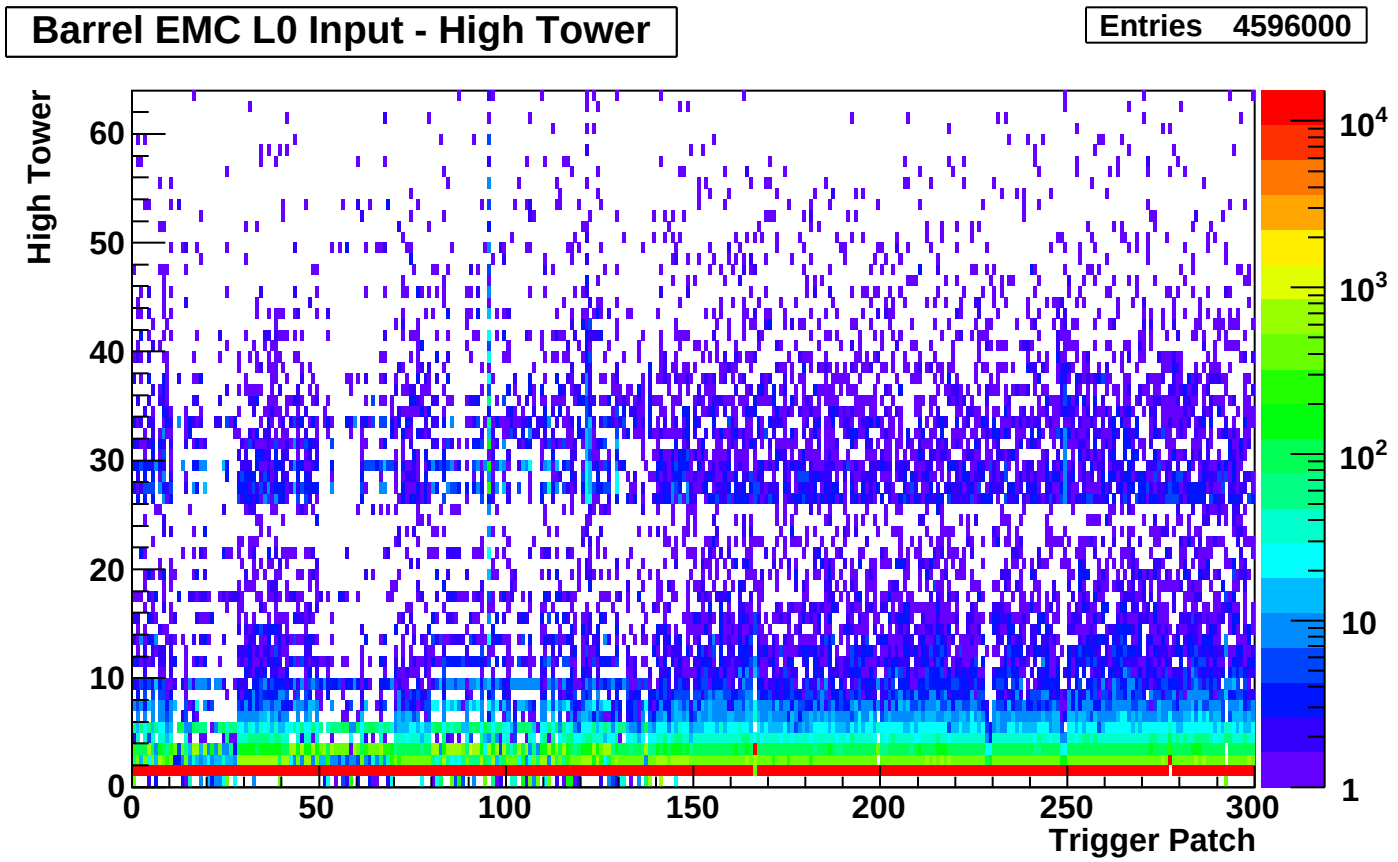
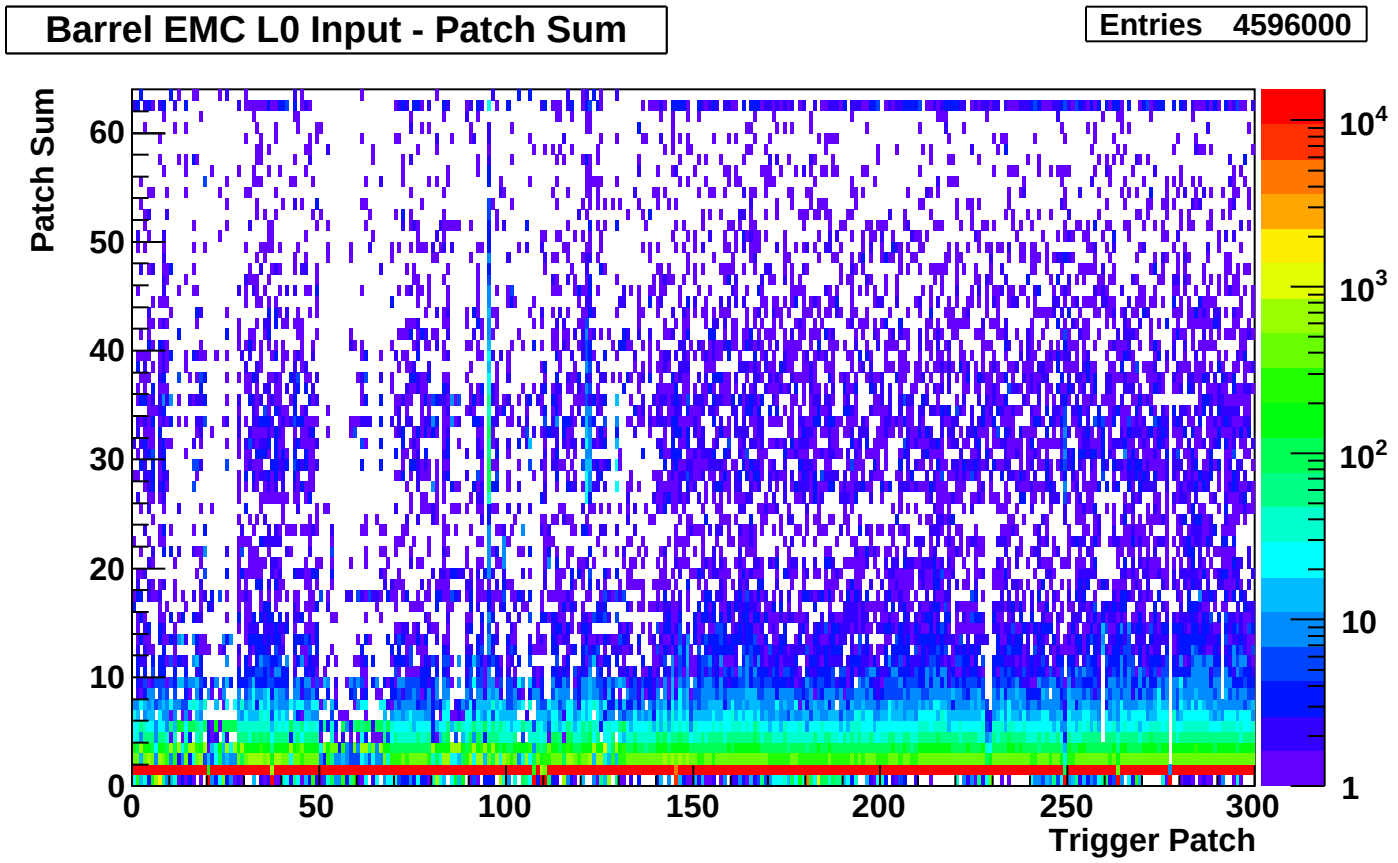
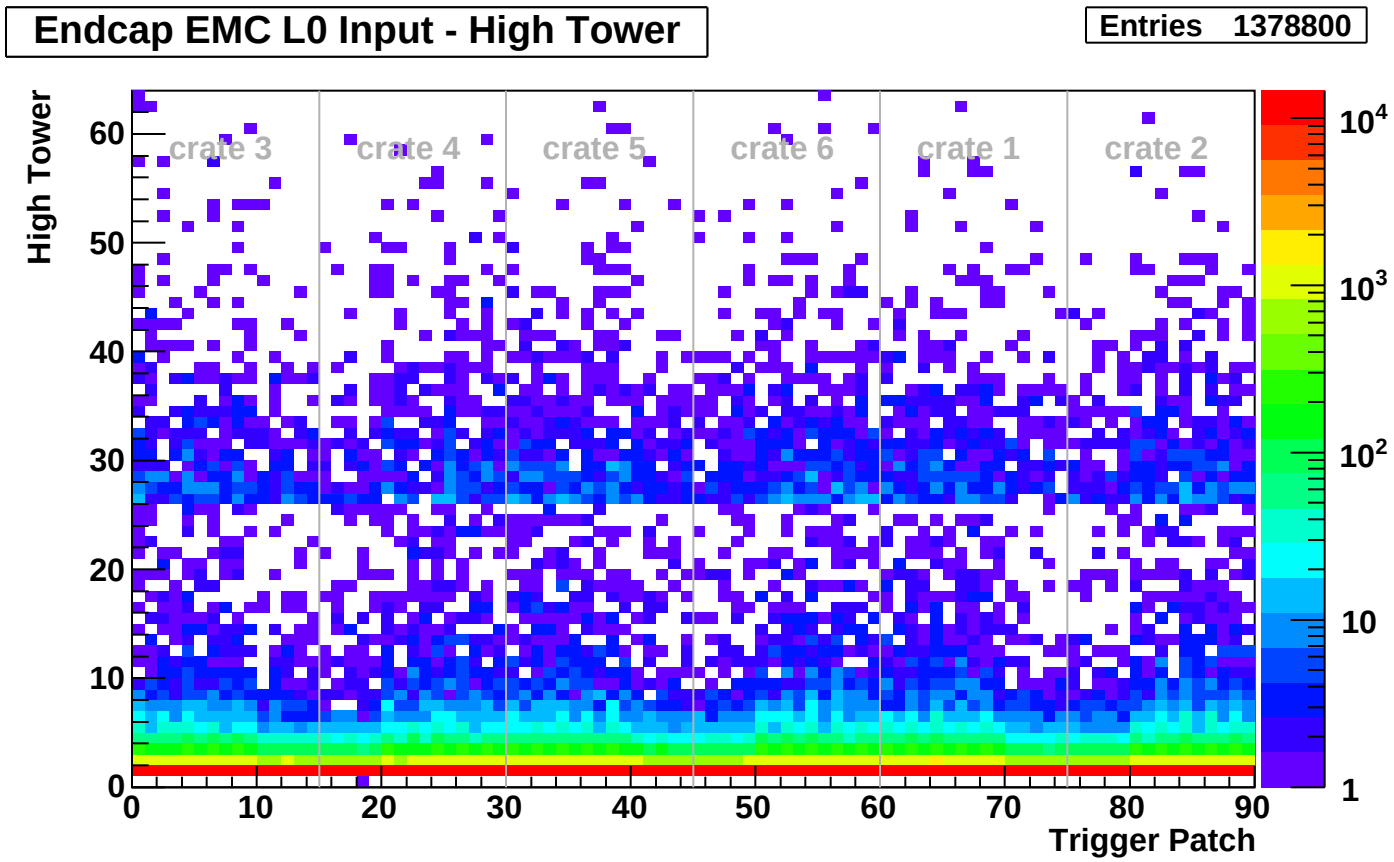
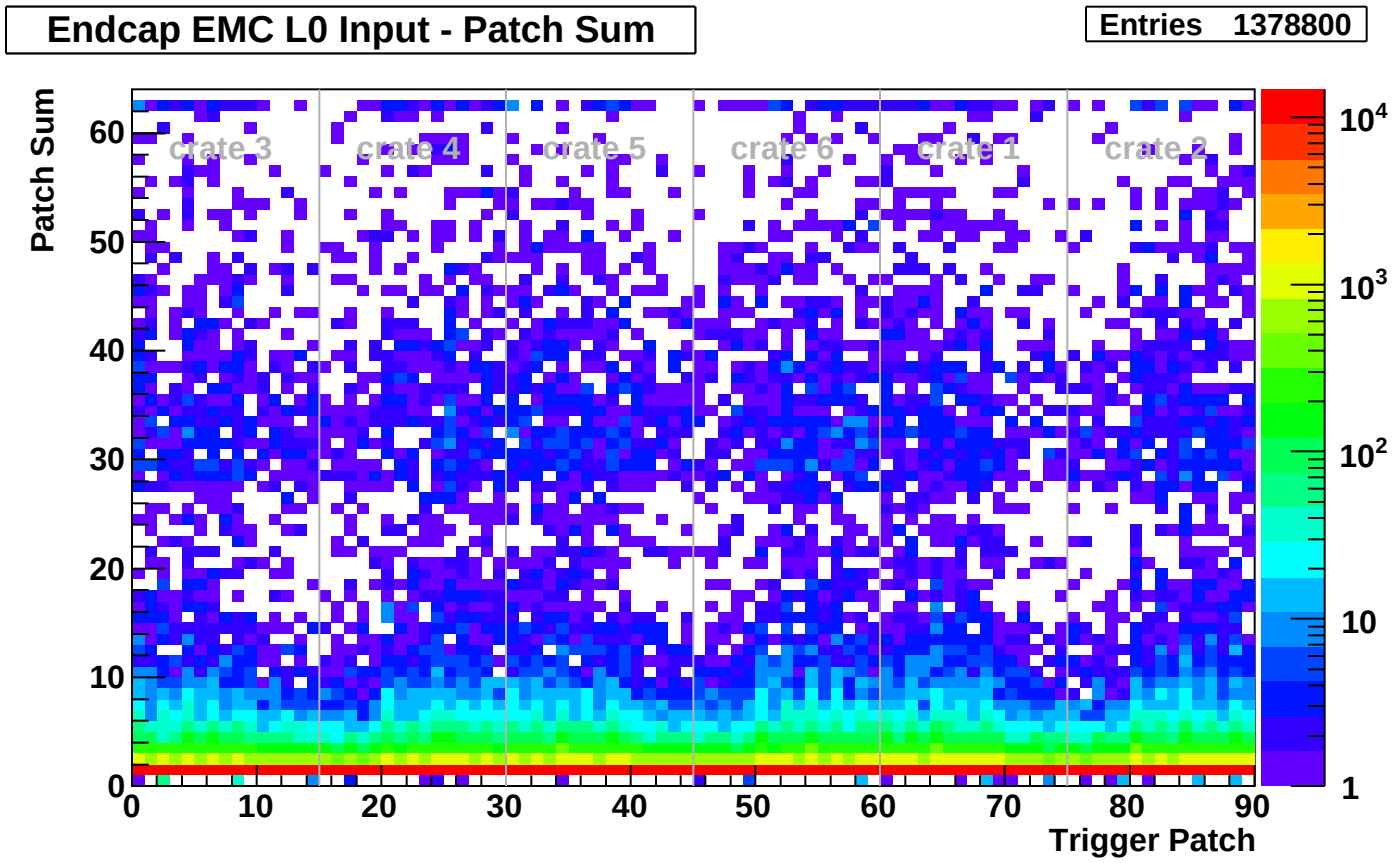
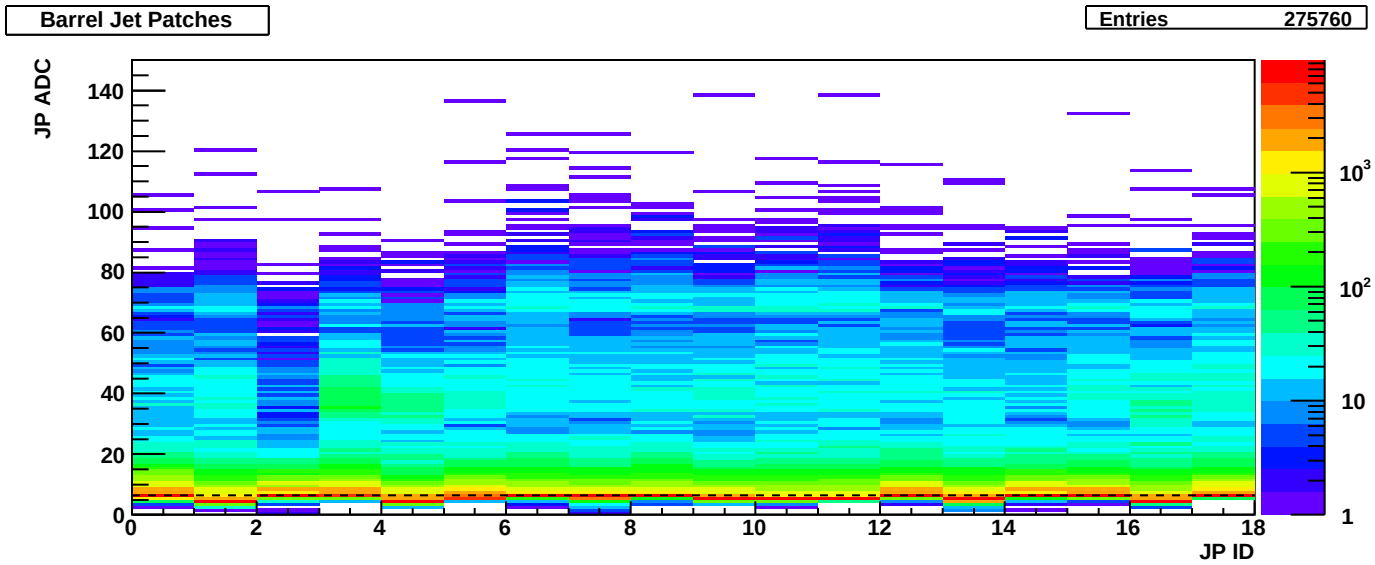
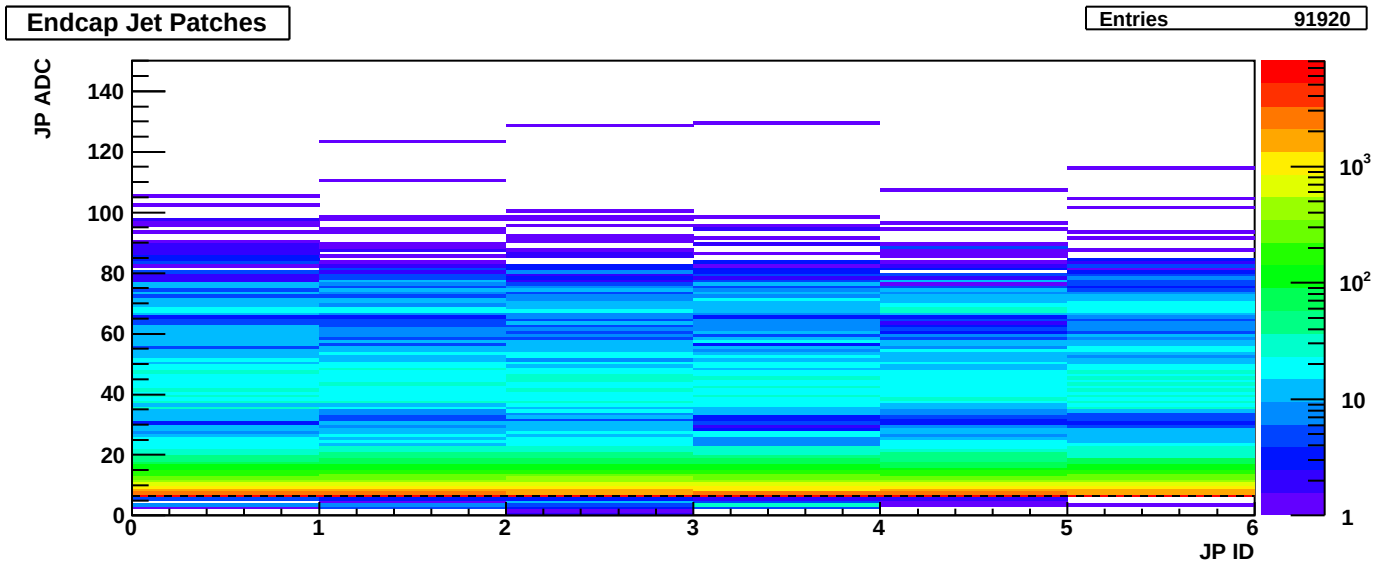

Barrel EMC L0 Input - High Tower
Entries 4596000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

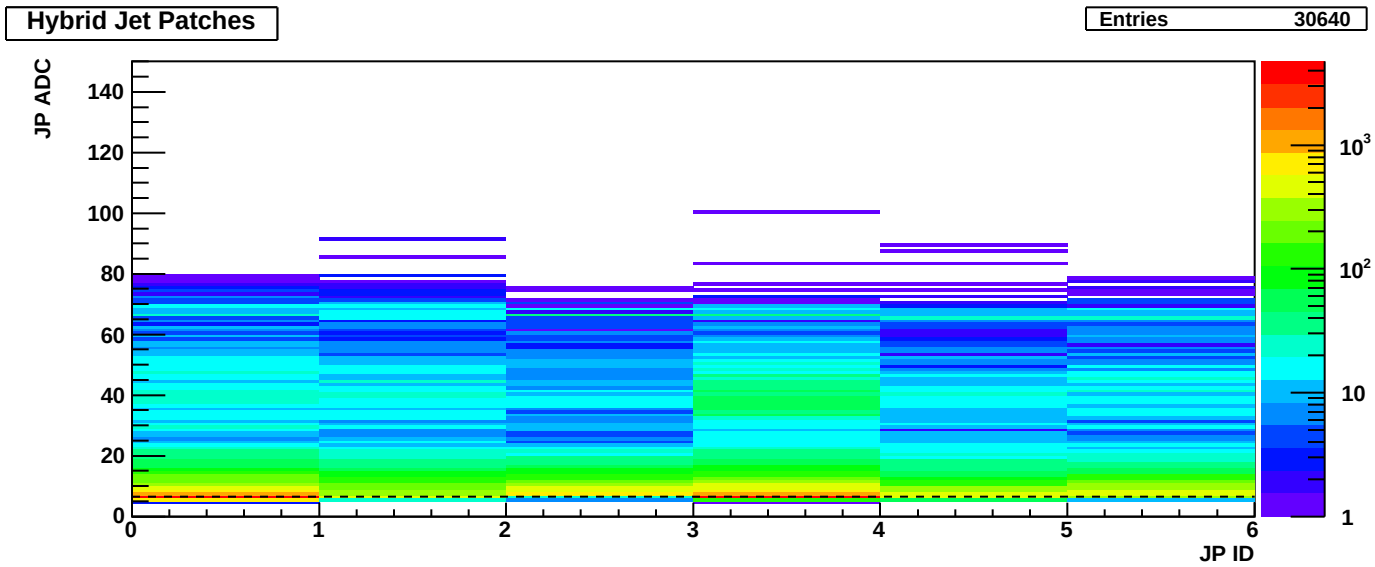

Barrel EMC L0 Input - Patch Sum
Entries 4596000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

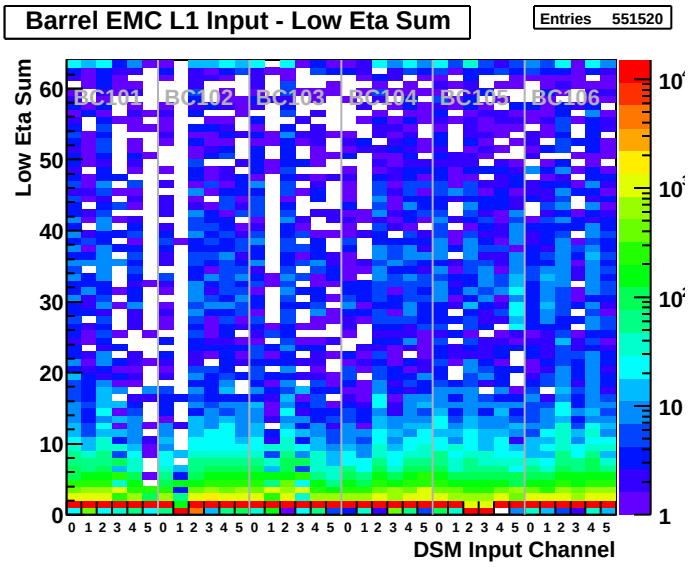

Endcap EMC L0 Input - High Tower
Entries 1378800
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

