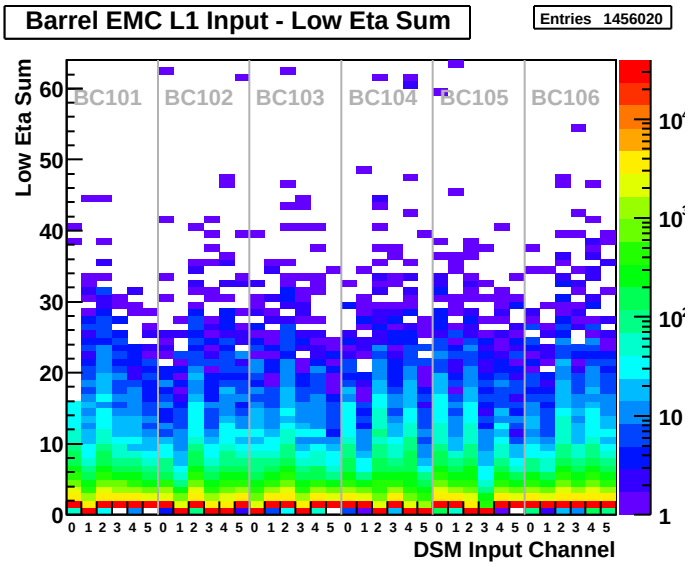
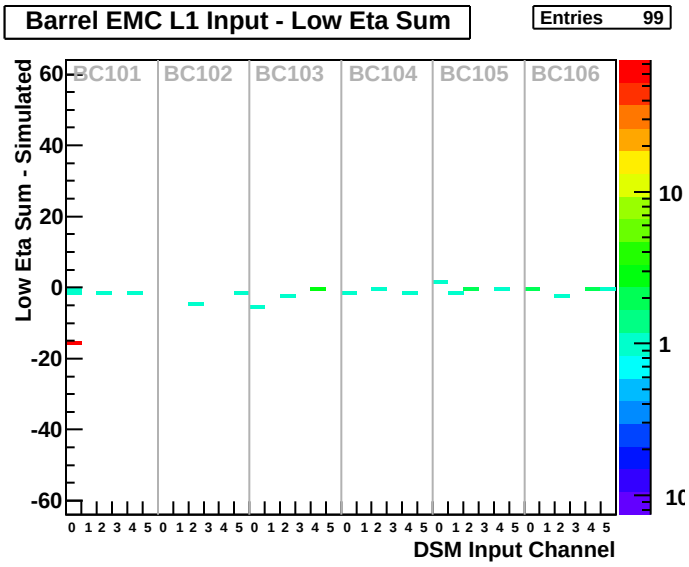
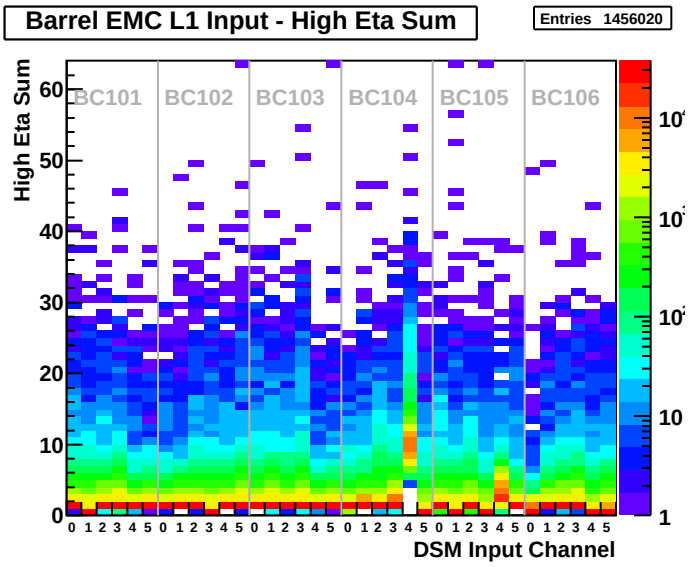
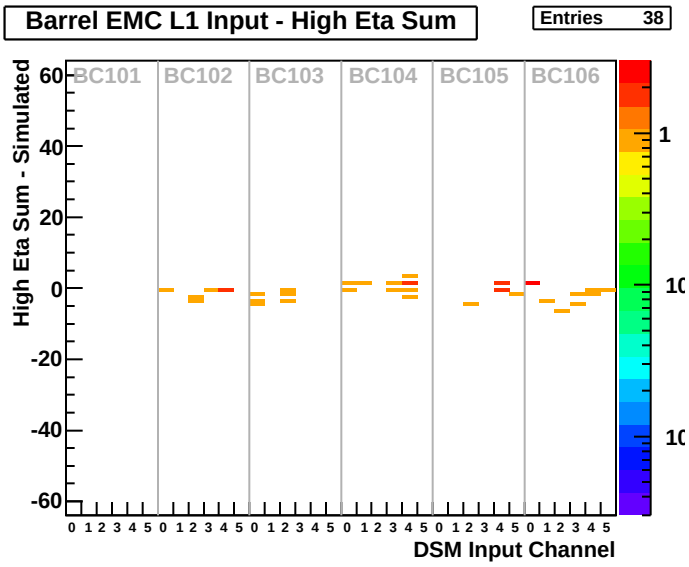
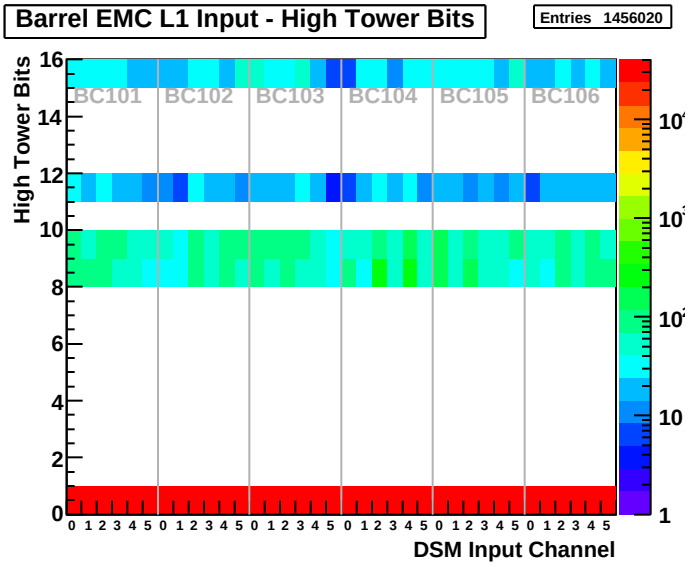
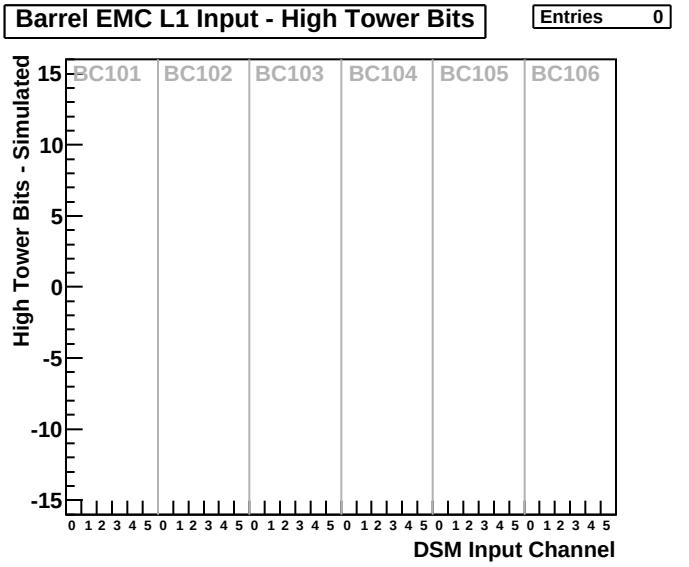

Barrel EMC L1 Input - Low Eta Sum
Entries 1456020
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

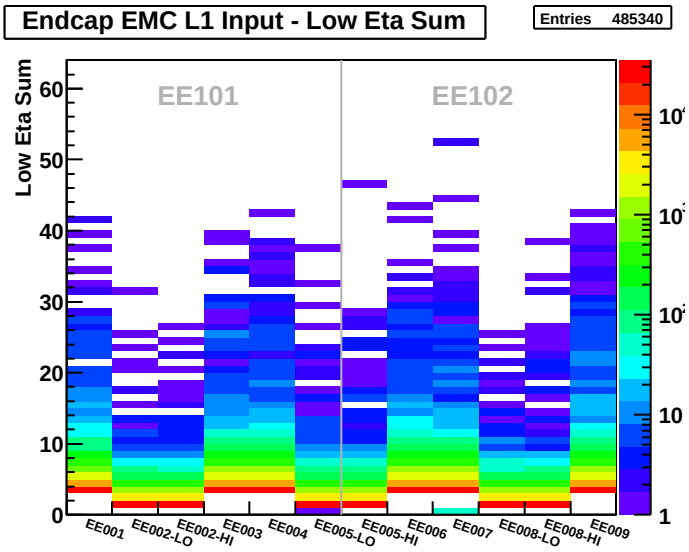

Barrel EMC L1 Input - Low Eta Sum
Entries 99
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

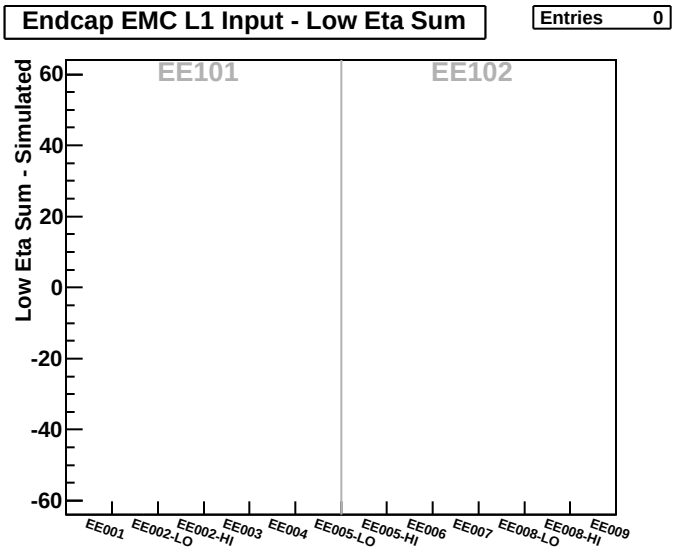

Barrel EMC L1 Input - High Eta Sum
Entries 1456020
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

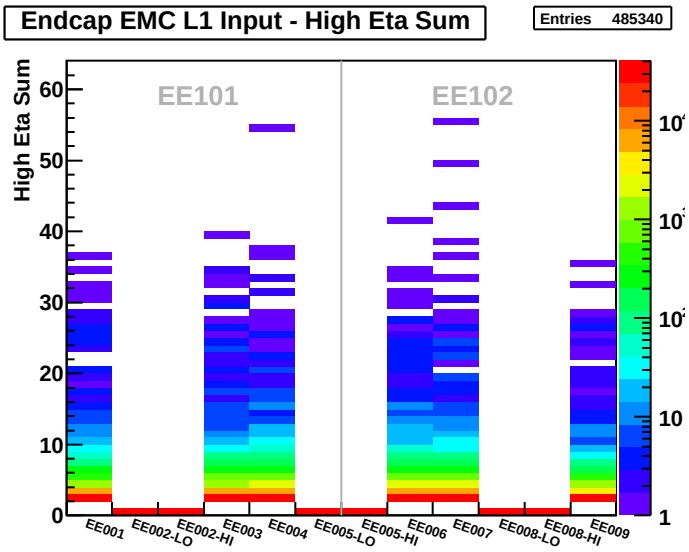

Barrel EMC L1 Input - High Eta Sum
Entries 38
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

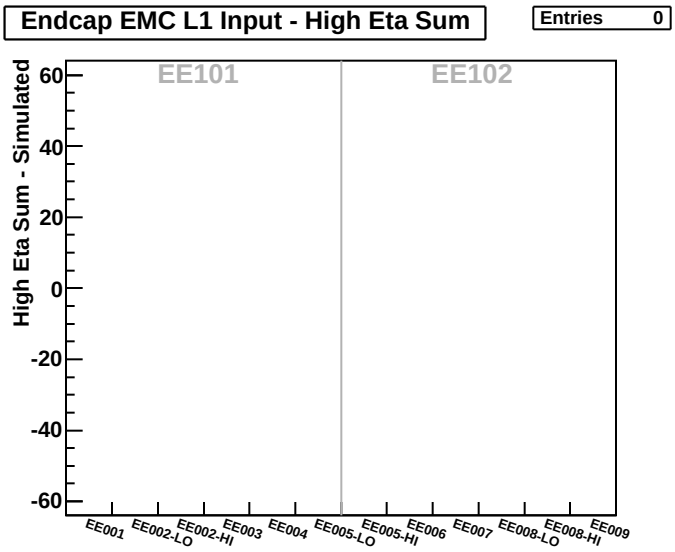

Barrel EMC L1 Input - High Tower Bits
Entries 1456020
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

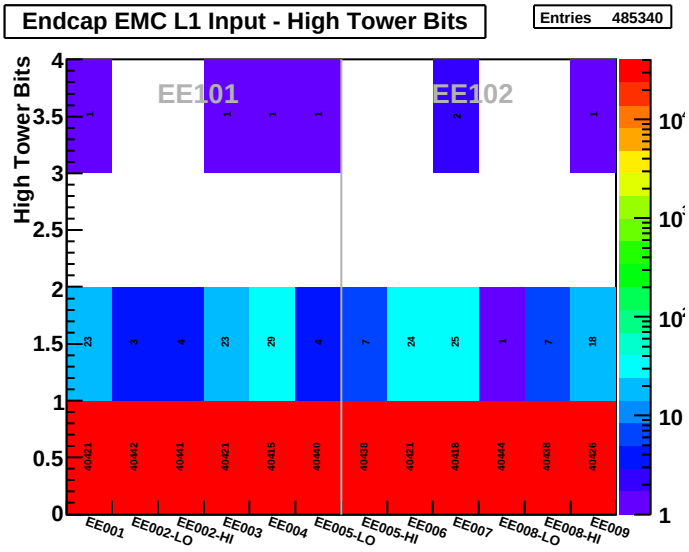

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

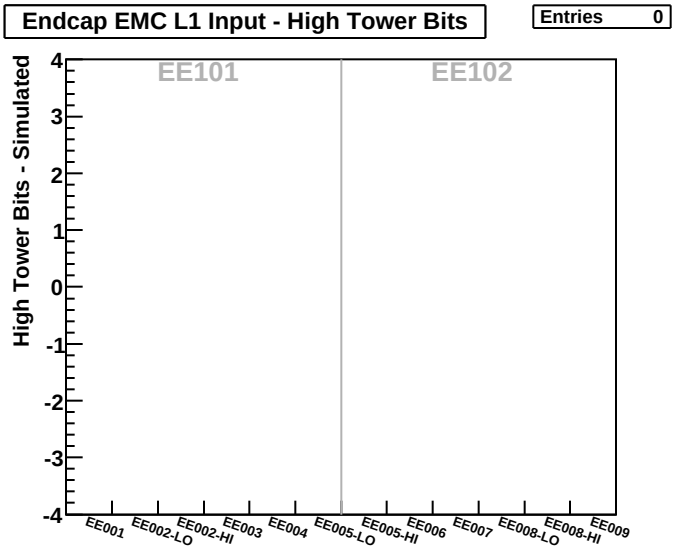

Endcap EMC L1 Input - Low Eta Sum
Entries 485340
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

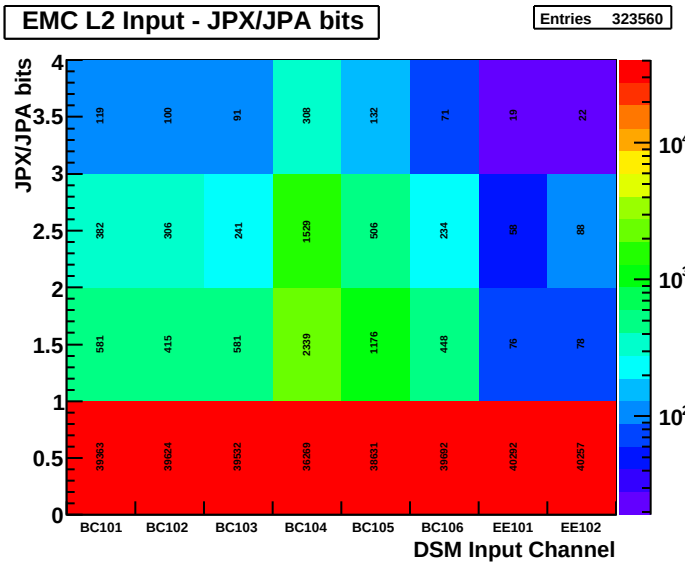

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

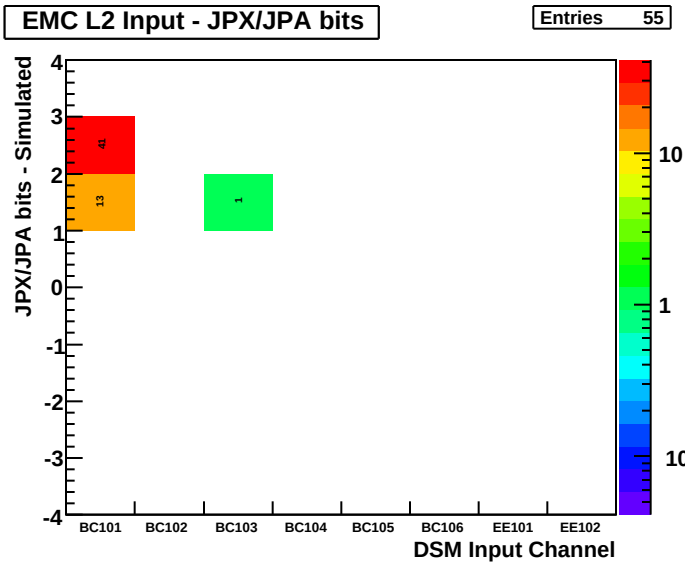

Endcap EMC L1 Input - High Eta Sum
Entries 485340
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

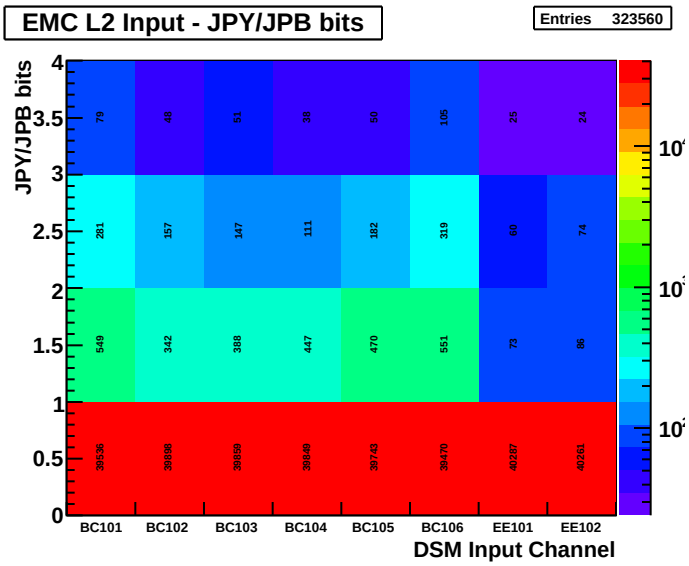

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

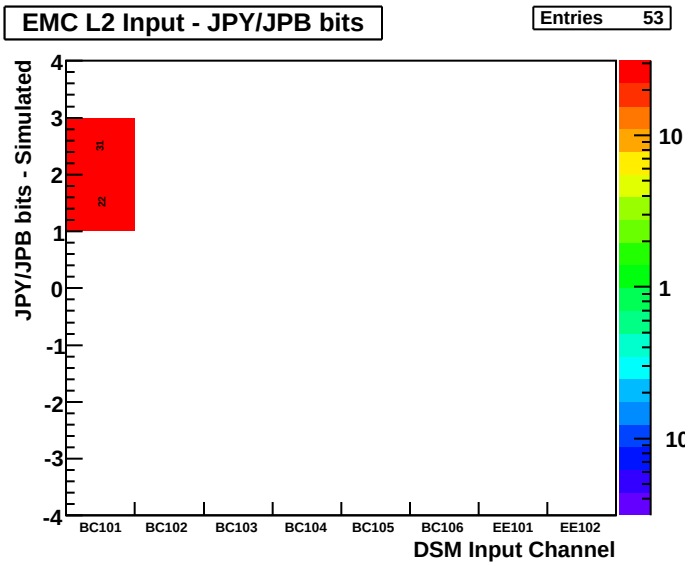

Endcap EMC L1 Input - High Tower Bits
Entries 485340
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

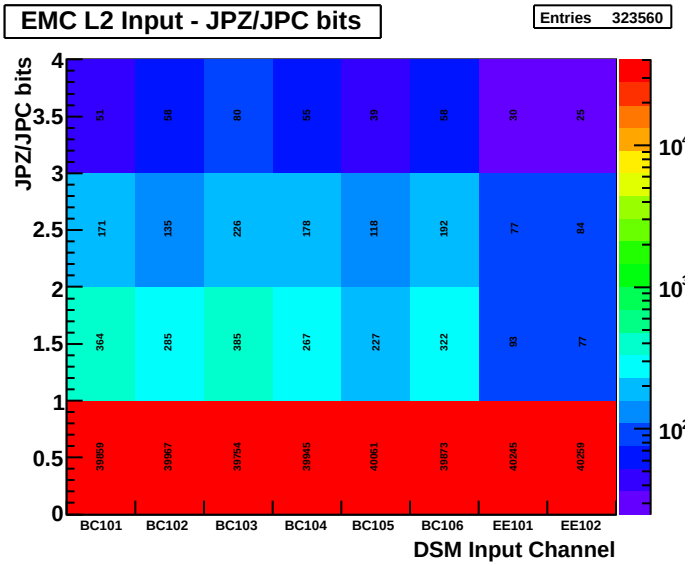

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

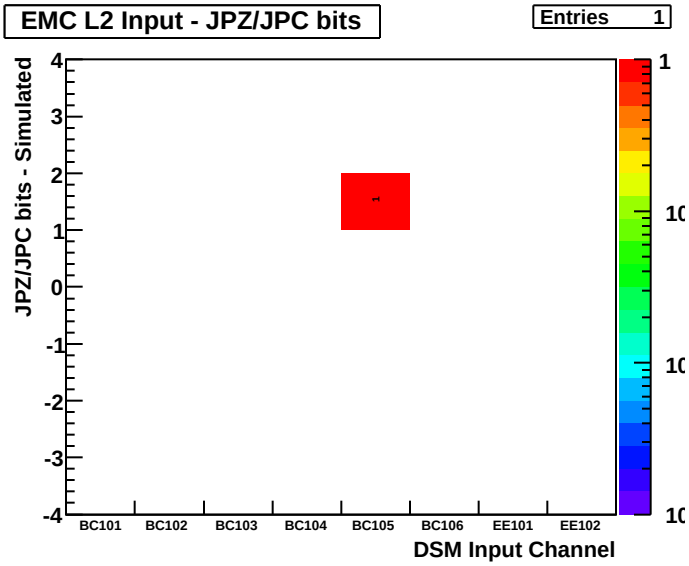

EMC L2 Input - JPX/JPA bits
Entries 323560
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
119 100 91 308 132 71 19 22
382 306 241 1529 506 234 58 88
581 415 581 2339 1176 448 76 78
39363 39624 39632 36269 38631 39692 40292 40257

