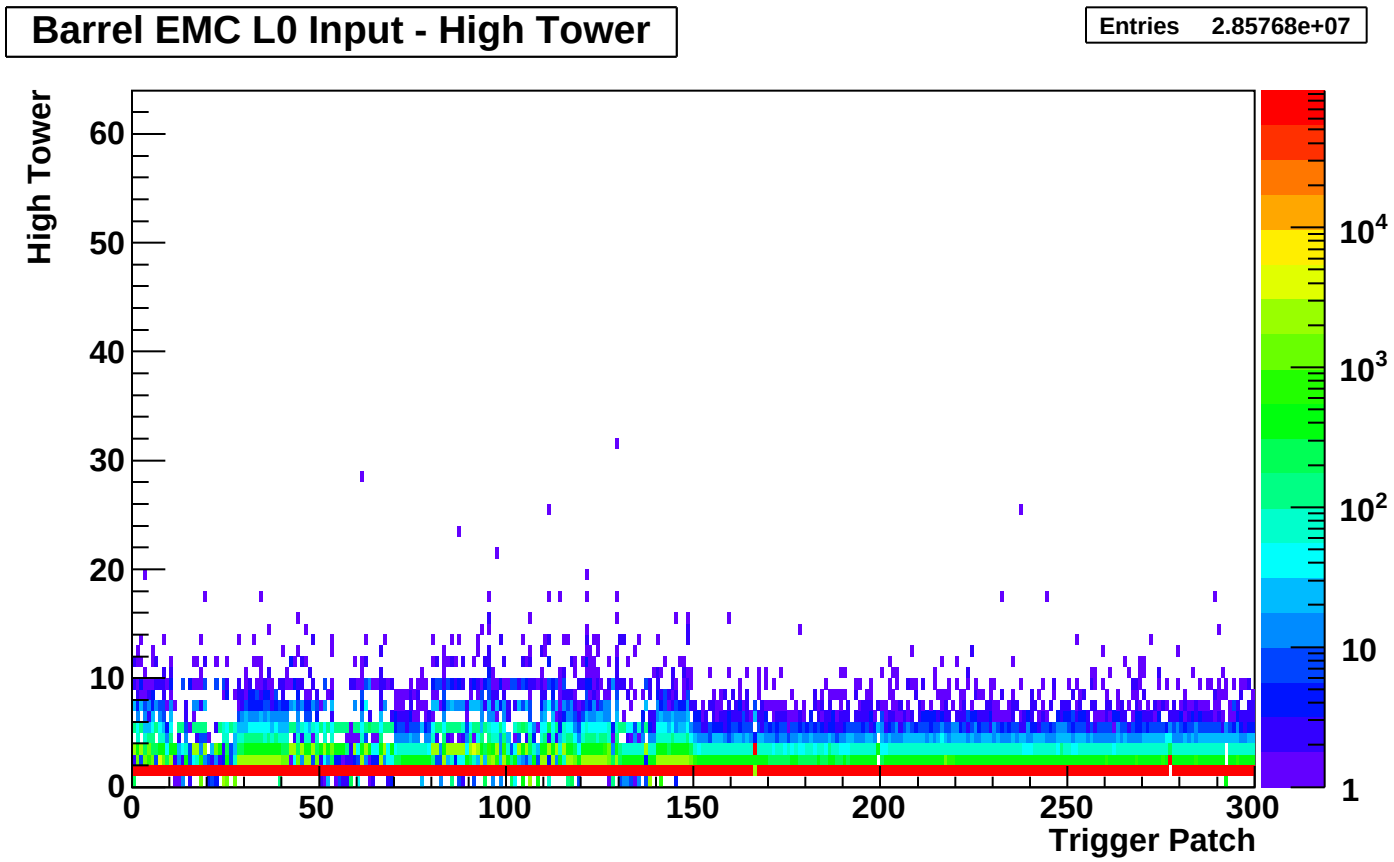
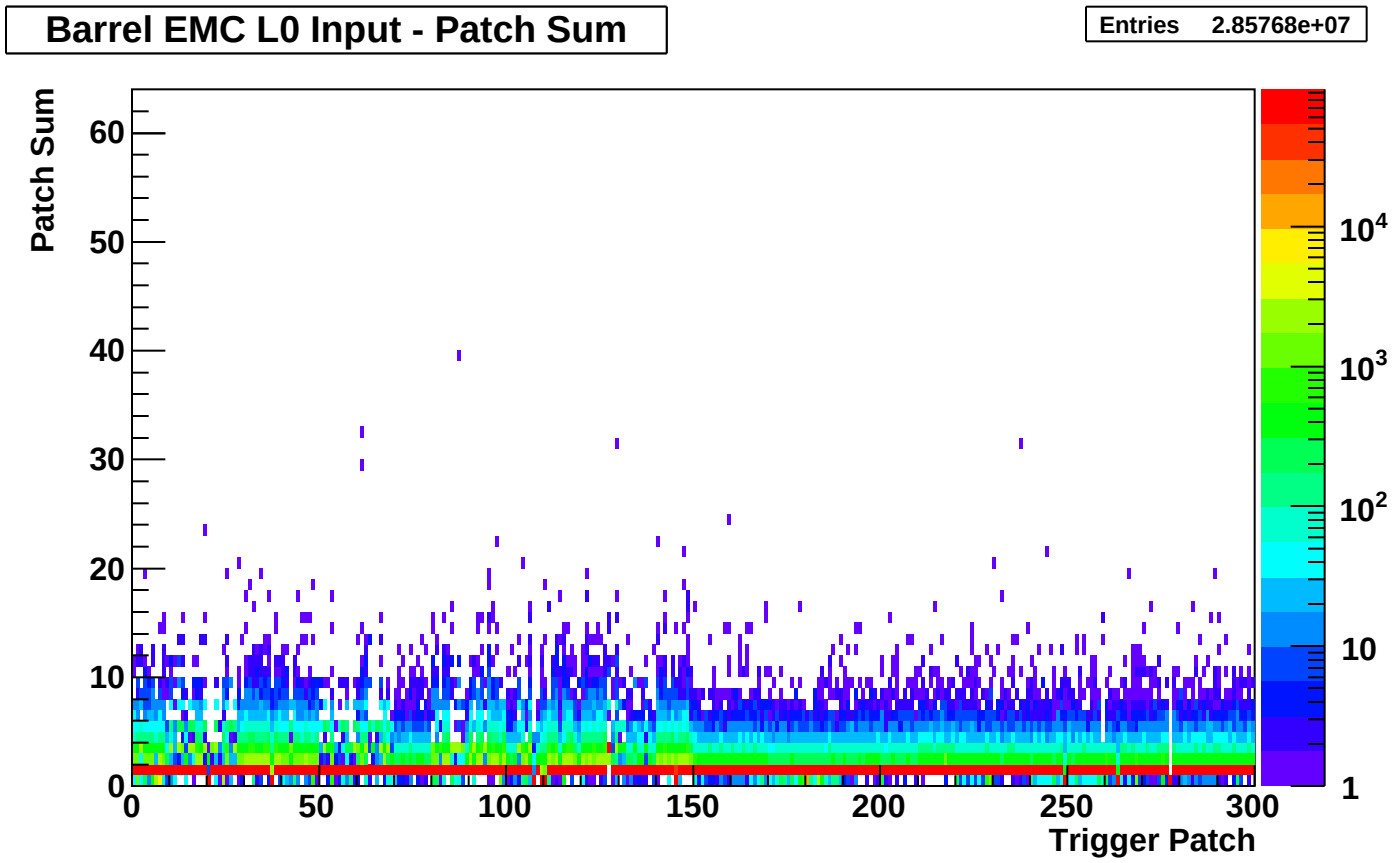
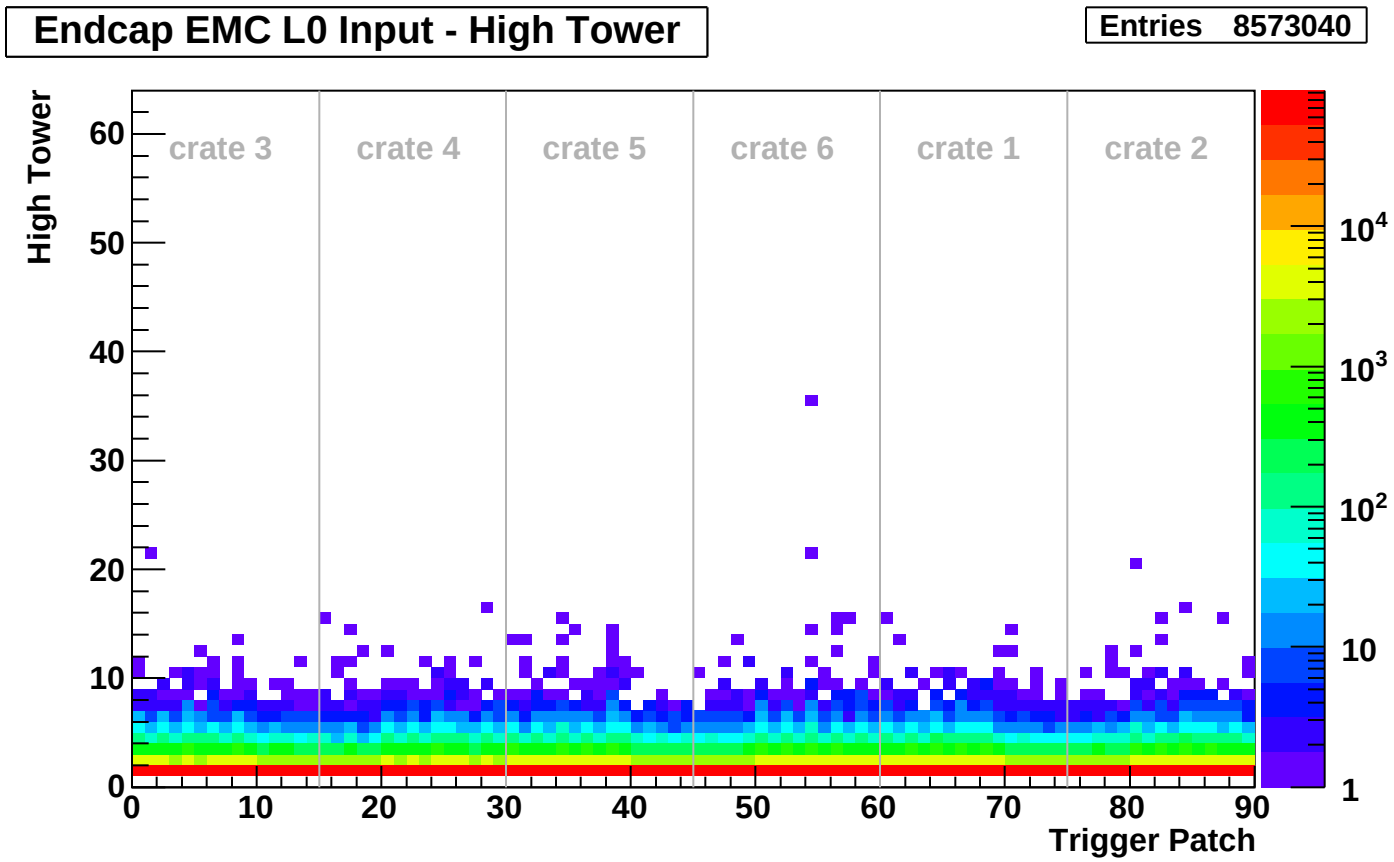
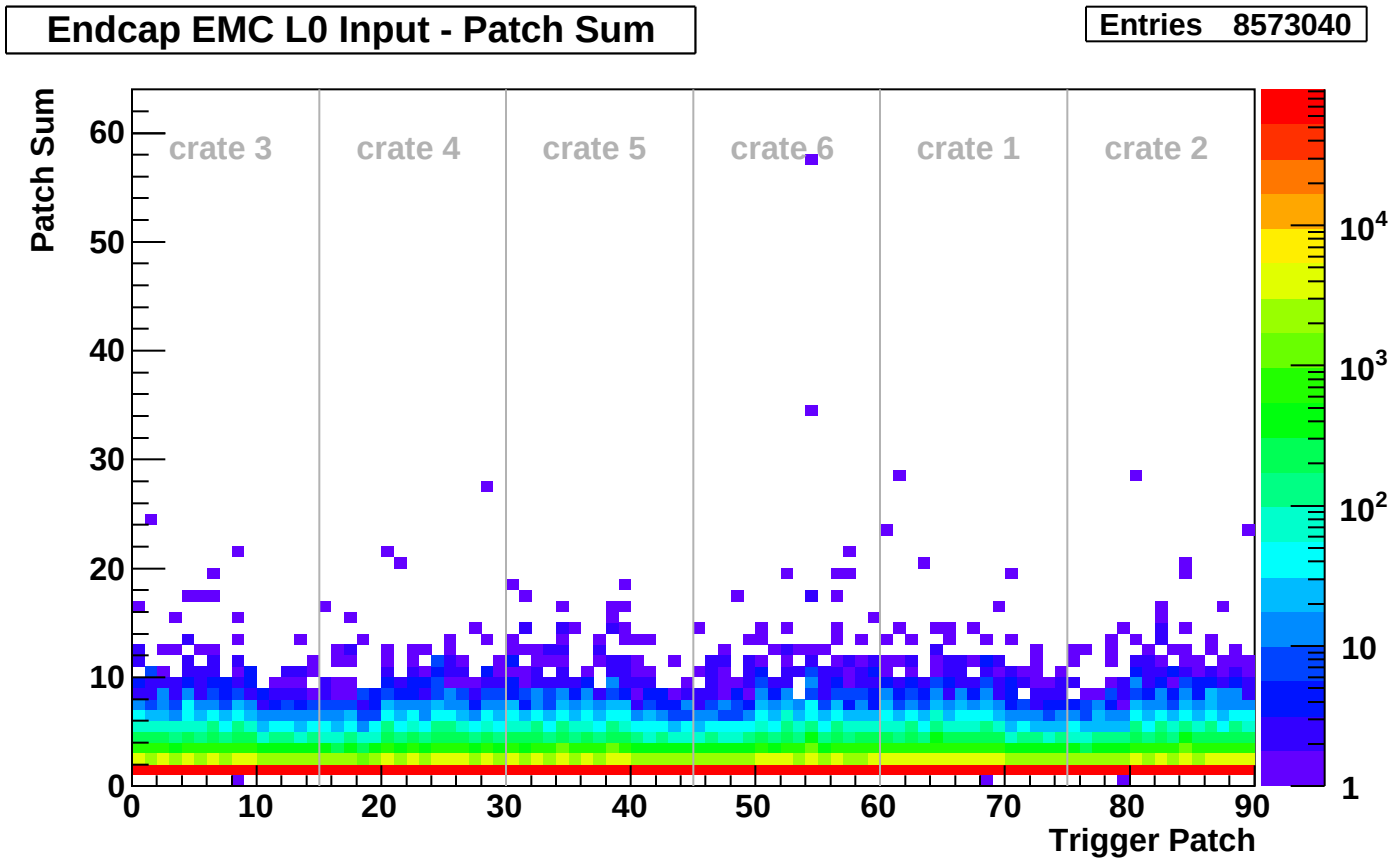
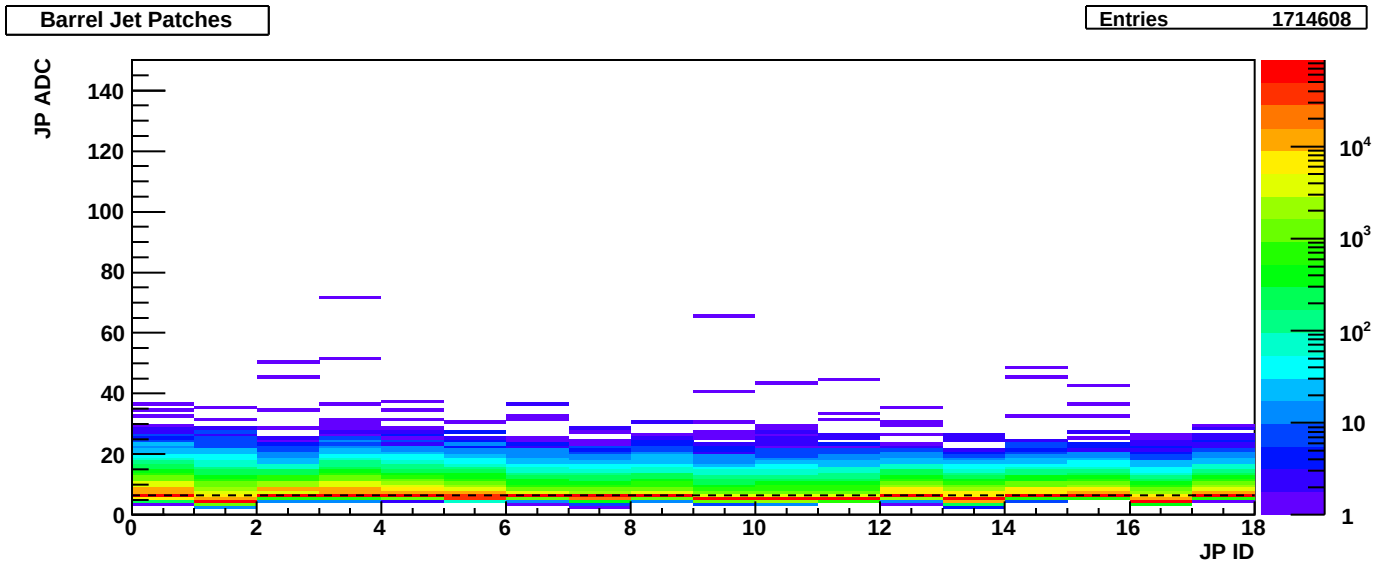
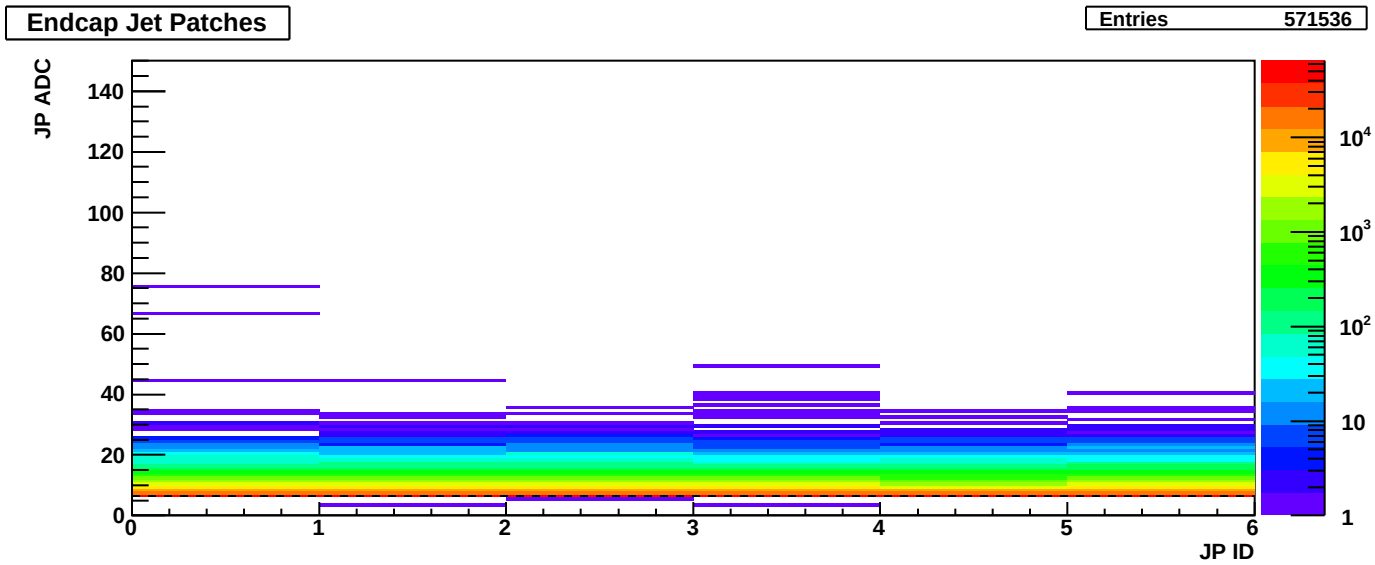

Barrel EMC L0 Input - High Tower
Entries 2.85768e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

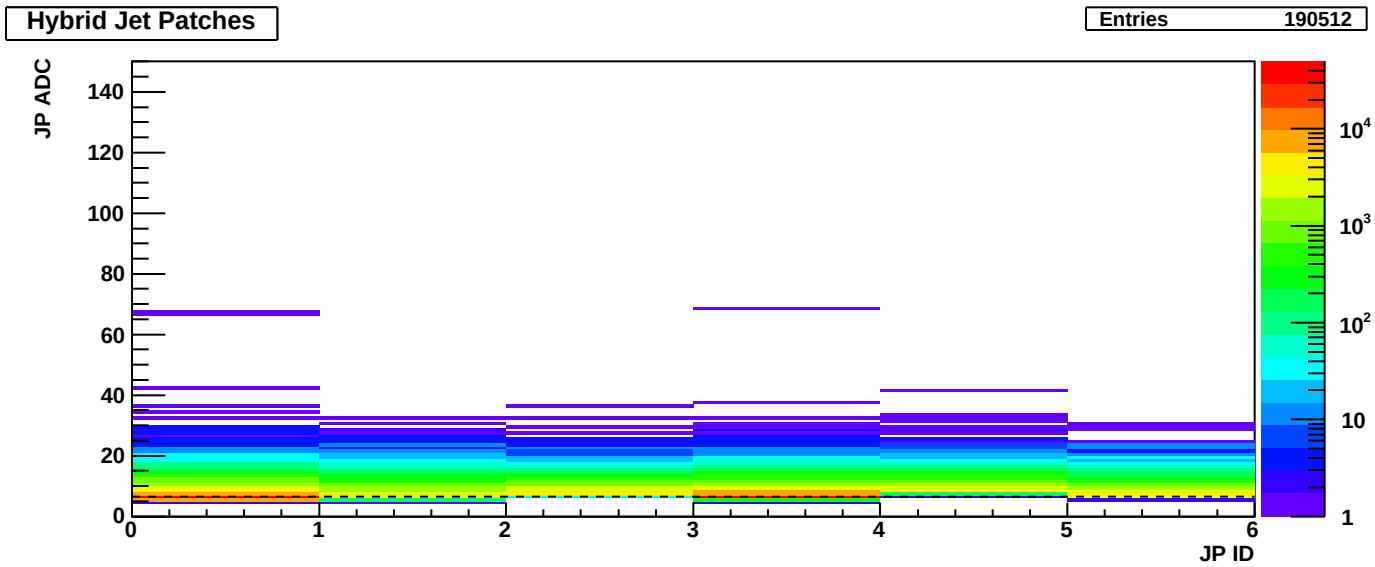

Barrel EMC L0 Input - Patch Sum
Entries 2.85768e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

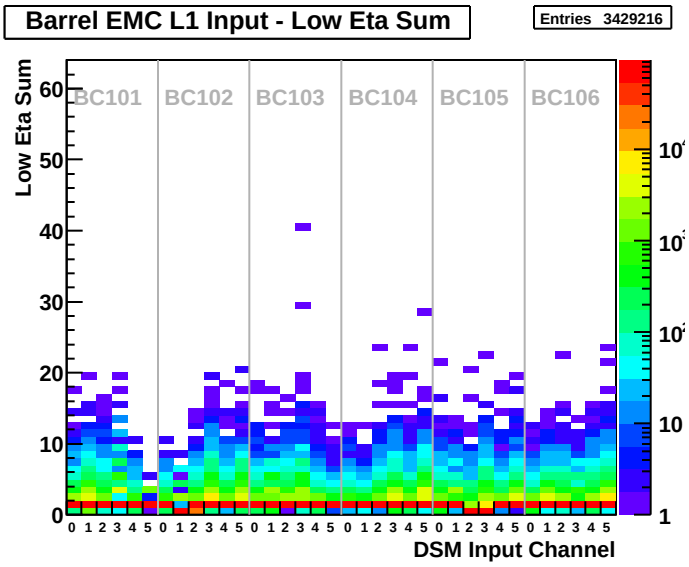

Endcap EMC L0 Input - High Tower
Entries 8573040
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

