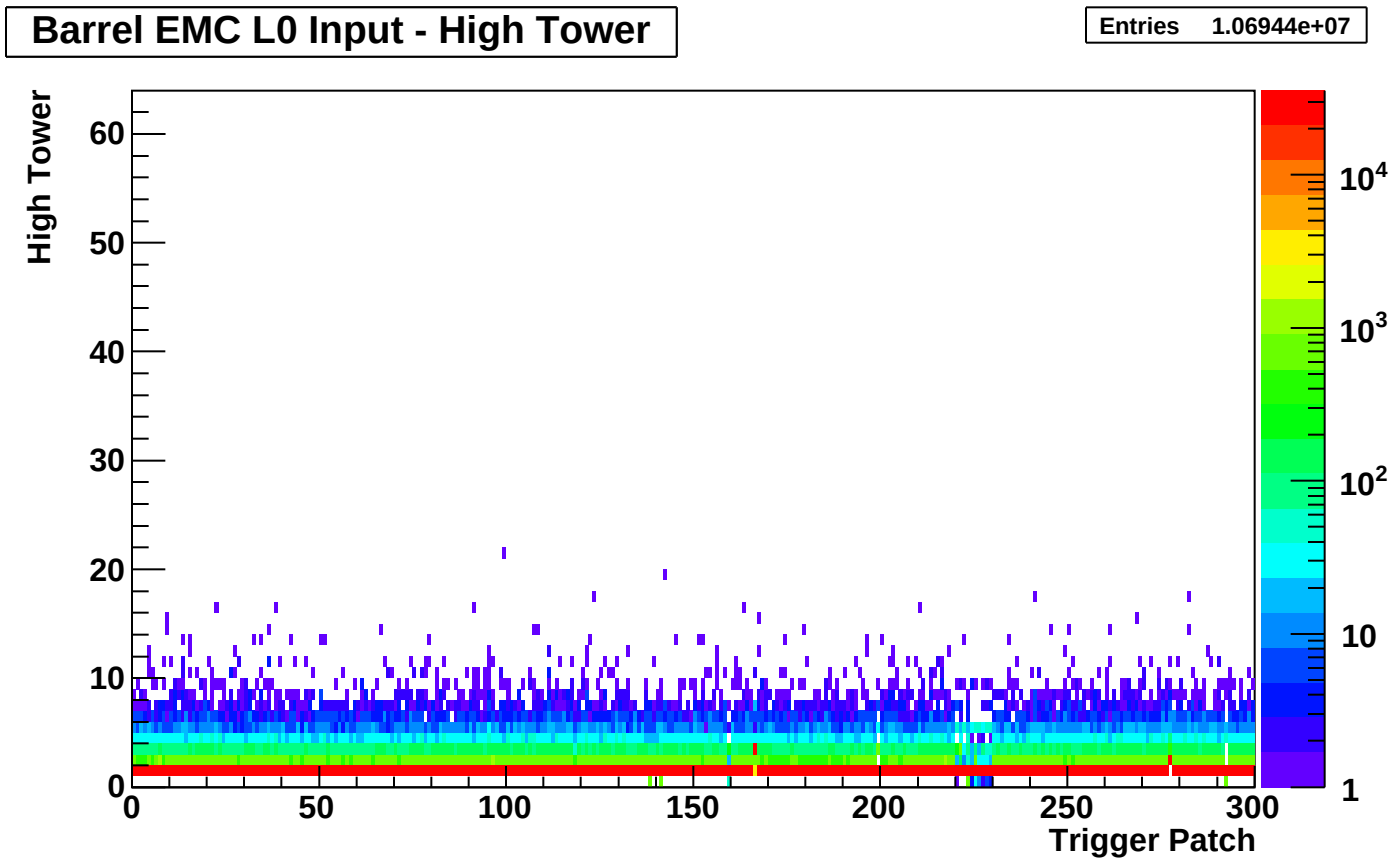
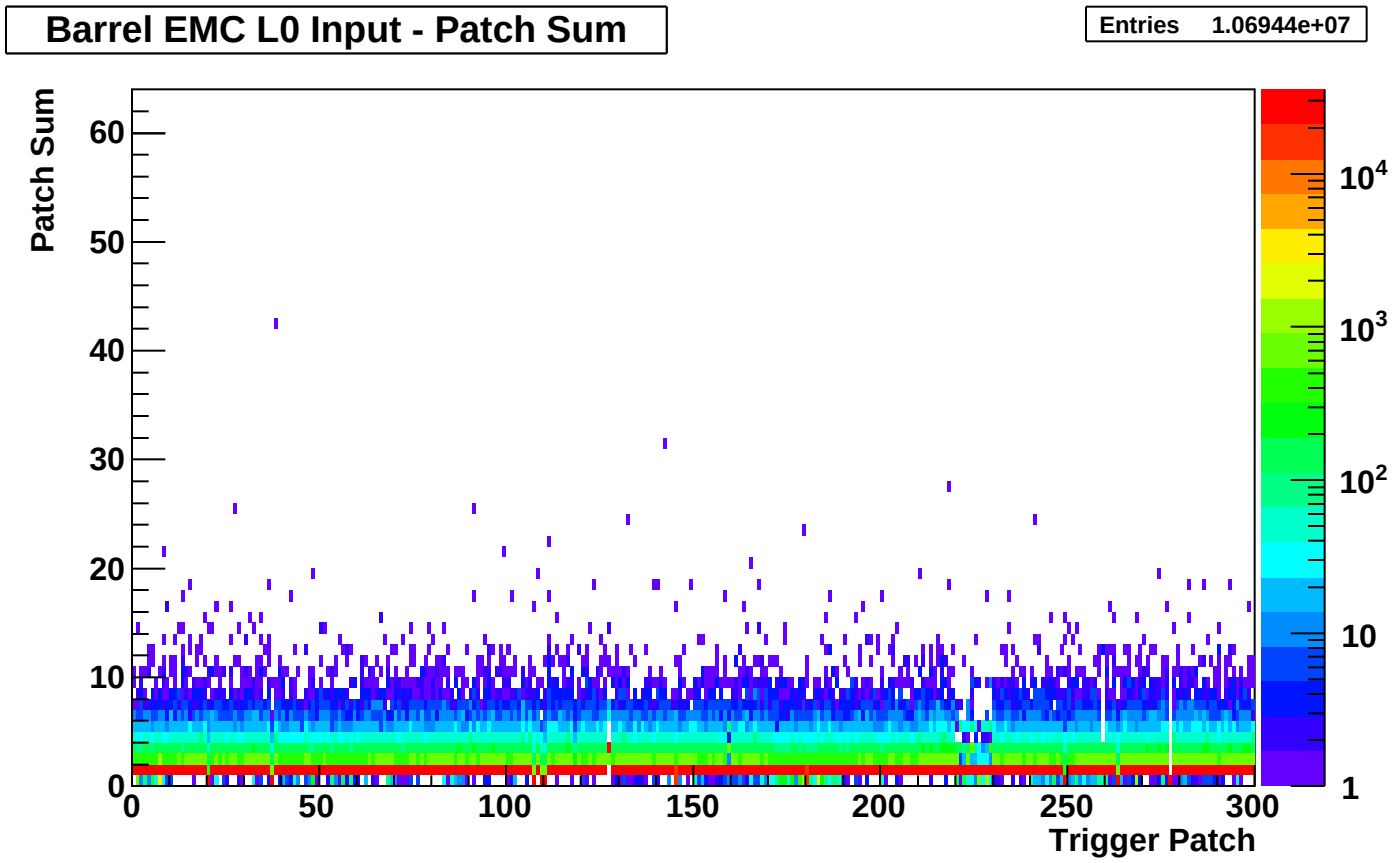
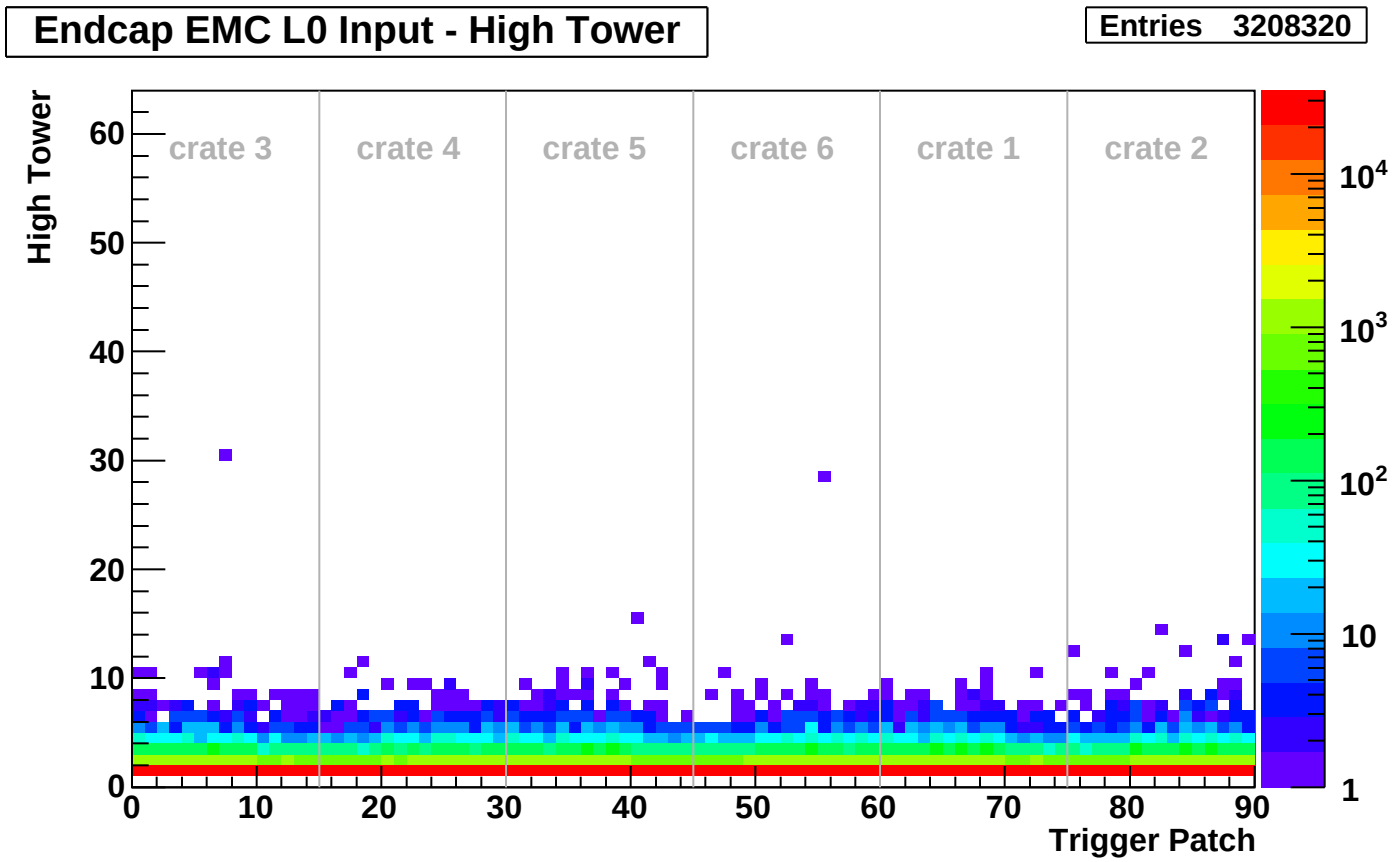
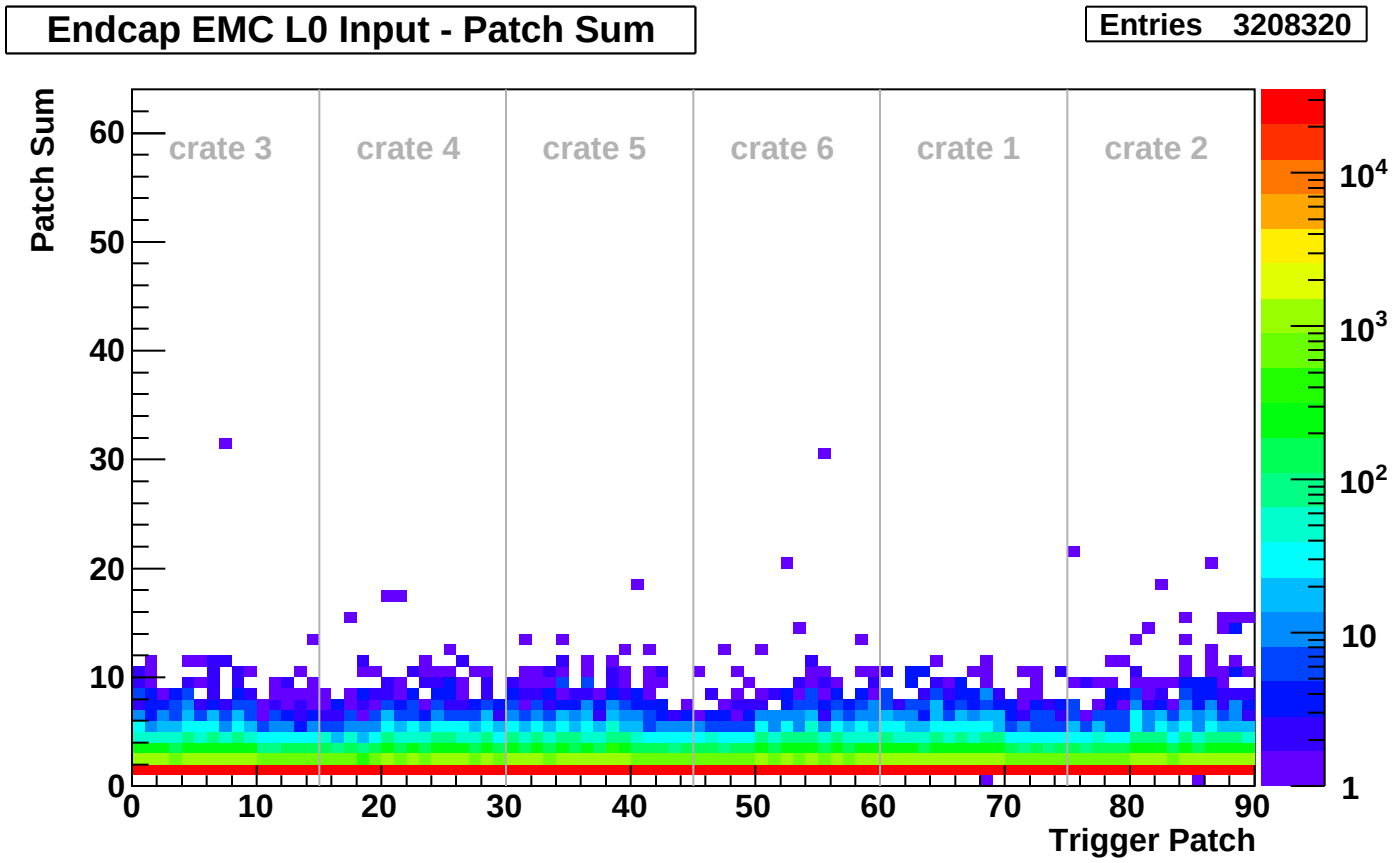
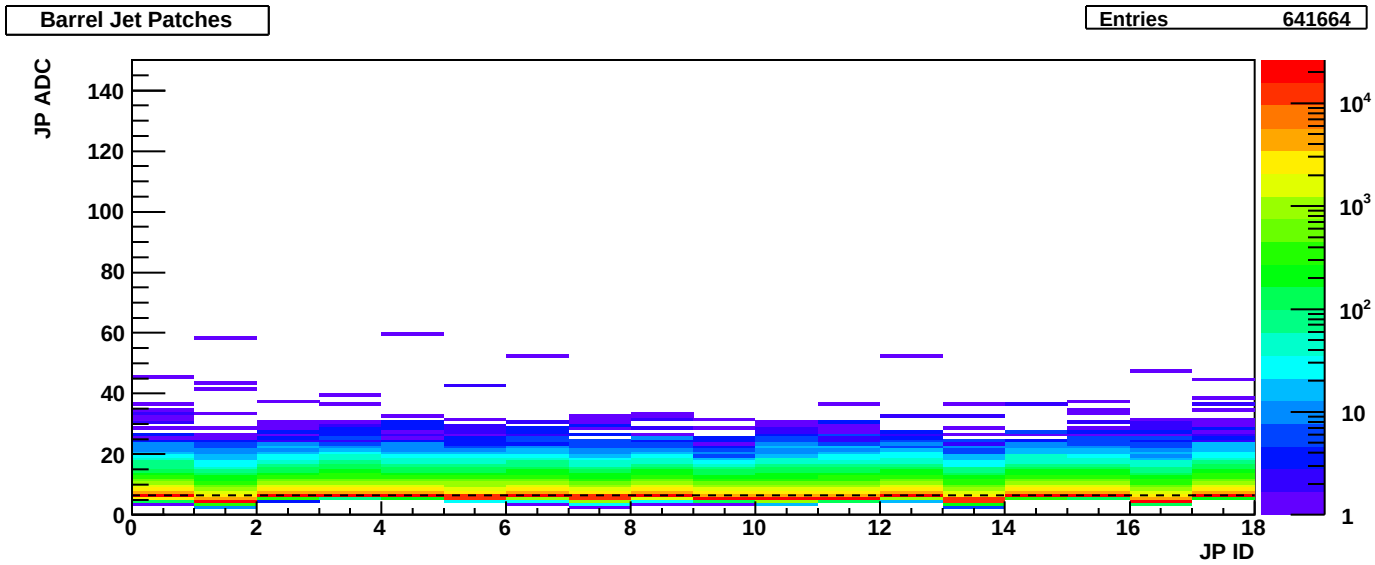
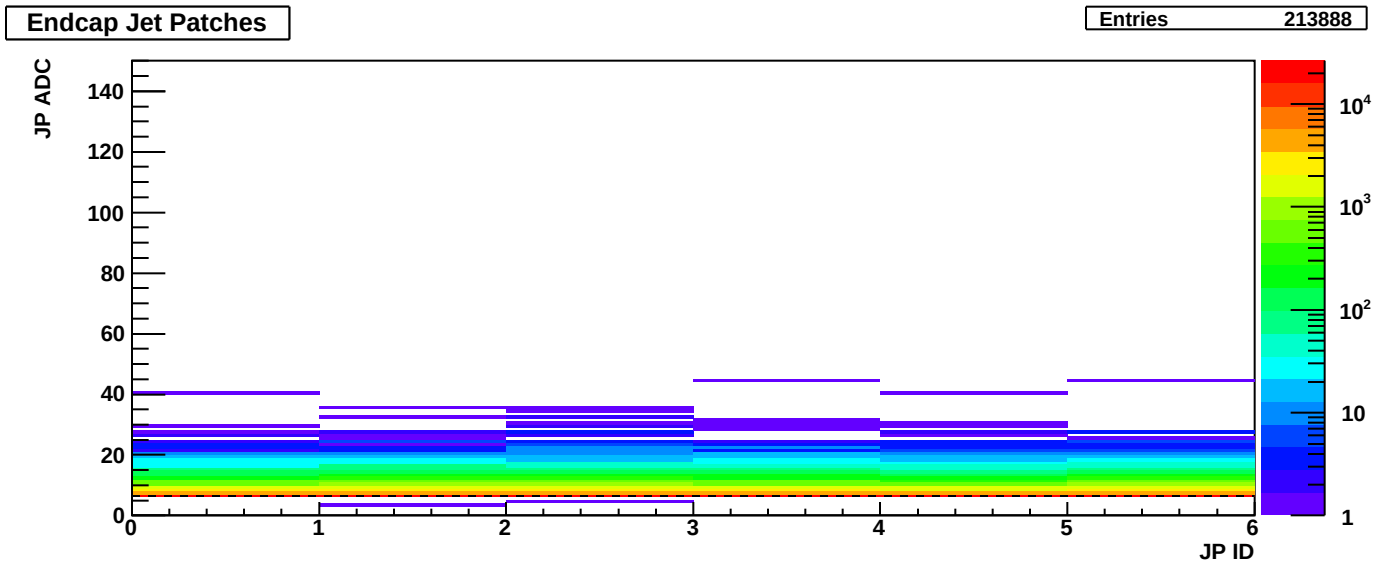

Barrel EMC L0 Input - High Tower
Entries 1.06944e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

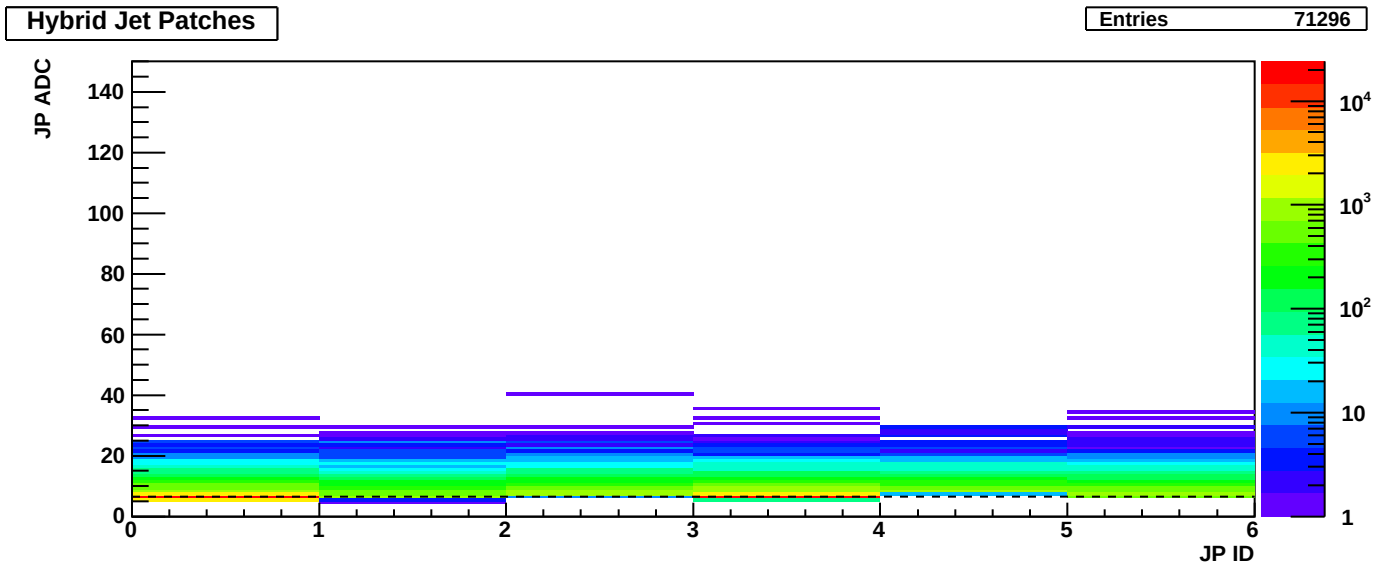

Barrel EMC L0 Input - Patch Sum
Entries 1.06944e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

