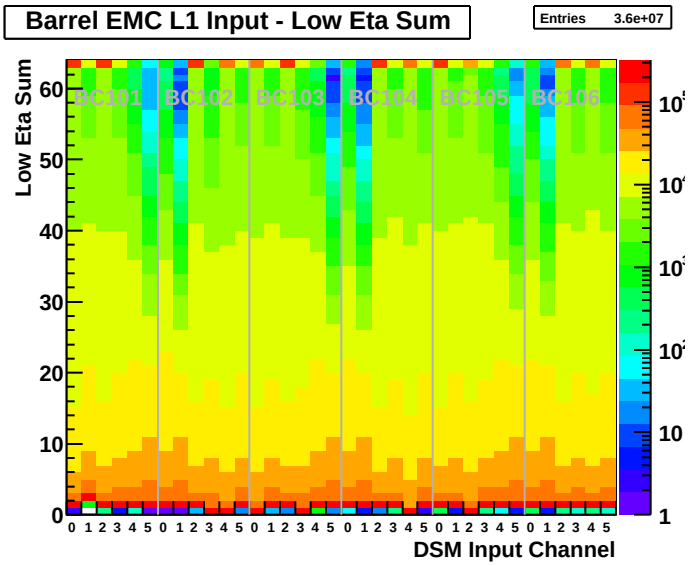
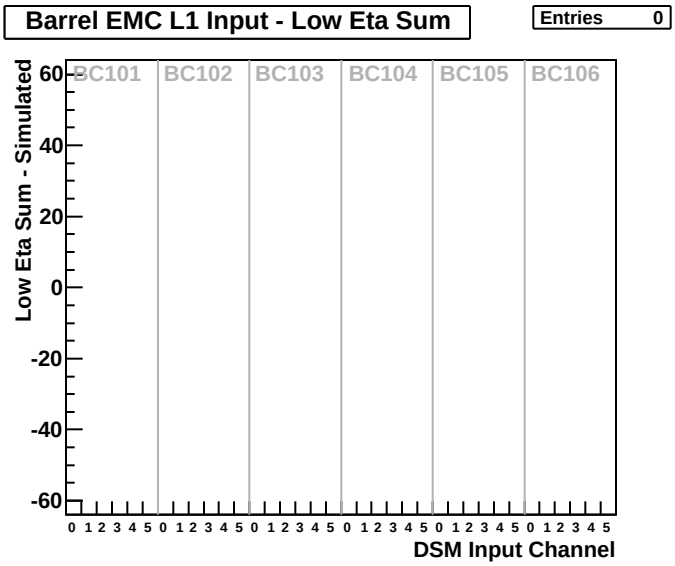
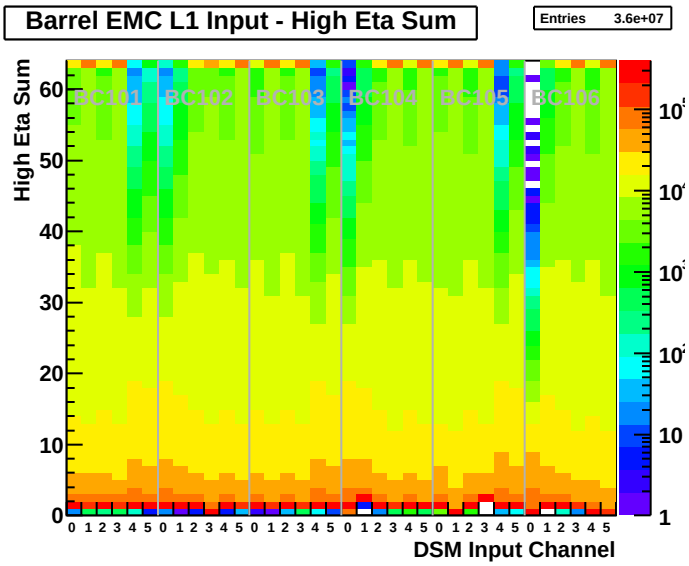
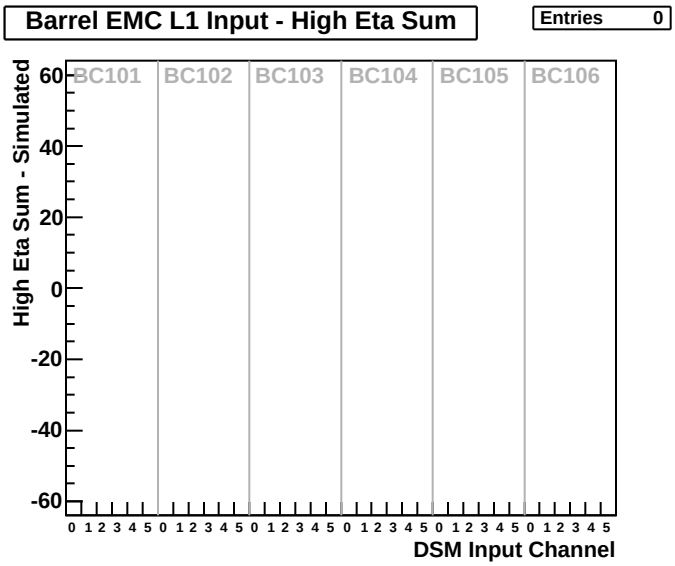
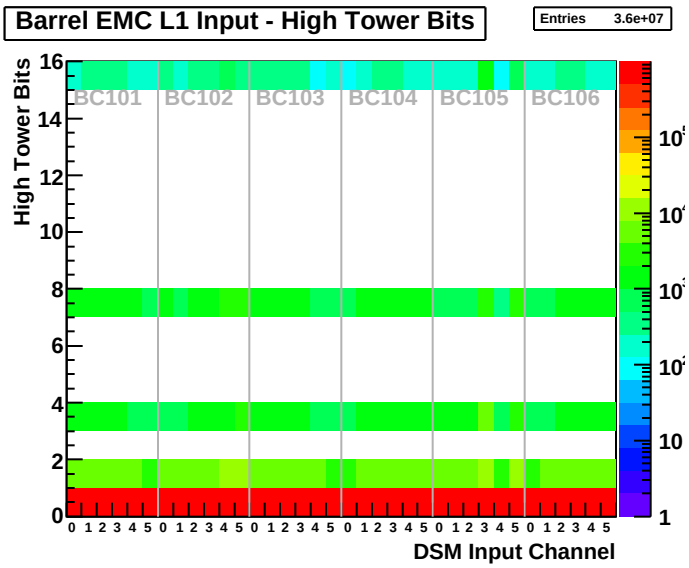
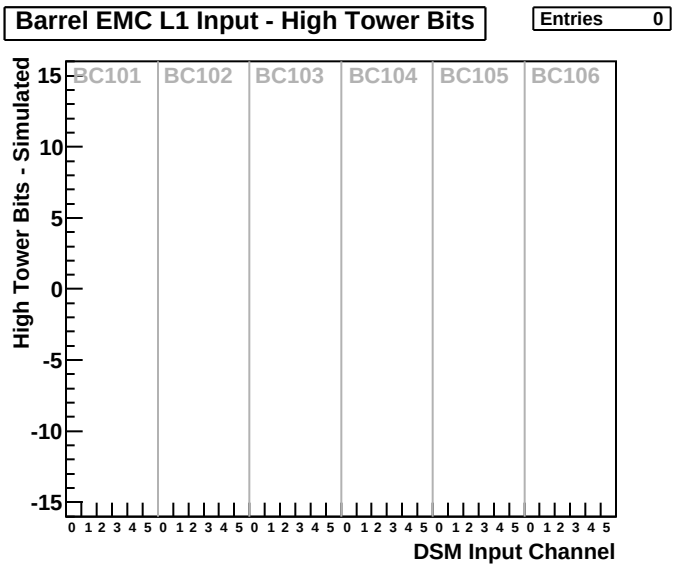

Barrel EMC L1 Input - Low Eta Sum
Entries 3.6e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

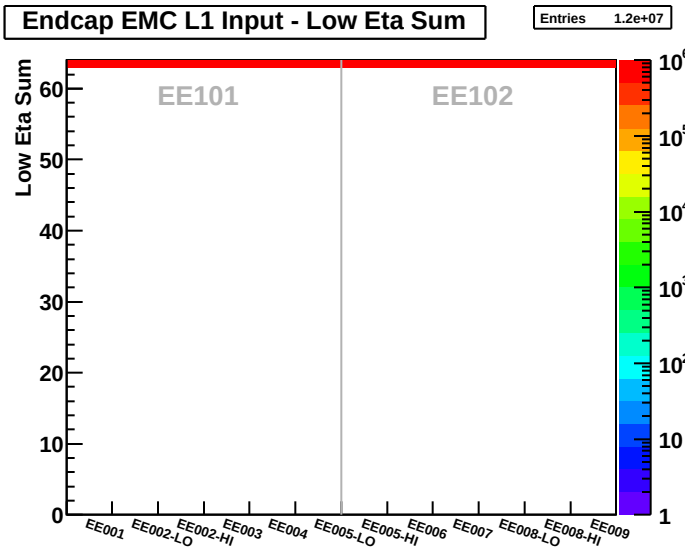

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

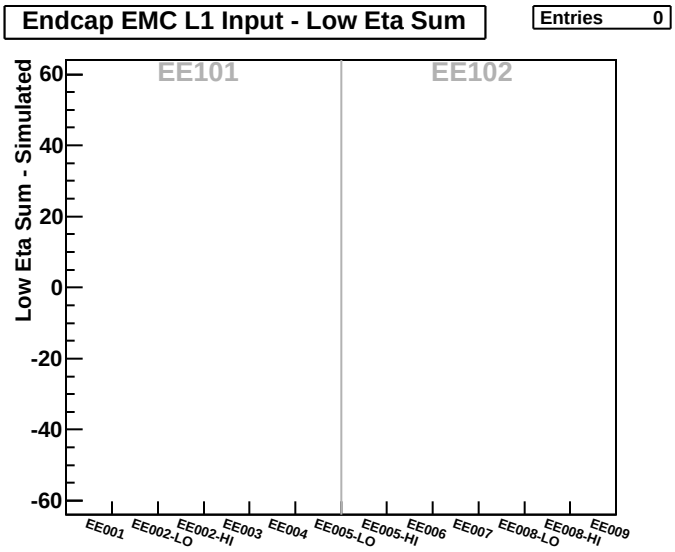

Barrel EMC L1 Input - High Eta Sum
Entries 3.6e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

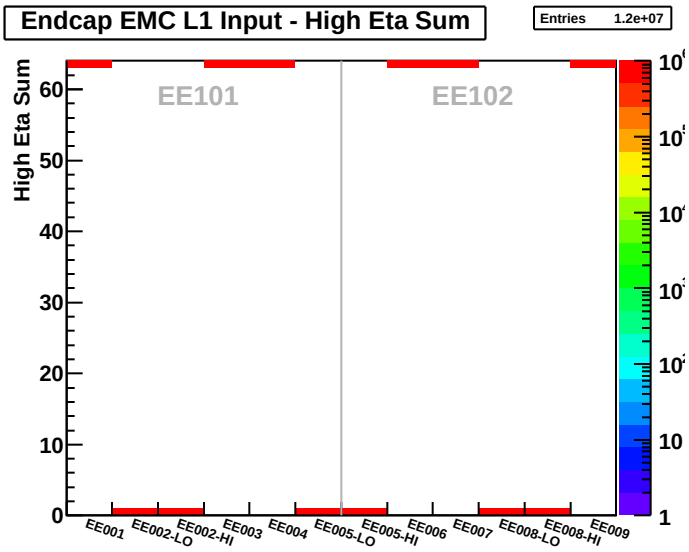

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

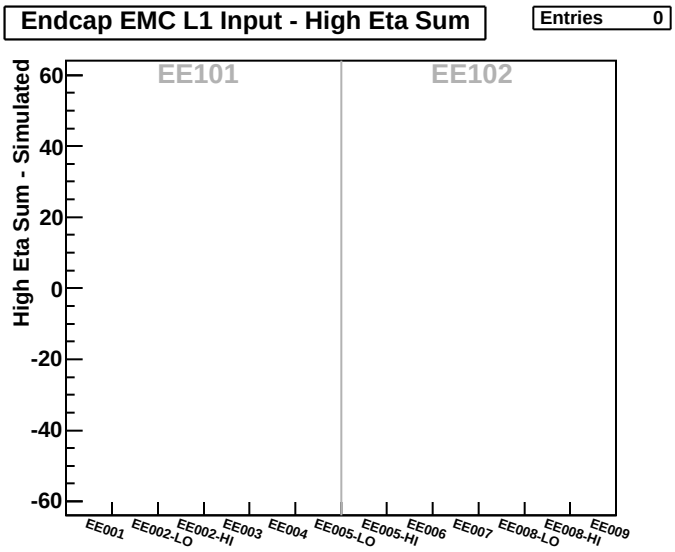

Barrel EMC L1 Input - High Tower Bits
Entries 3.6e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

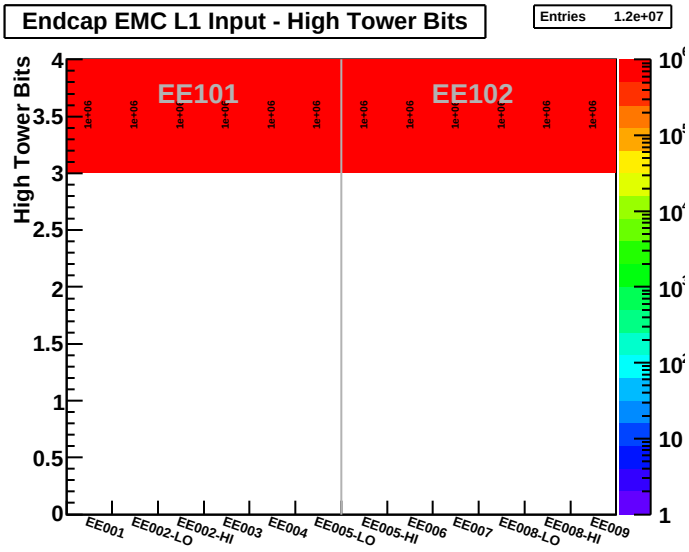

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

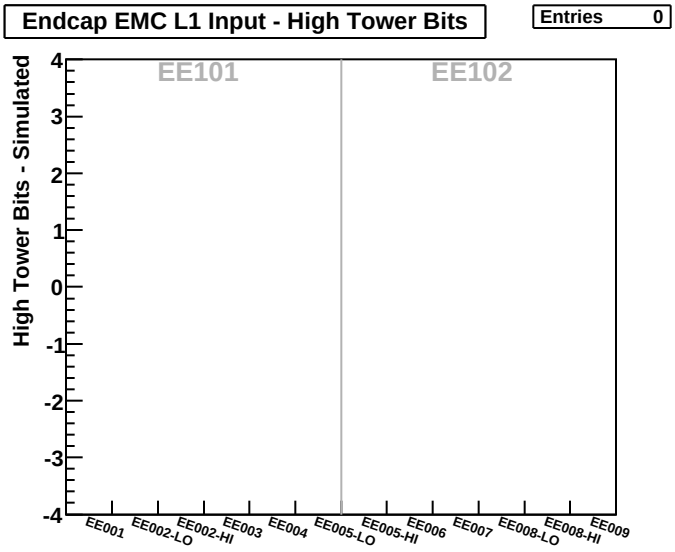

Endcap EMC L1 Input - Low Eta Sum
Entries 1.2e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

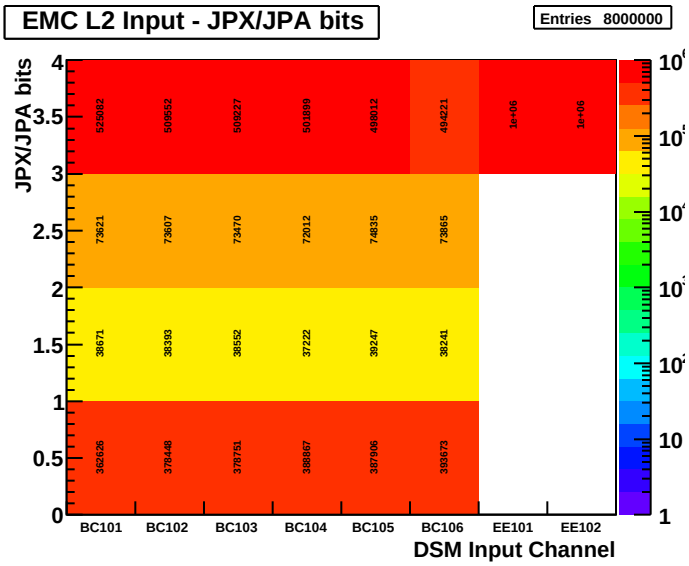

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

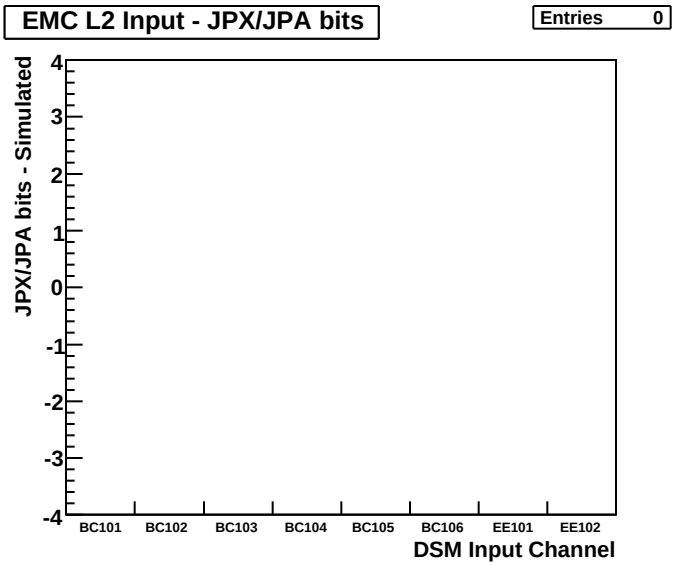

Endcap EMC L1 Input - High Eta Sum
Entries 1.2e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

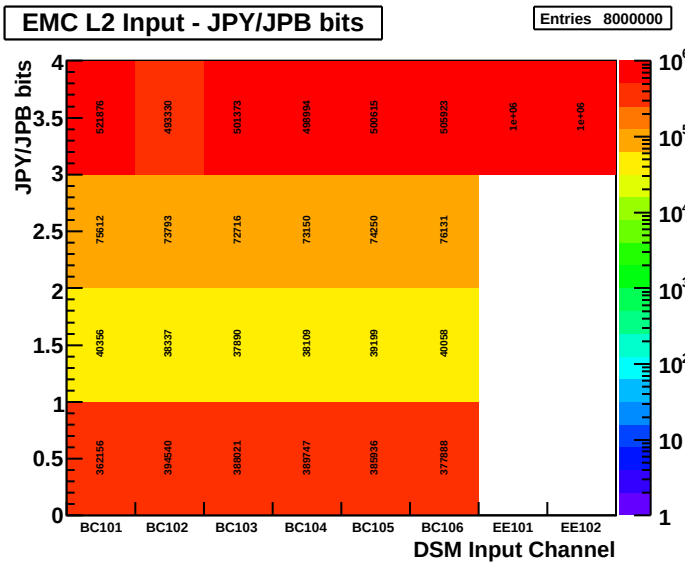

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

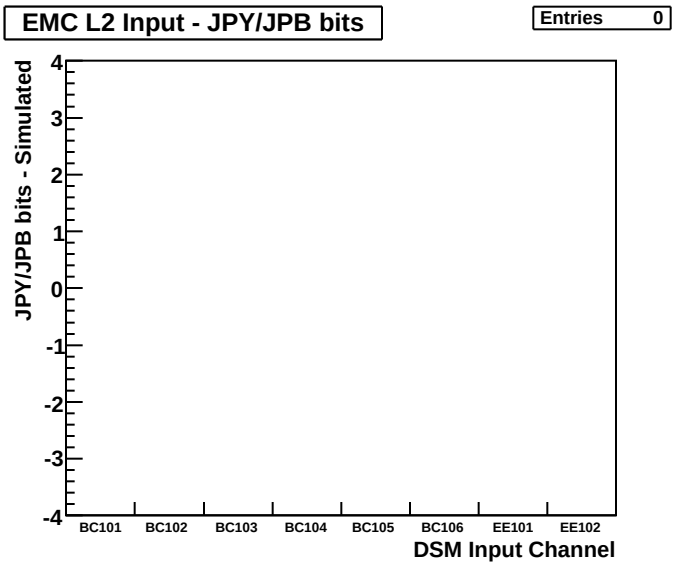

Endcap EMC L1 Input - High Tower Bits
Entries 1.2e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

