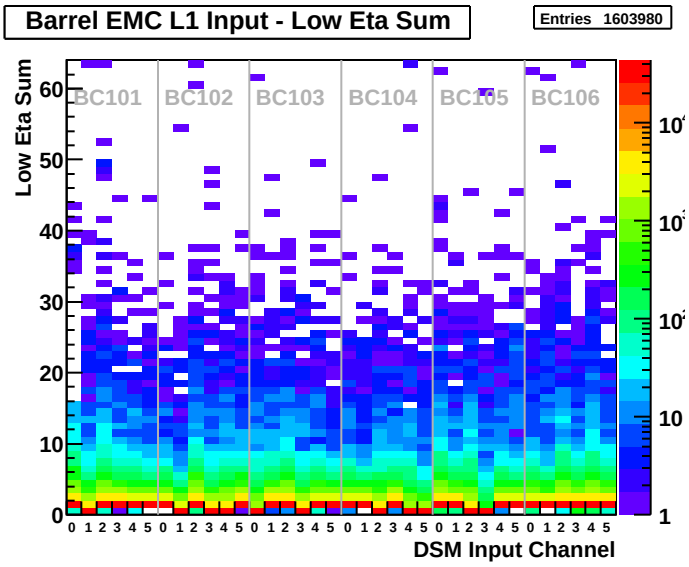
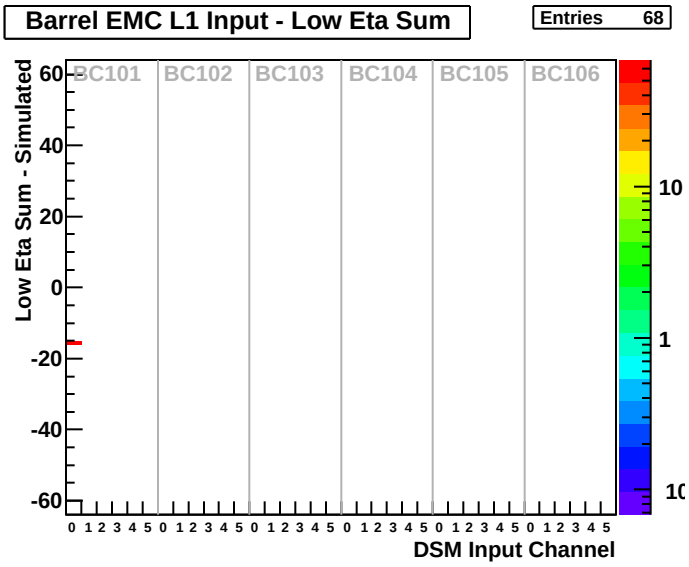
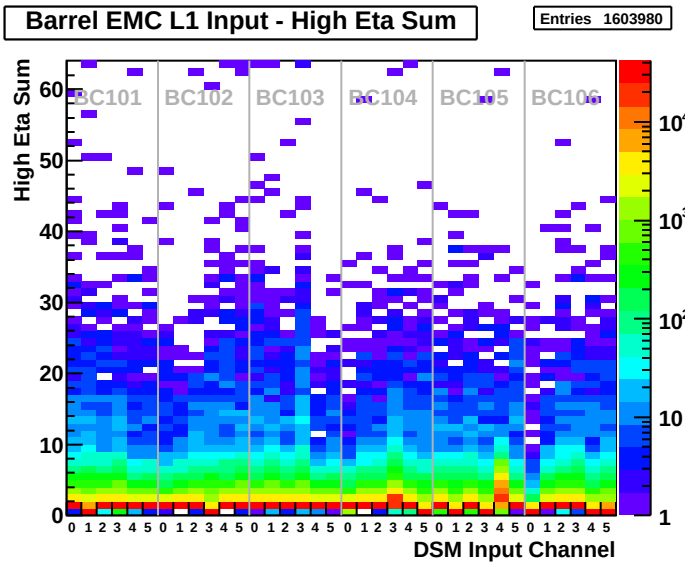
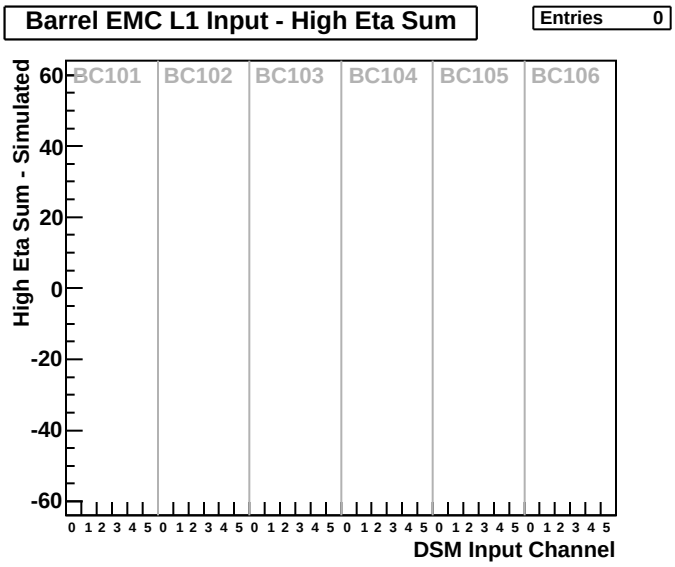
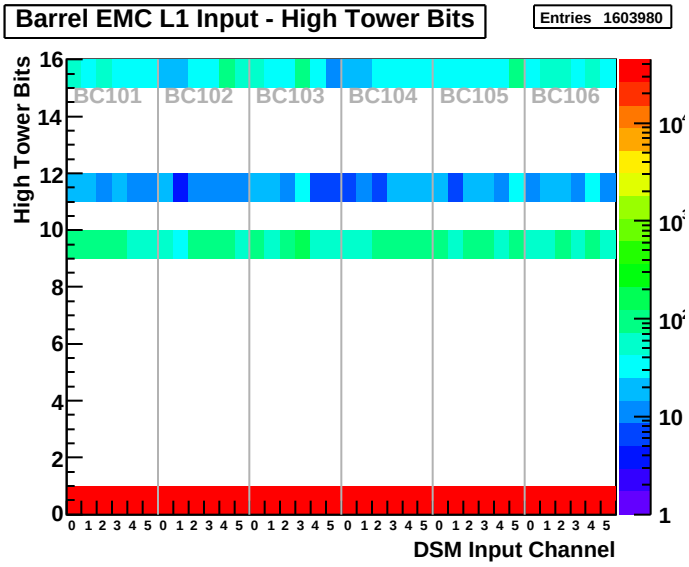
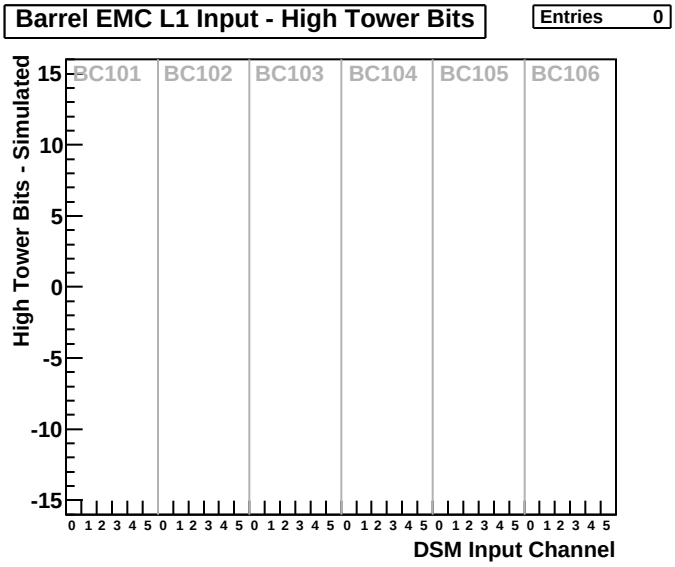

Barrel EMC L1 Input - Low Eta Sum
Entries 1603980
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

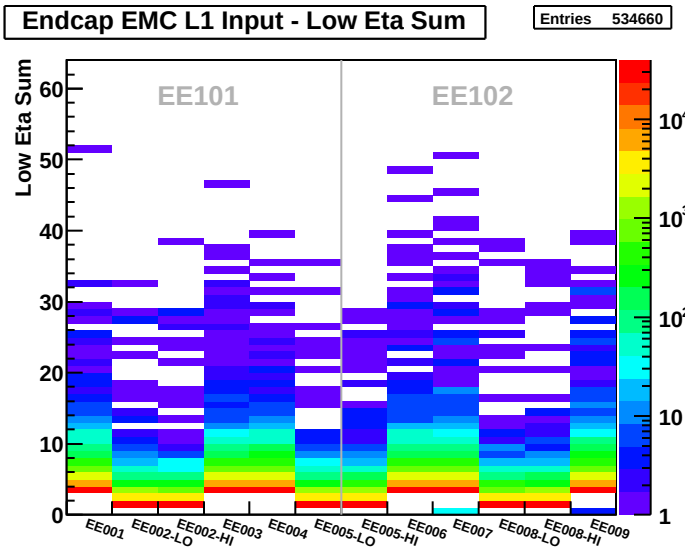

Barrel EMC L1 Input - Low Eta Sum
Entries 68
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

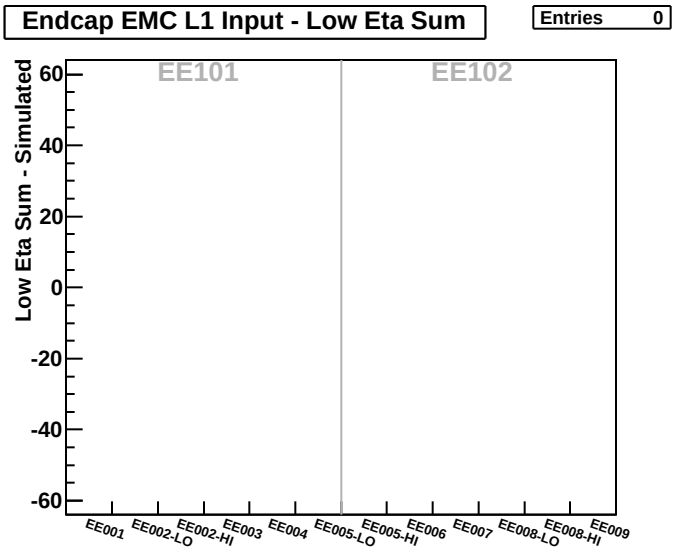

Barrel EMC L1 Input - High Eta Sum
Entries 1603980
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

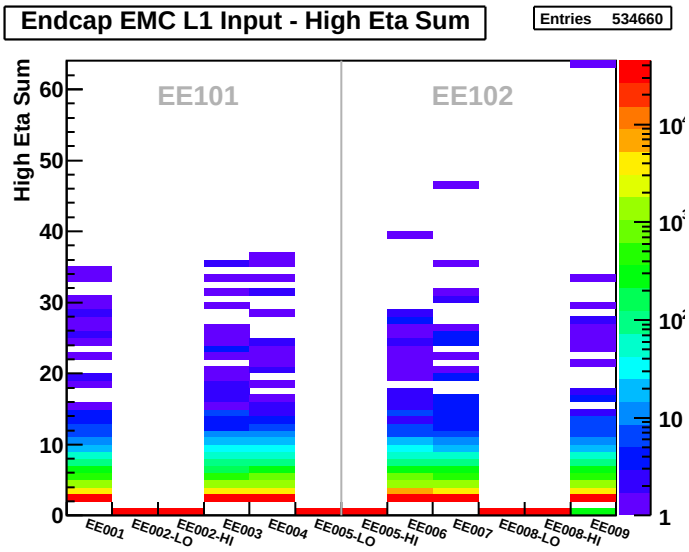

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

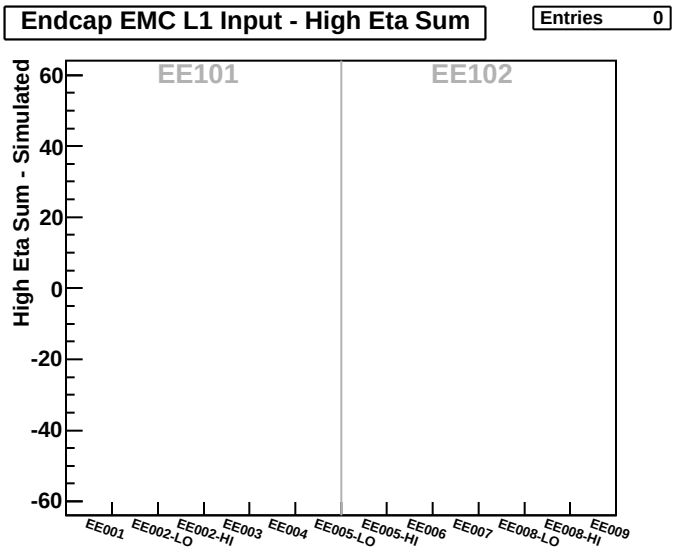

Barrel EMC L1 Input - High Tower Bits
Entries 1603980
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

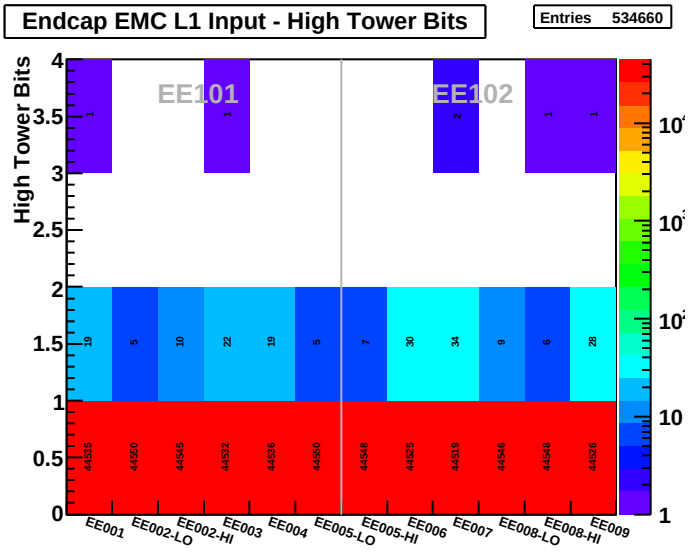

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

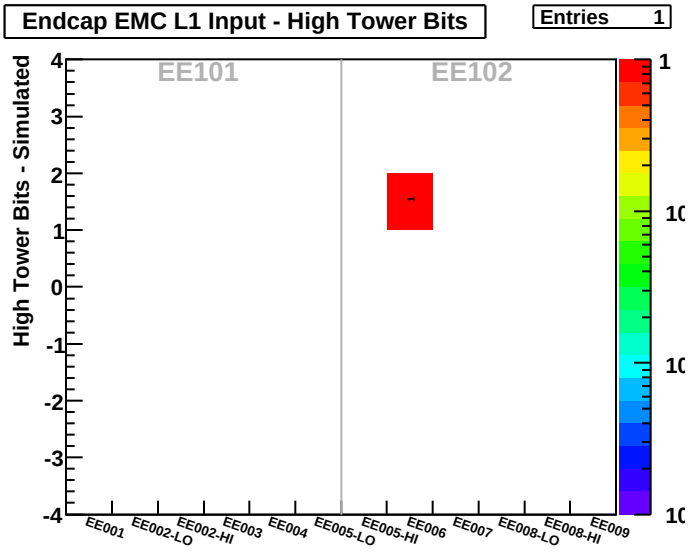

Endcap EMC L1 Input - Low Eta Sum
Entries 534660
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

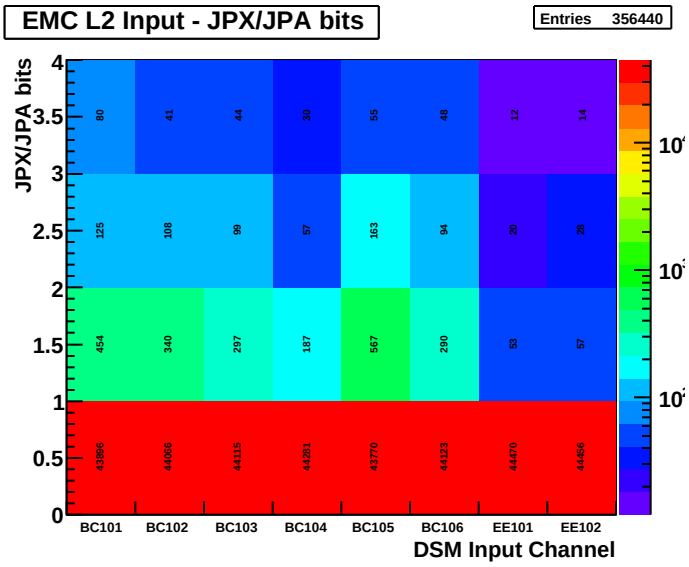

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

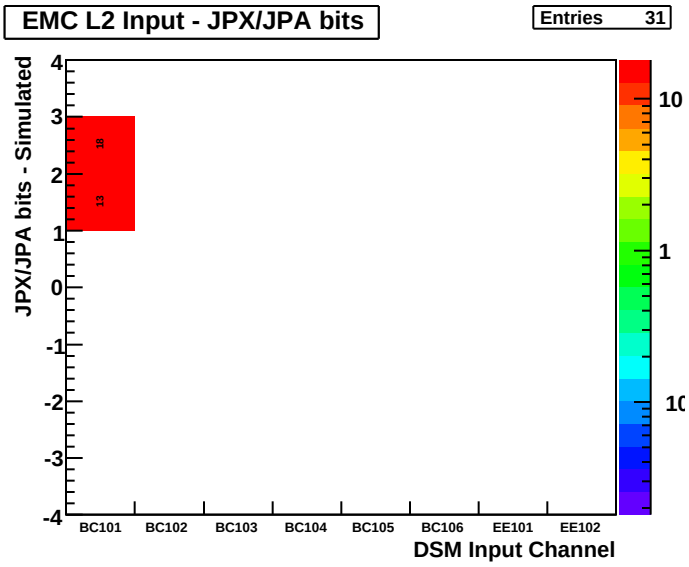

Endcap EMC L1 Input - High Eta Sum
Entries 534660
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

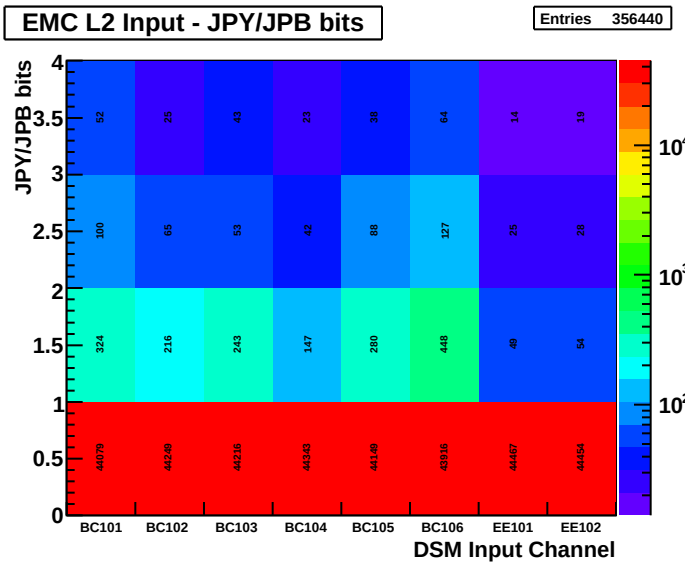

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

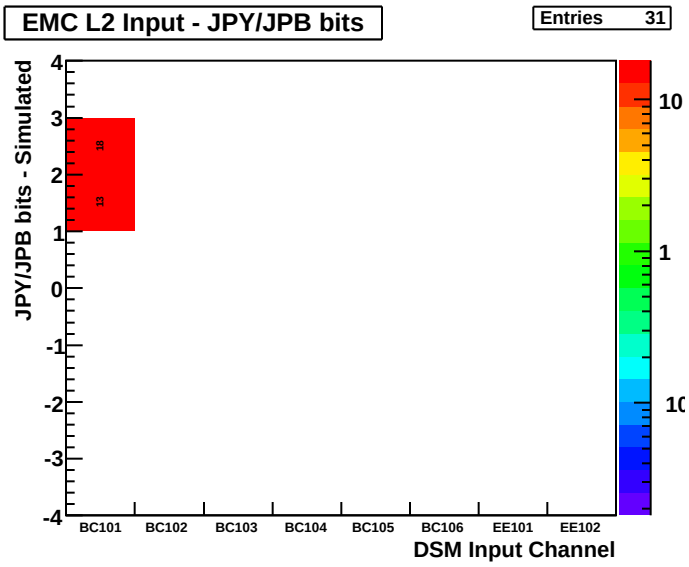

Endcap EMC L1 Input - High Tower Bits
Entries 534660
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

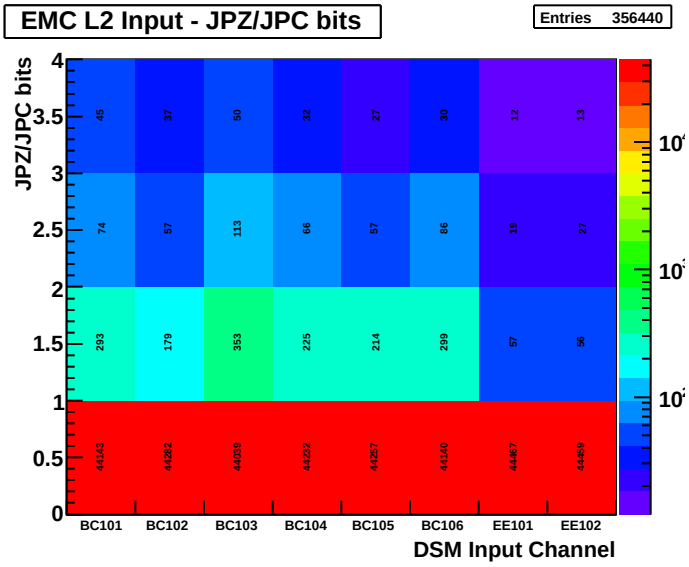

Endcap EMC L1 Input - High Tower Bits
Entries 1
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

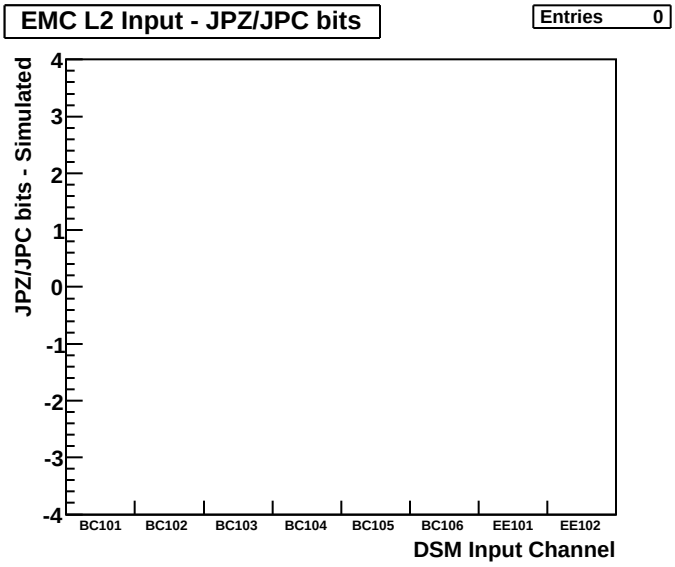

EMC L2 Input - JPX/JPA bits
Entries 356440
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
80 41 44 30 55 48 12 14
125 108 99 57 163 94 20 28
454 340 297 187 567 290 53 57
43896 44066 44115 44231 43770 44123 44470 44456

