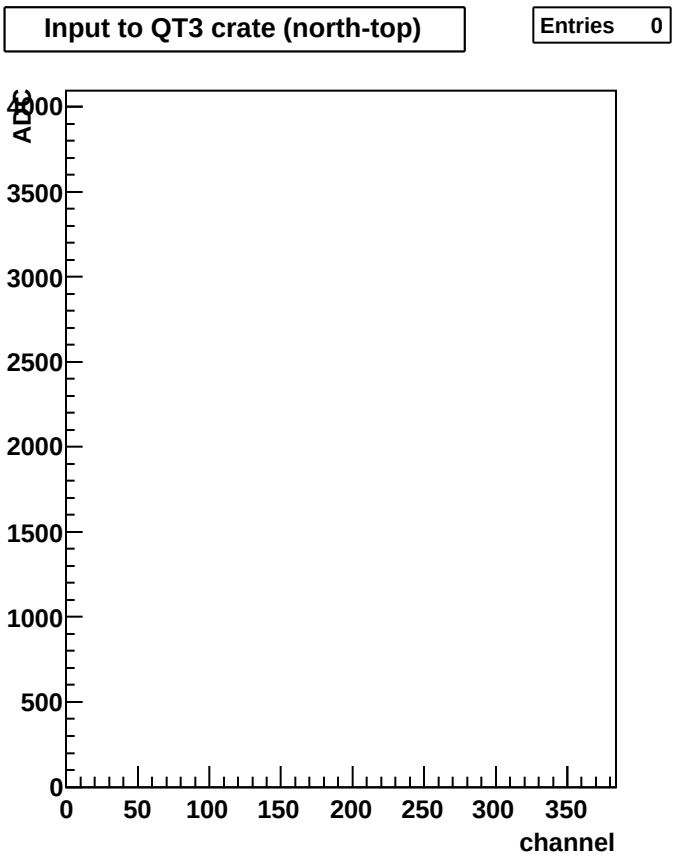

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 12520
Mean 3985
RMS 349.3

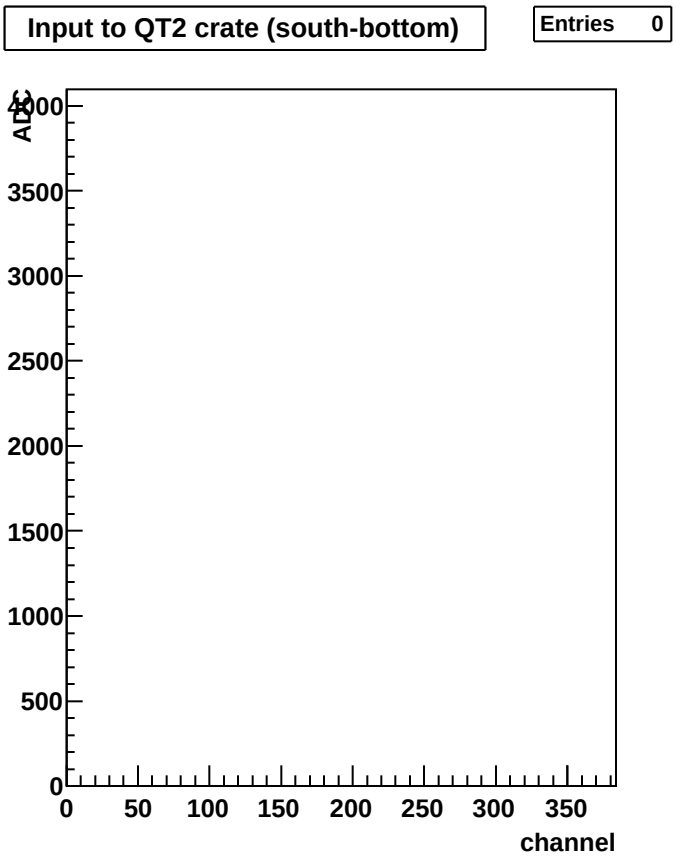

VPD-TAC-E
Entries 11998
Mean 1485
RMS 144.5

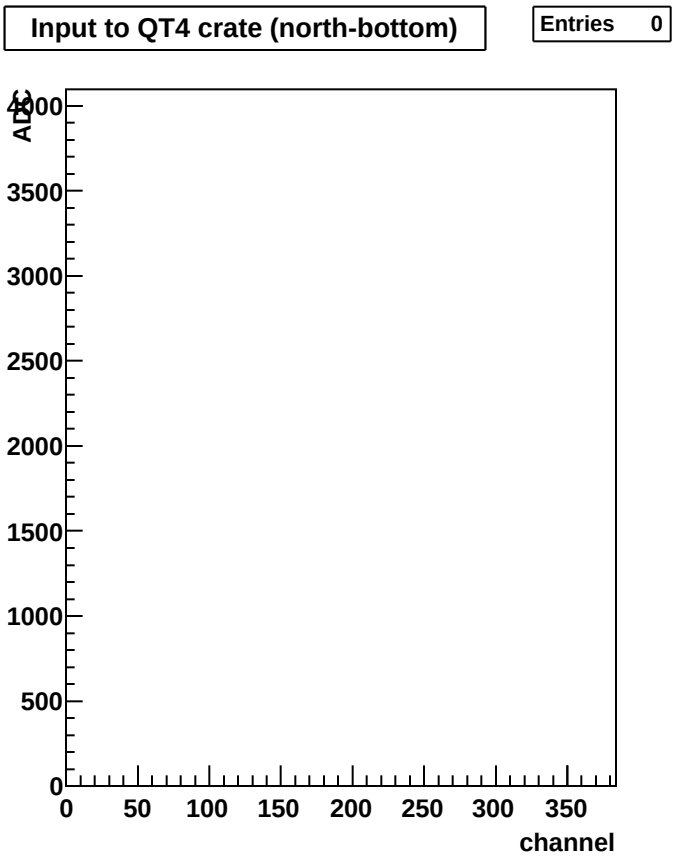

VPD-TAC-W
Entries 11776
Mean 1481
RMS 145.1

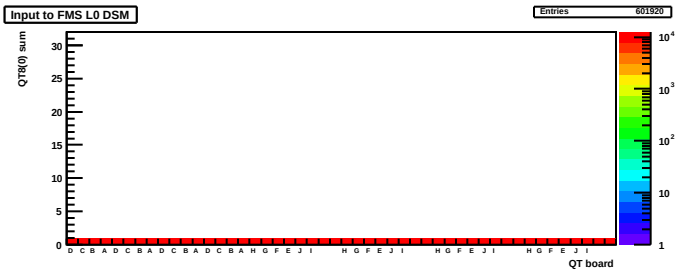

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 11275
Mean 4101
RMS 178.8

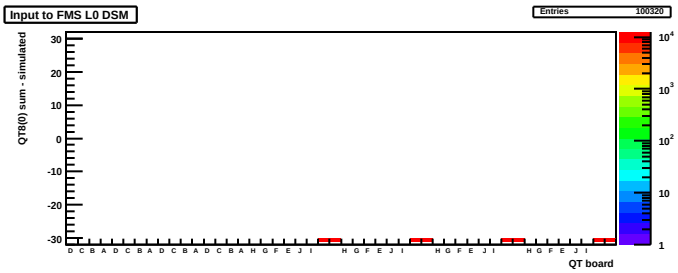

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

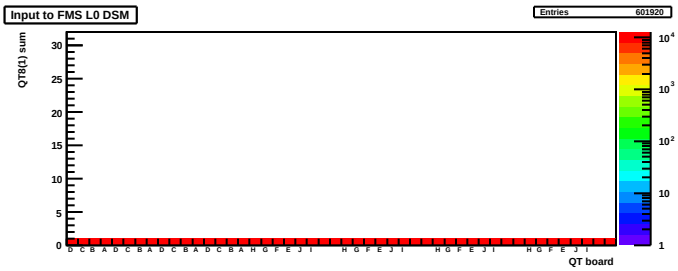

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

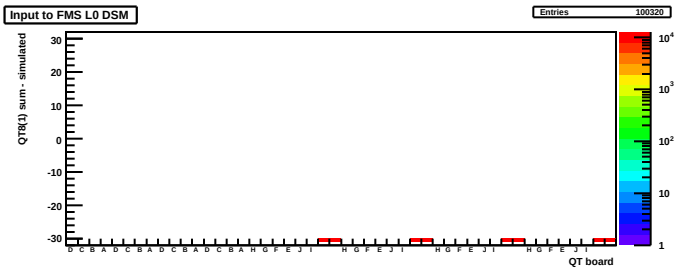

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

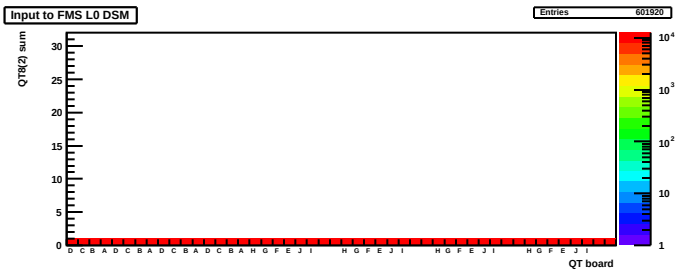

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

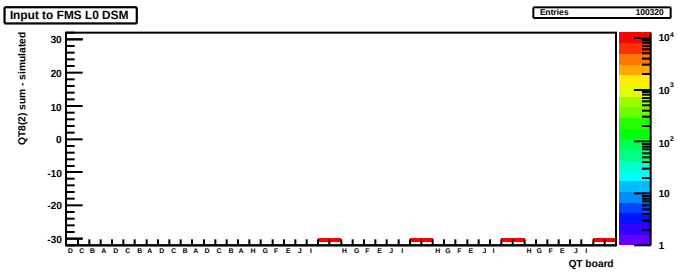

Input to FMS L0 DSM
Entries 601920