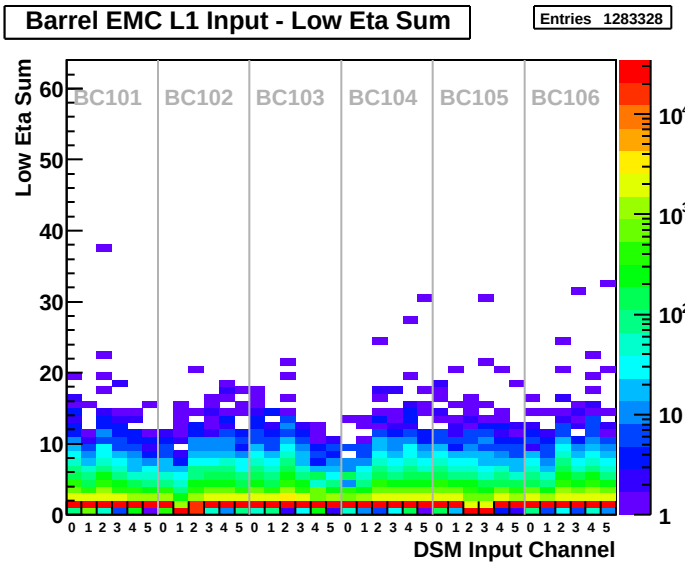

Endcap EMC L0 Input - High Tower
Entries 3208320
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

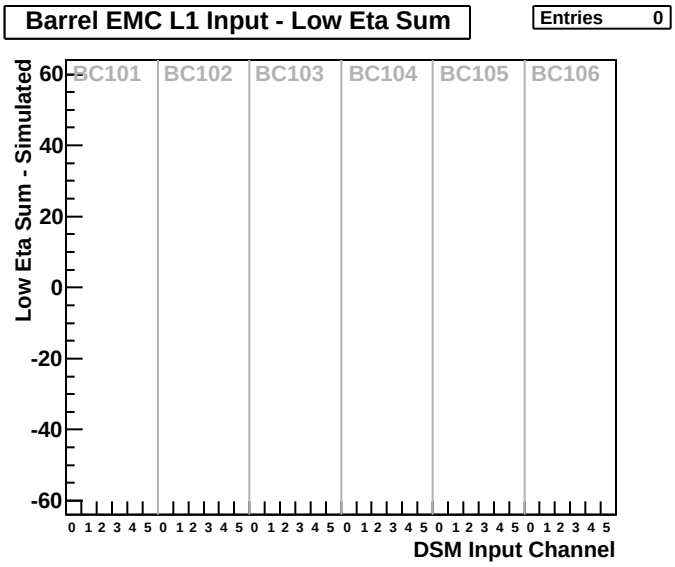

Endcap EMC L0 Input - Patch Sum
Entries 3208320
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

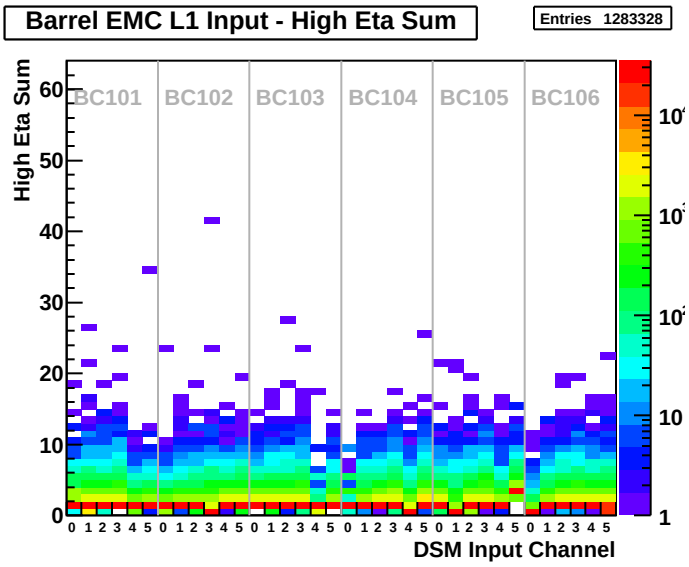

Barrel Jet Patches
Entries 641664
JP ADC
JP ID

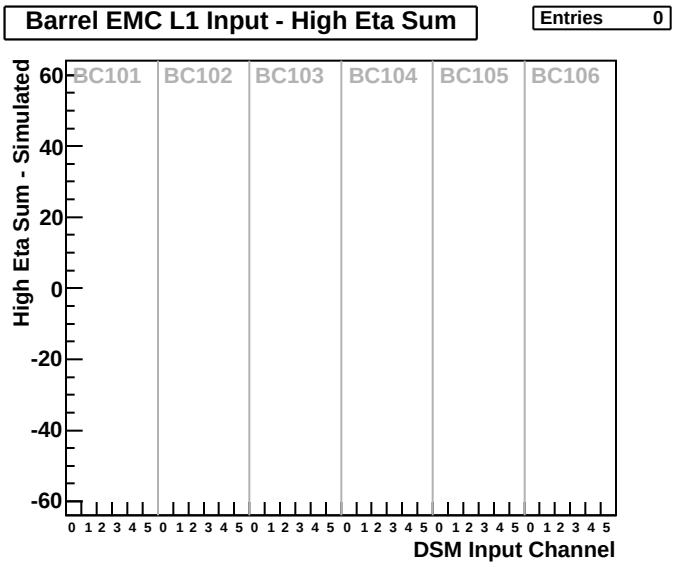

Endcap Jet Patches
Entries 213888
JP ADC
JP ID

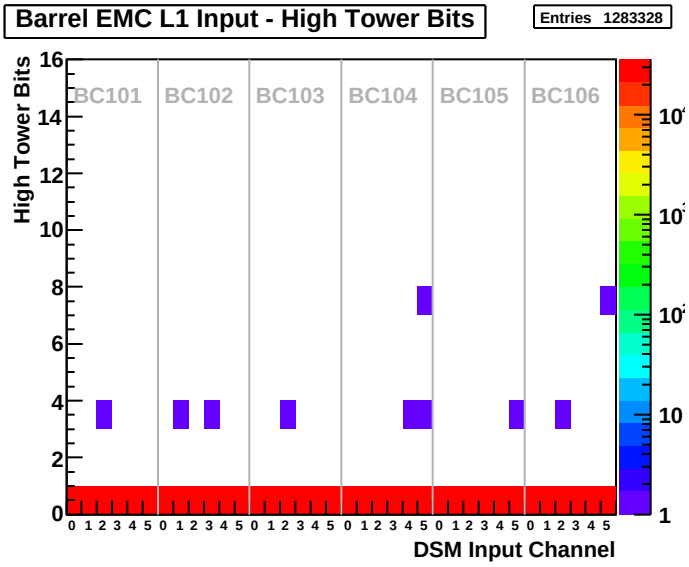

Hybrid Jet Patches
Entries 71296
JP ADC
JP ID

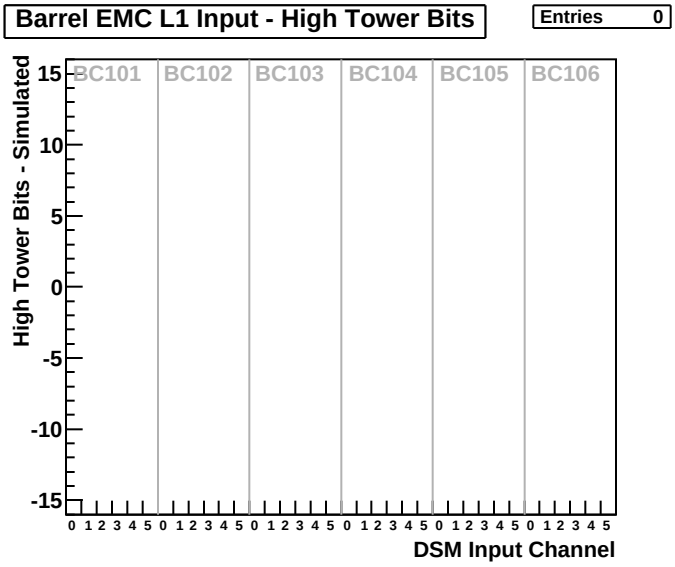

Barrel EMC L1 Input - Low Eta Sum
Entries 1283328
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

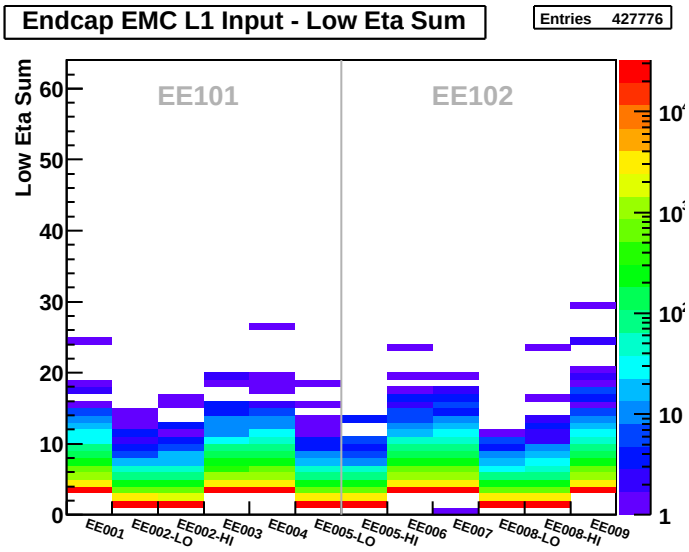

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

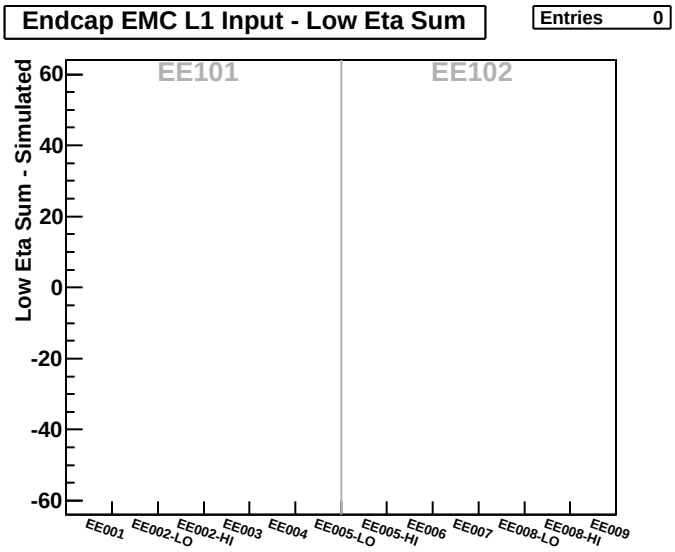

Barrel EMC L1 Input - High Eta Sum
Entries 1283328
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

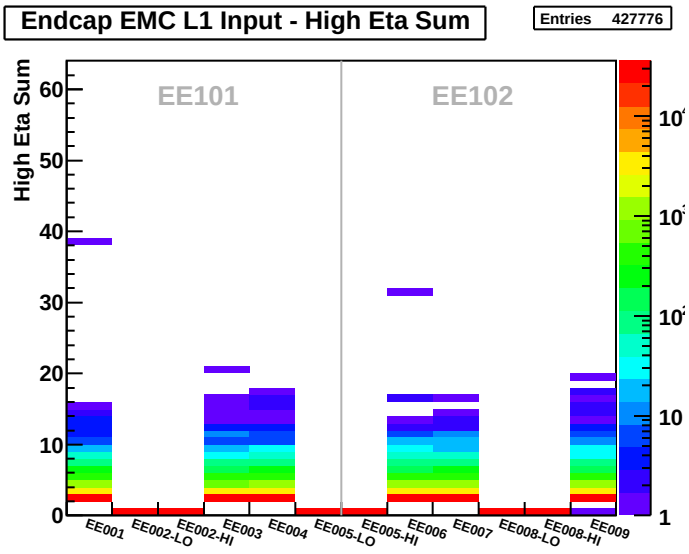

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

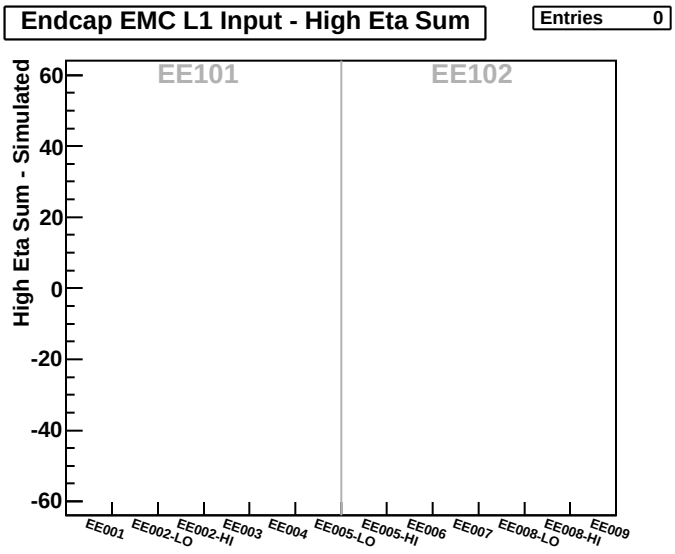

Barrel EMC L1 Input - High Tower Bits
Entries 1283328
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

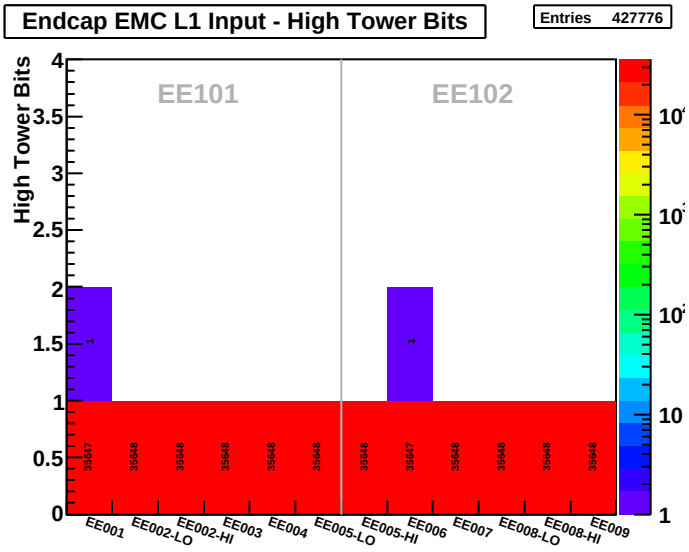

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

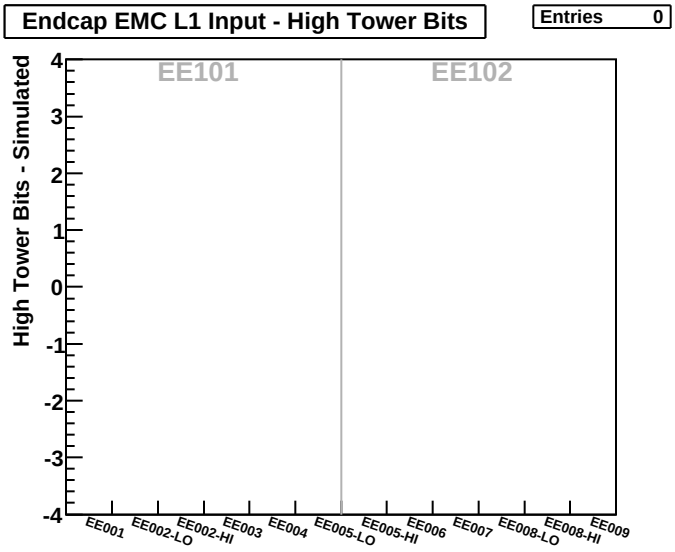

Endcap EMC L1 Input - Low Eta Sum
Entries 427776
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

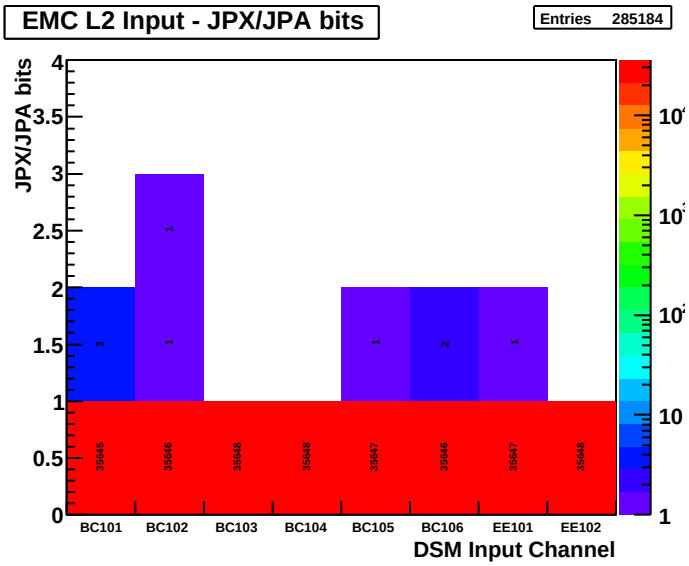

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

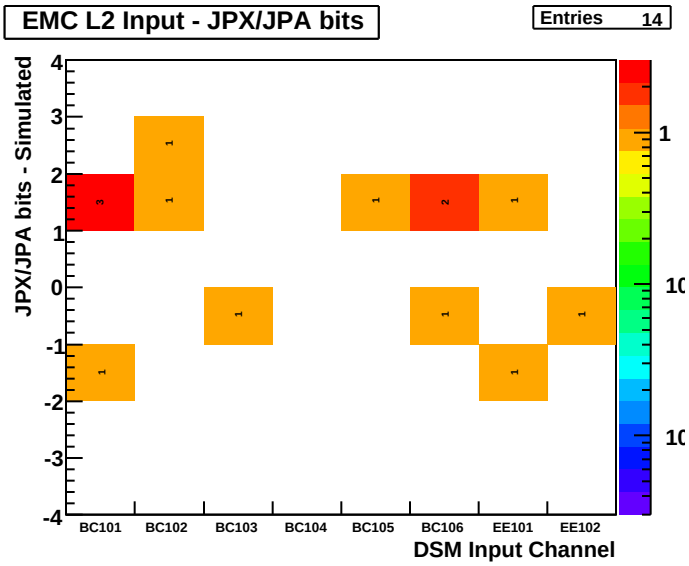

Endcap EMC L1 Input - High Eta Sum
Entries 427776
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

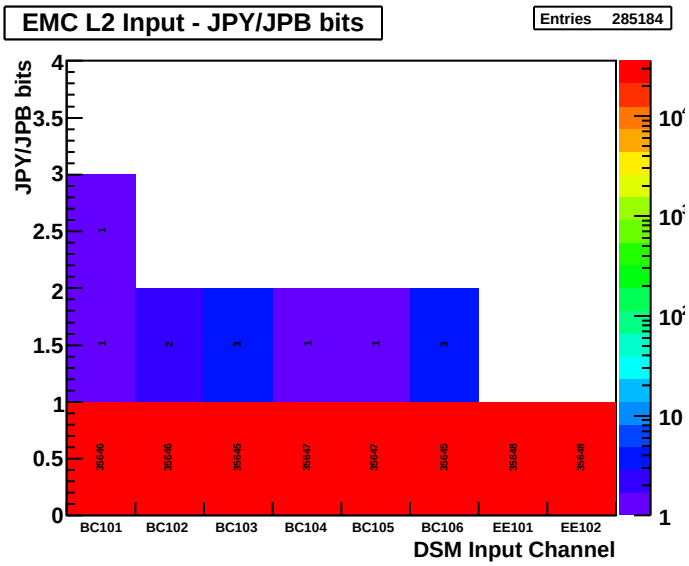

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

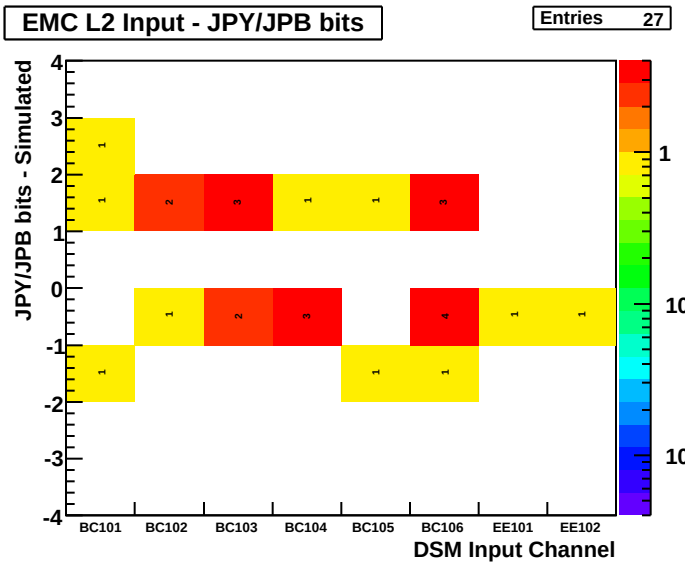

Endcap EMC L1 Input - High Tower Bits
Entries 427776
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

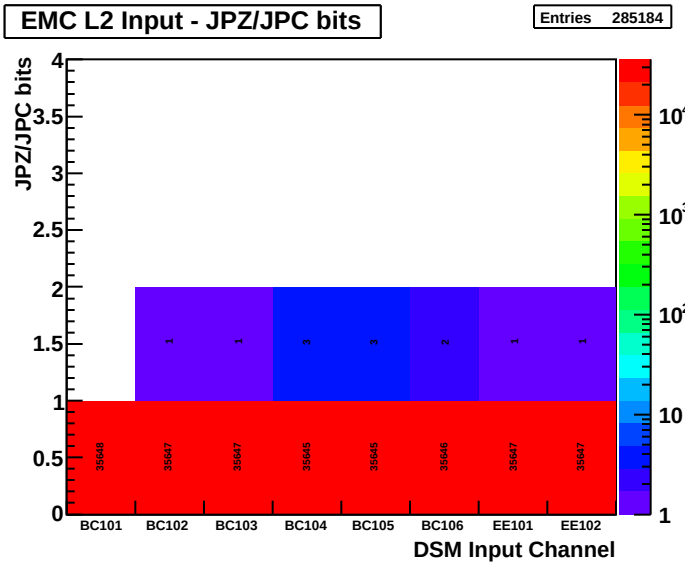

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

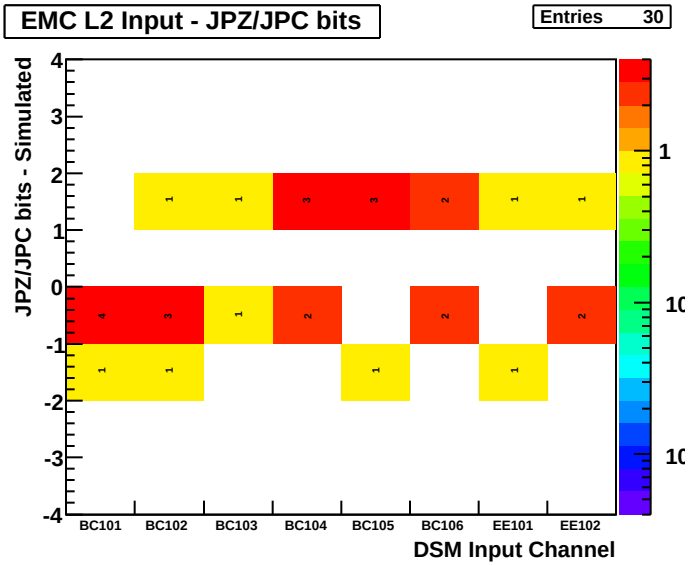

EMC L2 Input - JPX/JPA bits
Entries 285184
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