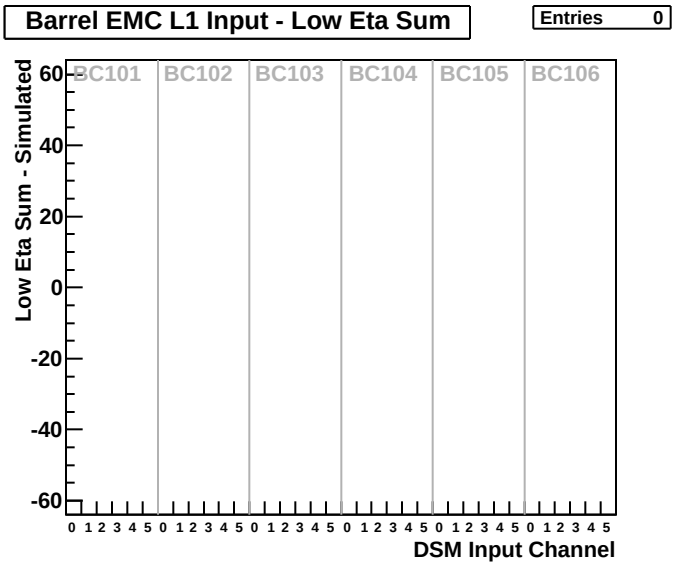

Endcap EMC L0 Input - Patch Sum
Entries 8573040
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

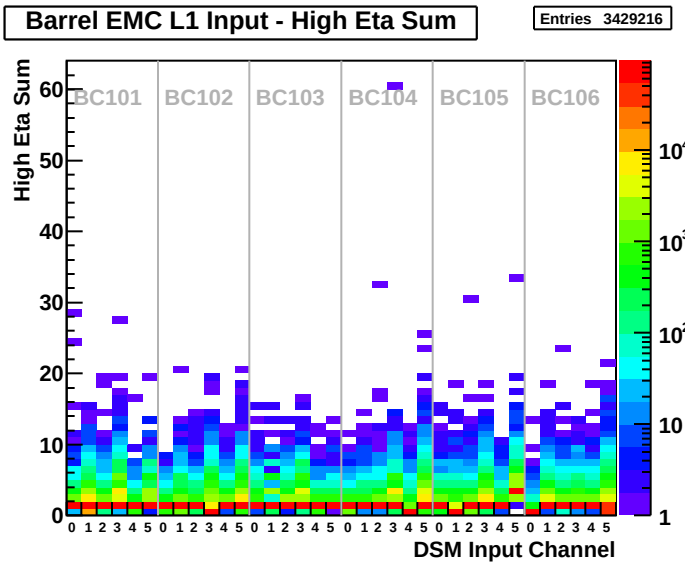

Barrel Jet Patches
Entries 1714608
JP ADC
JP ID

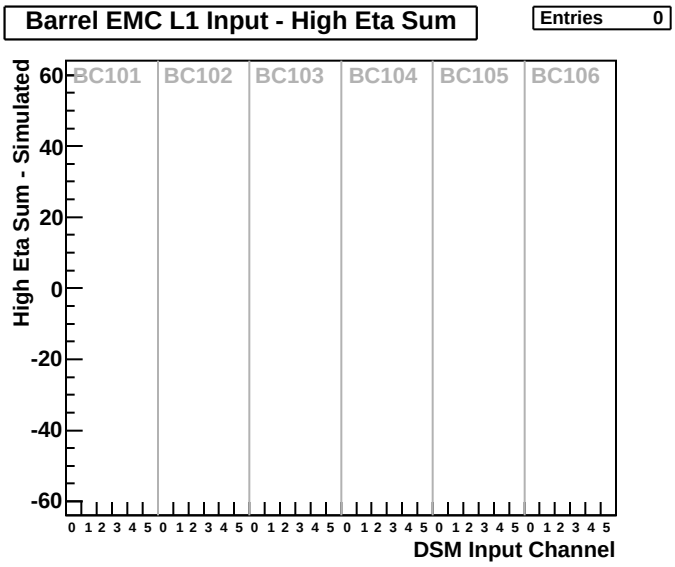

Endcap Jet Patches
Entries 571536
JP ADC
JP ID

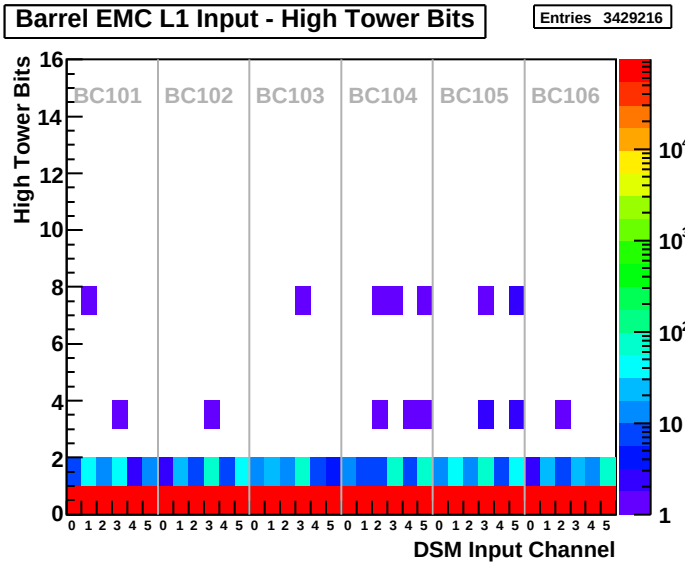

Hybrid Jet Patches
Entries 190512
JP ADC
JP ID

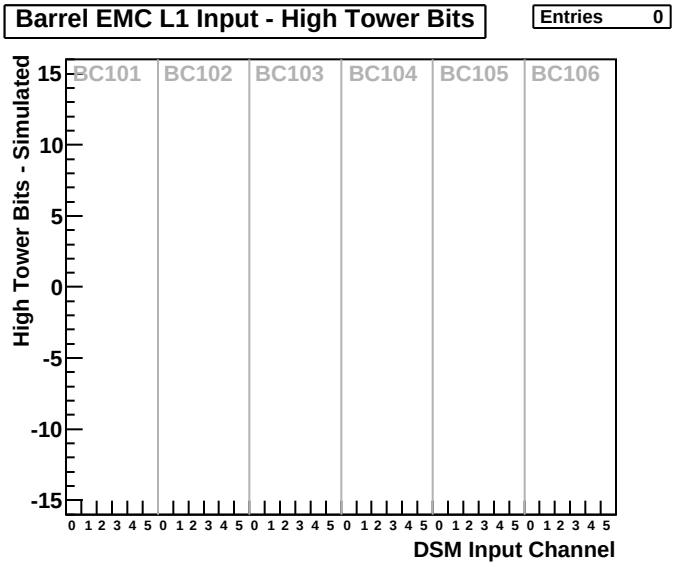

Barrel EMC L1 Input - Low Eta Sum
Entries 3429216
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

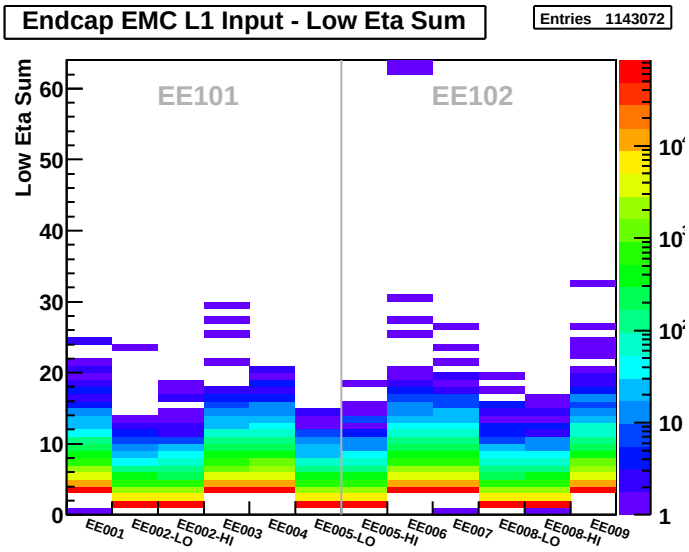

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

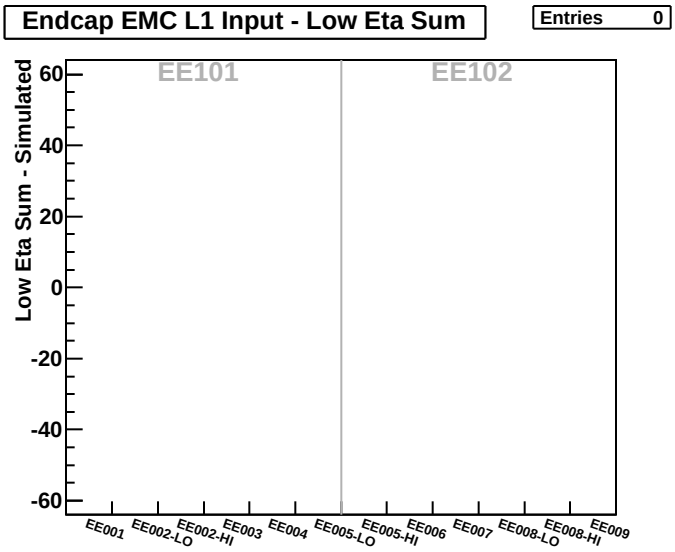

Barrel EMC L1 Input - High Eta Sum
Entries 3429216
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

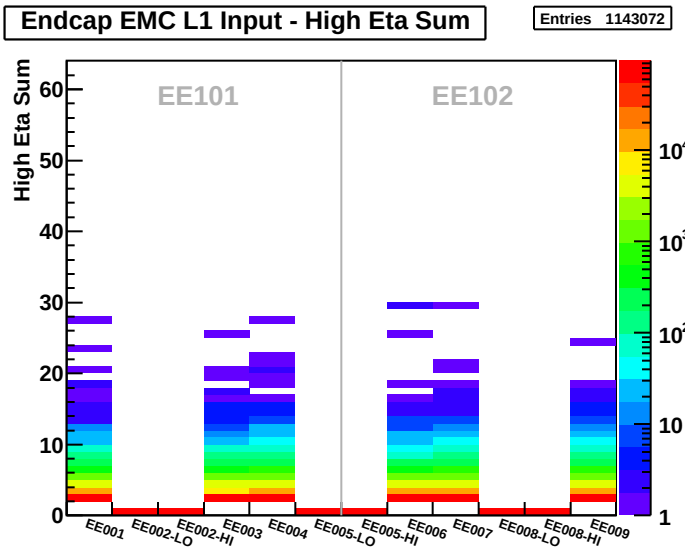

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

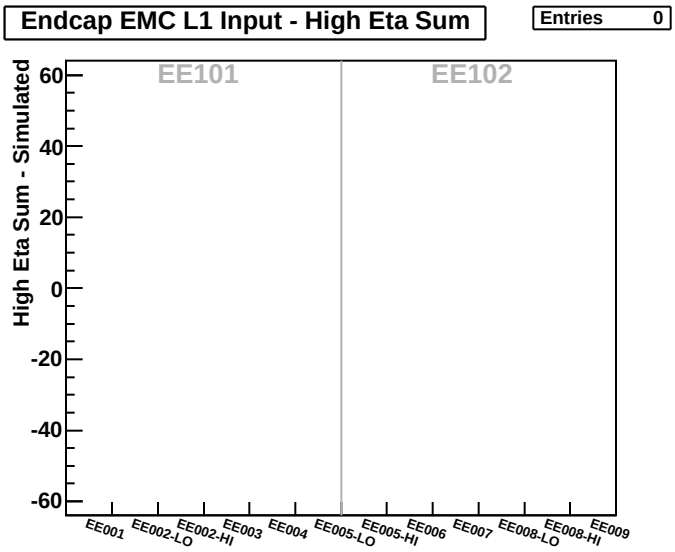

Barrel EMC L1 Input - High Tower Bits
Entries 3429216
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

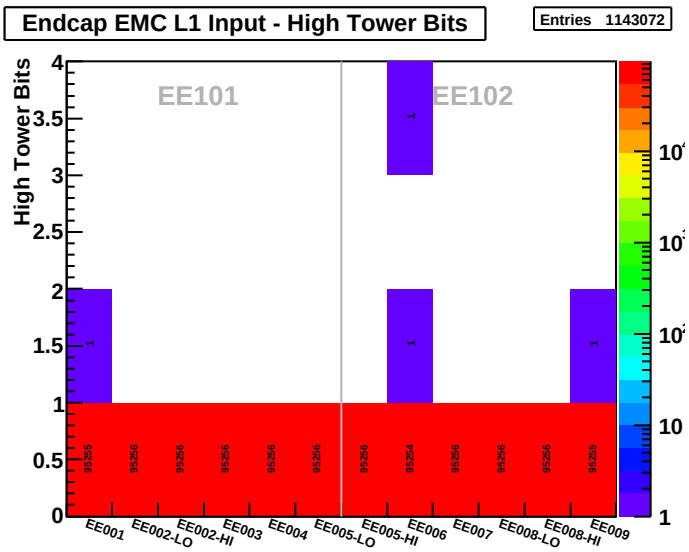

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

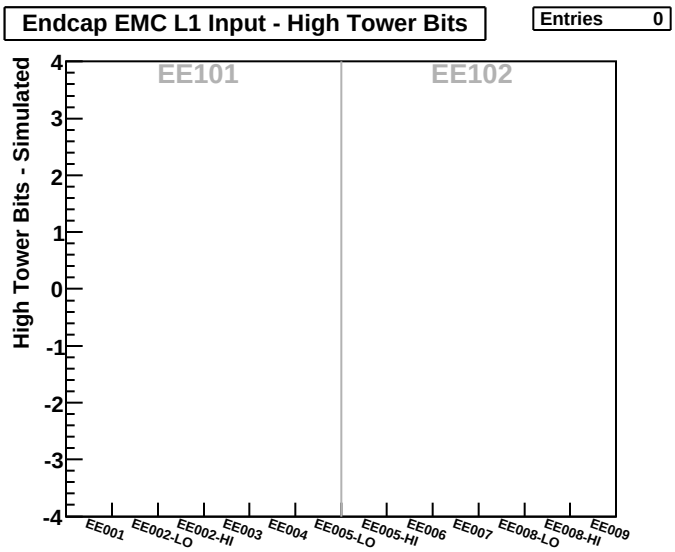

Endcap EMC L1 Input - Low Eta Sum
Entries 1143072
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

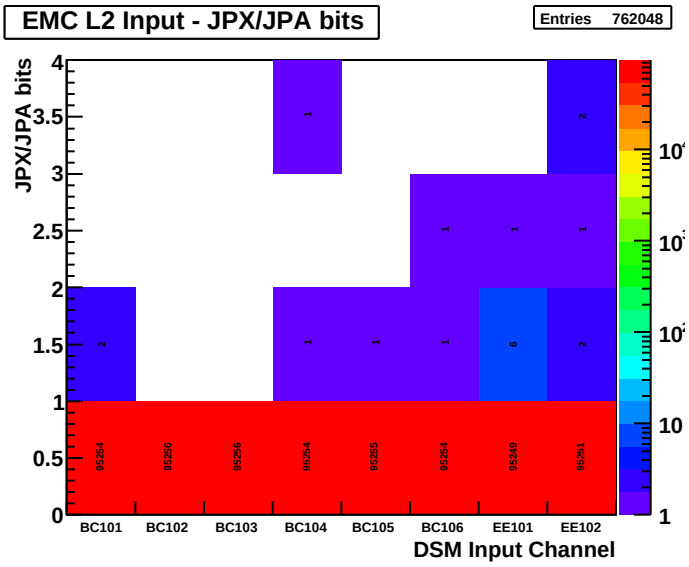

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

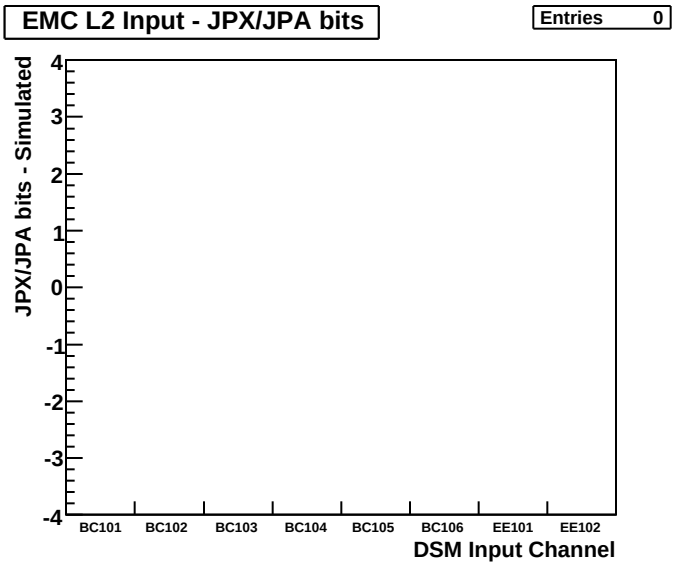

Endcap EMC L1 Input - High Eta Sum
Entries 1143072
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

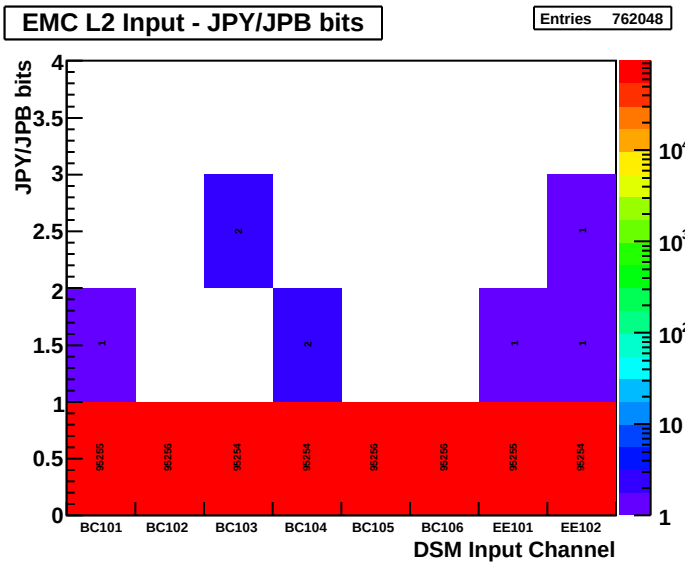

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

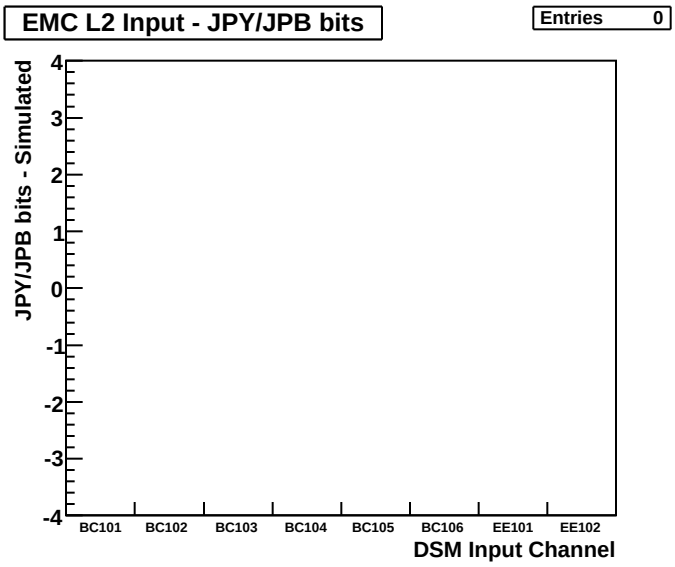

Endcap EMC L1 Input - High Tower Bits
Entries 1143072
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

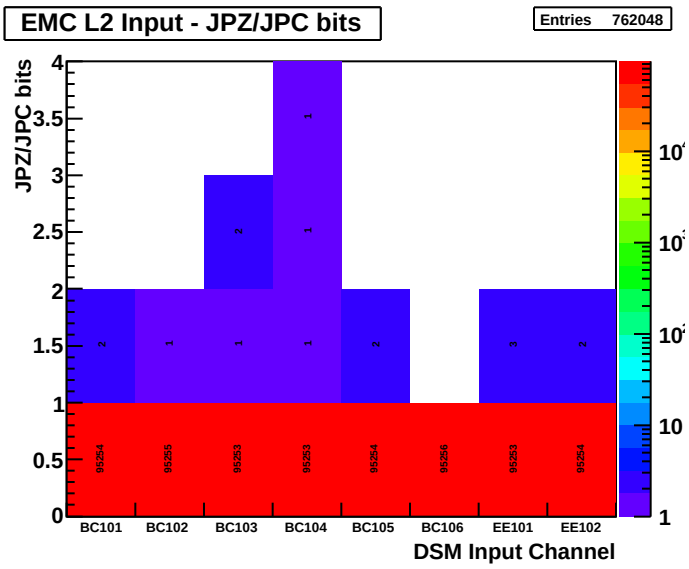

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

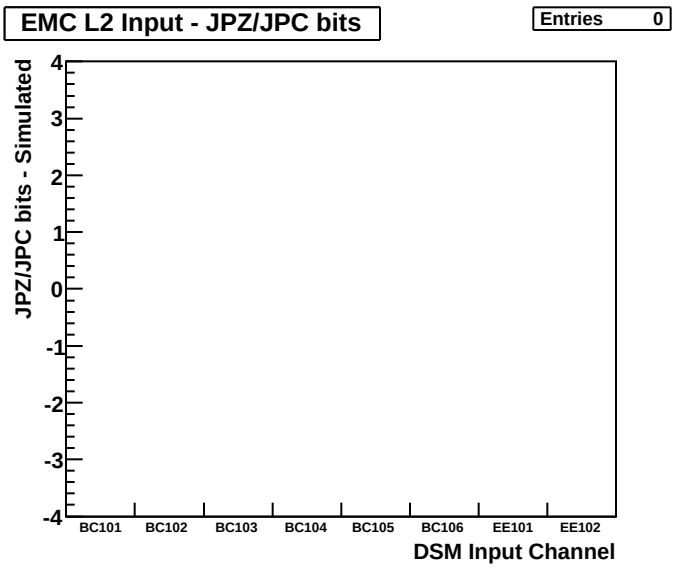

EMC L2 Input - JPX/JPA bits
Entries 762048
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

