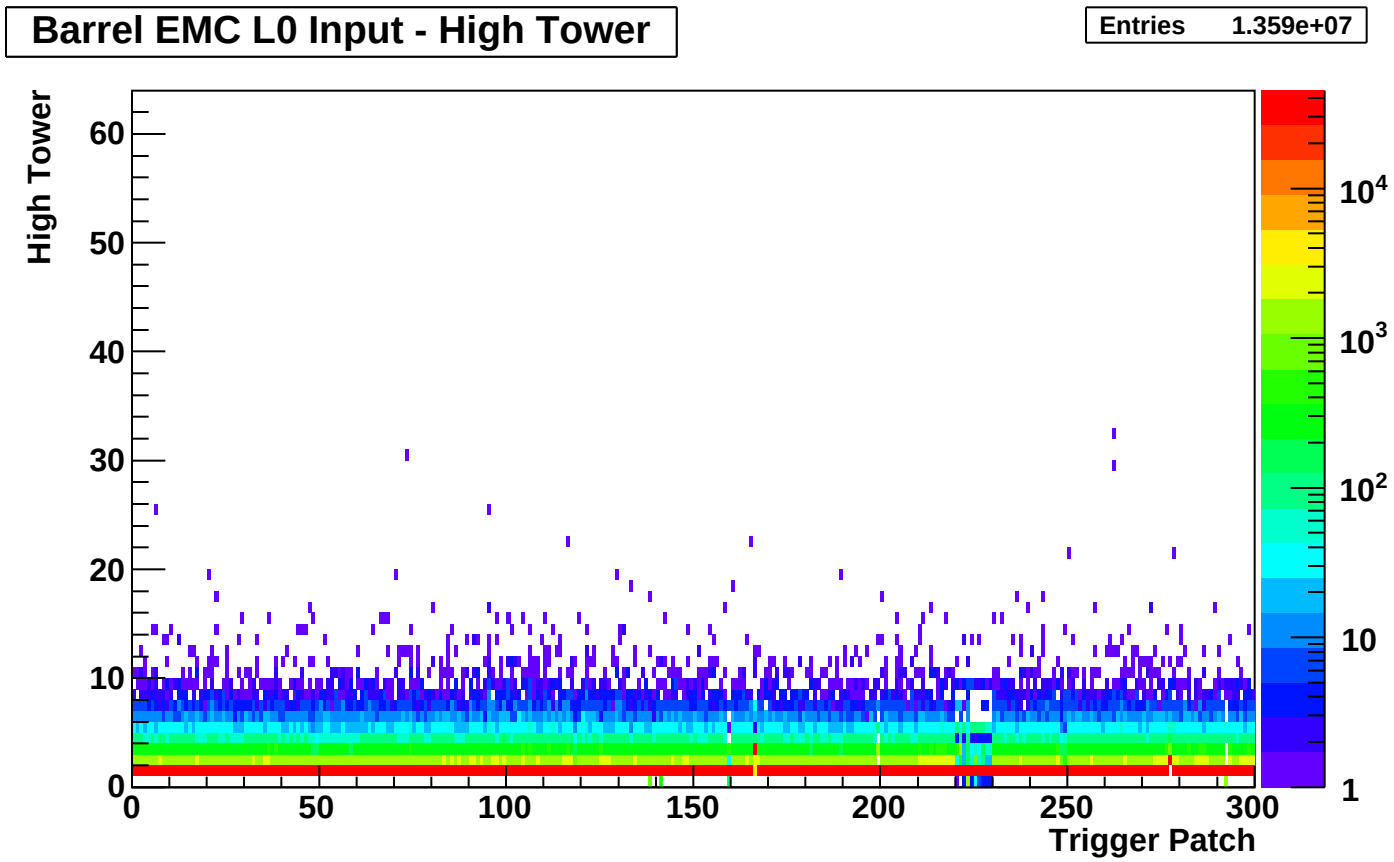
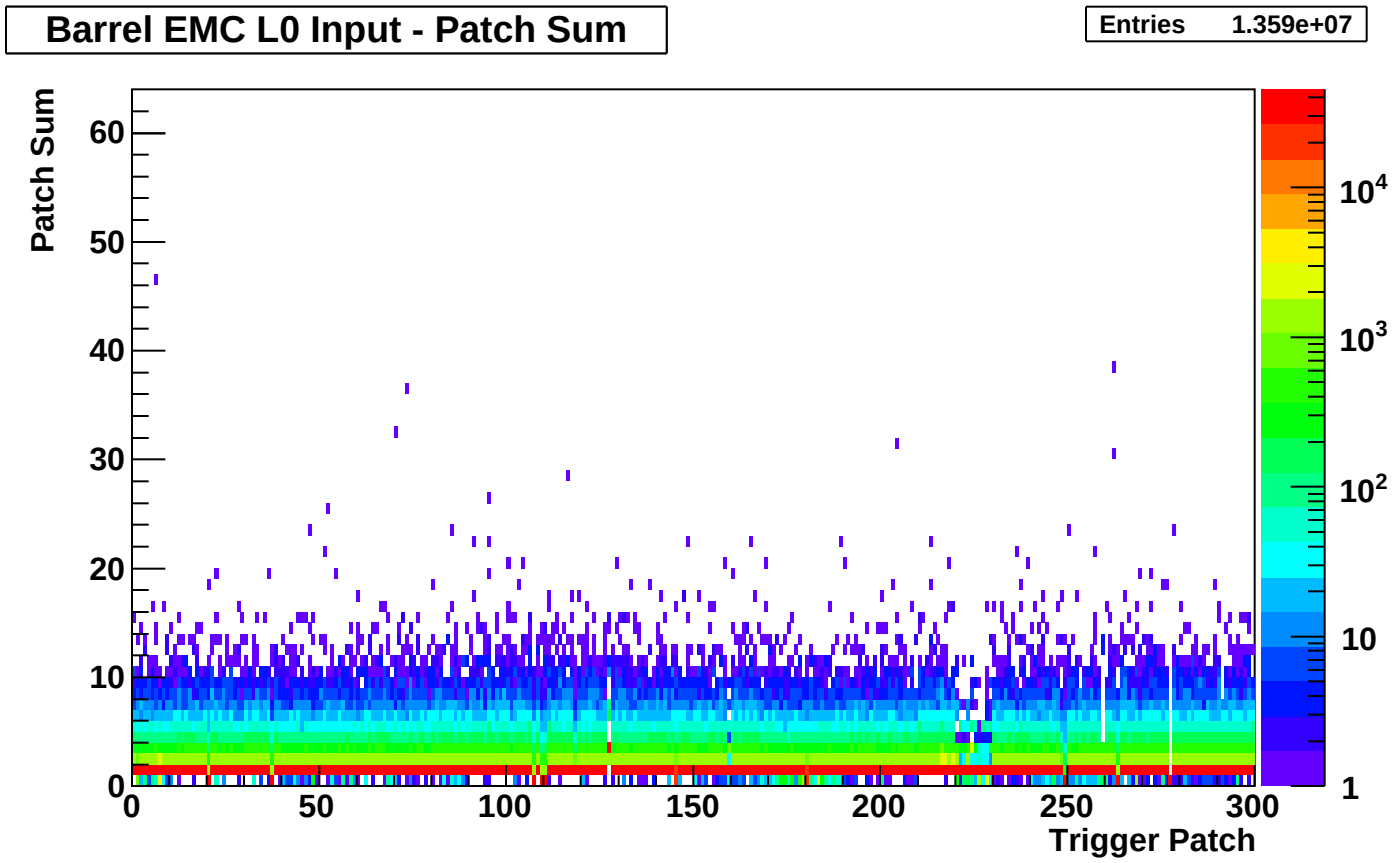
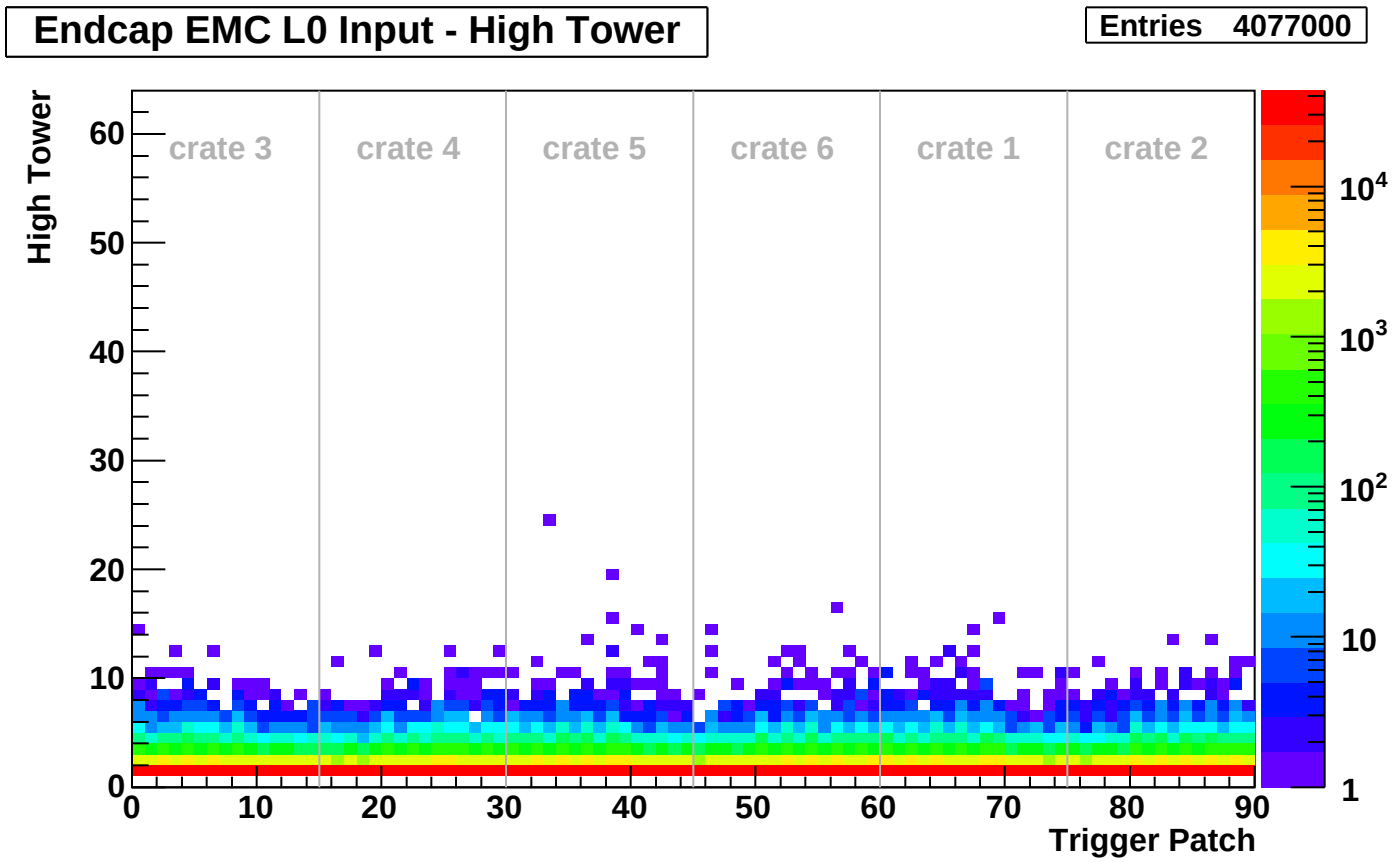
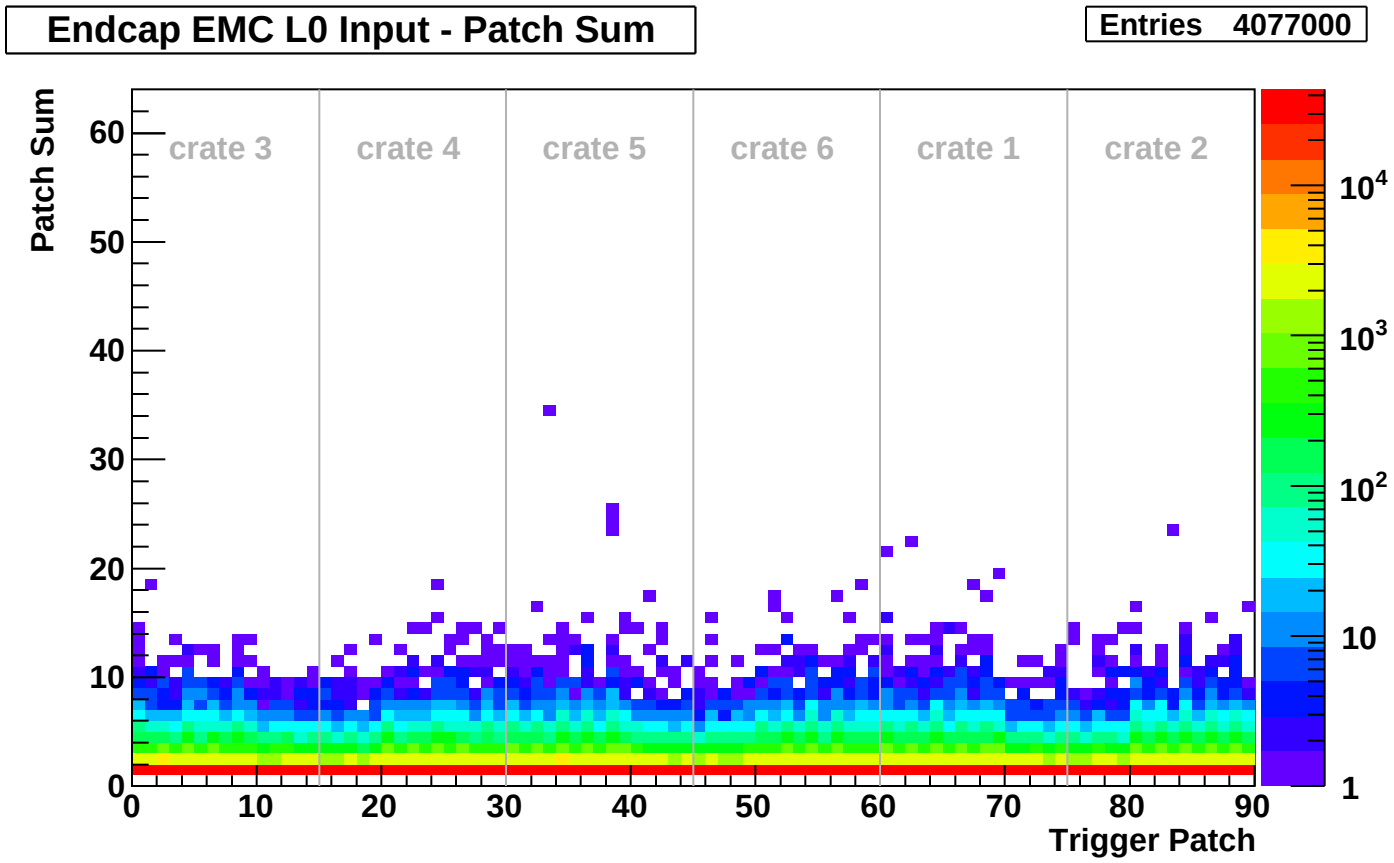
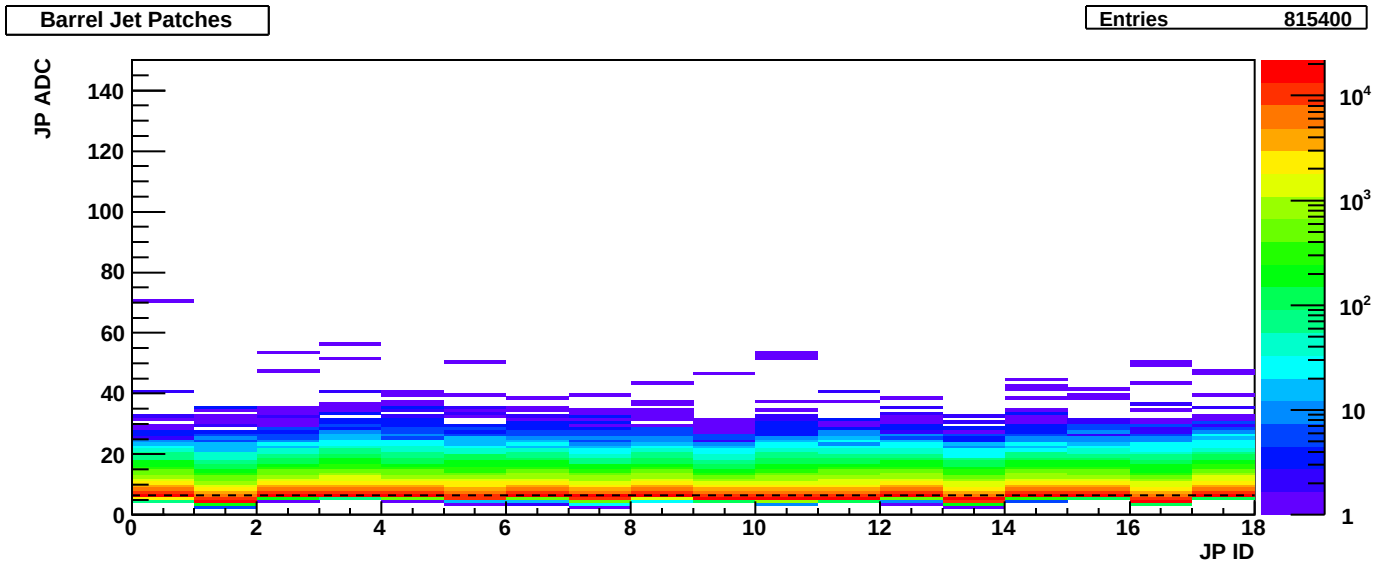
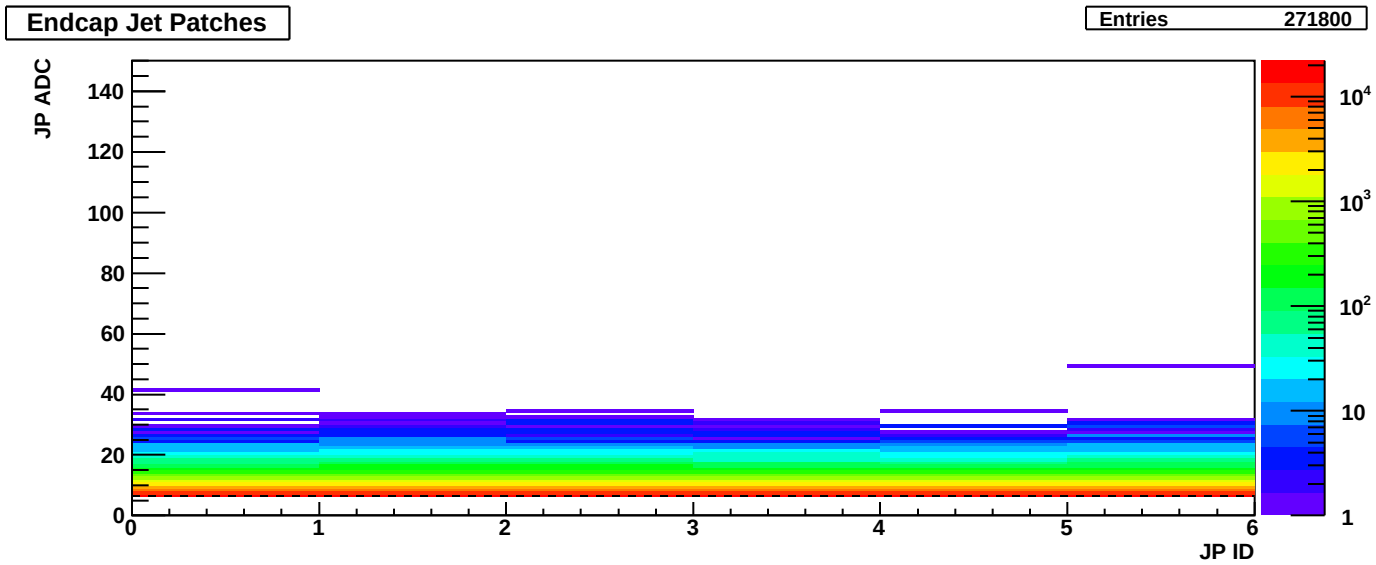

Barrel EMC L0 Input - High Tower
Entries 1.359e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

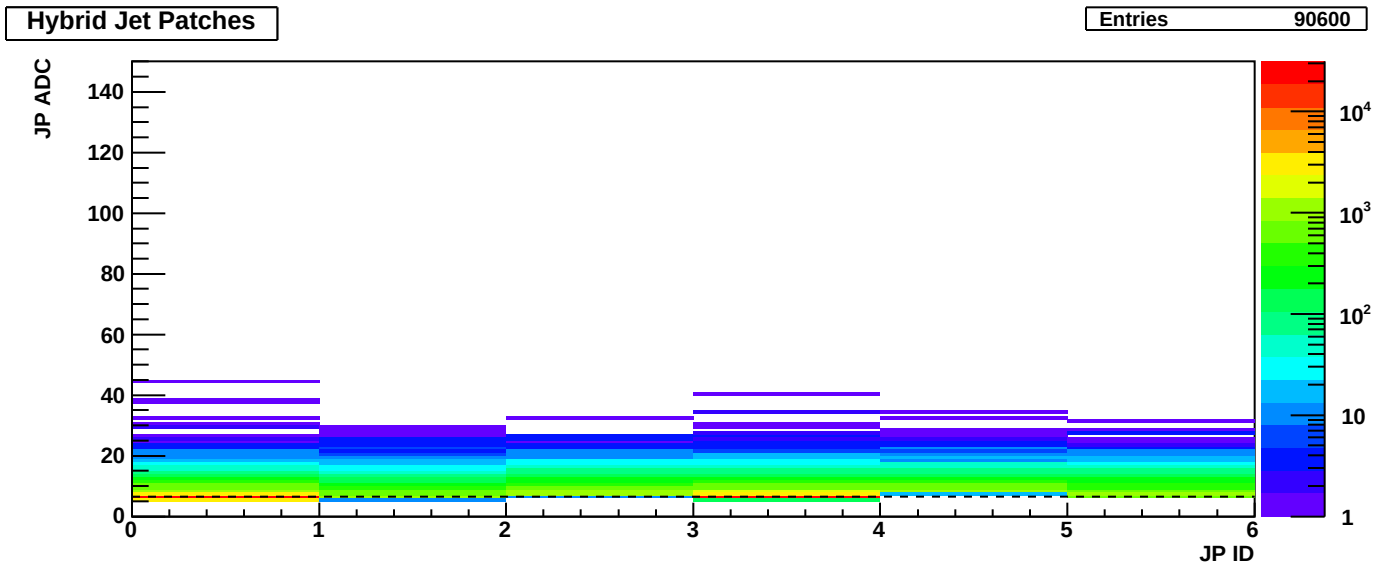

Barrel EMC L0 Input - Patch Sum
Entries 1.359e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

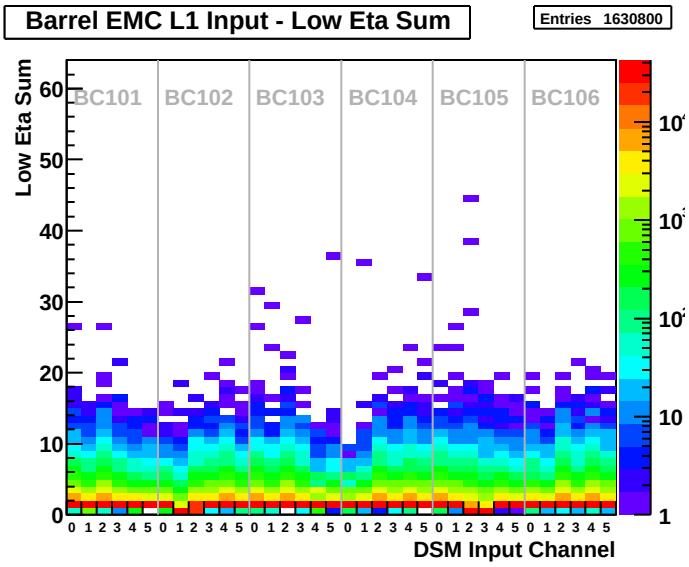

Endcap EMC L0 Input - High Tower
Entries 4077000
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

