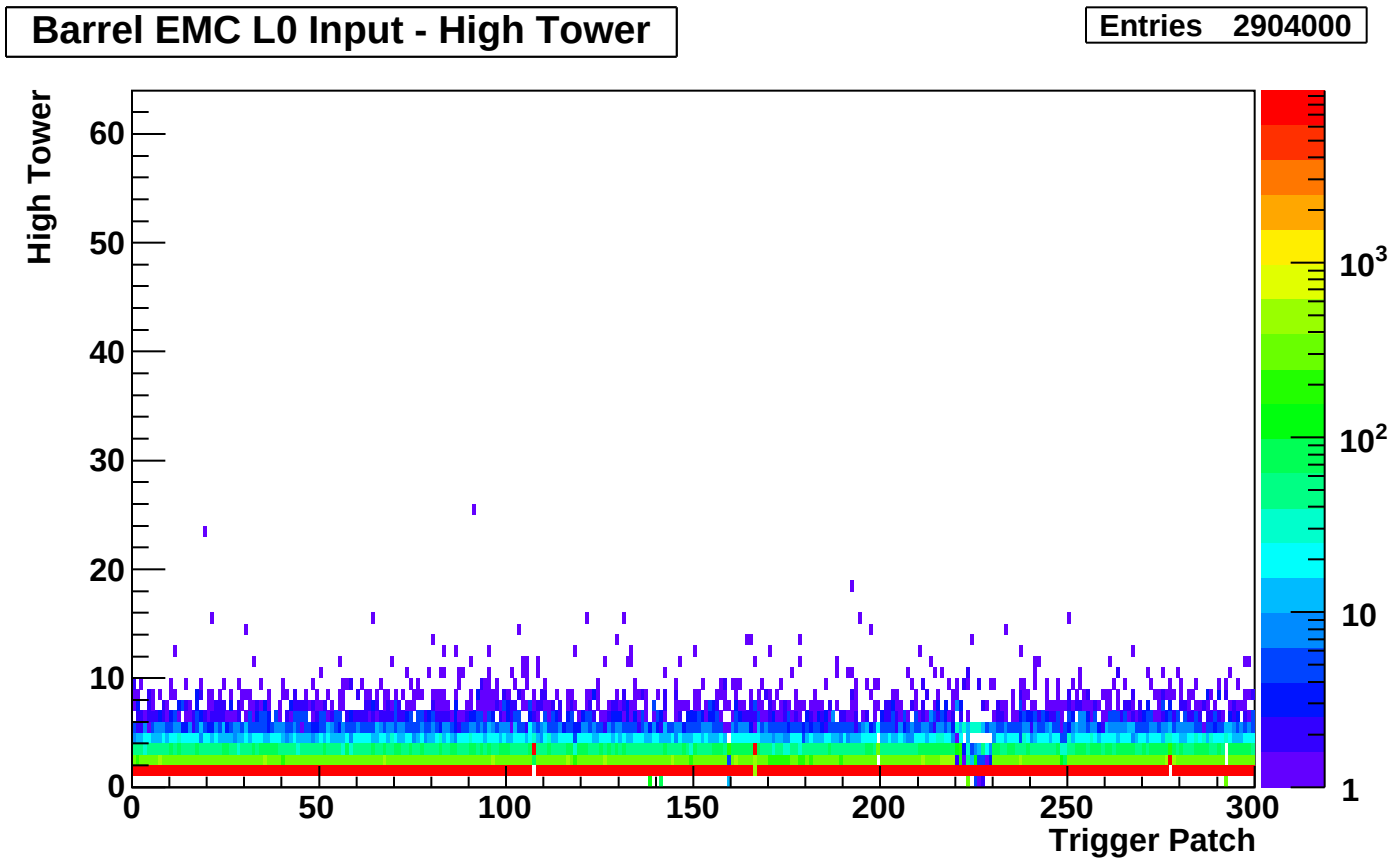
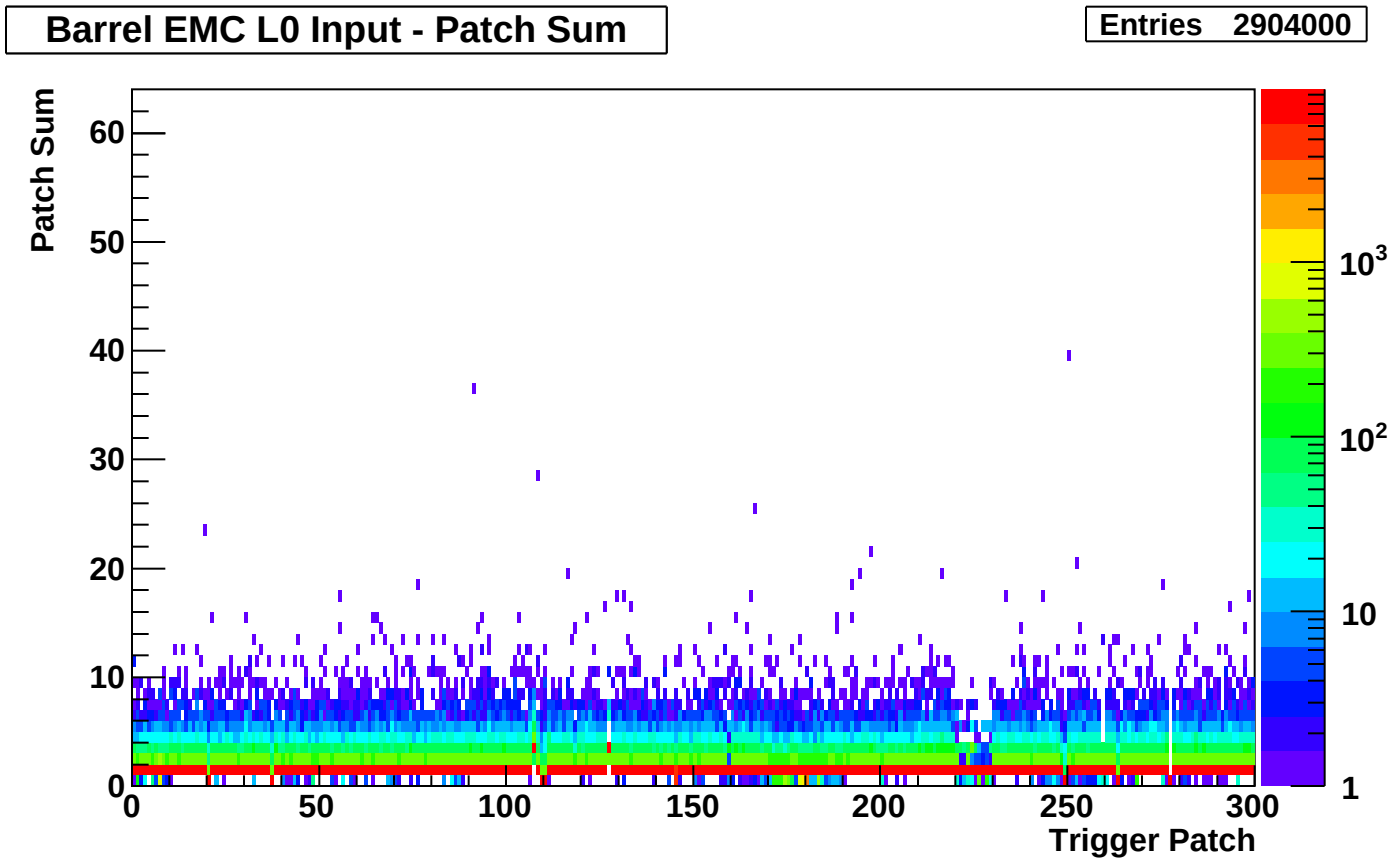
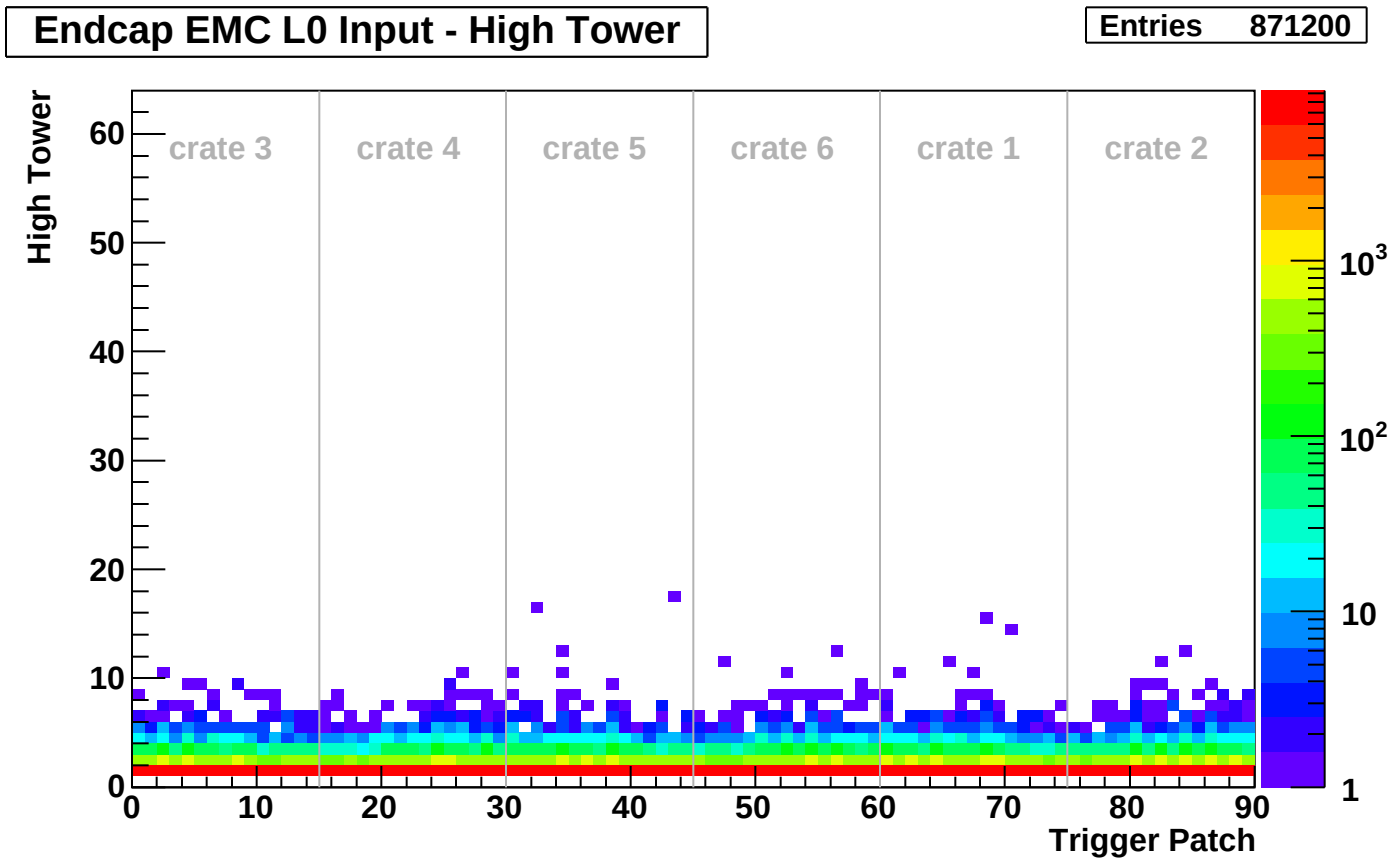
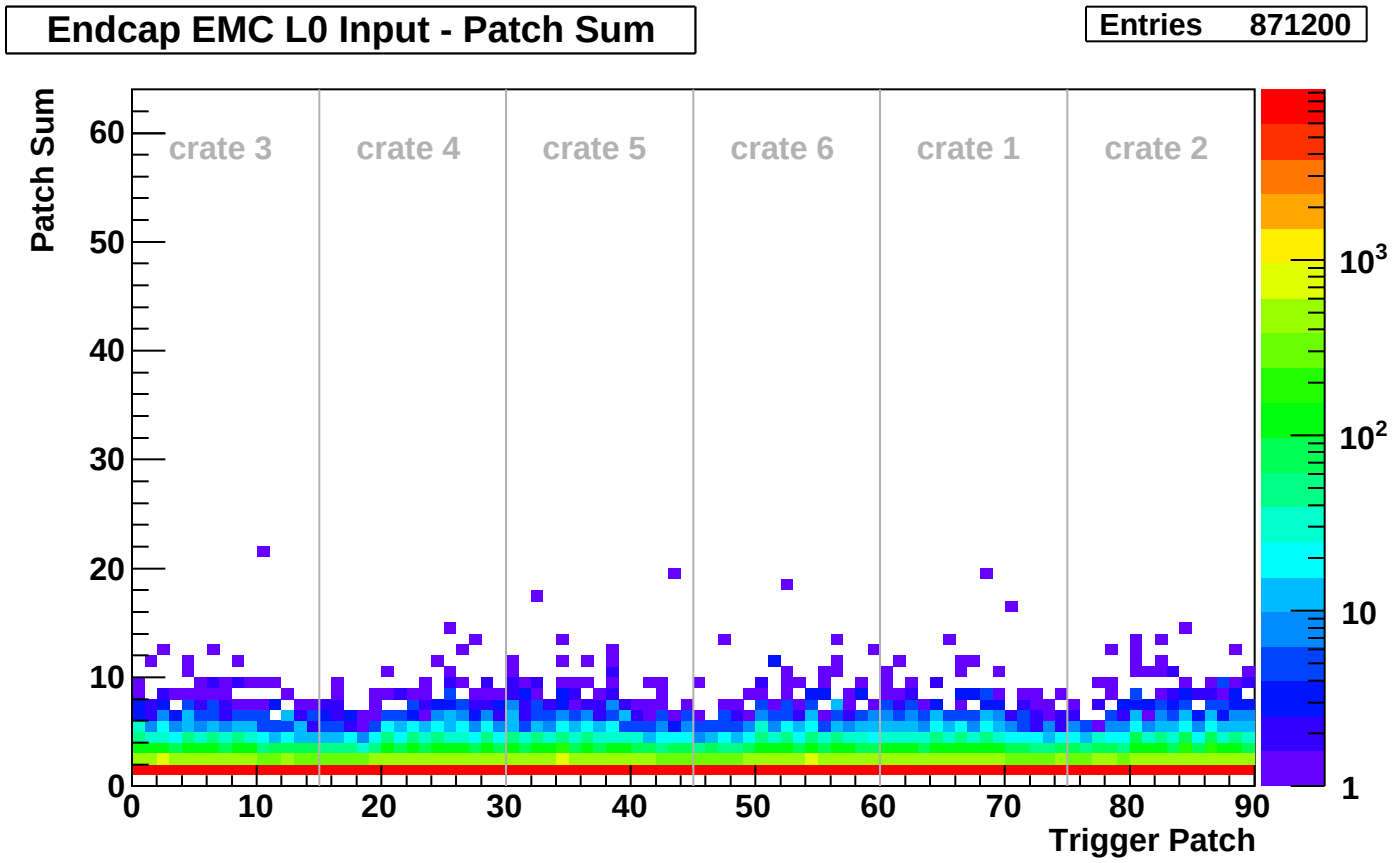
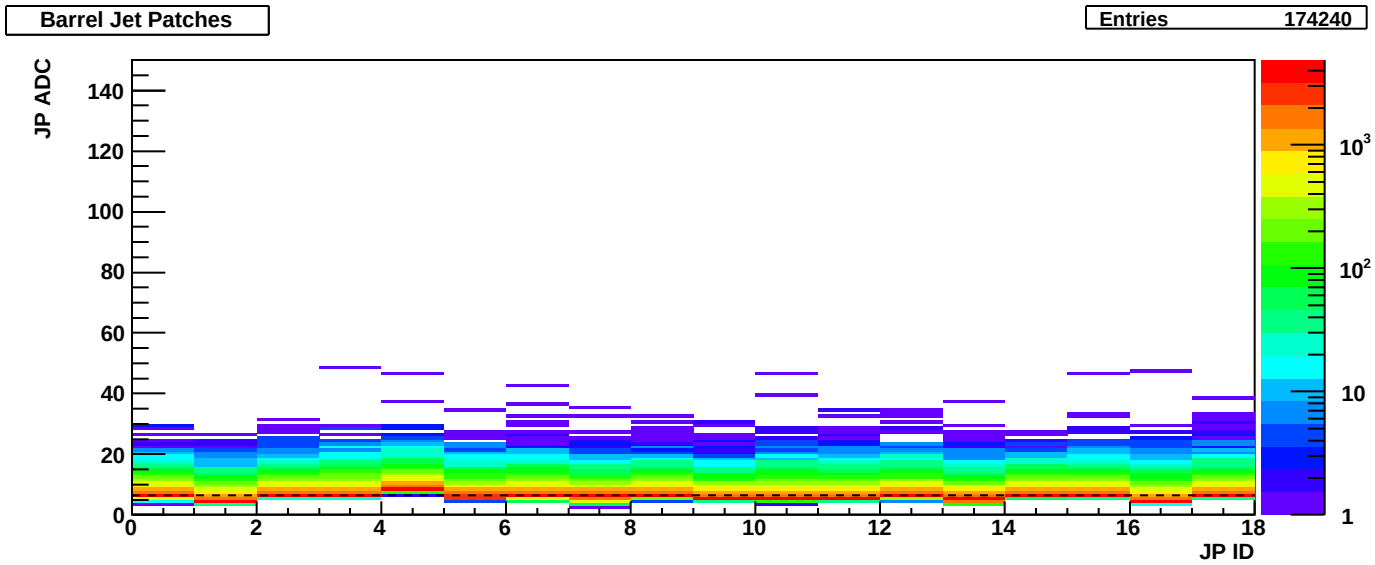
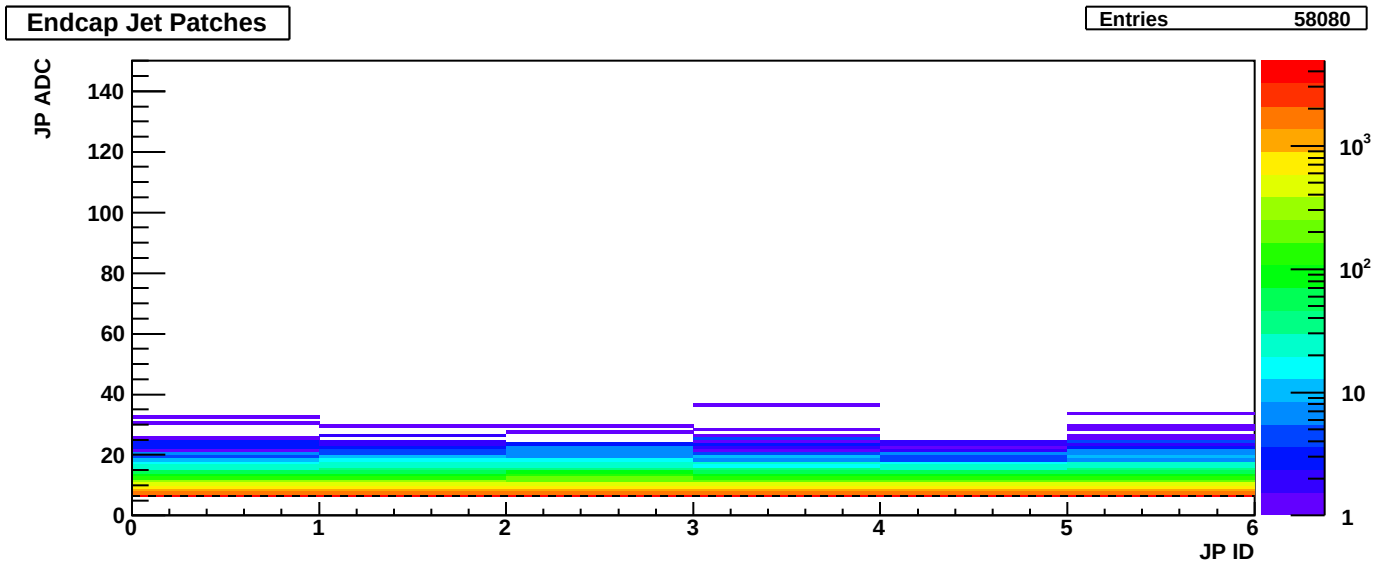

Barrel EMC L0 Input - High Tower
Entries 2904000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

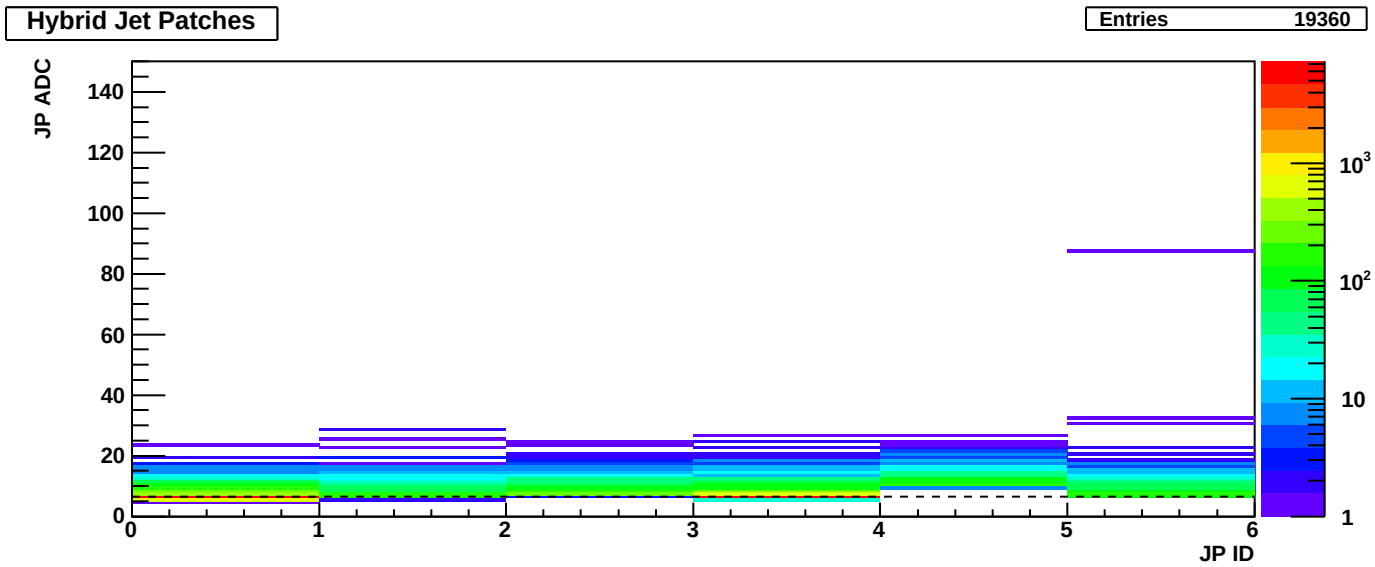

Barrel EMC L0 Input - Patch Sum
Entries 2904000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

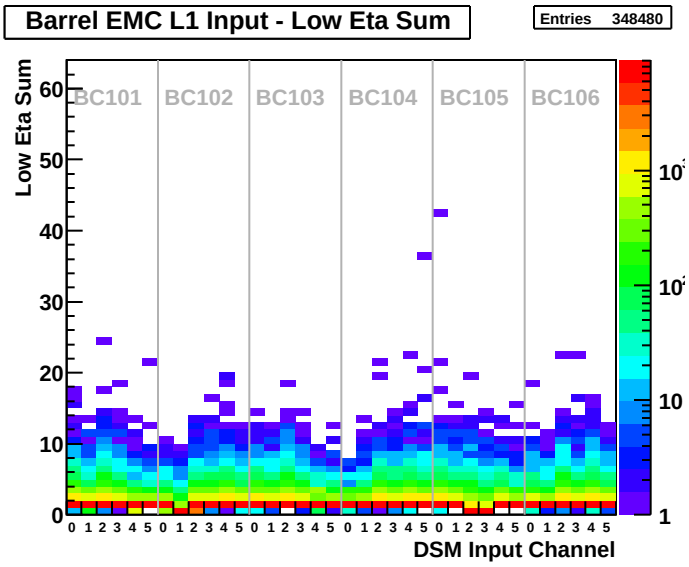

Endcap EMC L0 Input - High Tower
Entries 871200
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