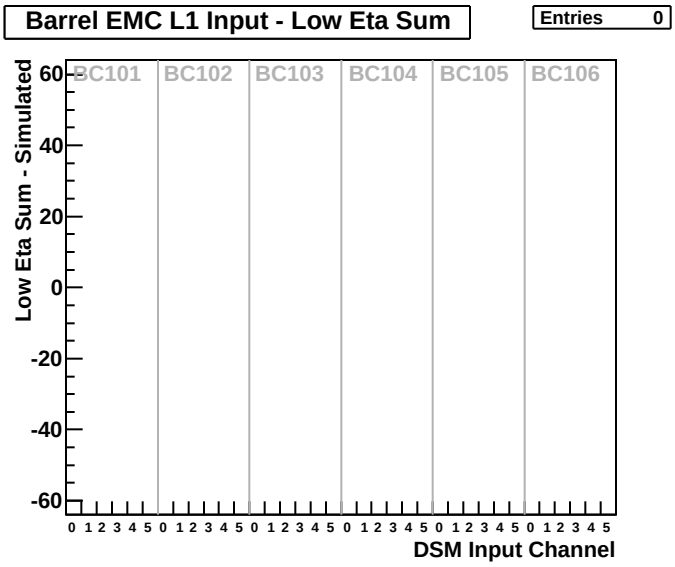

Endcap EMC L0 Input - Patch Sum
Entries 1378800
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

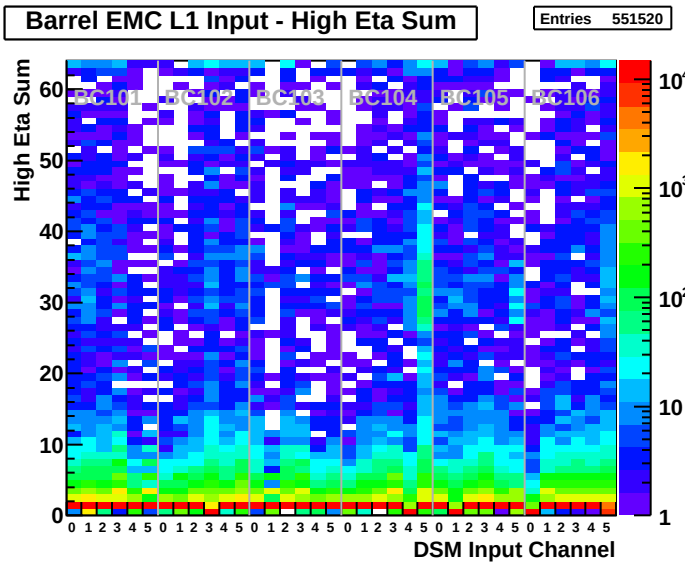

Barrel Jet Patches
Entries 275760
JP ADC
JP ID

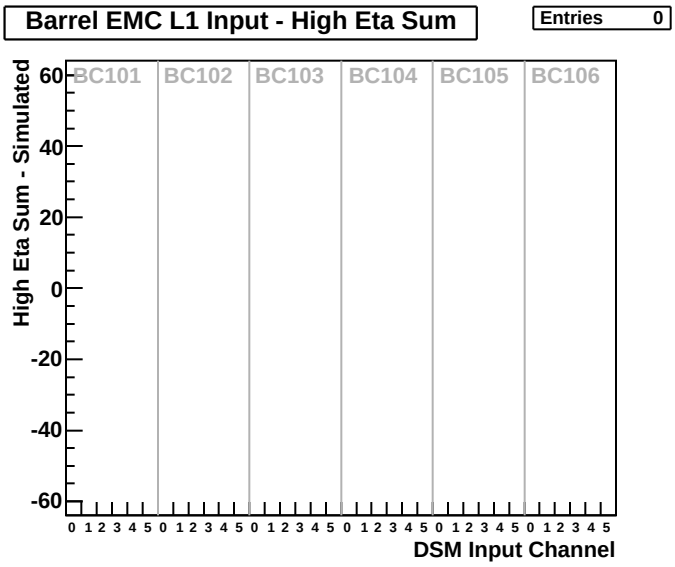

Endcap Jet Patches
Entries 91920
JP ADC
JP ID

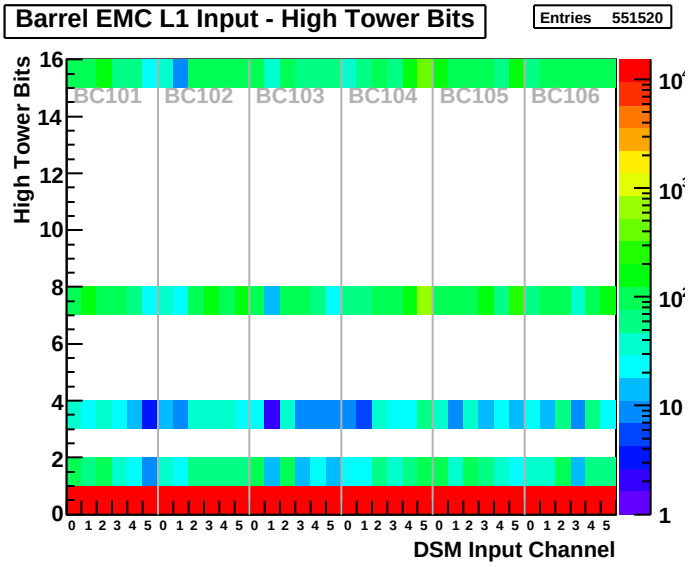

Hybrid Jet Patches
Entries 30640
JP ADC
JP ID

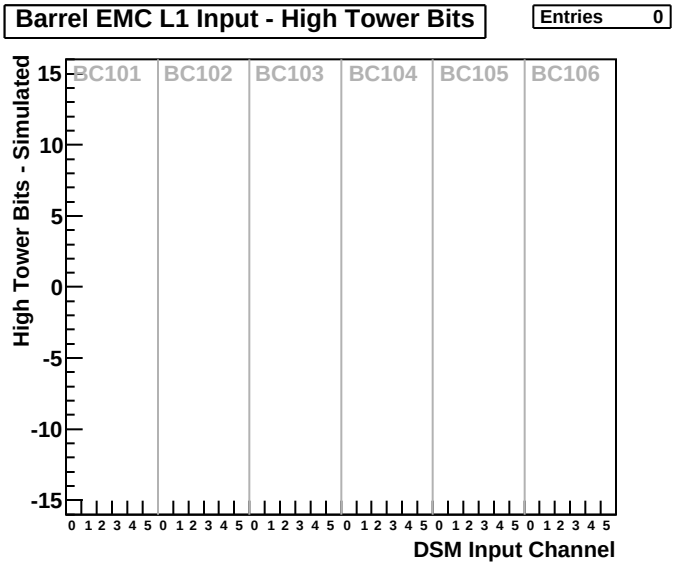

Barrel EMC L1 Input - Low Eta Sum
Entries 551520
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

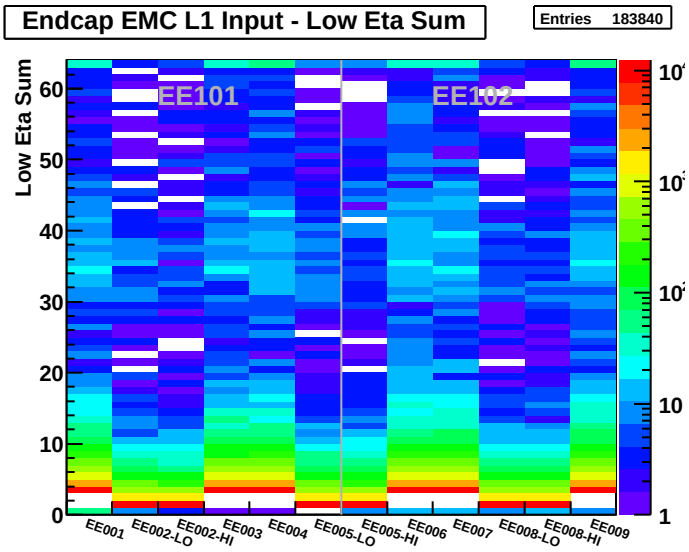

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

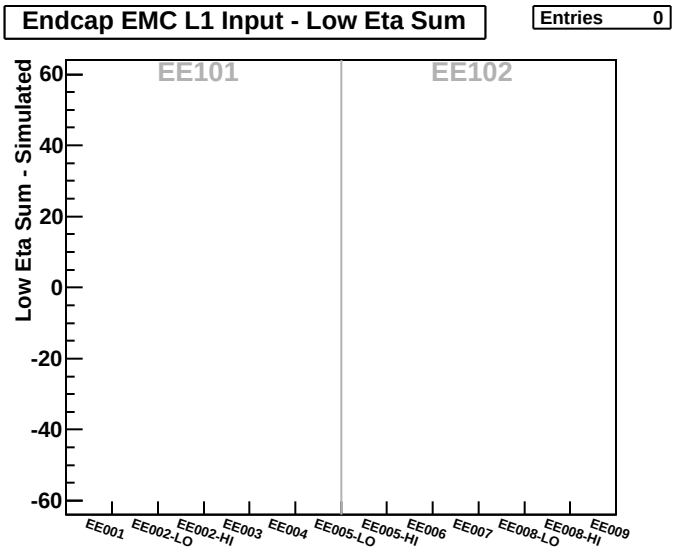

Barrel EMC L1 Input - High Eta Sum
Entries 551520
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

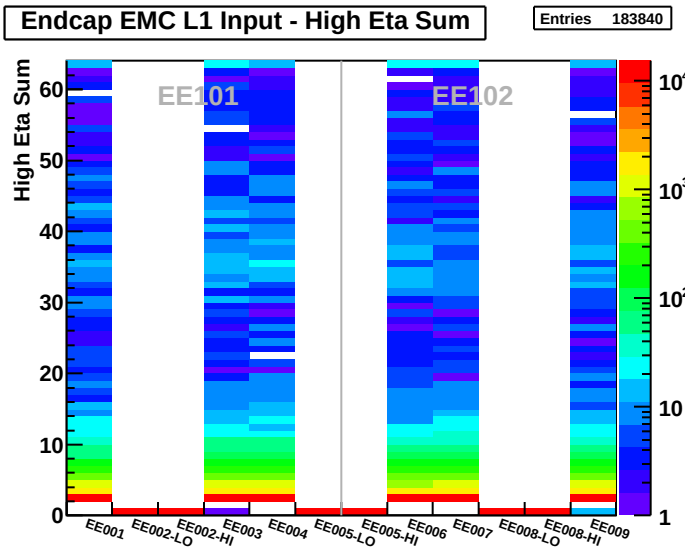

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

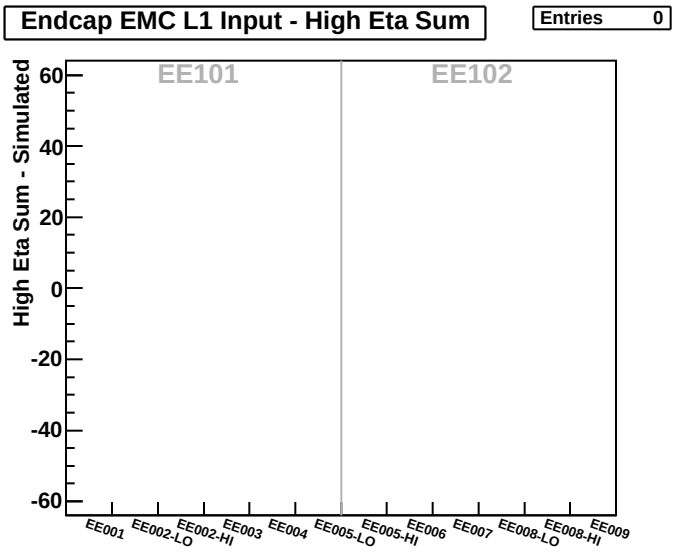

Barrel EMC L1 Input - High Tower Bits
Entries 551520
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

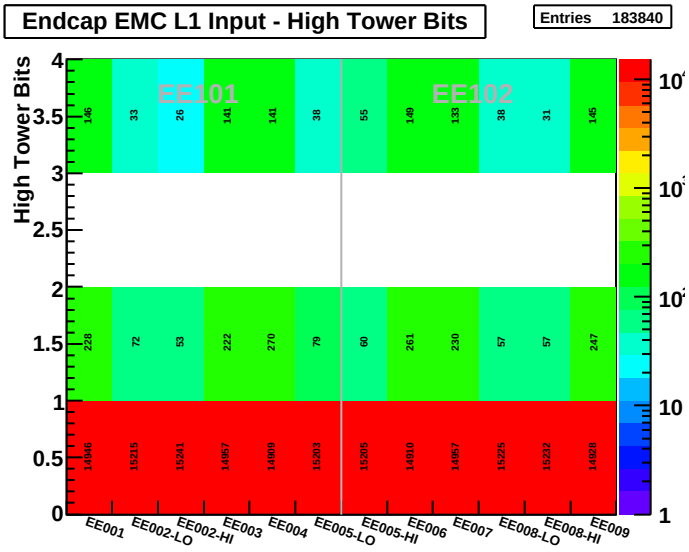

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

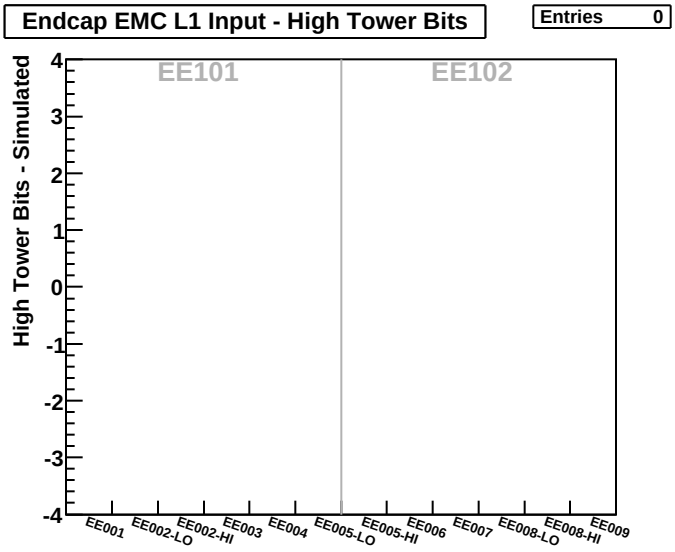

Endcap EMC L1 Input - Low Eta Sum
Entries 183840
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

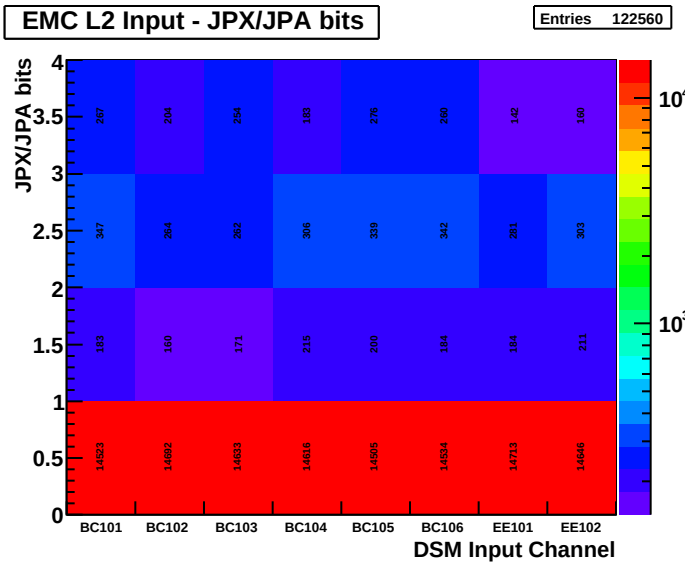

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

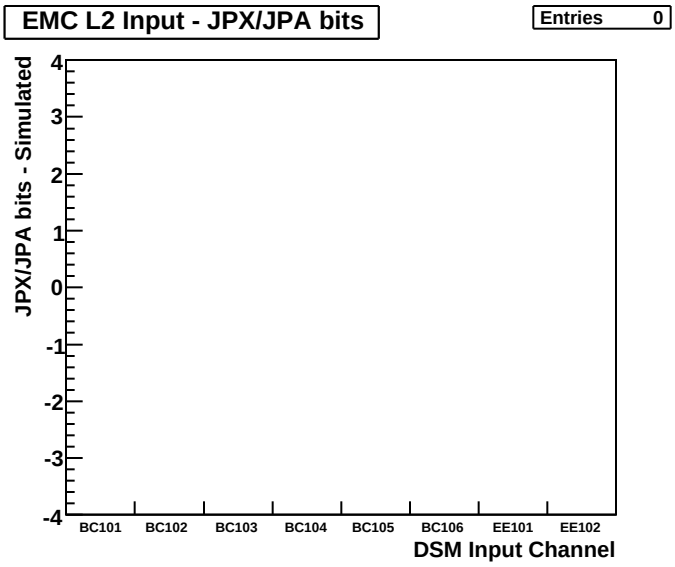

Endcap EMC L1 Input - High Eta Sum
Entries 183840
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

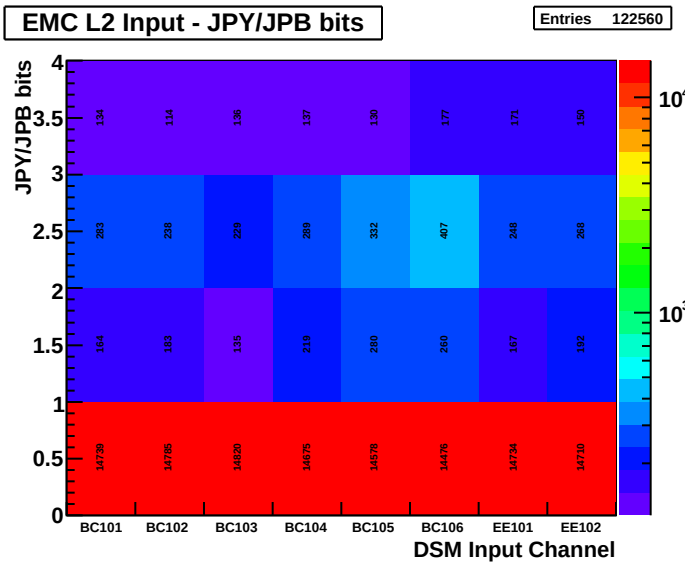

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

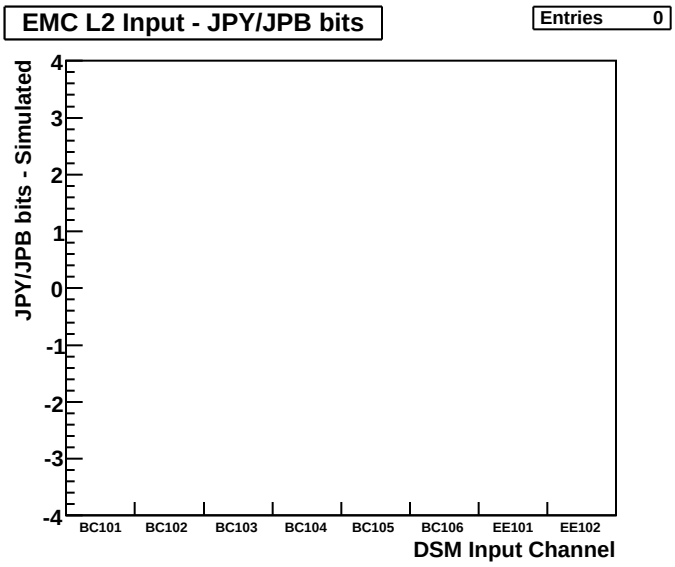

Endcap EMC L1 Input - High Tower Bits
Entries 183840
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

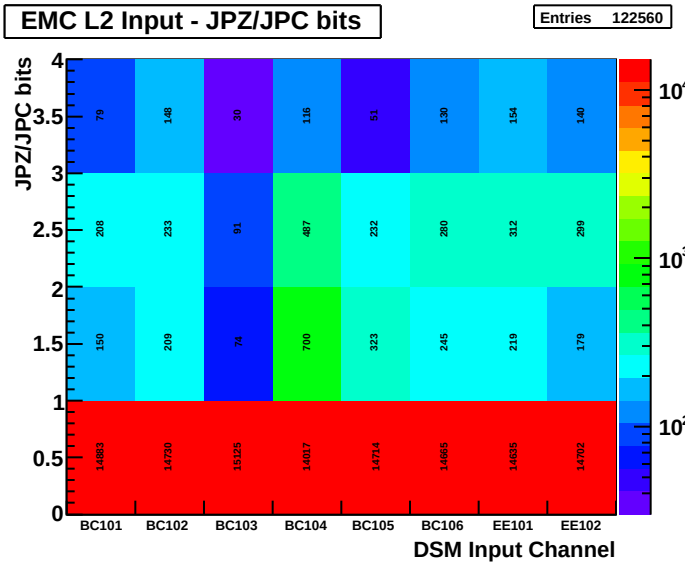

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

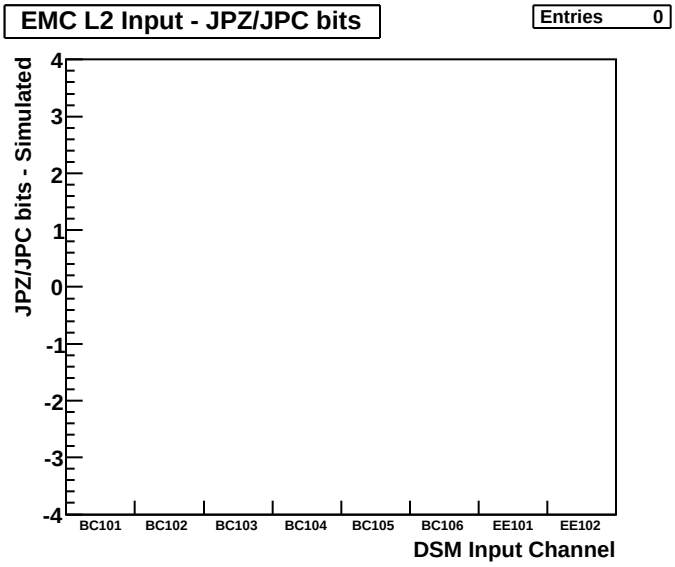

EMC L2 Input - JPX/JPA bits
Entries 122560
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
267 204 254 183 276 260 142 160
347 264 262 306 339 342 281 303
183 160 171 215 200 194 184 211
14523 14692 14633 14616 14505 14534 14713 14646