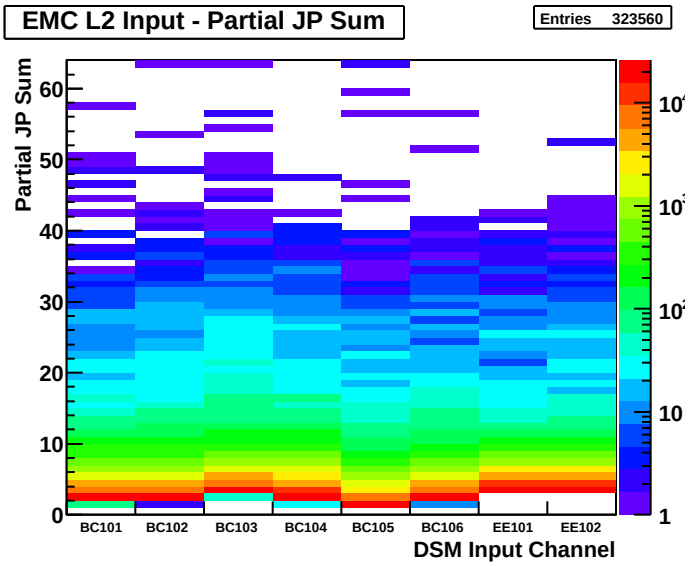

EMC L2 Input - JPX/JPA bits
Entries 55
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
41
13
1

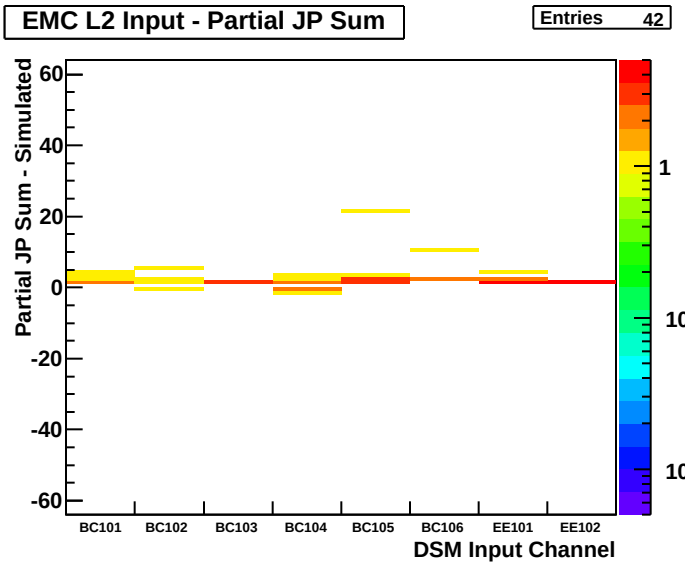

EMC L2 Input - JPY/JPB bits
Entries 323560
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
79 48 51 38 50 105 25 24
281 157 147 111 182 319 60 74
549 342 388 447 470 551 73 86
39536 39898 39859 39840 39743 39470 40287 40261

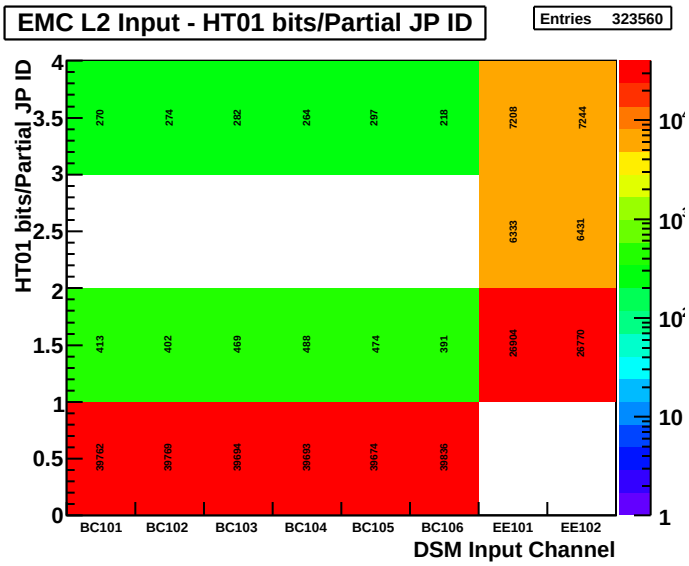

EMC L2 Input - JPY/JPB bits
Entries 53
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
31
22

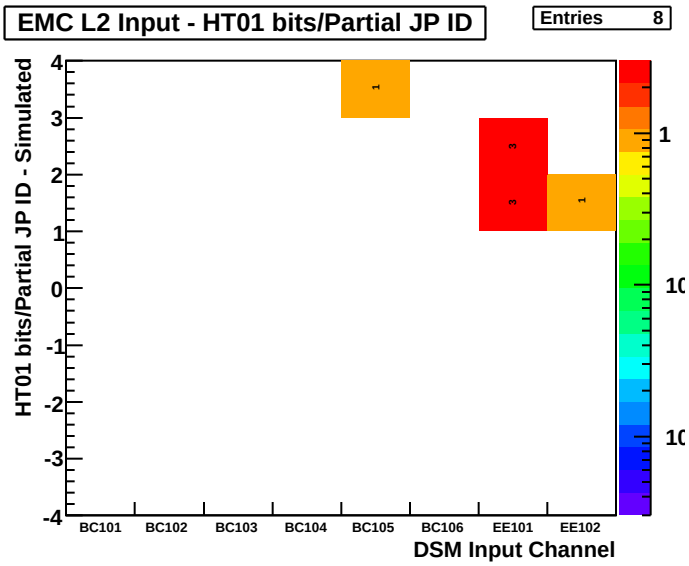

EMC L2 Input - JPZ/JPC bits
Entries 323560
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
51 58 80 55 39 58 30 25
171 135 226 178 118 192 77 84
364 285 385 267 227 322 93 77
39659 39867 39754 39945 40061 39873 40245 40259

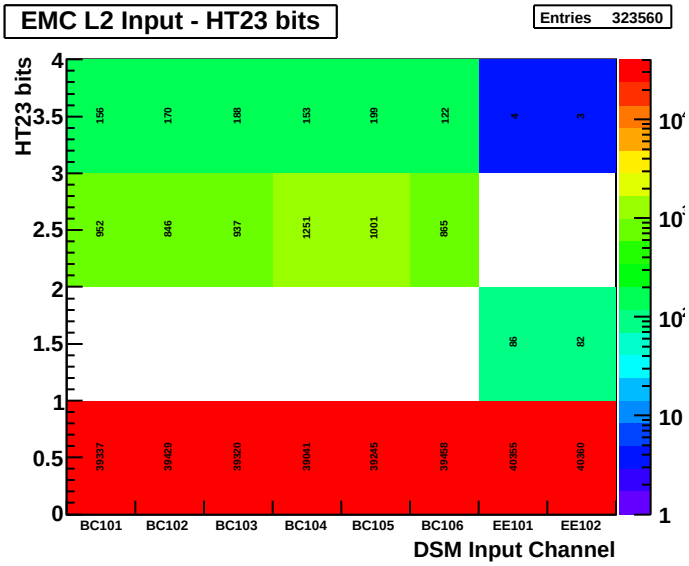

EMC L2 Input - JPZ/JPC bits
Entries 1
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1

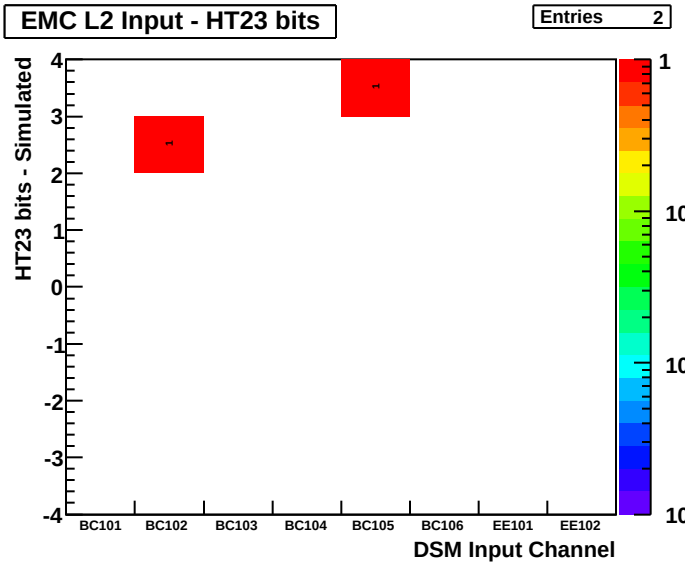

EMC L2 Input - Partial JP Sum
Entries 323560
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

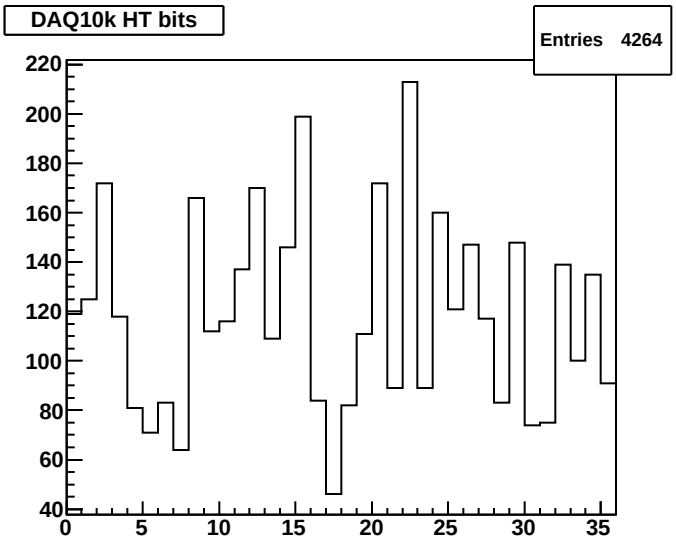

EMC L2 Input - Partial JP Sum
Entries 42
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

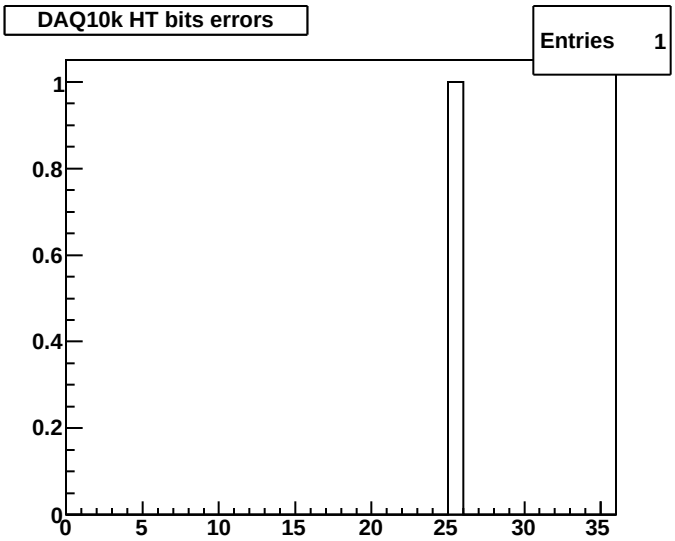

EMC L2 Input - HT01 bits/Partial JP ID
Entries 323560
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

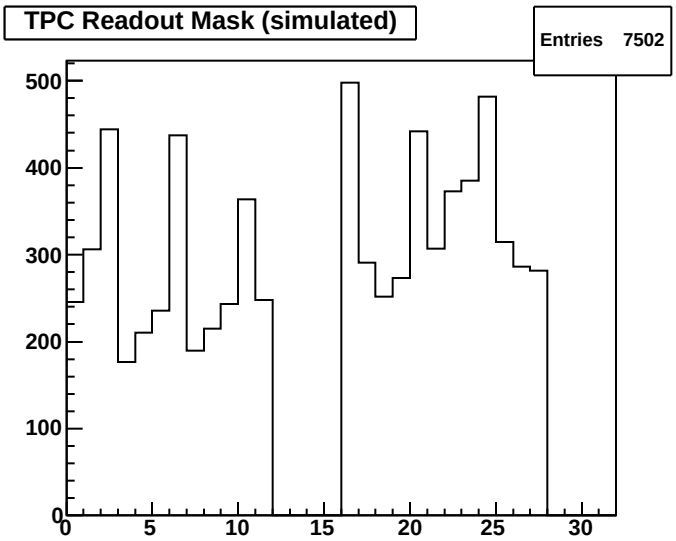

EMC L2 Input - HT01 bits/Partial JP ID
Entries 8
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

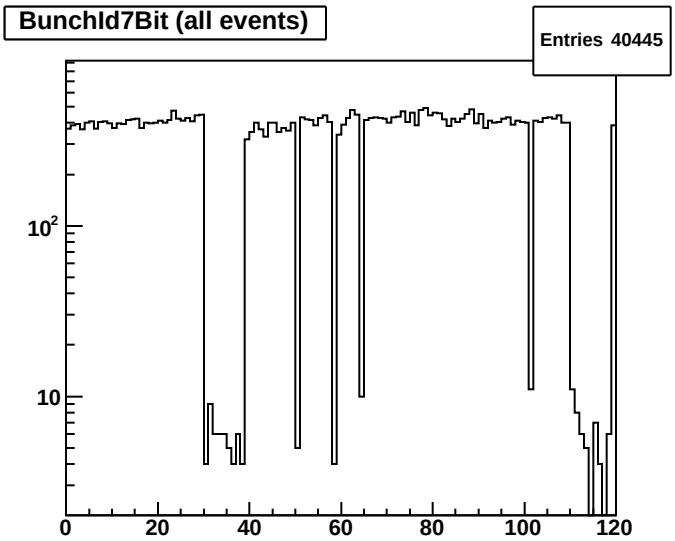

EMC L2 Input - HT23 bits
Entries 323560
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

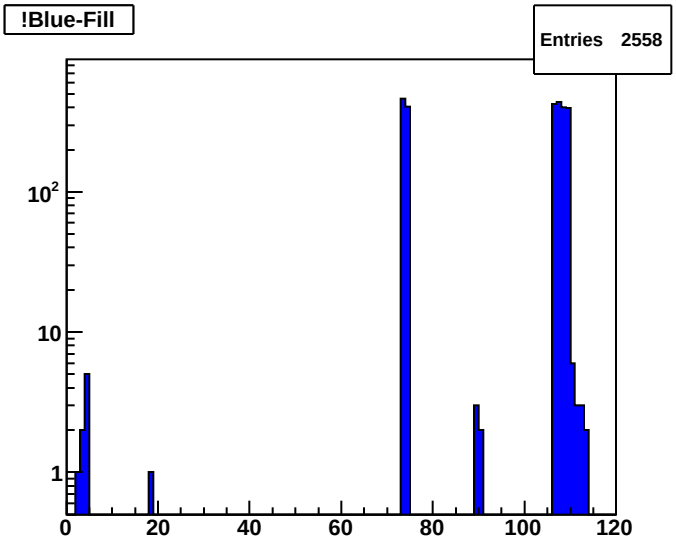

EMC L2 Input - HT23 bits
Entries 2
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