QT8(0) sum
QT board

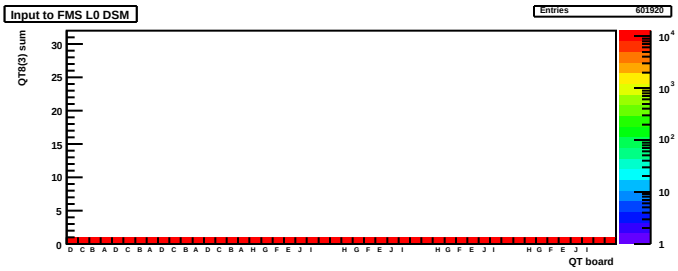

Input to FMS L0 DSM
Entries 100320
QT8(0) sum - simulated
QT board

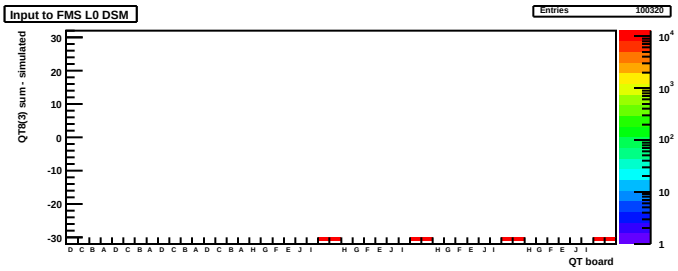

Input to FMS L0 DSM
Entries 601920
QT8(1) sum
QT board

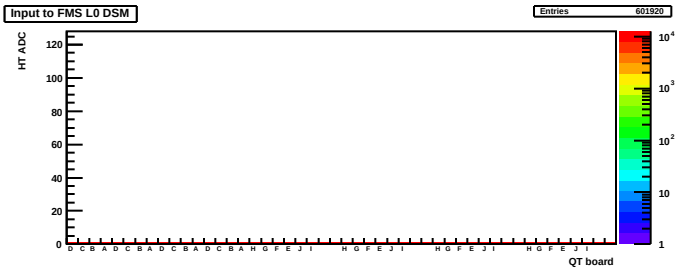

Input to FMS L0 DSM
Entries 100320
QT8(1) sum - simulated
QT board

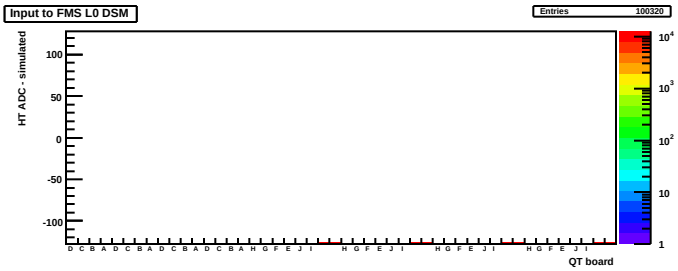

Input to FMS L0 DSM
Entries 601920
QT8(2) sum
QT board

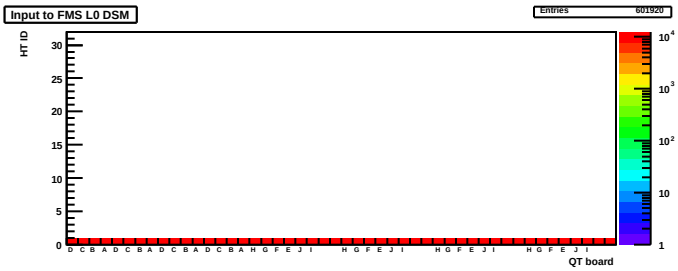

Input to FMS L0 DSM
Entries 100320
QT8(2) sum - simulated
QT board

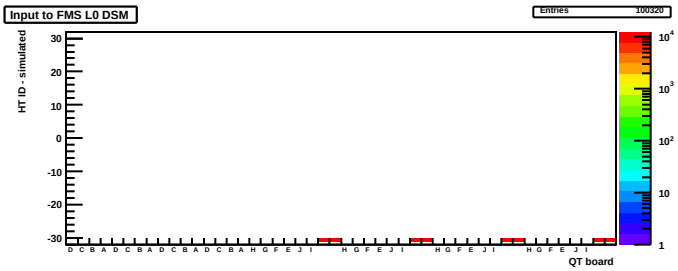

Input to FMS L0 DSM
Entries 601920
QT8(3) sum
QT board

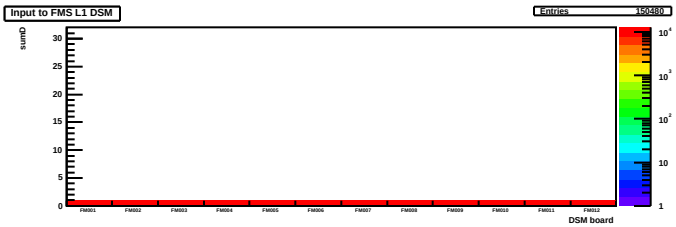

Input to FMS L0 DSM
Entries 100320
QT8(3) sum - simulated
QT board

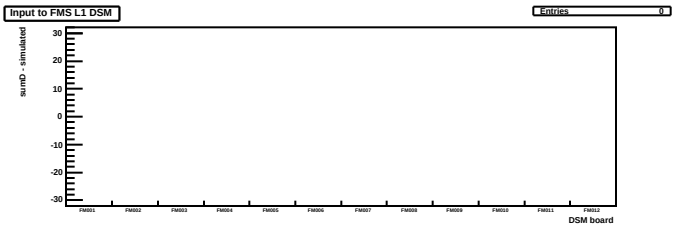

Input to FMS L0 DSM
Entries 601920
HT ADC
QT board

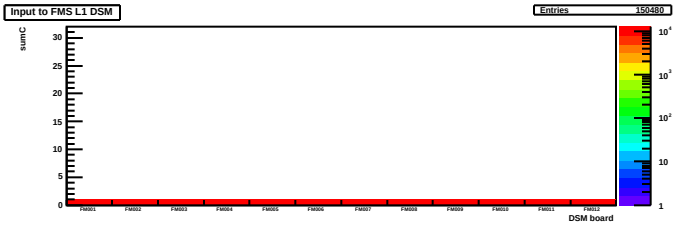

