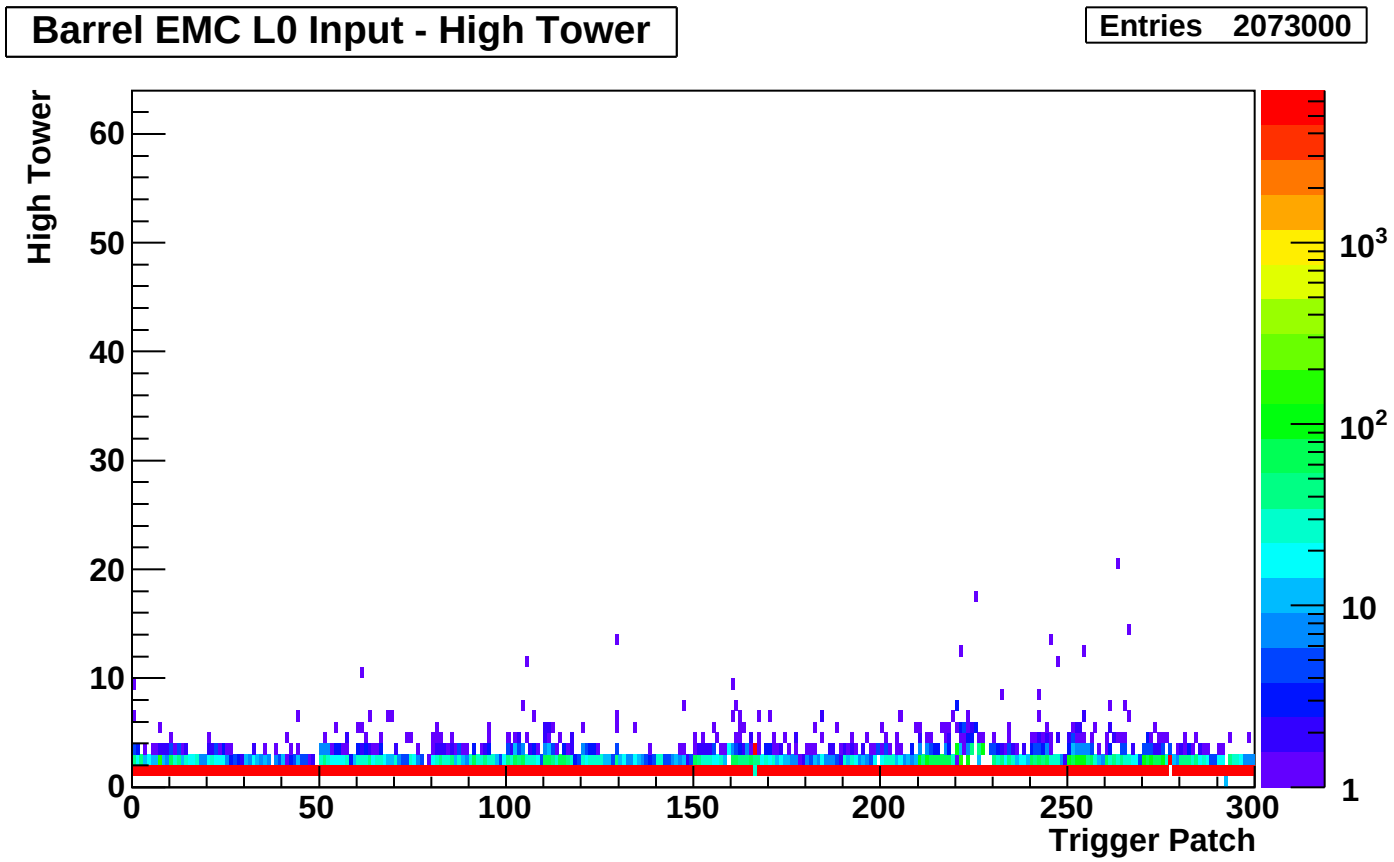
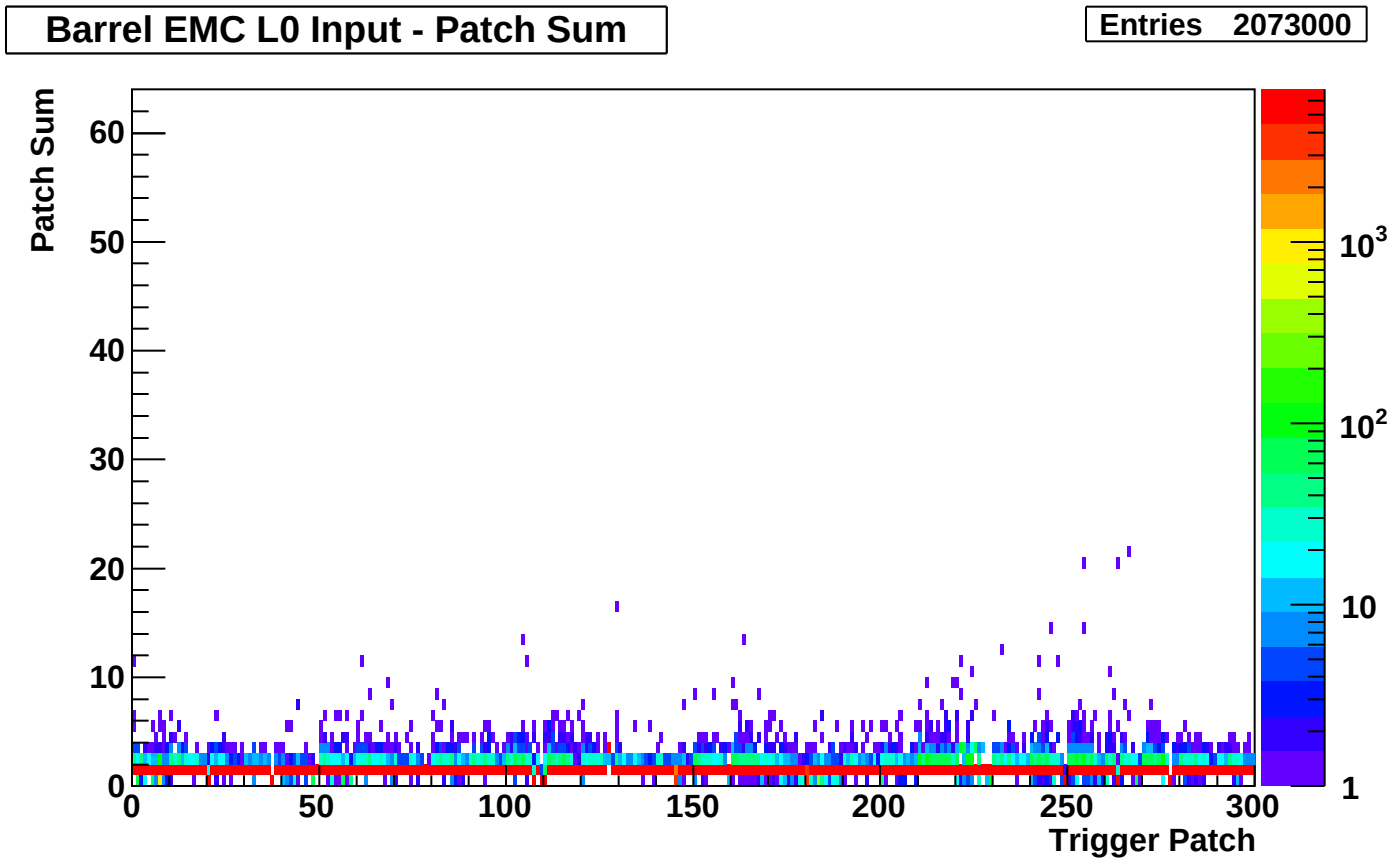
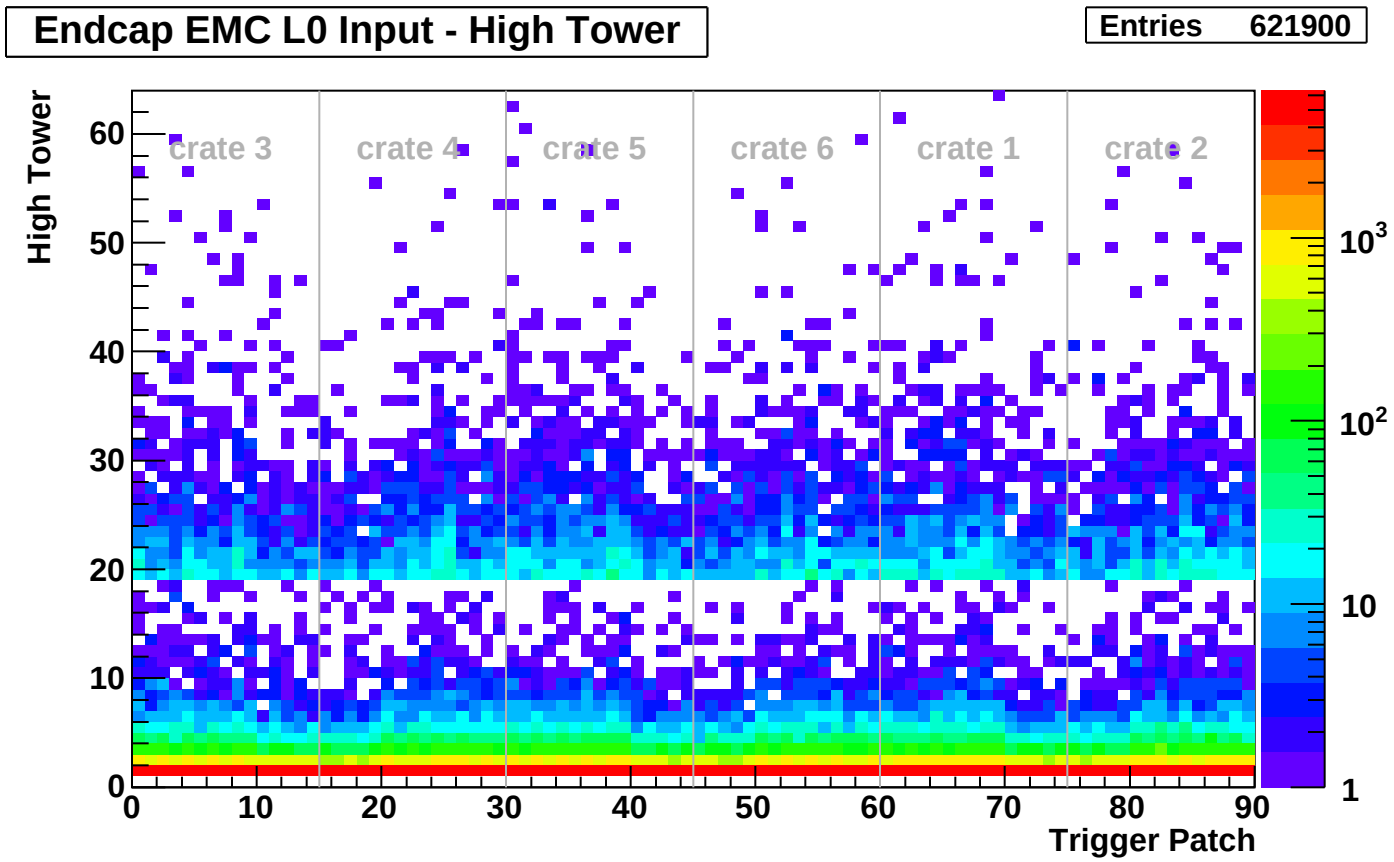
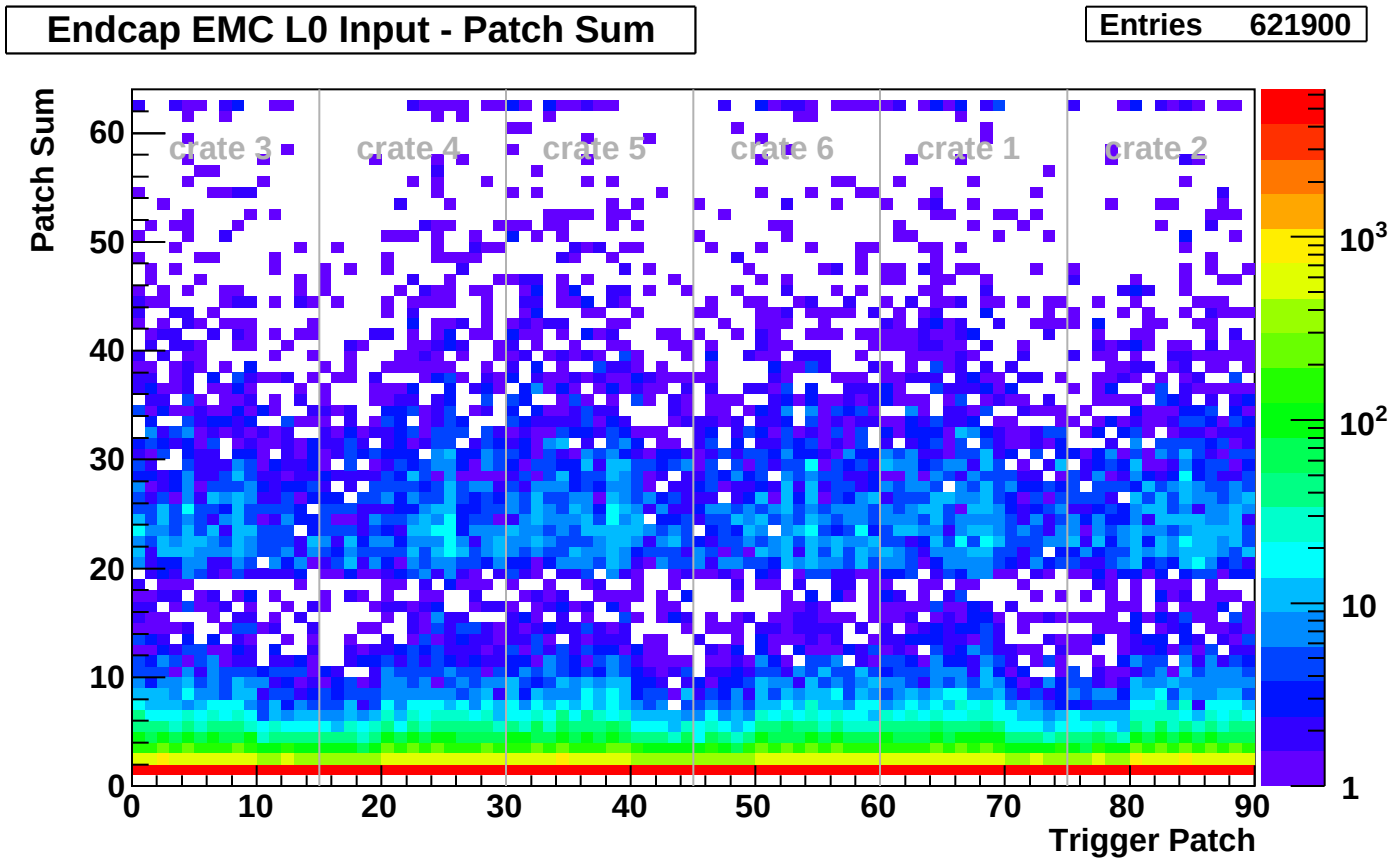
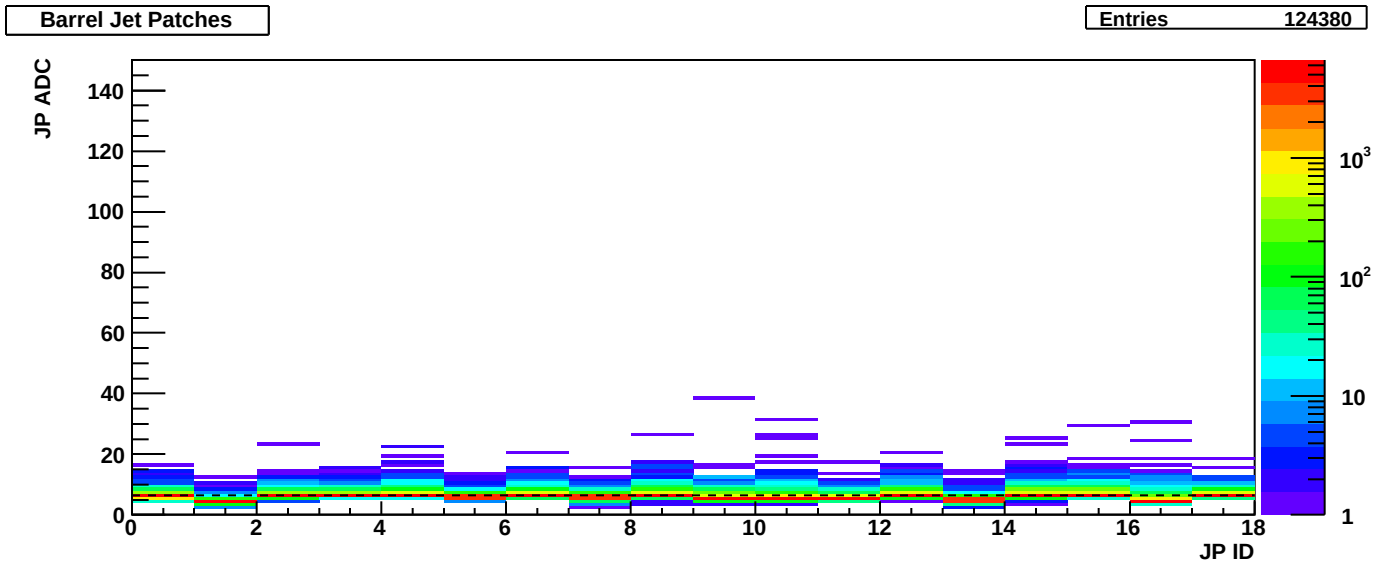
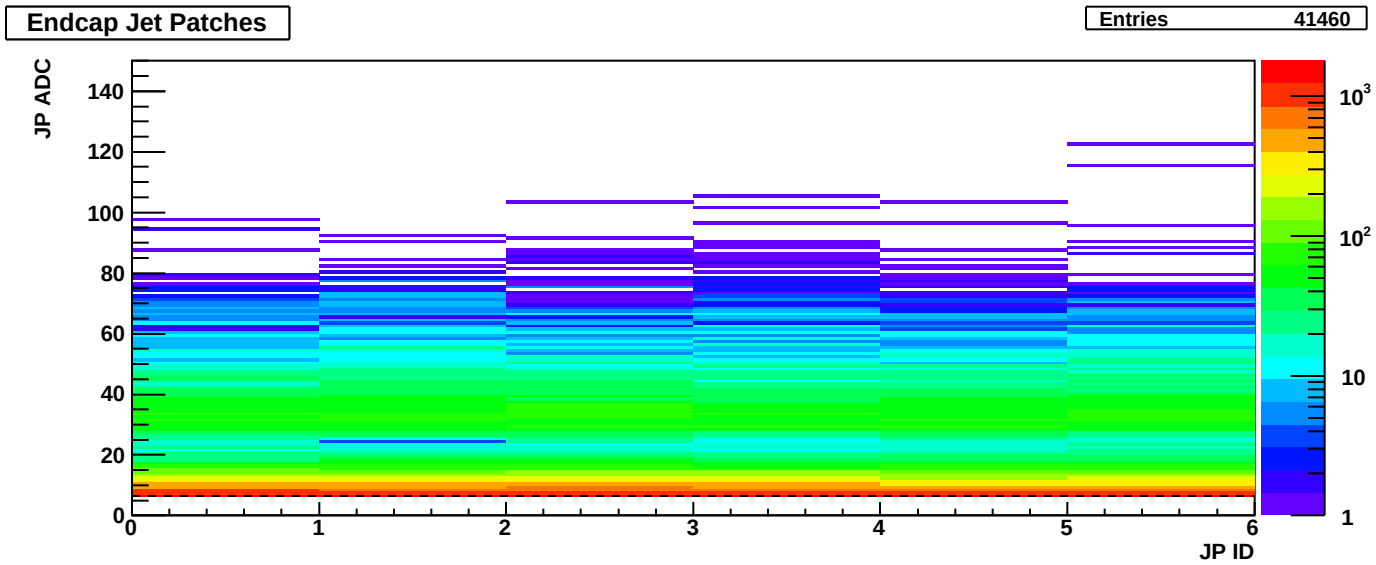

Barrel EMC L0 Input - High Tower
Entries 2073000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

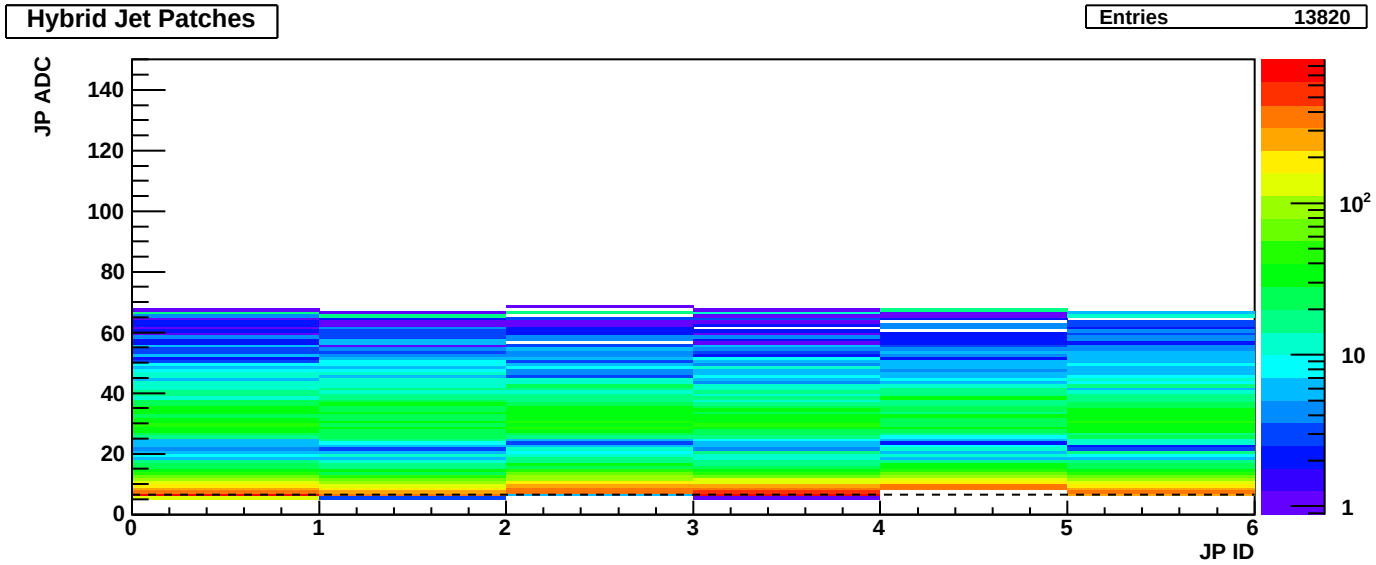

Barrel EMC L0 Input - Patch Sum
Entries 2073000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

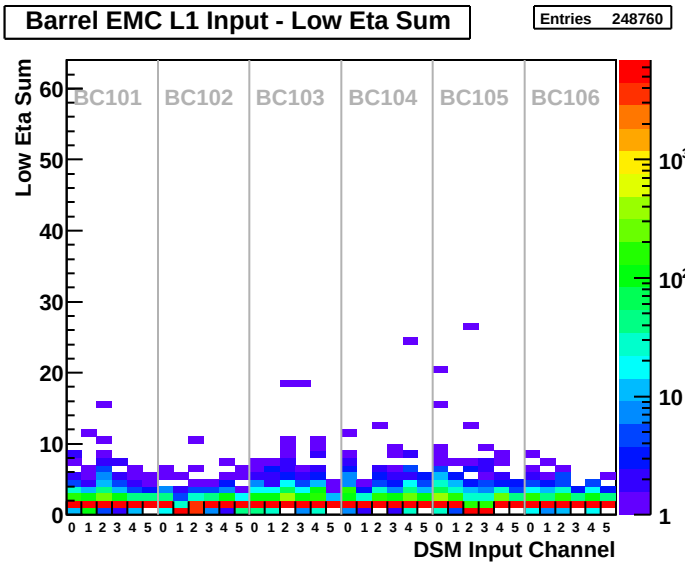

Endcap EMC L0 Input - High Tower
Entries 621900
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

