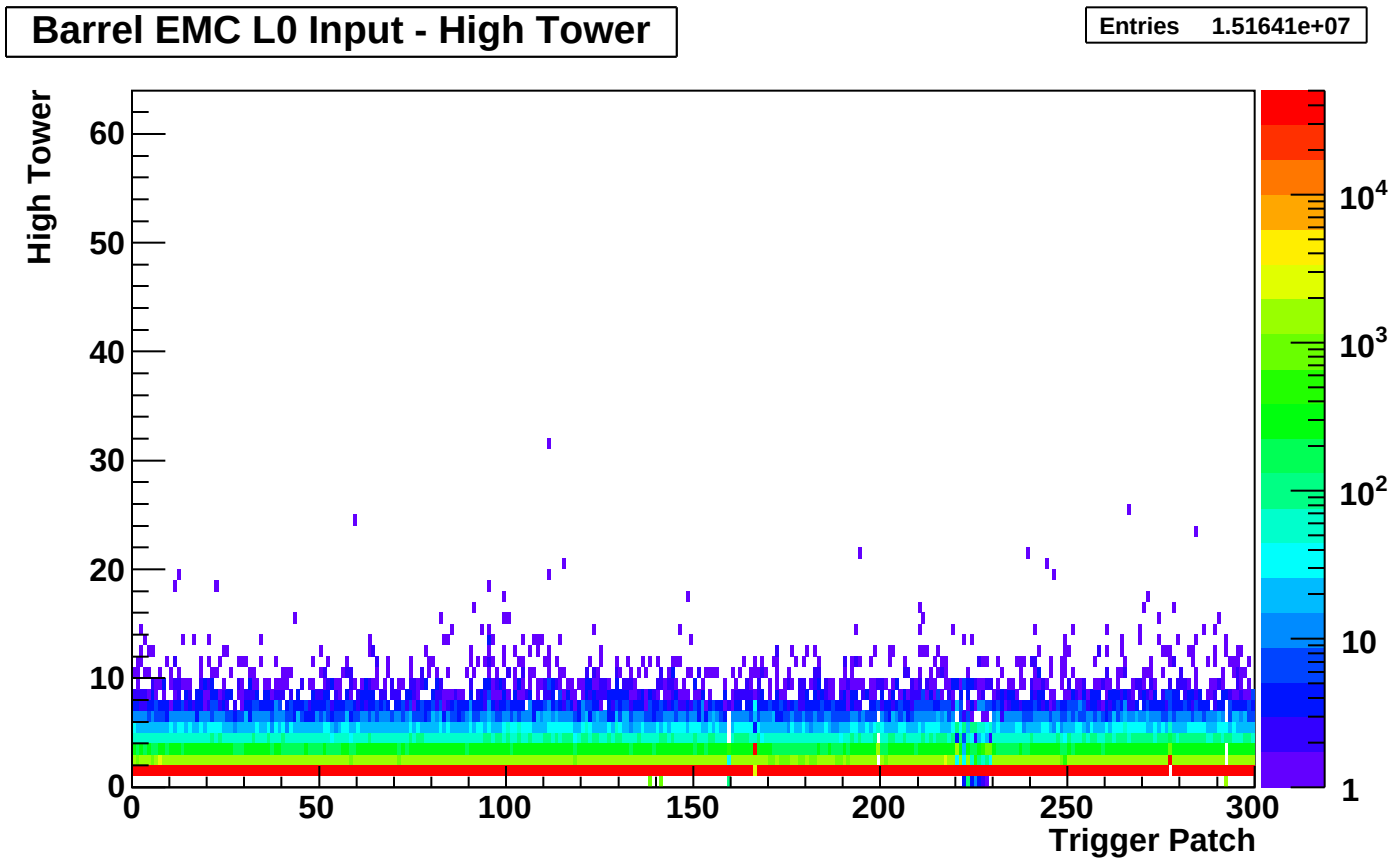
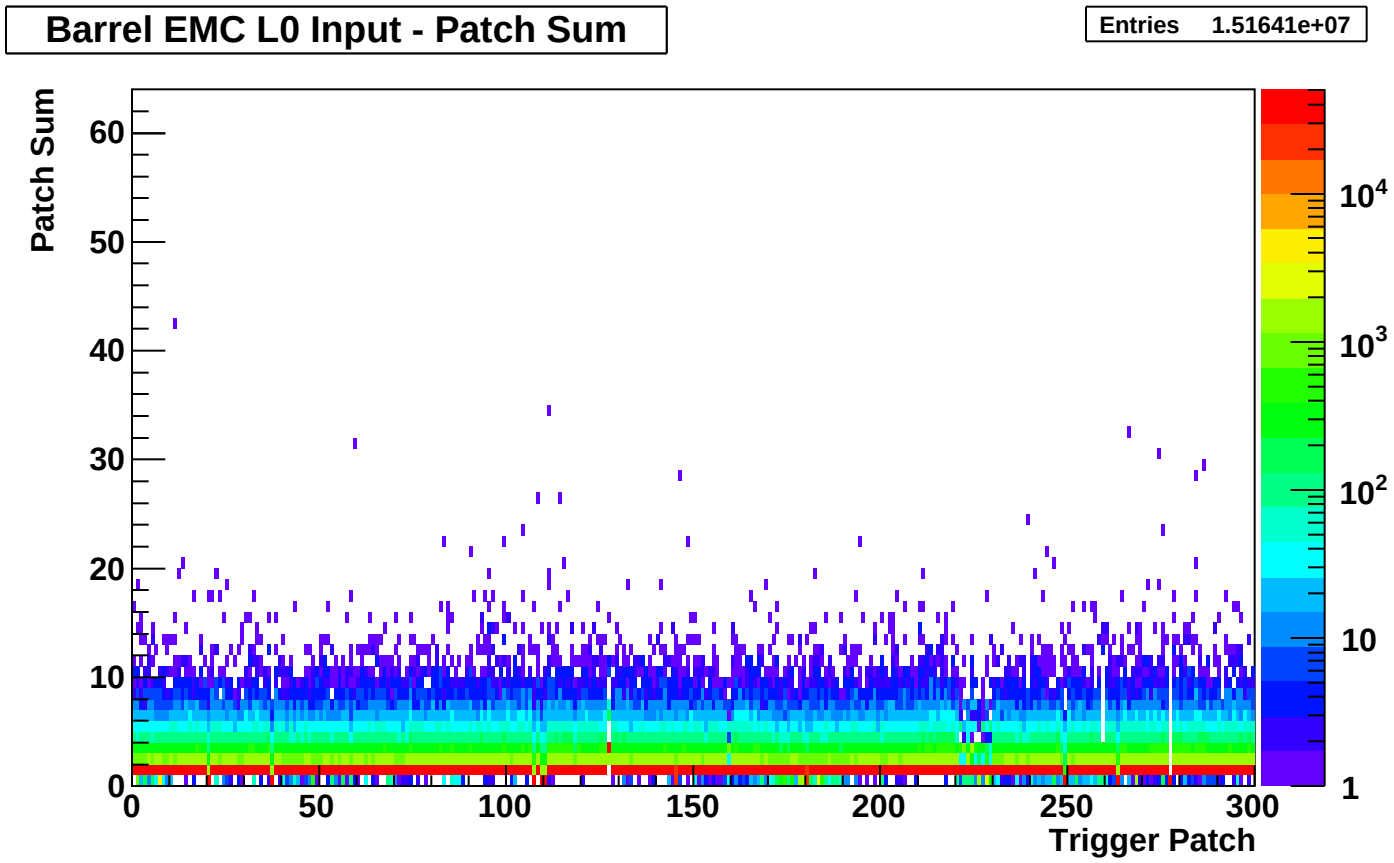
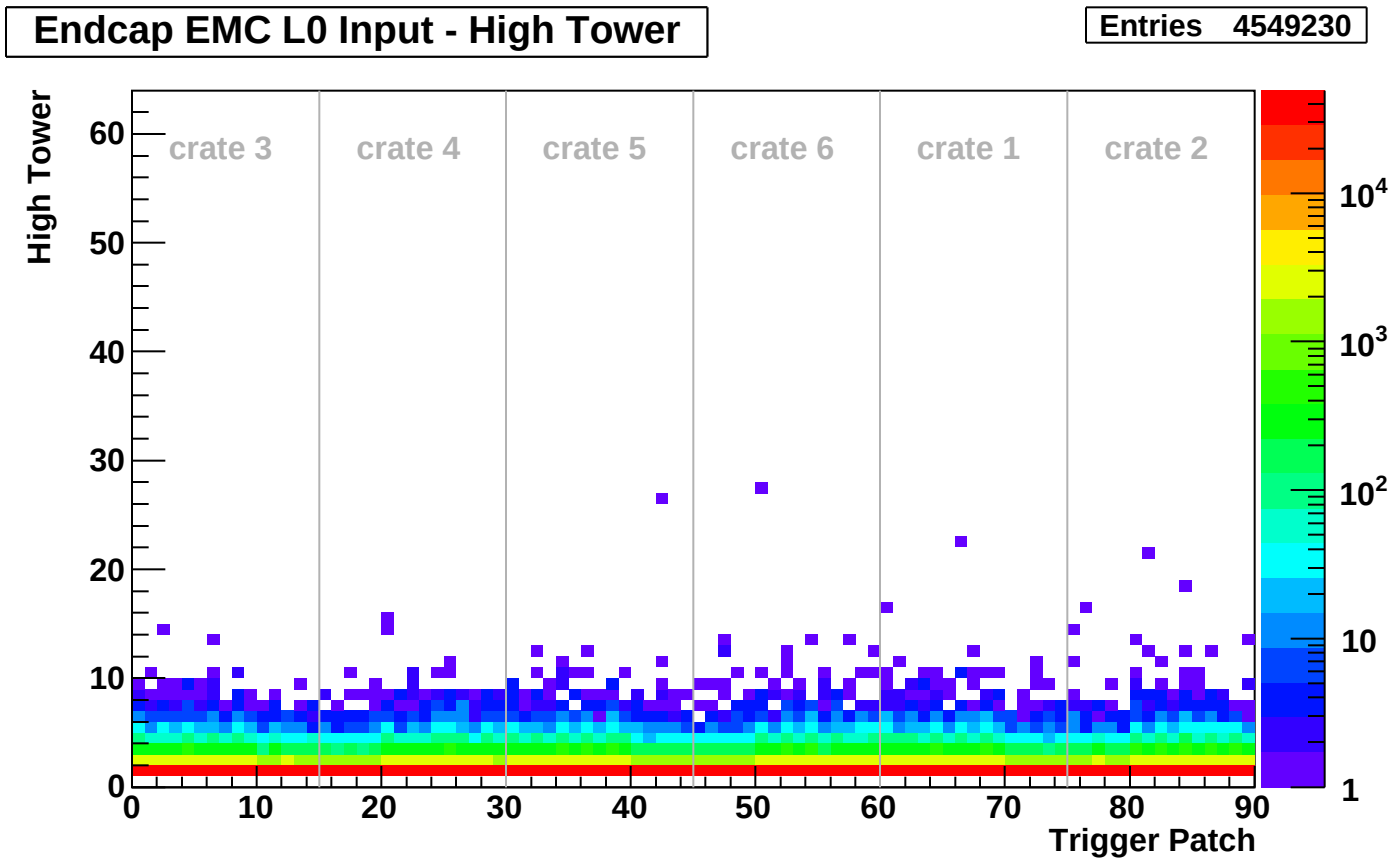
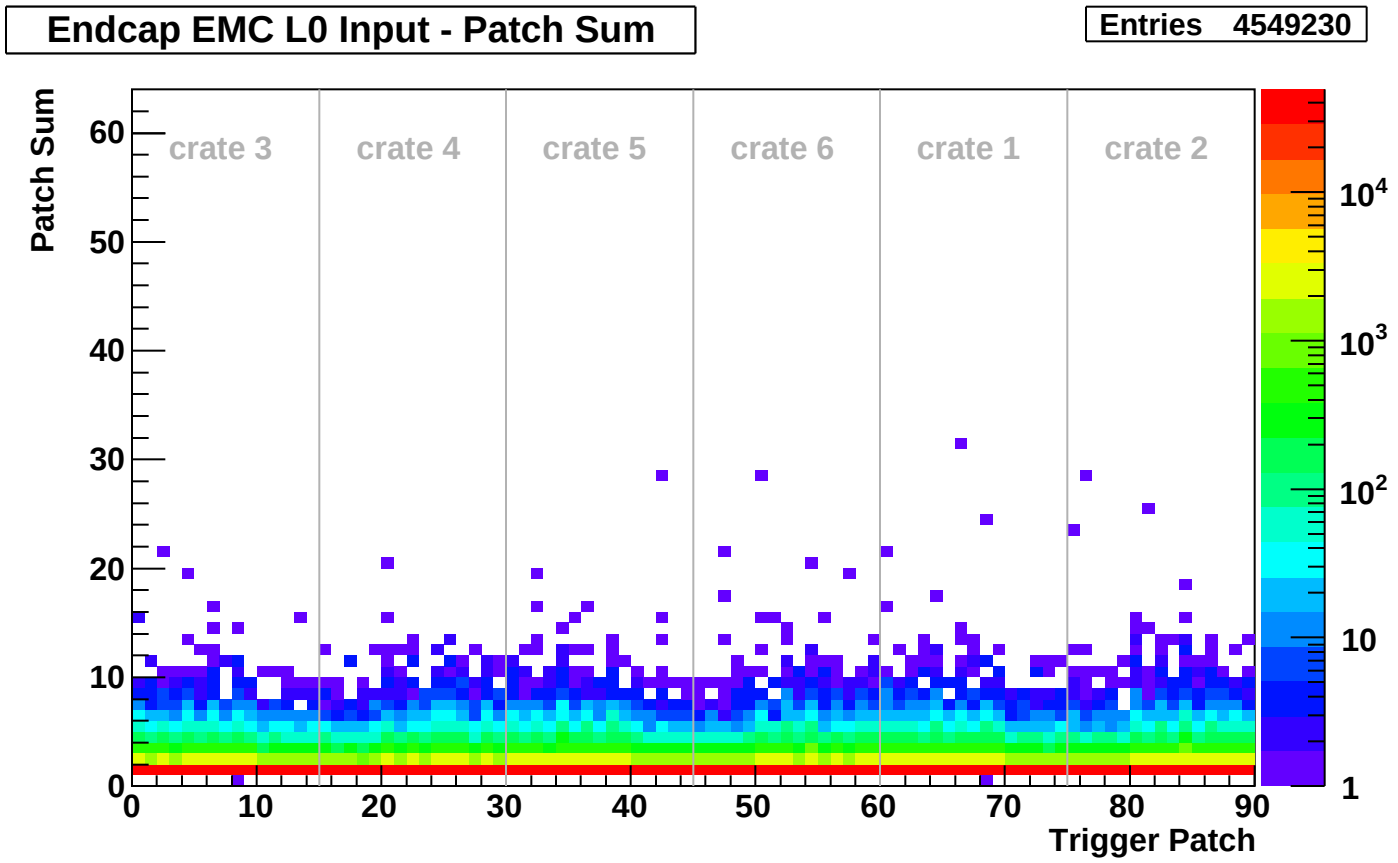
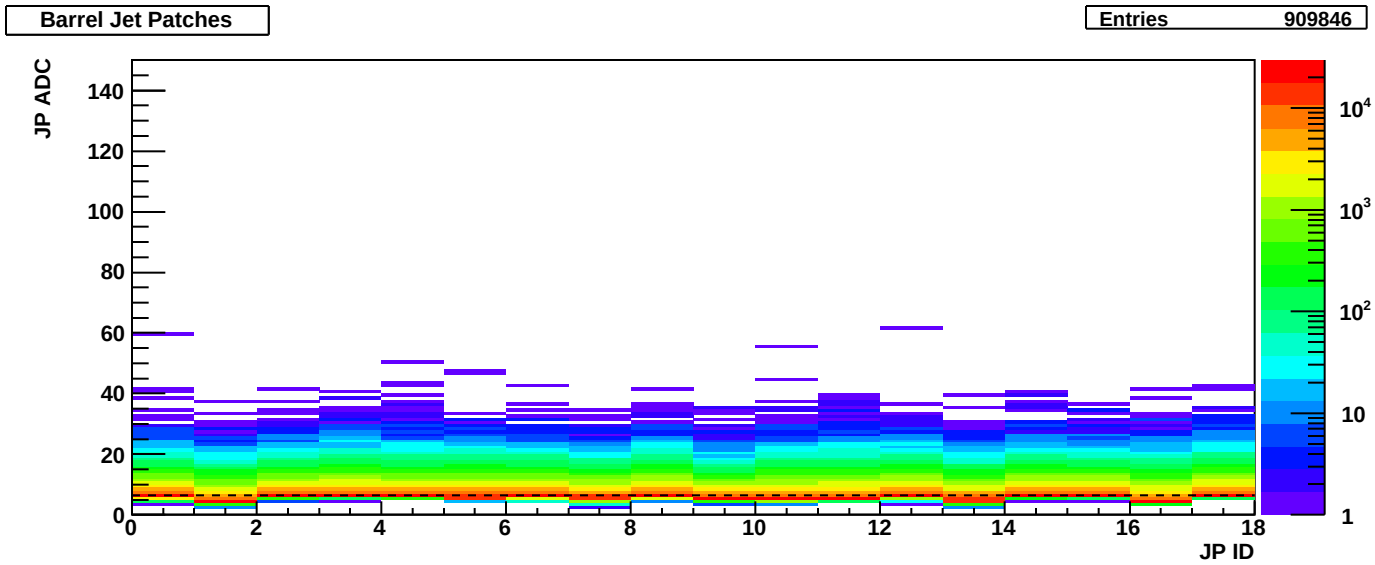
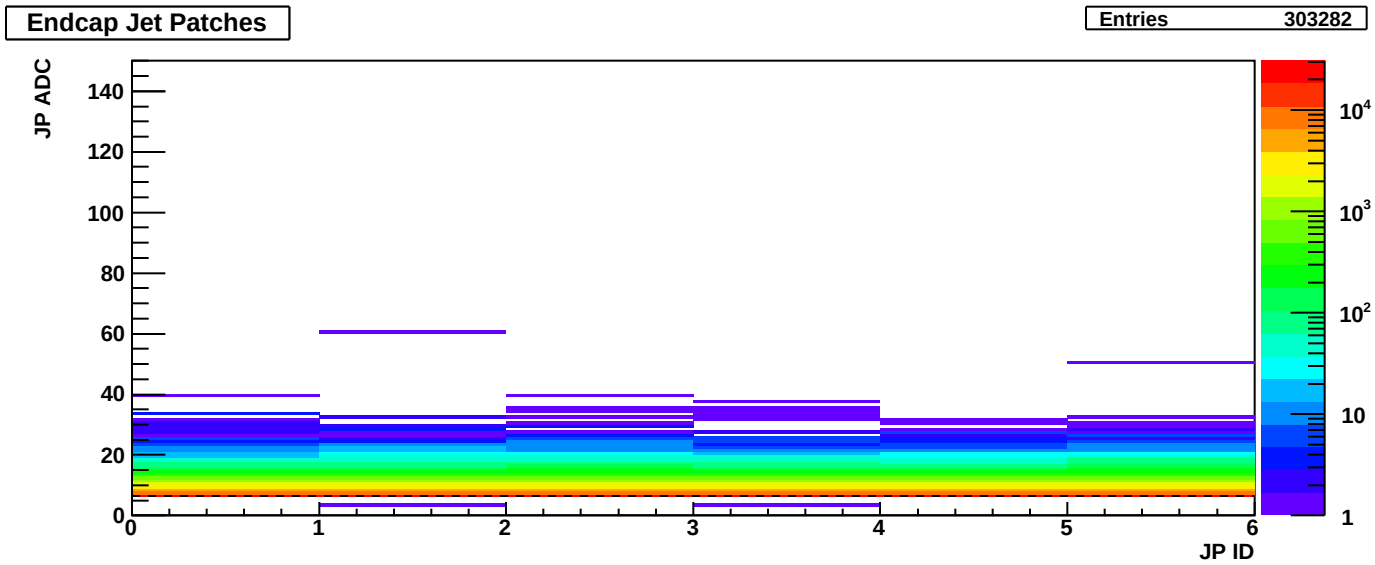

Barrel EMC L0 Input - High Tower
Entries 1.51641e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

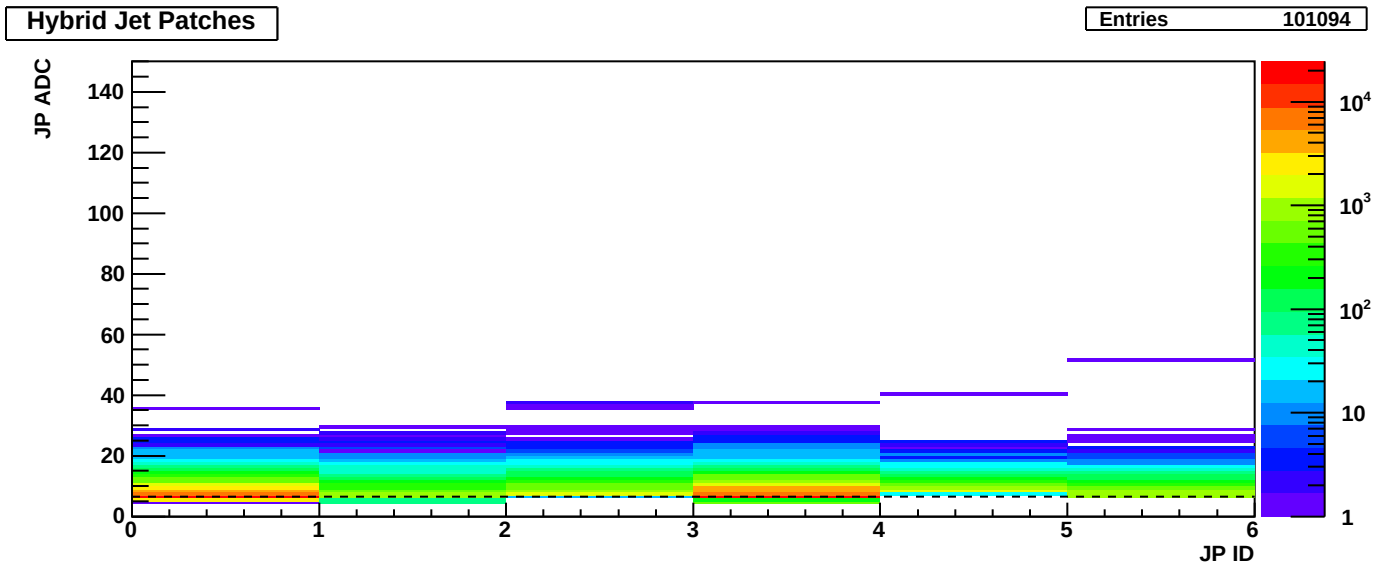

Barrel EMC L0 Input - Patch Sum
Entries 1.51641e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

