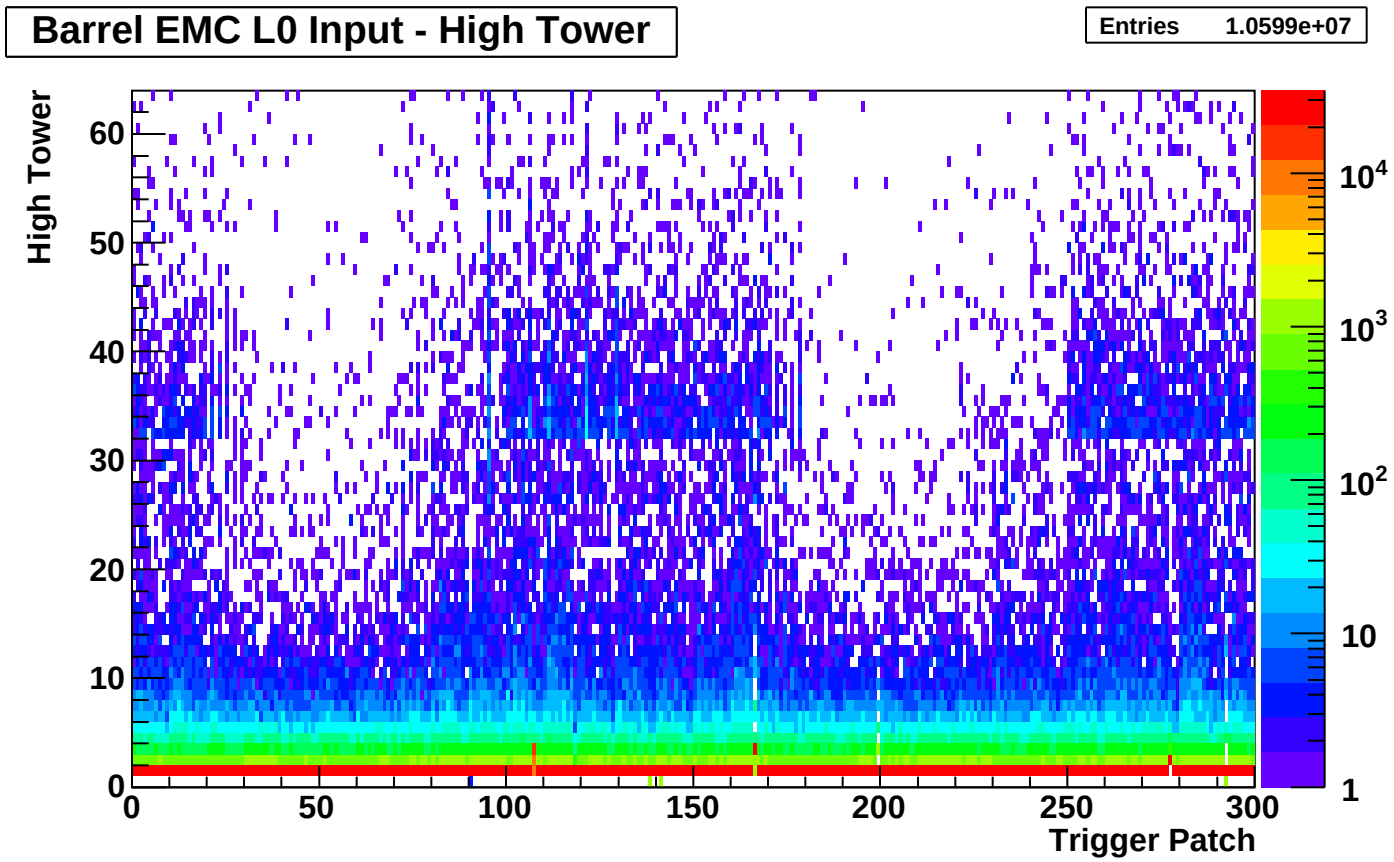
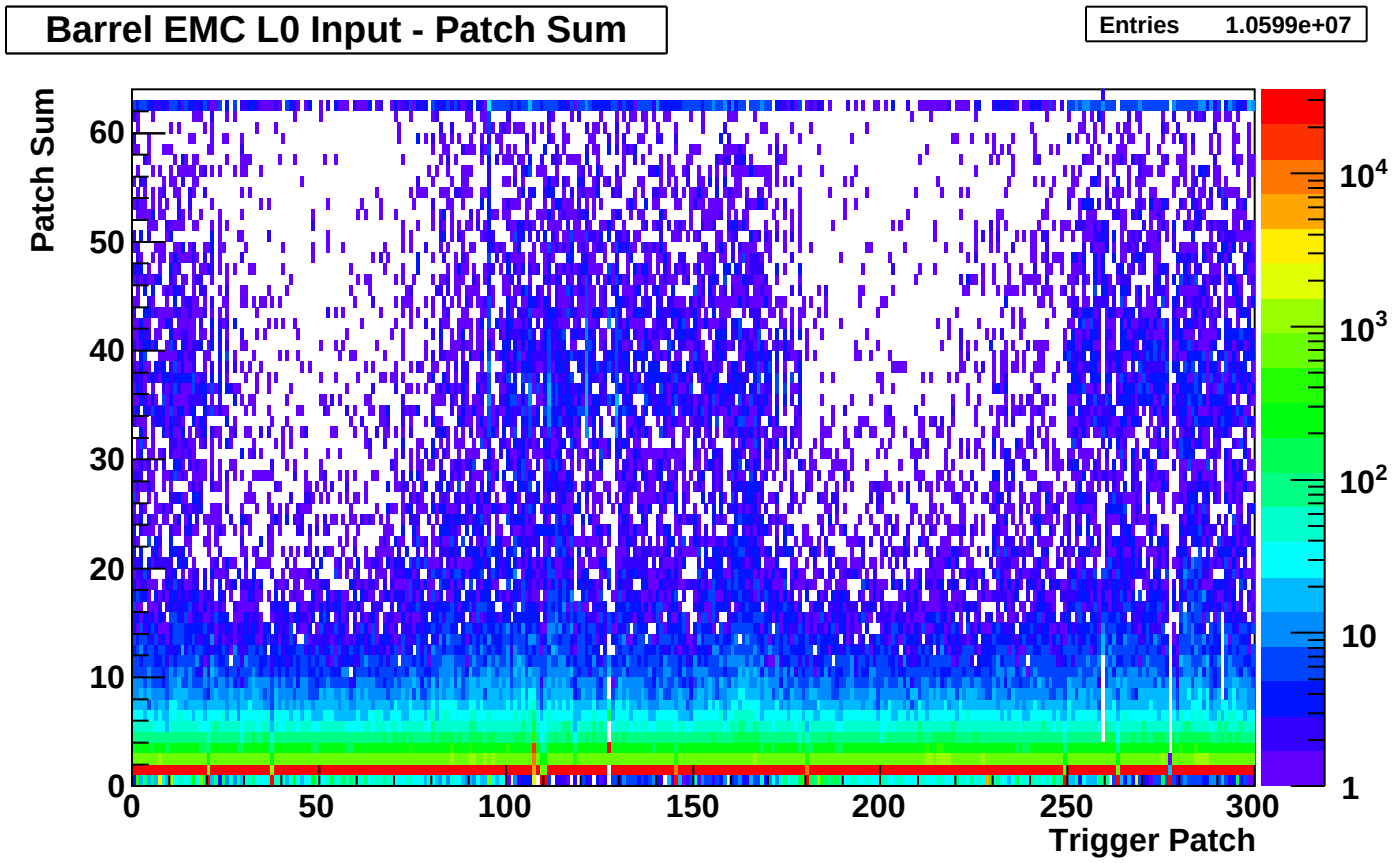
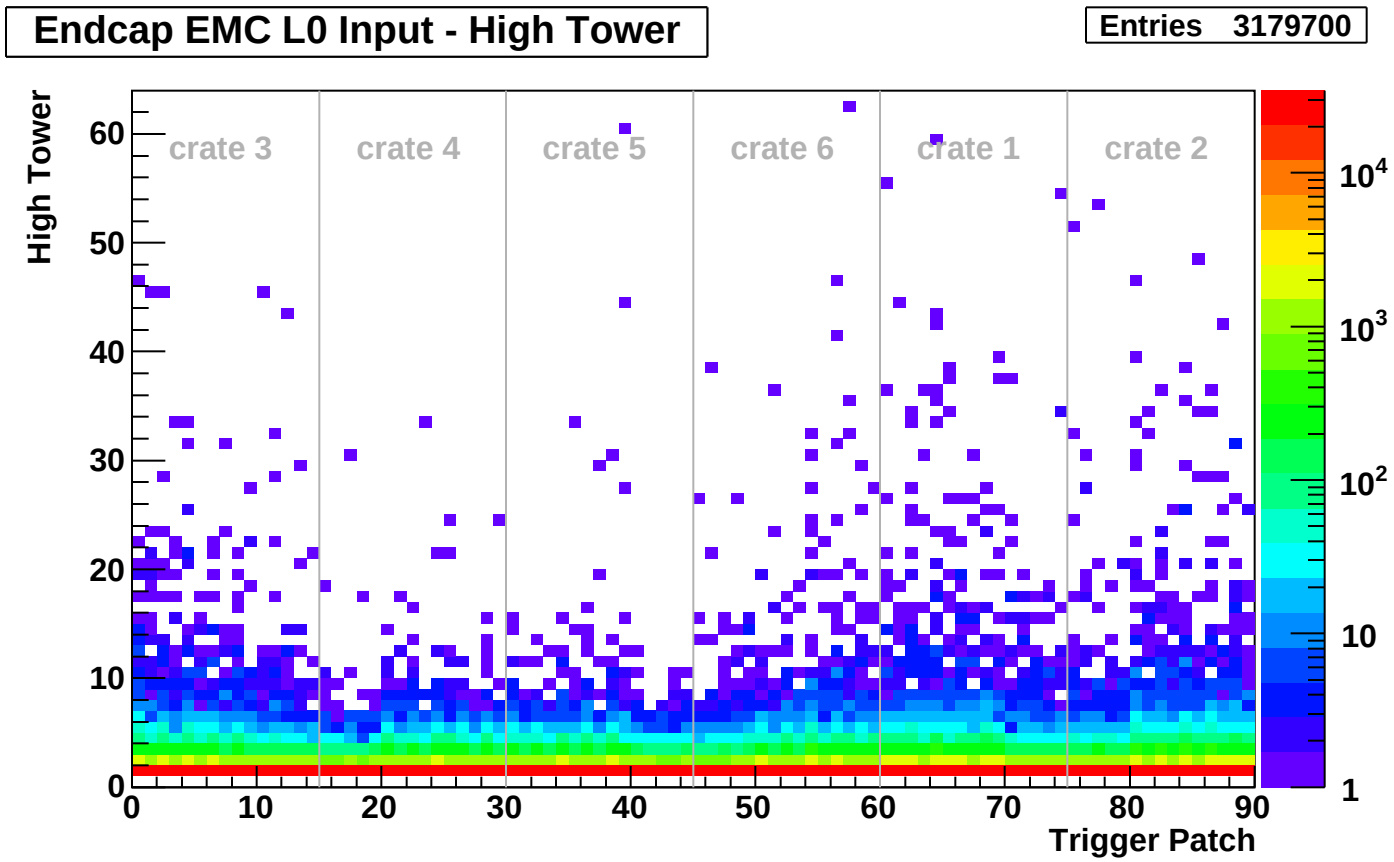
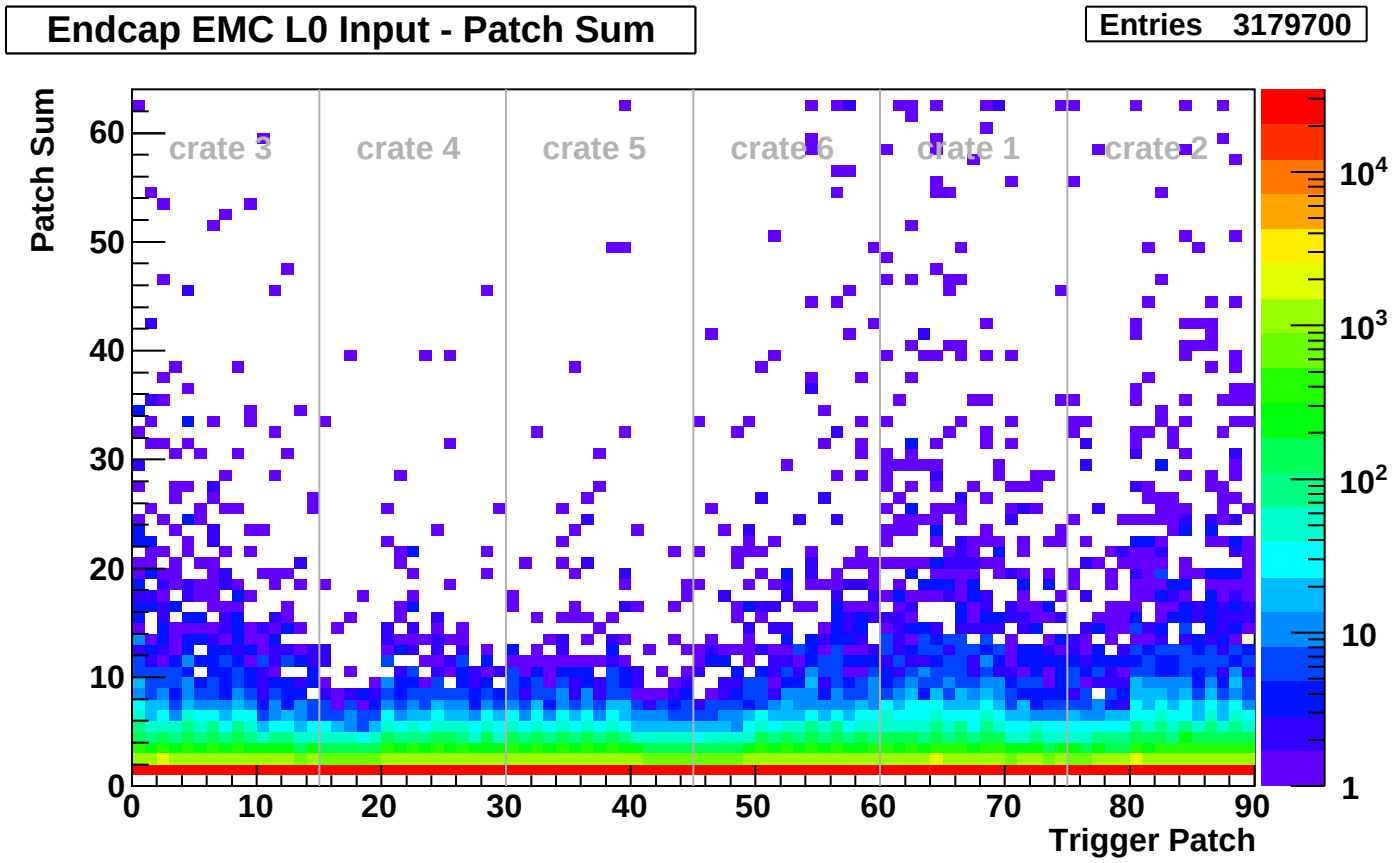
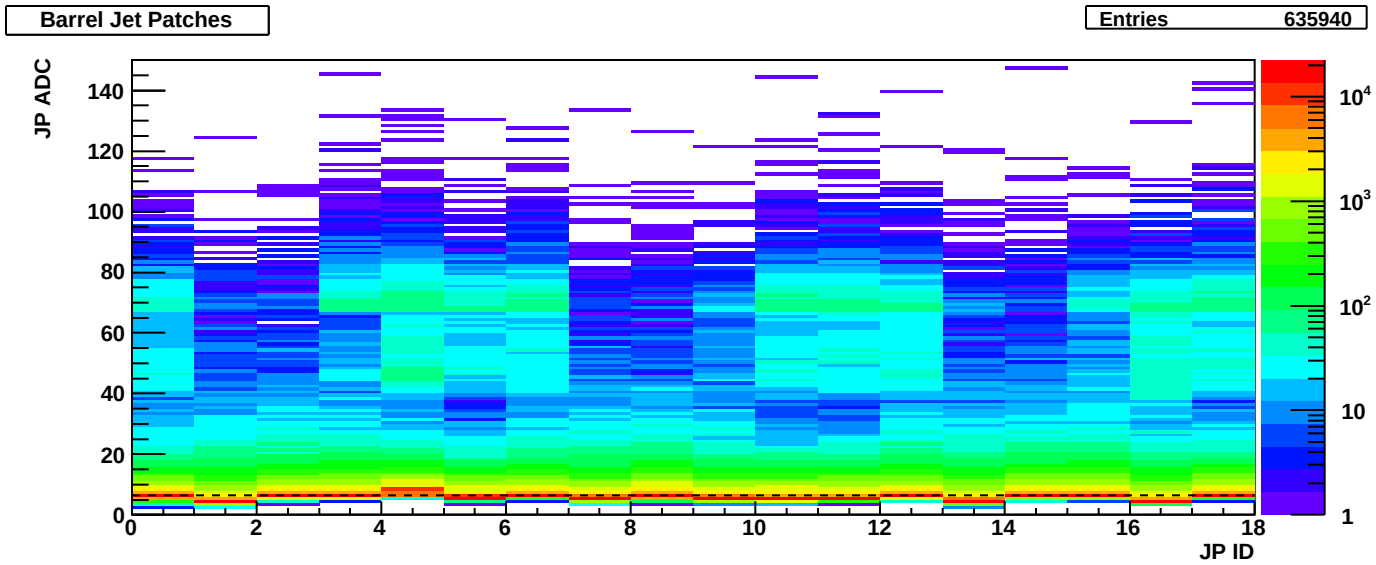
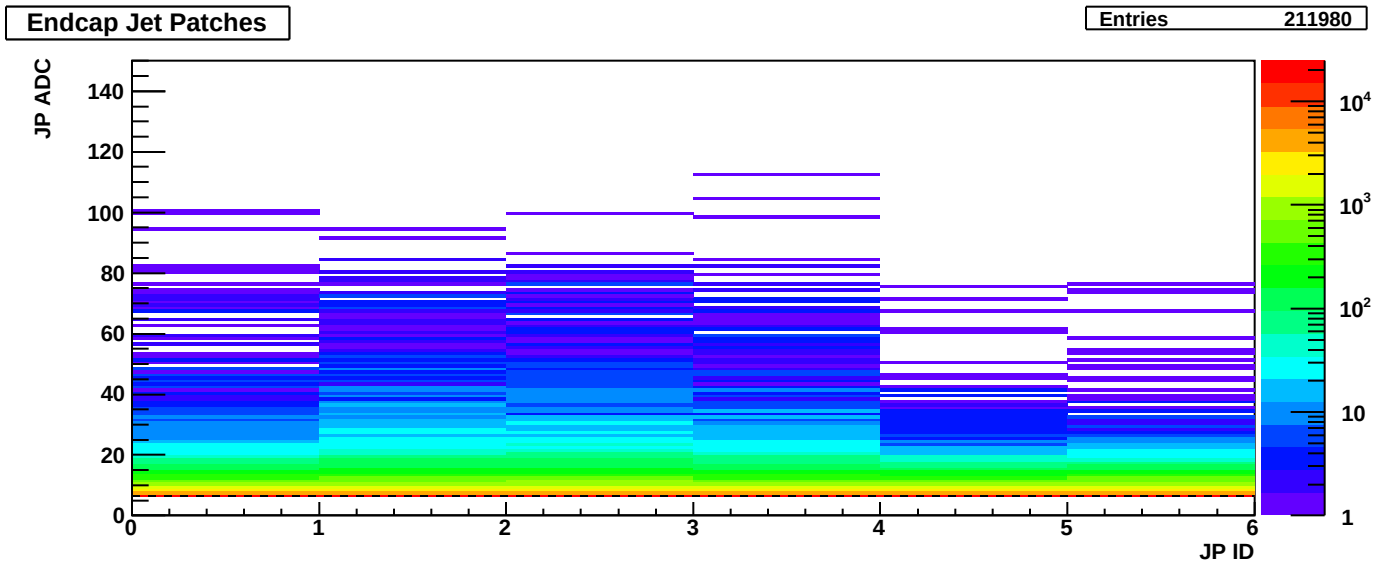

Barrel EMC L0 Input - High Tower
Entries 1.0599e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

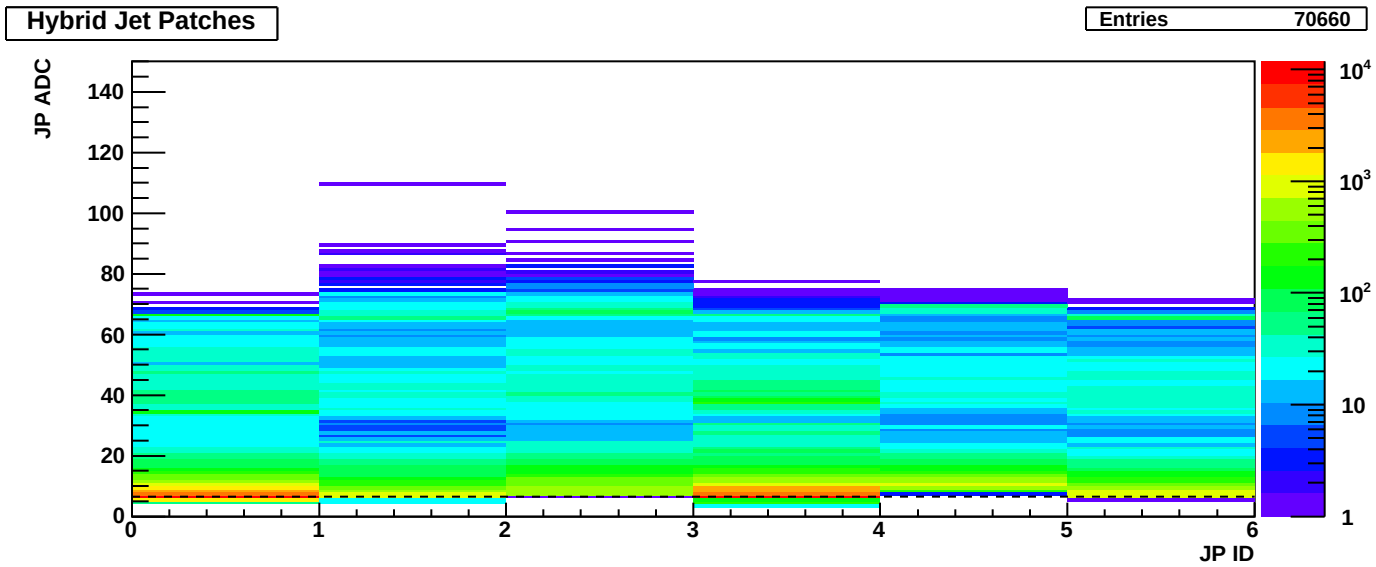

Barrel EMC L0 Input - Patch Sum
Entries 1.0599e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

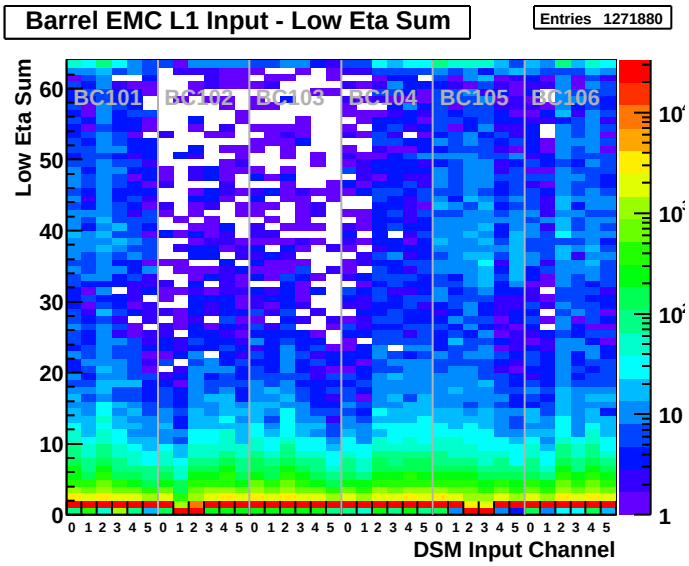

Endcap EMC L0 Input - High Tower
Entries 3179700
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

