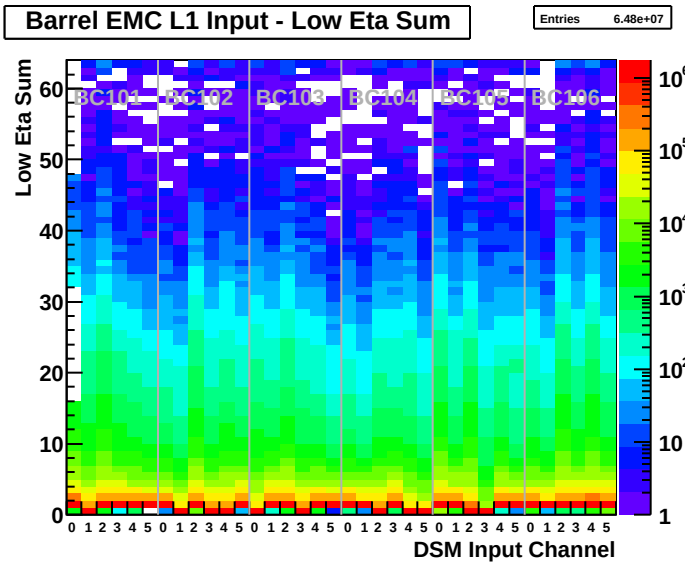
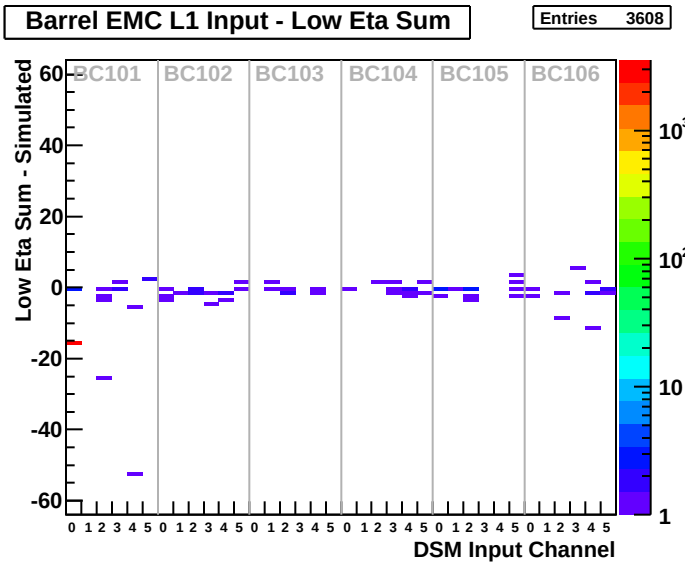
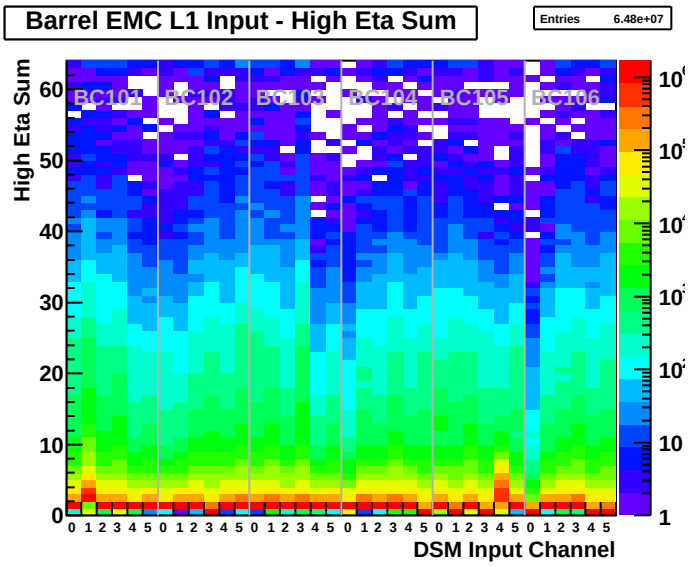
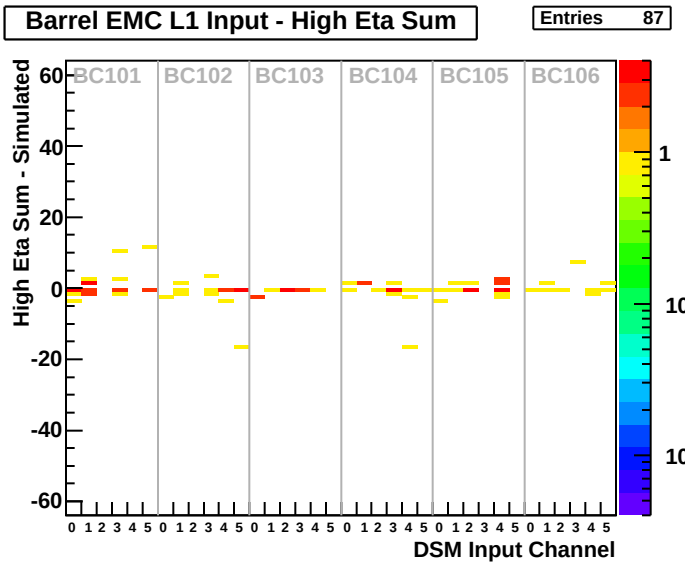
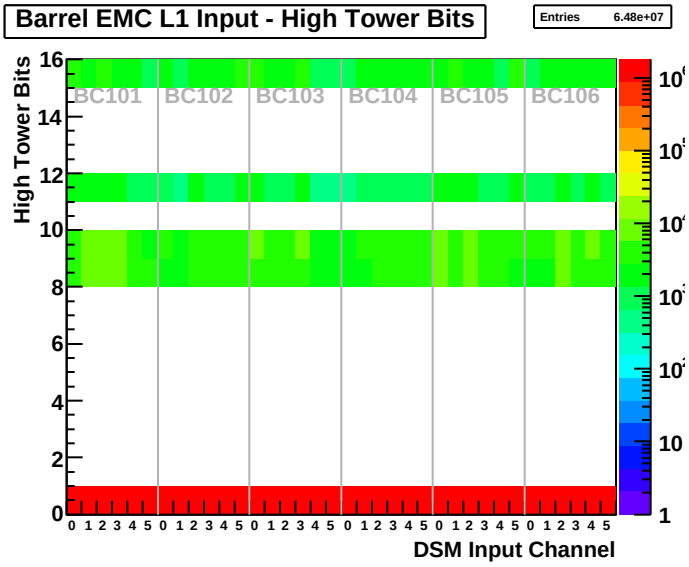
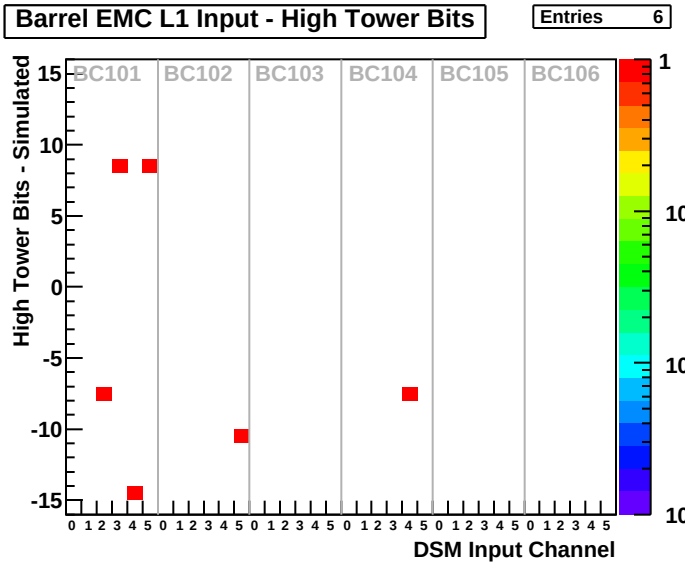

Barrel EMC L1 Input - Low Eta Sum
Entries 6.48e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

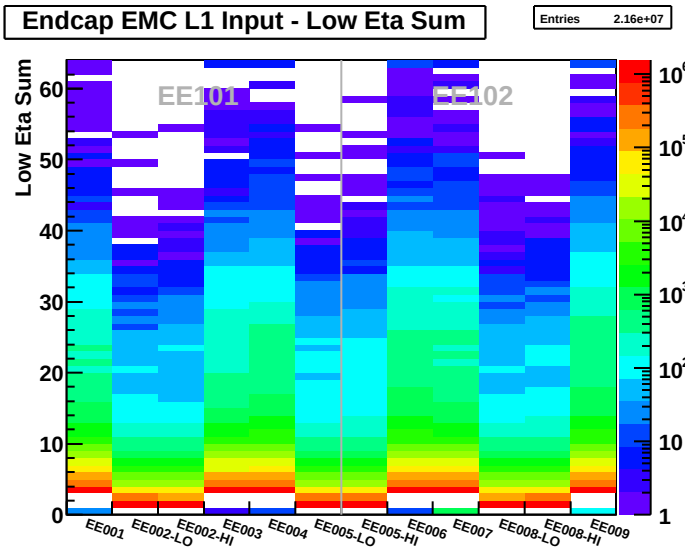

Barrel EMC L1 Input - Low Eta Sum
Entries 3608
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

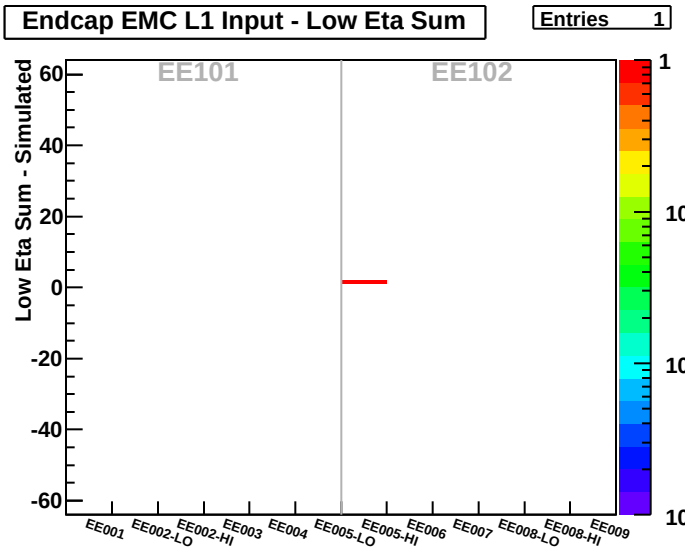

Barrel EMC L1 Input - High Eta Sum
Entries 6.48e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

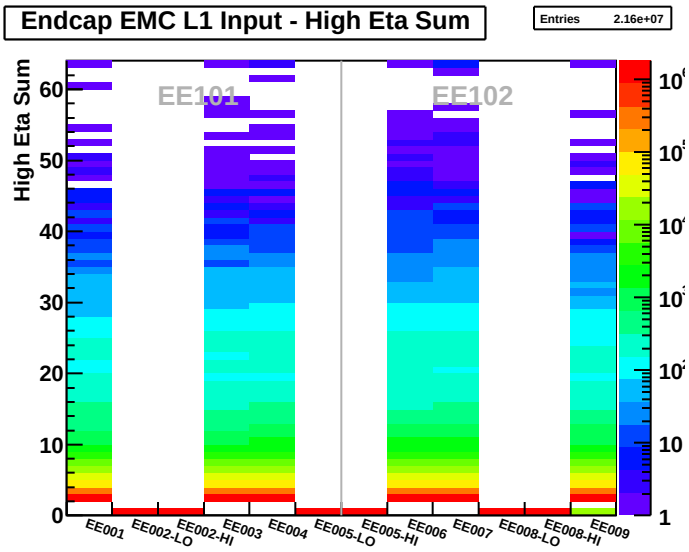

Barrel EMC L1 Input - High Eta Sum
Entries 87
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

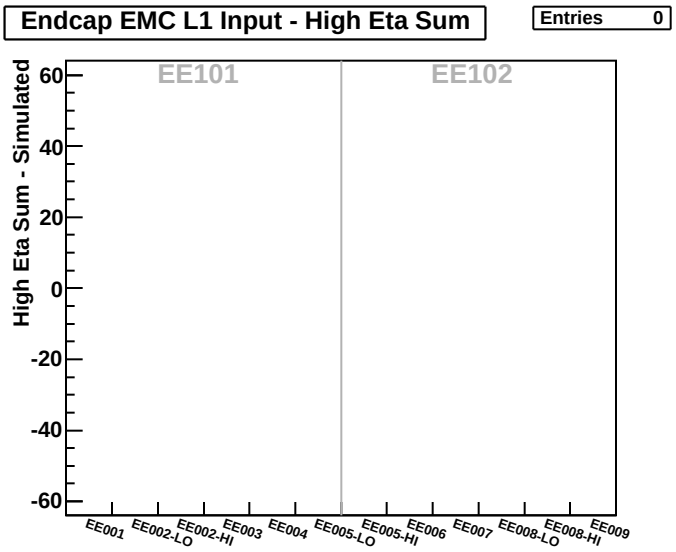

Barrel EMC L1 Input - High Tower Bits
Entries 6.48e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

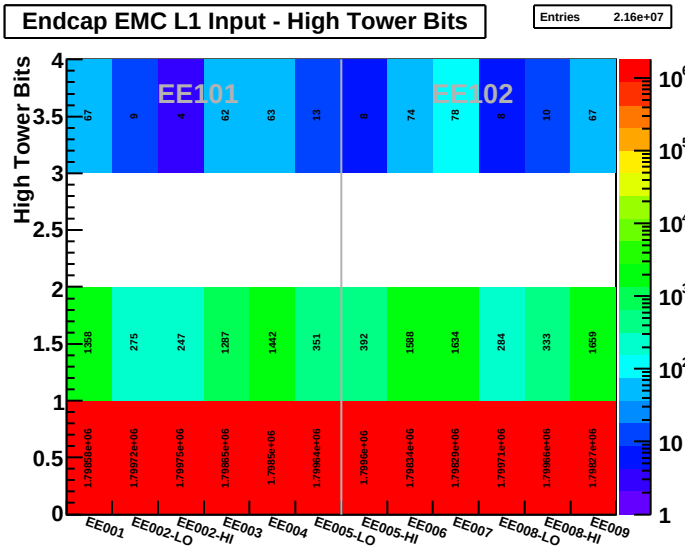

Barrel EMC L1 Input - High Tower Bits
Entries 6
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

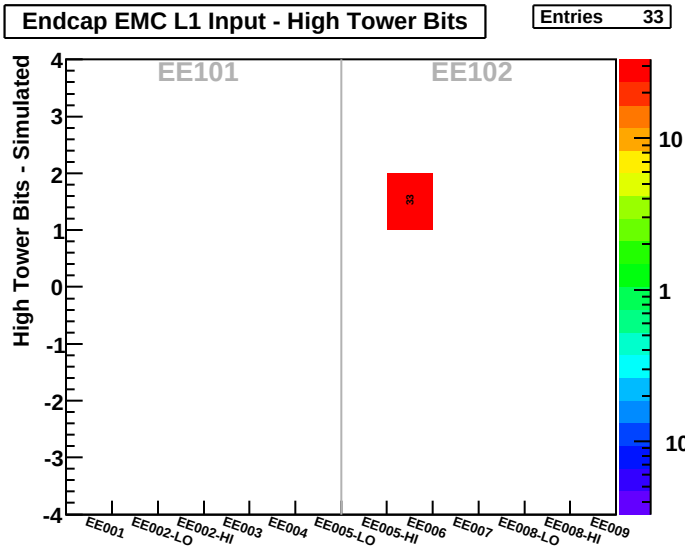

Endcap EMC L1 Input - Low Eta Sum
Entries 2.16e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

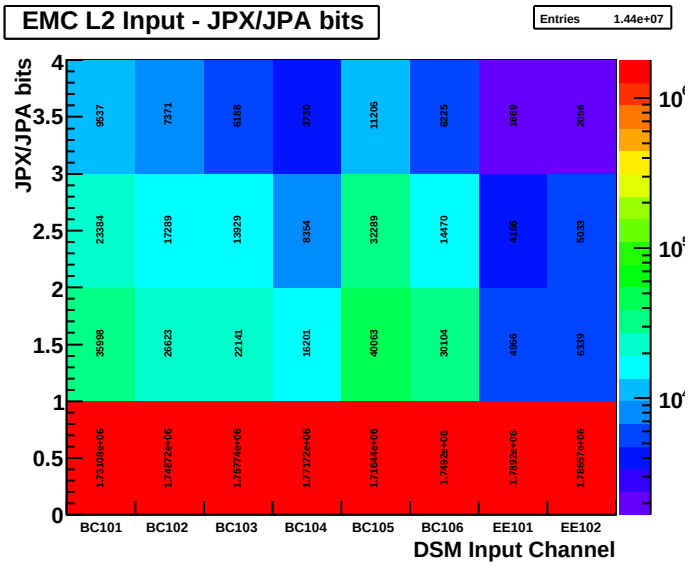

Endcap EMC L1 Input - Low Eta Sum
Entries 1
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

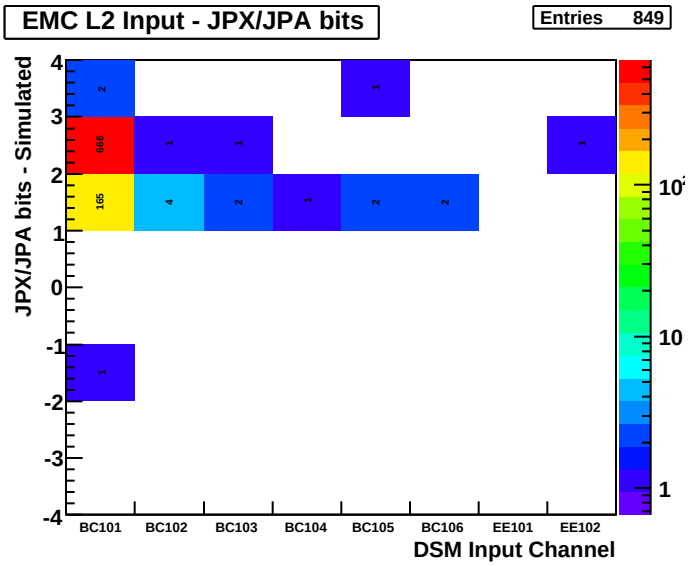

Endcap EMC L1 Input - High Eta Sum
Entries 2.16e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

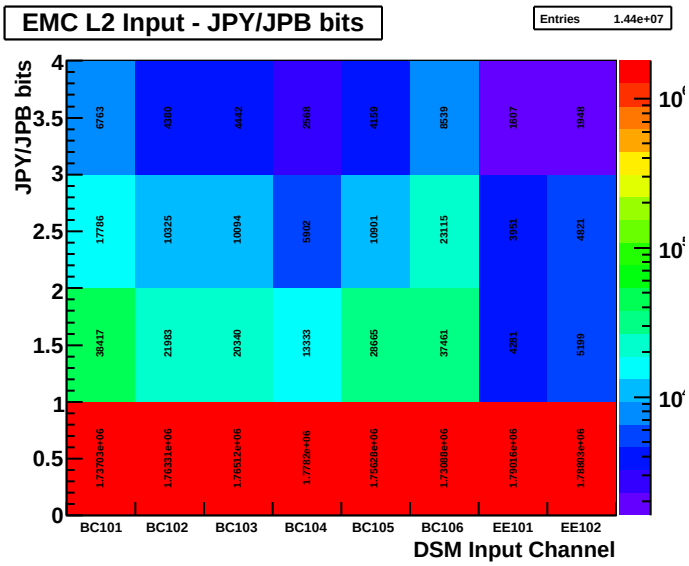

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

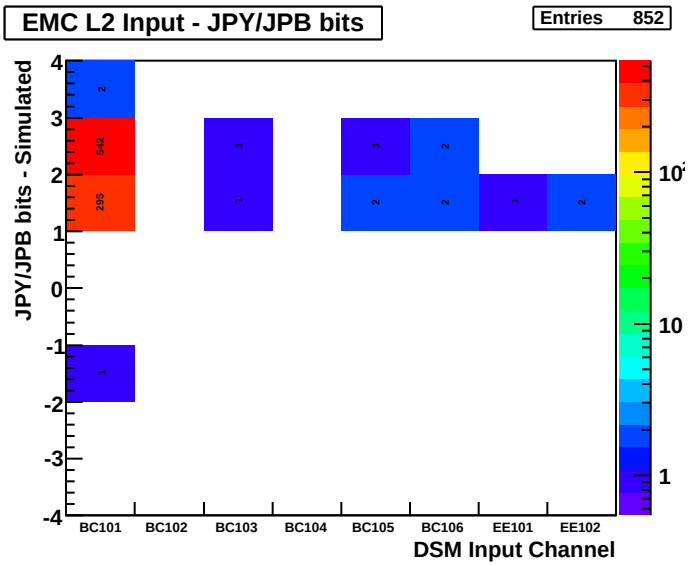

Endcap EMC L1 Input - High Tower Bits
Entries 2.16e+07
High Tower Bits
EE101
EE102
67 9 4 62 63 13 8 74 78 8 10 67
1358 275 247 1287 1442 351 392 1588 1634 284 333 1659
1.79859e+06 1.79972e+06 1.79975e+06 1.79865e+06 1.7985e+06 1.79964e+06 1.7996e+06 1.79834e+06 1.79829e+06 1.79971e+06 1.79966e+06 1.79827e+06
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

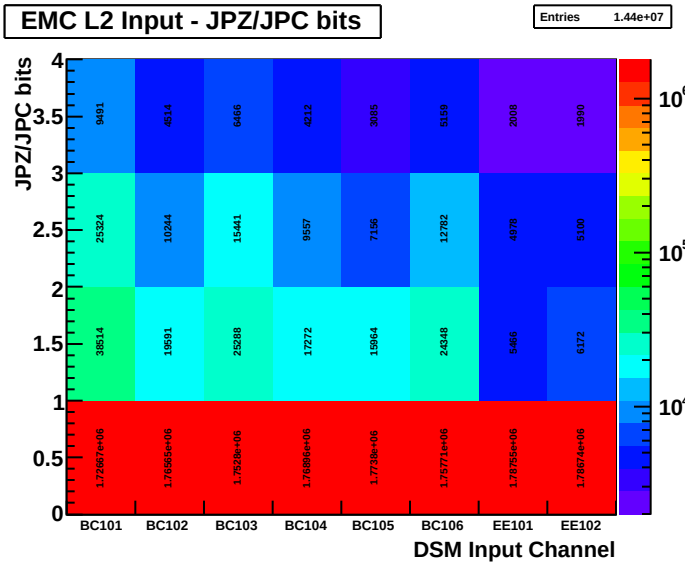

Endcap EMC L1 Input - High Tower Bits
Entries 33
High Tower Bits - Simulated
EE101
EE102
33
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

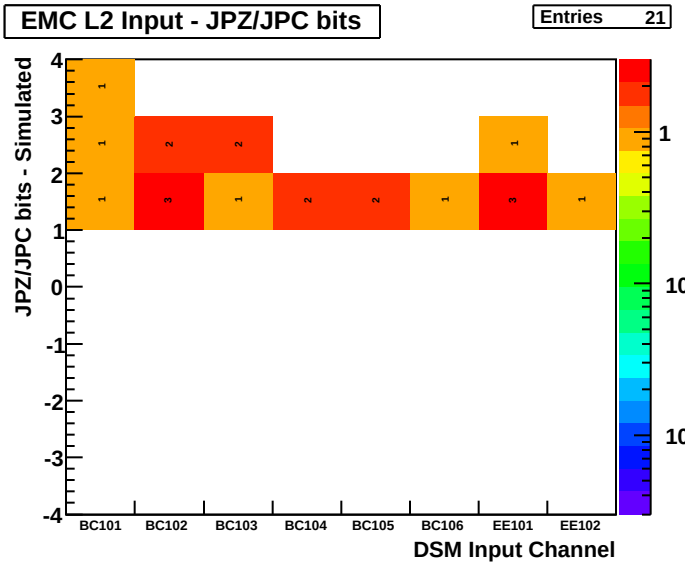

EMC L2 Input - JPX/JPA bits
Entries 1.44e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

