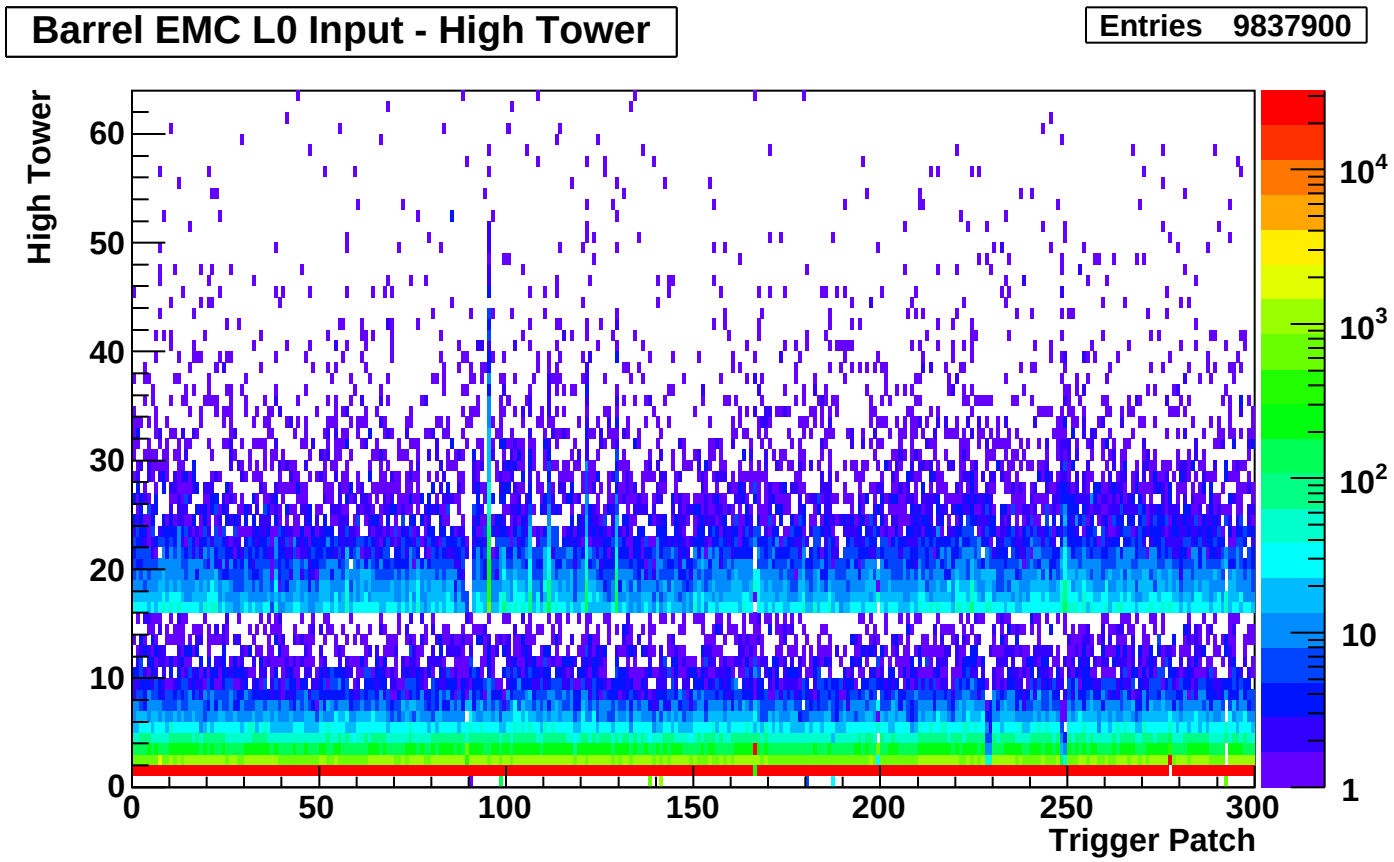
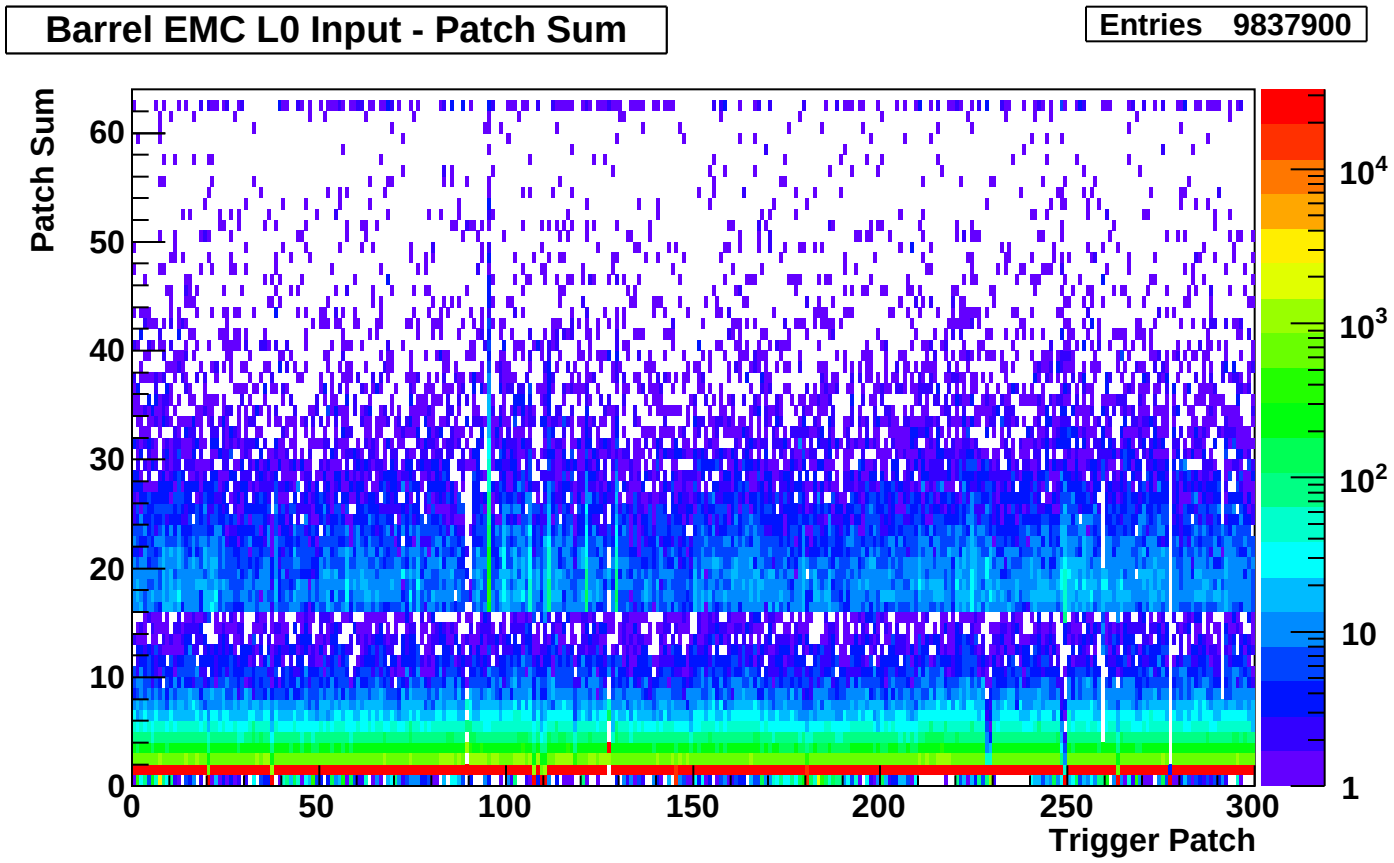
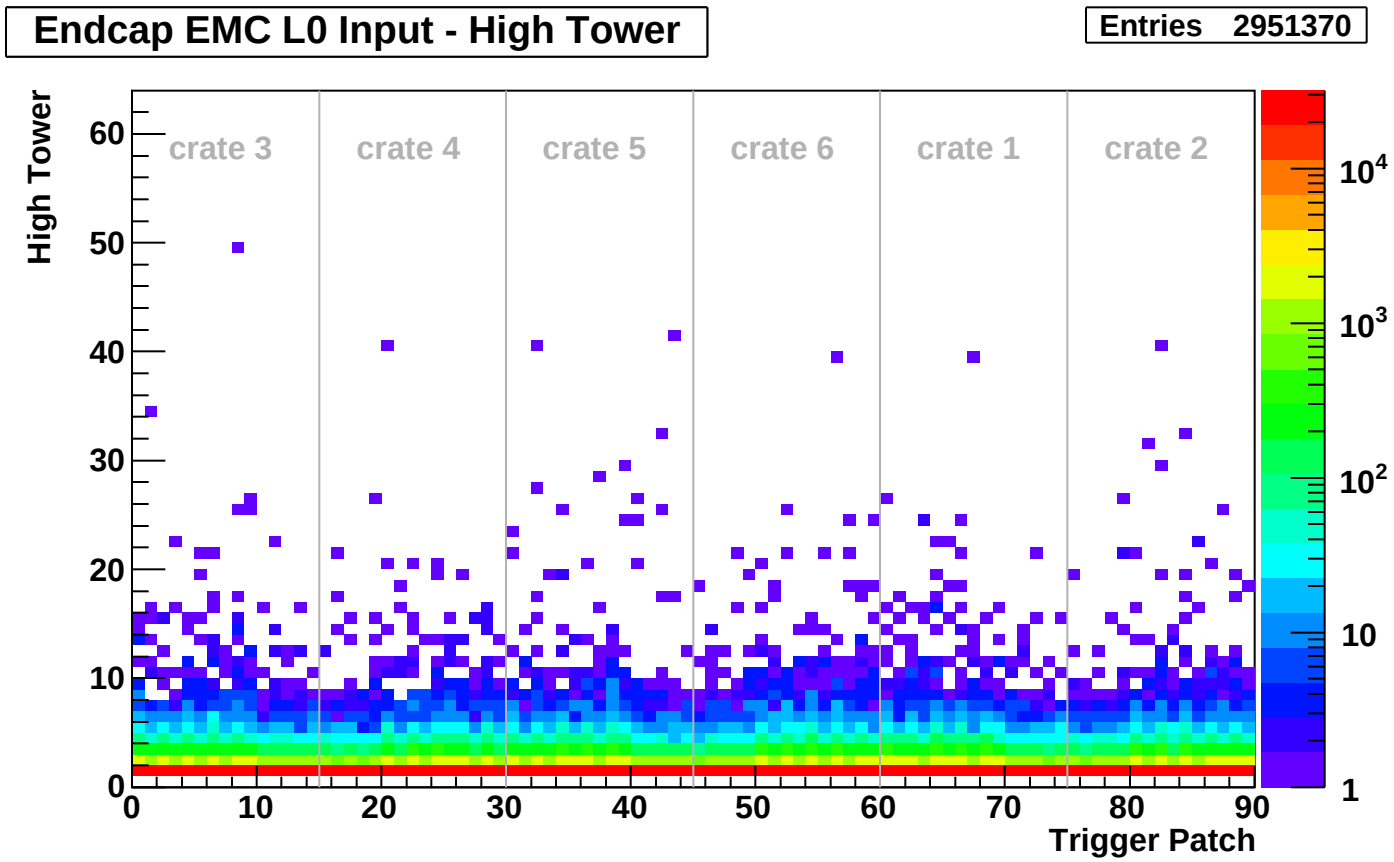
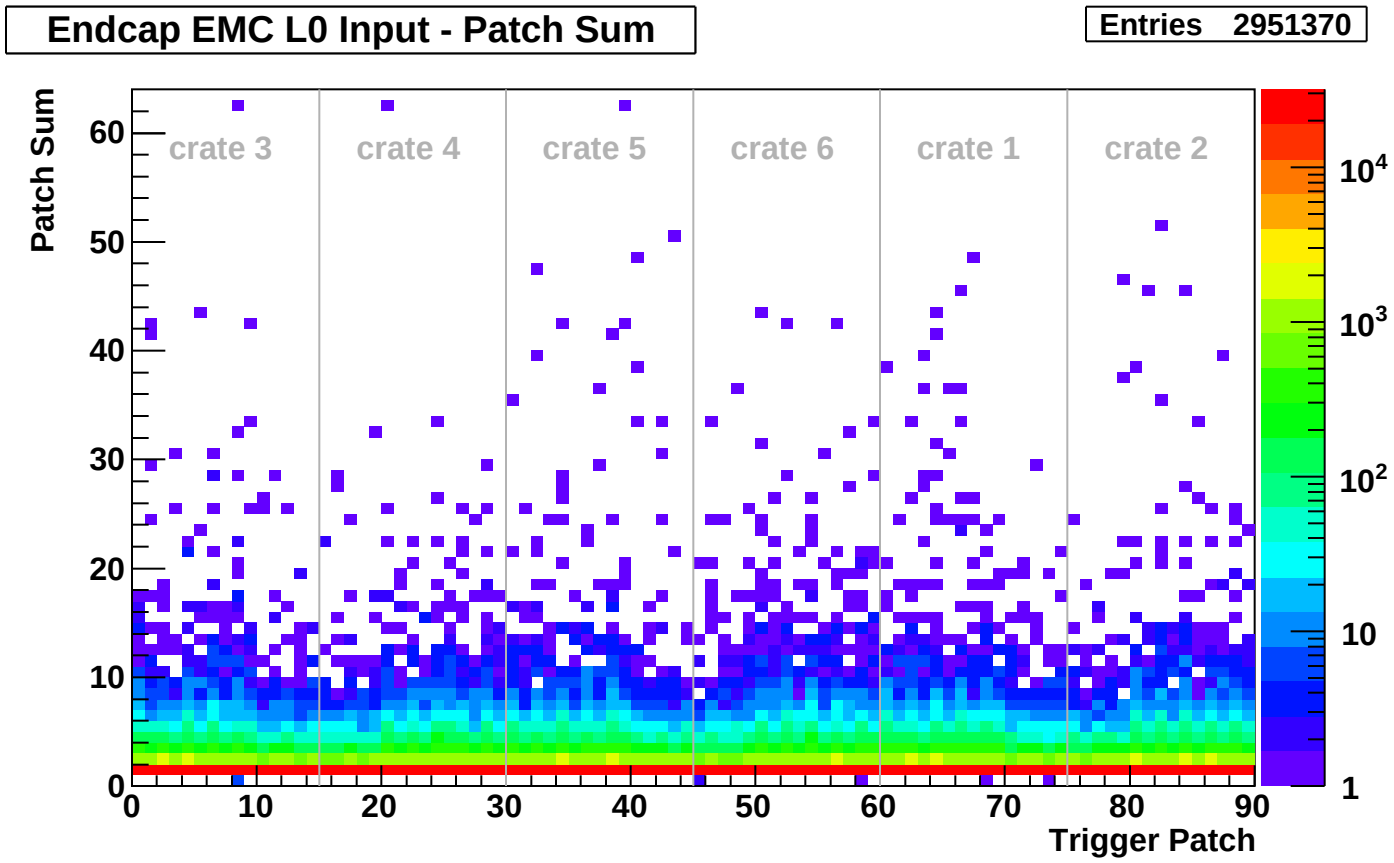
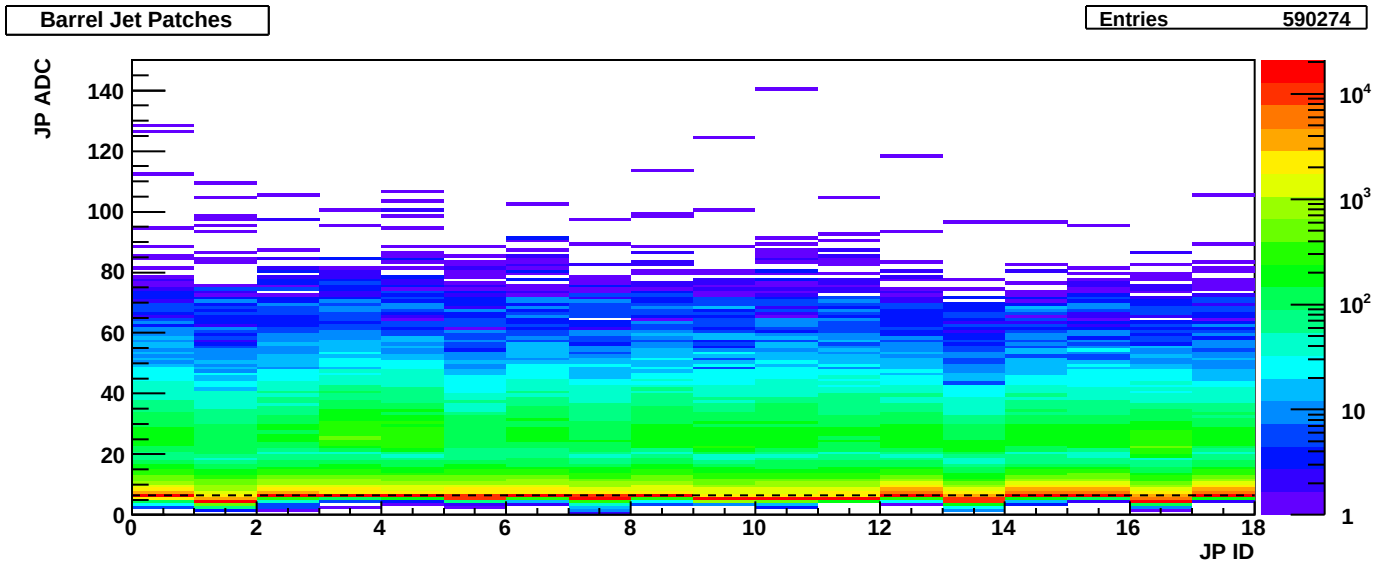
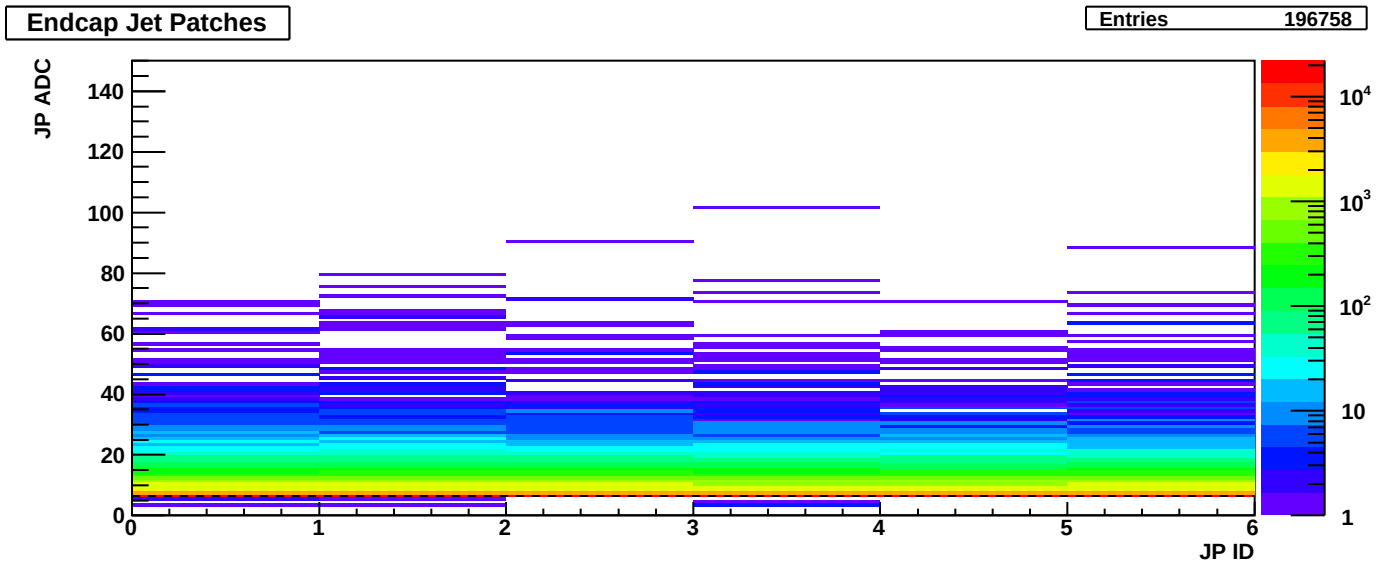

Barrel EMC L0 Input - High Tower
Entries 9837900
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

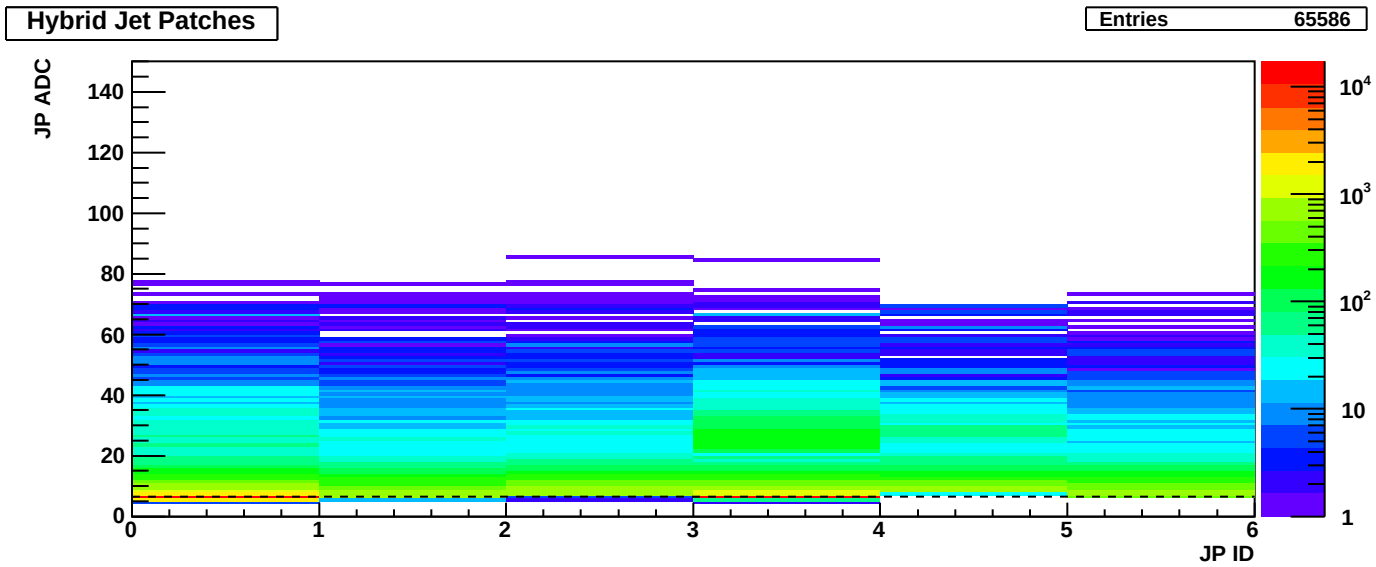

Barrel EMC L0 Input - Patch Sum
Entries 9837900
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

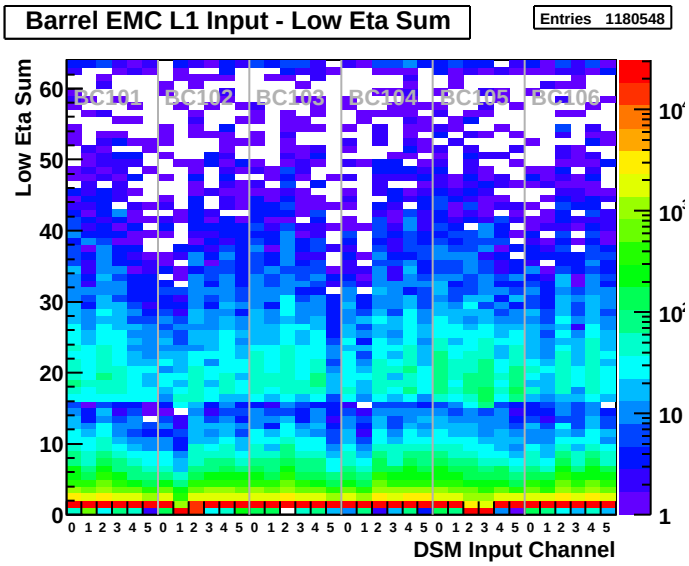

Endcap EMC L0 Input - High Tower
Entries 2951370
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

