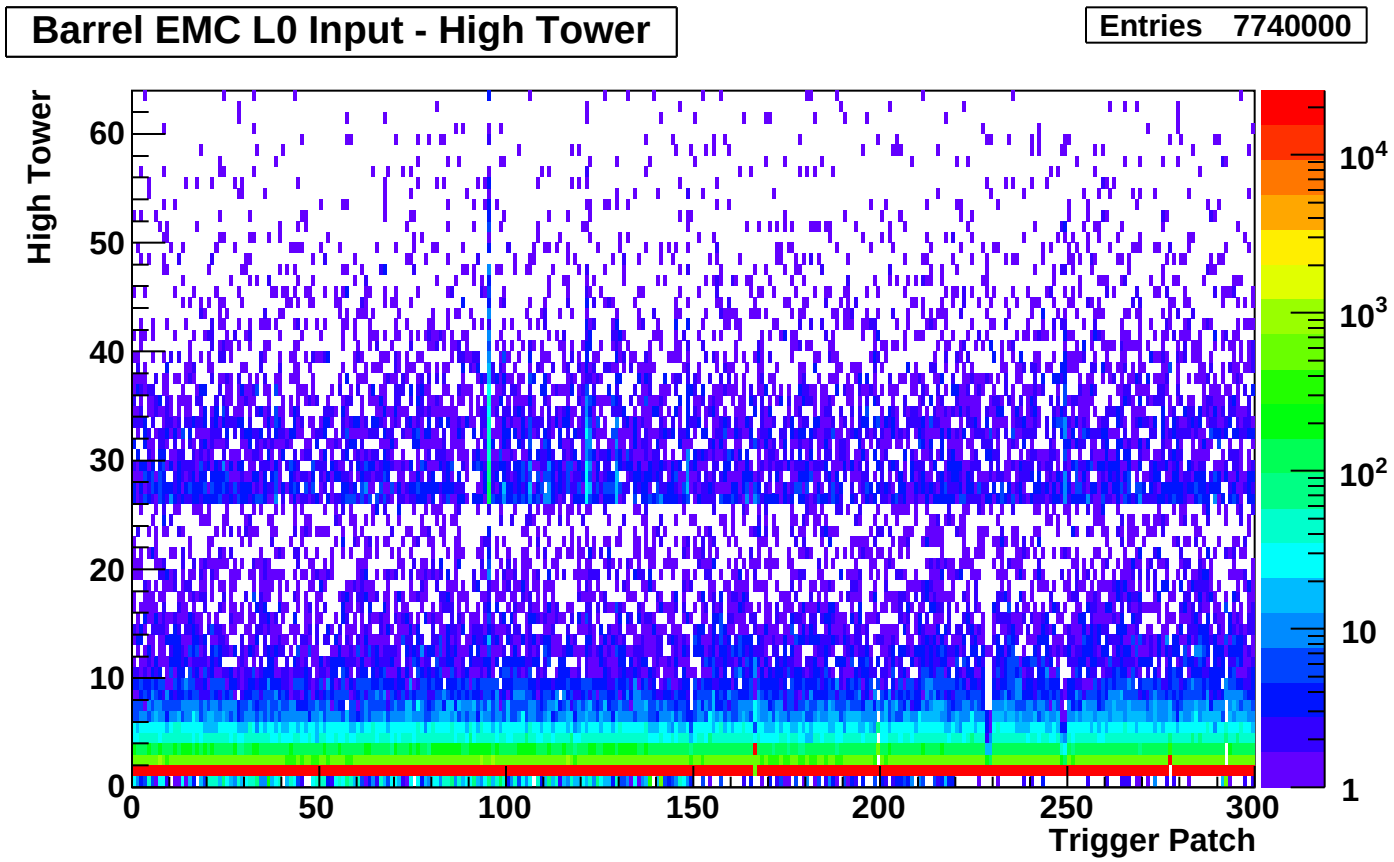
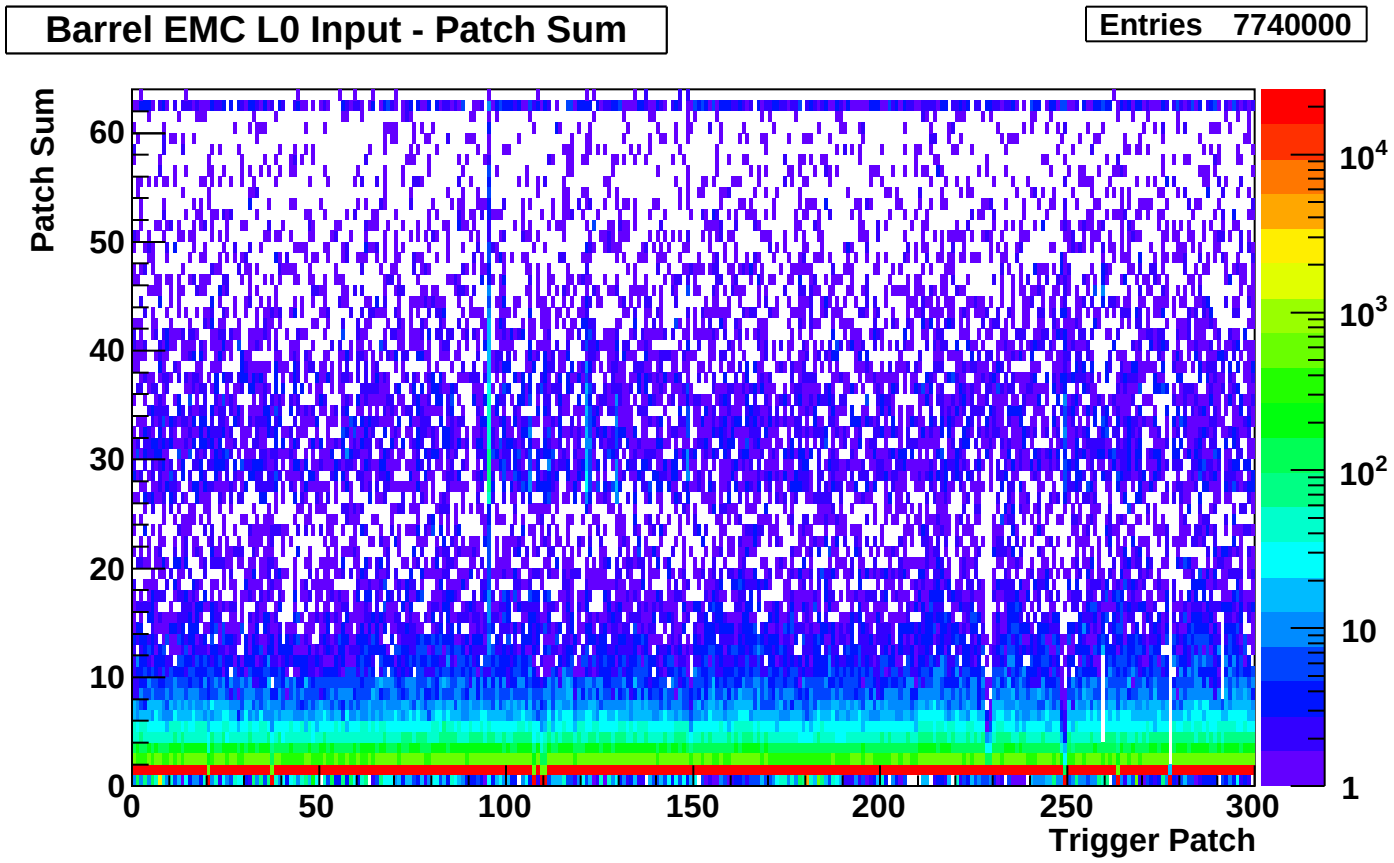
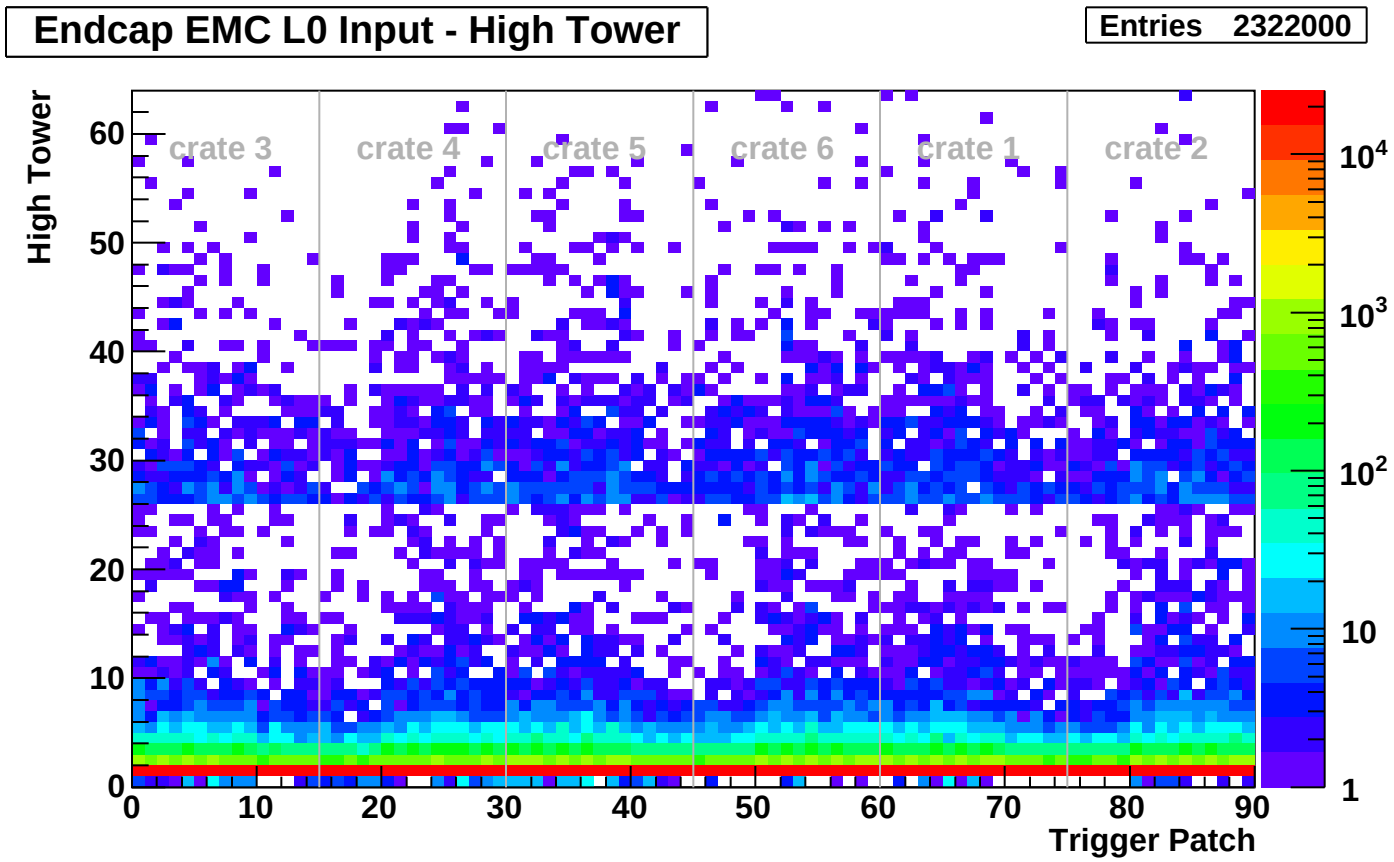
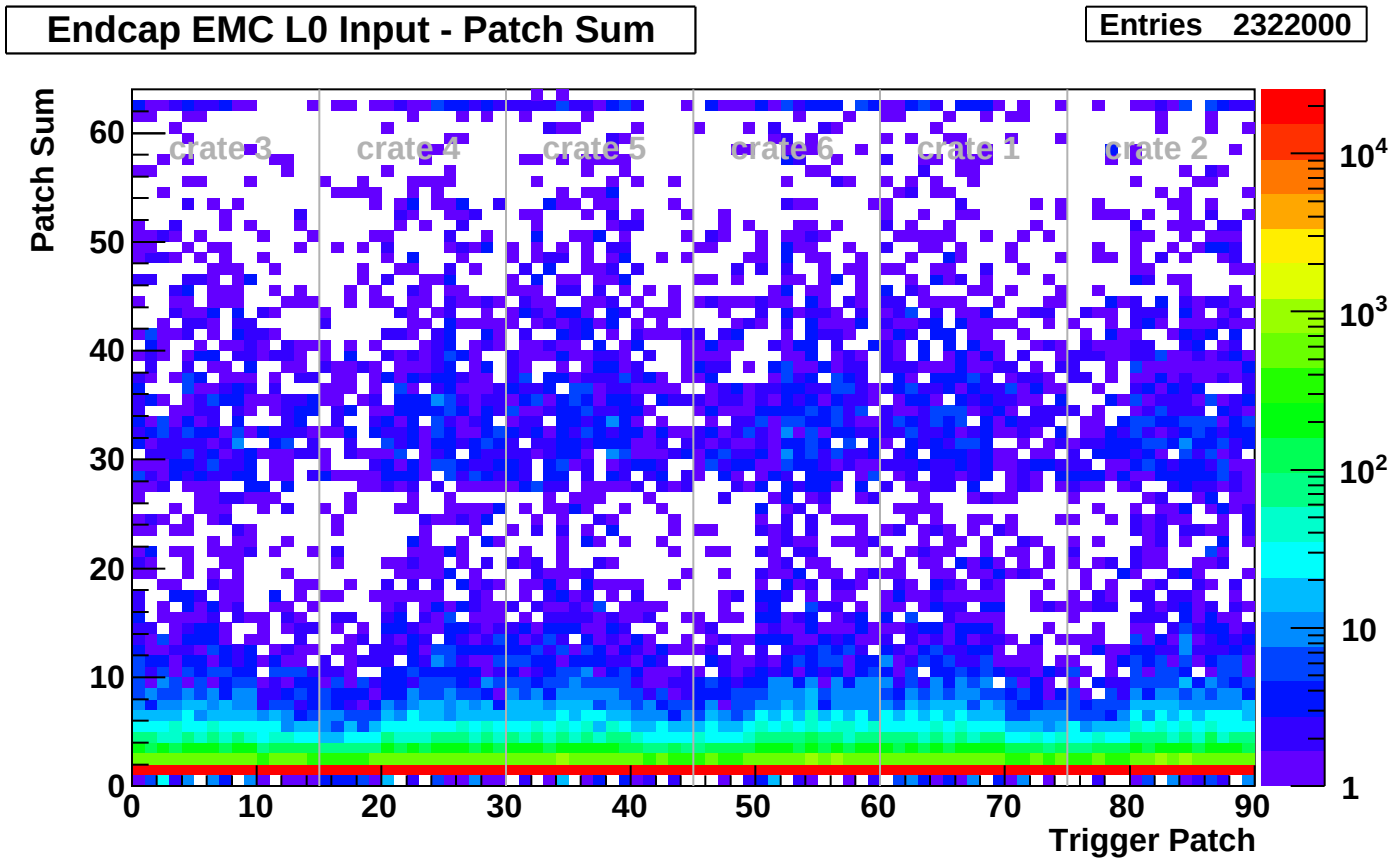
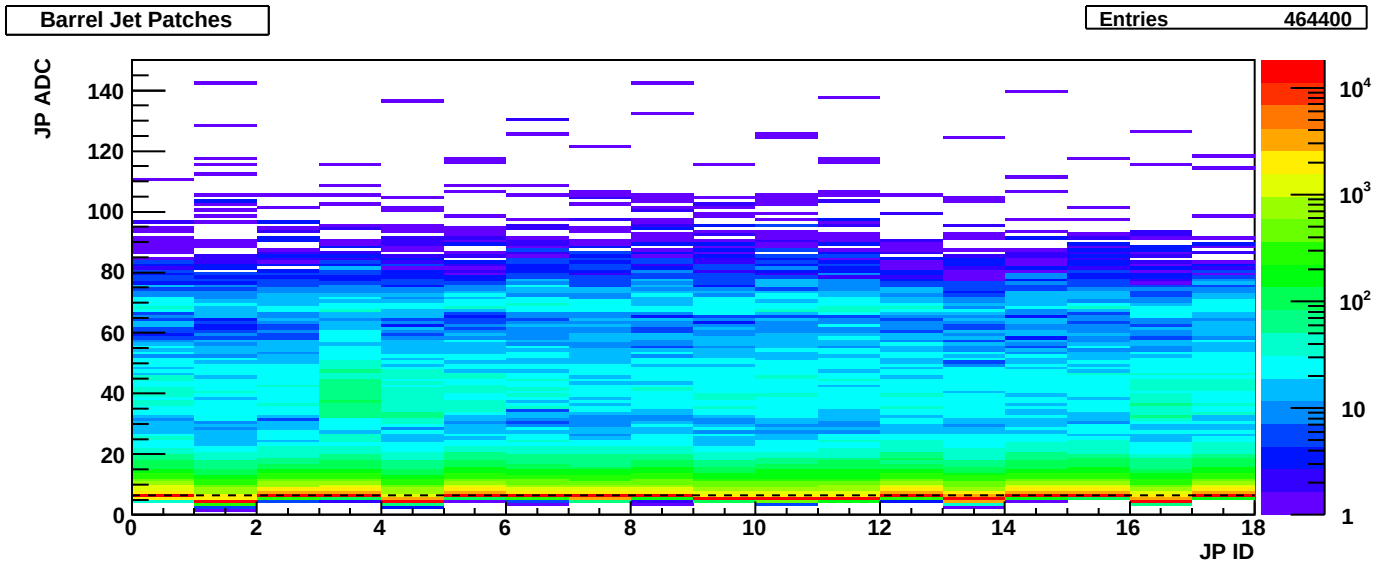
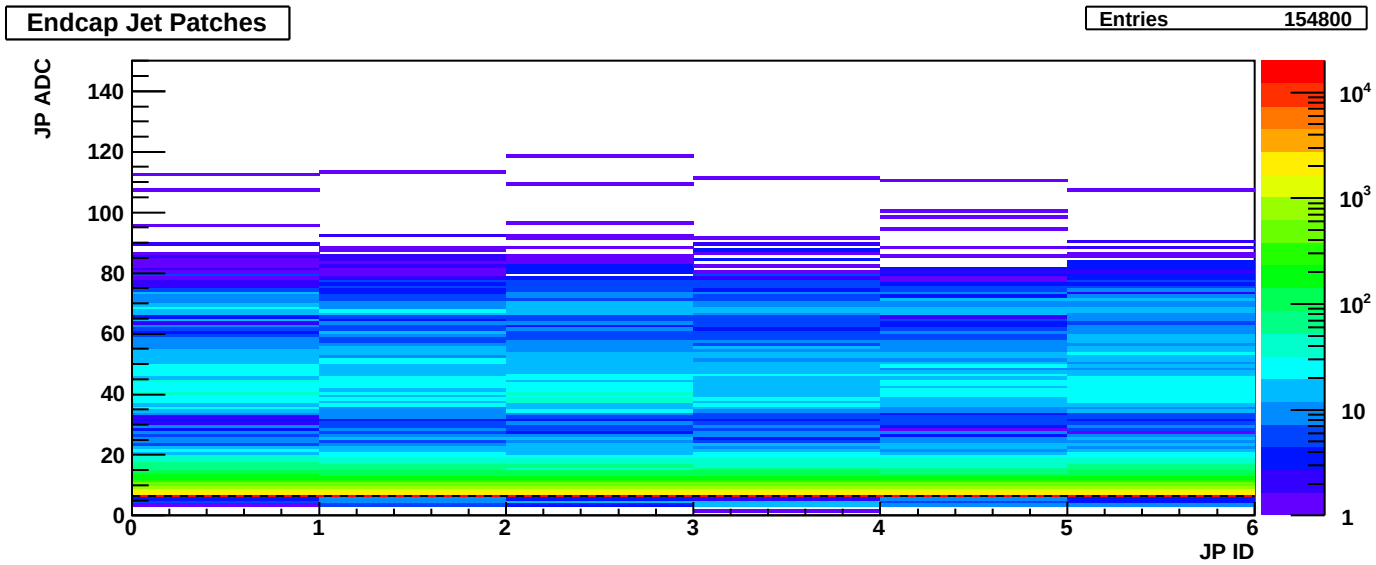

Barrel EMC L0 Input - High Tower
Entries 7740000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

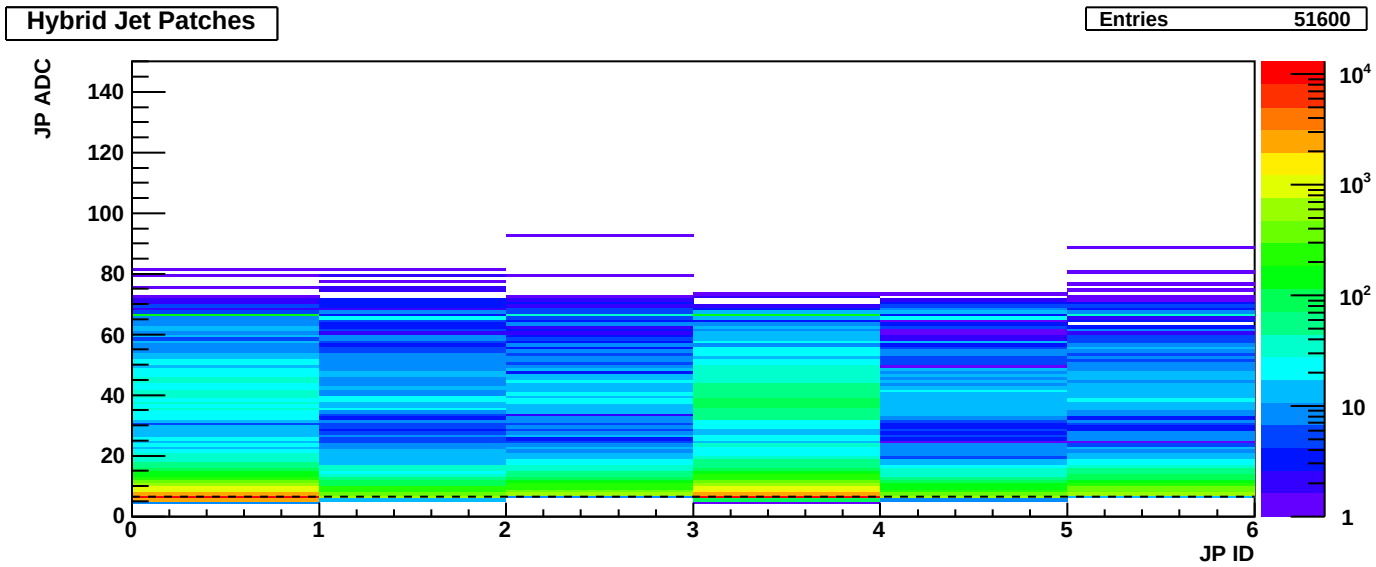

Barrel EMC L0 Input - Patch Sum
Entries 7740000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

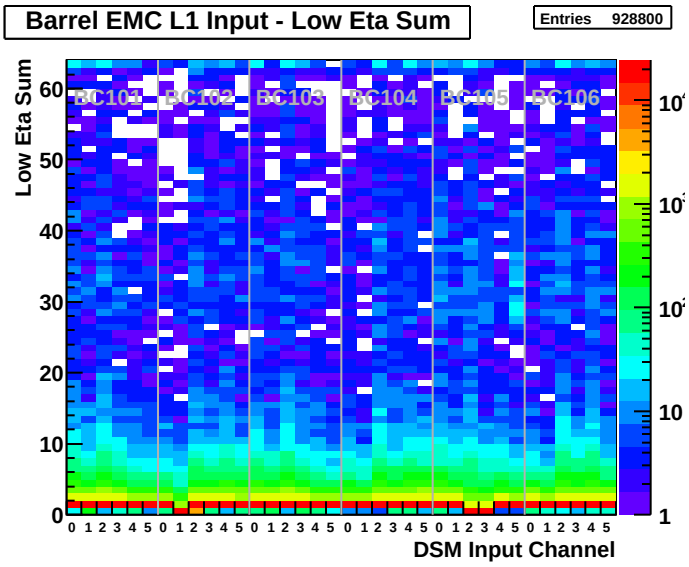

Endcap EMC L0 Input - High Tower
Entries 2322000
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