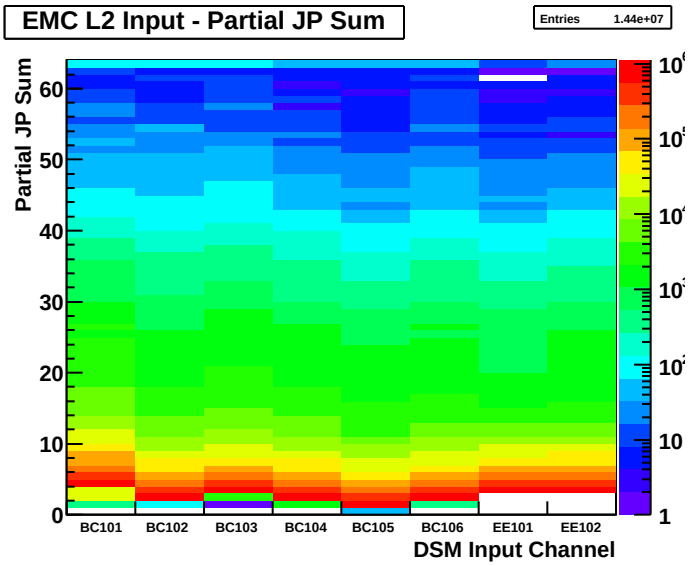

EMC L2 Input - JPX/JPA bits
Entries 849
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

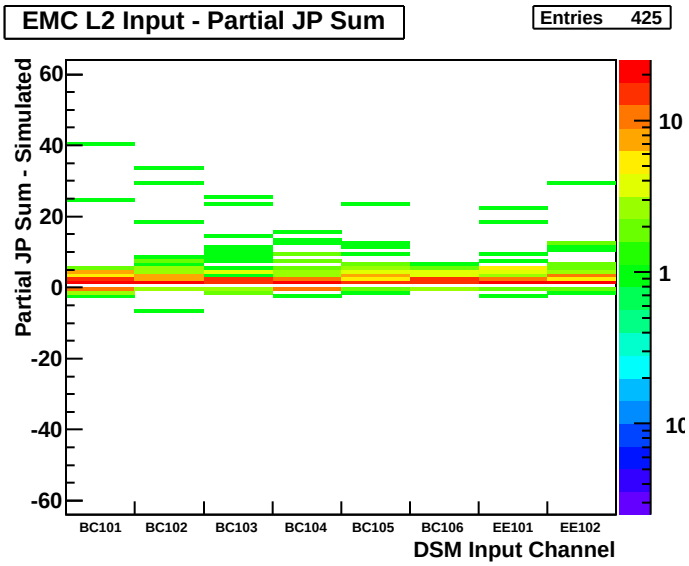

EMC L2 Input - JPY/JPB bits
Entries 1.44e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

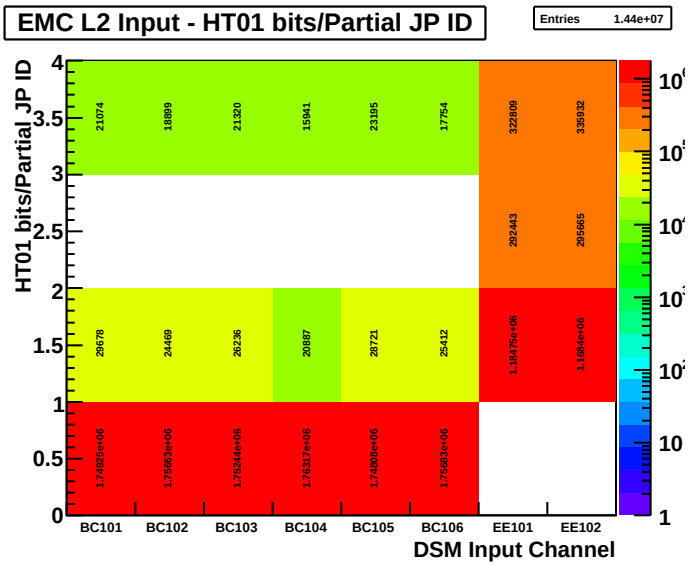

EMC L2 Input - JPY/JPB bits
Entries 852
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

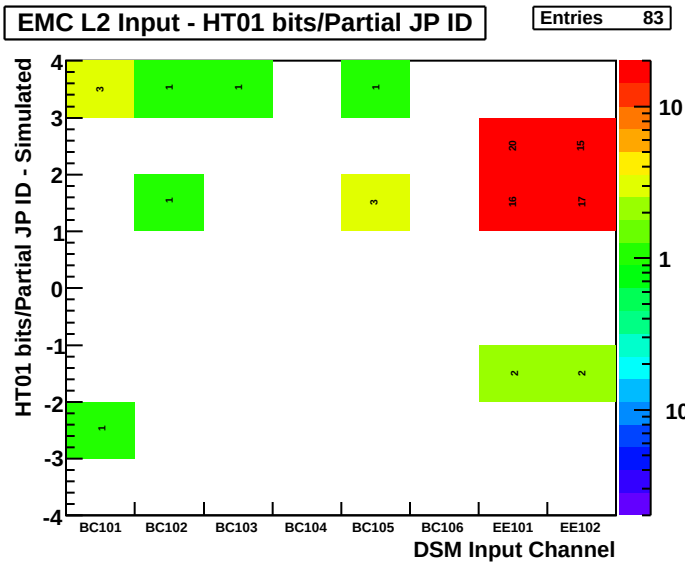

EMC L2 Input - JPZ/JPC bits
Entries 1.44e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

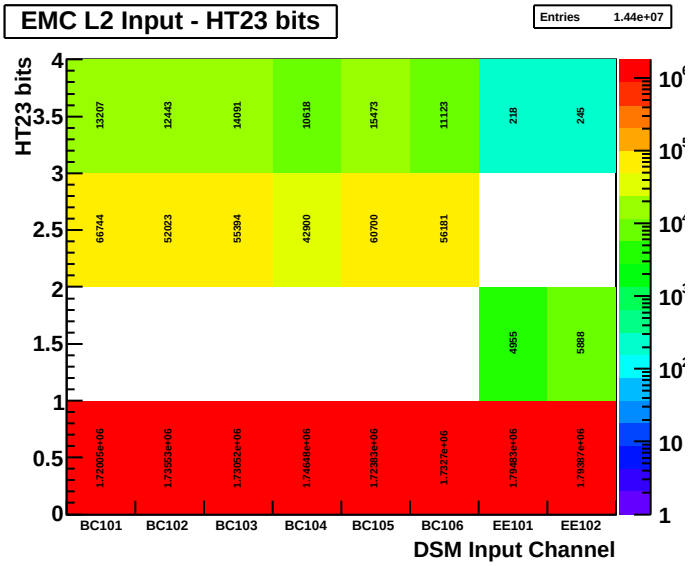

EMC L2 Input - JPZ/JPC bits
Entries 21
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

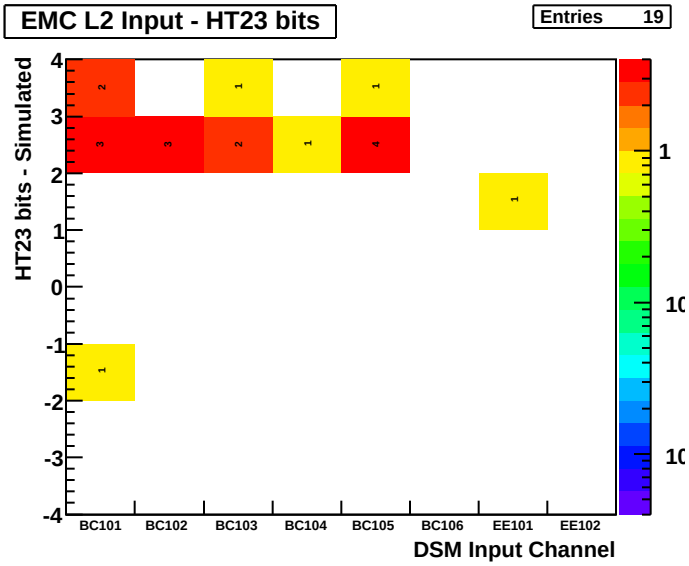

EMC L2 Input - Partial JP Sum
Entries 1.44e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

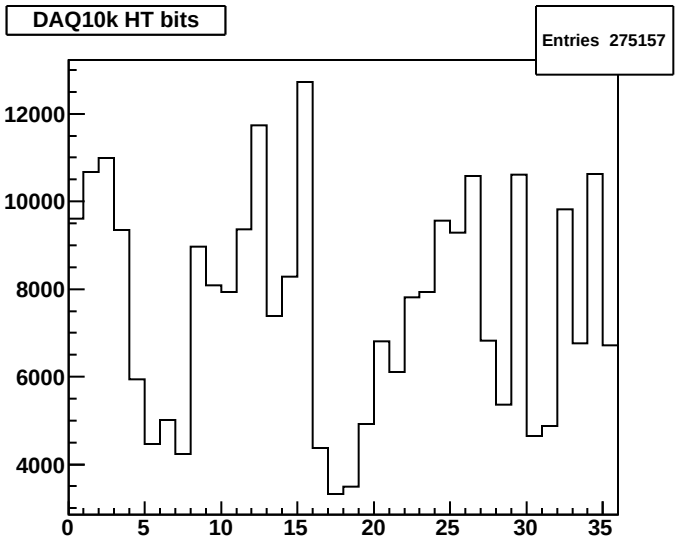

EMC L2 Input - Partial JP Sum
Entries 425
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

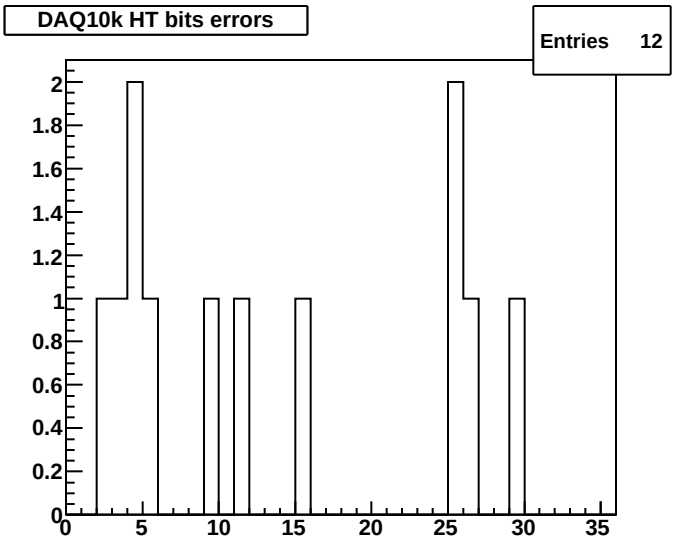

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1.44e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

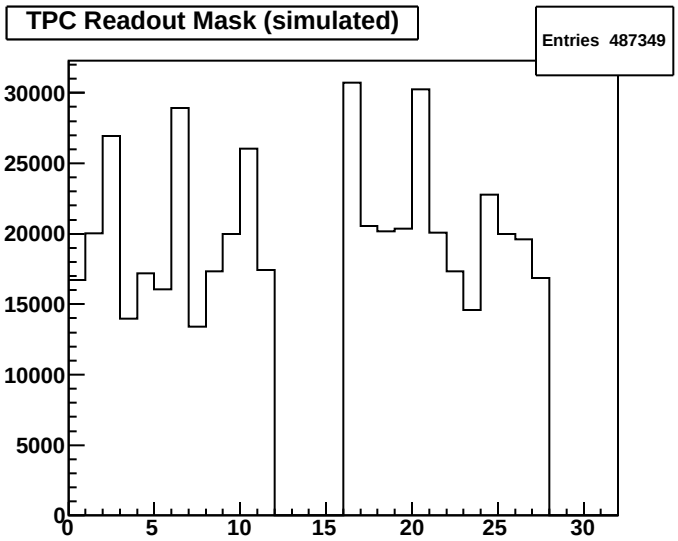

EMC L2 Input - HT01 bits/Partial JP ID
Entries 83
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

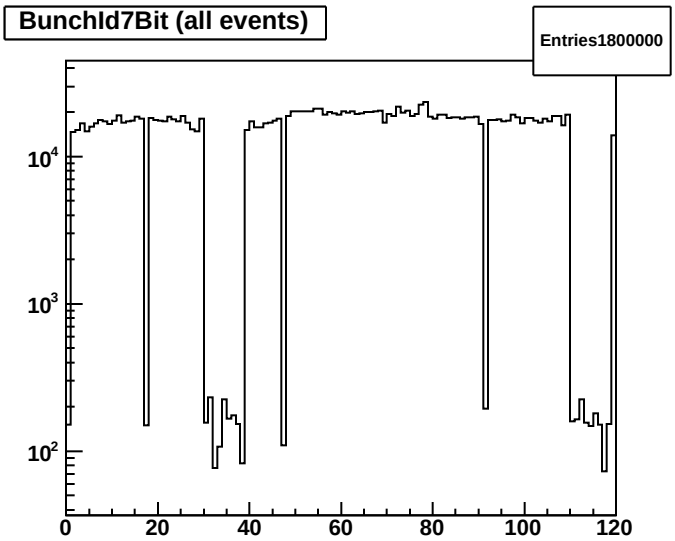

EMC L2 Input - HT23 bits
Entries 1.44e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

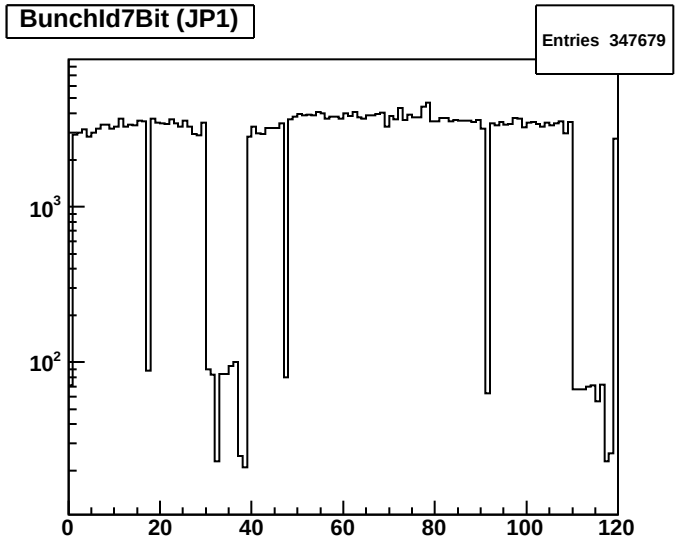

EMC L2 Input - HT23 bits
Entries 19
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

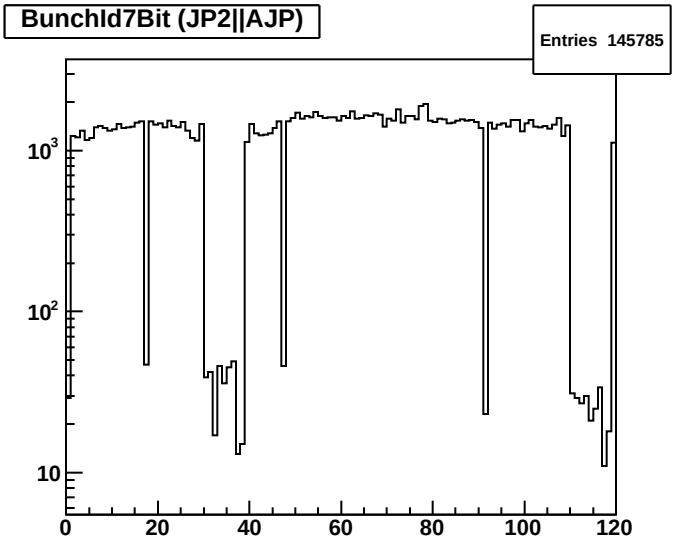

DAQ10k HT bits
Entries 275157
12000
10000
8000
6000
4000
0
5
10
15
20
25
30
35

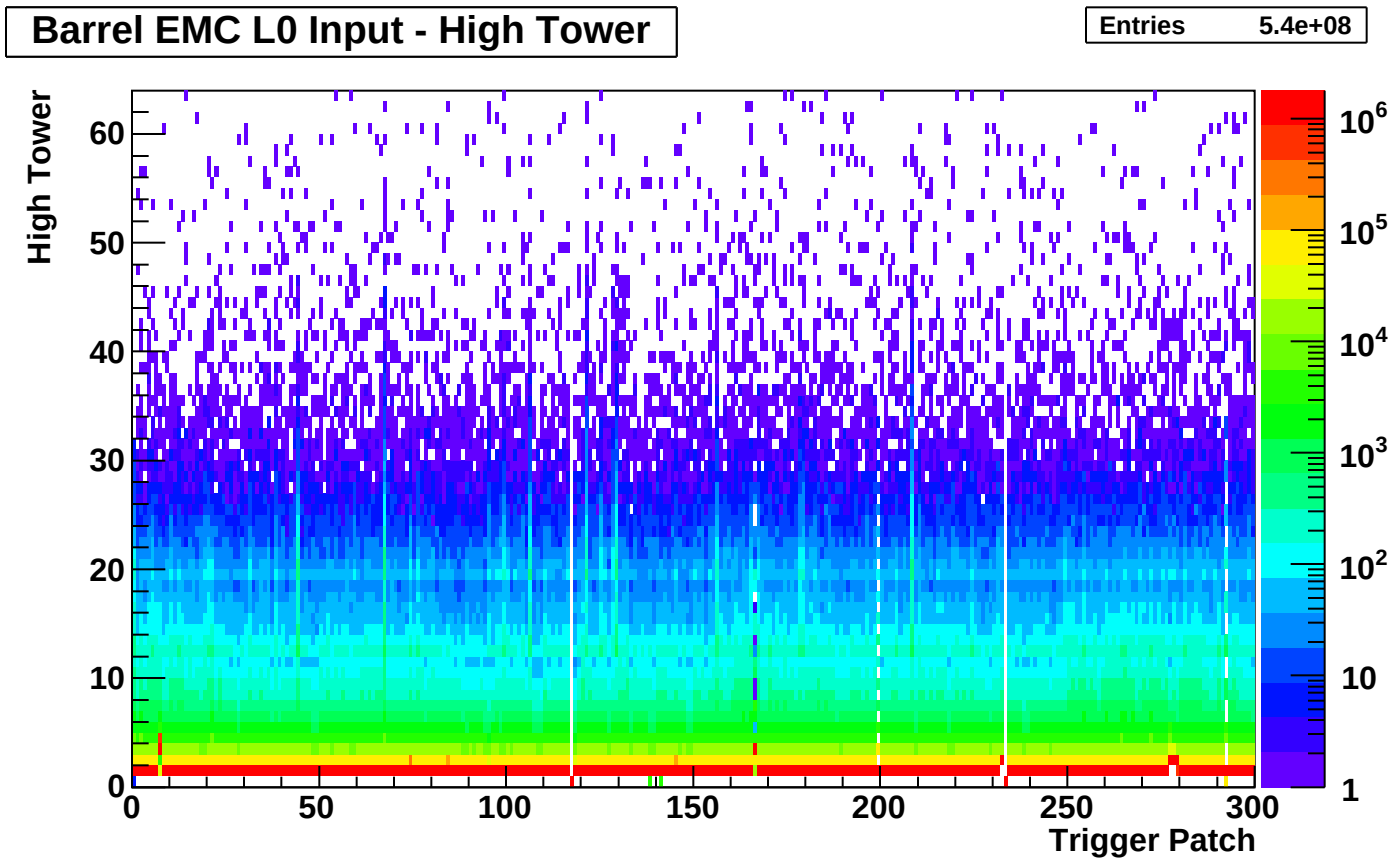

DAQ10k HT bits errors
Entries 12
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
5
10
15
20
25
30
35

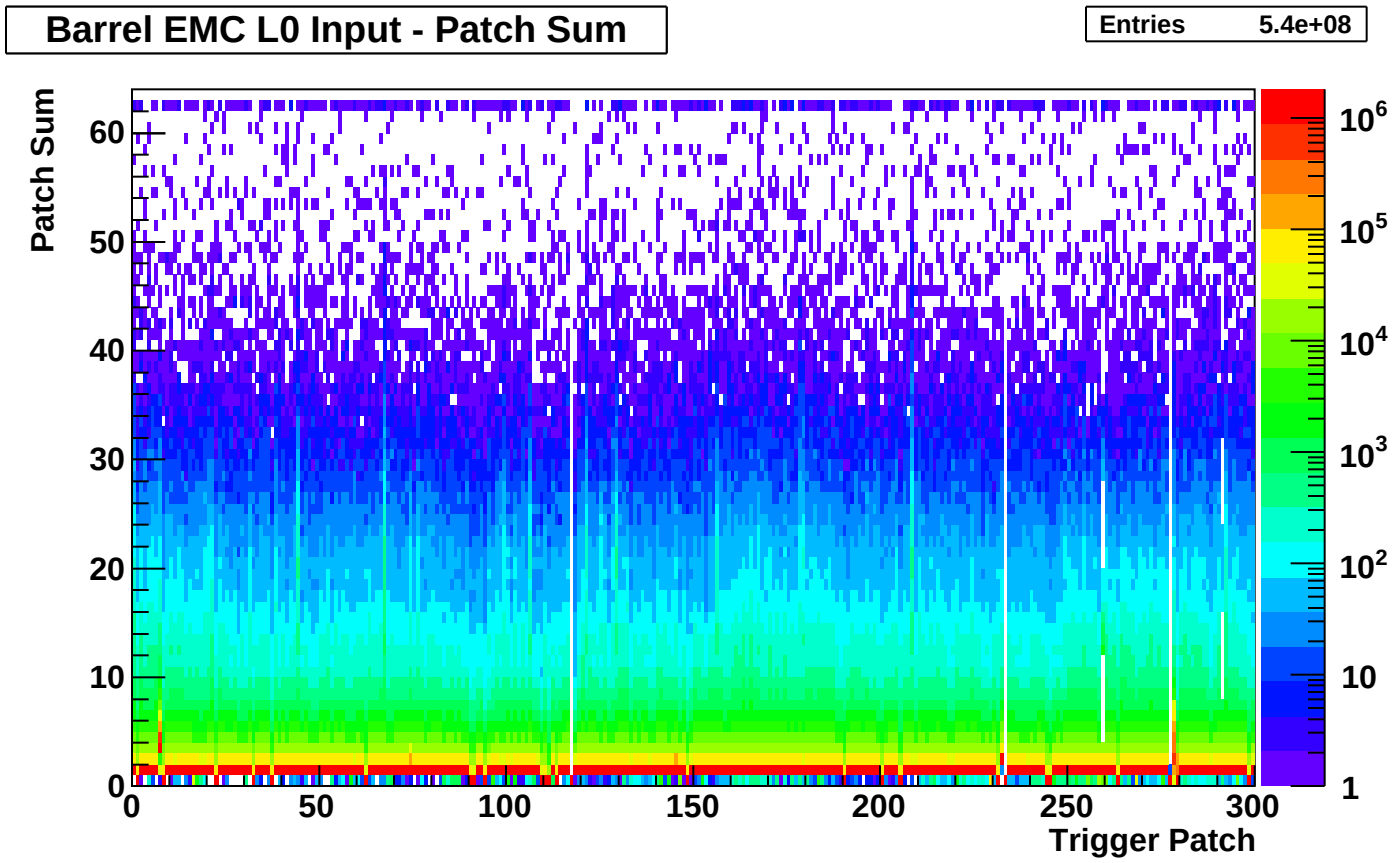

TPC Readout Mask (simulated)
Entries 487349
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
25
30