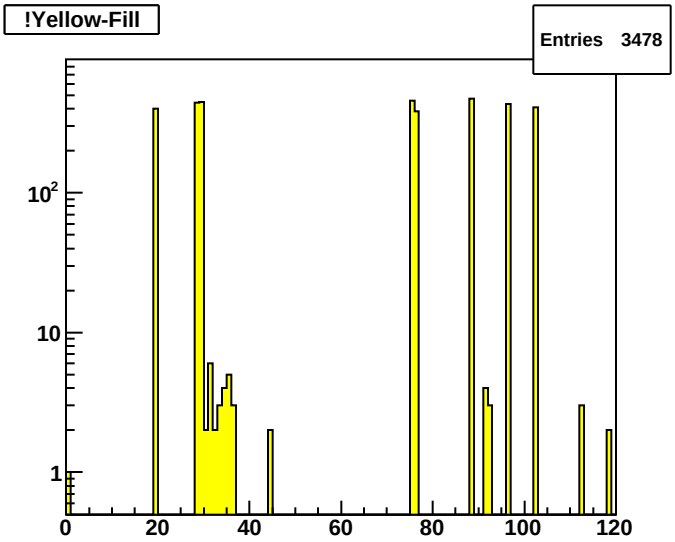

DAQ10k HT bits
Entries 4264

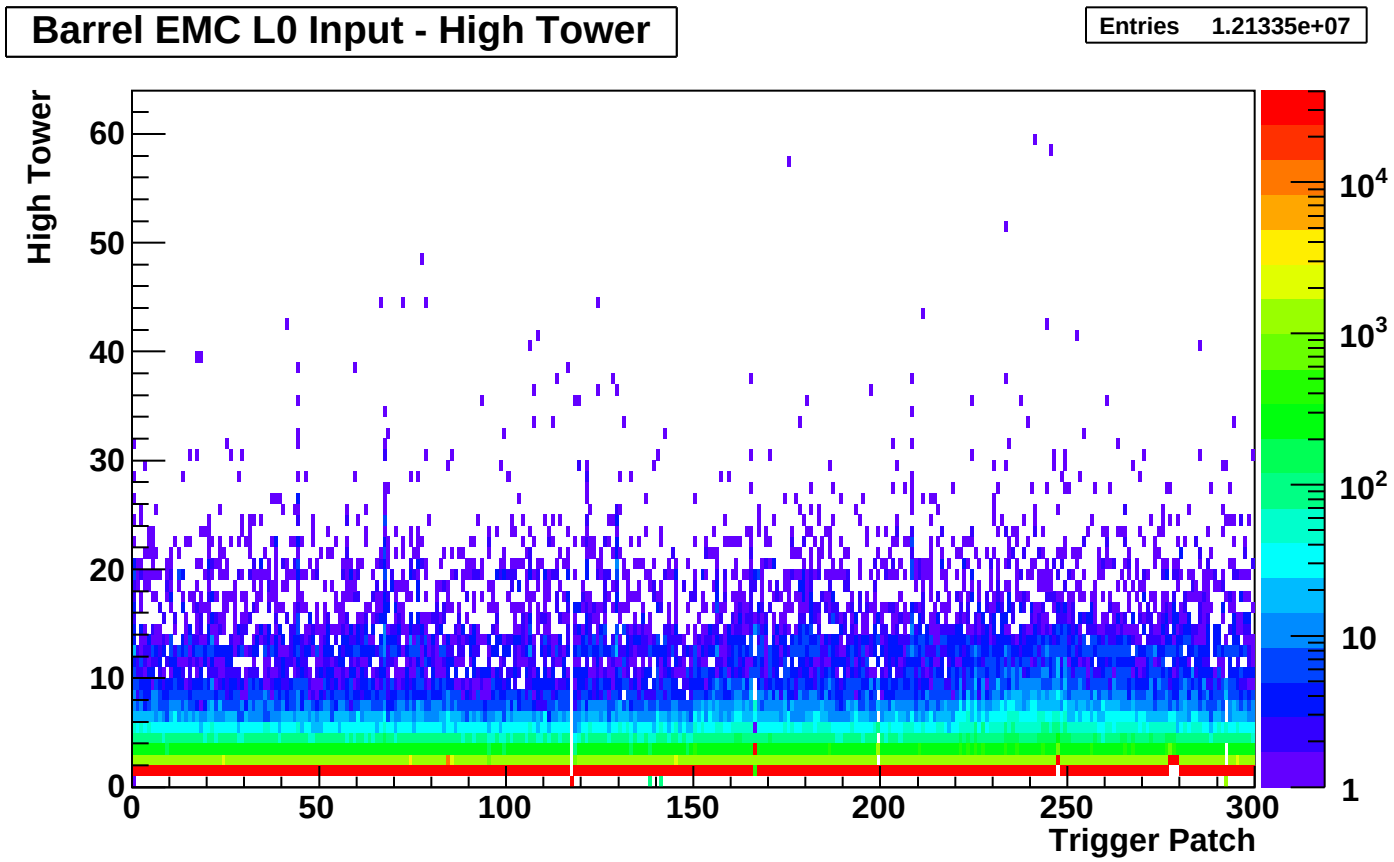

DAQ10k HT bits errors
Entries 1

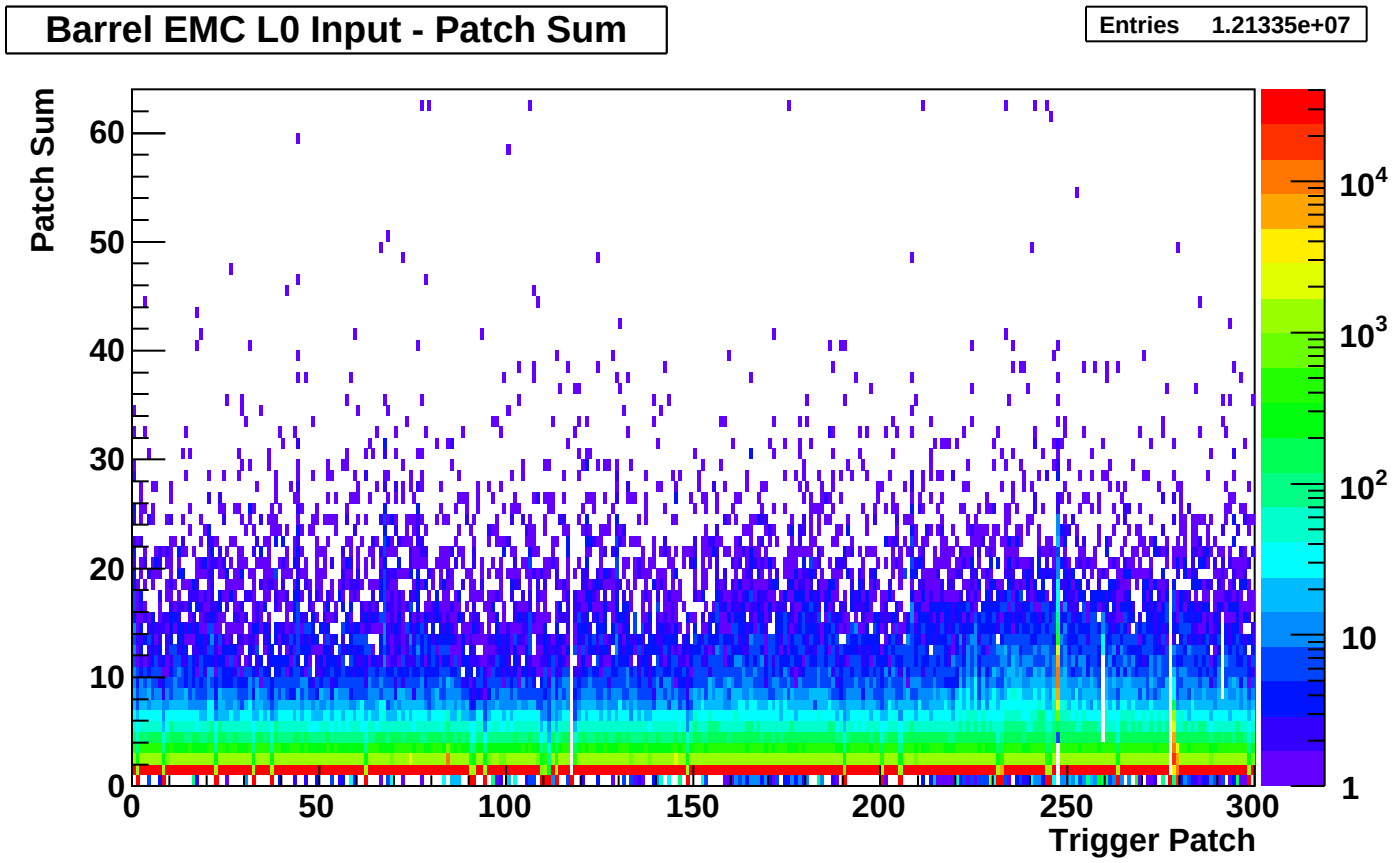

TPC Readout Mask (simulated)
Entries 7502

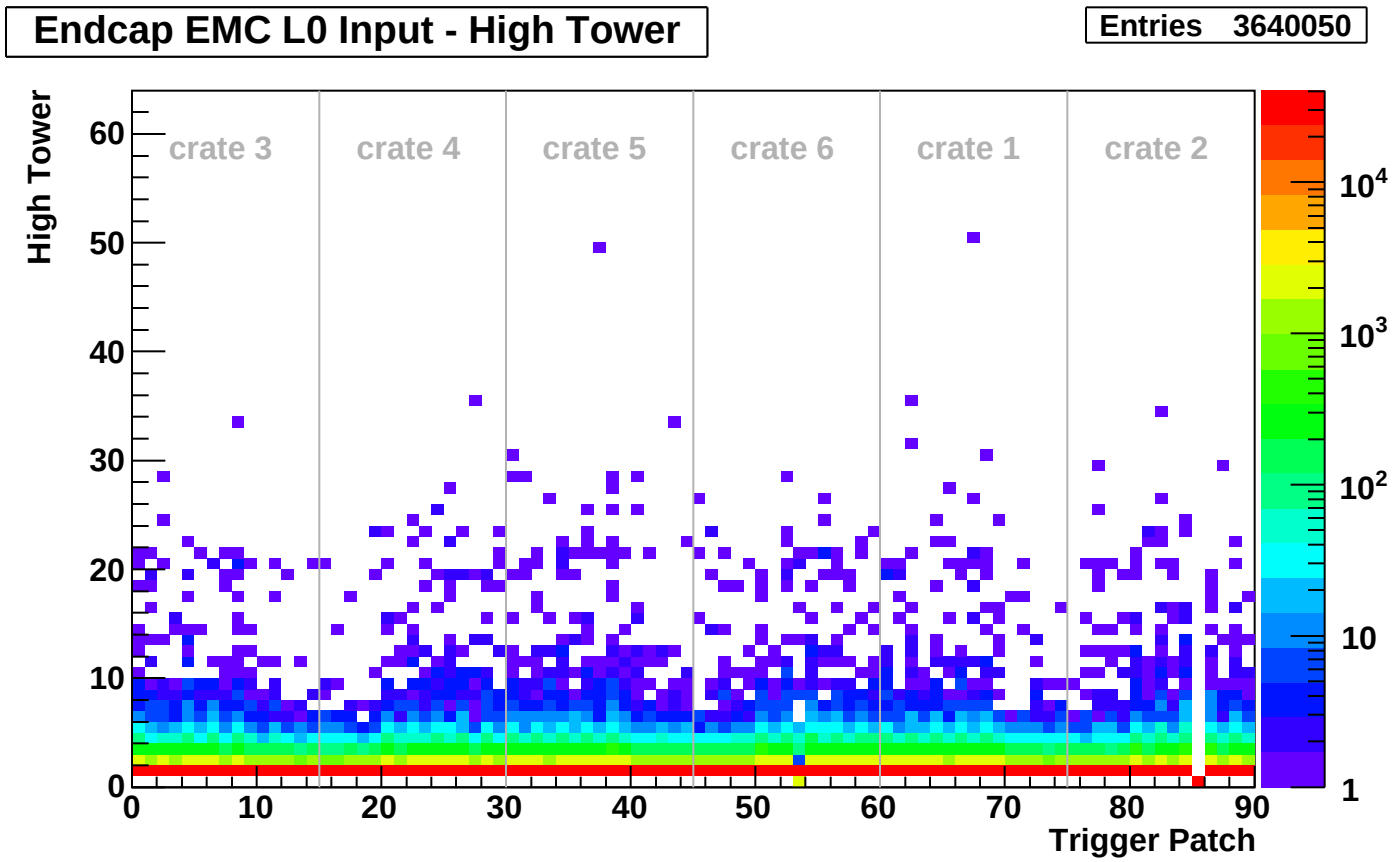

BunchId7Bit (all events)
Entries 40445

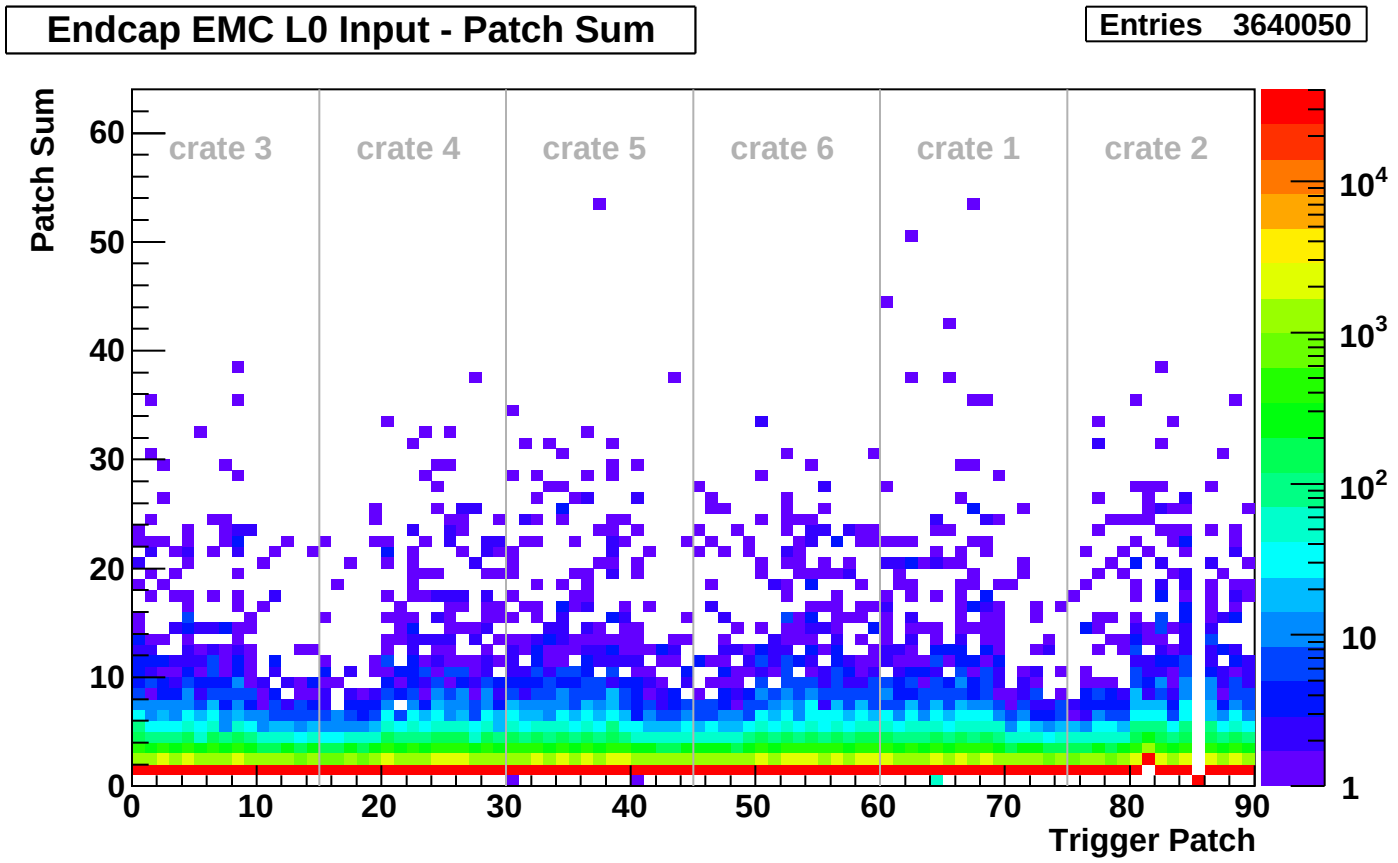

!Blue-Fill
Entries 2558

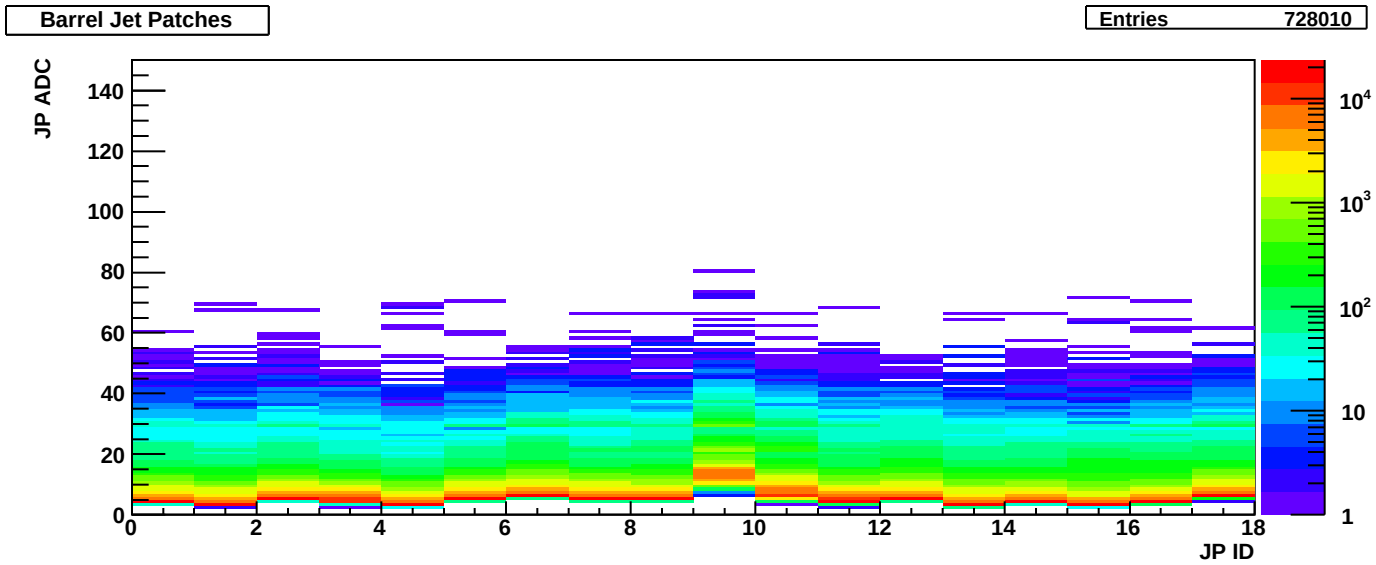

!Yellow-Fill
Entries 3478

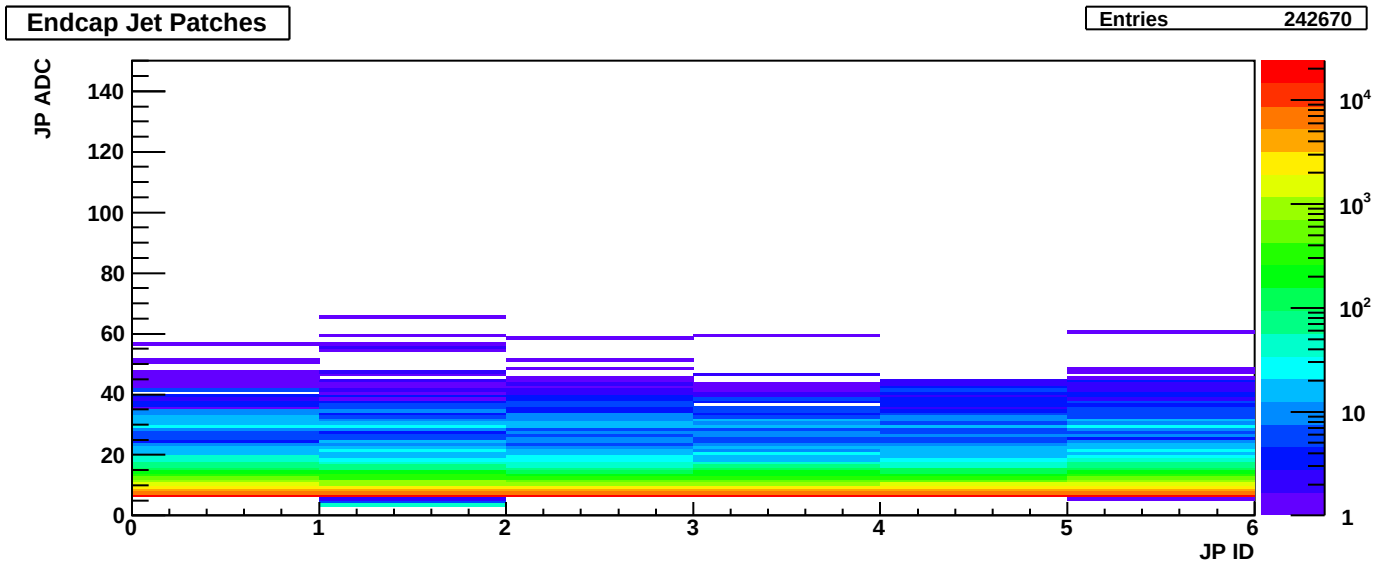

Barrel EMC L0 Input - High Tower
Entries 1.21335e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

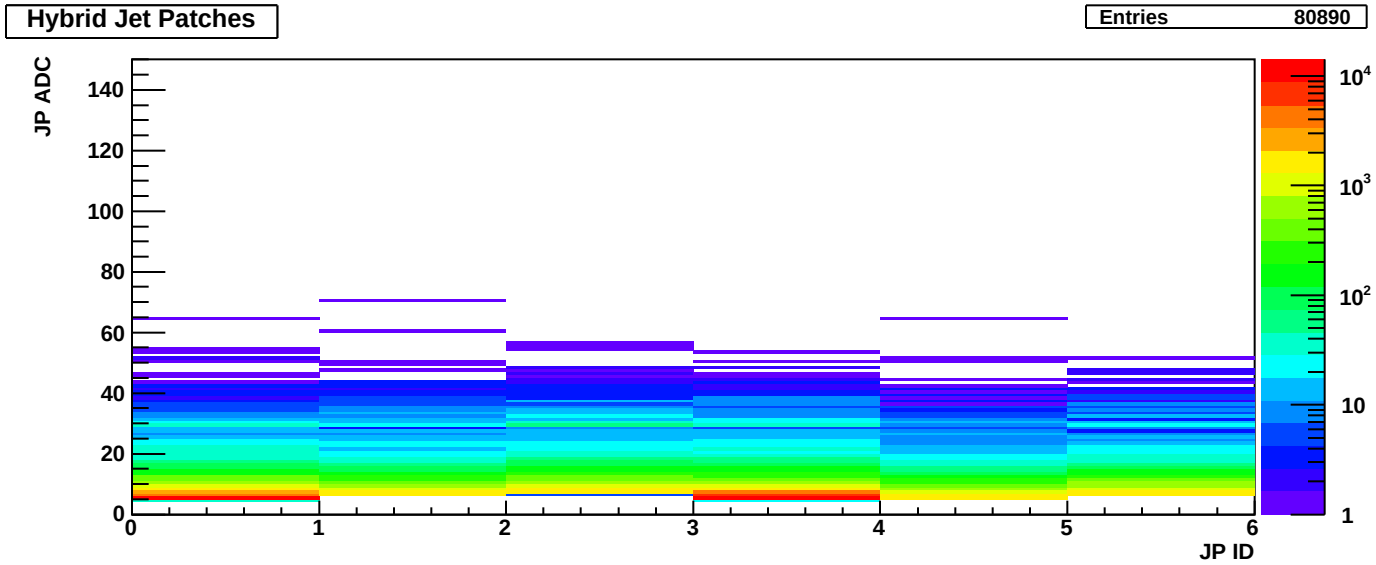

Barrel EMC L0 Input - Patch Sum
Entries 1.21335e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

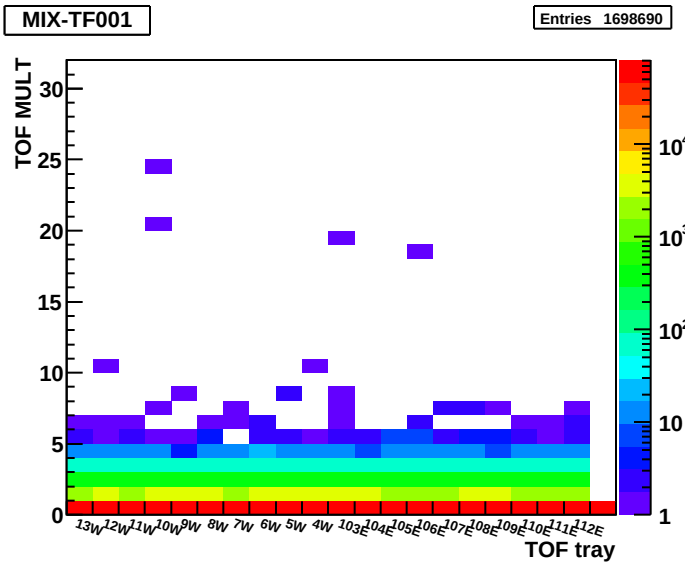

Endcap EMC L0 Input - High Tower
Entries 3640050
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

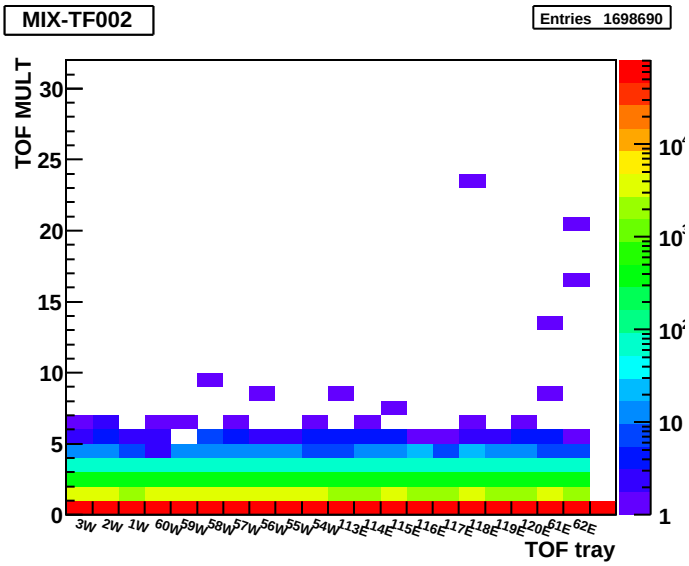

Endcap EMC L0 Input - Patch Sum
Entries 3640050
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