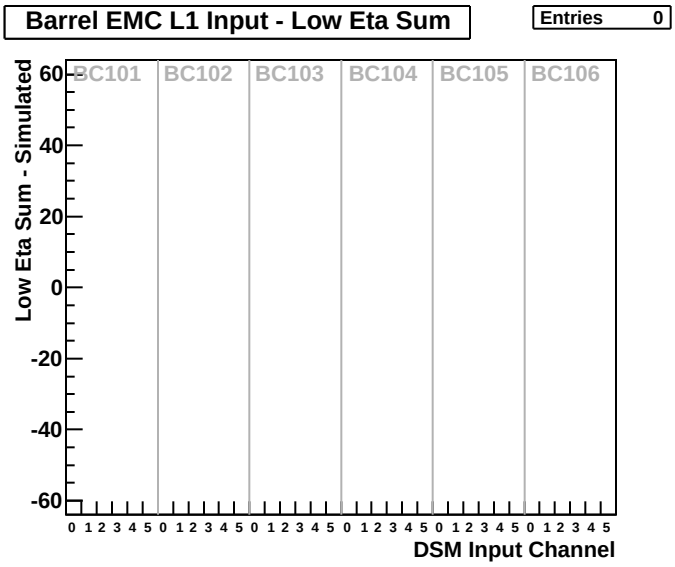

Endcap EMC L0 Input - Patch Sum
Entries 2322000
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

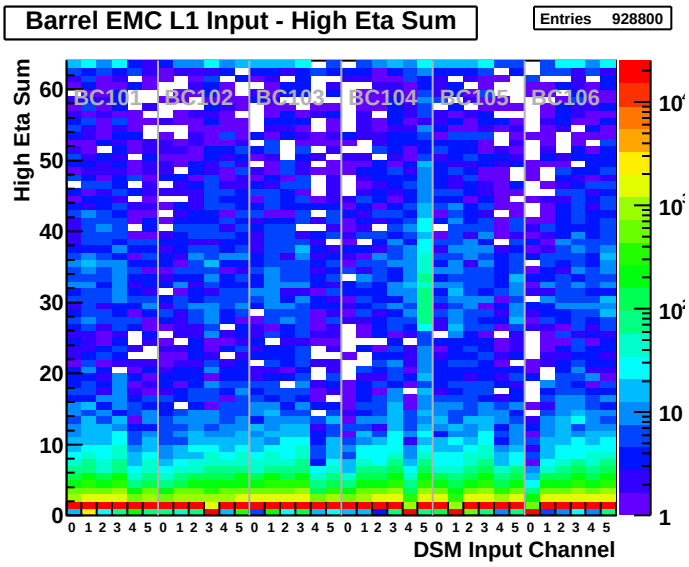

Barrel Jet Patches
Entries 464400
JP ADC
JP ID

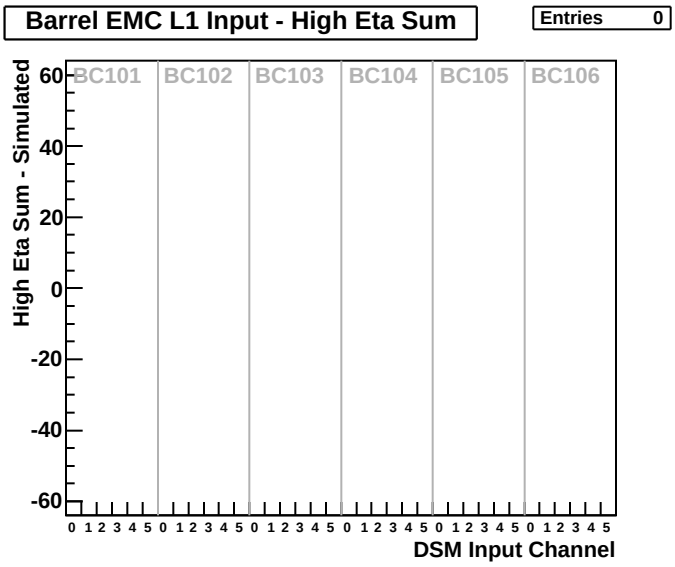

Endcap Jet Patches
Entries 154800
JP ADC
JP ID

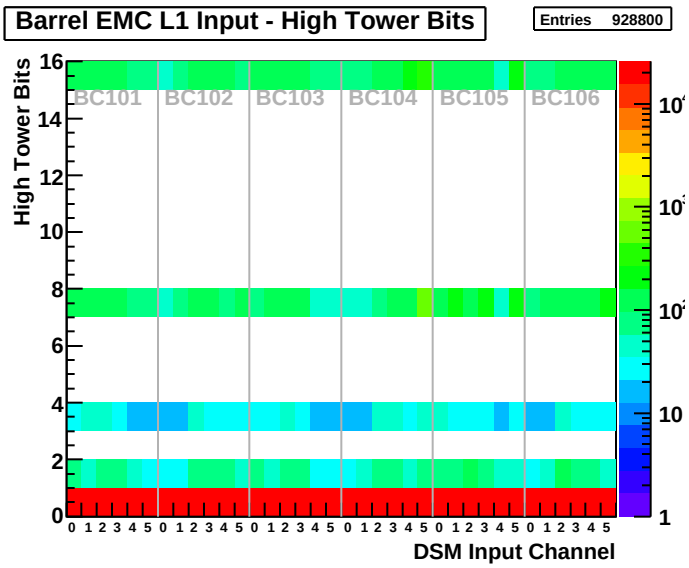

Hybrid Jet Patches
Entries 51600
JP ADC
JP ID

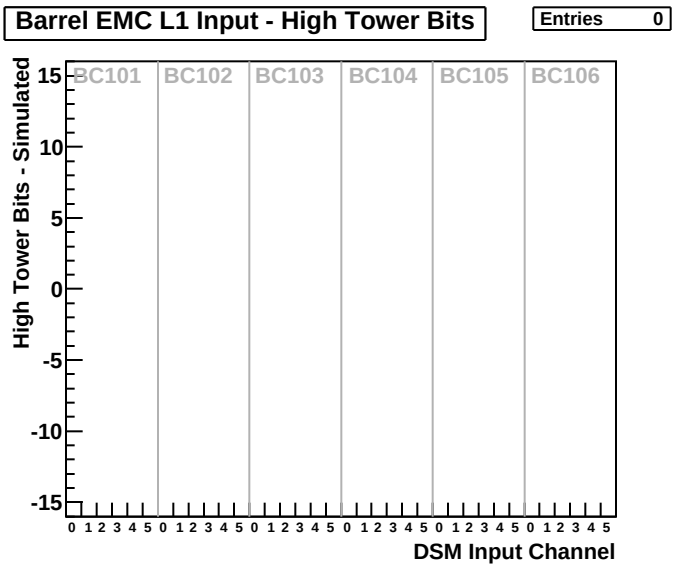

Barrel EMC L1 Input - Low Eta Sum
Entries 928800
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

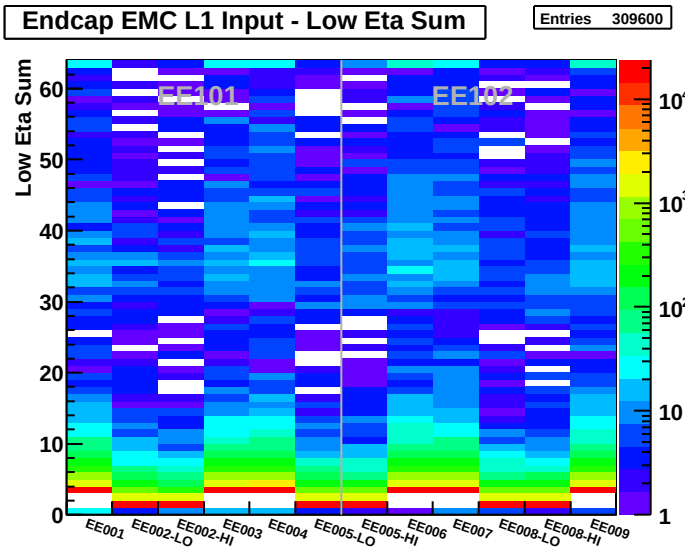

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

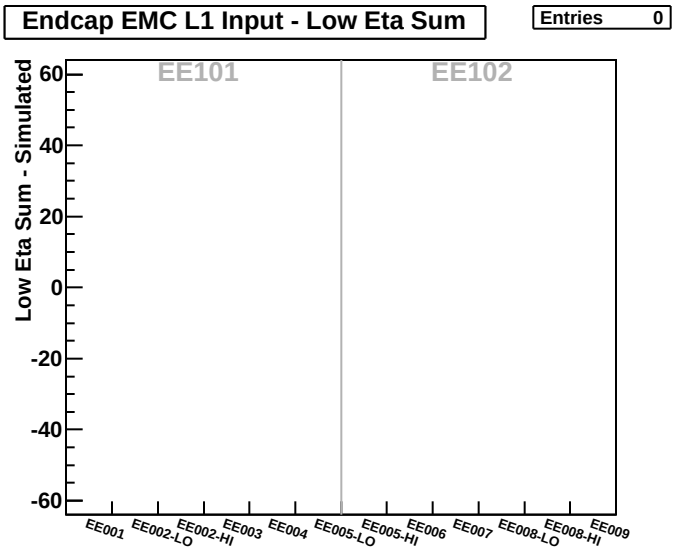

Barrel EMC L1 Input - High Eta Sum
Entries 928800
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

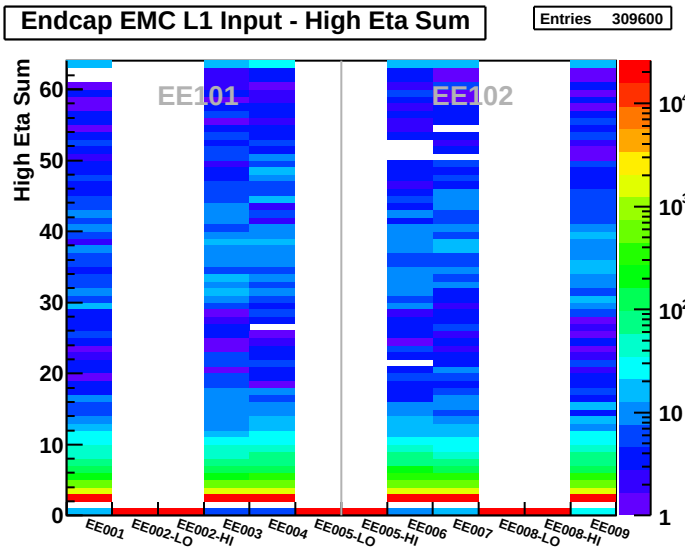

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

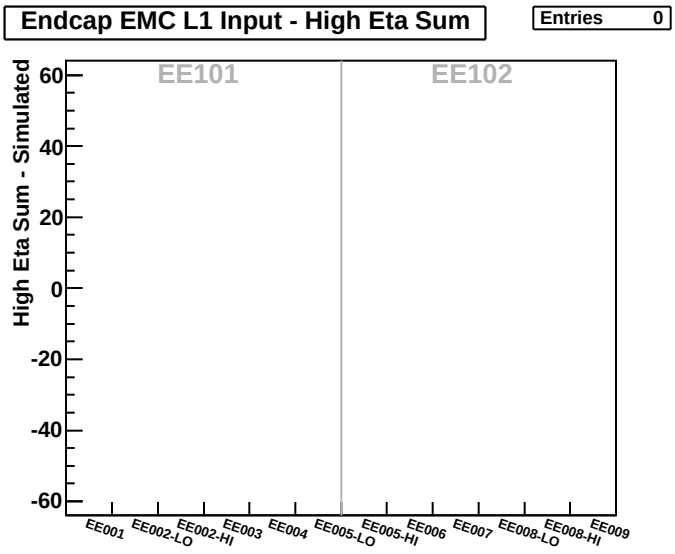

Barrel EMC L1 Input - High Tower Bits
Entries 928800
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

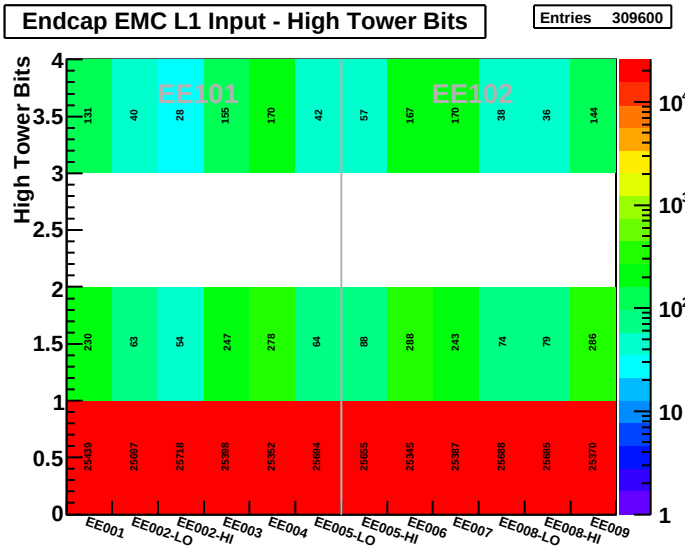

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

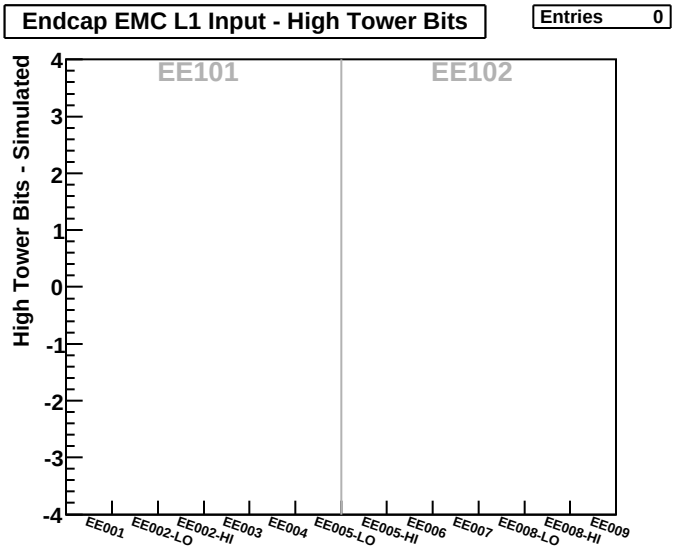

Endcap EMC L1 Input - Low Eta Sum
Entries 309600
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

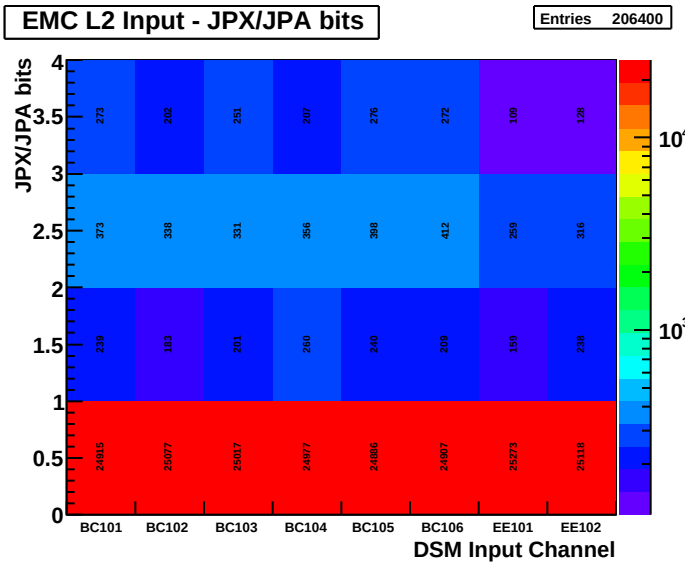

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

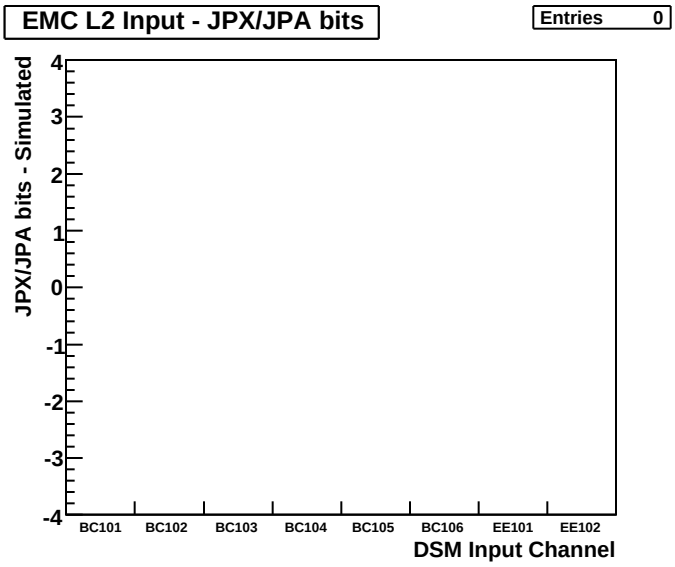

Endcap EMC L1 Input - High Eta Sum
Entries 309600
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

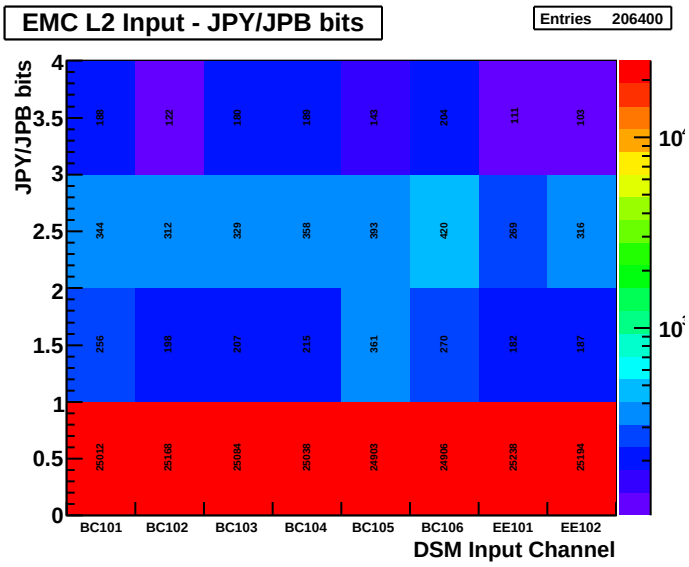

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

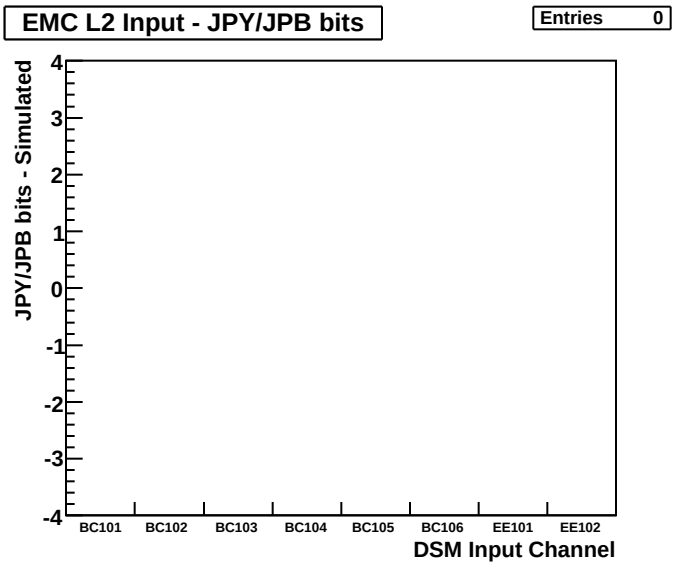

Endcap EMC L1 Input - High Tower Bits
Entries 309600
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

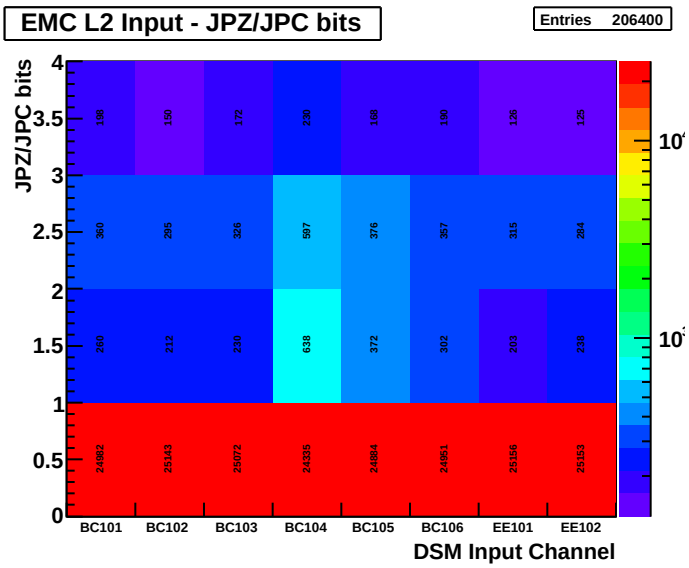

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

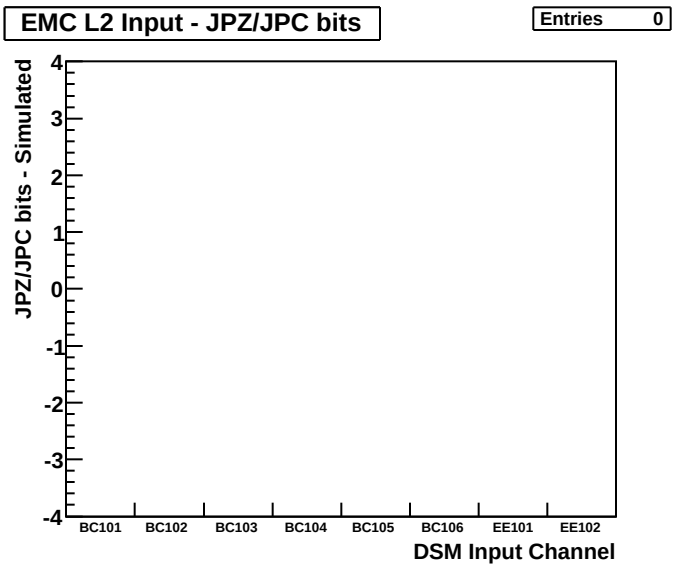

EMC L2 Input - JPX/JPA bits
Entries 206400
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
273 202 251 207 276 272 109 128
373 338 331 356 388 412 259 316
239 183 201 260 240 209 159 238
24915 25077 25017 24977 24886 24907 25273 25118