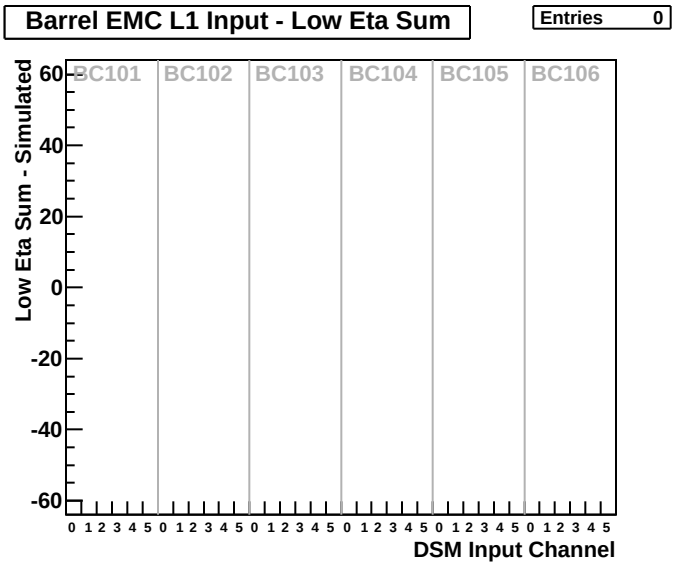

Endcap EMC L0 Input - Patch Sum
Entries 871200
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

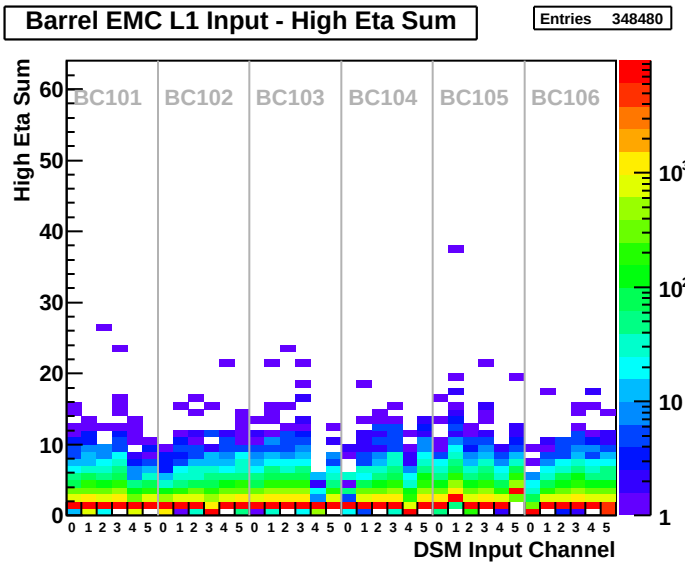

Barrel Jet Patches
Entries 174240
JP ADC
JP ID

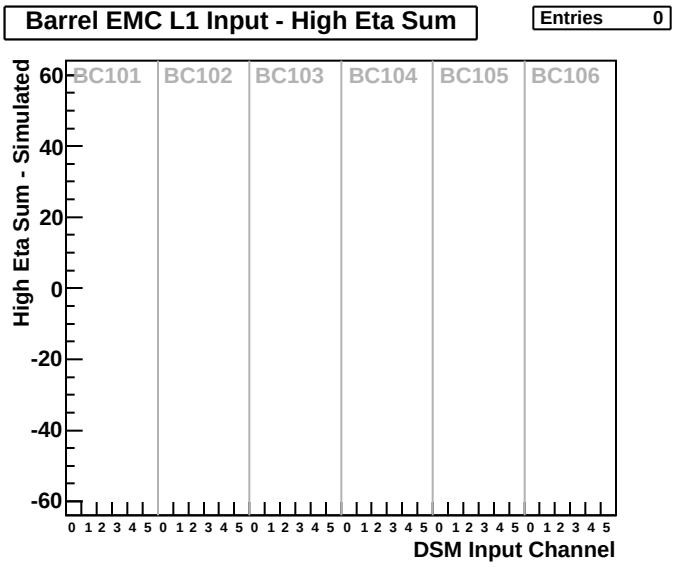

Endcap Jet Patches
Entries 58080
JP ADC
JP ID

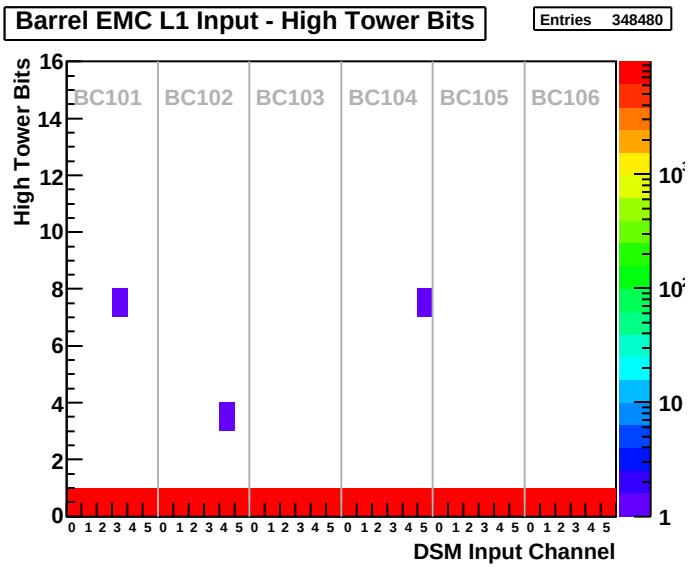

Hybrid Jet Patches
Entries 19360
JP ADC
JP ID

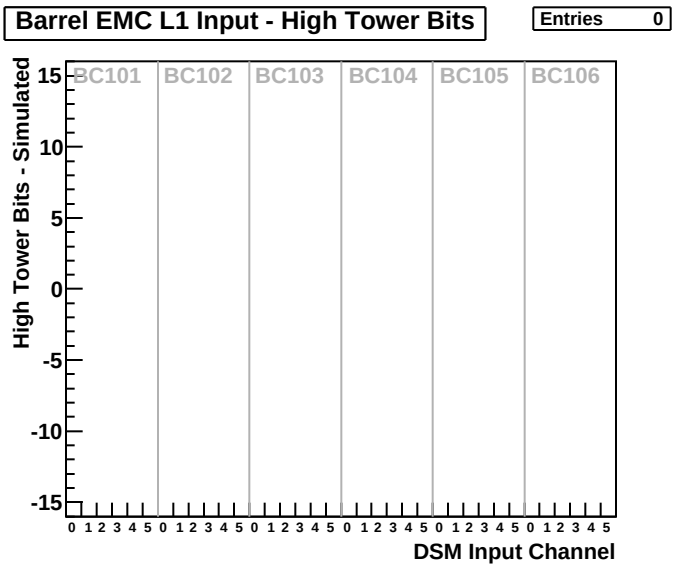

Barrel EMC L1 Input - Low Eta Sum
Entries 348480
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

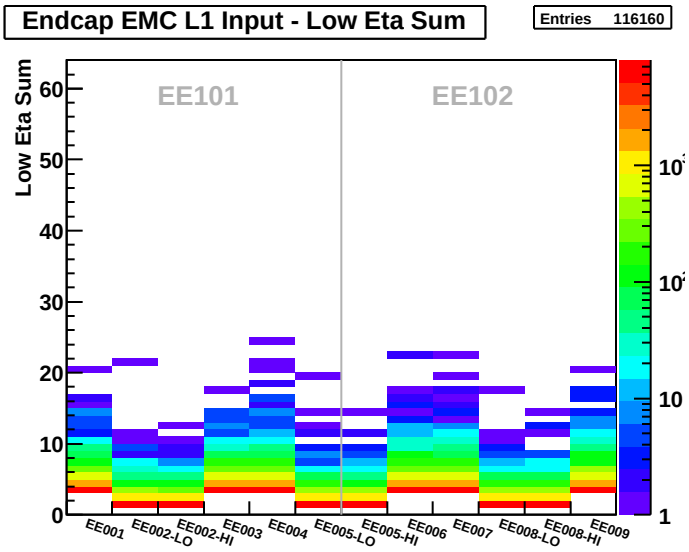

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

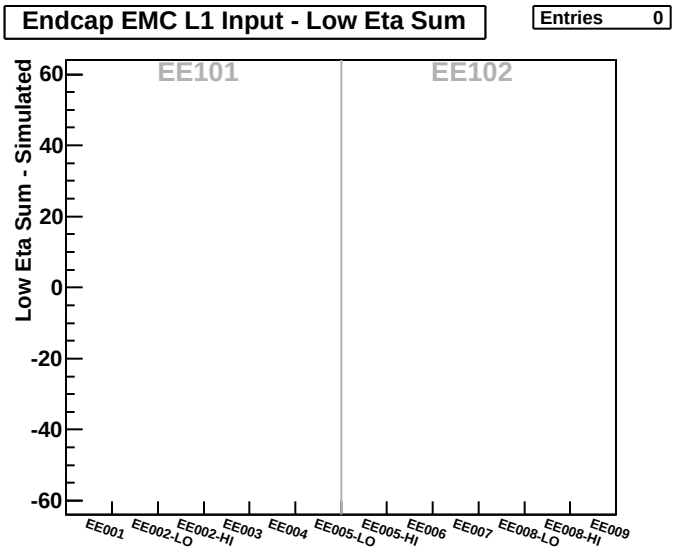

Barrel EMC L1 Input - High Eta Sum
Entries 348480
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

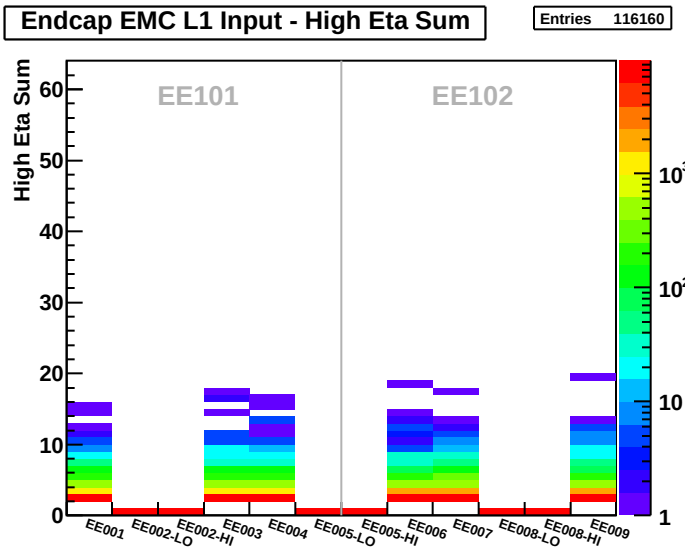

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

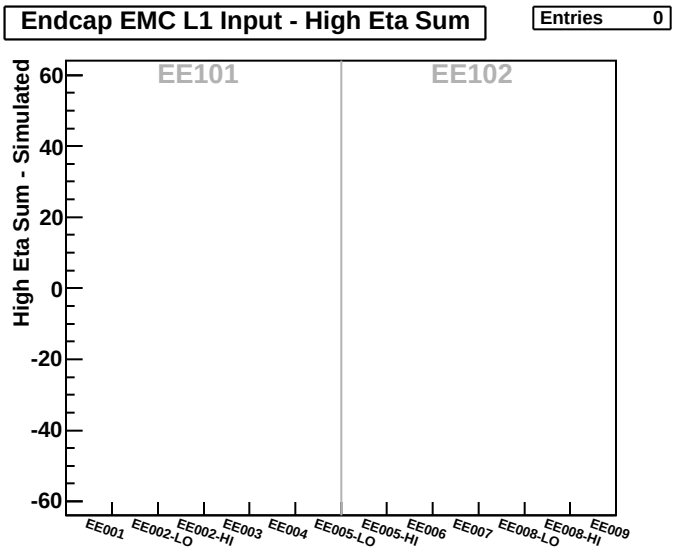

Barrel EMC L1 Input - High Tower Bits
Entries 348480
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

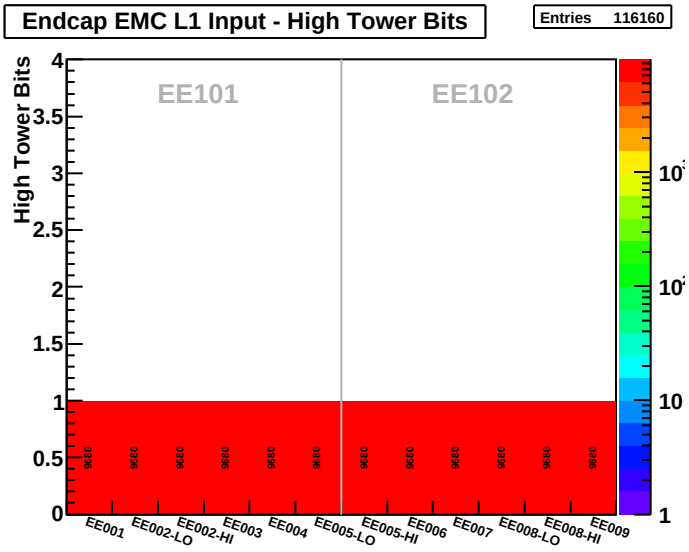

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

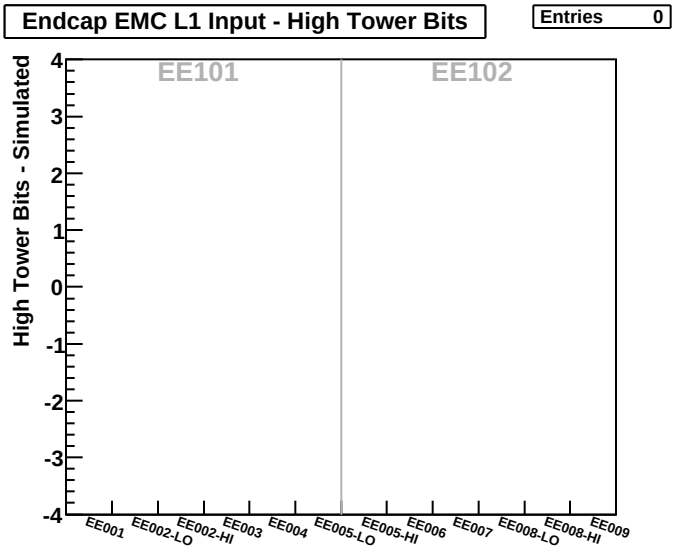

Endcap EMC L1 Input - Low Eta Sum
Entries 116160
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

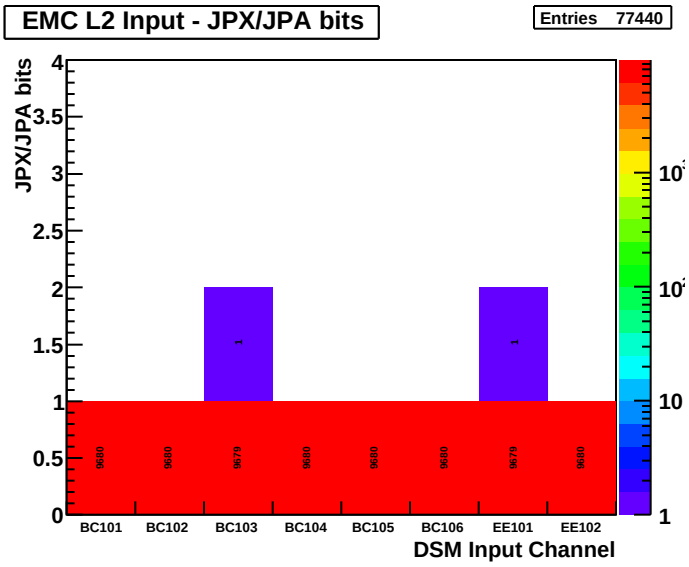

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

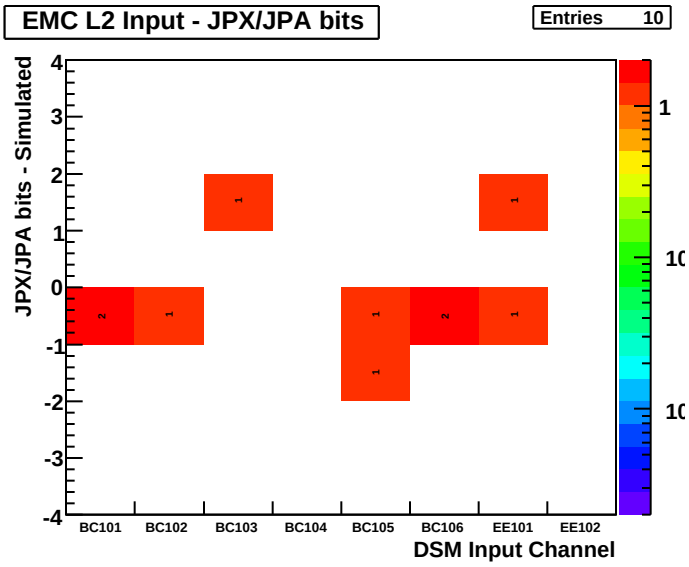

Endcap EMC L1 Input - High Eta Sum
Entries 116160
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

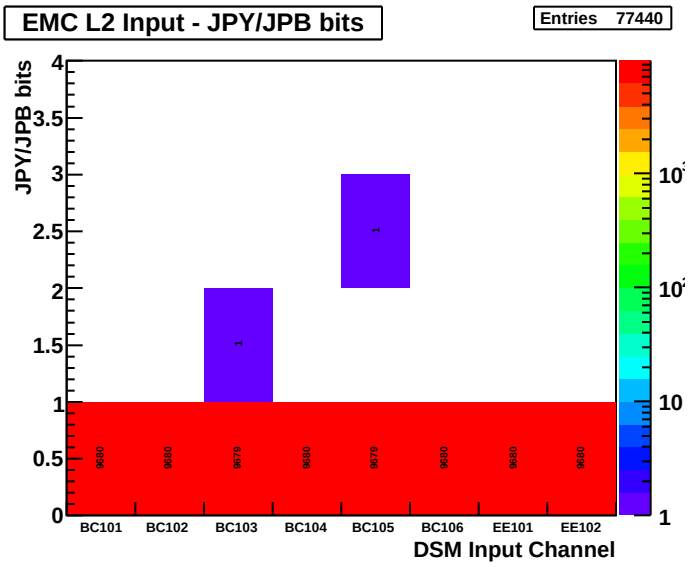

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

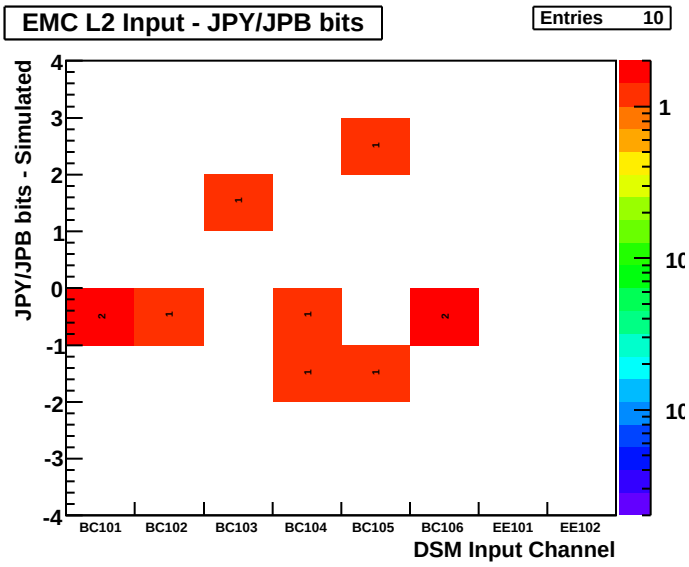

Endcap EMC L1 Input - High Tower Bits
Entries 116160
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

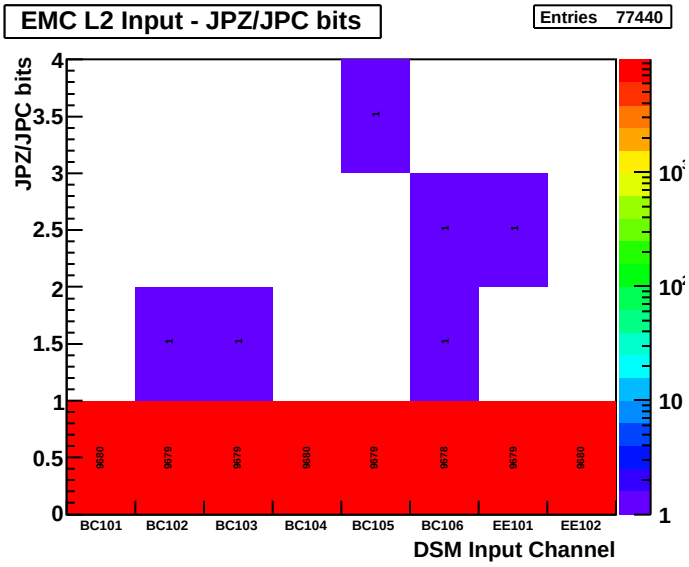

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

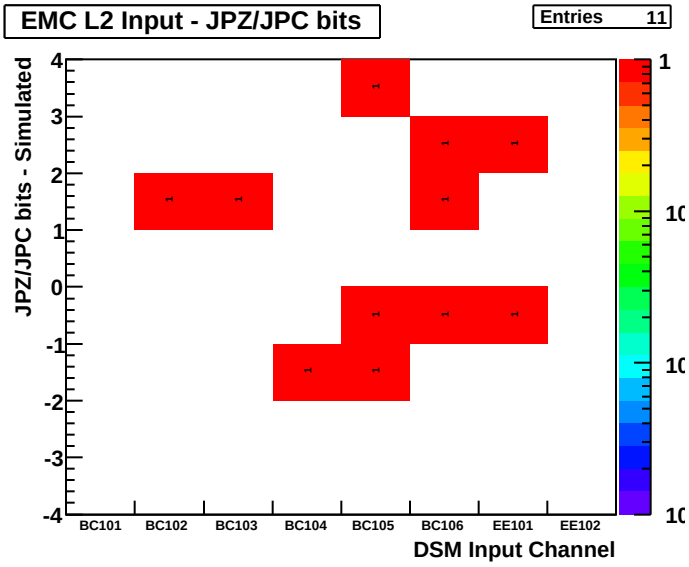

EMC L2 Input - JPX/JPA bits
Entries 77440
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

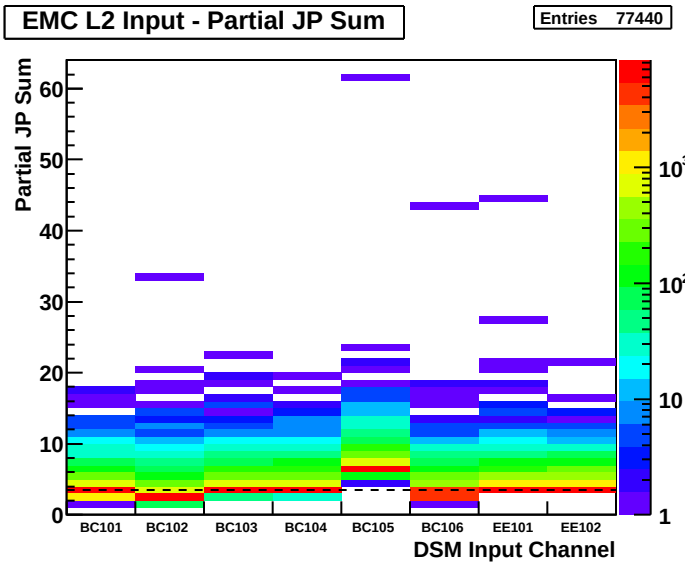

EMC L2 Input - JPX/JPA bits
Entries 10
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

