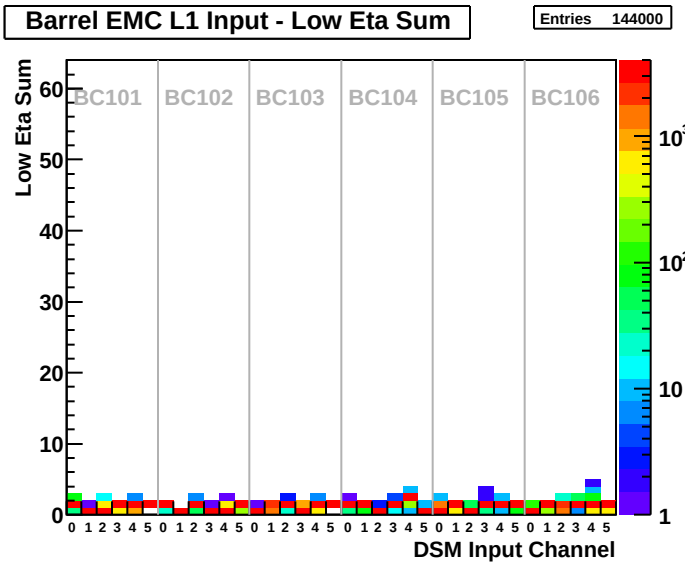
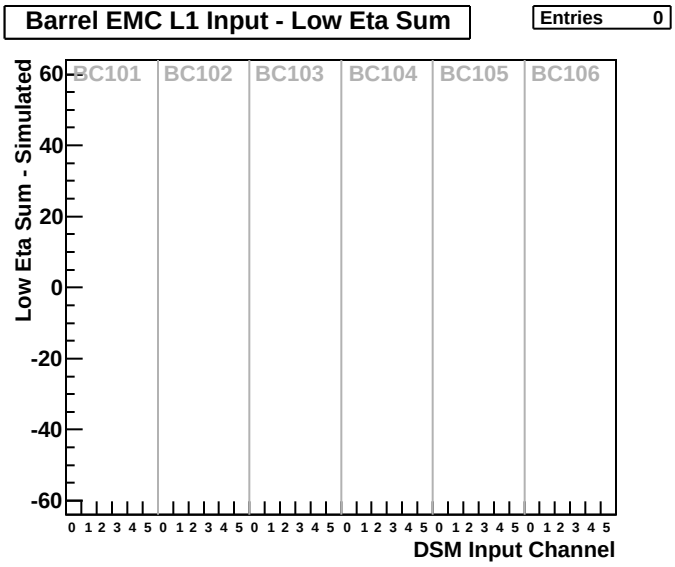
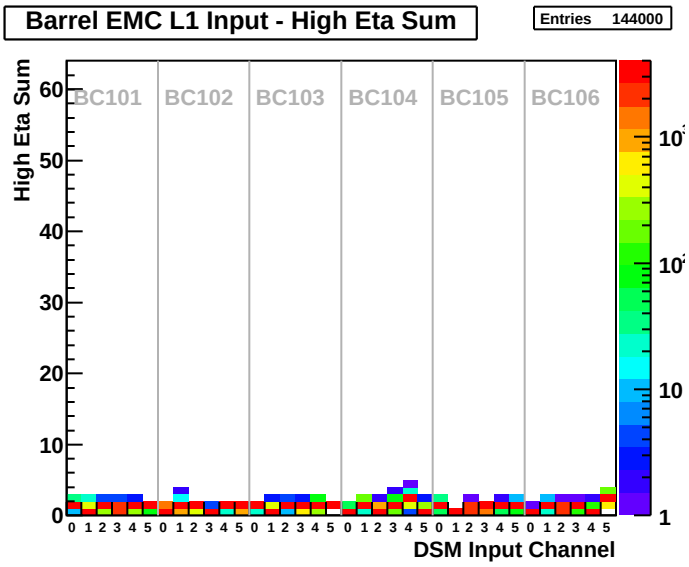
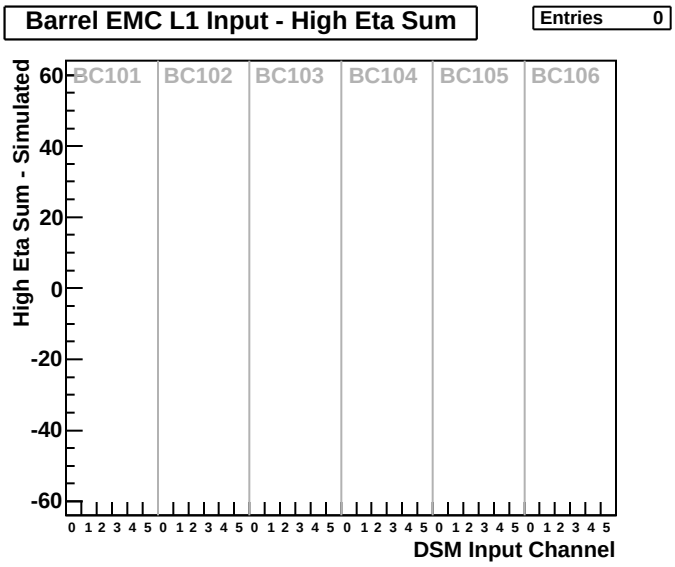
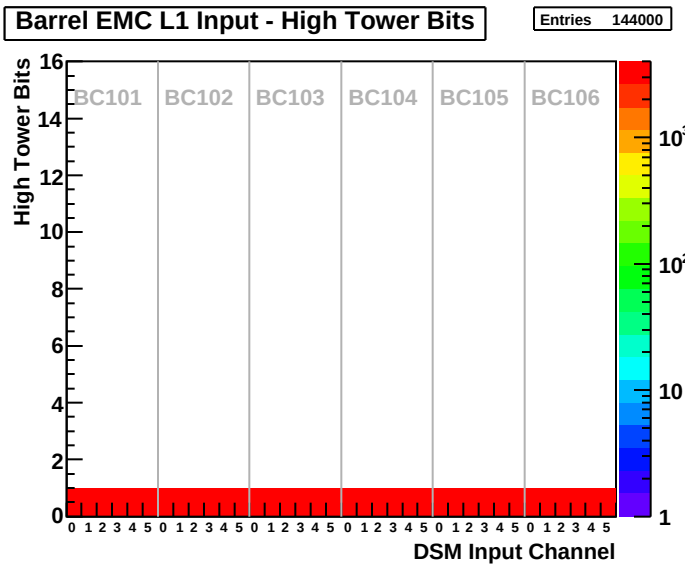
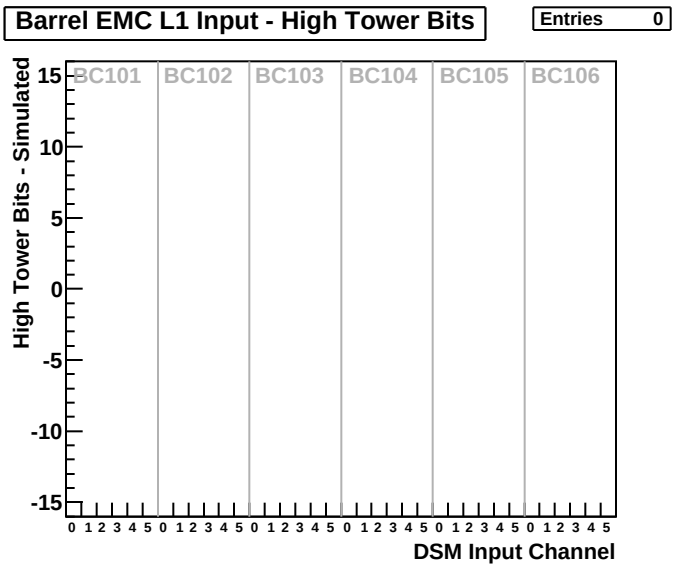

Barrel EMC L1 Input - Low Eta Sum
Entries 144000
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

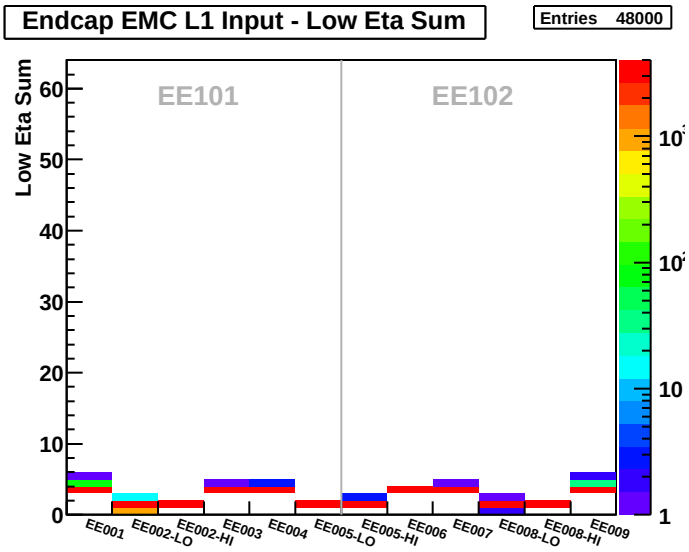

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

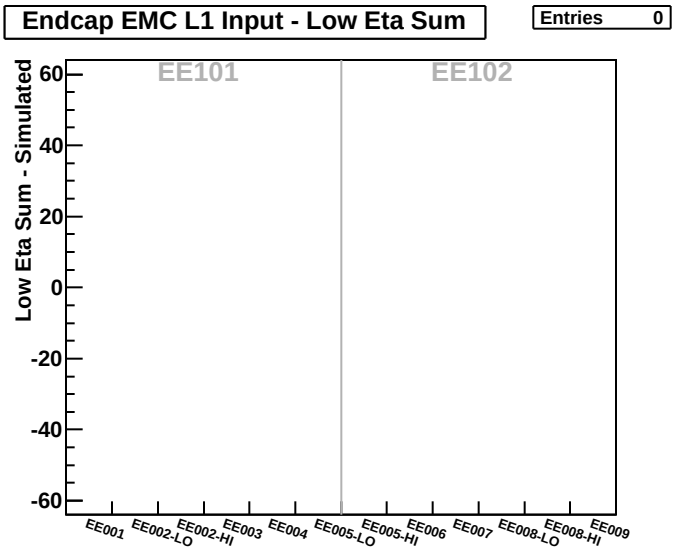

Barrel EMC L1 Input - High Eta Sum
Entries 144000
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

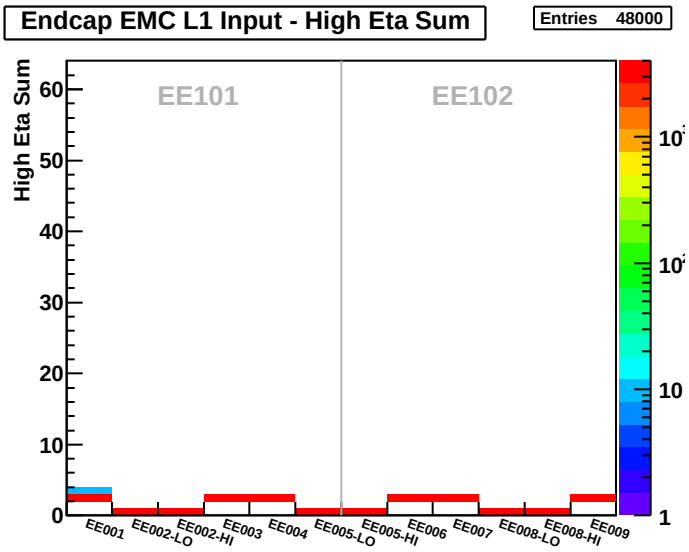

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

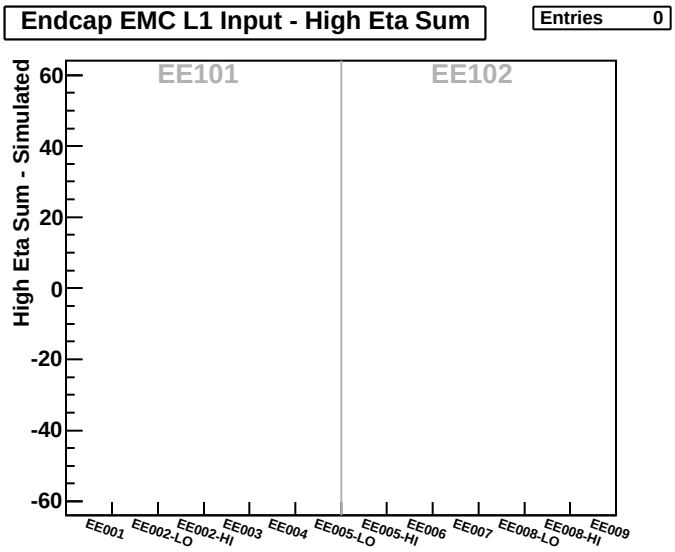

Barrel EMC L1 Input - High Tower Bits
Entries 144000
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

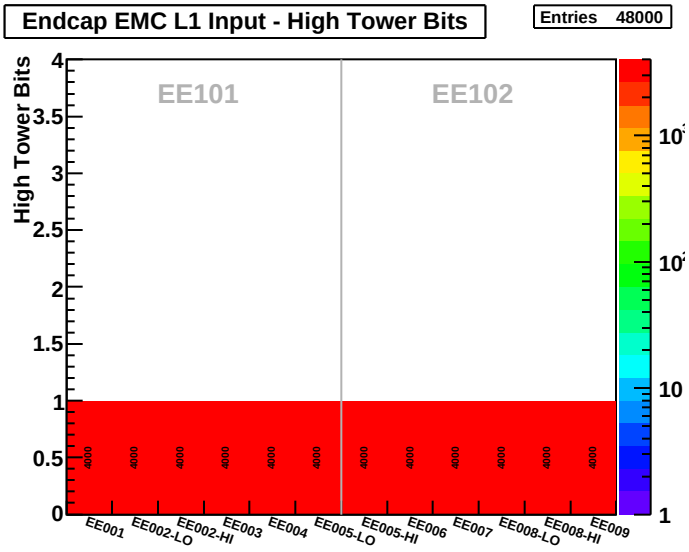

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

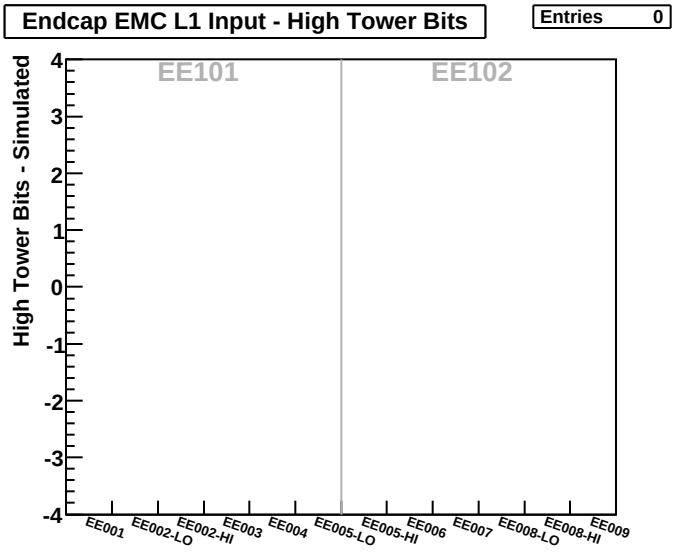

Endcap EMC L1 Input - Low Eta Sum
Entries 48000
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

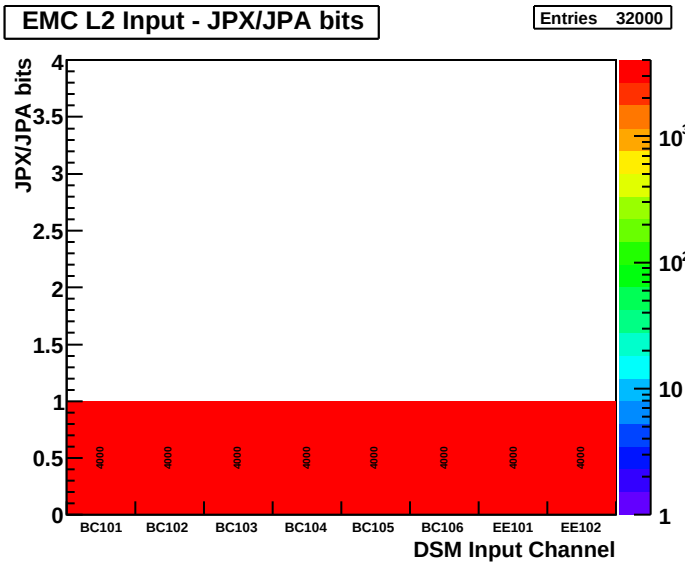

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

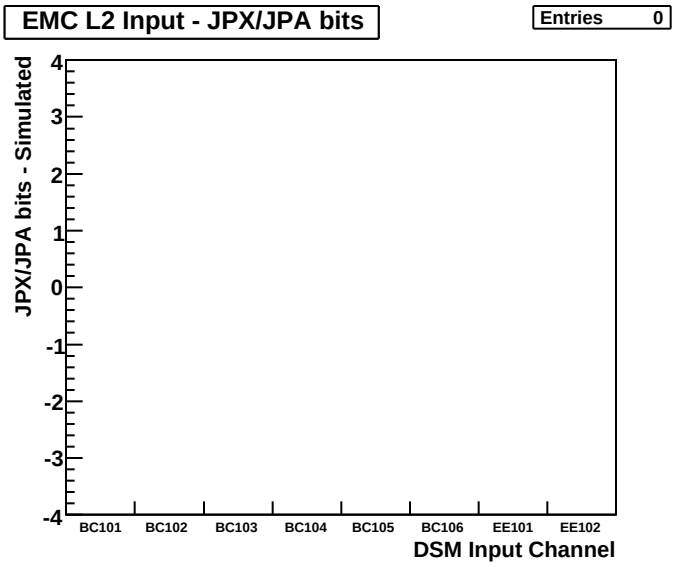

Endcap EMC L1 Input - High Eta Sum
Entries 48000
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