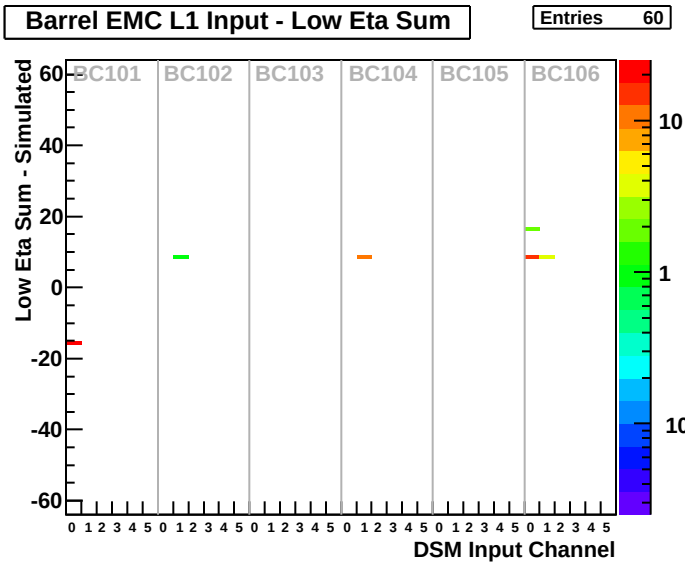

Endcap EMC L0 Input - Patch Sum
Entries 3179700
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

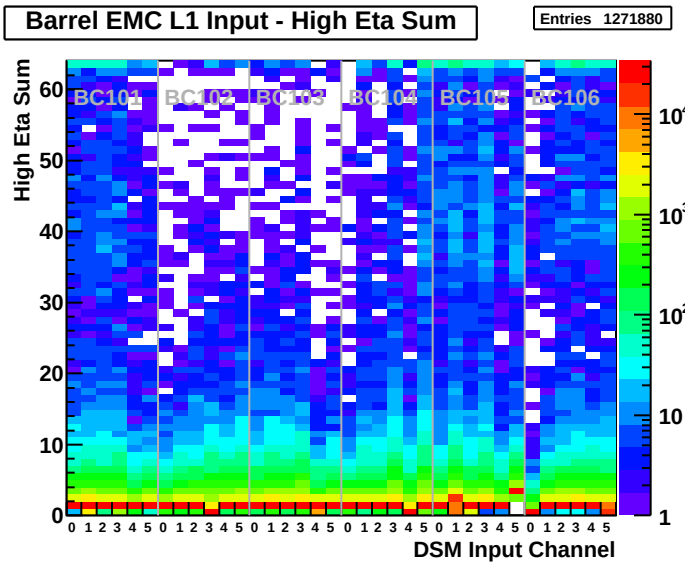

Barrel Jet Patches
Entries 635940
JP ADC
JP ID

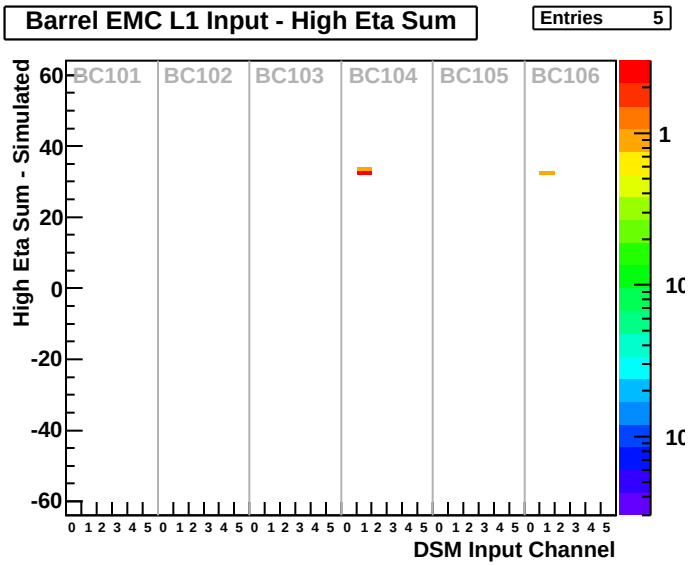

Endcap Jet Patches
Entries 211980
JP ADC
JP ID

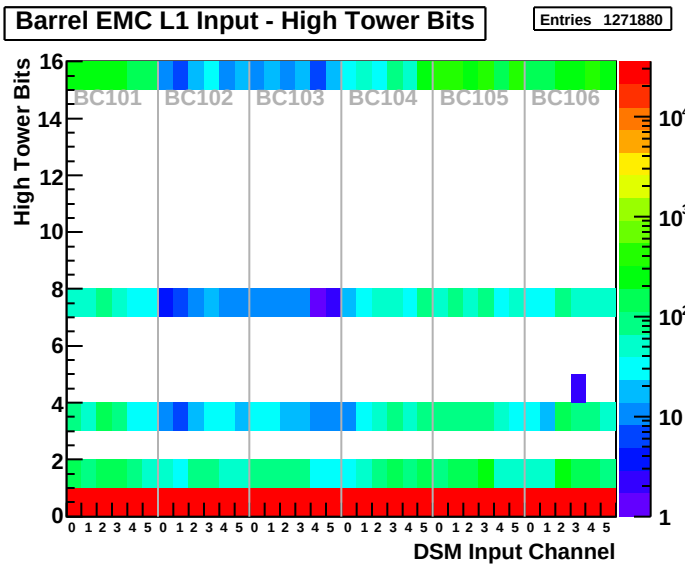

Hybrid Jet Patches
Entries 70660
JP ADC
JP ID

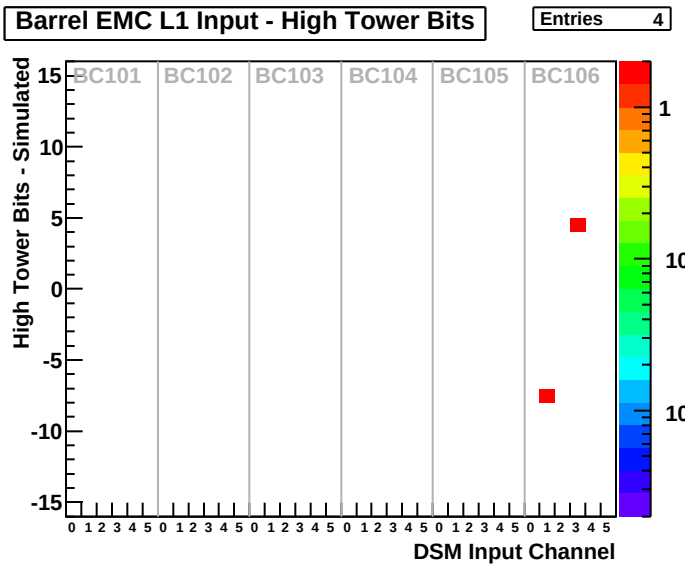

Barrel EMC L1 Input - Low Eta Sum
Entries 1271880
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

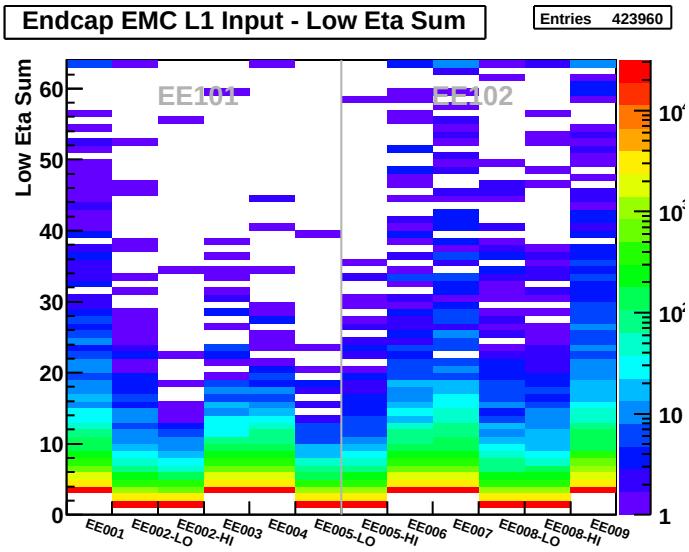

Barrel EMC L1 Input - Low Eta Sum
Entries 60
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

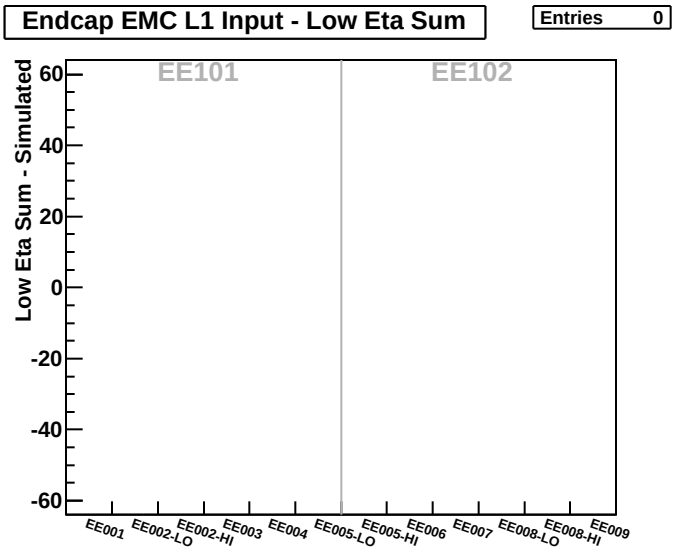

Barrel EMC L1 Input - High Eta Sum
Entries 1271880
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

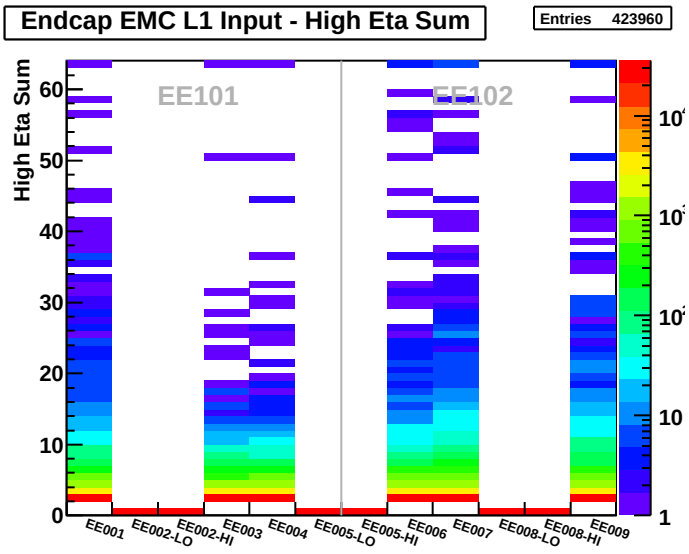

Barrel EMC L1 Input - High Eta Sum
Entries 5
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

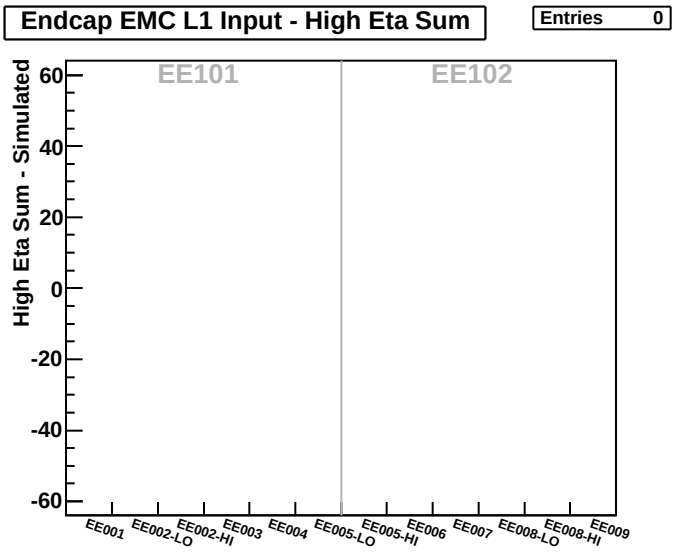

Barrel EMC L1 Input - High Tower Bits
Entries 1271880
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

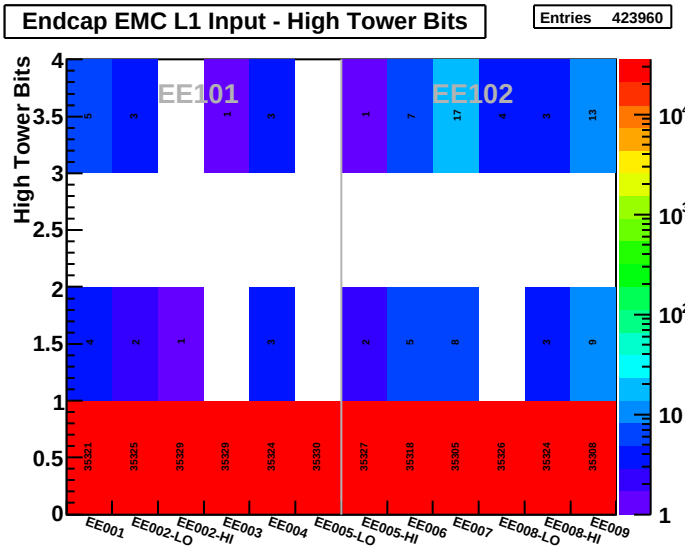

Barrel EMC L1 Input - High Tower Bits
Entries 4
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

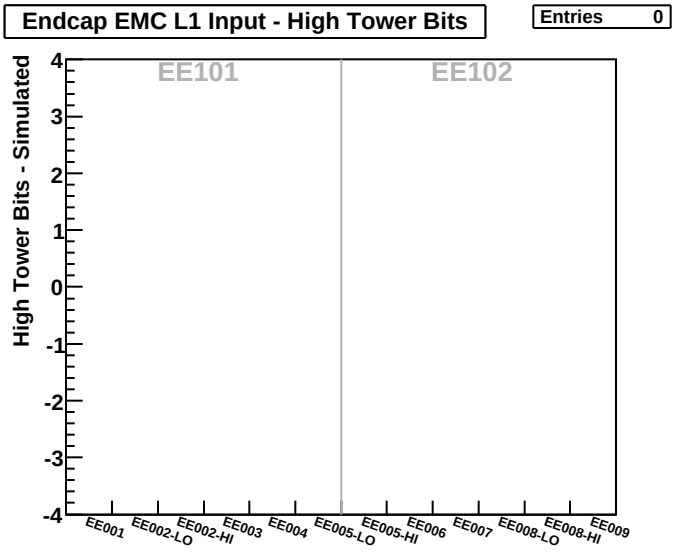

Endcap EMC L1 Input - Low Eta Sum
Entries 423960
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

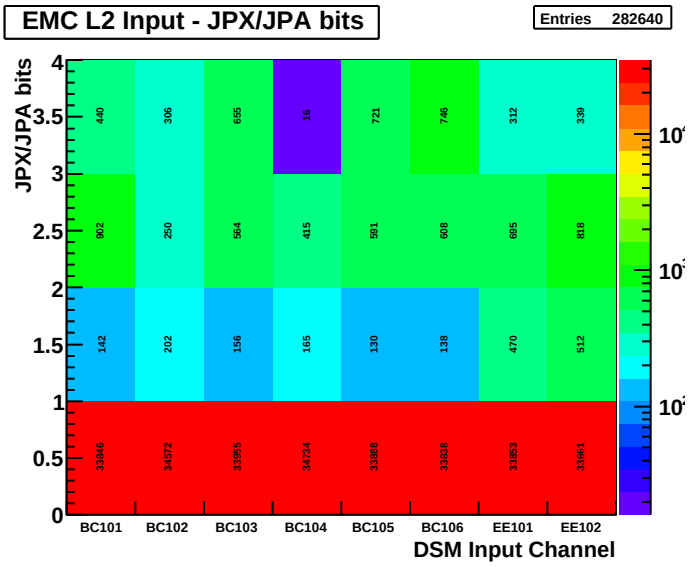

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

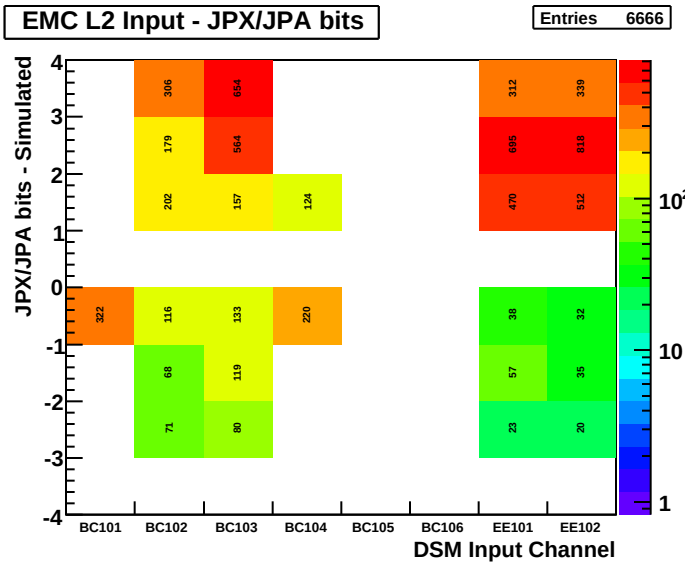

Endcap EMC L1 Input - High Eta Sum
Entries 423960
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

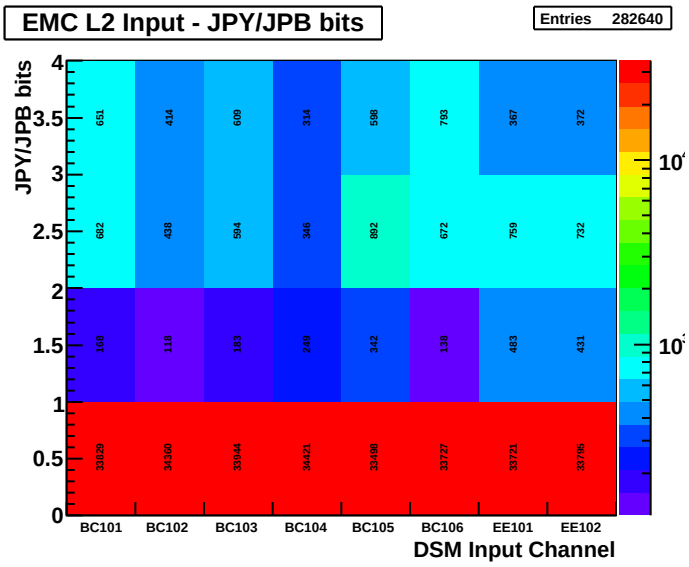

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

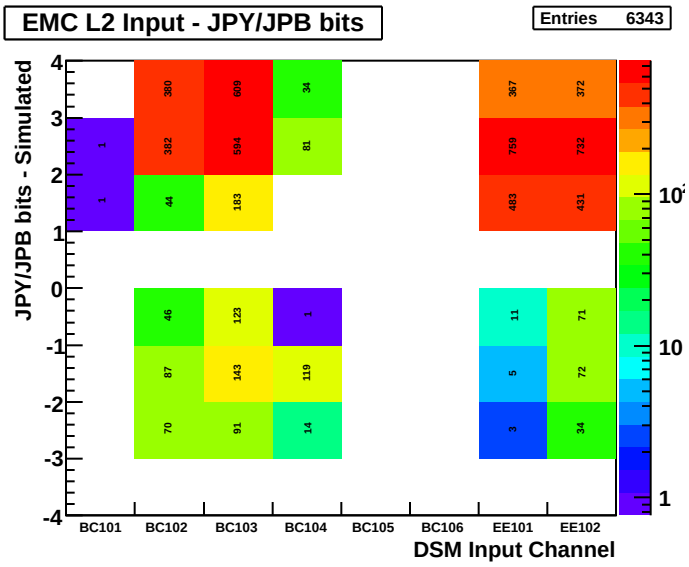

Endcap EMC L1 Input - High Tower Bits
Entries 423960
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

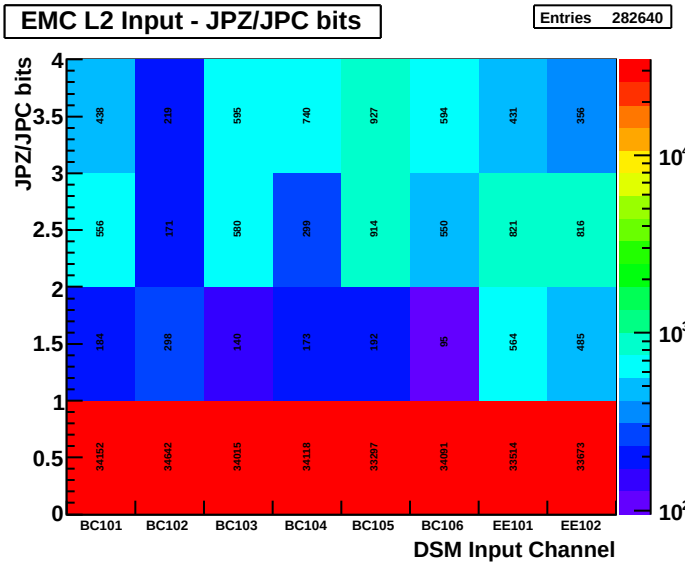

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

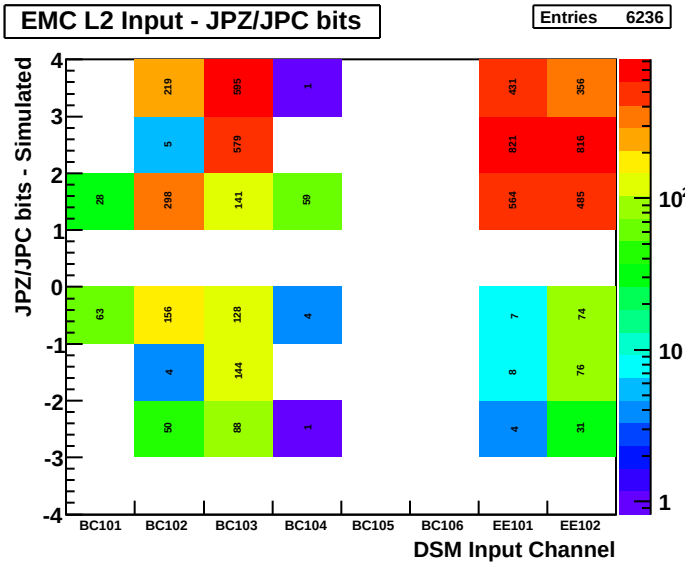

EMC L2 Input - JPX/JPA bits
Entries 282640
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

