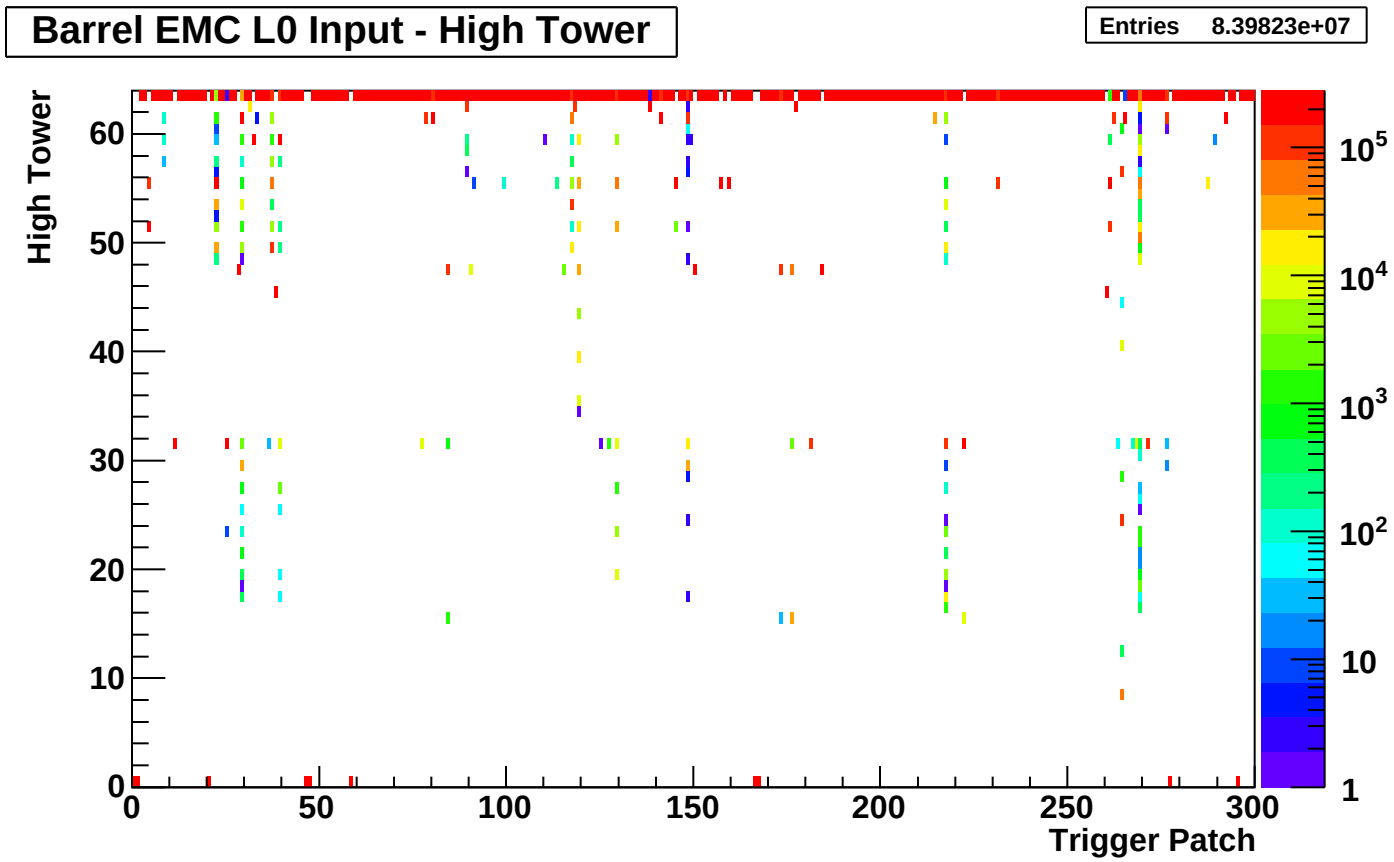
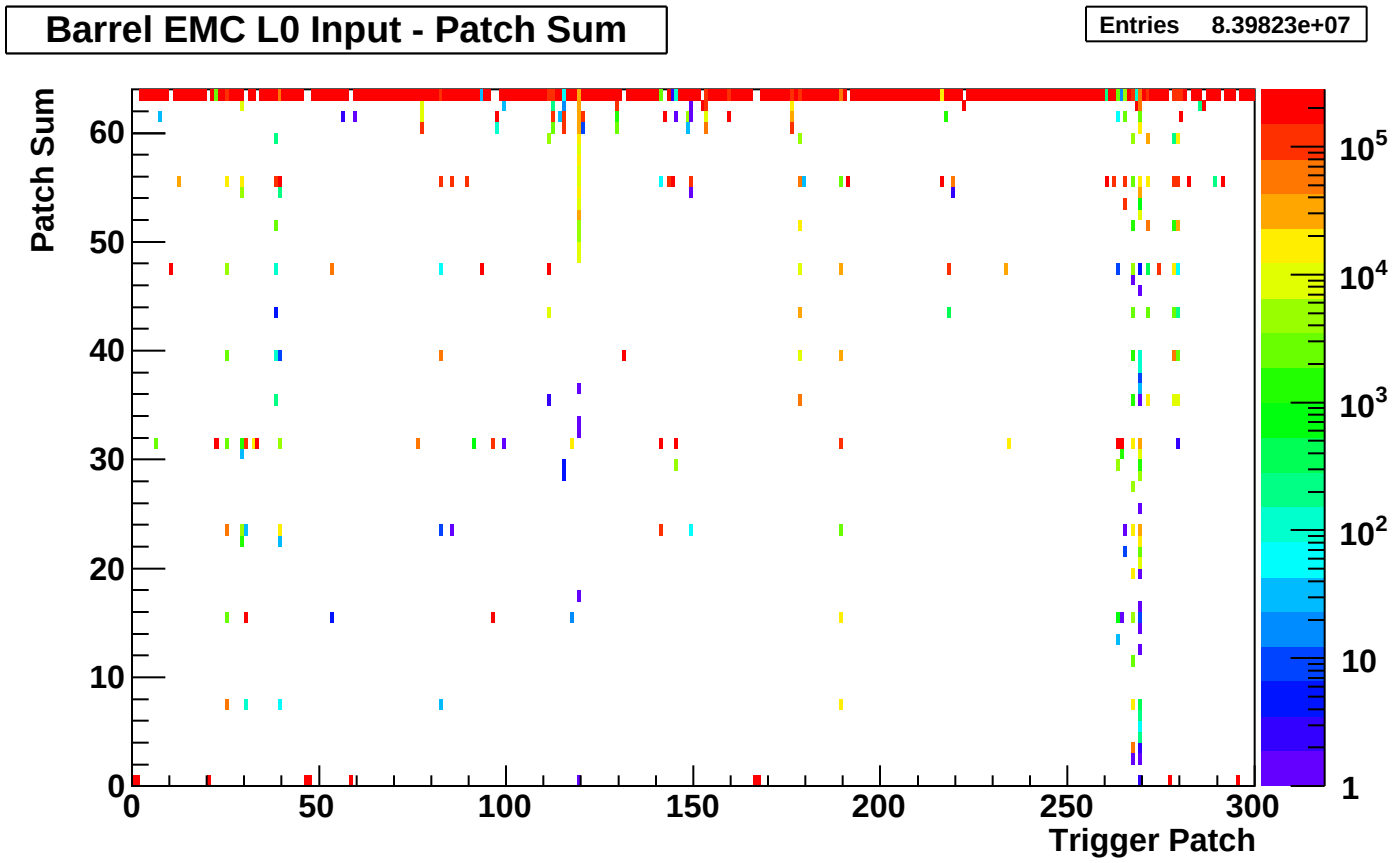
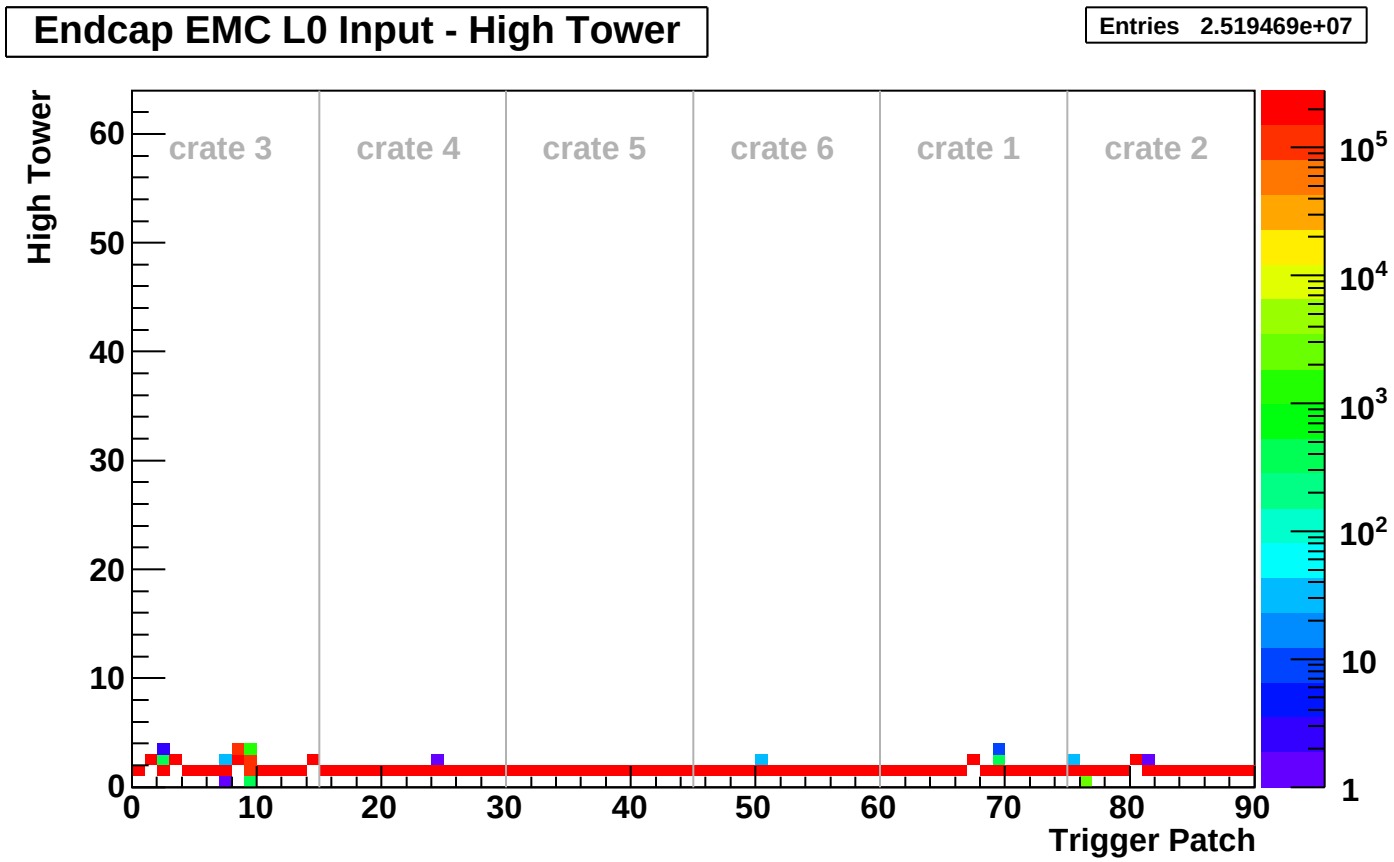
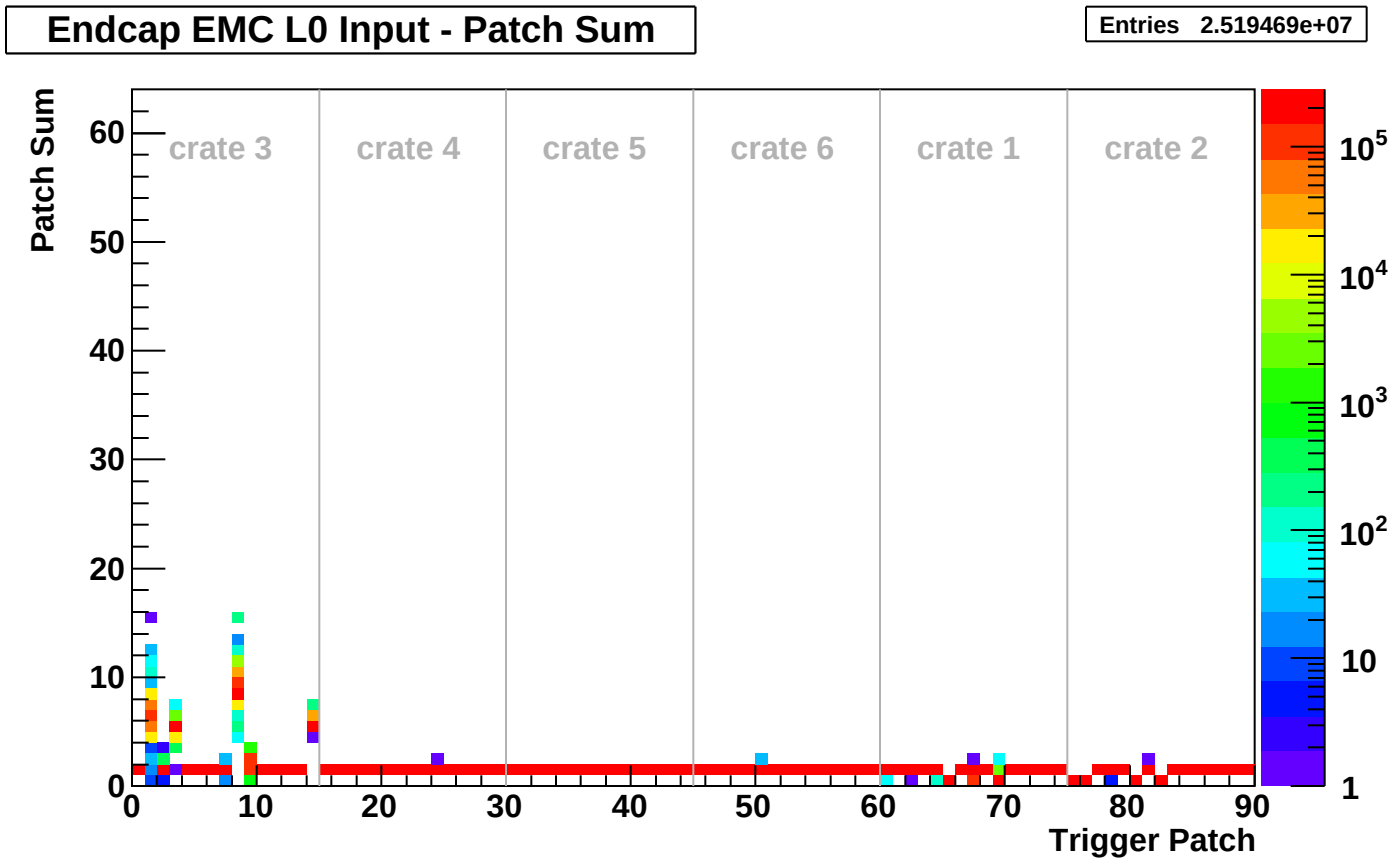
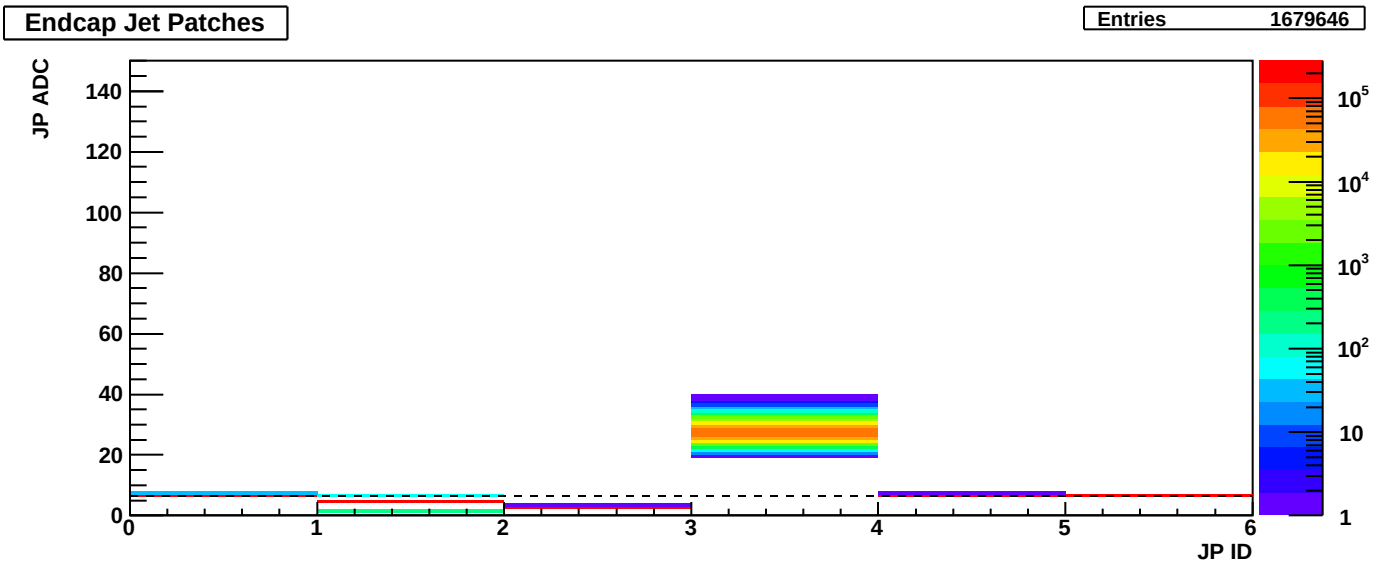
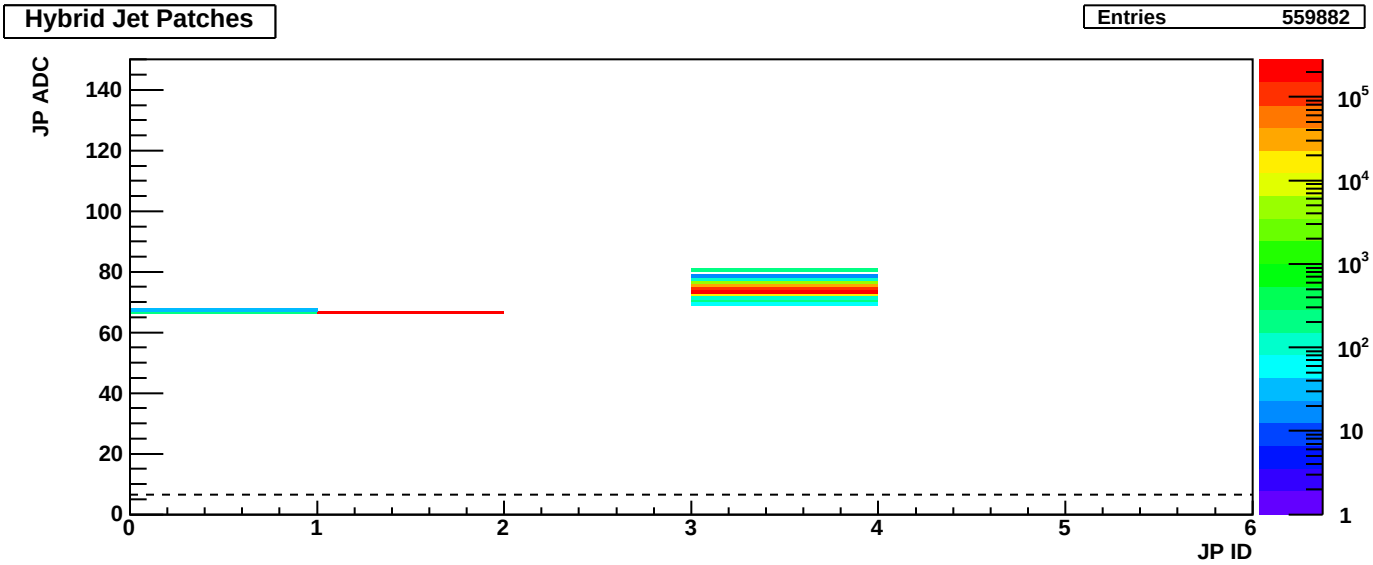

Barrel EMC L0 Input - High Tower
Entries 8.39823e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

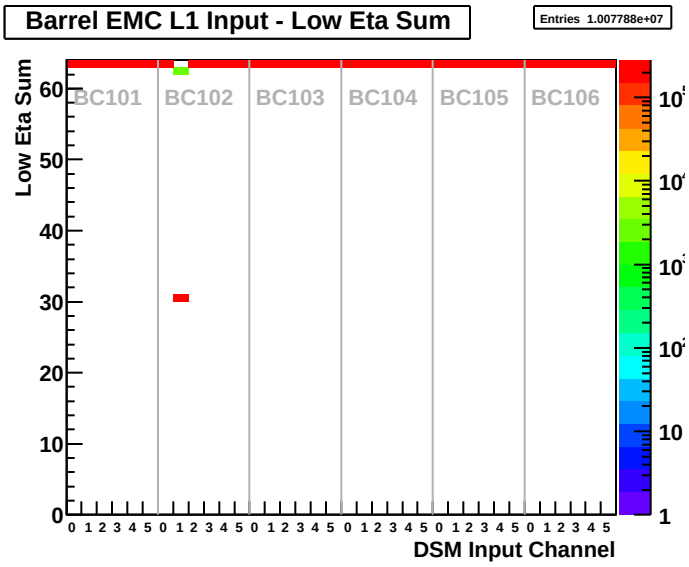

Barrel EMC L0 Input - Patch Sum
Entries 8.39823e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

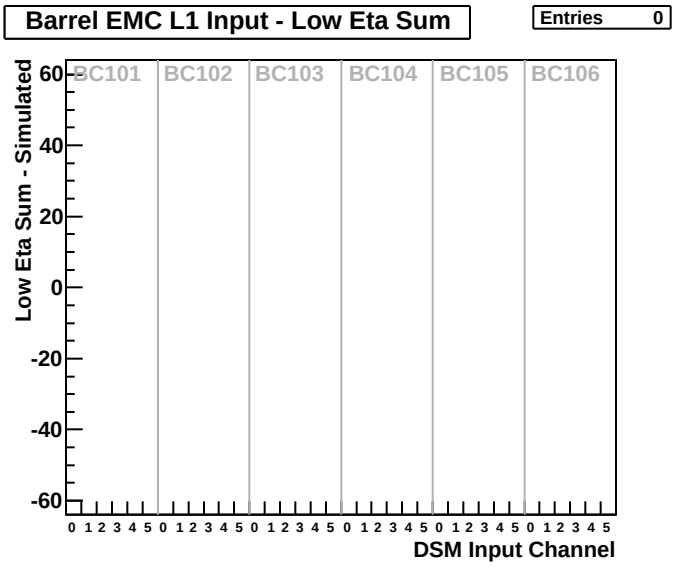

Endcap EMC L0 Input - High Tower
Entries 2.519469e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

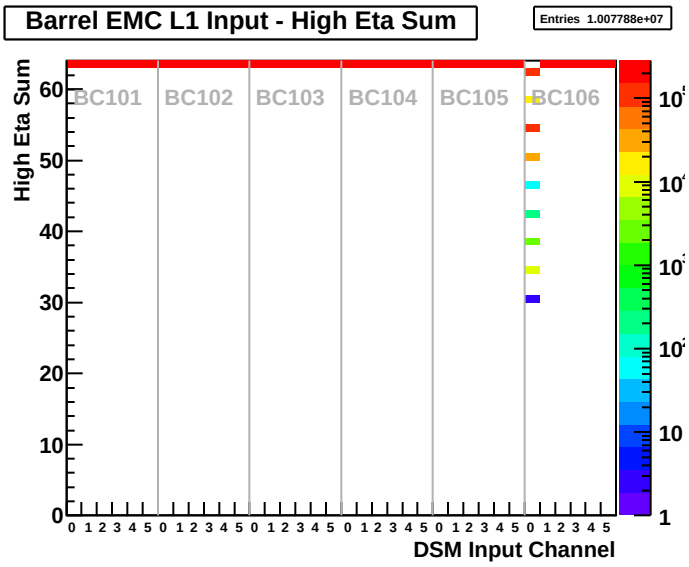

Endcap EMC L0 Input - Patch Sum
Entries 2.519469e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