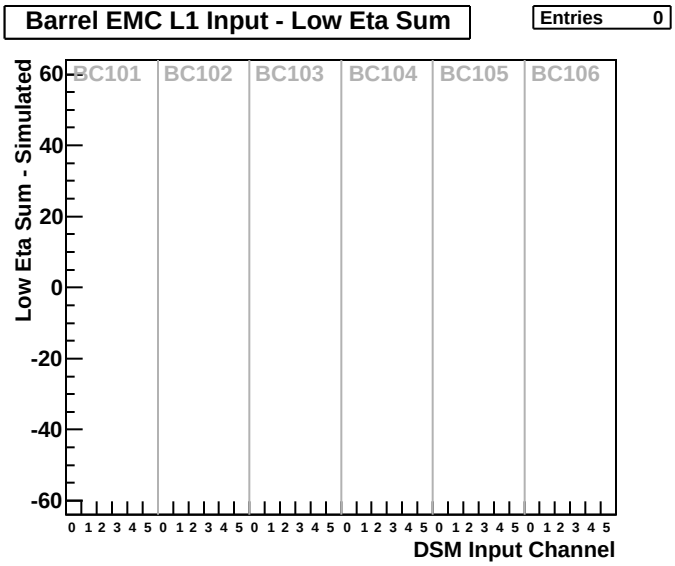

Endcap EMC L0 Input - Patch Sum
Entries 2951370
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

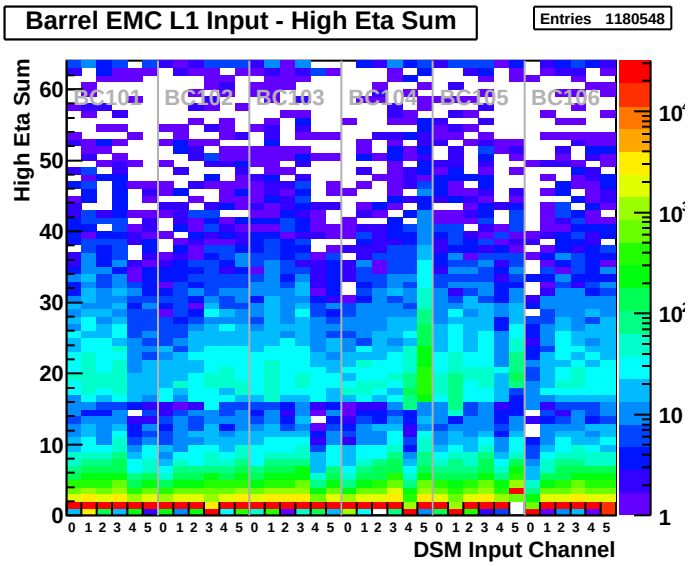

Barrel Jet Patches
Entries 590274
JP ADC
JP ID

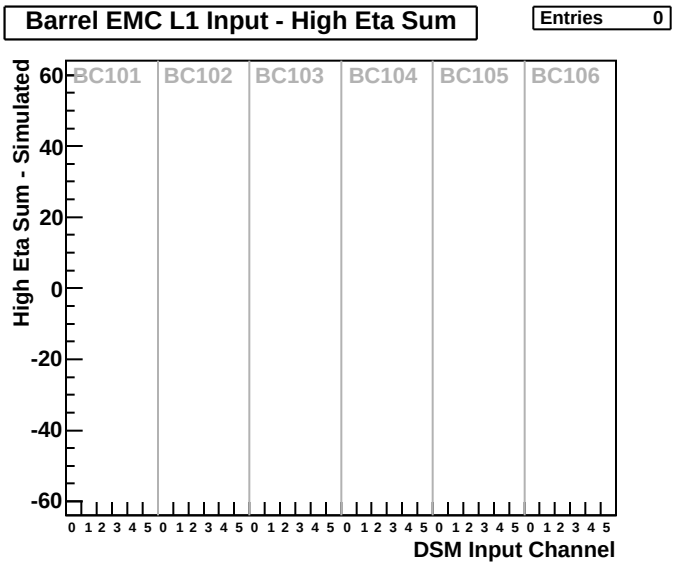

Endcap Jet Patches
Entries 196758
JP ADC
JP ID

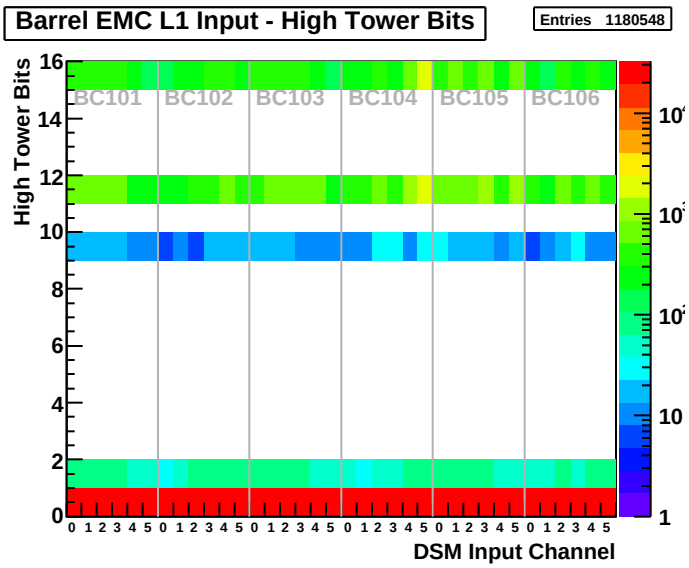

Hybrid Jet Patches
Entries 65586
JP ADC
JP ID

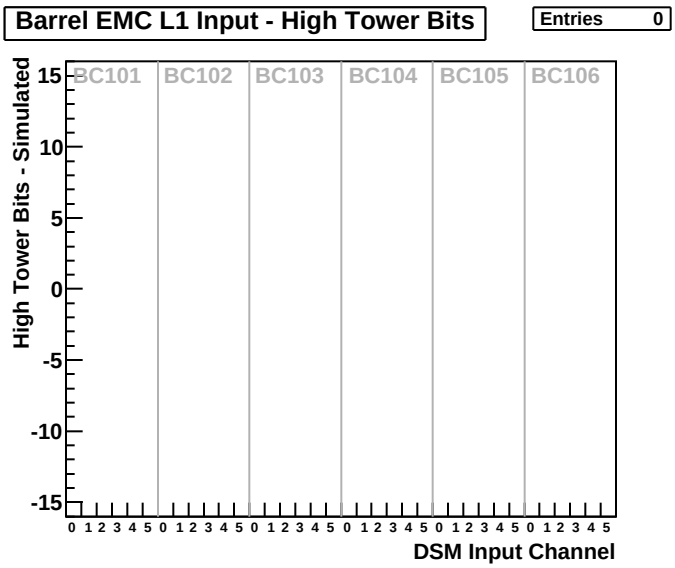

Barrel EMC L1 Input - Low Eta Sum
Entries 1180548
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

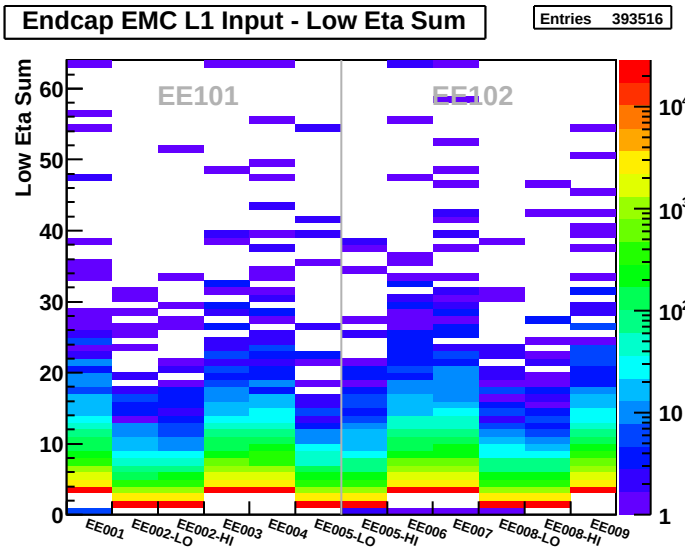

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

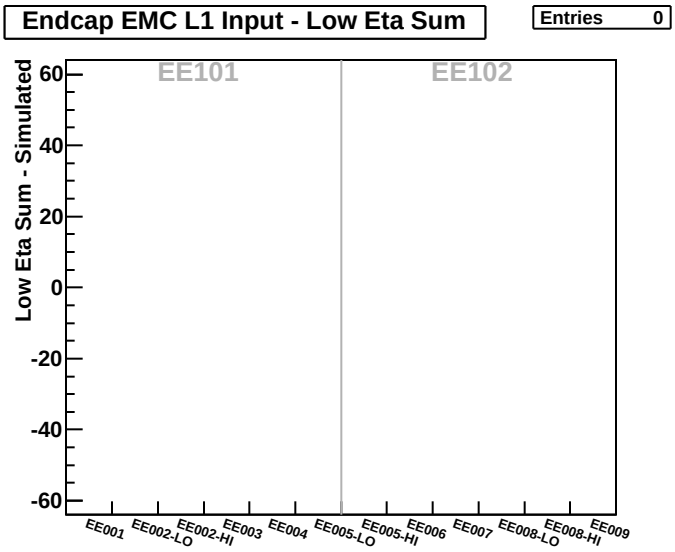

Barrel EMC L1 Input - High Eta Sum
Entries 1180548
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

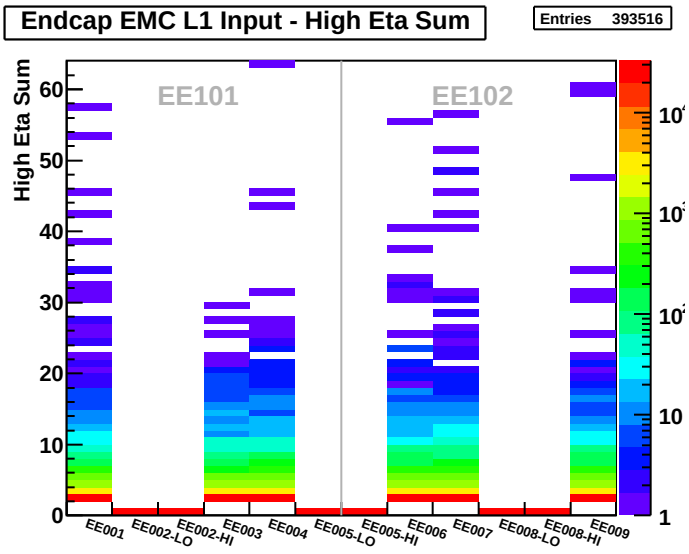

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

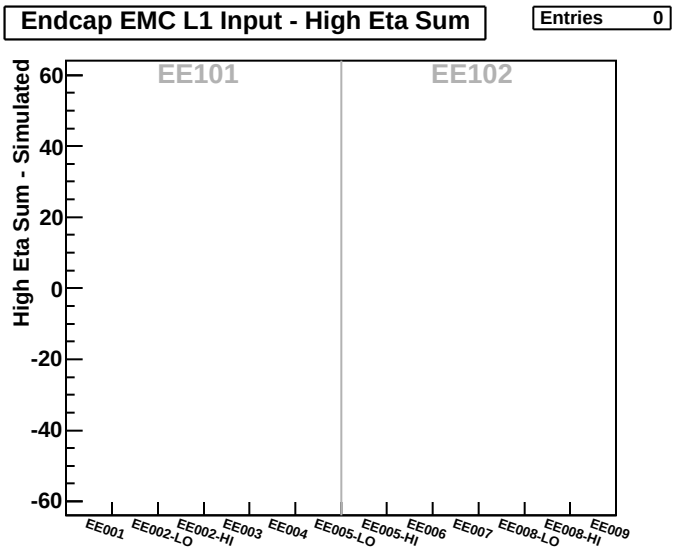

Barrel EMC L1 Input - High Tower Bits
Entries 1180548
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

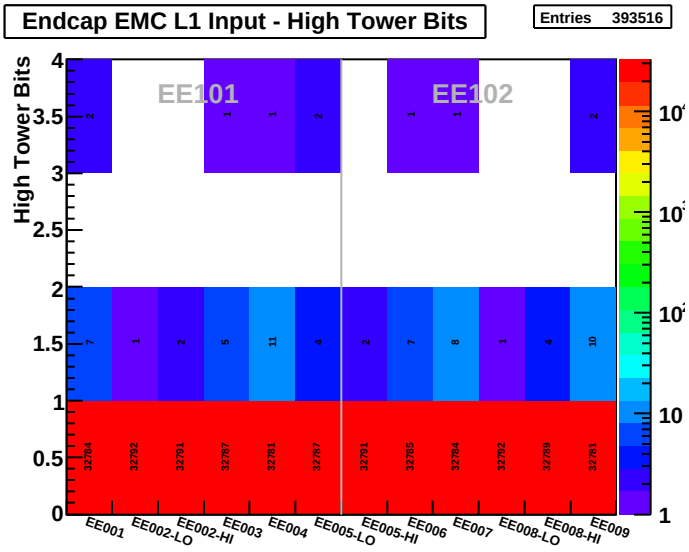

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

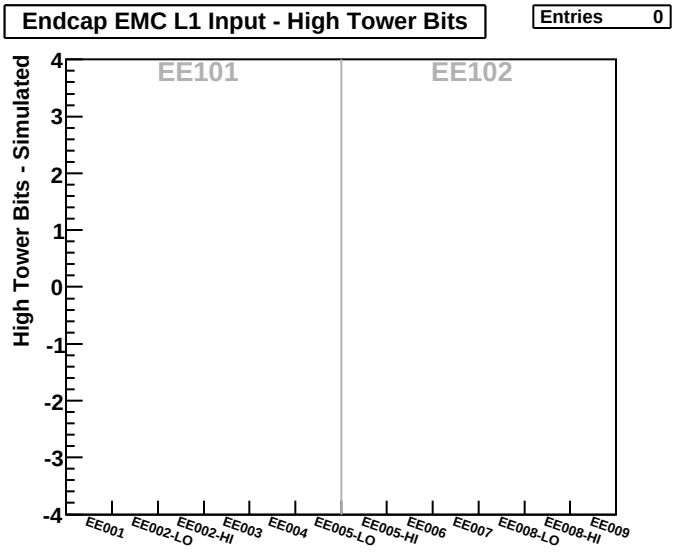

Endcap EMC L1 Input - Low Eta Sum
Entries 393516
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

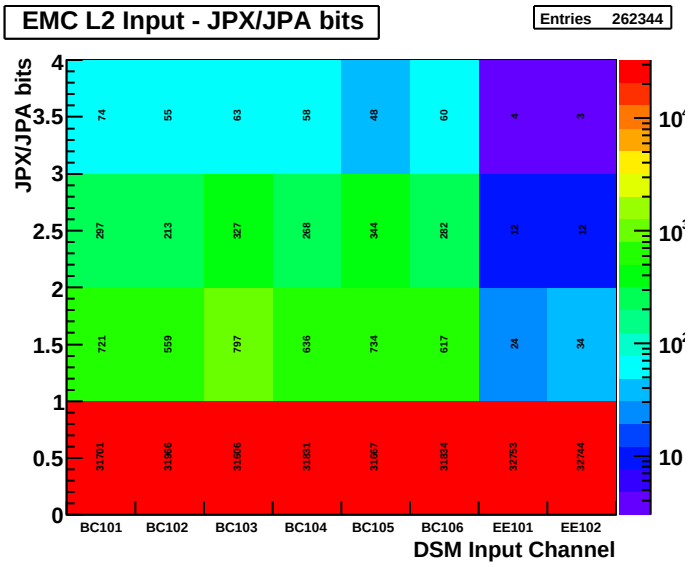

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

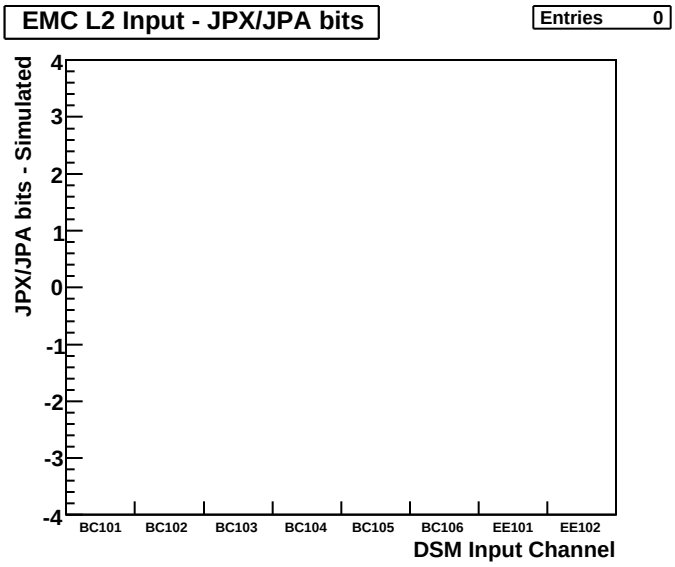

Endcap EMC L1 Input - High Eta Sum
Entries 393516
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

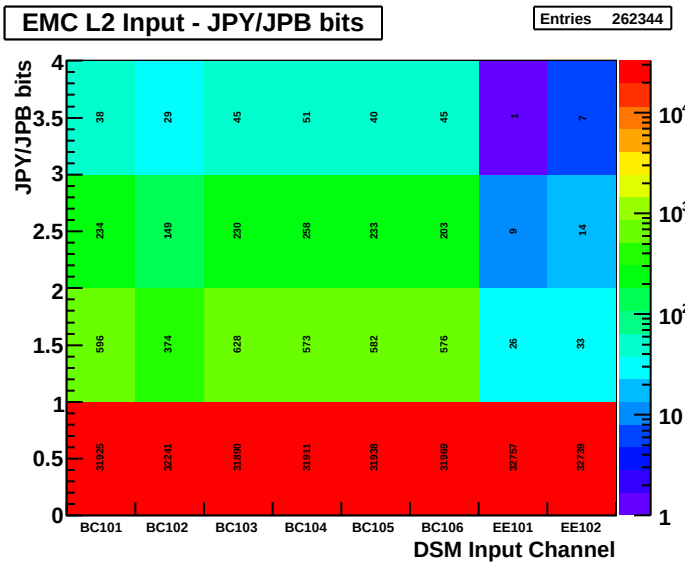

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

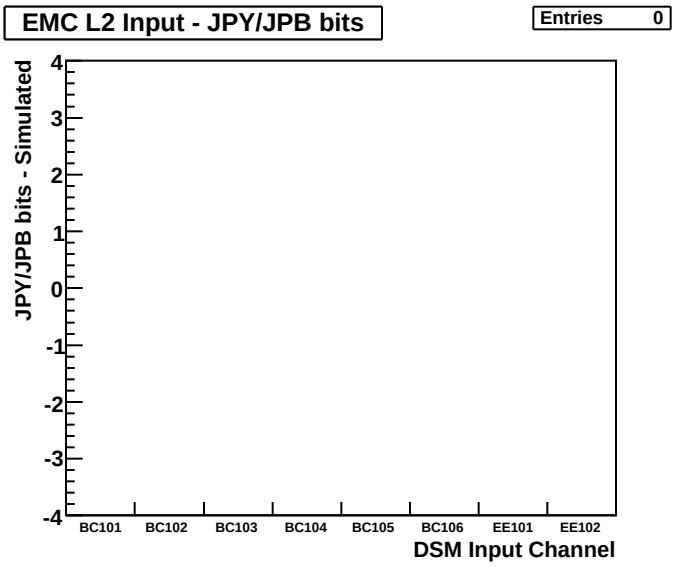

Endcap EMC L1 Input - High Tower Bits
Entries 393516
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

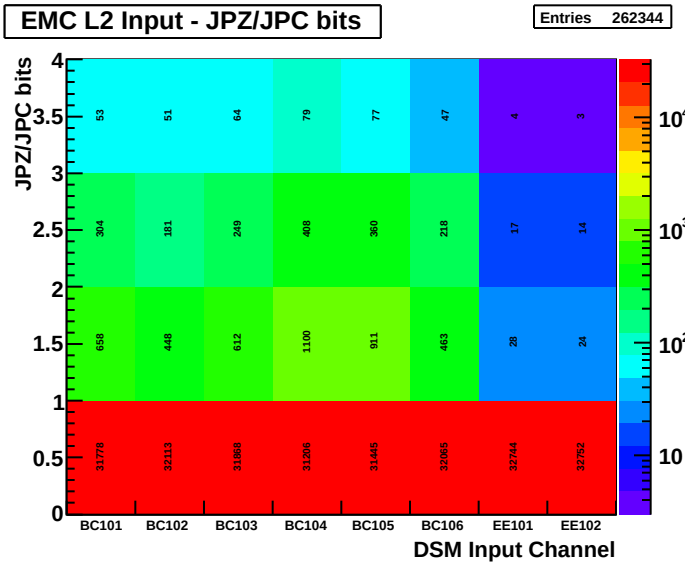

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

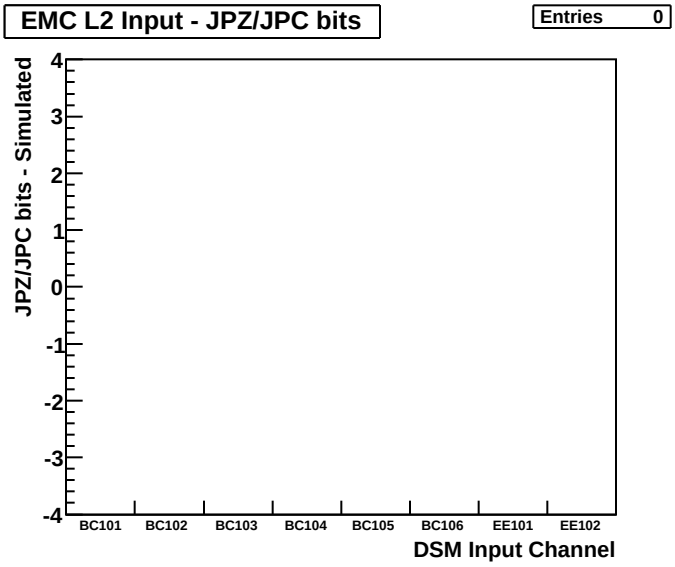

EMC L2 Input - JPX/JPA bits
Entries 262344
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
74 55 63 58 48 60 4 3
297 213 327 268 344 282 12 12
721 559 797 636 734 617 24 34
31701 31866 31606 31831 31667 31834 32753 32744