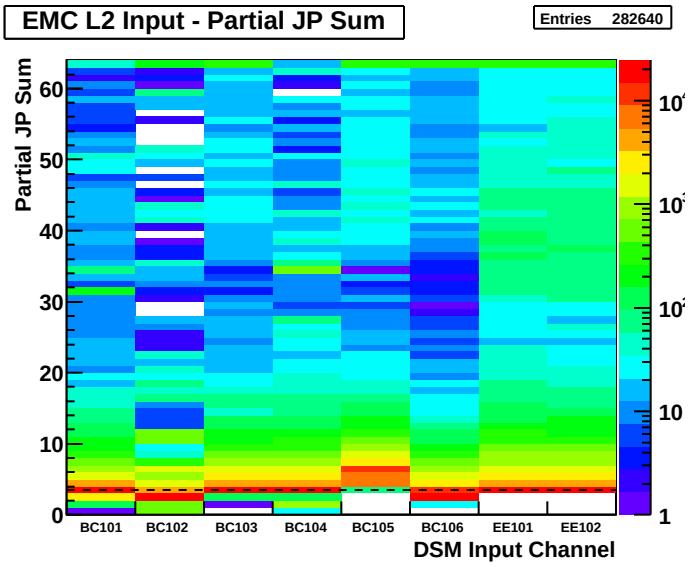

EMC L2 Input - JPX/JPA bits
Entries 6666
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

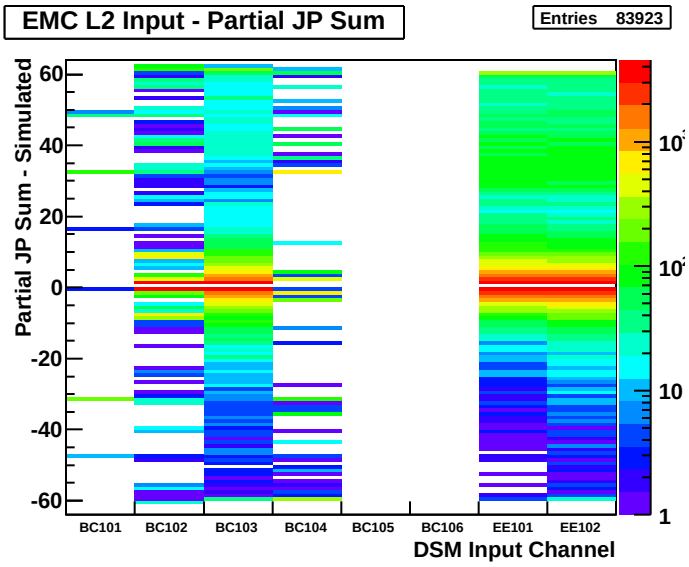

EMC L2 Input - JPY/JPB bits
Entries 282640
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

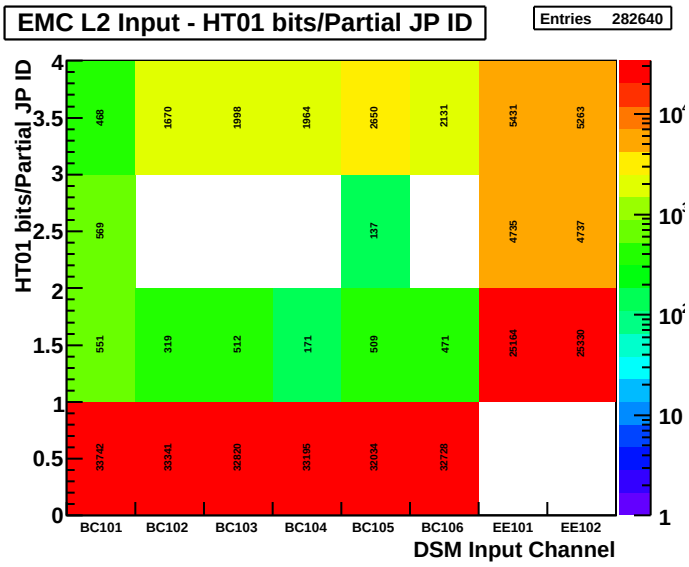

EMC L2 Input - JPY/JPB bits
Entries 6343
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

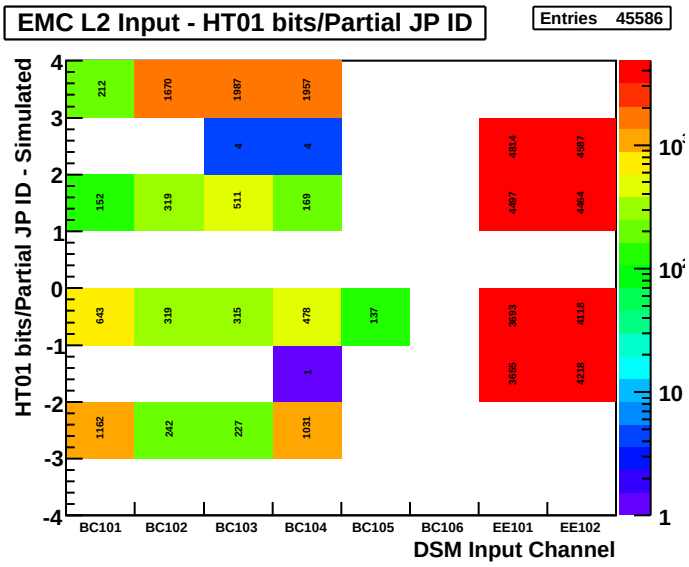

EMC L2 Input - JPZ/JPC bits
Entries 282640
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

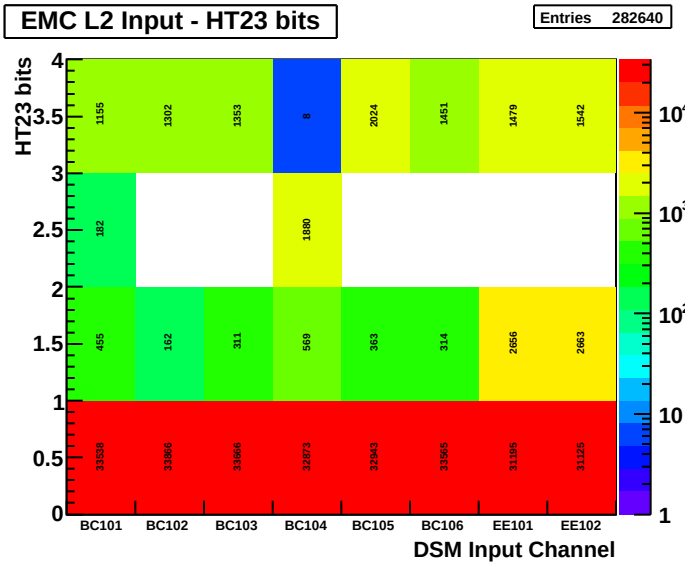

EMC L2 Input - JPZ/JPC bits
Entries 6236
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

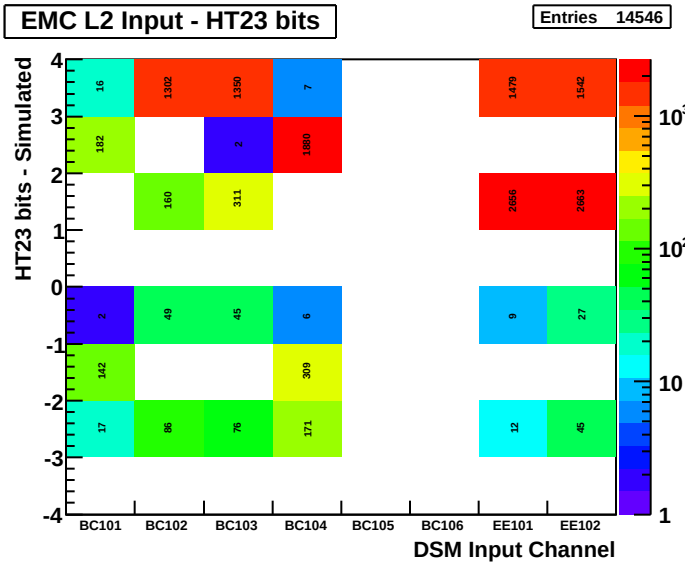

EMC L2 Input - Partial JP Sum
Entries 282640
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

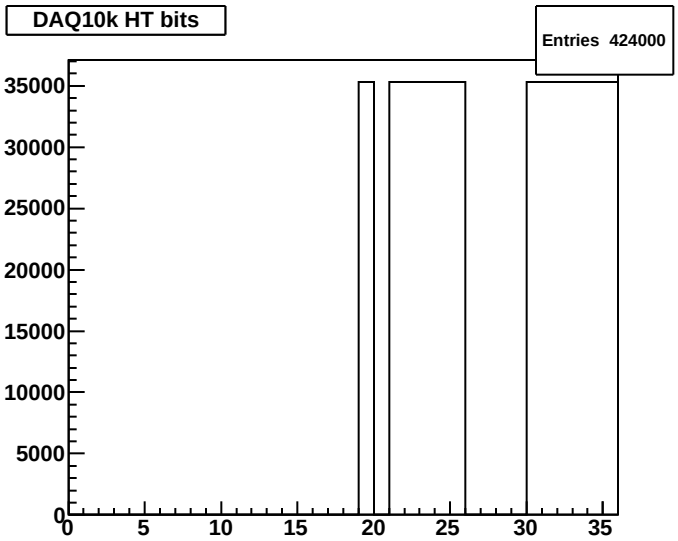

EMC L2 Input - Partial JP Sum
Entries 83923
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

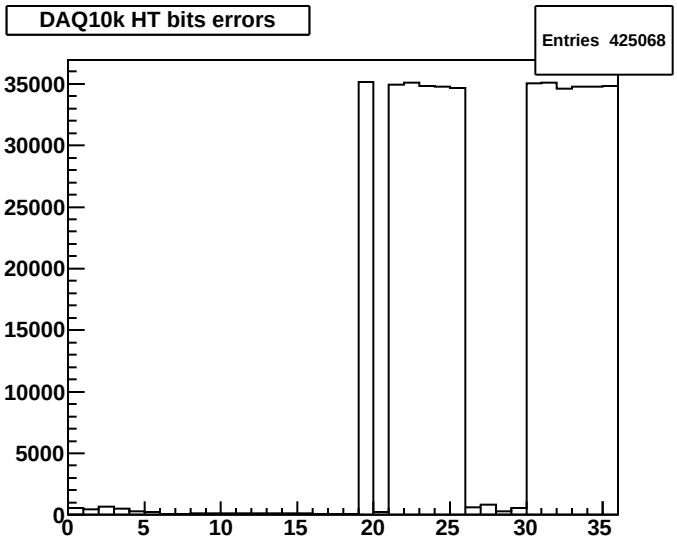

EMC L2 Input - HT01 bits/Partial JP ID
Entries 282640
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

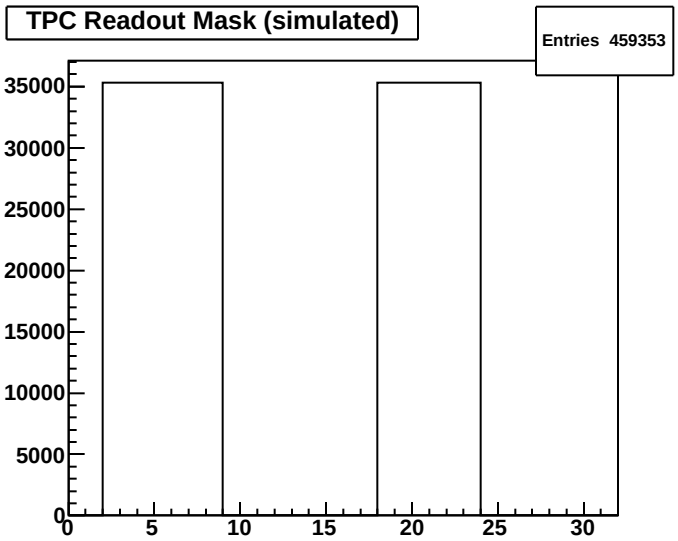

EMC L2 Input - HT01 bits/Partial JP ID
Entries 45586
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

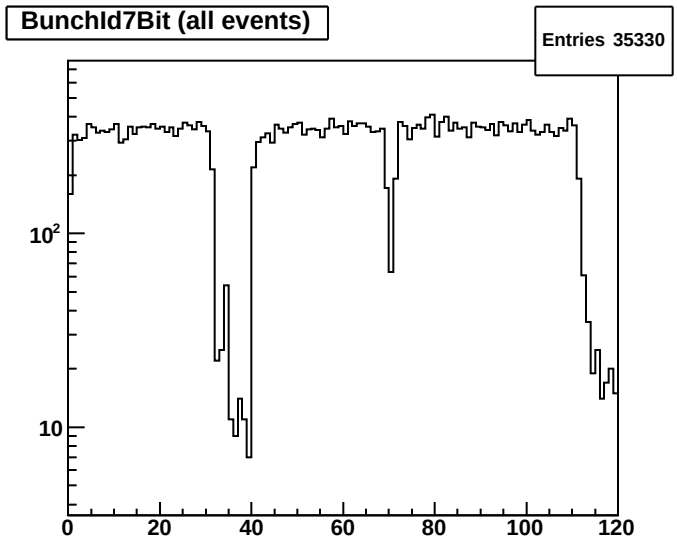

EMC L2 Input - HT23 bits
Entries 282640
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

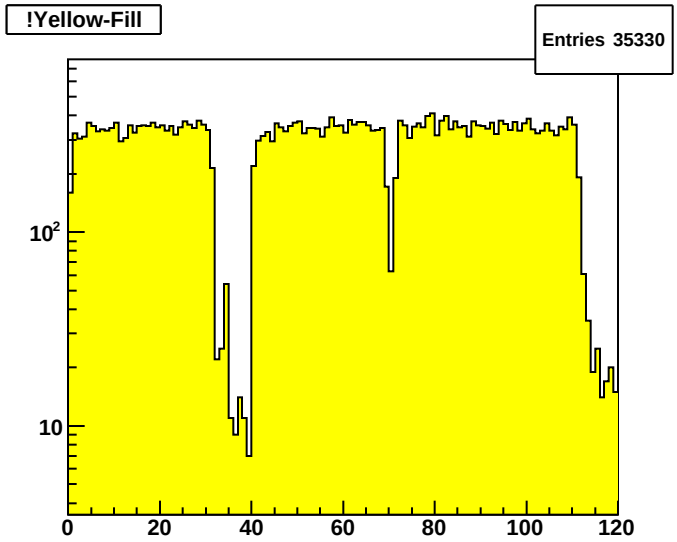

EMC L2 Input - HT23 bits
Entries 14546
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

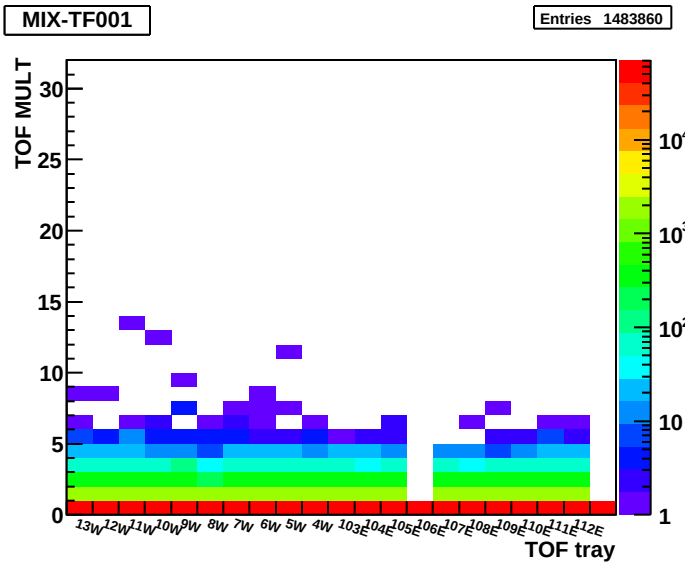

DAQ10k HT bits
Entries 424000
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

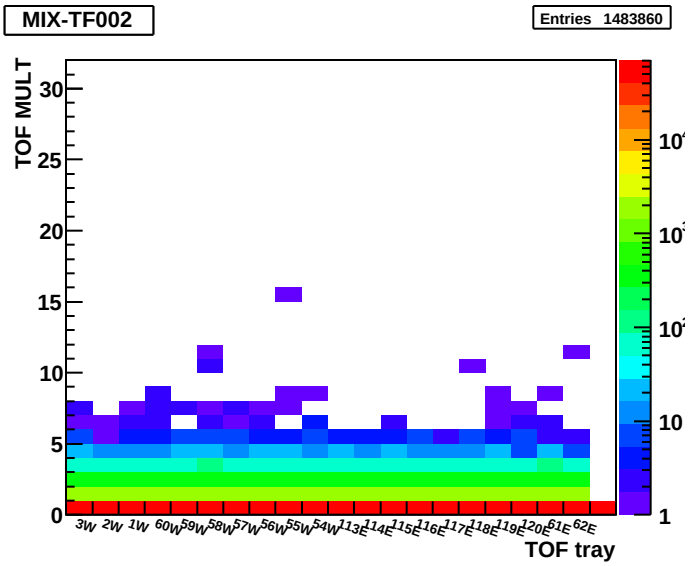

DAQ10k HT bits errors
Entries 425068
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

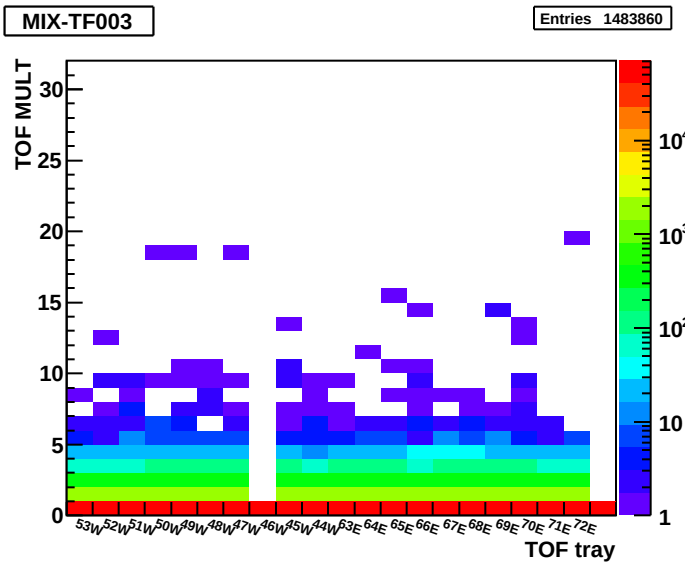

TPC Readout Mask (simulated)
Entries 459353
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