Input to FMS L0 DSM
Entries 100320
HT ADC - simulated
QT board

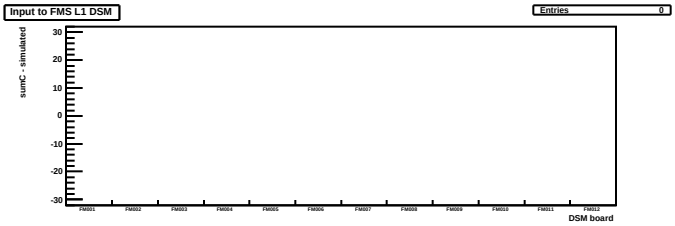

Input to FMS L0 DSM
Entries 601920
HT ID
QT board

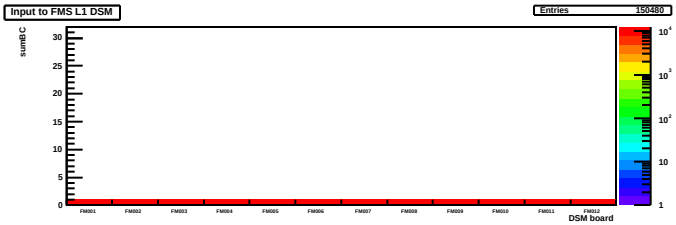

Input to FMS L0 DSM
Entries 100320
HT ID - simulated
QT board

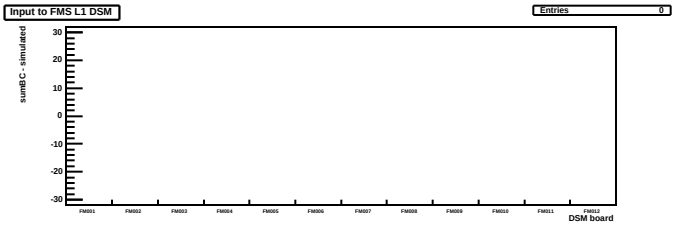

Input to FMS L1 DSM
Entries 150480
sumD
DSM board

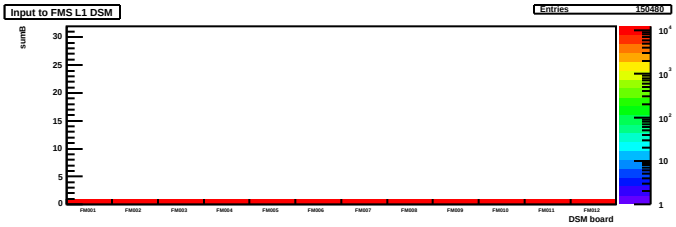

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

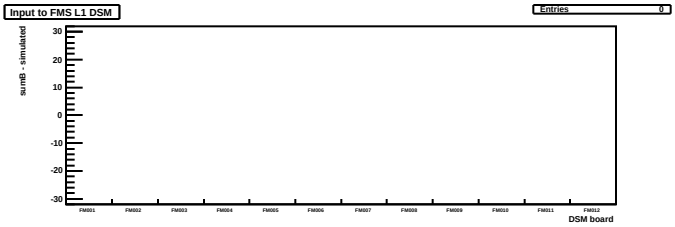

Input to FMS L1 DSM
Entries 150480
sumC
DSM board

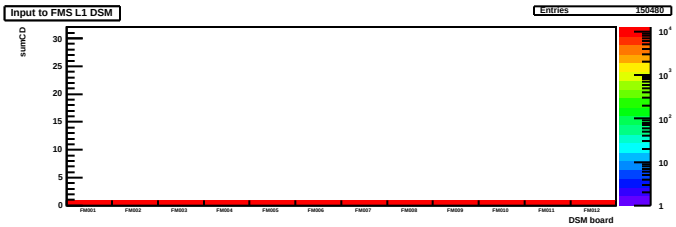

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

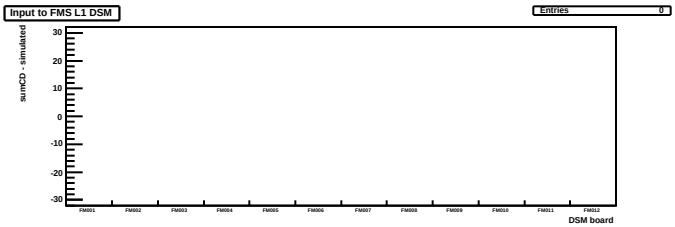

Input to FMS L1 DSM
Entries 150480
sumBC
DSM board

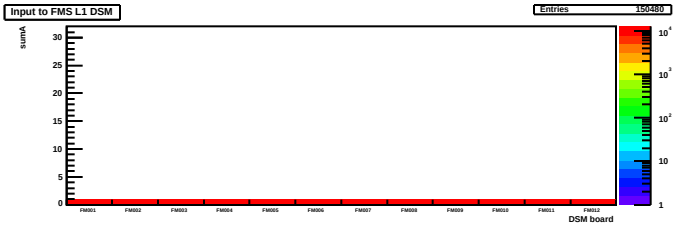

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

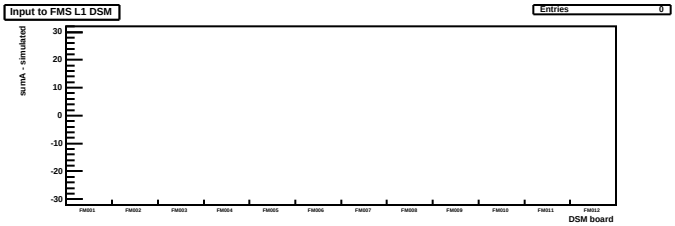