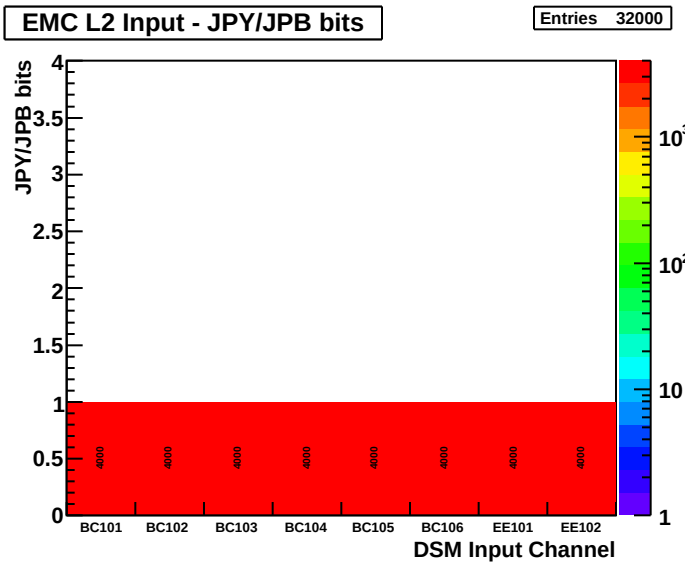

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

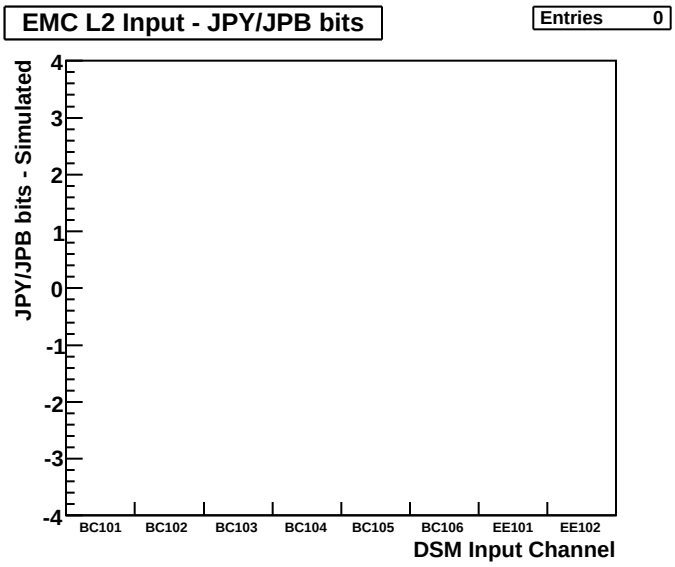

Endcap EMC L1 Input - High Tower Bits
Entries 48000
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

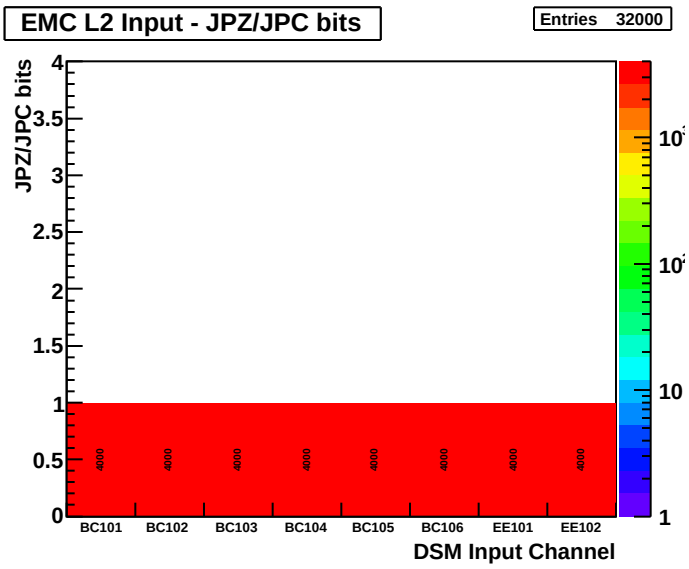

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

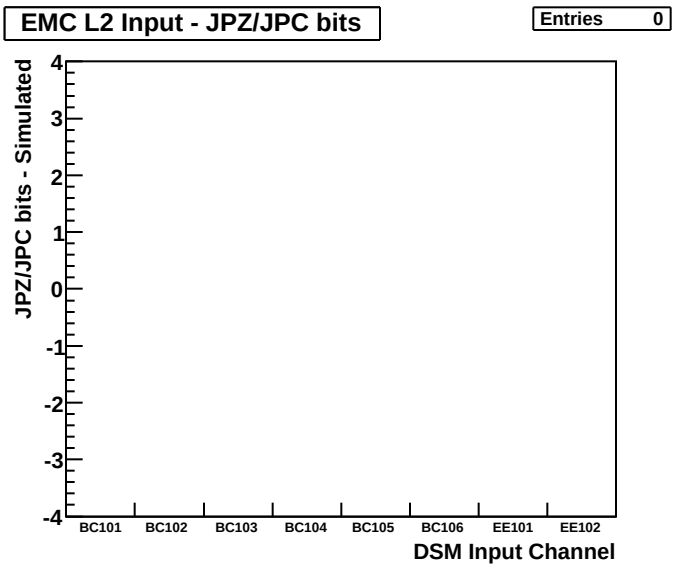

EMC L2 Input - JPX/JPA bits
Entries 32000
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

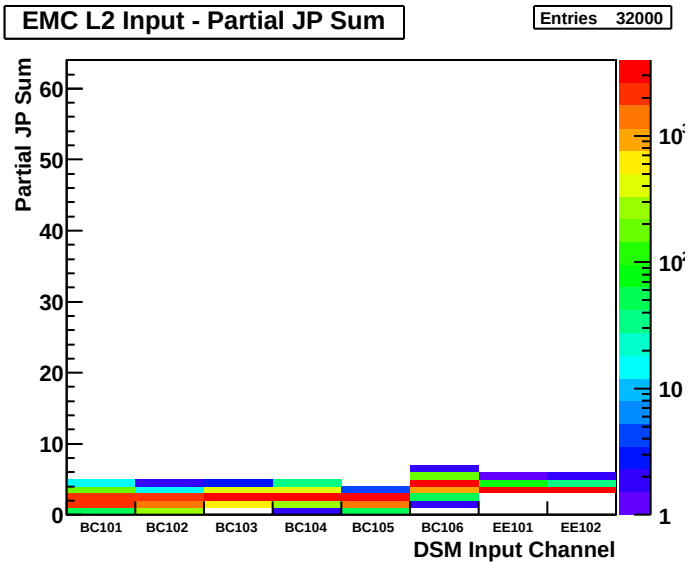

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

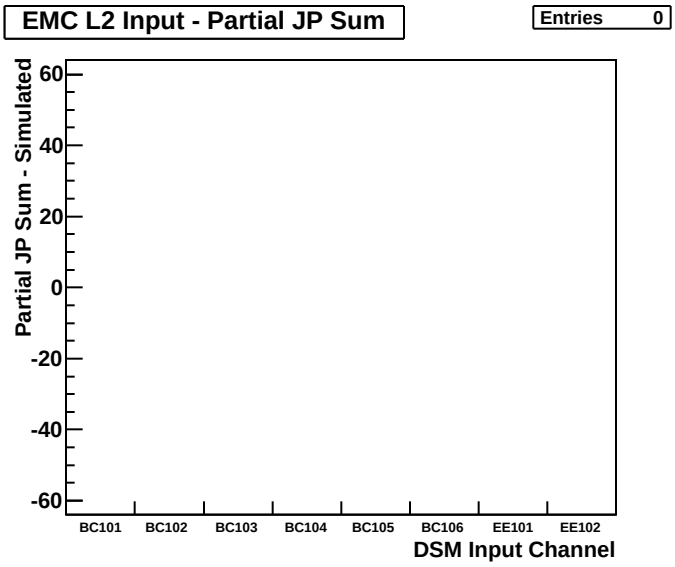

EMC L2 Input - JPY/JPB bits
Entries 32000
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

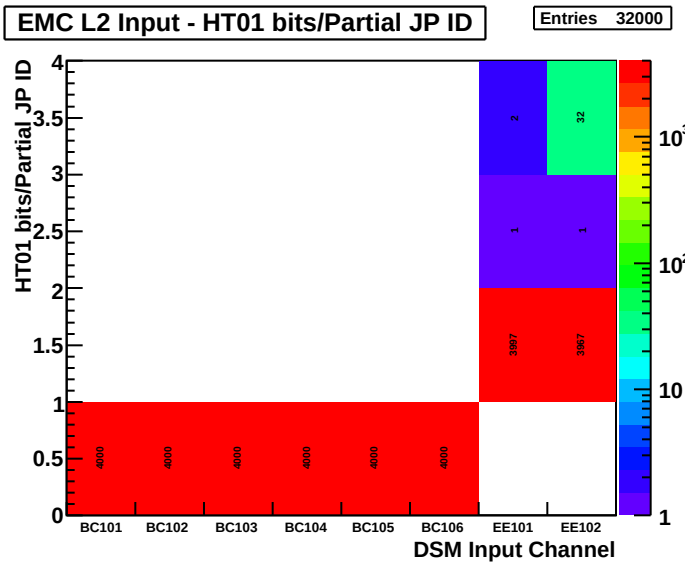

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

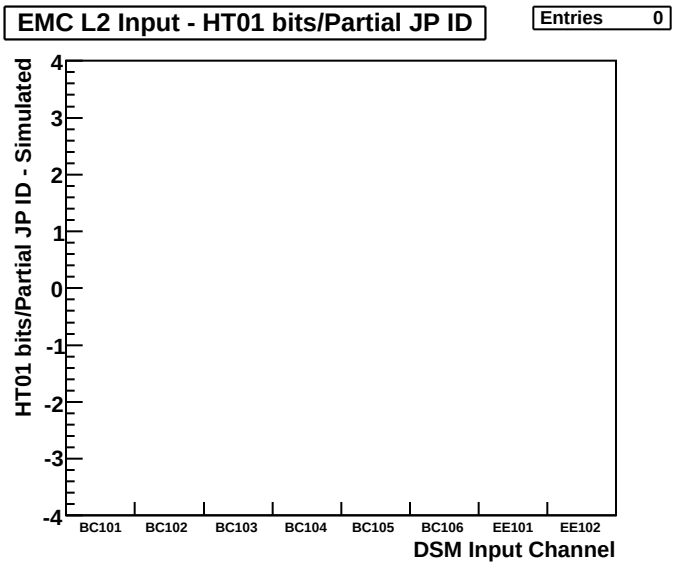

EMC L2 Input - JPZ/JPC bits
Entries 32000
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

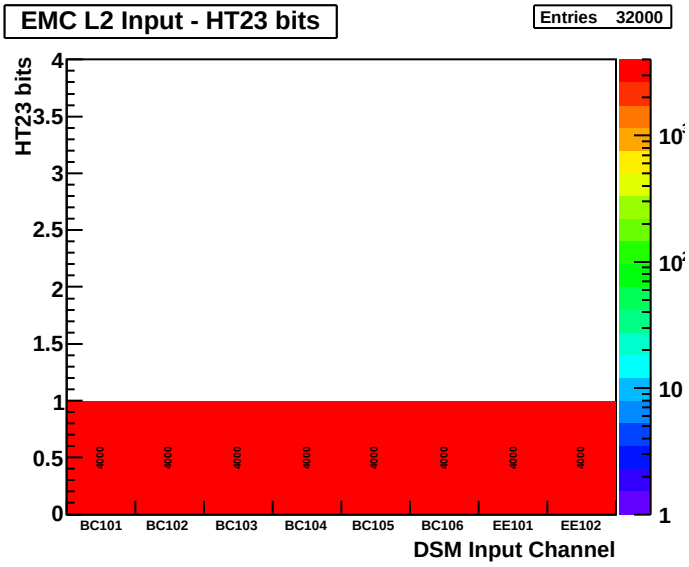

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

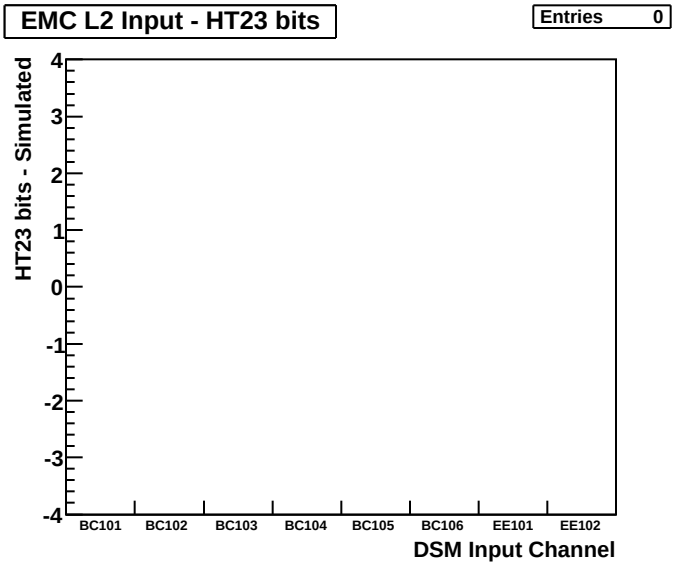

EMC L2 Input - Partial JP Sum
Entries 32000
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

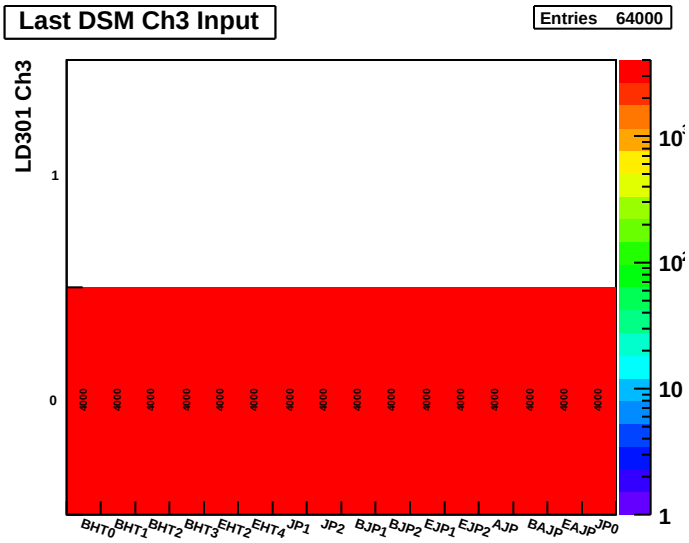

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

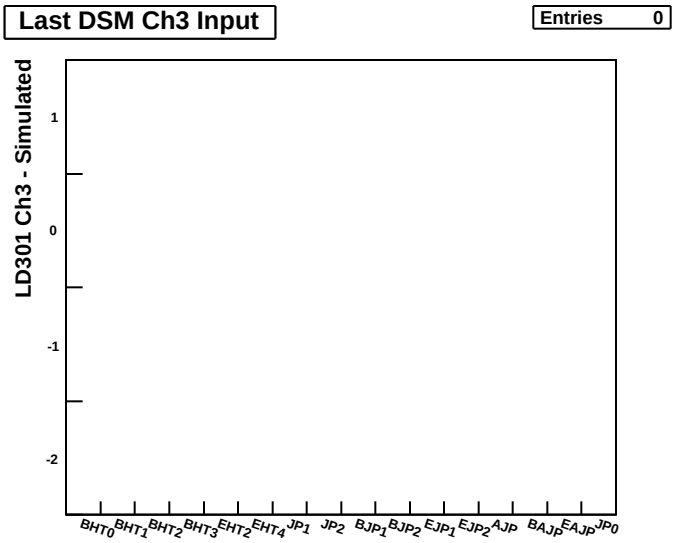

EMC L2 Input - HT01 bits/Partial JP ID
Entries 32000
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

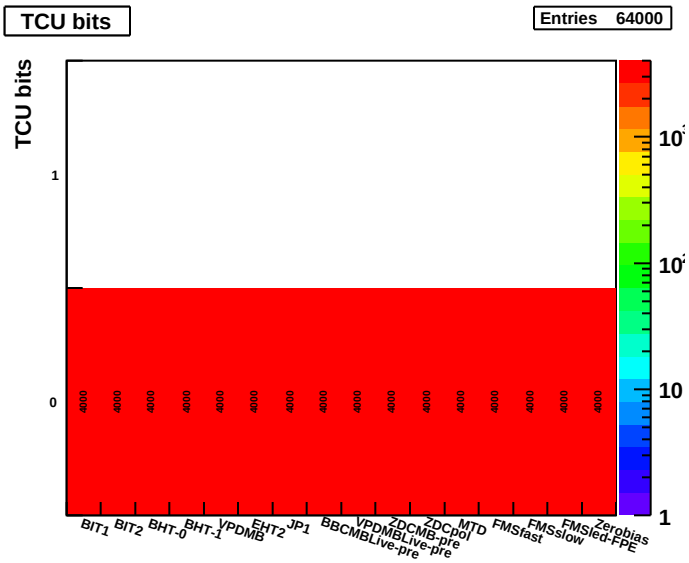

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

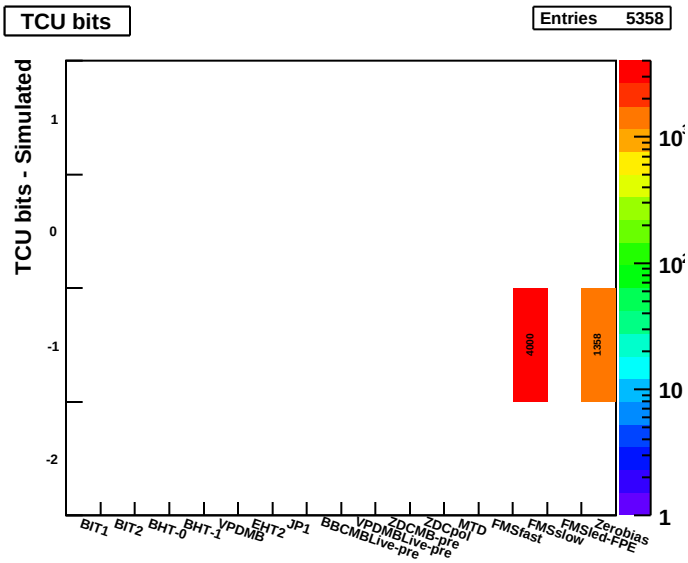

EMC L2 Input - HT23 bits
Entries 32000
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