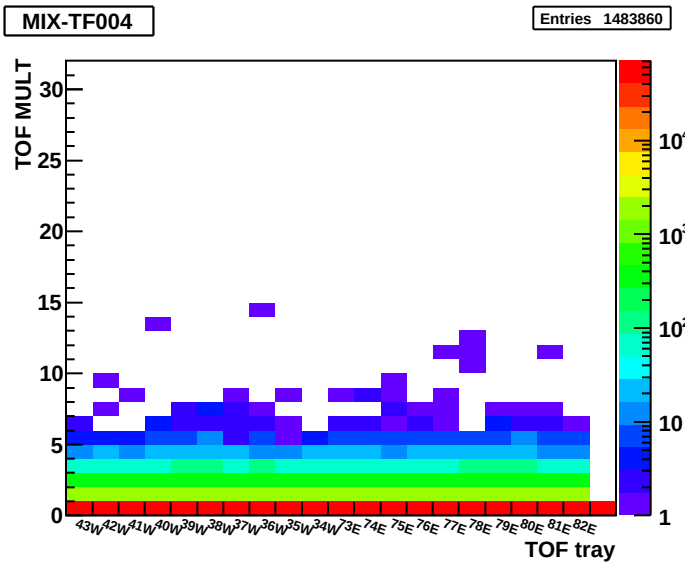

BunchId7Bit (all events)
Entries 35330
10^2
10
0 20 40 60 80 100 120

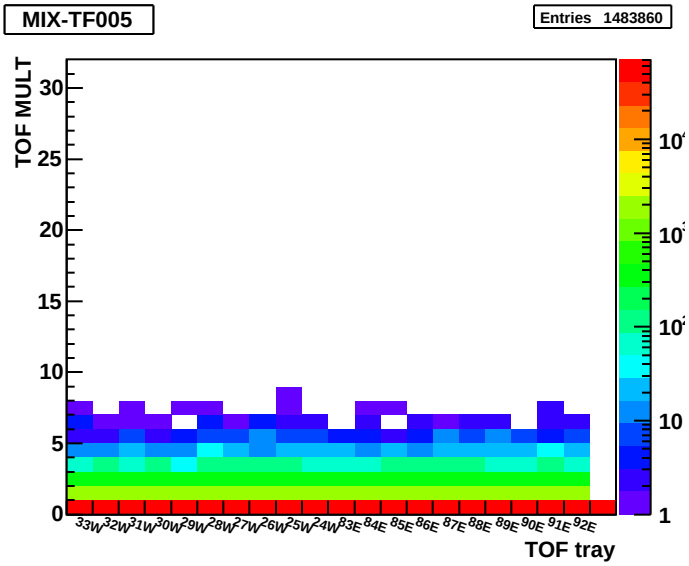

!Yellow-Fill
Entries 35330
10^2
10
0 20 40 60 80 100 120

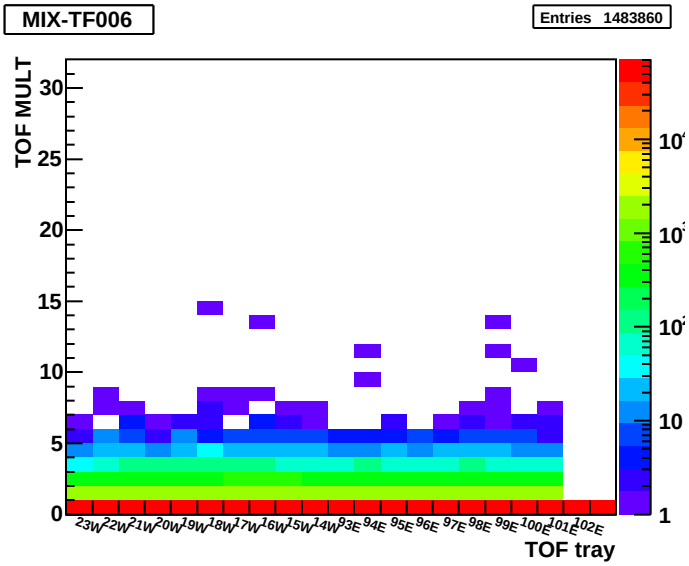

MIX-TF001
Entries 1483860
TOF MULT
TOF tray

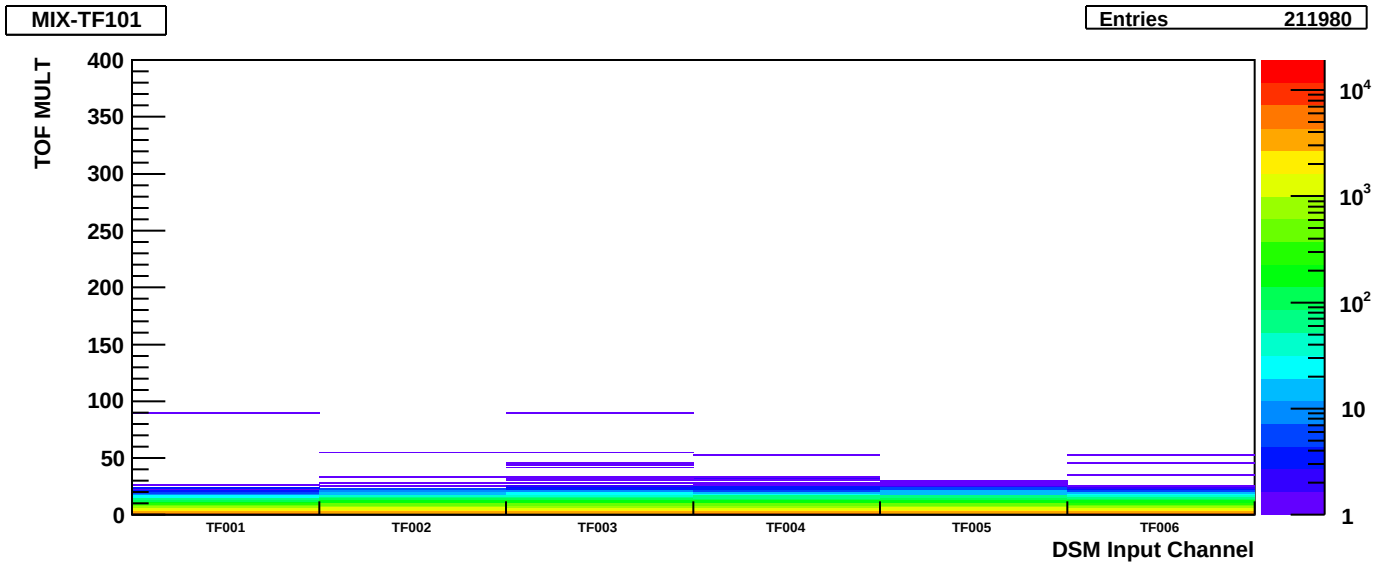

MIX-TF002
Entries 1483860
TOF MULT
TOF tray

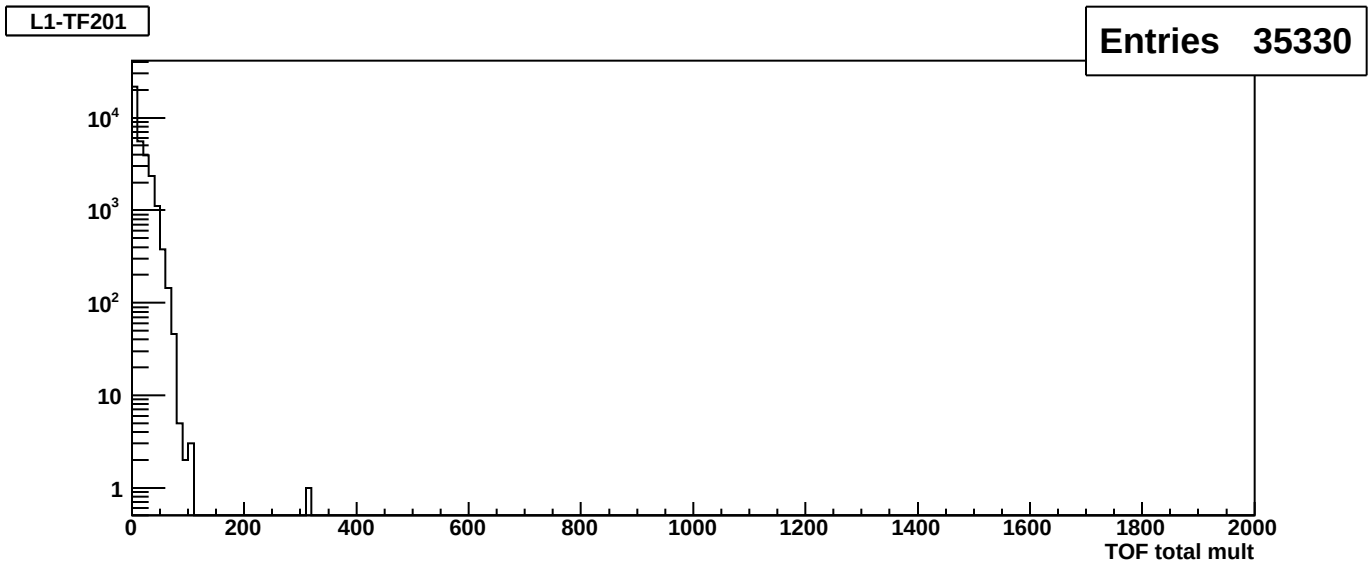

MIX-TF003
Entries 1483860
TOF MULT
TOF tray

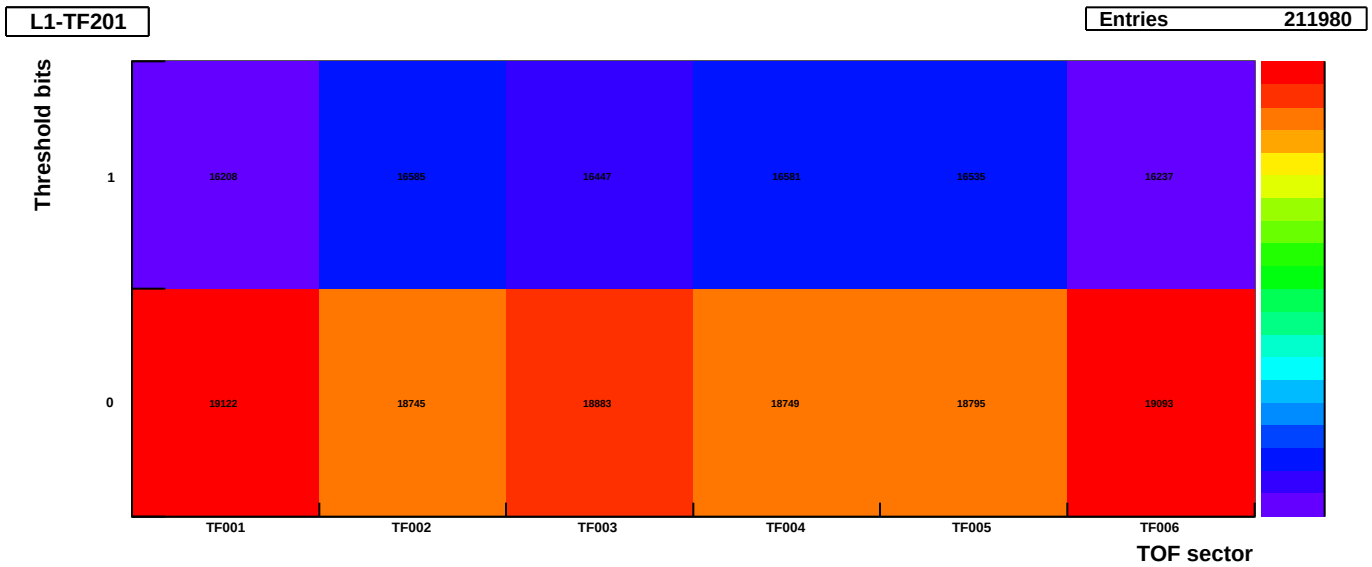

MIX-TF004
Entries 1483860
TOF MULT
TOF tray

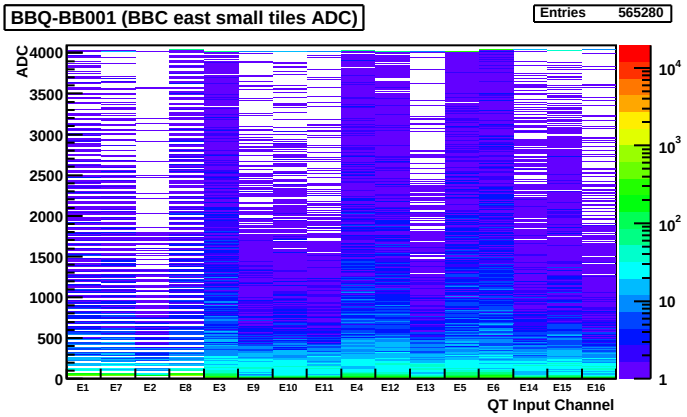

MIX-TF005
Entries 1483860
TOF MULT
TOF tray

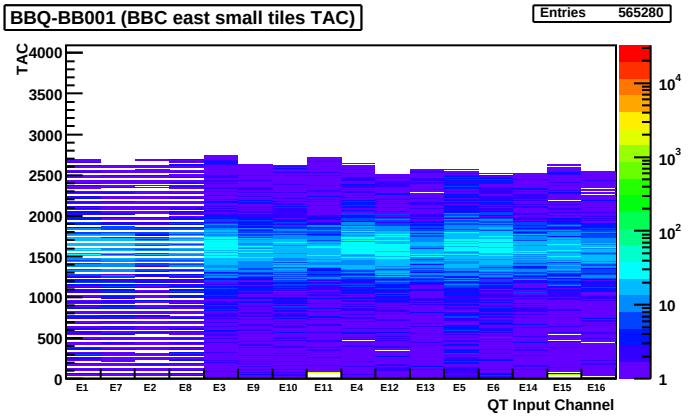

MIX-TF006
Entries 1483860
TOF MULT
TOF tray

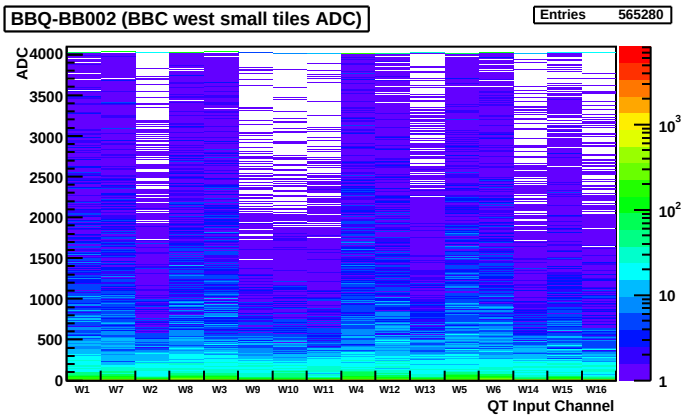

MIX-TF101
Entries 211980
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

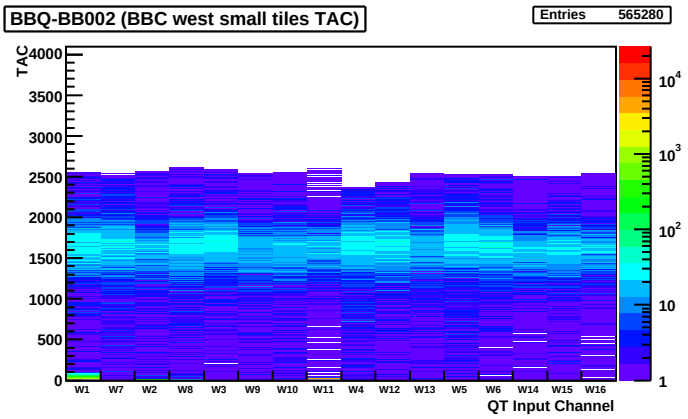

L1-TF201
Entries 35330
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

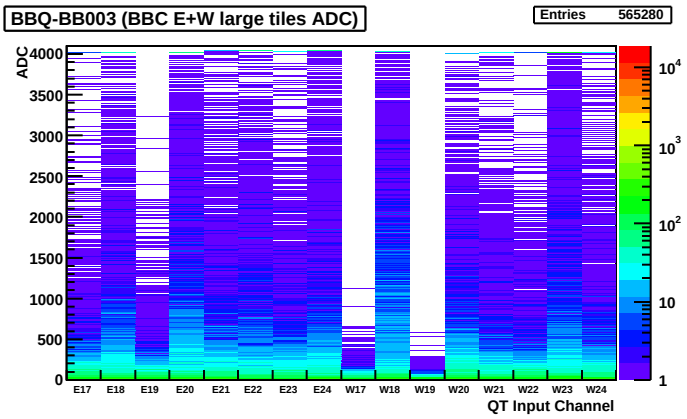

L1-TF201
Entries 211980
Threshold bits
1
0
16208
16585
16447
16581
16535
16237
19122
18745
18883
18749
18795
19093
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

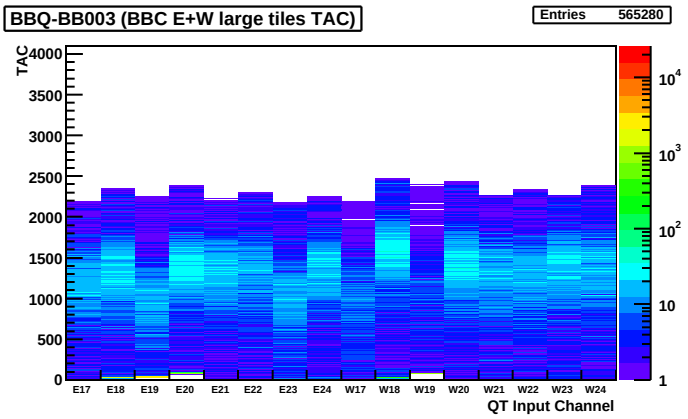

BBQ-BB001 (BBC east small tiles ADC)
Entries 565280
ADC
QT Input Channel

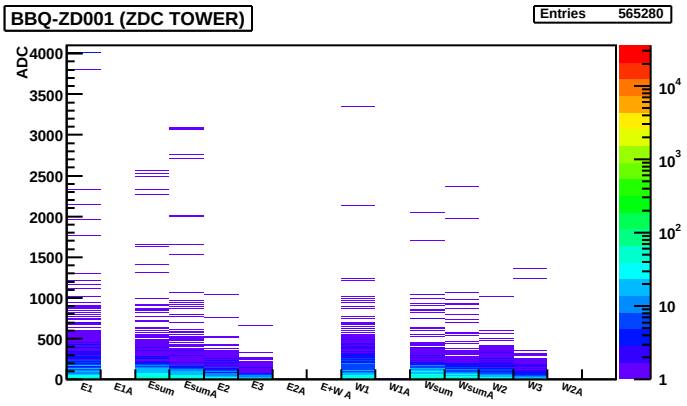

BBQ-BB001 (BBC east small tiles TAC)
Entries 565280
TAC
QT Input Channel

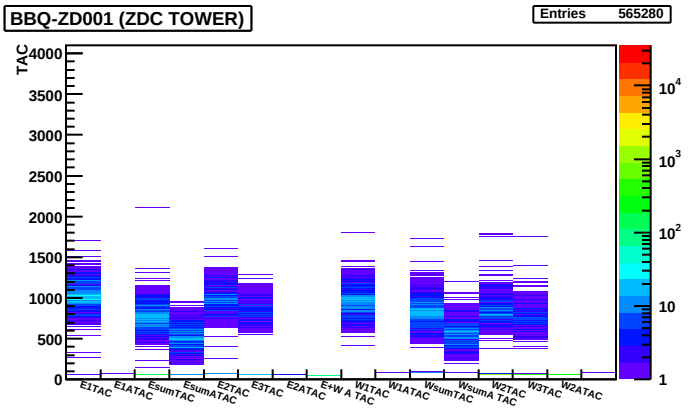

BBQ-BB002 (BBC west small tiles ADC)
Entries 565280
ADC
QT Input Channel

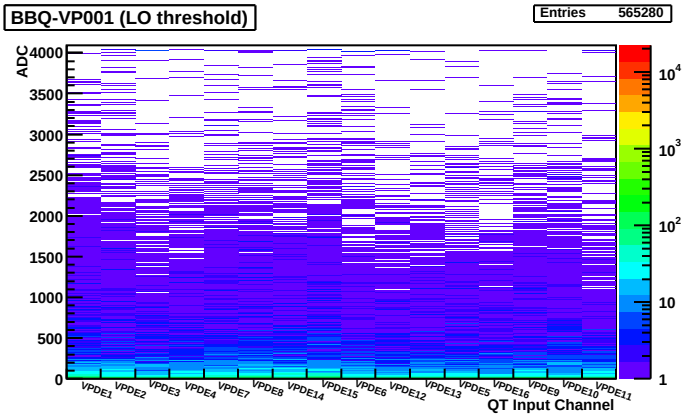

BBQ-BB002 (BBC west small tiles TAC)
Entries 565280
TAC
QT Input Channel

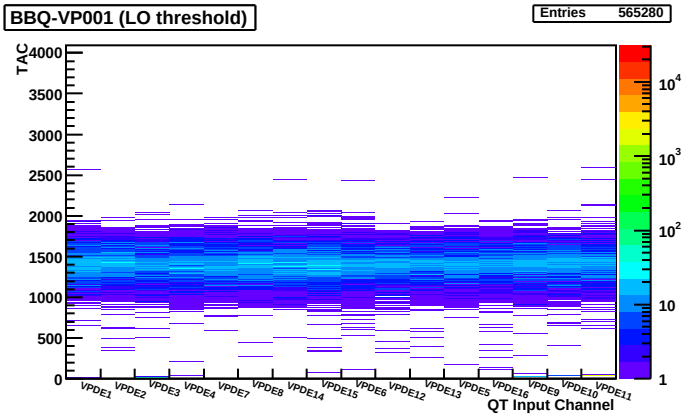

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 565280
ADC
QT Input Channel

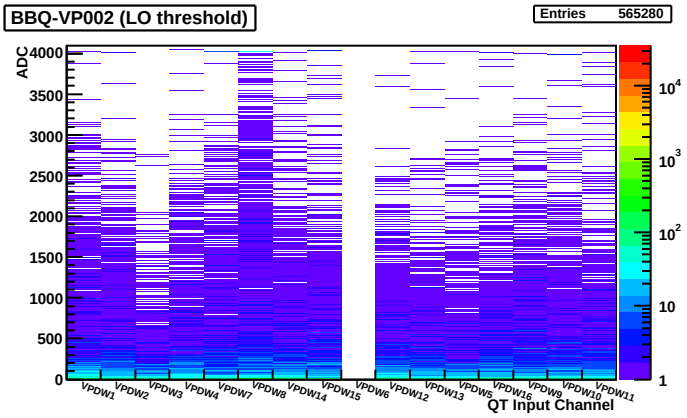

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 565280
TAC
QT Input Channel

