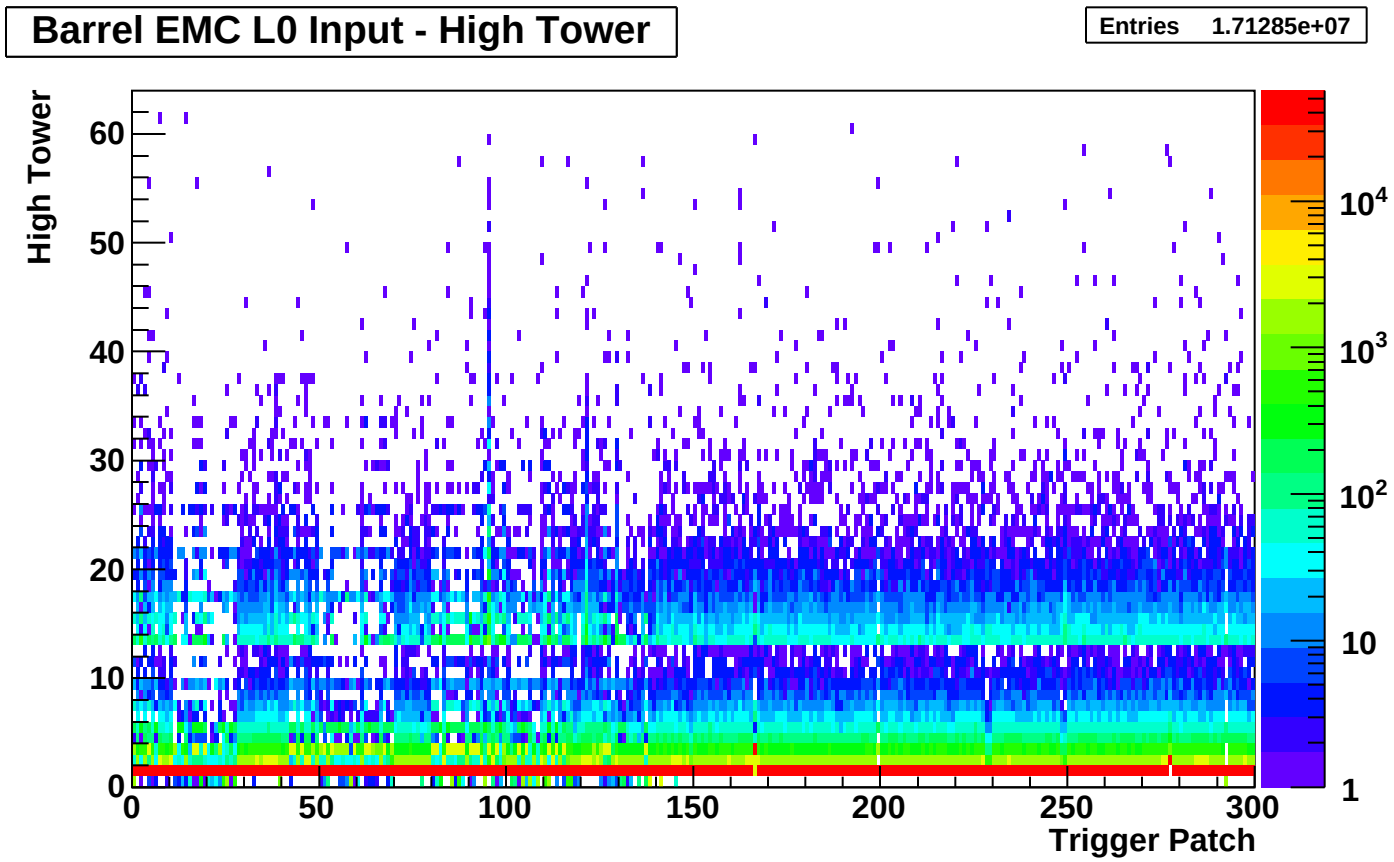
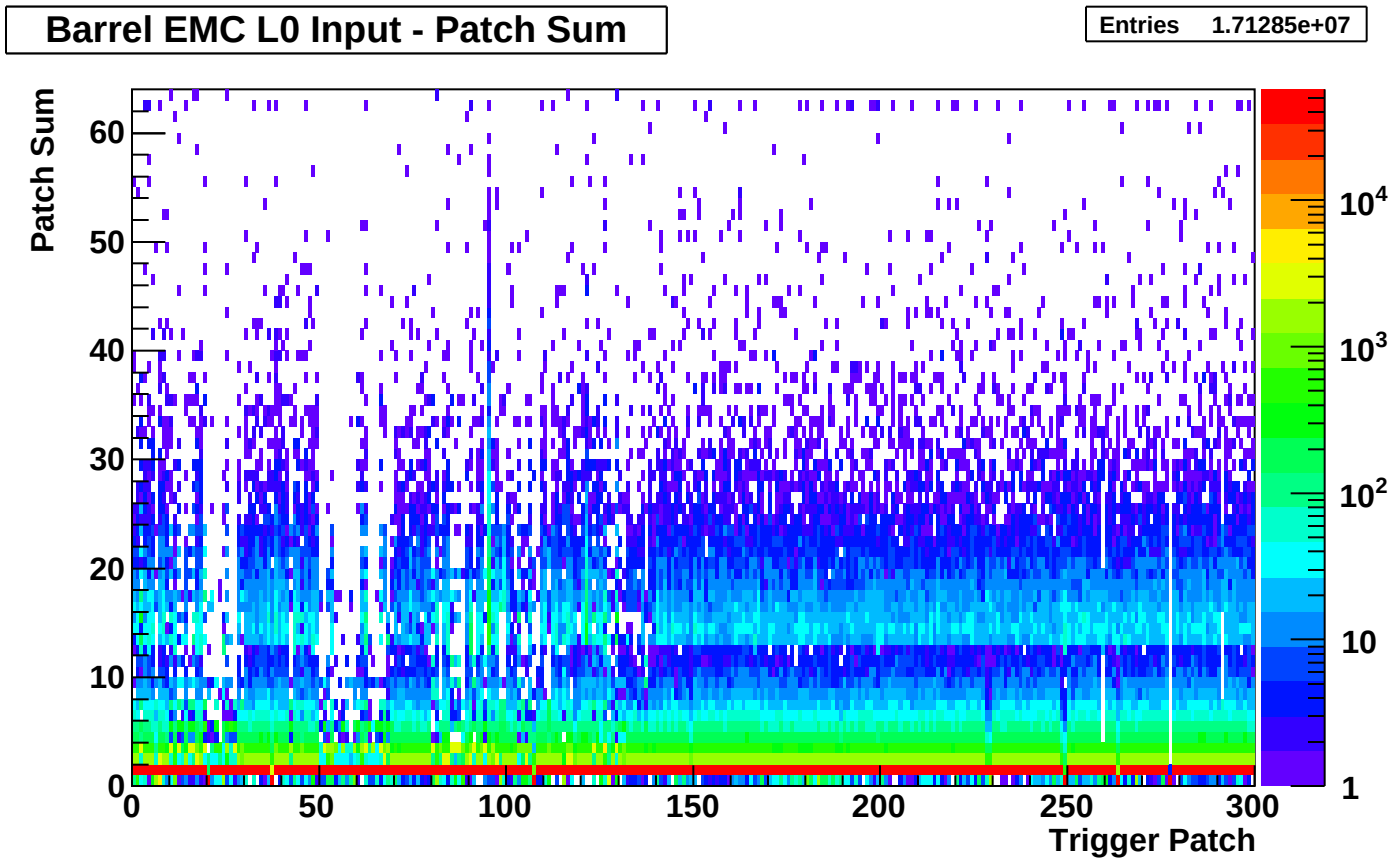
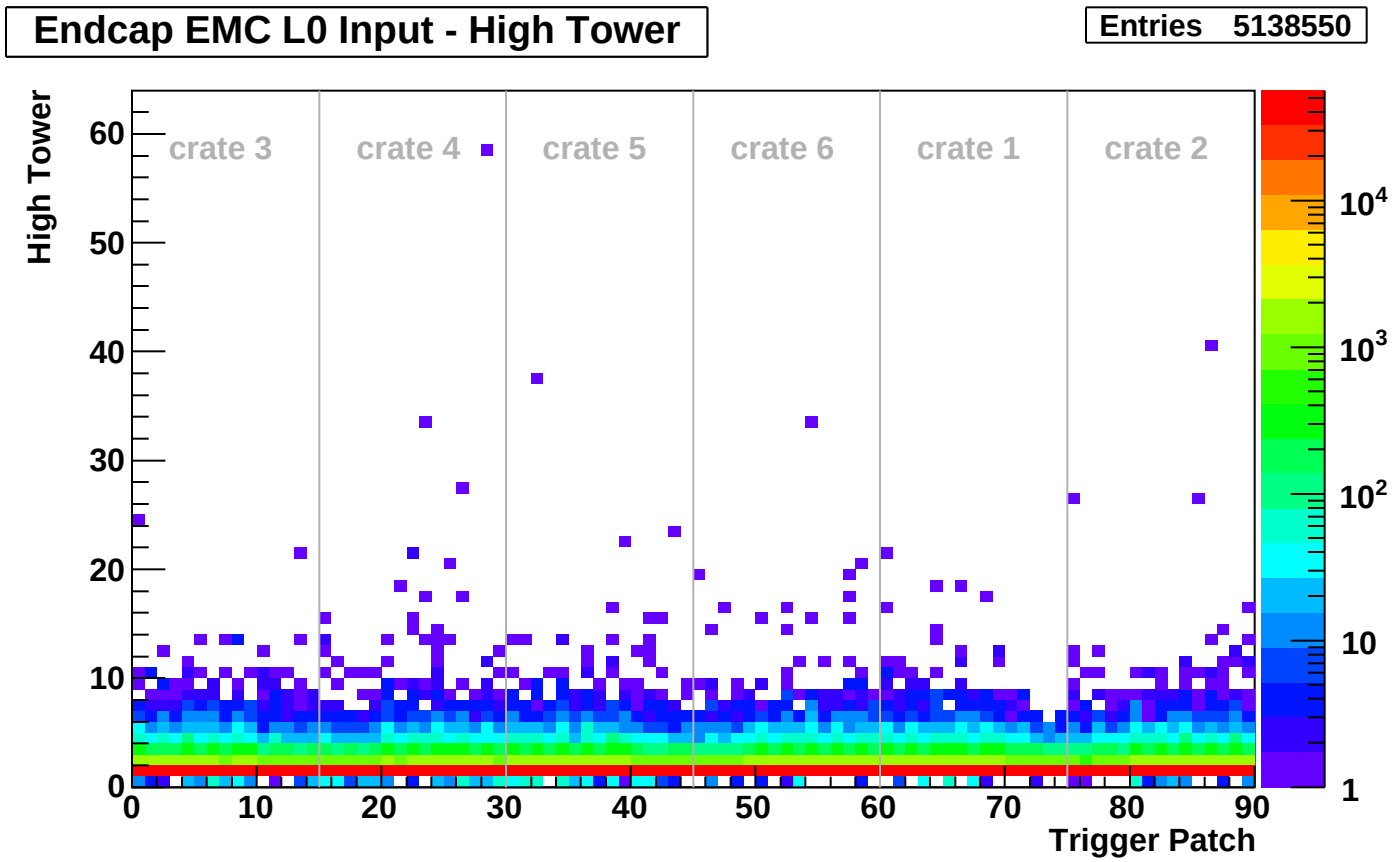
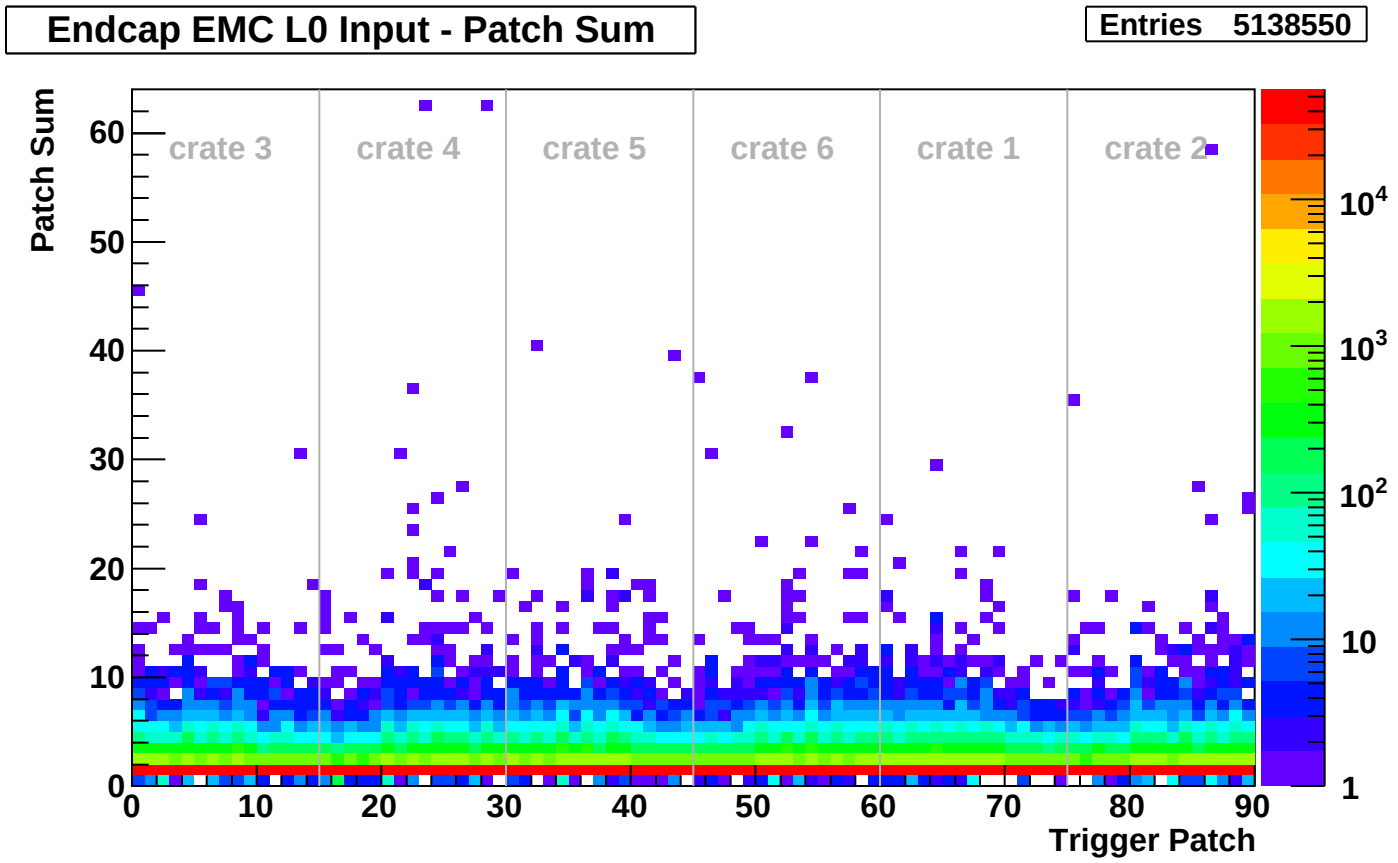
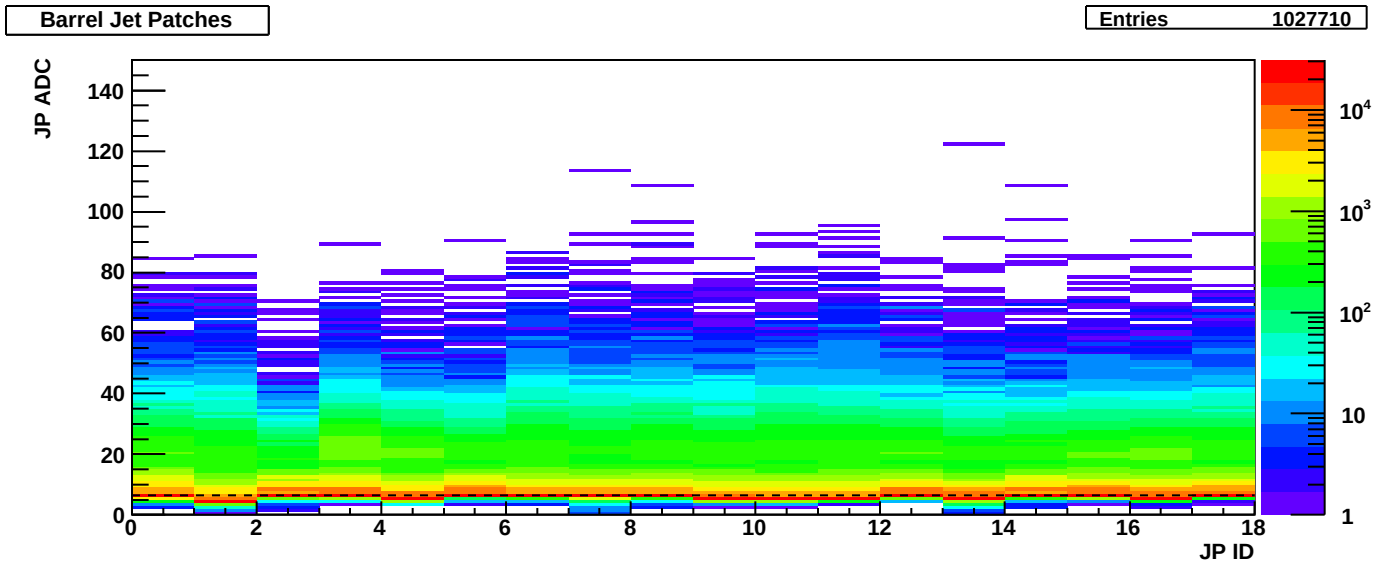
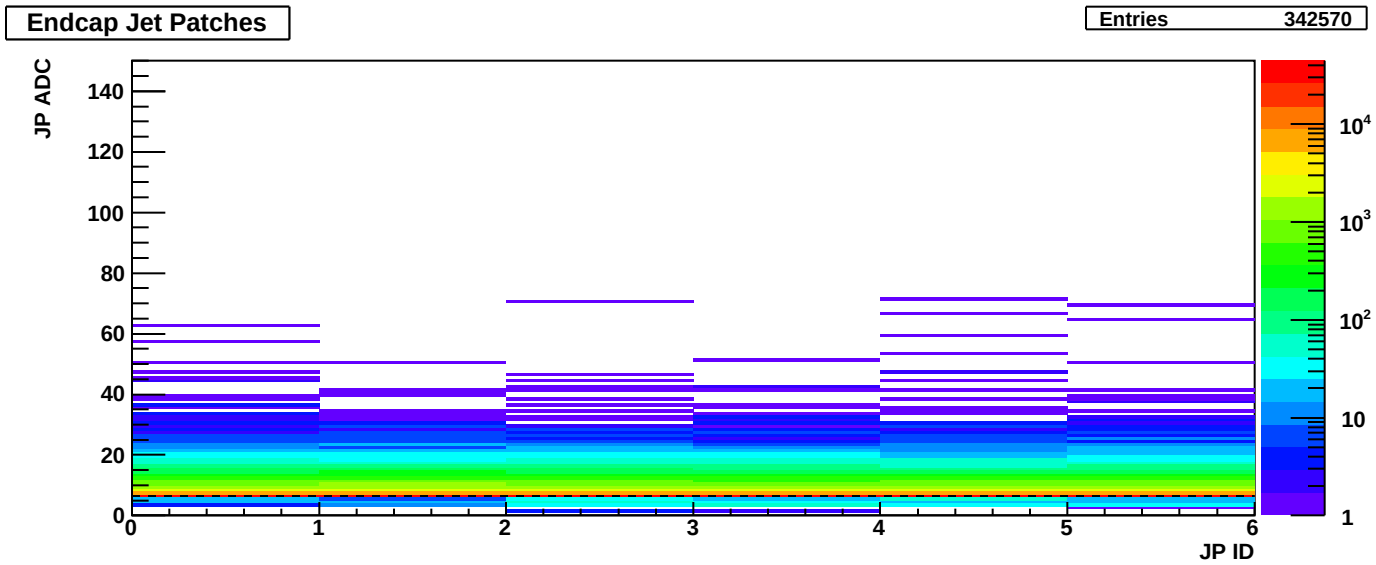

Barrel EMC L0 Input - High Tower
Entries 1.71285e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

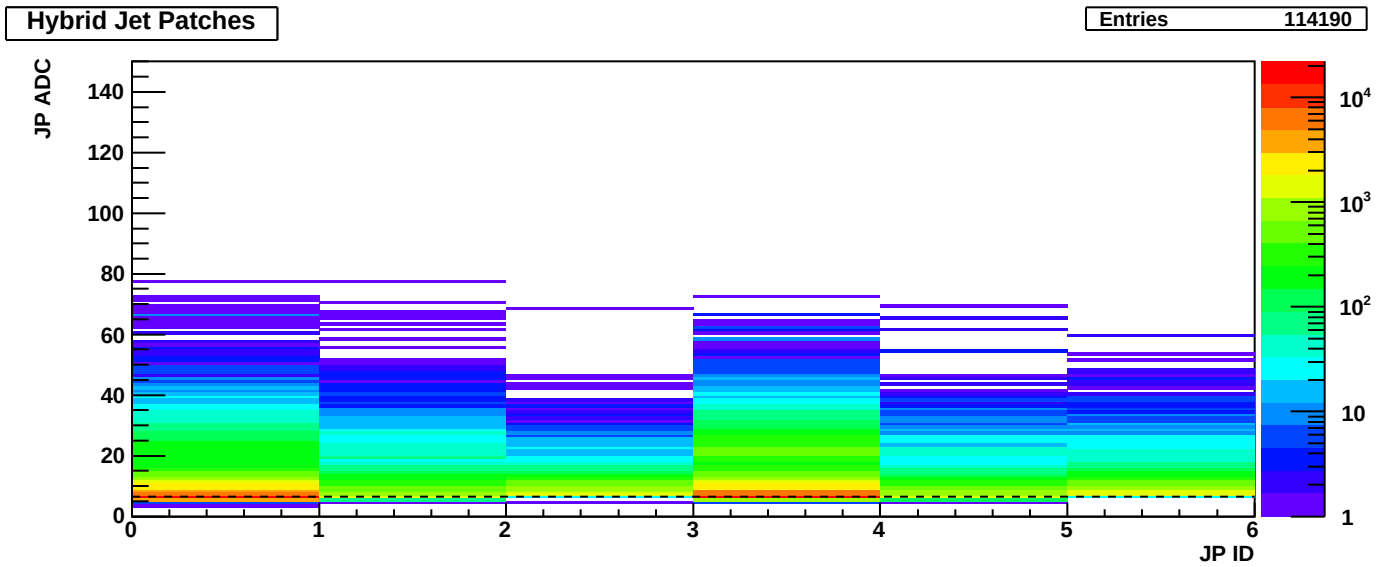

Barrel EMC L0 Input - Patch Sum
Entries 1.71285e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