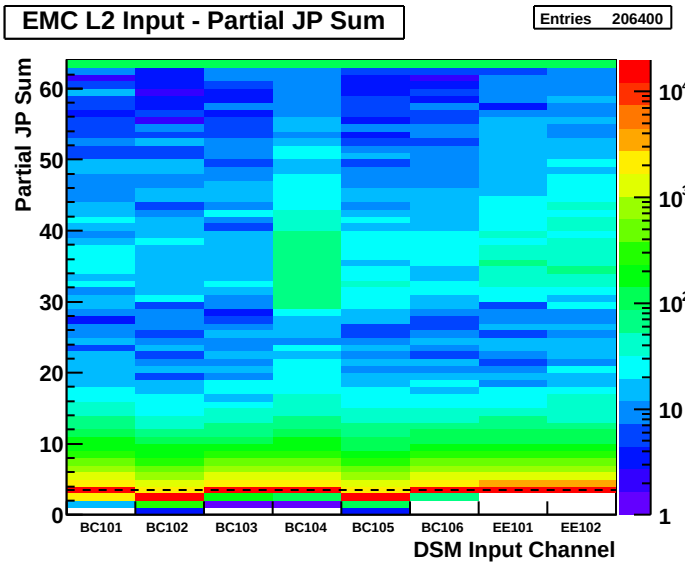

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

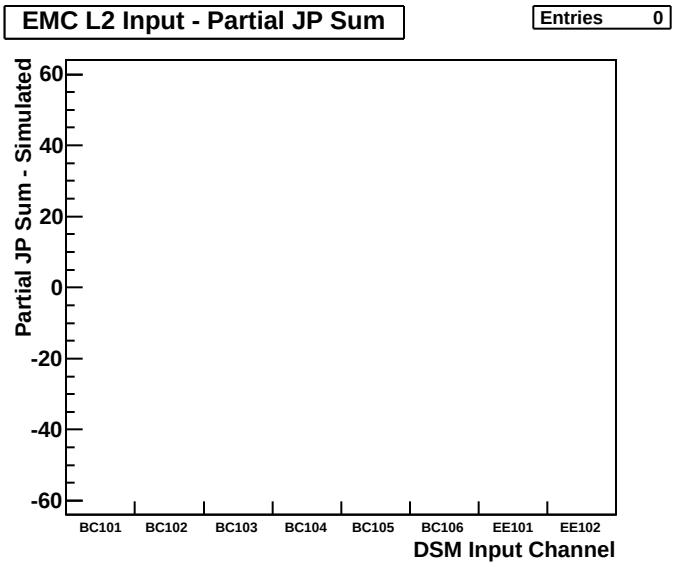

EMC L2 Input - JPY/JPB bits
Entries 206400
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
188 122 180 188 143 204 111 103
344 312 329 358 393 420 269 316
256 198 207 215 361 270 182 187
25012 25168 25094 25038 24903 24906 25238 25194

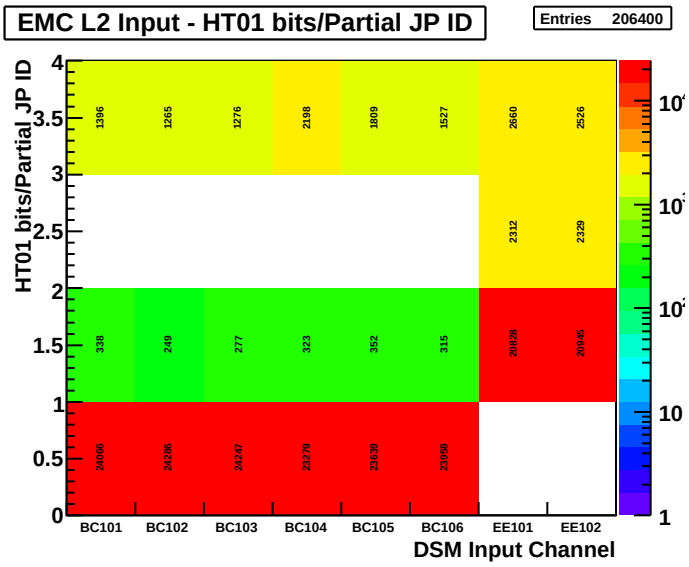

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

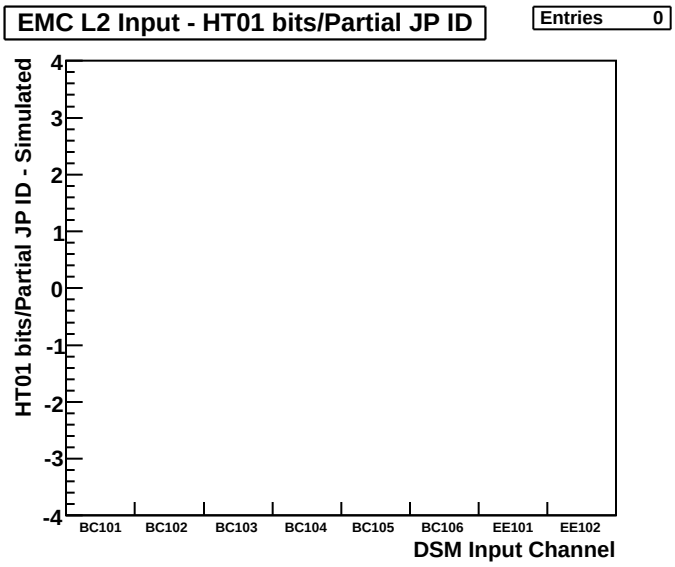

EMC L2 Input - JPZ/JPC bits
Entries 206400
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
138 150 172 230 168 190 126 125
360 295 326 597 376 357 315 284
260 212 230 638 372 302 203 238
24882 25143 25072 24335 24884 24951 25156 25153

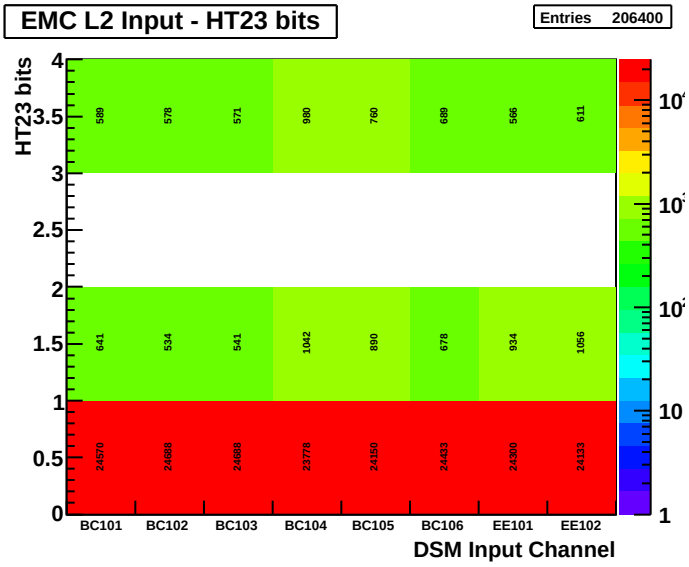

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

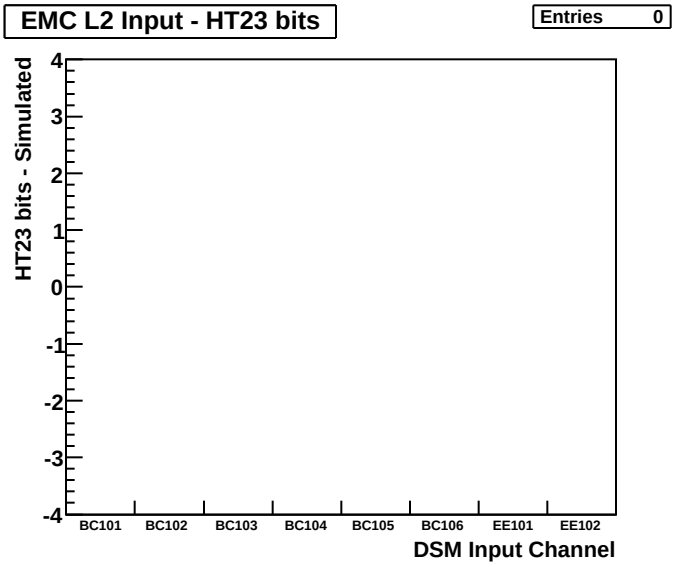

EMC L2 Input - Partial JP Sum
Entries 206400
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

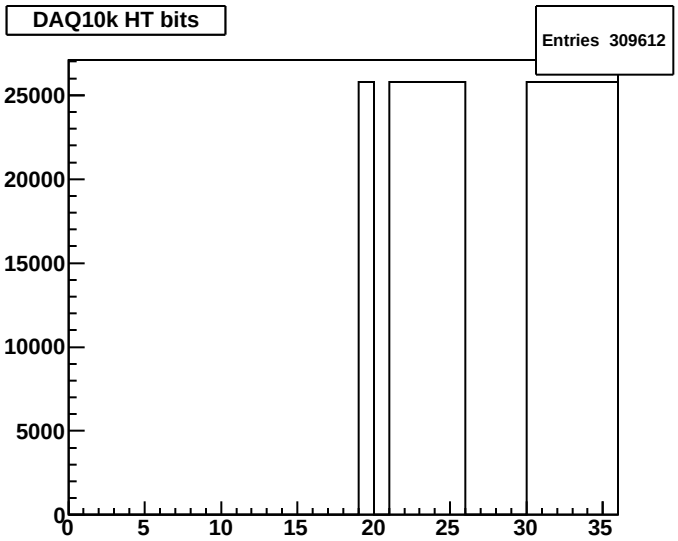

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

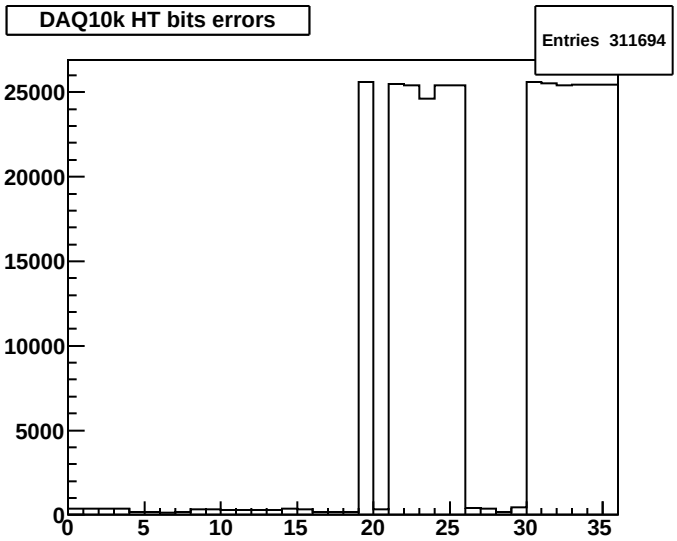

EMC L2 Input - HT01 bits/Partial JP ID
Entries 206400
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

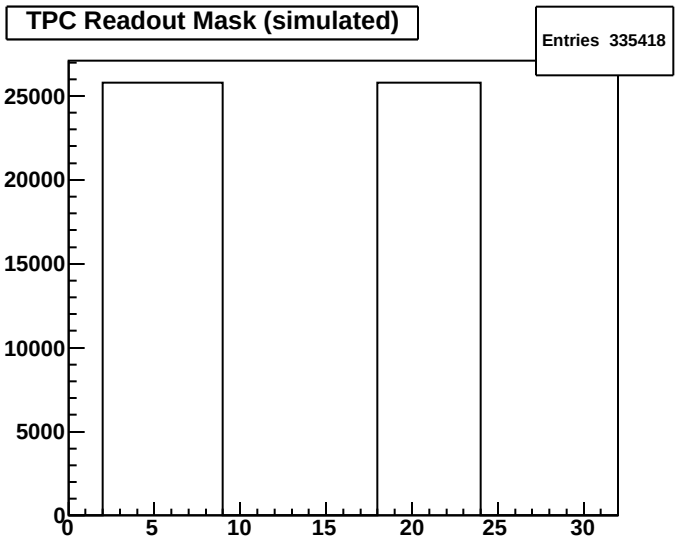

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

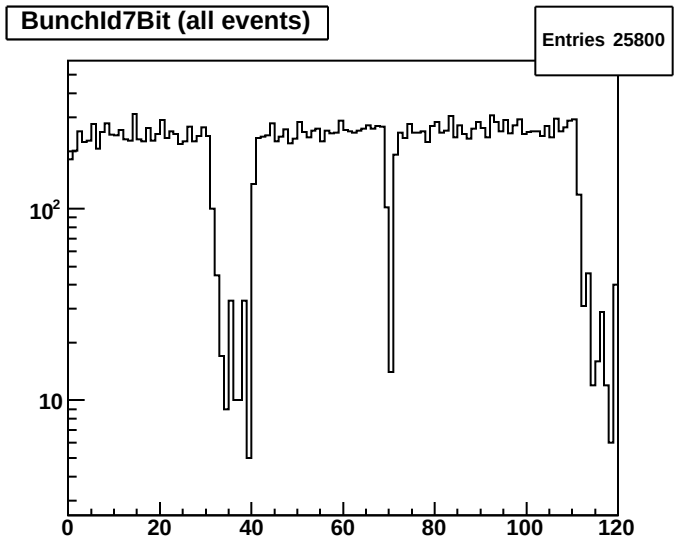

EMC L2 Input - HT23 bits
Entries 206400
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

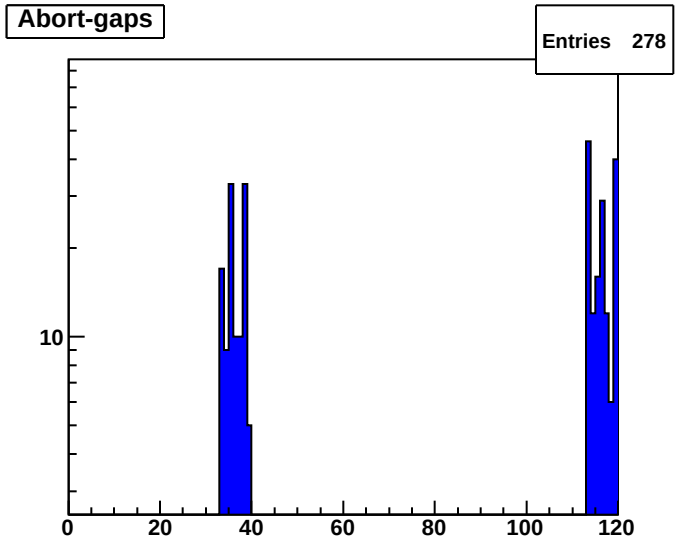

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

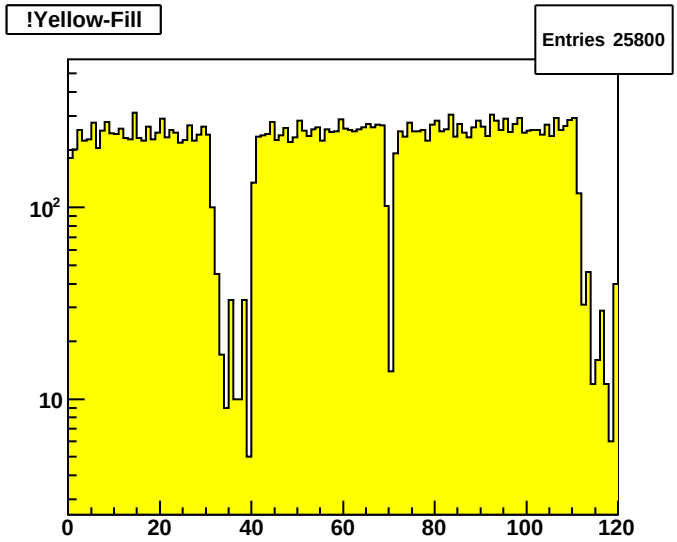

DAQ10k HT bits
Entries 309612
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

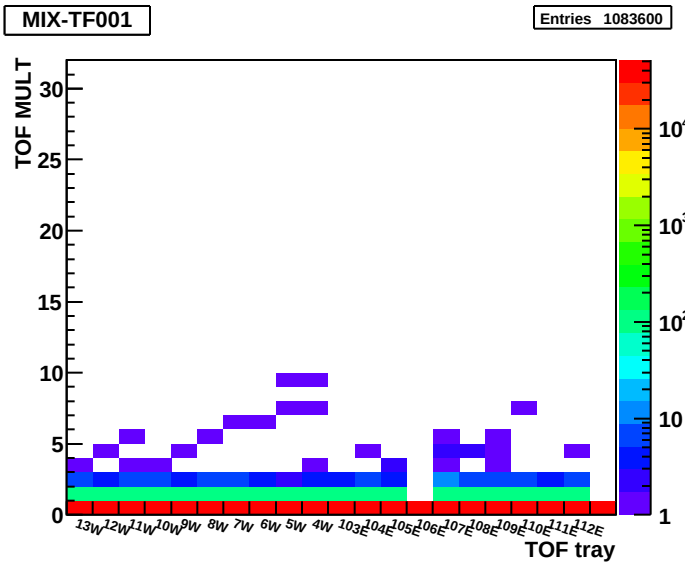

DAQ10k HT bits errors
Entries 311694
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

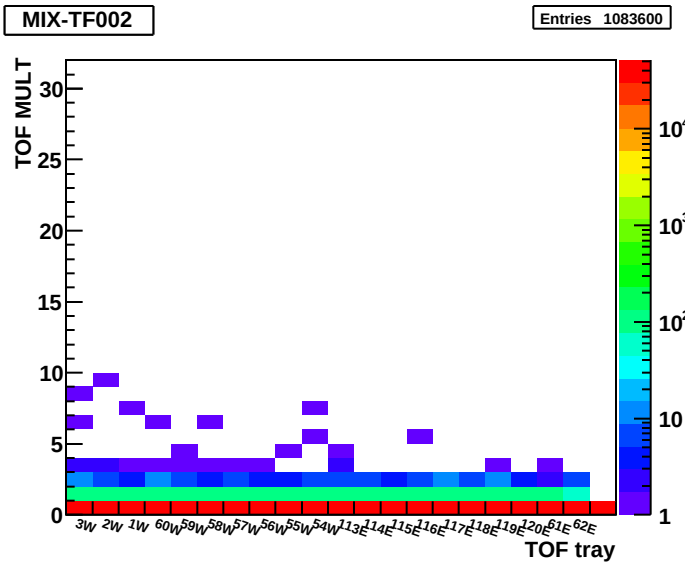

TPC Readout Mask (simulated)
Entries 335418
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