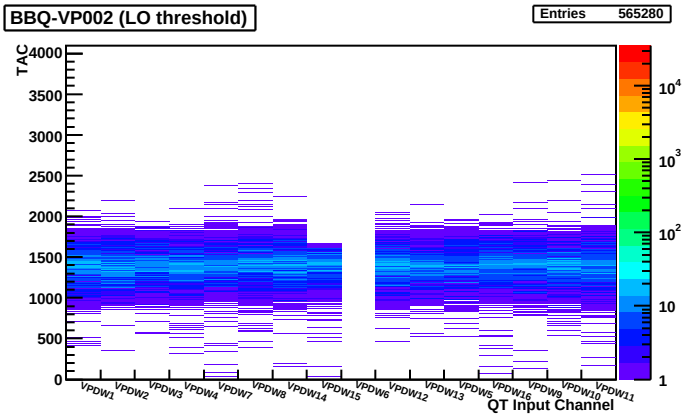

BBQ-ZD001 (ZDC TOWER)
Entries 565280
ADC

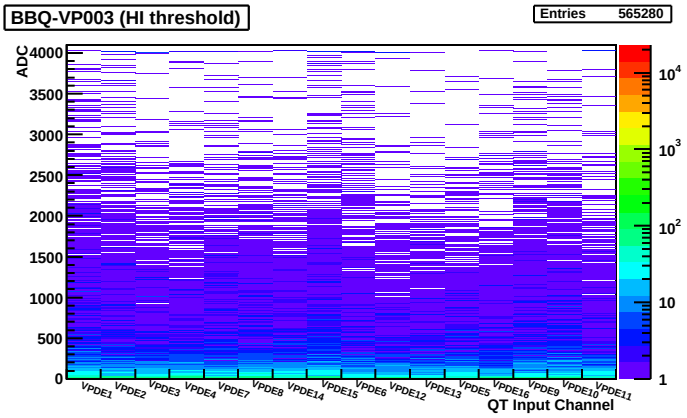

BBQ-ZD001 (ZDC TOWER)
Entries 565280
TAC

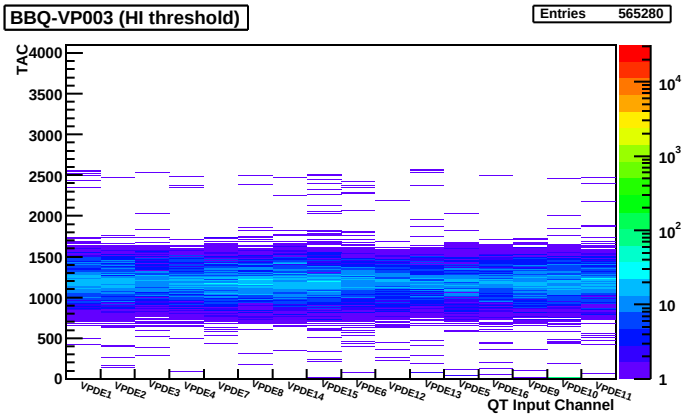

BBQ-VP001 (LO threshold)
Entries 565280
ADC
QT Input Channel

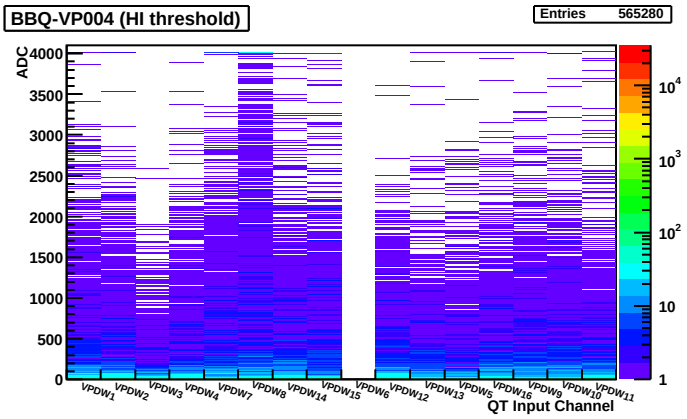

BBQ-VP001 (LO threshold)
Entries 565280
TAC
QT Input Channel

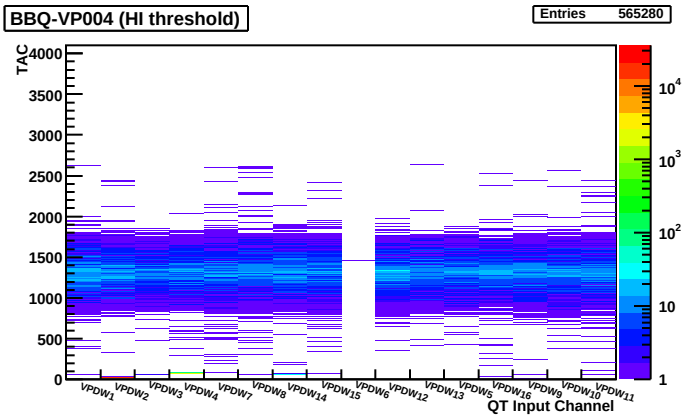

BBQ-VP002 (LO threshold)
Entries 565280
ADC
QT Input Channel

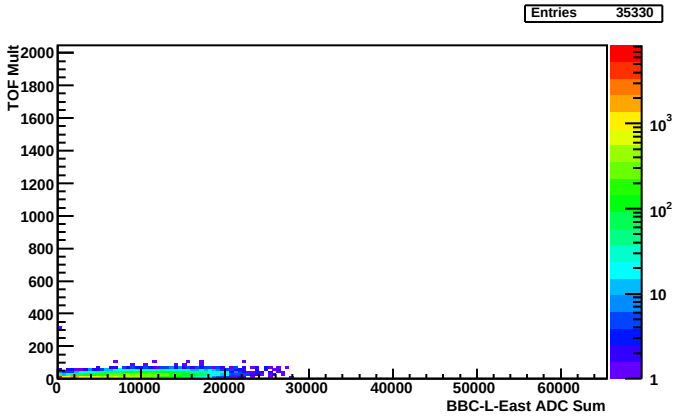

BBQ-VP002 (LO threshold)
Entries 565280
TAC
QT Input Channel

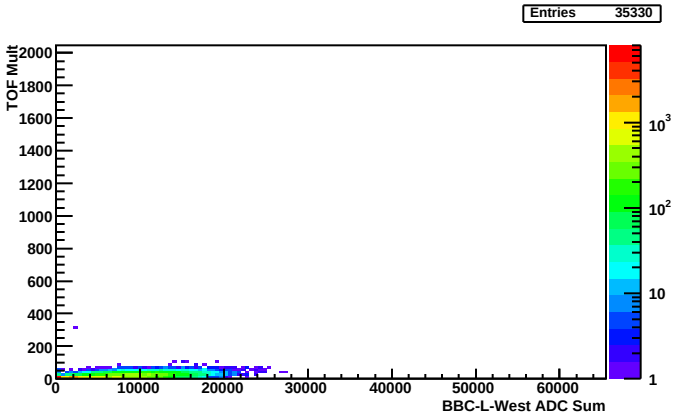

BBQ-VP003 (HI threshold)
Entries 565280
ADC
QT Input Channel

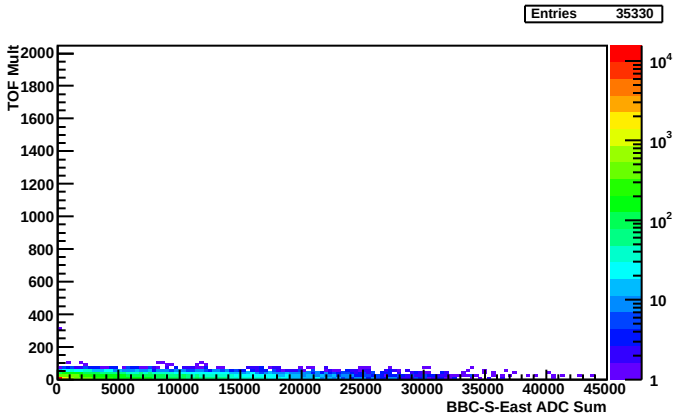

BBQ-VP003 (HI threshold)
Entries 565280
TAC
QT Input Channel

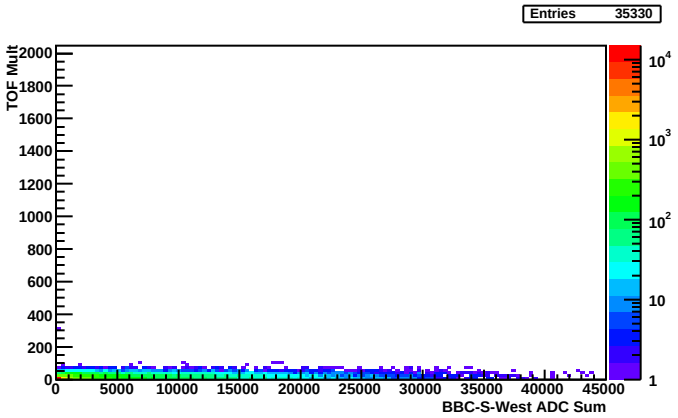

BBQ-VP004 (HI threshold)
Entries 565280
ADC
QT Input Channel

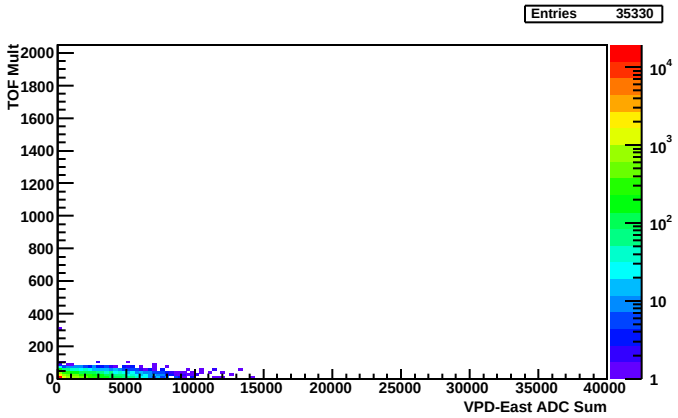

BBQ-VP004 (HI threshold)
Entries 565280
TAC
QT Input Channel

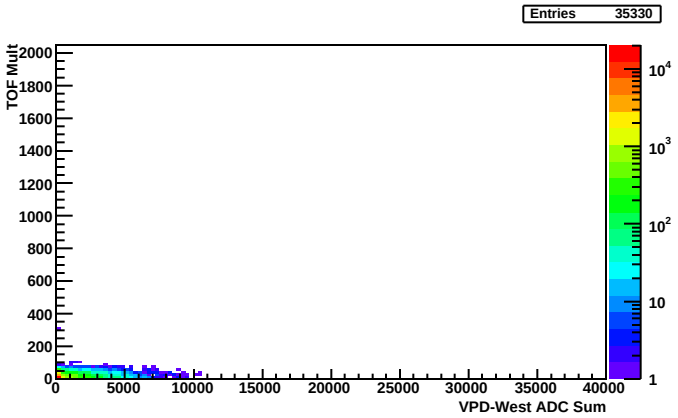

Entries 35330
TOF Mult
BBC-L-East ADC Sum

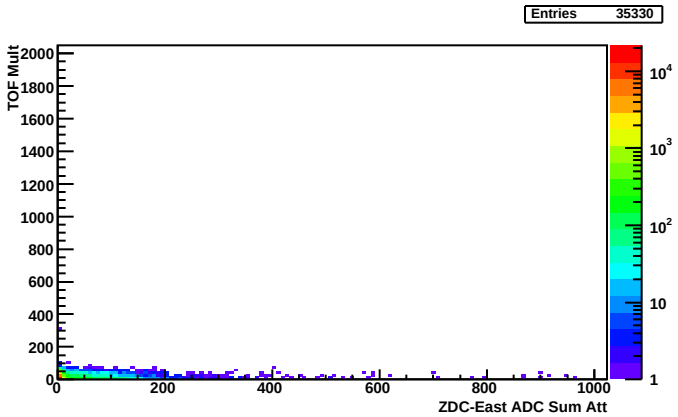

Entries 35330
TOF Mult
BBC-L-West ADC Sum

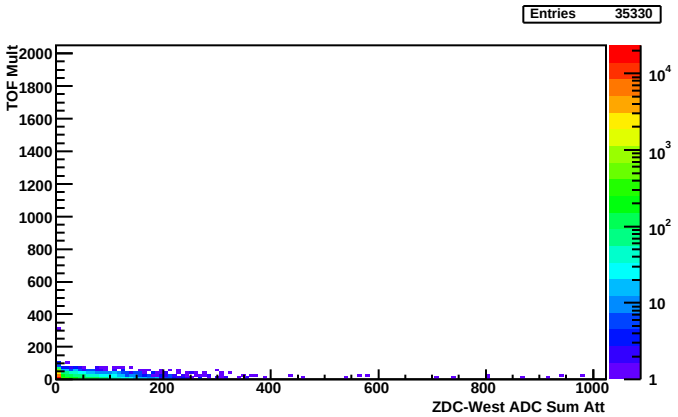

Entries 35330
TOF Mult
BBC-S-East ADC Sum

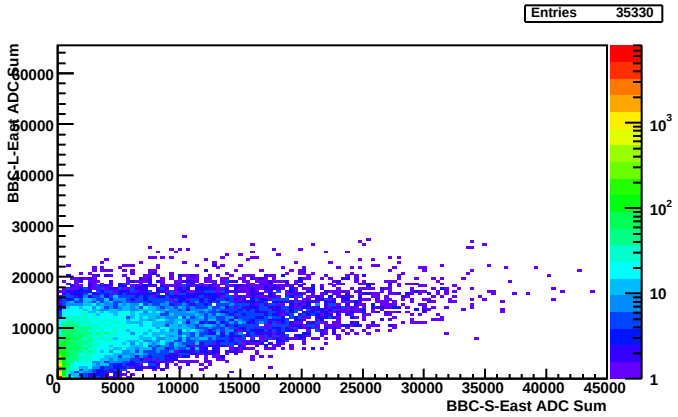

Entries 35330
TOF Mult
BBC-S-West ADC Sum

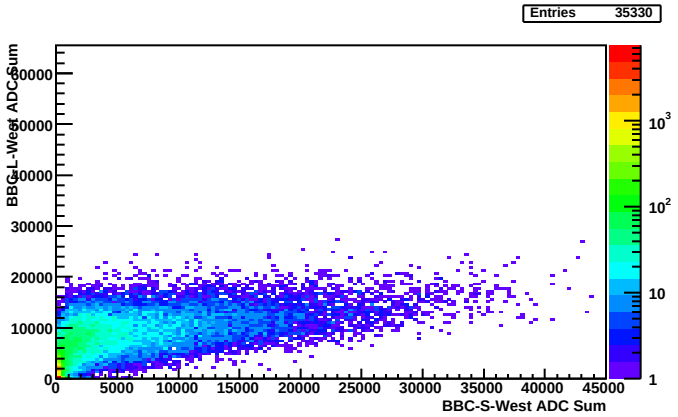

Entries 35330
TOF Mult
VPD-East ADC Sum

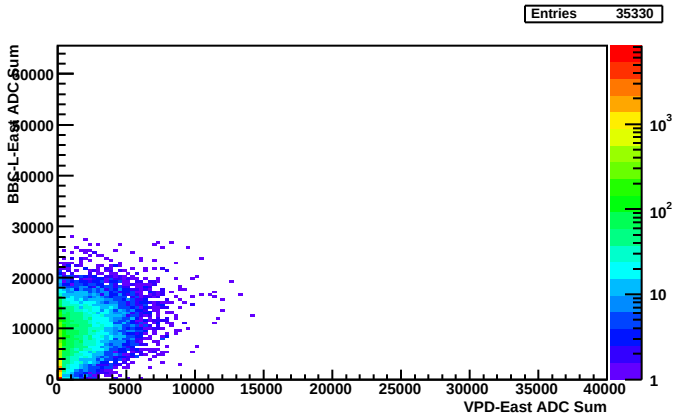

Entries 35330
TOF Mult
VPD-West ADC Sum

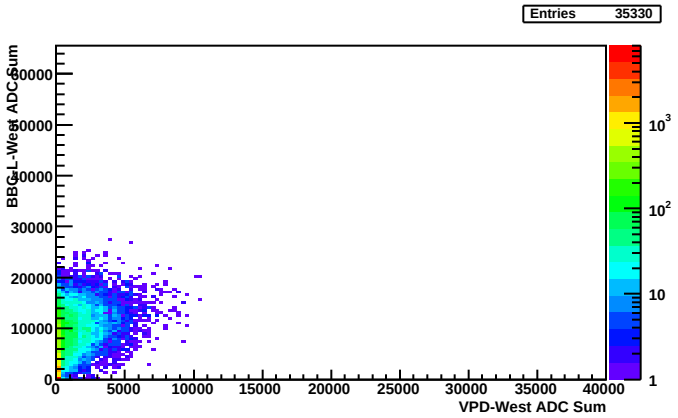

Entries 35330
TOF Mult
ZDC-East ADC Sum Att

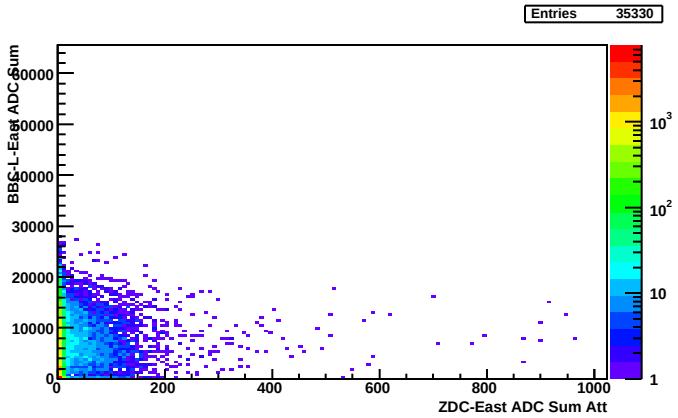

Entries 35330
TOF Mult
ZDC-West ADC Sum Att

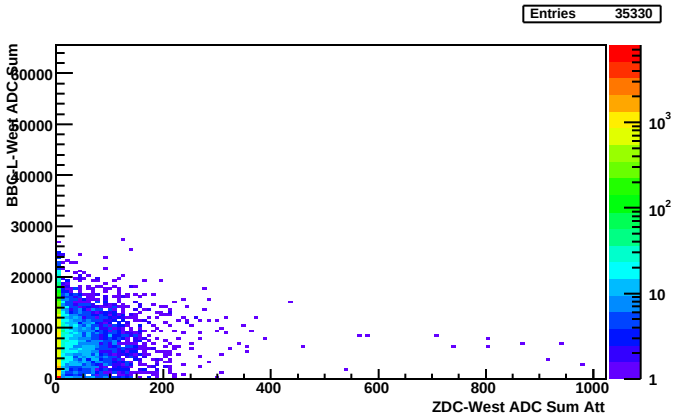

Entries 35330
BBC-L-East ADC Sum
BBC-S-East ADC Sum

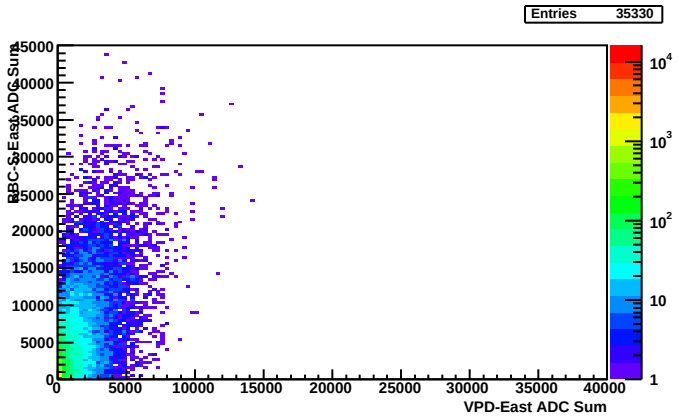

Entries 35330
BBC-L-West ADC Sum
BBC-S-West ADC Sum

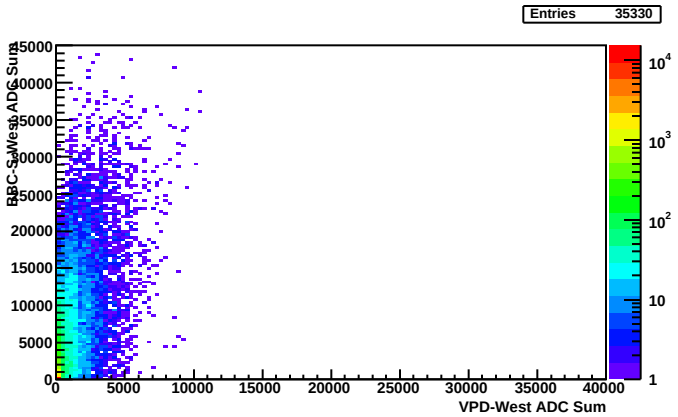

Entries 35330
BBC-L-East ADC Sum
VPD-East ADC Sum

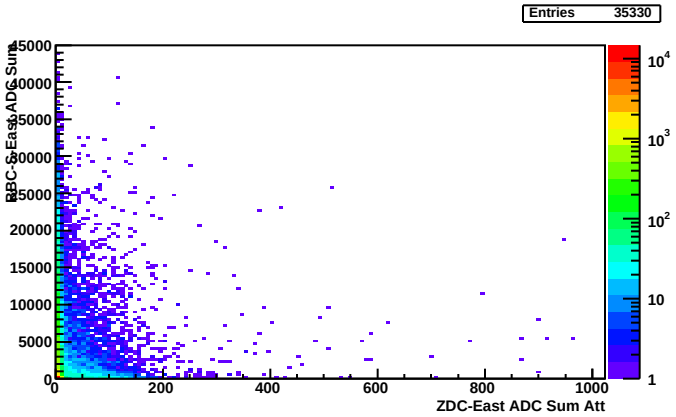

Entries 35330
BBC-L-West ADC Sum
VPD-West ADC Sum

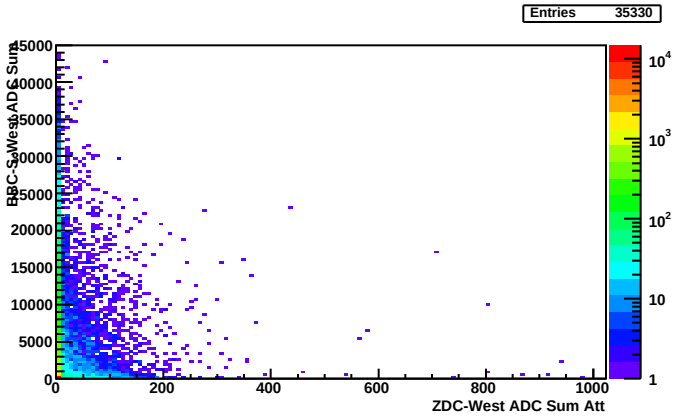

Entries 35330
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

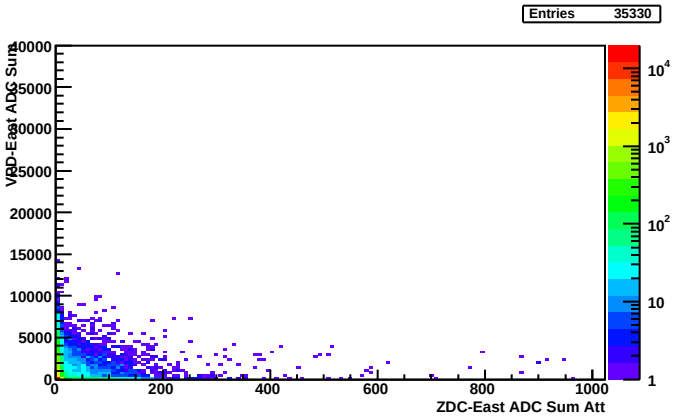

Entries 35330
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

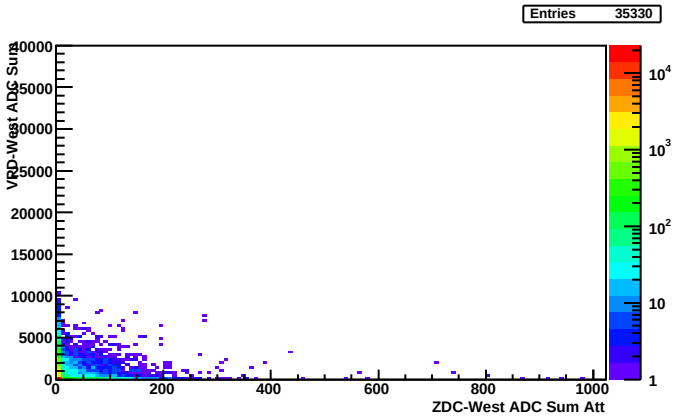

Entries 35330
BBC-S-East ADC Sum
VPD-East ADC Sum

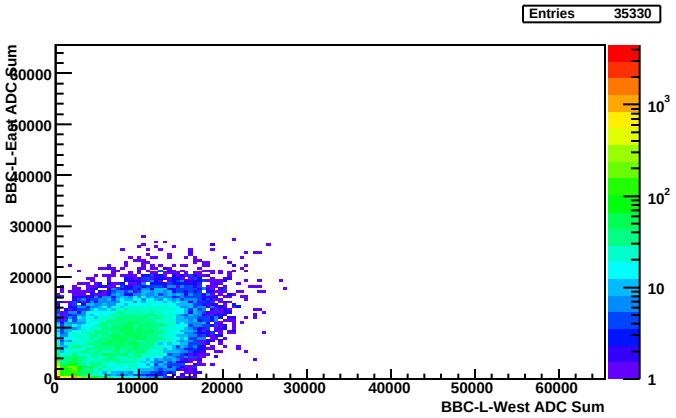

Entries 35330
BBC-S-West ADC Sum
VPD-West ADC Sum

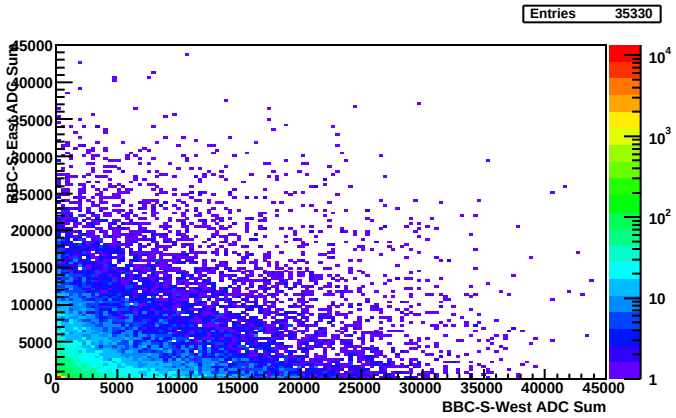

Entries 35330
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

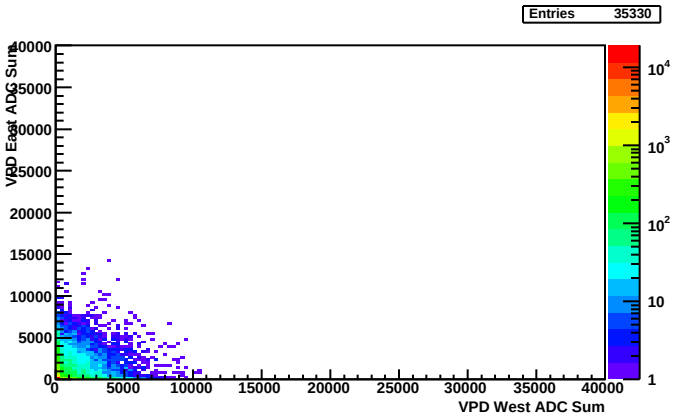

Entries 35330
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

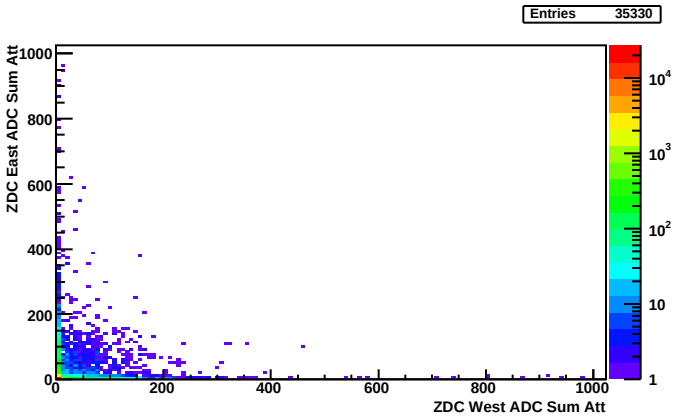

Entries 35330
VPD-East ADC Sum
ZDC-East ADC Sum Att

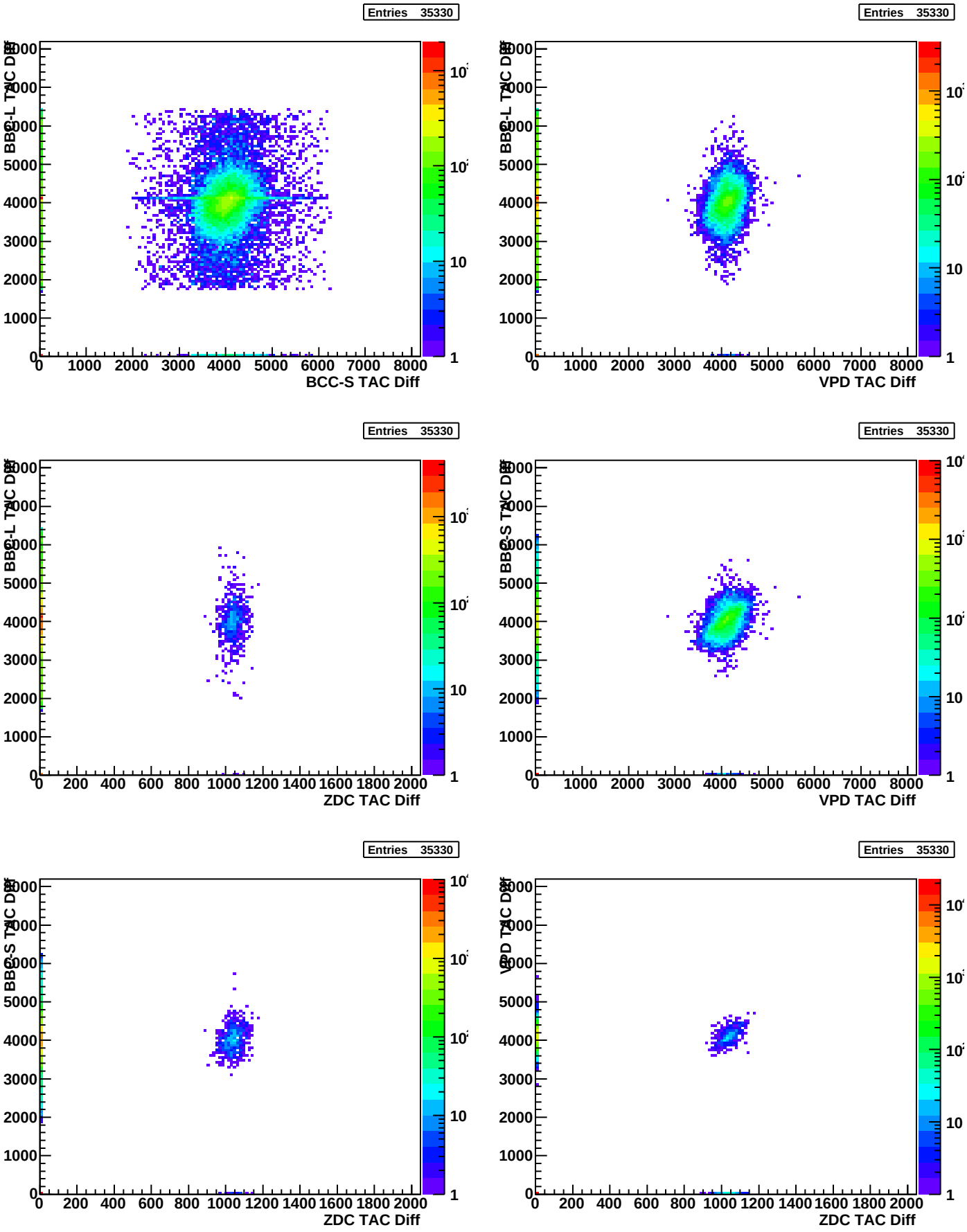

Entries 35330
VPD-West ADC Sum
ZDC-West ADC Sum Att

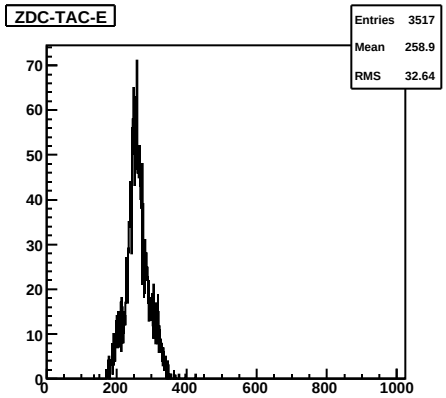

Entries 35330
BBC-L-East ADC Sum
BBC-L-West ADC Sum

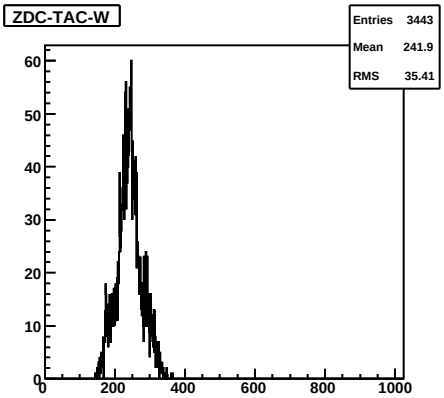

Entries 35330
BBC-S-East ADC Sum
BBC-S-West ADC Sum

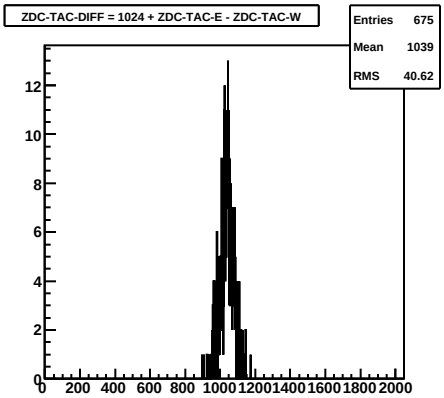

Entries 35330
VPD East ADC Sum
VPD West ADC Sum

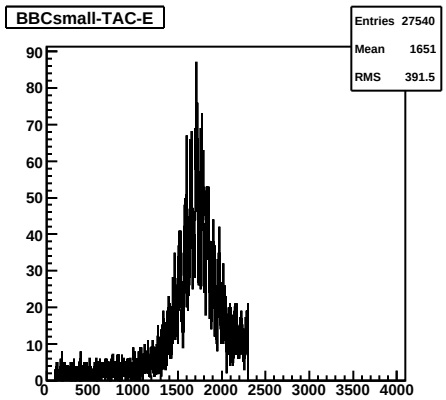

Entries 35330
ZDC East ADC Sum Att
ZDC West ADC Sum Att

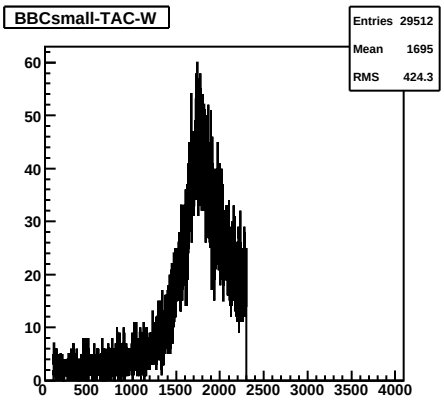

Entries 35330
BBC-L TAC Diff
BCC-S TAC Diff
Entries 35330
BBC-L TAC Diff
VPD TAC Diff
Entries 35330
BBC-L TAC Diff
ZDC TAC Diff
Entries 35330
BBC-S TAC Diff
VPD TAC Diff
Entries 35330
BBC-S TAC Diff
ZDC TAC Diff
Entries 35330
VPD TAC Diff
ZDC TAC Diff