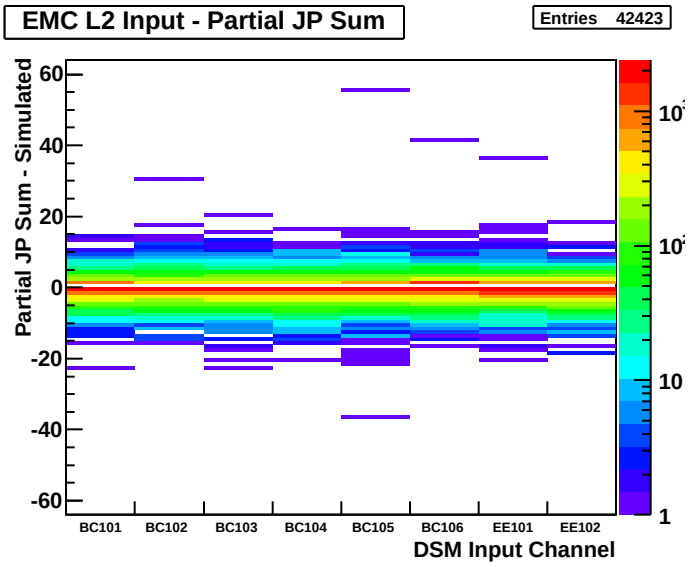

EMC L2 Input - JPY/JPB bits
Entries 77440
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

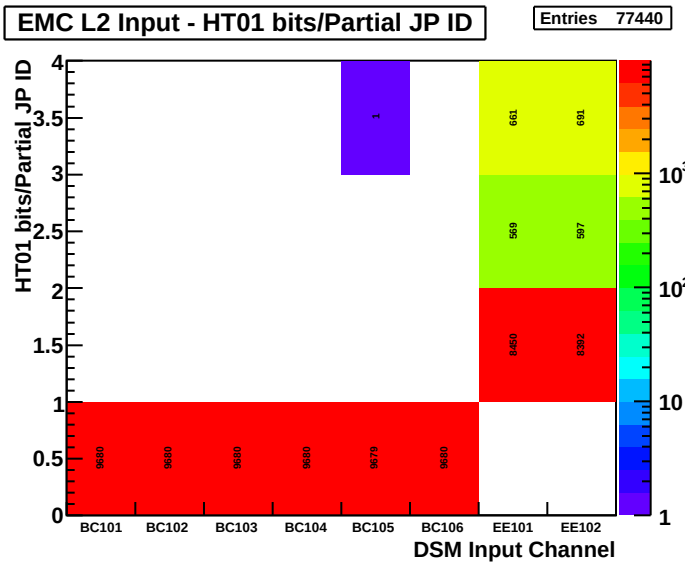

EMC L2 Input - JPY/JPB bits
Entries 10
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

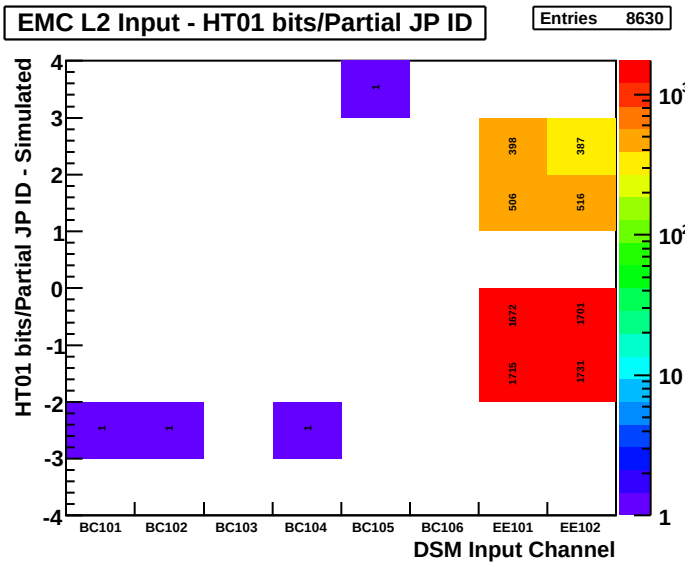

EMC L2 Input - JPZ/JPC bits
Entries 77440
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

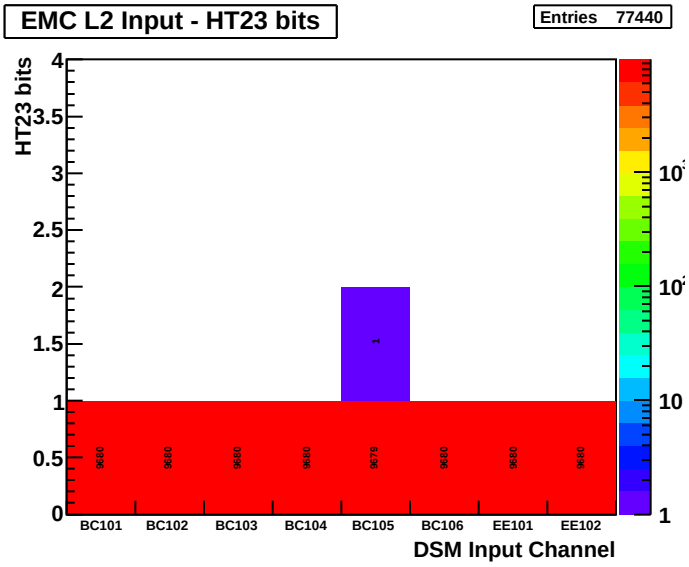

EMC L2 Input - JPZ/JPC bits
Entries 11
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

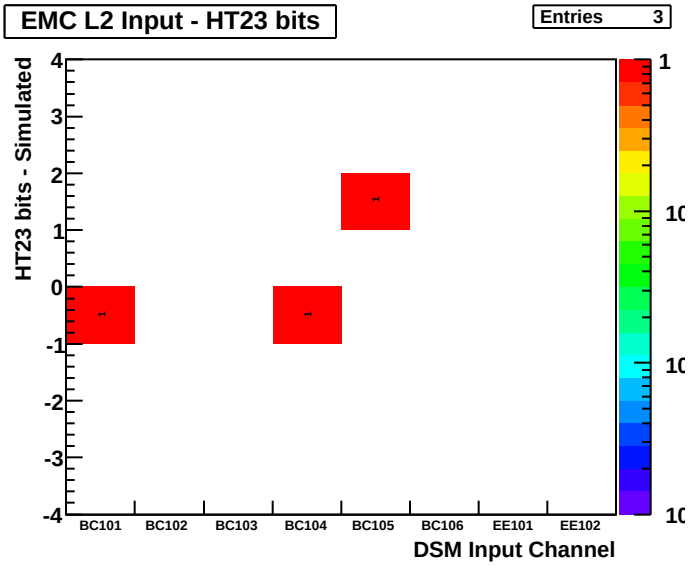

EMC L2 Input - Partial JP Sum
Entries 77440
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

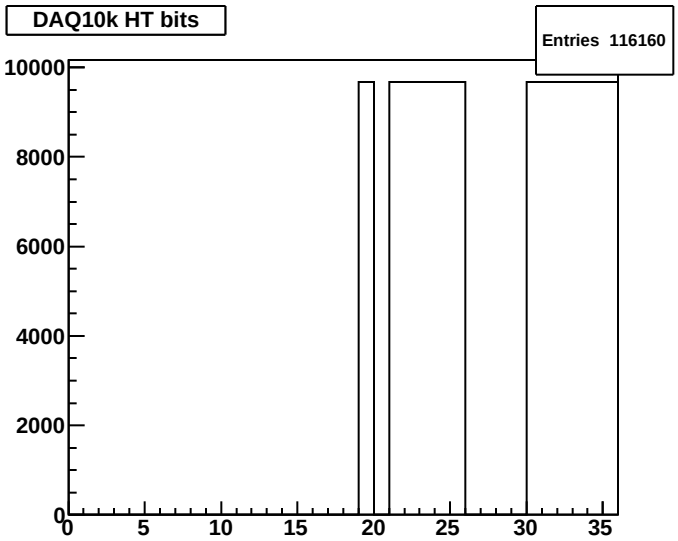

EMC L2 Input - Partial JP Sum
Entries 42423
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

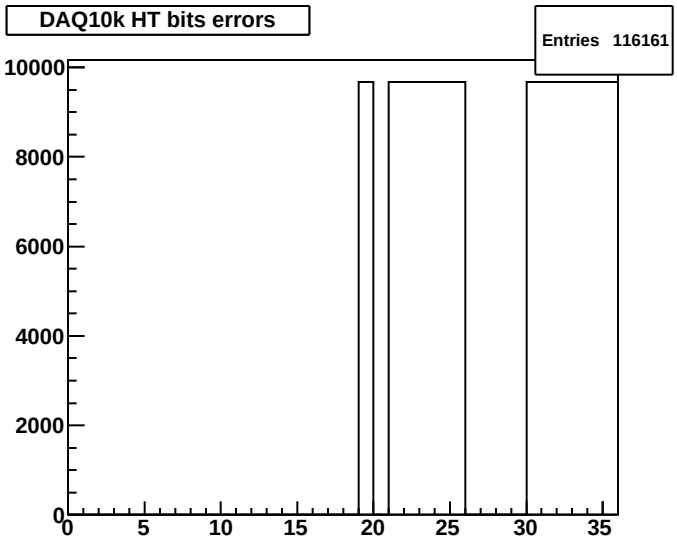

EMC L2 Input - HT01 bits/Partial JP ID
Entries 77440
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

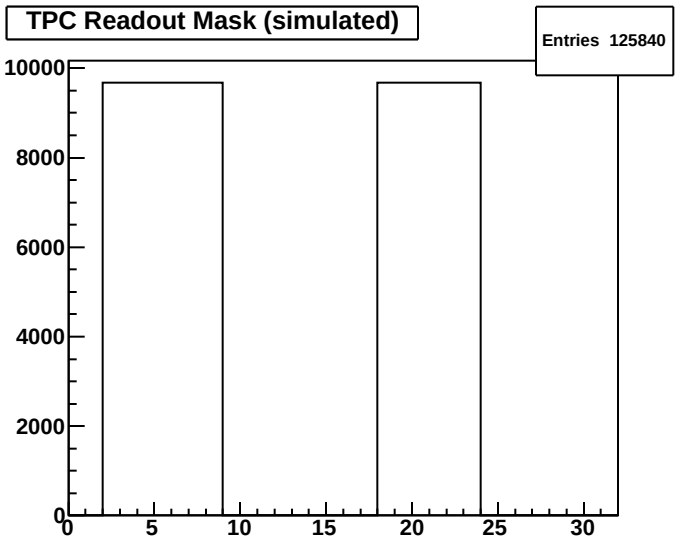

EMC L2 Input - HT01 bits/Partial JP ID
Entries 8630
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

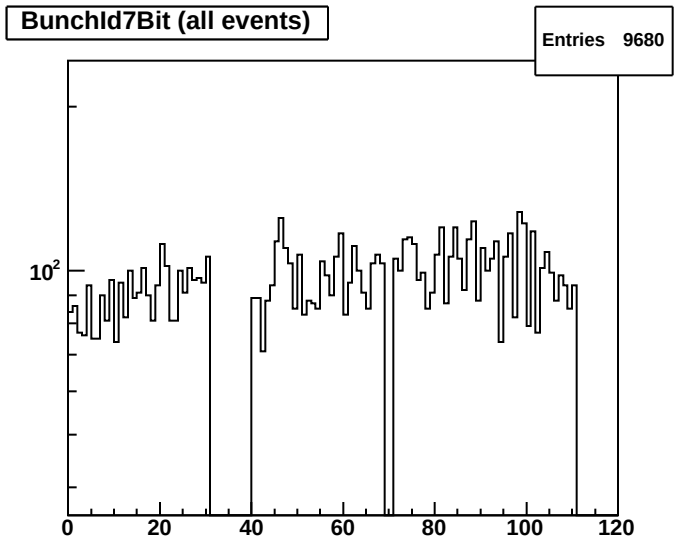

EMC L2 Input - HT23 bits
Entries 77440
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

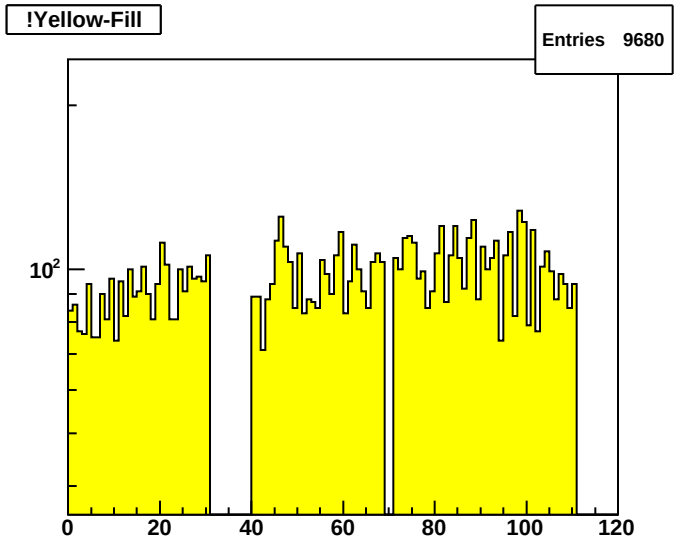

EMC L2 Input - HT23 bits
Entries 3
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

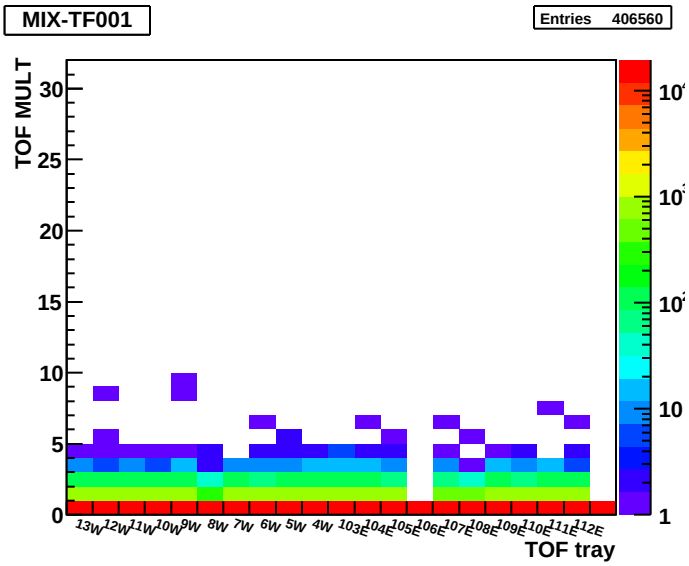

DAQ10k HT bits
Entries 116160
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

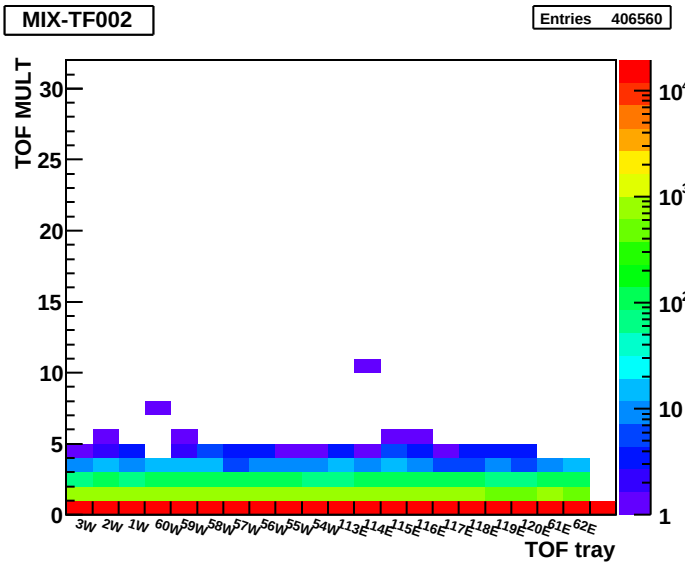

DAQ10k HT bits errors
Entries 116161
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30 35

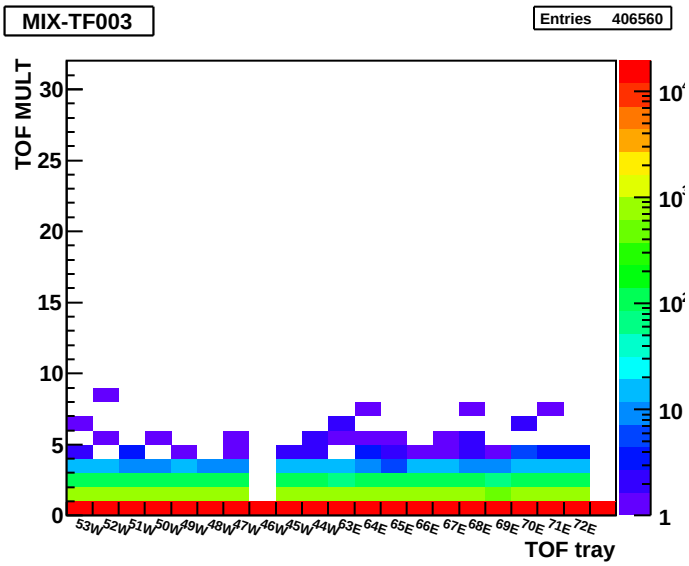

TPC Readout Mask (simulated)
Entries 125840
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