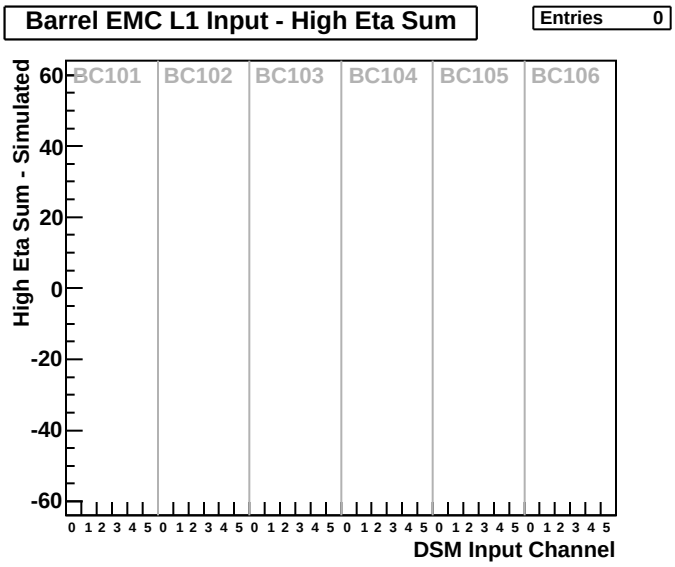

Endcap Jet Patches
Entries 1679646
JP ADC
JP ID

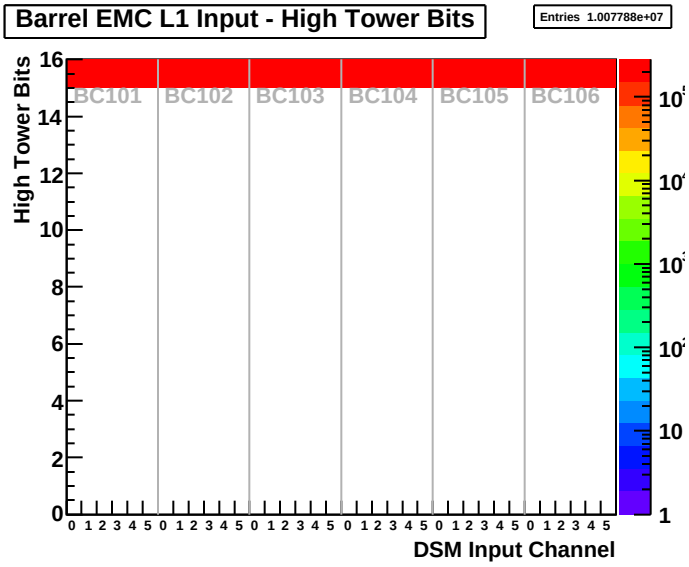

Hybrid Jet Patches
Entries 559882
JP ADC
JP ID

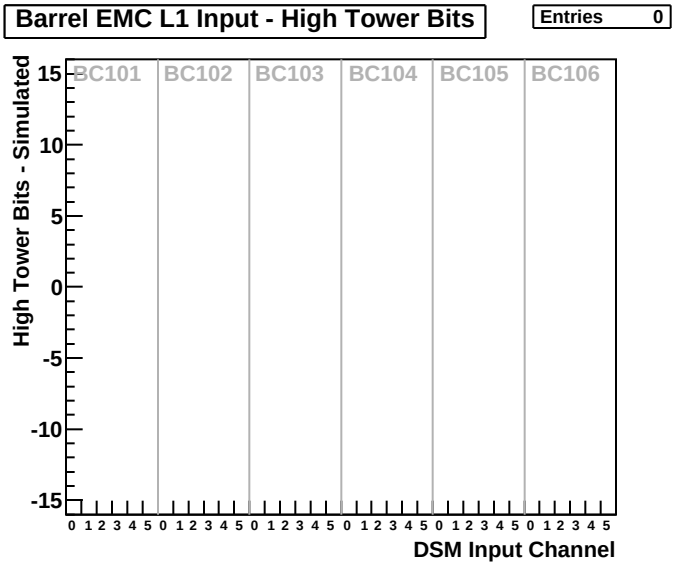

Barrel EMC L1 Input - Low Eta Sum
Entries 1.007788e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

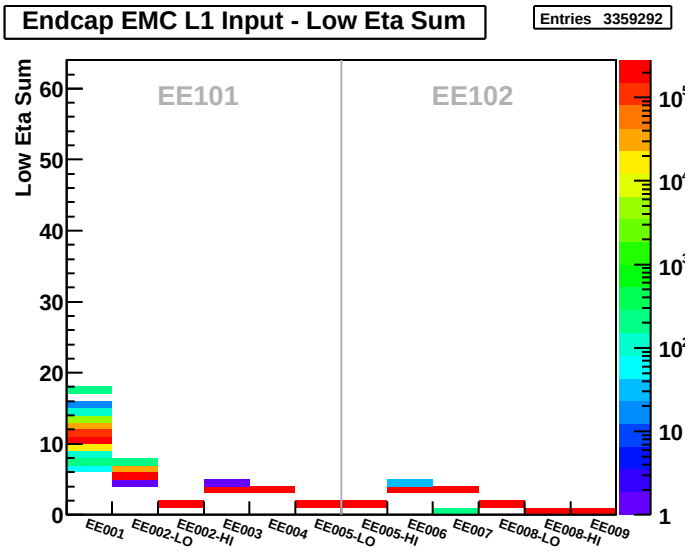

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

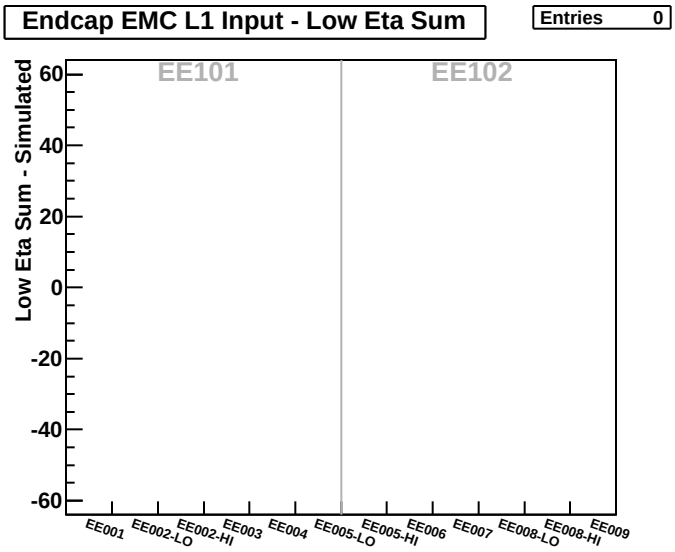

Barrel EMC L1 Input - High Eta Sum
Entries 1.007788e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

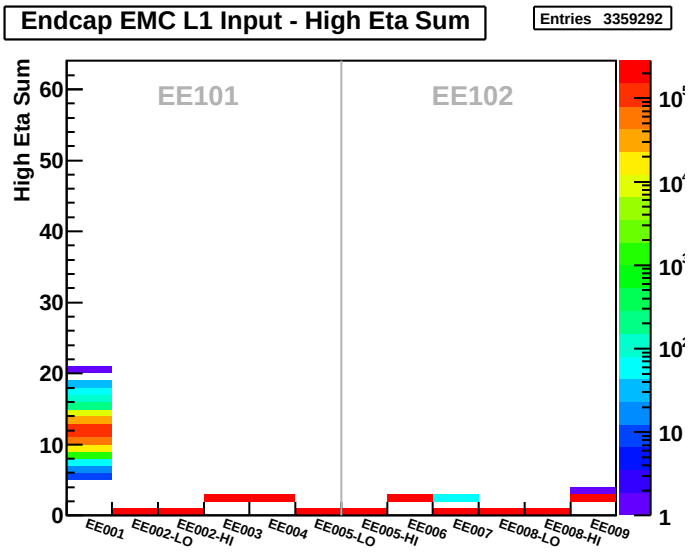

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

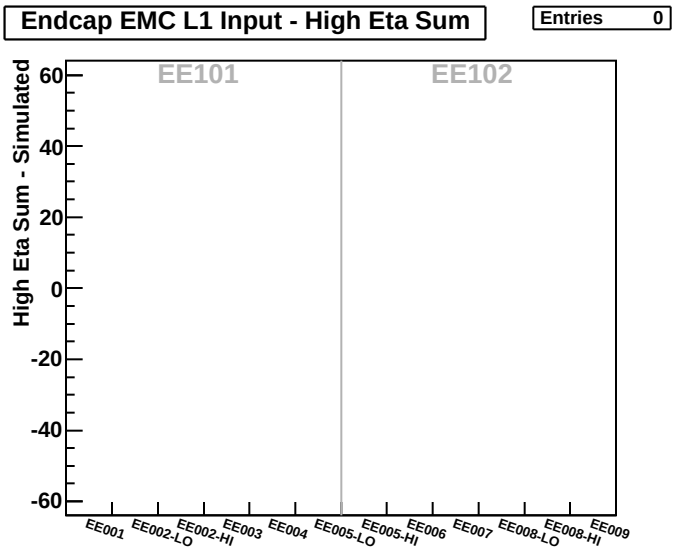

Barrel EMC L1 Input - High Tower Bits
Entries 1.007788e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

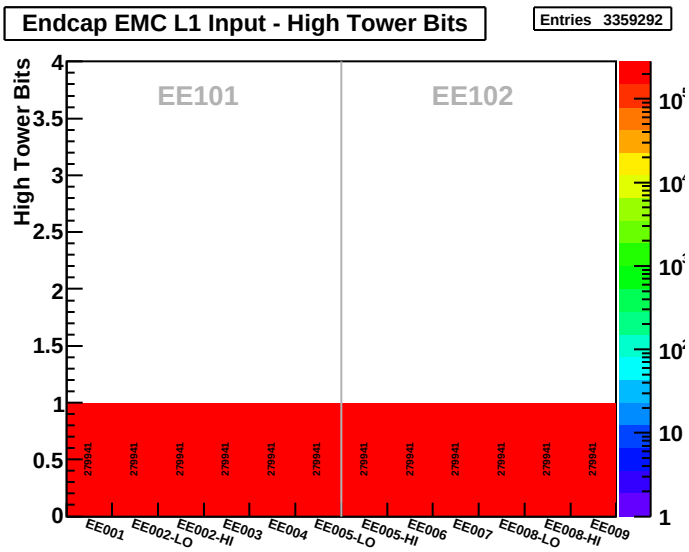

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

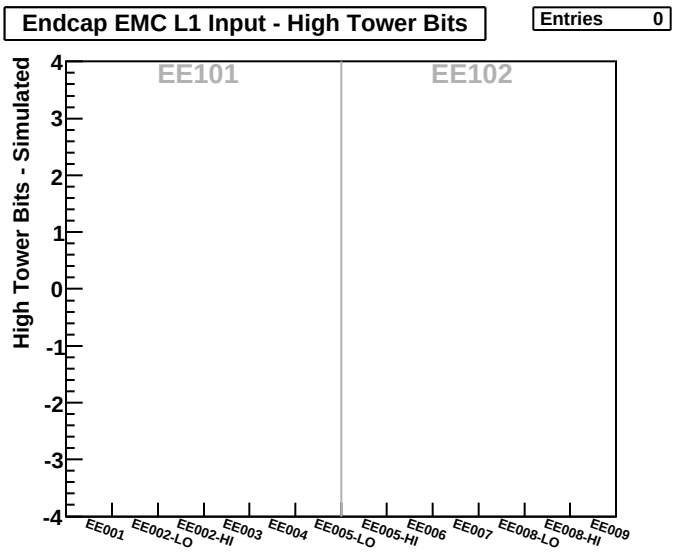

Endcap EMC L1 Input - Low Eta Sum
Entries 3359292
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

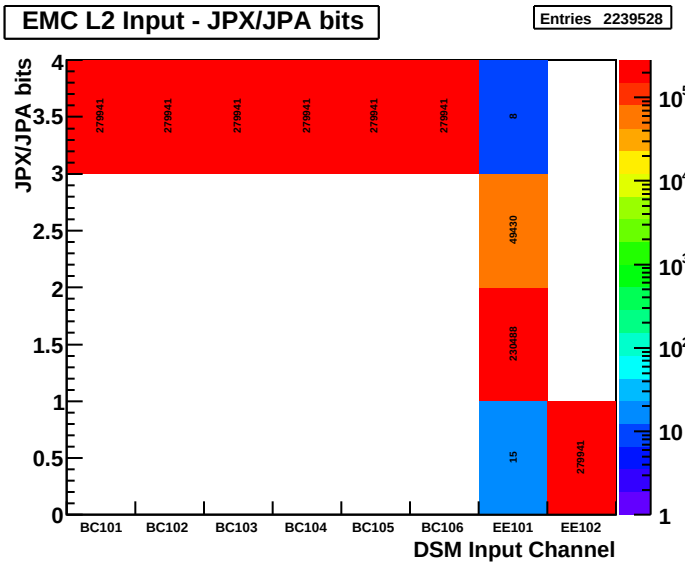

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

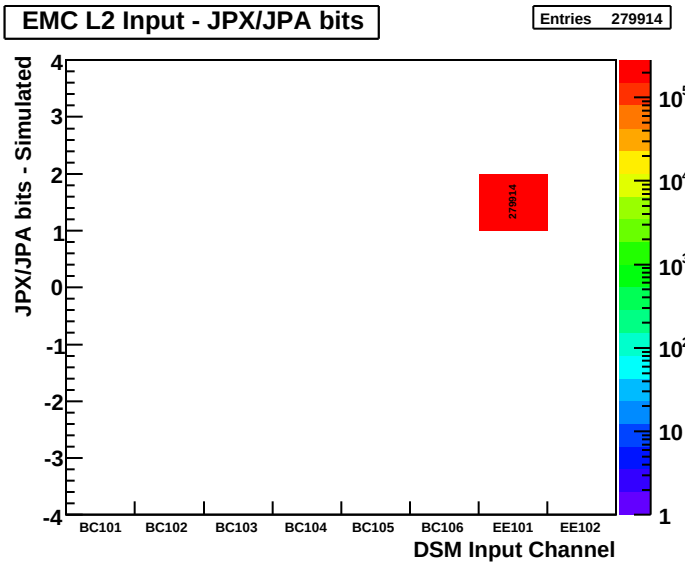

Endcap EMC L1 Input - High Eta Sum
Entries 3359292
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

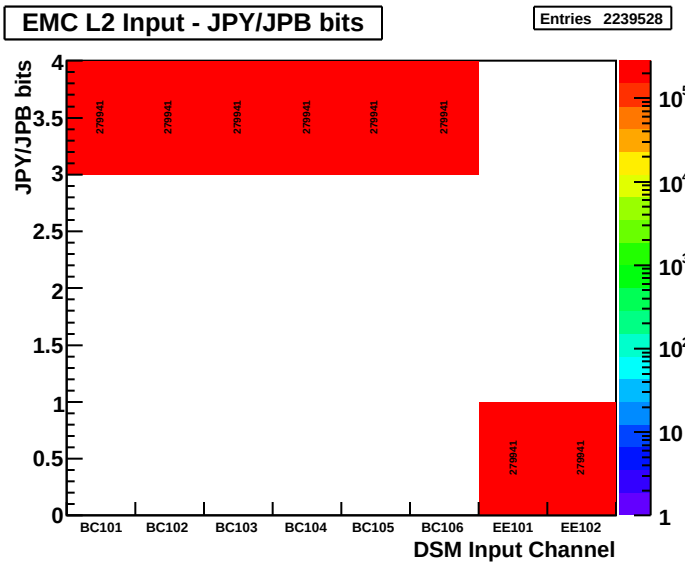

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

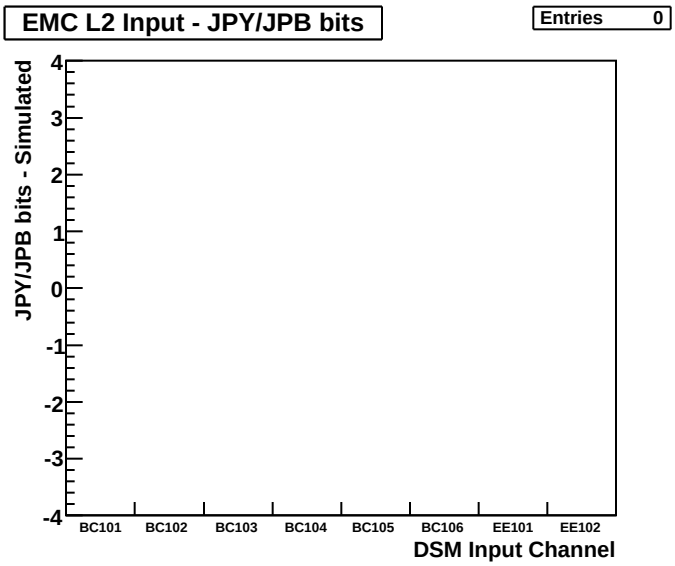

Endcap EMC L1 Input - High Tower Bits
Entries 3359292
High Tower Bits
EE101
EE102
27941
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

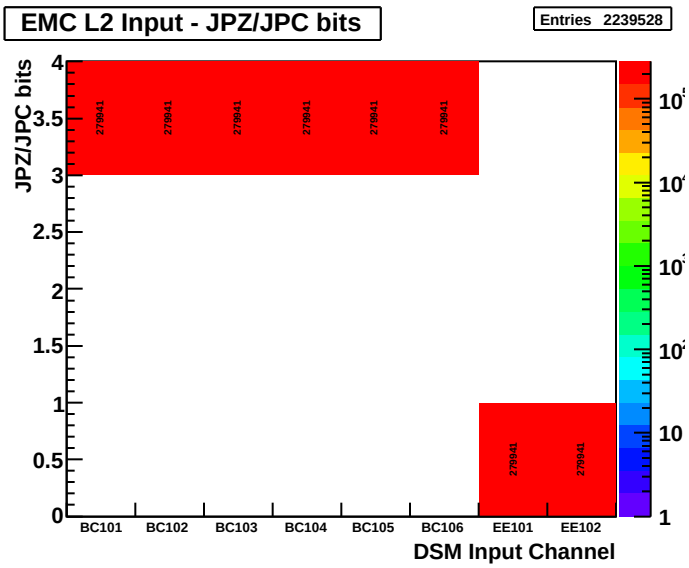

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

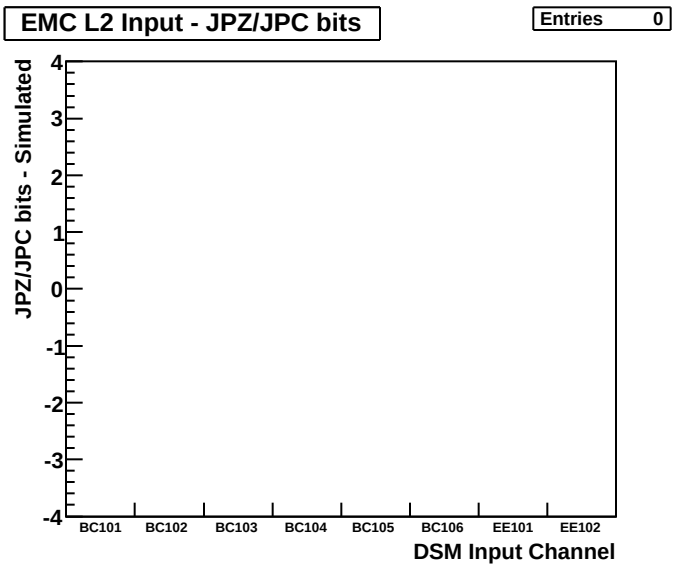

EMC L2 Input - JPX/JPA bits
Entries 2239528
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
279941 279941 279941 279941 279941 279941 8
49430
230488
15 279941

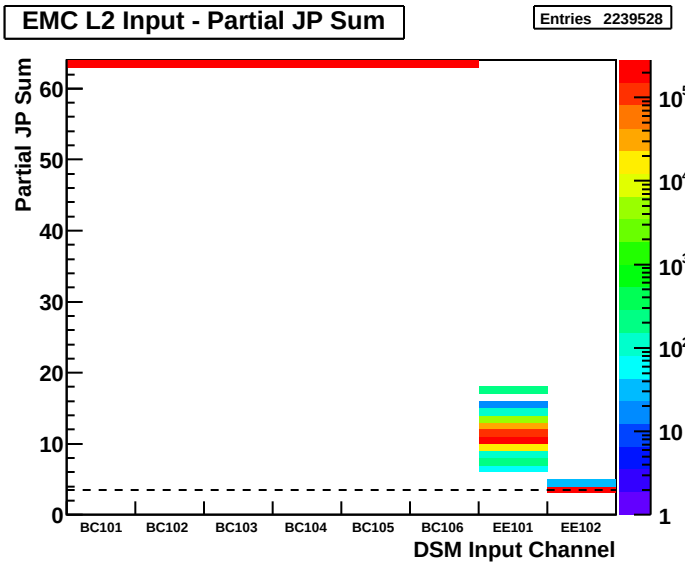

EMC L2 Input - JPX/JPA bits
Entries 279914
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
279914

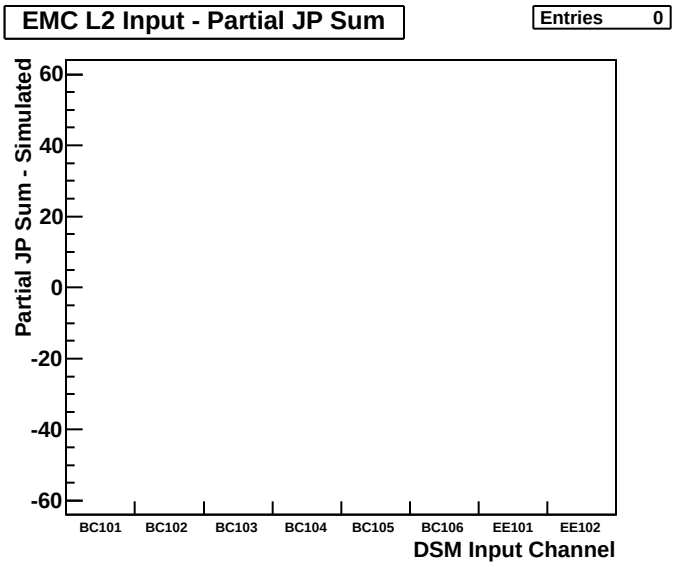

EMC L2 Input - JPY/JPB bits
Entries 2239528
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
279941 279941 279941 279941 279941 279941
279941 279941