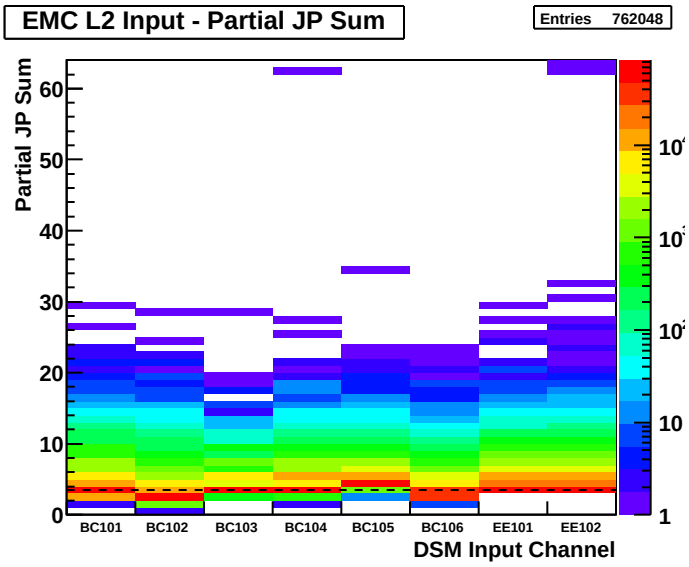

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

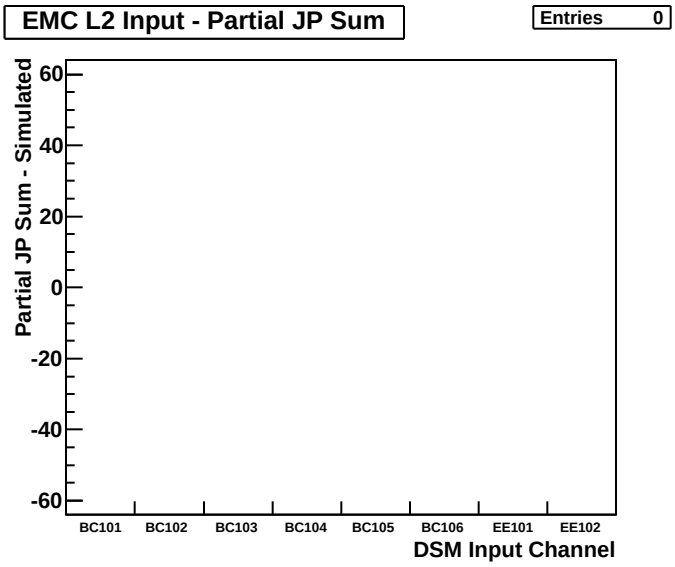

EMC L2 Input - JPY/JPB bits
Entries 762048
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

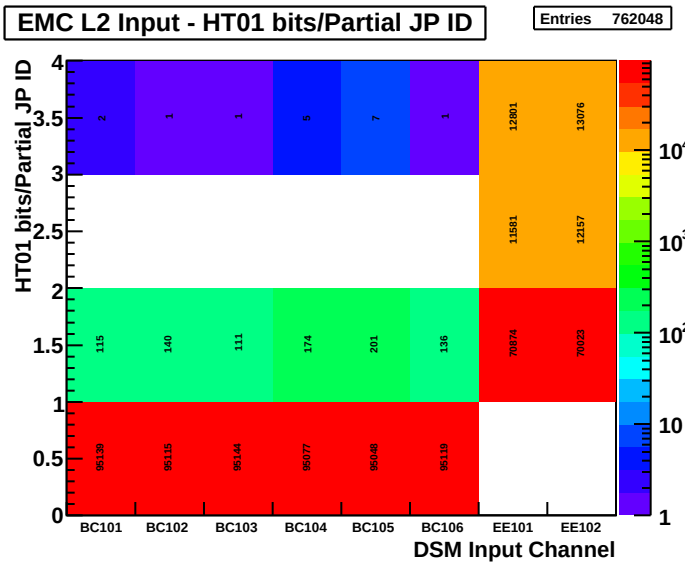

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

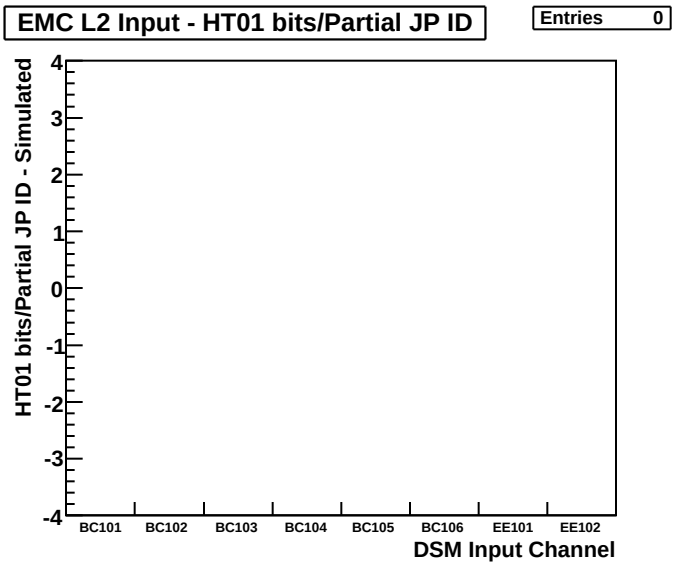

EMC L2 Input - JPZ/JPC bits
Entries 762048
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

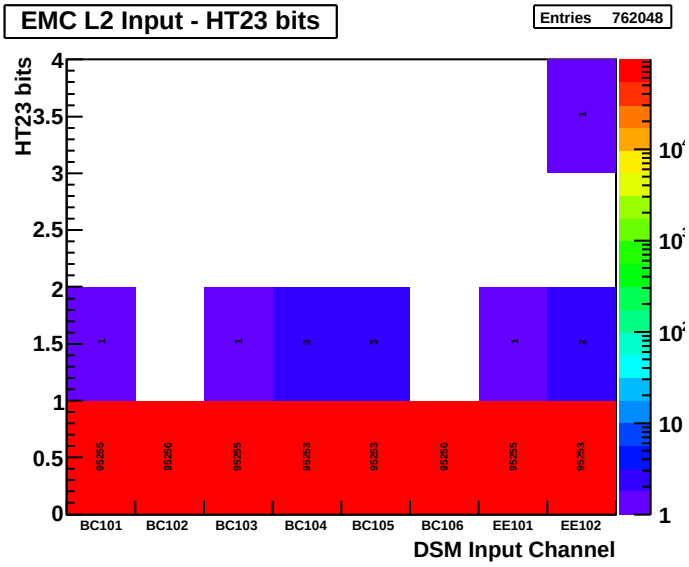

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

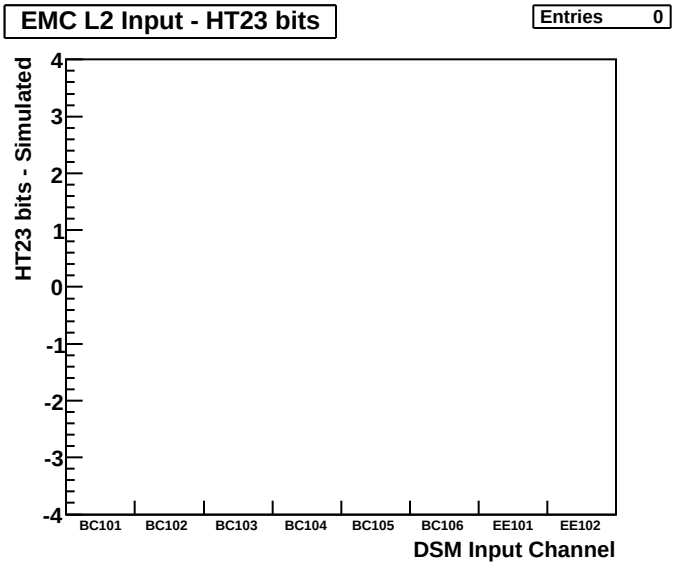

EMC L2 Input - Partial JP Sum
Entries 762048
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

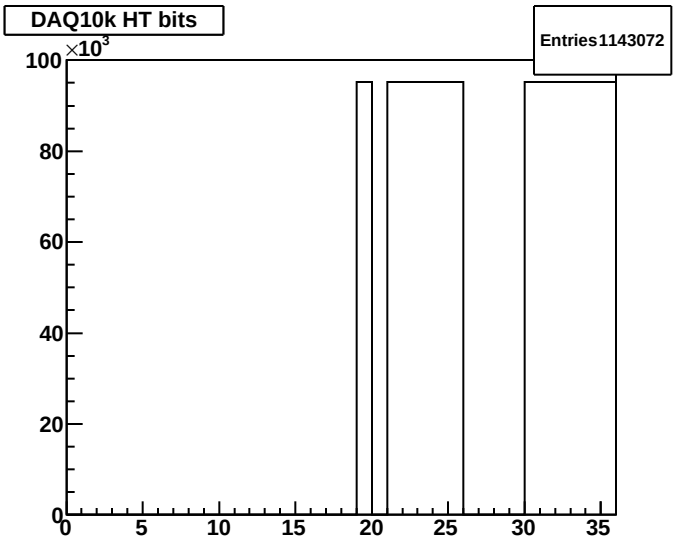

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

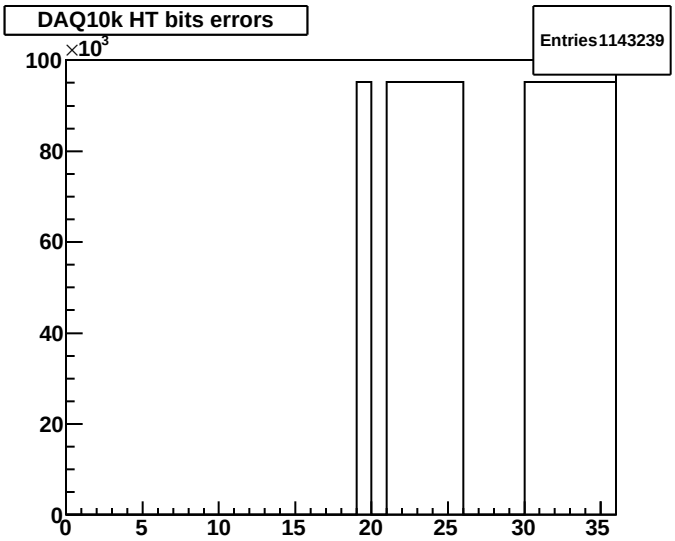

EMC L2 Input - HT01 bits/Partial JP ID
Entries 762048
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

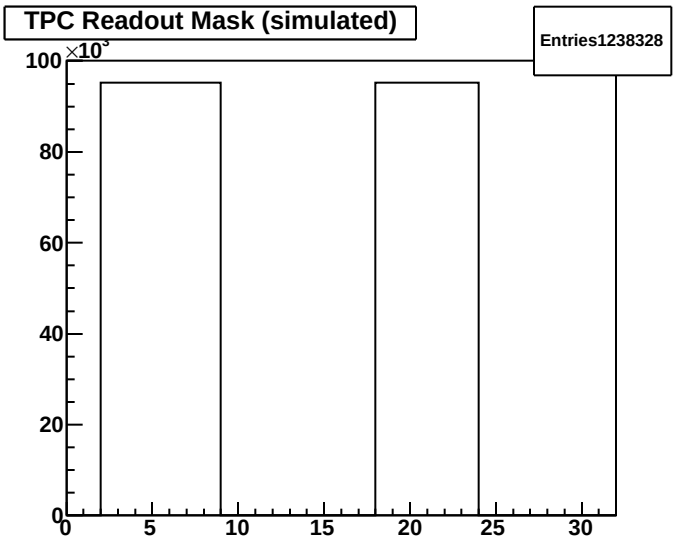

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

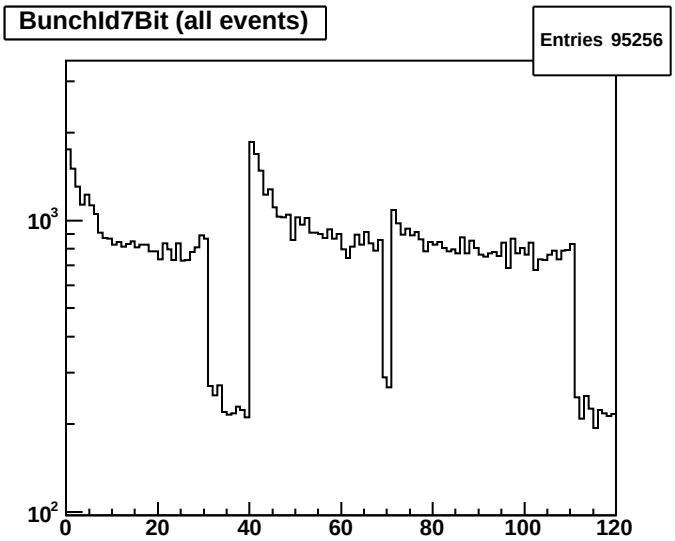

EMC L2 Input - HT23 bits
Entries 762048
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

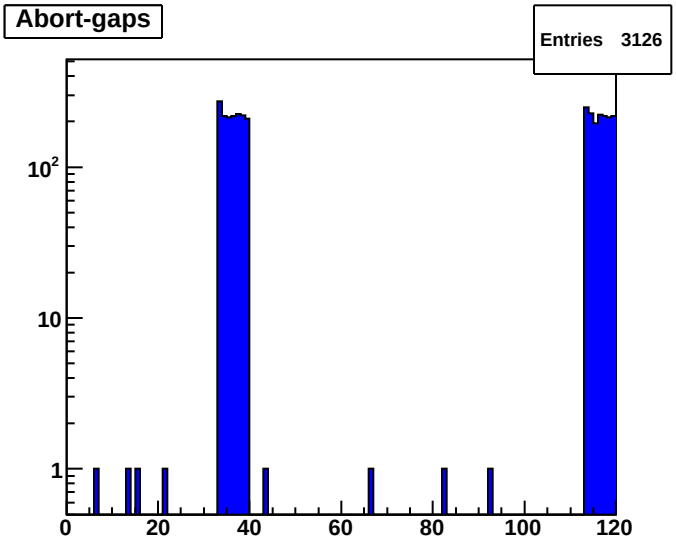

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

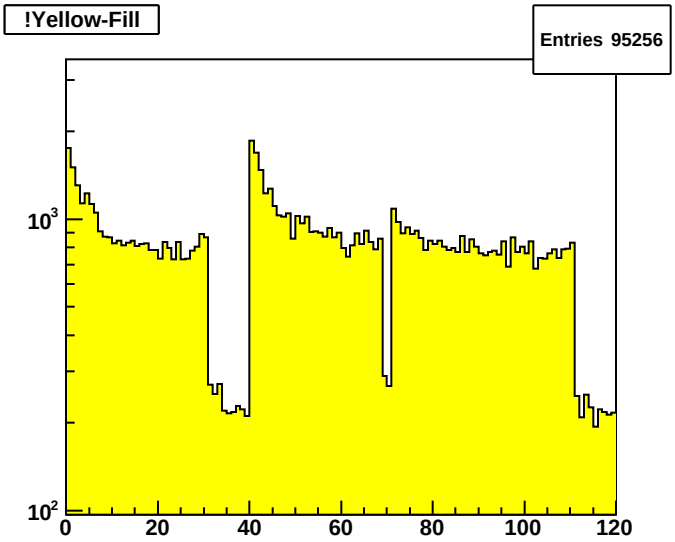

DAQ10k HT bits
Entries 1143072
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35

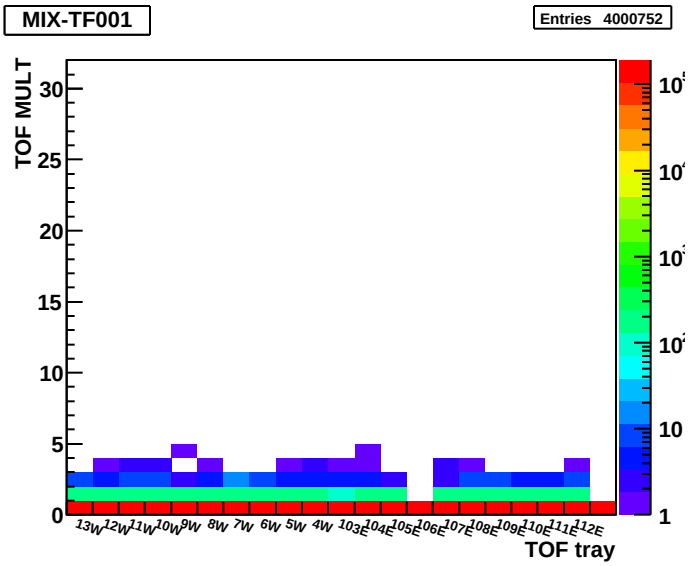

DAQ10k HT bits errors
Entries 1143239
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35

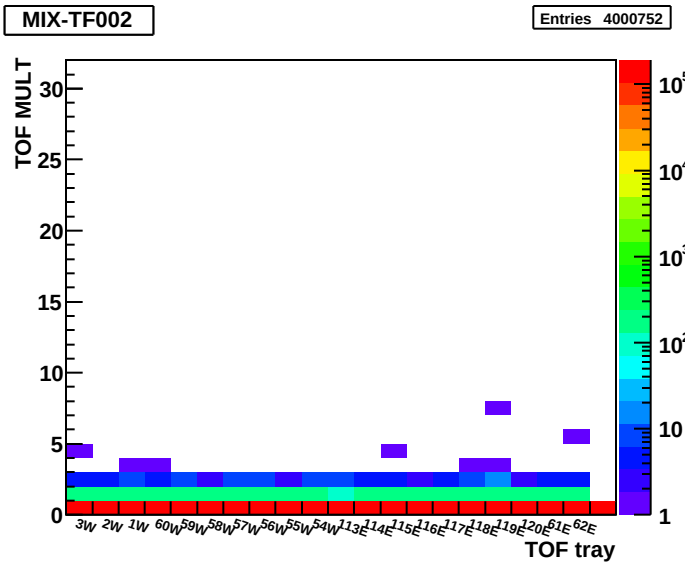

TPC Readout Mask (simulated)
Entries 1238328
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30