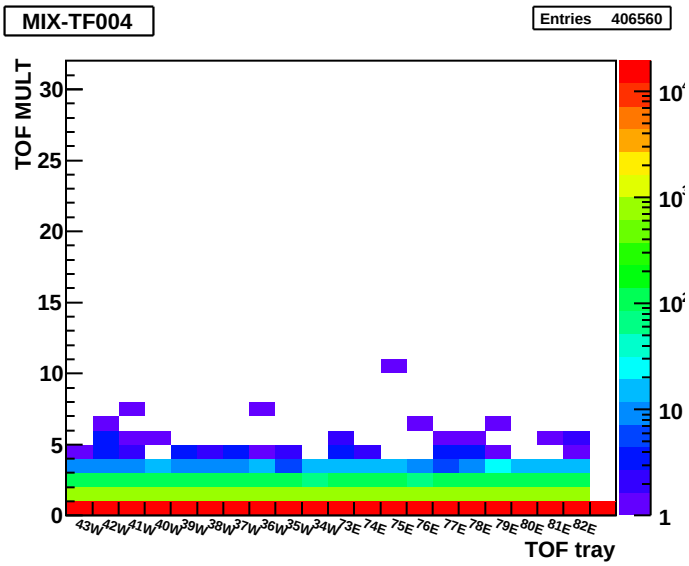

BunchId7Bit (all events)
Entries 9680
10^2
0 20 40 60 80 100 120

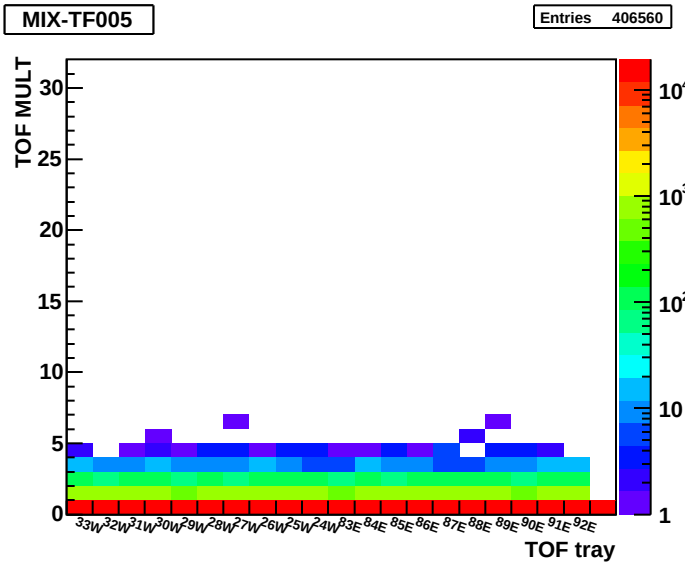

!Yellow-Fill
Entries 9680
10^2
0 20 40 60 80 100 120

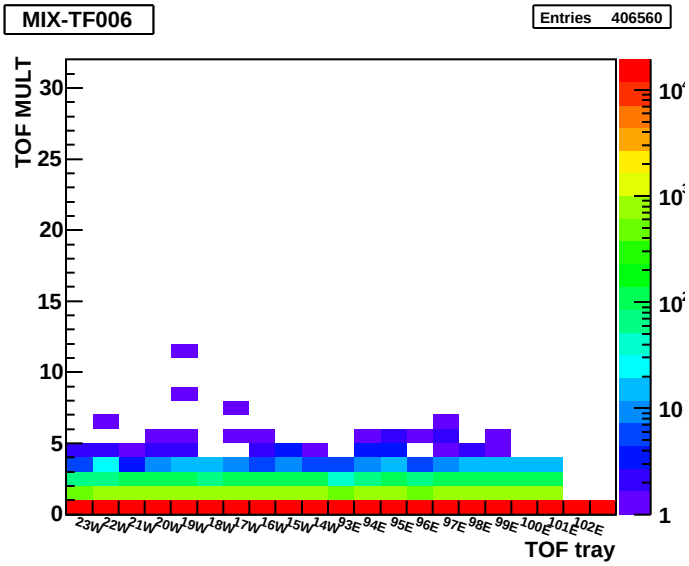

MIX-TF001
Entries 406560
TOF MULT
TOF tray

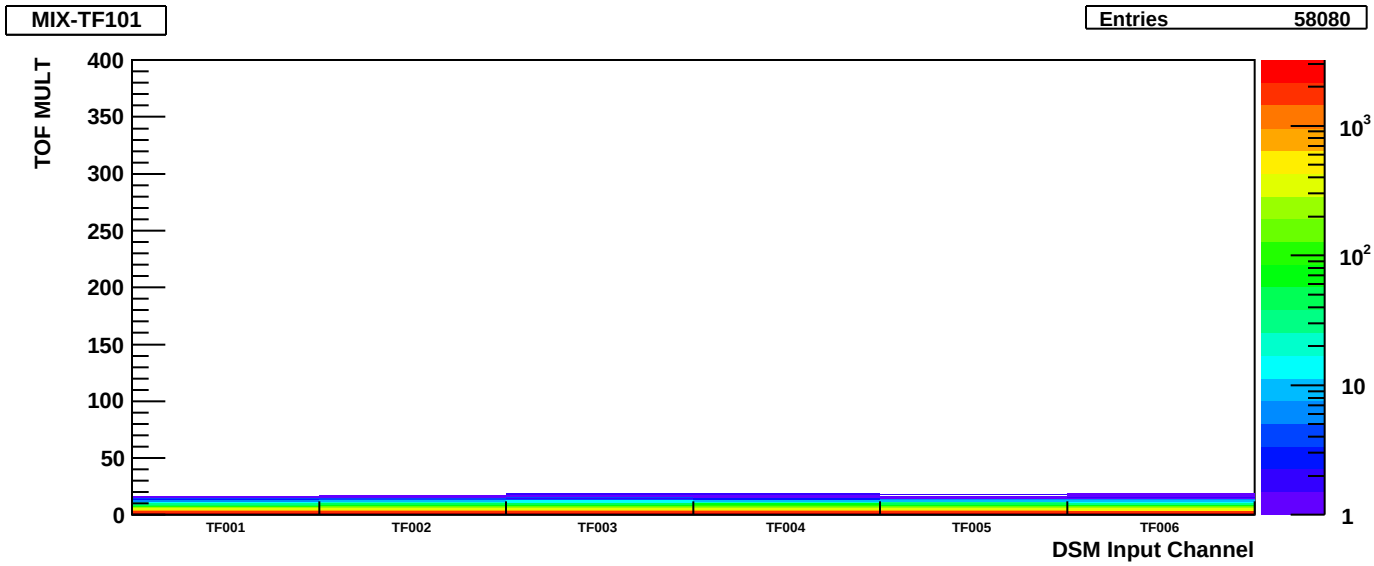

MIX-TF002
Entries 406560
TOF MULT
TOF tray

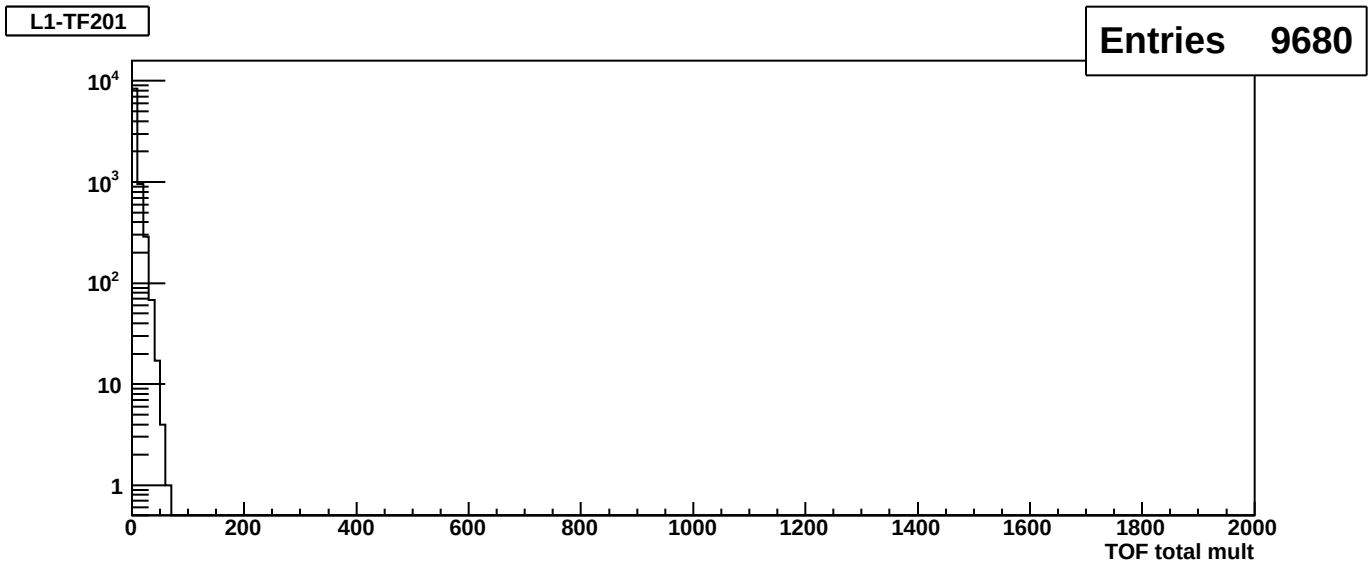

MIX-TF003
Entries 406560
TOF MULT
TOF tray

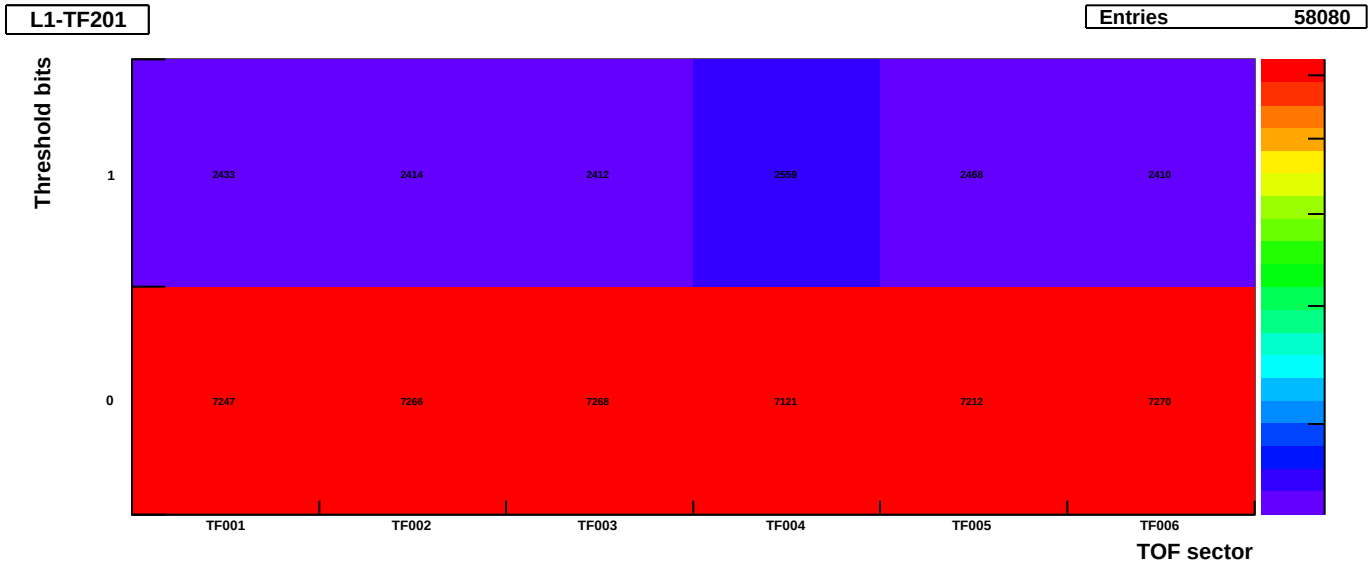

MIX-TF004
Entries 406560
TOF MULT
TOF tray

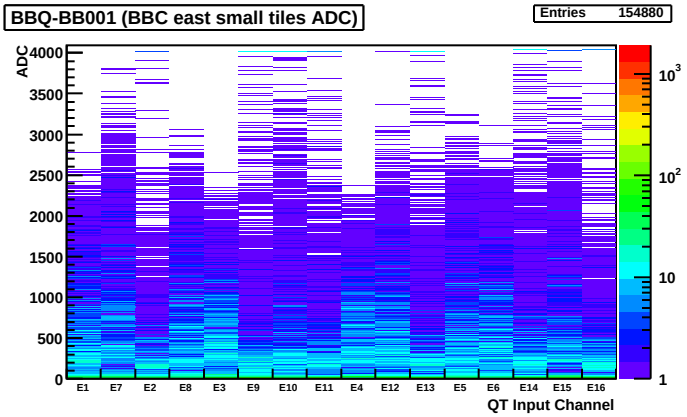

MIX-TF005
Entries 406560
TOF MULT
TOF tray

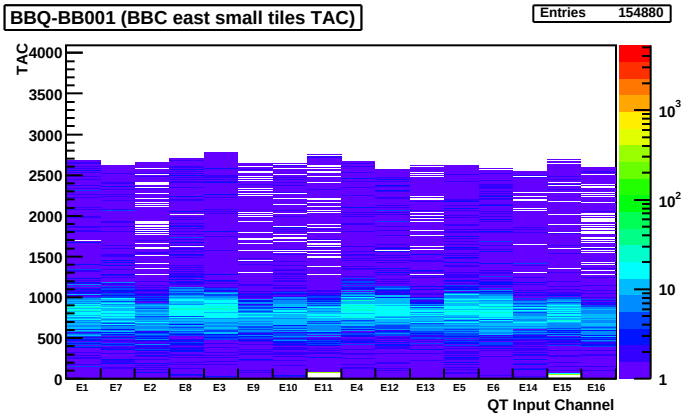

MIX-TF006
Entries 406560
TOF MULT
TOF tray

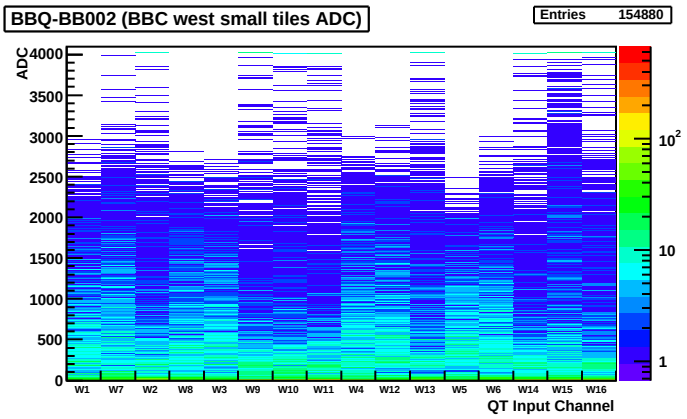

MIX-TF101
Entries 58080
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^3
10^2
10
1

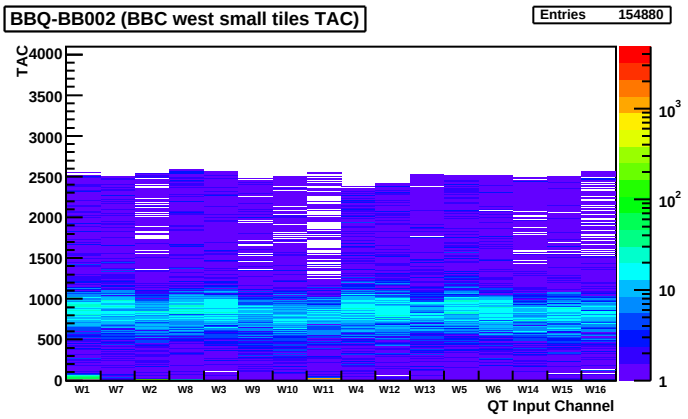

L1-TF201
Entries 9680
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

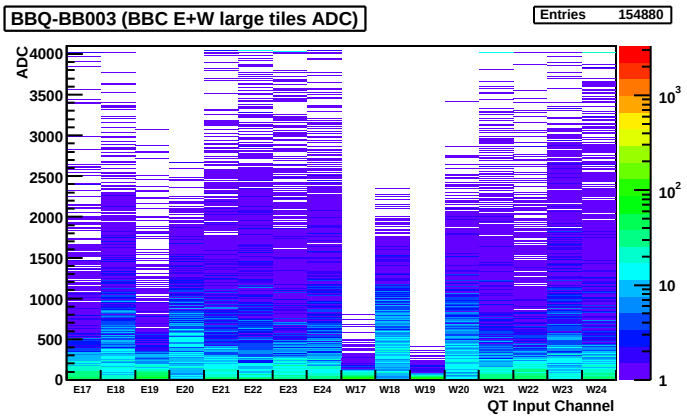

L1-TF201
Entries 58080
Threshold bits
1
0
2433
2414
2412
2559
2468
2410
7247
7266
7268
7121
7212
7270
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

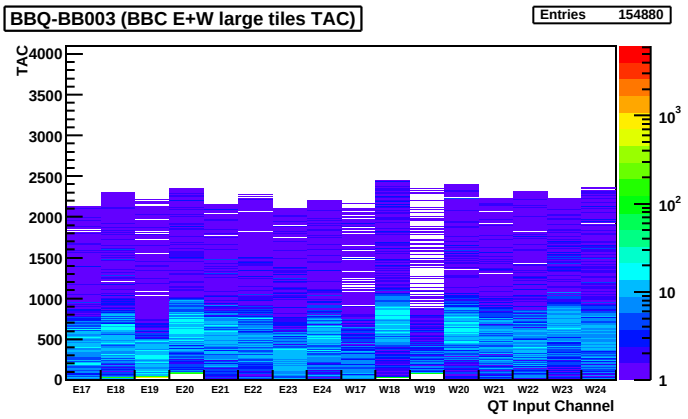

BBQ-BB001 (BBC east small tiles ADC)
Entries 154880
ADC
QT Input Channel

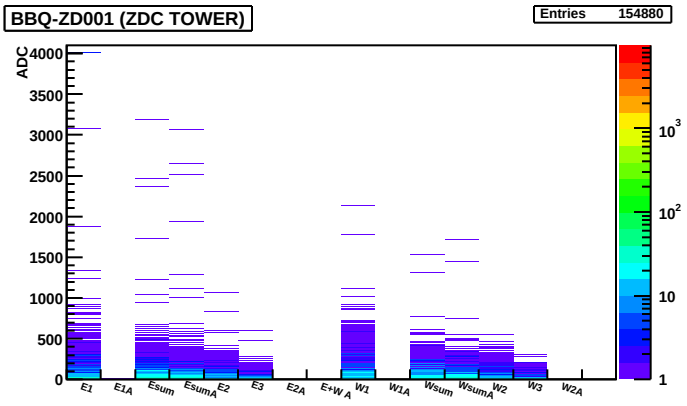

BBQ-BB001 (BBC east small tiles TAC)
Entries 154880
TAC
QT Input Channel

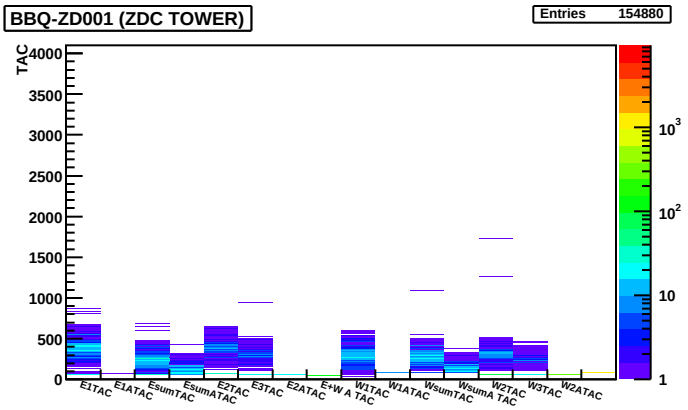

BBQ-BB002 (BBC west small tiles ADC)
Entries 154880
ADC
QT Input Channel

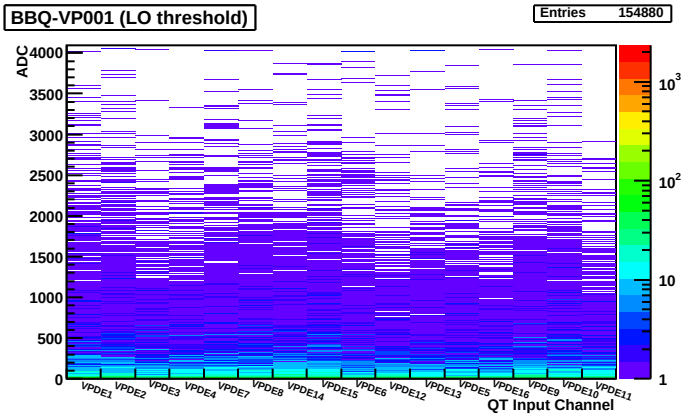

BBQ-BB002 (BBC west small tiles TAC)
Entries 154880
TAC
QT Input Channel

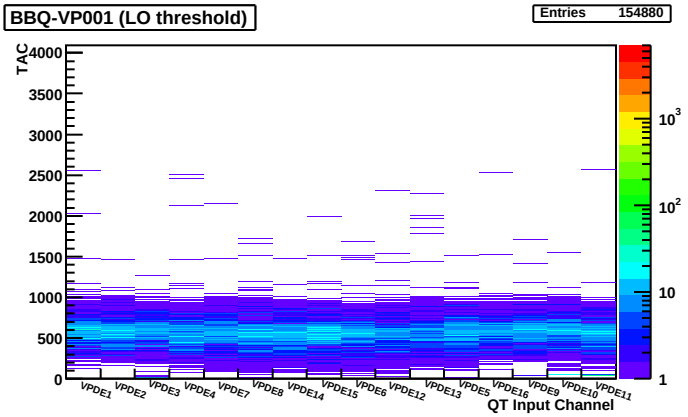

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 154880
ADC
QT Input Channel

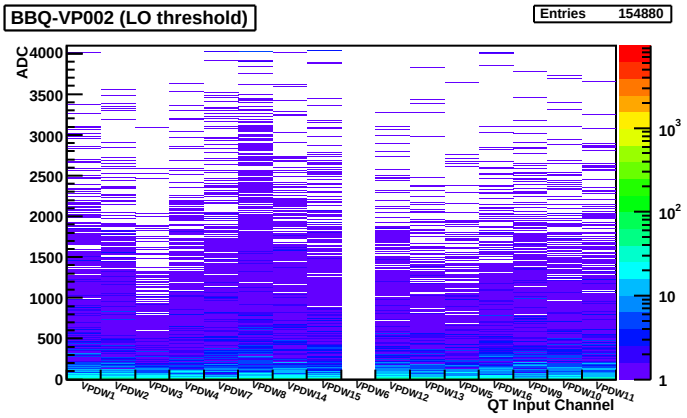

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 154880
TAC
QT Input Channel