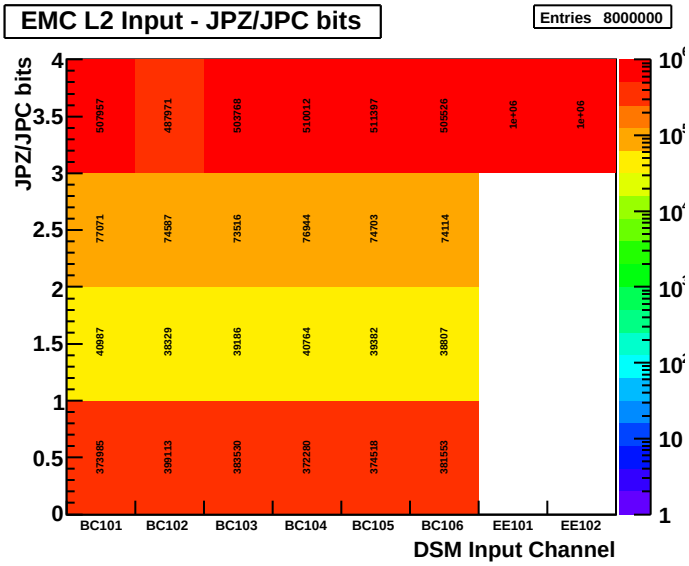

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

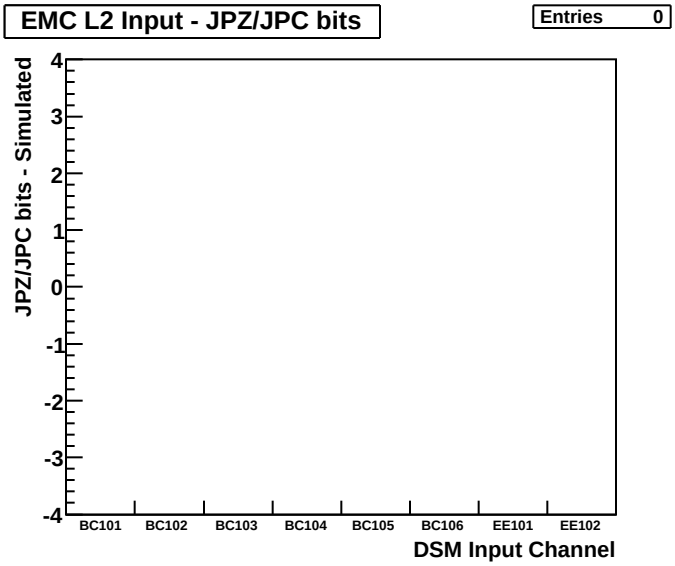

EMC L2 Input - JPX/JPA bits
Entries 8000000
JPX/JPA bits
525082 509552 509227 501899 498012 494221 1e+06 1e+06
73621 73607 73470 72012 74035 73865
38671 38393 38552 37222 39247 38241
362626 378448 378751 388867 387906 393673
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

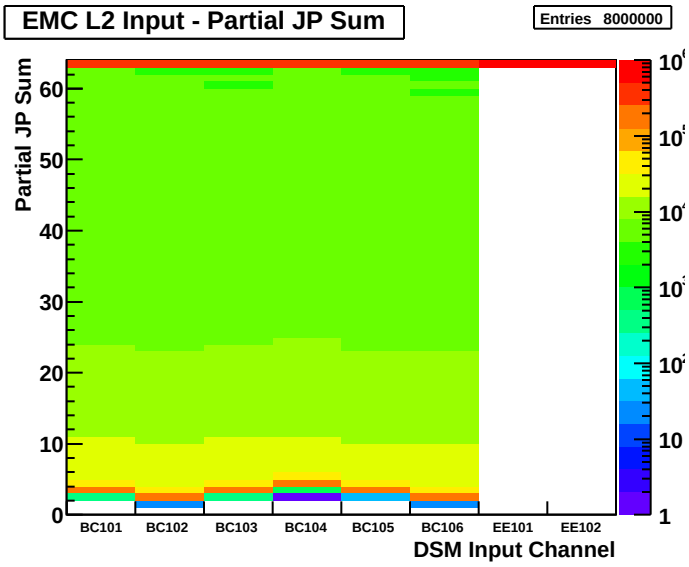

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

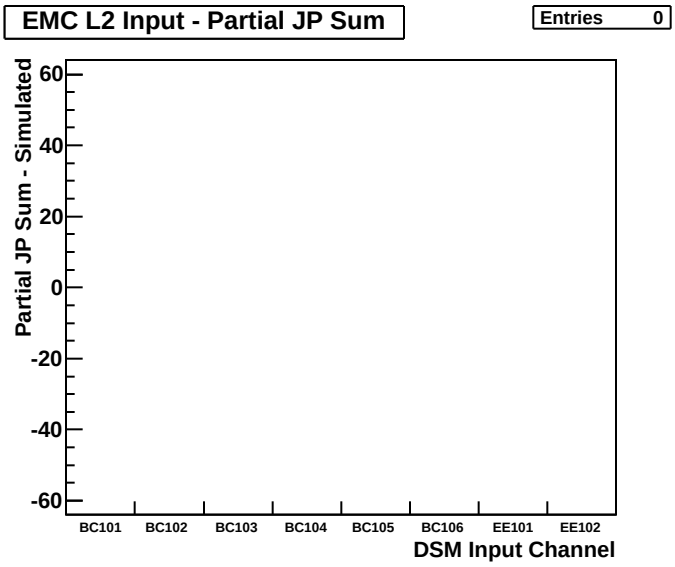

EMC L2 Input - JPY/JPB bits
Entries 8000000
JPY/JPB bits
521876 493330 501373 498994 500615 505923 1e+06 1e+06
75612 73793 72716 73150 74250 76131
40356 38337 37890 38109 39199 40058
362156 394540 388021 389747 389936 377888
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

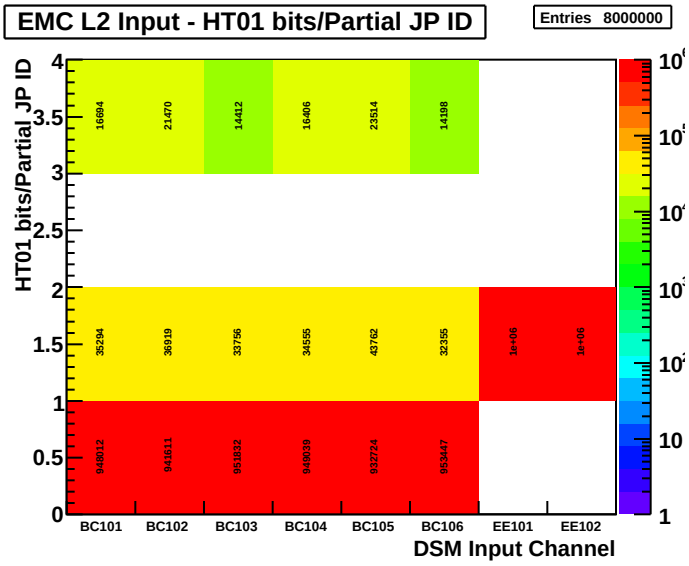

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

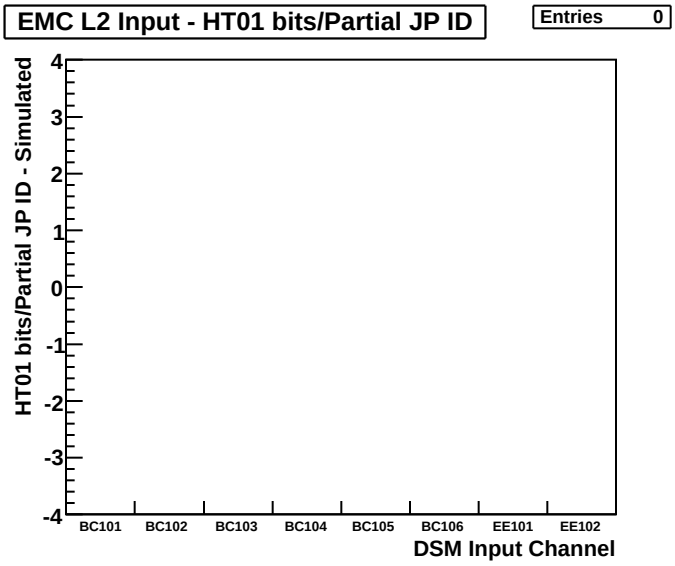

EMC L2 Input - JPZ/JPC bits
Entries 8000000
JPZ/JPC bits
507957 487971 503768 510012 511397 505526 1e+06 1e+06
77071 74587 73516 76944 74703 74114
40987 38329 39186 40764 39382 38807
373985 399113 383530 372280 374518 381553
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

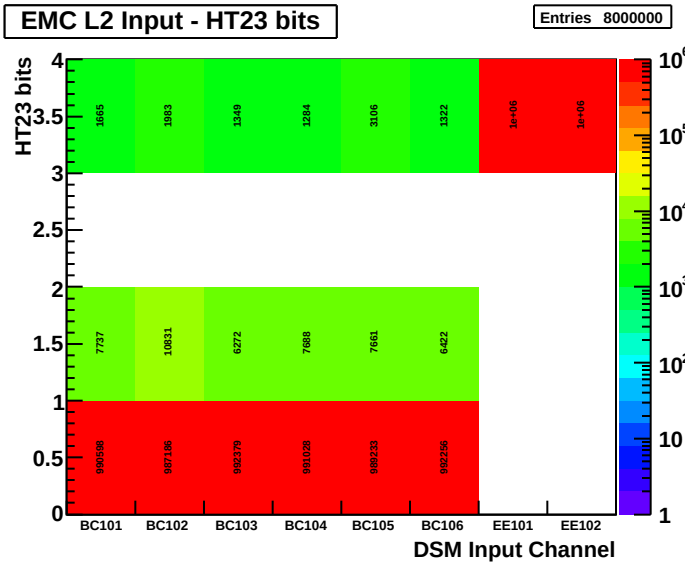

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

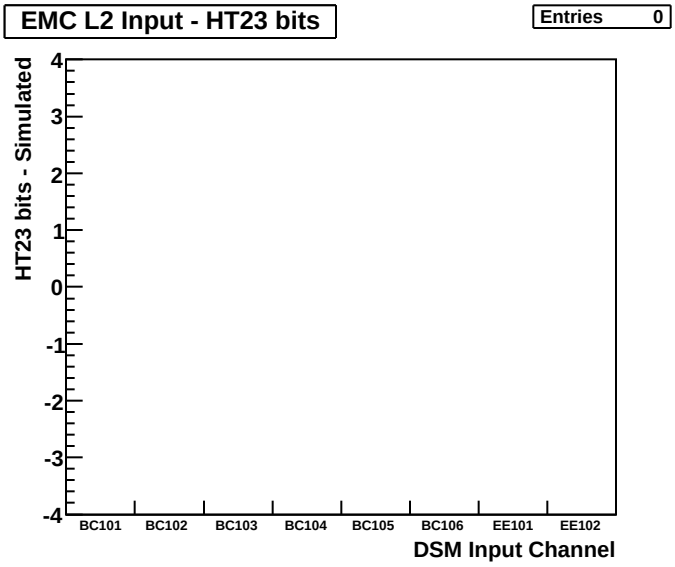

EMC L2 Input - Partial JP Sum
Entries 8000000
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

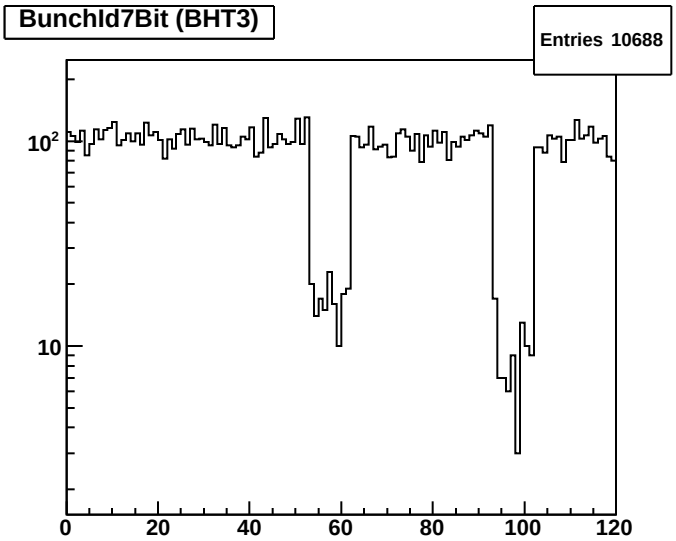

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

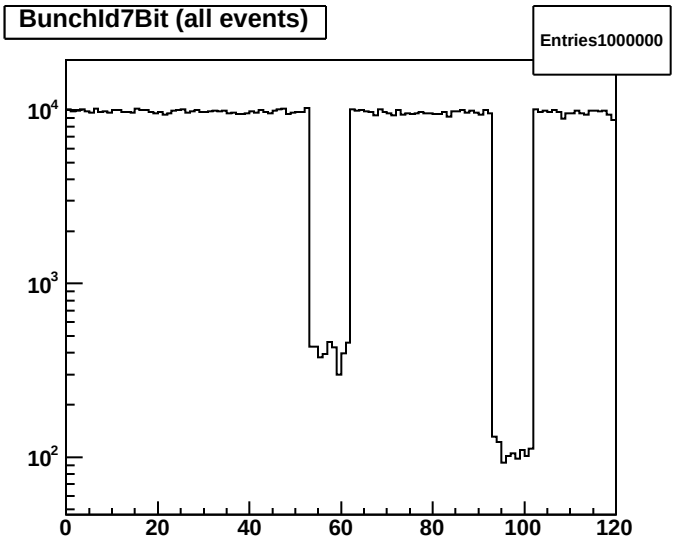

EMC L2 Input - HT01 bits/Partial JP ID
Entries 8000000
HT01 bits/Partial JP ID
16694 21470 14412 16406 23514 14198
35294 36919 33756 34555 43762 32355 1e+06 1e+06
946012 941611 951832 949039 932724 953447
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

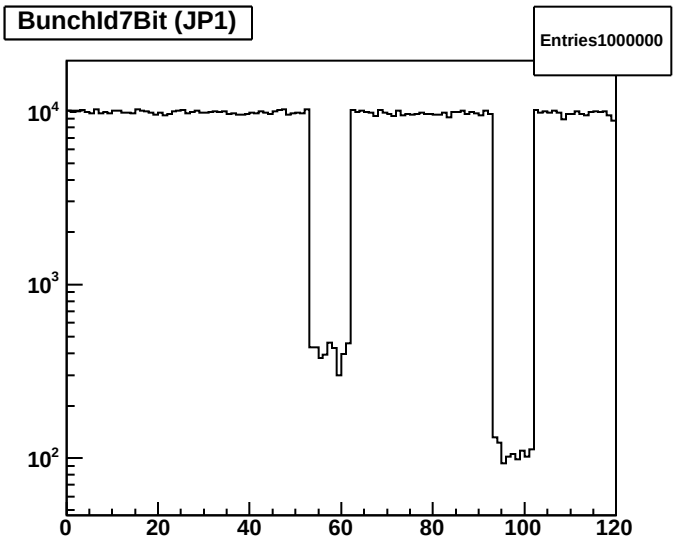

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

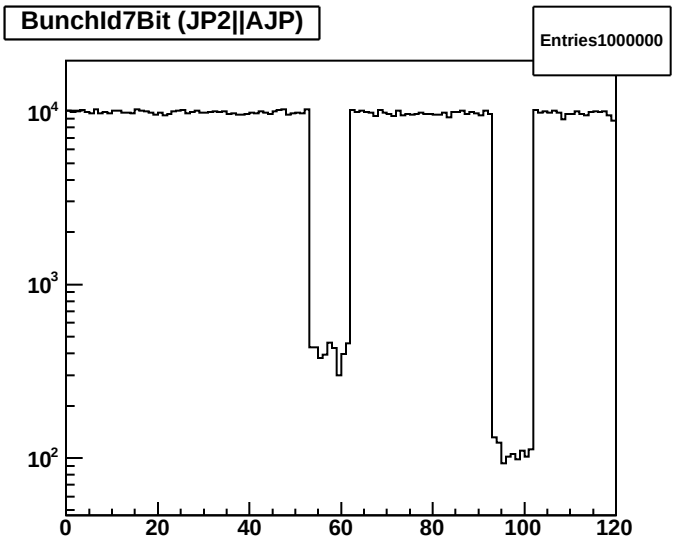

EMC L2 Input - HT23 bits
Entries 8000000
HT23 bits
1665 1983 1349 1284 3106 1322 1e+06 1e+06
7737 10831 6272 7688 7661 6422
990598 987186 992379 991028 989233 992256
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