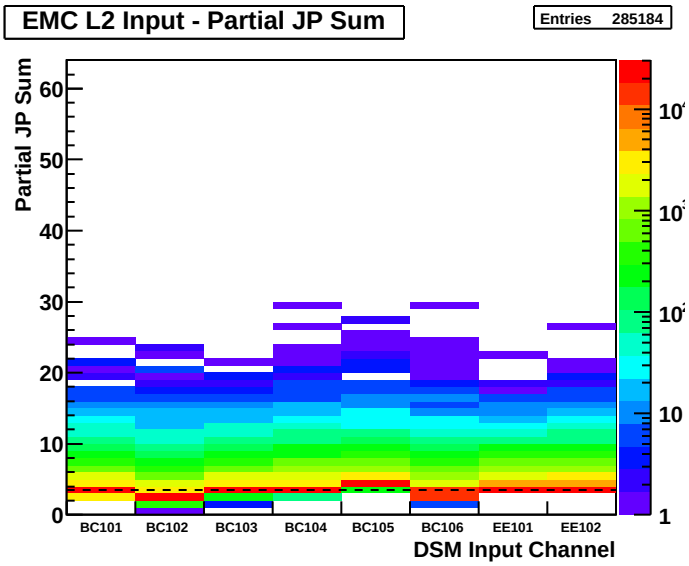

EMC L2 Input - JPX/JPA bits
Entries 14
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

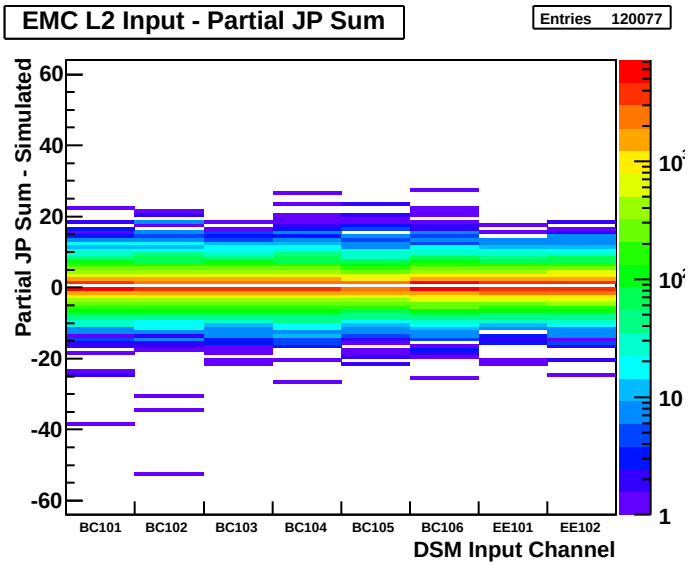

EMC L2 Input - JPY/JPB bits
Entries 285184
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

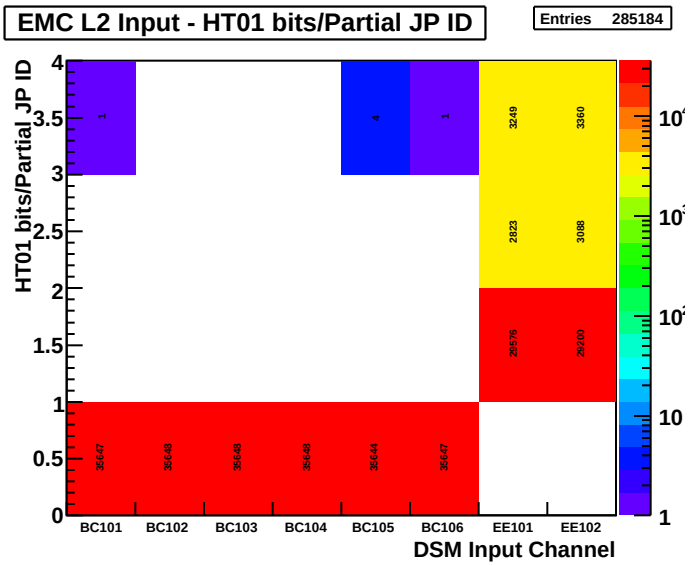

EMC L2 Input - JPY/JPB bits
Entries 27
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

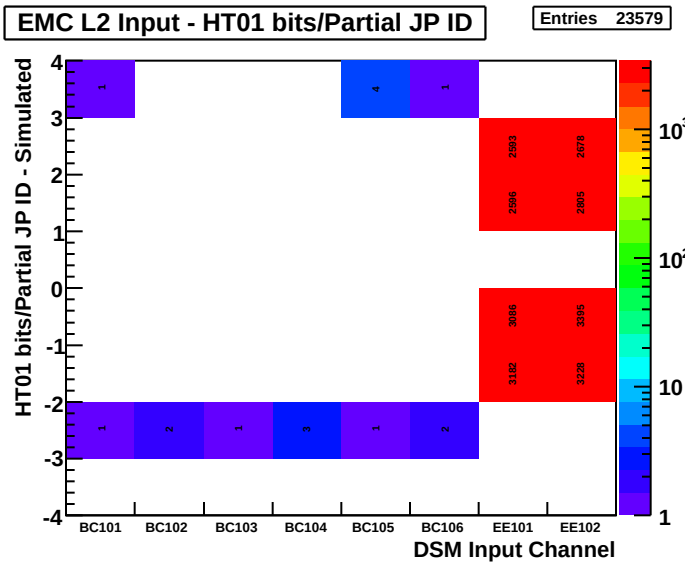

EMC L2 Input - JPZ/JPC bits
Entries 285184
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

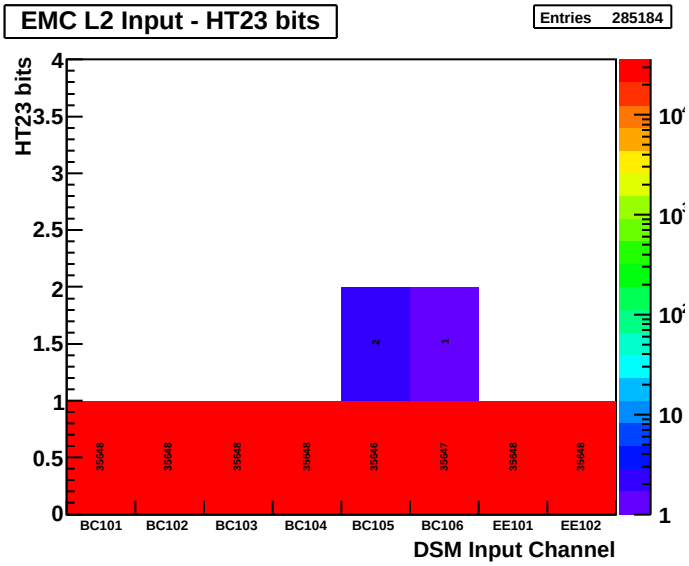

EMC L2 Input - JPZ/JPC bits
Entries 30
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

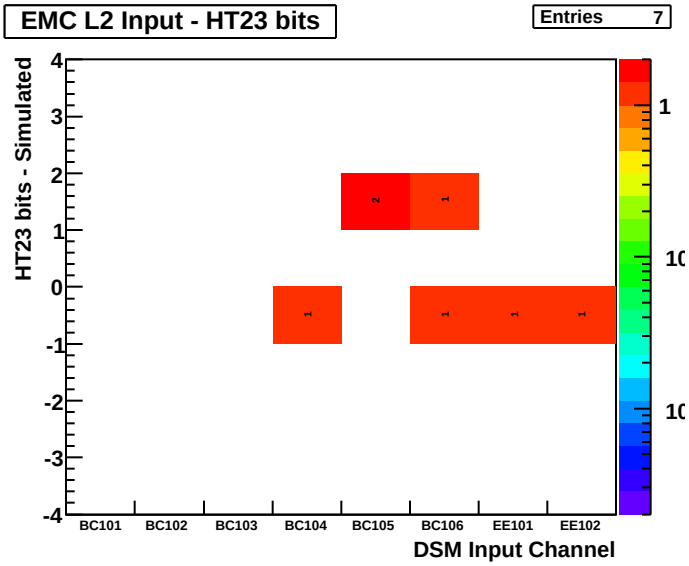

EMC L2 Input - Partial JP Sum
Entries 285184
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

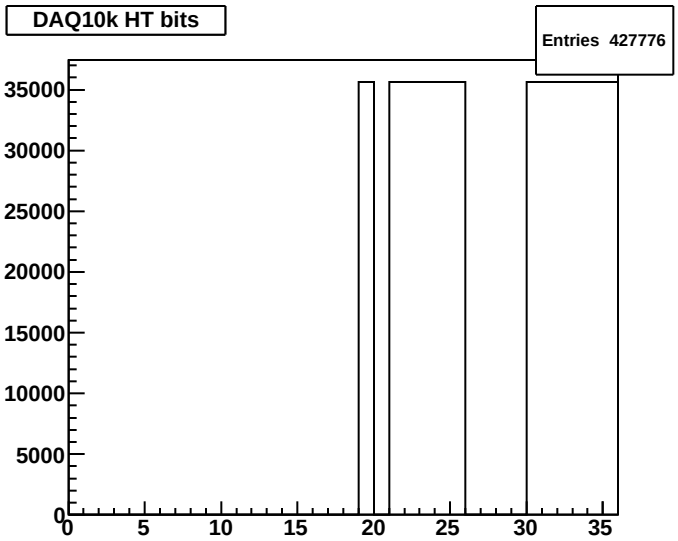

EMC L2 Input - Partial JP Sum
Entries 120077
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

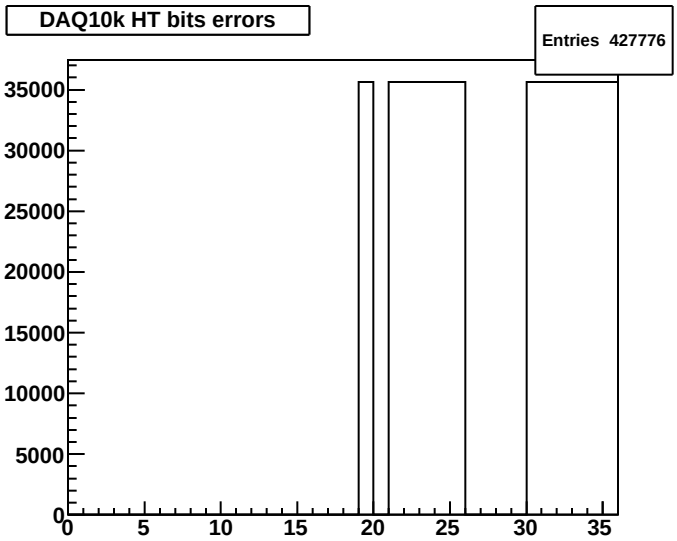

EMC L2 Input - HT01 bits/Partial JP ID
Entries 285184
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

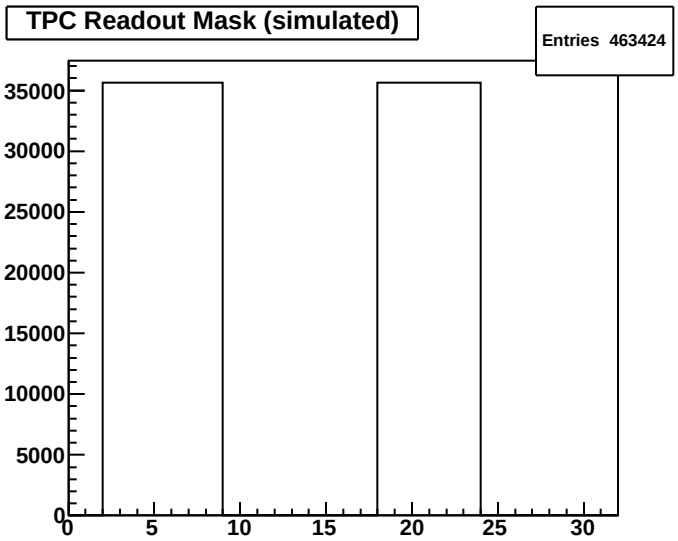

EMC L2 Input - HT01 bits/Partial JP ID
Entries 23579
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

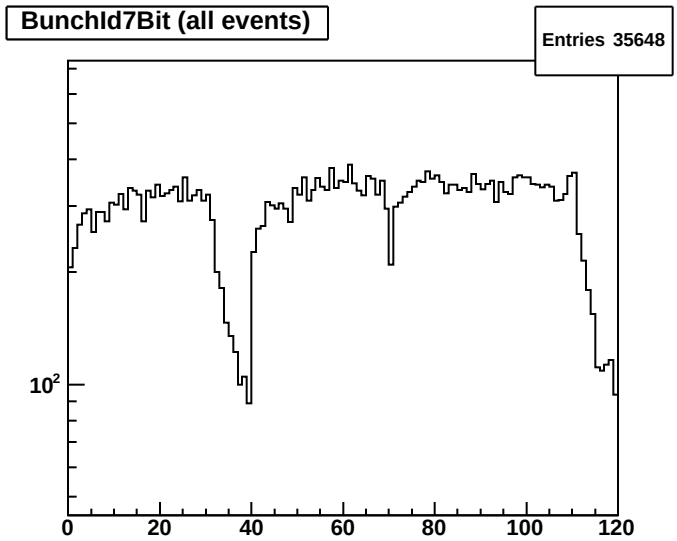

EMC L2 Input - HT23 bits
Entries 285184
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

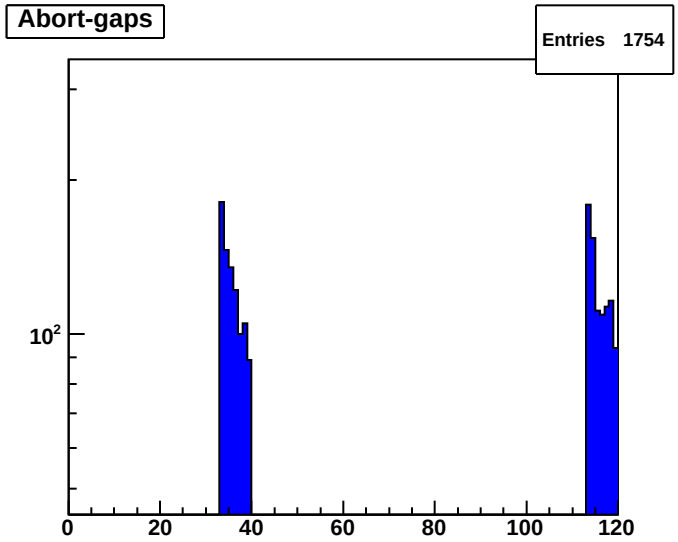

EMC L2 Input - HT23 bits
Entries 7
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

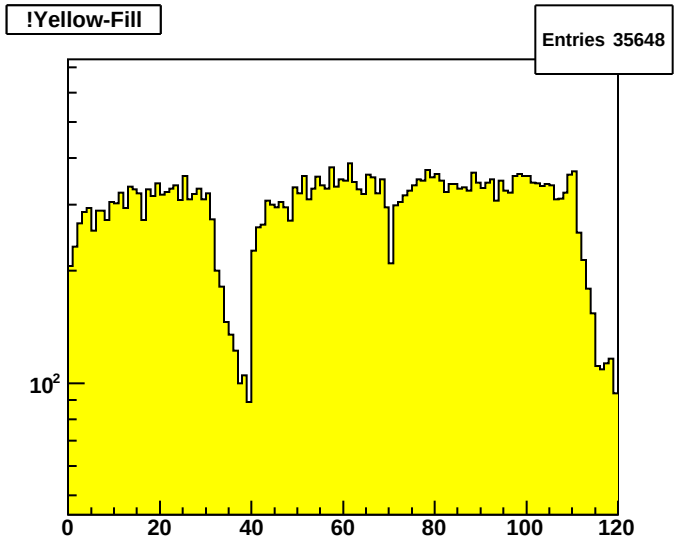

DAQ10k HT bits
Entries 427776
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

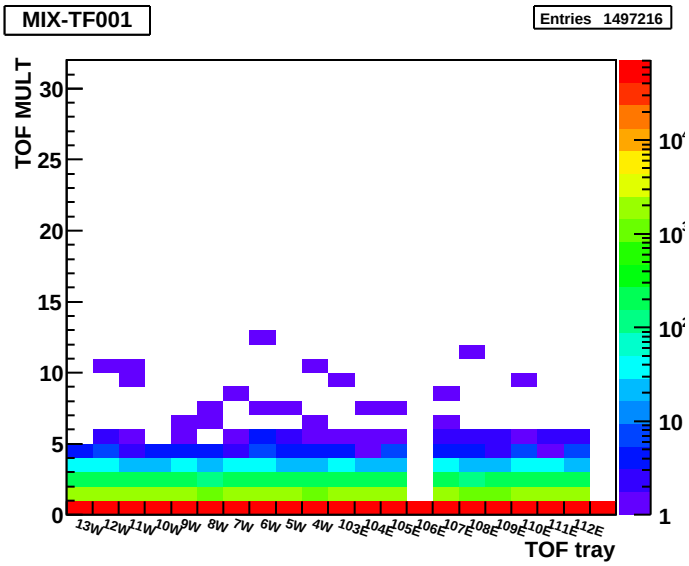

DAQ10k HT bits errors
Entries 427776
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

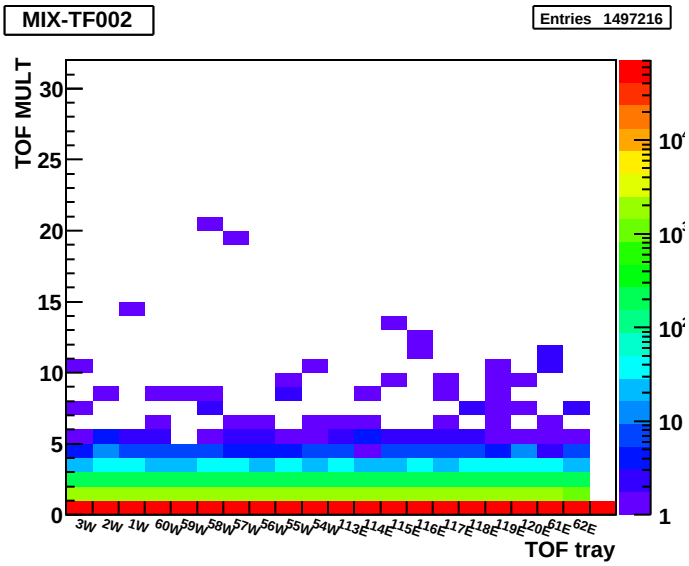

TPC Readout Mask (simulated)
Entries 463424
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