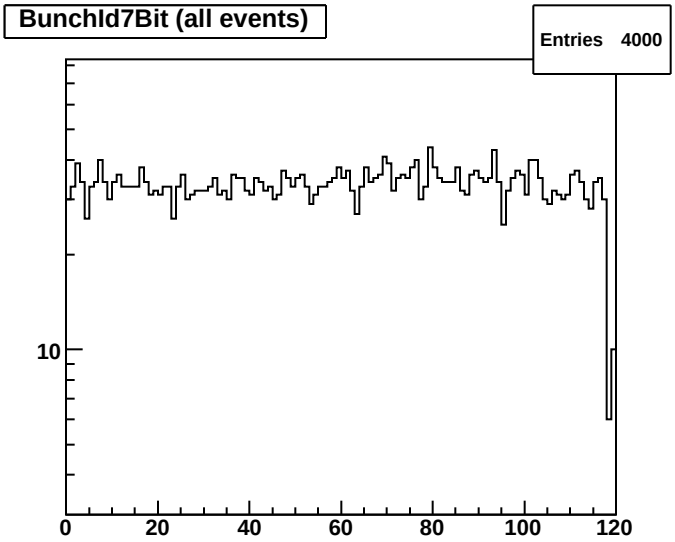

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

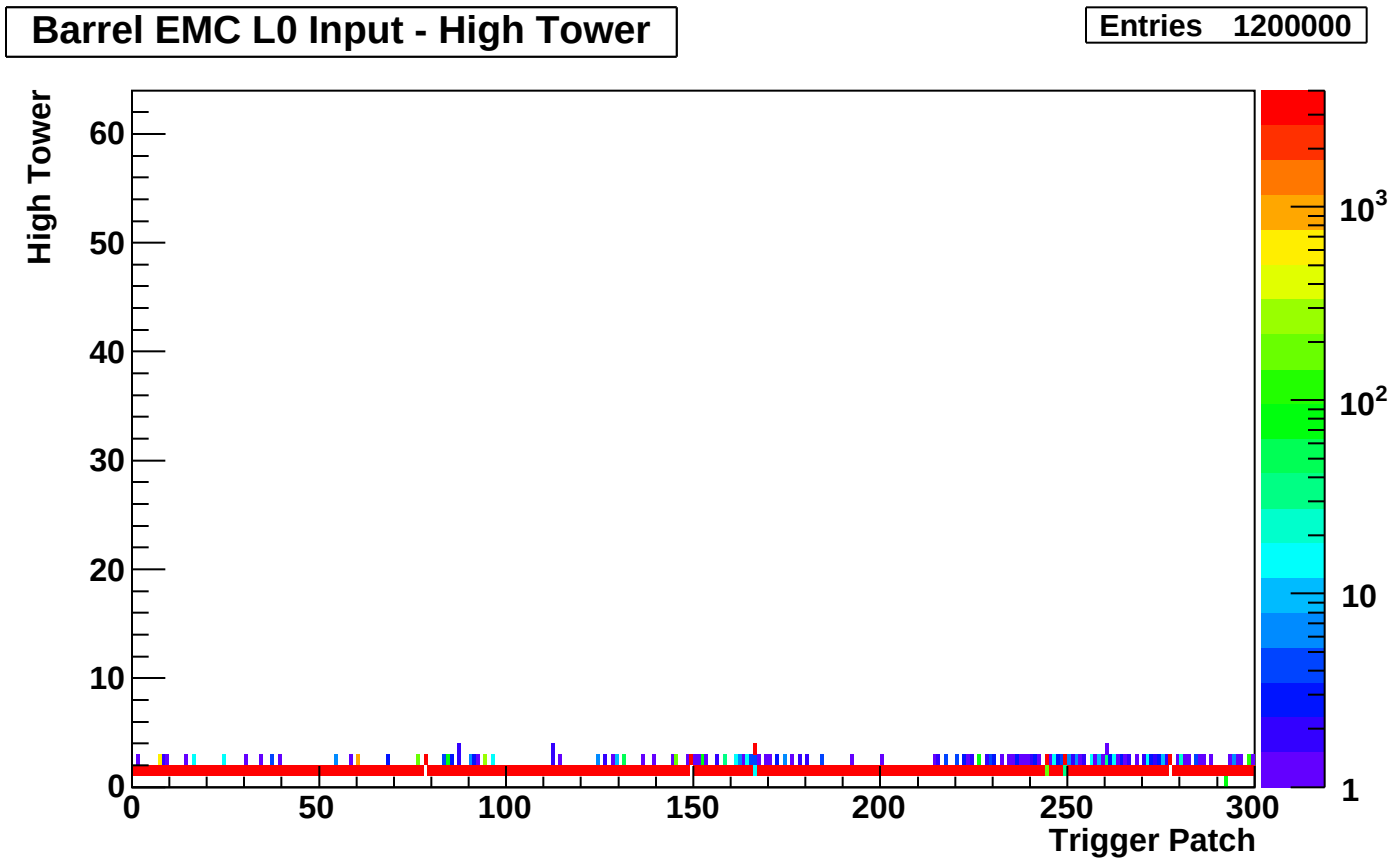

Last DSM Ch3 Input
Entries 64000
LD301 Ch3
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

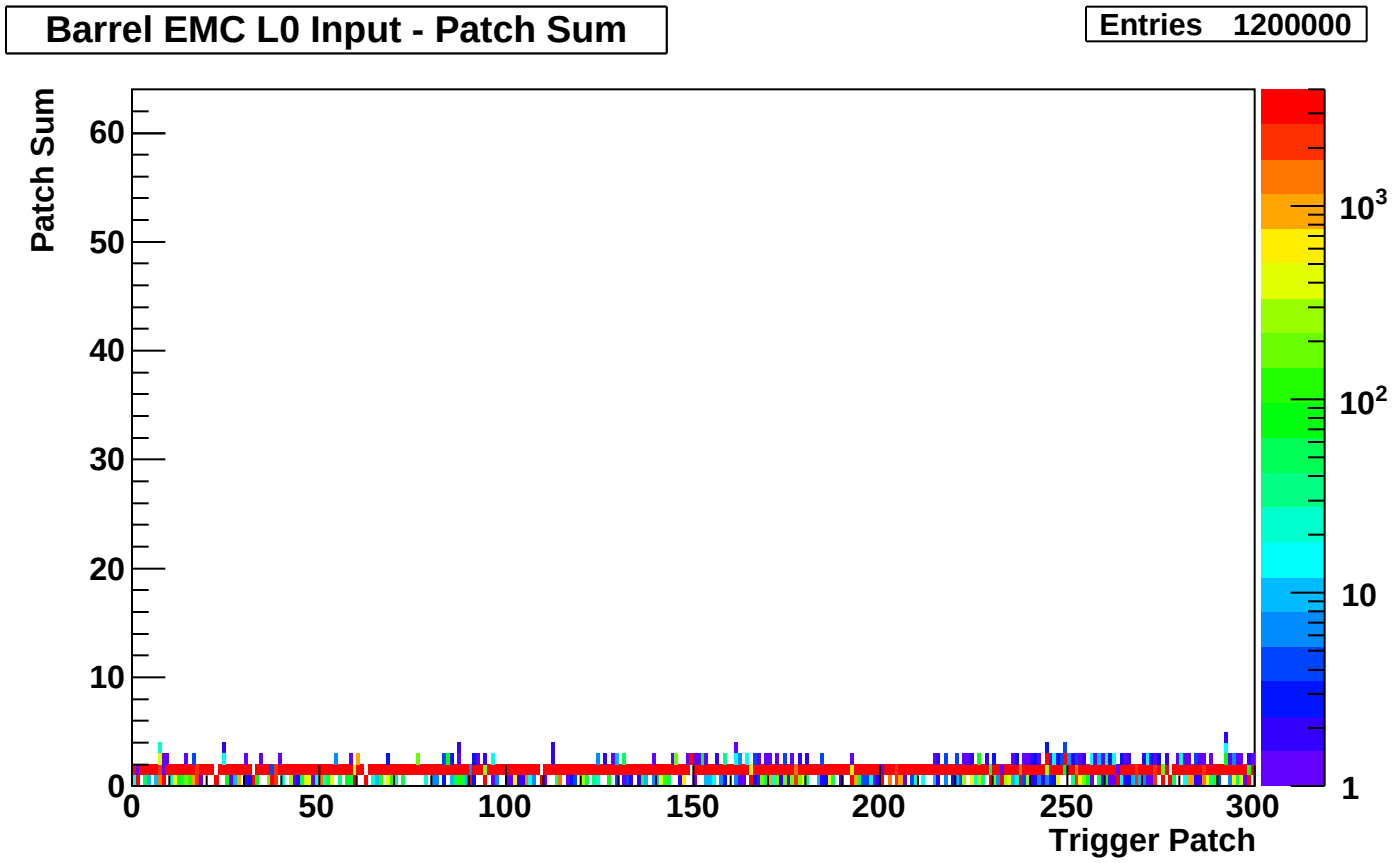

Last DSM Ch3 Input
Entries 0
LD301 Ch3 - Simulated
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

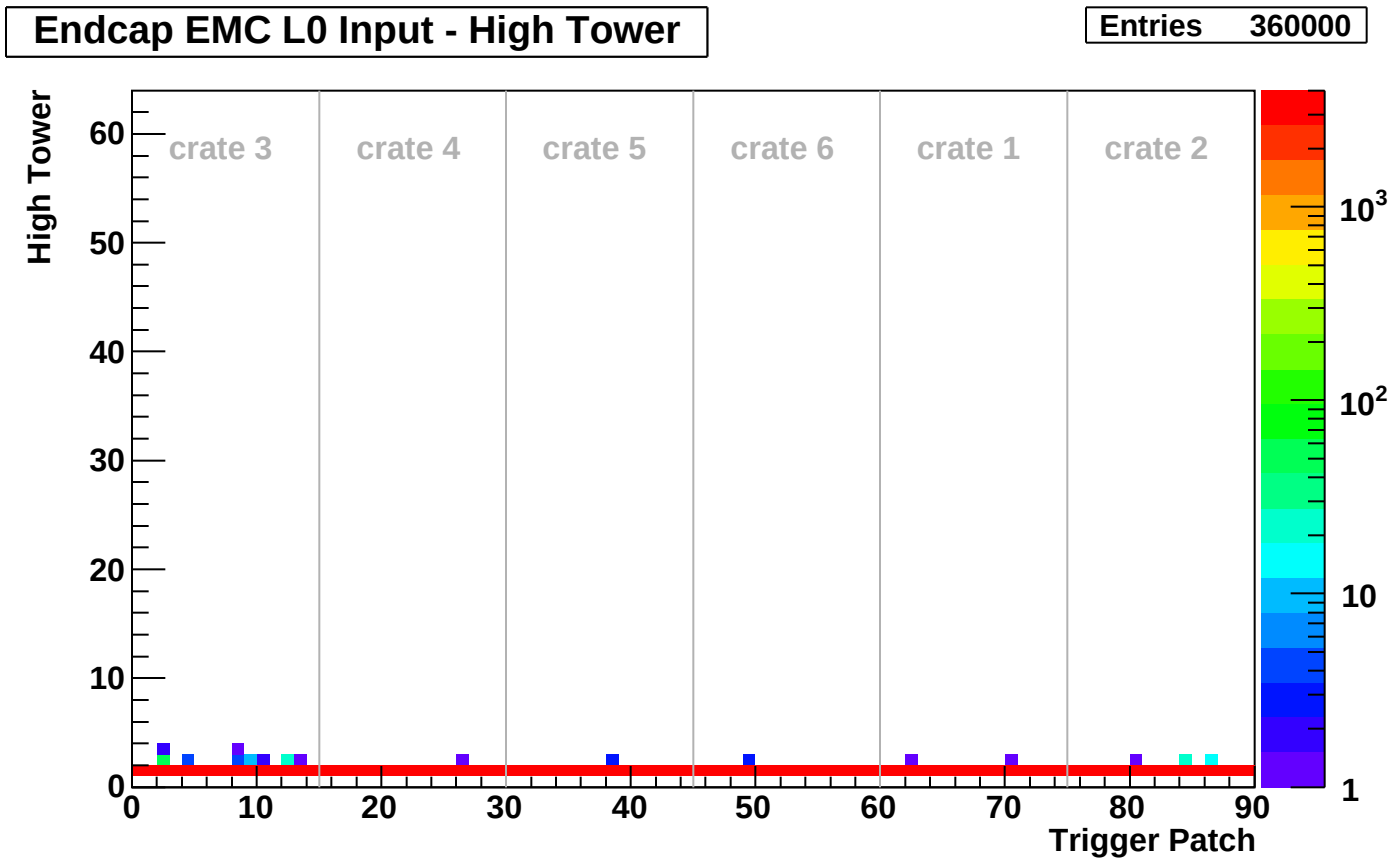

TCU bits
Entries 64000
TCU bits
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

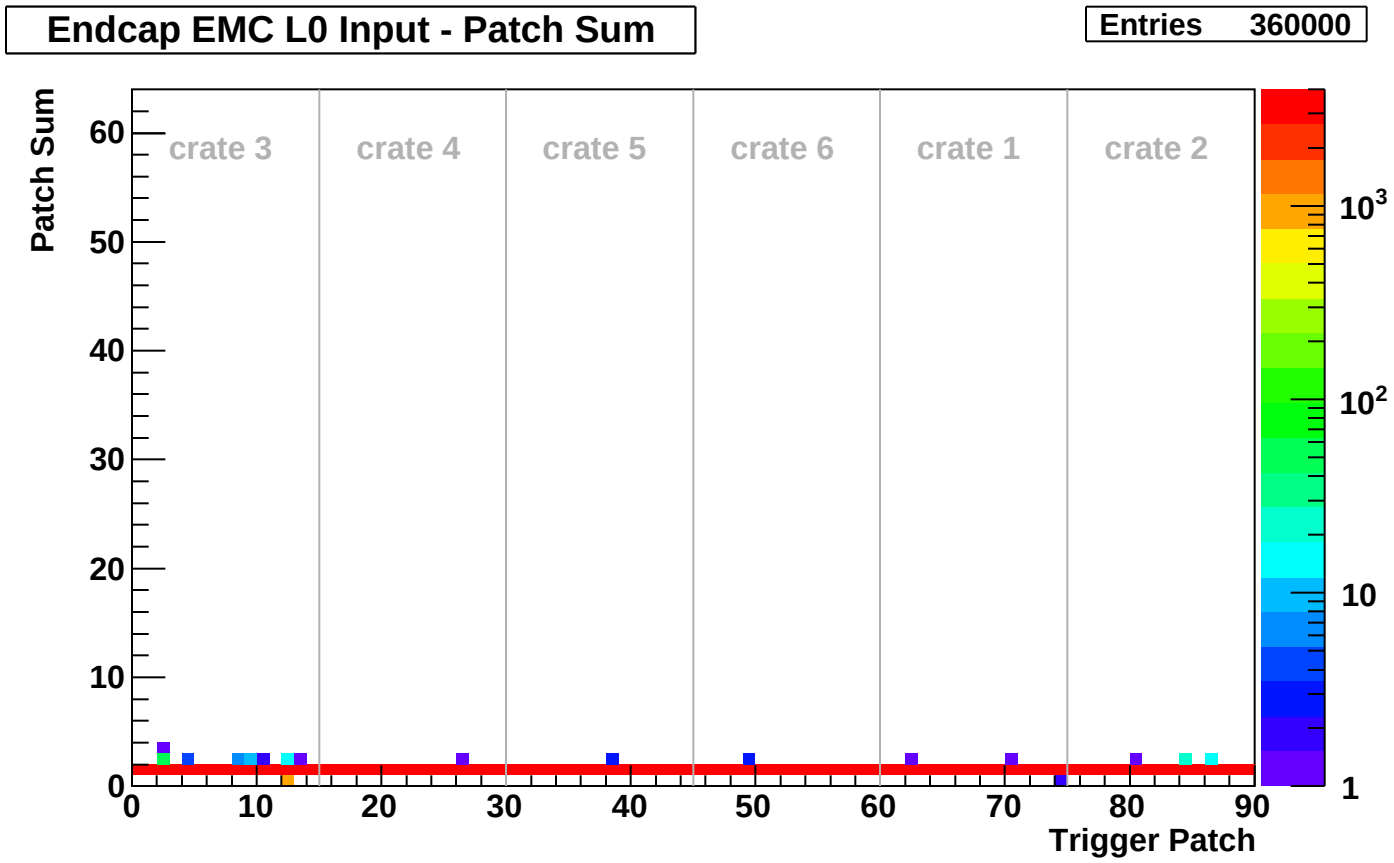

TCU bits
Entries 5358
TCU bits - Simulated
4000
1358
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

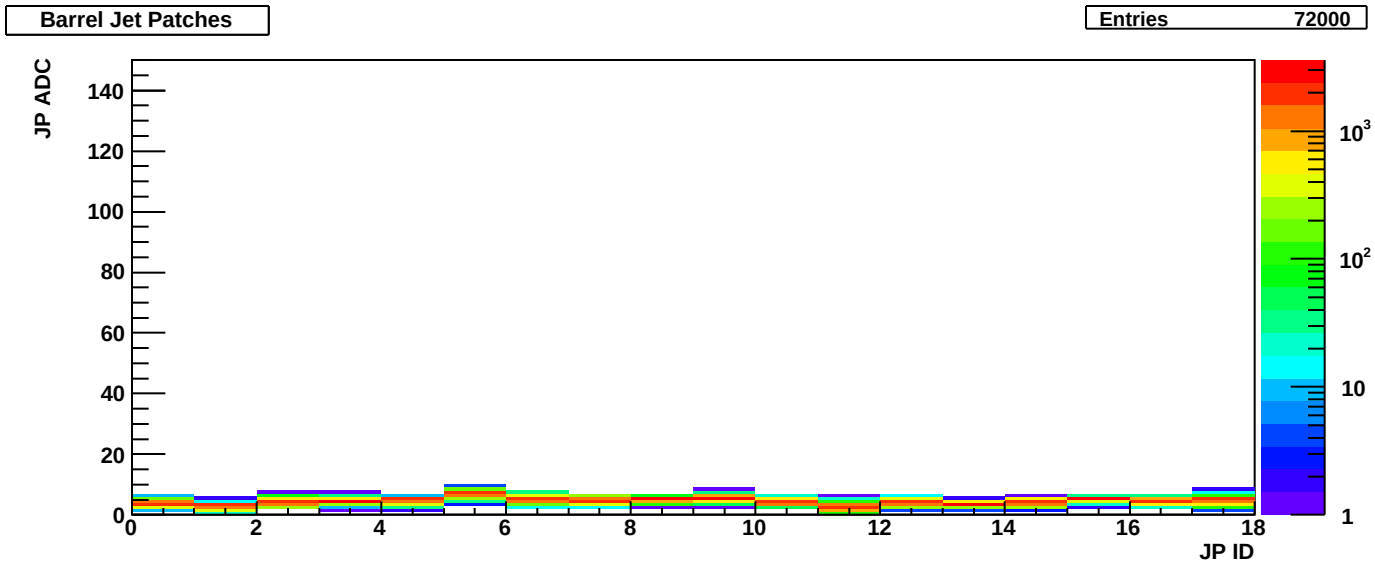

BunchId7Bit (all events)
Entries 4000
0 20 40 60 80 100 120

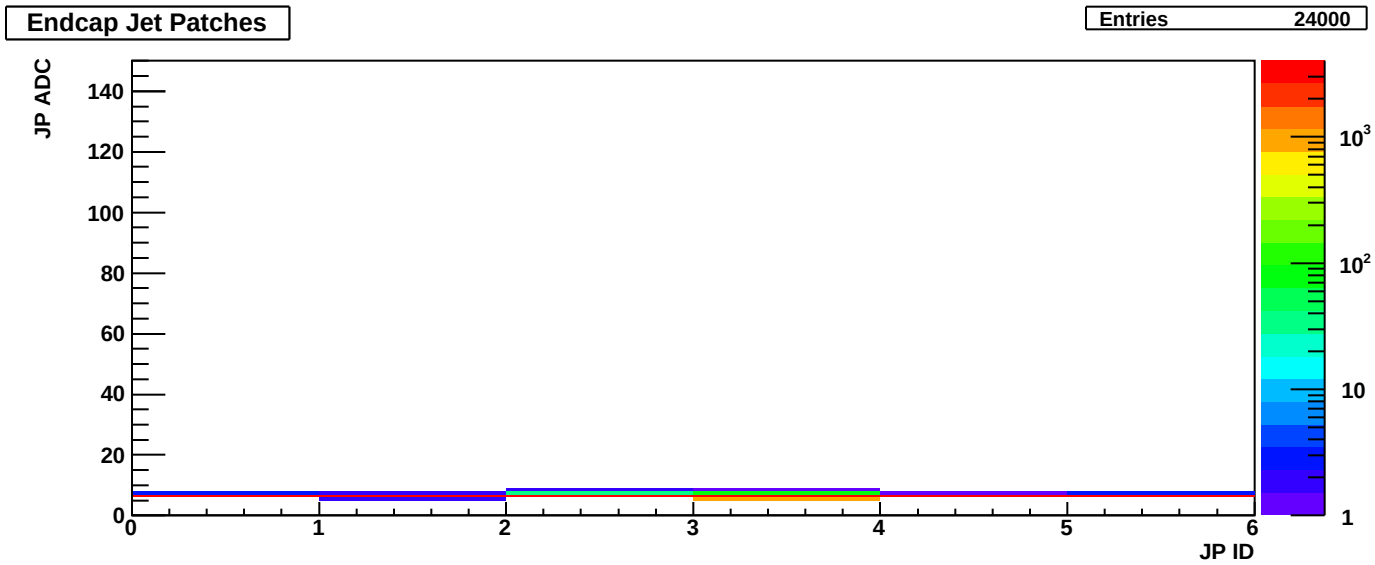

Barrel EMC L0 Input - High Tower
Entries 1200000
High Tower
0
10
20
30
40
50
60
0
50
100
150
200
250
300
Trigger Patch
1
10
10^2
10^3