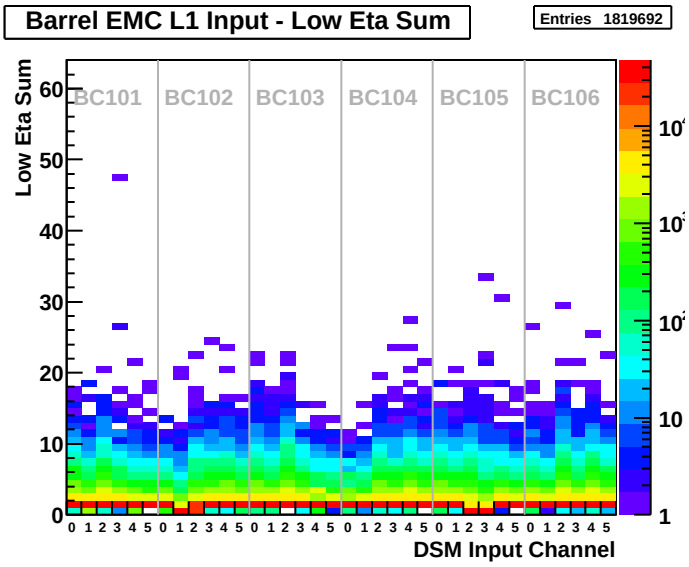

Endcap EMC L0 Input - High Tower
Entries 4549230
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

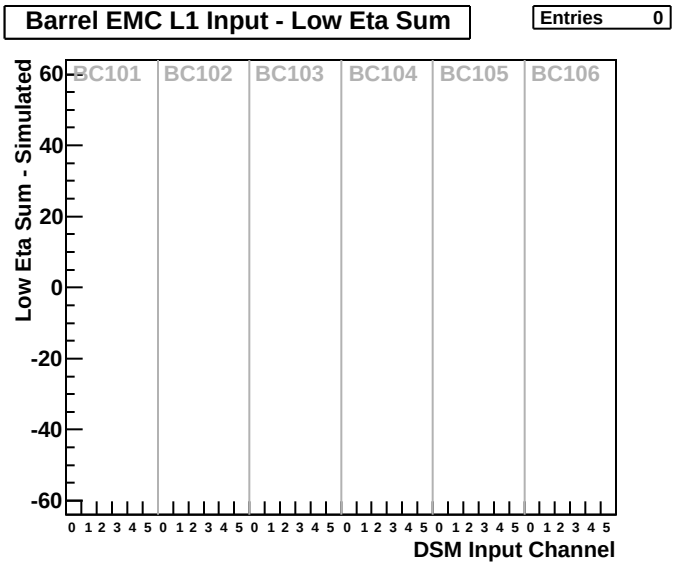

Endcap EMC L0 Input - Patch Sum
Entries 4549230
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

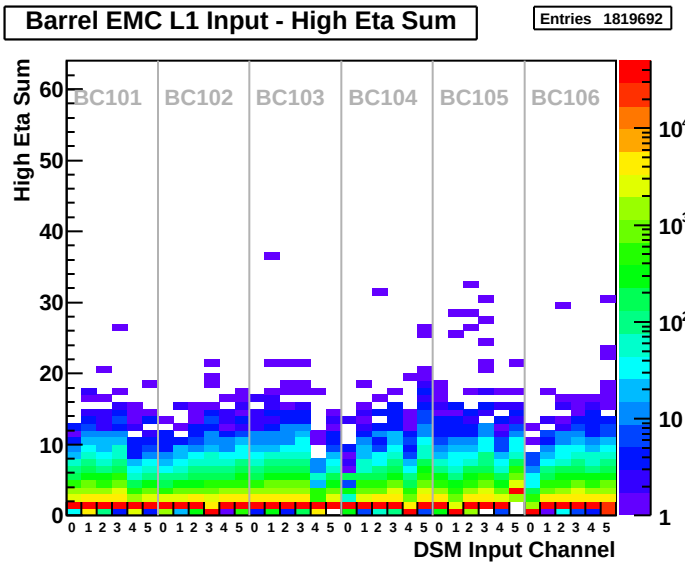

Barrel Jet Patches
Entries 909846
JP ADC
JP ID

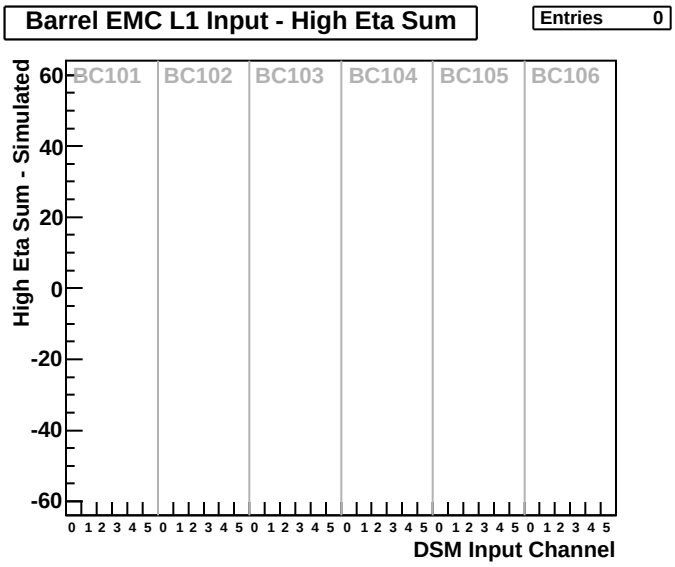

Endcap Jet Patches
Entries 303282
JP ADC
JP ID

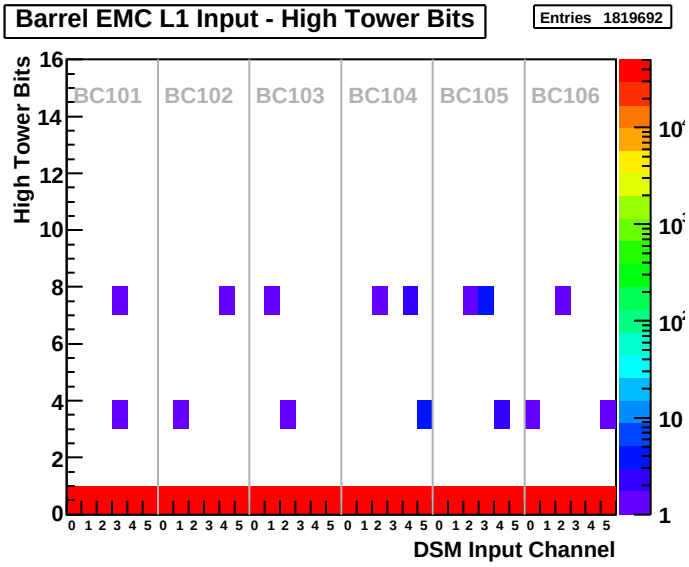

Hybrid Jet Patches
Entries 101094
JP ADC
JP ID

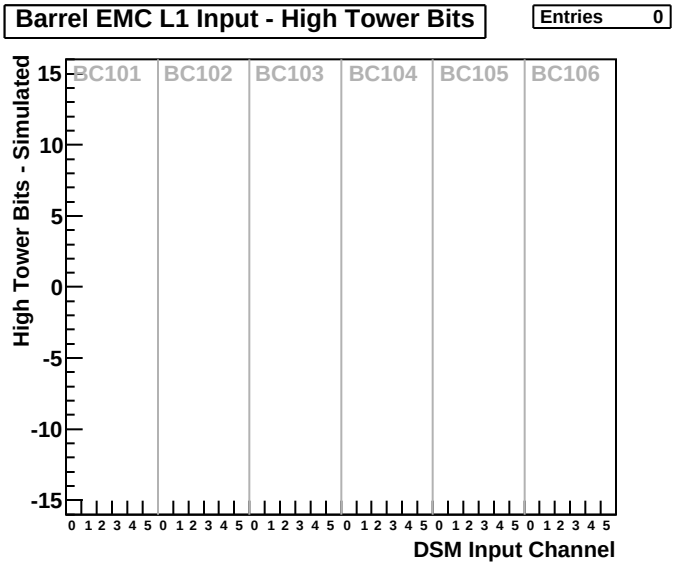

Barrel EMC L1 Input - Low Eta Sum
Entries 1819692
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

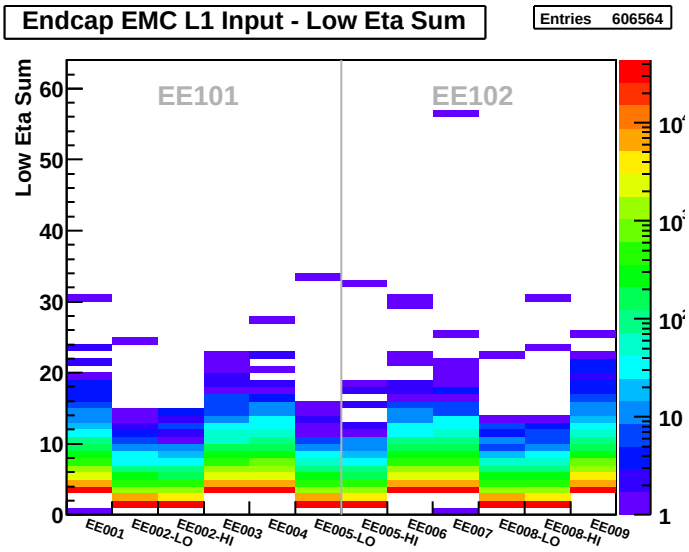

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

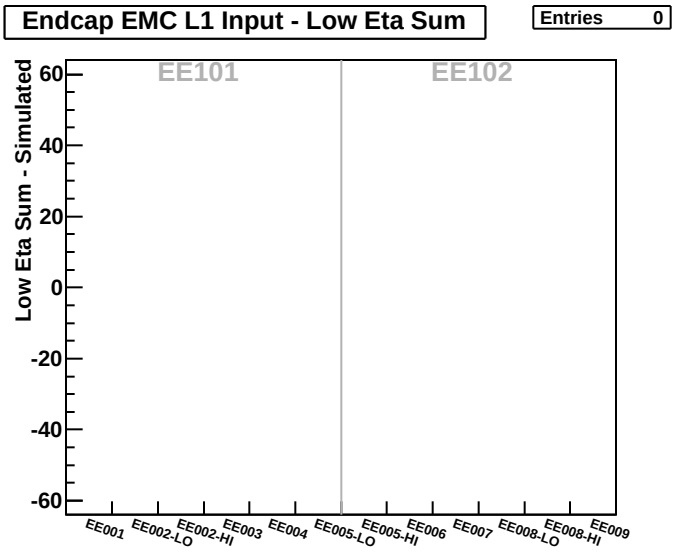

Barrel EMC L1 Input - High Eta Sum
Entries 1819692
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

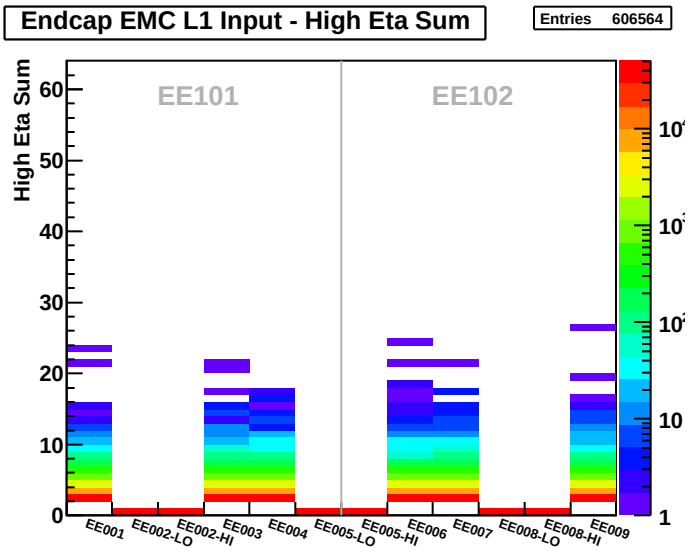

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

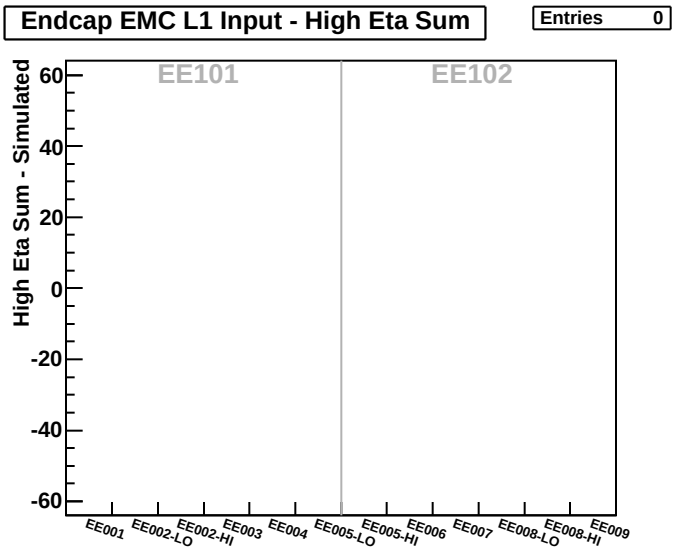

Barrel EMC L1 Input - High Tower Bits
Entries 1819692
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

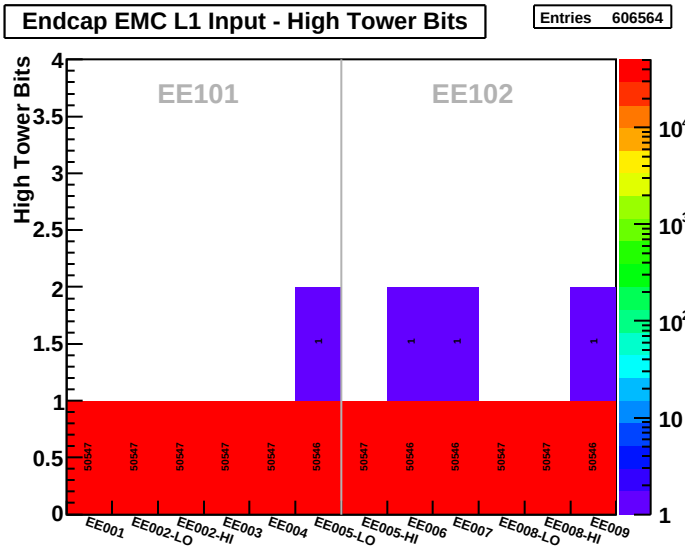

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

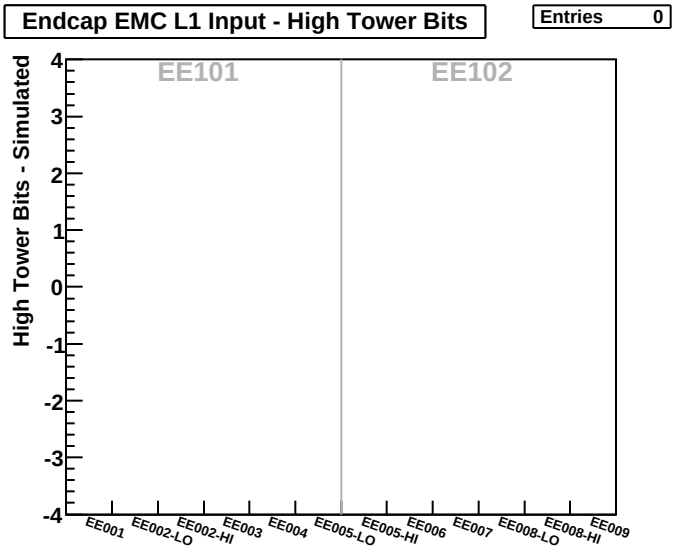

Endcap EMC L1 Input - Low Eta Sum
Entries 606564
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

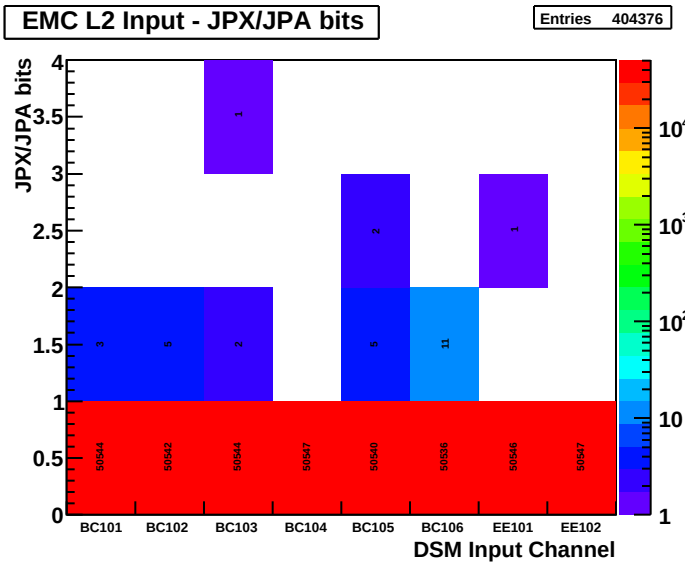

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

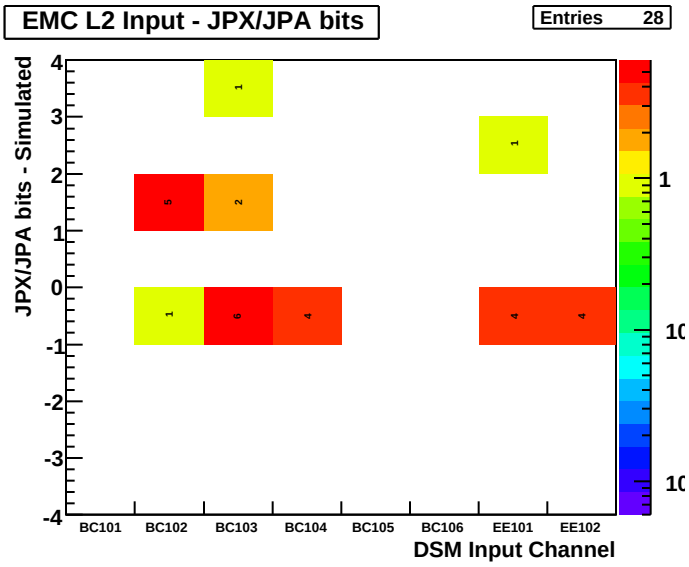

Endcap EMC L1 Input - High Eta Sum
Entries 606564
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

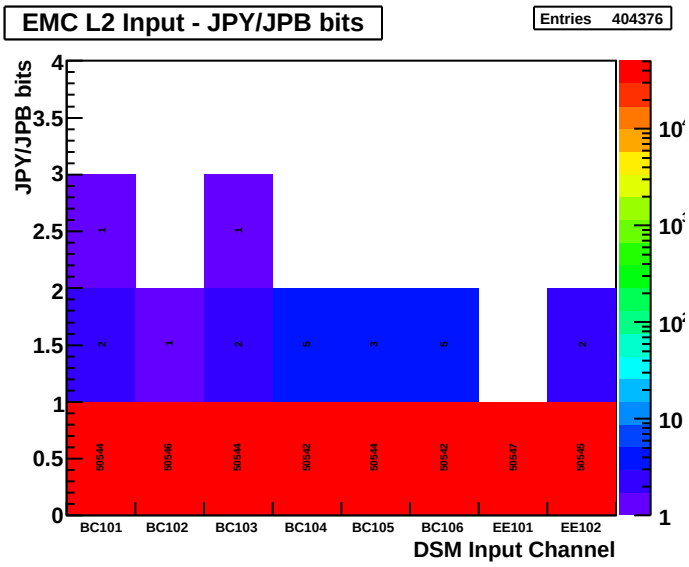

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

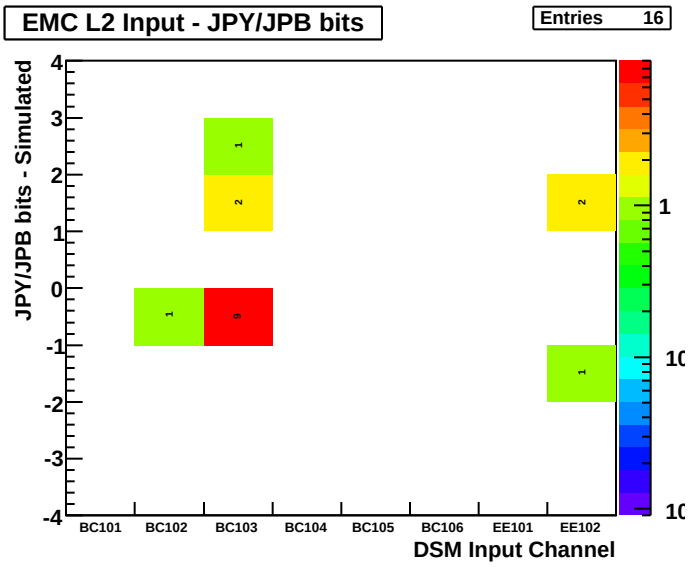

Endcap EMC L1 Input - High Tower Bits
Entries 606564
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

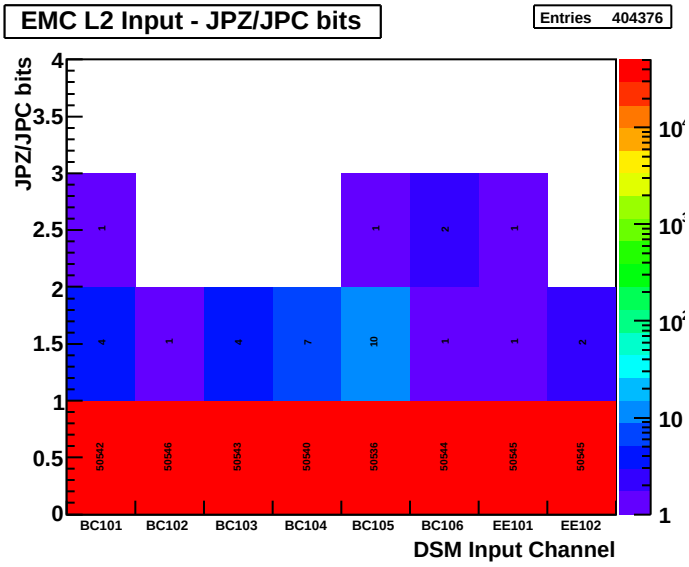

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

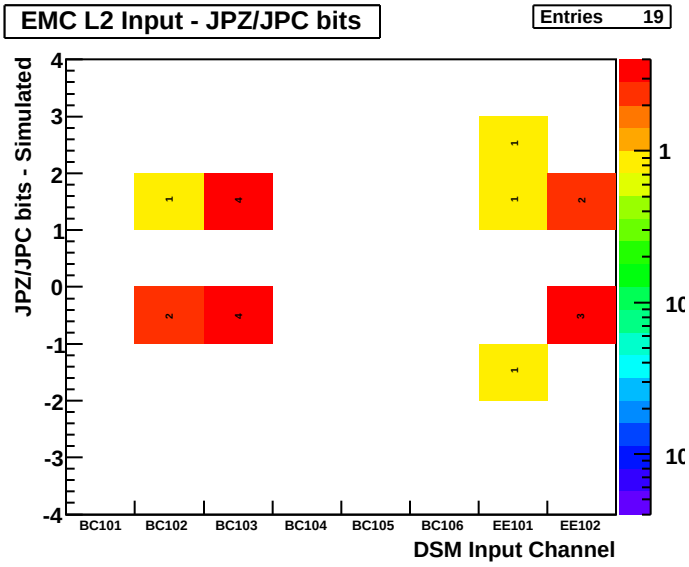

EMC L2 Input - JPX/JPA bits
Entries 404376
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

