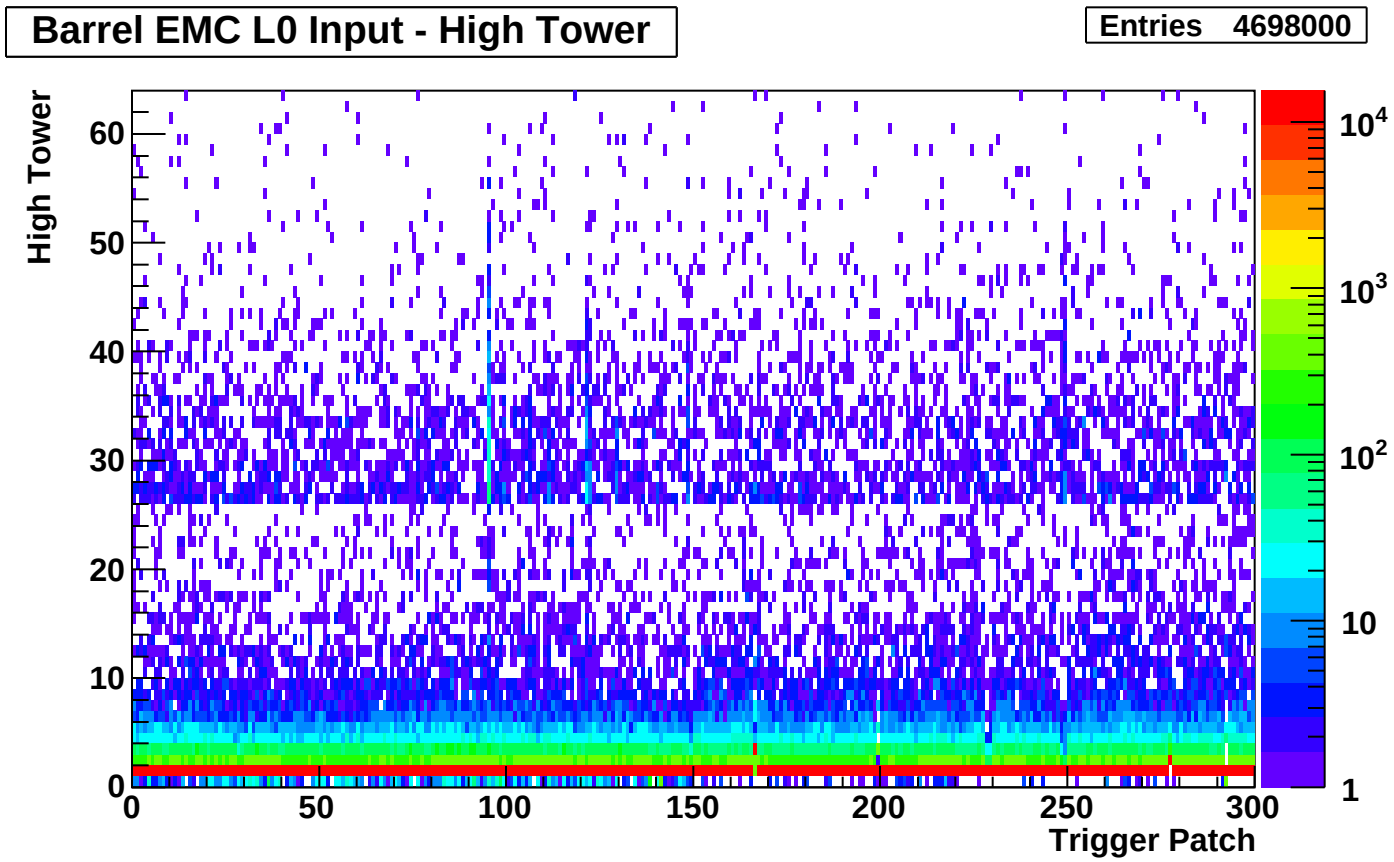
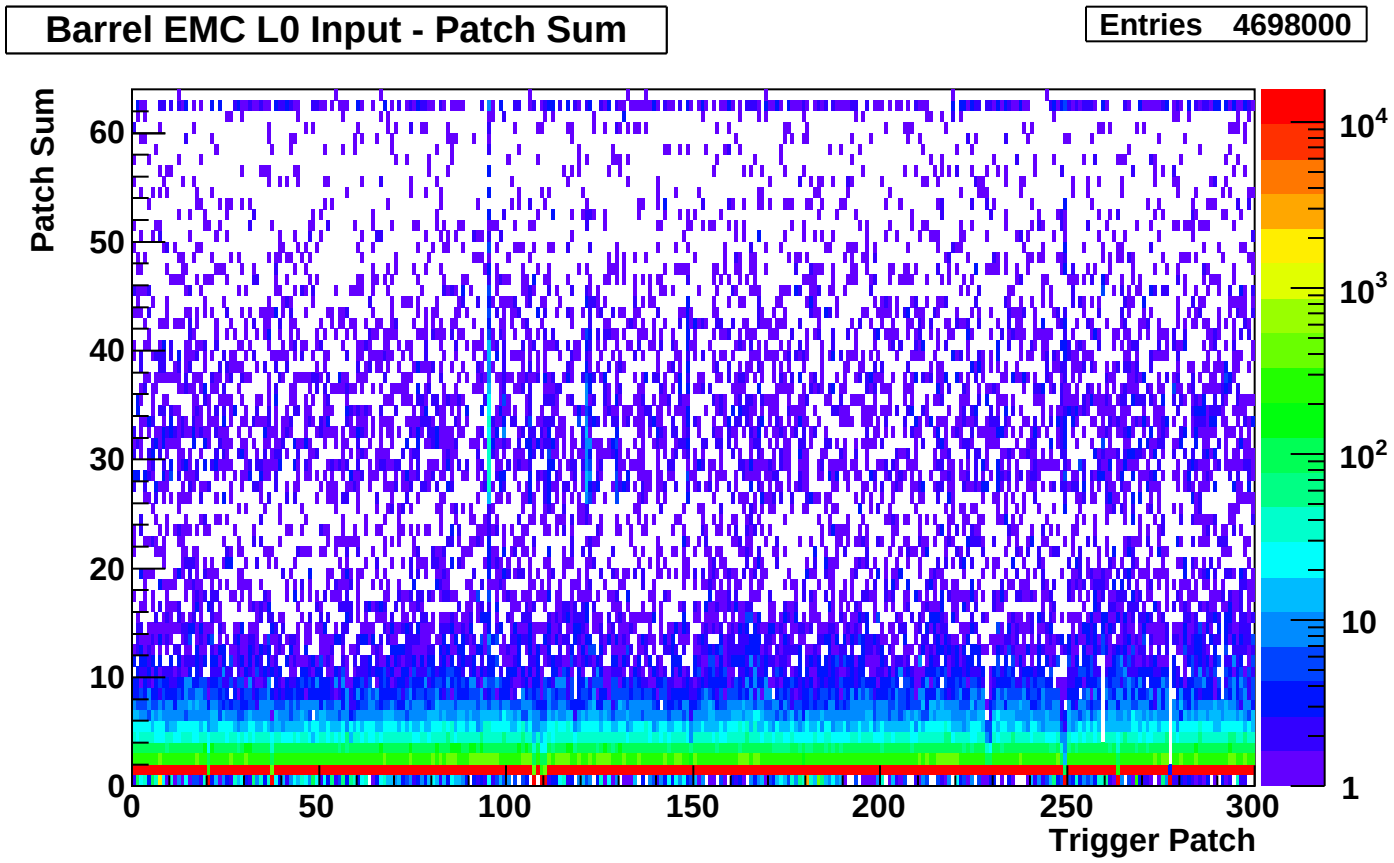
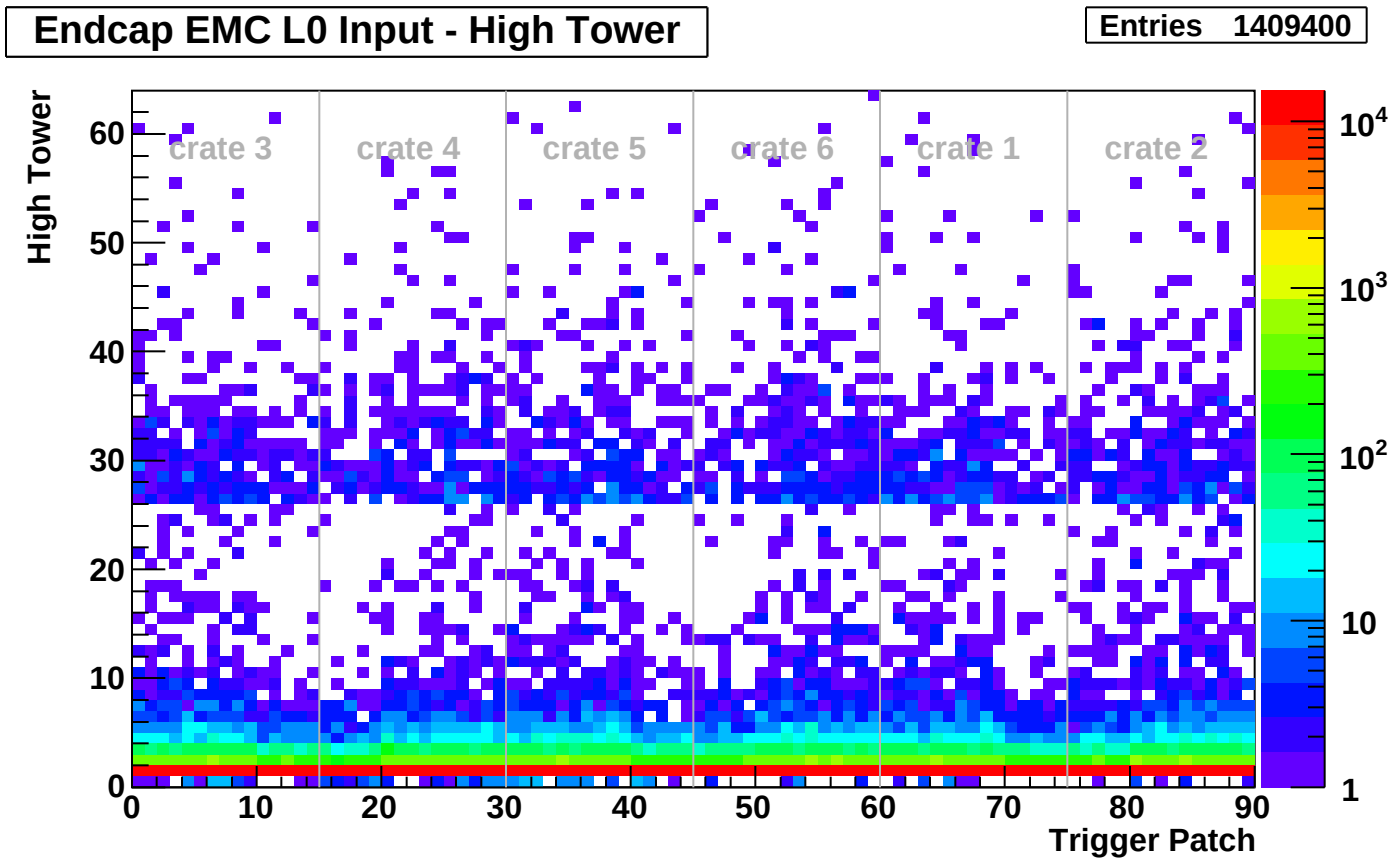
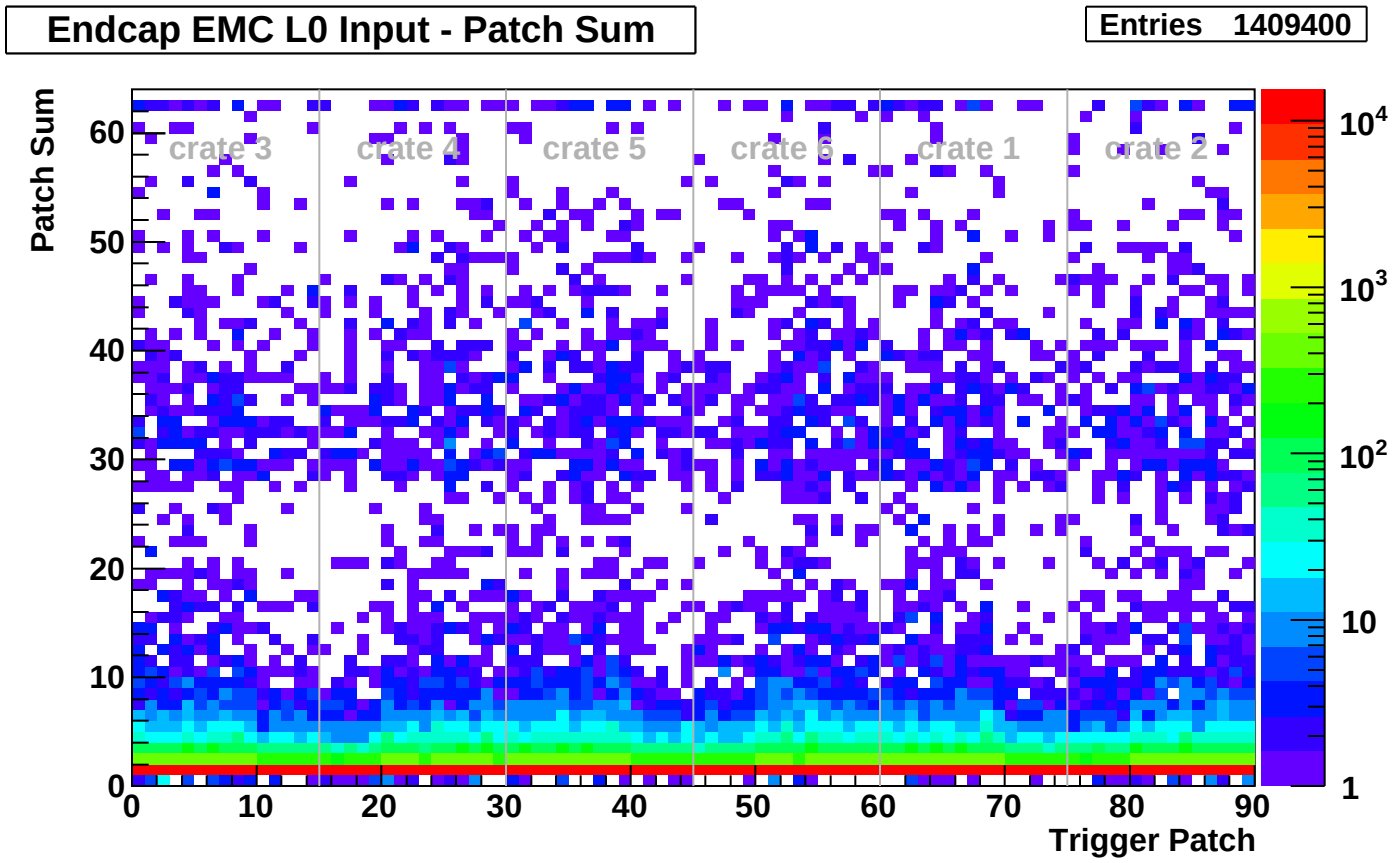
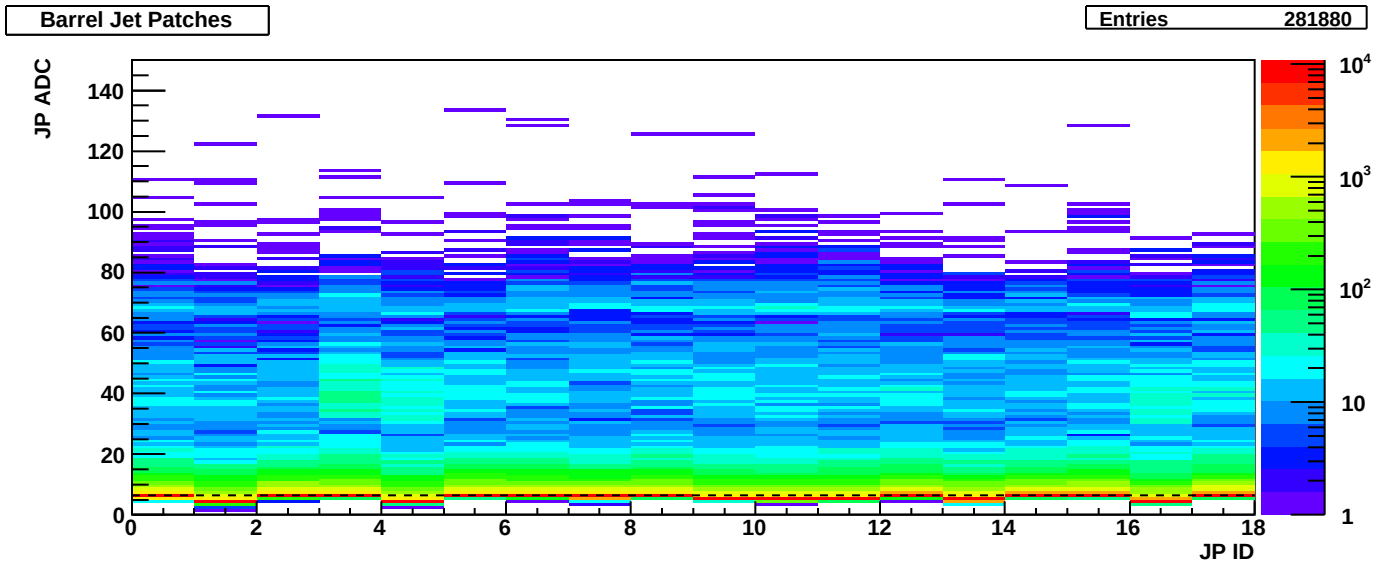
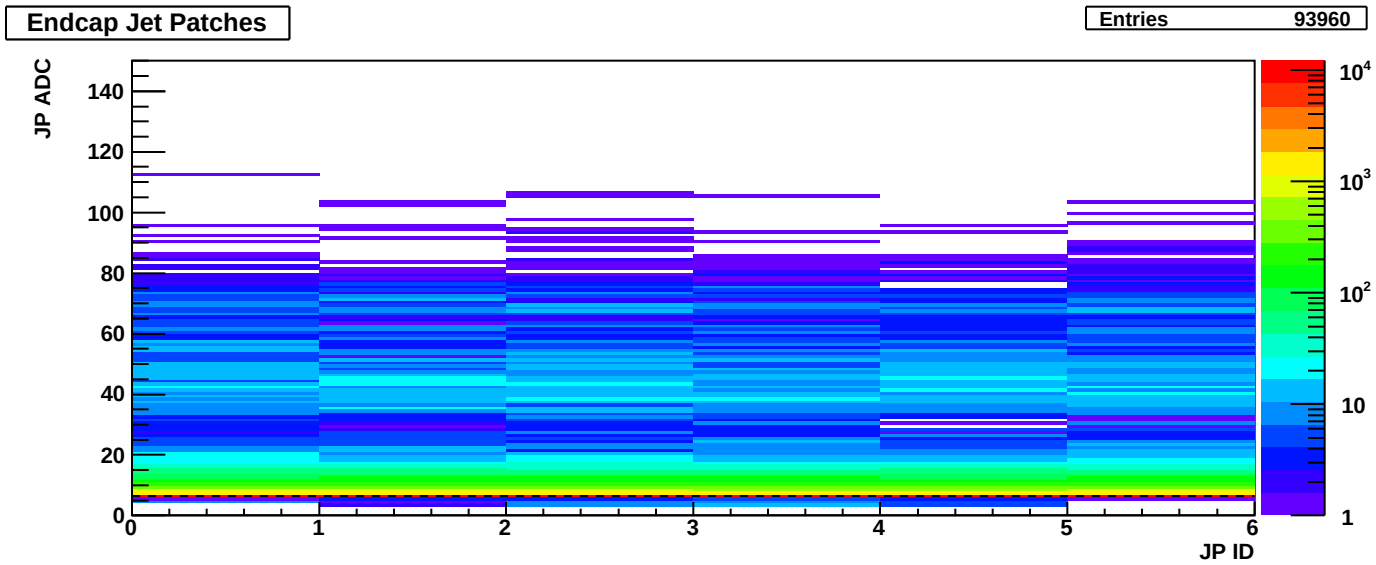

Barrel EMC L0 Input - High Tower
Entries 4698000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

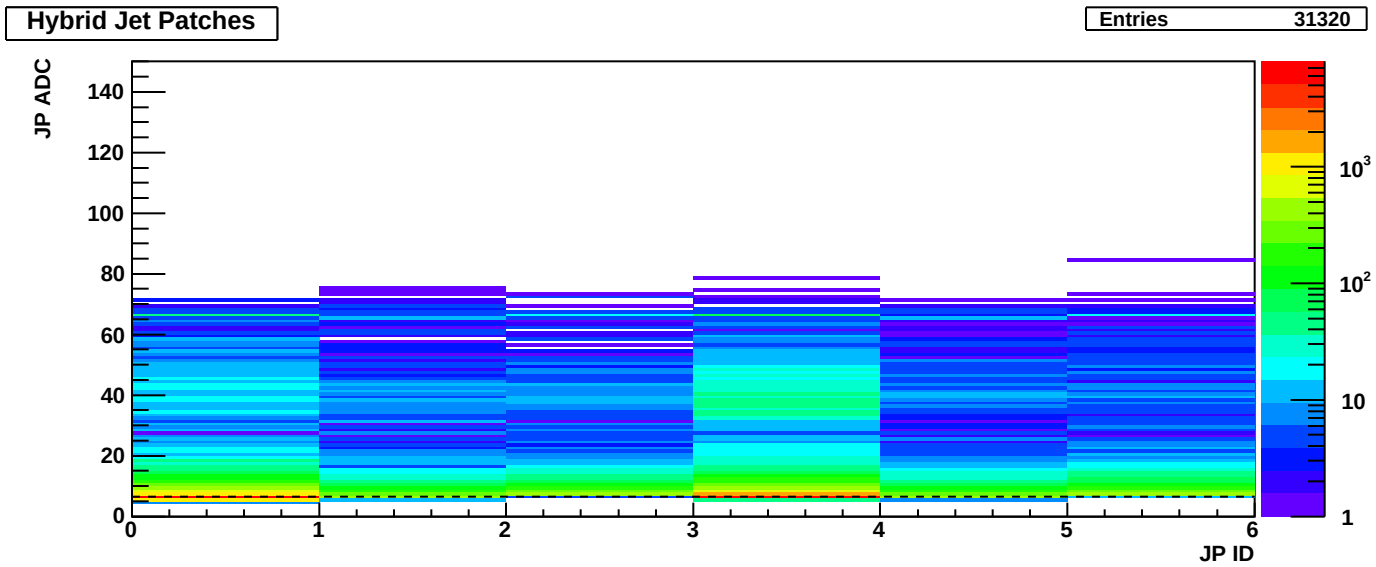

Barrel EMC L0 Input - Patch Sum
Entries 4698000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

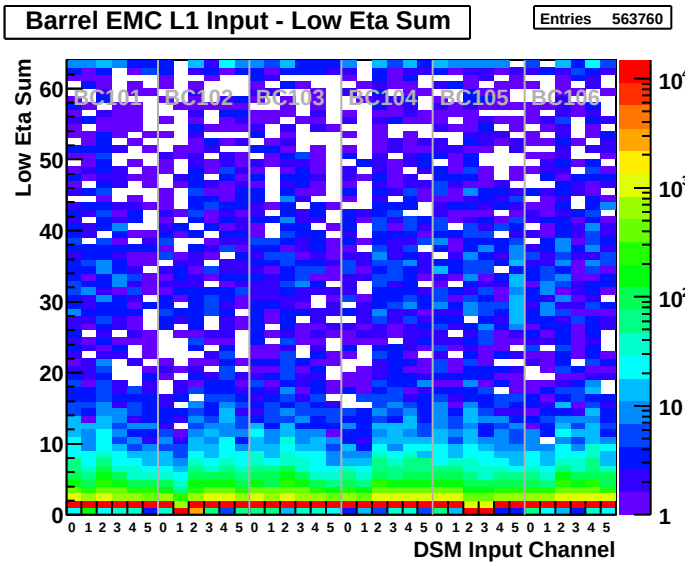

Endcap EMC L0 Input - High Tower
Entries 1409400
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