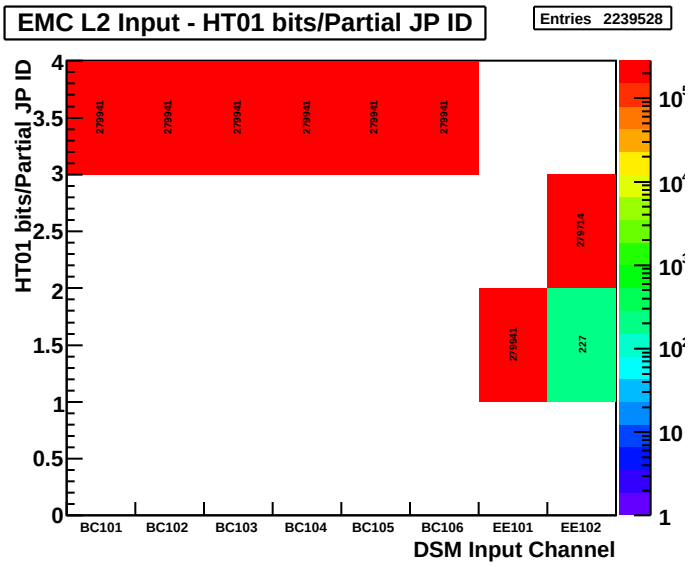

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

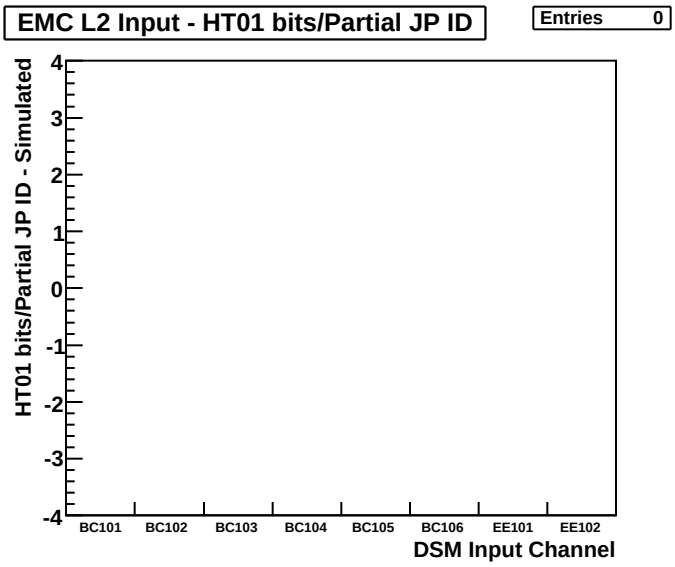

EMC L2 Input - JPZ/JPC bits
Entries 2239528
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
279941 279941 279941 279941 279941 279941
279941 279941

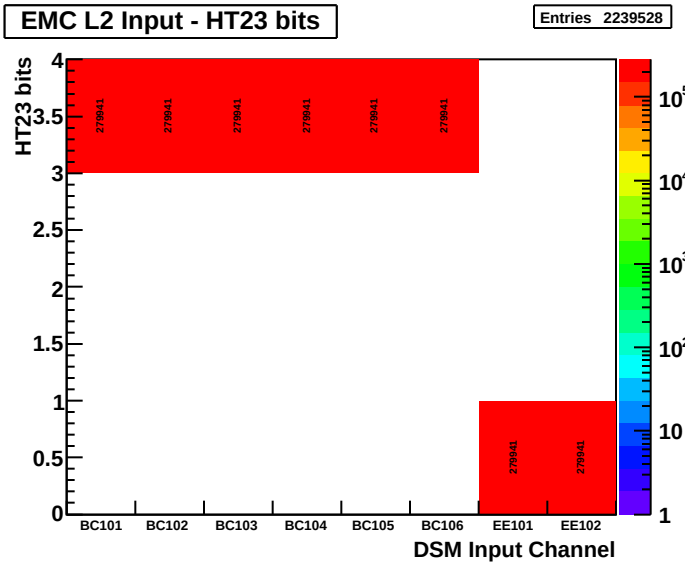

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

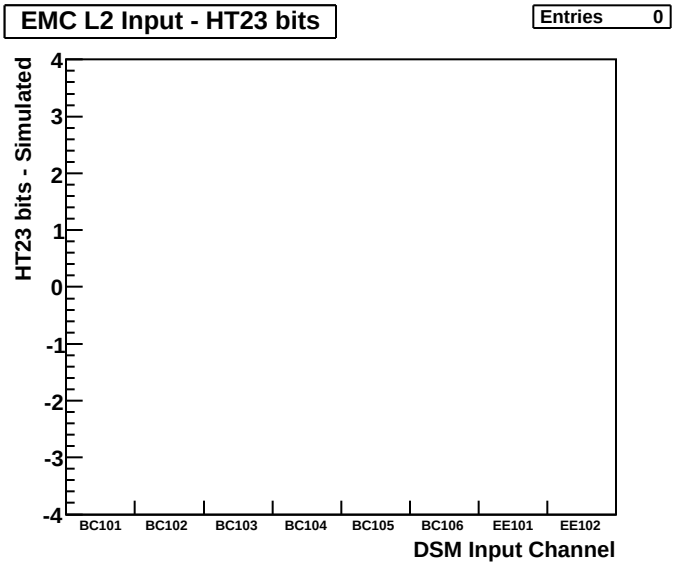

EMC L2 Input - Partial JP Sum
Entries 2239528
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

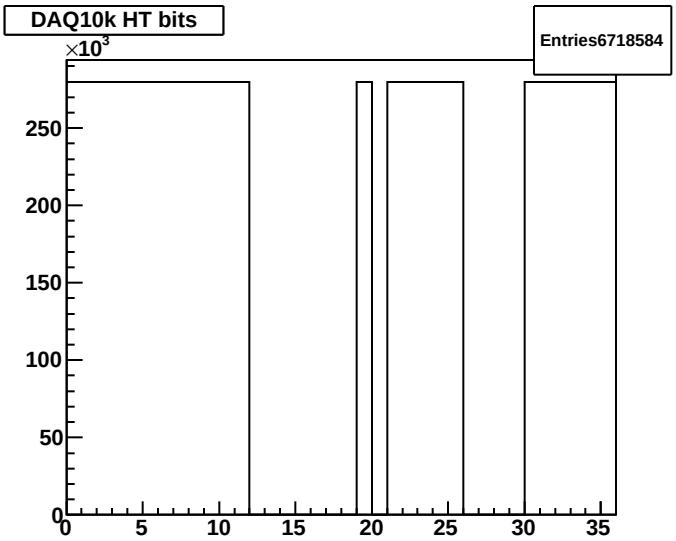

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

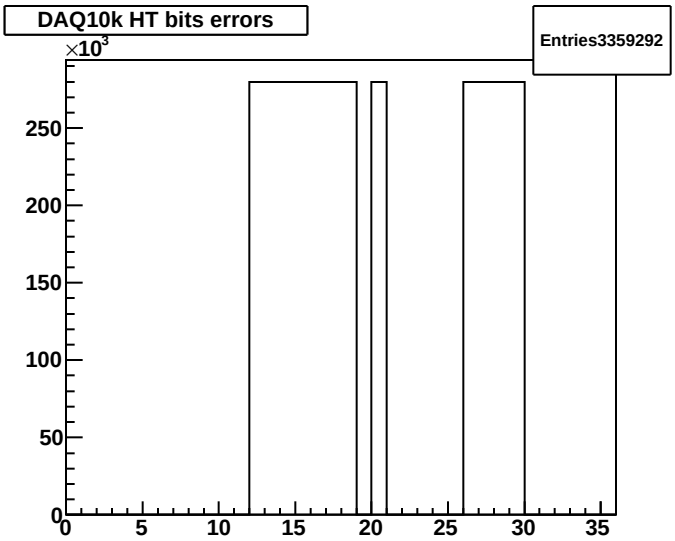

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2239528
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

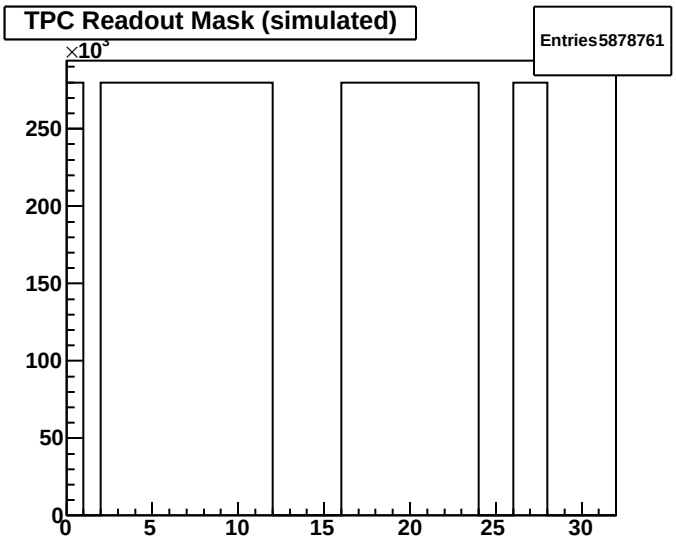

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

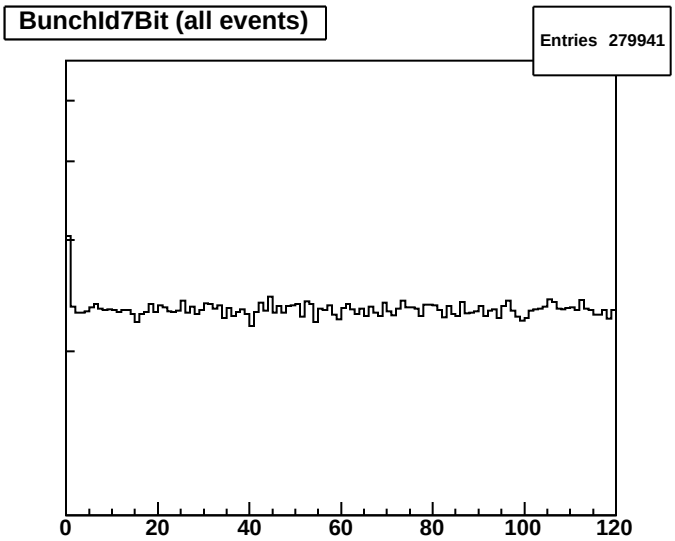

EMC L2 Input - HT23 bits
Entries 2239528
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

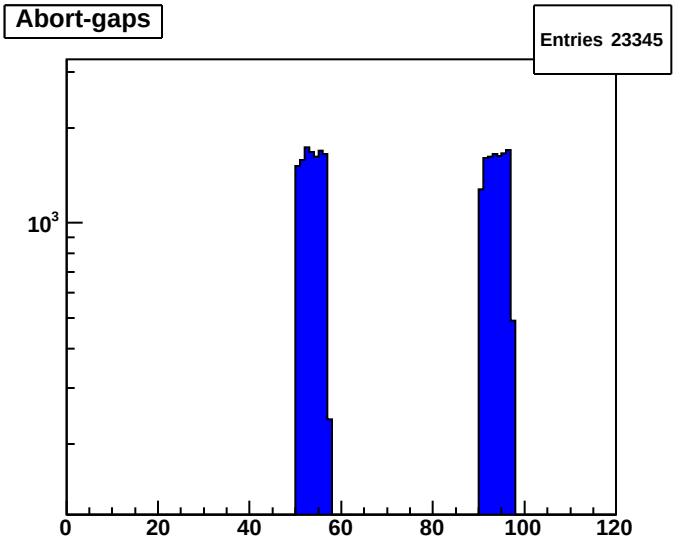

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

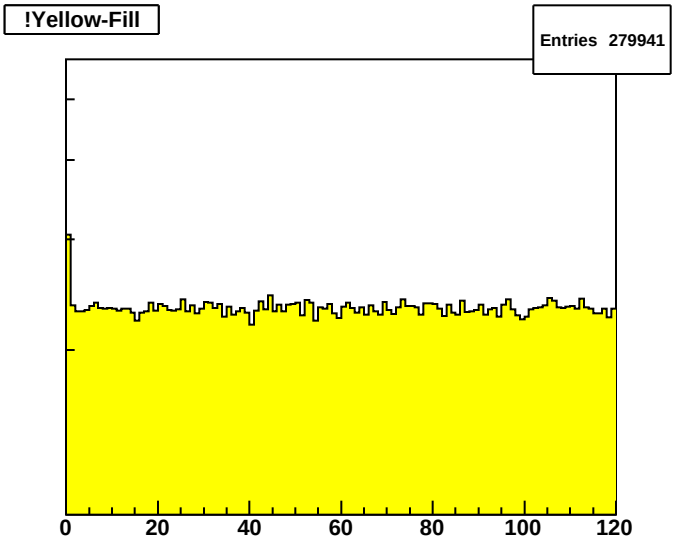

DAQ10k HT bits
Entries6718584
×10^3
250
200
150
100
50
0
0 5 10 15 20 25 30 35

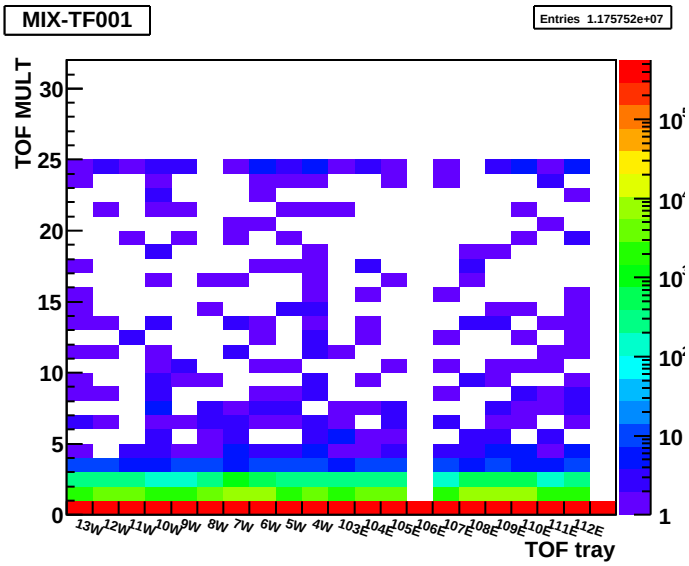

DAQ10k HT bits errors
Entries3359292
×10^3
250
200
150
100
50
0
0 5 10 15 20 25 30 35

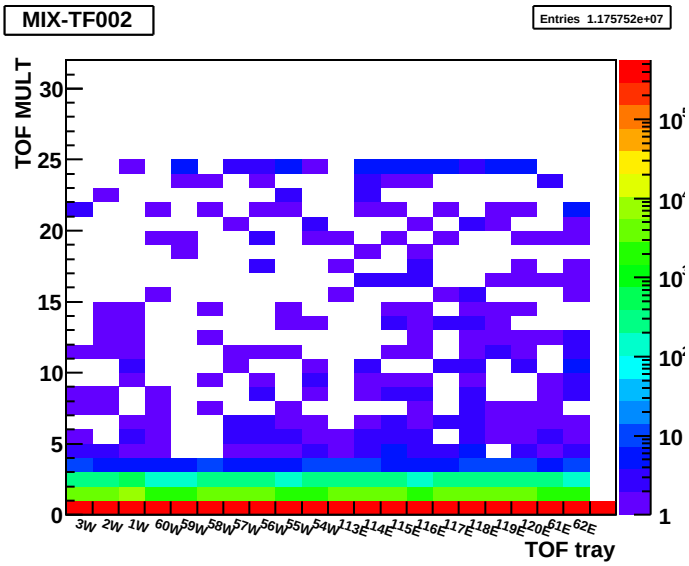

TPC Readout Mask (simulated)
Entries5878761
×10^3
250
200
150
100
50
0
0 5 10 15 20 25 30