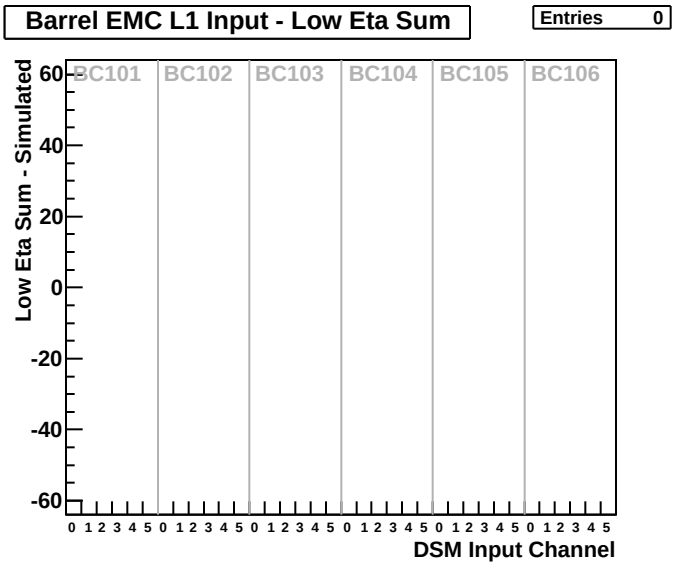

Endcap EMC L0 Input - Patch Sum
Entries 621900
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

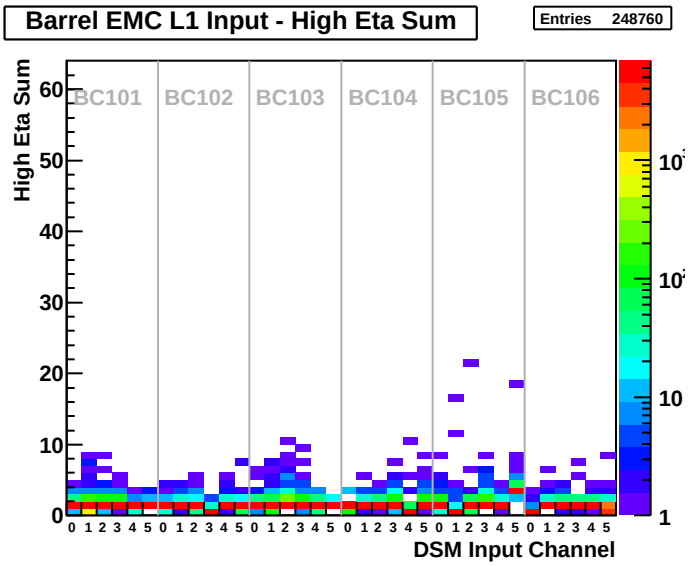

Barrel Jet Patches
Entries 124380
JP ADC
JP ID

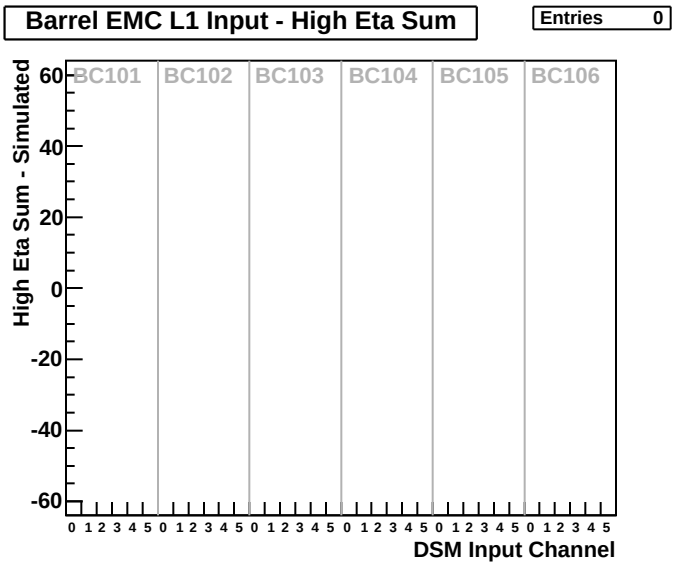

Endcap Jet Patches
Entries 41460
JP ADC
JP ID

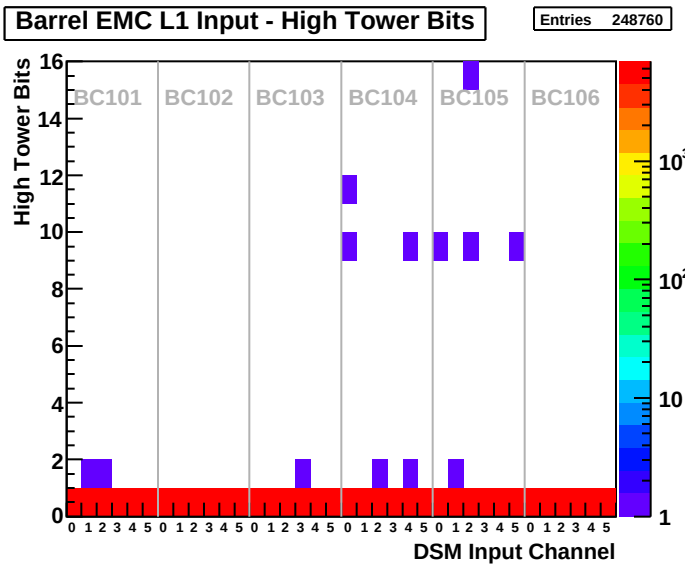

Hybrid Jet Patches
Entries 13820
JP ADC
JP ID

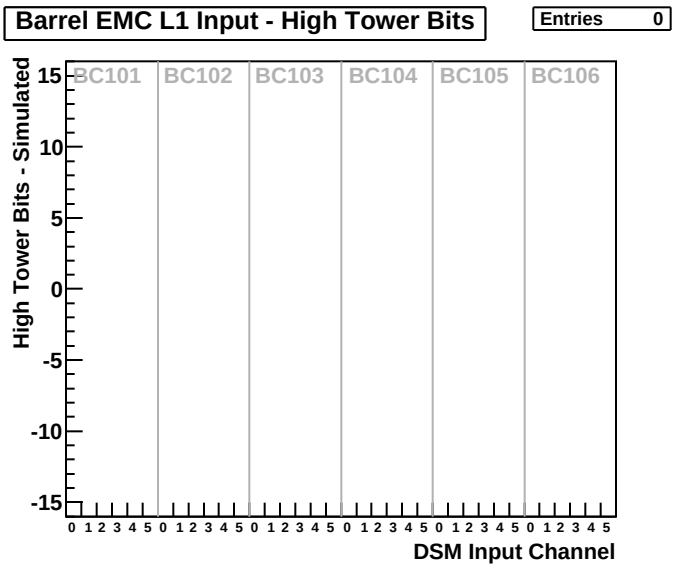

Barrel EMC L1 Input - Low Eta Sum
Entries 248760
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

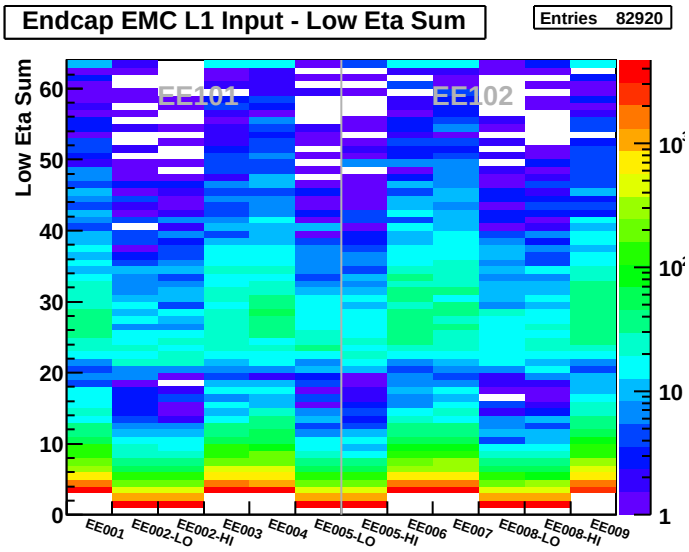

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

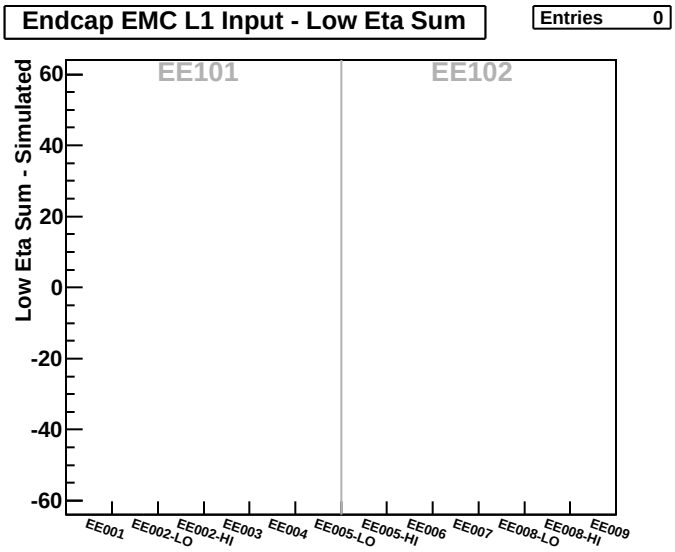

Barrel EMC L1 Input - High Eta Sum
Entries 248760
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

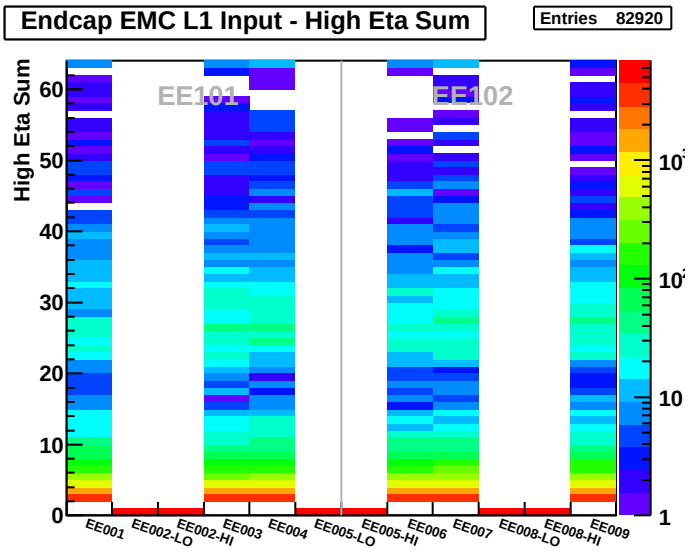

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

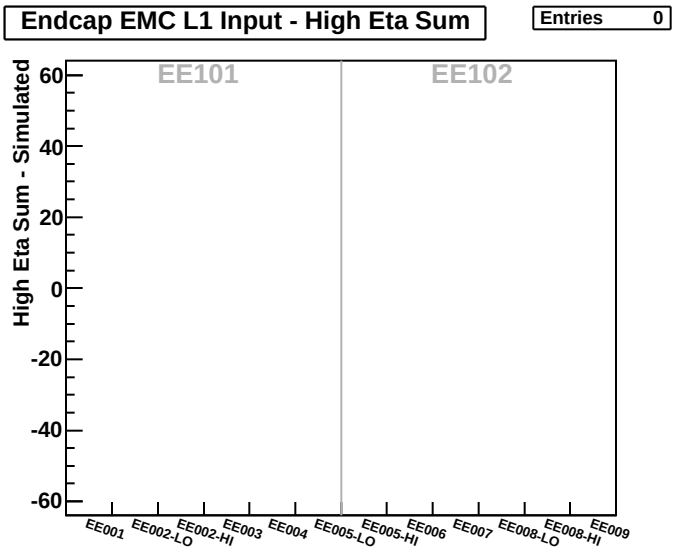

Barrel EMC L1 Input - High Tower Bits
Entries 248760
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

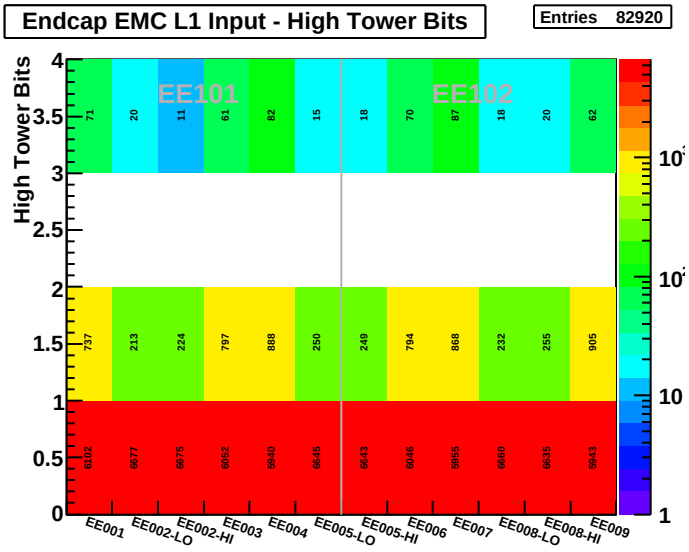

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

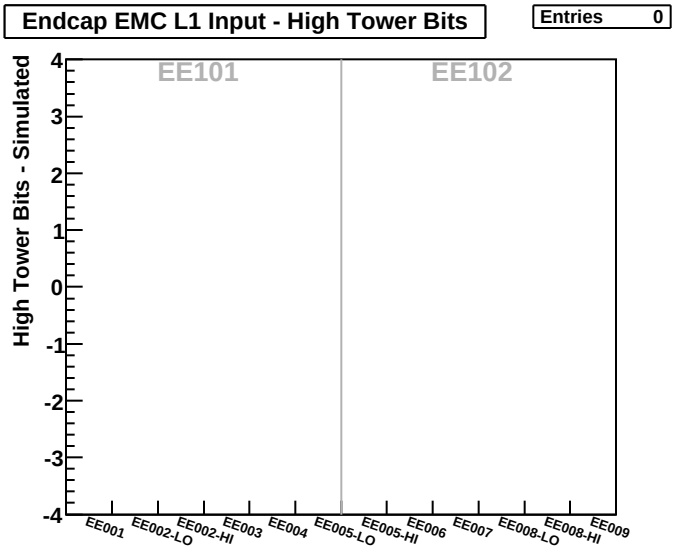

Endcap EMC L1 Input - Low Eta Sum
Entries 82920
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

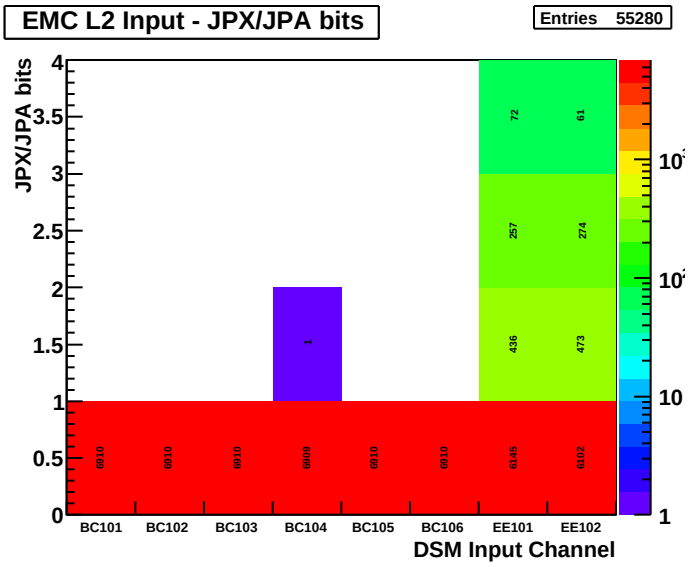

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

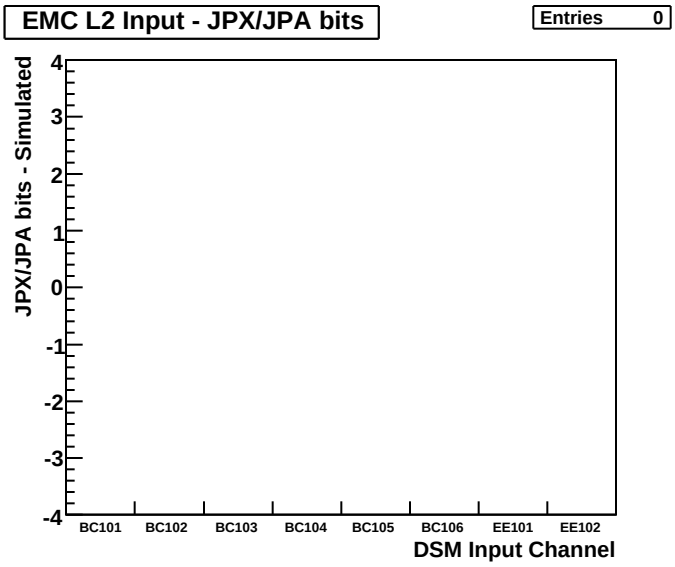

Endcap EMC L1 Input - High Eta Sum
Entries 82920
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

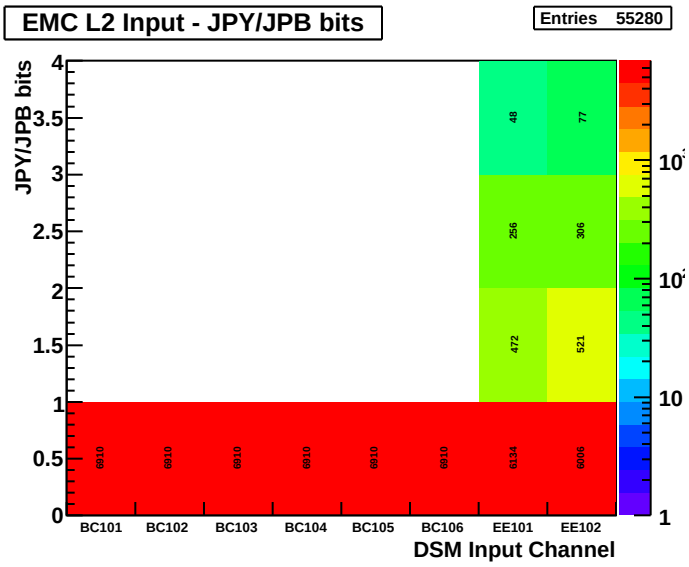

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

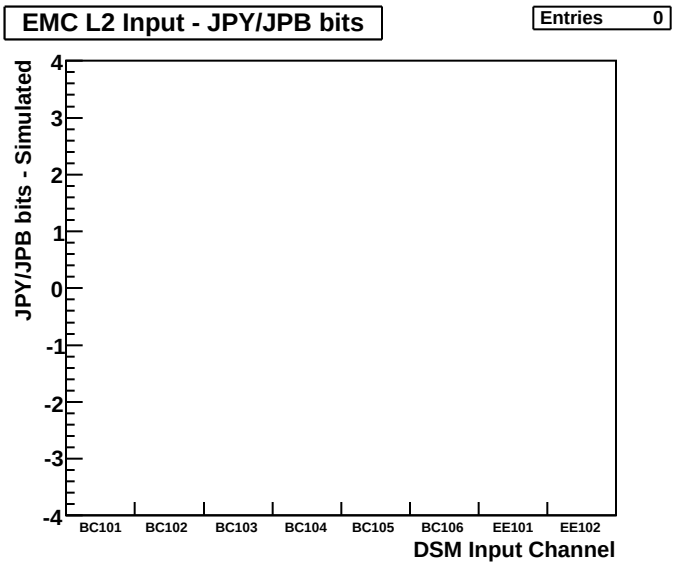

Endcap EMC L1 Input - High Tower Bits
Entries 82920
High Tower Bits
EE101
EE102
71 20 11 61 82 15 18 70 87 18 20 62
737 213 224 797 888 250 249 794 868 232 255 905
6102 6677 6675 6052 5940 6645 6643 6046 5955 6660 6635 5943
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

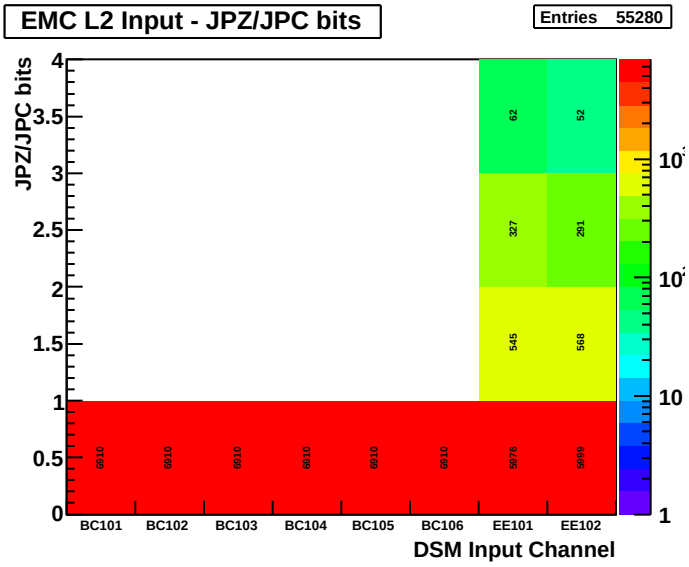

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

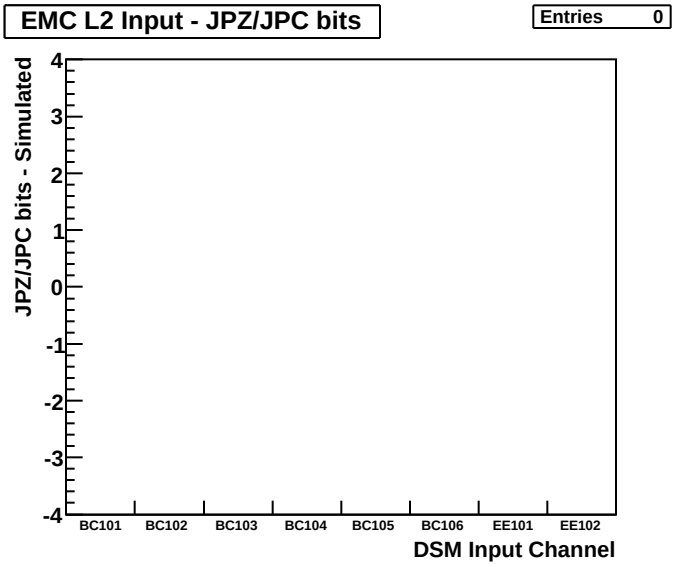

EMC L2 Input - JPX/JPA bits
Entries 55280
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6910 6910 6910 6909 6910 6910 6145 6102
1
436 473
257 274
72 61