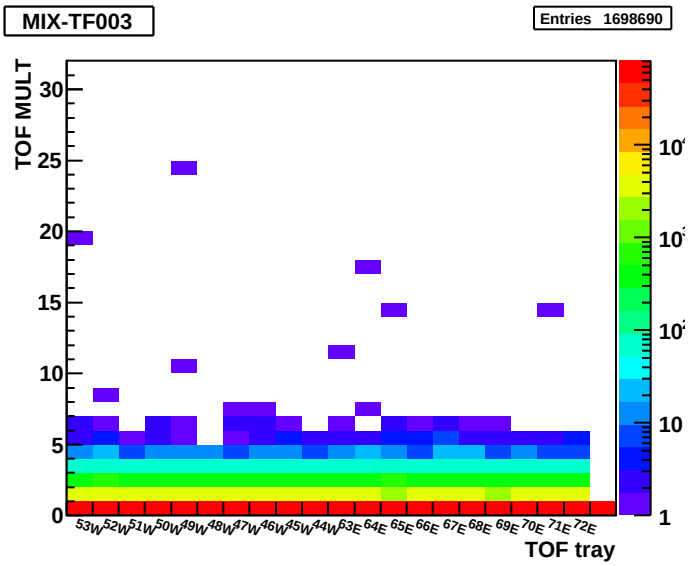

Barrel Jet Patches
Entries 728010
JP ADC
JP ID

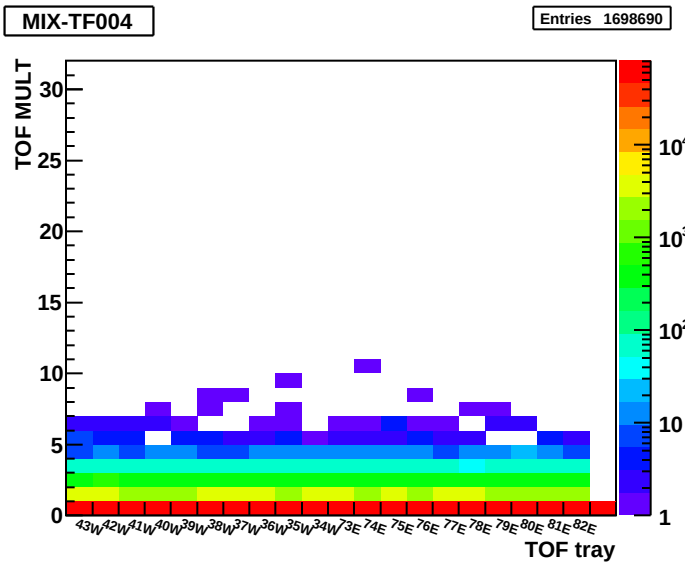

Endcap Jet Patches
Entries 242670
JP ADC
JP ID

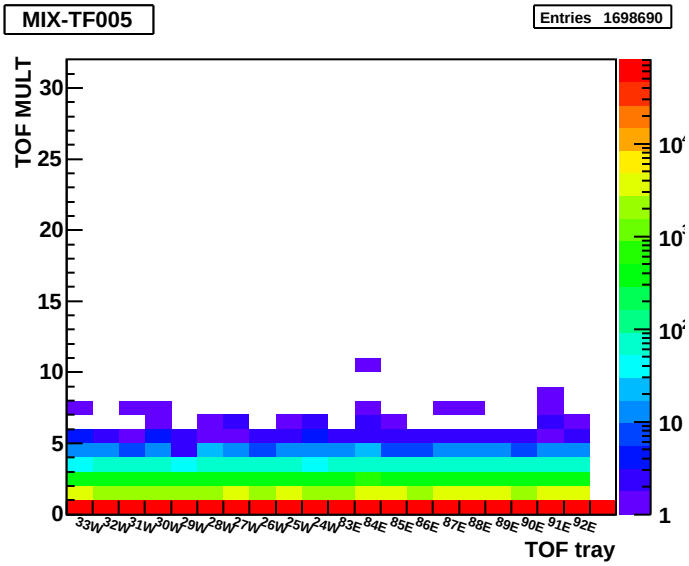

Hybrid Jet Patches
Entries 80890
JP ADC
JP ID

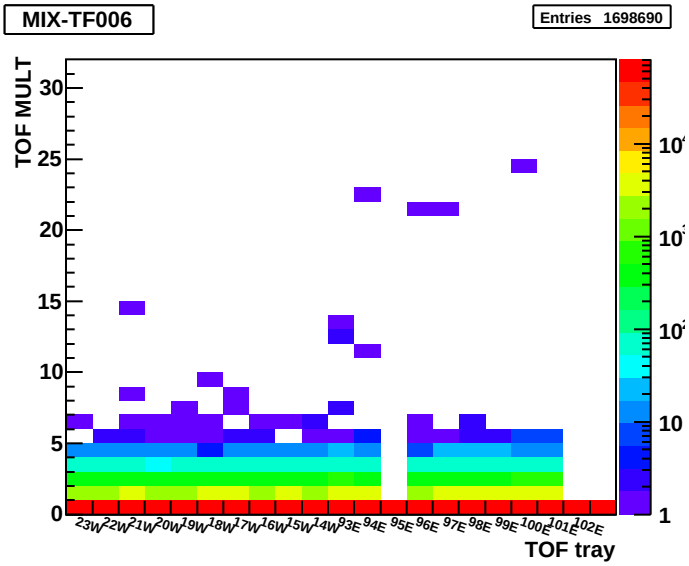

MIX-TF001
Entries 1698690
TOF MULT
TOF tray

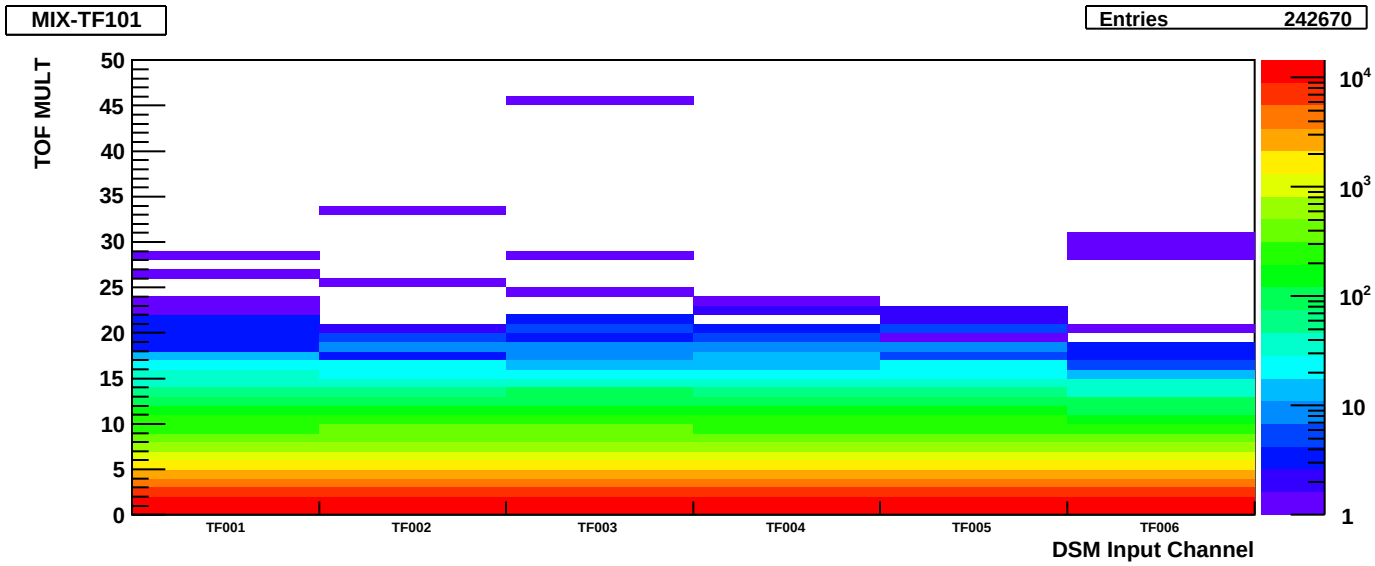

MIX-TF002
Entries 1698690
TOF MULT
TOF tray

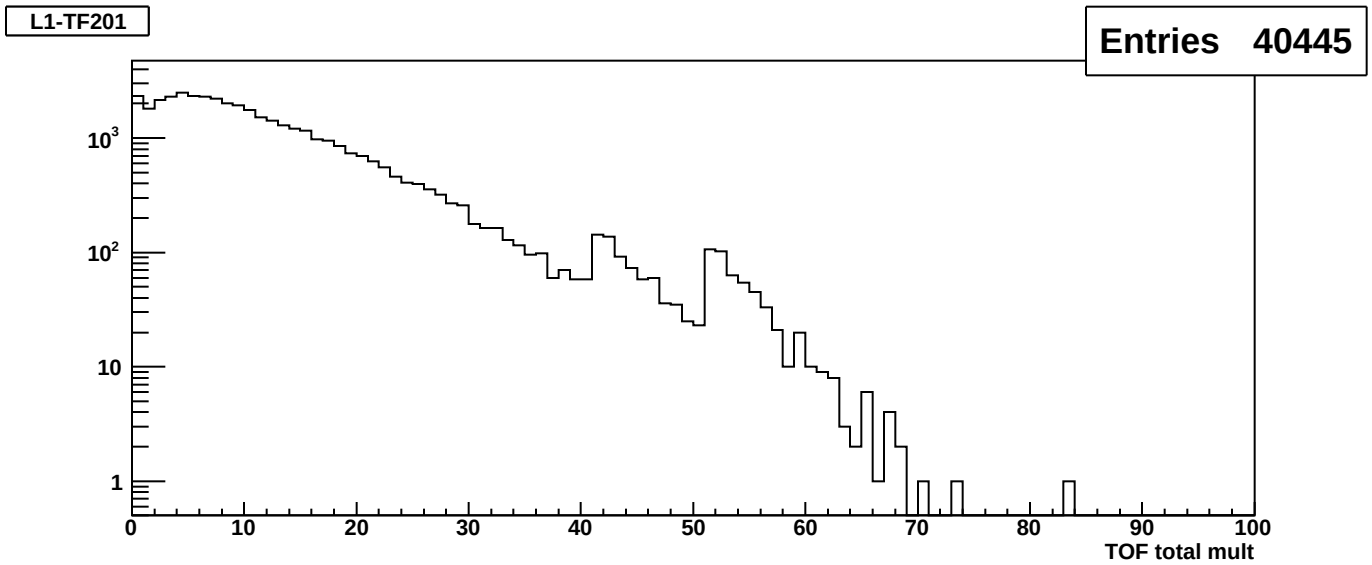

MIX-TF003
Entries 1698690
TOF MULT
TOF tray

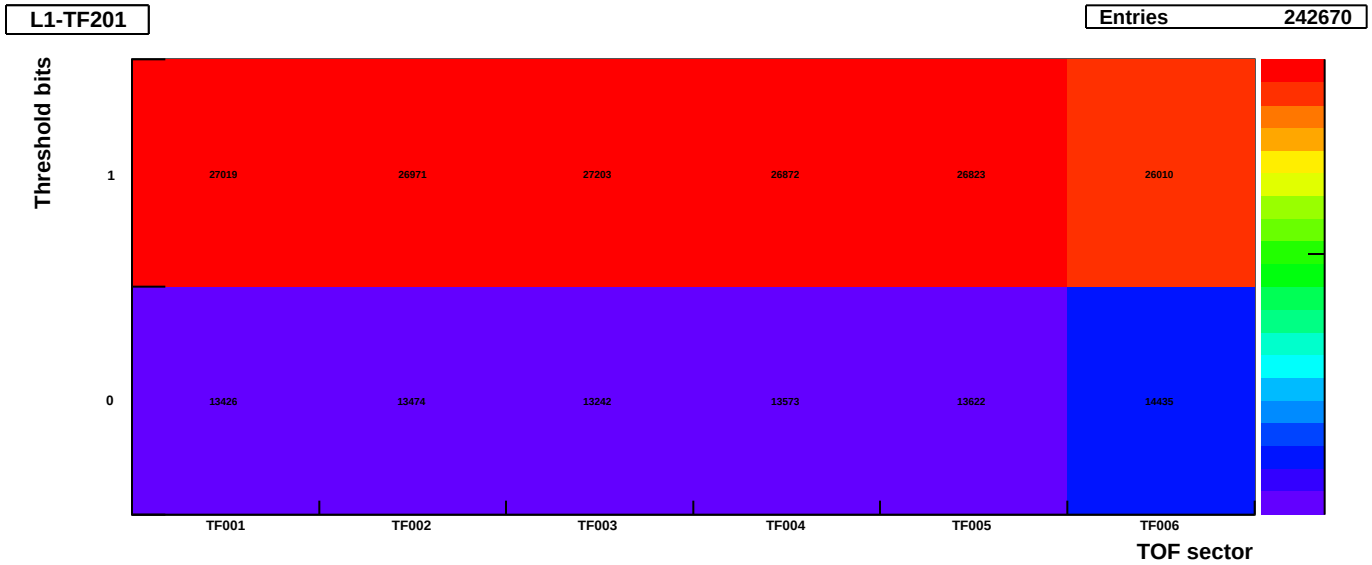

MIX-TF004
Entries 1698690
TOF MULT
TOF tray

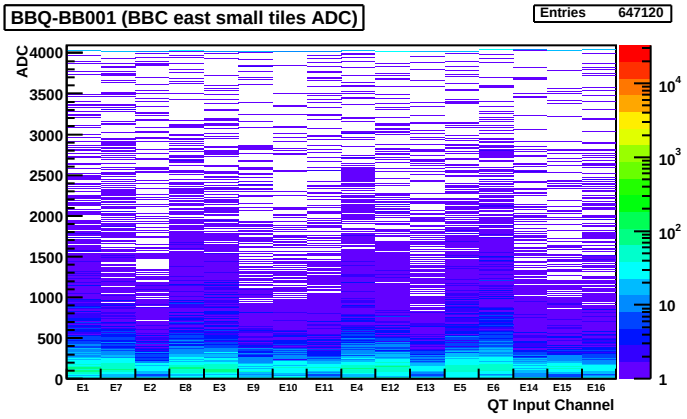

MIX-TF005
Entries 1698690
TOF MULT
TOF tray

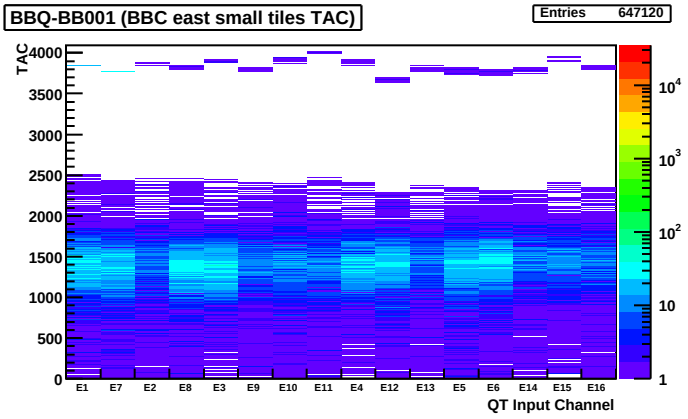

MIX-TF006
Entries 1698690
TOF MULT
TOF tray

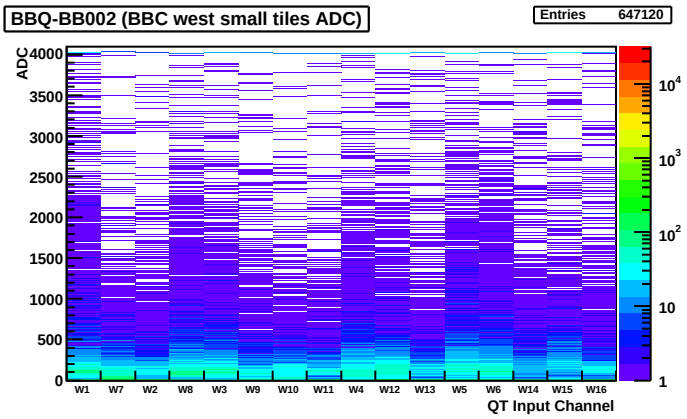

MIX-TF101
Entries 242670
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

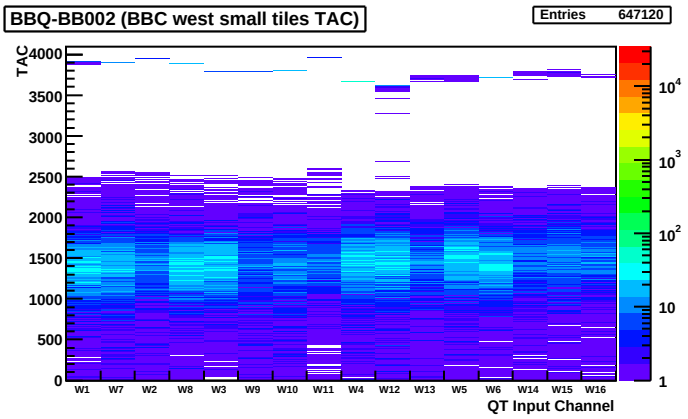

L1-TF201
Entries 40445
10^3
10^2
10
1
0
10
20
30
40
50
60
70
80
90
100
TOF total mult

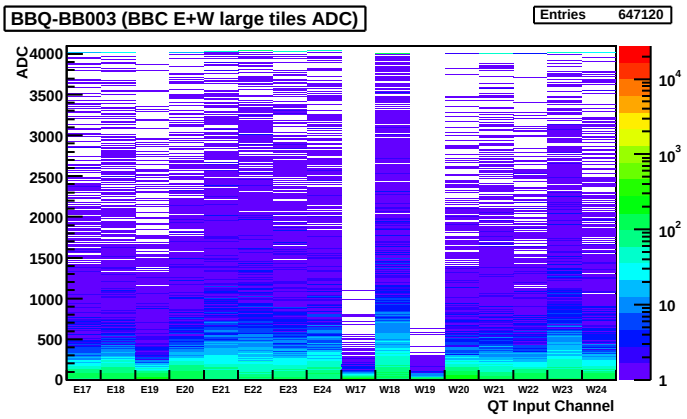

L1-TF201
Entries 242670
Threshold bits
1
0
27019
26971
27203
26872
26823
26010
13426
13474
13242
13573
13622
14435
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

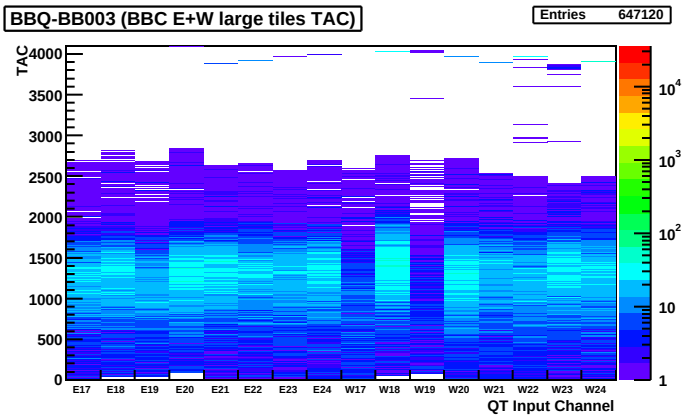

BBQ-BB001 (BBC east small tiles ADC)
Entries 647120
ADC
QT Input Channel

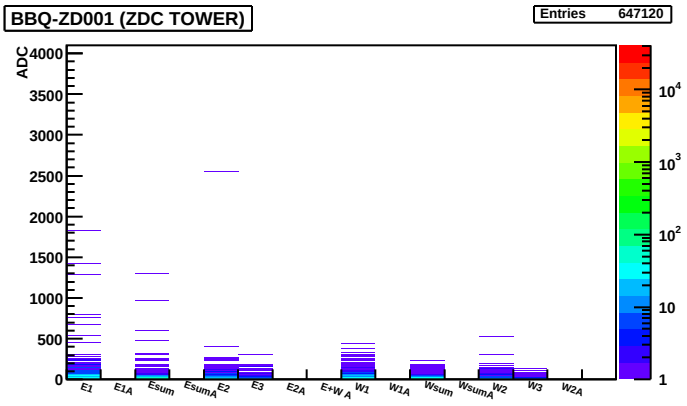

BBQ-BB001 (BBC east small tiles TAC)
Entries 647120
TAC
QT Input Channel

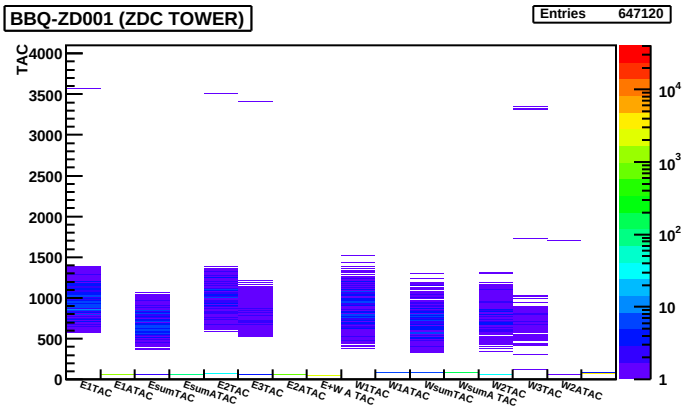

BBQ-BB002 (BBC west small tiles ADC)
Entries 647120
ADC
QT Input Channel

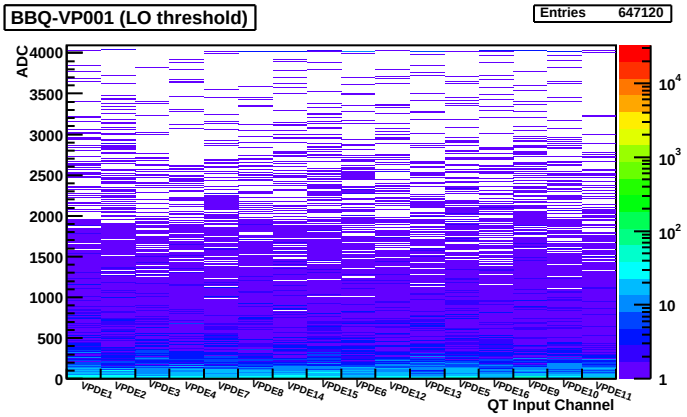

BBQ-BB002 (BBC west small tiles TAC)
Entries 647120
TAC
QT Input Channel

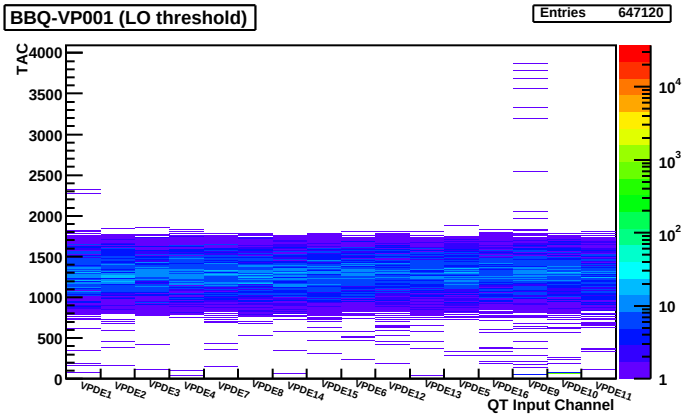

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 647120
ADC
QT Input Channel

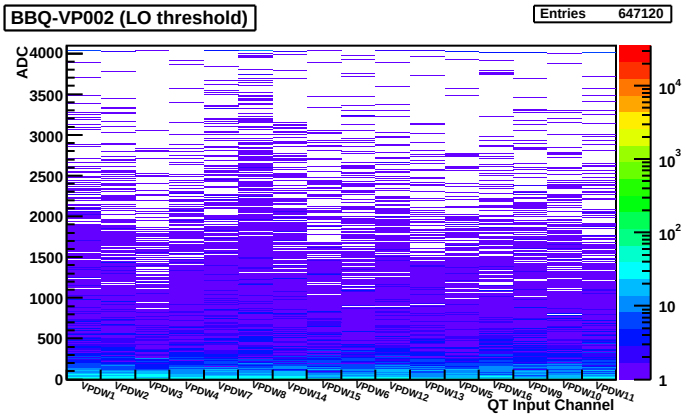

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 647120
TAC
QT Input Channel