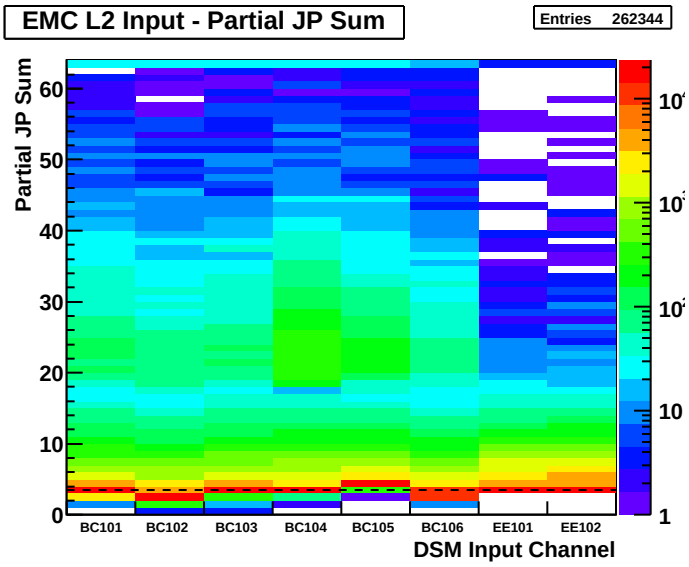

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

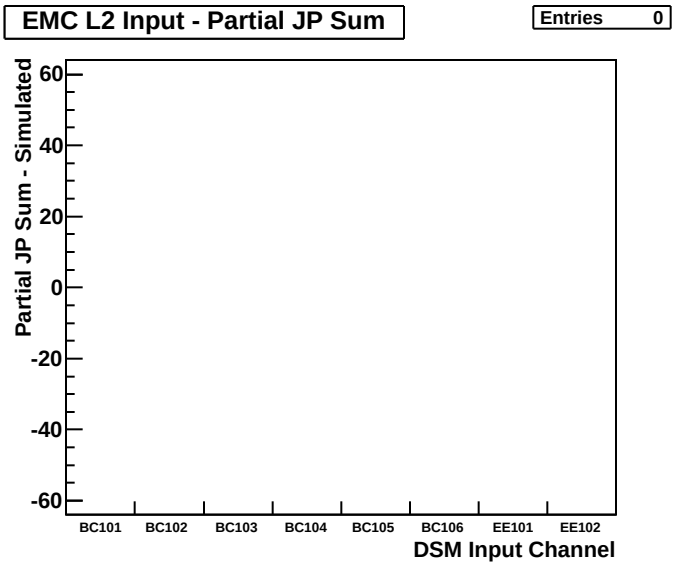

EMC L2 Input - JPY/JPB bits
Entries 262344
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
38 29 45 51 40 45 1 7
234 149 230 258 233 203 9 14
596 374 628 573 582 576 26 33
31925 32241 31890 31911 31938 31969 32757 32739

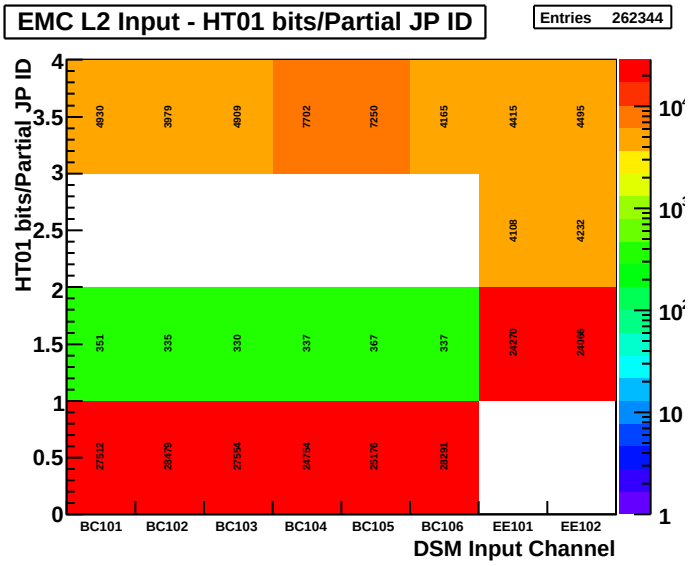

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

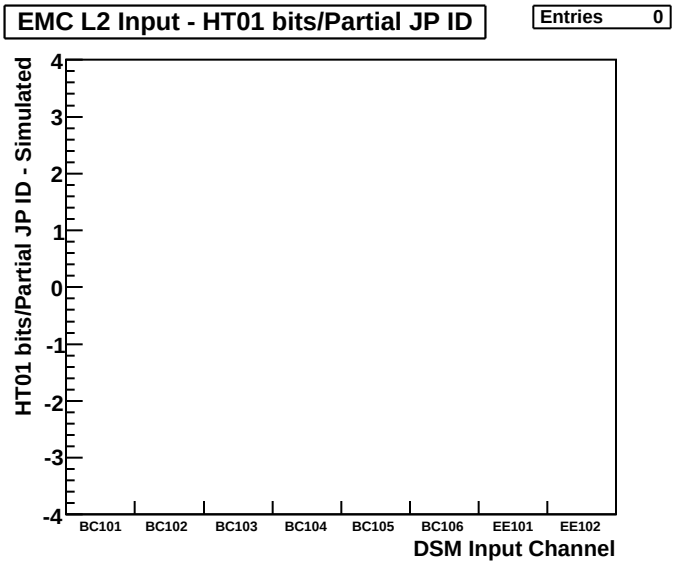

EMC L2 Input - JPZ/JPC bits
Entries 262344
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
53 51 64 79 77 47 4 3
304 181 249 408 360 218 17 14
658 448 612 1100 911 463 28 24
31778 32113 31868 31206 31445 32065 32744 32752

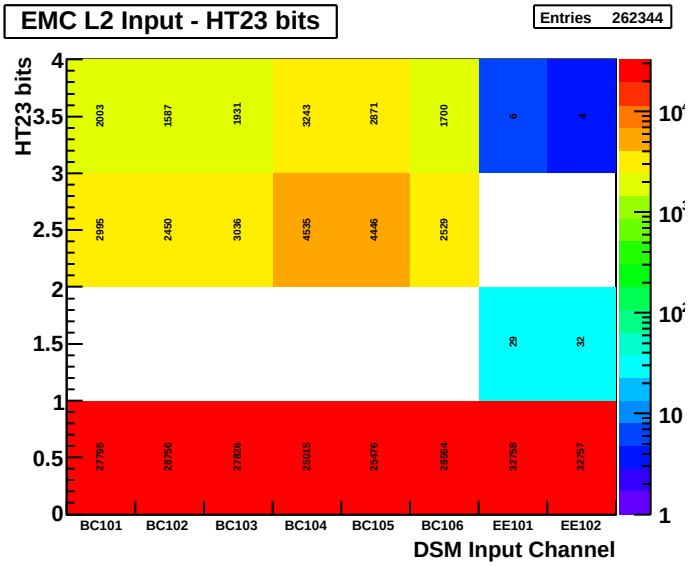

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

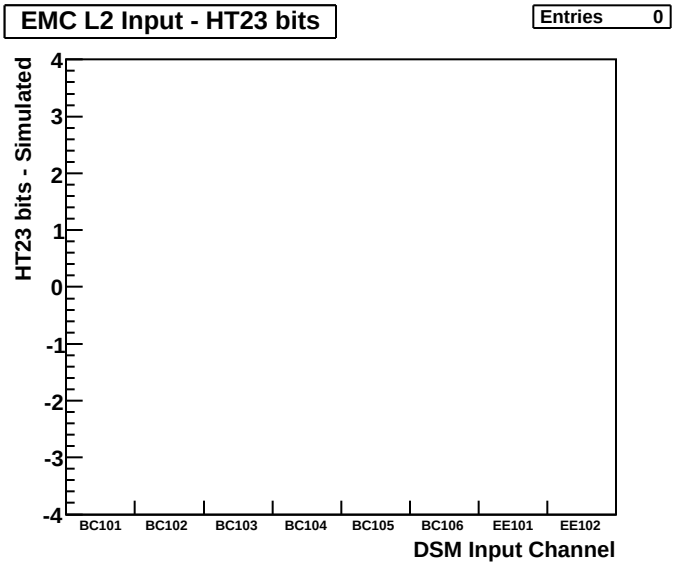

EMC L2 Input - Partial JP Sum
Entries 262344
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

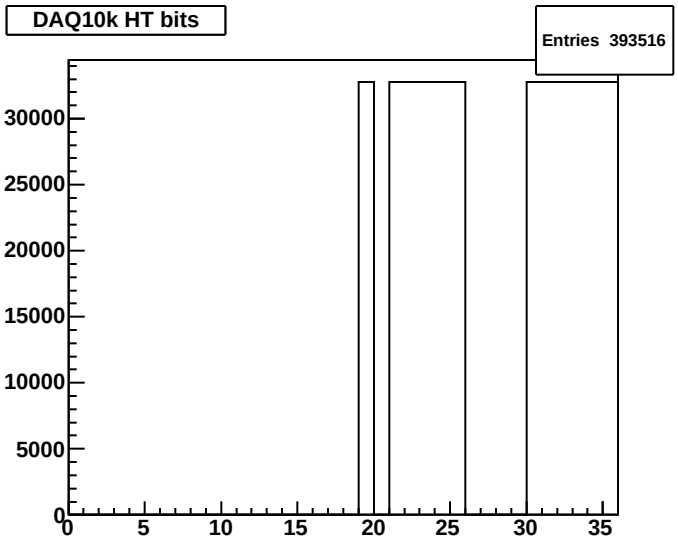

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

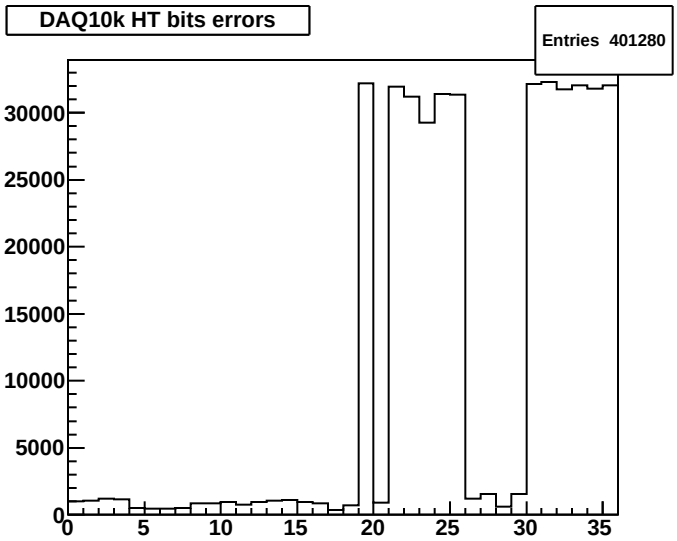

EMC L2 Input - HT01 bits/Partial JP ID
Entries 262344
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

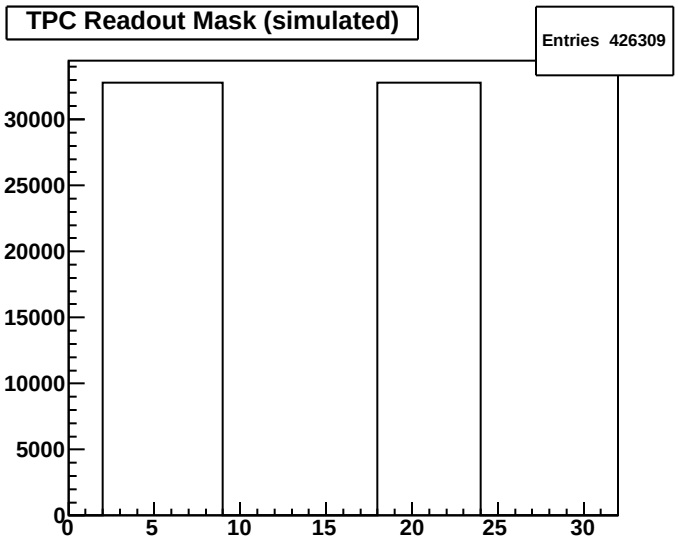

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

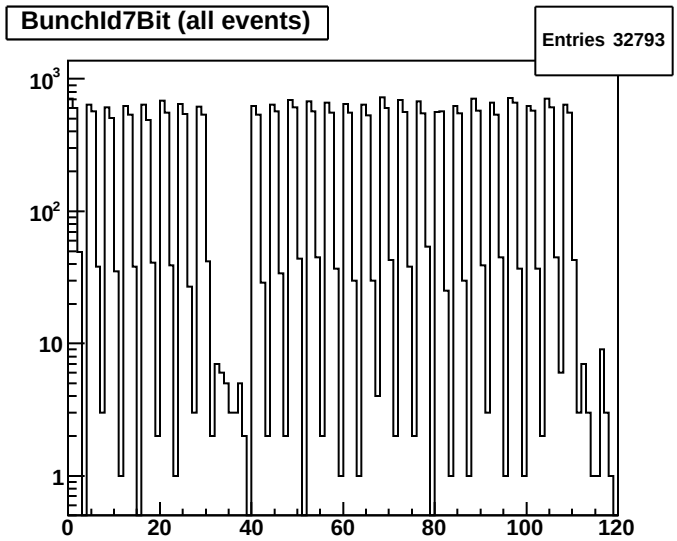

EMC L2 Input - HT23 bits
Entries 262344
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

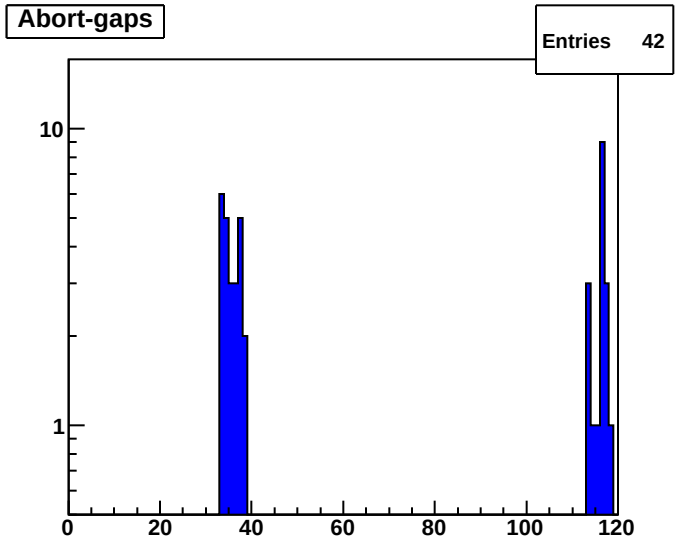

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

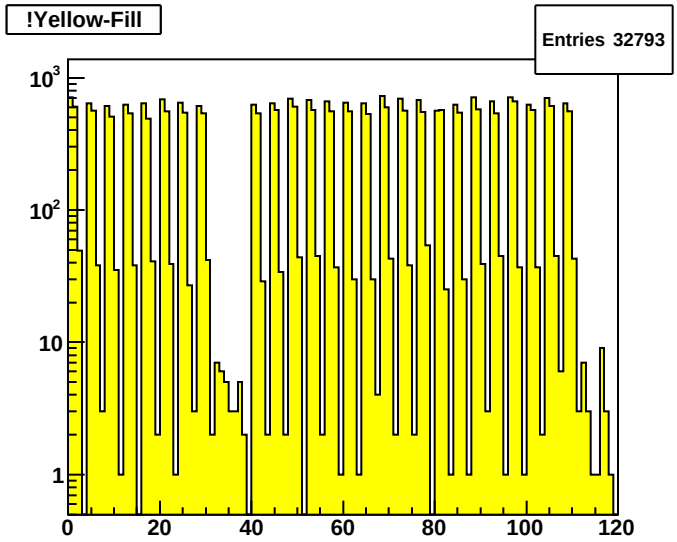

DAQ10k HT bits
Entries 393516
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

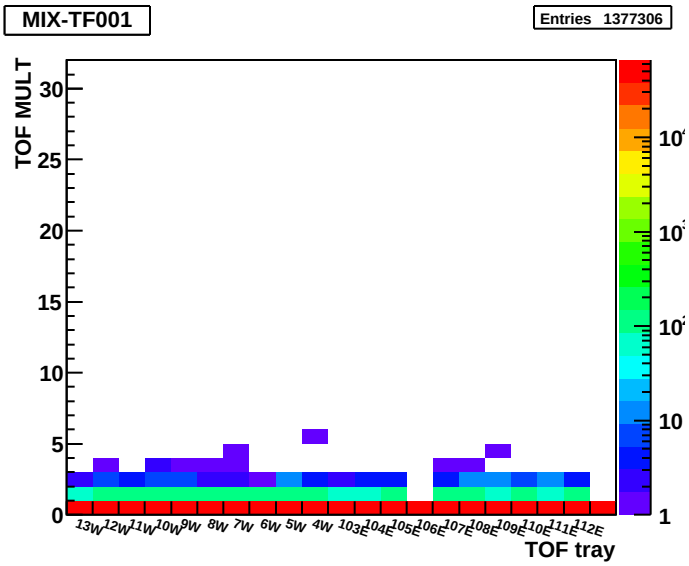

DAQ10k HT bits errors
Entries 401280
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

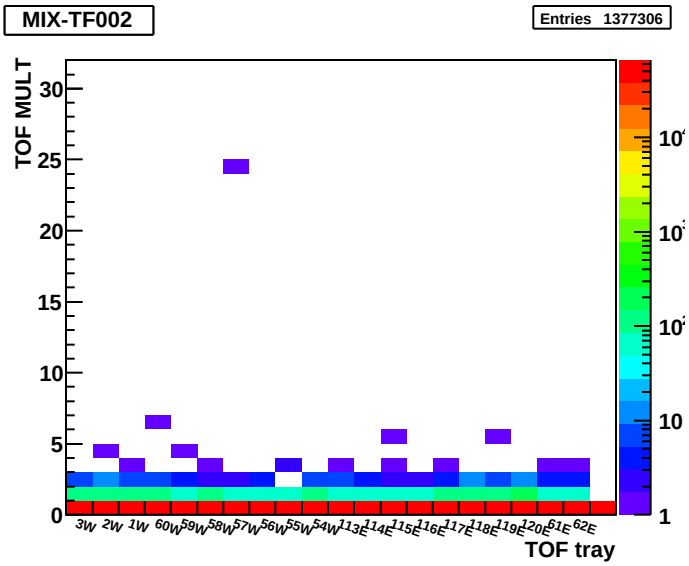

TPC Readout Mask (simulated)
Entries 426309
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