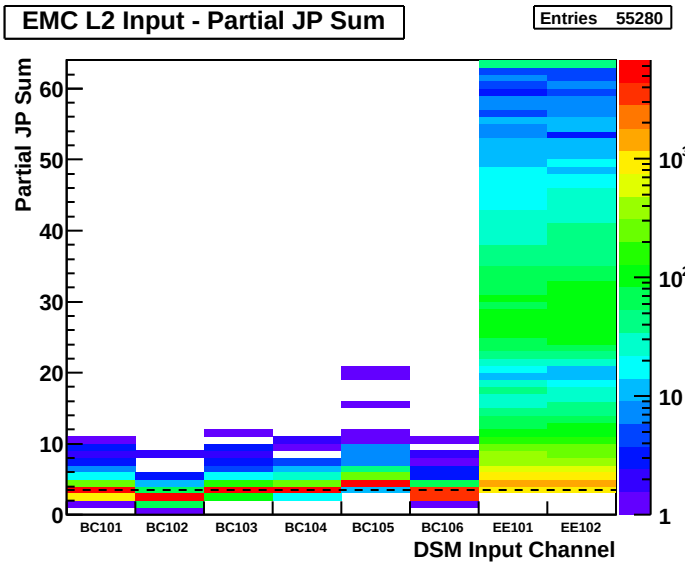

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

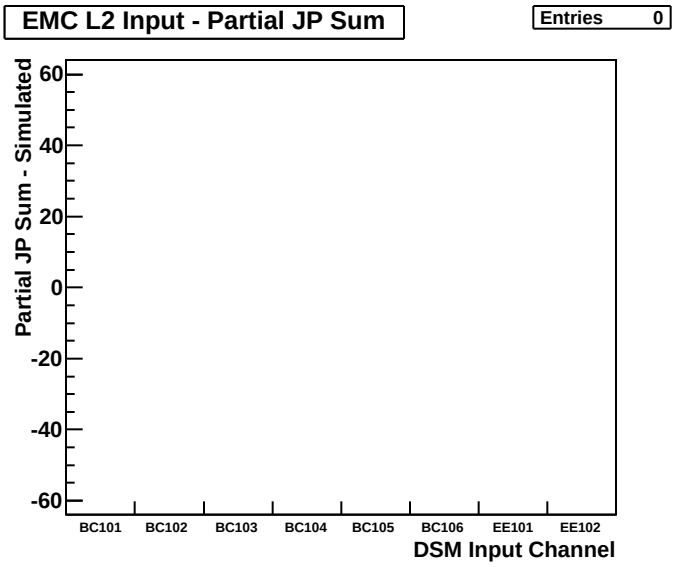

EMC L2 Input - JPY/JPB bits
Entries 55280
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6910 6910 6910 6910 6910 6910 6134 6006
472 521
256 306
48 77

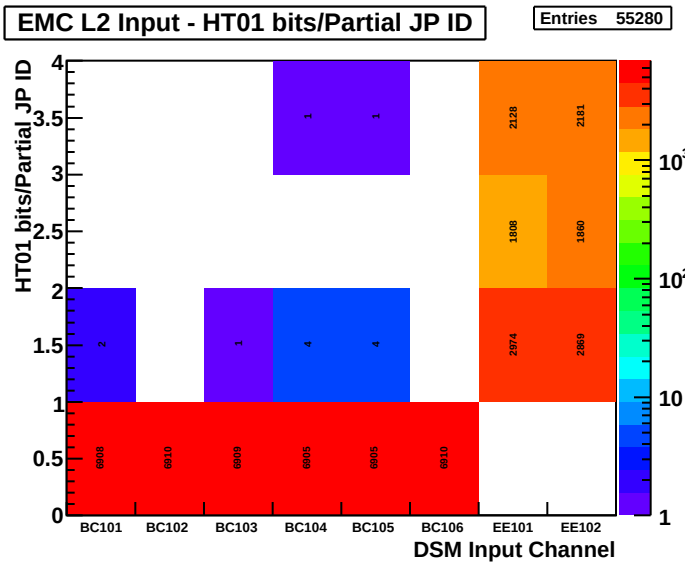

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

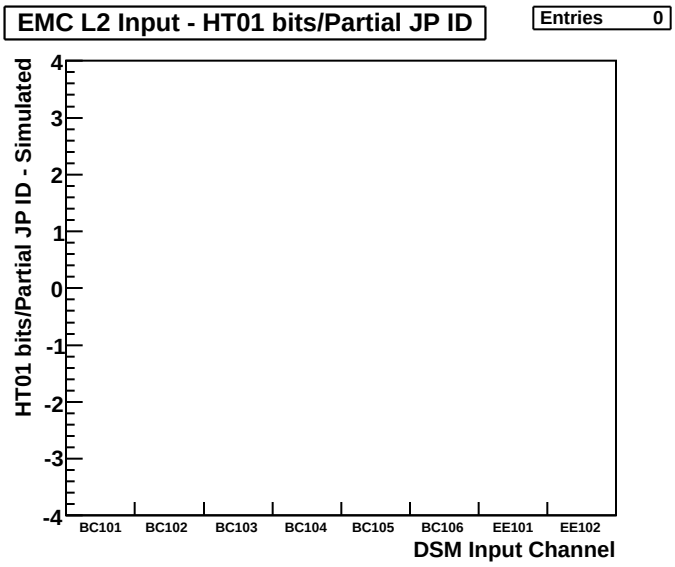

EMC L2 Input - JPZ/JPC bits
Entries 55280
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6910 6910 6910 6910 6910 6910 5976 5999
545 568
327 291
62 52

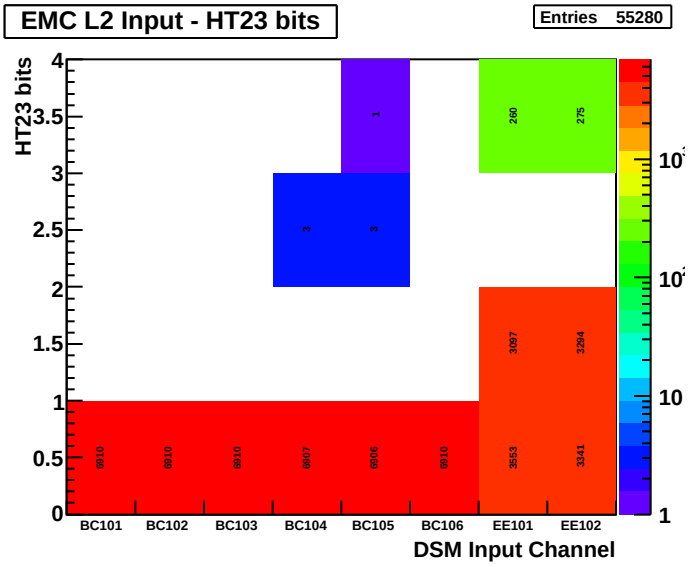

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

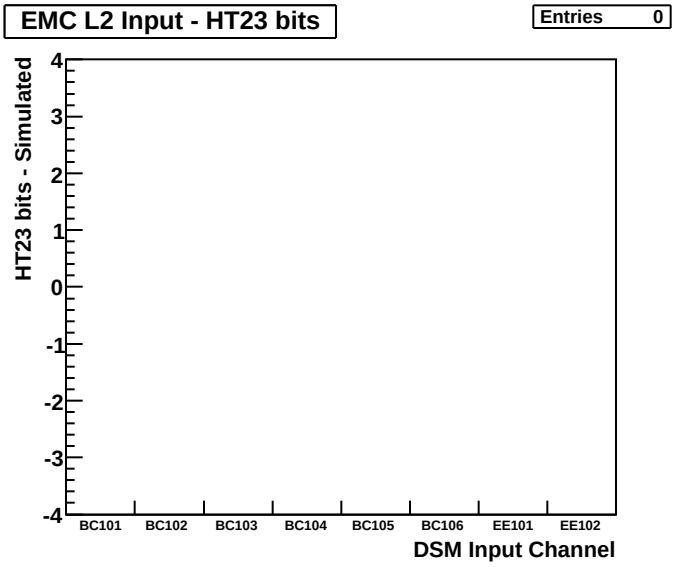

EMC L2 Input - Partial JP Sum
Entries 55280
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

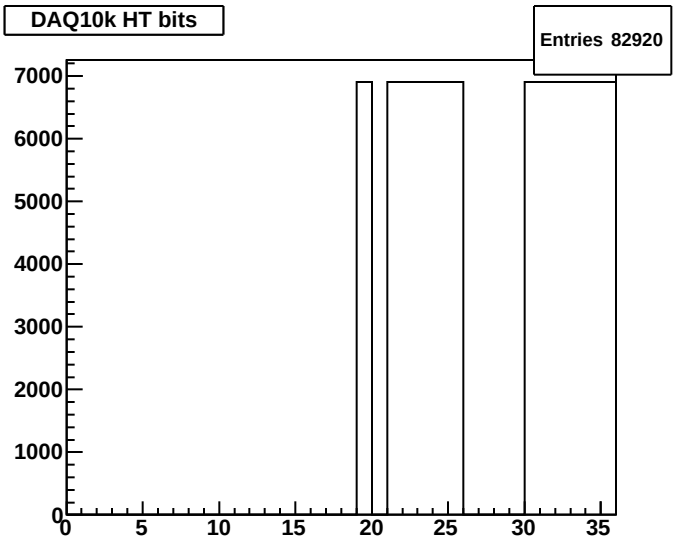

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

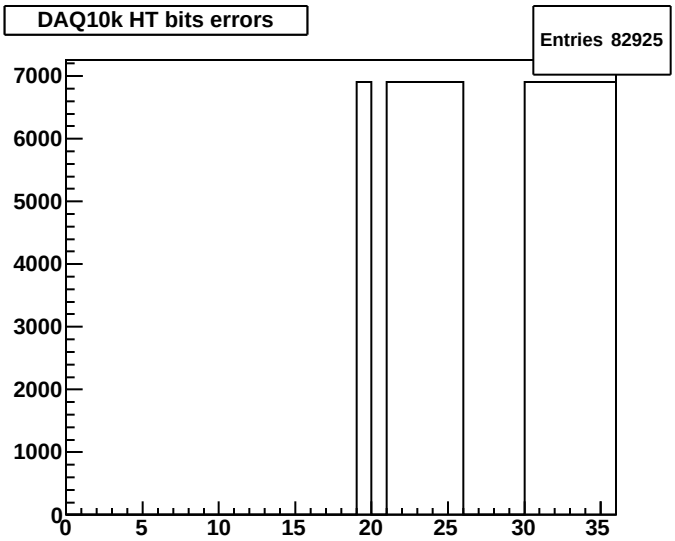

EMC L2 Input - HT01 bits/Partial JP ID
Entries 55280
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

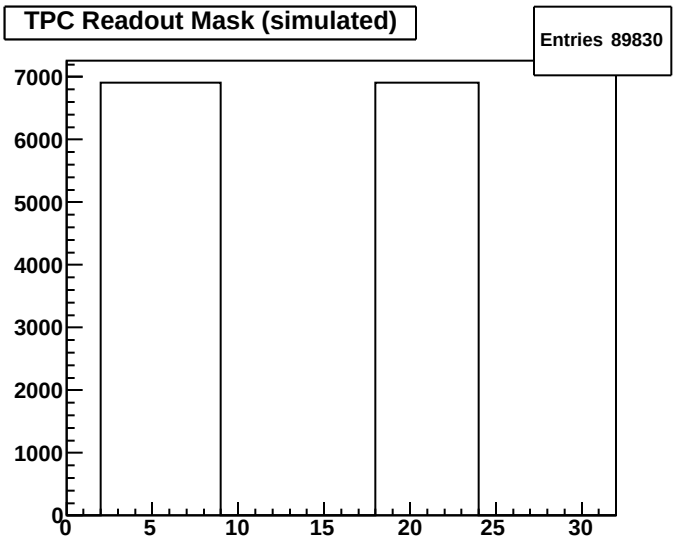

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

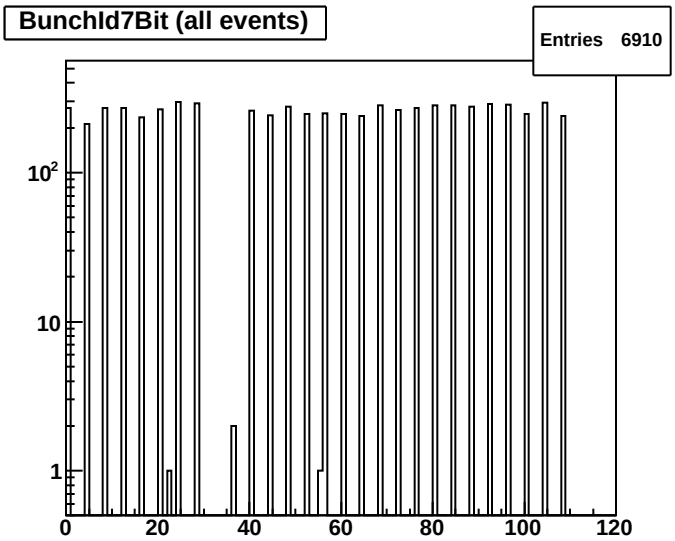

EMC L2 Input - HT23 bits
Entries 55280
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

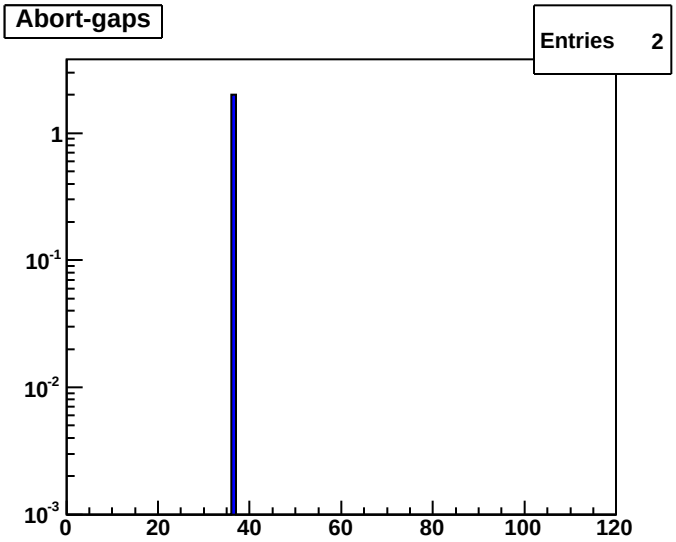

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

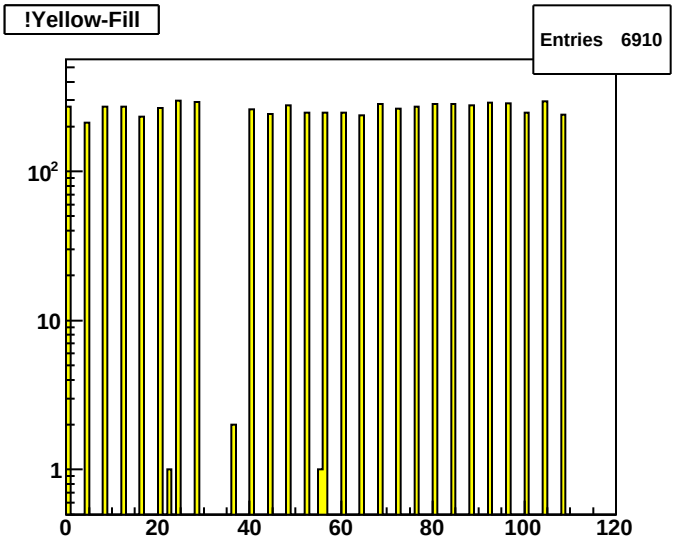

DAQ10k HT bits
Entries 82920
7000
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30 35

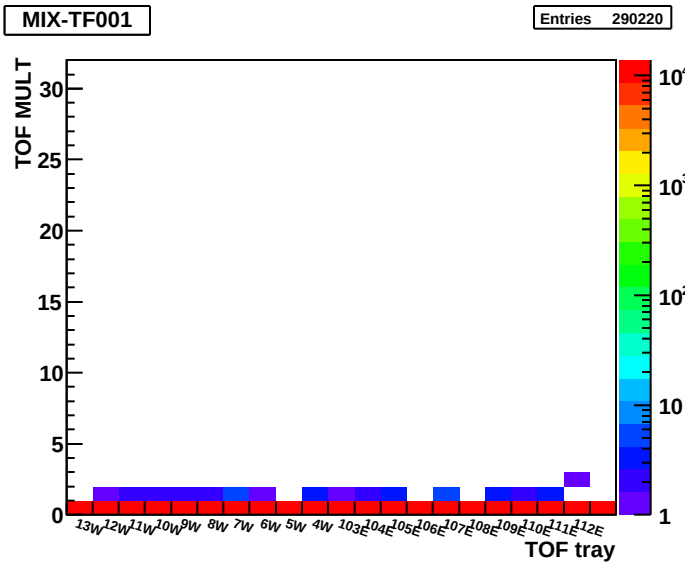

DAQ10k HT bits errors
Entries 82925
7000
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30 35

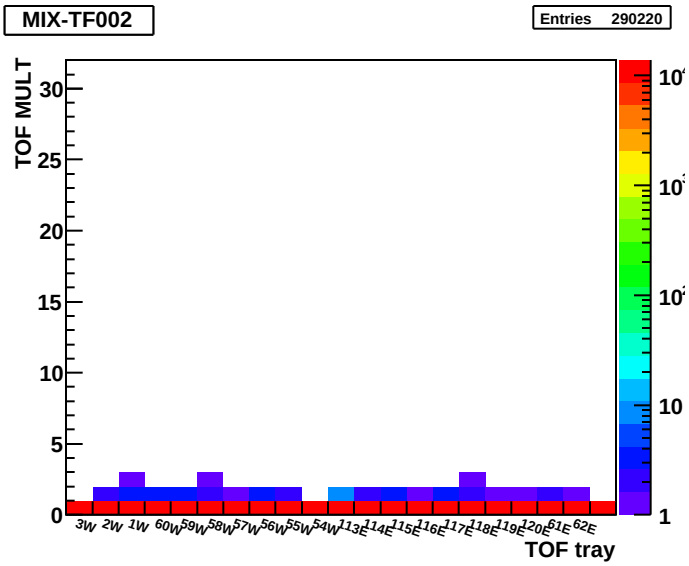

TPC Readout Mask (simulated)
Entries 89830
7000
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30