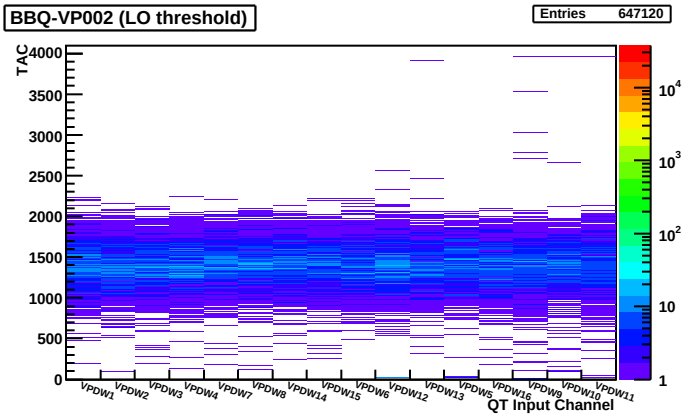

BBQ-ZD001 (ZDC TOWER)
Entries 647120
ADC

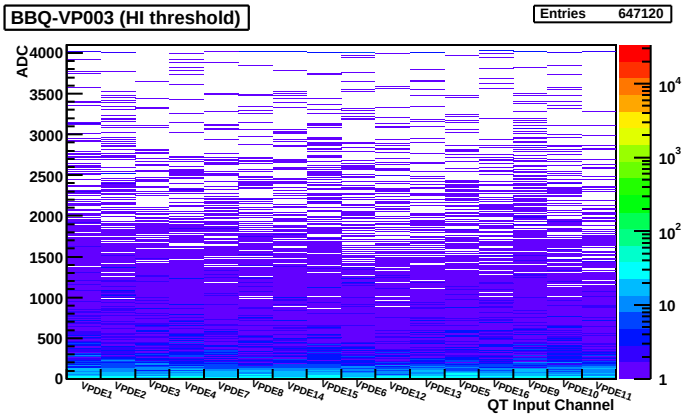

BBQ-ZD001 (ZDC TOWER)
Entries 647120
TAC

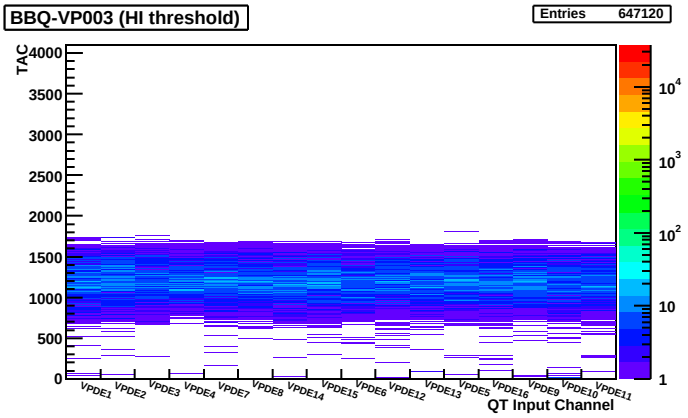

BBQ-VP001 (LO threshold)
Entries 647120
ADC
QT Input Channel

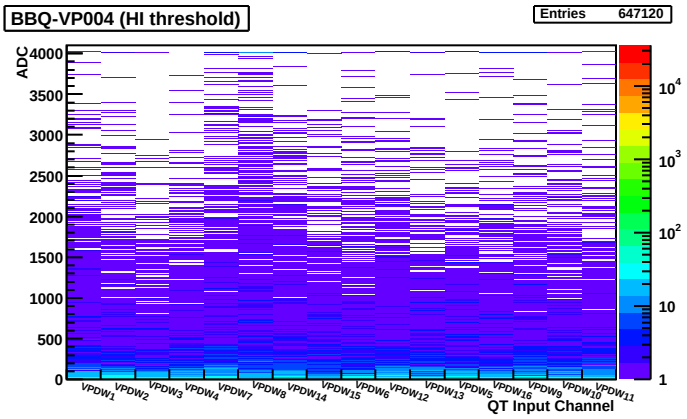

BBQ-VP001 (LO threshold)
Entries 647120
TAC
QT Input Channel

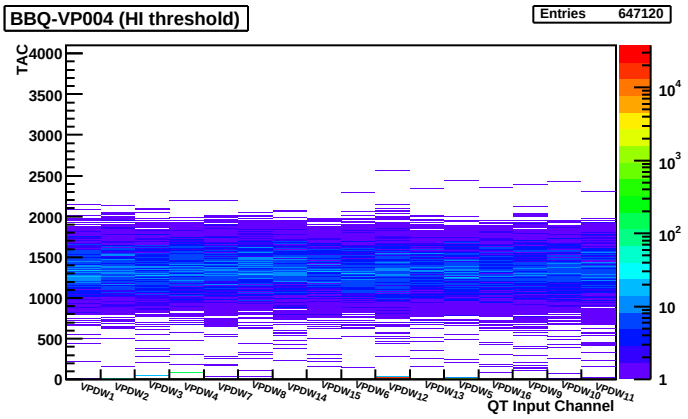

BBQ-VP002 (LO threshold)
Entries 647120
ADC
QT Input Channel

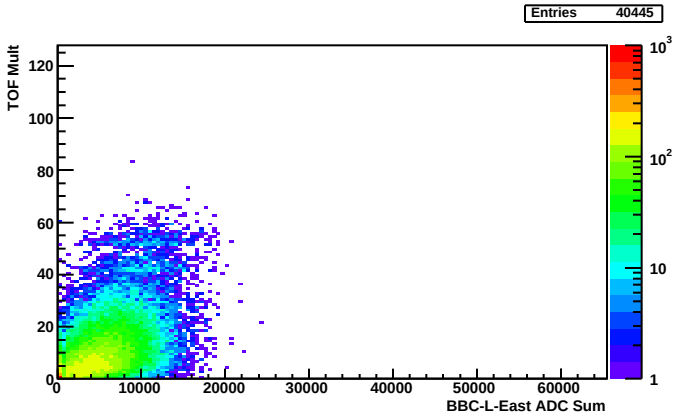

BBQ-VP002 (LO threshold)
Entries 647120
TAC
QT Input Channel

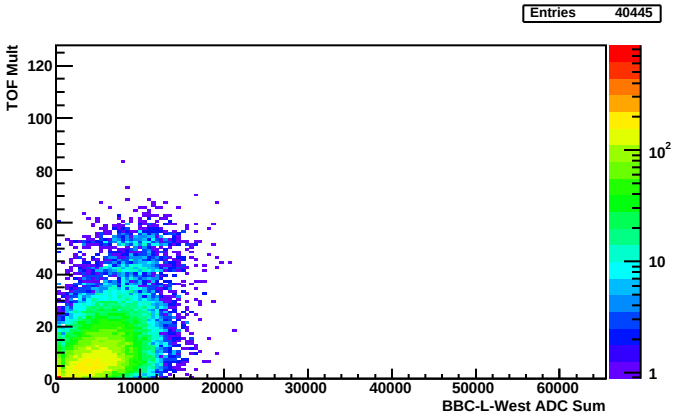

BBQ-VP003 (HI threshold)
Entries 647120
ADC
QT Input Channel

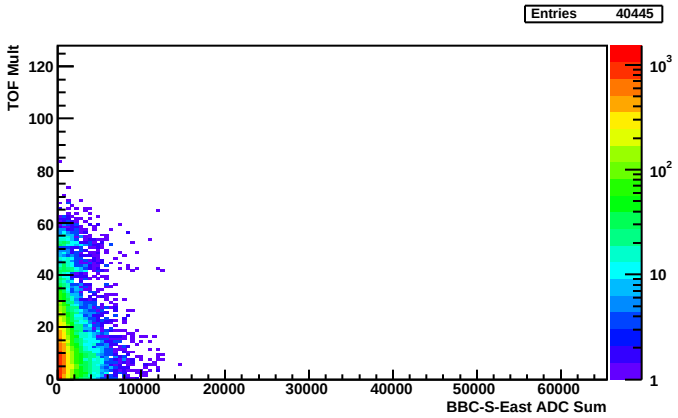

BBQ-VP003 (HI threshold)
Entries 647120
TAC
QT Input Channel

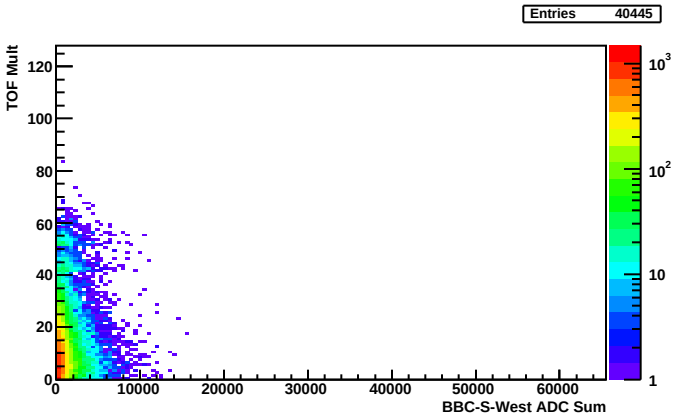

BBQ-VP004 (HI threshold)
Entries 647120
ADC
QT Input Channel

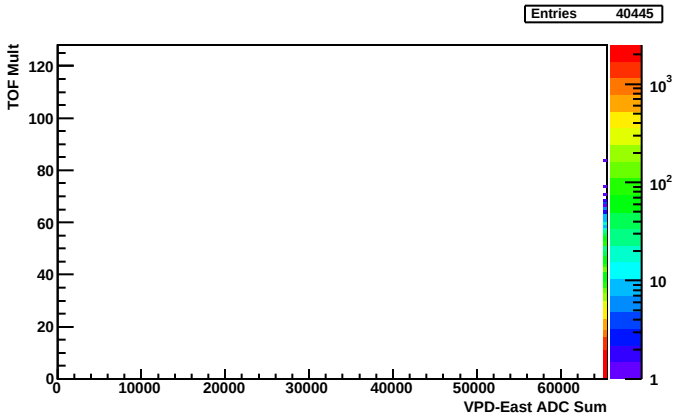

BBQ-VP004 (HI threshold)
Entries 647120
TAC
QT Input Channel

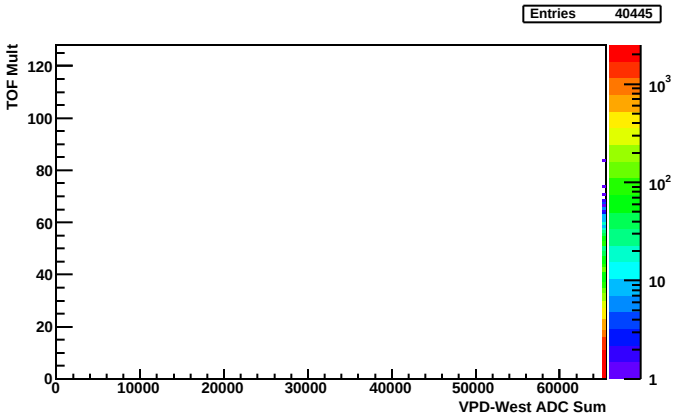

Entries 40445
TOF Mult
BBC-L-East ADC Sum

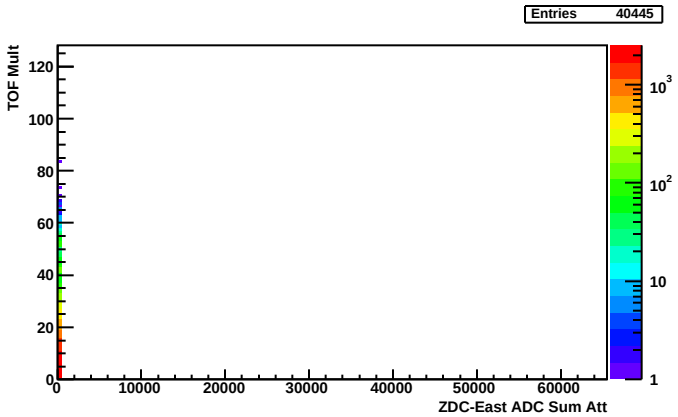

Entries 40445
TOF Mult
BBC-L-West ADC Sum

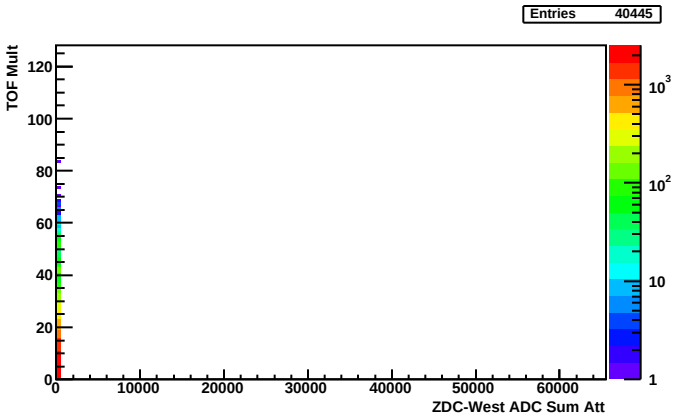

Entries 40445
TOF Mult
BBC-S-East ADC Sum

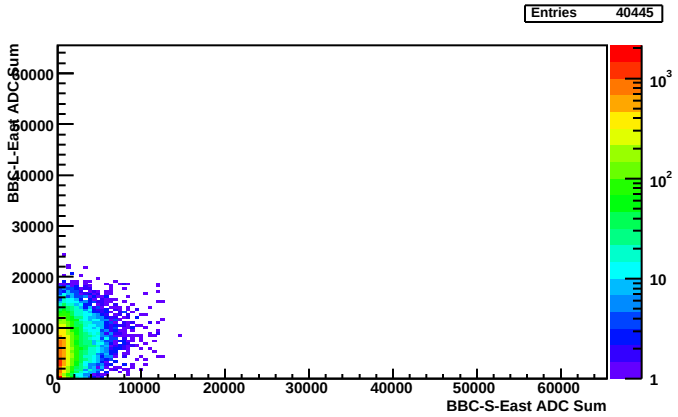

Entries 40445
TOF Mult
BBC-S-West ADC Sum

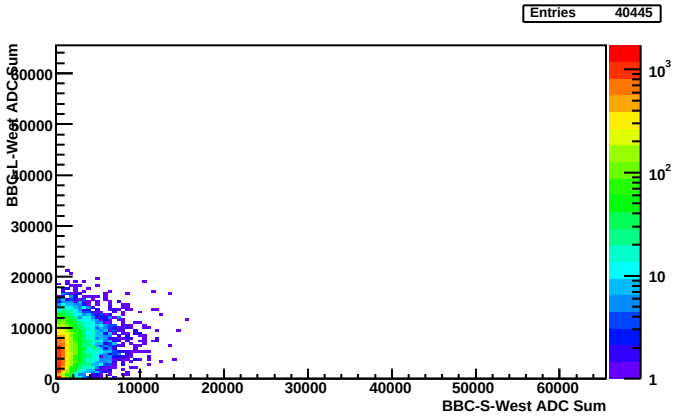

Entries 40445
TOF Mult
VPD-East ADC Sum

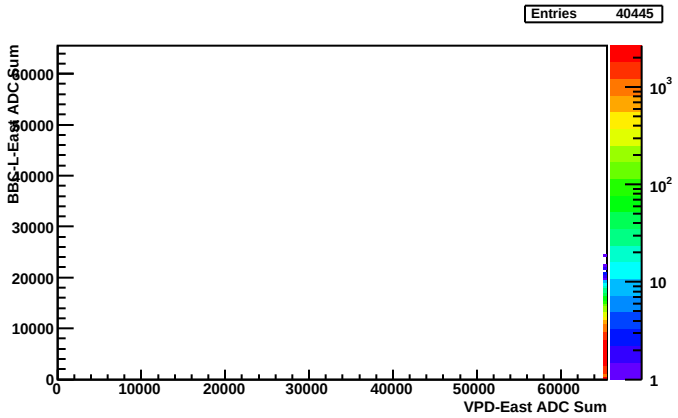

Entries 40445
TOF Mult
VPD-West ADC Sum

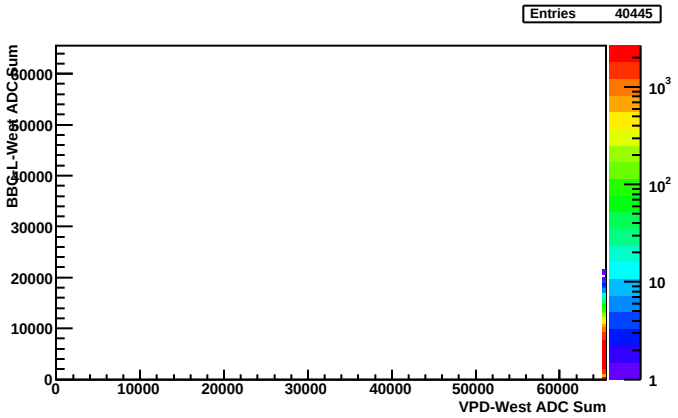

Entries 40445
TOF Mult
ZDC-East ADC Sum Att

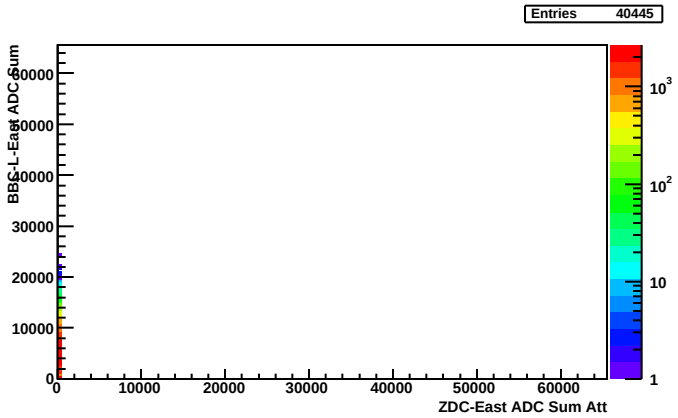

Entries 40445
TOF Mult
ZDC-West ADC Sum Att

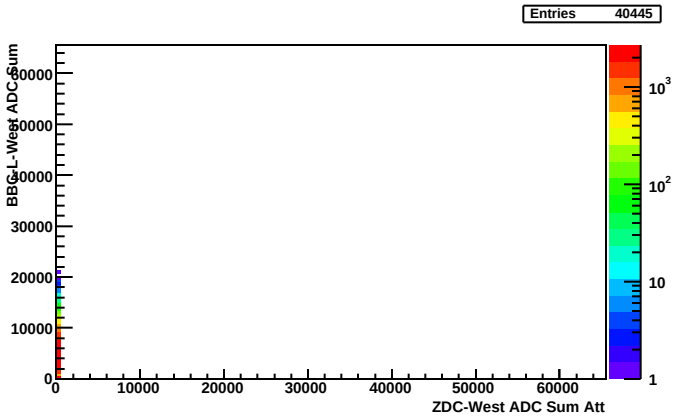

Entries 40445
BBC-L-East ADC Sum
BBC-S-East ADC Sum

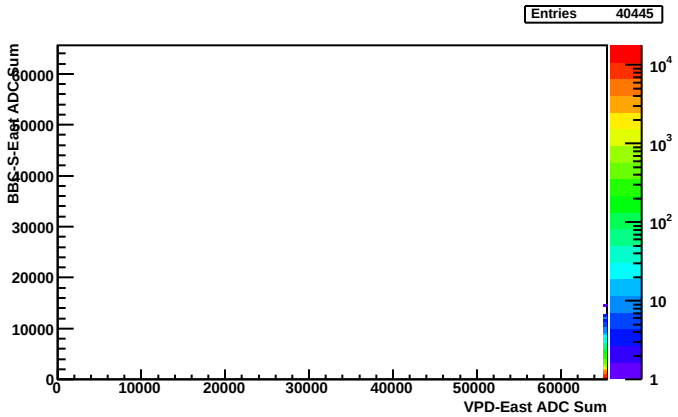

Entries 40445
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 40445
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 40445
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 40445
BBC-L-East ADC Sum
ZDC-East ADC Sum Att


Entries 40445
BBC-L-West ADC Sum
ZDC-West ADC Sum Att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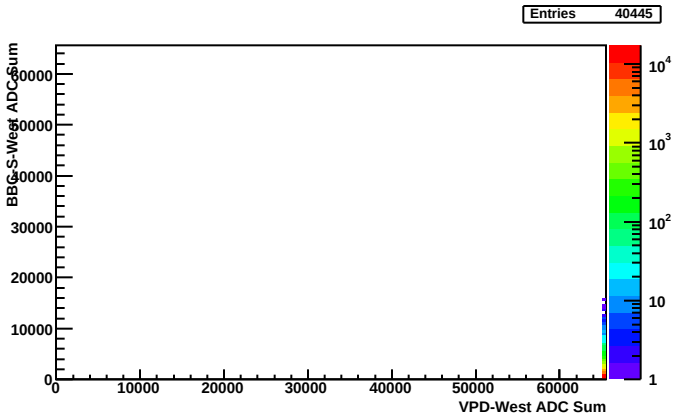
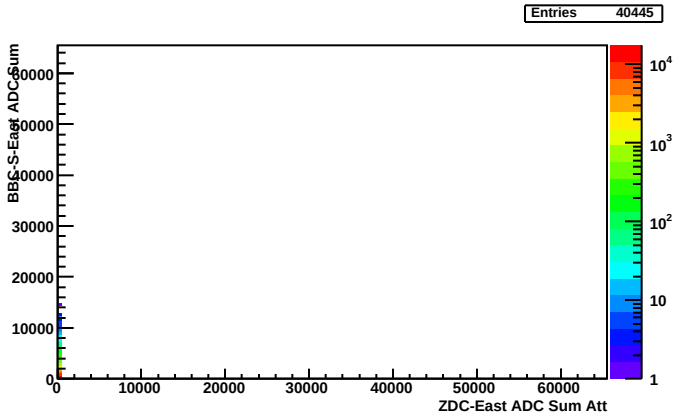
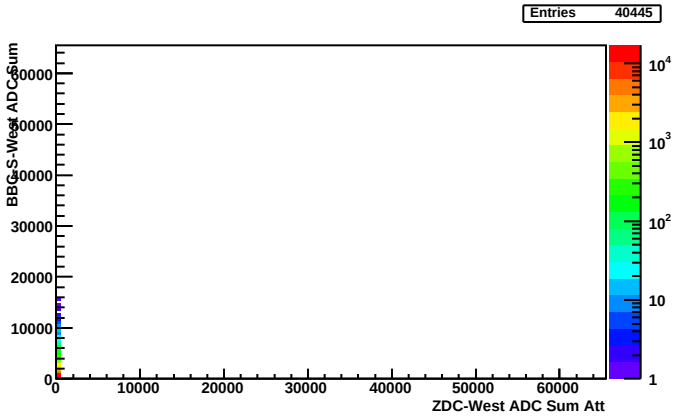
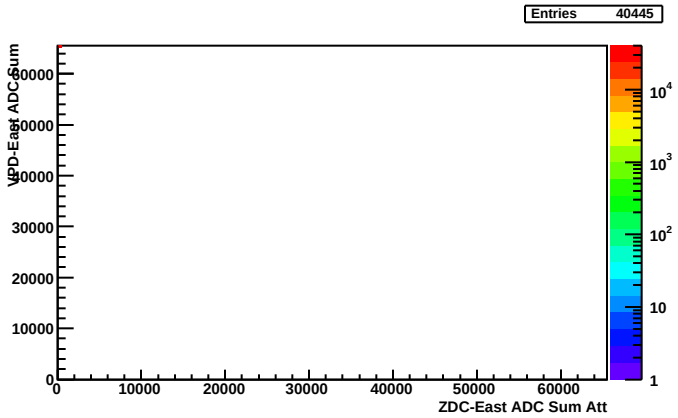
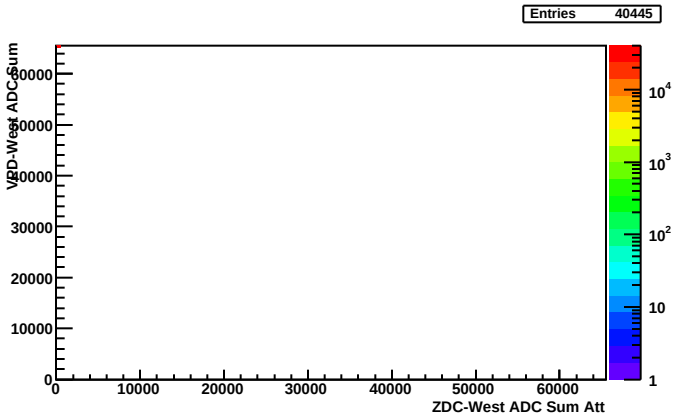
BBC-S-East ADC Sum
VPD-East ADC Sum