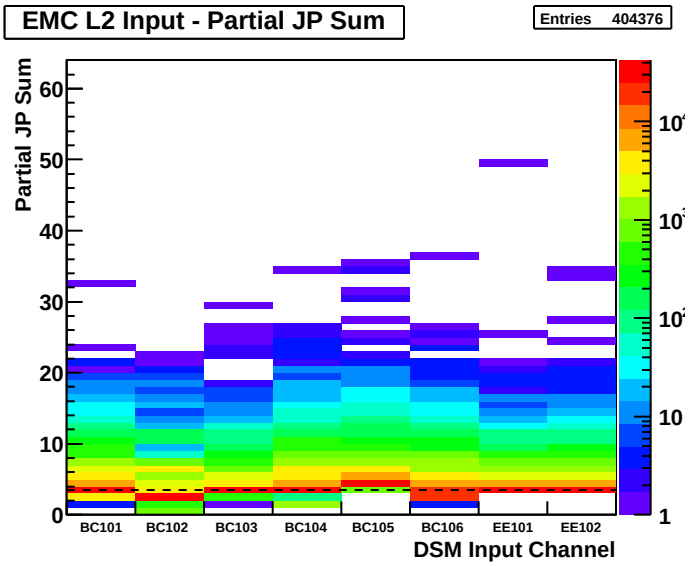

EMC L2 Input - JPX/JPA bits
Entries 28
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

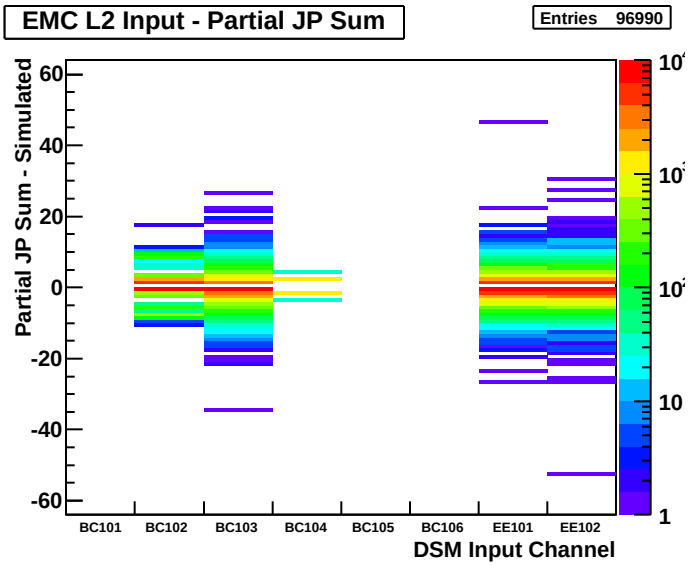

EMC L2 Input - JPY/JPB bits
Entries 404376
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

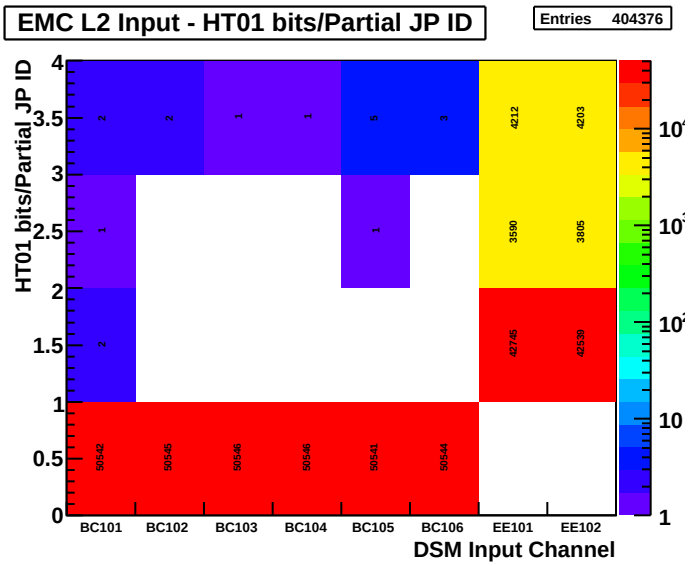

EMC L2 Input - JPY/JPB bits
Entries 16
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

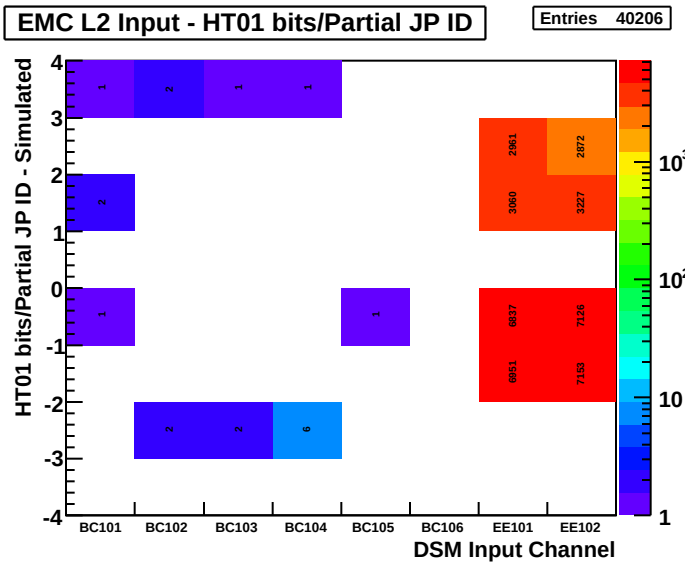

EMC L2 Input - JPZ/JPC bits
Entries 404376
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

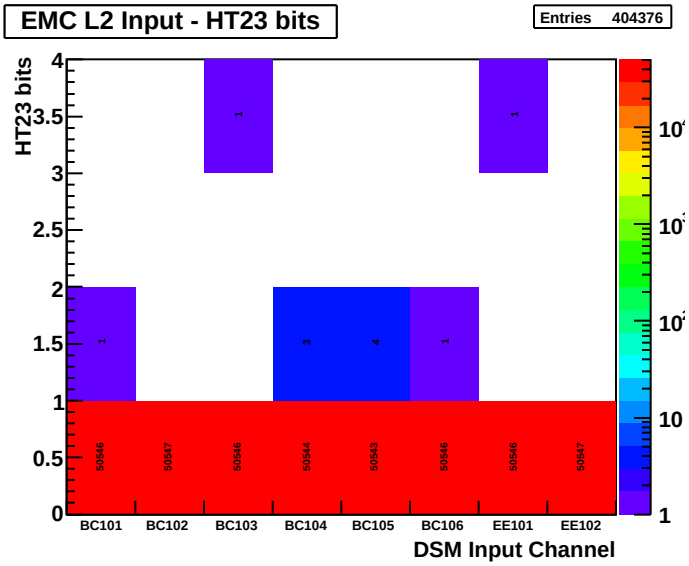

EMC L2 Input - JPZ/JPC bits
Entries 19
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

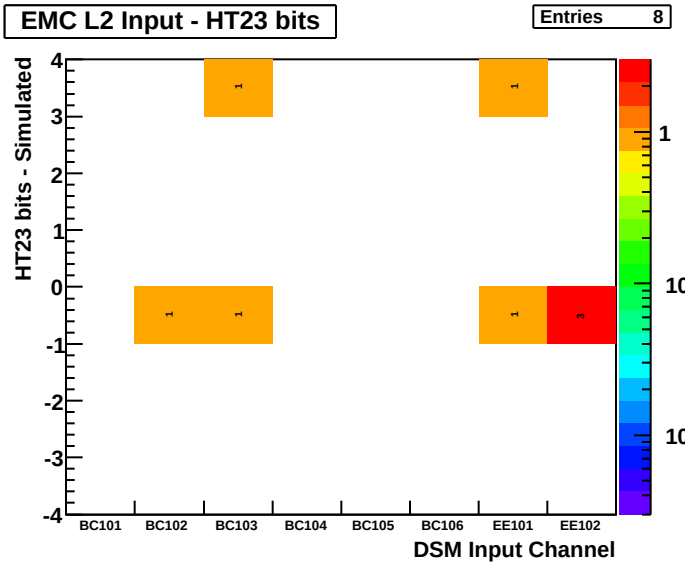

EMC L2 Input - Partial JP Sum
Entries 404376
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

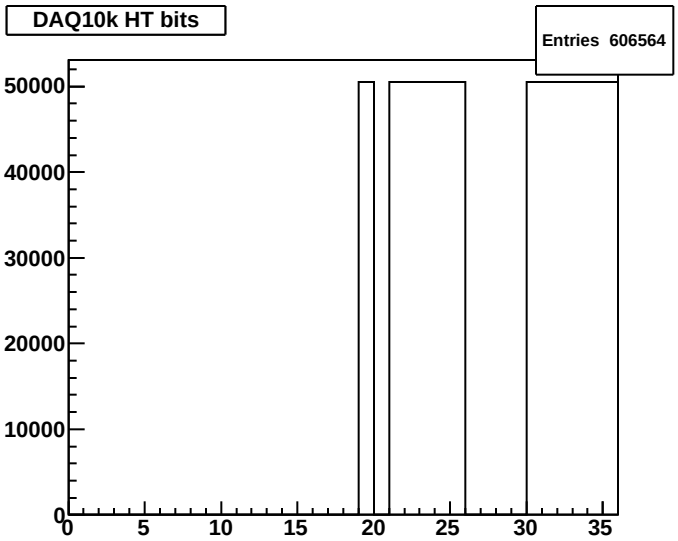

EMC L2 Input - Partial JP Sum
Entries 96990
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

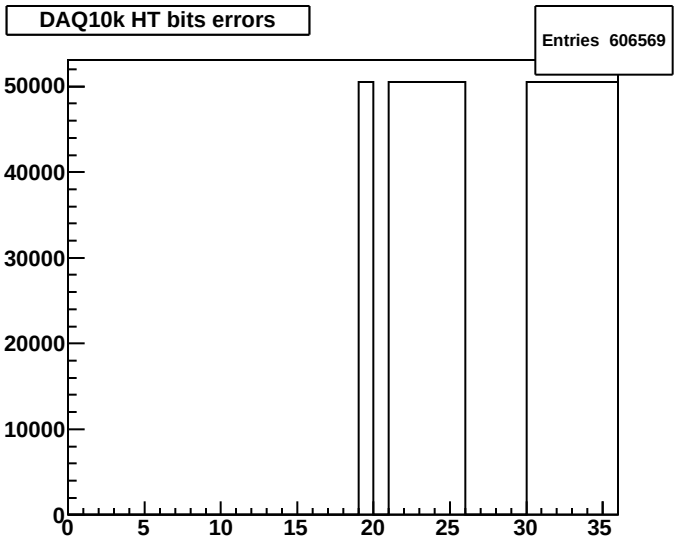

EMC L2 Input - HT01 bits/Partial JP ID
Entries 404376
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

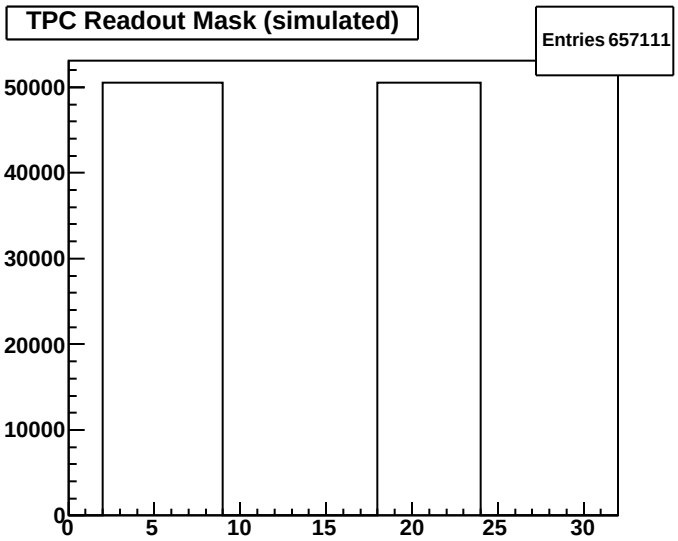

EMC L2 Input - HT01 bits/Partial JP ID
Entries 40206
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

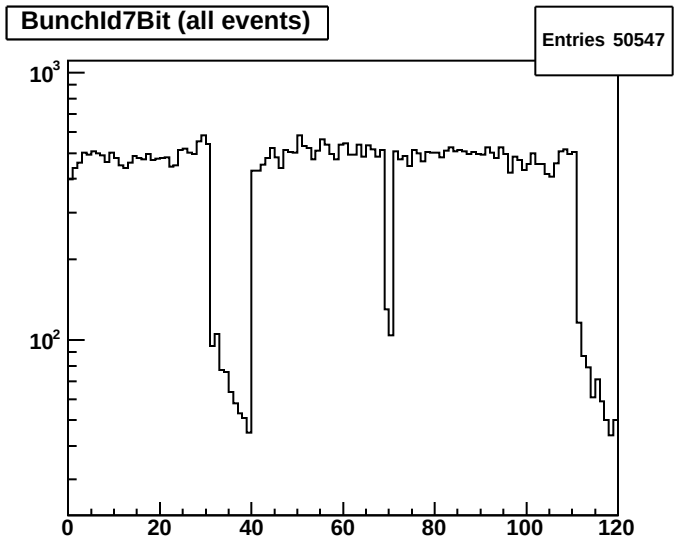

EMC L2 Input - HT23 bits
Entries 404376
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

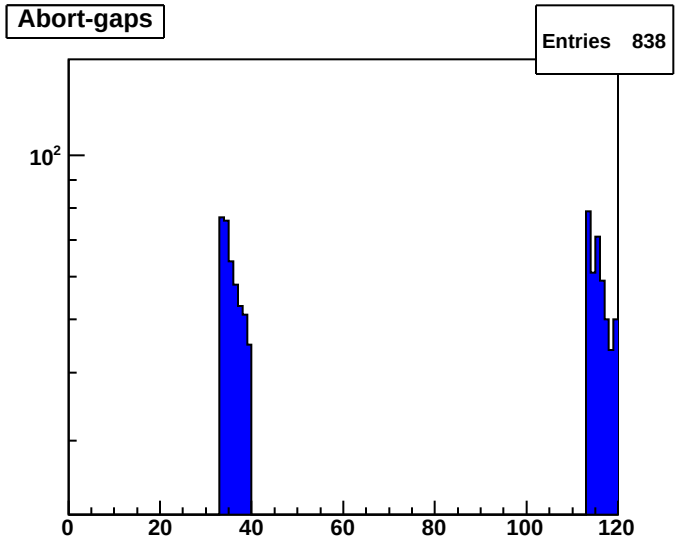

EMC L2 Input - HT23 bits
Entries 8
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

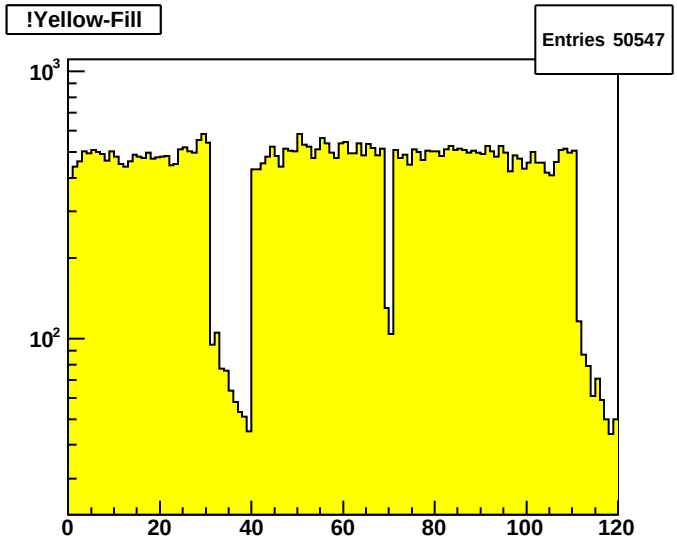

DAQ10k HT bits
Entries 606564
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

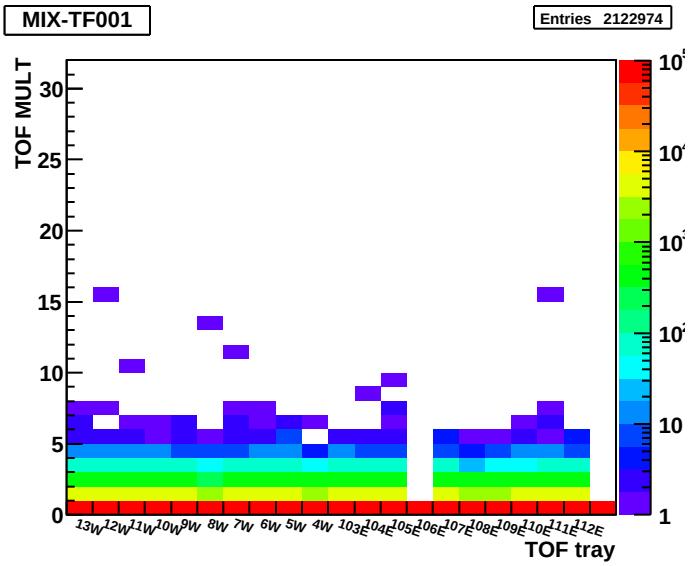

DAQ10k HT bits errors
Entries 606569
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

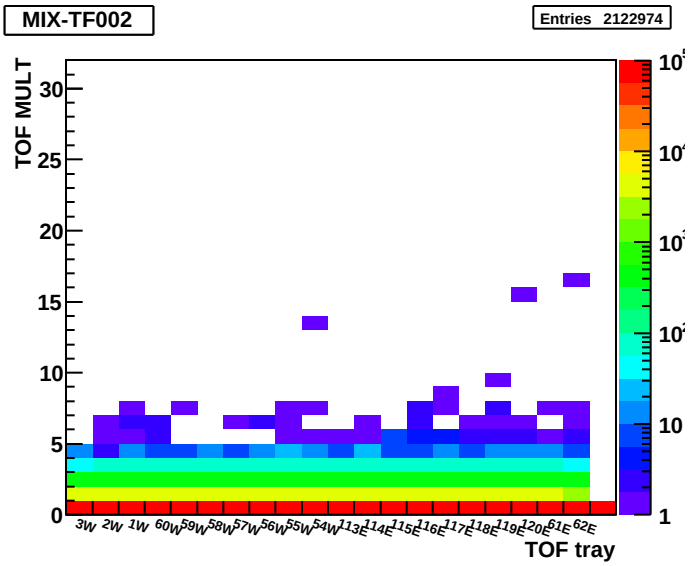

TPC Readout Mask (simulated)
Entries 657111
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