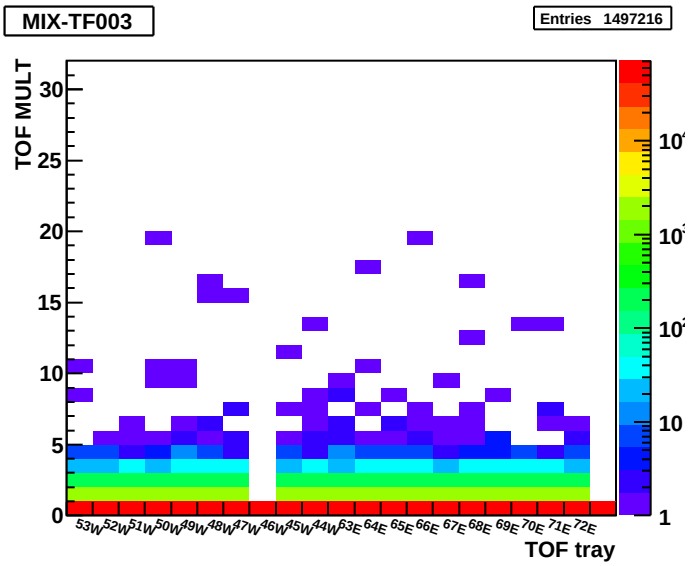

BunchId7Bit (all events)
Entries 35648
10^2
0 20 40 60 80 100 120

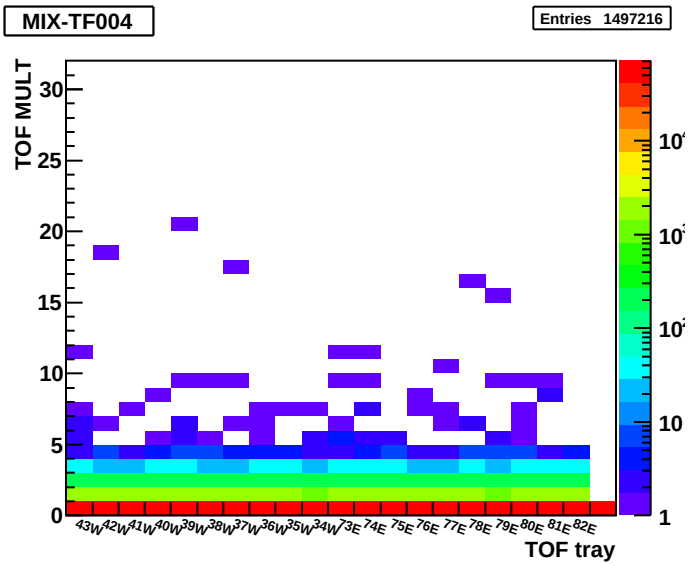

Abort-gaps
Entries 1754
10^2
0 20 40 60 80 100 120

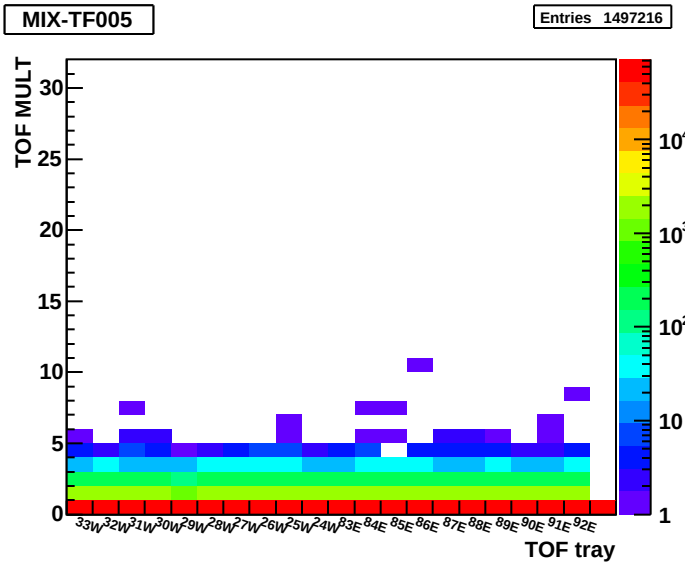

!Yellow-Fill
Entries 35648
10^2
0 20 40 60 80 100 120

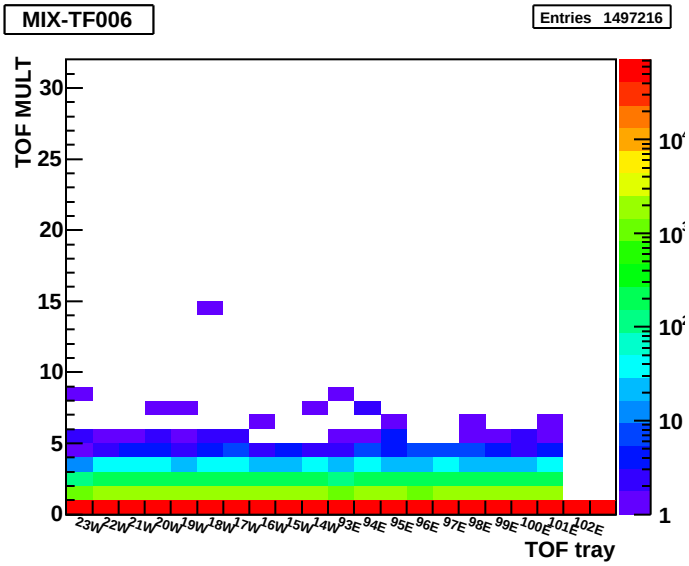

MIX-TF001
Entries 1497216
TOF MULT
TOF tray

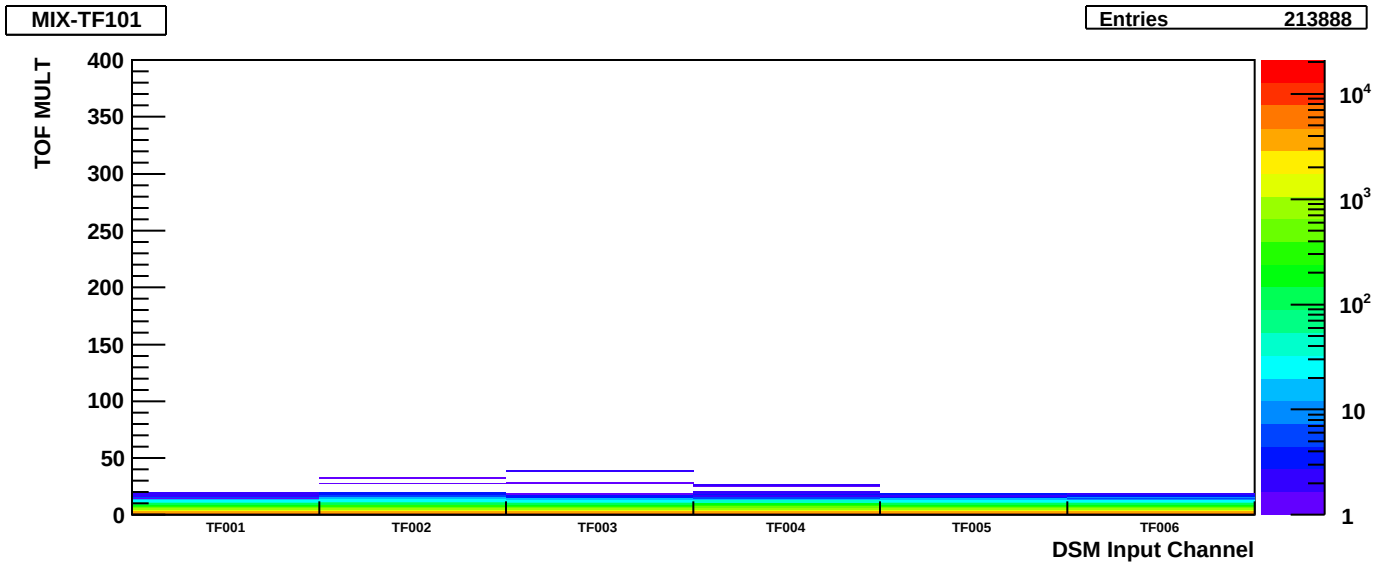

MIX-TF002
Entries 1497216
TOF MULT
TOF tray

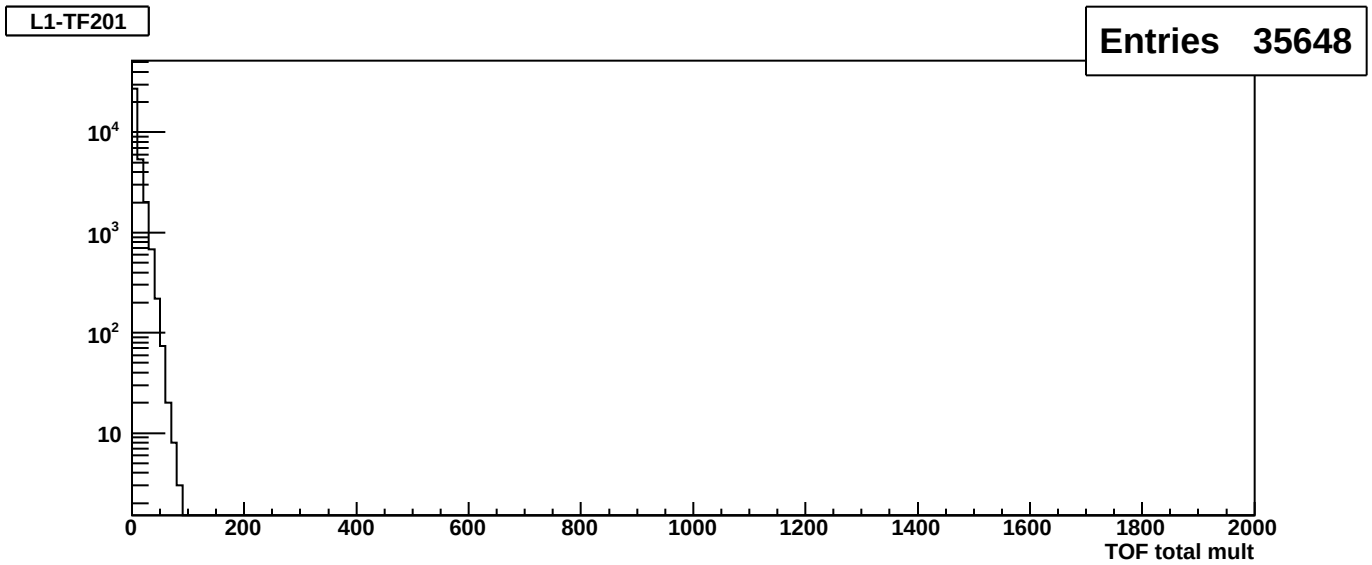

MIX-TF003
Entries 1497216
TOF MULT
TOF tray

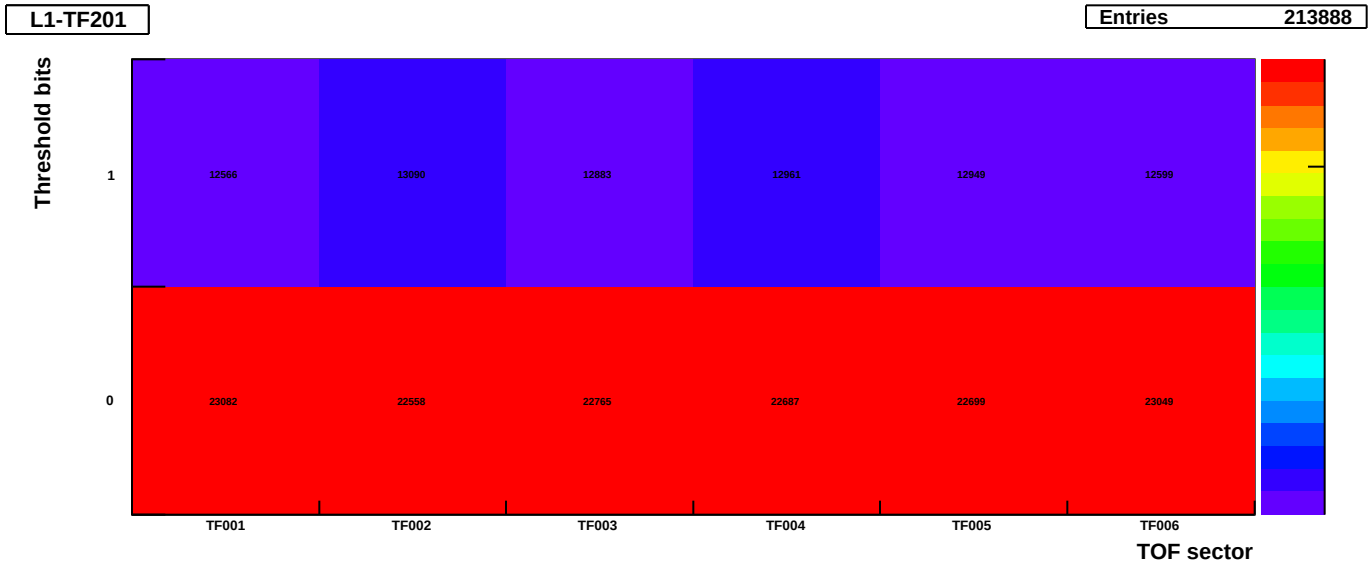

MIX-TF004
Entries 1497216
TOF MULT
TOF tray

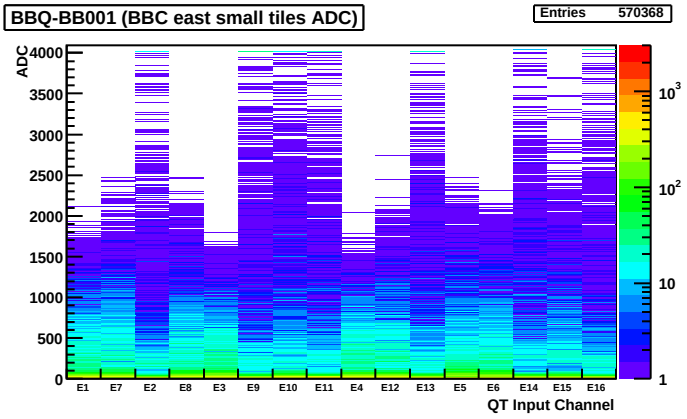

MIX-TF005
Entries 1497216
TOF MULT
TOF tray

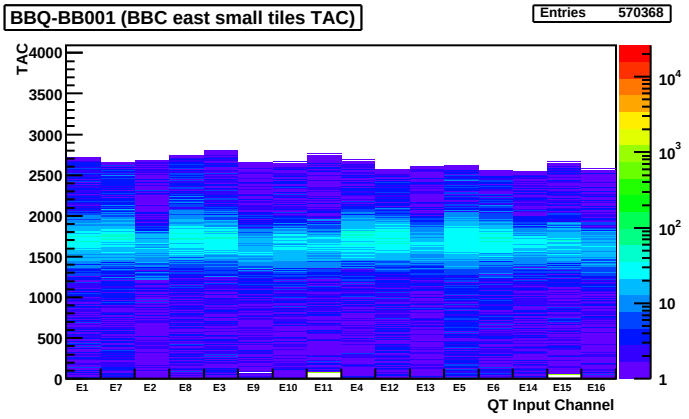

MIX-TF006
Entries 1497216
TOF MULT
TOF tray

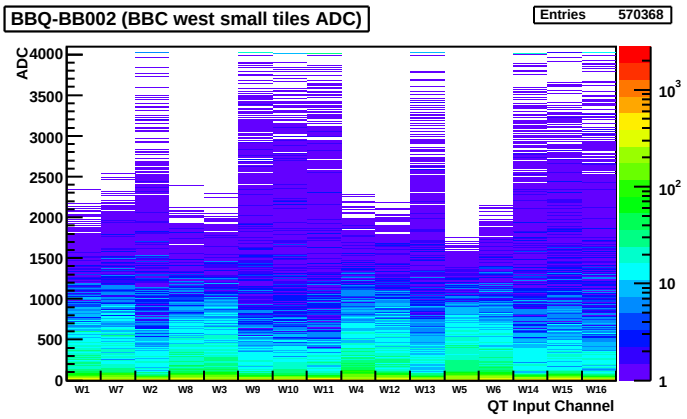

MIX-TF101
Entries 213888
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

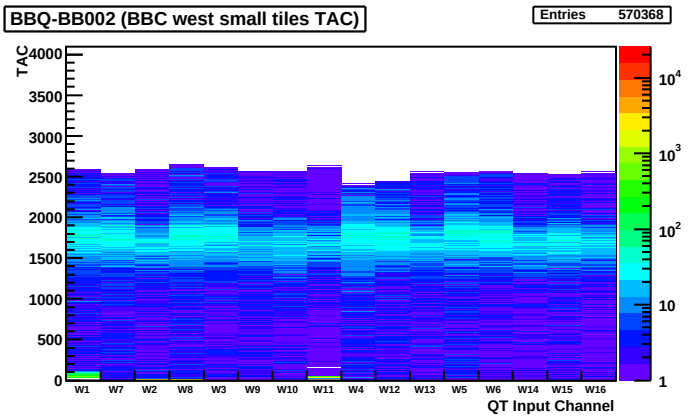

L1-TF201
Entries 35648
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

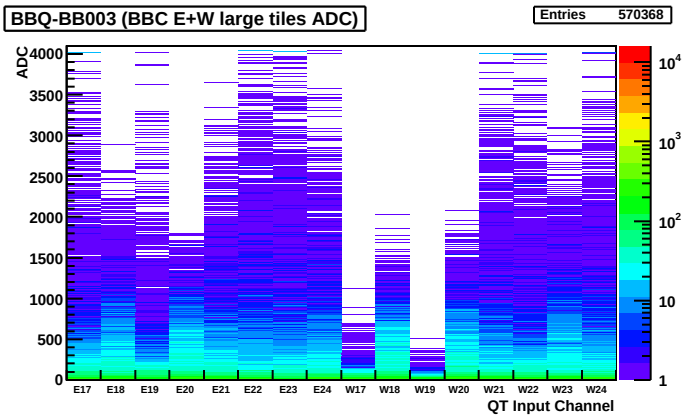

L1-TF201
Entries 213888
Threshold bits
1
0
12566
13090
12883
12961
12949
12599
23082
22558
22765
22687
22699
23049
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

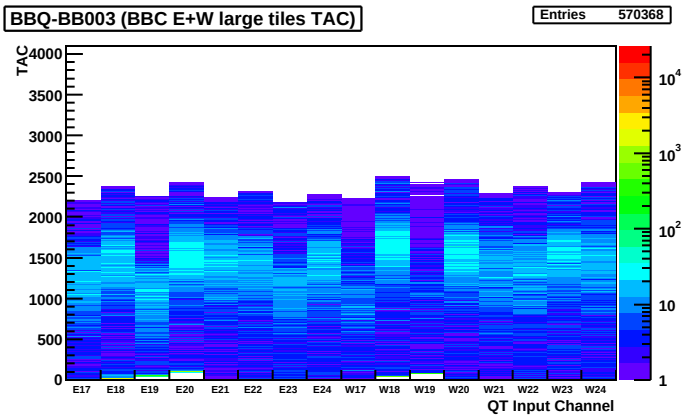

BBQ-BB001 (BBC east small tiles ADC)
Entries 570368
ADC
QT Input Channel

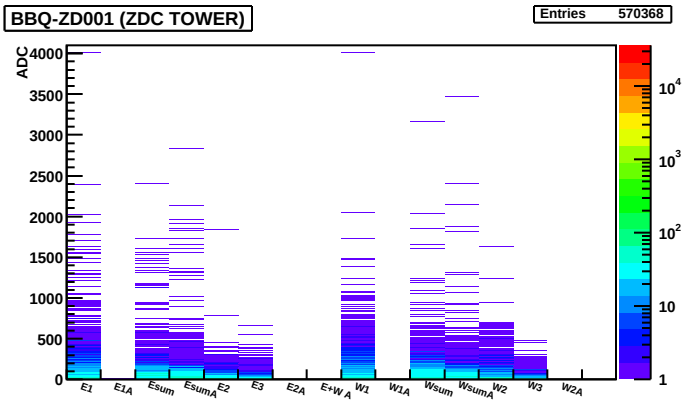

BBQ-BB001 (BBC east small tiles TAC)
Entries 570368
TAC
QT Input Channel

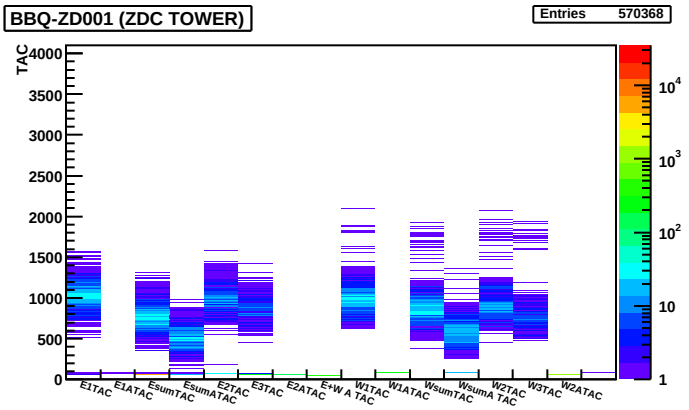

BBQ-BB002 (BBC west small tiles ADC)
Entries 570368
ADC
QT Input Channel

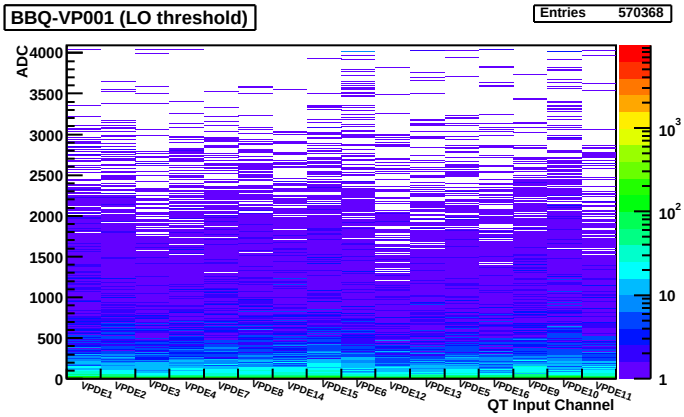

BBQ-BB002 (BBC west small tiles TAC)
Entries 570368
TAC
QT Input Channel

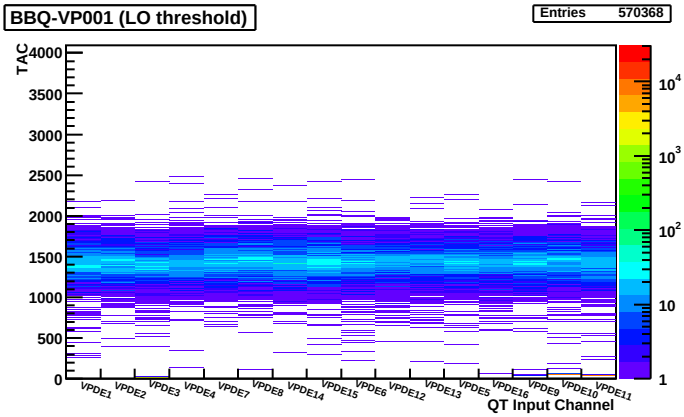

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 570368
ADC
QT Input Channel

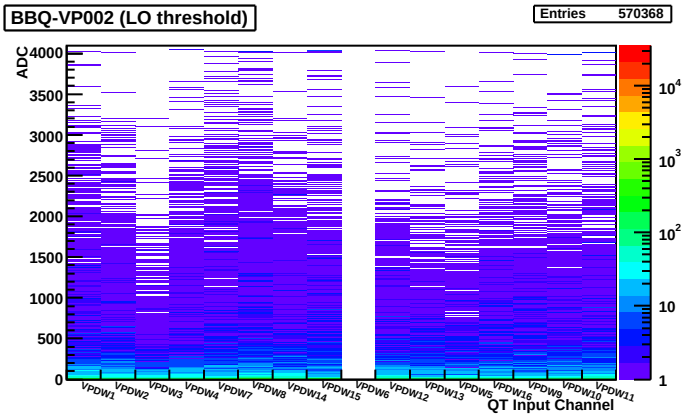

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 570368
TAC
QT Input Channel