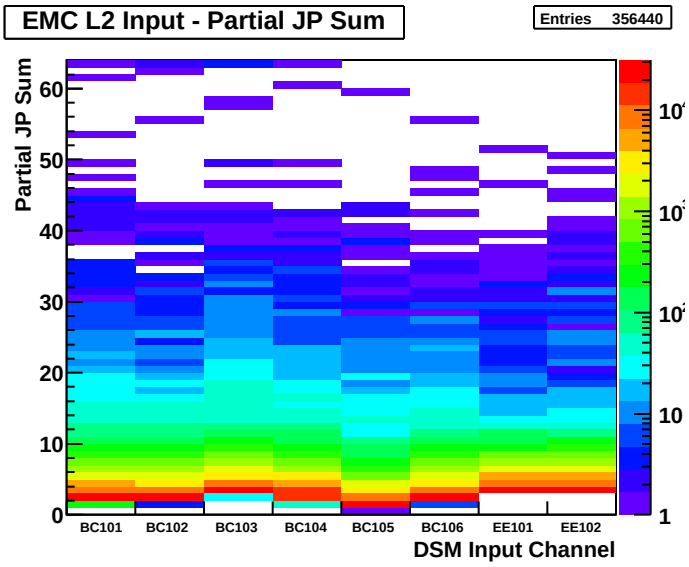

EMC L2 Input - JPX/JPA bits
Entries 31
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
18
13

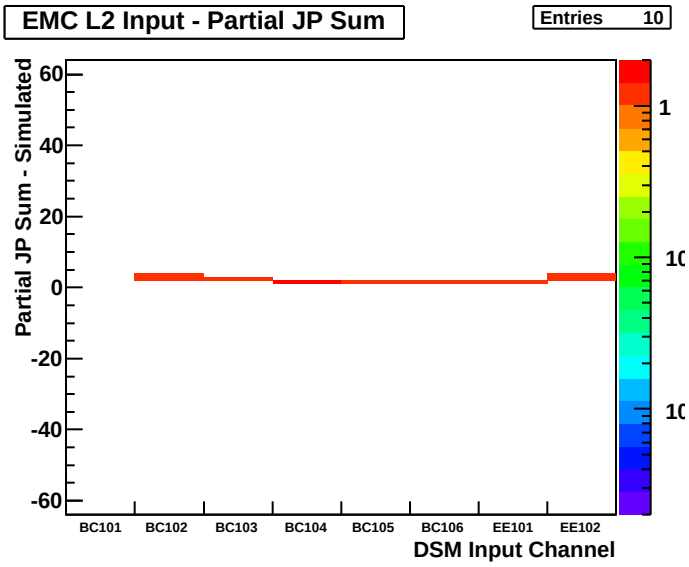

EMC L2 Input - JPY/JPB bits
Entries 356440
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
52 25 43 23 38 64 14 19
100 65 53 42 88 127 25 28
324 216 243 147 280 448 49 54
44079 44249 44216 44343 44149 43916 44467 44454

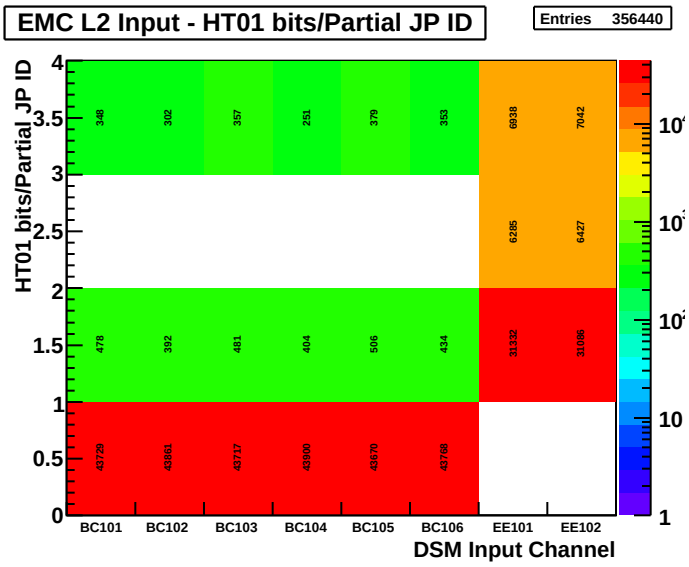

EMC L2 Input - JPY/JPB bits
Entries 31
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
18
13

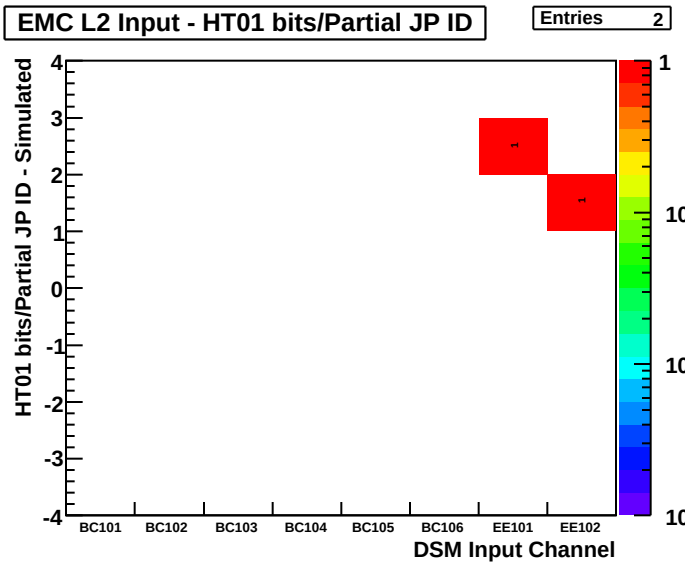

EMC L2 Input - JPZ/JPC bits
Entries 356440
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
45 37 50 32 27 30 12 13
74 57 113 66 57 86 19 27
293 179 353 225 214 299 57 56
44143 44232 44039 44232 44257 44140 44467 44459

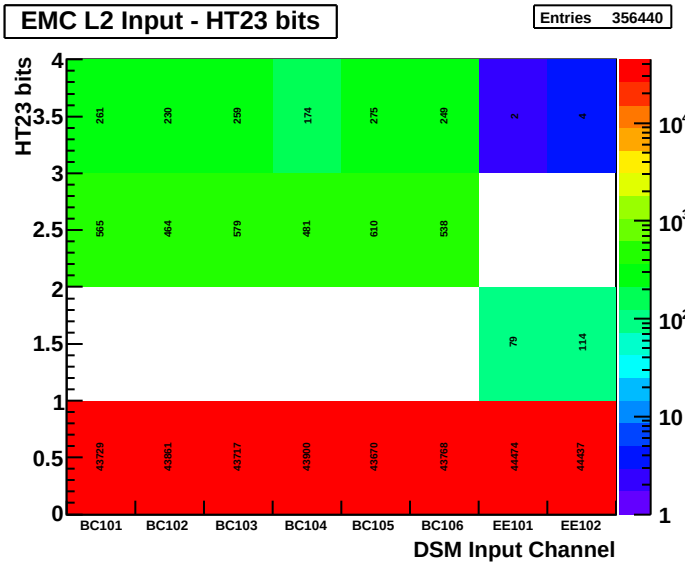

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

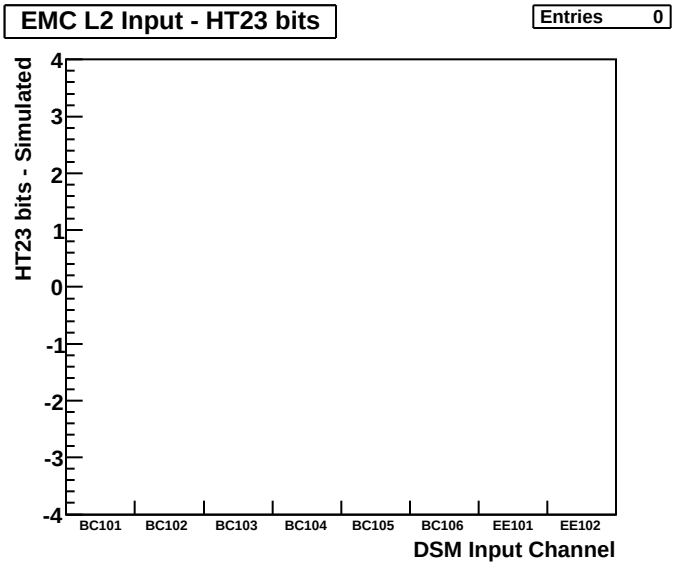

EMC L2 Input - Partial JP Sum
Entries 356440
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

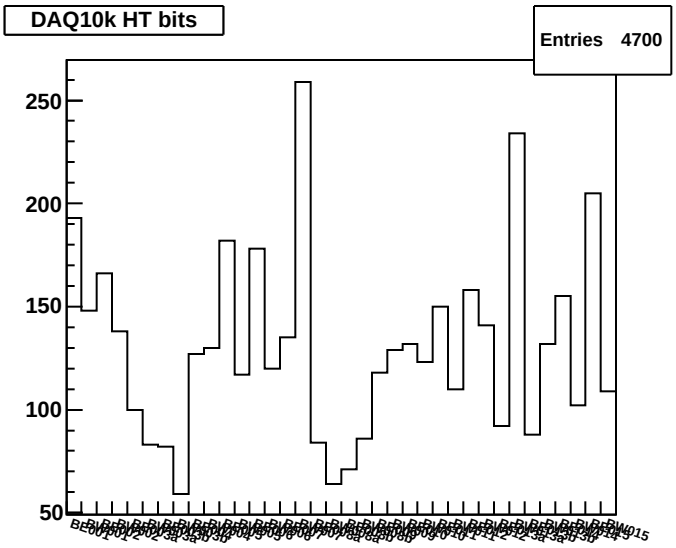

EMC L2 Input - Partial JP Sum
Entries 10
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

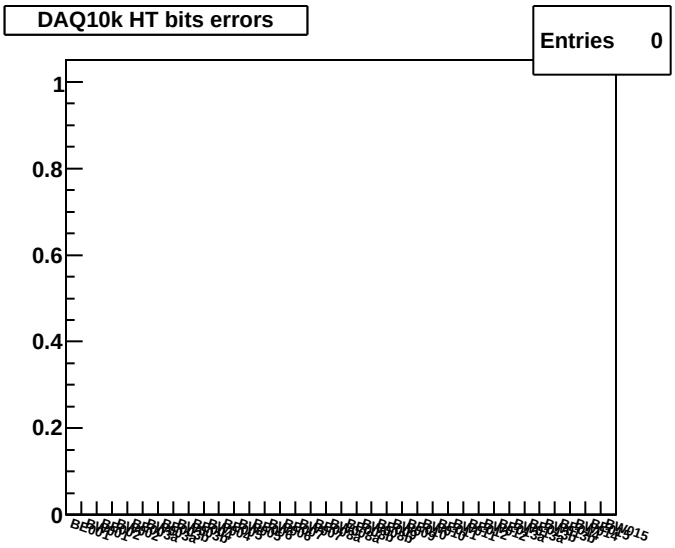

EMC L2 Input - HT01 bits/Partial JP ID
Entries 356440
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

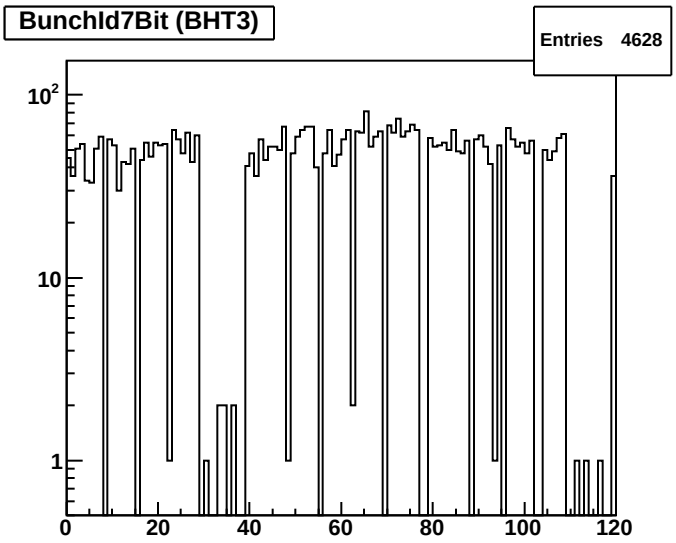

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

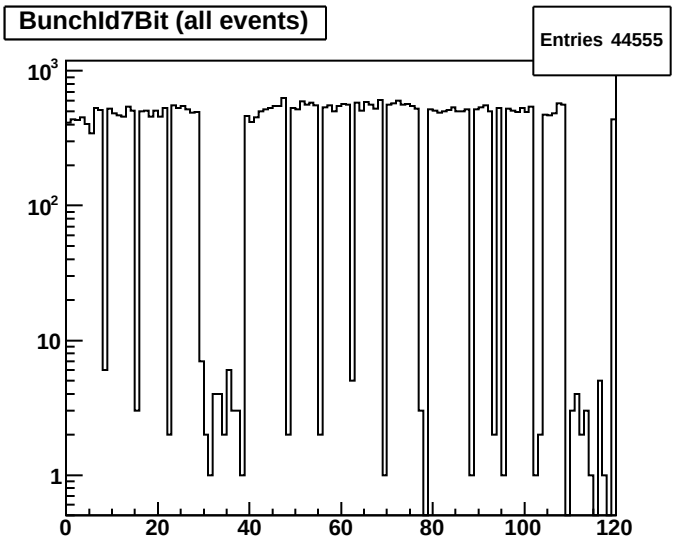

EMC L2 Input - HT23 bits
Entries 356440
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