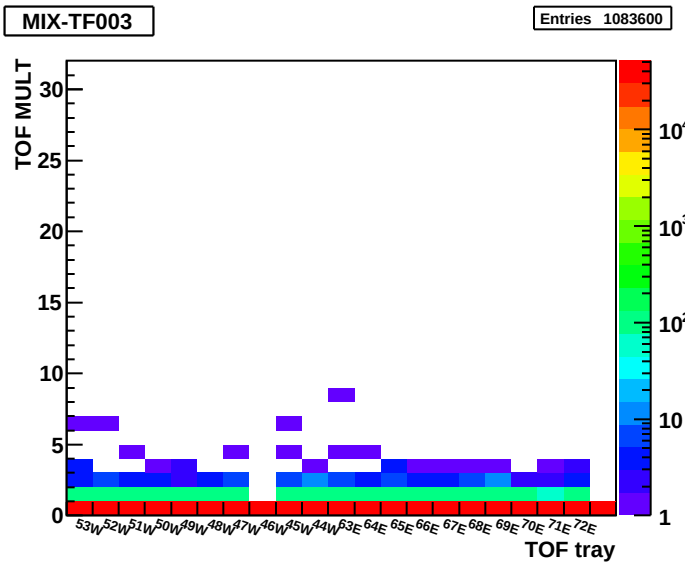

BunchId7Bit (all events)
Entries 25800
10^2
10
0 20 40 60 80 100 120

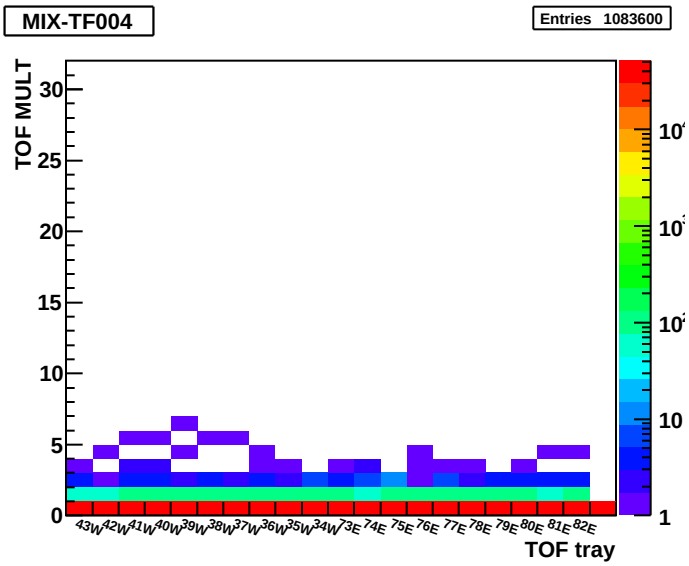

Abort-gaps
Entries 278
10
0 20 40 60 80 100 120

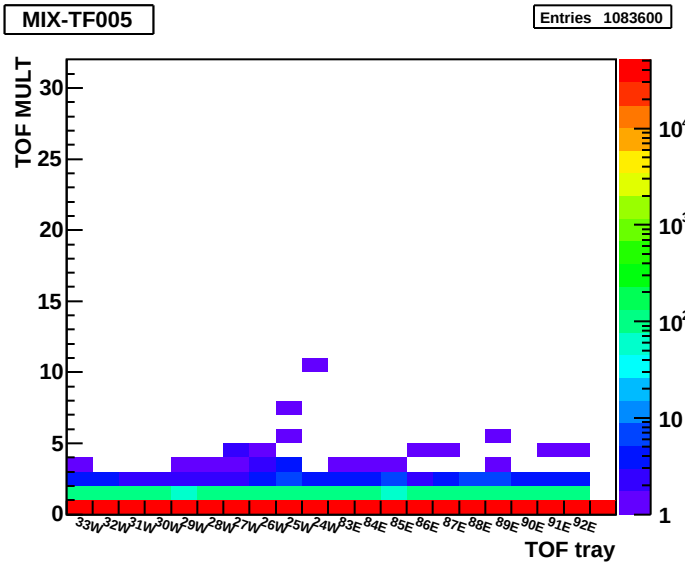

!Yellow-Fill
Entries 25800
10^2
10
0 20 40 60 80 100 120

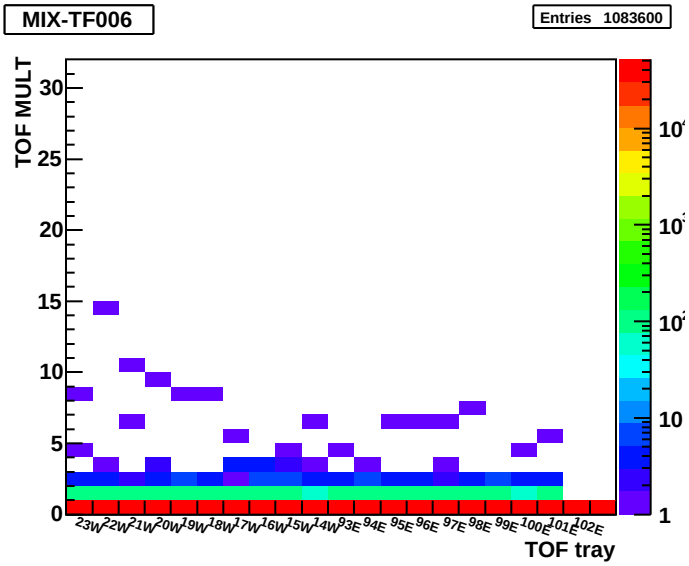

MIX-TF001
Entries 1083600
TOF MULT
TOF tray

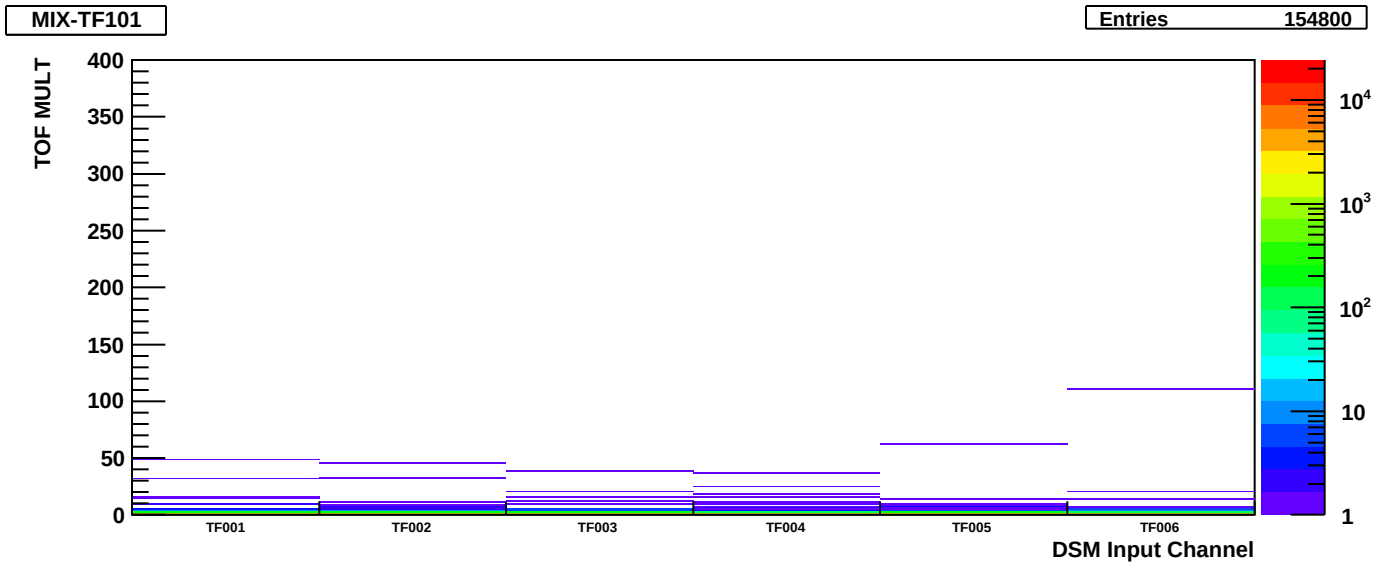

MIX-TF002
Entries 1083600
TOF MULT
TOF tray

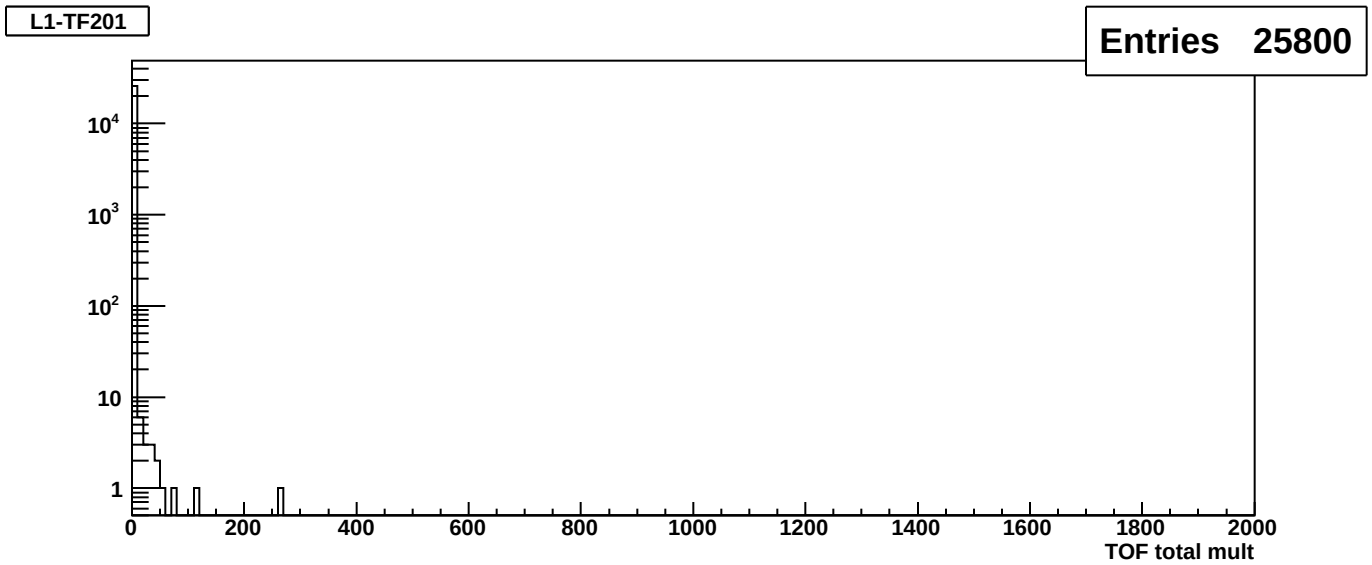

MIX-TF003
Entries 1083600
TOF MULT
TOF tray

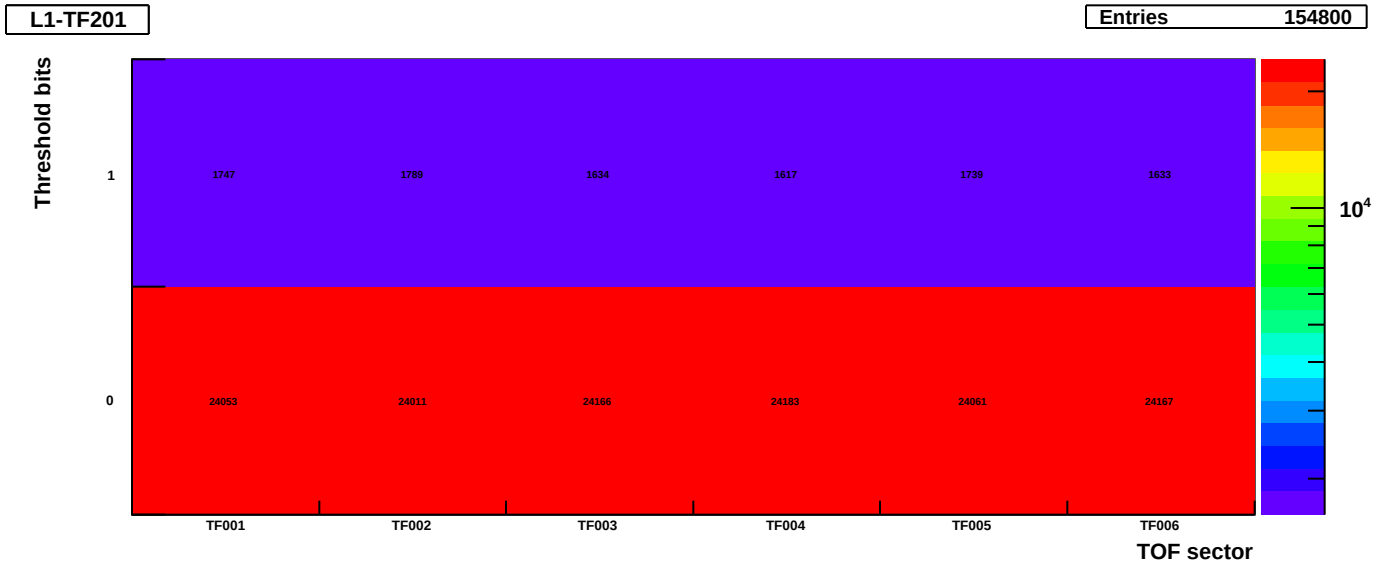

MIX-TF004
Entries 1083600
TOF MULT
TOF tray

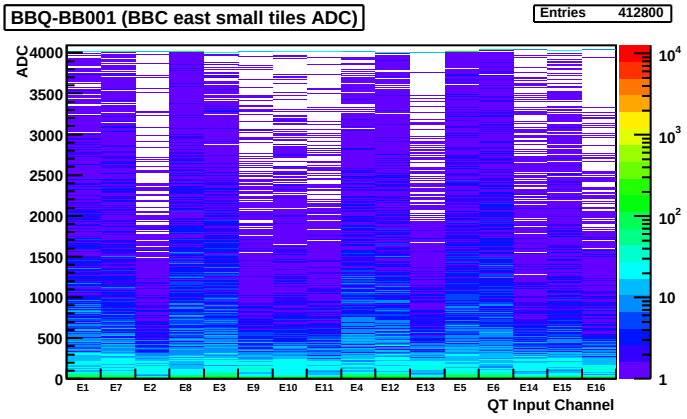

MIX-TF005
Entries 1083600
TOF MULT
TOF tray

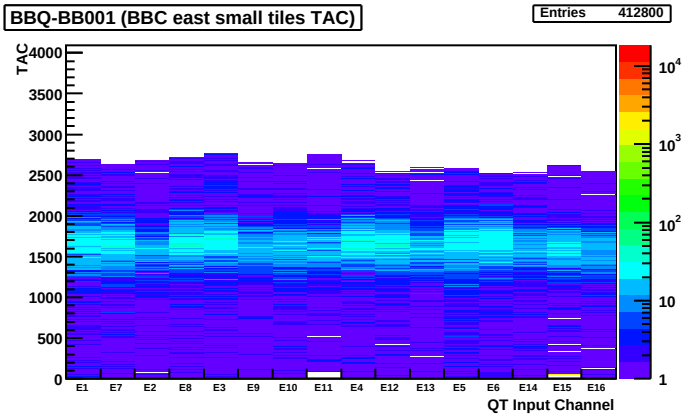

MIX-TF006
Entries 1083600
TOF MULT
TOF tray

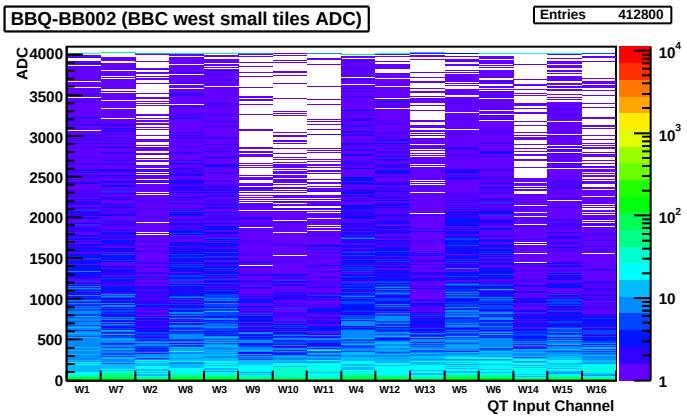

MIX-TF101
Entries 154800
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

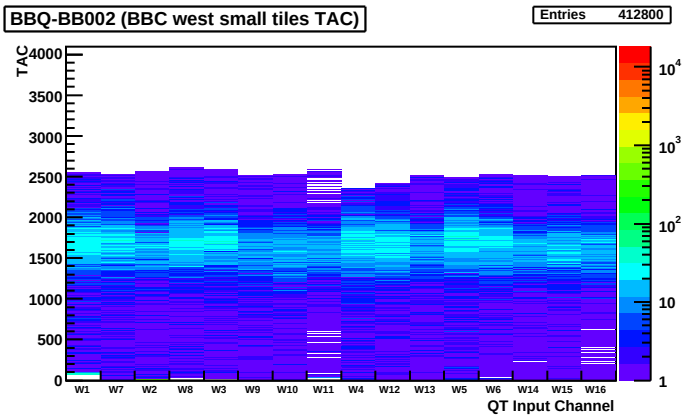

L1-TF201
Entries 25800
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

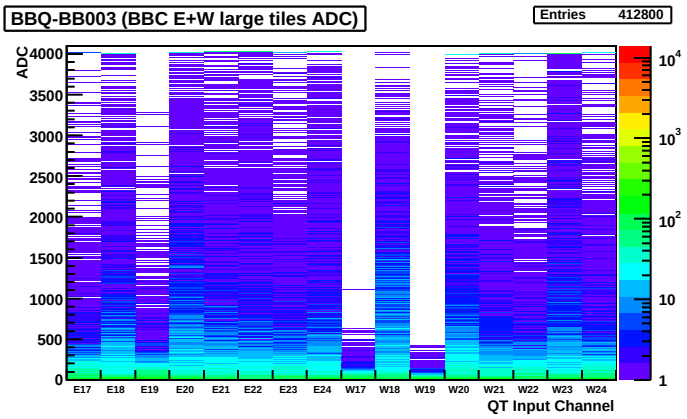

L1-TF201
Entries 154800
Threshold bits
1
0
1747
1789
1634
1617
1739
1633
24053
24011
24166
24183
24061
24167
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

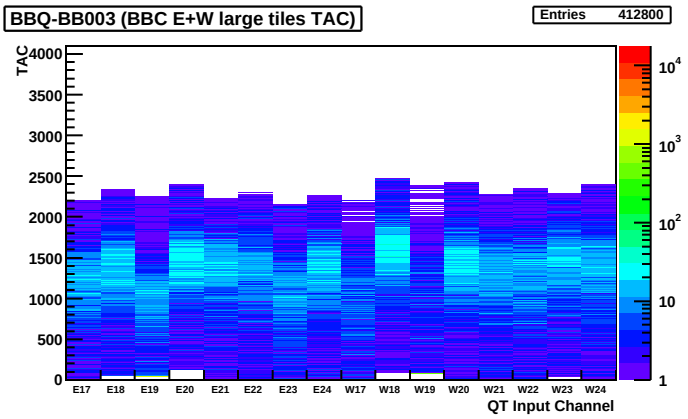

BBQ-BB001 (BBC east small tiles ADC)
Entries 412800
ADC
QT Input Channel

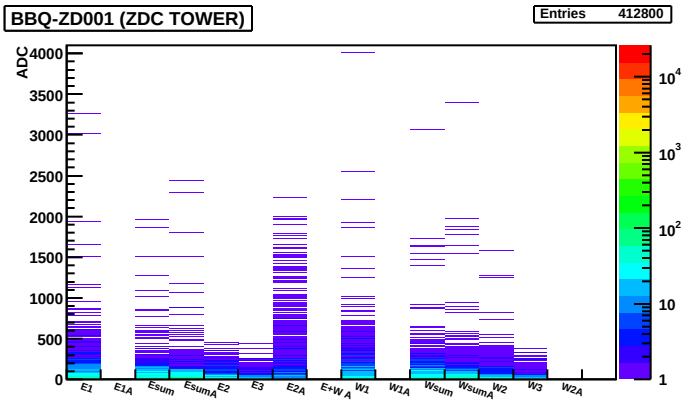

BBQ-BB001 (BBC east small tiles TAC)
Entries 412800
TAC
QT Input Channel

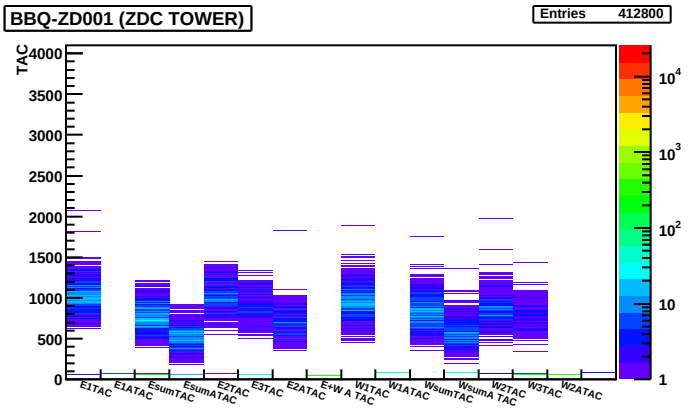

BBQ-BB002 (BBC west small tiles ADC)
Entries 412800
ADC
QT Input Channel

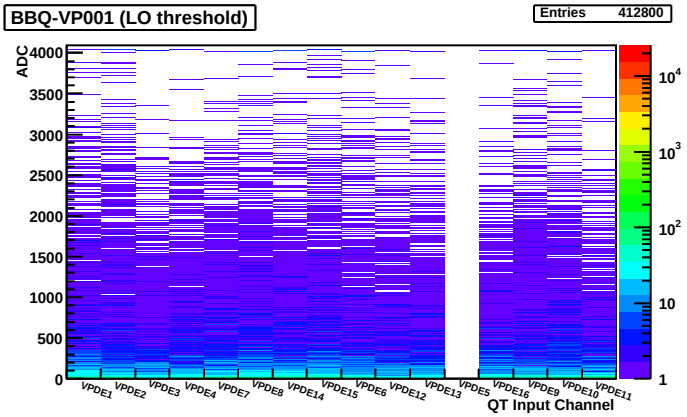

BBQ-BB002 (BBC west small tiles TAC)
Entries 412800
TAC
QT Input Channel

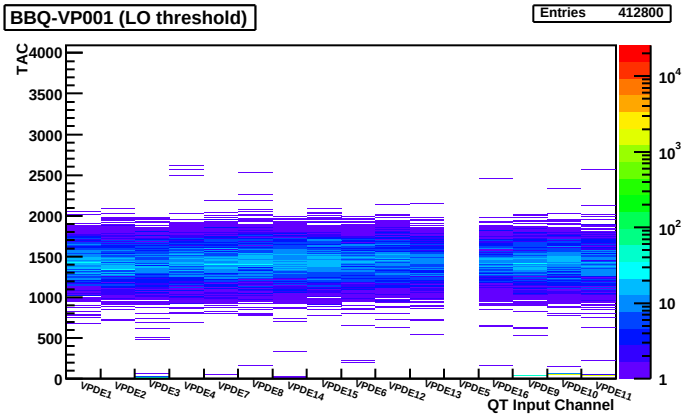

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 412800
ADC
QT Input Channel

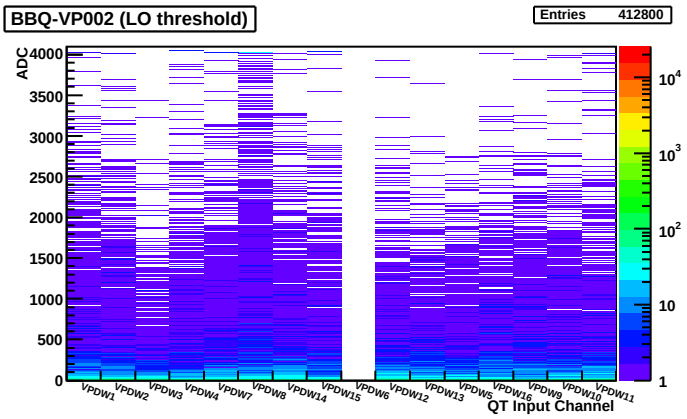

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 412800
TAC
QT Input Channel