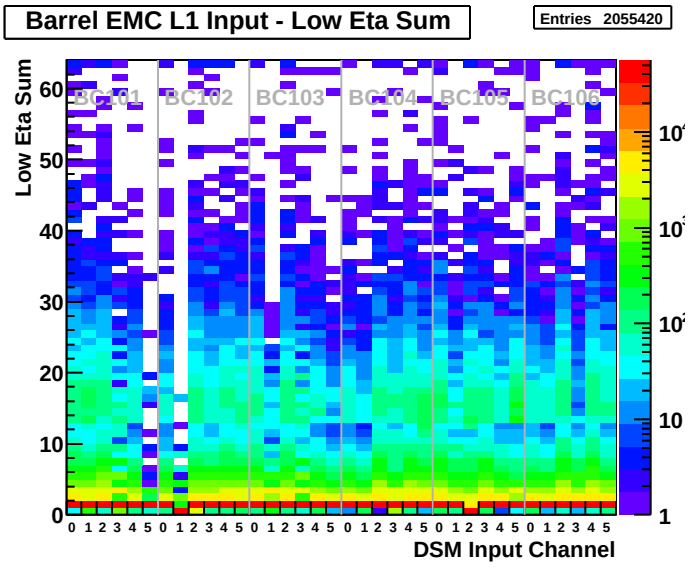

Endcap EMC L0 Input - High Tower
Entries 5138550
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

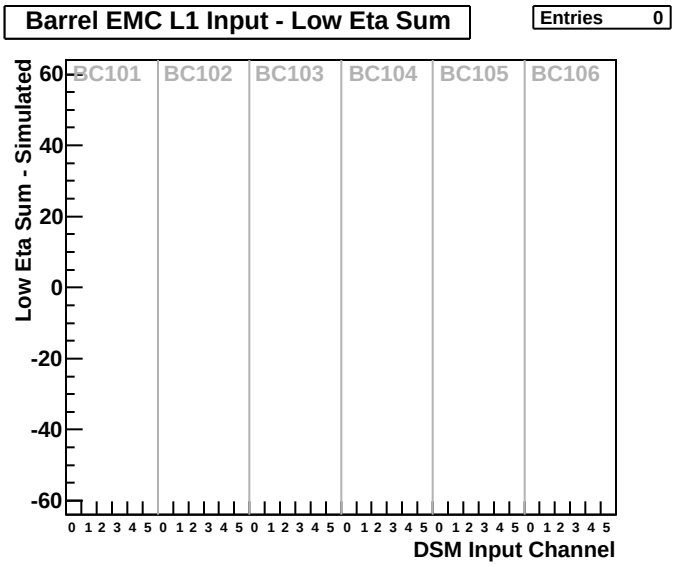

Endcap EMC L0 Input - Patch Sum
Entries 5138550
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

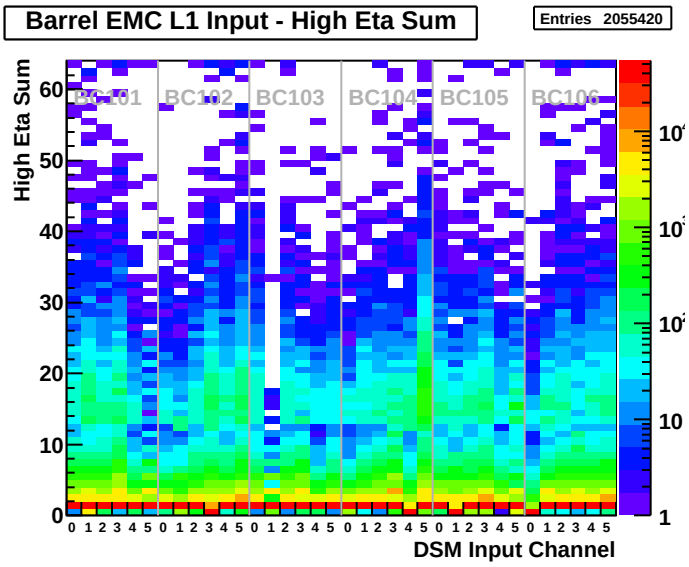

Barrel Jet Patches
Entries 1027710
JP ADC
JP ID

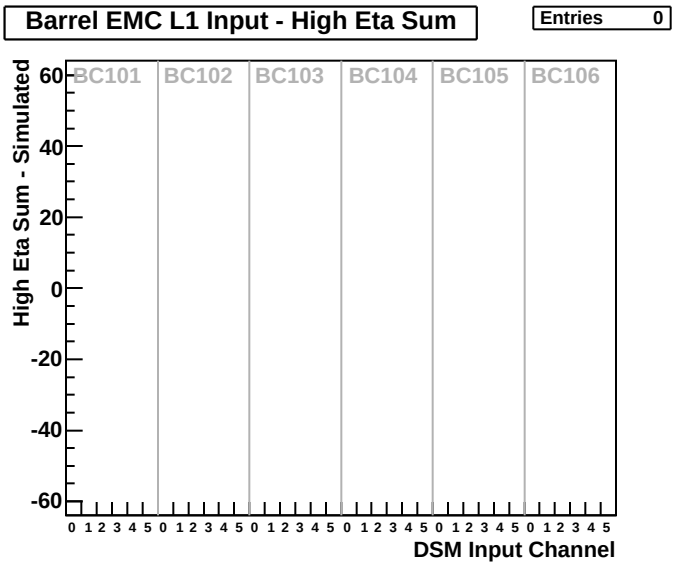

Endcap Jet Patches
Entries 342570
JP ADC
JP ID

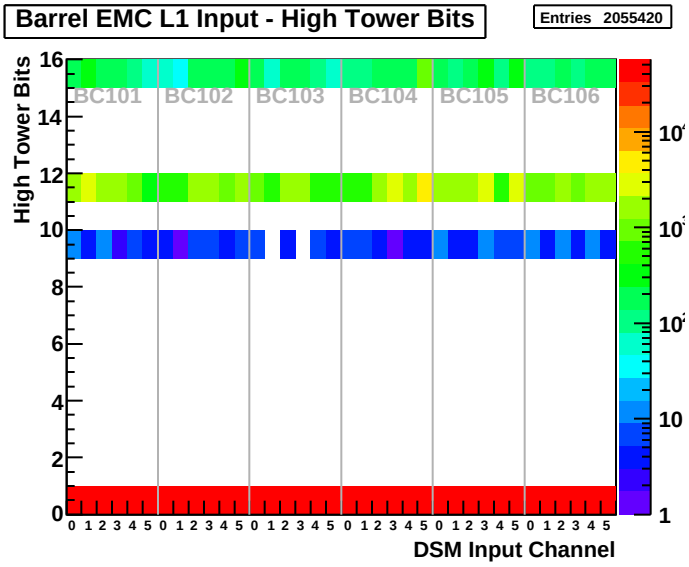

Hybrid Jet Patches
Entries 114190
JP ADC
JP ID

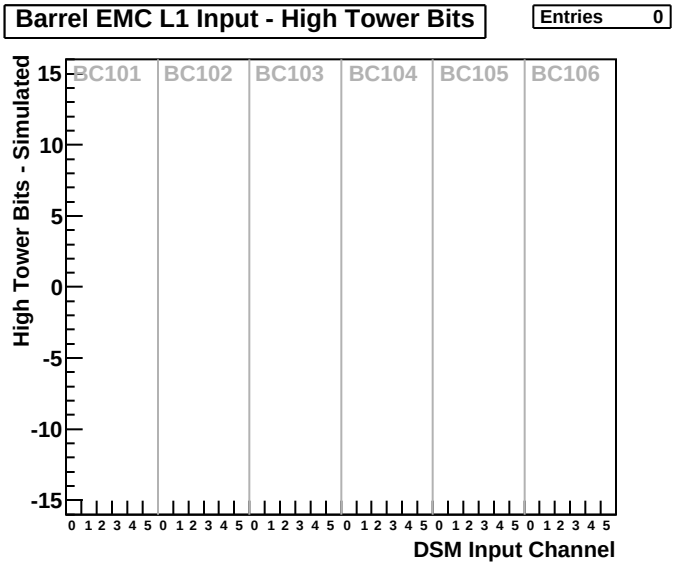

Barrel EMC L1 Input - Low Eta Sum
Entries 2055420
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

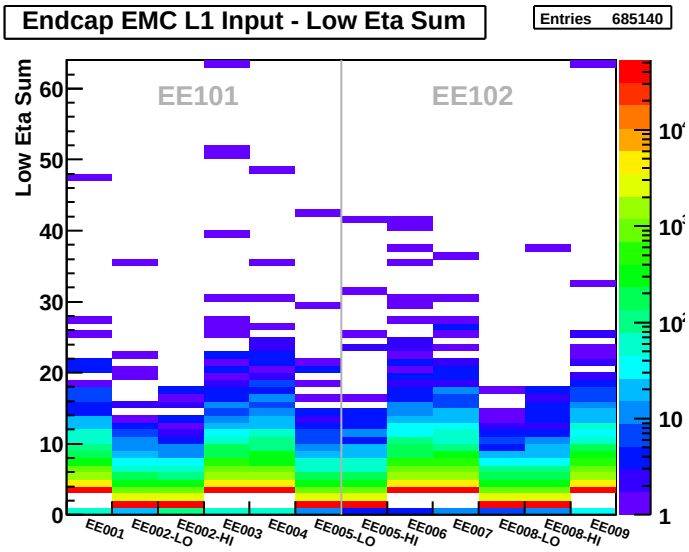

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

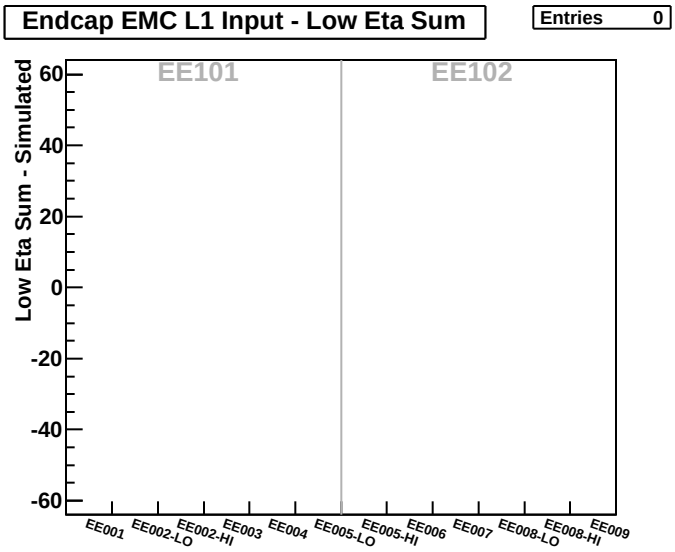

Barrel EMC L1 Input - High Eta Sum
Entries 2055420
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

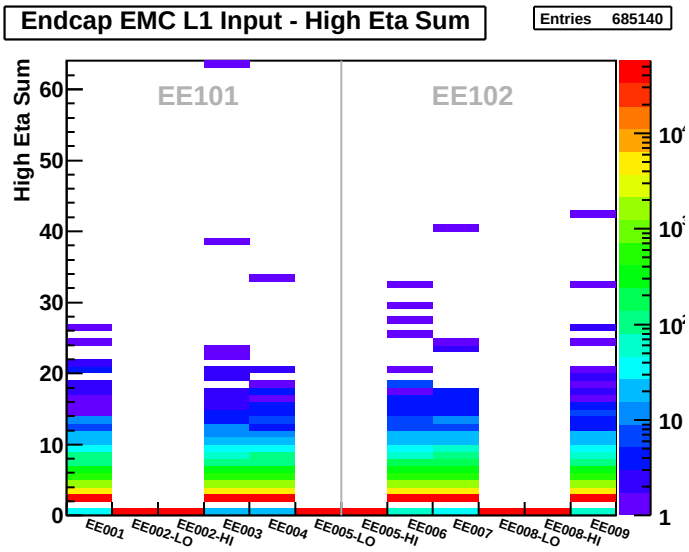

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

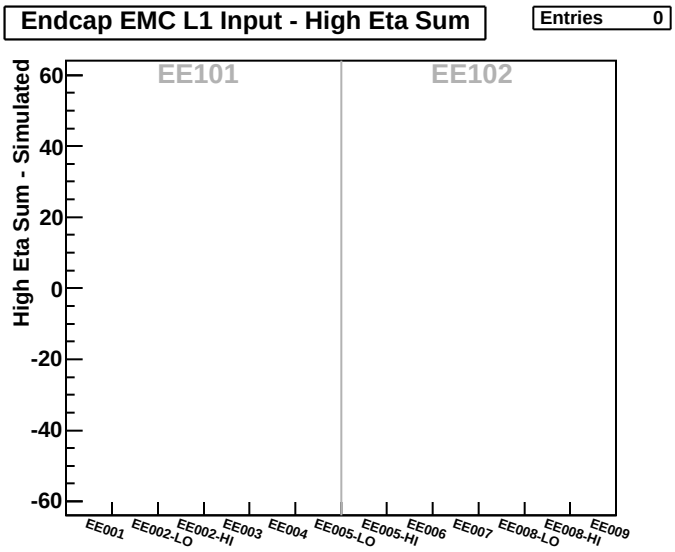

Barrel EMC L1 Input - High Tower Bits
Entries 2055420
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

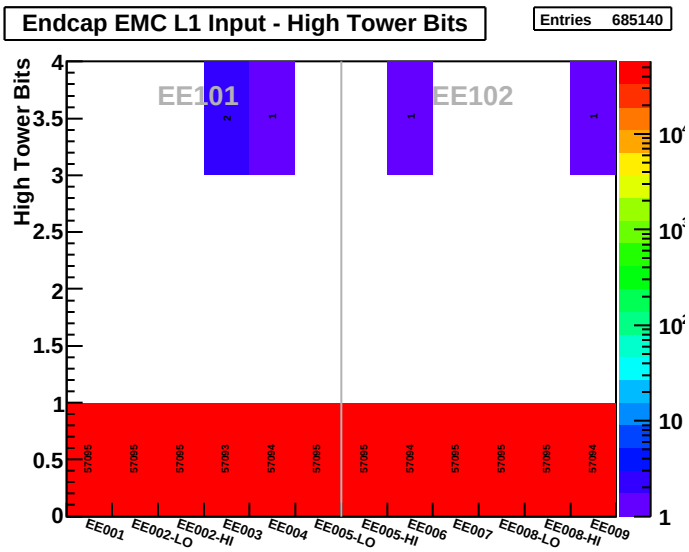

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

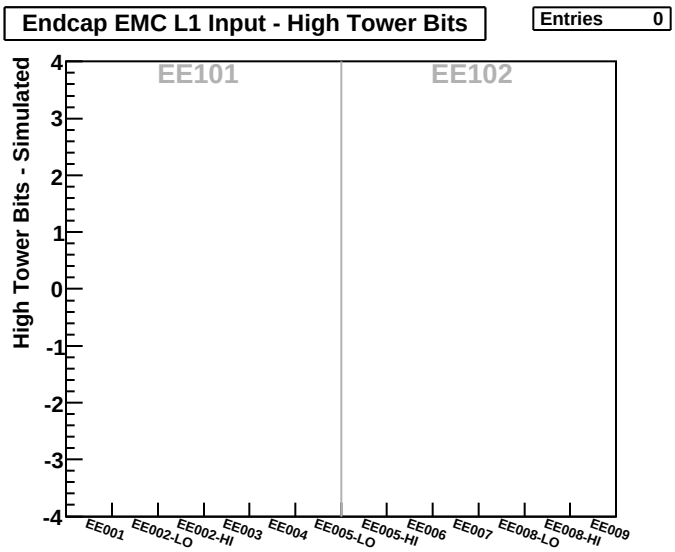

Endcap EMC L1 Input - Low Eta Sum
Entries 685140
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

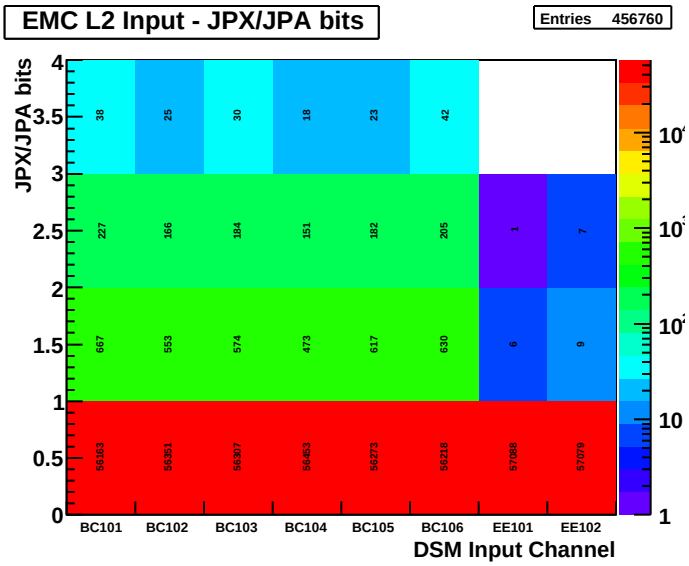

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

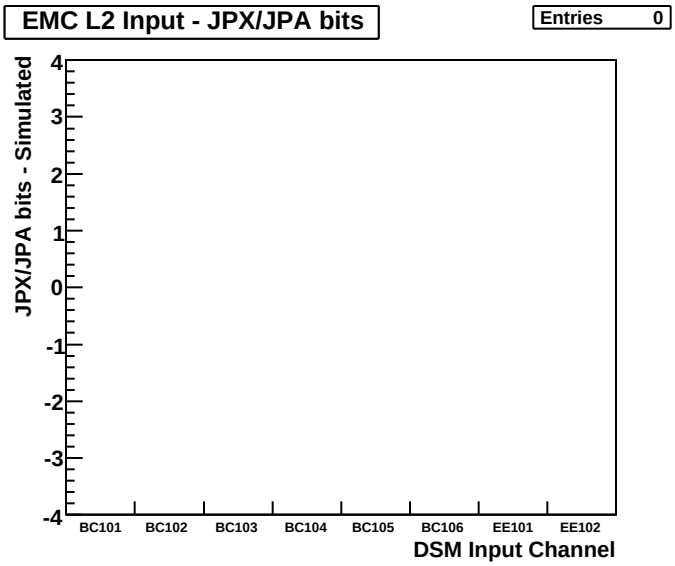

Endcap EMC L1 Input - High Eta Sum
Entries 685140
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

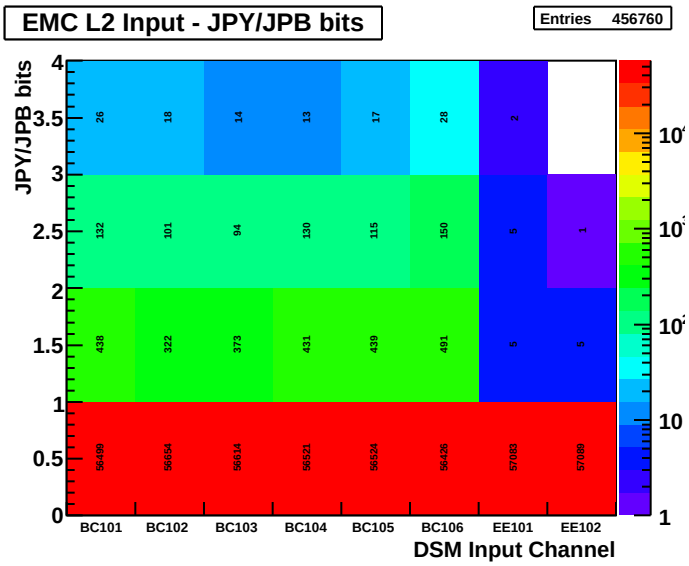

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

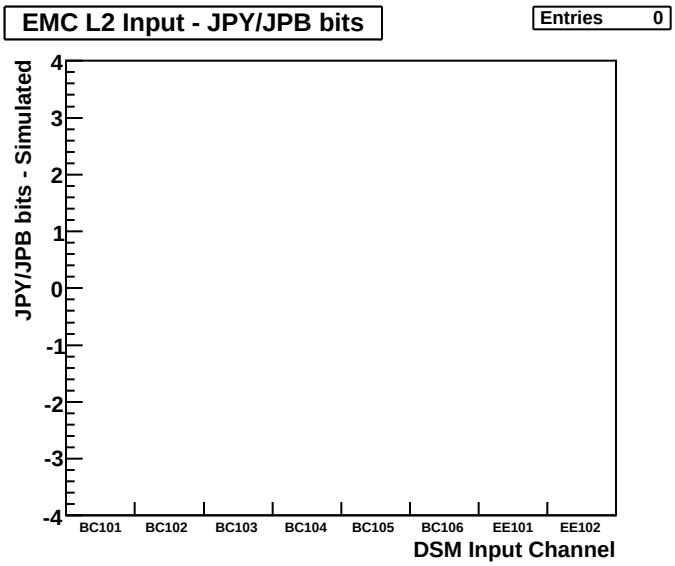

Endcap EMC L1 Input - High Tower Bits
Entries 685140
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

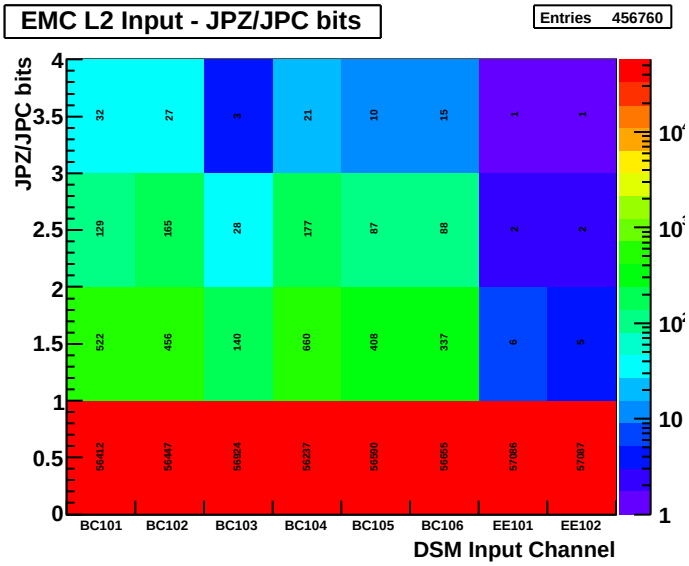

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

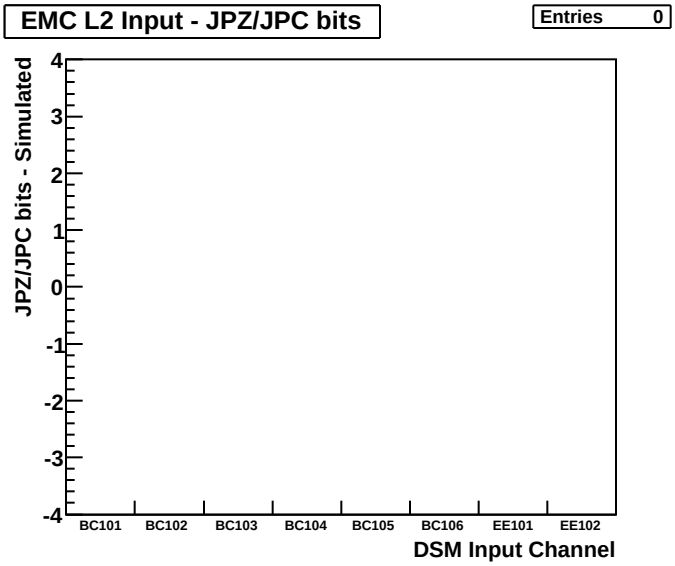

EMC L2 Input - JPX/JPA bits
Entries 456760
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
38 25 30 18 23 42
227 166 184 151 182 205 1 7
667 553 574 473 617 630 6 9
56163 56351 56307 56453 56273 56218 57088 57079