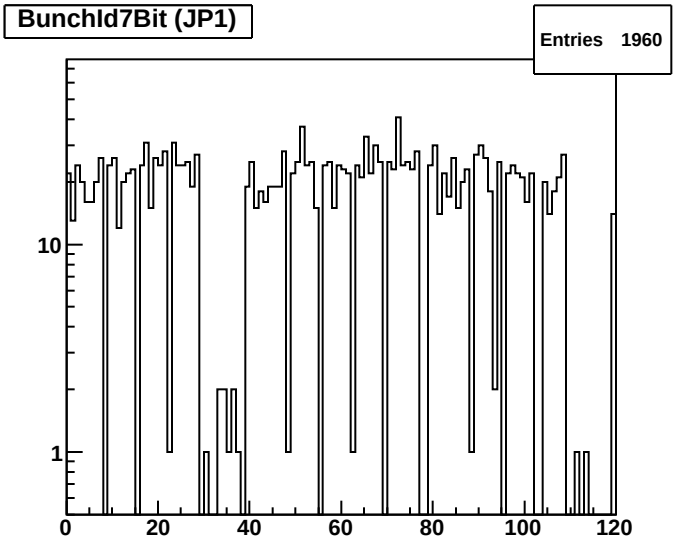

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

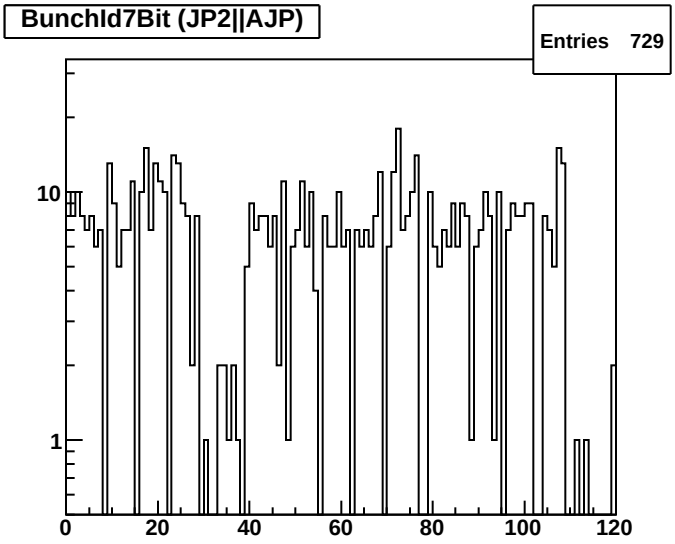

DAQ10k HT bits
Entries 4700
250
200
150
100
50

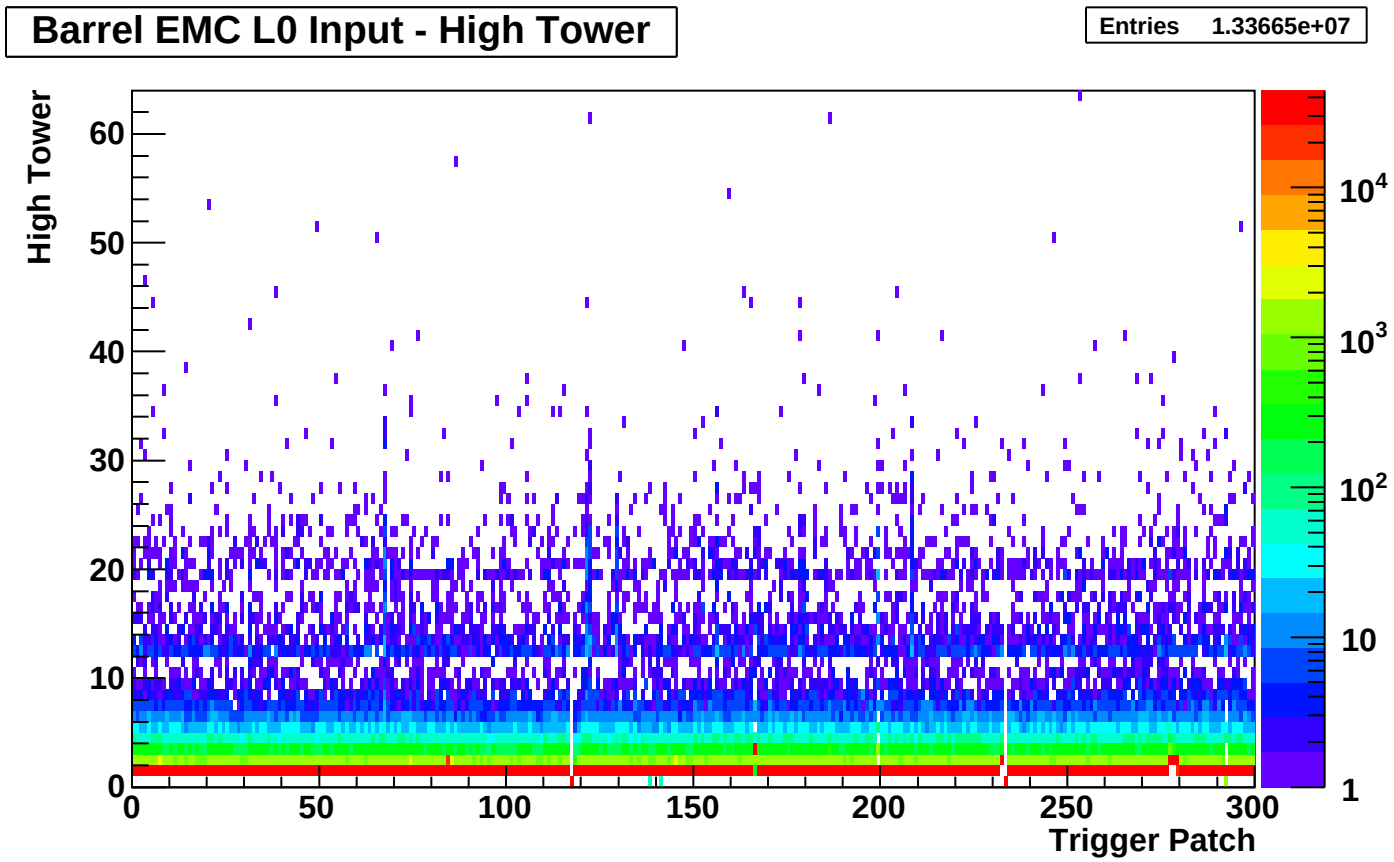

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0

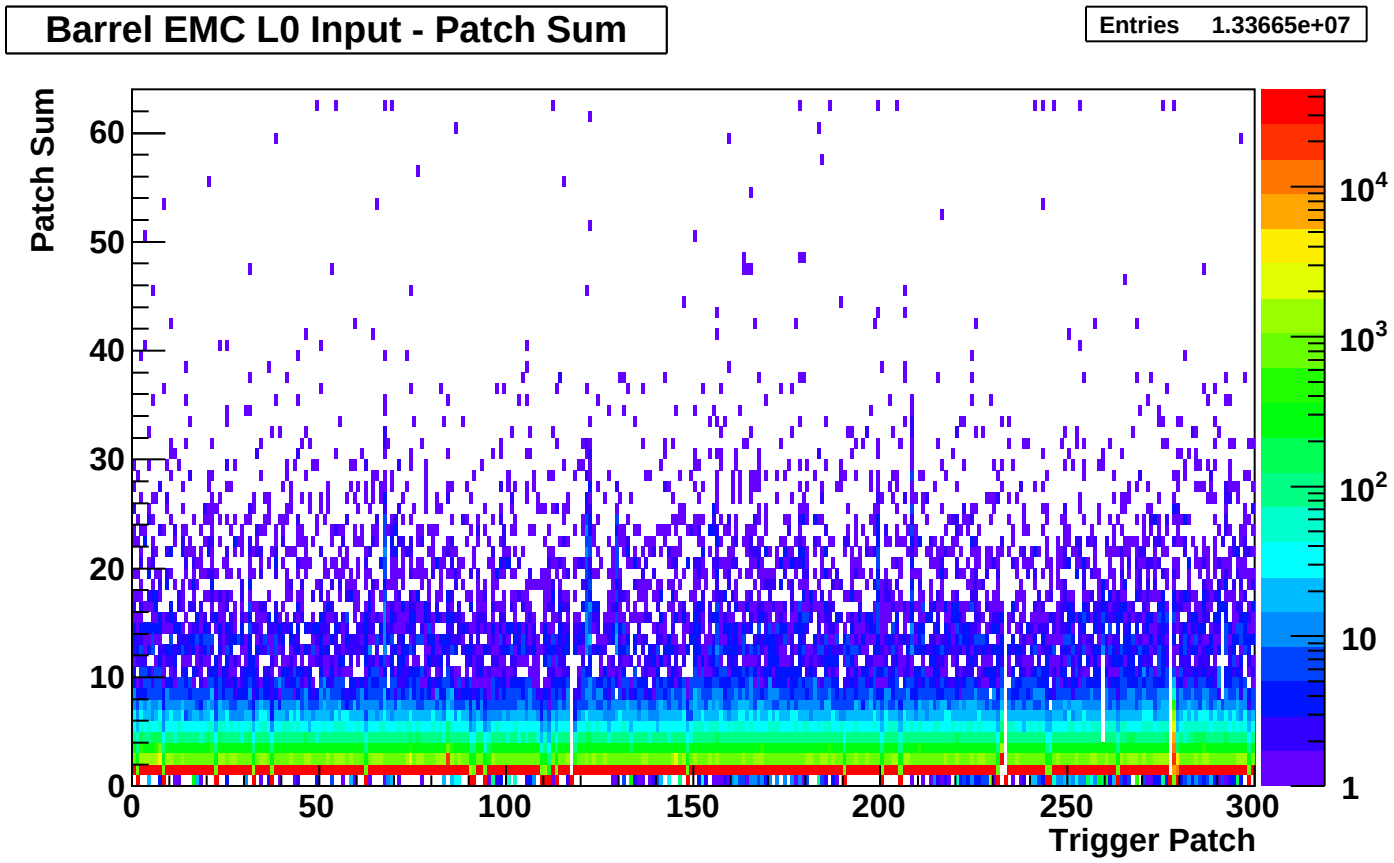

BunchId7Bit (BHT3)
Entries 4628
10^2
10
1
0
20
40
60
80
100
120

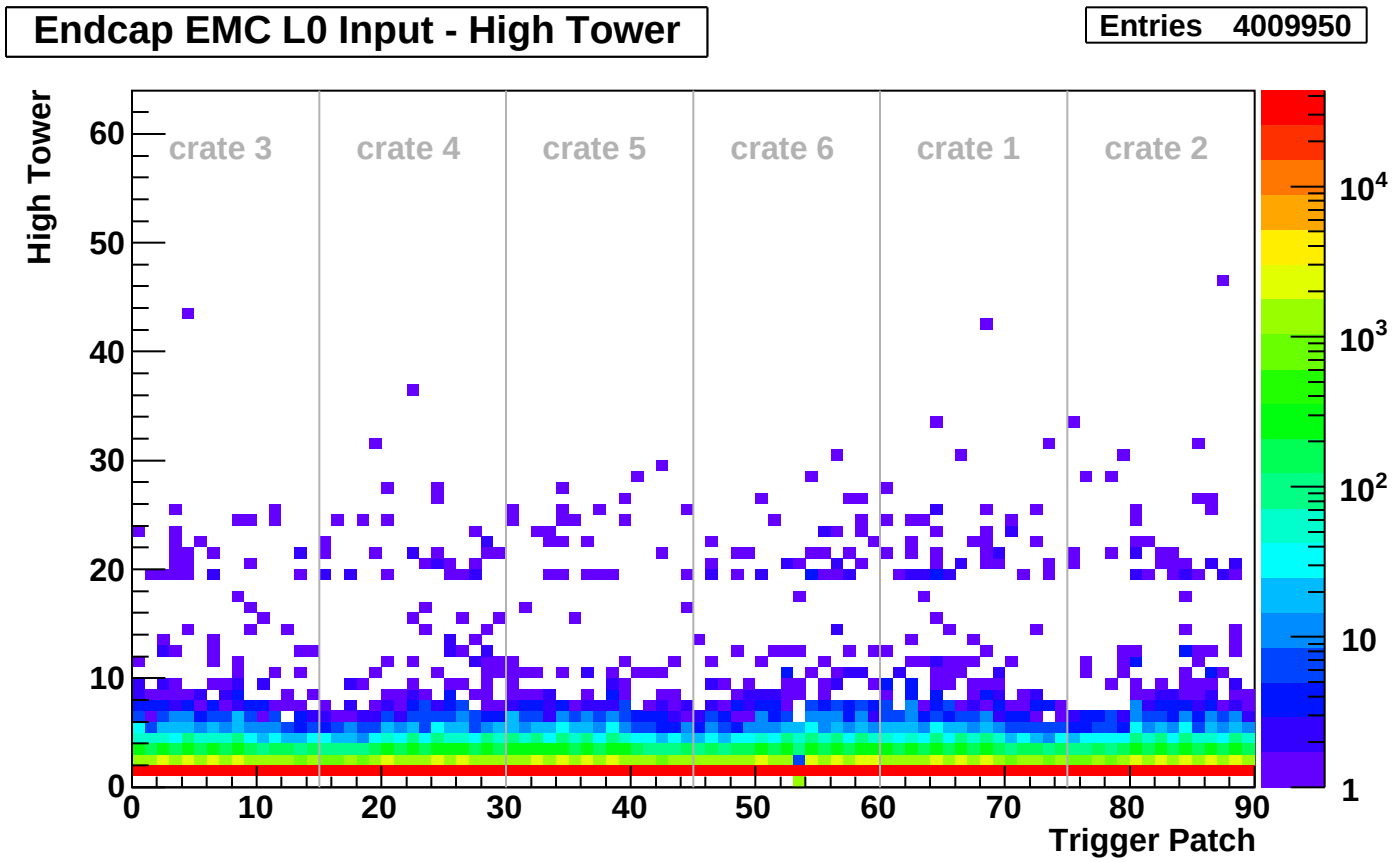

BunchId7Bit (all events)
Entries 44555
10^3
10^2
10
1
0
20
40
60
80
100
120

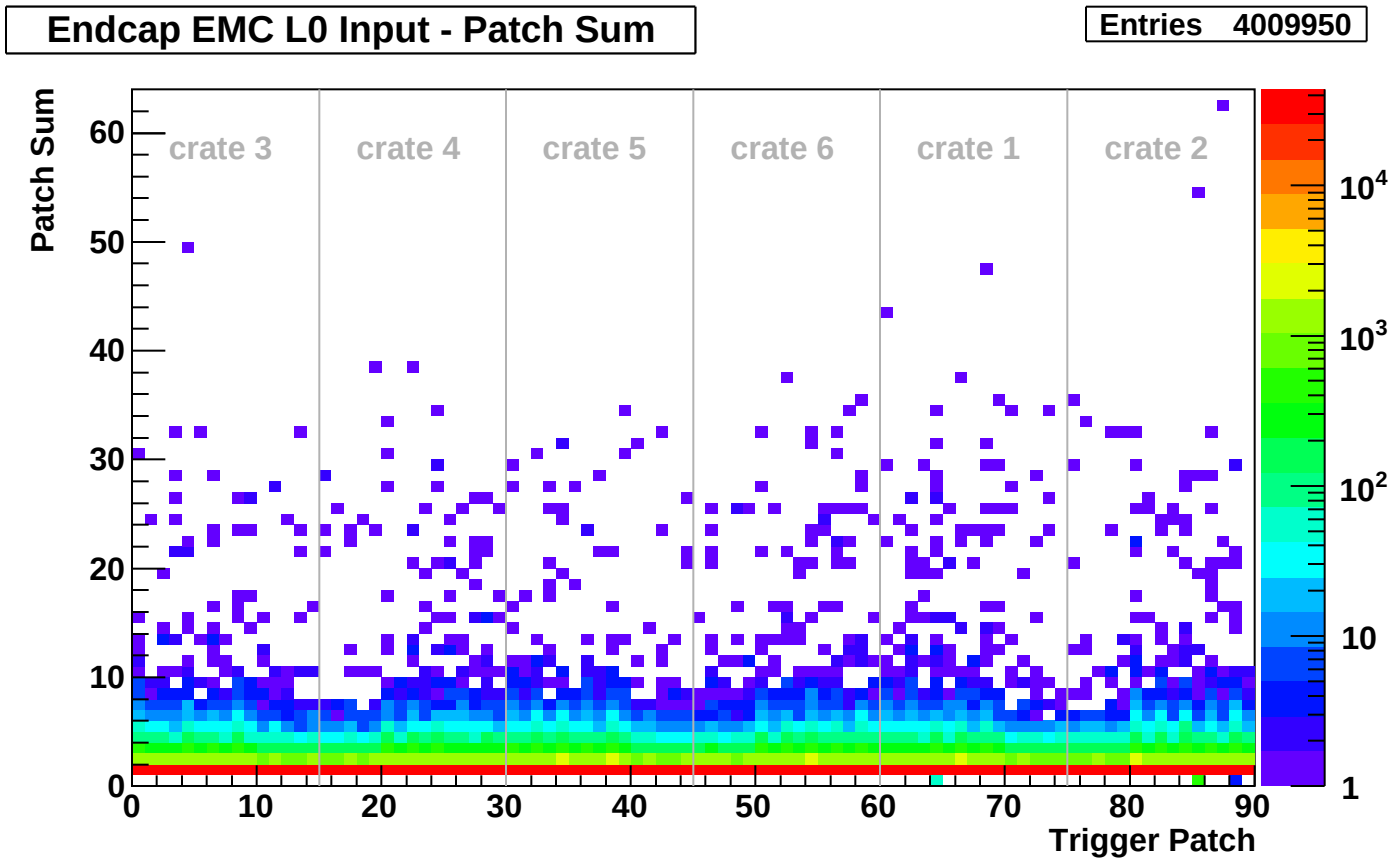

BunchId7Bit (JP1)
Entries 1960
10
1
0
20
40
60
80
100
120

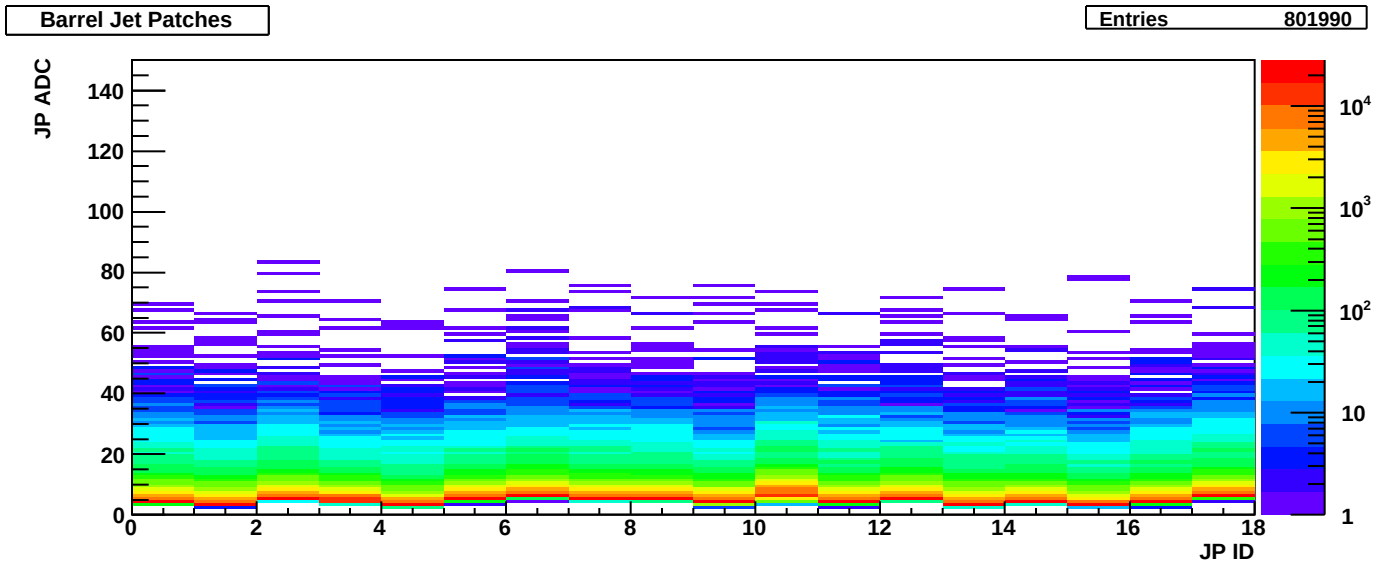

BunchId7Bit (JP2||AJP)
Entries 729
10
1
0
20
40
60
80
100
120

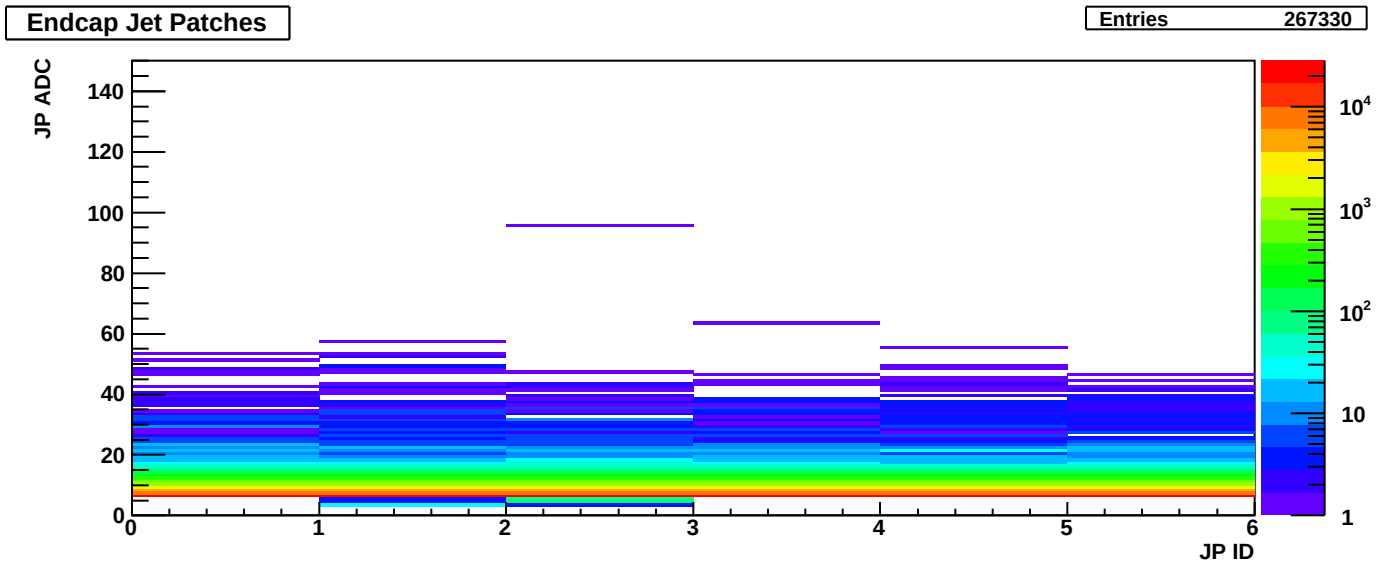

Barrel EMC L0 Input - High Tower
Entries 1.33665e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

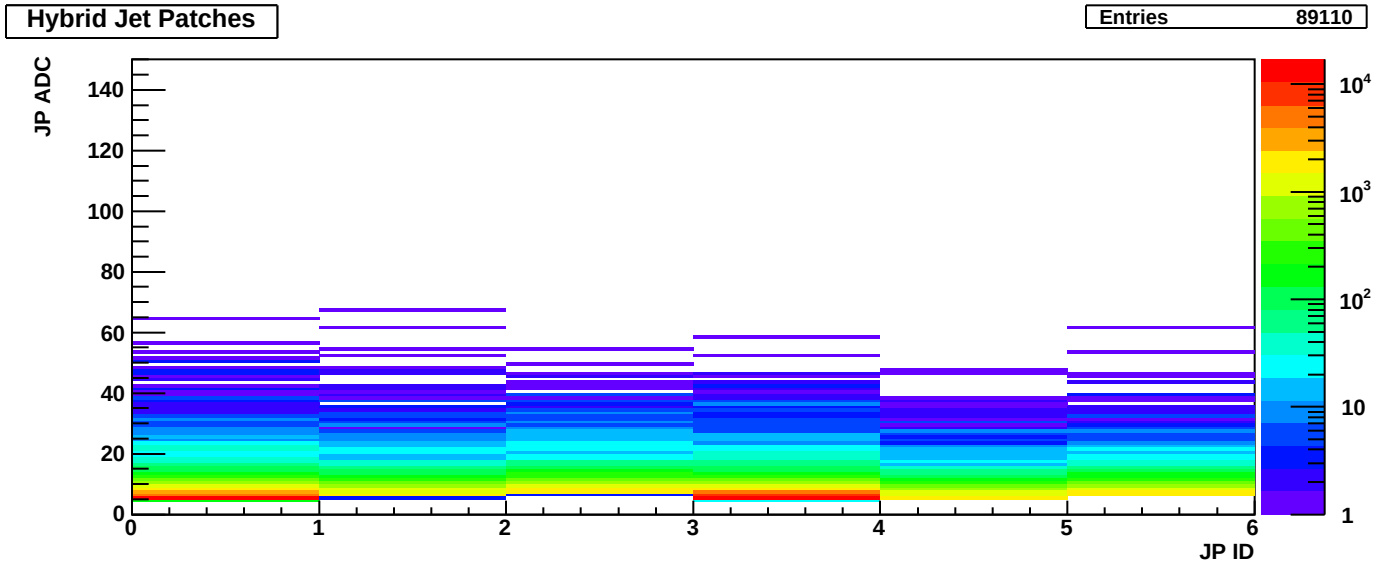

Barrel EMC L0 Input - Patch Sum
Entries 1.33665e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

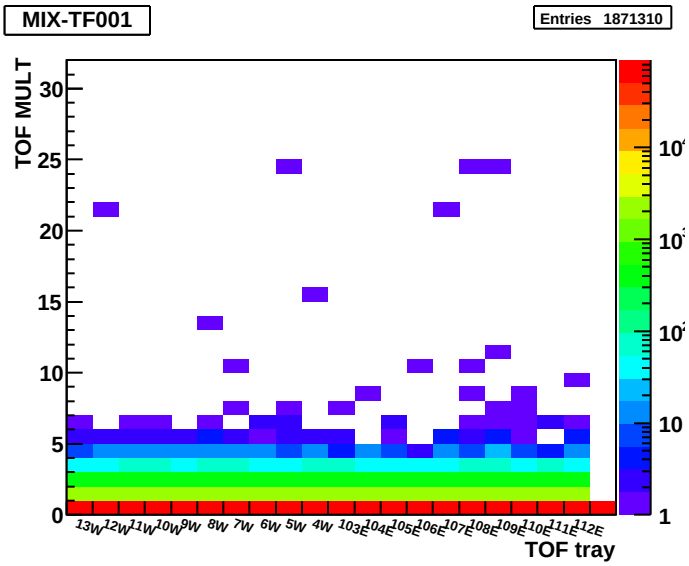

Endcap EMC L0 Input - High Tower
Entries 4009950
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

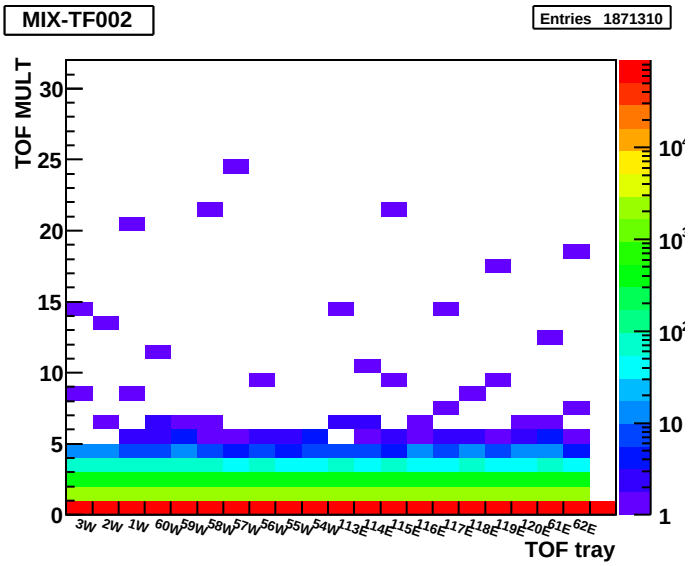

Endcap EMC L0 Input - Patch Sum
Entries 4009950
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

