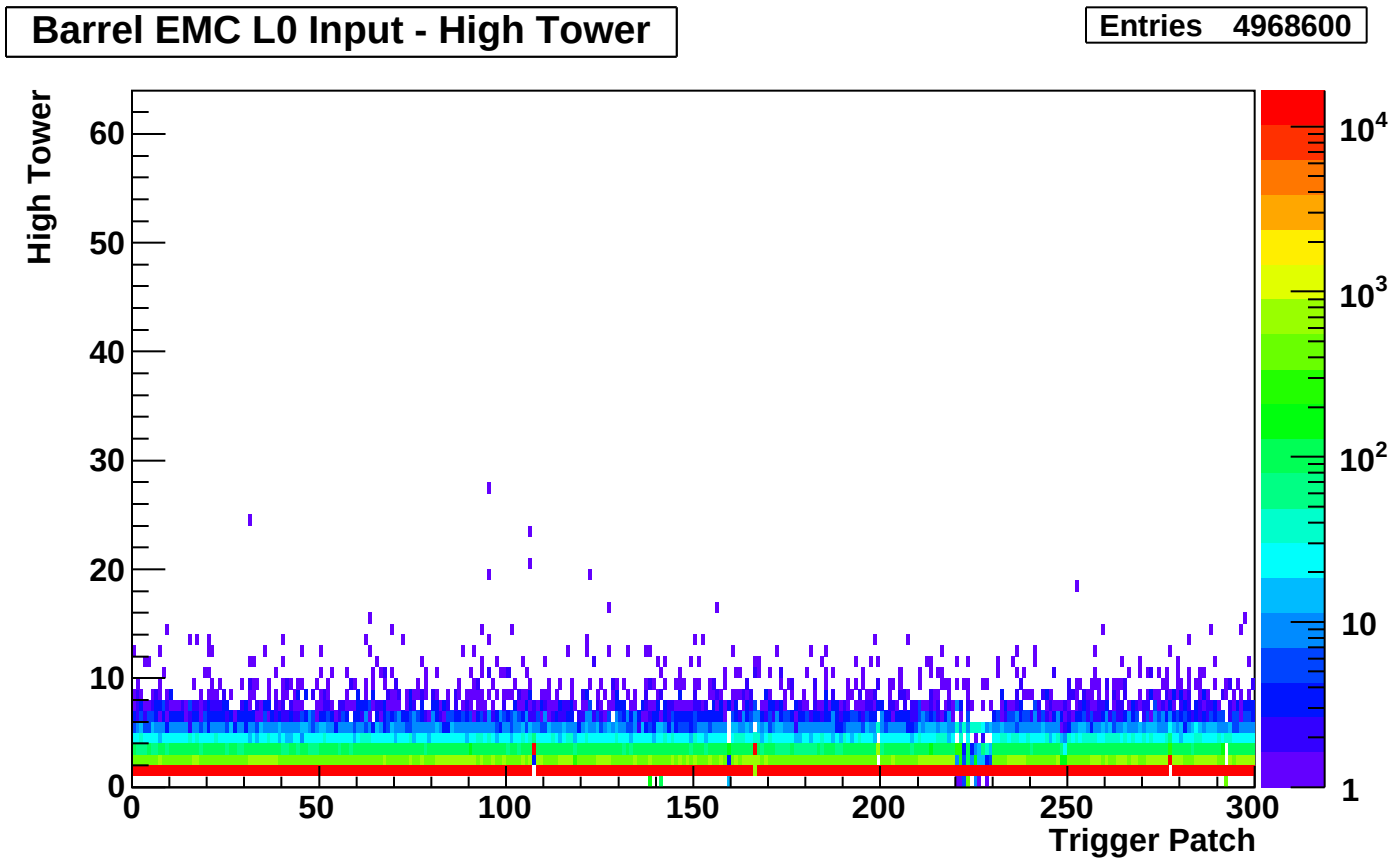
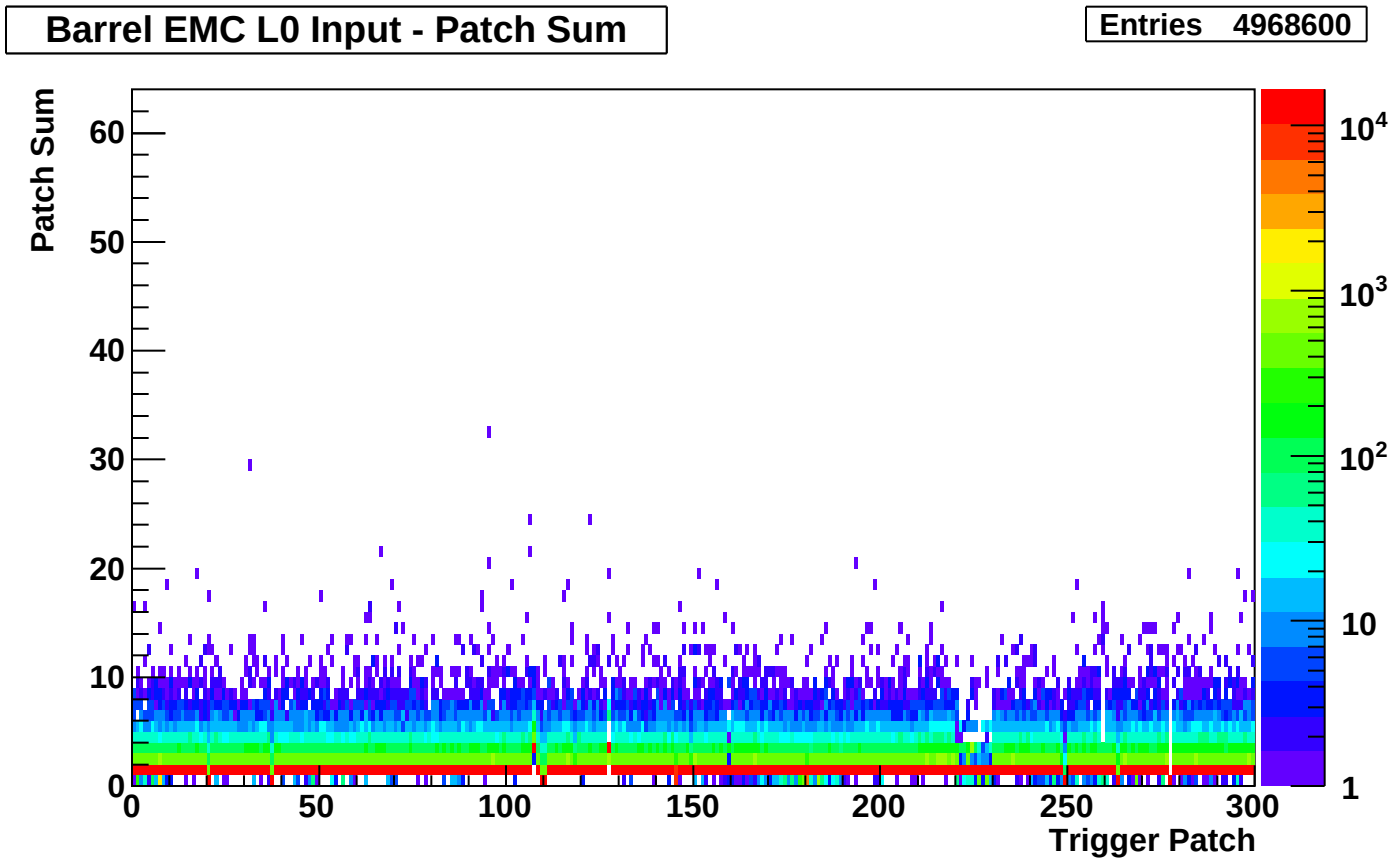
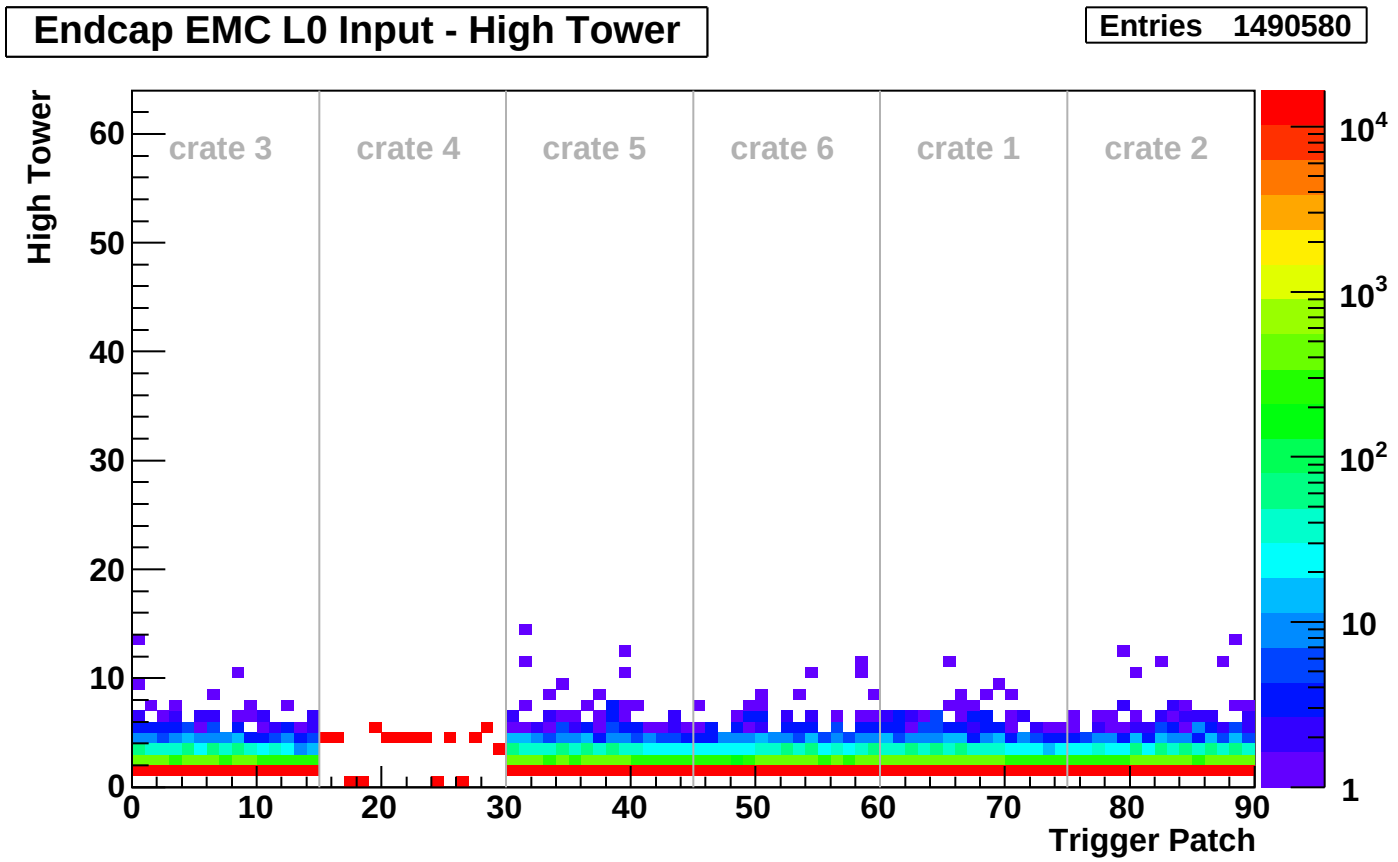
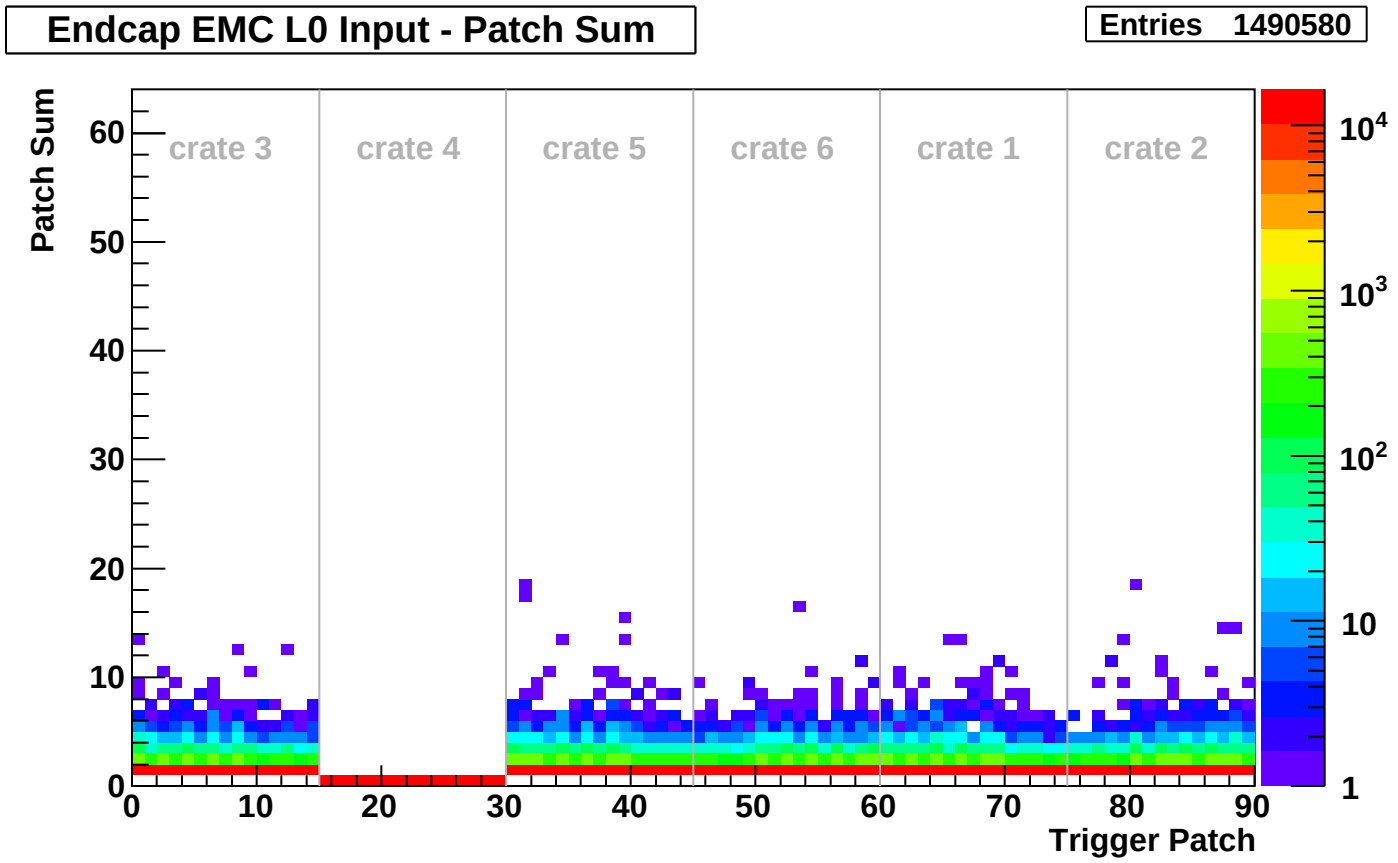
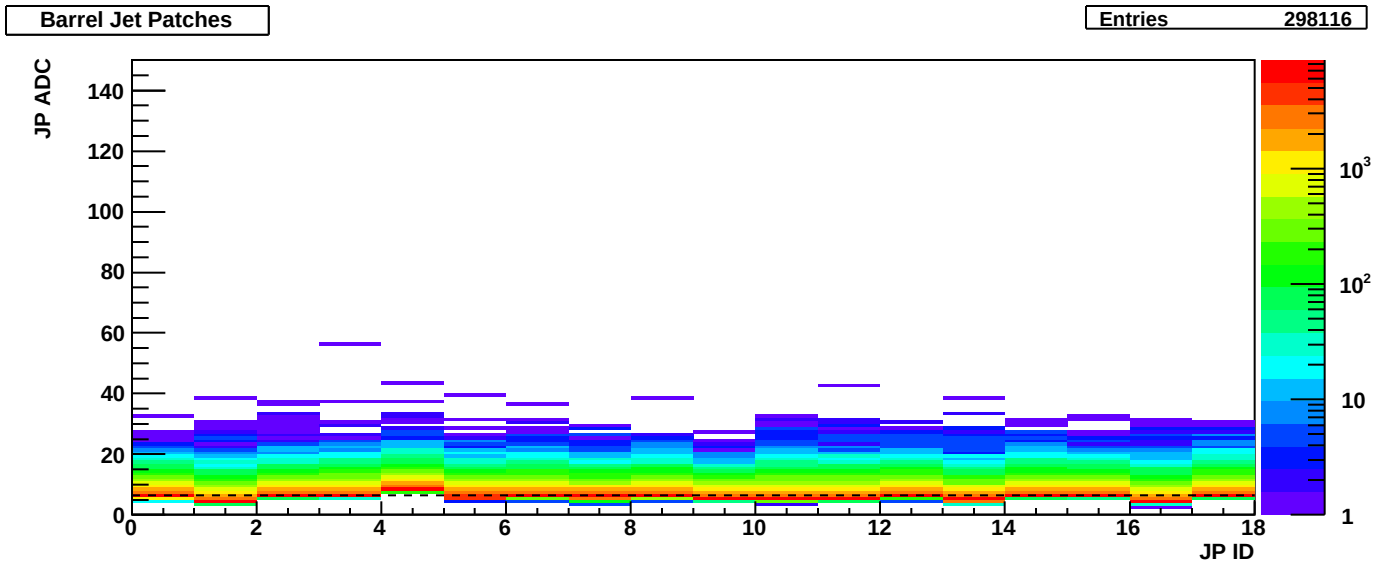
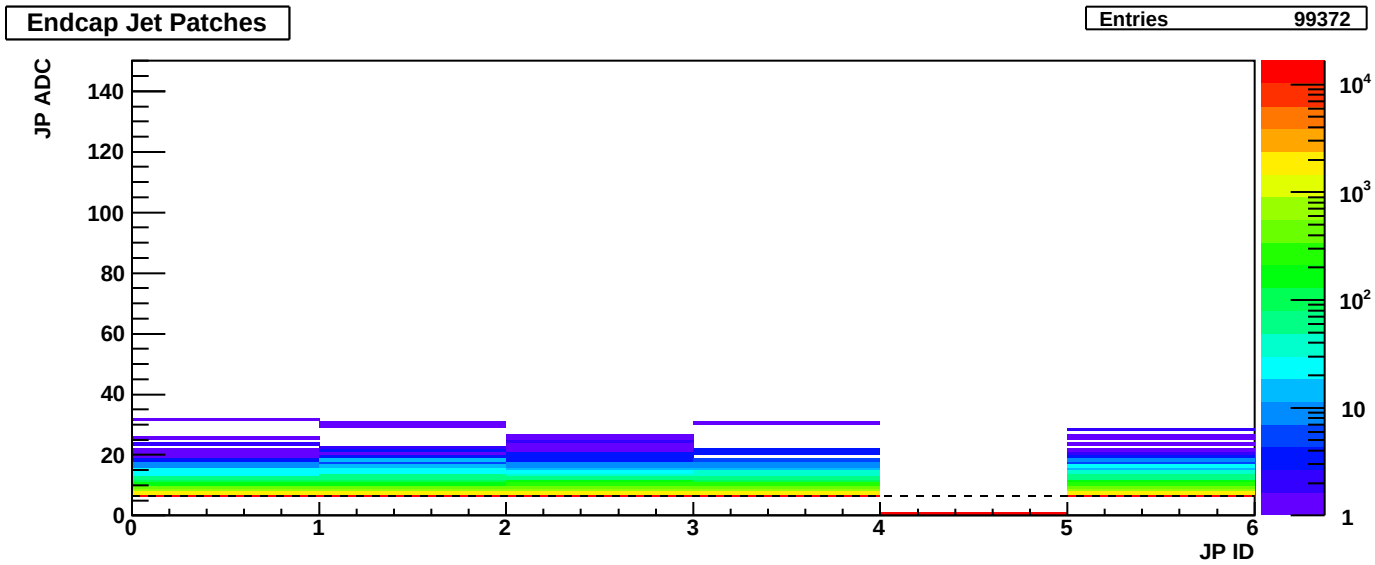

Barrel EMC L0 Input - High Tower
Entries 4968600
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

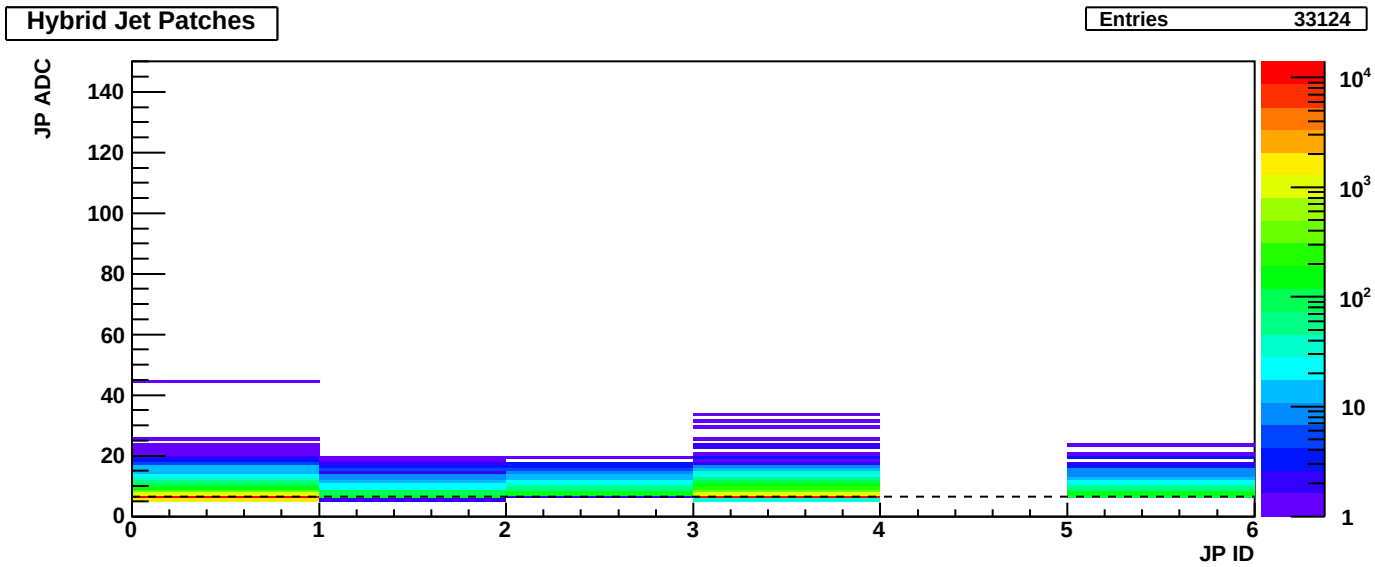

Barrel EMC L0 Input - Patch Sum
Entries 4968600
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