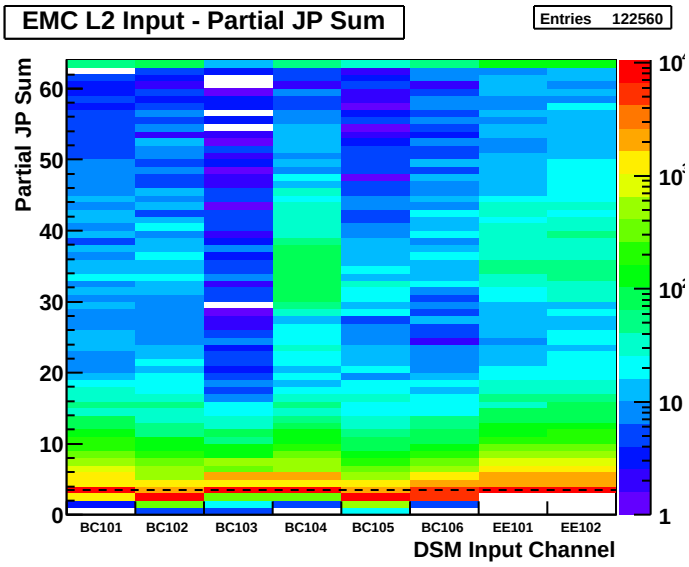

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

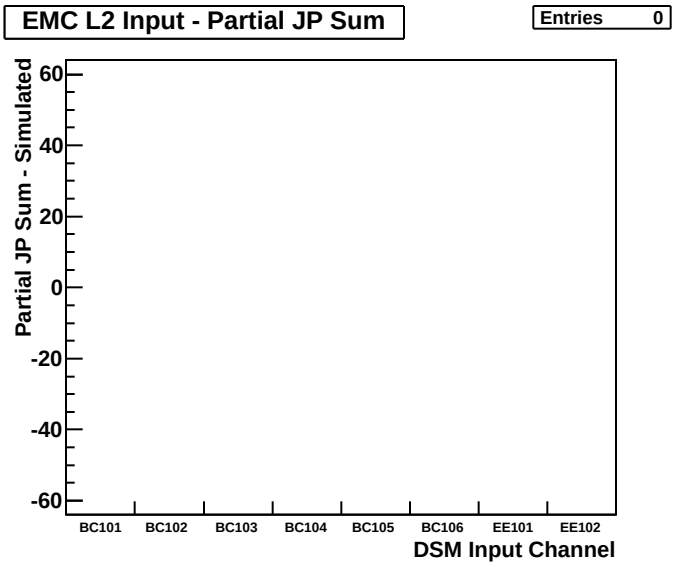

EMC L2 Input - JPY/JPB bits
Entries 122560
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
134 114 136 137 130 177 171 150
283 238 229 289 332 407 248 268
164 183 135 219 280 260 167 192
14739 14785 14820 14675 14578 14476 14734 14710

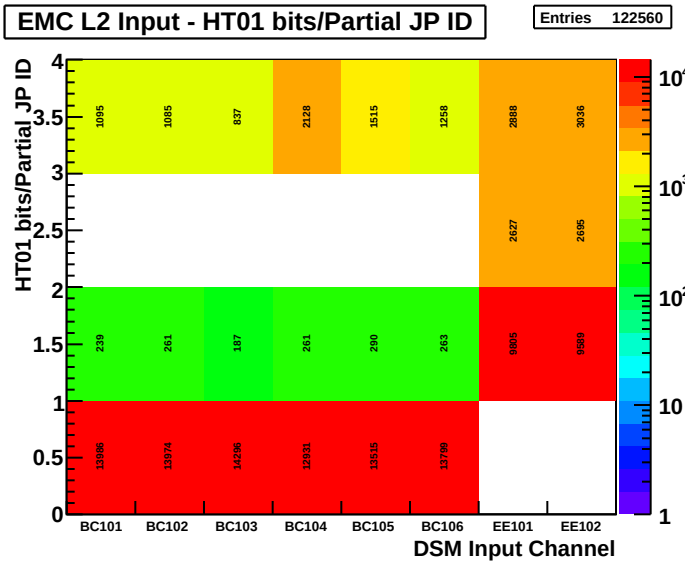

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

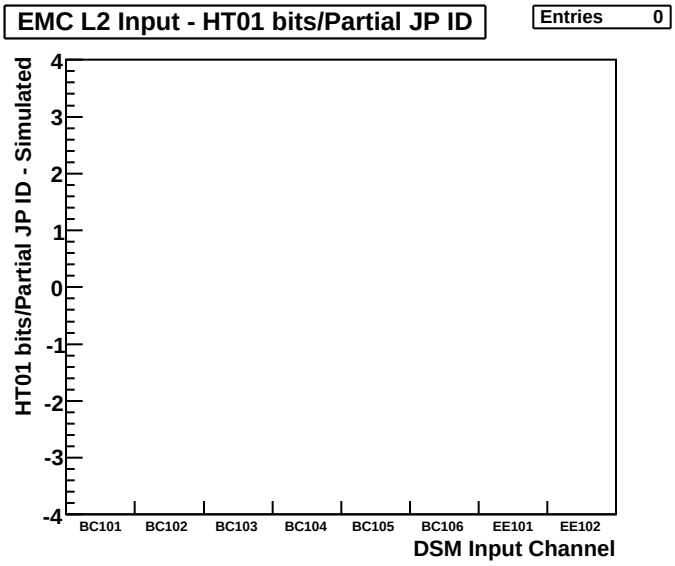

EMC L2 Input - JPZ/JPC bits
Entries 122560
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
79 148 30 116 51 130 154 140
208 233 91 487 232 280 312 299
150 209 74 700 323 245 219 179
14883 14730 15125 14017 14714 14665 14635 14702

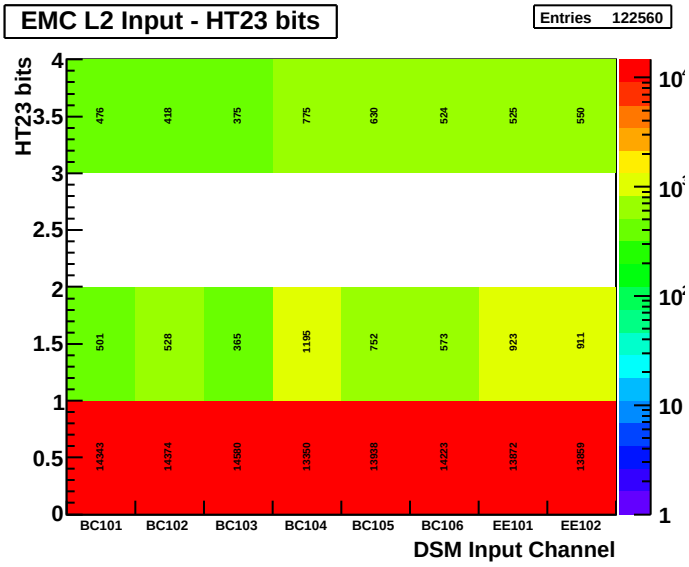

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

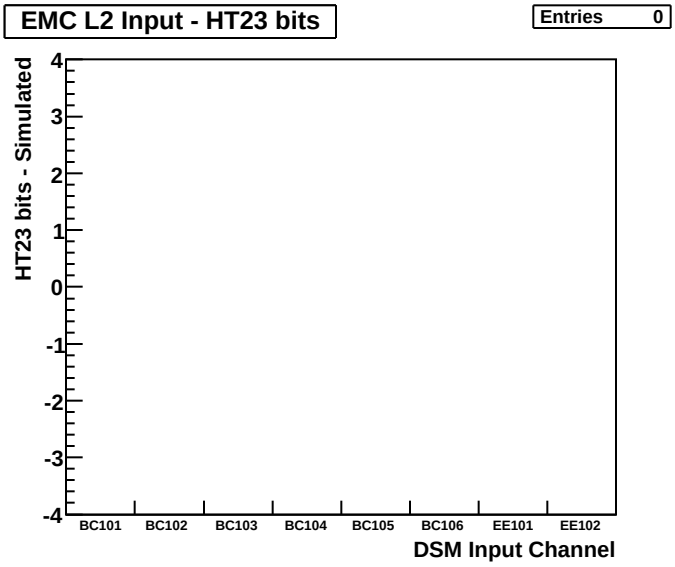

EMC L2 Input - Partial JP Sum
Entries 122560
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

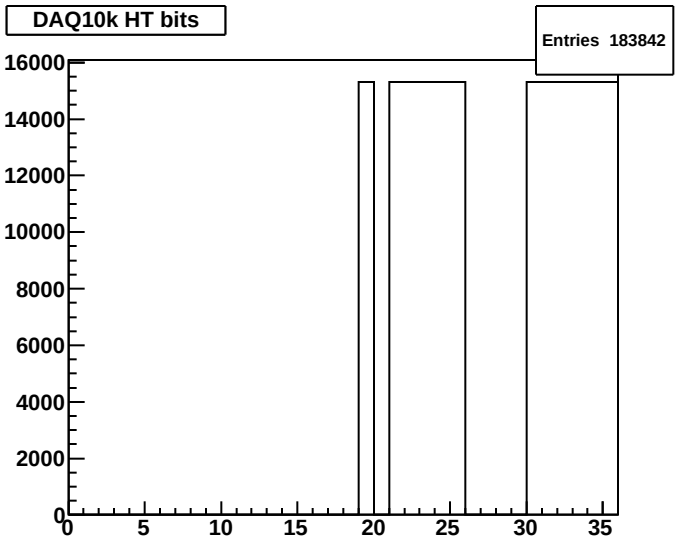

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

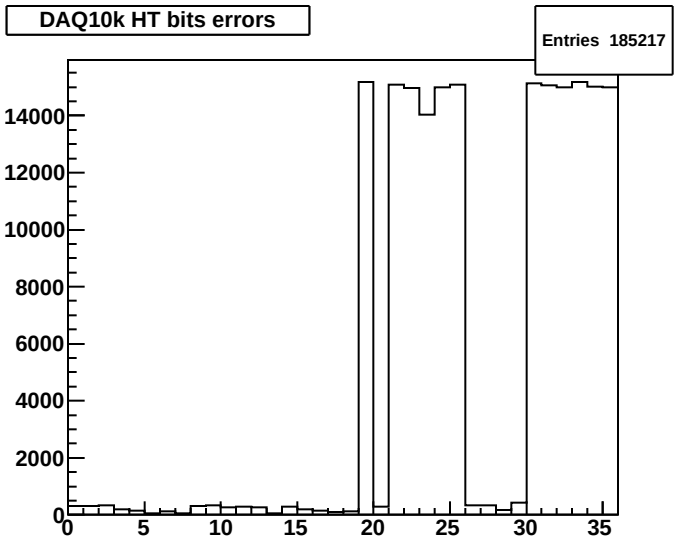

EMC L2 Input - HT01 bits/Partial JP ID
Entries 122560
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

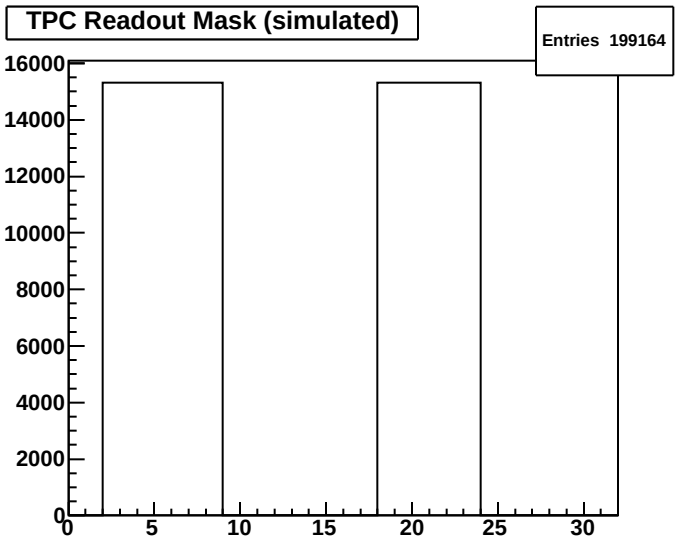

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

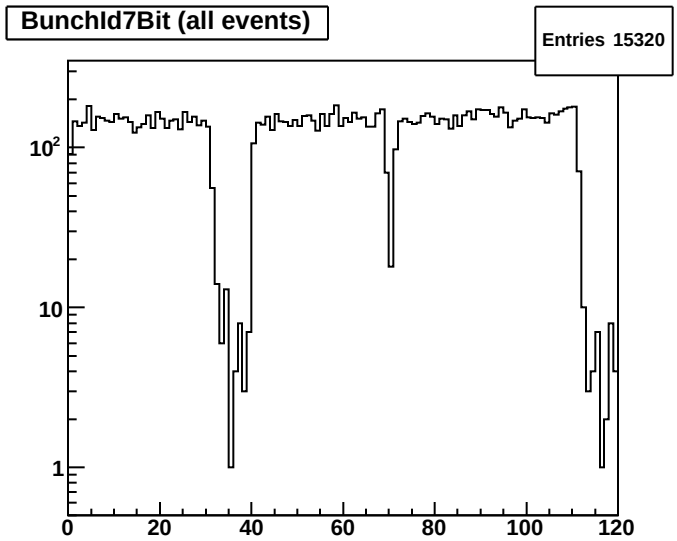

EMC L2 Input - HT23 bits
Entries 122560
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

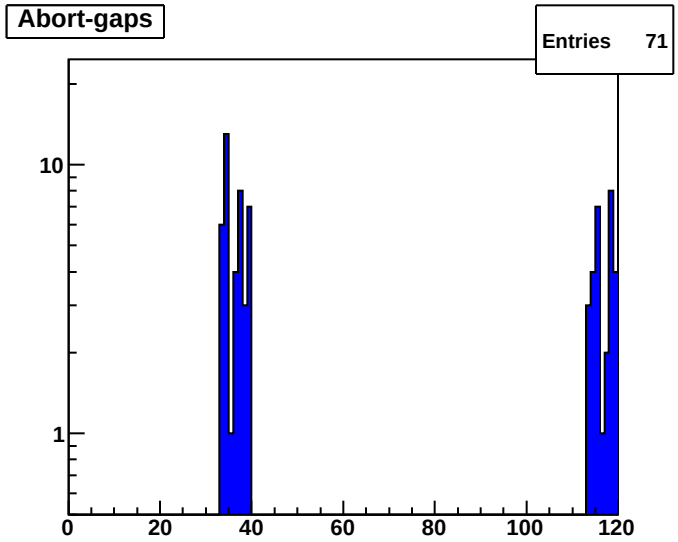

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

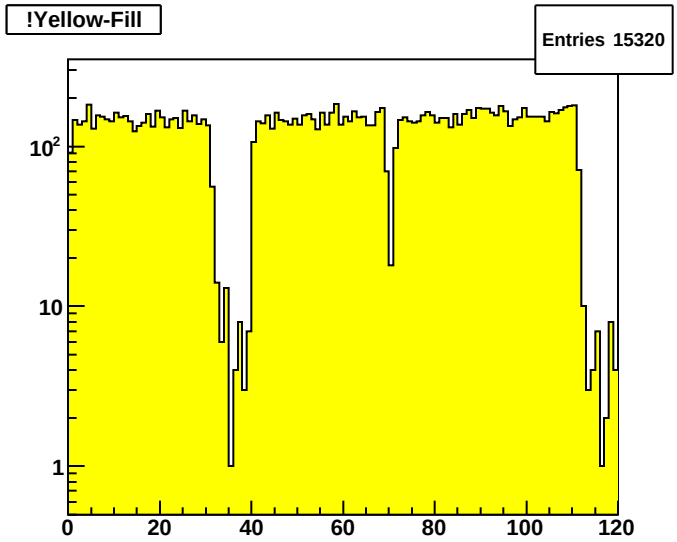

DAQ10k HT bits
Entries 183842
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

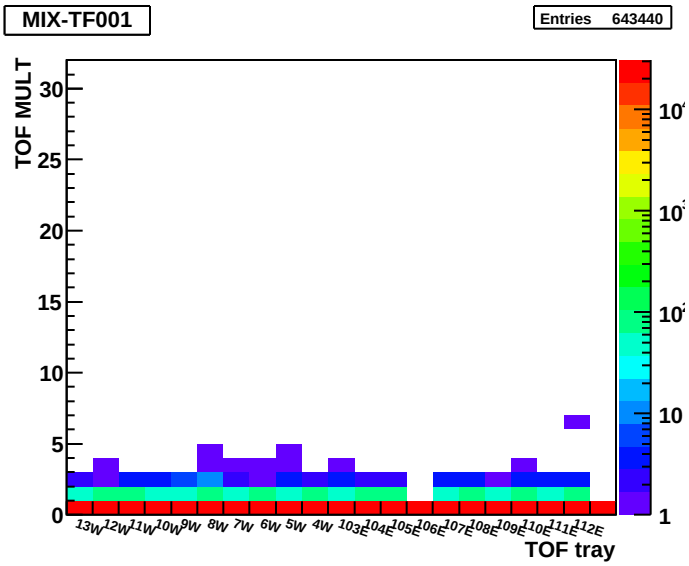

DAQ10k HT bits errors
Entries 185217
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

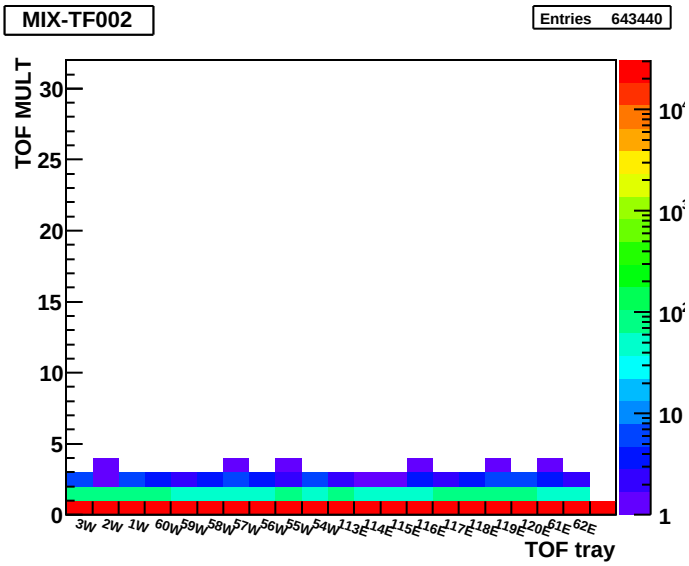

TPC Readout Mask (simulated)
Entries 199164
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