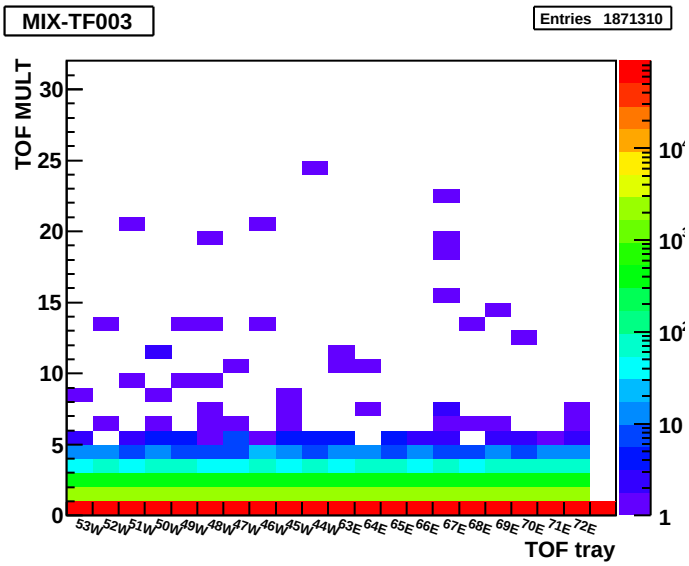

Barrel Jet Patches
Entries 801990
JP ADC
JP ID

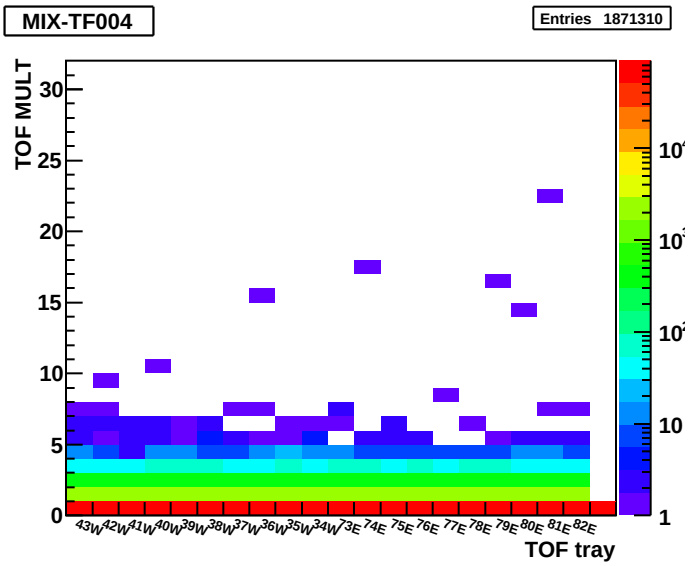

Endcap Jet Patches
Entries 267330
JP ADC
JP ID

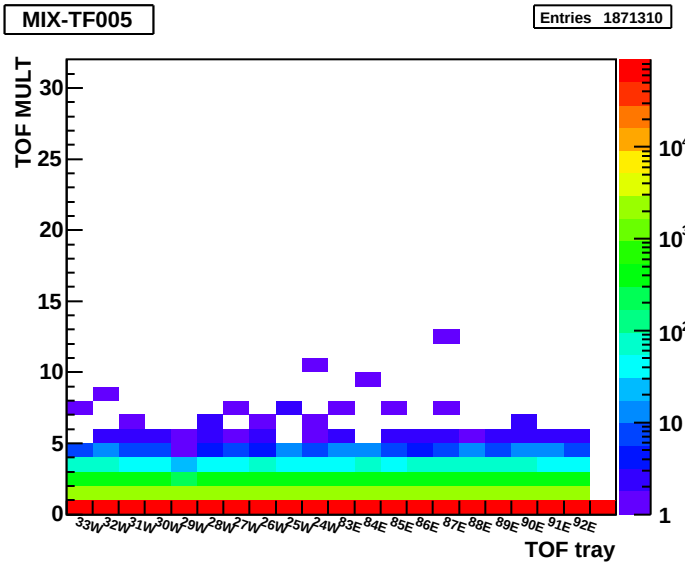

Hybrid Jet Patches
Entries 89110
JP ADC
JP ID

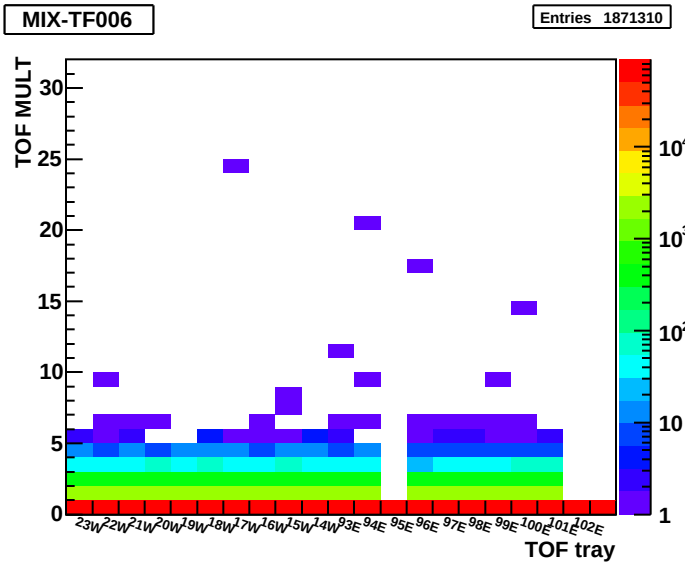

MIX-TF001
Entries 1871310
TOF MULT
TOF tray

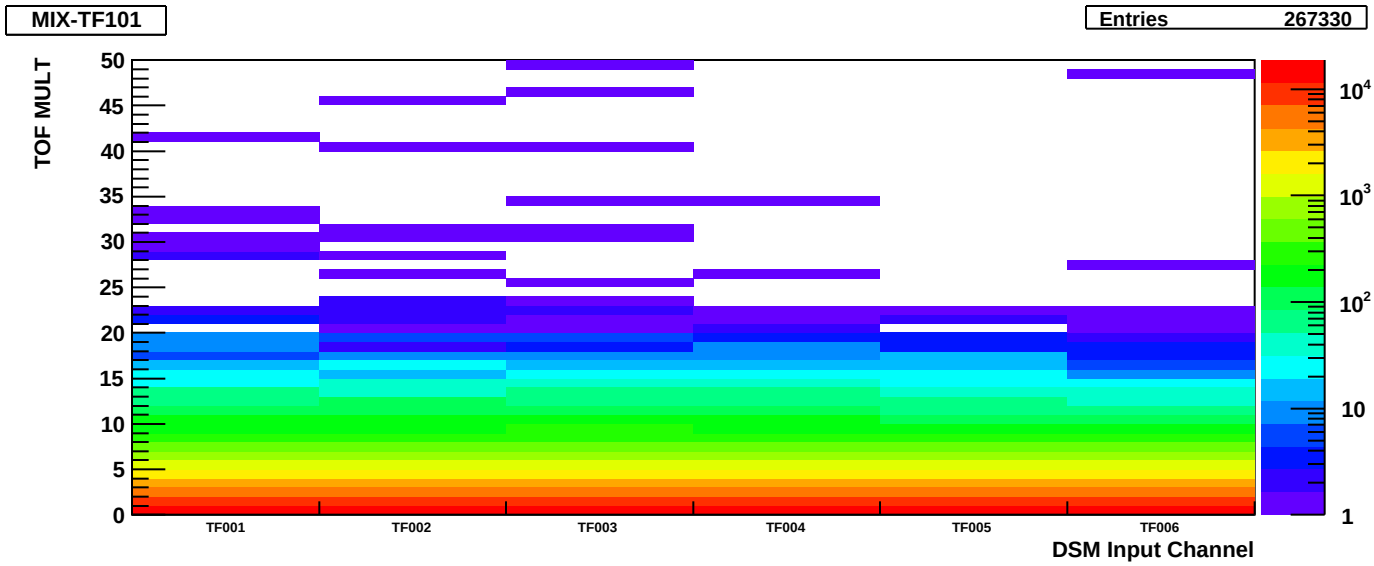

MIX-TF002
Entries 1871310
TOF MULT
TOF tray

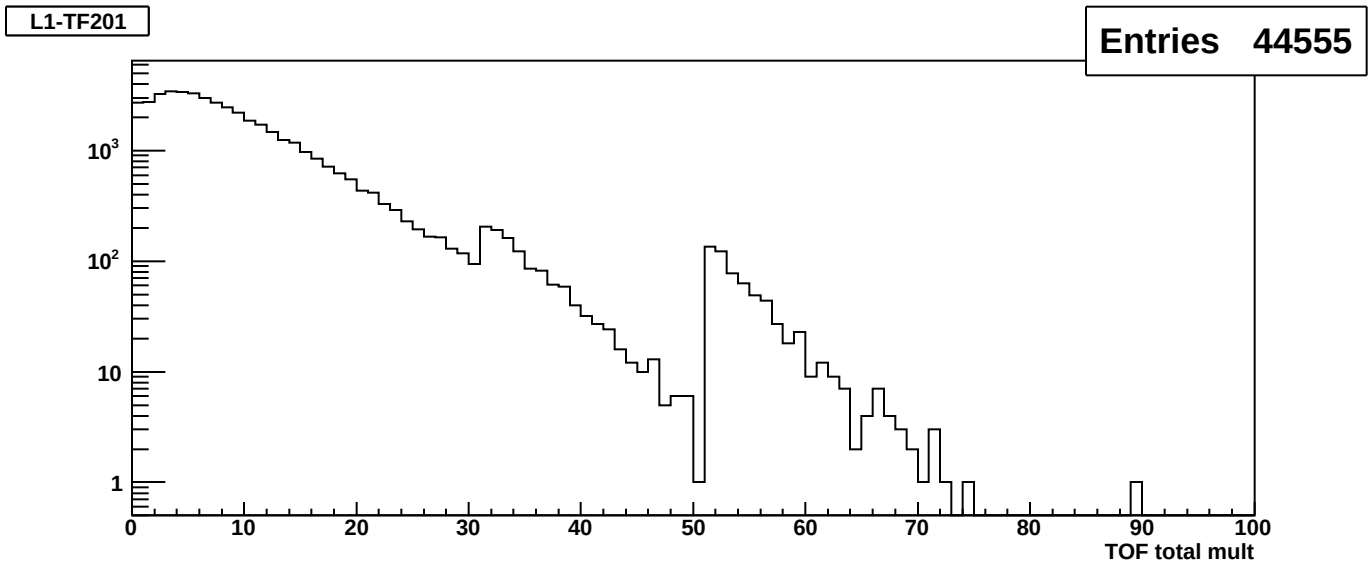

MIX-TF003
Entries 1871310
TOF MULT
TOF tray

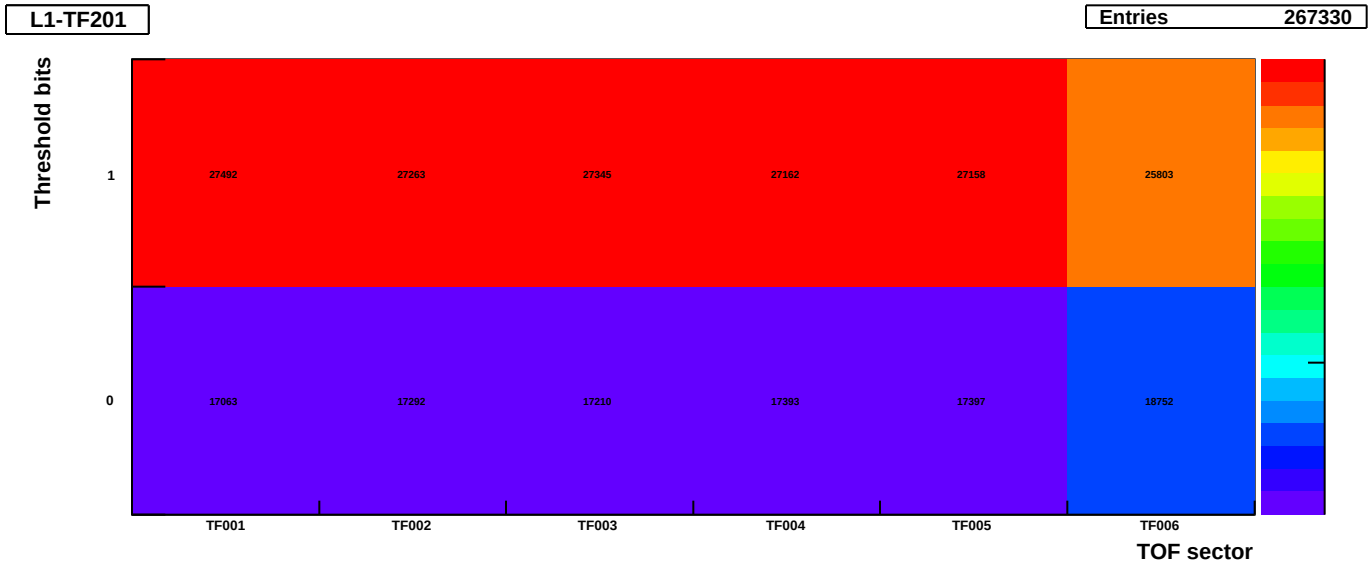

MIX-TF004
Entries 1871310
TOF MULT
TOF tray

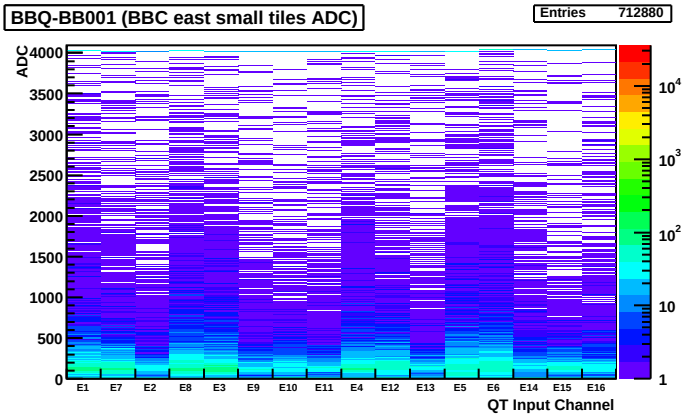

MIX-TF005
Entries 1871310
TOF MULT
TOF tray

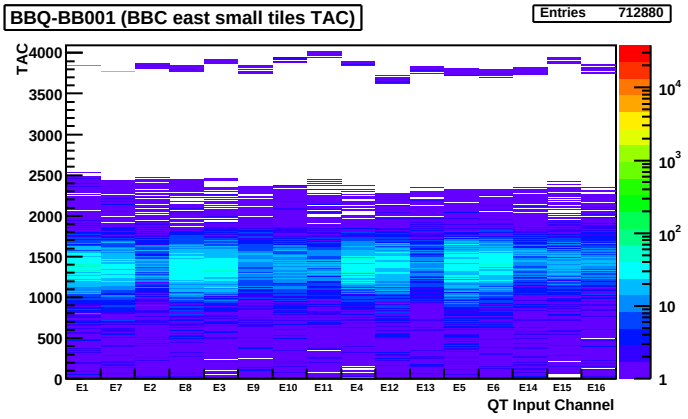

MIX-TF006
Entries 1871310
TOF MULT
TOF tray

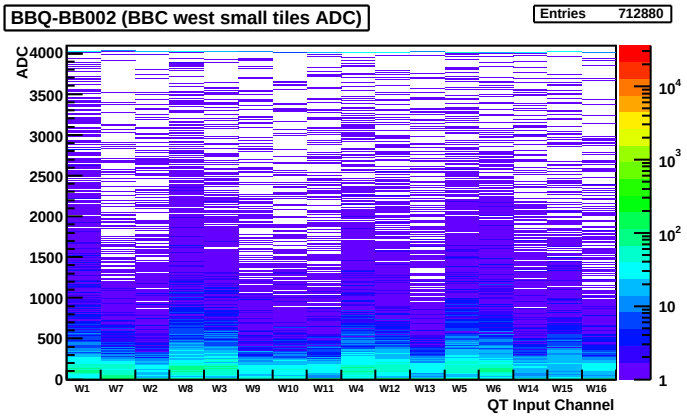

MIX-TF101
Entries 267330
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

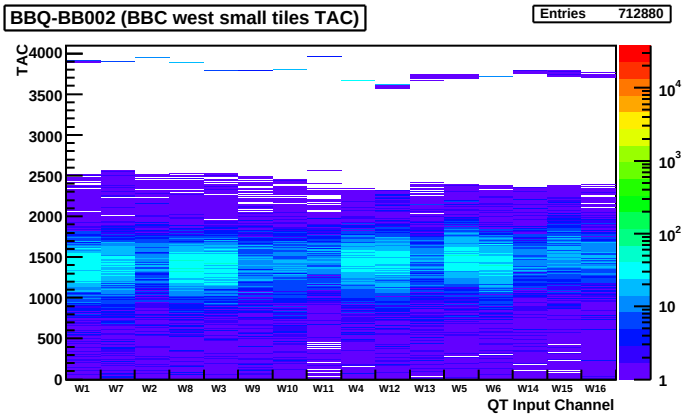

L1-TF201
Entries 44555
TOF total mult

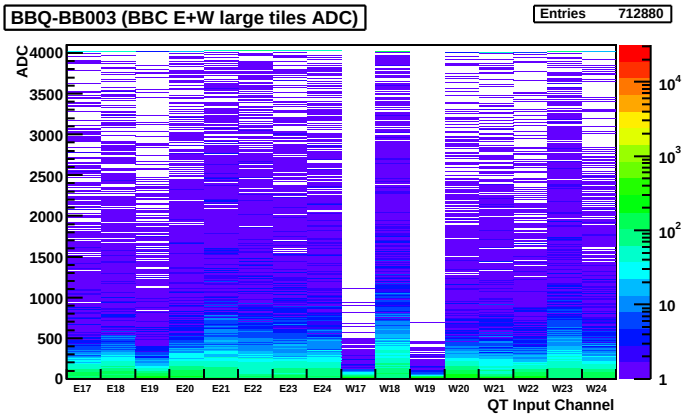

L1-TF201
Entries 267330
Threshold bits
27492
27263
27345
27162
27158
25803
17063
17292
17210
17393
17397
18752
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

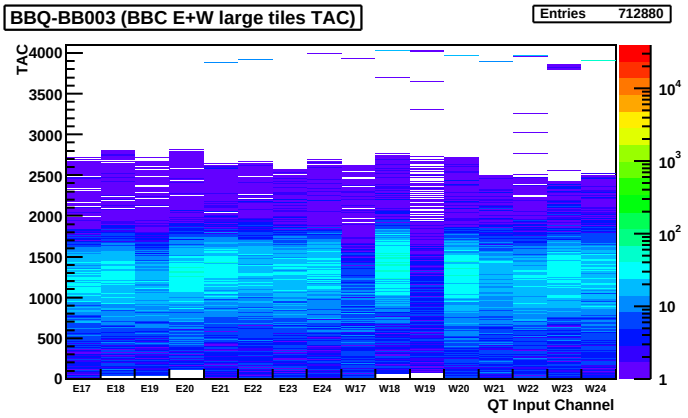

BBQ-BB001 (BBC east small tiles ADC)
Entries 712880
ADC
QT Input Channel

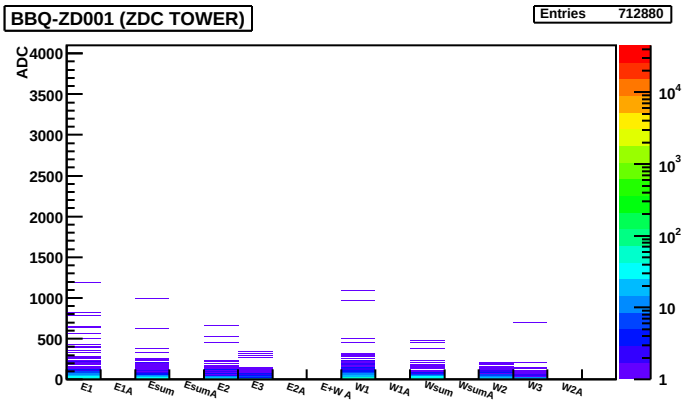

BBQ-BB001 (BBC east small tiles TAC)
Entries 712880
TAC
QT Input Channel

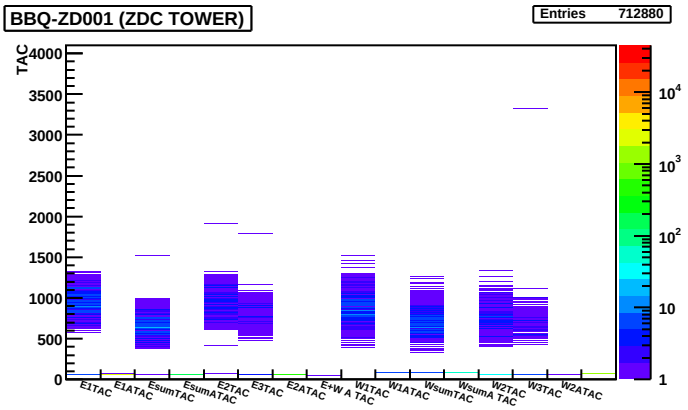

BBQ-BB002 (BBC west small tiles ADC)
Entries 712880
ADC
QT Input Channel

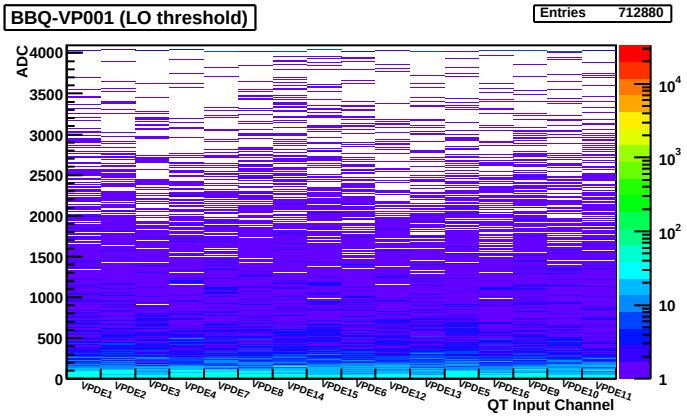

BBQ-BB002 (BBC west small tiles TAC)
Entries 712880
TAC
QT Input Channel

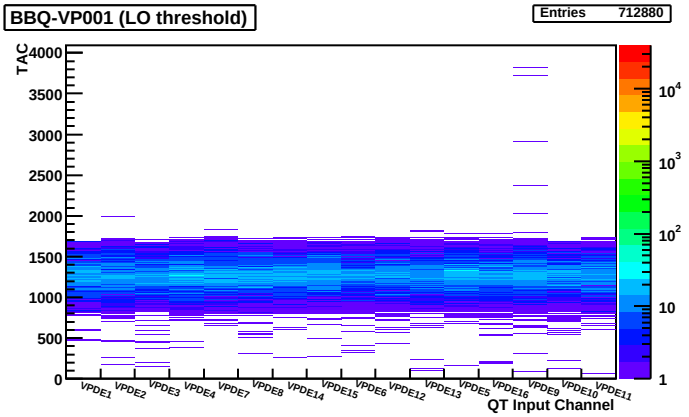

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 712880
ADC
QT Input Channel

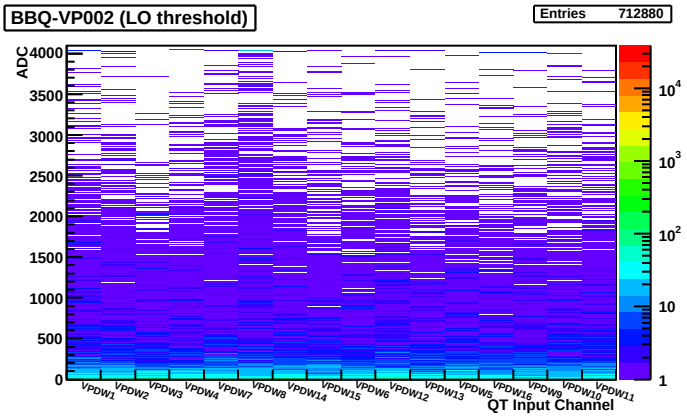

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 712880
TAC
QT Input Channel