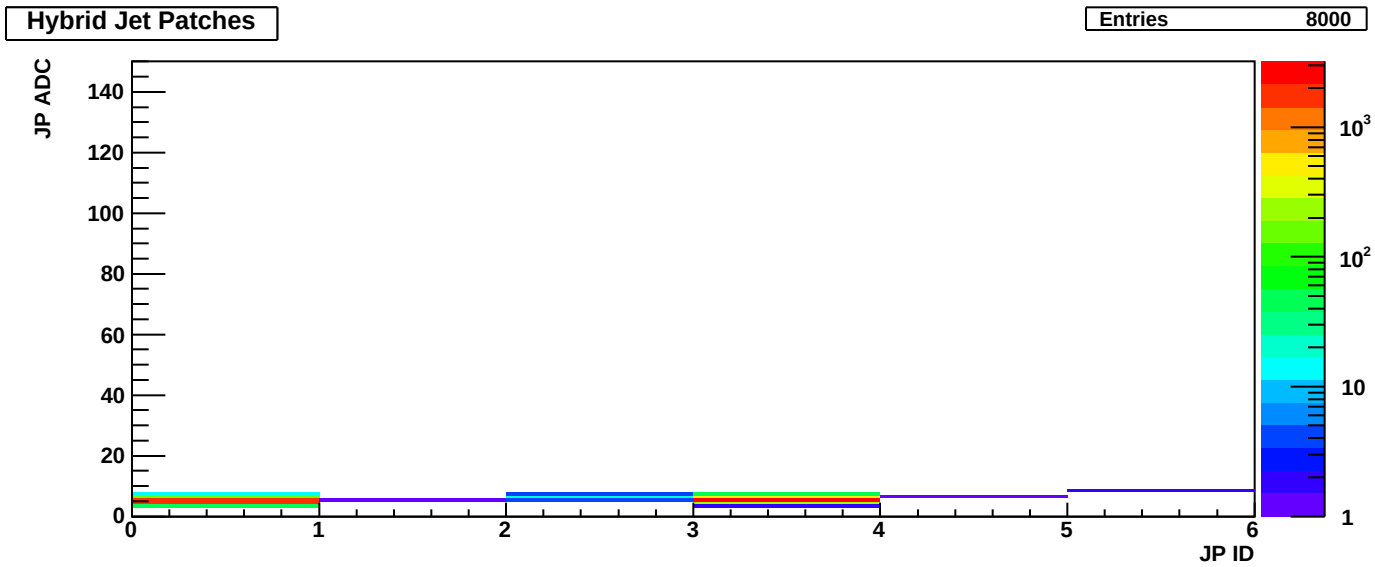

Barrel EMC L0 Input - Patch Sum
Entries 1200000
Patch Sum
0
10
20
30
40
50
60
0
50
100
150
200
250
300
Trigger Patch
1
10
10^2
10^3

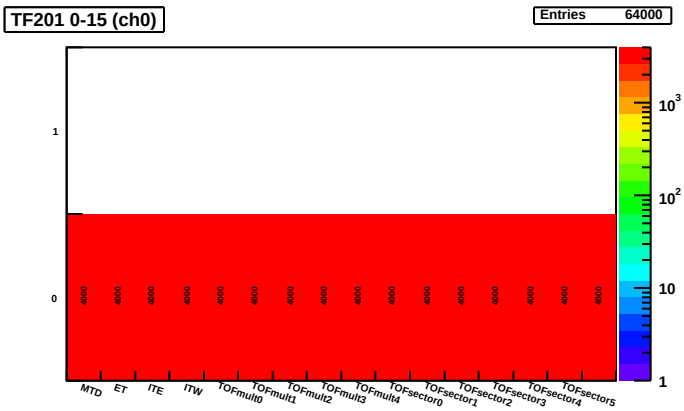

Endcap EMC L0 Input - High Tower
Entries 360000
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3

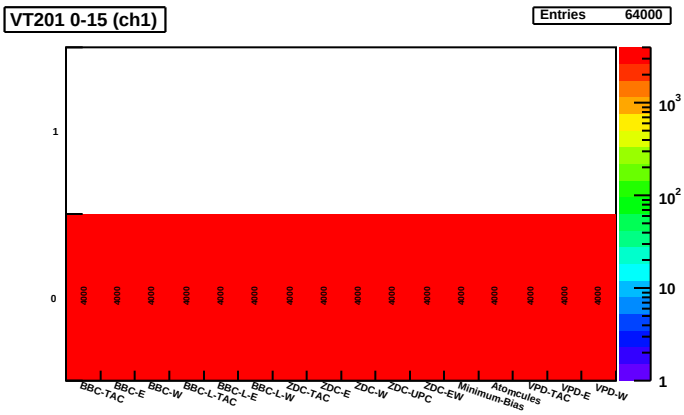

Endcap EMC L0 Input - Patch Sum
Entries 360000
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3

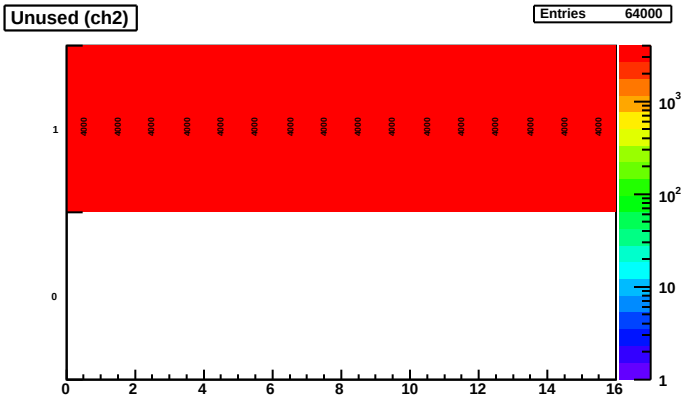

Barrel Jet Patches
Entries 72000
JP ADC
JP ID

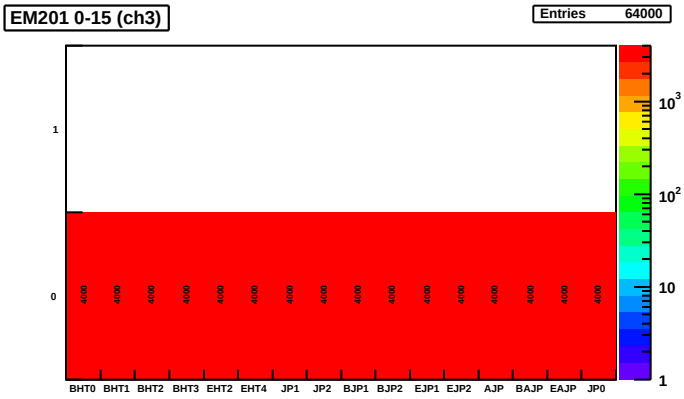

Endcap Jet Patches
Entries 24000
JP ADC
JP ID

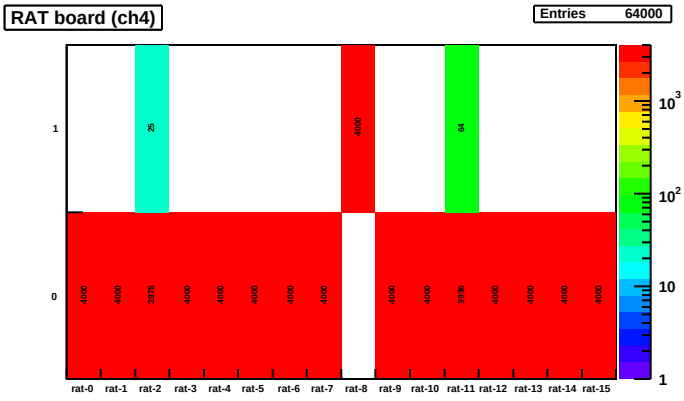

Hybrid Jet Patches
Entries 8000
JP ADC
JP ID

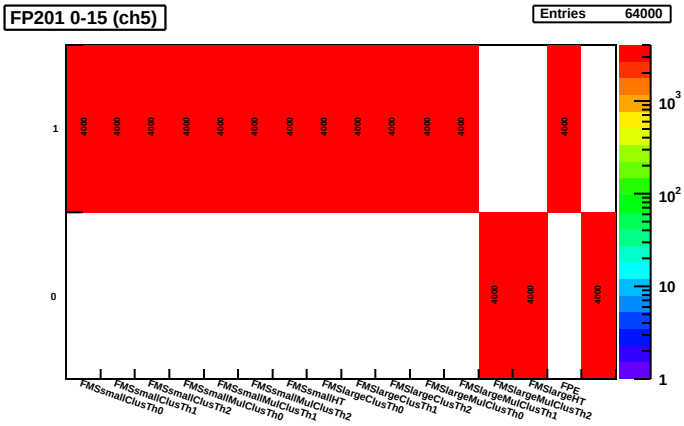

TF201 0-15 (ch0)
Entries 64000
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

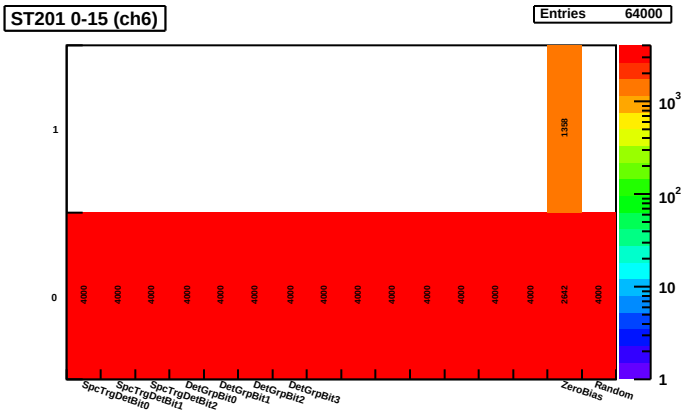

VT201 0-15 (ch1)
Entries 64000
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

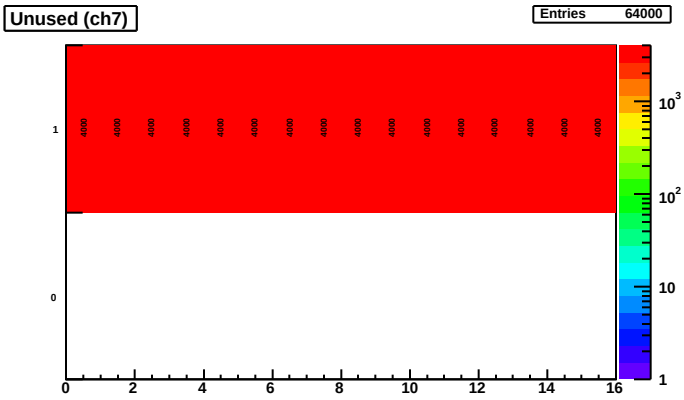

Unused (ch2)
Entries 64000

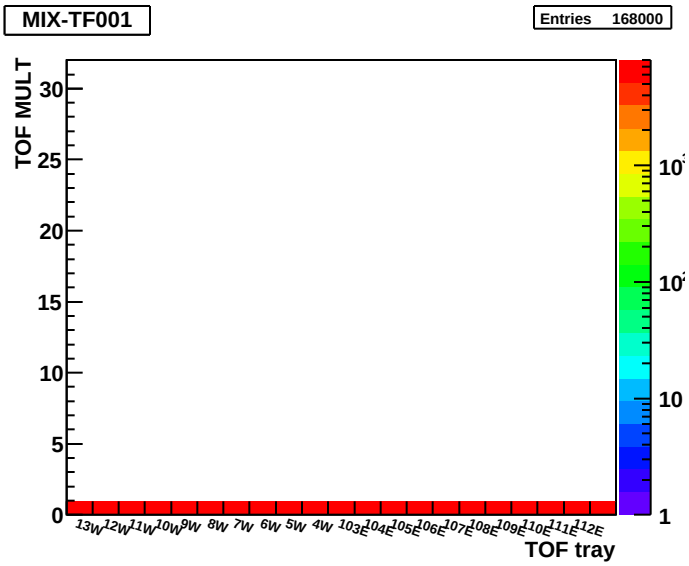

EM201 0-15 (ch3)
Entries 64000
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

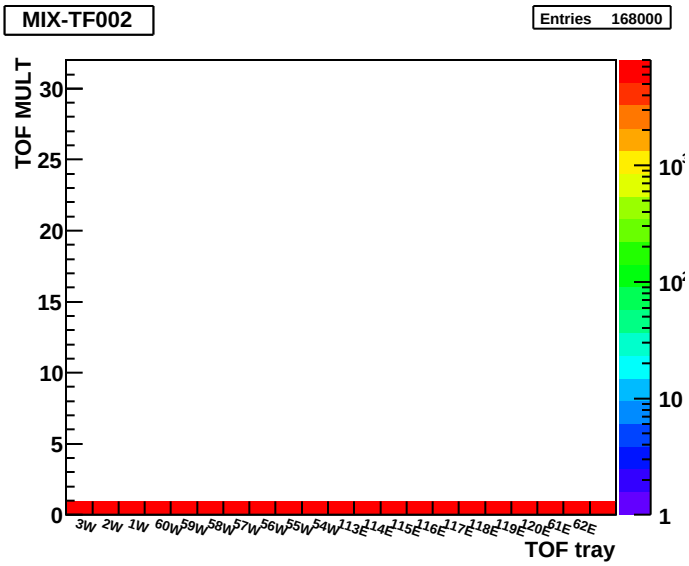

RAT board (ch4)
Entries 64000
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

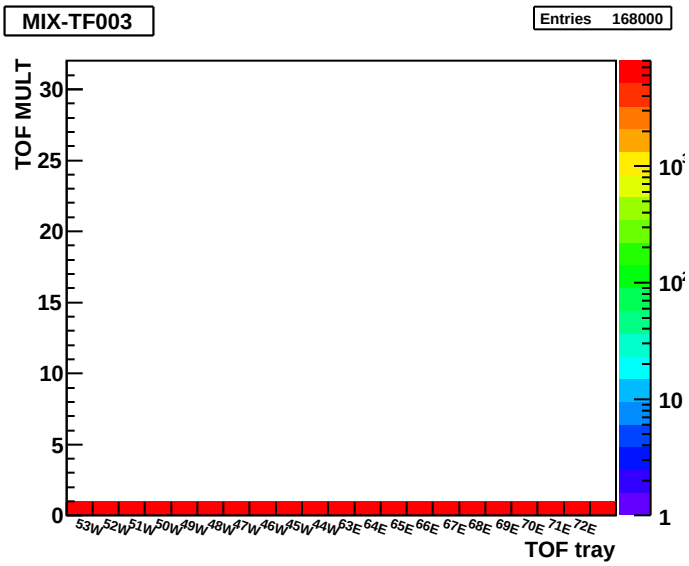

FP201 0-15 (ch5)
Entries 64000
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

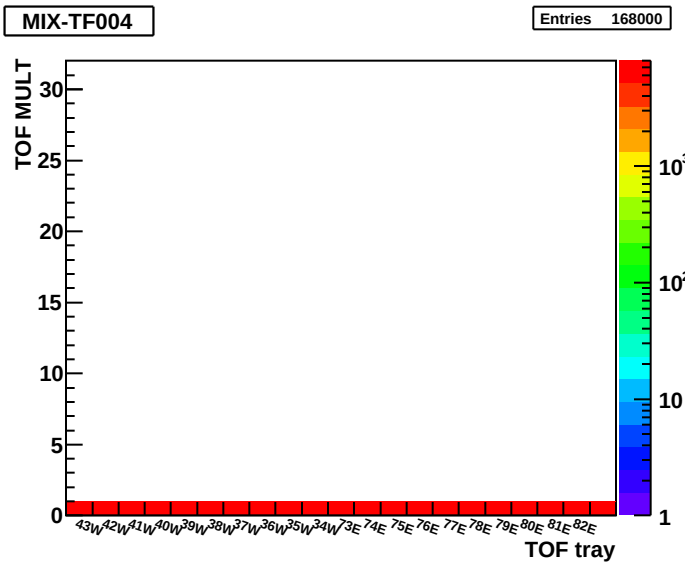

ST201 0-15 (ch6)
Entries 64000
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetCrpBit0 DetCrpBit1 DetCrpBit2 DetCrpBit3 ZeroBias Random