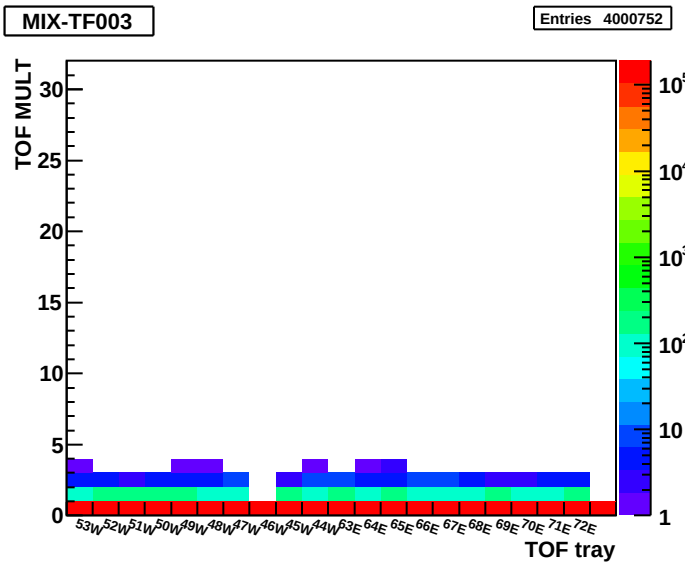

BunchId7Bit (all events)
Entries 95256
10^3
10^2
0 20 40 60 80 100 120

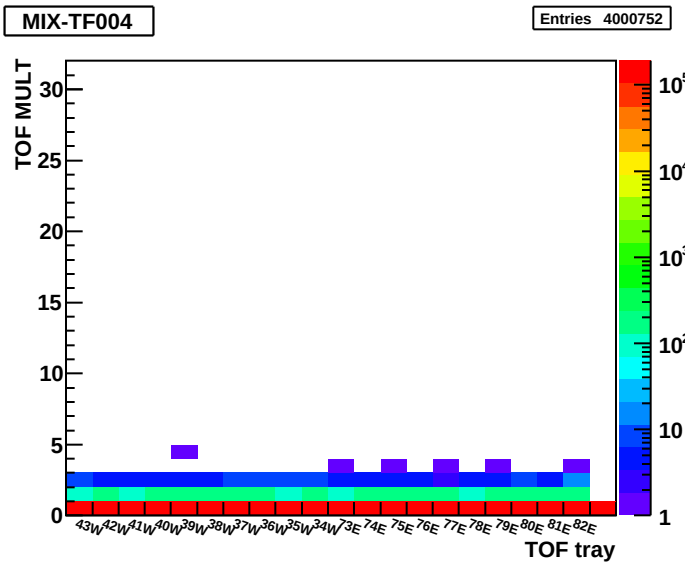

Abort-gaps
Entries 3126
10^2
10
1
0 20 40 60 80 100 120

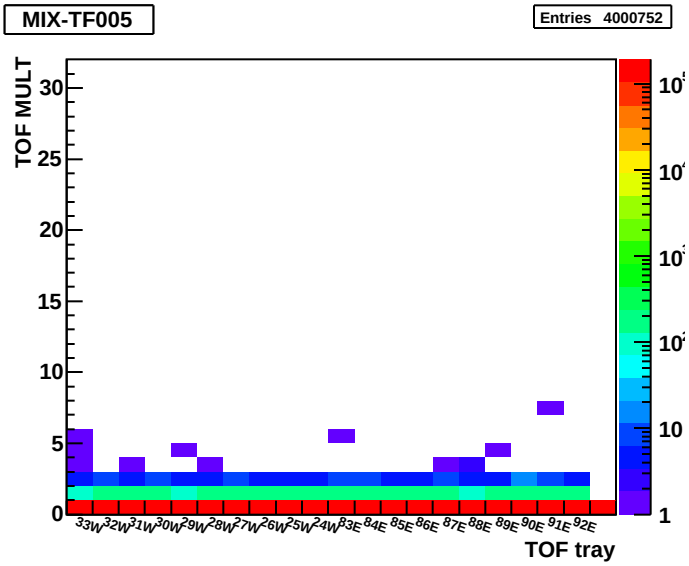

!Yellow-Fill
Entries 95256
10^3
10^2
0 20 40 60 80 100 120

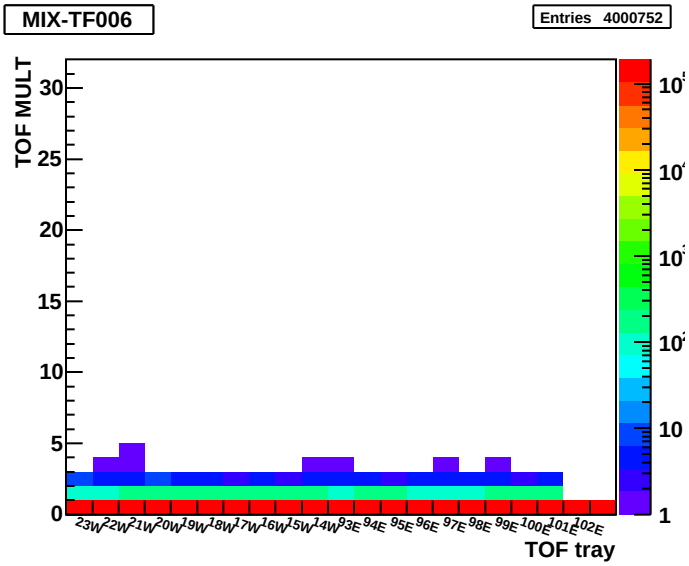

MIX-TF001
Entries 4000752
TOF MULT
TOF tray

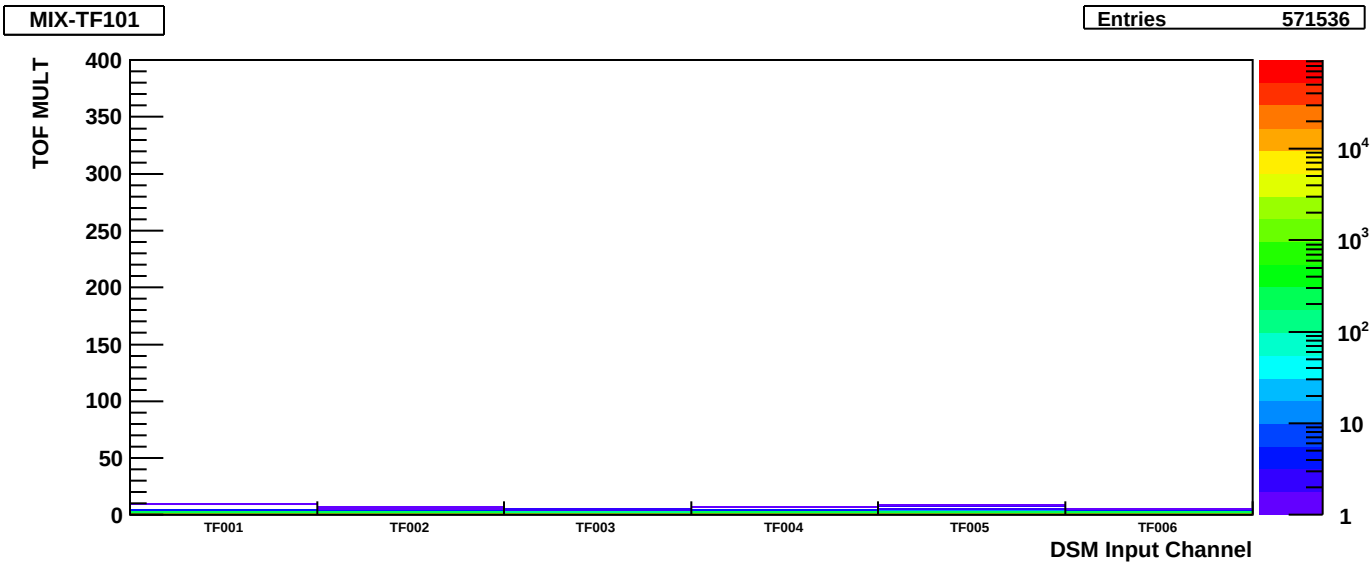

MIX-TF002
Entries 4000752
TOF MULT
TOF tray

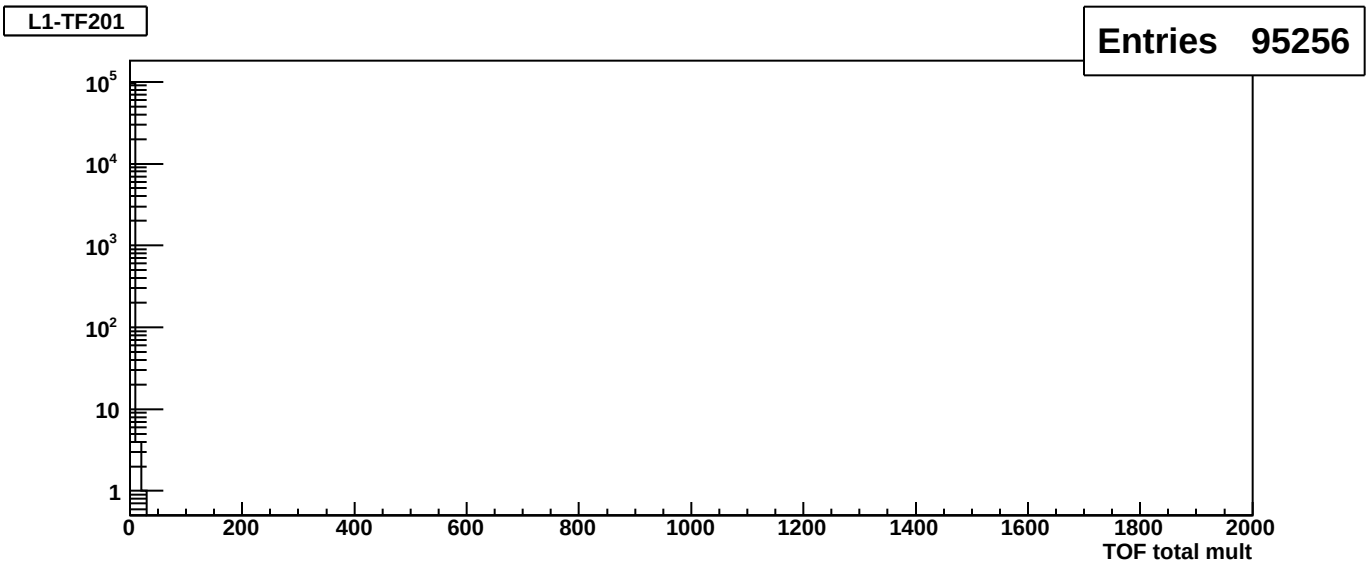

MIX-TF003
Entries 4000752
TOF MULT
TOF tray

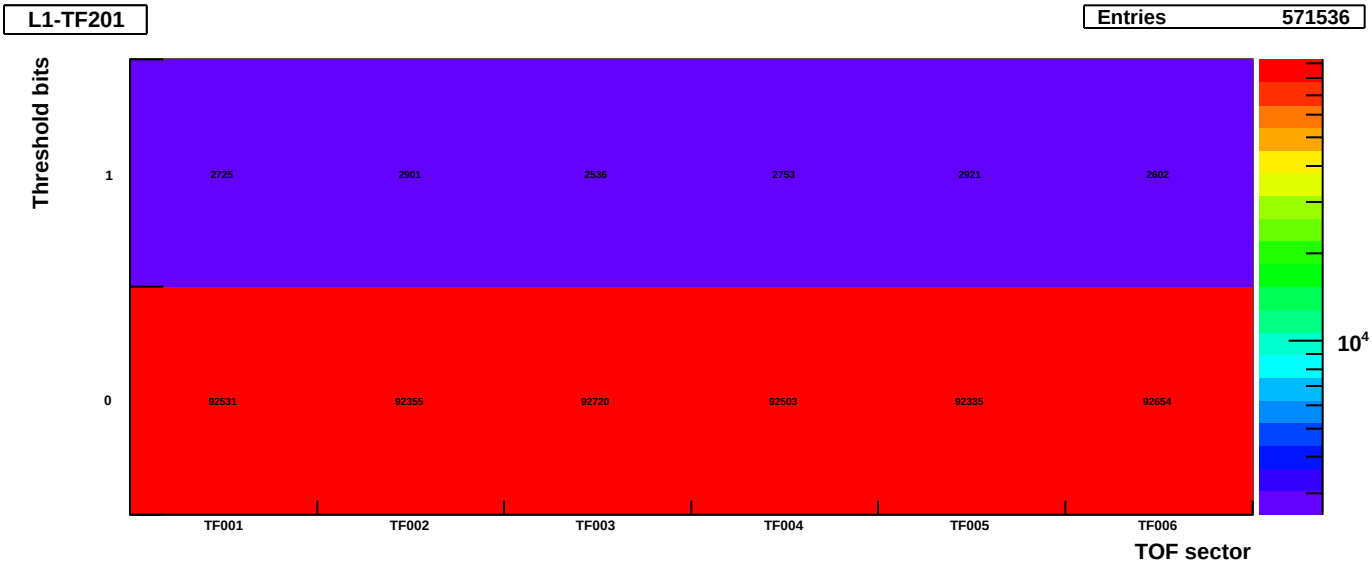

MIX-TF004
Entries 4000752
TOF MULT
TOF tray

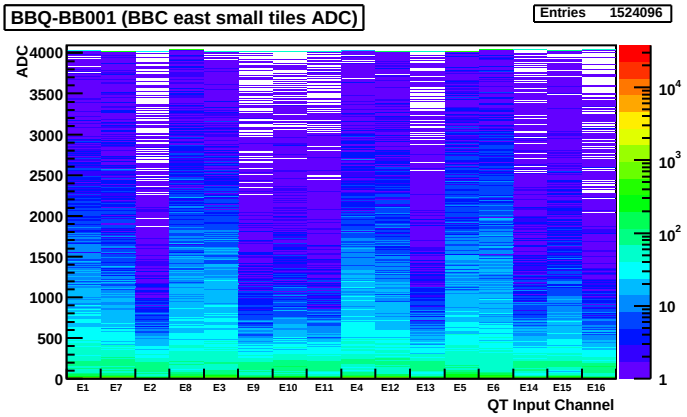

MIX-TF005
Entries 4000752
TOF MULT
TOF tray

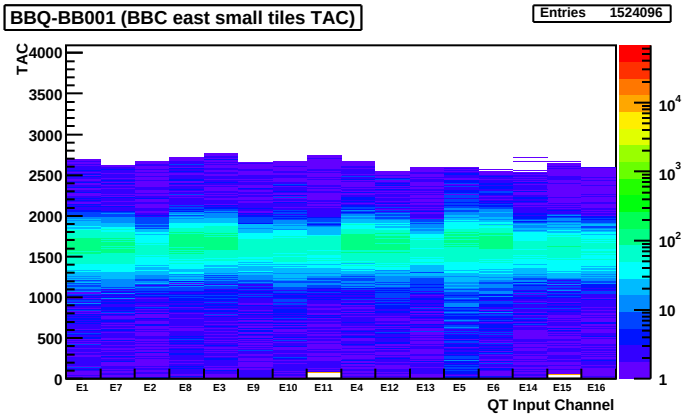

MIX-TF006
Entries 4000752
TOF MULT
TOF tray

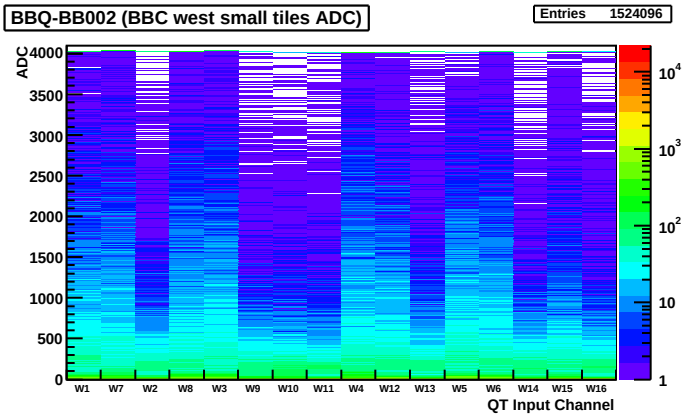

MIX-TF101
Entries 571536
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

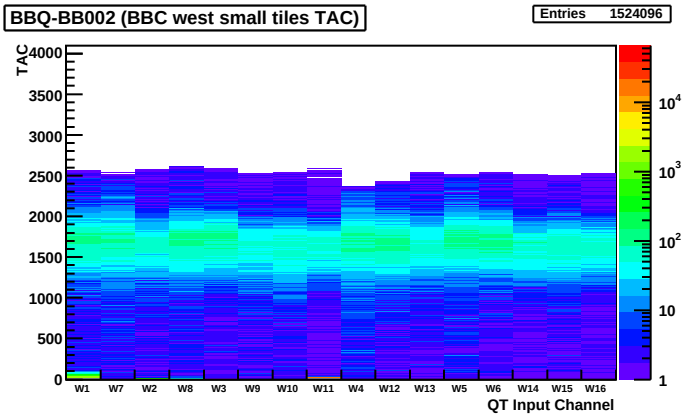

L1-TF201
Entries 95256
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

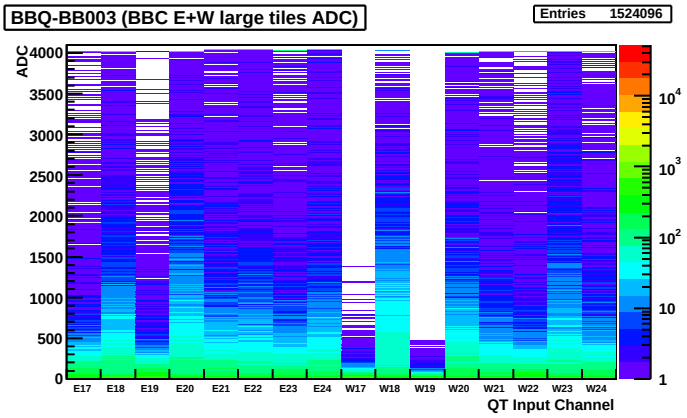

L1-TF201
Entries 571536
Threshold bits
1
0
2725
2901
2536
2753
2921
2602
92531
92355
92720
92503
92335
92654
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

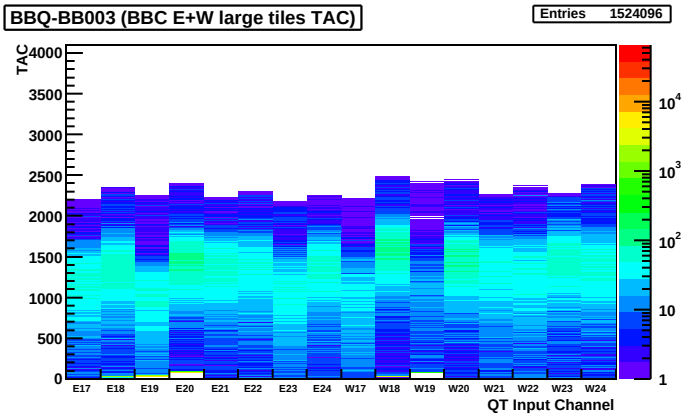

BBQ-BB001 (BBC east small tiles ADC)
Entries 1524096
ADC
QT Input Channel

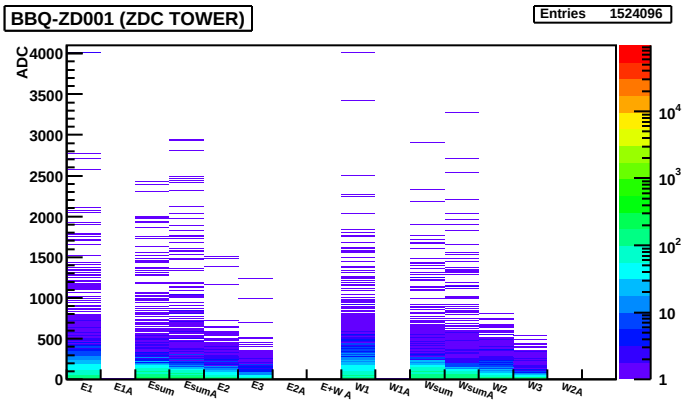

BBQ-BB001 (BBC east small tiles TAC)
Entries 1524096
TAC
QT Input Channel

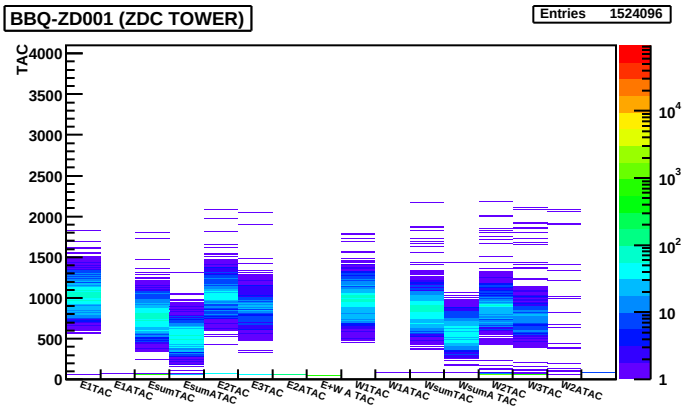

BBQ-BB002 (BBC west small tiles ADC)
Entries 1524096
ADC
QT Input Channel

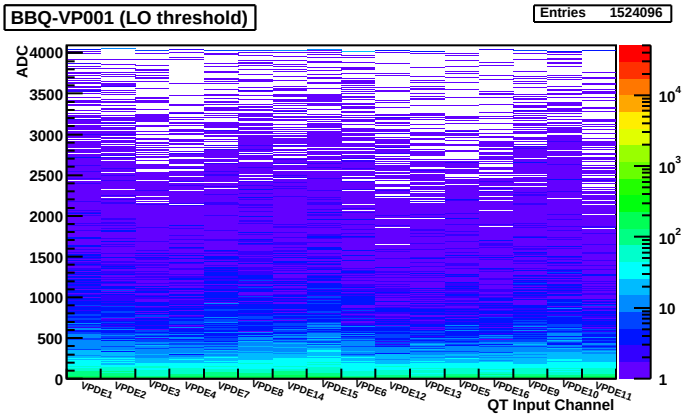

BBQ-BB002 (BBC west small tiles TAC)
Entries 1524096
TAC
QT Input Channel

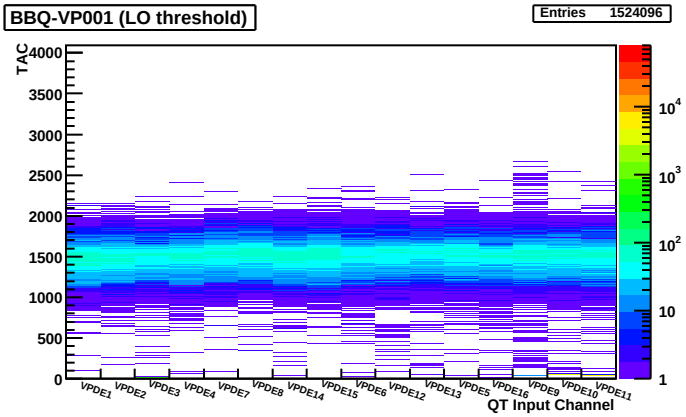

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1524096
ADC
QT Input Channel

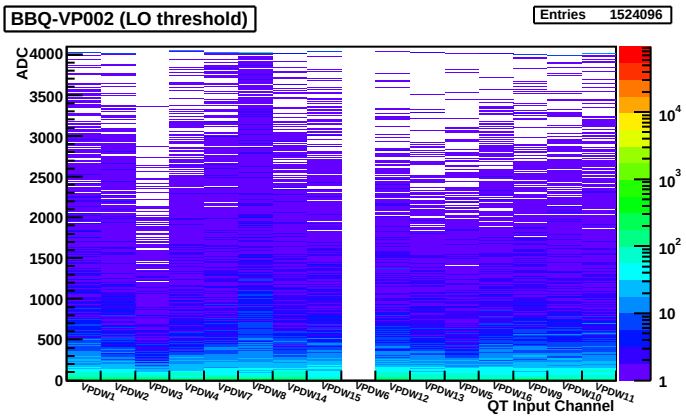

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1524096
TAC
QT Input Channel