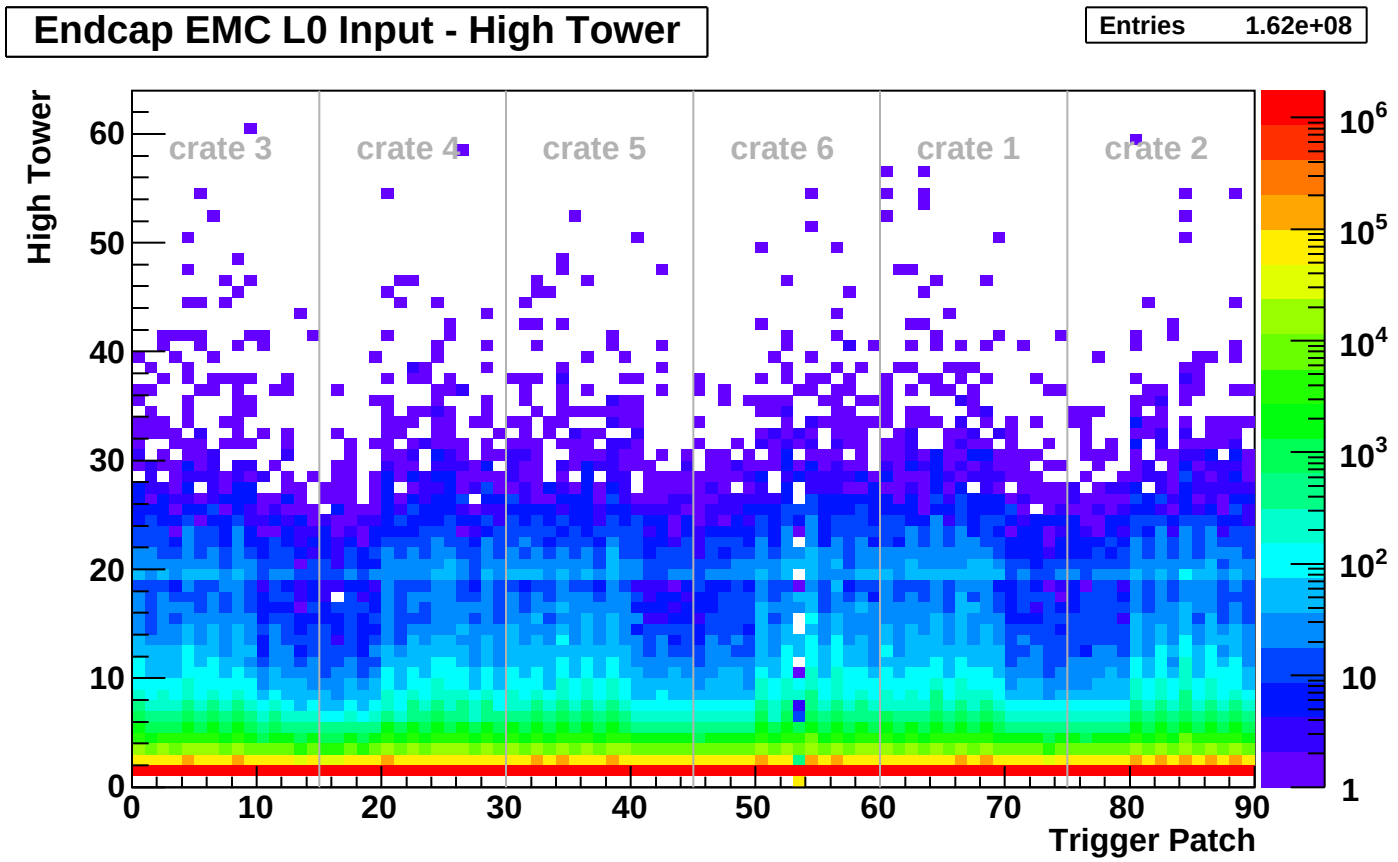

BunchId7Bit (all events)
Entries1800000
10^4
10^3
10^2
0
20
40
60
80
100
120

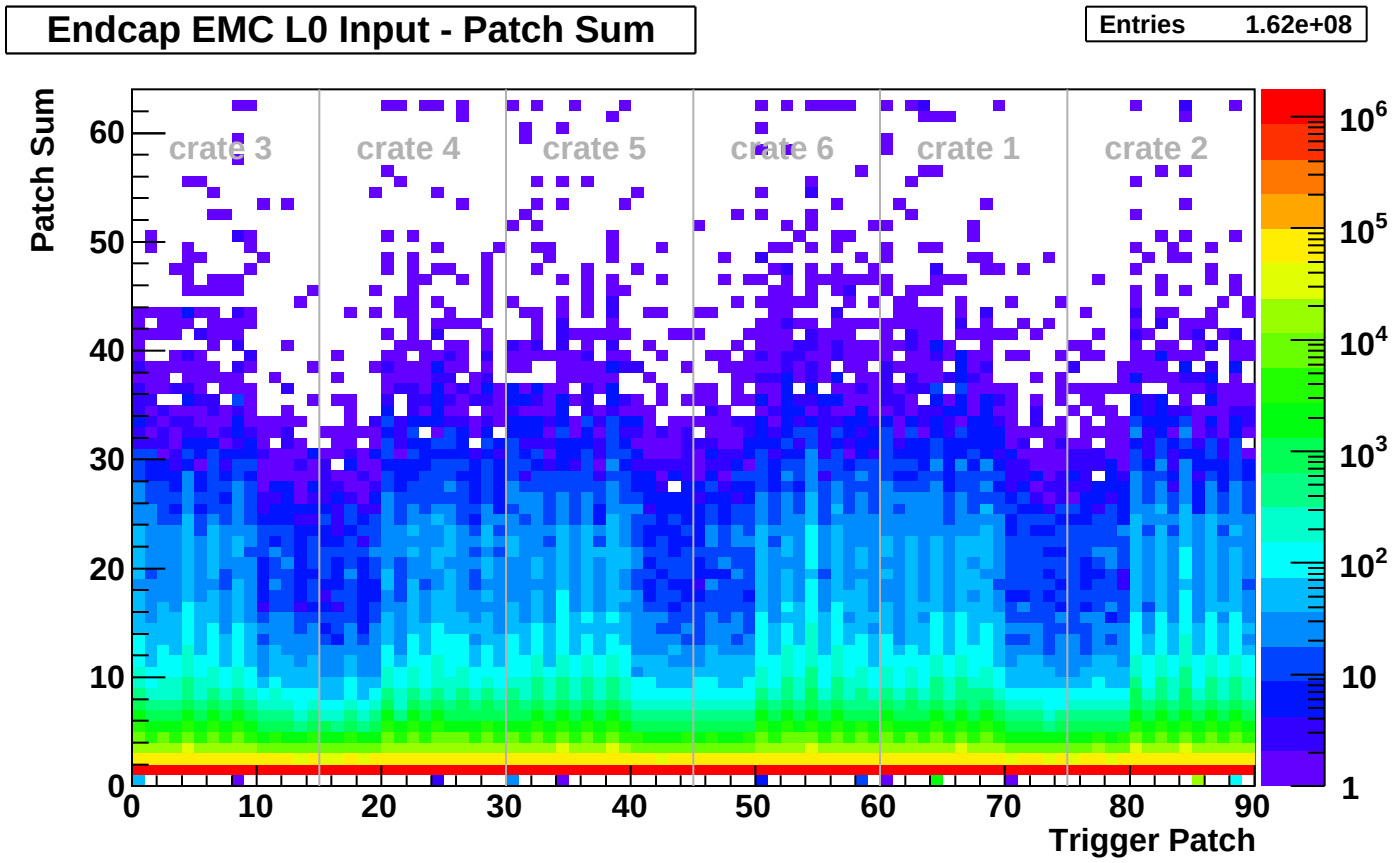

BunchId7Bit (JP1)
Entries 347679
10^3
10^2
0
20
40
60
80
100
120

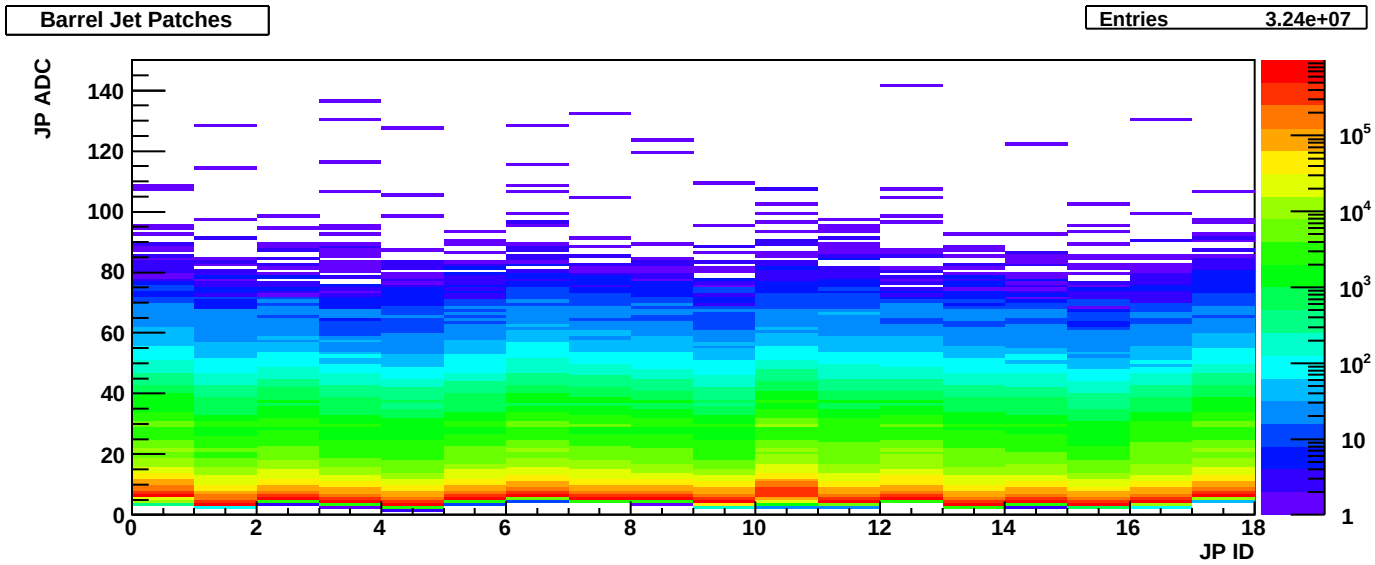

BunchId7Bit (JP2||AJP)
Entries 145785
10^3
10^2
10
0
20
40
60
80
100
120

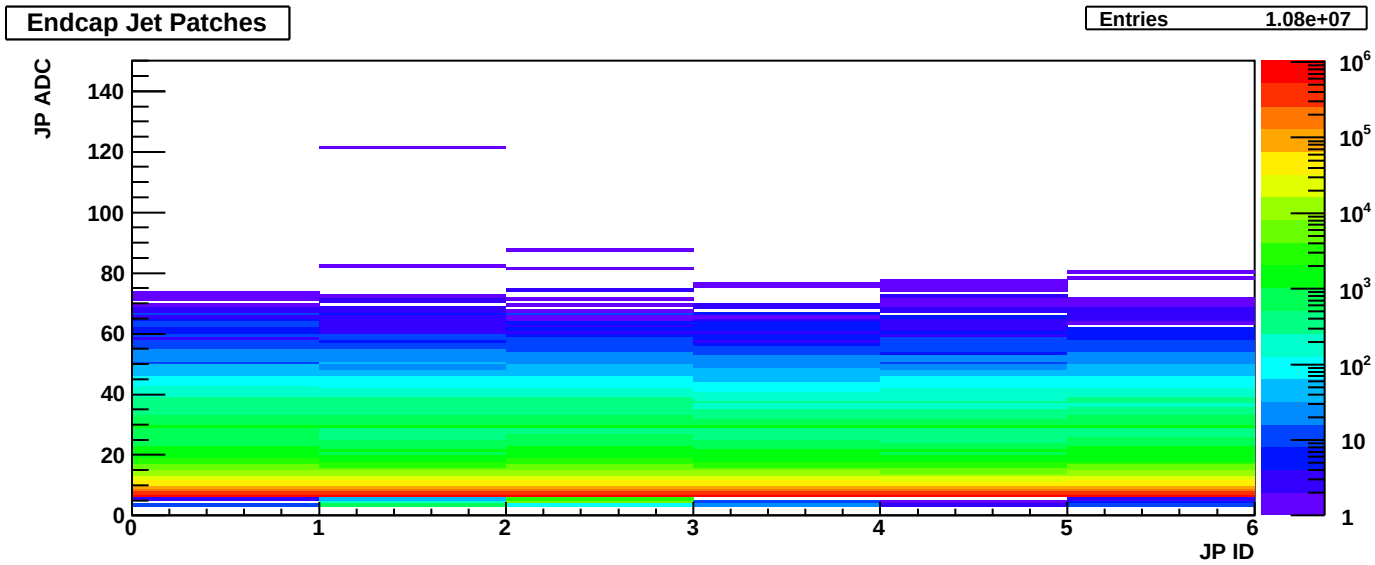

Barrel EMC L0 Input - High Tower
Entries 5.4e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

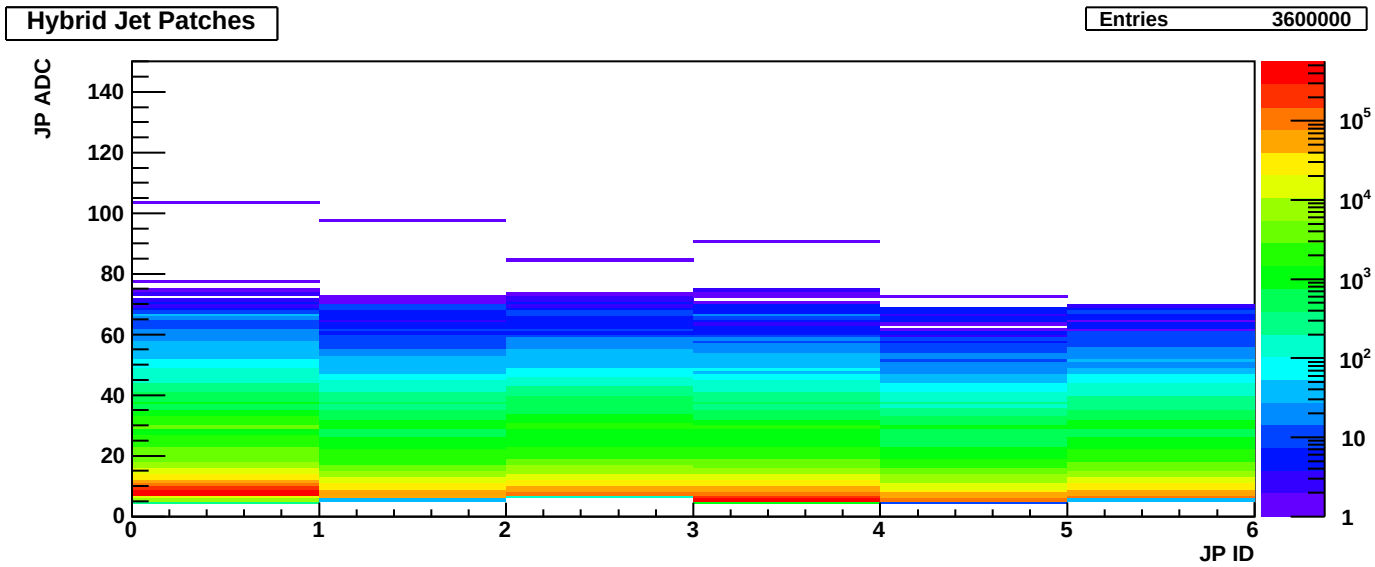

Barrel EMC L0 Input - Patch Sum
Entries 5.4e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

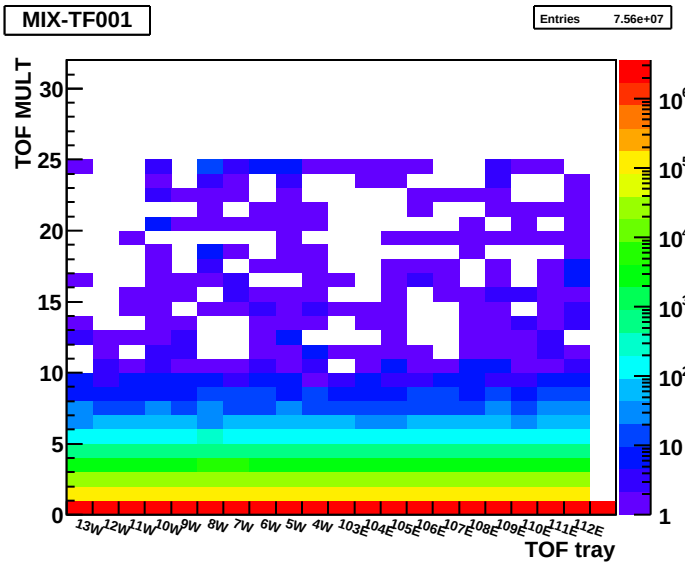

Endcap EMC L0 Input - High Tower
Entries 1.62e+08
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

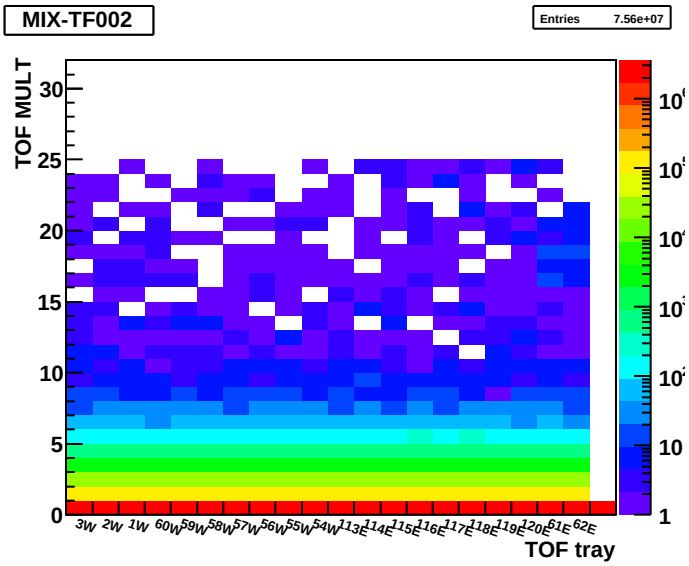

Endcap EMC L0 Input - Patch Sum
Entries 1.62e+08
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