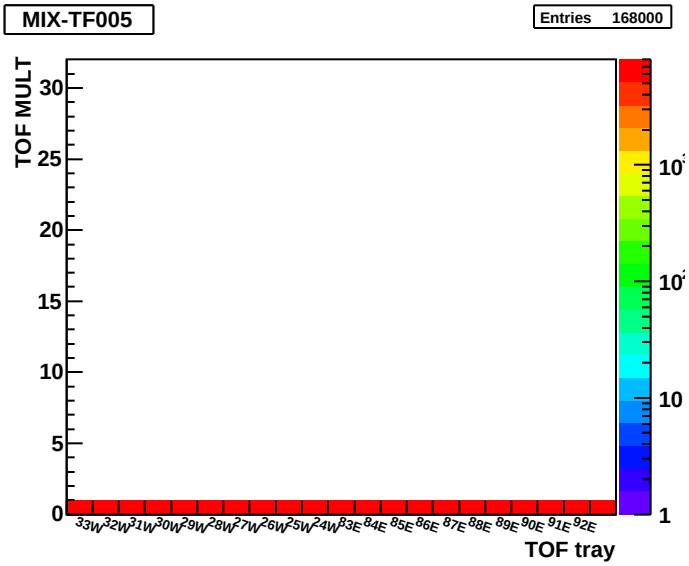

Unused (ch7)
Entries 64000

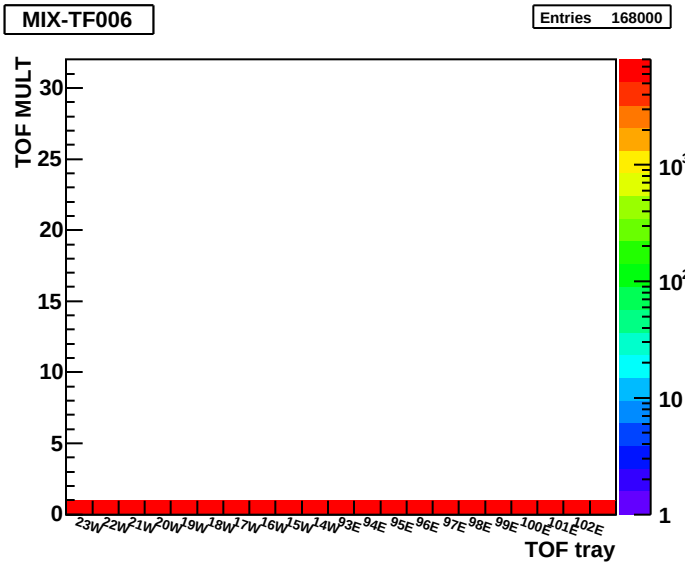

MIX-TF001
Entries 168000
TOF MULT
TOF tray

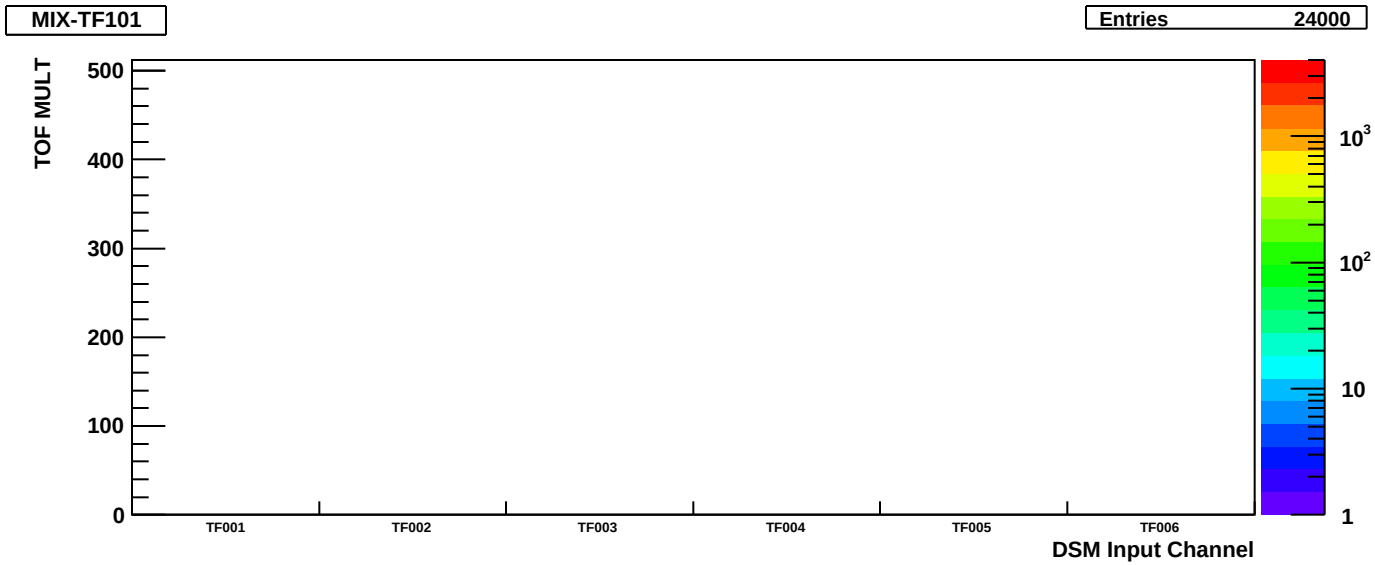

MIX-TF002
Entries 168000
TOF MULT
TOF tray

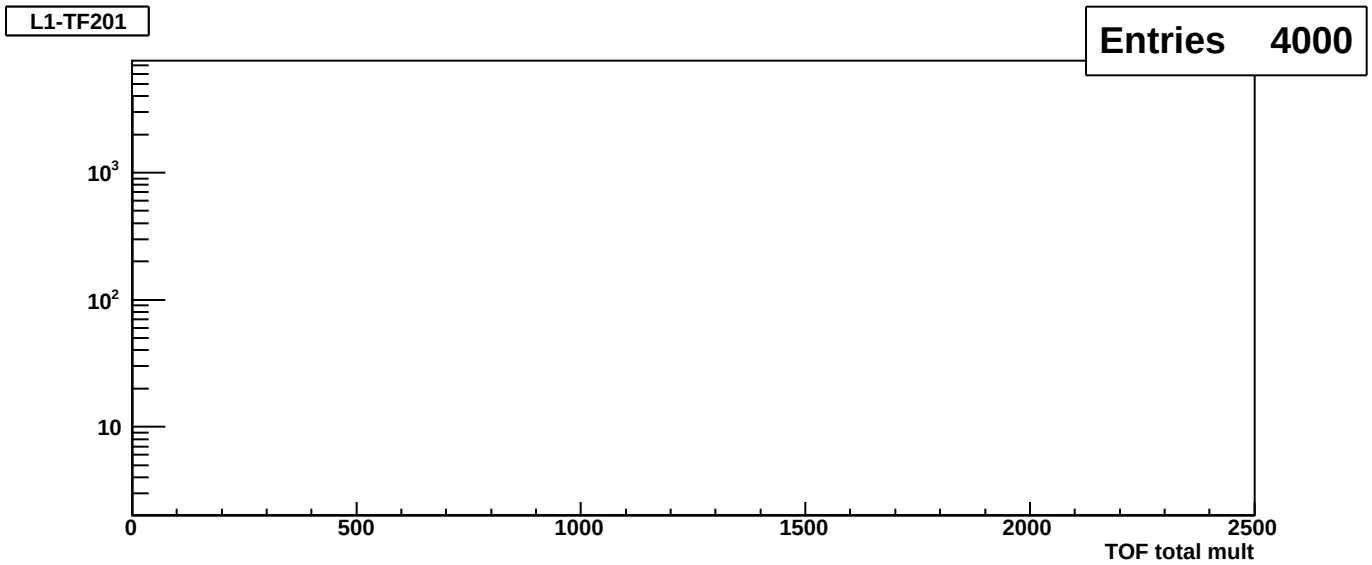

MIX-TF003
Entries 168000
TOF MULT
TOF tray

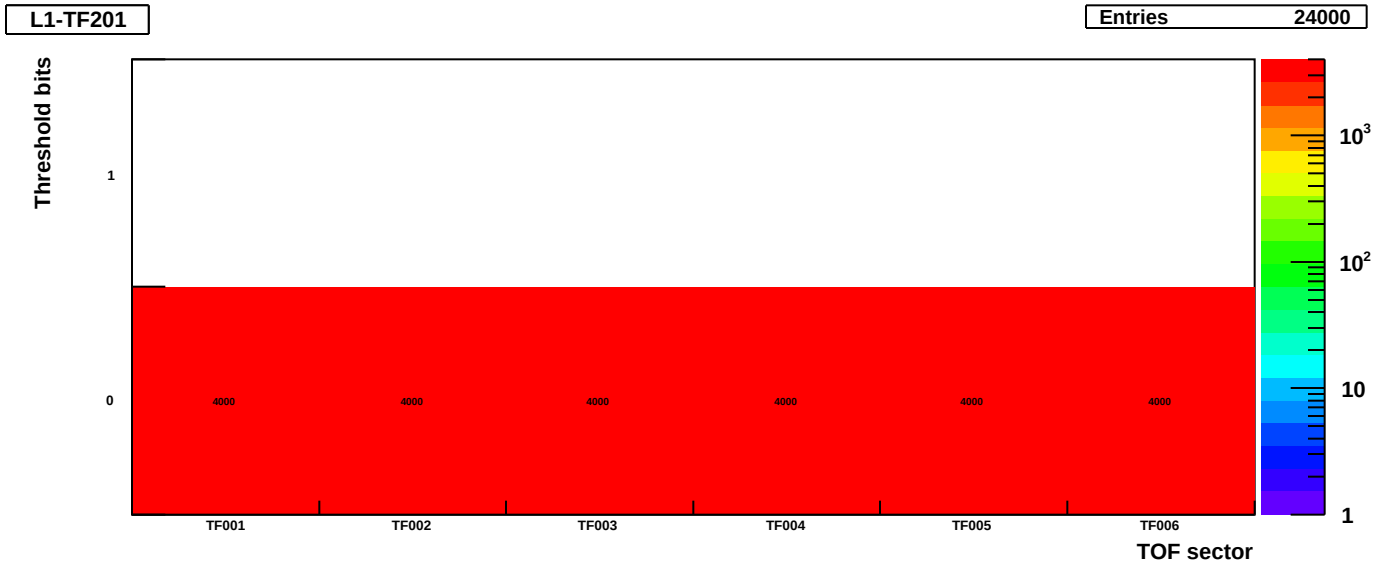

MIX-TF004
Entries 168000
TOF MULT
TOF tray

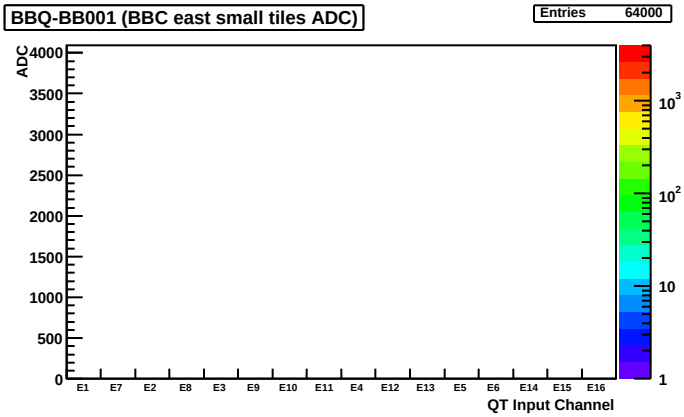

MIX-TF005
Entries 168000
TOF MULT
TOF tray

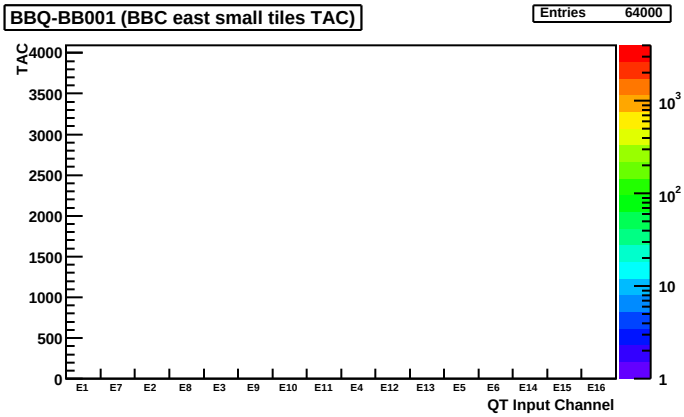

MIX-TF006
Entries 168000
TOF MULT
TOF tray

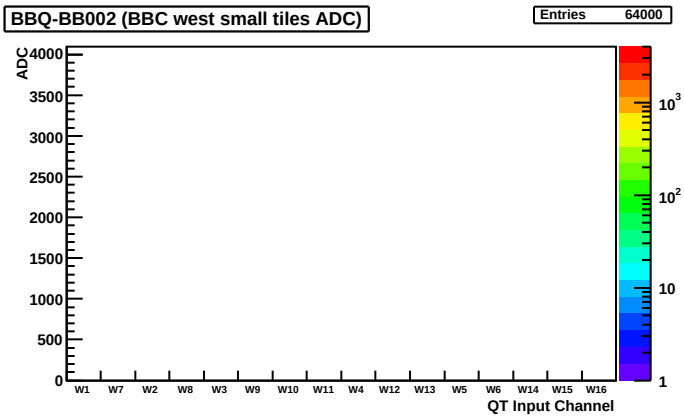

MIX-TF101
Entries 24000
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^3
10^2
10
1

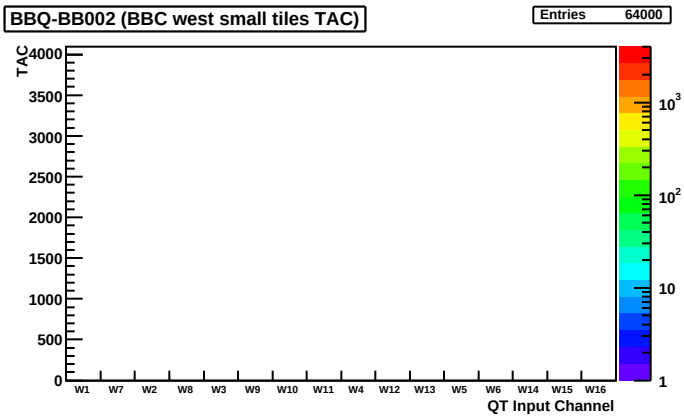

L1-TF201
Entries 4000
10^3
10^2
10
0
500
1000
1500
2000
2500
TOF total mult

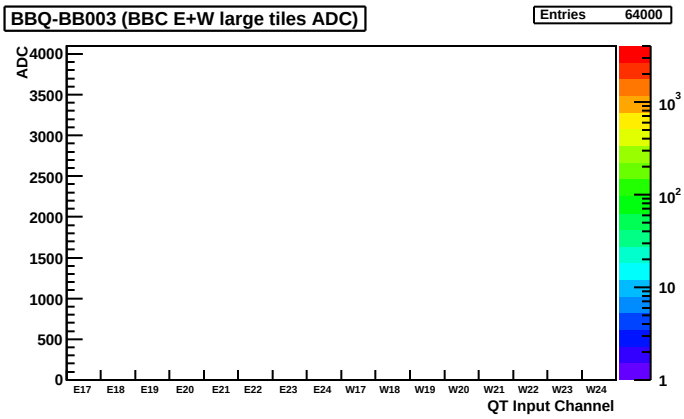

L1-TF201
Entries 24000
Threshold bits
1
0
4000
4000
4000
4000
4000
4000
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^3
10^2
10
1