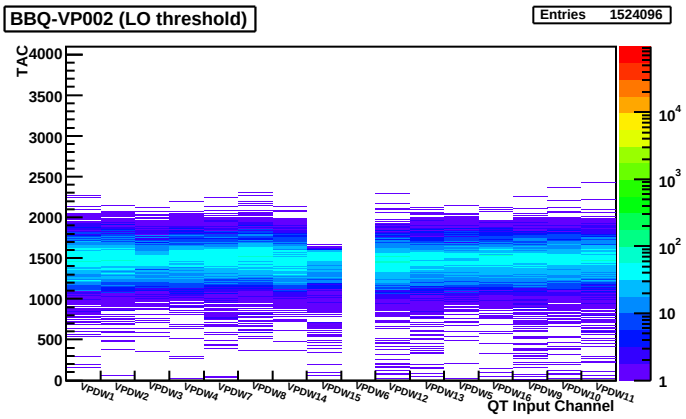

BBQ-ZD001 (ZDC TOWER)
Entries 1524096
ADC

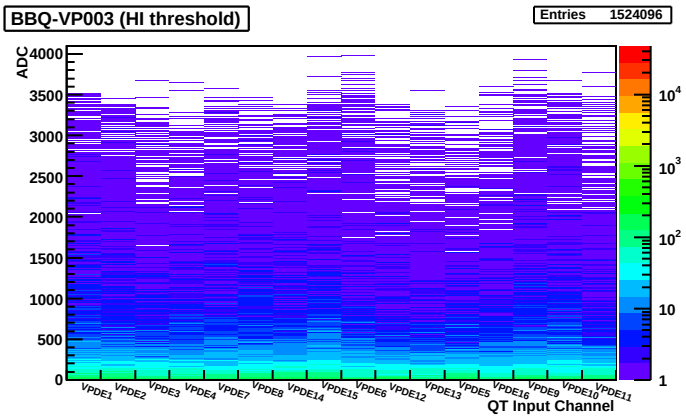

BBQ-ZD001 (ZDC TOWER)
Entries 1524096
TAC

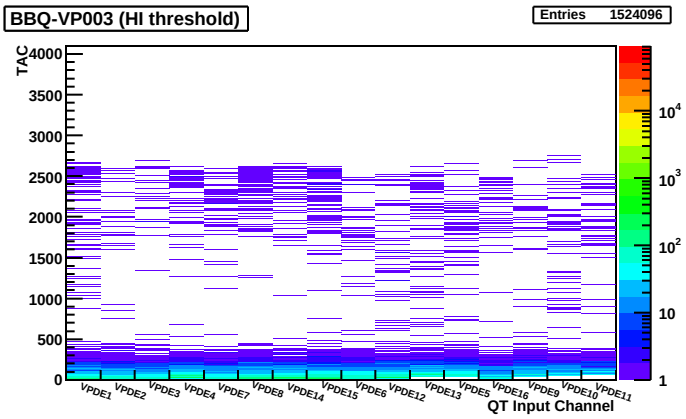

BBQ-VP001 (LO threshold)
Entries 1524096
ADC
QT Input Channel

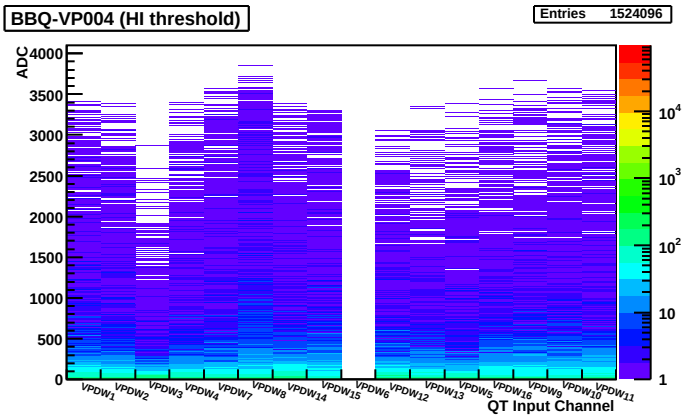

BBQ-VP001 (LO threshold)
Entries 1524096
TAC
QT Input Channel

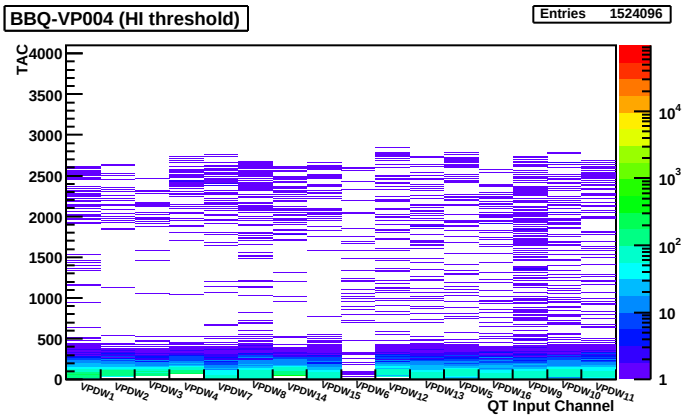

BBQ-VP002 (LO threshold)
Entries 1524096
ADC
QT Input Channel

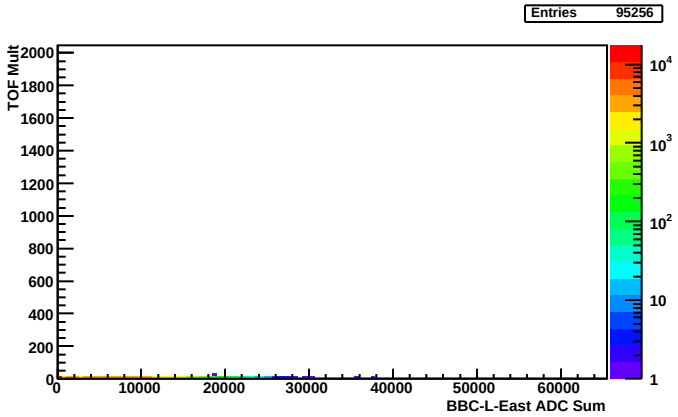

BBQ-VP002 (LO threshold)
Entries 1524096
TAC
QT Input Channel

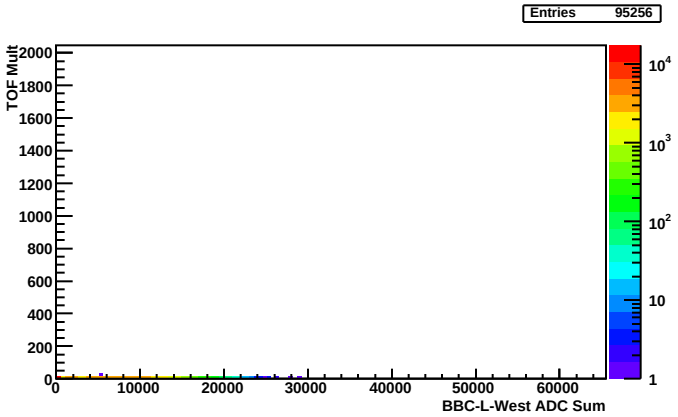

BBQ-VP003 (HI threshold)
Entries 1524096
ADC
QT Input Channel

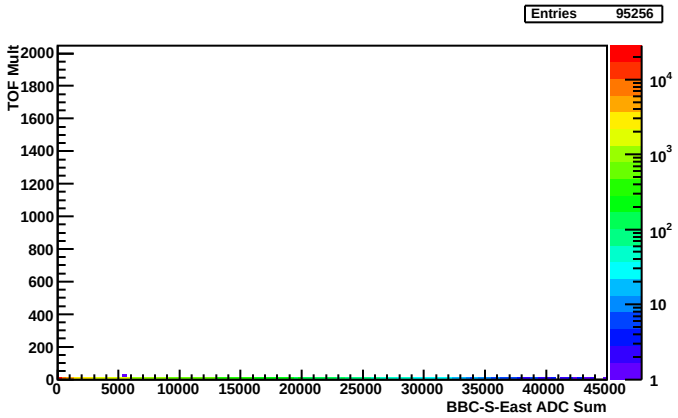

BBQ-VP003 (HI threshold)
Entries 1524096
TAC
QT Input Channel

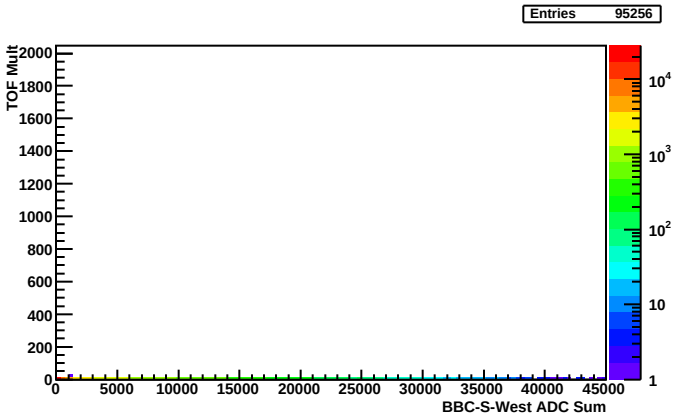

BBQ-VP004 (HI threshold)
Entries 1524096
ADC
QT Input Channel

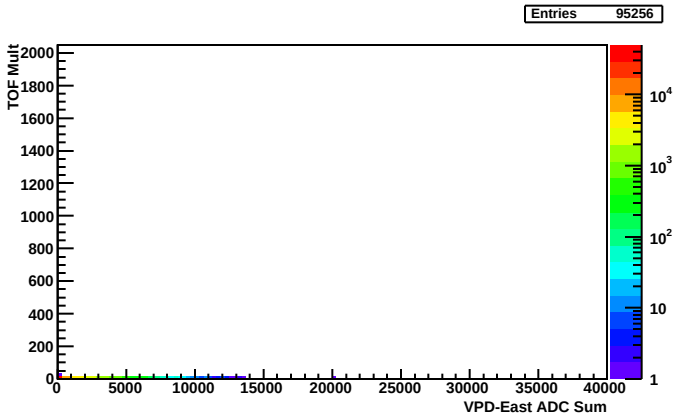

BBQ-VP004 (HI threshold)
Entries 1524096
TAC
QT Input Channel

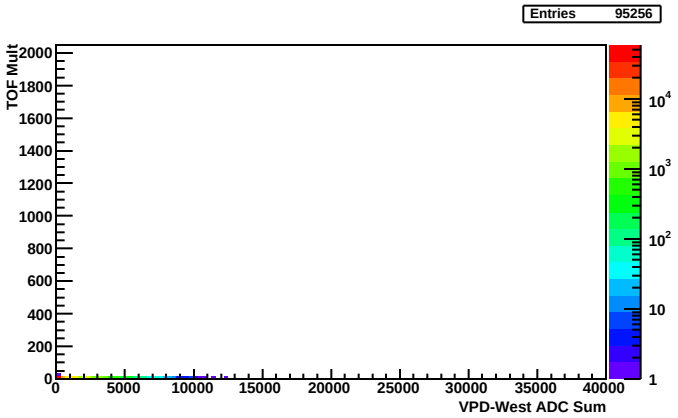

Entries 95256
TOF Mult
BBC-L-East ADC Sum

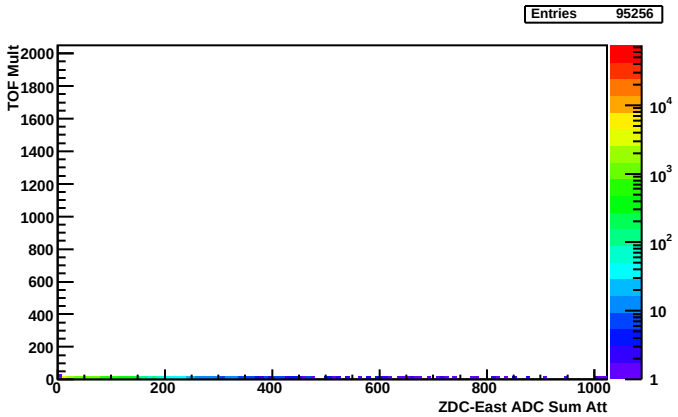

Entries 95256
TOF Mult
BBC-L-West ADC Sum

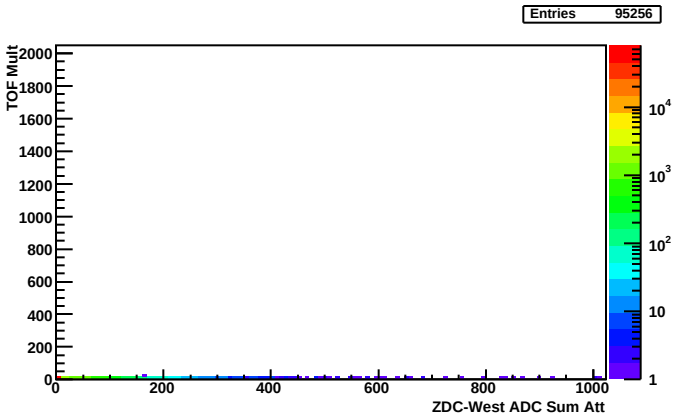

Entries 95256
TOF Mult
BBC-S-East ADC Sum

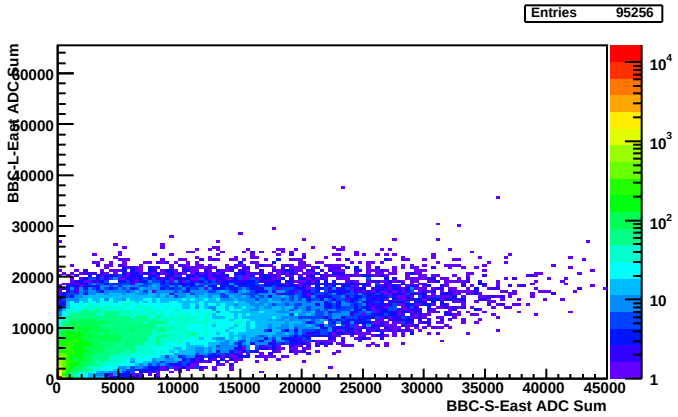

Entries 95256
TOF Mult
BBC-S-West ADC Sum

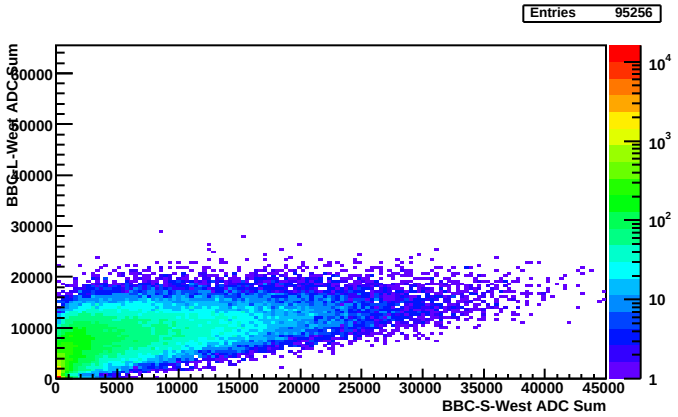

Entries 95256
TOF Mult
VPD-East ADC Sum

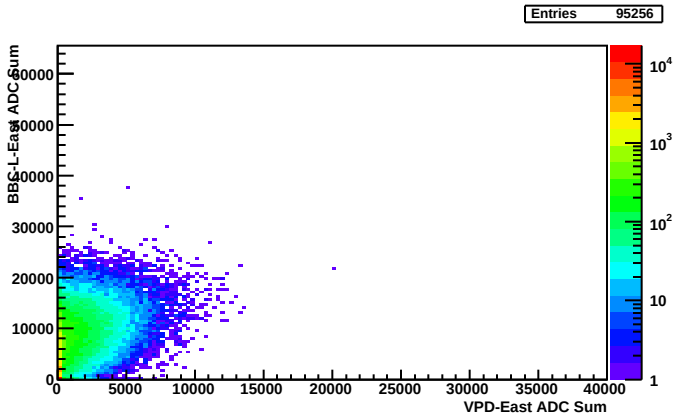

Entries 95256
TOF Mult
VPD-West ADC Sum

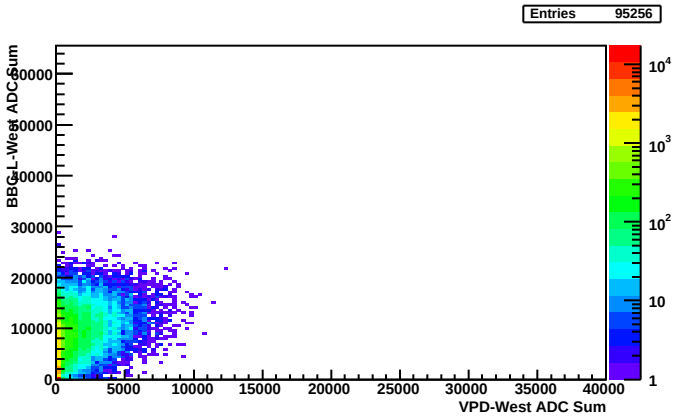

Entries 95256
TOF Mult
ZDC-East ADC Sum Att

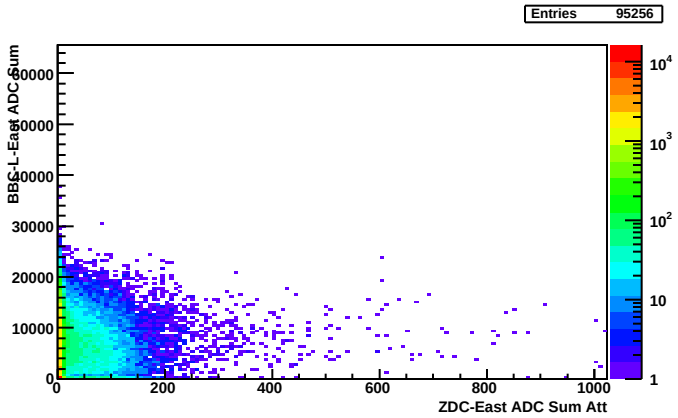

Entries 95256
TOF Mult
ZDC-West ADC Sum Att

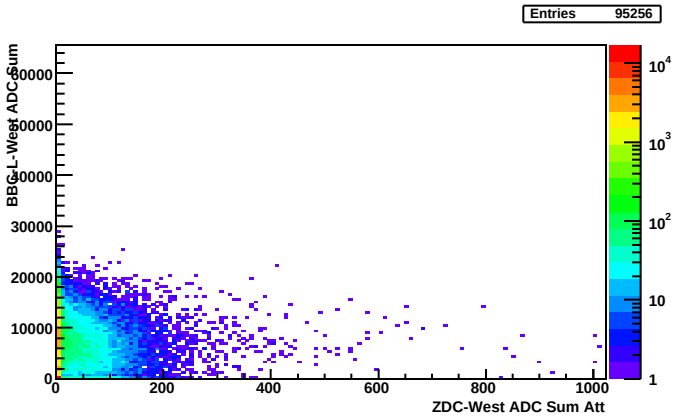

Entries 95256
BBC-L-East ADC Sum
BBC-S-East ADC Sum

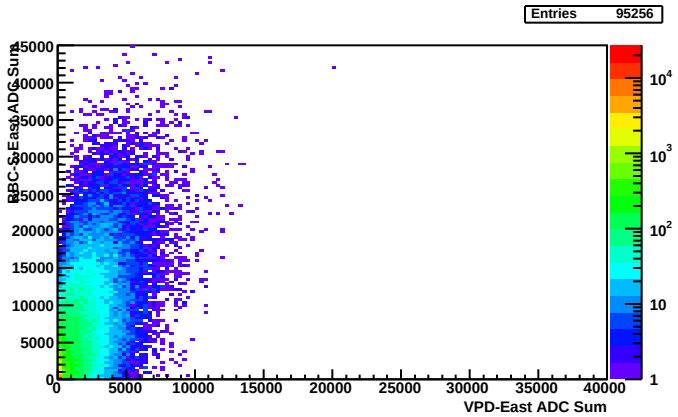

Entries 95256
BBC-L-West ADC Sum
BBC-S-West ADC Sum

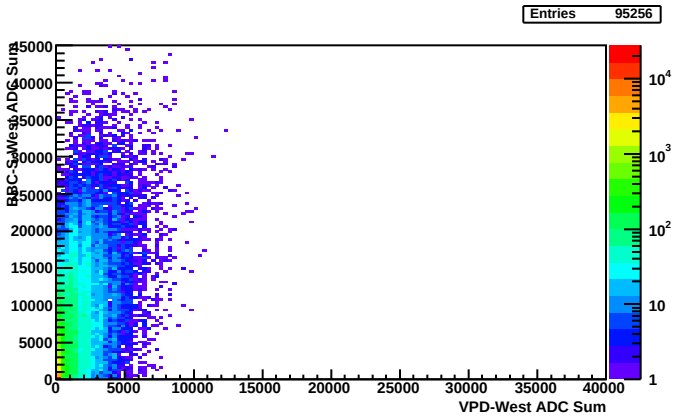

Entries 95256
BBC-L-East ADC Sum
VPD-East ADC Sum

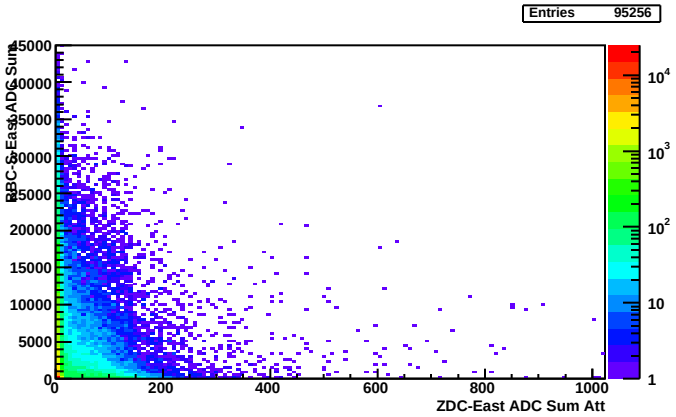

Entries 95256
BBC-L-West ADC Sum
VPD-West ADC Sum

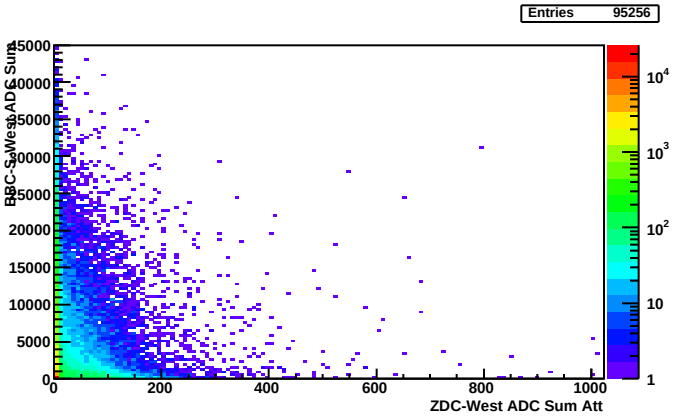

Entries 95256
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

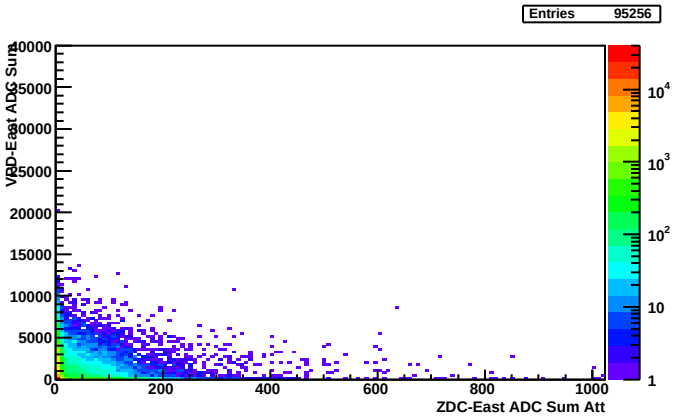

Entries 95256
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

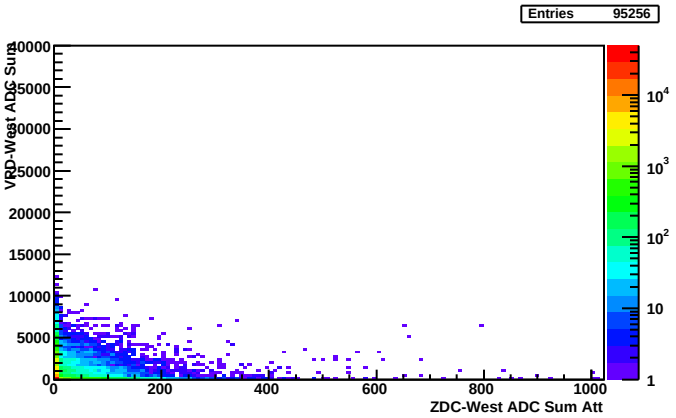

Entries 95256
BBC-S-East ADC Sum
VPD-East ADC Sum

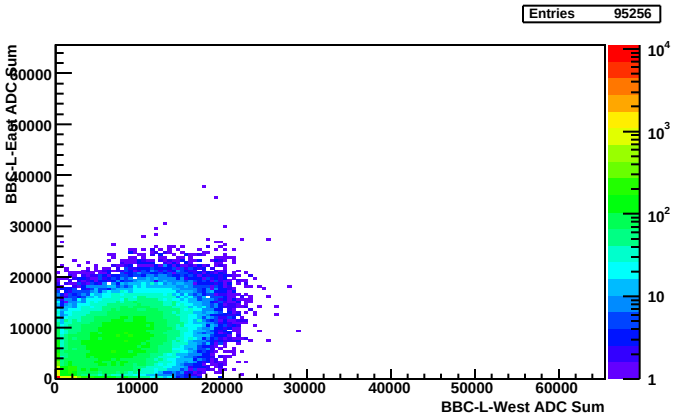

Entries 95256
BBC-S-West ADC Sum
VPD-West ADC Sum

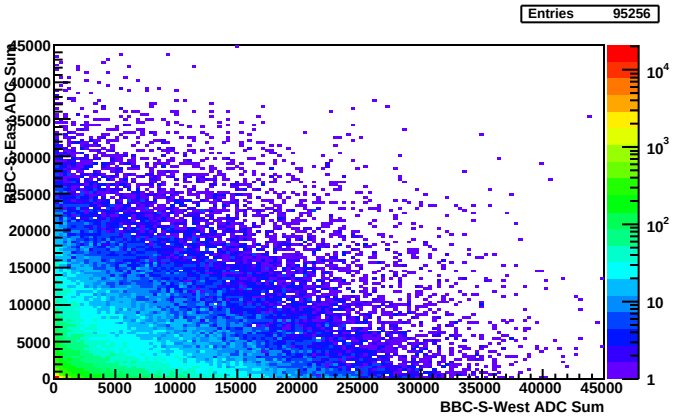

Entries 95256
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

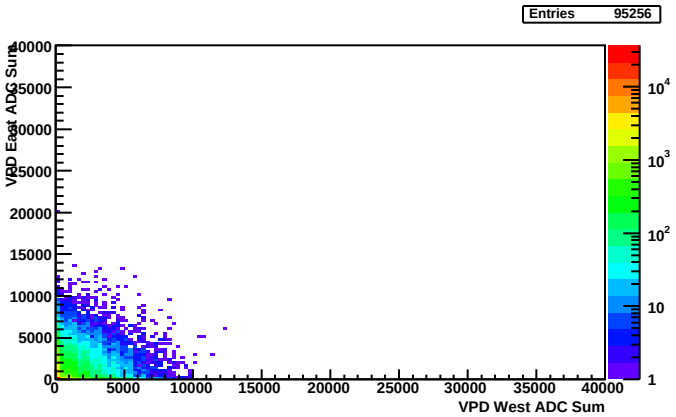

Entries 95256
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

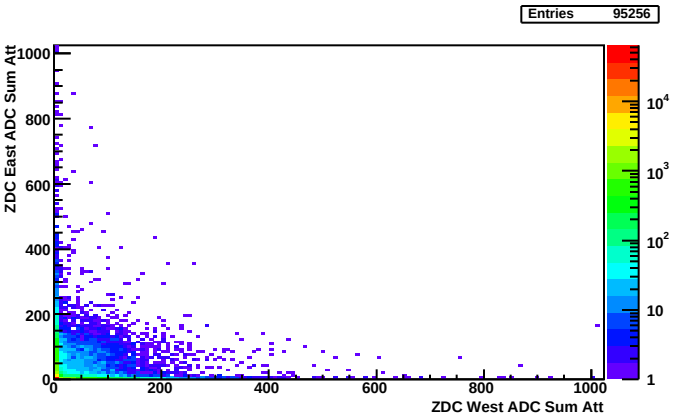

Entries 95256
VPD-East ADC Sum
ZDC-East ADC Sum Att

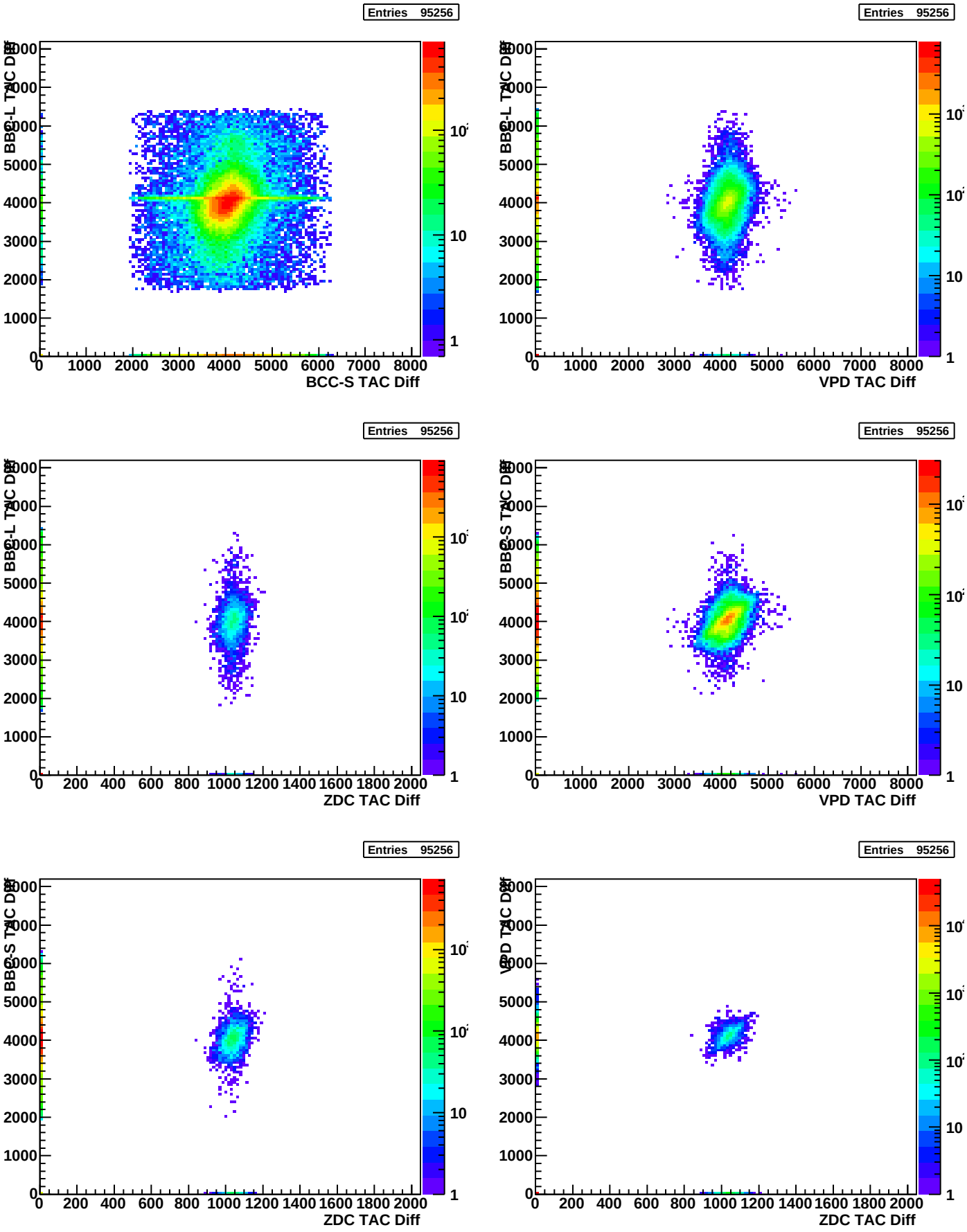

Entries 95256
VPD-West ADC Sum
ZDC-West ADC Sum Att

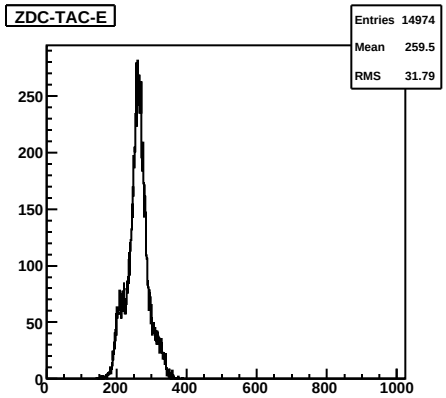

Entries 95256
BBC-L-East ADC Sum
BBC-L-West ADC Sum

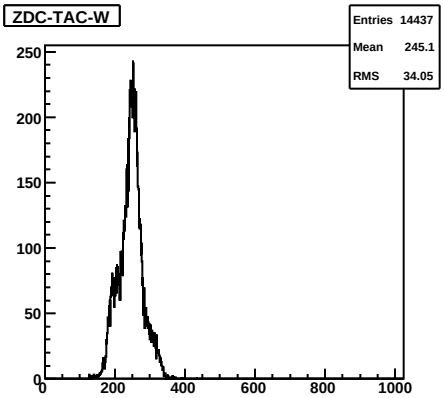

Entries 95256
BBC-S-East ADC Sum
BBC-S-West ADC Sum

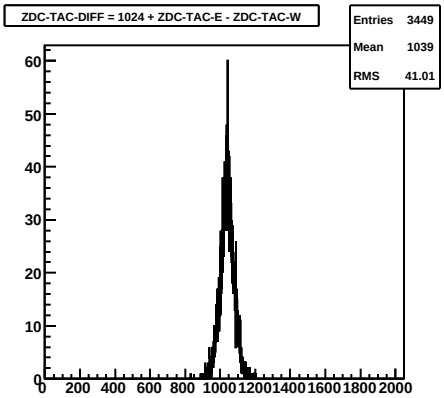

Entries 95256
VPD East ADC Sum
VPD West ADC Sum

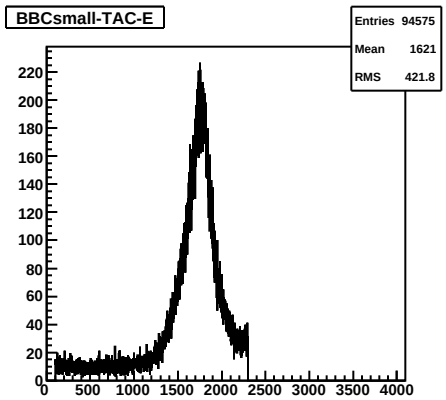

Entries 95256
ZDC East ADC Sum Att
ZDC West ADC Sum Att

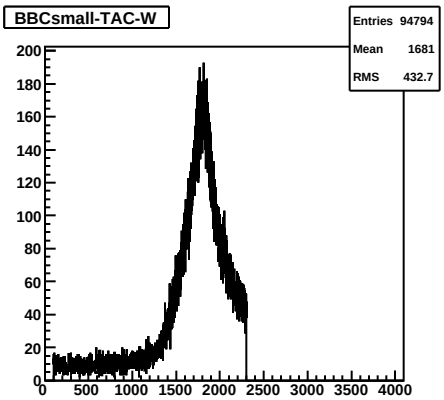

Entries 95256
BBC-L TAC Diff
BCC-S TAC Diff
Entries 95256
BBC-L TAC Diff
VPD TAC Diff
Entries 95256
BBC-L TAC Diff
ZDC TAC Diff
Entries 95256
BBC-S TAC Diff
VPD TAC Diff
Entries 95256
BBC-S TAC Diff
ZDC TAC Diff
Entries 95256
VPD TAC Diff
ZDC TAC Diff