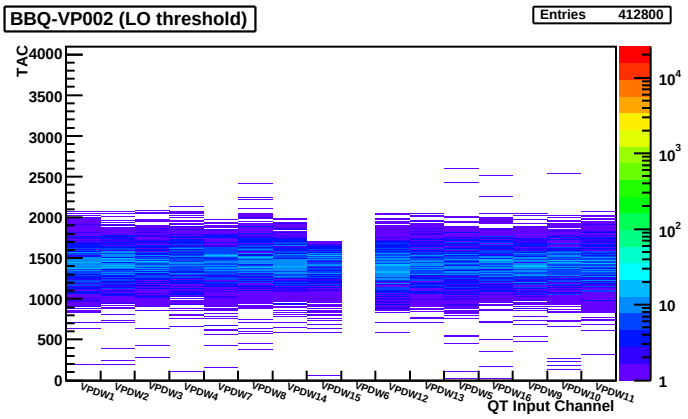

BBQ-ZD001 (ZDC TOWER)
Entries 412800
ADC

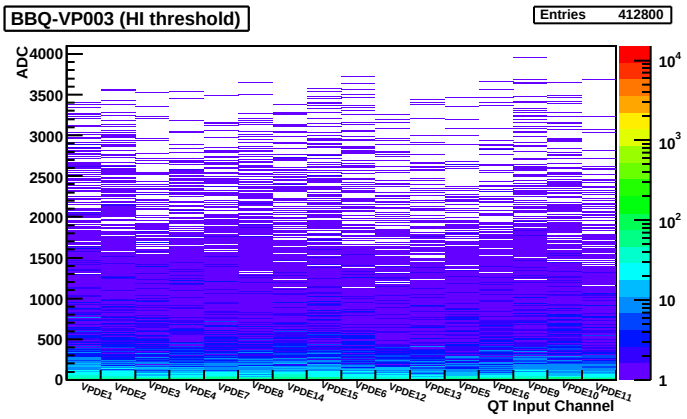

BBQ-ZD001 (ZDC TOWER)
Entries 412800
TAC

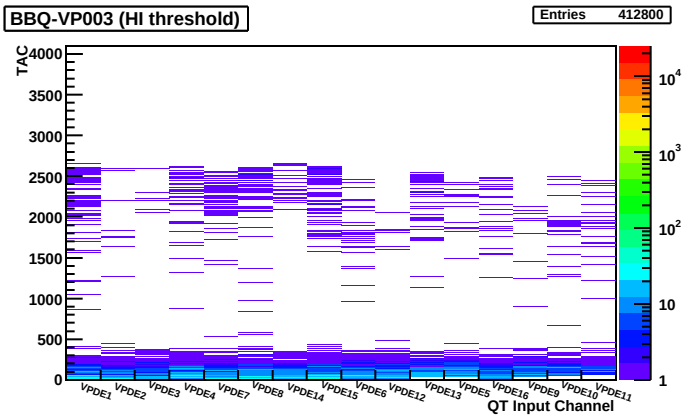

BBQ-VP001 (LO threshold)
Entries 412800
ADC
QT Input Channel

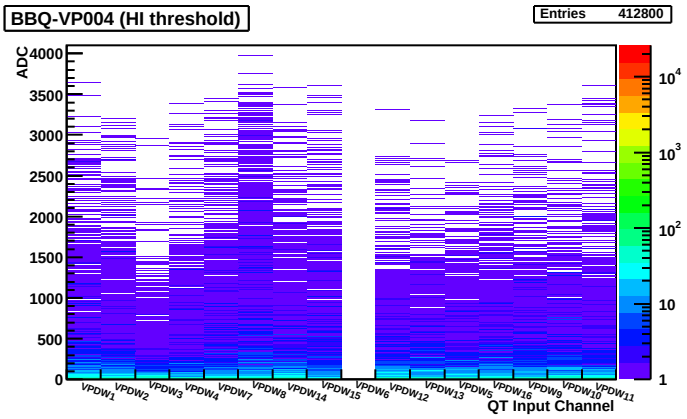

BBQ-VP001 (LO threshold)
Entries 412800
TAC
QT Input Channel

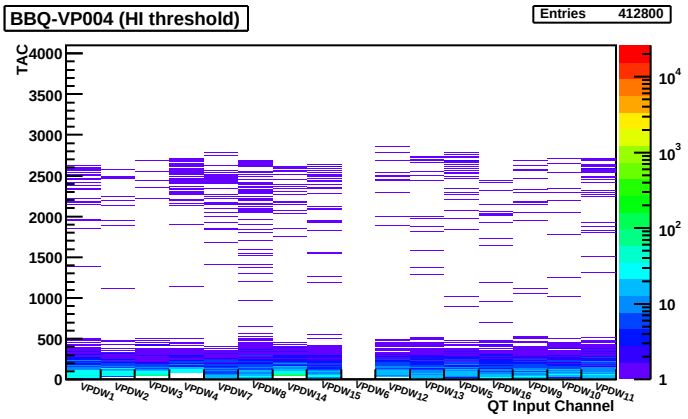

BBQ-VP002 (LO threshold)
Entries 412800
ADC
QT Input Channel

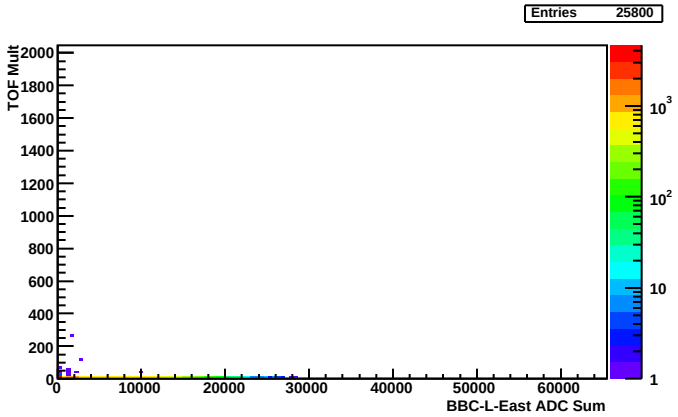

BBQ-VP002 (LO threshold)
Entries 412800
TAC
QT Input Channel

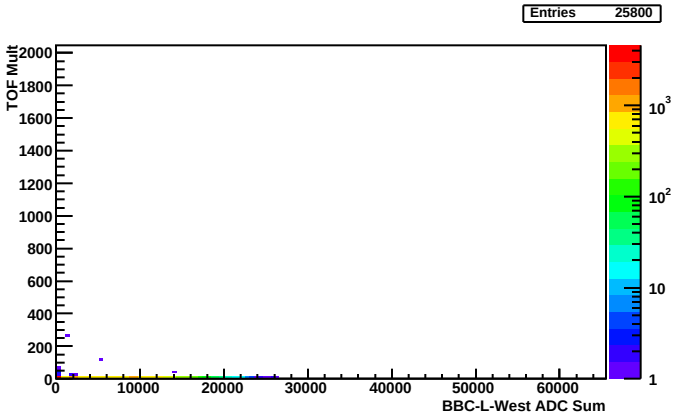

BBQ-VP003 (HI threshold)
Entries 412800
ADC
QT Input Channel

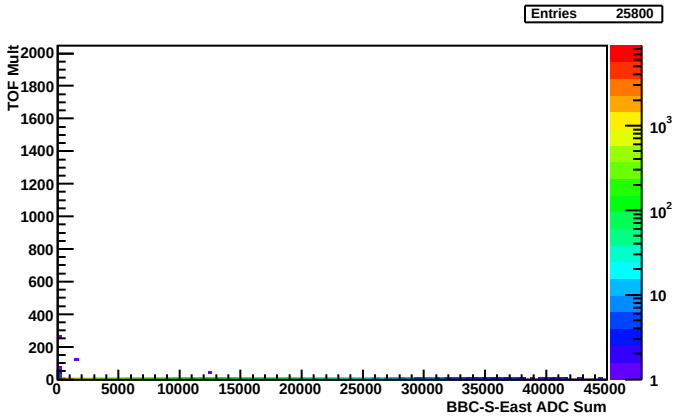

BBQ-VP003 (HI threshold)
Entries 412800
TAC
QT Input Channel

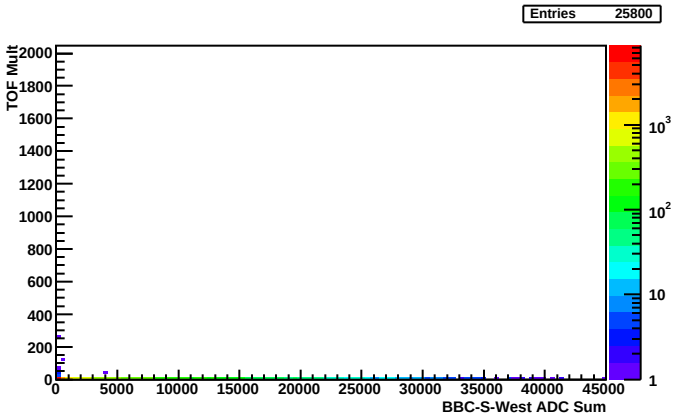

BBQ-VP004 (HI threshold)
Entries 412800
ADC
QT Input Channel

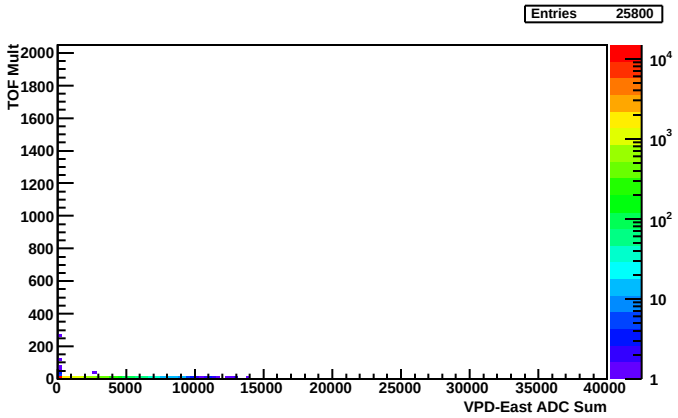

BBQ-VP004 (HI threshold)
Entries 412800
TAC
QT Input Channel

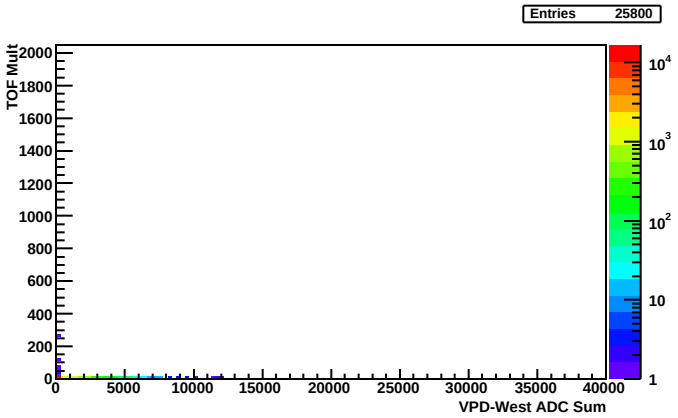

Entries 25800
TOF Mult
BBC-L-East ADC Sum

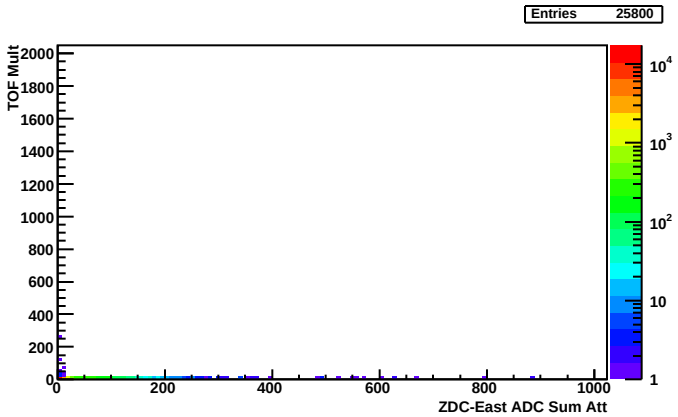

Entries 25800
TOF Mult
BBC-L-West ADC Sum

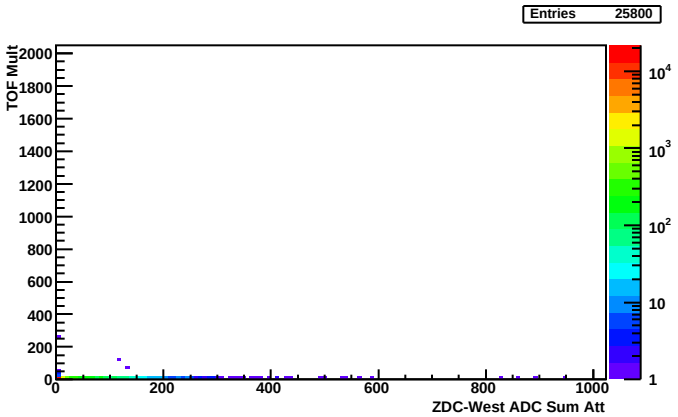

Entries 25800
TOF Mult
BBC-S-East ADC Sum

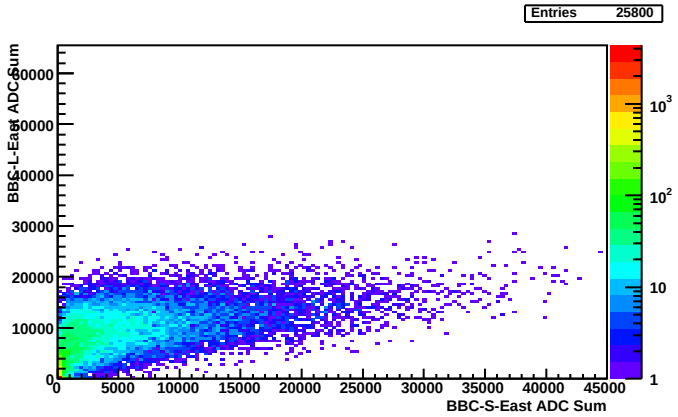

Entries 25800
TOF Mult
BBC-S-West ADC Sum

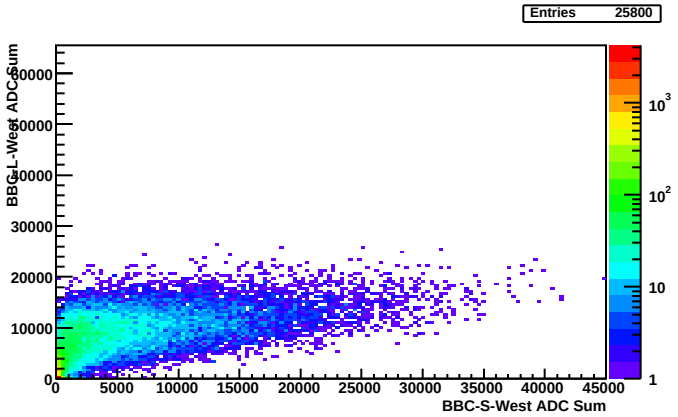

Entries 25800
TOF Mult
VPD-East ADC Sum

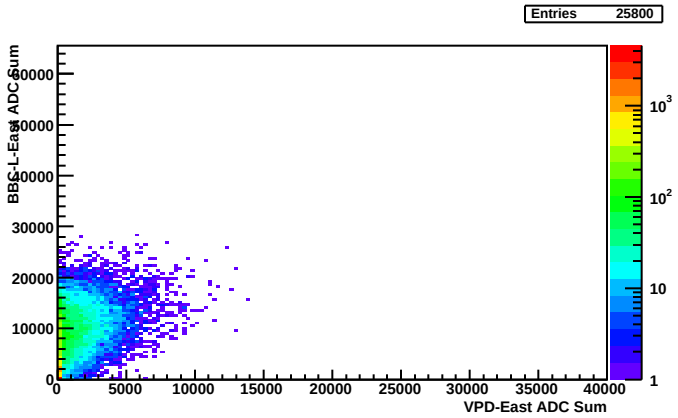

Entries 25800
TOF Mult
VPD-West ADC Sum

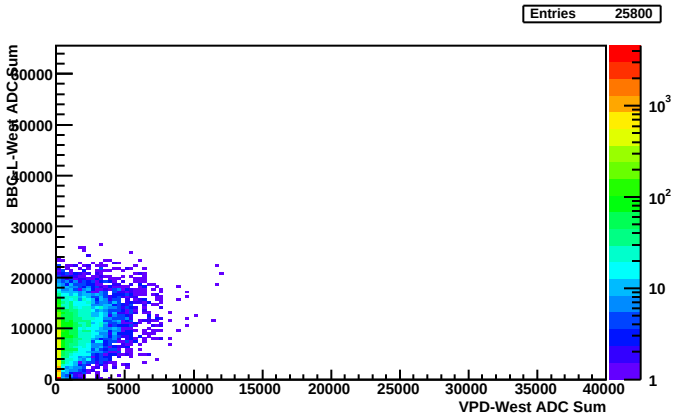

Entries 25800
TOF Mult
ZDC-East ADC Sum Att

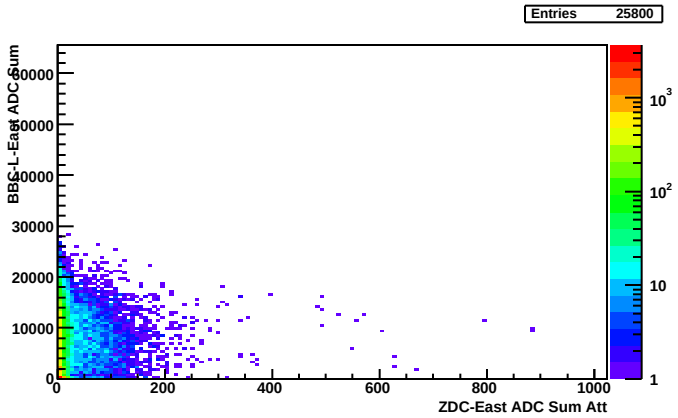

Entries 25800
TOF Mult
ZDC-West ADC Sum Att

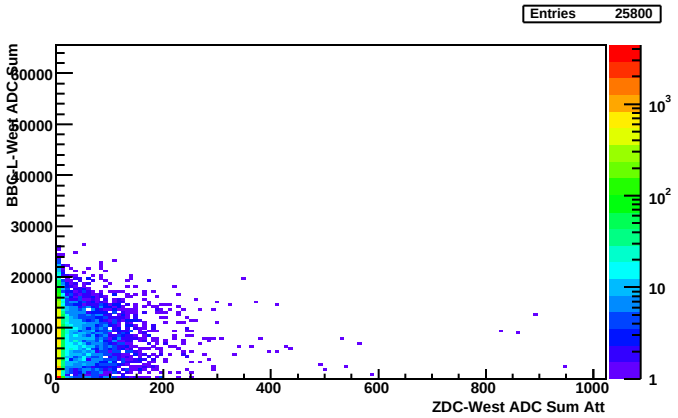

Entries 25800
BBC-L-East ADC Sum
BBC-S-East ADC Sum

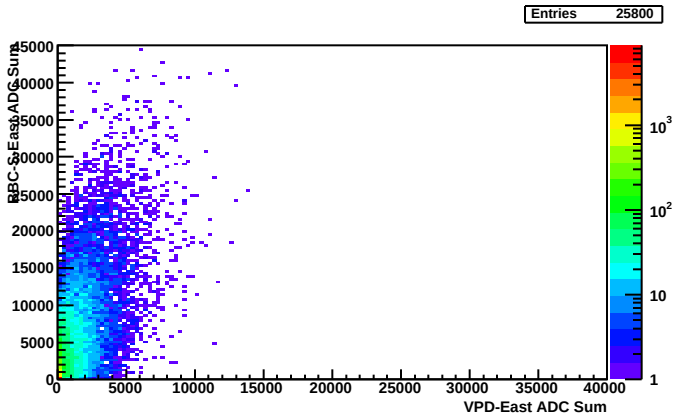

Entries 25800
BBC-L-West ADC Sum
BBC-S-West ADC Sum

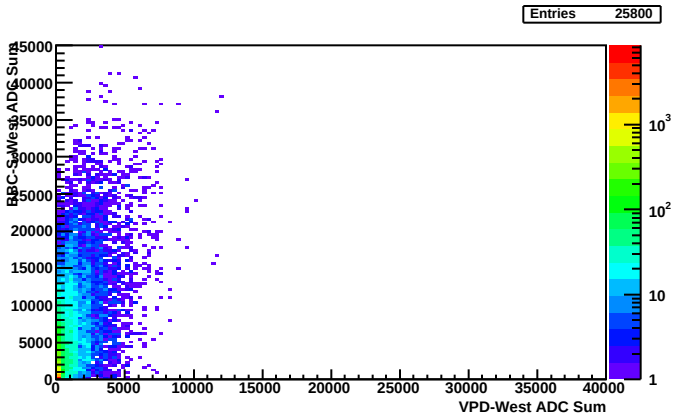

Entries 25800
BBC-L-East ADC Sum
VPD-East ADC Sum

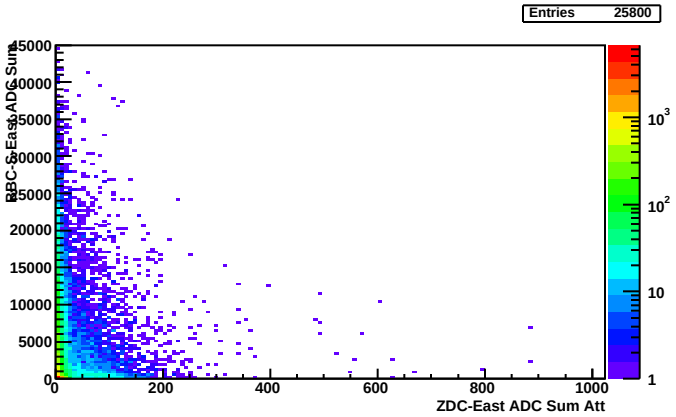

Entries 25800
BBC-L-West ADC Sum
VPD-West ADC Sum

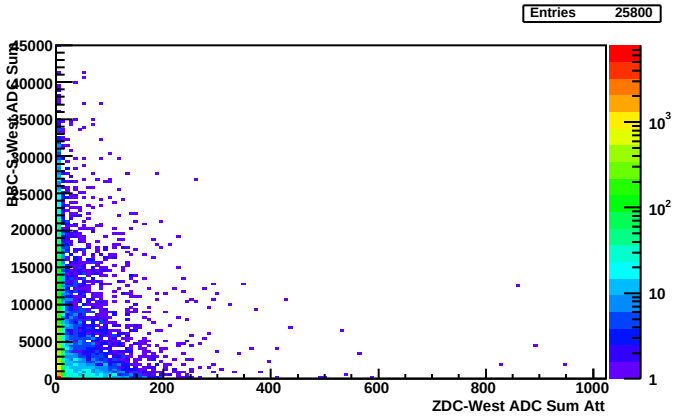

Entries 25800
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

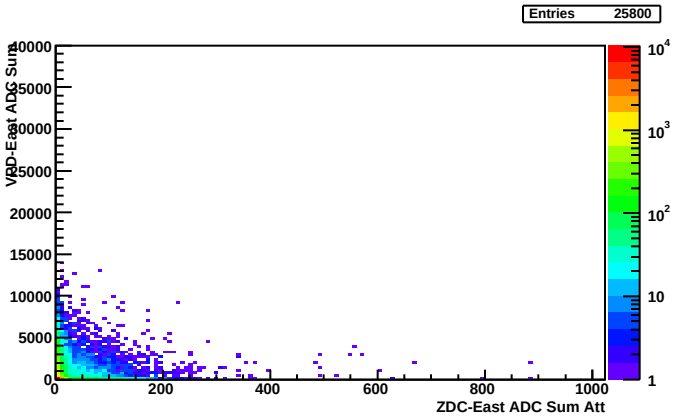

Entries 25800
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

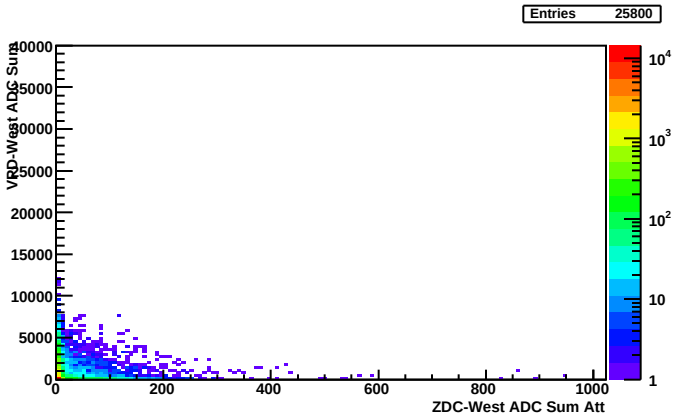

Entries 25800
BBC-S-East ADC Sum
VPD-East ADC Sum

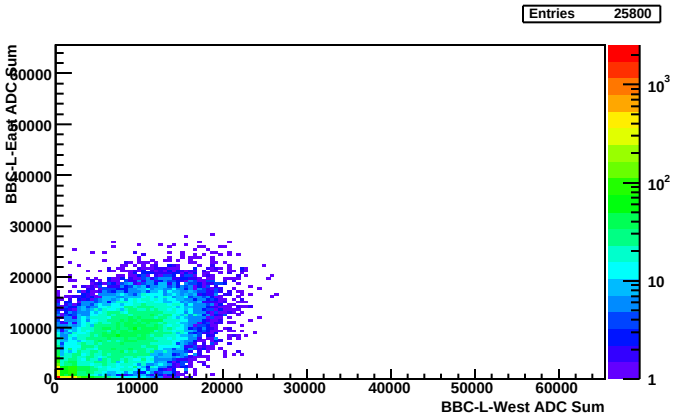

Entries 25800
BBC-S-West ADC Sum
VPD-West ADC Sum

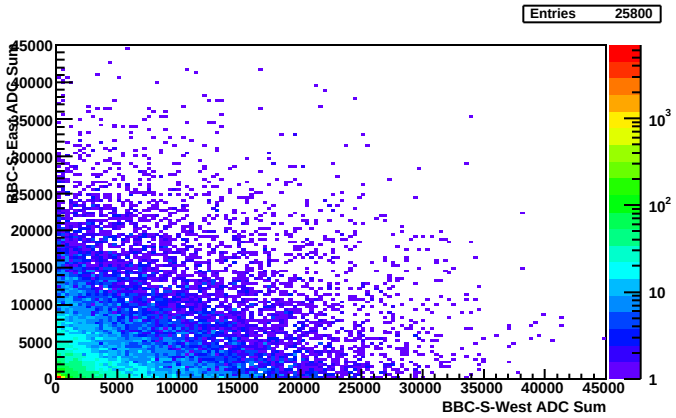

Entries 25800
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

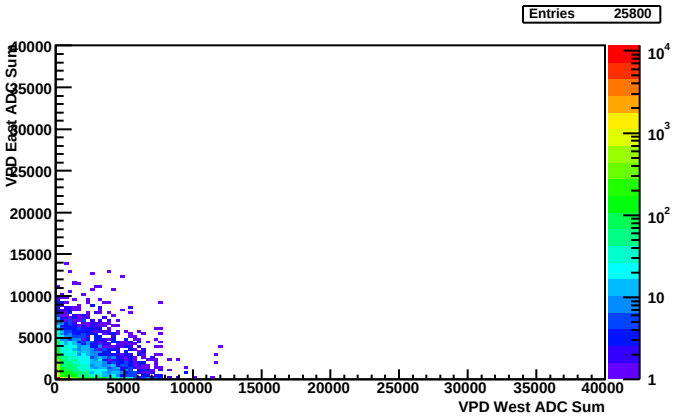

Entries 25800
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

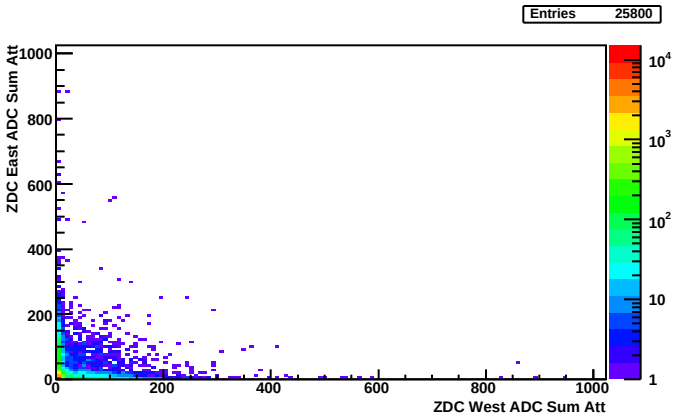

Entries 25800
VPD-East ADC Sum
ZDC-East ADC Sum Att

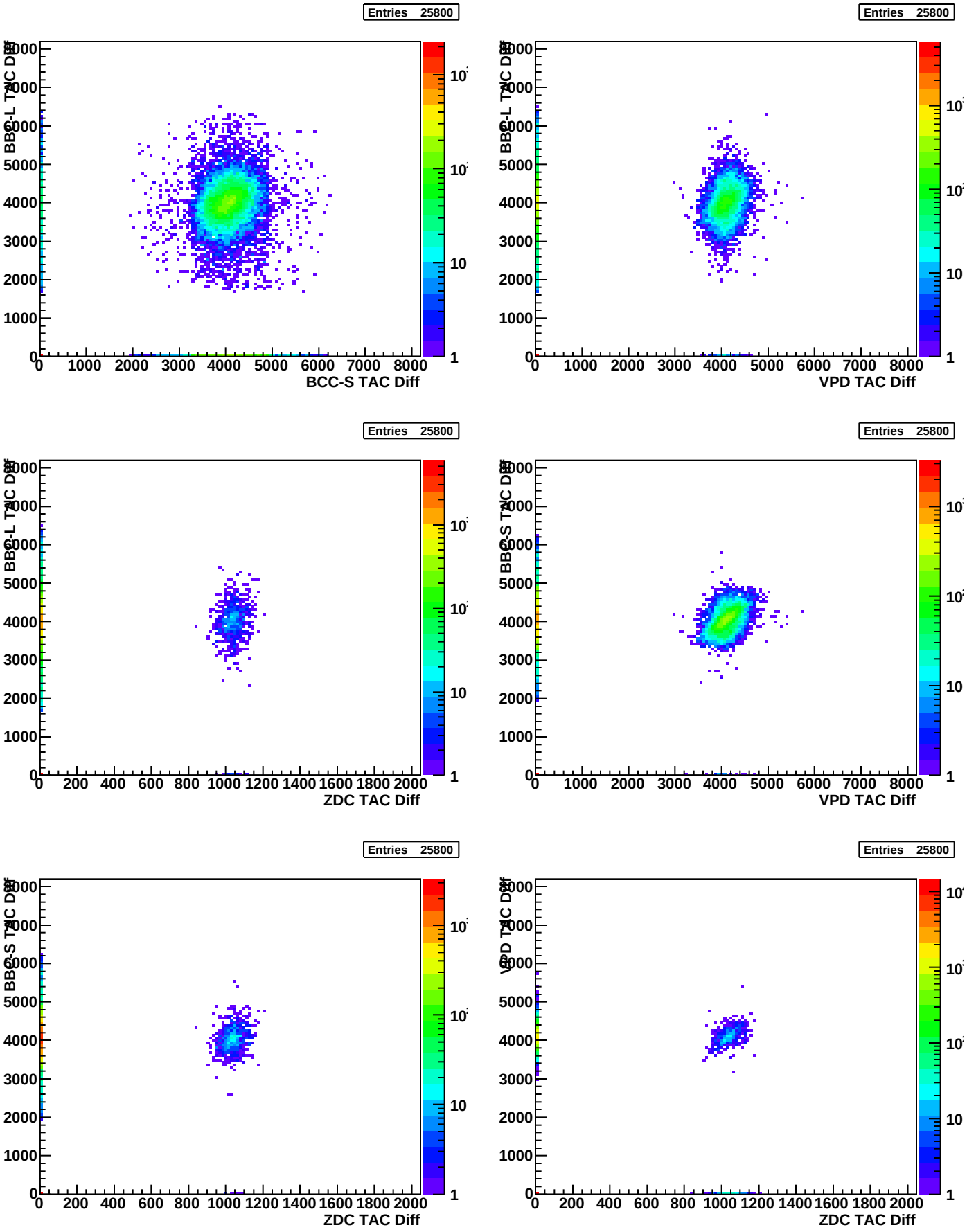

Entries 25800
VPD-West ADC Sum
ZDC-West ADC Sum Att

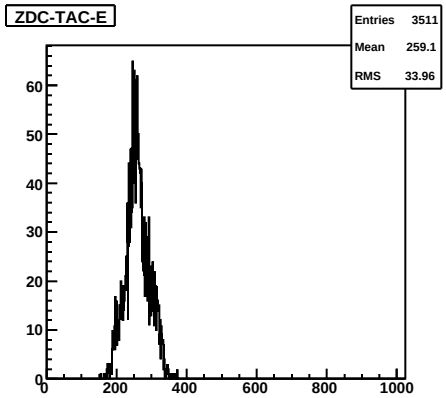

Entries 25800
BBC-L-East ADC Sum
BBC-L-West ADC Sum

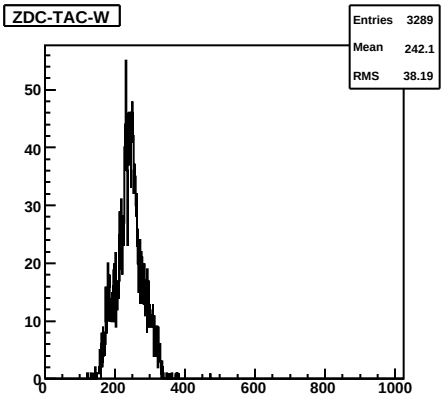

Entries 25800
BBC-S-East ADC Sum
BBC-S-West ADC Sum

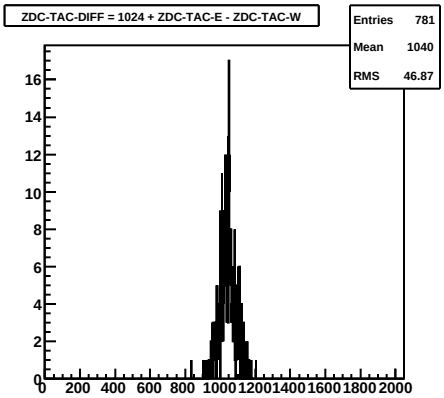

Entries 25800
VPD East ADC Sum
VPD West ADC Sum

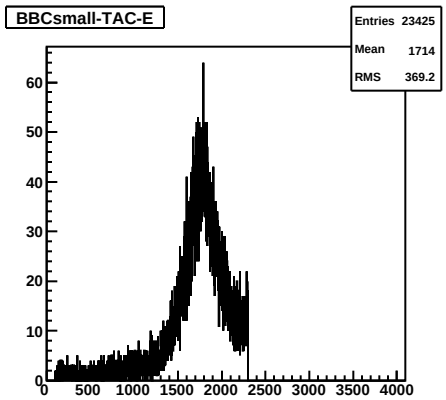

Entries 25800
ZDC East ADC Sum Att
ZDC West ADC Sum Att

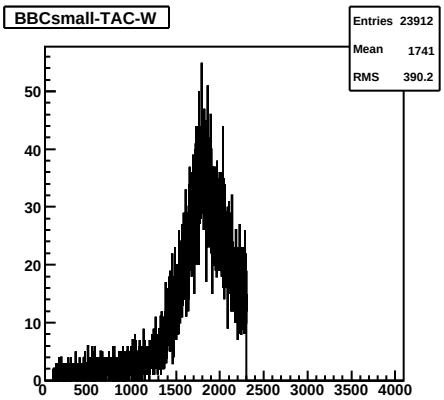

Entries 25800
BBC-L TAC Diff
BCC-S TAC Diff
Entries 25800
BBC-L TAC Diff
VPD TAC Diff
Entries 25800
BBC-L TAC Diff
ZDC TAC Diff
Entries 25800
BBC-S TAC Diff
VPD TAC Diff
Entries 25800
BBC-S TAC Diff
ZDC TAC Diff
Entries 25800
VPD TAC Diff
ZDC TAC Diff