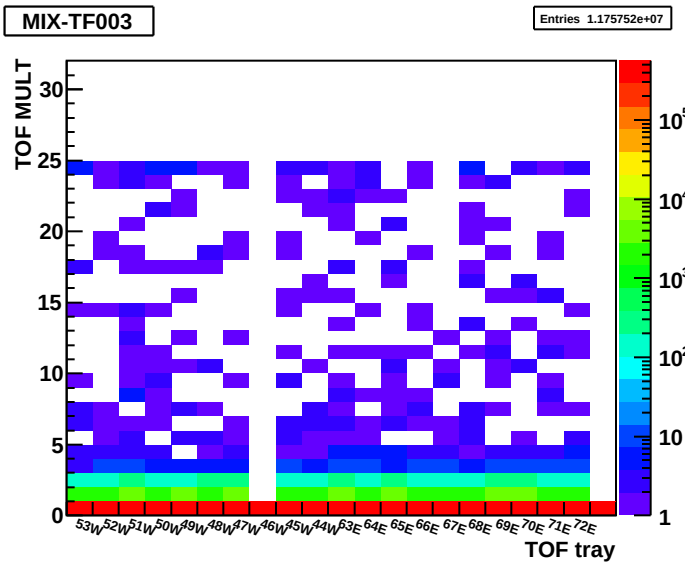

BunchId7Bit (all events)
Entries 279941
0 20 40 60 80 100 120

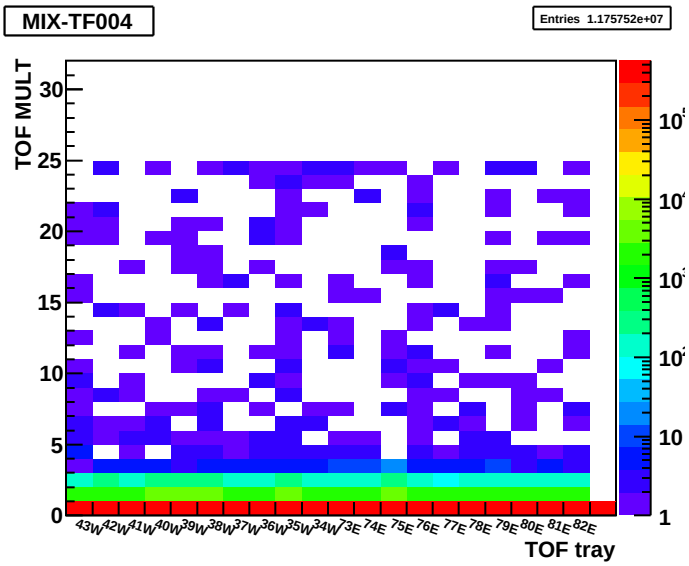

Abort-gaps
Entries 23345
10^3
0 20 40 60 80 100 120

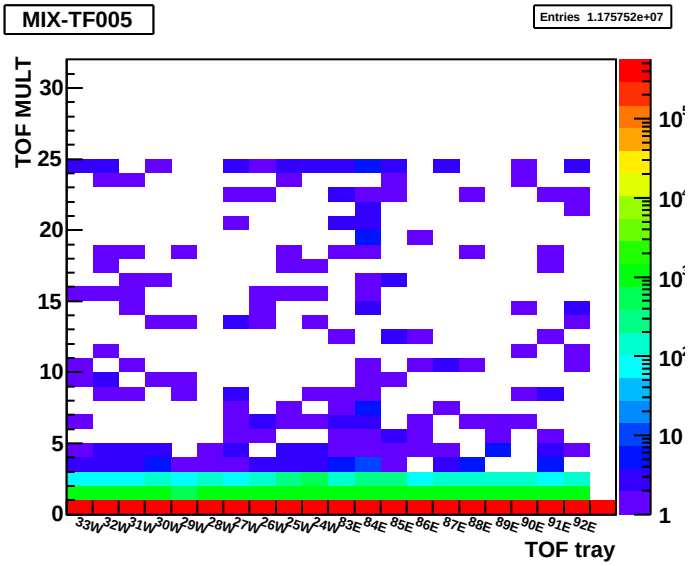

!Yellow-Fill
Entries 279941
0 20 40 60 80 100 120

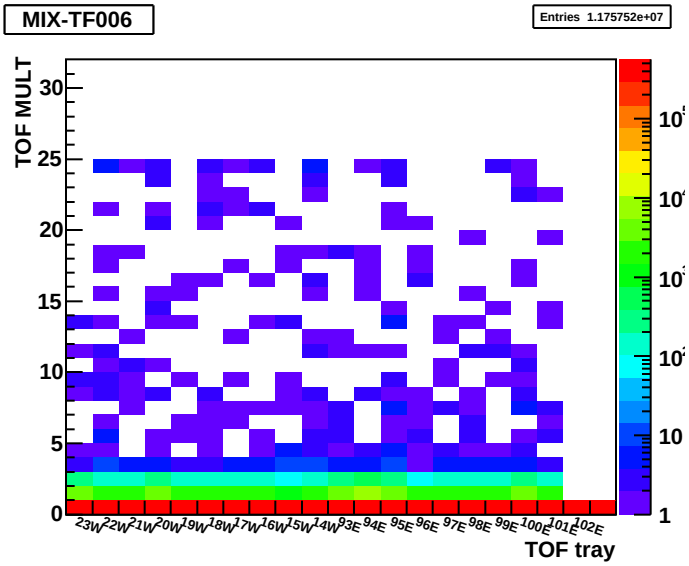

MIX-TF001
Entries 1.175752e+07
TOF MULT
TOF tray

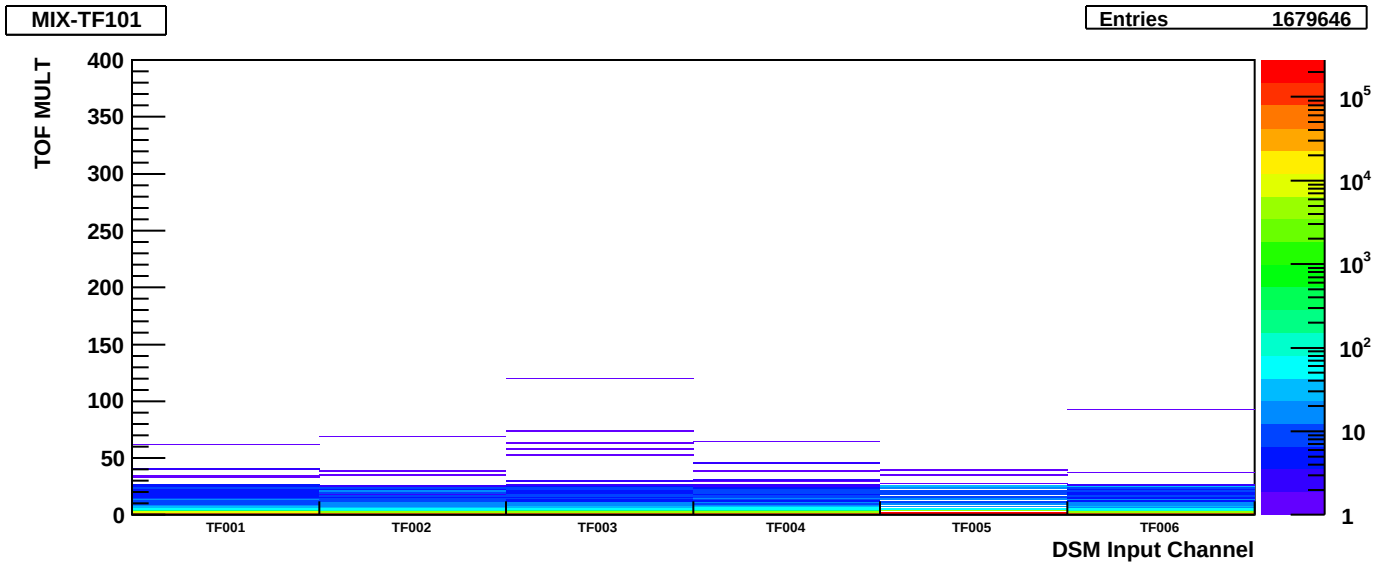

MIX-TF002
Entries 1.175752e+07
TOF MULT
TOF tray

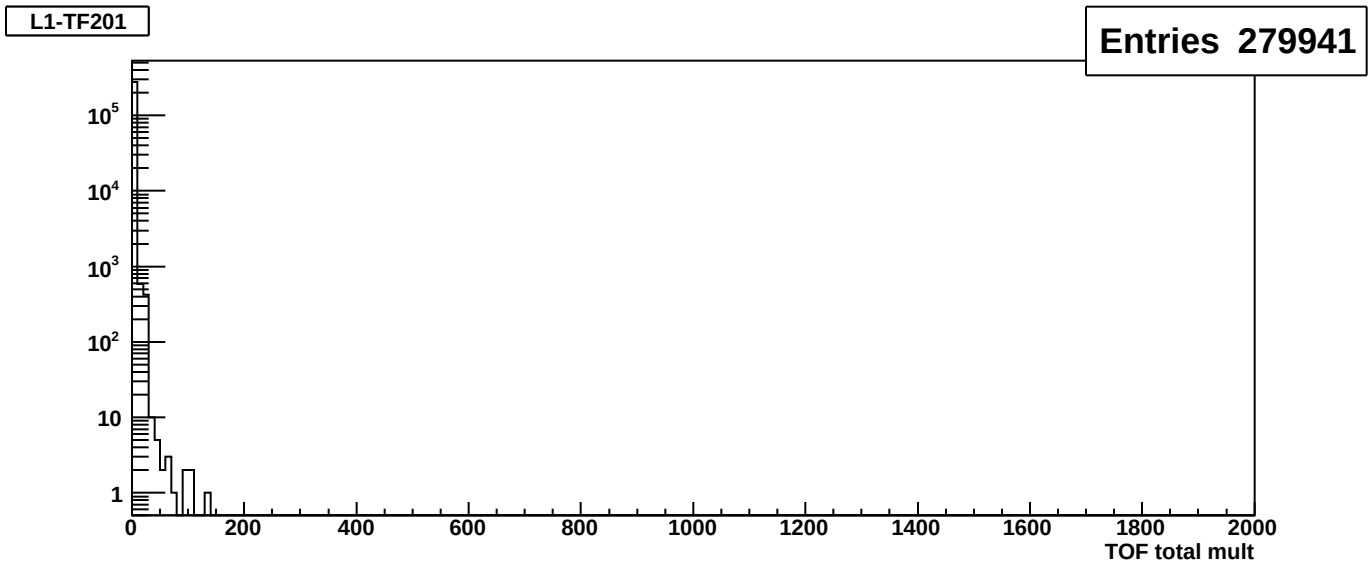

MIX-TF003
Entries 1.175752e+07
TOF MULT
TOF tray

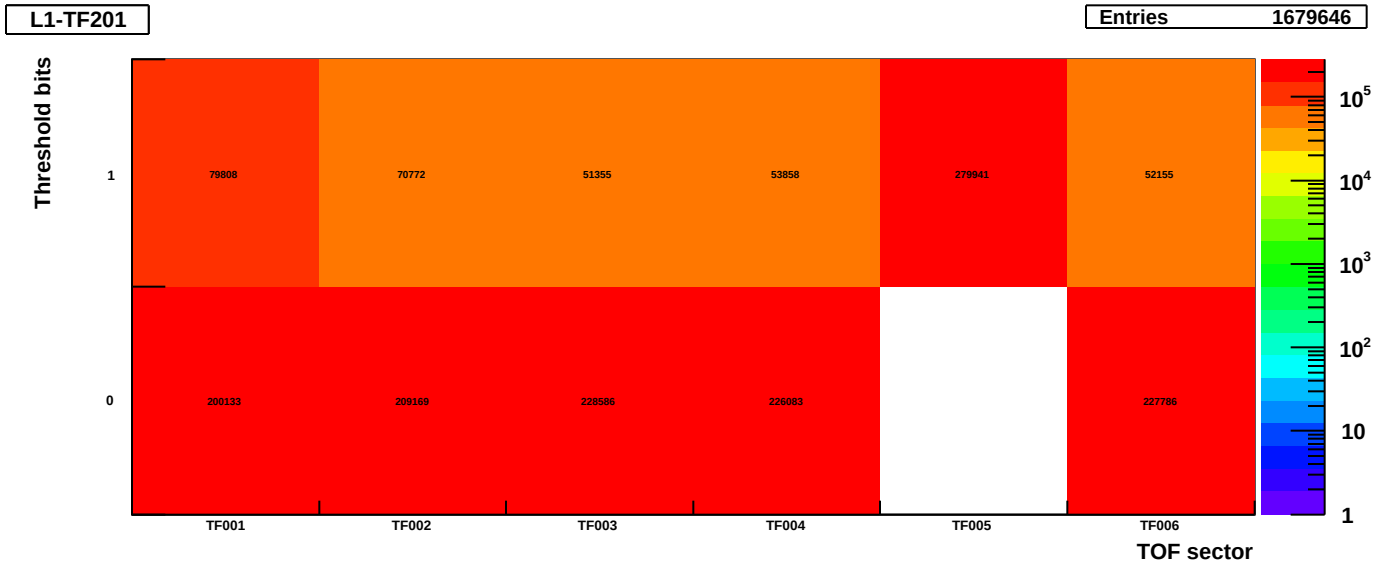

MIX-TF004
Entries 1.175752e+07
TOF MULT
TOF tray

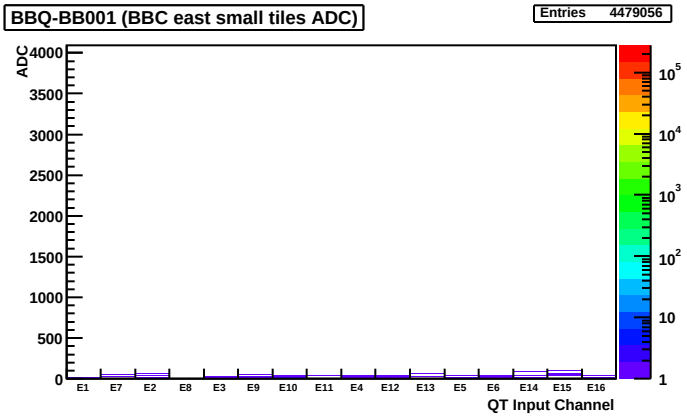

MIX-TF005
Entries 1.175752e+07
TOF MULT
TOF tray

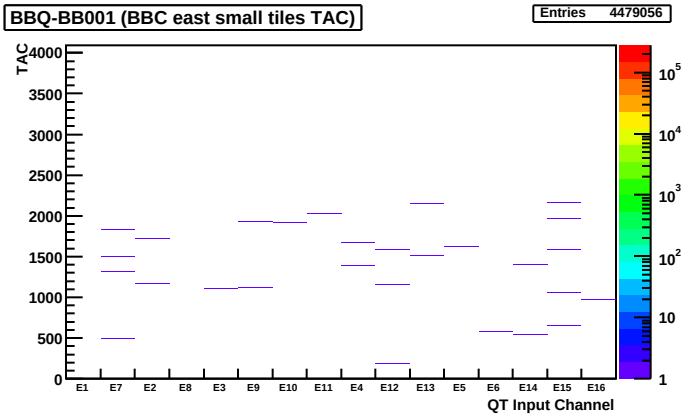

MIX-TF006
Entries 1.175752e+07
TOF MULT
TOF tray

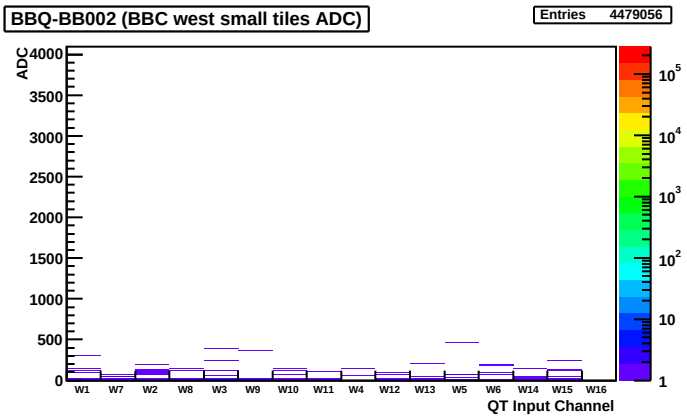

MIX-TF101
Entries 1679646
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

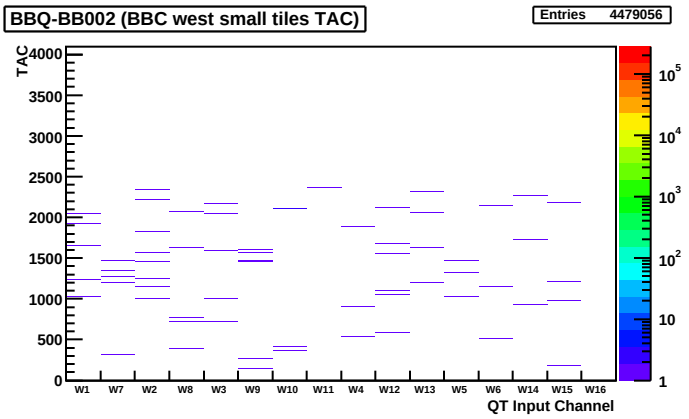

L1-TF201
Entries 279941
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

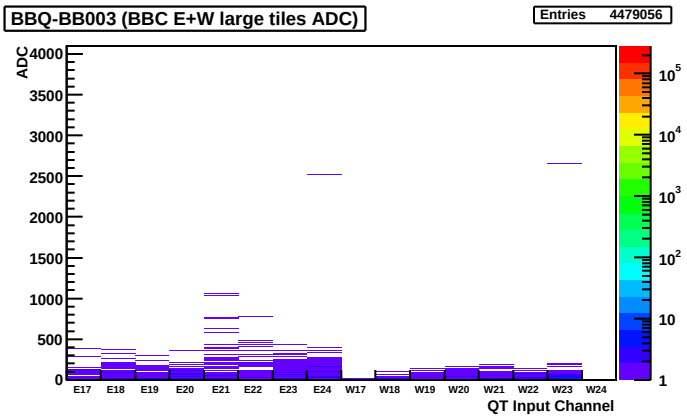

L1-TF201
Entries 1679646
Threshold bits
1
0
79808
70772
51355
53858
279941
52155
200133
209169
228586
226083
227786
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4
10^3
10^2
10
1

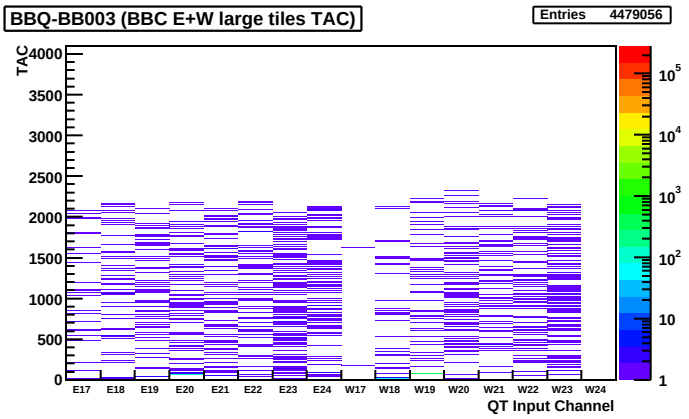

BBQ-BB001 (BBC east small tiles ADC)
Entries 4479056
ADC
QT Input Channel

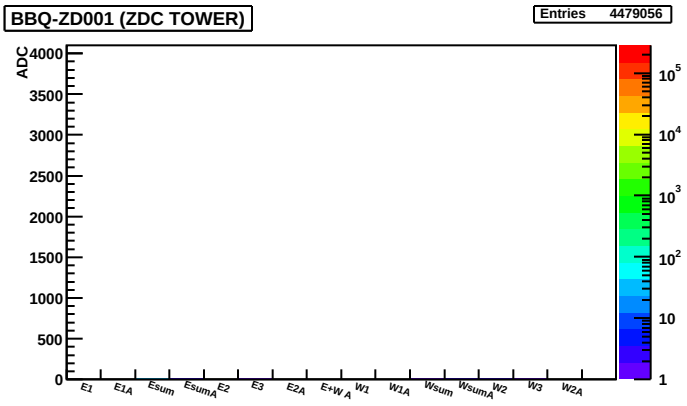

BBQ-BB001 (BBC east small tiles TAC)
Entries 4479056
TAC
QT Input Channel

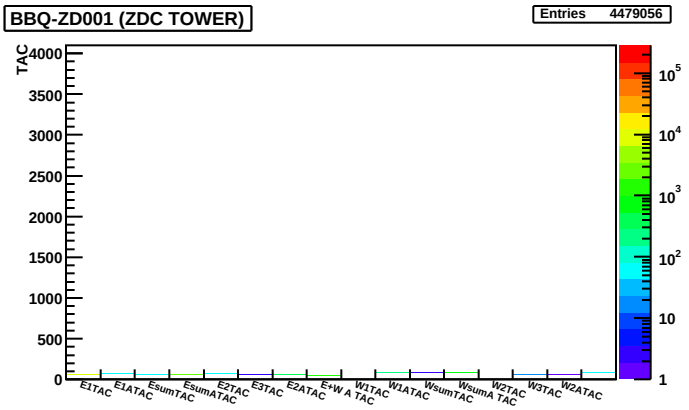

BBQ-BB002 (BBC west small tiles ADC)
Entries 4479056
ADC
QT Input Channel

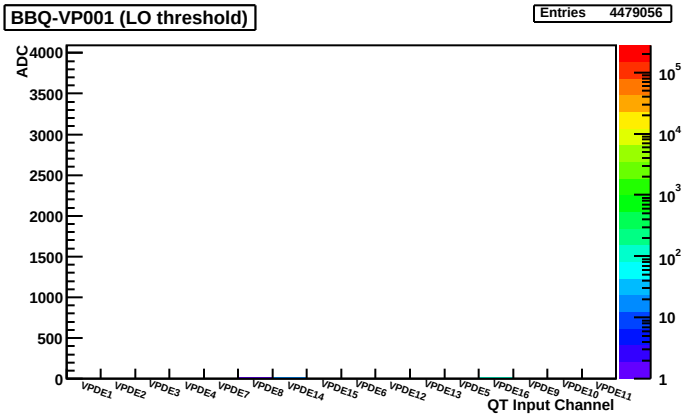

BBQ-BB002 (BBC west small tiles TAC)
Entries 4479056
TAC
QT Input Channel

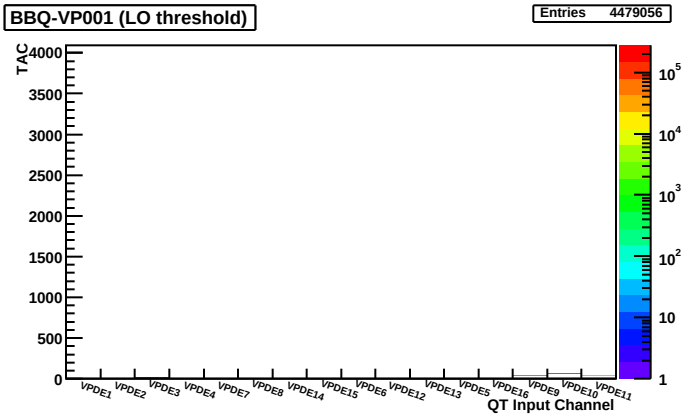

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4479056
ADC
QT Input Channel

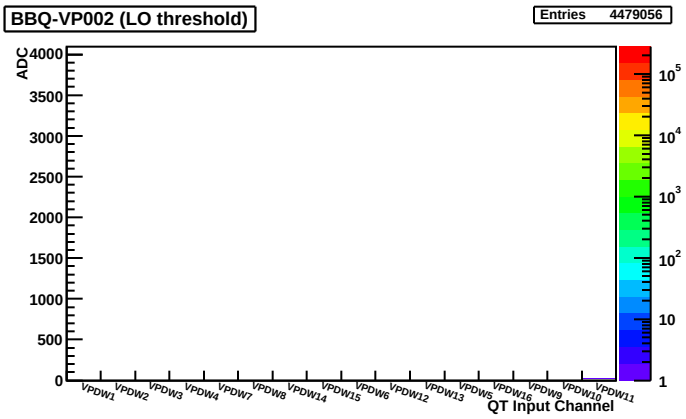

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4479056
TAC
QT Input Channel