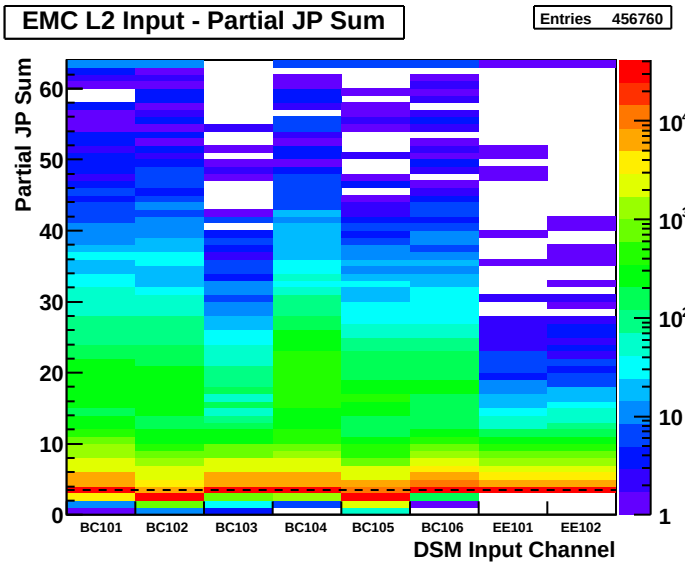

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

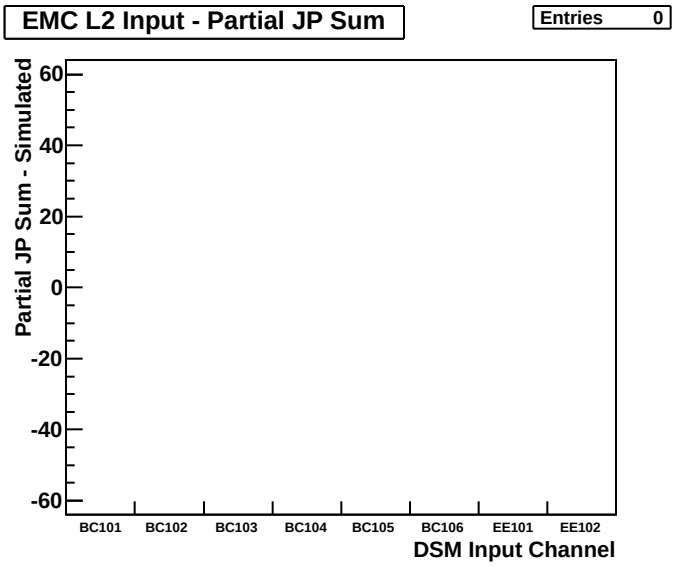

EMC L2 Input - JPY/JPB bits
Entries 456760
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
26 18 14 13 17 28 2
132 101 94 130 115 150 5 1
438 322 373 431 439 491 5 5
56499 56654 56614 56521 56524 56426 57083 57089

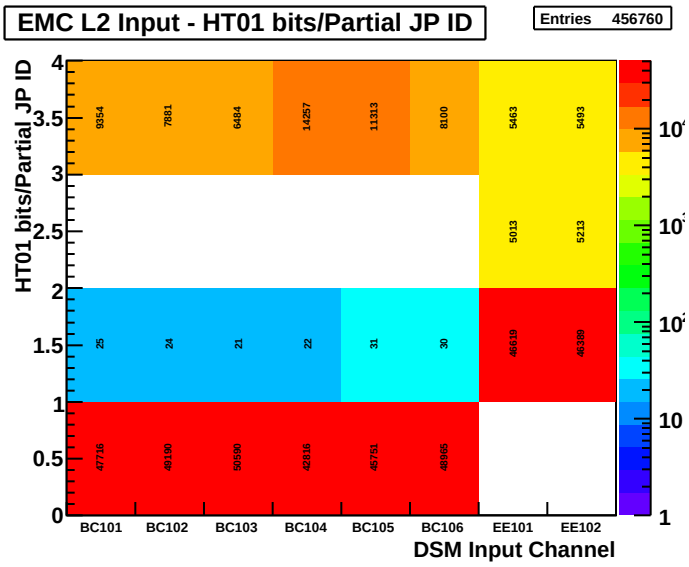

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

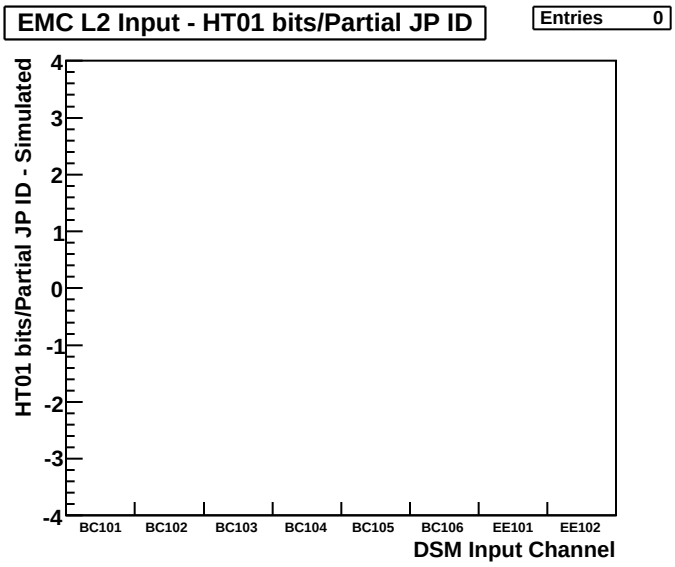

EMC L2 Input - JPZ/JPC bits
Entries 456760
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
32 27 3 21 10 15 1 1
129 165 28 177 87 88 2 2
522 456 140 660 408 337 6 5
56412 56447 56924 56237 56590 56655 57086 57087

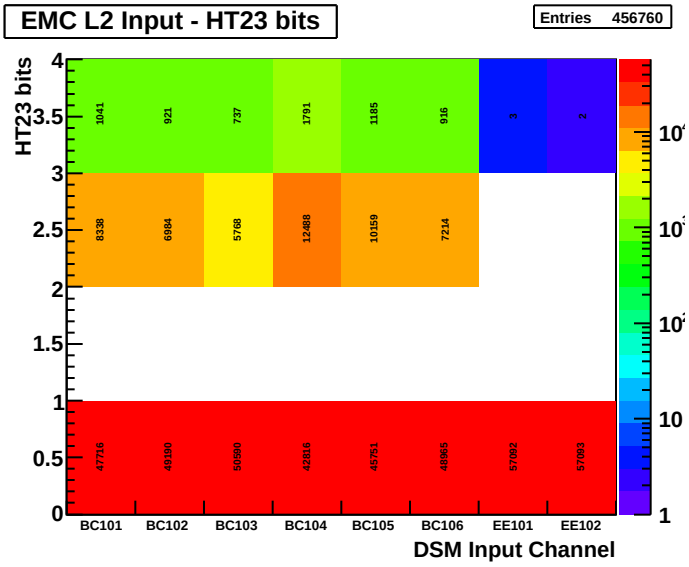

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

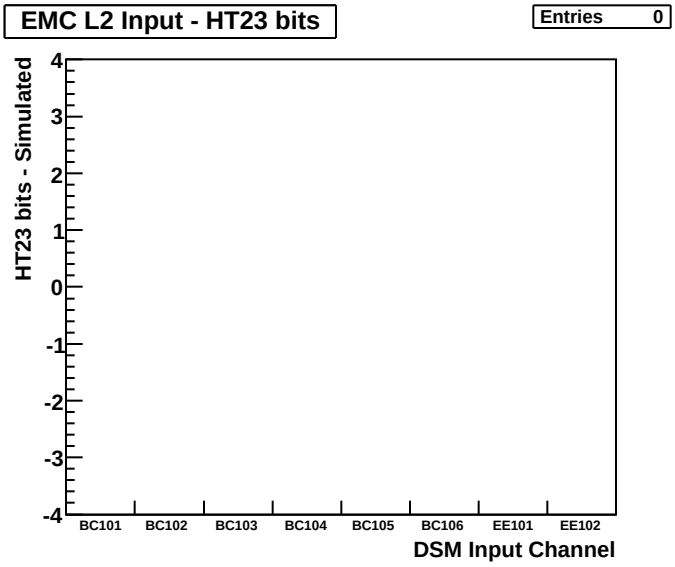

EMC L2 Input - Partial JP Sum
Entries 456760
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

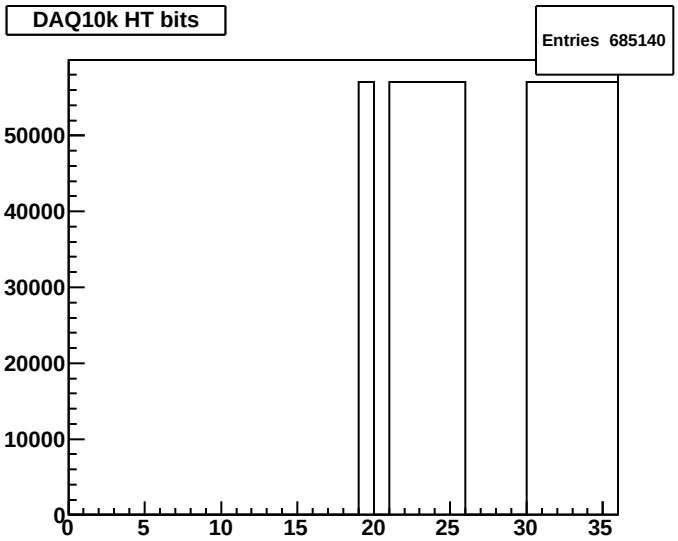

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

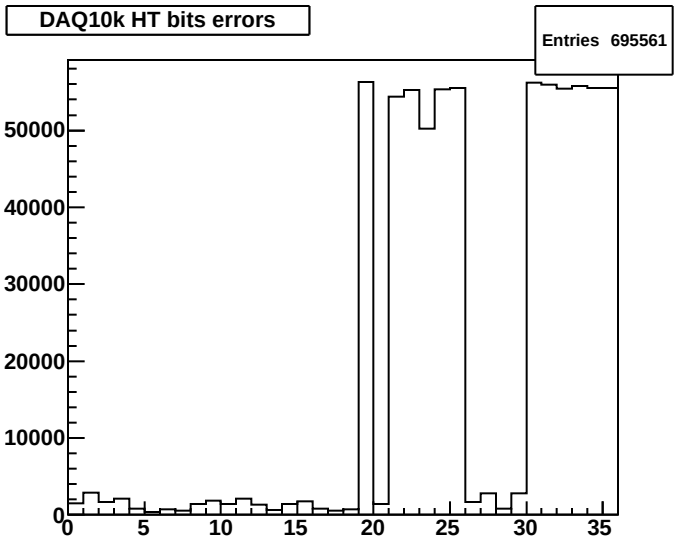

EMC L2 Input - HT01 bits/Partial JP ID
Entries 456760
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

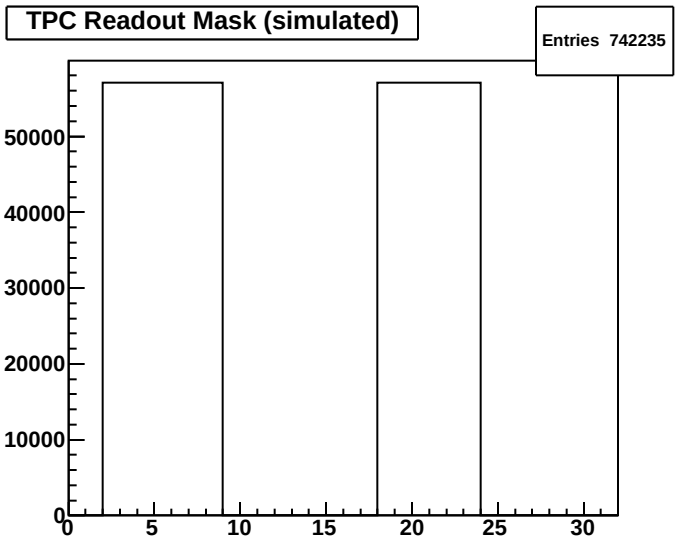

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

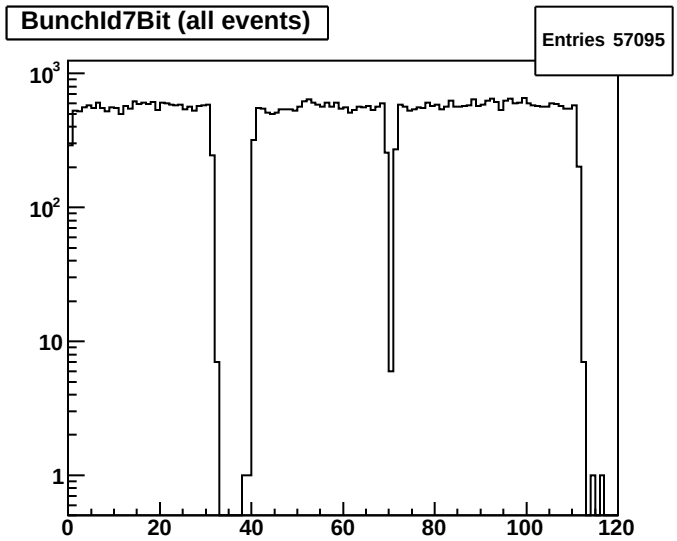

EMC L2 Input - HT23 bits
Entries 456760
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

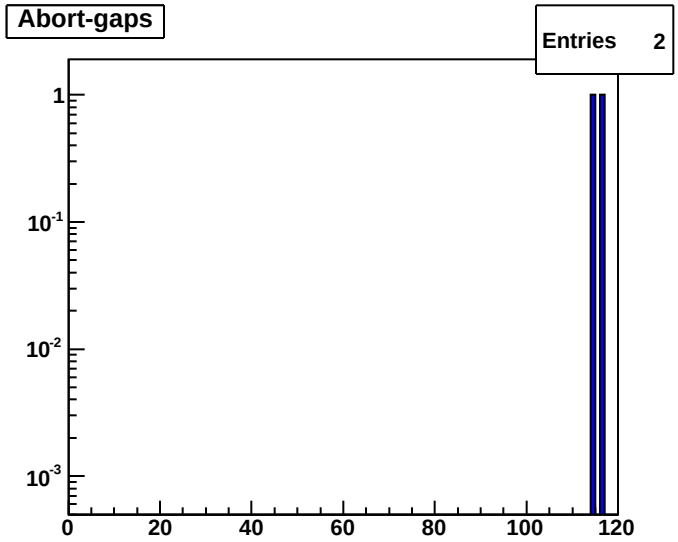

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

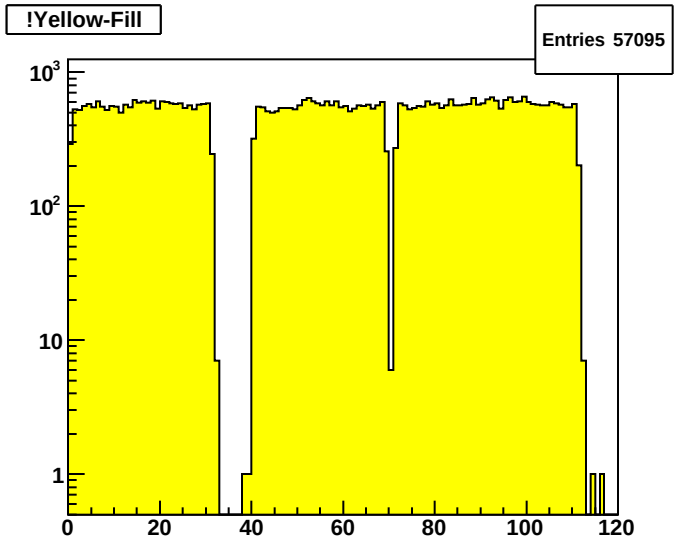

DAQ10k HT bits
Entries 685140
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

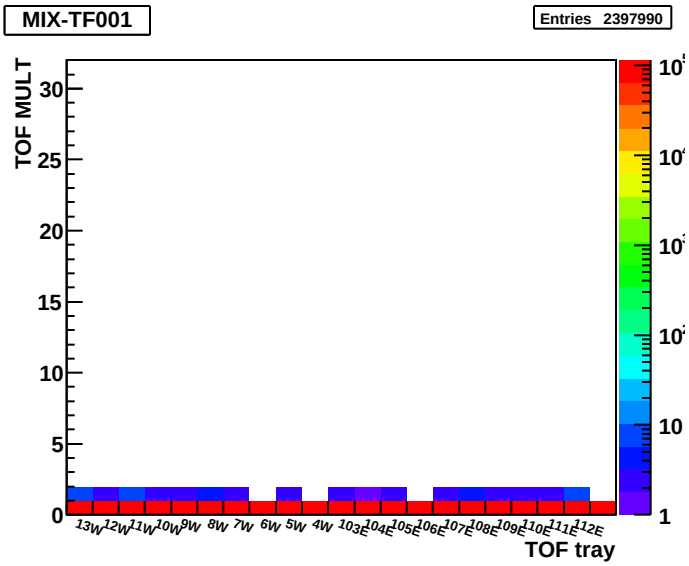

DAQ10k HT bits errors
Entries 695561
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

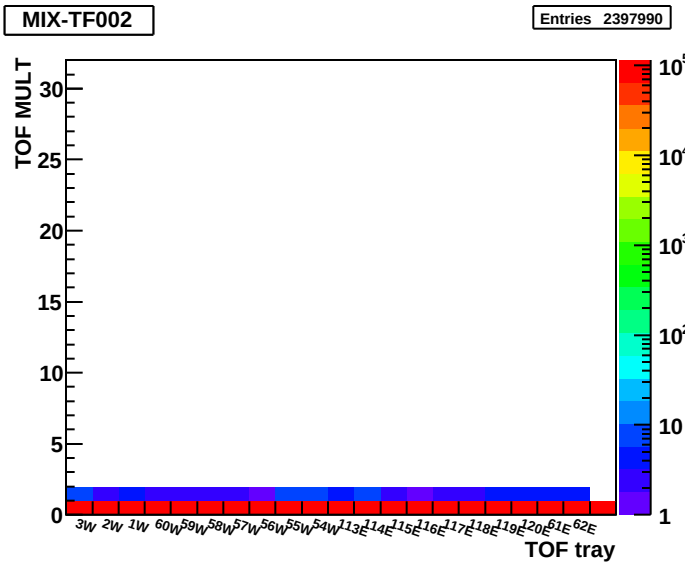

TPC Readout Mask (simulated)
Entries 742235
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