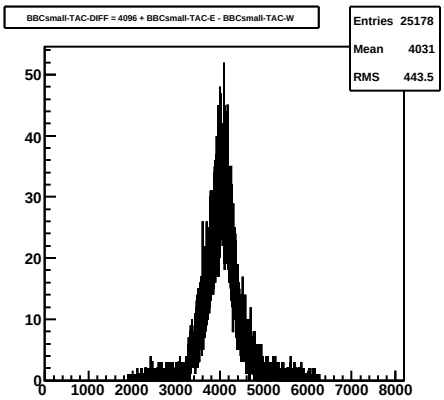

ZDC-TAC-E
Entries 3517
Mean 258.9
RMS 32.64

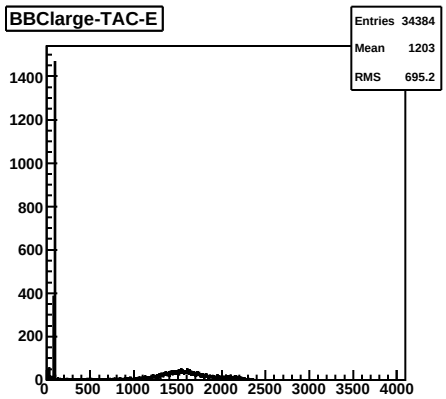

ZDC-TAC-W
Entries 3443
Mean 241.9
RMS 35.41

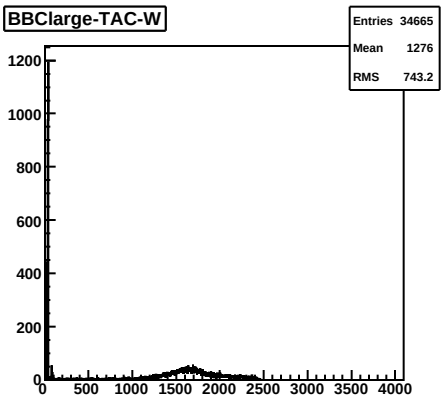

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 675
Mean 1039
RMS 40.62

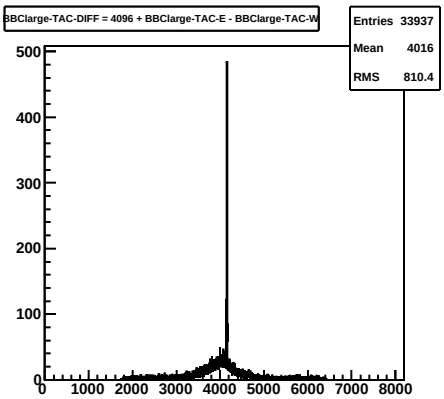

BBCsmall-TAC-E
Entries 27540
Mean 1651
RMS 391.5

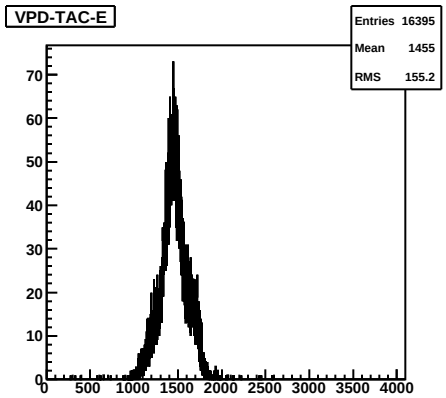

BBCsmall-TAC-W
Entries 29512
Mean 1695
RMS 424.3

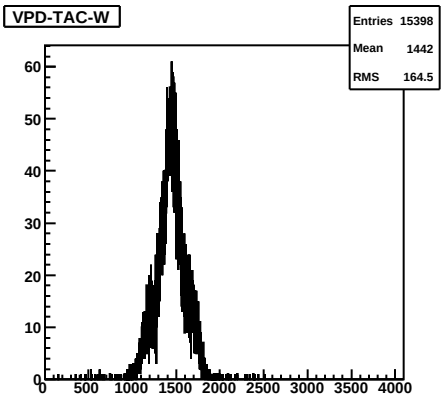

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 25178
Mean 4031
RMS 443.5

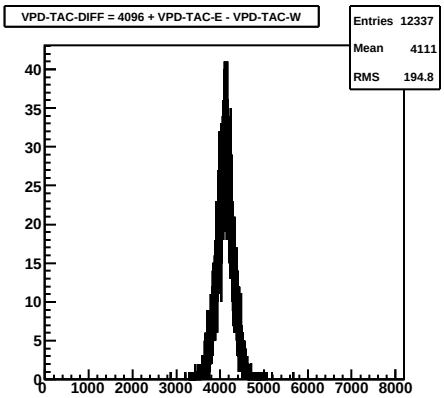

BBClarge-TAC-E
Entries 34384
Mean 1203
RMS 695.2

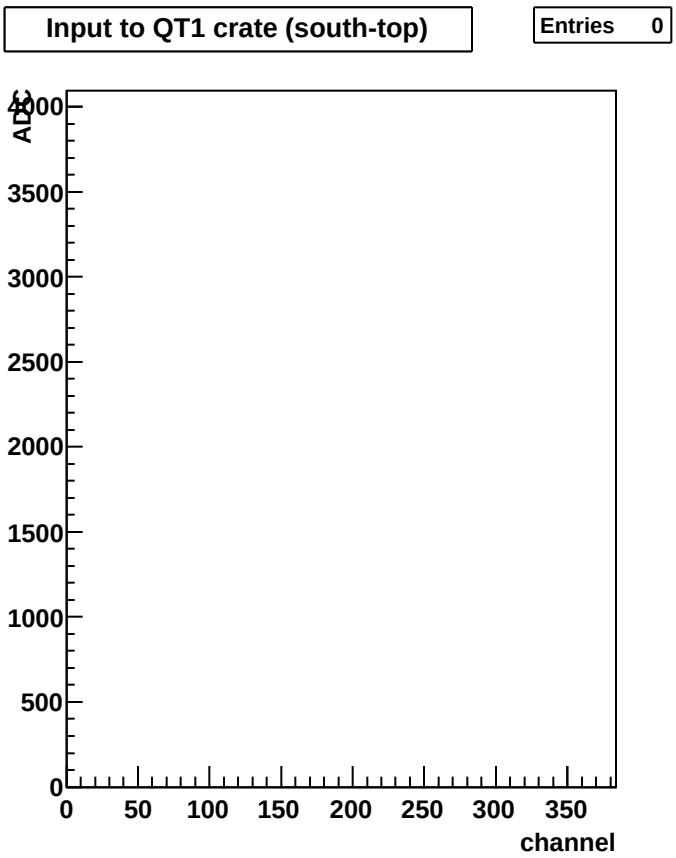

BBClarge-TAC-W
Entries 34665
Mean 1276
RMS 743.2

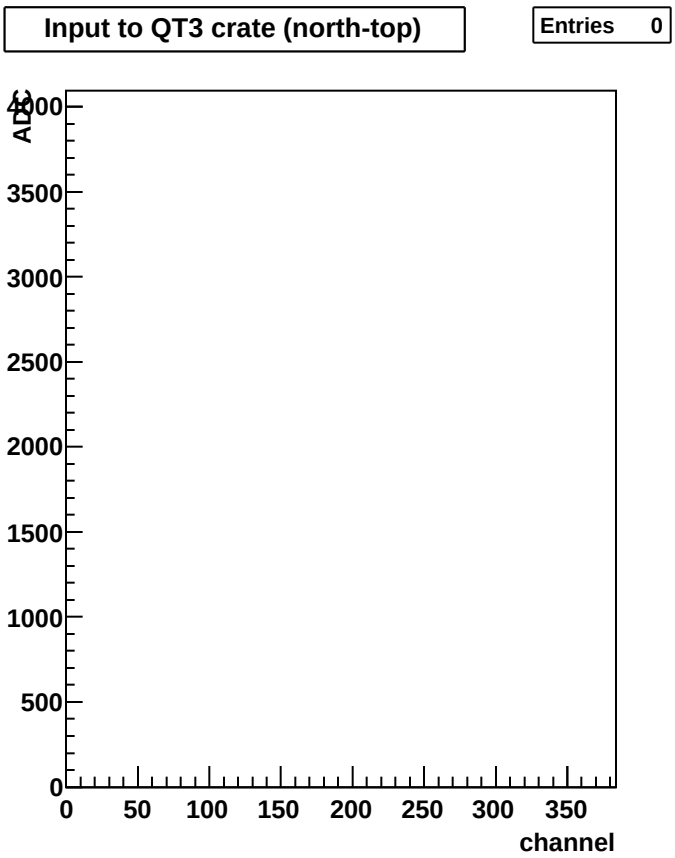

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 33937
Mean 4016
RMS 810.4

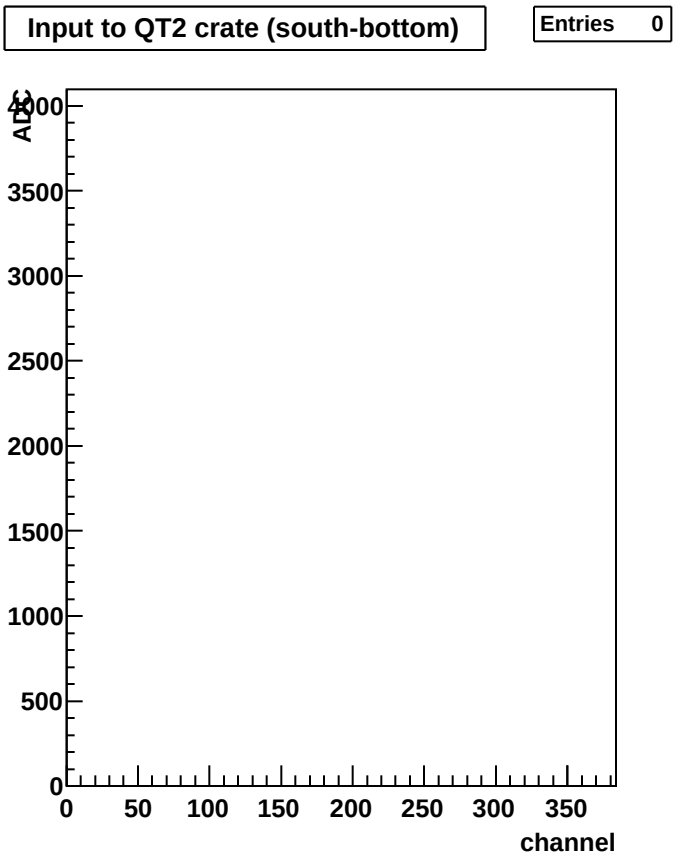

VPD-TAC-E
Entries 16395
Mean 1455
RMS 155.2

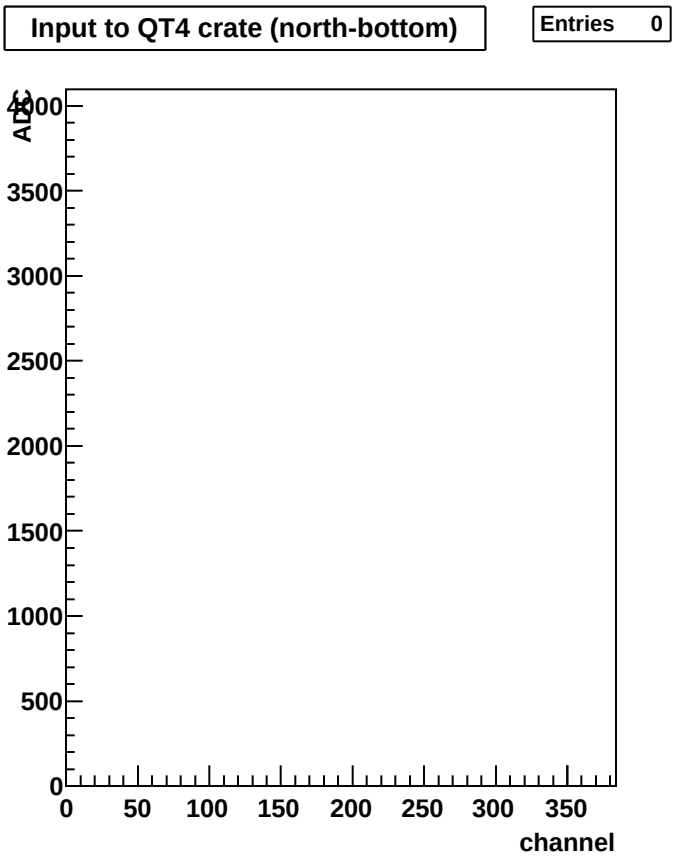

VPD-TAC-W
Entries 15398
Mean 1442
RMS 164.5

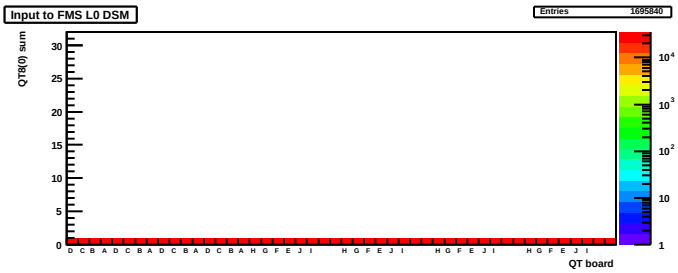

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 12337
Mean 4111
RMS 194.8

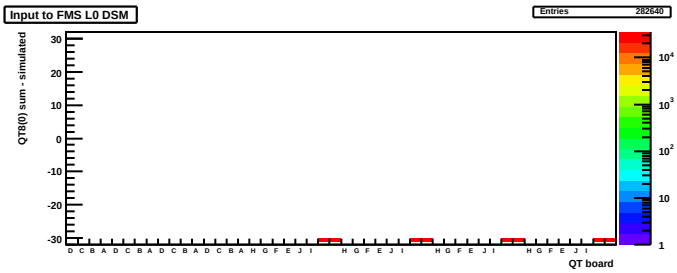

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

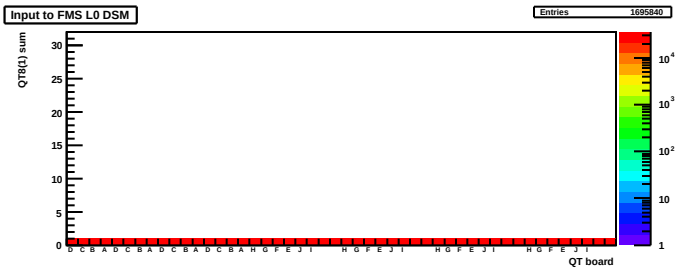

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

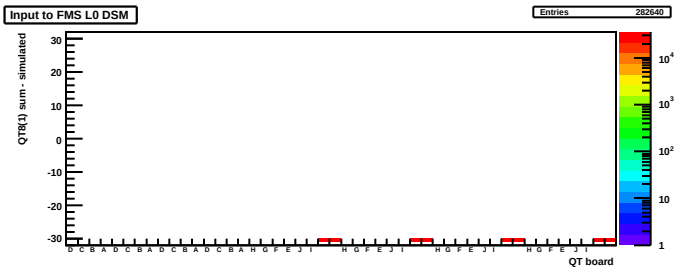

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

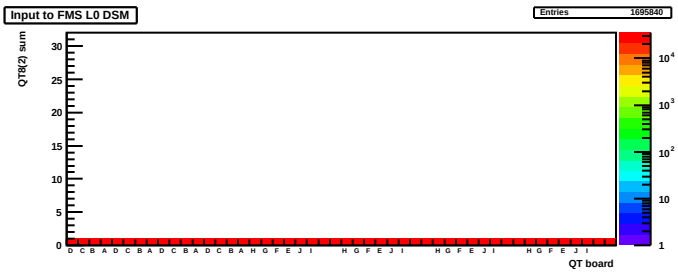

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

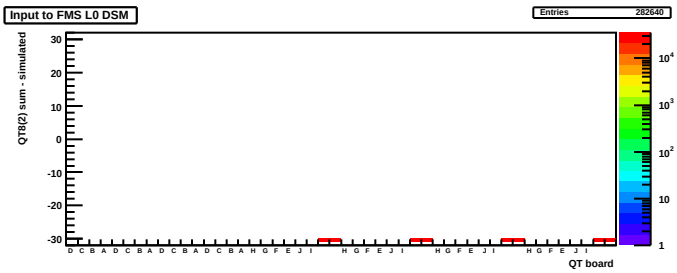

Input to FMS L0 DSM
Entries 1695840
QT8(0) sum
QT board

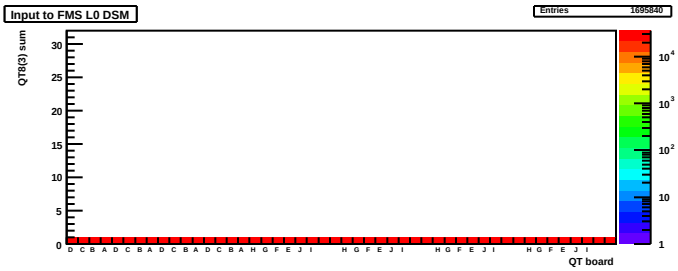

Input to FMS L0 DSM
Entries 282640
QT8(0) sum - simulated
QT board

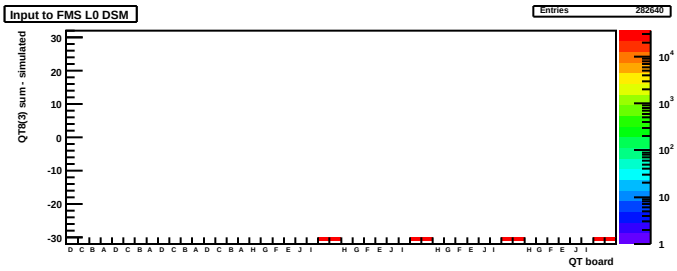

Input to FMS L0 DSM
Entries 1695840
QT8(1) sum
QT board

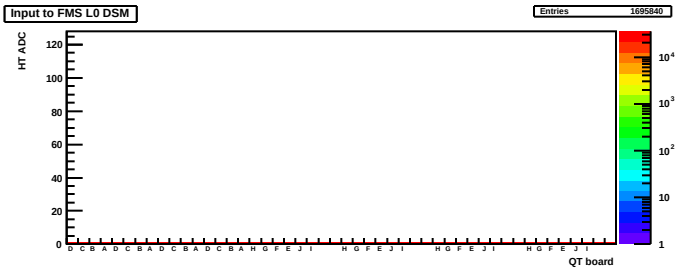

Input to FMS L0 DSM
Entries 282640
QT8(1) sum - simulated
QT board

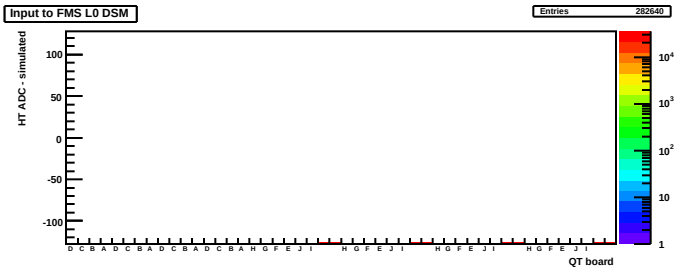

Input to FMS L0 DSM
Entries 1695840
QT8(2) sum
QT board

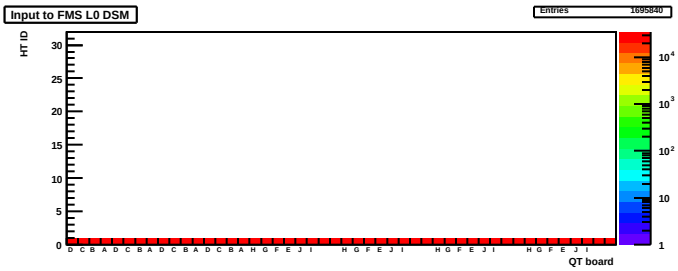

Input to FMS L0 DSM
Entries 282640
QT8(2) sum - simulated
QT board

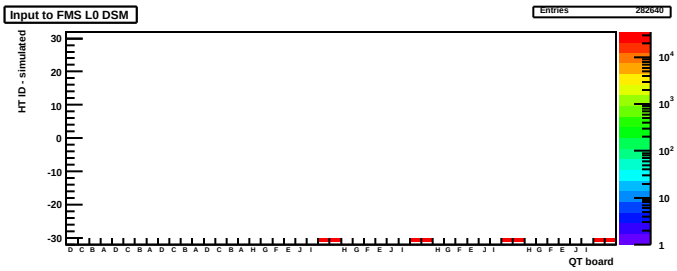

Input to FMS L0 DSM