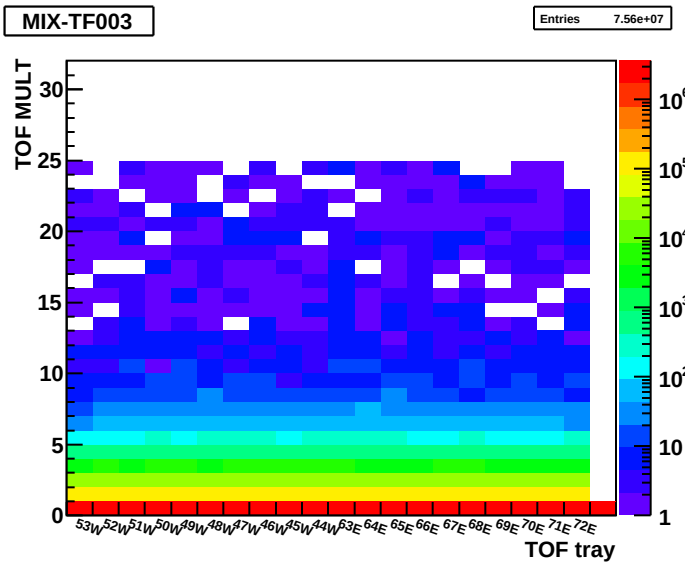

Barrel Jet Patches
Entries 3.24e+07
JP ADC
JP ID

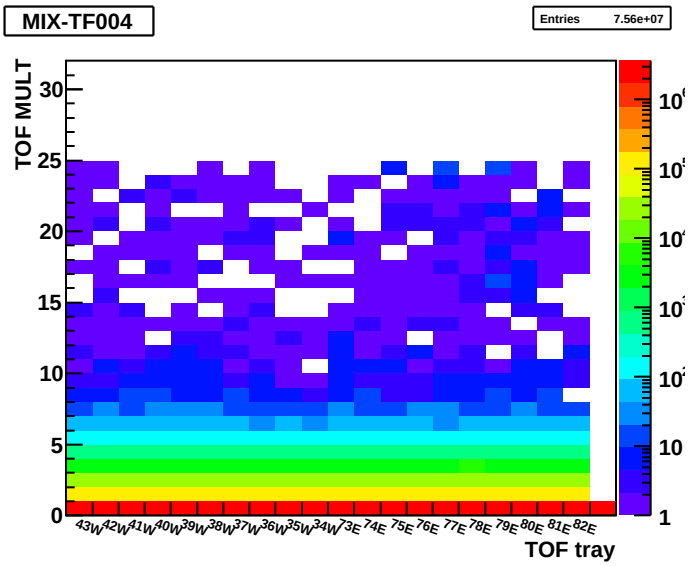

Endcap Jet Patches
Entries 1.08e+07
JP ADC
JP ID

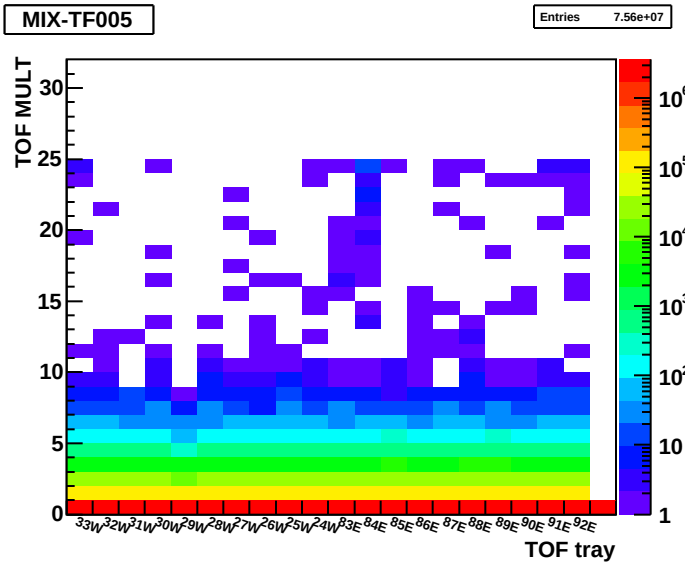

Hybrid Jet Patches
Entries 3600000
JP ADC
JP ID

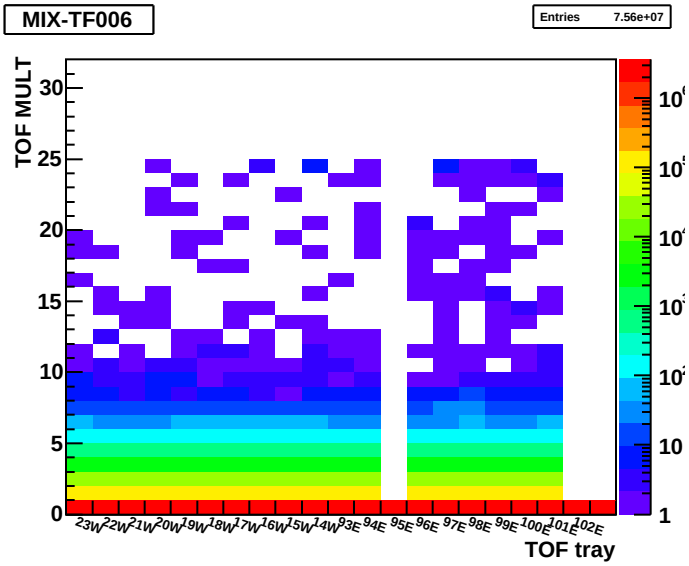

MIX-TF001
Entries 7.56e+07
TOF MULT
TOF tray

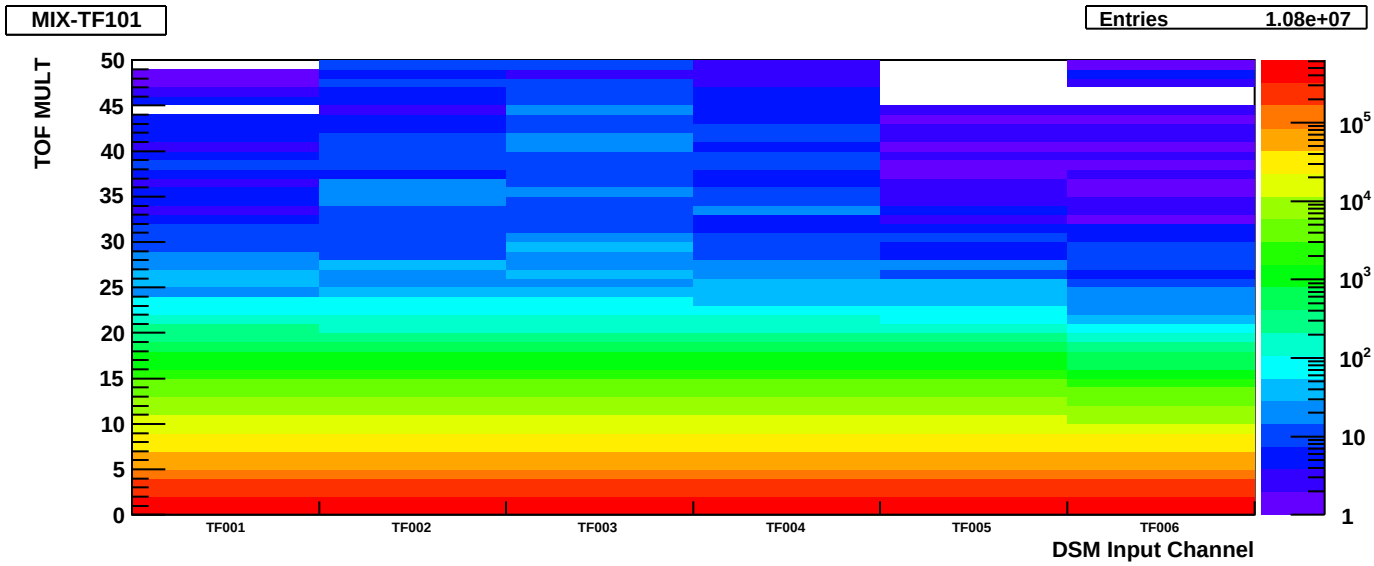

MIX-TF002
Entries 7.56e+07
TOF MULT
TOF tray

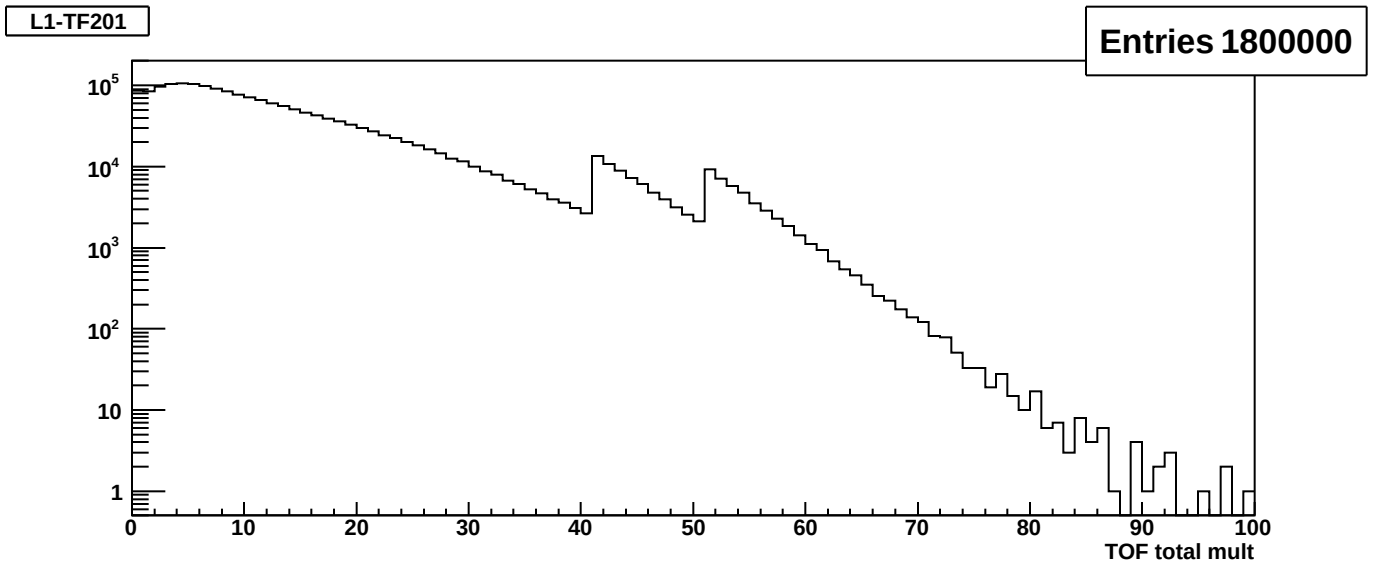

MIX-TF003
Entries 7.56e+07
TOF MULT
TOF tray

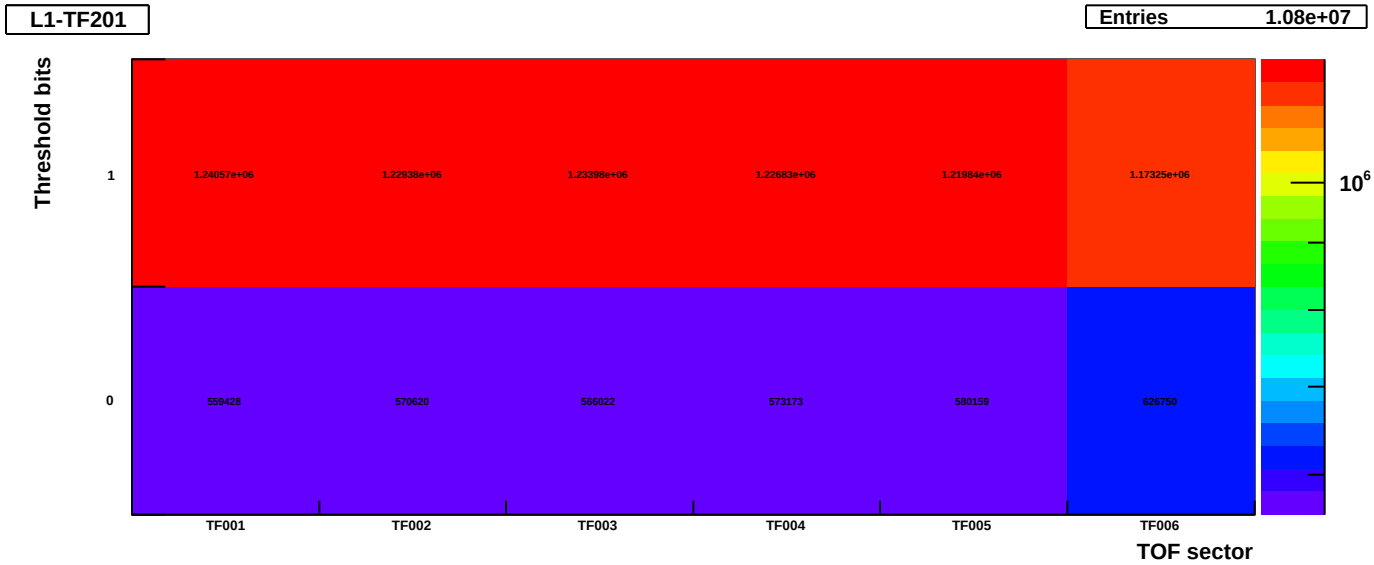

MIX-TF004
Entries 7.56e+07
TOF MULT
TOF tray

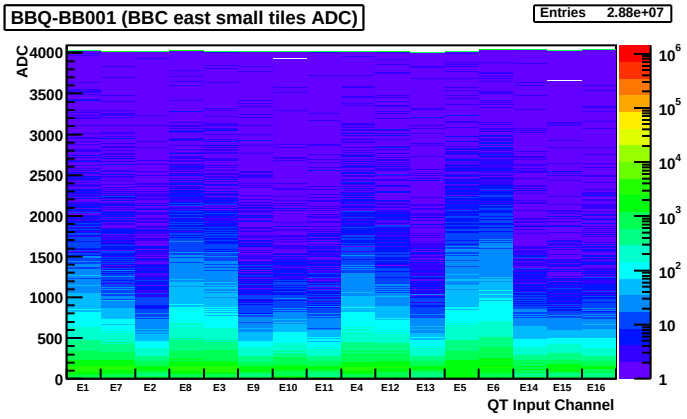

MIX-TF005
Entries 7.56e+07
TOF MULT
TOF tray

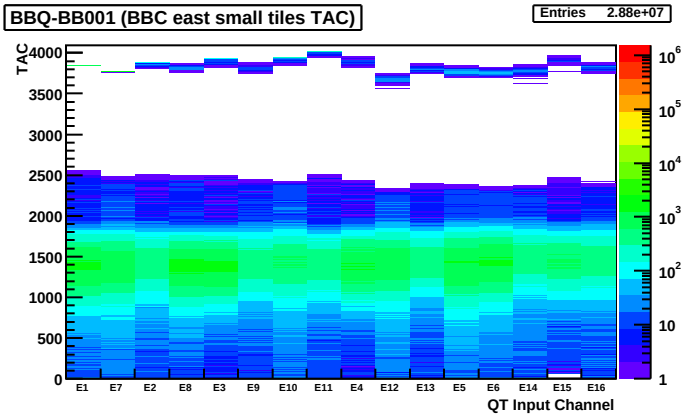

MIX-TF006
Entries 7.56e+07
TOF MULT
TOF tray

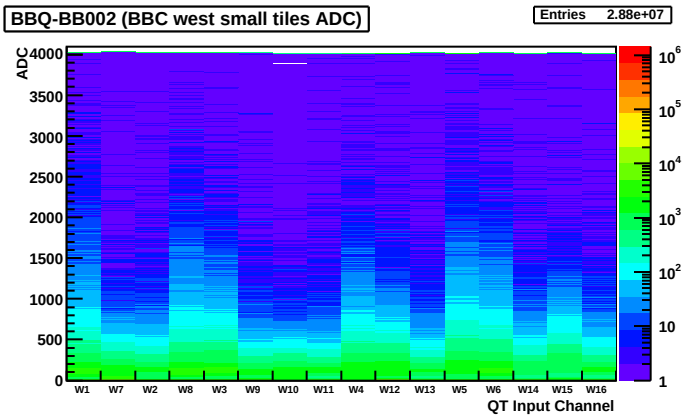

MIX-TF101
Entries 1.08e+07
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

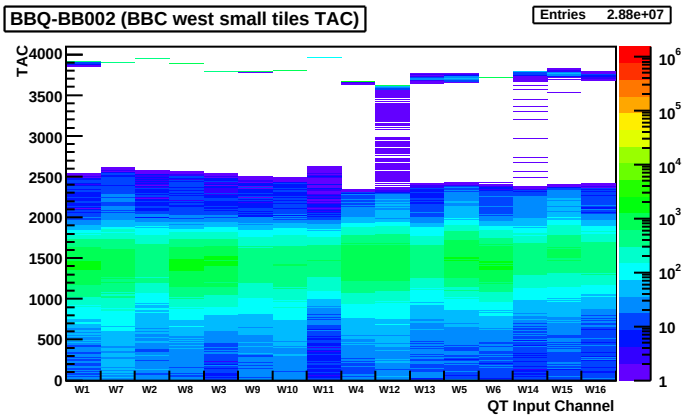

L1-TF201
Entries 1800000
TOF total mult

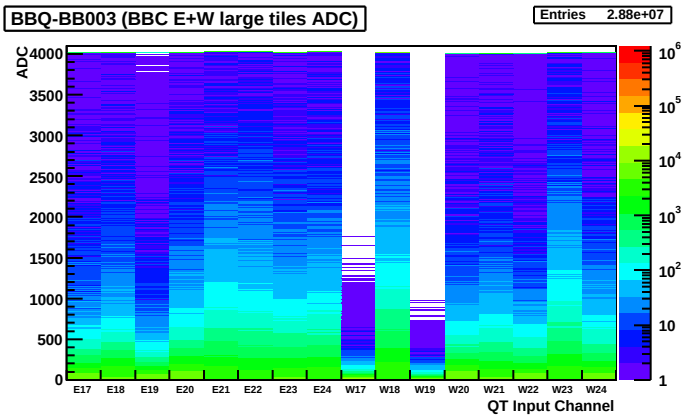

L1-TF201
Entries 1.08e+07
Threshold bits
1.24057e+06
1.22938e+06
1.23398e+06
1.22683e+06
1.21984e+06
1.17325e+06
559428
570620
566022
573173
580159
626750
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

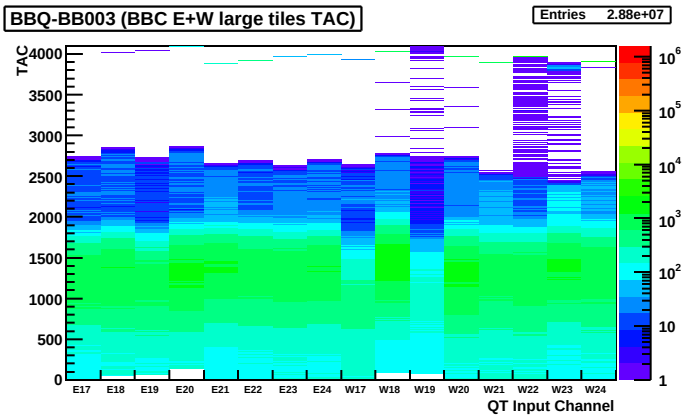

BBQ-BB001 (BBC east small tiles ADC)
Entries 2.88e+07
ADC
QT Input Channel

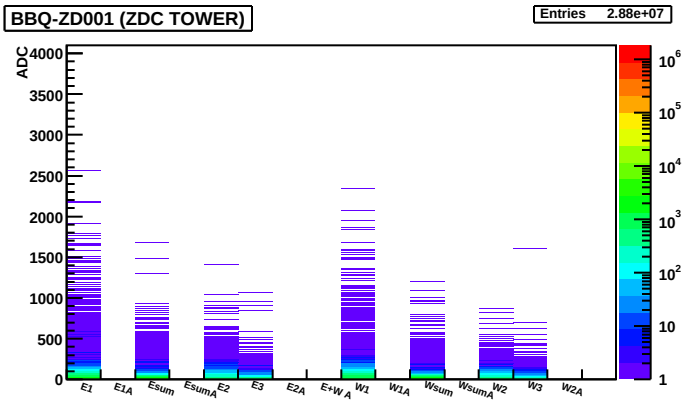

BBQ-BB001 (BBC east small tiles TAC)
Entries 2.88e+07
TAC
QT Input Channel

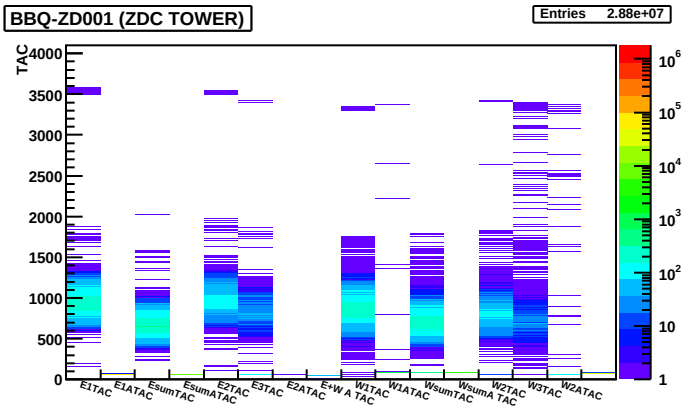

BBQ-BB002 (BBC west small tiles ADC)
Entries 2.88e+07
ADC
QT Input Channel

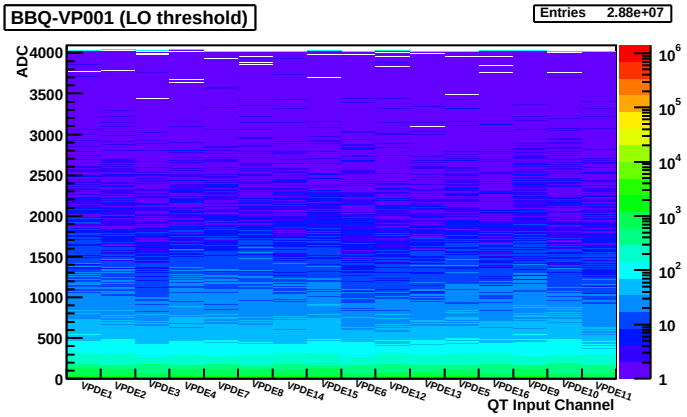

BBQ-BB002 (BBC west small tiles TAC)
Entries 2.88e+07
TAC
QT Input Channel

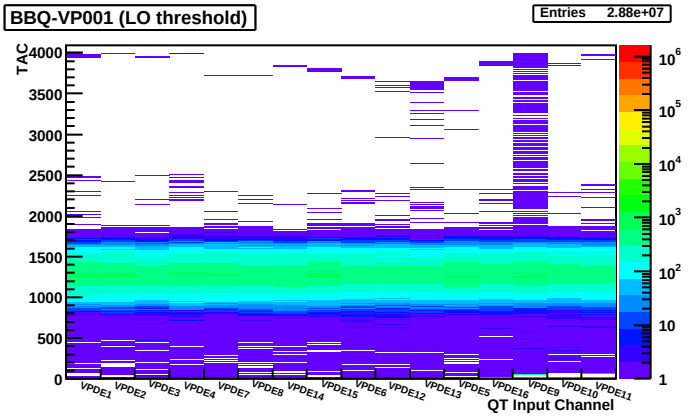

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2.88e+07
ADC
QT Input Channel

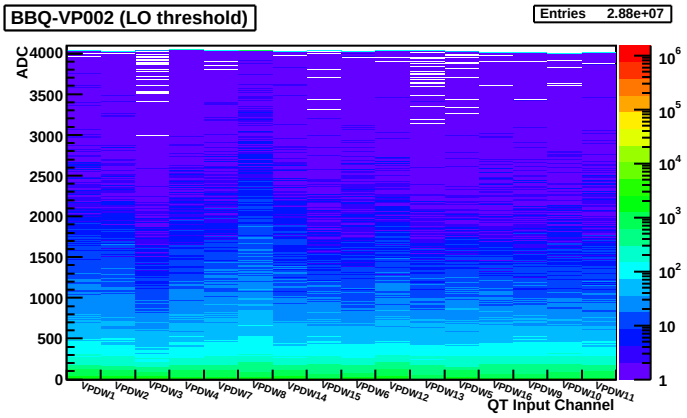

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2.88e+07
TAC
QT Input Channel