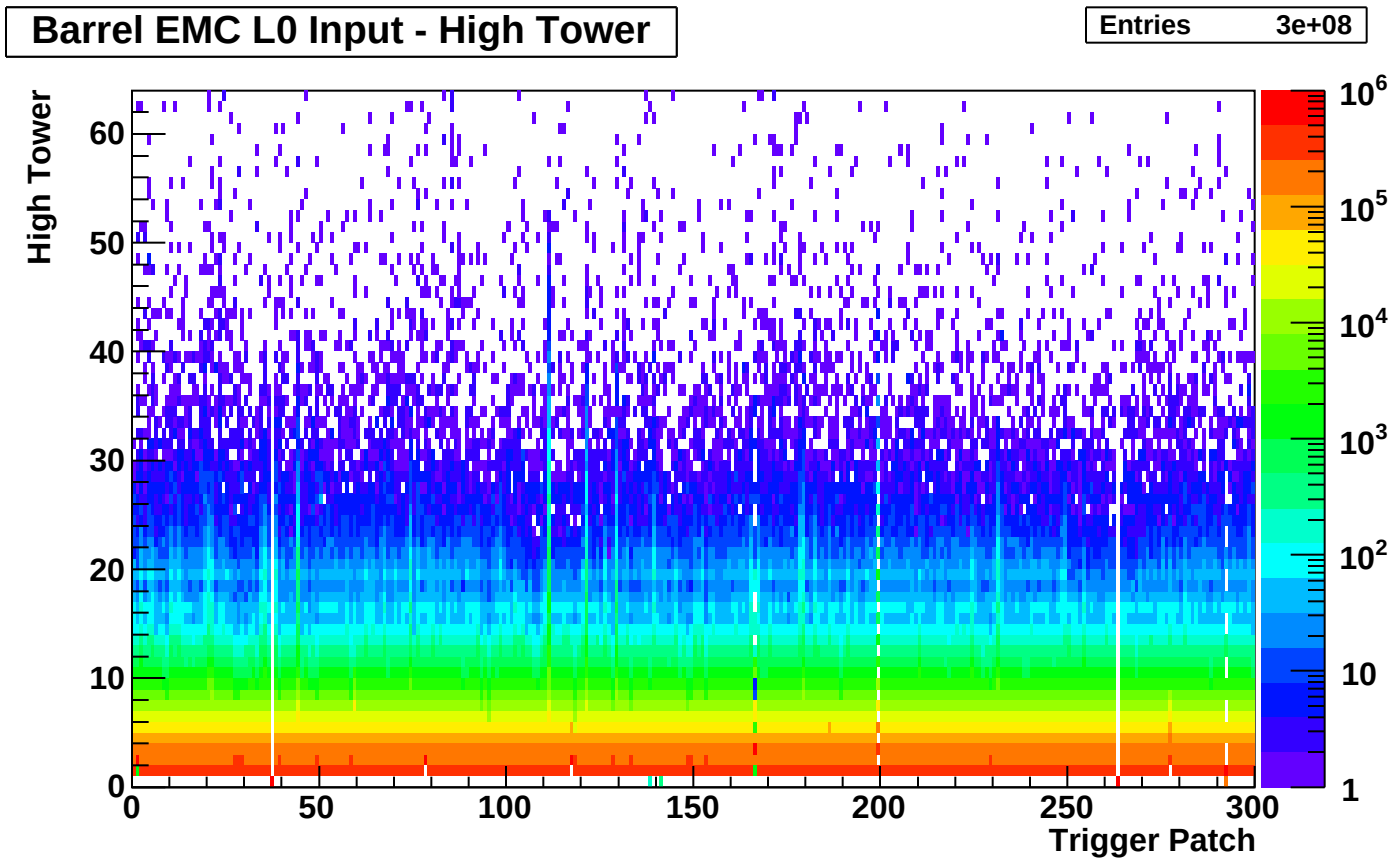

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

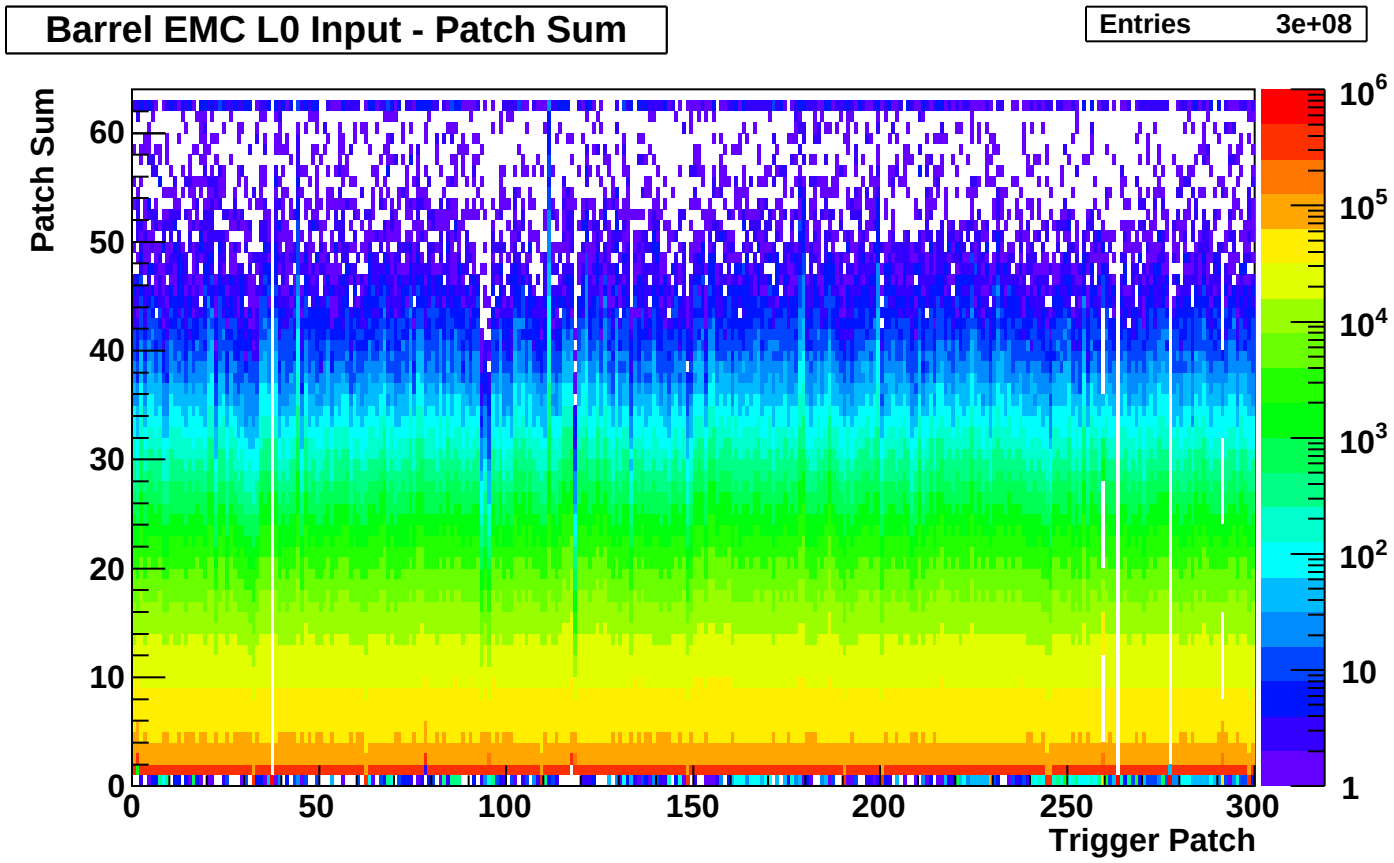

BunchId7Bit (BHT3)
Entries 10688
10^2
10
0
20
40
60
80
100
120

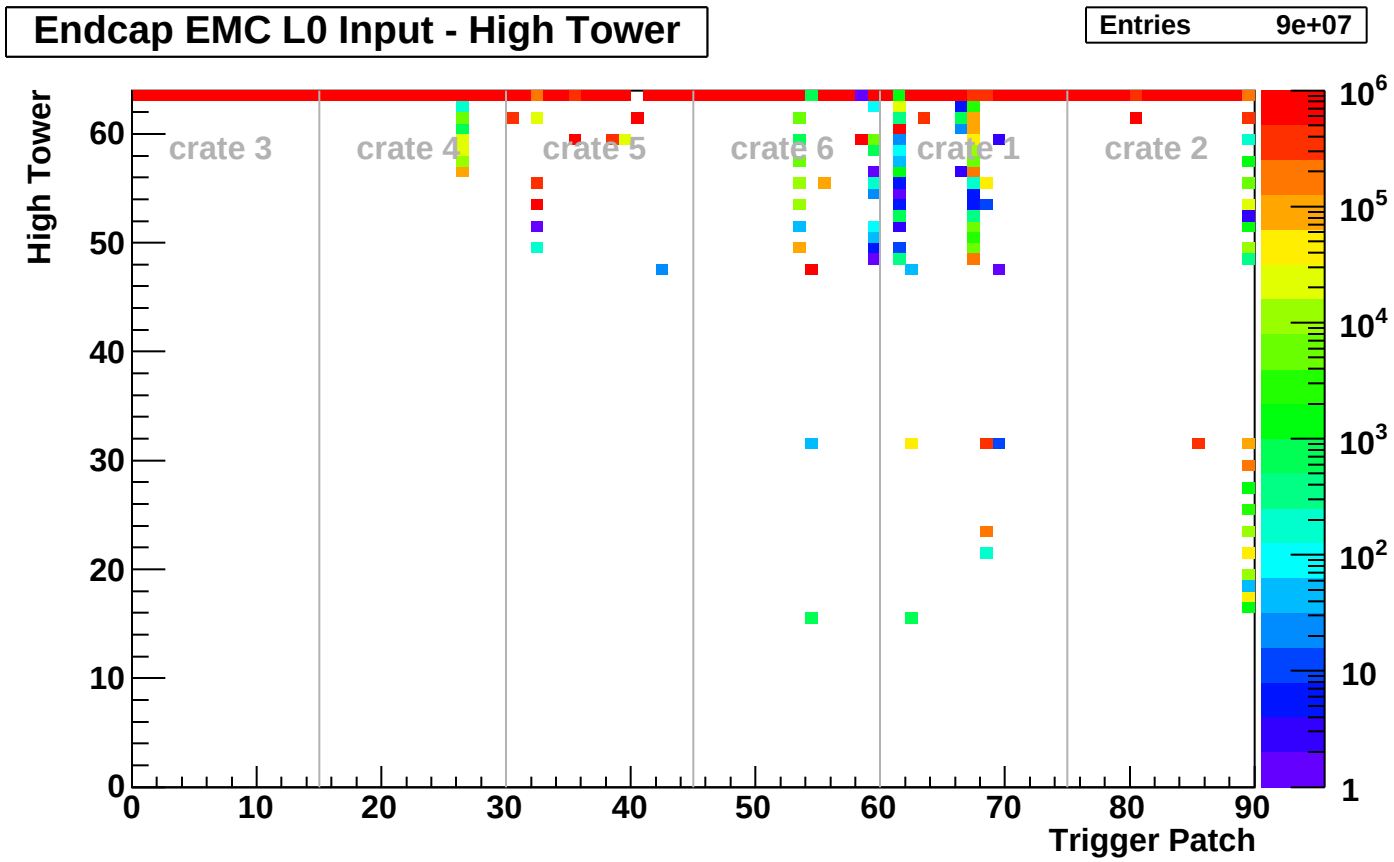

BunchId7Bit (all events)
Entries1000000
10^4
10^3
10^2
0
20
40
60
80
100
120

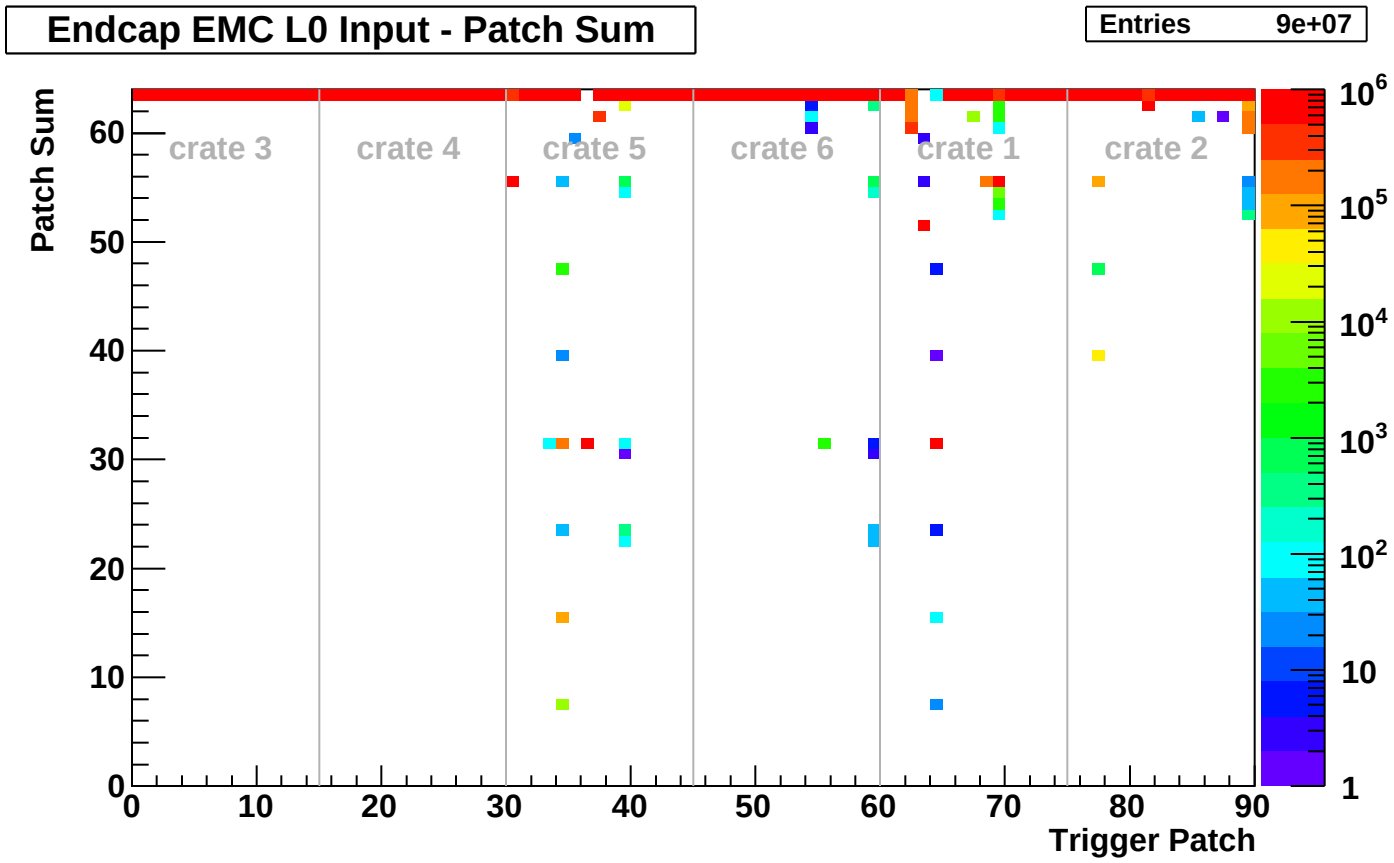

BunchId7Bit (JP1)
Entries1000000
10^4
10^3
10^2
0
20
40
60
80
100
120

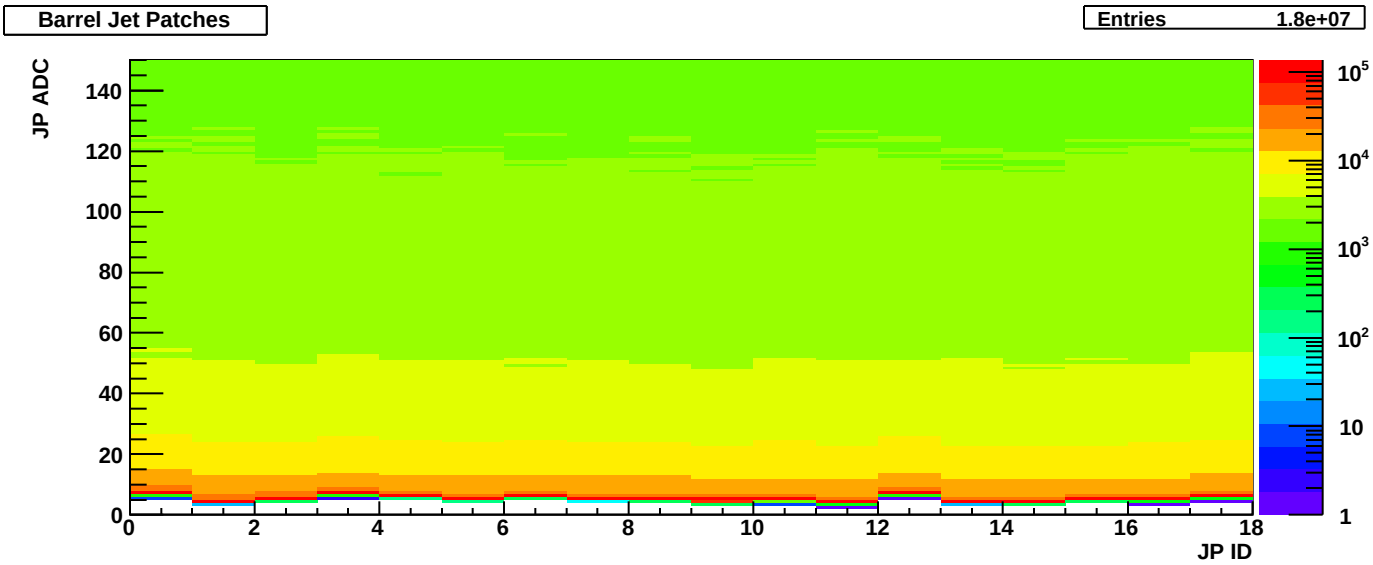

BunchId7Bit (JP2||AJP)
Entries1000000
10^4
10^3
10^2
0
20
40
60
80
100
120

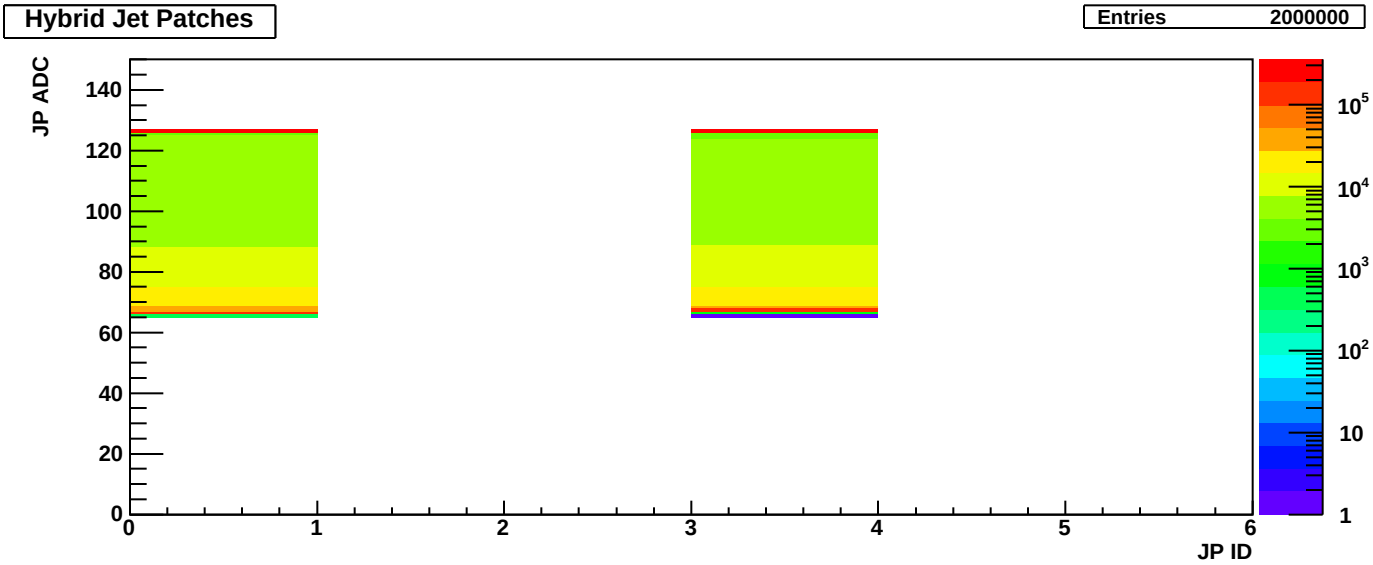

Barrel EMC L0 Input - High Tower
Entries 3e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

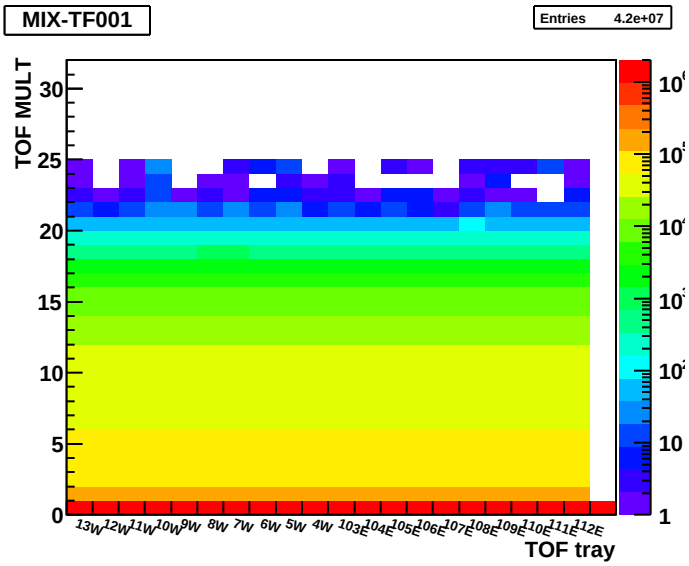

Barrel EMC L0 Input - Patch Sum
Entries 3e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

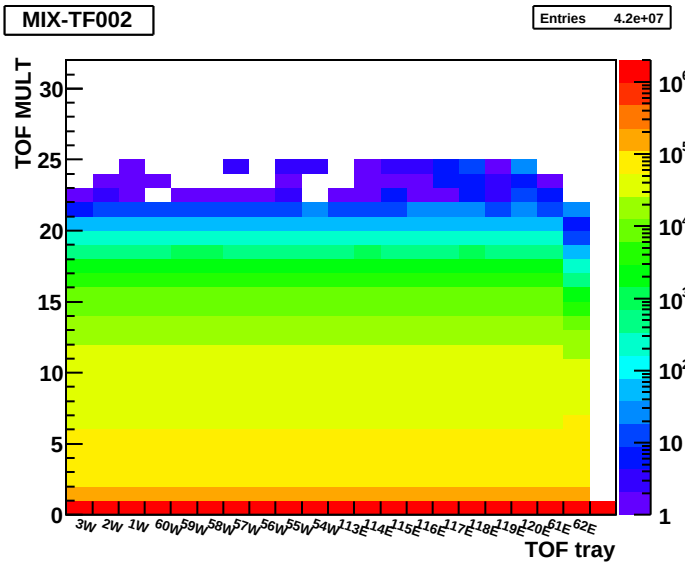

Endcap EMC L0 Input - High Tower
Entries 9e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

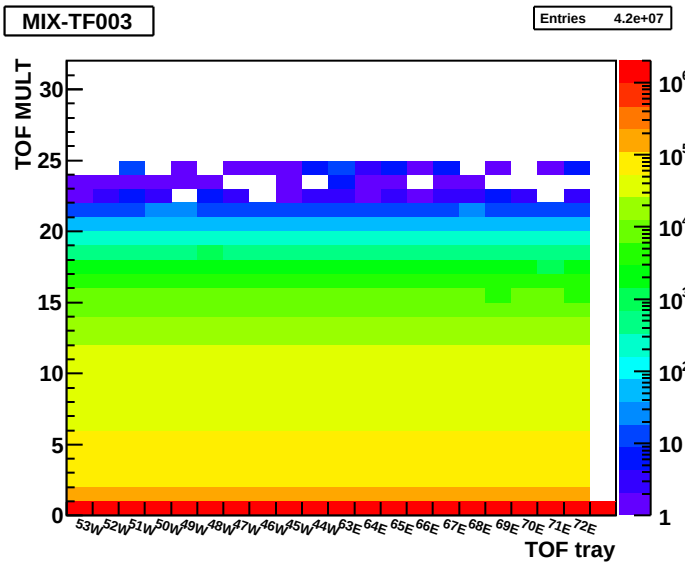

Endcap EMC L0 Input - Patch Sum
Entries 9e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