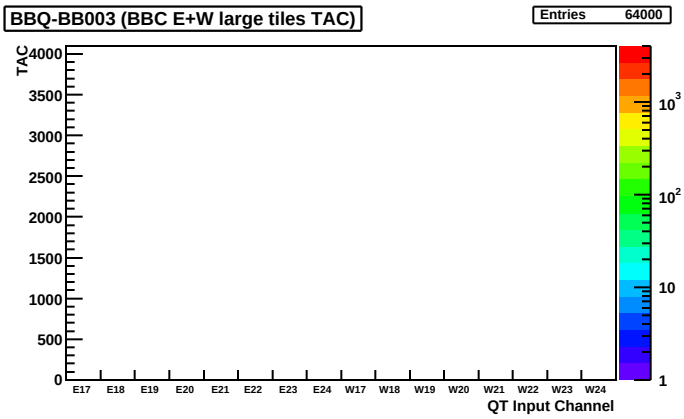

BBQ-BB001 (BBC east small tiles ADC)
Entries 64000
ADC
QT Input Channel

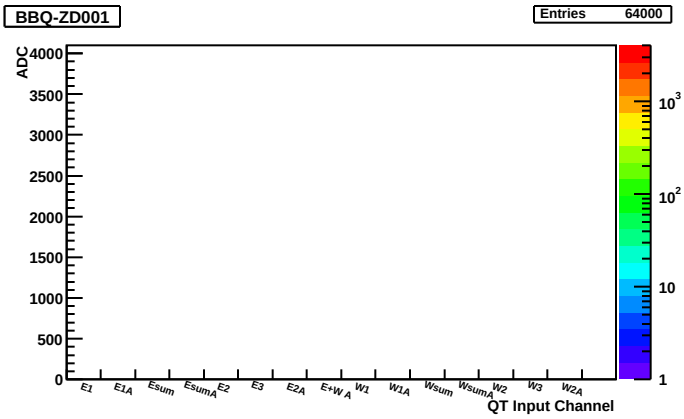

BBQ-BB001 (BBC east small tiles TAC)
Entries 64000
TAC
QT Input Channel

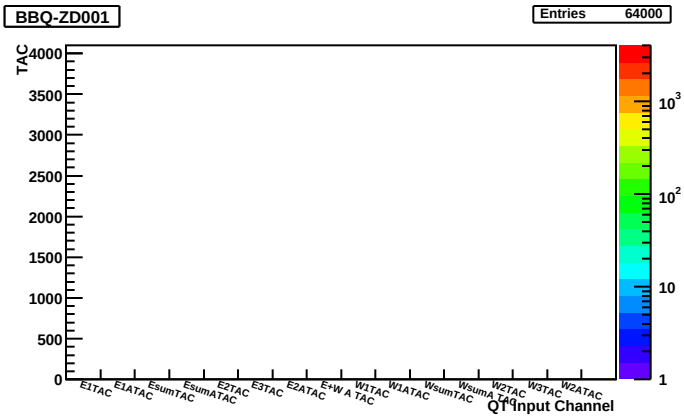

BBQ-BB002 (BBC west small tiles ADC)
Entries 64000
ADC
QT Input Channel

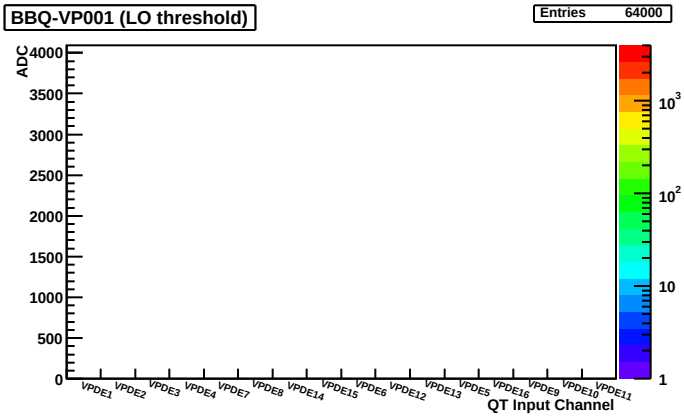

BBQ-BB002 (BBC west small tiles TAC)
Entries 64000
TAC
QT Input Channel

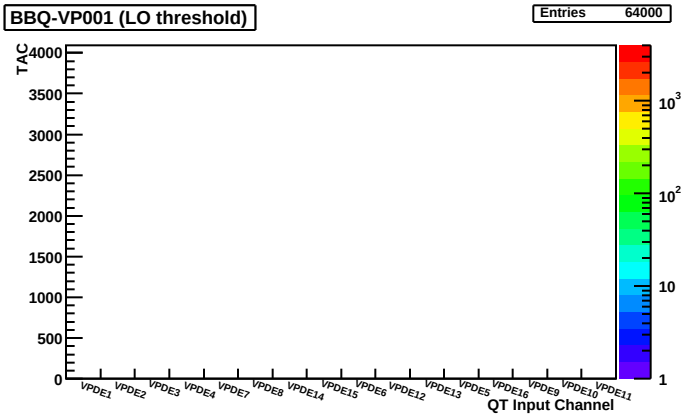

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 64000
ADC
QT Input Channel

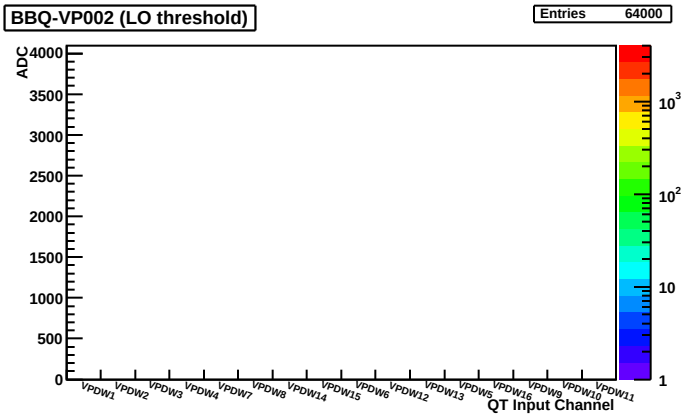

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 64000
TAC
QT Input Channel

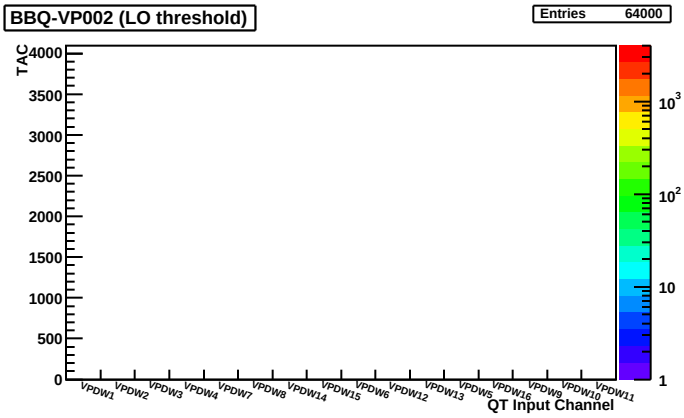

BBQ-ZD001
Entries 64000
ADC
QT Input Channel

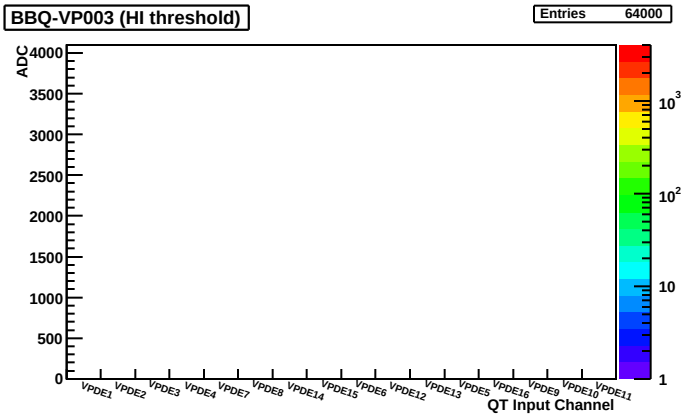

BBQ-ZD001
Entries 64000
TAC
QT Input Channel

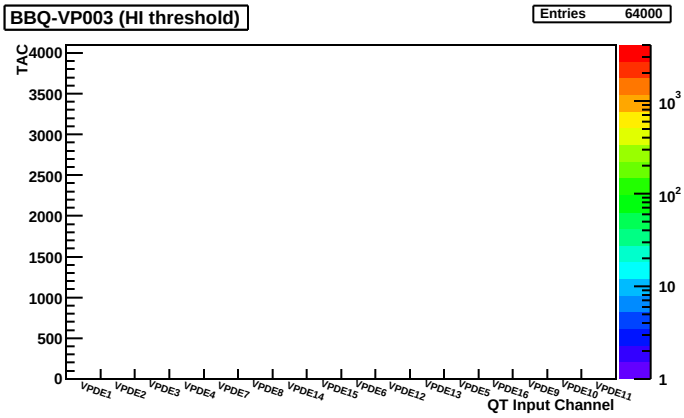

BBQ-VP001 (LO threshold)
Entries 64000
ADC
QT Input Channel

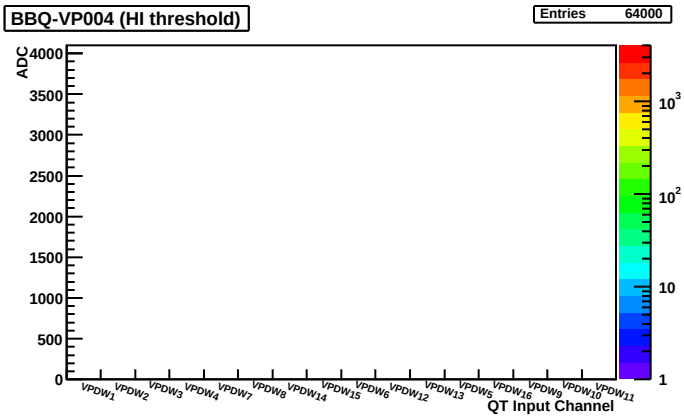

BBQ-VP001 (LO threshold)
Entries 64000
TAC
QT Input Channel

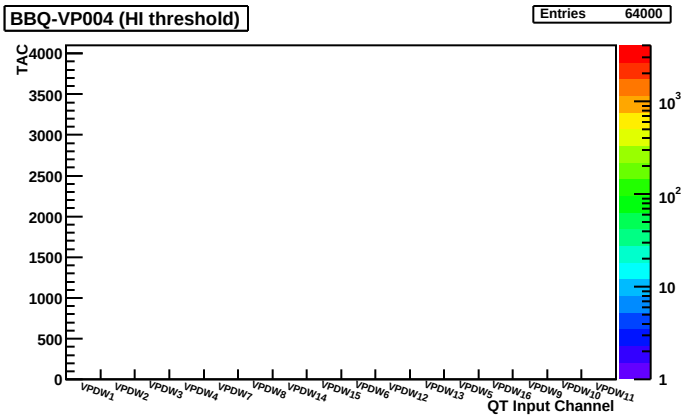

BBQ-VP002 (LO threshold)
Entries 64000
ADC
QT Input Channel

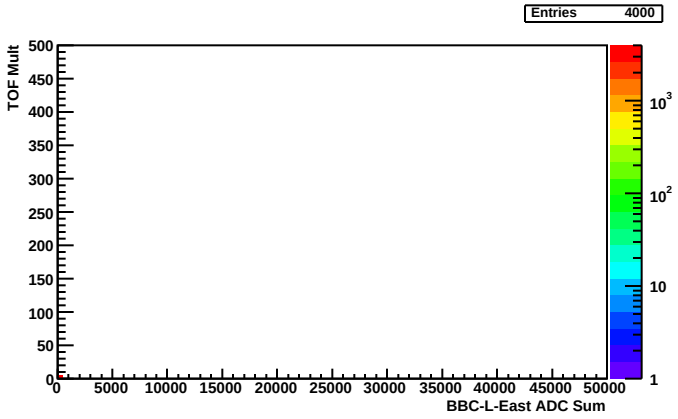

BBQ-VP002 (LO threshold)
Entries 64000
TAC
QT Input Channel

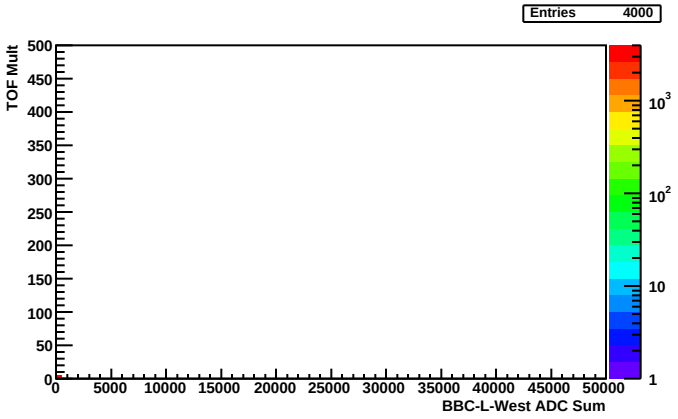

BBQ-VP003 (HI threshold)
Entries 64000
ADC
QT Input Channel

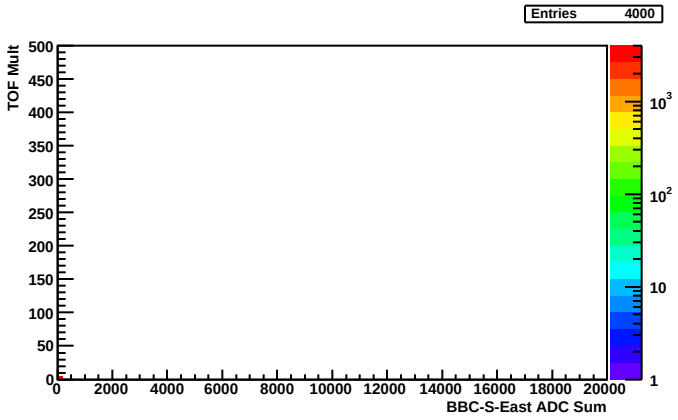

BBQ-VP003 (HI threshold)
Entries 64000
TAC
QT Input Channel

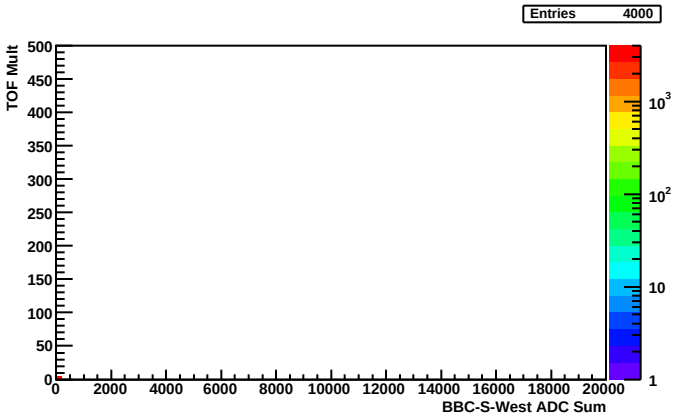

BBQ-VP004 (HI threshold)
Entries 64000
ADC
QT Input Channel

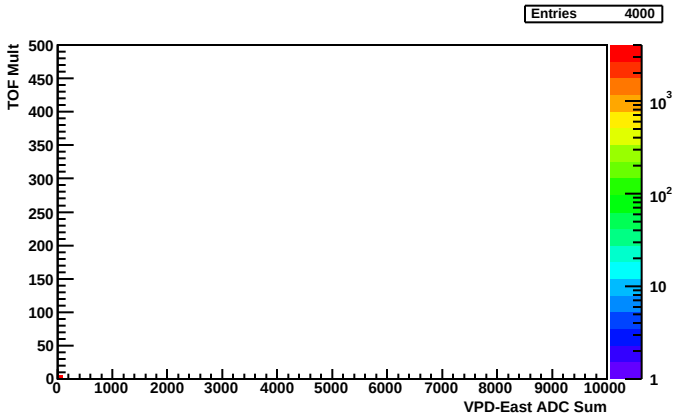

BBQ-VP004 (HI threshold)
Entries 64000
TAC
QT Input Channel

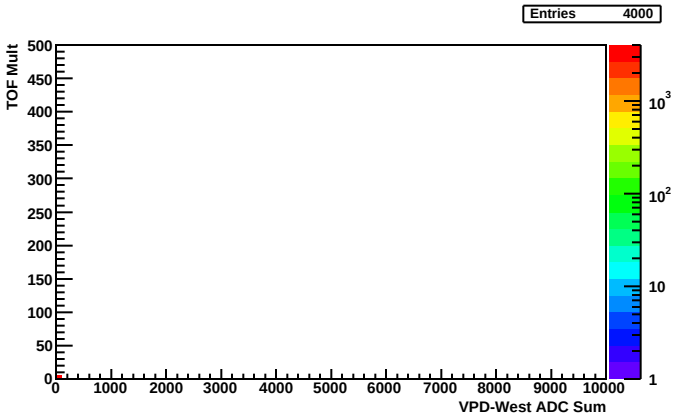

Entries 4000
TOF Mult
BBC-L-East ADC Sum

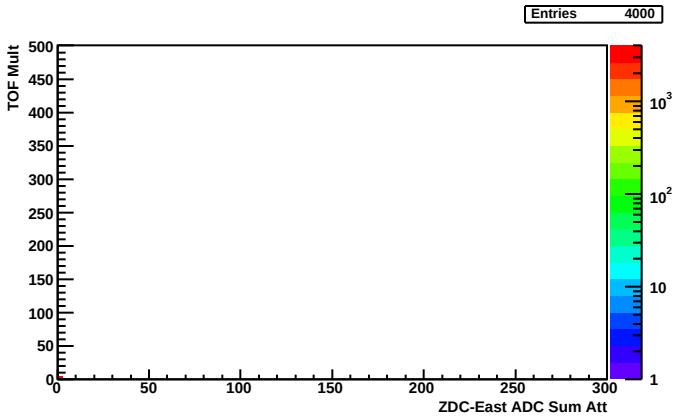

Entries 4000
TOF Mult
BBC-L-West ADC Sum

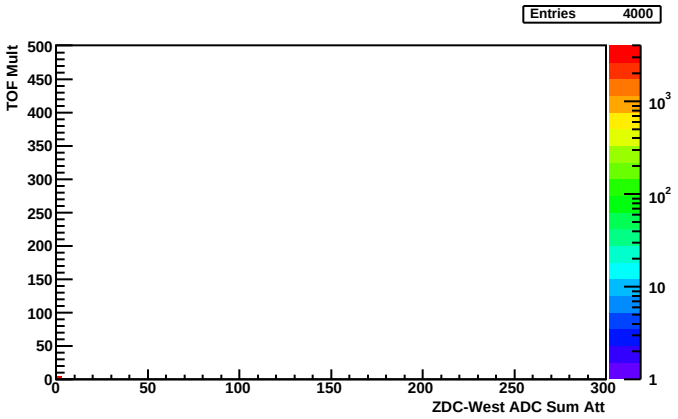

Entries 4000
TOF Mult
BBC-S-East ADC Sum

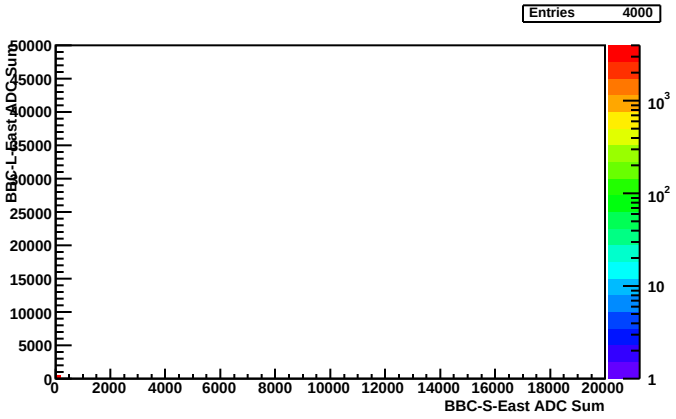

Entries 4000
TOF Mult
BBC-S-West ADC Sum

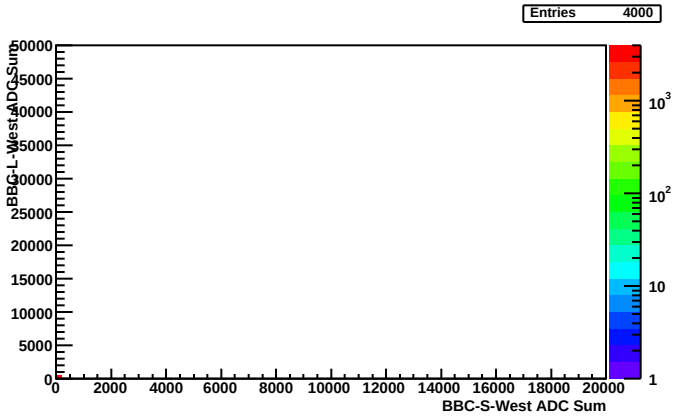

Entries 4000
TOF Mult
VPD-East ADC Sum

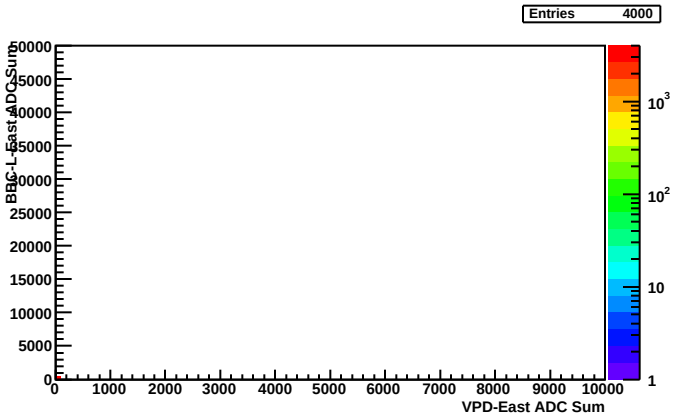