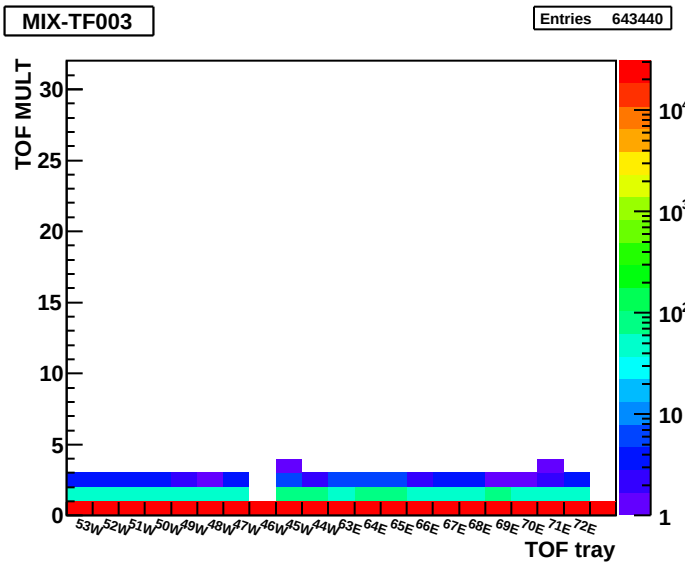

BunchId7Bit (all events)
Entries 15320
10^2
10
1
0 20 40 60 80 100 120

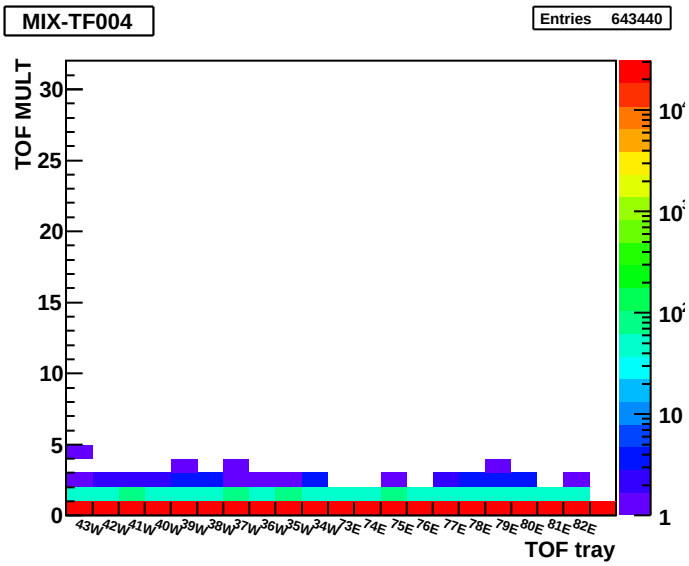

Abort-gaps
Entries 71
10
1
0 20 40 60 80 100 120

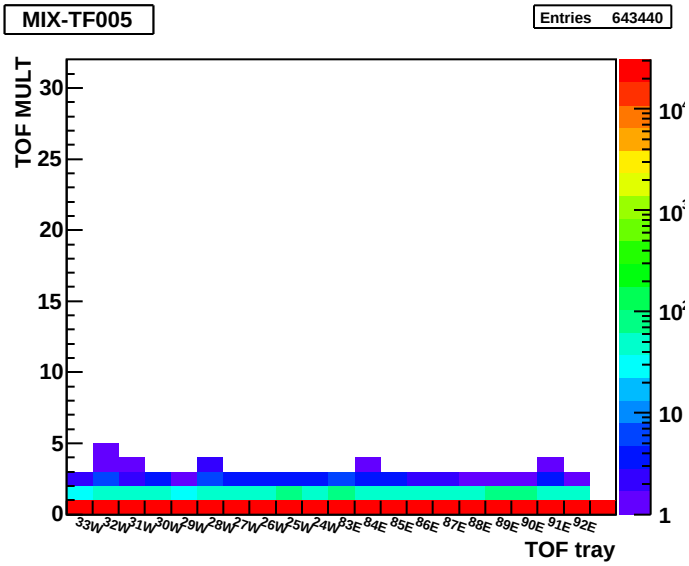

!Yellow-Fill
Entries 15320
10^2
10
1
0 20 40 60 80 100 120

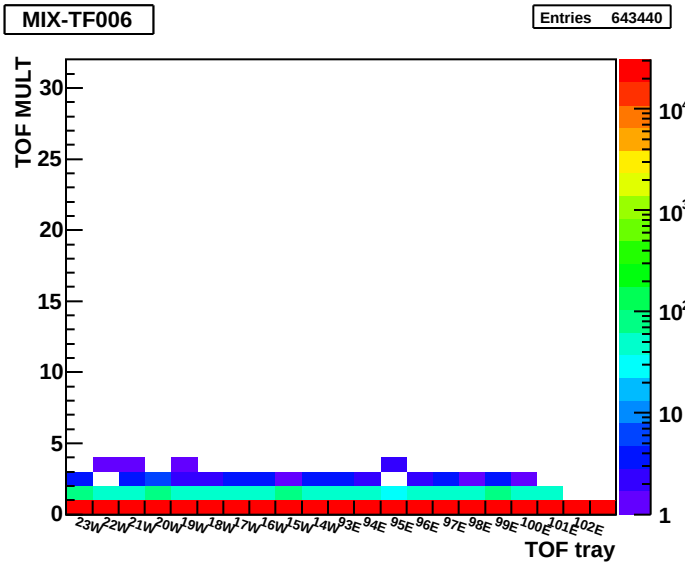

MIX-TF001
Entries 643440
TOF MULT
TOF tray

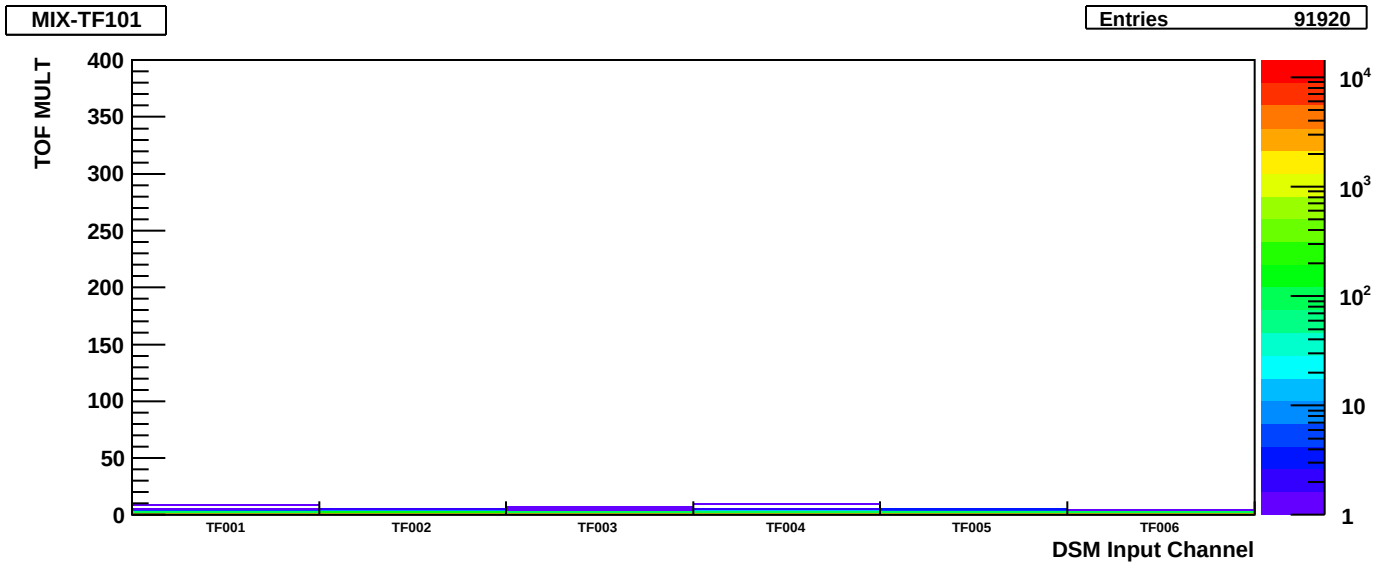

MIX-TF002
Entries 643440
TOF MULT
TOF tray

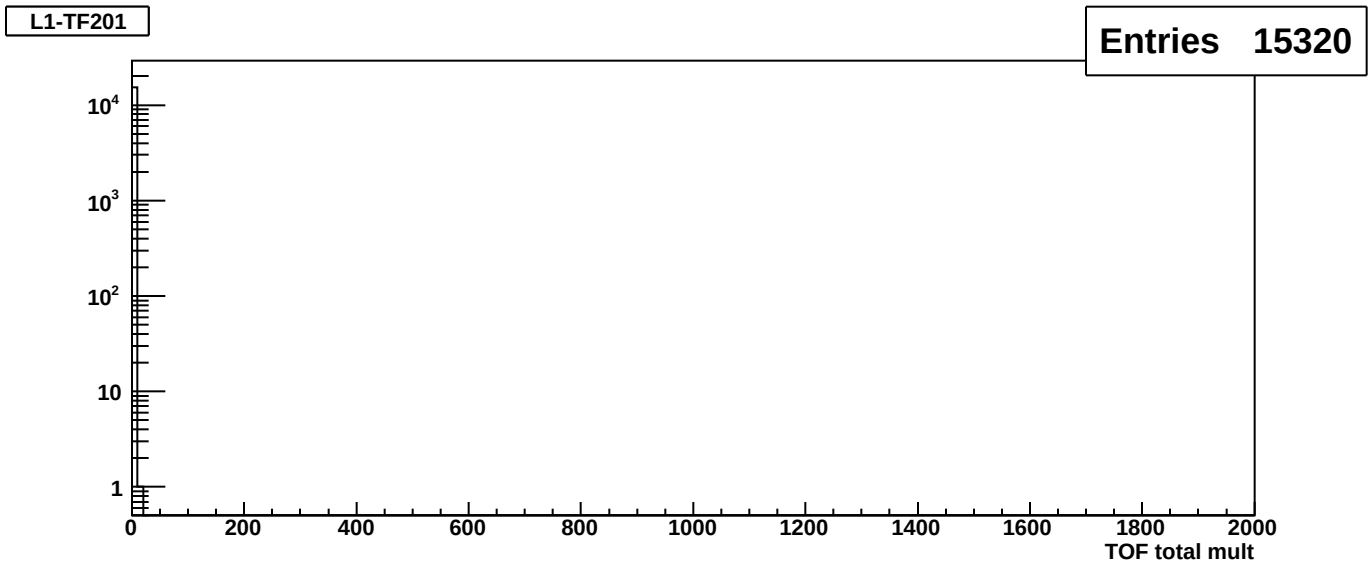

MIX-TF003
Entries 643440
TOF MULT
TOF tray

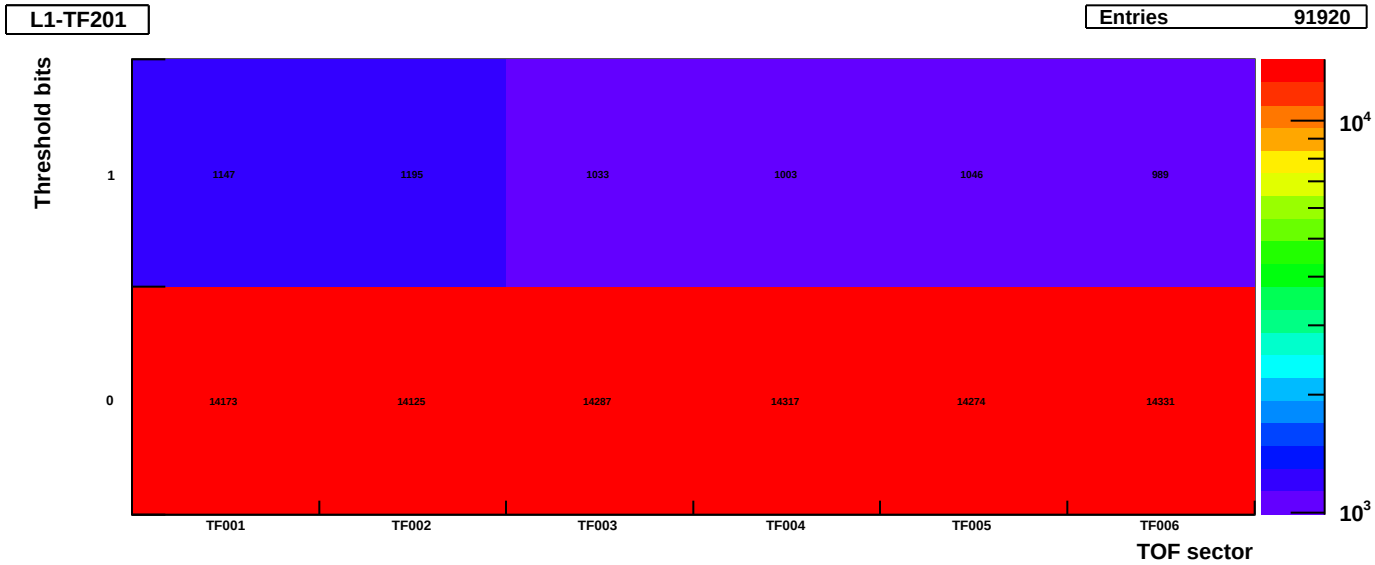

MIX-TF004
Entries 643440
TOF MULT
TOF tray

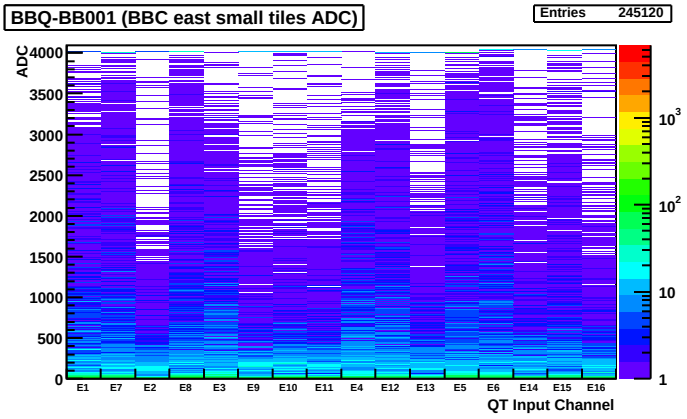

MIX-TF005
Entries 643440
TOF MULT
TOF tray

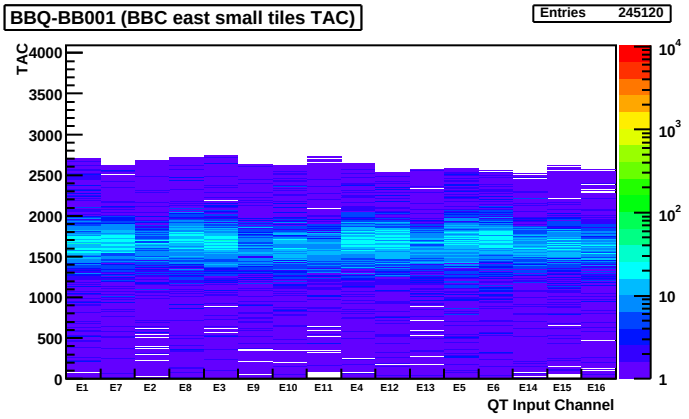

MIX-TF006
Entries 643440
TOF MULT
TOF tray

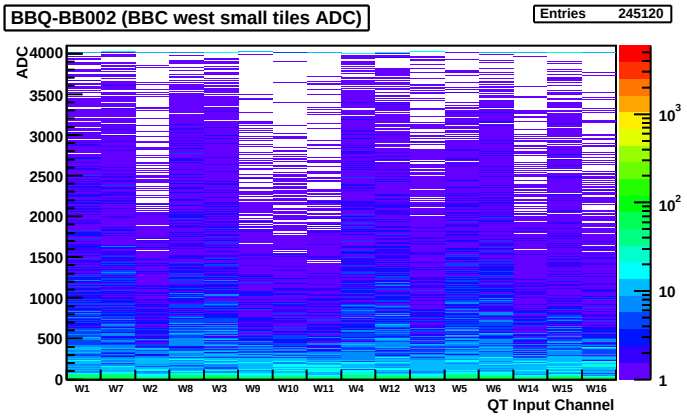

MIX-TF101
Entries 91920
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

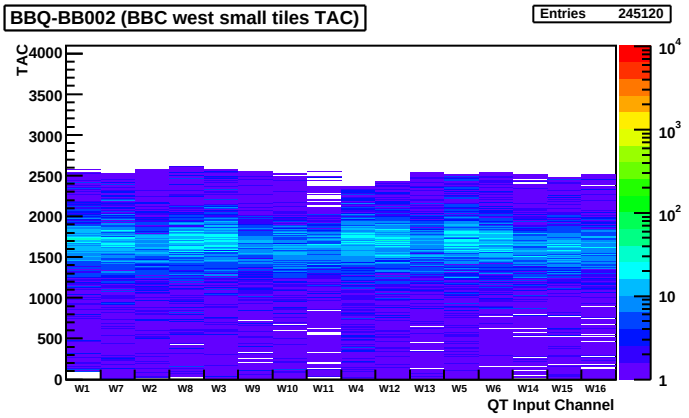

L1-TF201
Entries 15320
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

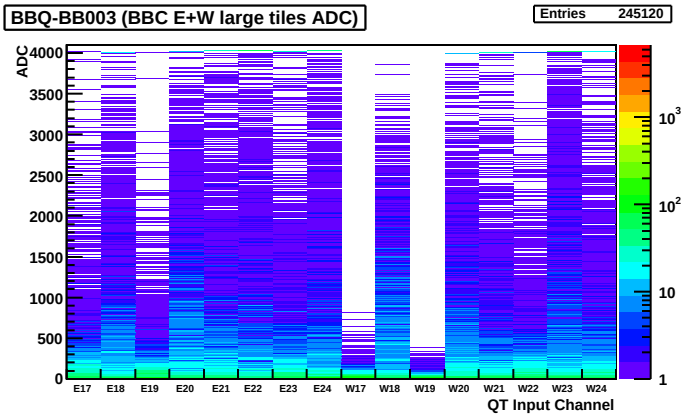

L1-TF201
Entries 91920
Threshold bits
1
0
1147
1195
1033
1003
1046
989
14173
14125
14287
14317
14274
14331
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

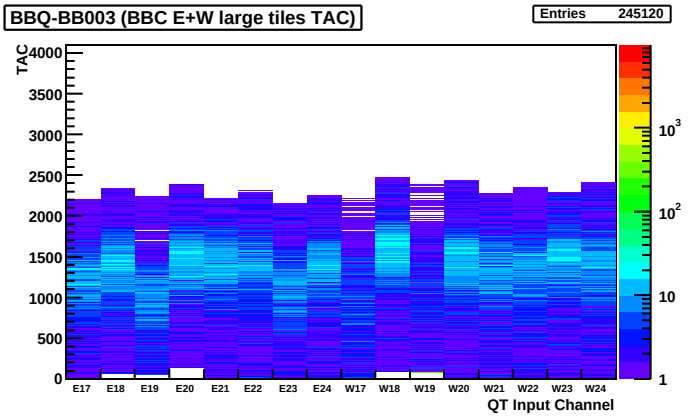

BBQ-BB001 (BBC east small tiles ADC)
Entries 245120
ADC
QT Input Channel

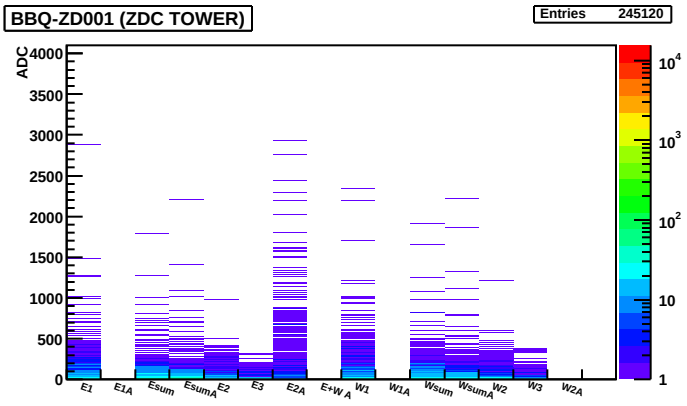

BBQ-BB001 (BBC east small tiles TAC)
Entries 245120
TAC
QT Input Channel

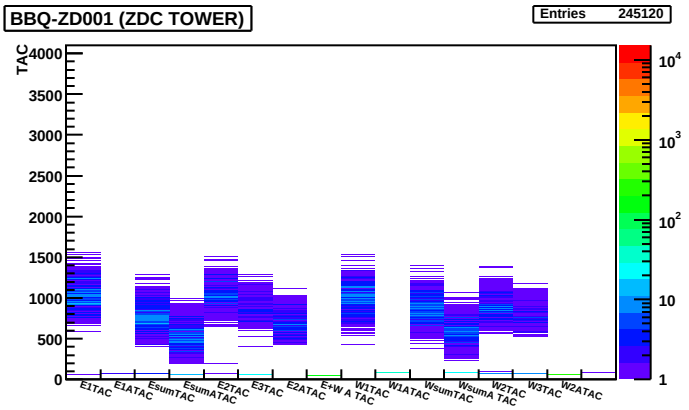

BBQ-BB002 (BBC west small tiles ADC)
Entries 245120
ADC
QT Input Channel

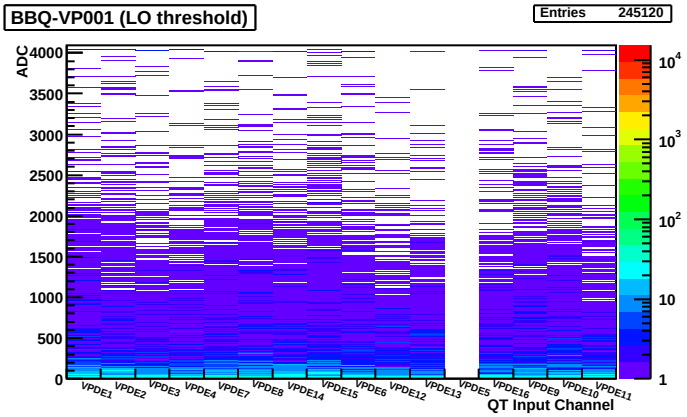

BBQ-BB002 (BBC west small tiles TAC)
Entries 245120
TAC
QT Input Channel

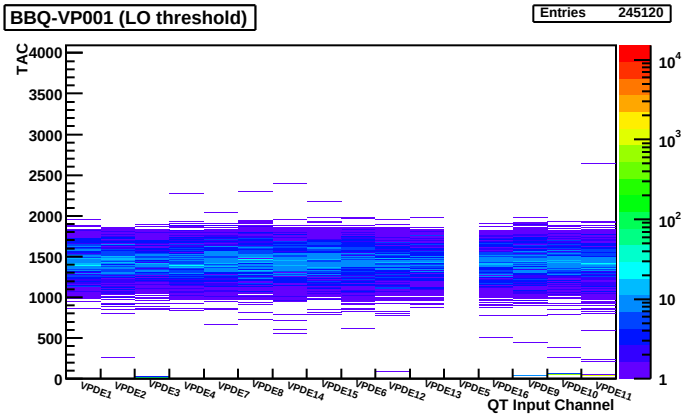

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 245120
ADC
QT Input Channel

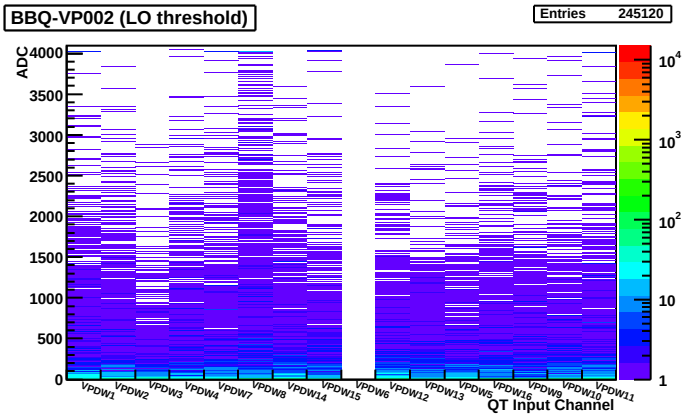

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 245120
TAC
QT Input Channel