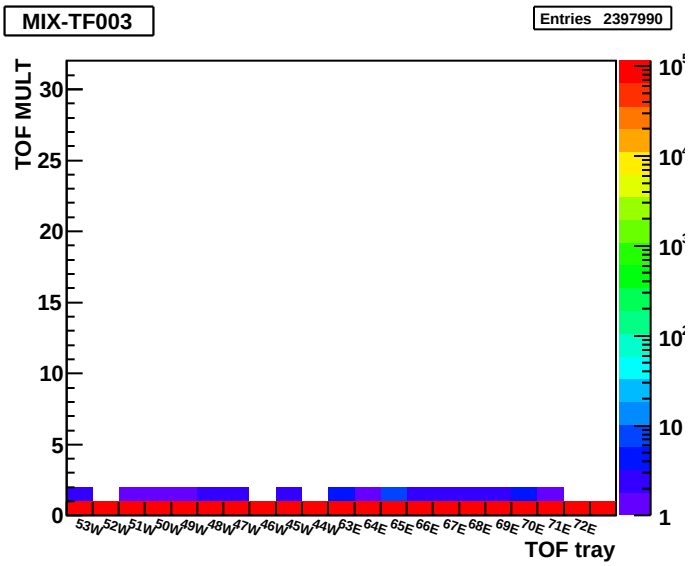

BunchId7Bit (all events)
Entries 57095
10^3
10^2
10
1
0 20 40 60 80 100 120

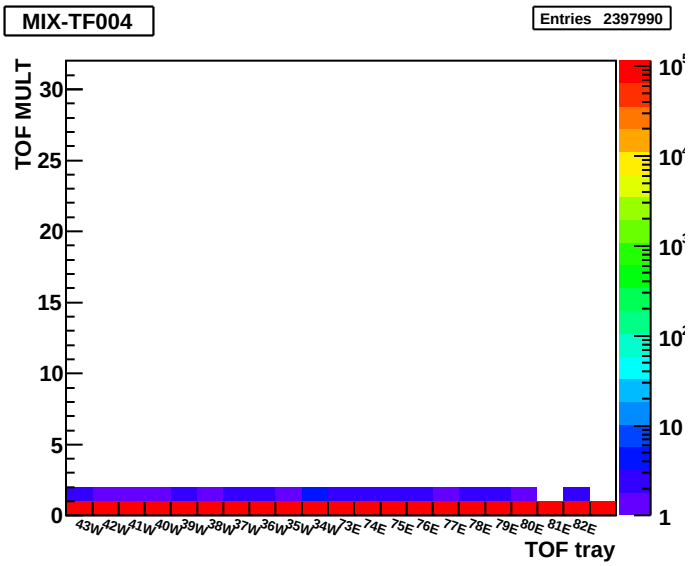

Abort-gaps
Entries 2
1
10^{-1}
10^{-2}
10^{-3}
0 20 40 60 80 100 120

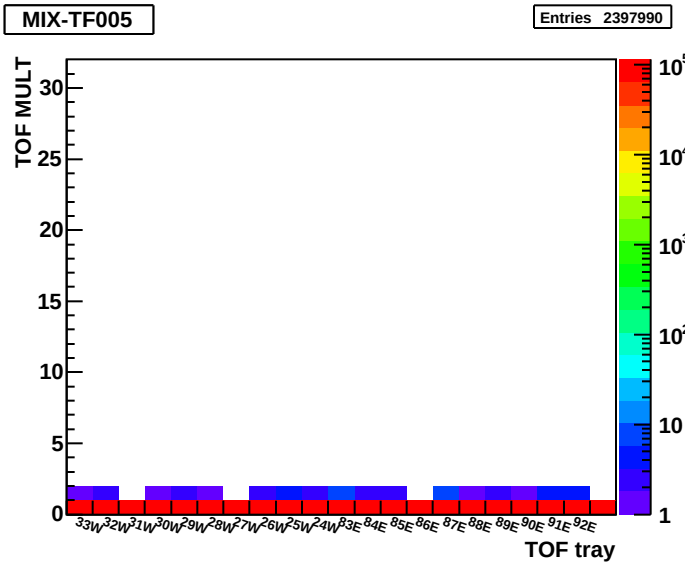

!Yellow-Fill
Entries 57095
10^3
10^2
10
1
0 20 40 60 80 100 120

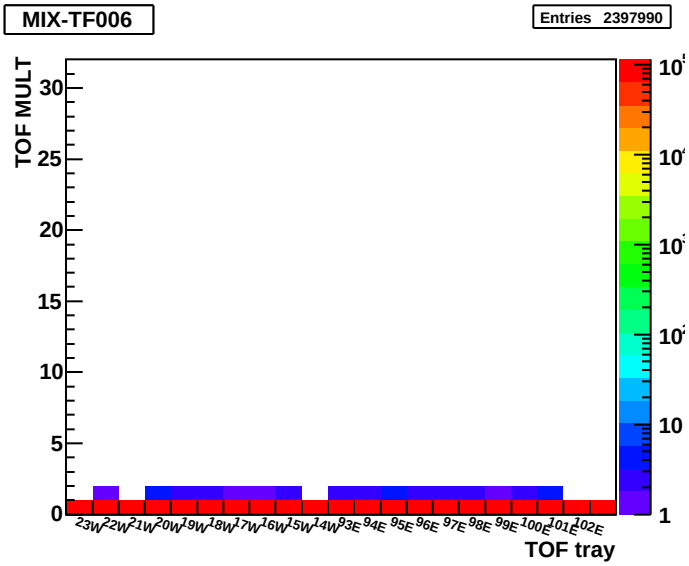

MIX-TF001
Entries 2397990
TOF MULT
TOF tray

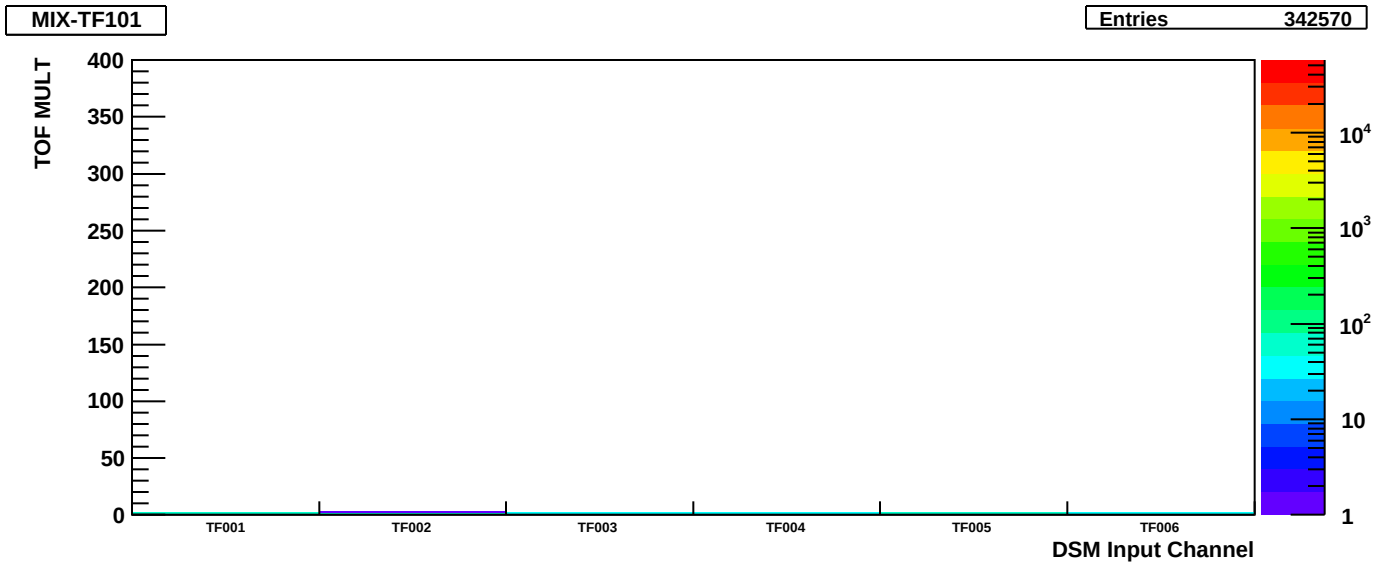

MIX-TF002
Entries 2397990
TOF MULT
TOF tray

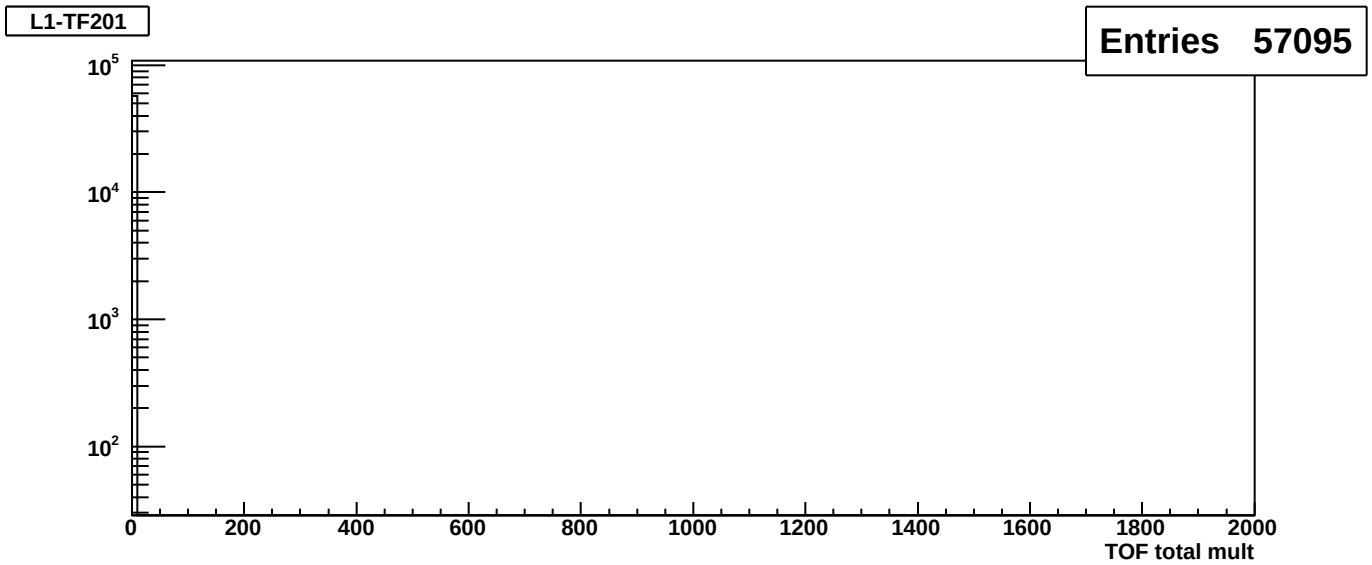

MIX-TF003
Entries 2397990
TOF MULT
TOF tray

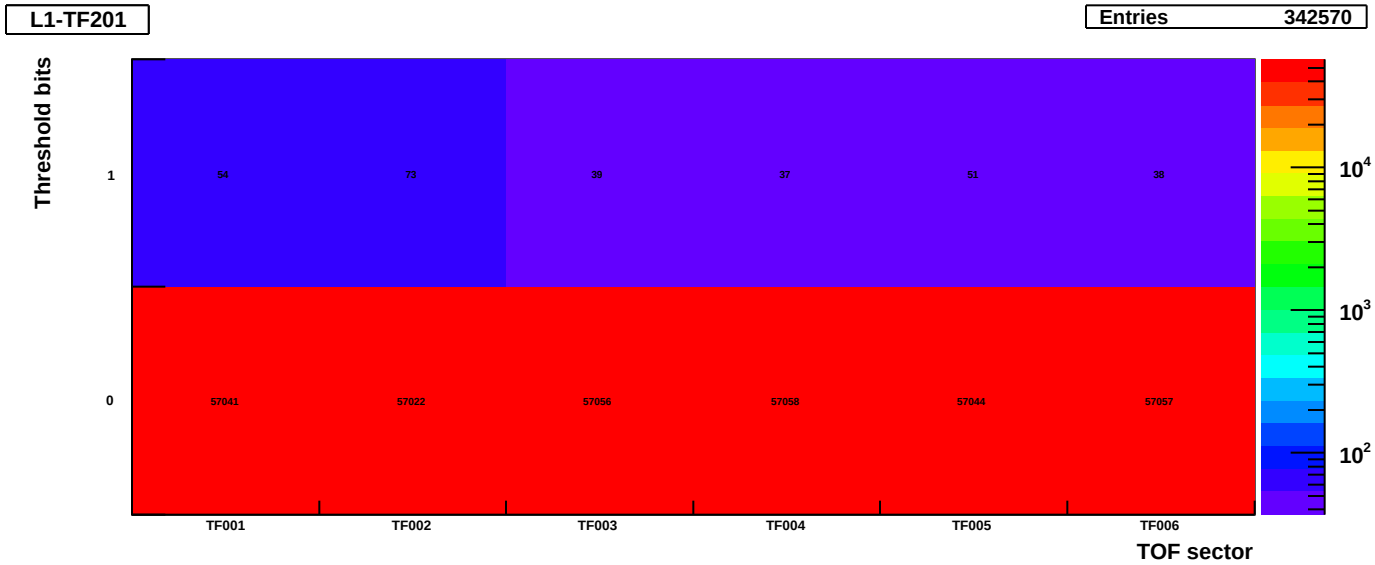

MIX-TF004
Entries 2397990
TOF MULT
TOF tray

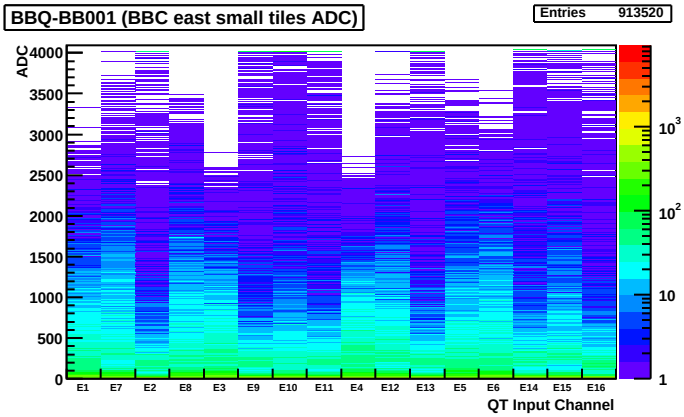

MIX-TF005
Entries 2397990
TOF MULT
TOF tray

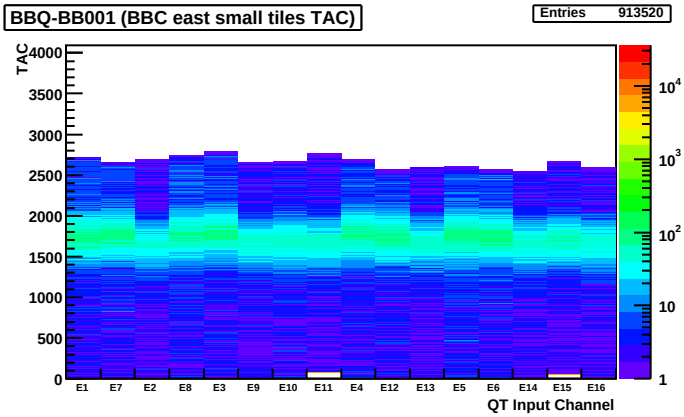

MIX-TF006
Entries 2397990
TOF MULT
TOF tray

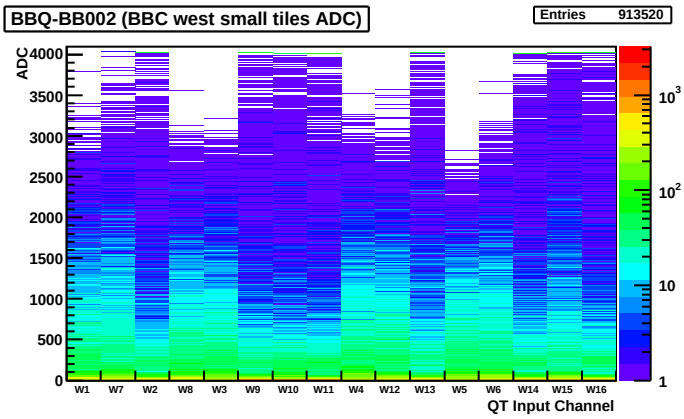

MIX-TF101
Entries 342570
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

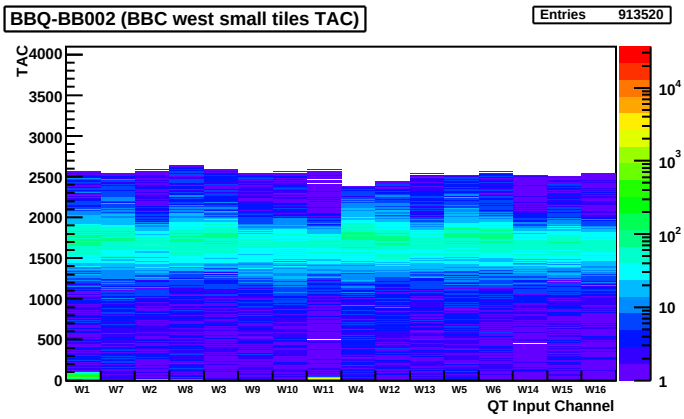

L1-TF201
Entries 57095
10^5
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

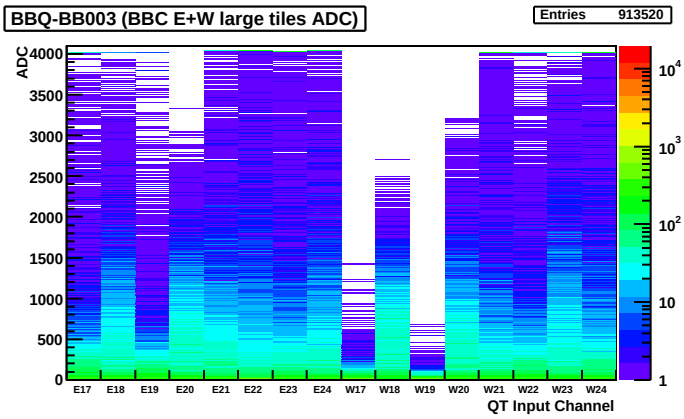

L1-TF201
Entries 342570
Threshold bits
1
0
54
73
39
37
51
38
57041
57022
57056
57058
57044
57057
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4
10^3
10^2

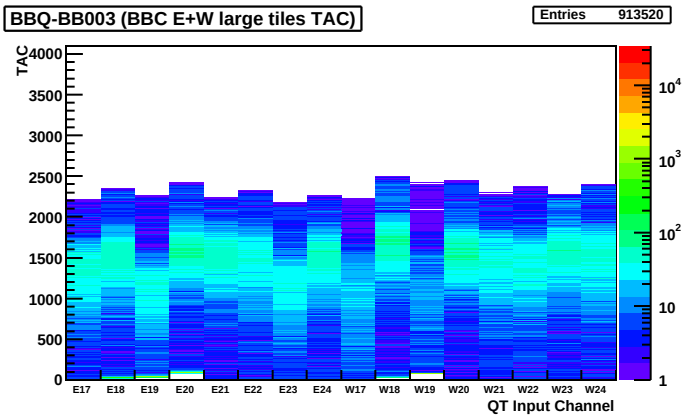

BBQ-BB001 (BBC east small tiles ADC)
Entries 913520
ADC
QT Input Channel

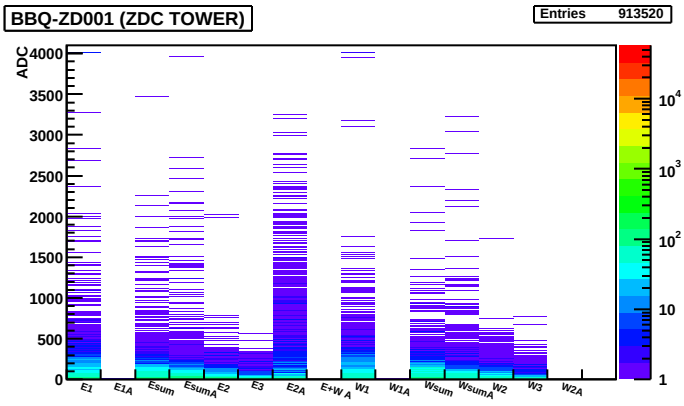

BBQ-BB001 (BBC east small tiles TAC)
Entries 913520
TAC
QT Input Channel

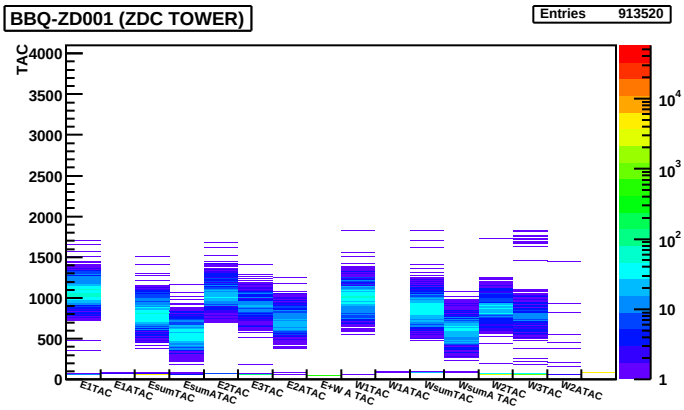

BBQ-BB002 (BBC west small tiles ADC)
Entries 913520
ADC
QT Input Channel

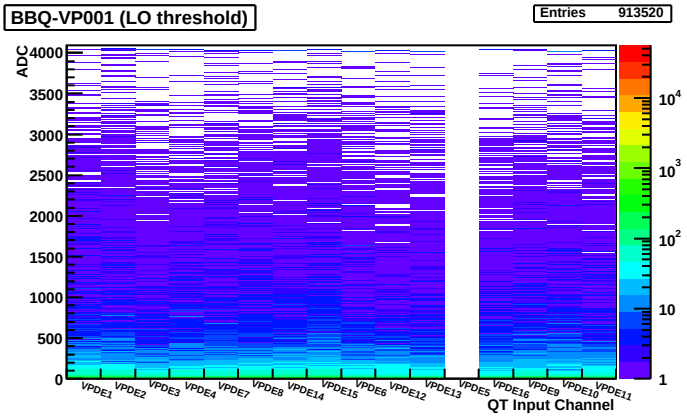

BBQ-BB002 (BBC west small tiles TAC)
Entries 913520
TAC
QT Input Channel

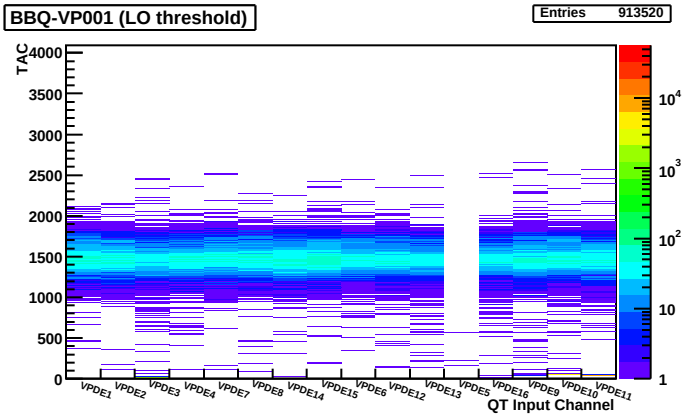

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 913520
ADC
QT Input Channel

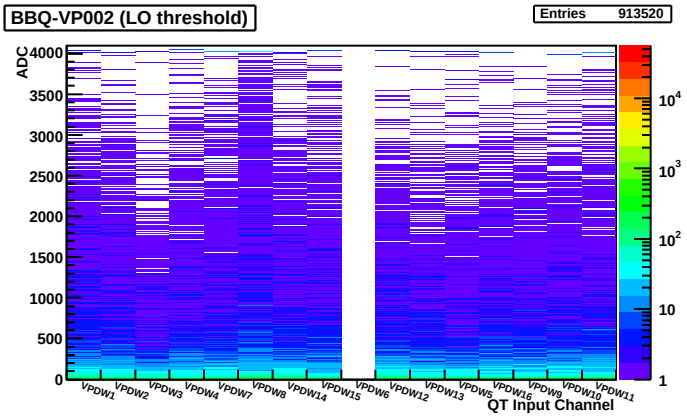

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 913520
TAC
QT Input Channel