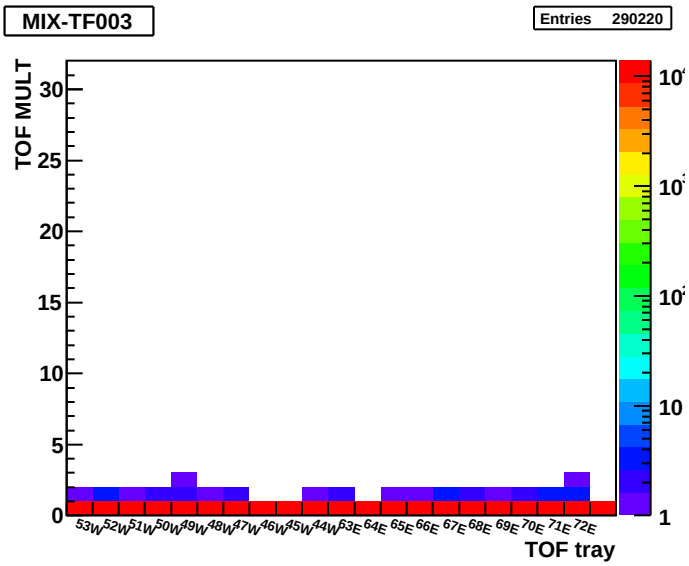

BunchId7Bit (all events)
Entries 6910
10^2
10
1
0 20 40 60 80 100 120

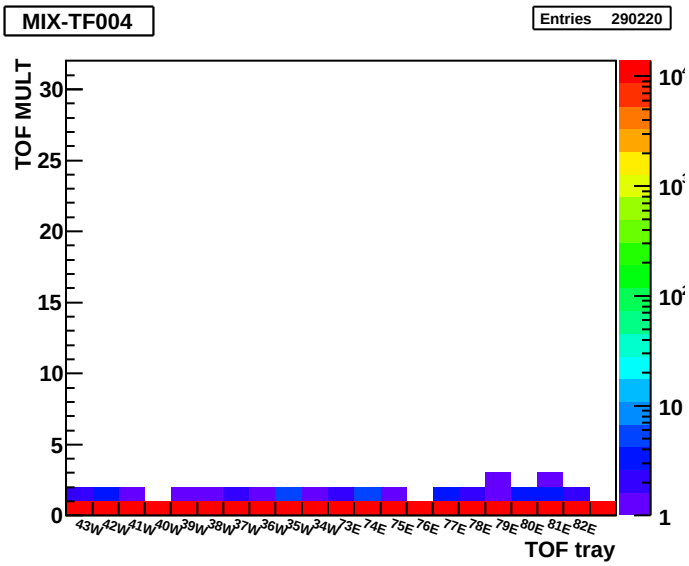

Abort-gaps
Entries 2
1
10^{-1}
10^{-2}
10^{-3}
0 20 40 60 80 100 120

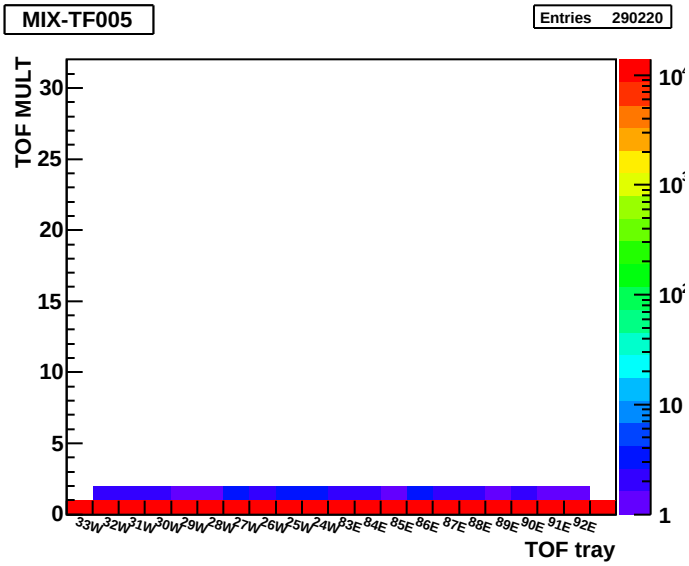

!Yellow-Fill
Entries 6910
10^2
10
1
0 20 40 60 80 100 120

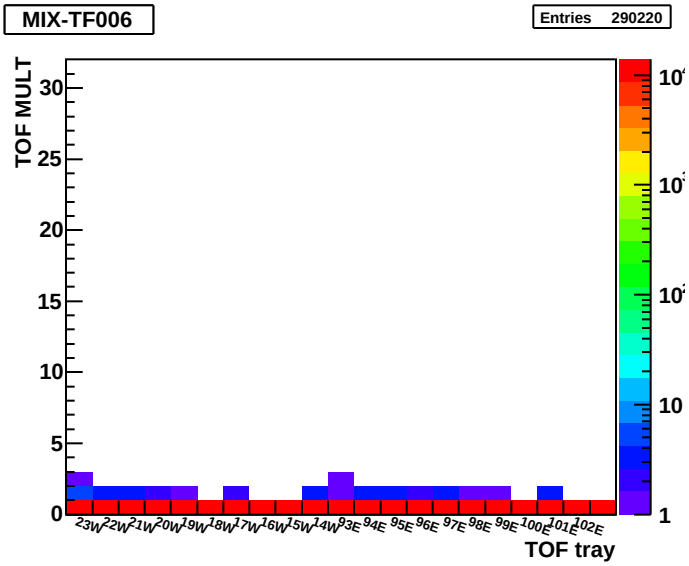

MIX-TF001
Entries 290220
TOF MULT
TOF tray

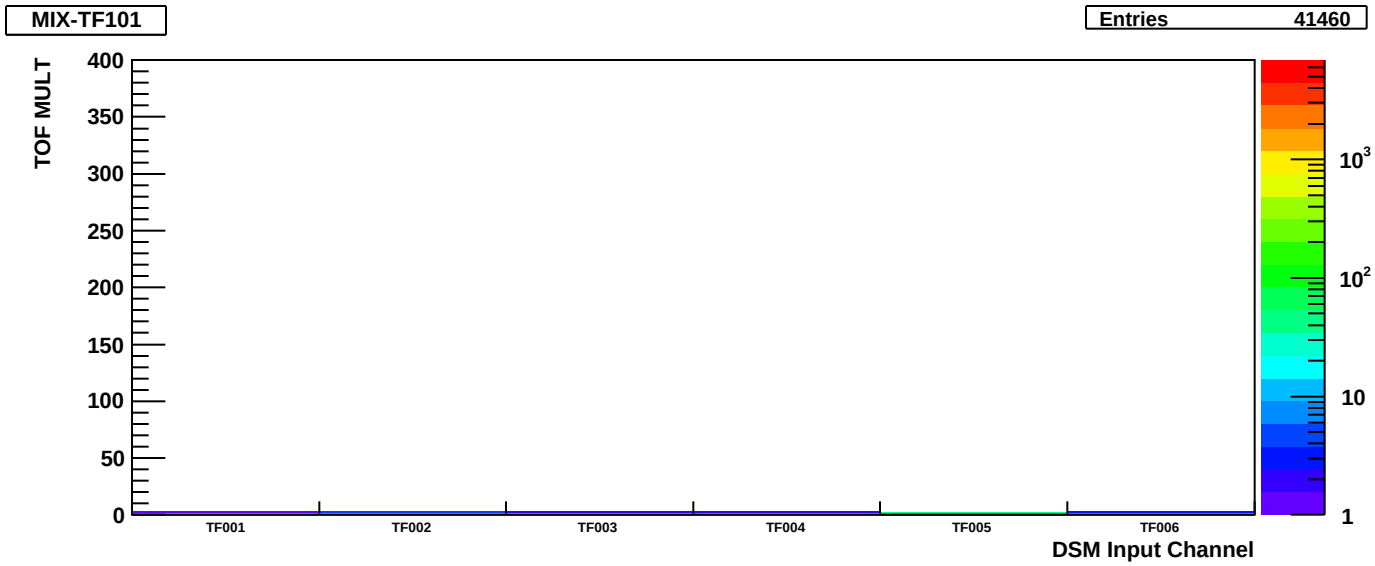

MIX-TF002
Entries 290220
TOF MULT
TOF tray

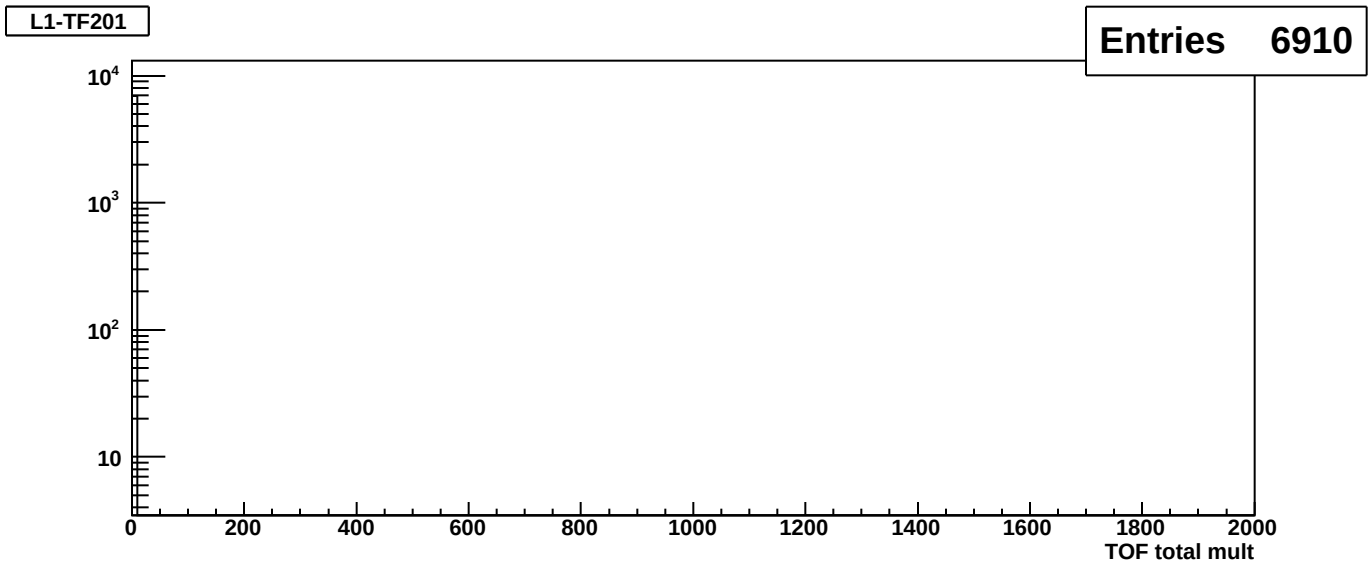

MIX-TF003
Entries 290220
TOF MULT
TOF tray

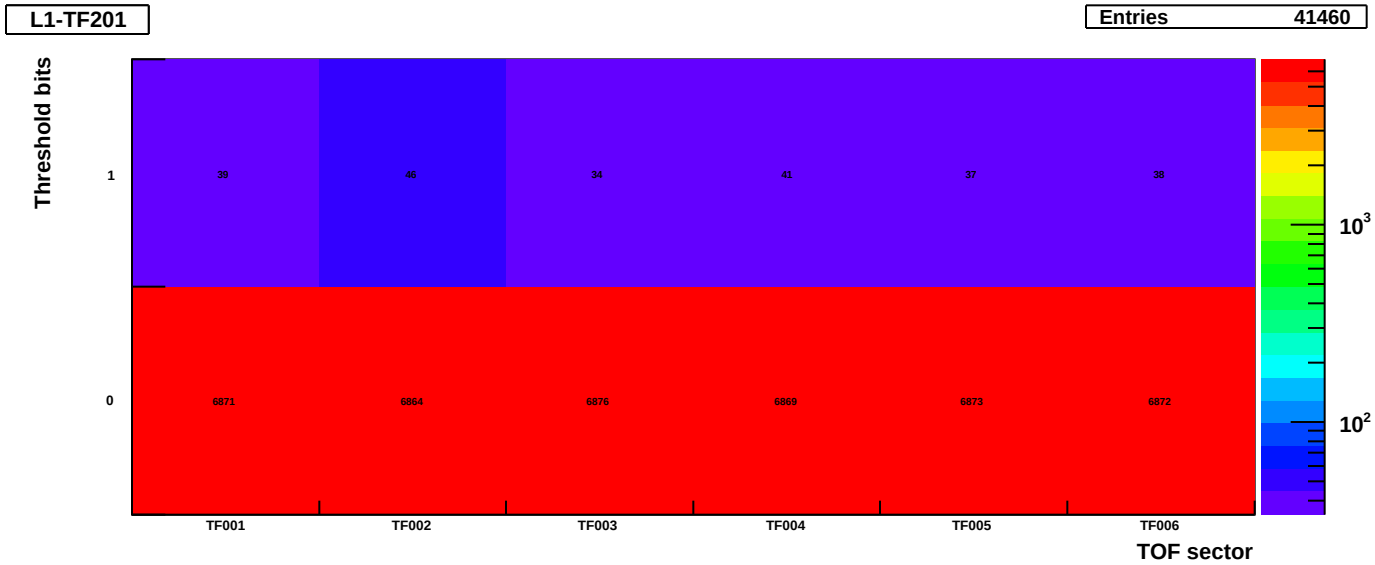

MIX-TF004
Entries 290220
TOF MULT
TOF tray

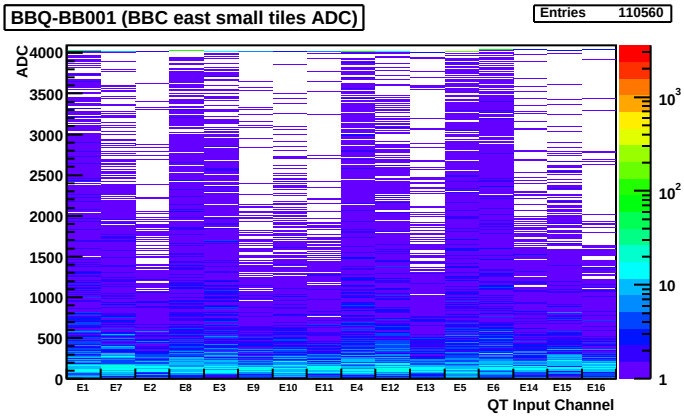

MIX-TF005
Entries 290220
TOF MULT
TOF tray

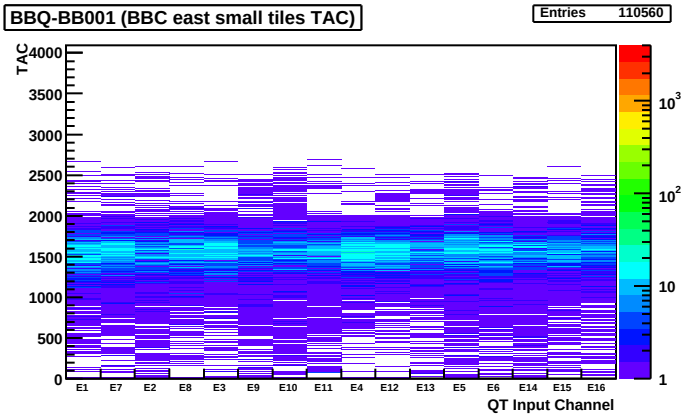

MIX-TF006
Entries 290220
TOF MULT
TOF tray

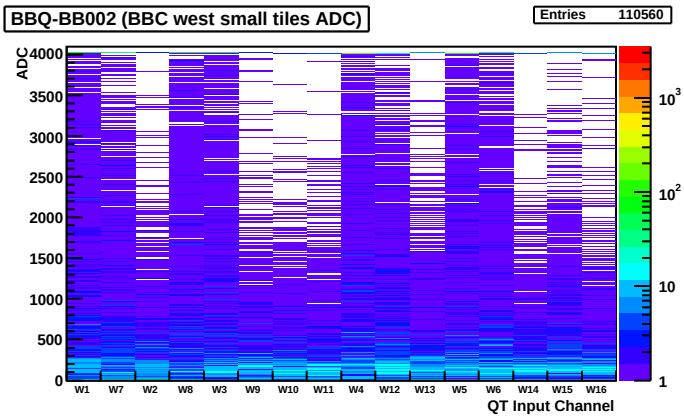

MIX-TF101
Entries 41460
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^3
10^2
10
1

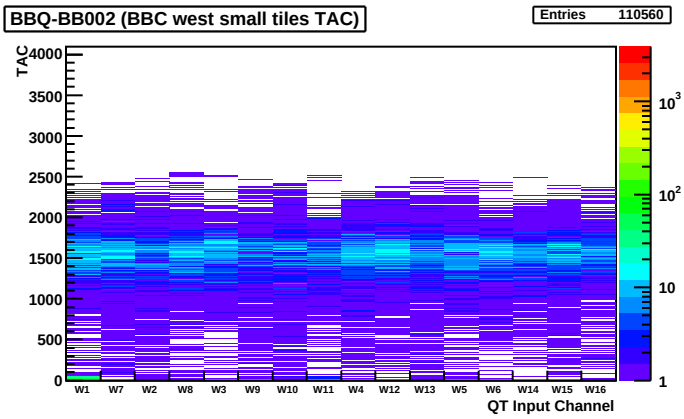

L1-TF201
Entries 6910
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

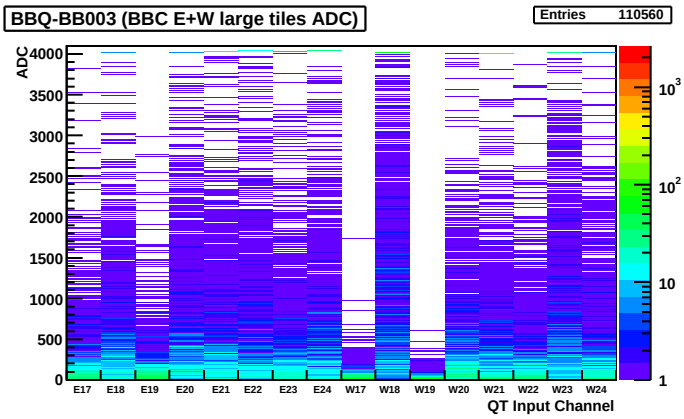

L1-TF201
Entries 41460
Threshold bits
1
0
39
46
34
41
37
38
6871
6864
6876
6869
6873
6872
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^3
10^2

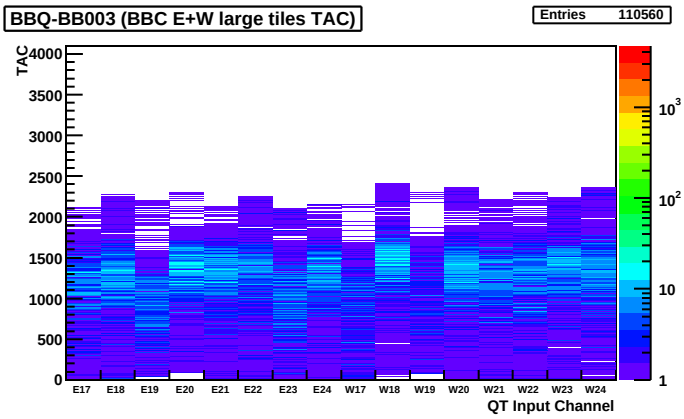

BBQ-BB001 (BBC east small tiles ADC)
Entries 110560
ADC
QT Input Channel

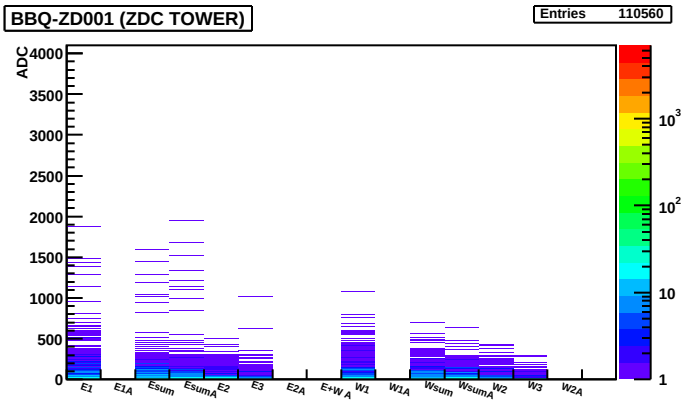

BBQ-BB001 (BBC east small tiles TAC)
Entries 110560
TAC
QT Input Channel

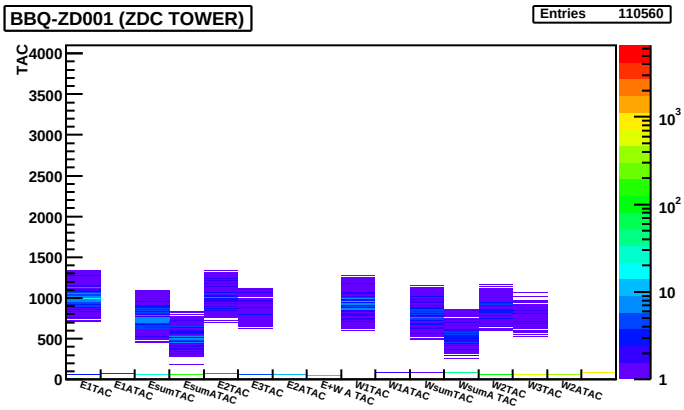

BBQ-BB002 (BBC west small tiles ADC)
Entries 110560
ADC
QT Input Channel

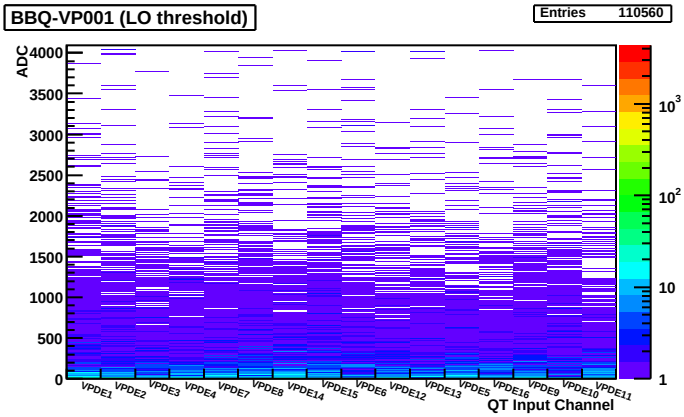

BBQ-BB002 (BBC west small tiles TAC)
Entries 110560
TAC
QT Input Channel

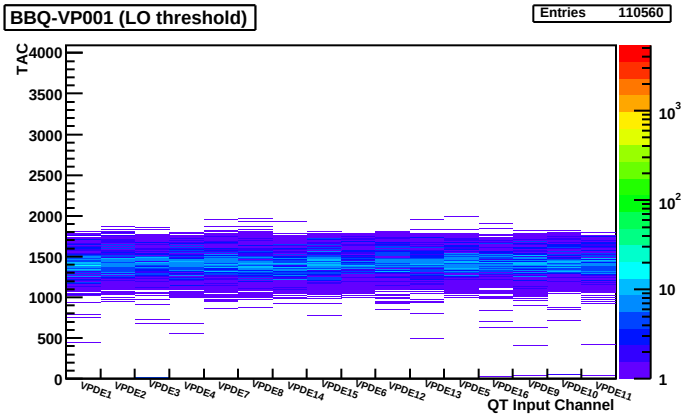

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 110560
ADC
QT Input Channel

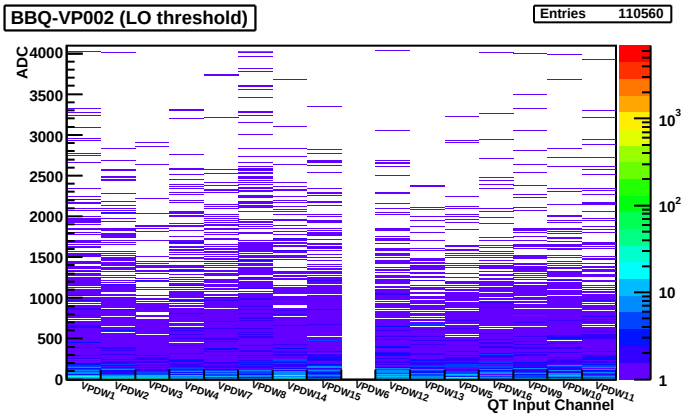

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 110560
TAC
QT Input Channel