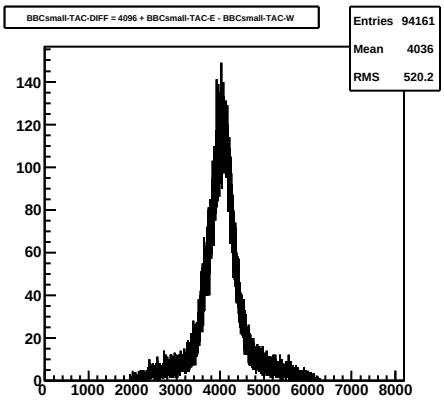

ZDC-TAC-E
Entries 14974
Mean 259.5
RMS 31.79

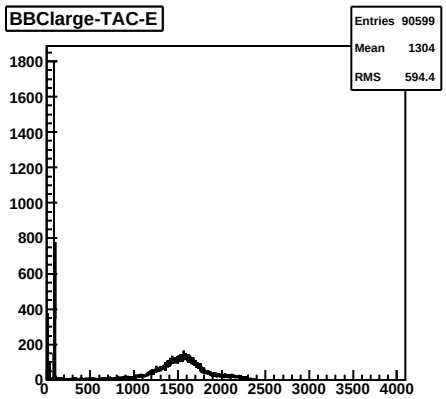

ZDC-TAC-W
Entries 14437
Mean 245.1
RMS 34.05

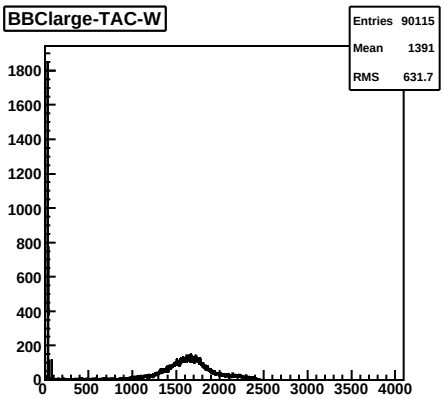

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 3449
Mean 1039
RMS 41.01

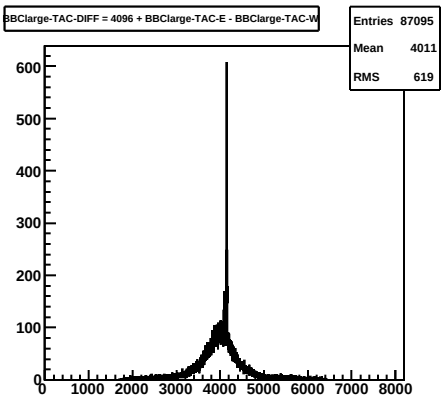

BBCsmall-TAC-E
Entries 94575
Mean 1621
RMS 421.8

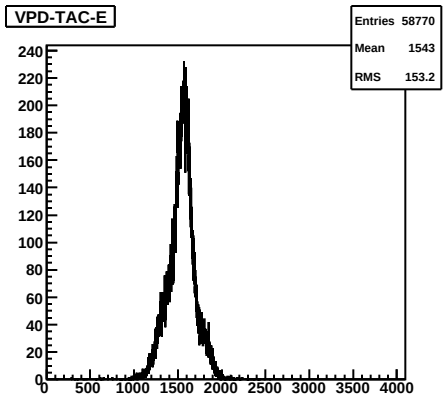

BBCsmall-TAC-W
Entries 94794
Mean 1681
RMS 432.7

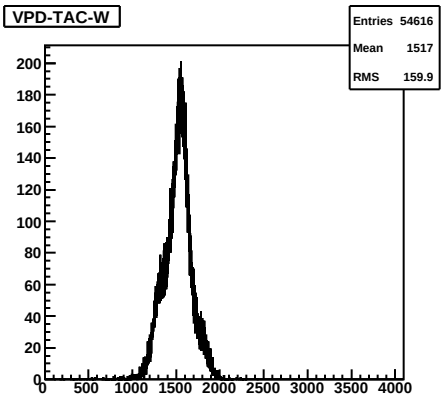

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 94161
Mean 4036
RMS 520.2

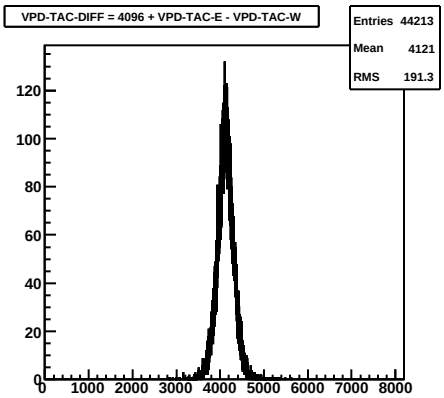

BBClarge-TAC-E
Entries 90599
Mean 1304
RMS 594.4

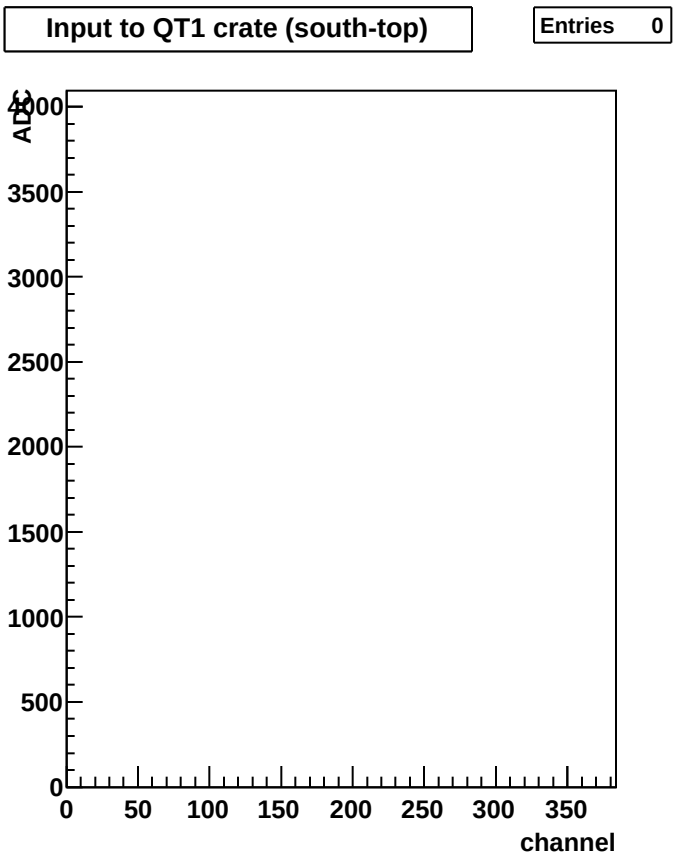

BBClarge-TAC-W
Entries 90115
Mean 1391
RMS 631.7

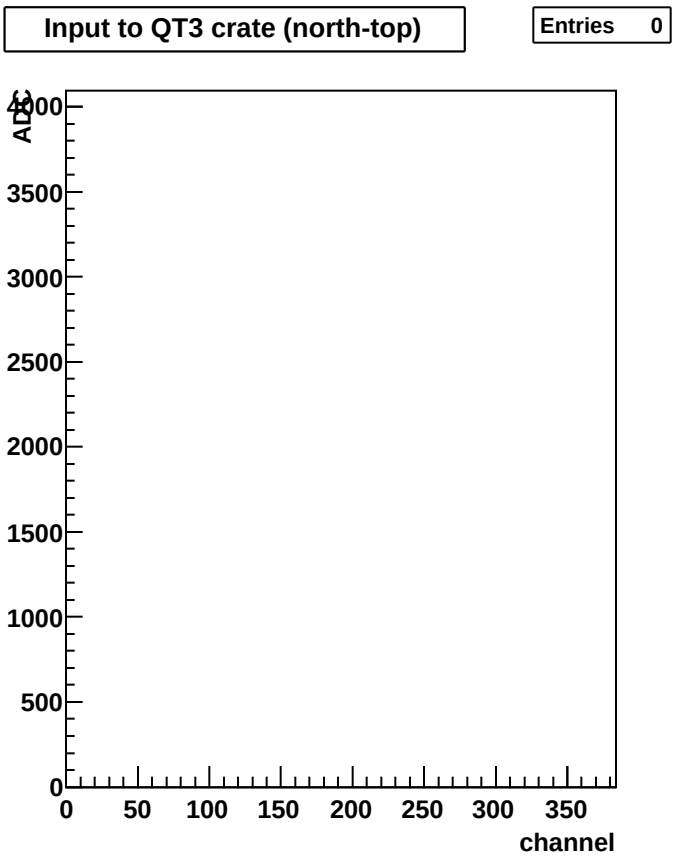

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 87095
Mean 4011
RMS 619

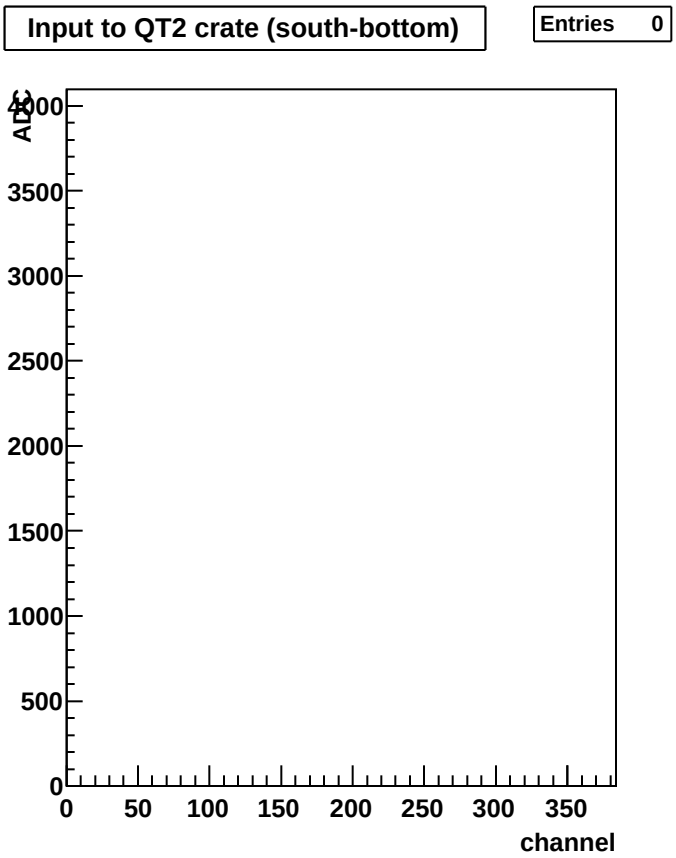

VPD-TAC-E
Entries 58770
Mean 1543
RMS 153.2

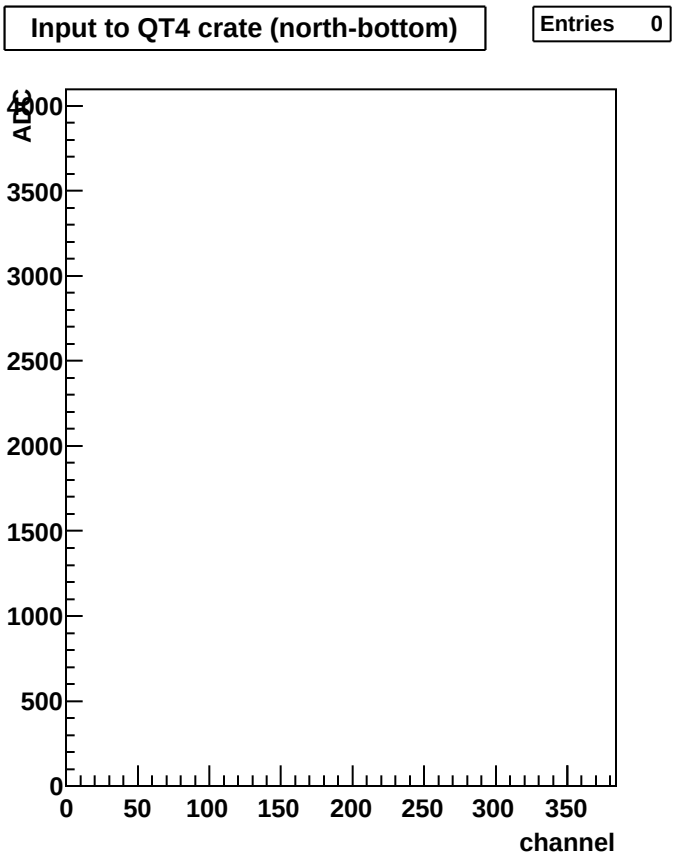

VPD-TAC-W
Entries 54616
Mean 1517
RMS 159.9

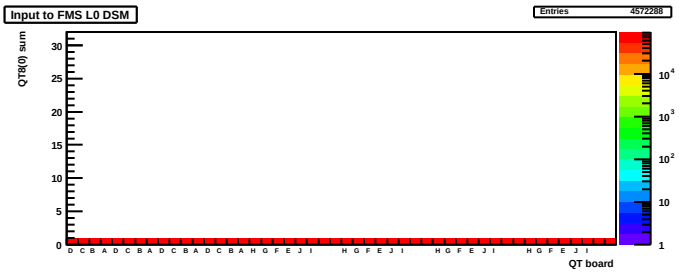

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 44213
Mean 4121
RMS 191.3

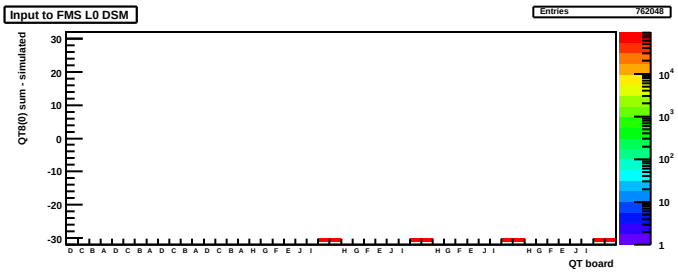

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

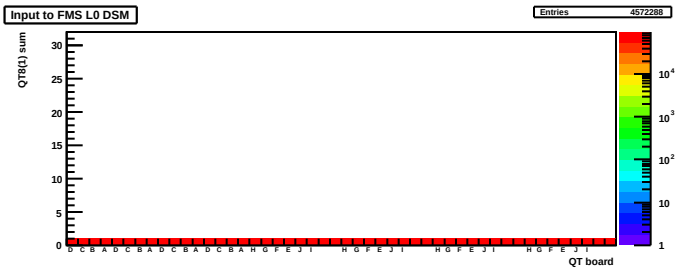

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

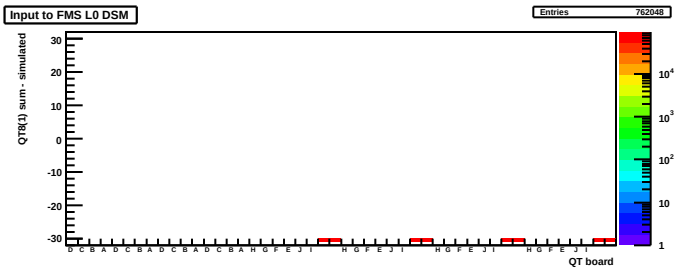

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

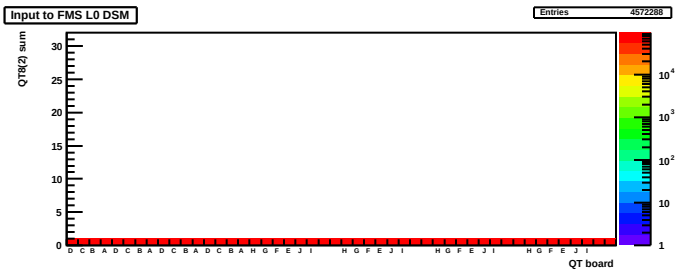

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

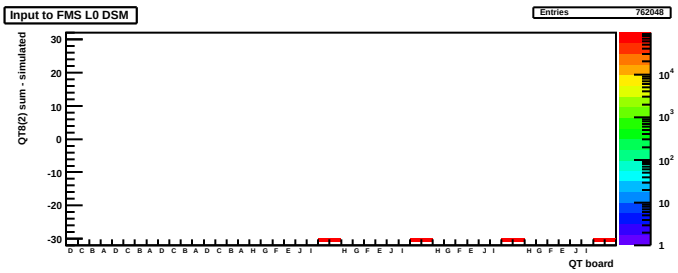

Input to FMS L0 DSM
Entries 4572288
QT8(0) sum
QT board

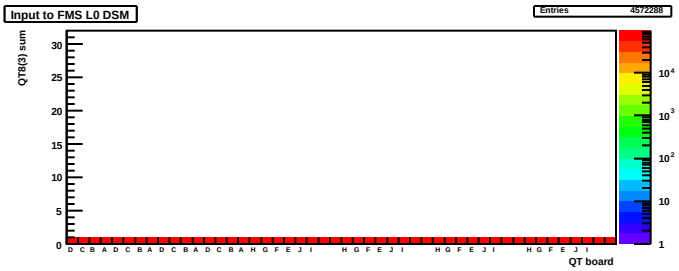

Input to FMS L0 DSM
Entries 762048
QT8(0) sum - simulated
QT board

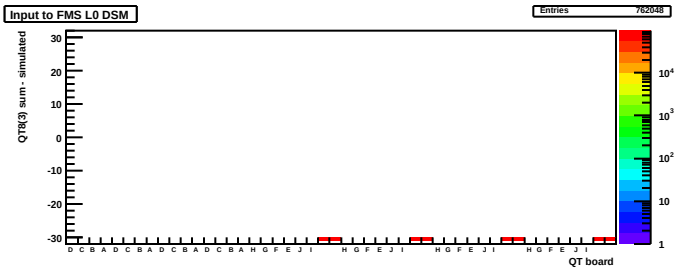

Input to FMS L0 DSM
Entries 4572288
QT8(1) sum
QT board

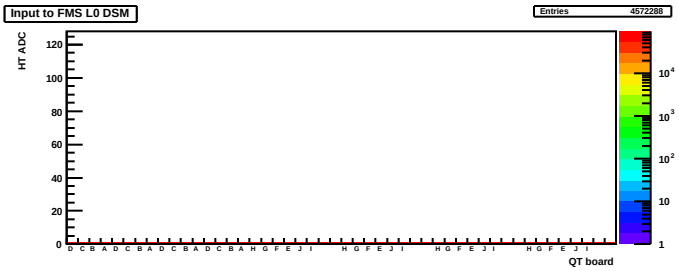

Input to FMS L0 DSM
Entries 762048
QT8(1) sum - simulated
QT board

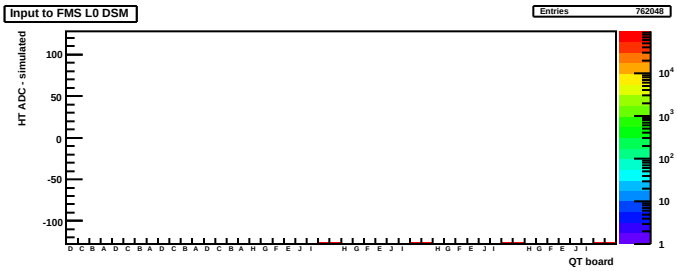

Input to FMS L0 DSM
Entries 4572288
QT8(2) sum
QT board

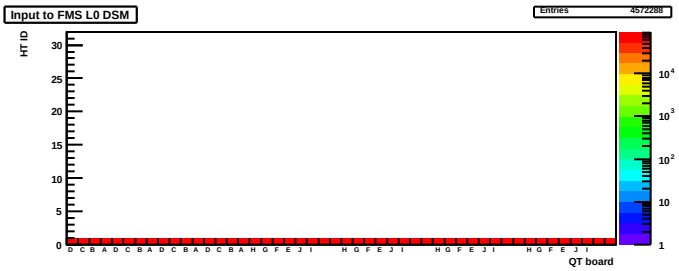

Input to FMS L0 DSM
Entries 762048
QT8(2) sum - simulated
QT board

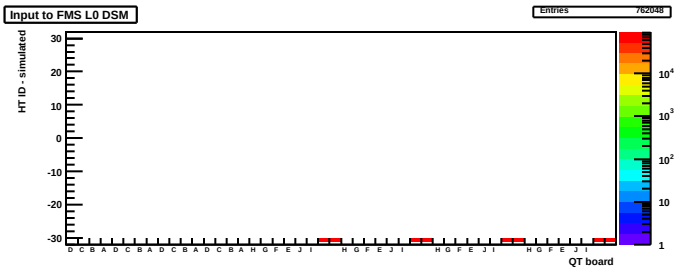

Input to FMS L0 DSM