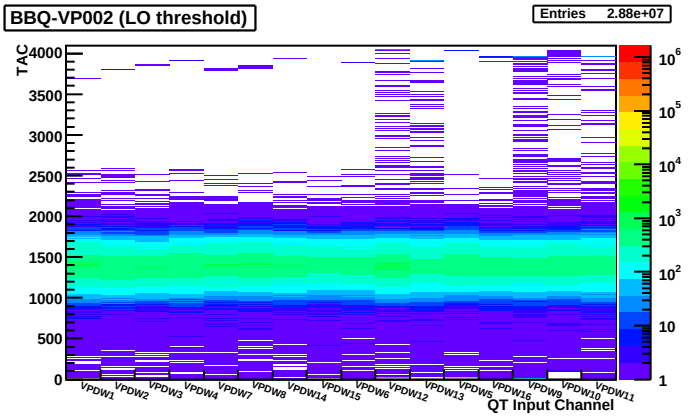

BBQ-ZD001 (ZDC TOWER)
Entries 2.88e+07
ADC

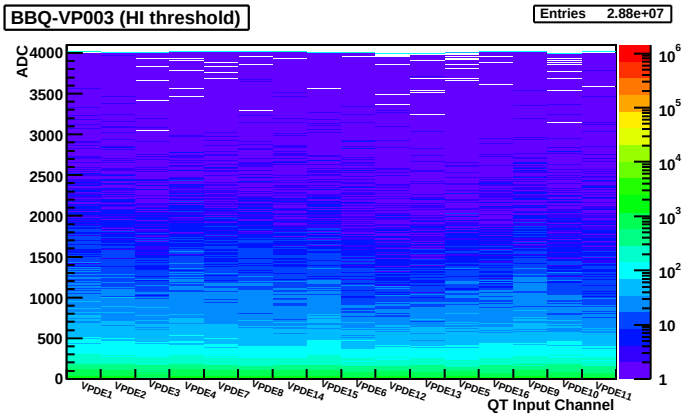

BBQ-ZD001 (ZDC TOWER)
Entries 2.88e+07
TAC

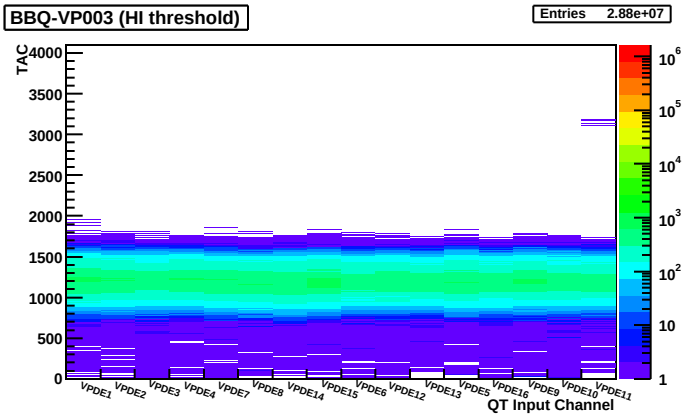

BBQ-VP001 (LO threshold)
Entries 2.88e+07
ADC
QT Input Channel

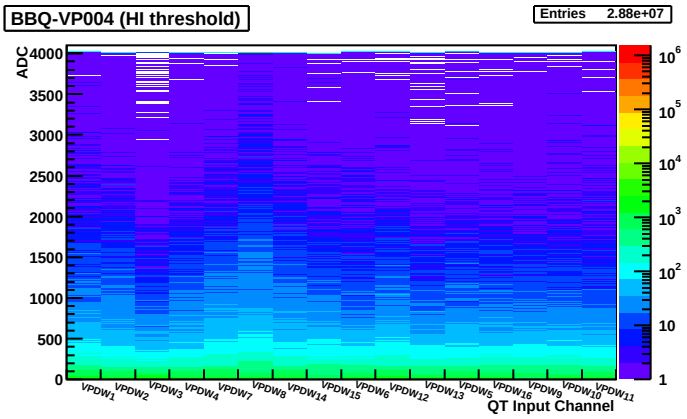

BBQ-VP001 (LO threshold)
Entries 2.88e+07
TAC
QT Input Channel

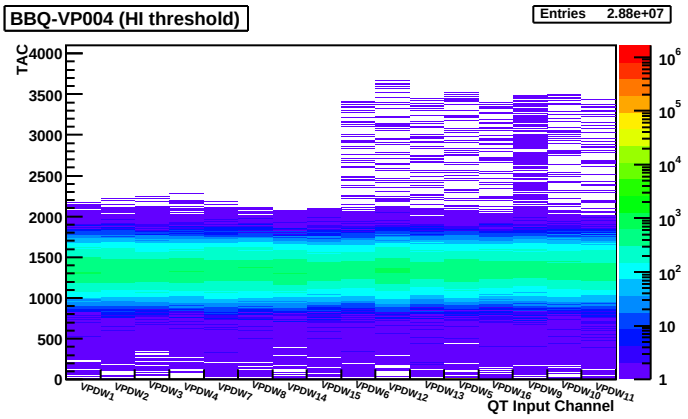

BBQ-VP002 (LO threshold)
Entries 2.88e+07
ADC
QT Input Channel

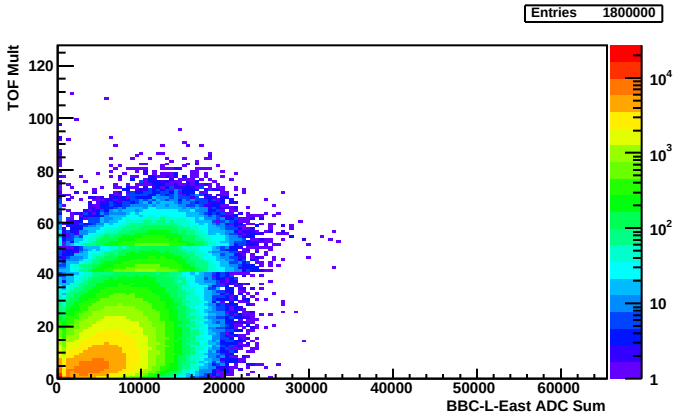

BBQ-VP002 (LO threshold)
Entries 2.88e+07
TAC
QT Input Channel

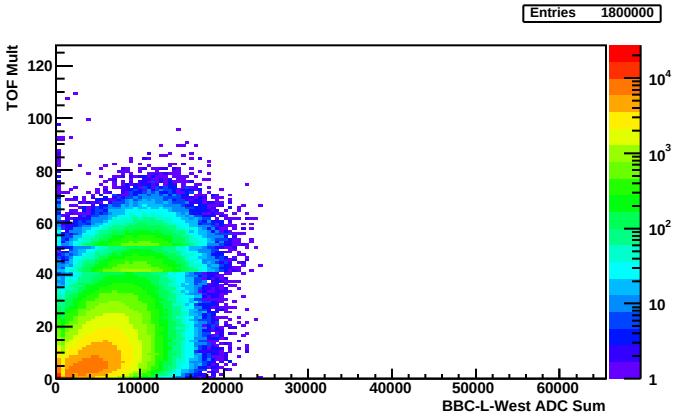

BBQ-VP003 (HI threshold)
Entries 2.88e+07
ADC
QT Input Channel

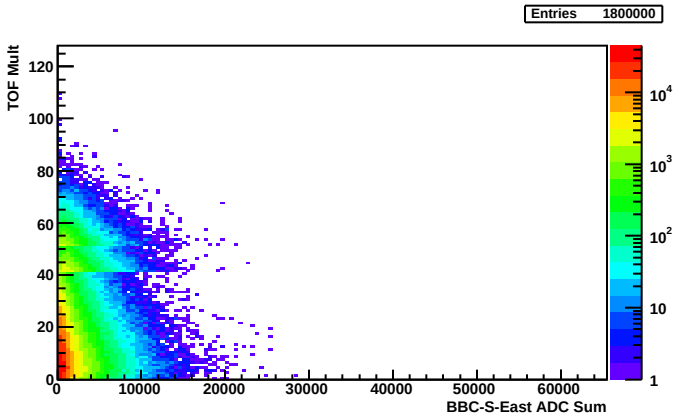

BBQ-VP003 (HI threshold)
Entries 2.88e+07
TAC
QT Input Channel

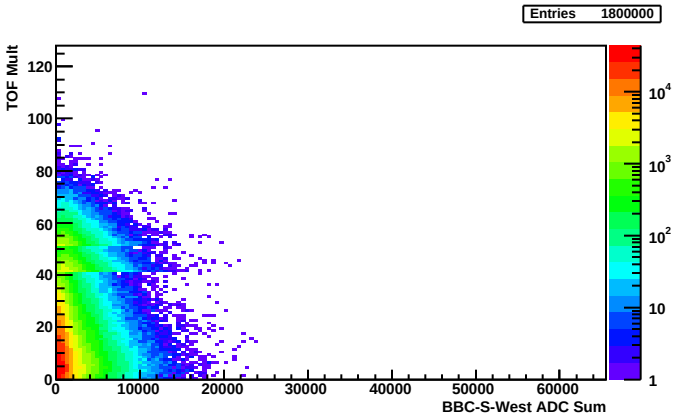

BBQ-VP004 (HI threshold)
Entries 2.88e+07
ADC
QT Input Channel

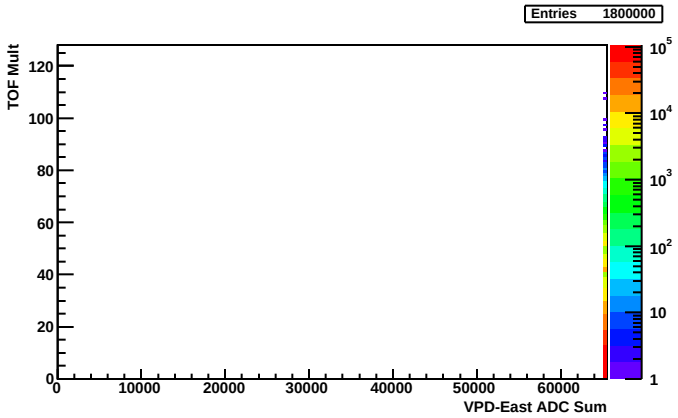

BBQ-VP004 (HI threshold)
Entries 2.88e+07
TAC
QT Input Channel

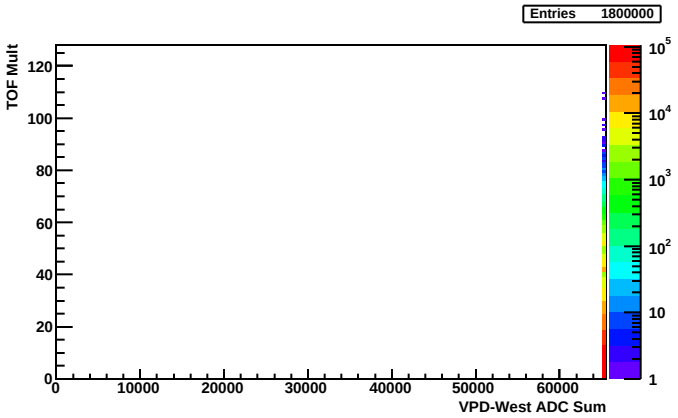

Entries 1800000
TOF Mult
BBC-L-East ADC Sum

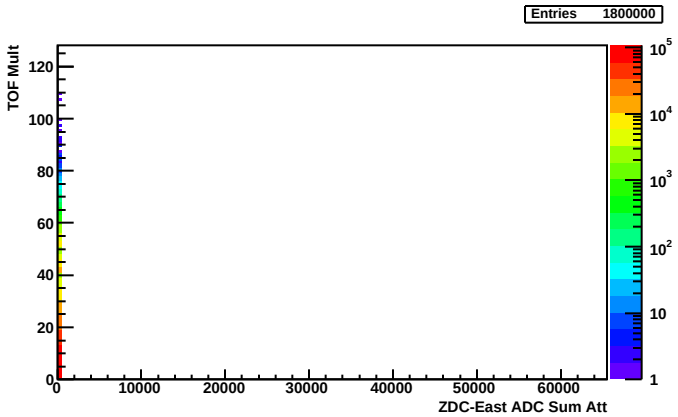

Entries 1800000
TOF Mult
BBC-L-West ADC Sum

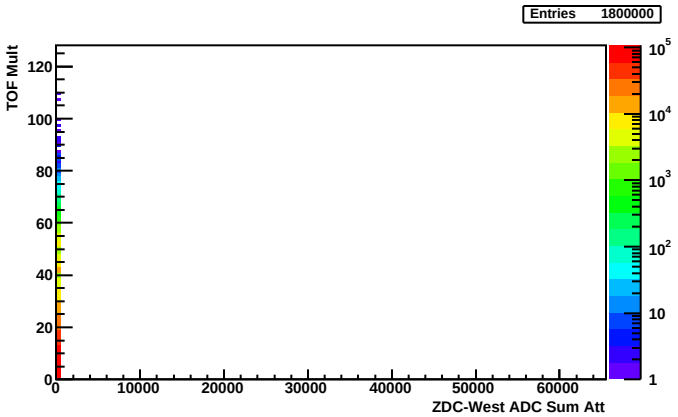

Entries 1800000
TOF Mult
BBC-S-East ADC Sum

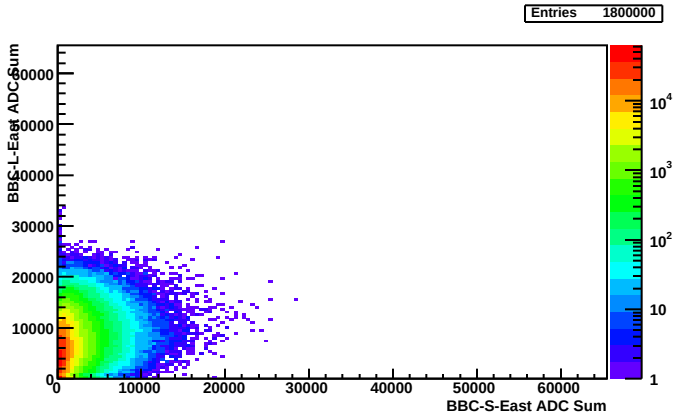

Entries 1800000
TOF Mult
BBC-S-West ADC Sum

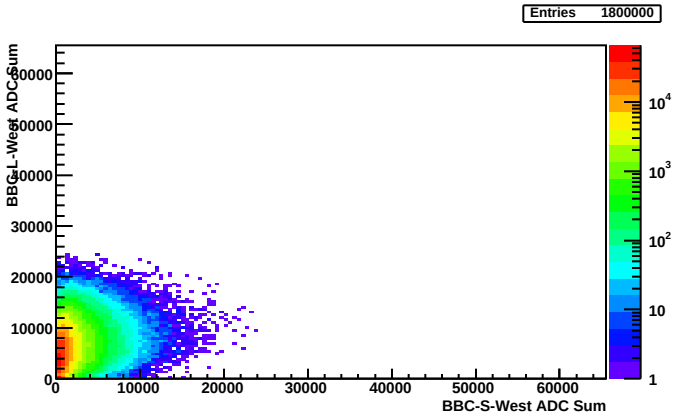

Entries 1800000
TOF Mult
VPD-East ADC Sum

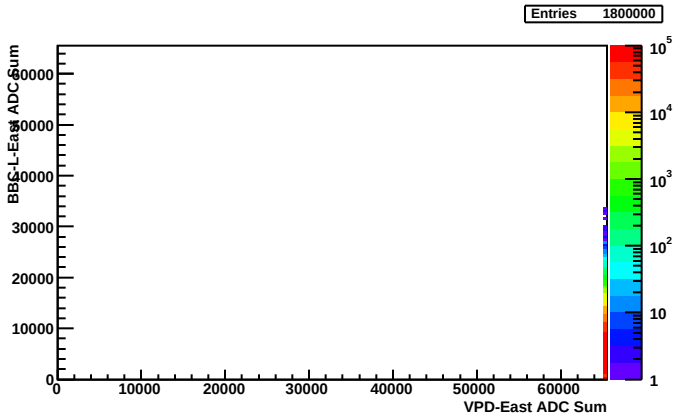

Entries 1800000
TOF Mult
VPD-West ADC Sum

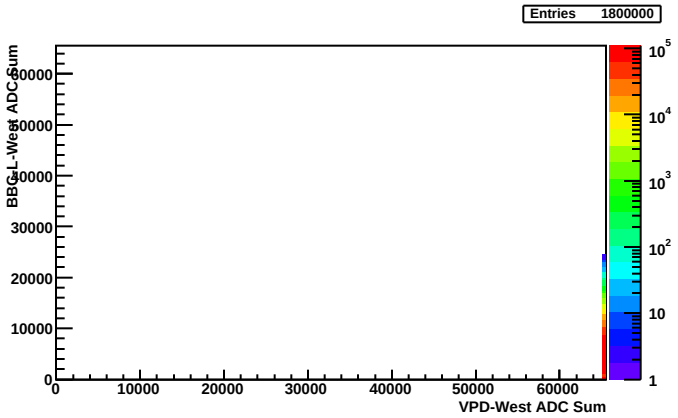

Entries 1800000
TOF Mult
ZDC-East ADC Sum Att

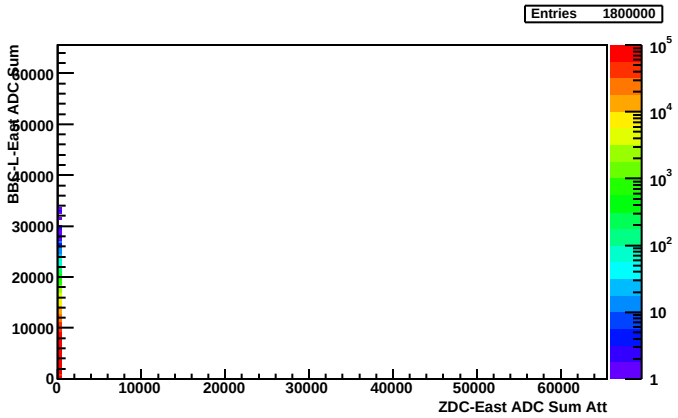

Entries 1800000
TOF Mult
ZDC-West ADC Sum Att

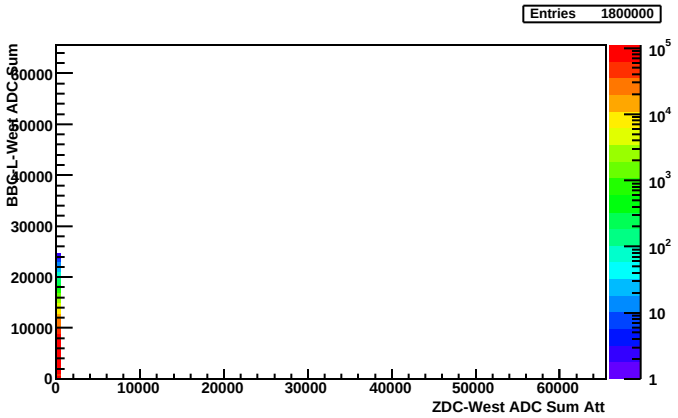

Entries 1800000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

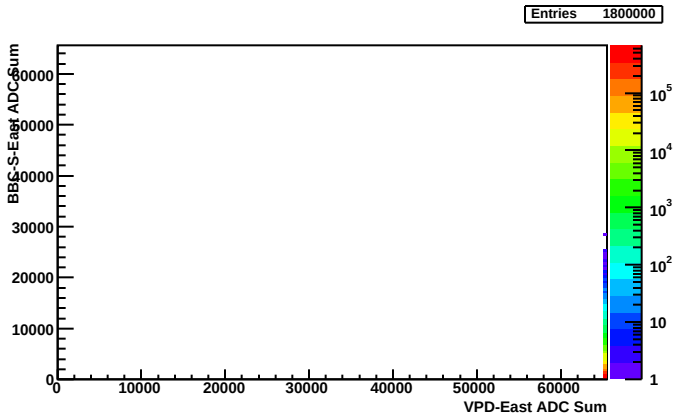

Entries 1800000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

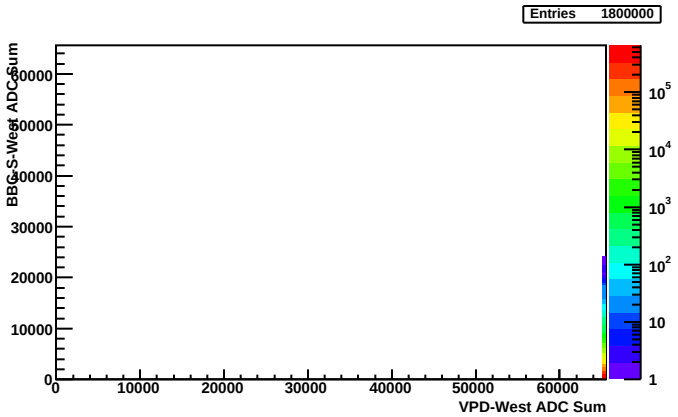

Entries 1800000
BBC-L-East ADC Sum
VPD-East ADC Sum

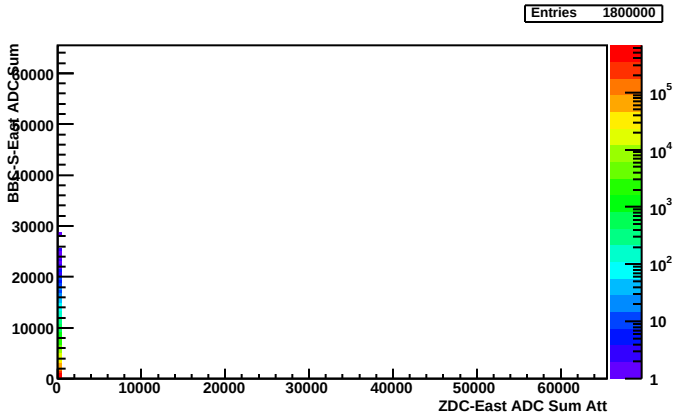

Entries 1800000
BBC-L-West ADC Sum
VPD-West ADC Sum

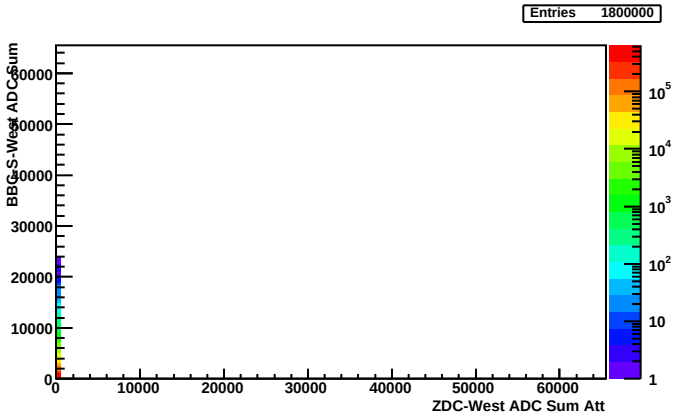

Entries 1800000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

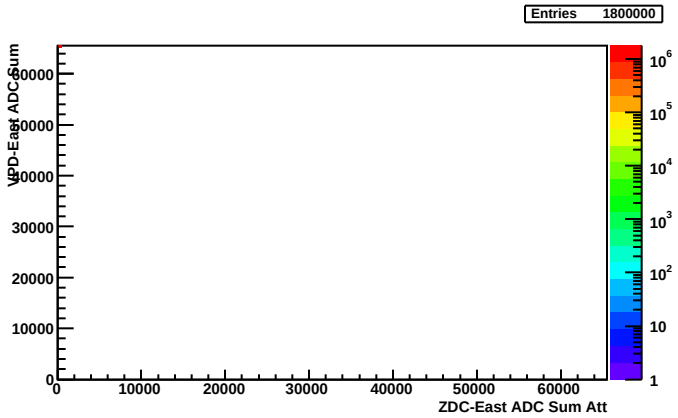