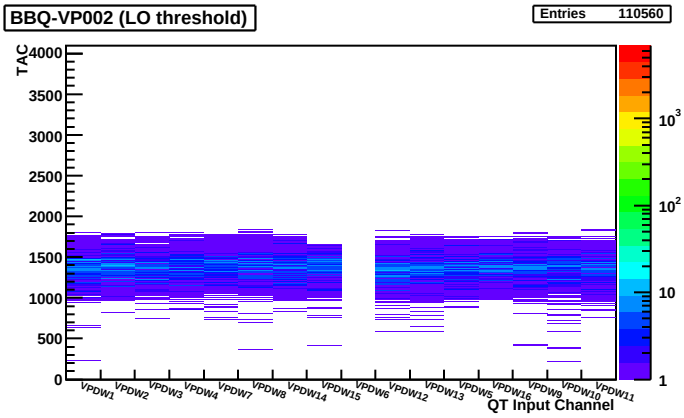

BBQ-ZD001 (ZDC TOWER)
Entries 110560
ADC

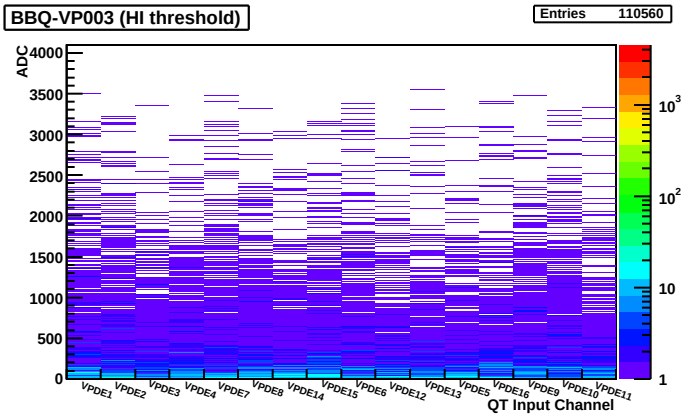

BBQ-ZD001 (ZDC TOWER)
Entries 110560
TAC

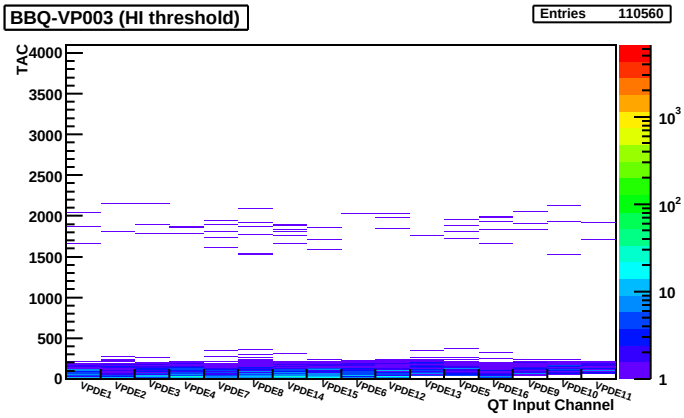

BBQ-VP001 (LO threshold)
Entries 110560
ADC
QT Input Channel

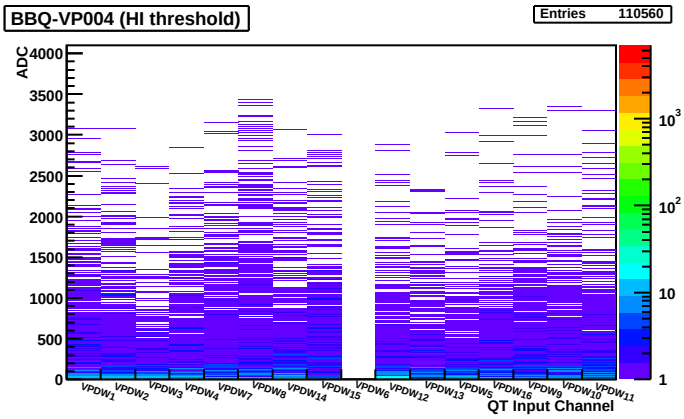

BBQ-VP001 (LO threshold)
Entries 110560
TAC
QT Input Channel

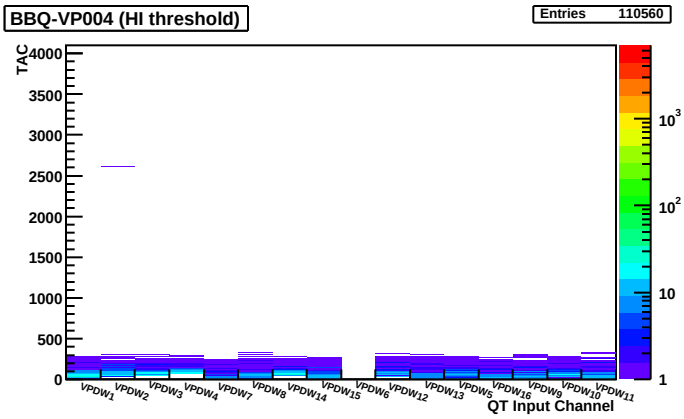

BBQ-VP002 (LO threshold)
Entries 110560
ADC
QT Input Channel

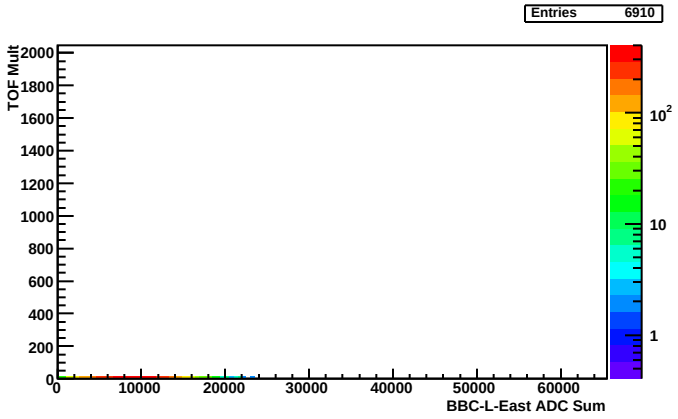

BBQ-VP002 (LO threshold)
Entries 110560
TAC
QT Input Channel

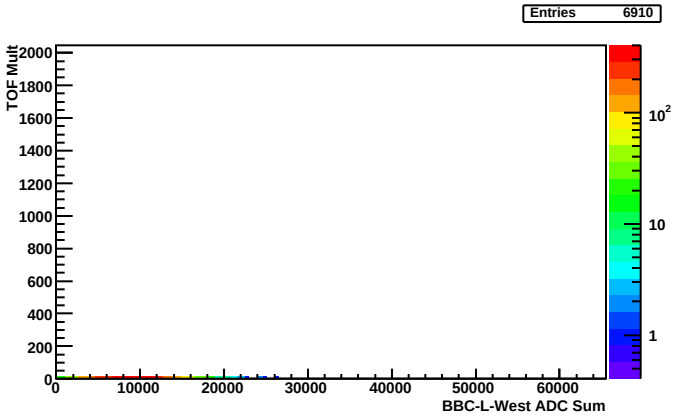

BBQ-VP003 (HI threshold)
Entries 110560
ADC
QT Input Channel

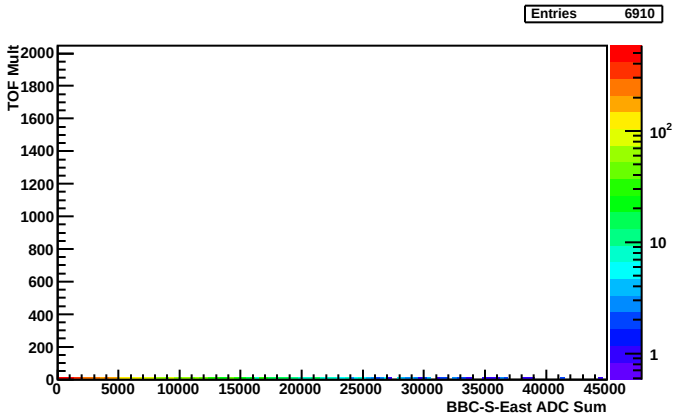

BBQ-VP003 (HI threshold)
Entries 110560
TAC
QT Input Channel

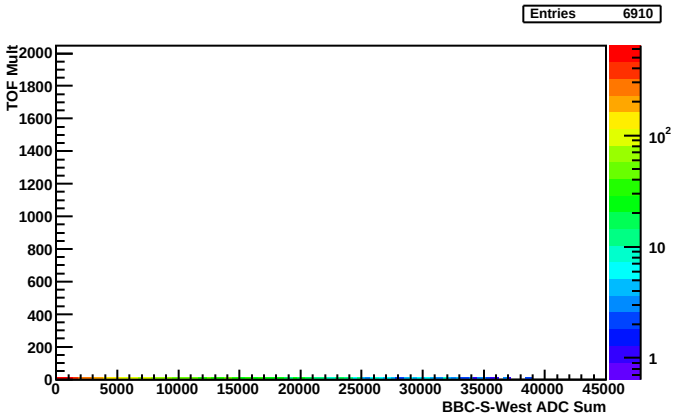

BBQ-VP004 (HI threshold)
Entries 110560
ADC
QT Input Channel

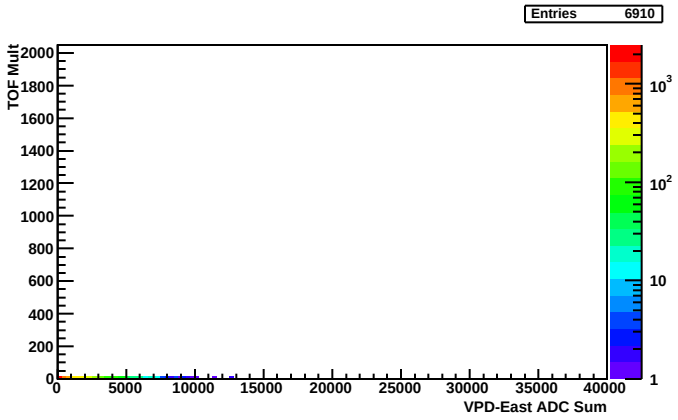

BBQ-VP004 (HI threshold)
Entries 110560
TAC
QT Input Channel

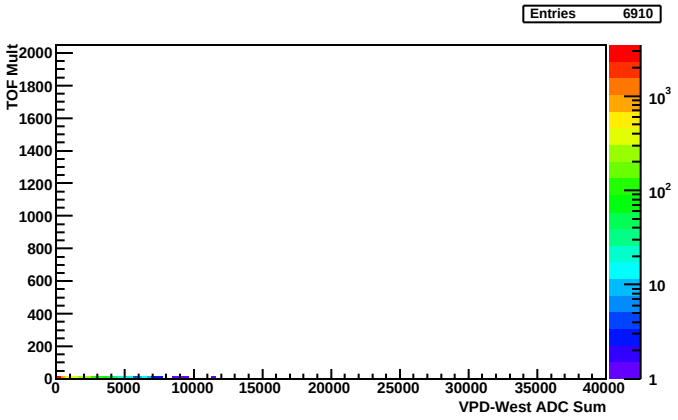

Entries 6910
TOF Mult
BBC-L-East ADC Sum

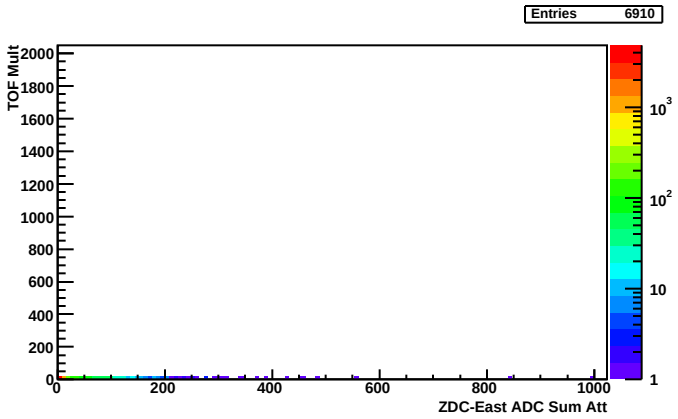

Entries 6910
TOF Mult
BBC-L-West ADC Sum

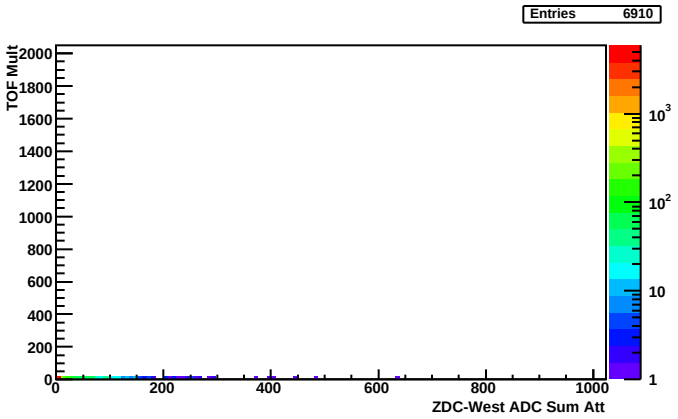

Entries 6910
TOF Mult
BBC-S-East ADC Sum

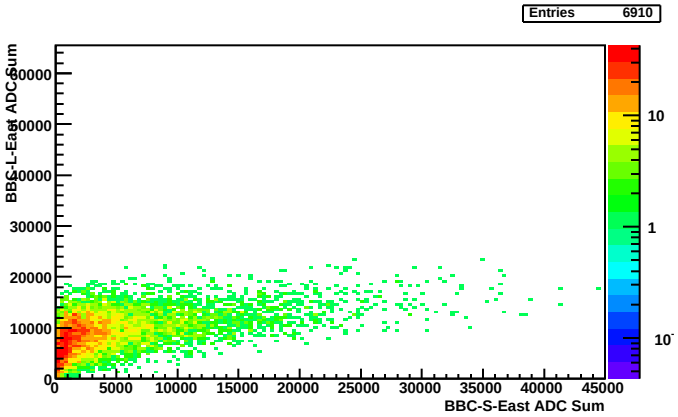

Entries 6910
TOF Mult
BBC-S-West ADC Sum

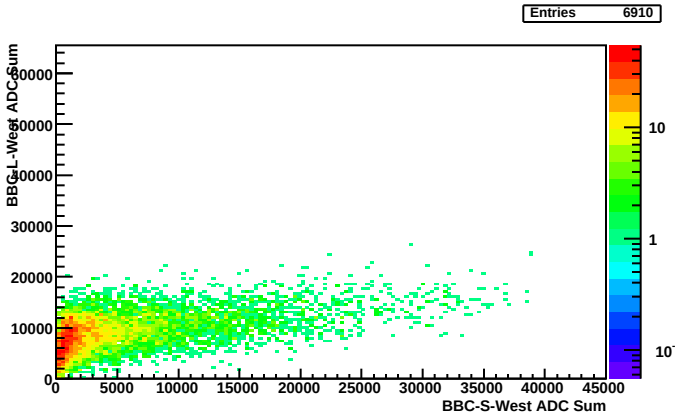

Entries 6910
TOF Mult
VPD-East ADC Sum

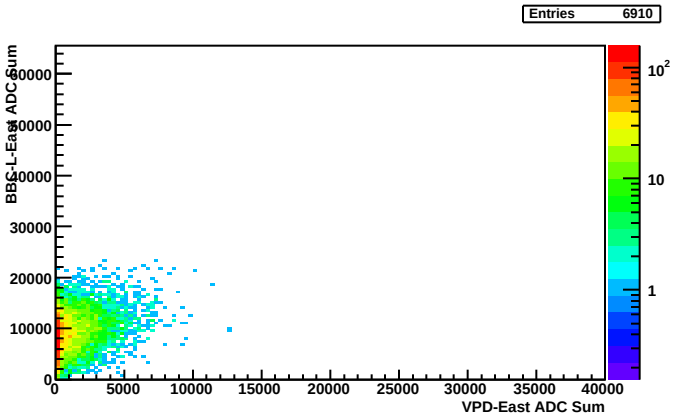

Entries 6910
TOF Mult
VPD-West ADC Sum

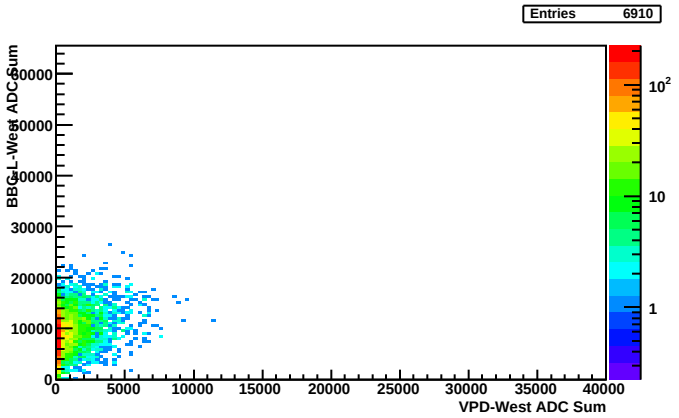

Entries 6910
TOF Mult
ZDC-East ADC Sum Att

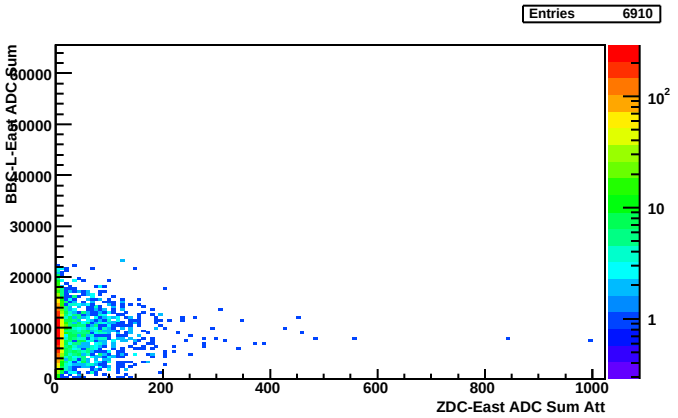

Entries 6910
TOF Mult
ZDC-West ADC Sum Att

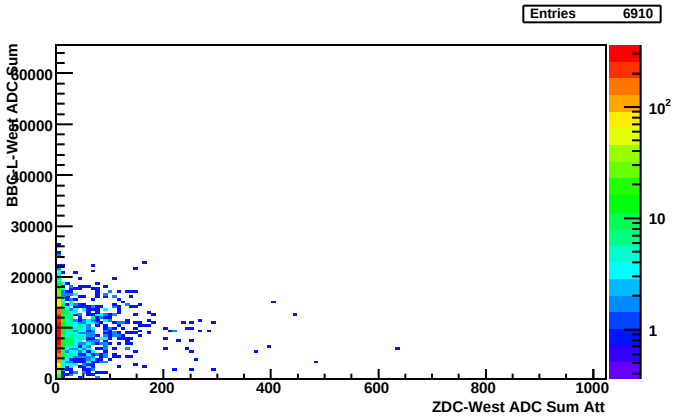

Entries 6910
BBC-L-East ADC Sum
BBC-S-East ADC Sum

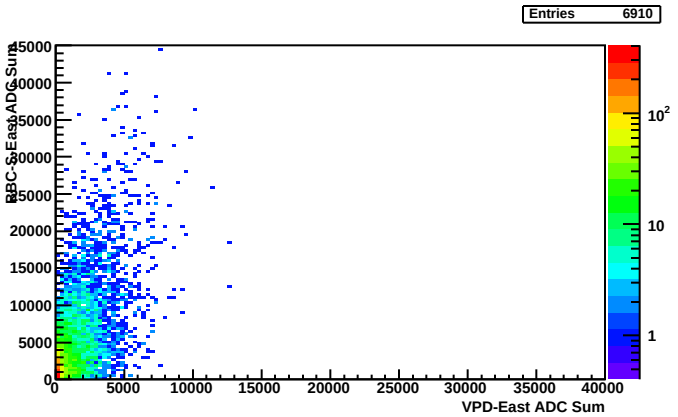

Entries 6910
BBC-L-West ADC Sum
BBC-S-West ADC Sum

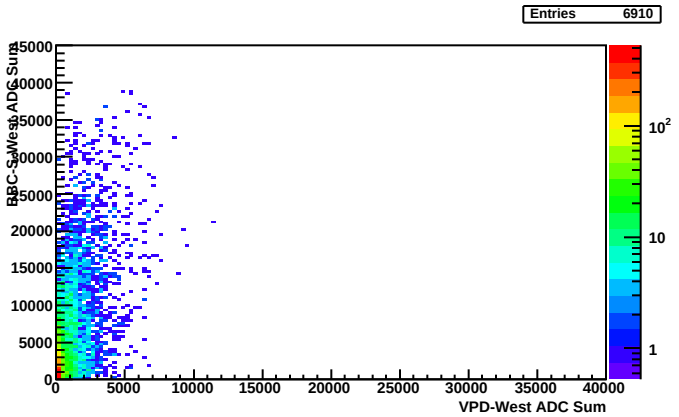

Entries 6910
BBC-L-East ADC Sum
VPD-East ADC Sum

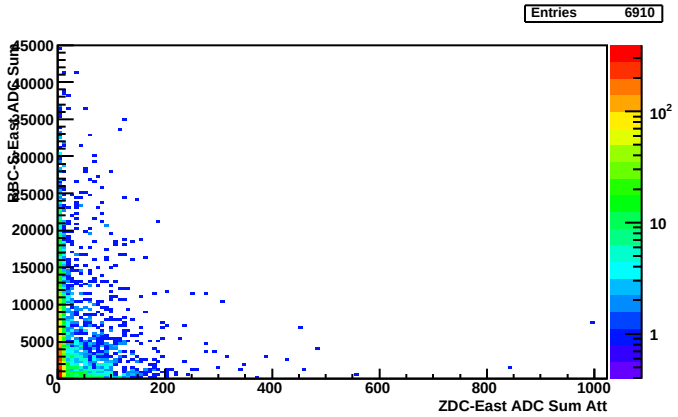

Entries 6910
BBC-L-West ADC Sum
VPD-West ADC Sum

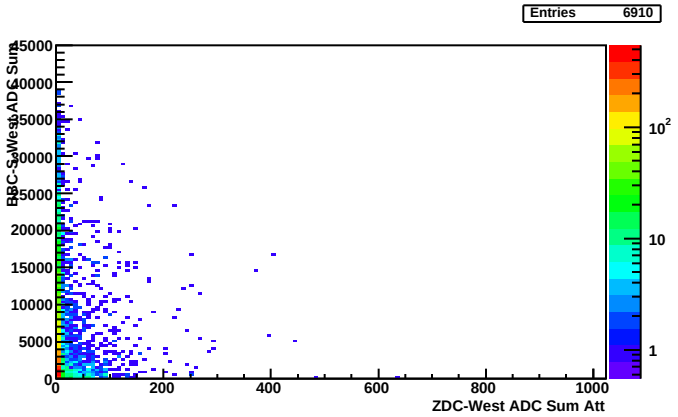

Entries 6910
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

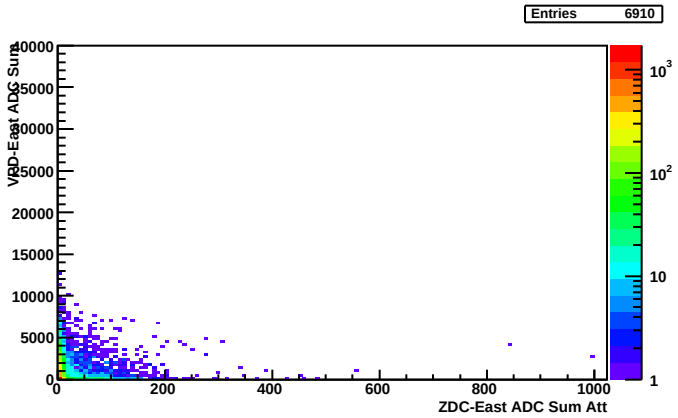

Entries 6910
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

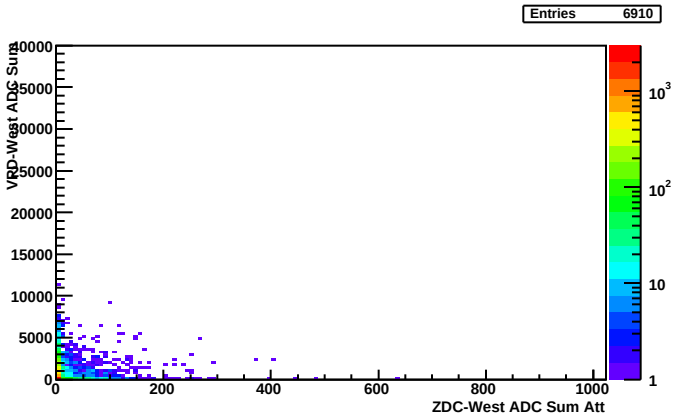

Entries 6910
BBC-S-East ADC Sum
VPD-East ADC Sum

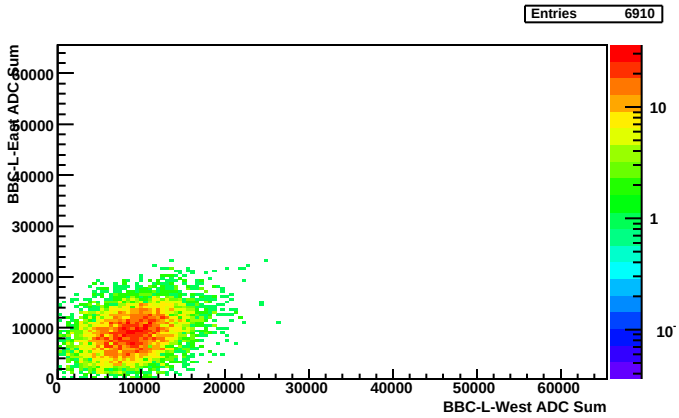

Entries 6910
BBC-S-West ADC Sum
VPD-West ADC Sum

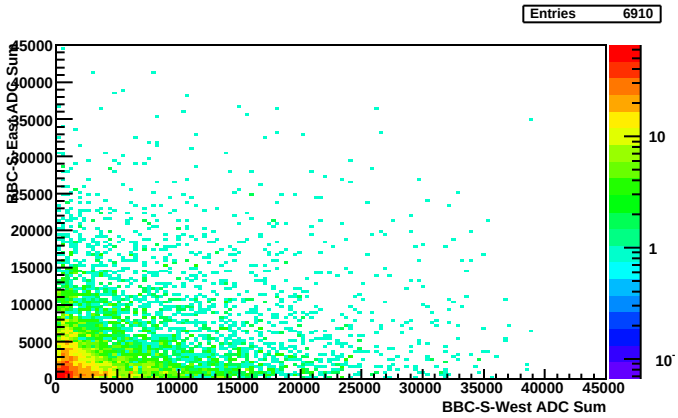

Entries 6910
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

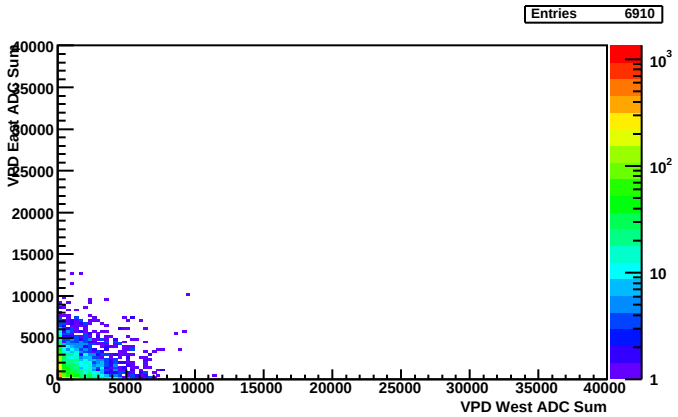

Entries 6910
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

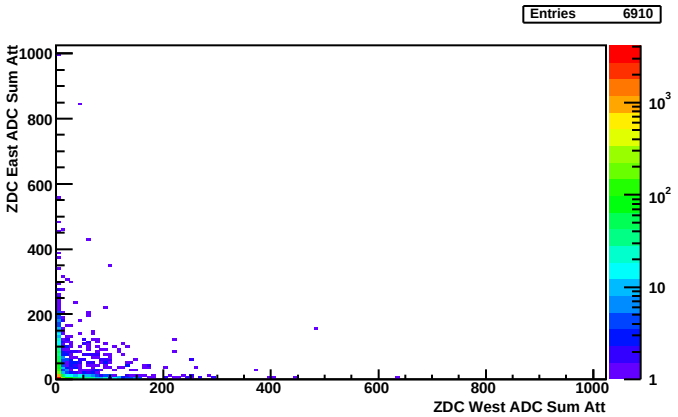

Entries 6910
VPD-East ADC Sum
ZDC-East ADC Sum Att

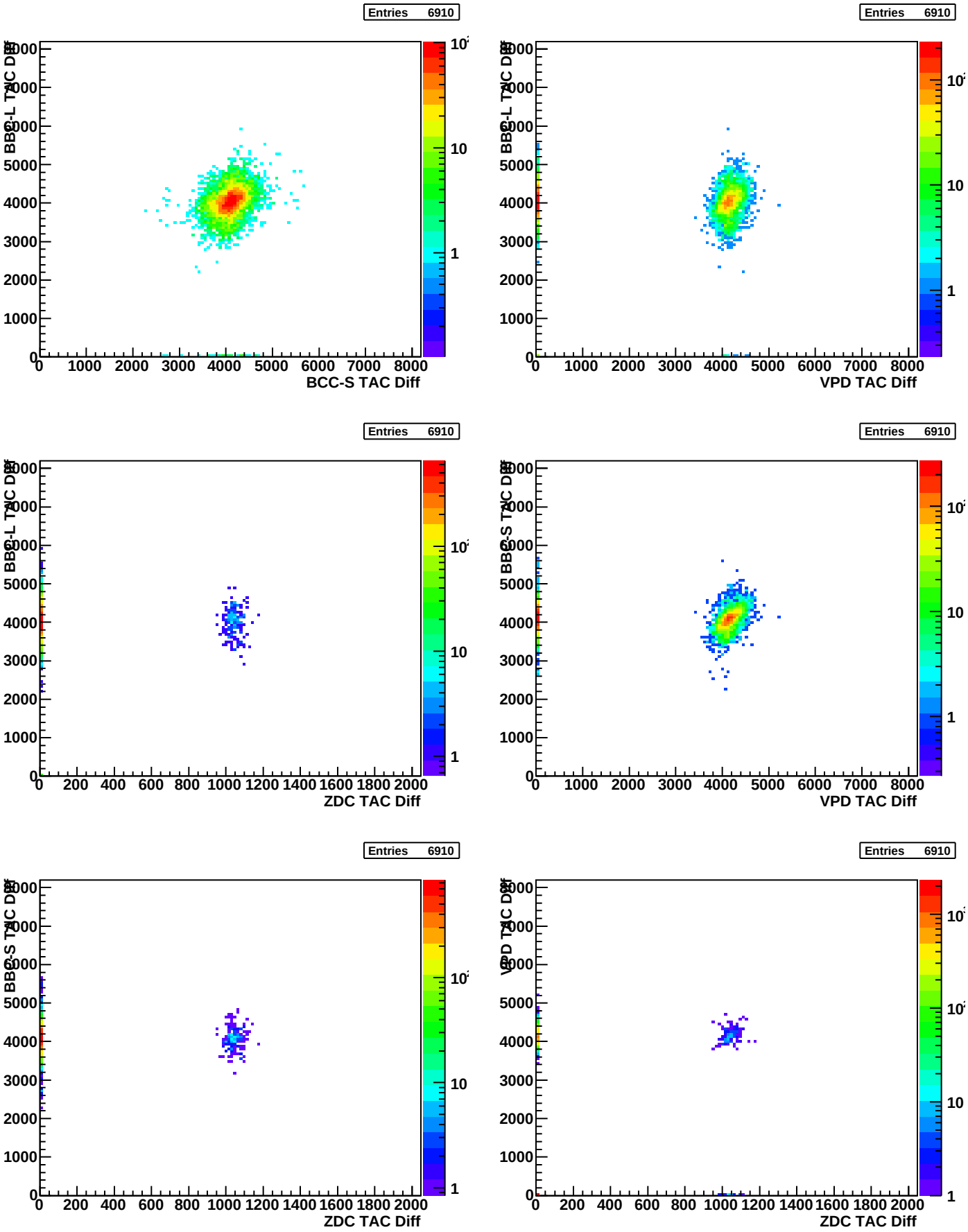

Entries 6910
VPD-West ADC Sum
ZDC-West ADC Sum Att

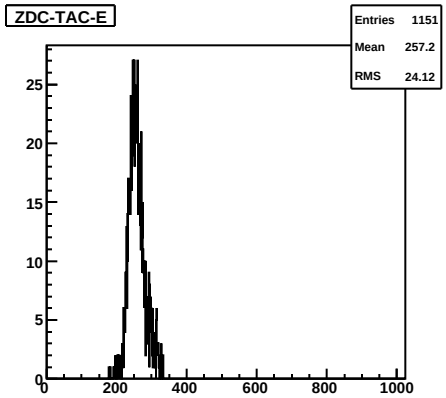

Entries 6910
BBC-L-East ADC Sum
BBC-L-West ADC Sum

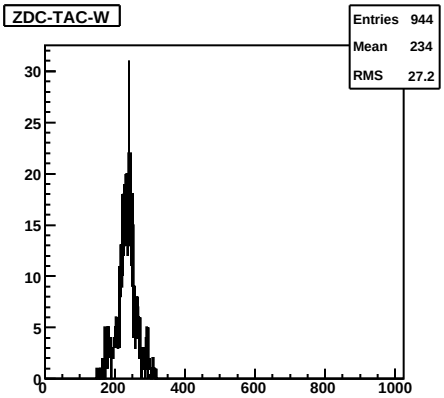

Entries 6910
BBC-S-East ADC Sum
BBC-S-West ADC Sum

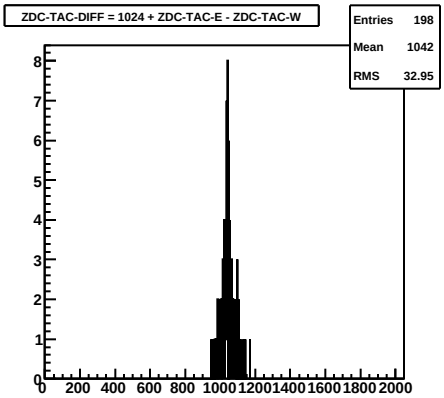

Entries 6910
VPD East ADC Sum
VPD West ADC Sum

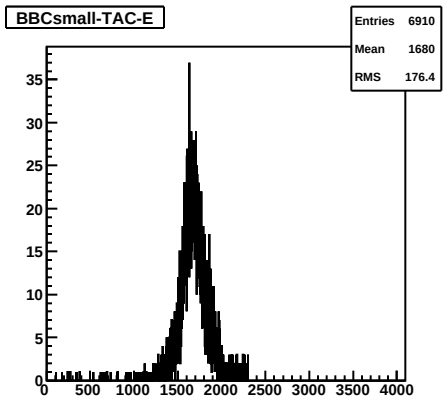

Entries 6910
ZDC East ADC Sum Att
ZDC West ADC Sum Att

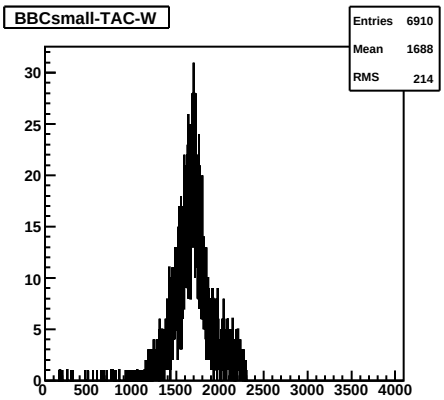

Entries 6910
BBC-L TAC Diff
BCC-S TAC Diff
Entries 6910
BBC-L TAC Diff
VPD TAC Diff
Entries 6910
BBC-L TAC Diff
ZDC TAC Diff
Entries 6910
BBC-S TAC Diff
VPD TAC Diff
Entries 6910
BBC-S TAC Diff
ZDC TAC Diff
Entries 6910
VPD TAC Diff
ZDC TAC Diff