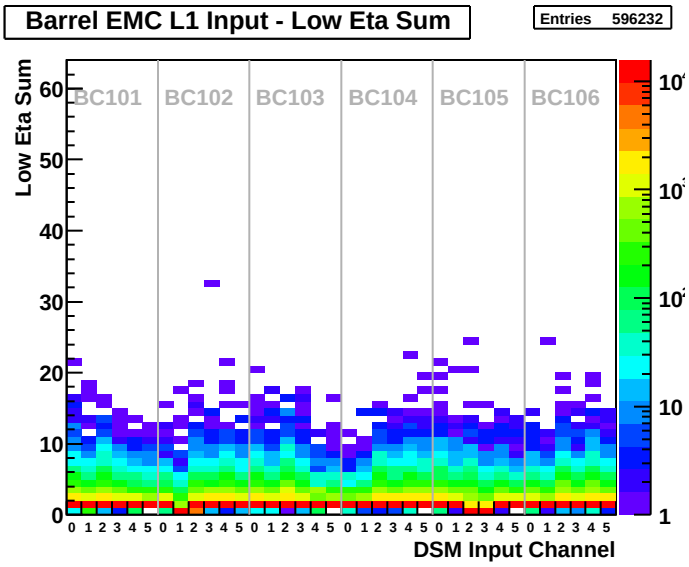

Endcap EMC L0 Input - High Tower
Entries 1490580
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

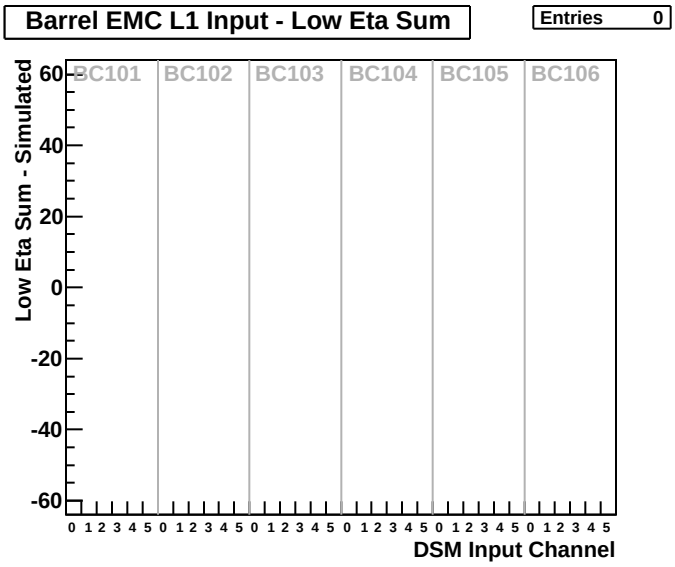

Endcap EMC L0 Input - Patch Sum
Entries 1490580
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

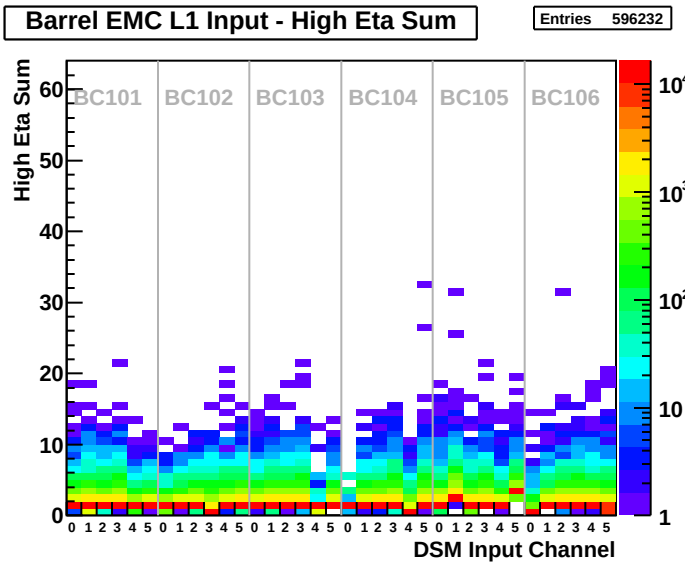

Barrel Jet Patches
Entries 298116
JP ADC
JP ID

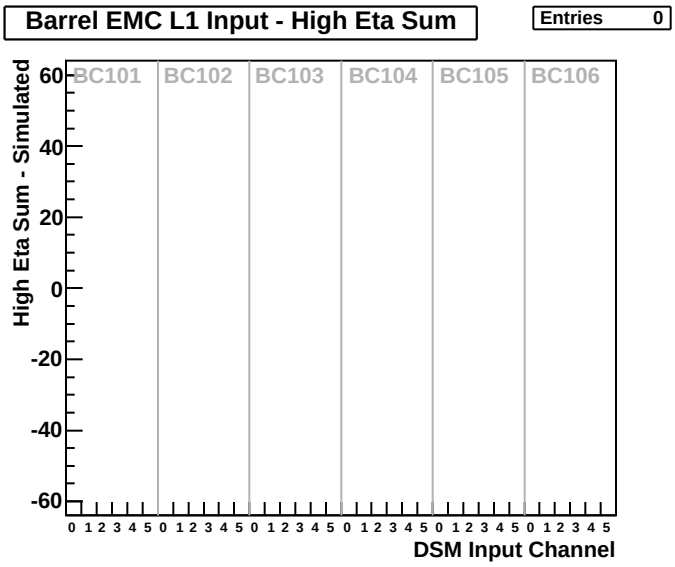

Endcap Jet Patches
Entries 99372
JP ADC
JP ID

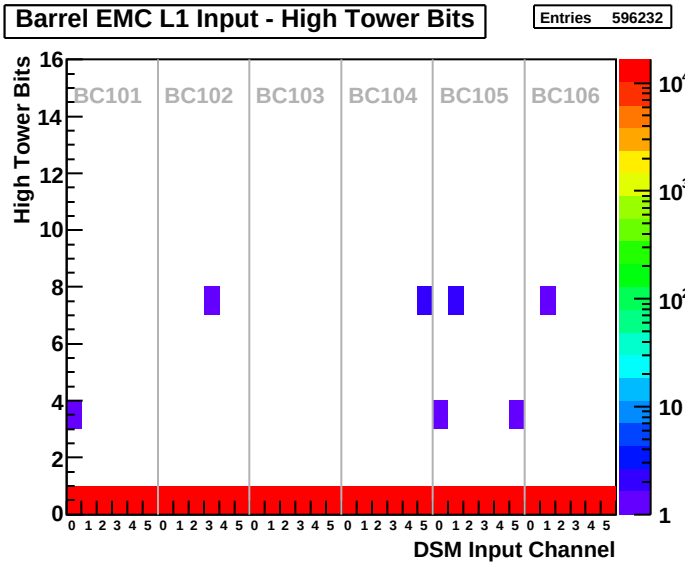

Hybrid Jet Patches
Entries 33124
JP ADC
JP ID

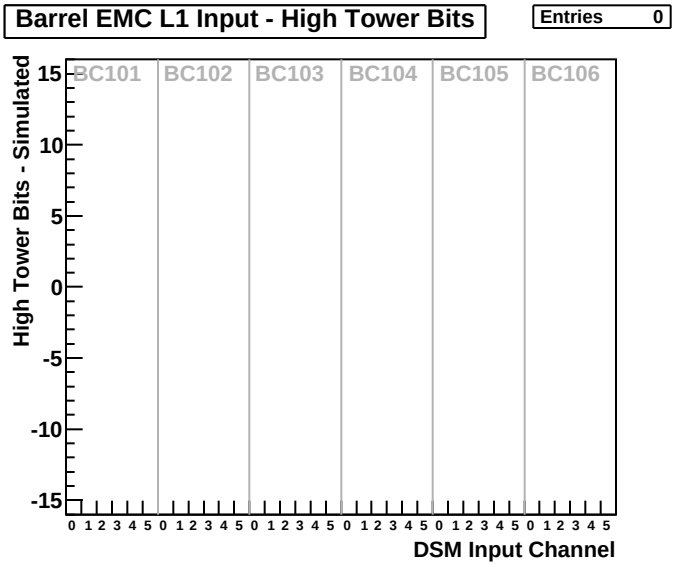

Barrel EMC L1 Input - Low Eta Sum
Entries 596232
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

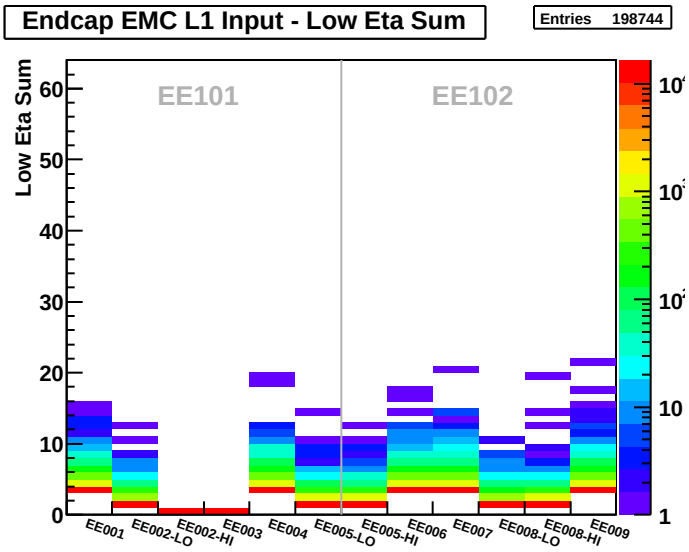

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

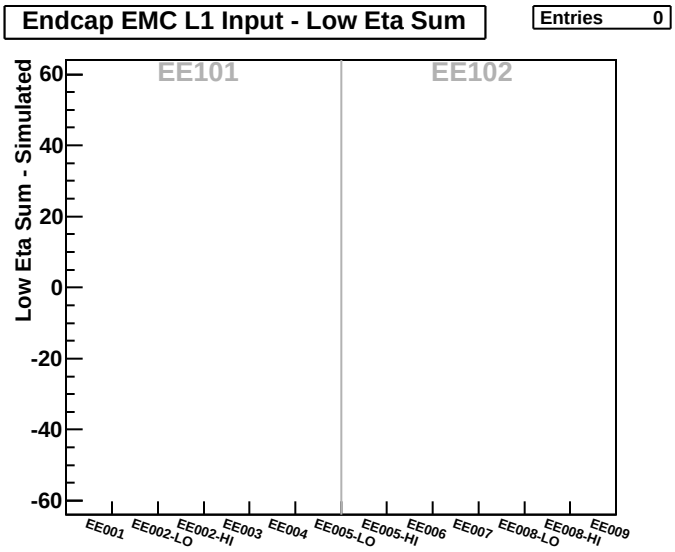

Barrel EMC L1 Input - High Eta Sum
Entries 596232
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

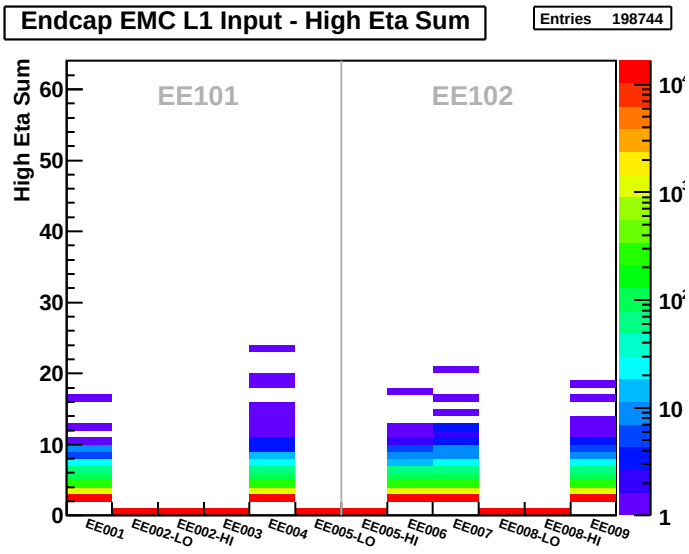

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

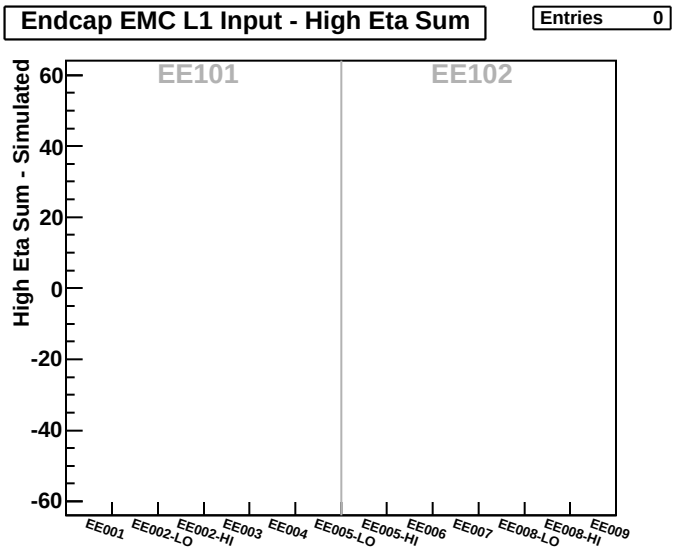

Barrel EMC L1 Input - High Tower Bits
Entries 596232
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

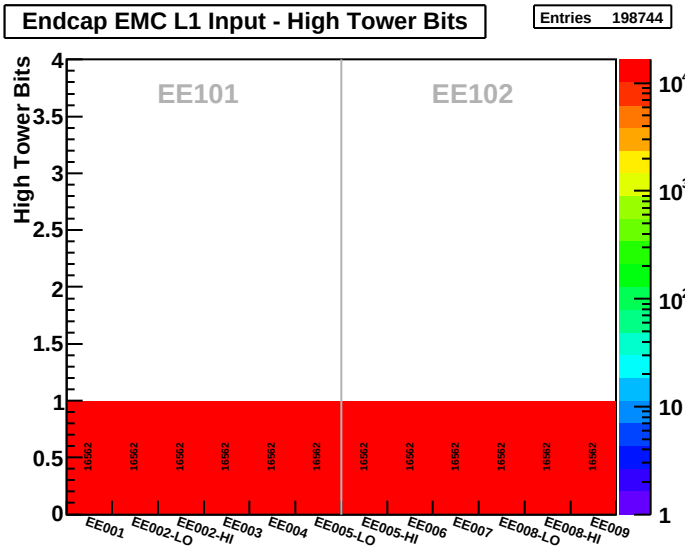

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

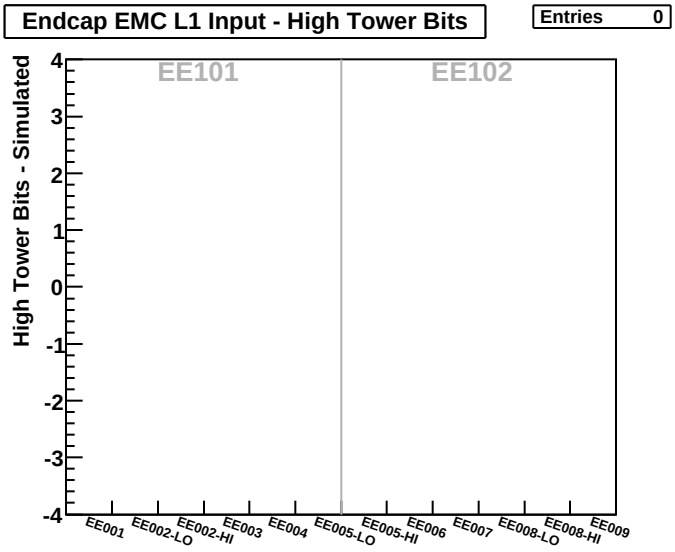

Endcap EMC L1 Input - Low Eta Sum
Entries 198744
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

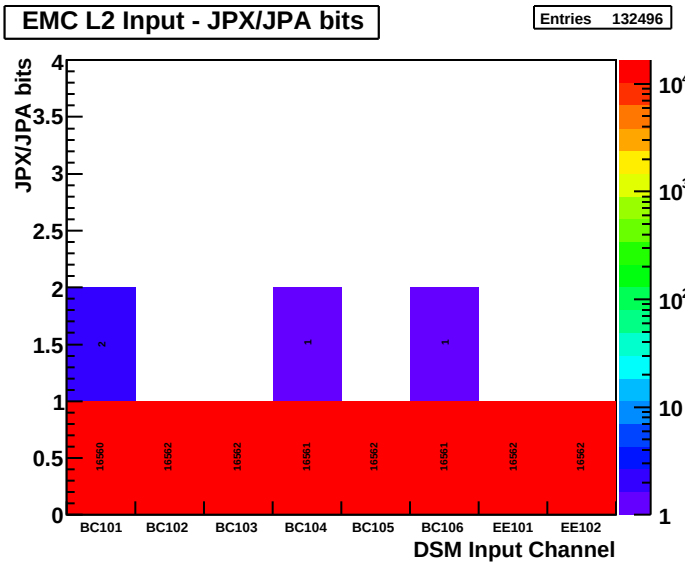

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

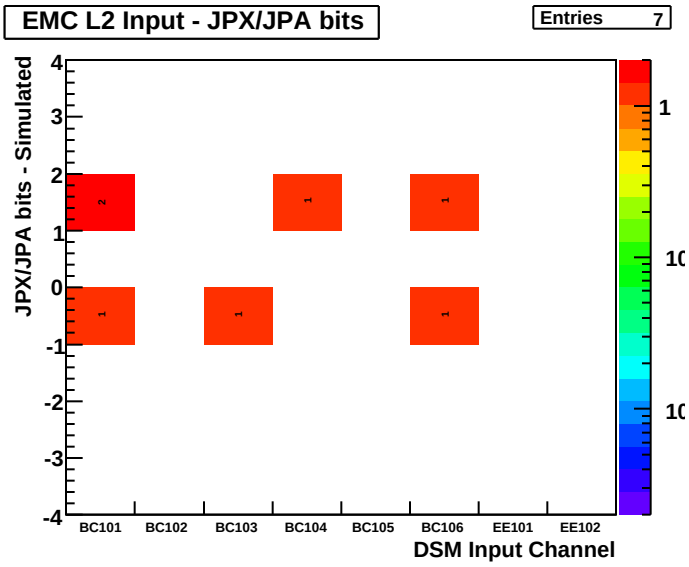

Endcap EMC L1 Input - High Eta Sum
Entries 198744
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

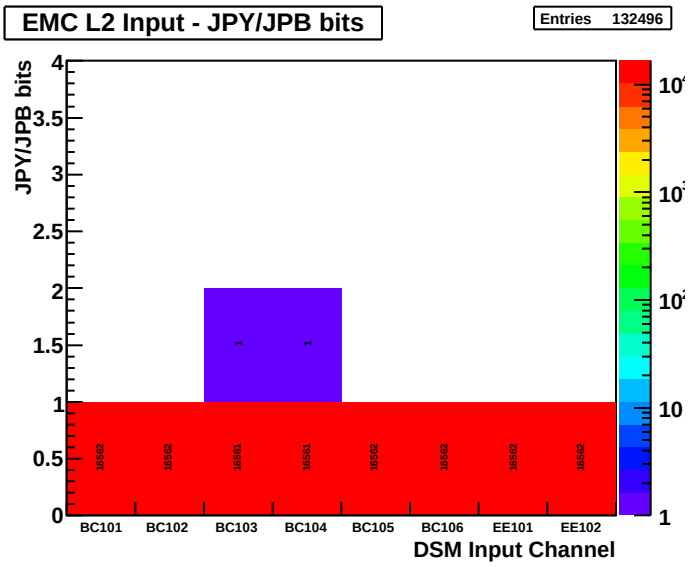

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

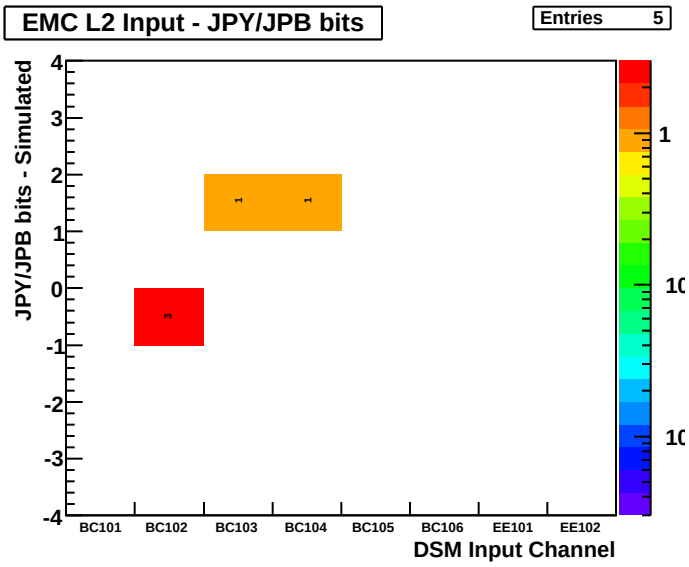

Endcap EMC L1 Input - High Tower Bits
Entries 198744
High Tower Bits
EE101
EE102
16562
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

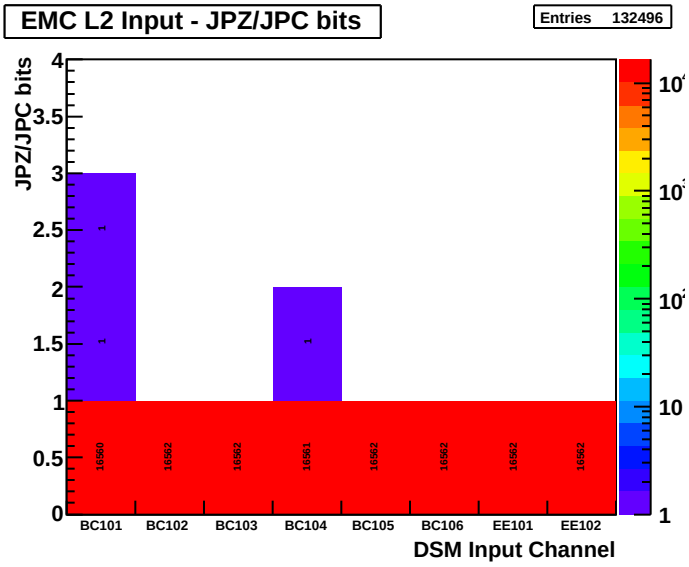

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

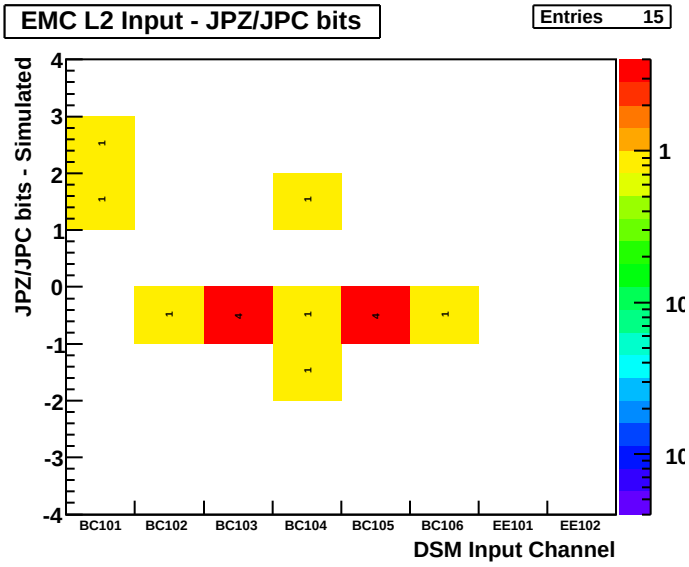

EMC L2 Input - JPX/JPA bits
Entries 132496
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