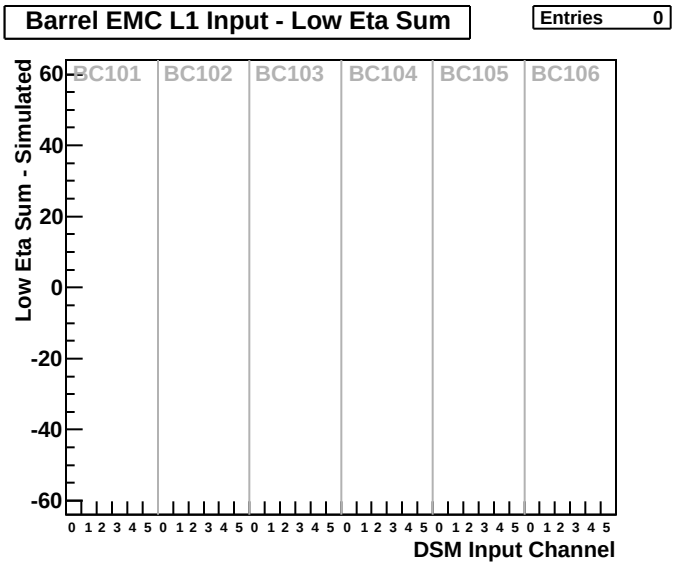

Endcap EMC L0 Input - Patch Sum
Entries 1409400
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

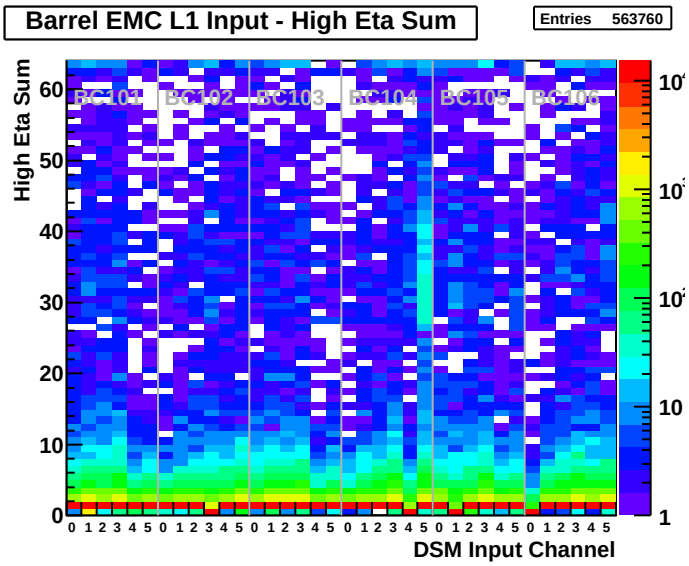

Barrel Jet Patches
Entries 281880
JP ADC
JP ID

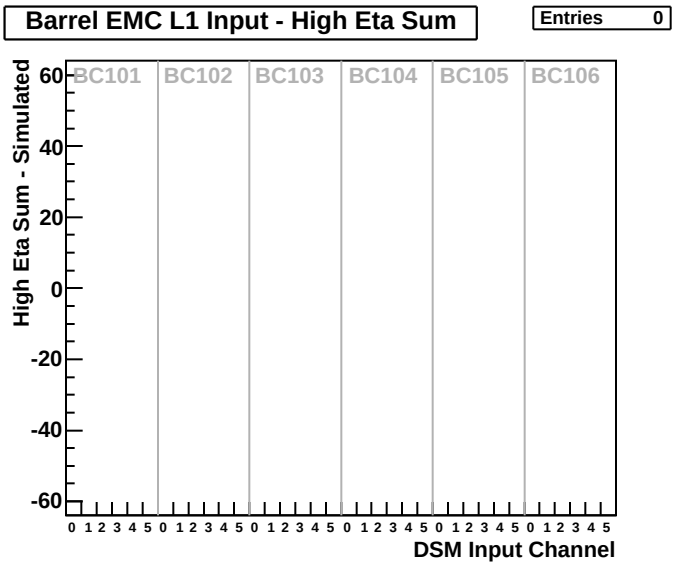

Endcap Jet Patches
Entries 93960
JP ADC
JP ID

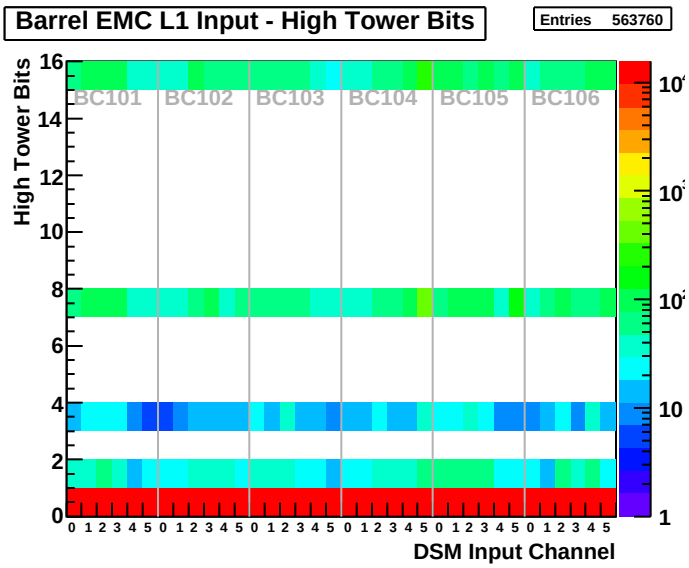

Hybrid Jet Patches
Entries 31320
JP ADC
JP ID

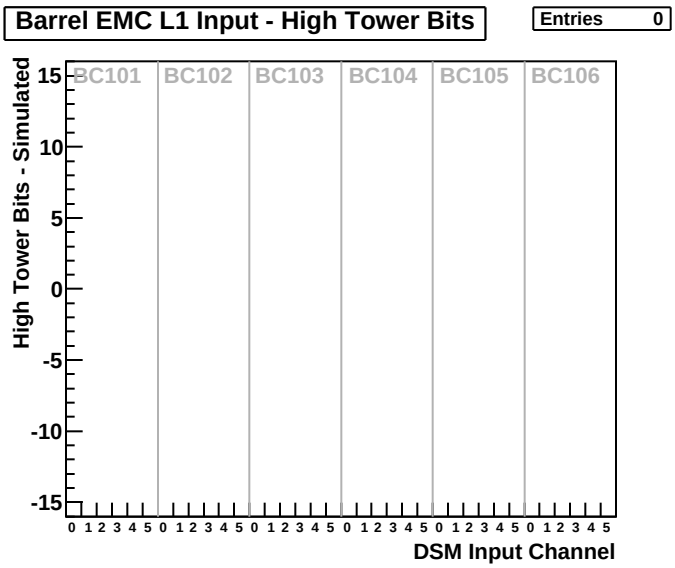

Barrel EMC L1 Input - Low Eta Sum
Entries 563760
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

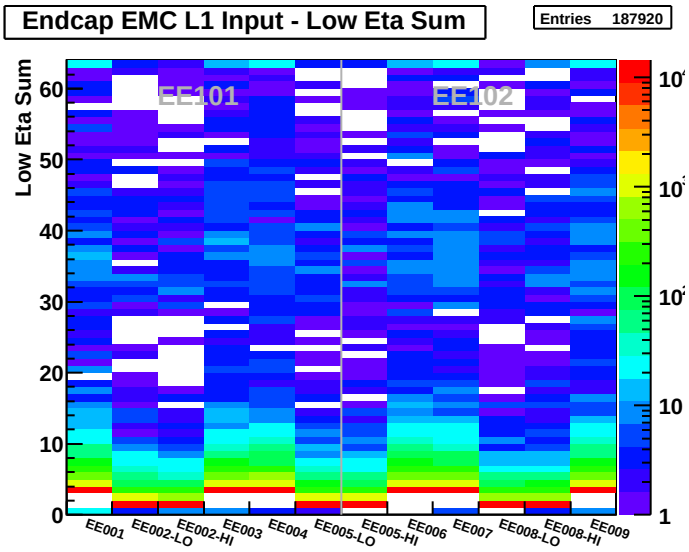

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

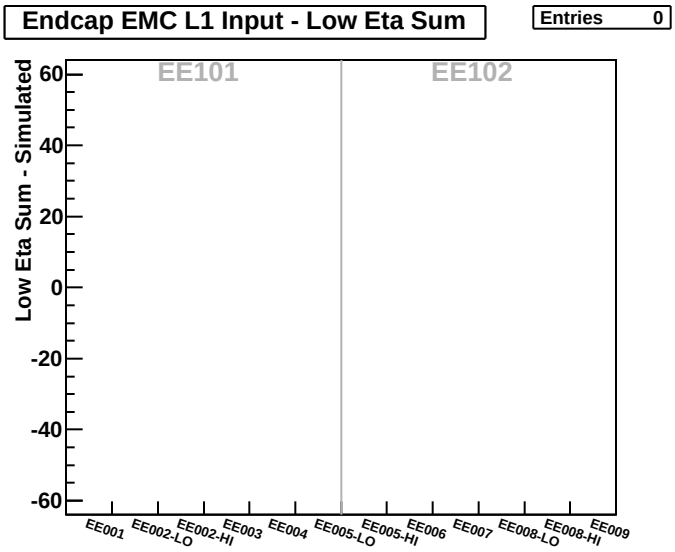

Barrel EMC L1 Input - High Eta Sum
Entries 563760
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

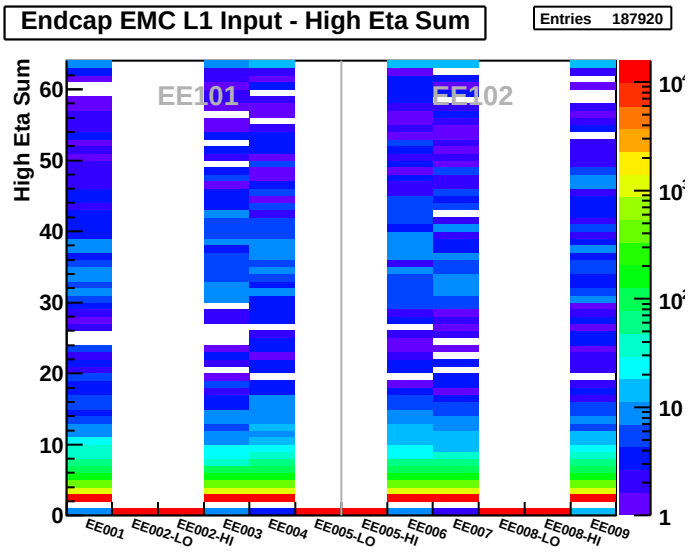

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

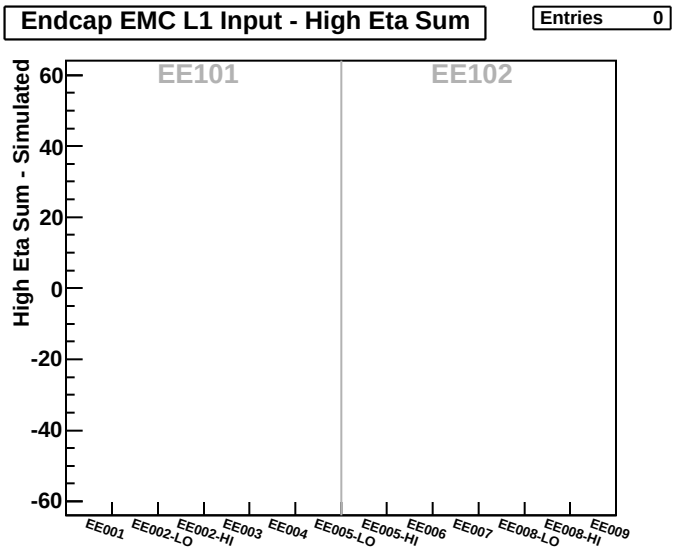

Barrel EMC L1 Input - High Tower Bits
Entries 563760
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

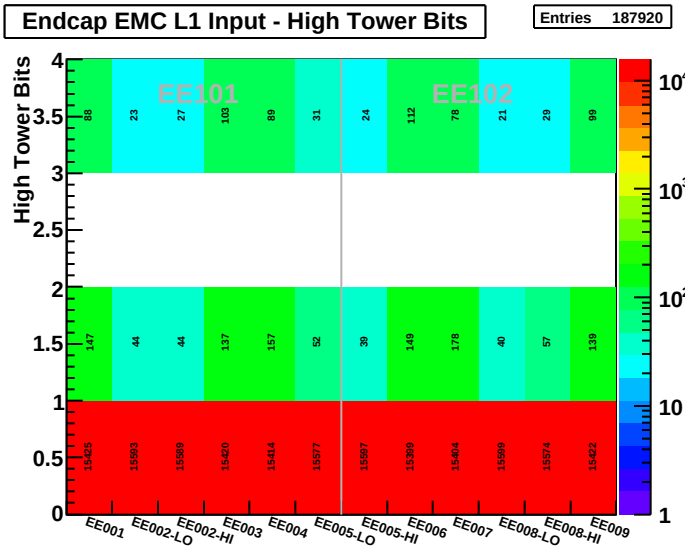

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

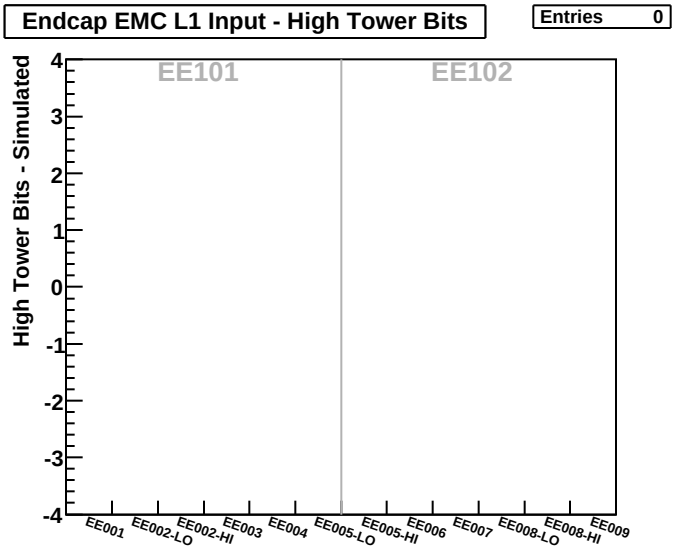

Endcap EMC L1 Input - Low Eta Sum
Entries 187920
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

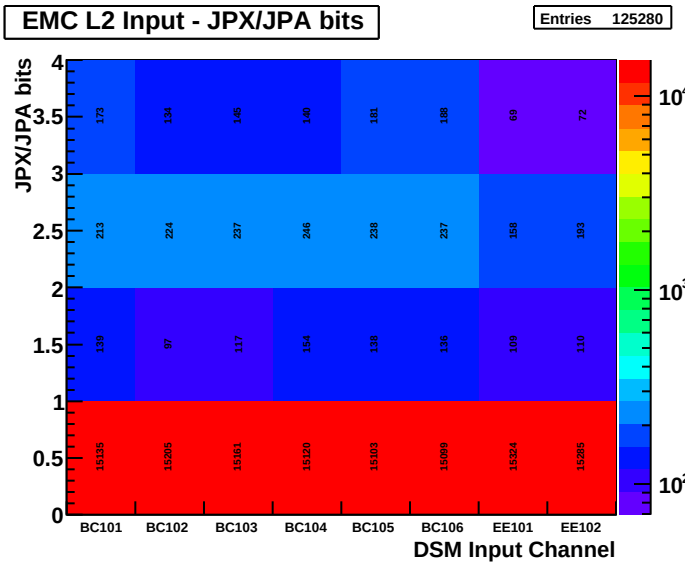

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

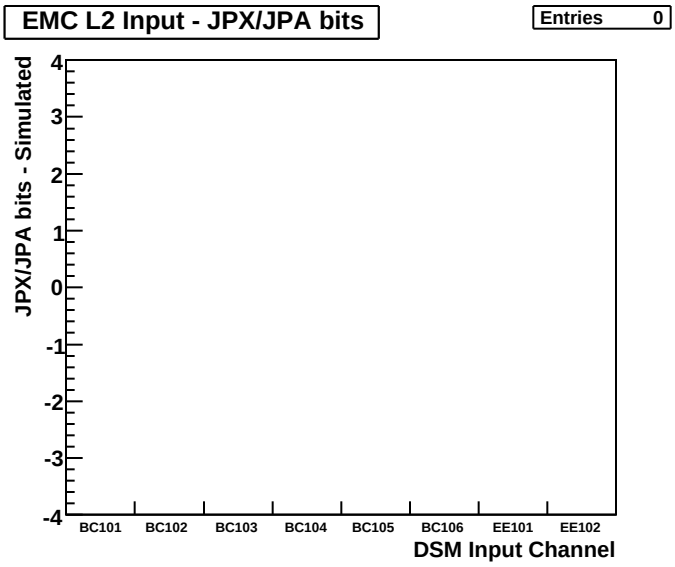

Endcap EMC L1 Input - High Eta Sum
Entries 187920
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

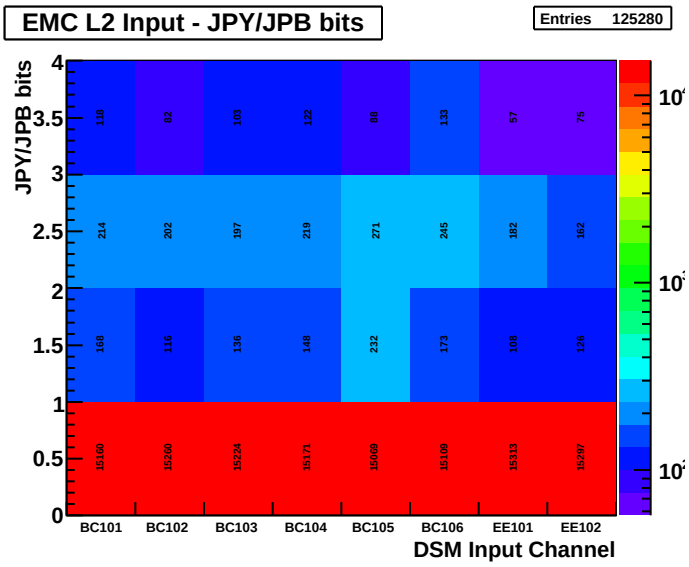

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

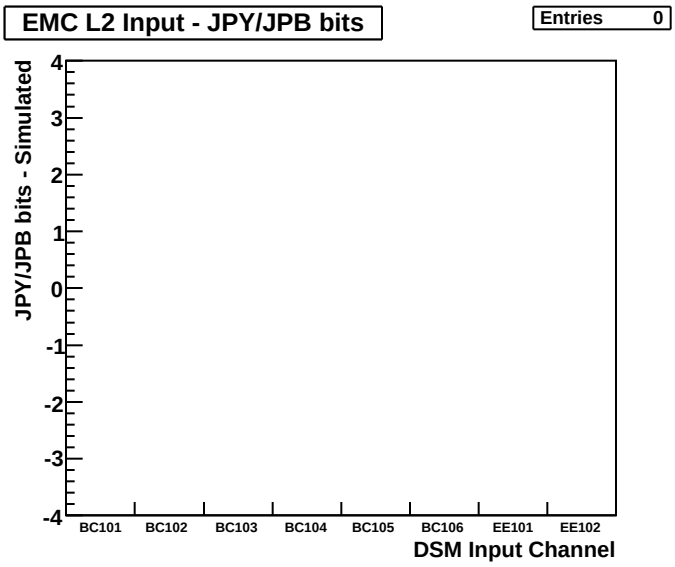

Endcap EMC L1 Input - High Tower Bits
Entries 187920
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

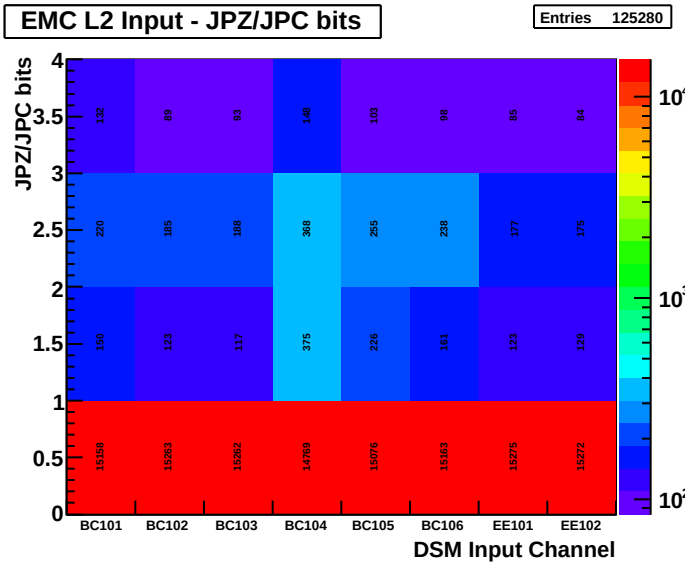

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

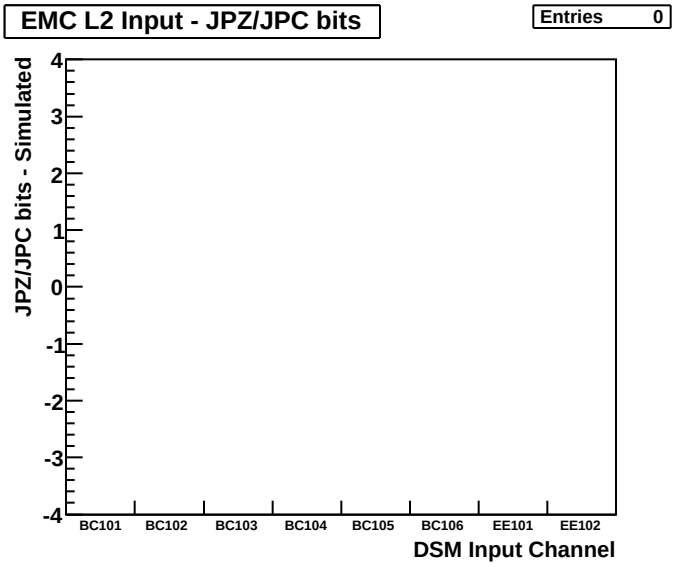

EMC L2 Input - JPX/JPA bits
Entries 125280
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
173 134 145 140 181 188 69 72
213 224 237 246 238 237 158 193
139 97 117 154 138 136 109 110
15135 15205 15161 15120 15103 15099 15324 15285