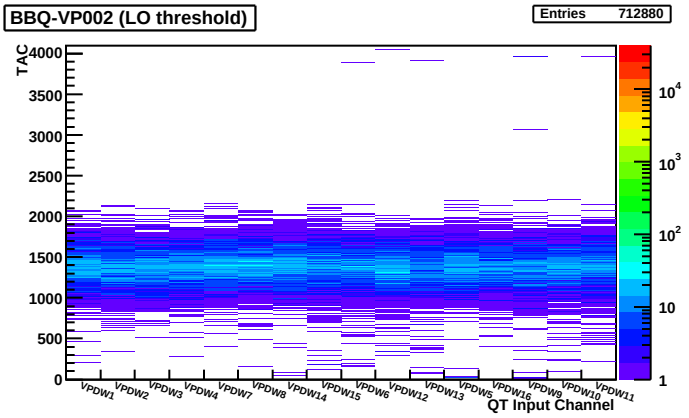

BBQ-ZD001 (ZDC TOWER)
Entries 712880
ADC

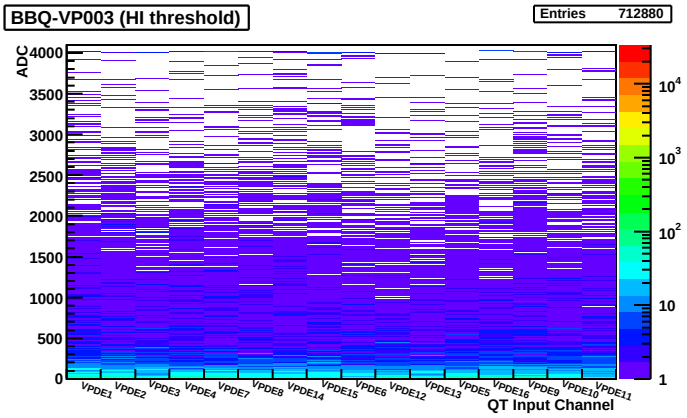

BBQ-ZD001 (ZDC TOWER)
Entries 712880
TAC

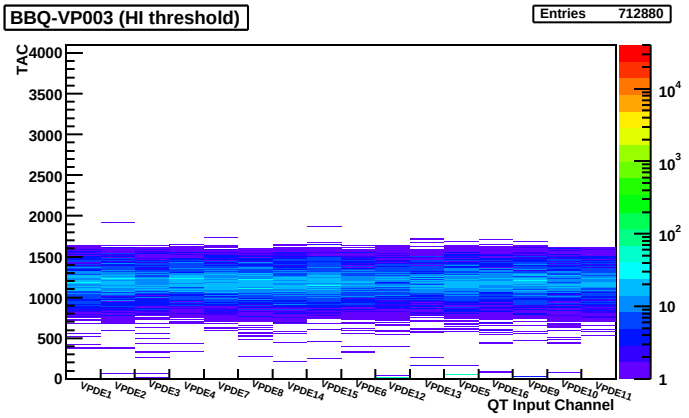

BBQ-VP001 (LO threshold)
Entries 712880
ADC
QT Input Channel

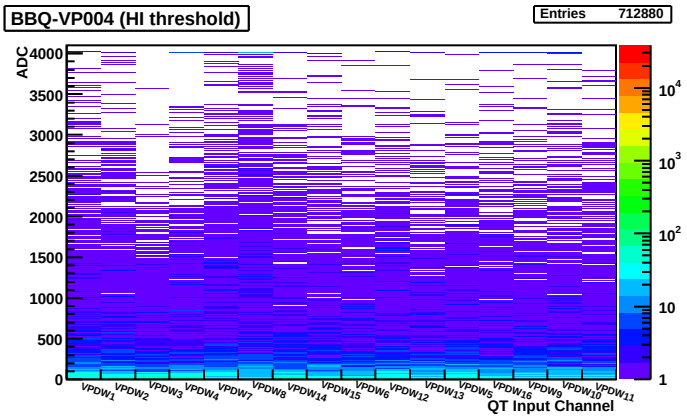

BBQ-VP001 (LO threshold)
Entries 712880
TAC
QT Input Channel

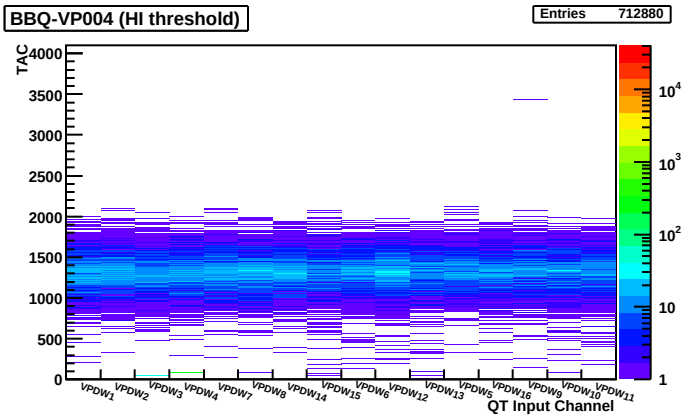

BBQ-VP002 (LO threshold)
Entries 712880
ADC
QT Input Channel

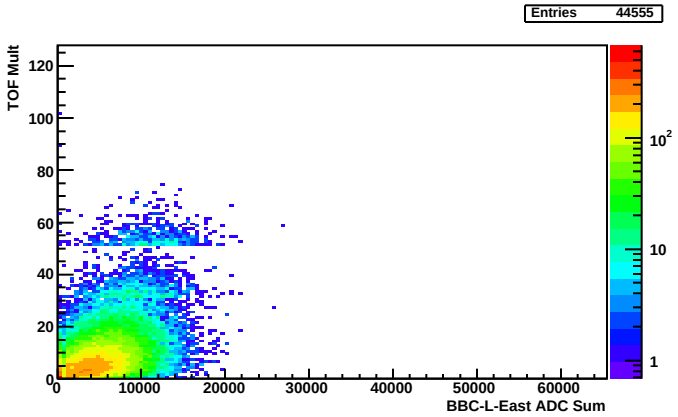

BBQ-VP002 (LO threshold)
Entries 712880
TAC
QT Input Channel

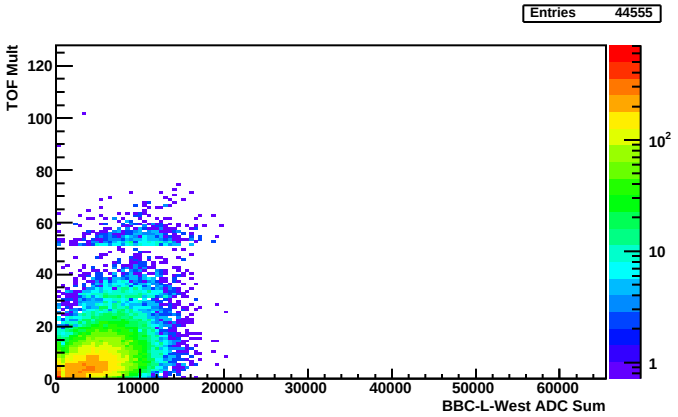

BBQ-VP003 (HI threshold)
Entries 712880
ADC
QT Input Channel

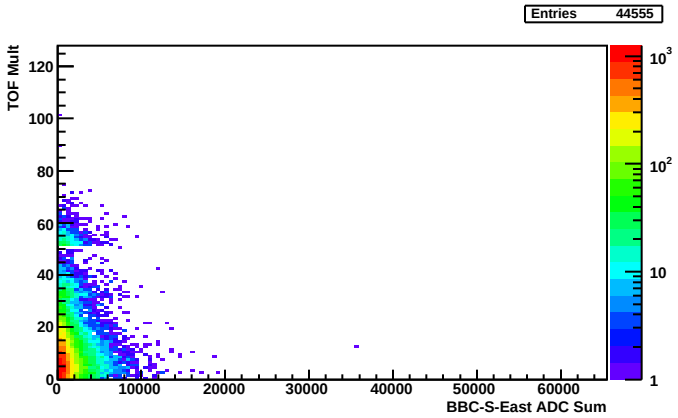

BBQ-VP003 (HI threshold)
Entries 712880
TAC
QT Input Channel

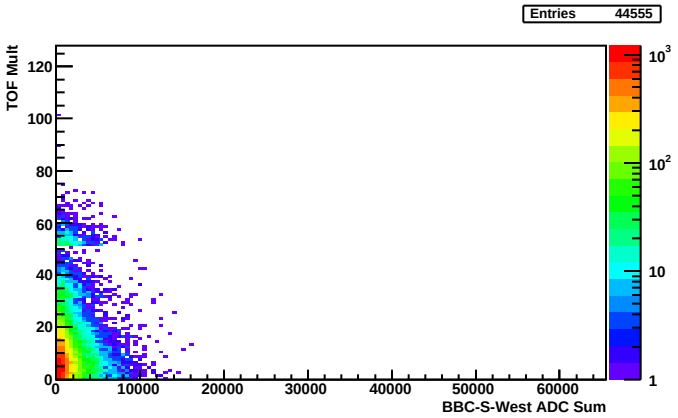

BBQ-VP004 (HI threshold)
Entries 712880
ADC
QT Input Channel

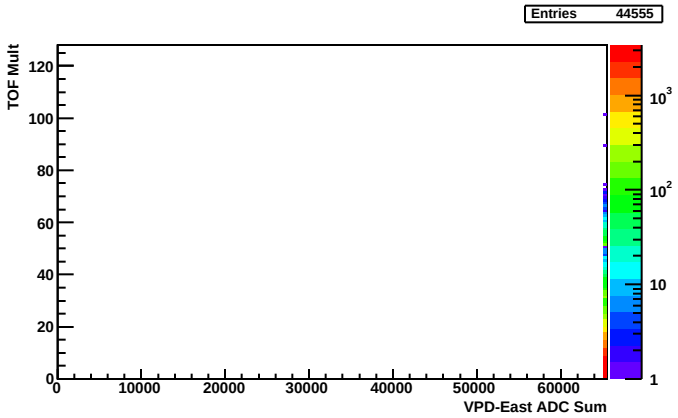

BBQ-VP004 (HI threshold)
Entries 712880
TAC
QT Input Channel

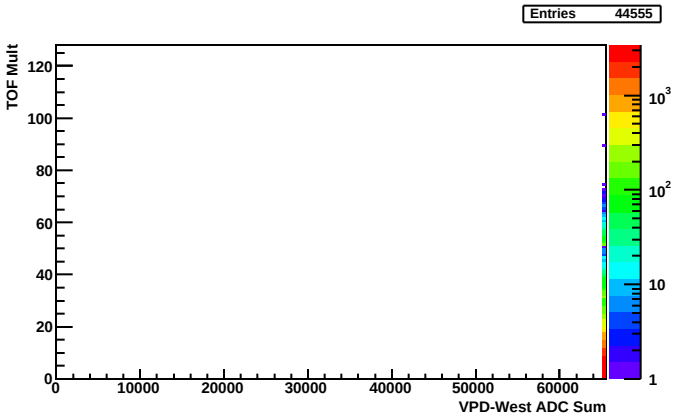

Entries 44555
TOF Mult
BBC-L-East ADC Sum

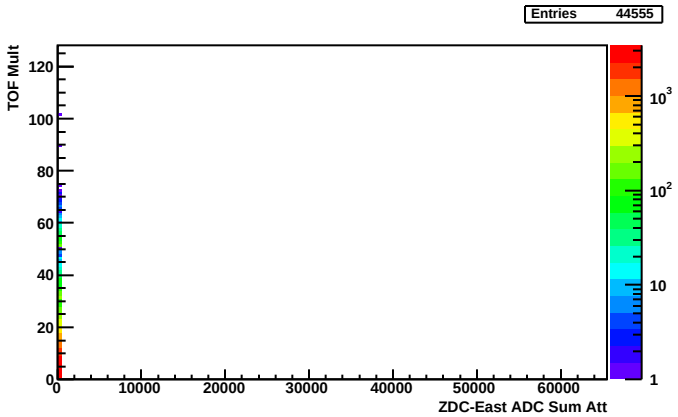

Entries 44555
TOF Mult
BBC-L-West ADC Sum

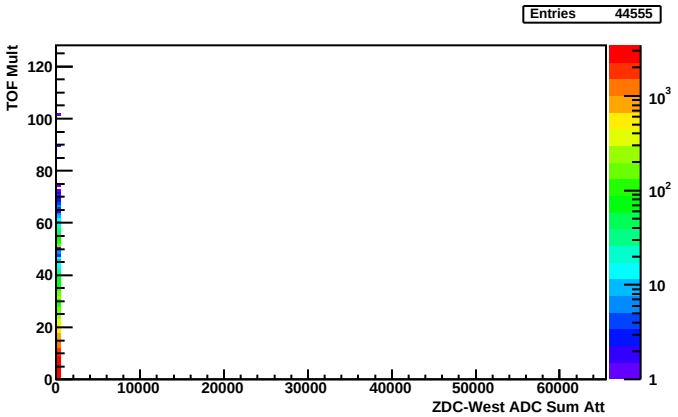

Entries 44555
TOF Mult
BBC-S-East ADC Sum

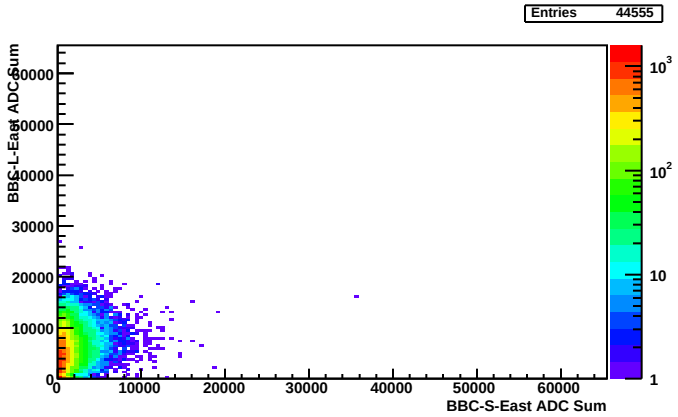

Entries 44555
TOF Mult
BBC-S-West ADC Sum

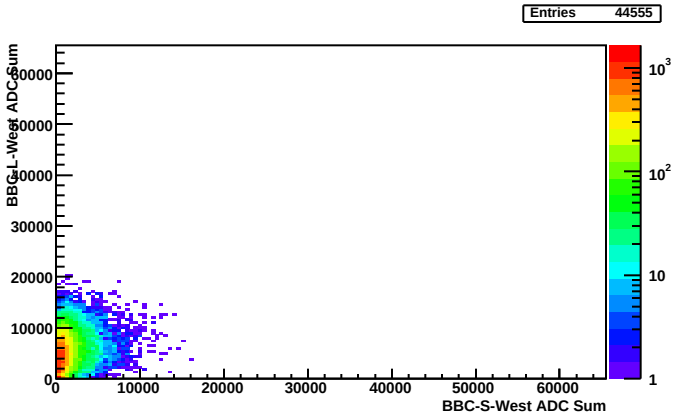

Entries 44555
TOF Mult
VPD-East ADC Sum

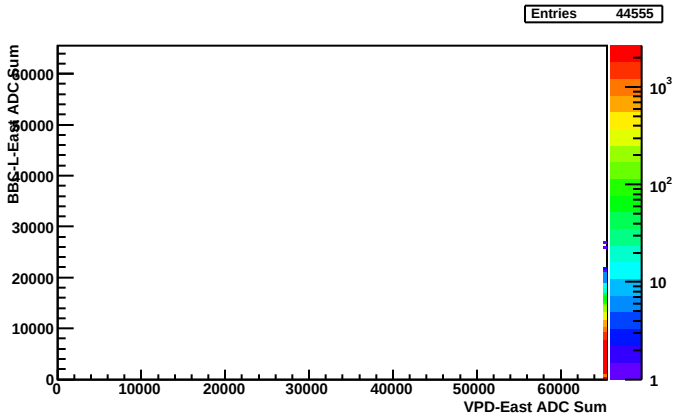

Entries 44555
TOF Mult
VPD-West ADC Sum

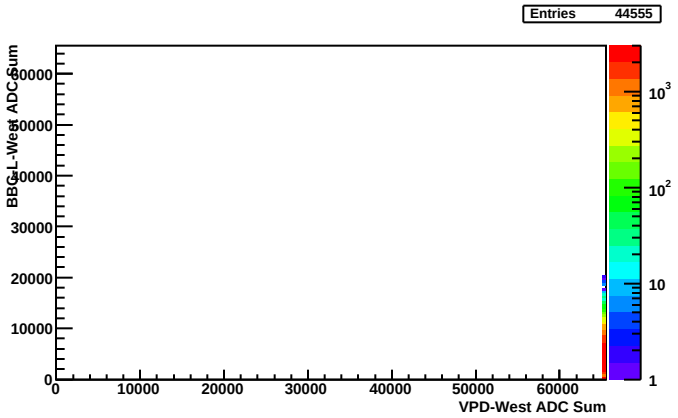

Entries 44555
TOF Mult
ZDC-East ADC Sum Att

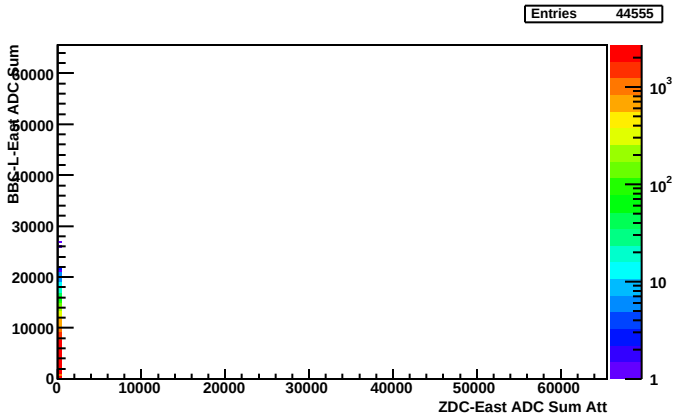

Entries 44555
TOF Mult
ZDC-West ADC Sum Att

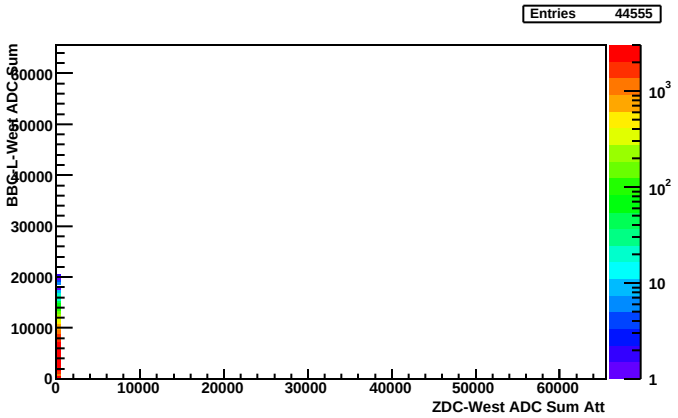

Entries 44555
BBC-L-East ADC Sum
BBC-S-East ADC Sum

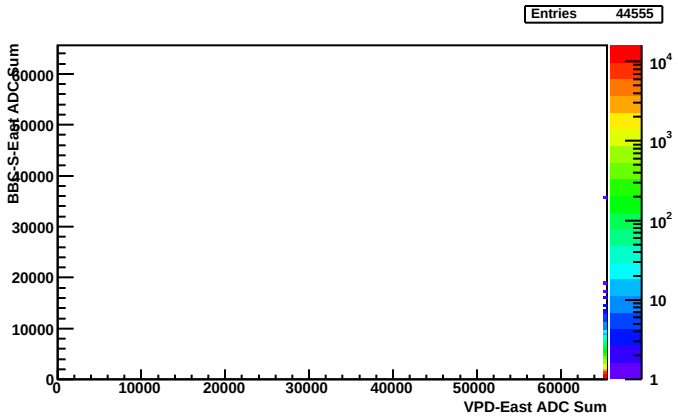

Entries 44555
BBC-L-West ADC Sum
BBC-S-West ADC Sum

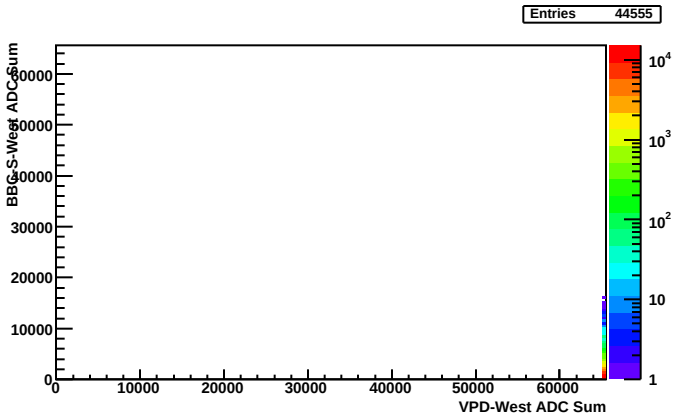

Entries 44555
BBC-L-East ADC Sum
VPD-East ADC Sum

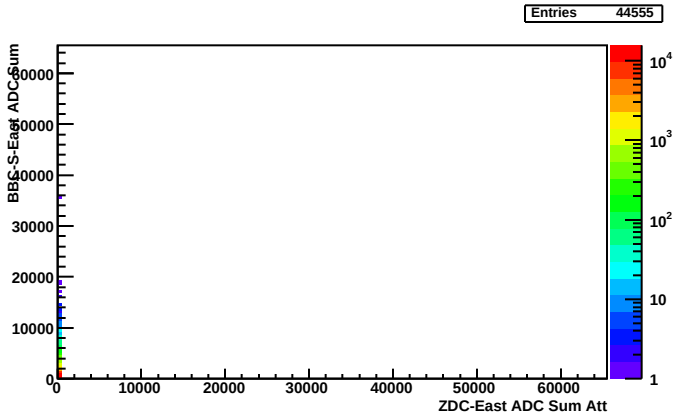

Entries 44555
BBC-L-West ADC Sum
VPD-West ADC Sum

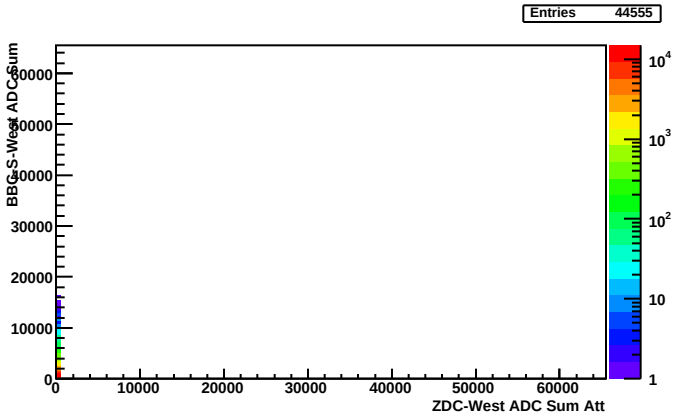

Entries 44555
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

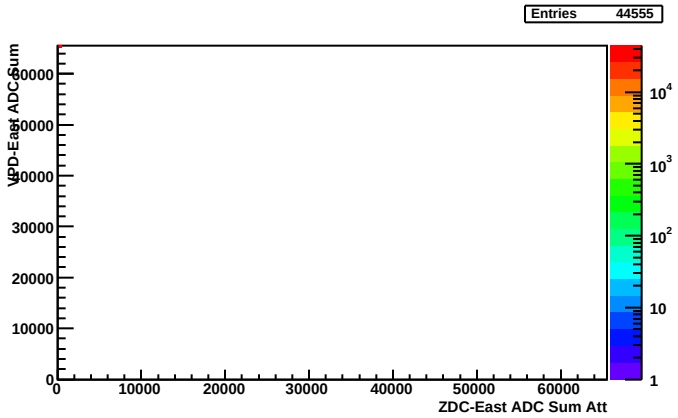

Entries 44555
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

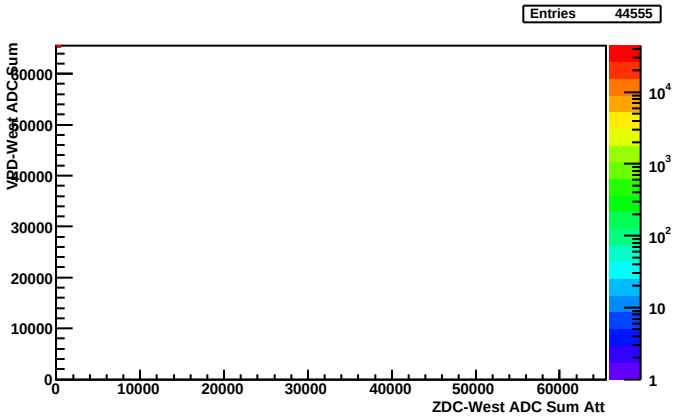

Entries 44555
BBC-S-East ADC Sum
VPD-East ADC Sum

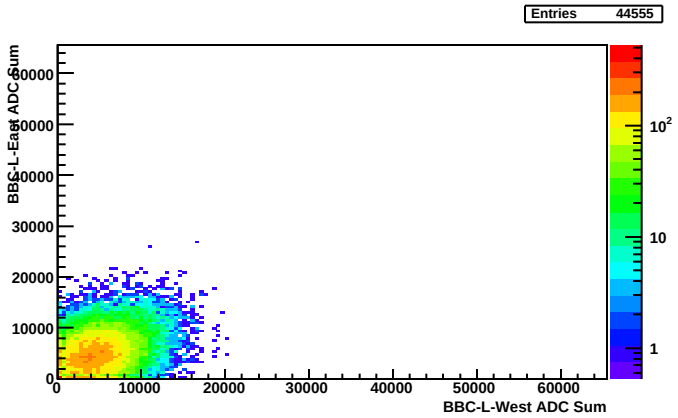

Entries 44555
BBC-S-West ADC Sum
VPD-West ADC Sum

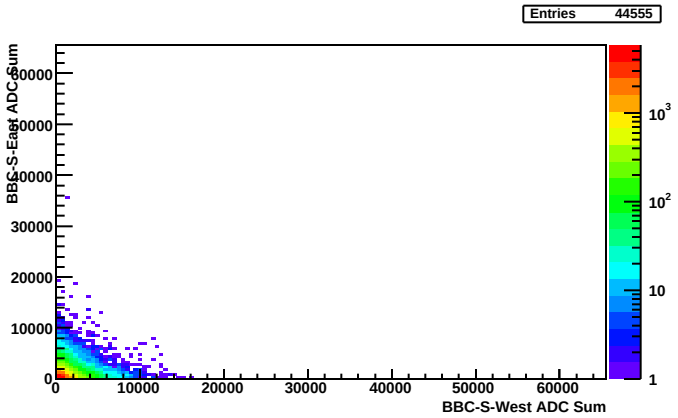

Entries 44555
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

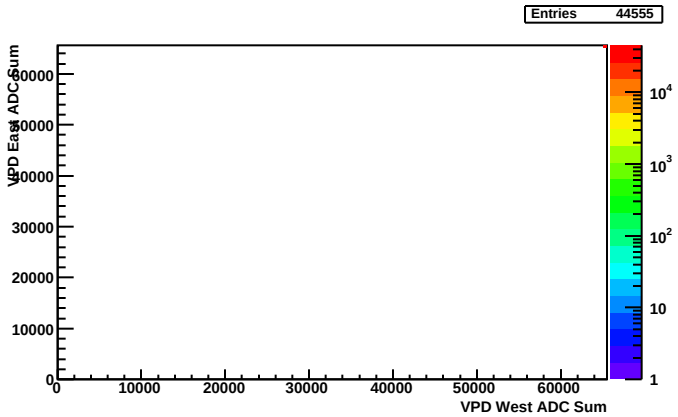

Entries 44555
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

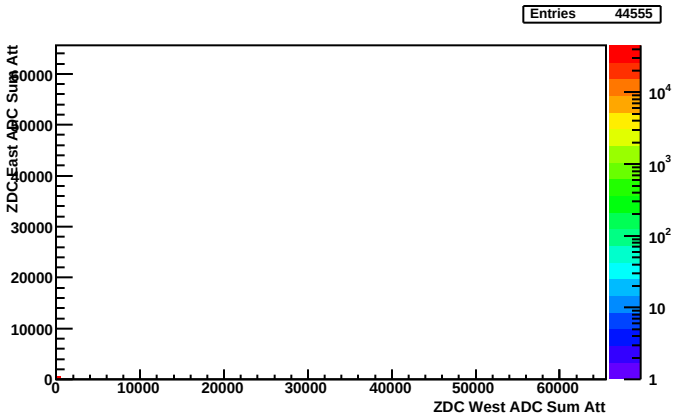

Entries 44555
VPD-East ADC Sum
ZDC-East ADC Sum Att

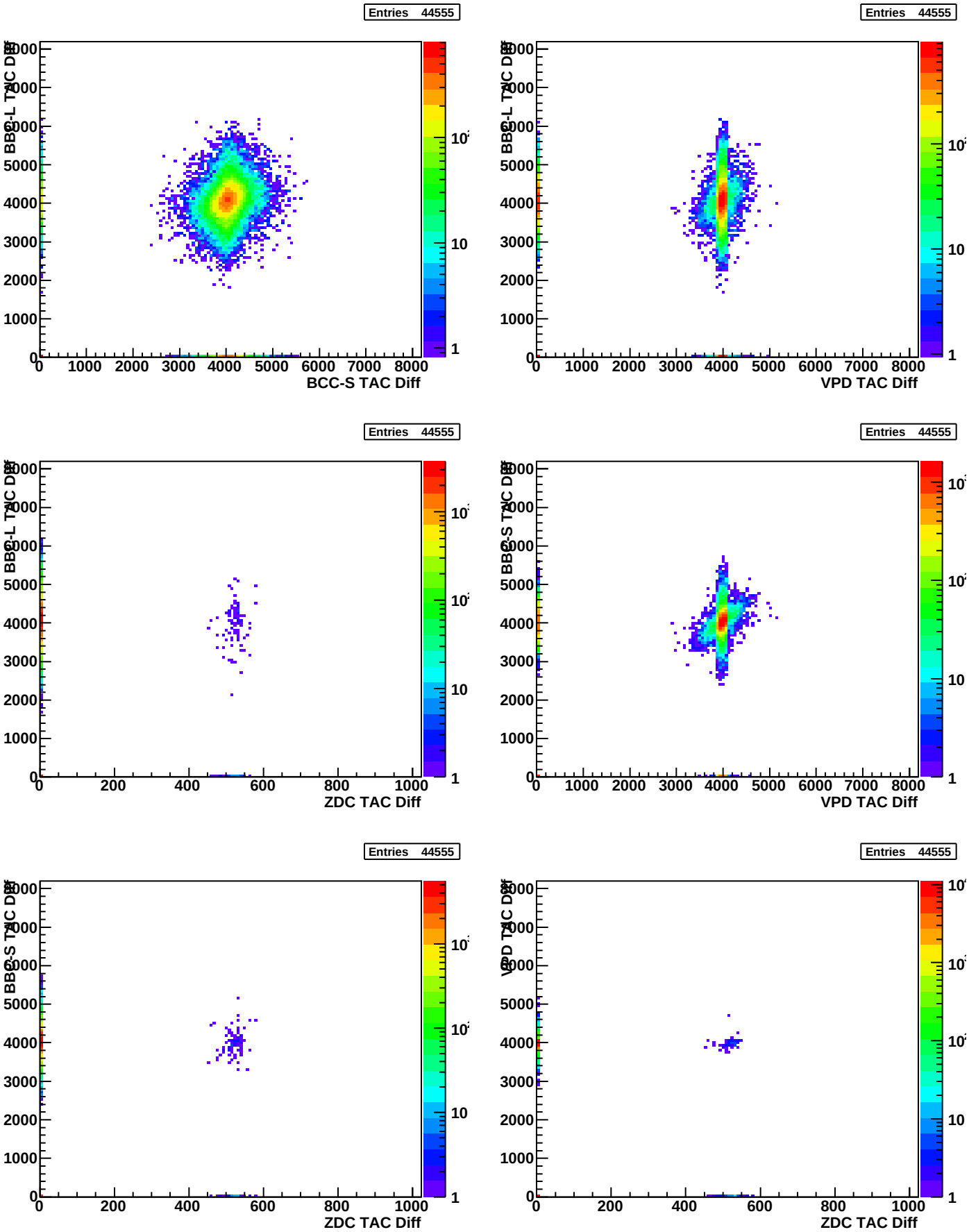

Entries 44555
VPD-West ADC Sum
ZDC-West ADC Sum Att

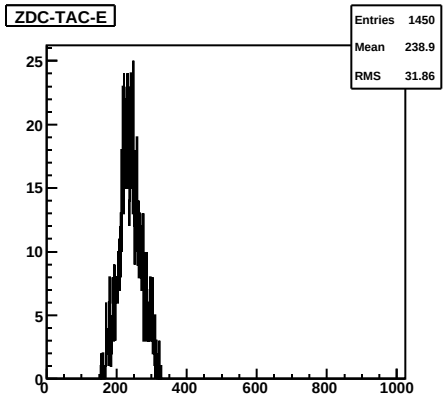

Entries 44555
BBC-L-East ADC Sum
BBC-L-West ADC Sum

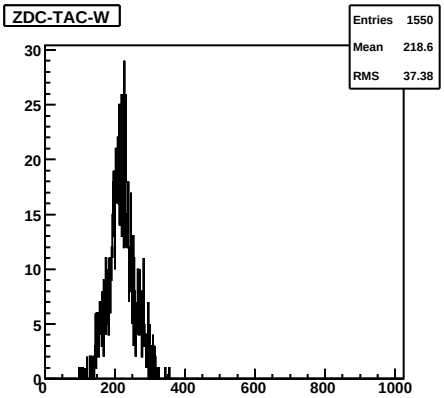

Entries 44555
BBC-S-East ADC Sum
BBC-S-West ADC Sum

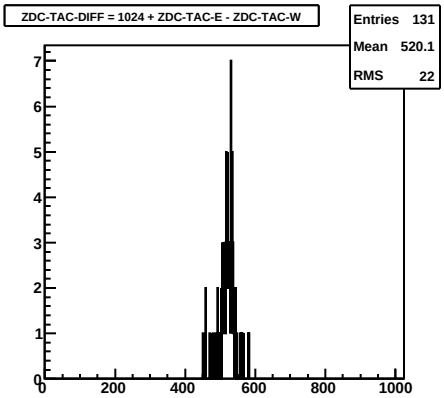

Entries 44555
VPD East ADC Sum
VPD West ADC Sum

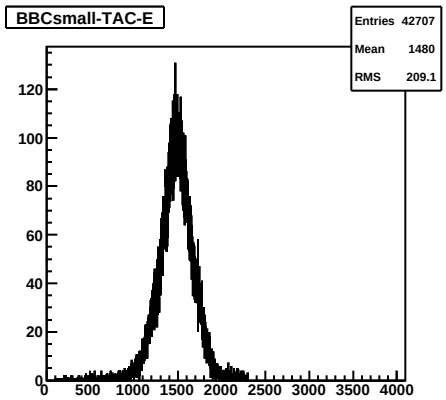

Entries 44555
ZDC-East ADC Sum Att
ZDC West ADC Sum Att

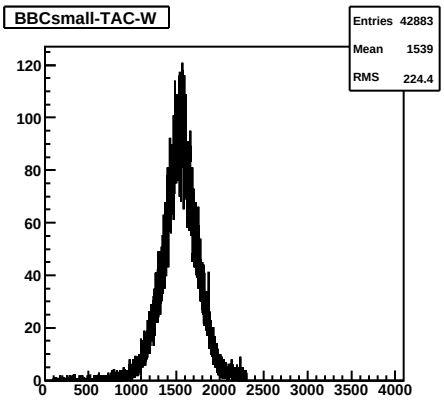

Entries 44555
BBC-L TAC Diff
BCC-S TAC Diff
Entries 44555
BBC-L TAC Diff
VPD TAC Diff
Entries 44555
BBC-L TAC Diff
ZDC TAC Diff
Entries 44555
BBC-S TAC Diff
VPD TAC Diff
Entries 44555
BBC-S TAC Diff
ZDC TAC Diff
Entries 44555
VPD TAC Diff
ZDC TAC Diff