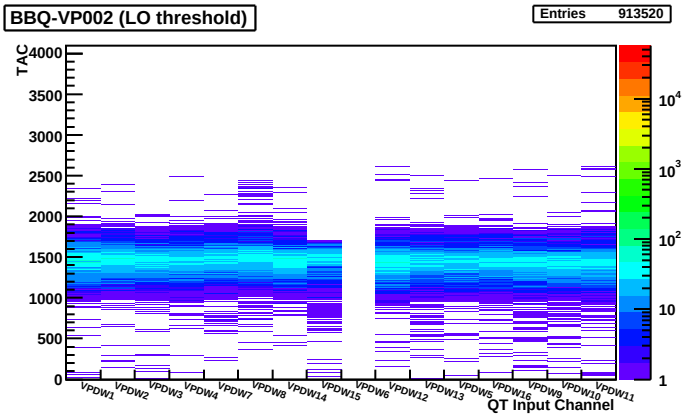

BBQ-ZD001 (ZDC TOWER)
Entries 913520
ADC

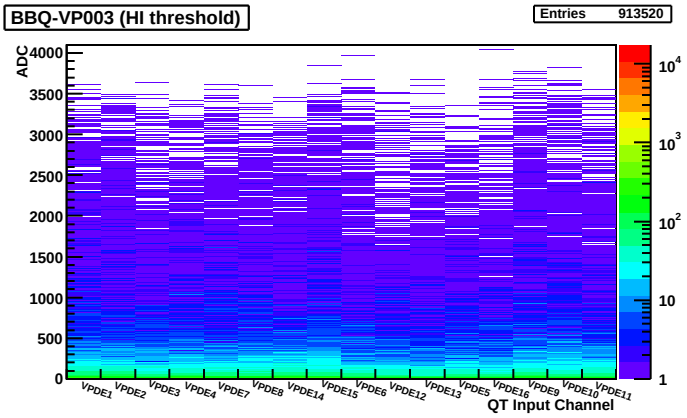

BBQ-ZD001 (ZDC TOWER)
Entries 913520
TAC

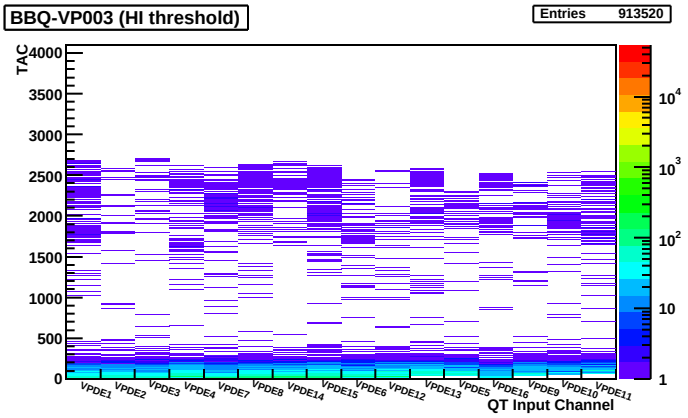

BBQ-VP001 (LO threshold)
Entries 913520
ADC
QT Input Channel

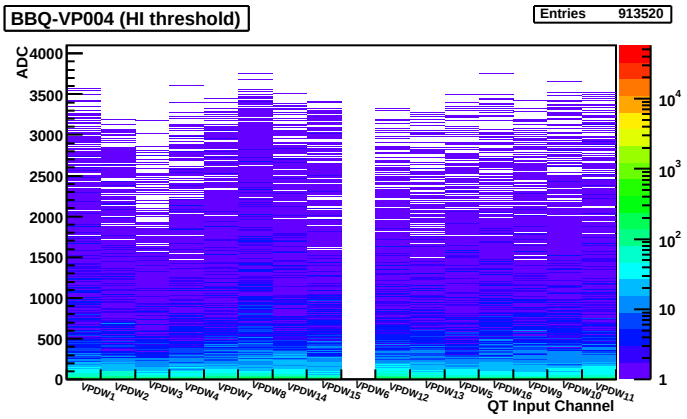

BBQ-VP001 (LO threshold)
Entries 913520
TAC
QT Input Channel

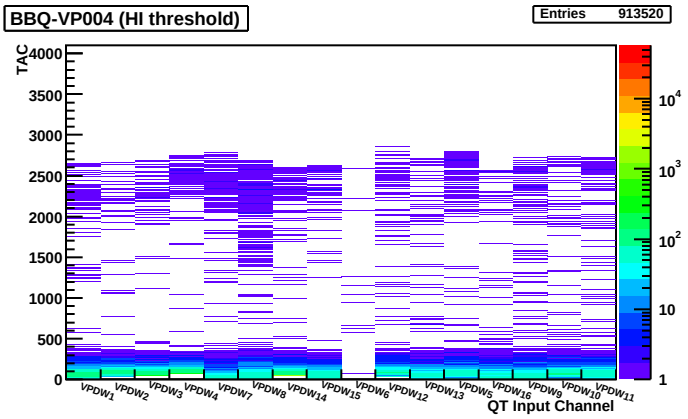

BBQ-VP002 (LO threshold)
Entries 913520
ADC
QT Input Channel

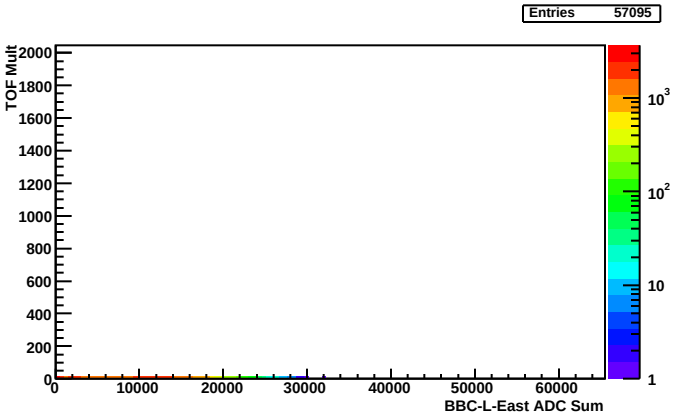

BBQ-VP002 (LO threshold)
Entries 913520
TAC
QT Input Channel

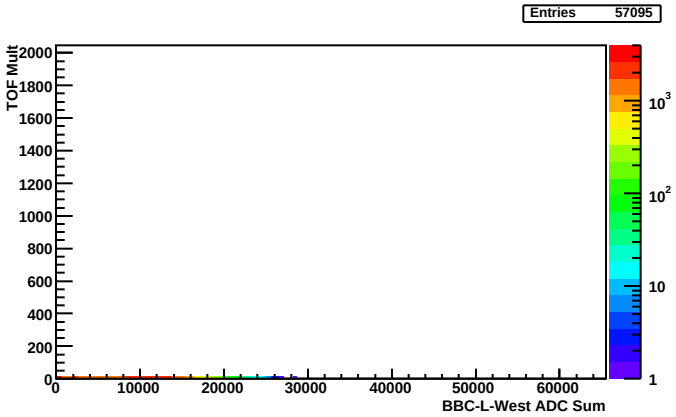

BBQ-VP003 (HI threshold)
Entries 913520
ADC
QT Input Channel

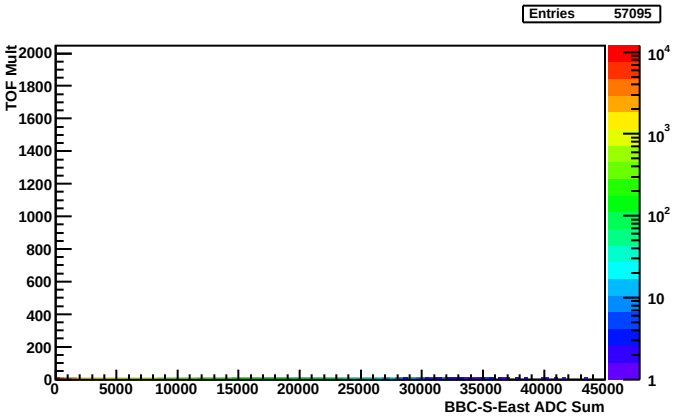

BBQ-VP003 (HI threshold)
Entries 913520
TAC
QT Input Channel

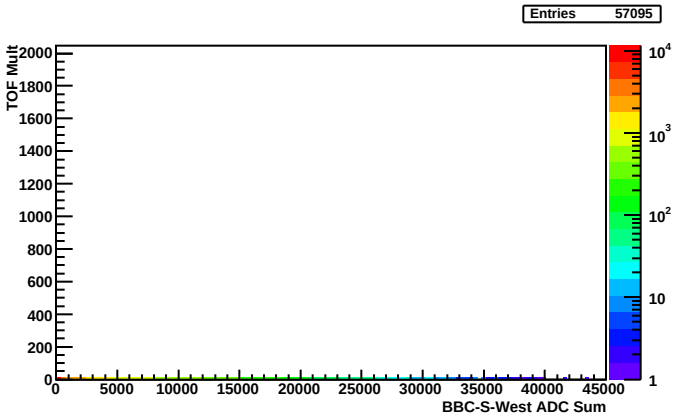

BBQ-VP004 (HI threshold)
Entries 913520
ADC
QT Input Channel

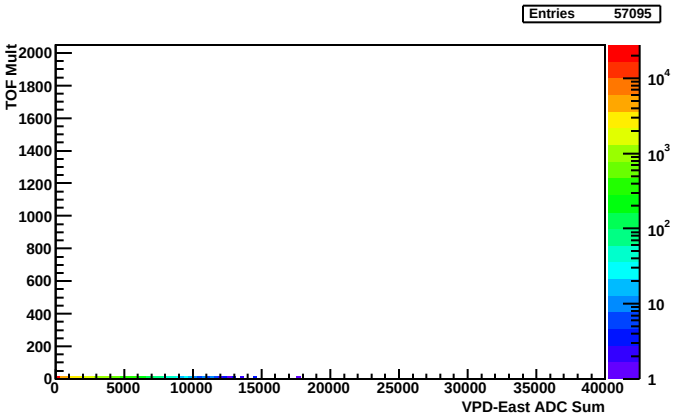

BBQ-VP004 (HI threshold)
Entries 913520
TAC
QT Input Channel

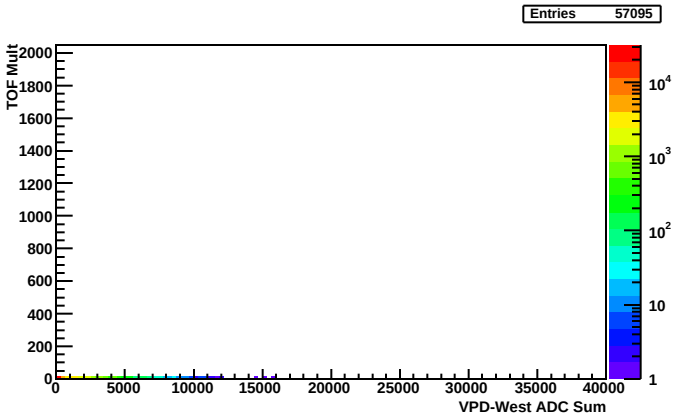

Entries 57095
TOF Mult
BBC-L-East ADC Sum

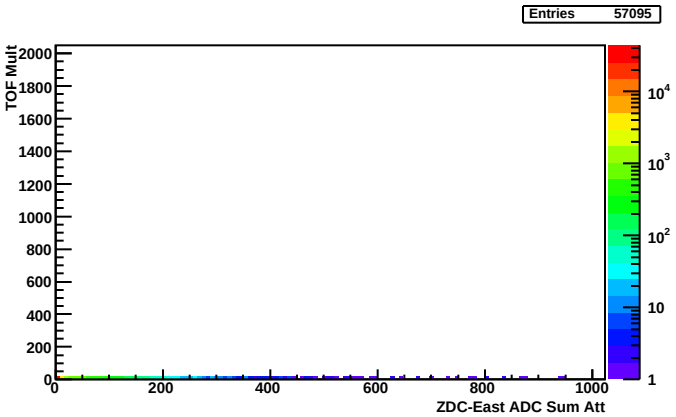

Entries 57095
TOF Mult
BBC-L-West ADC Sum

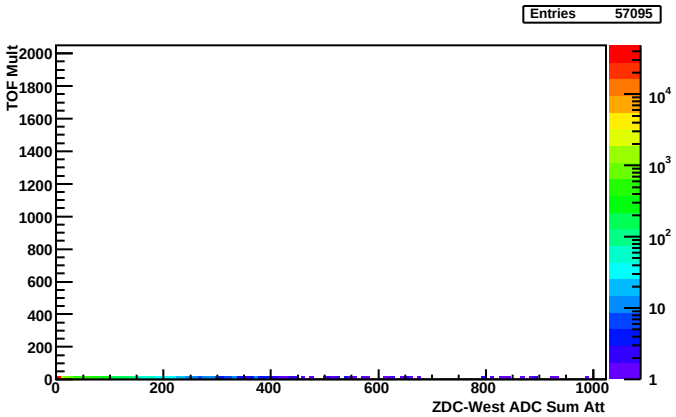

Entries 57095
TOF Mult
BBC-S-East ADC Sum

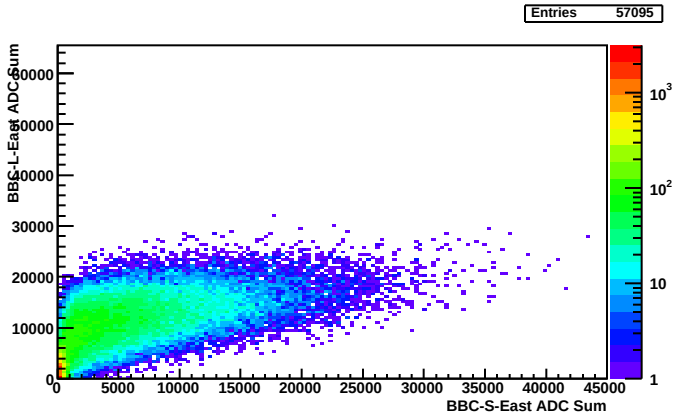

Entries 57095
TOF Mult
BBC-S-West ADC Sum

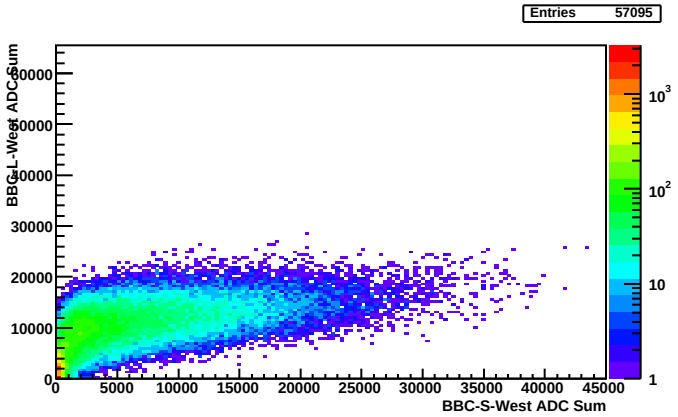

Entries 57095
TOF Mult
VPD-East ADC Sum

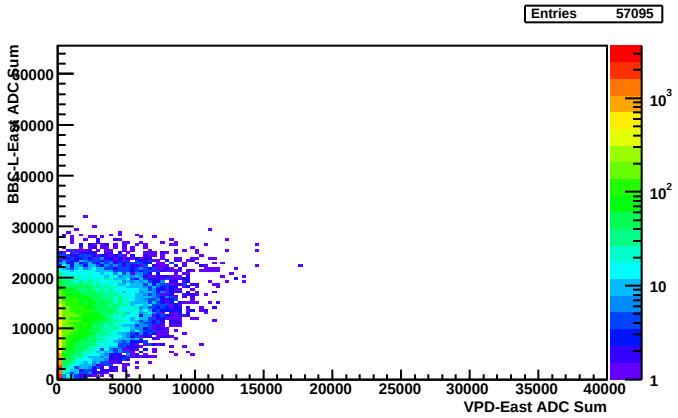

Entries 57095
TOF Mult
VPD-West ADC Sum

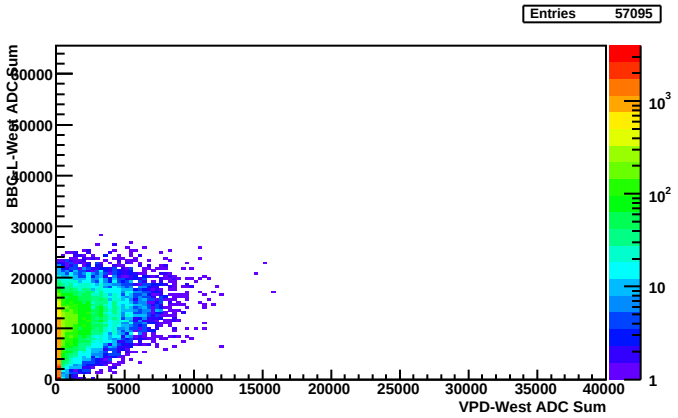

Entries 57095
TOF Mult
ZDC-East ADC Sum Att

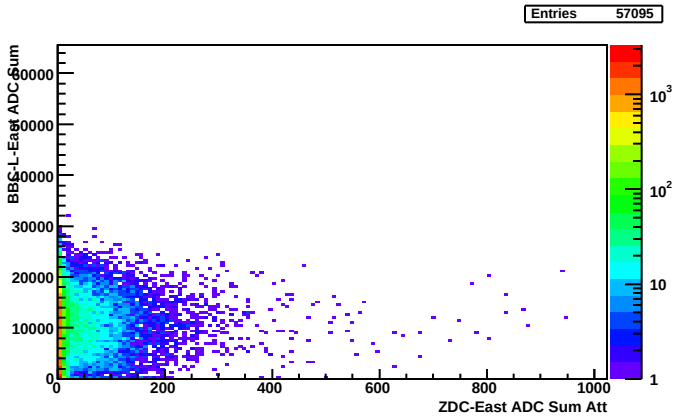

Entries 57095
TOF Mult
ZDC-West ADC Sum Att

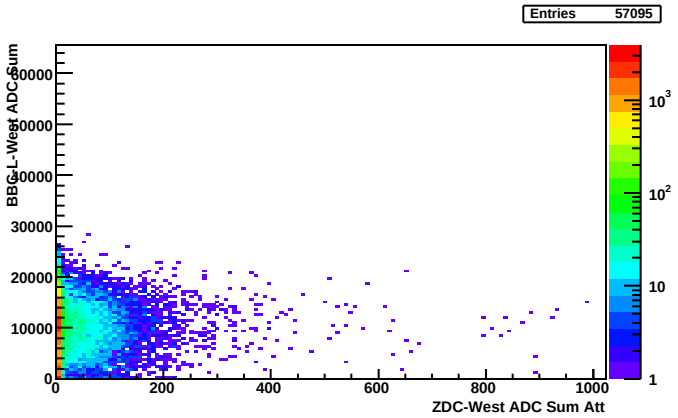

Entries 57095
BBC-L-East ADC Sum
BBC-S-East ADC Sum

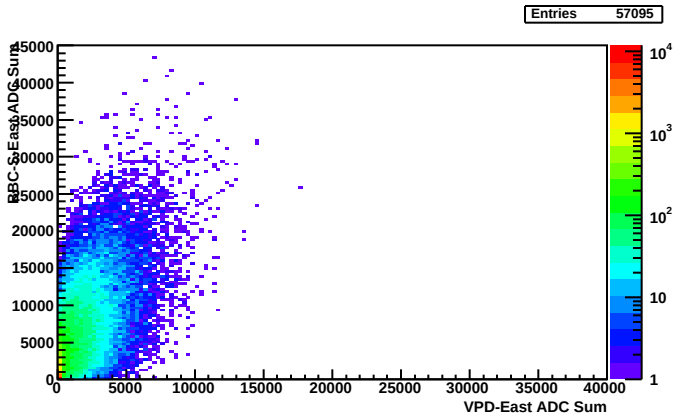

Entries 57095
BBC-L-West ADC Sum
BBC-S-West ADC Sum

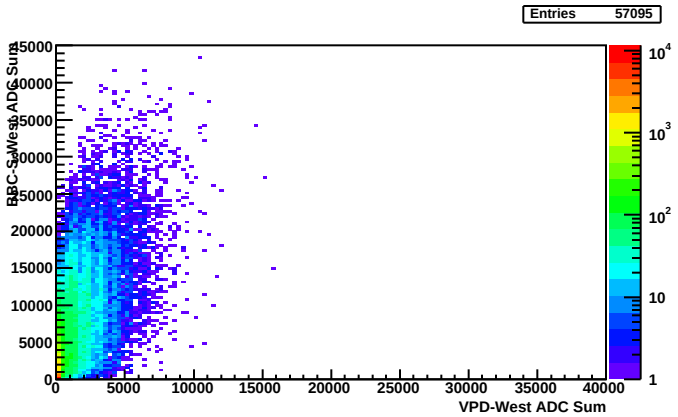

Entries 57095
BBC-L-East ADC Sum
VPD-East ADC Sum

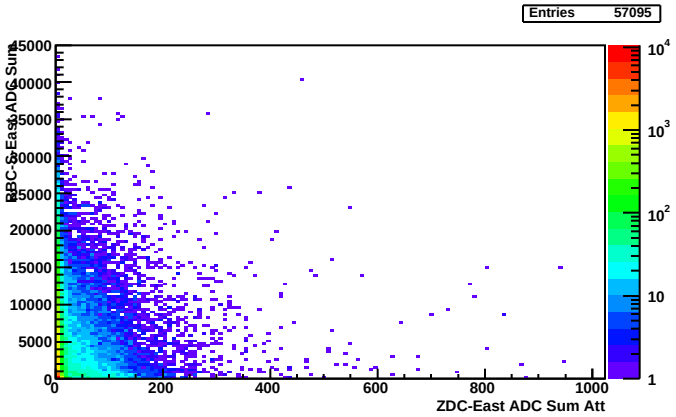

Entries 57095
BBC-L-West ADC Sum
VPD-West ADC Sum

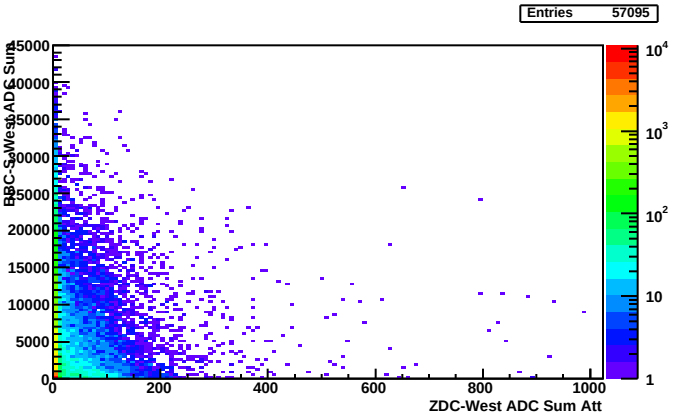

Entries 57095
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

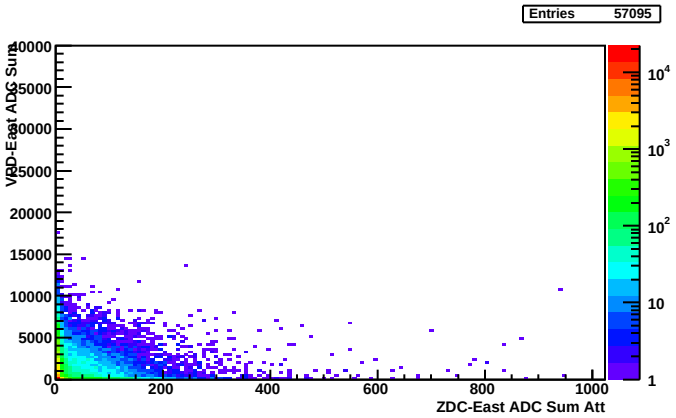

Entries 57095
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

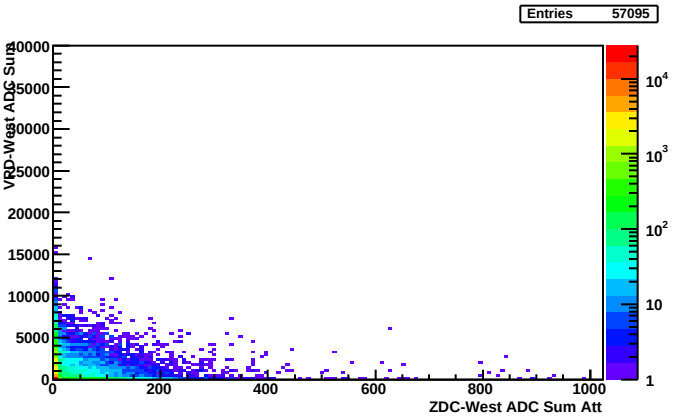

Entries 57095
BBC-S-East ADC Sum
VPD-East ADC Sum

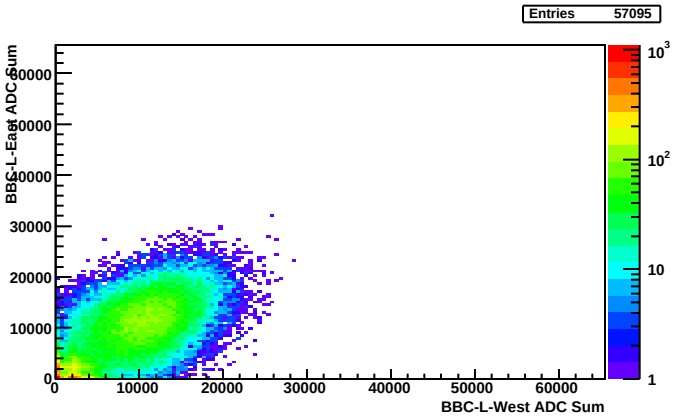

Entries 57095
BBC-S-West ADC Sum
VPD-West ADC Sum

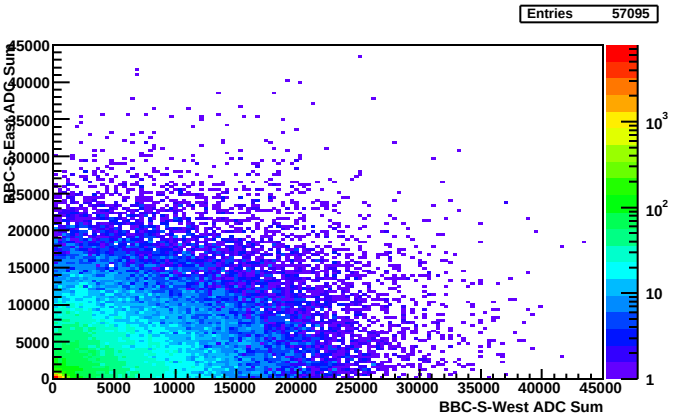

Entries 57095
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

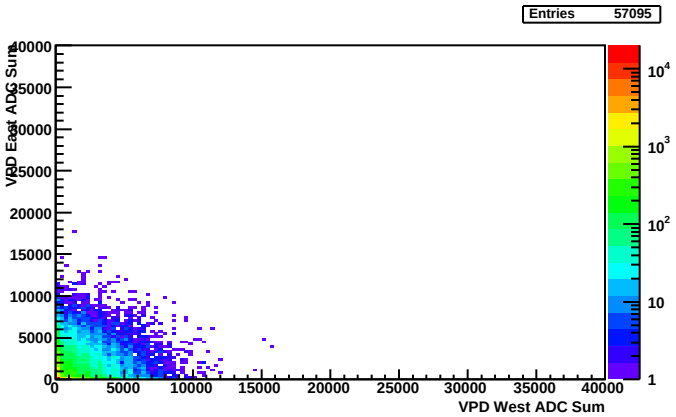

Entries 57095
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

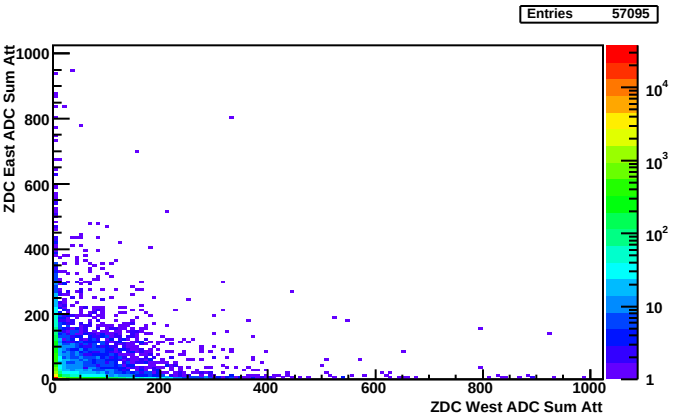

Entries 57095
VPD-East ADC Sum
ZDC-East ADC Sum Att

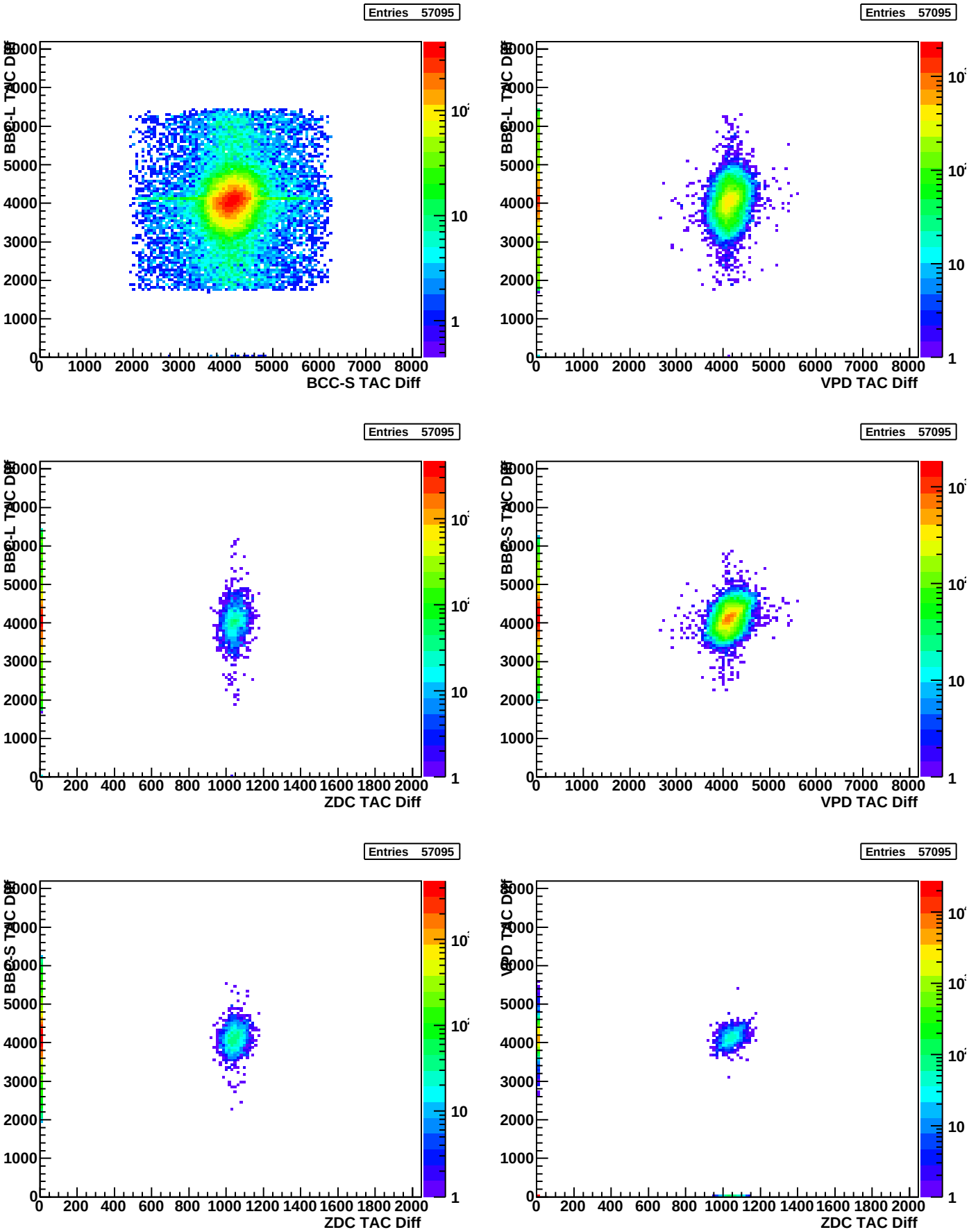

Entries 57095
VPD-West ADC Sum
ZDC-West ADC Sum Att

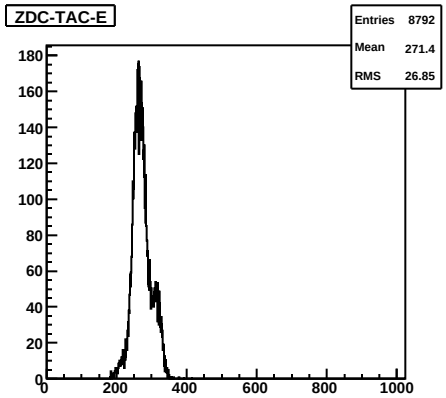

Entries 57095
BBC-L-East ADC Sum
BBC-L-West ADC Sum

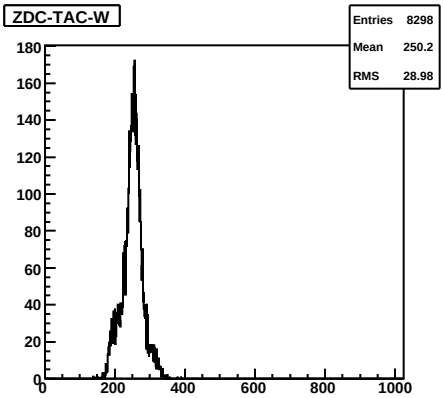

Entries 57095
BBC-S-East ADC Sum
BBC-S-West ADC Sum

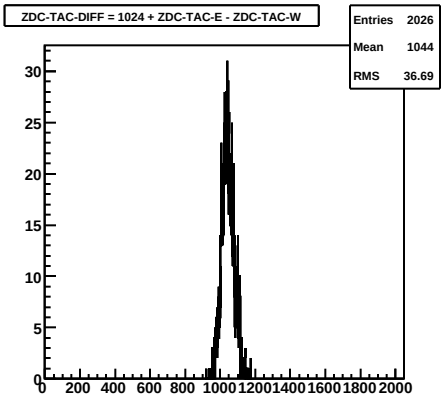

Entries 57095
VPD East ADC Sum
VPD West ADC Sum

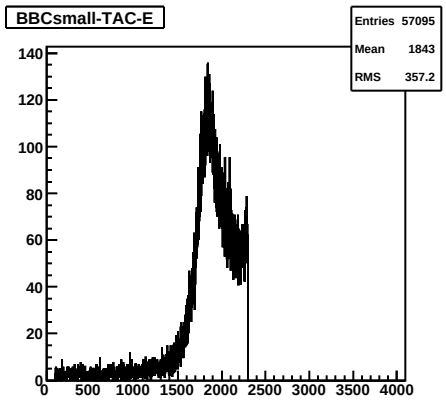

Entries 57095
ZDC East ADC Sum Att
ZDC West ADC Sum Att

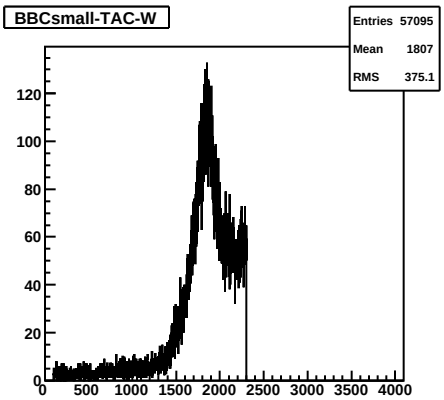

Entries 57095
BBC-L TAC Diff
BCC-S TAC Diff
Entries 57095
BBC-L TAC Diff
VPD TAC Diff
Entries 57095
BBC-L TAC Diff
ZDC TAC Diff
Entries 57095
BBC-S TAC Diff
VPD TAC Diff
Entries 57095
BBC-S TAC Diff
ZDC TAC Diff
Entries 57095
VPD TAC Diff
ZDC TAC Diff