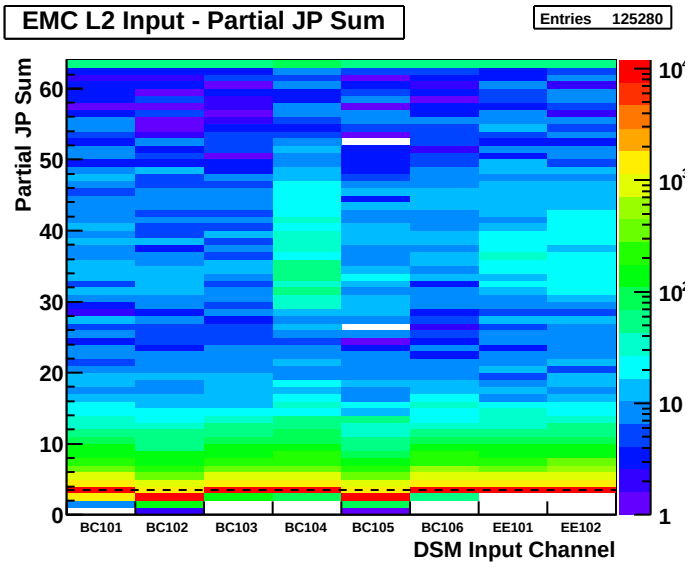

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

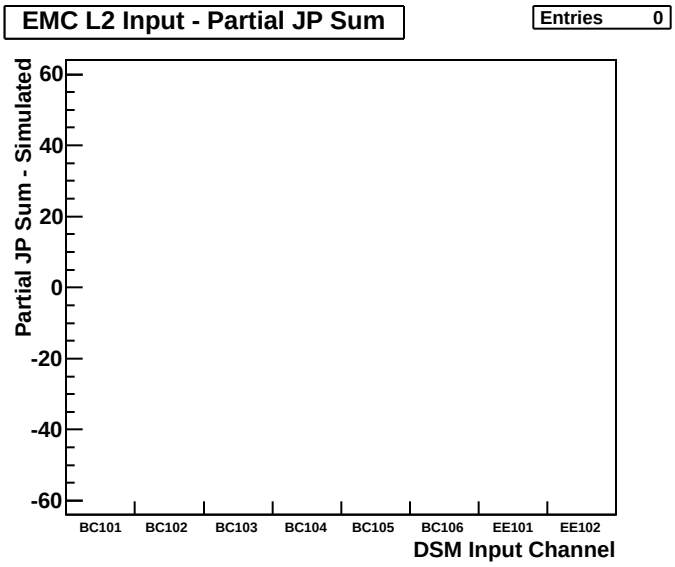

EMC L2 Input - JPY/JPB bits
Entries 125280
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
118 82 103 122 88 133 57 75
214 202 197 219 271 245 182 162
168 116 136 148 232 173 108 126
15160 15260 15224 15171 15069 15109 15313 15297

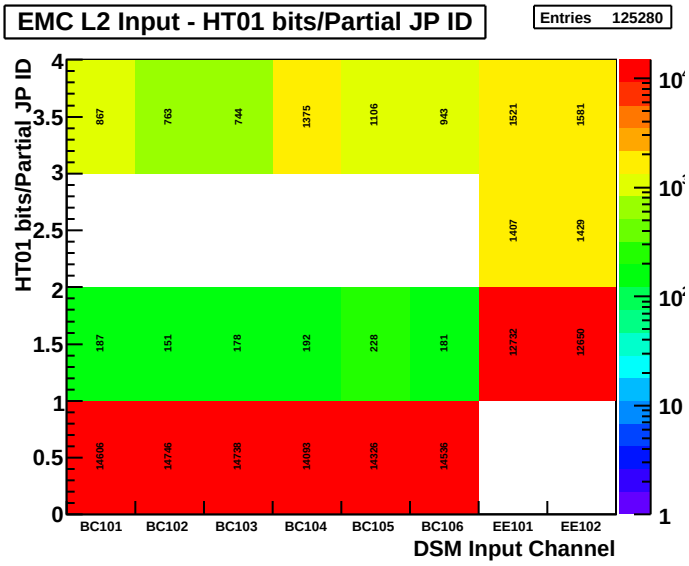

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

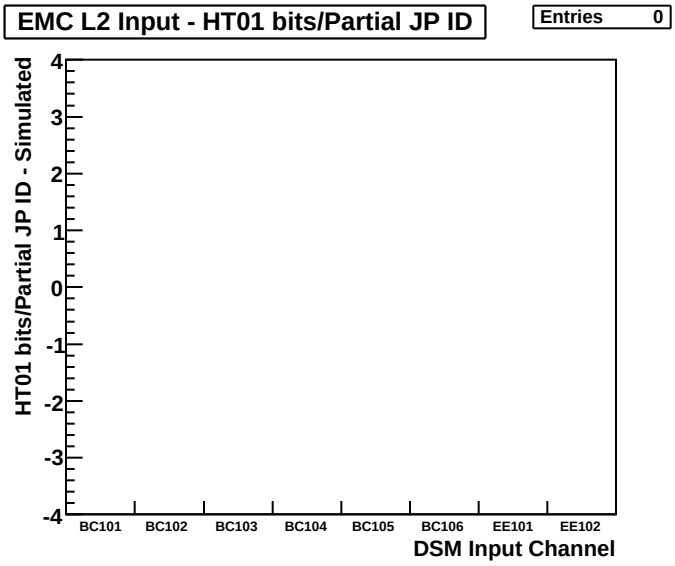

EMC L2 Input - JPZ/JPC bits
Entries 125280
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
132 89 93 148 103 98 85 84
220 185 188 368 255 238 177 175
150 123 117 375 226 161 123 129
15158 15263 15262 14769 15076 15163 15275 15272

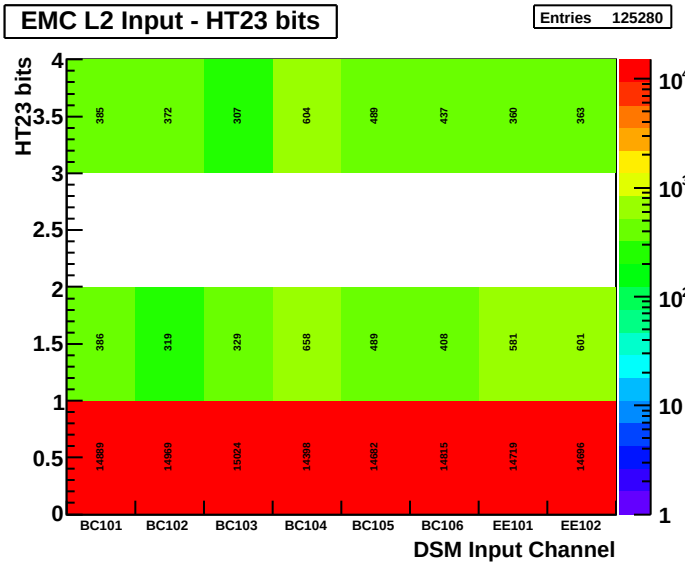

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

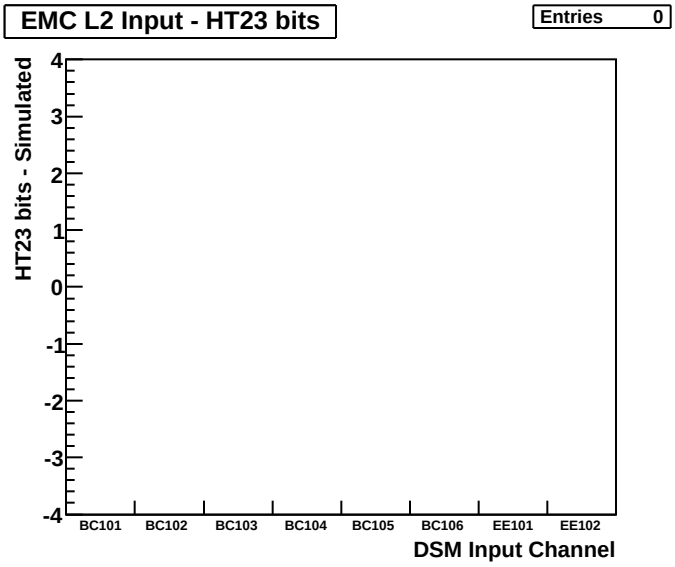

EMC L2 Input - Partial JP Sum
Entries 125280
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

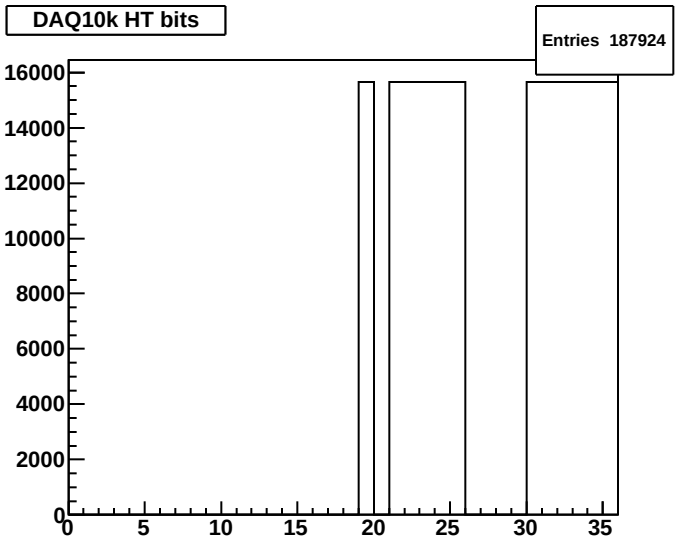

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

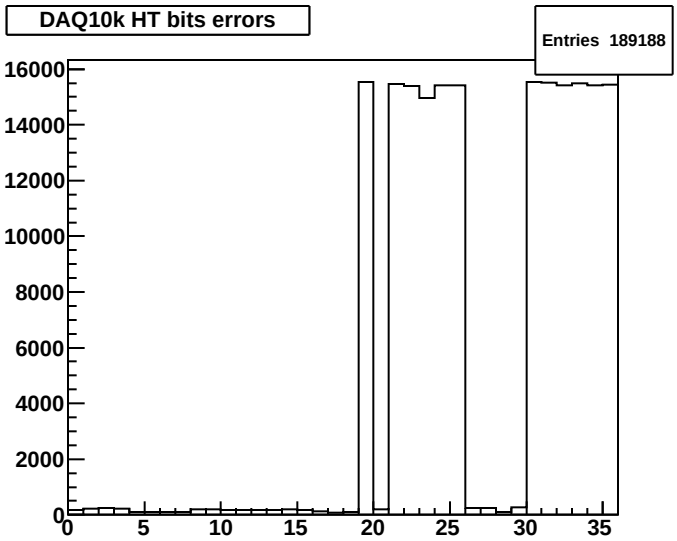

EMC L2 Input - HT01 bits/Partial JP ID
Entries 125280
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

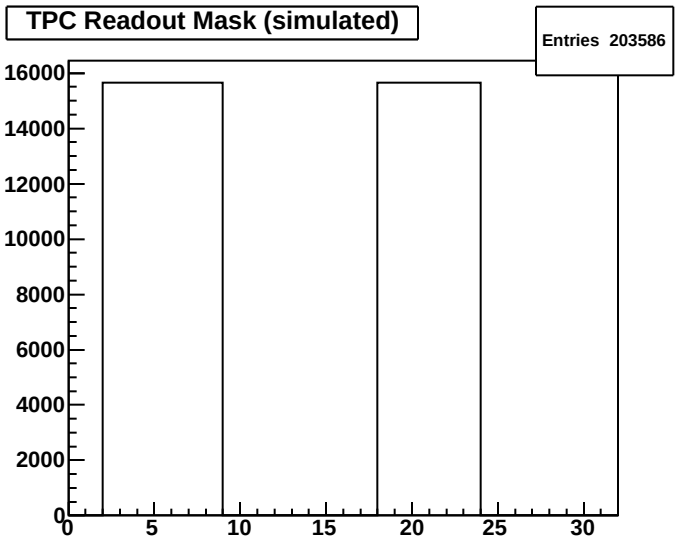

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

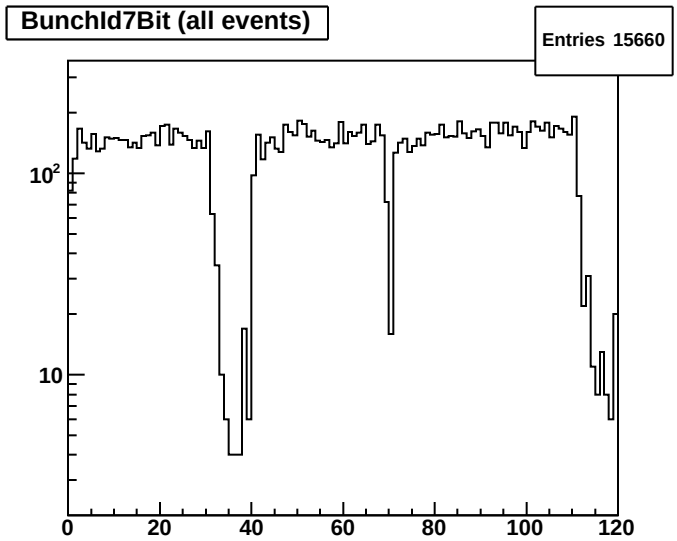

EMC L2 Input - HT23 bits
Entries 125280
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

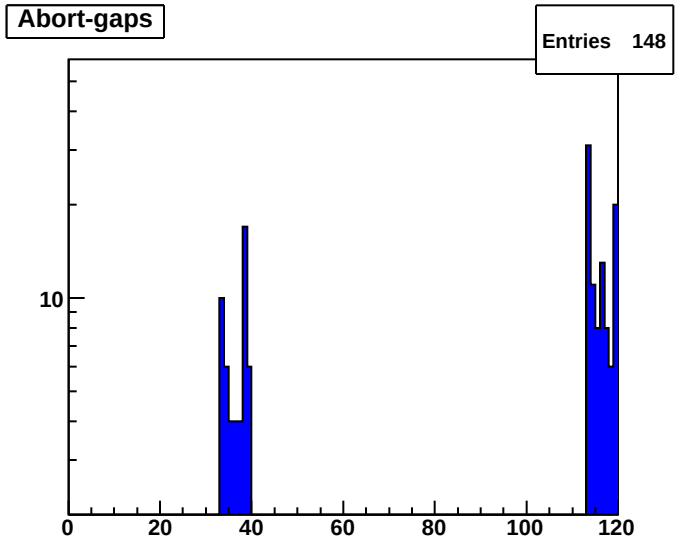

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

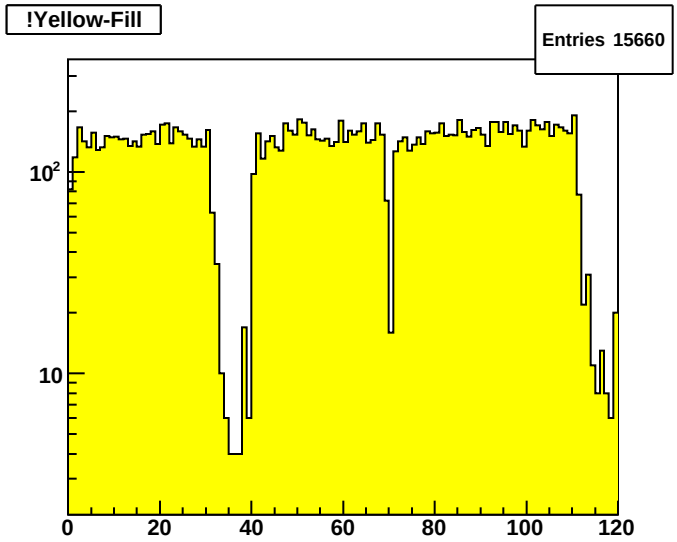

DAQ10k HT bits
Entries 187924
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

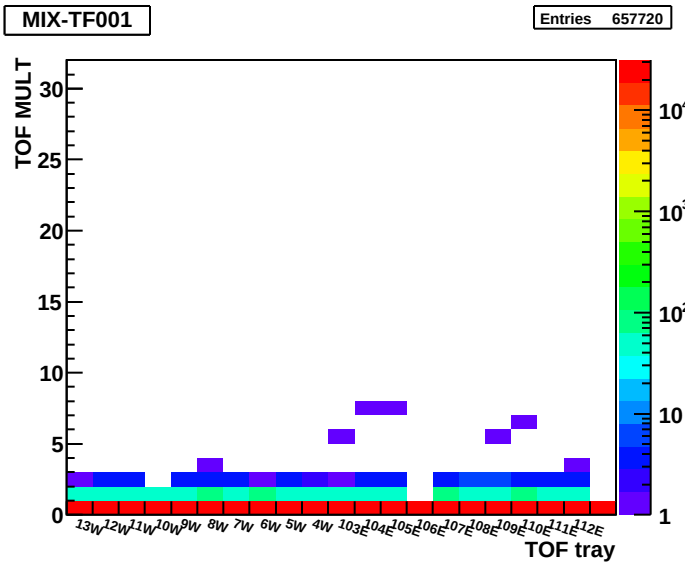

DAQ10k HT bits errors
Entries 189188
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

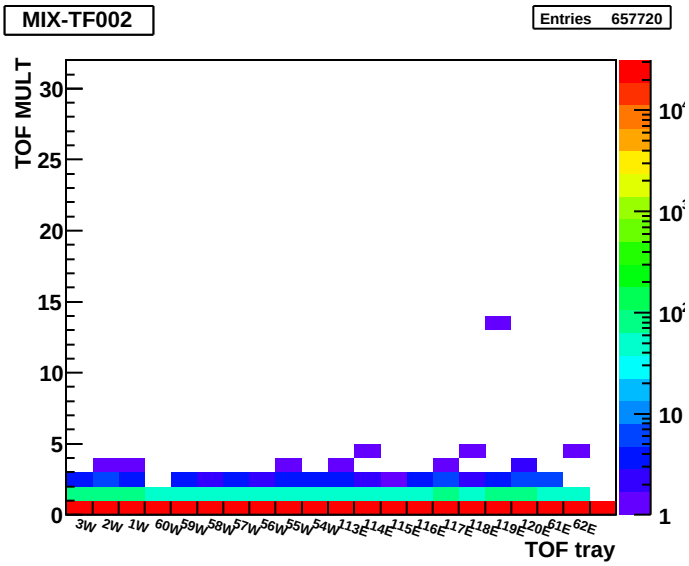

TPC Readout Mask (simulated)
Entries 203586
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