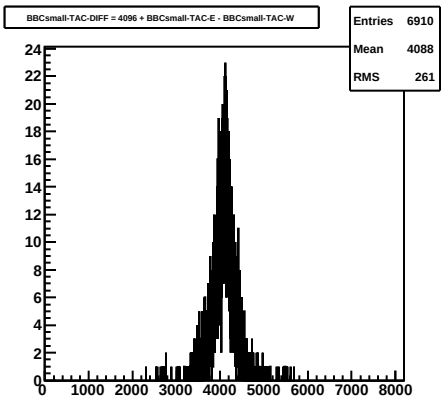

ZDC-TAC-E
Entries 1151
Mean 257.2
RMS 24.12

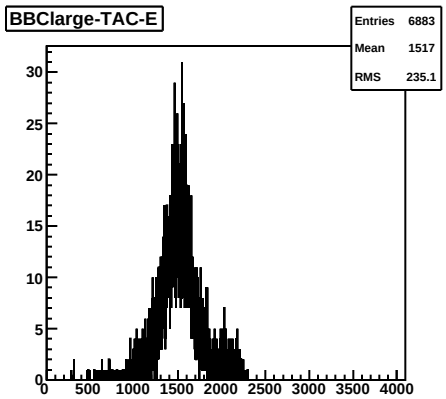

ZDC-TAC-W
Entries 944
Mean 234
RMS 27.2

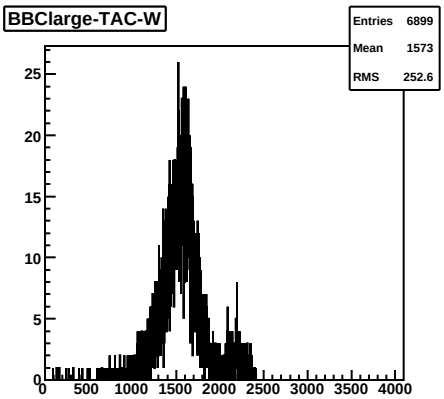

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 198
Mean 1042
RMS 32.95

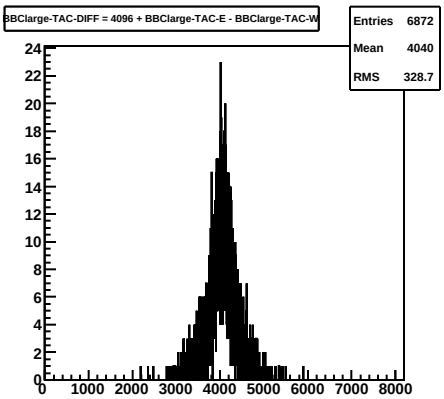

BBCsmall-TAC-E
Entries 6910
Mean 1680
RMS 176.4

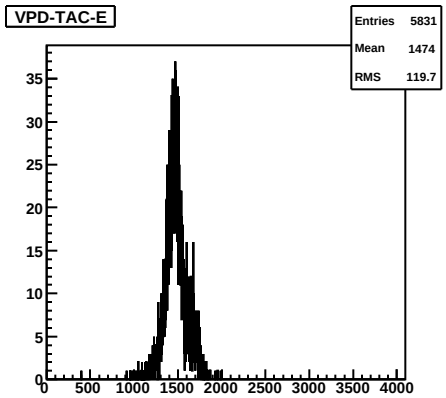

BBCsmall-TAC-W
Entries 6910
Mean 1688
RMS 214

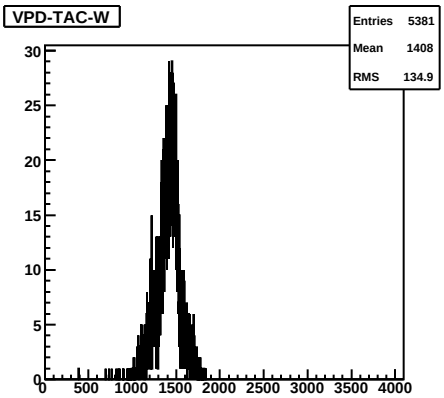

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 6910
Mean 4088
RMS 261

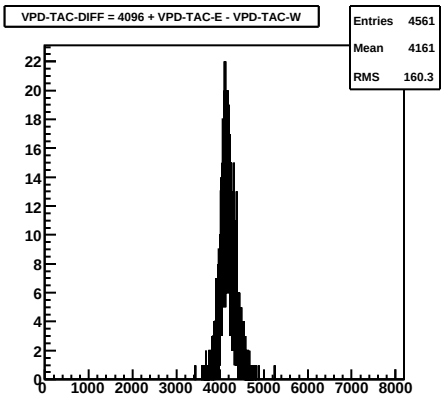

BBClarge-TAC-E
Entries 6883
Mean 1517
RMS 235.1

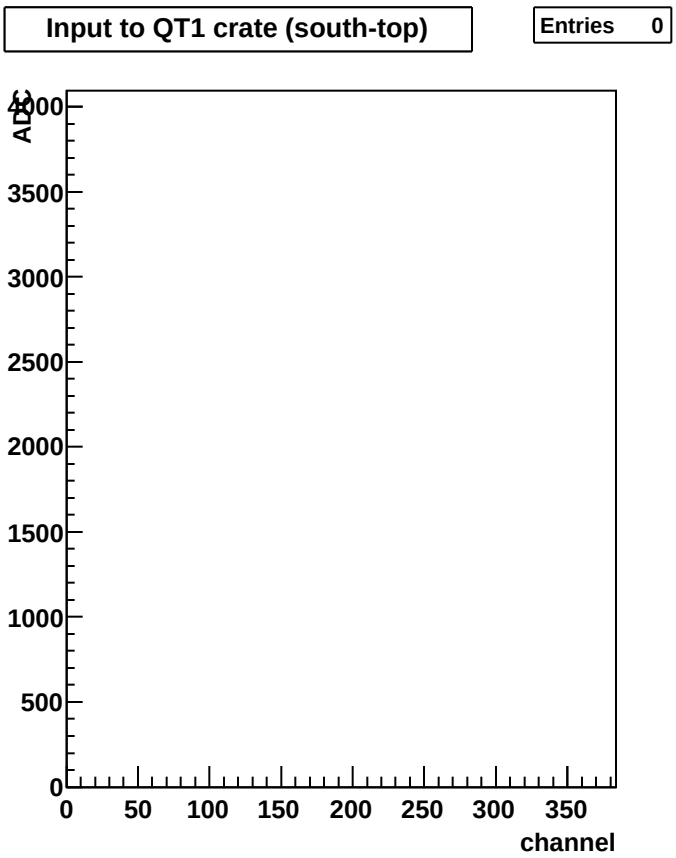

BBClarge-TAC-W
Entries 6899
Mean 1573
RMS 252.6

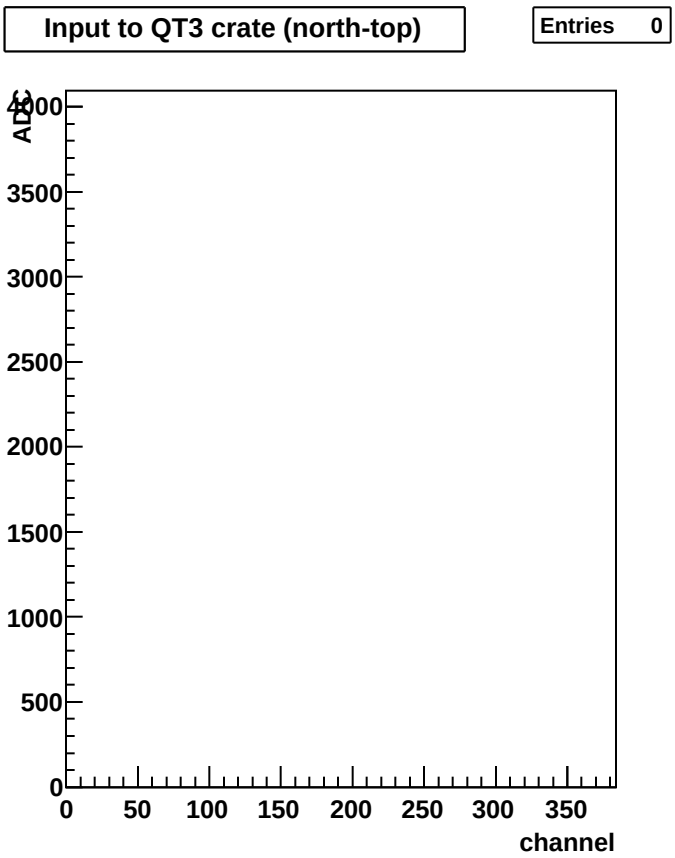

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 6872
Mean 4040
RMS 328.7

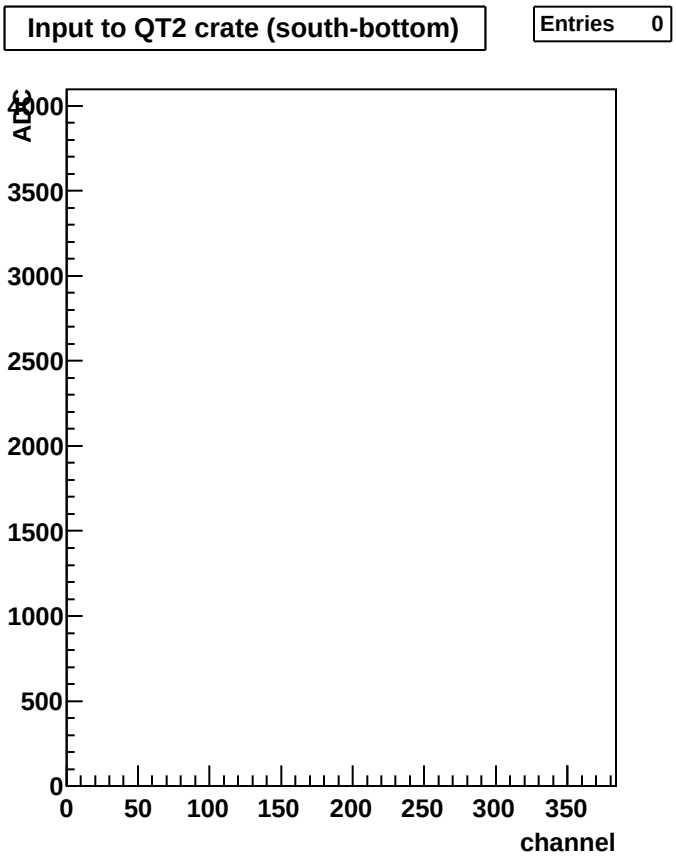

VPD-TAC-E
Entries 5831
Mean 1474
RMS 119.7

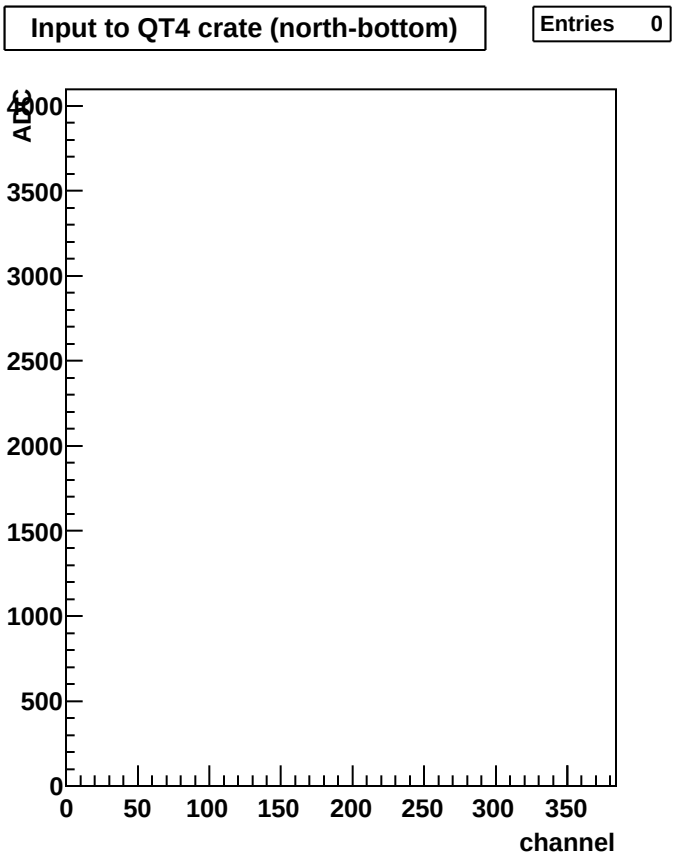

VPD-TAC-W
Entries 5381
Mean 1408
RMS 134.9

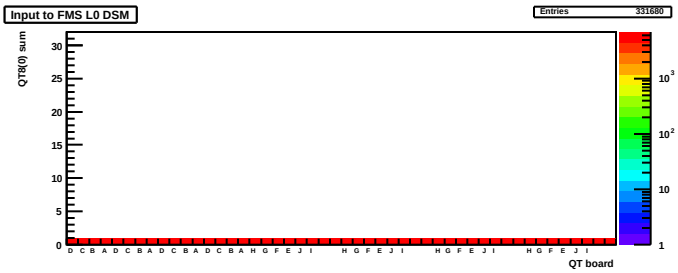

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 4561
Mean 4161
RMS 160.3

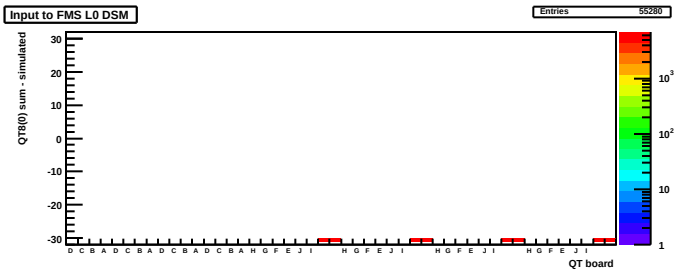

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

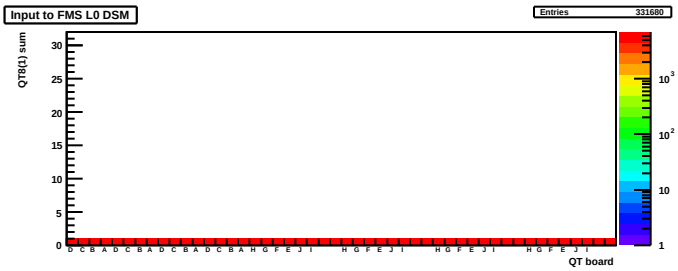

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

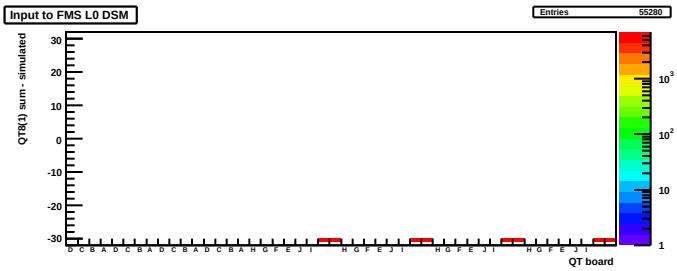

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

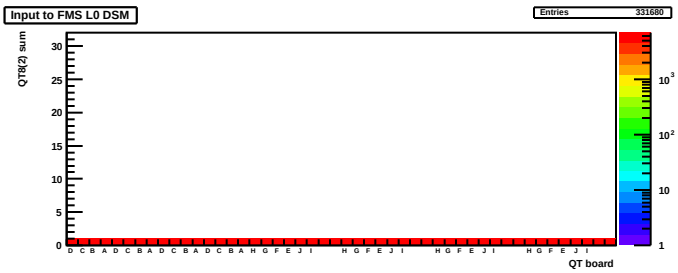

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

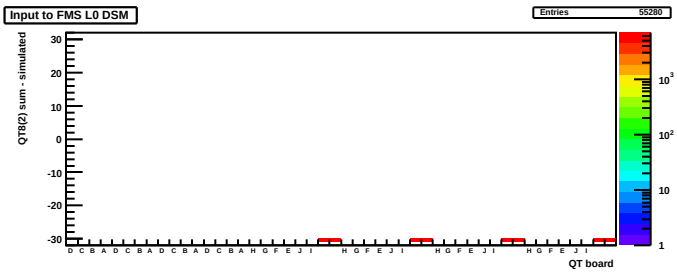

Input to FMS L0 DSM
Entries 331680
QT8(0) sum
QT board

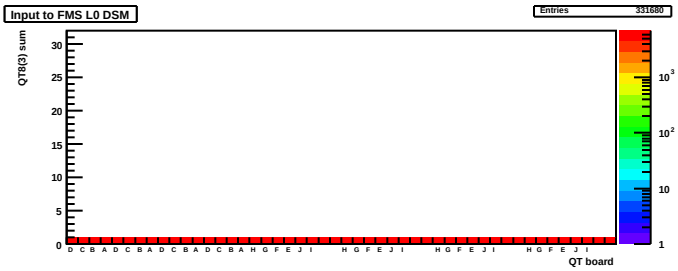

Input to FMS L0 DSM
Entries 55280
QT8(0) sum - simulated
QT board

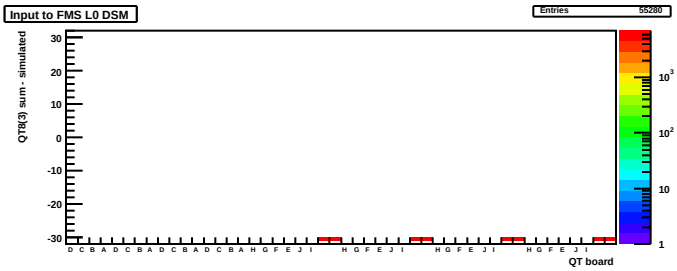

Input to FMS L0 DSM
Entries 331680
QT8(1) sum
QT board

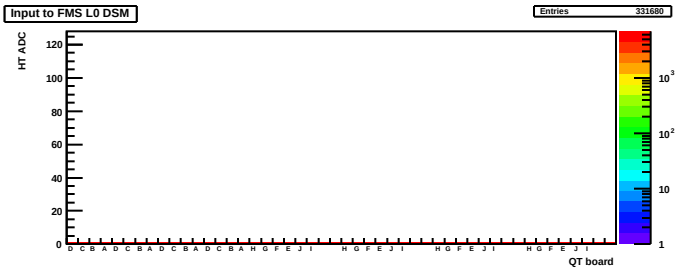

Input to FMS L0 DSM
Entries 55280
QT8(1) sum - simulated
QT board

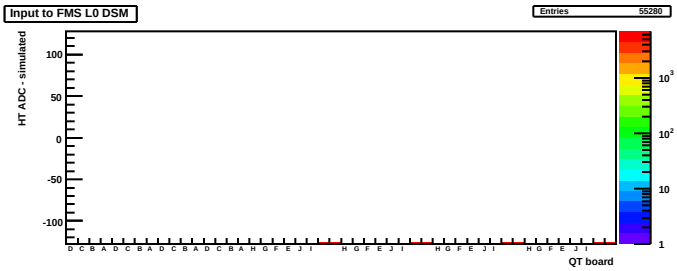

Input to FMS L0 DSM
Entries 331680
QT8(2) sum
QT board

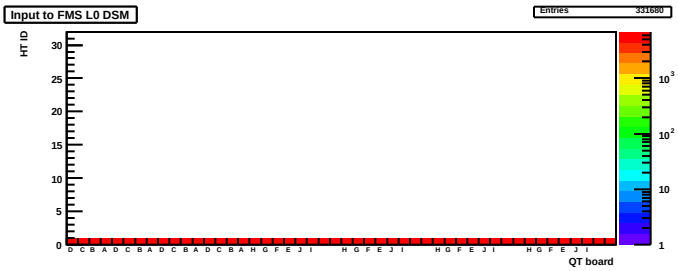

Input to FMS L0 DSM
Entries 55280
QT8(2) sum - simulated
QT board

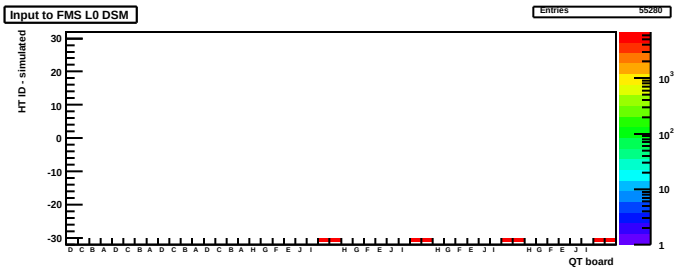

Input to FMS L0 DSM
Entries 331680
QT8(3) sum
QT board

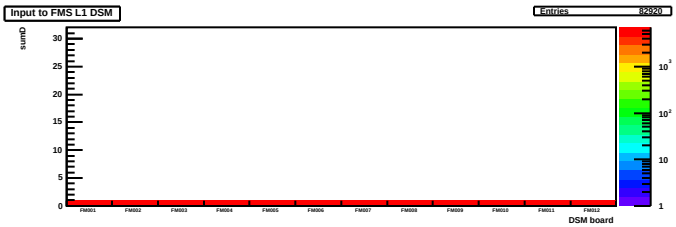