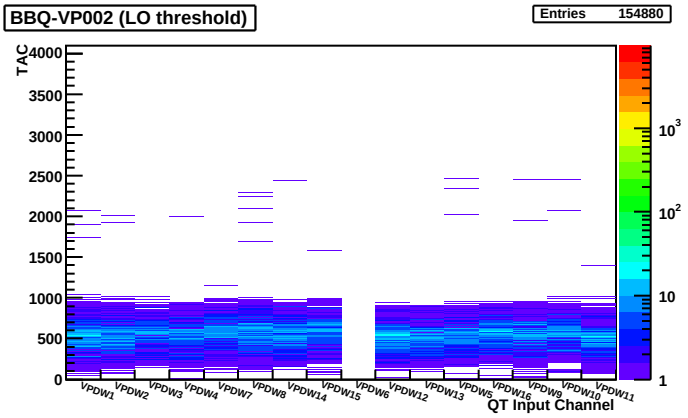

BBQ-ZD001 (ZDC TOWER)
Entries 154880
ADC

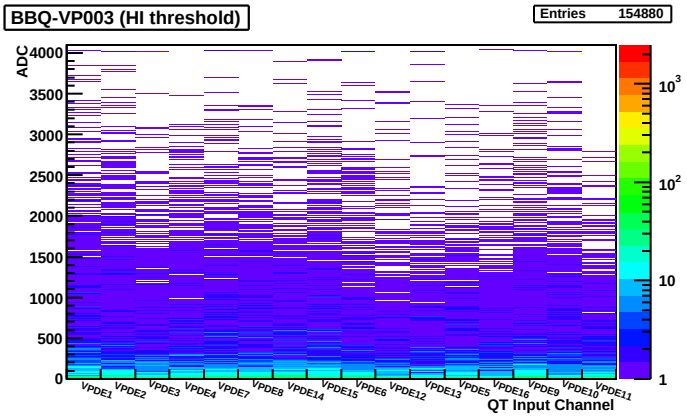

BBQ-ZD001 (ZDC TOWER)
Entries 154880
TAC

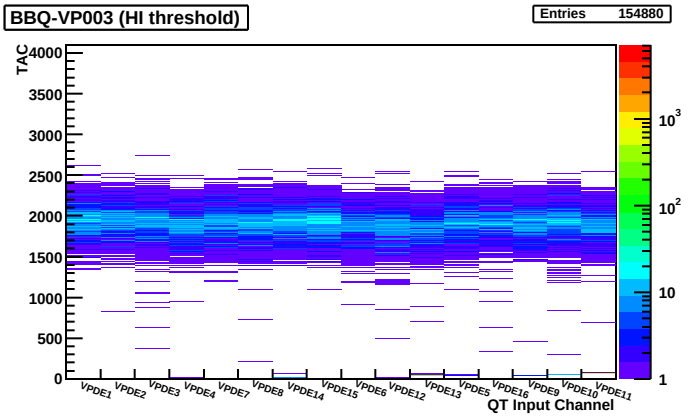

BBQ-VP001 (LO threshold)
Entries 154880
ADC
QT Input Channel

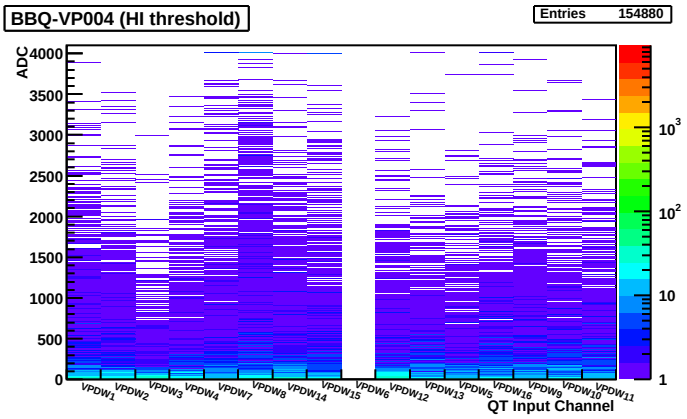

BBQ-VP001 (LO threshold)
Entries 154880
TAC
QT Input Channel

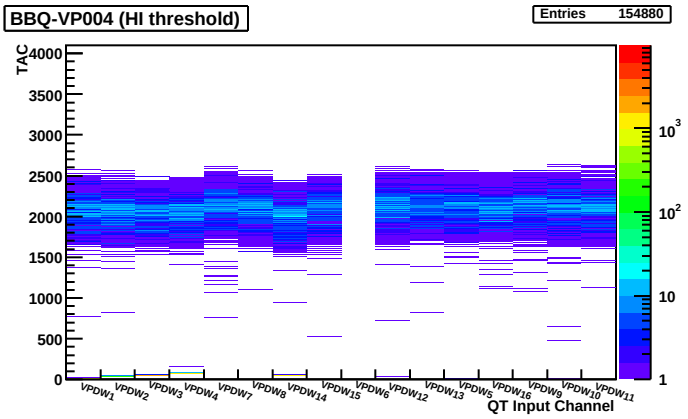

BBQ-VP002 (LO threshold)
Entries 154880
ADC
QT Input Channel

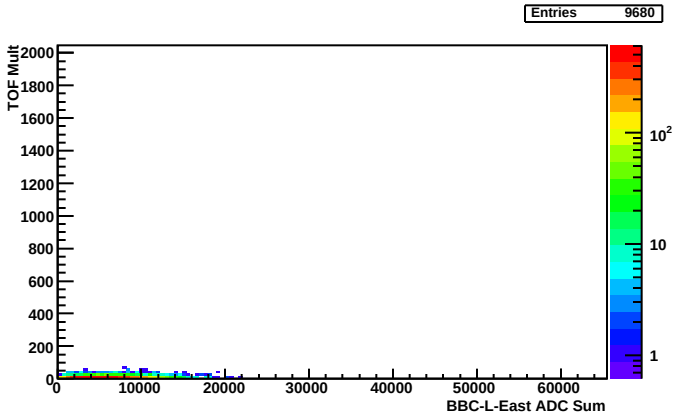

BBQ-VP002 (LO threshold)
Entries 154880
TAC
QT Input Channel

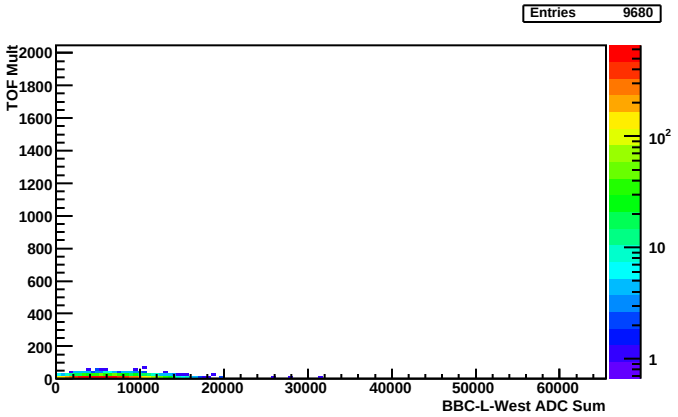

BBQ-VP003 (HI threshold)
Entries 154880
ADC
QT Input Channel

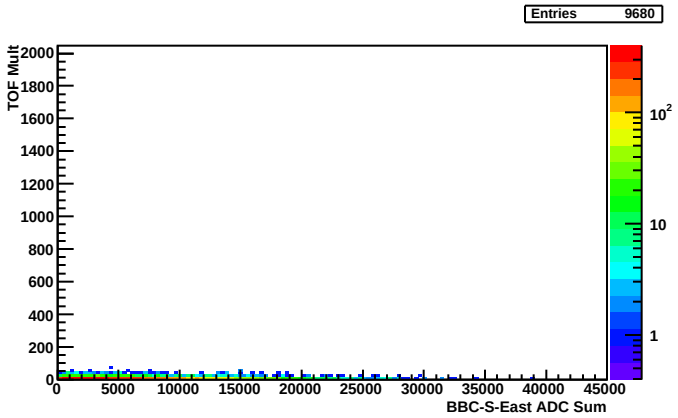

BBQ-VP003 (HI threshold)
Entries 154880
TAC
QT Input Channel

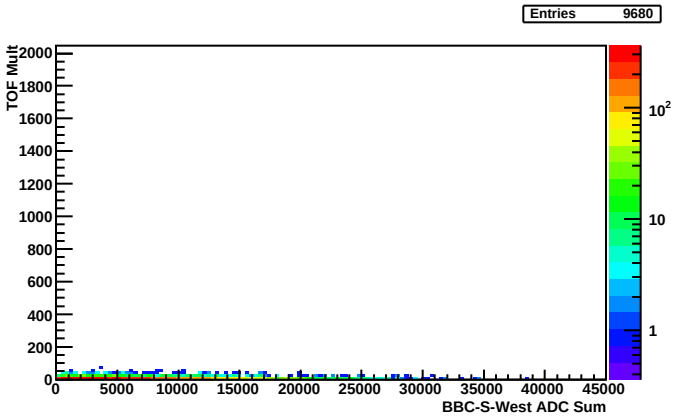

BBQ-VP004 (HI threshold)
Entries 154880
ADC
QT Input Channel

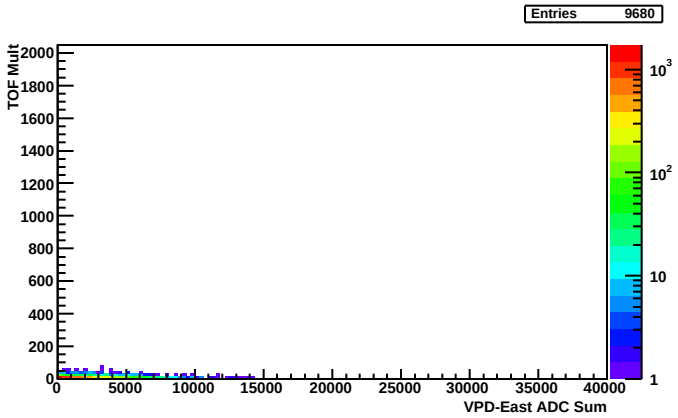

BBQ-VP004 (HI threshold)
Entries 154880
TAC
QT Input Channel

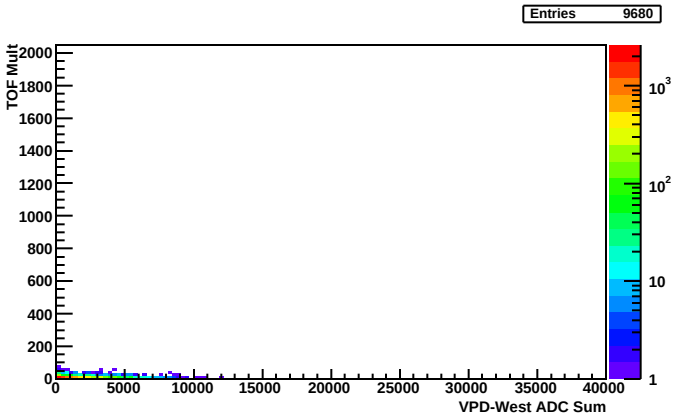

Entries 9680
TOF Mult
BBC-L-East ADC Sum

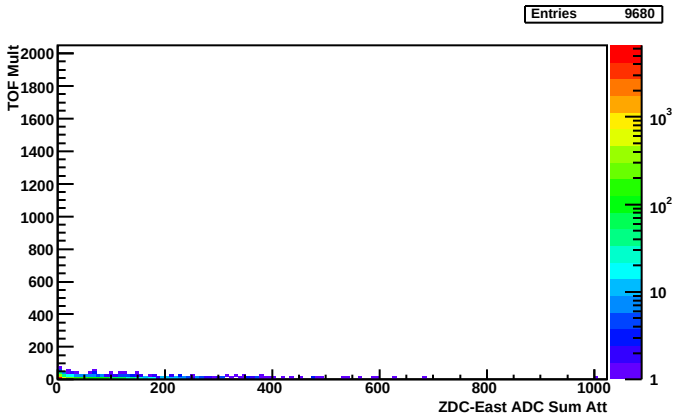

Entries 9680
TOF Mult
BBC-L-West ADC Sum

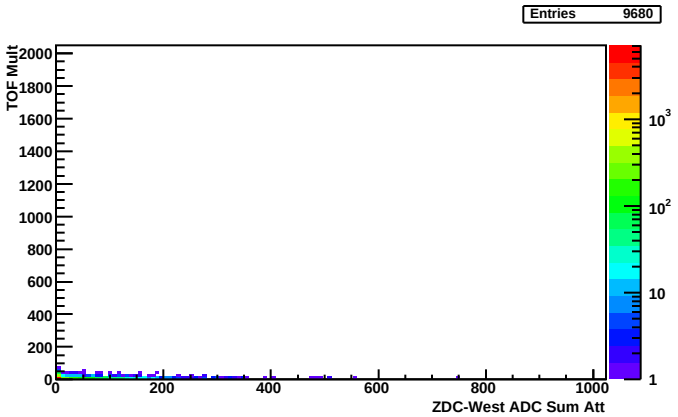

Entries 9680
TOF Mult
BBC-S-East ADC Sum

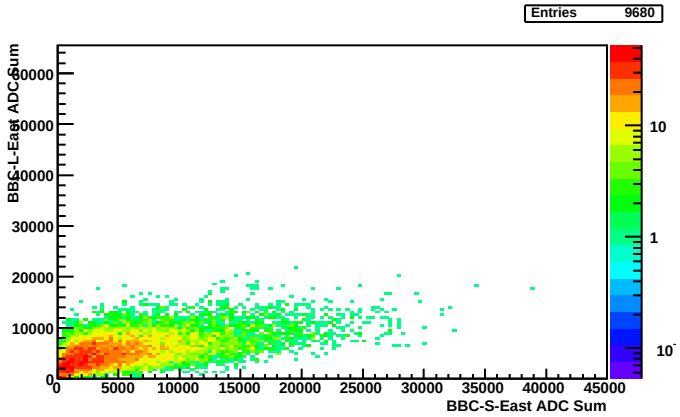

Entries 9680
TOF Mult
BBC-S-West ADC Sum

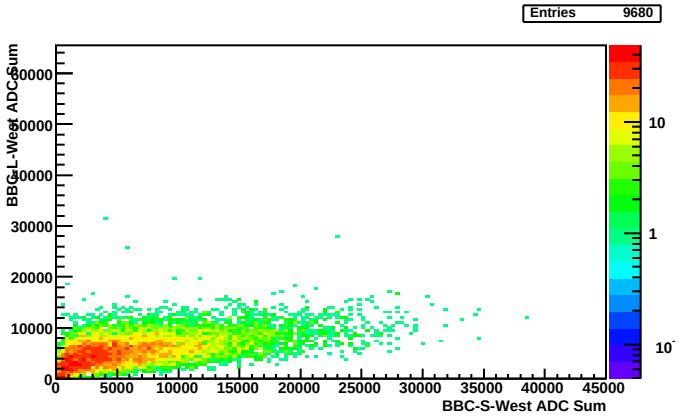

Entries 9680
TOF Mult
VPD-East ADC Sum

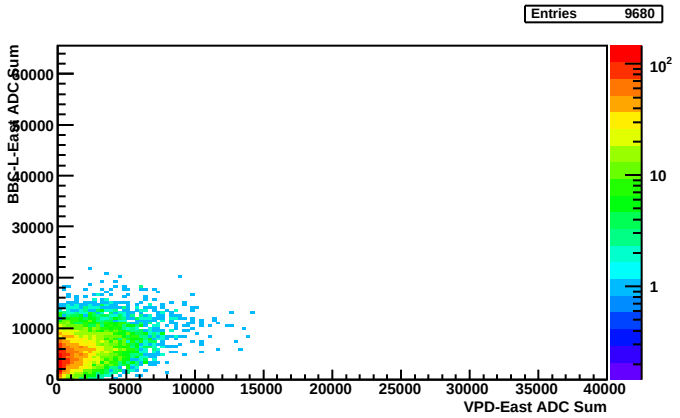

Entries 9680
TOF Mult
VPD-West ADC Sum

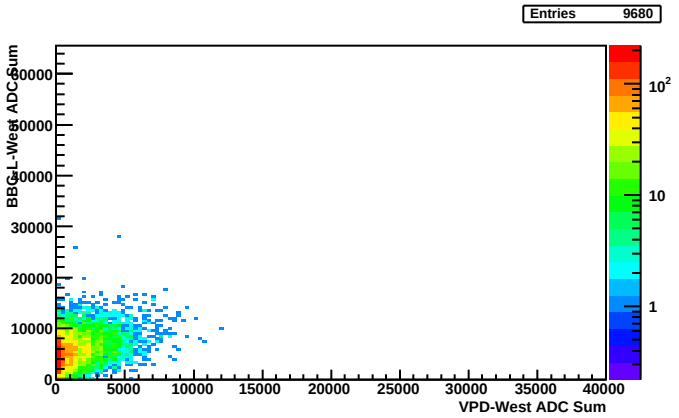

Entries 9680
TOF Mult
ZDC-East ADC Sum Att

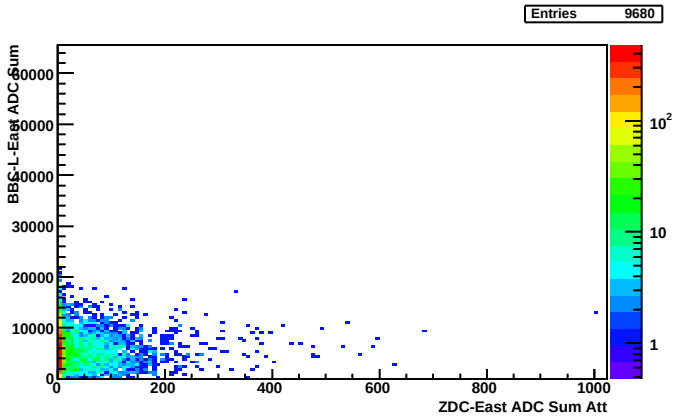

Entries 9680
TOF Mult
ZDC-West ADC Sum Att

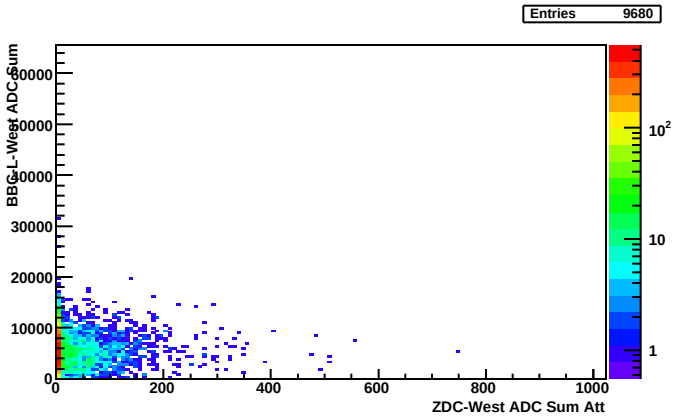

Entries 9680
BBC-L-East ADC Sum
BBC-S-East ADC Sum

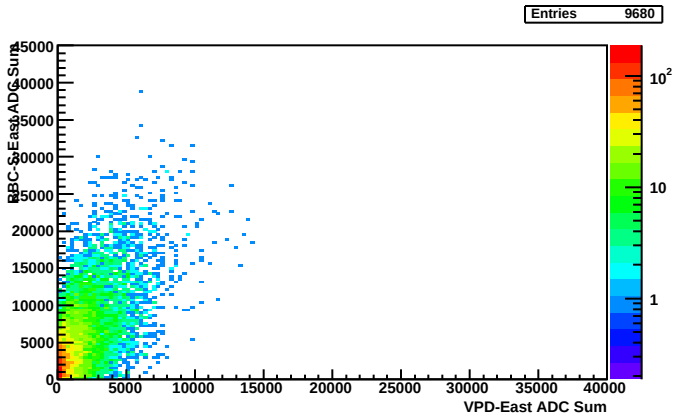

Entries 9680
BBC-L-West ADC Sum
BBC-S-West ADC Sum

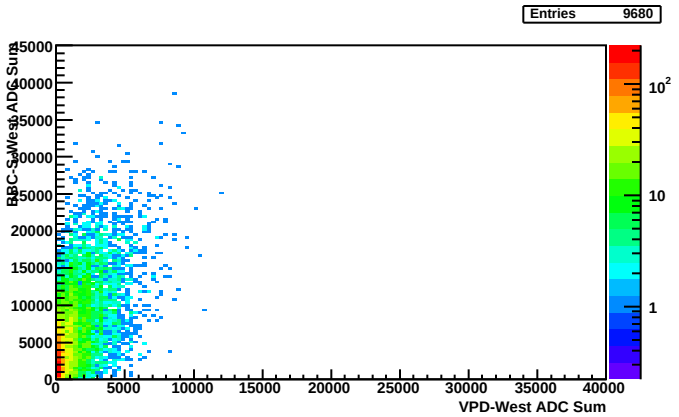

Entries 9680
BBC-L-East ADC Sum
VPD-East ADC Sum

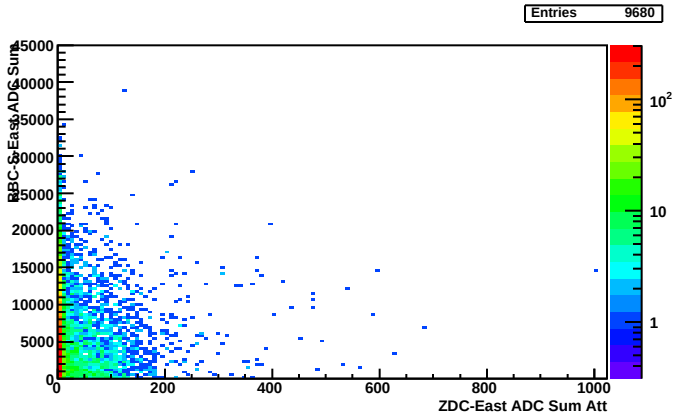

Entries 9680
BBC-L-West ADC Sum
VPD-West ADC Sum

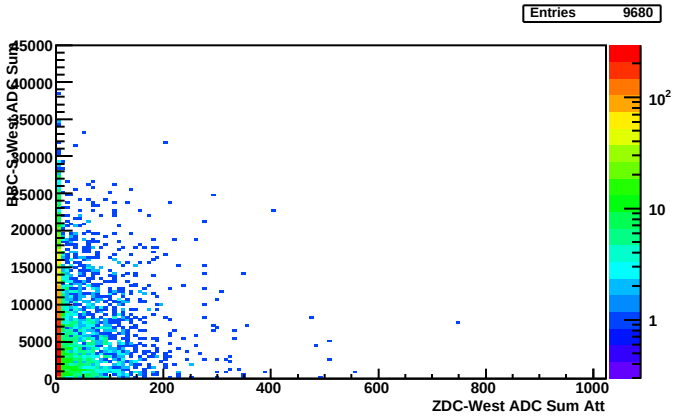

Entries 9680
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

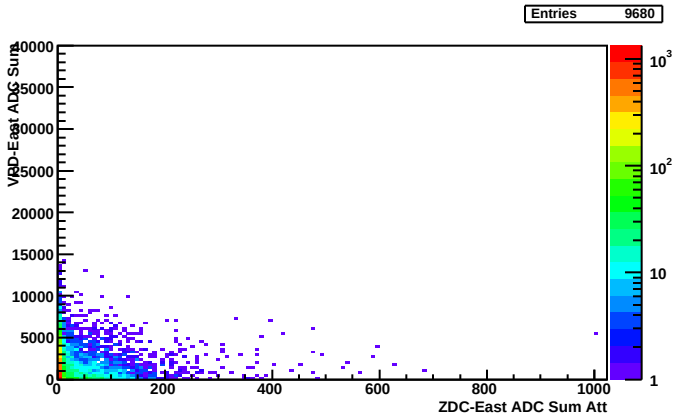

Entries 9680
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

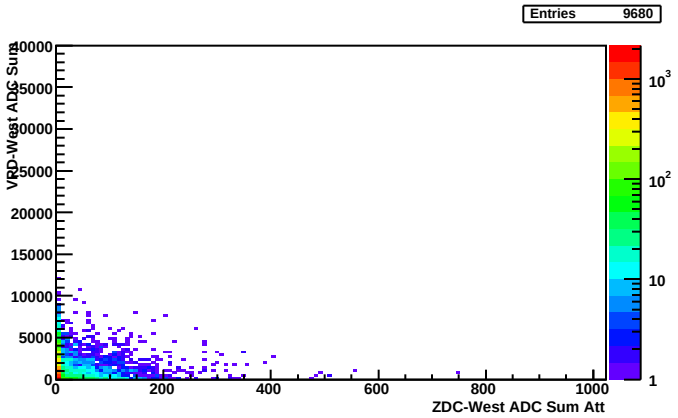

Entries 9680
BBC-S-East ADC Sum
VPD-East ADC Sum

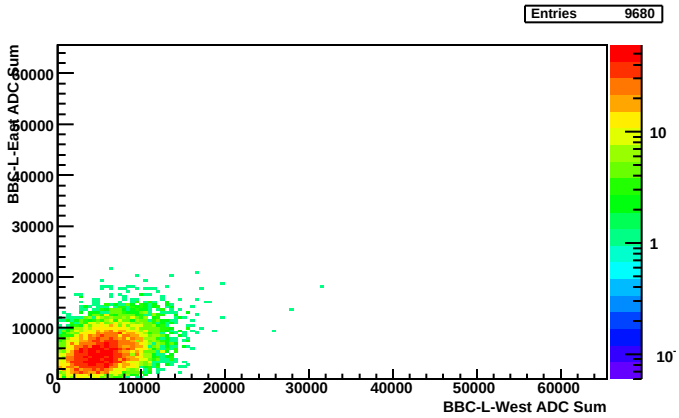

Entries 9680
BBC-S-West ADC Sum
VPD-West ADC Sum

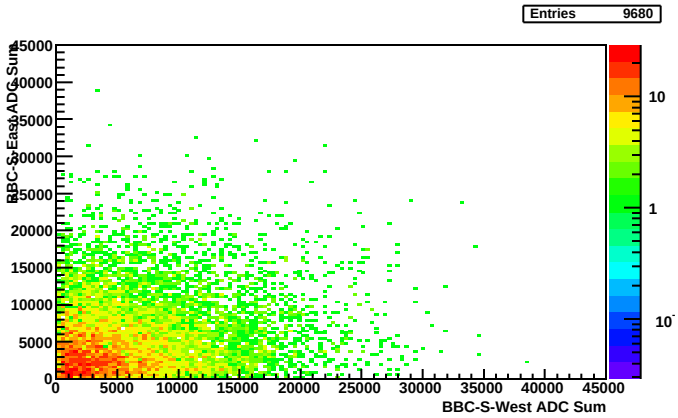

Entries 9680
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

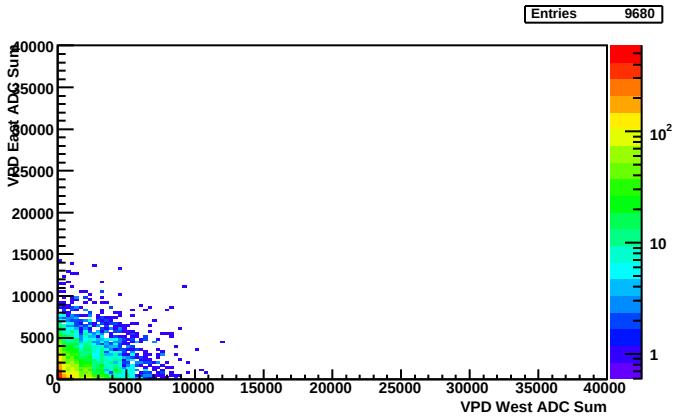

Entries 9680
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

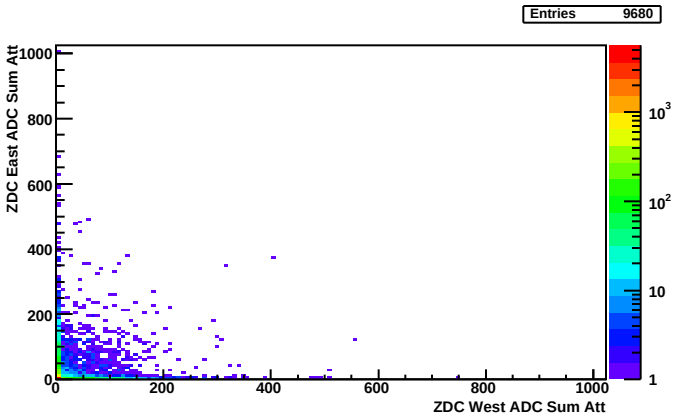

Entries 9680
VPD-East ADC Sum
ZDC-East ADC Sum Att

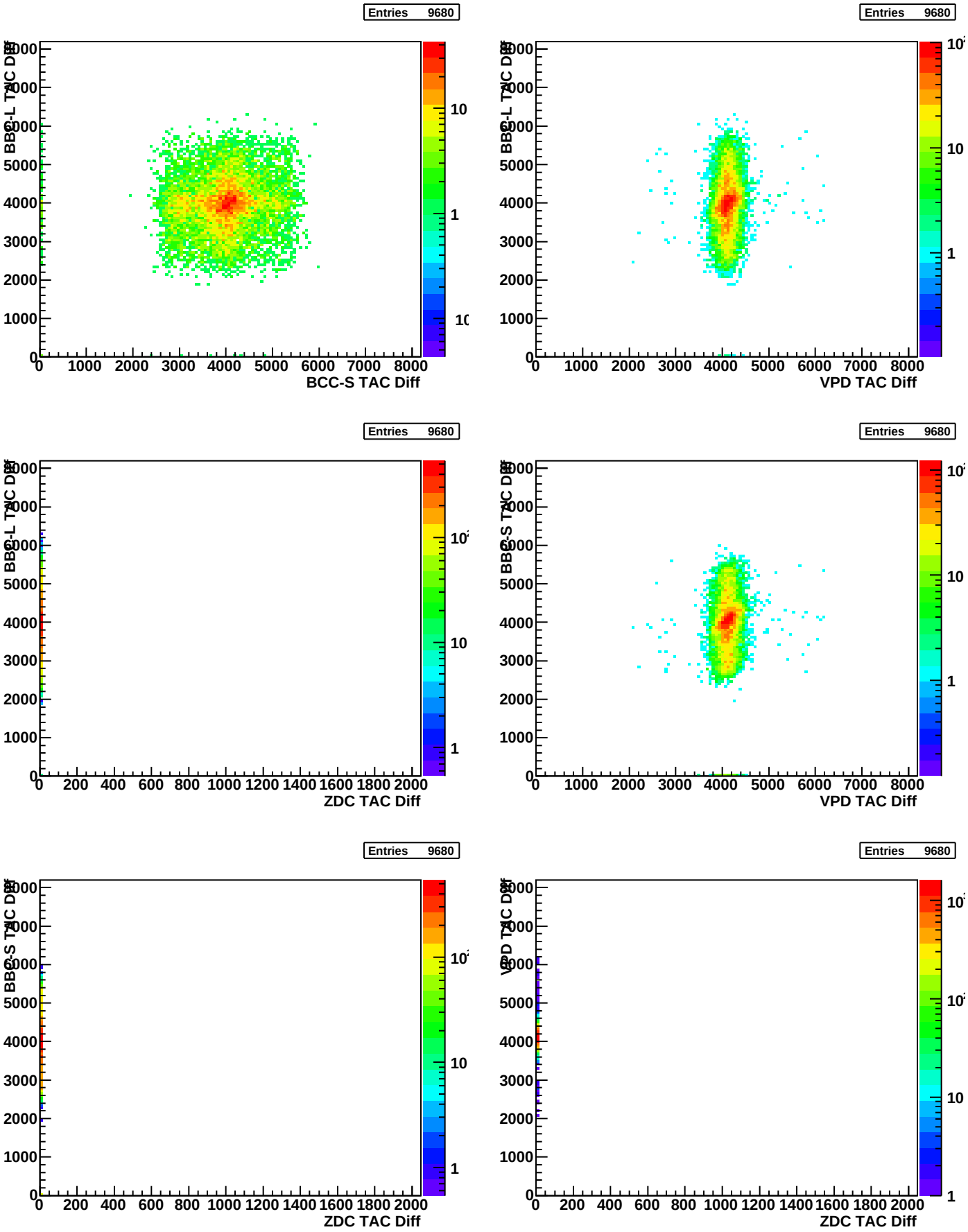

Entries 9680
VPD-West ADC Sum
ZDC-West ADC Sum Att

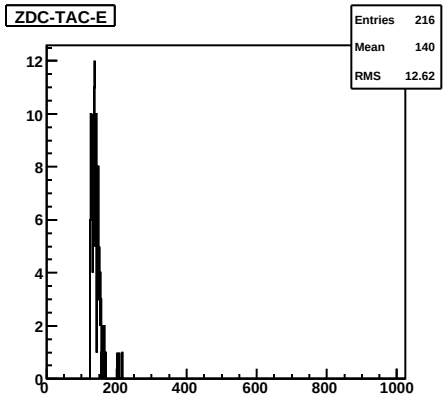

Entries 9680
BBC-L-East ADC Sum
BBC-L-West ADC Sum

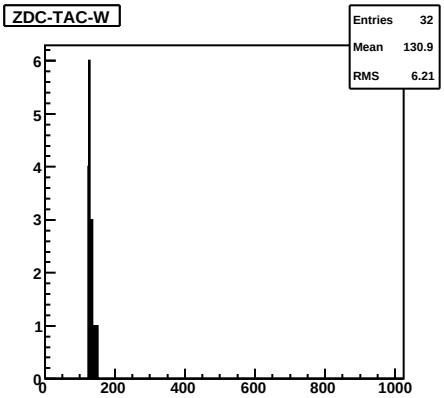

Entries 9680
BBC-S-East ADC Sum
BBC-S-West ADC Sum

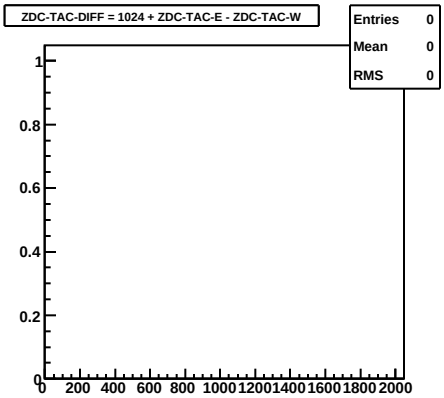

Entries 9680
VPD East ADC Sum
VPD West ADC Sum

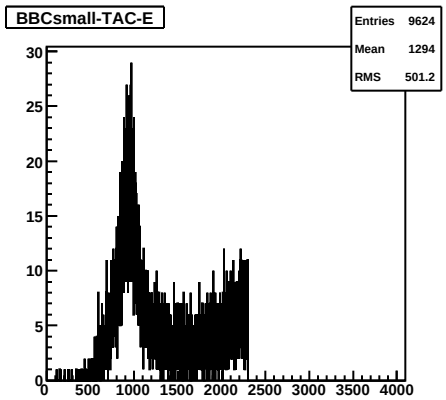

Entries 9680
ZDC East ADC Sum Att
ZDC West ADC Sum Att

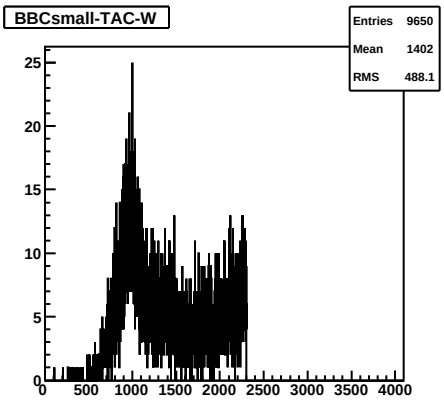

Entries 9680
BBC-L TAC Diff
BCC-S TAC Diff
Entries 9680
BBC-L TAC Diff
VPD TAC Diff
Entries 9680
BBC-L TAC Diff
ZDC TAC Diff
Entries 9680
BBC-S TAC Diff
VPD TAC Diff
Entries 9680
BBC-S TAC Diff
ZDC TAC Diff
Entries 9680
VPD TAC Diff
ZDC TAC Diff