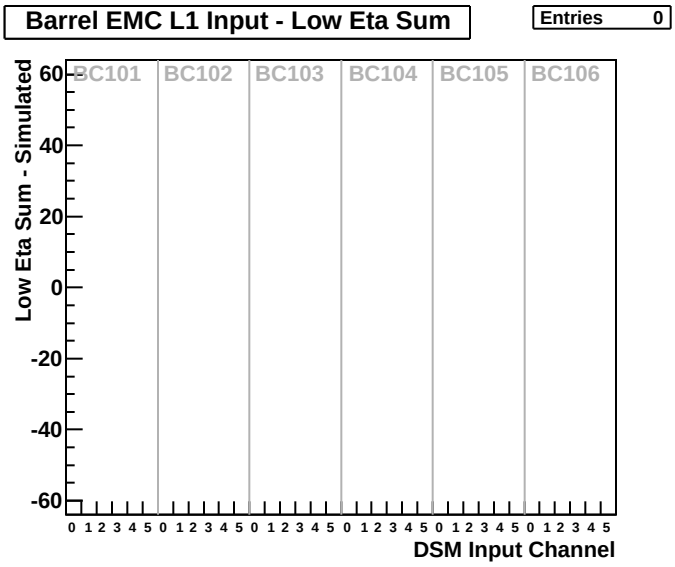

Endcap EMC L0 Input - Patch Sum
Entries 4077000
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

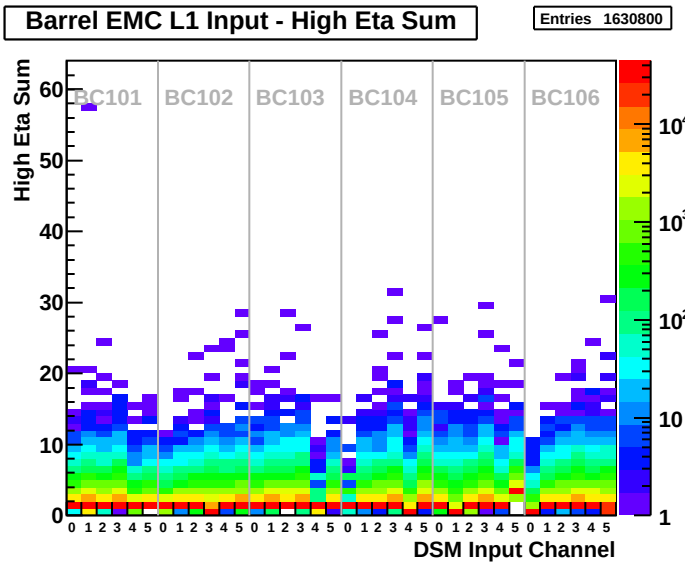

Barrel Jet Patches
Entries 815400
JP ADC
JP ID

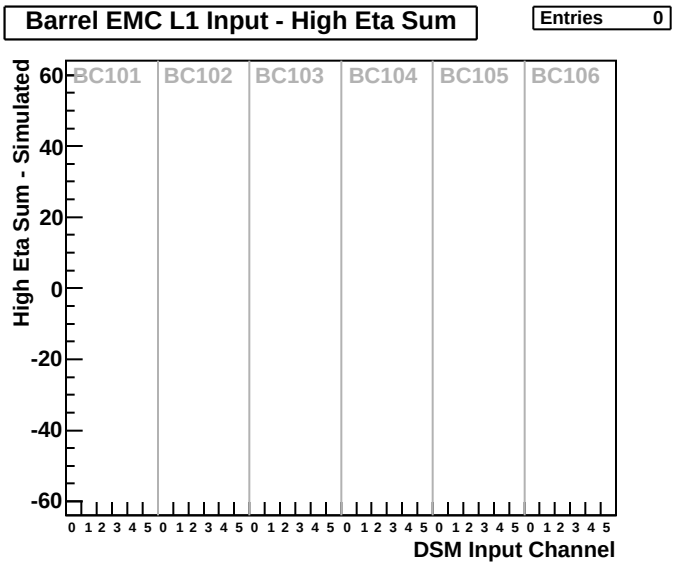

Endcap Jet Patches
Entries 271800
JP ADC
JP ID

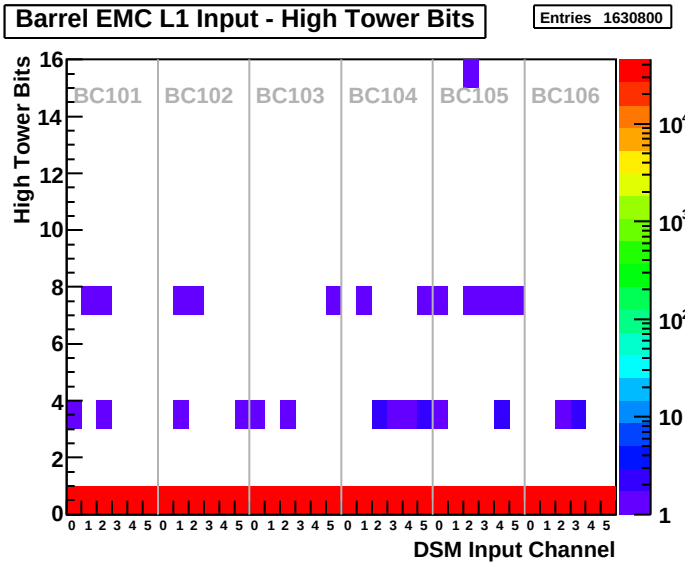

Hybrid Jet Patches
Entries 90600
JP ADC
JP ID

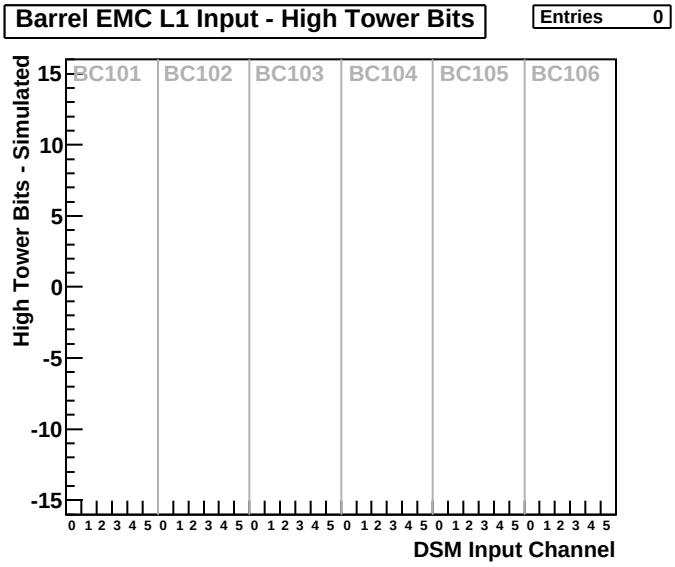

Barrel EMC L1 Input - Low Eta Sum
Entries 1630800
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

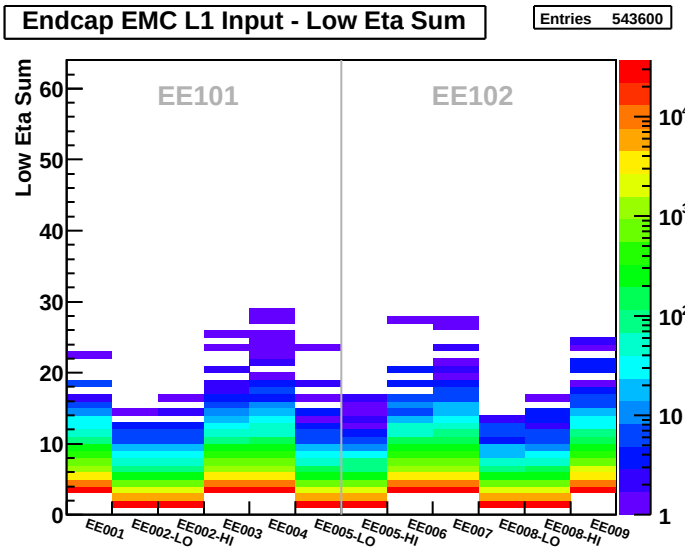

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

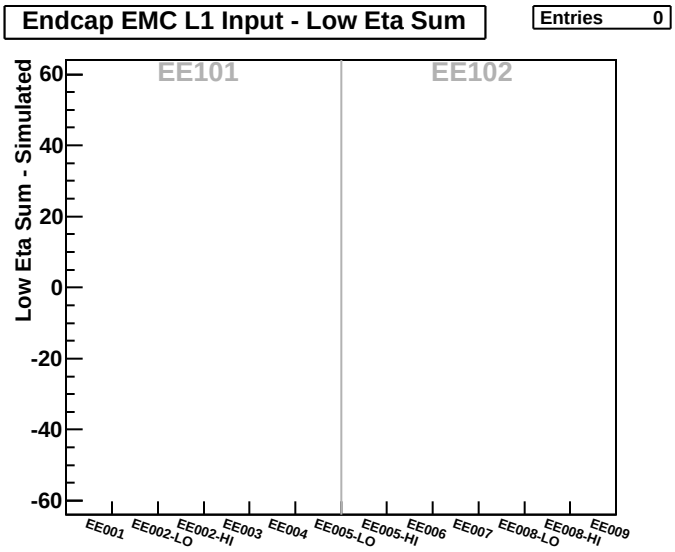

Barrel EMC L1 Input - High Eta Sum
Entries 1630800
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

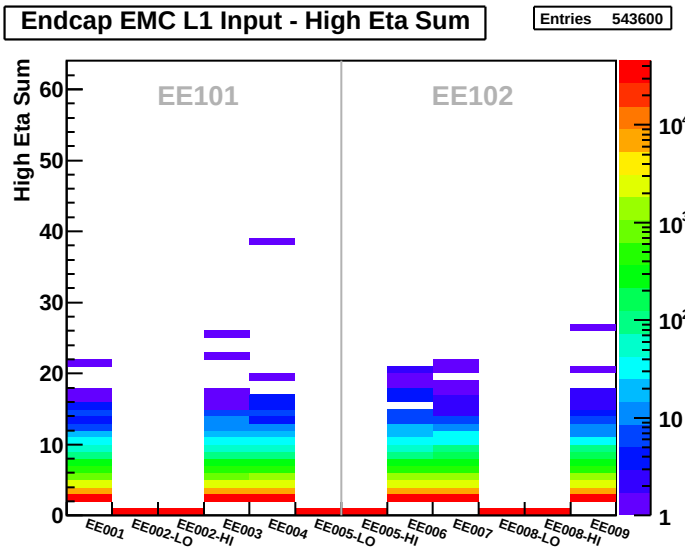

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

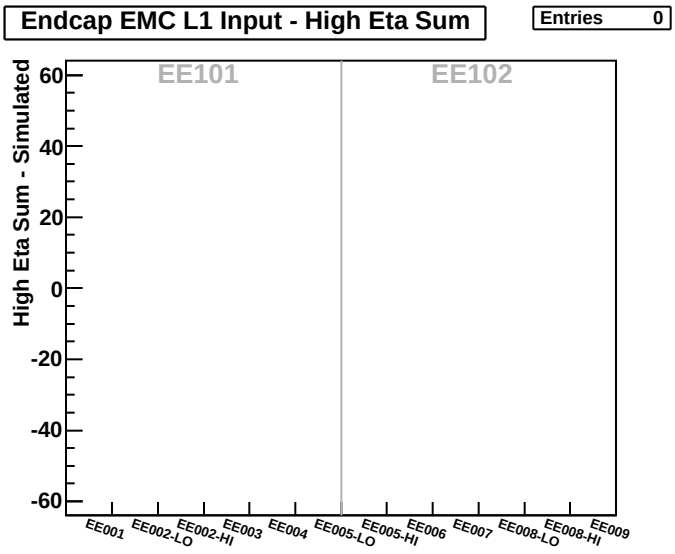

Barrel EMC L1 Input - High Tower Bits
Entries 1630800
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

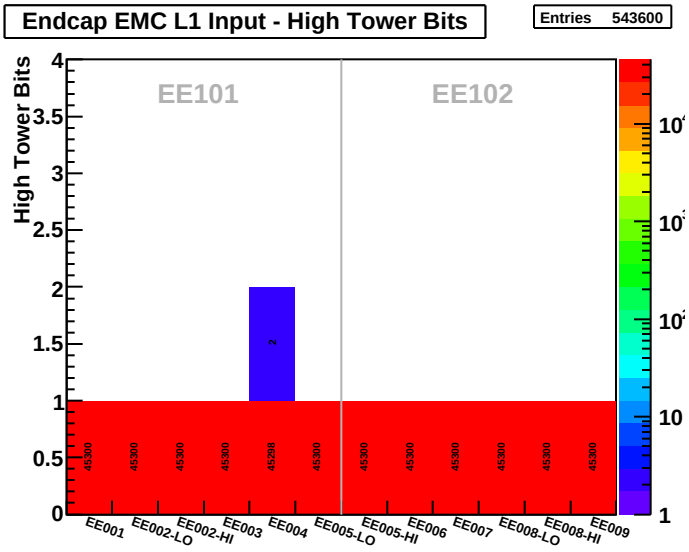

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

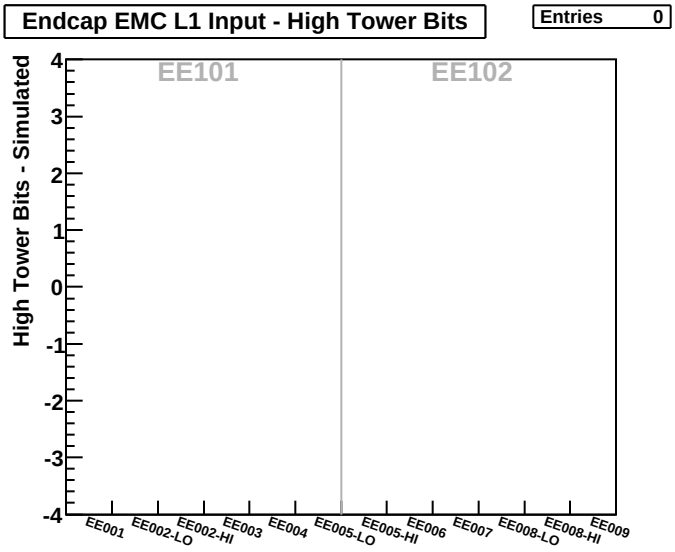

Endcap EMC L1 Input - Low Eta Sum
Entries 543600
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

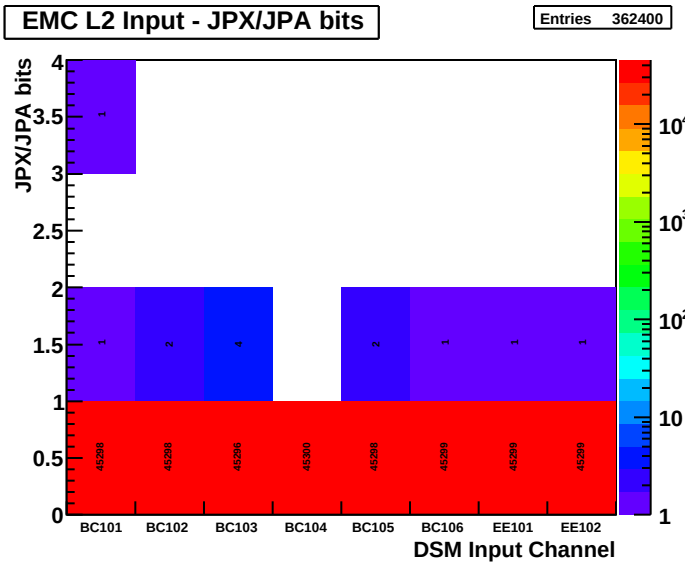

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

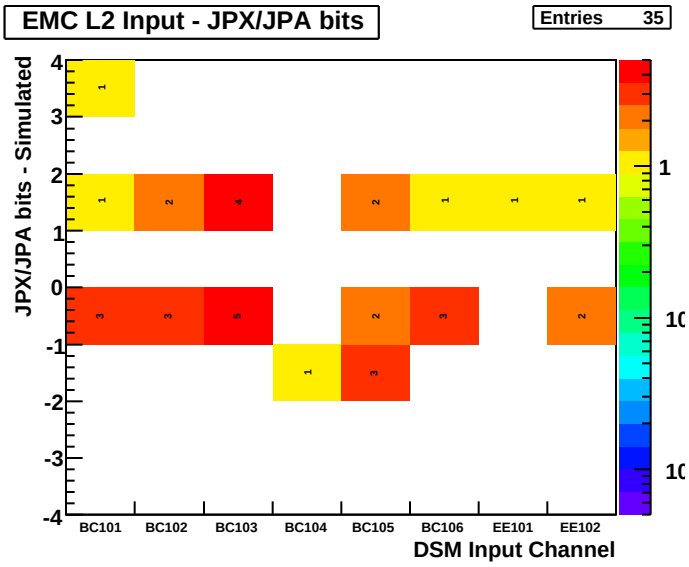

Endcap EMC L1 Input - High Eta Sum
Entries 543600
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

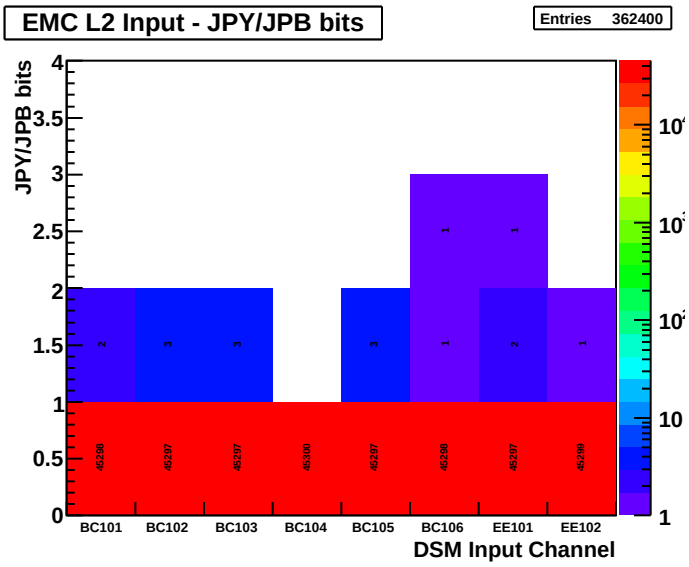

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

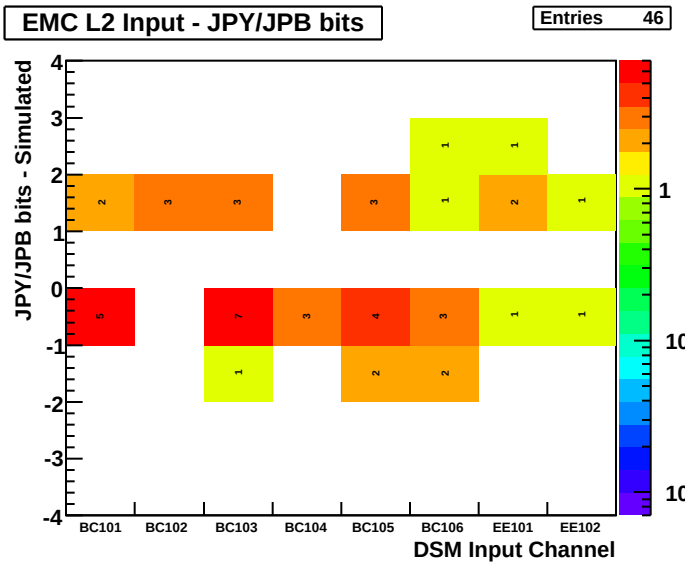

Endcap EMC L1 Input - High Tower Bits
Entries 543600
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

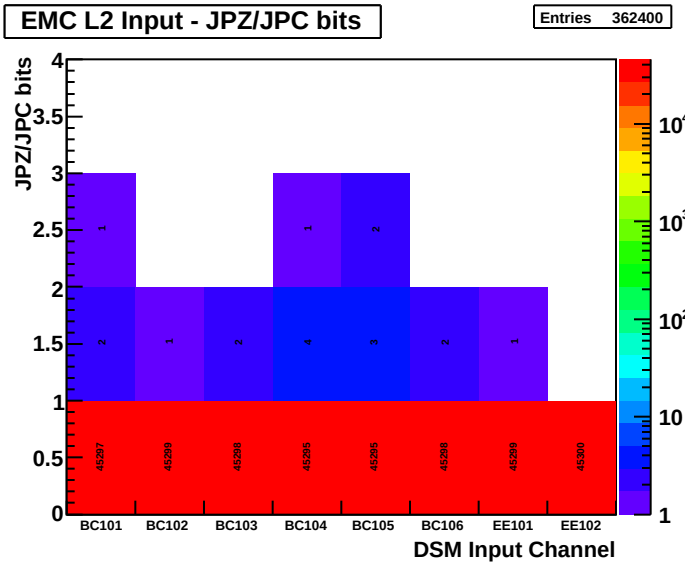

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

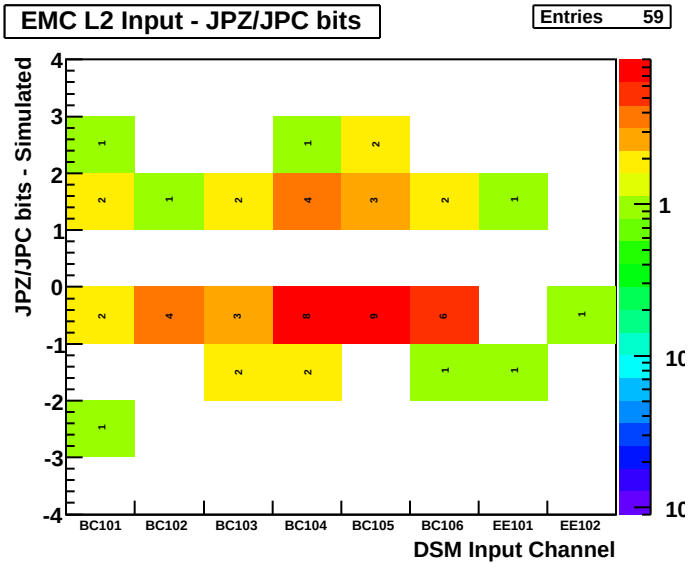

EMC L2 Input - JPX/JPA bits
Entries 362400
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

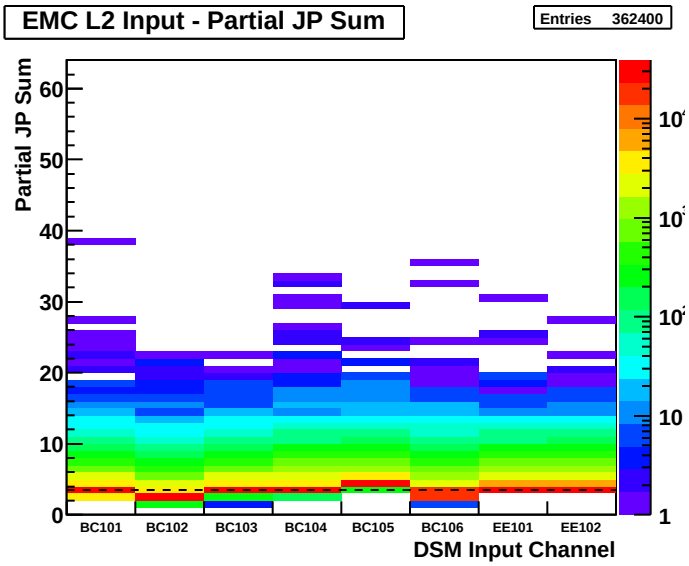

EMC L2 Input - JPX/JPA bits
Entries 35
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