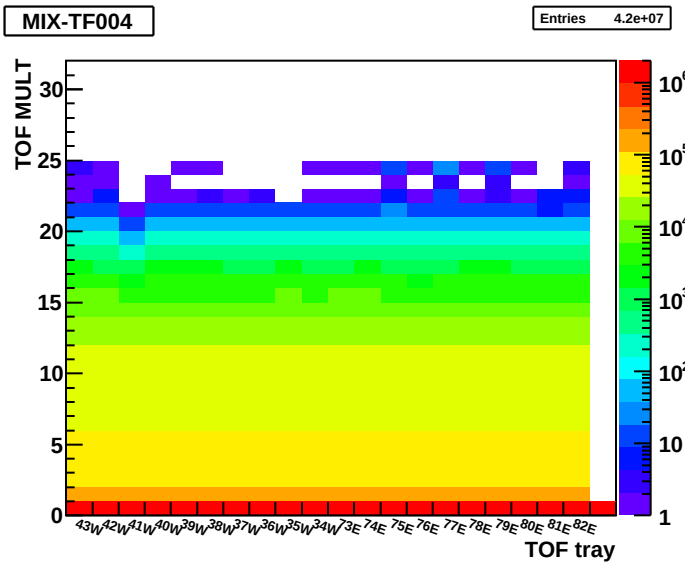

Barrel Jet Patches
Entries 1.8e+07
JP ADC
JP ID

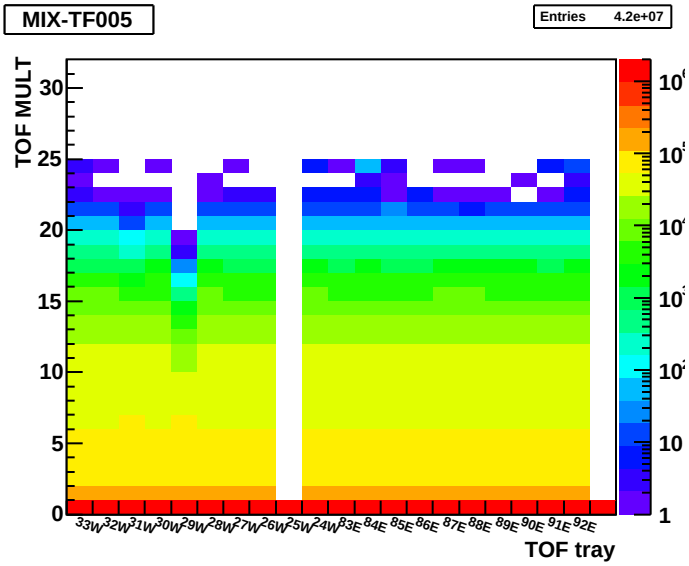

Hybrid Jet Patches
Entries 2000000
JP ADC
JP ID

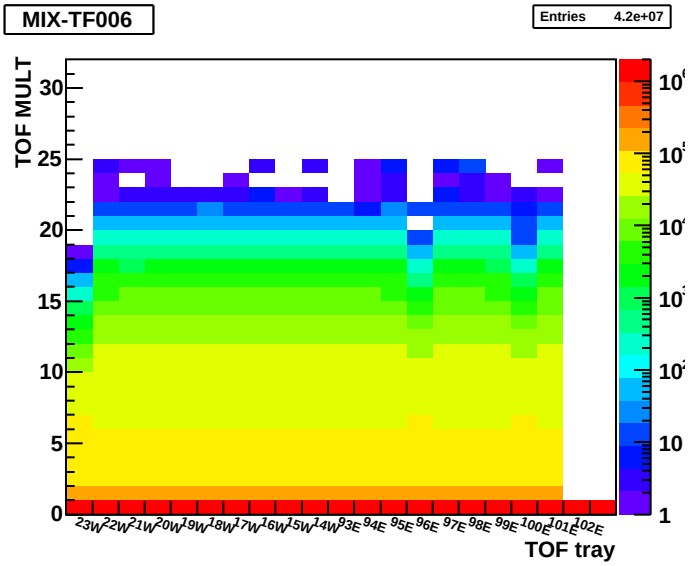

MIX-TF001
Entries 4.2e+07
TOF MULT
TOF tray

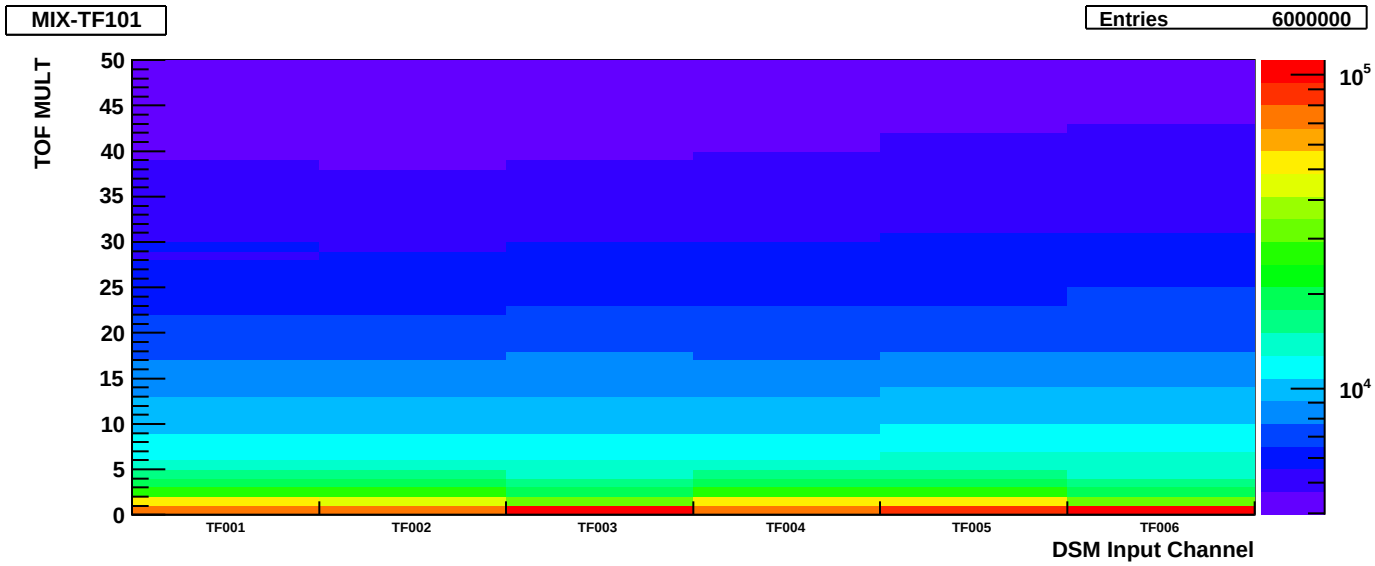

MIX-TF002
Entries 4.2e+07
TOF MULT
TOF tray

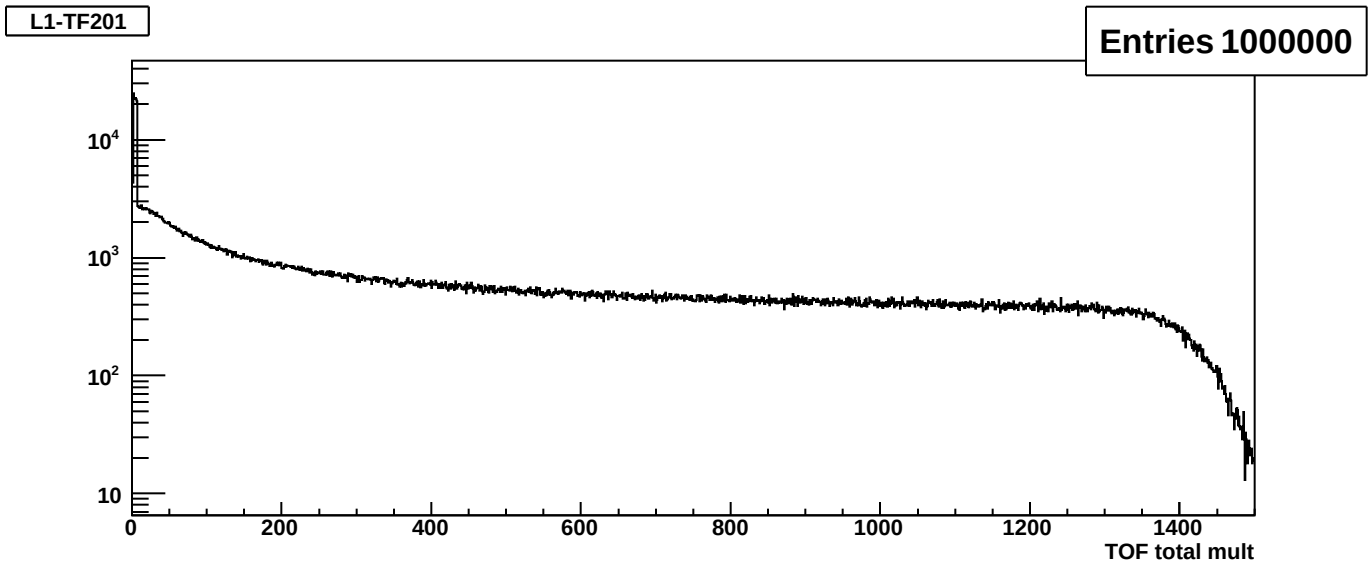

MIX-TF003
Entries 4.2e+07
TOF MULT
TOF tray

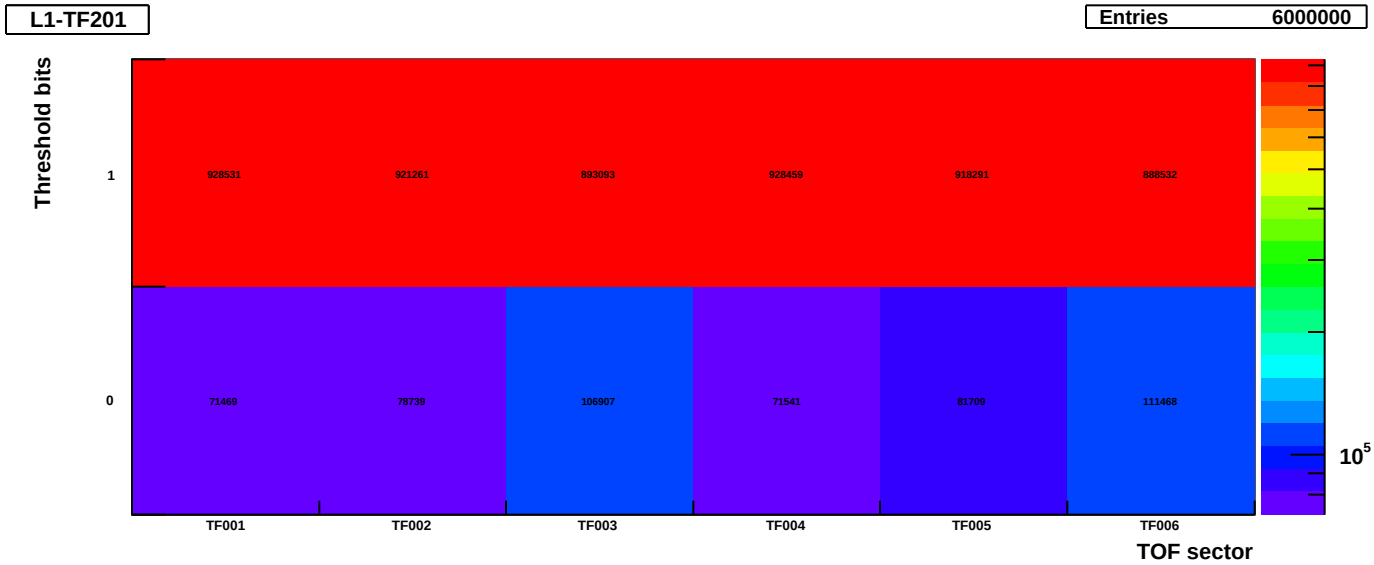

MIX-TF004
Entries 4.2e+07
TOF MULT
TOF tray

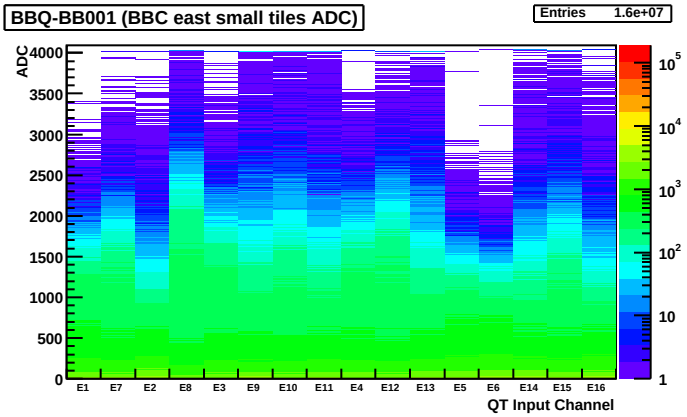

MIX-TF005
Entries 4.2e+07
TOF MULT
TOF tray

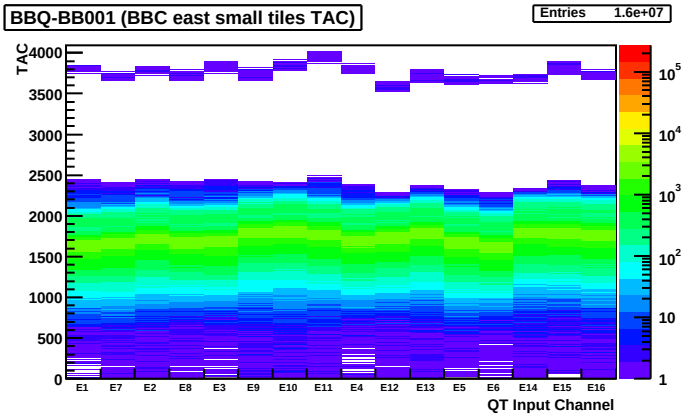

MIX-TF006
Entries 4.2e+07
TOF MULT
TOF tray

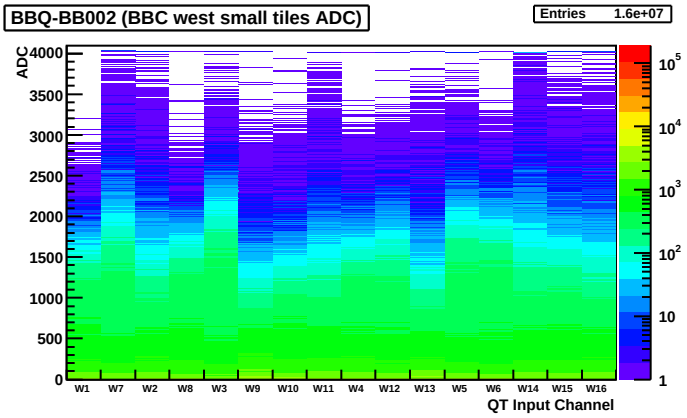

MIX-TF101
Entries 6000000
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4

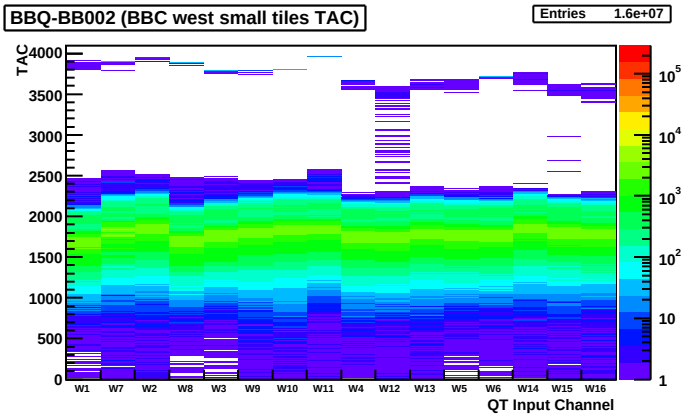

L1-TF201
Entries 1000000
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
TOF total mult

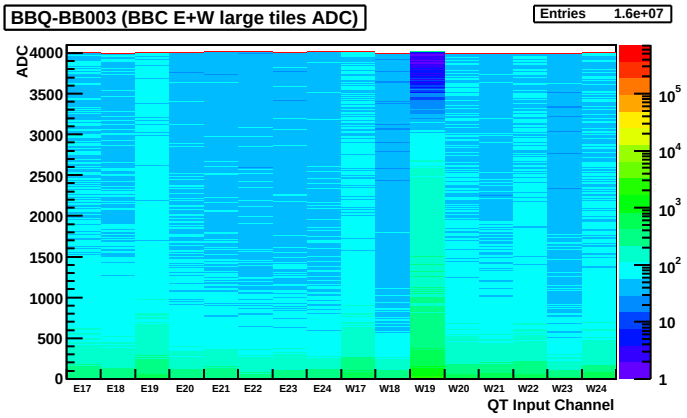

L1-TF201
Entries 6000000
Threshold bits
1
0
928531
921261
893093
928459
918291
888532
71469
78739
106907
71541
81709
111468
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

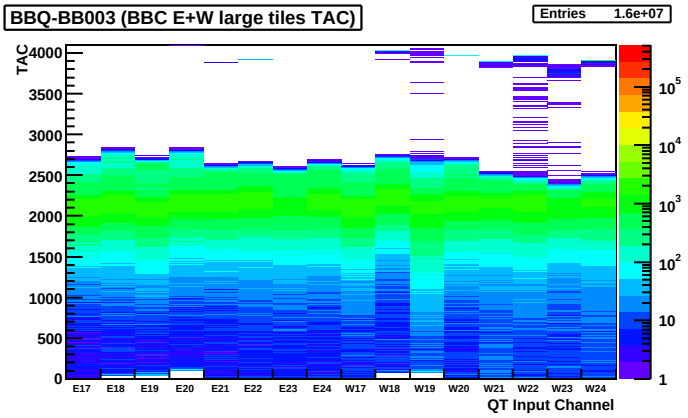

BBQ-BB001 (BBC east small tiles ADC)
Entries 1.6e+07
ADC
QT Input Channel

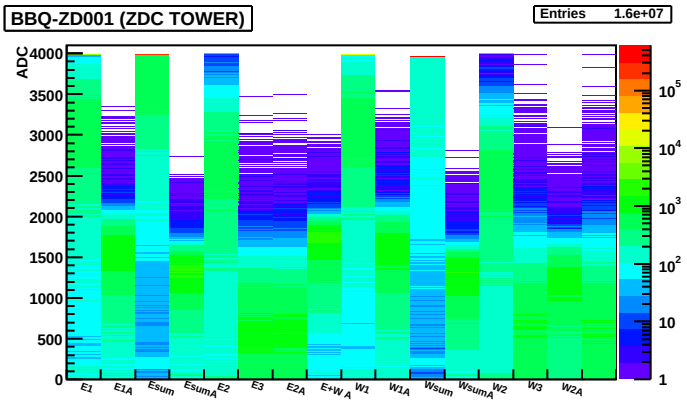

BBQ-BB001 (BBC east small tiles TAC)
Entries 1.6e+07
TAC
QT Input Channel

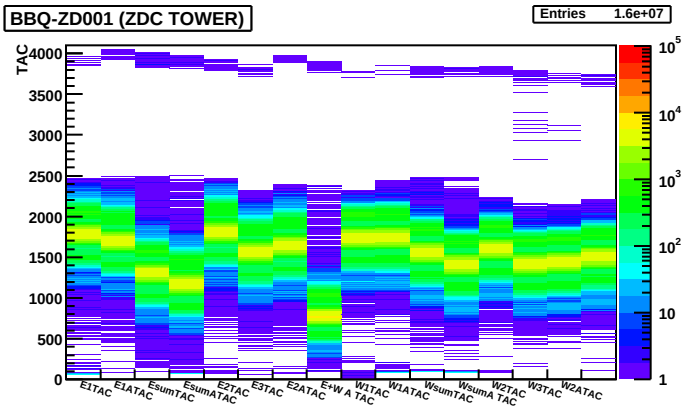

BBQ-BB002 (BBC west small tiles ADC)
Entries 1.6e+07
ADC
QT Input Channel

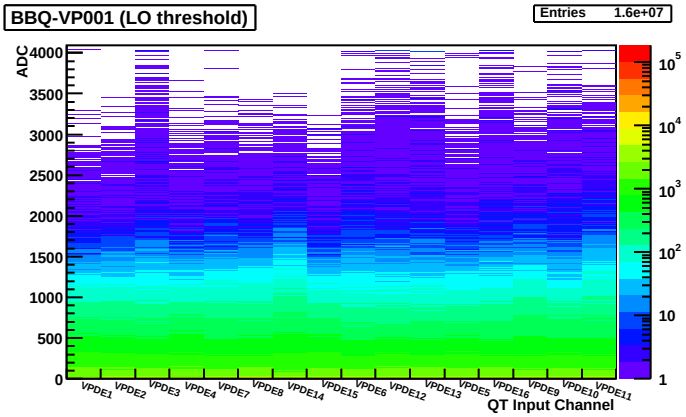

BBQ-BB002 (BBC west small tiles TAC)
Entries 1.6e+07
TAC
QT Input Channel

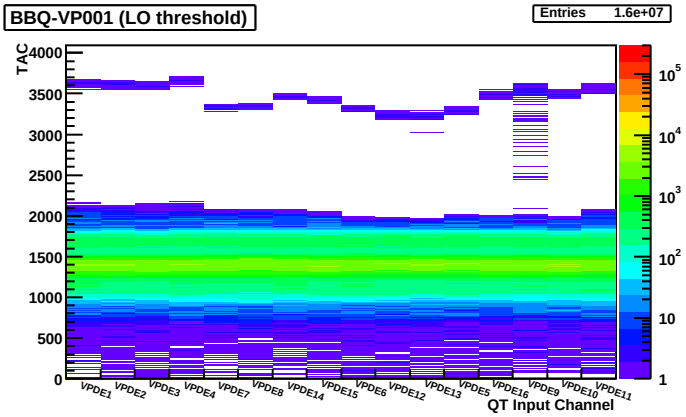

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1.6e+07
ADC
QT Input Channel