Input to FMS L1 DSM
Entries 150480
sumB
DSM board

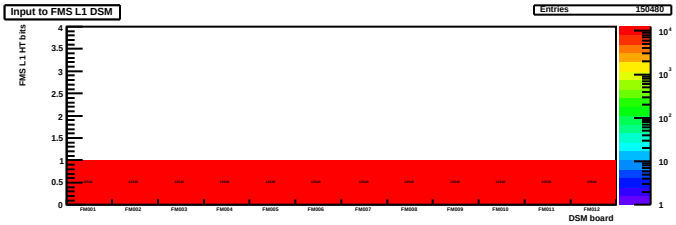

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

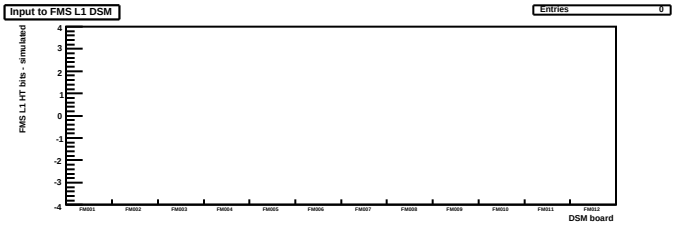

Input to FMS L1 DSM
Entries 150480
sumCD
DSM board

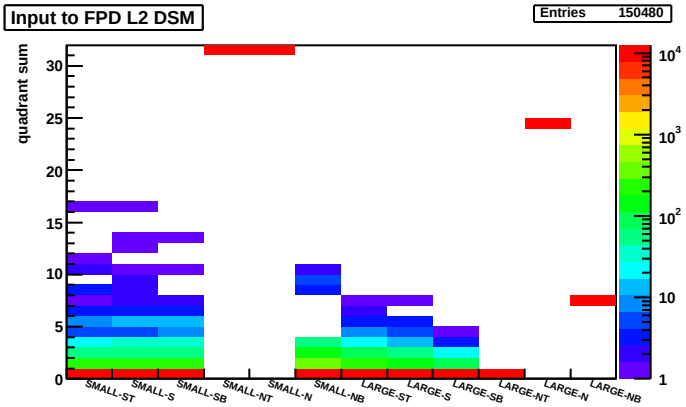

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

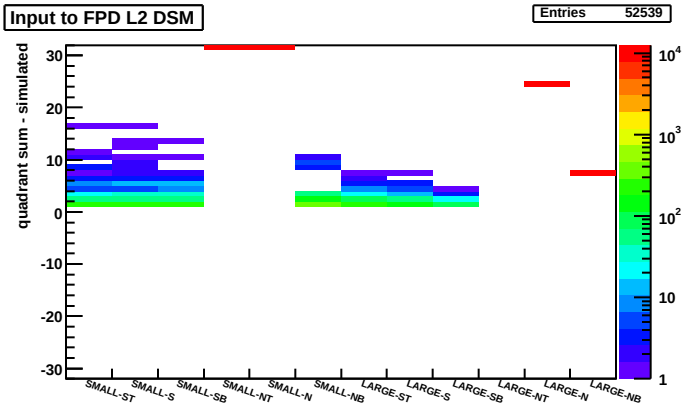

Input to FMS L1 DSM
Entries 150480
sumA
DSM board

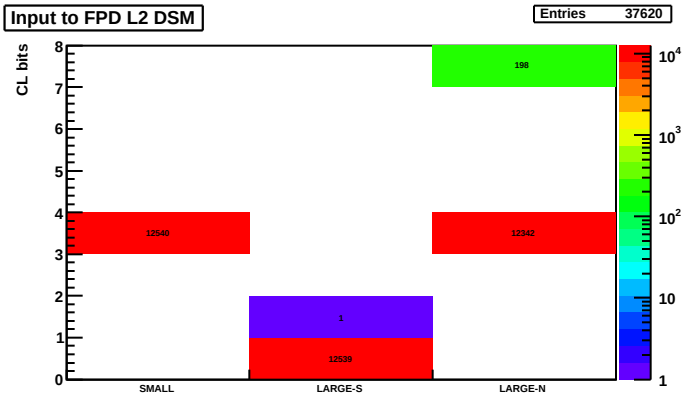

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

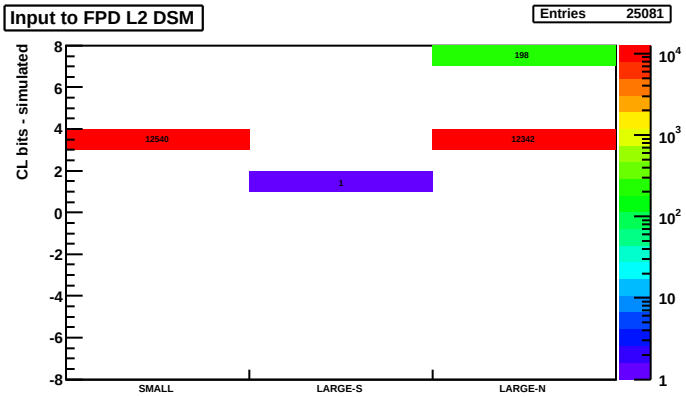

Input to FMS L1 DSM
Entries 150480
FMS L1 HT bits
DSM board

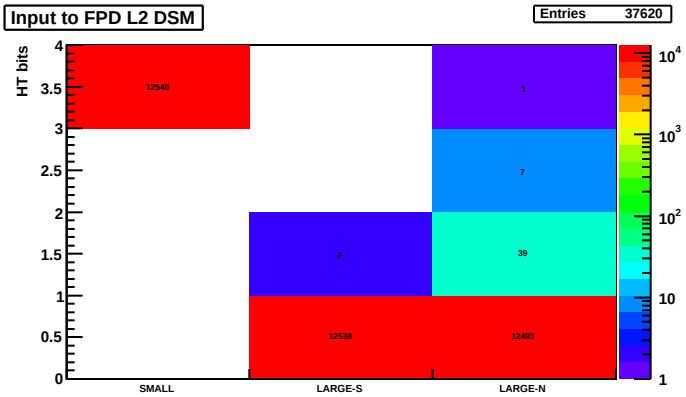

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

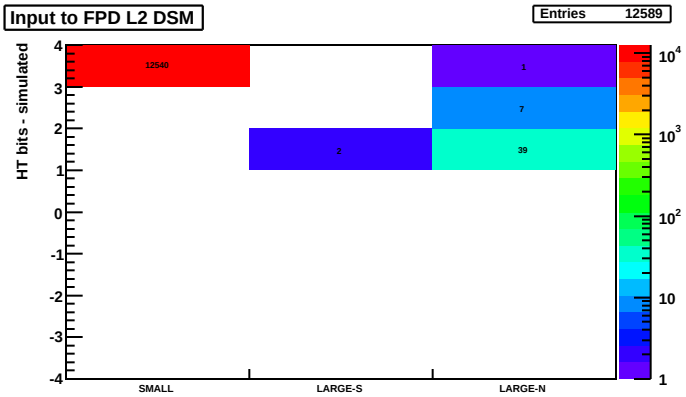

Input to FPD L2 DSM
Entries 150480
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