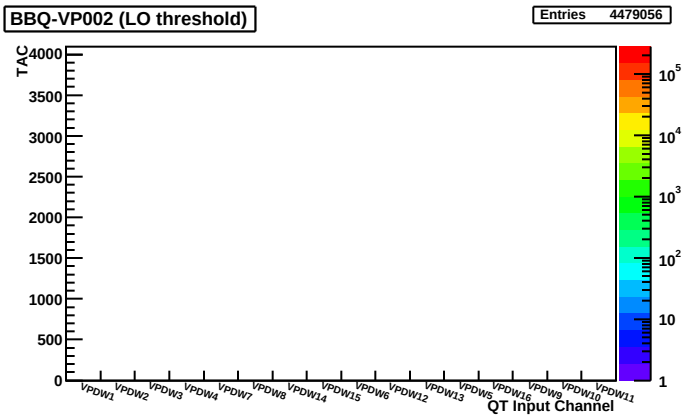

BBQ-ZD001 (ZDC TOWER)
Entries 4479056
ADC

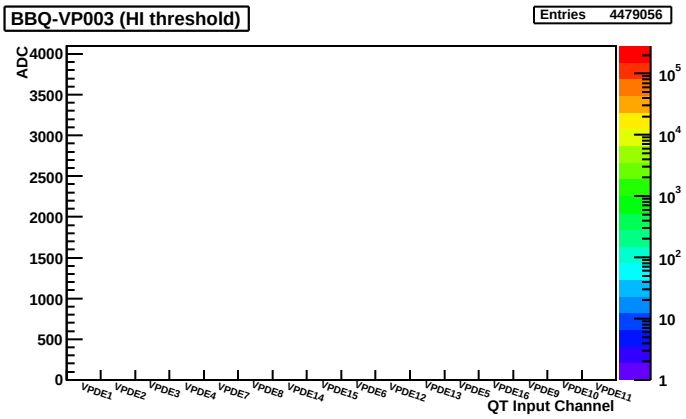

BBQ-ZD001 (ZDC TOWER)
Entries 4479056
TAC

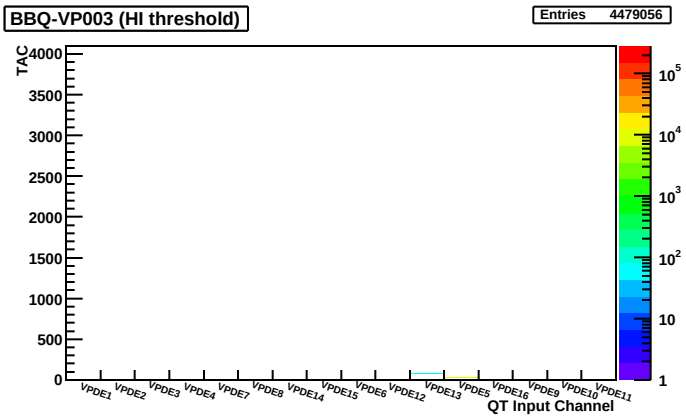

BBQ-VP001 (LO threshold)
Entries 4479056
ADC
QT Input Channel

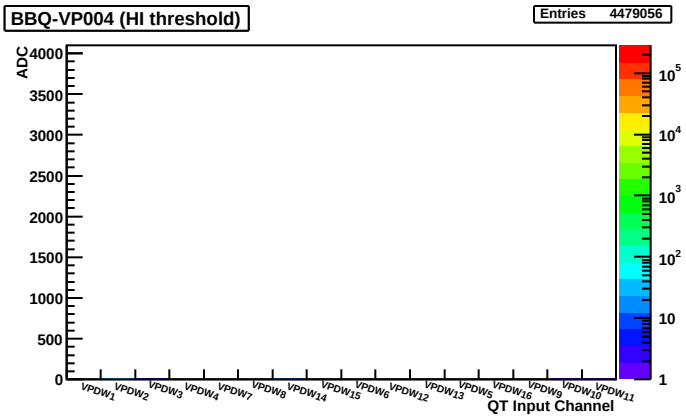

BBQ-VP001 (LO threshold)
Entries 4479056
TAC
QT Input Channel

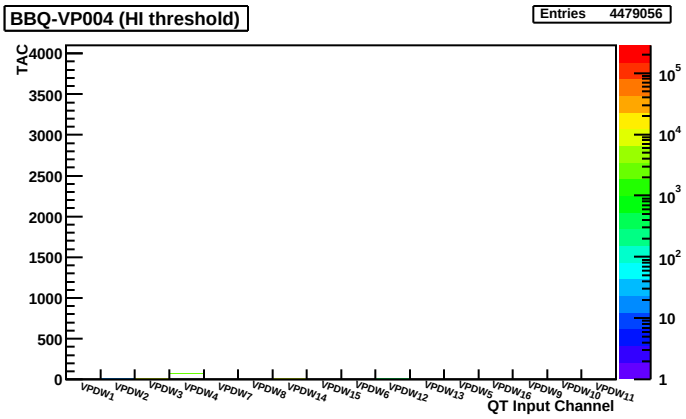

BBQ-VP002 (LO threshold)
Entries 4479056
ADC
QT Input Channel

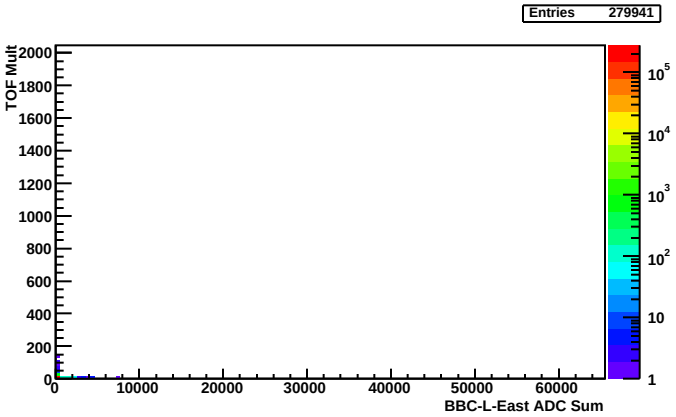

BBQ-VP002 (LO threshold)
Entries 4479056
TAC
QT Input Channel

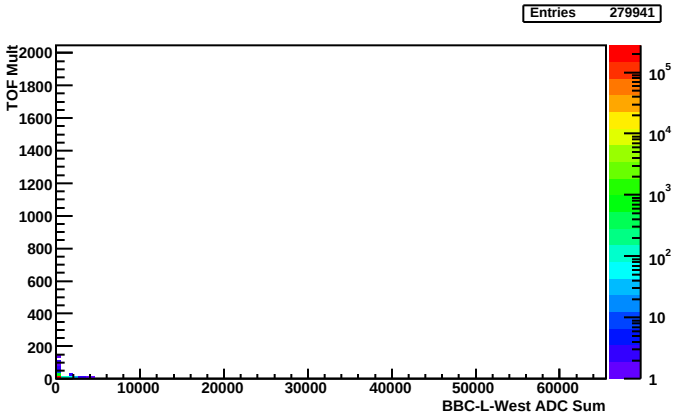

BBQ-VP003 (HI threshold)
Entries 4479056
ADC
QT Input Channel

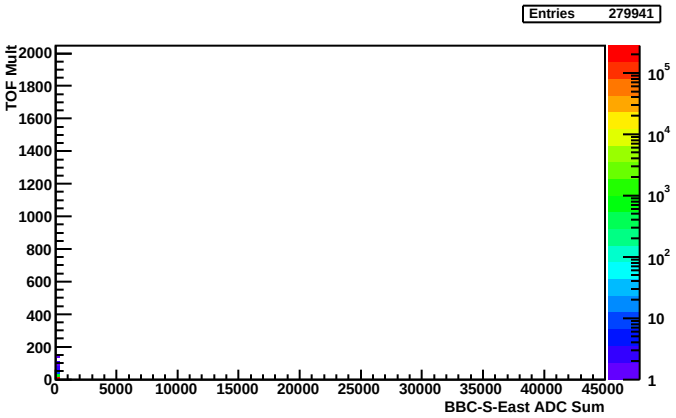

BBQ-VP003 (HI threshold)
Entries 4479056
TAC
QT Input Channel

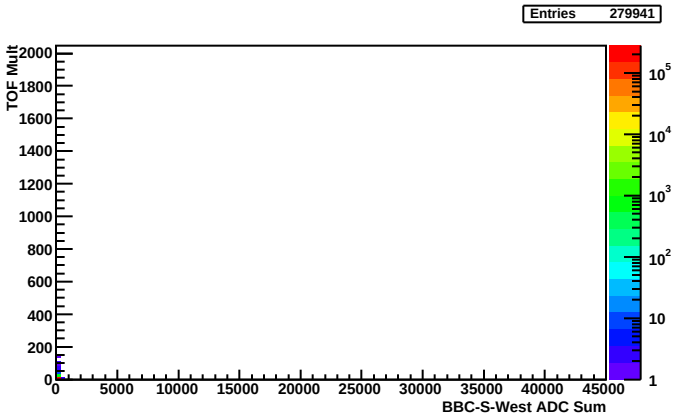

BBQ-VP004 (HI threshold)
Entries 4479056
ADC
QT Input Channel

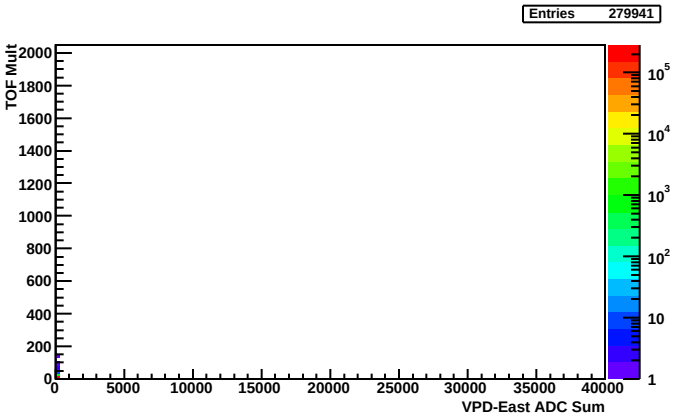

BBQ-VP004 (HI threshold)
Entries 4479056
TAC
QT Input Channel

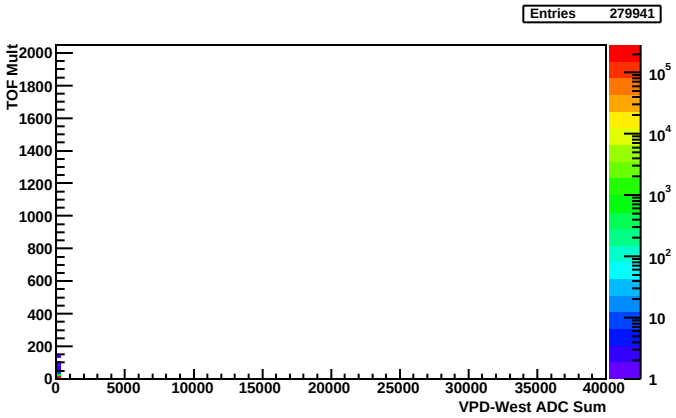

Entries 279941
TOF Mult
BBC-L-East ADC Sum

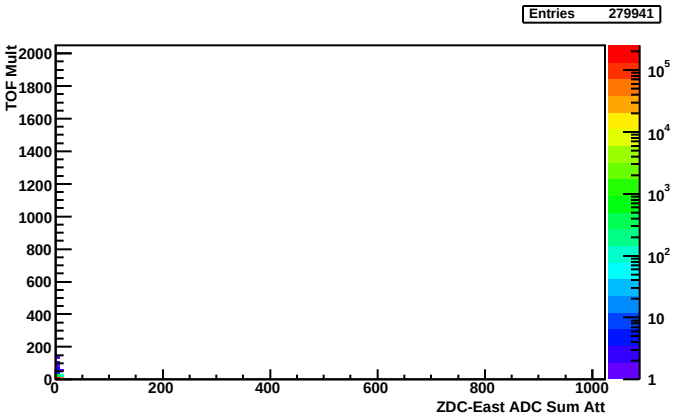

Entries 279941
TOF Mult
BBC-L-West ADC Sum

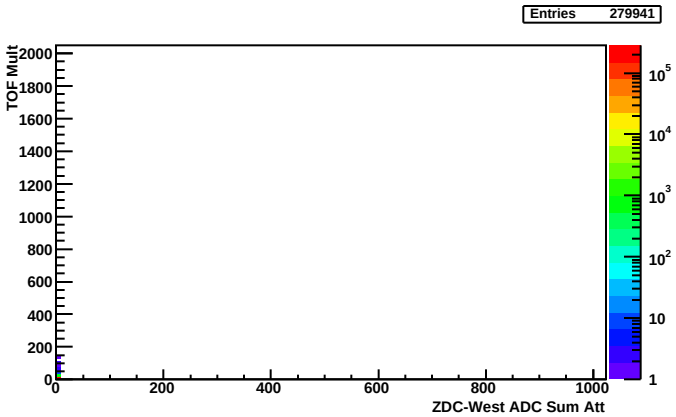

Entries 279941
TOF Mult
BBC-S-East ADC Sum

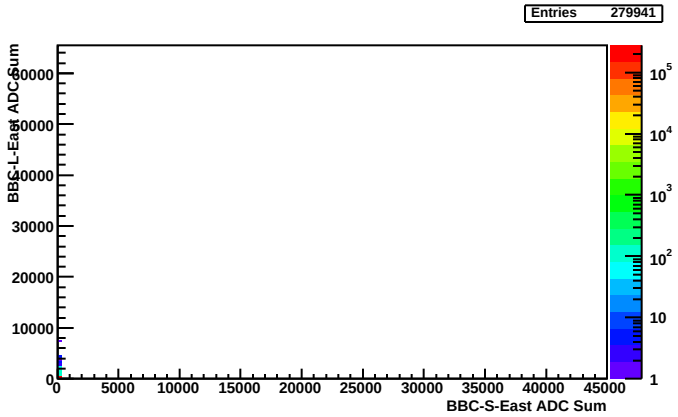

Entries 279941
TOF Mult
BBC-S-West ADC Sum

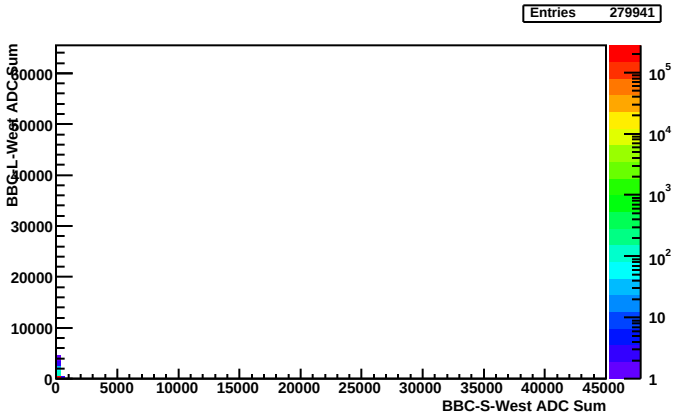

Entries 279941
TOF Mult
VPD-East ADC Sum

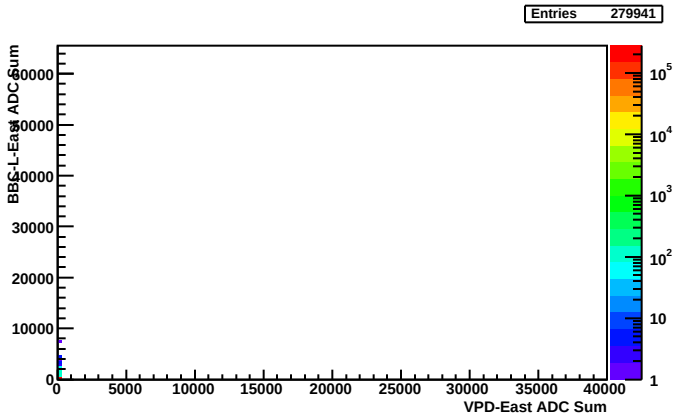

Entries 279941
TOF Mult
VPD-West ADC Sum

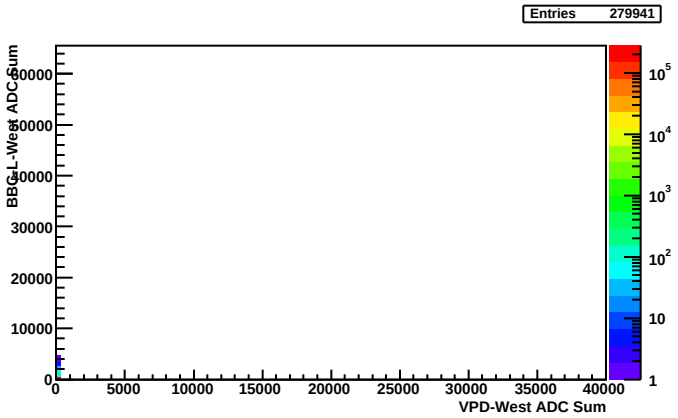

Entries 279941
TOF Mult
ZDC-East ADC Sum Att

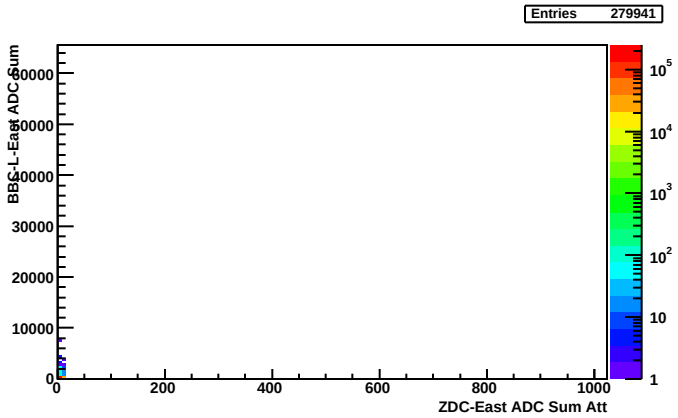

Entries 279941
TOF Mult
ZDC-West ADC Sum Att

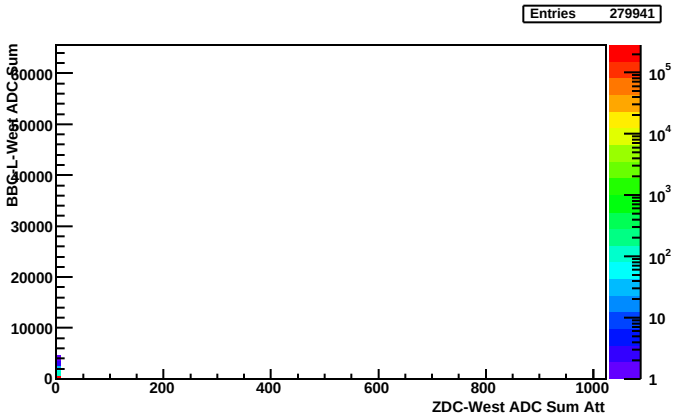

Entries 279941
BBC-L-East ADC Sum
BBC-S-East ADC Sum

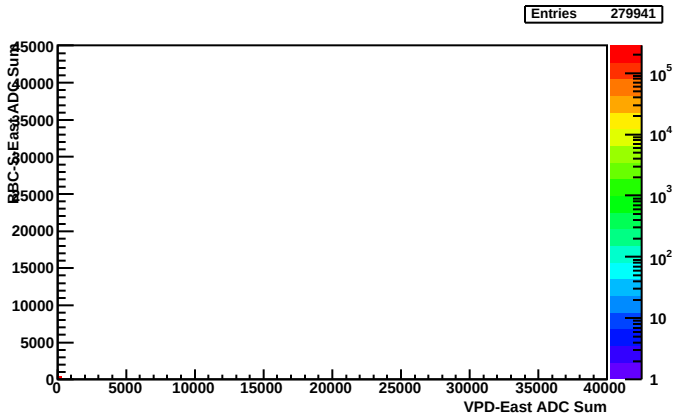

Entries 279941
BBC-L-West ADC Sum
BBC-S-West ADC Sum

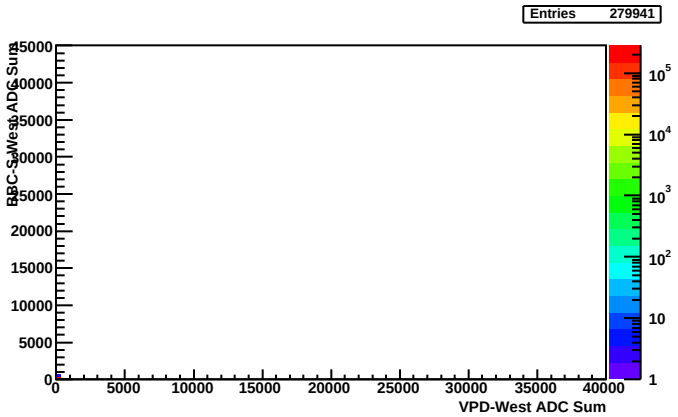

Entries 279941
BBC-L-East ADC Sum
VPD-East ADC Sum

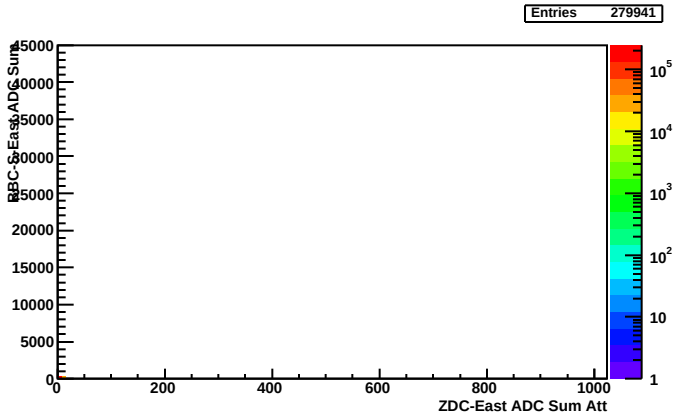

Entries 279941
BBC-L-West ADC Sum
VPD-West ADC Sum

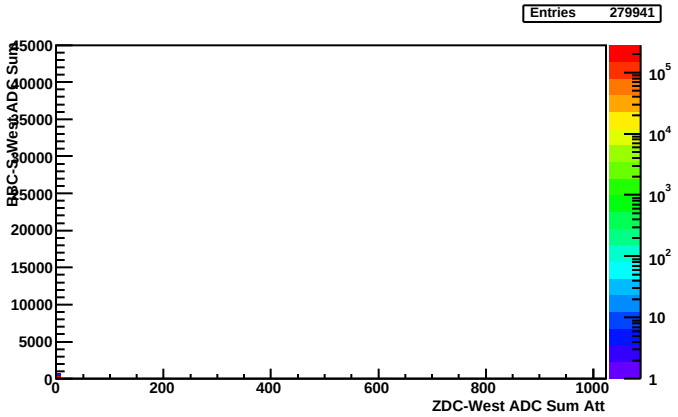

Entries 279941
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

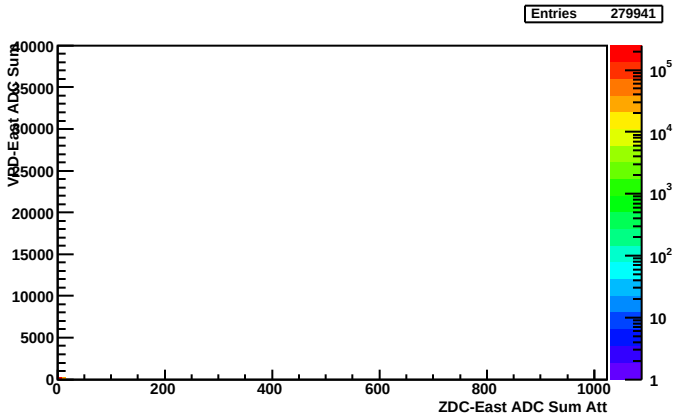

Entries 279941
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

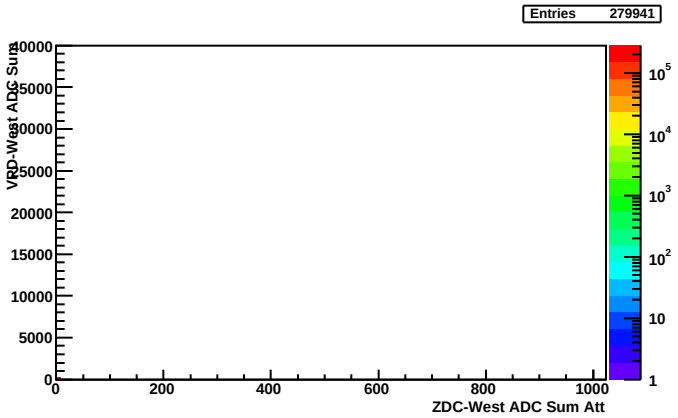

Entries 279941
BBC-S-East ADC Sum
VPD-East ADC Sum

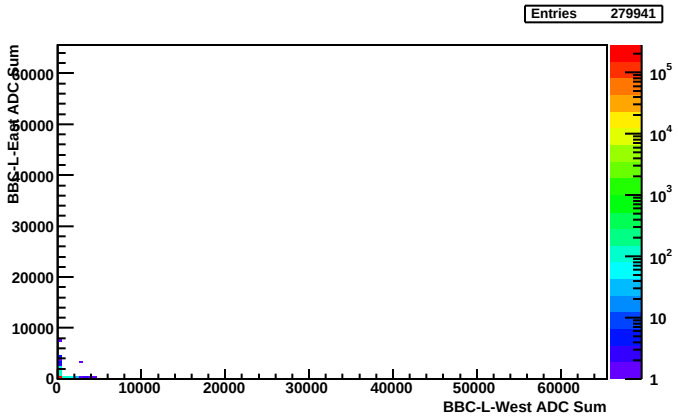

Entries 279941
BBC-S-West ADC Sum
VPD-West ADC Sum

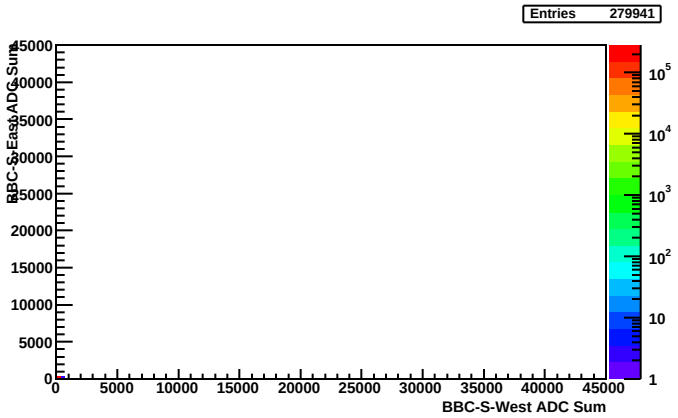

Entries 279941
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

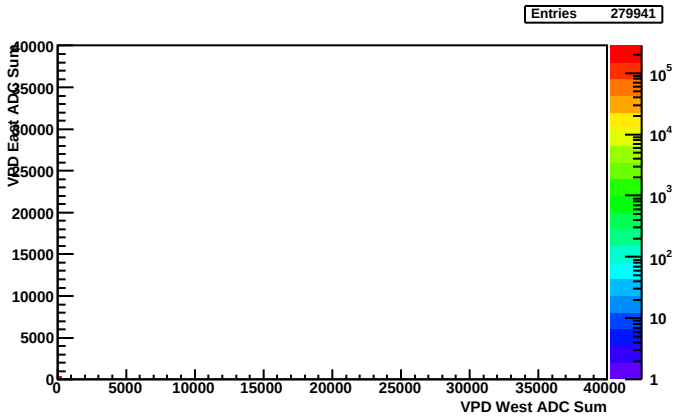

Entries 279941
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