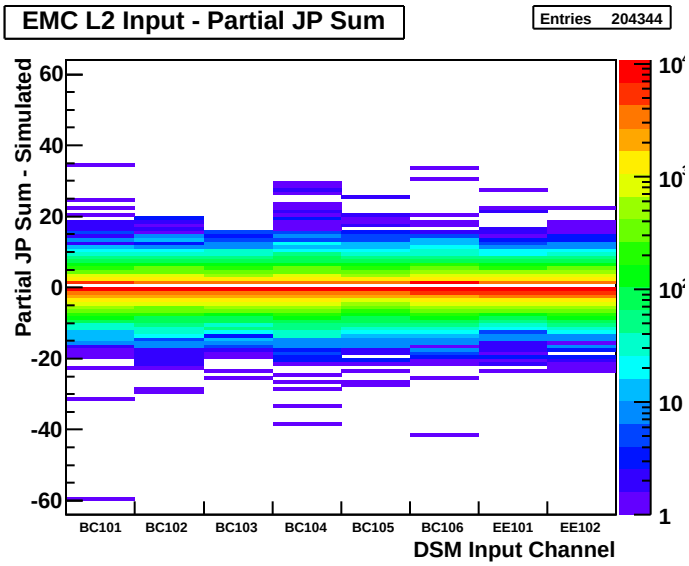

EMC L2 Input - JPY/JPB bits
Entries 362400
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

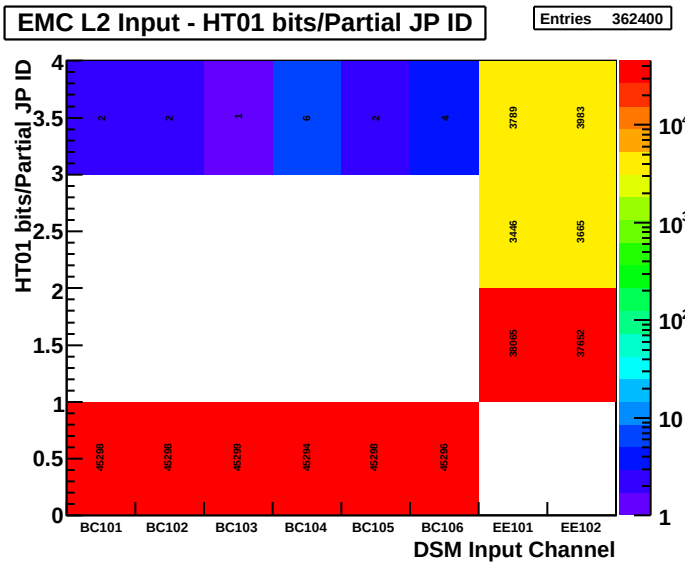

EMC L2 Input - JPY/JPB bits
Entries 46
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

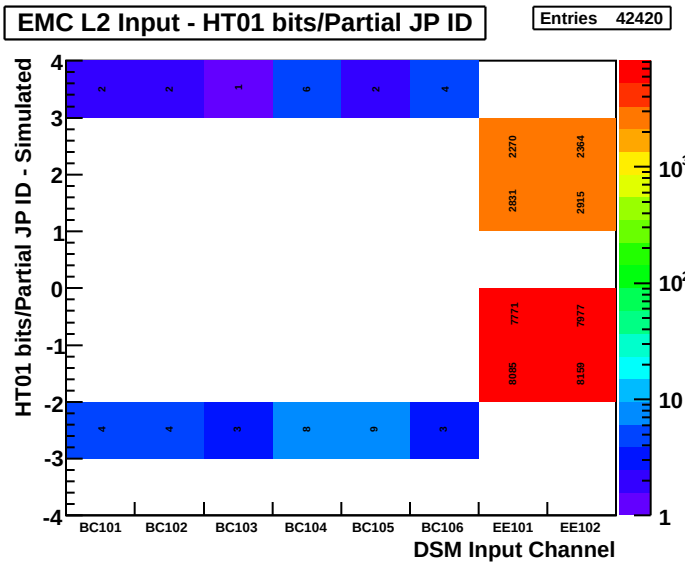

EMC L2 Input - JPZ/JPC bits
Entries 362400
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

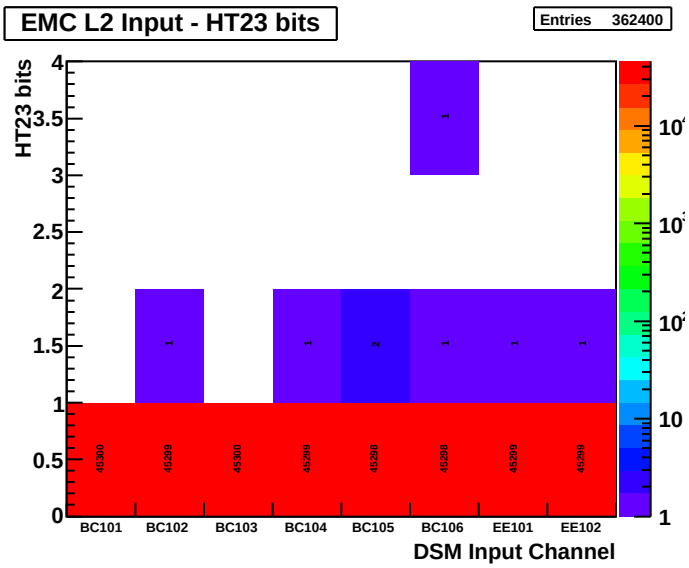

EMC L2 Input - JPZ/JPC bits
Entries 59
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

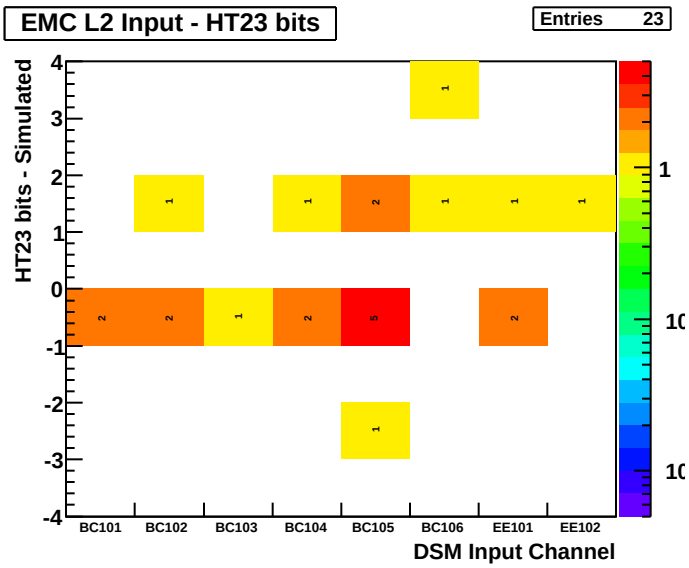

EMC L2 Input - Partial JP Sum
Entries 362400
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

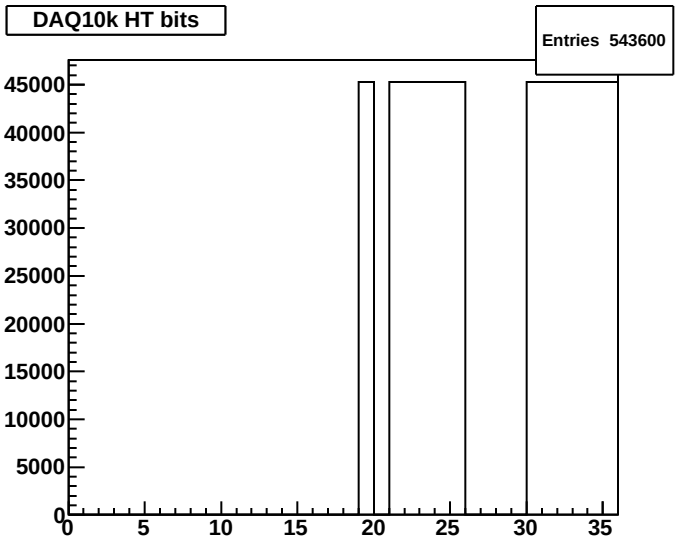

EMC L2 Input - Partial JP Sum
Entries 204344
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

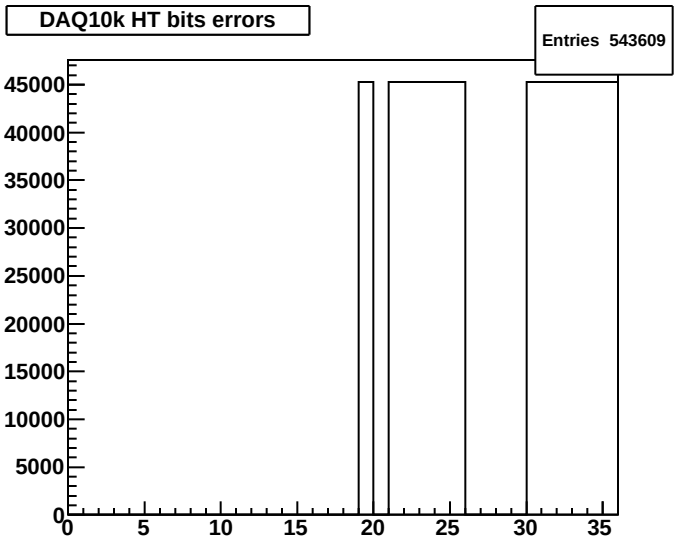

EMC L2 Input - HT01 bits/Partial JP ID
Entries 362400
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

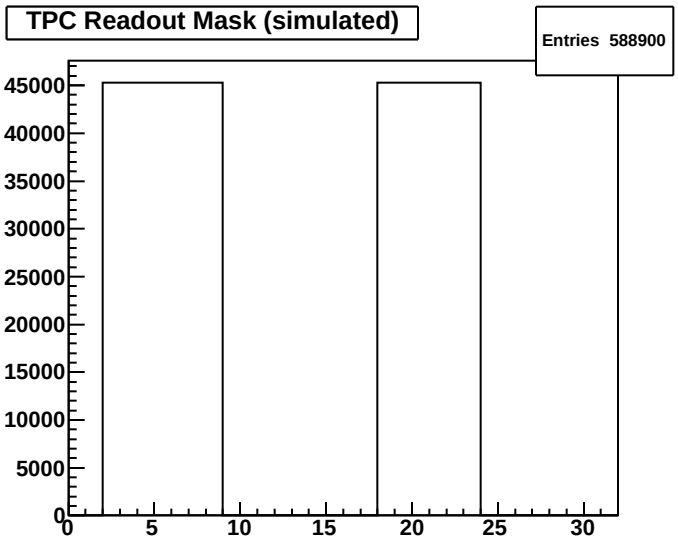

EMC L2 Input - HT01 bits/Partial JP ID
Entries 42420
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

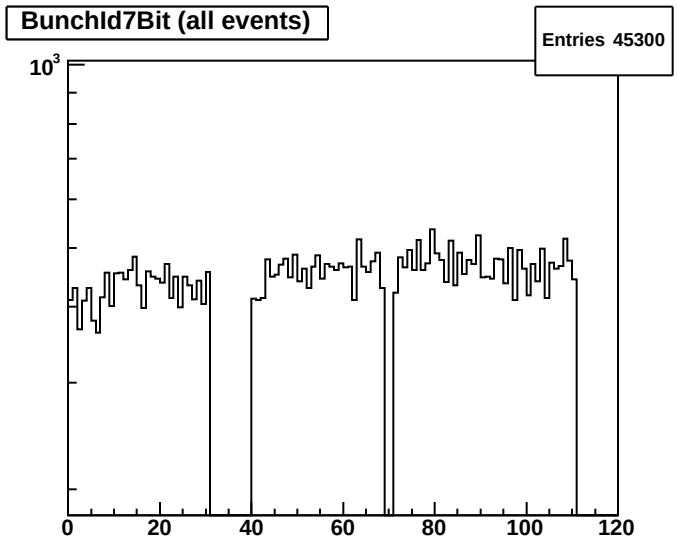

EMC L2 Input - HT23 bits
Entries 362400
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

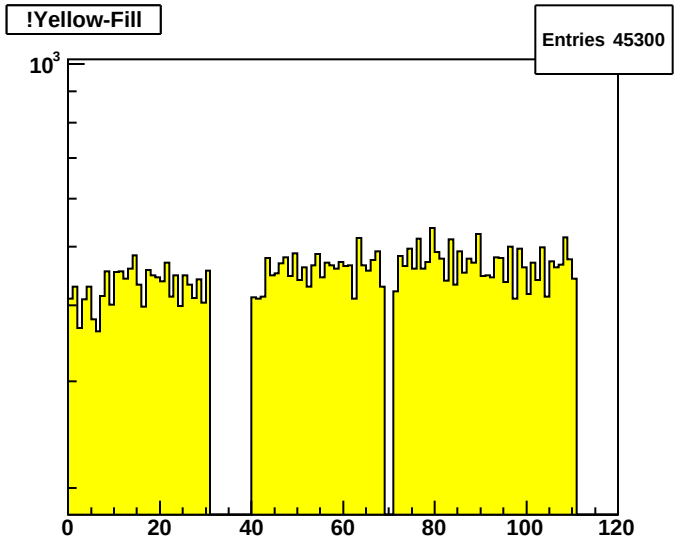

EMC L2 Input - HT23 bits
Entries 23
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

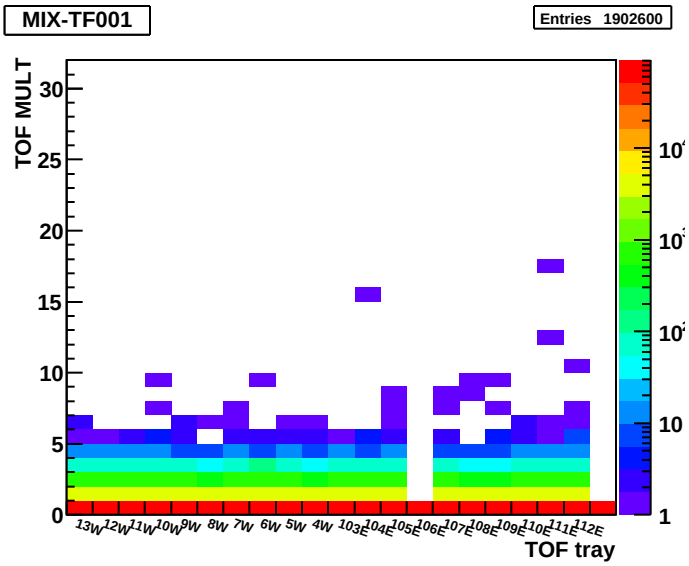

DAQ10k HT bits
Entries 543600
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

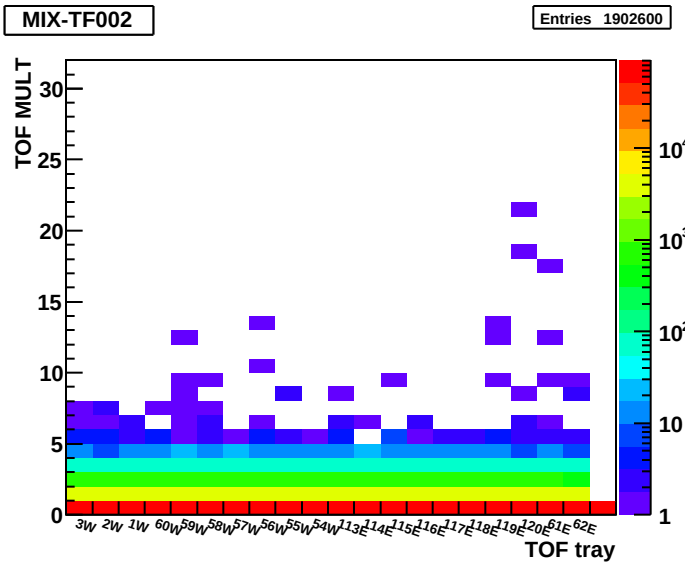

DAQ10k HT bits errors
Entries 543609
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

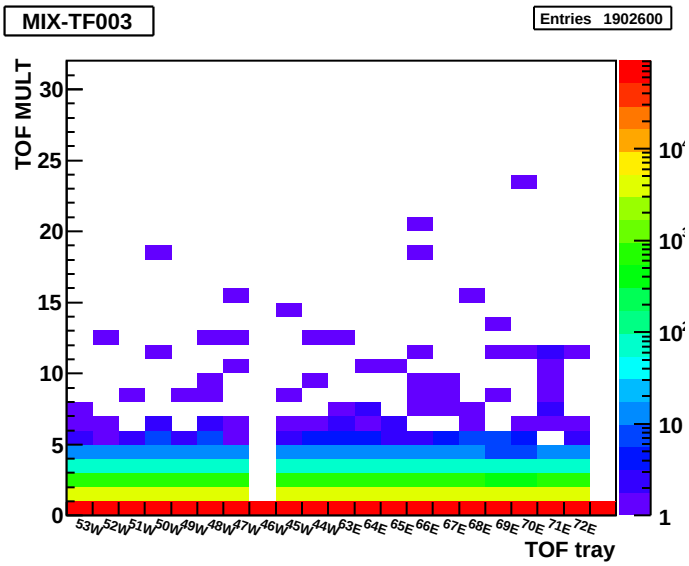

TPC Readout Mask (simulated)
Entries 588900
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