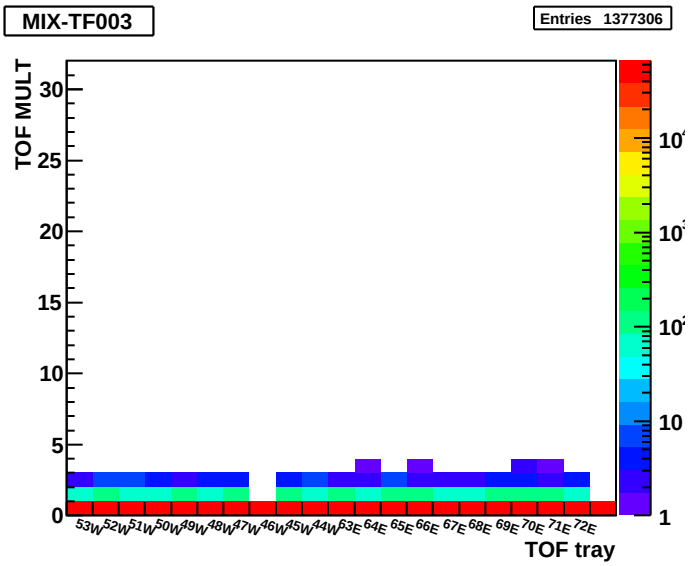

BunchId7Bit (all events)
Entries 32793
10^3
10^2
10
1
0 20 40 60 80 100 120

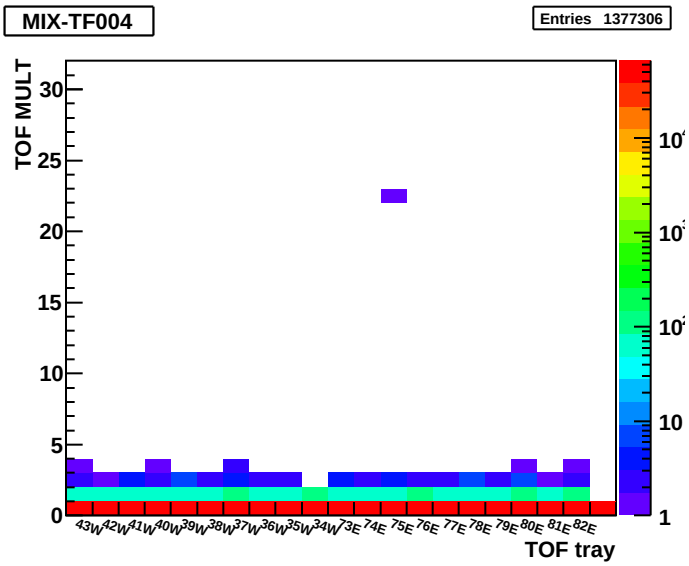

Abort-gaps
Entries 42
10
1
0 20 40 60 80 100 120

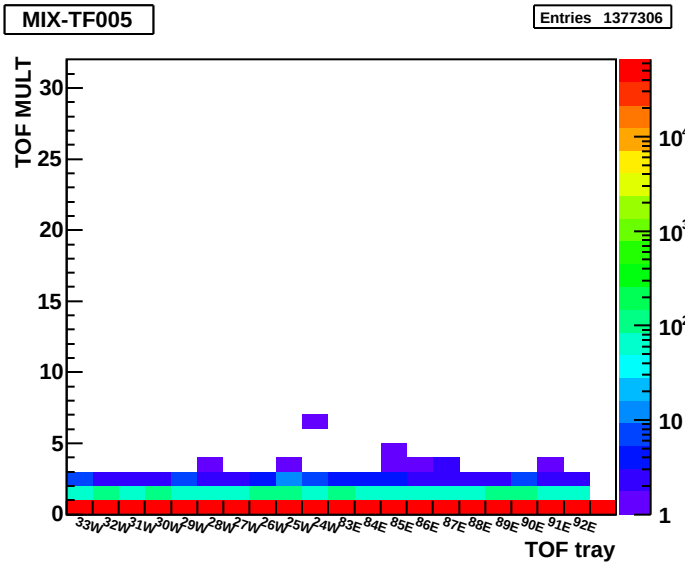

!Yellow-Fill
Entries 32793
10^3
10^2
10
1
0 20 40 60 80 100 120

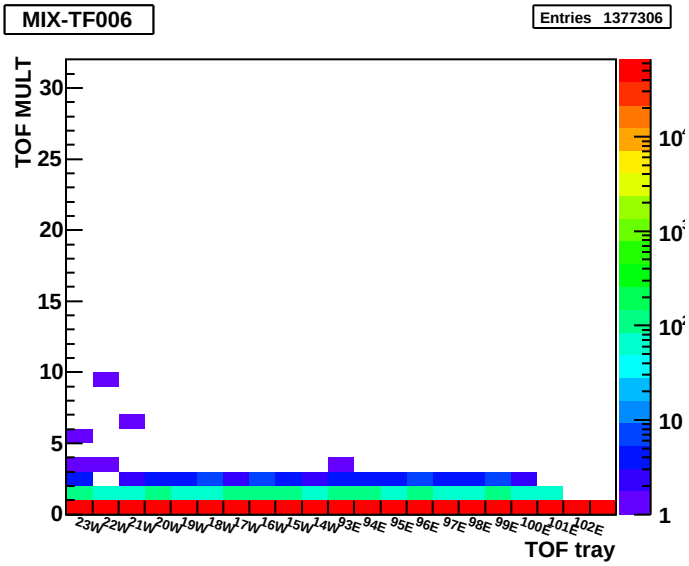

MIX-TF001
Entries 1377306
TOF MULT
TOF tray

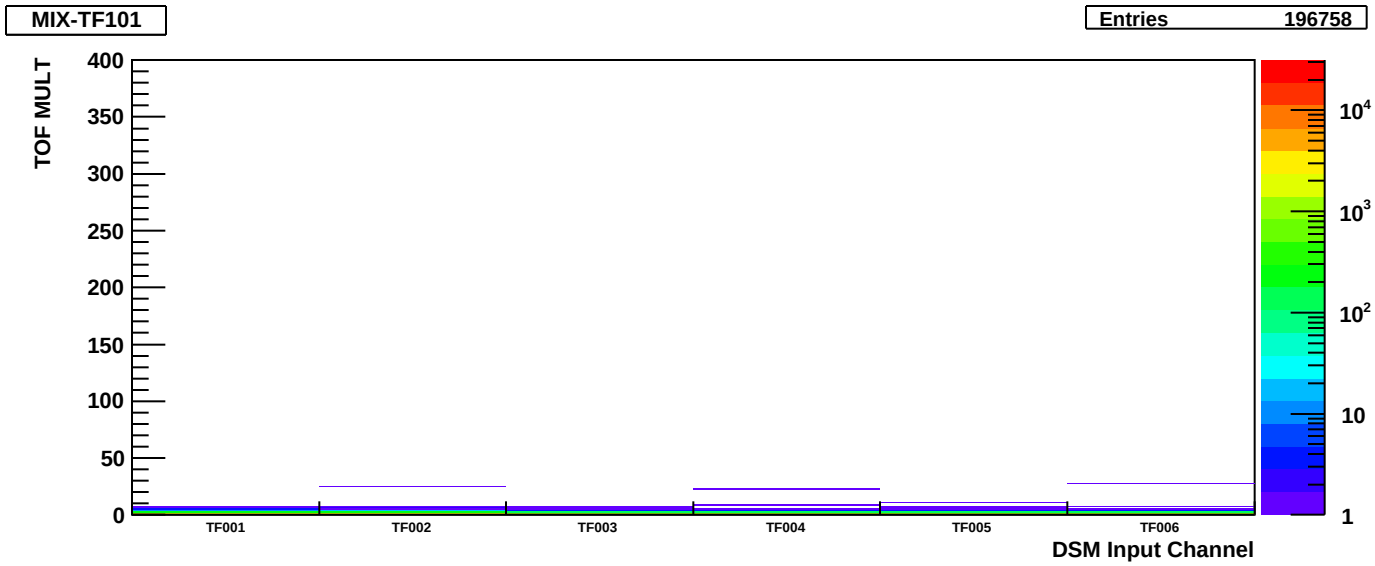

MIX-TF002
Entries 1377306
TOF MULT
TOF tray

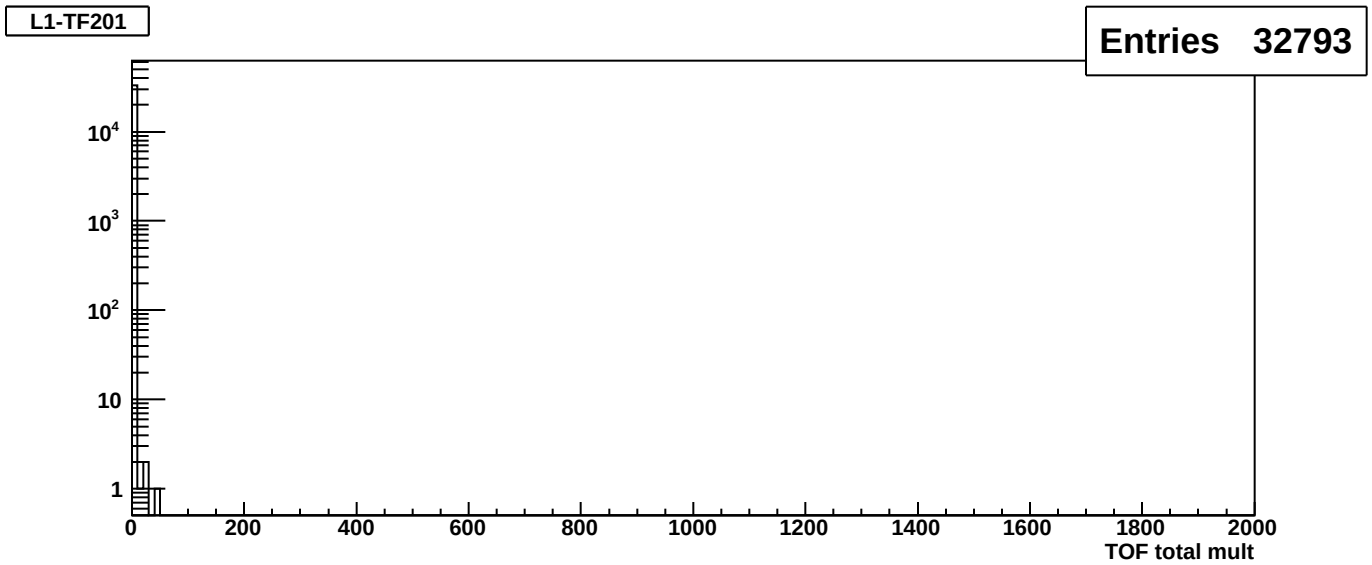

MIX-TF003
Entries 1377306
TOF MULT
TOF tray

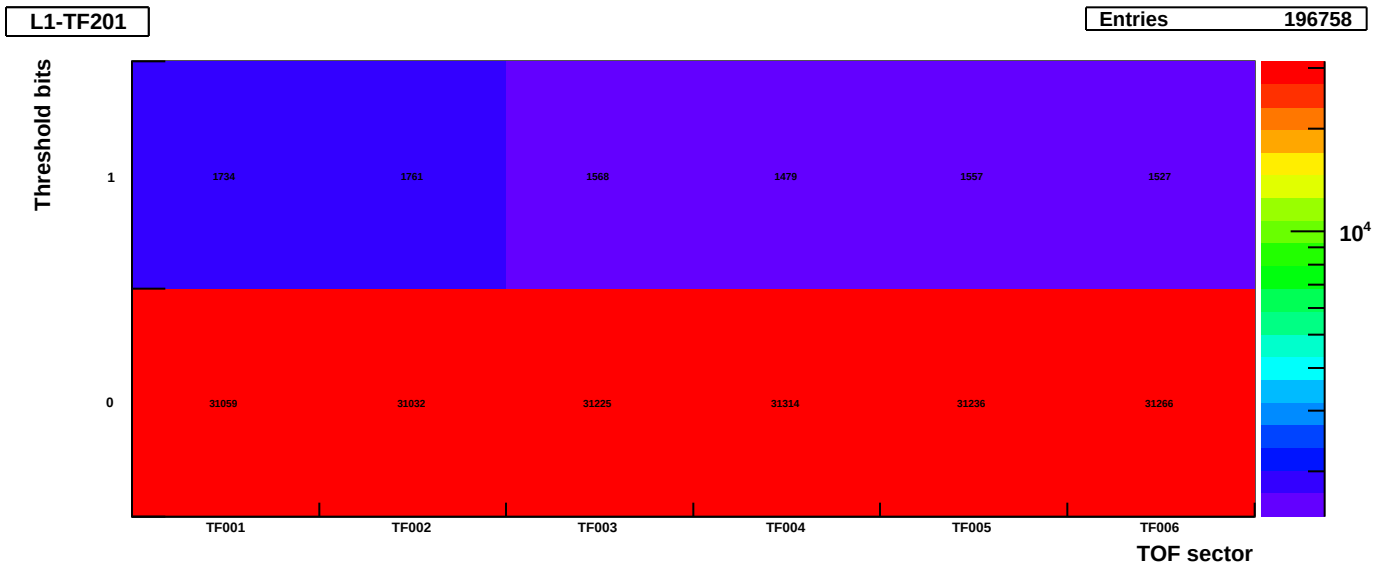

MIX-TF004
Entries 1377306
TOF MULT
TOF tray

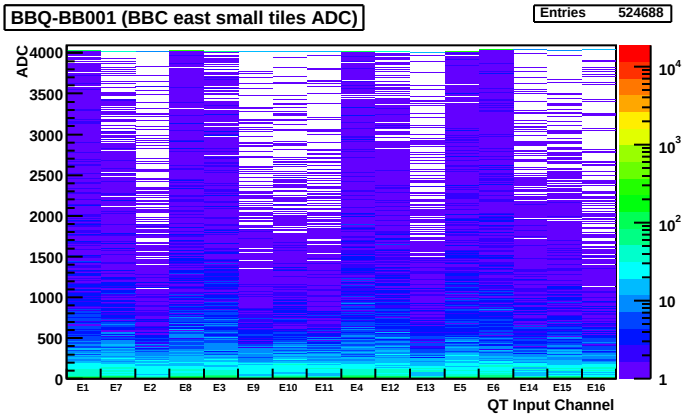

MIX-TF005
Entries 1377306
TOF MULT
TOF tray

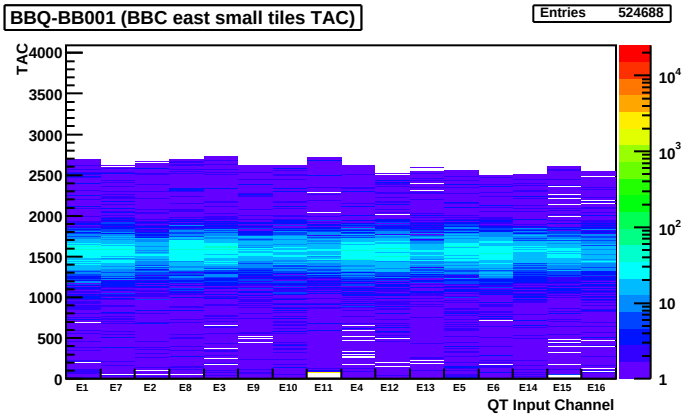

MIX-TF006
Entries 1377306
TOF MULT
TOF tray

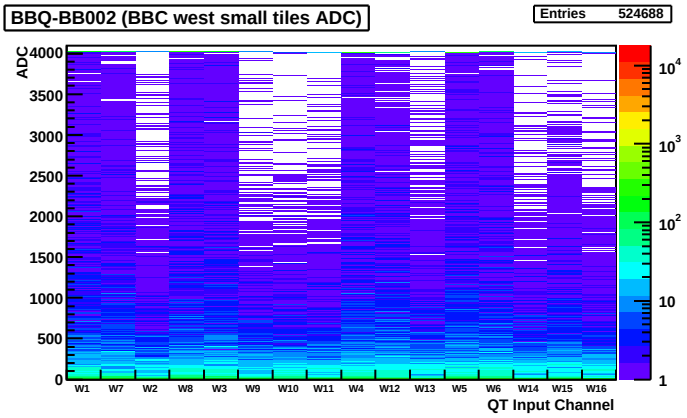

MIX-TF101
Entries 196758
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

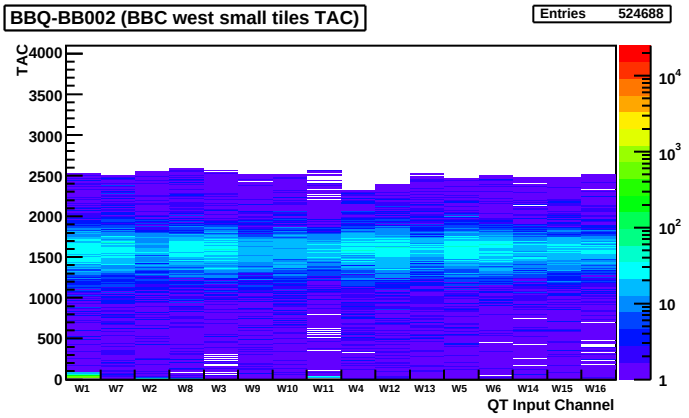

L1-TF201
Entries 32793
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

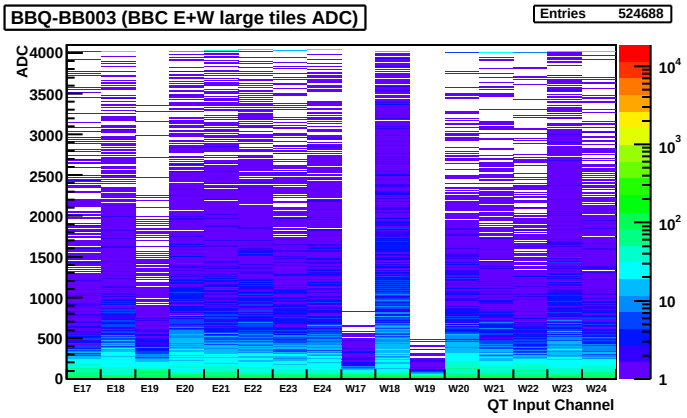

L1-TF201
Entries 196758
Threshold bits
1
0
1734
1761
1568
1479
1557
1527
31059
31032
31225
31314
31236
31266
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

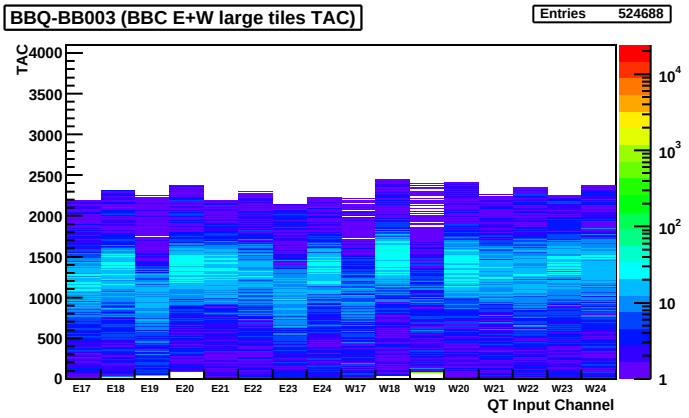

BBQ-BB001 (BBC east small tiles ADC)
Entries 524688
ADC
QT Input Channel

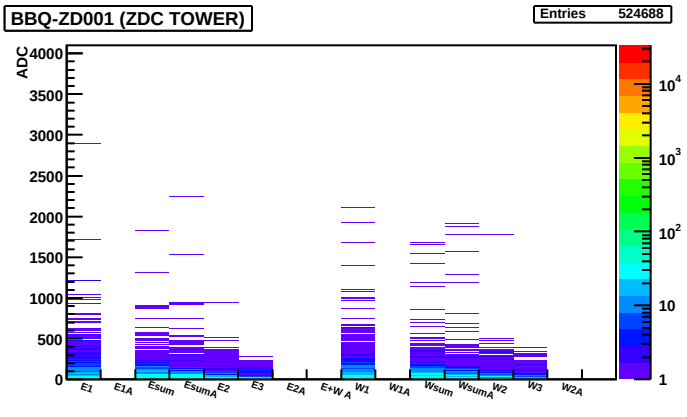

BBQ-BB001 (BBC east small tiles TAC)
Entries 524688
TAC
QT Input Channel

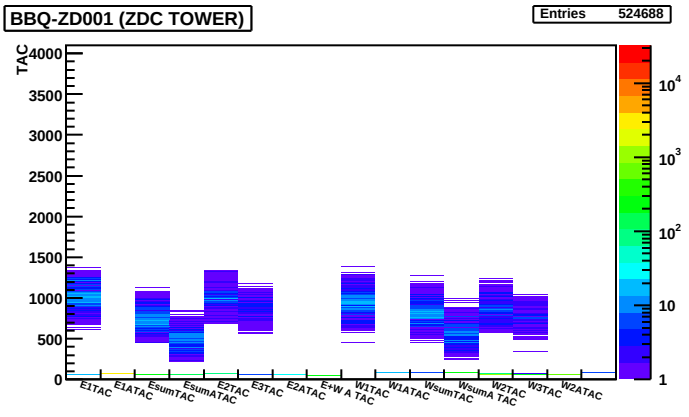

BBQ-BB002 (BBC west small tiles ADC)
Entries 524688
ADC
QT Input Channel

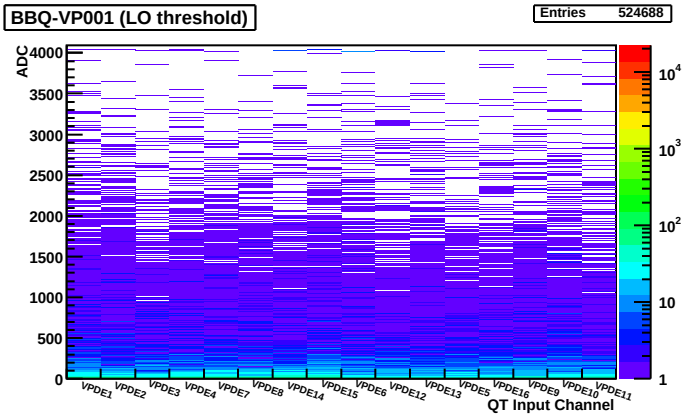

BBQ-BB002 (BBC west small tiles TAC)
Entries 524688
TAC
QT Input Channel

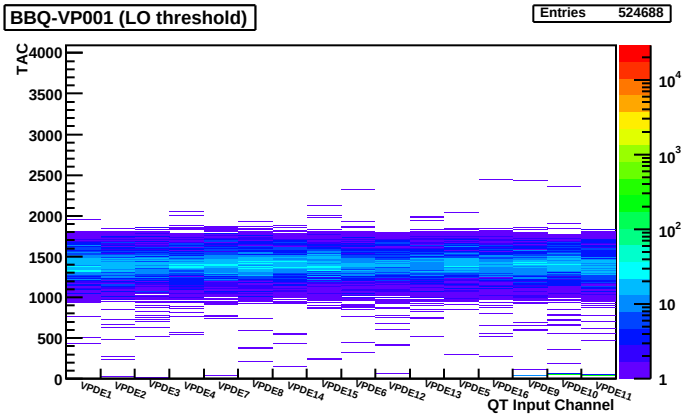

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 524688
ADC
QT Input Channel

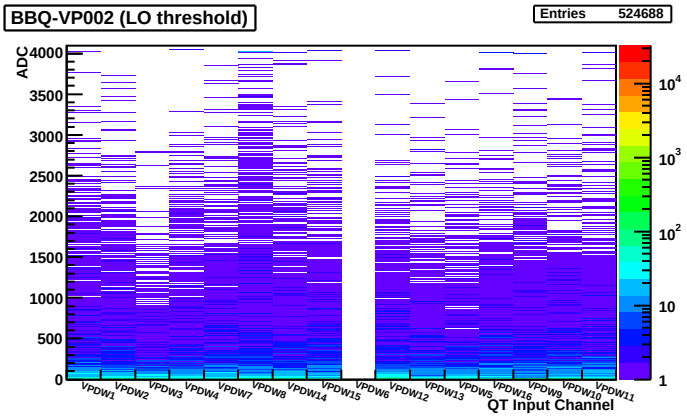

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 524688
TAC
QT Input Channel