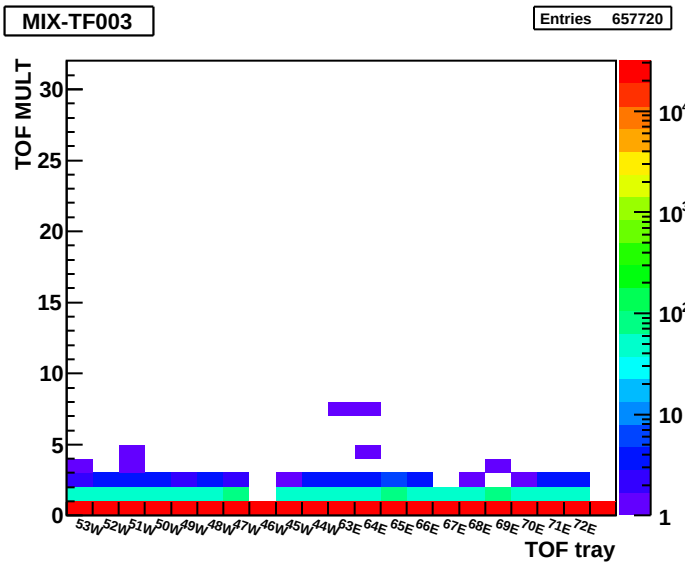

BunchId7Bit (all events)
Entries 15660
10^2
10
0 20 40 60 80 100 120

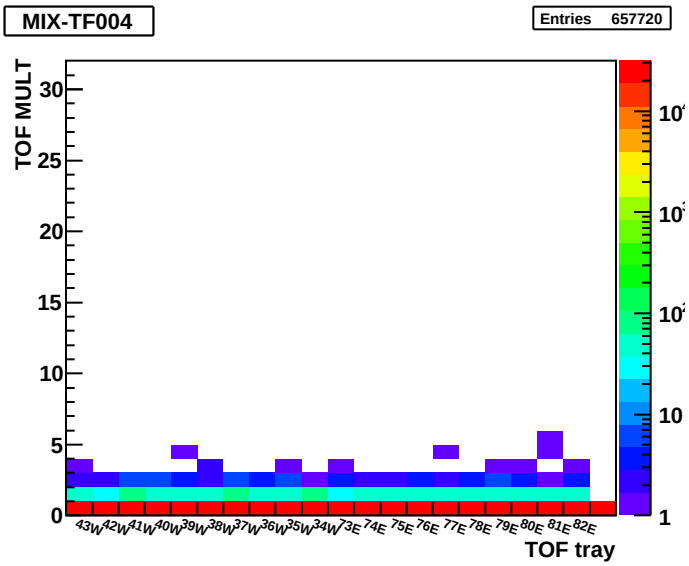

Abort-gaps
Entries 148
10
0 20 40 60 80 100 120

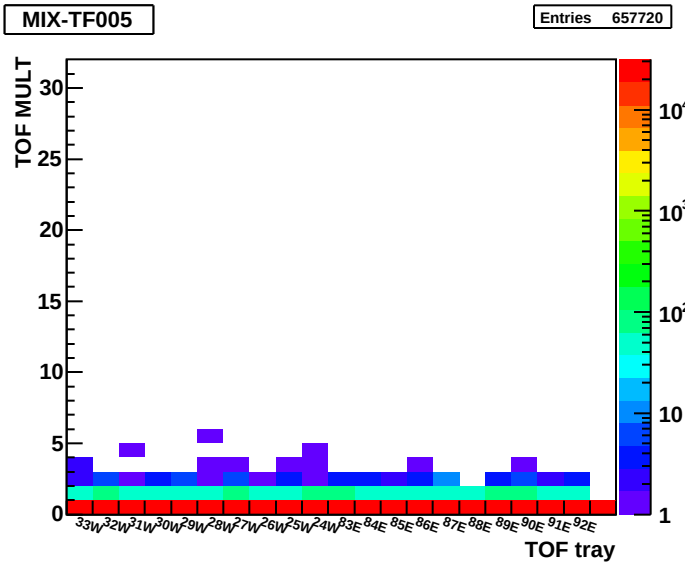

!Yellow-Fill
Entries 15660
10^2
10
0 20 40 60 80 100 120

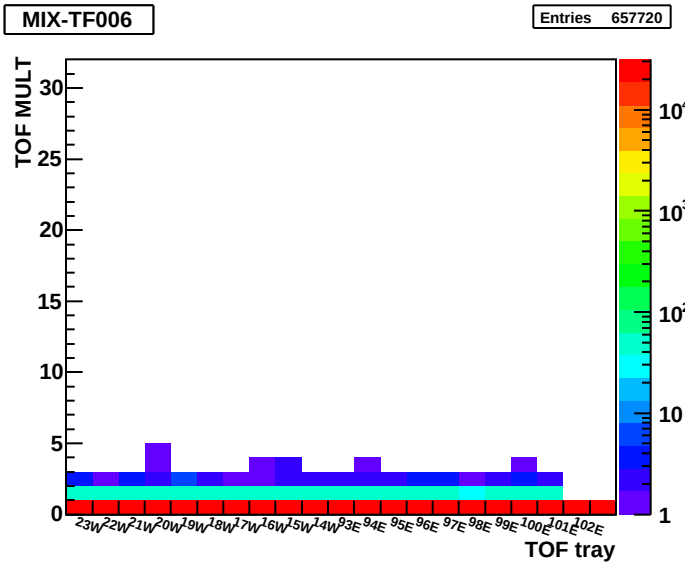

MIX-TF001
Entries 657720
TOF MULT
TOF tray

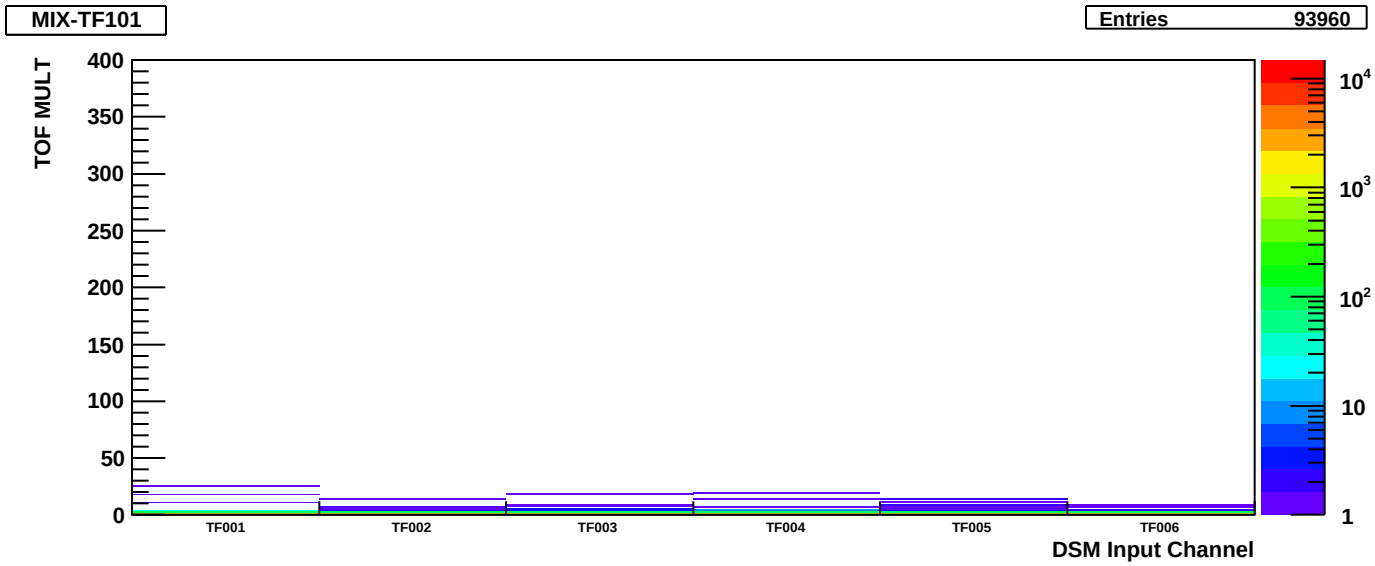

MIX-TF002
Entries 657720
TOF MULT
TOF tray

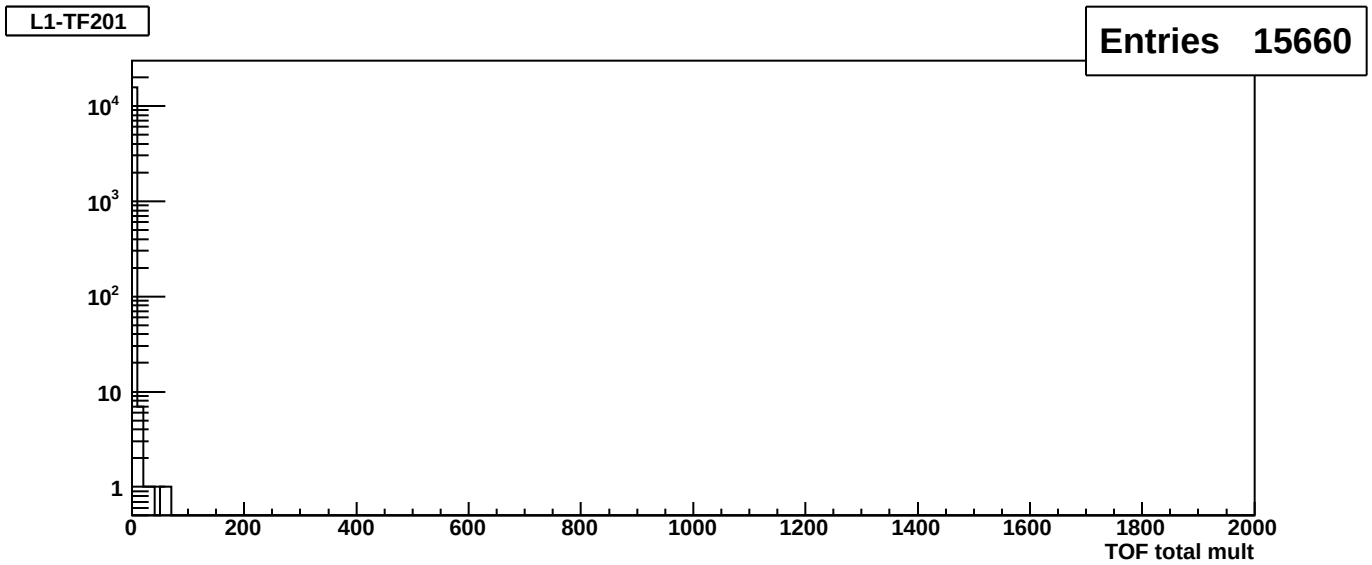

MIX-TF003
Entries 657720
TOF MULT
TOF tray

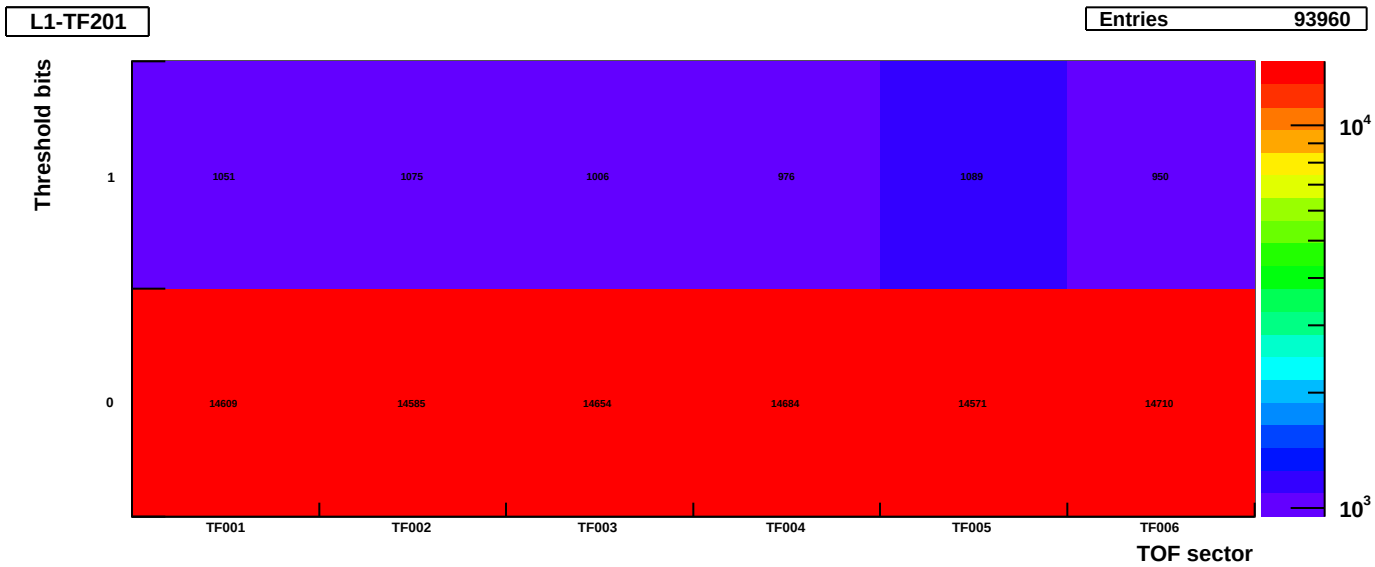

MIX-TF004
Entries 657720
TOF MULT
TOF tray

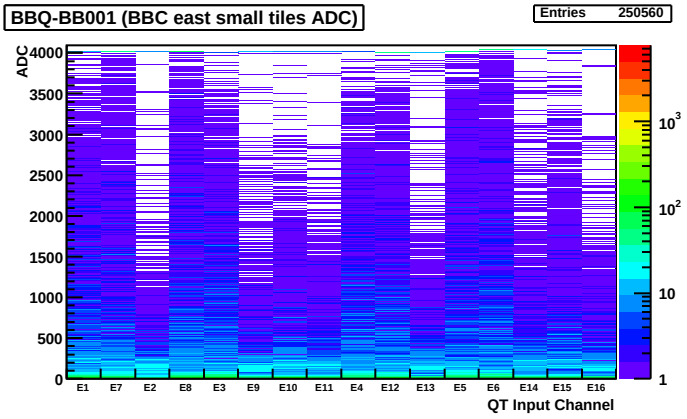

MIX-TF005
Entries 657720
TOF MULT
TOF tray

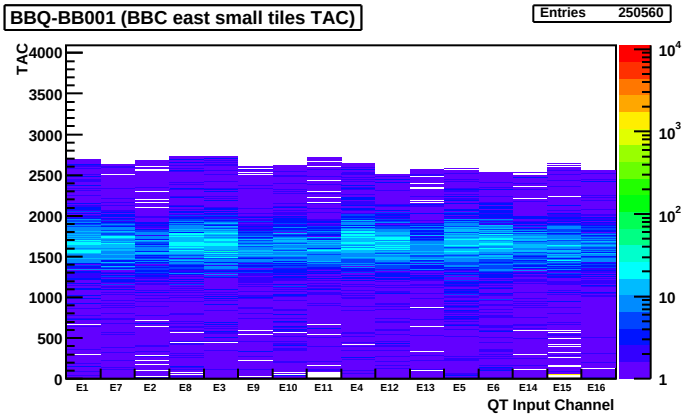

MIX-TF006
Entries 657720
TOF MULT
TOF tray

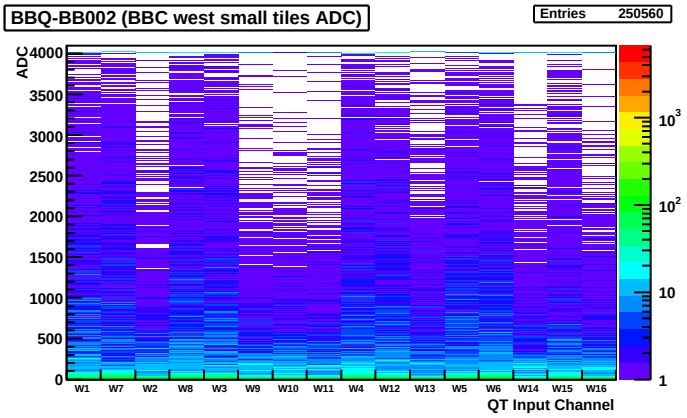

MIX-TF101
Entries 93960
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

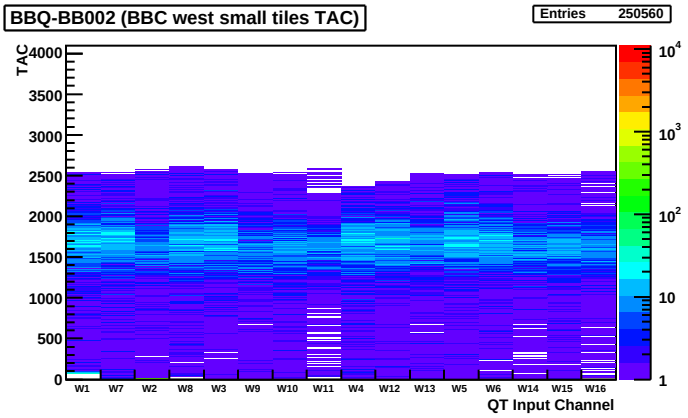

L1-TF201
Entries 15660
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

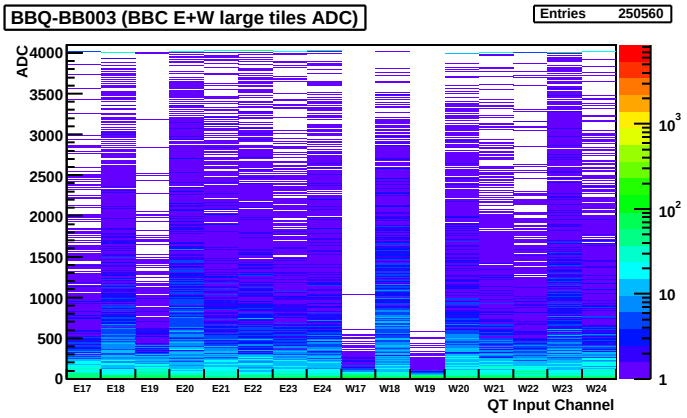

L1-TF201
Entries 93960
Threshold bits
1
0
1051
1075
1006
976
1089
950
14609
14585
14654
14684
14571
14710
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3

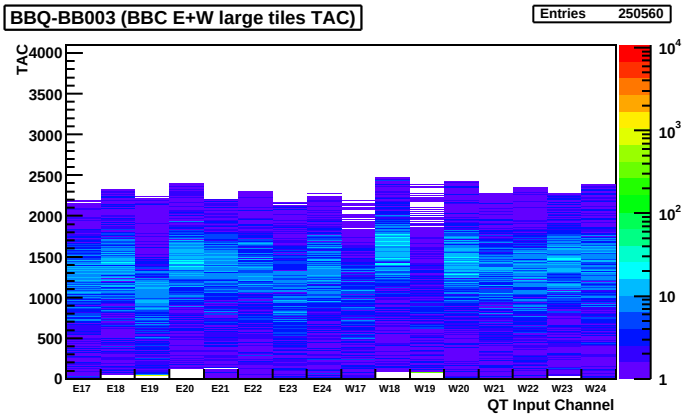

BBQ-BB001 (BBC east small tiles ADC)
Entries 250560
ADC
QT Input Channel

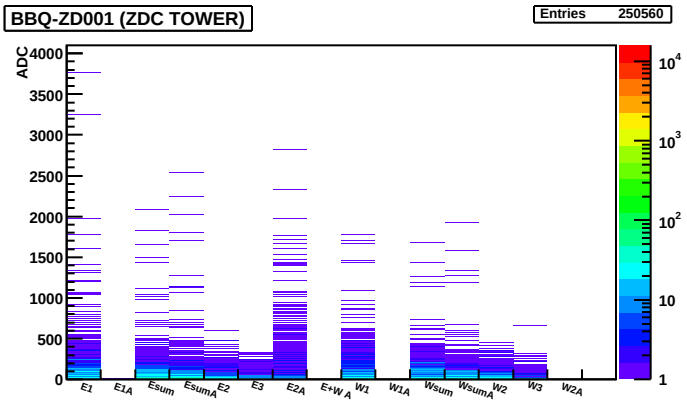

BBQ-BB001 (BBC east small tiles TAC)
Entries 250560
TAC
QT Input Channel

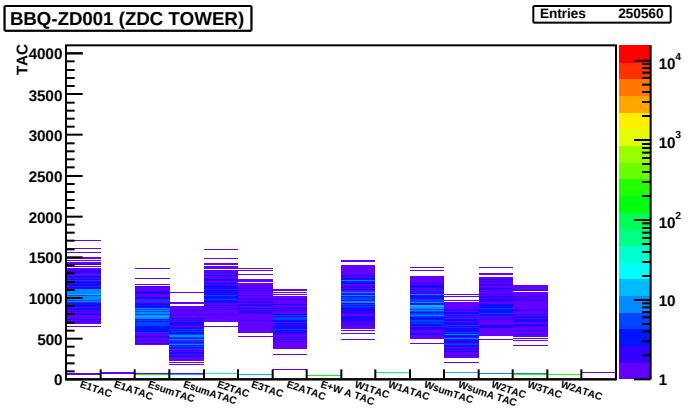

BBQ-BB002 (BBC west small tiles ADC)
Entries 250560
ADC
QT Input Channel

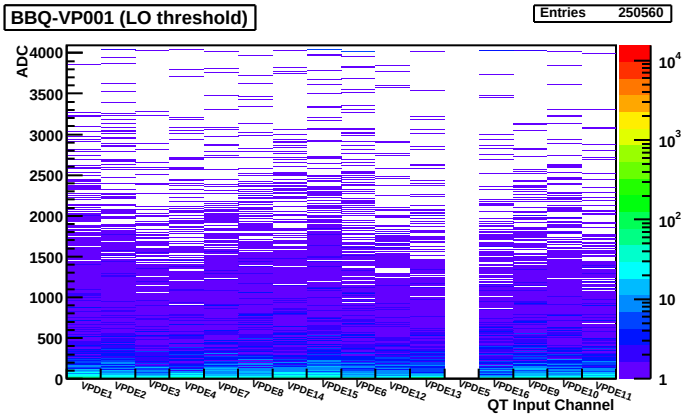

BBQ-BB002 (BBC west small tiles TAC)
Entries 250560
TAC
QT Input Channel

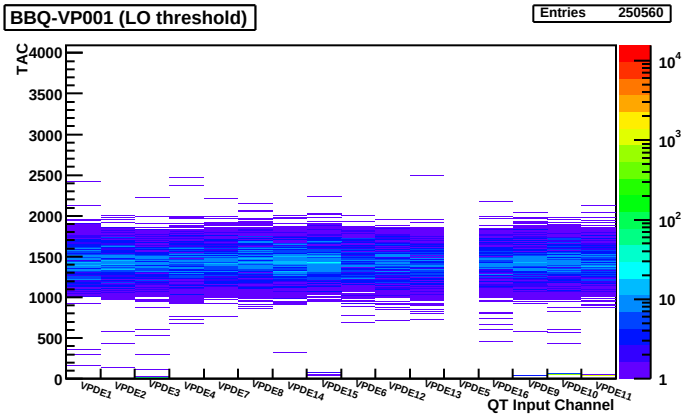

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 250560
ADC
QT Input Channel

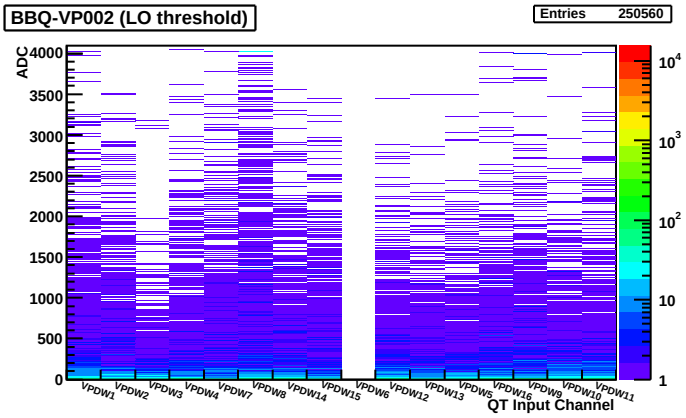

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 250560
TAC
QT Input Channel