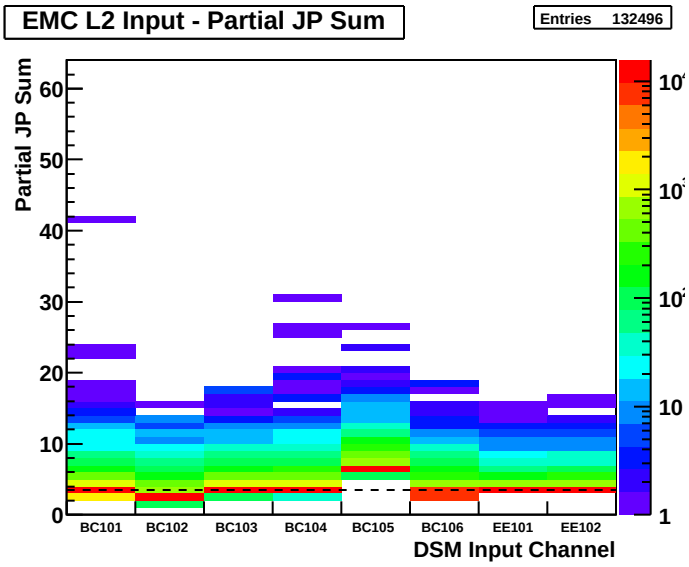

EMC L2 Input - JPX/JPA bits
Entries 7
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

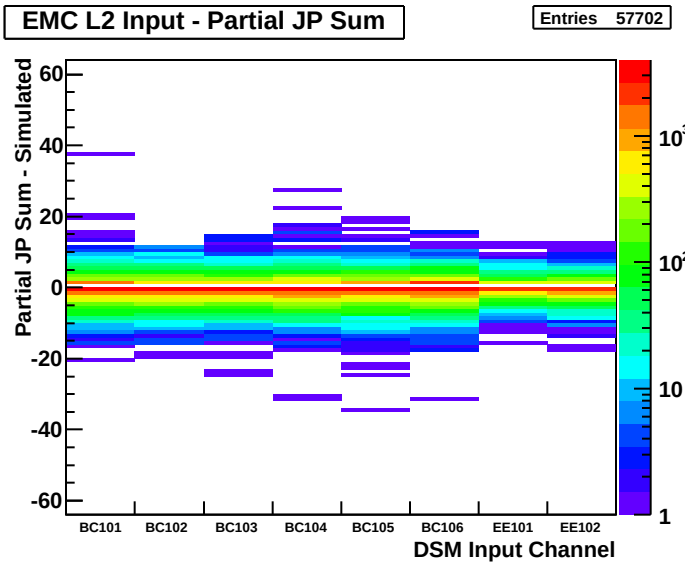

EMC L2 Input - JPY/JPB bits
Entries 132496
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

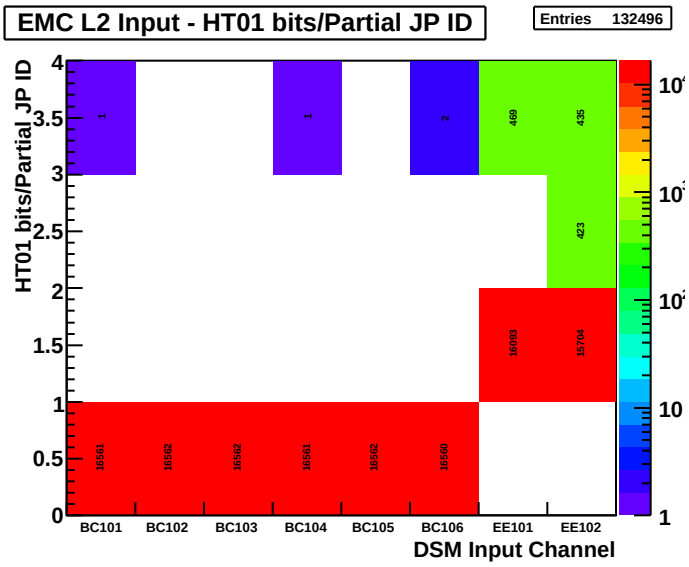

EMC L2 Input - JPY/JPB bits
Entries 5
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

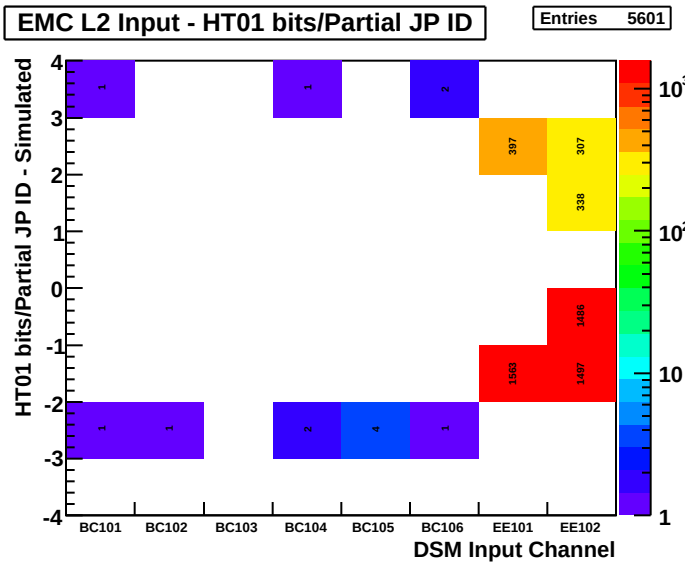

EMC L2 Input - JPZ/JPC bits
Entries 132496
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

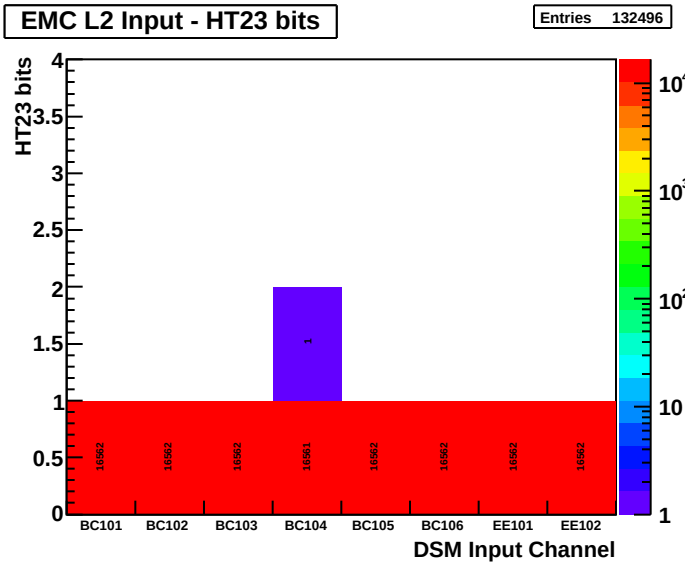

EMC L2 Input - JPZ/JPC bits
Entries 15
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

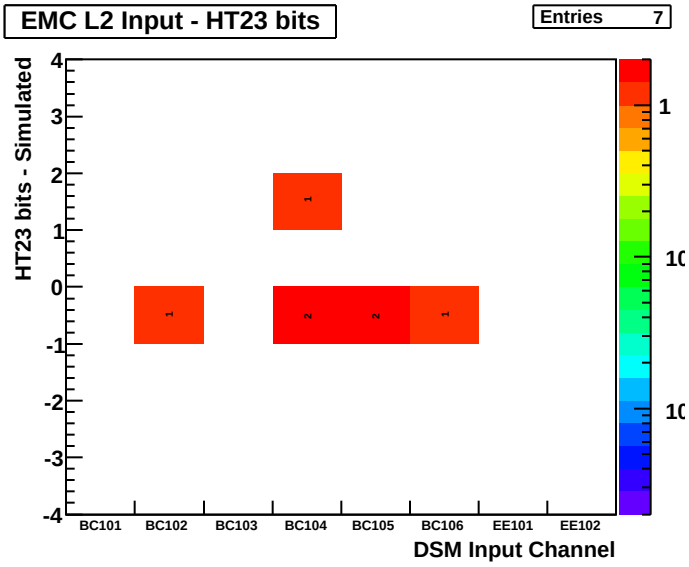

EMC L2 Input - Partial JP Sum
Entries 132496
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

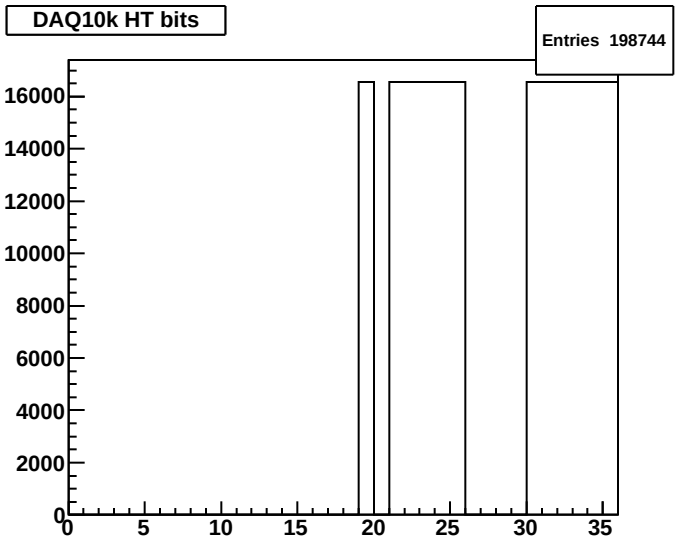

EMC L2 Input - Partial JP Sum
Entries 57702
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

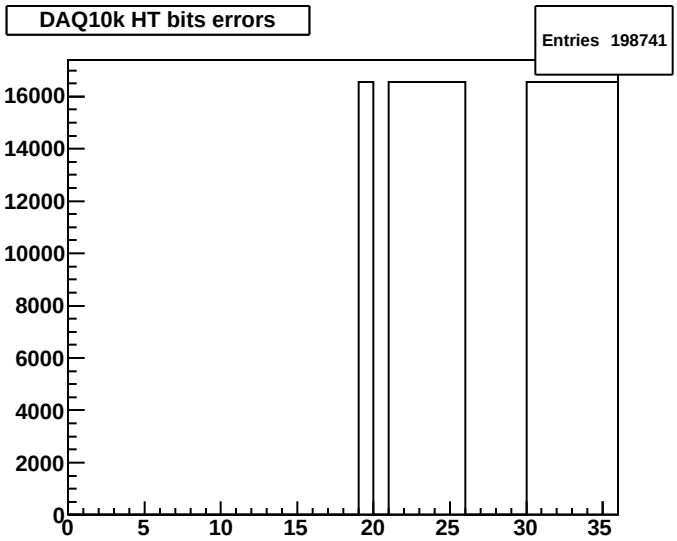

EMC L2 Input - HT01 bits/Partial JP ID
Entries 132496
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

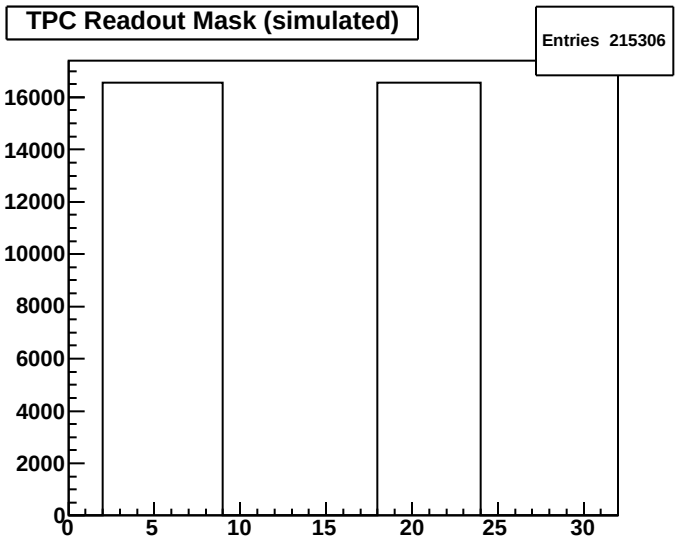

EMC L2 Input - HT01 bits/Partial JP ID
Entries 5601
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

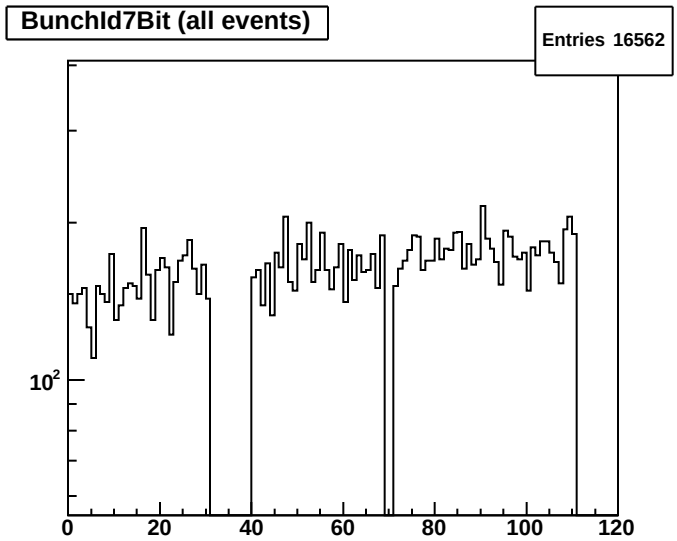

EMC L2 Input - HT23 bits
Entries 132496
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

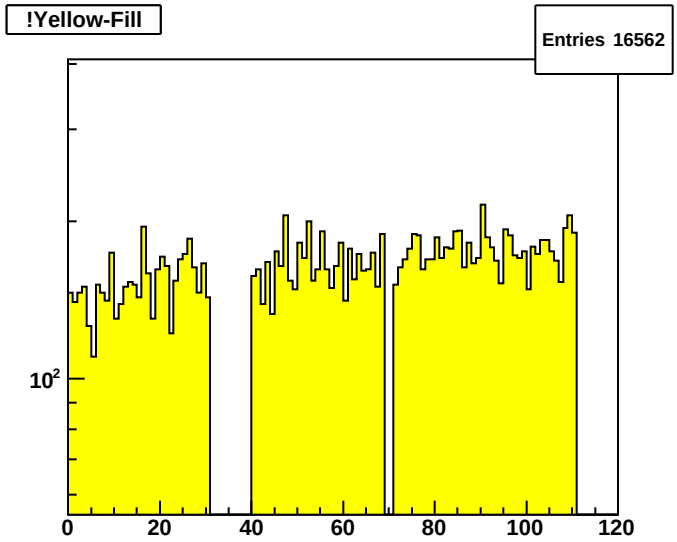

EMC L2 Input - HT23 bits
Entries 7
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

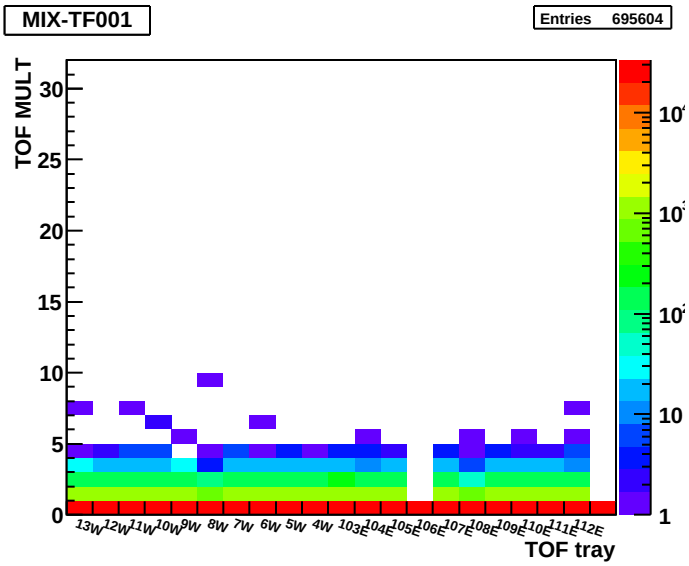

DAQ10k HT bits
Entries 198744
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

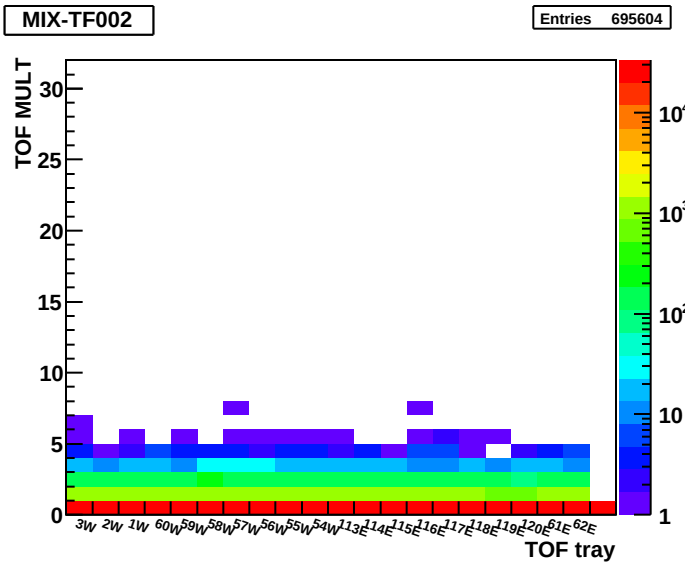

DAQ10k HT bits errors
Entries 198741
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

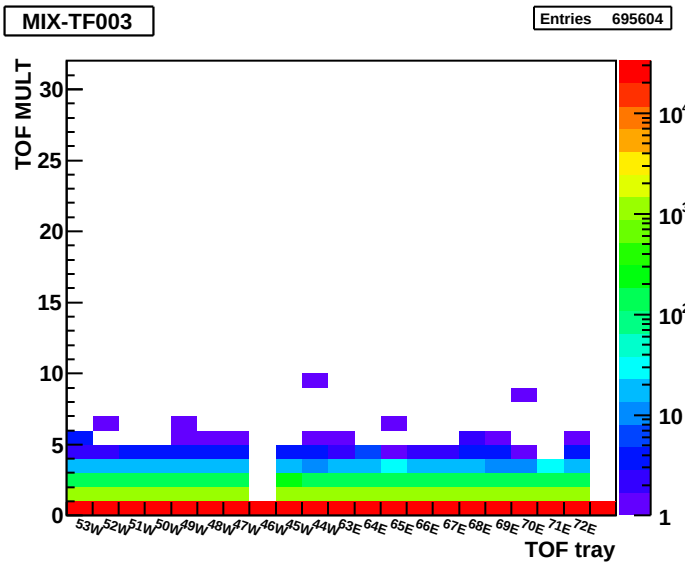

TPC Readout Mask (simulated)
Entries 215306
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