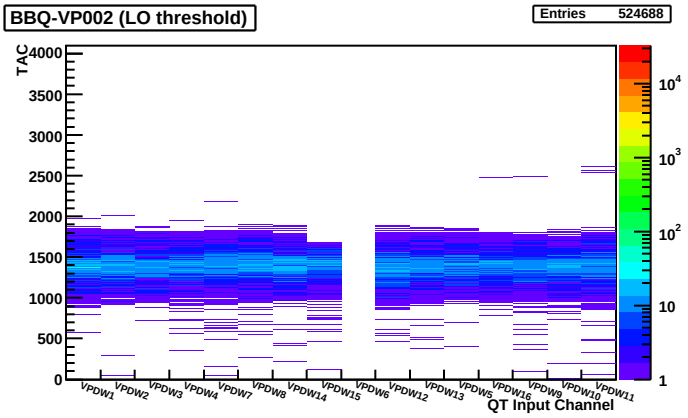

BBQ-ZD001 (ZDC TOWER)
Entries 524688
ADC

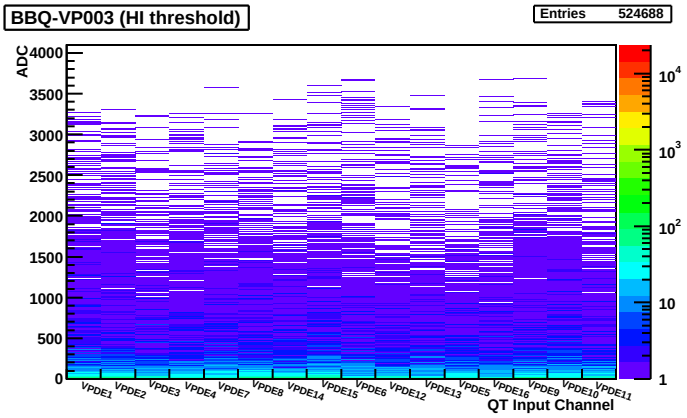

BBQ-ZD001 (ZDC TOWER)
Entries 524688
TAC

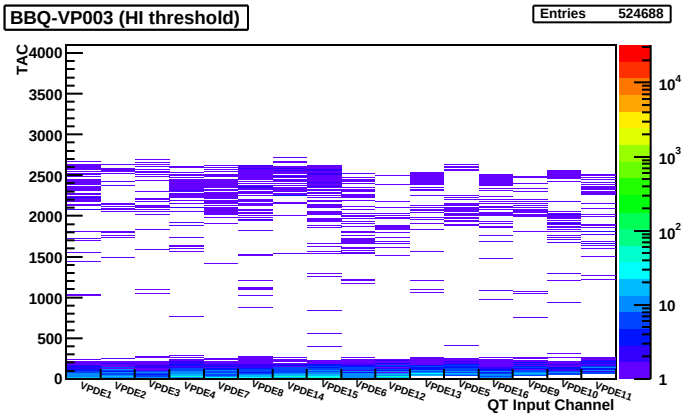

BBQ-VP001 (LO threshold)
Entries 524688
ADC
QT Input Channel

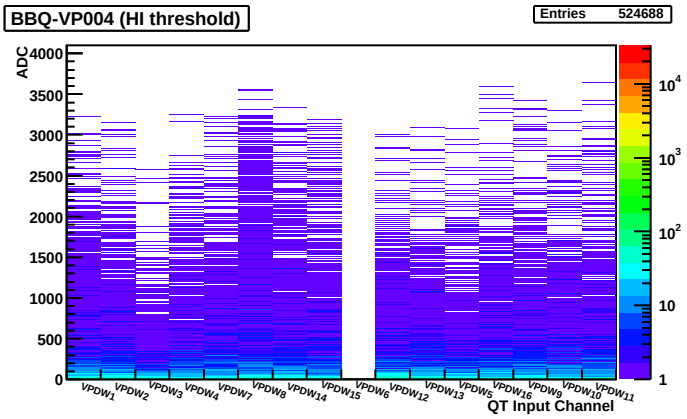

BBQ-VP001 (LO threshold)
Entries 524688
TAC
QT Input Channel

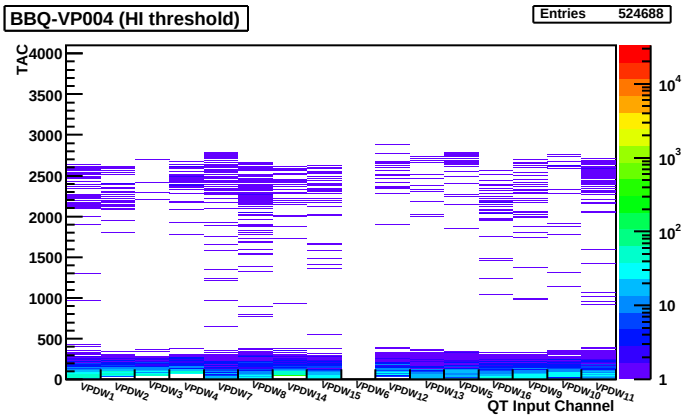

BBQ-VP002 (LO threshold)
Entries 524688
ADC
QT Input Channel

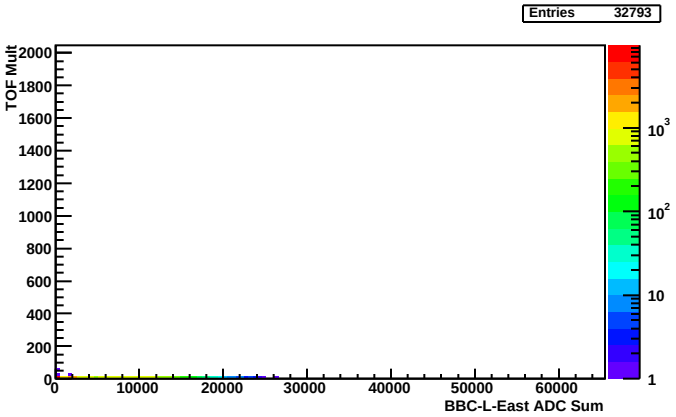

BBQ-VP002 (LO threshold)
Entries 524688
TAC
QT Input Channel

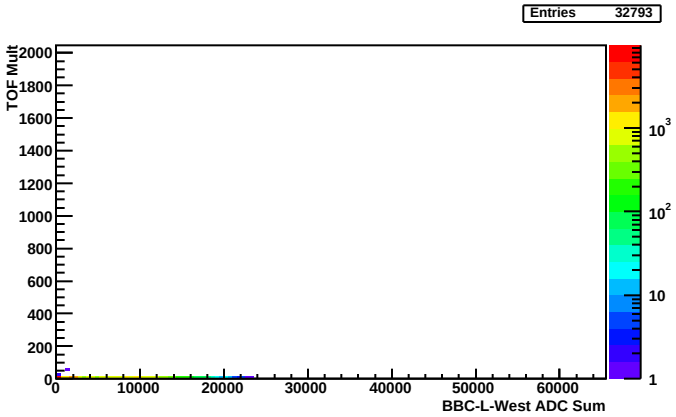

BBQ-VP003 (HI threshold)
Entries 524688
ADC
QT Input Channel

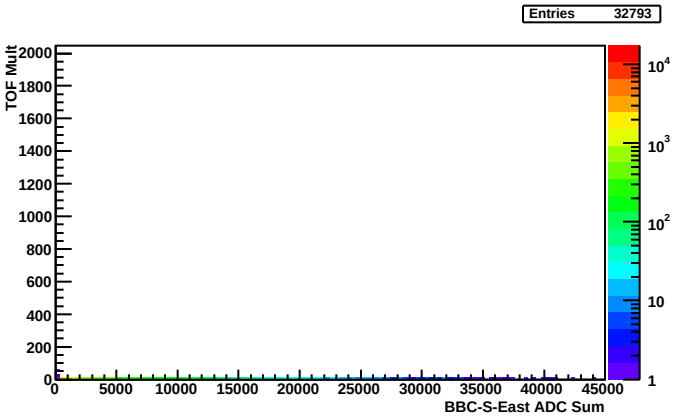

BBQ-VP003 (HI threshold)
Entries 524688
TAC
QT Input Channel

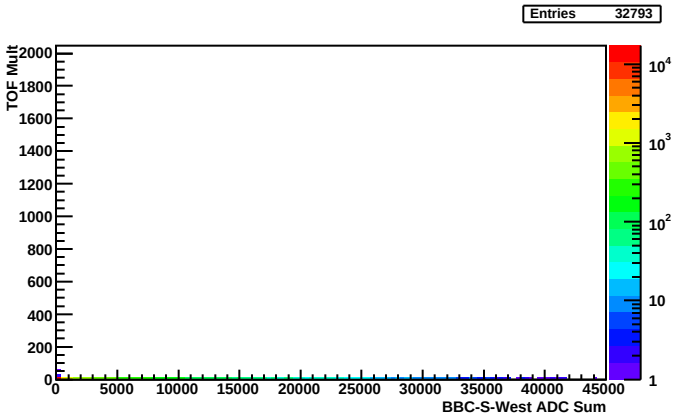

BBQ-VP004 (HI threshold)
Entries 524688
ADC
QT Input Channel

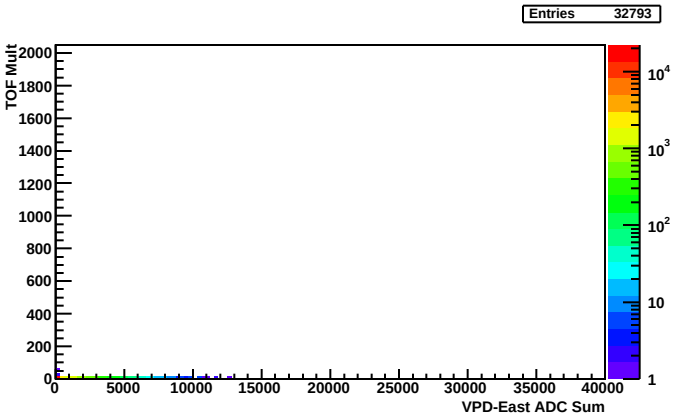

BBQ-VP004 (HI threshold)
Entries 524688
TAC
QT Input Channel

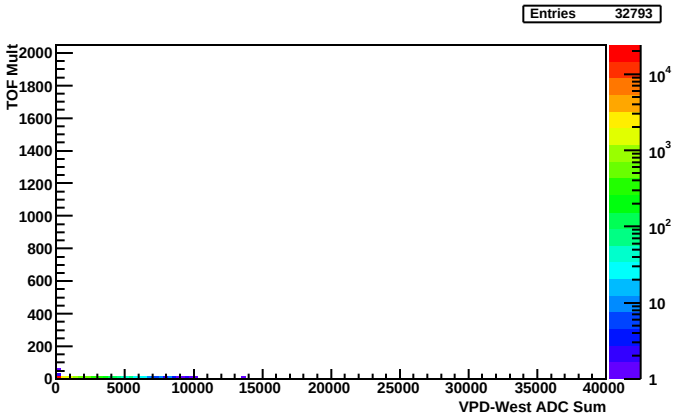

Entries 32793
TOF Mult
BBC-L-East ADC Sum

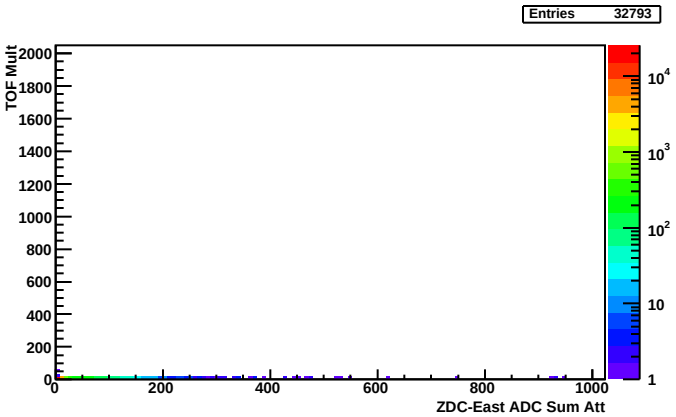

Entries 32793
TOF Mult
BBC-L-West ADC Sum

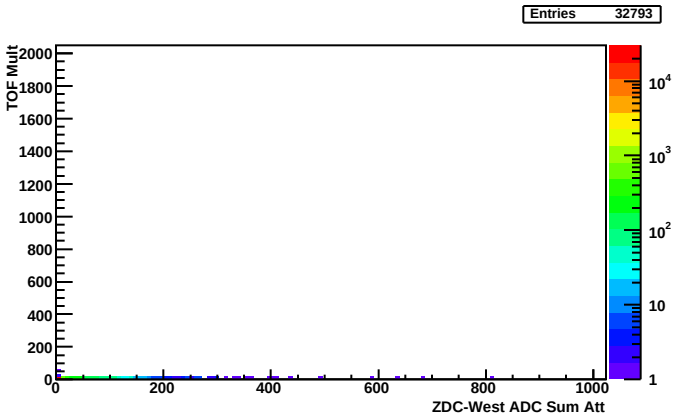

Entries 32793
TOF Mult
BBC-S-East ADC Sum

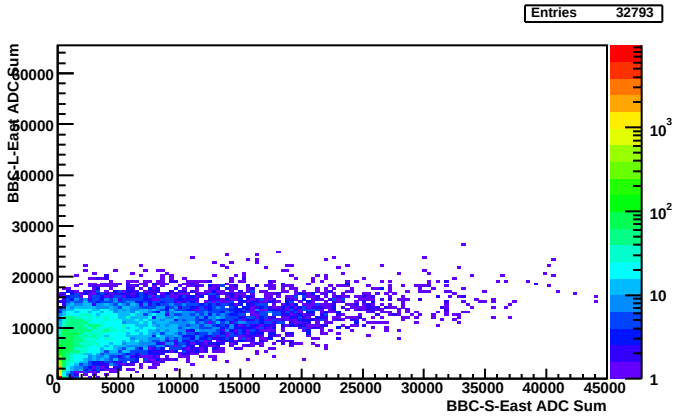

Entries 32793
TOF Mult
BBC-S-West ADC Sum

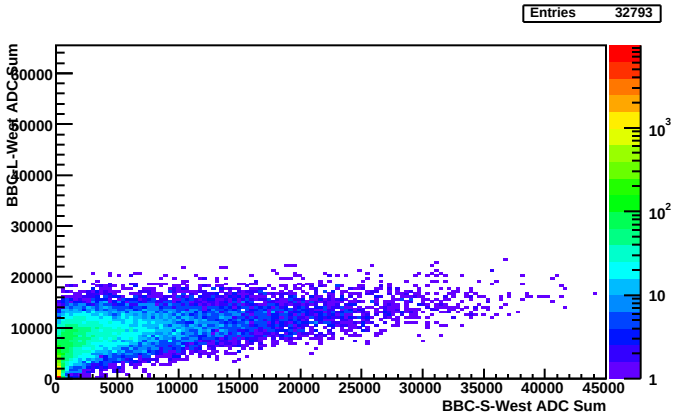

Entries 32793
TOF Mult
VPD-East ADC Sum

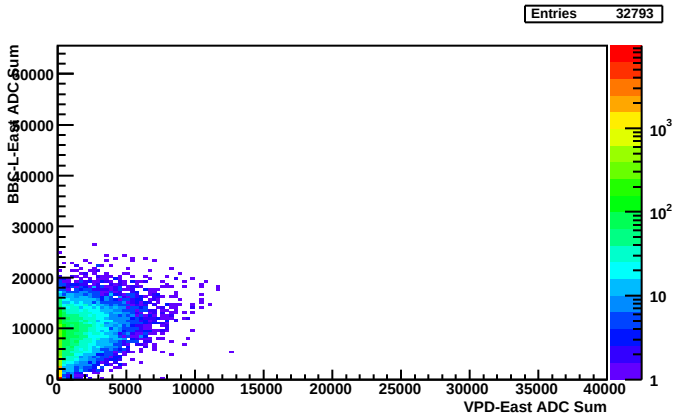

Entries 32793
TOF Mult
VPD-West ADC Sum

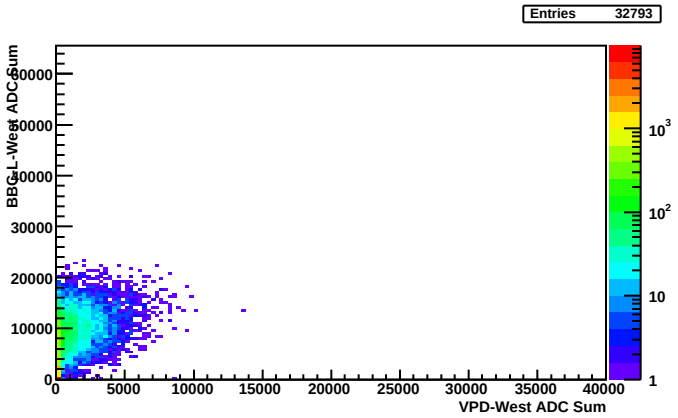

Entries 32793
TOF Mult
ZDC-East ADC Sum Att

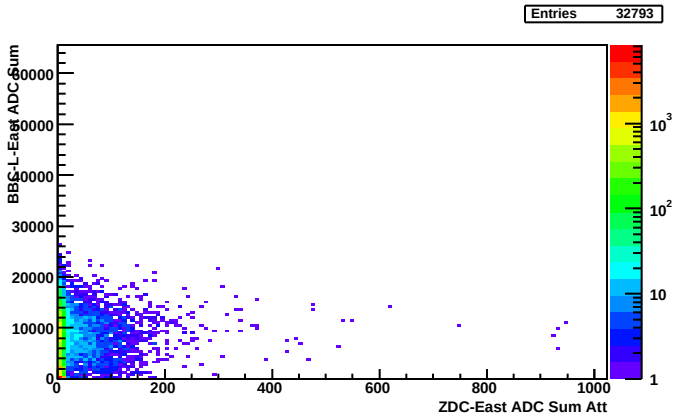

Entries 32793
TOF Mult
ZDC-West ADC Sum Att

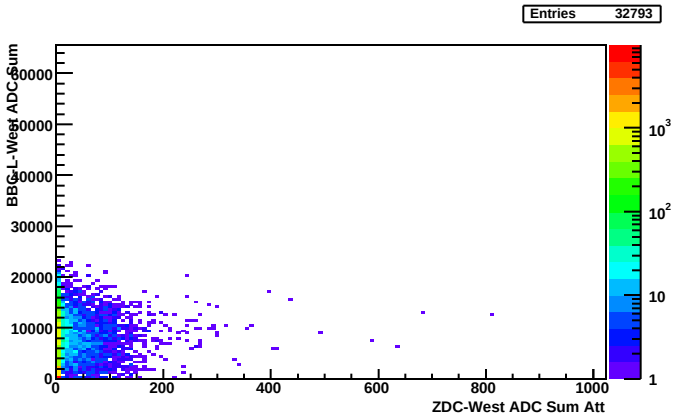

Entries 32793
BBC-L-East ADC Sum
BBC-S-East ADC Sum

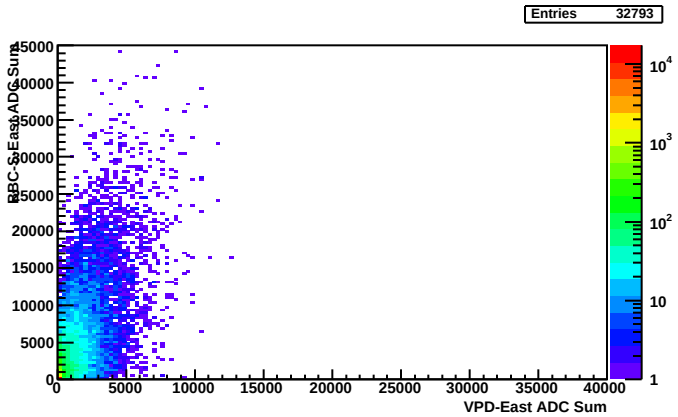

Entries 32793
BBC-L-West ADC Sum
BBC-S-West ADC Sum

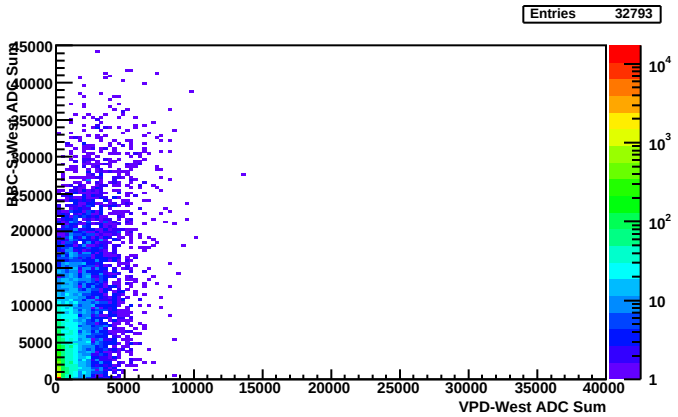

Entries 32793
BBC-L-East ADC Sum
VPD-East ADC Sum

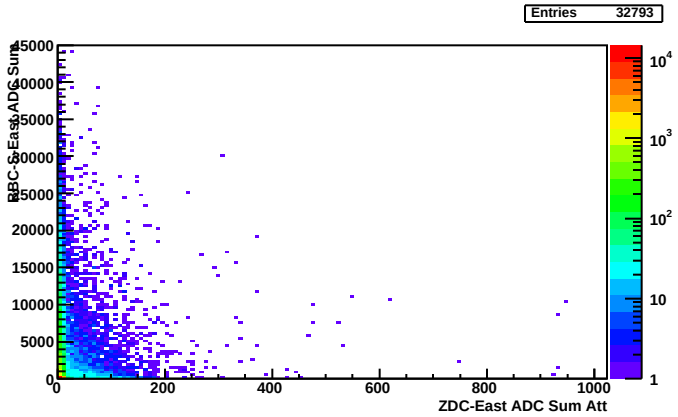

Entries 32793
BBC-L-West ADC Sum
VPD-West ADC Sum

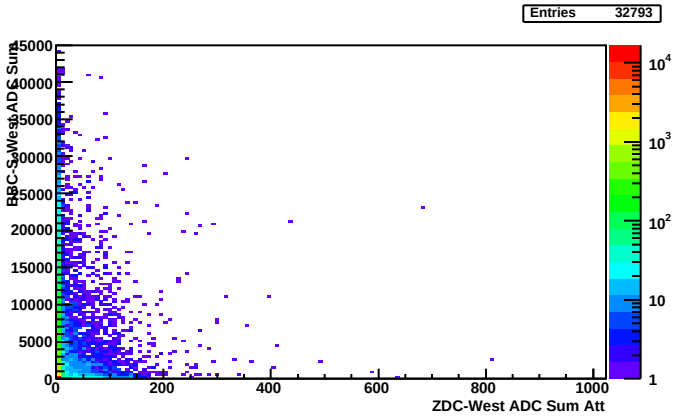

Entries 32793
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

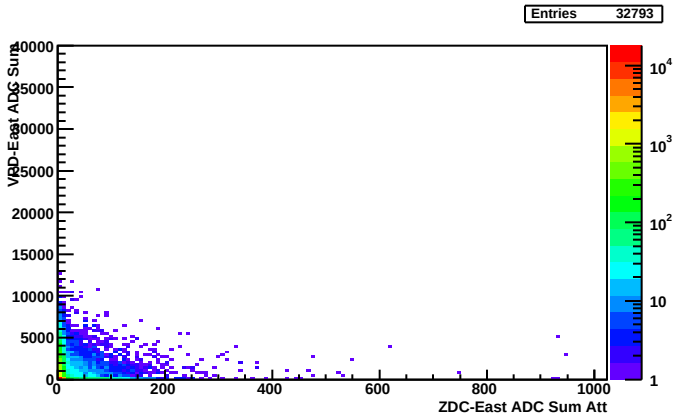

Entries 32793
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

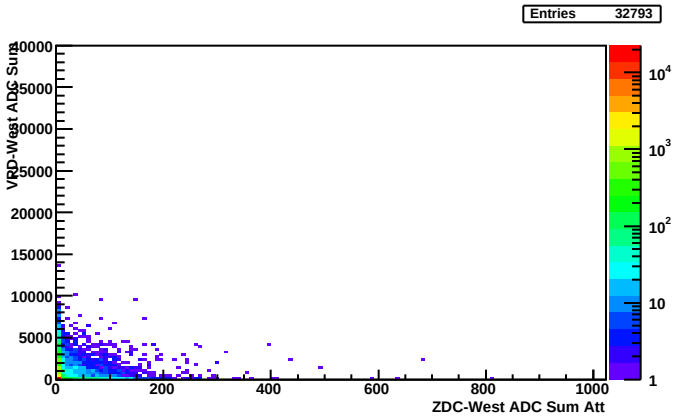

Entries 32793
BBC-S-East ADC Sum
VPD-East ADC Sum

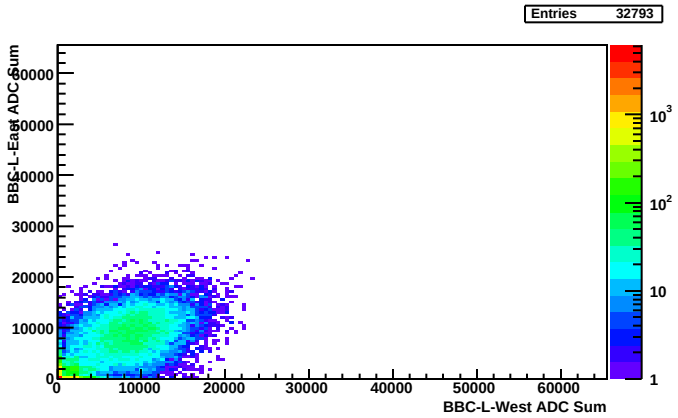

Entries 32793
BBC-S-West ADC Sum
VPD-West ADC Sum

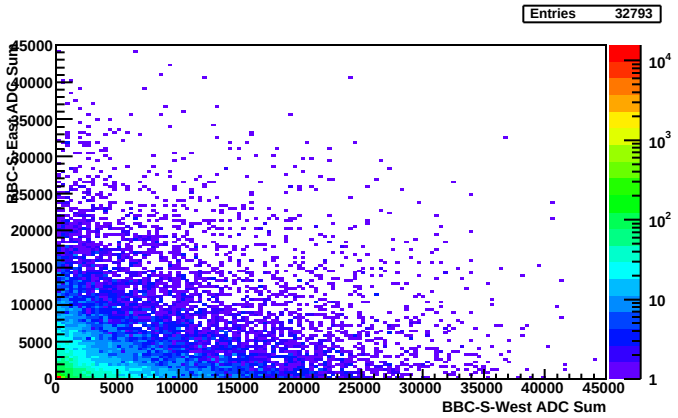

Entries 32793
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

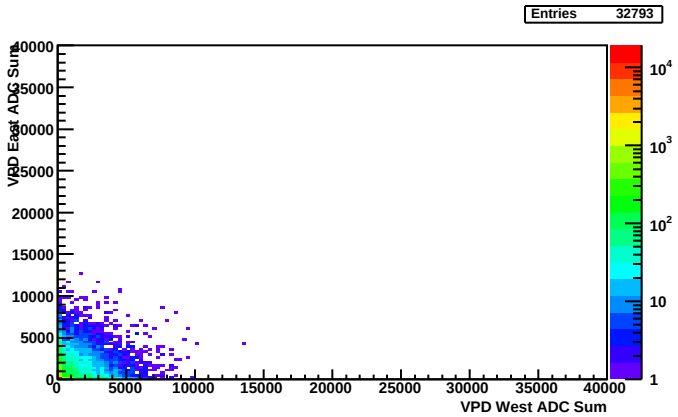

Entries 32793
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

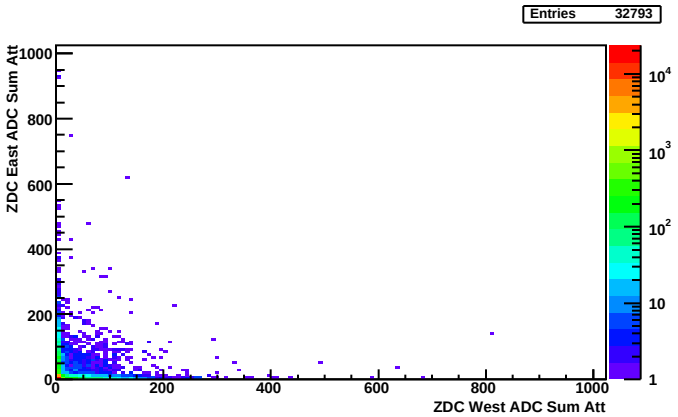

Entries 32793
VPD-East ADC Sum
ZDC-East ADC Sum Att

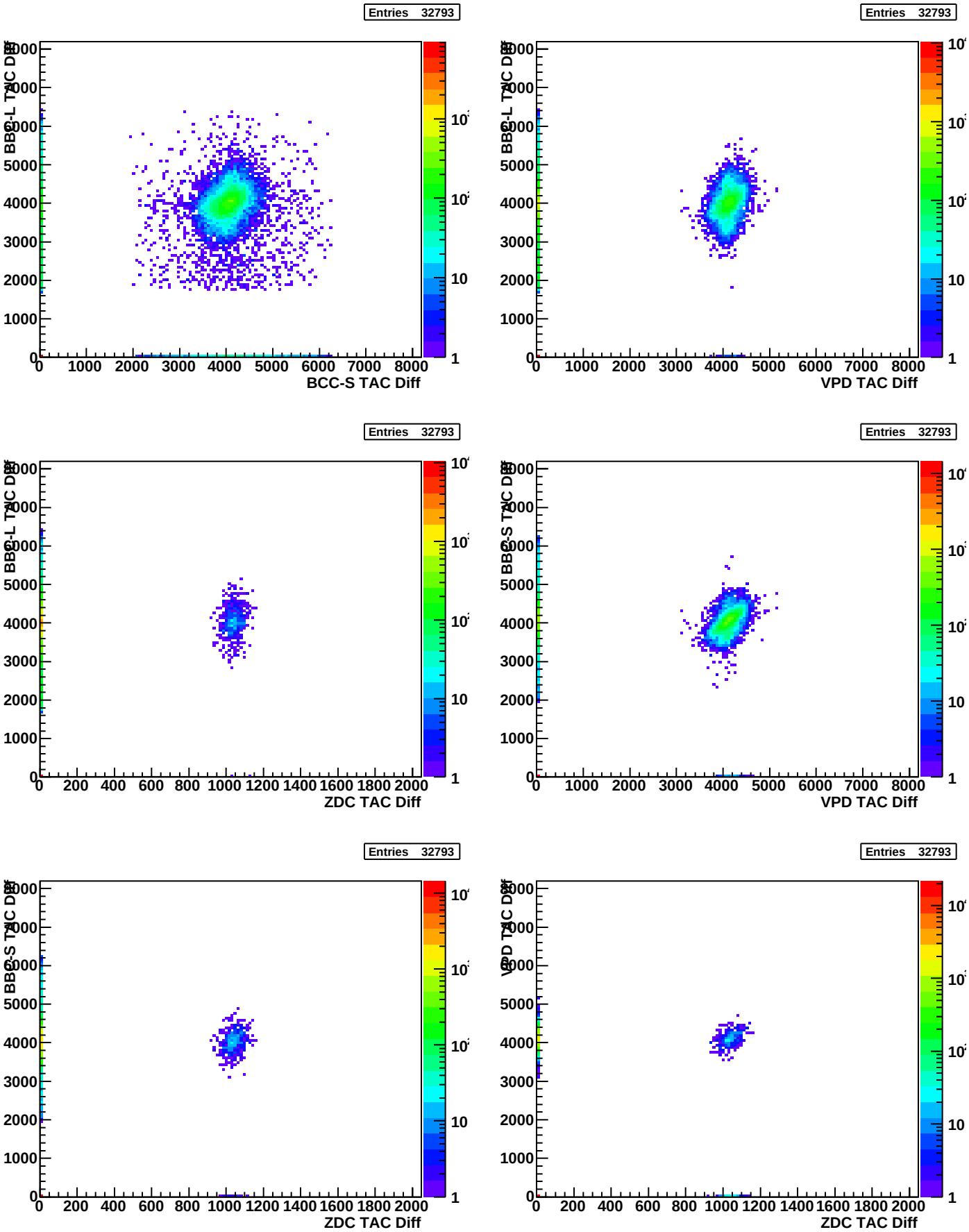

Entries 32793
VPD-West ADC Sum
ZDC-West ADC Sum Att

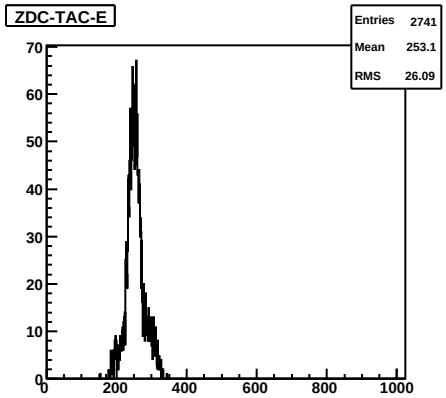

Entries 32793
BBC-L-East ADC Sum
BBC-L-West ADC Sum

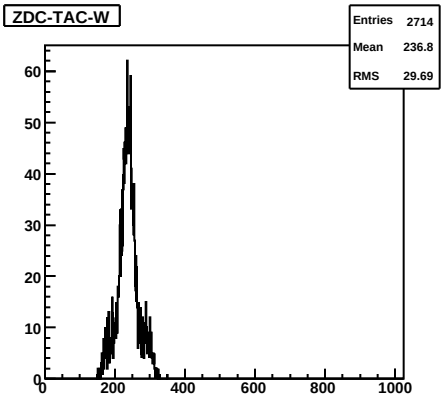

Entries 32793
BBC-S-East ADC Sum
BBC-S-West ADC Sum

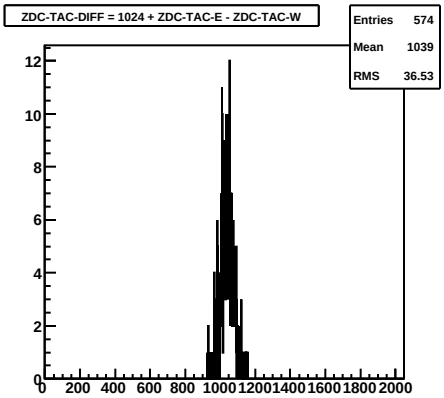

Entries 32793
VPD East ADC Sum
VPD West ADC Sum

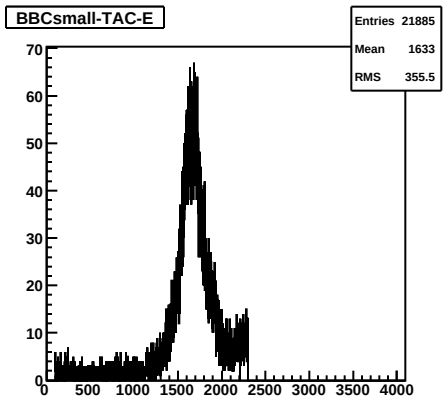

Entries 32793
ZDC East ADC Sum Att
ZDC West ADC Sum Att

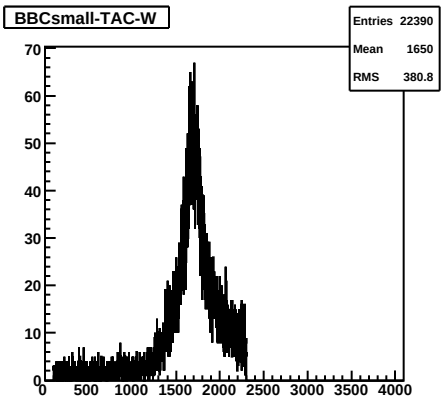

Entries 32793
BBC-L TAC Diff
BCC-S TAC Diff
Entries 32793
BBC-L TAC Diff
VPD TAC Diff
Entries 32793
BBC-L TAC Diff
ZDC TAC Diff
Entries 32793
BBC-S TAC Diff
VPD TAC Diff
Entries 32793
BBC-S TAC Diff
ZDC TAC Diff
Entries 32793
VPD TAC Diff
ZDC TAC Diff