Entries 4000
TOF Mult
VPD-West ADC Sum

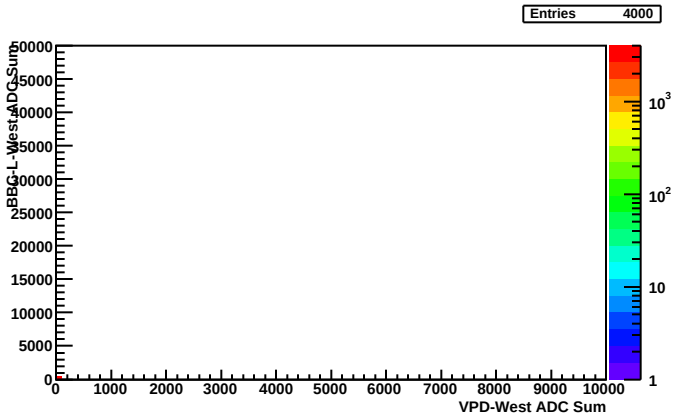

Entries 4000
TOF Mult
ZDC-East ADC Sum Att

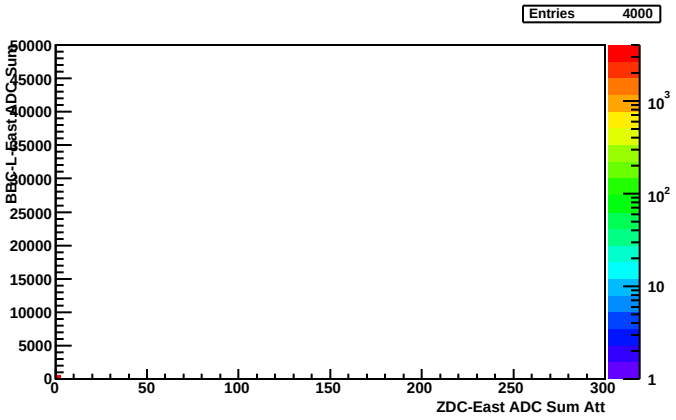

Entries 4000
TOF Mult
ZDC-West ADC Sum Att

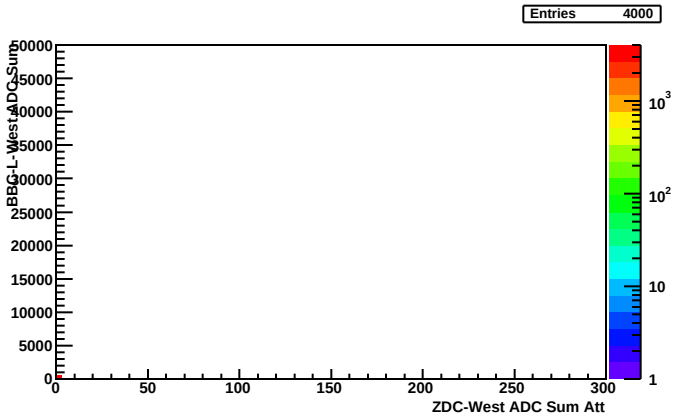

Entries 4000
BBC-L-East ADC Sum
BBC-S-East ADC Sum

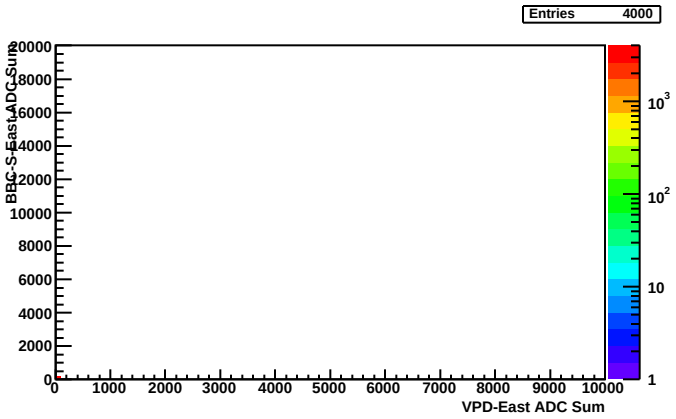

Entries 4000
BBC-L-West ADC Sum
BBC-S-West ADC Sum

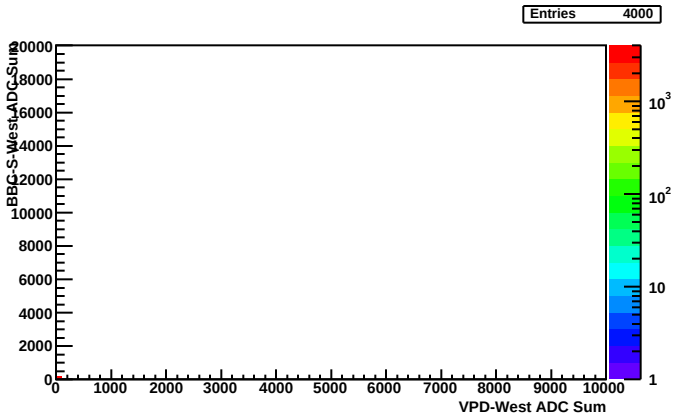

Entries 4000
BBC-L-East ADC Sum
VPD-East ADC Sum

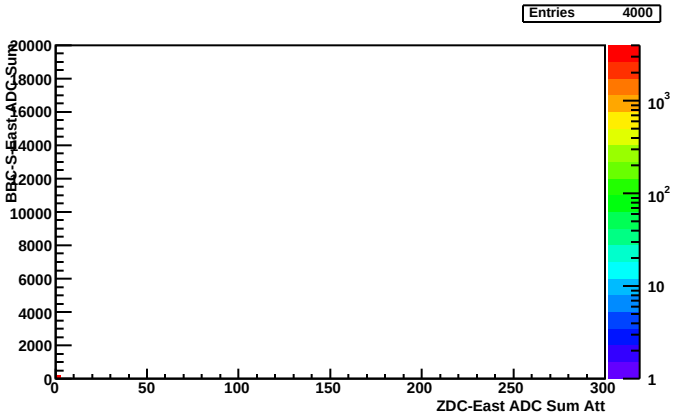

Entries 4000
BBC-L-West ADC Sum
VPD-West ADC Sum

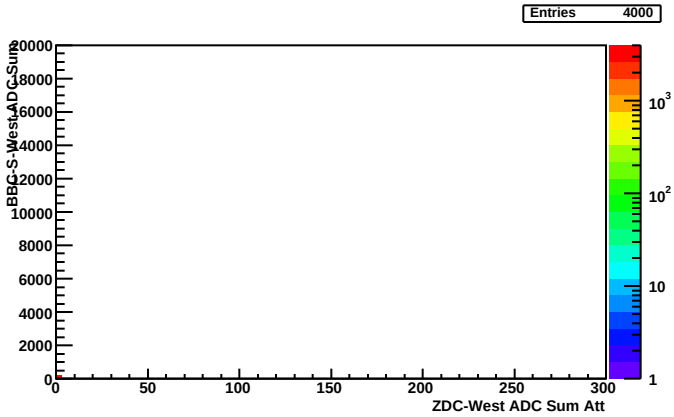

Entries 4000
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

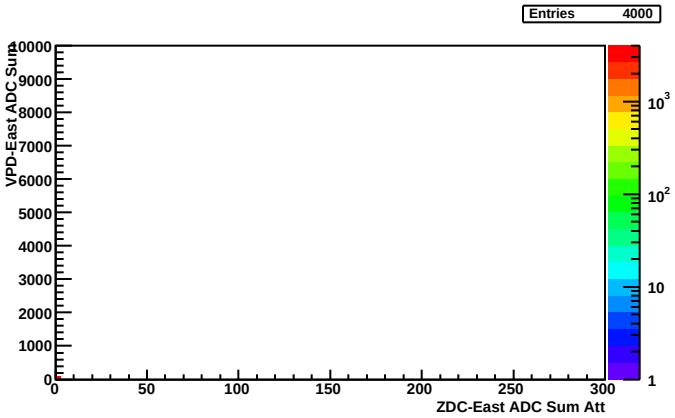

Entries 4000
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

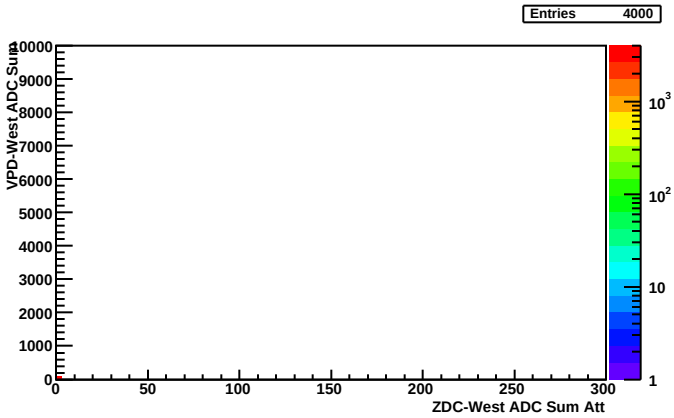

Entries 4000
BBC-S-East ADC Sum
VPD-East ADC Sum

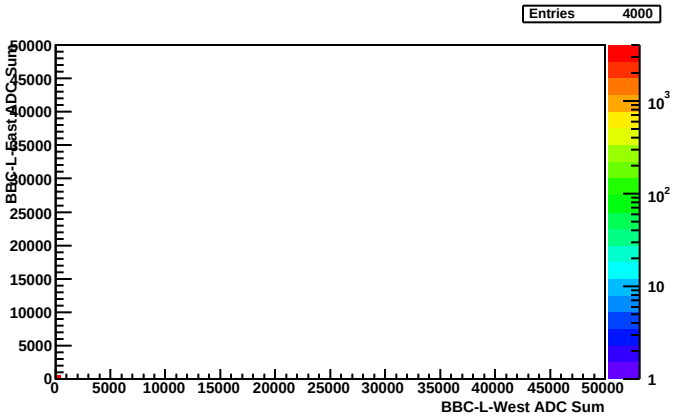

Entries 4000
BBC-S-West ADC Sum
VPD-West ADC Sum

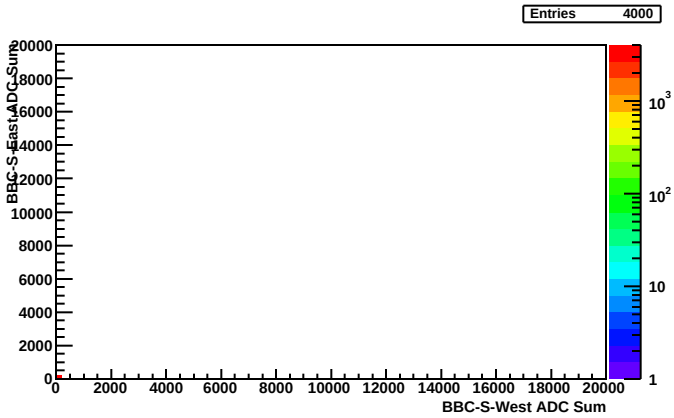

Entries 4000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

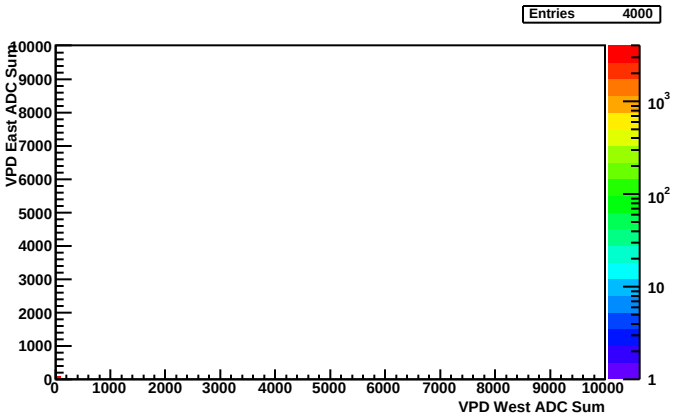

Entries 4000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

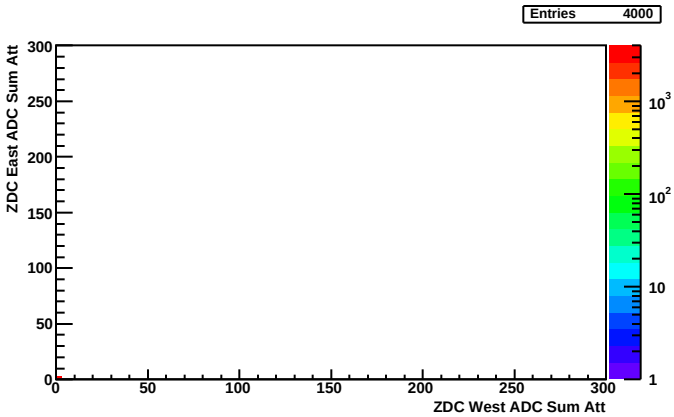

Entries 4000
VPD-East ADC Sum
ZDC-East ADC Sum Att

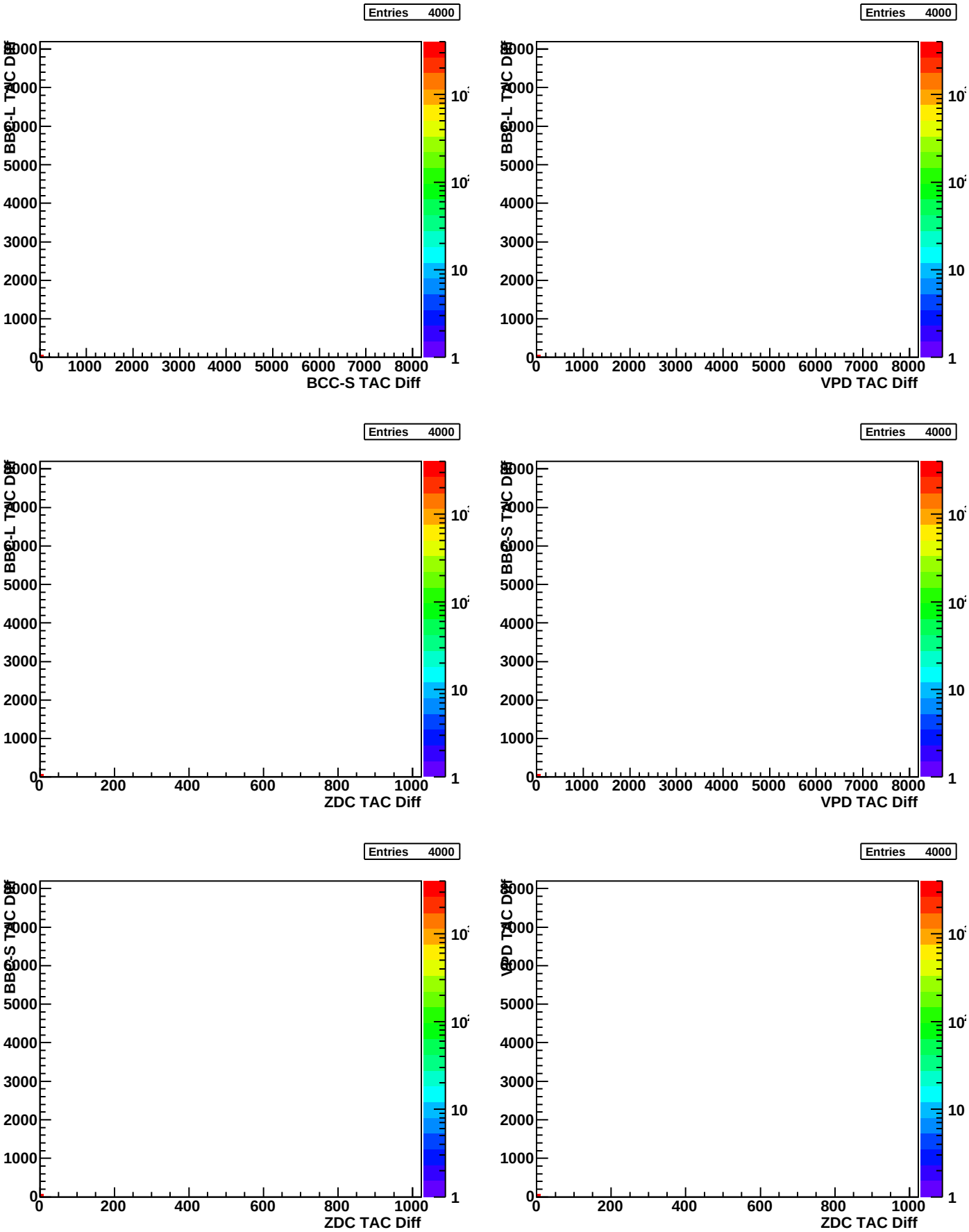

Entries 4000
VPD-West ADC Sum
ZDC-West ADC Sum Att

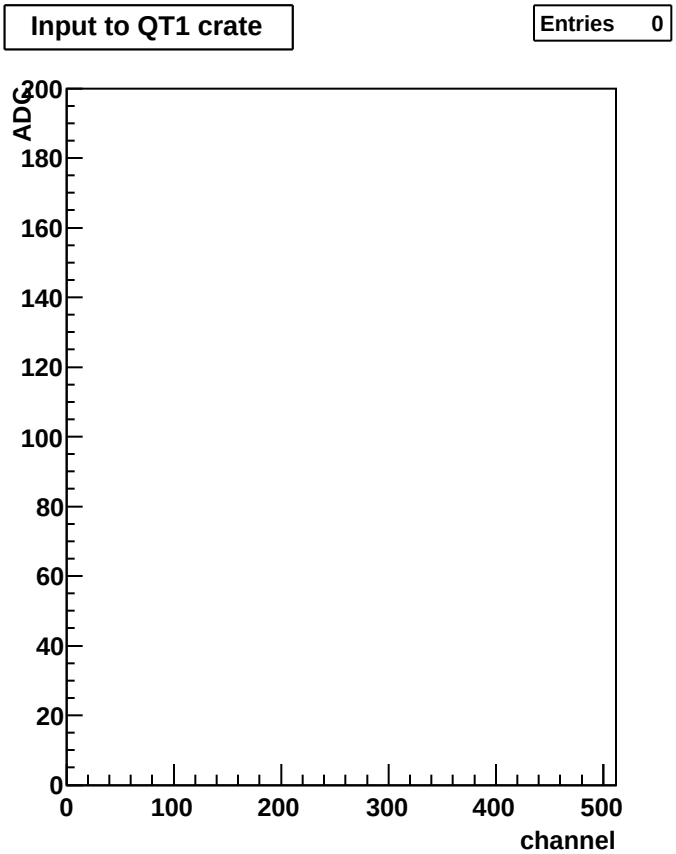

Entries 4000
BBC-L-East ADC Sum
BBC-L-West ADC Sum

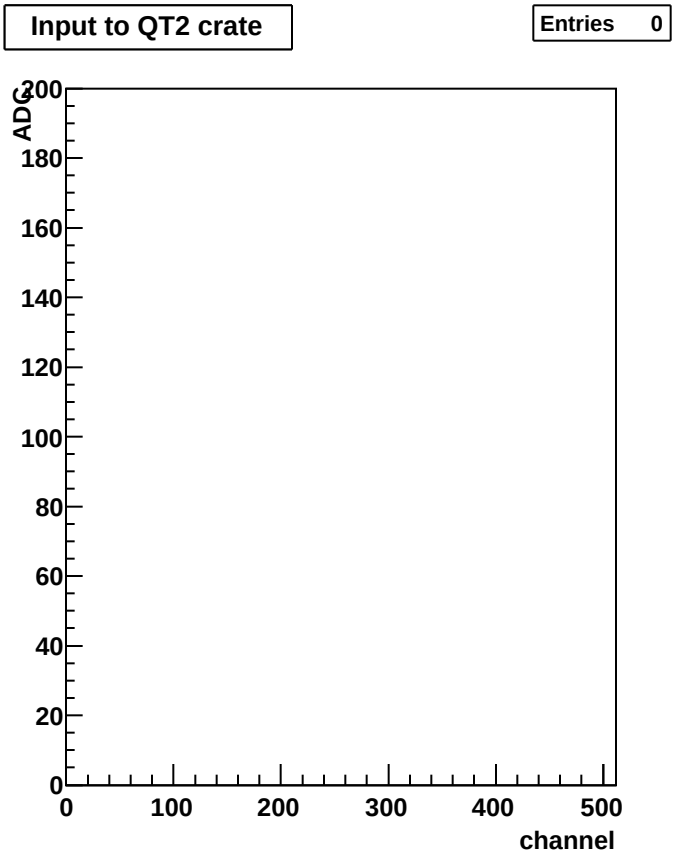

Entries 4000
BBC-S-East ADC Sum
BBC-S-West ADC Sum

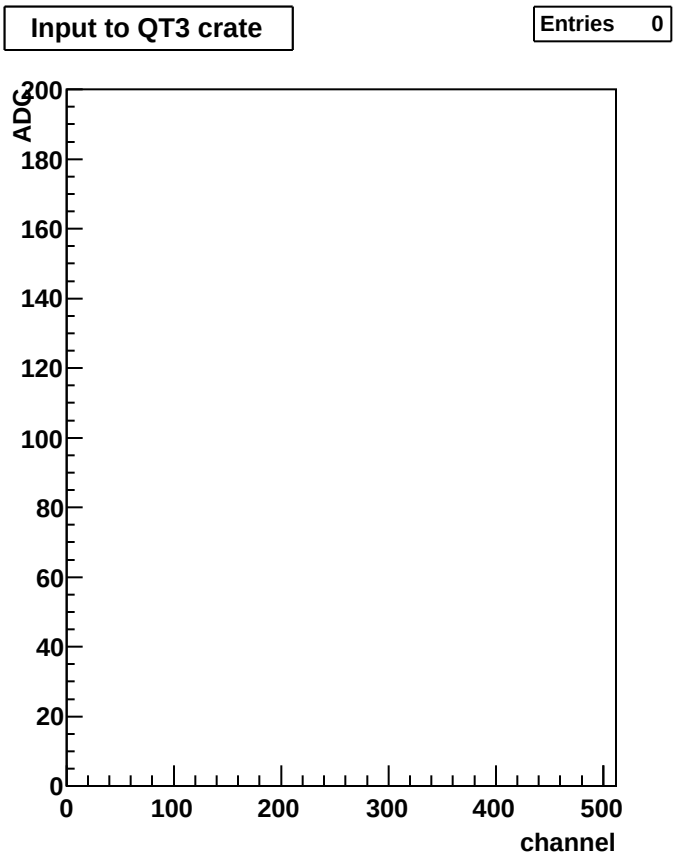

Entries 4000
VPD East ADC Sum
VPD West ADC Sum

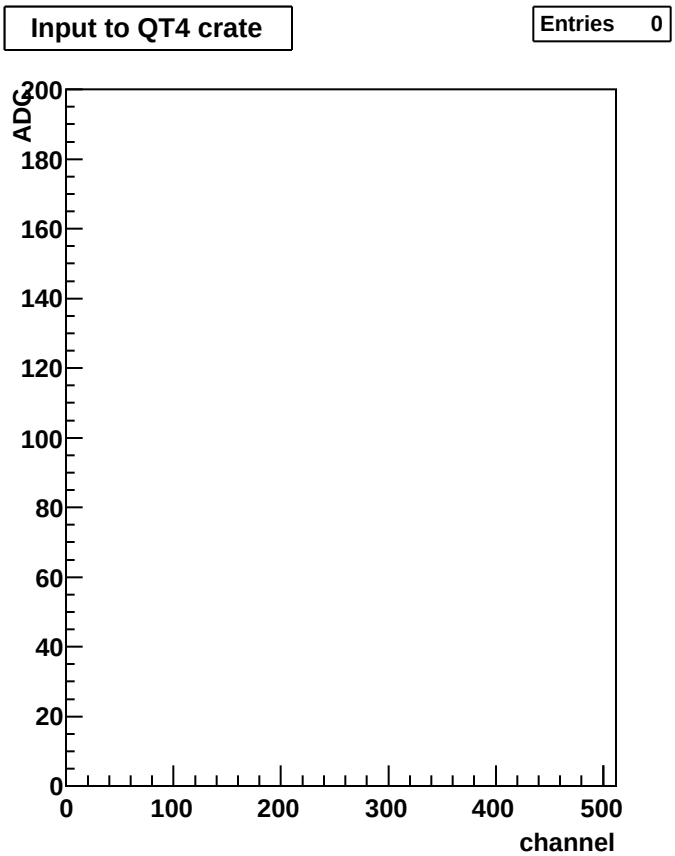

Entries 4000
ZDC East ADC Sum Att
ZDC West ADC Sum Att

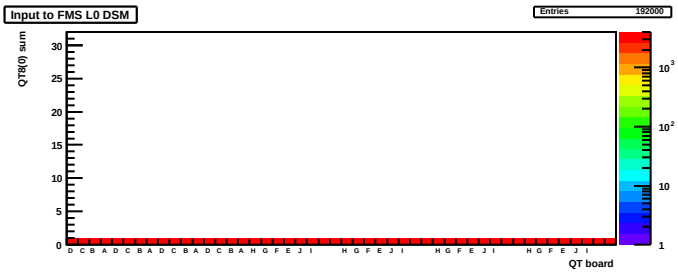

Entries 4000
BBC-L TAC Diff
BCC-S TAC Diff
Entries 4000
BBC-L TAC Diff
VPD TAC Diff
Entries 4000
BBC-L TAC Diff
ZDC TAC Diff
Entries 4000
BBC-S TAC Diff
VPD TAC Diff
Entries 4000
BBC-S TAC Diff
ZDC TAC Diff
Entries 4000
VPD TAC Diff
ZDC TAC Diff

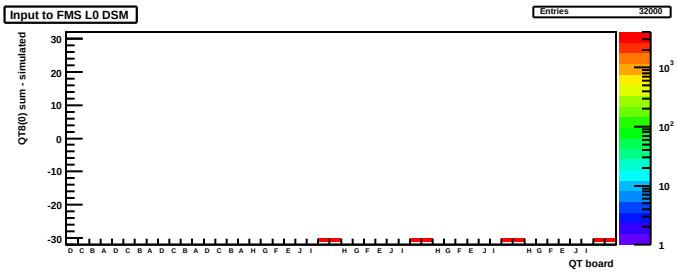

Input to QT1 crate
Entries 0
ADC
200
180