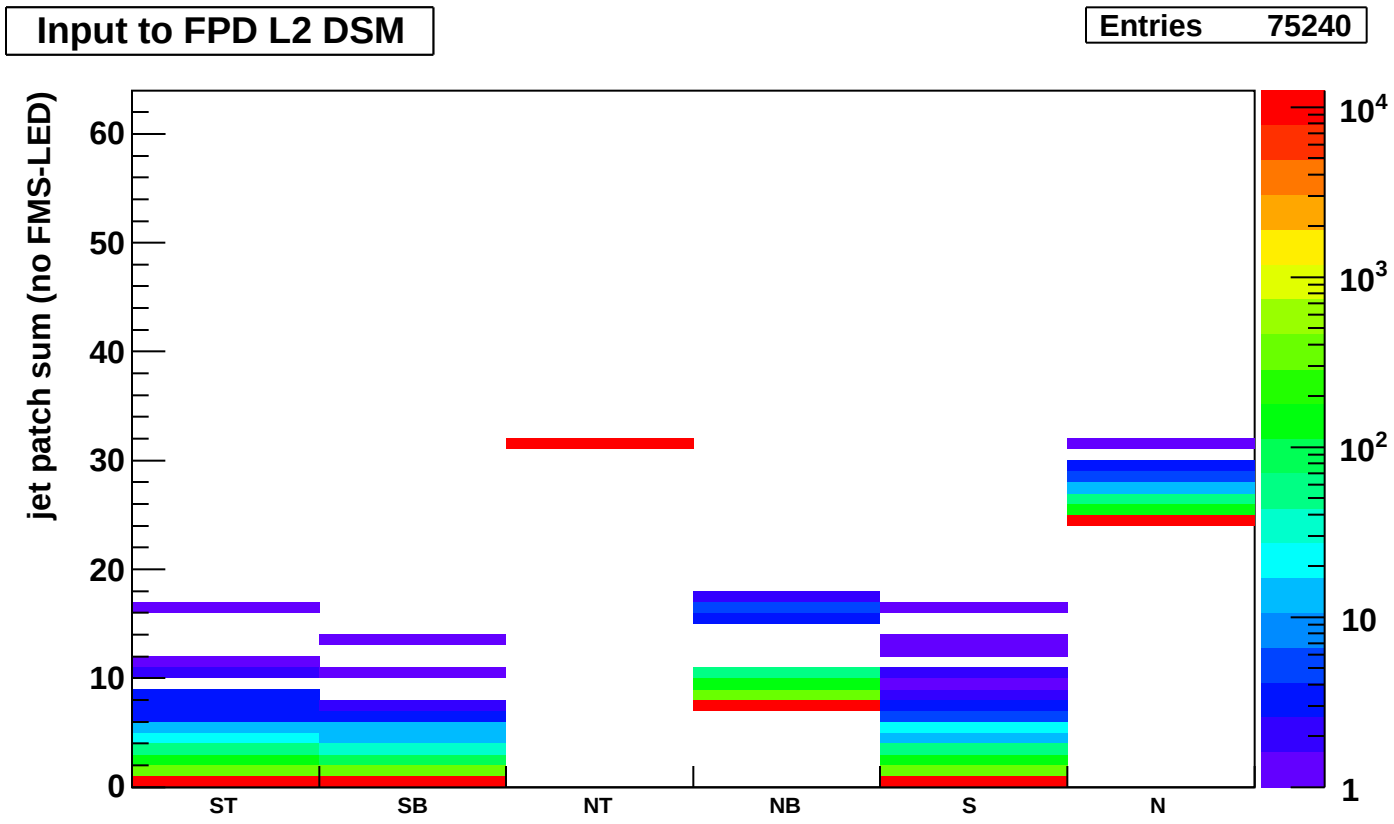

Input to FPD L2 DSM
Entries 52539
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

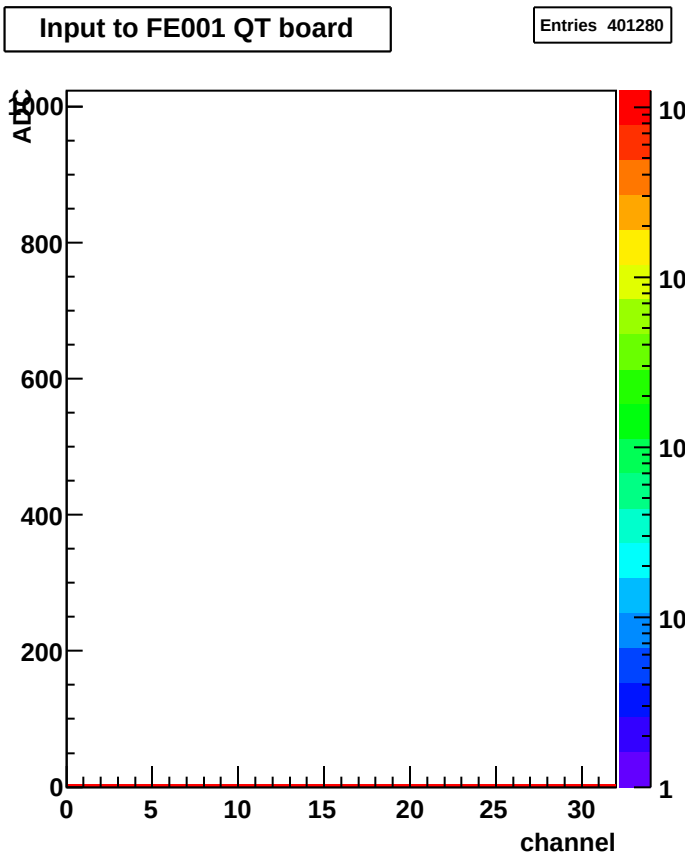

Input to FPD L2 DSM
Entries 37620
CL bits
198
12540
12342
1
12539
SMALL
LARGE-S
LARGE-N

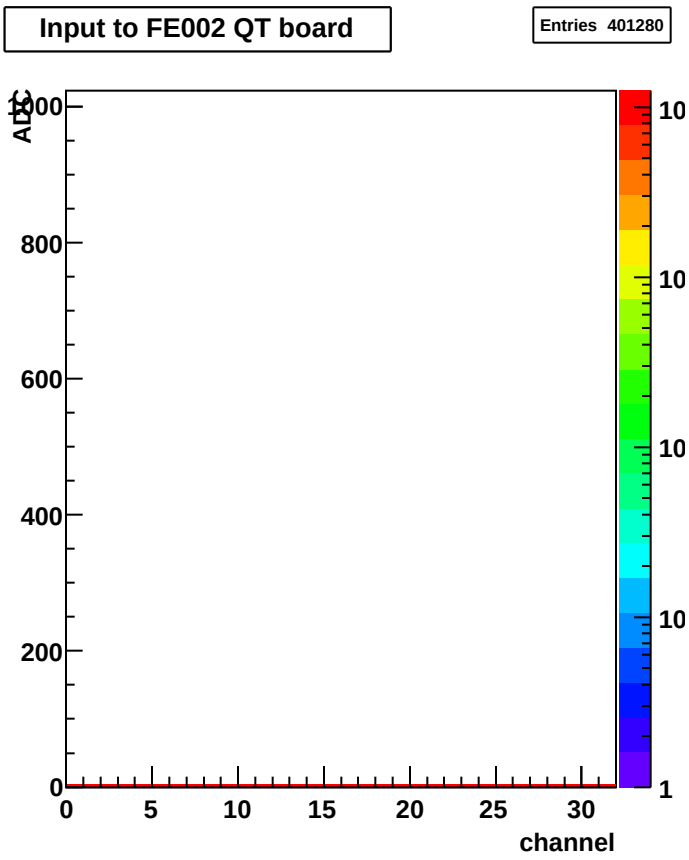

Input to FPD L2 DSM
Entries 25081
CL bits - simulated
198
12540
12342
1
SMALL
LARGE-S
LARGE-N