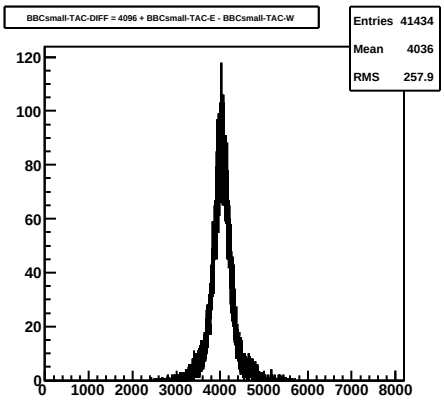

ZDC-TAC-E
Entries 1450
Mean 238.9
RMS 31.86

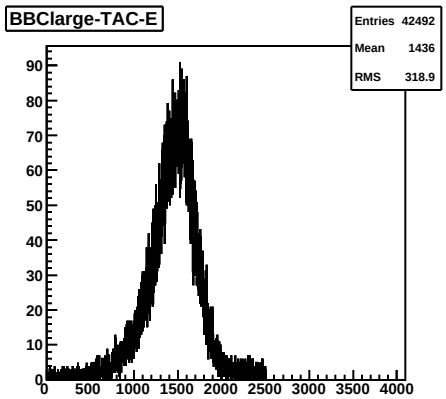

ZDC-TAC-W
Entries 1550
Mean 218.6
RMS 37.38

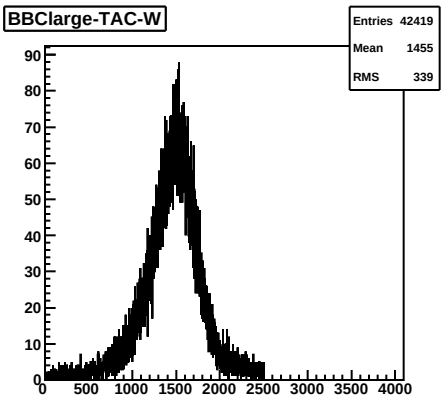

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 131
Mean 520.1
RMS 22

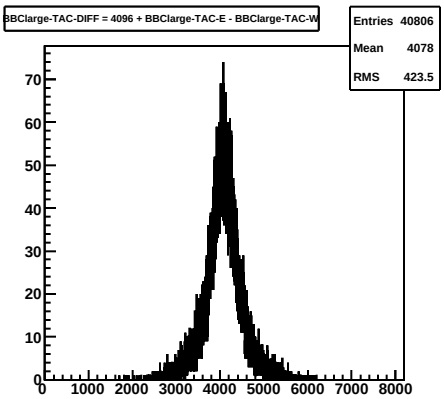

BBCsmall-TAC-E
Entries 42707
Mean 1480
RMS 209.1

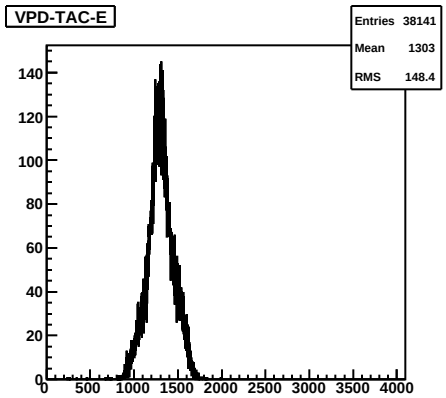

BBCsmall-TAC-W
Entries 42883
Mean 1539
RMS 224.4

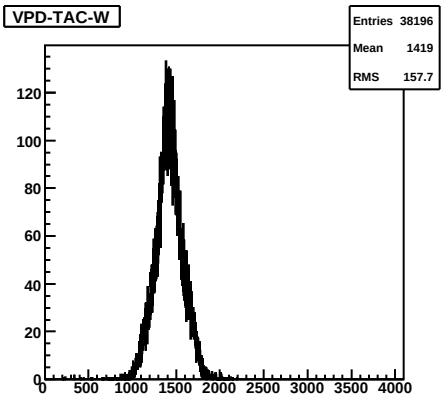

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 41434
Mean 4036
RMS 257.9

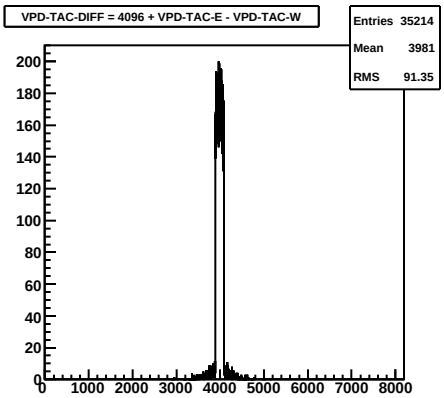

BBClarge-TAC-E
Entries 42492
Mean 1436
RMS 318.9

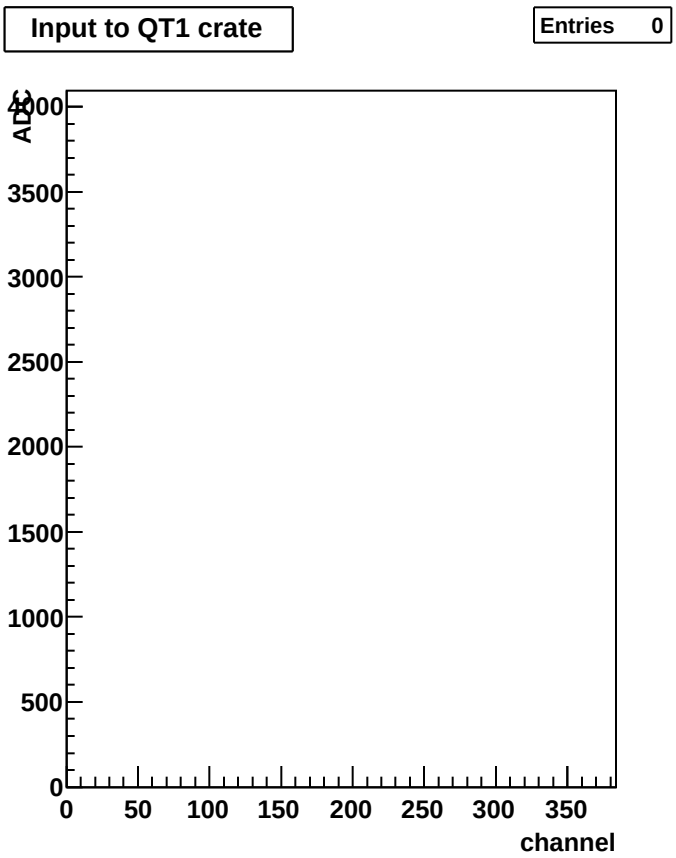

BBClarge-TAC-W
Entries 42419
Mean 1455
RMS 339

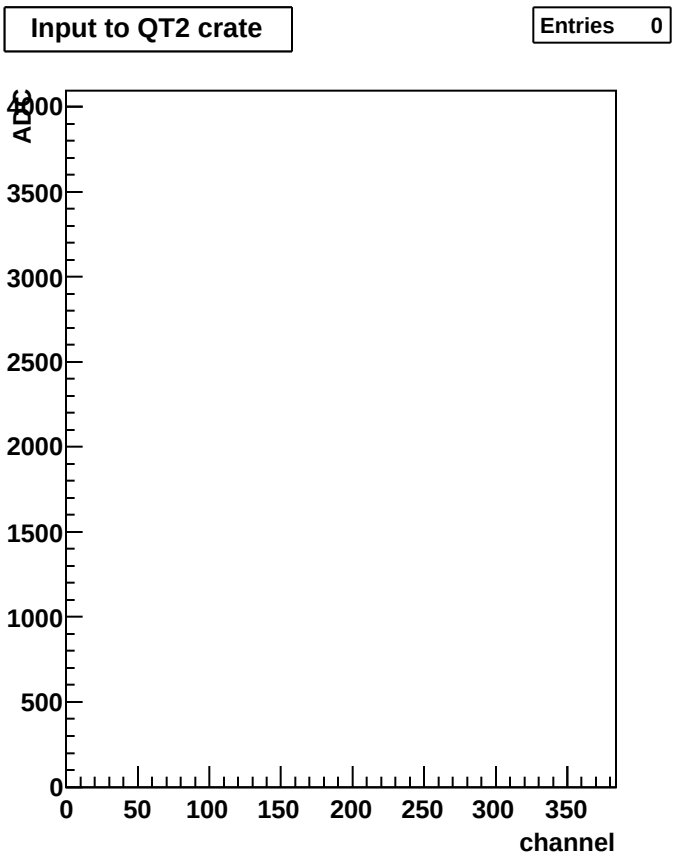

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 40806
Mean 4078
RMS 423.5

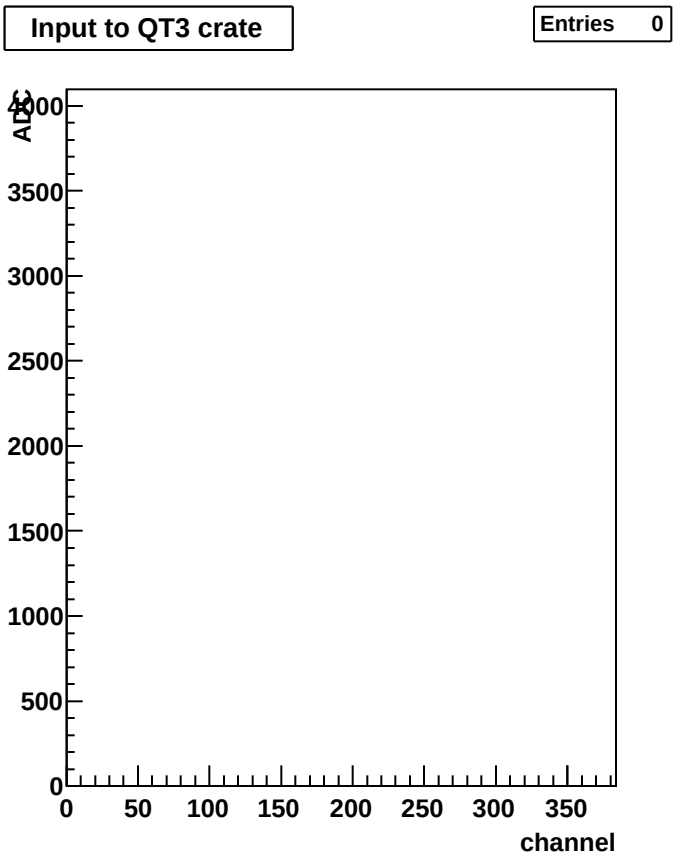

VPD-TAC-E
Entries 38141
Mean 1303
RMS 148.4

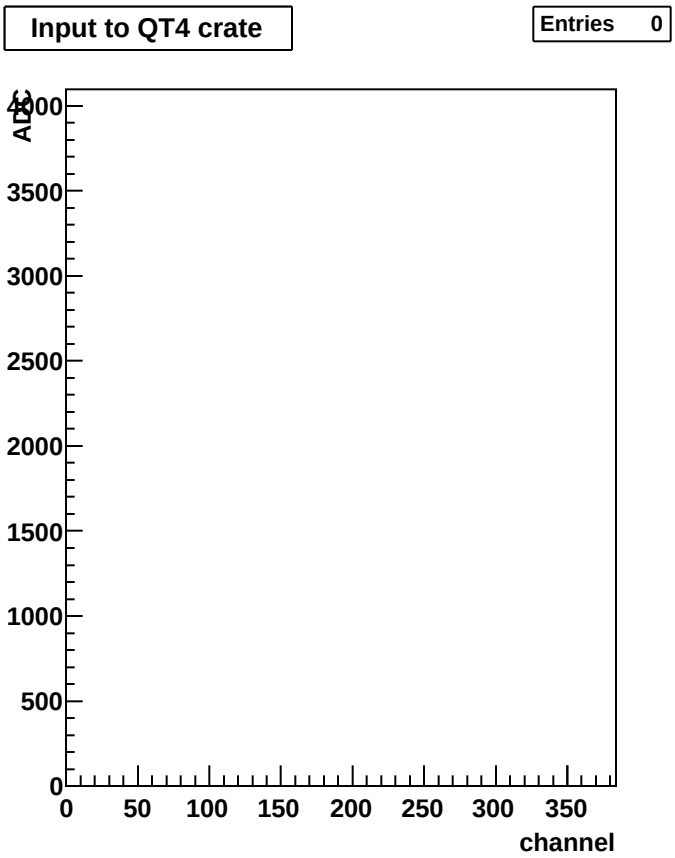

VPD-TAC-W
Entries 38196
Mean 1419
RMS 157.7

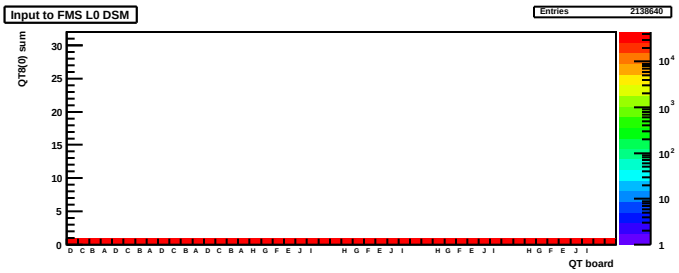

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 35214
Mean 3981
RMS 91.35

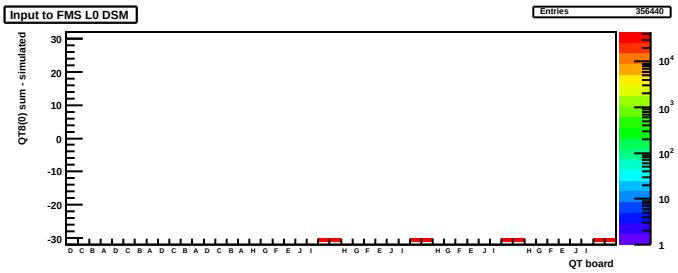

Input to QT1 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

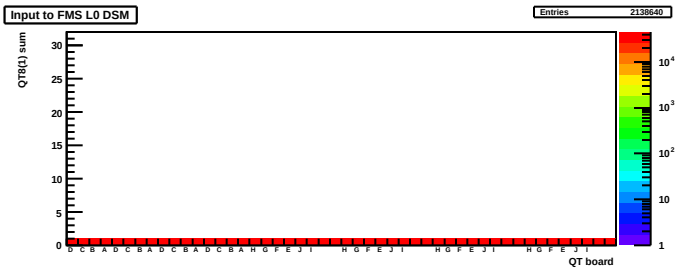

Input to QT2 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

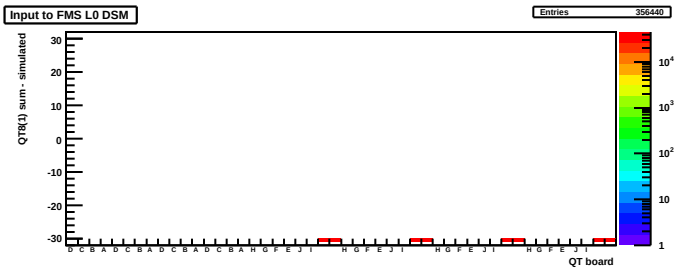

Input to QT3 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

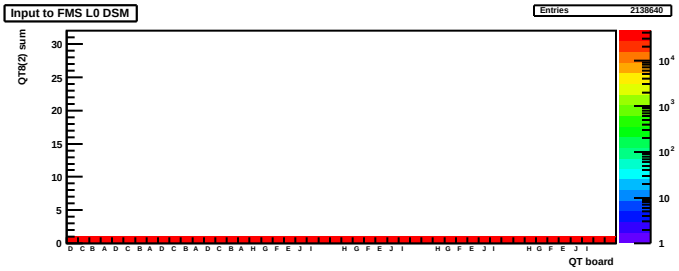

Input to QT4 crate
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

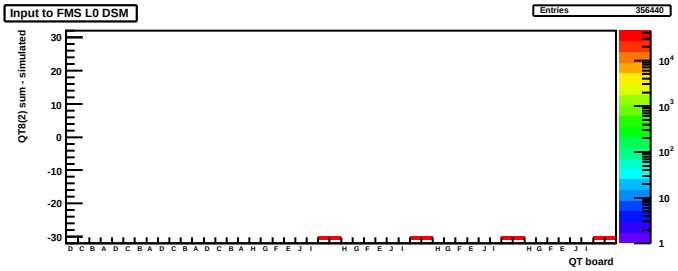

Input to FMS L0 DSM
Entries 2138640
QT8(0) sum
QT board

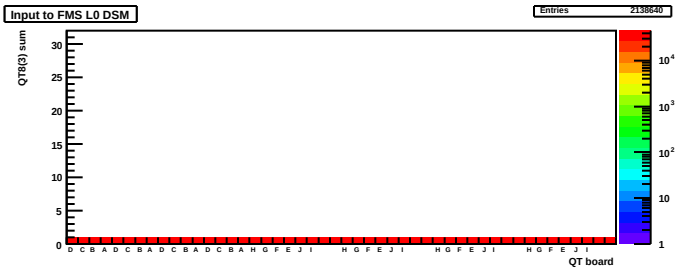

Input to FMS L0 DSM
Entries 356440
QT8(0) sum - simulated
QT board

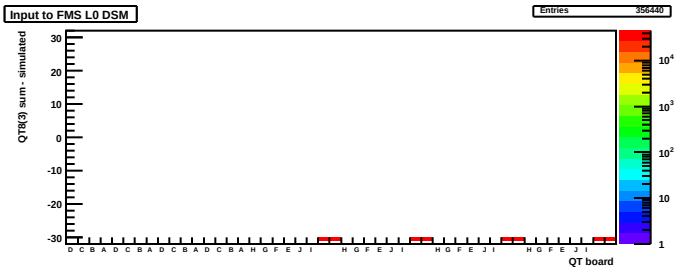

Input to FMS L0 DSM
Entries 2138640
QT8(1) sum
QT board

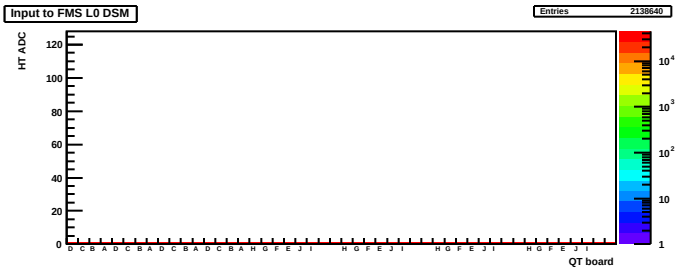

Input to FMS L0 DSM
Entries 356440
QT8(1) sum - simulated
QT board

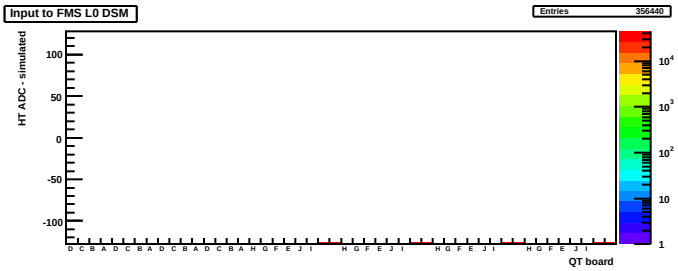

Input to FMS L0 DSM
Entries 2138640
QT8(2) sum
QT board

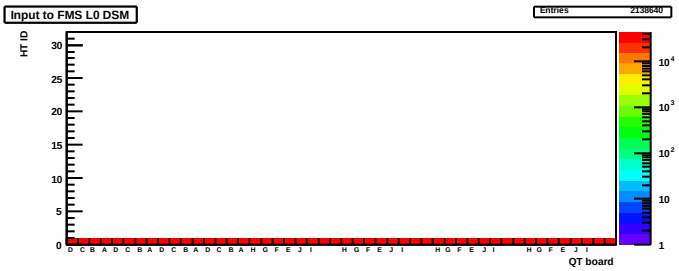

Input to FMS L0 DSM
Entries 356440
QT8(2) sum - simulated
QT board

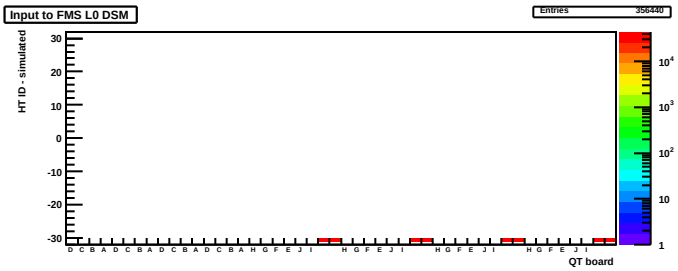