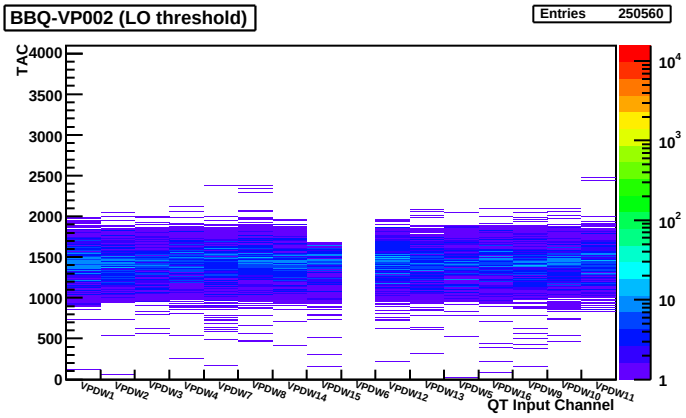

BBQ-ZD001 (ZDC TOWER)
Entries 250560
ADC

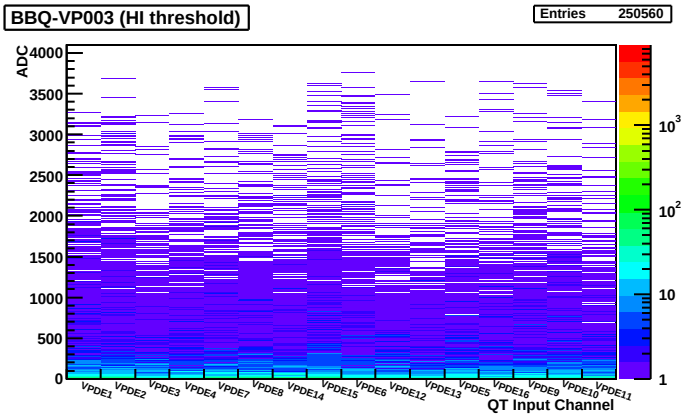

BBQ-ZD001 (ZDC TOWER)
Entries 250560
TAC

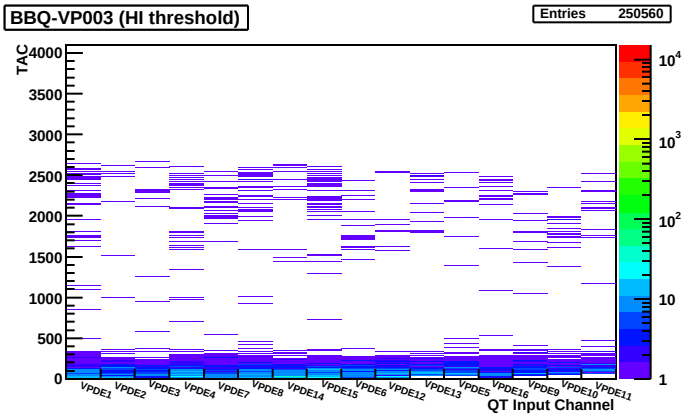

BBQ-VP001 (LO threshold)
Entries 250560
ADC
QT Input Channel

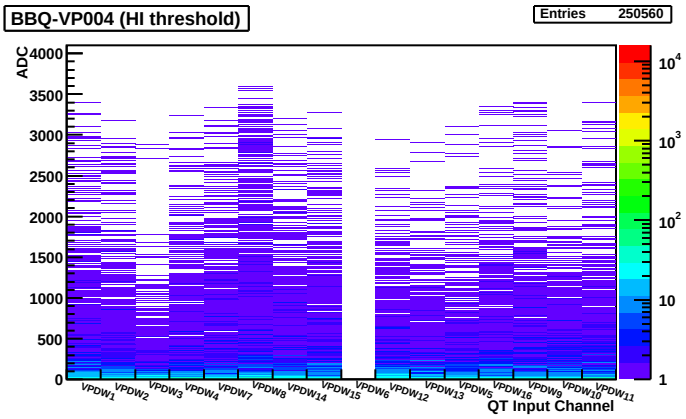

BBQ-VP001 (LO threshold)
Entries 250560
TAC
QT Input Channel

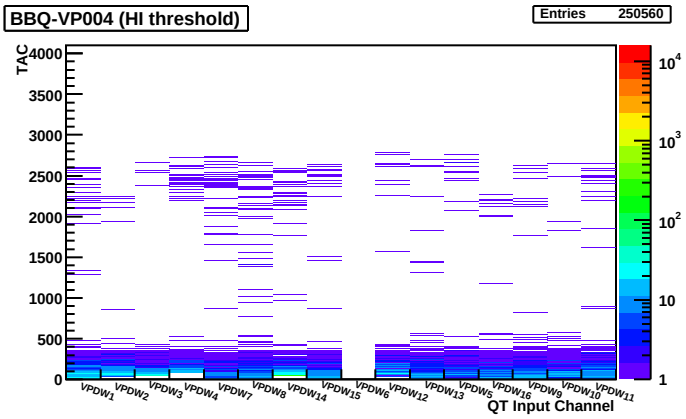

BBQ-VP002 (LO threshold)
Entries 250560
ADC
QT Input Channel

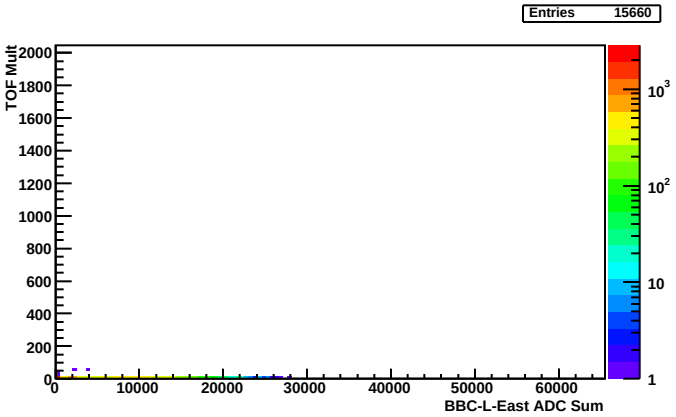

BBQ-VP002 (LO threshold)
Entries 250560
TAC
QT Input Channel

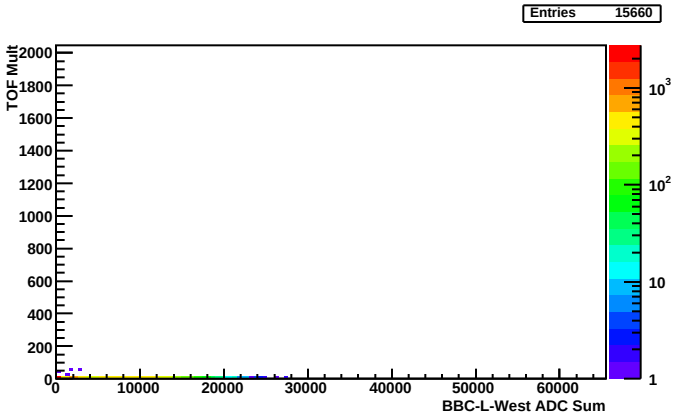

BBQ-VP003 (HI threshold)
Entries 250560
ADC
QT Input Channel

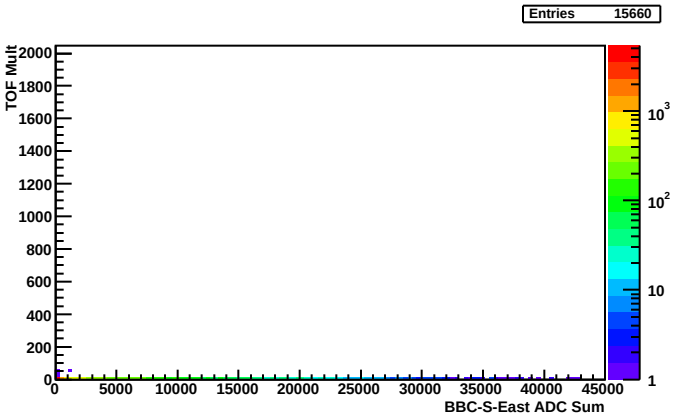

BBQ-VP003 (HI threshold)
Entries 250560
TAC
QT Input Channel

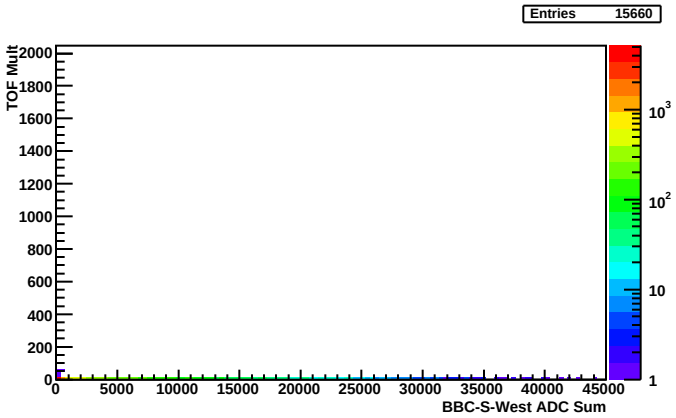

BBQ-VP004 (HI threshold)
Entries 250560
ADC
QT Input Channel

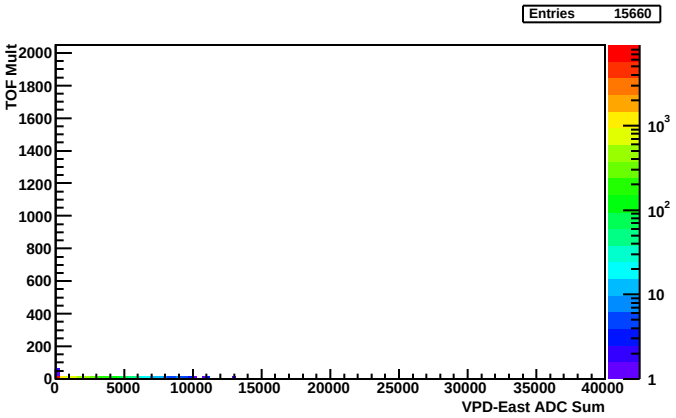

BBQ-VP004 (HI threshold)
Entries 250560
TAC
QT Input Channel

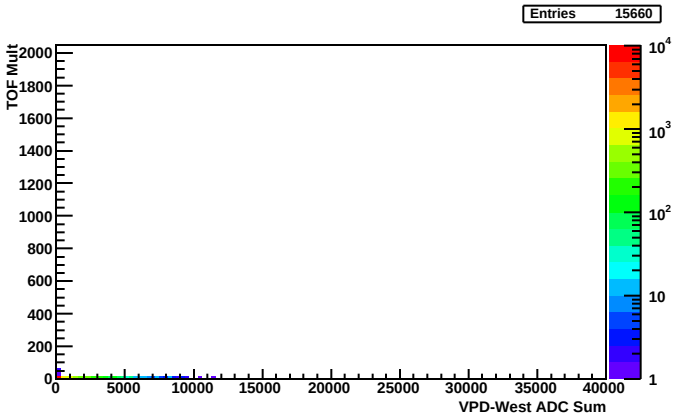

Entries 15660
TOF Mult
BBC-L-East ADC Sum

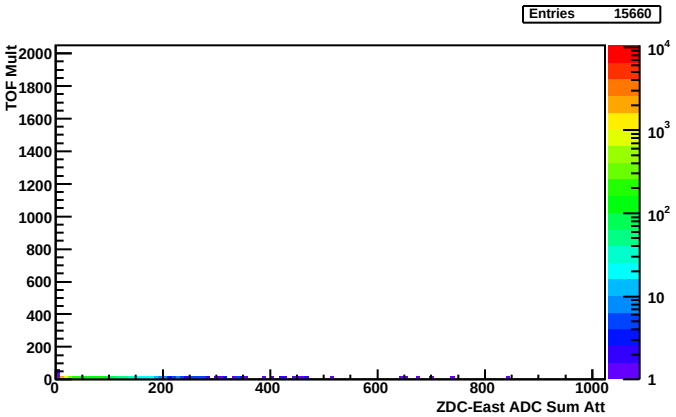

Entries 15660
TOF Mult
BBC-L-West ADC Sum

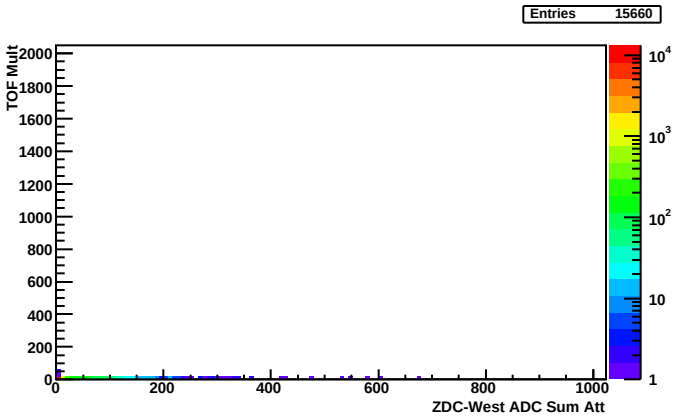

Entries 15660
TOF Mult
BBC-S-East ADC Sum

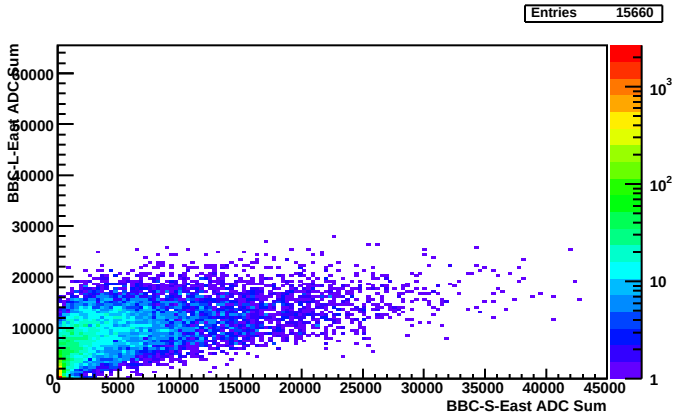

Entries 15660
TOF Mult
BBC-S-West ADC Sum

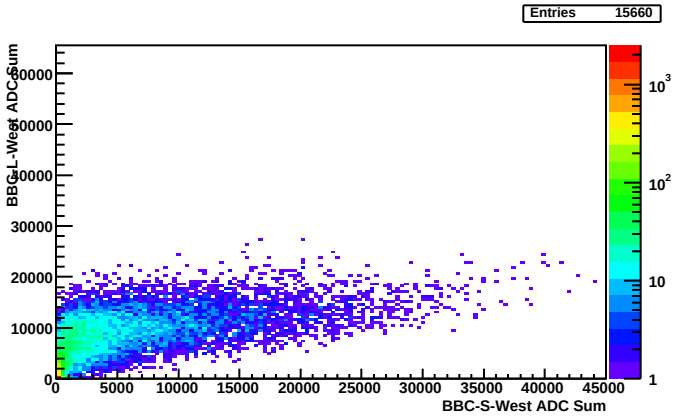

Entries 15660
TOF Mult
VPD-East ADC Sum

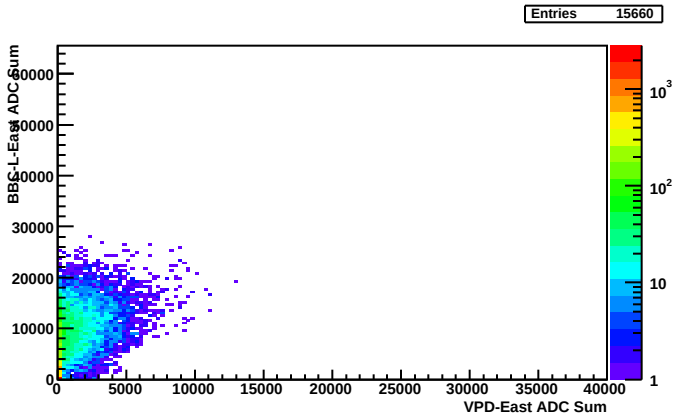

Entries 15660
TOF Mult
VPD-West ADC Sum

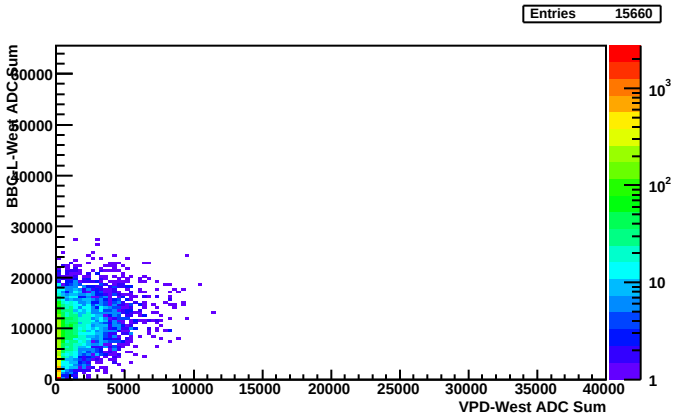

Entries 15660
TOF Mult
ZDC-East ADC Sum Att

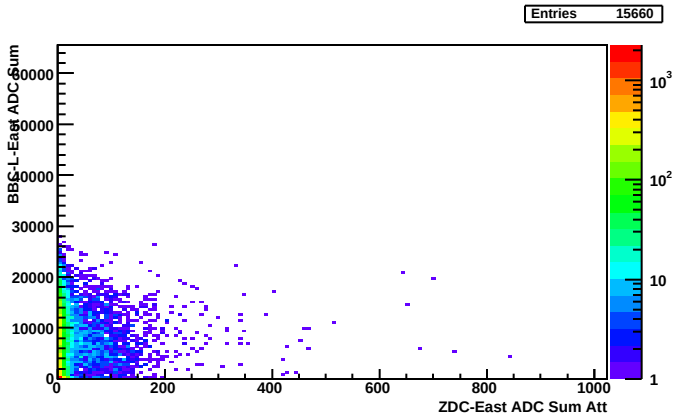

Entries 15660
TOF Mult
ZDC-West ADC Sum Att

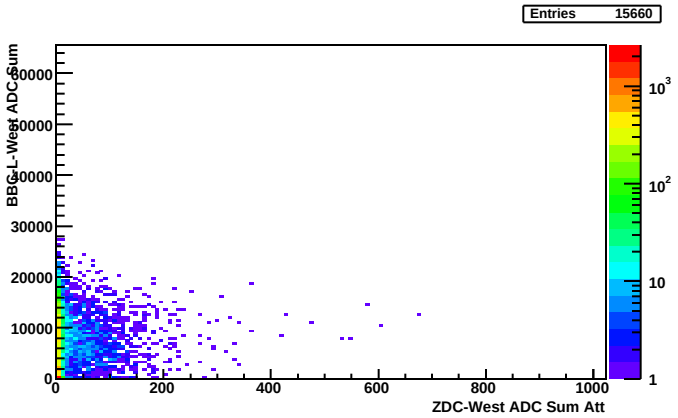

Entries 15660
BBC-L-East ADC Sum
BBC-S-East ADC Sum

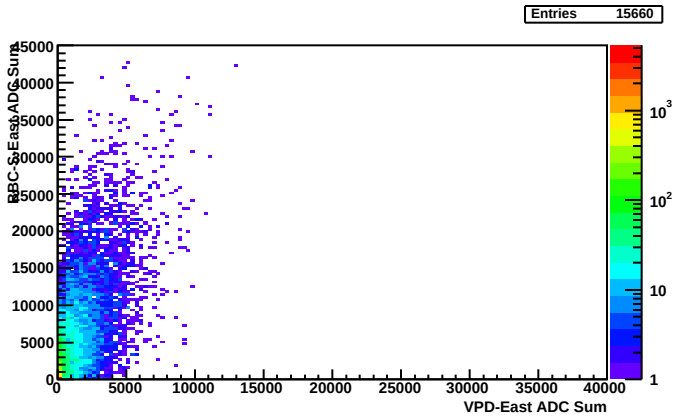

Entries 15660
BBC-L-West ADC Sum
BBC-S-West ADC Sum

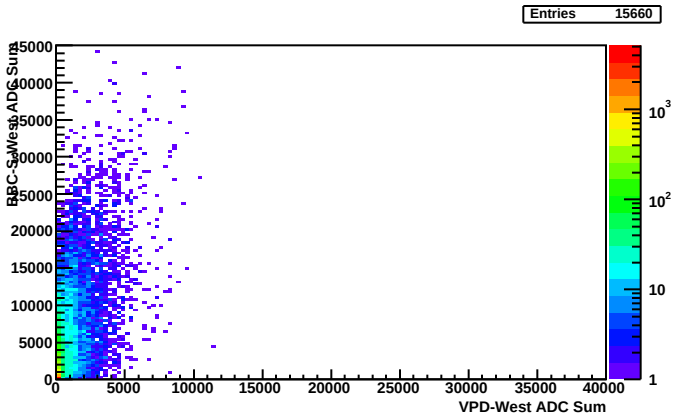

Entries 15660
BBC-L-East ADC Sum
VPD-East ADC Sum

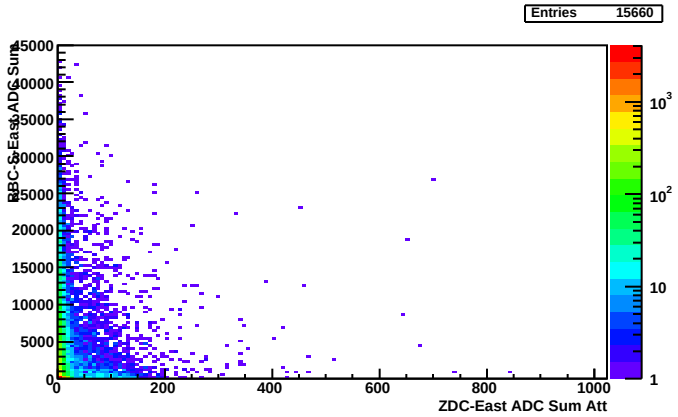

Entries 15660
BBC-L-West ADC Sum
VPD-West ADC Sum

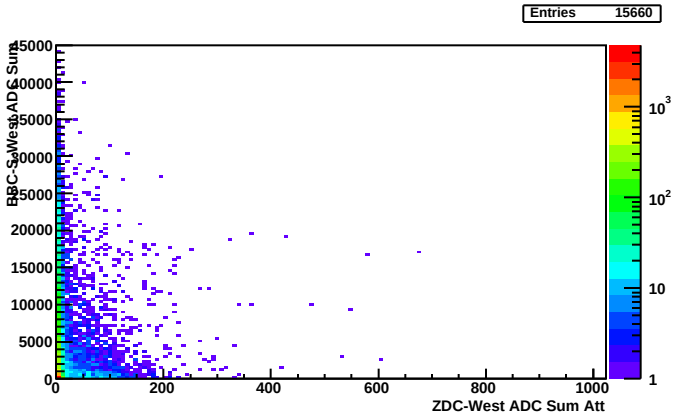

Entries 15660
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

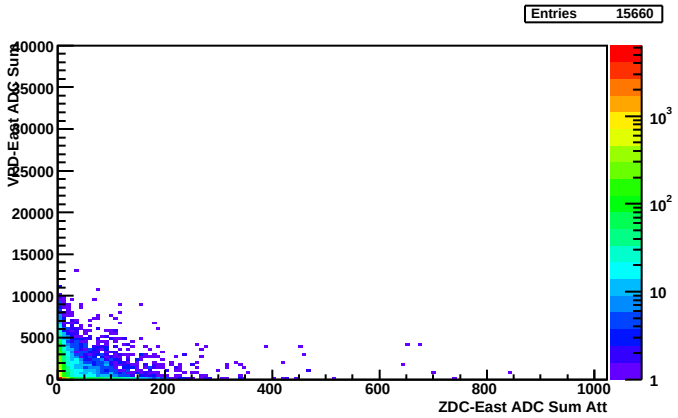

Entries 15660
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

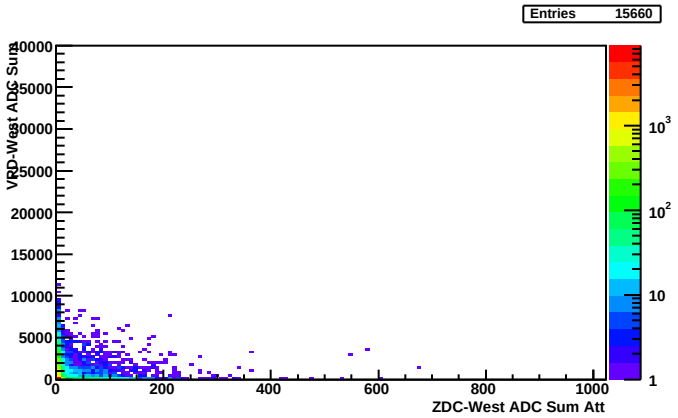

Entries 15660
BBC-S-East ADC Sum
VPD-East ADC Sum

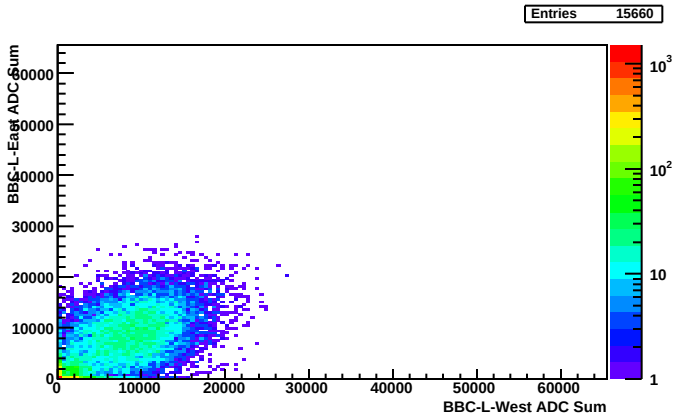

Entries 15660
BBC-S-West ADC Sum
VPD-West ADC Sum

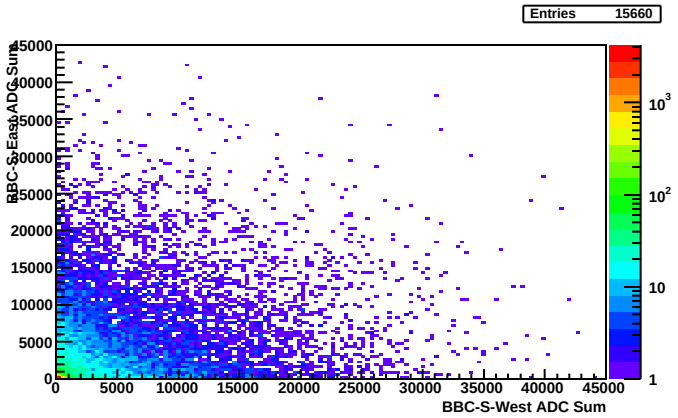

Entries 15660
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

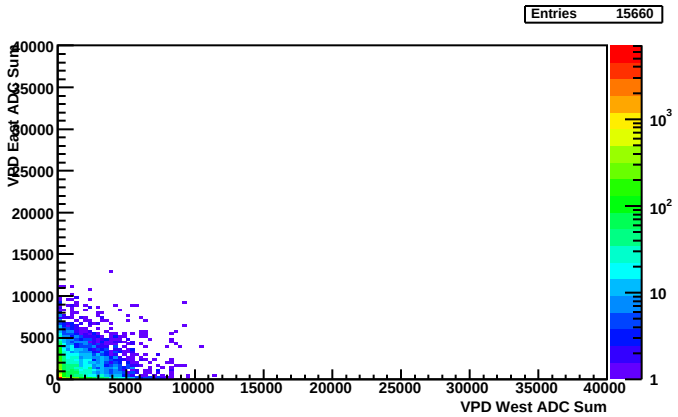

Entries 15660
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

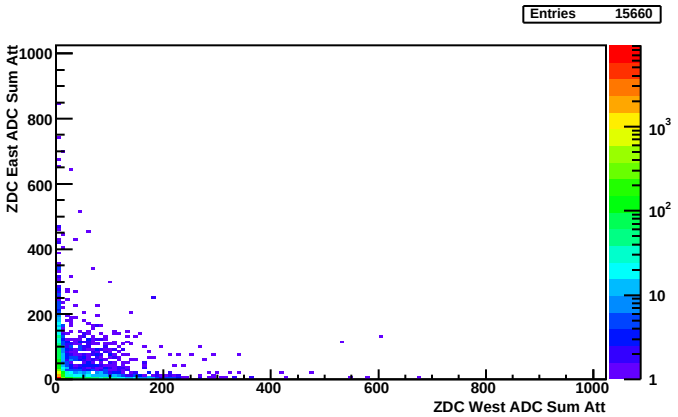

Entries 15660
VPD-East ADC Sum
ZDC-East ADC Sum Att

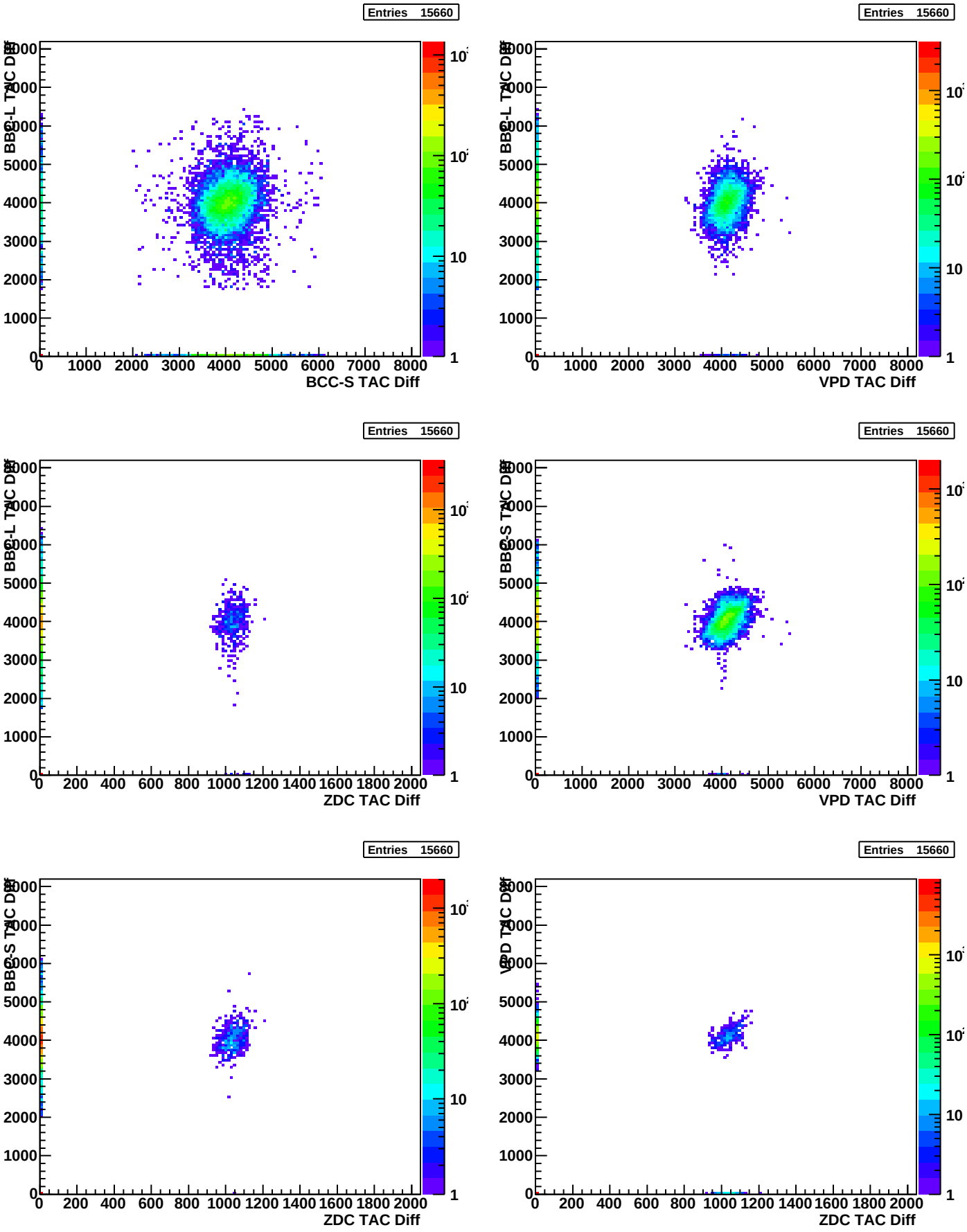

Entries 15660
VPD-West ADC Sum
ZDC-West ADC Sum Att

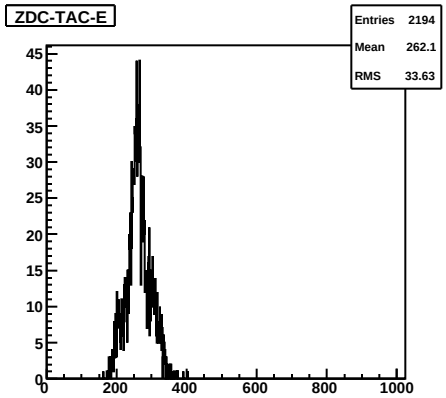

Entries 15660
BBC-L-East ADC Sum
BBC-L-West ADC Sum

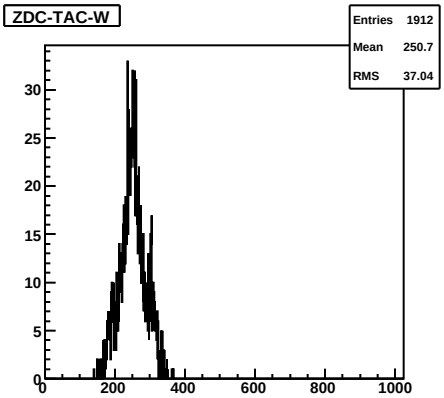

Entries 15660
BBC-S-East ADC Sum
BBC-S-West ADC Sum

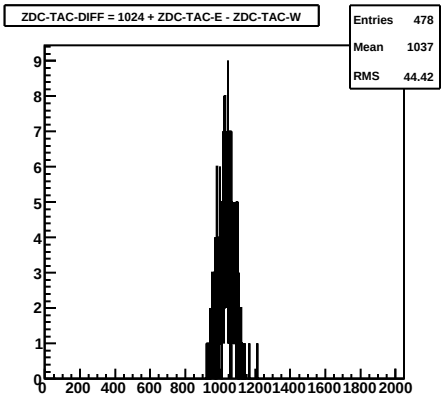

Entries 15660
VPD East ADC Sum
VPD West ADC Sum

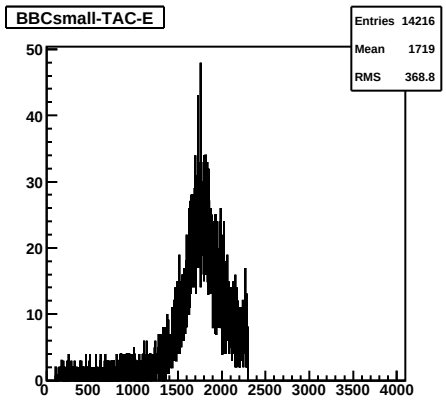

Entries 15660
ZDC East ADC Sum Att
ZDC West ADC Sum Att

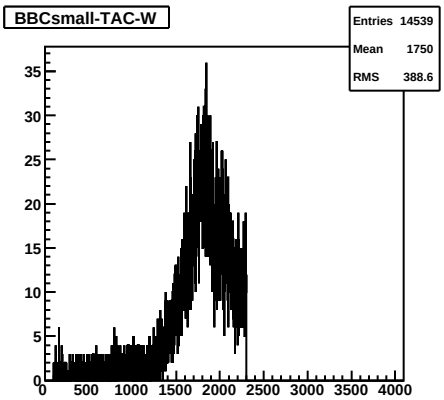

Entries 15660
BBC-L TAC Diff
BCC-S TAC Diff
Entries 15660
BBC-L TAC Diff
VPD TAC Diff
Entries 15660
BBC-L TAC Diff
ZDC TAC Diff
Entries 15660
BBC-S TAC Diff
VPD TAC Diff
Entries 15660
BBC-S TAC Diff
ZDC TAC Diff
Entries 15660
VPD TAC Diff
ZDC TAC Diff