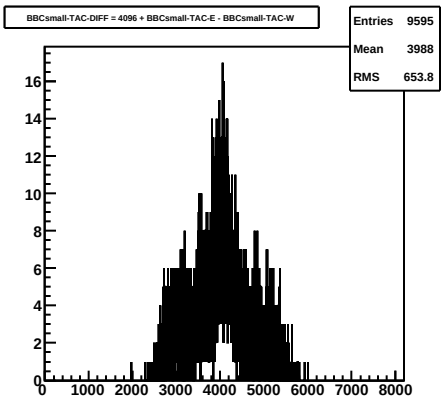

ZDC-TAC-E
Entries 216
Mean 140
RMS 12.62

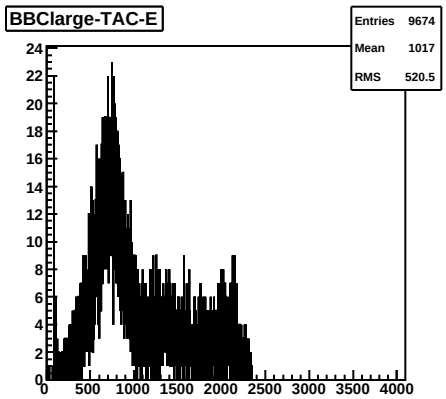

ZDC-TAC-W
Entries 32
Mean 130.9
RMS 6.21

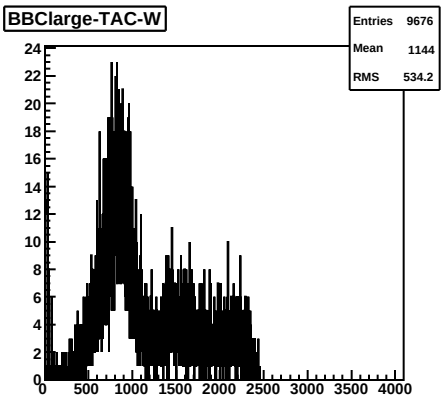

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 0
Mean 0
RMS 0

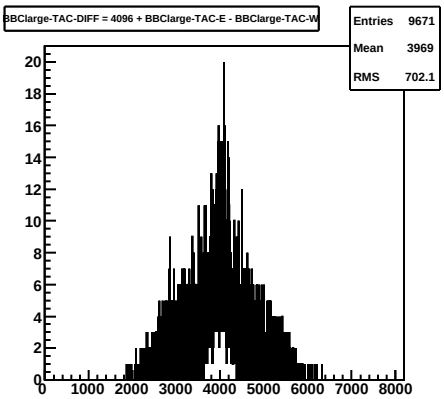

BBCsmall-TAC-E
Entries 9624
Mean 1294
RMS 501.2

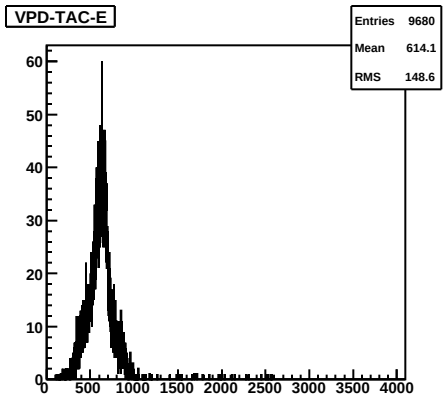

BBCsmall-TAC-W
Entries 9650
Mean 1402
RMS 488.1

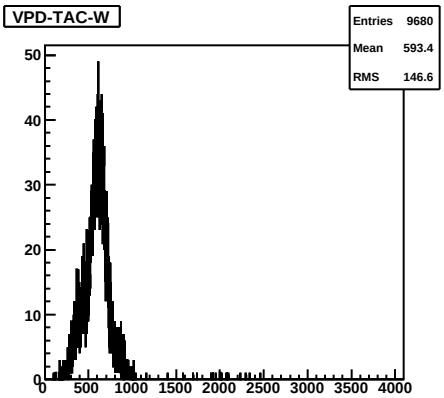

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 9595
Mean 3988
RMS 653.8

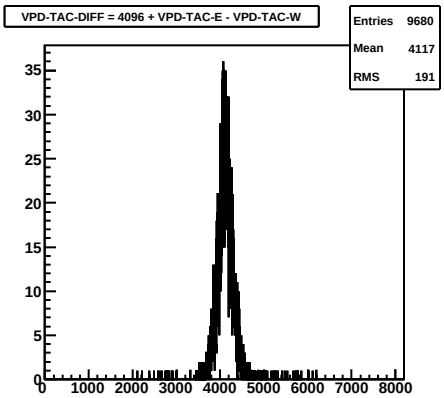

BBClarge-TAC-E
Entries 9674
Mean 1017
RMS 520.5

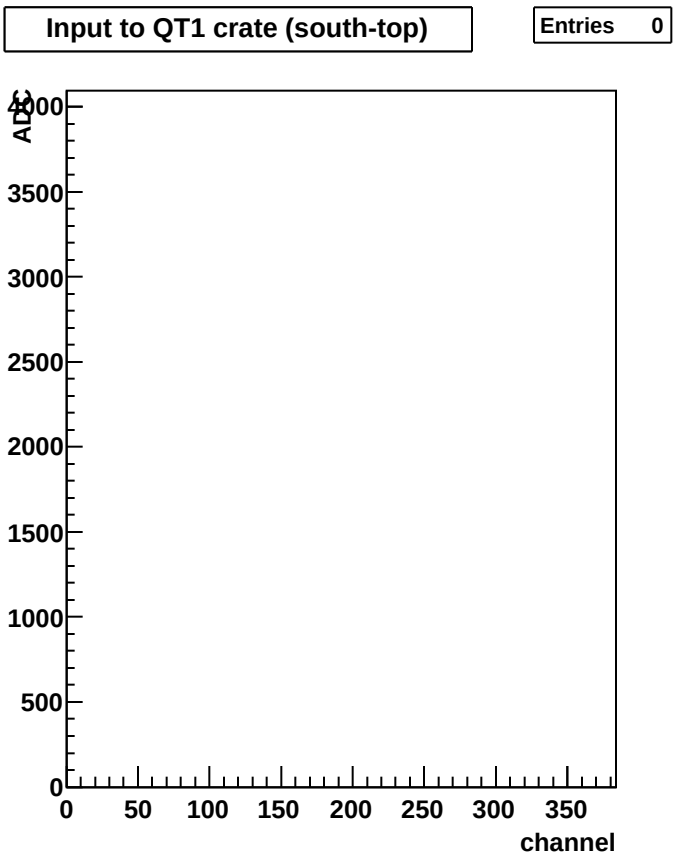

BBClarge-TAC-W
Entries 9676
Mean 1144
RMS 534.2

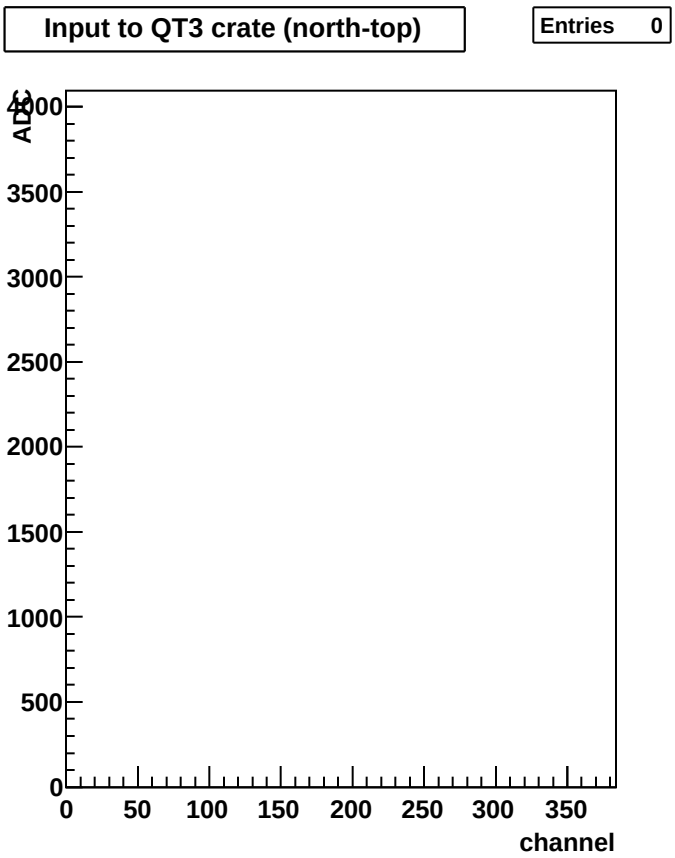

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 9671
Mean 3969
RMS 702.1

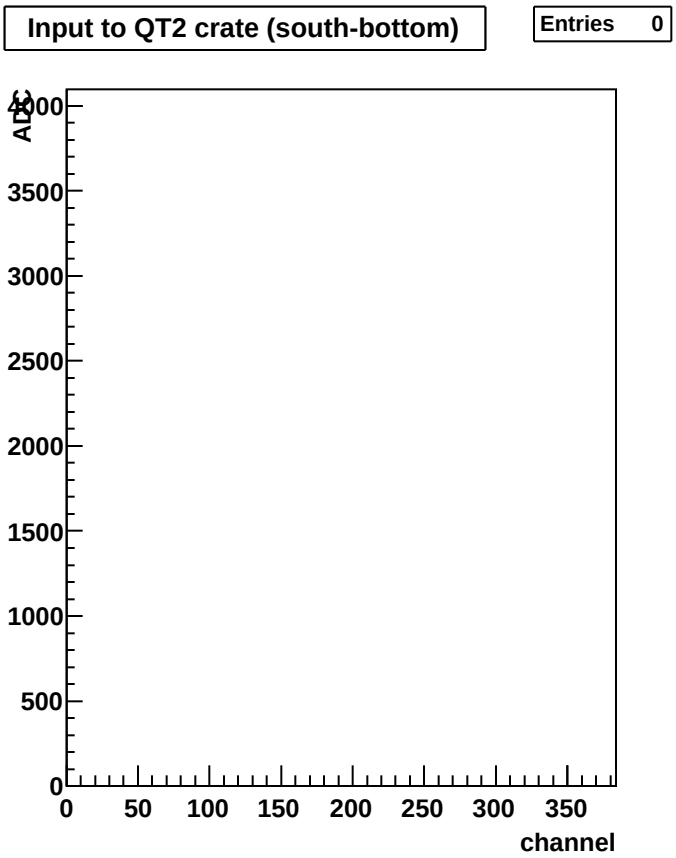

VPD-TAC-E
Entries 9680
Mean 614.1
RMS 148.6

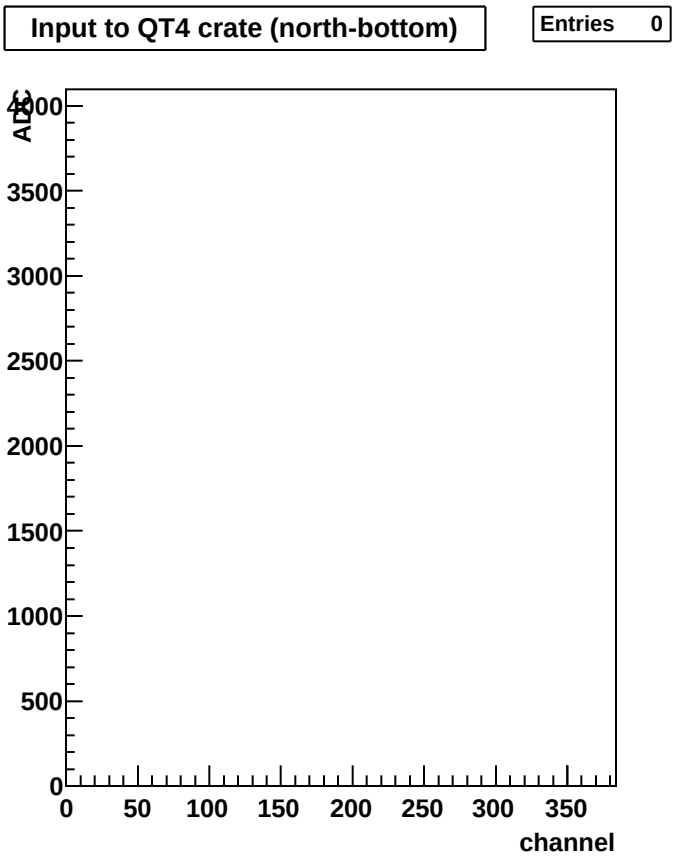

VPD-TAC-W
Entries 9680
Mean 593.4
RMS 146.6

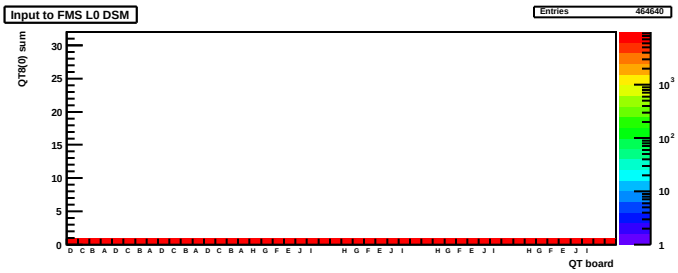

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 9680
Mean 4117
RMS 191

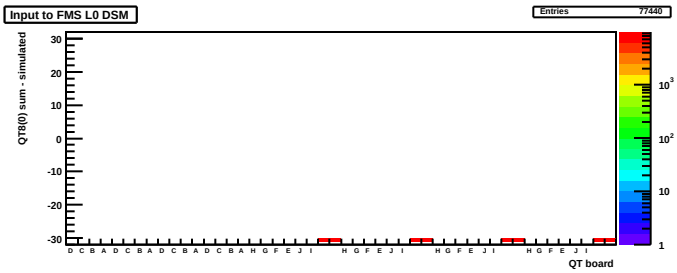

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

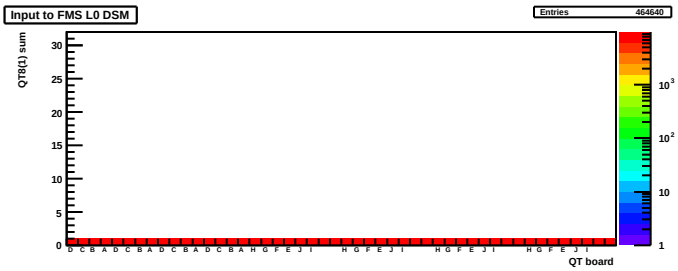

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

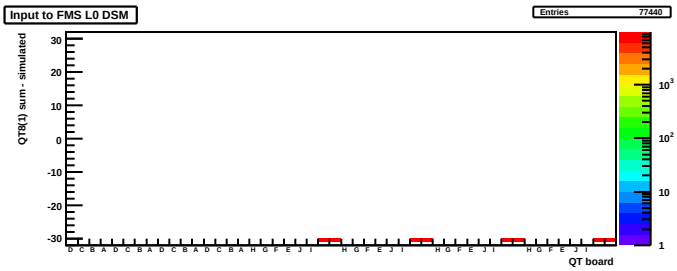

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

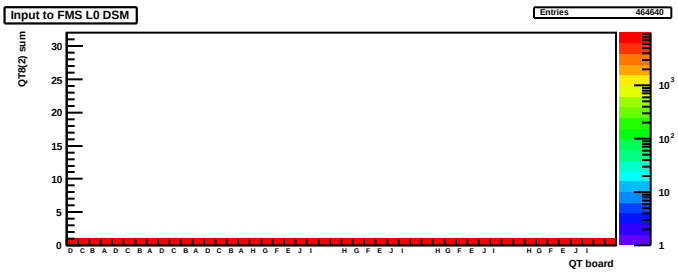

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

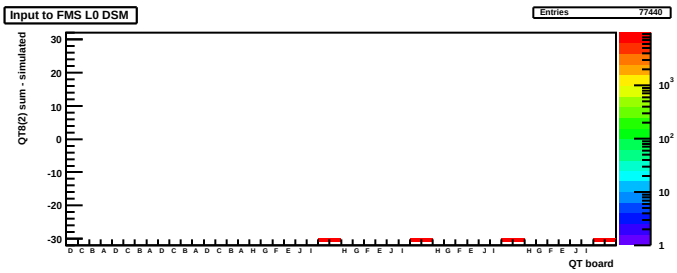

Input to FMS L0 DSM
Entries 464640
QT8(0) sum
QT board

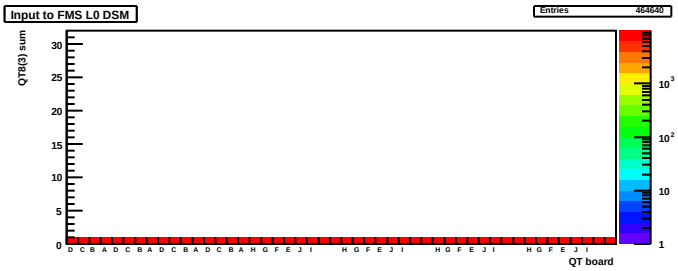

Input to FMS L0 DSM
Entries 77440
QT8(0) sum - simulated
QT board

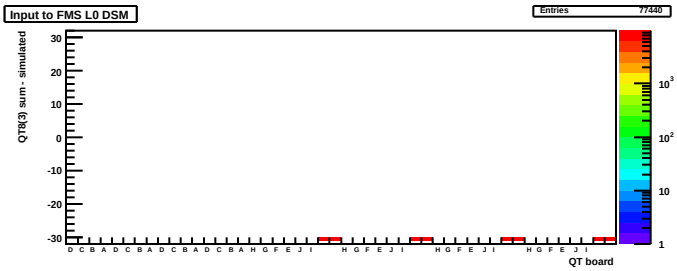

Input to FMS L0 DSM
Entries 464640
QT8(1) sum
QT board

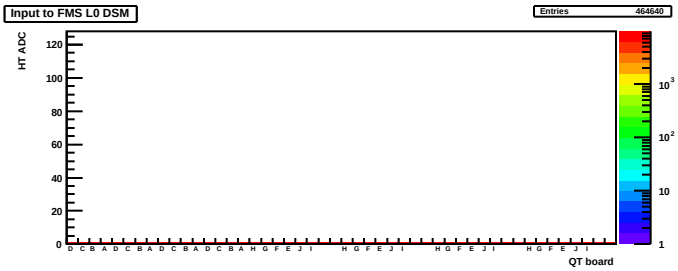

Input to FMS L0 DSM
Entries 77440
QT8(1) sum - simulated
QT board

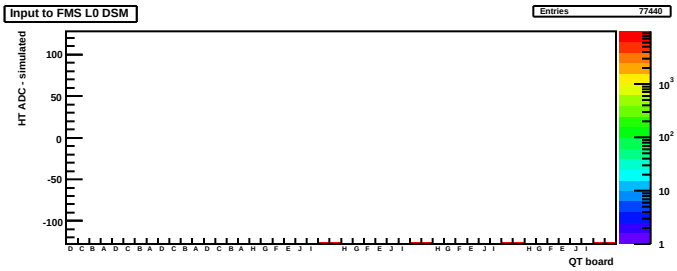

Input to FMS L0 DSM
Entries 464640
QT8(2) sum
QT board

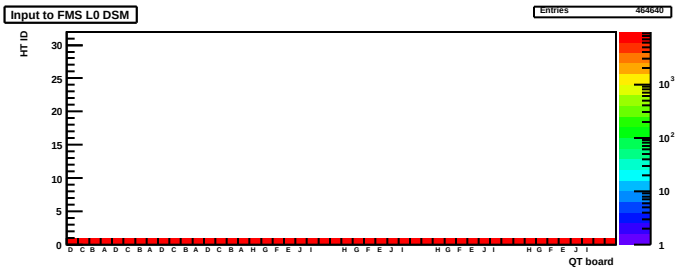

Input to FMS L0 DSM
Entries 77440
QT8(2) sum - simulated
QT board

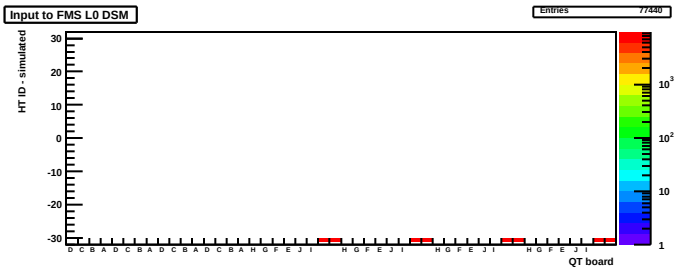

Input to FMS L0 DSM
Entries 464640
QT8(3) sum
QT board

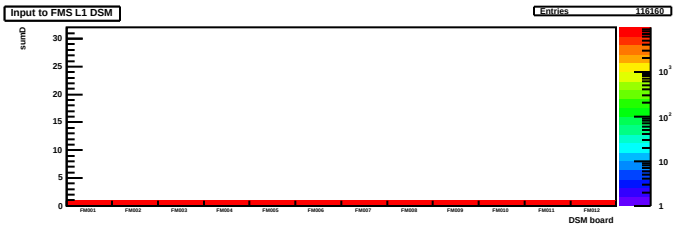