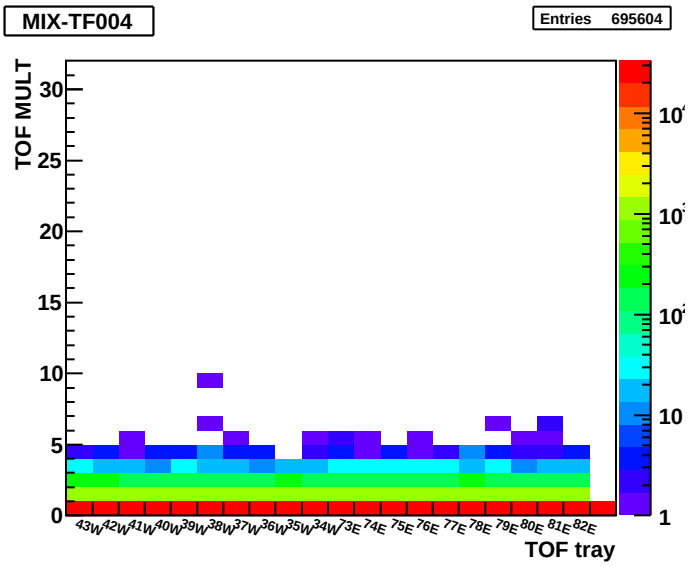

BunchId7Bit (all events)
Entries 16562
10^2
0 20 40 60 80 100 120

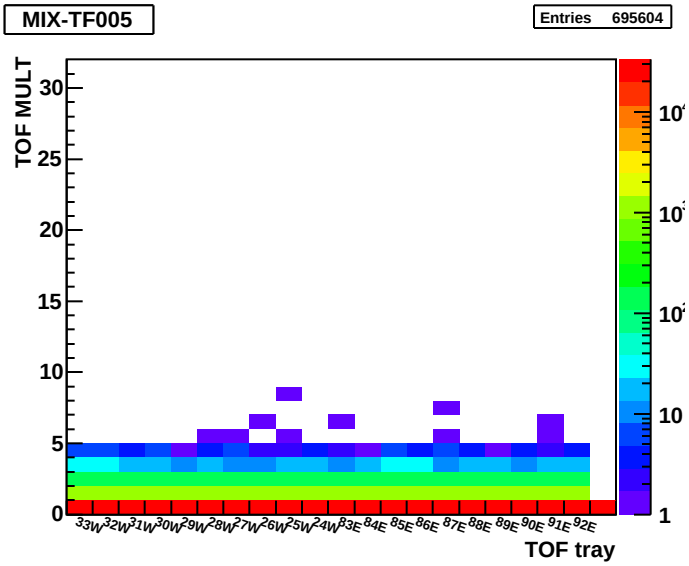

!Yellow-Fill
Entries 16562
10^2
0 20 40 60 80 100 120

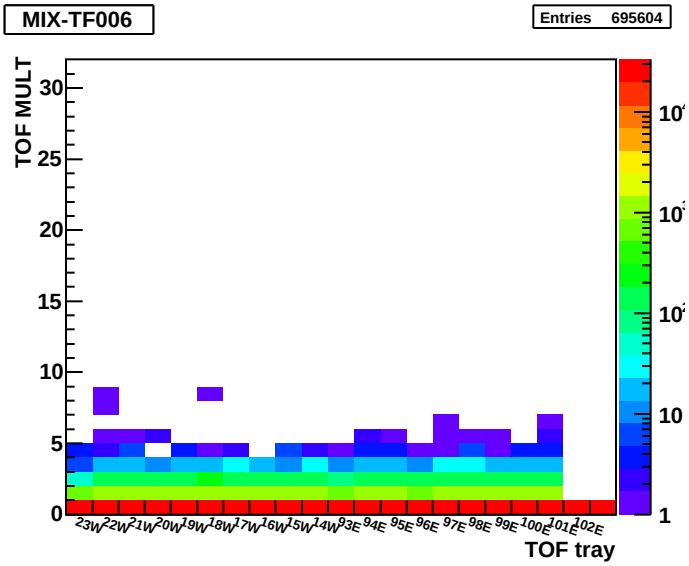

MIX-TF001
Entries 695604
TOF MULT
TOF tray

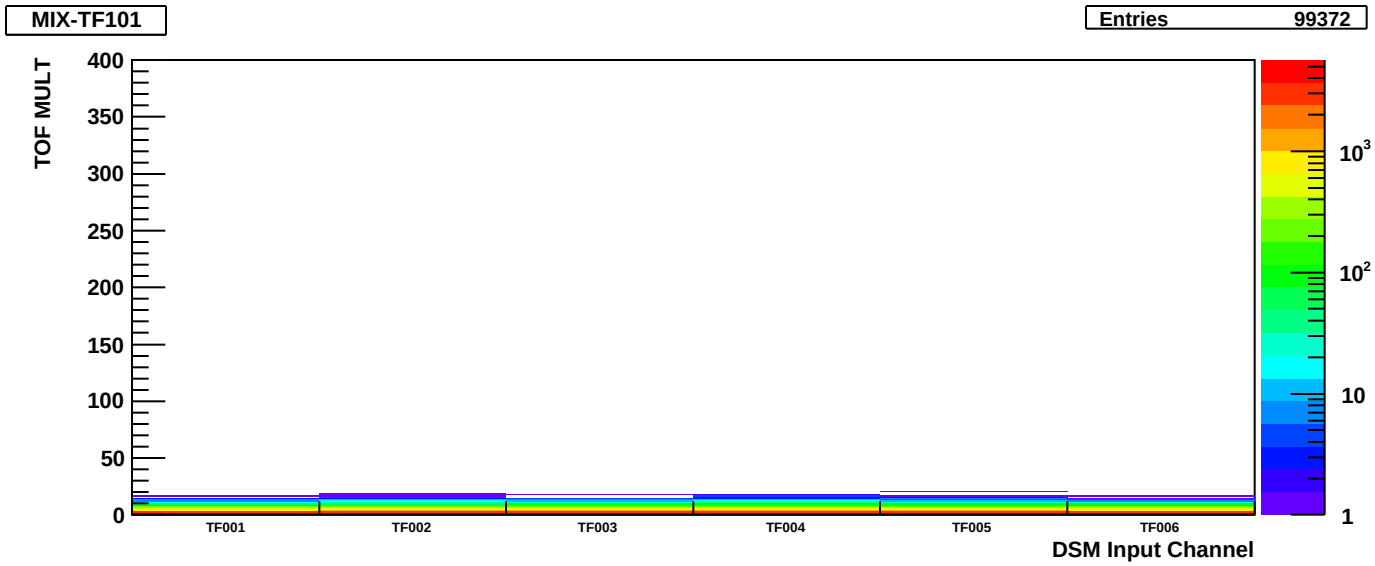

MIX-TF002
Entries 695604
TOF MULT
TOF tray

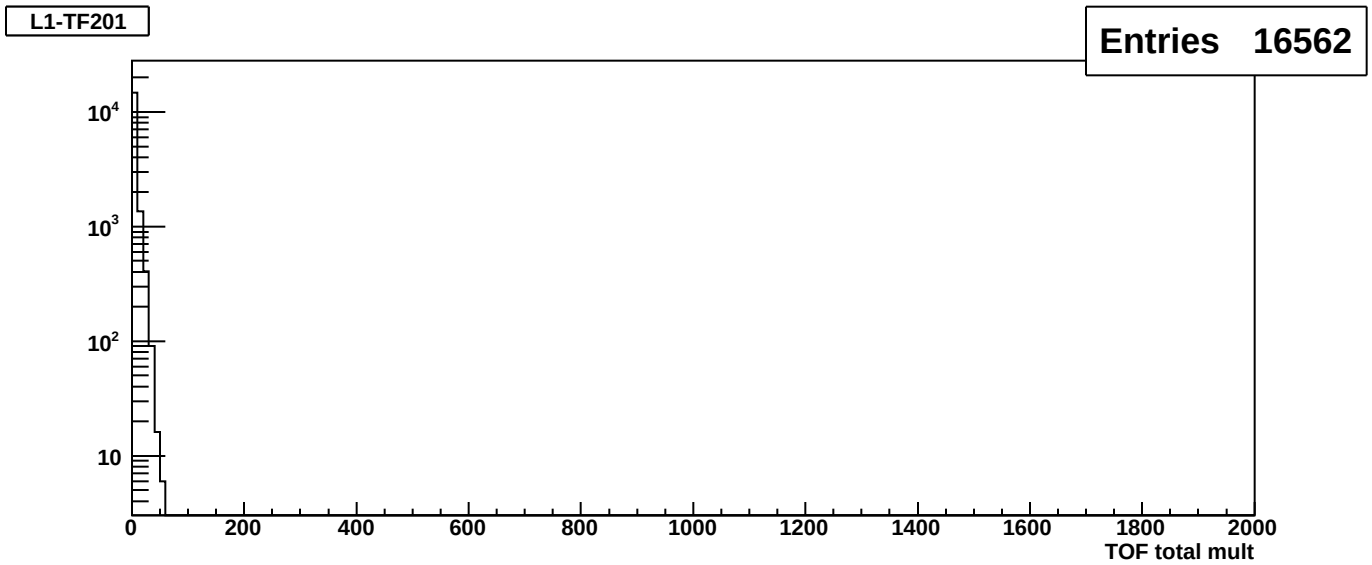

MIX-TF003
Entries 695604
TOF MULT
TOF tray

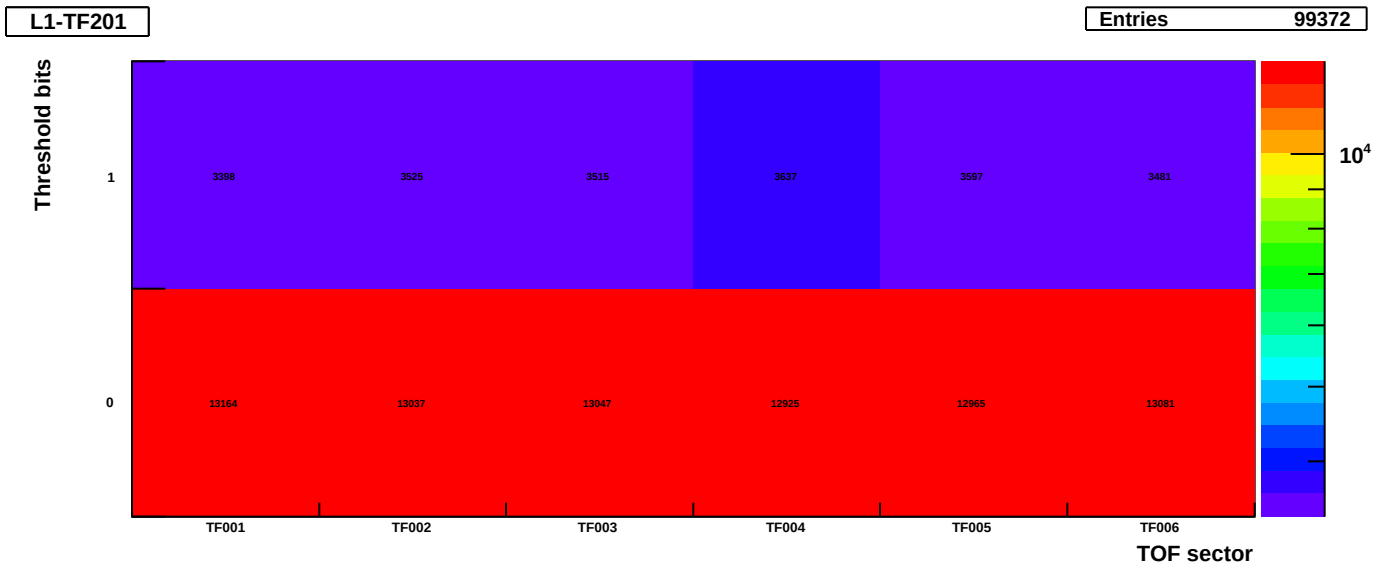

MIX-TF004
Entries 695604
TOF MULT
TOF tray

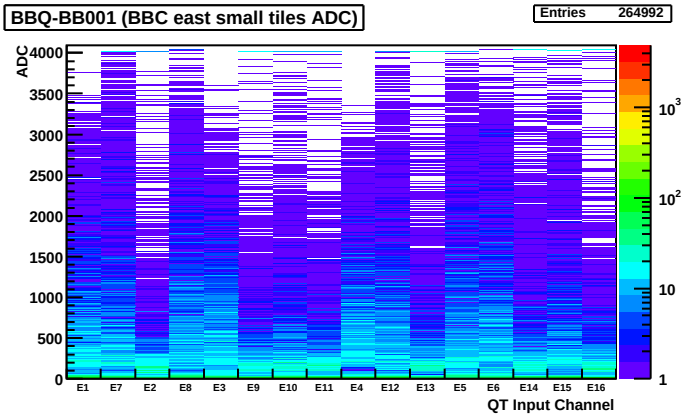

MIX-TF005
Entries 695604
TOF MULT
TOF tray

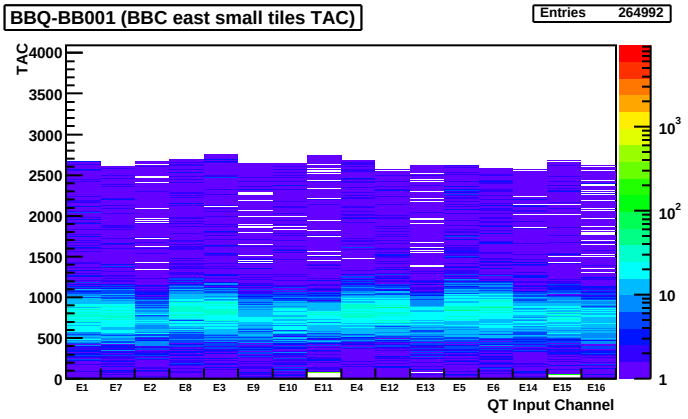

MIX-TF006
Entries 695604
TOF MULT
TOF tray

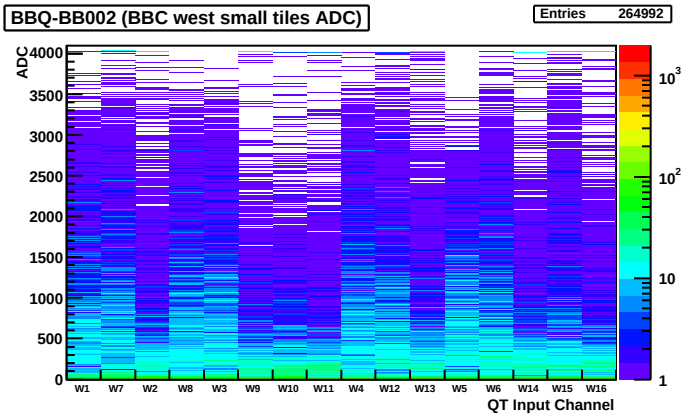

MIX-TF101
Entries 99372
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^3
10^2
10
1

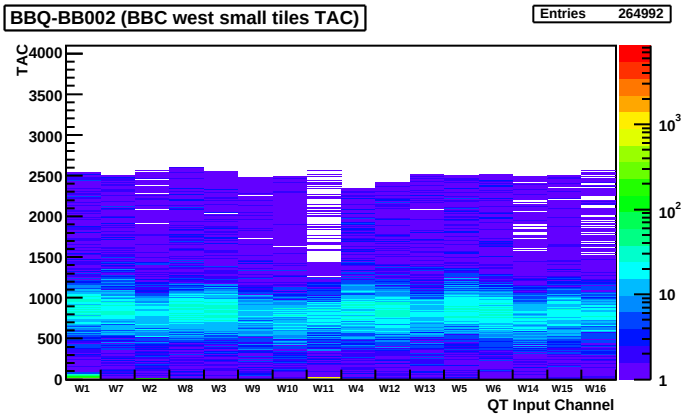

L1-TF201
Entries 16562
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

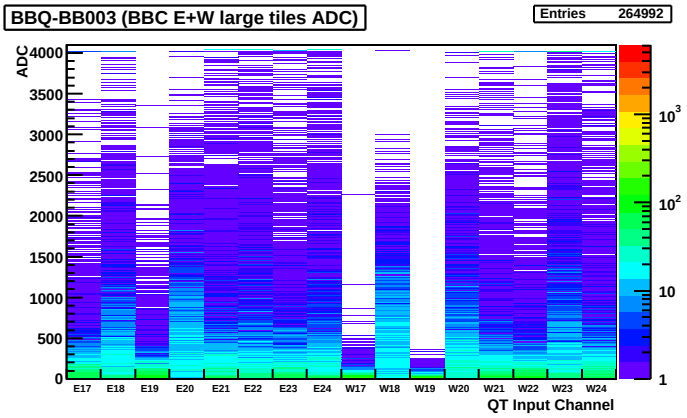

L1-TF201
Entries 99372
Threshold bits
1
0
3398
3525
3515
3637
3597
3481
13164
13037
13047
12925
12965
13081
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

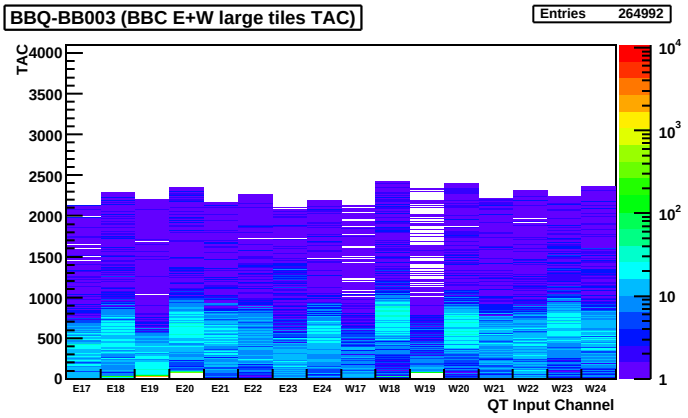

BBQ-BB001 (BBC east small tiles ADC)
Entries 264992
ADC
QT Input Channel

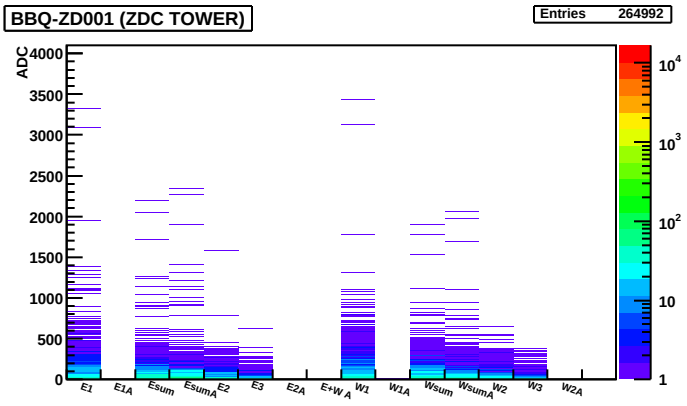

BBQ-BB001 (BBC east small tiles TAC)
Entries 264992
TAC
QT Input Channel

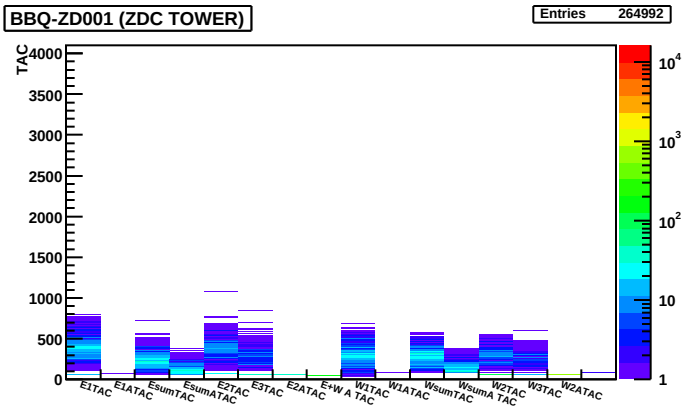

BBQ-BB002 (BBC west small tiles ADC)
Entries 264992
ADC
QT Input Channel

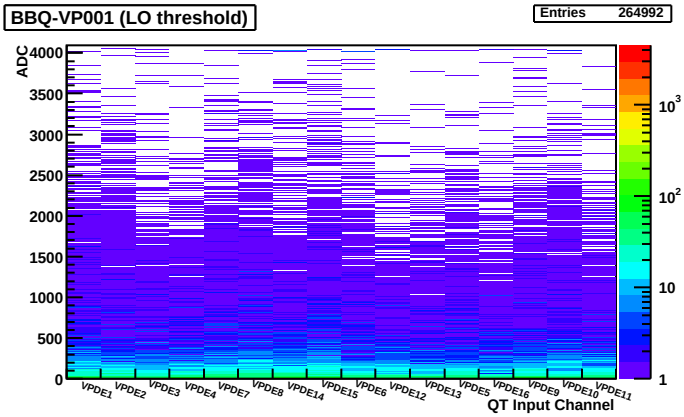

BBQ-BB002 (BBC west small tiles TAC)
Entries 264992
TAC
QT Input Channel

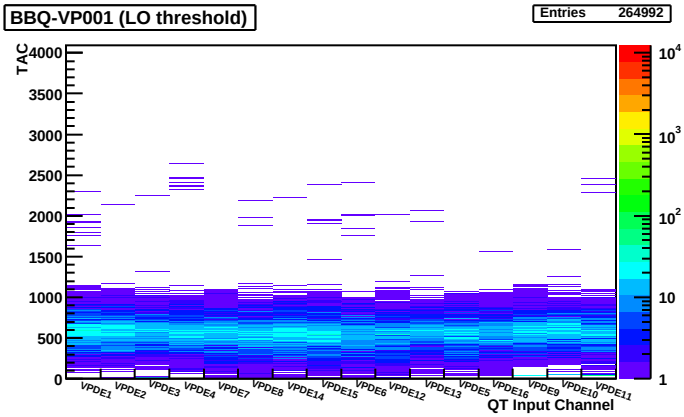

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 264992
ADC
QT Input Channel

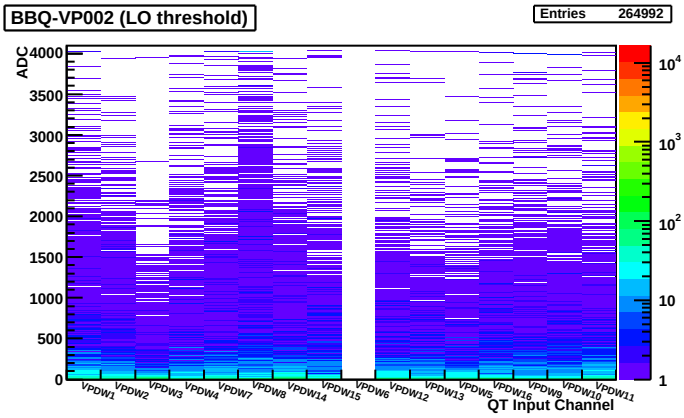

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 264992
TAC
QT Input Channel