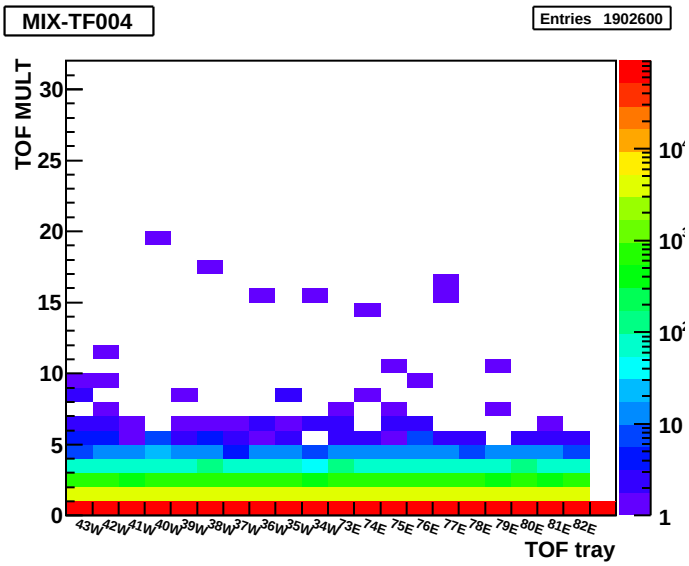

BunchId7Bit (all events)
Entries 45300
10^3
0 20 40 60 80 100 120

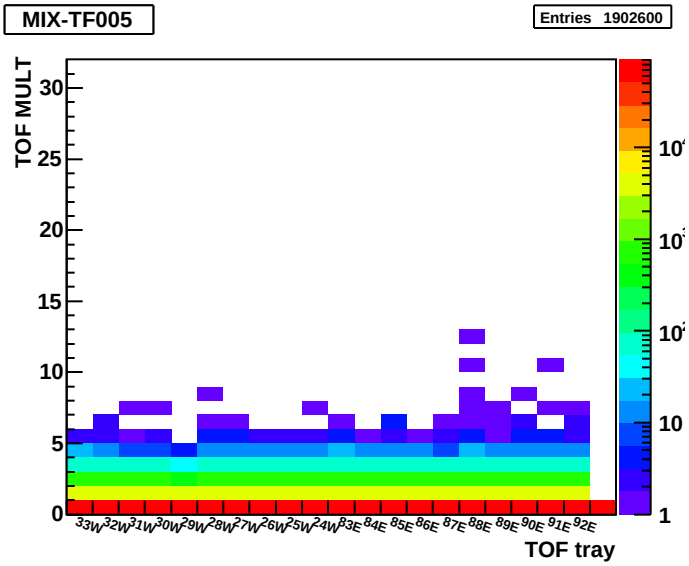

!Yellow-Fill
Entries 45300
10^3
0 20 40 60 80 100 120

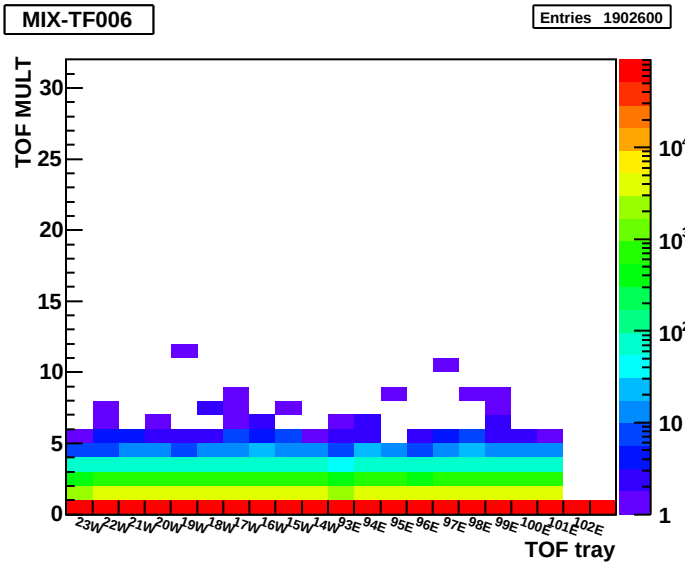

MIX-TF001
Entries 1902600
TOF MULT
TOF tray

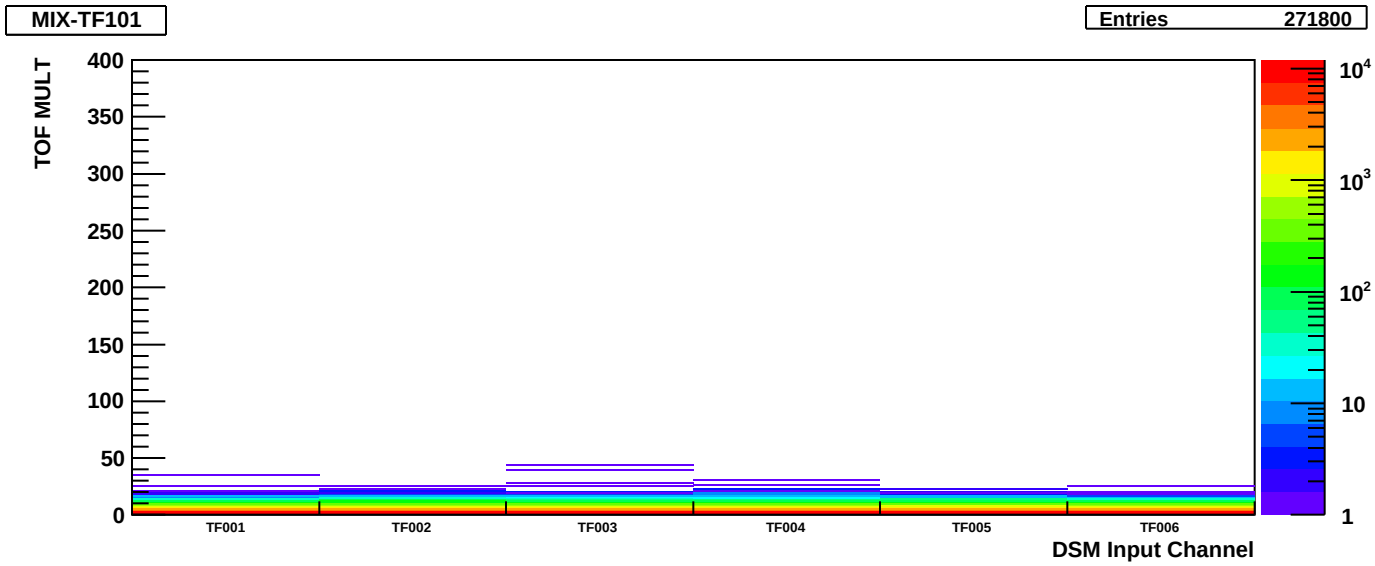

MIX-TF002
Entries 1902600
TOF MULT
TOF tray

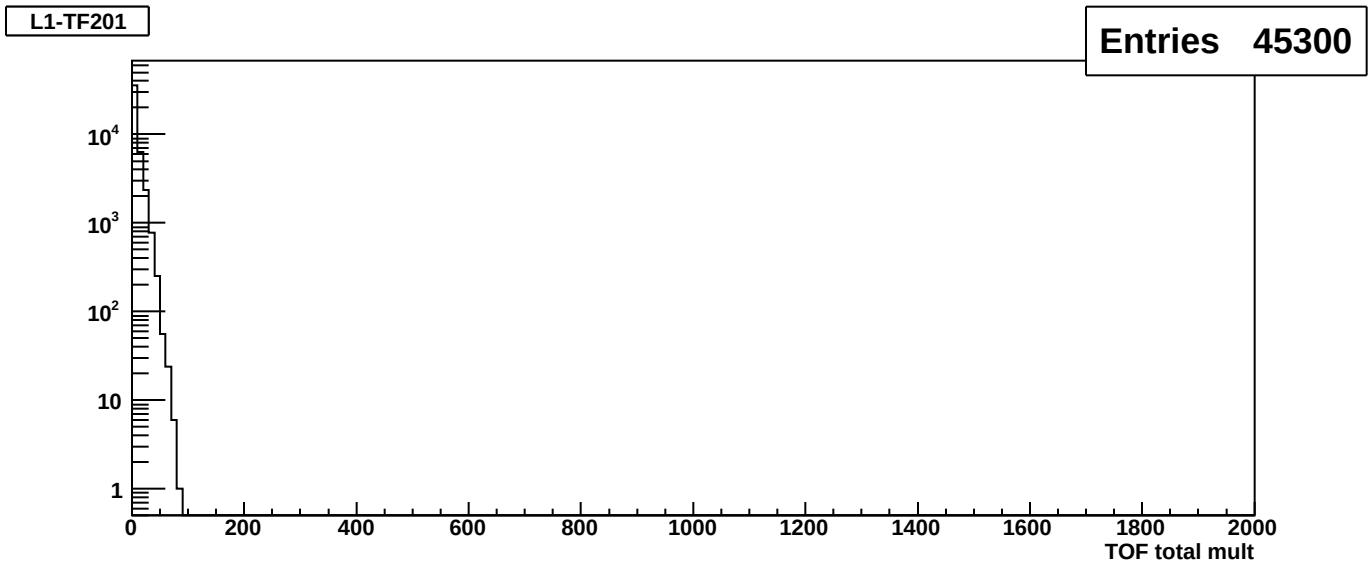

MIX-TF003
Entries 1902600
TOF MULT
TOF tray

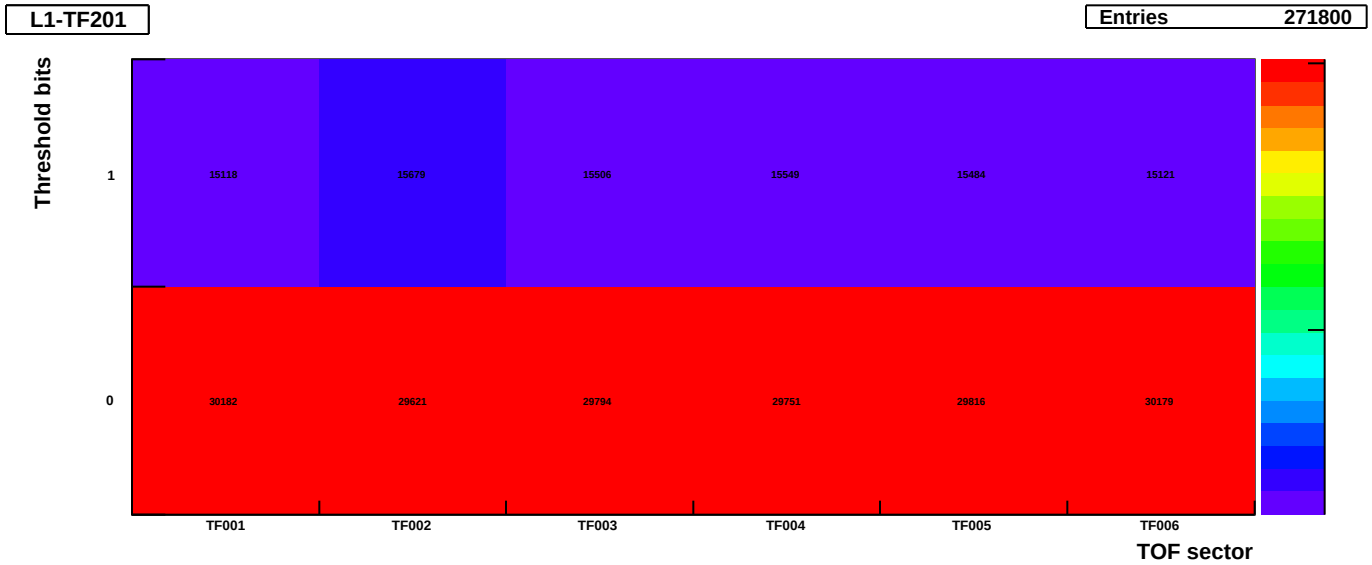

MIX-TF004
Entries 1902600
TOF MULT
TOF tray

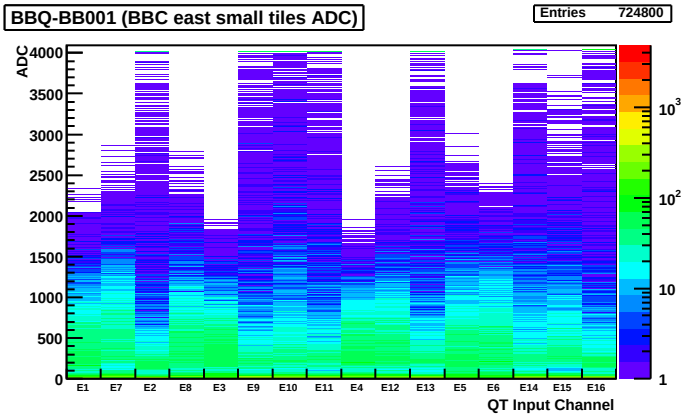

MIX-TF005
Entries 1902600
TOF MULT
TOF tray

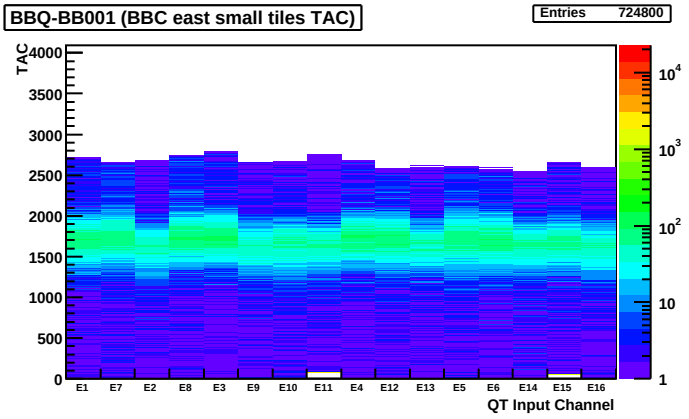

MIX-TF006
Entries 1902600
TOF MULT
TOF tray

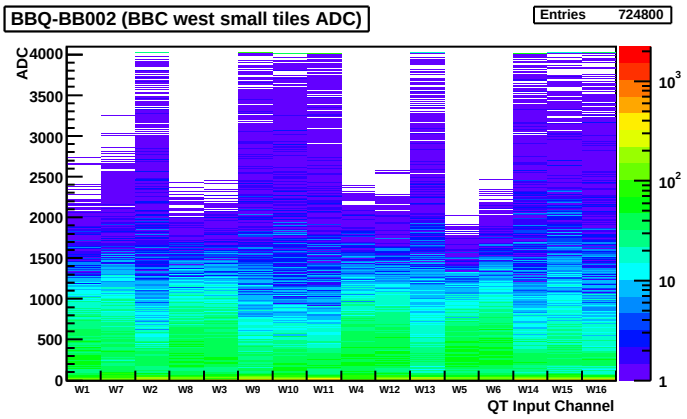

MIX-TF101
Entries 271800
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

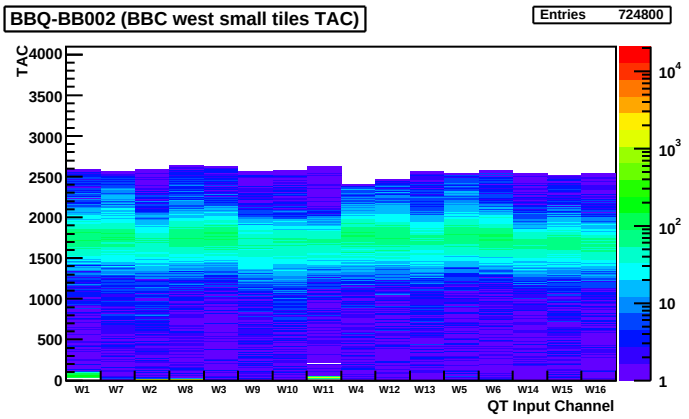

L1-TF201
Entries 45300
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

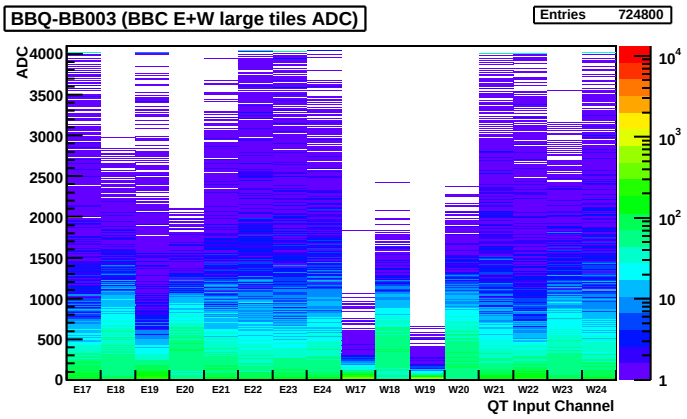

L1-TF201
Entries 271800
Threshold bits
1
0
15118
15679
15506
15549
15484
15121
30182
29621
29794
29751
29816
30179
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

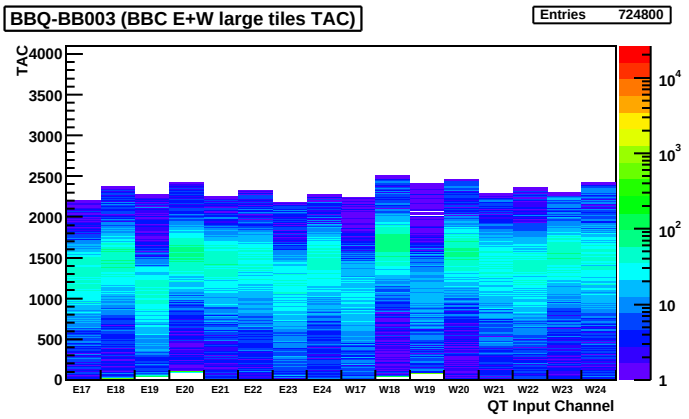

BBQ-BB001 (BBC east small tiles ADC)
Entries 724800
ADC
QT Input Channel

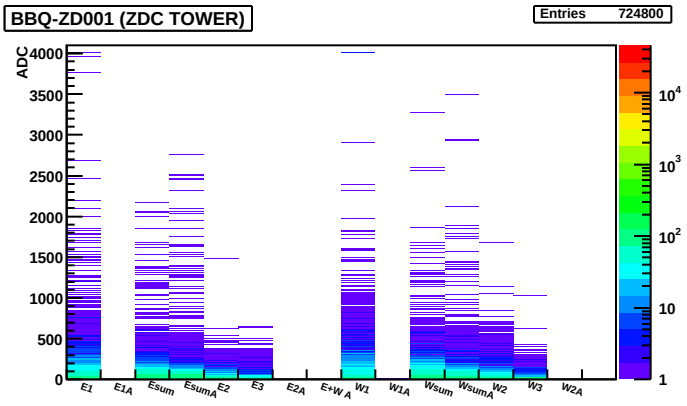

BBQ-BB001 (BBC east small tiles TAC)
Entries 724800
TAC
QT Input Channel

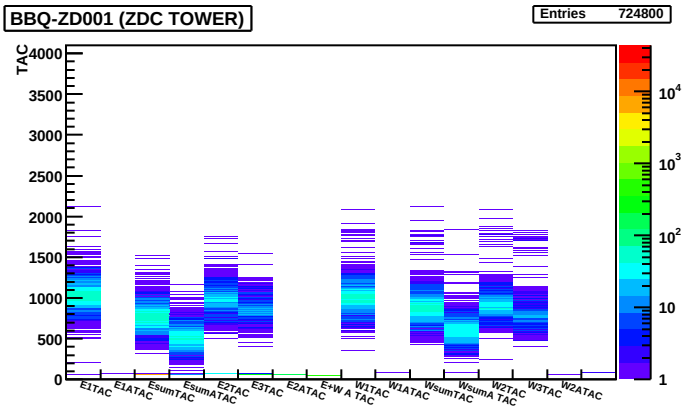

BBQ-BB002 (BBC west small tiles ADC)
Entries 724800
ADC
QT Input Channel

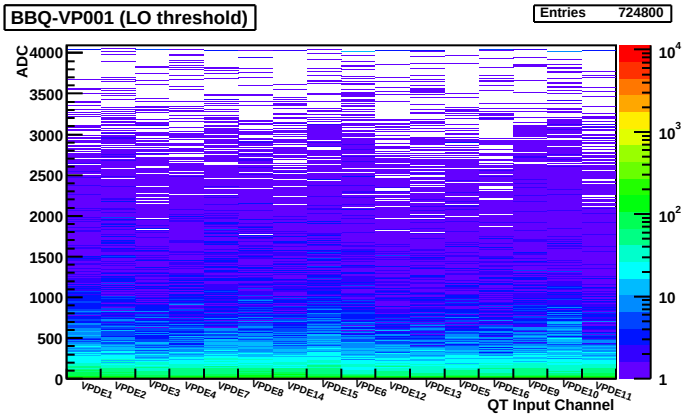

BBQ-BB002 (BBC west small tiles TAC)
Entries 724800
TAC
QT Input Channel

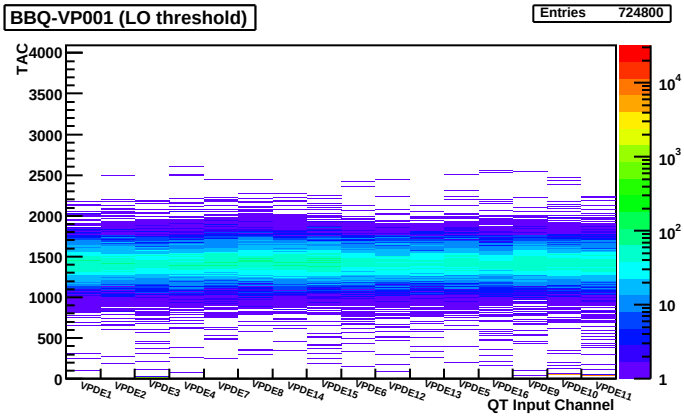

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 724800
ADC
QT Input Channel

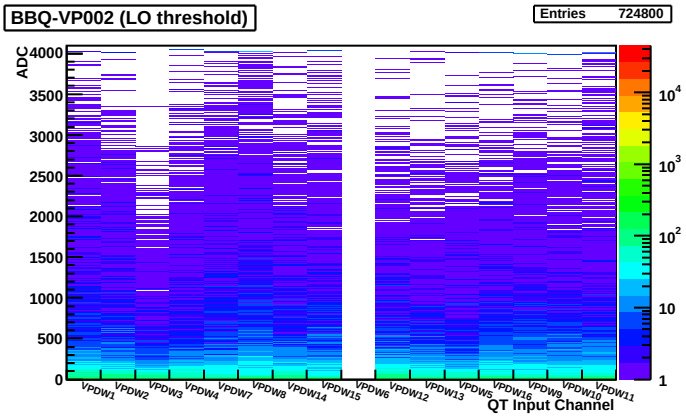

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 724800
TAC
QT Input Channel