Input to FMS L0 DSM
Entries 2138640
QT8(3) sum
QT board

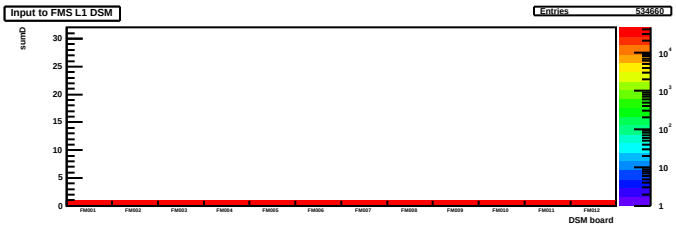

Input to FMS L0 DSM
Entries 356440
QT8(3) sum - simulated
QT board

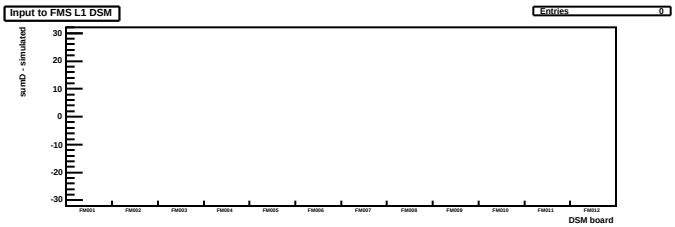

Input to FMS L0 DSM
Entries 2138640
HT ADC
QT board

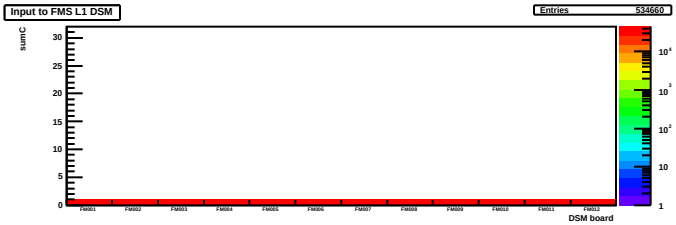

Input to FMS L0 DSM
Entries 356440
HT ADC - simulated
QT board

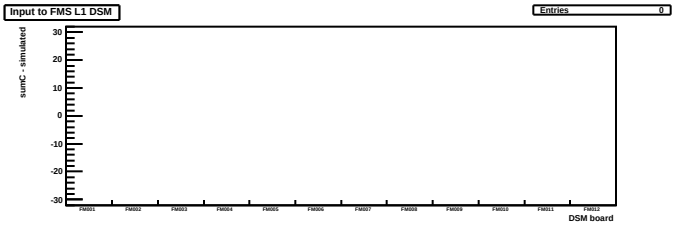

Input to FMS L0 DSM
Entries 2138640
HT ID
QT board

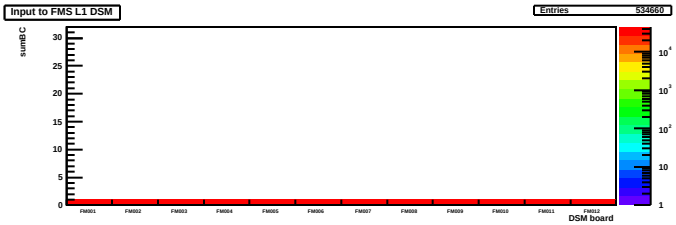

Input to FMS L0 DSM
Entries 356440
HT ID - simulated
QT board

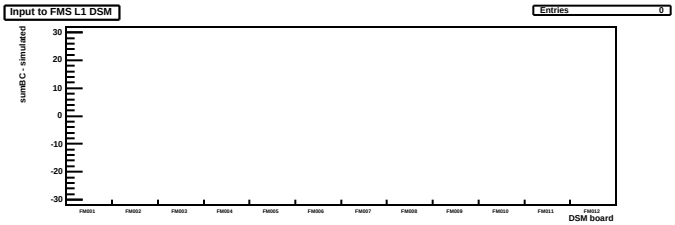

Input to FMS L1 DSM
Entries 534660
sumD
DSM board

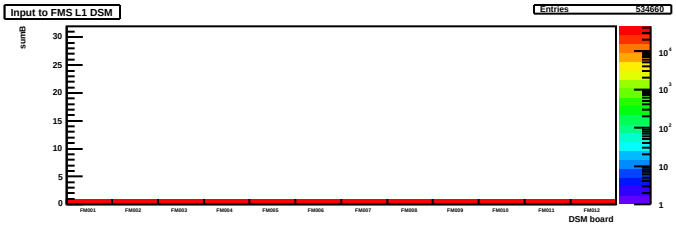

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

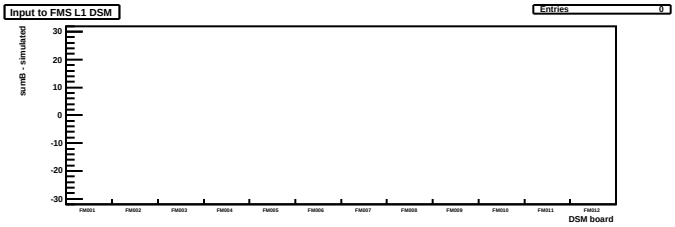

Input to FMS L1 DSM
Entries 534660
sumC
DSM board

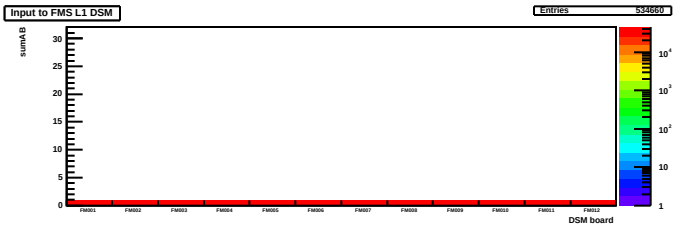

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

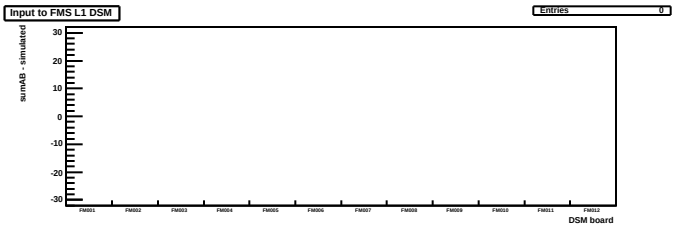

Input to FMS L1 DSM
Entries 534660
sumBC
DSM board

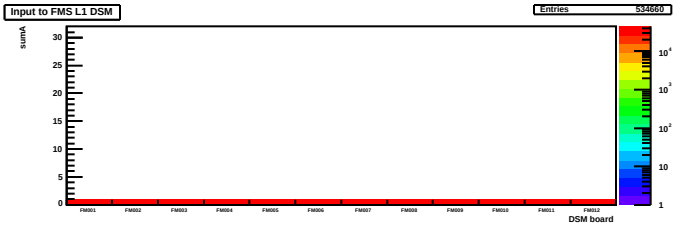

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

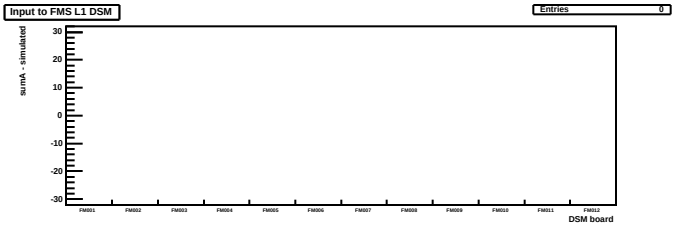

Input to FMS L1 DSM
Entries 534660
sumB
DSM board

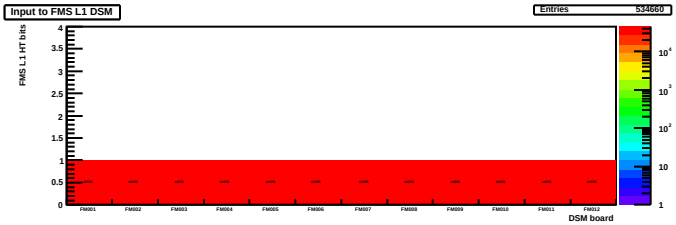

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

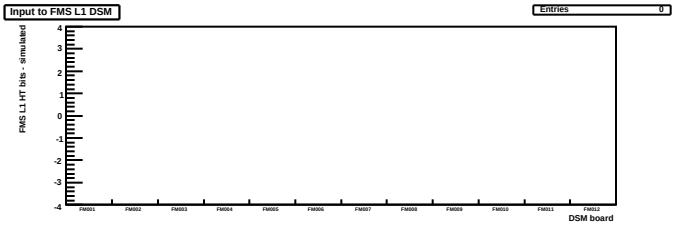

Input to FMS L1 DSM
Entries 534660
sumAB
DSM board

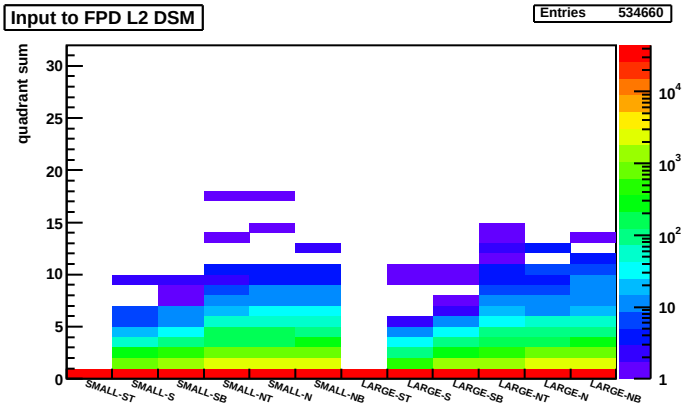

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

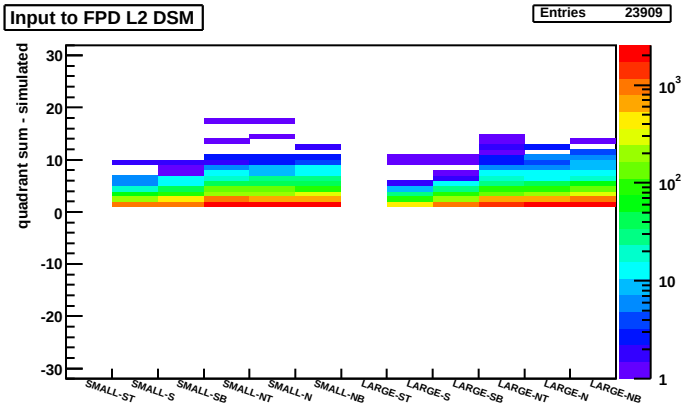

Input to FMS L1 DSM
Entries 534660
sumA
DSM board

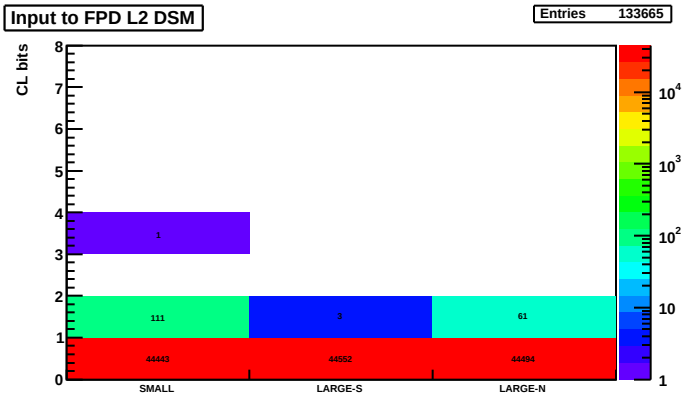

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

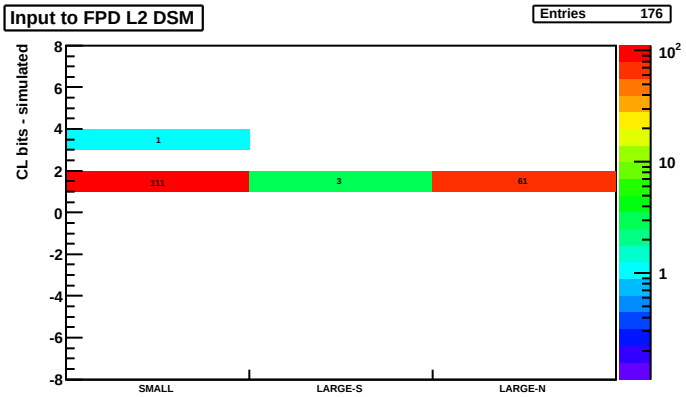

Input to FMS L1 DSM
Entries 534660
FMS L1 HT bits
DSM board

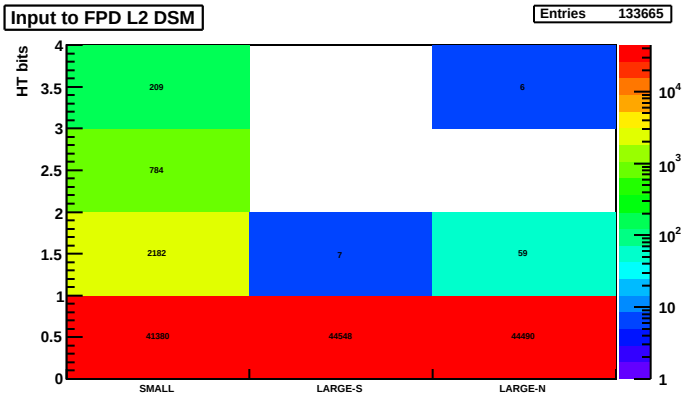

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

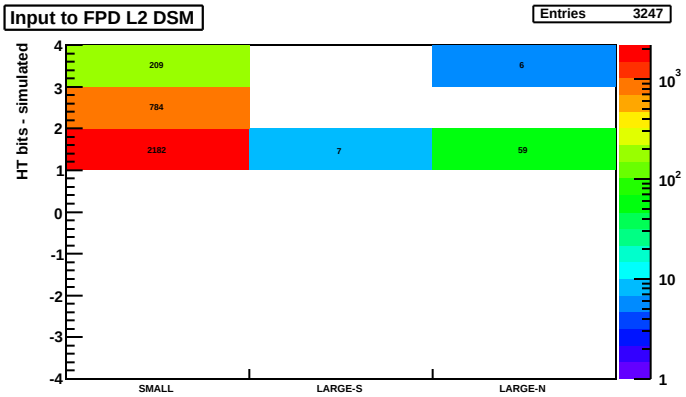

Input to FPD L2 DSM
Entries 534660
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

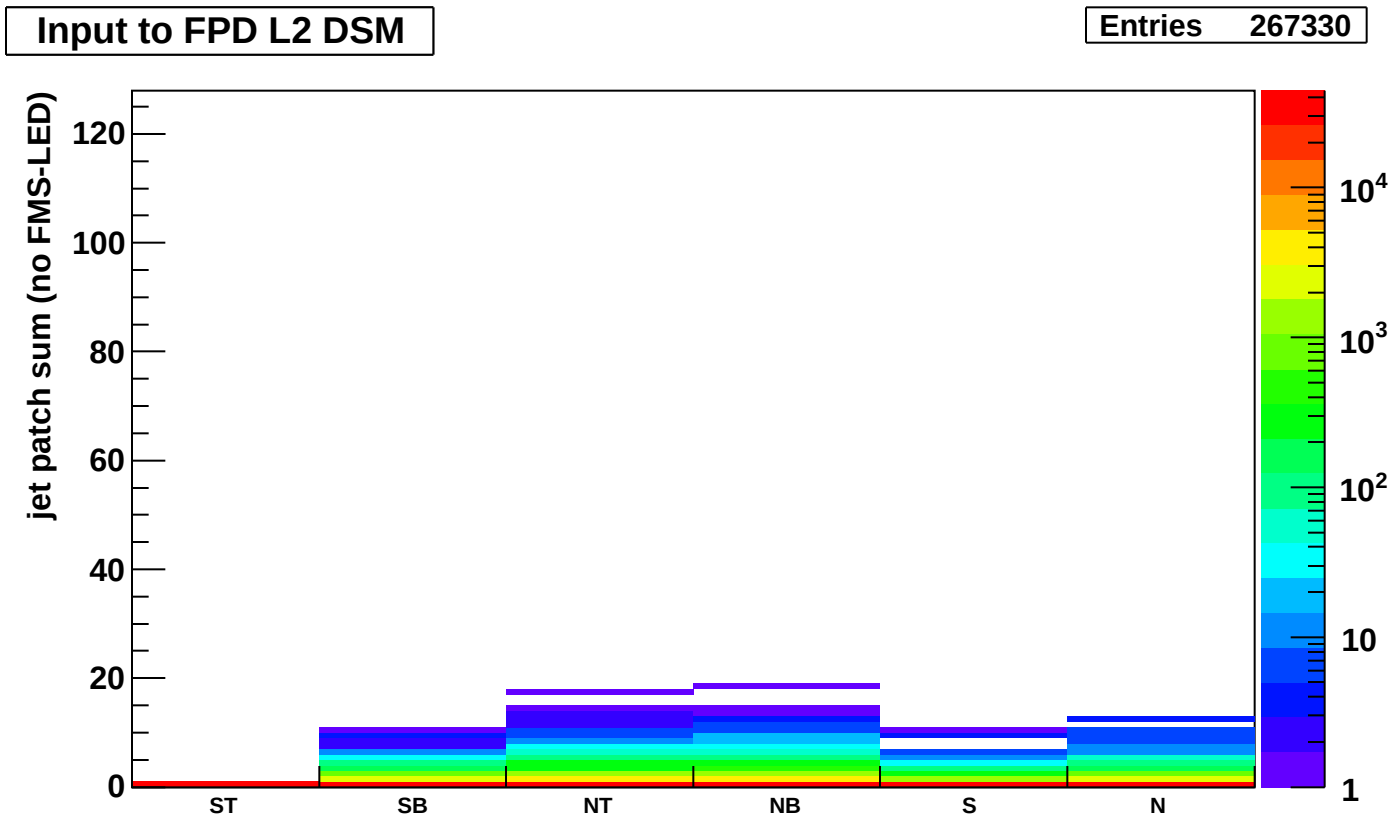

Input to FPD L2 DSM
Entries 23909
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

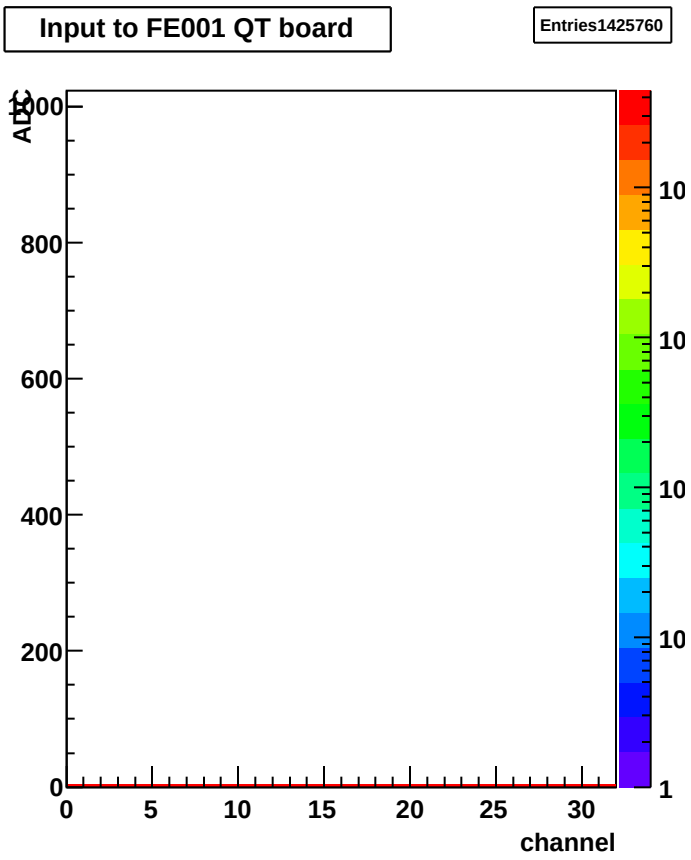

Input to FPD L2 DSM
Entries 133665
CL bits
1
111
3
61
44443
44552
44494
SMALL
LARGE-S
LARGE-N