Entries 1695840
QT8(3) sum
QT board

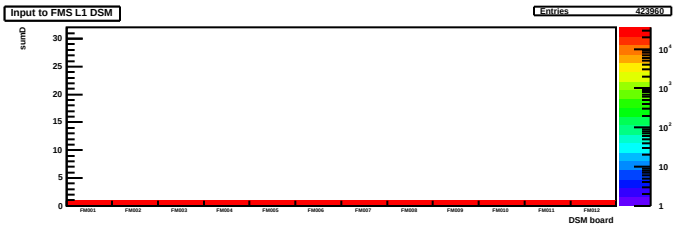

Input to FMS L0 DSM
Entries 282640
QT8(3) sum - simulated
QT board

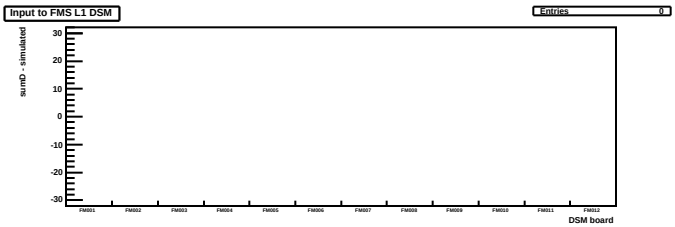

Input to FMS L0 DSM
Entries 1695840
HT ADC
QT board

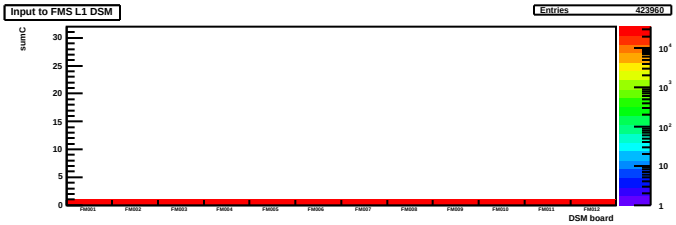

Input to FMS L0 DSM
Entries 282640
HT ADC - simulated
QT board

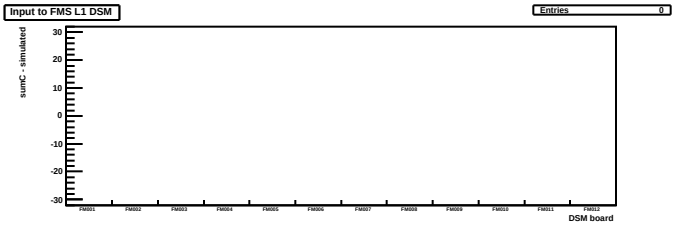

Input to FMS L0 DSM
Entries 1695840
HT ID
QT board

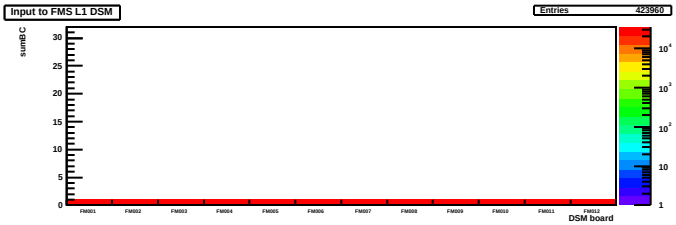

Input to FMS L0 DSM
Entries 282640
HT ID - simulated
QT board

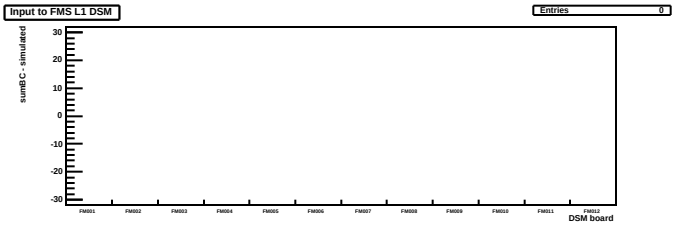

Input to FMS L1 DSM
Entries 423960
sumD
DSM board

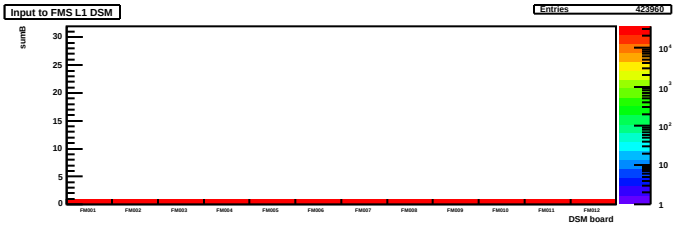

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

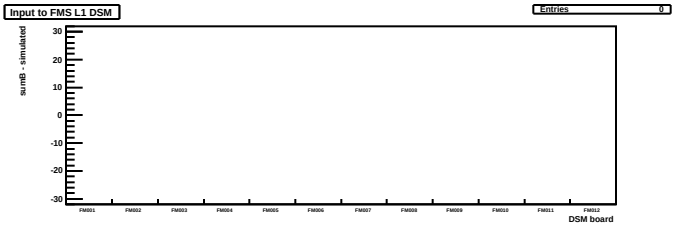

Input to FMS L1 DSM
Entries 423960
sumC
DSM board

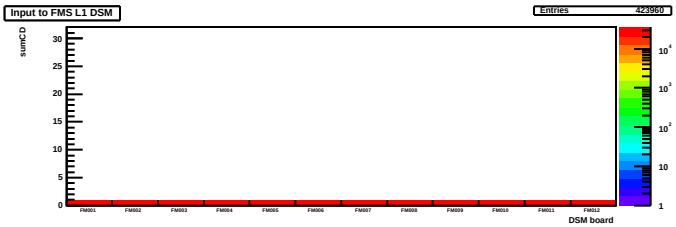

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

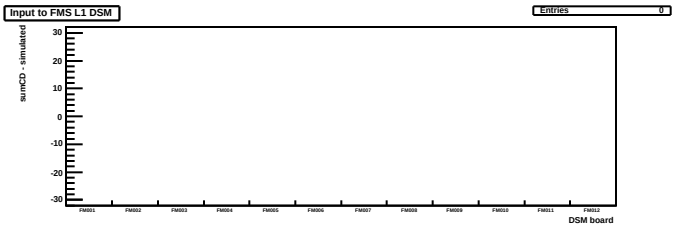

Input to FMS L1 DSM
Entries 423960
sumBC
DSM board

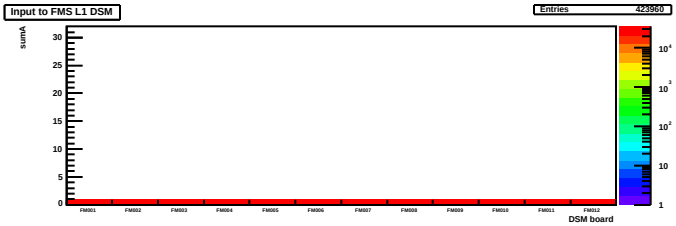

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

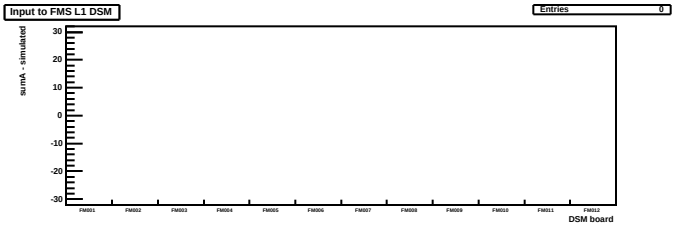

Input to FMS L1 DSM
Entries 423960
sumB
DSM board

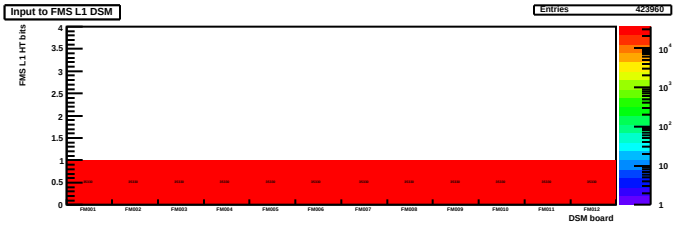

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

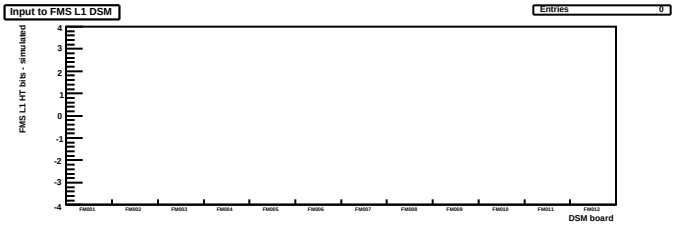

Input to FMS L1 DSM
Entries 423960
sumCD
DSM board

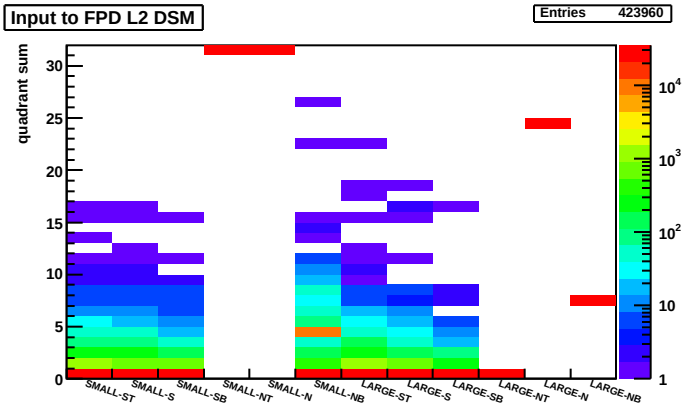

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

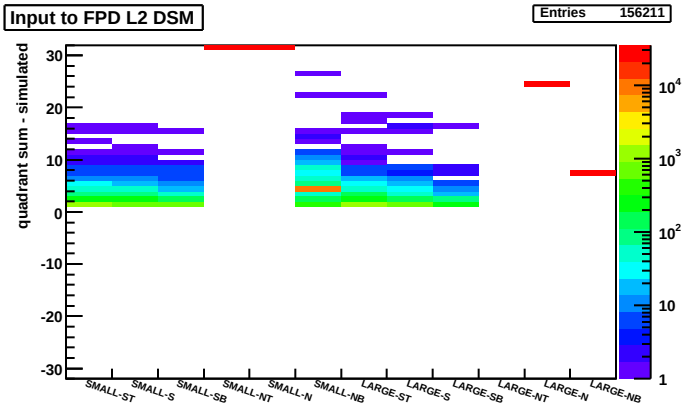

Input to FMS L1 DSM
Entries 423960
sumA
DSM board

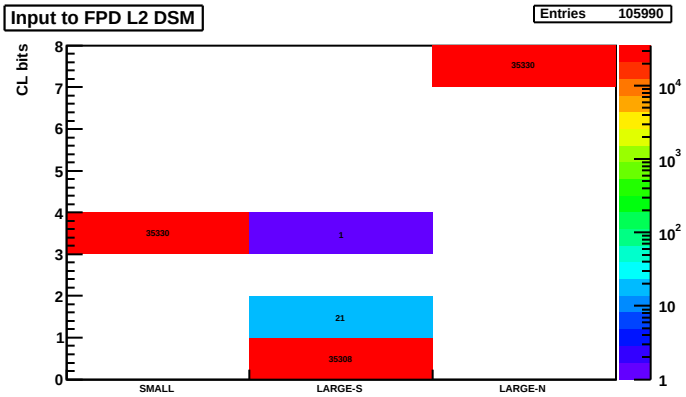

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

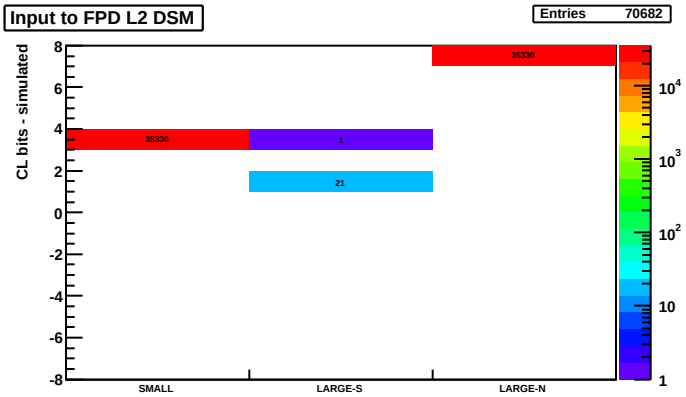

Input to FMS L1 DSM
Entries 423960
FMS L1 HT bits
DSM board

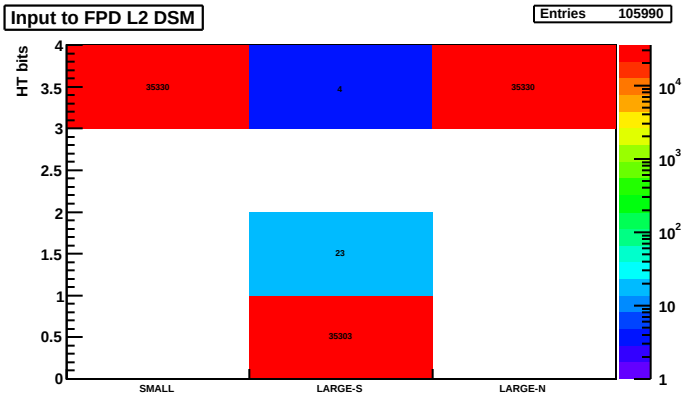

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

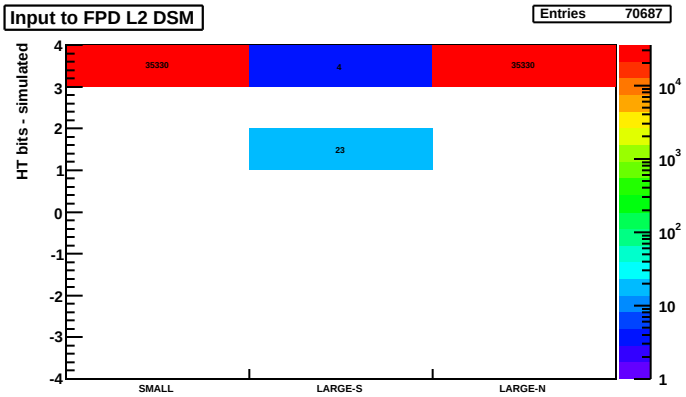

Input to FPD L2 DSM
Entries 423960
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

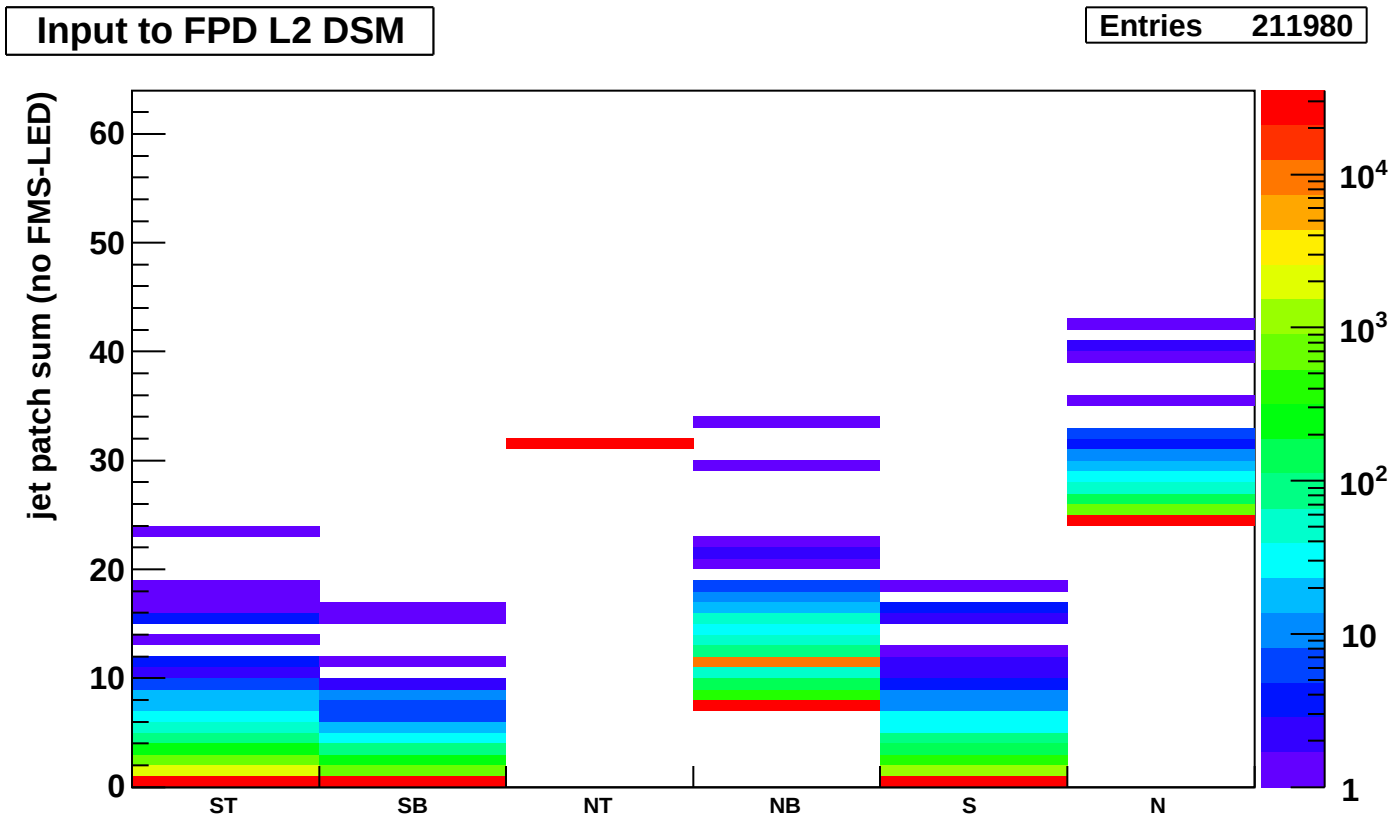

Input to FPD L2 DSM
Entries 156211
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

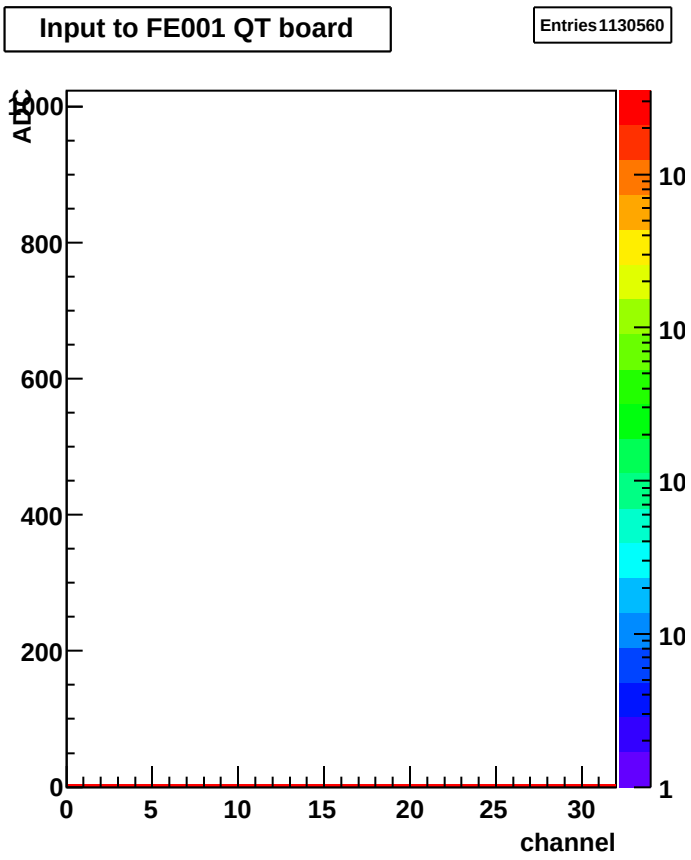

Input to FPD L2 DSM
Entries 105990
CL bits
35330
1
21
35308
35330
SMALL
LARGE-S
LARGE-N