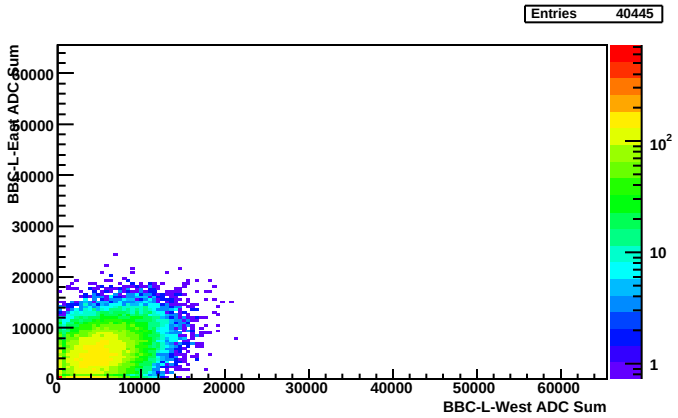

Entries 40445
BBC-S-West ADC Sum
VPD-West ADC Sum

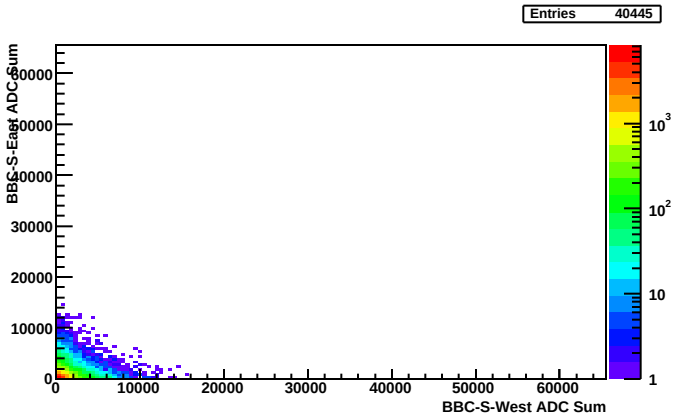

Entries 40445
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

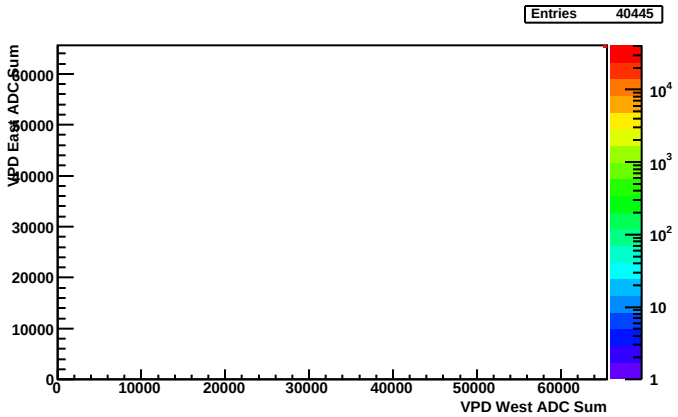

Entries 40445
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

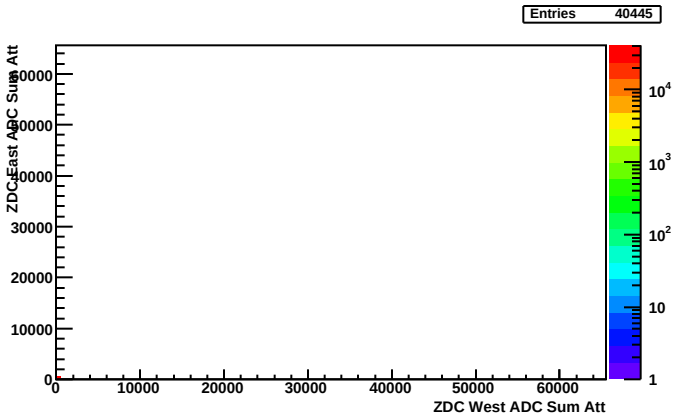

Entries 40445
VPD-East ADC Sum
ZDC-East ADC Sum Att

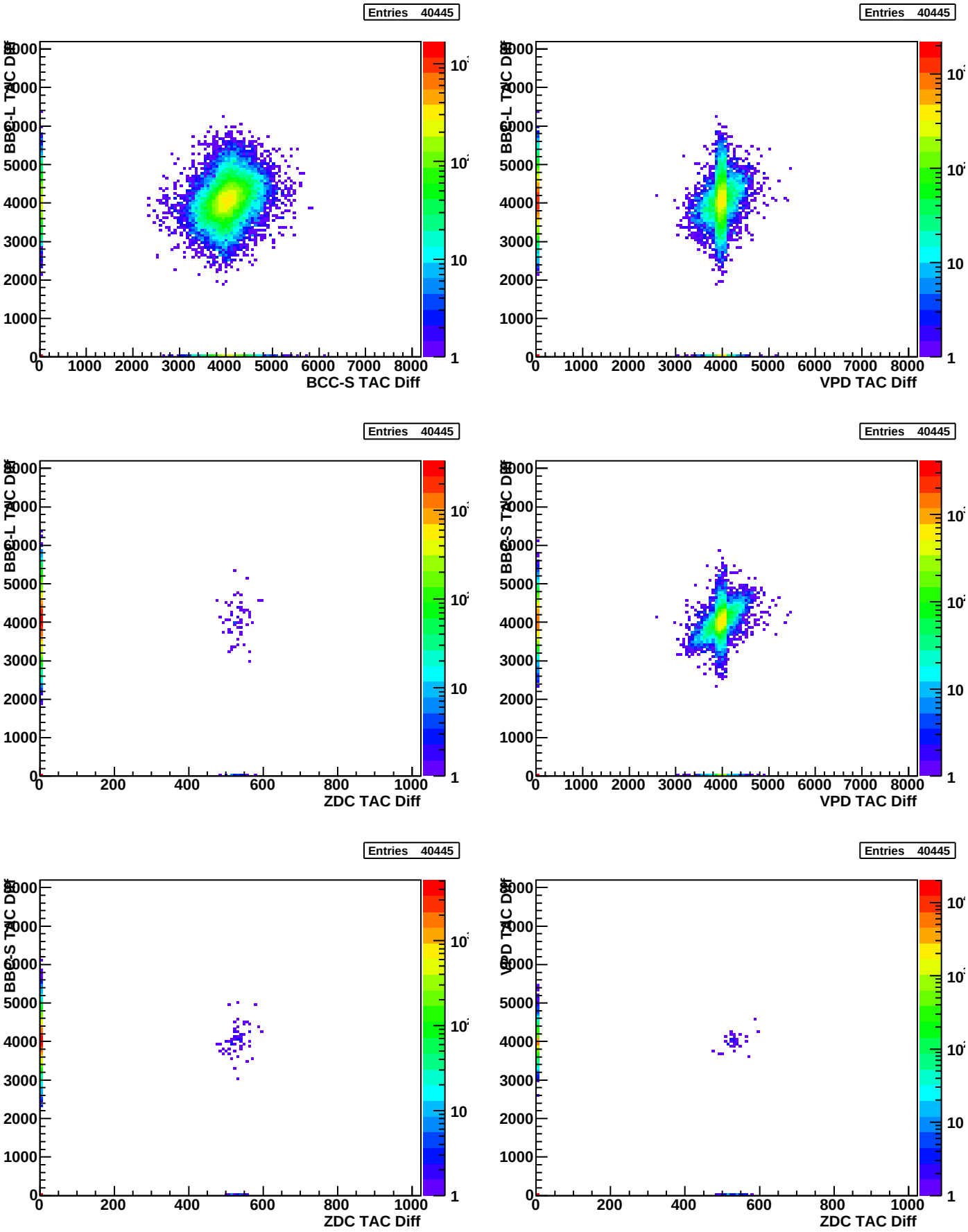

Entries 40445
VPD-West ADC Sum
ZDC-West ADC Sum Att

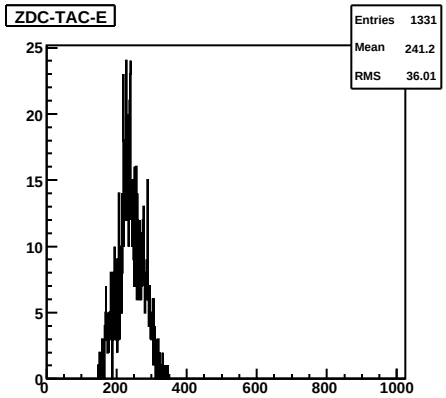

Entries 40445
BBC-L-East ADC Sum
BBC-L-West ADC Sum

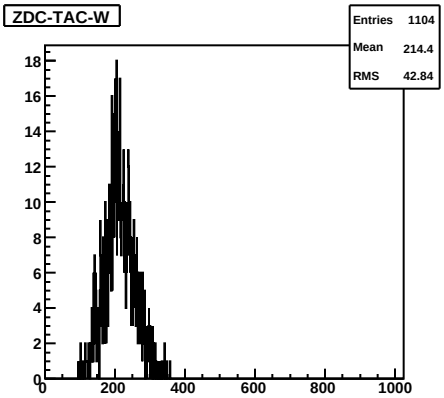

Entries 40445
BBC-S-East ADC Sum
BBC-S-West ADC Sum

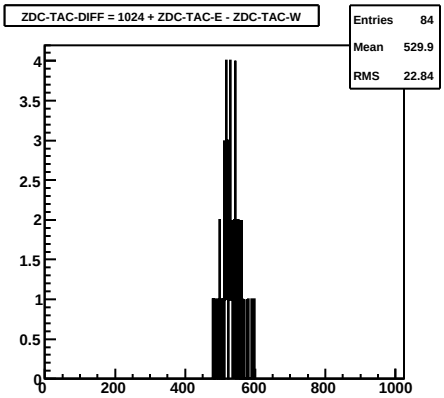

Entries 40445
VPD East ADC Sum
VPD West ADC Sum

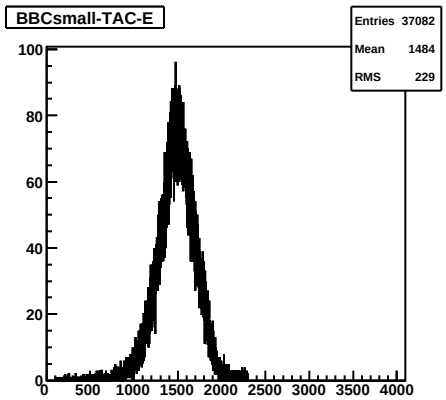

Entries 40445
ZDC East ADC Sum Att
ZDC West ADC Sum Att

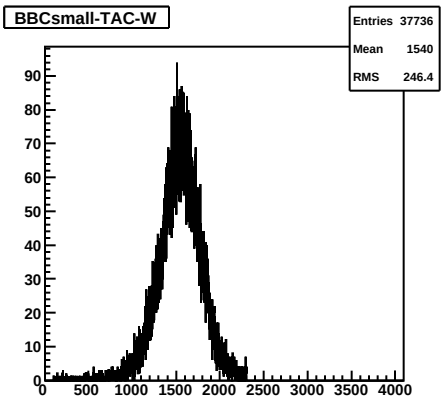

Entries 40445
BBC-L TAC Diff
BCC-S TAC Diff
Entries 40445
BBC-L TAC Diff
VPD TAC Diff
Entries 40445
BBC-L TAC Diff
ZDC TAC Diff
Entries 40445
BBC-S TAC Diff
VPD TAC Diff
Entries 40445
BBC-S TAC Diff
ZDC TAC Diff
Entries 40445
VPD TAC Diff
ZDC TAC Diff