Input to FMS L0 DSM
Entries 55280
QT8(3) sum - simulated
QT board

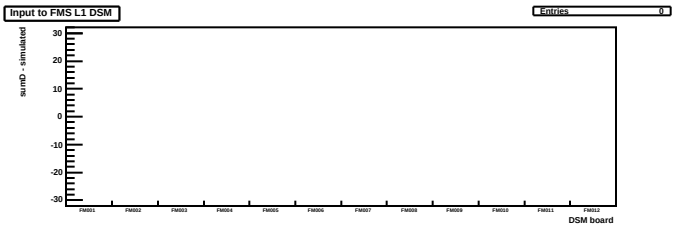

Input to FMS L0 DSM
Entries 331680
HT ADC
QT board

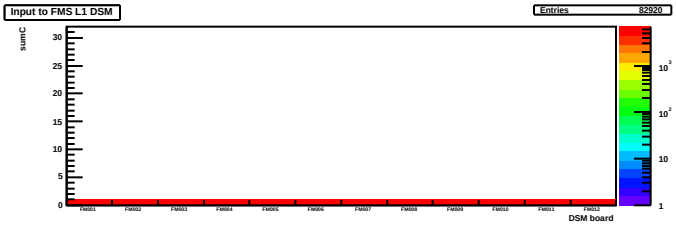

Input to FMS L0 DSM
Entries 55280
HT ADC - simulated
QT board

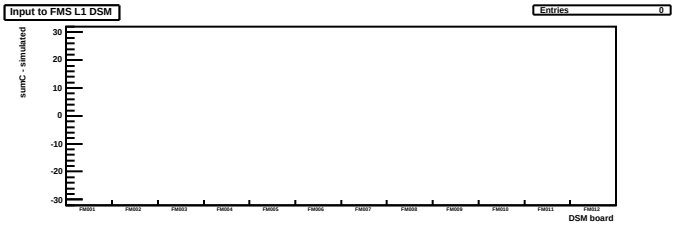

Input to FMS L0 DSM
Entries 331680
HT ID
QT board

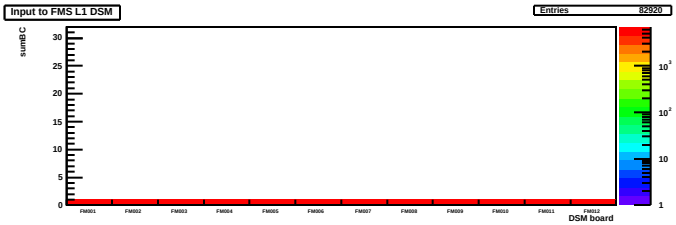

Input to FMS L0 DSM
Entries 55280
HT ID - simulated
QT board

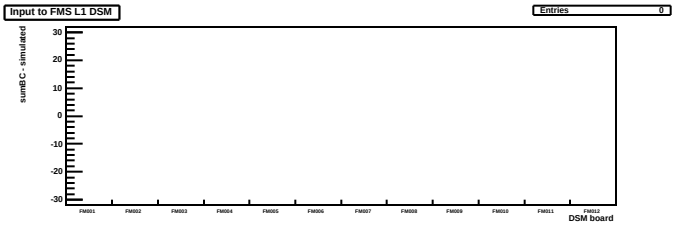

Input to FMS L1 DSM
Entries 82920
sumD
DSM board

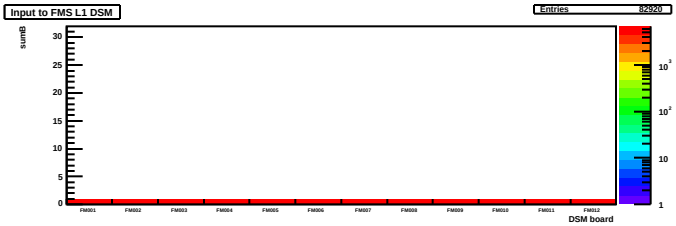

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

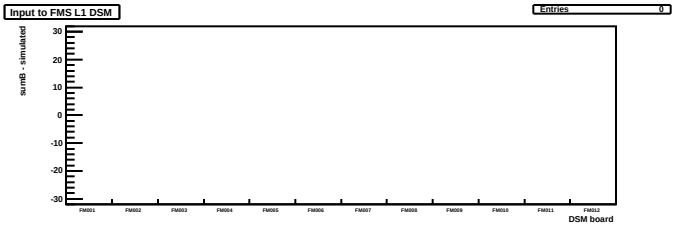

Input to FMS L1 DSM
Entries 82920
sumC
DSM board

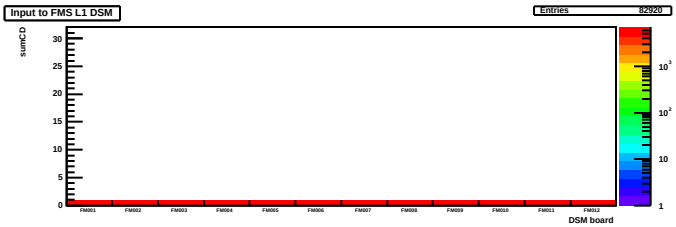

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

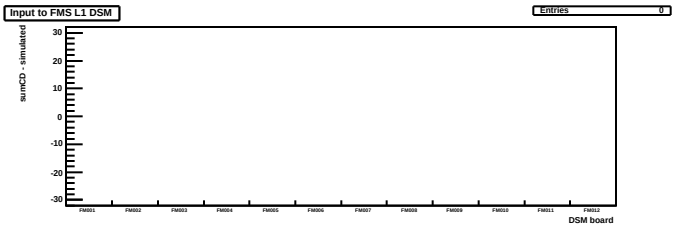

Input to FMS L1 DSM
Entries 82920
sumBC
DSM board

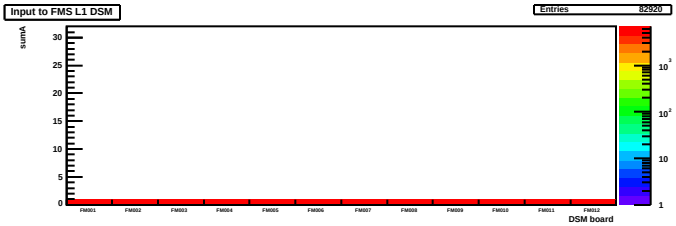

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

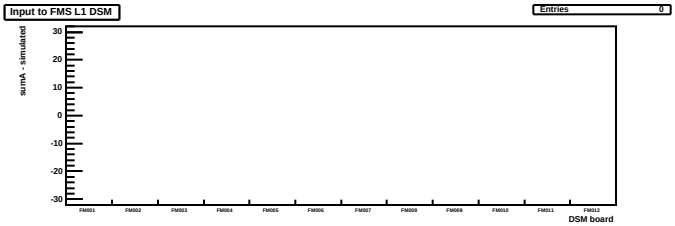

Input to FMS L1 DSM
Entries 82920
sumB
DSM board

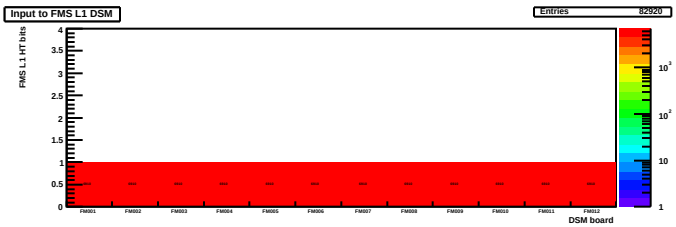

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

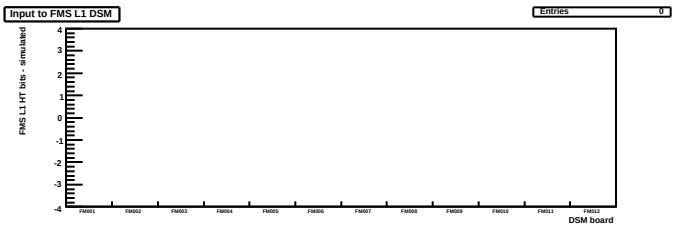

Input to FMS L1 DSM
Entries 82920
sumCD
DSM board

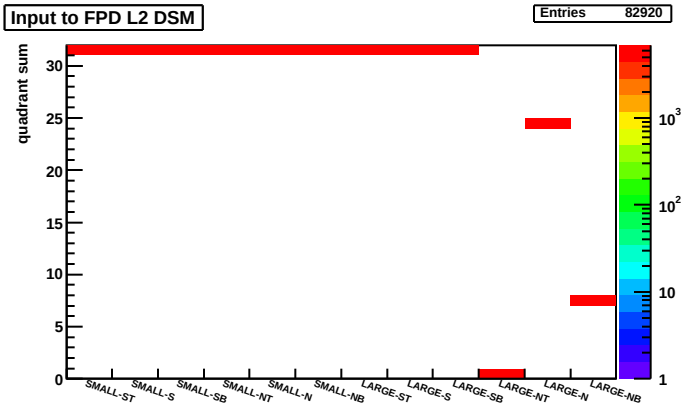

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

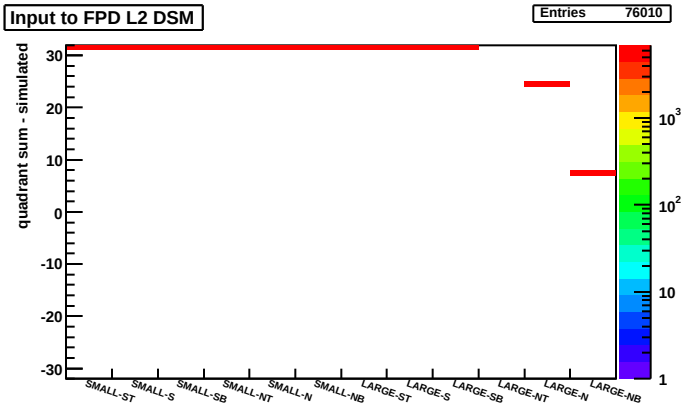

Input to FMS L1 DSM
Entries 82920
sumA
DSM board

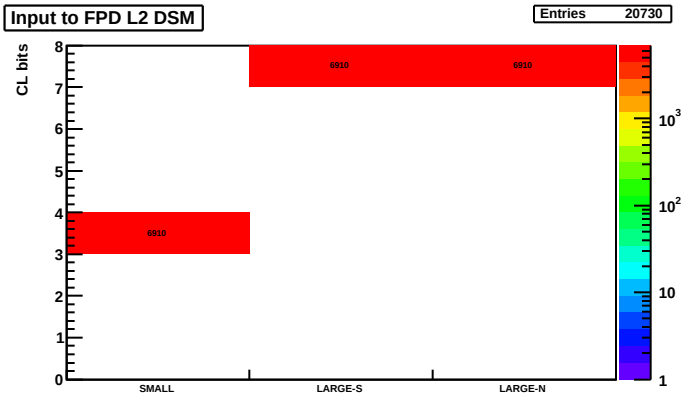

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

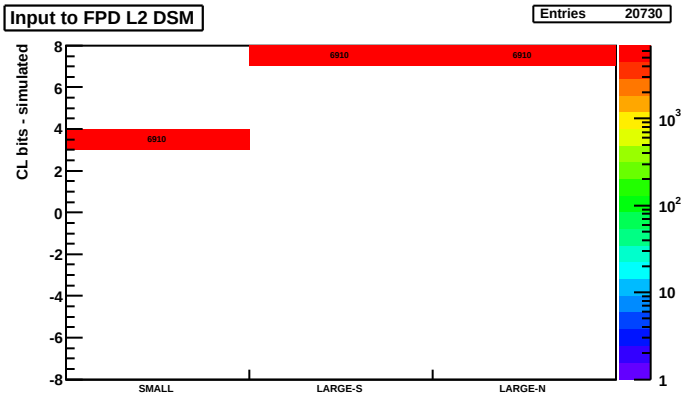

Input to FMS L1 DSM
Entries 82920
FMS L1 HT bits
DSM board

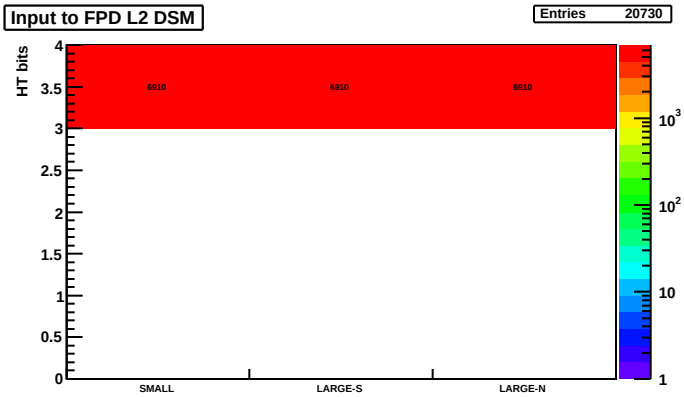

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

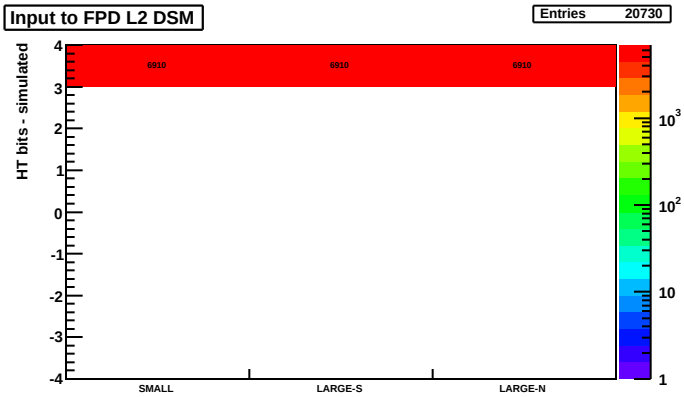

Input to FPD L2 DSM
Entries 82920
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

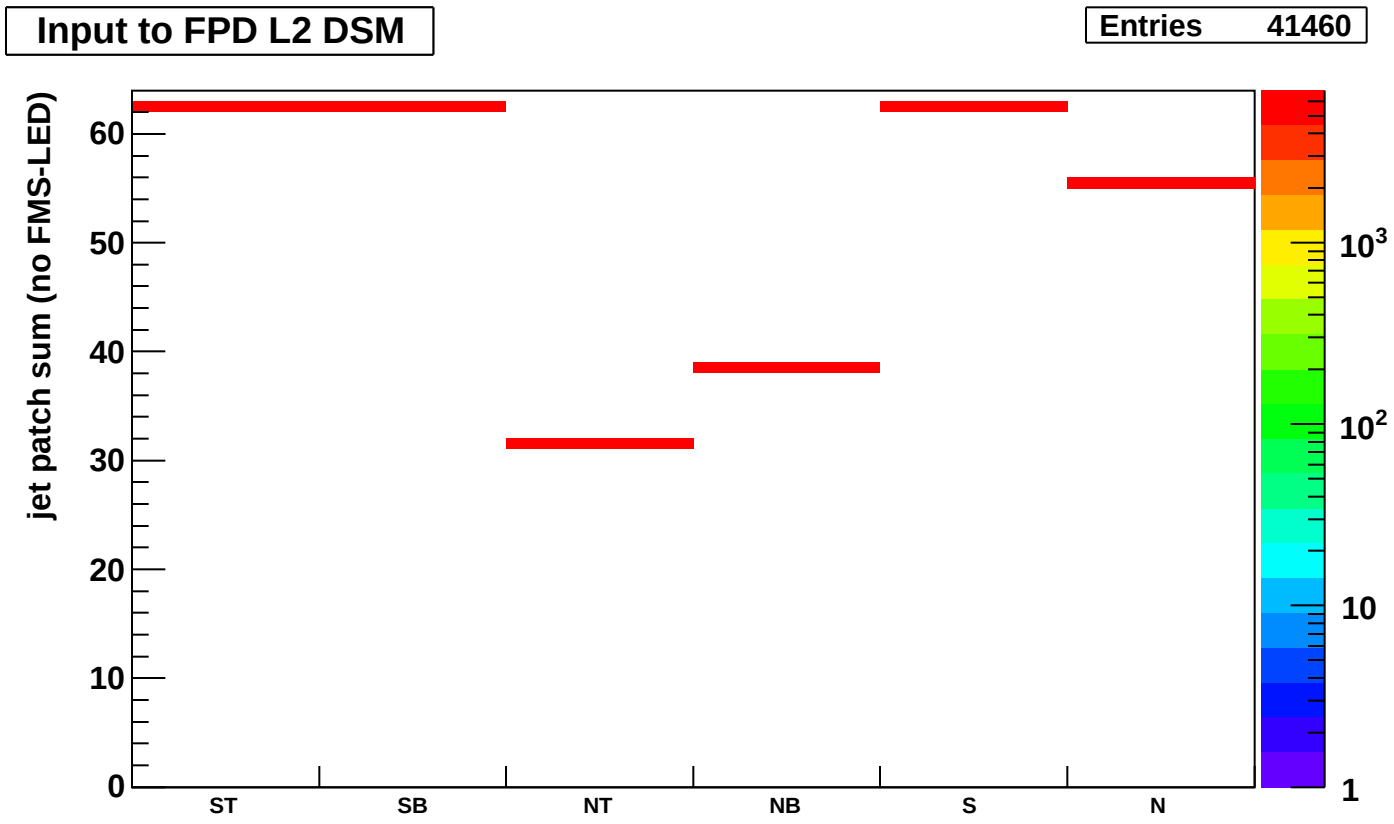

Input to FPD L2 DSM
Entries 76010
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

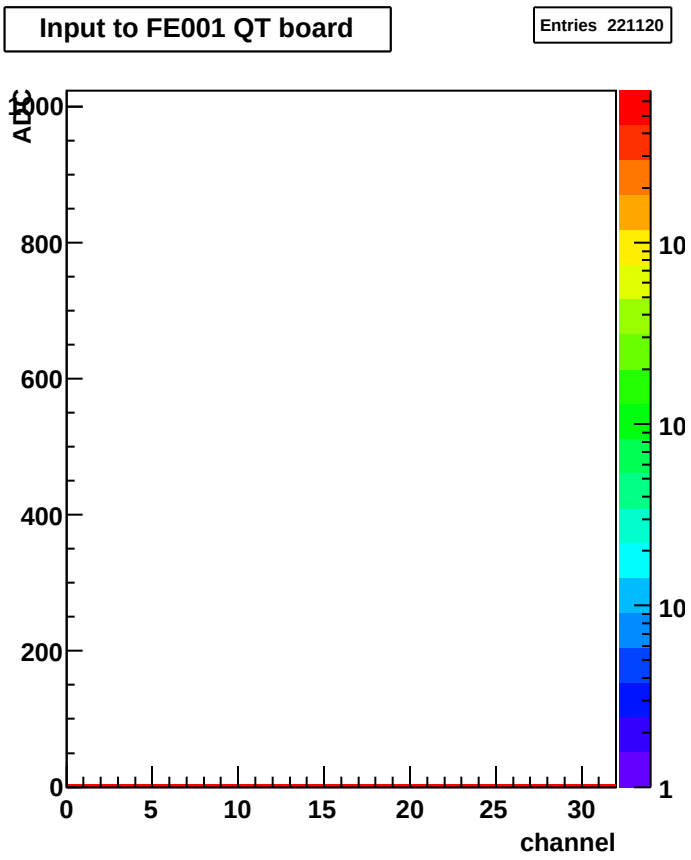

Input to FPD L2 DSM
Entries 20730
CL bits
6910
6910
6910
SMALL
LARGE-S
LARGE-N

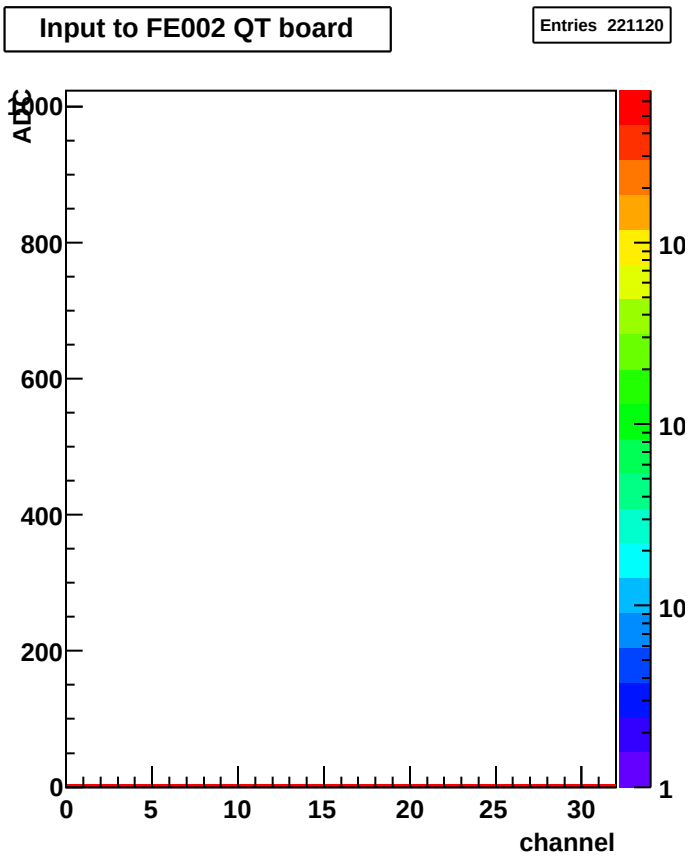

Input to FPD L2 DSM
Entries 20730
CL bits - simulated
6910
6910
6910
SMALL
LARGE-S
LARGE-N