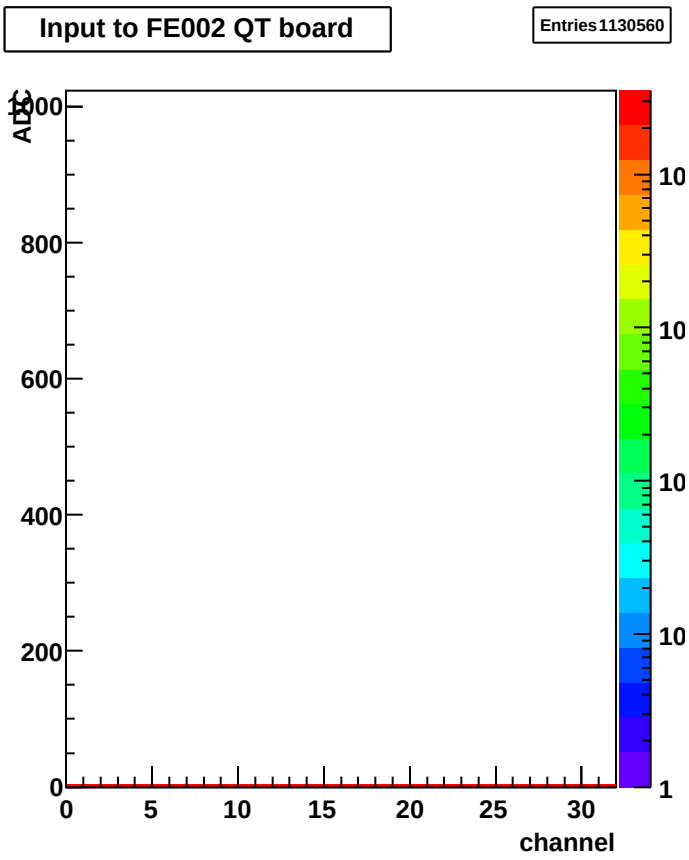

Input to FPD L2 DSM
Entries 70682
CL bits - simulated
35330
35330
1
21
SMALL
LARGE-S
LARGE-N

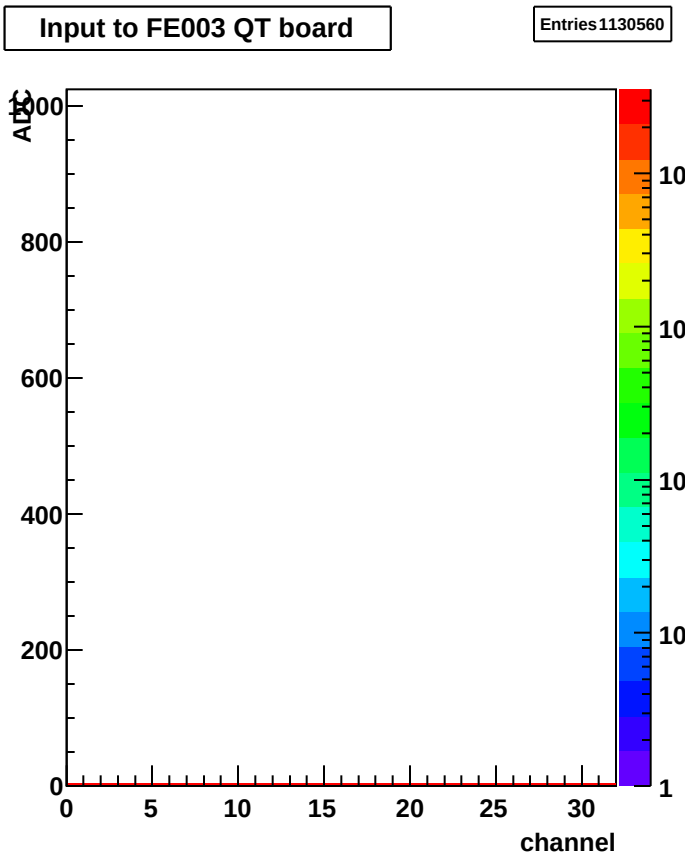

Input to FPD L2 DSM
Entries 105990
HT bits
35330
4
35330
23
35303
SMALL
LARGE-S
LARGE-N

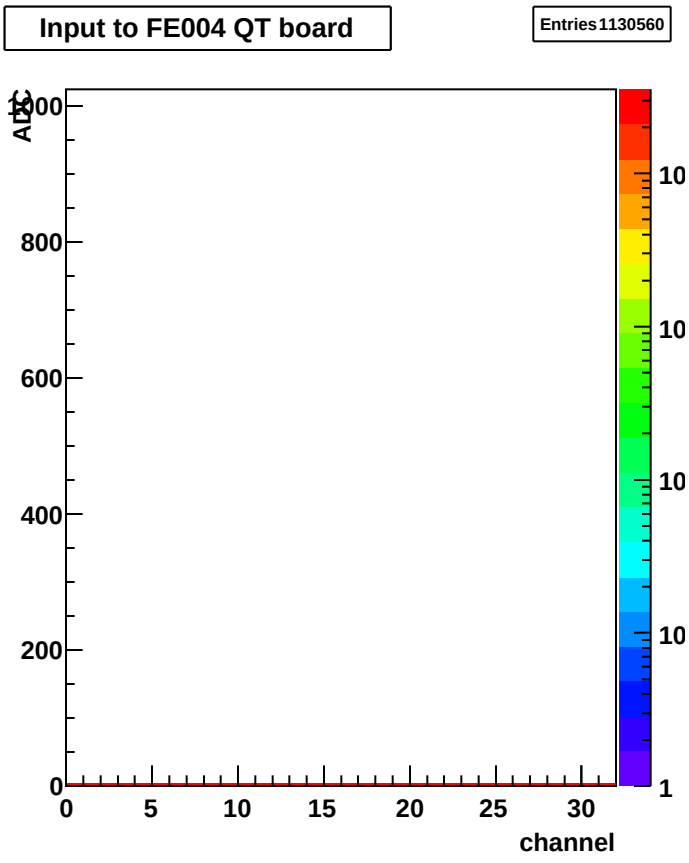

Input to FPD L2 DSM
Entries 70687
HT bits - simulated
35330
4
35330
23
SMALL
LARGE-S
LARGE-N

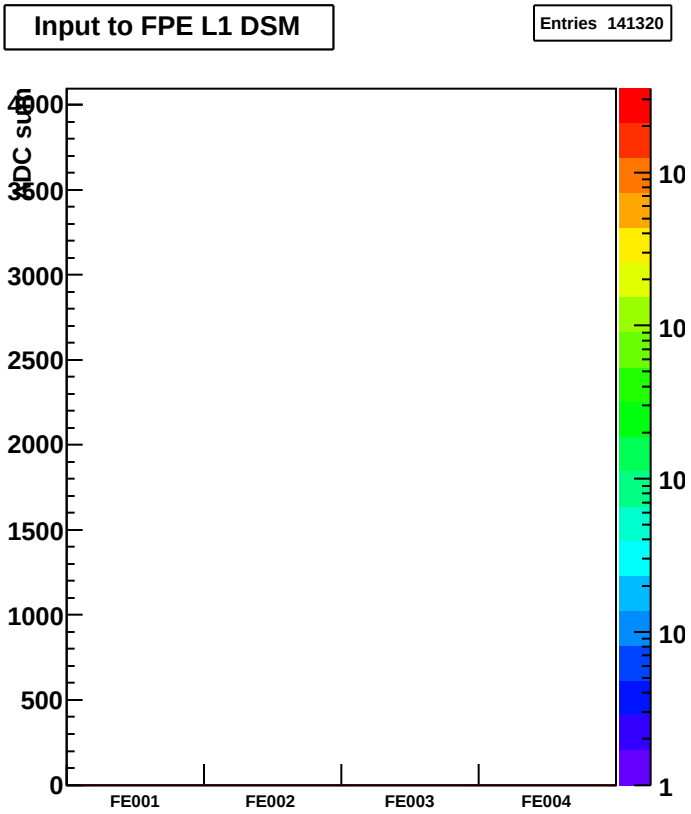

Input to FPD L2 DSM
Entries 211980
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

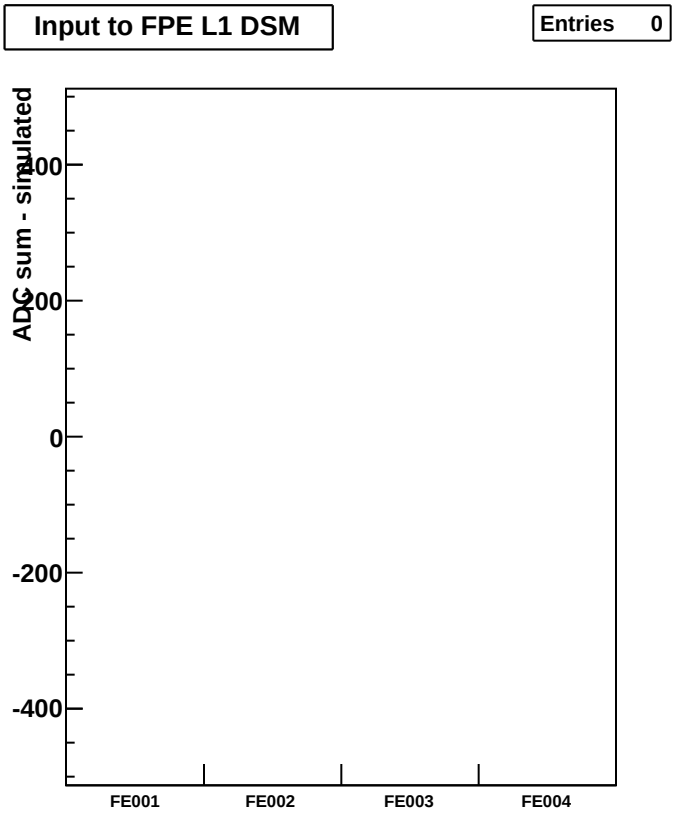

Input to FE001 QT board
Entries 1130560
ADC
channel

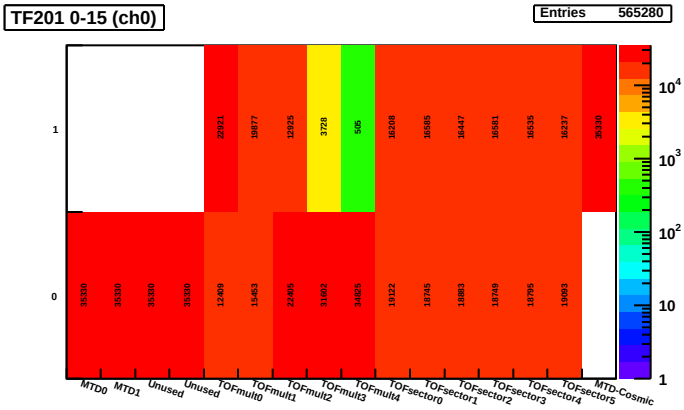

Input to FE002 QT board
Entries 1130560
ADC
channel

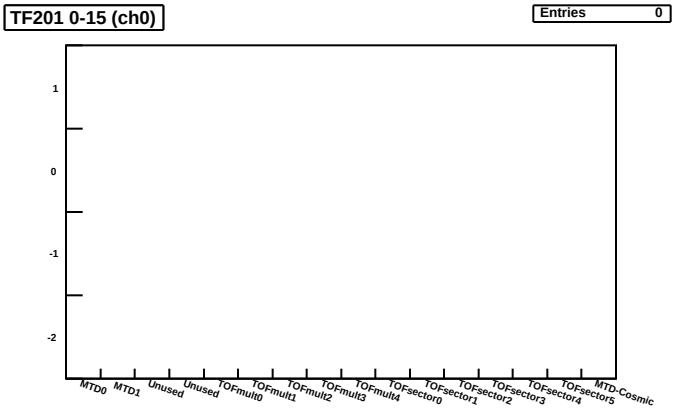

Input to FE003 QT board
Entries 1130560
ADC
channel

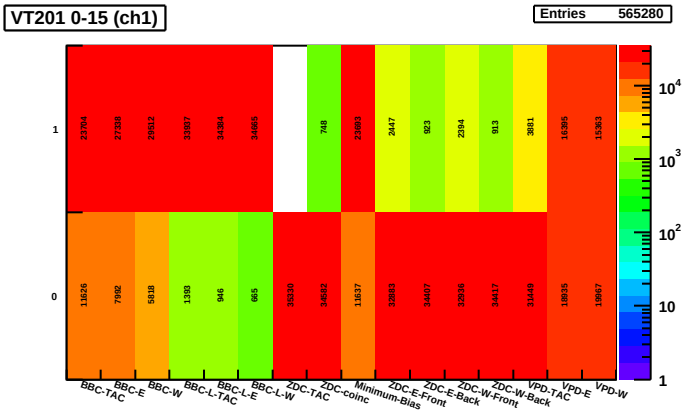

Input to FE004 QT board
Entries 1130560
ADC
channel

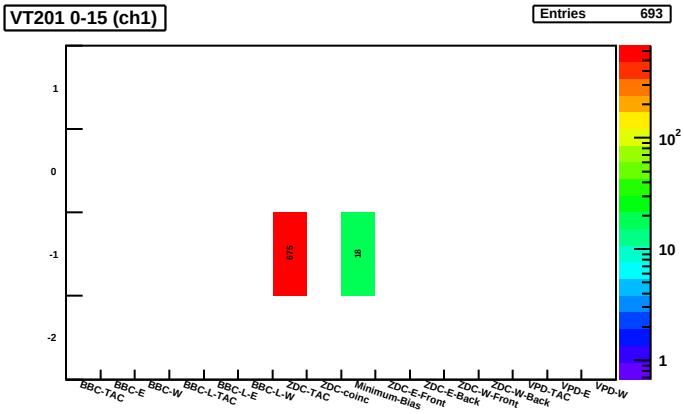

Input to FPE L1 DSM
Entries 141320
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

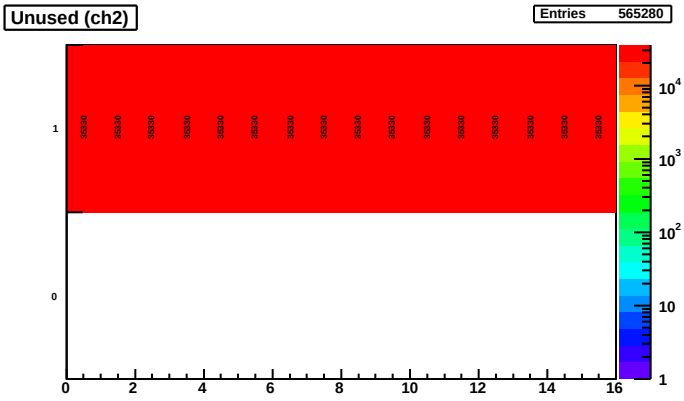

Input to FPE L1 DSM
Entries 0
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004

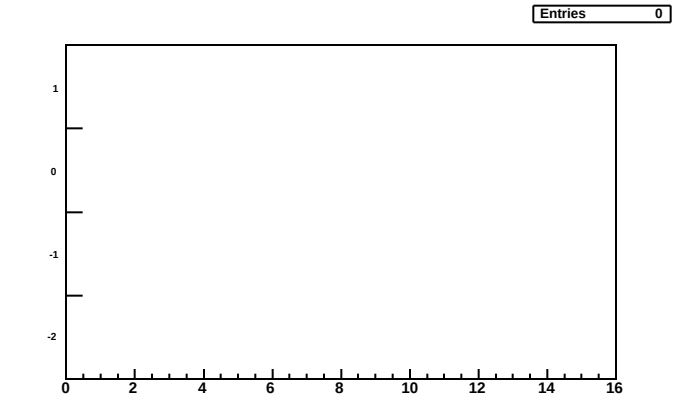

TF201 0-15 (ch0)
Entries 565280
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

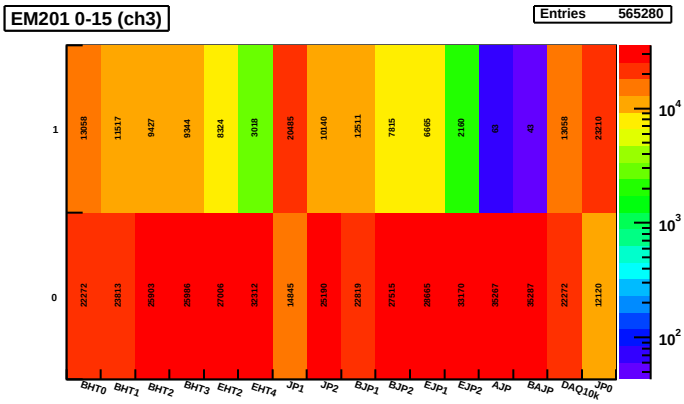

TF201 0-15 (ch0)
Entries 0
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

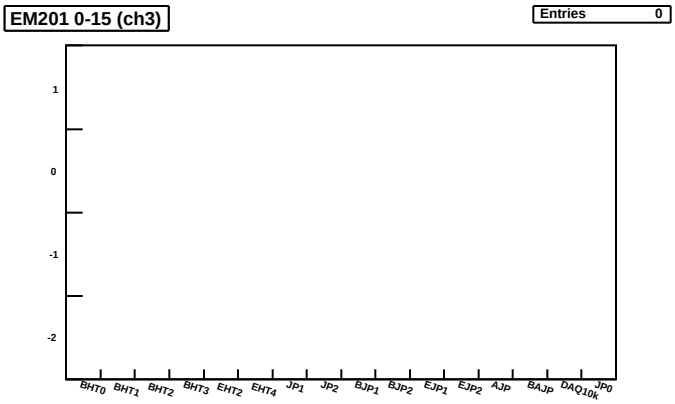

VT201 0-15 (ch1)
Entries 565280
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 693
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

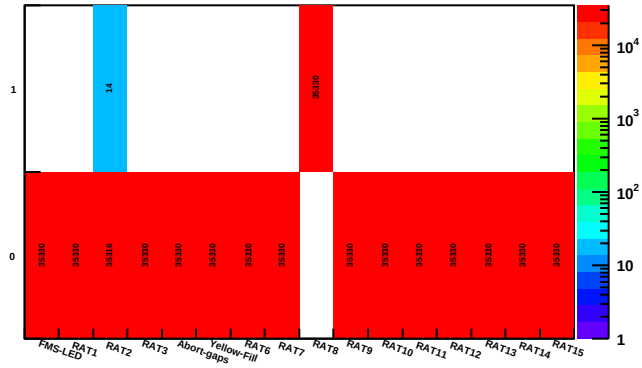

Unused (ch2)
Entries 565280

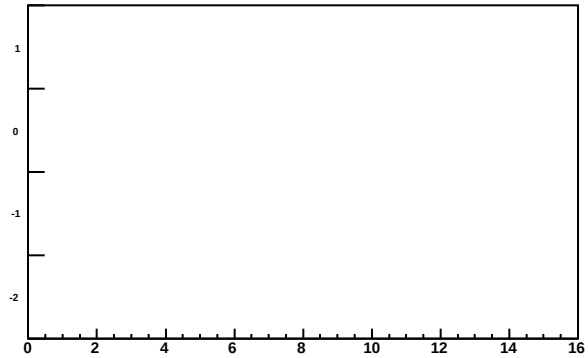

Entries 0


EM201 0-15 (ch3)
Entries 565280
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

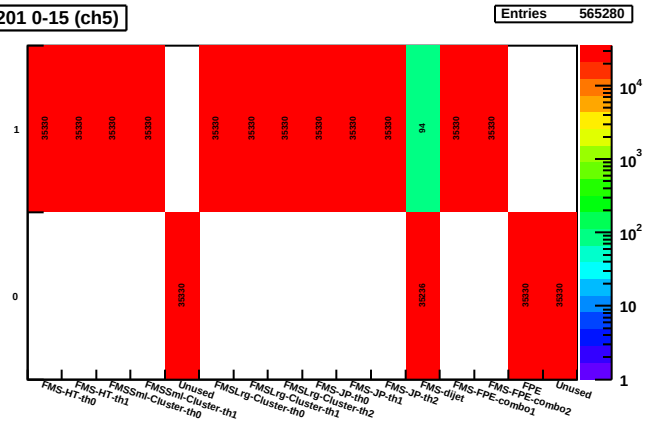

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

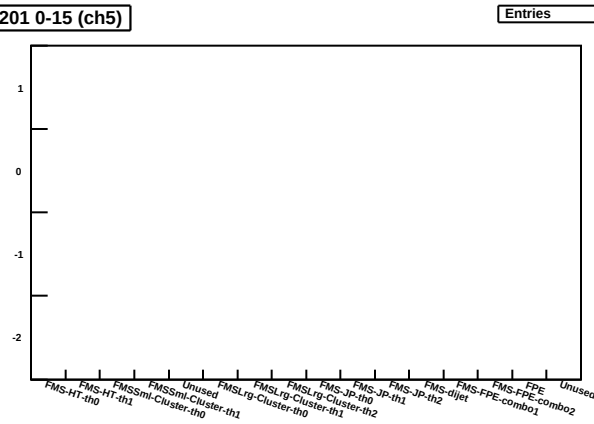




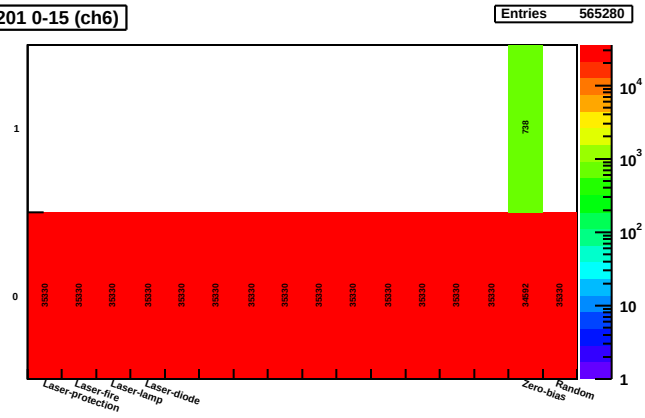
FP201 0-15 (ch5)

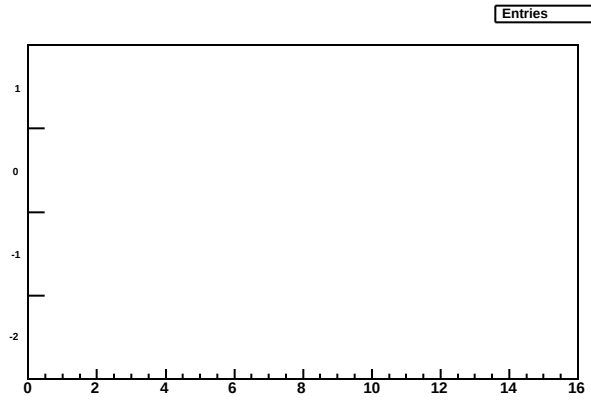
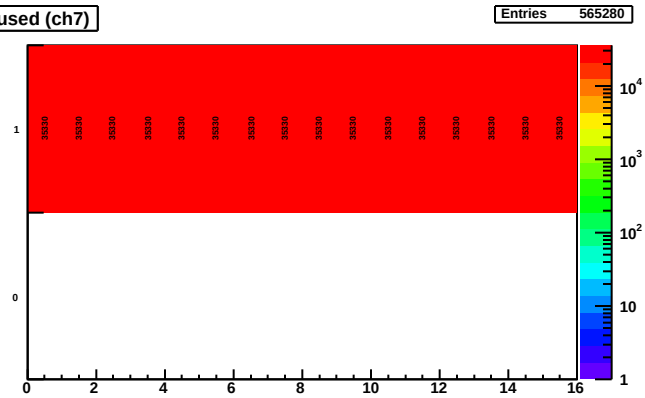
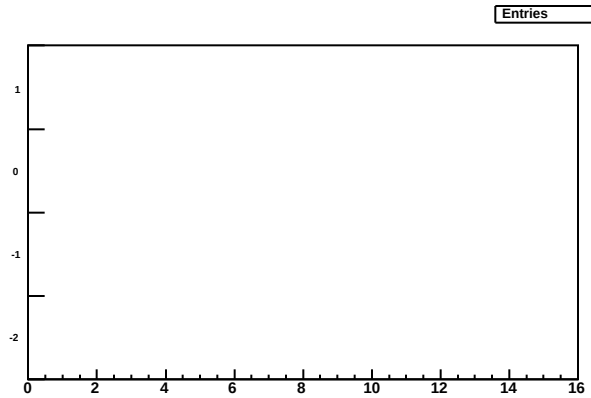


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)