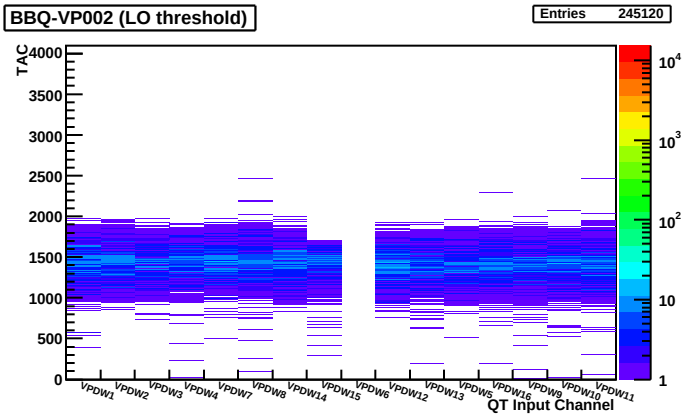

BBQ-ZD001 (ZDC TOWER)
Entries 245120
ADC

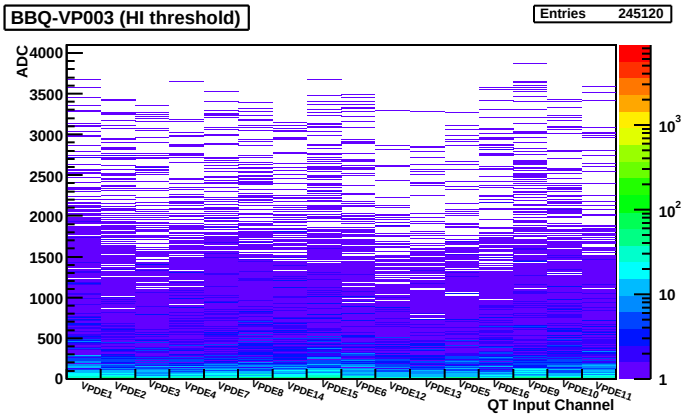

BBQ-ZD001 (ZDC TOWER)
Entries 245120
TAC

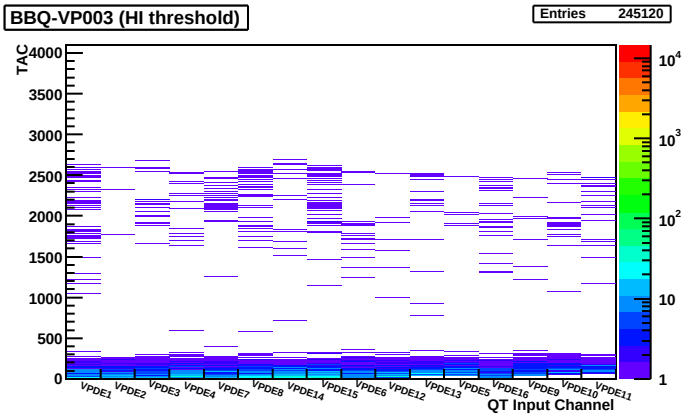

BBQ-VP001 (LO threshold)
Entries 245120
ADC
QT Input Channel

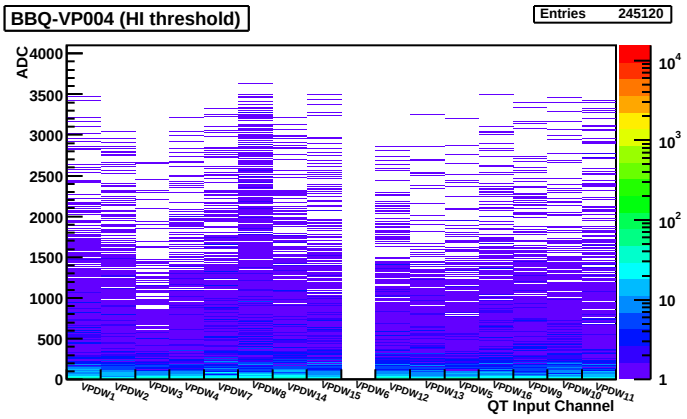

BBQ-VP001 (LO threshold)
Entries 245120
TAC
QT Input Channel

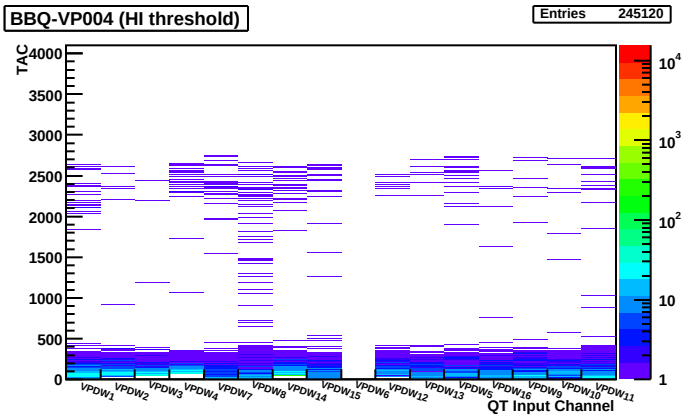

BBQ-VP002 (LO threshold)
Entries 245120
ADC
QT Input Channel

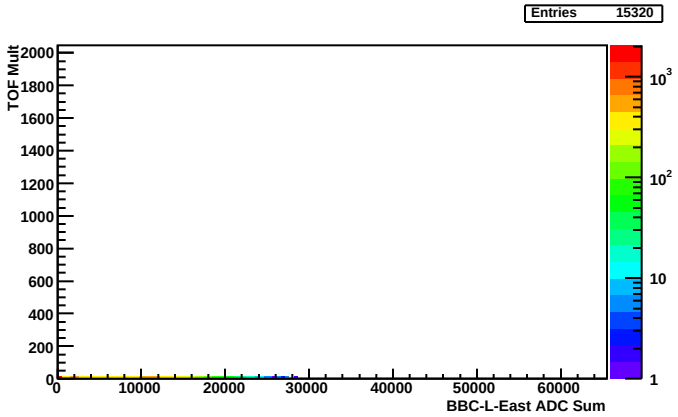

BBQ-VP002 (LO threshold)
Entries 245120
TAC
QT Input Channel

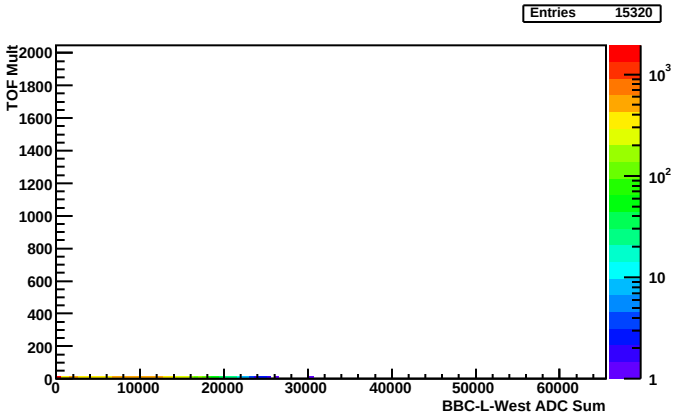

BBQ-VP003 (HI threshold)
Entries 245120
ADC
QT Input Channel

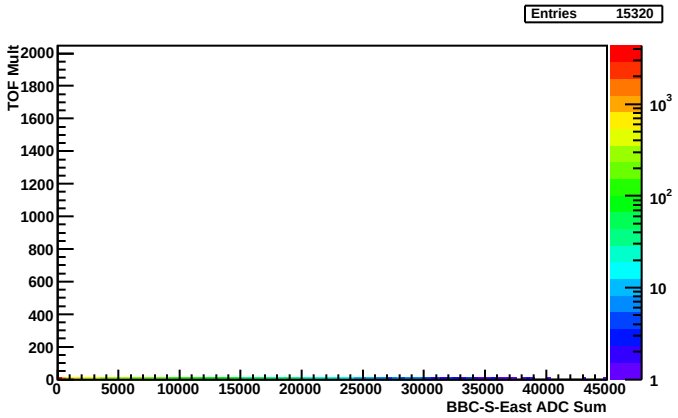

BBQ-VP003 (HI threshold)
Entries 245120
TAC
QT Input Channel

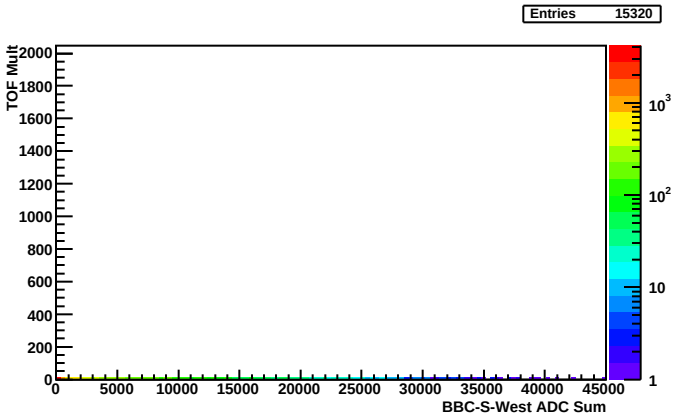

BBQ-VP004 (HI threshold)
Entries 245120
ADC
QT Input Channel

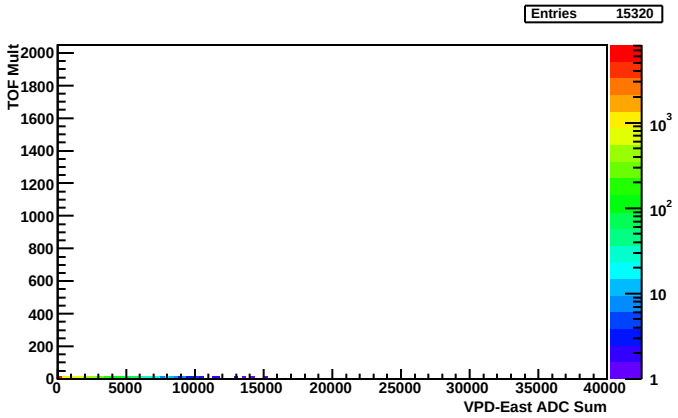

BBQ-VP004 (HI threshold)
Entries 245120
TAC
QT Input Channel

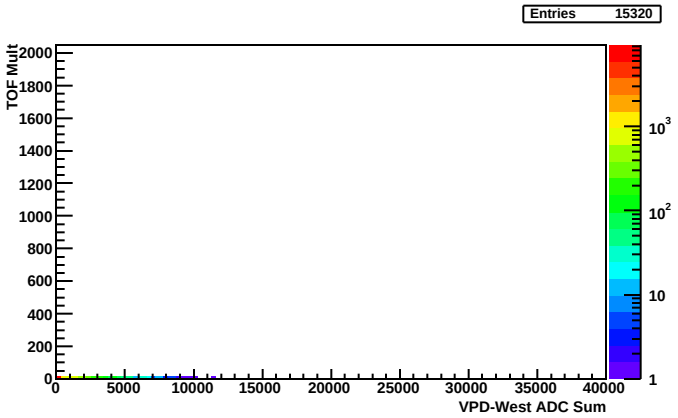

Entries 15320
TOF Mult
BBC-L-East ADC Sum

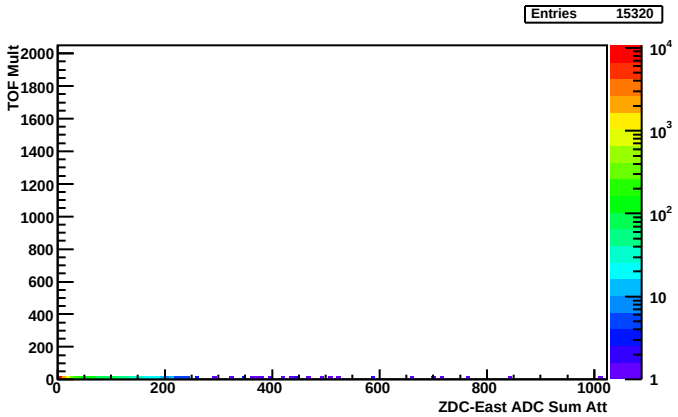

Entries 15320
TOF Mult
BBC-L-West ADC Sum

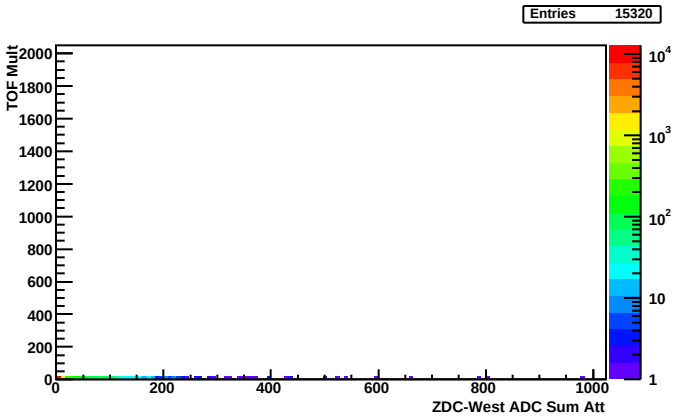

Entries 15320
TOF Mult
BBC-S-East ADC Sum

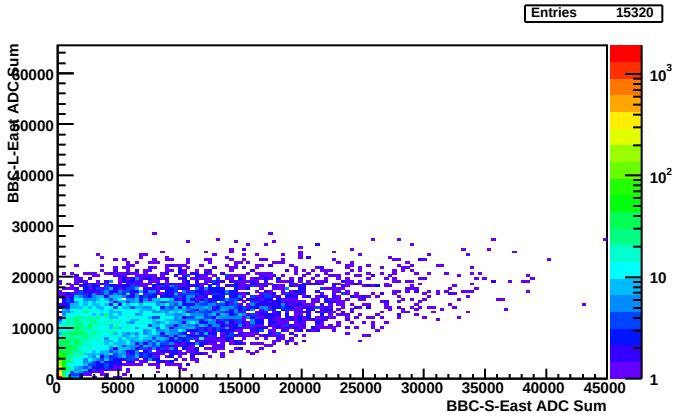

Entries 15320
TOF Mult
BBC-S-West ADC Sum

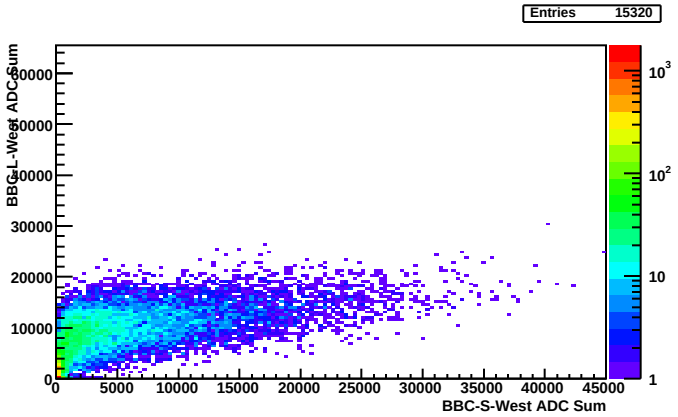

Entries 15320
TOF Mult
VPD-East ADC Sum

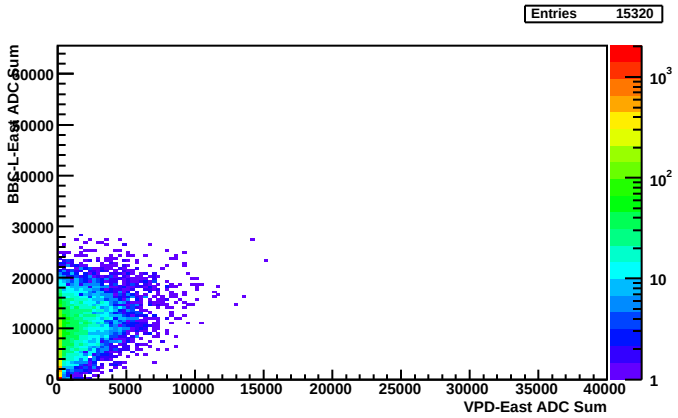

Entries 15320
TOF Mult
VPD-West ADC Sum

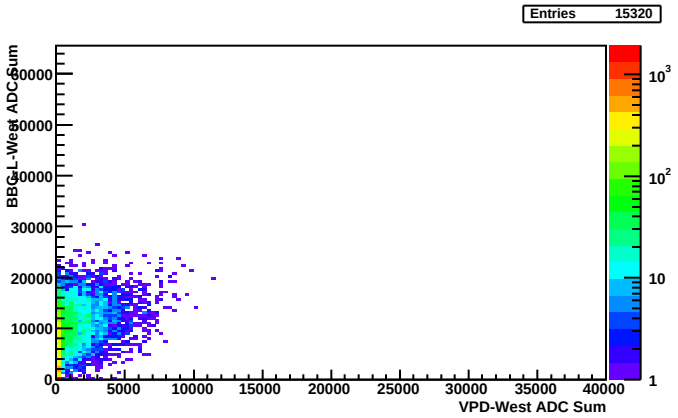

Entries 15320
TOF Mult
ZDC-East ADC Sum Att

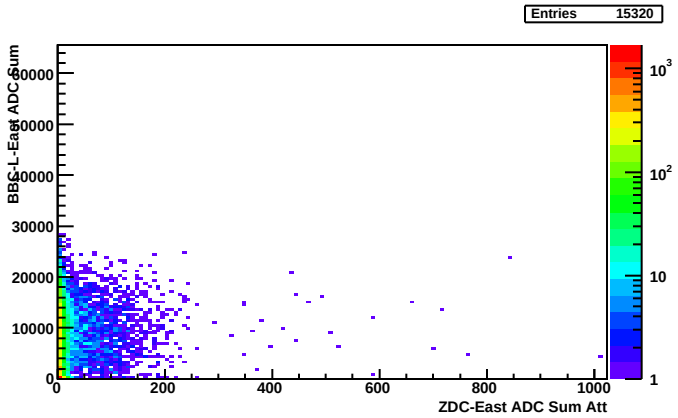

Entries 15320
TOF Mult
ZDC-West ADC Sum Att

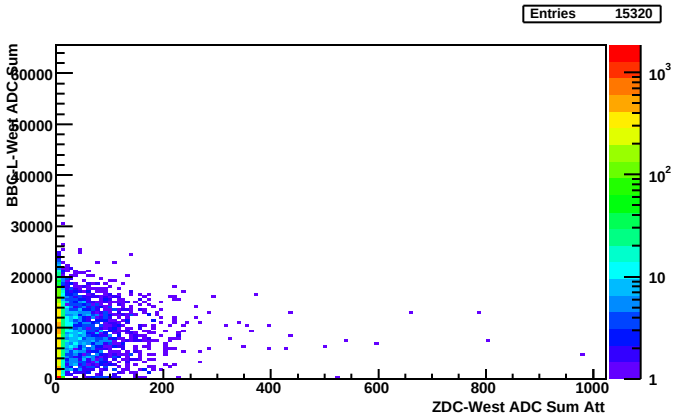

Entries 15320
BBC-L-East ADC Sum
BBC-S-East ADC Sum

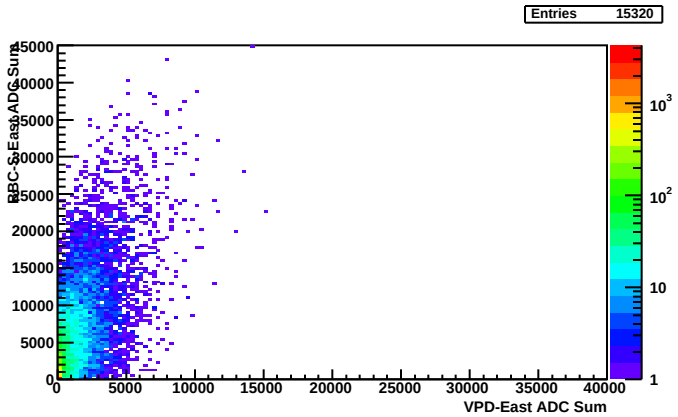

Entries 15320
BBC-L-West ADC Sum
BBC-S-West ADC Sum

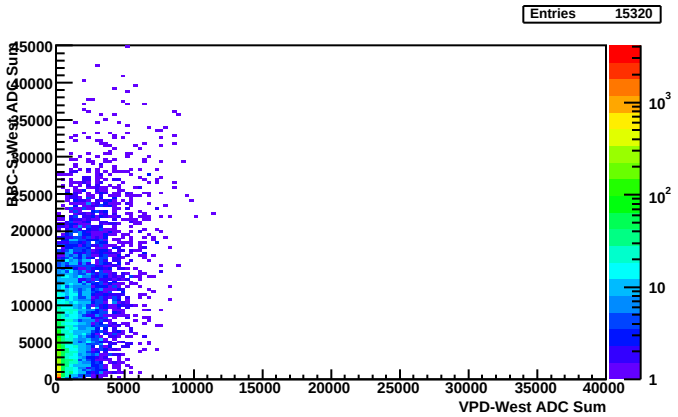

Entries 15320
BBC-L-East ADC Sum
VPD-East ADC Sum

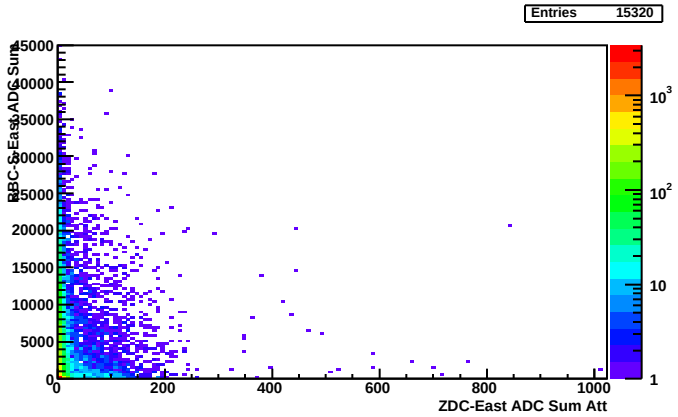

Entries 15320
BBC-L-West ADC Sum
VPD-West ADC Sum

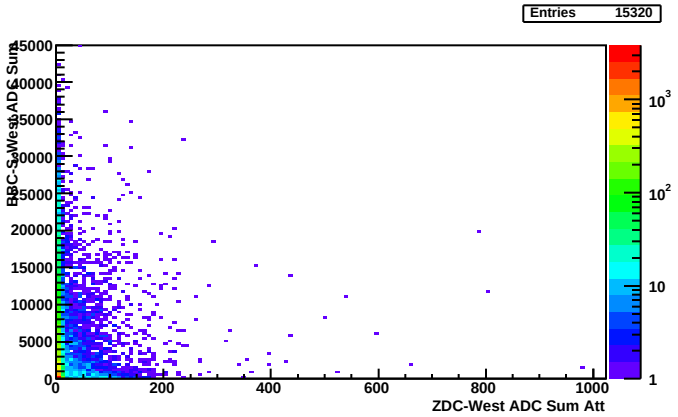

Entries 15320
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

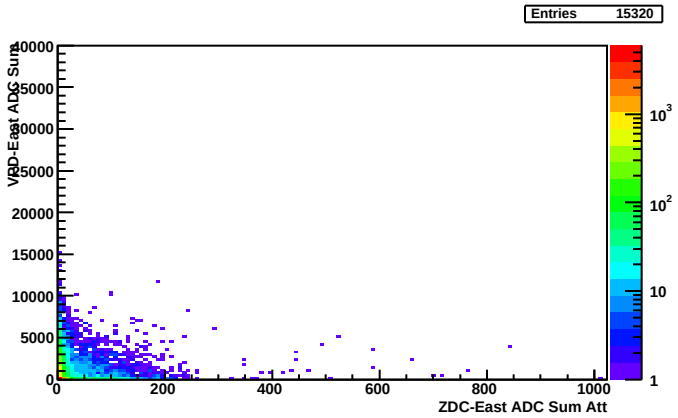

Entries 15320
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

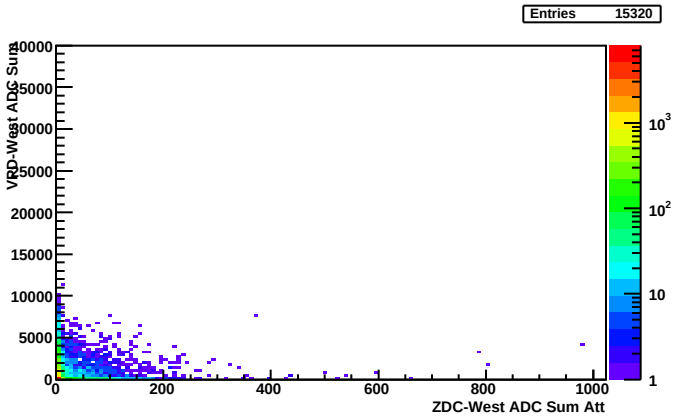

Entries 15320
BBC-S-East ADC Sum
VPD-East ADC Sum

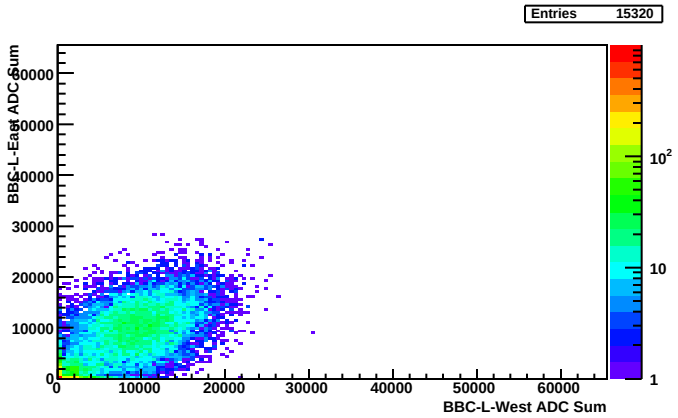

Entries 15320
BBC-S-West ADC Sum
VPD-West ADC Sum

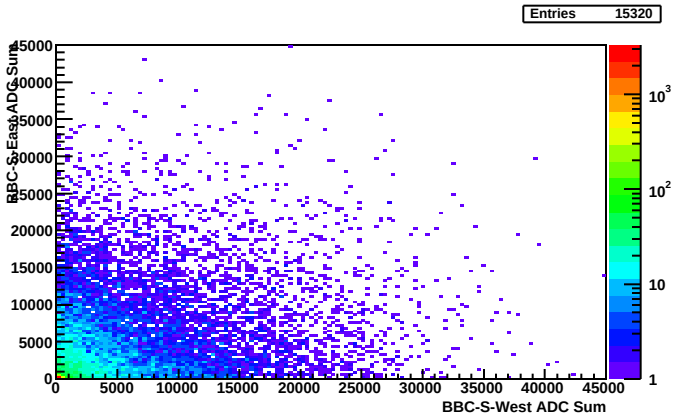

Entries 15320
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

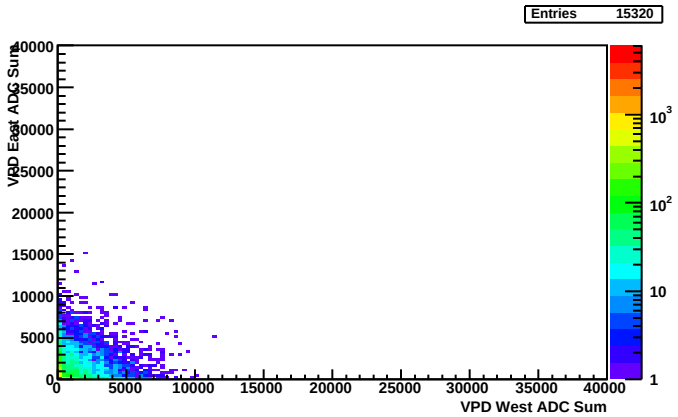

Entries 15320
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

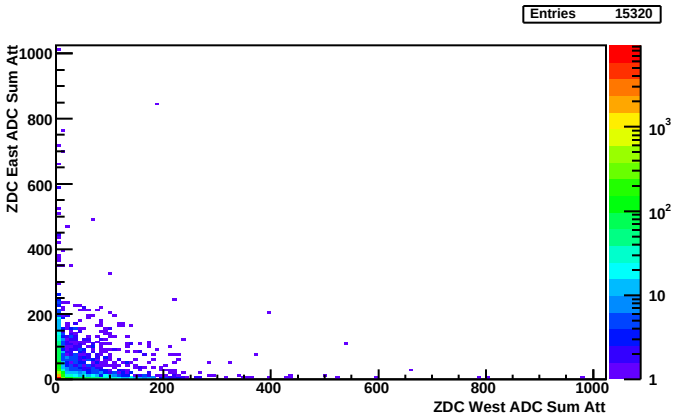

Entries 15320
VPD-East ADC Sum
ZDC-East ADC Sum Att

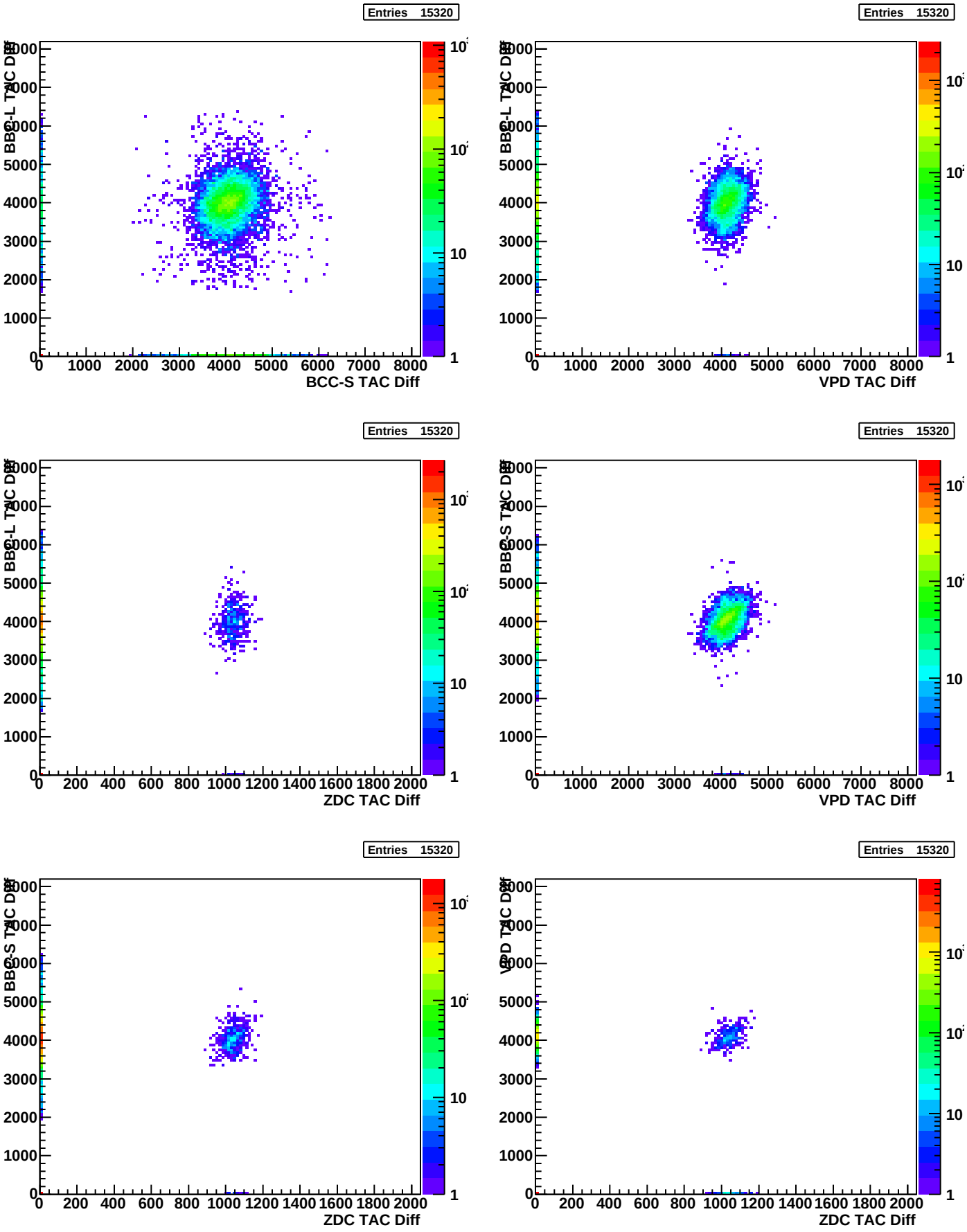

Entries 15320
VPD-West ADC Sum
ZDC-West ADC Sum Att

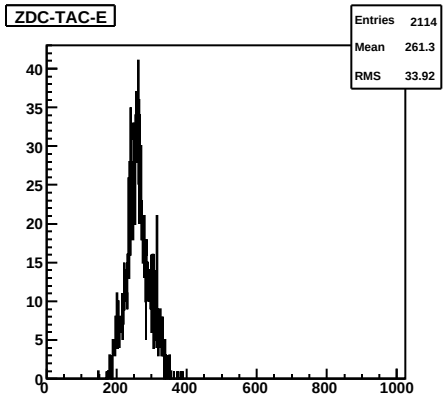

Entries 15320
BBC-L-East ADC Sum
BBC-L-West ADC Sum

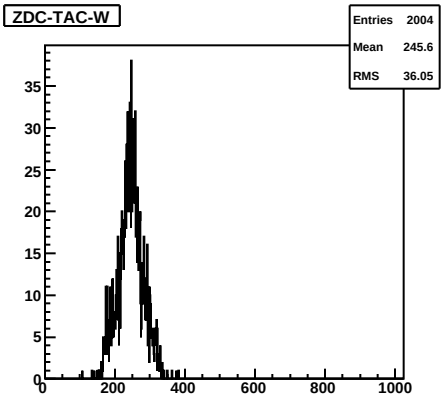

Entries 15320
BBC-S-East ADC Sum
BBC-S-West ADC Sum

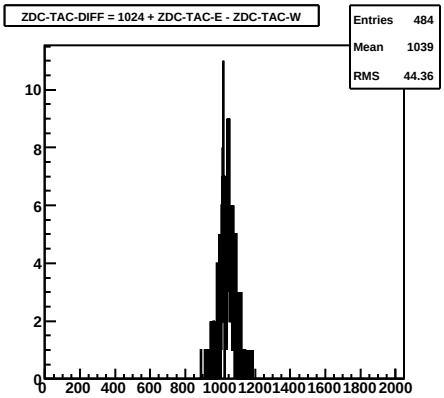

Entries 15320
VPD East ADC Sum
VPD West ADC Sum

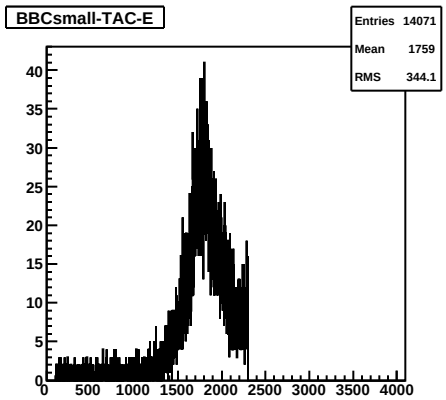

Entries 15320
ZDC East ADC Sum Att
ZDC West ADC Sum Att

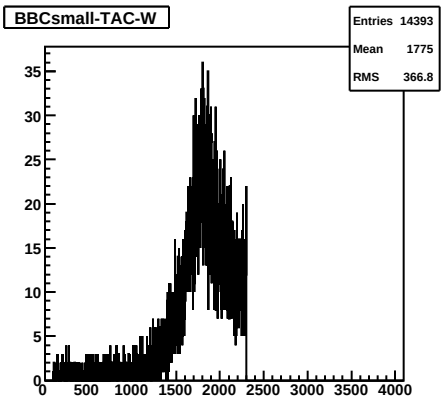

Entries 15320
BBC-L TAC Diff
BCC-S TAC Diff
Entries 15320
BBC-L TAC Diff
VPD TAC Diff
Entries 15320
BBC-L TAC Diff
ZDC TAC Diff
Entries 15320
BBC-S TAC Diff
VPD TAC Diff
Entries 15320
BBC-S TAC Diff
ZDC TAC Diff
Entries 15320
VPD TAC Diff
ZDC TAC Diff