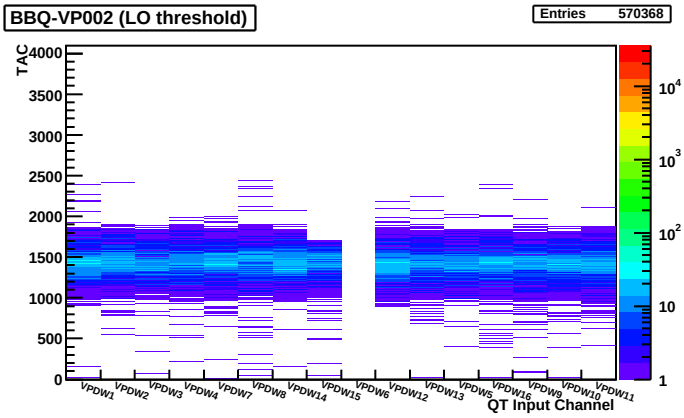

BBQ-ZD001 (ZDC TOWER)
Entries 570368
ADC

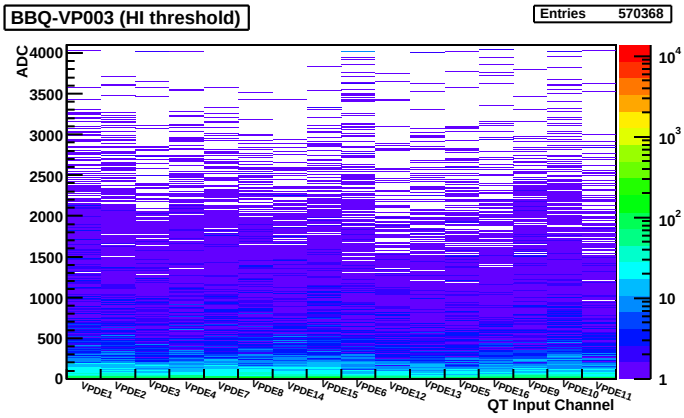

BBQ-ZD001 (ZDC TOWER)
Entries 570368
TAC

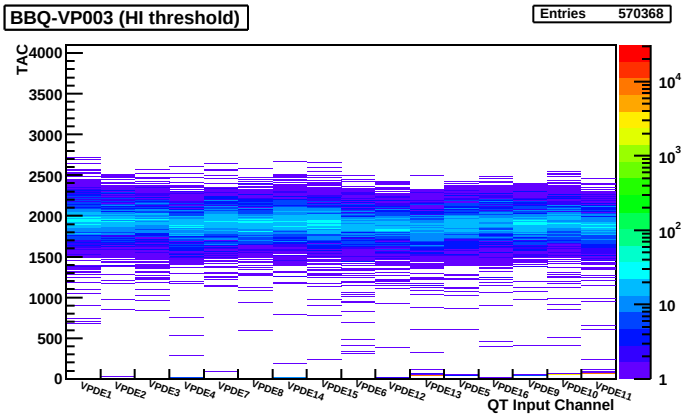

BBQ-VP001 (LO threshold)
Entries 570368
ADC
QT Input Channel

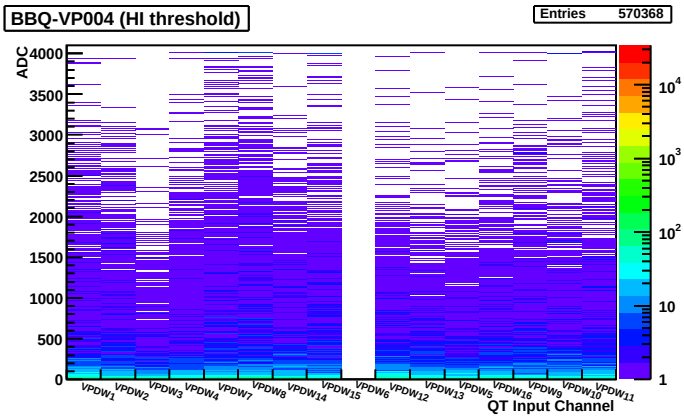

BBQ-VP001 (LO threshold)
Entries 570368
TAC
QT Input Channel

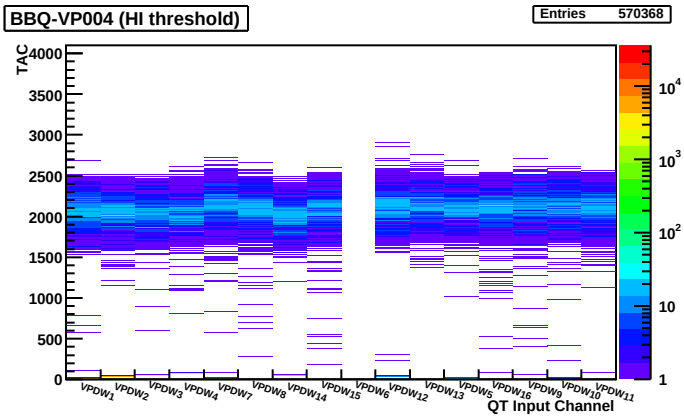

BBQ-VP002 (LO threshold)
Entries 570368
ADC
QT Input Channel

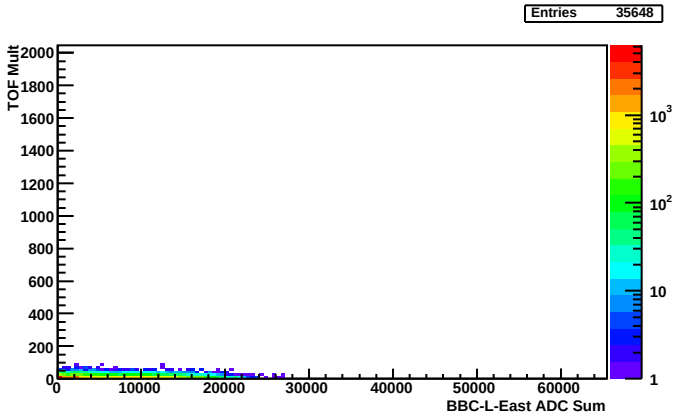

BBQ-VP002 (LO threshold)
Entries 570368
TAC
QT Input Channel

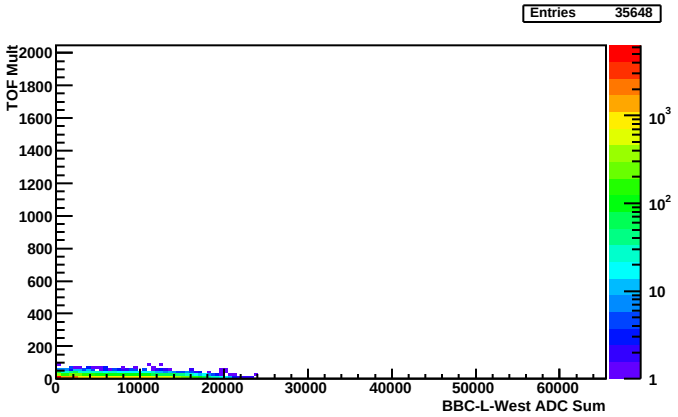

BBQ-VP003 (HI threshold)
Entries 570368
ADC
QT Input Channel

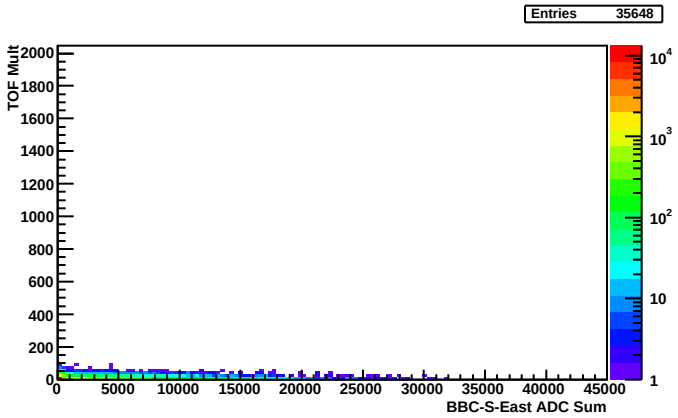

BBQ-VP003 (HI threshold)
Entries 570368
TAC
QT Input Channel

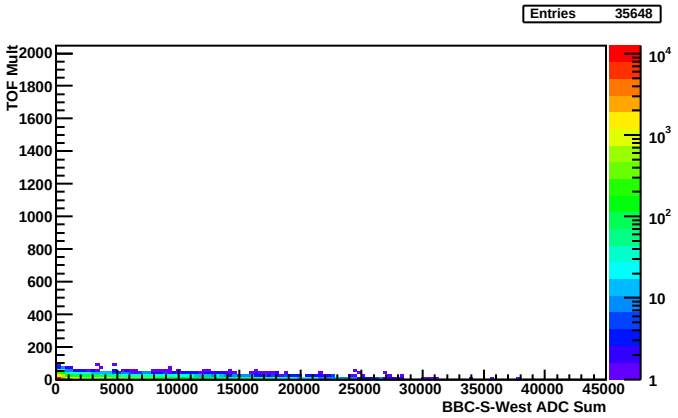

BBQ-VP004 (HI threshold)
Entries 570368
ADC
QT Input Channel

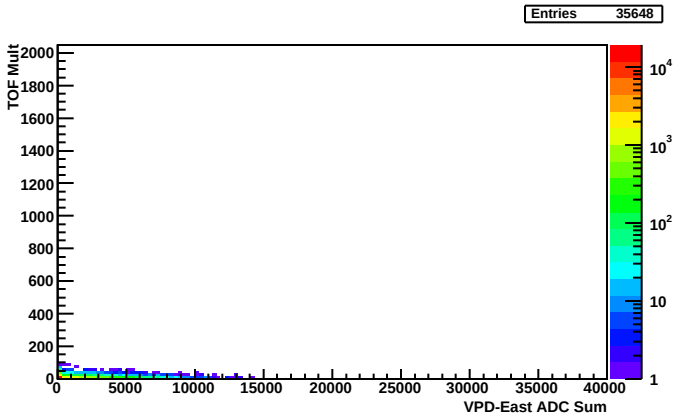

BBQ-VP004 (HI threshold)
Entries 570368
TAC
QT Input Channel

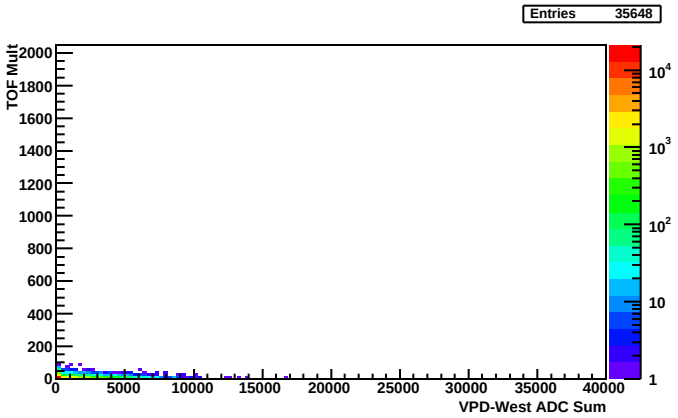

Entries 35648
TOF Mult
BBC-L-East ADC Sum

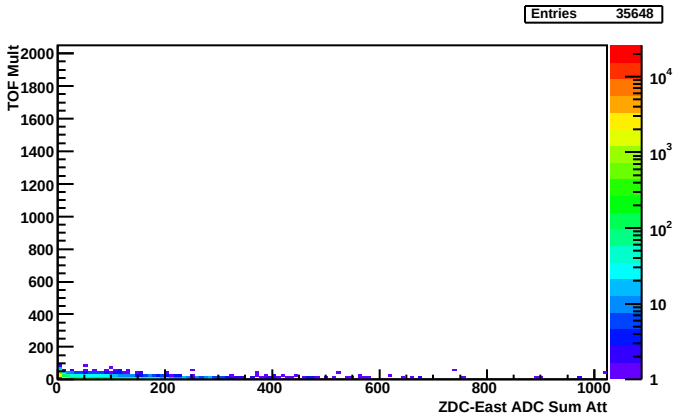

Entries 35648
TOF Mult
BBC-L-West ADC Sum

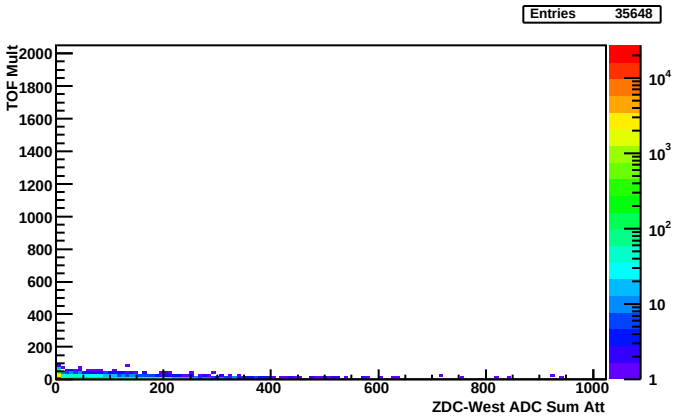

Entries 35648
TOF Mult
BBC-S-East ADC Sum

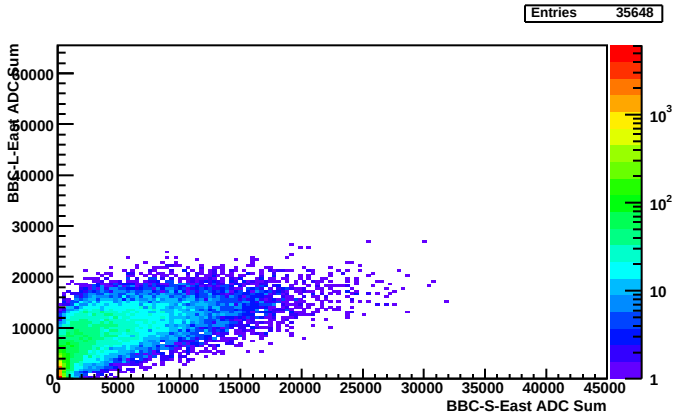

Entries 35648
TOF Mult
BBC-S-West ADC Sum

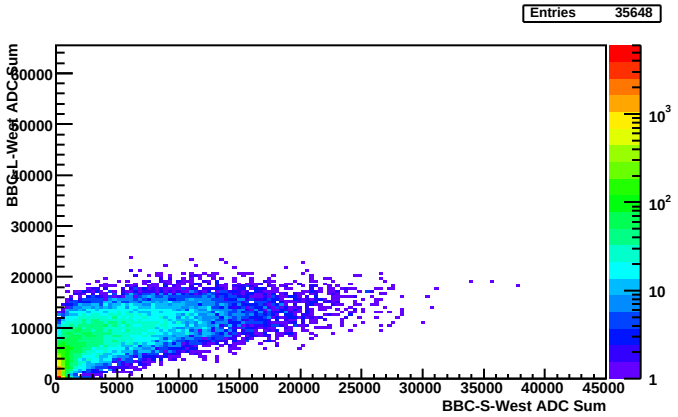

Entries 35648
TOF Mult
VPD-East ADC Sum

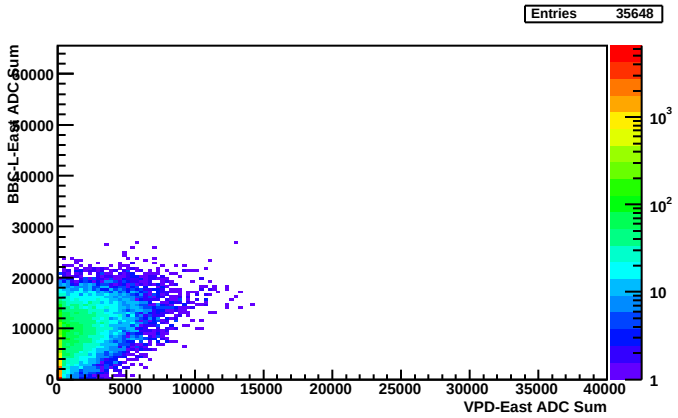

Entries 35648
TOF Mult
VPD-West ADC Sum

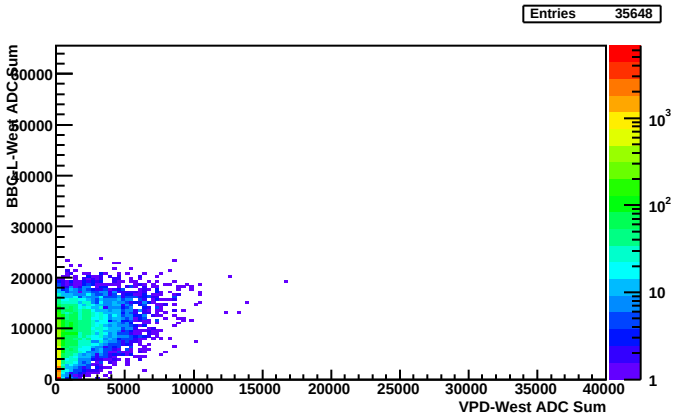

Entries 35648
TOF Mult
ZDC-East ADC Sum Att

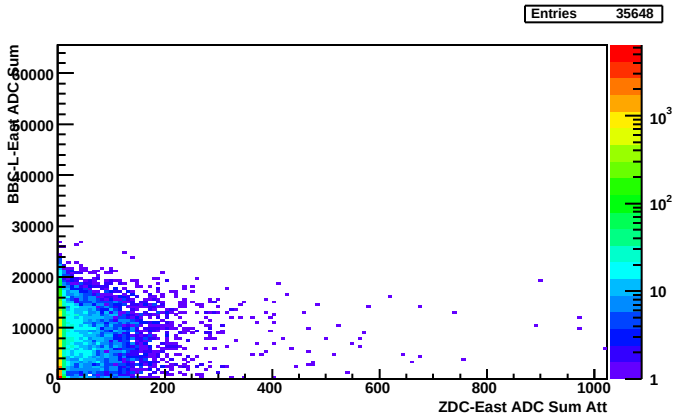

Entries 35648
TOF Mult
ZDC-West ADC Sum Att

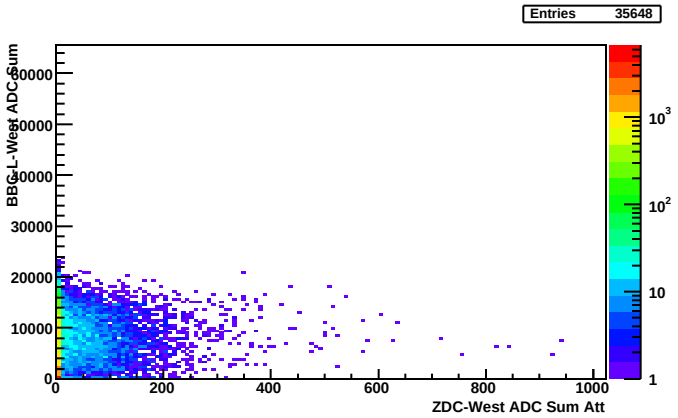

Entries 35648
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 35648
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 35648
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 35648
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 35648
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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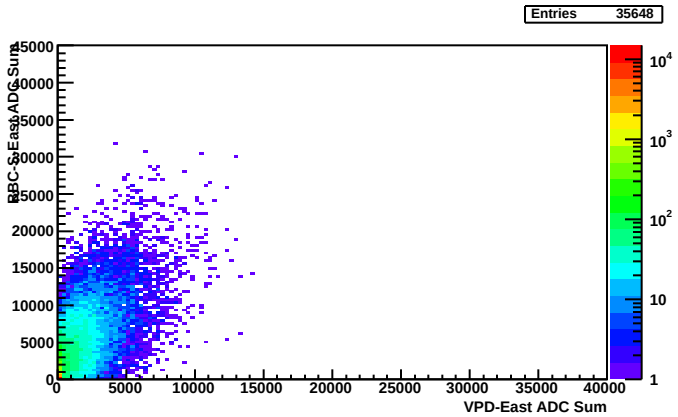
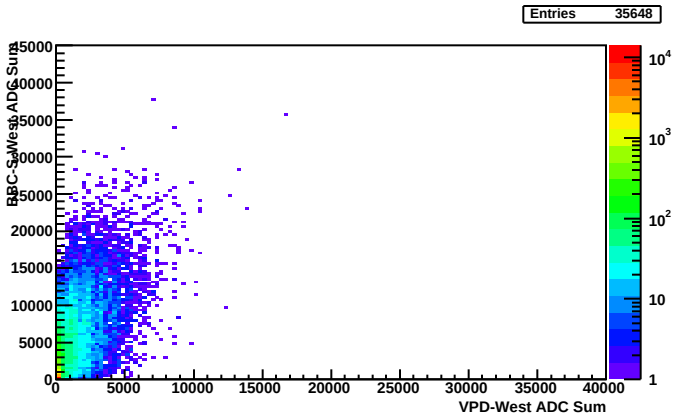
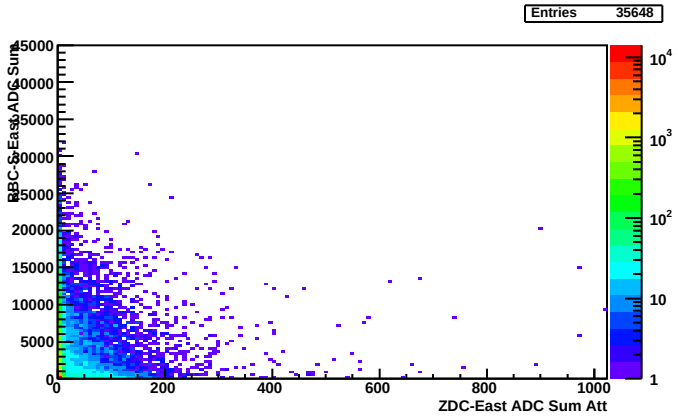
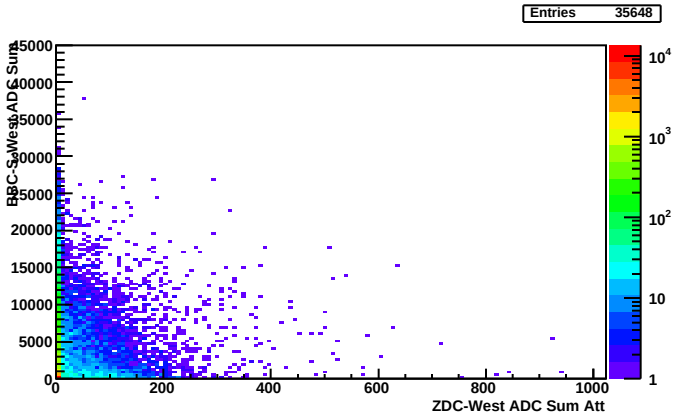
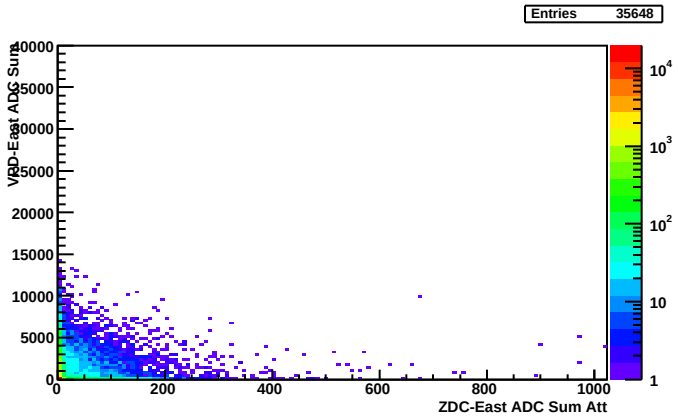
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

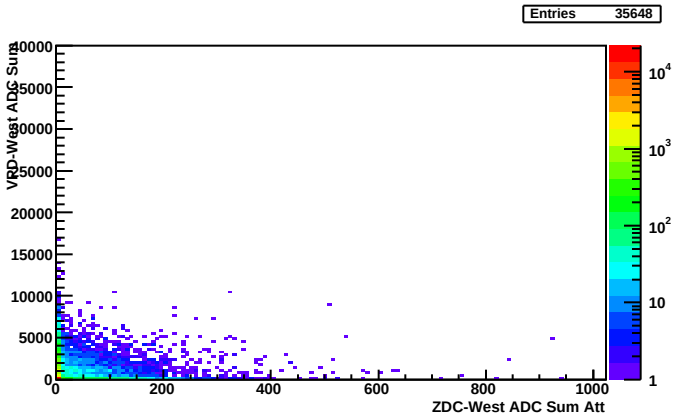

Entries 35648
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 35648
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 35648
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 35648
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 35648
VPD-East ADC Sum
ZDC-East ADC Sum Att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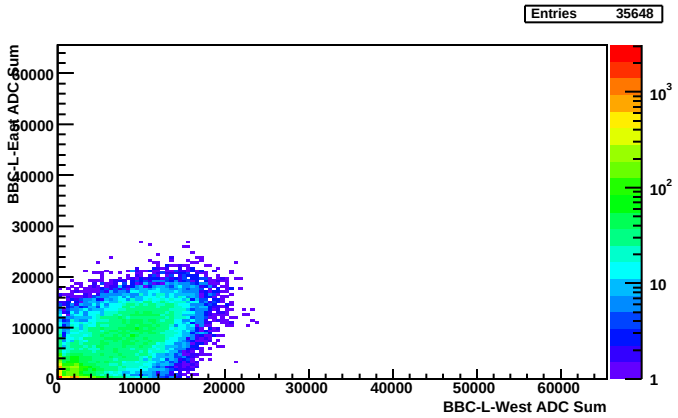
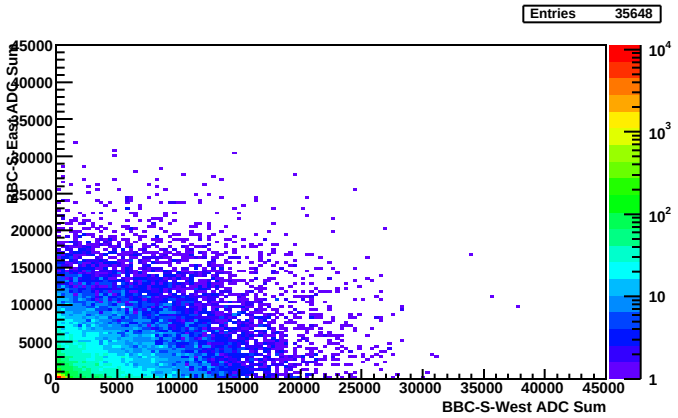
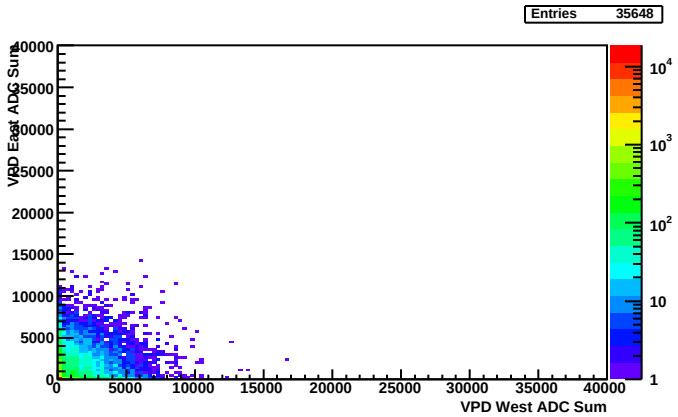
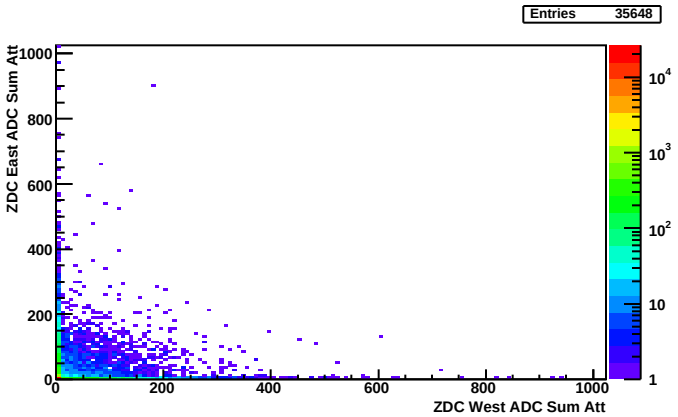
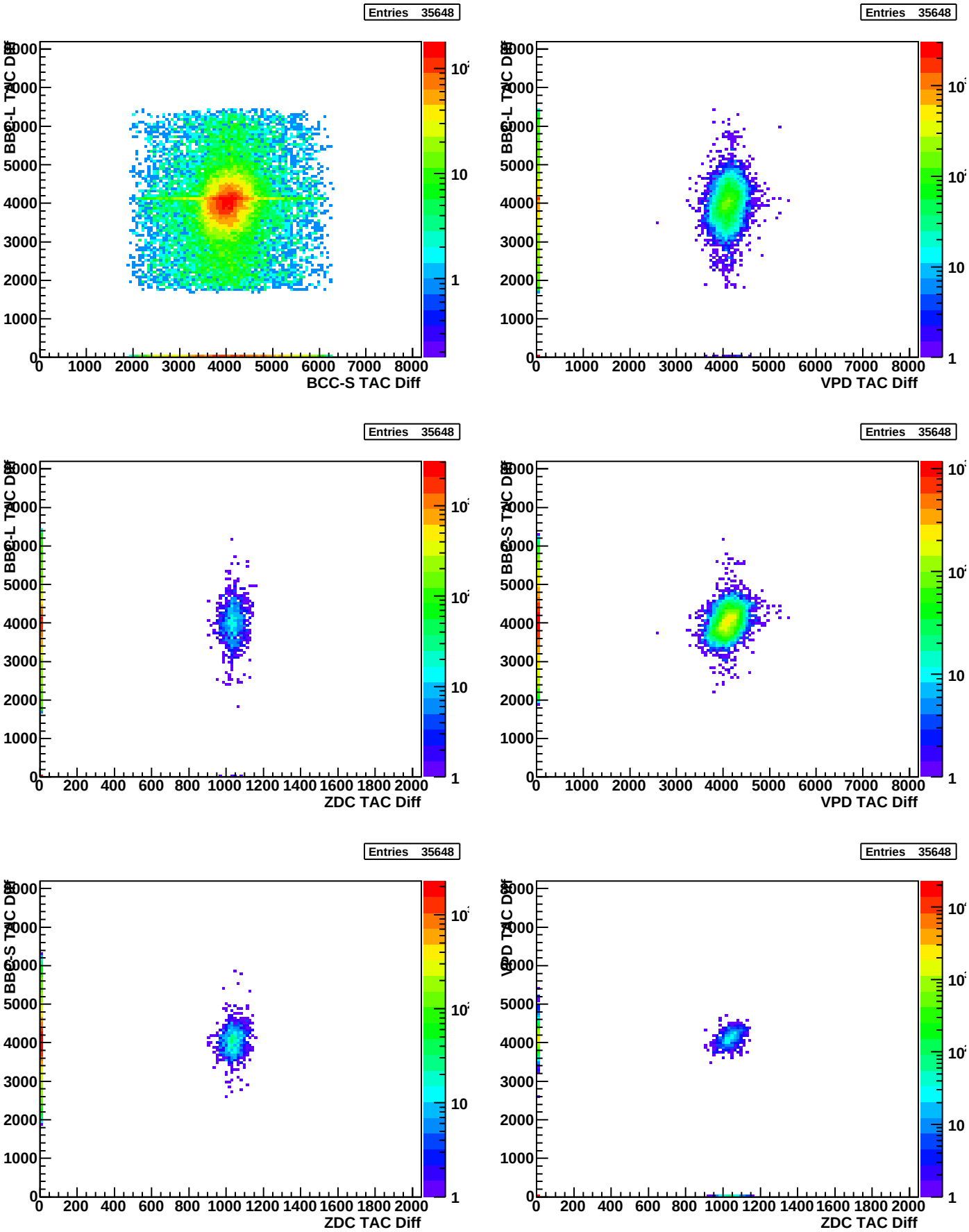
VPD-West ADC Sum
ZDC-West ADC Sum Att