Input to FMS L0 DSM
Entries 77440
QT8(3) sum - simulated
QT board

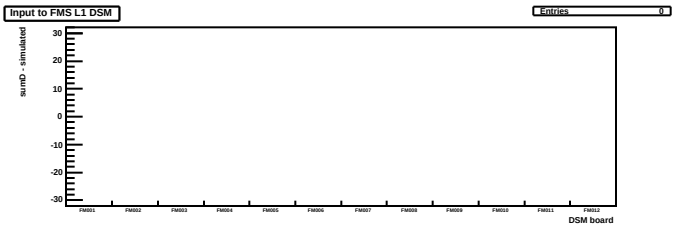

Input to FMS L0 DSM
Entries 464640
HT ADC
QT board

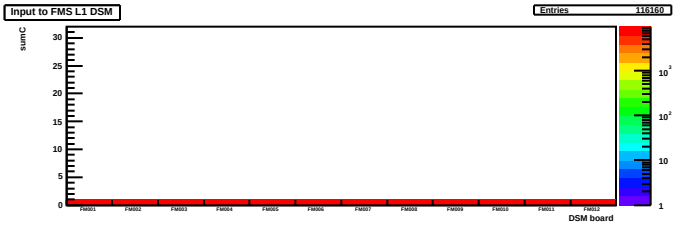

Input to FMS L0 DSM
Entries 77440
HT ADC - simulated
QT board

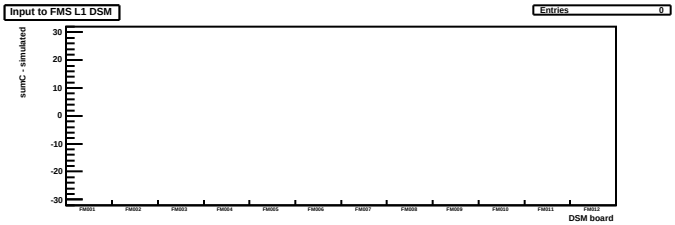

Input to FMS L0 DSM
Entries 464640
HT ID
QT board

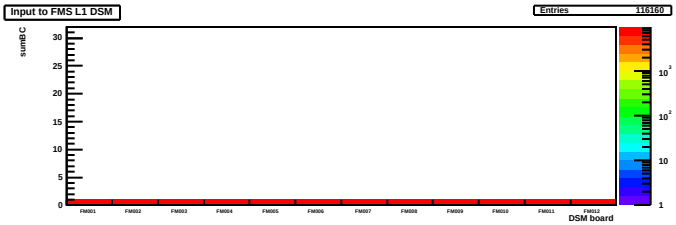

Input to FMS L0 DSM
Entries 77440
HT ID - simulated
QT board

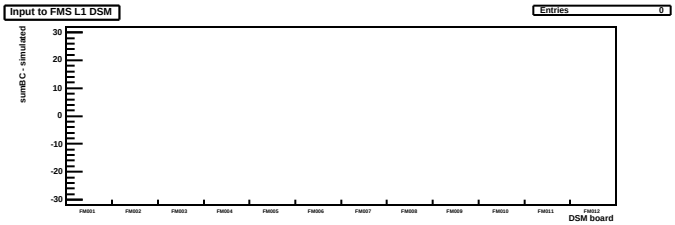

Input to FMS L1 DSM
Entries 116160
sumD
DSM board

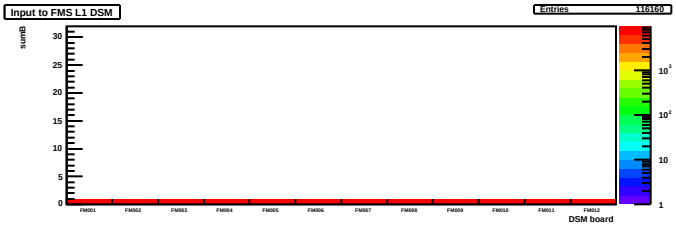

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

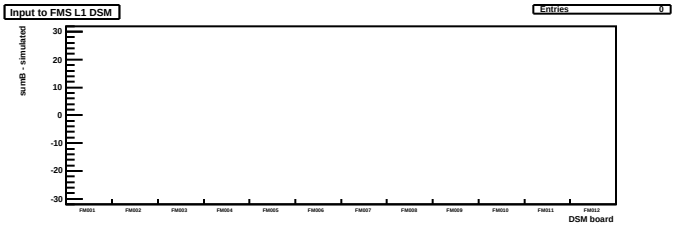

Input to FMS L1 DSM
Entries 116160
sumC
DSM board

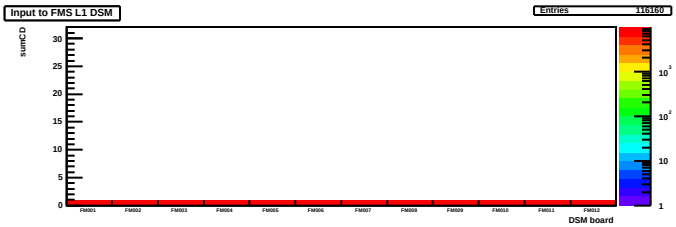

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

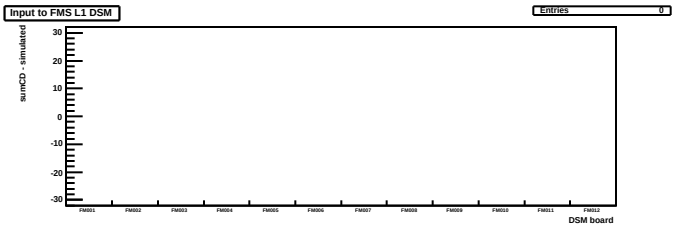

Input to FMS L1 DSM
Entries 116160
sumBC
DSM board

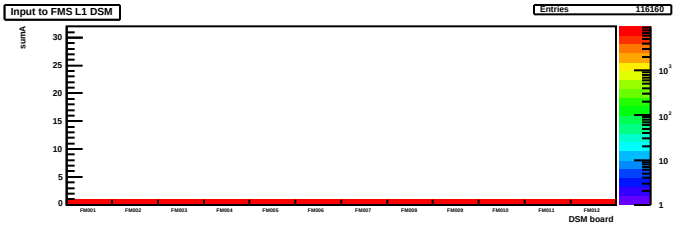

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

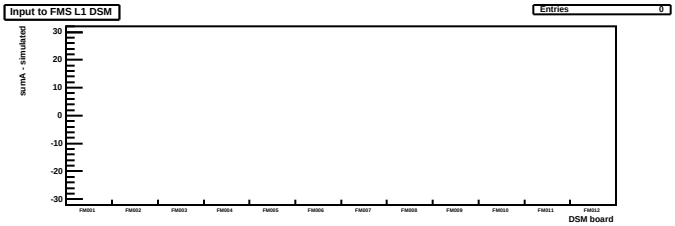

Input to FMS L1 DSM
Entries 116160
sumB
DSM board

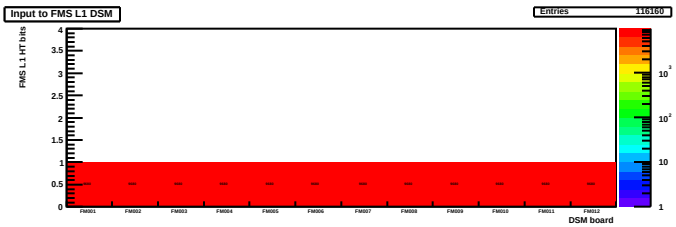

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

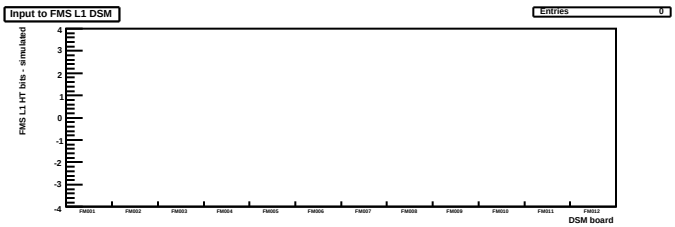

Input to FMS L1 DSM
Entries 116160
sumCD
DSM board

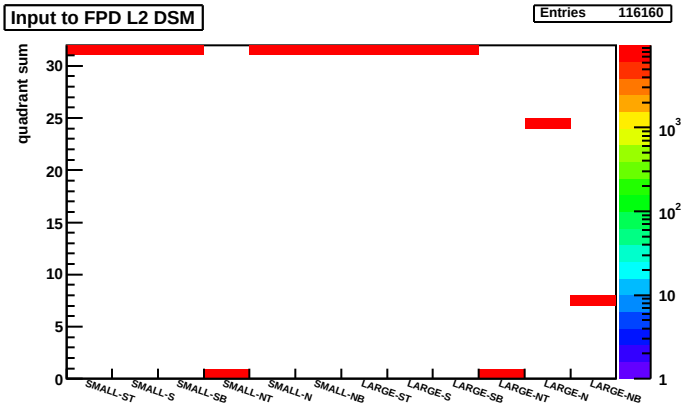

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

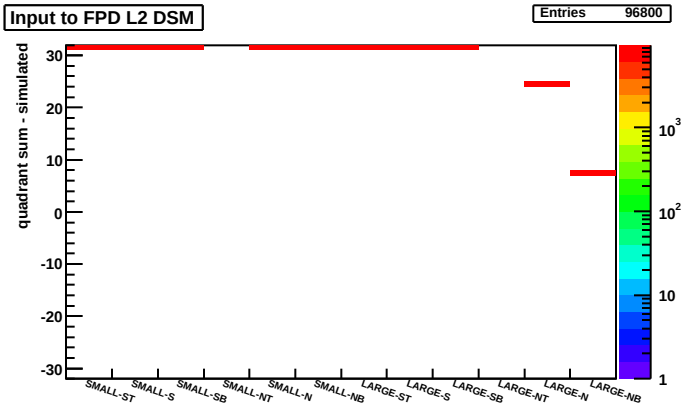

Input to FMS L1 DSM
Entries 116160
sumA
DSM board

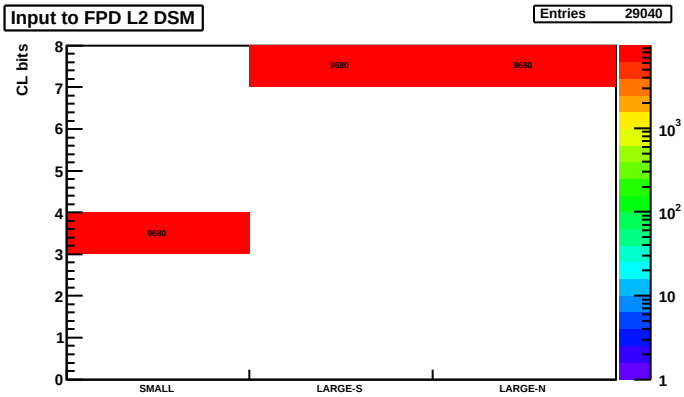

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

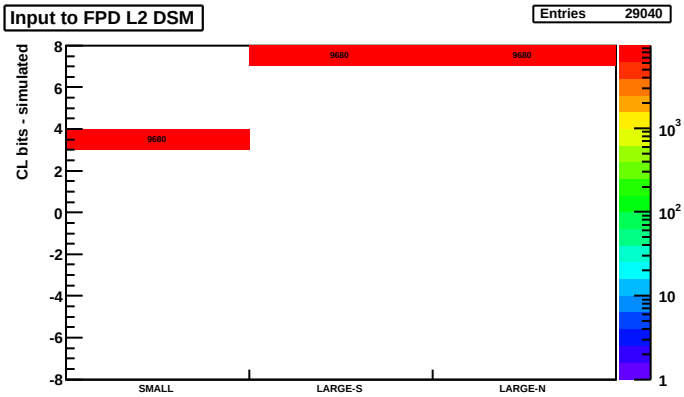

Input to FMS L1 DSM
Entries 116160
FMS L1 HT bits
DSM board

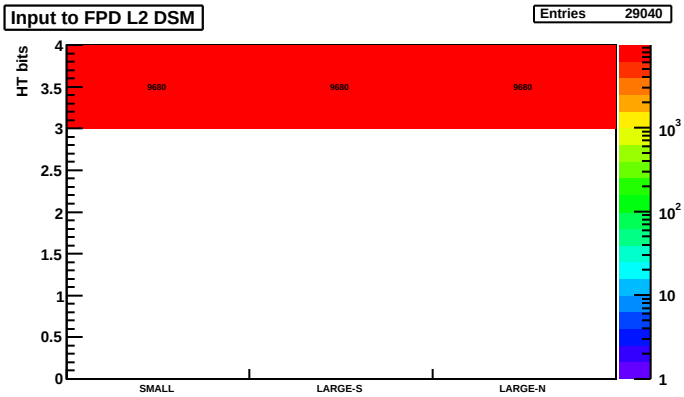

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

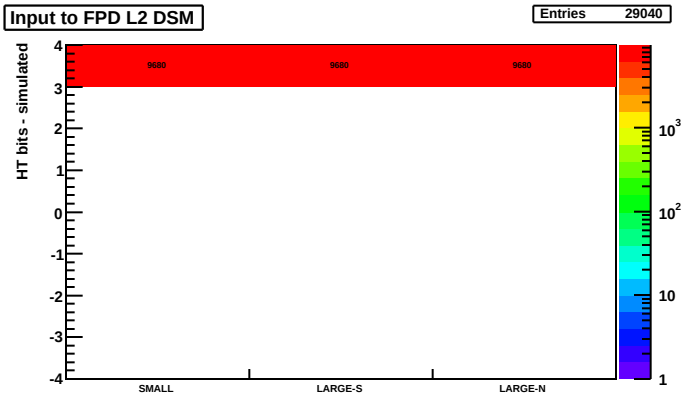

Input to FPD L2 DSM
Entries 116160
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

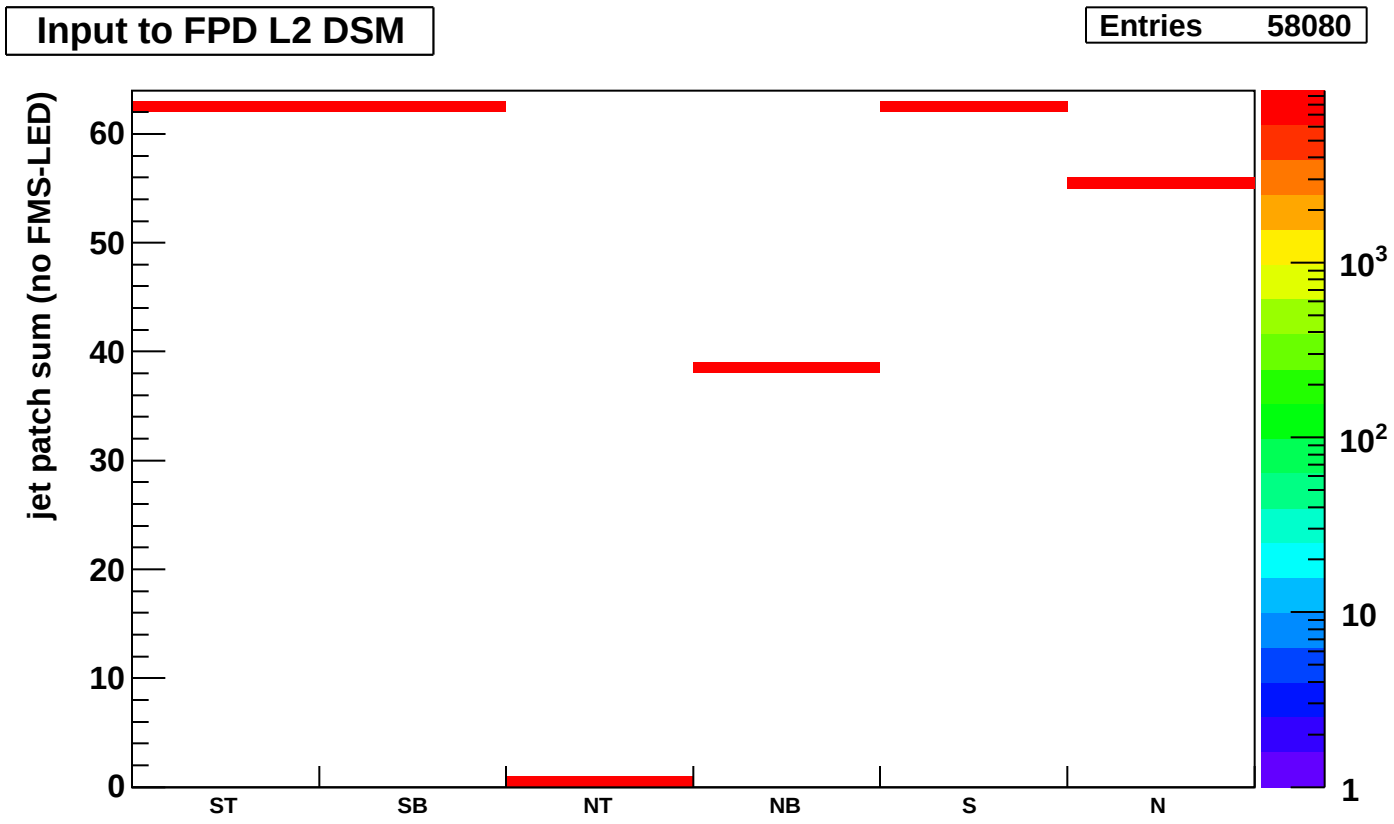

Input to FPD L2 DSM
Entries 96800
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

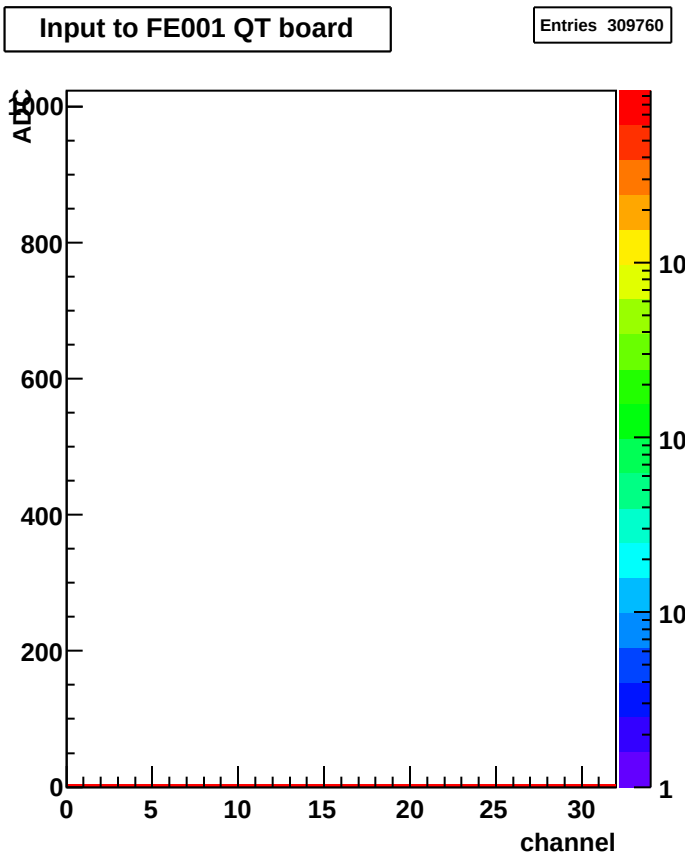

Input to FPD L2 DSM
Entries 29040
CL bits
9680
9680
9680
SMALL
LARGE-S
LARGE-N

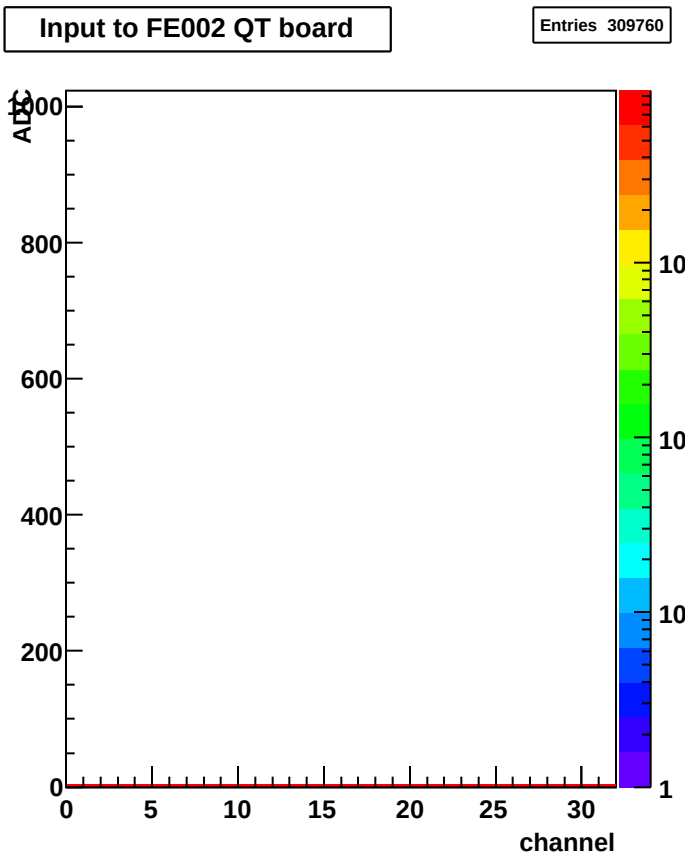

Input to FPD L2 DSM
Entries 29040
CL bits - simulated
9680
9680
9680
SMALL
LARGE-S
LARGE-N