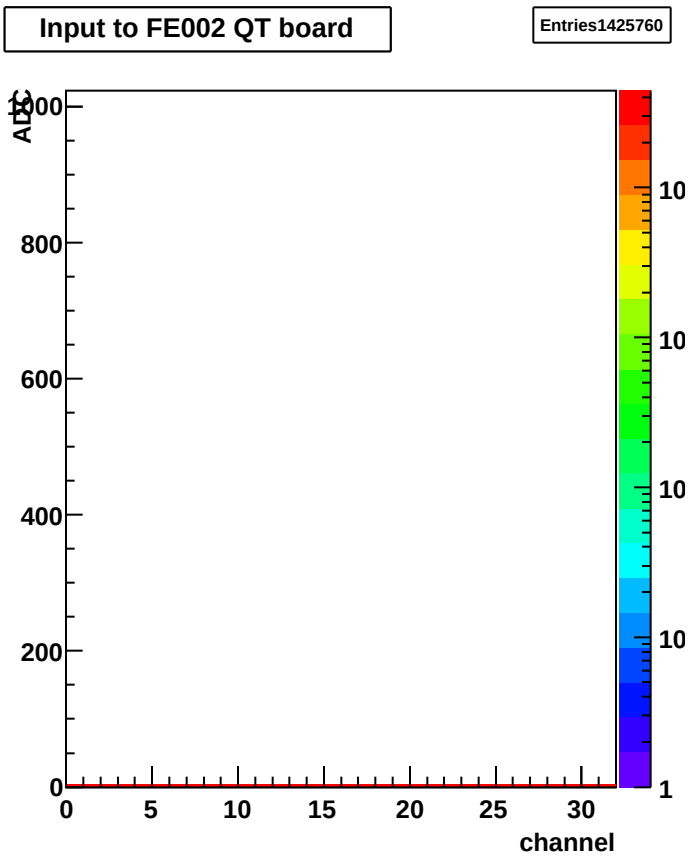

Input to FPD L2 DSM
Entries 176
CL bits - simulated
1
111
3
61
SMALL
LARGE-S
LARGE-N

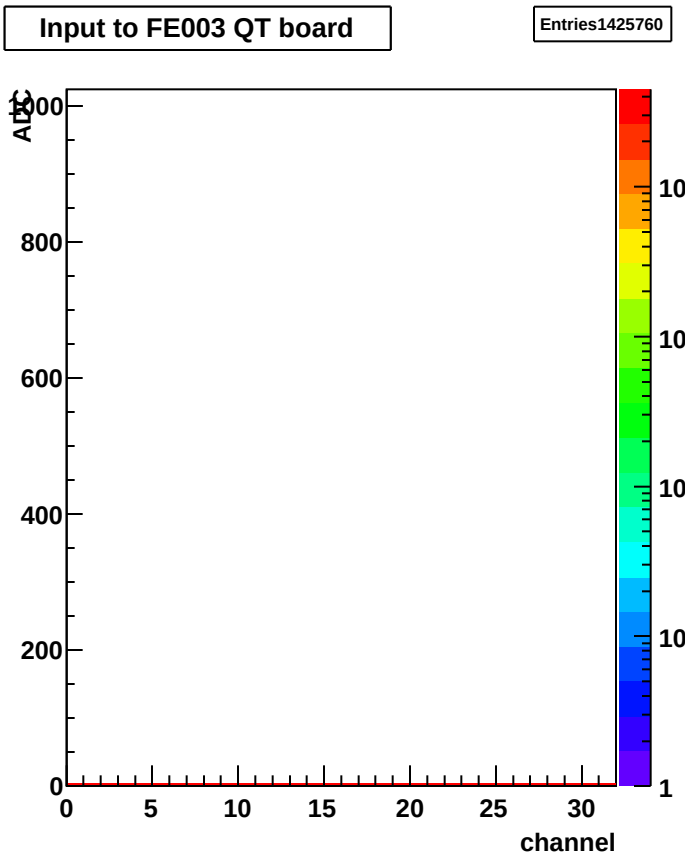

Input to FPD L2 DSM
Entries 133665
HT bits
209
6
784
2182
7
59
41380
44548
44490
SMALL
LARGE-S
LARGE-N

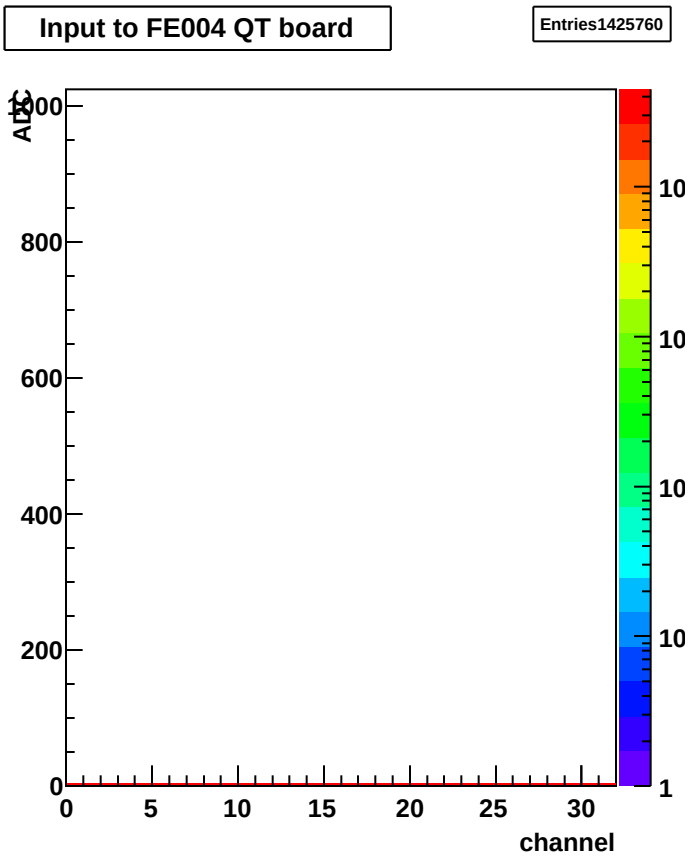

Input to FPD L2 DSM
Entries 3247
HT bits - simulated
209
6
784
2182
7
59
SMALL
LARGE-S
LARGE-N

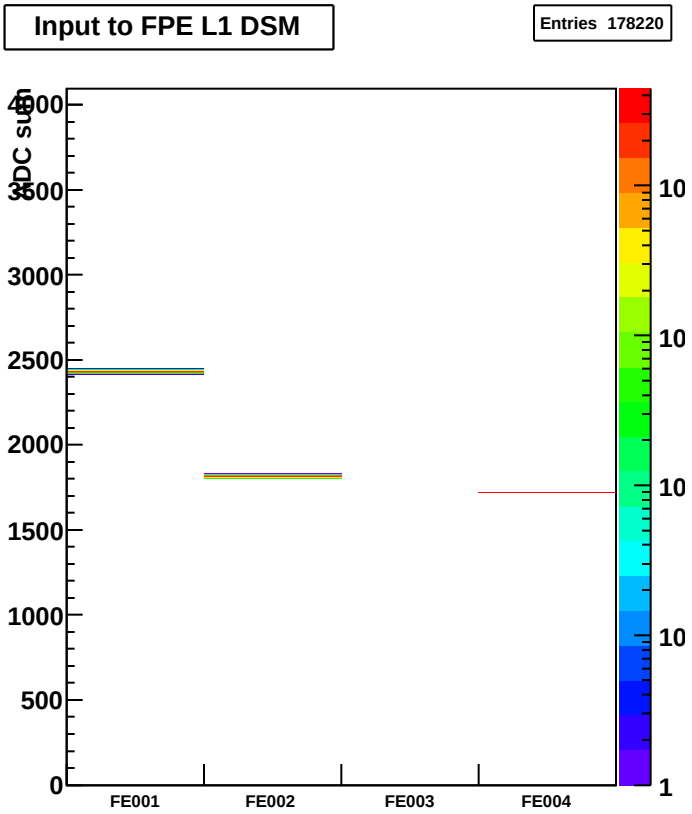

Input to FPD L2 DSM
Entries 267330
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

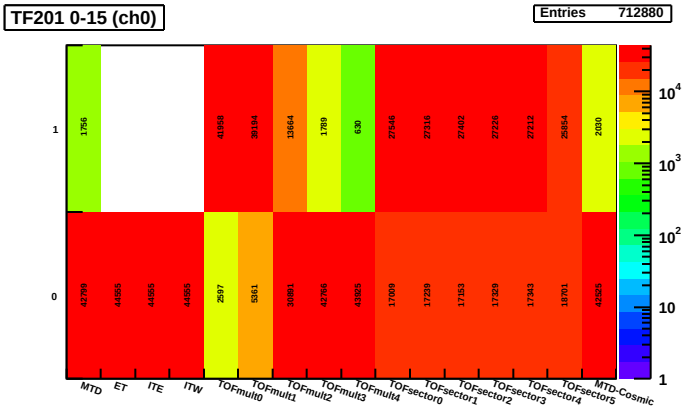

Input to FE001 QT board
Entries1425760
ADC
channel

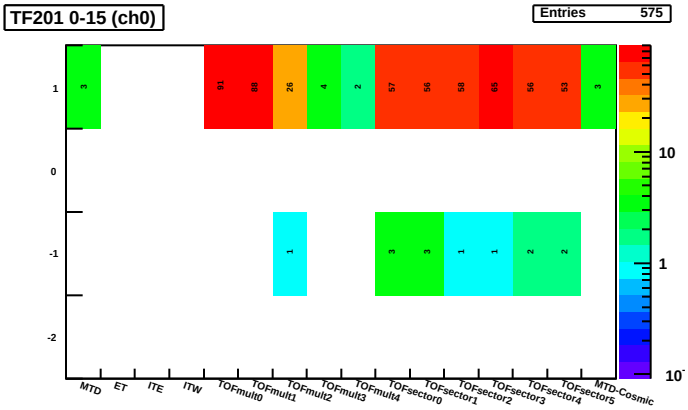

Input to FE002 QT board
Entries1425760
ADC
channel

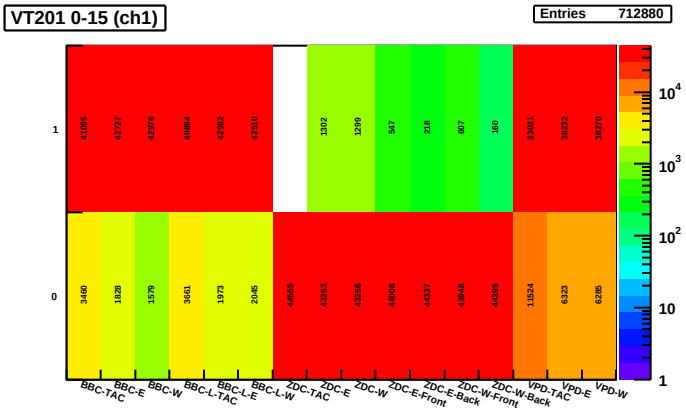

Input to FE003 QT board
Entries1425760
ADC
channel

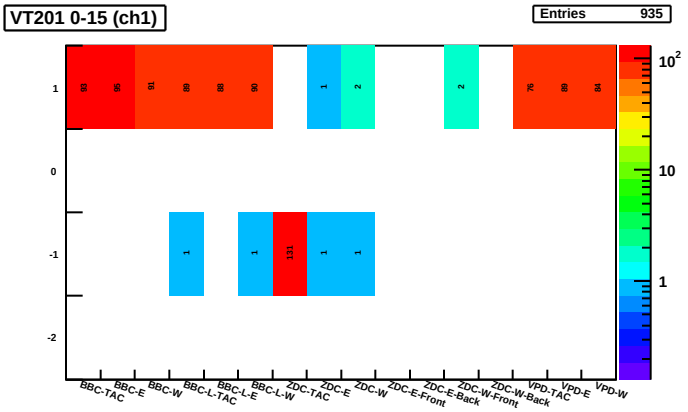

Input to FE004 QT board
Entries1425760
ADC
channel

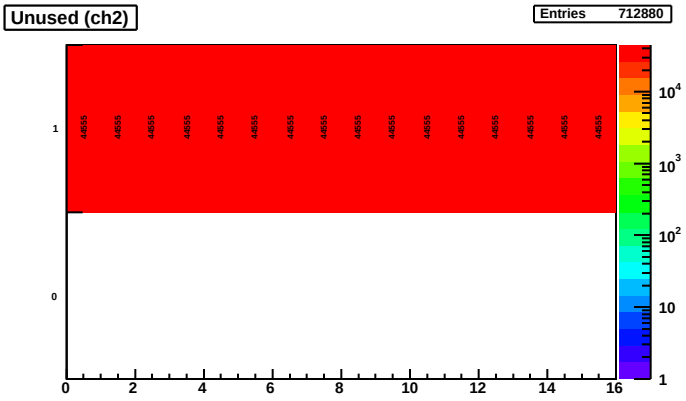

Input to FPE L1 DSM
Entries 178220
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

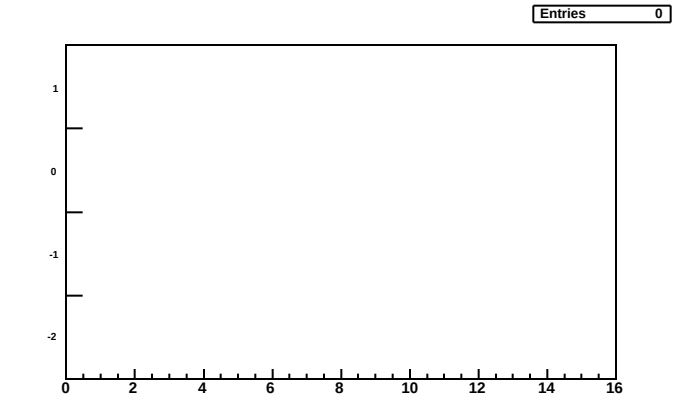

TF201 0-15 (ch0)
Entries 712880
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

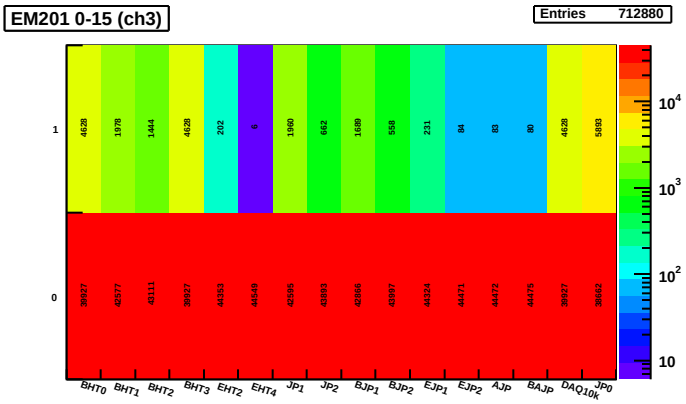

TF201 0-15 (ch0)
Entries 575
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 712880
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 935
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 712880


Entries 0


EM201 0-15 (ch3)
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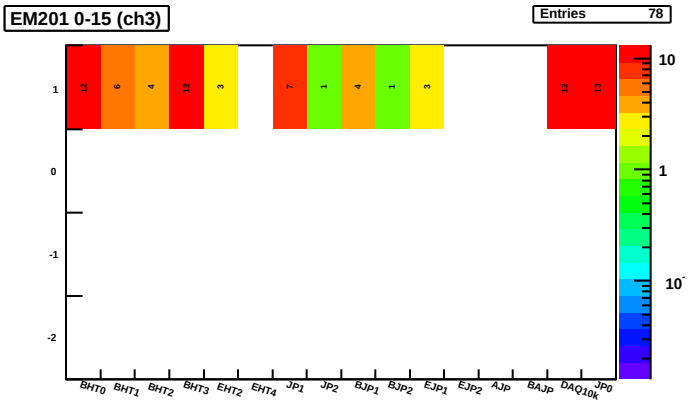
EM201 0-15 (ch3)
Entries 78
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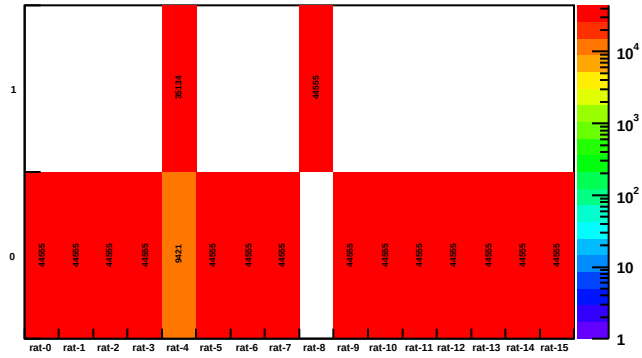
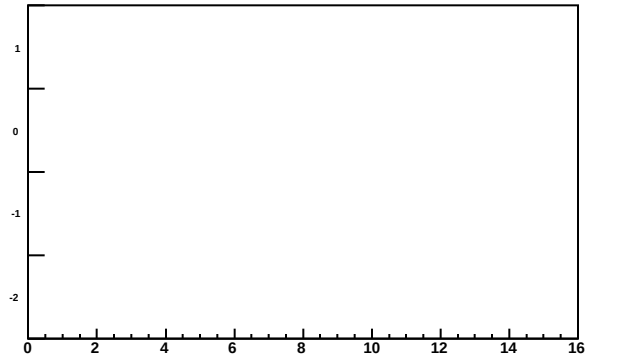
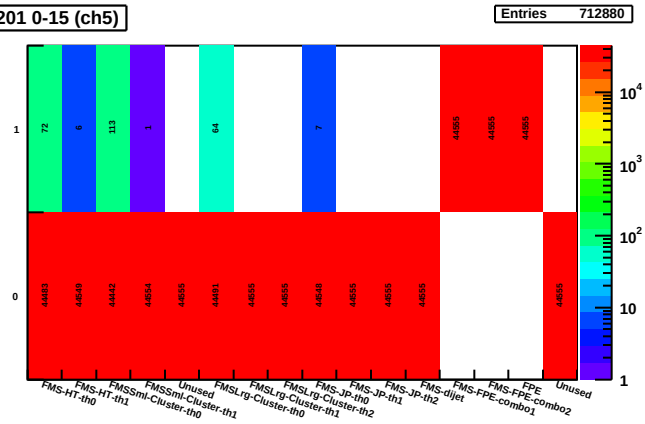
RAT board (ch4)





FP201 0-15 (ch5)



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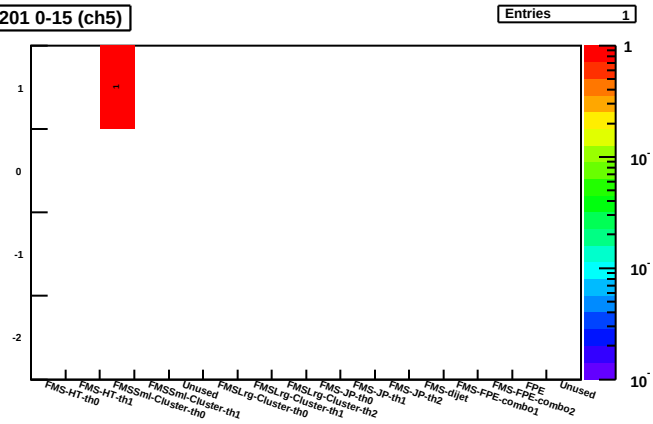
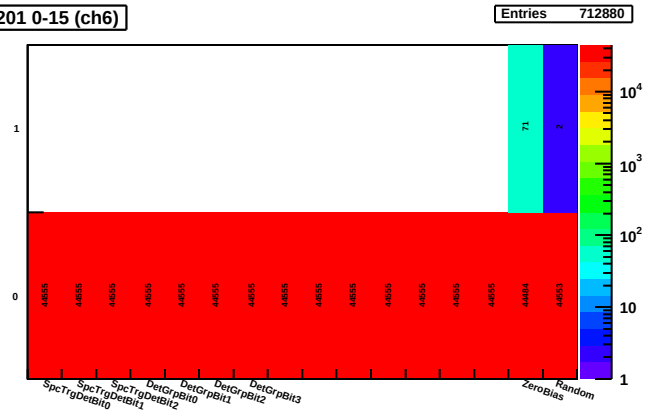
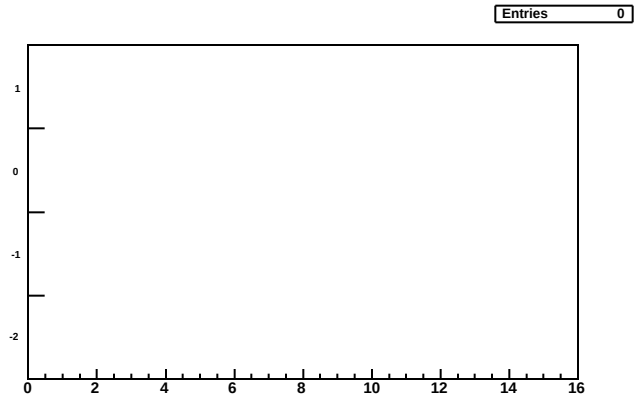
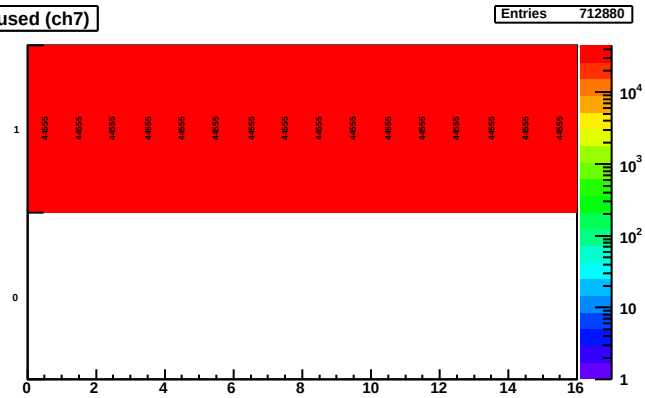
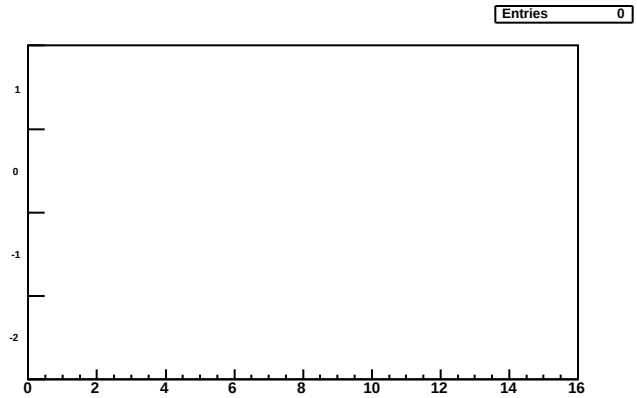


ST201 0-15 (ch6)





Unused (ch7)