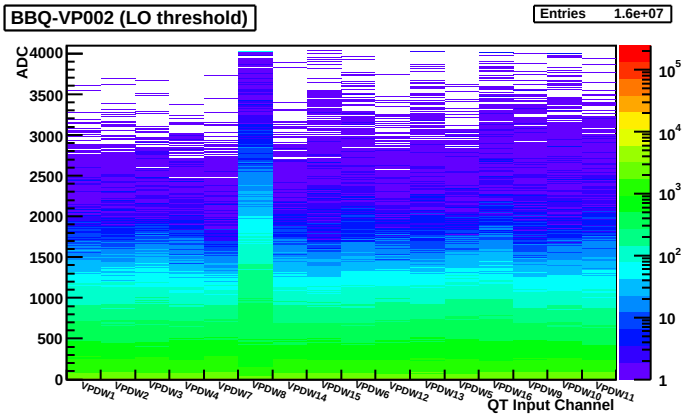

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1.6e+07
TAC
QT Input Channel

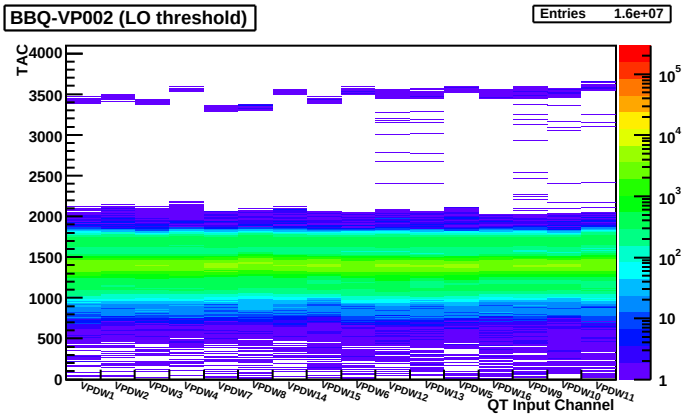

BBQ-ZD001 (ZDC TOWER)
Entries 1.6e+07
ADC

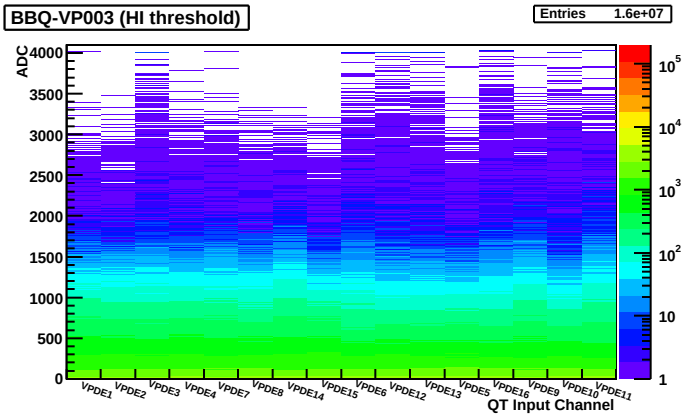

BBQ-ZD001 (ZDC TOWER)
Entries 1.6e+07
TAC

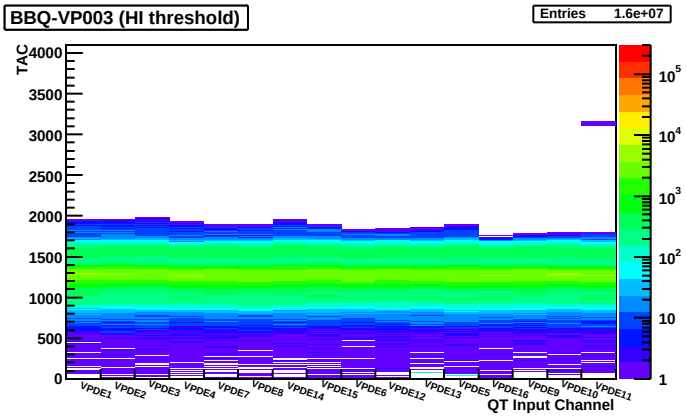

BBQ-VP001 (LO threshold)
Entries 1.6e+07
ADC
QT Input Channel

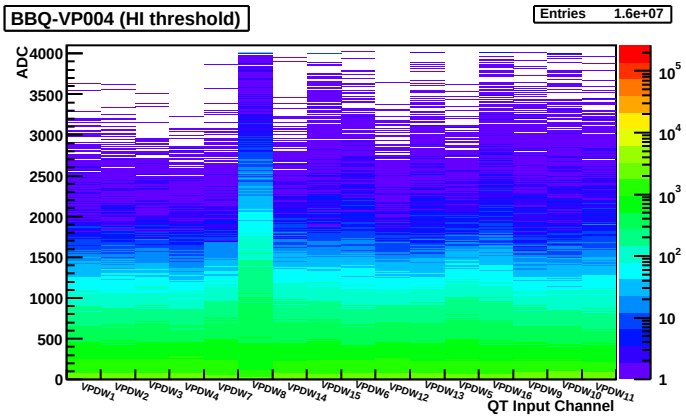

BBQ-VP001 (LO threshold)
Entries 1.6e+07
TAC
QT Input Channel

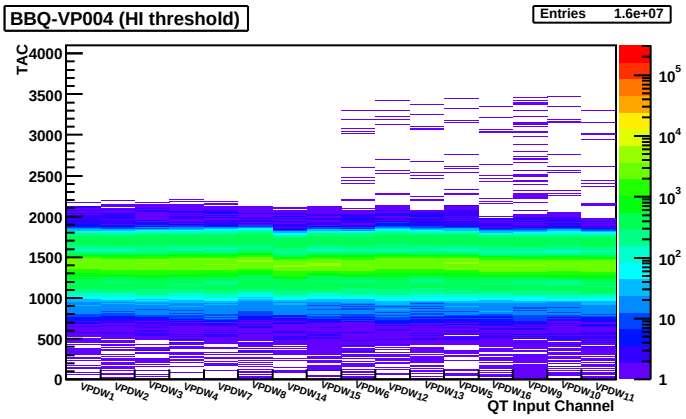

BBQ-VP002 (LO threshold)
Entries 1.6e+07
ADC
QT Input Channel

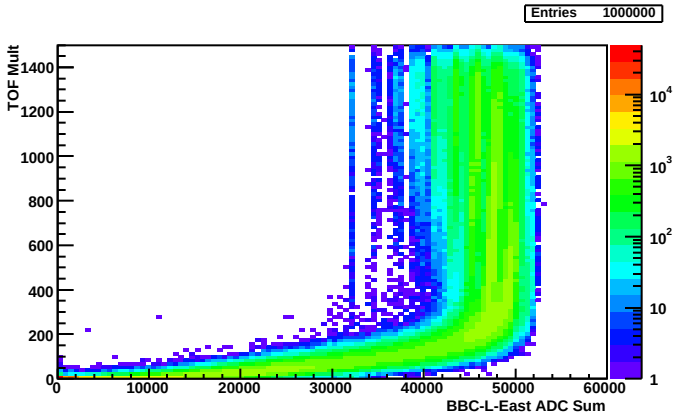

BBQ-VP002 (LO threshold)
Entries 1.6e+07
TAC
QT Input Channel

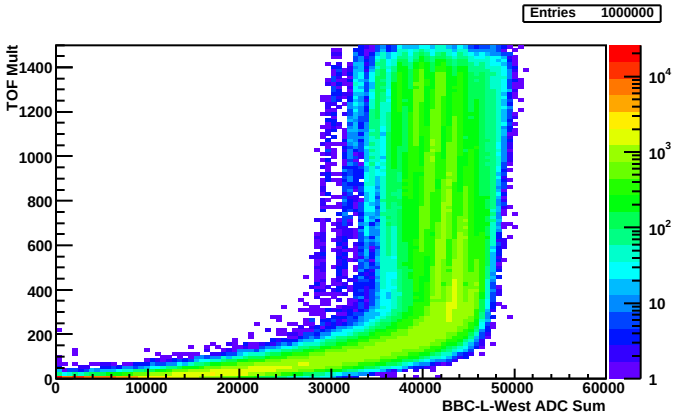

BBQ-VP003 (HI threshold)
Entries 1.6e+07
ADC
QT Input Channel

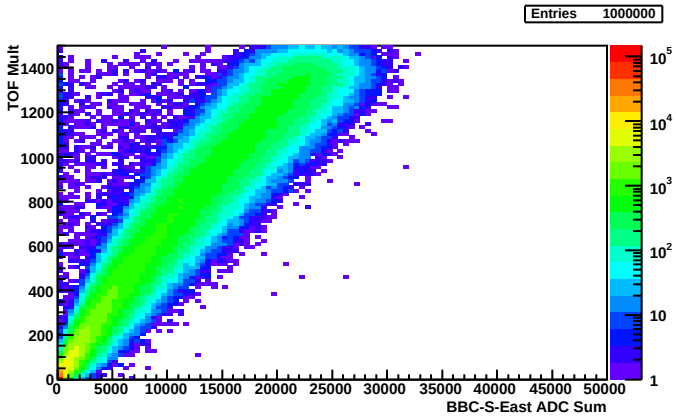

BBQ-VP003 (HI threshold)
Entries 1.6e+07
TAC
QT Input Channel

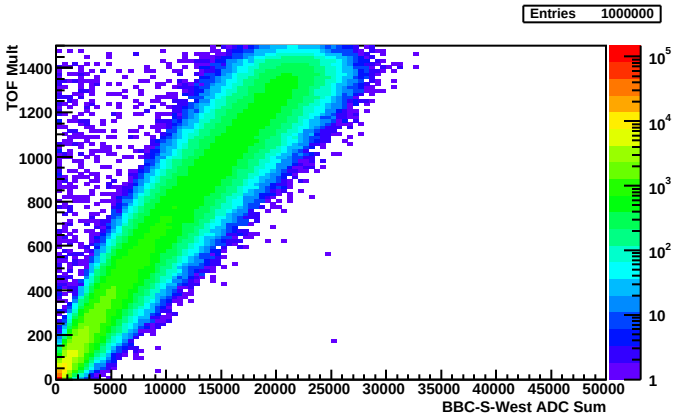

BBQ-VP004 (HI threshold)
Entries 1.6e+07
ADC
QT Input Channel

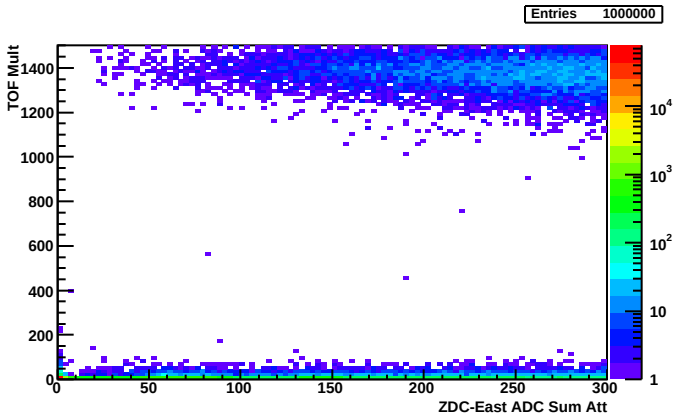

BBQ-VP004 (HI threshold)
Entries 1.6e+07
TAC
QT Input Channel

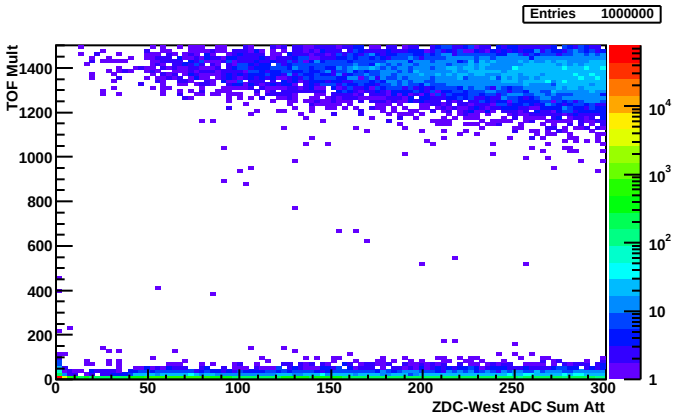

Entries 1000000
TOF Mult
BBC-L-East ADC Sum

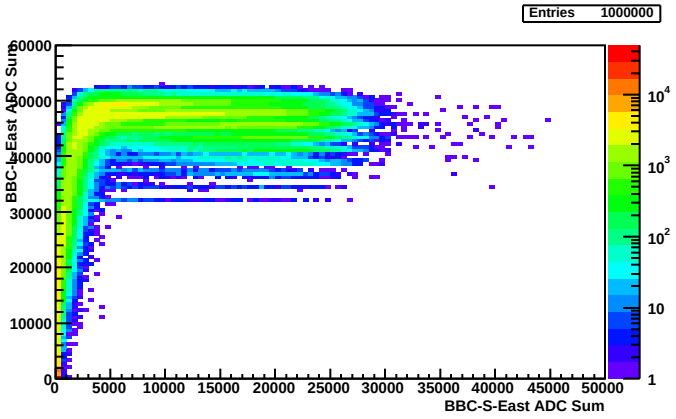

Entries 1000000
TOF Mult
BBC-L-West ADC Sum

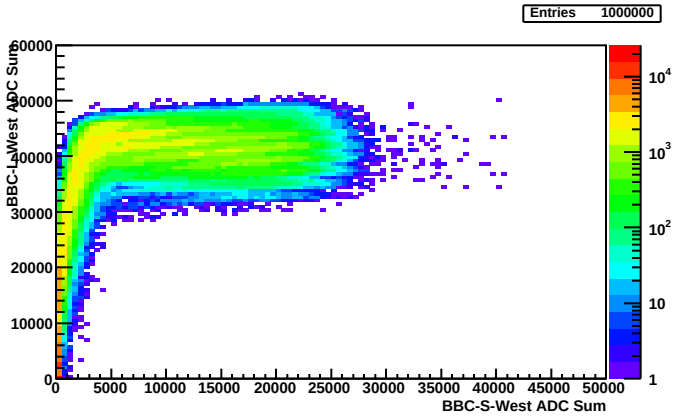

Entries 1000000
TOF Mult
BBC-S-East ADC Sum

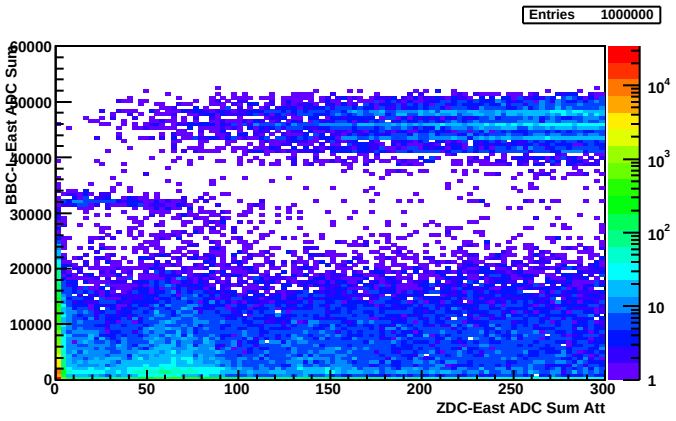

Entries 1000000
TOF Mult
BBC-S-West ADC Sum