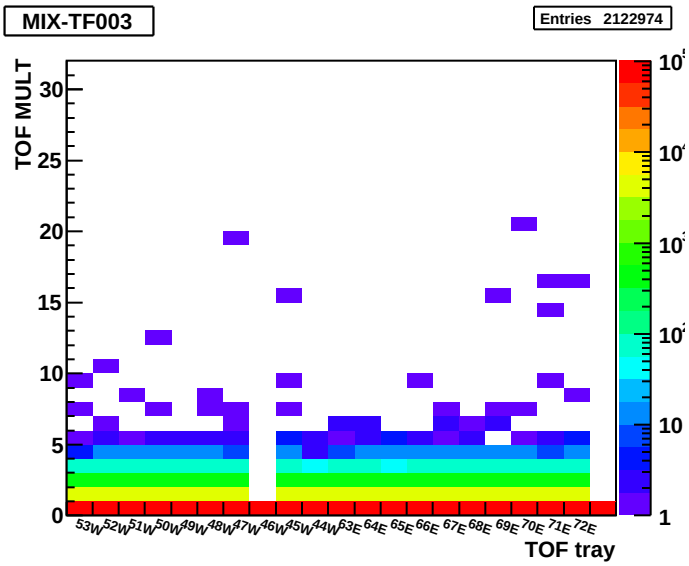

BunchId7Bit (all events)
Entries 50547
10^3
10^2
0 20 40 60 80 100 120

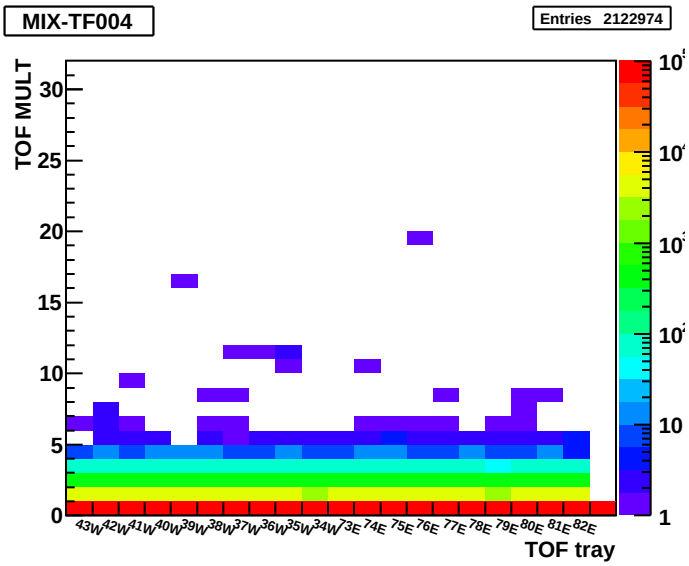

Abort-gaps
Entries 838
10^2
0 20 40 60 80 100 120

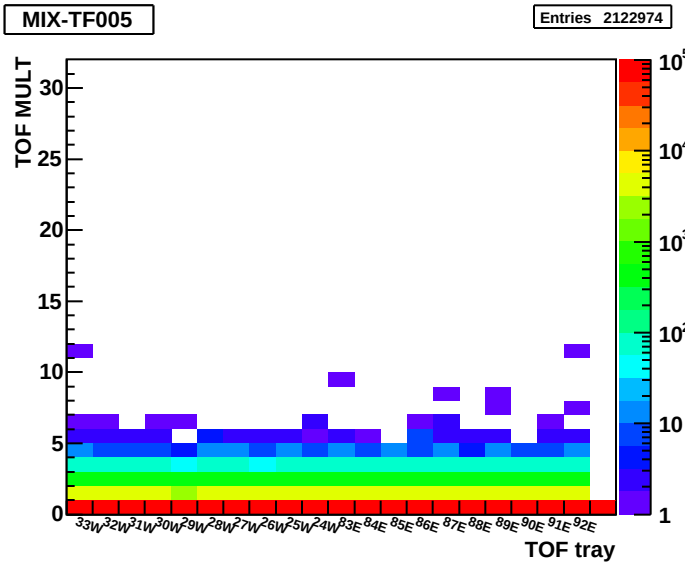

!Yellow-Fill
Entries 50547
10^3
10^2
0 20 40 60 80 100 120

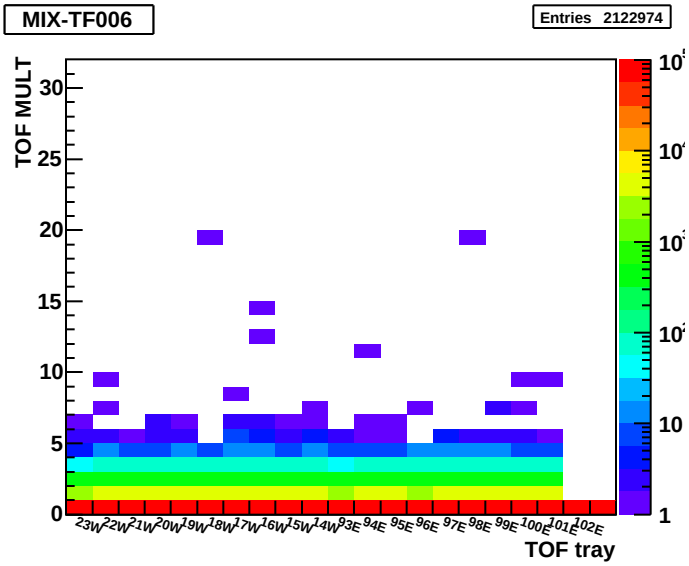

MIX-TF001
Entries 2122974
TOF MULT
TOF tray

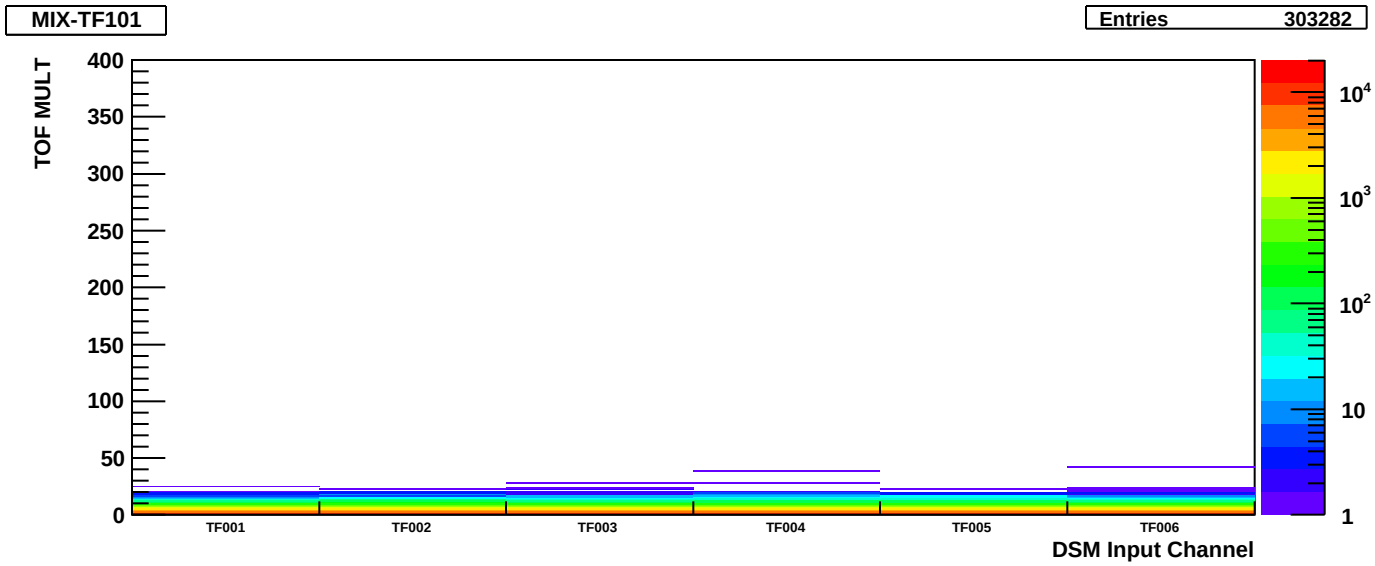

MIX-TF002
Entries 2122974
TOF MULT
TOF tray

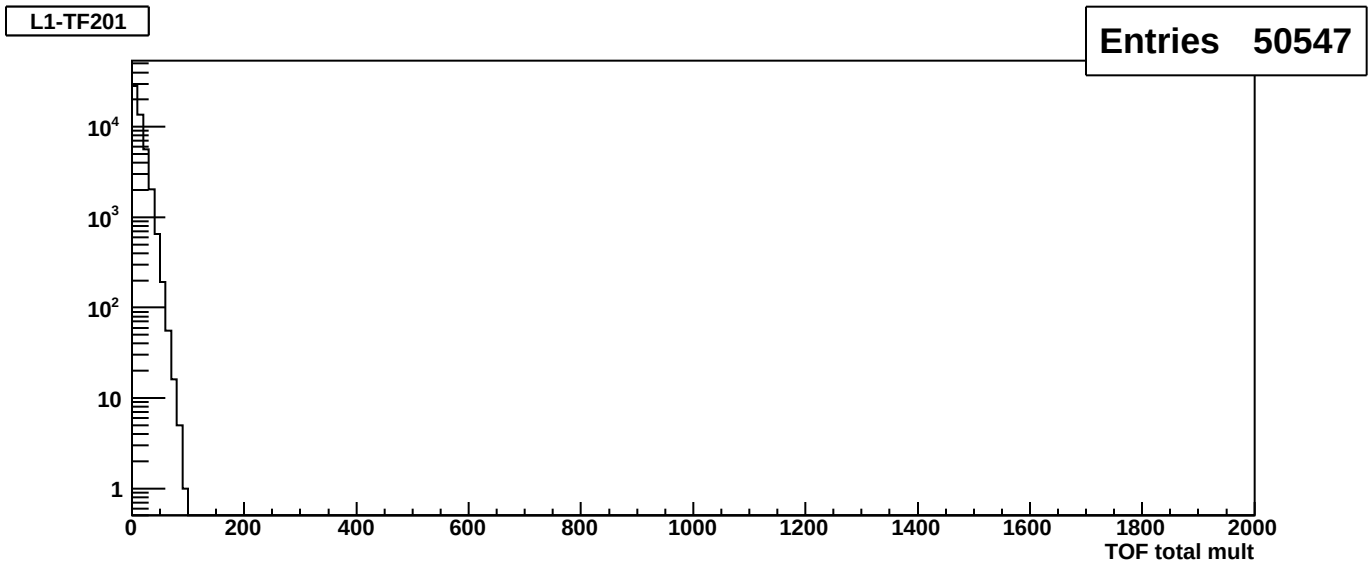

MIX-TF003
Entries 2122974
TOF MULT
TOF tray

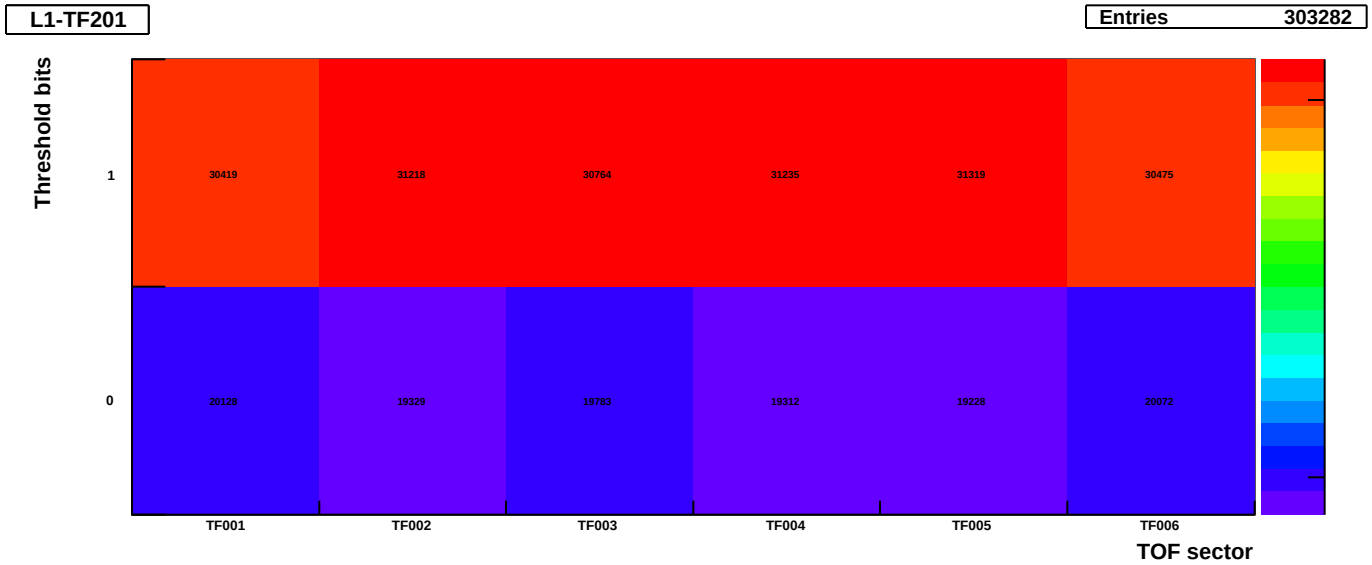

MIX-TF004
Entries 2122974
TOF MULT
TOF tray

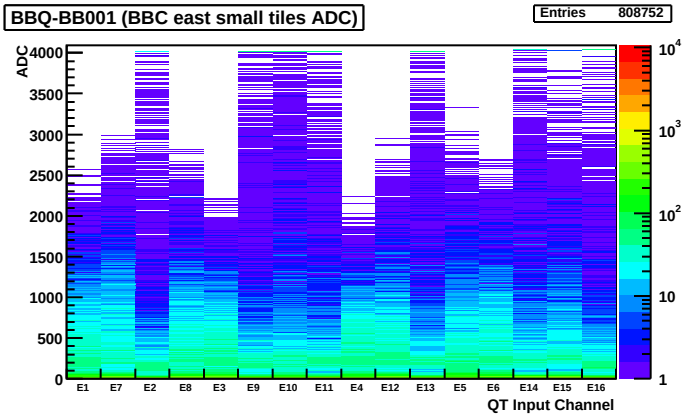

MIX-TF005
Entries 2122974
TOF MULT
TOF tray

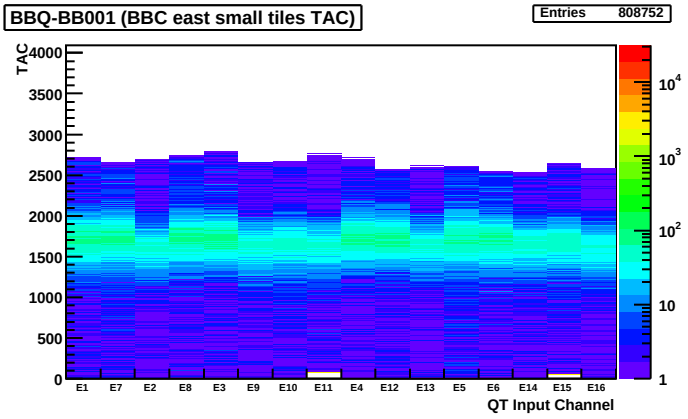

MIX-TF006
Entries 2122974
TOF MULT
TOF tray

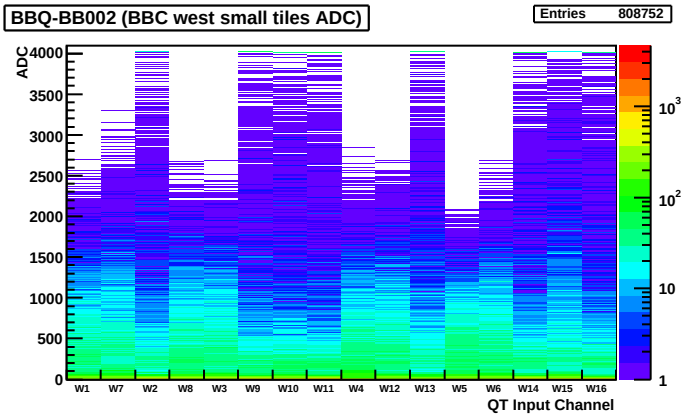

MIX-TF101
Entries 303282
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

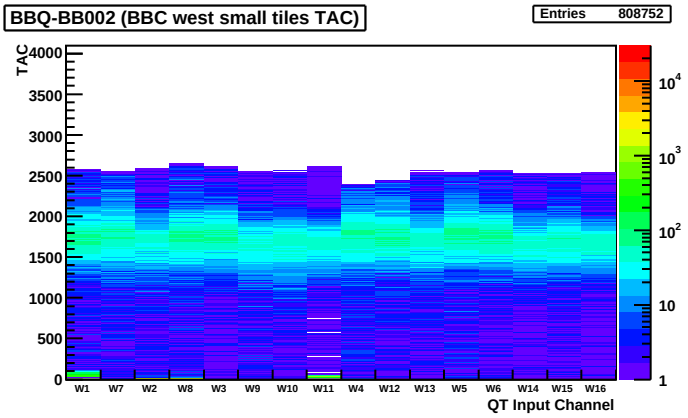

L1-TF201
Entries 50547
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

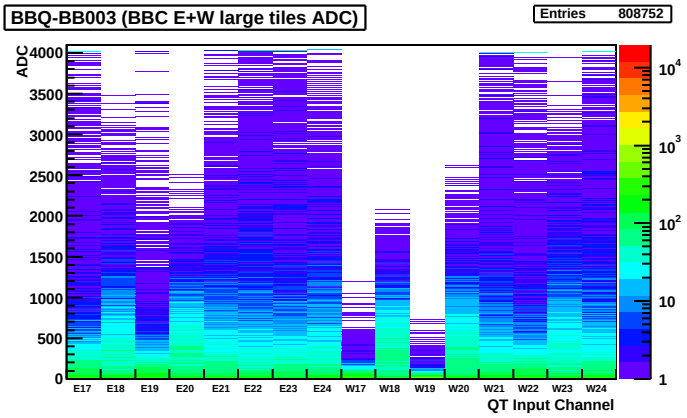

L1-TF201
Entries 303282
Threshold bits
1
0
30419
31218
30764
31235
31319
30475
20128
19329
19783
19312
19228
20072
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

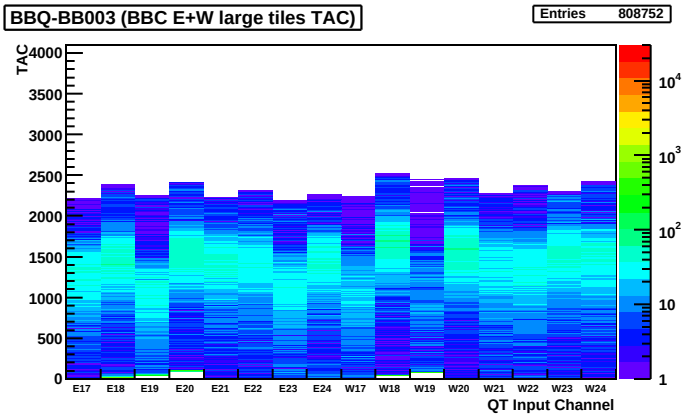

BBQ-BB001 (BBC east small tiles ADC)
Entries 808752
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

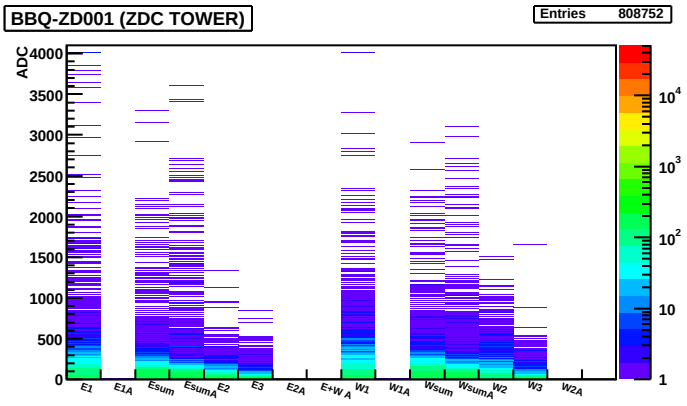

BBQ-BB001 (BBC east small tiles TAC)
Entries 808752
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

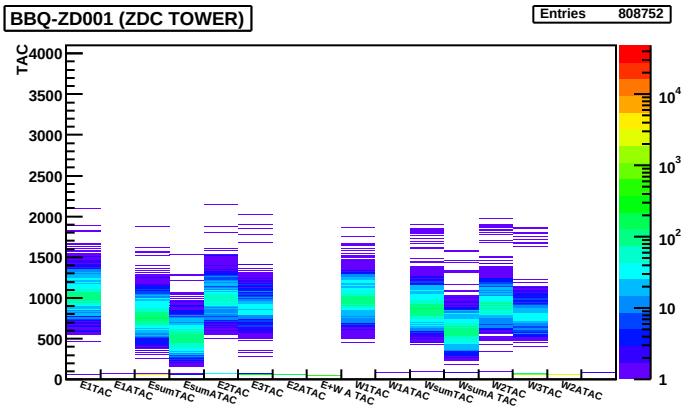

BBQ-BB002 (BBC west small tiles ADC)
Entries 808752
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

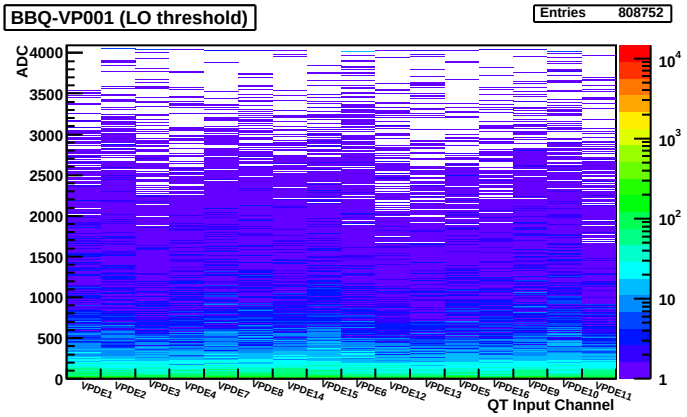

BBQ-BB002 (BBC west small tiles TAC)
Entries 808752
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

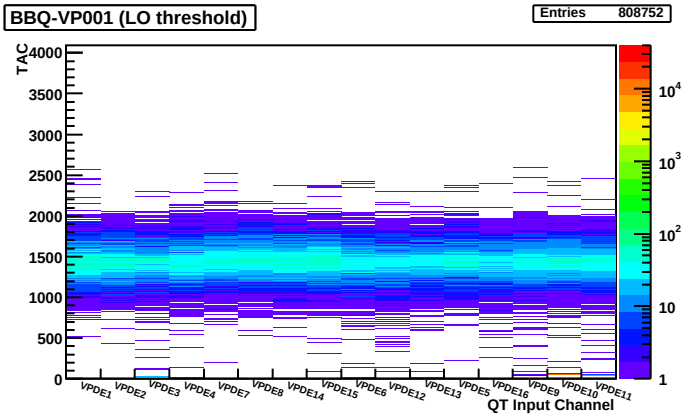

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 808752
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

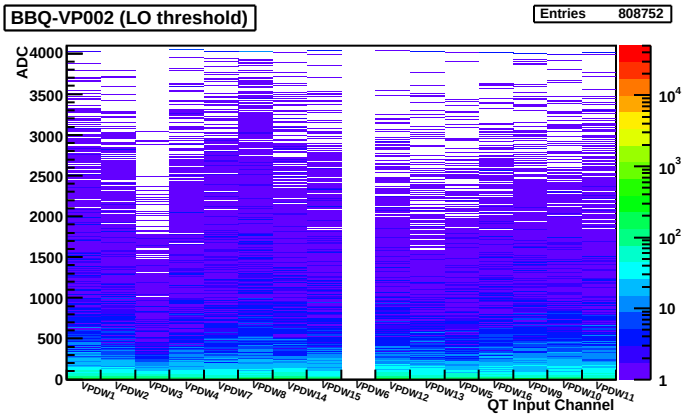

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 808752
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

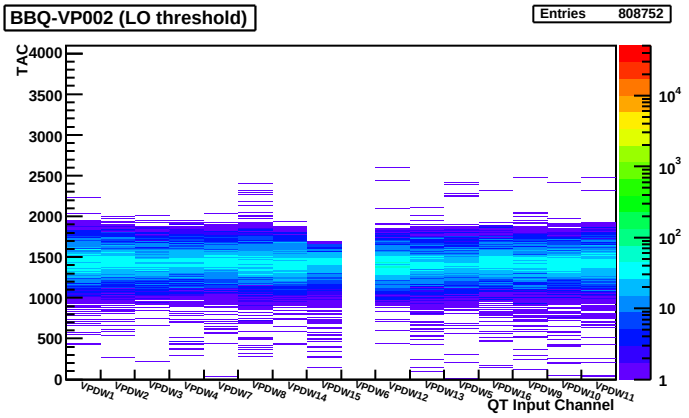

BBQ-ZD001 (ZDC TOWER)
Entries 808752
ADC
E1 E1A Esum EsumA E2 E3 E2A E+W A W1 W1A Wsum WsumA W2 W3 W2A

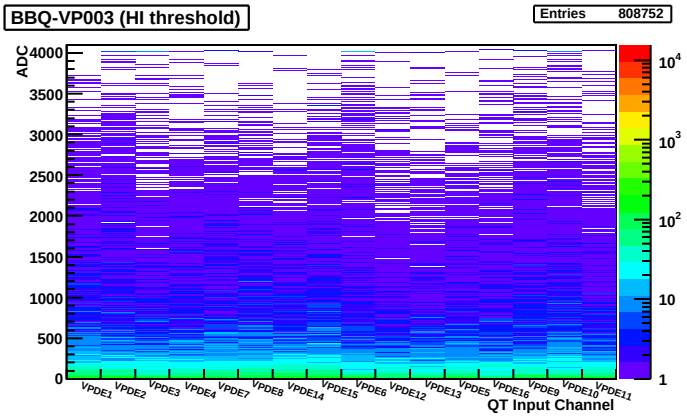

BBQ-ZD001 (ZDC TOWER)
Entries 808752
TAC
E1TAC E1ATAC EsumTAC EsumATAC E2TAC E3TAC E2ATAC E+W A TAC W1TAC W1ATAC WsumTAC WsumA TAC W2TAC W3TAC W2ATAC