Entries 1800000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

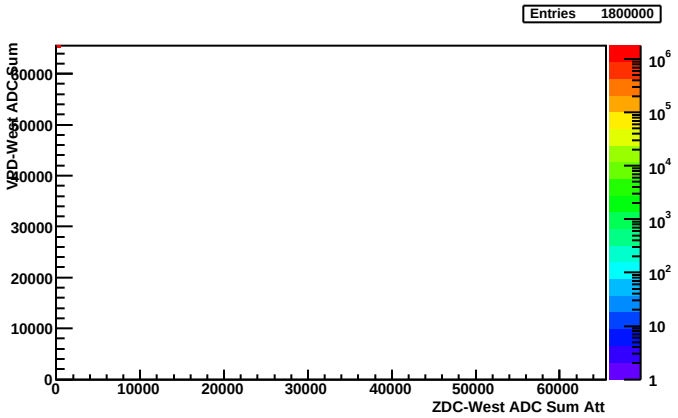

Entries 1800000
BBC-S-East ADC Sum
VPD-East ADC Sum

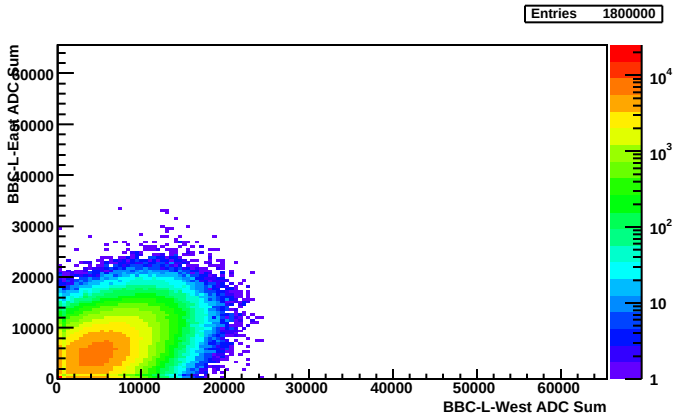

Entries 1800000
BBC-S-West ADC Sum
VPD-West ADC Sum

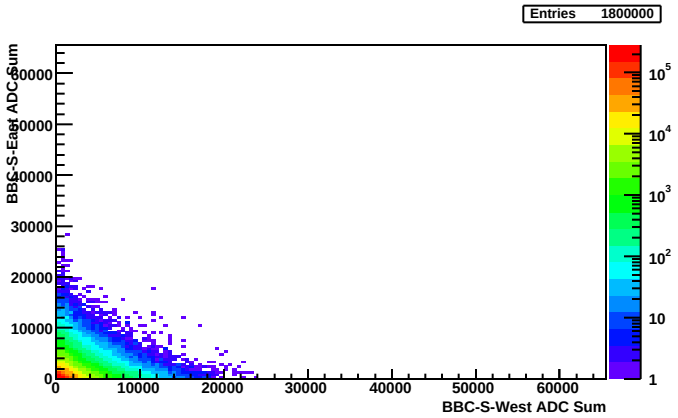

Entries 1800000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

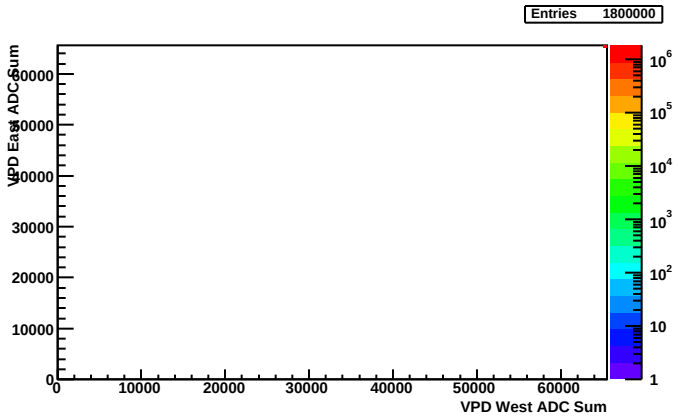

Entries 1800000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

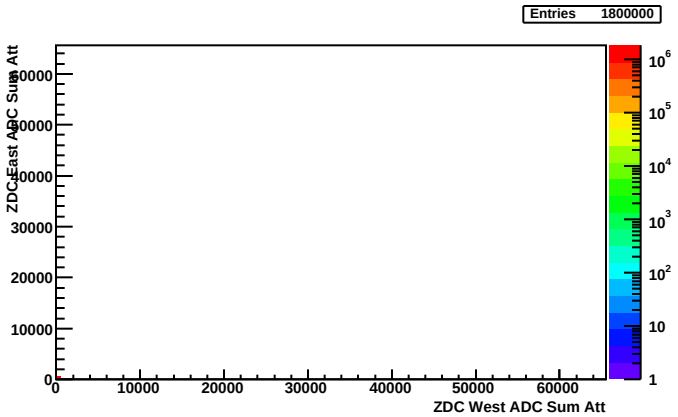

Entries 1800000
VPD-East ADC Sum
ZDC-East ADC Sum Att

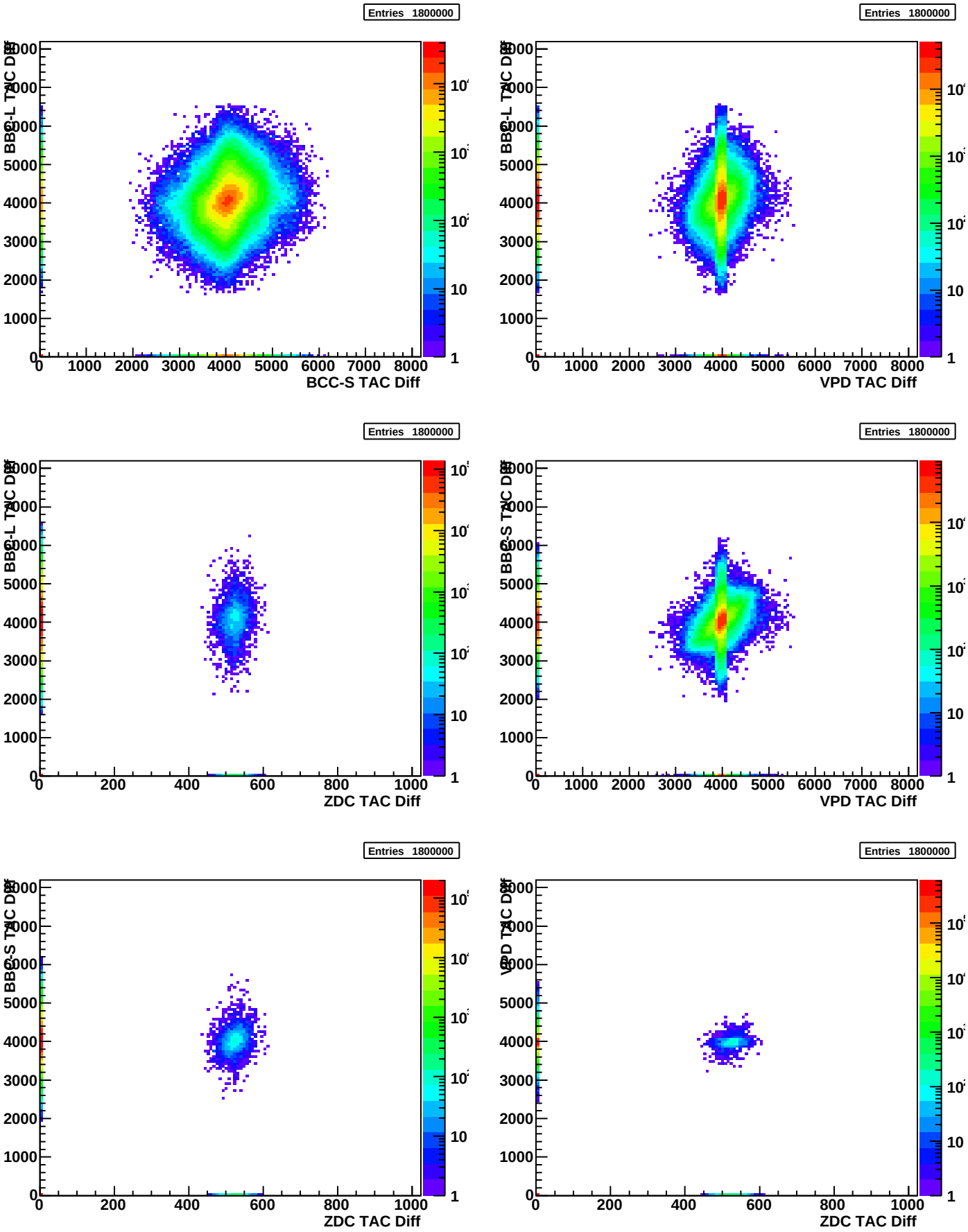

Entries 1800000
VPD-West ADC Sum
ZDC-West ADC Sum Att

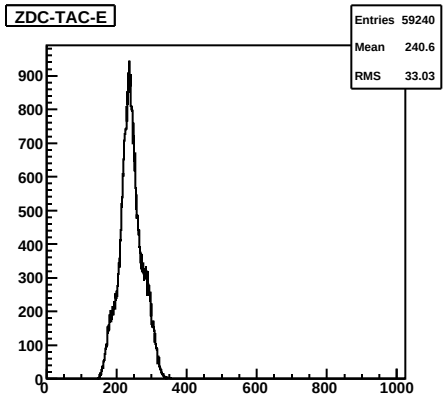

Entries 1800000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

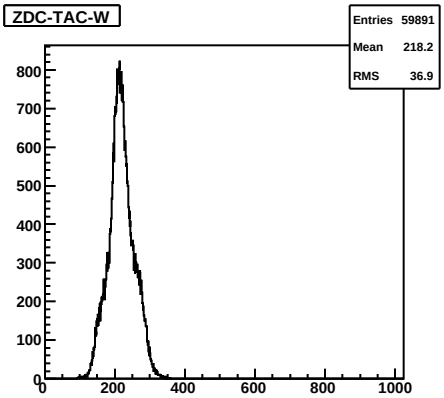

Entries 1800000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

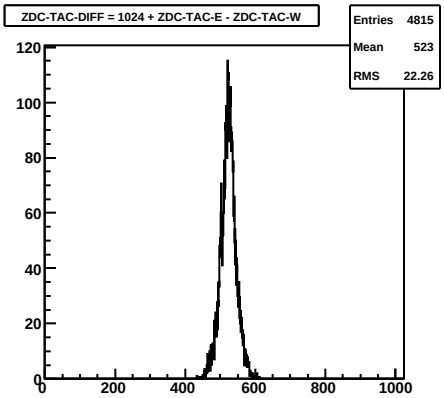

Entries 1800000
VPD East ADC Sum
VPD West ADC Sum

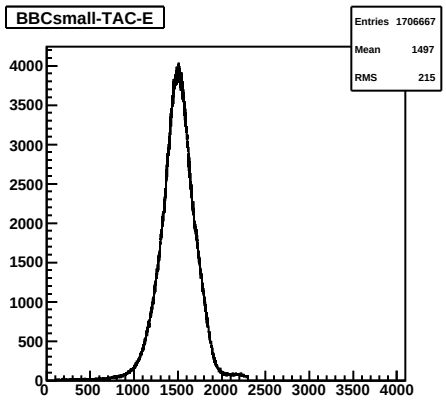

Entries 1800000
ZDC-East ADC Sum Att
ZDC West ADC Sum Att

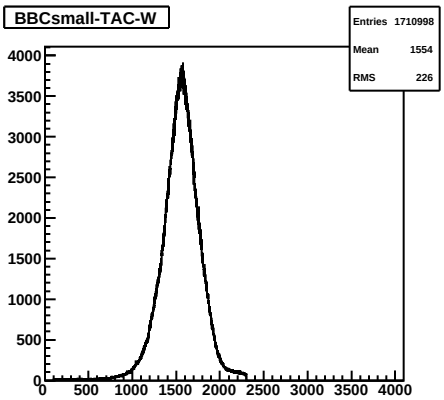

Entries 1800000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 1800000
BBC-L TAC Diff
VPD TAC Diff
Entries 1800000
BBC-L TAC Diff
ZDC TAC Diff
Entries 1800000
BBC-S TAC Diff
VPD TAC Diff
Entries 1800000
BBC-S TAC Diff
ZDC TAC Diff
Entries 1800000
VPD TAC Diff
ZDC TAC Diff

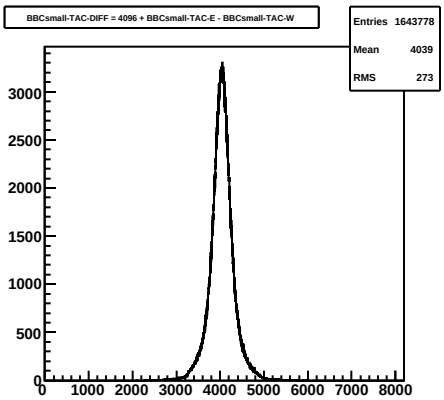

ZDC-TAC-E
Entries 59240
Mean 240.6
RMS 33.03

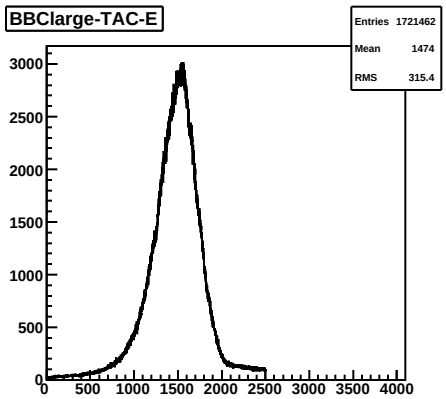

ZDC-TAC-W
Entries 59891
Mean 218.2
RMS 36.9

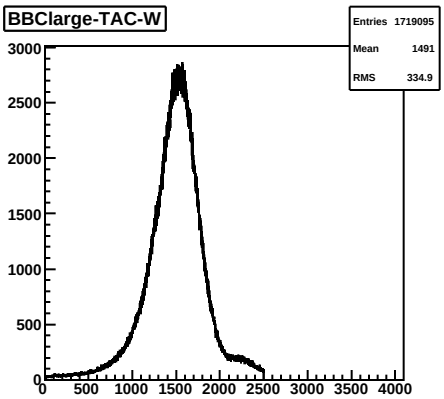

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 4815
Mean 523
RMS 22.26

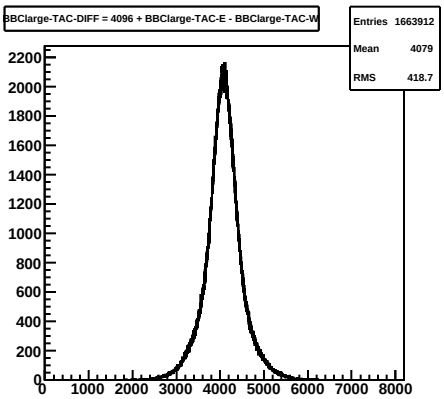

BBCsmall-TAC-E
Entries 1706667
Mean 1497
RMS 215

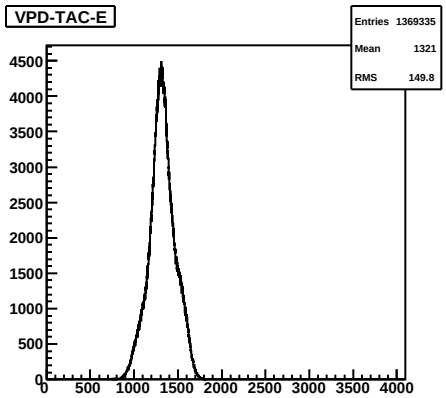

BBCsmall-TAC-W
Entries 1710998
Mean 1554
RMS 226

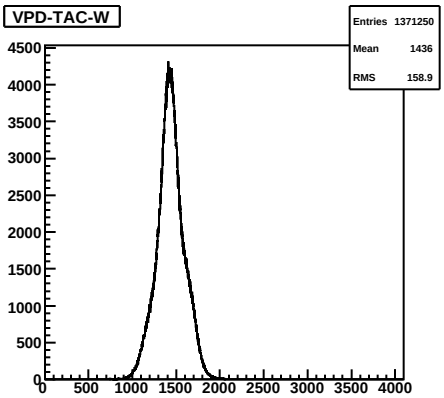

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 1643778
Mean 4039
RMS 273

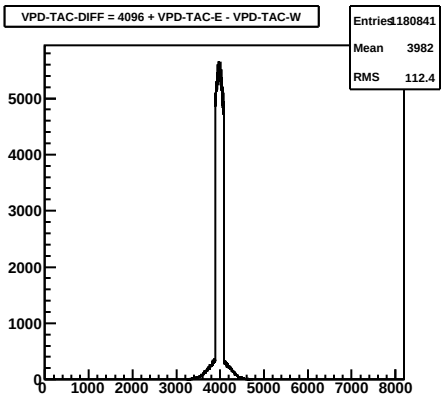

BBClarge-TAC-E
Entries 1721462
Mean 1474
RMS 315.4

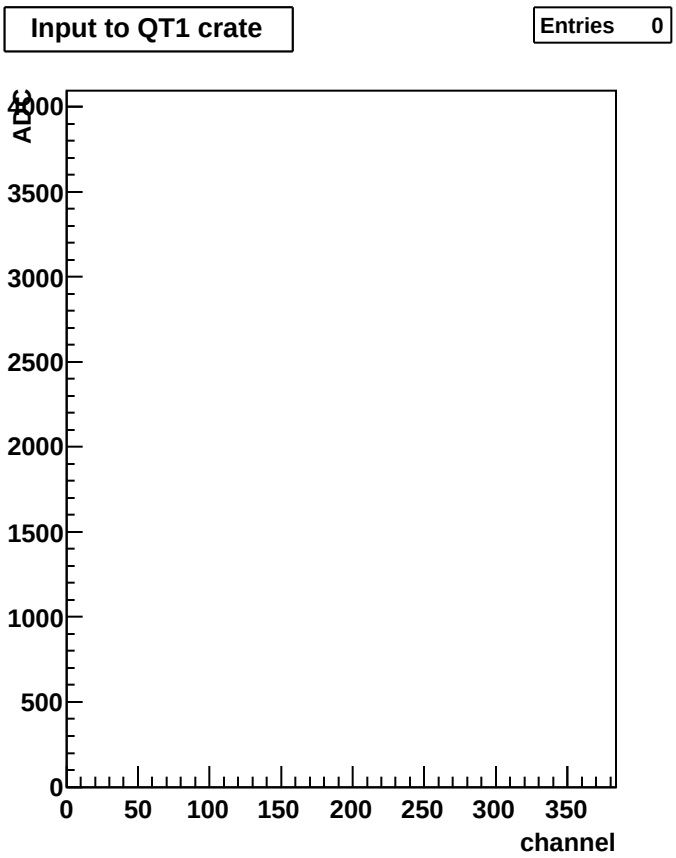

BBClarge-TAC-W
Entries 1719095
Mean 1491
RMS 334.9

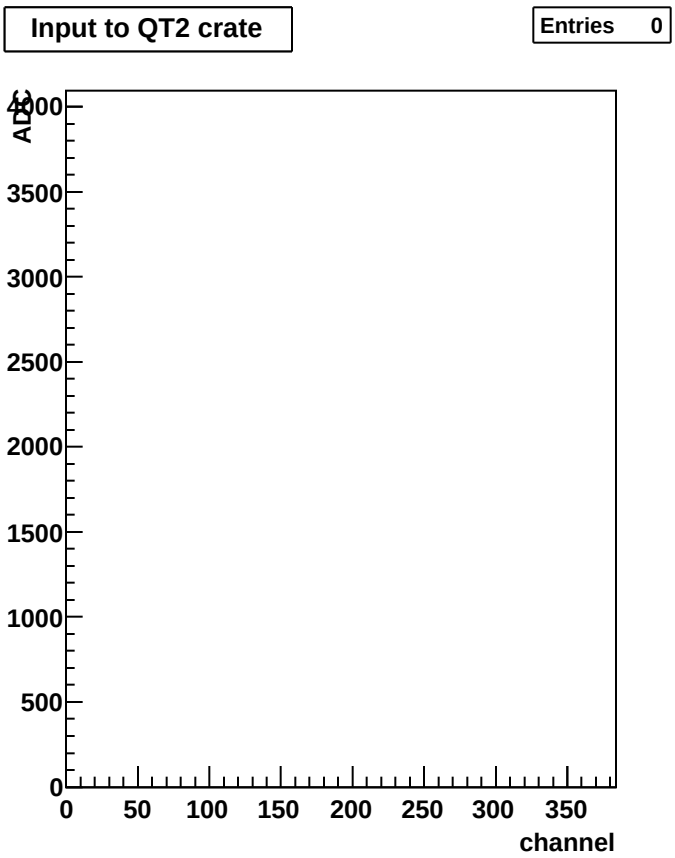

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 1663912
Mean 4079
RMS 418.7