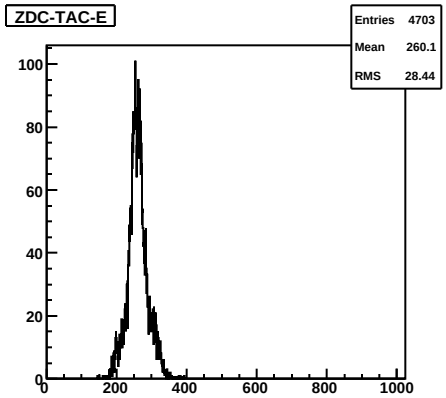

Entries 35648
BBC-L-East ADC Sum
BBC-L-West ADC Sum

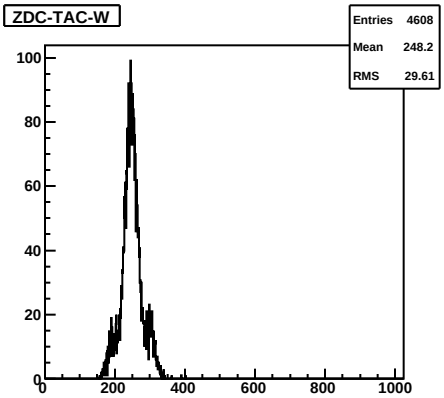

Entries 35648
BBC-S-East ADC Sum
BBC-S-West ADC Sum

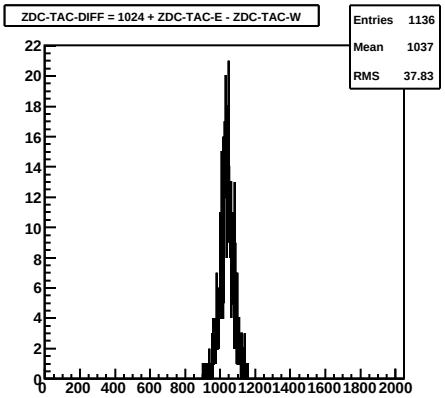

Entries 35648
VPD East ADC Sum
VPD West ADC Sum

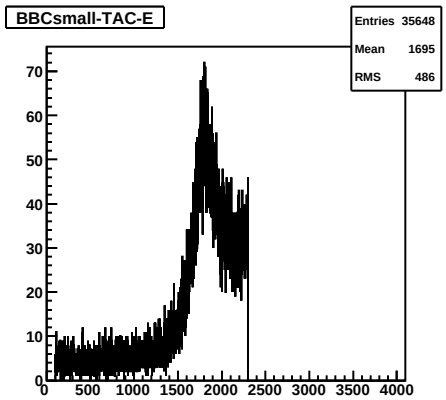

Entries 35648
ZDC East ADC Sum Att
ZDC West ADC Sum Att

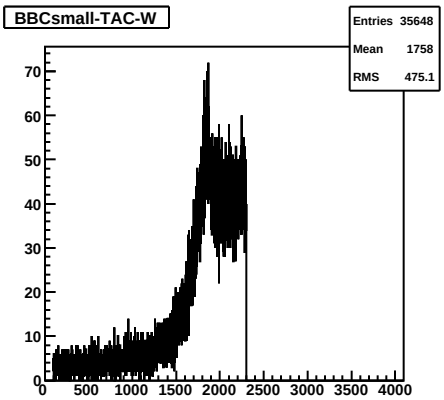

Entries 35648
BBC-L TAC Diff
BCC-S TAC Diff
Entries 35648
BBC-L TAC Diff
VPD TAC Diff
Entries 35648
BBC-L TAC Diff
ZDC TAC Diff
Entries 35648
BBC-S TAC Diff
VPD TAC Diff
Entries 35648
BBC-S TAC Diff
ZDC TAC Diff
Entries 35648
VPD TAC Diff
ZDC TAC Diff