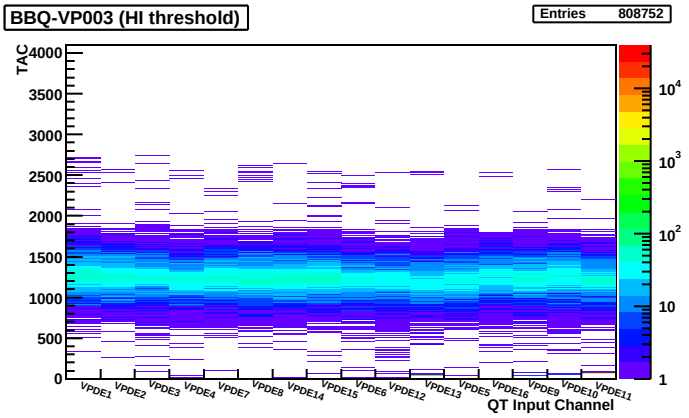

BBQ-VP001 (LO threshold)
Entries 808752
ADC
QT Input Channel

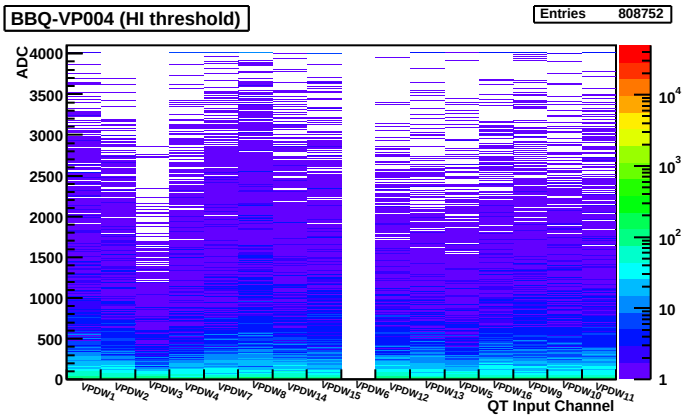

BBQ-VP001 (LO threshold)
Entries 808752
TAC
QT Input Channel

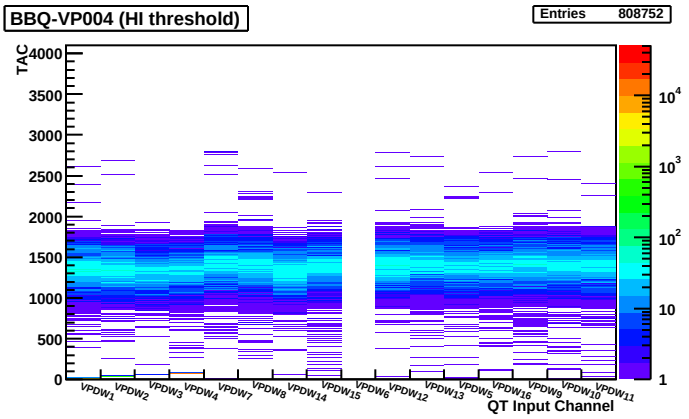

BBQ-VP002 (LO threshold)
Entries 808752
ADC
QT Input Channel

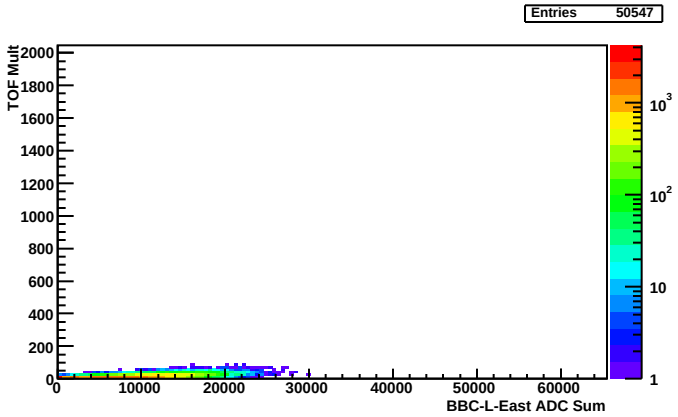

BBQ-VP002 (LO threshold)
Entries 808752
TAC
QT Input Channel

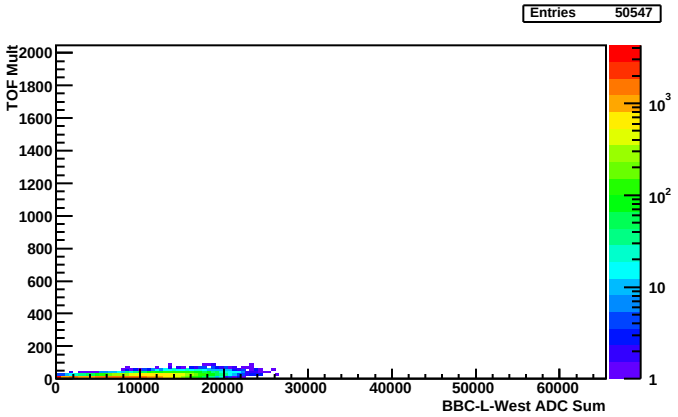

BBQ-VP003 (HI threshold)
Entries 808752
ADC
QT Input Channel

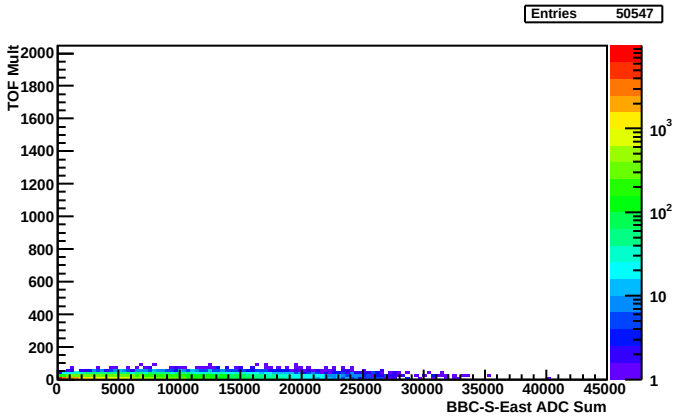

BBQ-VP003 (HI threshold)
Entries 808752
TAC
QT Input Channel

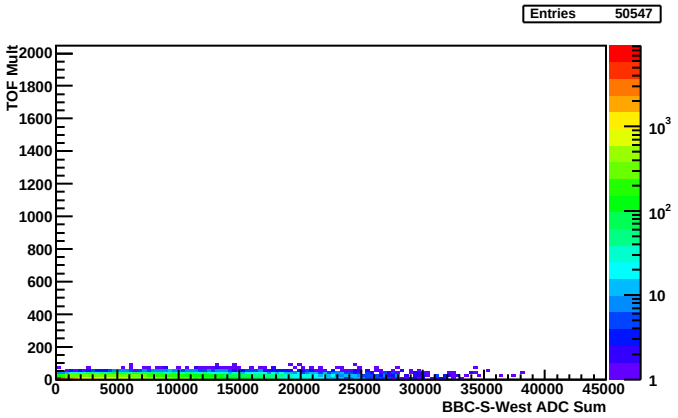

BBQ-VP004 (HI threshold)
Entries 808752
ADC
QT Input Channel

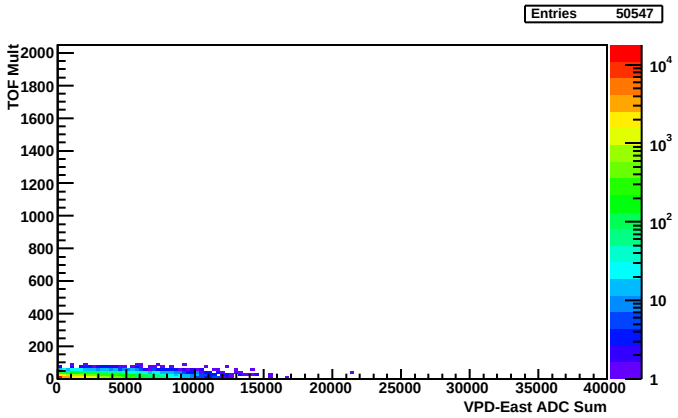

BBQ-VP004 (HI threshold)
Entries 808752
TAC
QT Input Channel

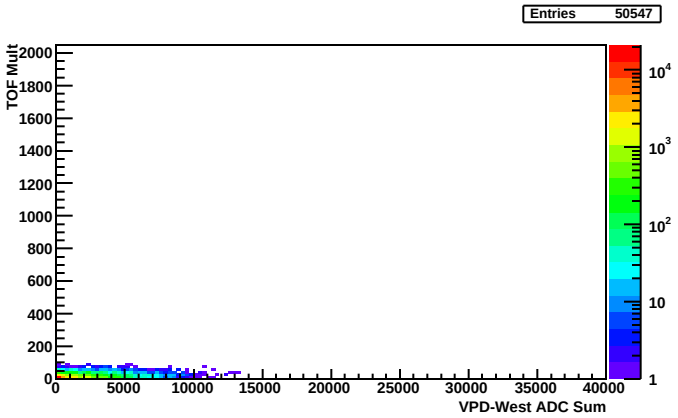

Entries 50547
TOF Mult
BBC-L-East ADC Sum

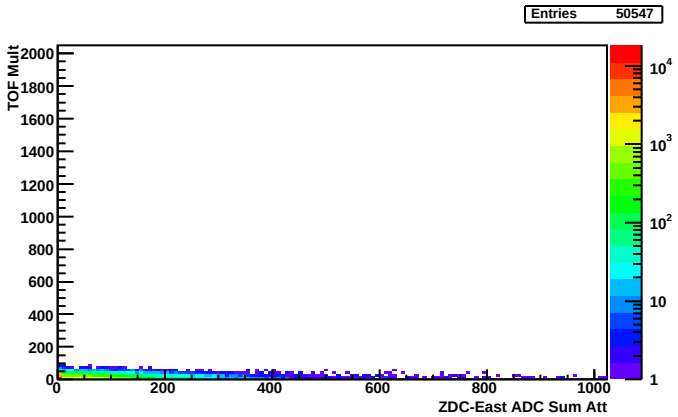

Entries 50547
TOF Mult
BBC-L-West ADC Sum

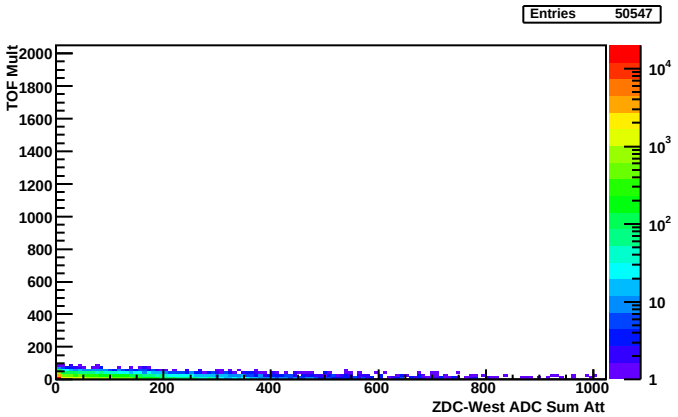

Entries 50547
TOF Mult
BBC-S-East ADC Sum

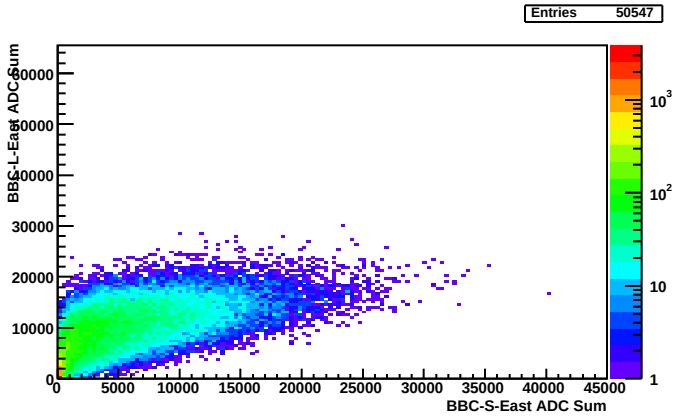

Entries 50547
TOF Mult
BBC-S-West ADC Sum

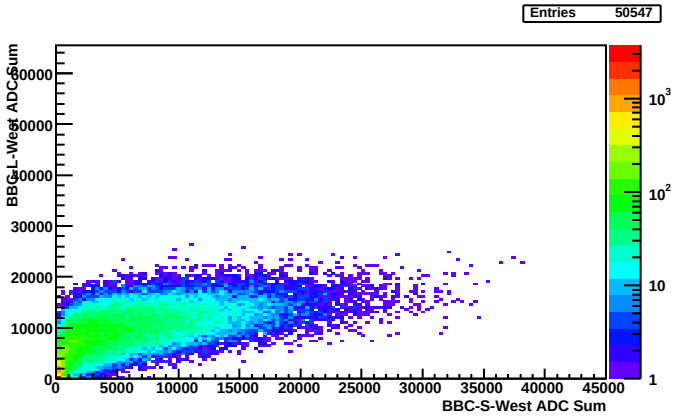

Entries 50547
TOF Mult
VPD-East ADC Sum

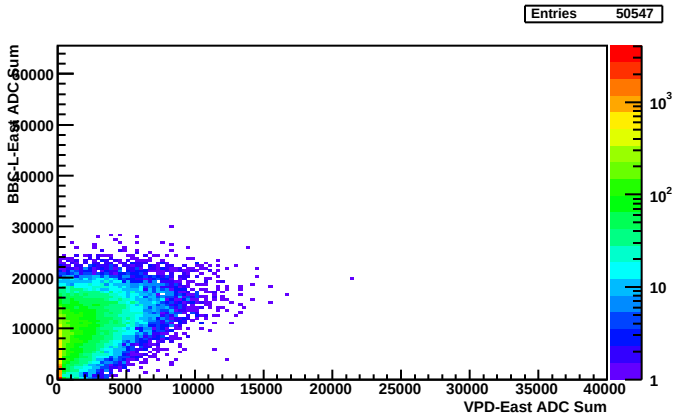

Entries 50547
TOF Mult
VPD-West ADC Sum

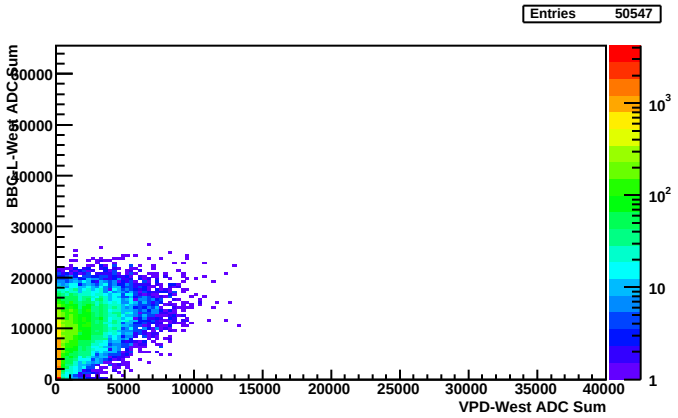

Entries 50547
TOF Mult
ZDC-East ADC Sum Att

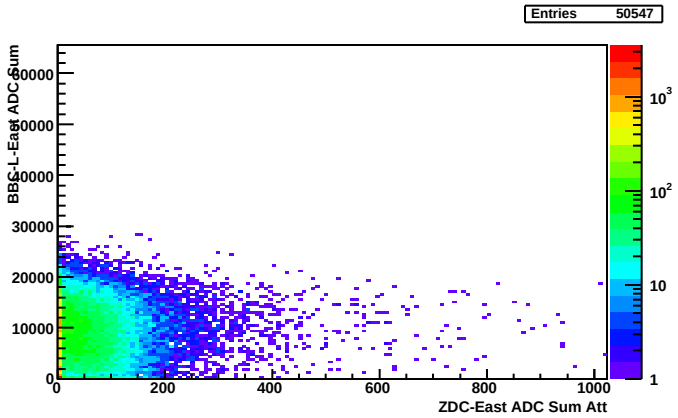

Entries 50547
TOF Mult
ZDC-West ADC Sum Att

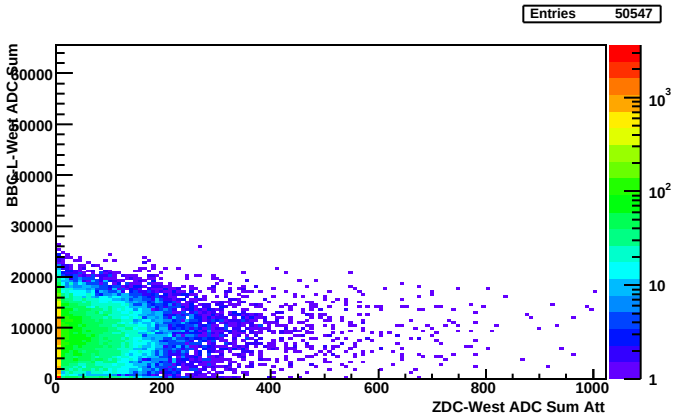

Entries 50547
BBC-L-East ADC Sum
BBC-S-East ADC Sum

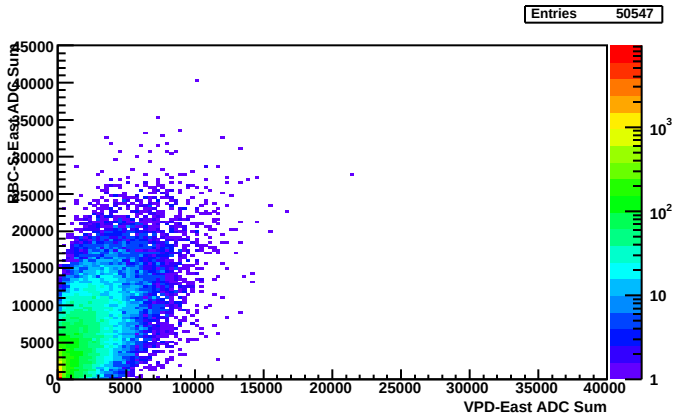

Entries 50547
BBC-L-West ADC Sum
BBC-S-West ADC Sum

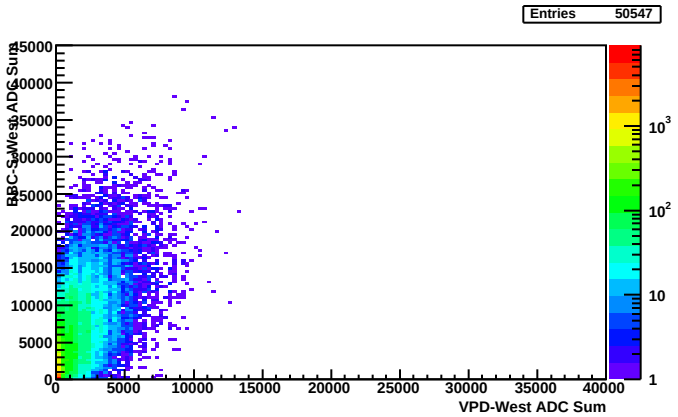

Entries 50547
BBC-L-East ADC Sum
VPD-East ADC Sum

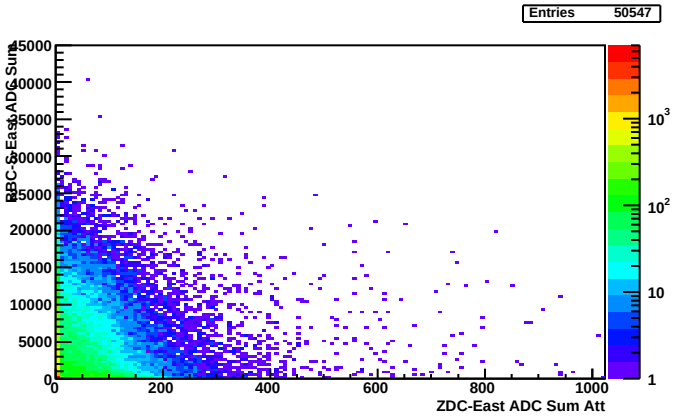

Entries 50547
BBC-L-West ADC Sum
VPD-West ADC Sum

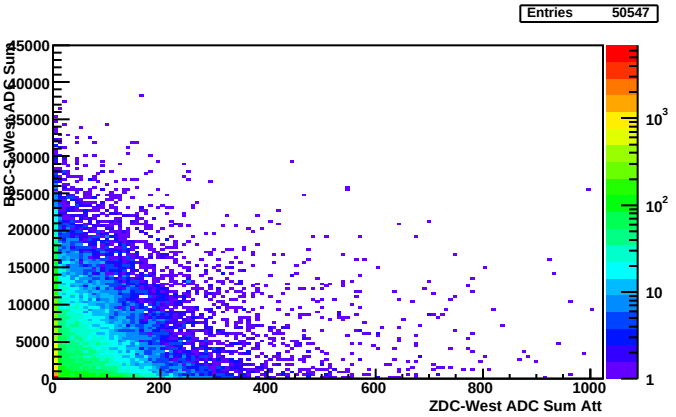

Entries 50547
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

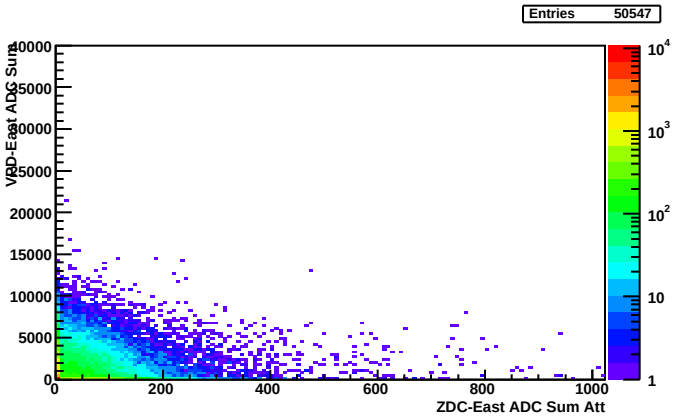

Entries 50547
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

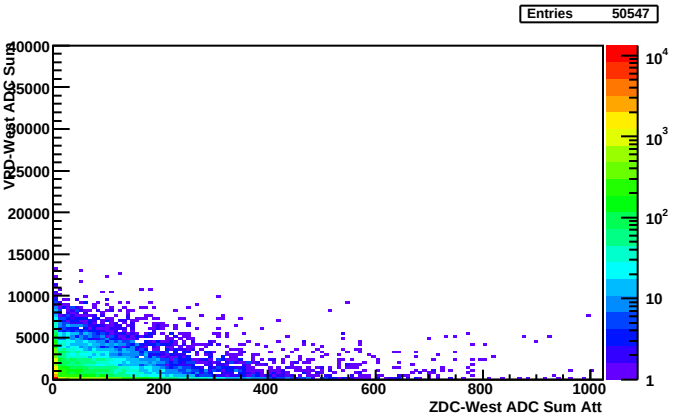

Entries 50547
BBC-S-East ADC Sum
VPD-East ADC Sum

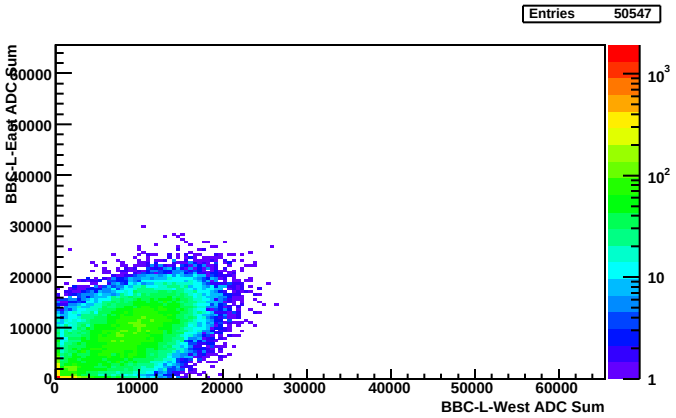

Entries 50547
BBC-S-West ADC Sum
VPD-West ADC Sum

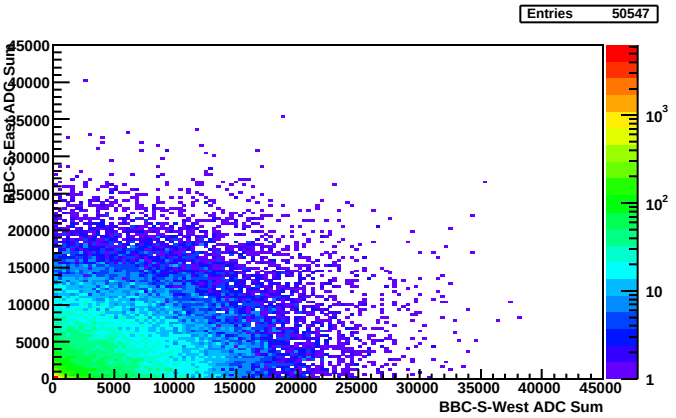

Entries 50547
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

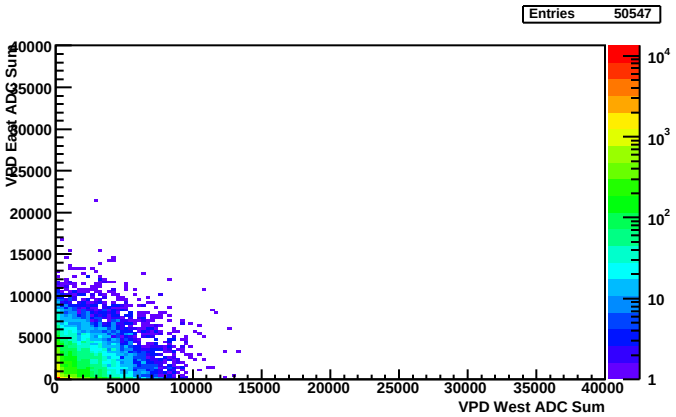

Entries 50547
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

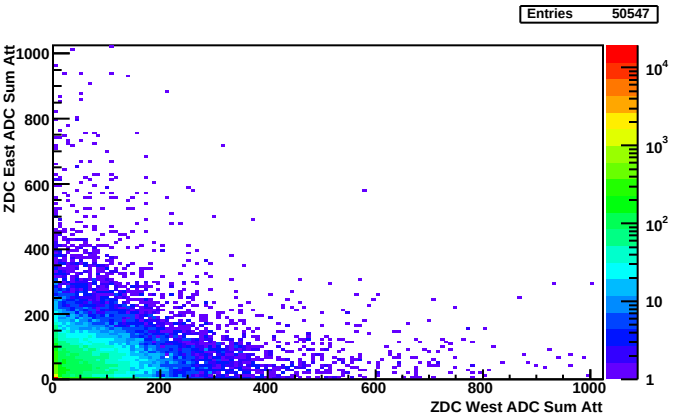

Entries 50547
VPD-East ADC Sum
ZDC-East ADC Sum Att

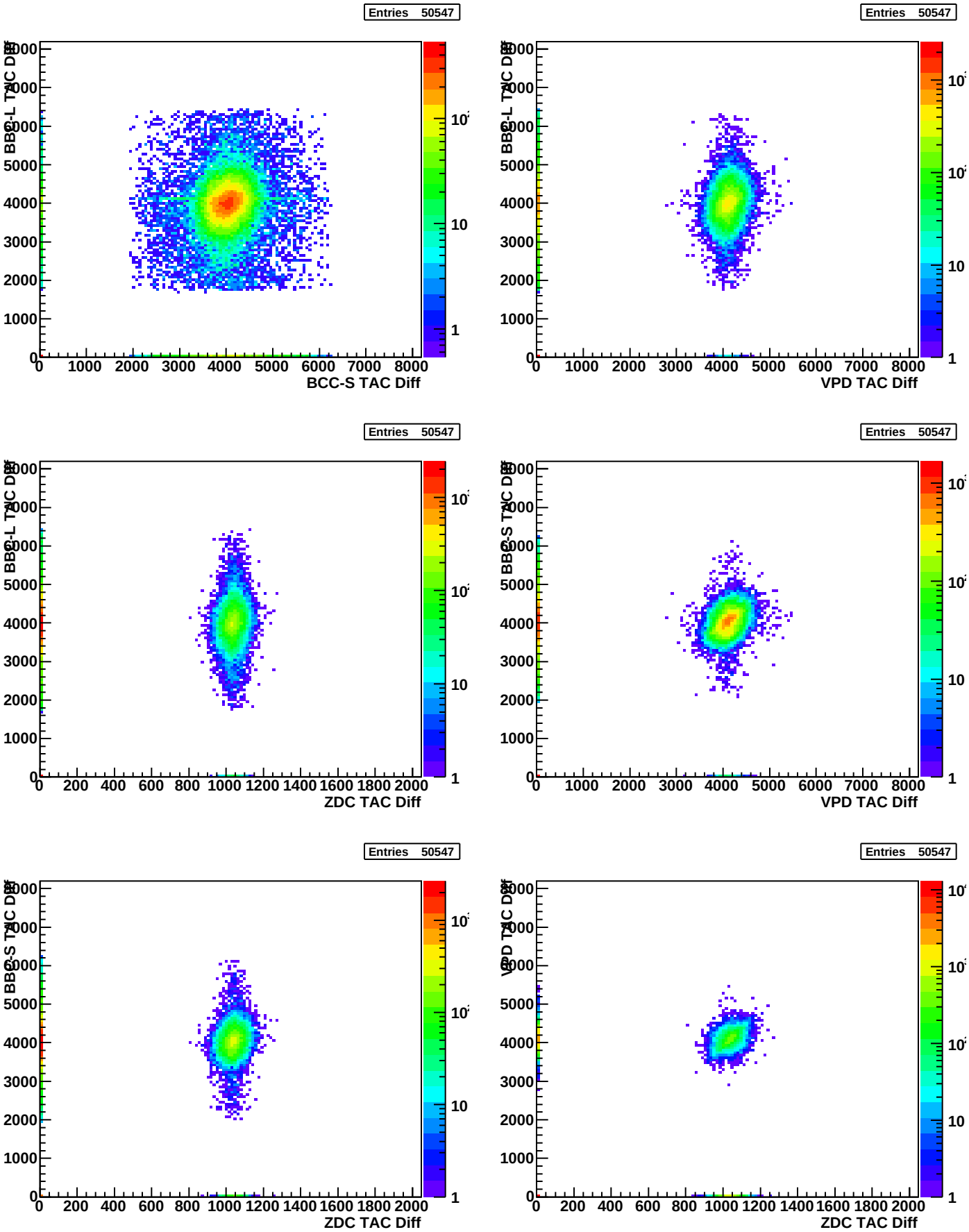

Entries 50547
VPD-West ADC Sum
ZDC-West ADC Sum Att

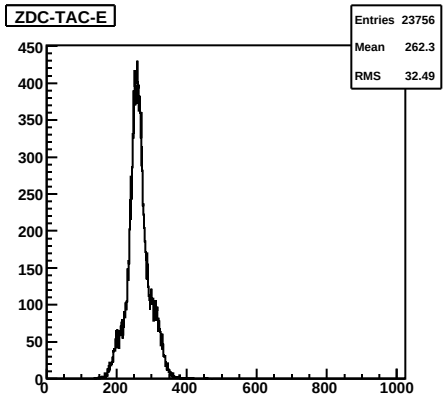

Entries 50547
BBC-L-East ADC Sum
BBC-L-West ADC Sum

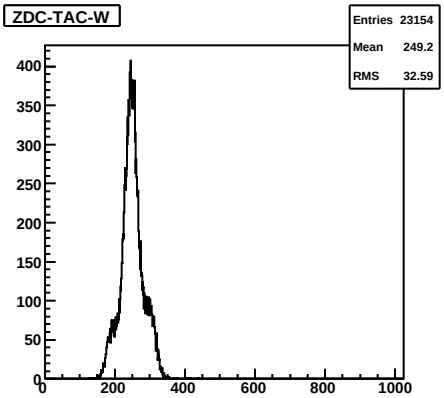

Entries 50547
BBC-S-East ADC Sum
BBC-S-West ADC Sum

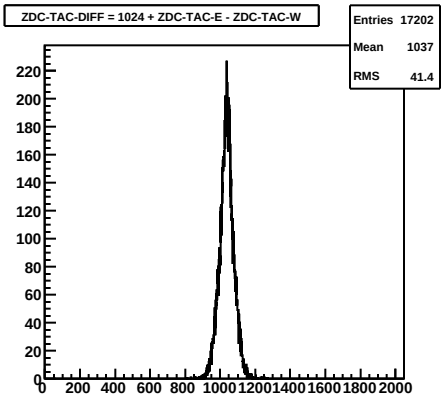

Entries 50547
VPD East ADC Sum
VPD West ADC Sum

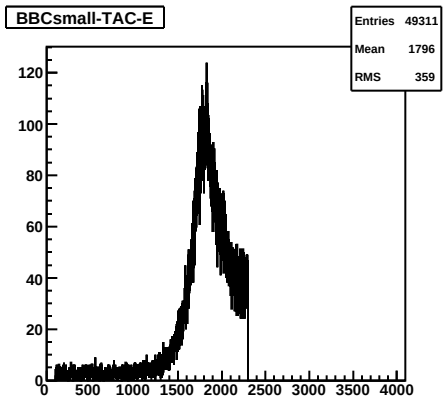

Entries 50547
ZDC East ADC Sum Att
ZDC West ADC Sum Att

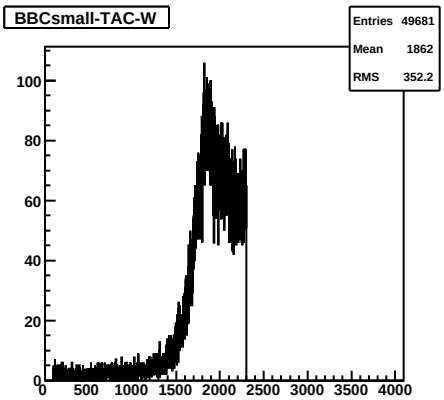

Entries 50547
BBC-L TAC Diff
BCC-S TAC Diff
Entries 50547
BBC-L TAC Diff
VPD TAC Diff
Entries 50547
BBC-L TAC Diff
ZDC TAC Diff
Entries 50547
BBC-S TAC Diff
VPD TAC Diff
Entries 50547
BBC-S TAC Diff
ZDC TAC Diff
Entries 50547
VPD TAC Diff
ZDC TAC Diff