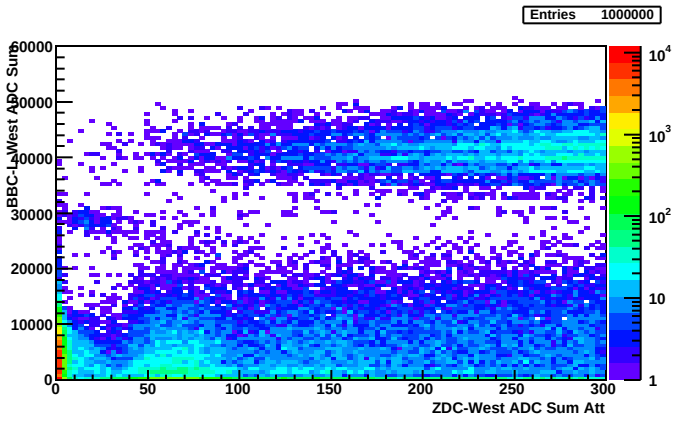

Entries 1000000
TOF Mult
ZDC-East ADC Sum Att

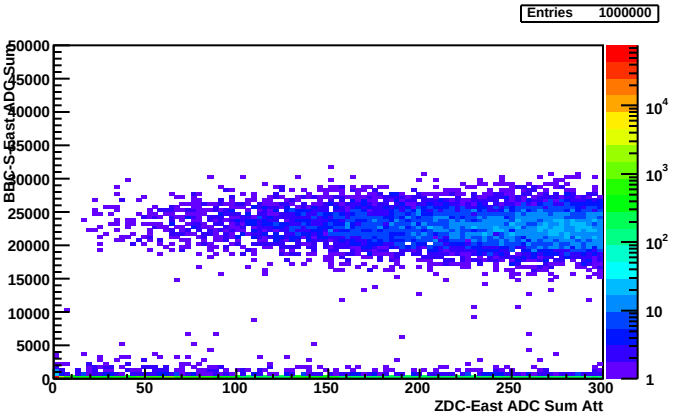

Entries 1000000
TOF Mult
ZDC-West ADC Sum Att

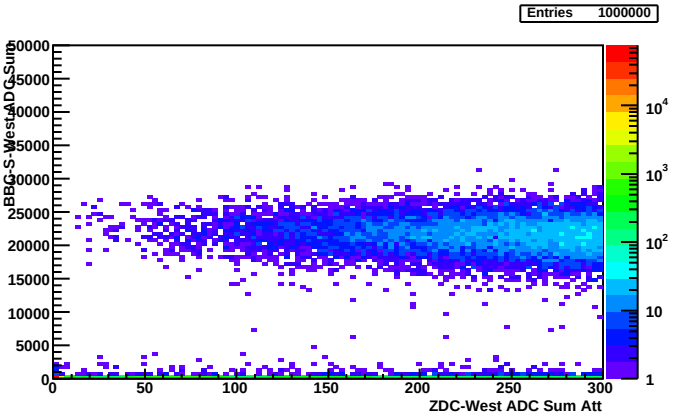

Entries 1000000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

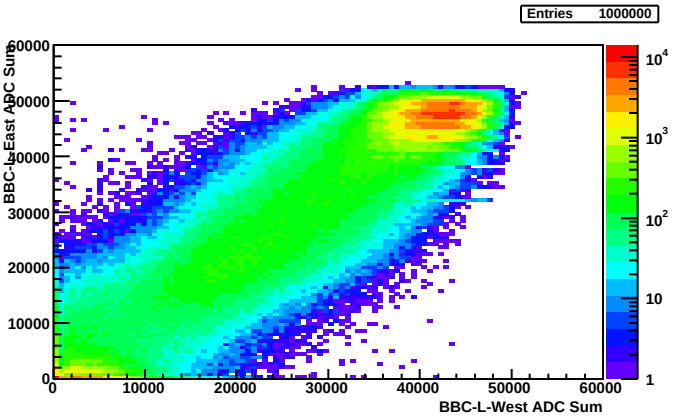

Entries 1000000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

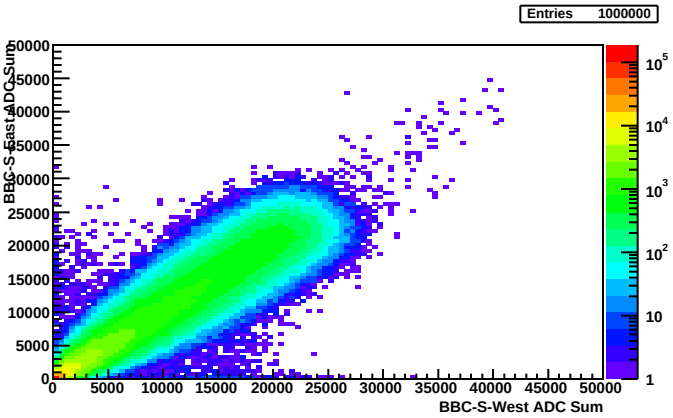

Entries 1000000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

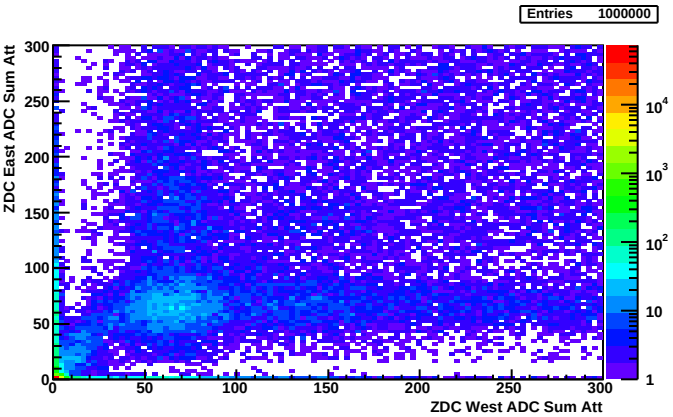

Entries 1000000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

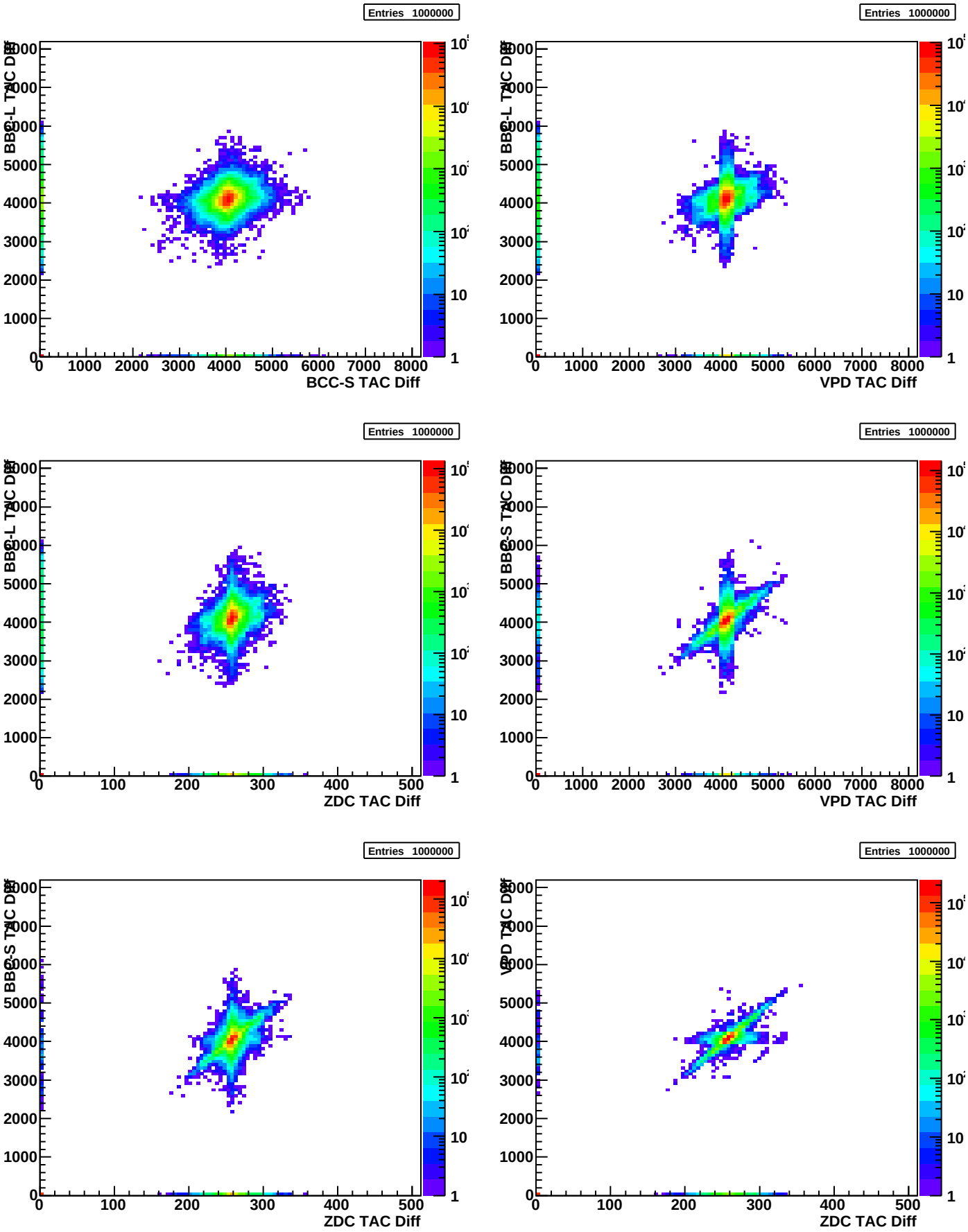

Entries 1000000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

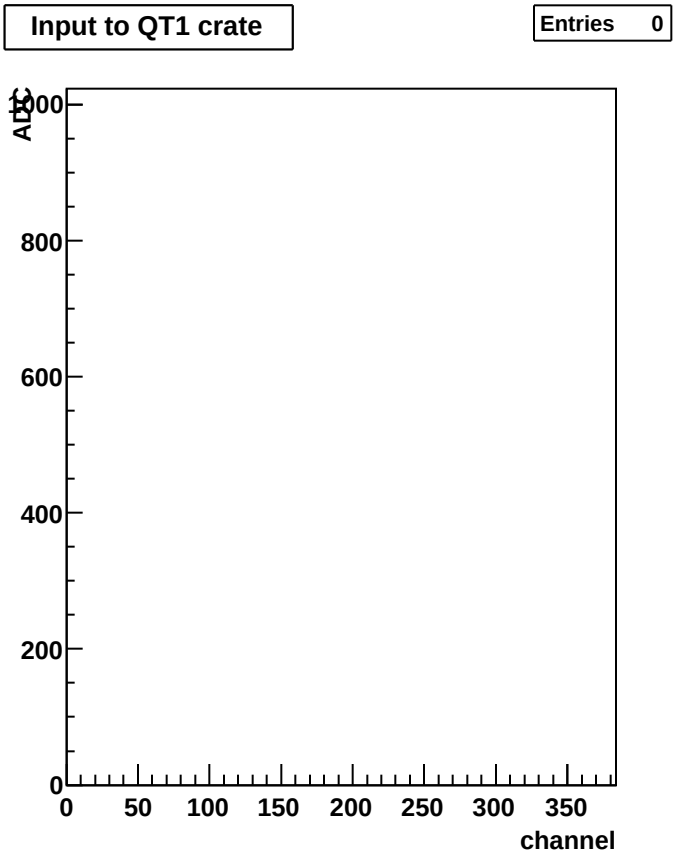

Entries 1000000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

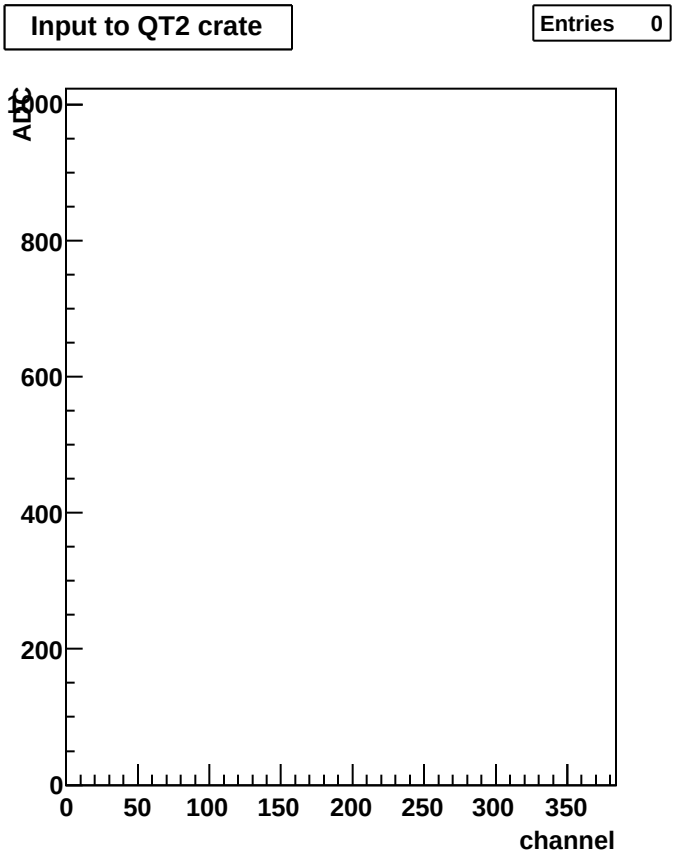

Entries 1000000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

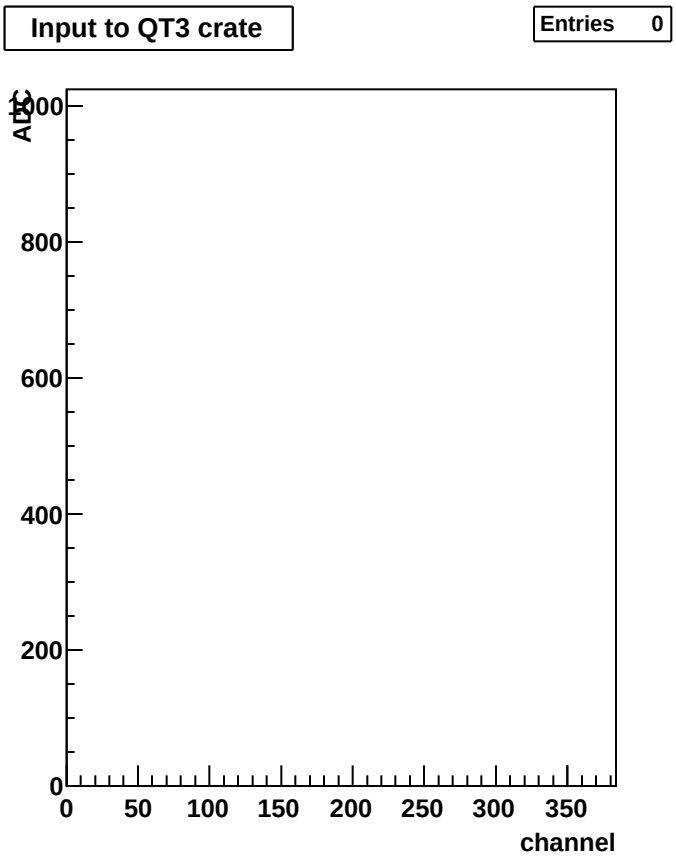

Entries 1000000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

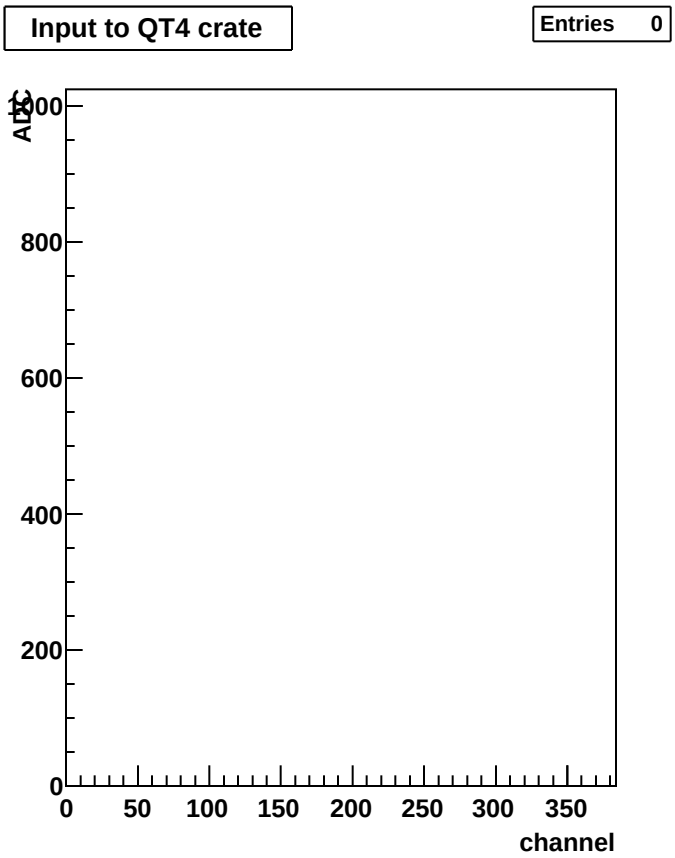

Entries 1000000
ZDC East ADC Sum Att
ZDC West ADC Sum Att

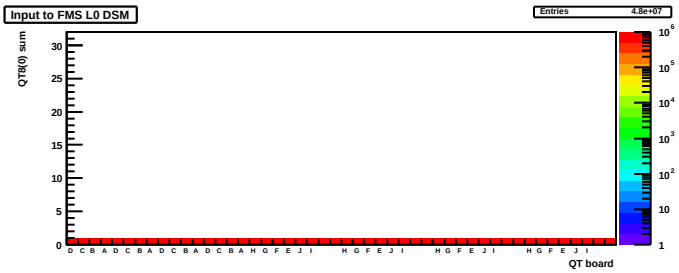

Entries 1000000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 1000000
BBC-L TAC Diff
VPD TAC Diff
Entries 1000000
BBC-L TAC Diff
ZDC TAC Diff
Entries 1000000
BBC-S TAC Diff
VPD TAC Diff
Entries 1000000
BBC-S TAC Diff
ZDC TAC Diff
Entries 1000000
VPD TAC Diff
ZDC TAC Diff