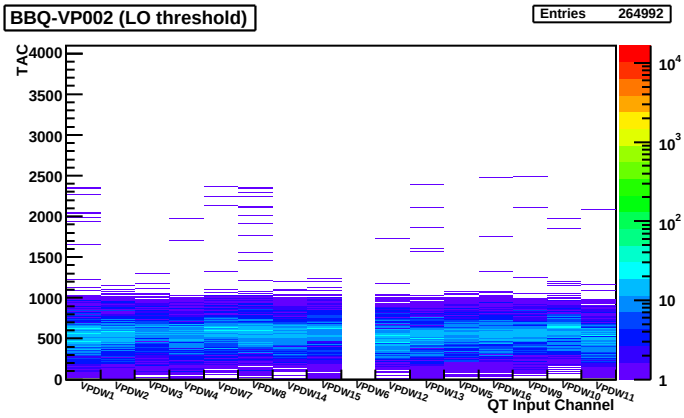

BBQ-ZD001 (ZDC TOWER)
Entries 264992
ADC

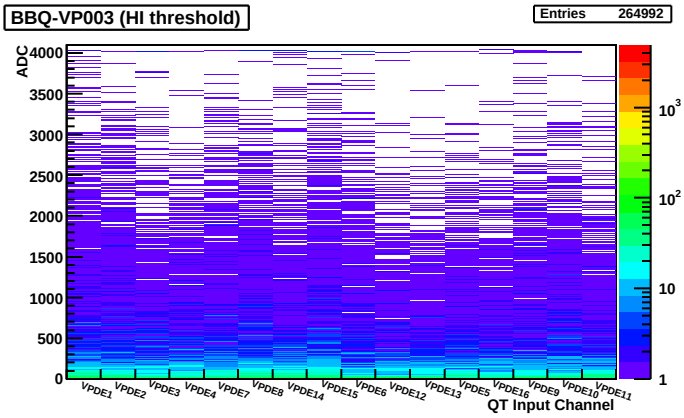

BBQ-ZD001 (ZDC TOWER)
Entries 264992
TAC

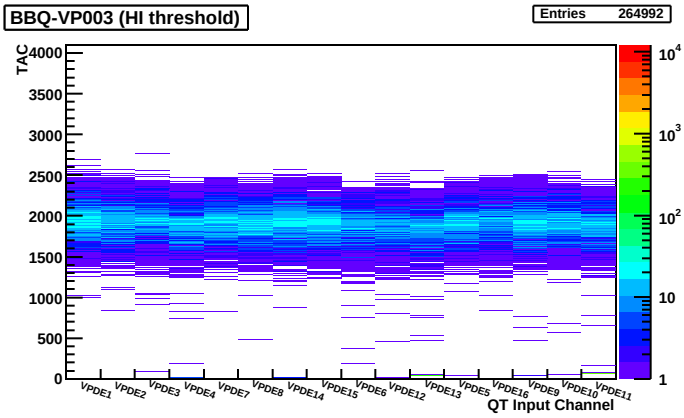

BBQ-VP001 (LO threshold)
Entries 264992
ADC
QT Input Channel

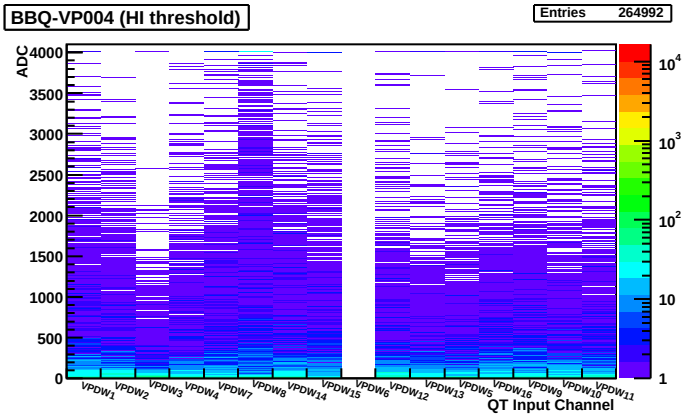

BBQ-VP001 (LO threshold)
Entries 264992
TAC
QT Input Channel

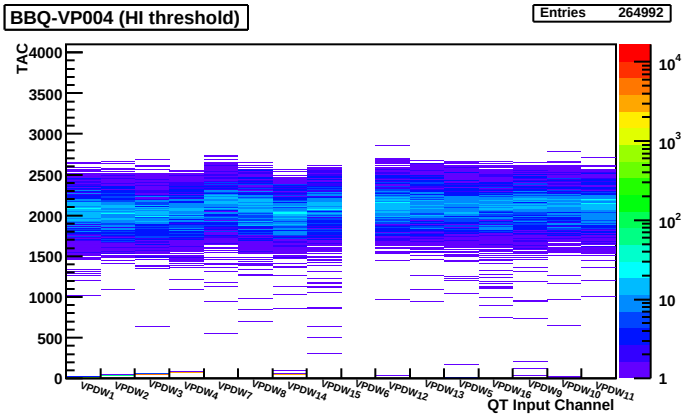

BBQ-VP002 (LO threshold)
Entries 264992
ADC
QT Input Channel

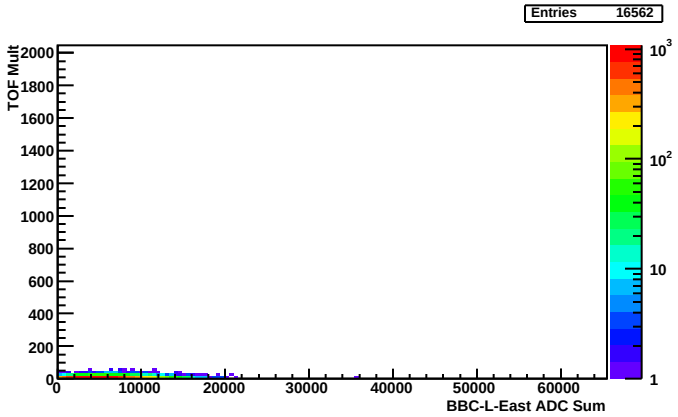

BBQ-VP002 (LO threshold)
Entries 264992
TAC
QT Input Channel

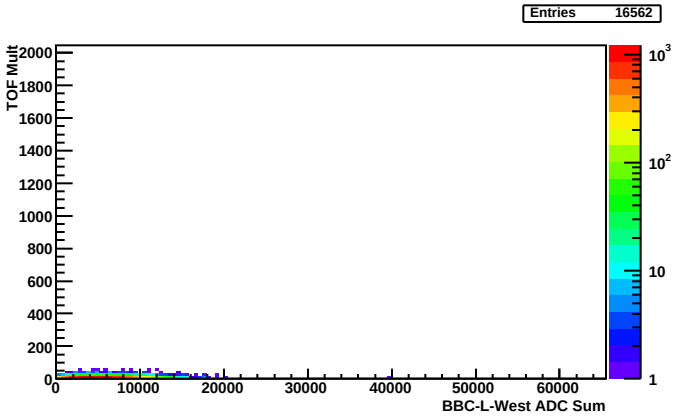

BBQ-VP003 (HI threshold)
Entries 264992
ADC
QT Input Channel

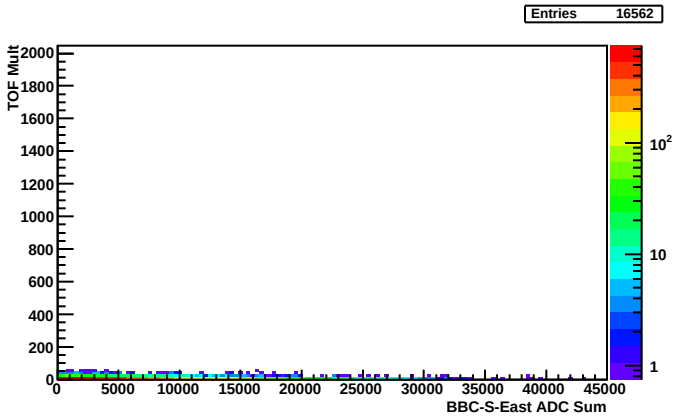

BBQ-VP003 (HI threshold)
Entries 264992
TAC
QT Input Channel

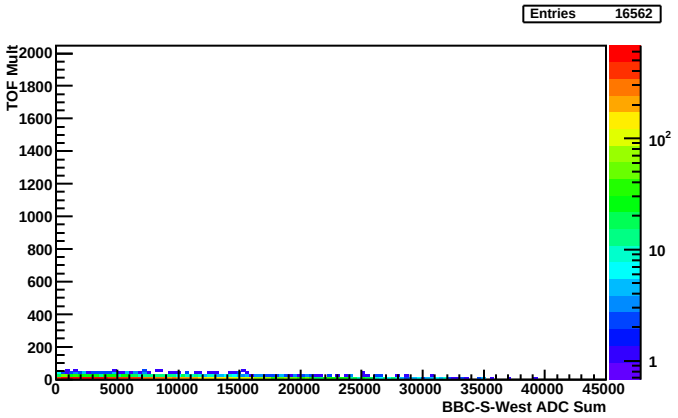

BBQ-VP004 (HI threshold)
Entries 264992
ADC
QT Input Channel

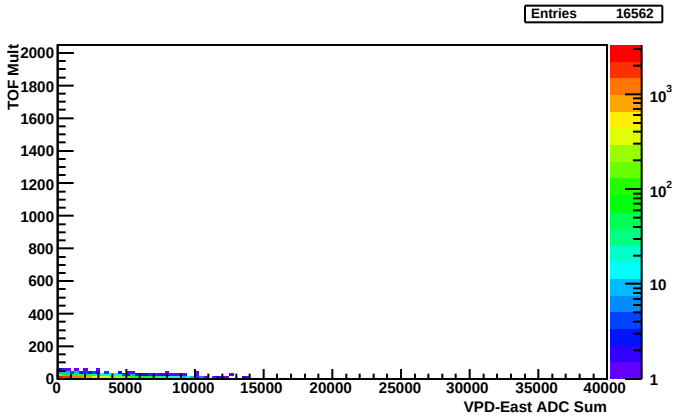

BBQ-VP004 (HI threshold)
Entries 264992
TAC
QT Input Channel

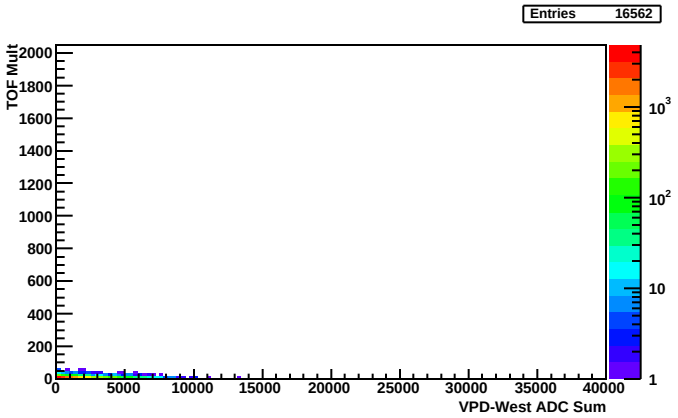

Entries 16562
TOF Mult
BBC-L-East ADC Sum

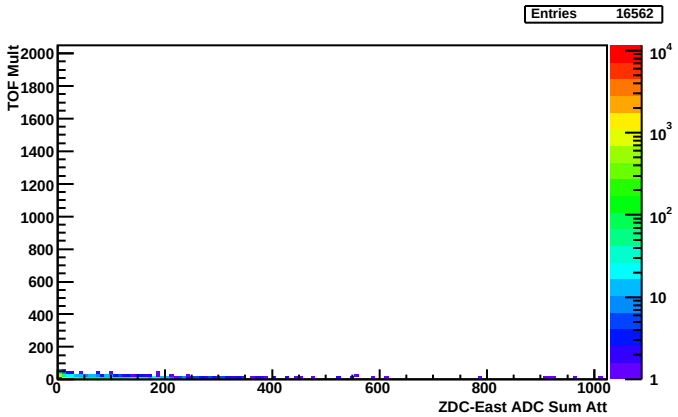

Entries 16562
TOF Mult
BBC-L-West ADC Sum

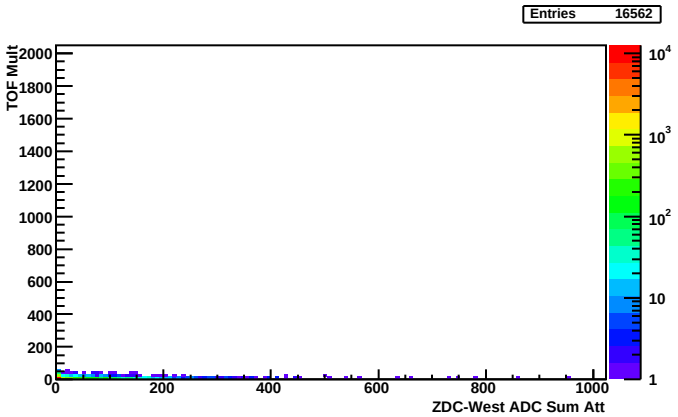

Entries 16562
TOF Mult
BBC-S-East ADC Sum

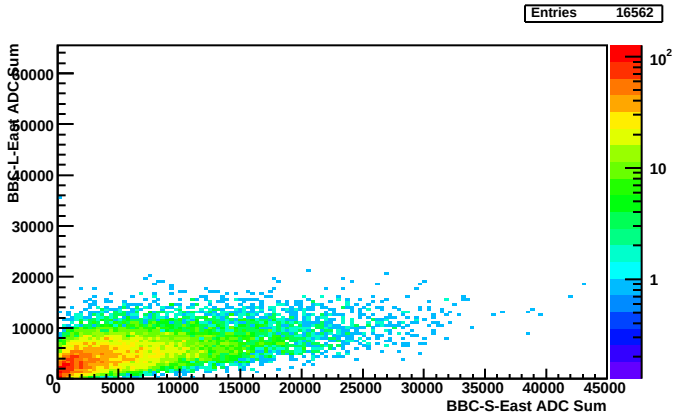

Entries 16562
TOF Mult
BBC-S-West ADC Sum

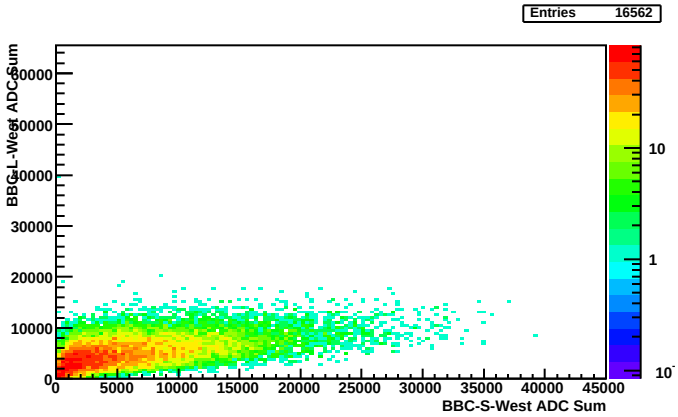

Entries 16562
TOF Mult
VPD-East ADC Sum

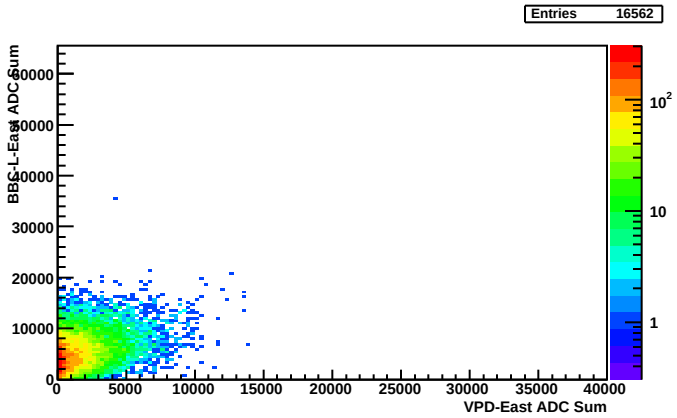

Entries 16562
TOF Mult
VPD-West ADC Sum

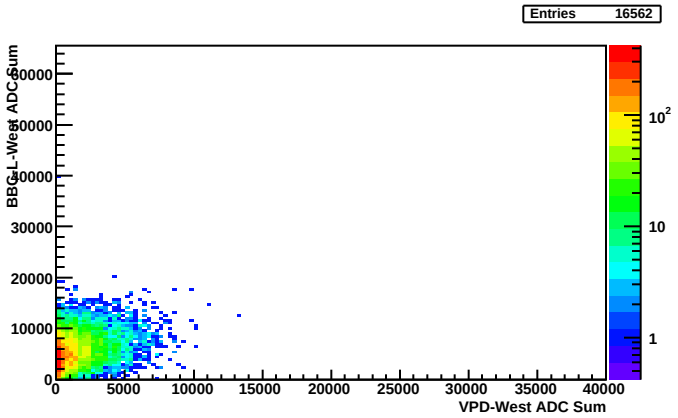

Entries 16562
TOF Mult
ZDC-East ADC Sum Att

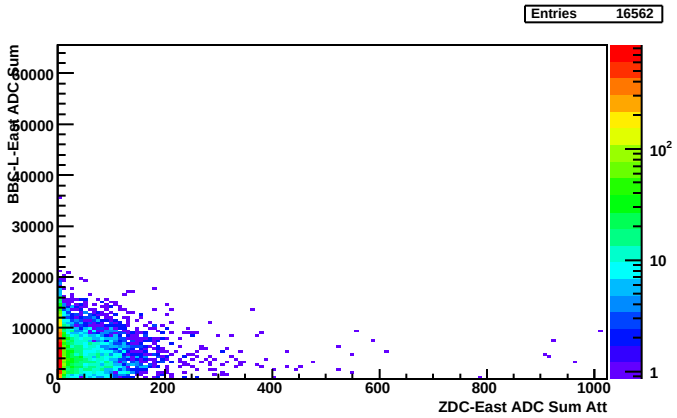

Entries 16562
TOF Mult
ZDC-West ADC Sum Att

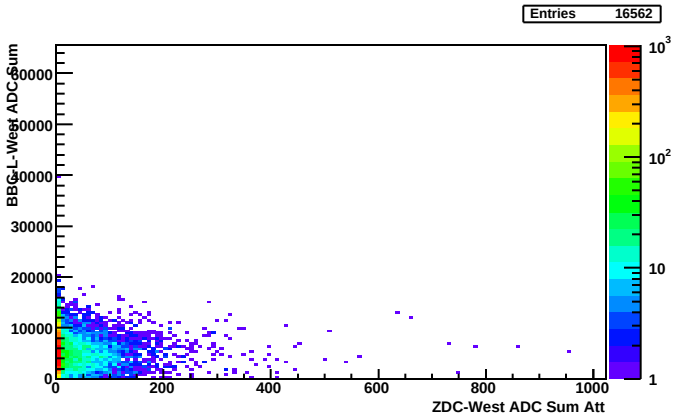

Entries 16562
BBC-L-East ADC Sum
BBC-S-East ADC Sum

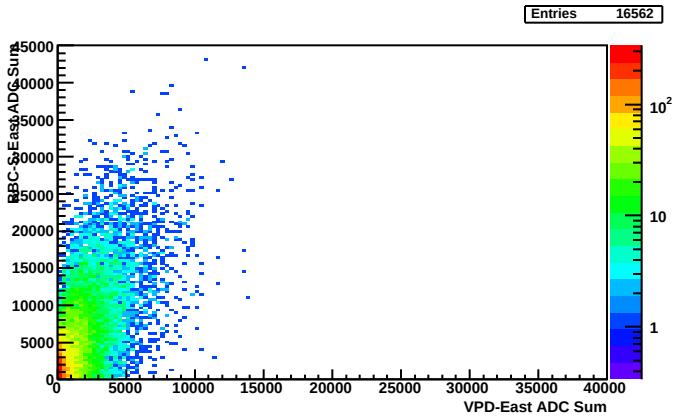

Entries 16562
BBC-L-West ADC Sum
BBC-S-West ADC Sum

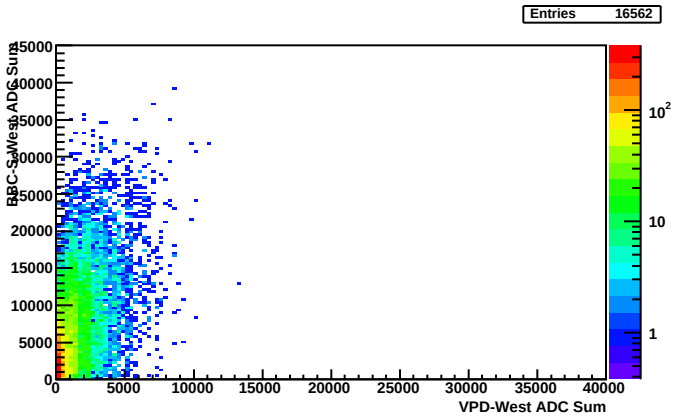

Entries 16562
BBC-L-East ADC Sum
VPD-East ADC Sum

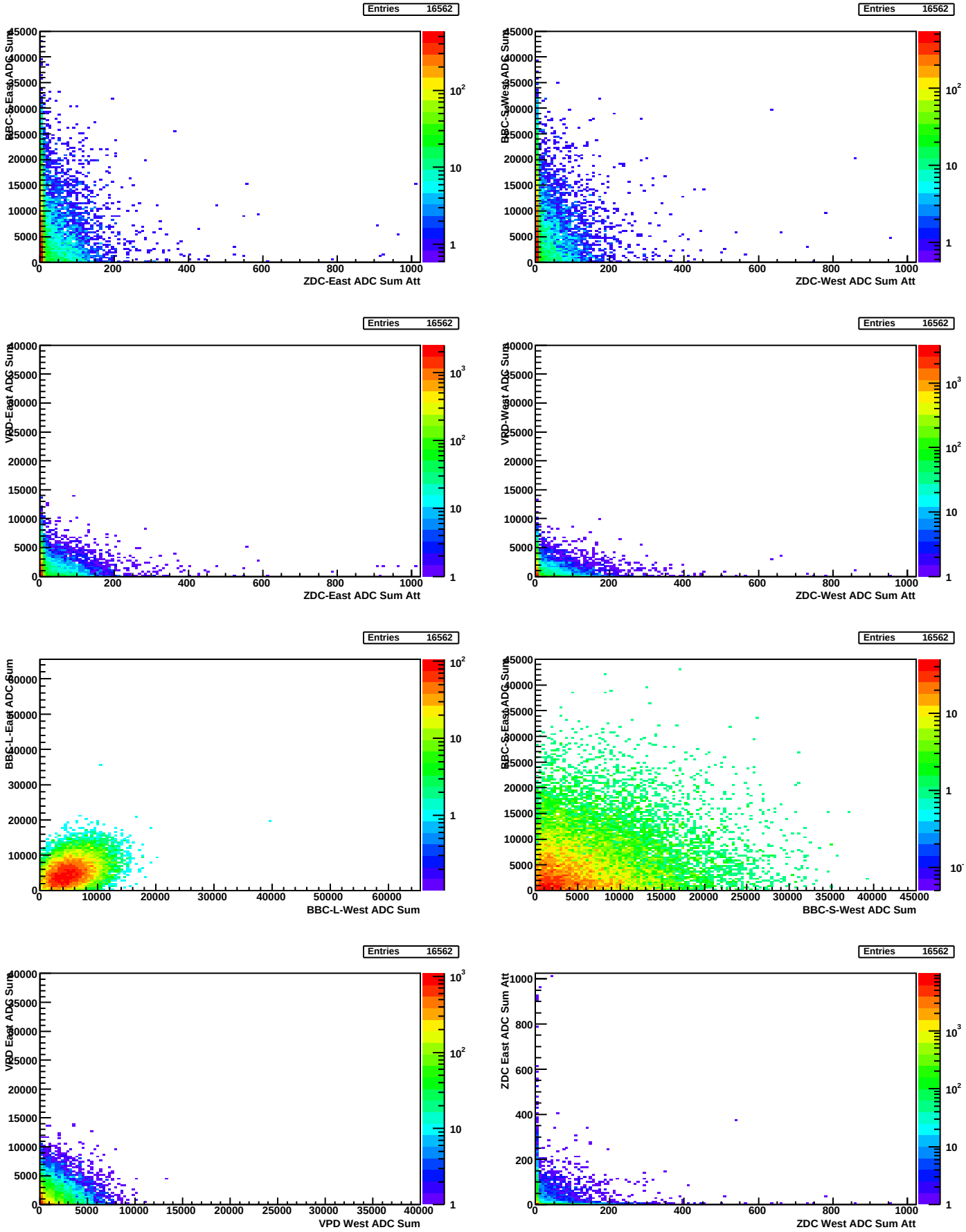

Entries 16562
BBC-L-West ADC Sum
VPD-West ADC Sum

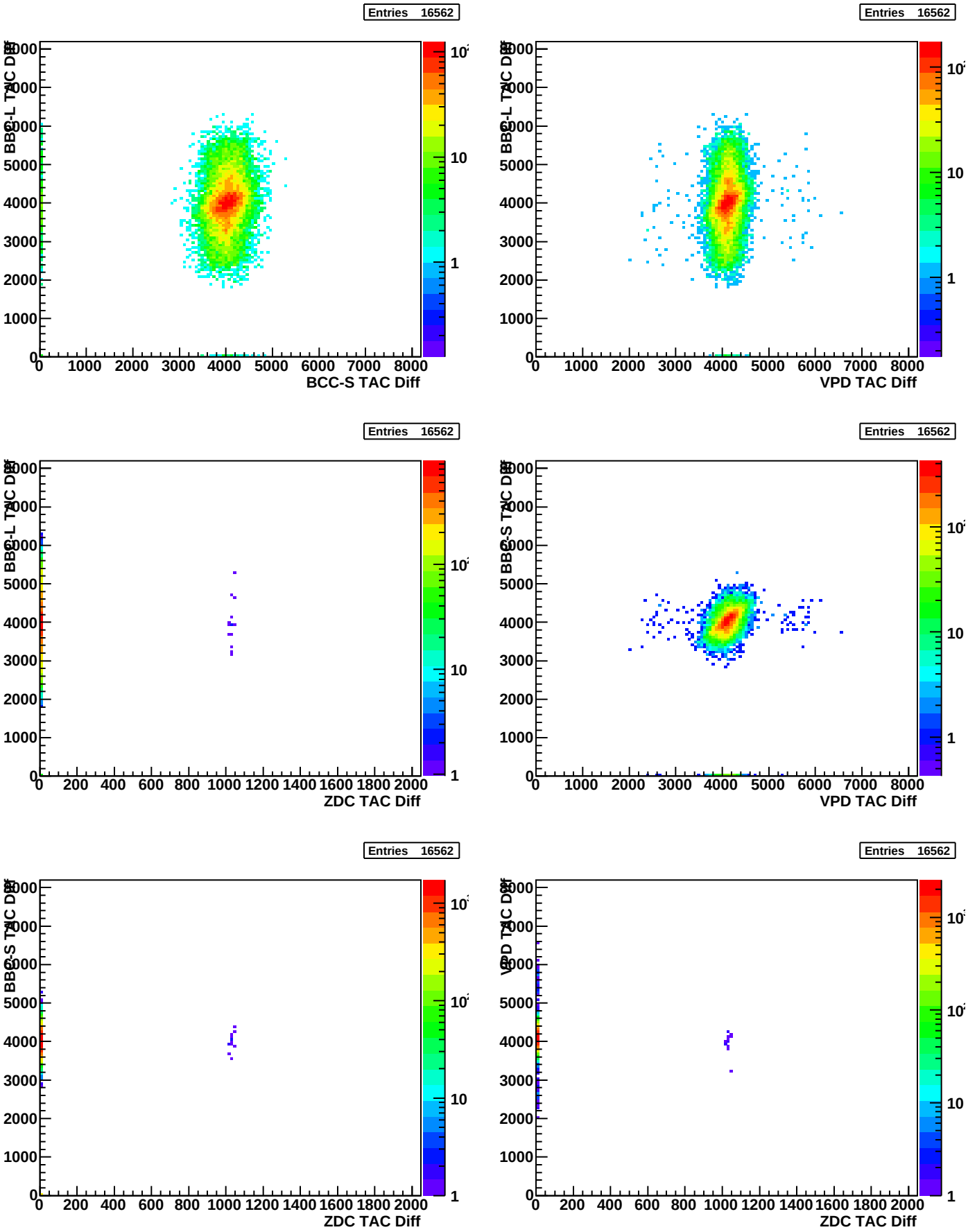

Entries 16562
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

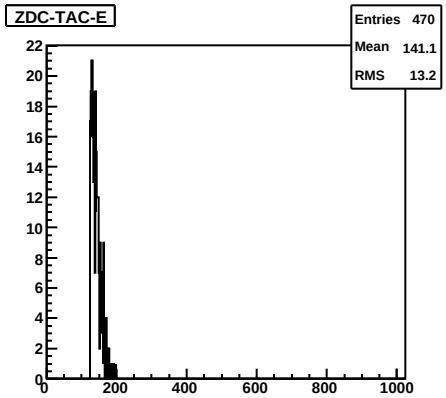

Entries 16562
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

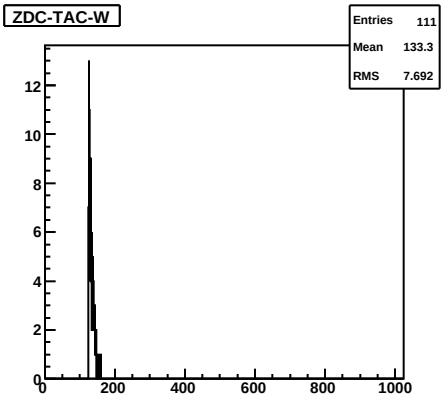

Entries 16562
BBC-S-East ADC Sum
VPD-East ADC Sum

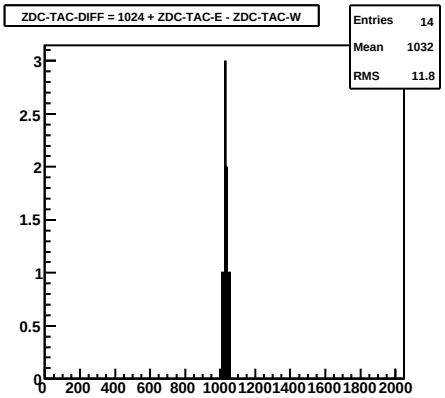

Entries 16562
BBC-S-West ADC Sum
VPD-West ADC Sum

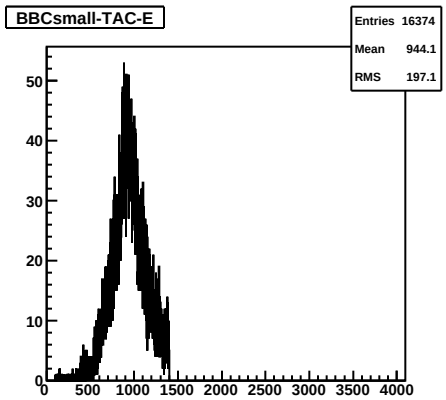

Entries 16562
BBC-S-East ADC Sum
ZDC-East ADC Sum Att
Entries 16562
BBC-S-West ADC Sum
ZDC-West ADC Sum Att
Entries 16562
VPD-East ADC Sum
ZDC-East ADC Sum Att
Entries 16562
VPD-West ADC Sum
ZDC-West ADC Sum Att
Entries 16562
BBC-L-East ADC Sum
BBC-L-West ADC Sum
Entries 16562
BBC-S-East ADC Sum
BBC-S-West ADC Sum
Entries 16562
VPD East ADC Sum
VPD West ADC Sum
Entries 16562
ZDC East ADC Sum Att
ZDC West ADC Sum Att

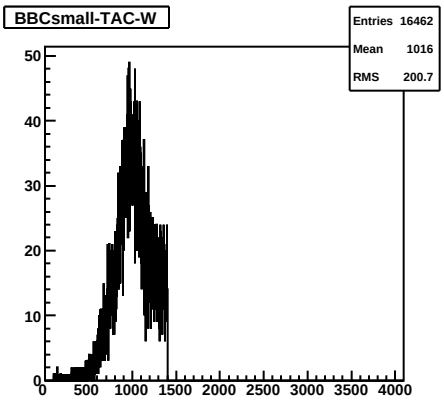

Entries 16562
BBC-L TAC Diff
BCC-S TAC Diff
Entries 16562
BBC-L TAC Diff
VPD TAC Diff
Entries 16562
BBC-L TAC Diff
ZDC TAC Diff
Entries 16562
BBC-S TAC Diff
VPD TAC Diff
Entries 16562
BBC-S TAC Diff
ZDC TAC Diff
Entries 16562
VPD TAC Diff
ZDC TAC Diff