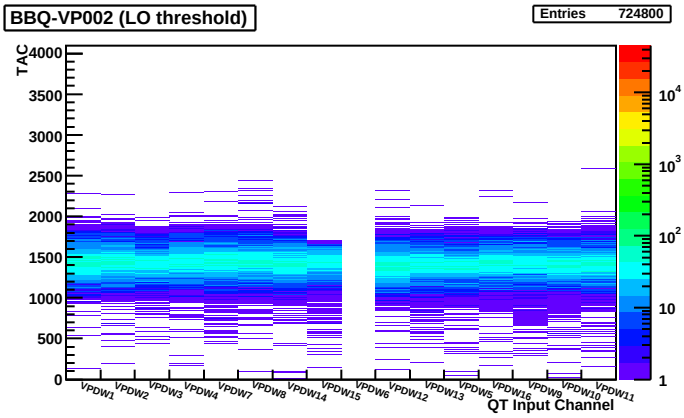

BBQ-ZD001 (ZDC TOWER)
Entries 724800
ADC

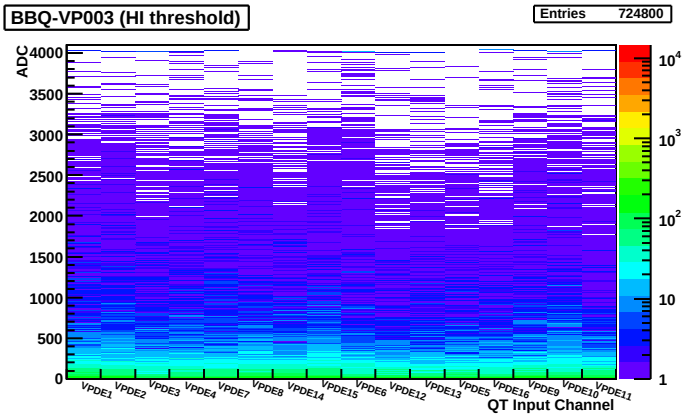

BBQ-ZD001 (ZDC TOWER)
Entries 724800
TAC

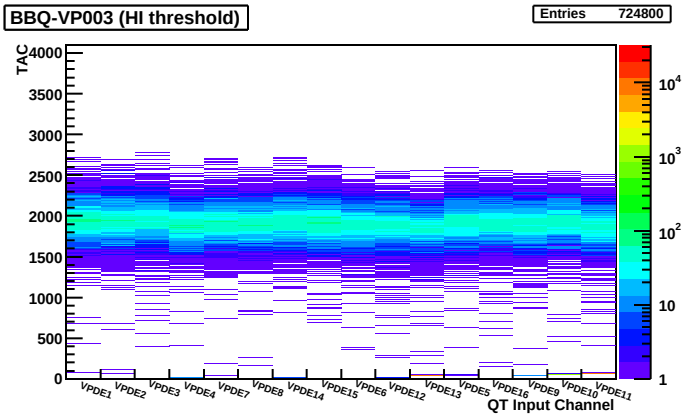

BBQ-VP001 (LO threshold)
Entries 724800
ADC
QT Input Channel

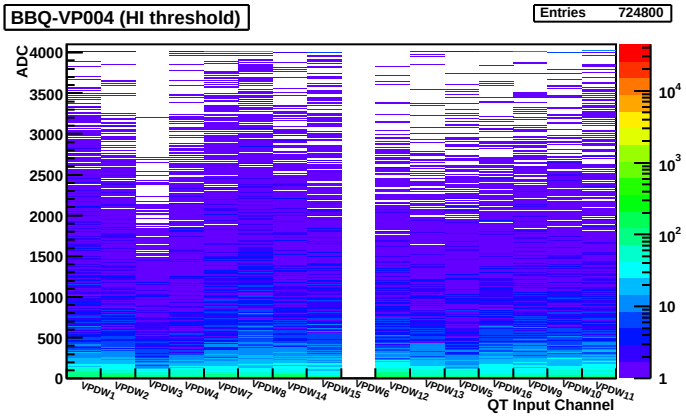

BBQ-VP001 (LO threshold)
Entries 724800
TAC
QT Input Channel

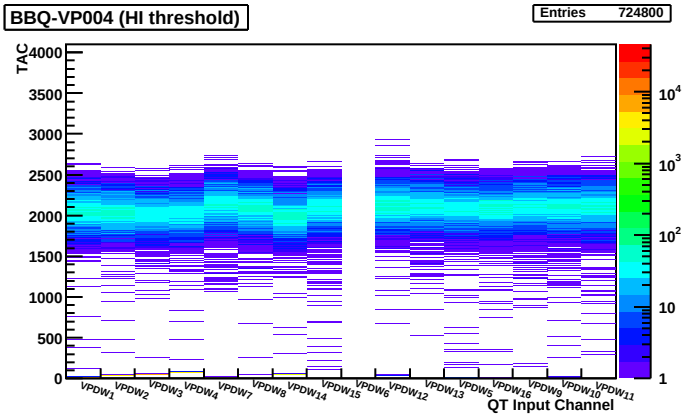

BBQ-VP002 (LO threshold)
Entries 724800
ADC
QT Input Channel

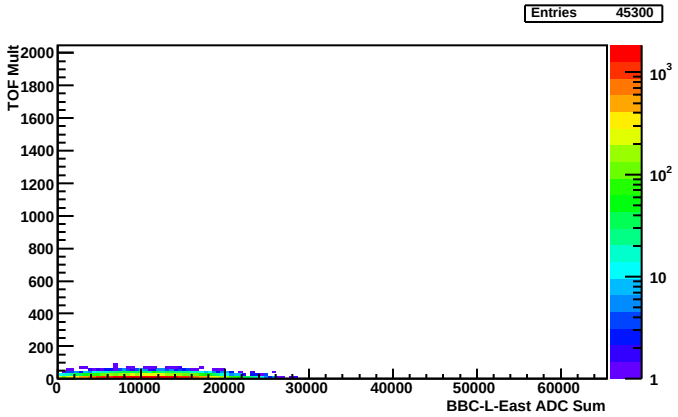

BBQ-VP002 (LO threshold)
Entries 724800
TAC
QT Input Channel

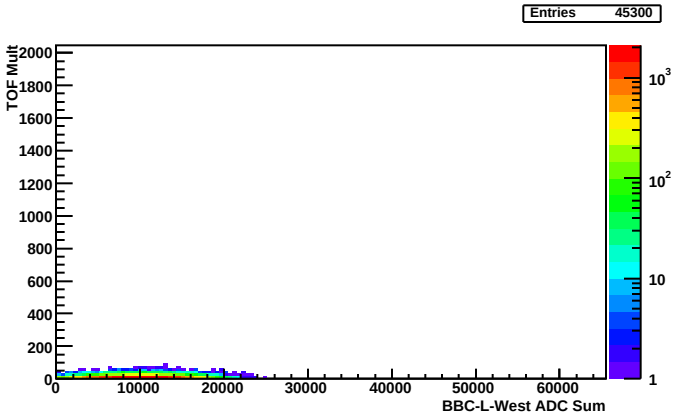

BBQ-VP003 (HI threshold)
Entries 724800
ADC
QT Input Channel

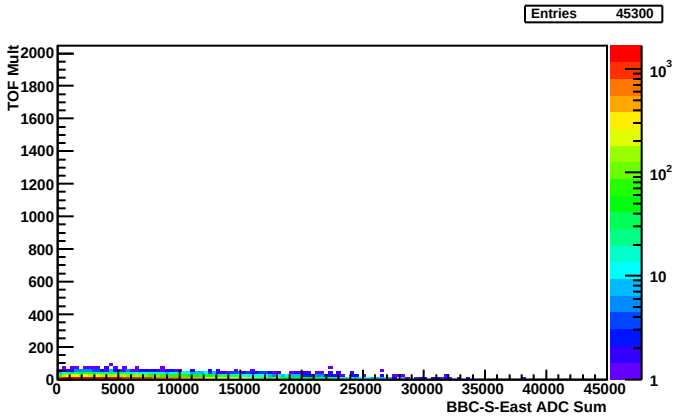

BBQ-VP003 (HI threshold)
Entries 724800
TAC
QT Input Channel

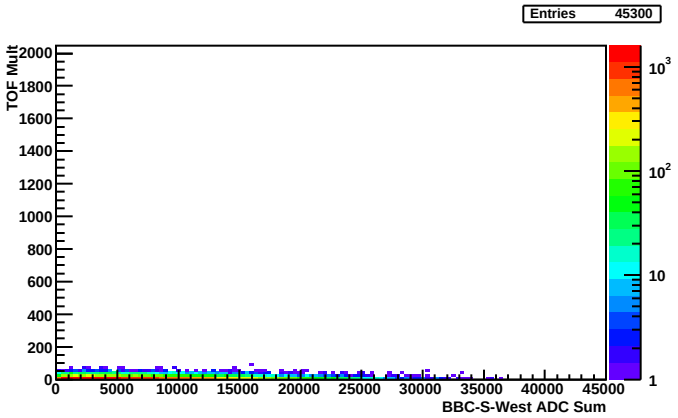

BBQ-VP004 (HI threshold)
Entries 724800
ADC
QT Input Channel

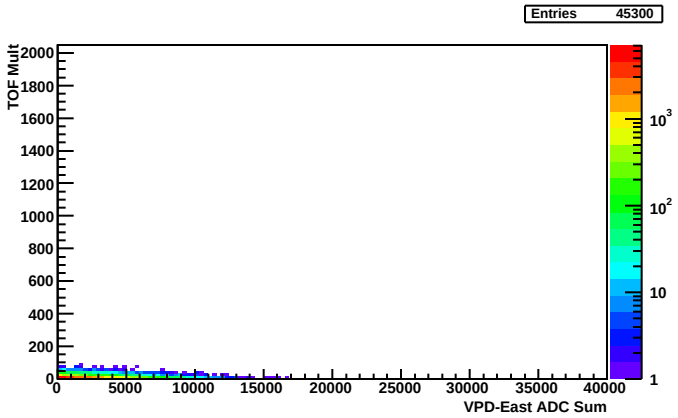

BBQ-VP004 (HI threshold)
Entries 724800
TAC
QT Input Channel

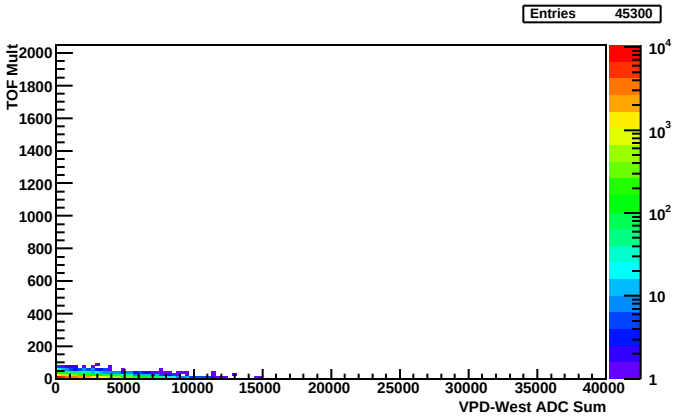

Entries 45300
TOF Mult
BBC-L-East ADC Sum

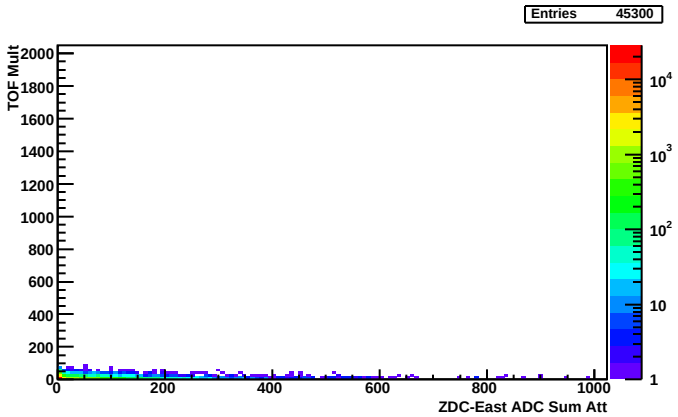

Entries 45300
TOF Mult
BBC-L-West ADC Sum

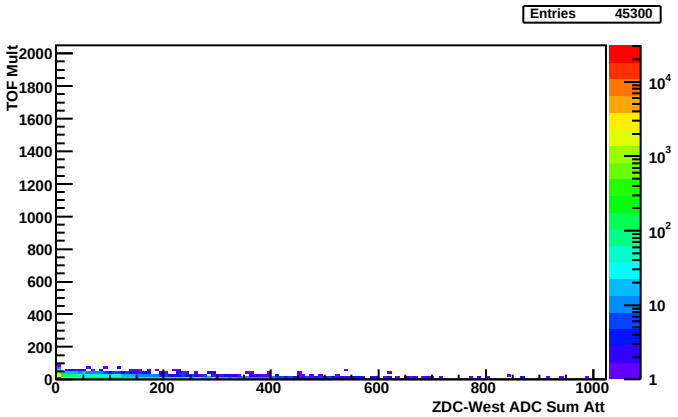

Entries 45300
TOF Mult
BBC-S-East ADC Sum

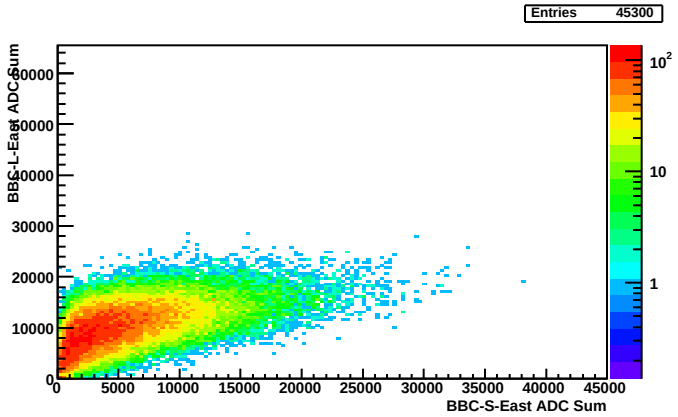

Entries 45300
TOF Mult
BBC-S-West ADC Sum

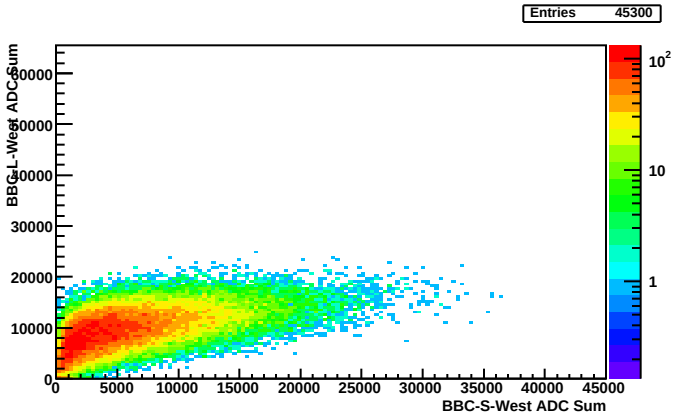

Entries 45300
TOF Mult
VPD-East ADC Sum

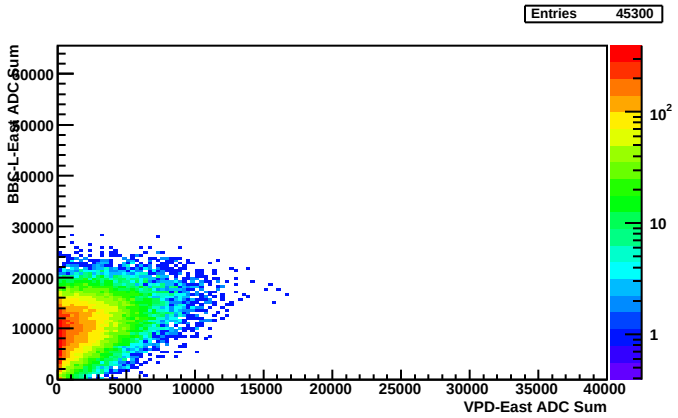

Entries 45300
TOF Mult
VPD-West ADC Sum

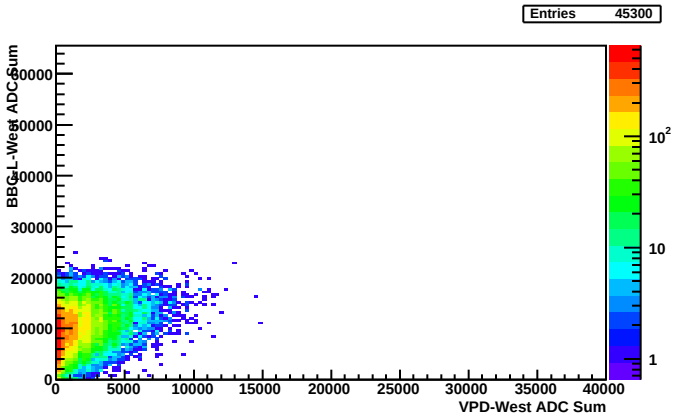

Entries 45300
TOF Mult
ZDC-East ADC Sum Att

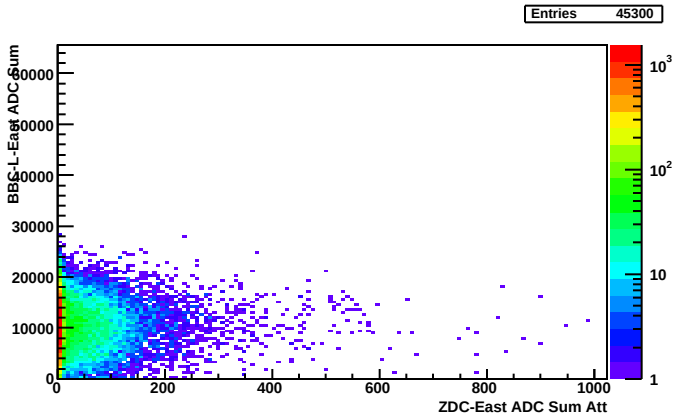

Entries 45300
TOF Mult
ZDC-West ADC Sum Att

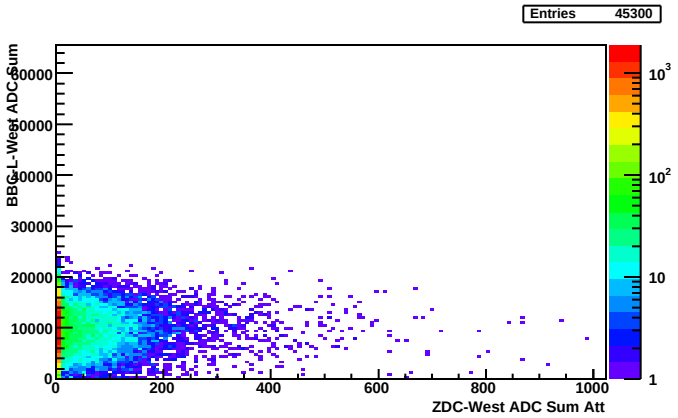

Entries 45300
BBC-L-East ADC Sum
BBC-S-East ADC Sum

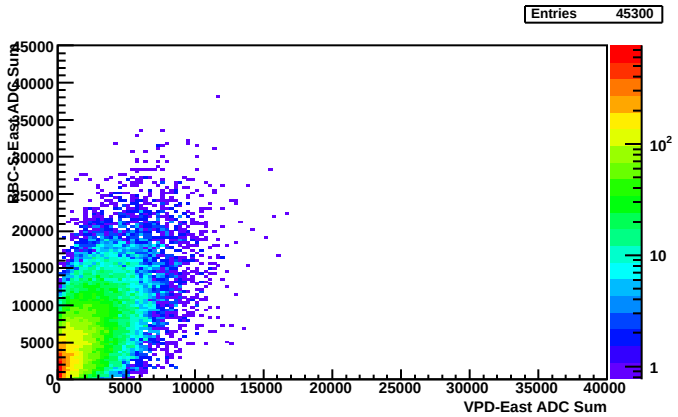

Entries 45300
BBC-L-West ADC Sum
BBC-S-West ADC Sum

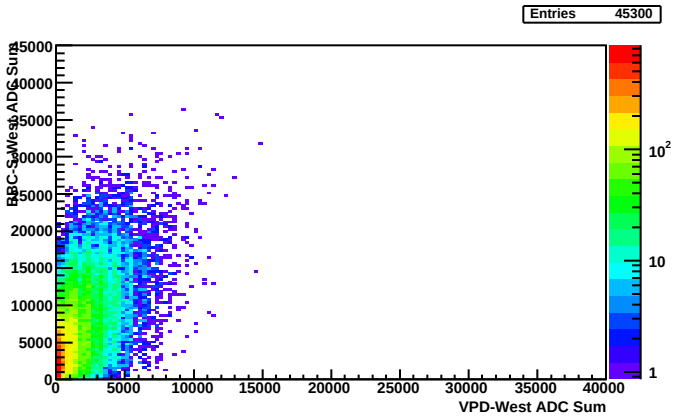

Entries 45300
BBC-L-East ADC Sum
VPD-East ADC Sum

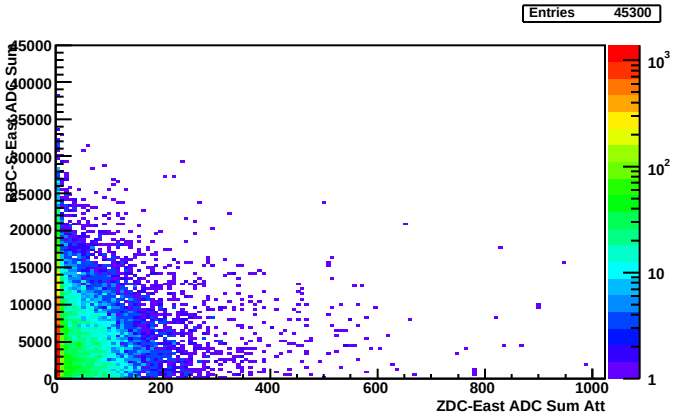

Entries 45300
BBC-L-West ADC Sum
VPD-West ADC Sum

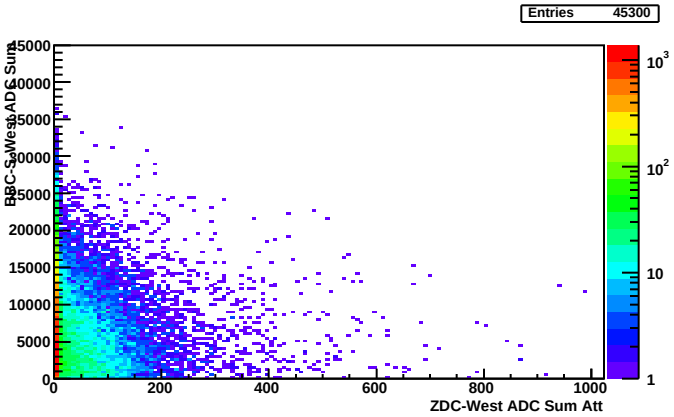

Entries 45300
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

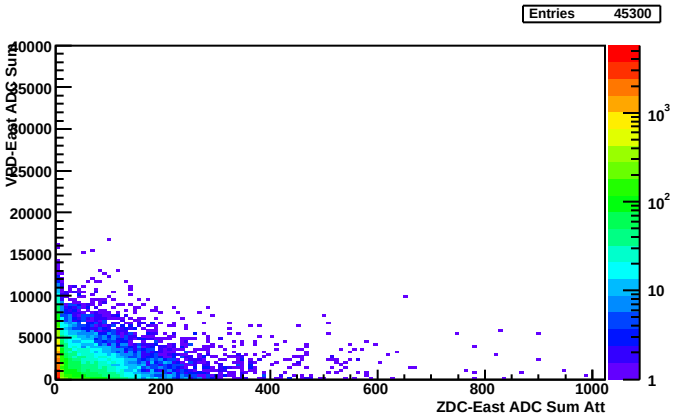

Entries 45300
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

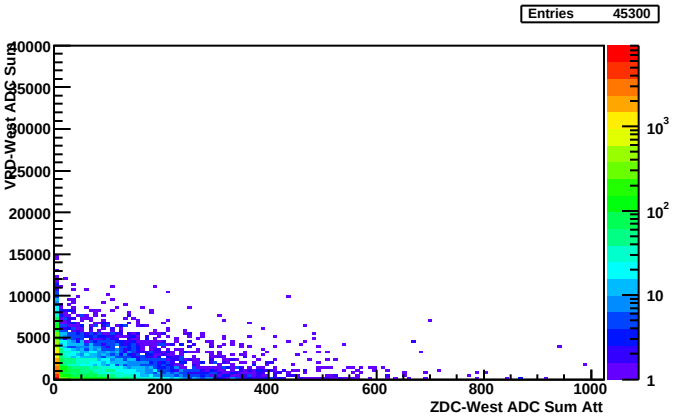

Entries 45300
BBC-S-East ADC Sum
VPD-East ADC Sum

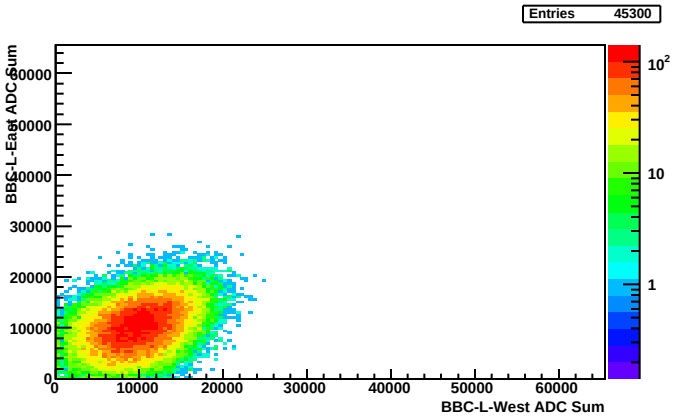

Entries 45300
BBC-S-West ADC Sum
VPD-West ADC Sum

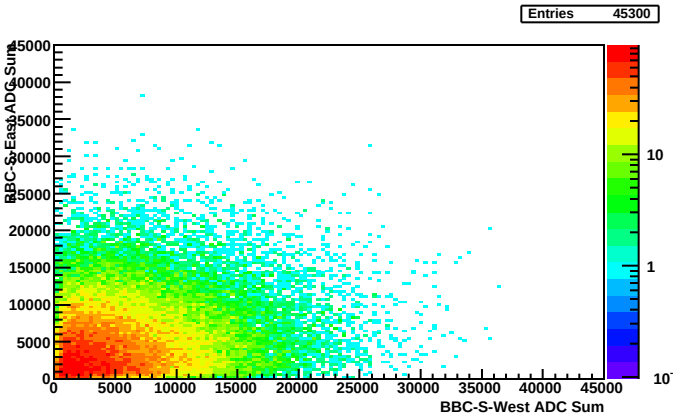

Entries 45300
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

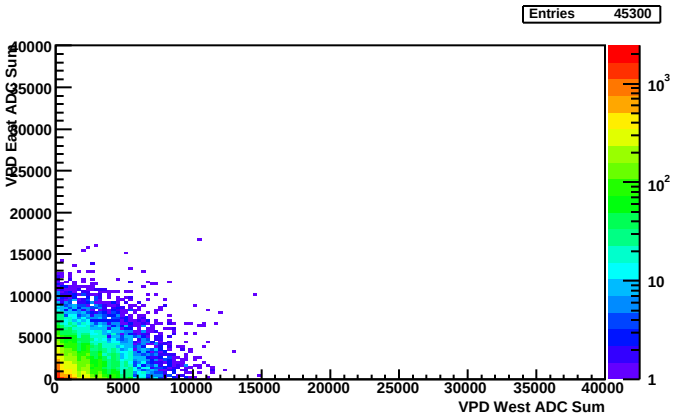

Entries 45300
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

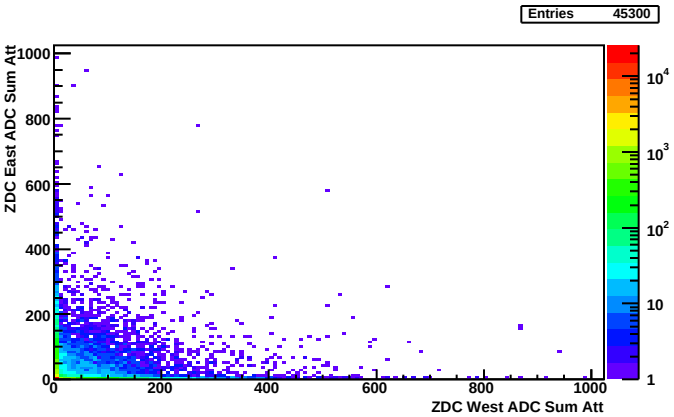

Entries 45300
VPD-East ADC Sum
ZDC-East ADC Sum Att

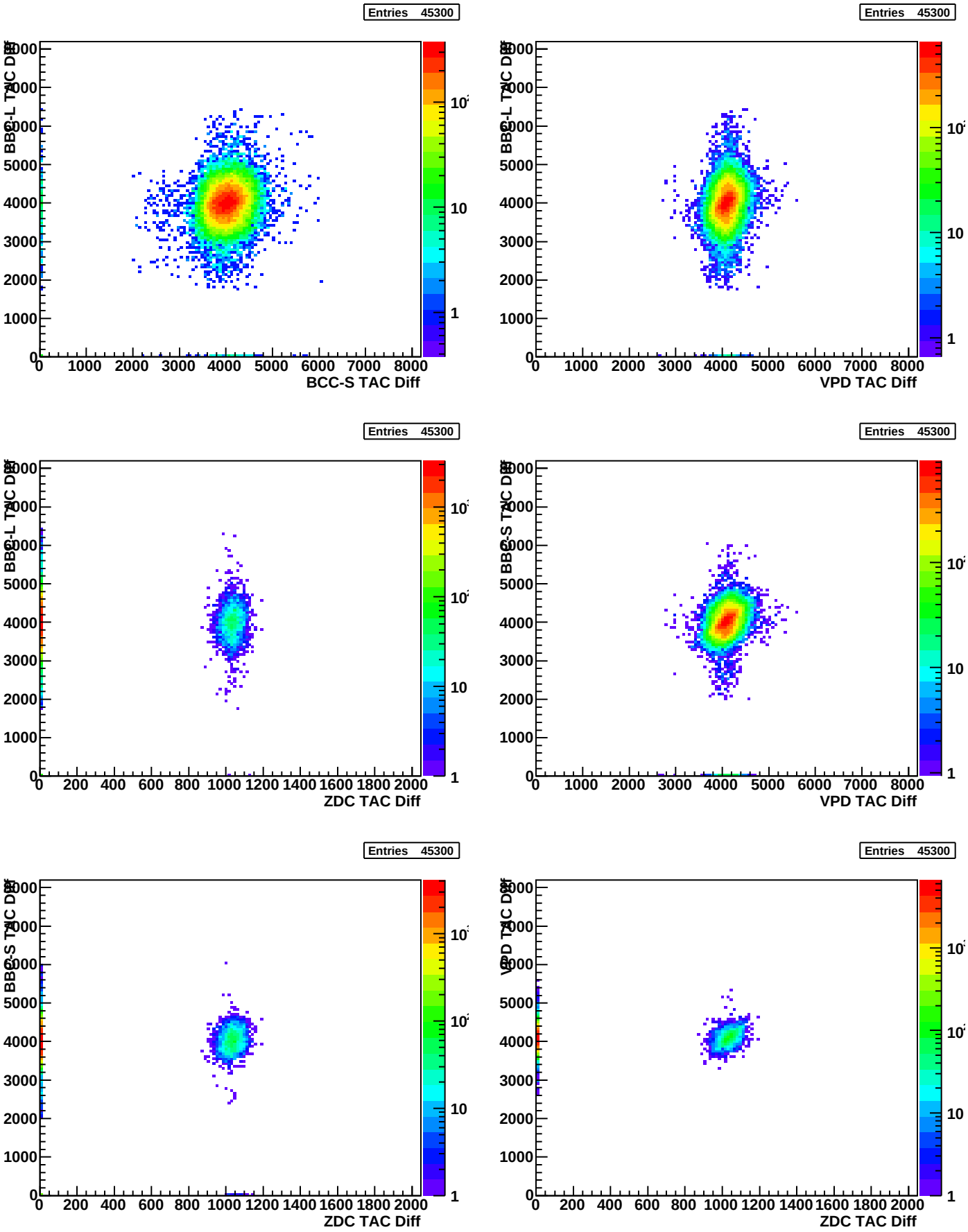

Entries 45300
VPD-West ADC Sum
ZDC-West ADC Sum Att

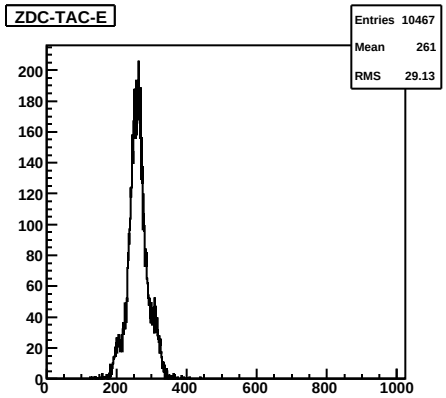

Entries 45300
BBC-L-East ADC Sum
BBC-L-West ADC Sum

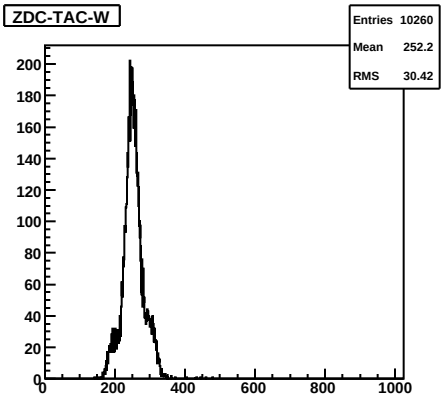

Entries 45300
BBC-S-East ADC Sum
BBC-S-West ADC Sum

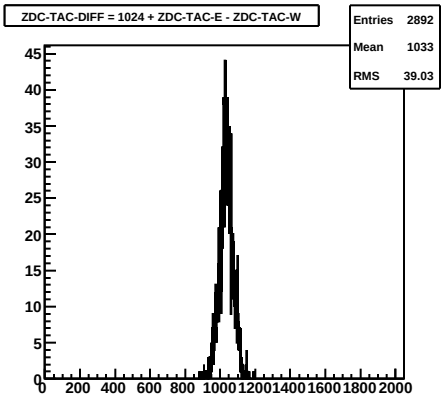

Entries 45300
VPD East ADC Sum
VPD West ADC Sum

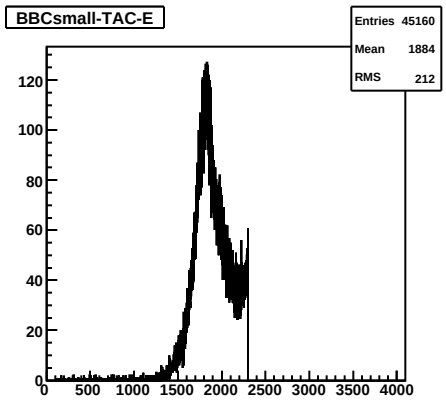

Entries 45300
ZDC East ADC Sum Att
ZDC West ADC Sum Att

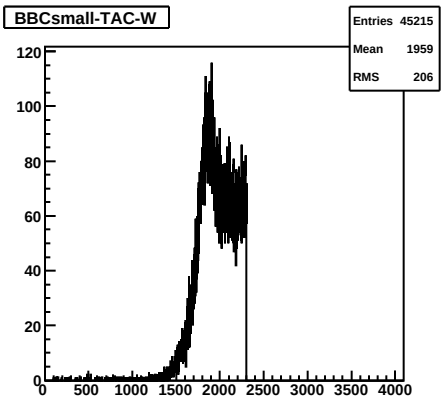

Entries 45300
BBC-L TAC Diff
BCC-S TAC Diff
Entries 45300
BBC-L TAC Diff
VPD TAC Diff
Entries 45300
BBC-L TAC Diff
ZDC TAC Diff
Entries 45300
BBC-S TAC Diff
VPD TAC Diff
Entries 45300
BBC-S TAC Diff
ZDC TAC Diff
Entries 45300
VPD TAC Diff
ZDC TAC Diff