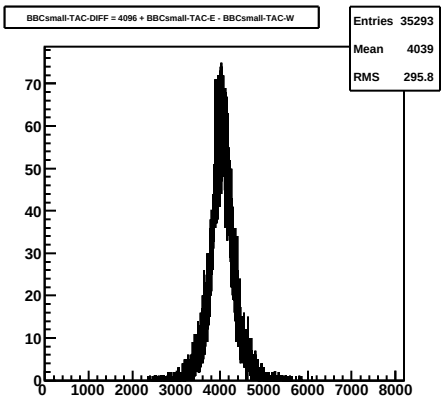

ZDC-TAC-E
Entries 1331
Mean 241.2
RMS 36.01

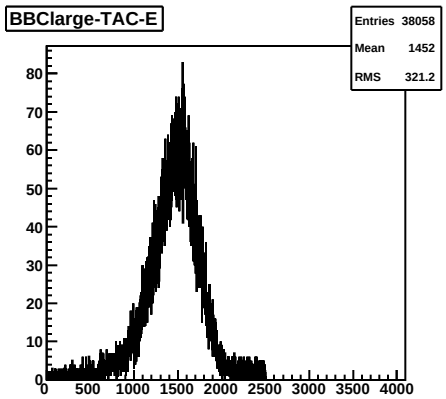

ZDC-TAC-W
Entries 1104
Mean 214.4
RMS 42.84

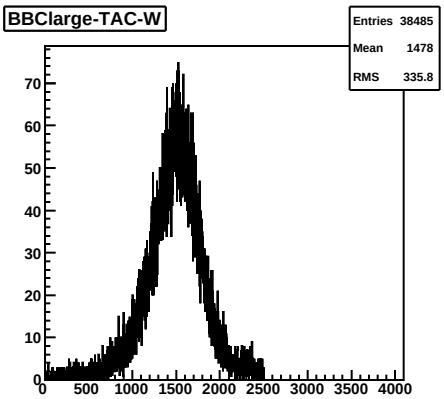

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 84
Mean 529.9
RMS 22.84

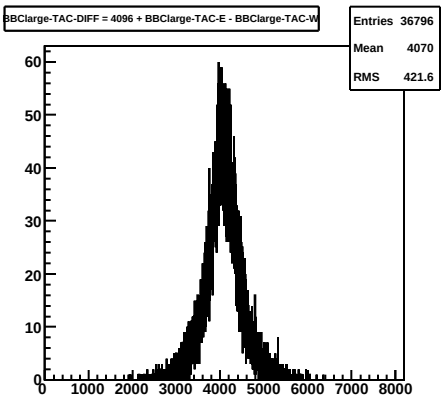

BBCsmall-TAC-E
Entries 37082
Mean 1484
RMS 229

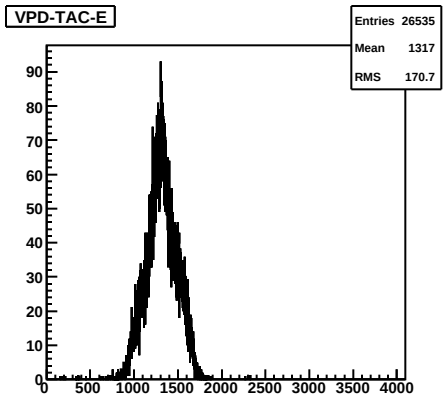

BBCsmall-TAC-W
Entries 37736
Mean 1540
RMS 246.4

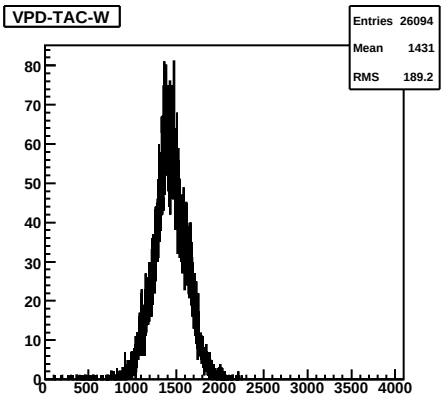

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 35293
Mean 4039
RMS 295.8

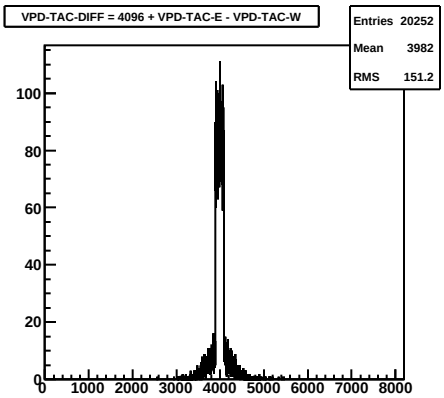

BBClarge-TAC-E
Entries 38058
Mean 1452
RMS 321.2

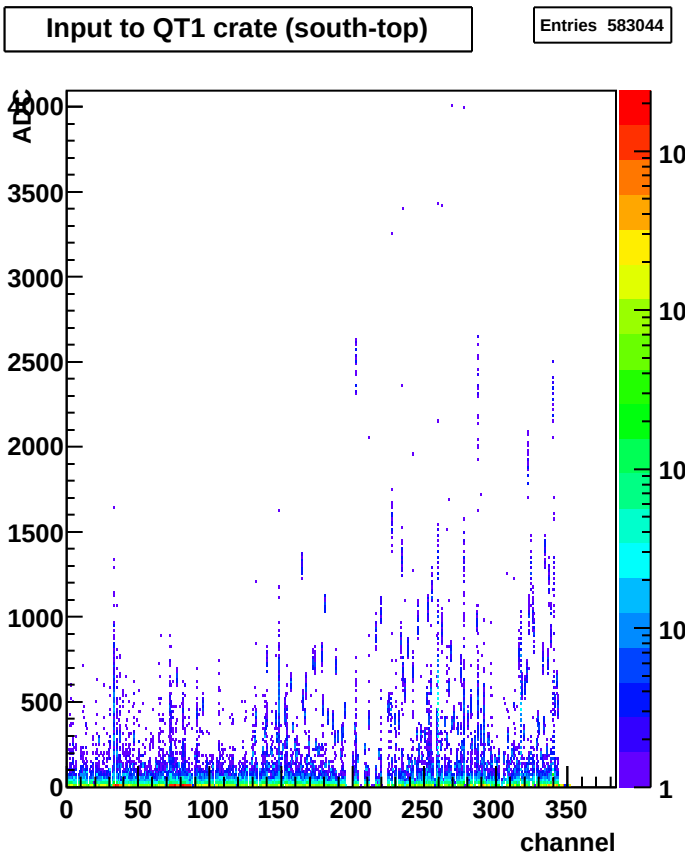

BBClarge-TAC-W
Entries 38485
Mean 1478
RMS 335.8

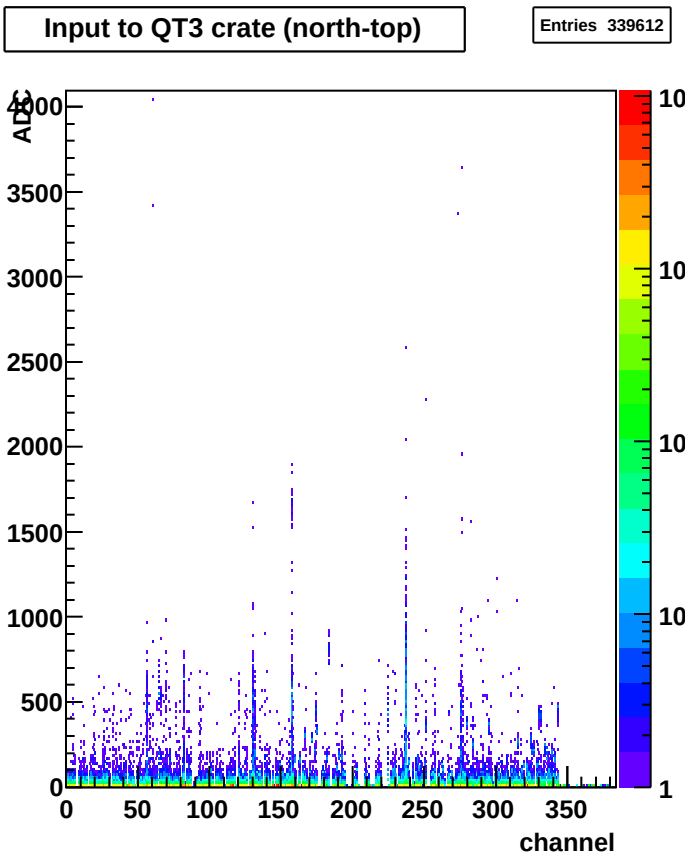

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 36796
Mean 4070
RMS 421.6

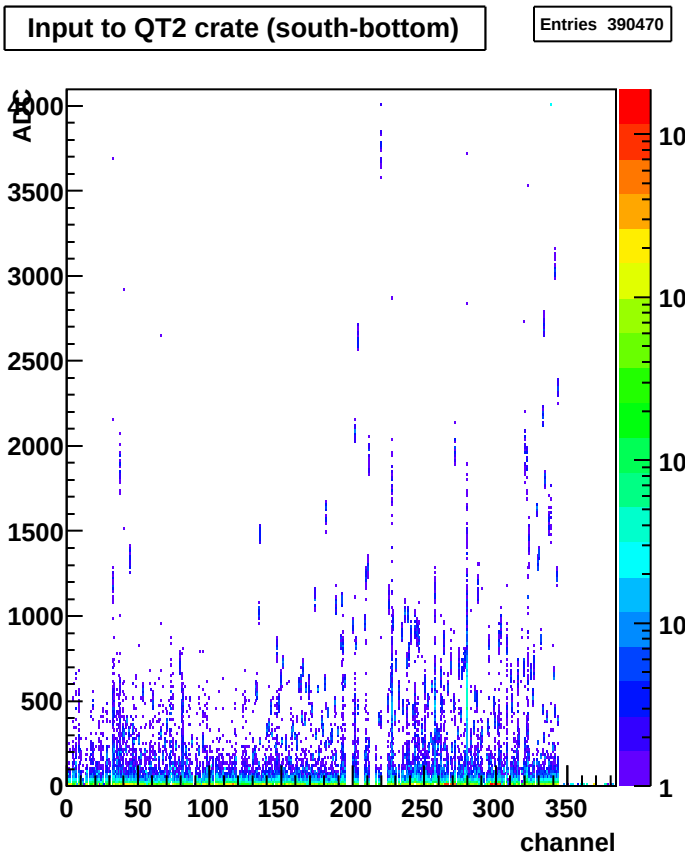

VPD-TAC-E
Entries 26535
Mean 1317
RMS 170.7

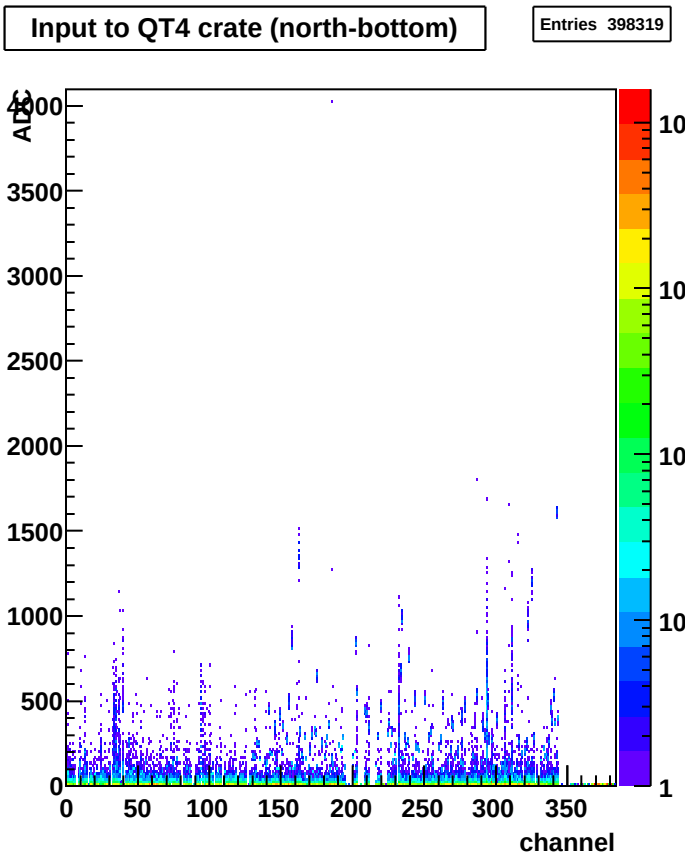

VPD-TAC-W
Entries 26094
Mean 1431
RMS 189.2

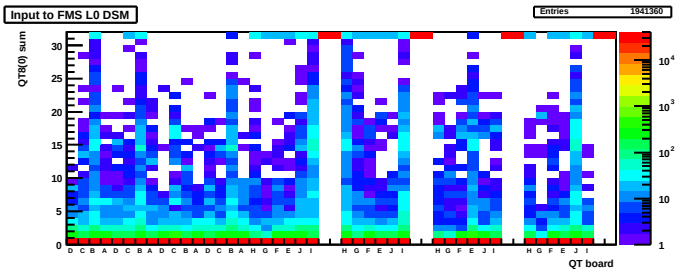

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 20252
Mean 3982
RMS 151.2

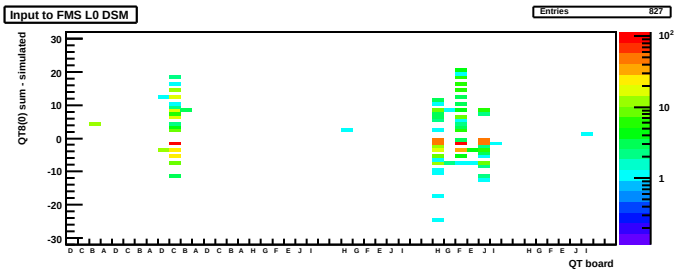

Input to QT1 crate (south-top)
Entries 583044
ADC
channel

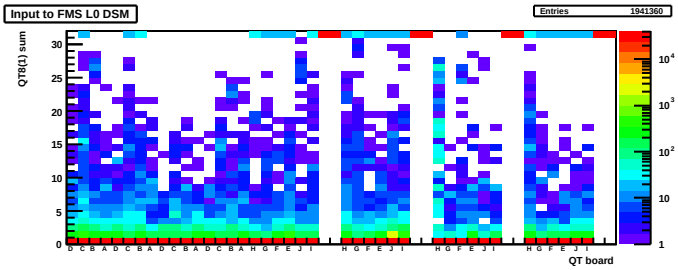

Input to QT3 crate (north-top)
Entries 339612
ADC
channel

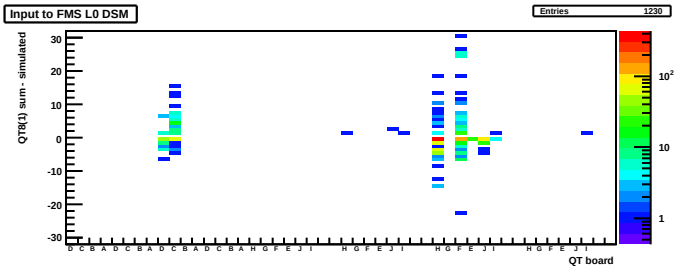

Input to QT2 crate (south-bottom)
Entries 390470
ADC
channel

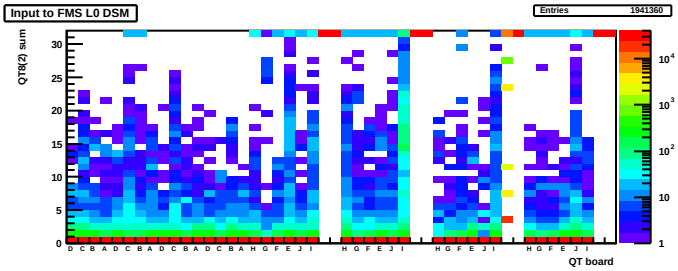

Input to QT4 crate (north-bottom)
Entries 398319
ADC
channel

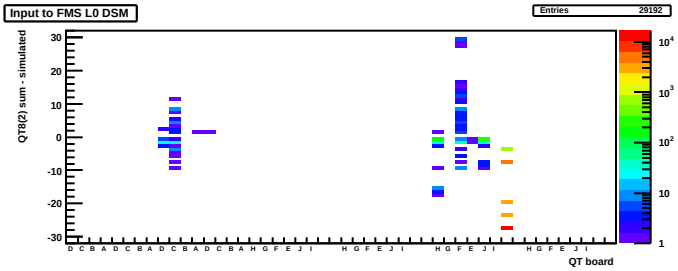

Input to FMS L0 DSM
Entries 1941360
QT8(0) sum
QT board

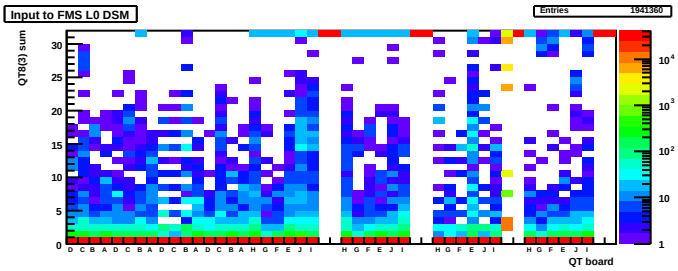

Input to FMS L0 DSM
Entries 827
QT8(0) sum - simulated
QT board

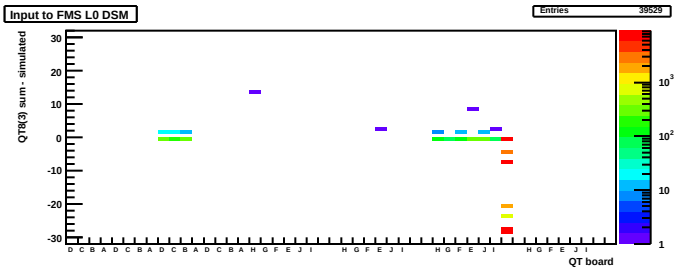

Input to FMS L0 DSM
Entries 1941360
QT8(1) sum
QT board

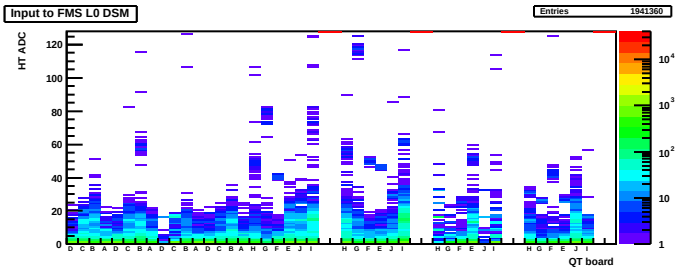

Input to FMS L0 DSM
Entries 1230
QT8(1) sum - simulated
QT board

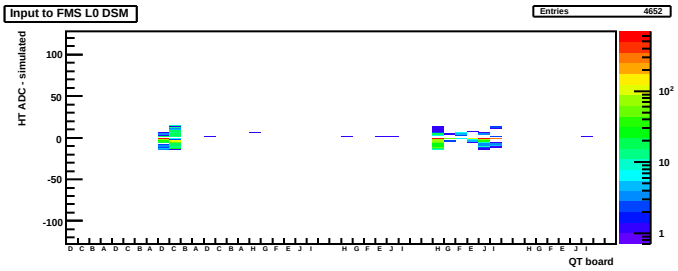

Input to FMS L0 DSM
Entries 1941360
QT8(2) sum
QT board

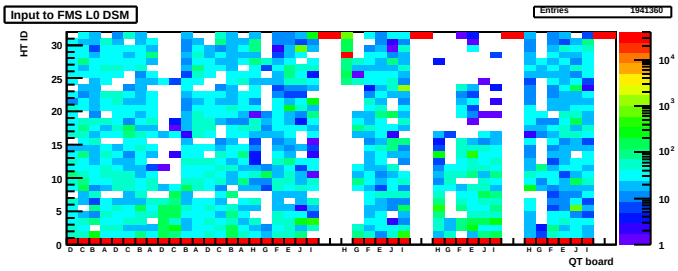

Input to FMS L0 DSM
Entries 29192
QT8(2) sum - simulated
QT board

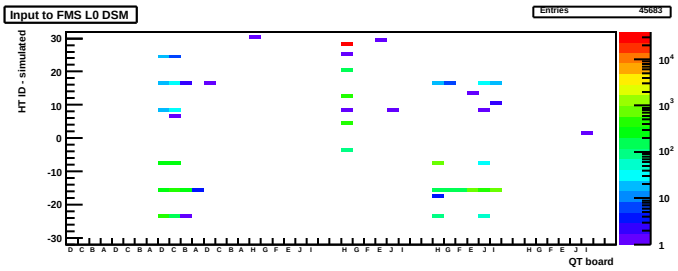

Input to FMS L0 DSM
Entries 1941360
QT8(3) sum
QT board

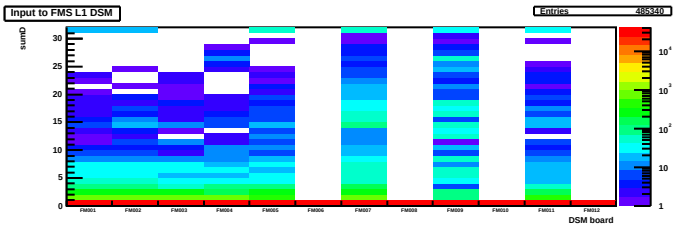

Input to FMS L0 DSM
Entries 39529
QT8(3) sum - simulated
QT board

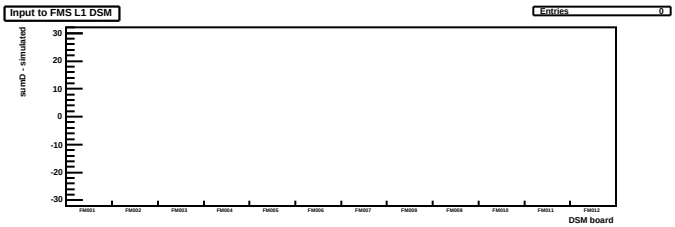

Input to FMS L0 DSM
Entries 1941360
HT ADC
QT board

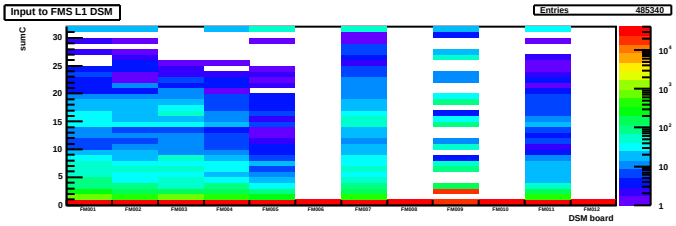

Input to FMS L0 DSM
Entries 4652
HT ADC - simulated
QT board

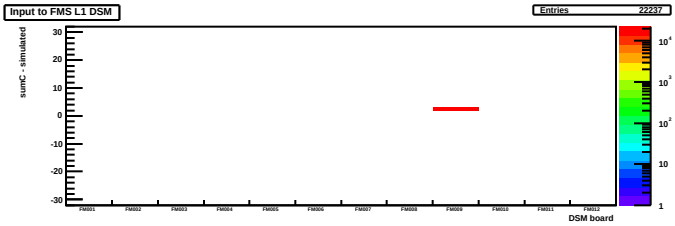

Input to FMS L0 DSM
Entries 1941360
HT ID
QT board

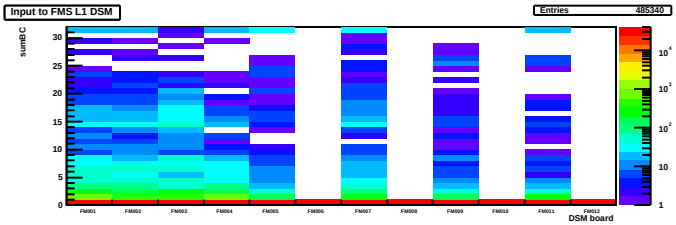

Input to FMS L0 DSM
Entries 45683
HT ID - simulated
QT board

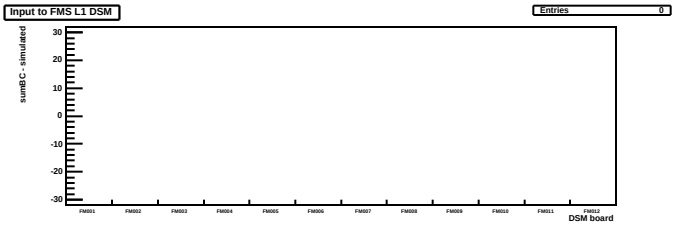

Input to FMS L1 DSM
Entries 485340
sumD
DSM board

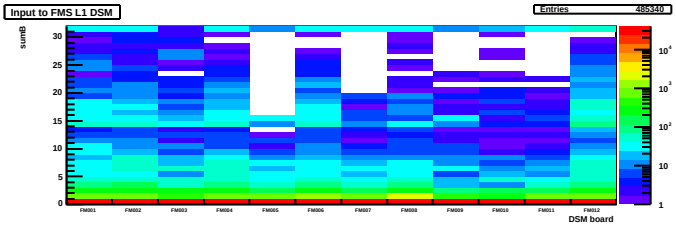

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

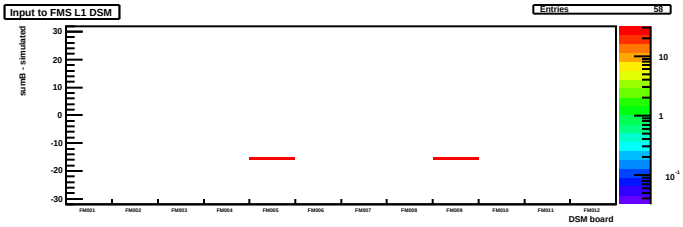

Input to FMS L1 DSM
Entries 485340
sumC
DSM board

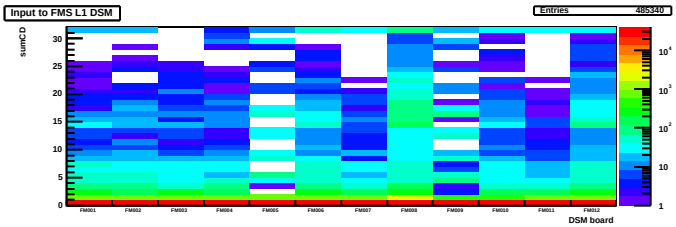

Input to FMS L1 DSM
Entries 22237
sumC - simulated
DSM board

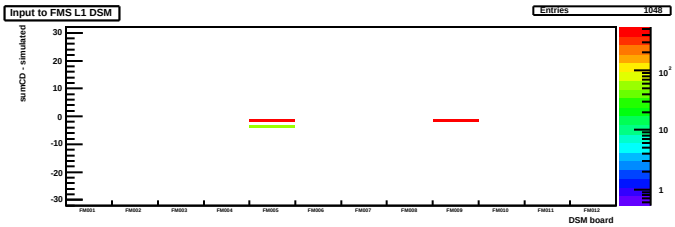

Input to FMS L1 DSM
Entries 485340
sumBC
DSM board

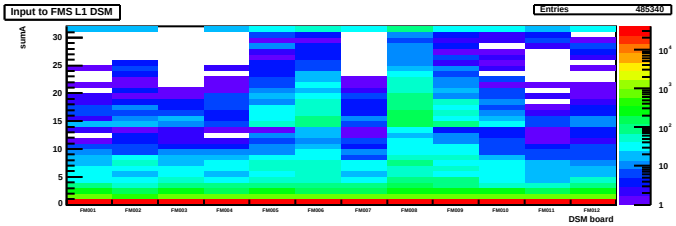

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

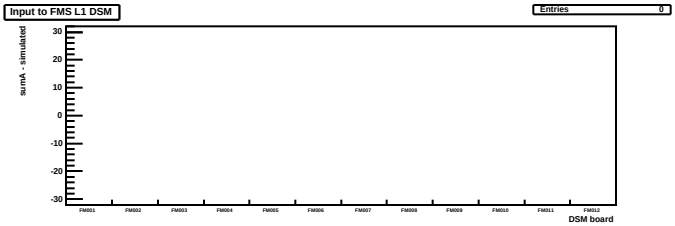

Input to FMS L1 DSM
Entries 485340
sumB
DSM board

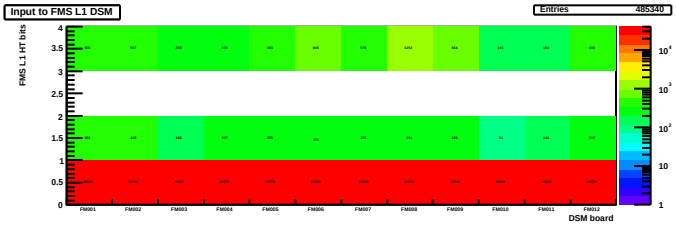

Input to FMS L1 DSM
Entries 58
sumB - simulated
DSM board

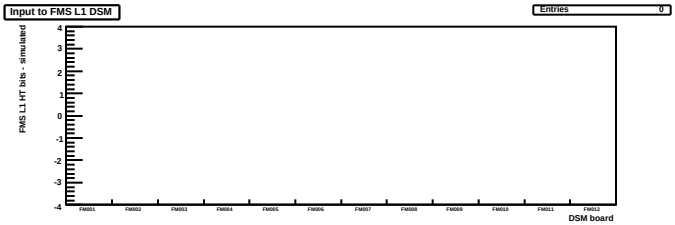

Input to FMS L1 DSM
Entries 485340
sumCD
DSM board

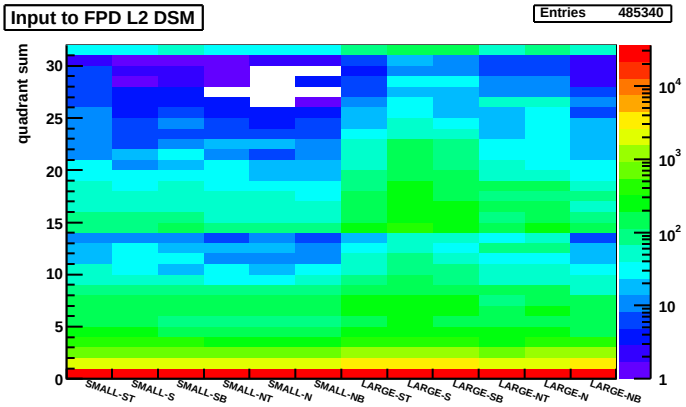

Input to FMS L1 DSM
Entries 1048
sumCD - simulated
DSM board

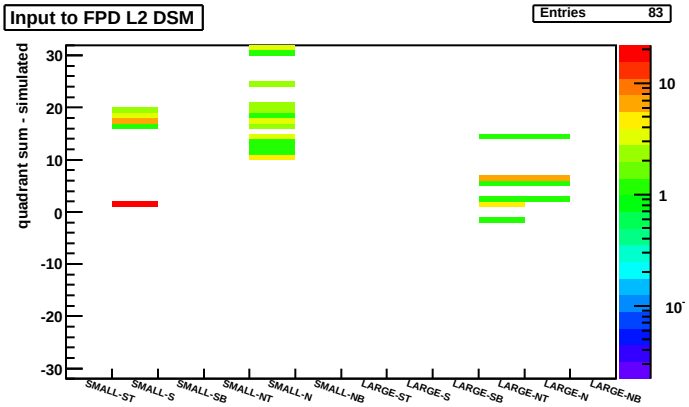

Input to FMS L1 DSM
Entries 485340
sumA
DSM board

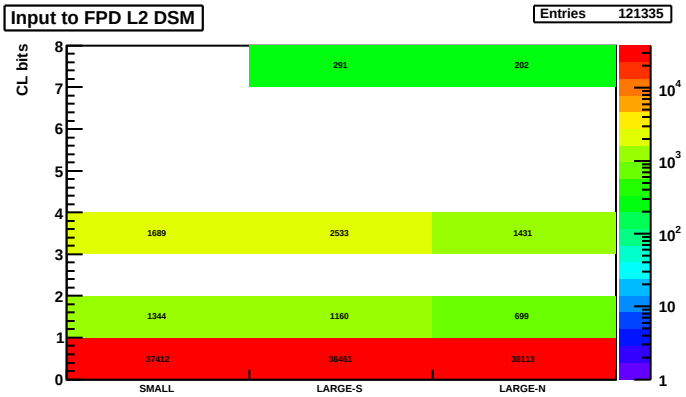

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

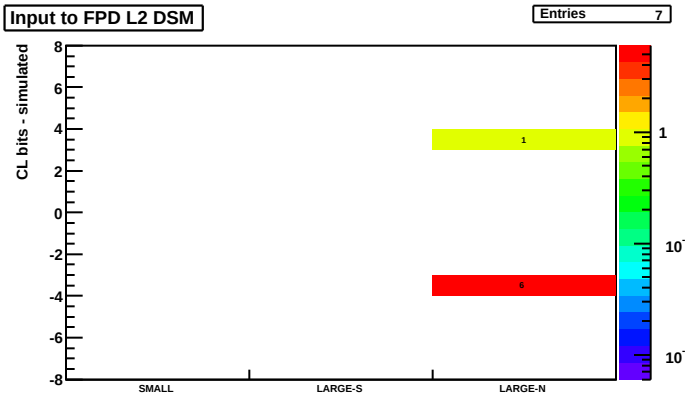

Input to FMS L1 DSM
Entries 485340
FMS L1 HT bits
DSM board

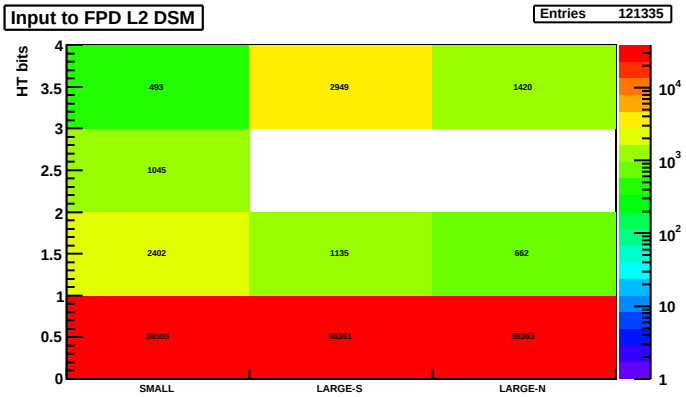

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

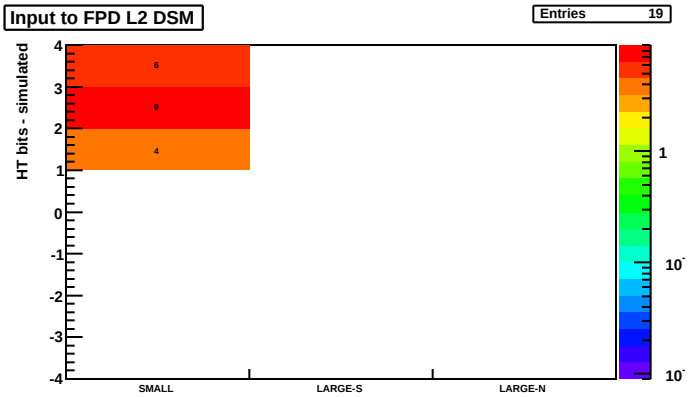

Input to FPD L2 DSM
Entries 485340
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

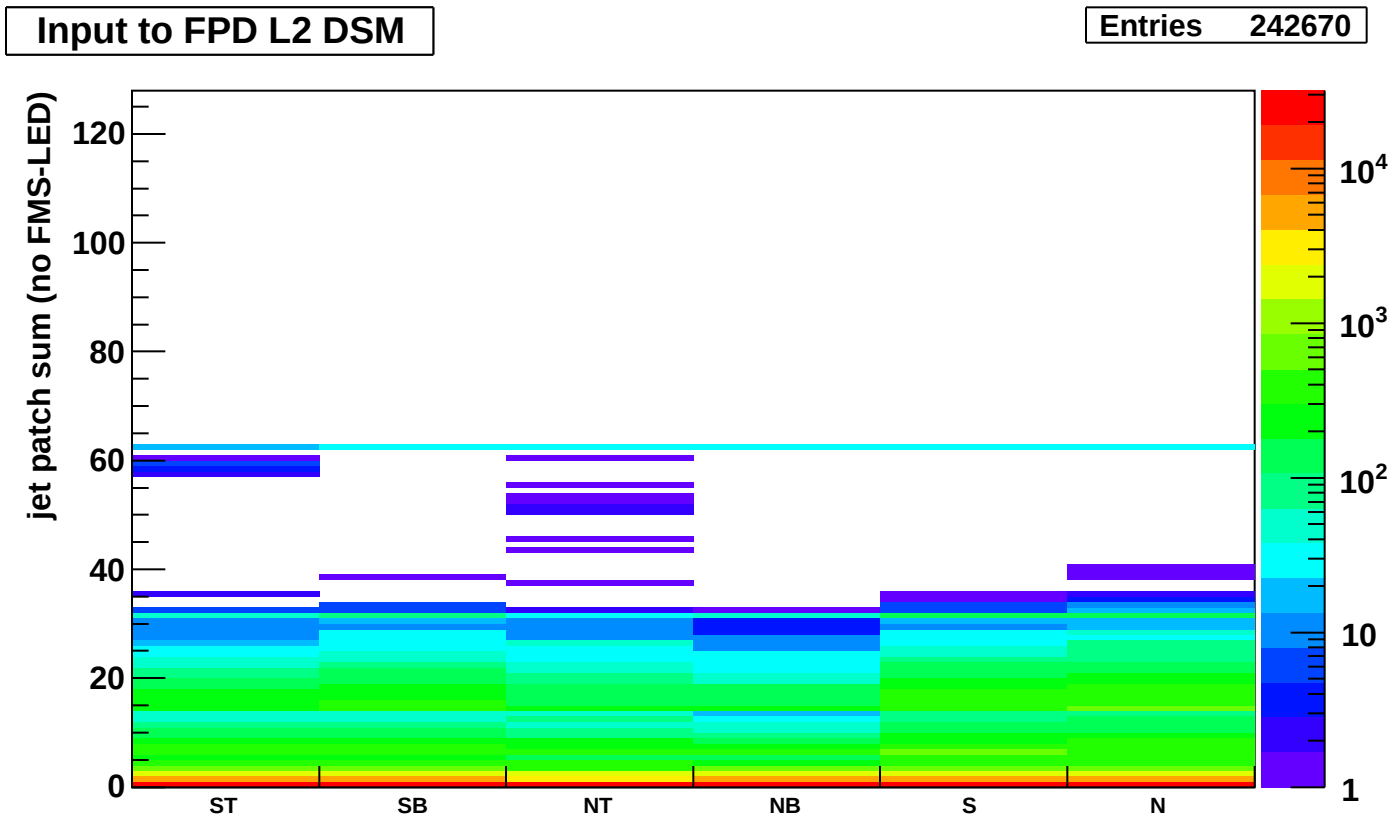

Input to FPD L2 DSM
Entries 83
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

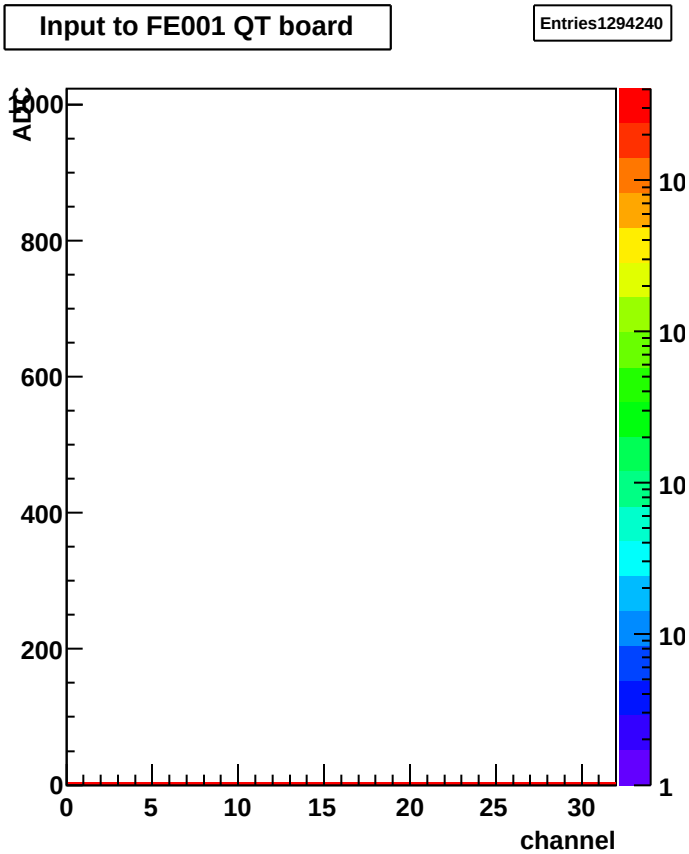

Input to FPD L2 DSM
Entries 121335
CL bits
291
202
1689
2533
1431
1344
1160
699
37412
36461
38113
SMALL
LARGE-S
LARGE-N