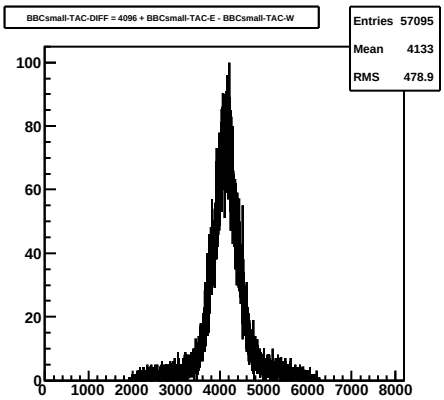

ZDC-TAC-E
Entries 8792
Mean 271.4
RMS 26.85

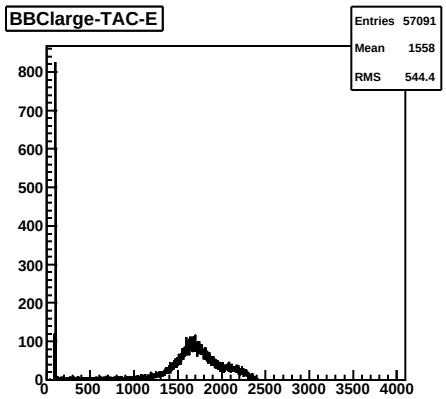

ZDC-TAC-W
Entries 8298
Mean 250.2
RMS 28.98

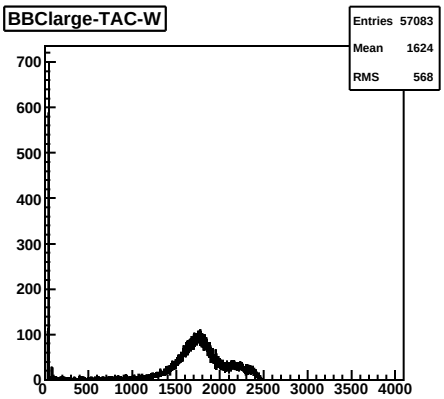

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2026
Mean 1044
RMS 36.69

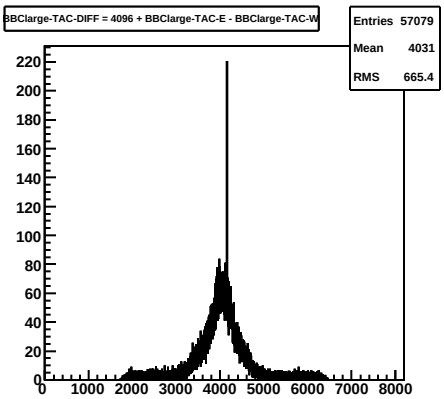

BBCsmall-TAC-E
Entries 57095
Mean 1843
RMS 357.2

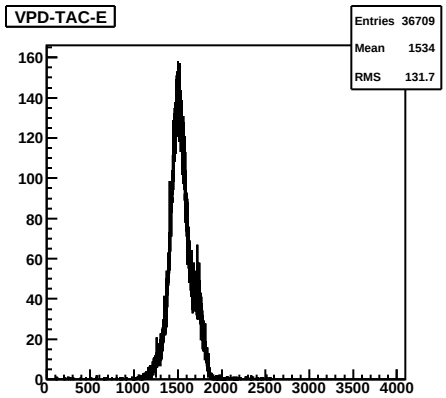

BBCsmall-TAC-W
Entries 57095
Mean 1807
RMS 375.1

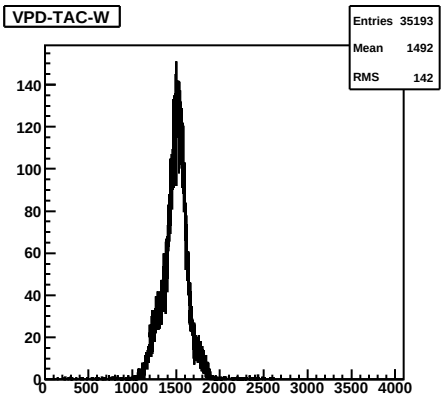

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 57095
Mean 4133
RMS 478.9

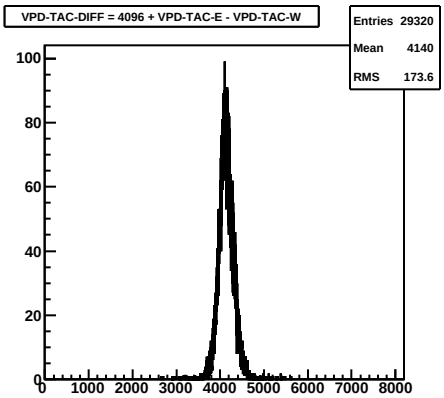

BBClarge-TAC-E
Entries 57091
Mean 1558
RMS 544.4

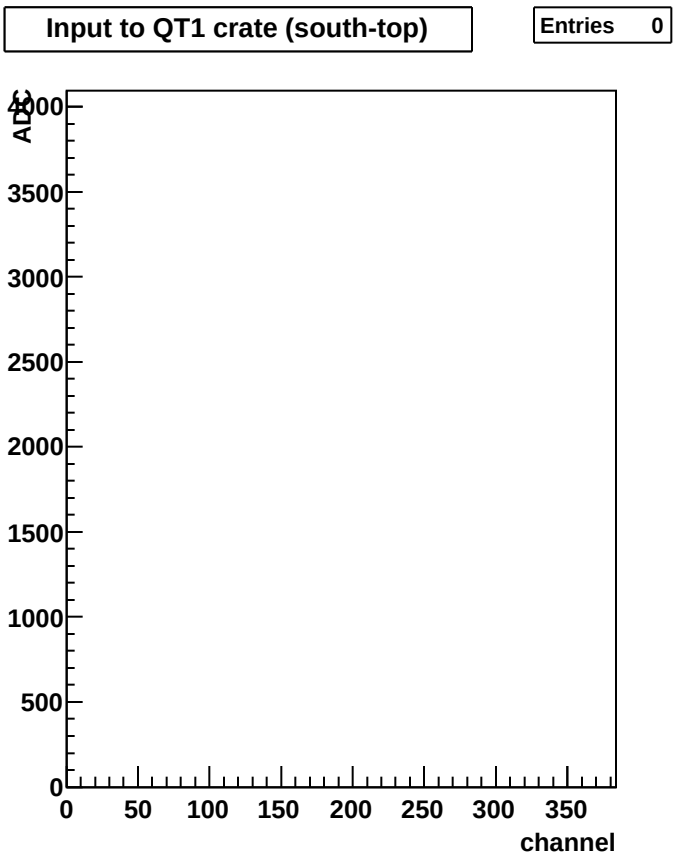

BBClarge-TAC-W
Entries 57083
Mean 1624
RMS 568

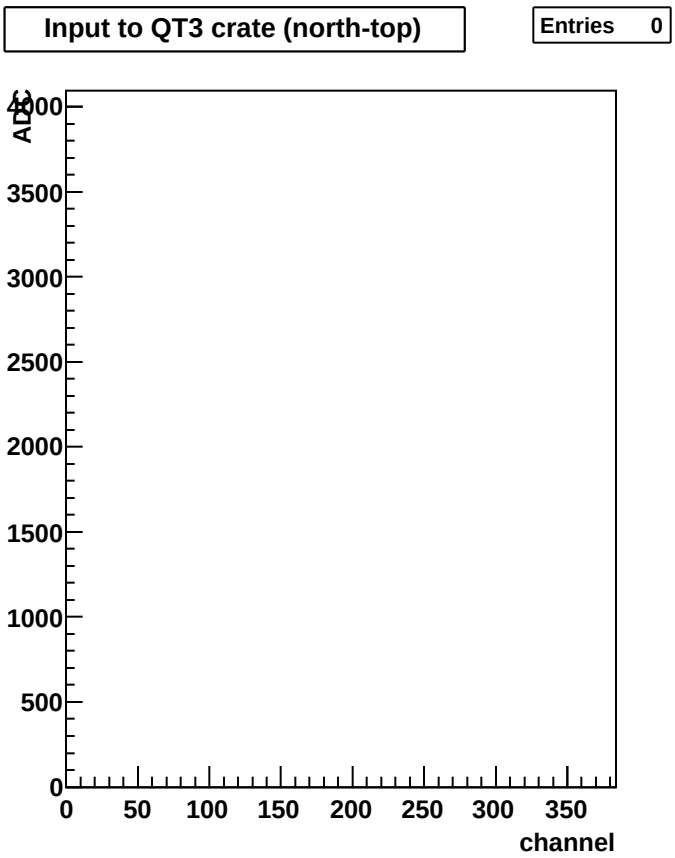

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 57079
Mean 4031
RMS 665.4

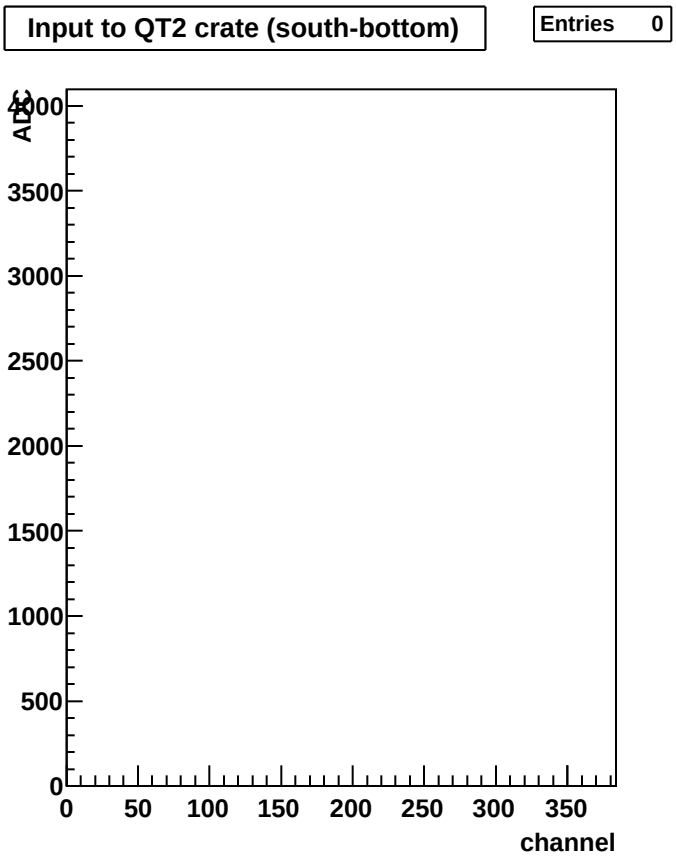

VPD-TAC-E
Entries 36709
Mean 1534
RMS 131.7

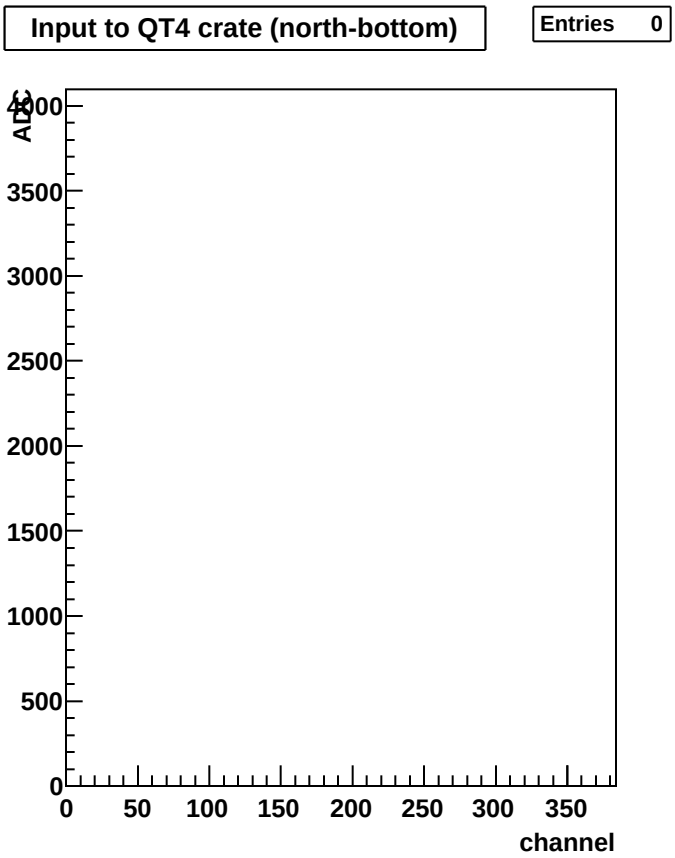

VPD-TAC-W
Entries 35193
Mean 1492
RMS 142

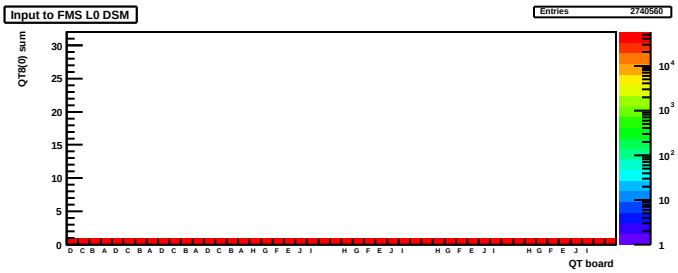

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 29320
Mean 4140
RMS 173.6

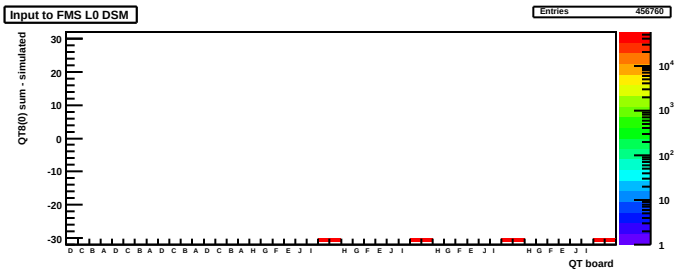

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

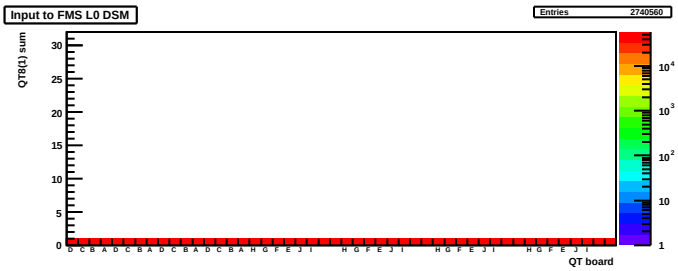

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

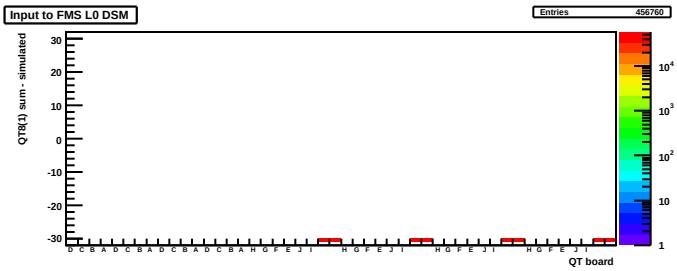

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

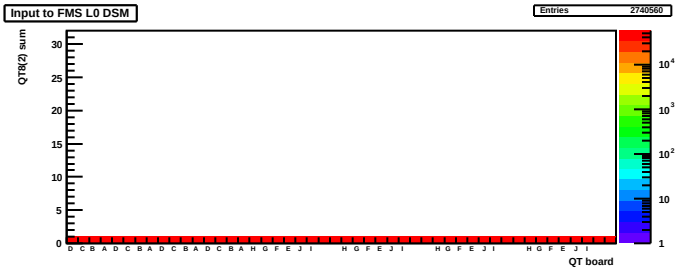

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

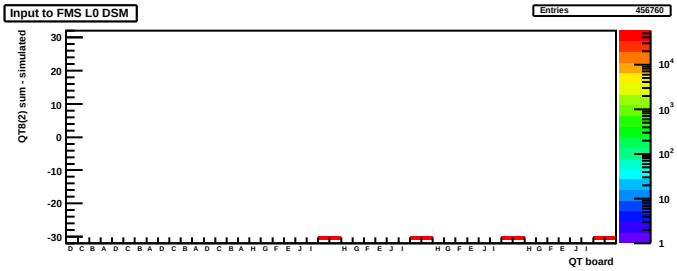

Input to FMS L0 DSM
Entries 2740560
QT8(0) sum
QT board

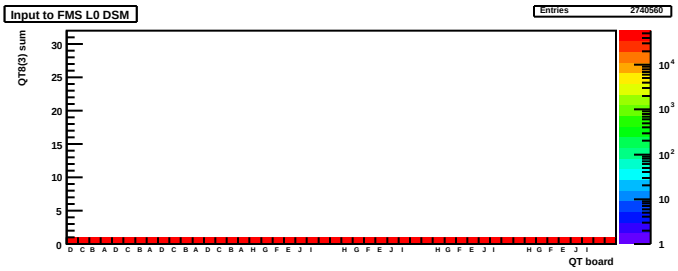

Input to FMS L0 DSM
Entries 456760
QT8(0) sum - simulated
QT board

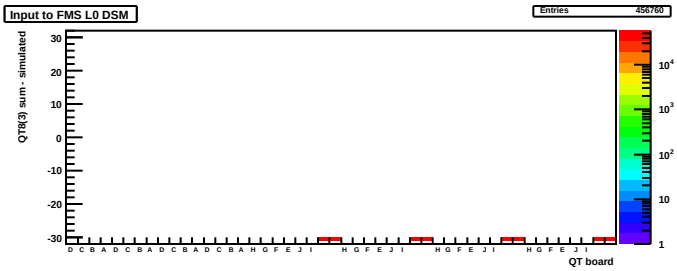

Input to FMS L0 DSM
Entries 2740560
QT8(1) sum
QT board

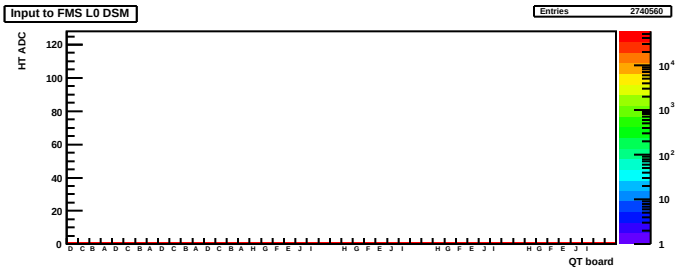

Input to FMS L0 DSM
Entries 456760
QT8(1) sum - simulated
QT board

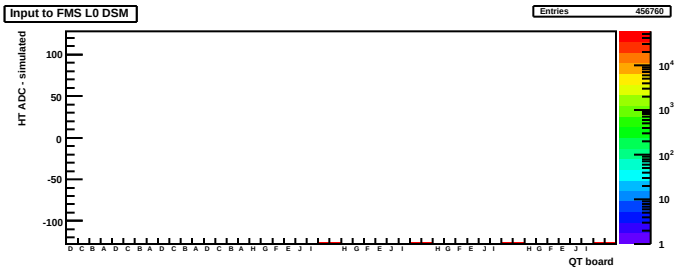

Input to FMS L0 DSM
Entries 2740560
QT8(2) sum
QT board

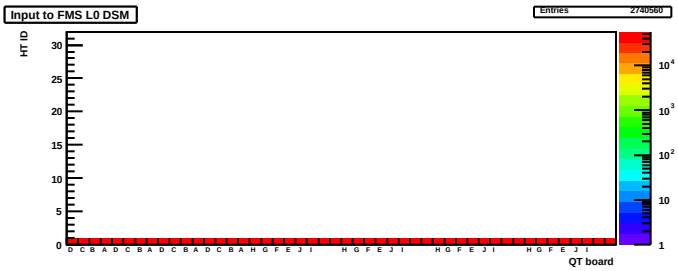

Input to FMS L0 DSM
Entries 456760
QT8(2) sum - simulated
QT board