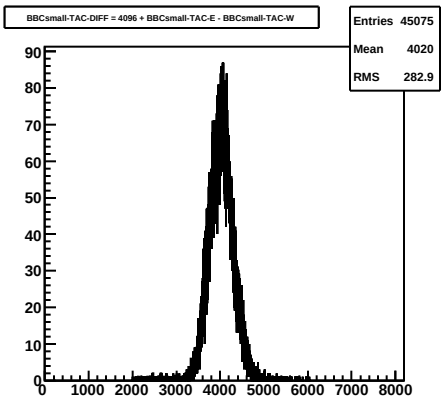

ZDC-TAC-E
Entries 10467
Mean 261
RMS 29.13

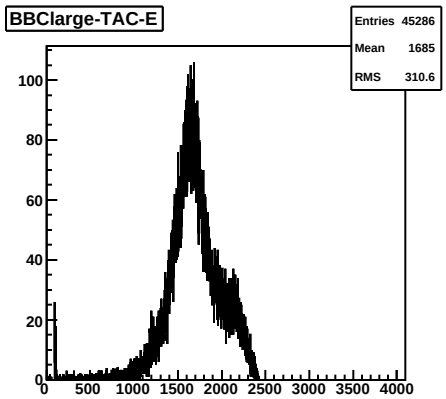

ZDC-TAC-W
Entries 10260
Mean 252.2
RMS 30.42

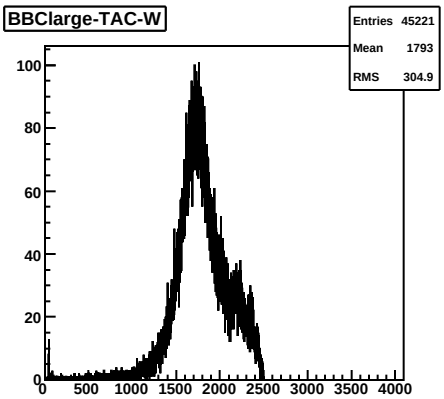

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2892
Mean 1033
RMS 39.03

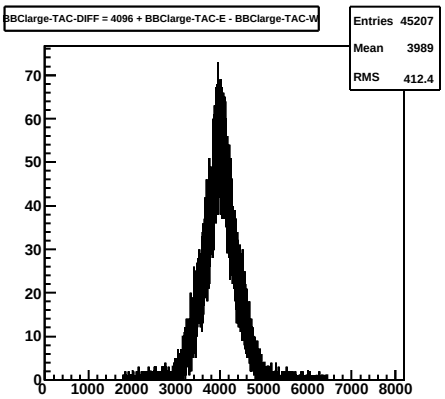

BBCsmall-TAC-E
Entries 45160
Mean 1884
RMS 212

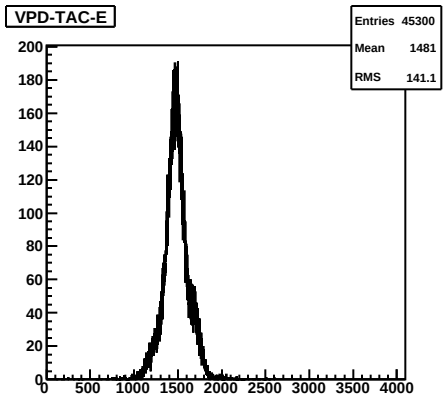

BBCsmall-TAC-W
Entries 45215
Mean 1959
RMS 206

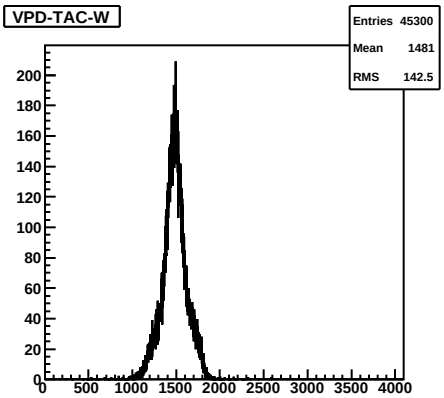

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 45075
Mean 4020
RMS 282.9

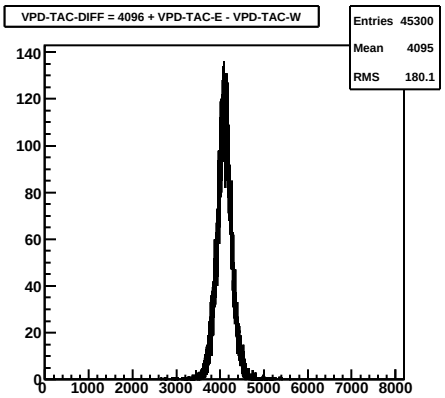

BBClarge-TAC-E
Entries 45286
Mean 1685
RMS 310.6

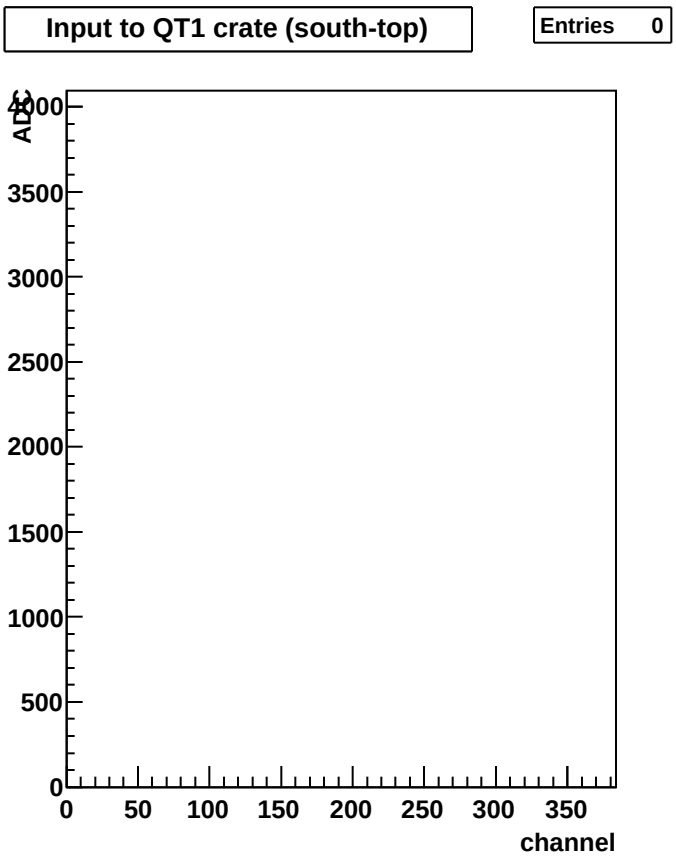

BBClarge-TAC-W
Entries 45221
Mean 1793
RMS 304.9

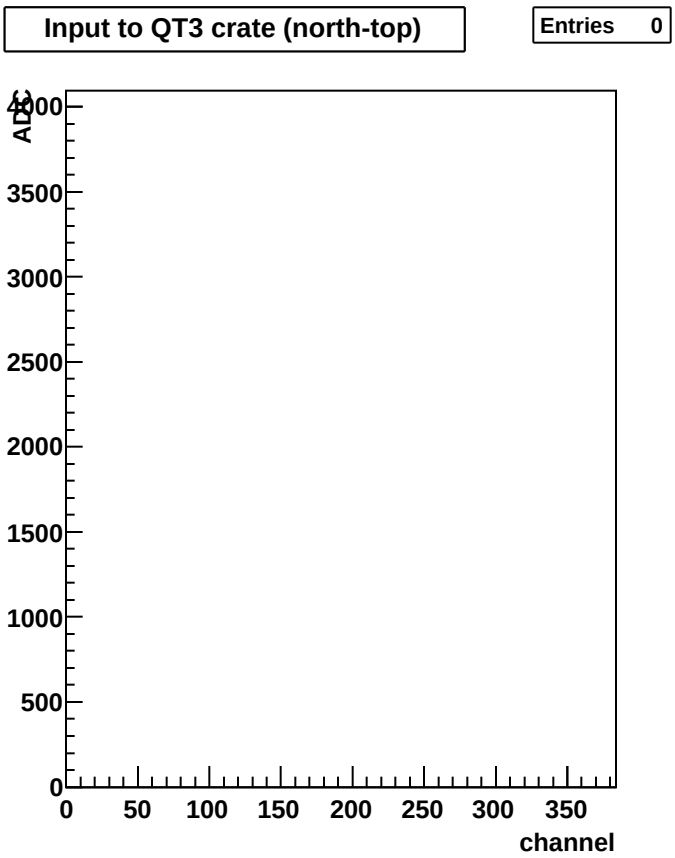

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 45207
Mean 3989
RMS 412.4

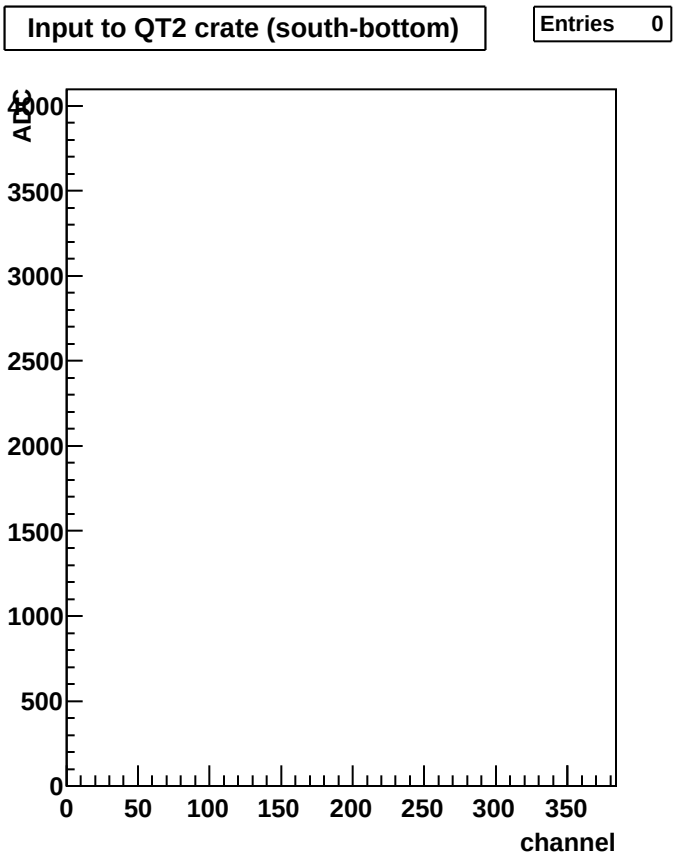

VPD-TAC-E
Entries 45300
Mean 1481
RMS 141.1

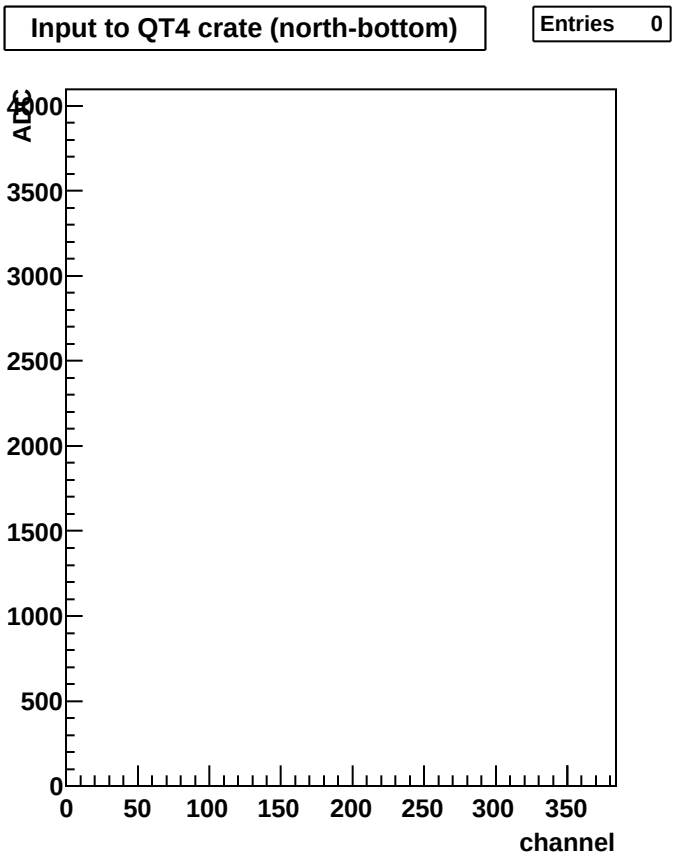

VPD-TAC-W
Entries 45300
Mean 1481
RMS 142.5

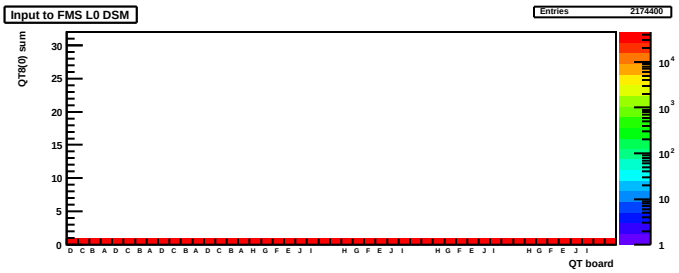

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 45300
Mean 4095
RMS 180.1

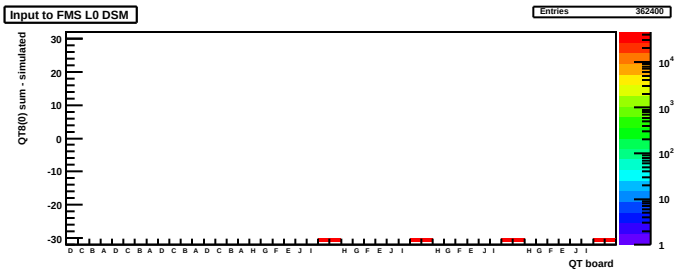

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

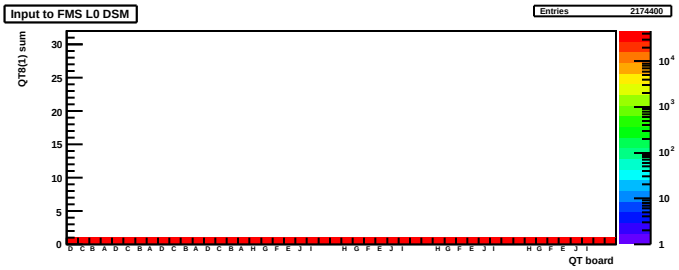

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

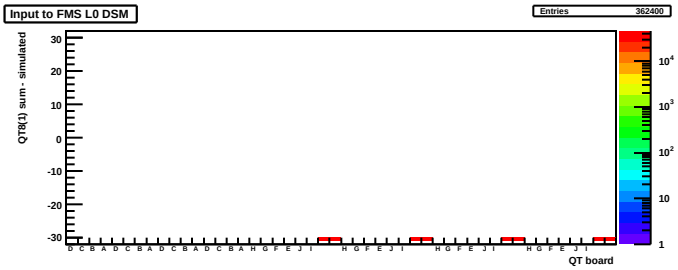

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

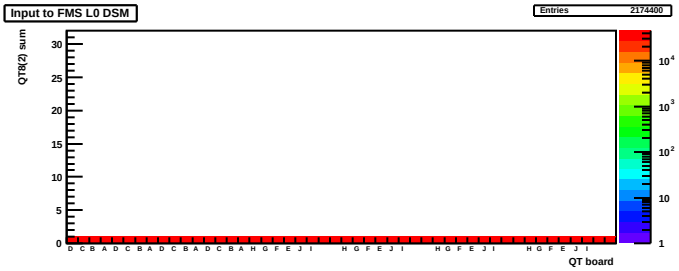

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

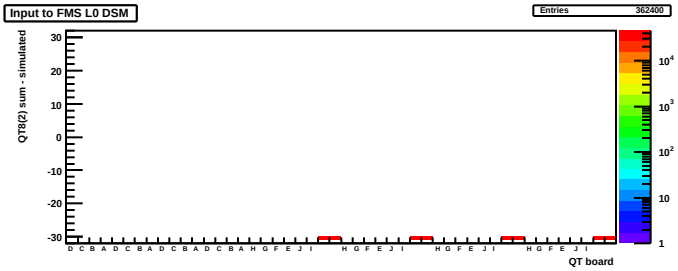

Input to FMS L0 DSM
Entries 2174400
QT8(0) sum
QT board

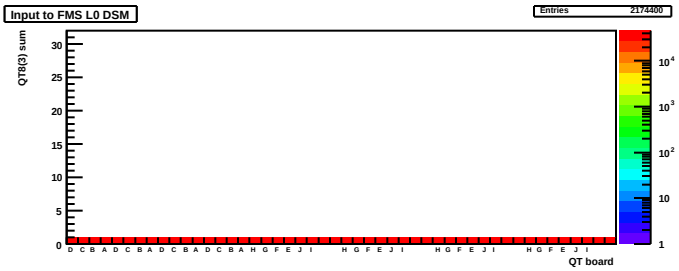

Input to FMS L0 DSM
Entries 362400
QT8(0) sum - simulated
QT board

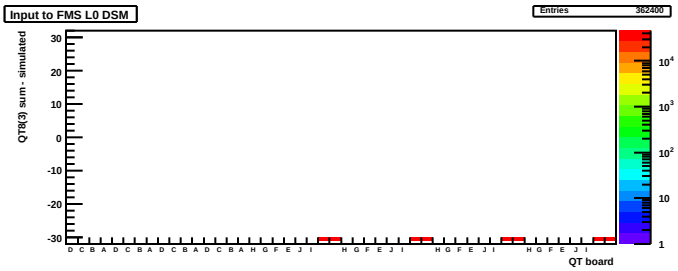

Input to FMS L0 DSM
Entries 2174400
QT8(1) sum
QT board

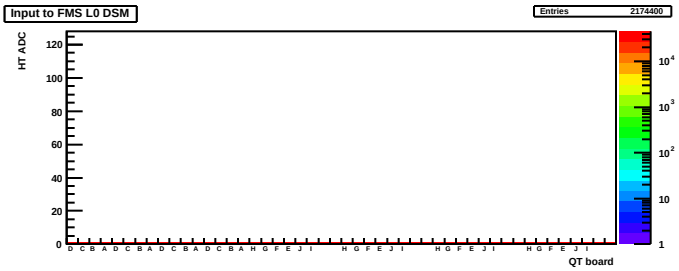

Input to FMS L0 DSM
Entries 362400
QT8(1) sum - simulated
QT board

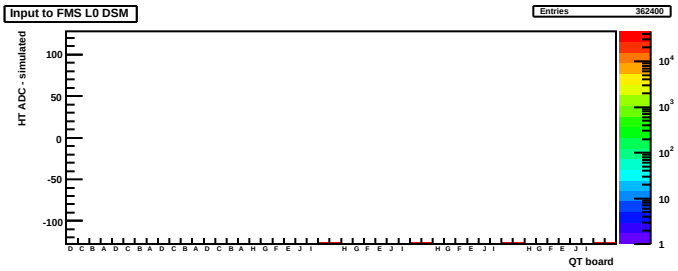

Input to FMS L0 DSM
Entries 2174400
QT8(2) sum
QT board

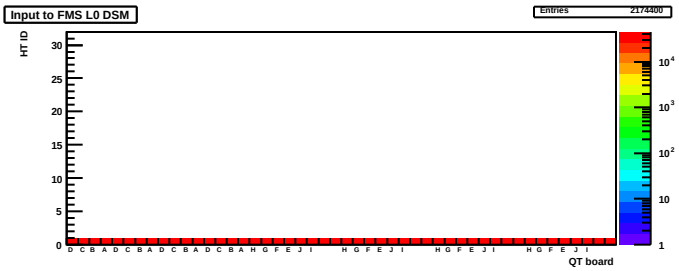

Input to FMS L0 DSM
Entries 362400
QT8(2) sum - simulated
QT board

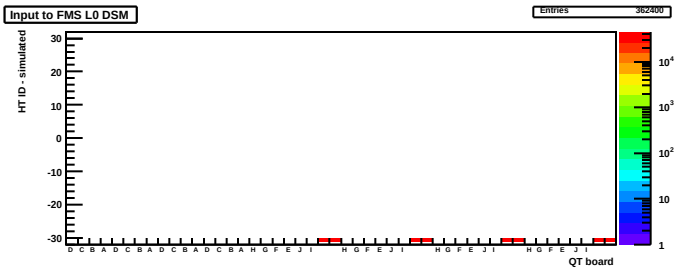

Input to FMS L0 DSM