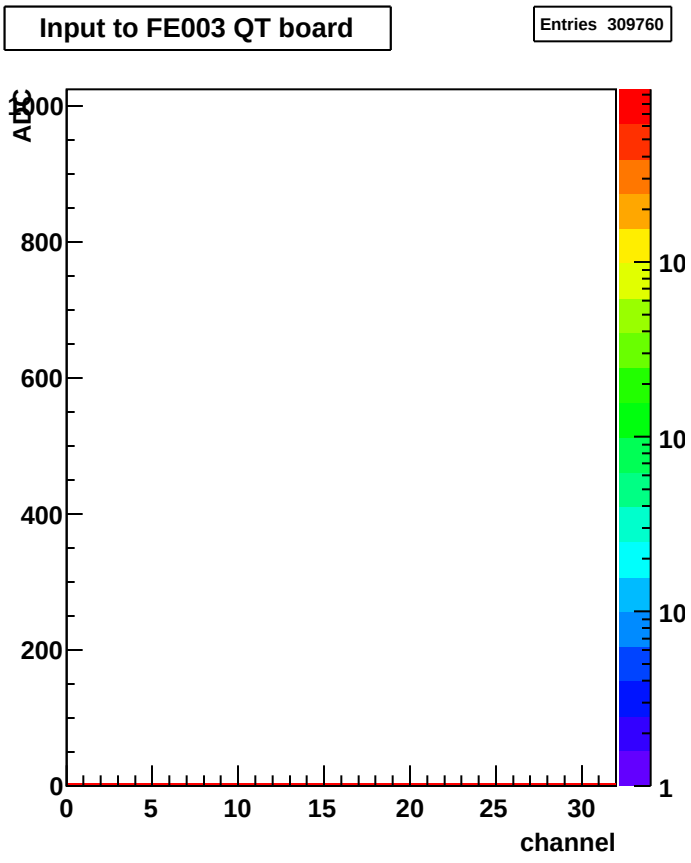

Input to FPD L2 DSM
Entries 29040
HT bits
9680
9680
9680
SMALL
LARGE-S
LARGE-N

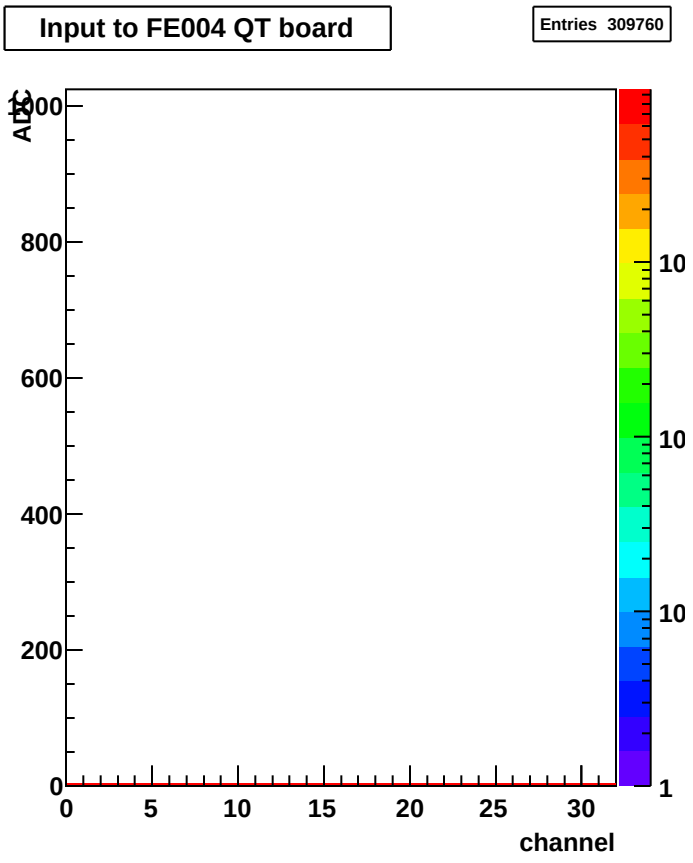

Input to FPD L2 DSM
Entries 29040
HT bits - simulated
9680
9680
9680
SMALL
LARGE-S
LARGE-N

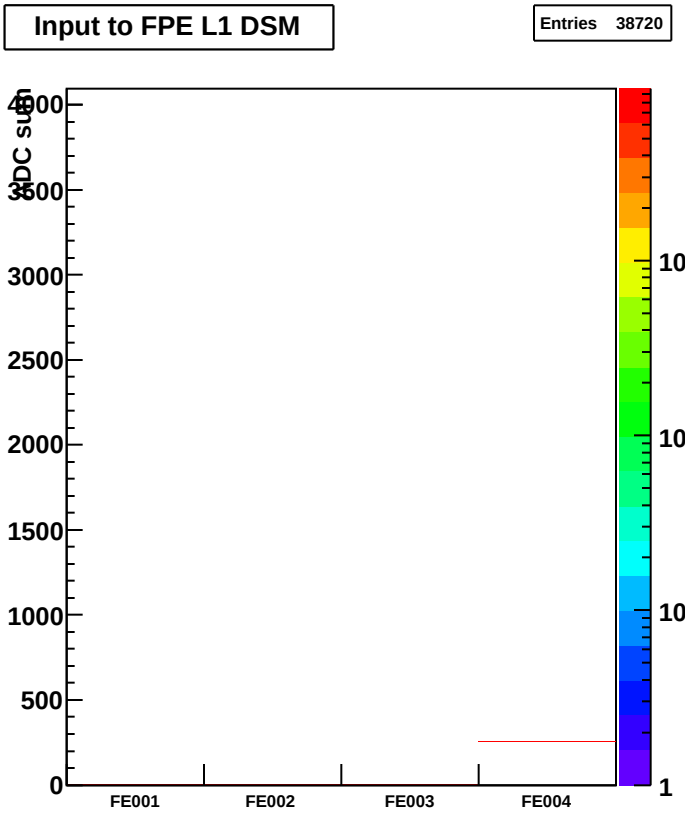

Input to FPD L2 DSM
Entries 58080
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3

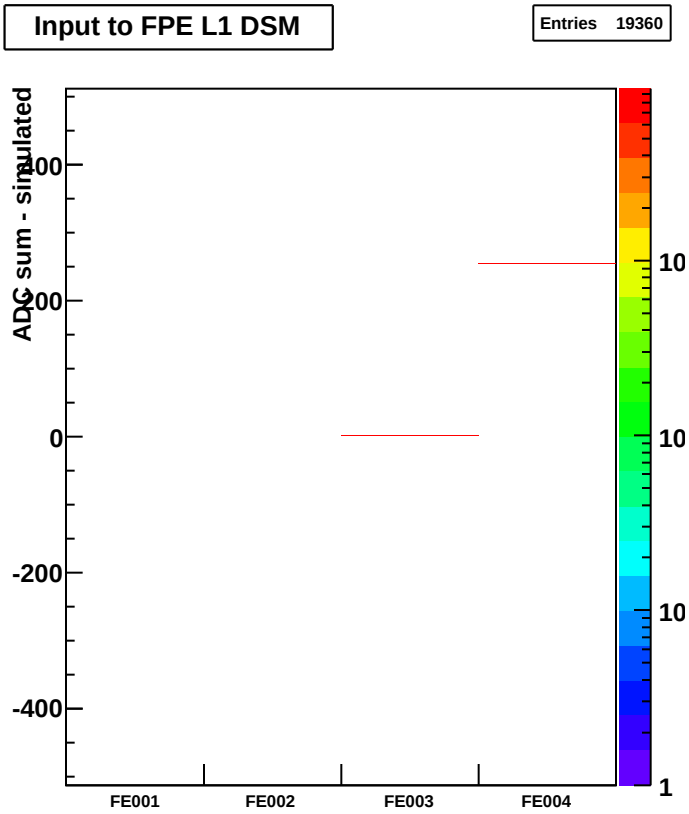

Input to FE001 QT board
Entries 309760
ADC
channel

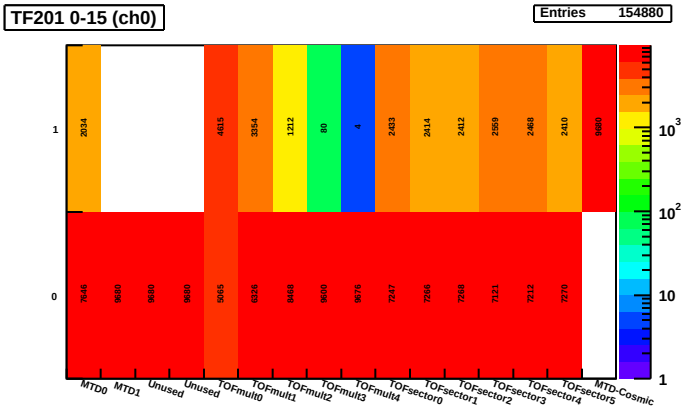

Input to FE002 QT board
Entries 309760
ADC
channel

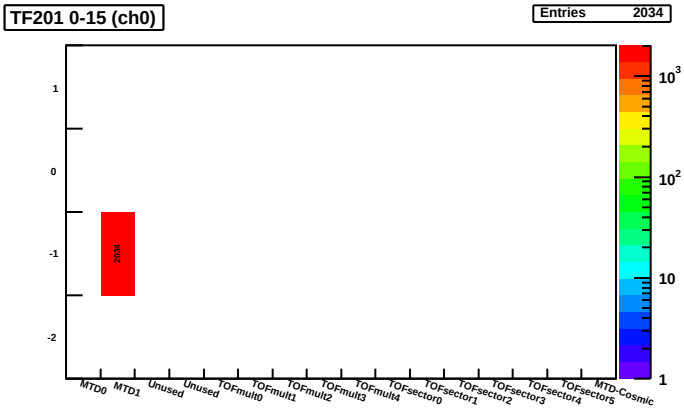

Input to FE003 QT board
Entries 309760
ADC
channel

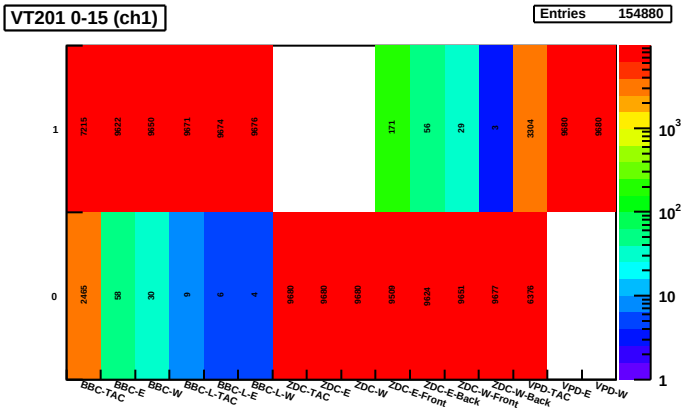

Input to FE004 QT board
Entries 309760
ADC
channel

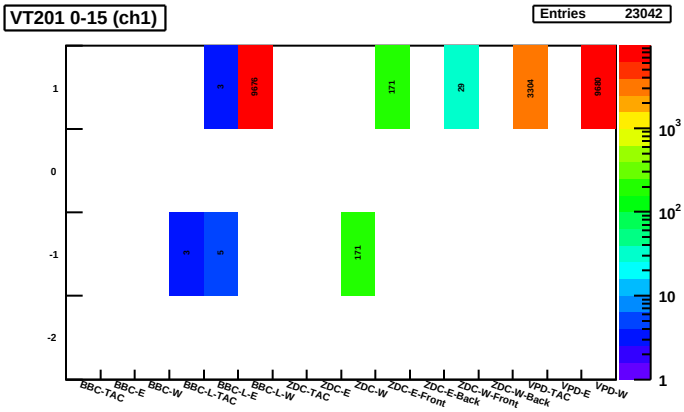

Input to FPE L1 DSM
Entries 38720
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
1

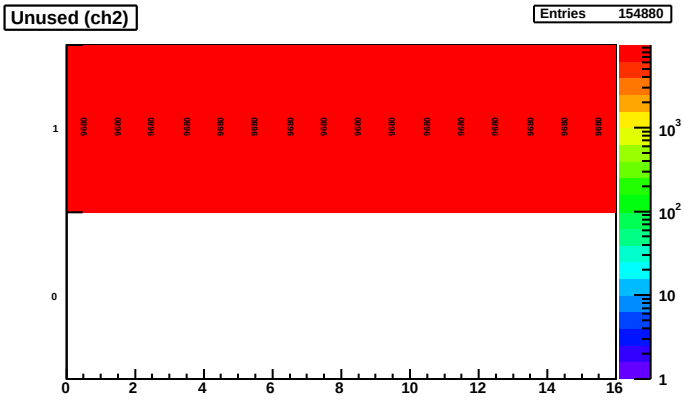

Input to FPE L1 DSM
Entries 19360
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
1


TF201 0-15 (ch0)
Entries 154880
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 2034
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 154880
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 23042
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W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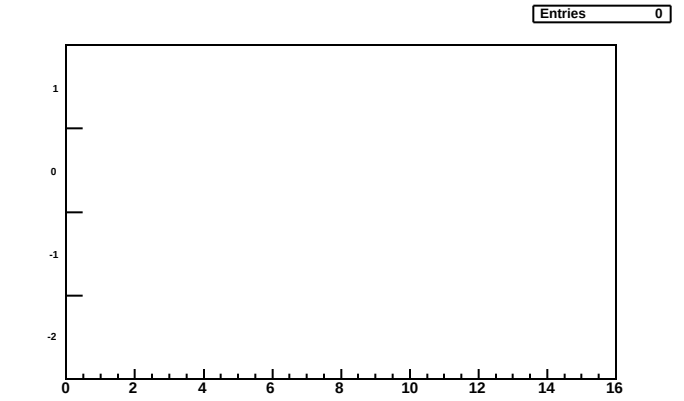
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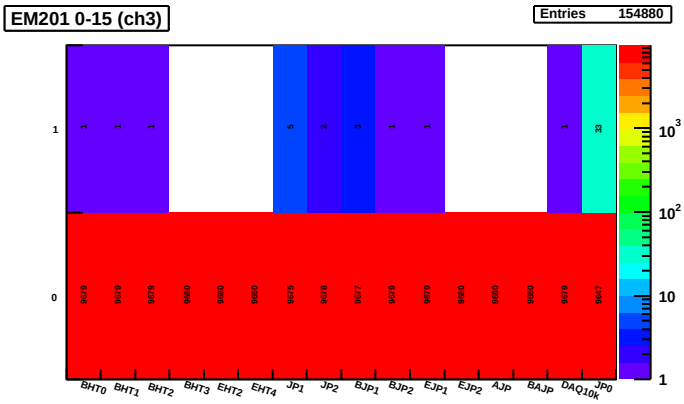
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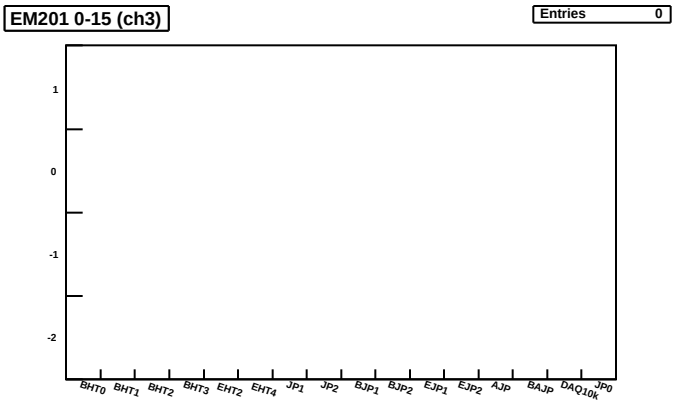
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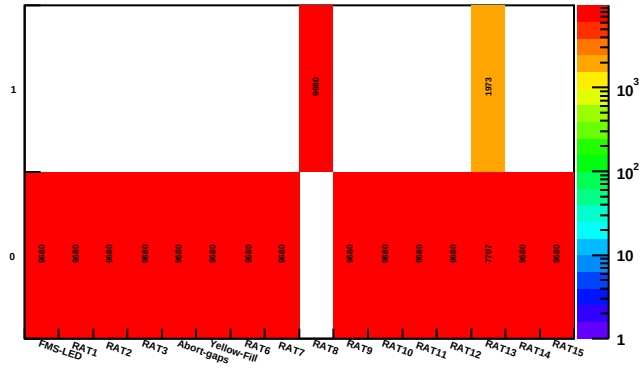
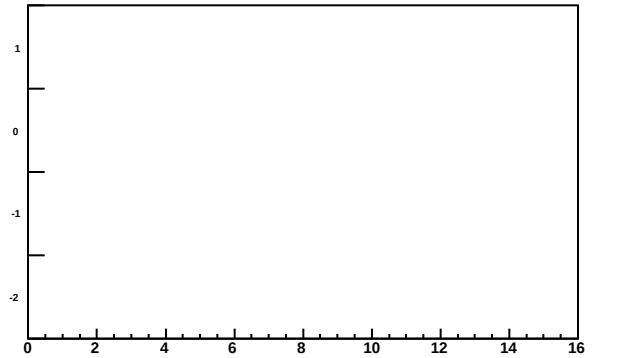
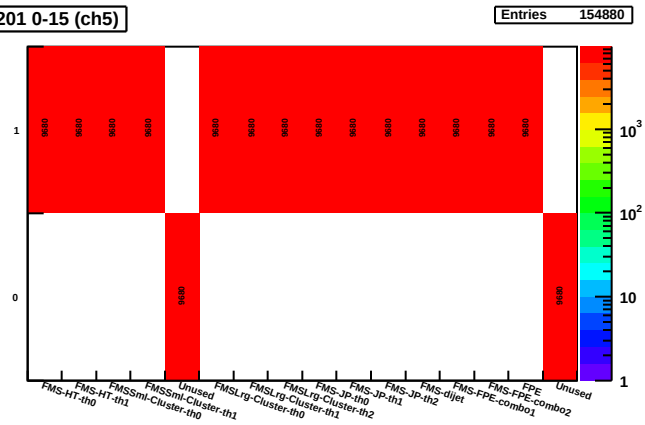
RAT board (ch4)





FP201 0-15 (ch5)



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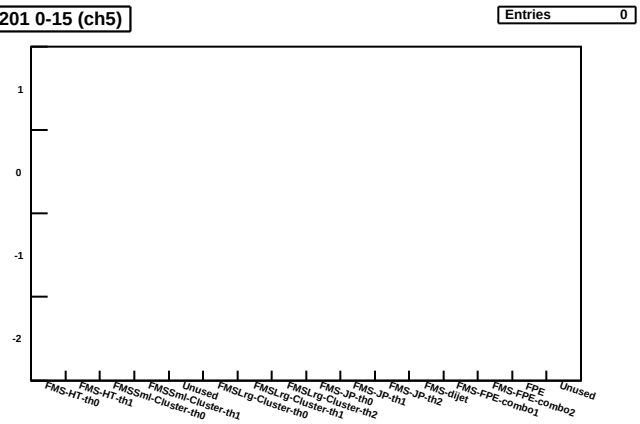
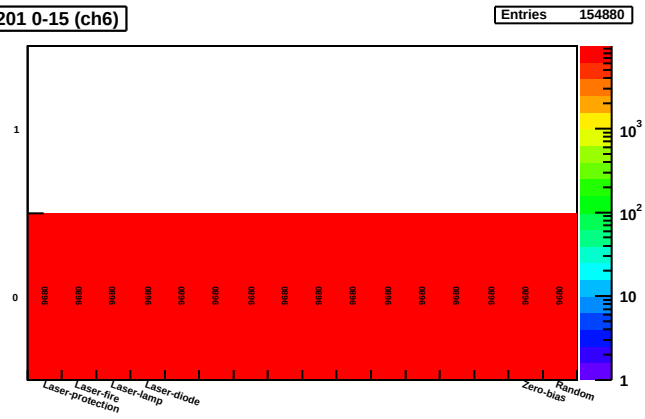
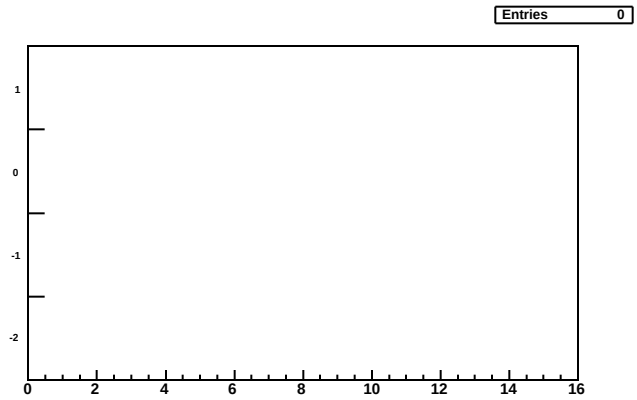
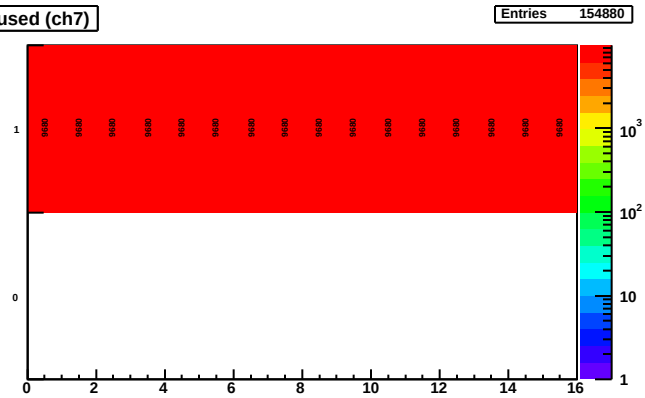
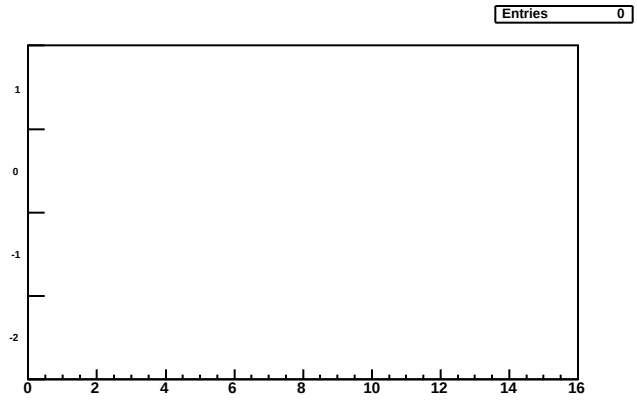


ST201 0-15 (ch6)





Unused (ch7)