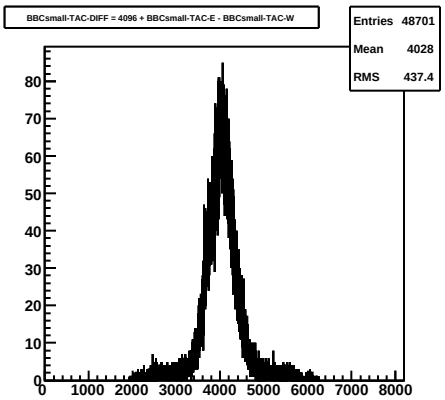

ZDC-TAC-E
Entries 23756
Mean 262.3
RMS 32.49

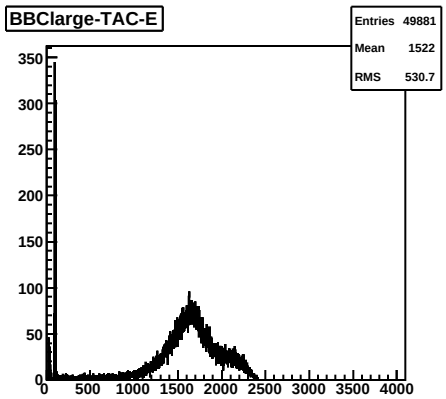

ZDC-TAC-W
Entries 23154
Mean 249.2
RMS 32.59

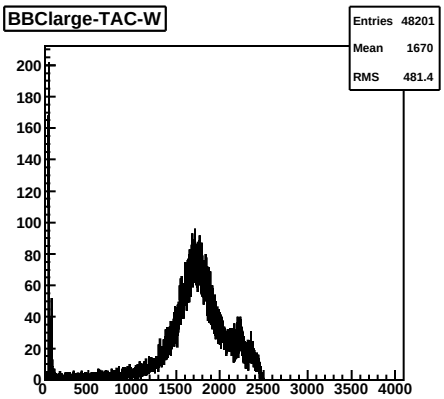

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 17202
Mean 1037
RMS 41.4

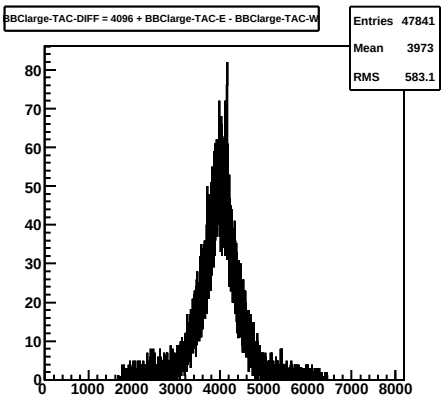

BBCsmall-TAC-E
Entries 49311
Mean 1796
RMS 359

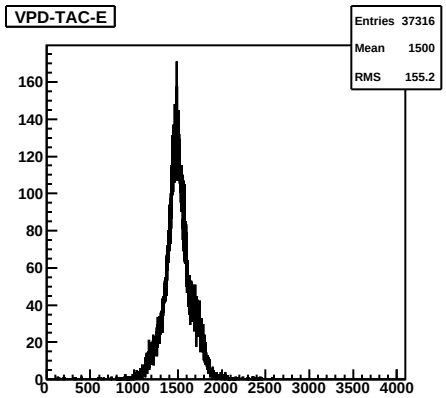

BBCsmall-TAC-W
Entries 49681
Mean 1862
RMS 352.2

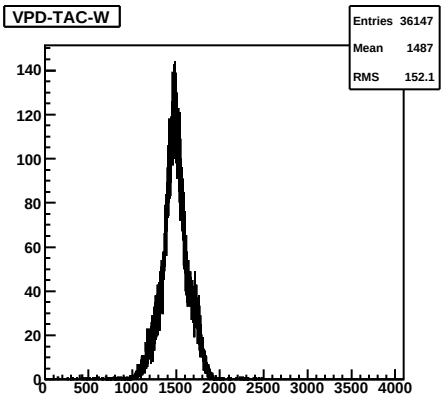

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 48701
Mean 4028
RMS 437.4

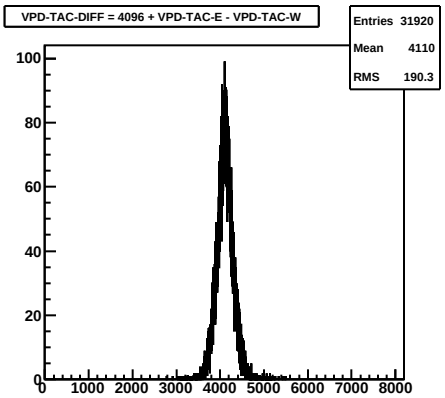

BBClarge-TAC-E
Entries 49881
Mean 1522
RMS 530.7

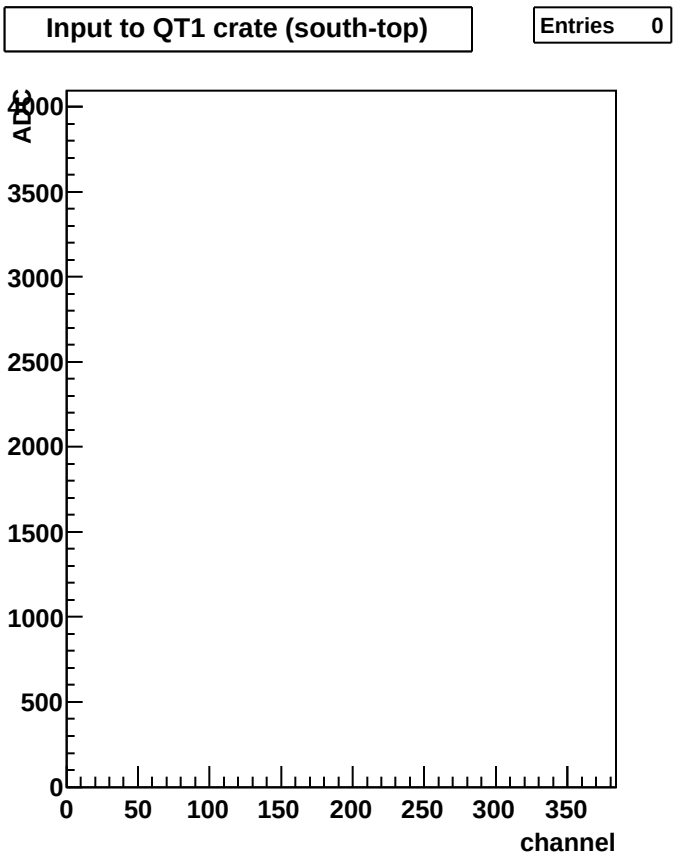

BBClarge-TAC-W
Entries 48201
Mean 1670
RMS 481.4

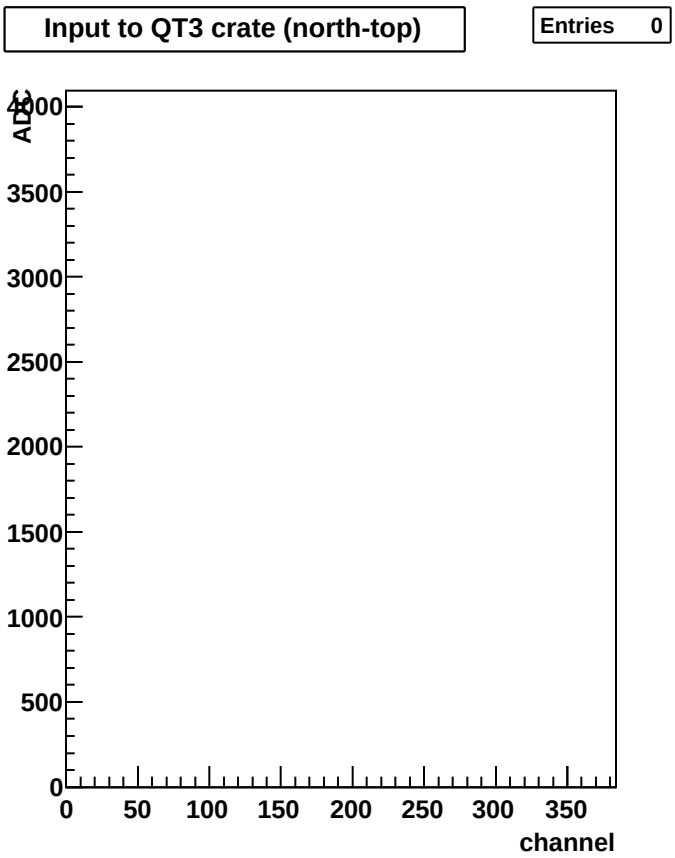

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 47841
Mean 3973
RMS 583.1

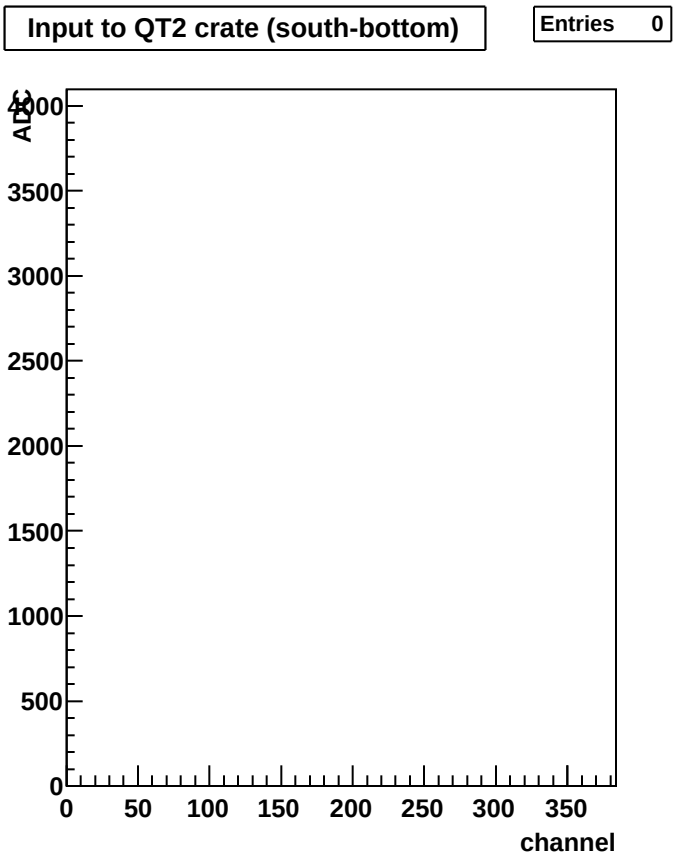

VPD-TAC-E
Entries 37316
Mean 1500
RMS 155.2

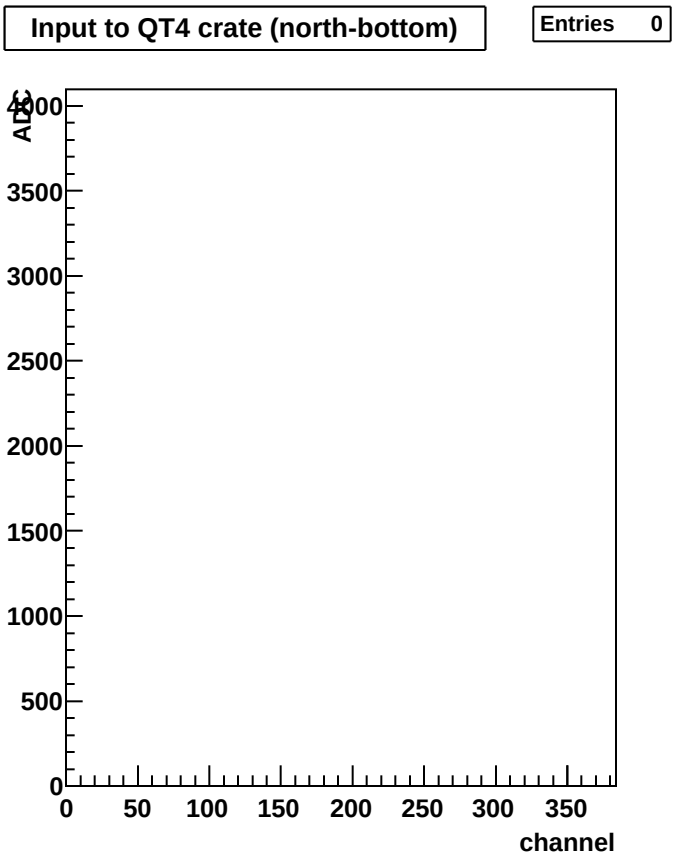

VPD-TAC-W
Entries 36147
Mean 1487
RMS 152.1

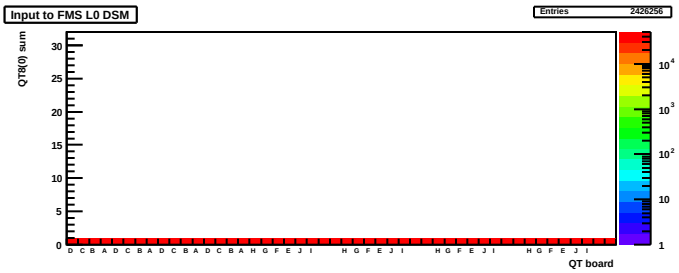

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 31920
Mean 4110
RMS 190.3

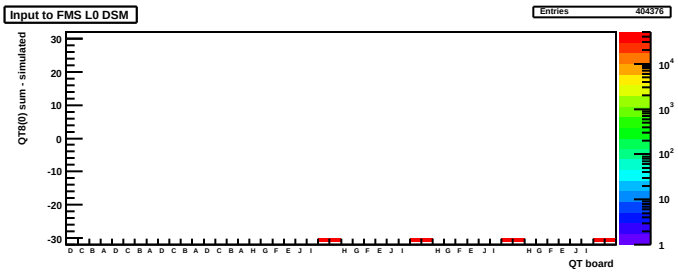

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

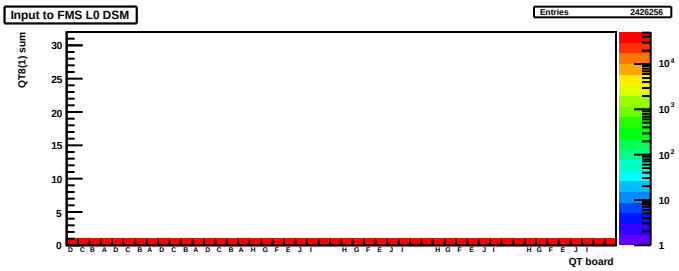

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

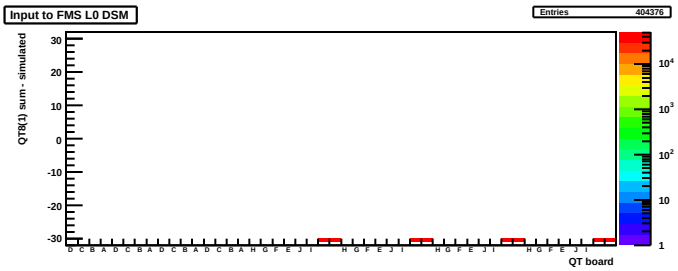

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

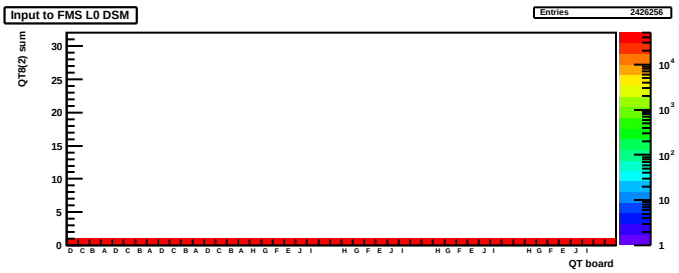

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

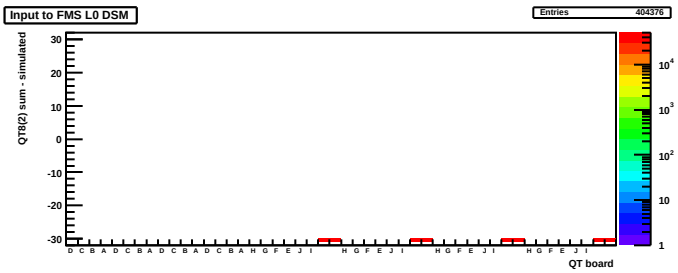

Input to FMS L0 DSM
Entries 2426256
QT8(0) sum
QT board

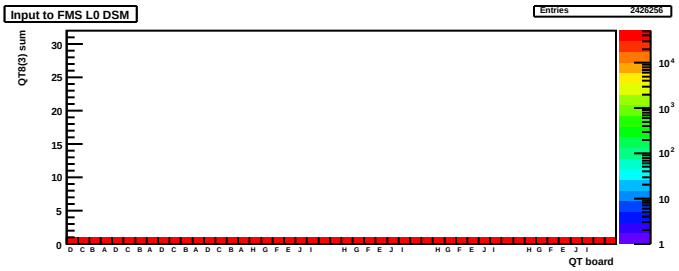

Input to FMS L0 DSM
Entries 404376
QT8(0) sum - simulated
QT board

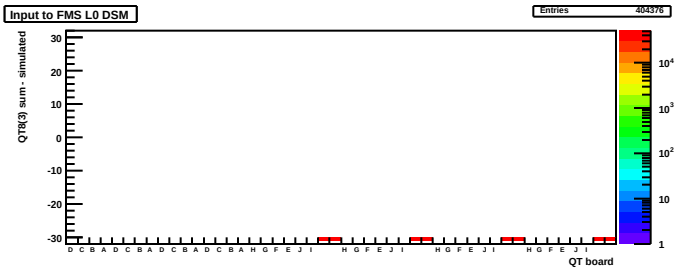

Input to FMS L0 DSM
Entries 2426256
QT8(1) sum
QT board

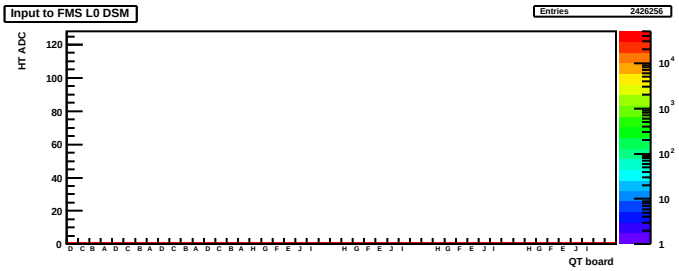

Input to FMS L0 DSM
Entries 404376
QT8(1) sum - simulated
QT board

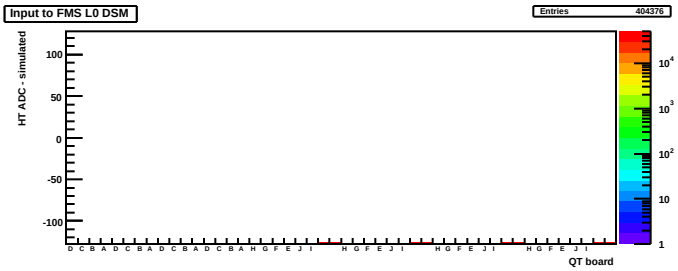

Input to FMS L0 DSM
Entries 2426256
QT8(2) sum
QT board

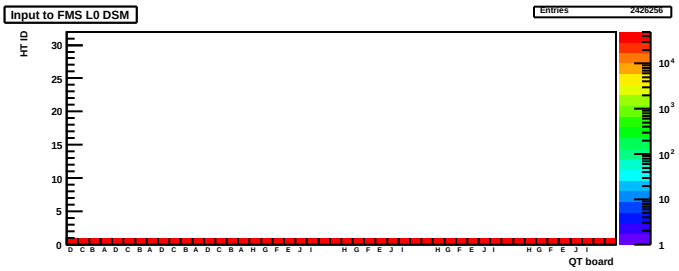

Input to FMS L0 DSM
Entries 404376
QT8(2) sum - simulated
QT board