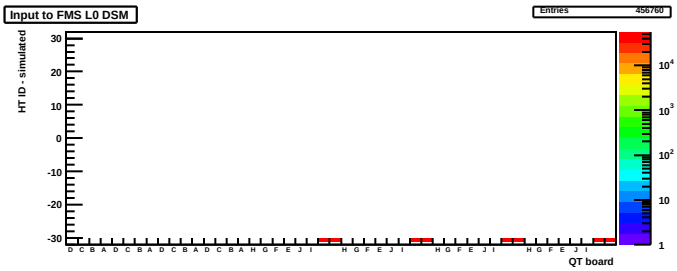

Input to FMS L0 DSM
Entries 2740560
QT8(3) sum
QT board

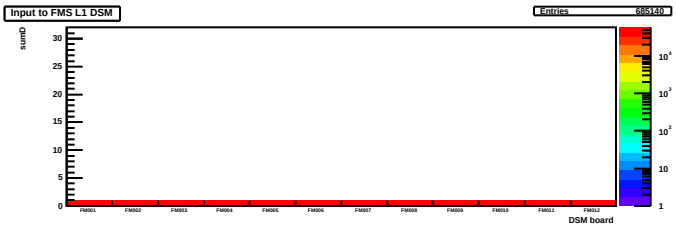

Input to FMS L0 DSM
Entries 456760
QT8(3) sum - simulated
QT board

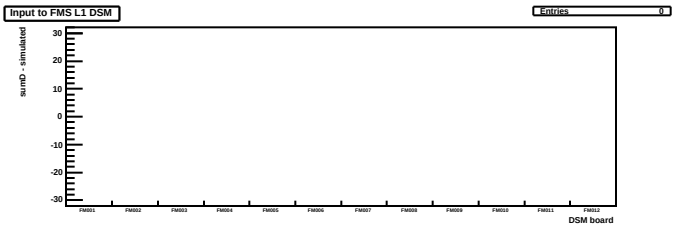

Input to FMS L0 DSM
Entries 2740560
HT ADC
QT board

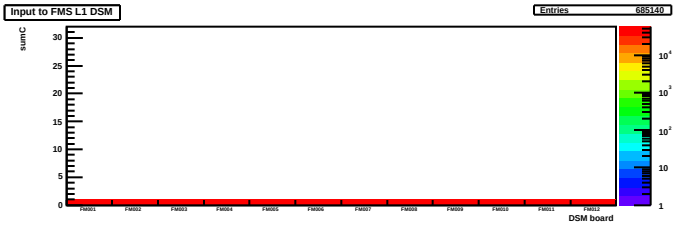

Input to FMS L0 DSM
Entries 456760
HT ADC - simulated
QT board

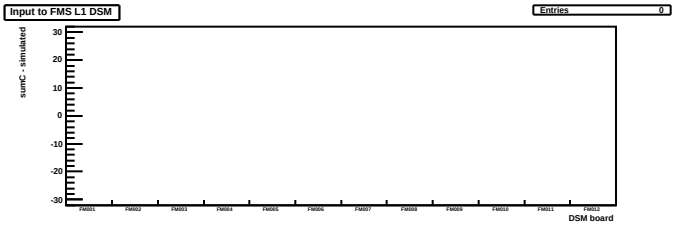

Input to FMS L0 DSM
Entries 2740560
HT ID
QT board

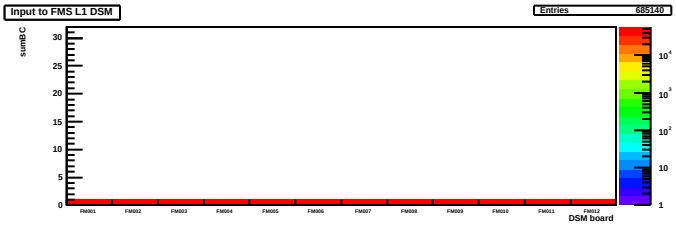

Input to FMS L0 DSM
Entries 456760
HT ID - simulated
QT board

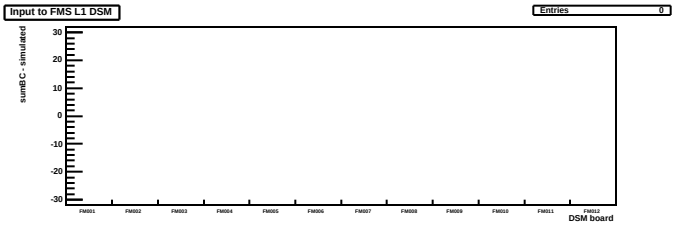

Input to FMS L1 DSM
Entries 685140
sumD
DSM board

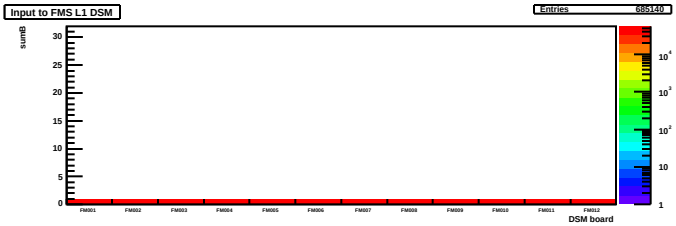

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

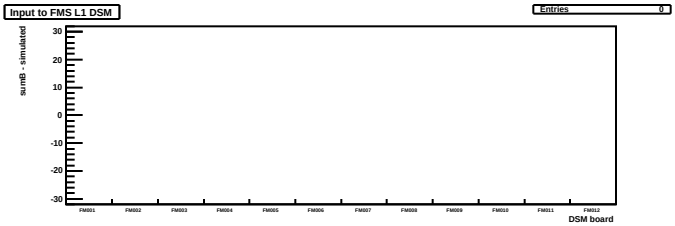

Input to FMS L1 DSM
Entries 685140
sumC
DSM board

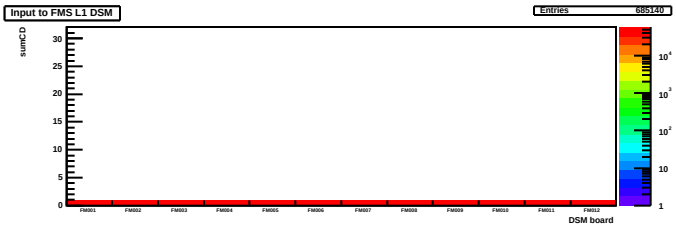

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

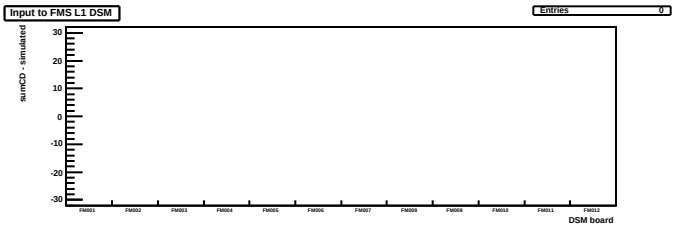

Input to FMS L1 DSM
Entries 685140
sumBC
DSM board

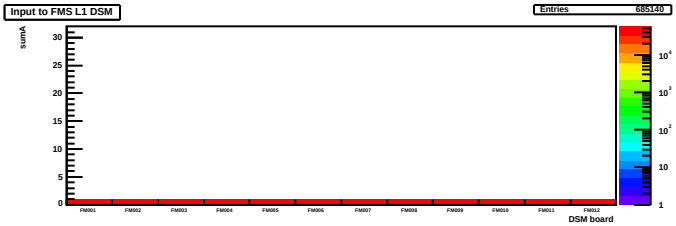

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

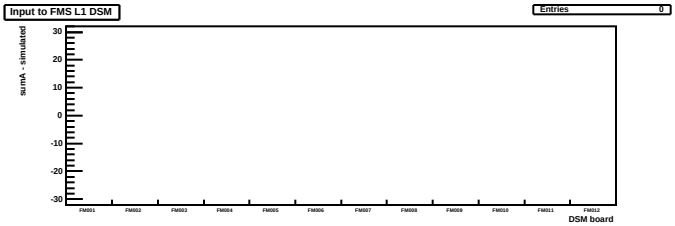

Input to FMS L1 DSM
Entries 685140
sumB
DSM board

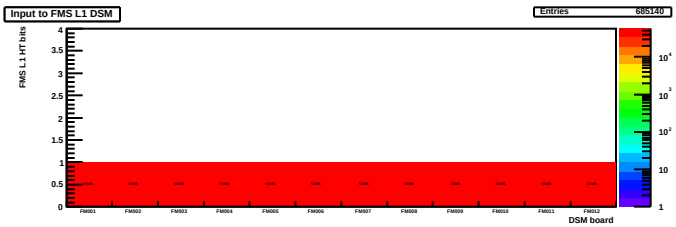

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

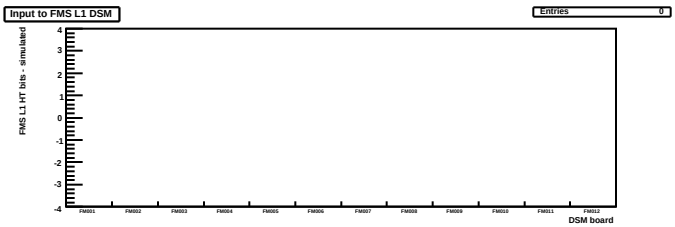

Input to FMS L1 DSM
Entries 685140
sumCD
DSM board

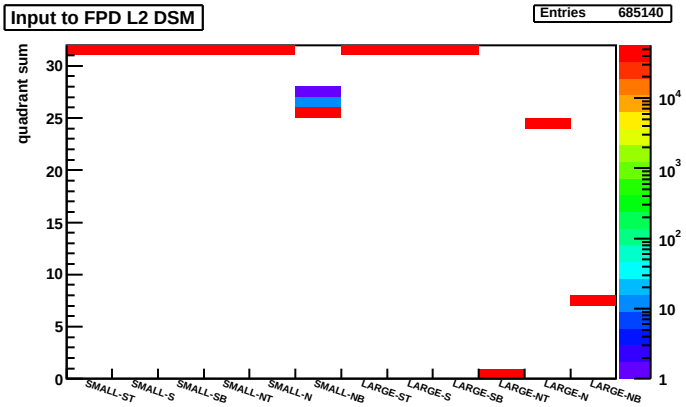

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

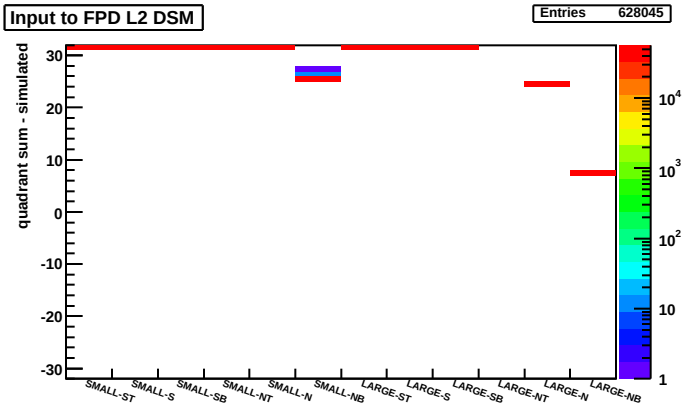

Input to FMS L1 DSM
Entries 685140
sumA
DSM board

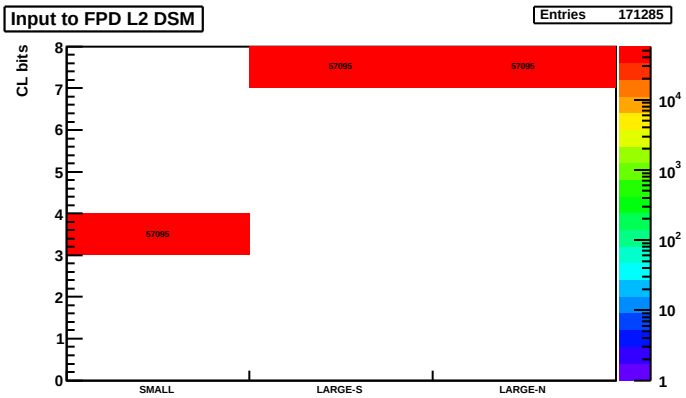

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

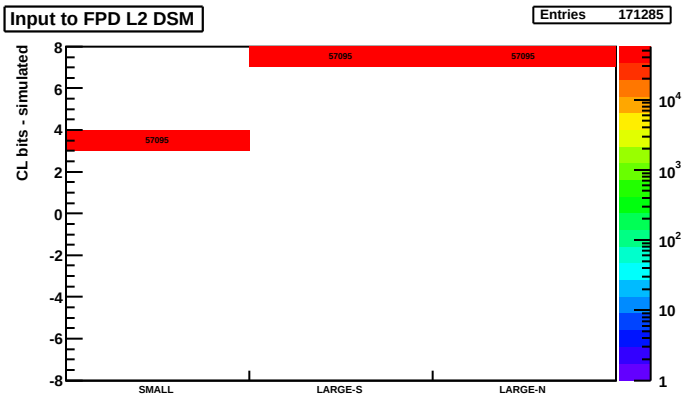

Input to FMS L1 DSM
Entries 685140
FMS L1 HT bits
DSM board

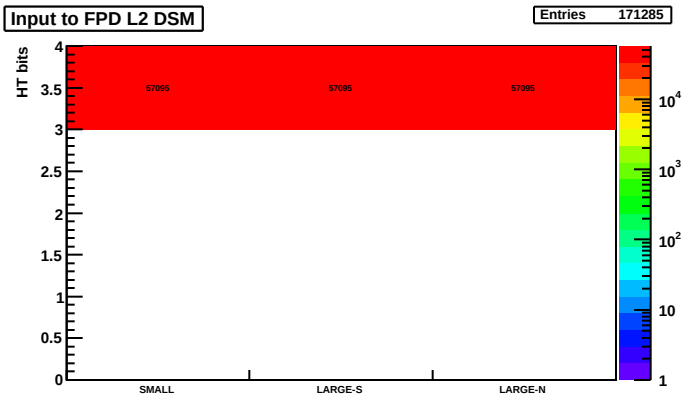

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

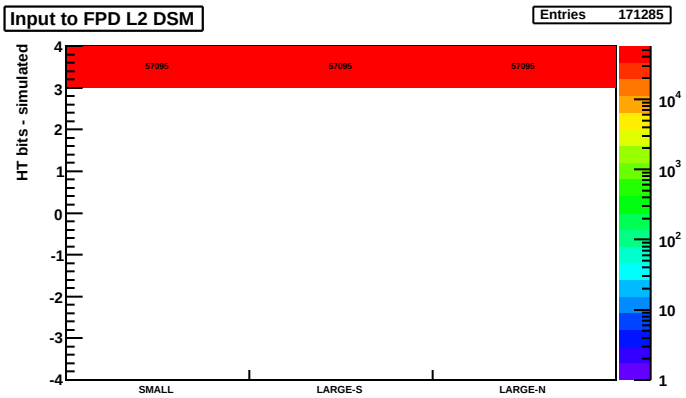

Input to FPD L2 DSM
Entries 685140
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

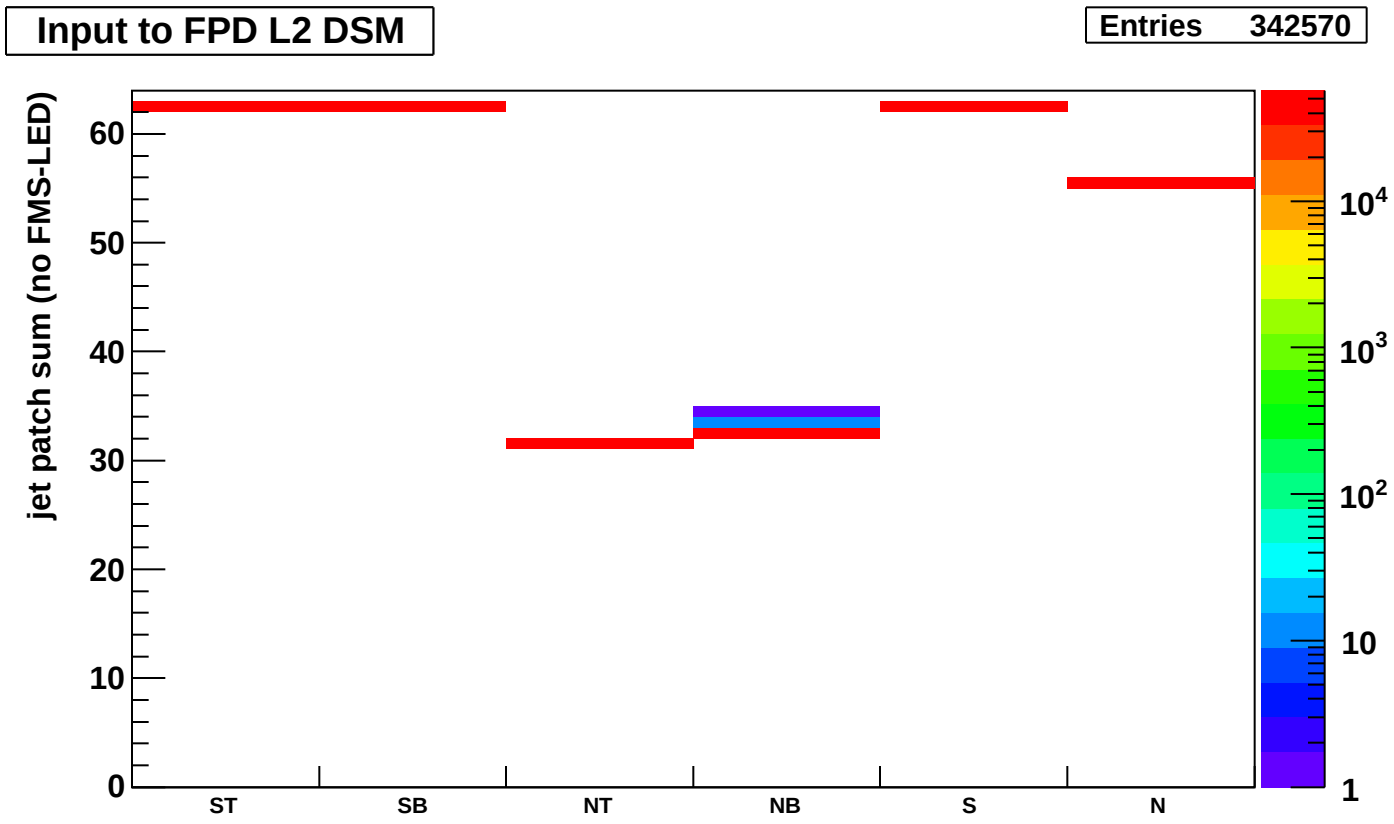

Input to FPD L2 DSM
Entries 628045
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