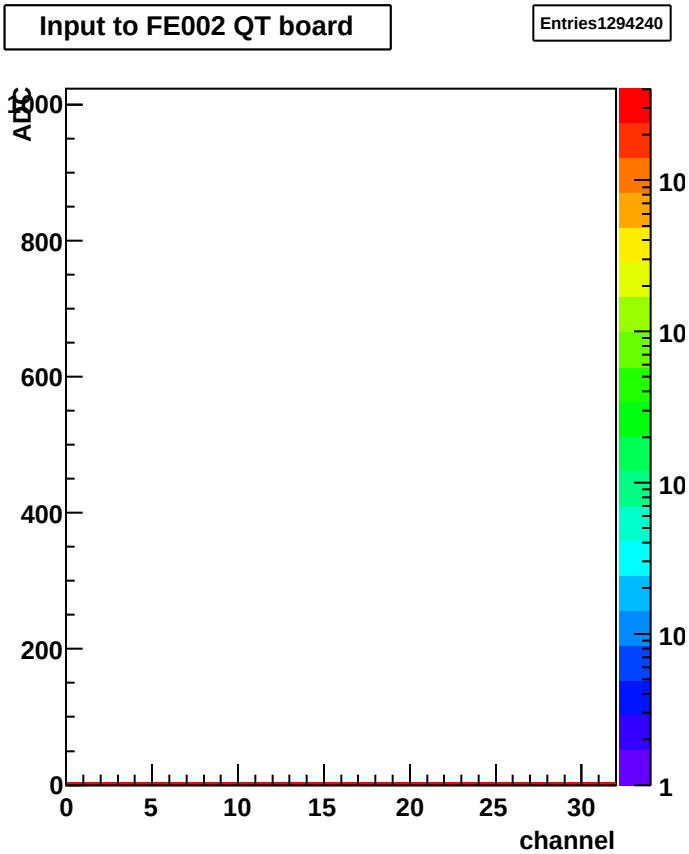

Input to FPD L2 DSM
Entries 7
CL bits - simulated
1
6
SMALL
LARGE-S
LARGE-N

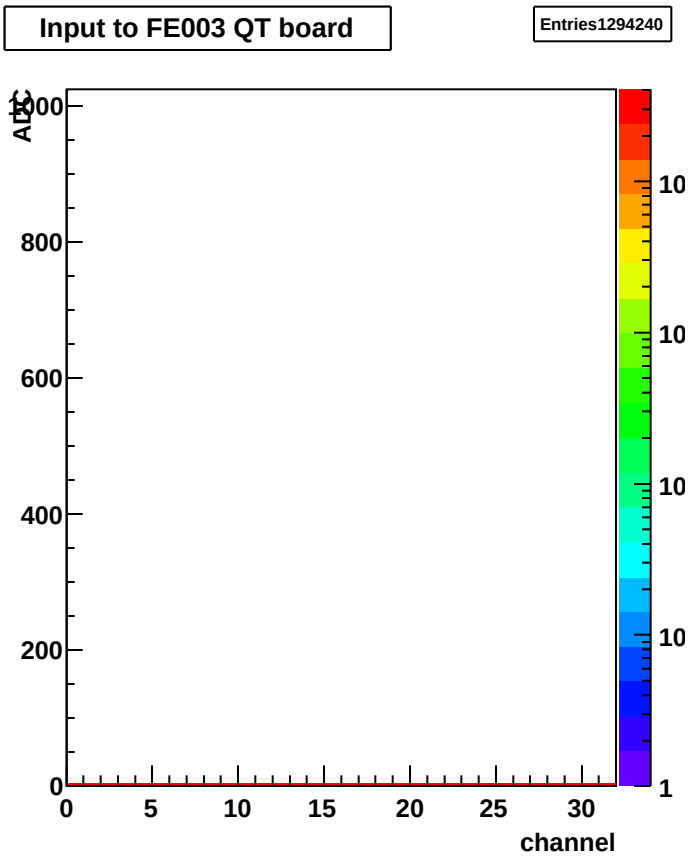

Input to FPD L2 DSM
Entries 121335
HT bits
493
2949
1420
1045
2402
1135
662
36505
36361
38363
SMALL
LARGE-S
LARGE-N

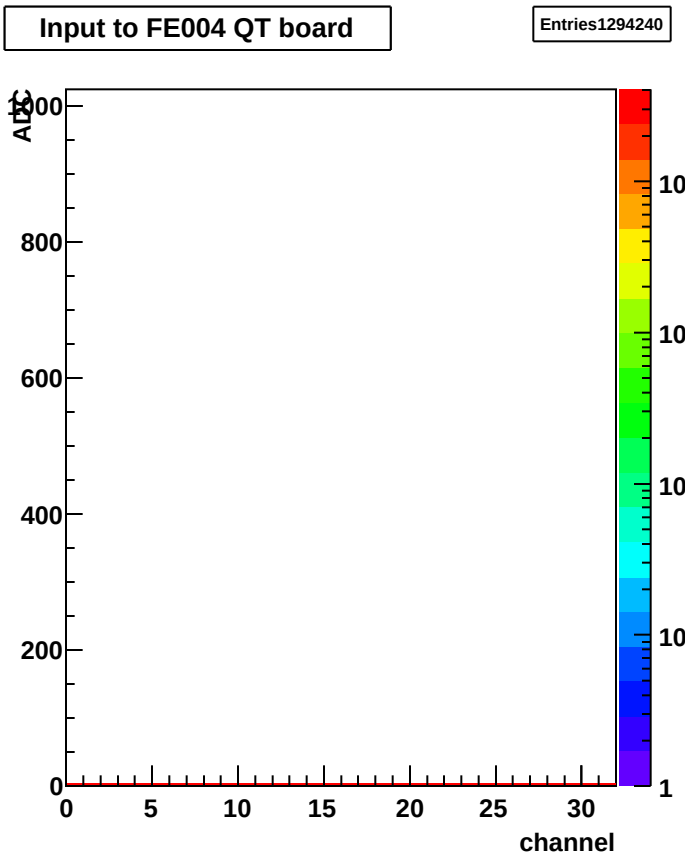

Input to FPD L2 DSM
Entries 19
HT bits - simulated
6
9
4
SMALL
LARGE-S
LARGE-N

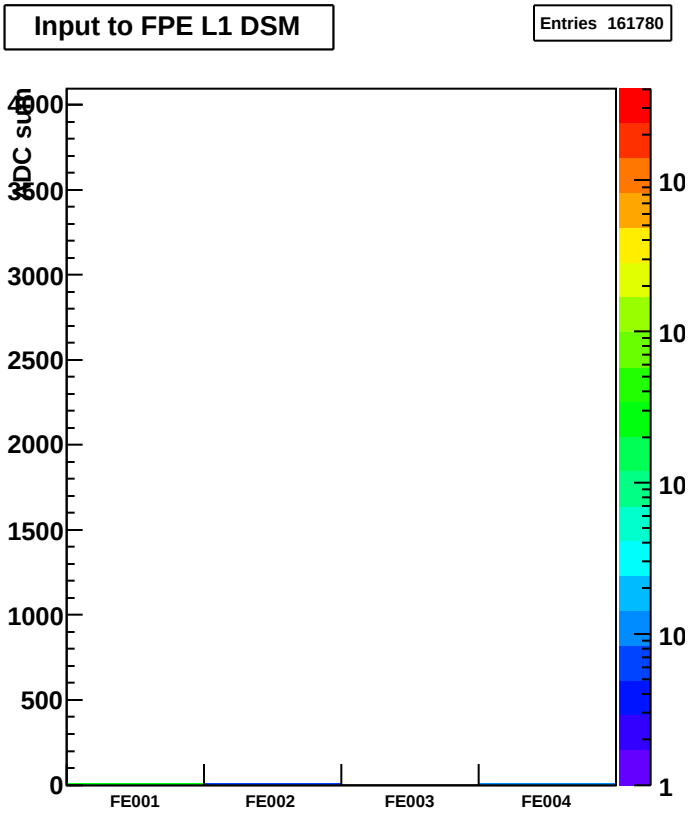

Input to FPD L2 DSM
Entries 242670
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

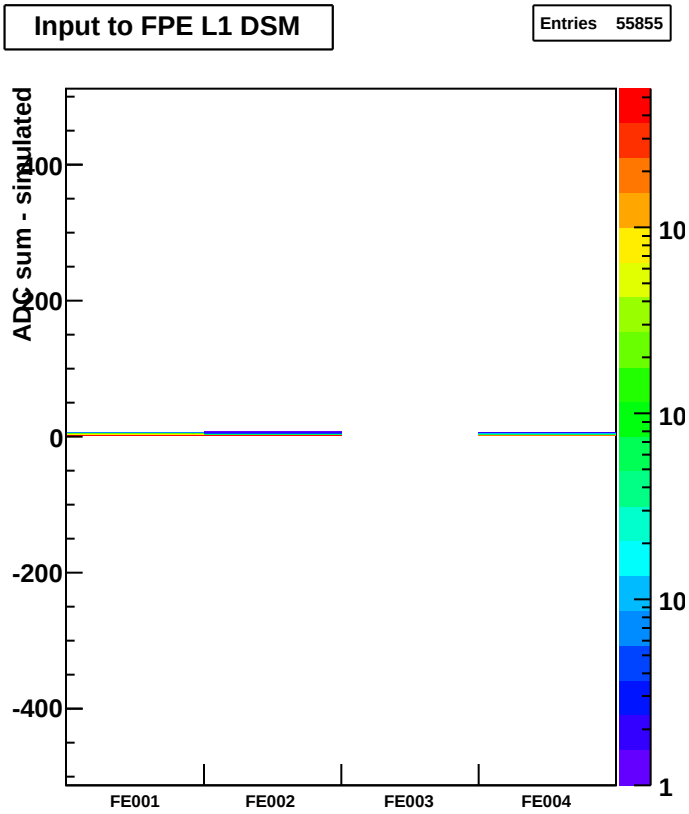

Input to FE001 QT board
Entries1294240
ADC
channel

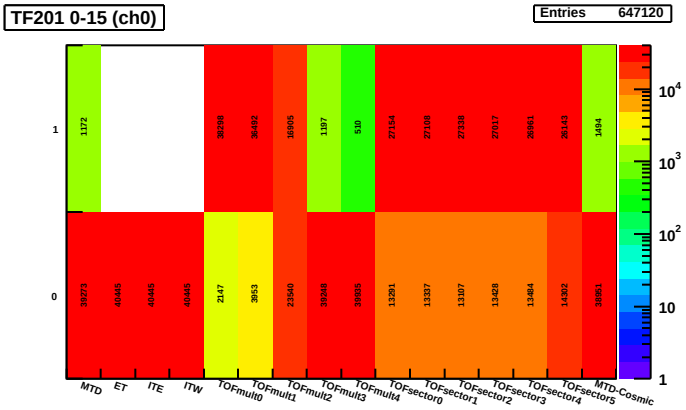

Input to FE002 QT board
Entries1294240
ADC
channel

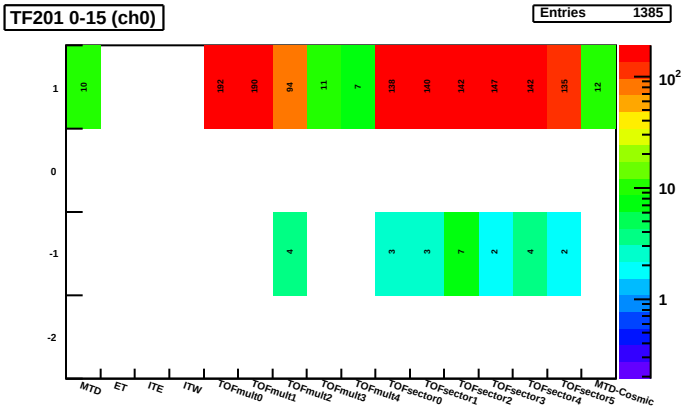

Input to FE003 QT board
Entries1294240
ADC
channel

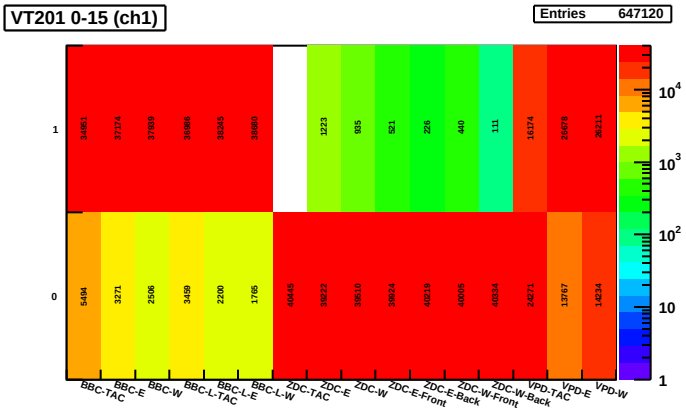

Input to FE004 QT board
Entries1294240
ADC
channel

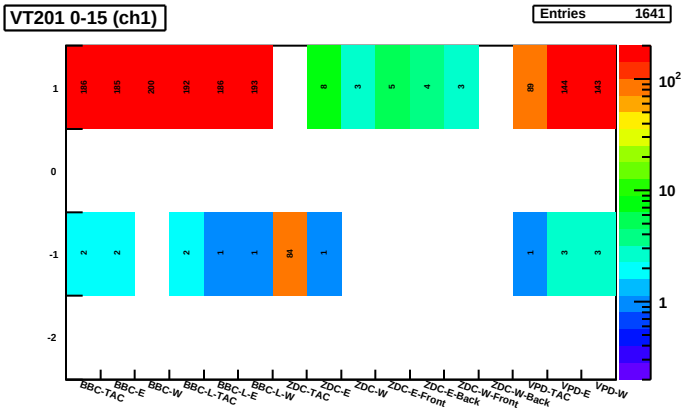

Input to FPE L1 DSM
Entries 161780
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

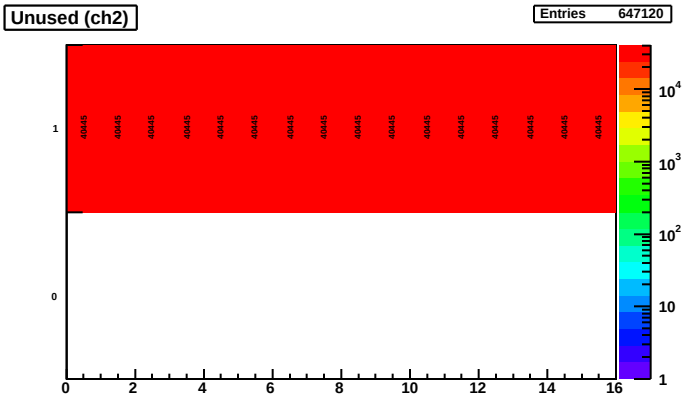

Input to FPE L1 DSM
Entries 55855
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
1

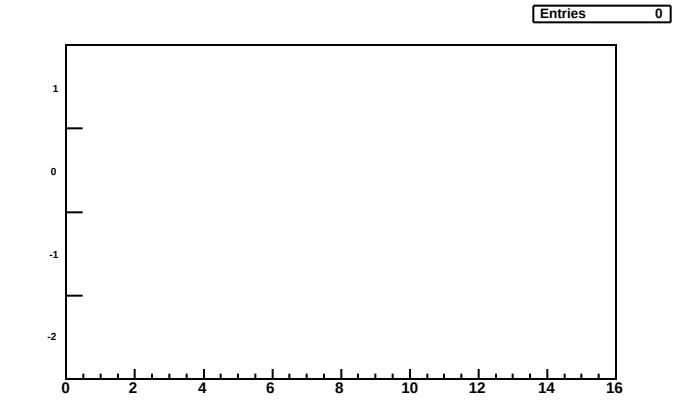

TF201 0-15 (ch0)
Entries 647120
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

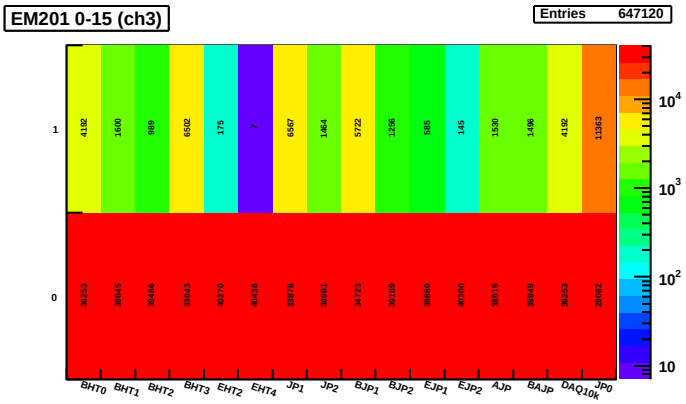

TF201 0-15 (ch0)
Entries 1385
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

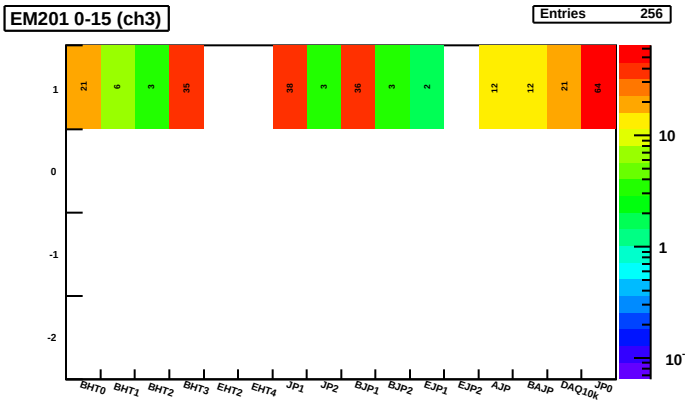

VT201 0-15 (ch1)
Entries 647120
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 1641
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

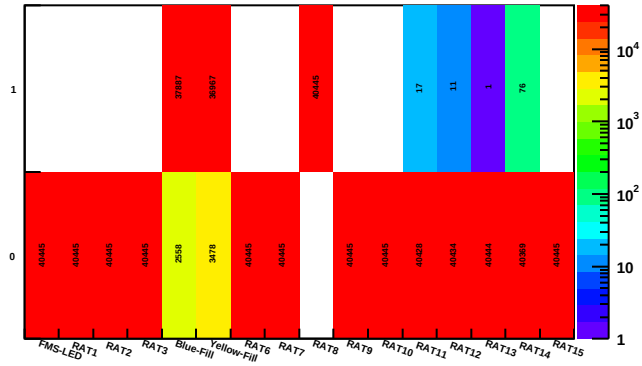

Unused (ch2)
Entries 647120

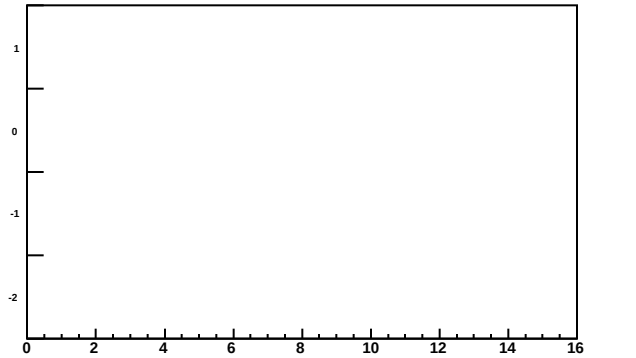

Entries 0


EM201 0-15 (ch3)
Entries 647120
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

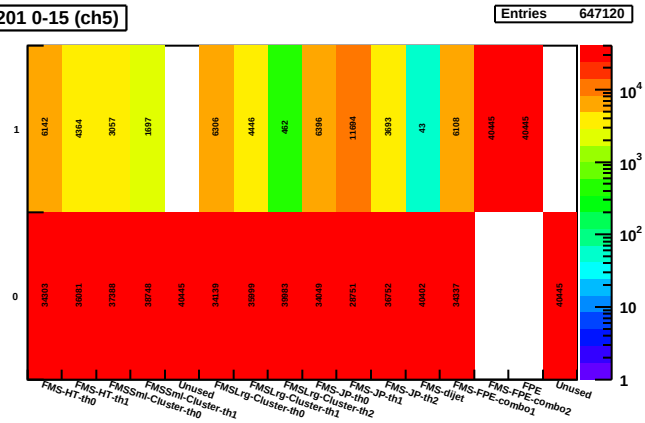

EM201 0-15 (ch3)
Entries 256
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

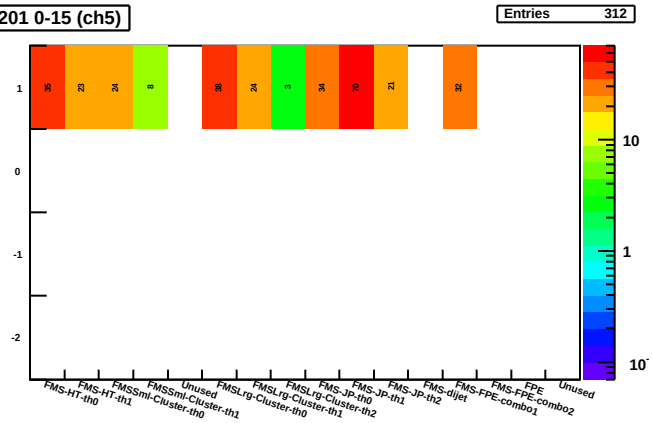




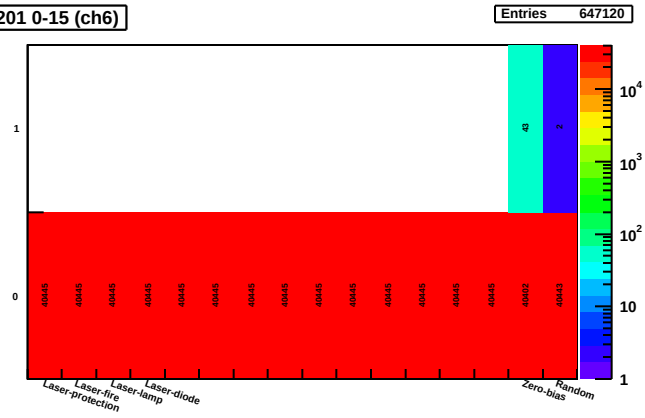
FP201 0-15 (ch5)

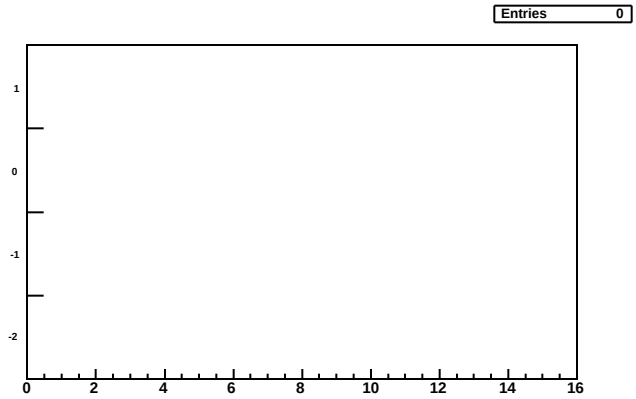
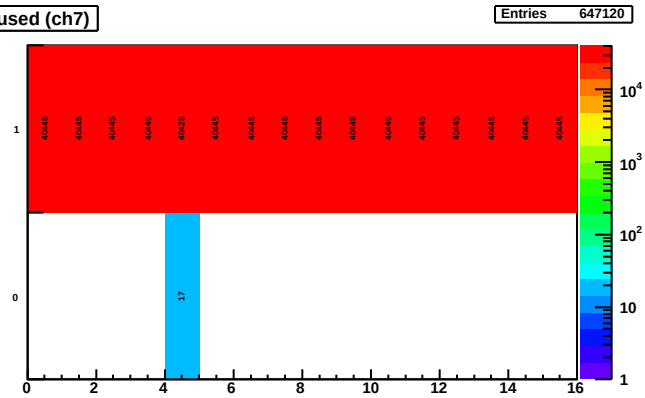
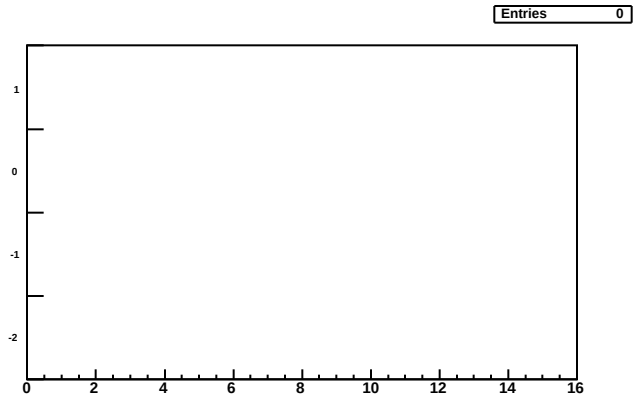


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)