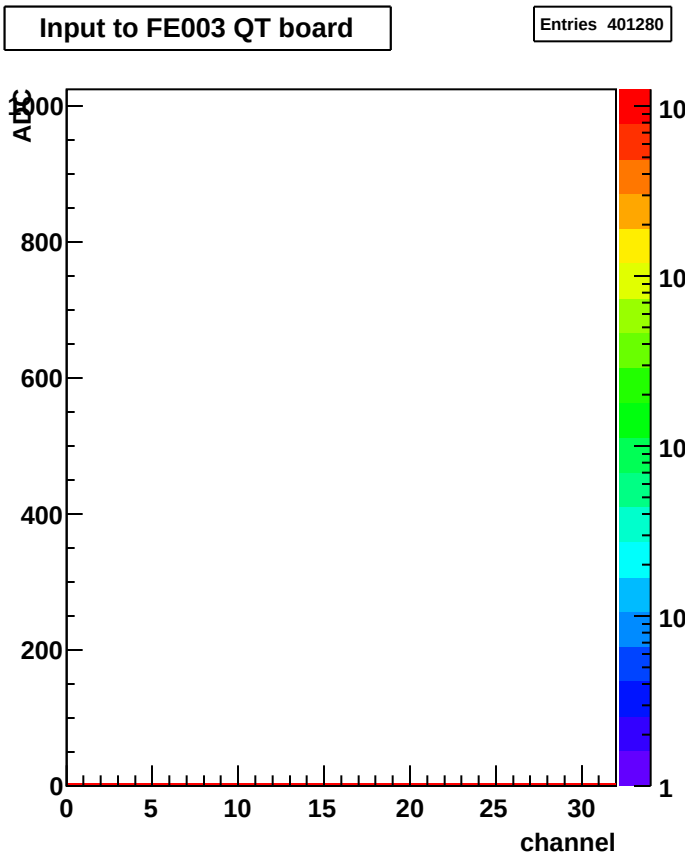

Input to FPD L2 DSM
Entries 37620
HT bits
12540
1
7
2
39
12538
12493
SMALL
LARGE-S
LARGE-N

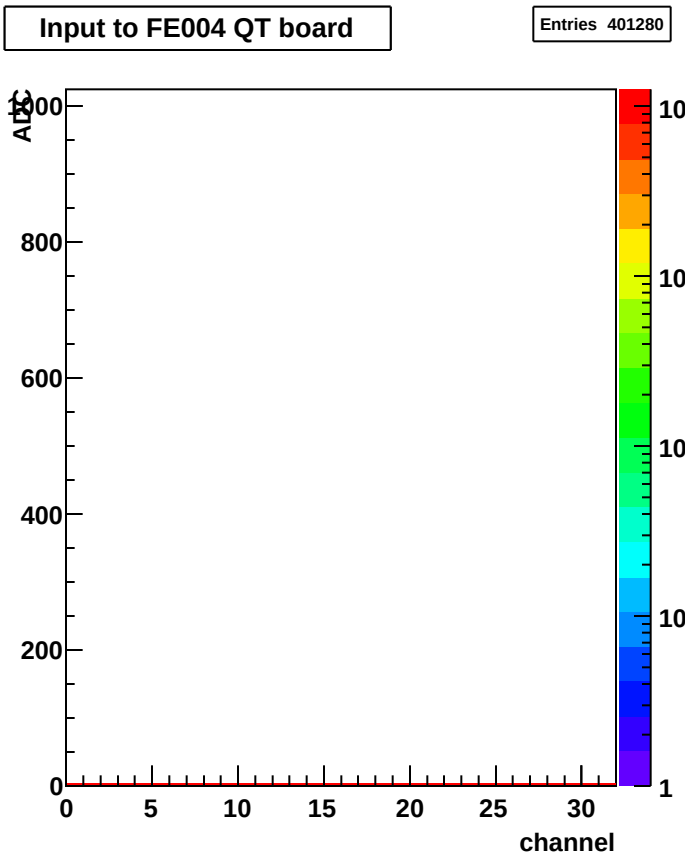

Input to FPD L2 DSM
Entries 12589
HT bits - simulated
12540
1
7
2
39
SMALL
LARGE-S
LARGE-N

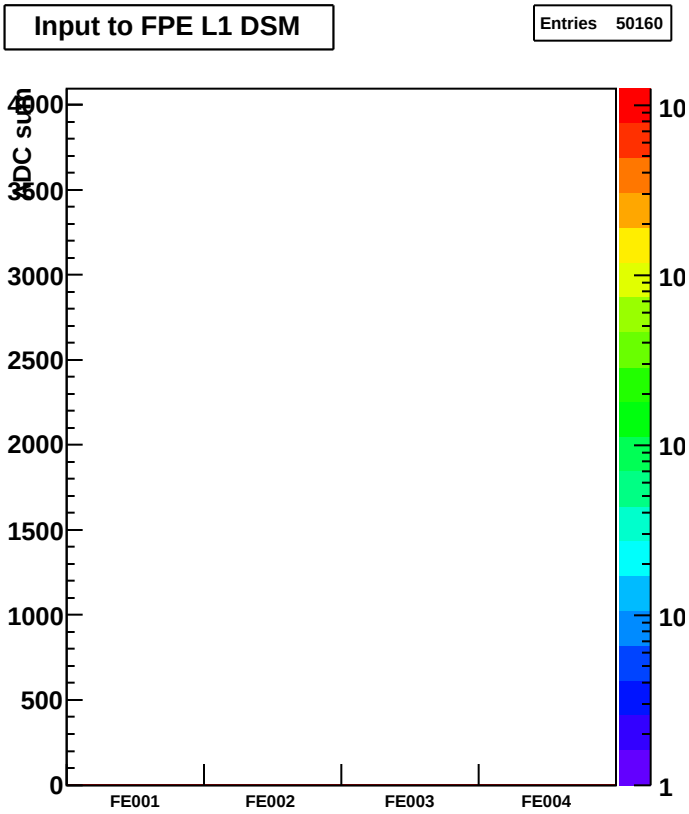

Input to FPD L2 DSM
Entries 75240
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