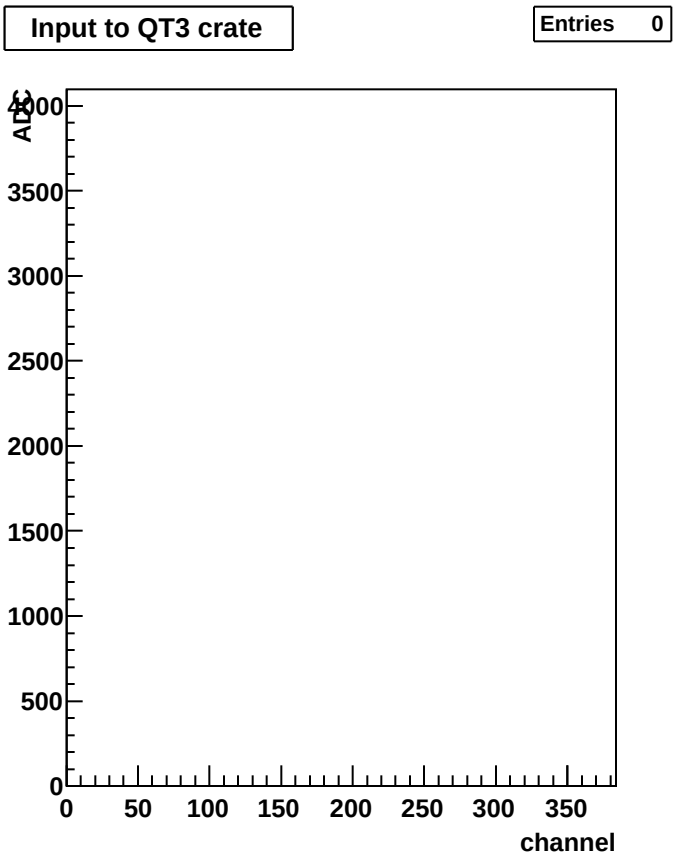

VPD-TAC-E
Entries 1369335
Mean 1321
RMS 149.8

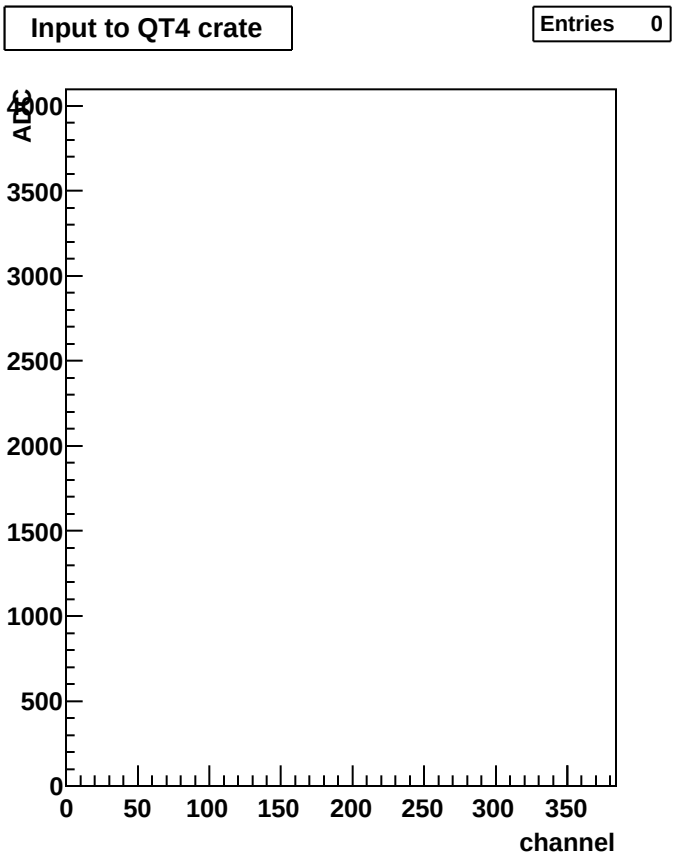

VPD-TAC-W
Entries 1371250
Mean 1436
RMS 158.9

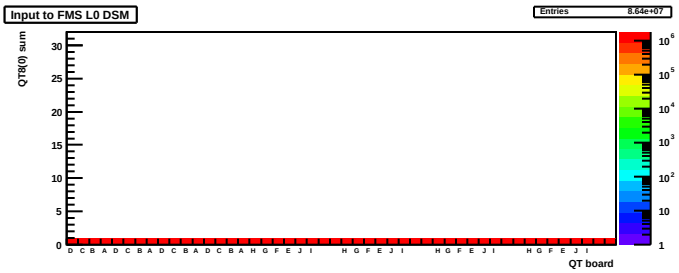

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1180841
Mean 3982
RMS 112.4

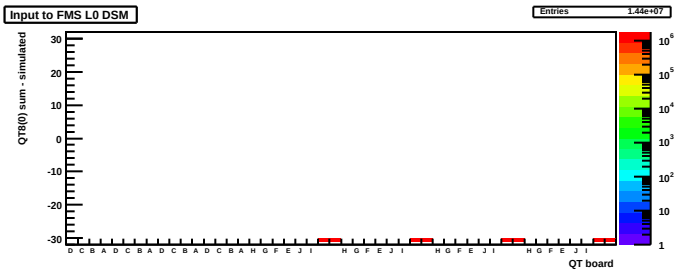

Input to QT1 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

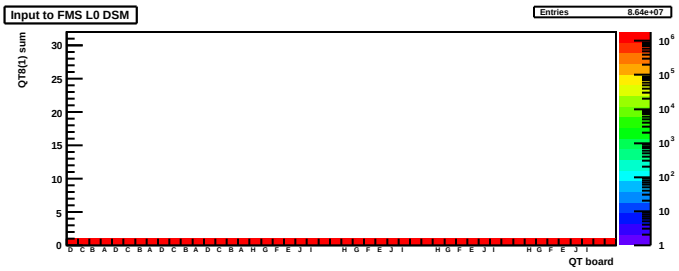

Input to QT2 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

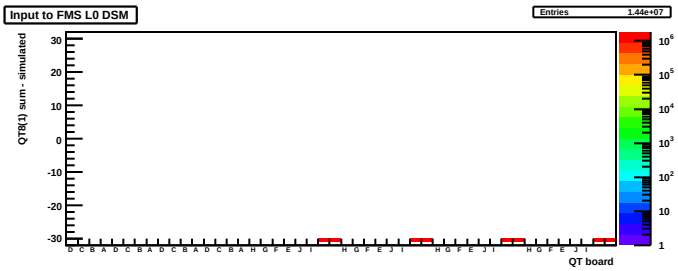

Input to QT3 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

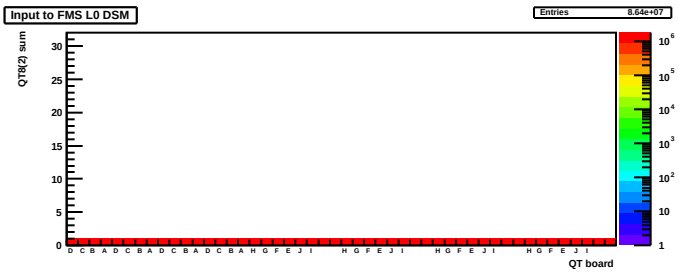

Input to QT4 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

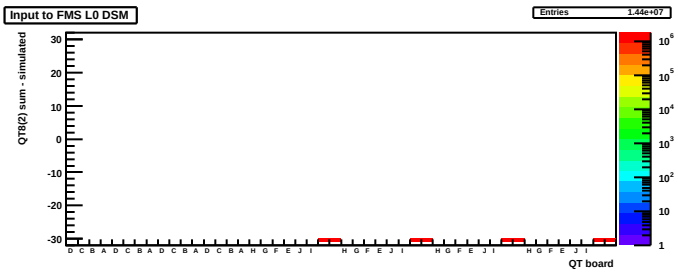

Input to FMS L0 DSM
Entries 8.64e+07
QT8(0) sum
QT board

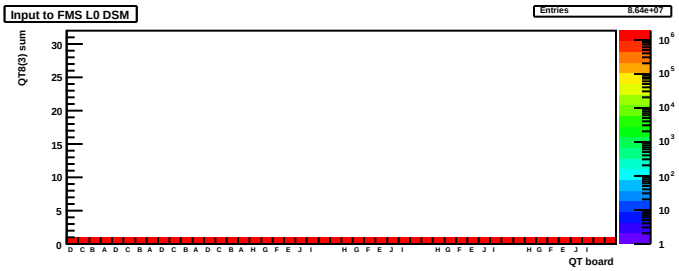

Input to FMS L0 DSM
Entries 1.44e+07
QT8(0) sum - simulated
QT board

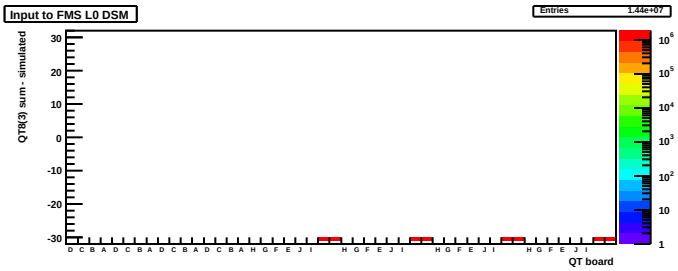

Input to FMS L0 DSM
Entries 8.64e+07
QT8(1) sum
QT board

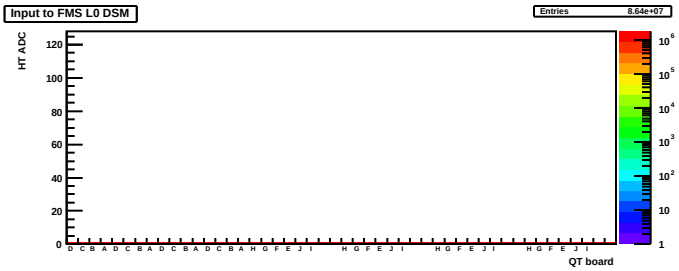

Input to FMS L0 DSM
Entries 1.44e+07
QT8(1) sum - simulated
QT board

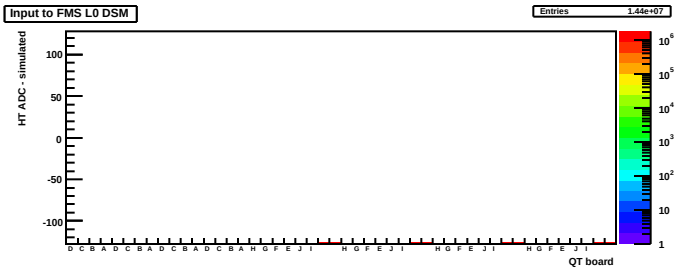

Input to FMS L0 DSM
Entries 8.64e+07
QT8(2) sum
QT board

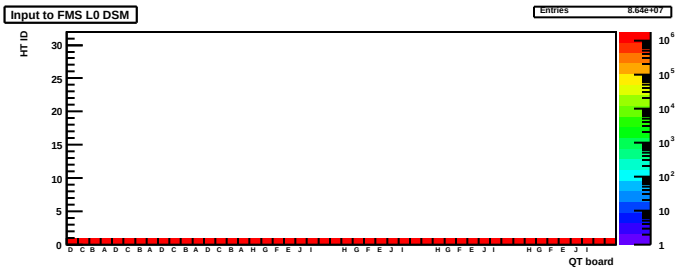

Input to FMS L0 DSM
Entries 1.44e+07
QT8(2) sum - simulated
QT board

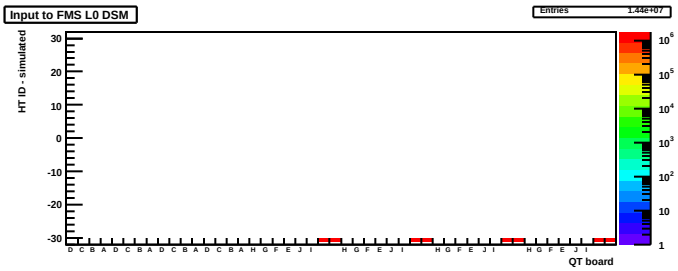

Input to FMS L0 DSM
Entries 8.64e+07
QT8(3) sum
QT board

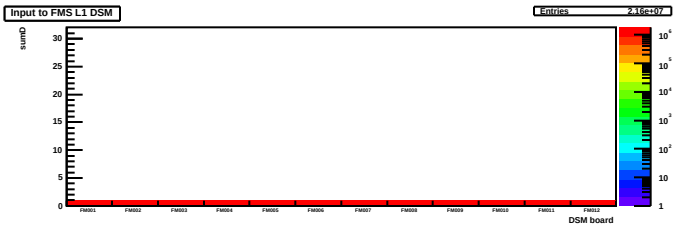

Input to FMS L0 DSM
Entries 1.44e+07
QT8(3) sum - simulated
QT board

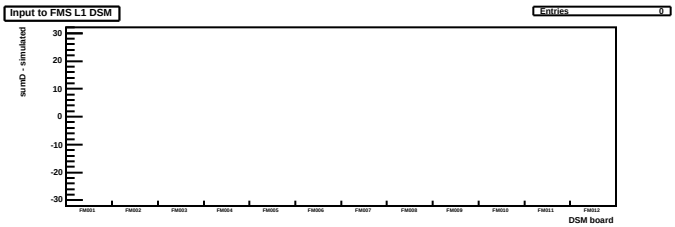

Input to FMS L0 DSM
Entries 8.64e+07
HT ADC
QT board

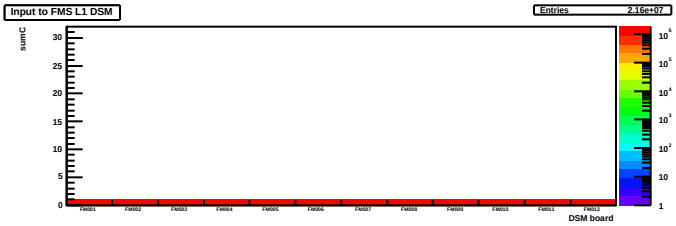

Input to FMS L0 DSM
Entries 1.44e+07
HT ADC - simulated
QT board

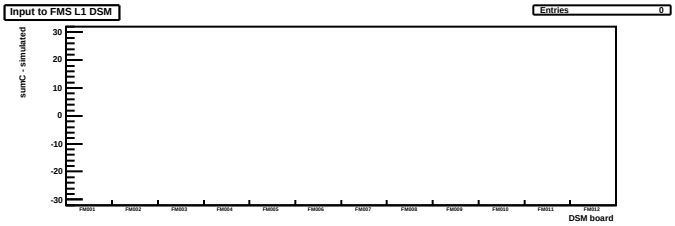

Input to FMS L0 DSM
Entries 8.64e+07
HT ID
QT board

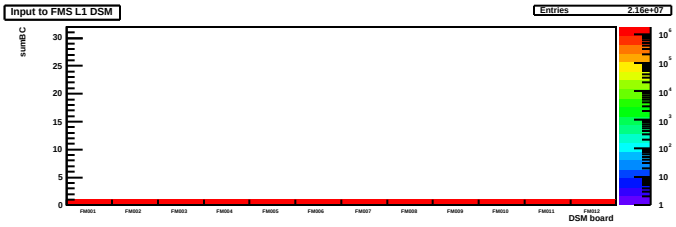

Input to FMS L0 DSM
Entries 1.44e+07
HT ID - simulated
QT board

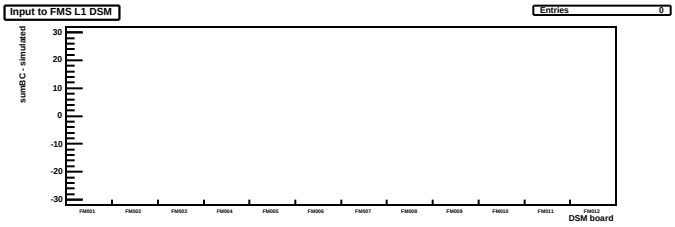

Input to FMS L1 DSM
Entries 2.16e+07
sumD
DSM board

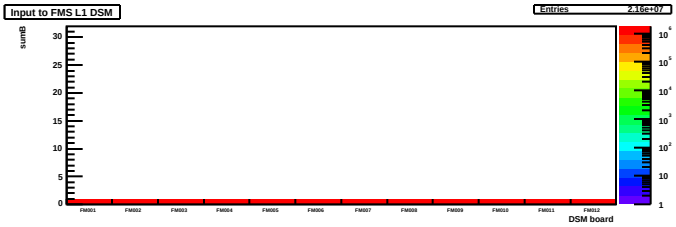

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

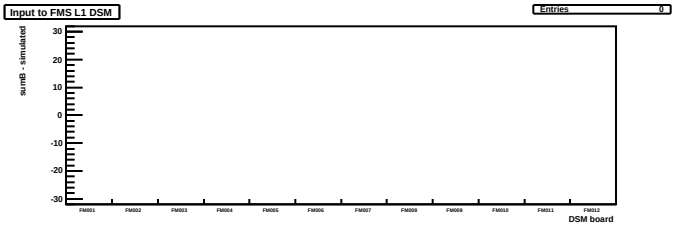

Input to FMS L1 DSM
Entries 2.16e+07
sumC
DSM board

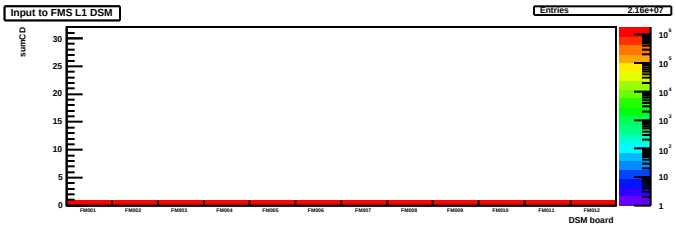

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

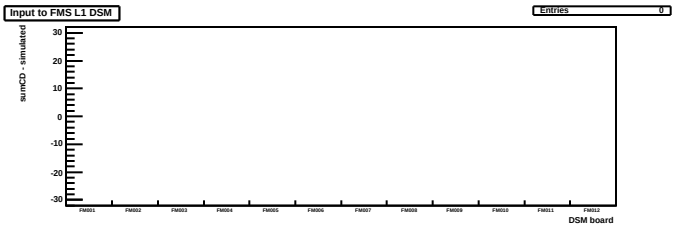

Input to FMS L1 DSM
Entries 2.16e+07
sumBC
DSM board

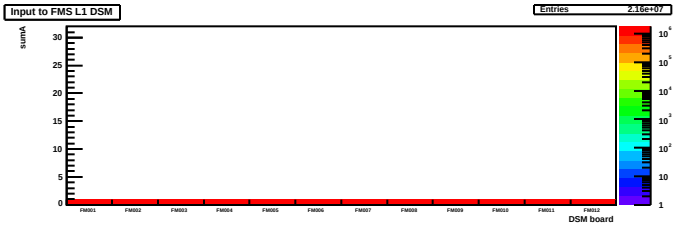

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

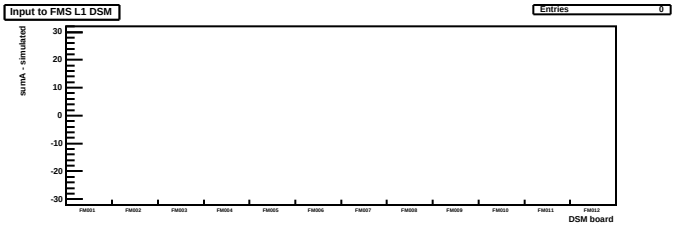

Input to FMS L1 DSM
Entries 2.16e+07
sumB
DSM board

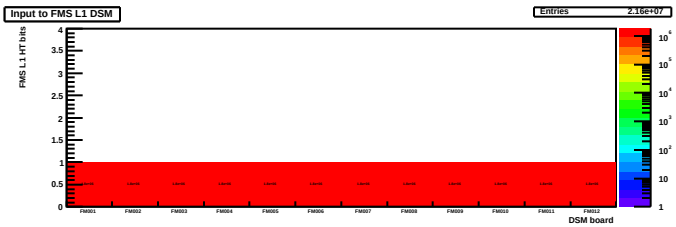

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

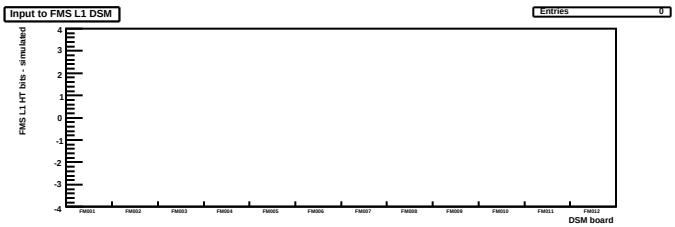

Input to FMS L1 DSM
Entries 2.16e+07
sumCD
DSM board

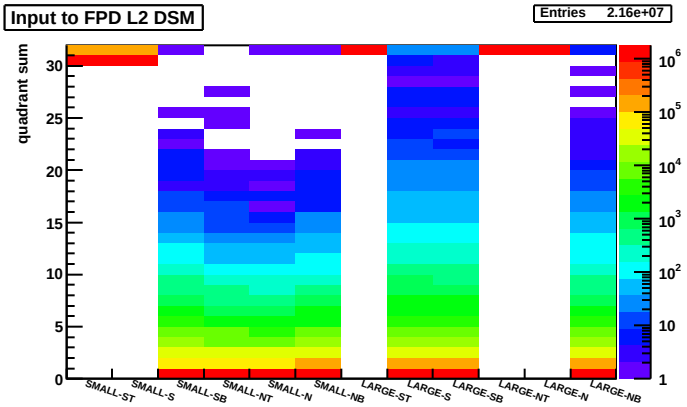

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

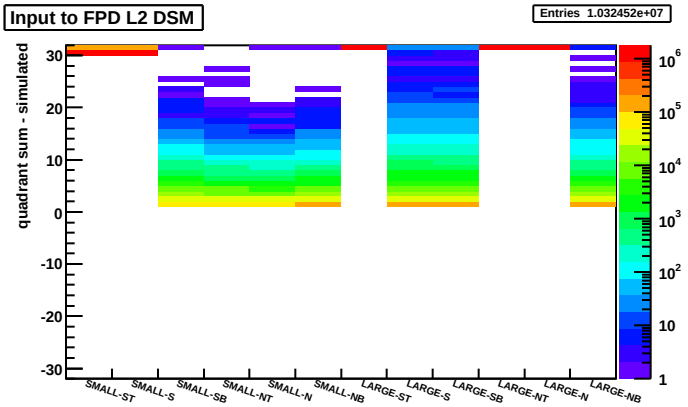

Input to FMS L1 DSM
Entries 2.16e+07
sumA
DSM board

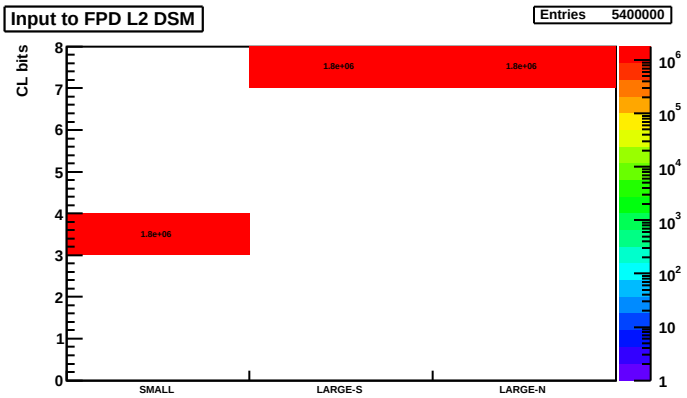

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

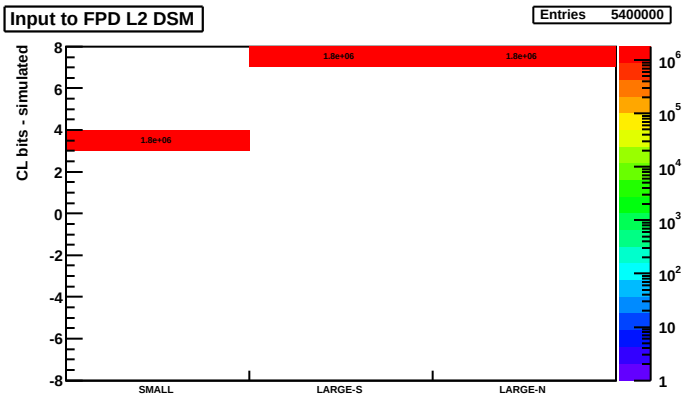

Input to FMS L1 DSM
Entries 2.16e+07
FMS L1 HT bits
DSM board

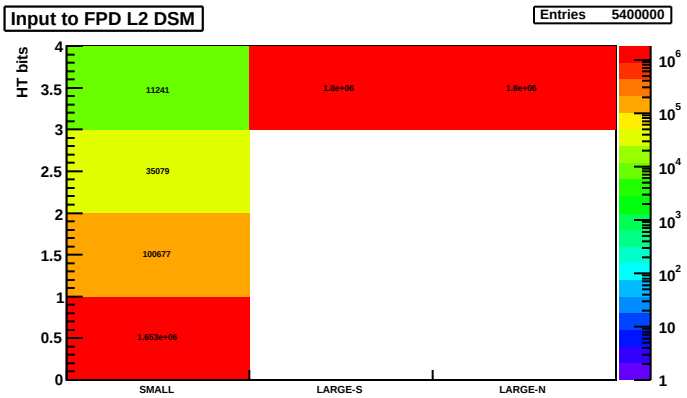

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

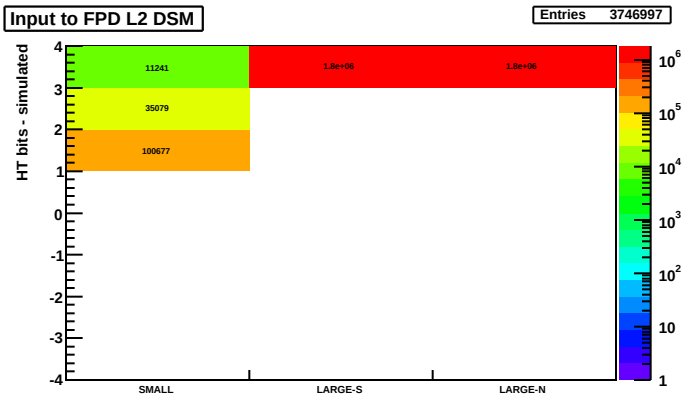

Input to FPD L2 DSM
Entries 2.16e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

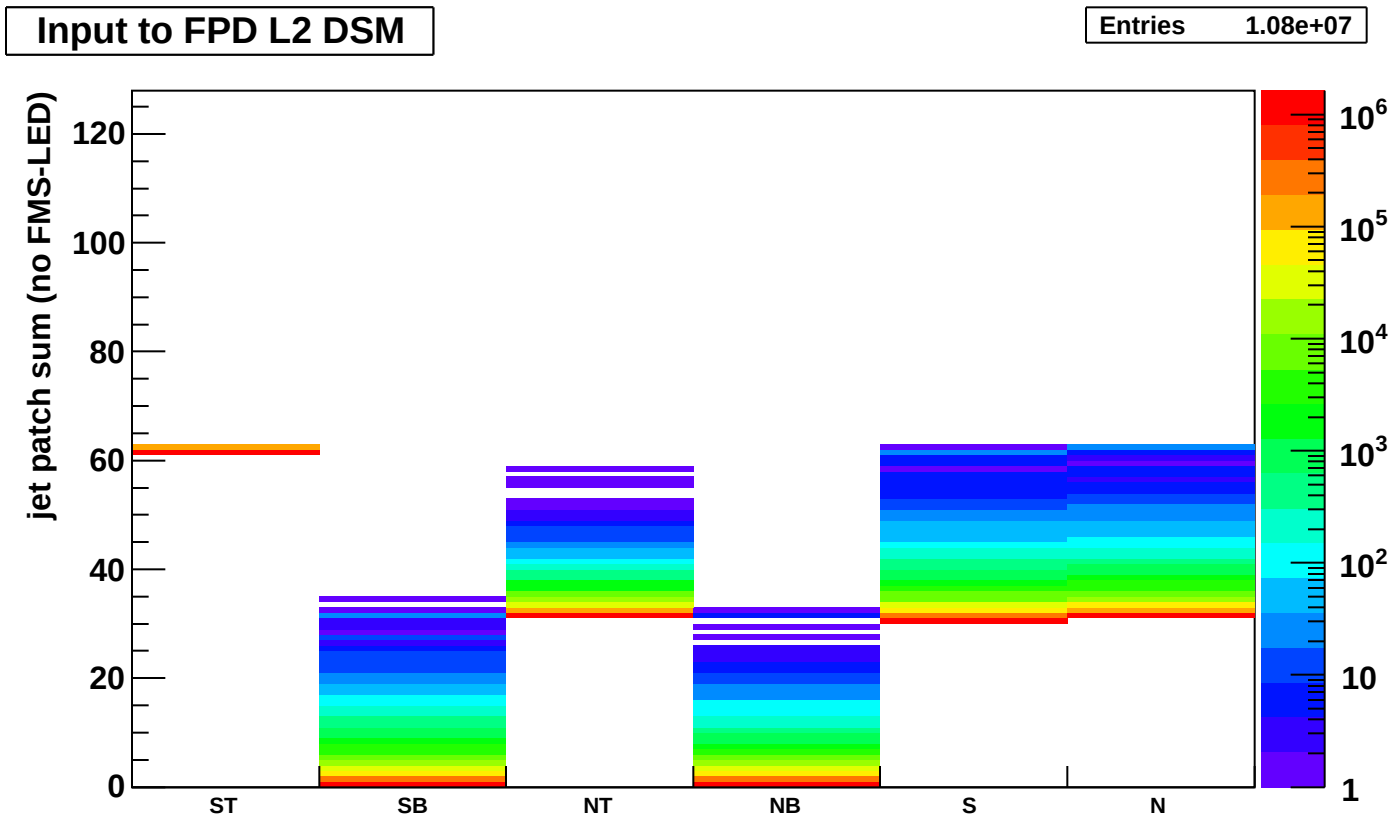

Input to FPD L2 DSM
Entries 1.032452e+07
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

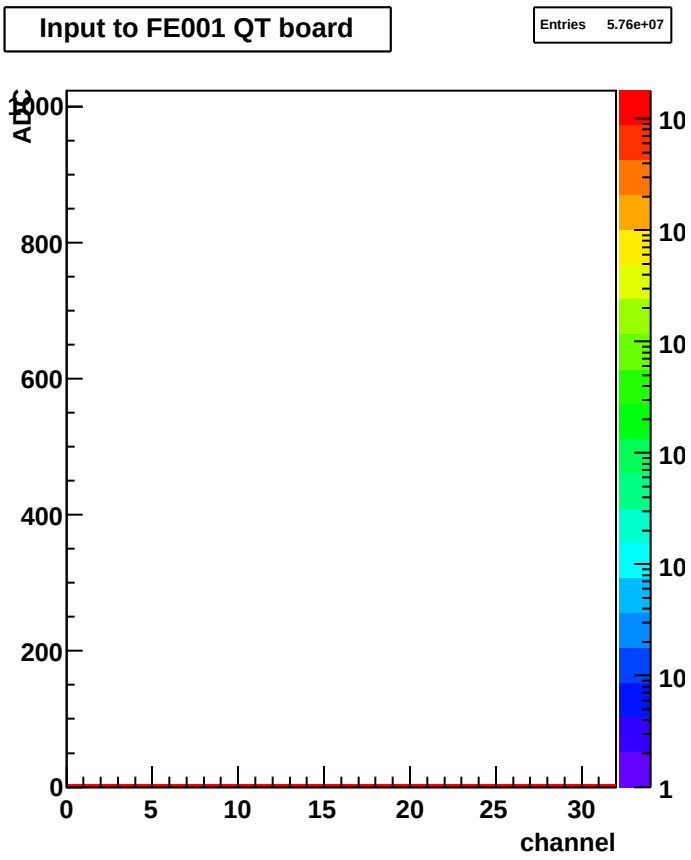

Input to FPD L2 DSM
Entries 5400000
CL bits
1.8e+06
1.8e+06
1.8e+06
SMALL
LARGE-S
LARGE-N