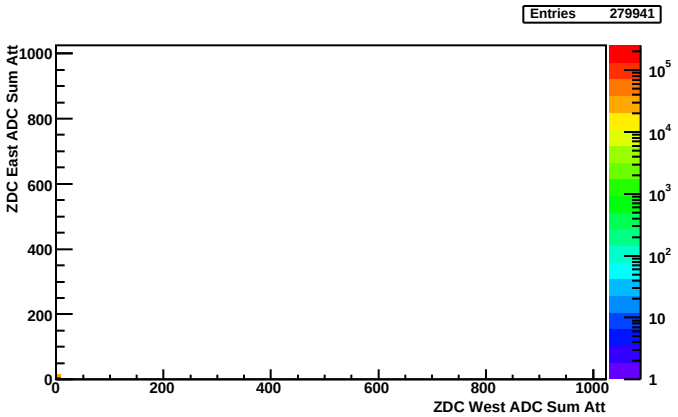

Entries 279941
VPD-East ADC Sum
ZDC-East ADC Sum Att

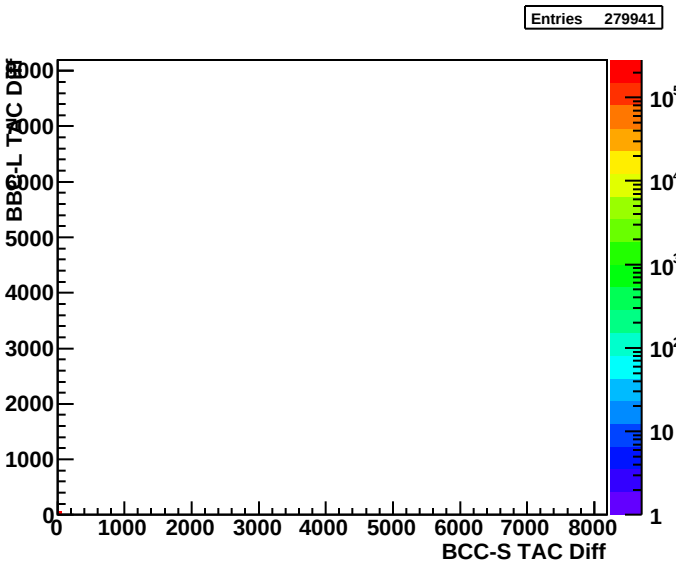

Entries 279941
VPD-West ADC Sum
ZDC-West ADC Sum Att

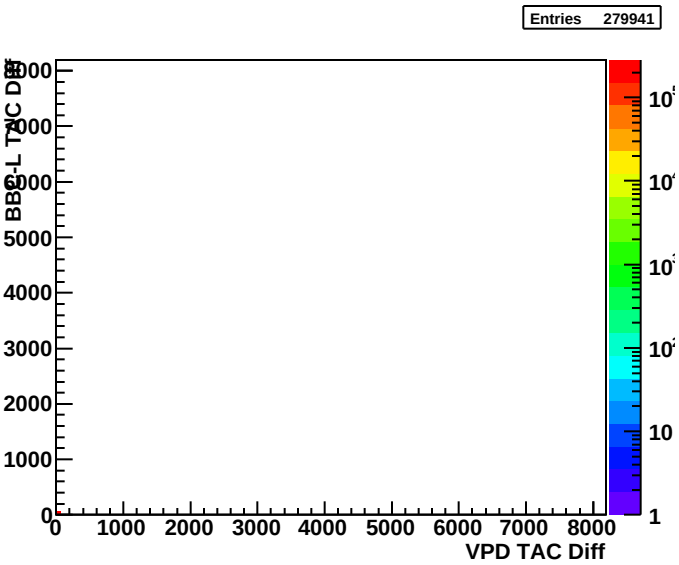

Entries 279941
BBC-L-East ADC Sum
BBC-L-West ADC Sum

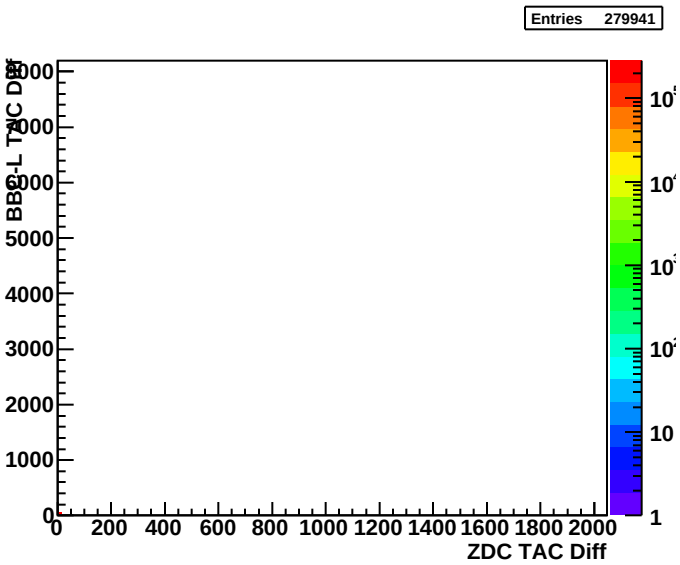

Entries 279941
BBC-S-East ADC Sum
BBC-S-West ADC Sum

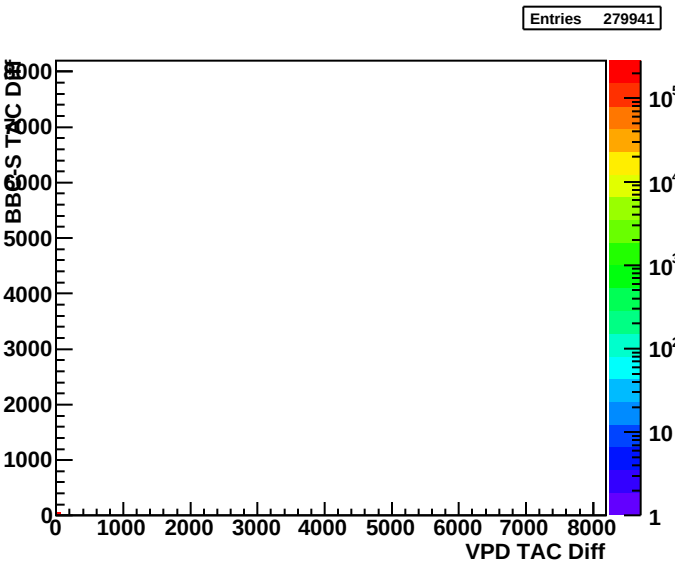

Entries 279941
VPD East ADC Sum
VPD West ADC Sum

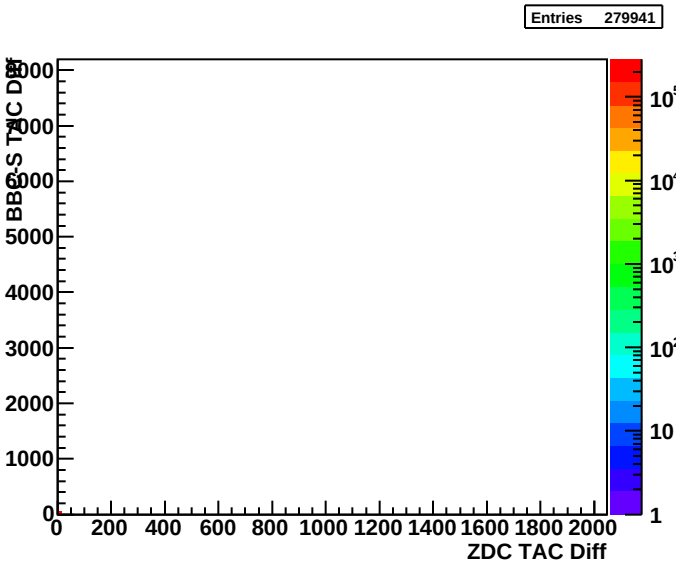

Entries 279941
ZDC East ADC Sum Att
ZDC West ADC Sum Att

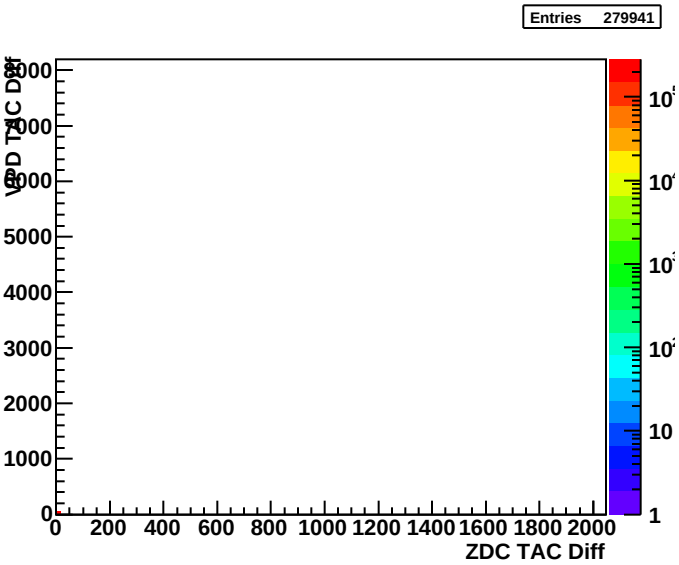

Entries 279941
BBC-L TAC Diff
BCC-S TAC Diff

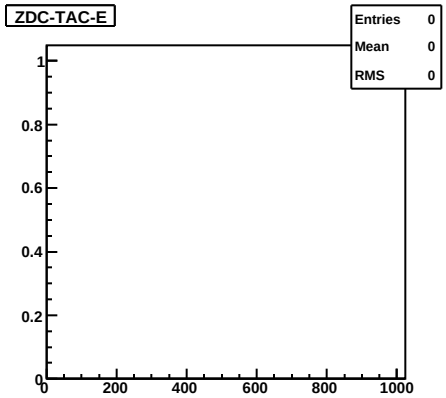

Entries 279941
BBC-L TAC Diff
VPD TAC Diff

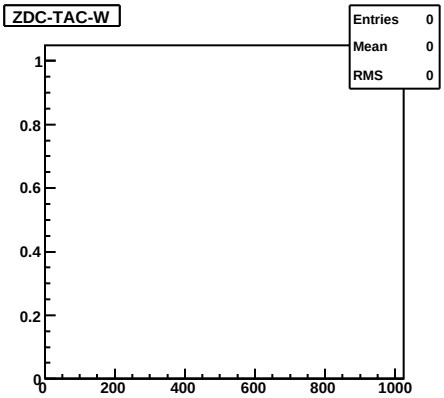

Entries 279941
BBC-L TAC Diff
ZDC TAC Diff

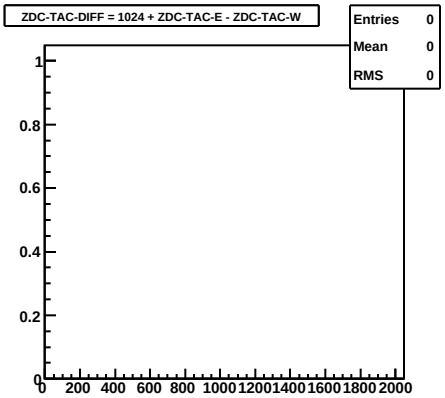

Entries 279941
BBC-S TAC Diff
VPD TAC Diff

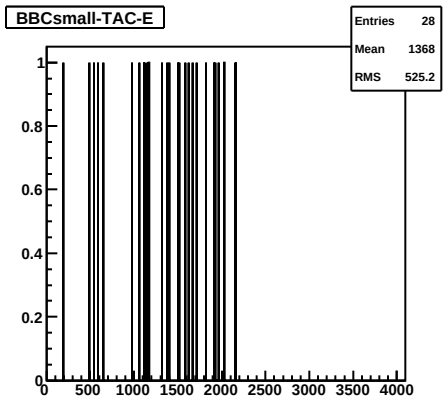

Entries 279941
BBC-S TAC Diff
ZDC TAC Diff

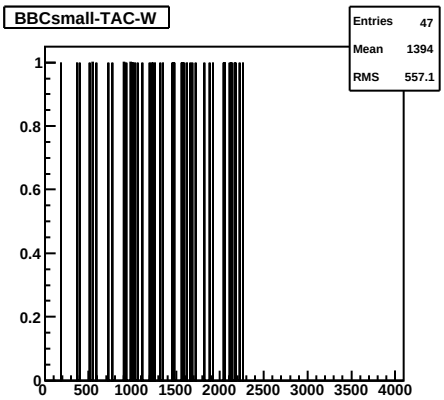

Entries 279941
VPD TAC Diff
ZDC TAC Diff

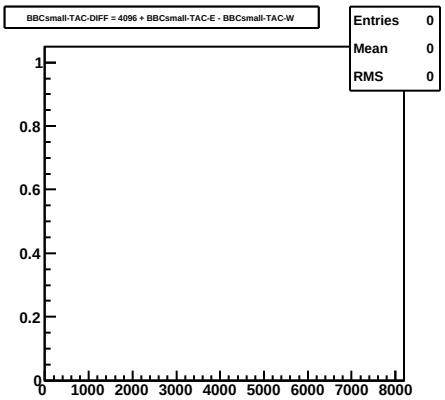

ZDC-TAC-E
Entries 0
Mean 0
RMS 0

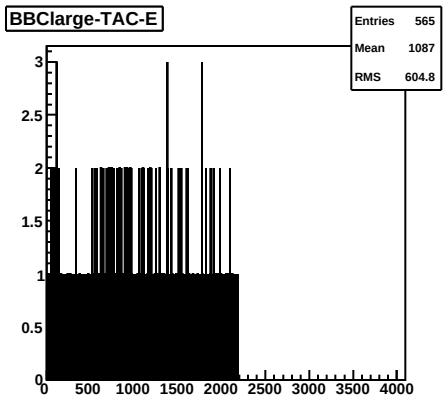

ZDC-TAC-W
Entries 0
Mean 0
RMS 0

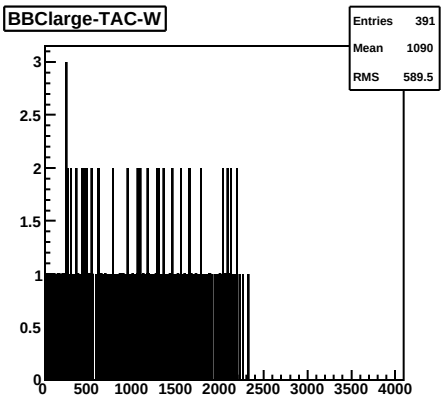

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 0
Mean 0
RMS 0

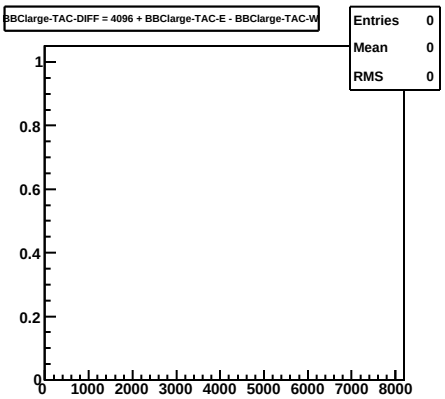

BBCsmall-TAC-E
Entries 28
Mean 1368
RMS 525.2

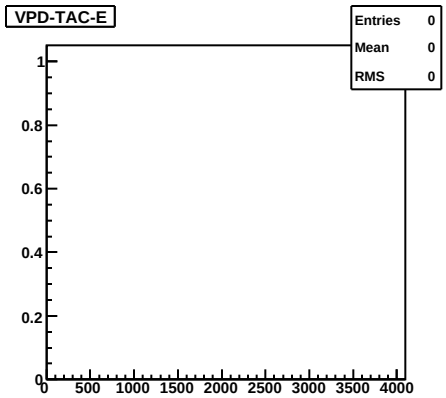

BBCsmall-TAC-W
Entries 47
Mean 1394
RMS 557.1

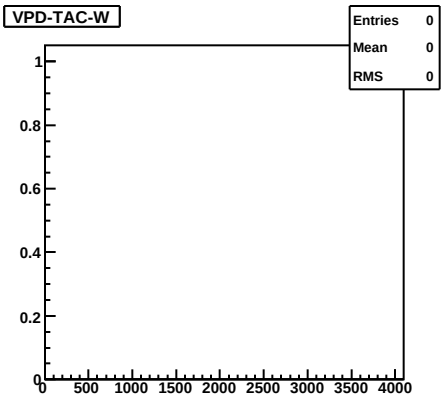

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 0
Mean 0
RMS 0

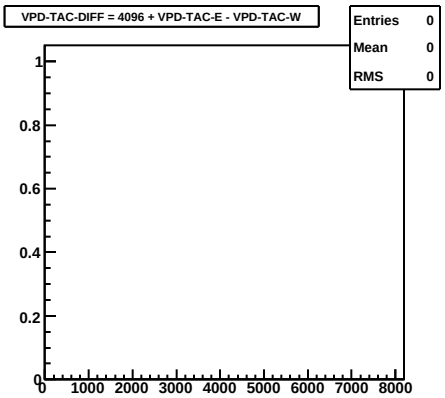

BBClarge-TAC-E
Entries 565
Mean 1087
RMS 604.8

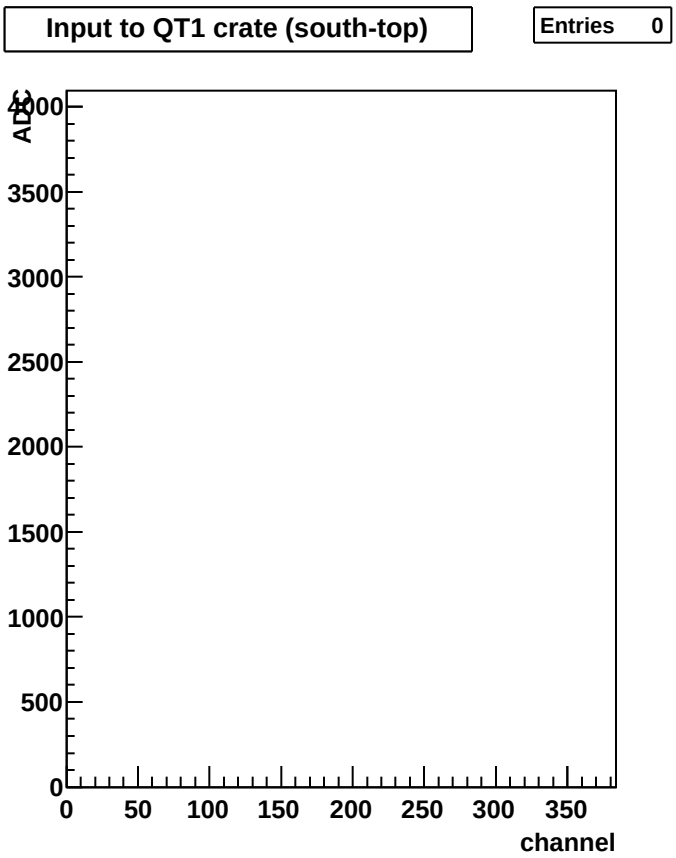

BBClarge-TAC-W
Entries 391
Mean 1090
RMS 589.5

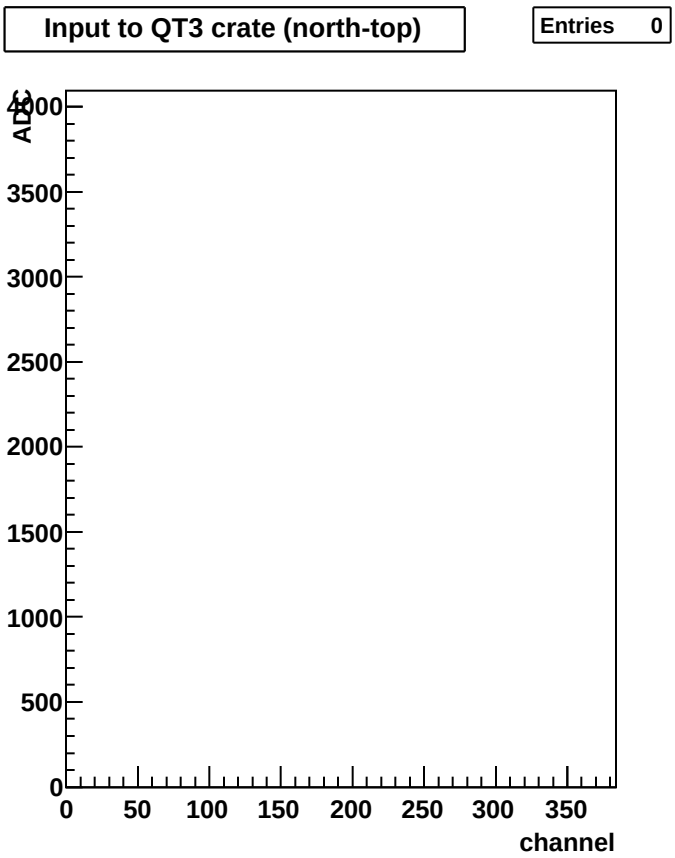

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 0
Mean 0
RMS 0

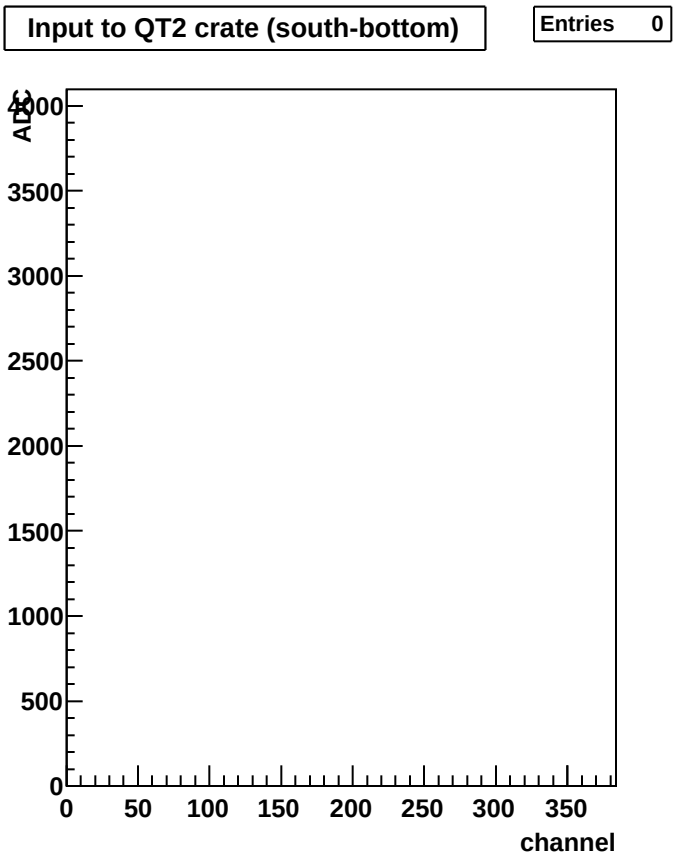

VPD-TAC-E
Entries 0
Mean 0
RMS 0

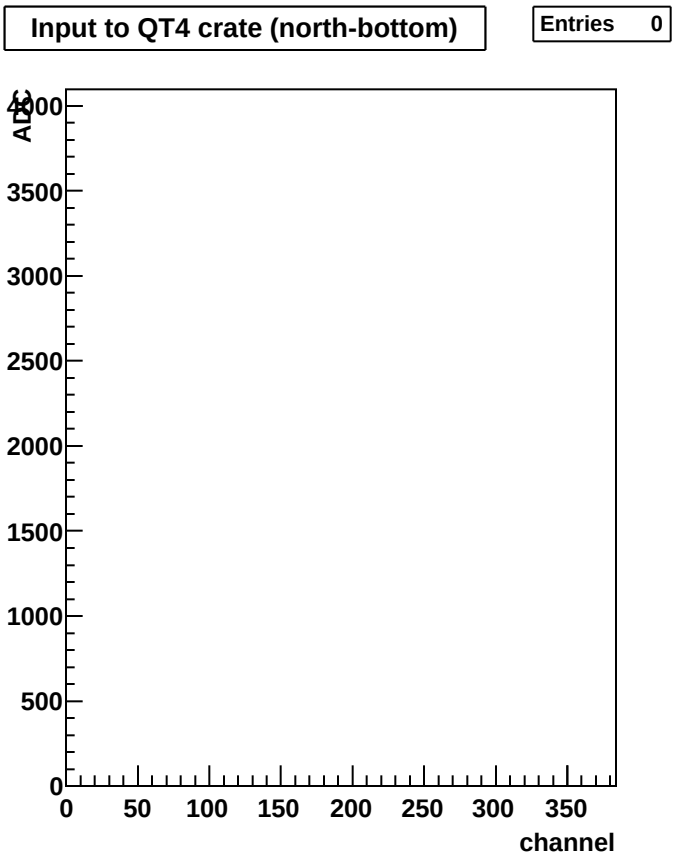

VPD-TAC-W
Entries 0
Mean 0
RMS 0

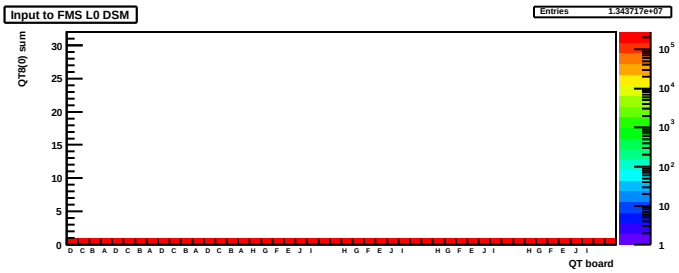

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 0
Mean 0
RMS 0

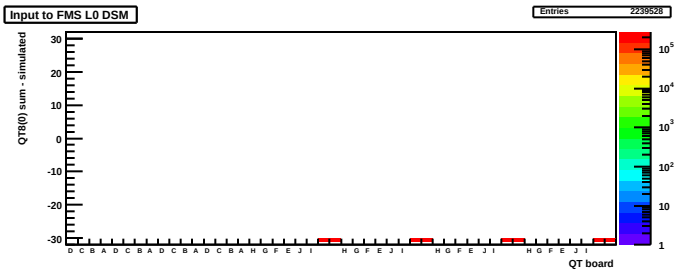

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

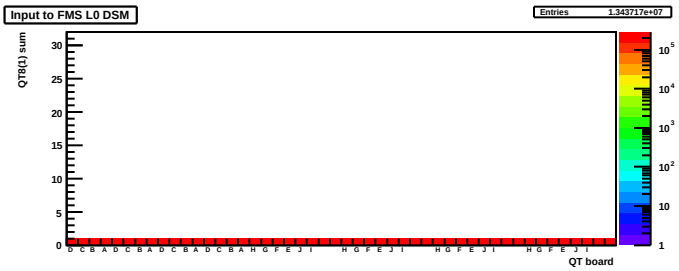

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

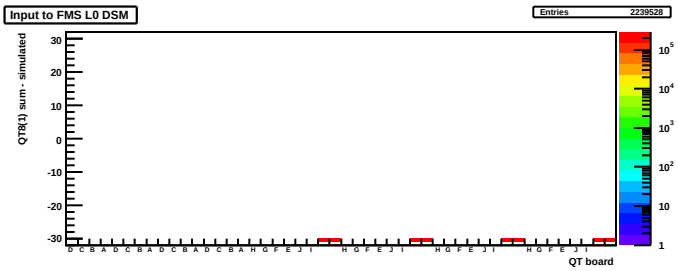

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

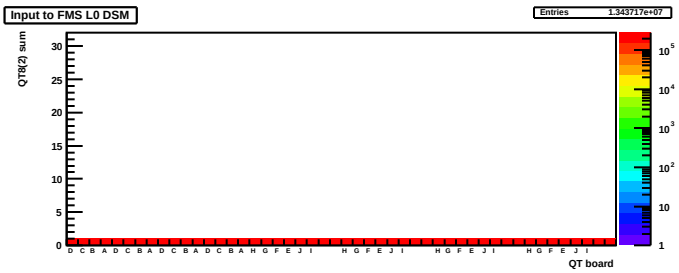

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

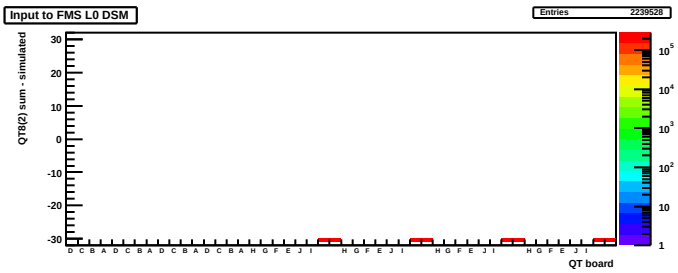

Input to FMS L0 DSM
Entries 1.343717e+07
QT8(0) sum
QT board

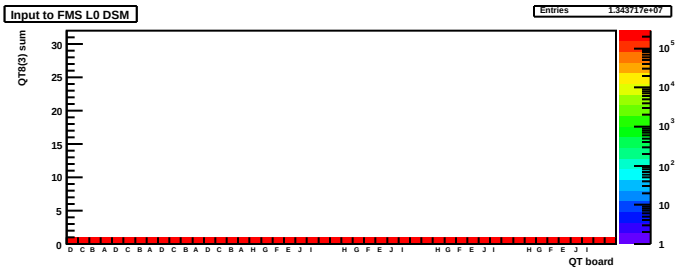

Input to FMS L0 DSM