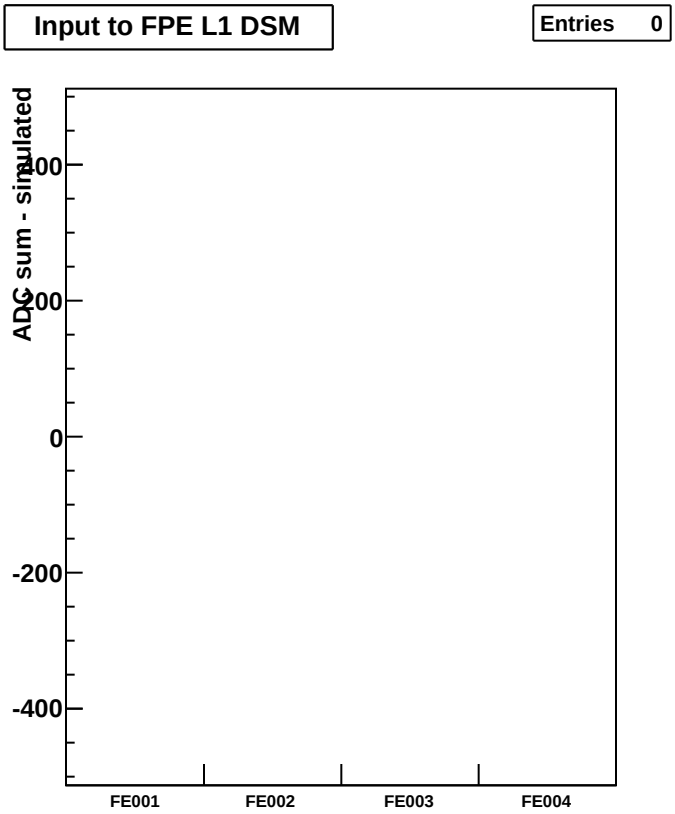

Input to FE001 QT board
Entries 401280
ADC
channel

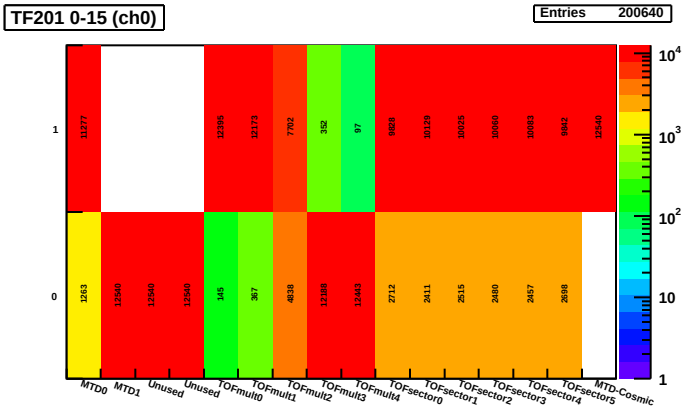

Input to FE002 QT board
Entries 401280
ADC
channel

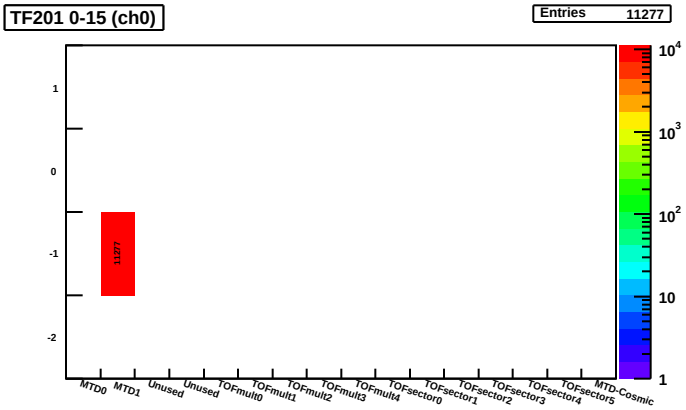

Input to FE003 QT board
Entries 401280
ADC
channel

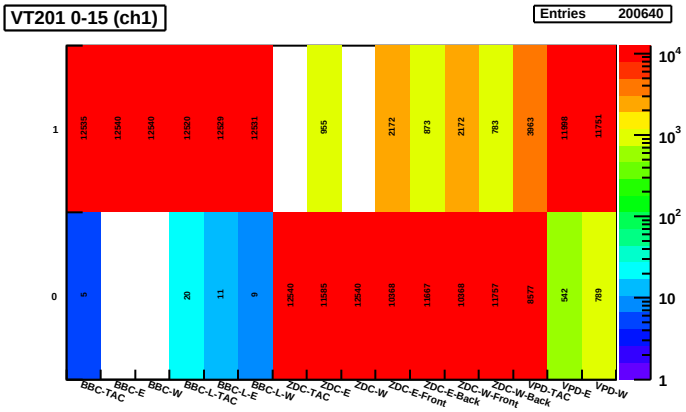

Input to FE004 QT board
Entries 401280
ADC
channel

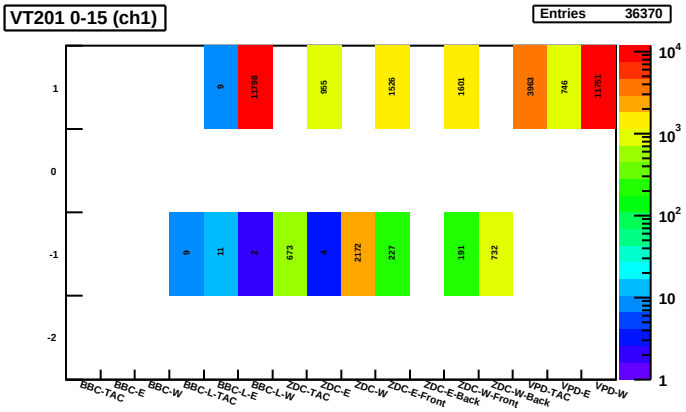

Input to FPE L1 DSM
Entries 50160
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

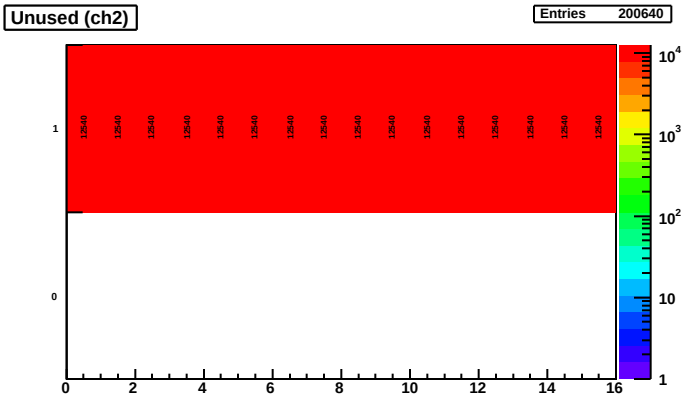

Input to FPE L1 DSM
Entries 0
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004

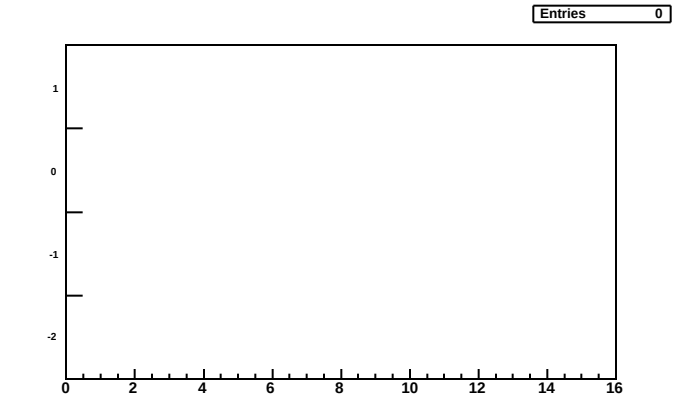

TF201 0-15 (ch0)
Entries 200640
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

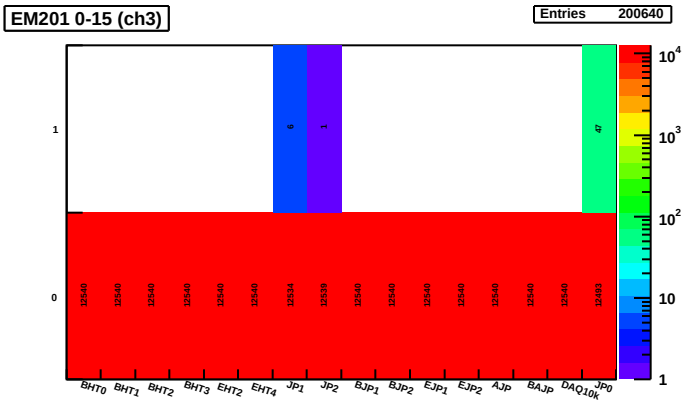

TF201 0-15 (ch0)
Entries 11277
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