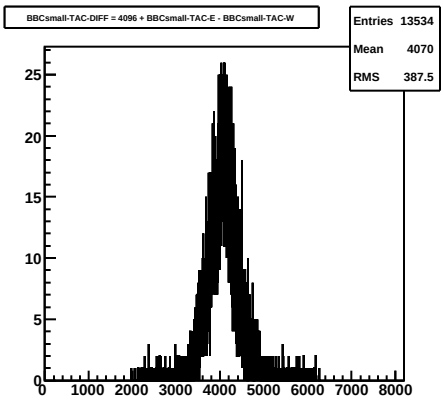

ZDC-TAC-E
Entries 2114
Mean 261.3
RMS 33.92

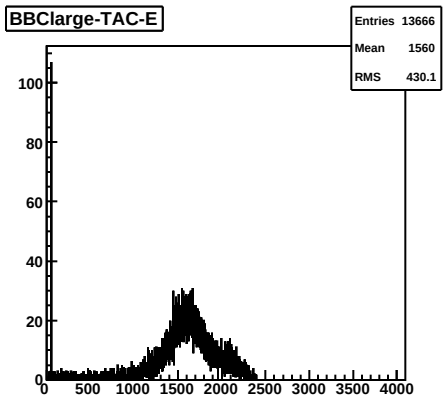

ZDC-TAC-W
Entries 2004
Mean 245.6
RMS 36.05

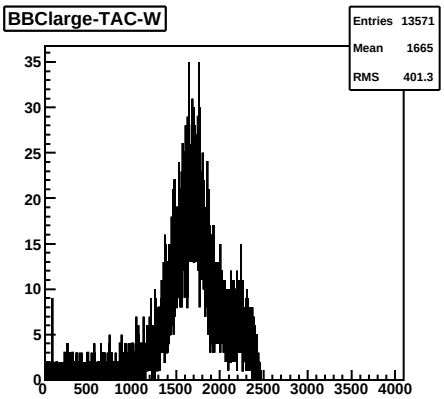

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 484
Mean 1039
RMS 44.36

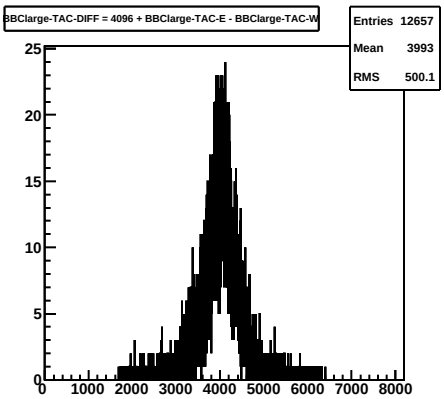

BBCsmall-TAC-E
Entries 14071
Mean 1759
RMS 344.1

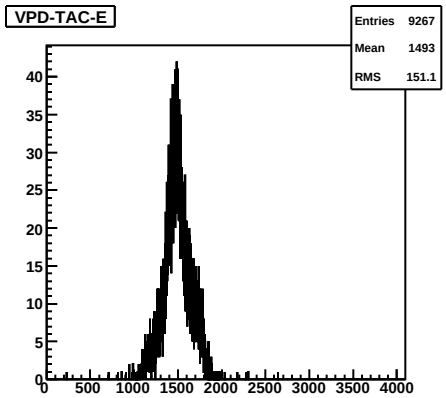

BBCsmall-TAC-W
Entries 14393
Mean 1775
RMS 366.8

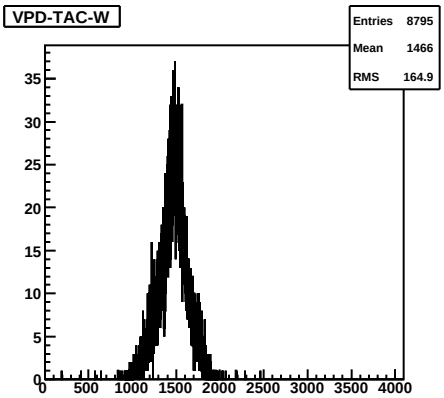

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 13534
Mean 4070
RMS 387.5

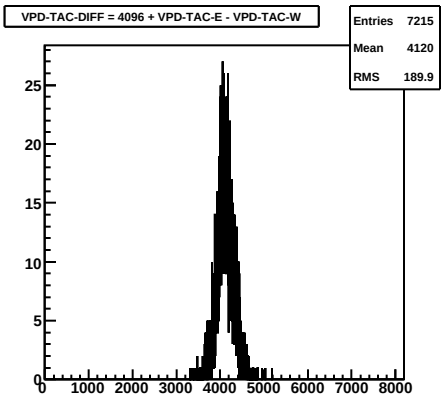

BBClarge-TAC-E
Entries 13666
Mean 1560
RMS 430.1

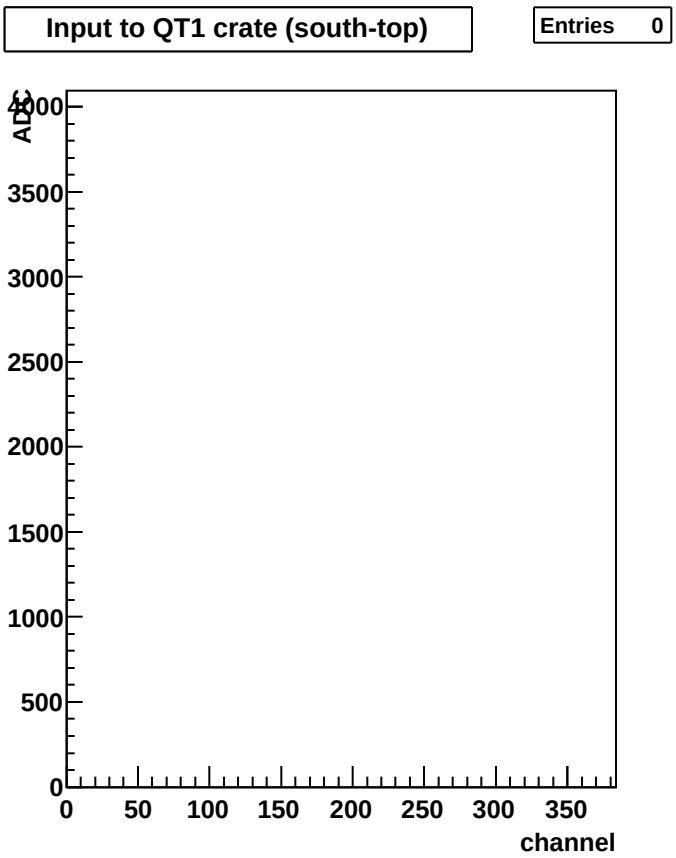

BBClarge-TAC-W
Entries 13571
Mean 1665
RMS 401.3

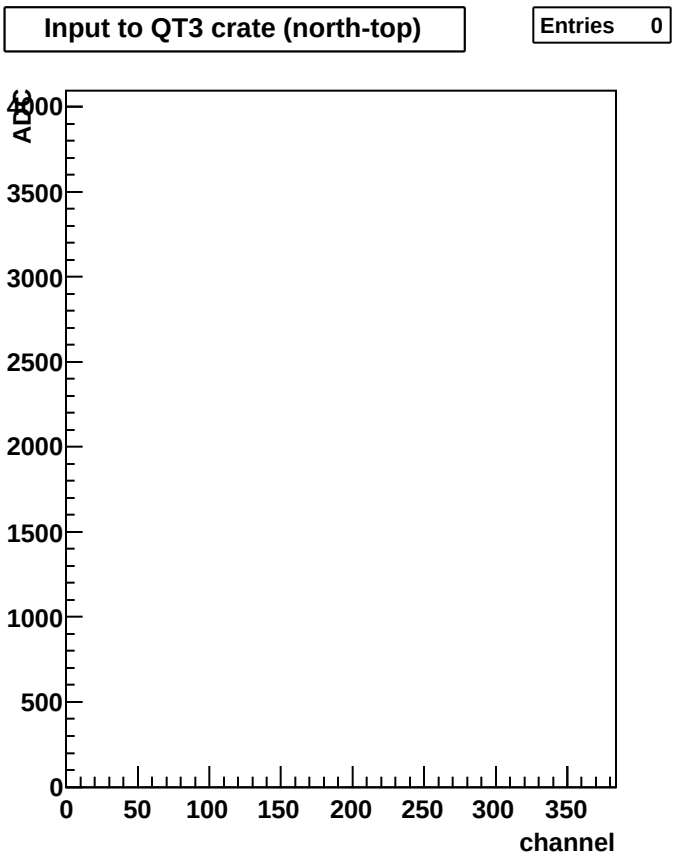

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 12657
Mean 3993
RMS 500.1

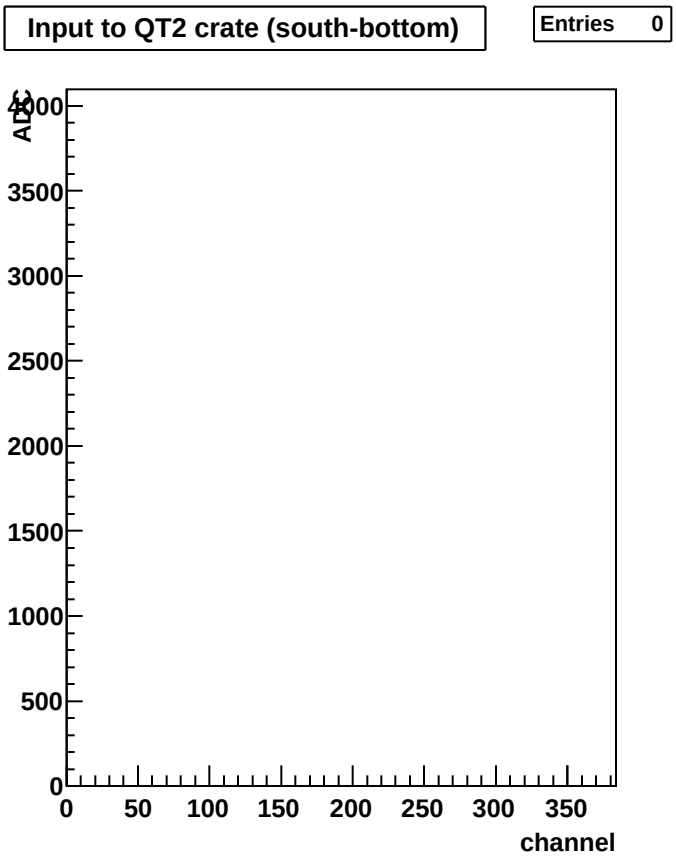

VPD-TAC-E
Entries 9267
Mean 1493
RMS 151.1

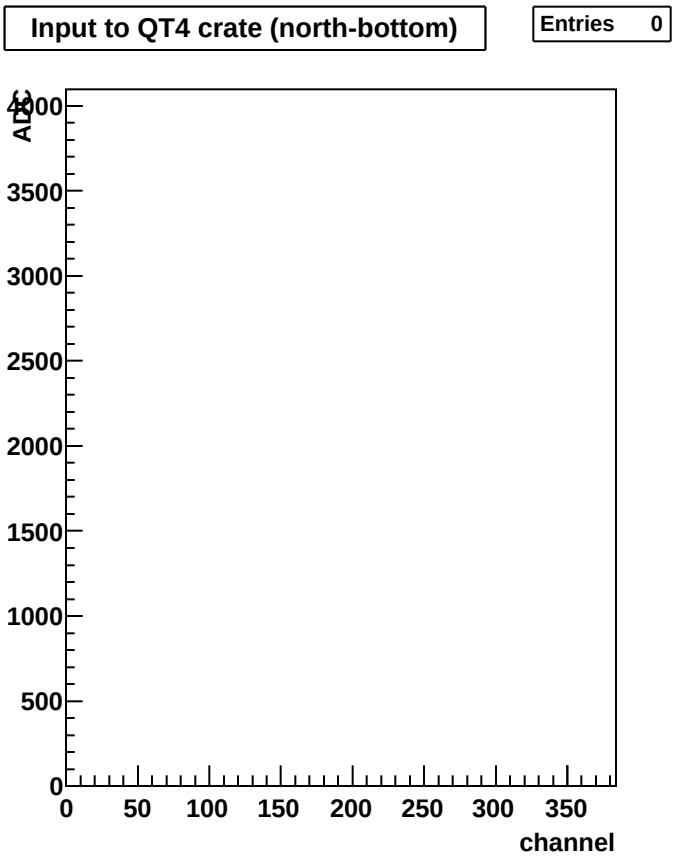

VPD-TAC-W
Entries 8795
Mean 1466
RMS 164.9

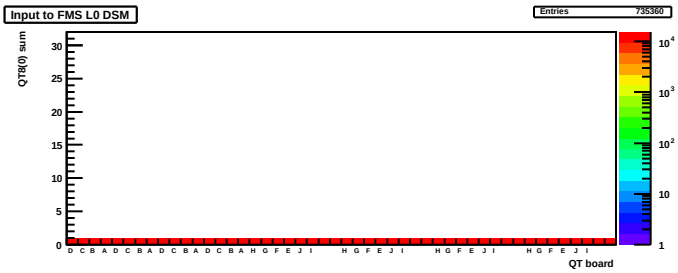

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 7215
Mean 4120
RMS 189.9

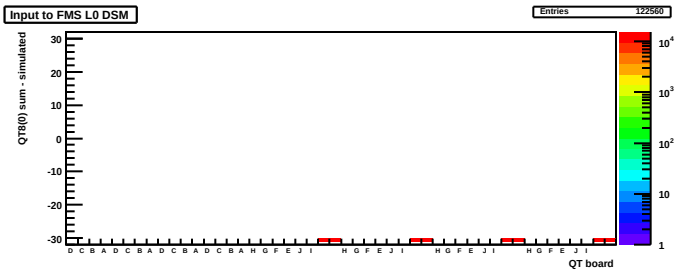

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

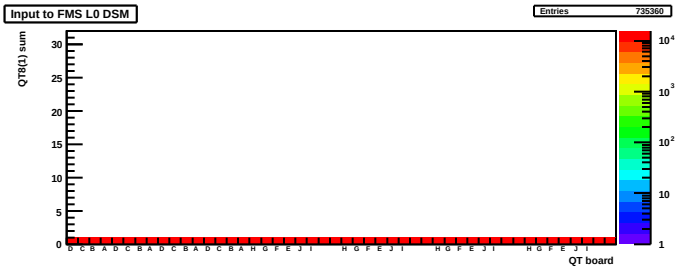

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

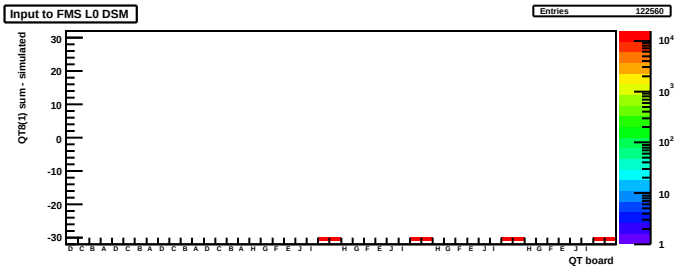

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

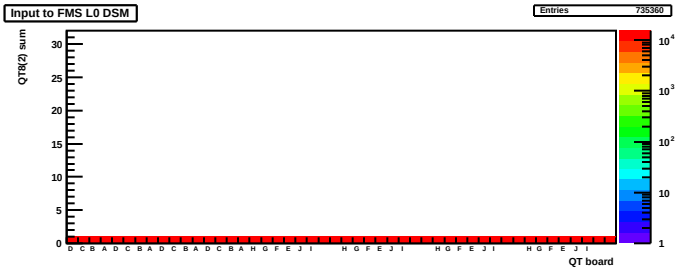

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

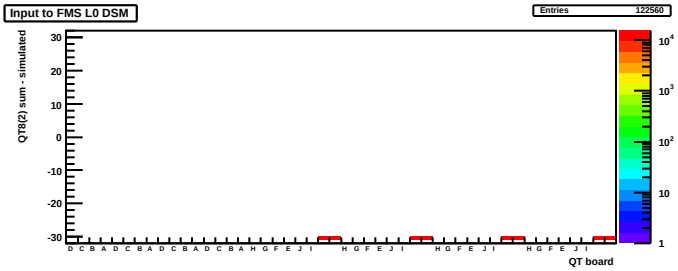

Input to FMS L0 DSM
Entries 735360
QT8(0) sum
QT board

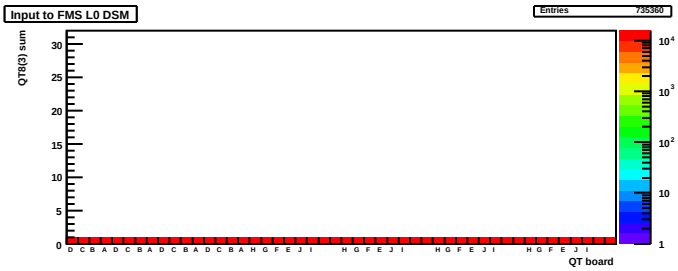

Input to FMS L0 DSM
Entries 122560
QT8(0) sum - simulated
QT board

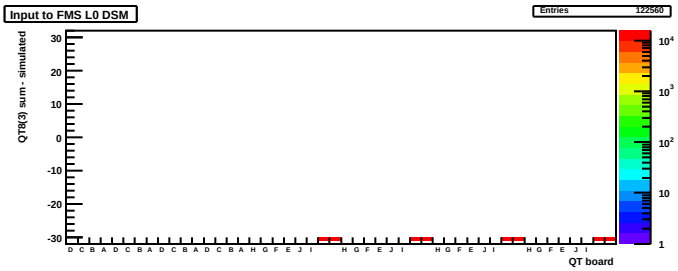

Input to FMS L0 DSM
Entries 735360
QT8(1) sum
QT board

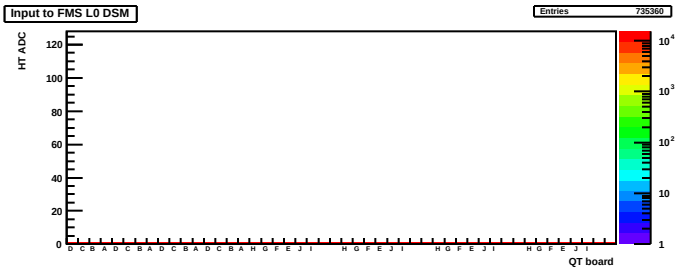

Input to FMS L0 DSM
Entries 122560
QT8(1) sum - simulated
QT board

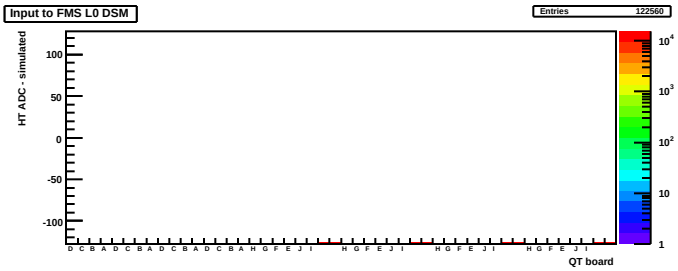

Input to FMS L0 DSM
Entries 735360
QT8(2) sum
QT board

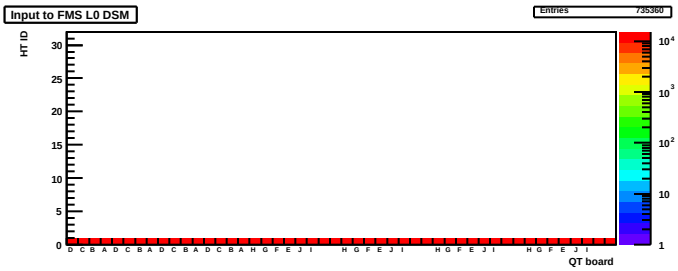

Input to FMS L0 DSM
Entries 122560
QT8(2) sum - simulated
QT board

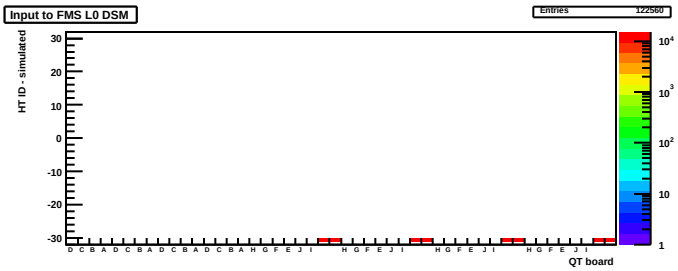

Input to FMS L0 DSM