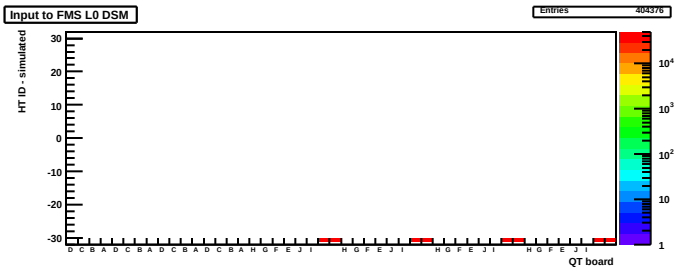

Input to FMS L0 DSM
Entries 2426256
QT8(3) sum
QT board

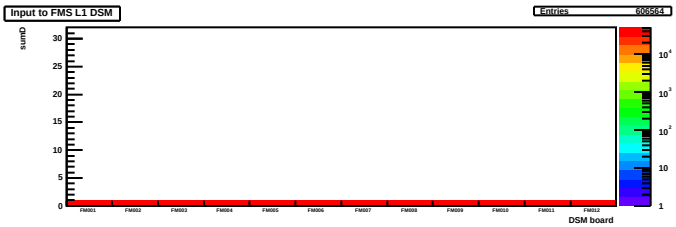

Input to FMS L0 DSM
Entries 404376
QT8(3) sum - simulated
QT board

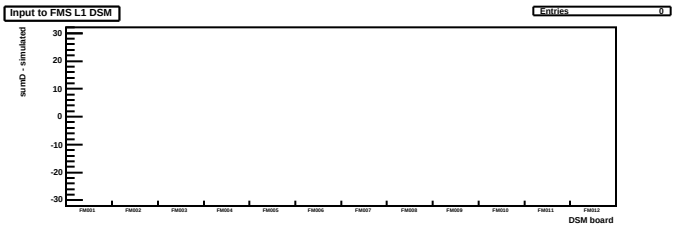

Input to FMS L0 DSM
Entries 2426256
HT ADC
QT board

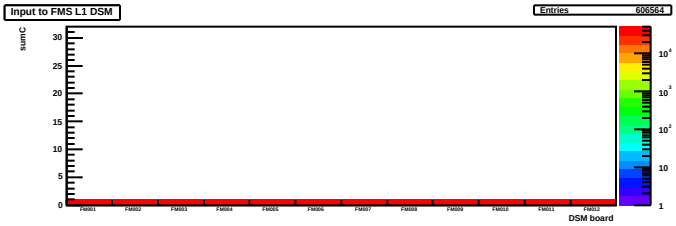

Input to FMS L0 DSM
Entries 404376
HT ADC - simulated
QT board

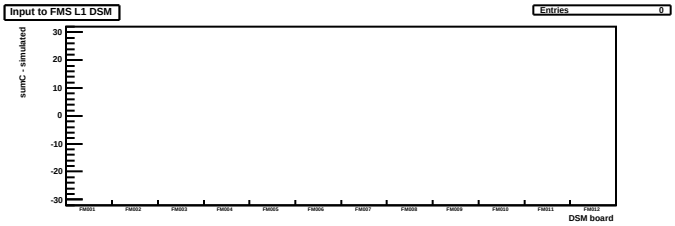

Input to FMS L0 DSM
Entries 2426256
HT ID
QT board

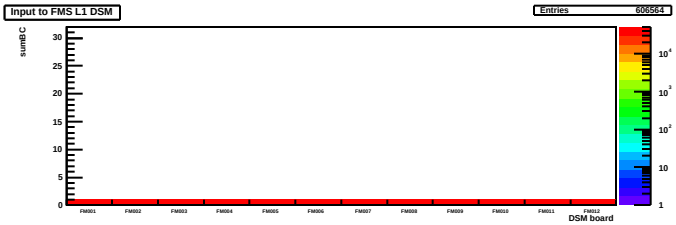

Input to FMS L0 DSM
Entries 404376
HT ID - simulated
QT board

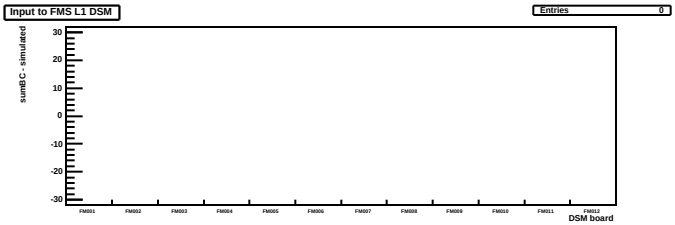

Input to FMS L1 DSM
Entries 606564
sumD
DSM board

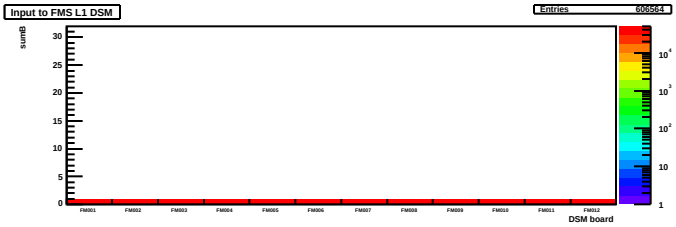

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

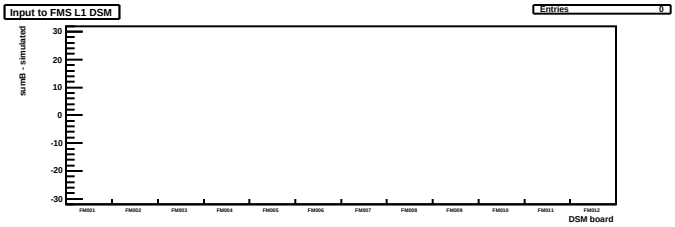

Input to FMS L1 DSM
Entries 606564
sumC
DSM board

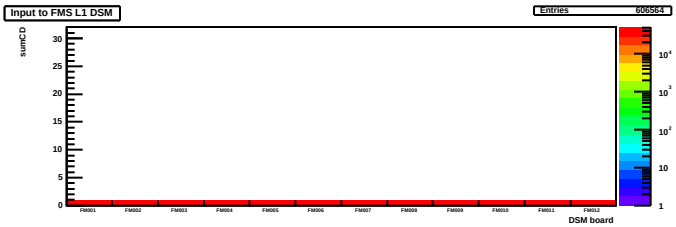

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

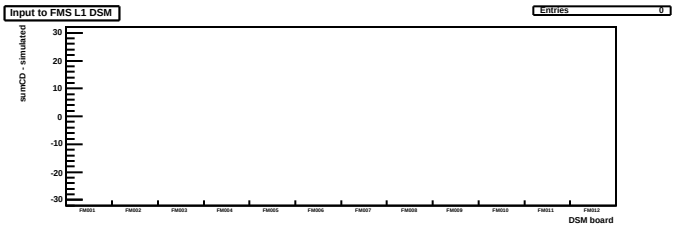

Input to FMS L1 DSM
Entries 606564
sumBC
DSM board

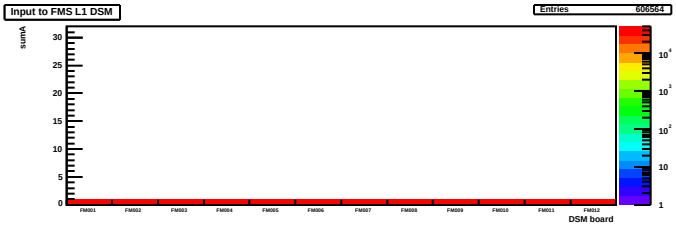

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

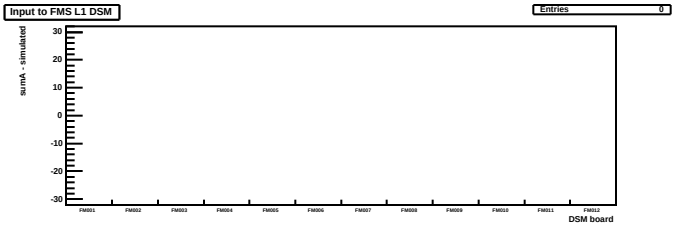

Input to FMS L1 DSM
Entries 606564
sumB
DSM board

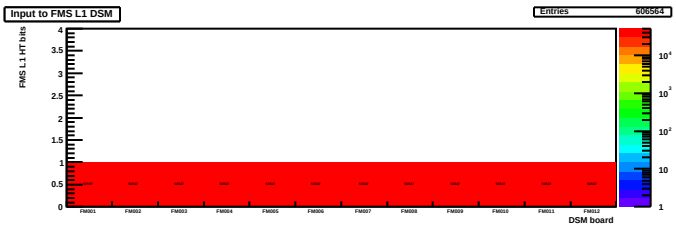

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

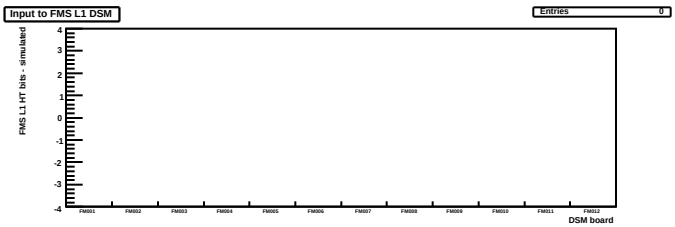

Input to FMS L1 DSM
Entries 606564
sumCD
DSM board

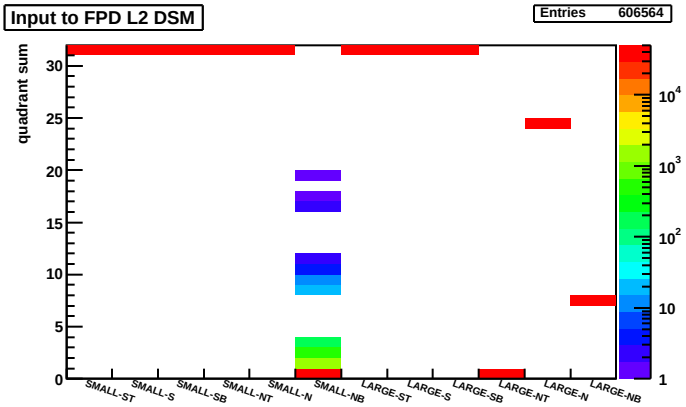

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

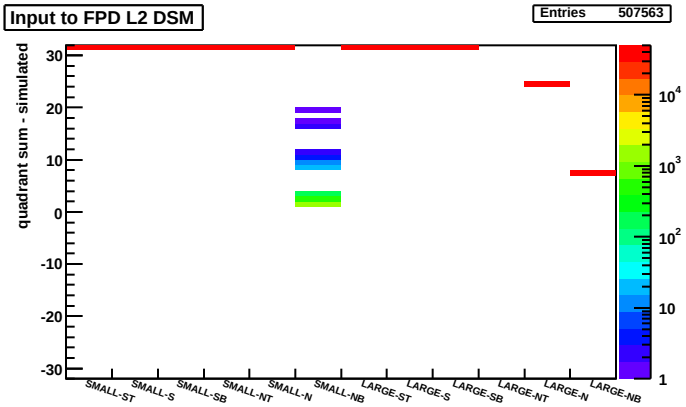

Input to FMS L1 DSM
Entries 606564
sumA
DSM board

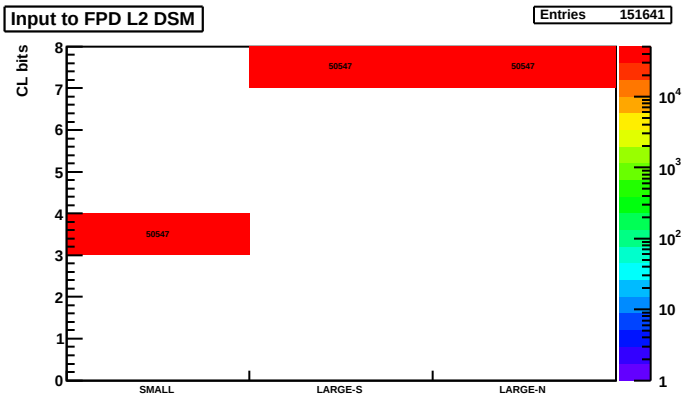

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

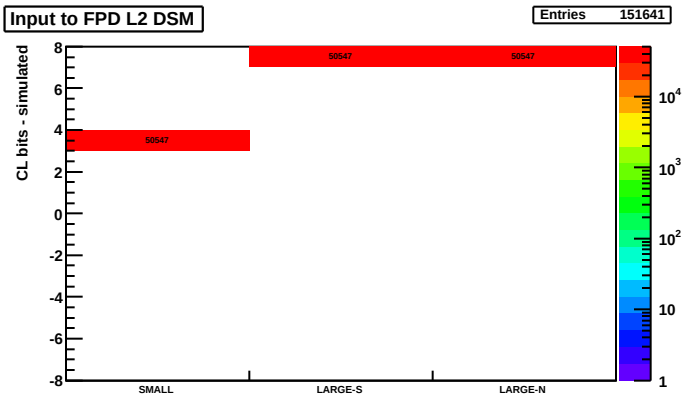

Input to FMS L1 DSM
Entries 606564
FMS L1 HT bits
DSM board

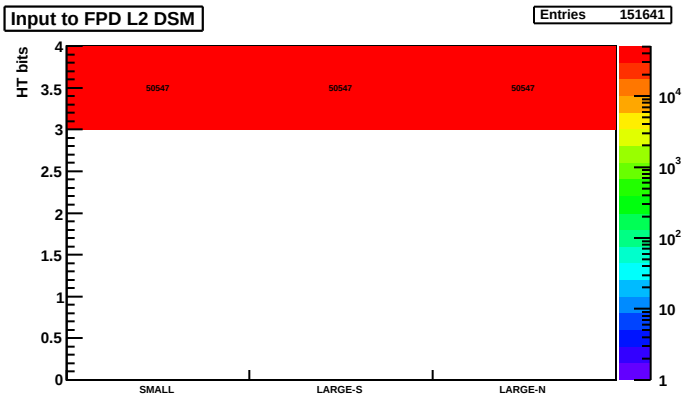

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

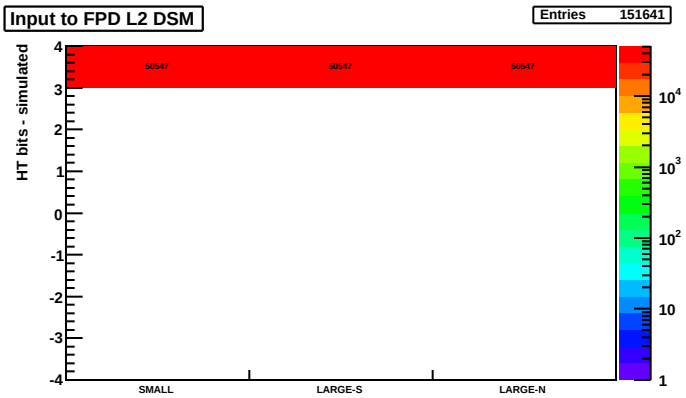

Input to FPD L2 DSM
Entries 606564
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

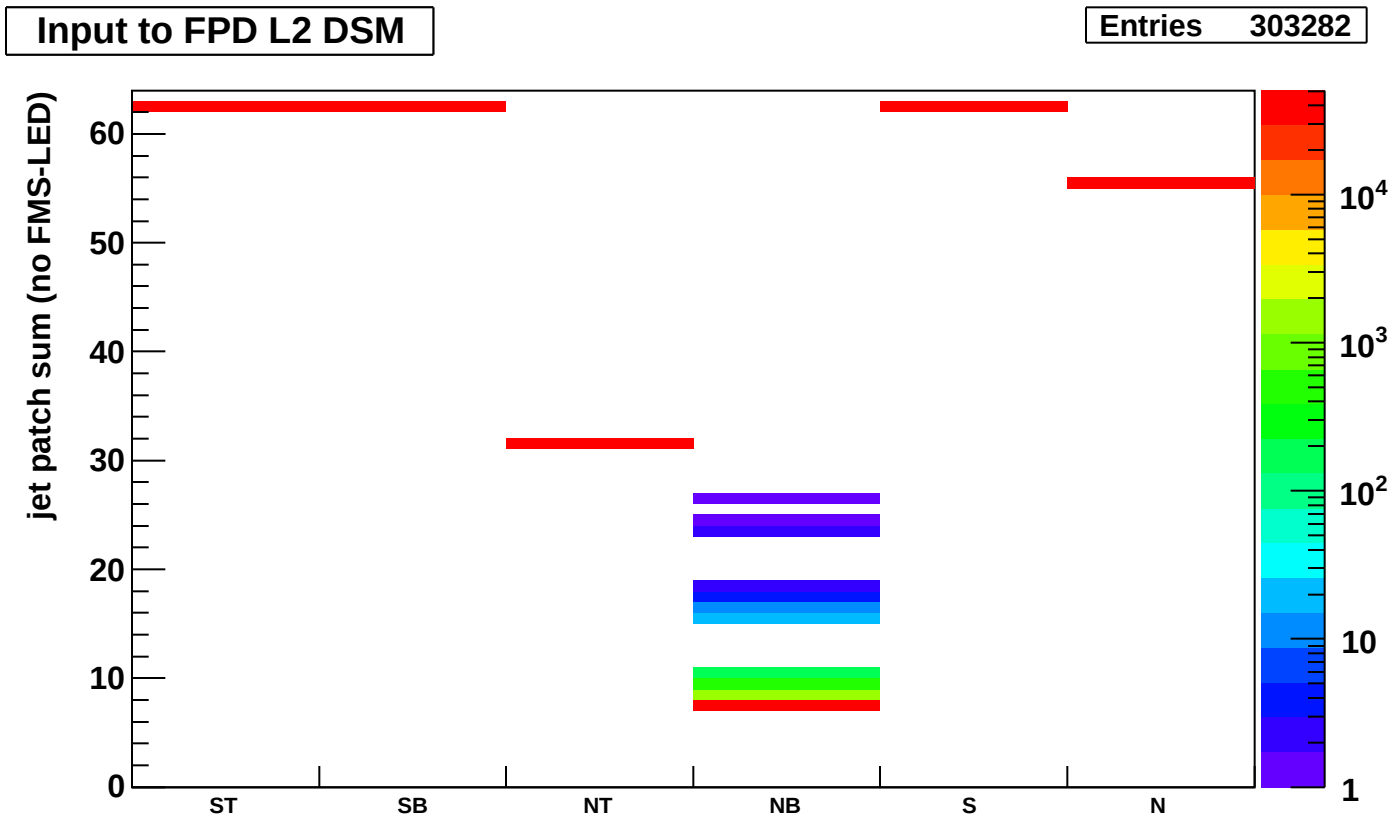

Input to FPD L2 DSM
Entries 507563
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