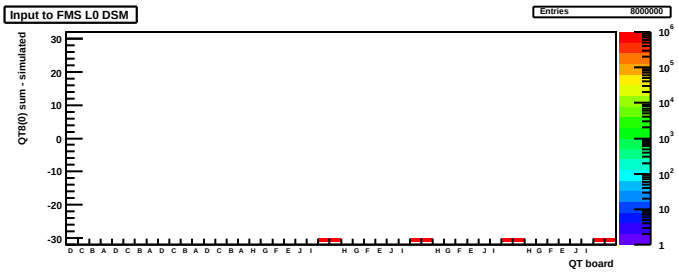

Input to QT1 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

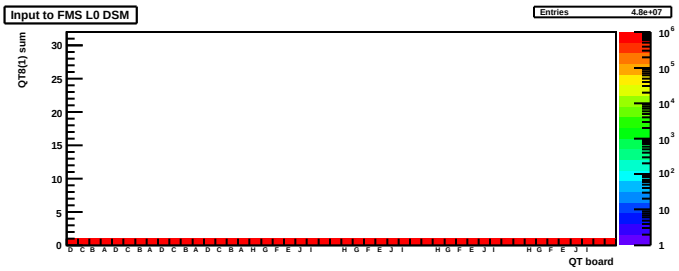

Input to QT2 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

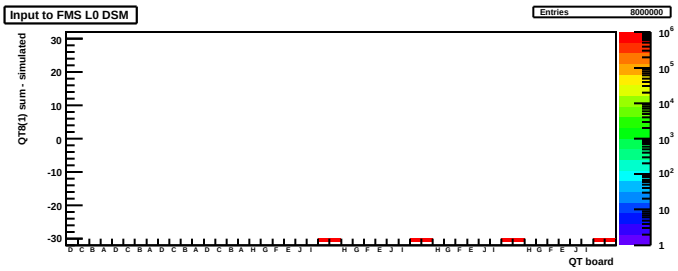

Input to QT3 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

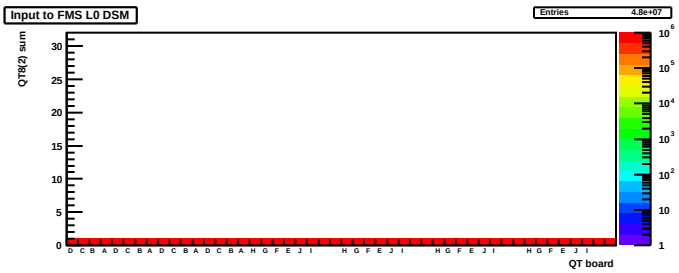

Input to QT4 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

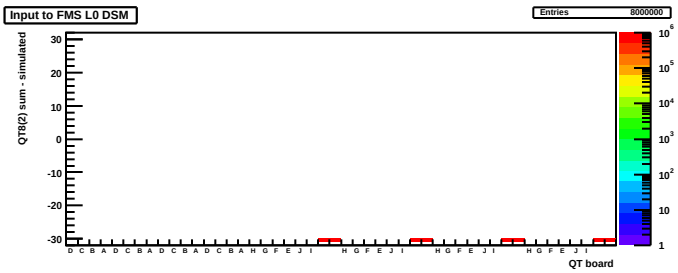

Input to FMS L0 DSM
Entries 4.8e+07
QT8(0) sum
QT board

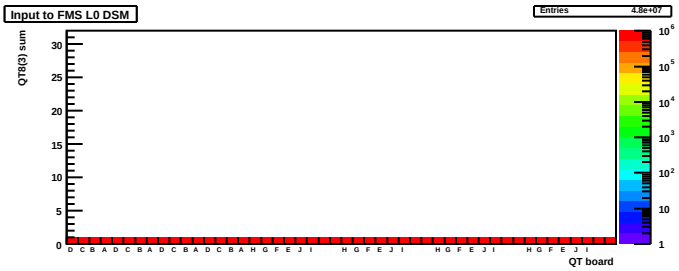

Input to FMS L0 DSM
Entries 8000000
QT8(0) sum - simulated
QT board

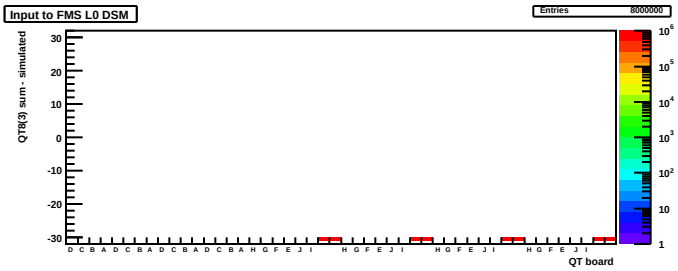

Input to FMS L0 DSM
Entries 4.8e+07
QT8(1) sum
QT board

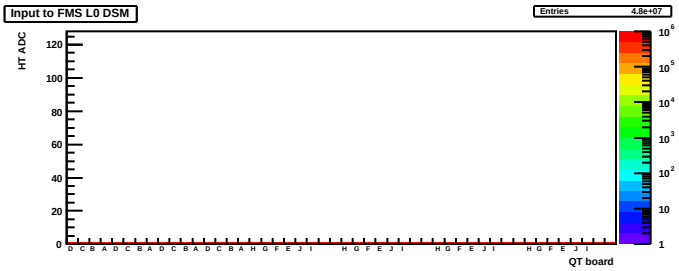

Input to FMS L0 DSM
Entries 8000000
QT8(1) sum - simulated
QT board

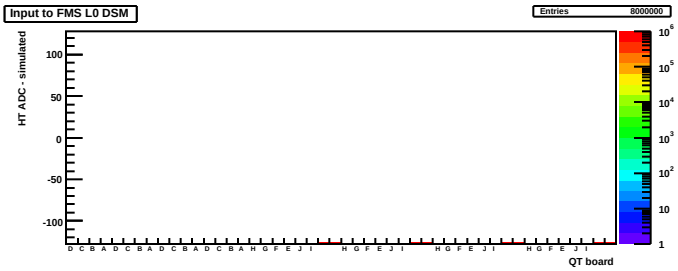

Input to FMS L0 DSM
Entries 4.8e+07
QT8(2) sum
QT board

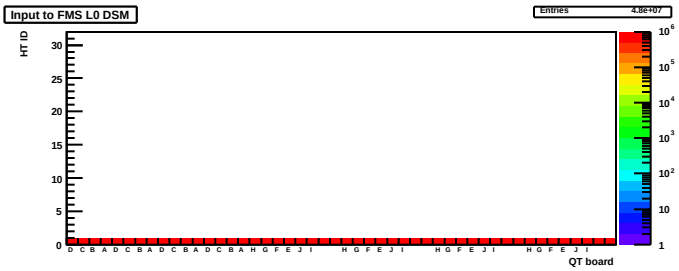

Input to FMS L0 DSM
Entries 8000000
QT8(2) sum - simulated
QT board

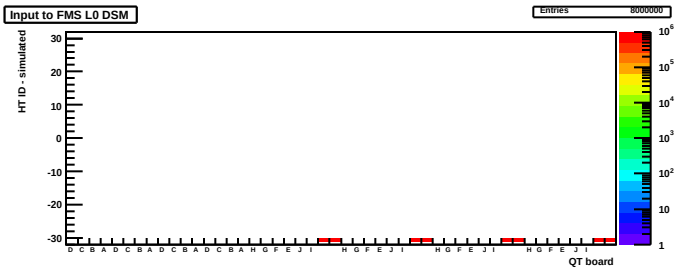

Input to FMS L0 DSM
Entries 4.8e+07
QT8(3) sum
QT board

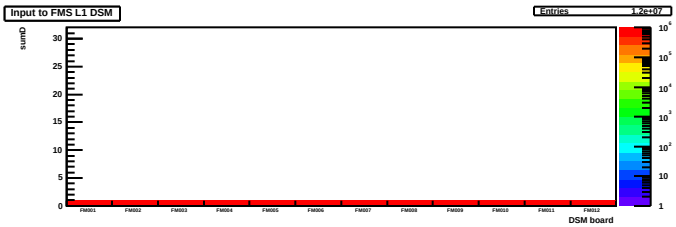

Input to FMS L0 DSM
Entries 8000000
QT8(3) sum - simulated
QT board

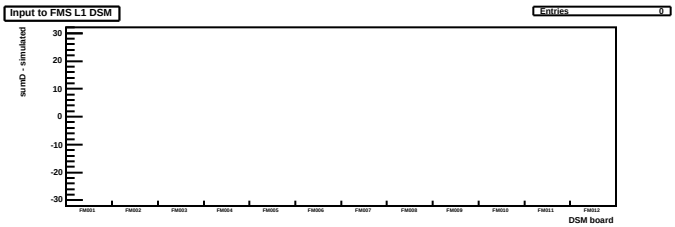

Input to FMS L0 DSM
Entries 4.8e+07
HT ADC
QT board

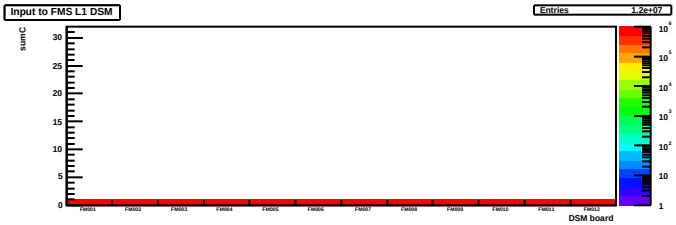

Input to FMS L0 DSM
Entries 8000000
HT ADC - simulated
QT board

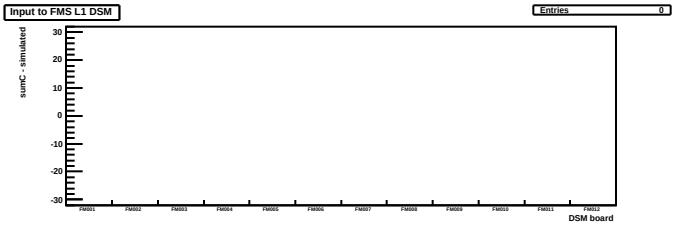

Input to FMS L0 DSM
Entries 4.8e+07
HT ID
QT board

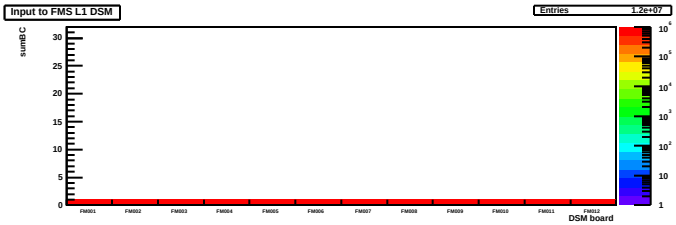

Input to FMS L0 DSM
Entries 8000000
HT ID - simulated
QT board

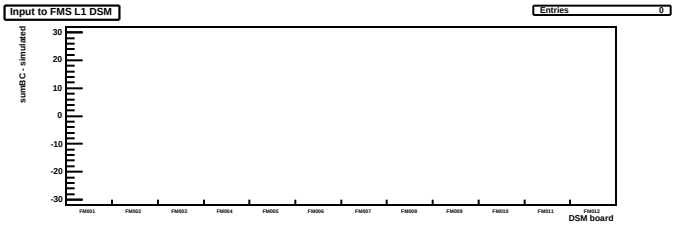

Input to FMS L1 DSM
Entries 1.2e+07
sumD
DSM board

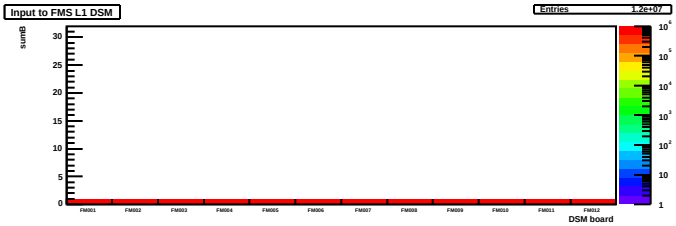

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

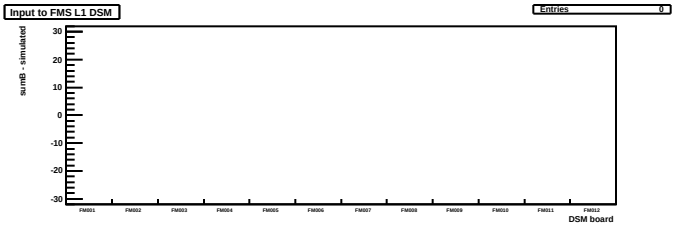

Input to FMS L1 DSM
Entries 1.2e+07
sumC
DSM board

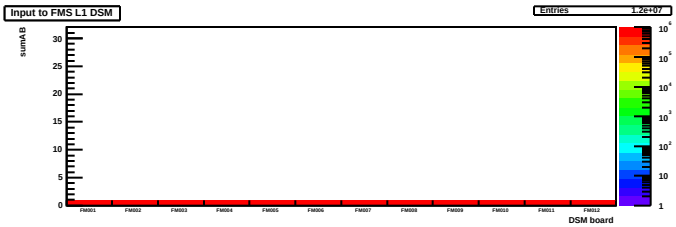

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

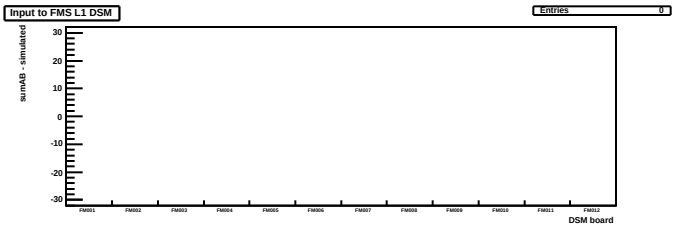

Input to FMS L1 DSM
Entries 1.2e+07
sumBC
DSM board

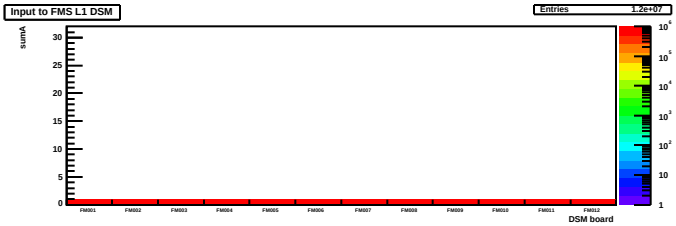

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

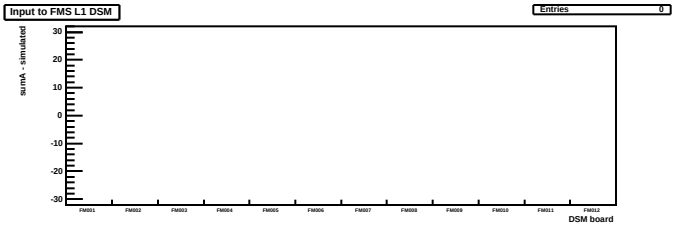

Input to FMS L1 DSM
Entries 1.2e+07
sumB
DSM board

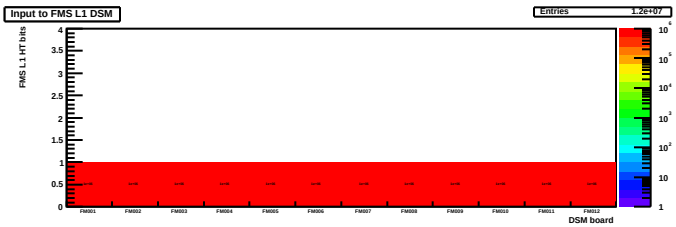

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

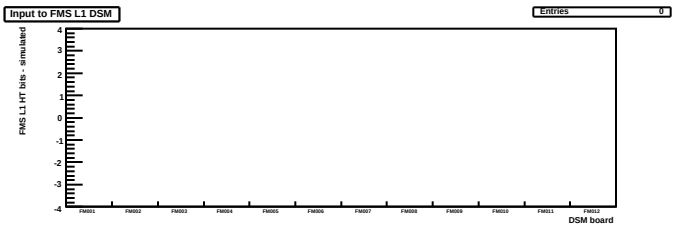

Input to FMS L1 DSM
Entries 1.2e+07
sumAB
DSM board

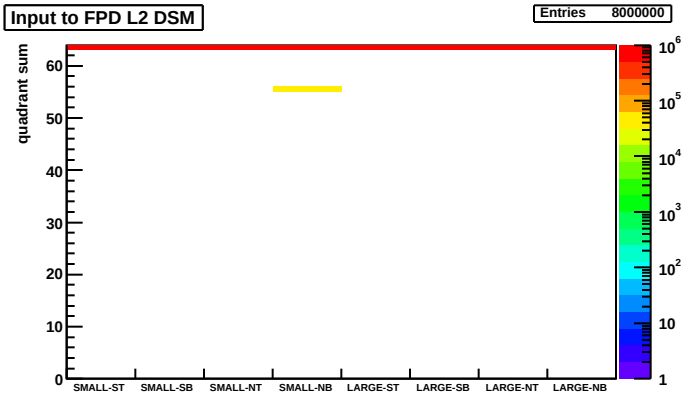

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

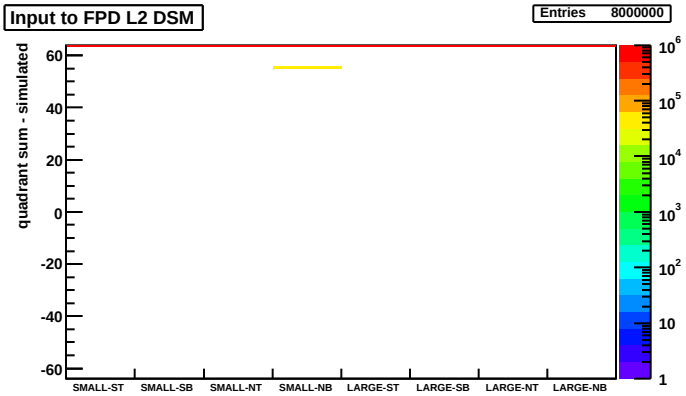

Input to FMS L1 DSM
Entries 1.2e+07
sumA
DSM board

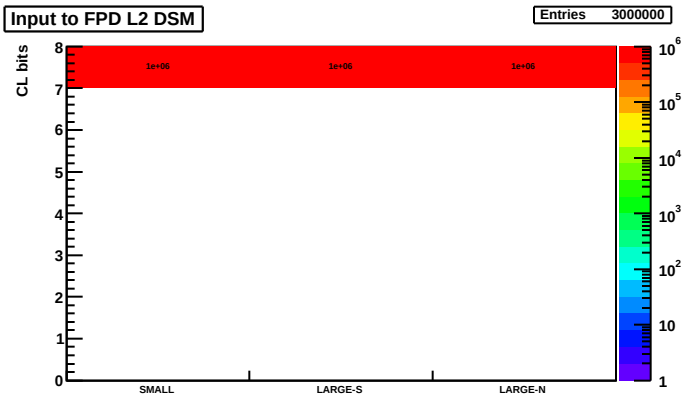

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

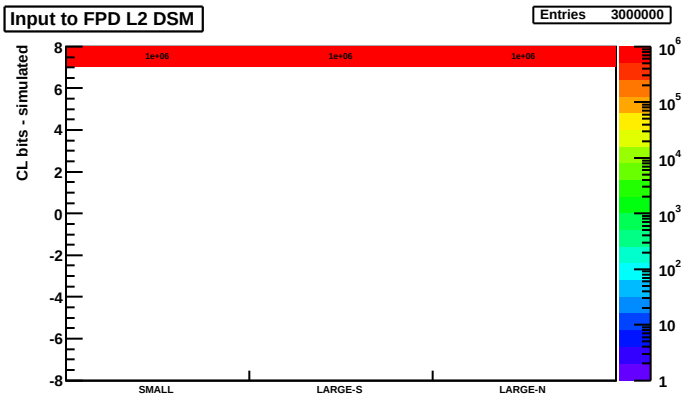

Input to FMS L1 DSM
Entries 1.2e+07
FMS L1 HT bits
DSM board

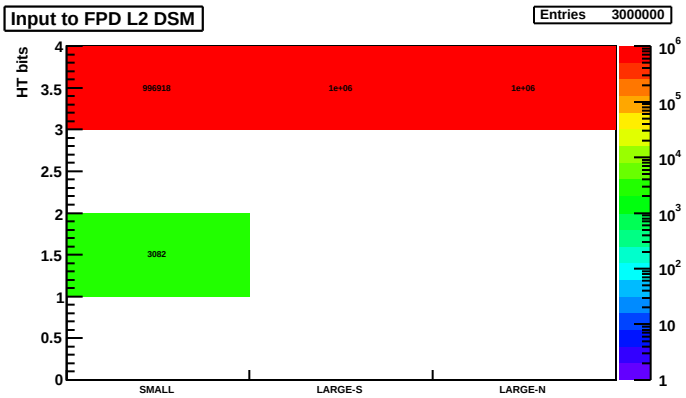

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

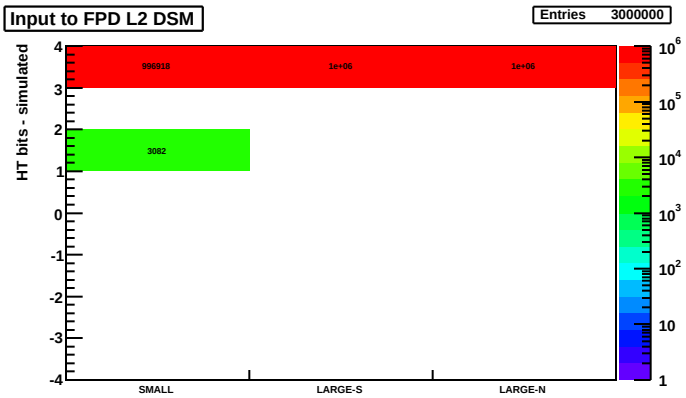

Input to FPD L2 DSM
Entries 8000000
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

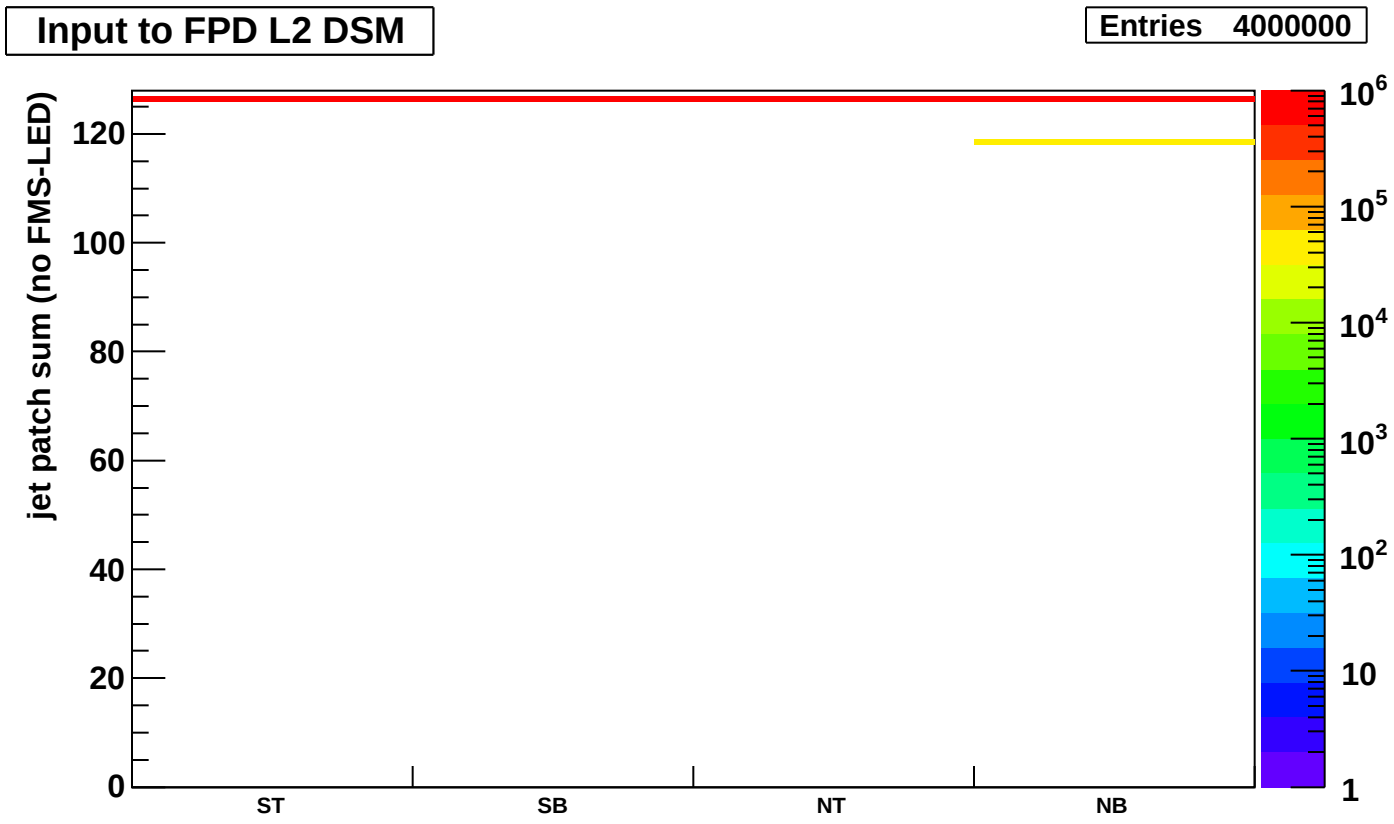

Input to FPD L2 DSM
Entries 8000000
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

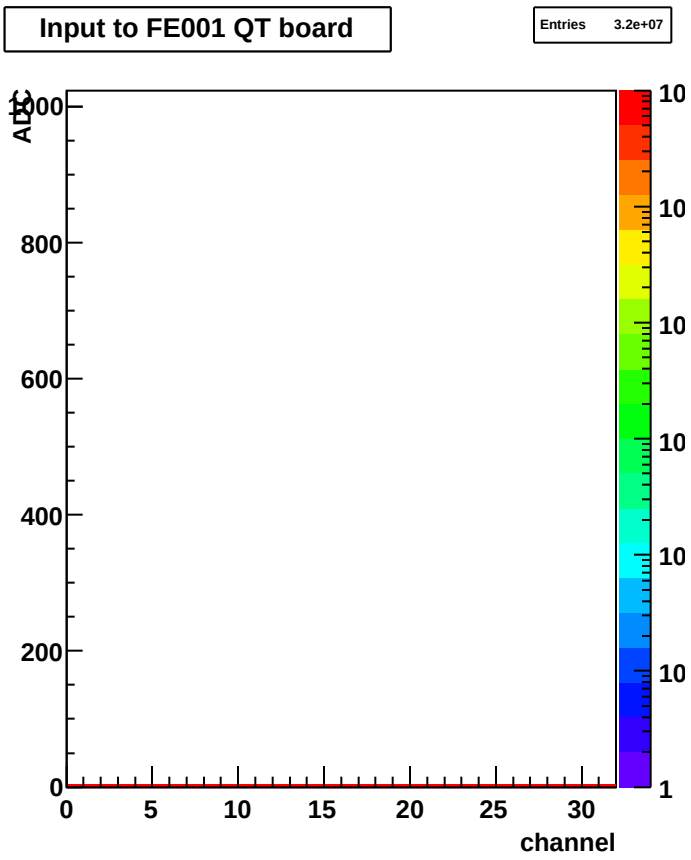

Input to FPD L2 DSM
Entries 3000000
CL bits
1e+06
1e+06
1e+06
SMALL
LARGE-S
LARGE-N

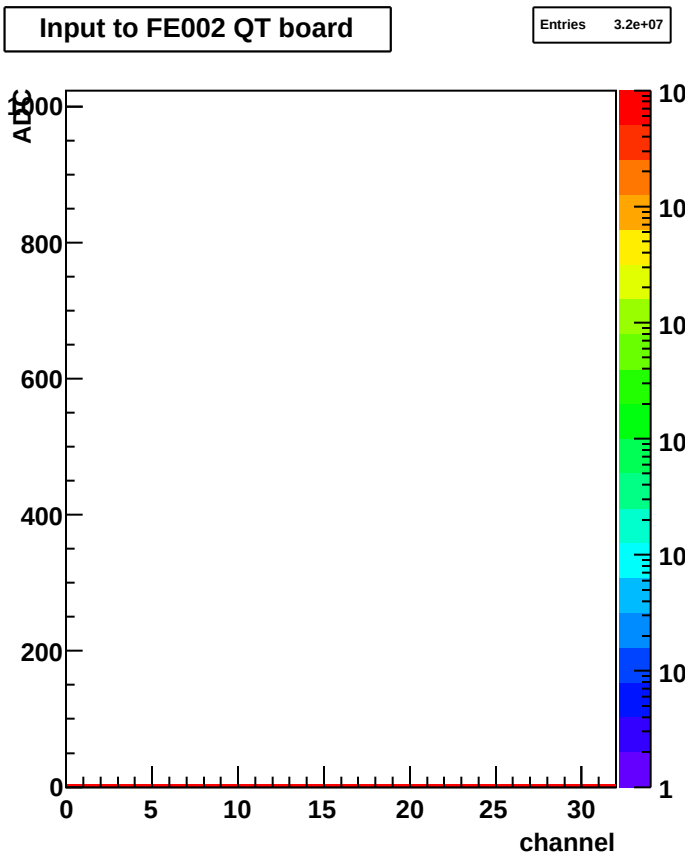

Input to FPD L2 DSM
Entries 3000000
CL bits - simulated
1e+06
1e+06
1e+06
SMALL
LARGE-S
LARGE-N