Entries 735360
QT8(3) sum
QT board

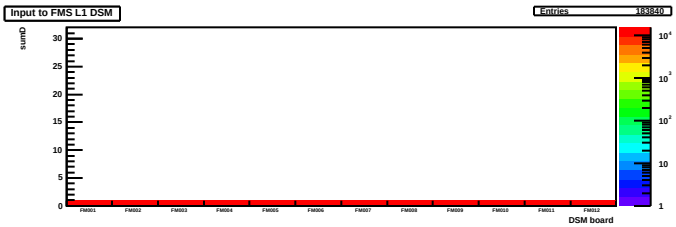

Input to FMS L0 DSM
Entries 122560
QT8(3) sum - simulated
QT board

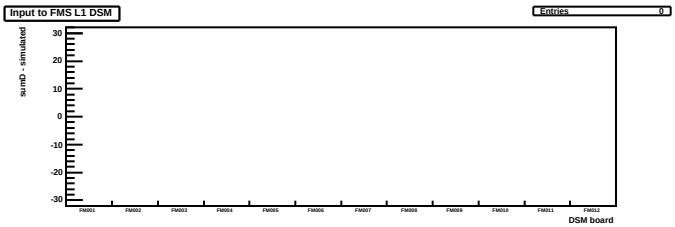

Input to FMS L0 DSM
Entries 735360
HT ADC
QT board

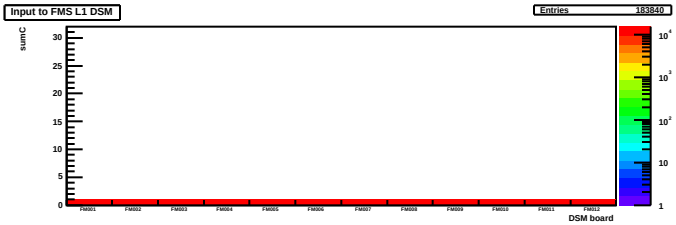

Input to FMS L0 DSM
Entries 122560
HT ADC - simulated
QT board

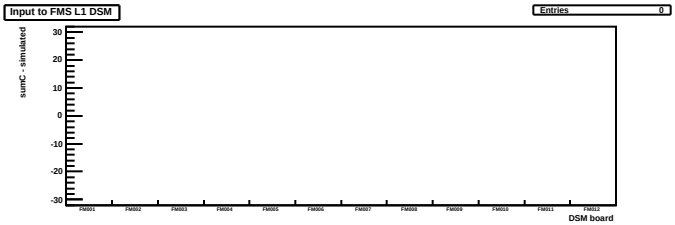

Input to FMS L0 DSM
Entries 735360
HT ID
QT board

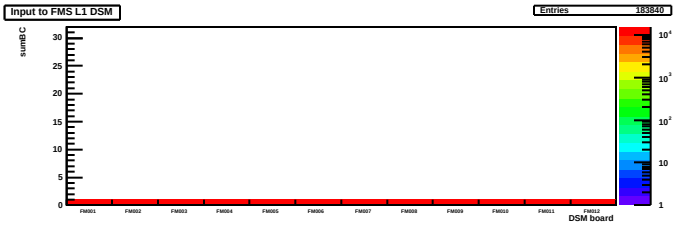

Input to FMS L0 DSM
Entries 122560
HT ID - simulated
QT board

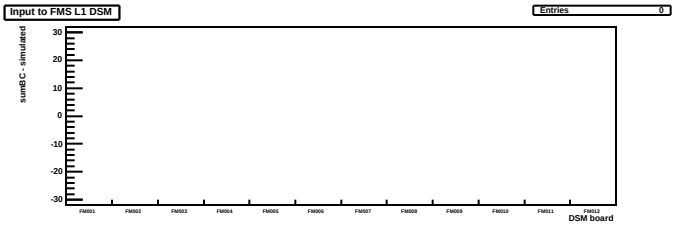

Input to FMS L1 DSM
Entries 183840
sumD
DSM board

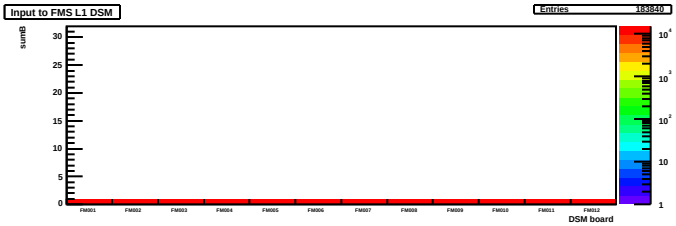

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

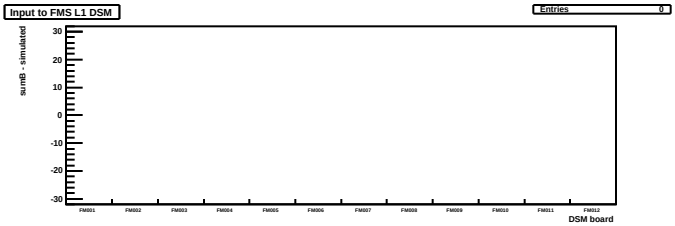

Input to FMS L1 DSM
Entries 183840
sumC
DSM board

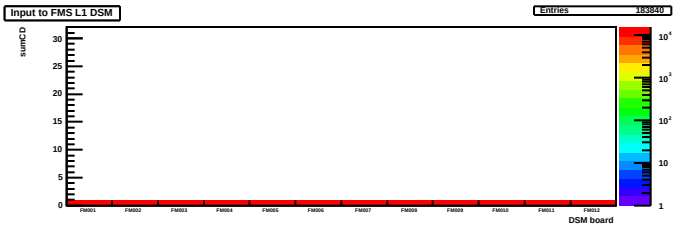

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

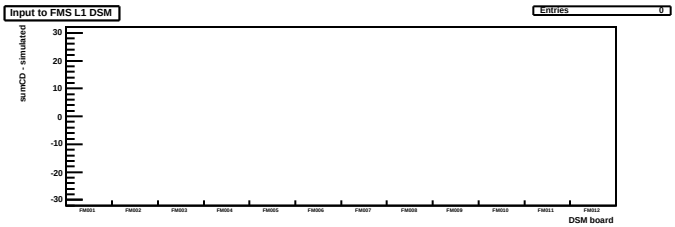

Input to FMS L1 DSM
Entries 183840
sumBC
DSM board

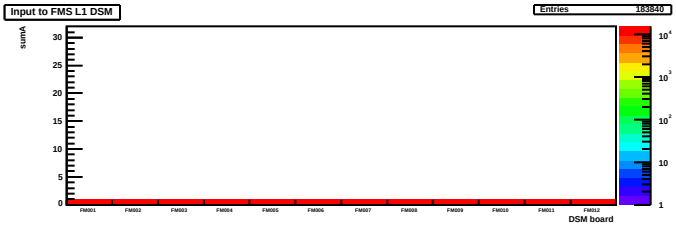

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

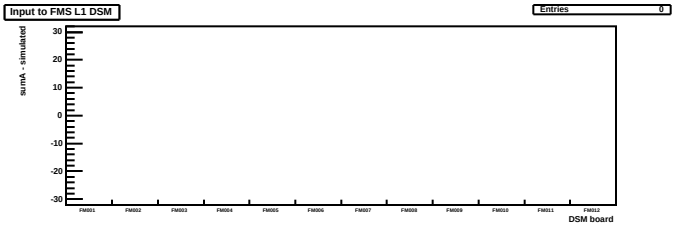

Input to FMS L1 DSM
Entries 183840
sumB
DSM board

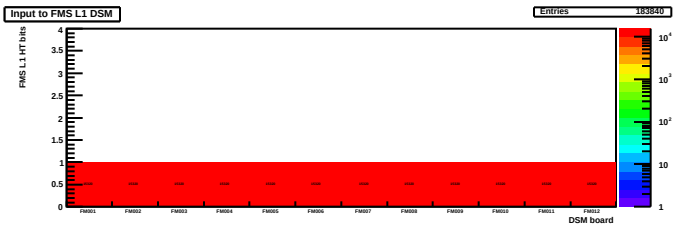

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

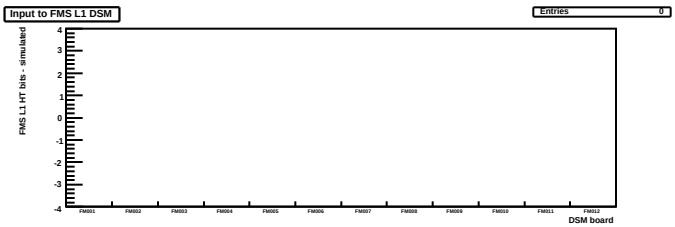

Input to FMS L1 DSM
Entries 183840
sumCD
DSM board

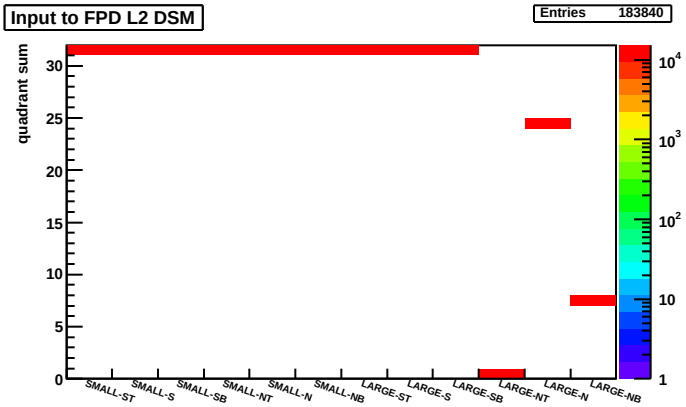

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

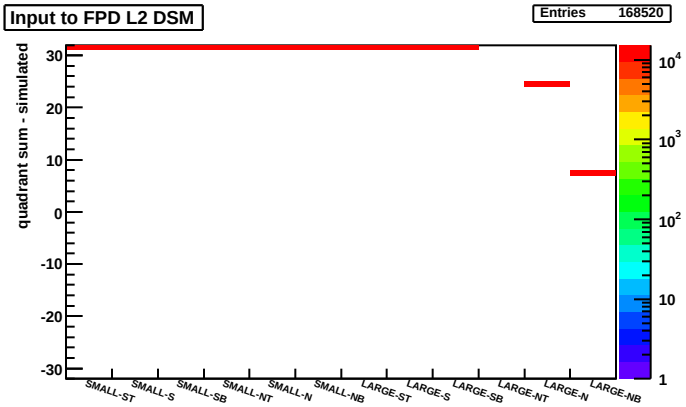

Input to FMS L1 DSM
Entries 183840
sumA
DSM board

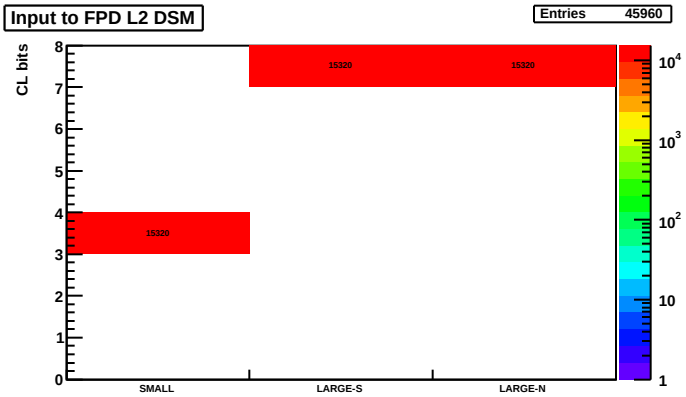

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

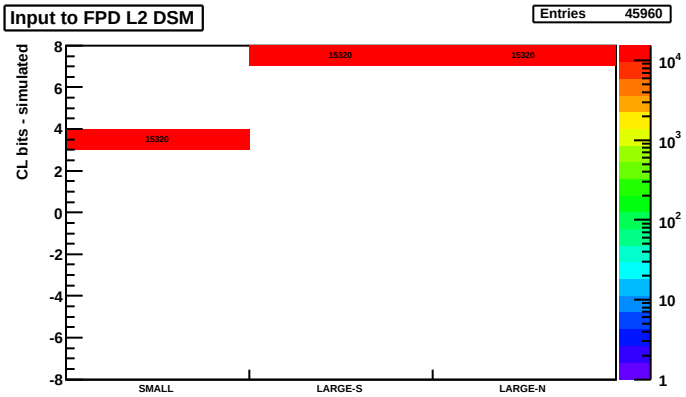

Input to FMS L1 DSM
Entries 183840
FMS L1 HT bits
DSM board

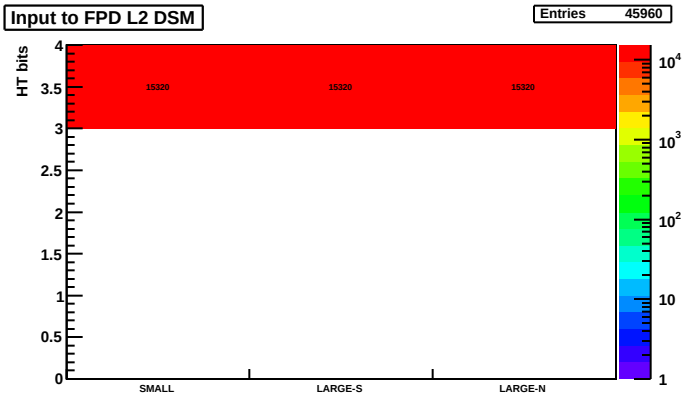

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

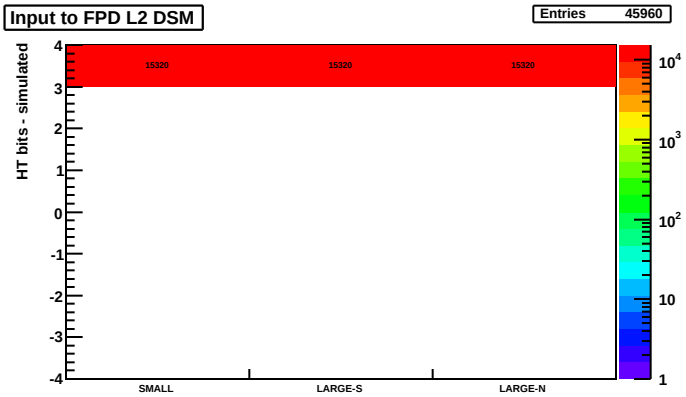

Input to FPD L2 DSM
Entries 183840
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

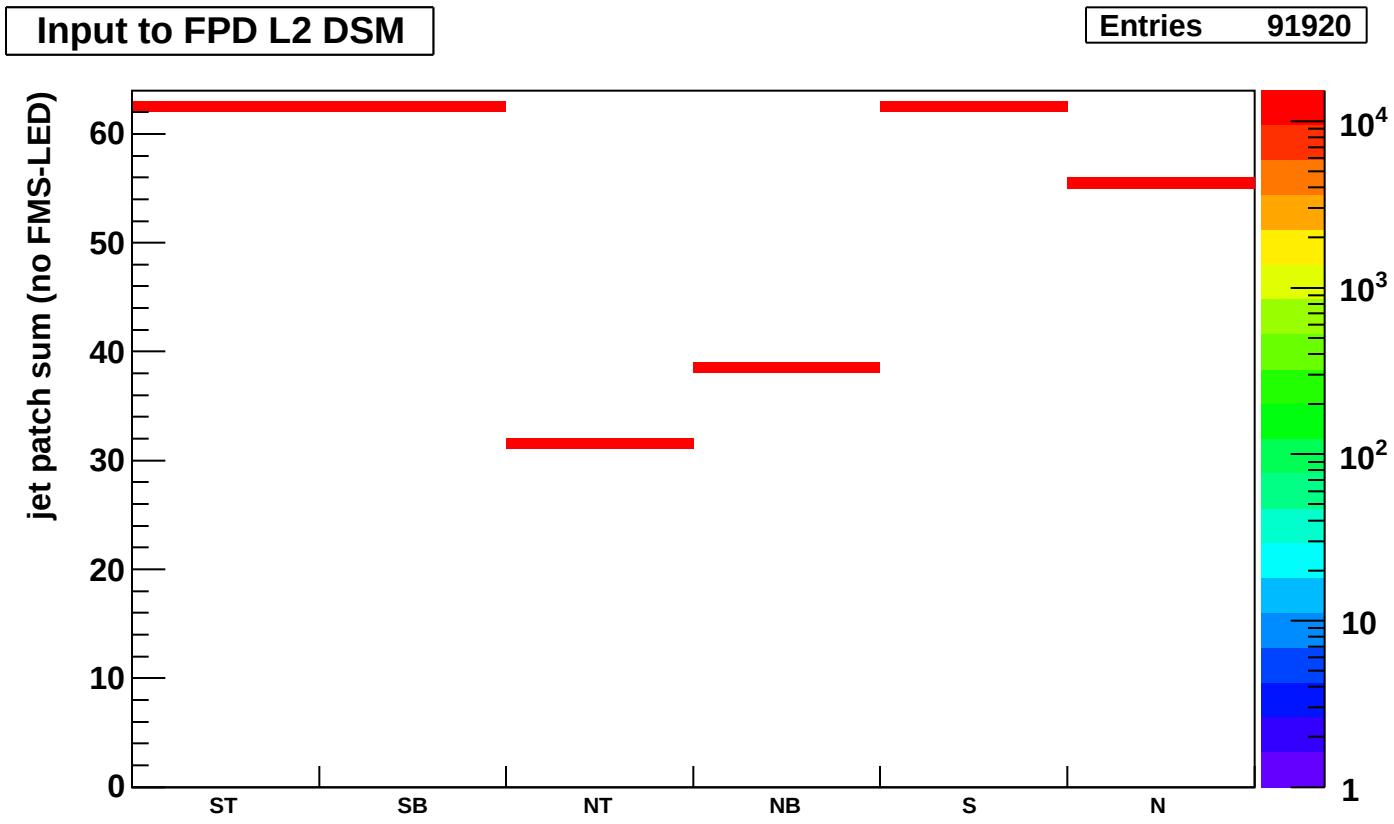

Input to FPD L2 DSM
Entries 168520
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

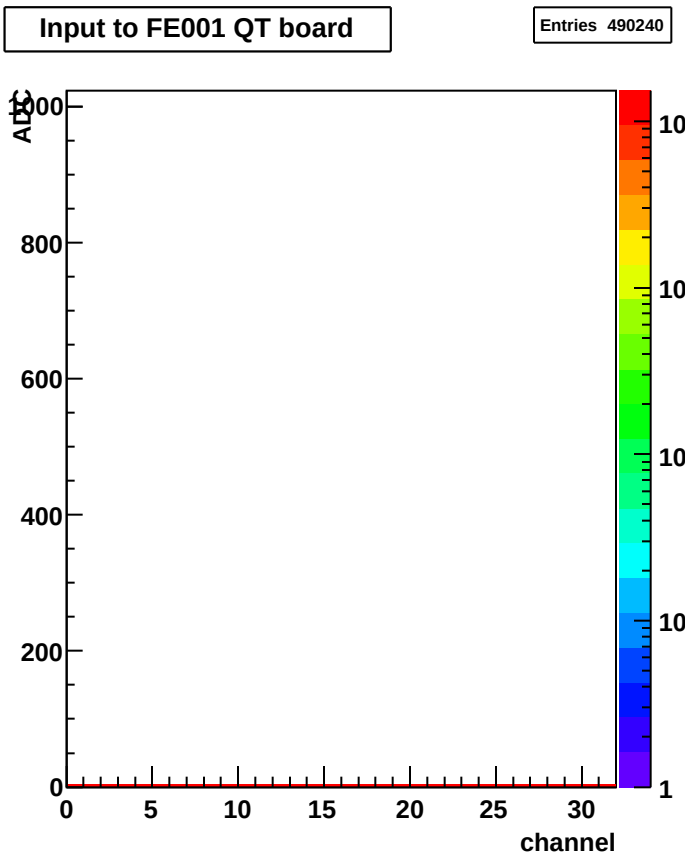

Input to FPD L2 DSM
Entries 45960
CL bits
15320
15320
15320
SMALL
LARGE-S
LARGE-N