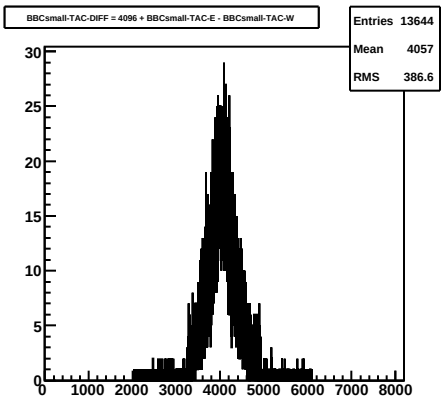

ZDC-TAC-E
Entries 2194
Mean 262.1
RMS 33.63

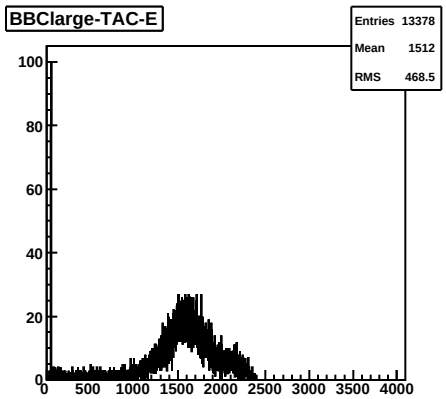

ZDC-TAC-W
Entries 1912
Mean 250.7
RMS 37.04

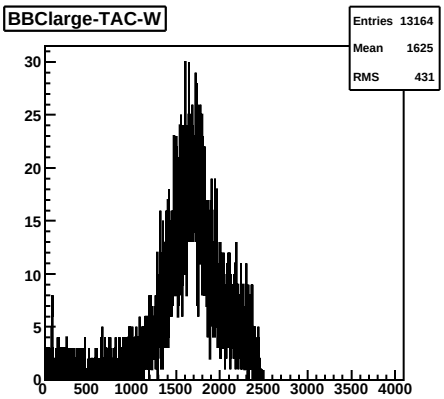

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 478
Mean 1037
RMS 44.42

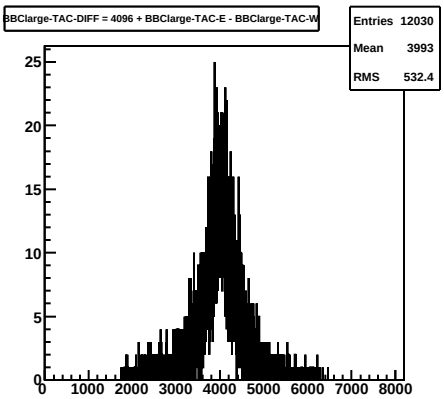

BBCsmall-TAC-E
Entries 14216
Mean 1719
RMS 368.8

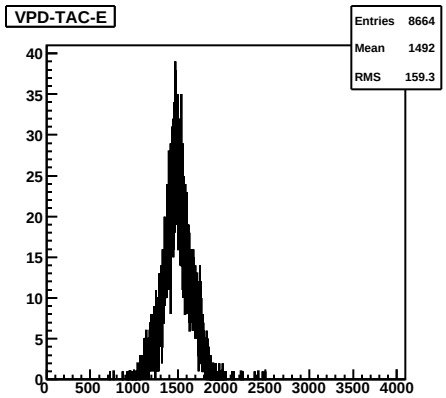

BBCsmall-TAC-W
Entries 14539
Mean 1750
RMS 388.6

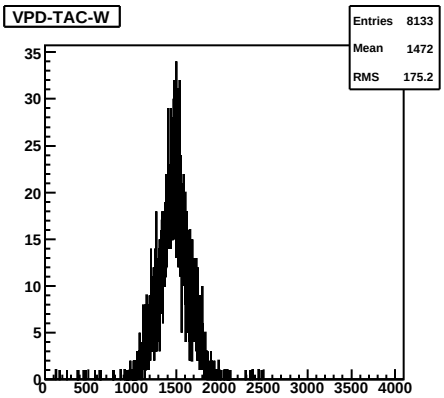

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 13644
Mean 4057
RMS 386.6

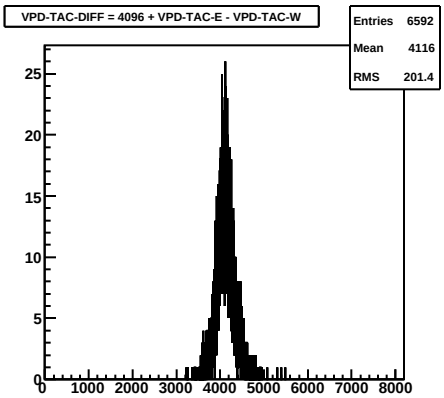

BBClarge-TAC-E
Entries 13378
Mean 1512
RMS 468.5

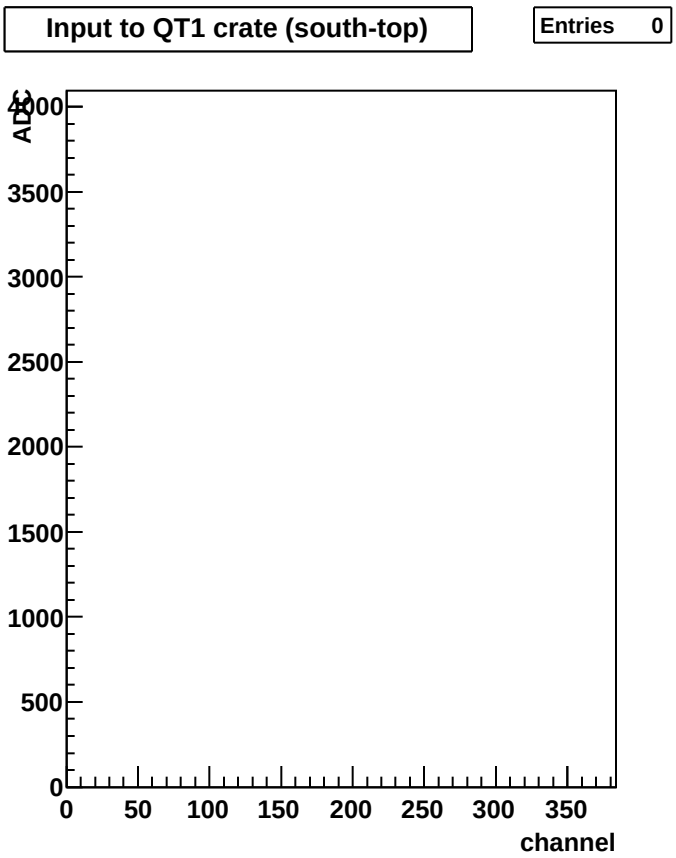

BBClarge-TAC-W
Entries 13164
Mean 1625
RMS 431

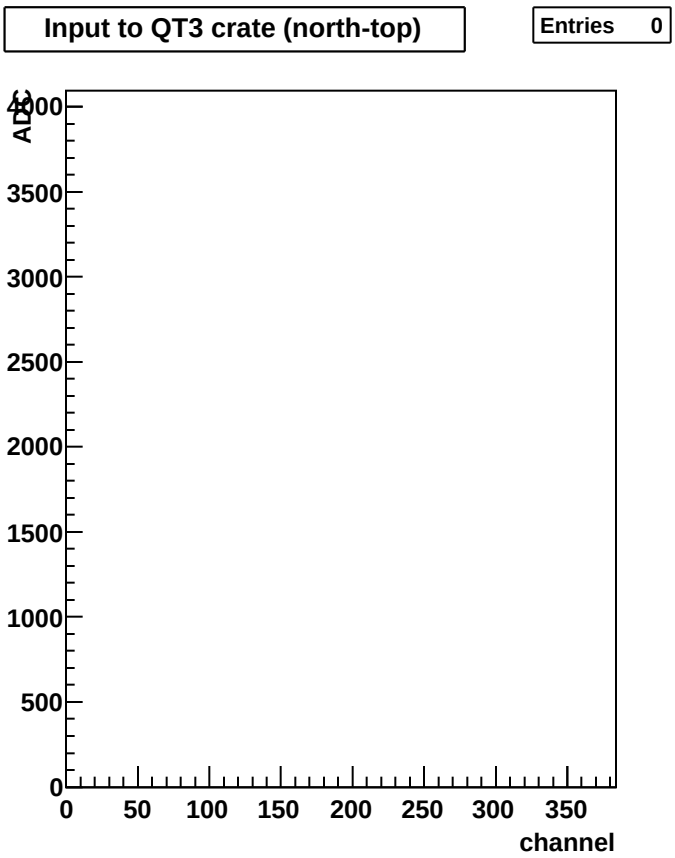

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 12030
Mean 3993
RMS 532.4

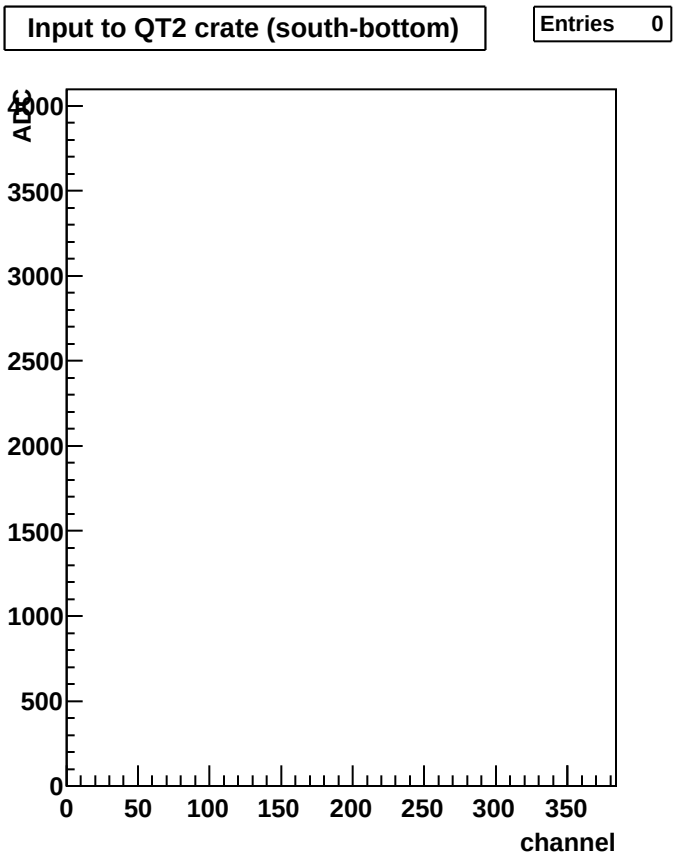

VPD-TAC-E
Entries 8664
Mean 1492
RMS 159.3

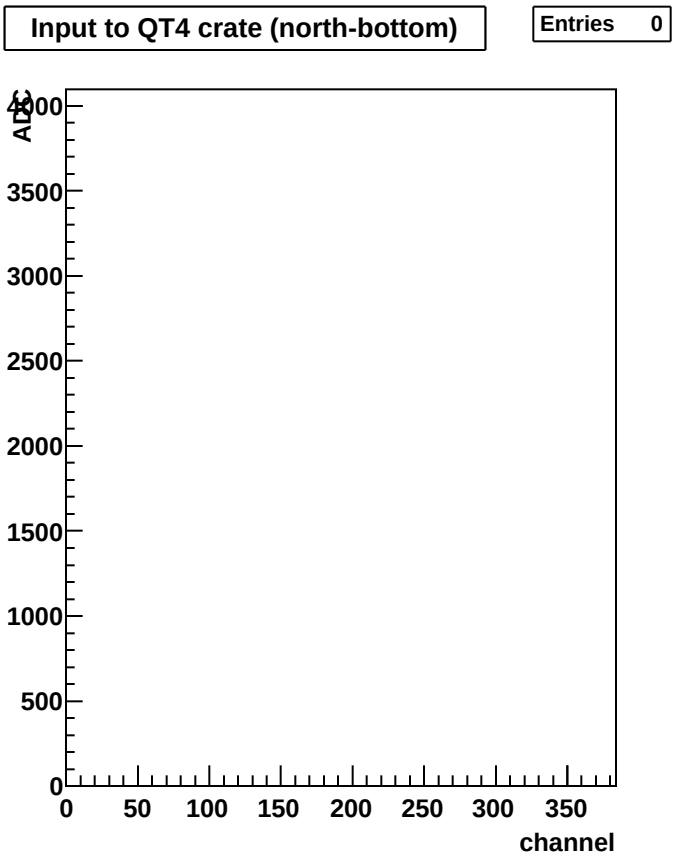

VPD-TAC-W
Entries 8133
Mean 1472
RMS 175.2

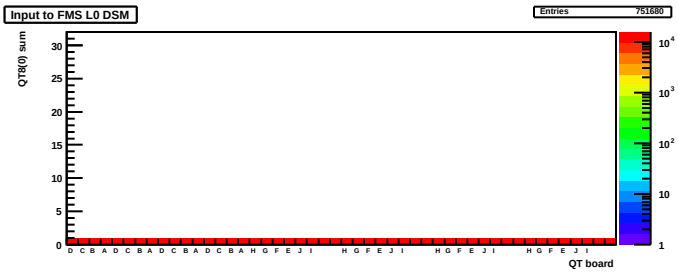

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 6592
Mean 4116
RMS 201.4

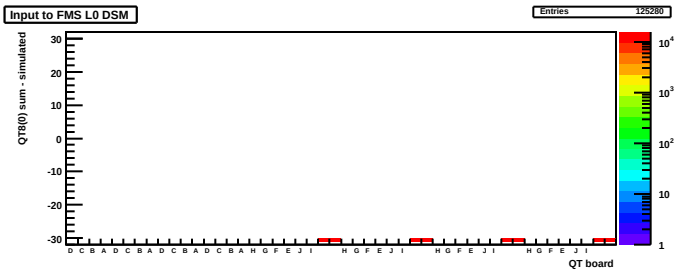

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

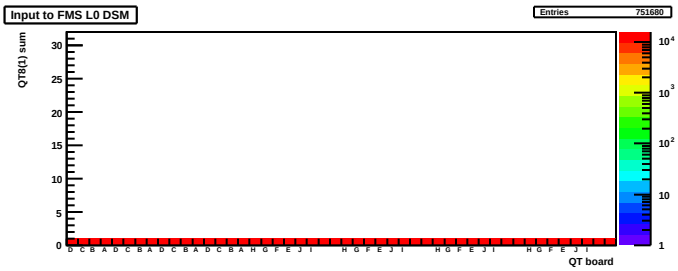

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

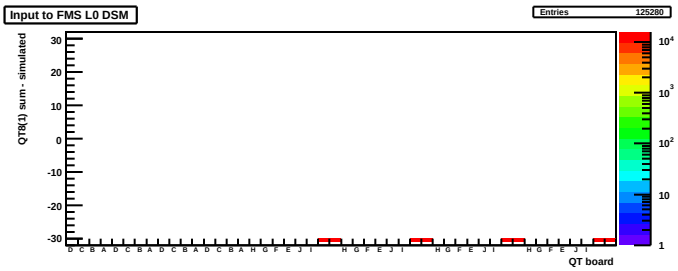

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

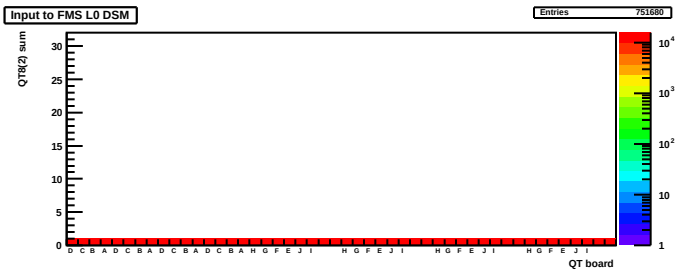

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

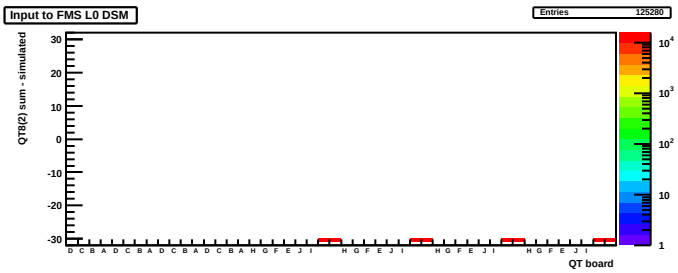

Input to FMS L0 DSM
Entries 751680
QT8(0) sum
QT board

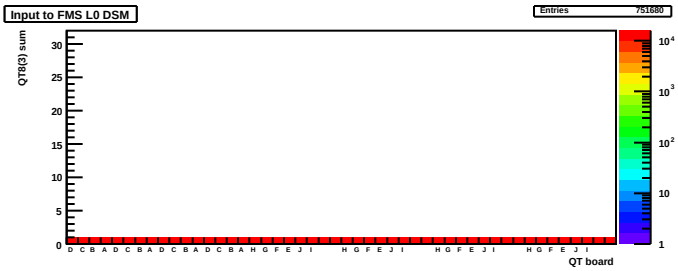

Input to FMS L0 DSM
Entries 125280
QT8(0) sum - simulated
QT board

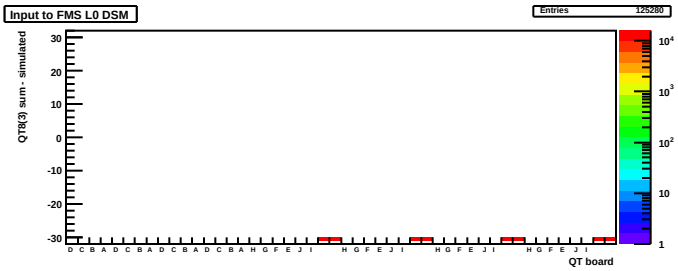

Input to FMS L0 DSM
Entries 751680
QT8(1) sum
QT board

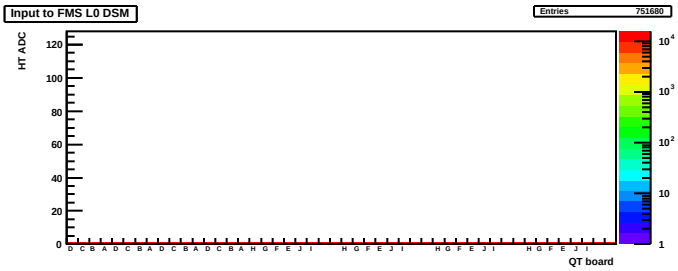

Input to FMS L0 DSM
Entries 125280
QT8(1) sum - simulated
QT board

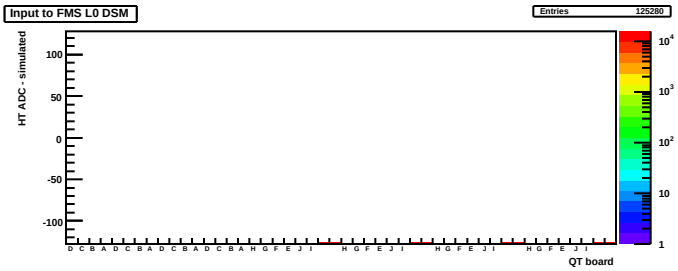

Input to FMS L0 DSM
Entries 751680
QT8(2) sum
QT board

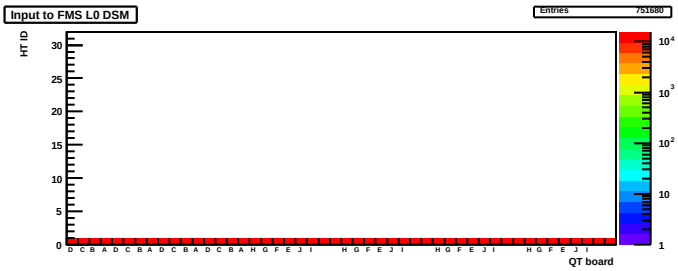

Input to FMS L0 DSM
Entries 125280
QT8(2) sum - simulated
QT board

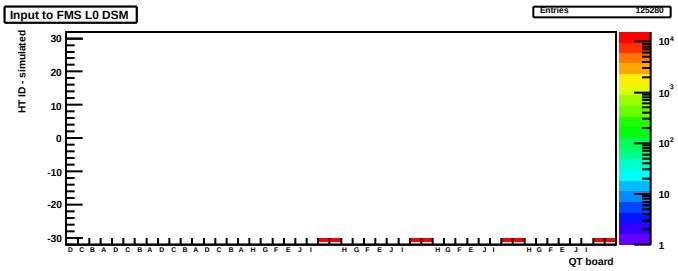

Input to FMS L0 DSM