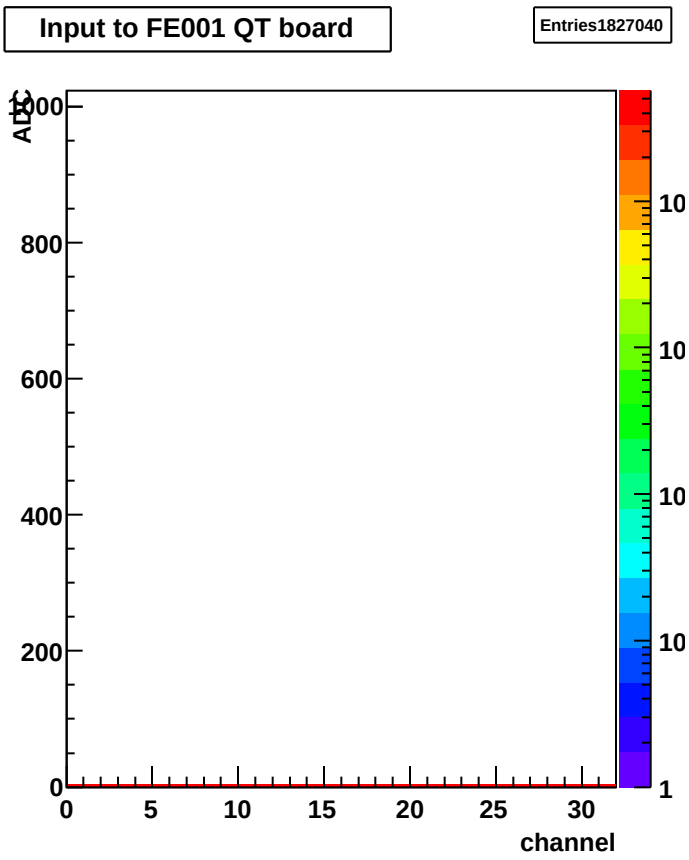

Input to FPD L2 DSM
Entries 171285
CL bits
57095
57095
57095
SMALL
LARGE-S
LARGE-N

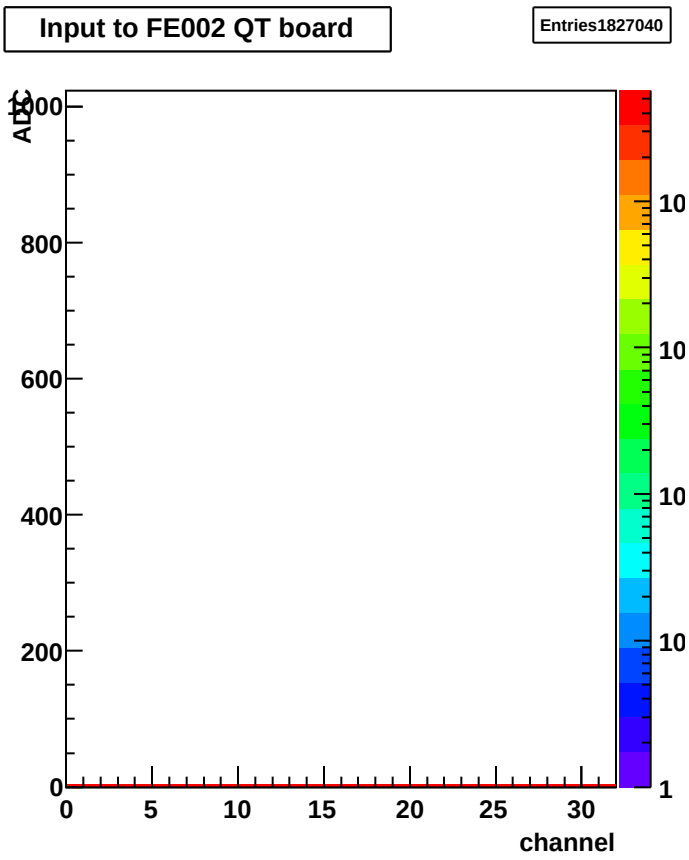

Input to FPD L2 DSM
Entries 171285
CL bits - simulated
57095
57095
57095
SMALL
LARGE-S
LARGE-N

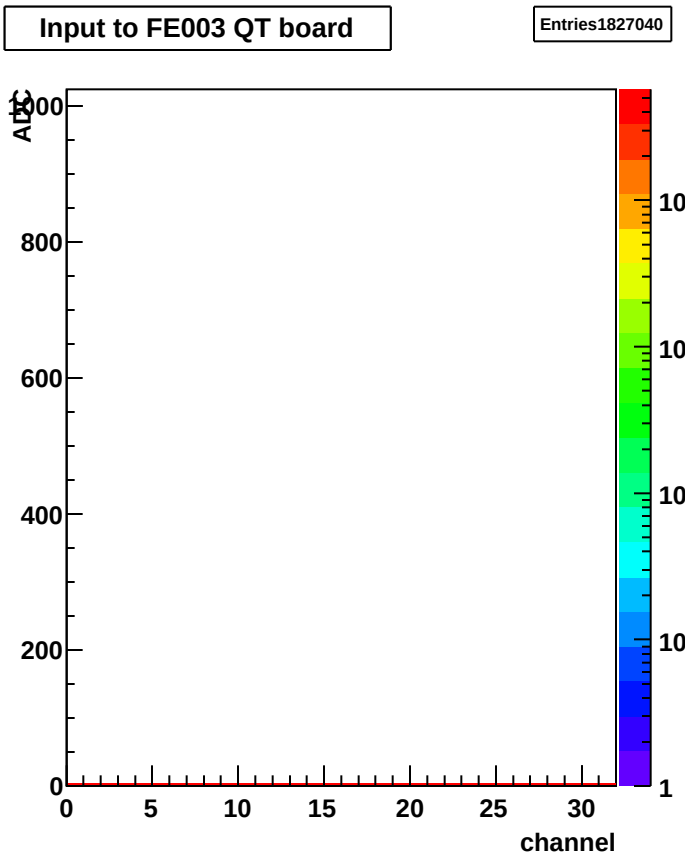

Input to FPD L2 DSM
Entries 171285
HT bits
57095
57095
57095
SMALL
LARGE-S
LARGE-N

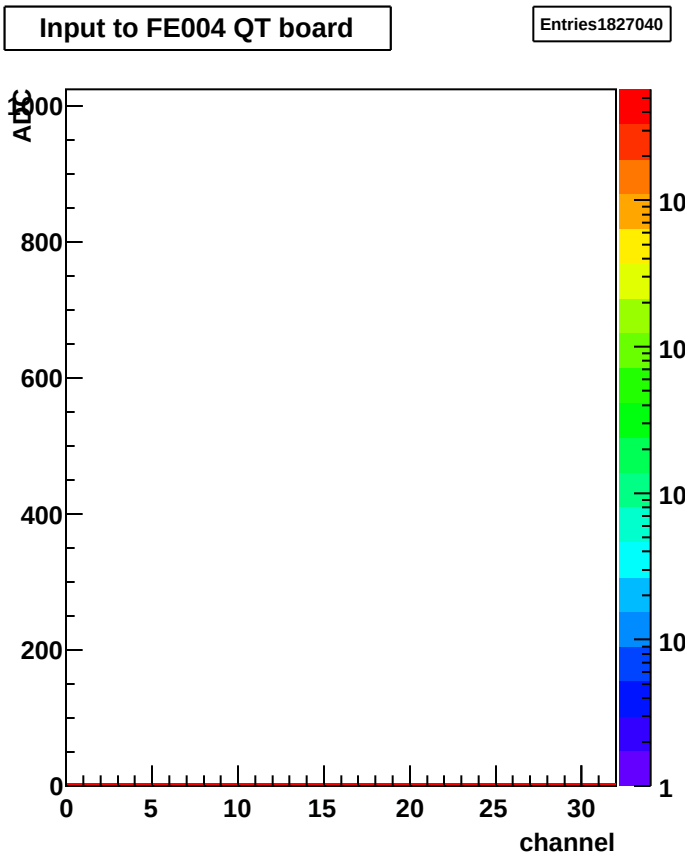

Input to FPD L2 DSM
Entries 171285
HT bits - simulated
57095
57095
57095
SMALL
LARGE-S
LARGE-N

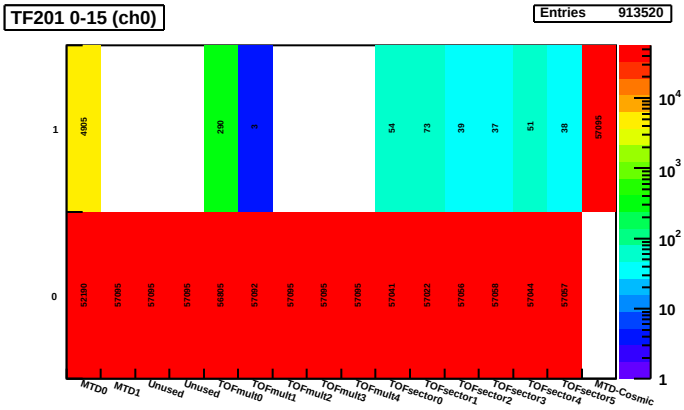

Input to FPD L2 DSM
Entries 342570
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

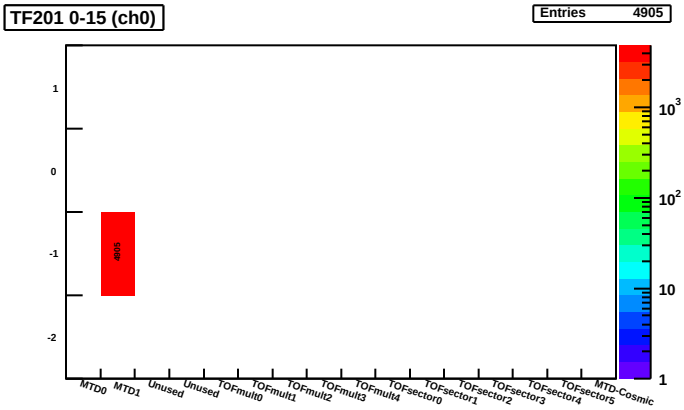

Input to FE001 QT board
Entries1827040
ADC
channel

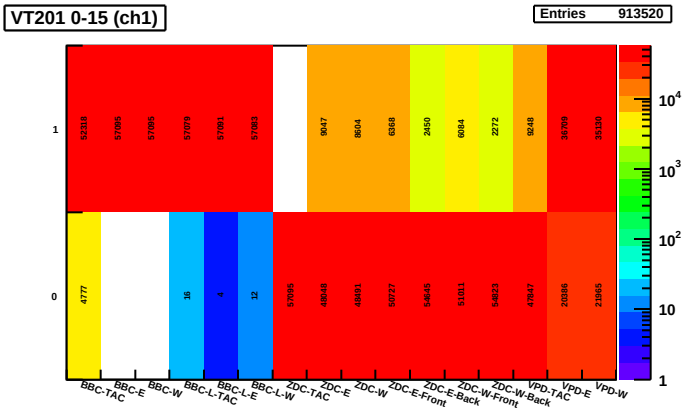

Input to FE002 QT board
Entries1827040
ADC
channel

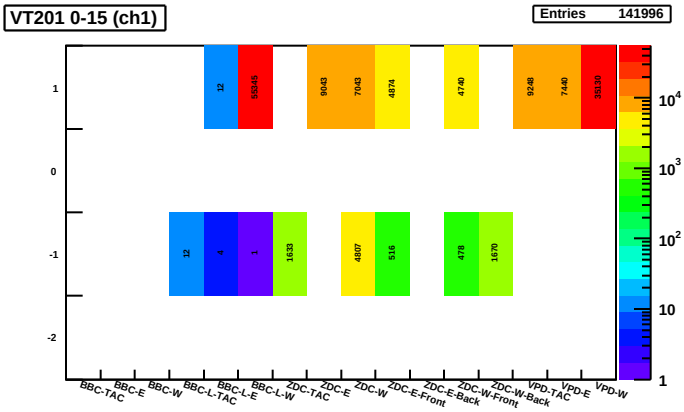

Input to FE003 QT board
Entries1827040
ADC
channel

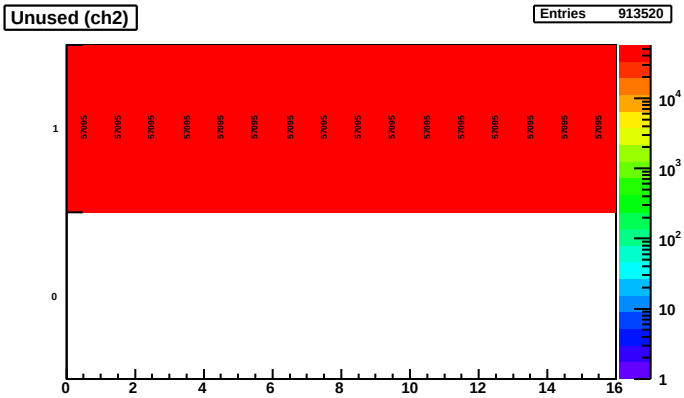

Input to FE004 QT board
Entries1827040
ADC
channel


TF201 0-15 (ch0)
Entries 913520
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 4905
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 913520
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 141996
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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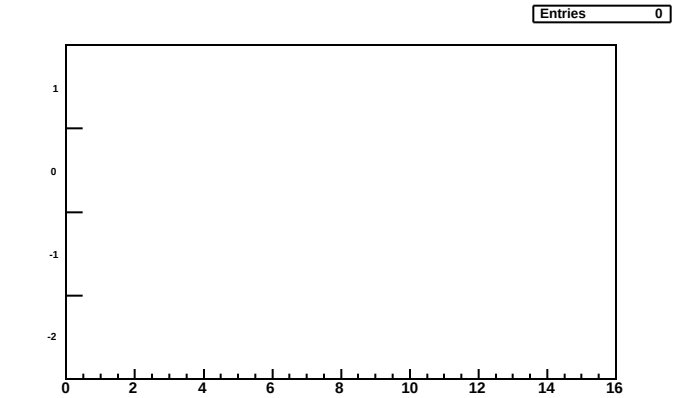
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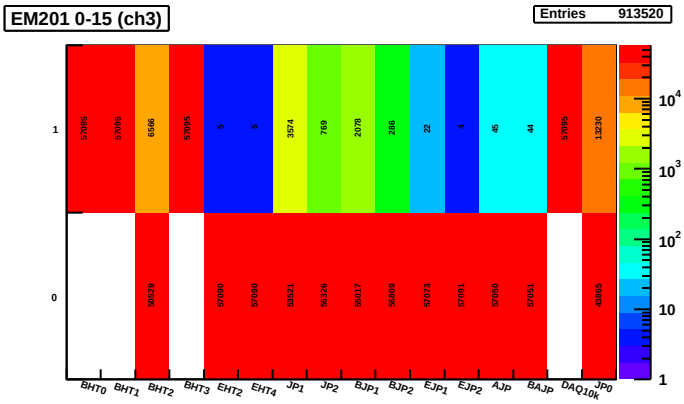
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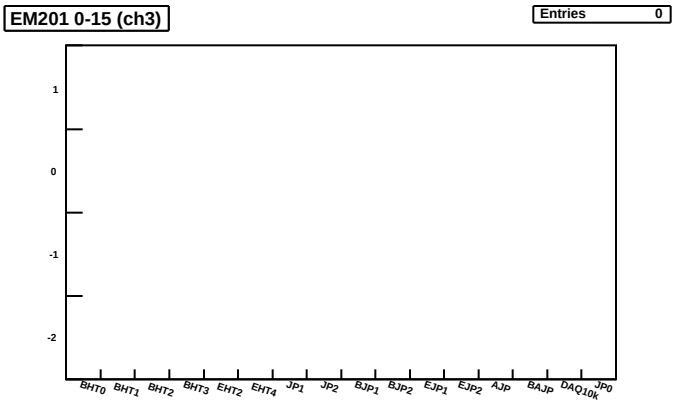
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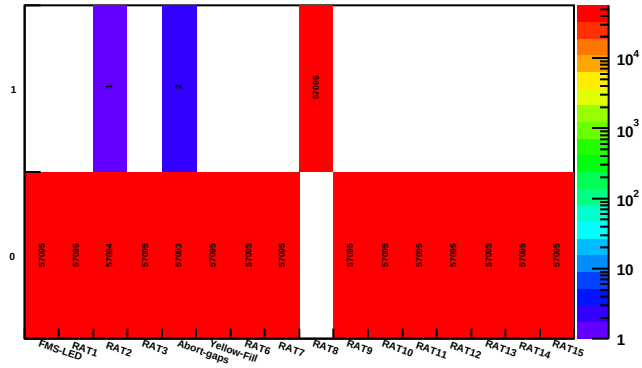
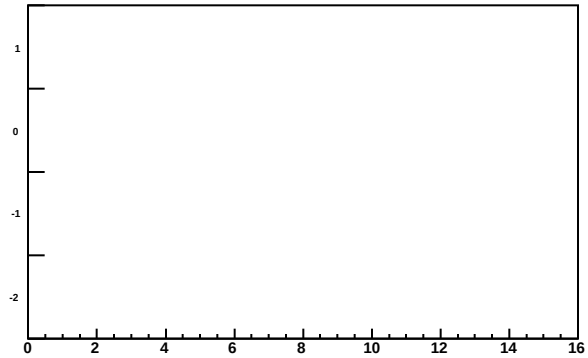
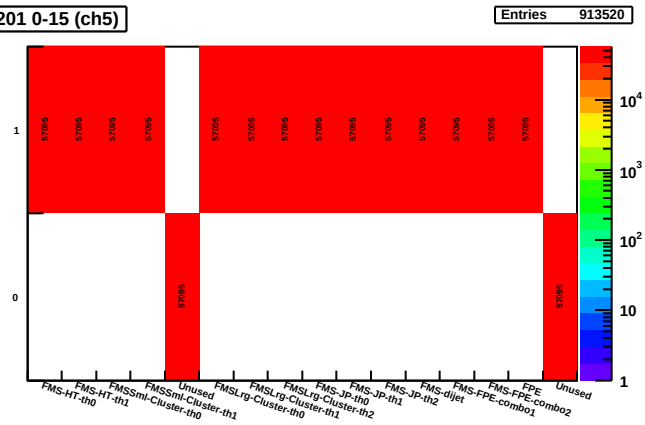
RAT board (ch4)





FP201 0-15 (ch5)



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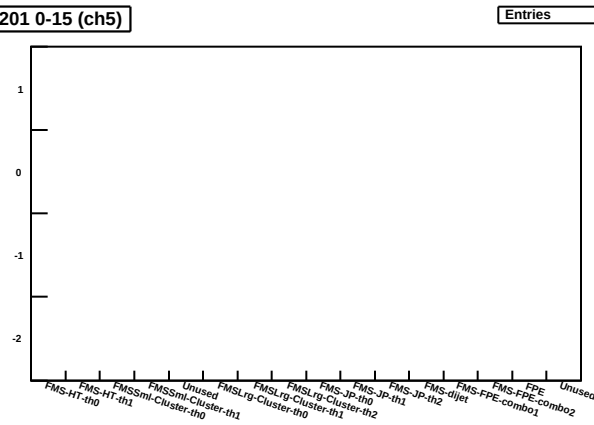
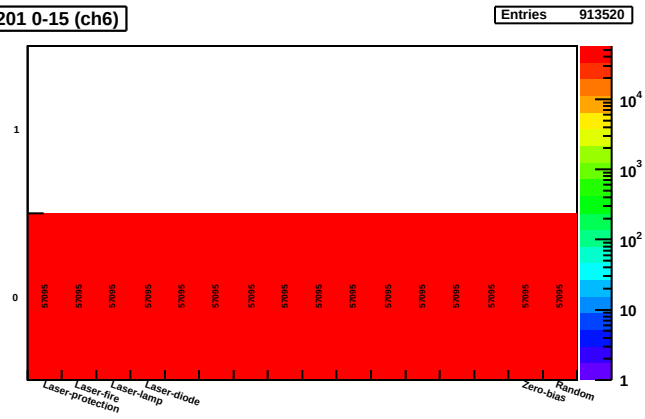
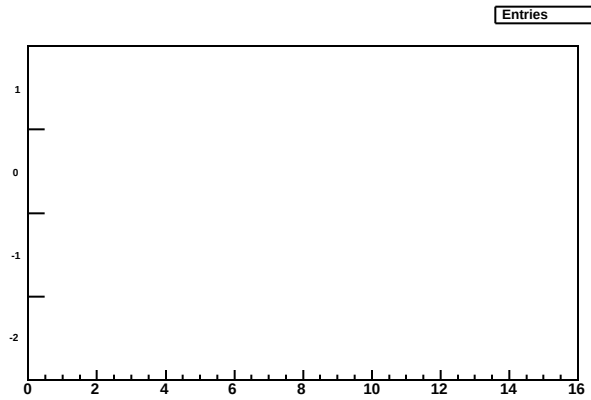
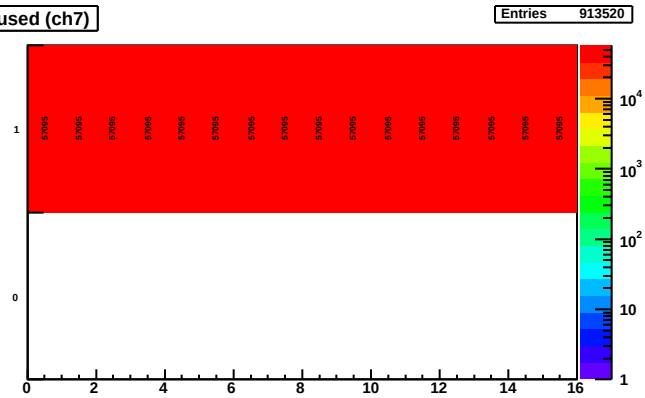
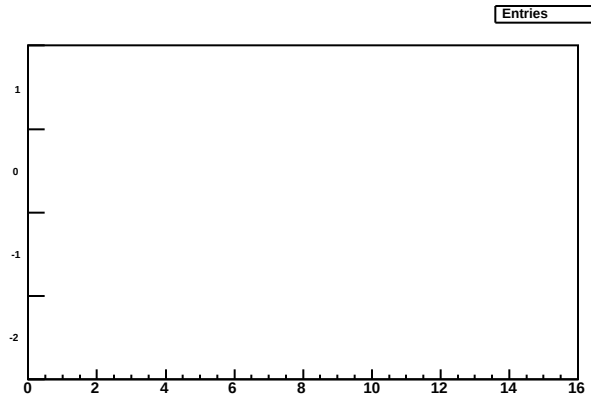


ST201 0-15 (ch6)





Unused (ch7)