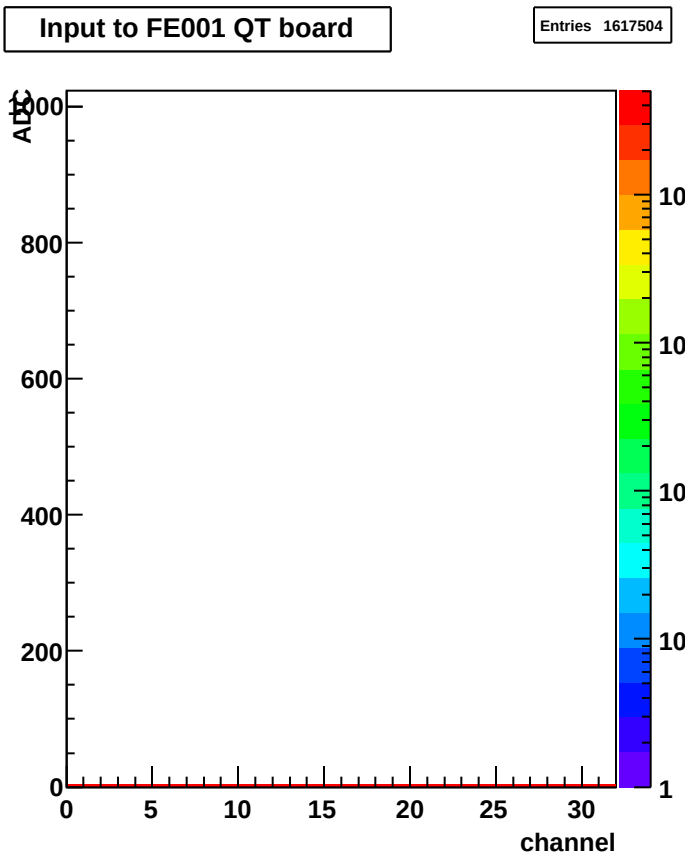

Input to FPD L2 DSM
Entries 151641
CL bits
50547
50547
50547
SMALL
LARGE-S
LARGE-N

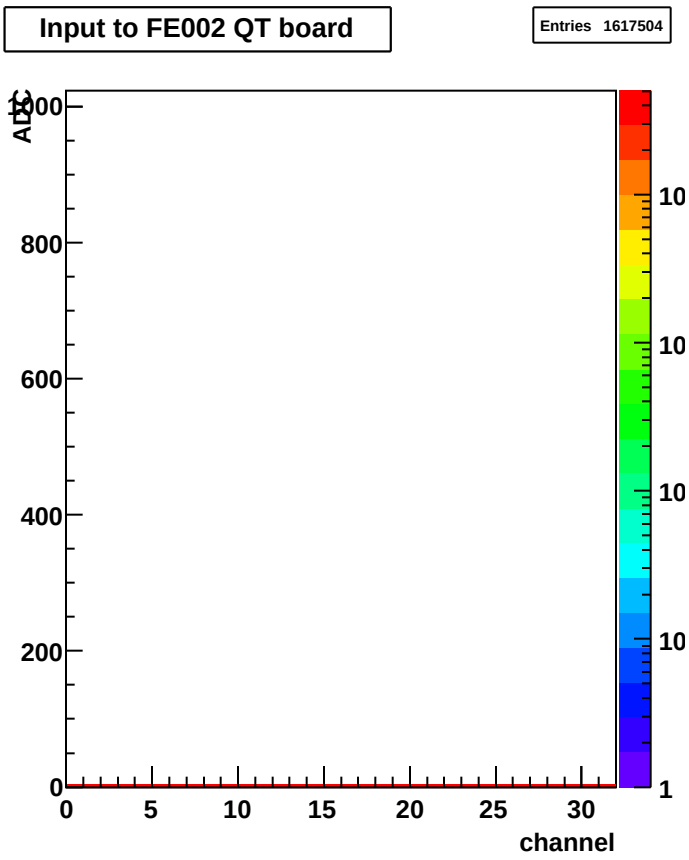

Input to FPD L2 DSM
Entries 151641
CL bits - simulated
50547
50547
50547
SMALL
LARGE-S
LARGE-N

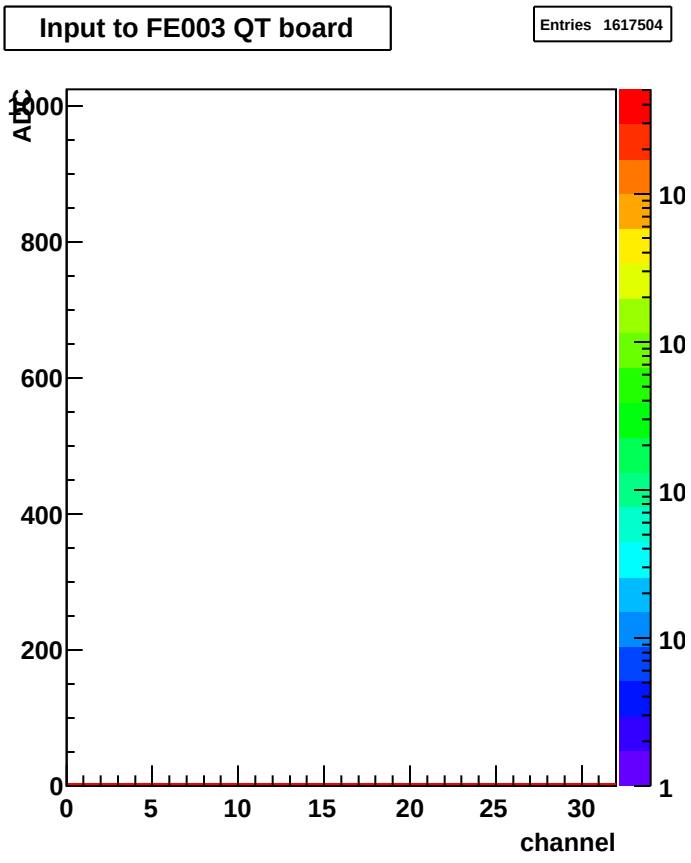

Input to FPD L2 DSM
Entries 151641
HT bits
50547
50547
50547
SMALL
LARGE-S
LARGE-N

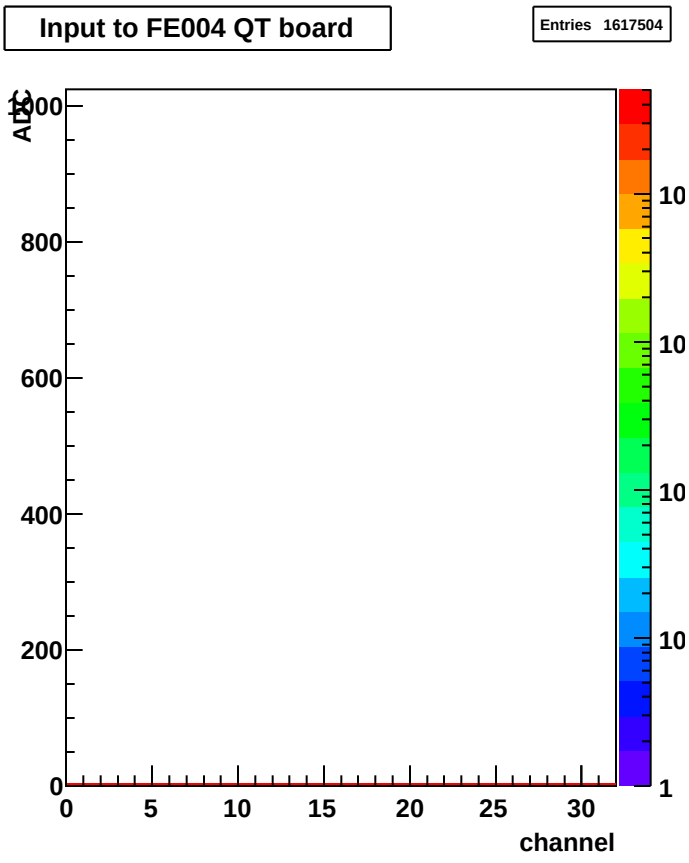

Input to FPD L2 DSM
Entries 151641
HT bits - simulated
50547
50547
50547
SMALL
LARGE-S
LARGE-N

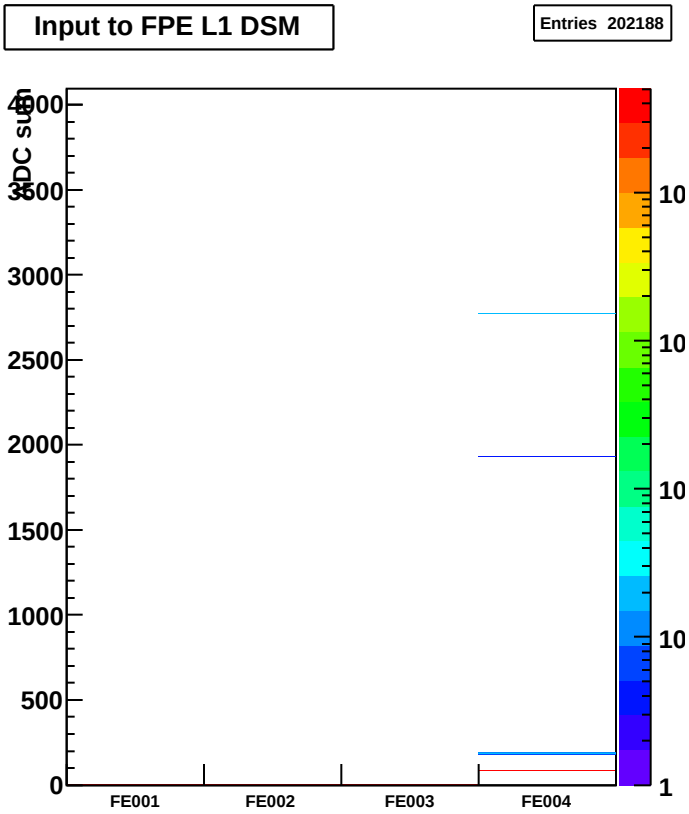

Input to FPD L2 DSM
Entries 303282
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

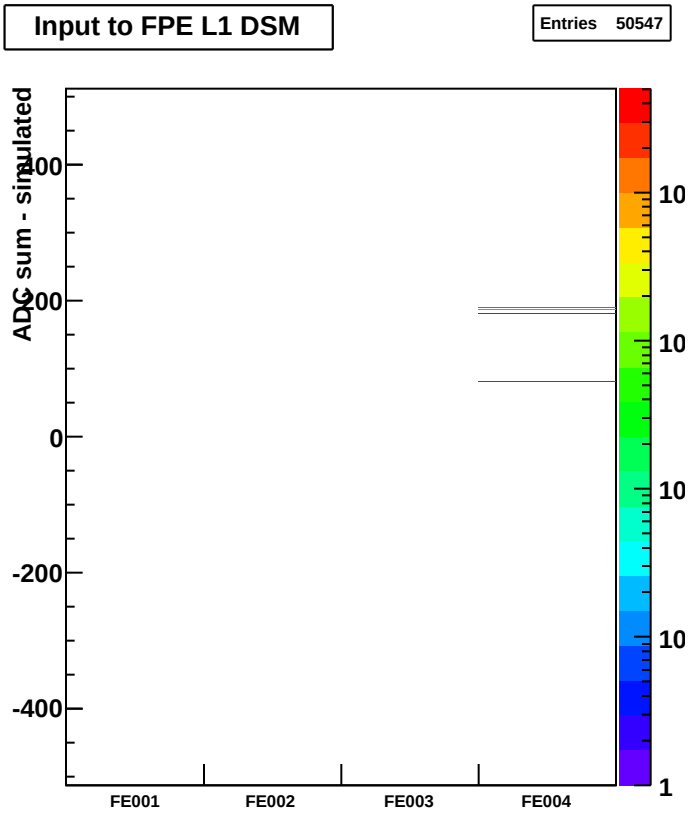

Input to FE001 QT board
Entries 1617504
ADC
channel

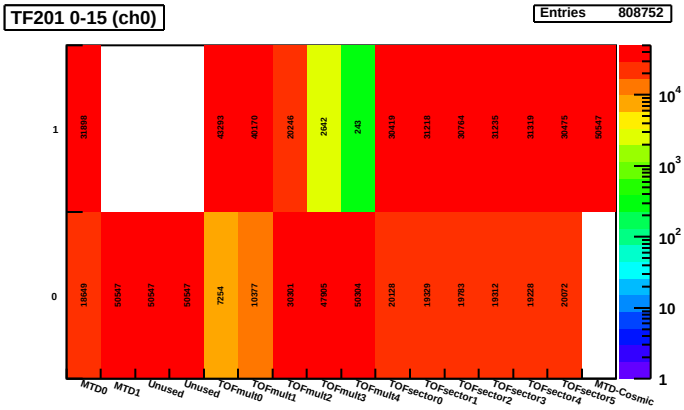

Input to FE002 QT board
Entries 1617504
ADC
channel

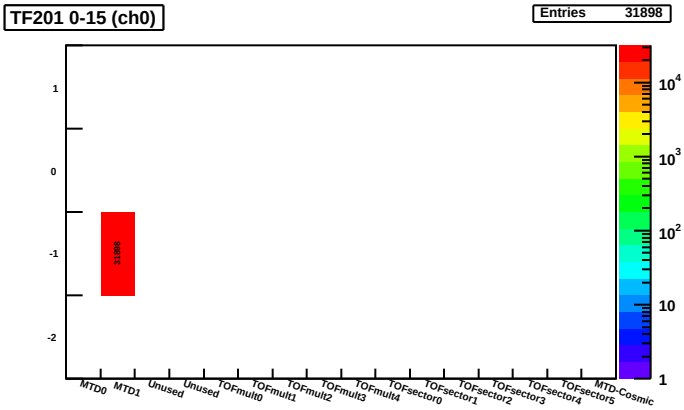

Input to FE003 QT board
Entries 1617504
ADC
channel

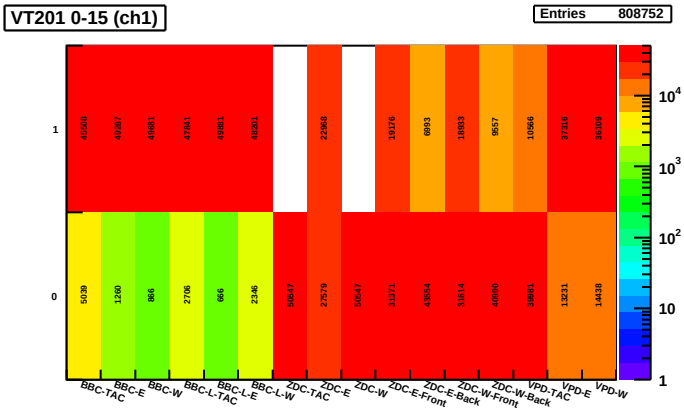

Input to FE004 QT board
Entries 1617504
ADC
channel

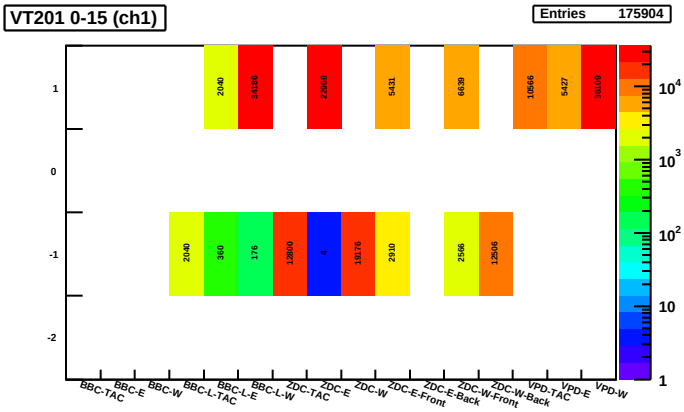

Input to FPE L1 DSM
Entries 202188
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

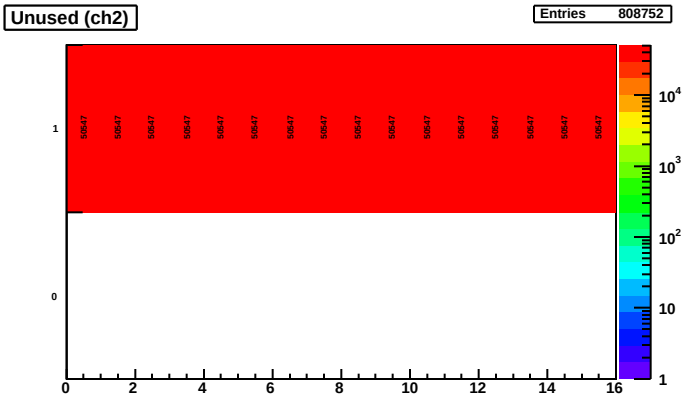

Input to FPE L1 DSM
Entries 50547
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

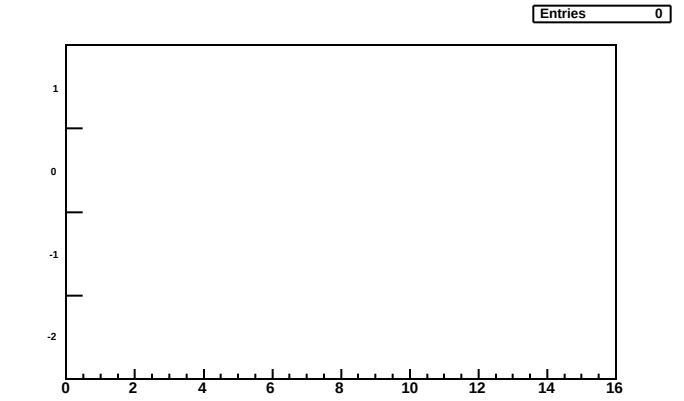

TF201 0-15 (ch0)
Entries 808752
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

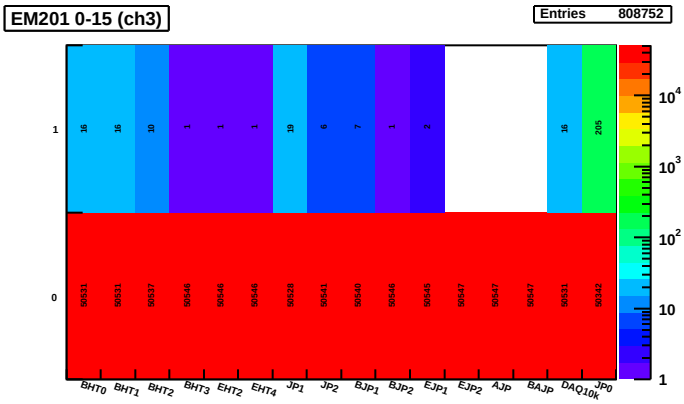

TF201 0-15 (ch0)
Entries 31898
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

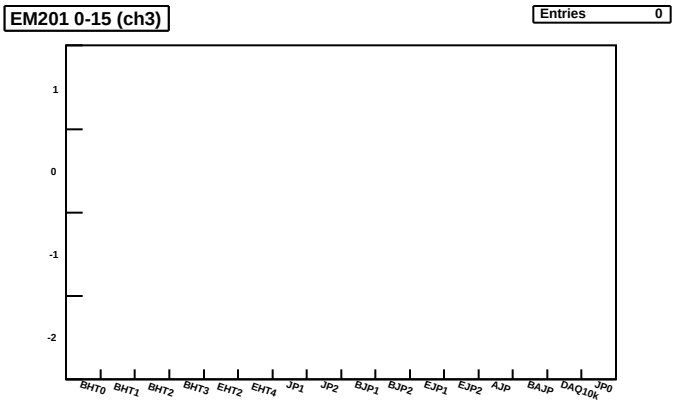

VT201 0-15 (ch1)
Entries 808752
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

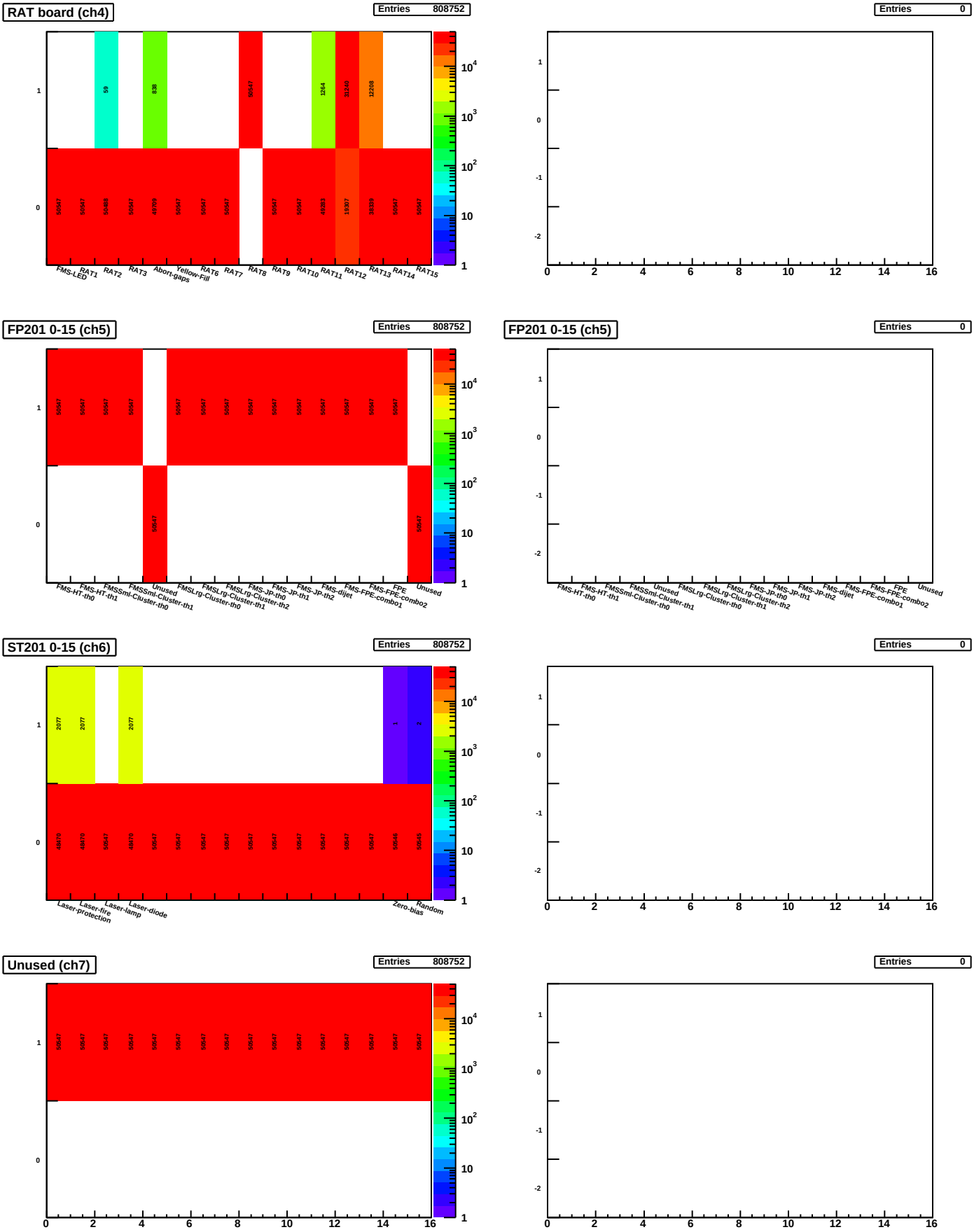

VT201 0-15 (ch1)
Entries 175904
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


Unused (ch2)
Entries 808752


Entries 0


EM201 0-15 (ch3)
Entries 808752
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)
Entries 808752
Entries 0
FP201 0-15 (ch5)
Entries 808752
FP201 0-15 (ch5)
Entries 0
ST201 0-15 (ch6)
Entries 808752
Entries 0
Unused (ch7)
Entries 808752
Entries 0