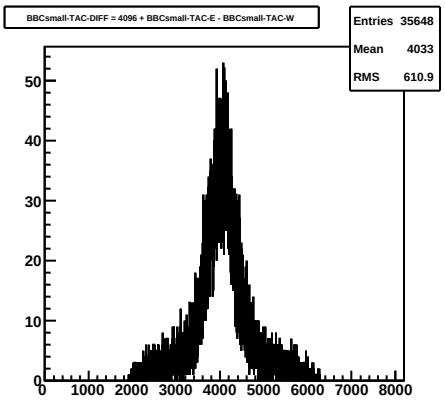

ZDC-TAC-E
Entries 4703
Mean 260.1
RMS 28.44

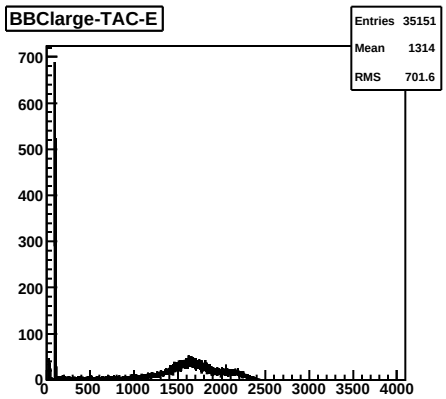

ZDC-TAC-W
Entries 4608
Mean 248.2
RMS 29.61

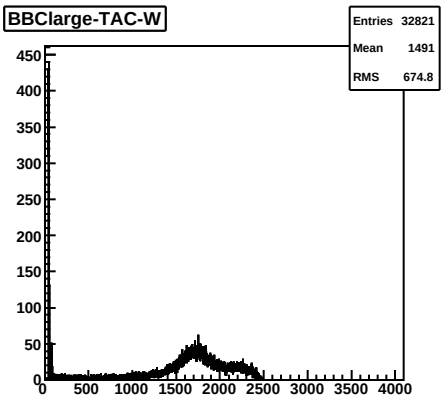

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1136
Mean 1037
RMS 37.83

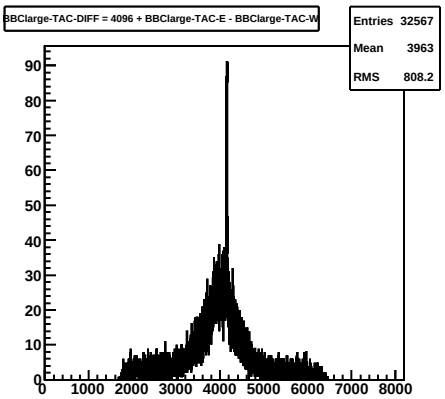

BBCsmall-TAC-E
Entries 35648
Mean 1695
RMS 486

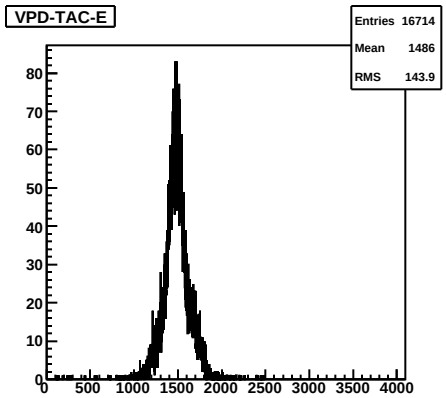

BBCsmall-TAC-W
Entries 35648
Mean 1758
RMS 475.1

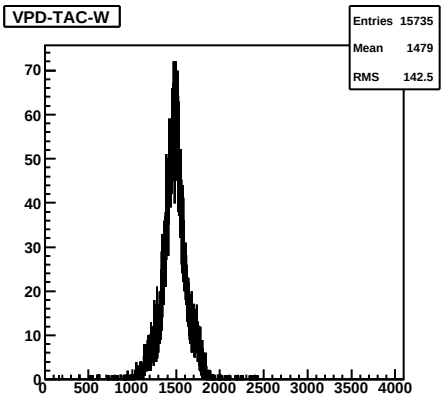

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 35648
Mean 4033
RMS 610.9

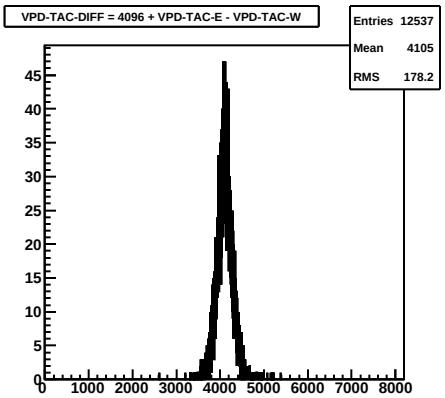

BBClarge-TAC-E
Entries 35151
Mean 1314
RMS 701.6

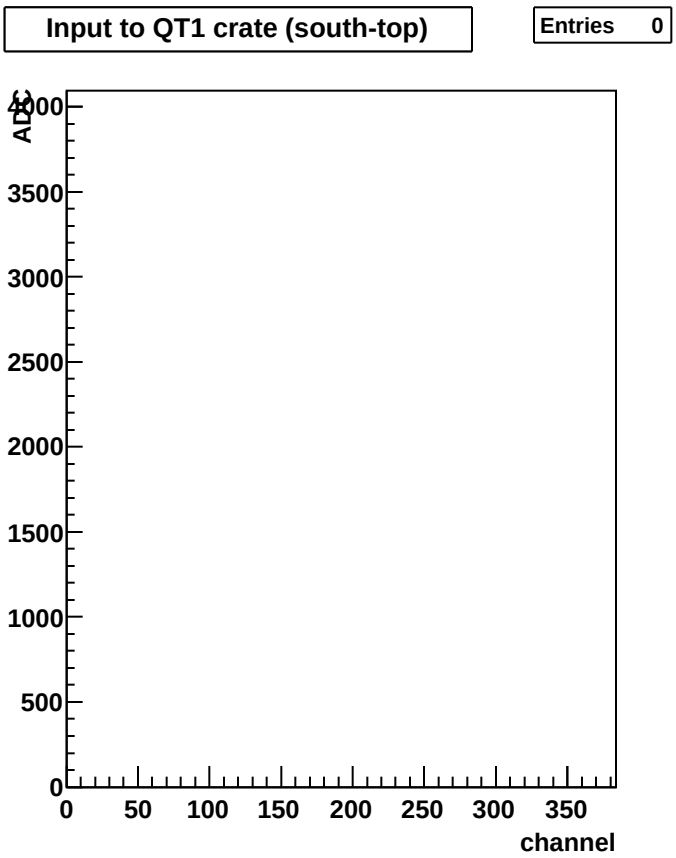

BBClarge-TAC-W
Entries 32821
Mean 1491
RMS 674.8

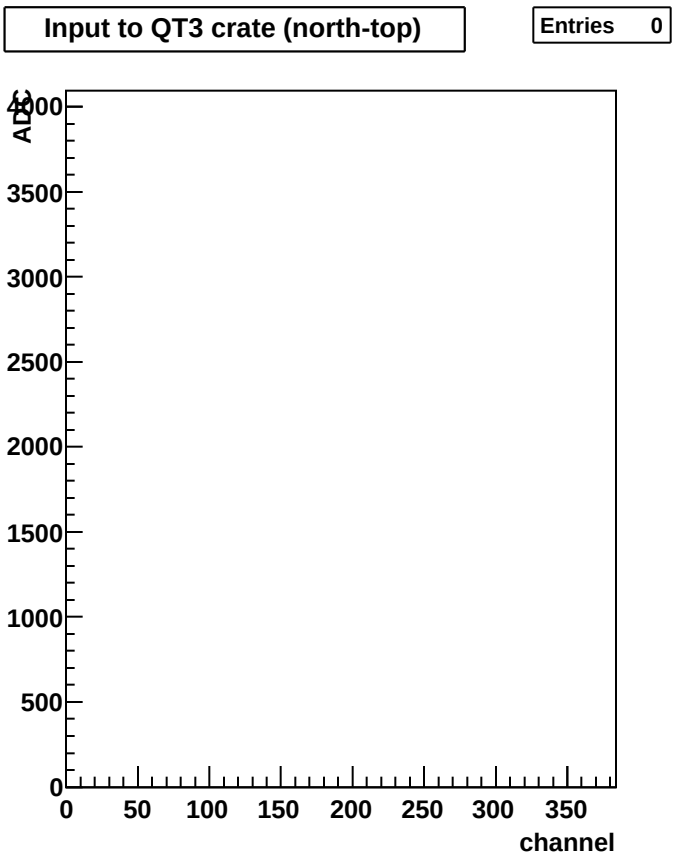

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 32567
Mean 3963
RMS 808.2

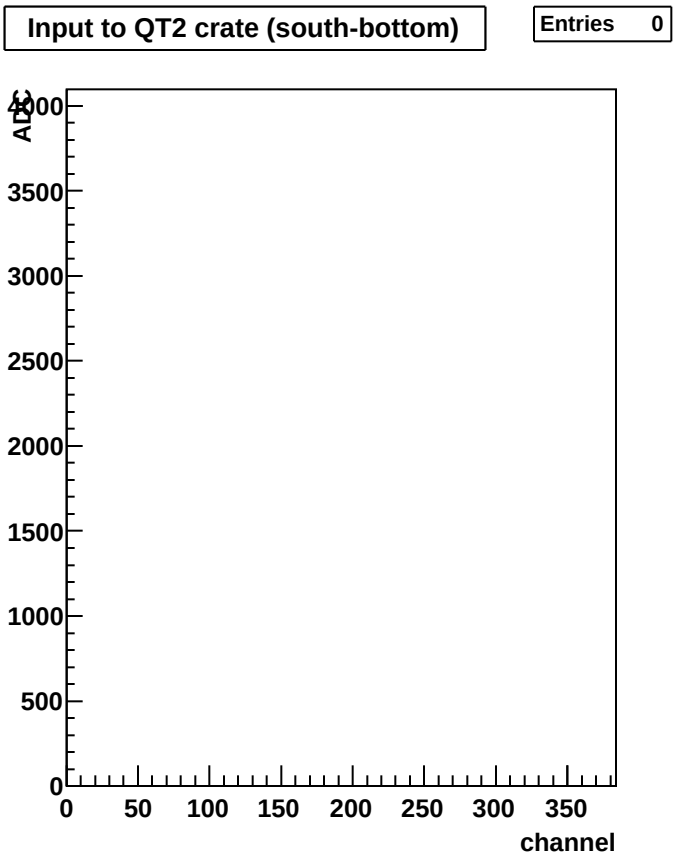

VPD-TAC-E
Entries 16714
Mean 1486
RMS 143.9

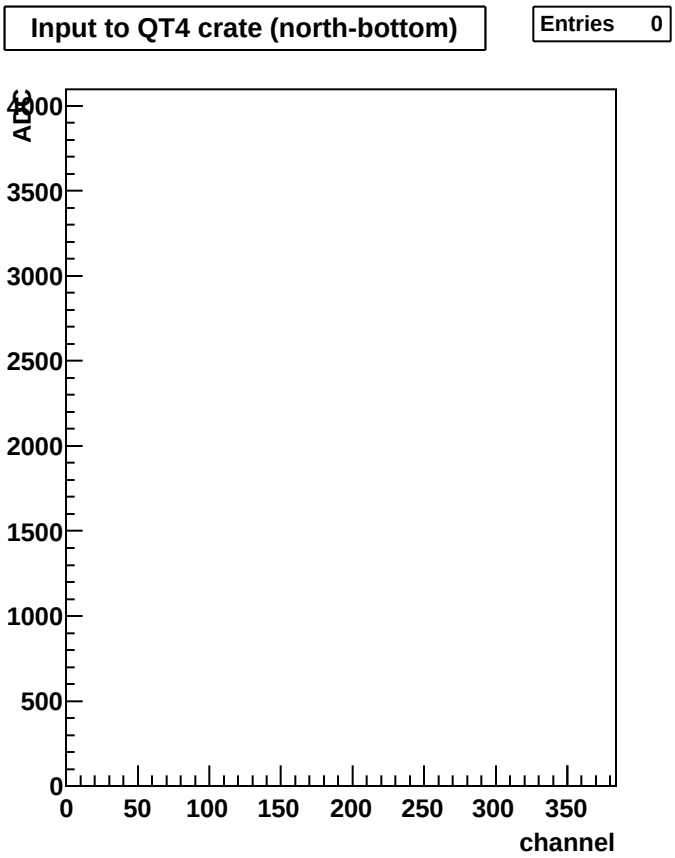

VPD-TAC-W
Entries 15735
Mean 1479
RMS 142.5

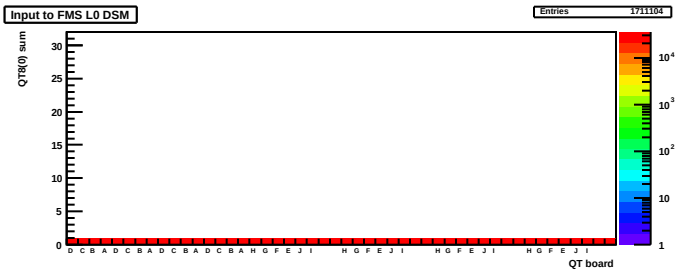

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 12537
Mean 4105
RMS 178.2

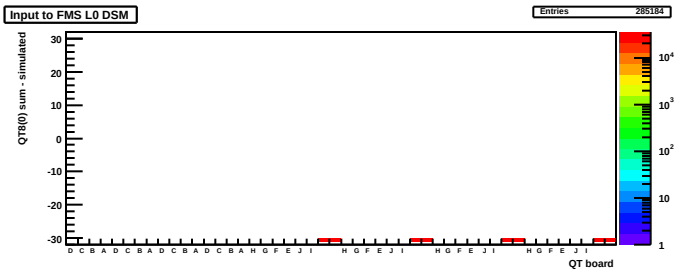

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

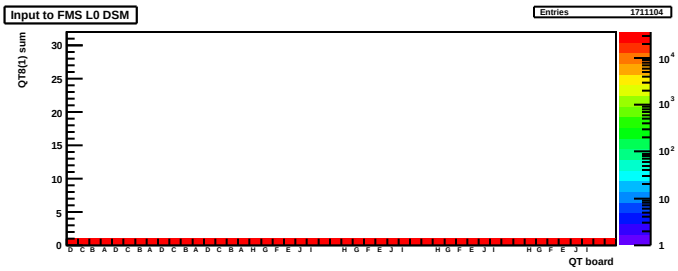

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

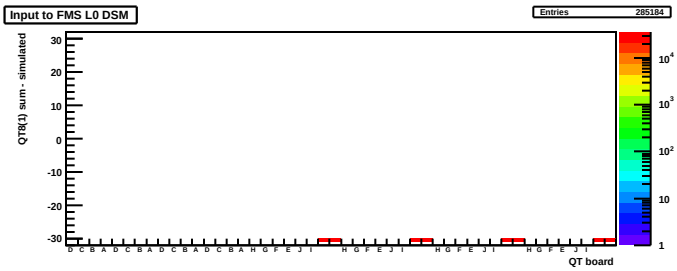

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

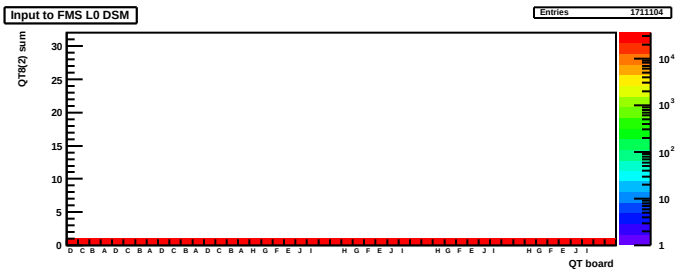

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

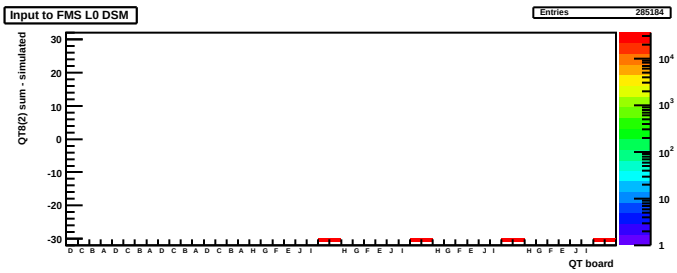

Input to FMS L0 DSM
Entries 1711104
QT8(0) sum
QT board

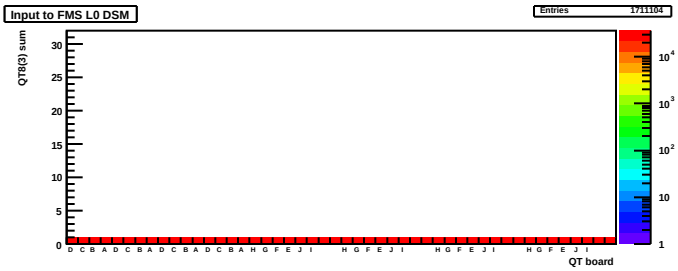

Input to FMS L0 DSM
Entries 285184
QT8(0) sum - simulated
QT board

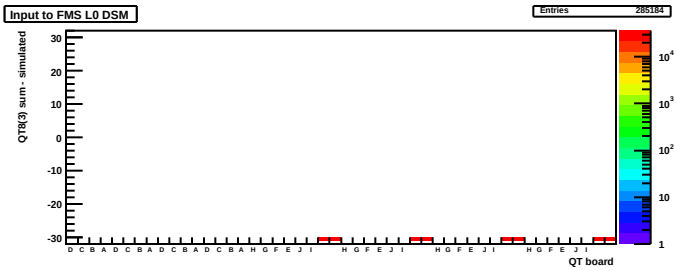

Input to FMS L0 DSM
Entries 1711104
QT8(1) sum
QT board

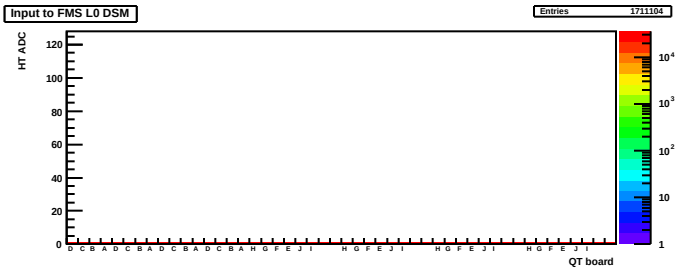

Input to FMS L0 DSM
Entries 285184
QT8(1) sum - simulated
QT board

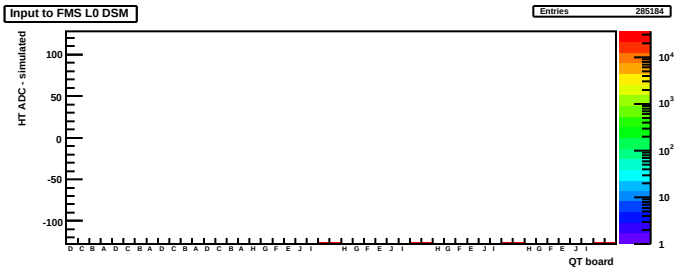

Input to FMS L0 DSM
Entries 1711104
QT8(2) sum
QT board

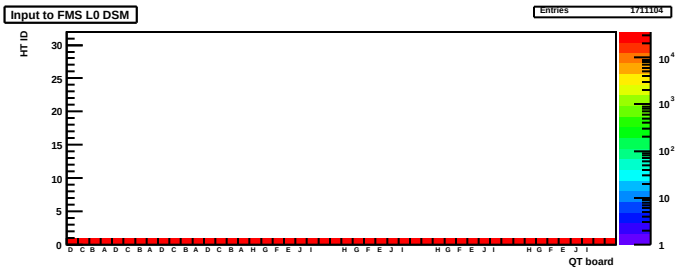

Input to FMS L0 DSM
Entries 285184
QT8(2) sum - simulated
QT board

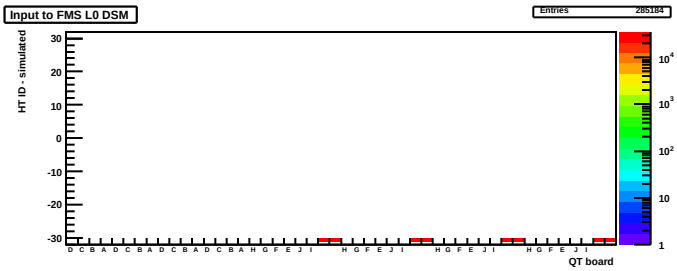

Input to FMS L0 DSM
Entries 1711104
QT8(3) sum
QT board

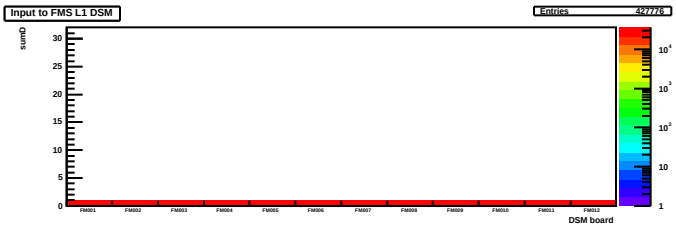

Input to FMS L0 DSM
Entries 285184
QT8(3) sum - simulated
QT board

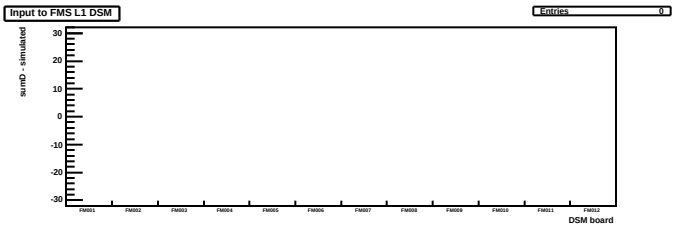

Input to FMS L0 DSM
Entries 1711104
HT ADC
QT board

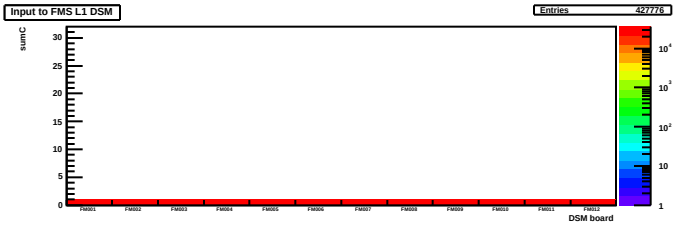

Input to FMS L0 DSM
Entries 285184
HT ADC - simulated
QT board

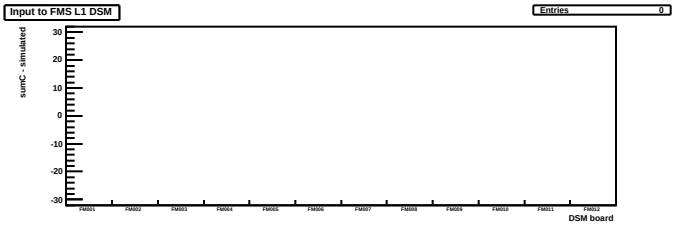

Input to FMS L0 DSM
Entries 1711104
HT ID
QT board

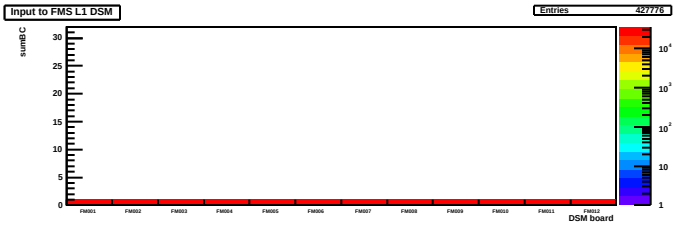

Input to FMS L0 DSM
Entries 285184
HT ID - simulated
QT board

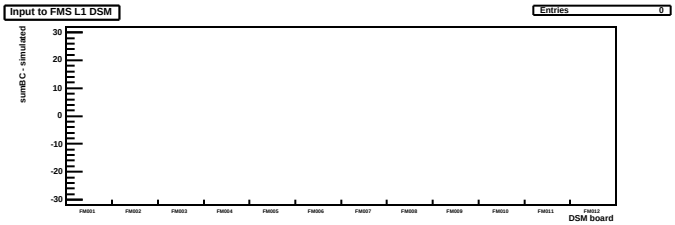

Input to FMS L1 DSM
Entries 427776
sumD
DSM board

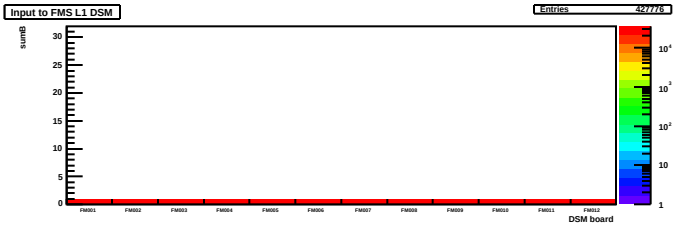

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

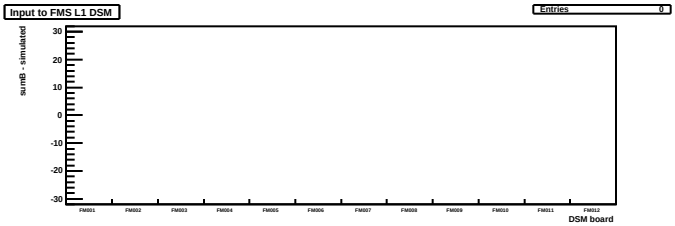

Input to FMS L1 DSM
Entries 427776
sumC
DSM board

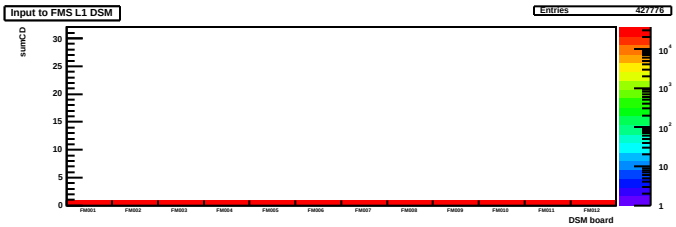

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

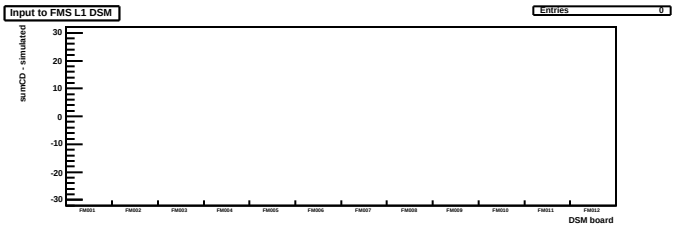

Input to FMS L1 DSM
Entries 427776
sumBC
DSM board

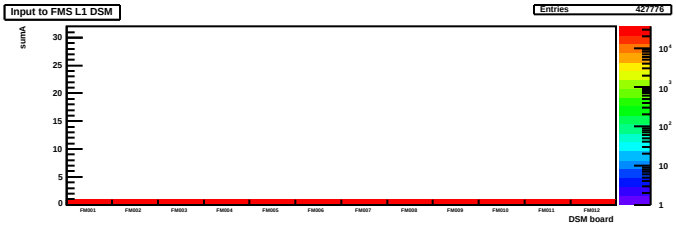

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

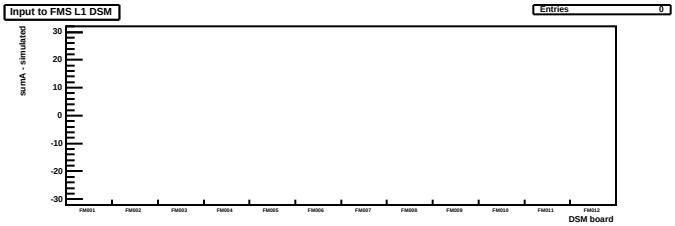

Input to FMS L1 DSM
Entries 427776
sumB
DSM board

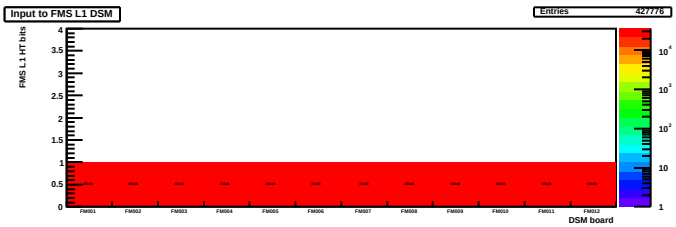

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

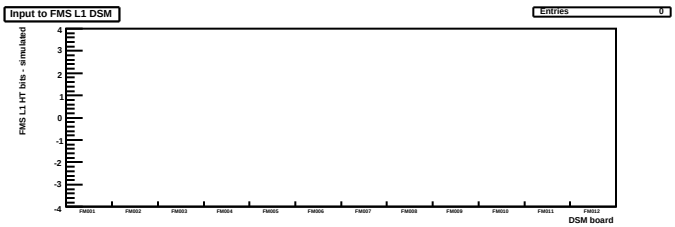

Input to FMS L1 DSM
Entries 427776
sumCD
DSM board

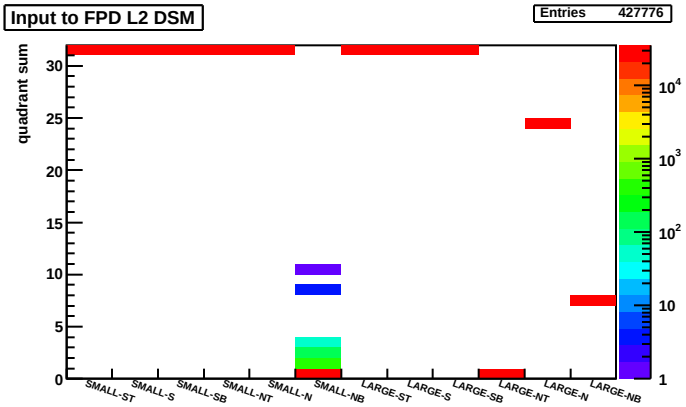

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

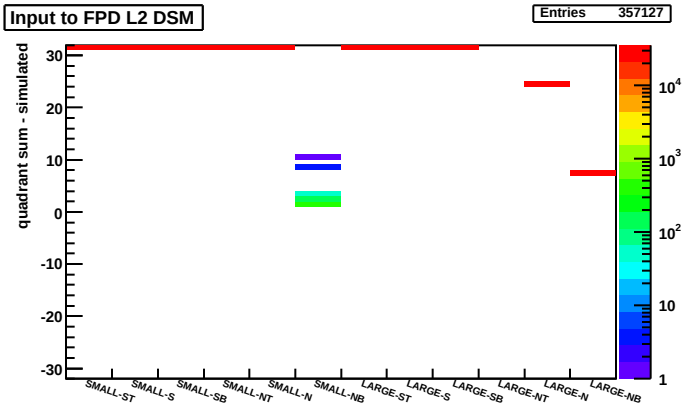

Input to FMS L1 DSM
Entries 427776
sumA
DSM board

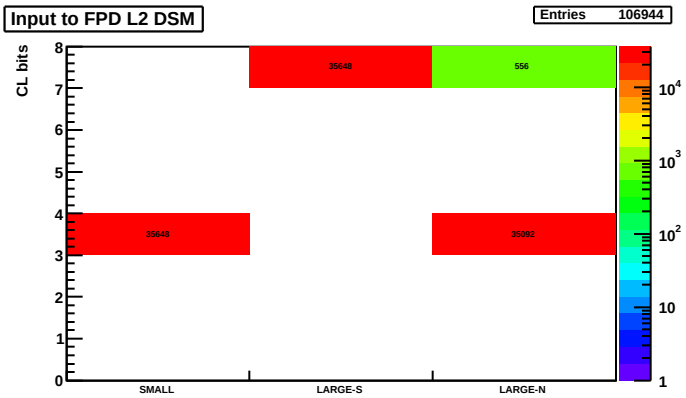

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

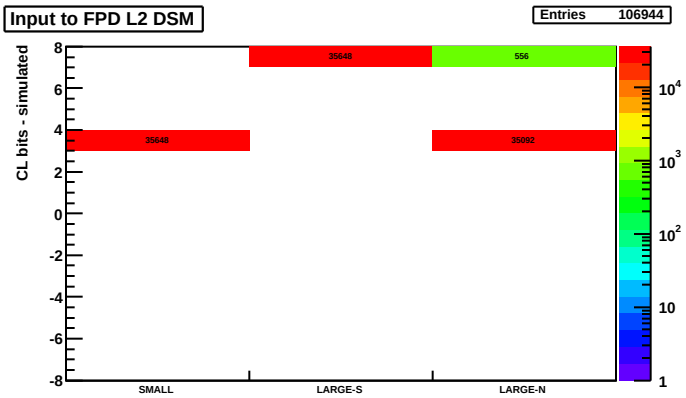

Input to FMS L1 DSM
Entries 427776
FMS L1 HT bits
DSM board

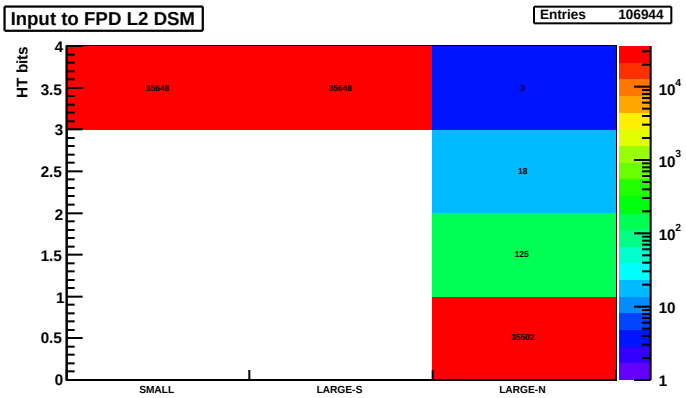

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

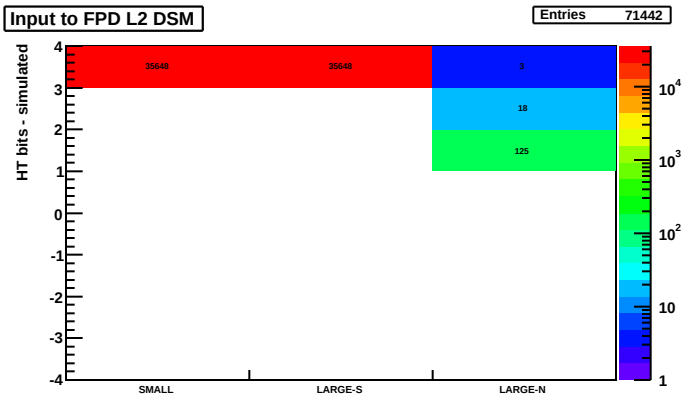

Input to FPD L2 DSM
Entries 427776
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

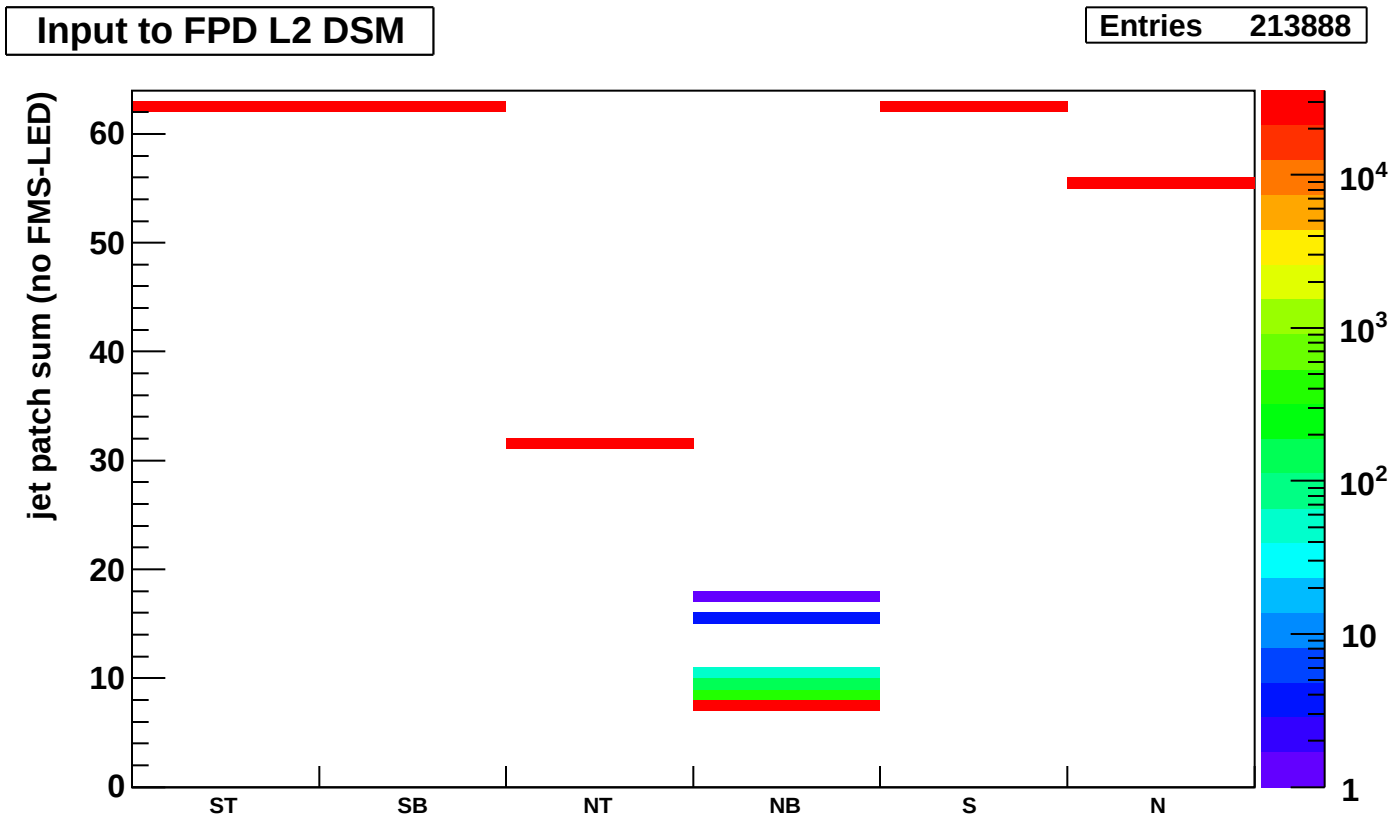

Input to FPD L2 DSM
Entries 357127
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

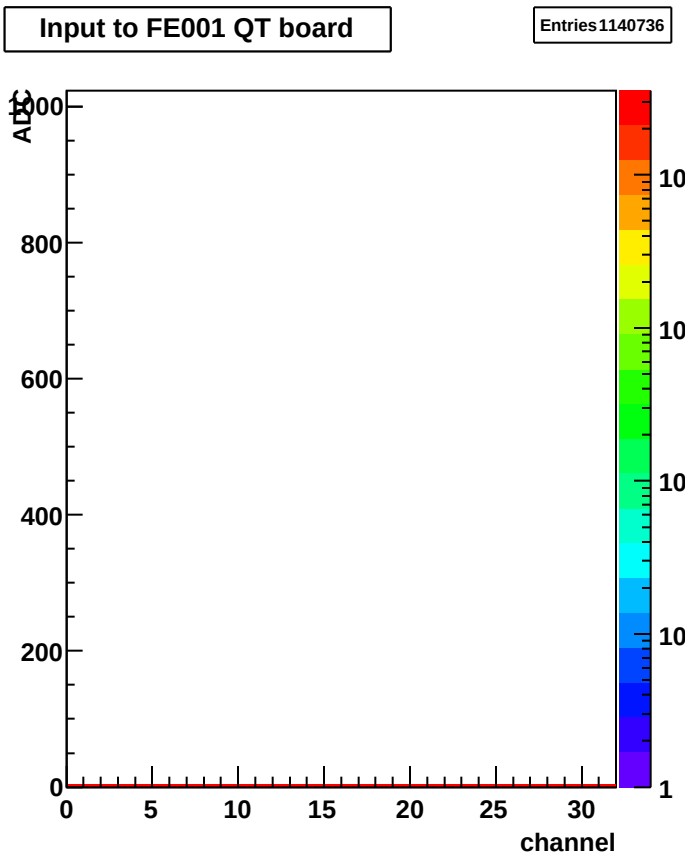

Input to FPD L2 DSM
Entries 106944
CL bits
35648
556
35648
35092
SMALL
LARGE-S
LARGE-N