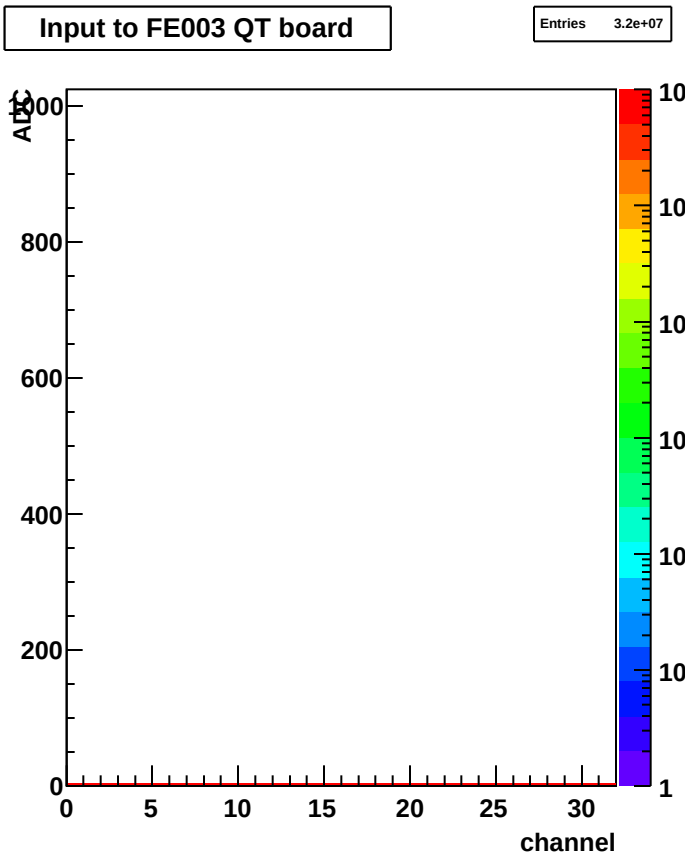

Input to FPD L2 DSM
Entries 3000000
HT bits
996918
1e+06
1e+06
3082
SMALL
LARGE-S
LARGE-N

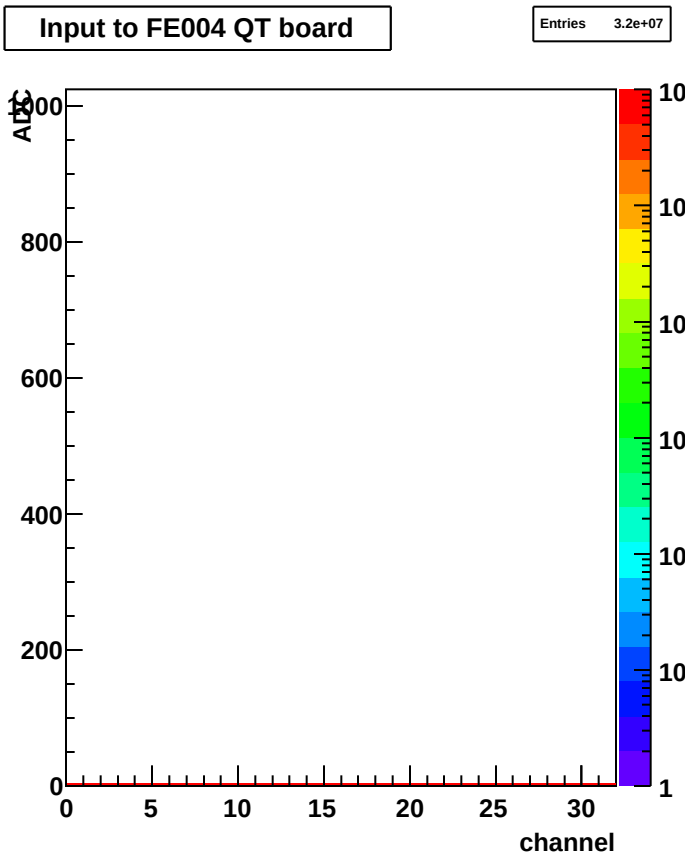

Input to FPD L2 DSM
Entries 3000000
HT bits - simulated
996918
1e+06
1e+06
3082
SMALL
LARGE-S
LARGE-N

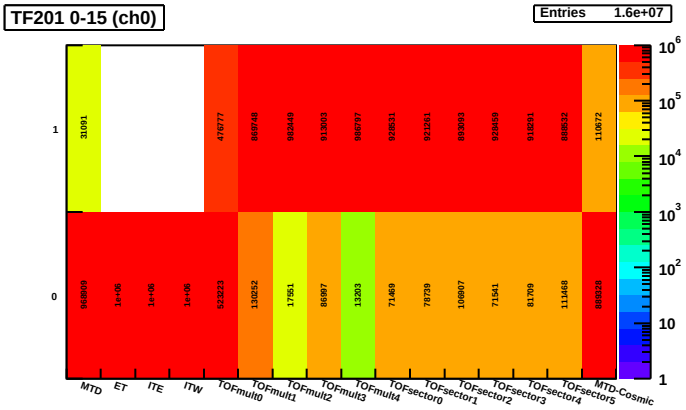

Input to FPD L2 DSM
Entries 4000000
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5
10^6

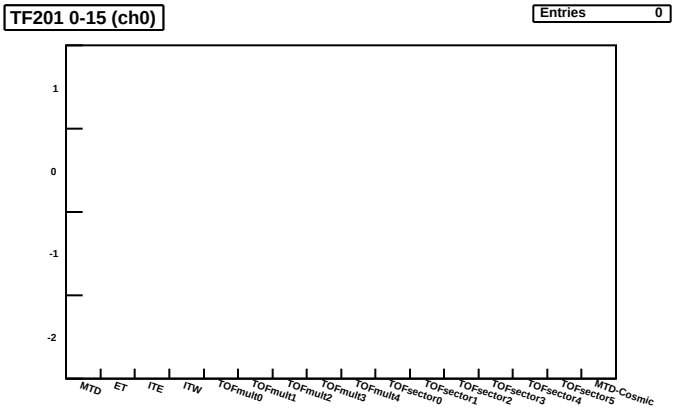

Input to FE001 QT board
Entries 3.2e+07
ADC
channel

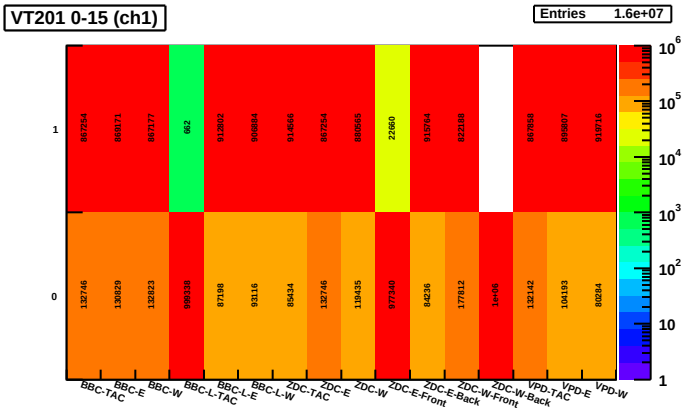

Input to FE002 QT board
Entries 3.2e+07
ADC
channel

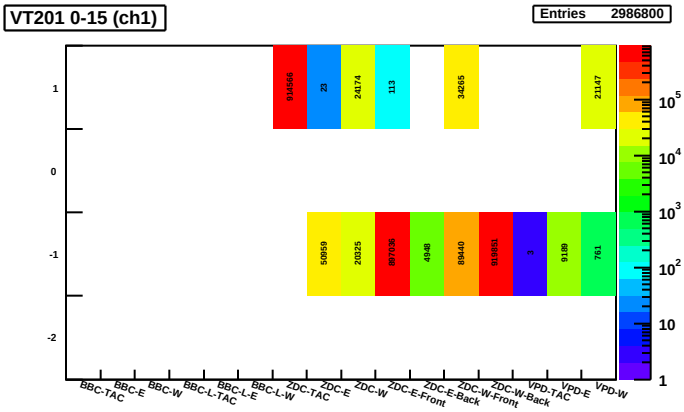

Input to FE003 QT board
Entries 3.2e+07
ADC
channel

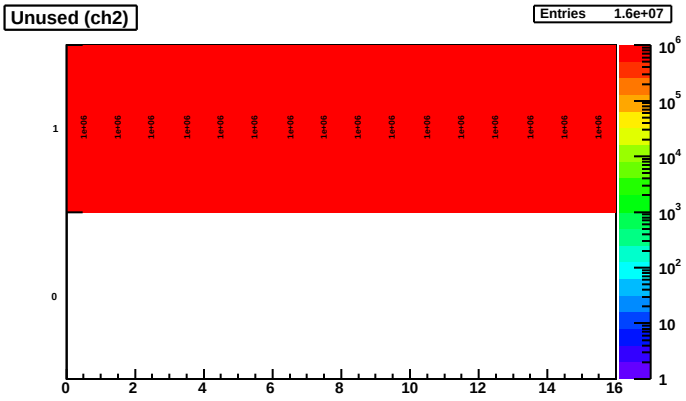

Input to FE004 QT board
Entries 3.2e+07
ADC
channel

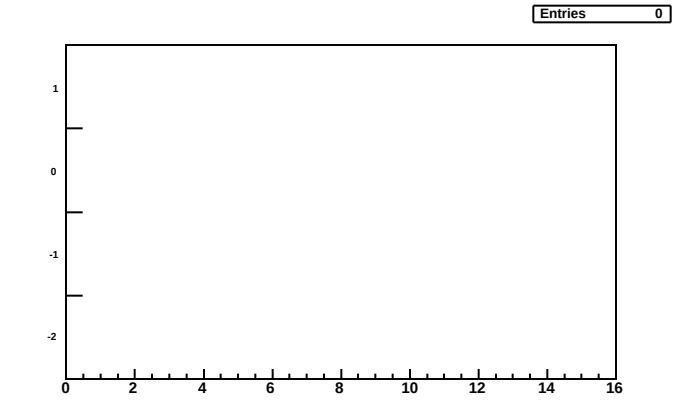

TF201 0-15 (ch0)
Entries 1.6e+07
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

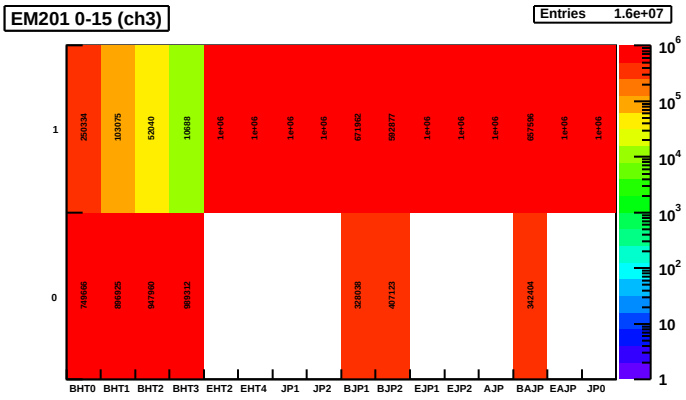

TF201 0-15 (ch0)
Entries 0
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

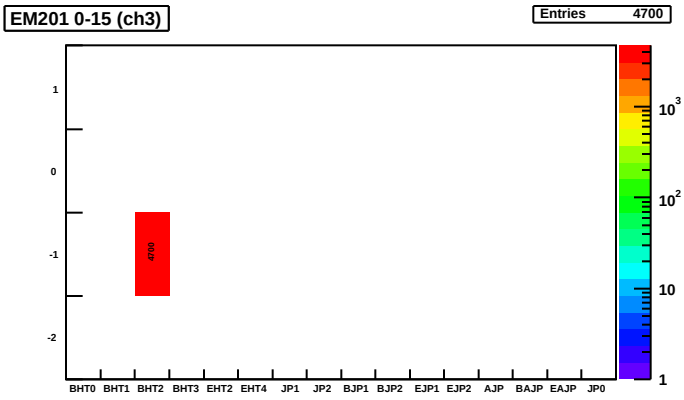

VT201 0-15 (ch1)
Entries 1.6e+07
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

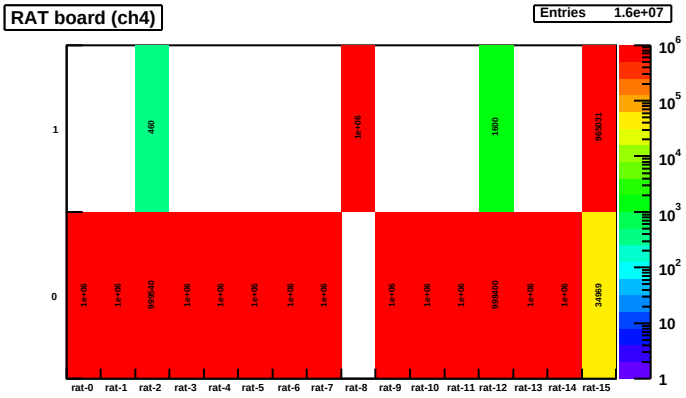

VT201 0-15 (ch1)
Entries 2986800
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

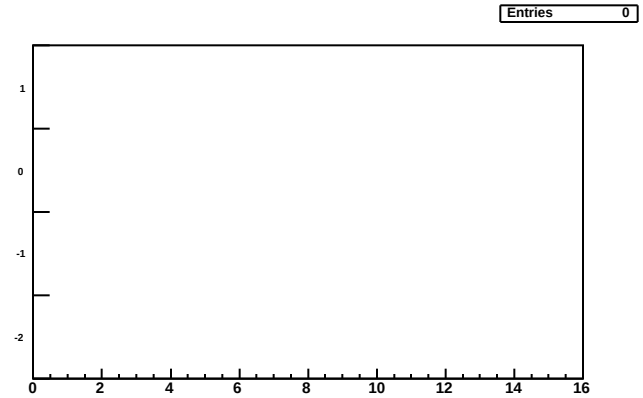

Unused (ch2)
Entries 1.6e+07

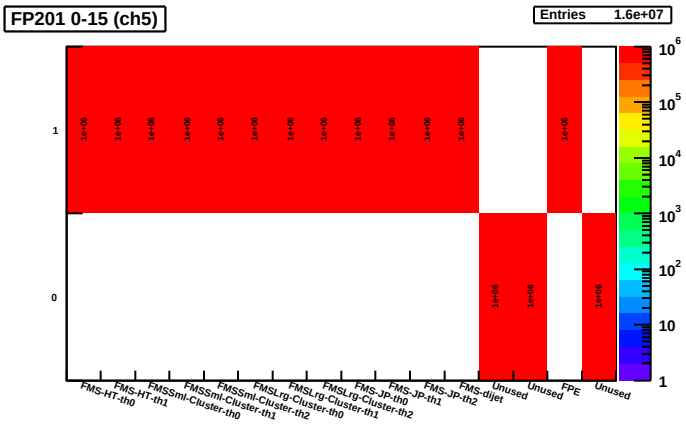

Entries 0

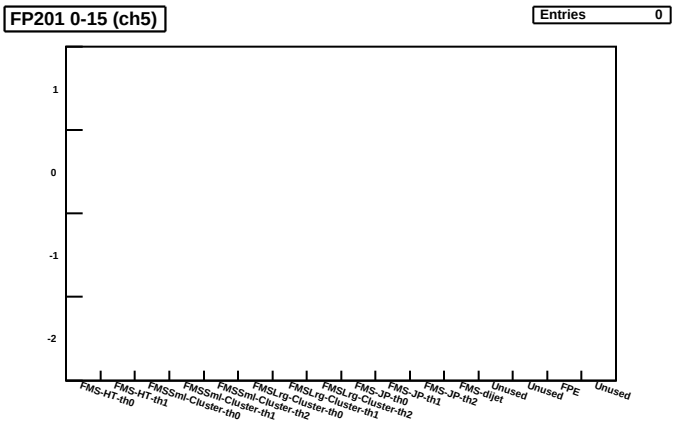

EM201 0-15 (ch3)
Entries 1.6e+07
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

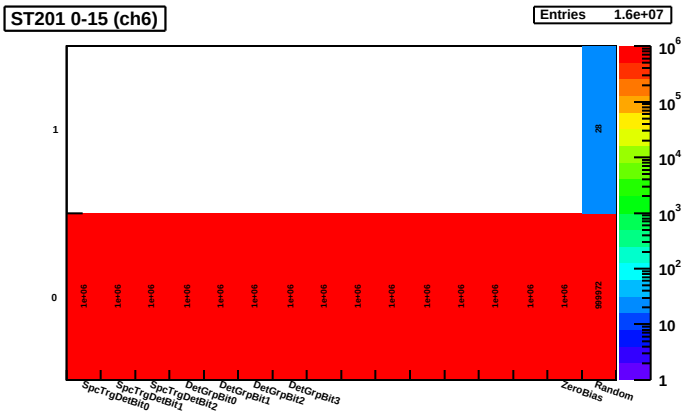

EM201 0-15 (ch3)
Entries 4700
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

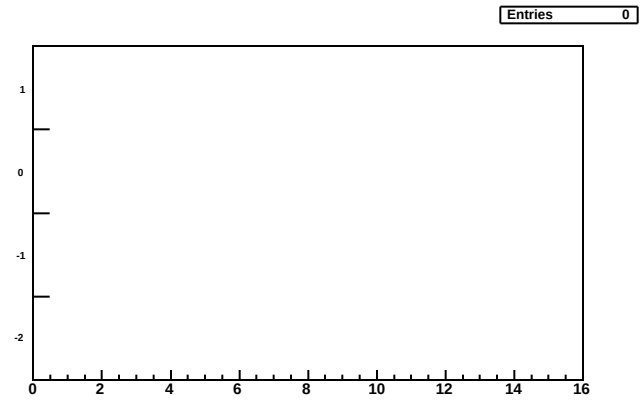

RAT board (ch4)
Entries 1.6e+07
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

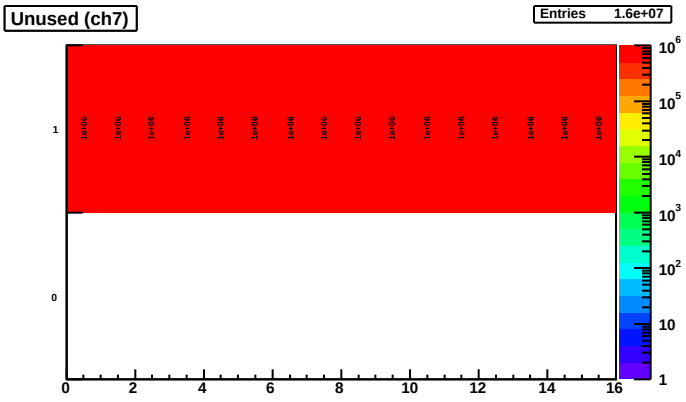

Entries 0

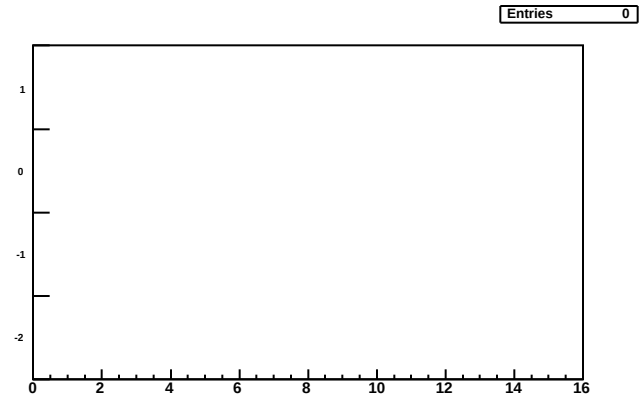

FP201 0-15 (ch5)
Entries 1.6e+07
FMS-HT-th0 FMS-HT-th1 FMSSml-Cluster-th0 FMSSml-Cluster-th1 FMSSml-Cluster-th2 FMSLrg-Cluster-th0 FMSLrg-Cluster-th1 FMSLrg-Cluster-th2 FMS-JP-th0 FMS-JP-th1 FMS-JP-th2 FMS-dijet Unused Unused FPE Unused


FP201 0-15 (ch5)
Entries 0
FMS-HT-th0 FMS-HT-th1 FMSSml-Cluster-th0 FMSSml-Cluster-th1 FMSSml-Cluster-th2 FMSLrg-Cluster-th0 FMSLrg-Cluster-th1 FMSLrg-Cluster-th2 FMS-JP-th0 FMS-JP-th1 FMS-JP-th2 FMS-dijet Unused Unused FPE Unused


ST201 0-15 (ch6)
Entries 1.6e+07
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random


Entries 0


Unused (ch7)
Entries 1.6e+07


Entries 0