Entries 2239528
QT8(0) sum - simulated
QT board

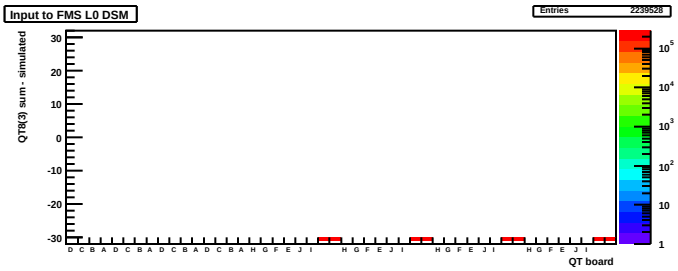

Input to FMS L0 DSM
Entries 1.343717e+07
QT8(1) sum
QT board

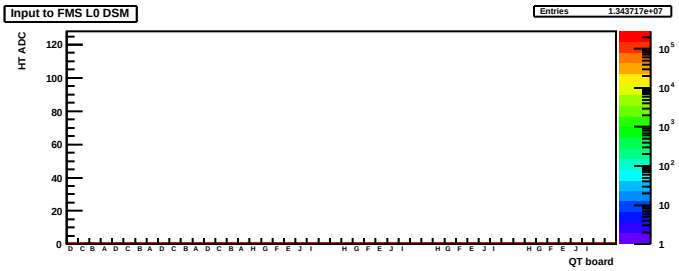

Input to FMS L0 DSM
Entries 2239528
QT8(1) sum - simulated
QT board

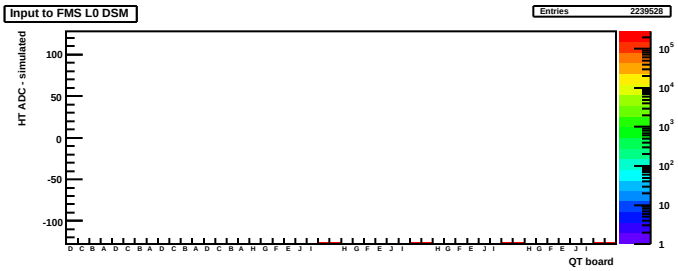

Input to FMS L0 DSM
Entries 1.343717e+07
QT8(2) sum
QT board

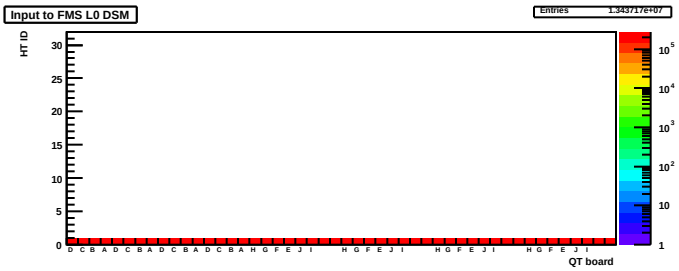

Input to FMS L0 DSM
Entries 2239528
QT8(2) sum - simulated
QT board

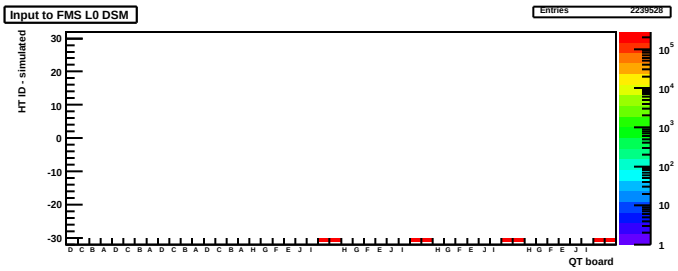

Input to FMS L0 DSM
Entries 1.343717e+07
QT8(3) sum
QT board

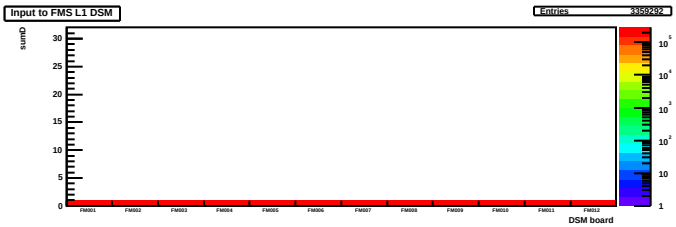

Input to FMS L0 DSM
Entries 2239528
QT8(3) sum - simulated
QT board

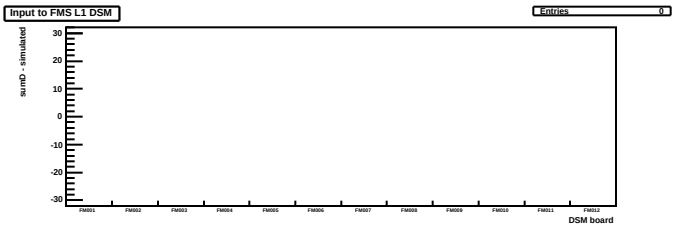

Input to FMS L0 DSM
Entries 1.343717e+07
HT ADC
QT board

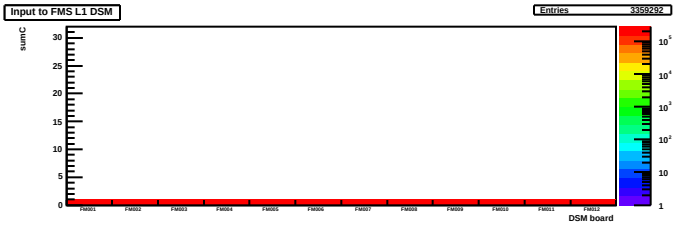

Input to FMS L0 DSM
Entries 2239528
HT ADC - simulated
QT board

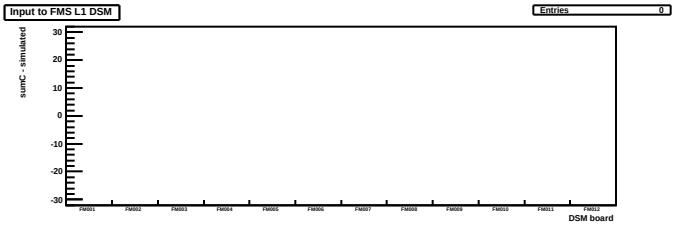

Input to FMS L0 DSM
Entries 1.343717e+07
HT ID
QT board

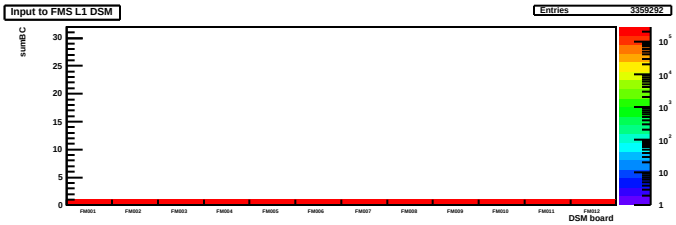

Input to FMS L0 DSM
Entries 2239528
HT ID - simulated
QT board

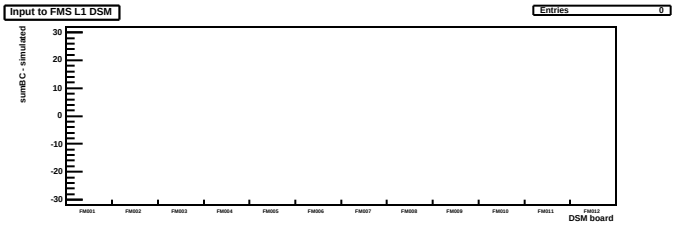

Input to FMS L1 DSM
Entries 3359292
sumD
DSM board

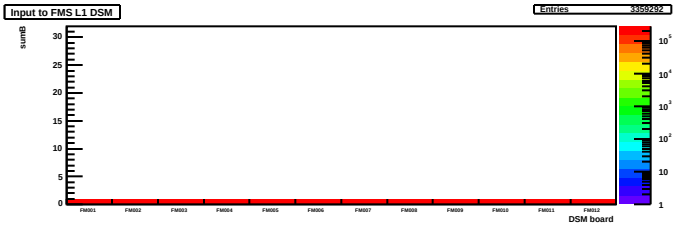

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

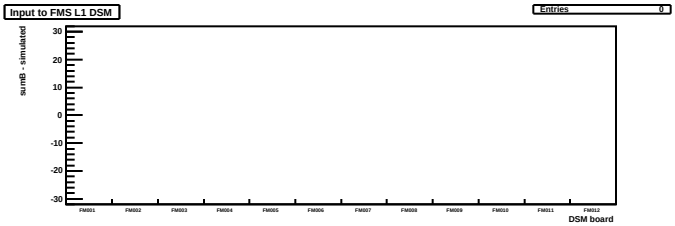

Input to FMS L1 DSM
Entries 3359292
sumC
DSM board

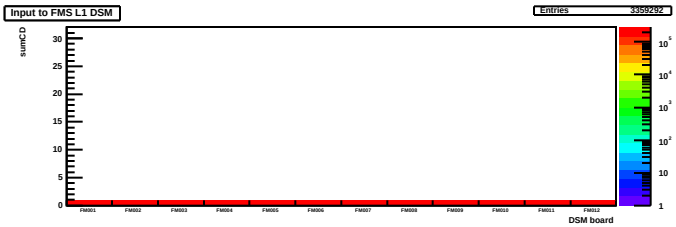

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

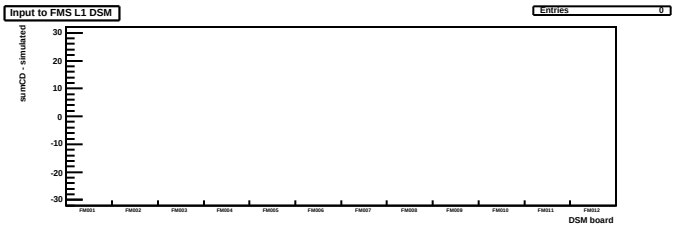

Input to FMS L1 DSM
Entries 3359292
sumBC
DSM board

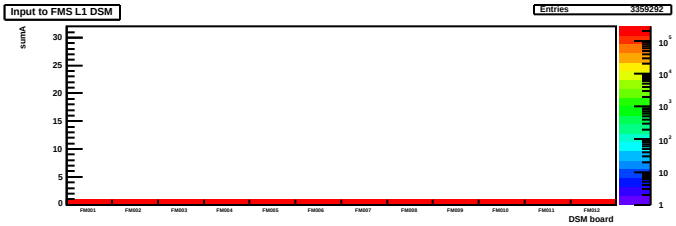

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

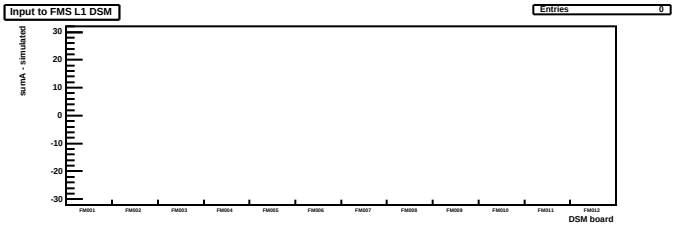

Input to FMS L1 DSM
Entries 3359292
sumB
DSM board

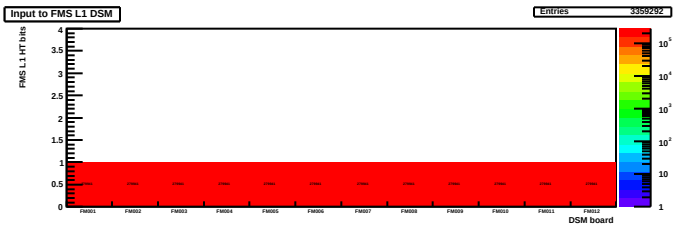

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

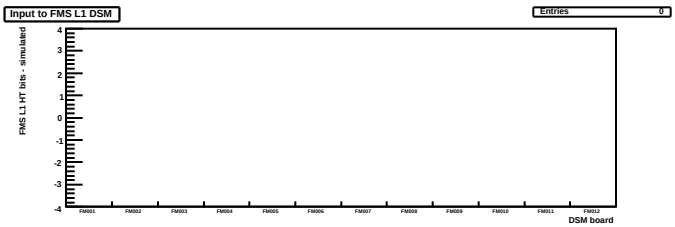

Input to FMS L1 DSM
Entries 3359292
sumCD
DSM board

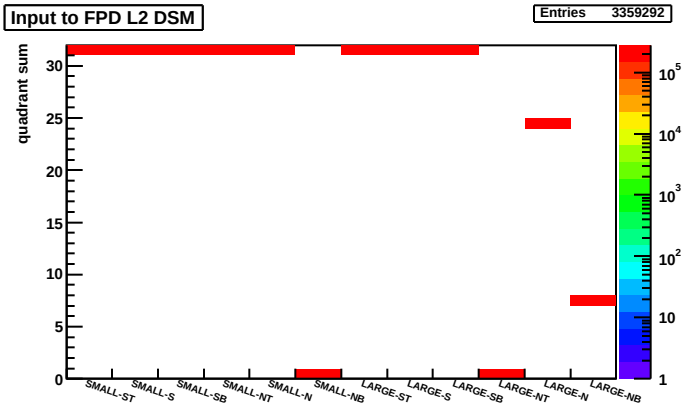

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

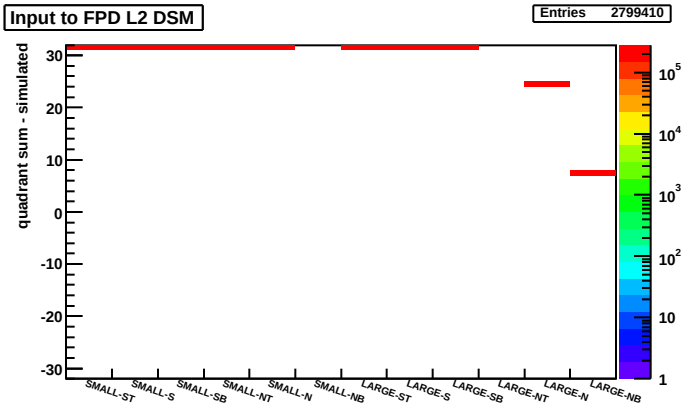

Input to FMS L1 DSM
Entries 3359292
sumA
DSM board

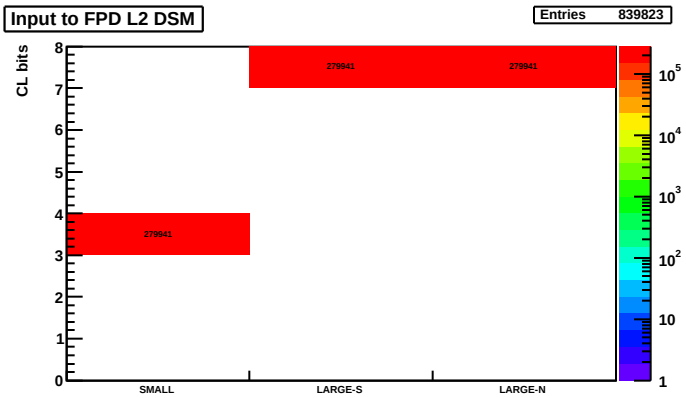

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

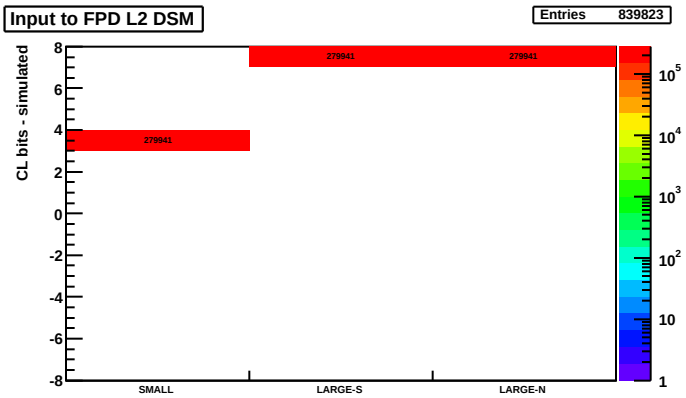

Input to FMS L1 DSM
Entries 3359292
FMS L1 HT bits
DSM board

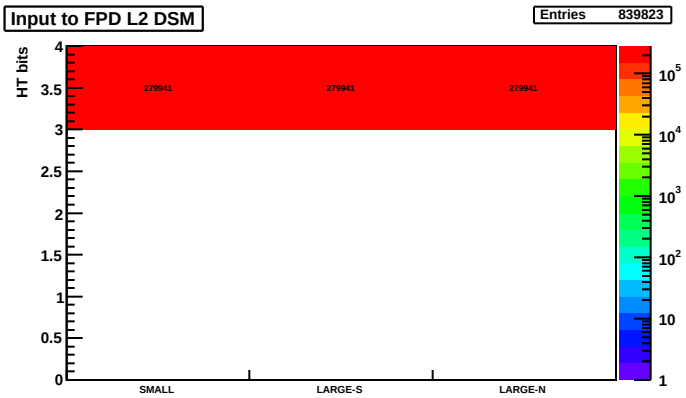

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

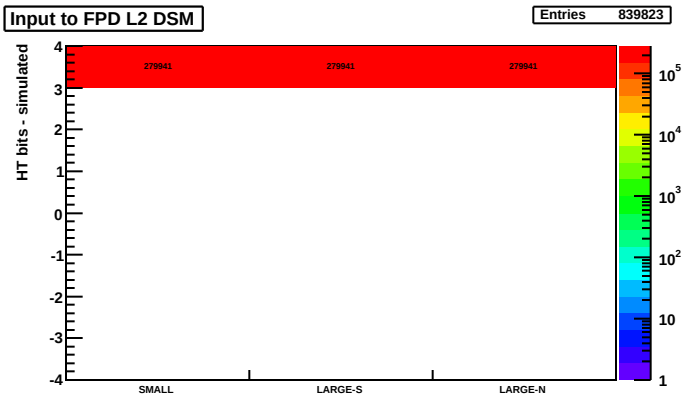

Input to FPD L2 DSM
Entries 3359292
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

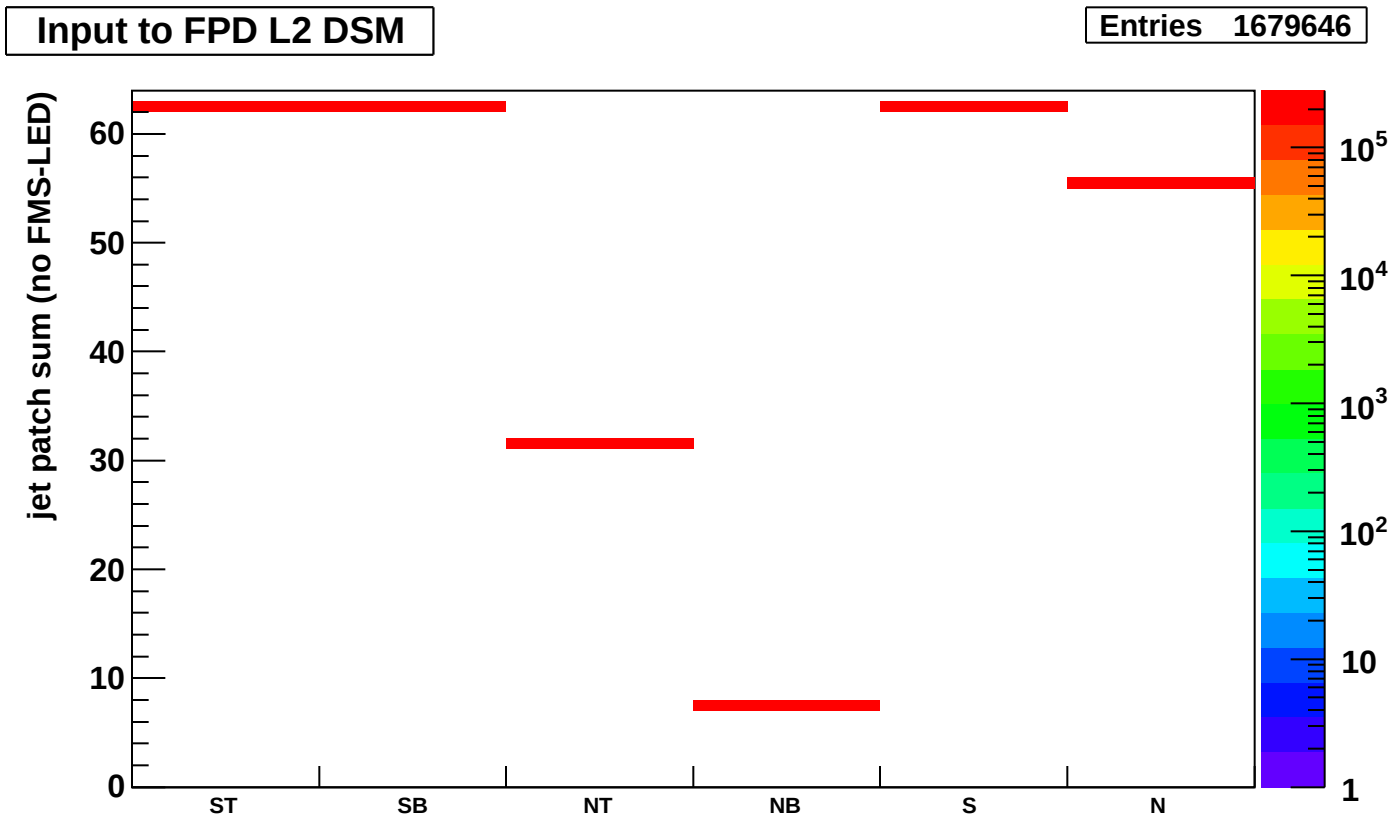

Input to FPD L2 DSM
Entries 2799410
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