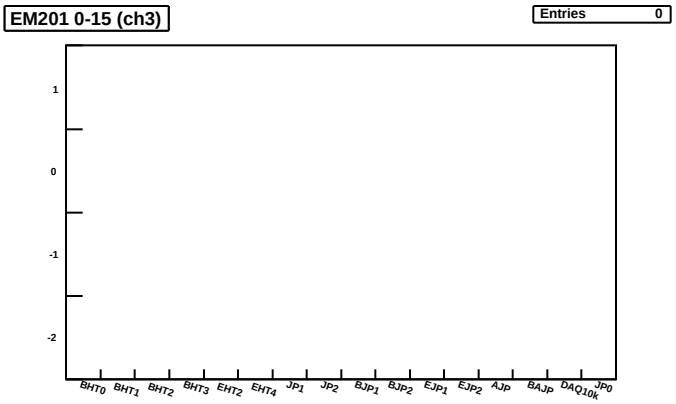

VT201 0-15 (ch1)
Entries 200640
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 36370
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

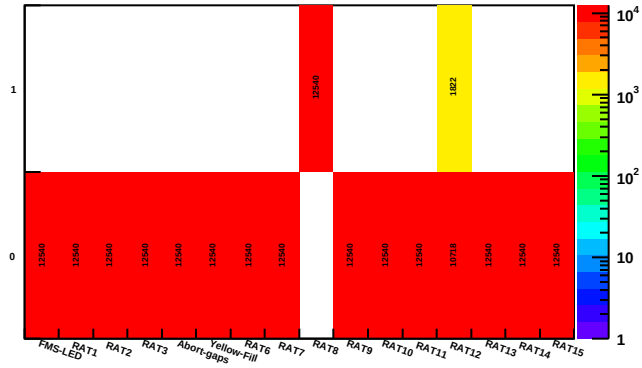

Unused (ch2)
Entries 200640

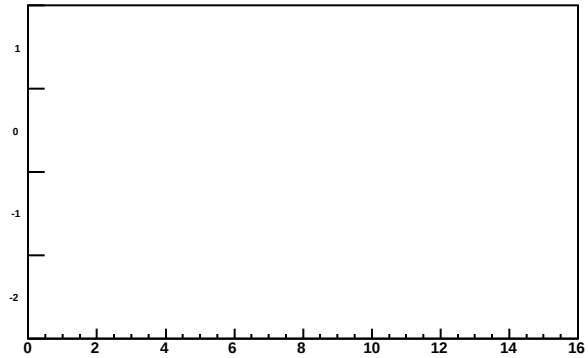

Entries 0


EM201 0-15 (ch3)
Entries 200640
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

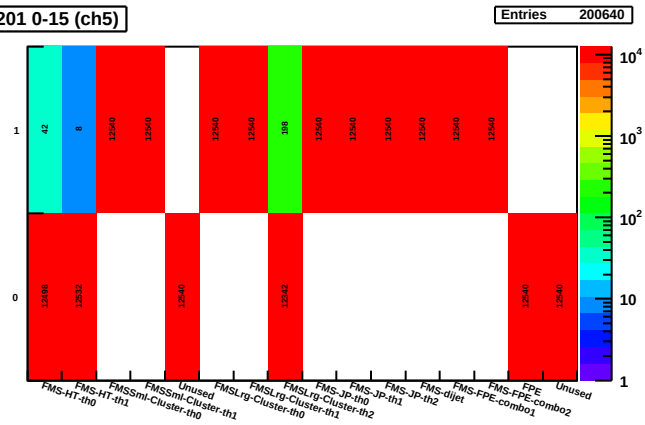

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

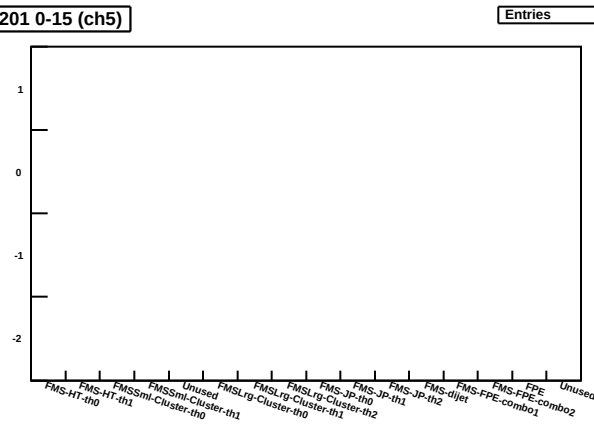




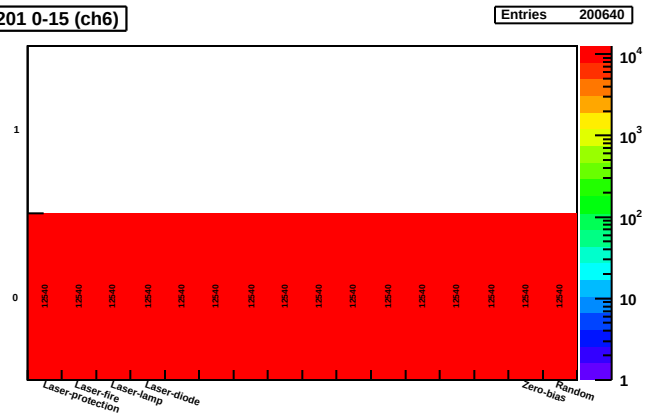
FP201 0-15 (ch5)

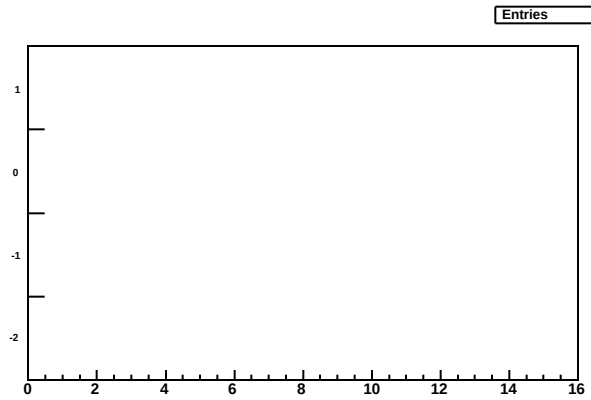
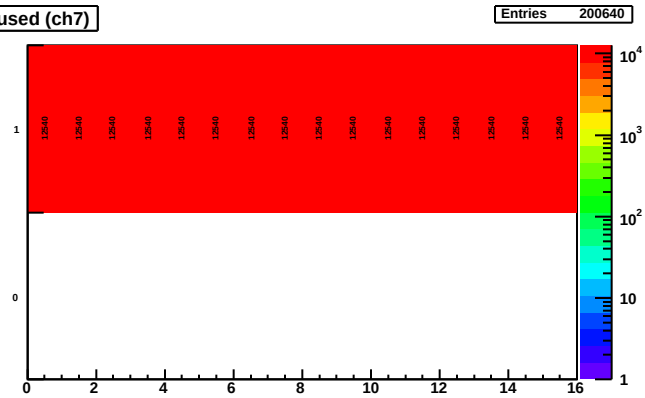
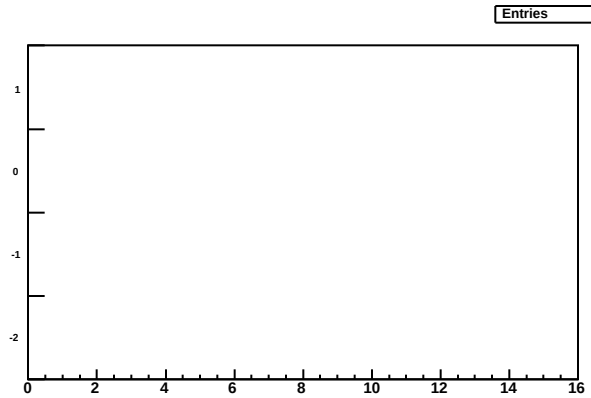


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)