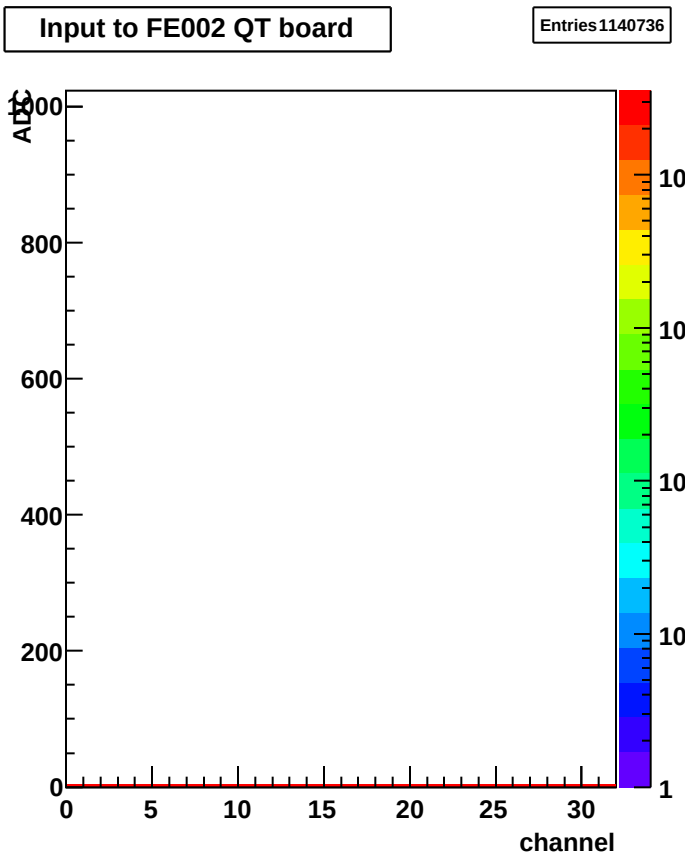

Input to FPD L2 DSM
Entries 106944
CL bits - simulated
35648
556
35648
35092
SMALL
LARGE-S
LARGE-N

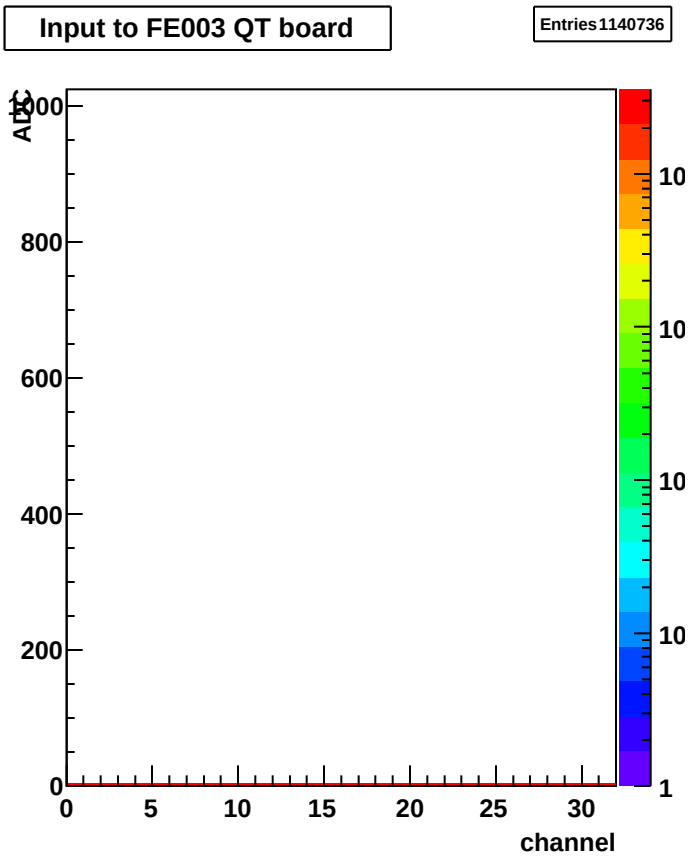

Input to FPD L2 DSM
Entries 106944
HT bits
35648
35648
3
18
125
35502
SMALL
LARGE-S
LARGE-N

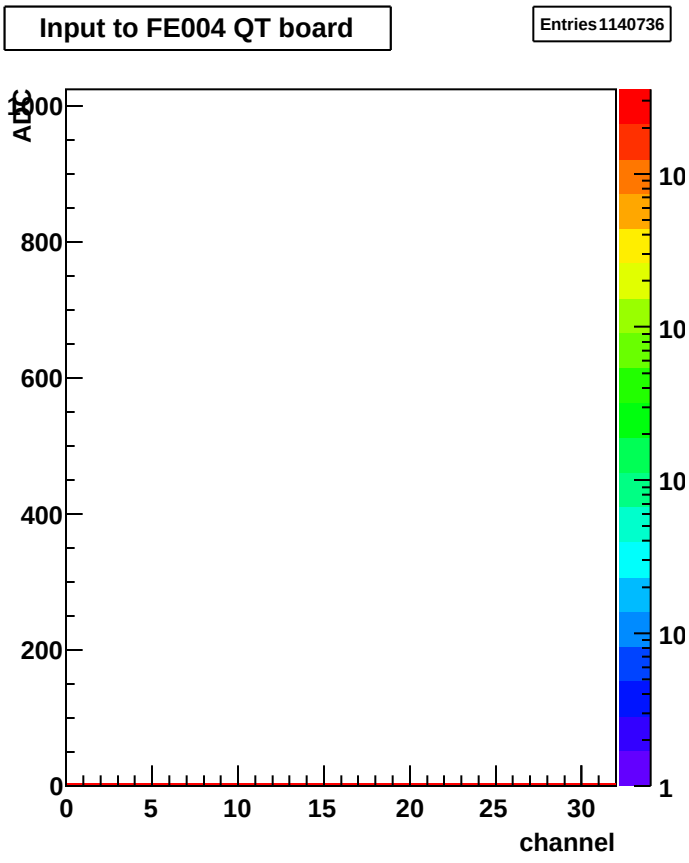

Input to FPD L2 DSM
Entries 71442
HT bits - simulated
35648
35648
3
18
125
SMALL
LARGE-S
LARGE-N

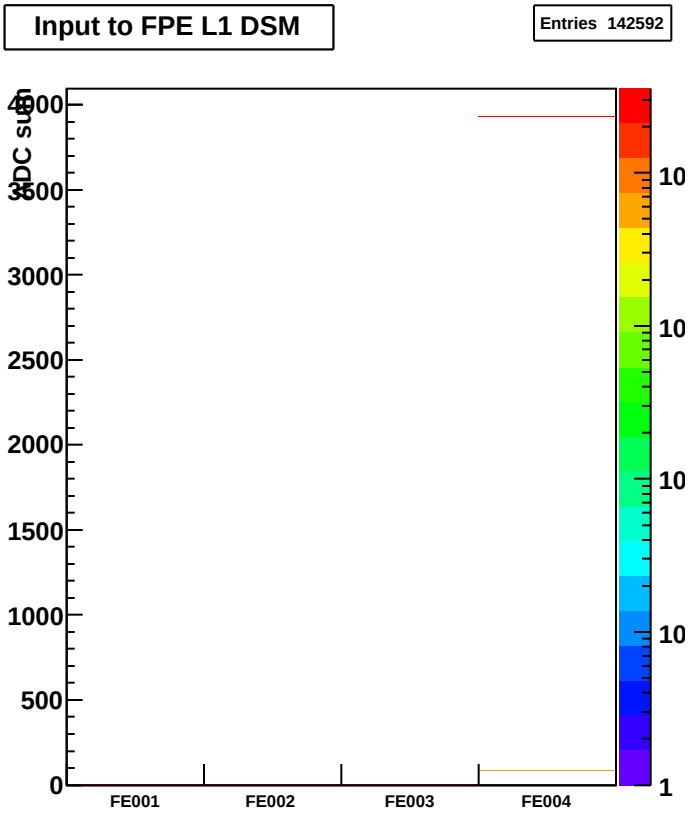

Input to FPD L2 DSM
Entries 213888
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

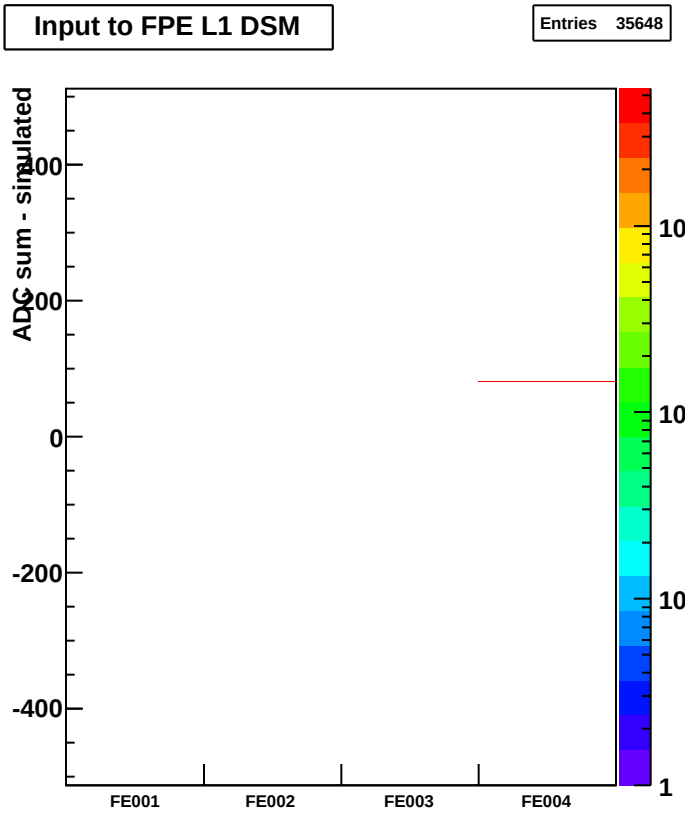

Input to FE001 QT board
Entries 1140736
ADC
channel

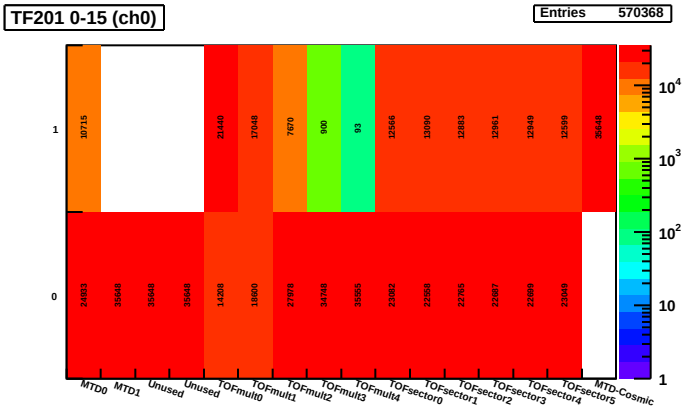

Input to FE002 QT board
Entries 1140736
ADC
channel

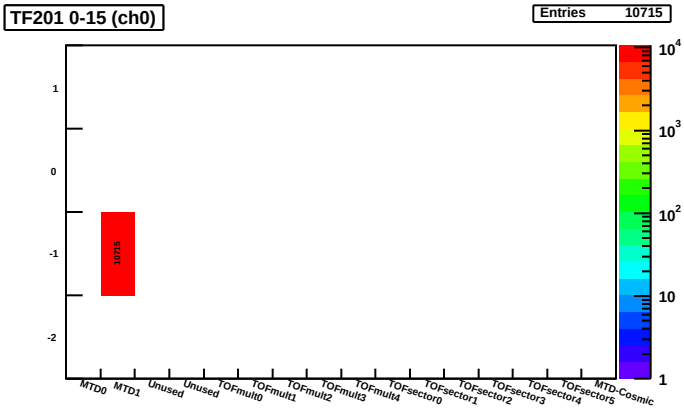

Input to FE003 QT board
Entries 1140736
ADC
channel

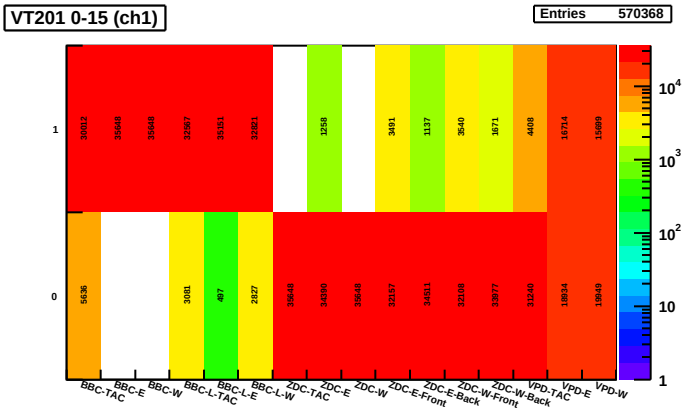

Input to FE004 QT board
Entries 1140736
ADC
channel

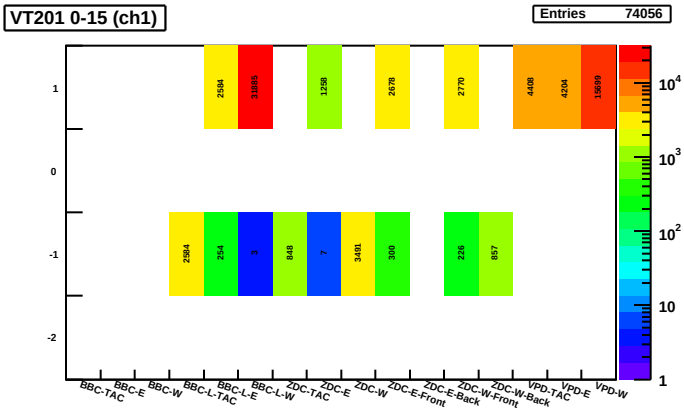

Input to FPE L1 DSM
Entries 142592
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

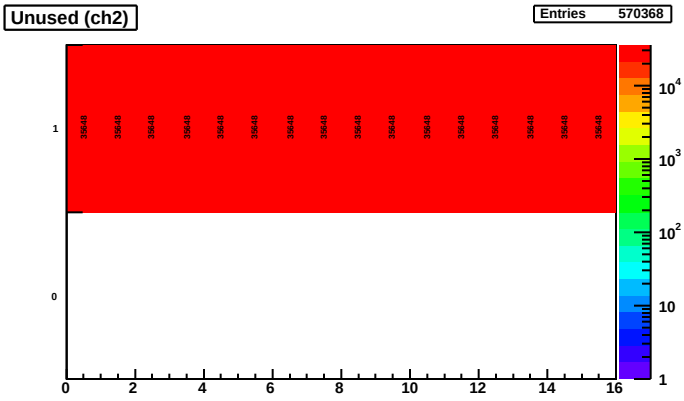

Input to FPE L1 DSM
Entries 35648
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
1

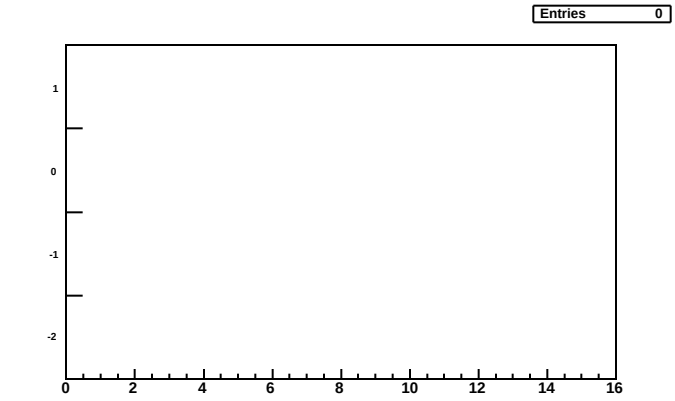

TF201 0-15 (ch0)
Entries 570368
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

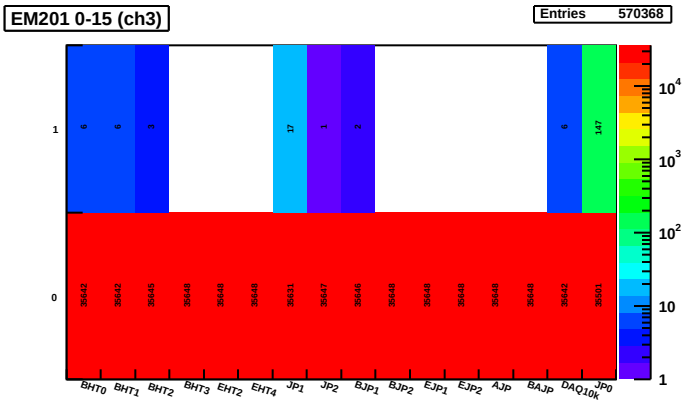

TF201 0-15 (ch0)
Entries 10715
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

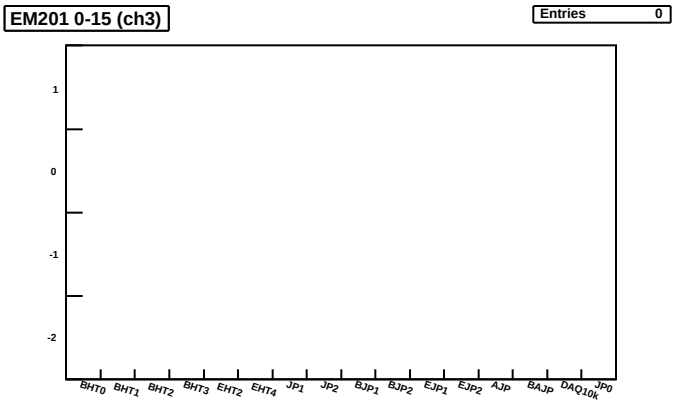

VT201 0-15 (ch1)
Entries 570368
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

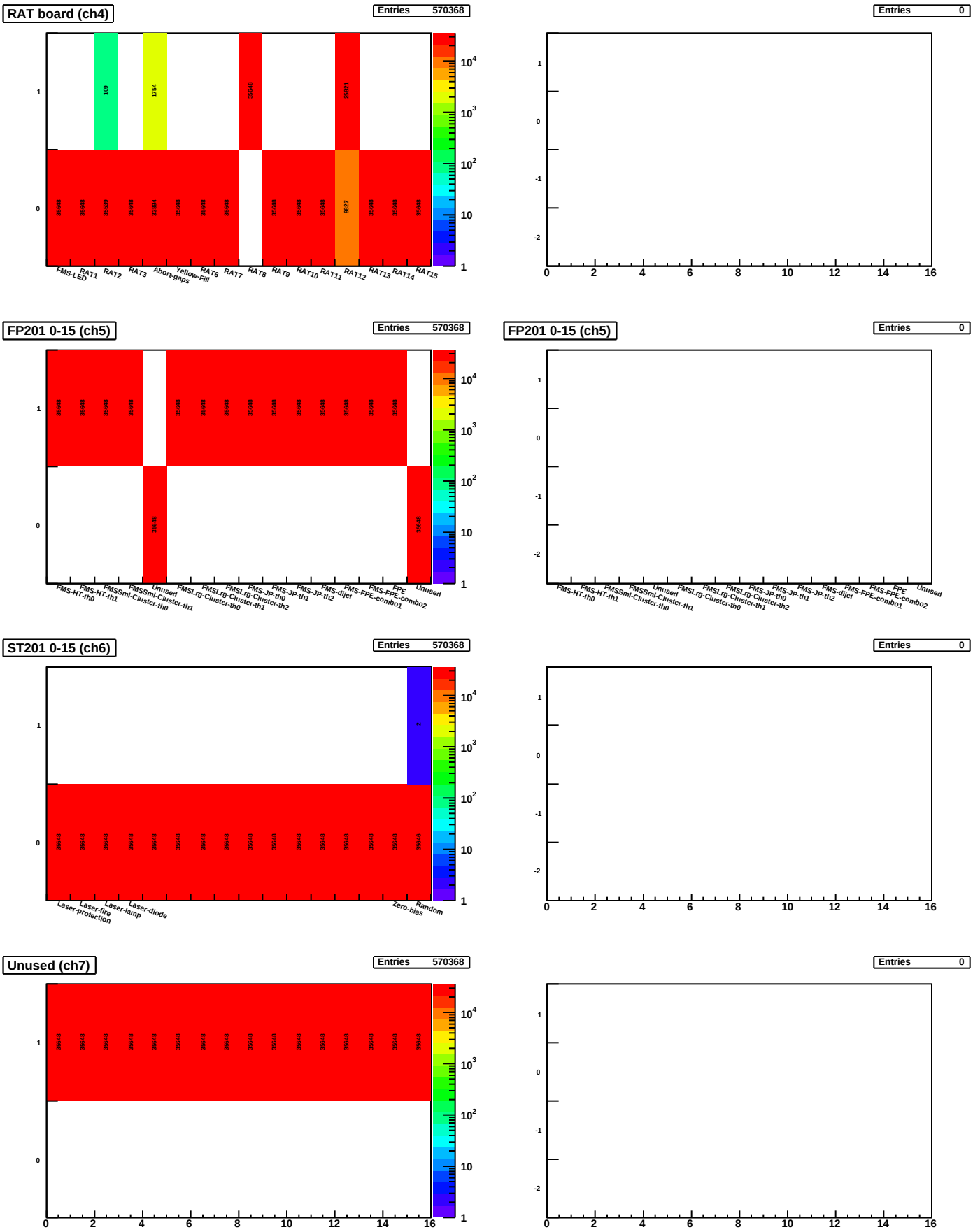

VT201 0-15 (ch1)
Entries 74056
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


Unused (ch2)
Entries 570368


Entries 0


EM201 0-15 (ch3)
Entries 570368
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 570368
Entries 0
FMS-LED
RAT1
RAT2
RAT3
Abort-gaps
Yellow-Fill
RAT6
RAT7
RAT8
RAT9
RAT10
RAT11
RAT12
RAT13
RAT14
RAT15
FP201 0-15 (ch5)
Entries 570368
Entries 0
FMS-HT-th0
FMS-HT-th1
FMSSml-Cluster-th0
FMSSml-Cluster-th1
Unused
FMSLrg-Cluster-th0
FMSLrg-Cluster-th1
FMSLrg-Cluster-th2
FMS-JP-th0
FMS-JP-th1
FMS-JP-th2
FMS-diJet
FMS-FPE-combo1
FMS-FPE-combo2
FPE
Unused
ST201 0-15 (ch6)
Entries 570368
Entries 0
Laser-protection
Laser-fire
Laser-lamp
Laser-diode
Zero-bias
Random
Unused (ch7)
Entries 570368
Entries 0