Entries 751680
QT8(3) sum
QT board

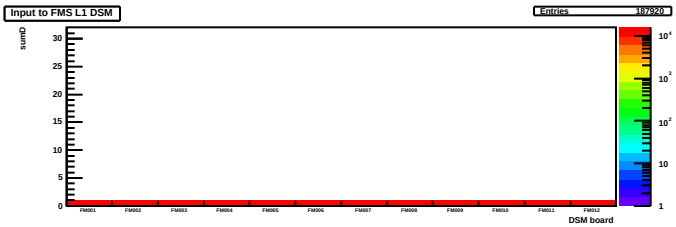

Input to FMS L0 DSM
Entries 125280
QT8(3) sum - simulated
QT board

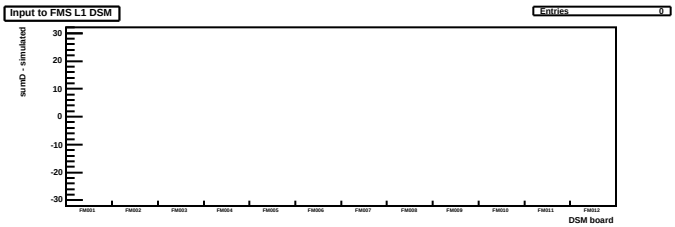

Input to FMS L0 DSM
Entries 751680
HT ADC
QT board

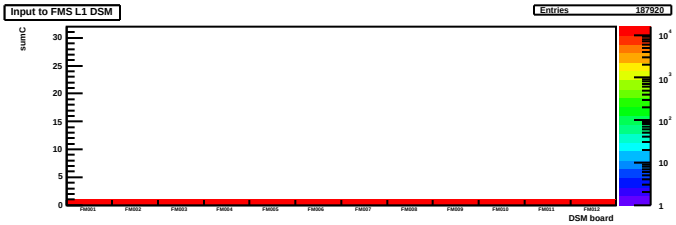

Input to FMS L0 DSM
Entries 125280
HT ADC - simulated
QT board

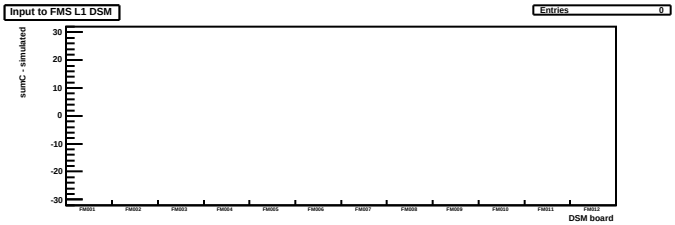

Input to FMS L0 DSM
Entries 751680
HT ID
QT board

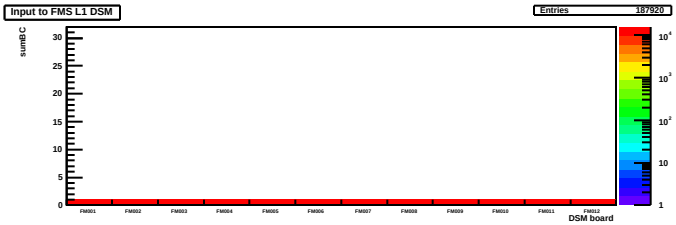

Input to FMS L0 DSM
Entries 125280
HT ID - simulated
QT board

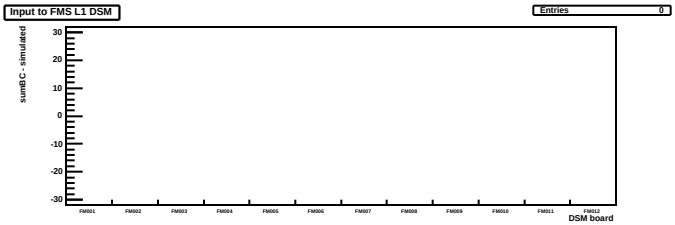

Input to FMS L1 DSM
Entries 187920
sumD
DSM board

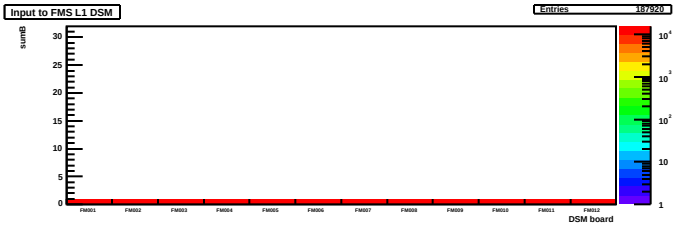

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

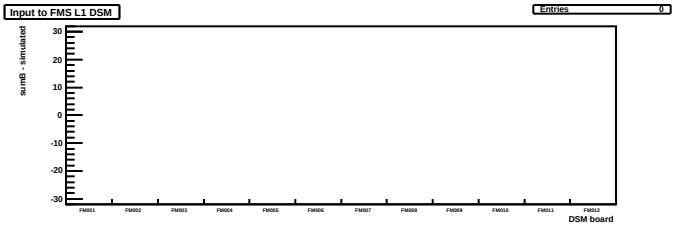

Input to FMS L1 DSM
Entries 187920
sumC
DSM board

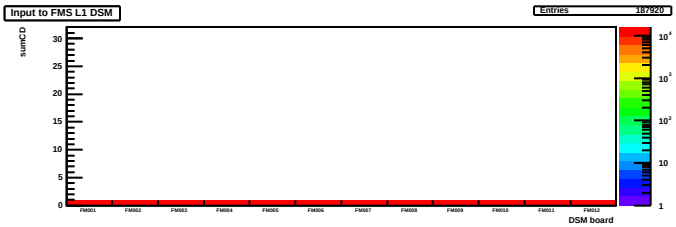

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

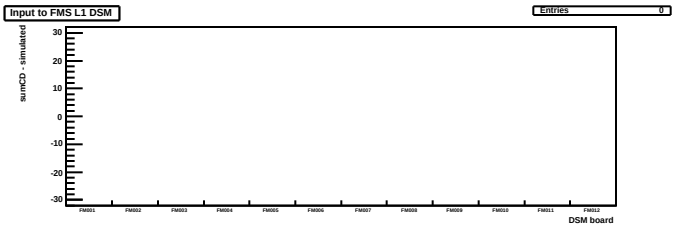

Input to FMS L1 DSM
Entries 187920
sumBC
DSM board

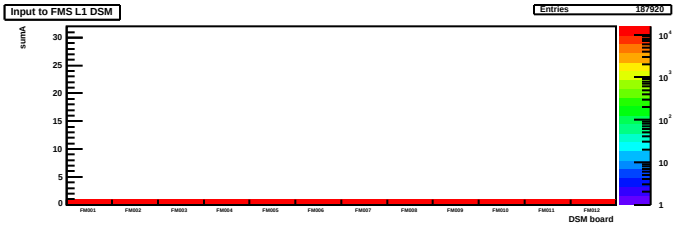

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

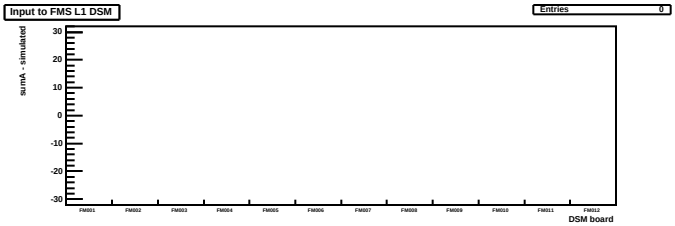

Input to FMS L1 DSM
Entries 187920
sumB
DSM board

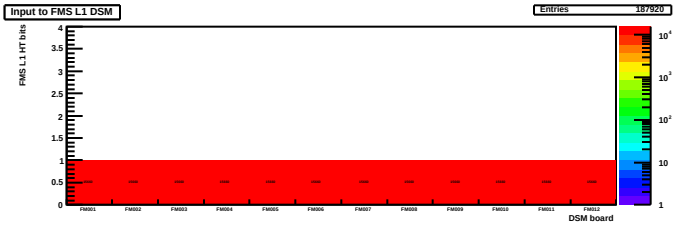

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

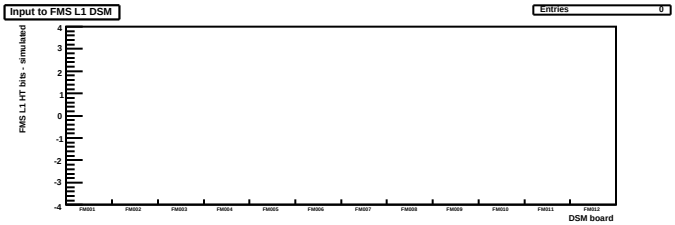

Input to FMS L1 DSM
Entries 187920
sumCD
DSM board

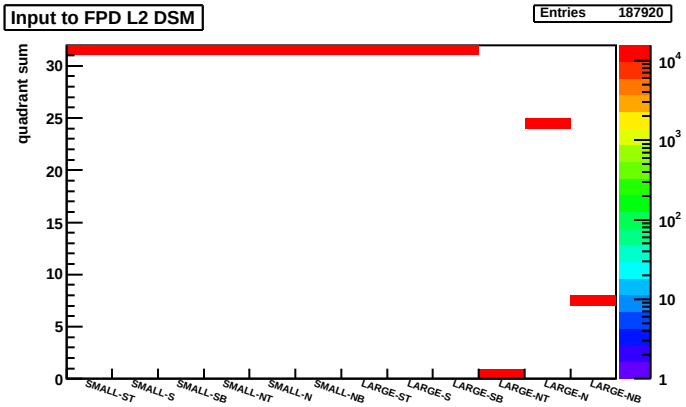

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

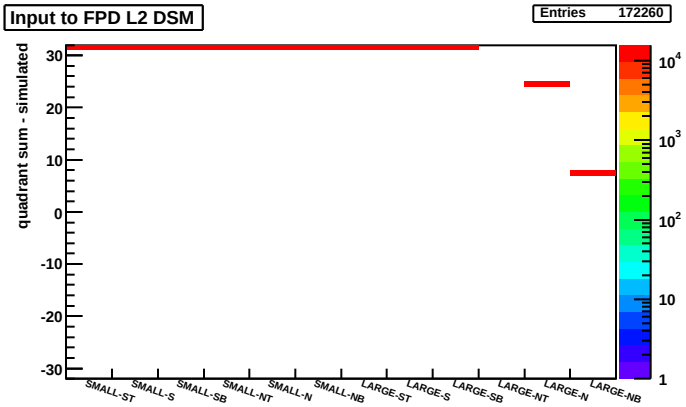

Input to FMS L1 DSM
Entries 187920
sumA
DSM board

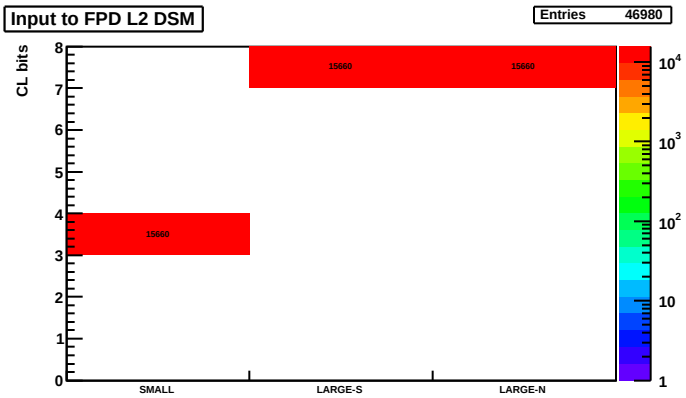

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

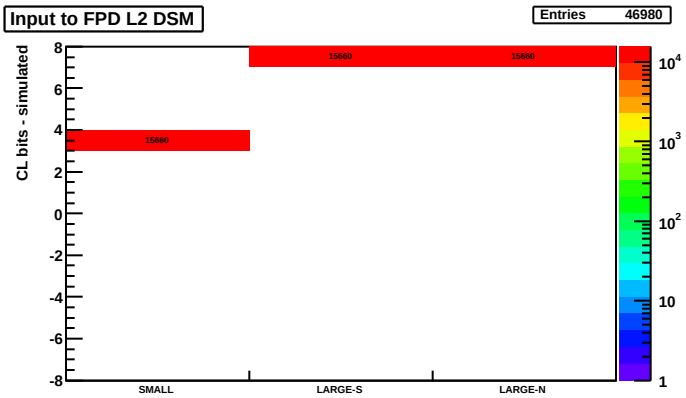

Input to FMS L1 DSM
Entries 187920
FMS L1 HT bits
DSM board

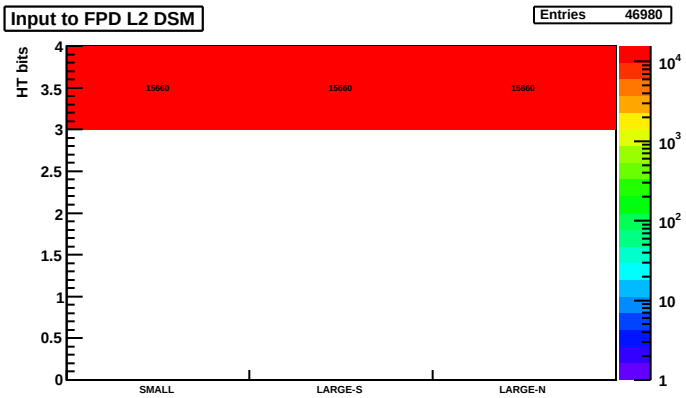

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

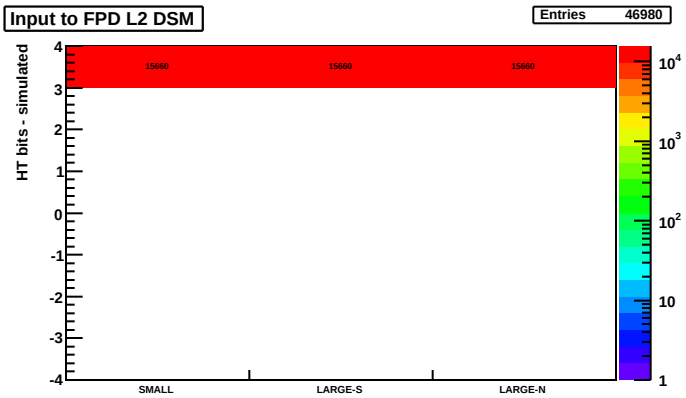

Input to FPD L2 DSM
Entries 187920
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

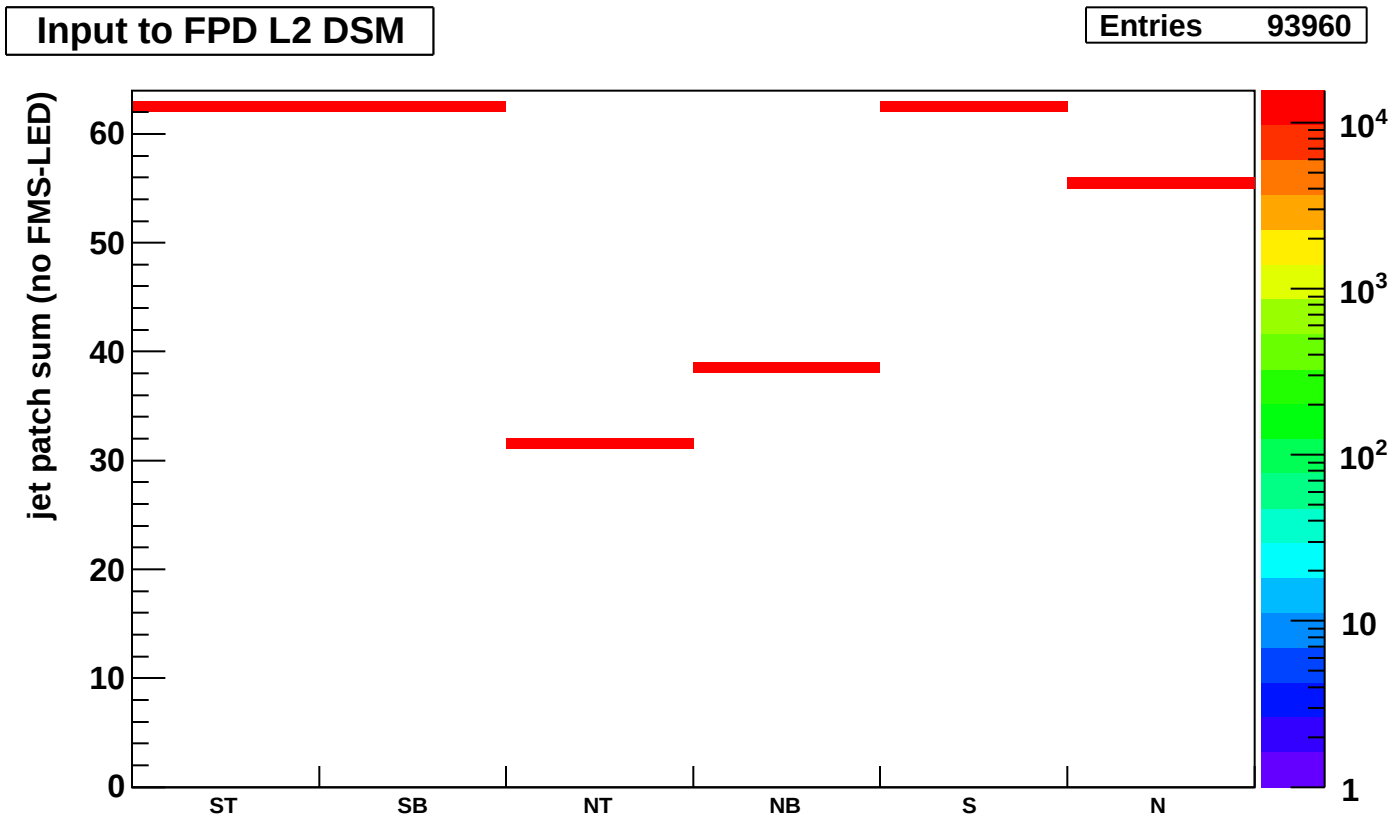

Input to FPD L2 DSM
Entries 172260
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

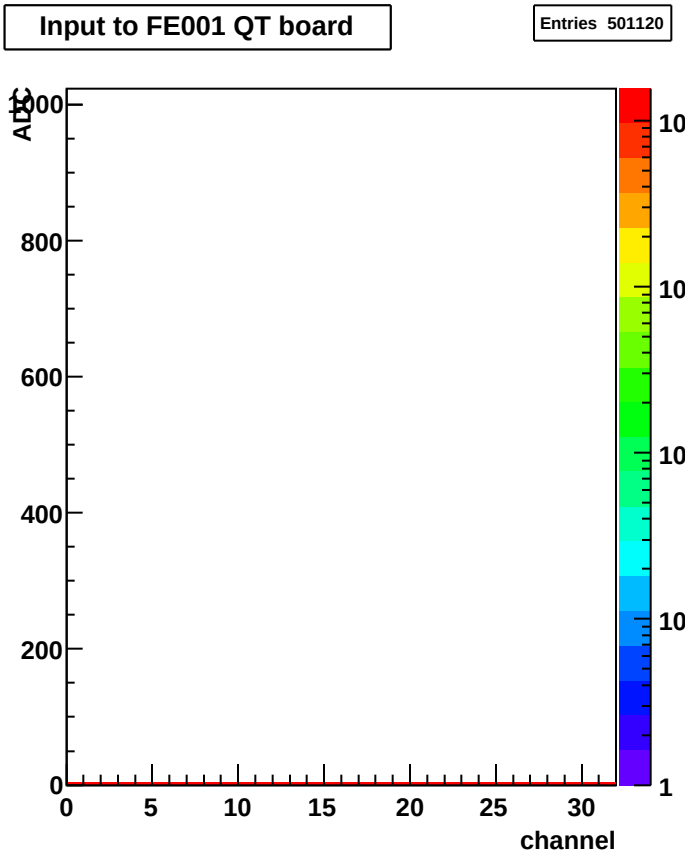

Input to FPD L2 DSM
Entries 46980
CL bits
15660
15660
15660
SMALL
LARGE-S
LARGE-N