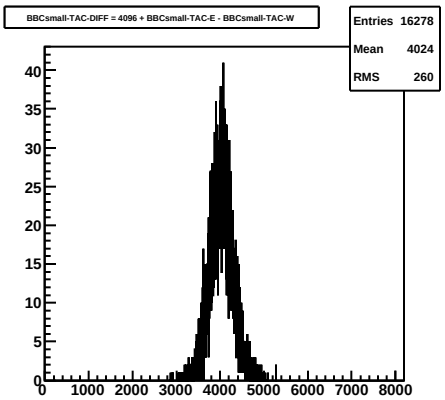

ZDC-TAC-E
Entries 470
Mean 141.1
RMS 13.2

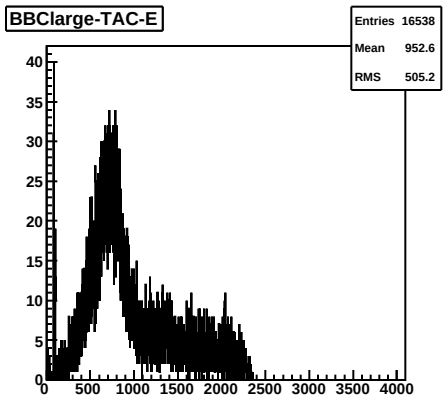

ZDC-TAC-W
Entries 111
Mean 133.3
RMS 7.692

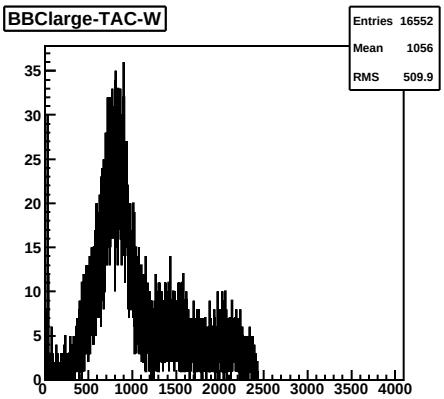

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 14
Mean 1032
RMS 11.8

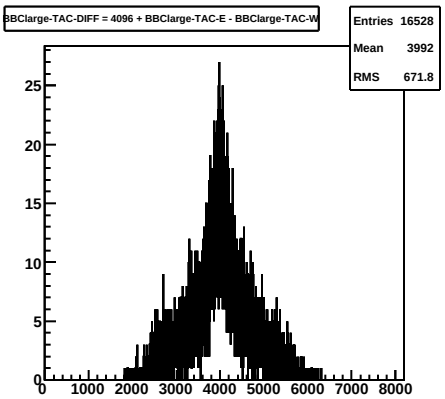

BBCsmall-TAC-E
Entries 16374
Mean 944.1
RMS 197.1

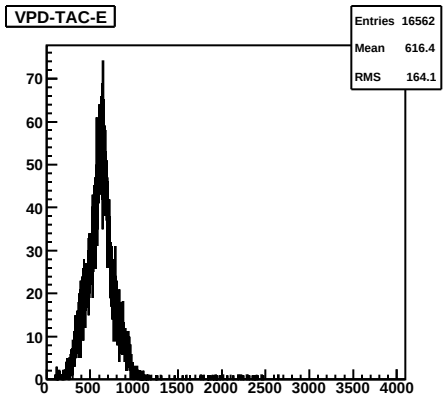

BBCsmall-TAC-W
Entries 16462
Mean 1016
RMS 200.7

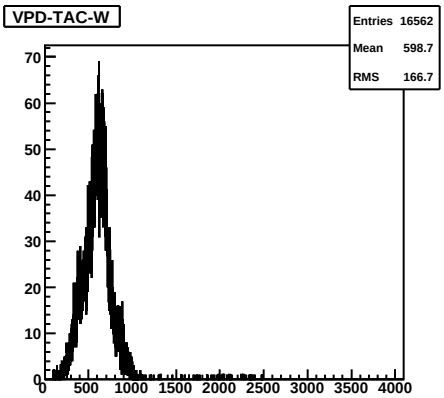

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 16278
Mean 4024
RMS 260

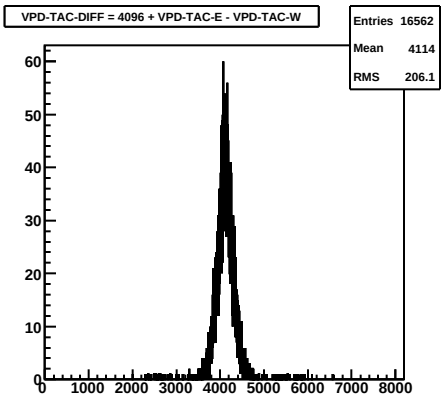

BBClarge-TAC-E
Entries 16538
Mean 952.6
RMS 505.2

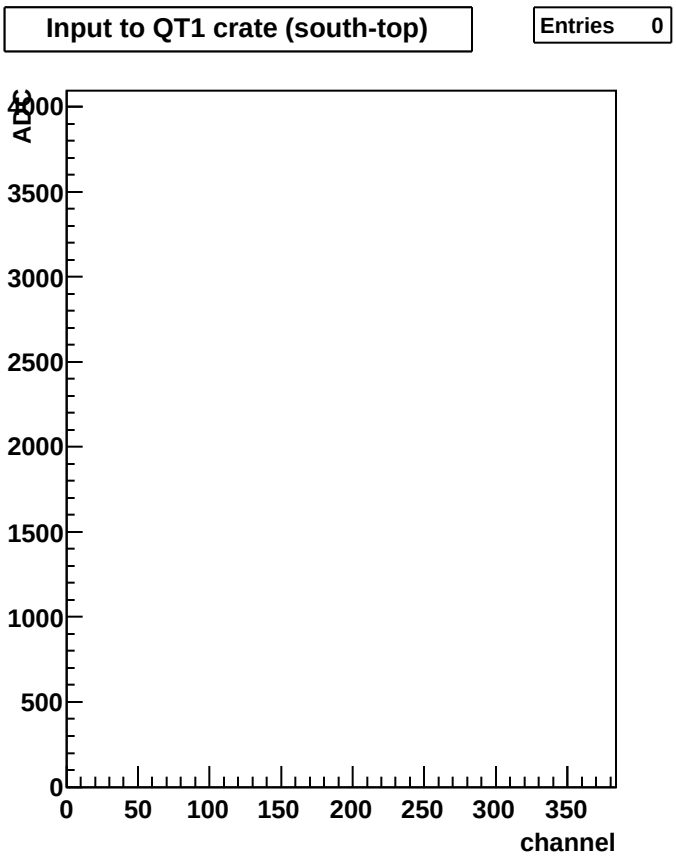

BBClarge-TAC-W
Entries 16552
Mean 1056
RMS 509.9

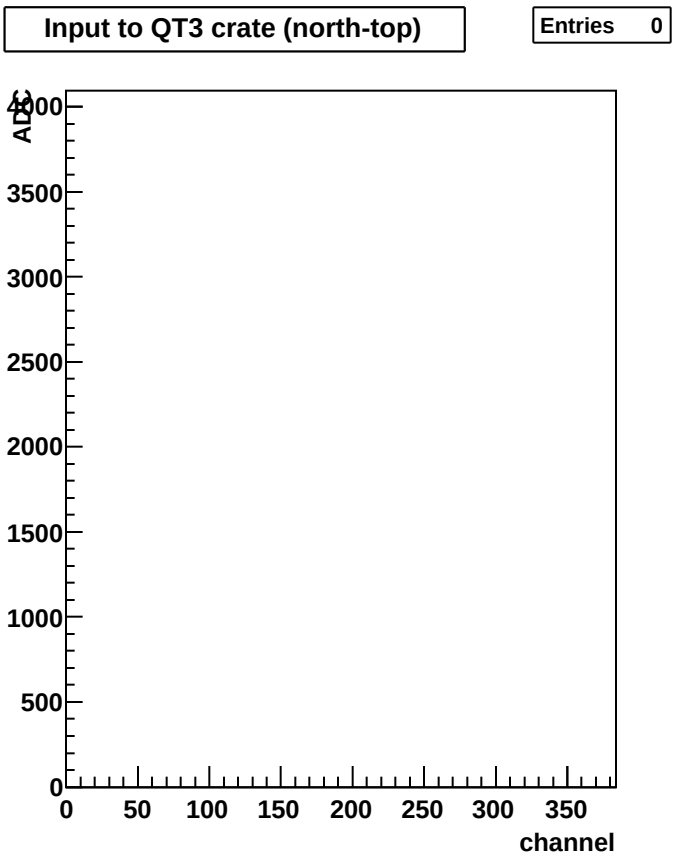

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 16528
Mean 3992
RMS 671.8

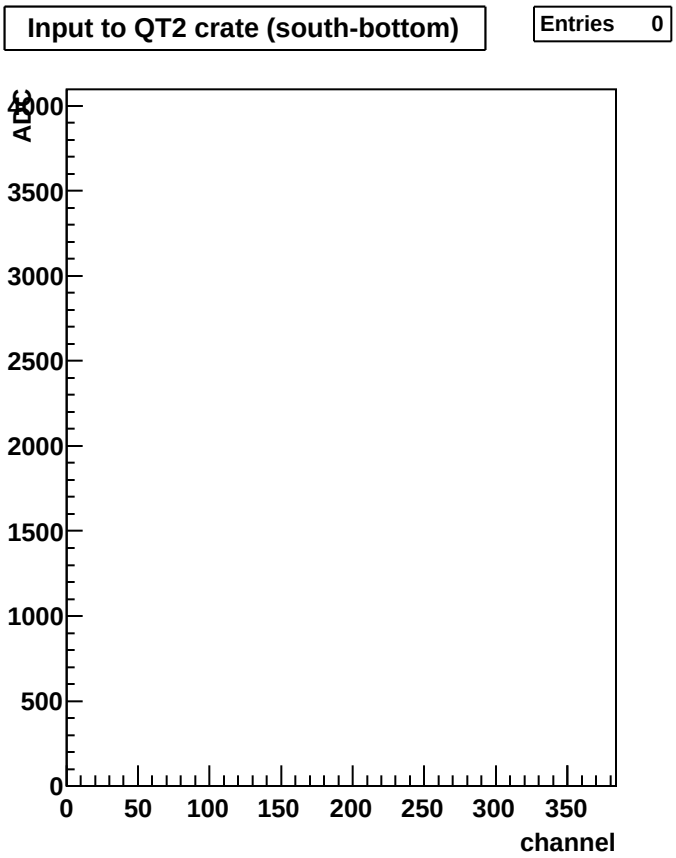

VPD-TAC-E
Entries 16562
Mean 616.4
RMS 164.1

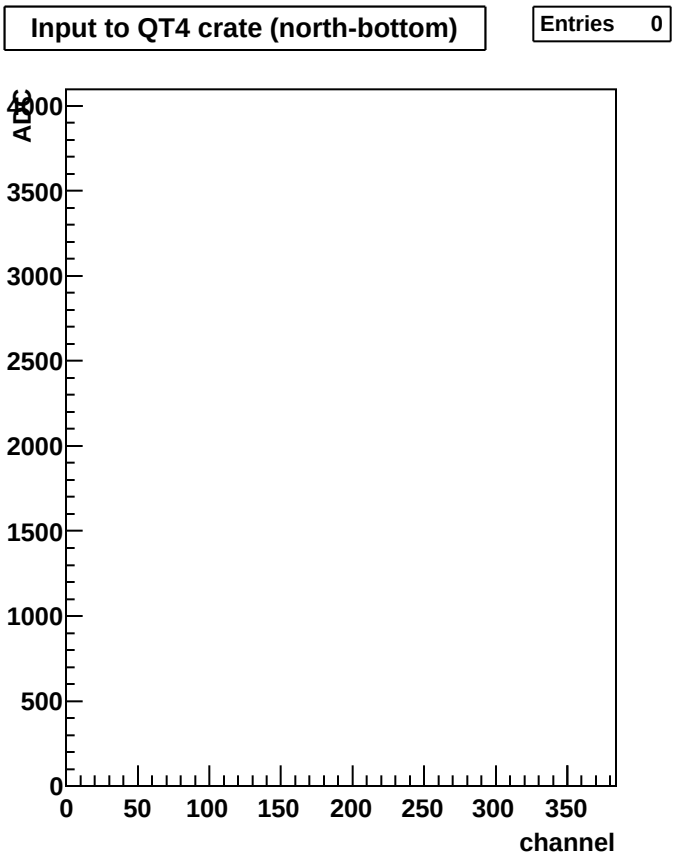

VPD-TAC-W
Entries 16562
Mean 598.7
RMS 166.7

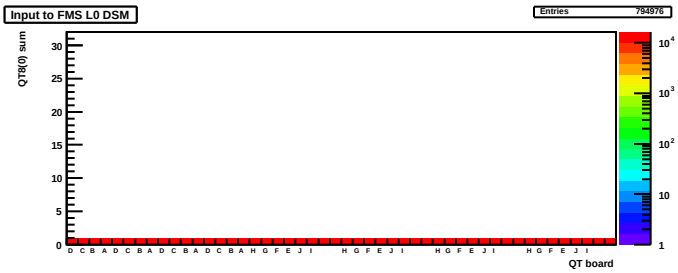

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 16562
Mean 4114
RMS 206.1

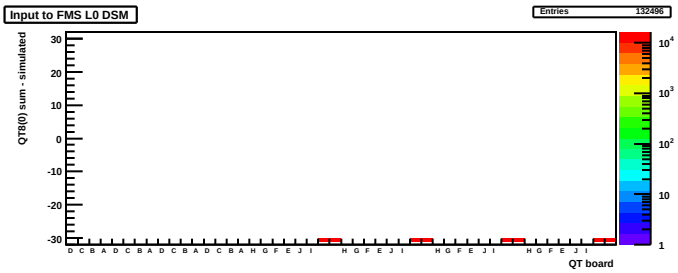

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

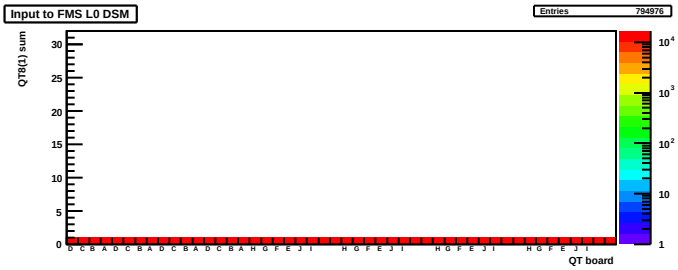

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

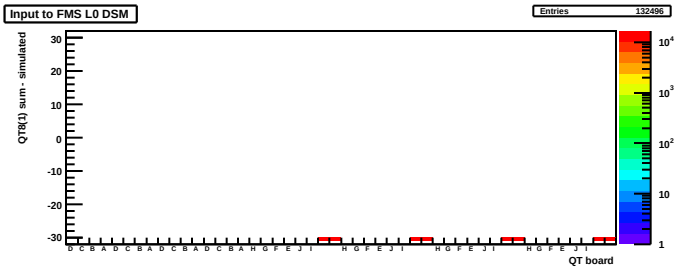

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

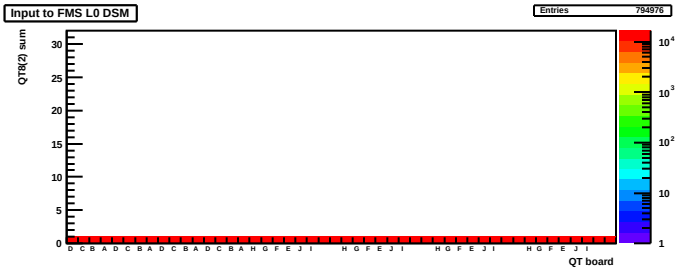

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

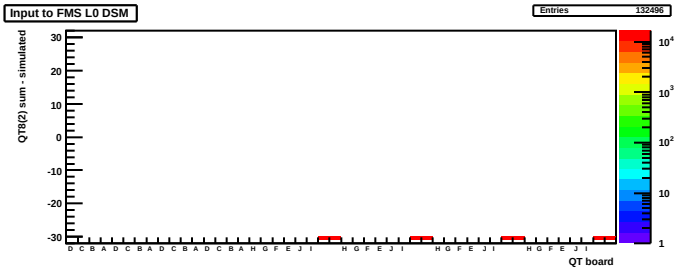

Input to FMS L0 DSM
Entries 794976
QT8(0) sum
QT board

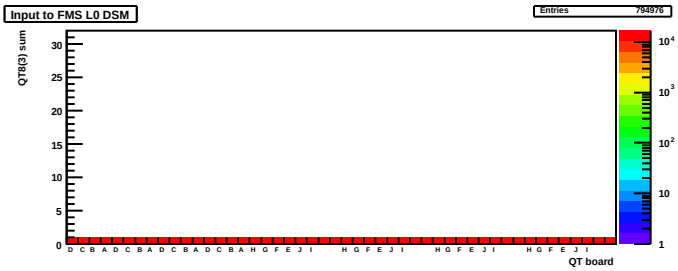

Input to FMS L0 DSM
Entries 132496
QT8(0) sum - simulated
QT board

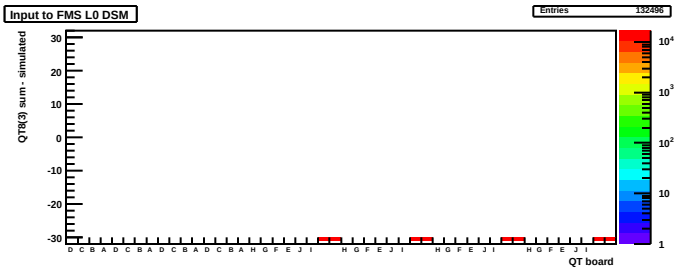

Input to FMS L0 DSM
Entries 794976
QT8(1) sum
QT board

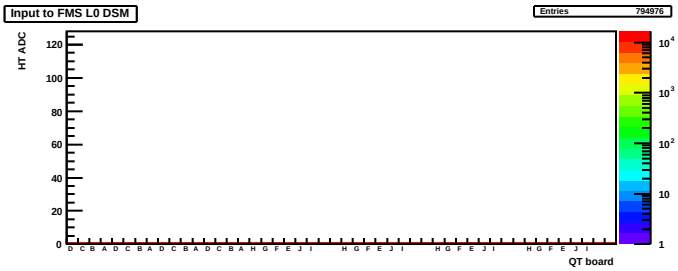

Input to FMS L0 DSM
Entries 132496
QT8(1) sum - simulated
QT board

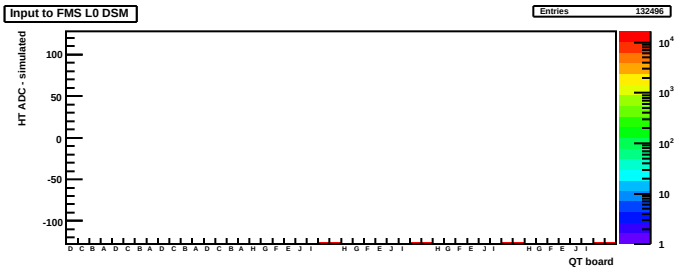

Input to FMS L0 DSM
Entries 794976
QT8(2) sum
QT board

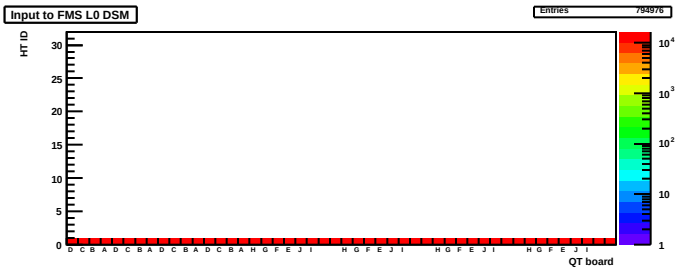

Input to FMS L0 DSM
Entries 132496
QT8(2) sum - simulated
QT board

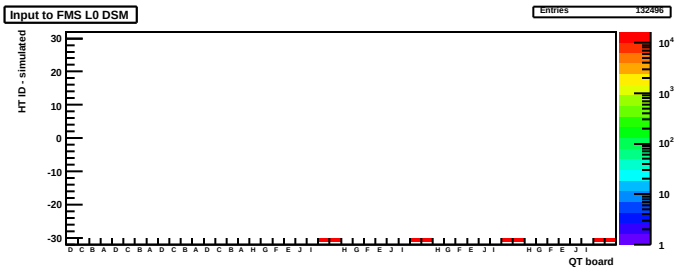

Input to FMS L0 DSM
Entries 794976
QT8(3) sum
QT board

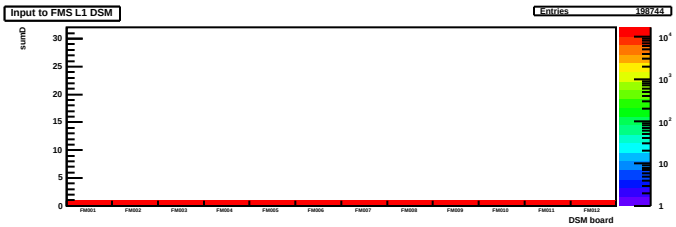