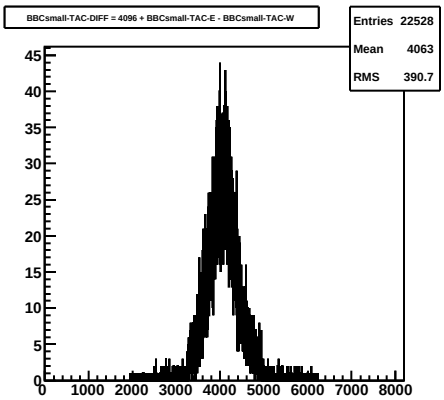

ZDC-TAC-E
Entries 3511
Mean 259.1
RMS 33.96

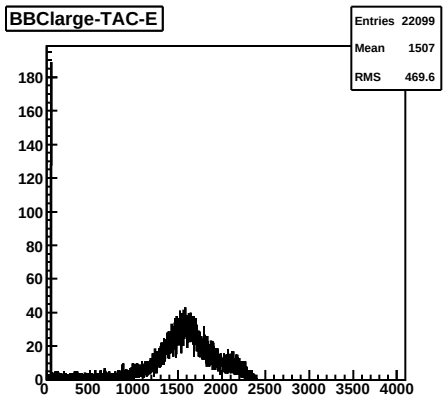

ZDC-TAC-W
Entries 3289
Mean 242.1
RMS 38.19

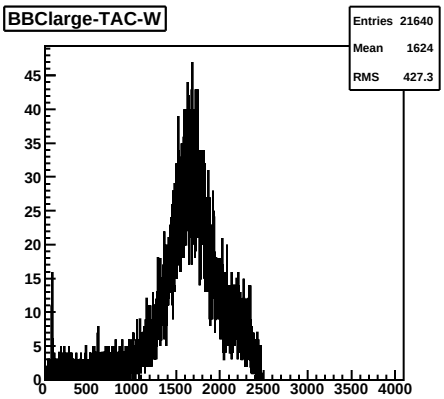

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 781
Mean 1040
RMS 46.87

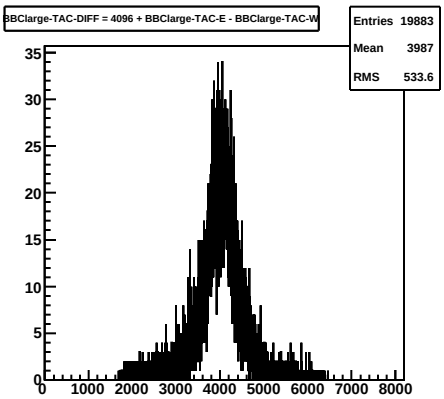

BBCsmall-TAC-E
Entries 23425
Mean 1714
RMS 369.2

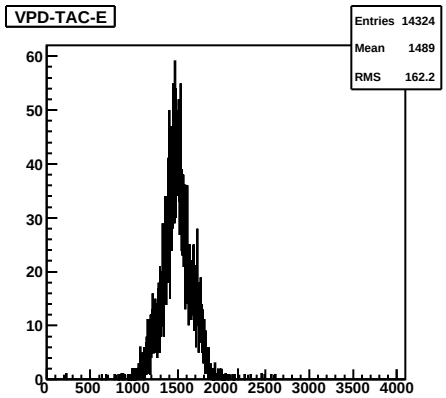

BBCsmall-TAC-W
Entries 23912
Mean 1741
RMS 390.2

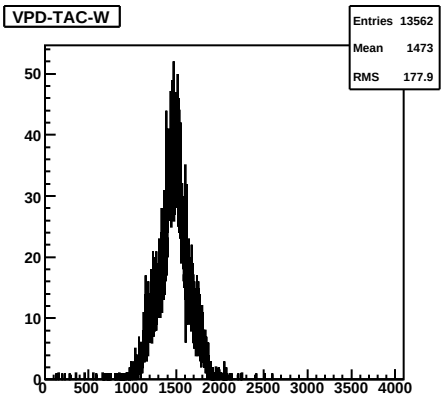

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 22528
Mean 4063
RMS 390.7

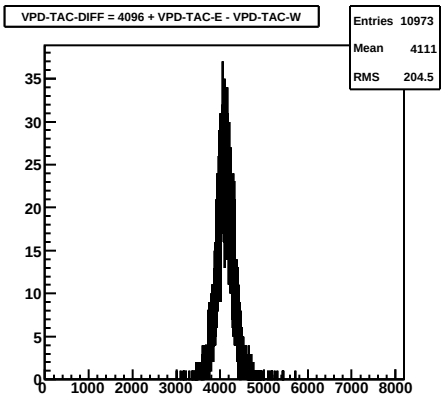

BBClarge-TAC-E
Entries 22099
Mean 1507
RMS 469.6

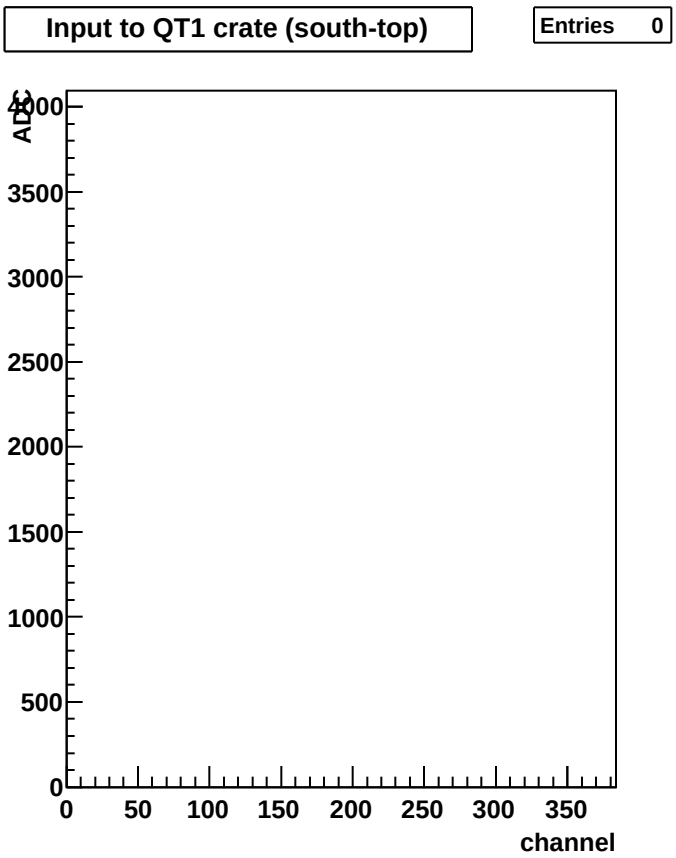

BBClarge-TAC-W
Entries 21640
Mean 1624
RMS 427.3

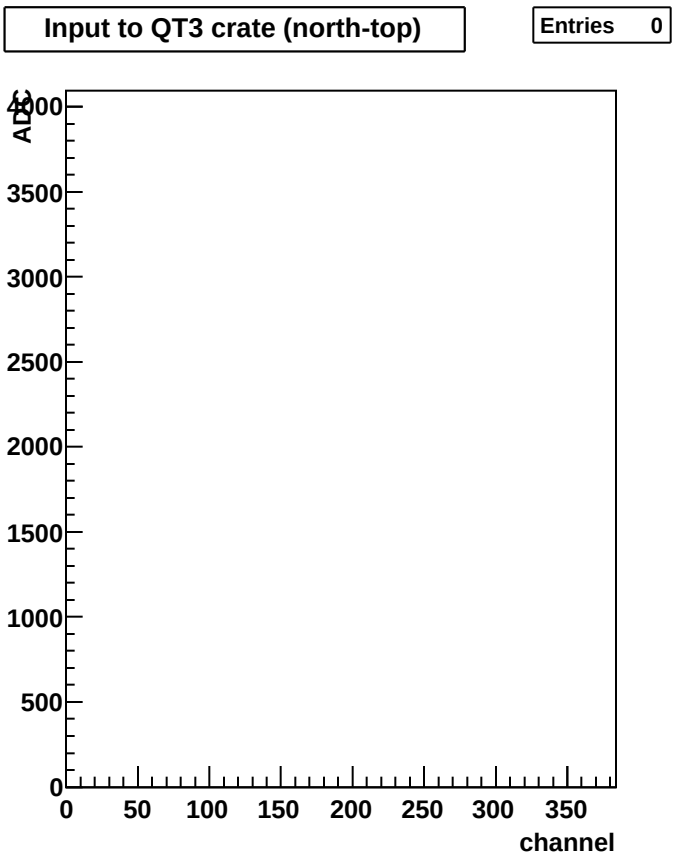

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 19883
Mean 3987
RMS 533.6

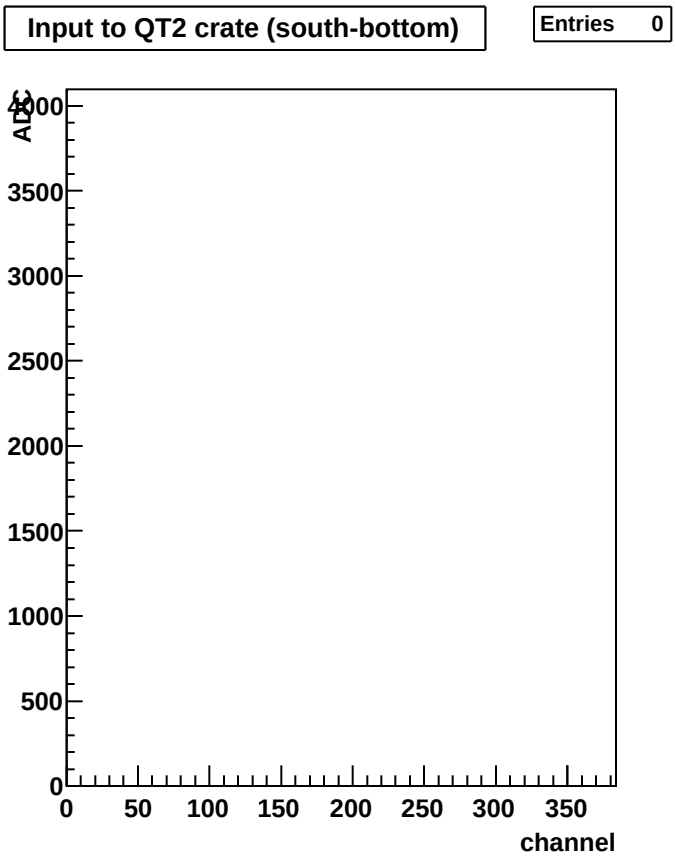

VPD-TAC-E
Entries 14324
Mean 1489
RMS 162.2

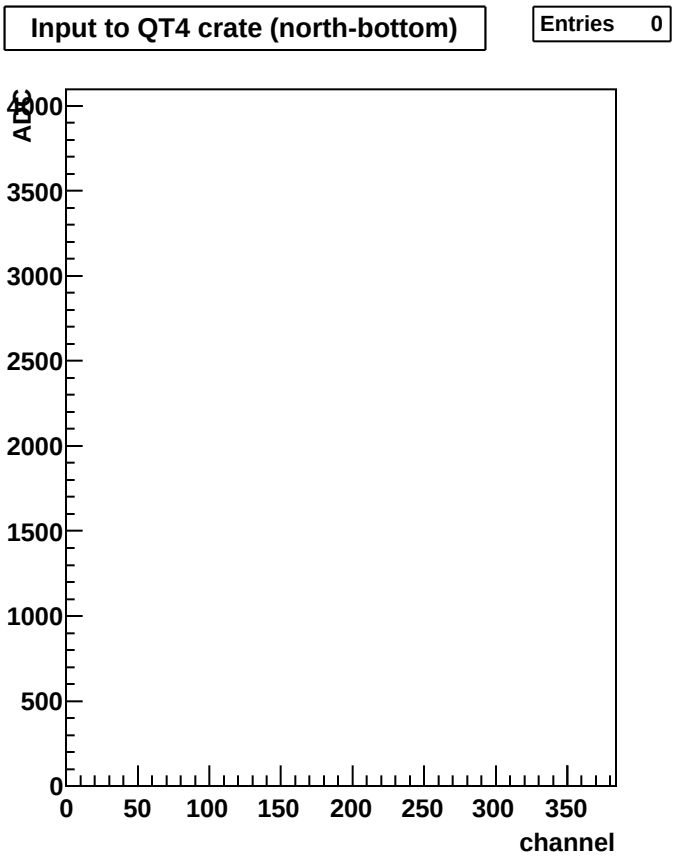

VPD-TAC-W
Entries 13562
Mean 1473
RMS 177.9

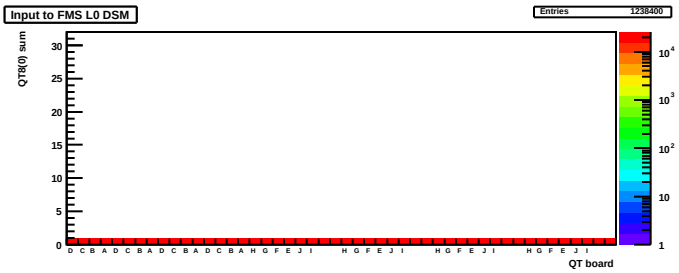

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 10973
Mean 4111
RMS 204.5

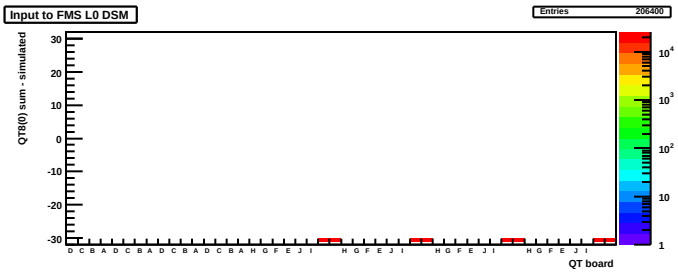

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

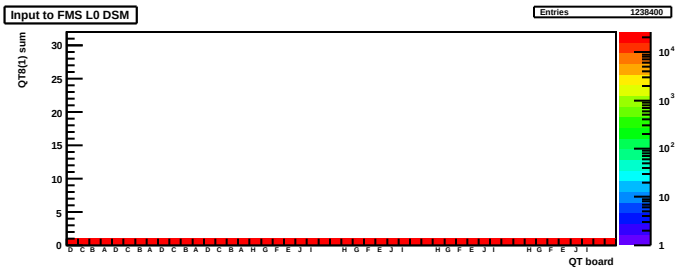

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

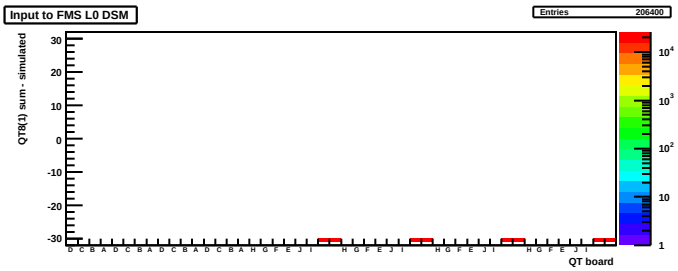

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

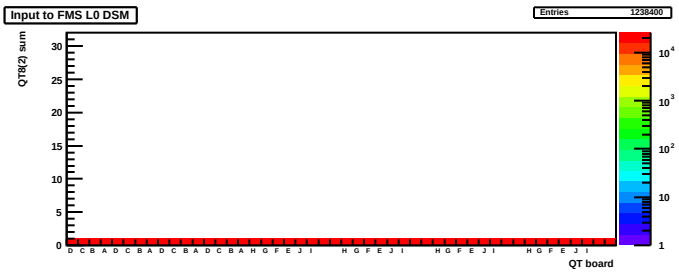

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

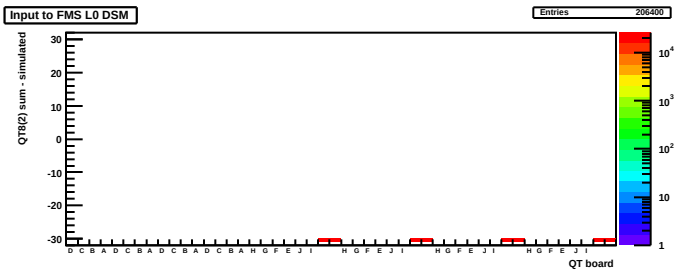

Input to FMS L0 DSM
Entries 1238400
QT8(0) sum
QT board

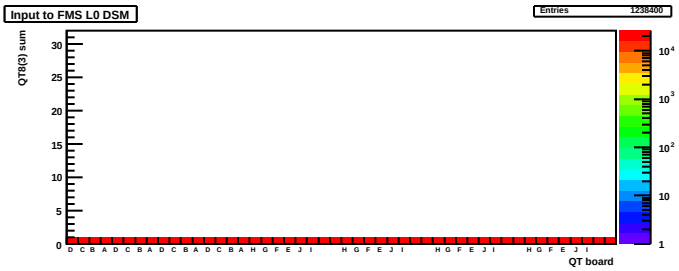

Input to FMS L0 DSM
Entries 206400
QT8(0) sum - simulated
QT board

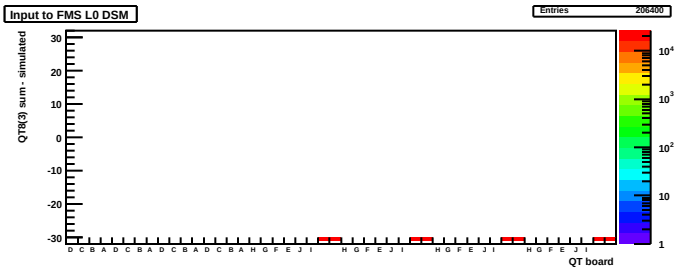

Input to FMS L0 DSM
Entries 1238400
QT8(1) sum
QT board

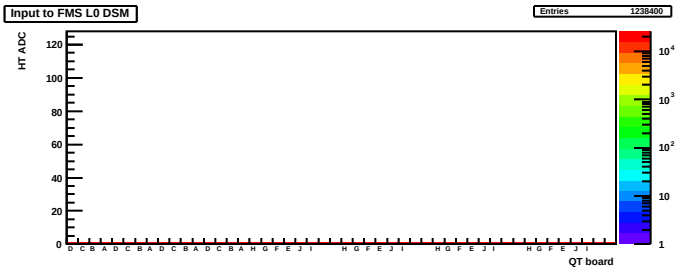

Input to FMS L0 DSM
Entries 206400
QT8(1) sum - simulated
QT board

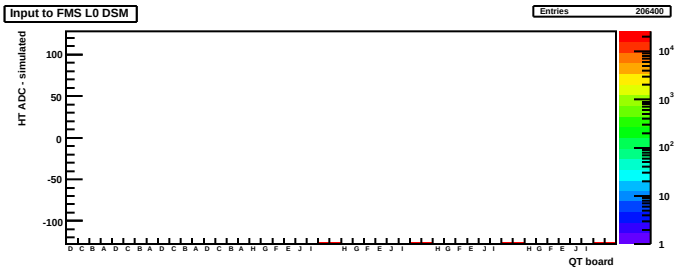

Input to FMS L0 DSM
Entries 1238400
QT8(2) sum
QT board

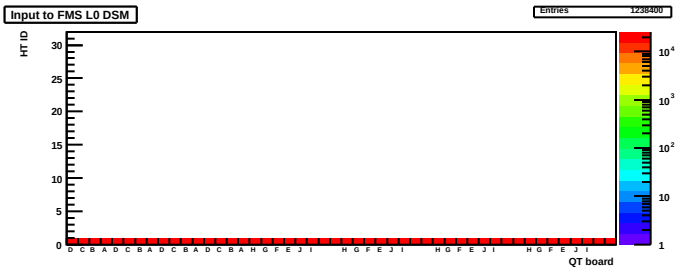

Input to FMS L0 DSM
Entries 206400
QT8(2) sum - simulated
QT board

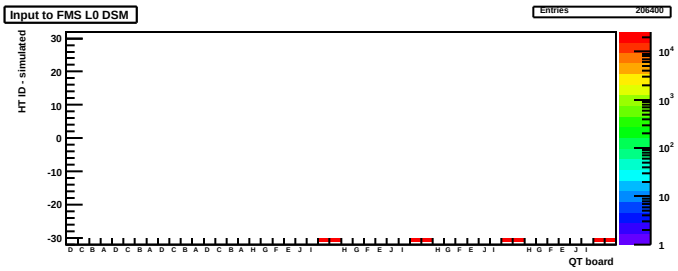

Input to FMS L0 DSM