Entries 2174400
QT8(3) sum
QT board

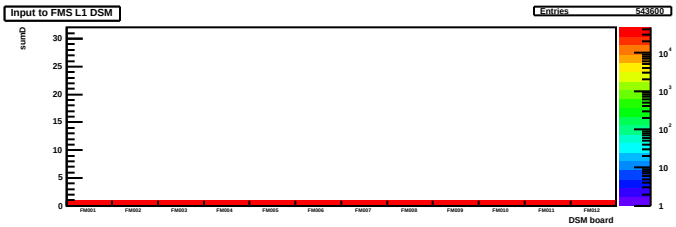

Input to FMS L0 DSM
Entries 362400
QT8(3) sum - simulated
QT board

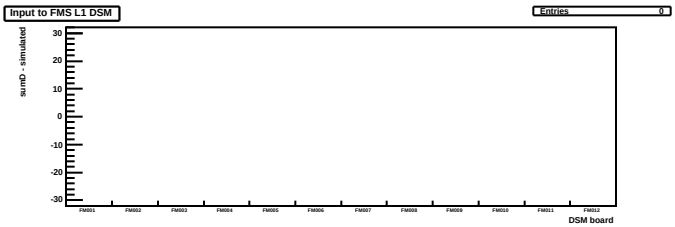

Input to FMS L0 DSM
Entries 2174400
HT ADC
QT board

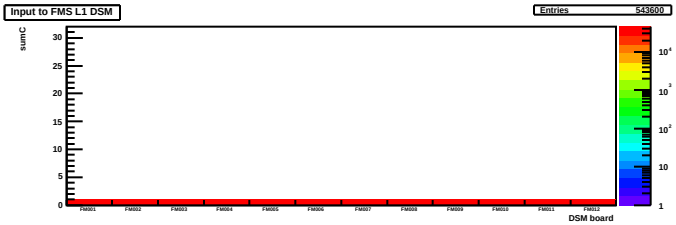

Input to FMS L0 DSM
Entries 362400
HT ADC - simulated
QT board

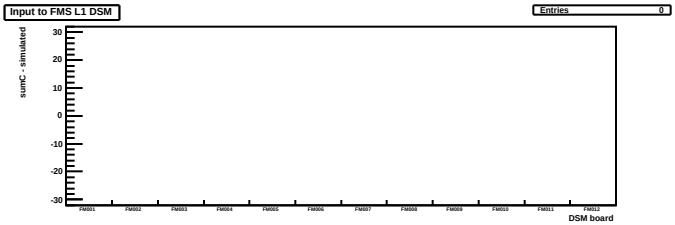

Input to FMS L0 DSM
Entries 2174400
HT ID
QT board

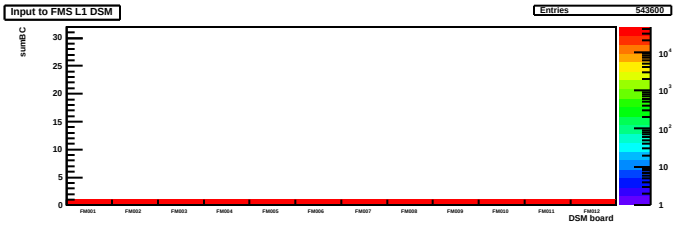

Input to FMS L0 DSM
Entries 362400
HT ID - simulated
QT board

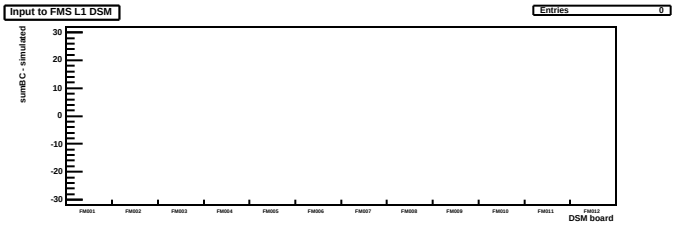

Input to FMS L1 DSM
Entries 543600
sumD
DSM board

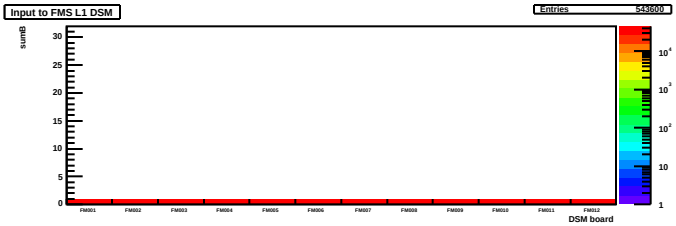

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

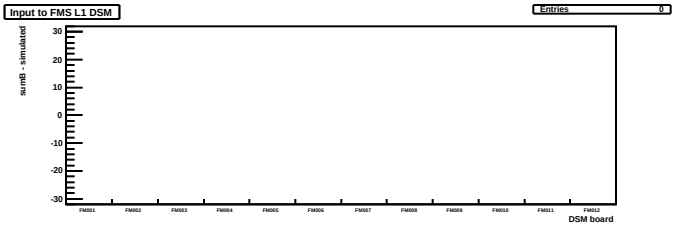

Input to FMS L1 DSM
Entries 543600
sumC
DSM board

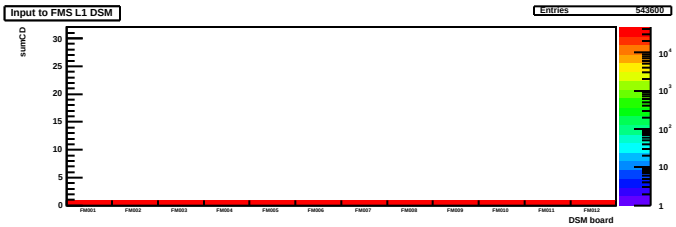

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

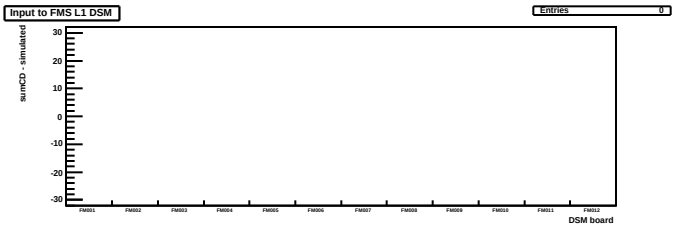

Input to FMS L1 DSM
Entries 543600
sumBC
DSM board

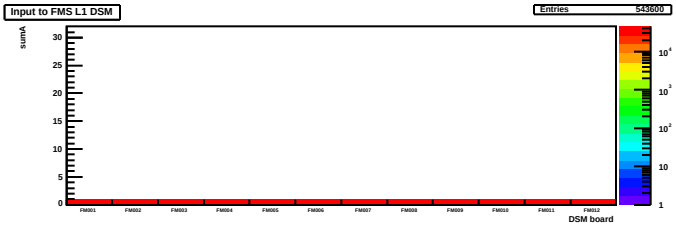

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

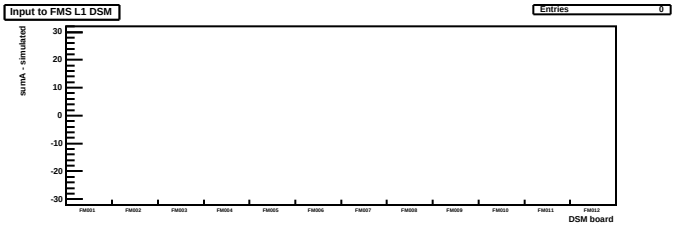

Input to FMS L1 DSM
Entries 543600
sumB
DSM board

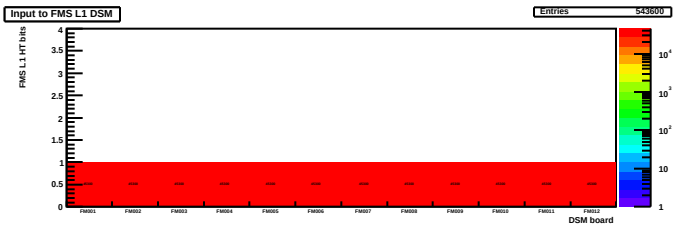

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

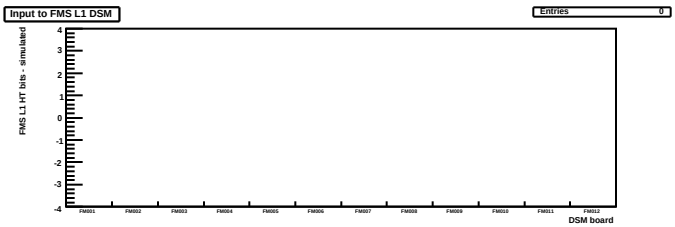

Input to FMS L1 DSM
Entries 543600
sumCD
DSM board

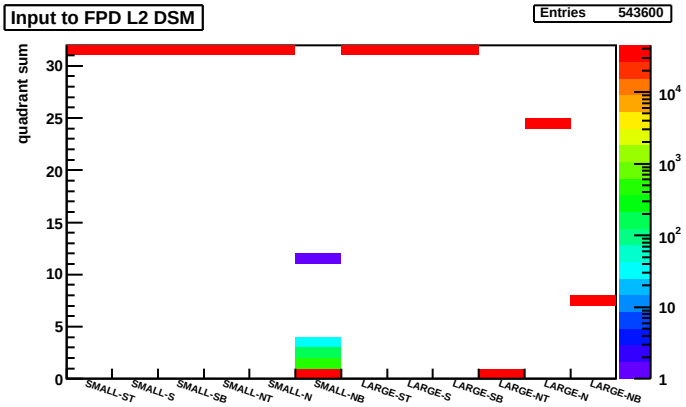

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

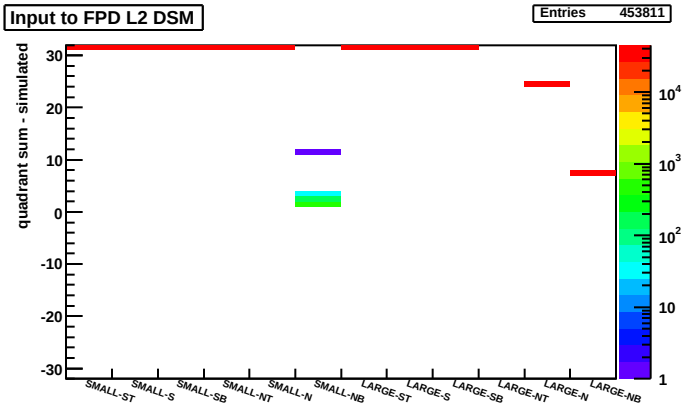

Input to FMS L1 DSM
Entries 543600
sumA
DSM board

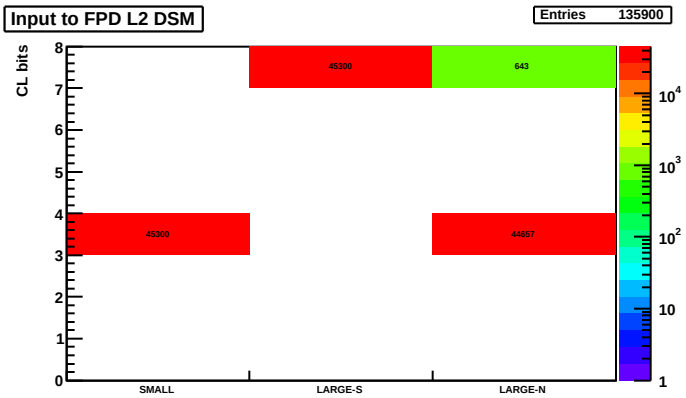

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

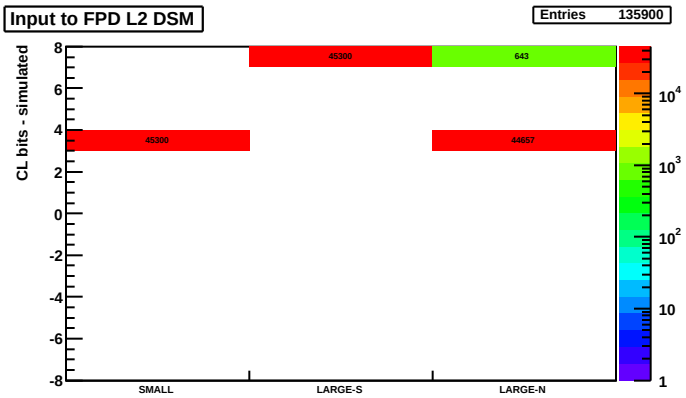

Input to FMS L1 DSM
Entries 543600
FMS L1 HT bits
DSM board

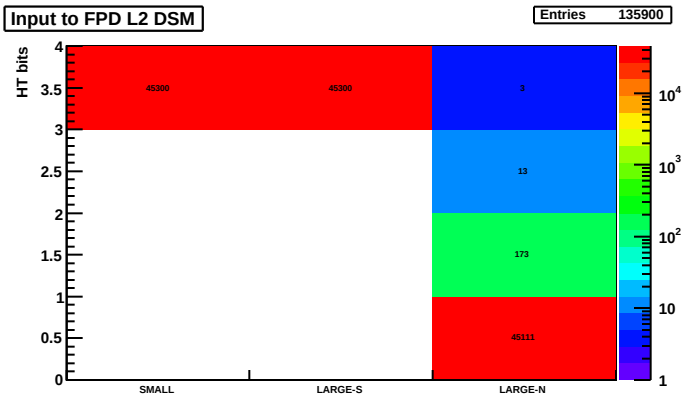

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

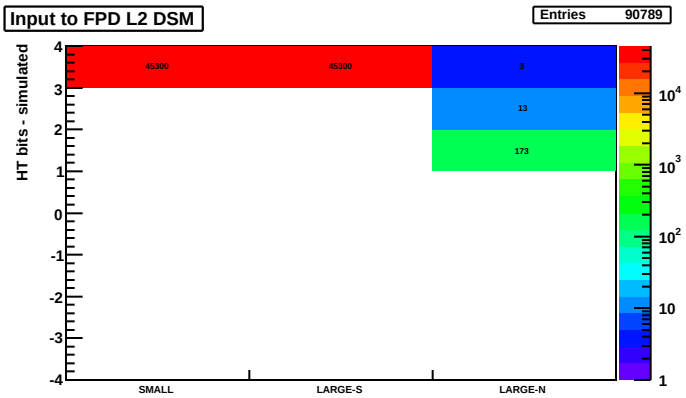

Input to FPD L2 DSM
Entries 543600
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

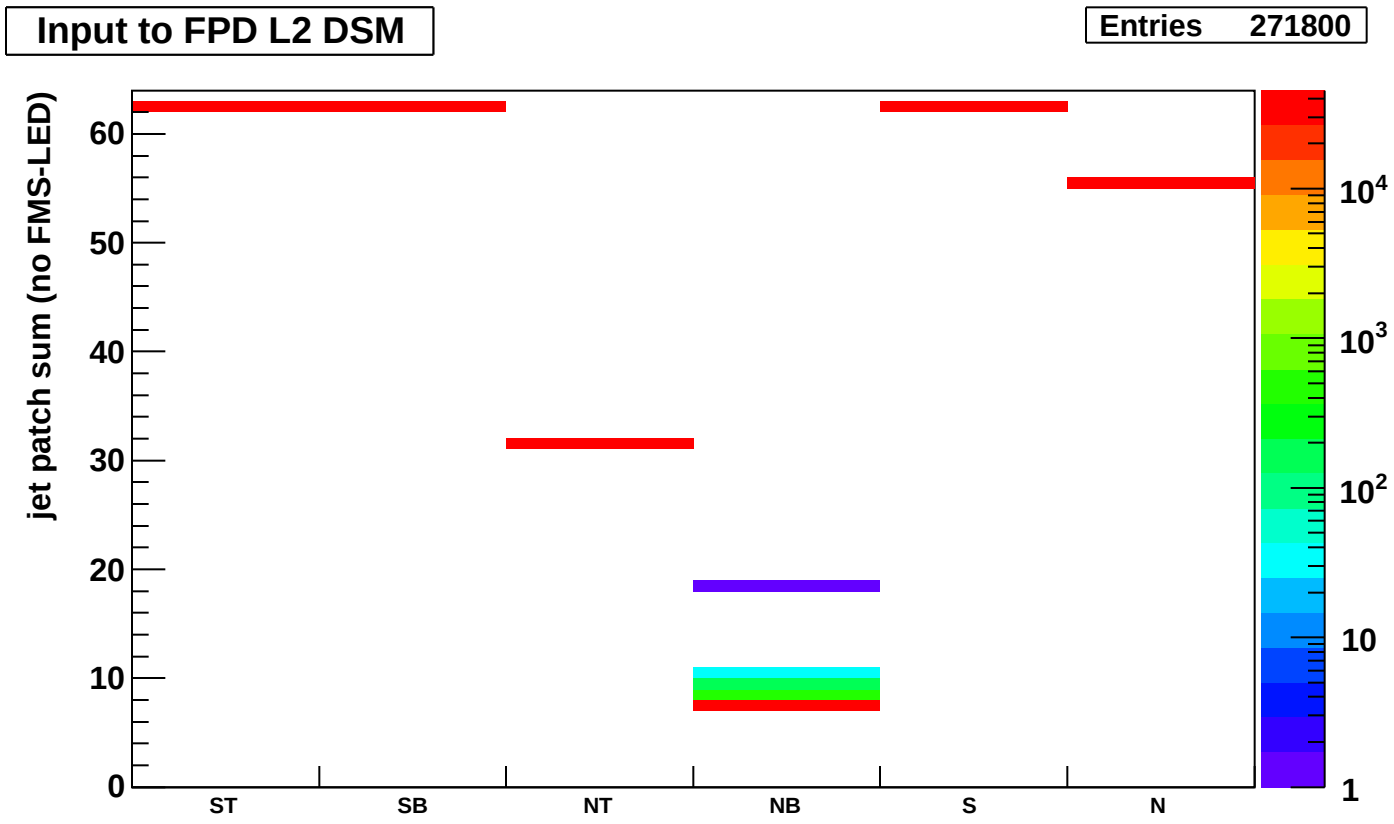

Input to FPD L2 DSM
Entries 453811
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

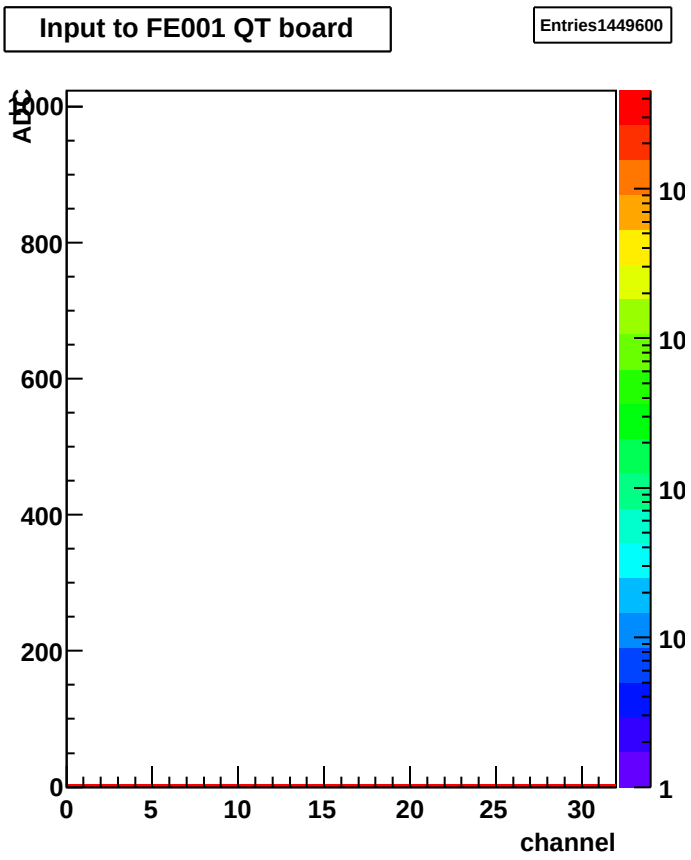

Input to FPD L2 DSM
Entries 135900
CL bits
45300
643
45300
44657
SMALL
LARGE-S
LARGE-N