Input to FMS L0 DSM
Entries 132496
QT8(3) sum - simulated
QT board

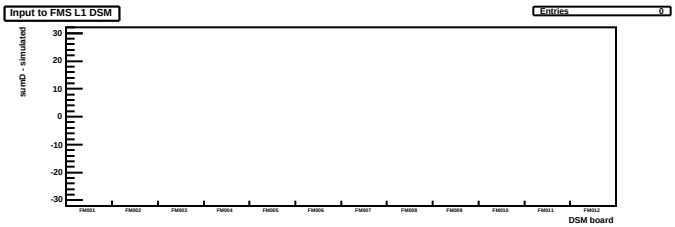

Input to FMS L0 DSM
Entries 794976
HT ADC
QT board

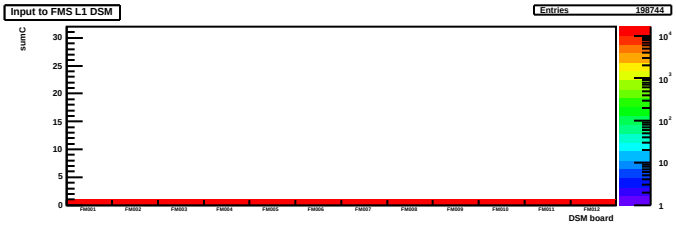

Input to FMS L0 DSM
Entries 132496
HT ADC - simulated
QT board

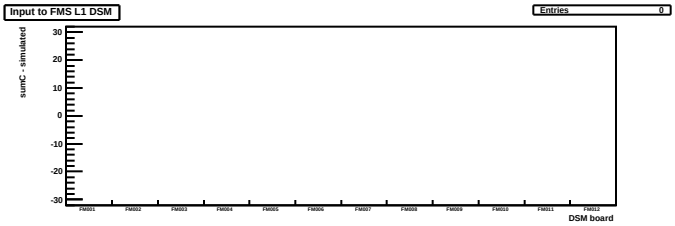

Input to FMS L0 DSM
Entries 794976
HT ID
QT board

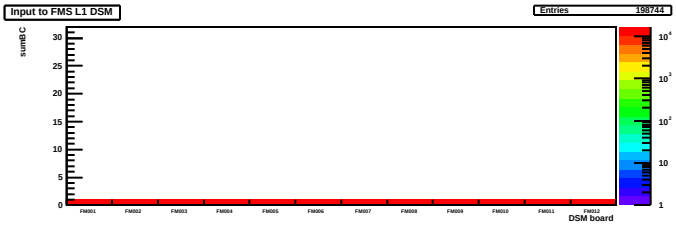

Input to FMS L0 DSM
Entries 132496
HT ID - simulated
QT board

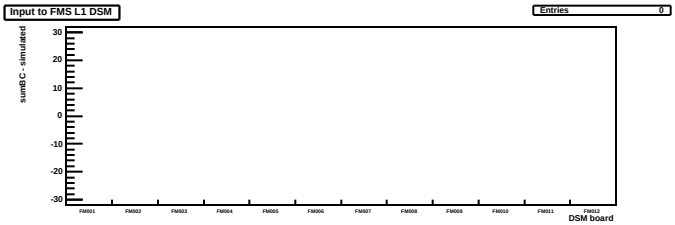

Input to FMS L1 DSM
Entries 198744
sumD
DSM board

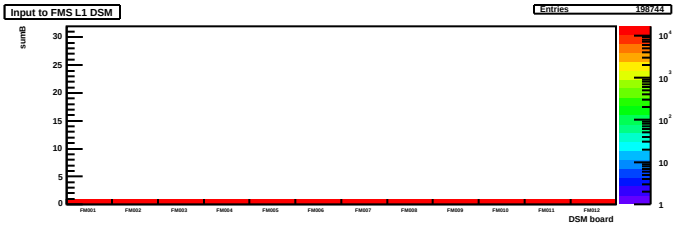

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

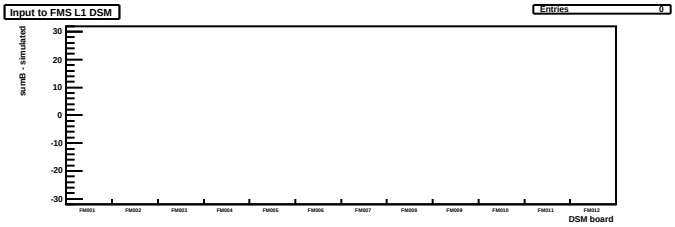

Input to FMS L1 DSM
Entries 198744
sumC
DSM board

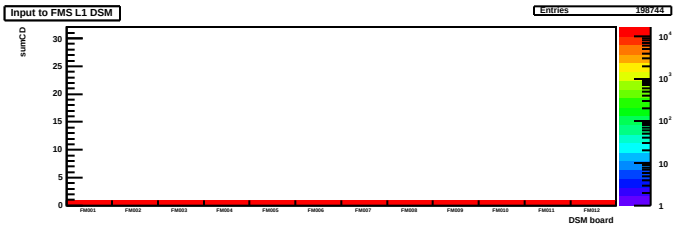

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

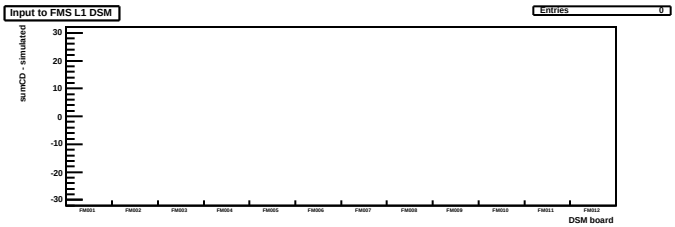

Input to FMS L1 DSM
Entries 198744
sumBC
DSM board

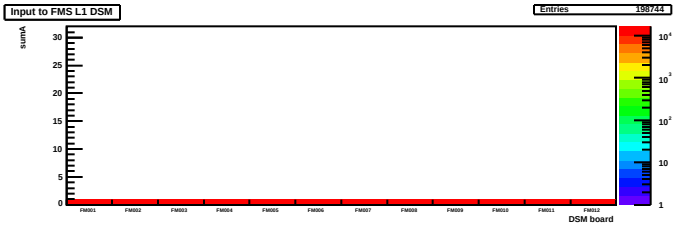

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

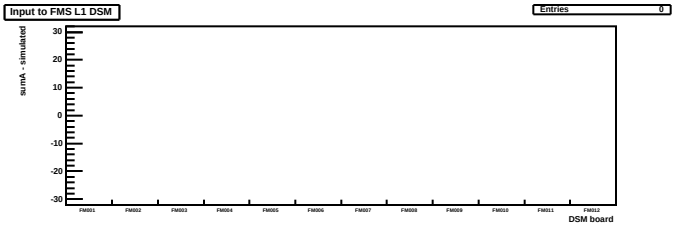

Input to FMS L1 DSM
Entries 198744
sumB
DSM board

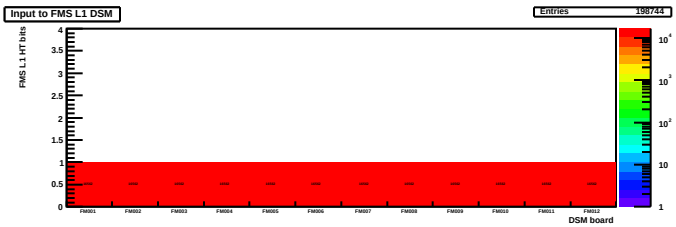

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

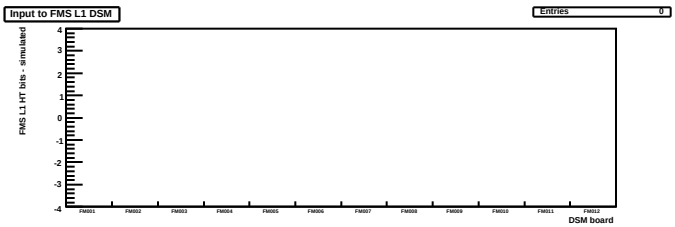

Input to FMS L1 DSM
Entries 198744
sumCD
DSM board

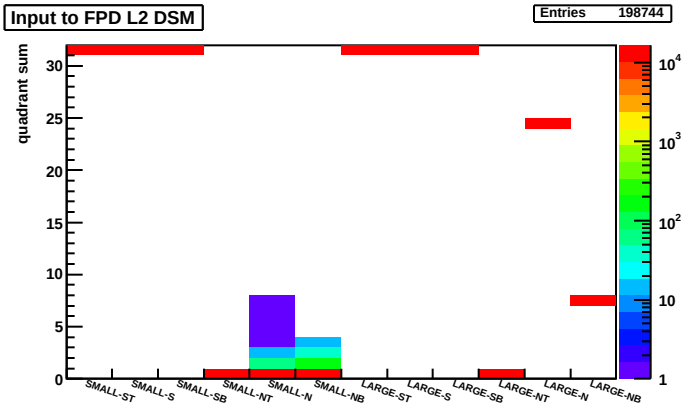

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

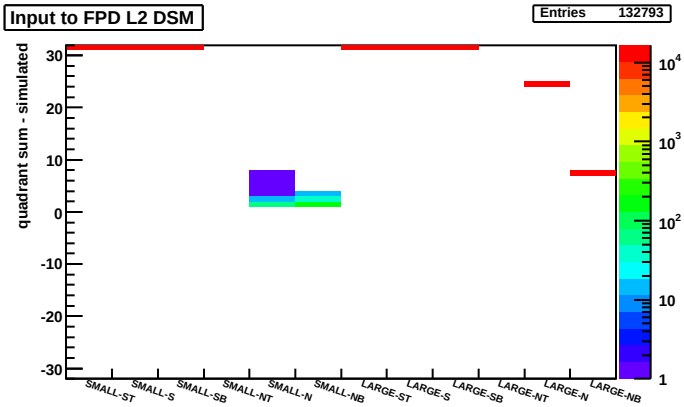

Input to FMS L1 DSM
Entries 198744
sumA
DSM board

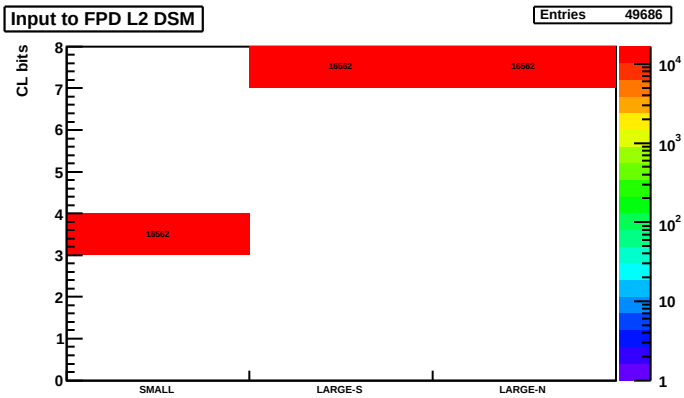

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

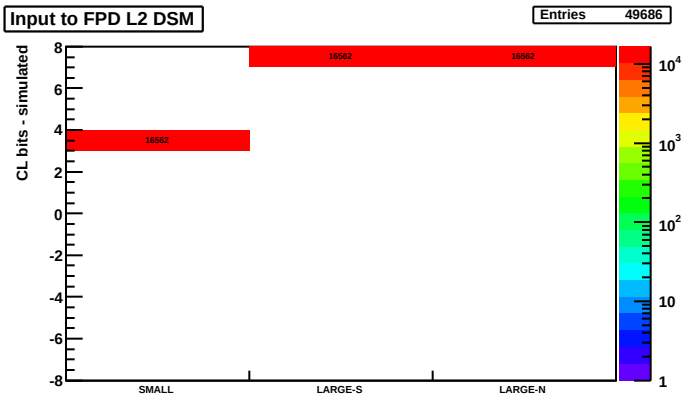

Input to FMS L1 DSM
Entries 198744
FMS L1 HT bits
DSM board

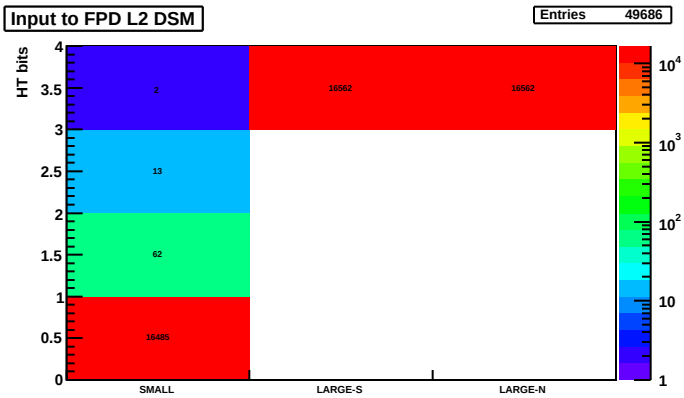

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

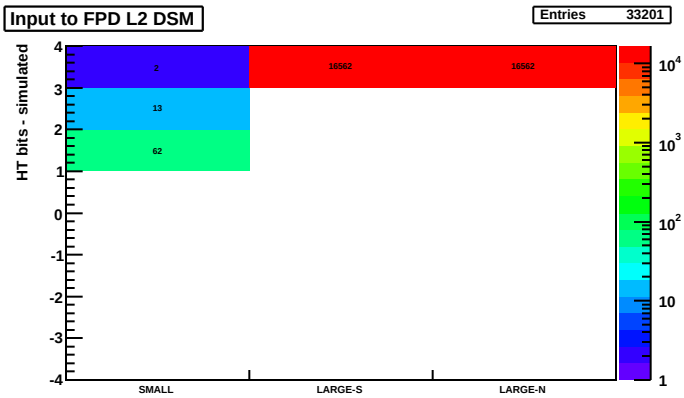

Input to FPD L2 DSM
Entries 198744
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

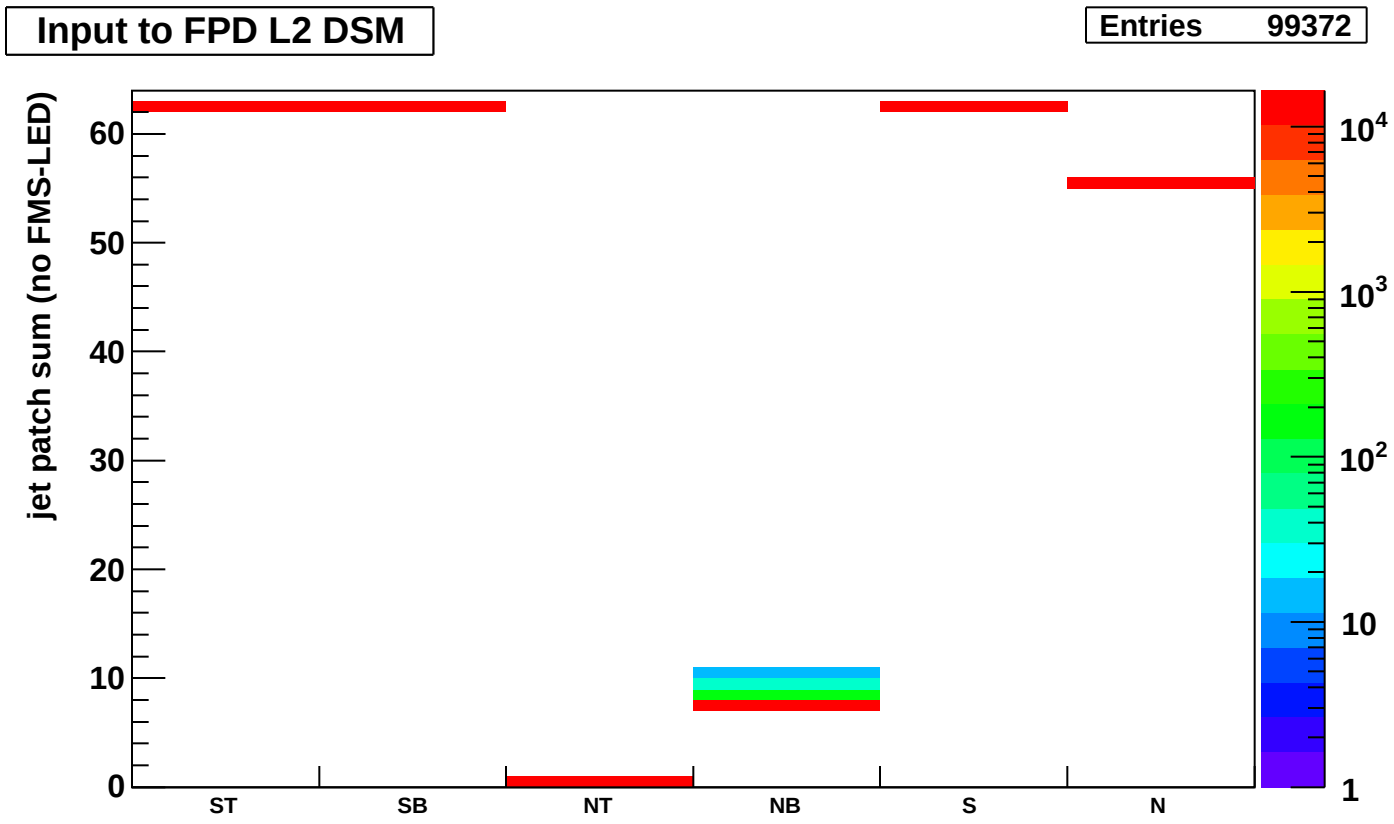

Input to FPD L2 DSM
Entries 132793
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

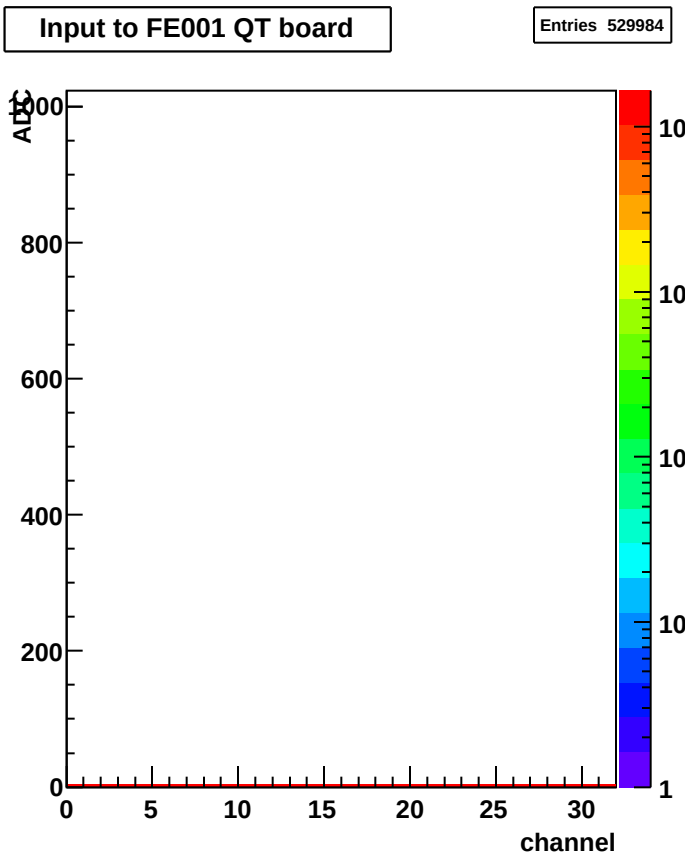

Input to FPD L2 DSM
Entries 49686
CL bits
16562
16562
16562
SMALL
LARGE-S
LARGE-N

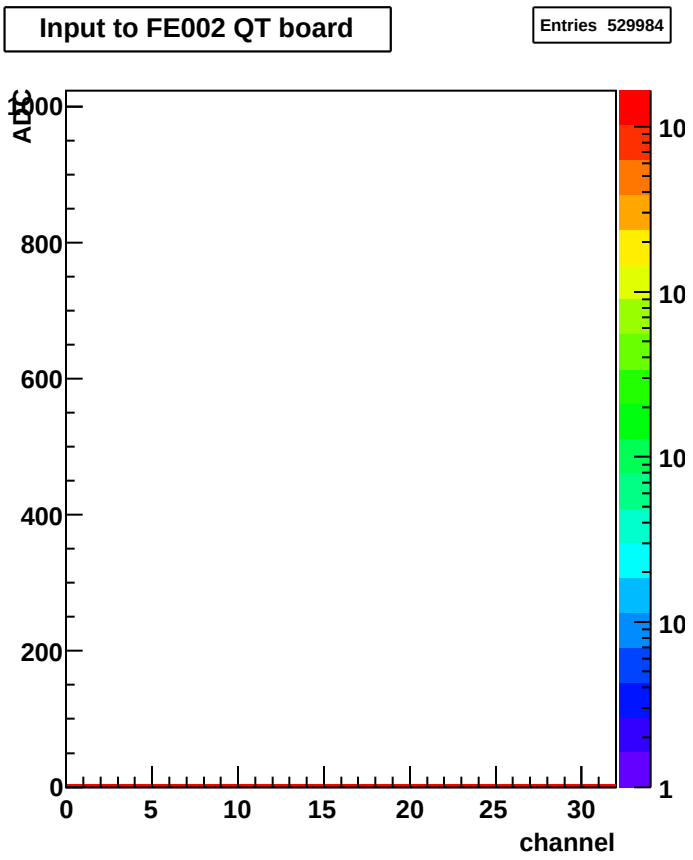

Input to FPD L2 DSM
Entries 49686
CL bits - simulated
16562
16562
16562
SMALL
LARGE-S
LARGE-N