Entries 1238400
QT8(3) sum
QT board

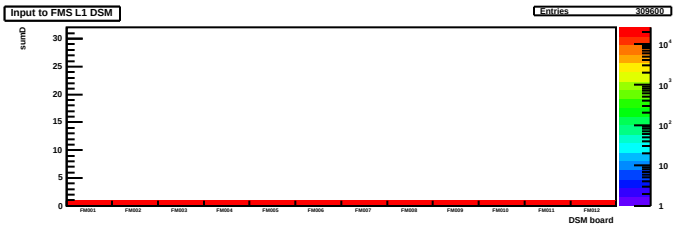

Input to FMS L0 DSM
Entries 206400
QT8(3) sum - simulated
QT board

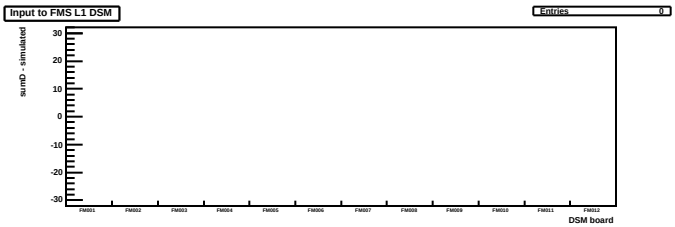

Input to FMS L0 DSM
Entries 1238400
HT ADC
QT board

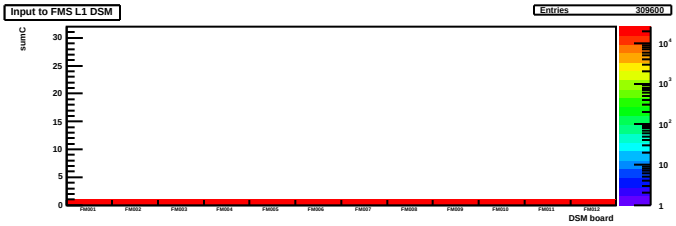

Input to FMS L0 DSM
Entries 206400
HT ADC - simulated
QT board

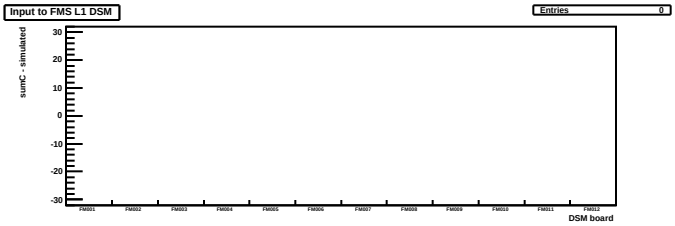

Input to FMS L0 DSM
Entries 1238400
HT ID
QT board

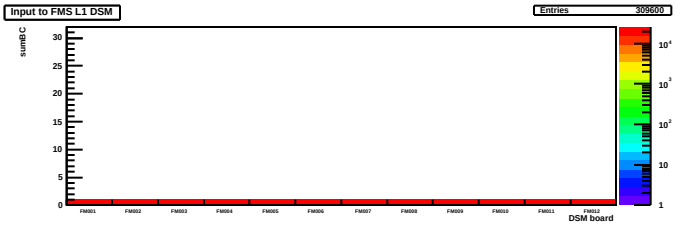

Input to FMS L0 DSM
Entries 206400
HT ID - simulated
QT board

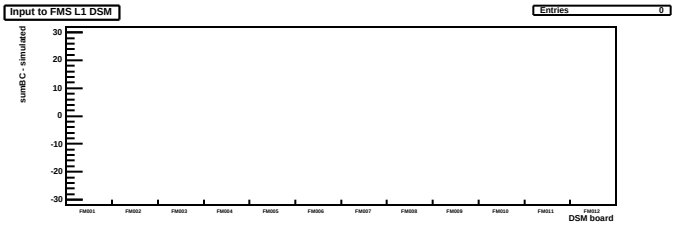

Input to FMS L1 DSM
Entries 309600
sumD
DSM board

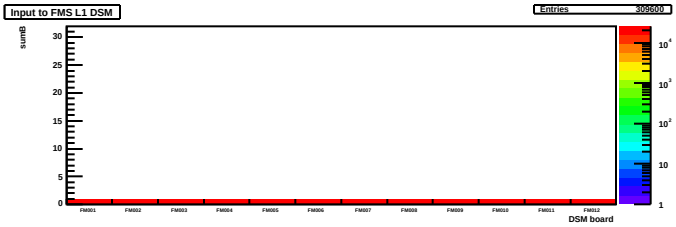

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

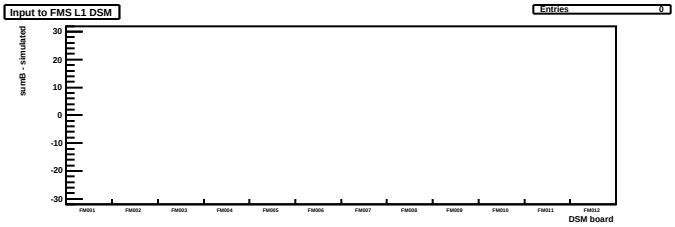

Input to FMS L1 DSM
Entries 309600
sumC
DSM board

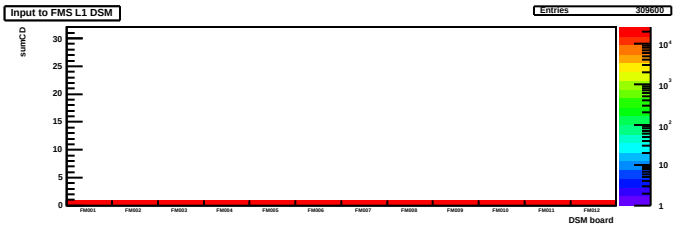

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

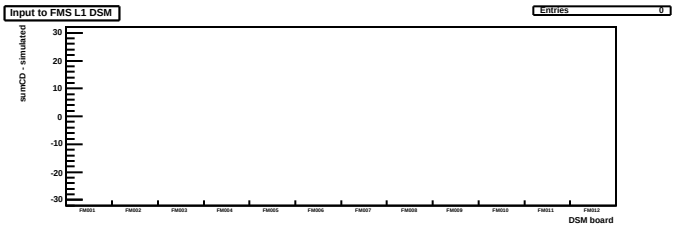

Input to FMS L1 DSM
Entries 309600
sumBC
DSM board

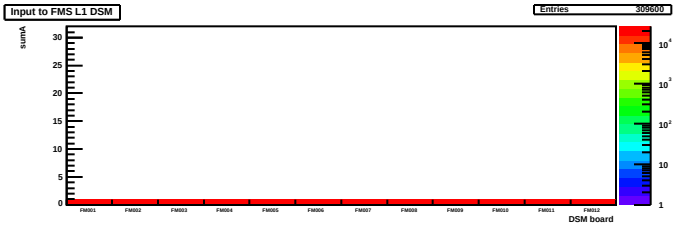

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

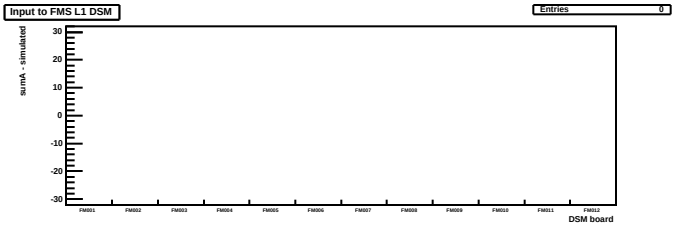

Input to FMS L1 DSM
Entries 309600
sumB
DSM board

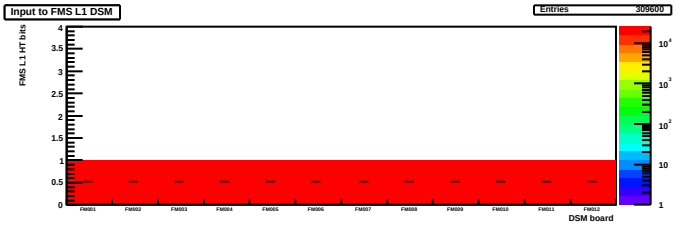

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

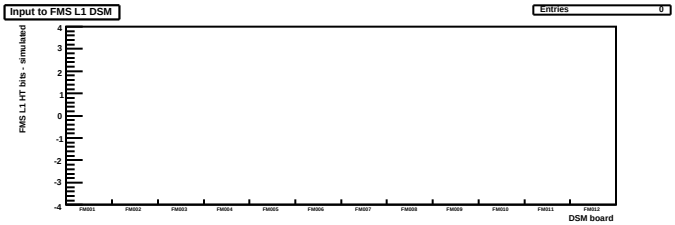

Input to FMS L1 DSM
Entries 309600
sumCD
DSM board

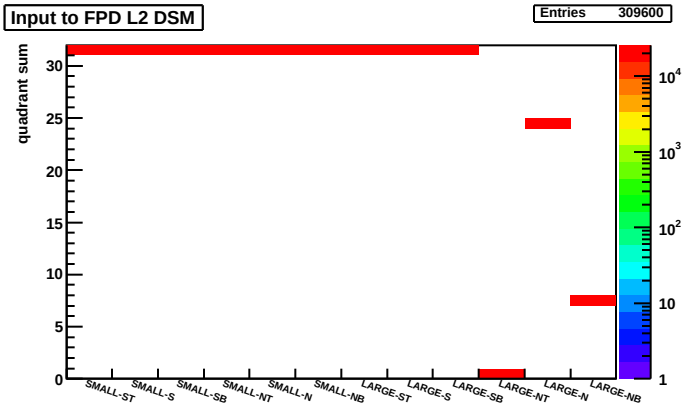

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

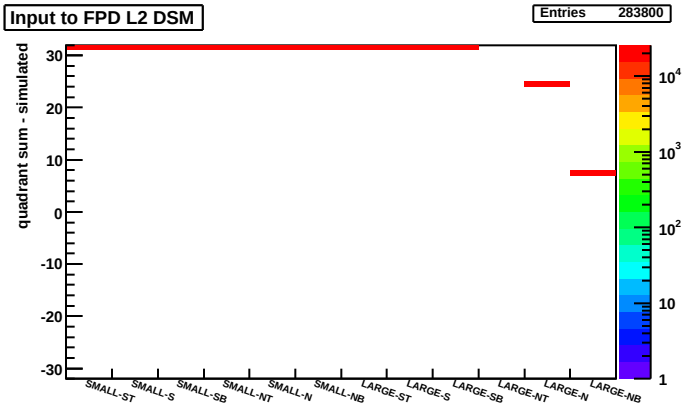

Input to FMS L1 DSM
Entries 309600
sumA
DSM board

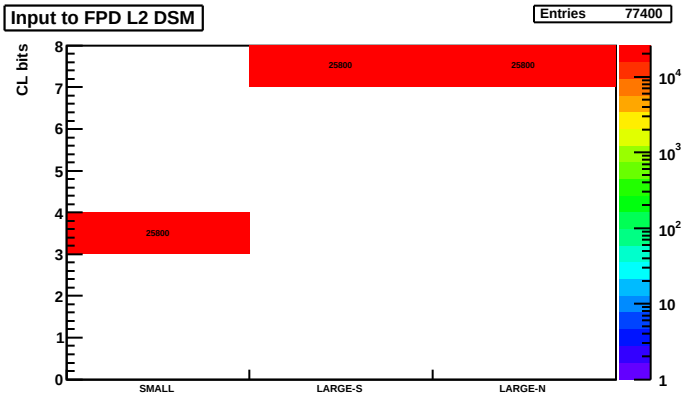

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

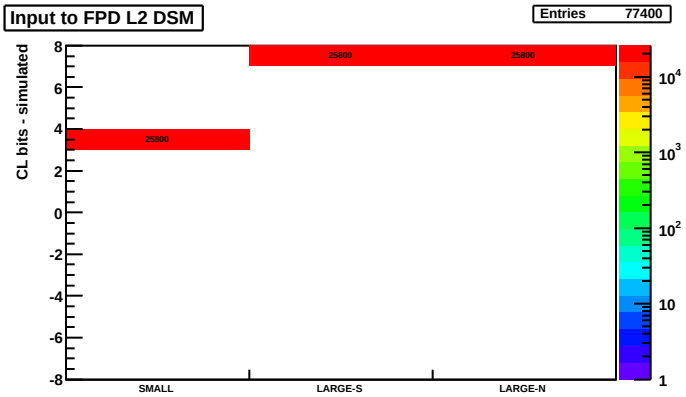

Input to FMS L1 DSM
Entries 309600
FMS L1 HT bits
DSM board

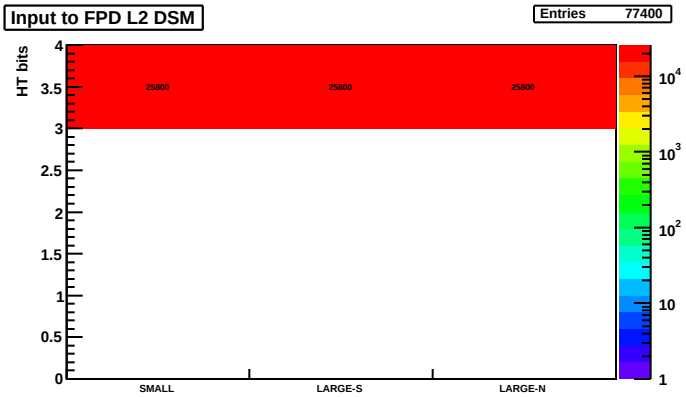

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

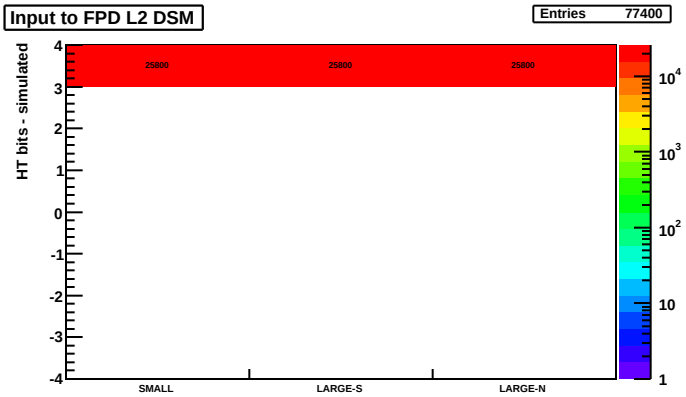

Input to FPD L2 DSM
Entries 309600
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

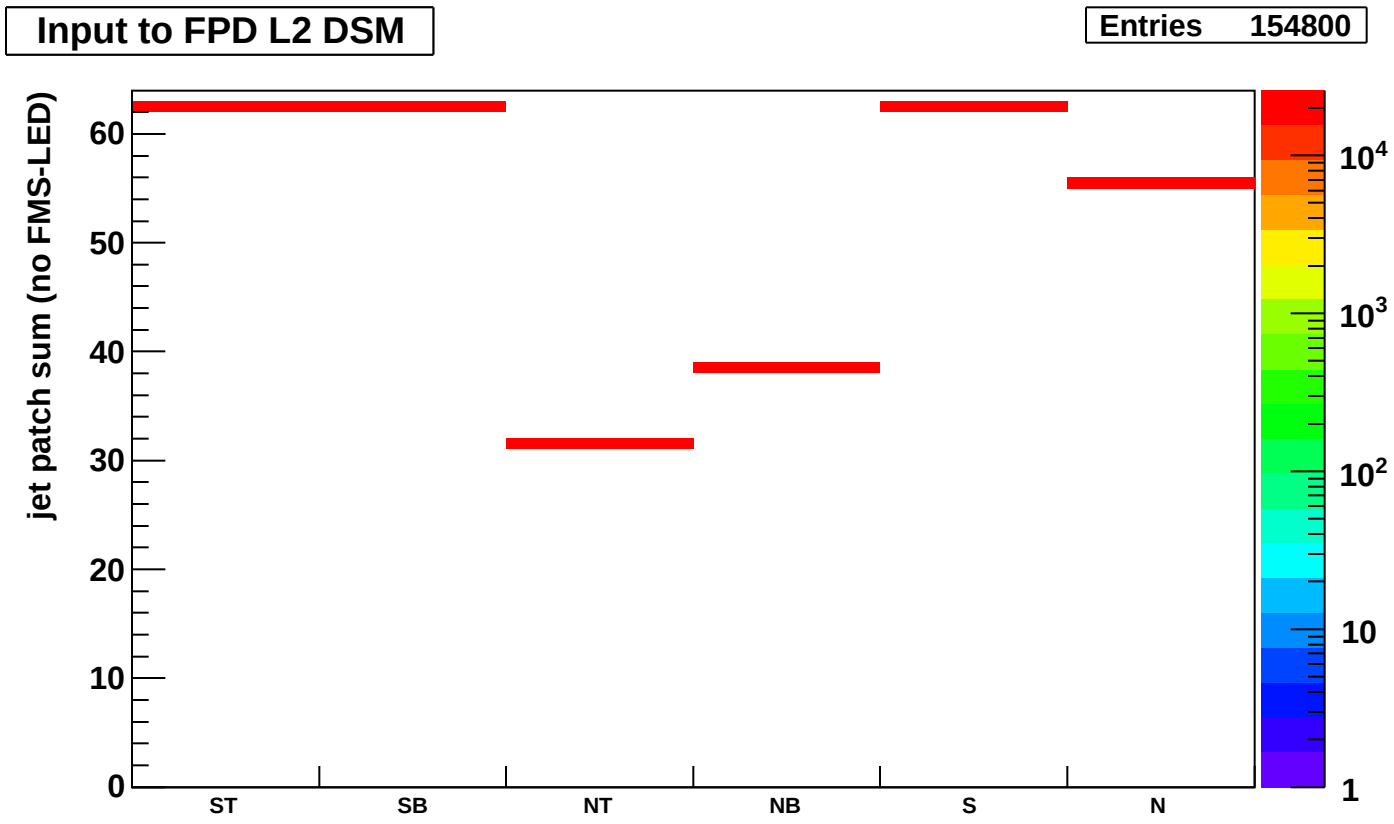

Input to FPD L2 DSM
Entries 283800
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

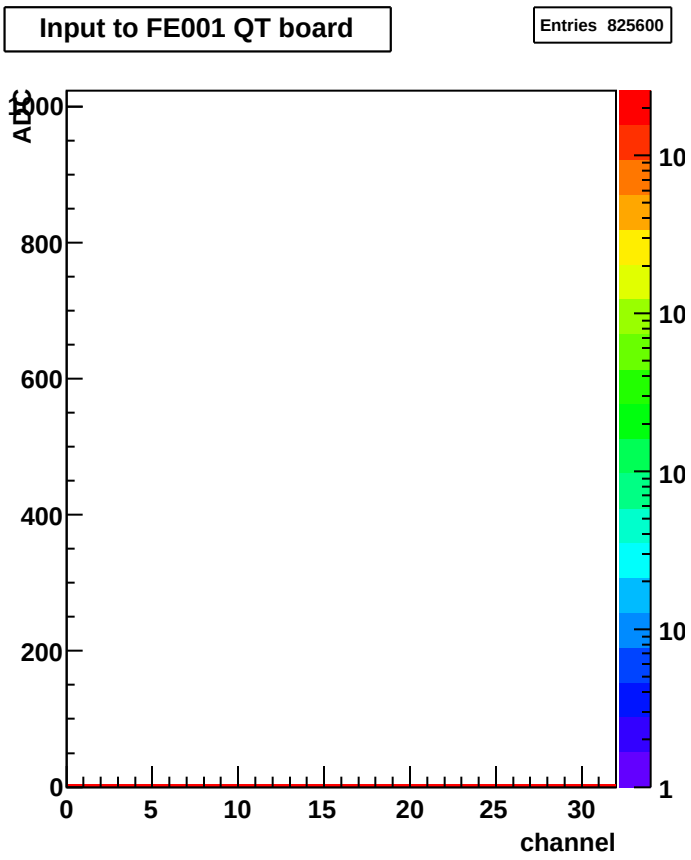

Input to FPD L2 DSM
Entries 77400
CL bits
25800
25800
25800
SMALL
LARGE-S
LARGE-N