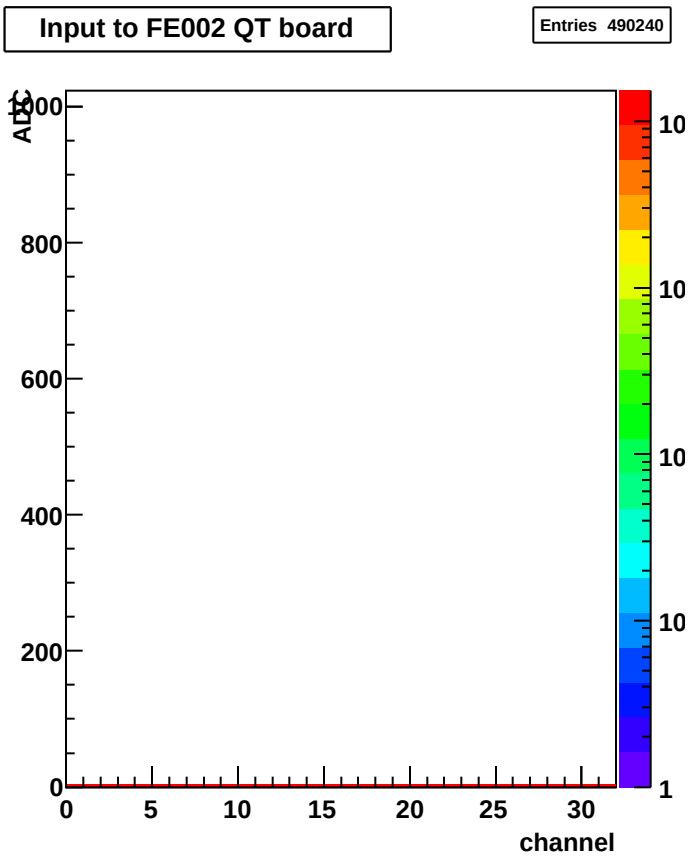

Input to FPD L2 DSM
Entries 45960
CL bits - simulated
15320
15320
15320
SMALL
LARGE-S
LARGE-N

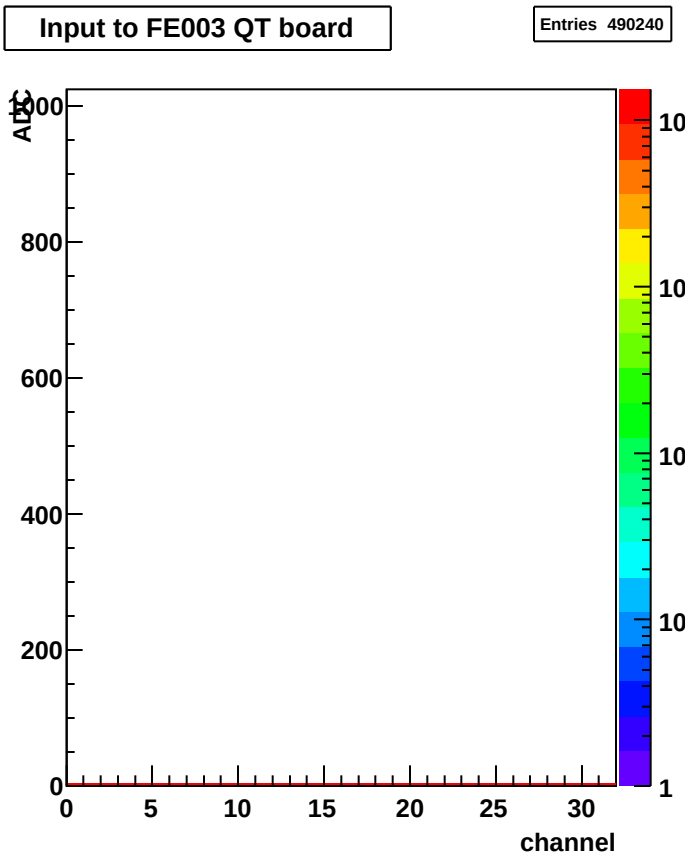

Input to FPD L2 DSM
Entries 45960
HT bits
15320
15320
15320
SMALL
LARGE-S
LARGE-N

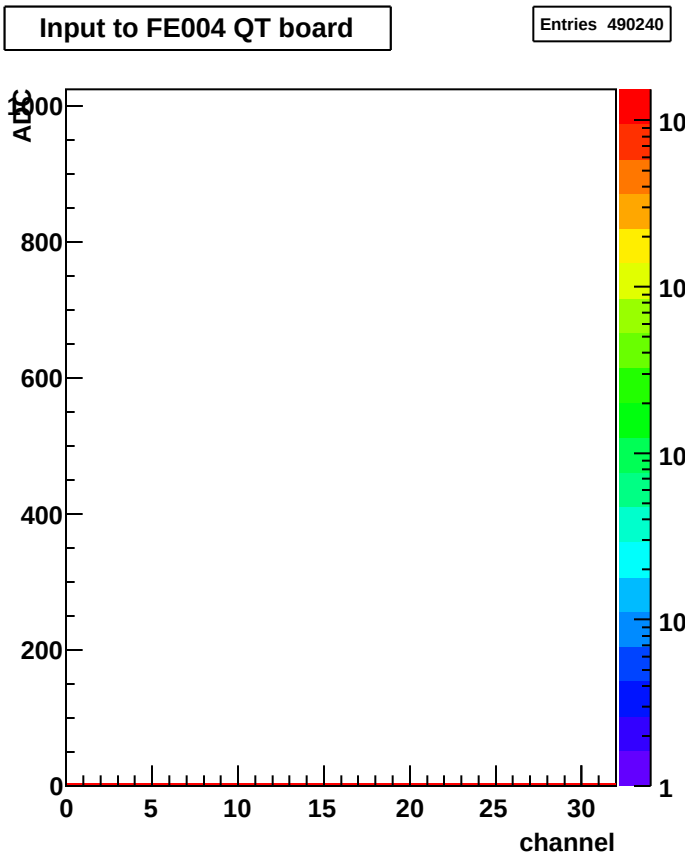

Input to FPD L2 DSM
Entries 45960
HT bits - simulated
15320
15320
15320
SMALL
LARGE-S
LARGE-N

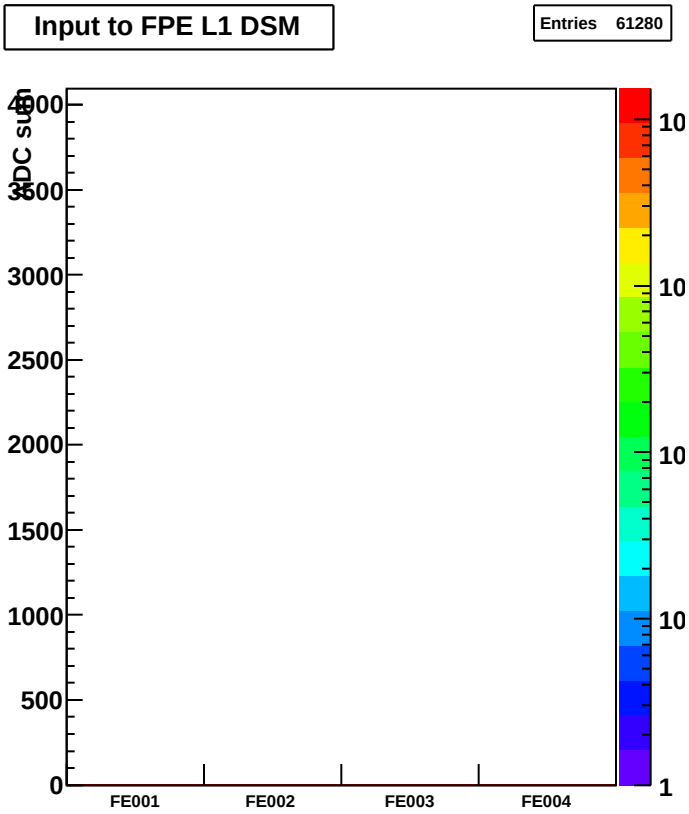

Input to FPD L2 DSM
Entries 91920
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

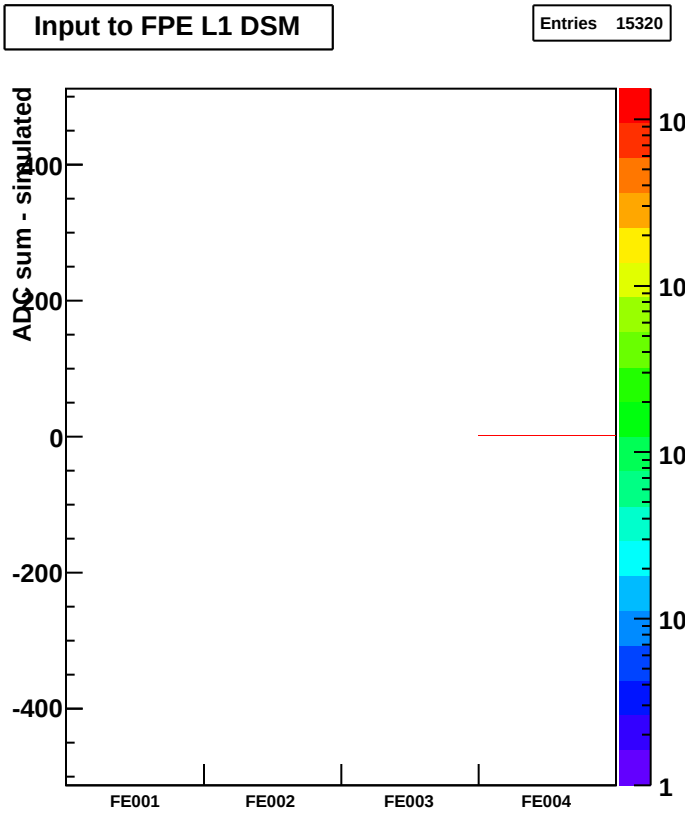

Input to FE001 QT board
Entries 490240
ADC
channel

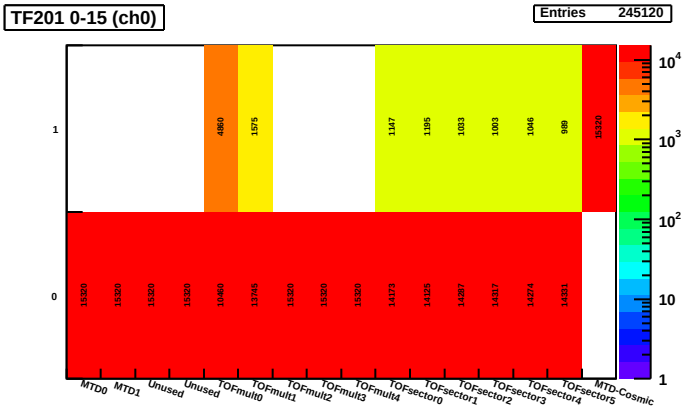

Input to FE002 QT board
Entries 490240
ADC
channel

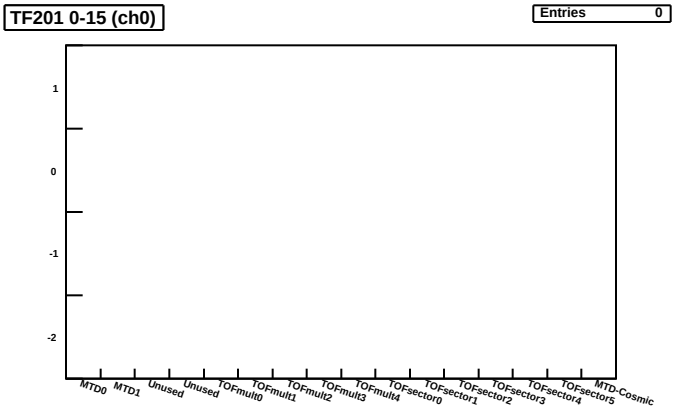

Input to FE003 QT board
Entries 490240
ADC
channel

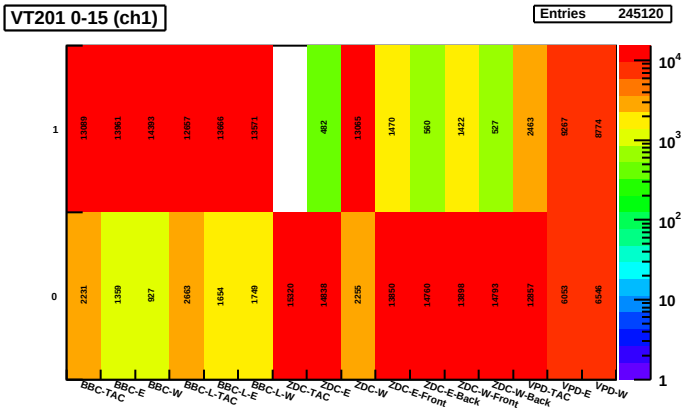

Input to FE004 QT board
Entries 490240
ADC
channel

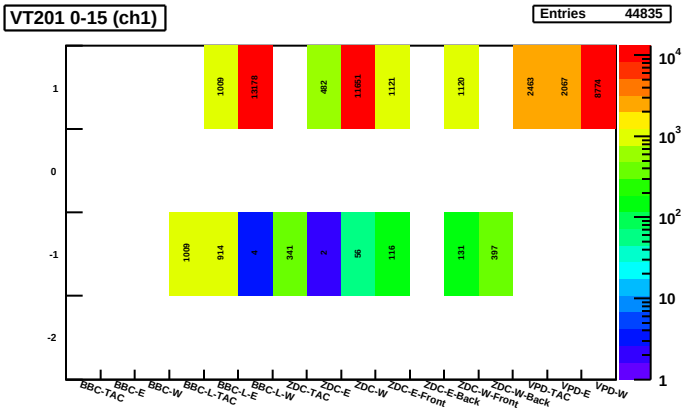

Input to FPE L1 DSM
Entries 61280
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 15320
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 245120
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


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


VT201 0-15 (ch1)
Entries 245120
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 44835
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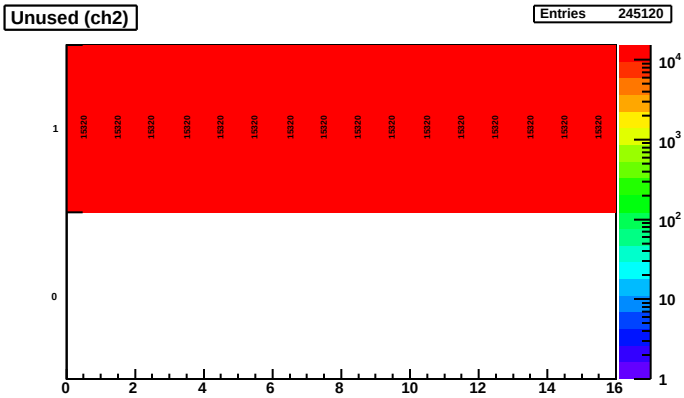
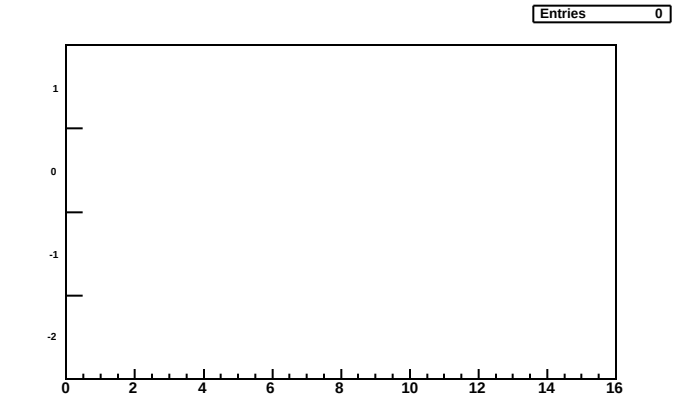

Unused (ch2)
Entries 245120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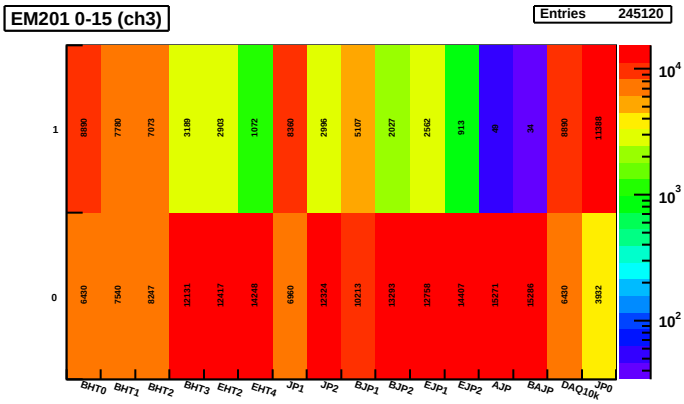
EM201 0-15 (ch3)
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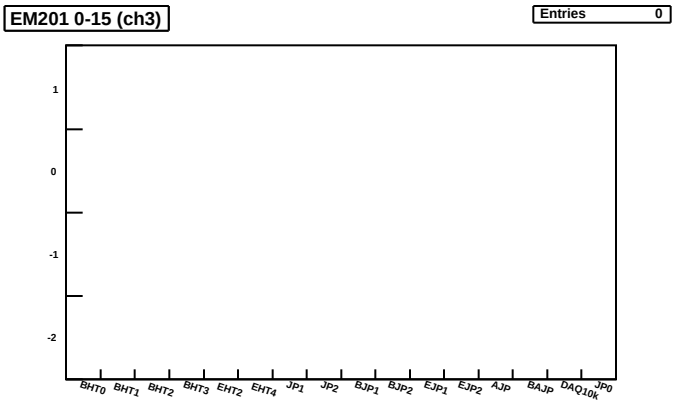
EM201 0-15 (ch3)
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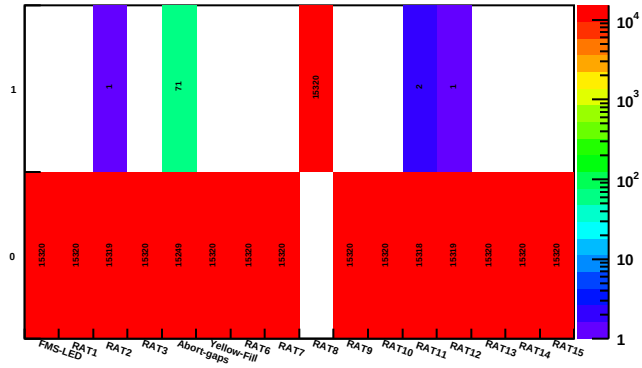
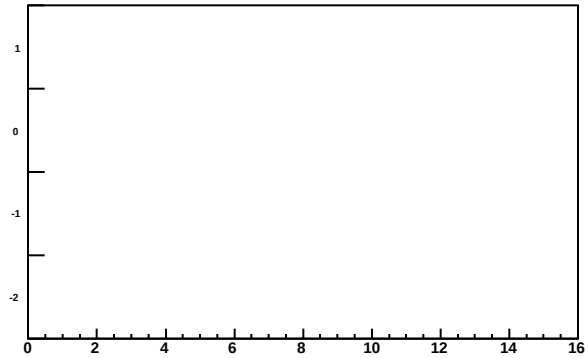
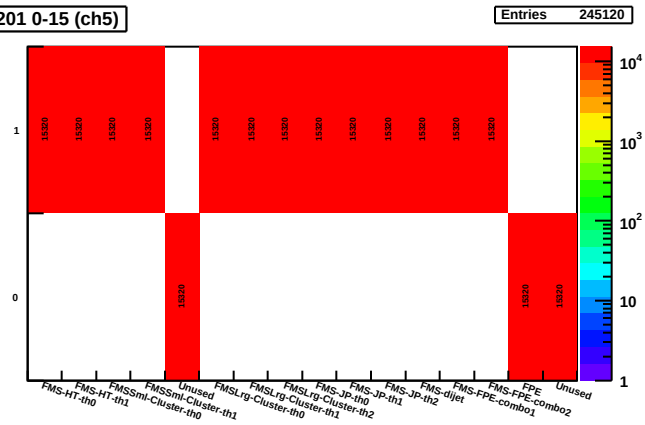
RAT board (ch4)

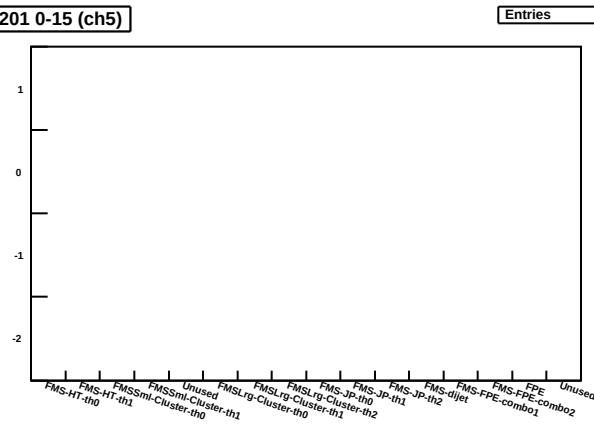




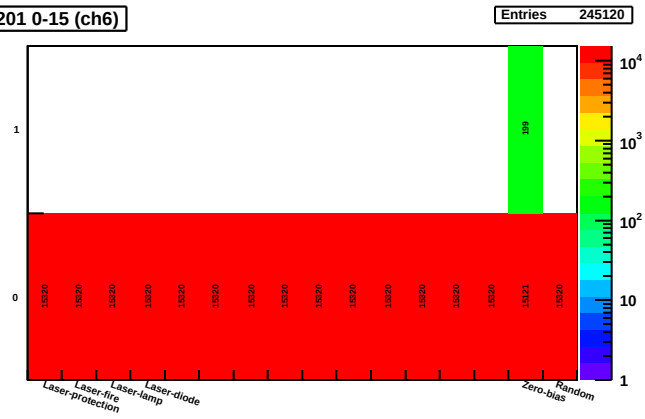
FP201 0-15 (ch5)

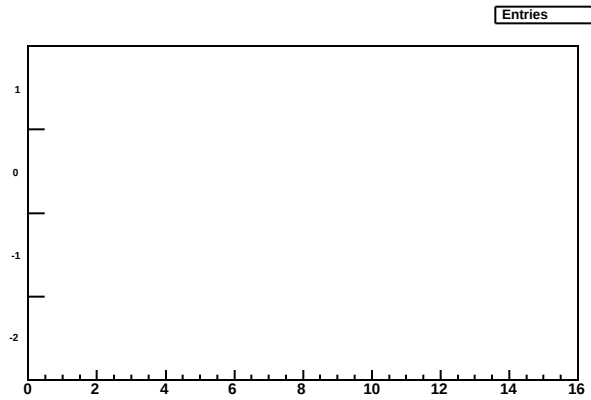
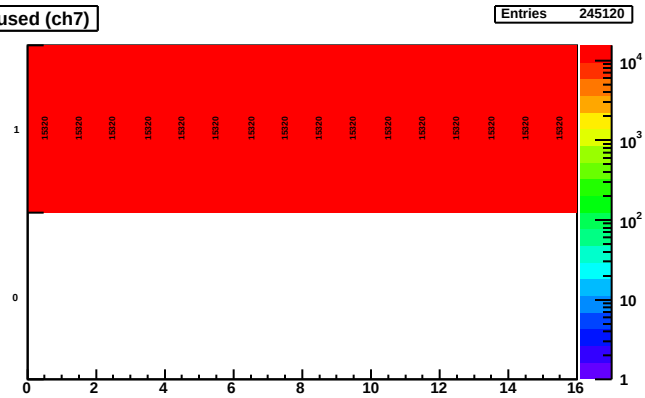
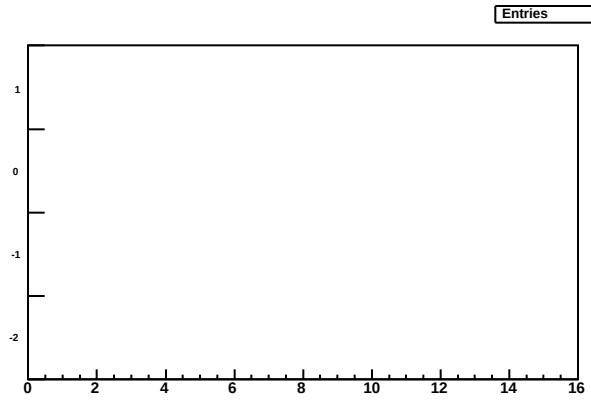


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)