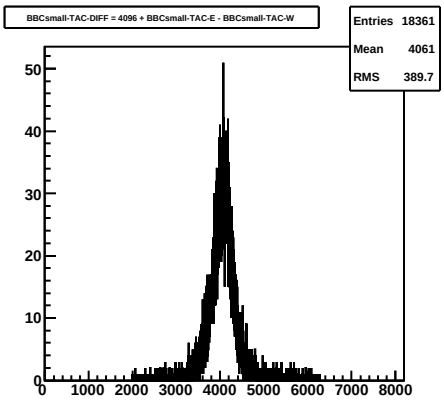

ZDC-TAC-E
Entries 2741
Mean 253.1
RMS 26.09

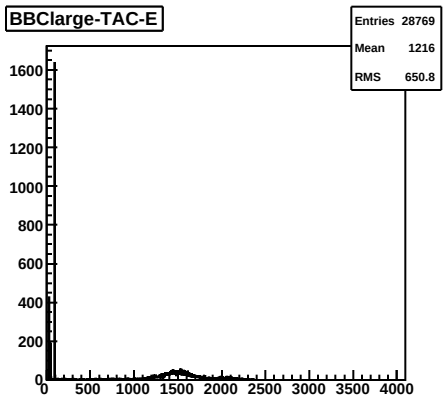

ZDC-TAC-W
Entries 2714
Mean 236.8
RMS 29.69

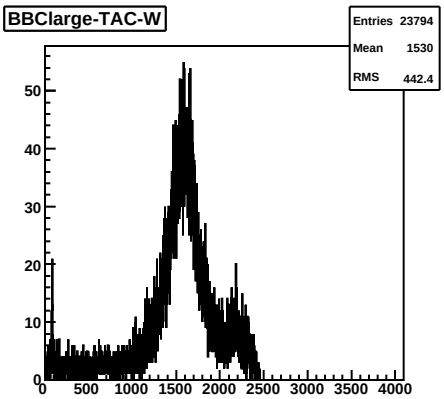

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 574
Mean 1039
RMS 36.53

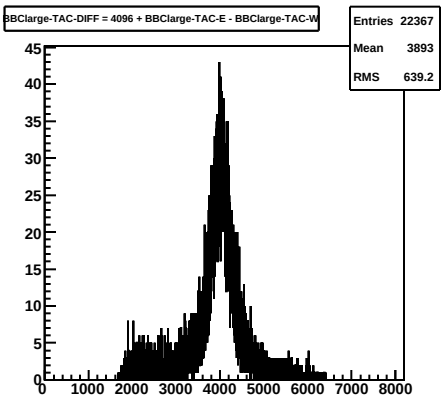

BBCsmall-TAC-E
Entries 21885
Mean 1633
RMS 355.5

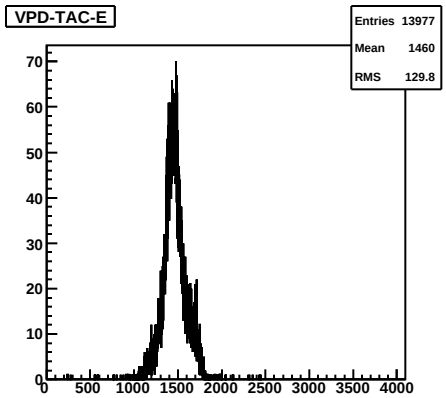

BBCsmall-TAC-W
Entries 22390
Mean 1650
RMS 380.8

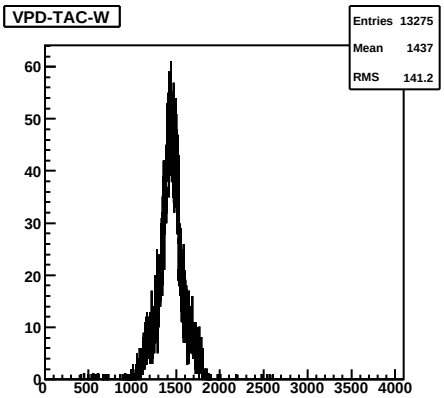

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 18361
Mean 4061
RMS 389.7

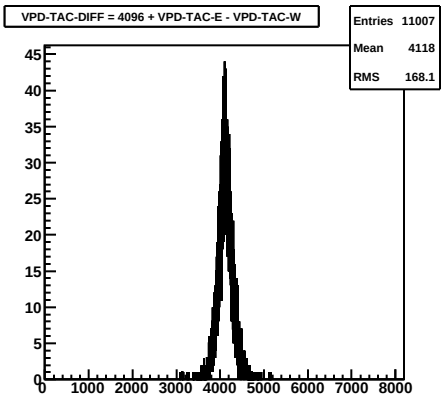

BBClarge-TAC-E
Entries 28769
Mean 1216
RMS 650.8

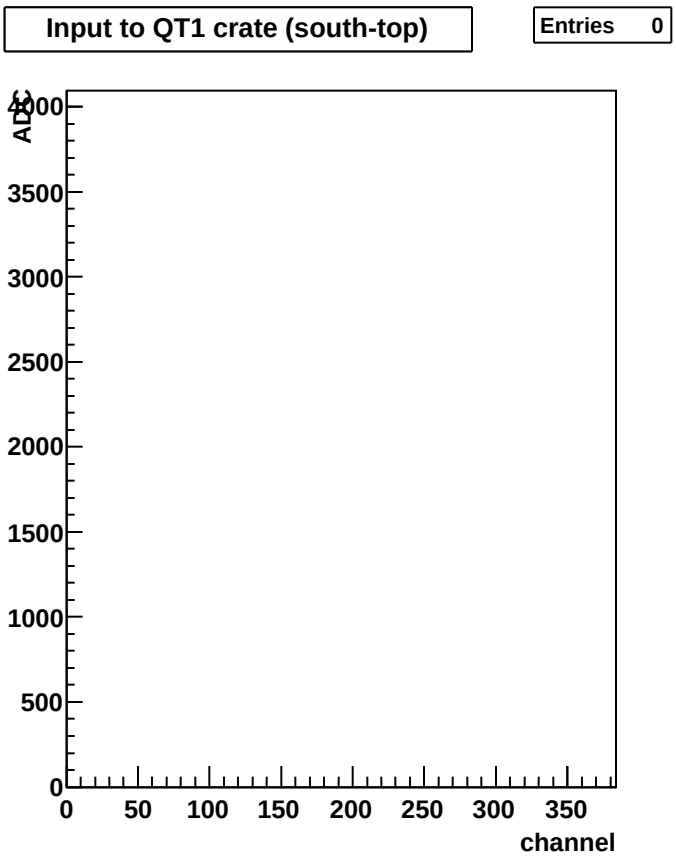

BBClarge-TAC-W
Entries 23794
Mean 1530
RMS 442.4

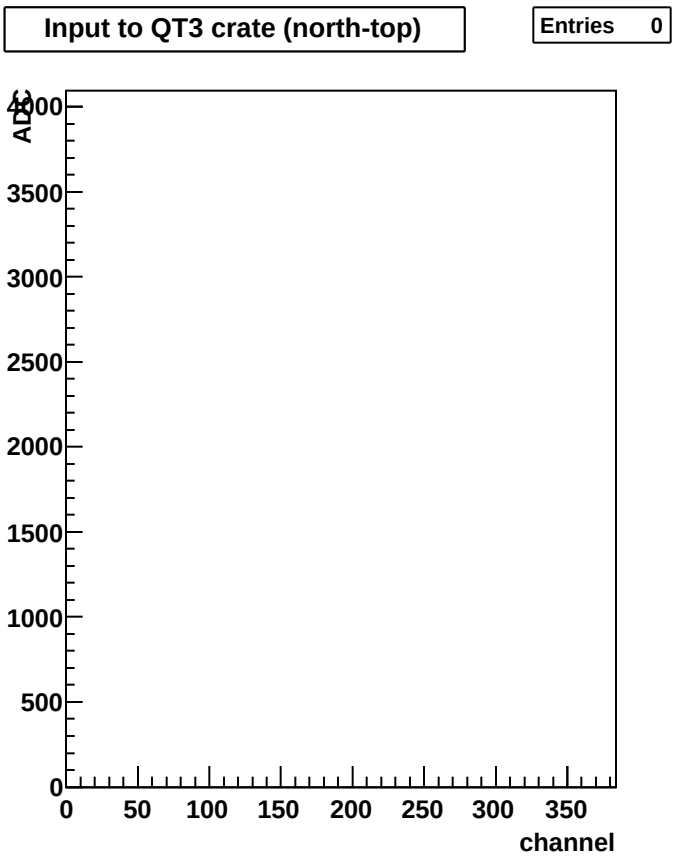

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 22367
Mean 3893
RMS 639.2

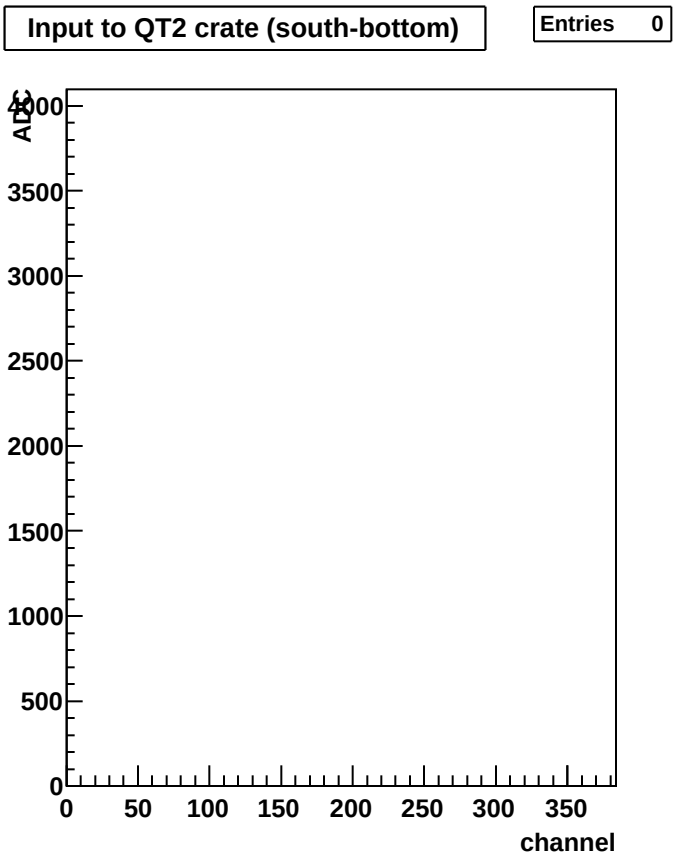

VPD-TAC-E
Entries 13977
Mean 1460
RMS 129.8

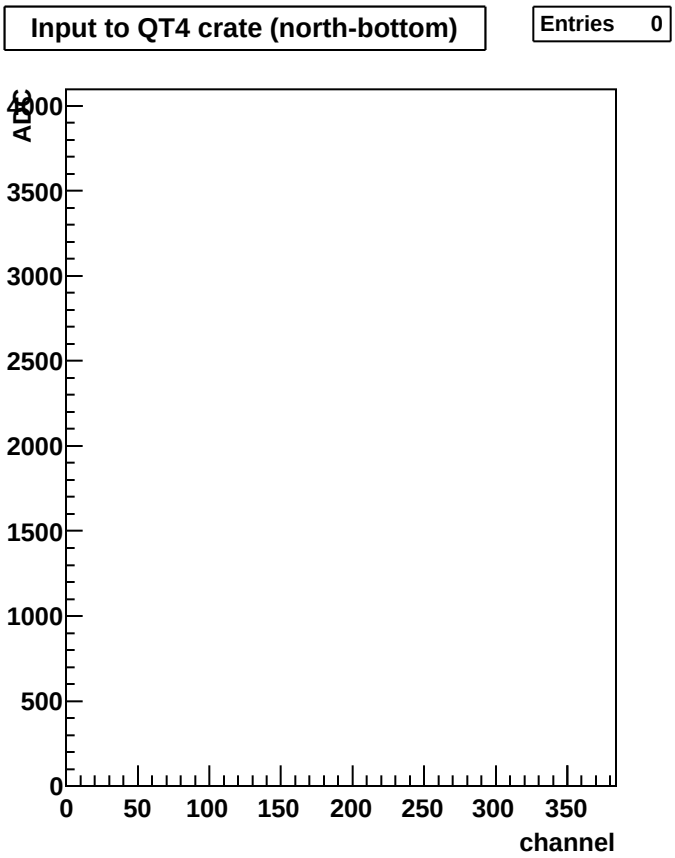

VPD-TAC-W
Entries 13275
Mean 1437
RMS 141.2

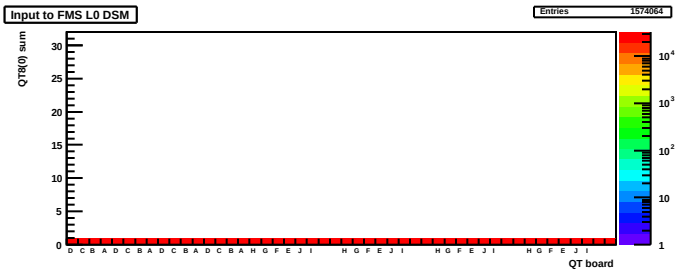

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 11007
Mean 4118
RMS 168.1

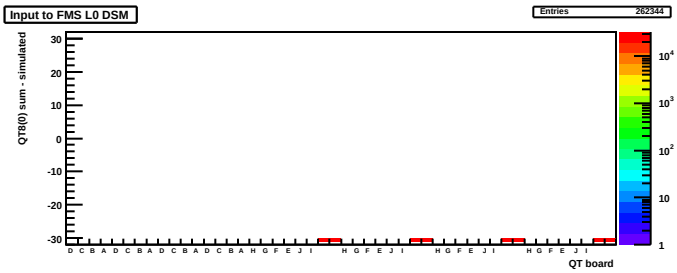

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

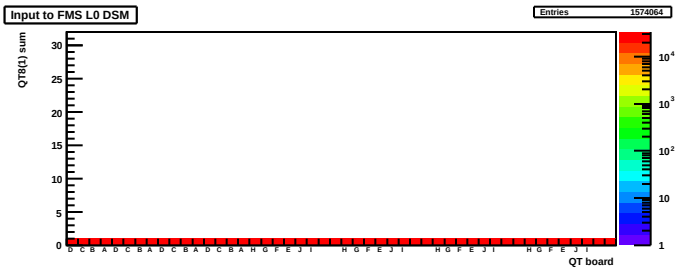

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

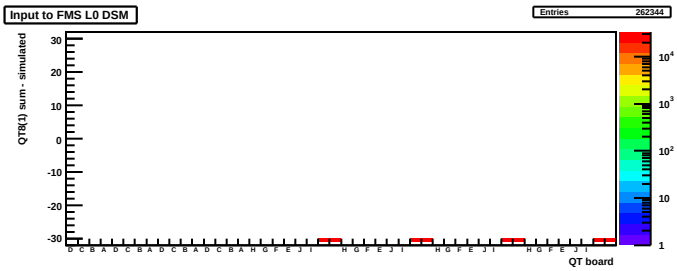

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

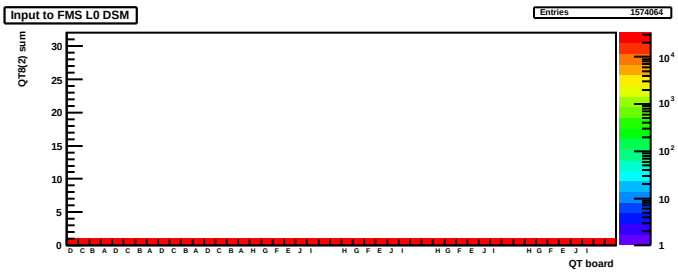

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

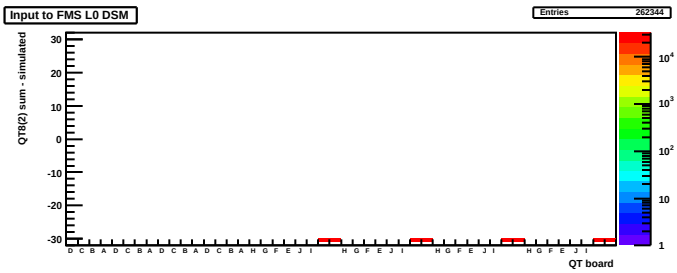

Input to FMS L0 DSM
Entries 1574064
QT8(0) sum
QT board

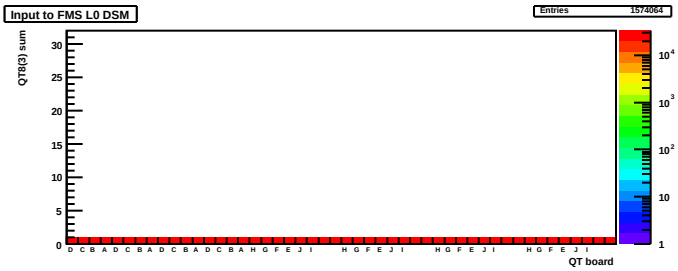

Input to FMS L0 DSM
Entries 262344
QT8(0) sum - simulated
QT board

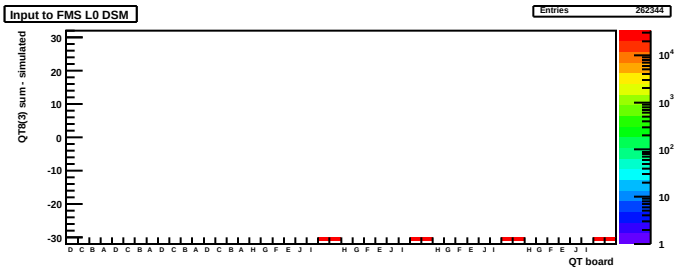

Input to FMS L0 DSM
Entries 1574064
QT8(1) sum
QT board

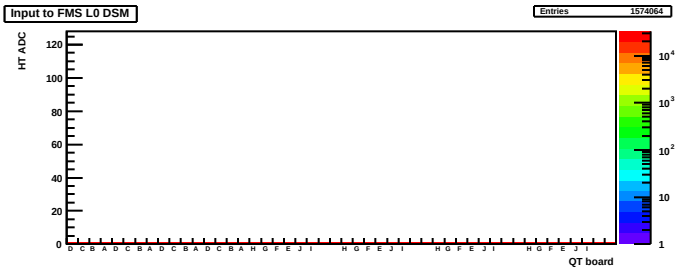

Input to FMS L0 DSM
Entries 262344
QT8(1) sum - simulated
QT board

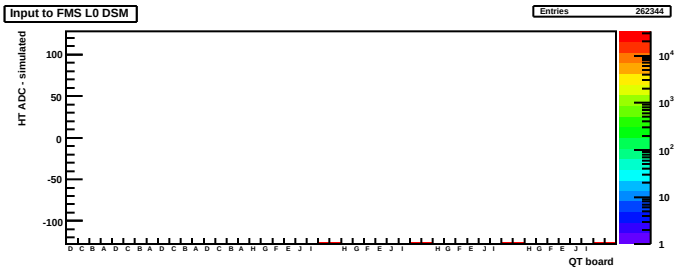

Input to FMS L0 DSM
Entries 1574064
QT8(2) sum
QT board

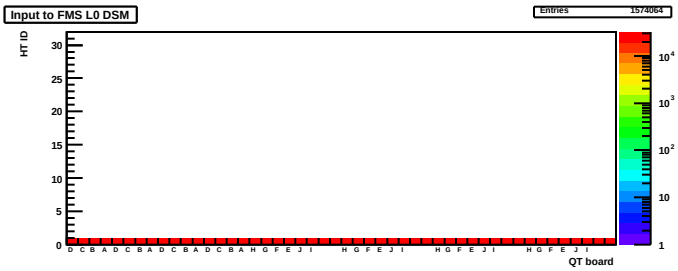

Input to FMS L0 DSM
Entries 262344
QT8(2) sum - simulated
QT board

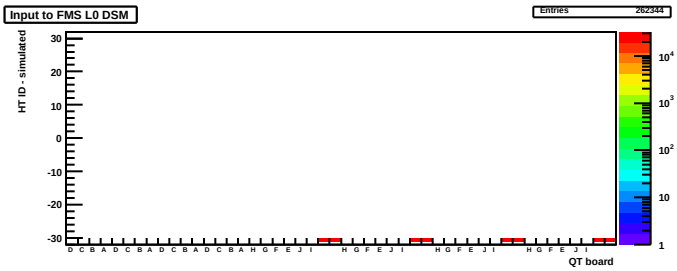

Input to FMS L0 DSM