Entries 4572288
QT8(3) sum
QT board

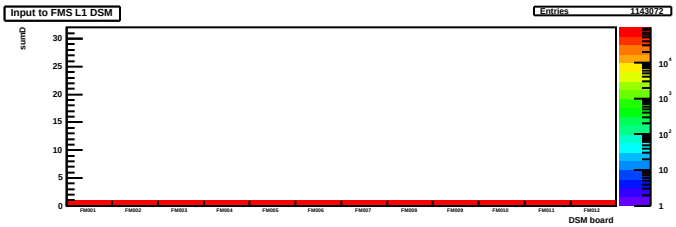

Input to FMS L0 DSM
Entries 762048
QT8(3) sum - simulated
QT board

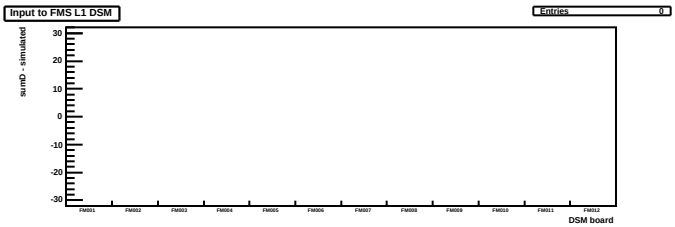

Input to FMS L0 DSM
Entries 4572288
HT ADC
QT board

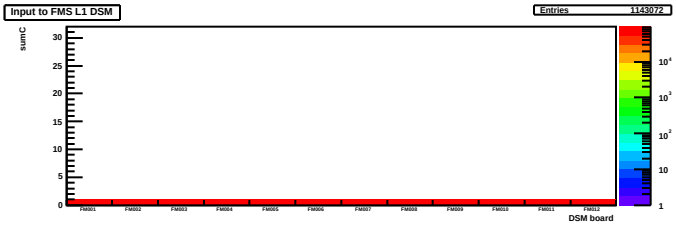

Input to FMS L0 DSM
Entries 762048
HT ADC - simulated
QT board

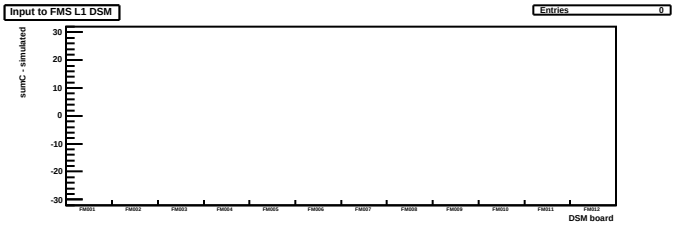

Input to FMS L0 DSM
Entries 4572288
HT ID
QT board

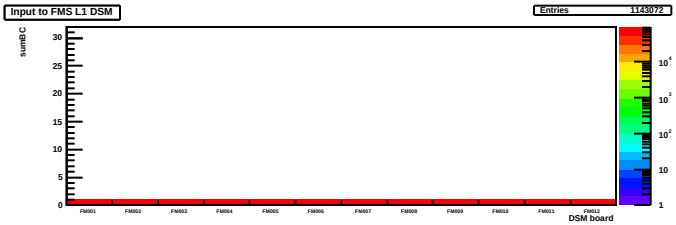

Input to FMS L0 DSM
Entries 762048
HT ID - simulated
QT board

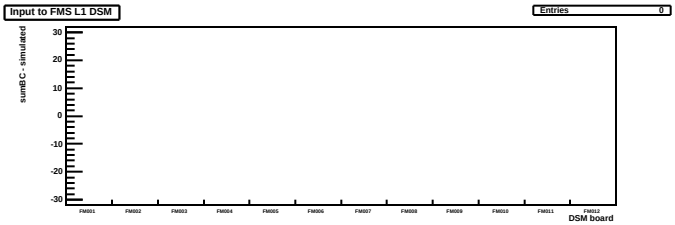

Input to FMS L1 DSM
Entries 1143072
sumD
DSM board

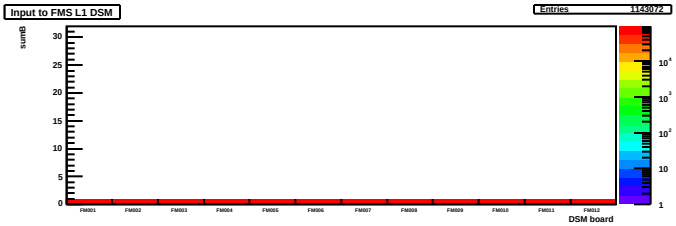

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

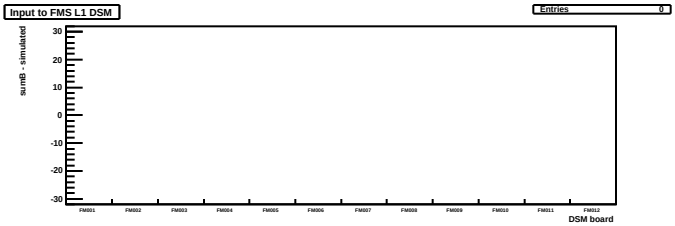

Input to FMS L1 DSM
Entries 1143072
sumC
DSM board

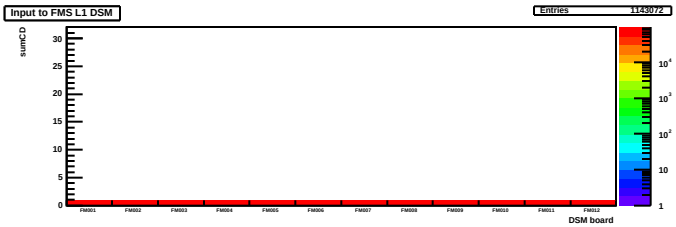

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

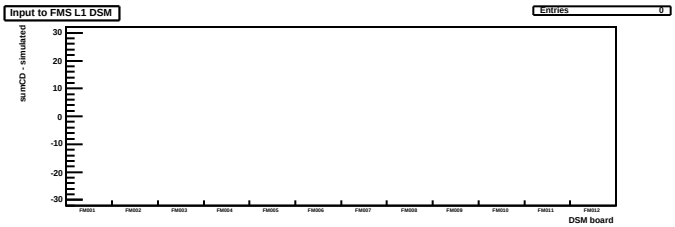

Input to FMS L1 DSM
Entries 1143072
sumBC
DSM board

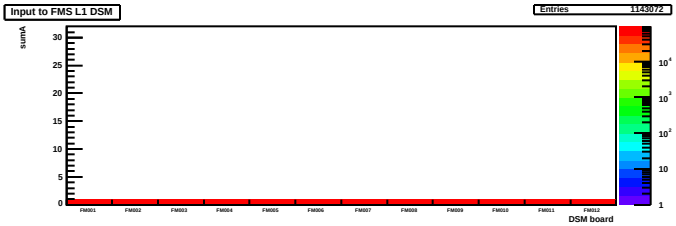

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

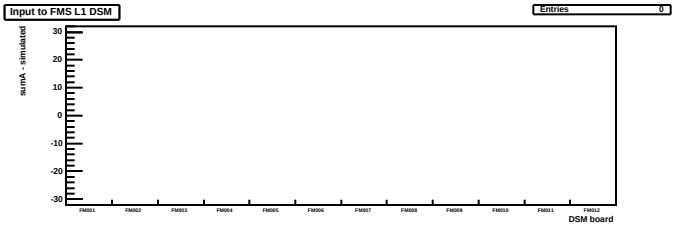

Input to FMS L1 DSM
Entries 1143072
sumB
DSM board

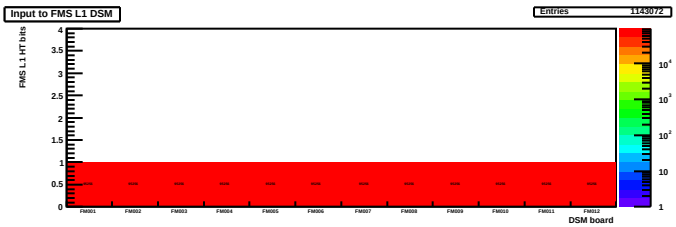

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

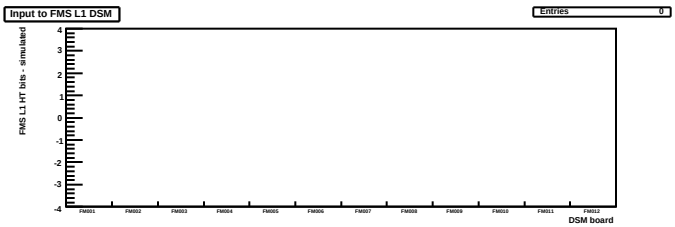

Input to FMS L1 DSM
Entries 1143072
sumCD
DSM board

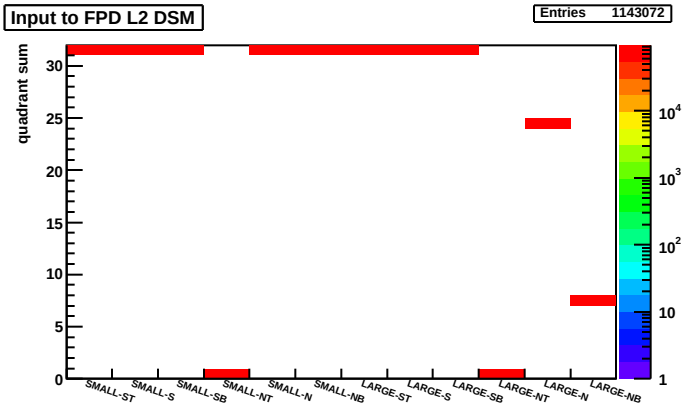

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

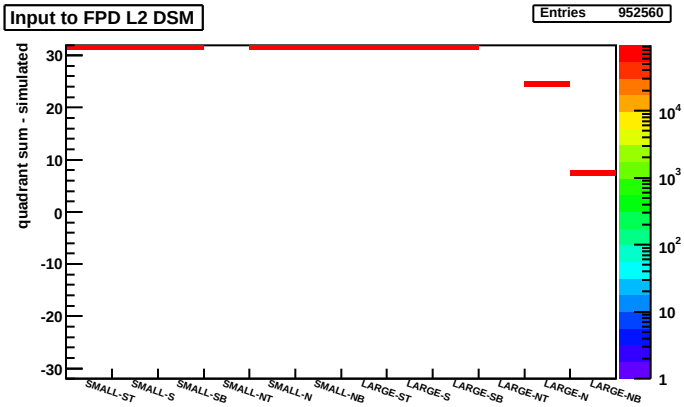

Input to FMS L1 DSM
Entries 1143072
sumA
DSM board

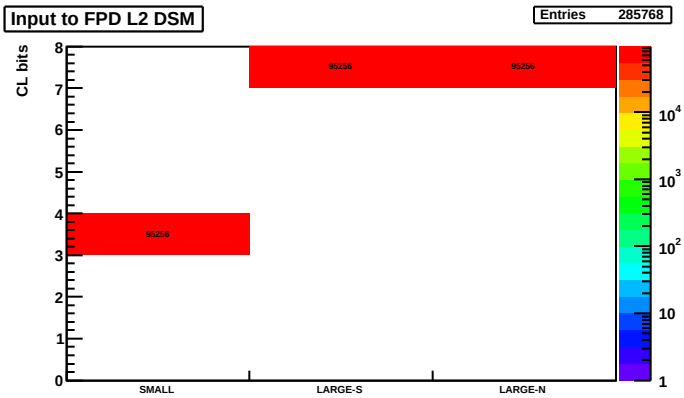

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

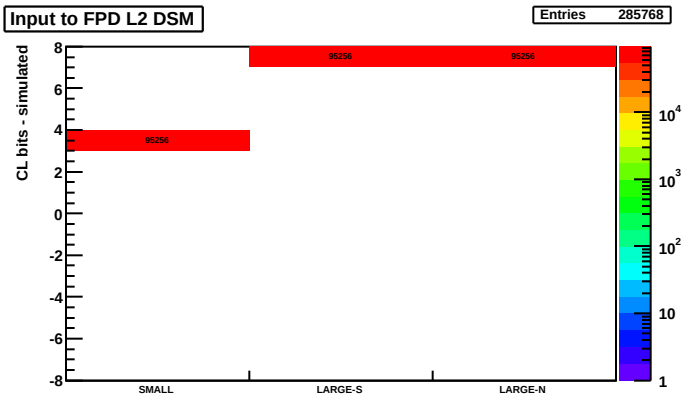

Input to FMS L1 DSM
Entries 1143072
FMS L1 HT bits
DSM board

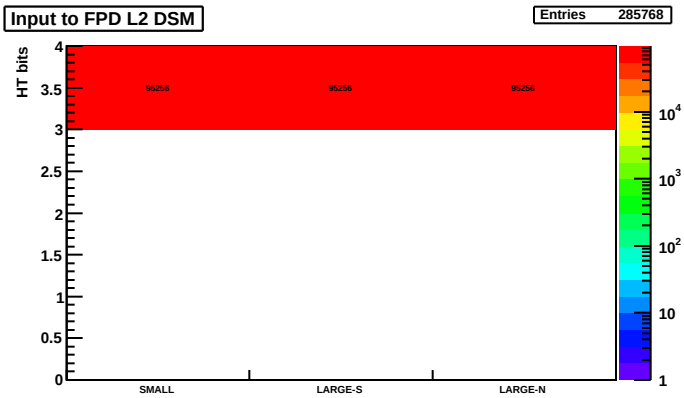

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

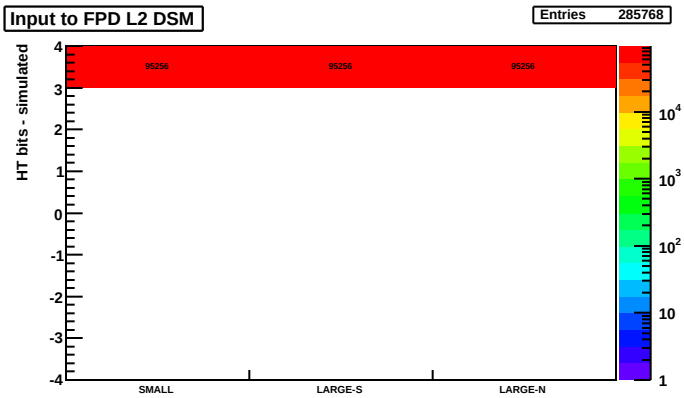

Input to FPD L2 DSM
Entries 1143072
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

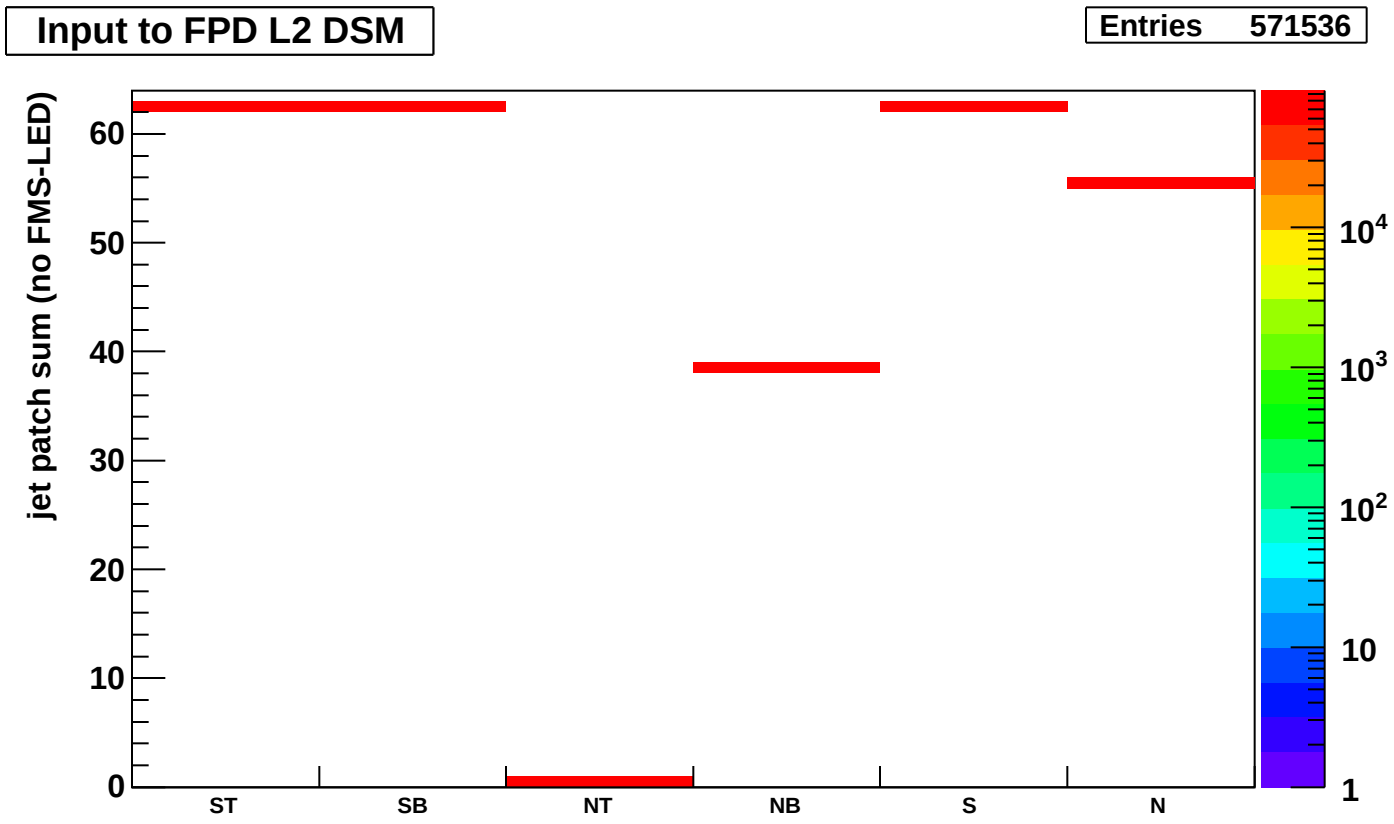

Input to FPD L2 DSM
Entries 952560
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

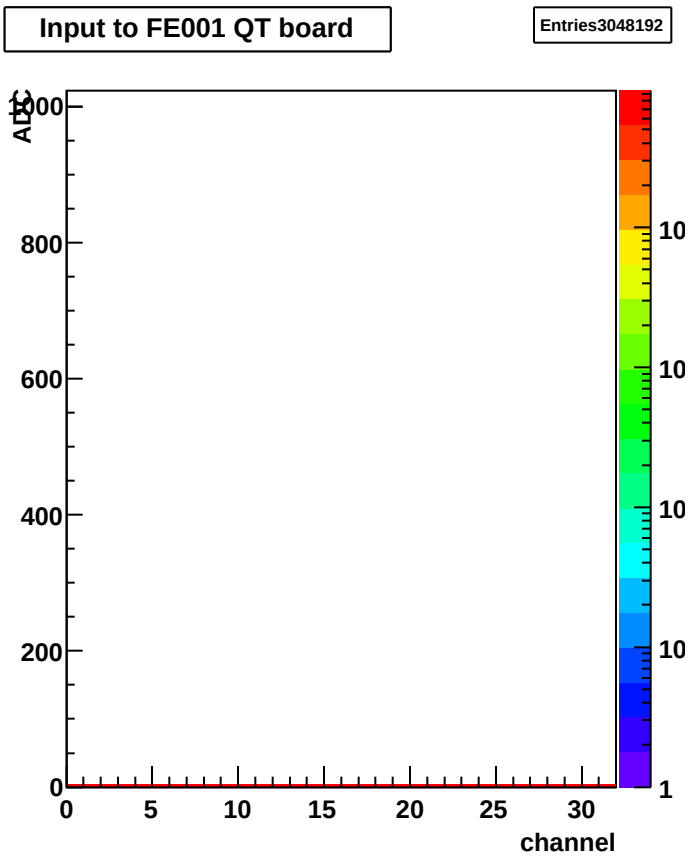

Input to FPD L2 DSM
Entries 285768
CL bits
95256
95256
95256
SMALL
LARGE-S
LARGE-N