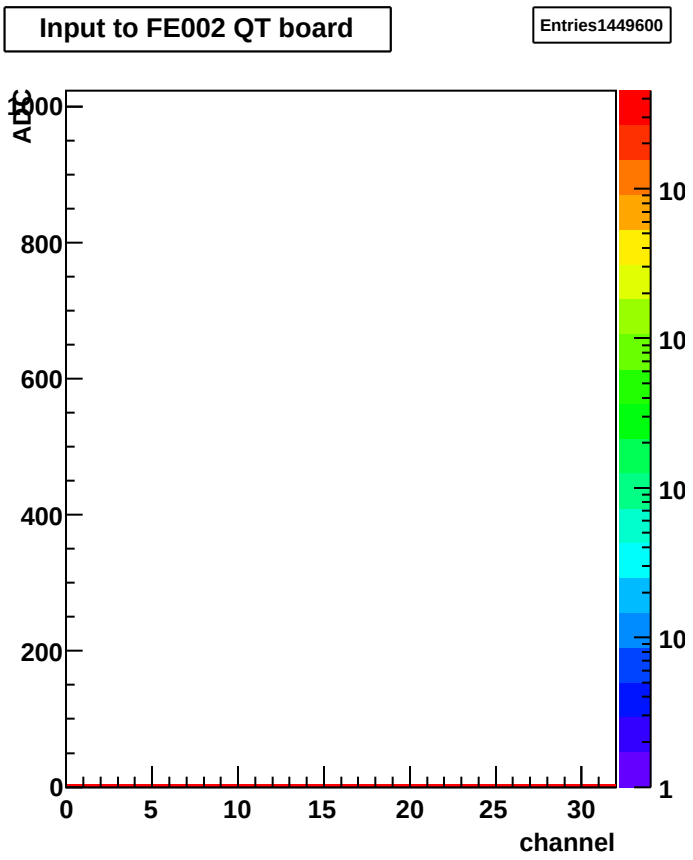

Input to FPD L2 DSM
Entries 135900
CL bits - simulated
45300
643
45300
44657
SMALL
LARGE-S
LARGE-N

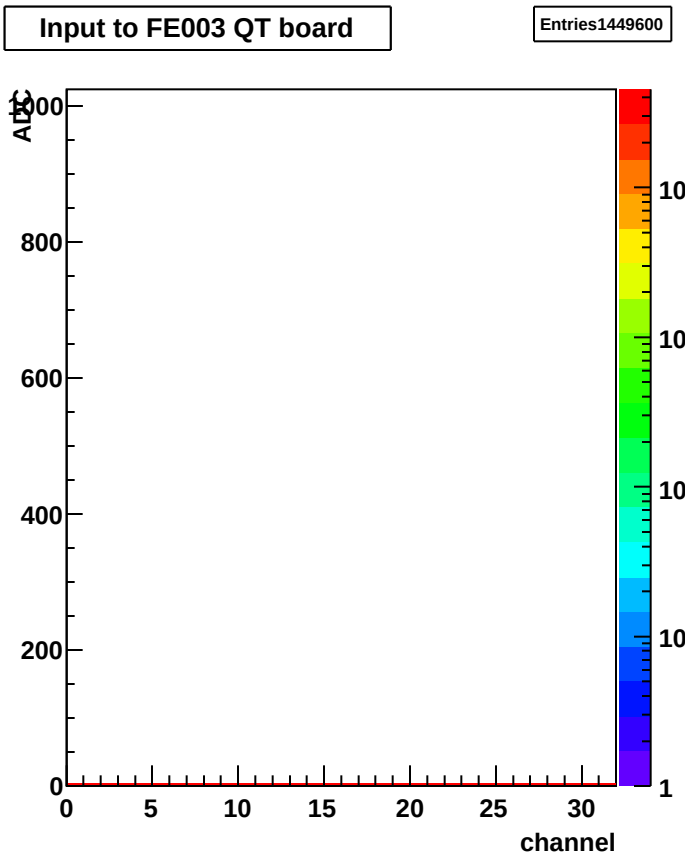

Input to FPD L2 DSM
Entries 135900
HT bits
45300
45300
3
13
173
45111
SMALL
LARGE-S
LARGE-N

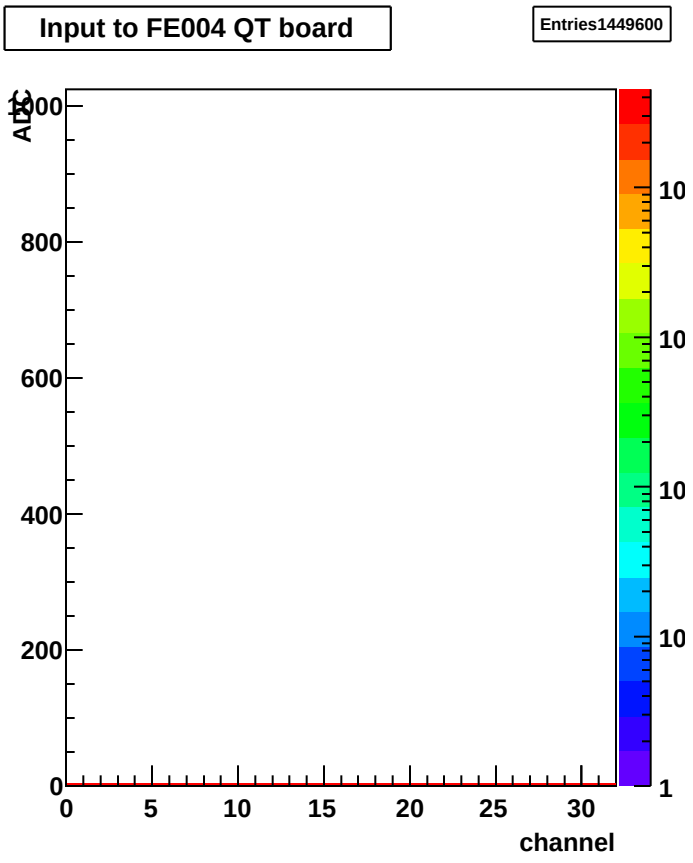

Input to FPD L2 DSM
Entries 90789
HT bits - simulated
45300
45300
3
13
173
SMALL
LARGE-S
LARGE-N

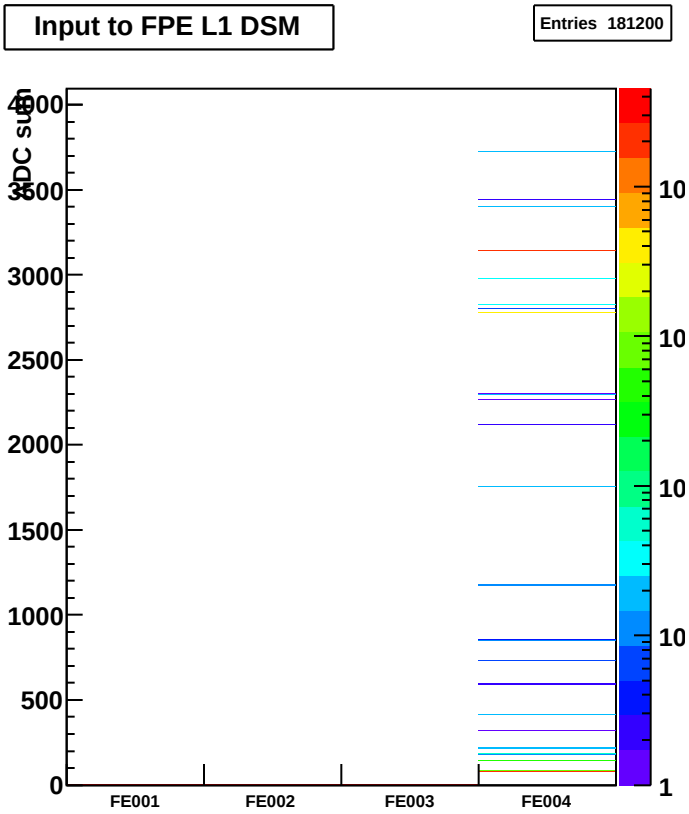

Input to FPD L2 DSM
Entries 271800
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

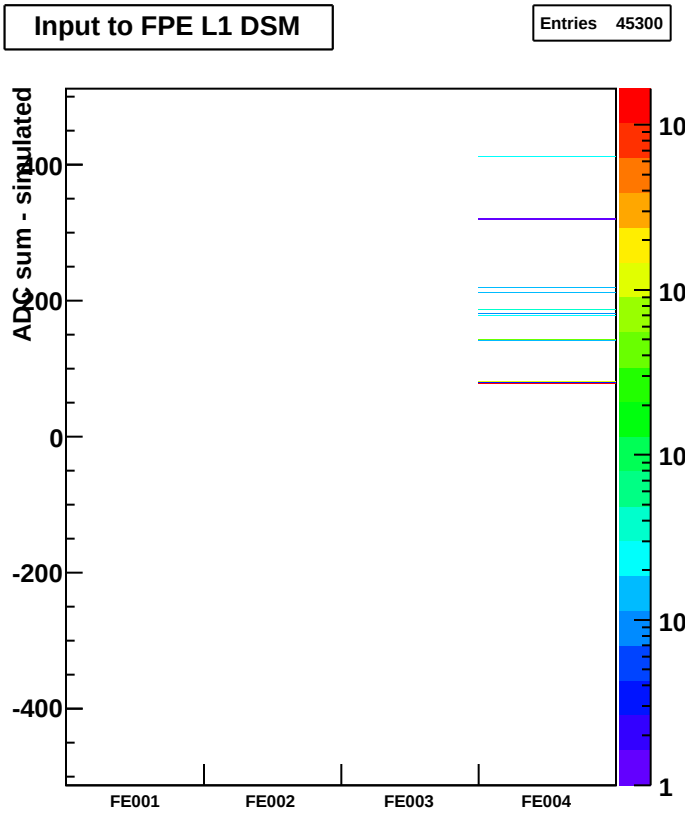

Input to FE001 QT board
Entries1449600
ADC
channel

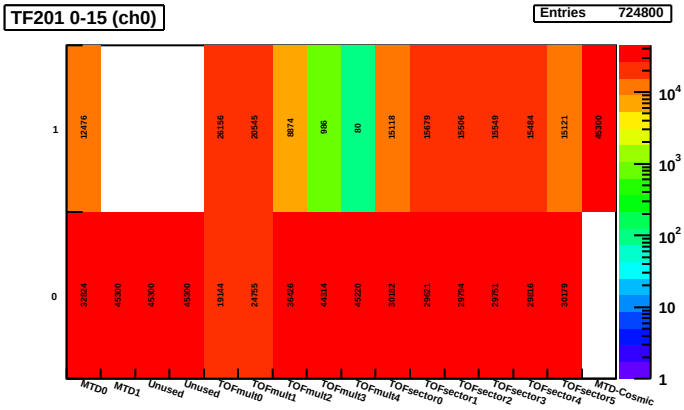

Input to FE002 QT board
Entries1449600
ADC
channel

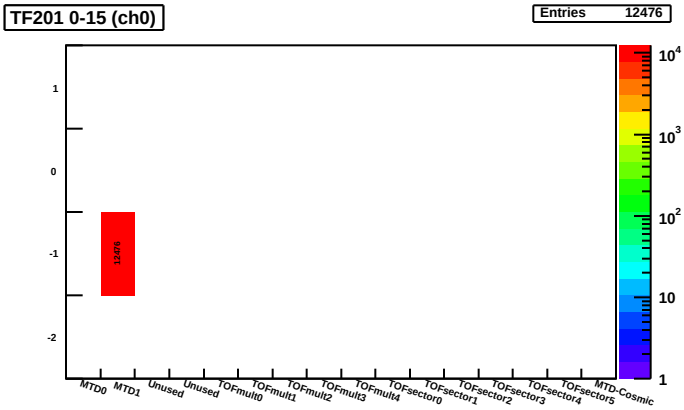

Input to FE003 QT board
Entries1449600
ADC
channel

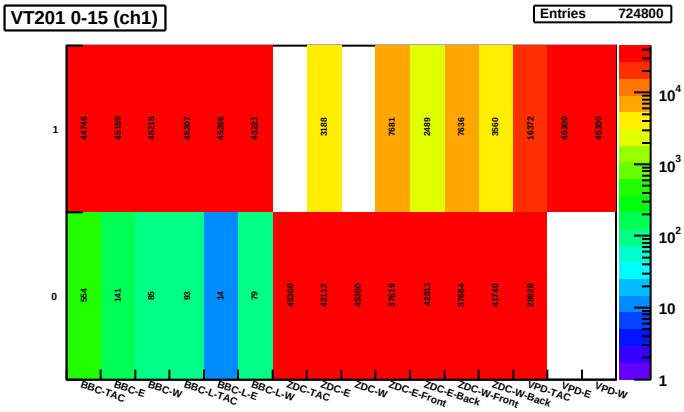

Input to FE004 QT board
Entries1449600
ADC
channel

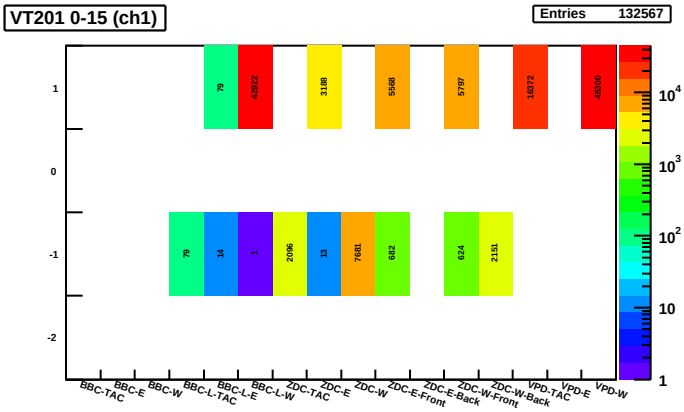

Input to FPE L1 DSM
Entries 181200
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

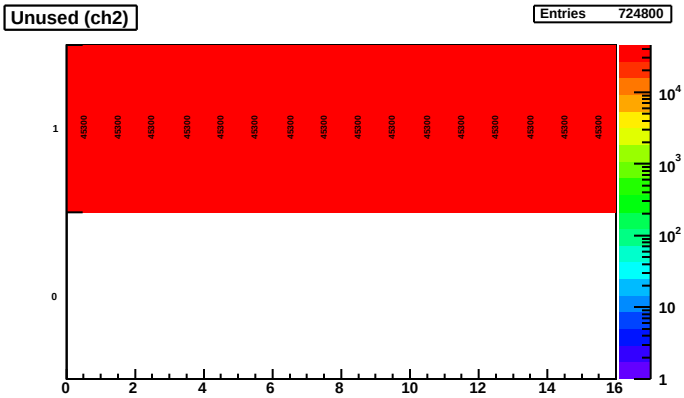

Input to FPE L1 DSM
Entries 45300
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

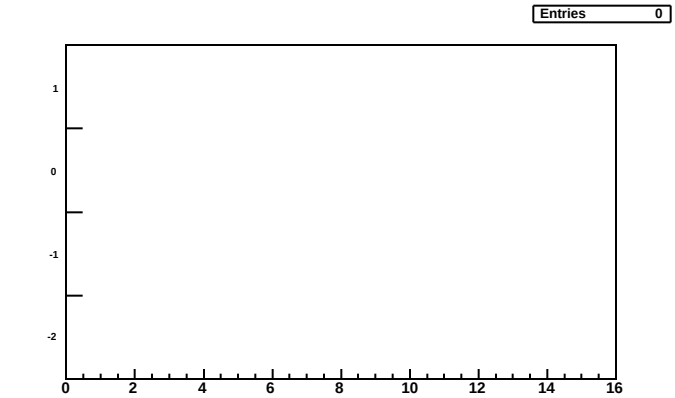

TF201 0-15 (ch0)
Entries 724800
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

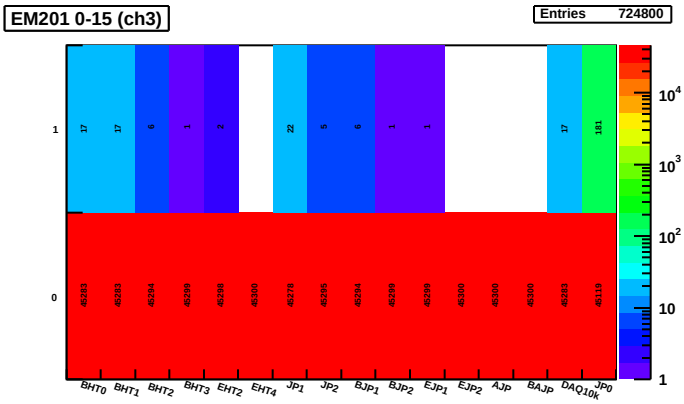

TF201 0-15 (ch0)
Entries 12476
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

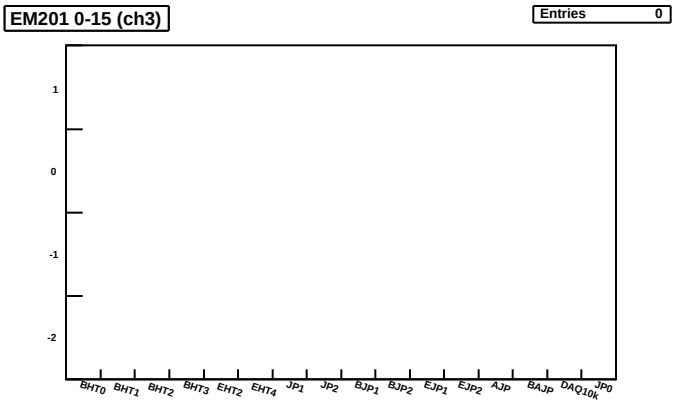

VT201 0-15 (ch1)
Entries 724800
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 132567
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

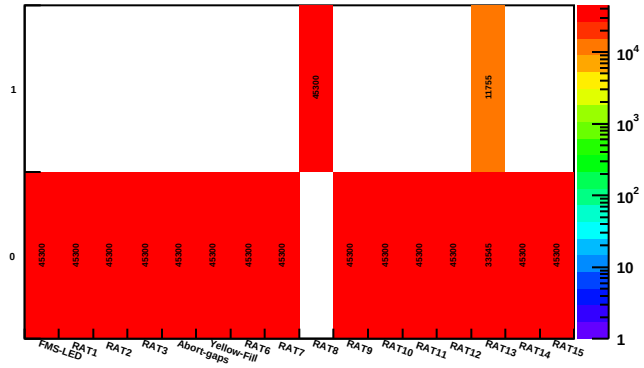

Unused (ch2)
Entries 724800

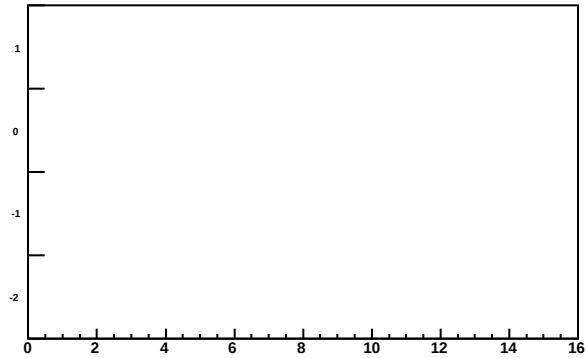

Entries 0


EM201 0-15 (ch3)
Entries 724800
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

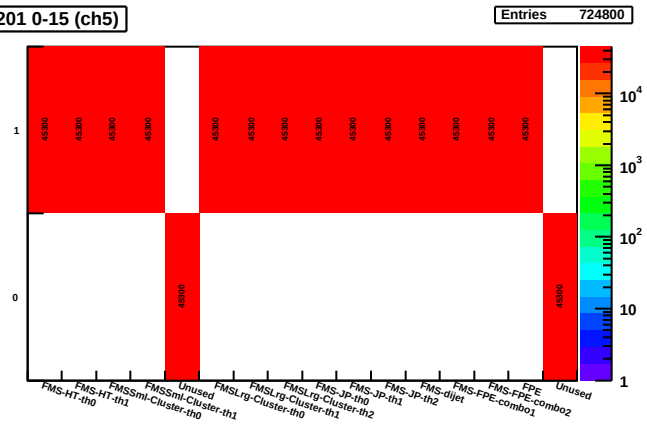

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

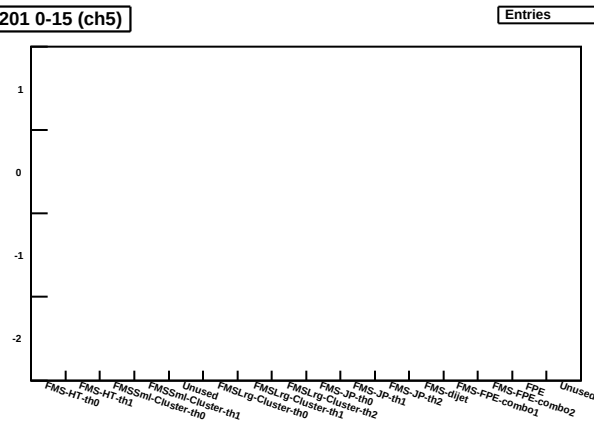




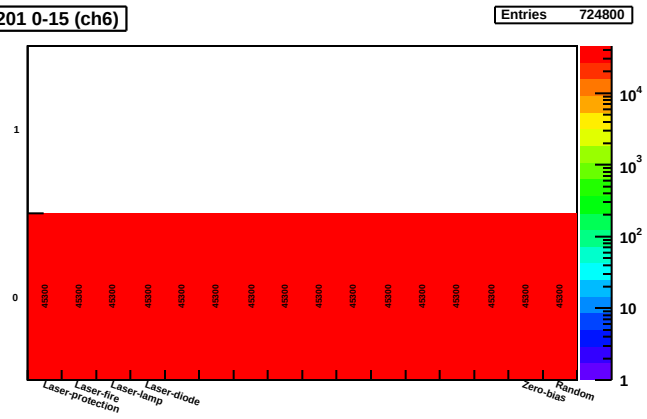
FP201 0-15 (ch5)

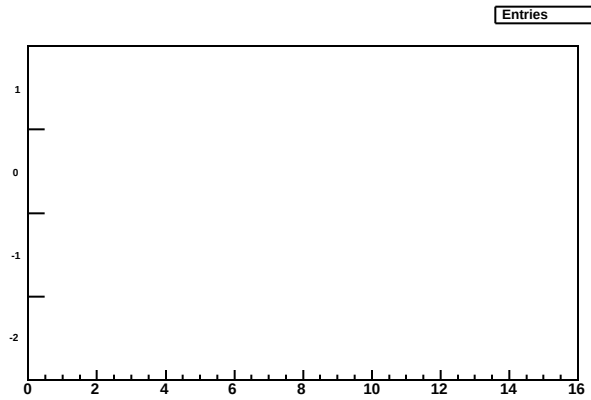
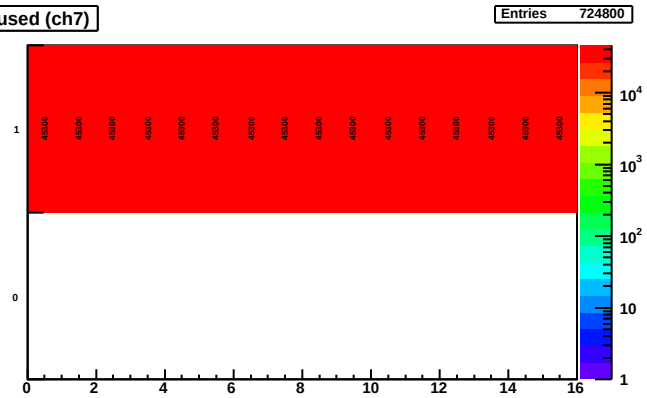
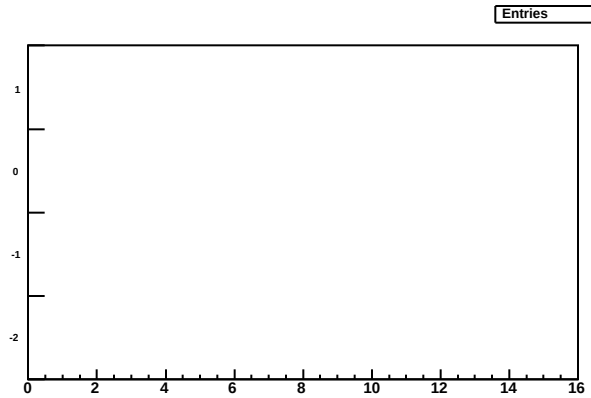


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)