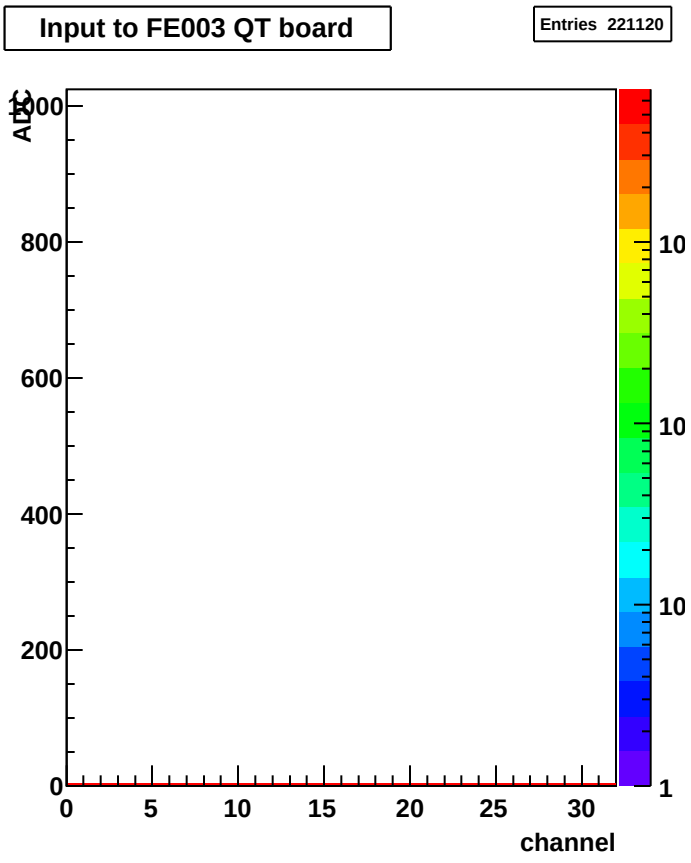

Input to FPD L2 DSM
Entries 20730
HT bits
6910
6910
6910
SMALL
LARGE-S
LARGE-N

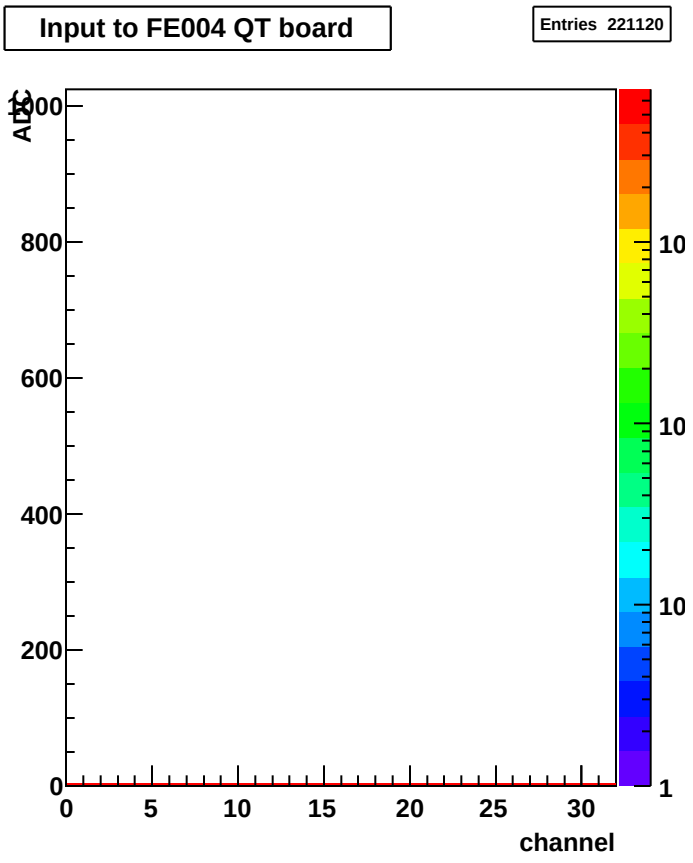

Input to FPD L2 DSM
Entries 20730
HT bits - simulated
6910
6910
6910
SMALL
LARGE-S
LARGE-N

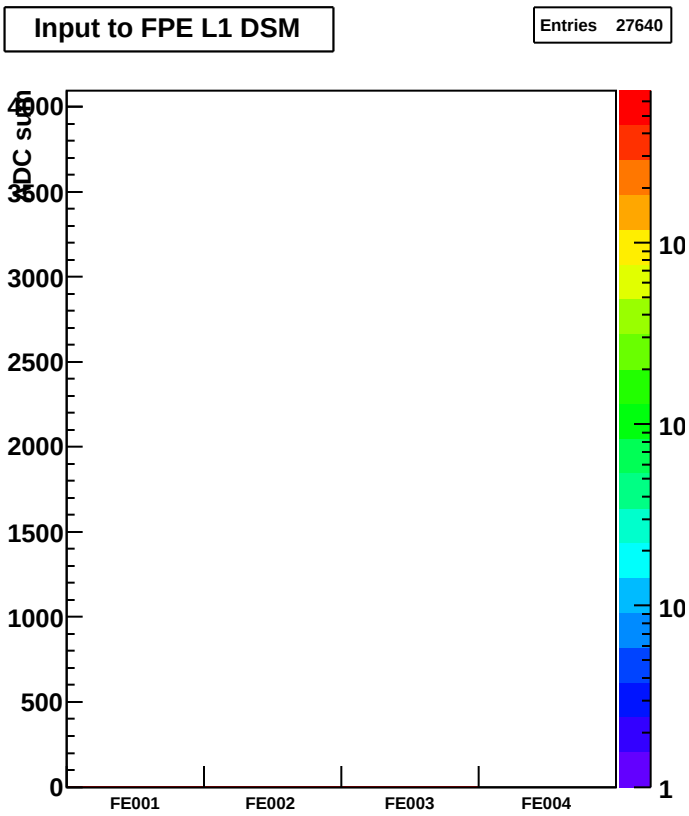

Input to FPD L2 DSM
Entries 41460
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3

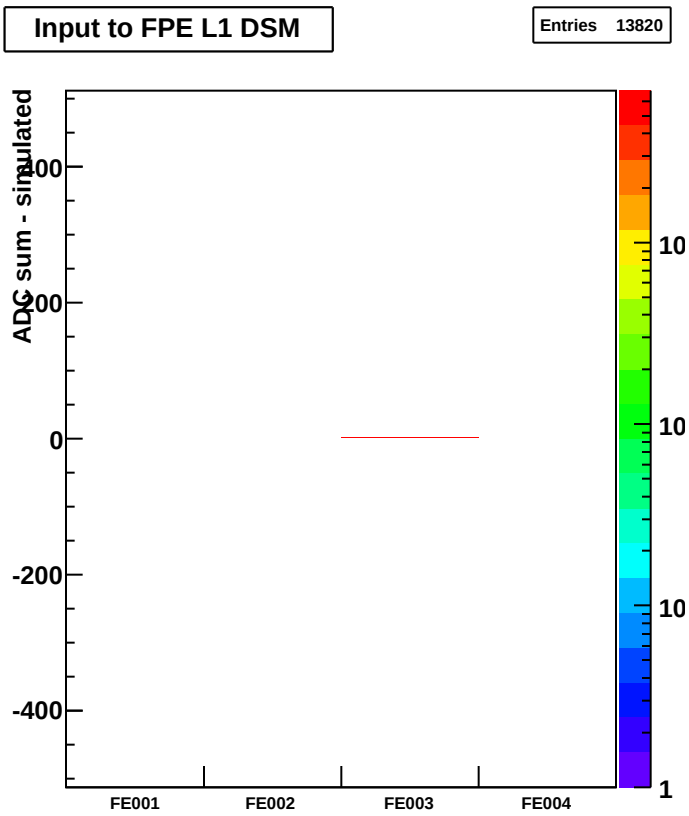

Input to FE001 QT board
Entries 221120
ADC
channel

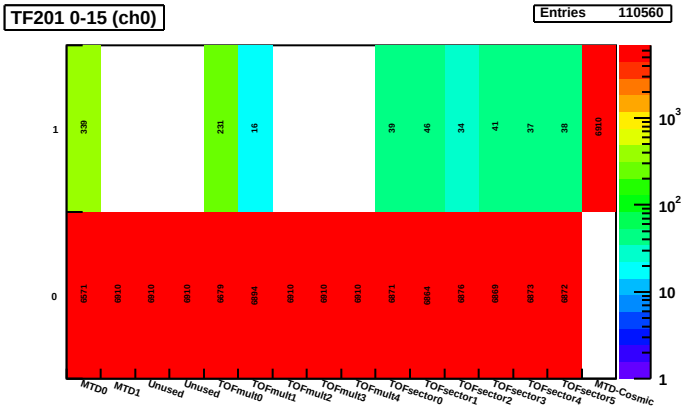

Input to FE002 QT board
Entries 221120
ADC
channel

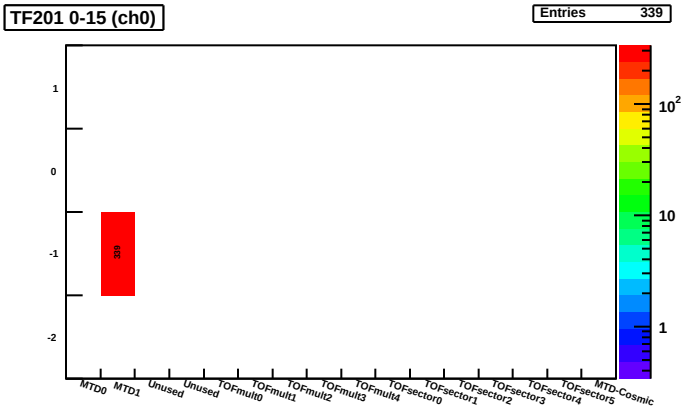

Input to FE003 QT board
Entries 221120
ADC
channel

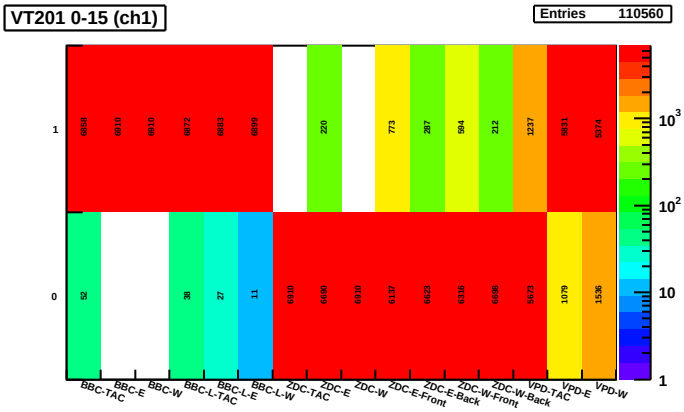

Input to FE004 QT board
Entries 221120
ADC
channel

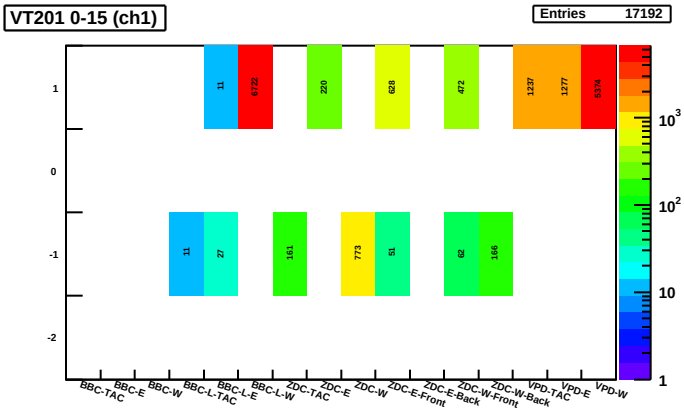

Input to FPE L1 DSM
Entries 27640
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
1


Input to FPE L1 DSM
Entries 13820
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
1


TF201 0-15 (ch0)
Entries 110560
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 339
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 110560
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 17192
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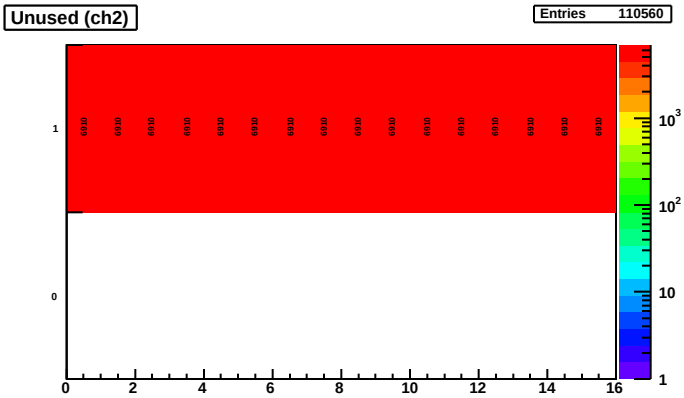
Unused (ch2)
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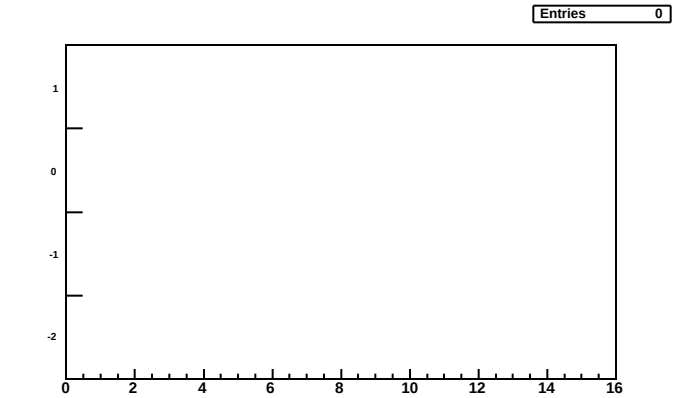
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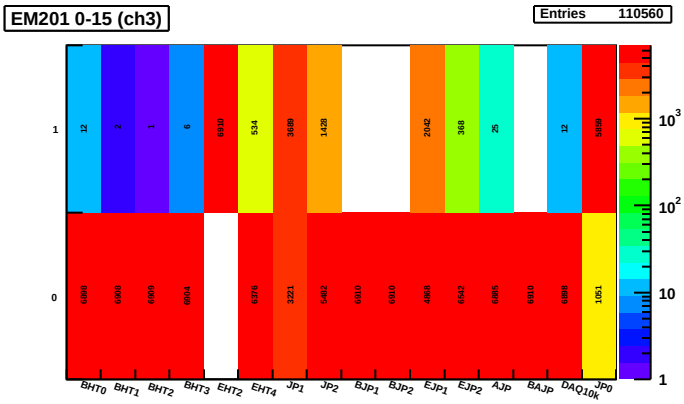
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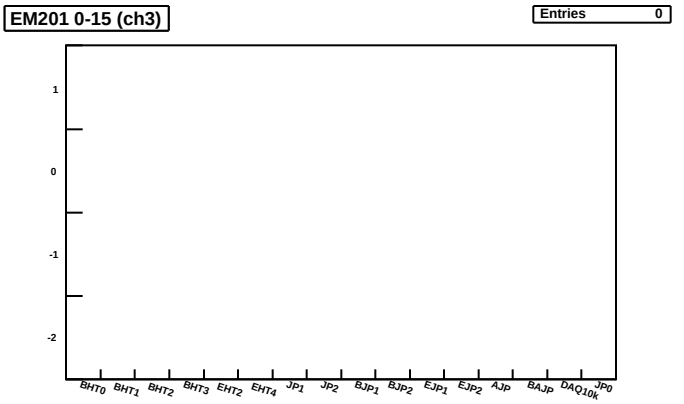
EM201 0-15 (ch3)
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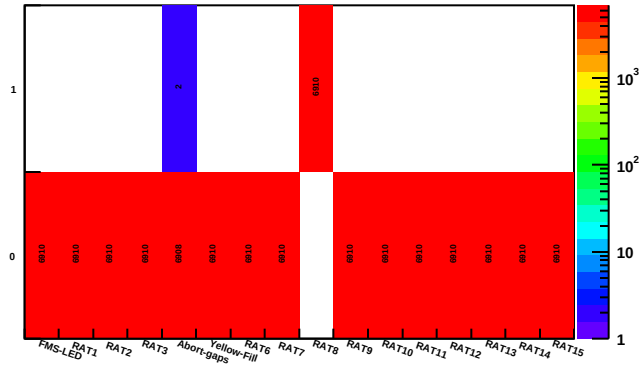
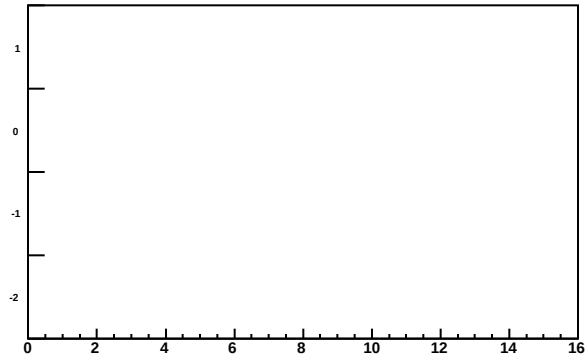
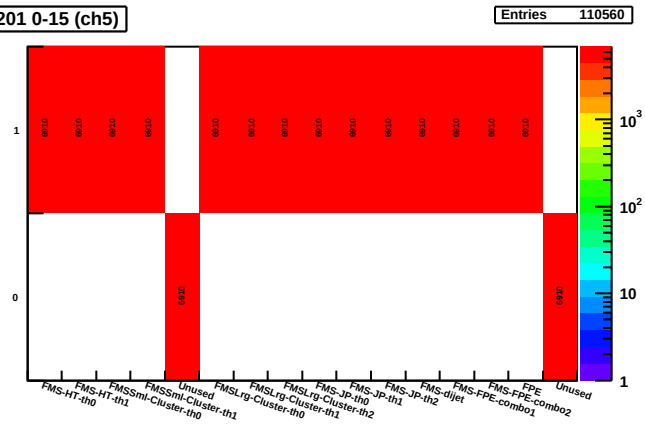
RAT board (ch4)

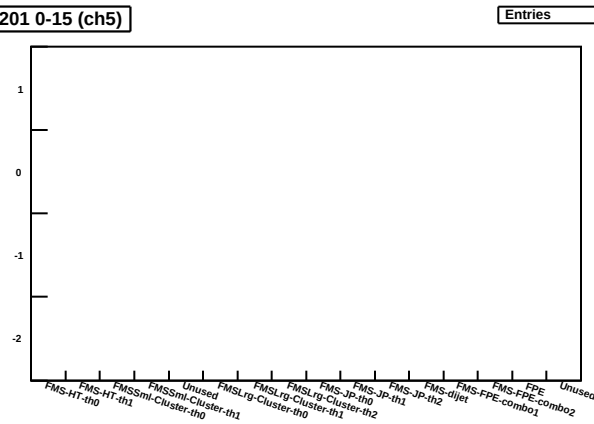




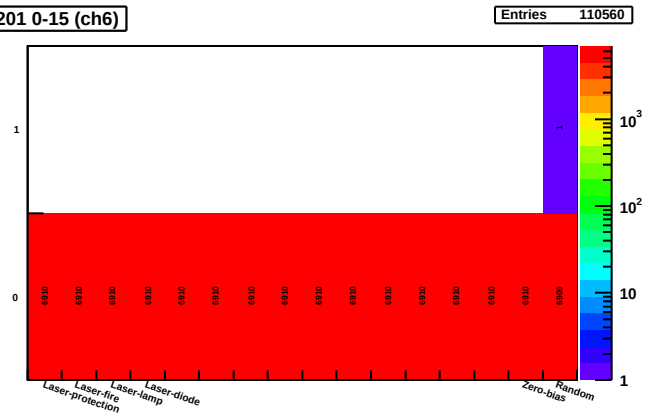
FP201 0-15 (ch5)

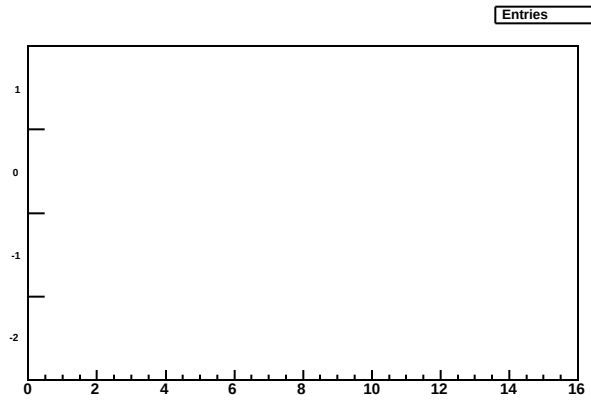
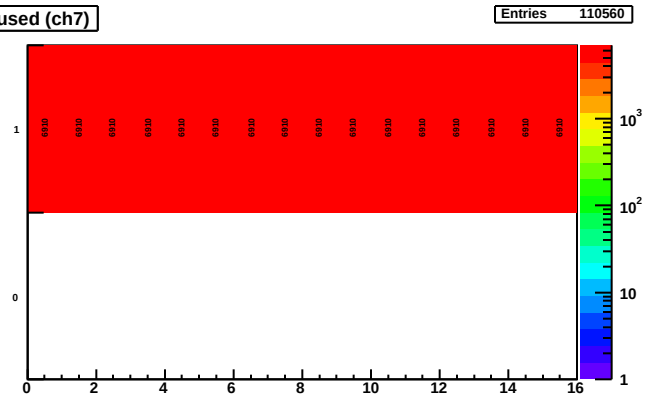
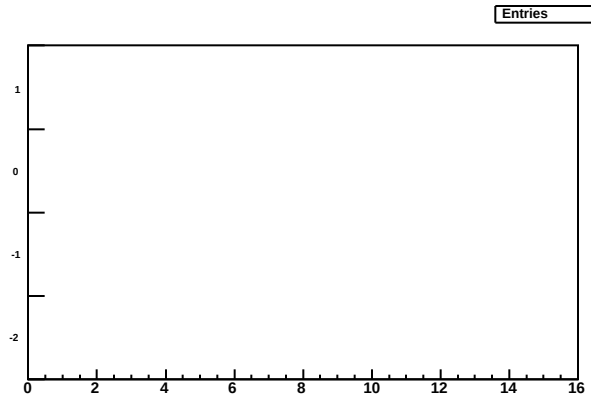


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)