Entries 1574064
QT8(3) sum
QT board

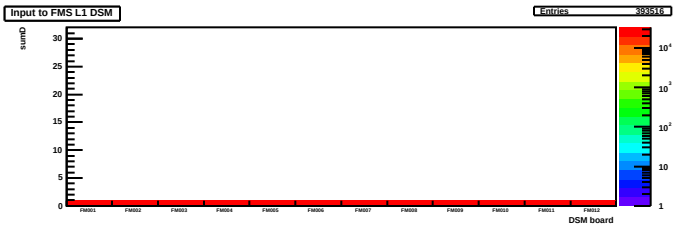

Input to FMS L0 DSM
Entries 262344
QT8(3) sum - simulated
QT board

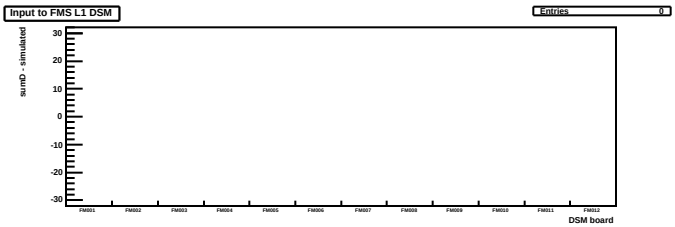

Input to FMS L0 DSM
Entries 1574064
HT ADC
QT board

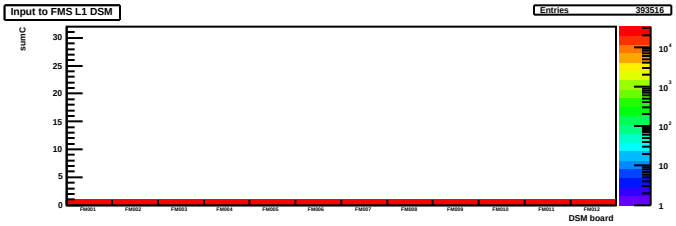

Input to FMS L0 DSM
Entries 262344
HT ADC - simulated
QT board

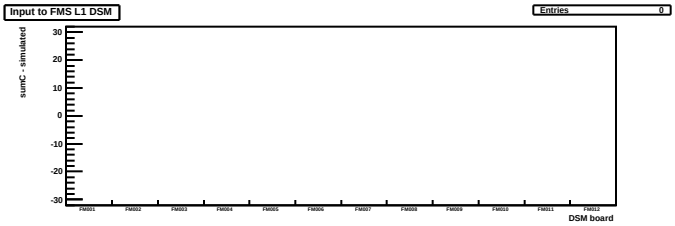

Input to FMS L0 DSM
Entries 1574064
HT ID
QT board

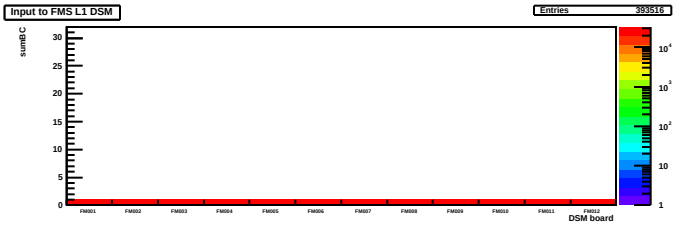

Input to FMS L0 DSM
Entries 262344
HT ID - simulated
QT board

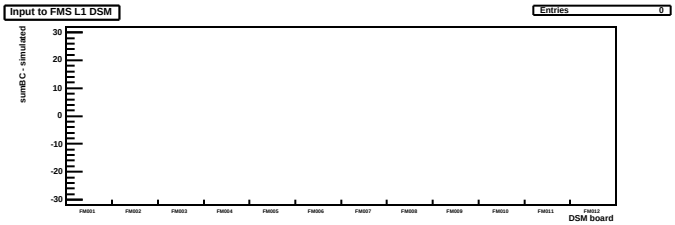

Input to FMS L1 DSM
Entries 393516
sumD
DSM board

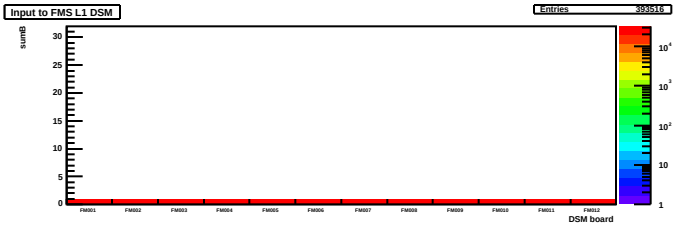

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

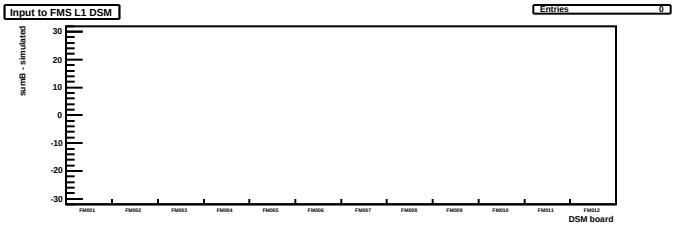

Input to FMS L1 DSM
Entries 393516
sumC
DSM board

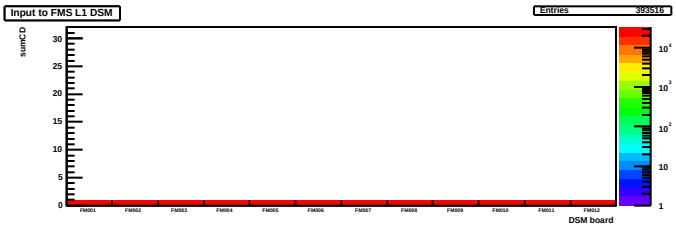

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

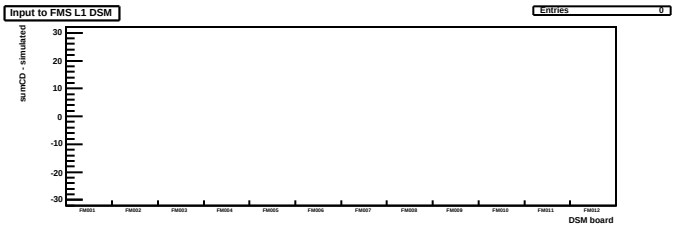

Input to FMS L1 DSM
Entries 393516
sumBC
DSM board

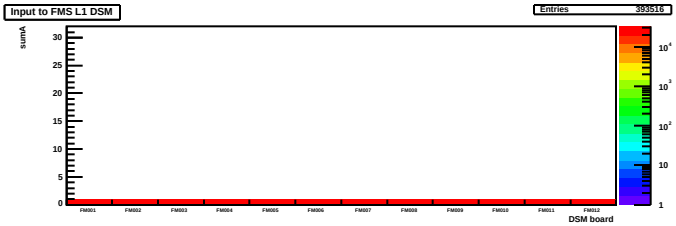

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

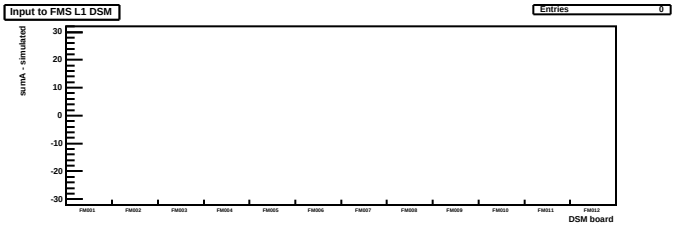

Input to FMS L1 DSM
Entries 393516
sumB
DSM board

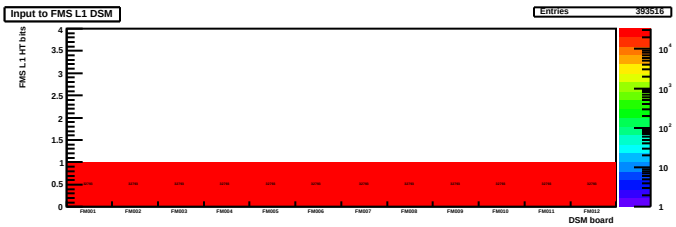

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

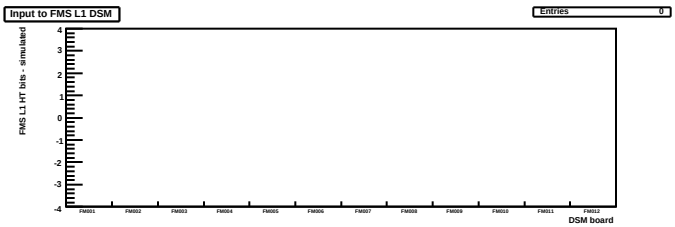

Input to FMS L1 DSM
Entries 393516
sumCD
DSM board

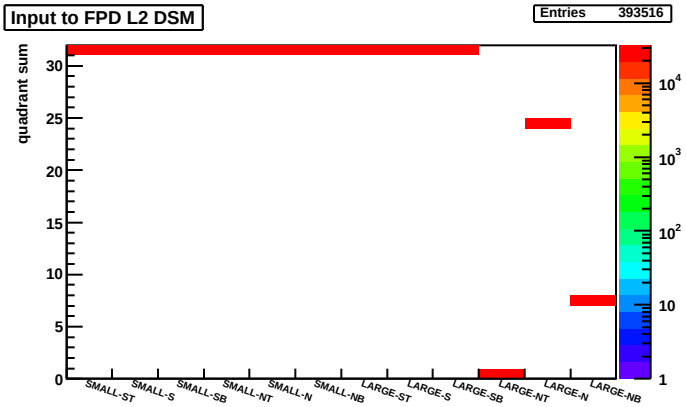

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

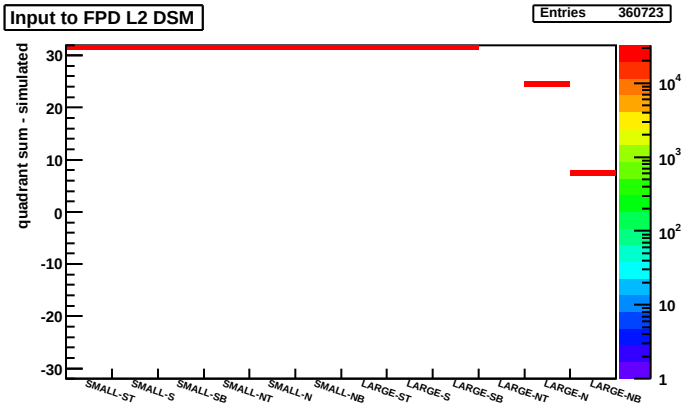

Input to FMS L1 DSM
Entries 393516
sumA
DSM board

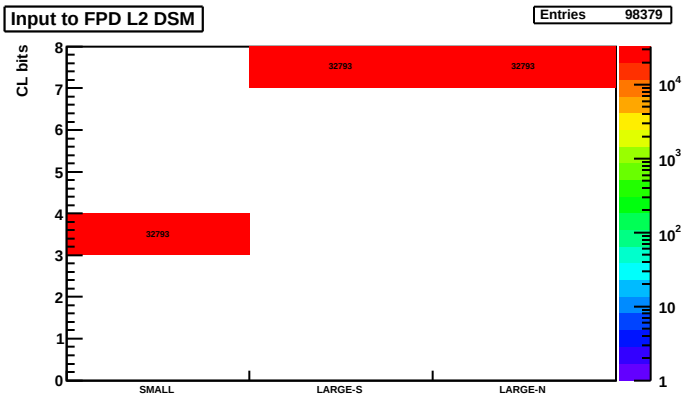

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

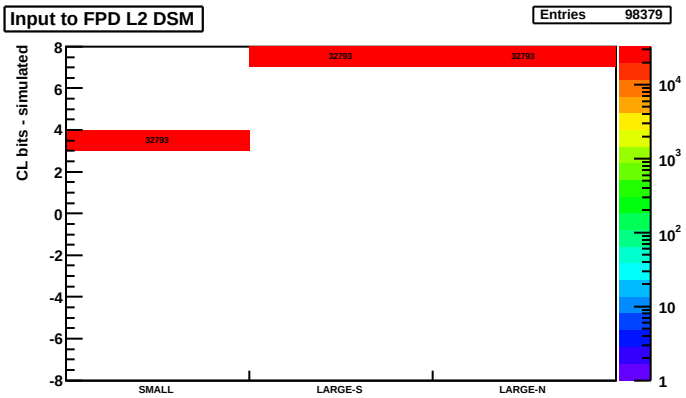

Input to FMS L1 DSM
Entries 393516
FMS L1 HT bits
DSM board

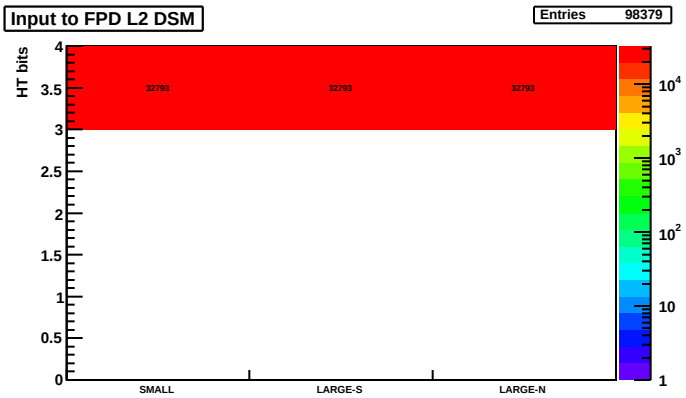

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

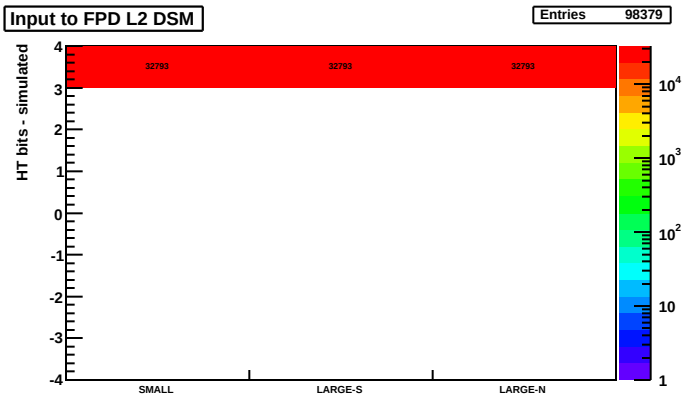

Input to FPD L2 DSM
Entries 393516
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

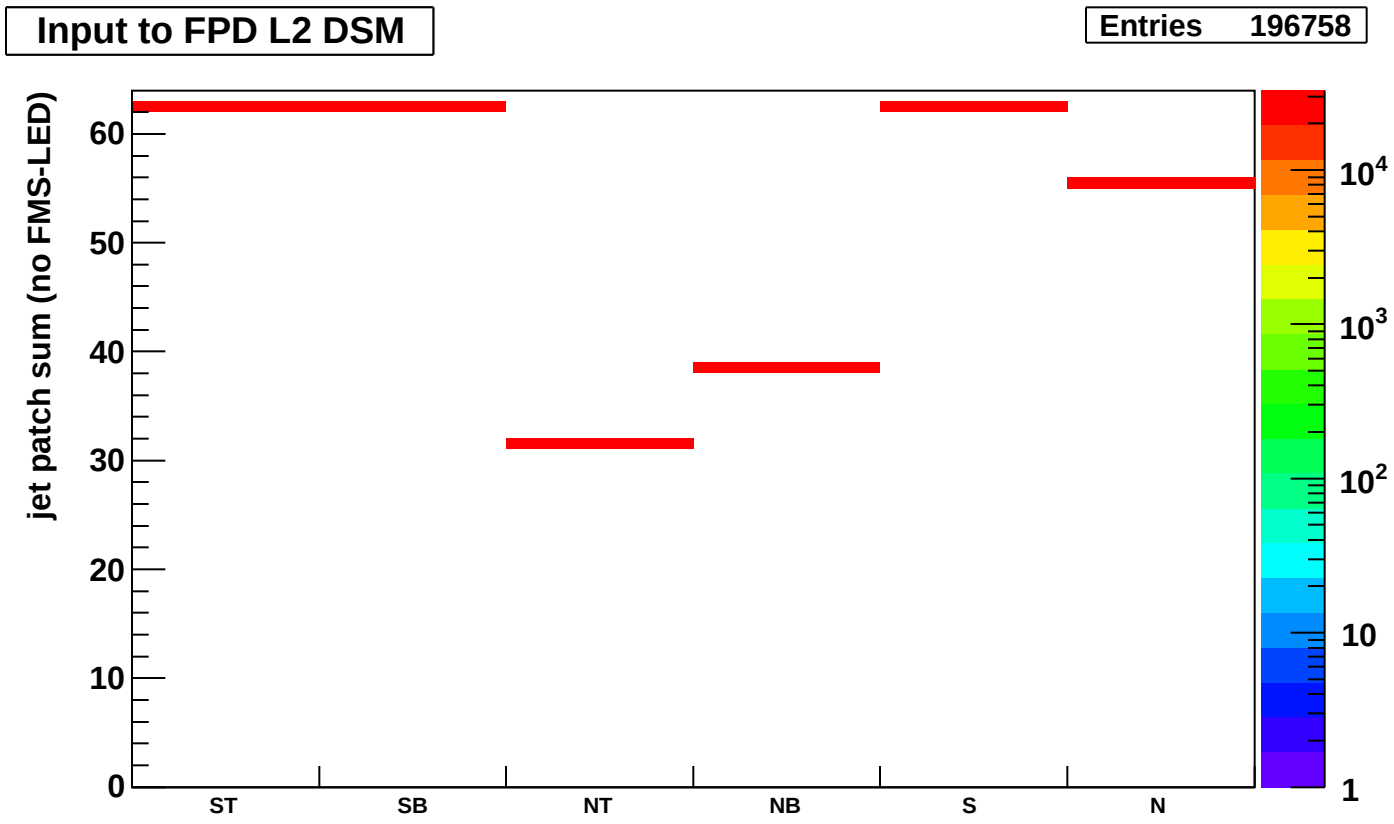

Input to FPD L2 DSM
Entries 360723
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

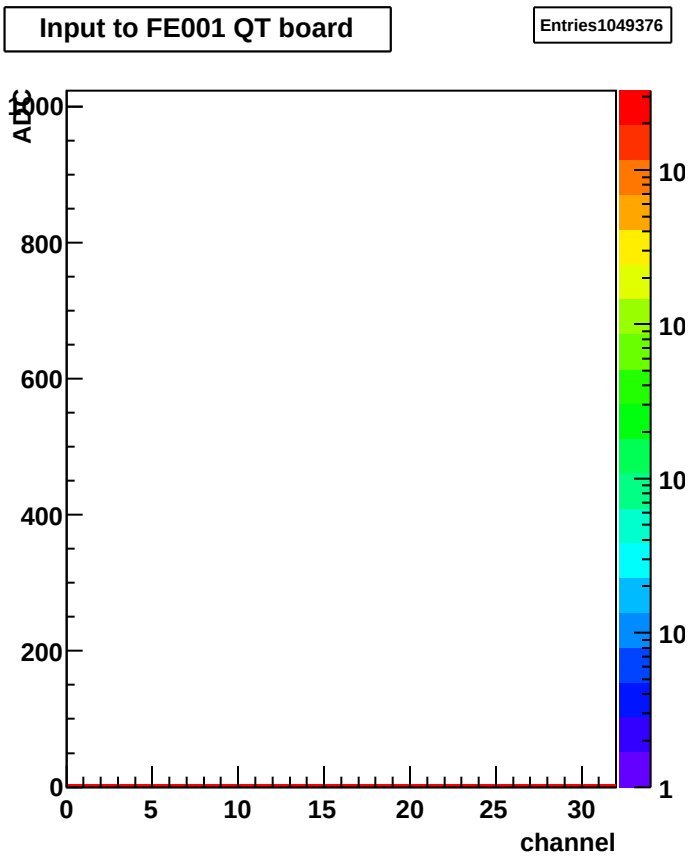

Input to FPD L2 DSM
Entries 98379
CL bits
32793
32793
32793
SMALL
LARGE-S
LARGE-N