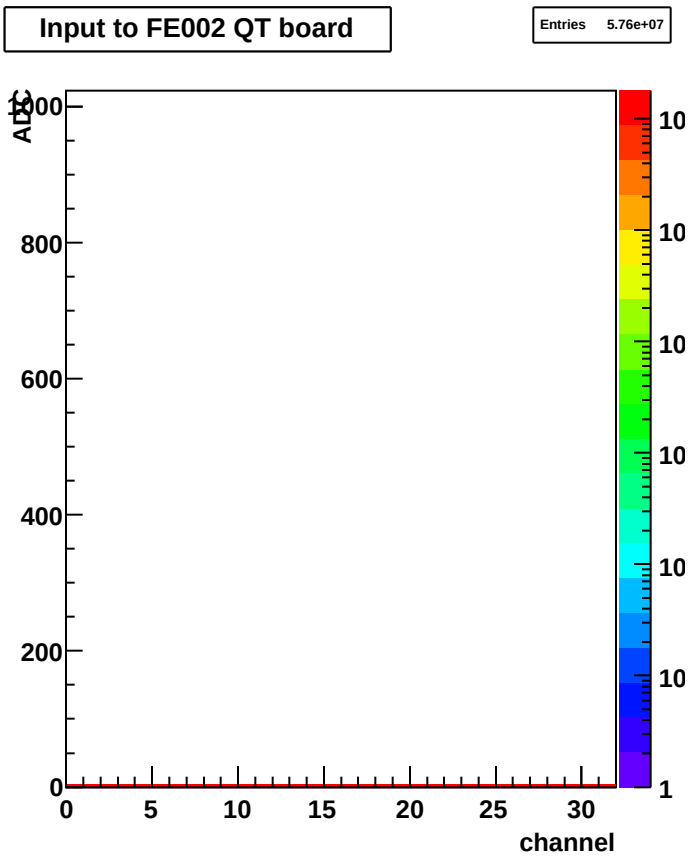

Input to FPD L2 DSM
Entries 5400000
CL bits - simulated
1.8e+06
1.8e+06
1.8e+06
SMALL
LARGE-S
LARGE-N

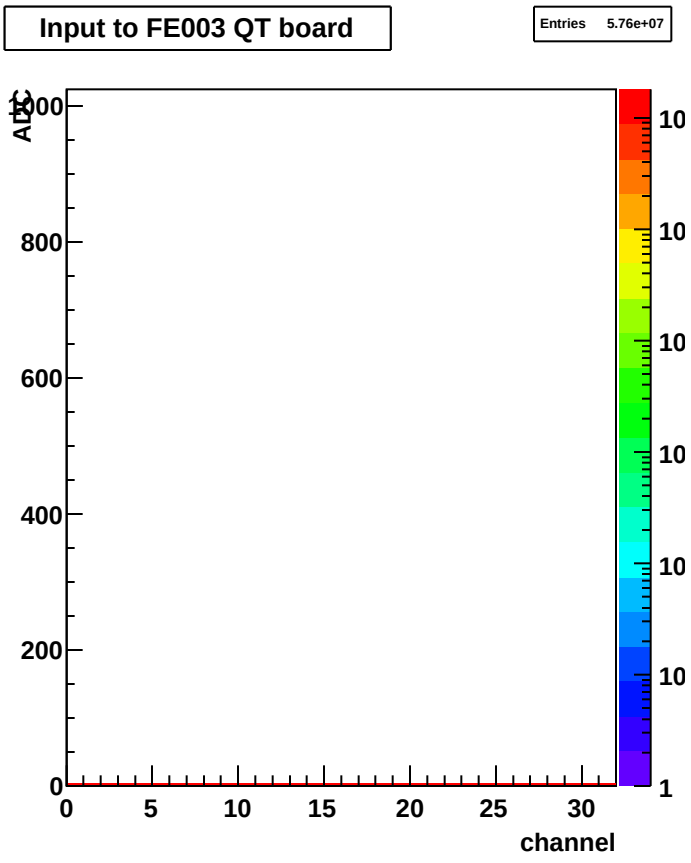

Input to FPD L2 DSM
Entries 5400000
HT bits
11241
35079
100677
1.653e+06
1.8e+06
1.8e+06
SMALL
LARGE-S
LARGE-N

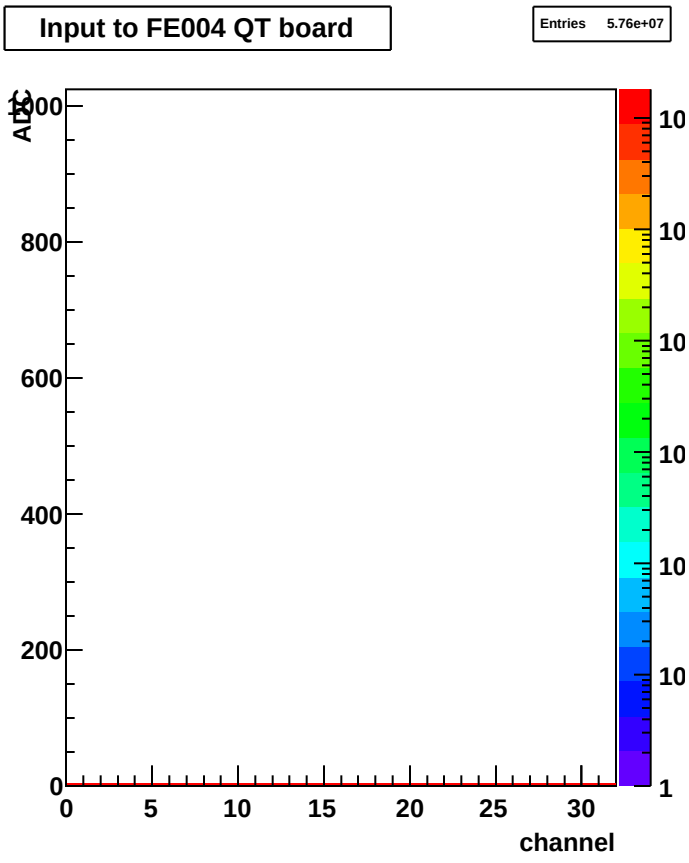

Input to FPD L2 DSM
Entries 3746997
HT bits - simulated
11241
35079
100677
1.8e+06
1.8e+06
SMALL
LARGE-S
LARGE-N

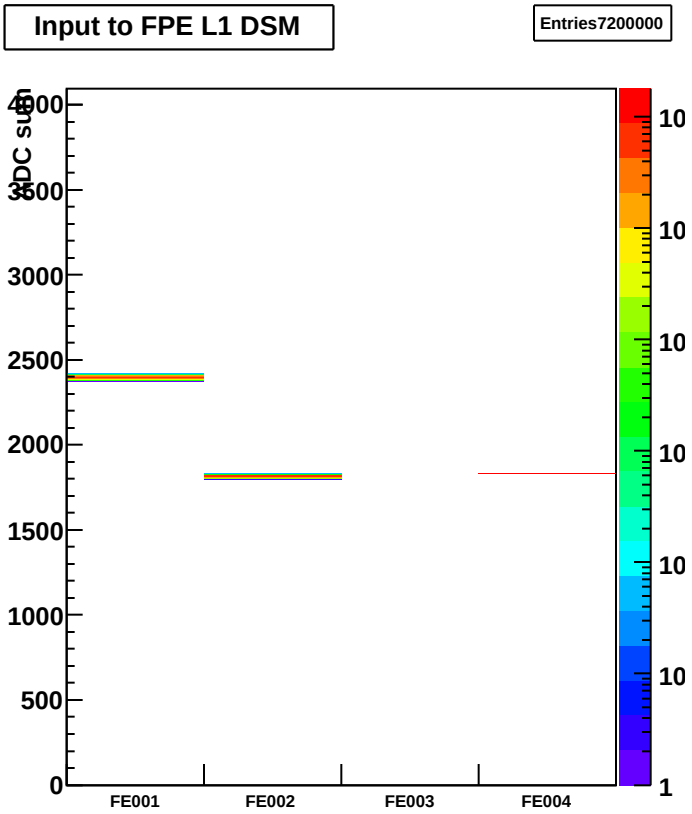

Input to FPD L2 DSM
Entries 1.08e+07
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6


Input to FE001 QT board
Entries 5.76e+07
ADC
channel

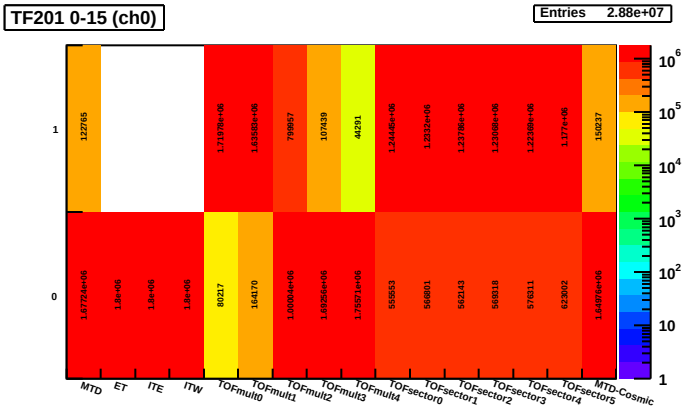

Input to FE002 QT board
Entries 5.76e+07
ADC
channel


Input to FE003 QT board
Entries 5.76e+07
ADC
channel

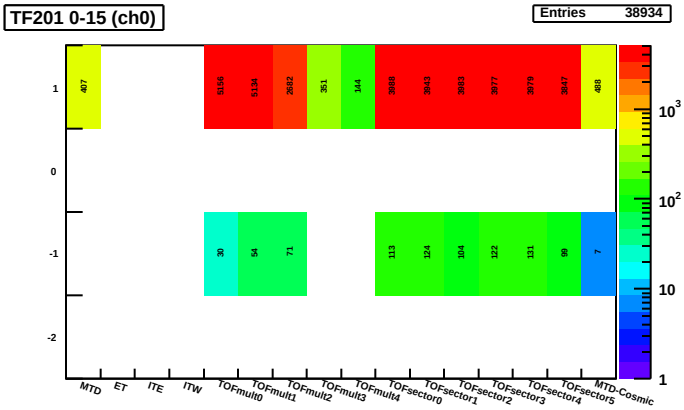

Input to FE004 QT board
Entries 5.76e+07
ADC
channel


Input to FPE L1 DSM
Entries7200000
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
10
1

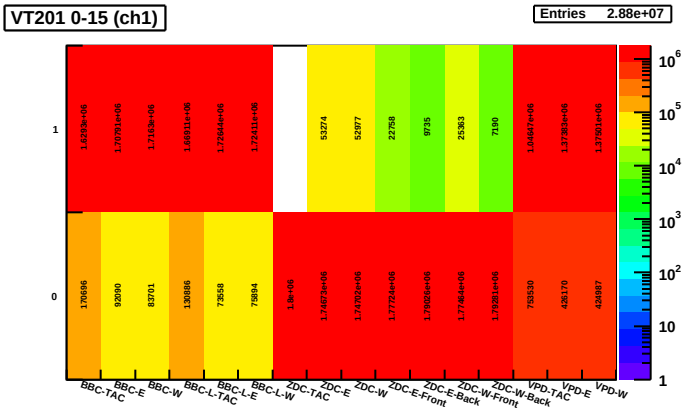
TF201 0-15 (ch0)



TF201 0-15 (ch0)



VT201 0-15 (ch1)



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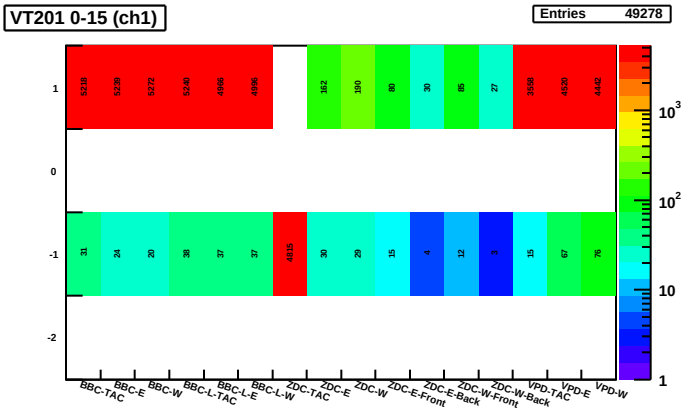

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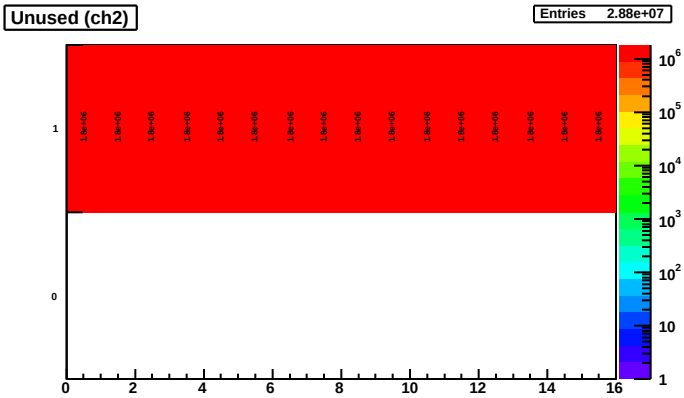

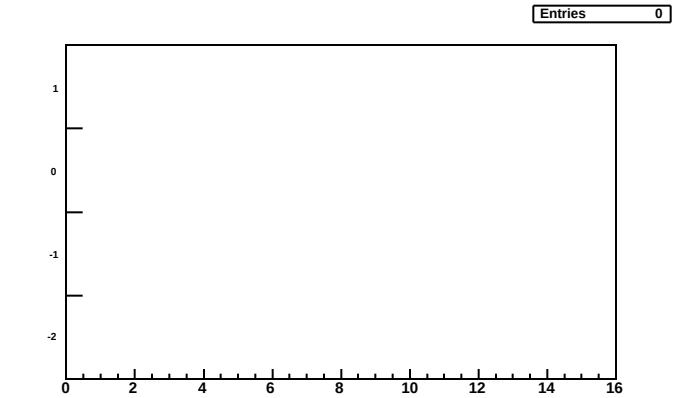

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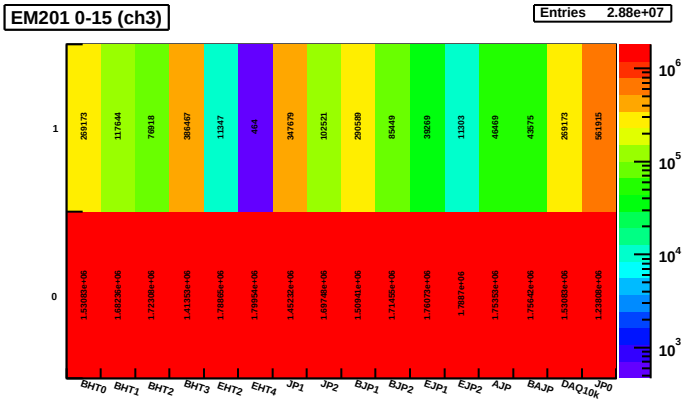

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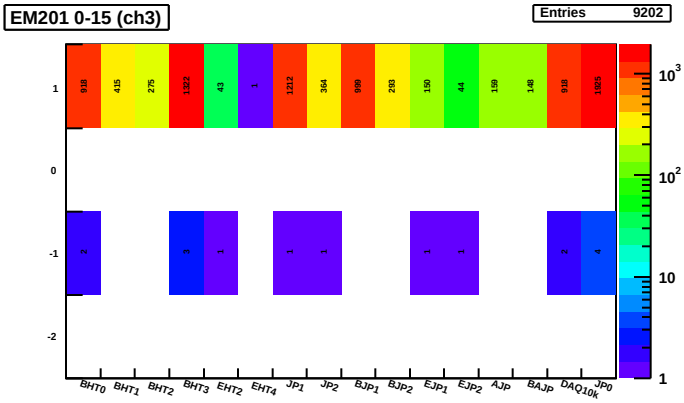
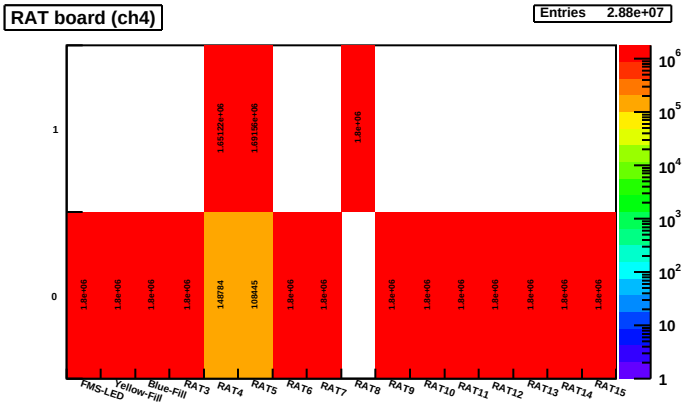
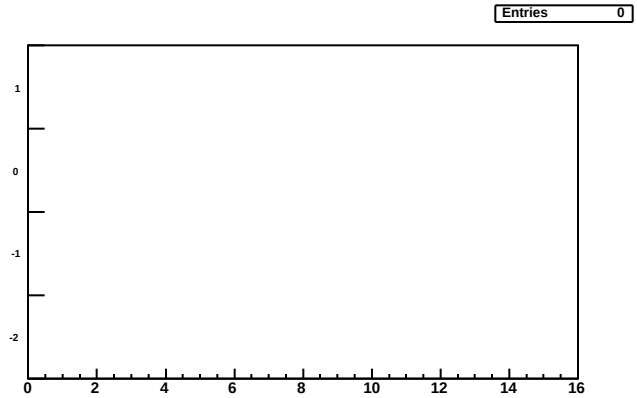


RAT board (ch4)





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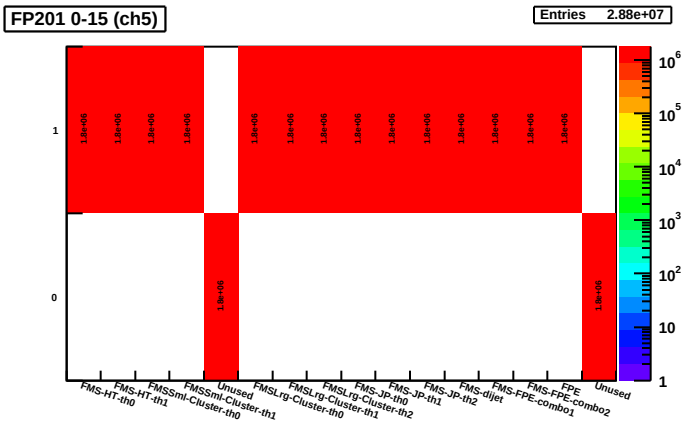

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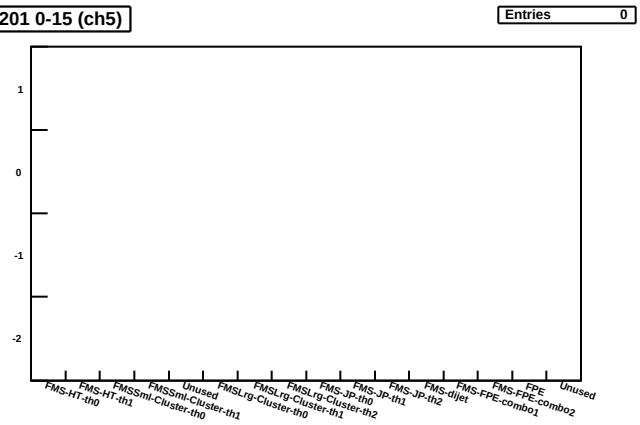

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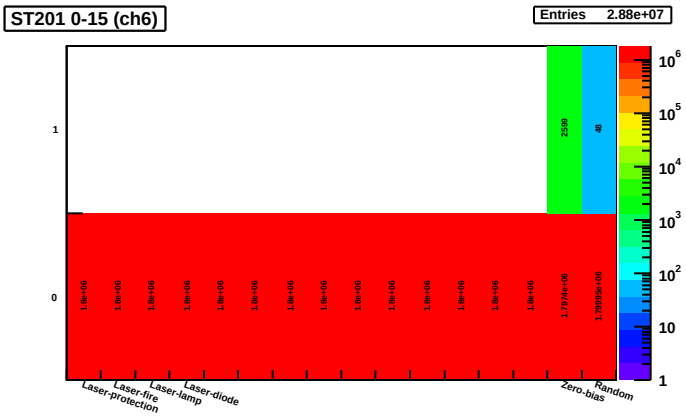

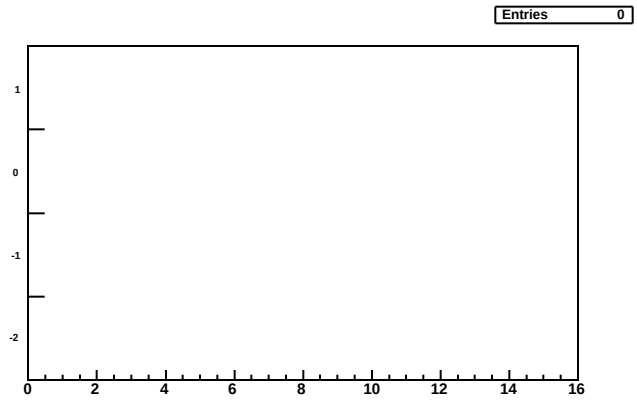
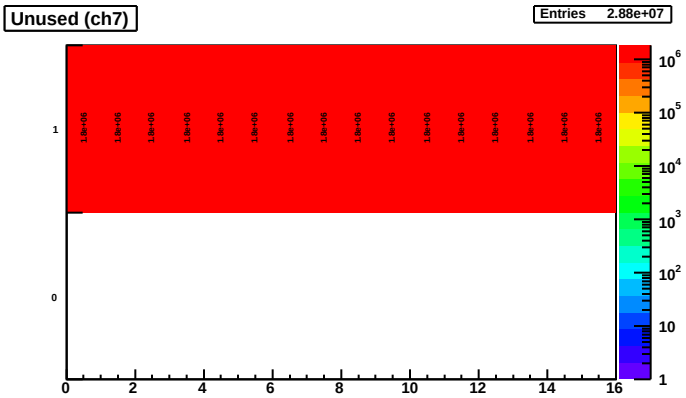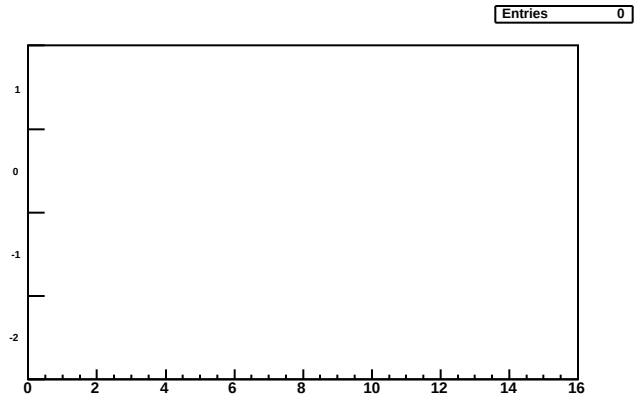
Unused (ch7)