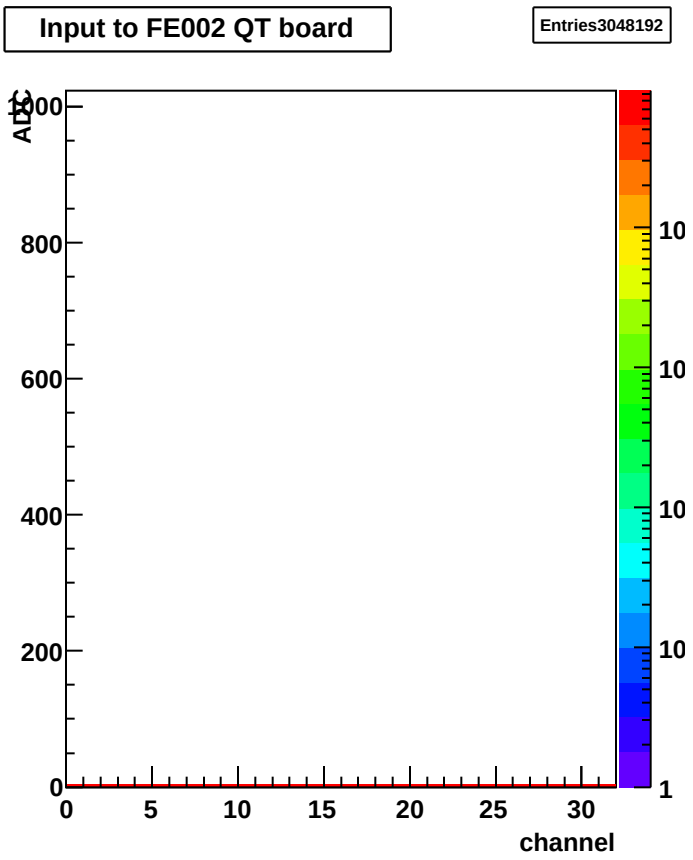

Input to FPD L2 DSM
Entries 285768
CL bits - simulated
95256
95256
95256
SMALL
LARGE-S
LARGE-N

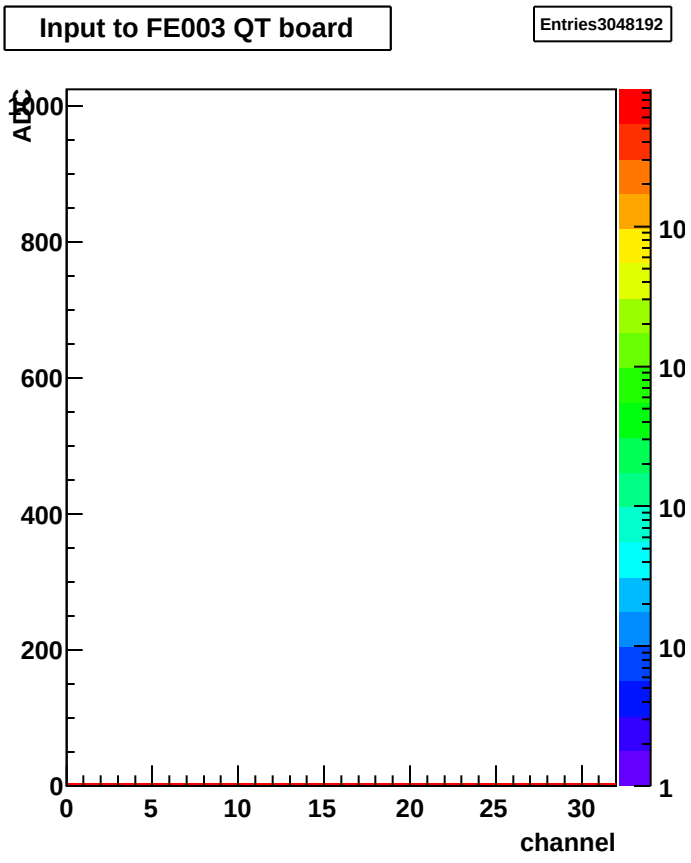

Input to FPD L2 DSM
Entries 285768
HT bits
95256
95256
95256
SMALL
LARGE-S
LARGE-N

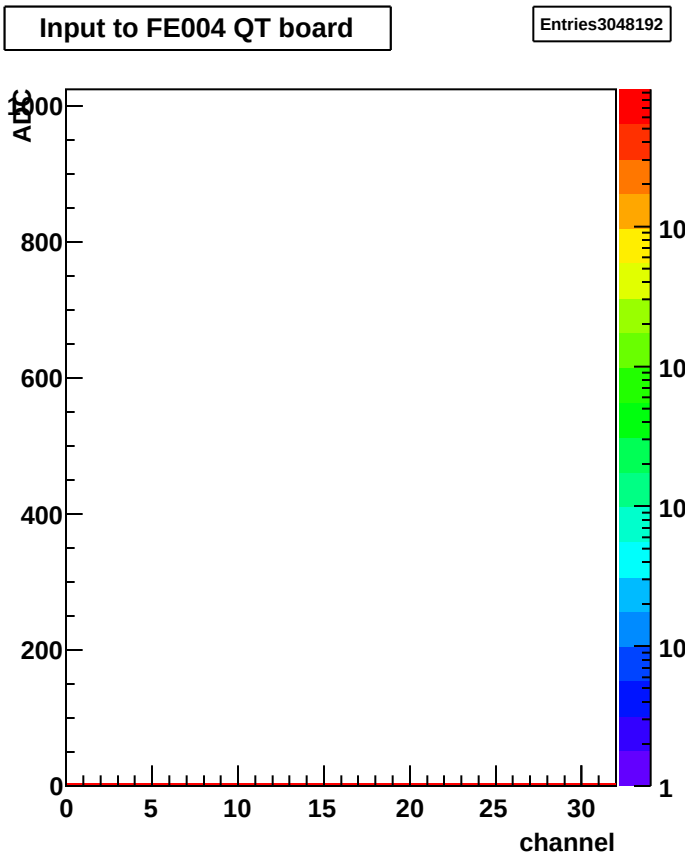

Input to FPD L2 DSM
Entries 285768
HT bits - simulated
95256
95256
95256
SMALL
LARGE-S
LARGE-N

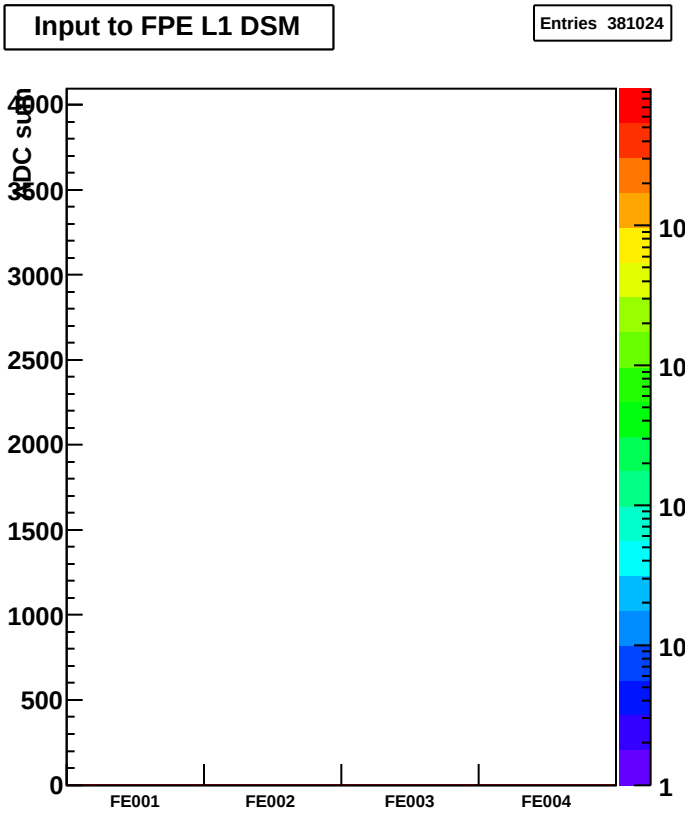

Input to FPD L2 DSM
Entries 571536
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

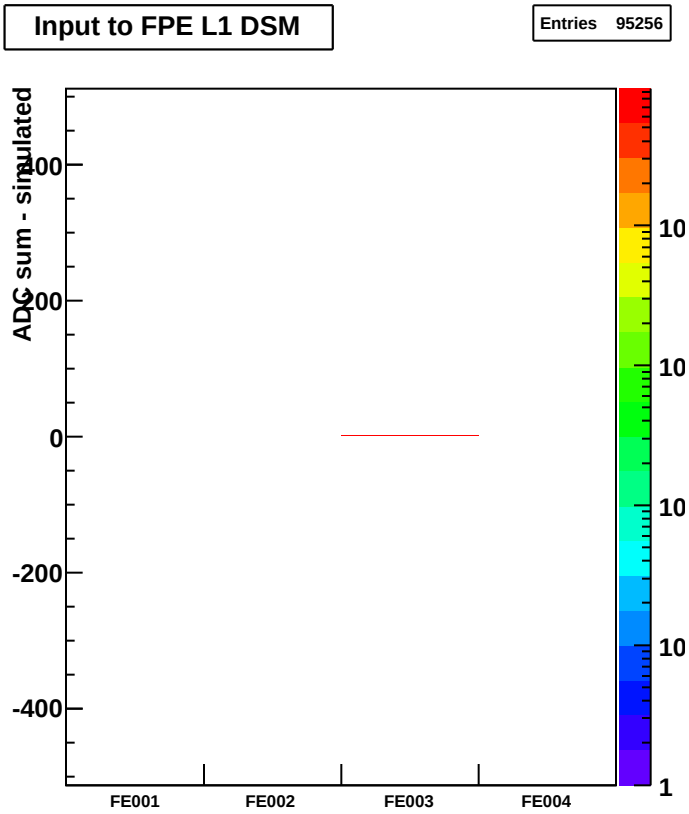

Input to FE001 QT board
Entries3048192
ADC
channel

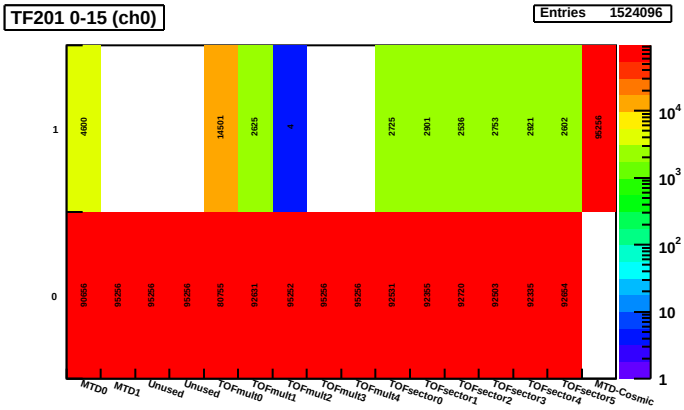

Input to FE002 QT board
Entries3048192
ADC
channel

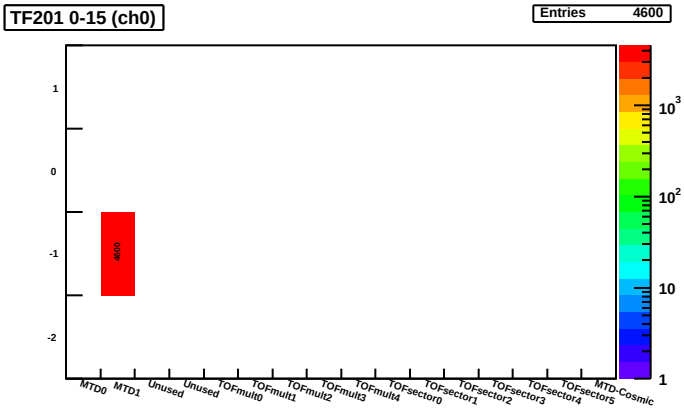

Input to FE003 QT board
Entries3048192
ADC
channel

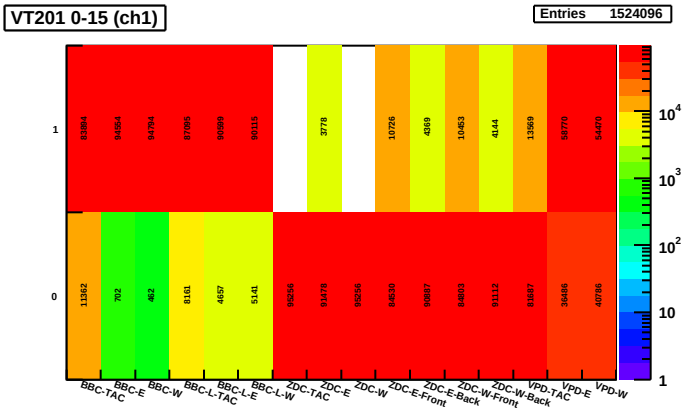

Input to FE004 QT board
Entries3048192
ADC
channel


Input to FPE L1 DSM
Entries 381024
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 95256
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 1524096
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 4600
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic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Entries 1524096
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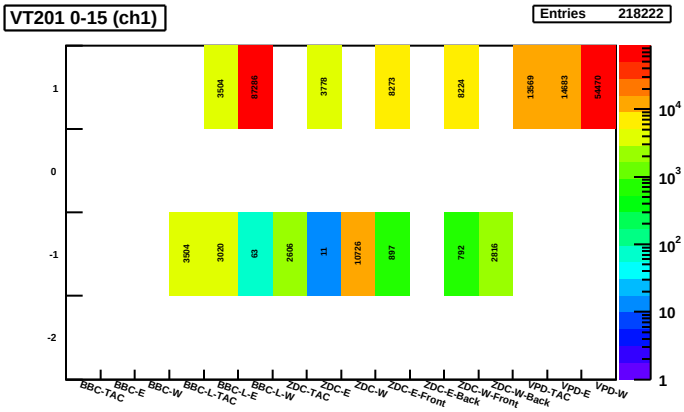
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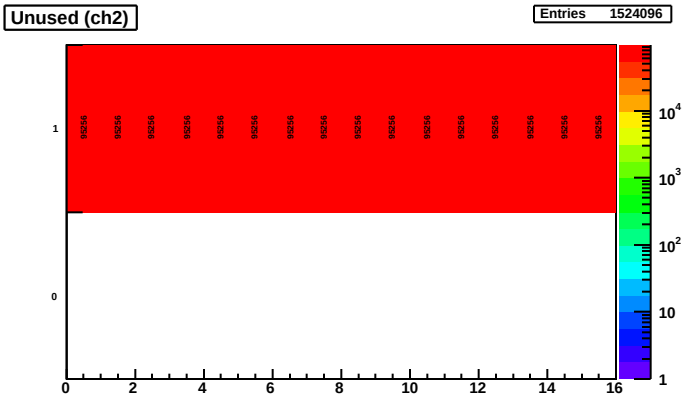
Unused (ch2)
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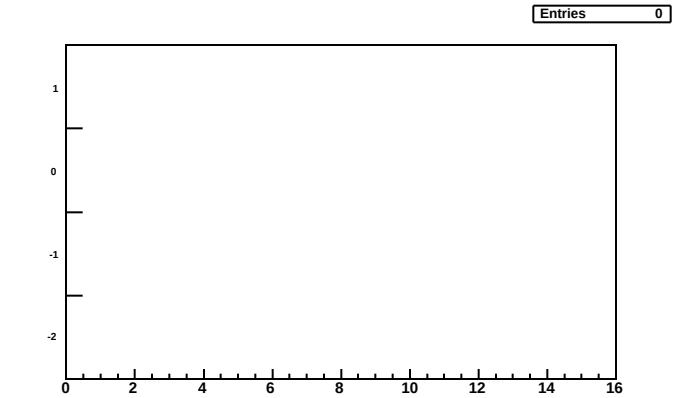
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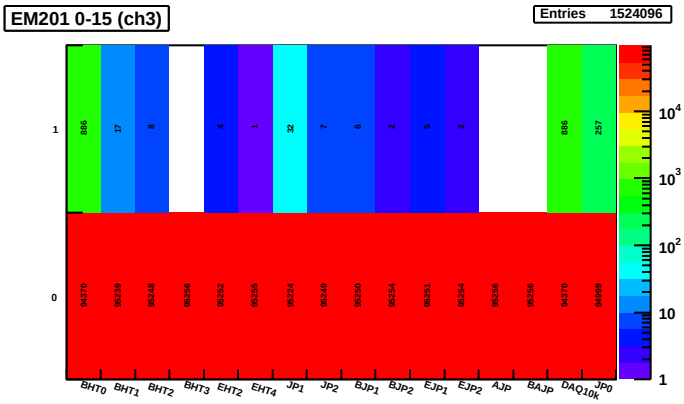
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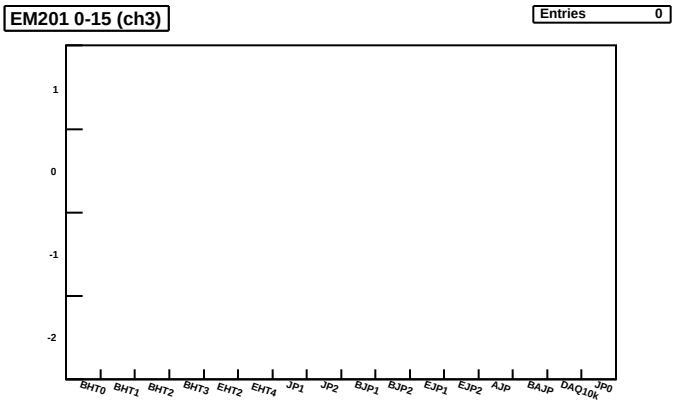
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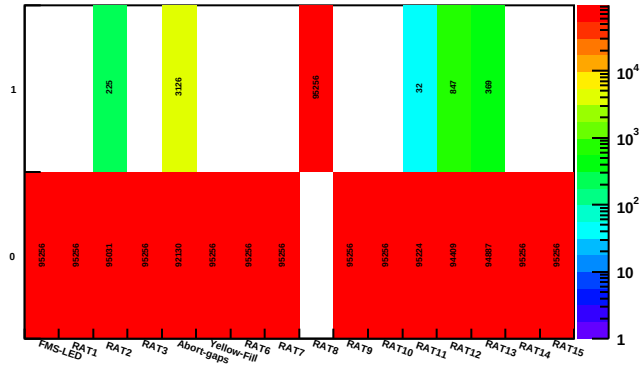
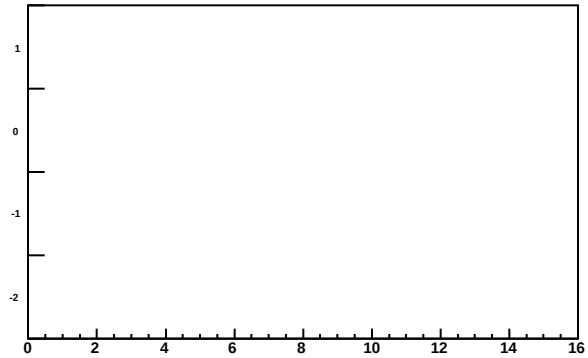
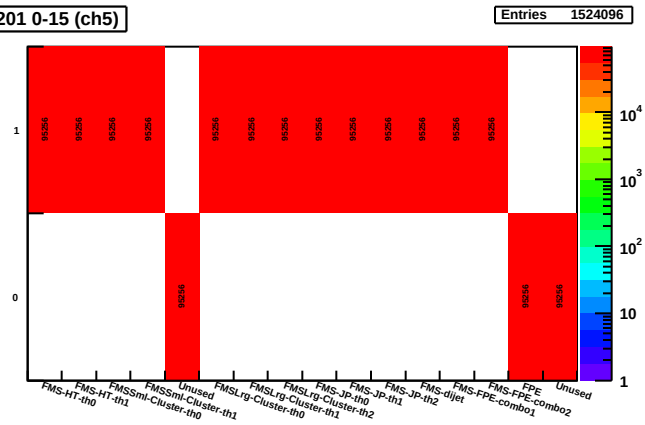
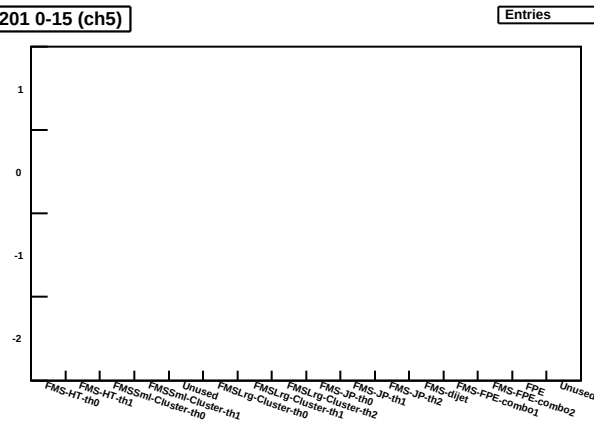
RAT board (ch4)



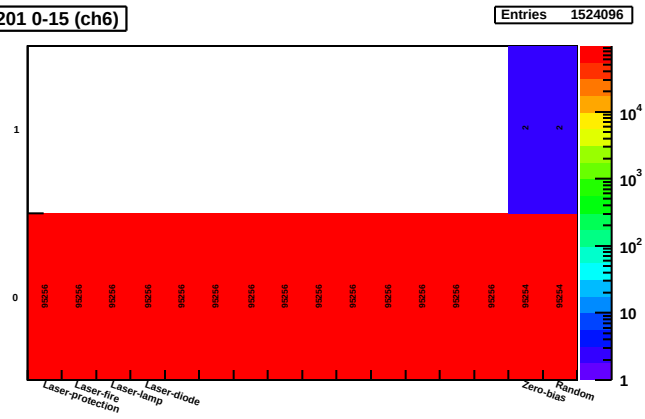


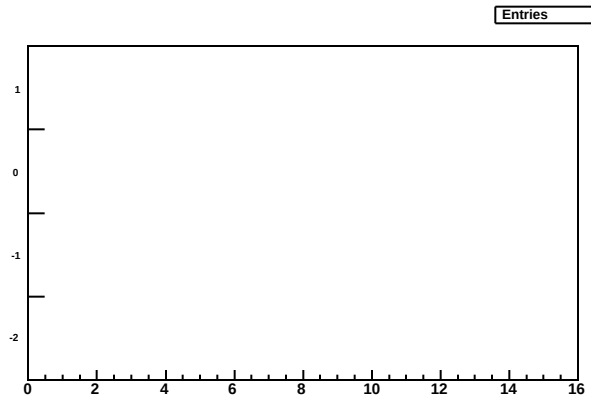
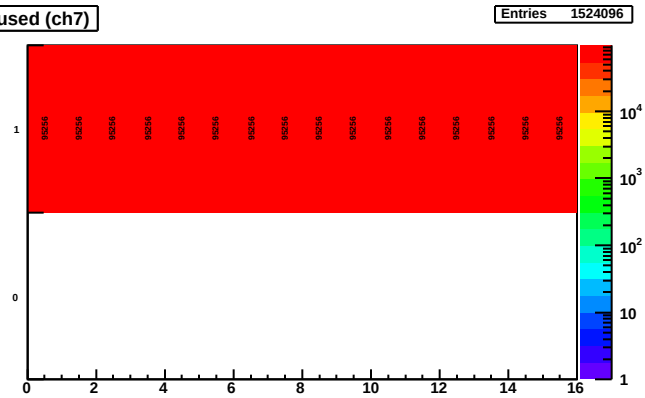
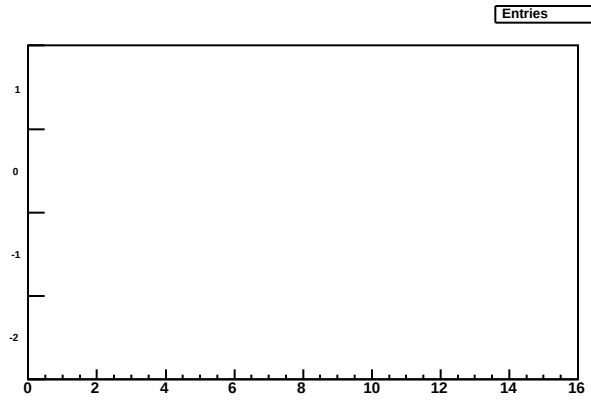
FP201 0-15 (ch5)





ST201 0-15 (ch6)





Unused (ch7)