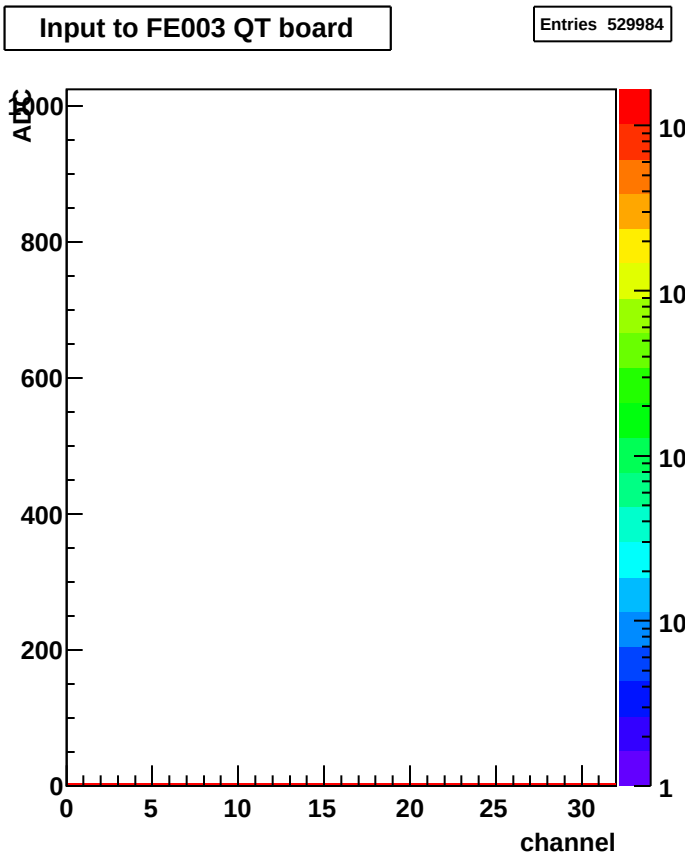

Input to FPD L2 DSM
Entries 49686
HT bits
2
13
62
16485
16562
16562
SMALL
LARGE-S
LARGE-N

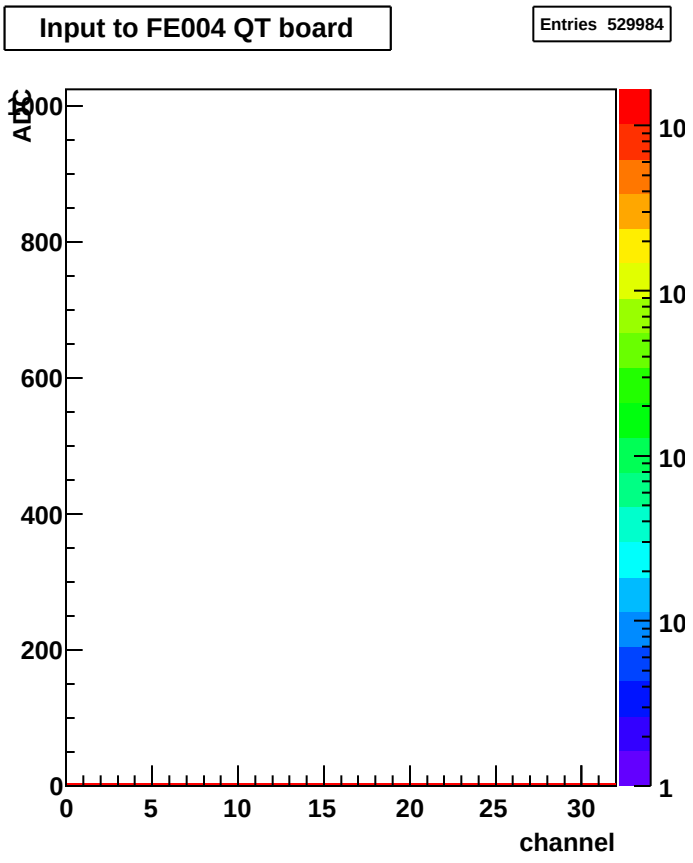

Input to FPD L2 DSM
Entries 33201
HT bits - simulated
2
13
62
16562
16562
SMALL
LARGE-S
LARGE-N

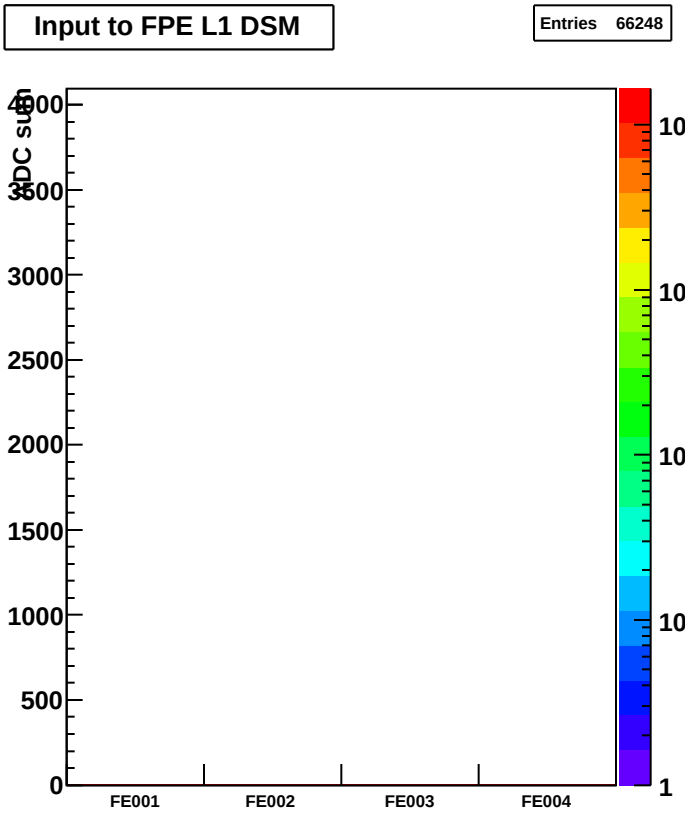

Input to FPD L2 DSM
Entries 99372
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

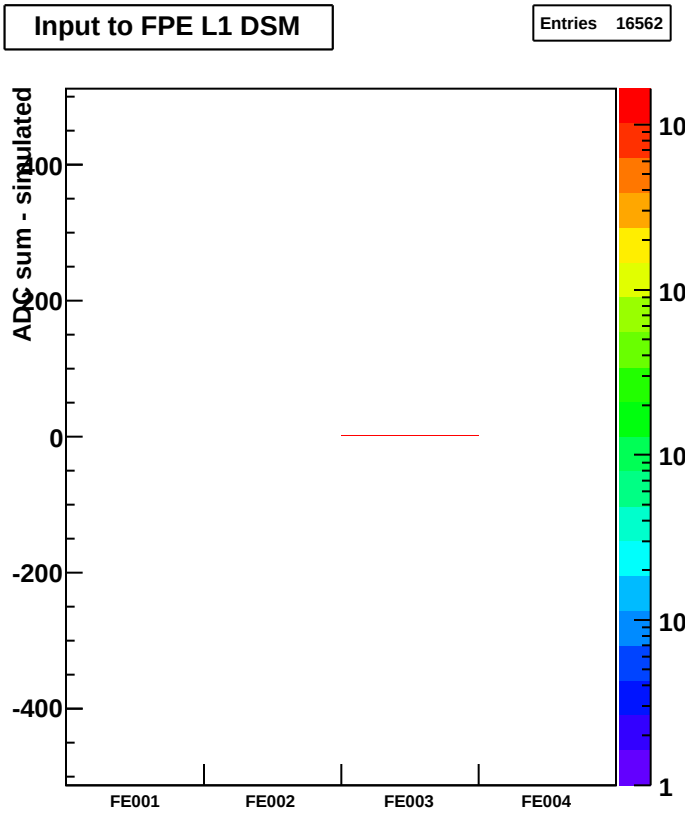

Input to FE001 QT board
Entries 529984
ADC
channel

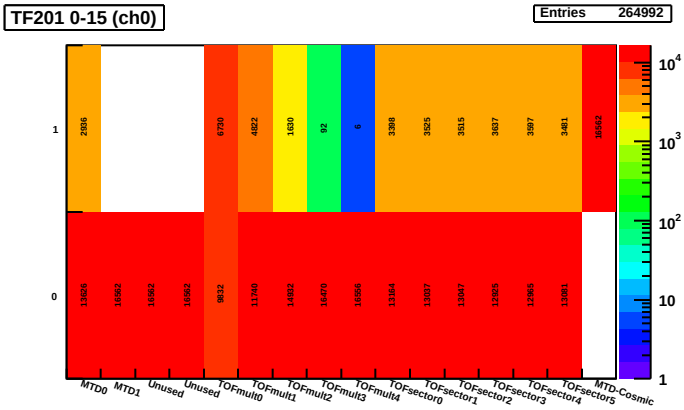

Input to FE002 QT board
Entries 529984
ADC
channel

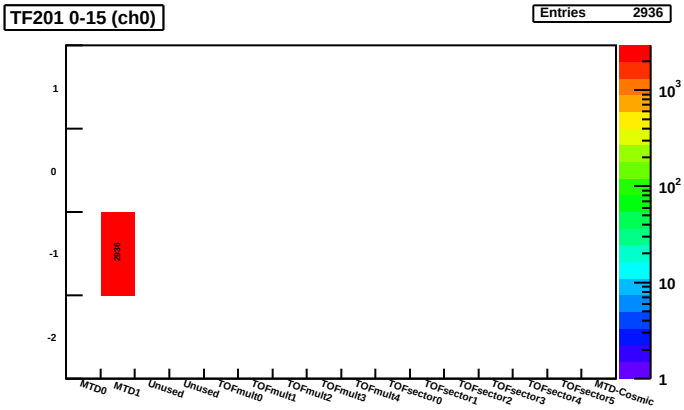

Input to FE003 QT board
Entries 529984
ADC
channel

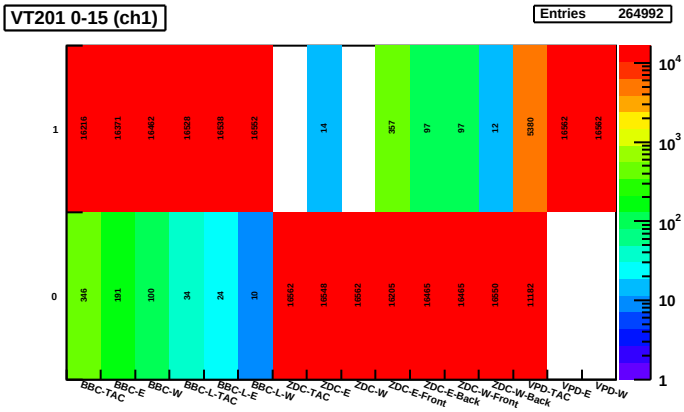

Input to FE004 QT board
Entries 529984
ADC
channel

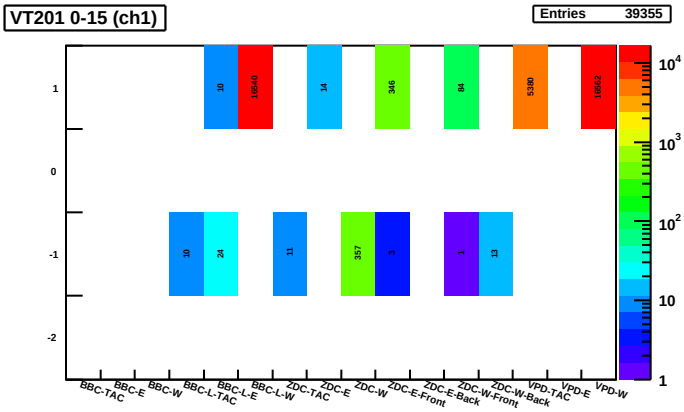

Input to FPE L1 DSM
Entries 66248
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

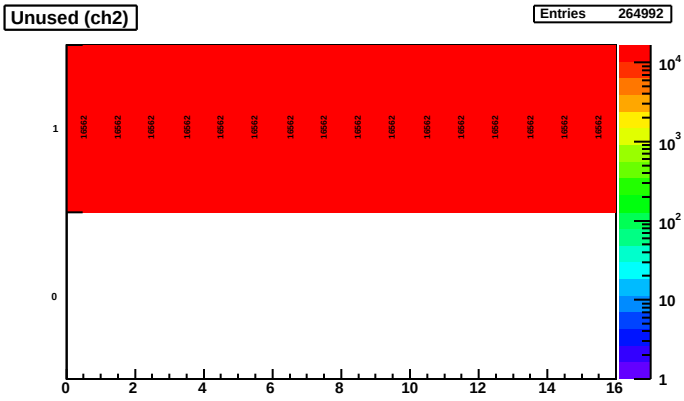

Input to FPE L1 DSM
Entries 16562
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

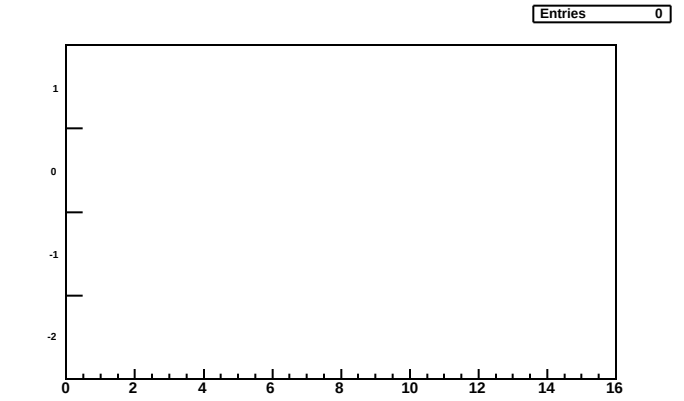

TF201 0-15 (ch0)
Entries 264992
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

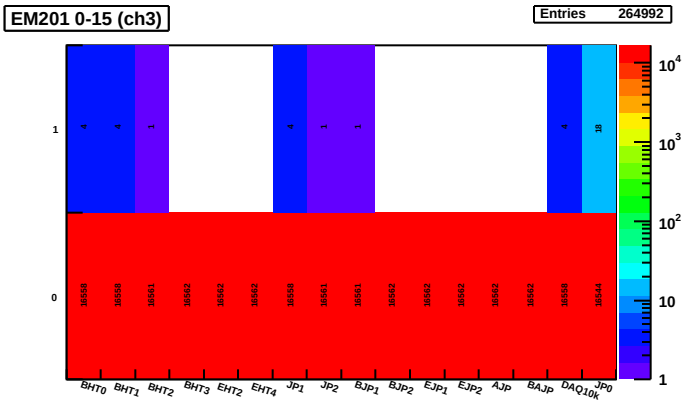

TF201 0-15 (ch0)
Entries 2936
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

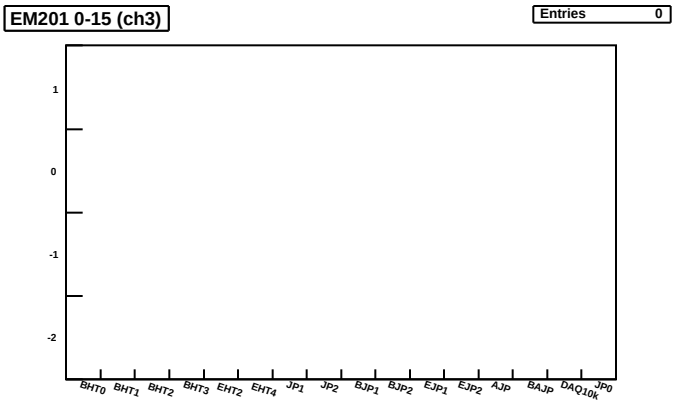

VT201 0-15 (ch1)
Entries 264992
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 39355
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

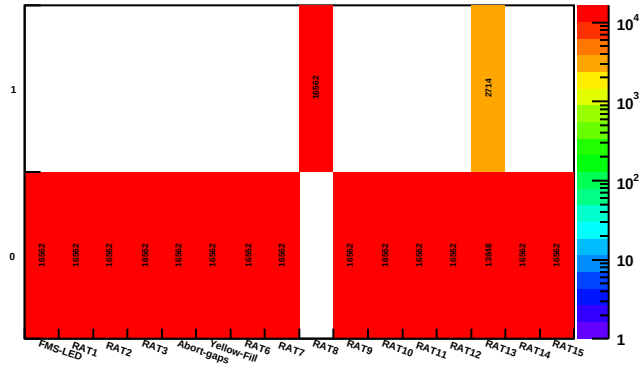

Unused (ch2)
Entries 264992

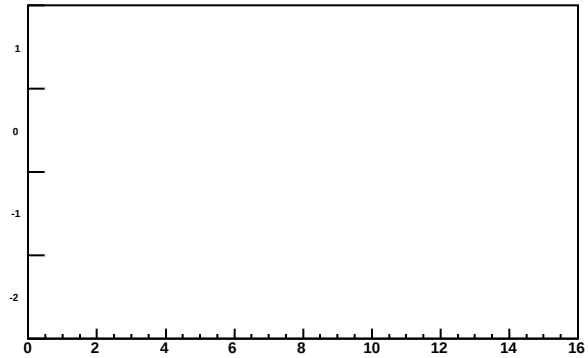

Entries 0


EM201 0-15 (ch3)
Entries 264992
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

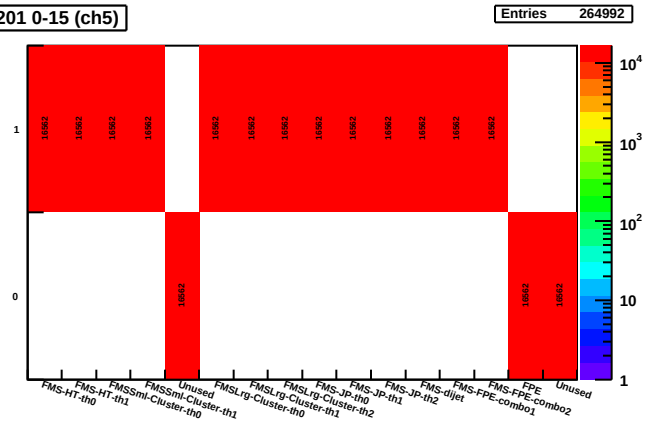

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

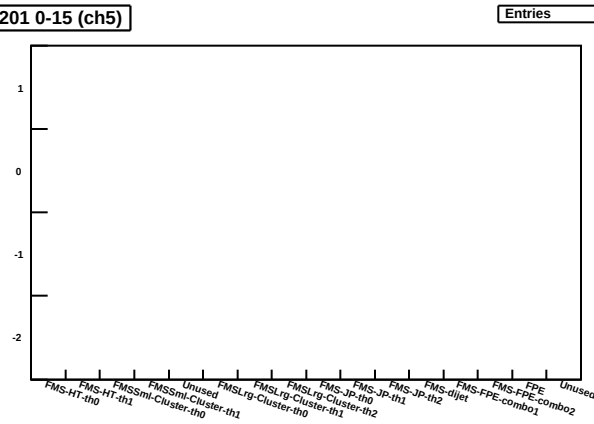




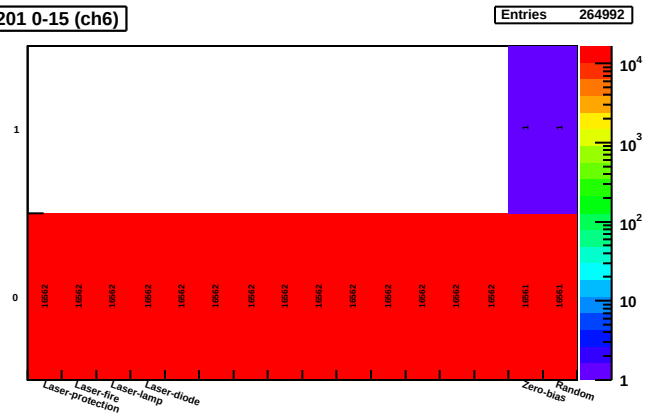
FP201 0-15 (ch5)

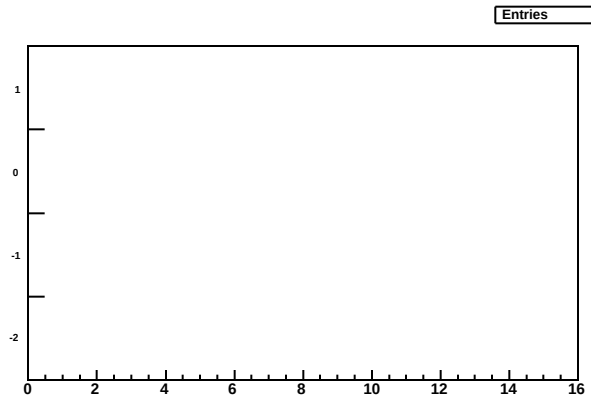
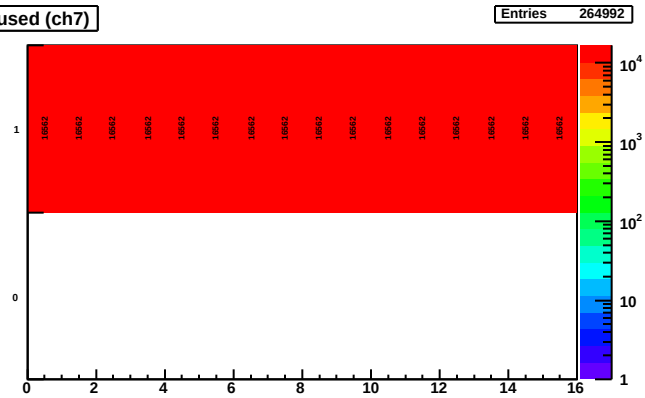
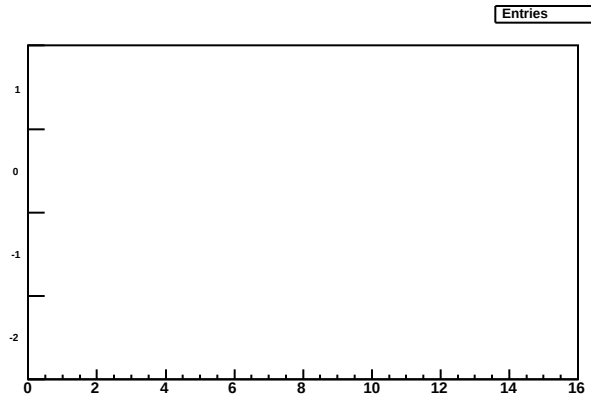


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)