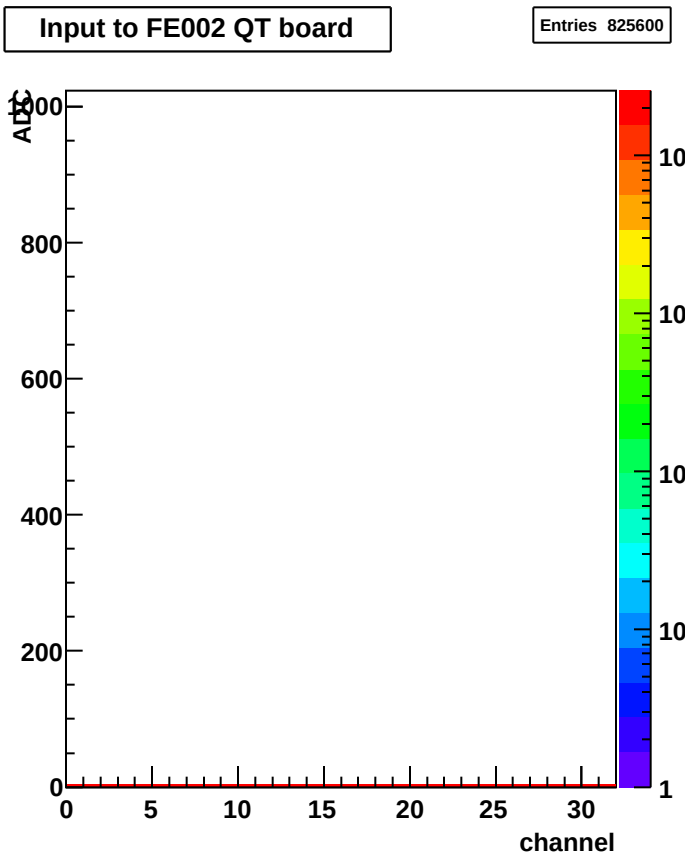

Input to FPD L2 DSM
Entries 77400
CL bits - simulated
25800
25800
25800
SMALL
LARGE-S
LARGE-N

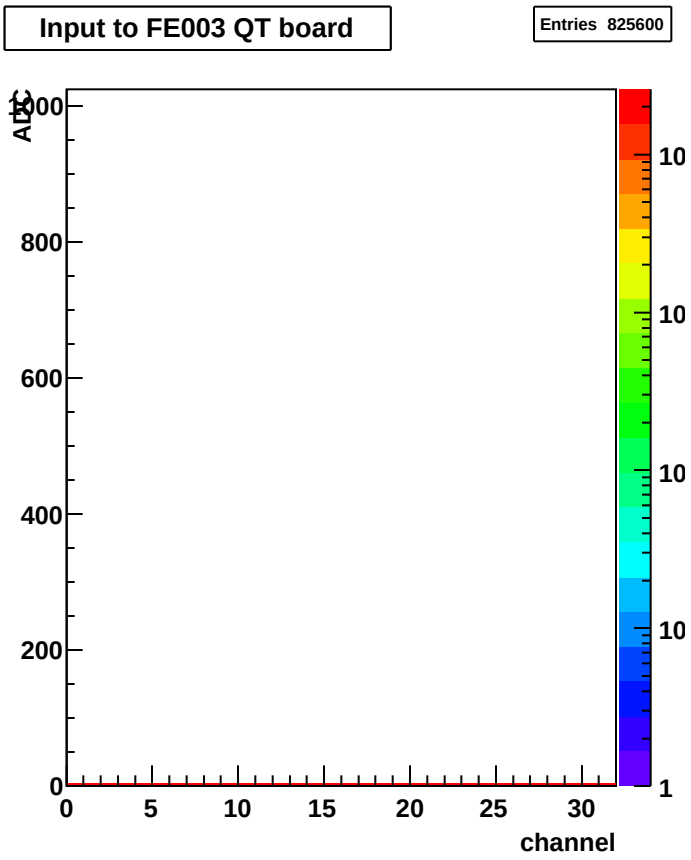

Input to FPD L2 DSM
Entries 77400
HT bits
25800
25800
25800
SMALL
LARGE-S
LARGE-N

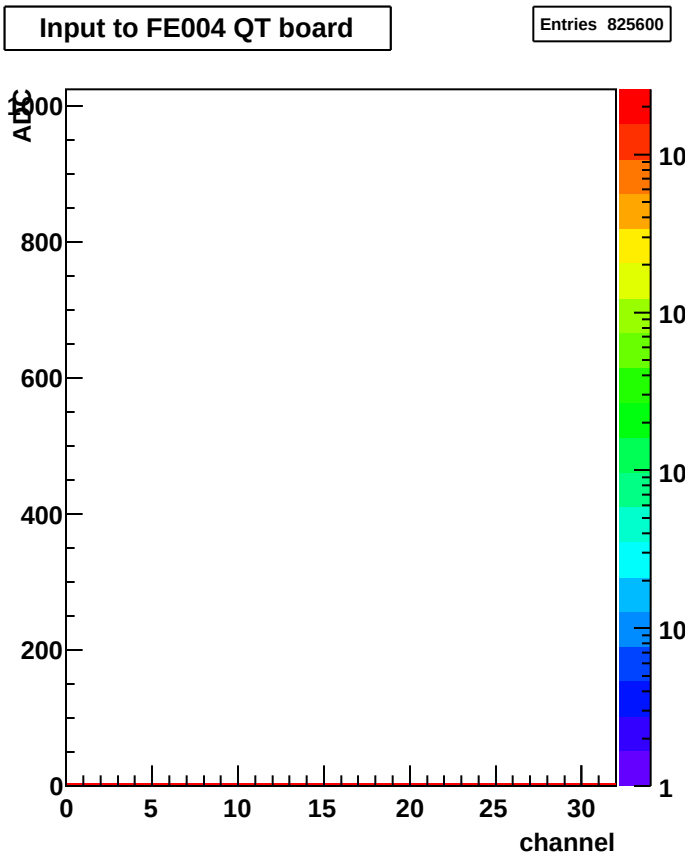

Input to FPD L2 DSM
Entries 77400
HT bits - simulated
25800
25800
25800
SMALL
LARGE-S
LARGE-N

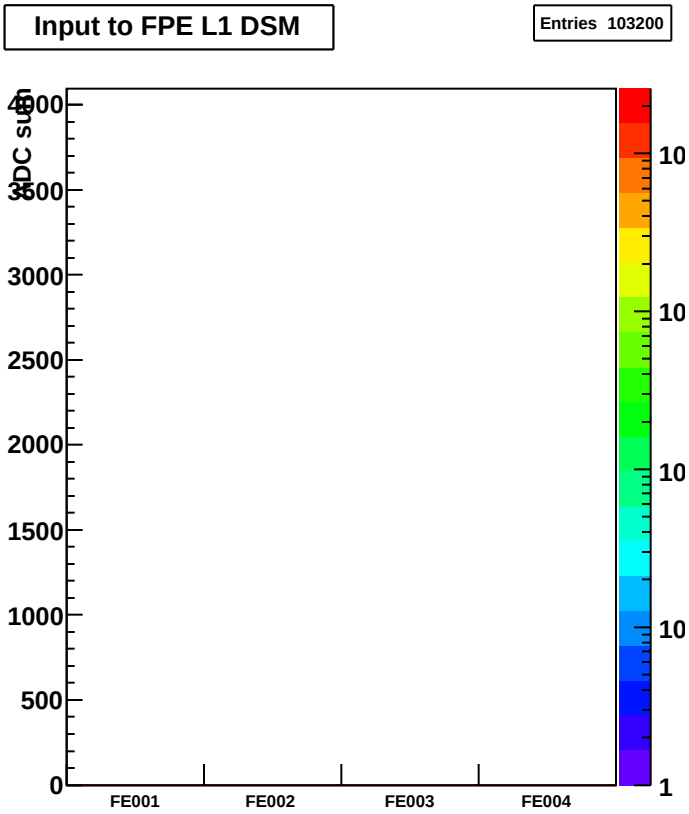

Input to FPD L2 DSM
Entries 154800
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

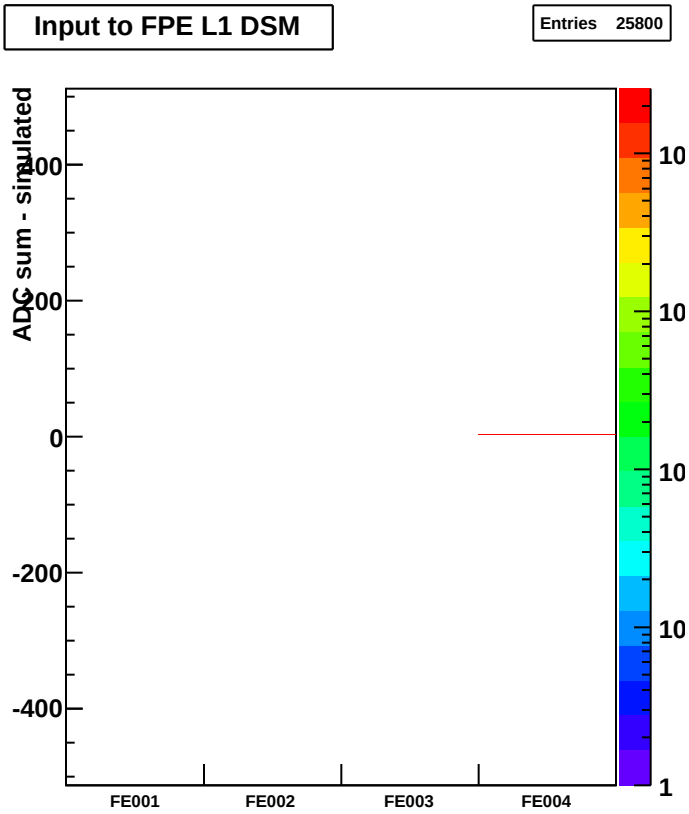

Input to FE001 QT board
Entries 825600
ADC
channel

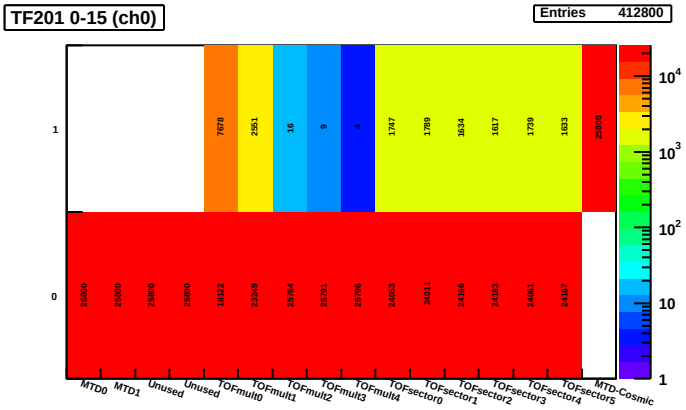

Input to FE002 QT board
Entries 825600
ADC
channel

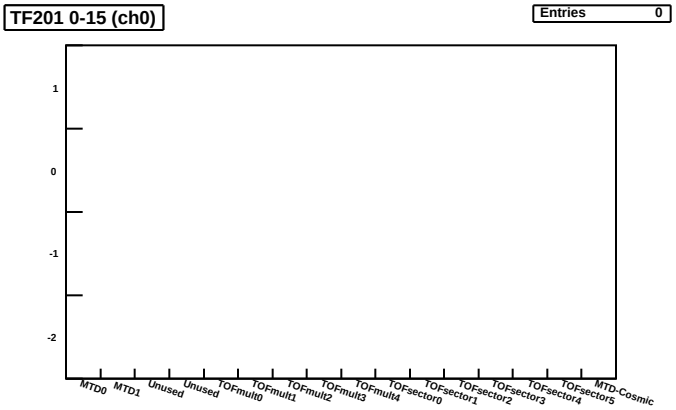

Input to FE003 QT board
Entries 825600
ADC
channel

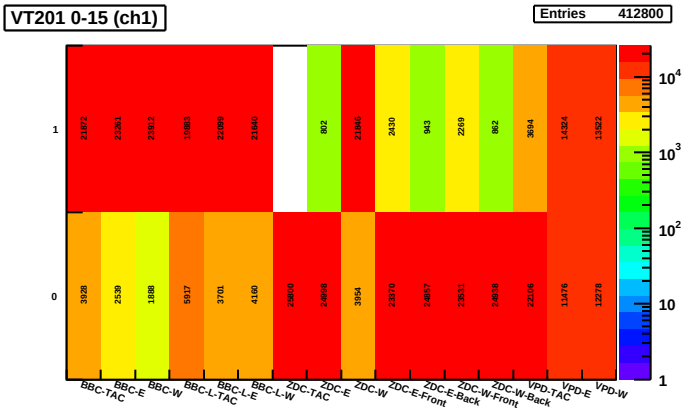

Input to FE004 QT board
Entries 825600
ADC
channel

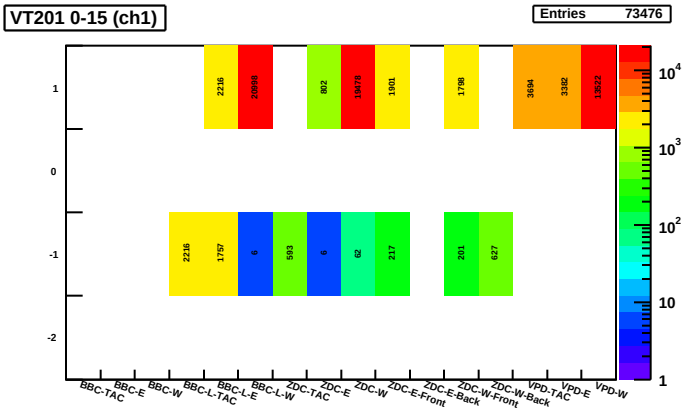

Input to FPE L1 DSM
Entries 103200
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 25800
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 412800
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 412800
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 73476
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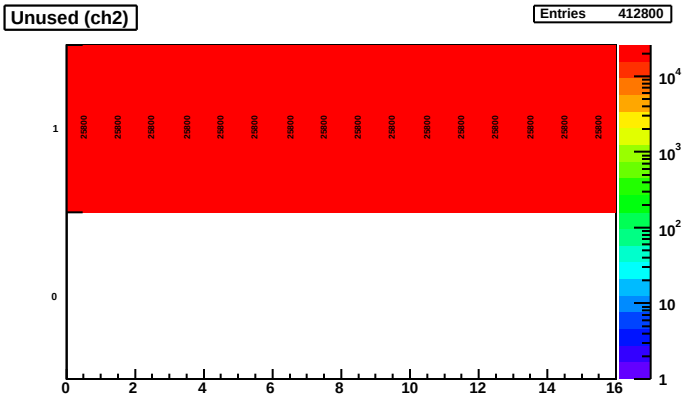
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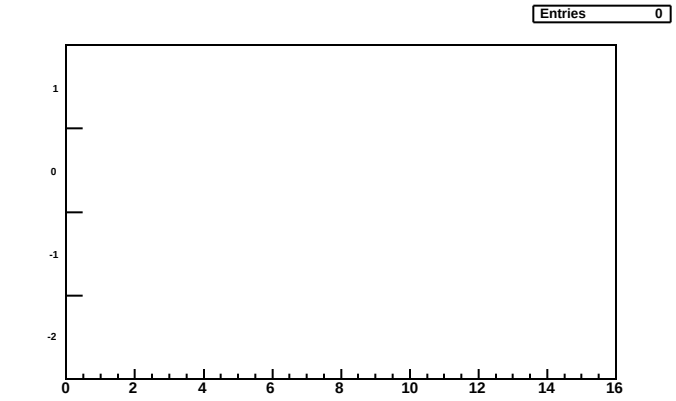
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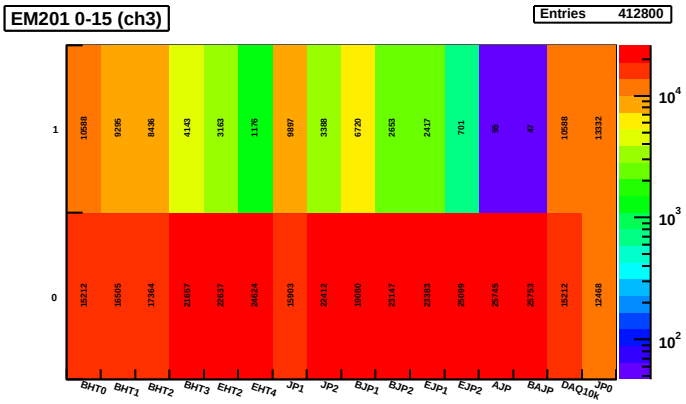
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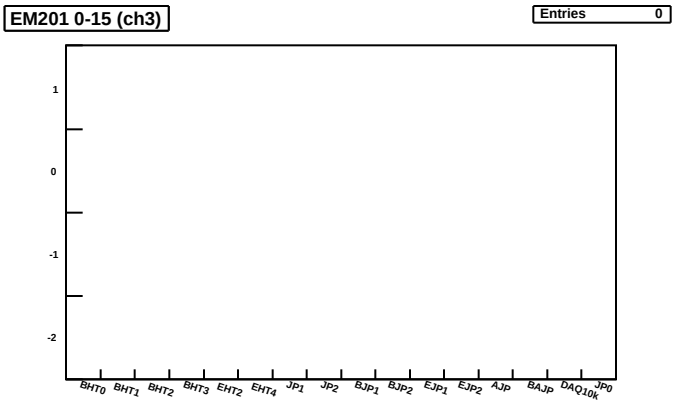
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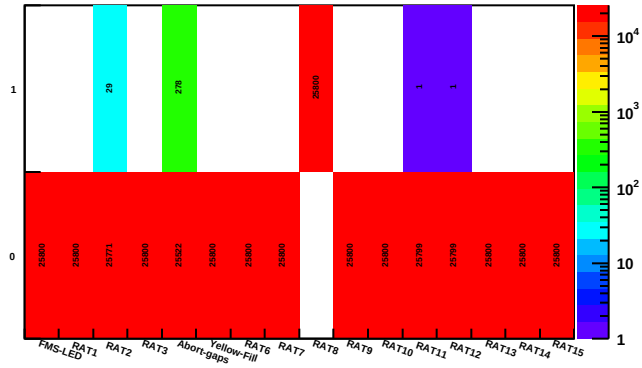
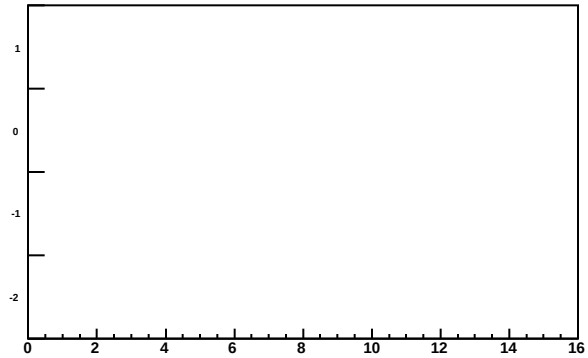
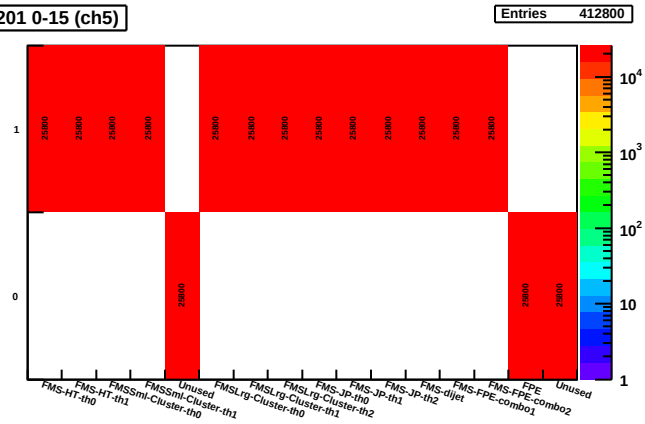
RAT board (ch4)

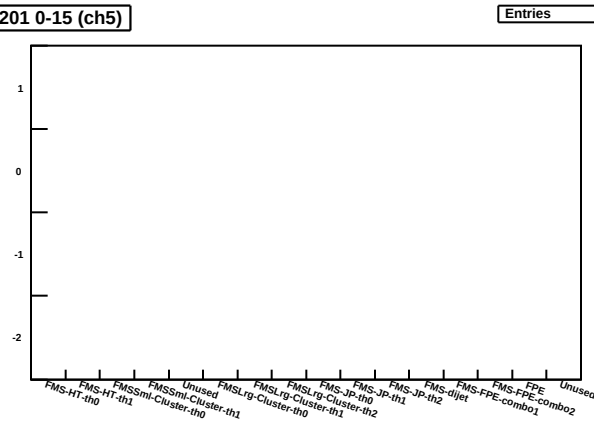




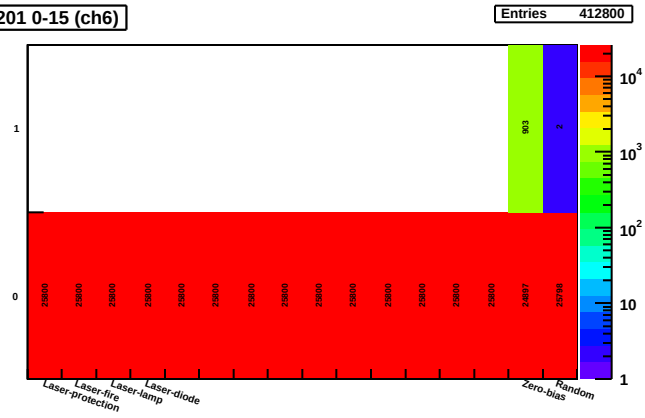
FP201 0-15 (ch5)

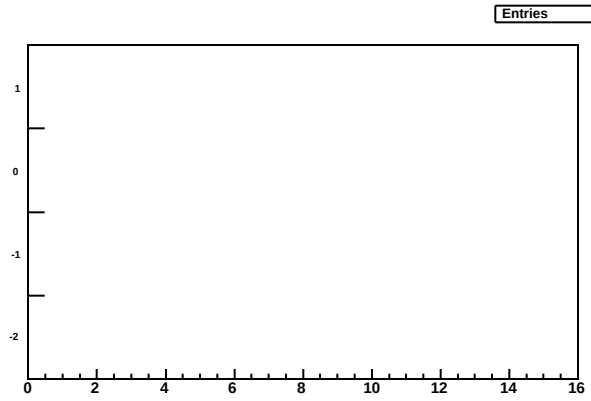
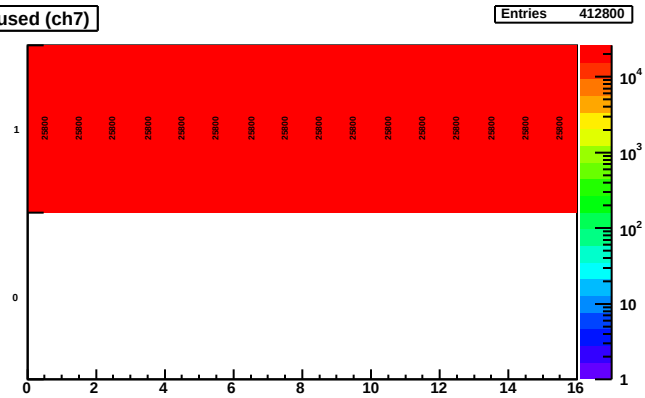
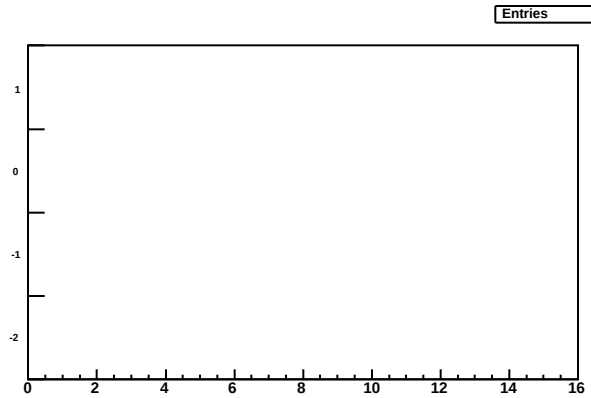


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)