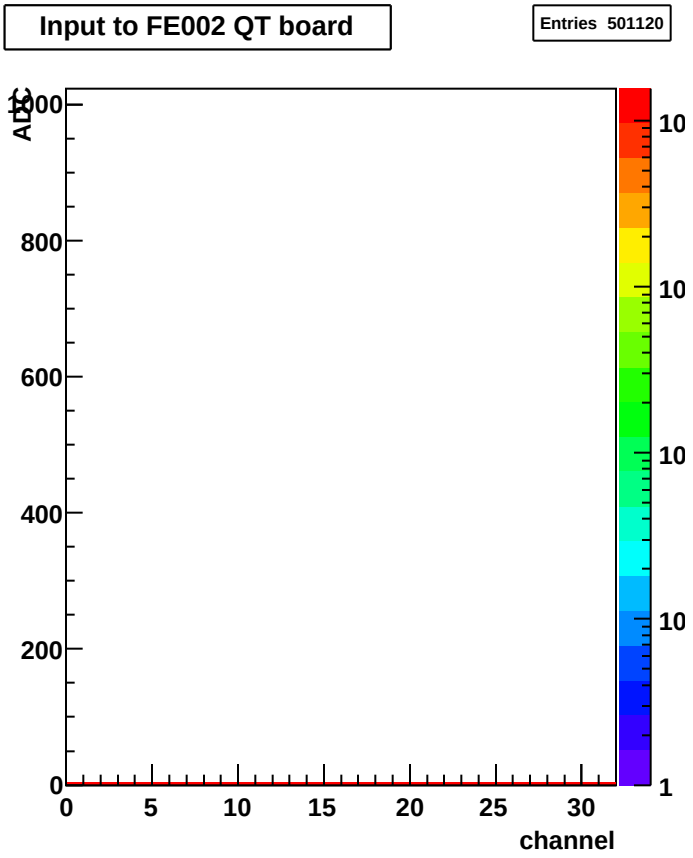

Input to FPD L2 DSM
Entries 46980
CL bits - simulated
15660
15660
15660
SMALL
LARGE-S
LARGE-N

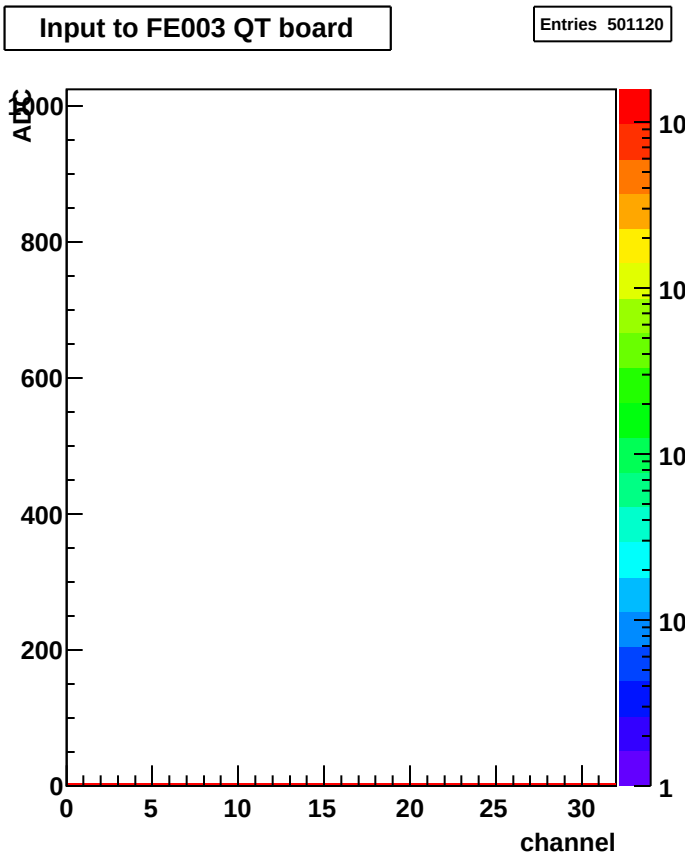

Input to FPD L2 DSM
Entries 46980
HT bits
15660
15660
15660
SMALL
LARGE-S
LARGE-N

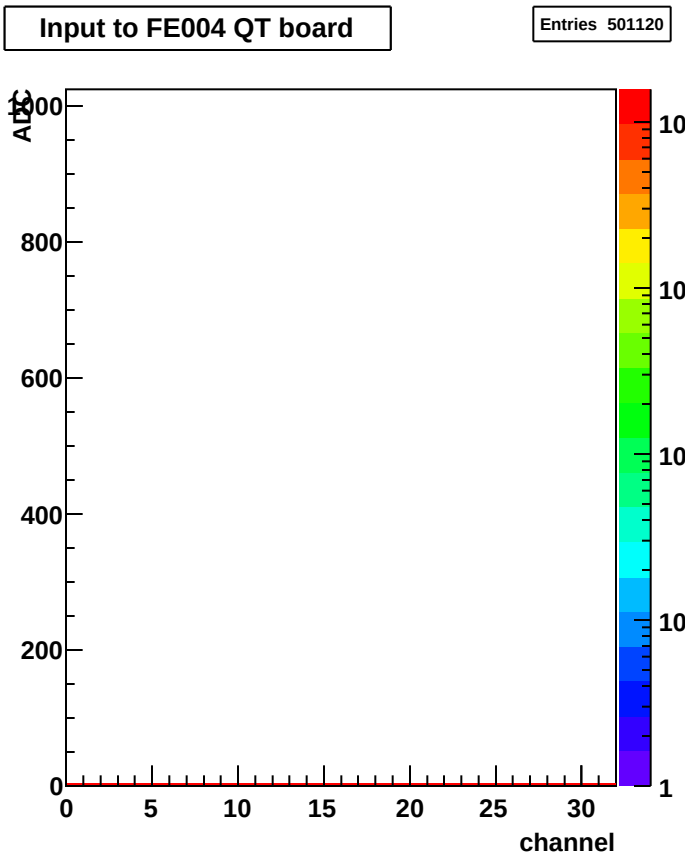

Input to FPD L2 DSM
Entries 46980
HT bits - simulated
15660
15660
15660
SMALL
LARGE-S
LARGE-N

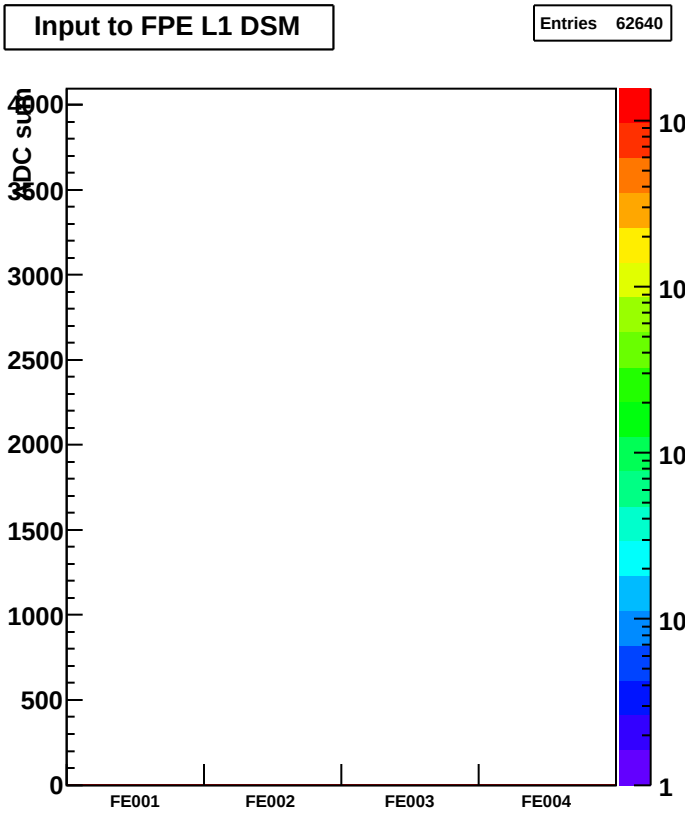

Input to FPD L2 DSM
Entries 93960
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

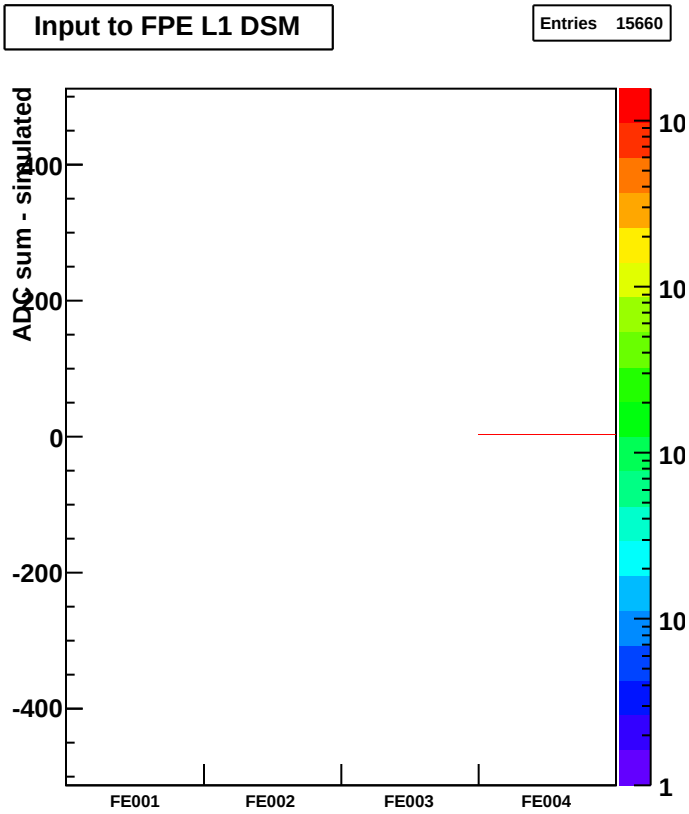

Input to FE001 QT board
Entries 501120
ADC
channel

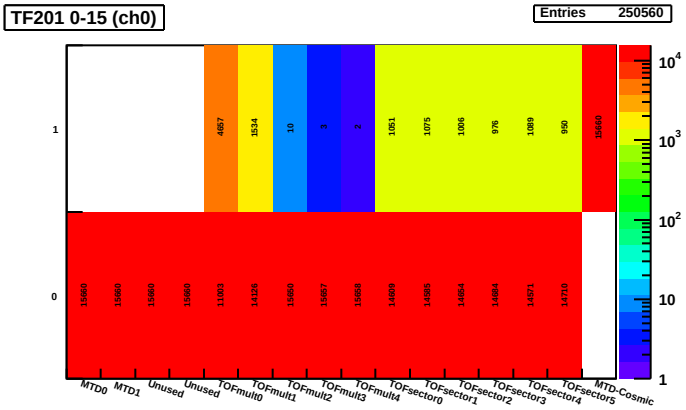

Input to FE002 QT board
Entries 501120
ADC
channel

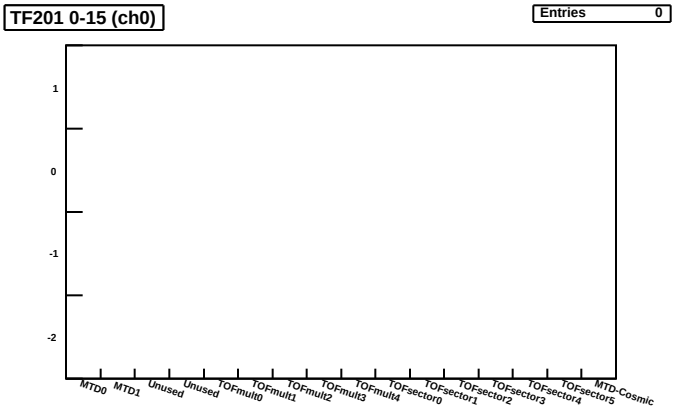

Input to FE003 QT board
Entries 501120
ADC
channel

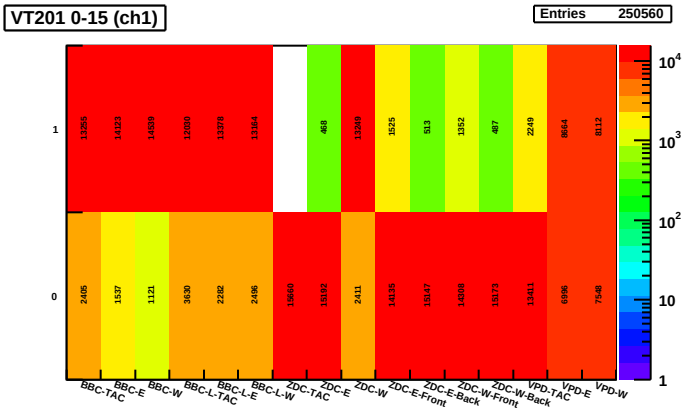

Input to FE004 QT board
Entries 501120
ADC
channel

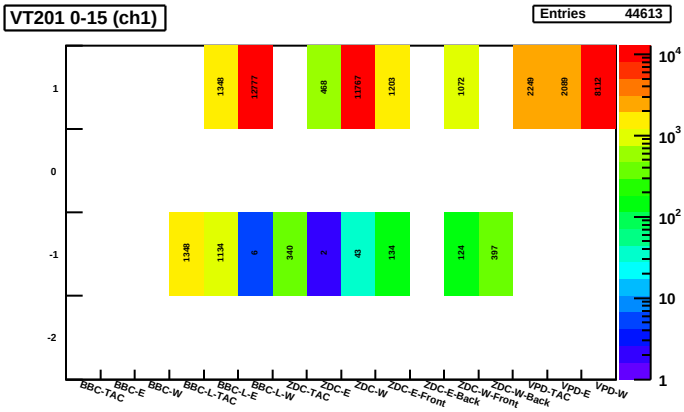

Input to FPE L1 DSM
Entries 62640
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 15660
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 250560
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 250560
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 44613
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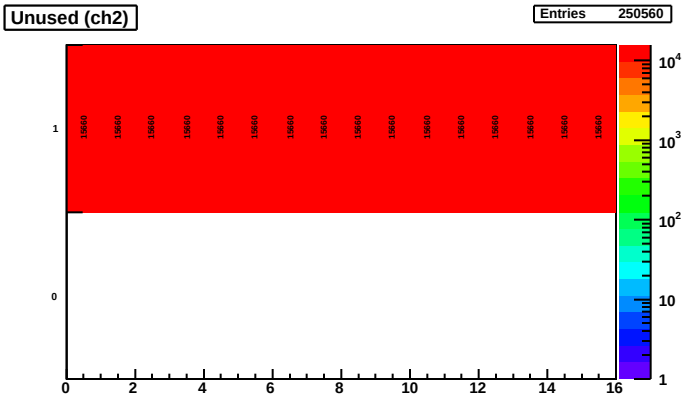
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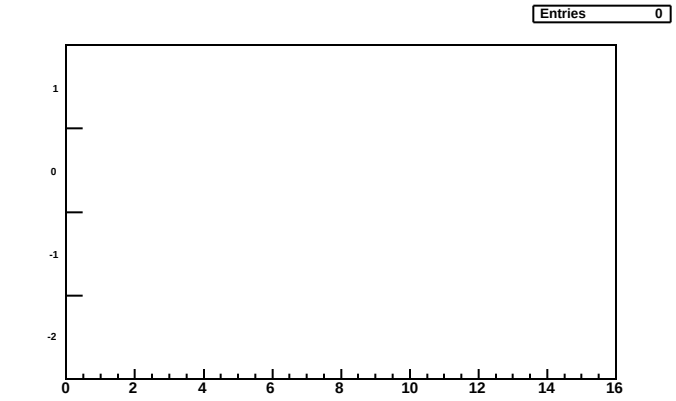
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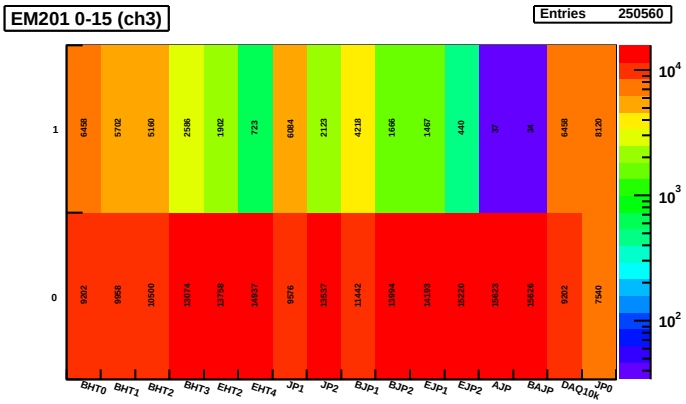
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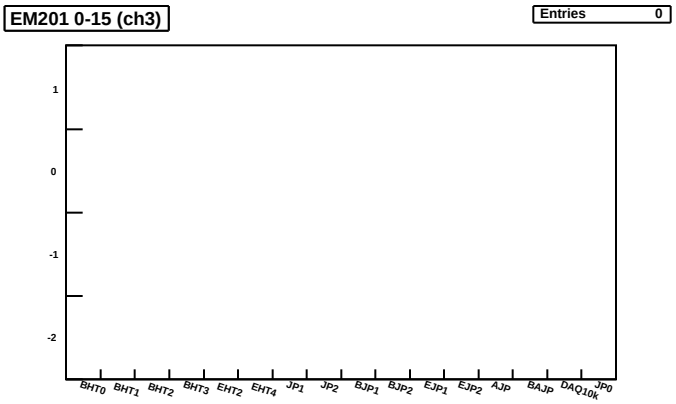
EM201 0-15 (ch3)
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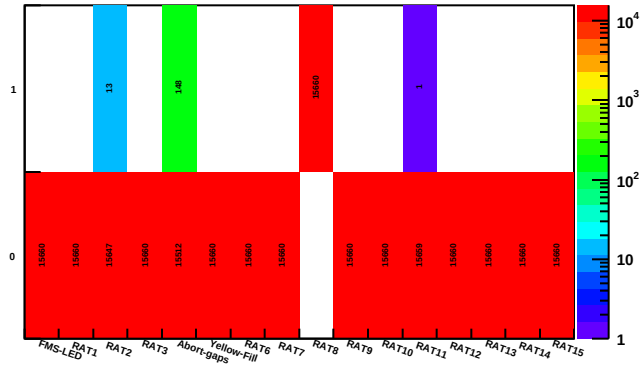
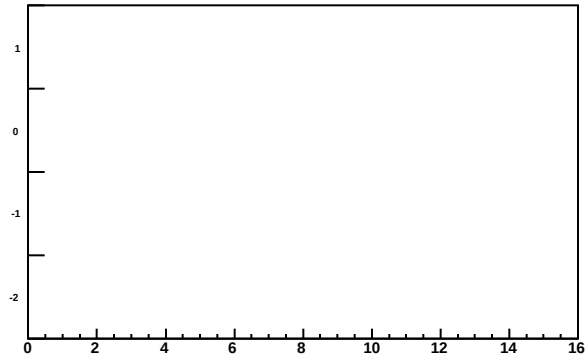
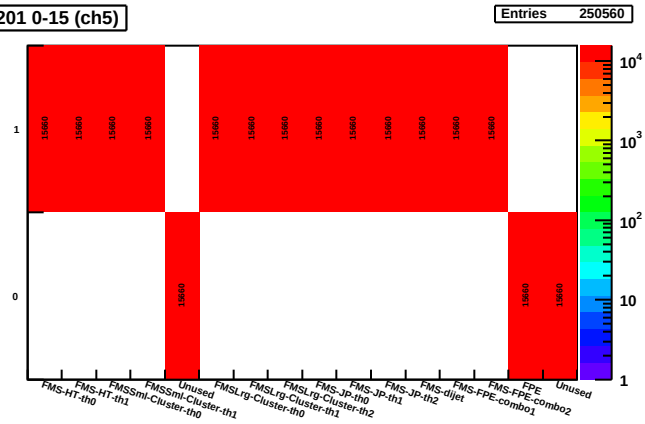
RAT board (ch4)

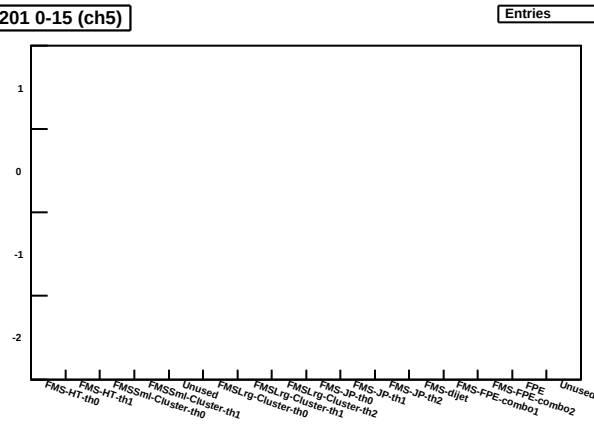




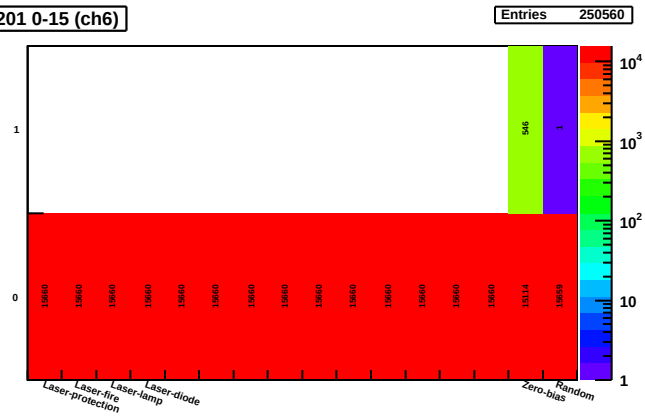
FP201 0-15 (ch5)

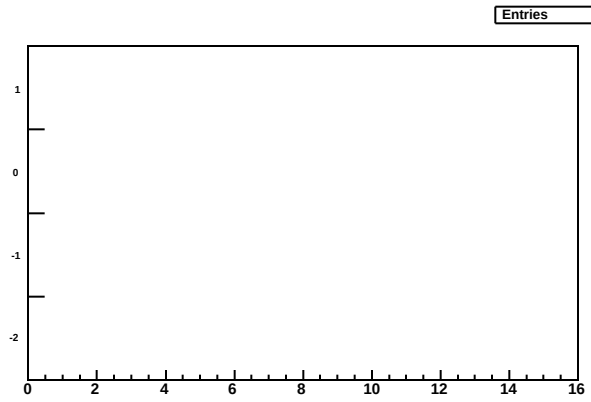
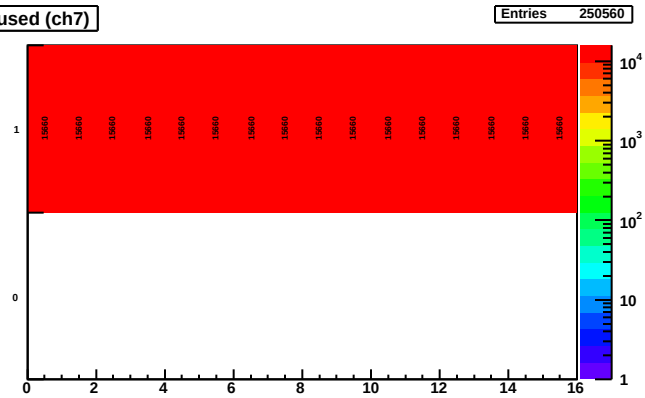
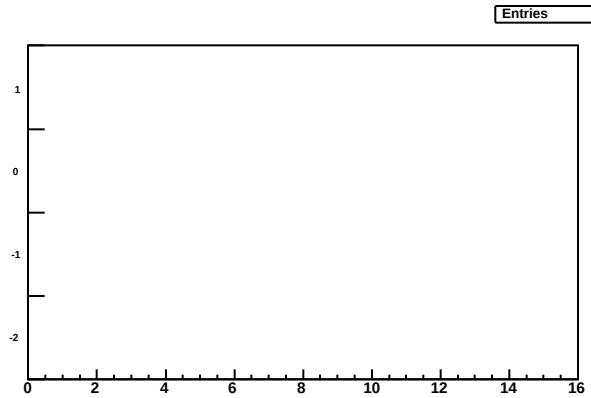


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)