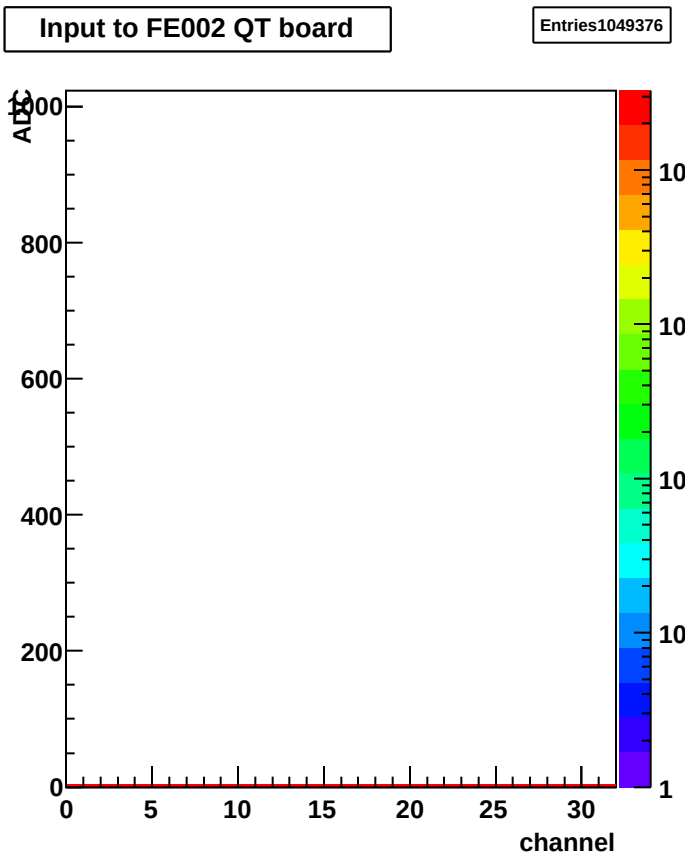

Input to FPD L2 DSM
Entries 98379
CL bits - simulated
32793
32793
32793
SMALL
LARGE-S
LARGE-N

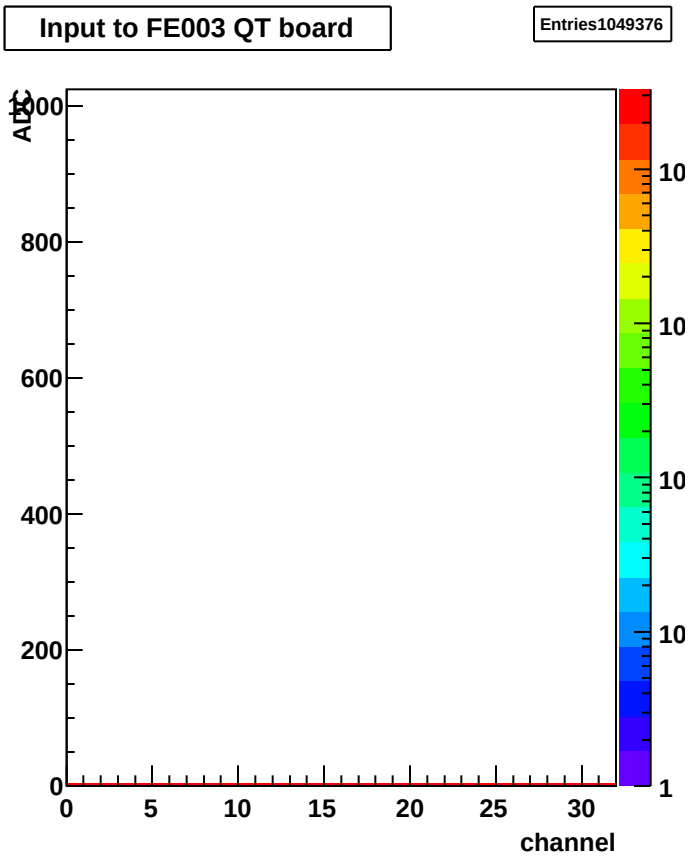

Input to FPD L2 DSM
Entries 98379
HT bits
32793
32793
32793
SMALL
LARGE-S
LARGE-N

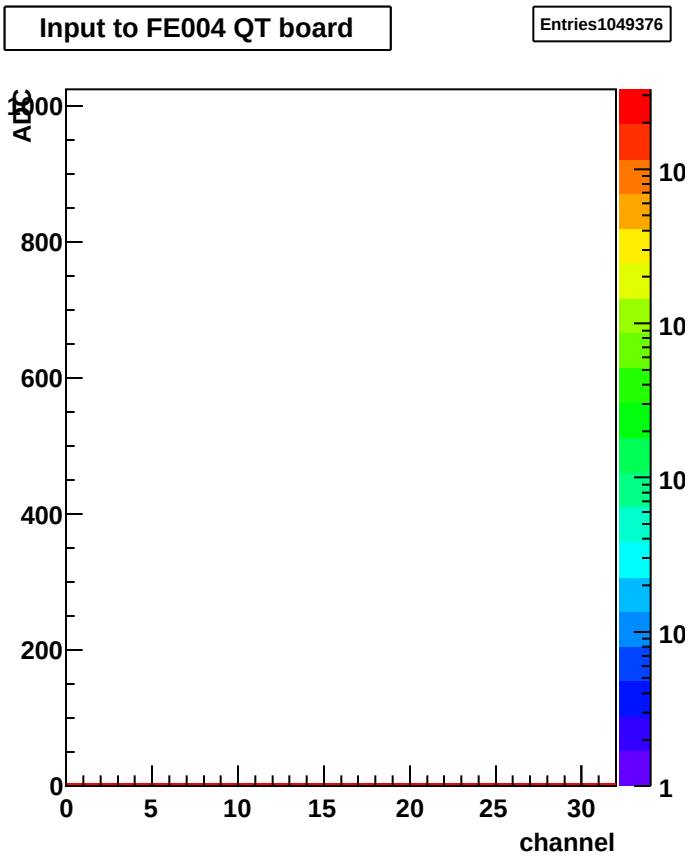

Input to FPD L2 DSM
Entries 98379
HT bits - simulated
32793
32793
32793
SMALL
LARGE-S
LARGE-N

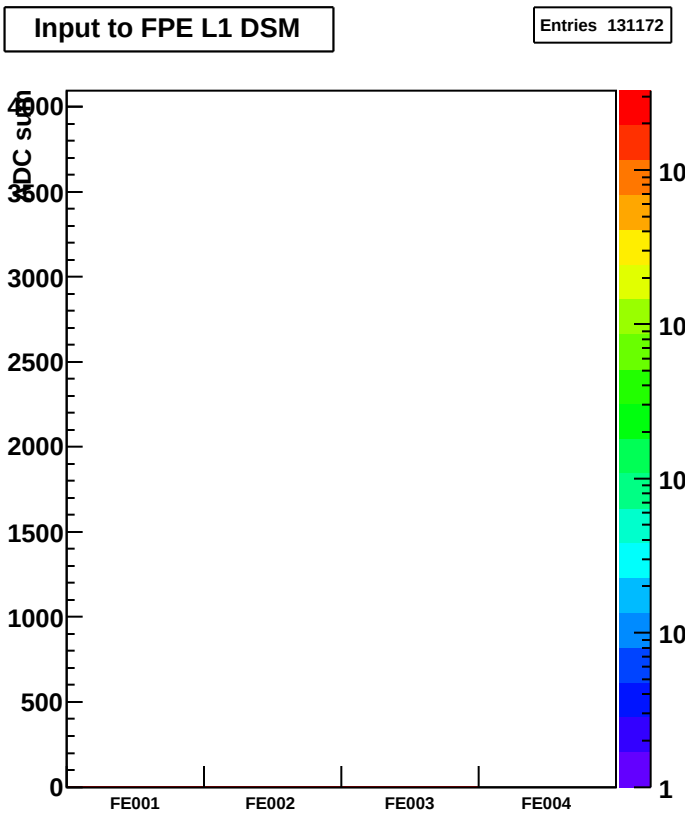

Input to FPD L2 DSM
Entries 196758
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

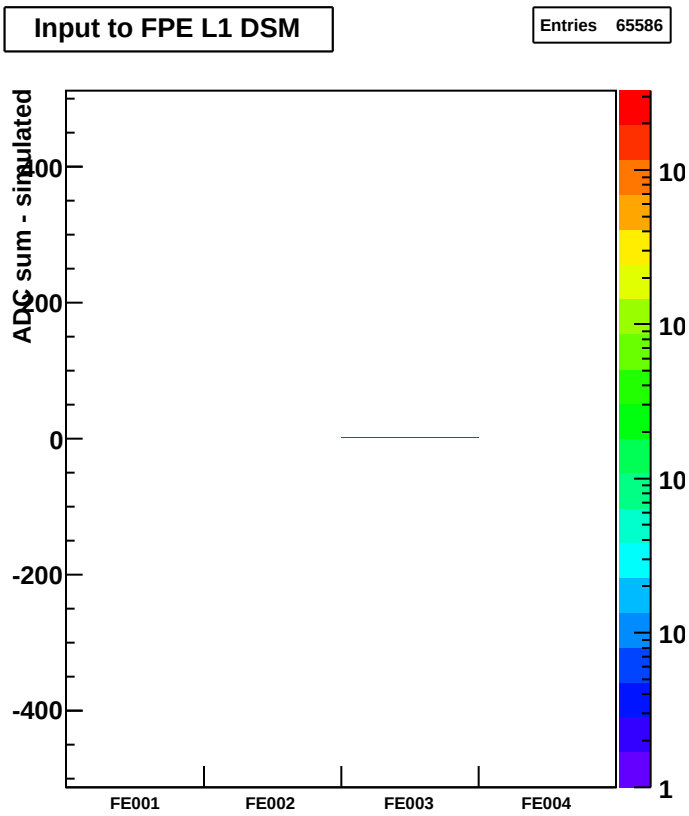

Input to FE001 QT board
Entries1049376
ADC
channel

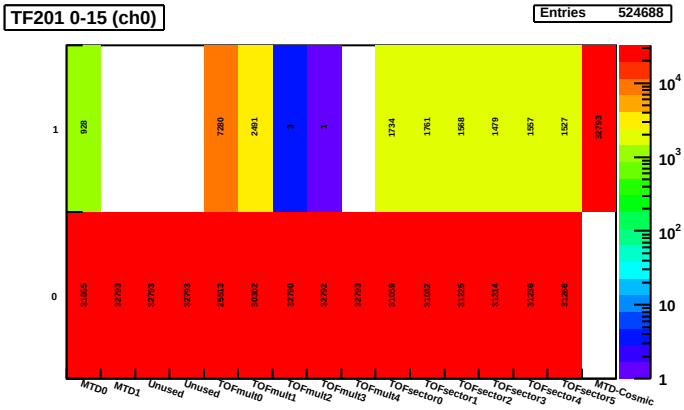

Input to FE002 QT board
Entries1049376
ADC
channel

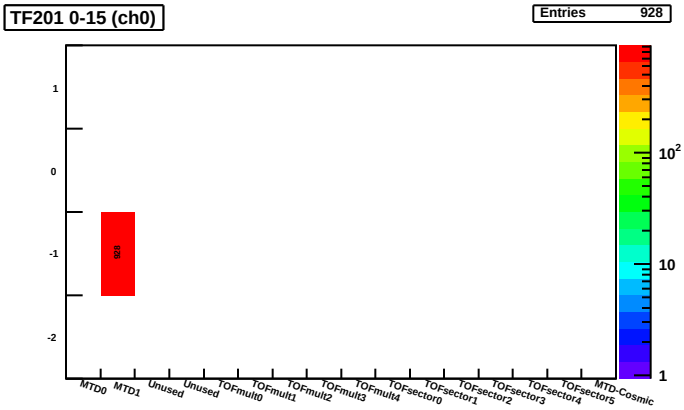

Input to FE003 QT board
Entries1049376
ADC
channel

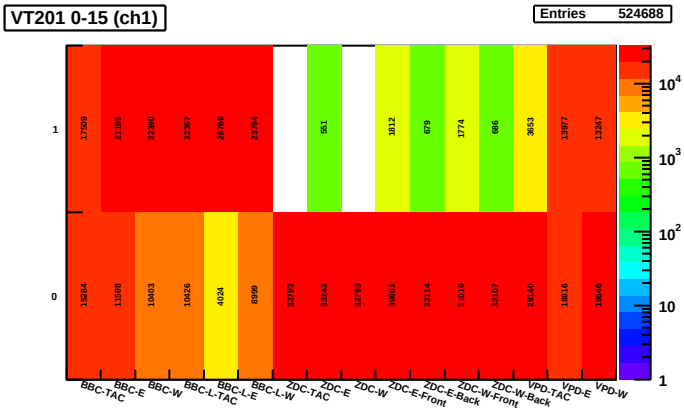

Input to FE004 QT board
Entries1049376
ADC
channel

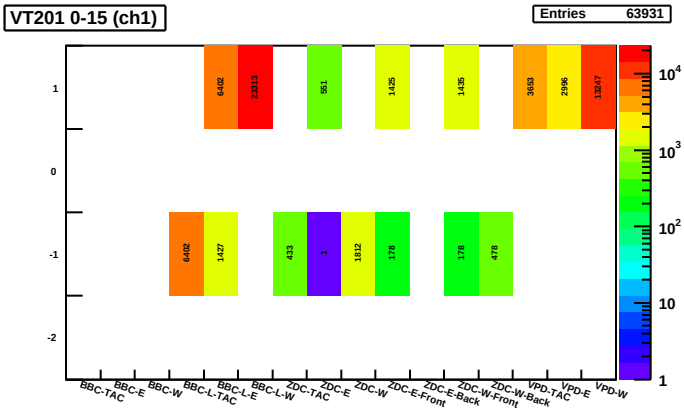

Input to FPE L1 DSM
Entries 131172
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 65586
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 524688
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 928
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 524688
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 63931
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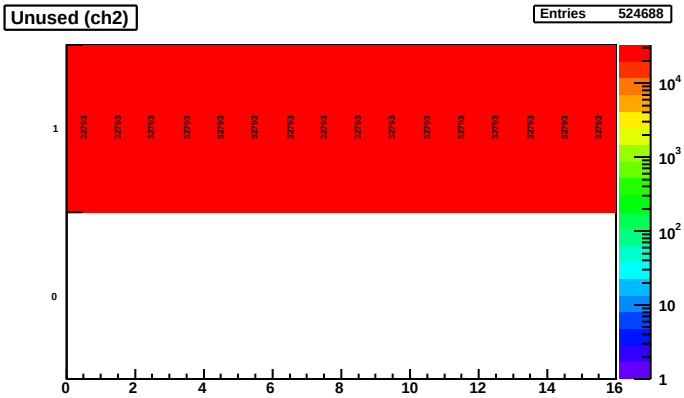
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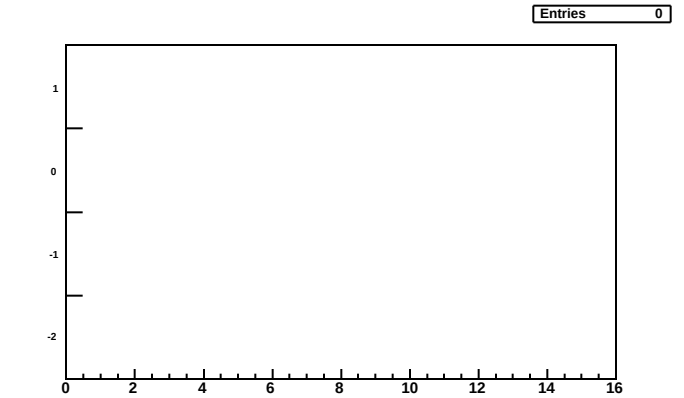
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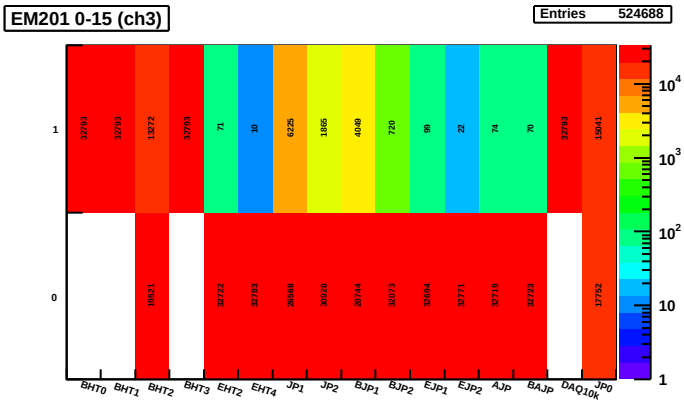
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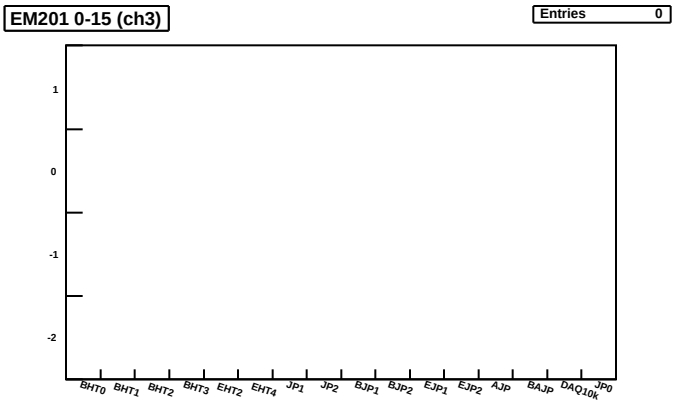
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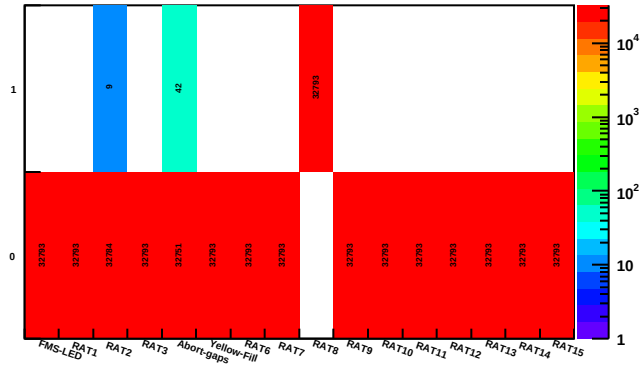
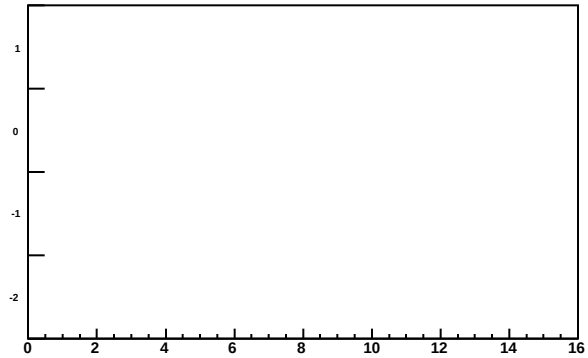
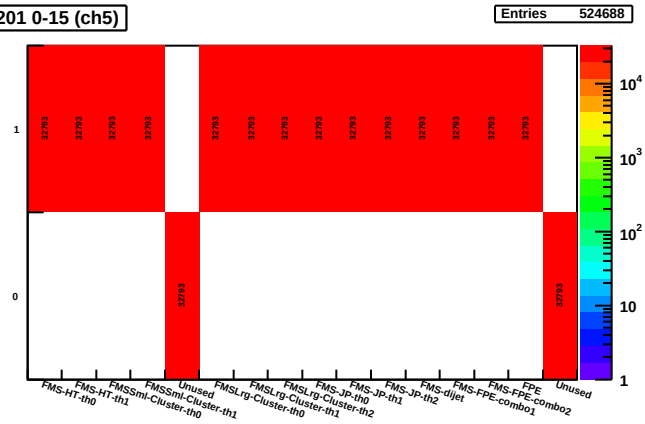
RAT board (ch4)

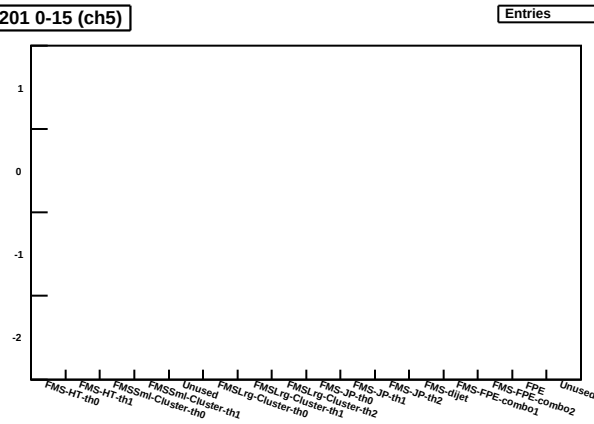




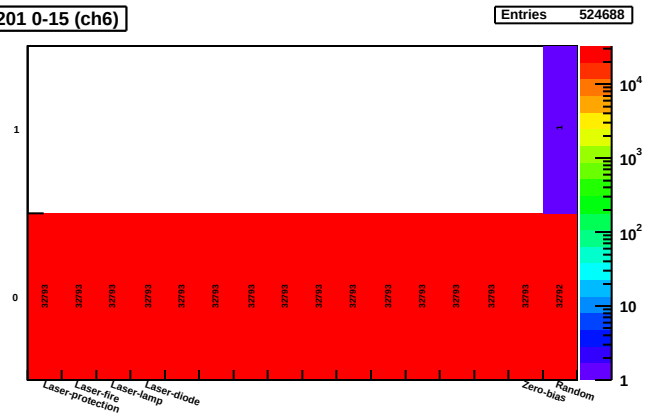
FP201 0-15 (ch5)

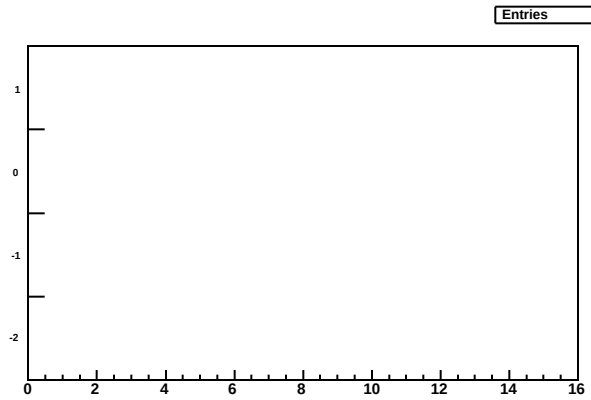
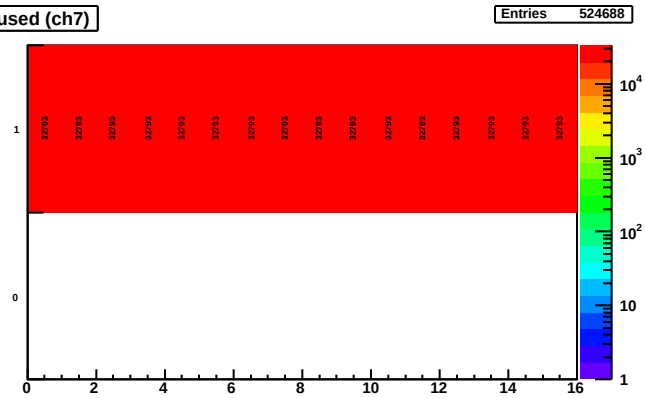
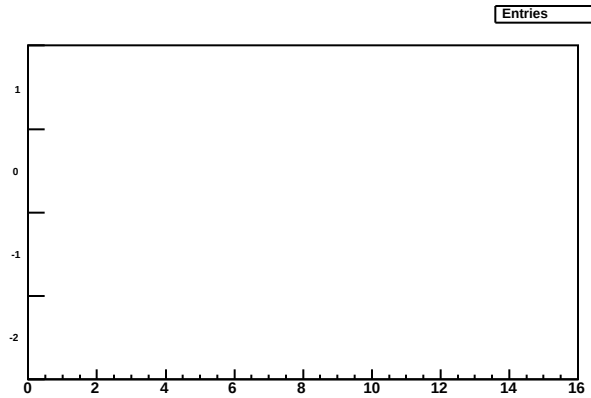


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)