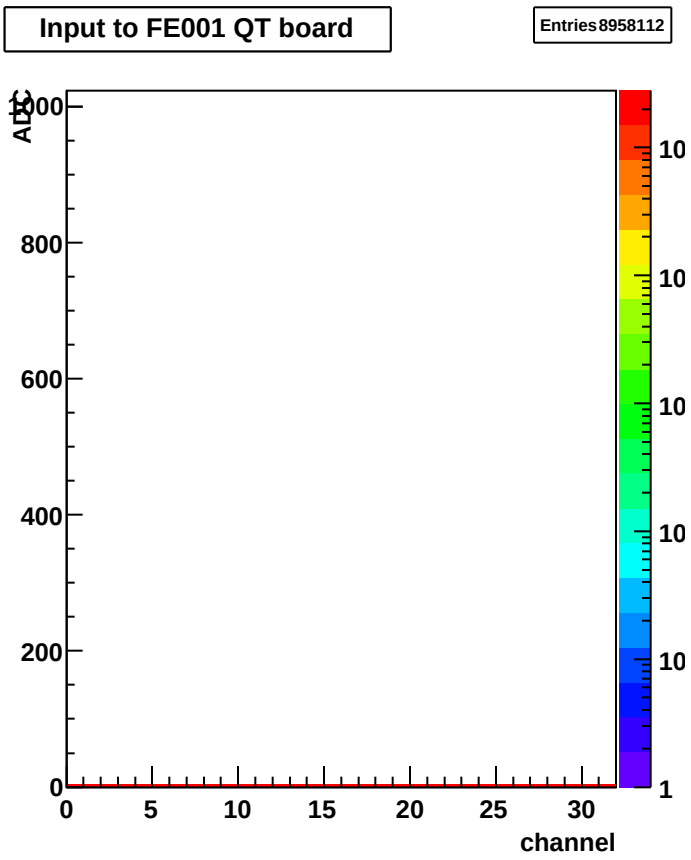

Input to FPD L2 DSM
Entries 839823
CL bits
279941
279941
279941
SMALL
LARGE-S
LARGE-N

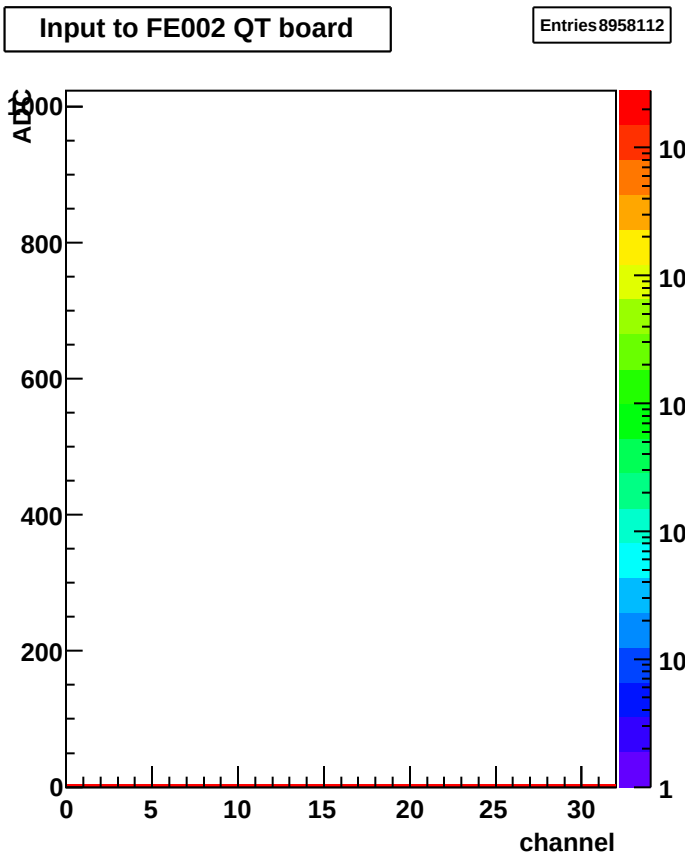

Input to FPD L2 DSM
Entries 839823
CL bits - simulated
279941
279941
279941
SMALL
LARGE-S
LARGE-N

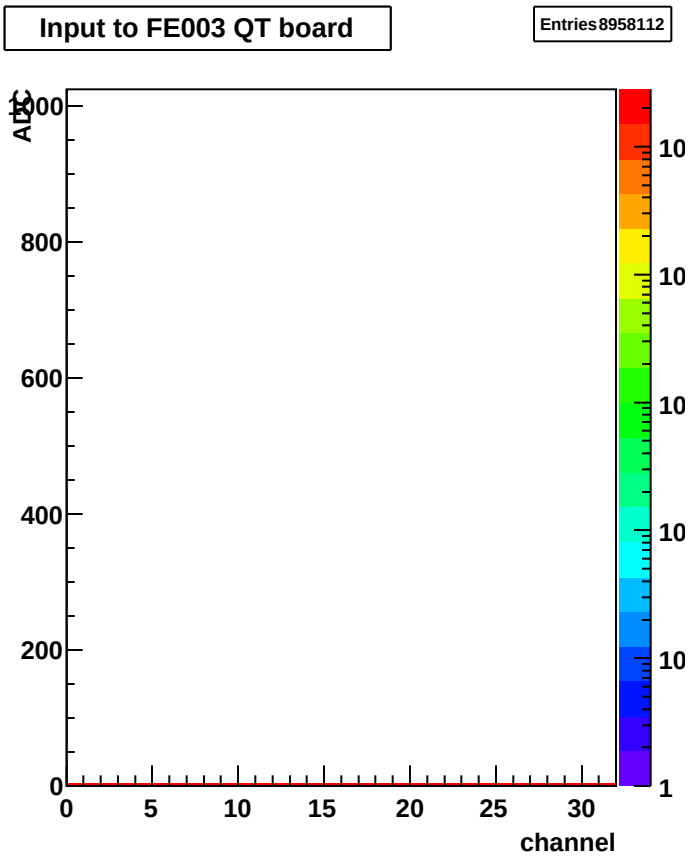

Input to FPD L2 DSM
Entries 839823
HT bits
279941
279941
279941
SMALL
LARGE-S
LARGE-N

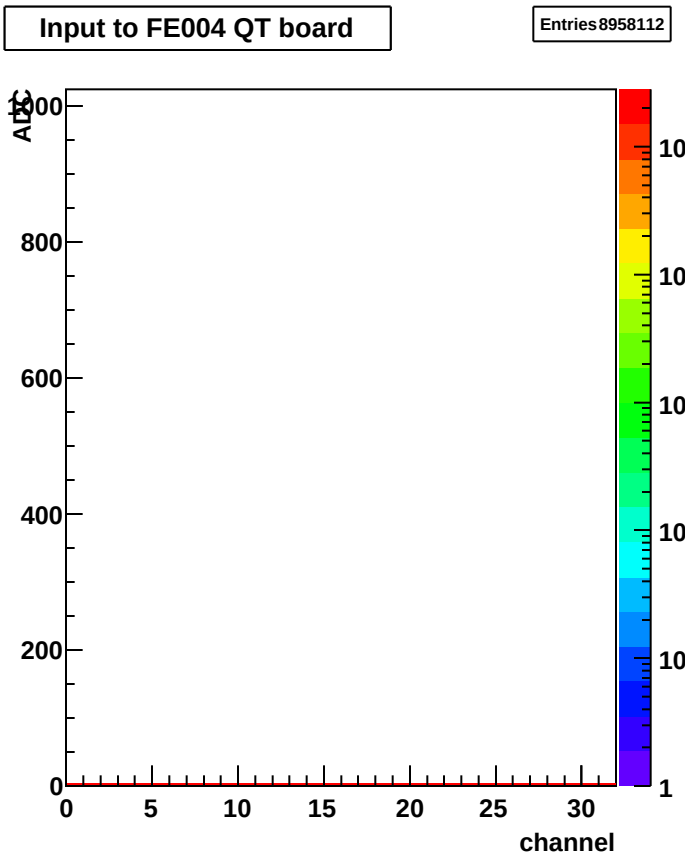

Input to FPD L2 DSM
Entries 839823
HT bits - simulated
279941
279941
279941
SMALL
LARGE-S
LARGE-N

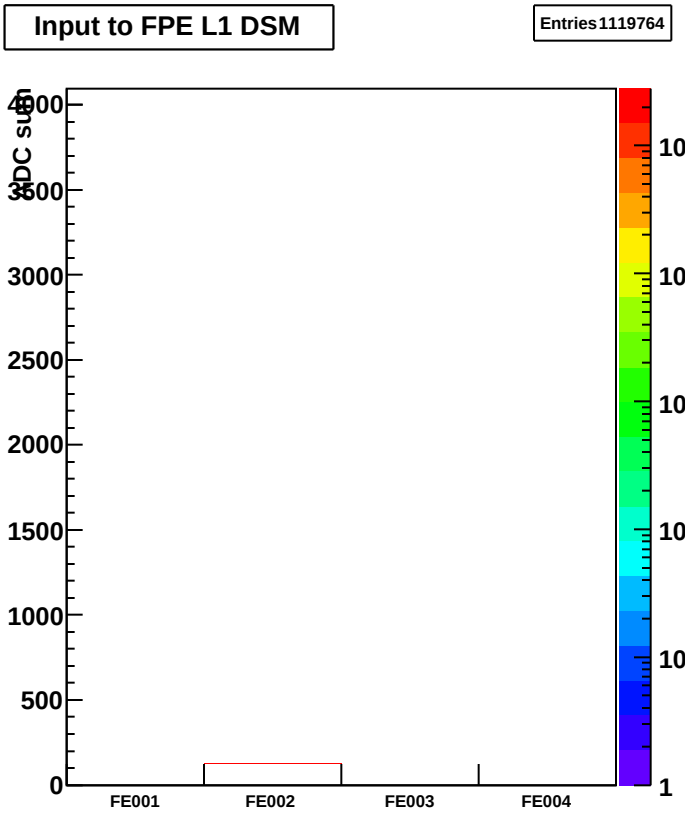

Input to FPD L2 DSM
Entries 1679646
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

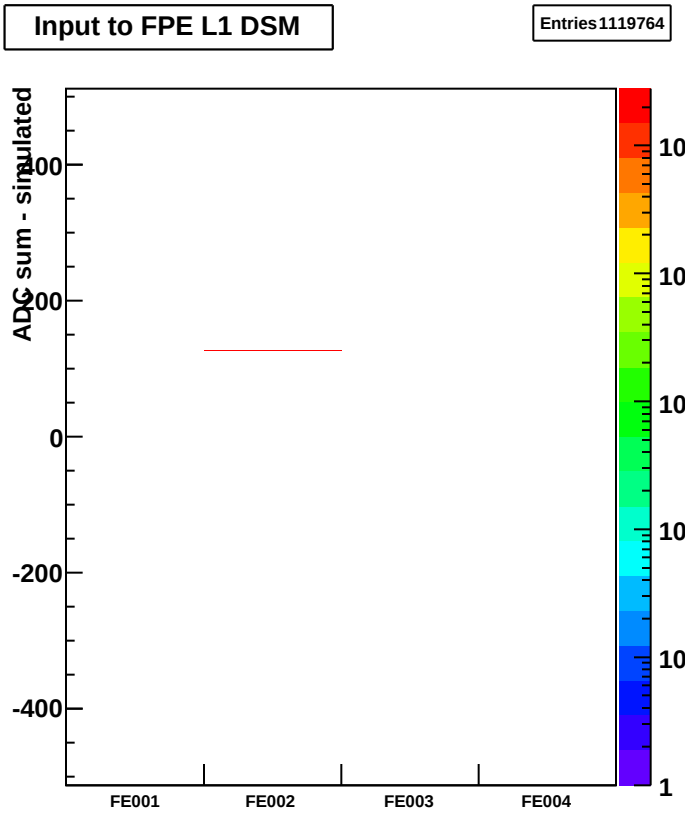

Input to FE001 QT board
Entries 8958112
ADC
channel

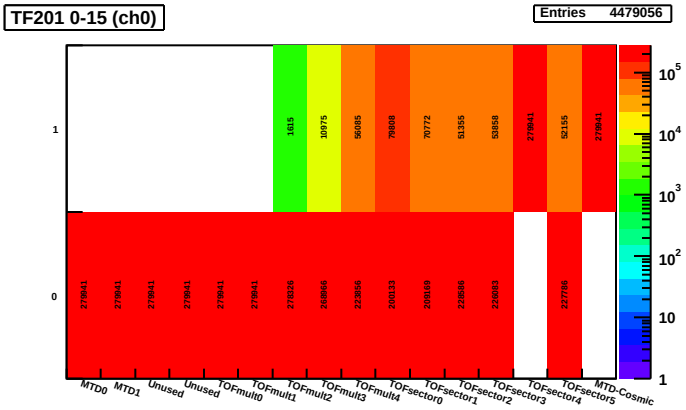

Input to FE002 QT board
Entries 8958112
ADC
channel

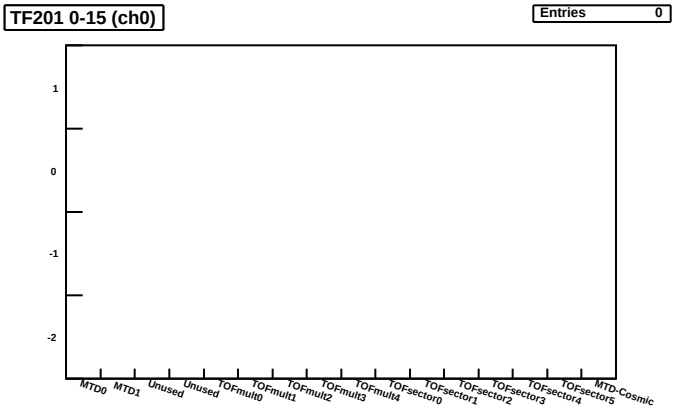

Input to FE003 QT board
Entries 8958112
ADC
channel

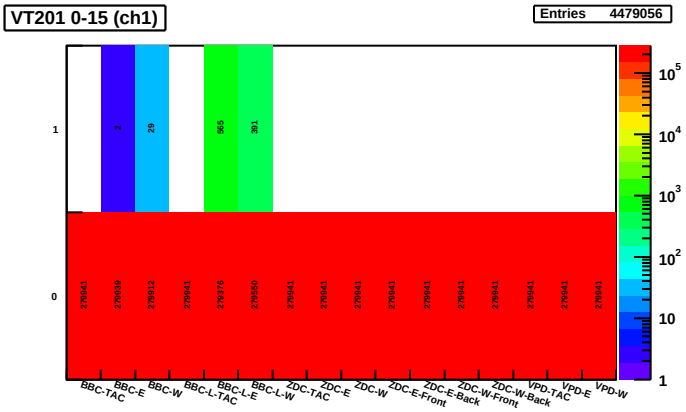

Input to FE004 QT board
Entries 8958112
ADC
channel

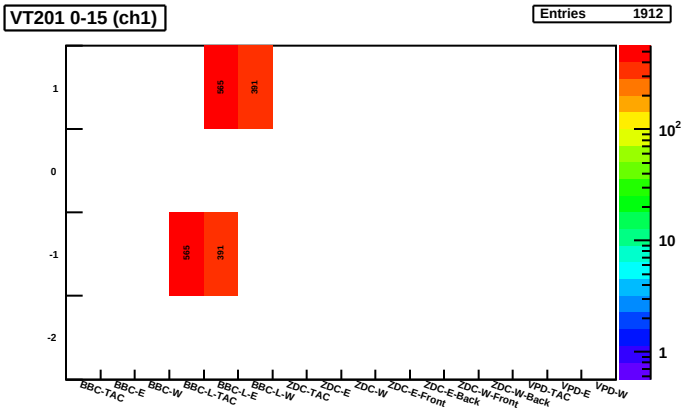

Input to FPE L1 DSM
Entries 1119764
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

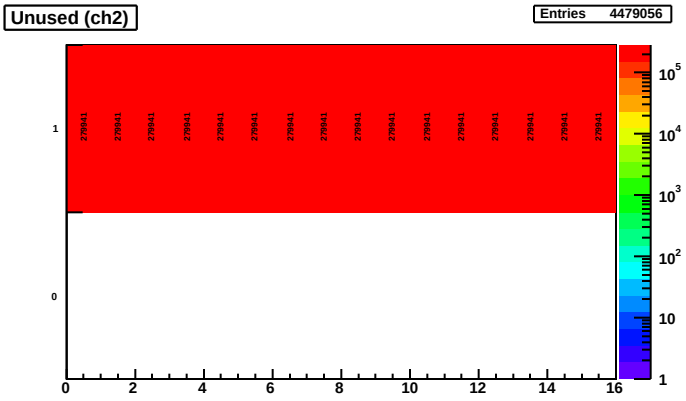

Input to FPE L1 DSM
Entries 1119764
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

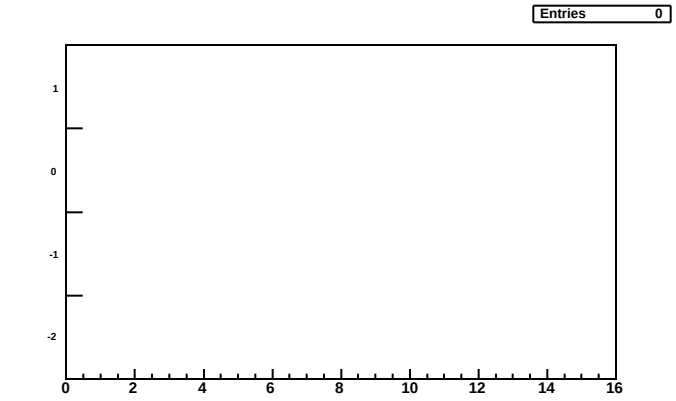

TF201 0-15 (ch0)
Entries 4479056
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

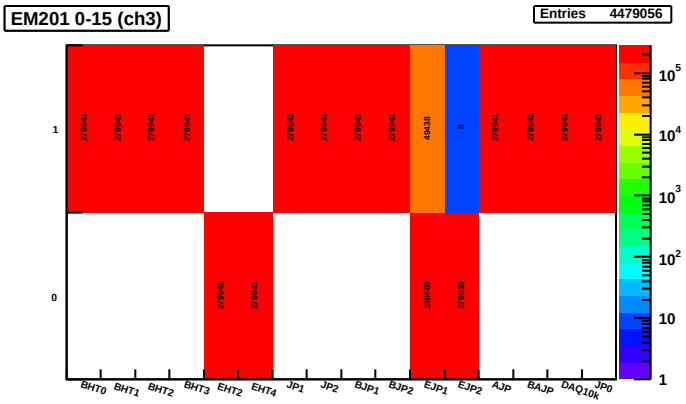

TF201 0-15 (ch0)
Entries 0
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

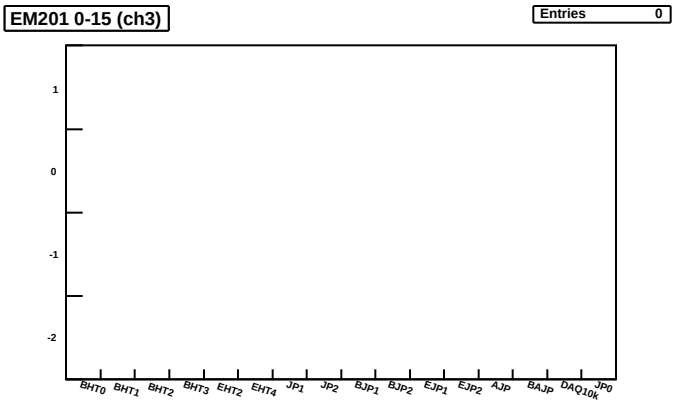

VT201 0-15 (ch1)
Entries 4479056
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

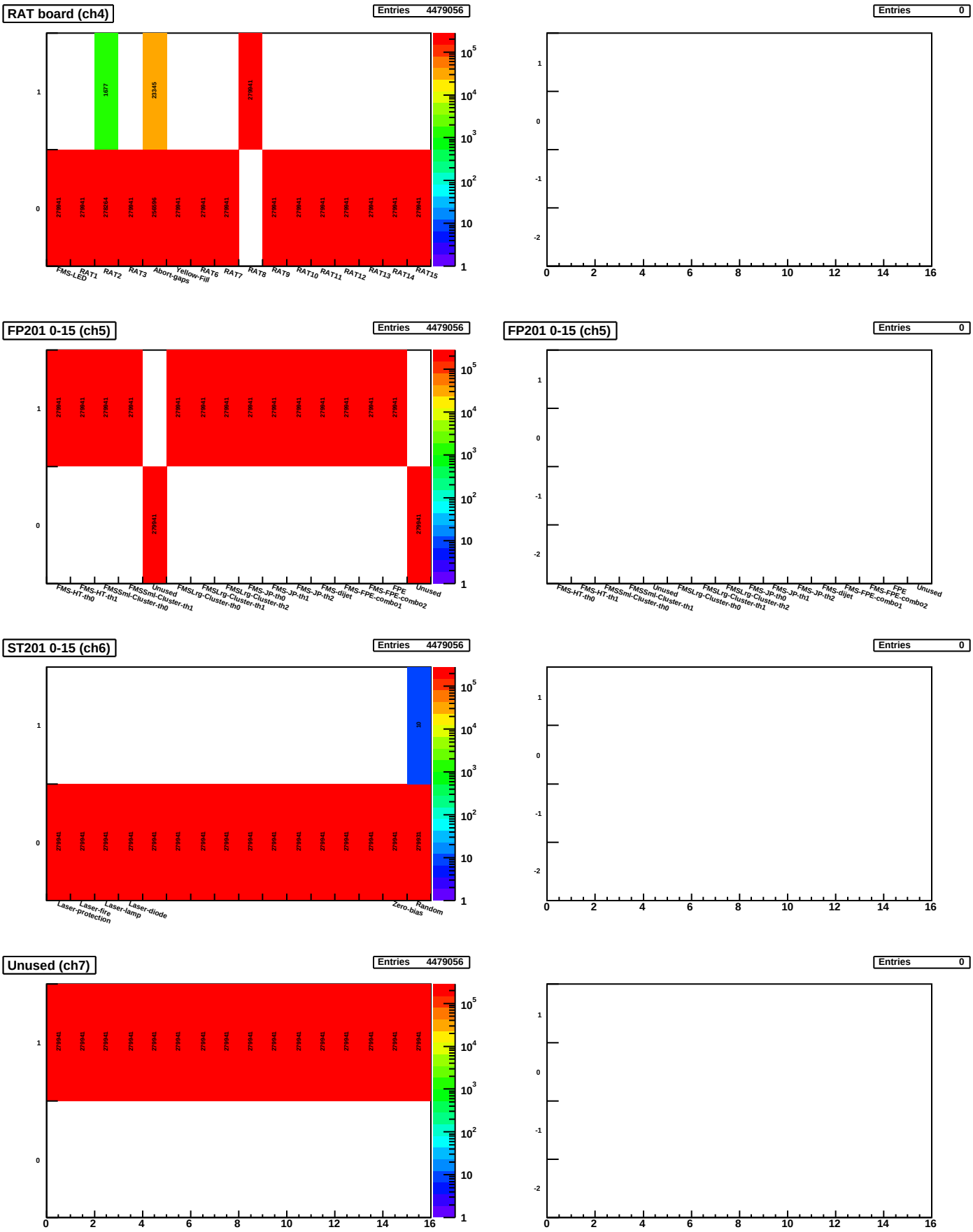

VT201 0-15 (ch1)
Entries 1912
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


Unused (ch2)
Entries 4479056


Entries 0


EM201 0-15 (ch3)
Entries 4479056
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


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


RAT board (ch4)
Entries 4479056
Entries 0
FP201 0-15 (ch5)
Entries 4479056
Entries 0
ST201 0-15 (ch6)
Entries 4479056
Entries 0
Unused (ch7)
Entries 4479056
Entries 0
FMS-LED
RAT1
RAT2
RAT3
Abort-gaps
Yellow-Fill
RAT6
RAT7
RAT8
RAT9
RAT10
RAT11
RAT12
RAT13
RAT14
RAT15
FMS-HT-th0
FMS-HT-th1
FMSSml-Cluster-th0
FMSSml-Cluster-th1
Unused
FMSLrg-Cluster-th0
FMSLrg-Cluster-th1
FMS-JP-th0
FMS-JP-th1
FMS-JP-th2
FMS-diJet
FMS-FPE-combo1
FPE
FMS-FPE-combo2
Unused
Laser-protection
Laser-fire
Laser-lamp
Laser-diode
Zero-bias
Random