160
140
120
100
80
60
40
20
0
0
100
200
300
400
500
channel

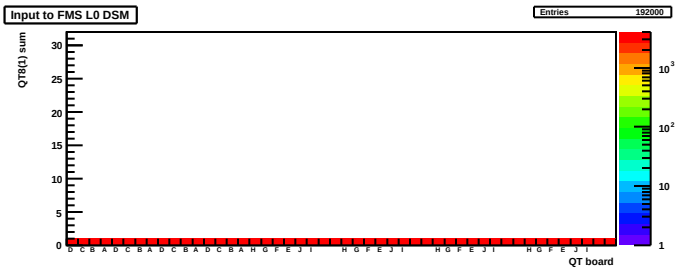

Input to QT2 crate
Entries 0
ADC
200
180
160
140
120
100
80
60
40
20
0
0
100
200
300
400
500
channel

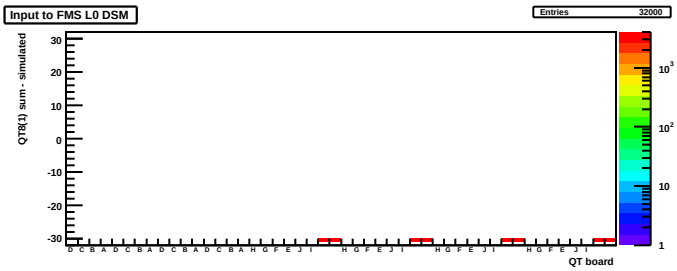

Input to QT3 crate
Entries 0
ADC
200
180
160
140
120
100
80
60
40
20
0
0
100
200
300
400
500
channel

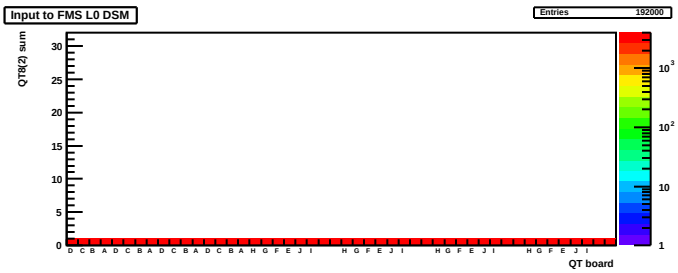

Input to QT4 crate
Entries 0
ADC
200
180
160
140
120
100
80
60
40
20
0
0
100
200
300
400
500
channel

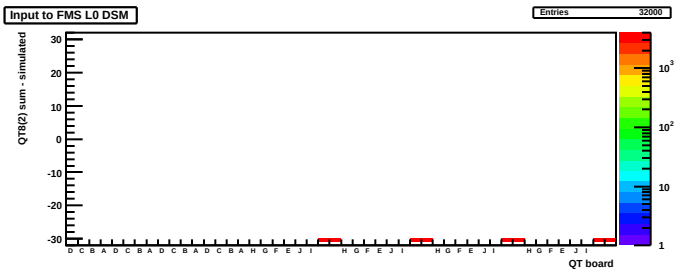

Input to FMS L0 DSM
Entries 192000
QT8(0) sum
QT board

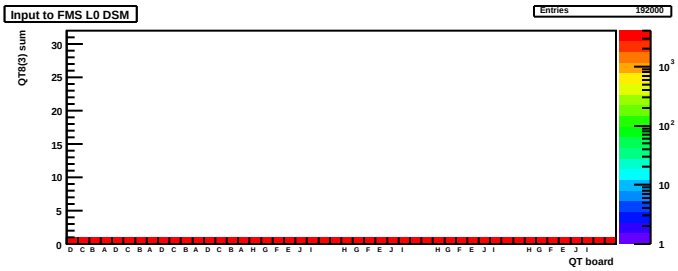

Input to FMS L0 DSM
Entries 32000
QT8(0) sum - simulated
QT board

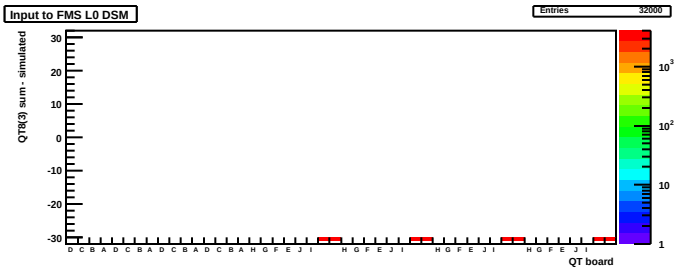

Input to FMS L0 DSM
Entries 192000
QT8(1) sum
QT board

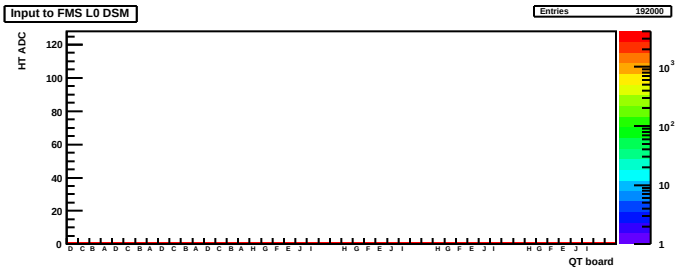

Input to FMS L0 DSM
Entries 32000
QT8(1) sum - simulated
QT board

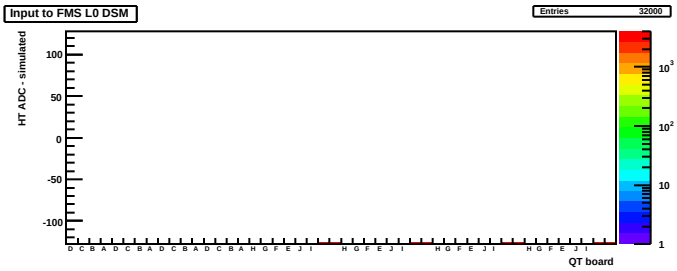

Input to FMS L0 DSM
Entries 192000
QT8(2) sum
QT board

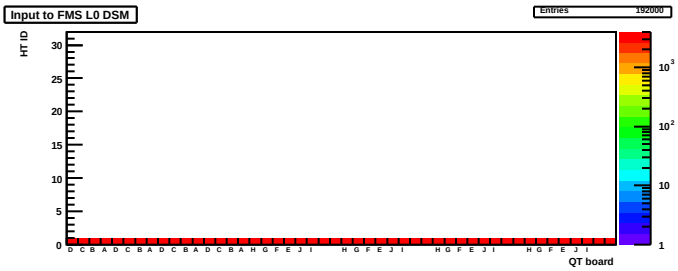

Input to FMS L0 DSM
Entries 32000
QT8(2) sum - simulated
QT board

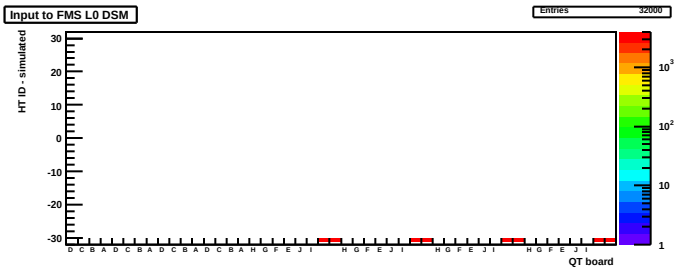

Input to FMS L0 DSM
Entries 192000
QT8(3) sum
QT board

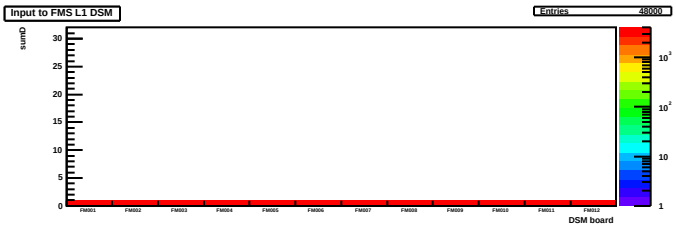

Input to FMS L0 DSM
Entries 32000
QT8(3) sum - simulated
QT board

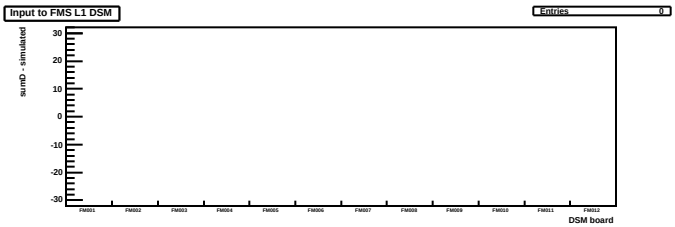

Input to FMS L0 DSM
Entries 192000
HT ADC
QT board

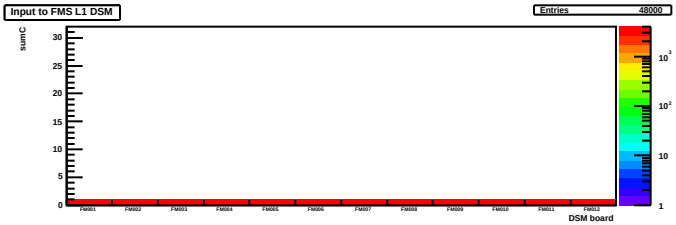

Input to FMS L0 DSM
Entries 32000
HT ADC - simulated
QT board

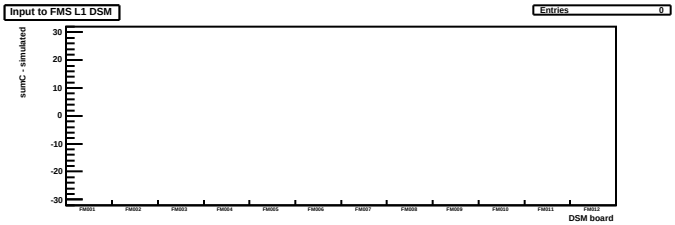

Input to FMS L0 DSM
Entries 192000
HT ID
QT board

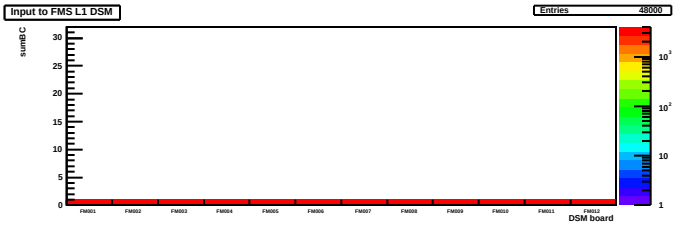

Input to FMS L0 DSM
Entries 32000
HT ID - simulated
QT board

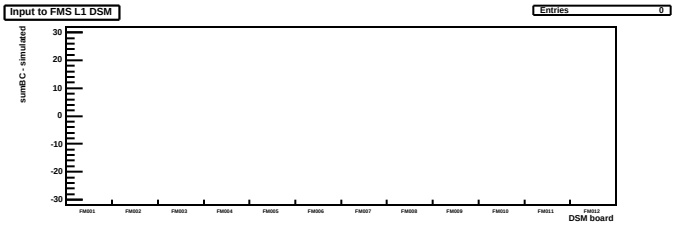

Input to FMS L1 DSM
Entries 48000
sumD
DSM board

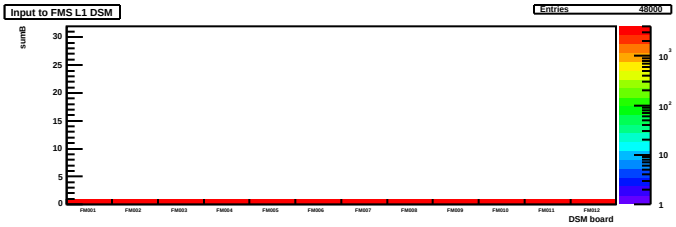

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

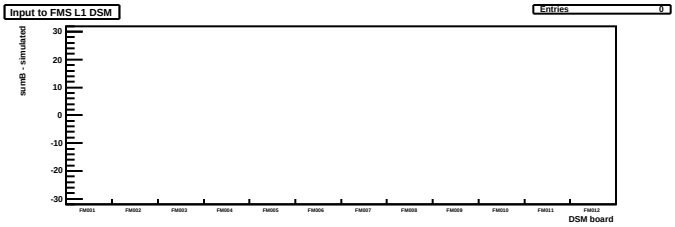

Input to FMS L1 DSM
Entries 48000
sumC
DSM board

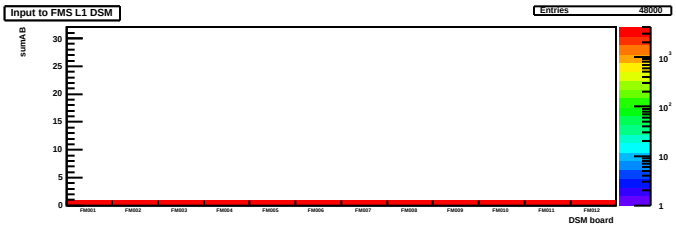

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

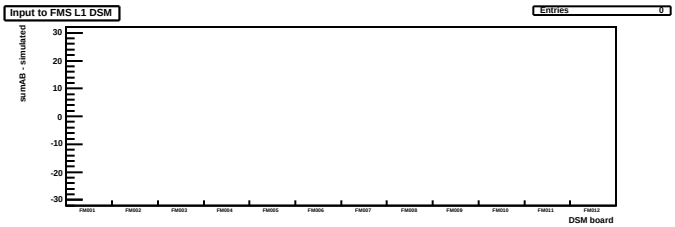

Input to FMS L1 DSM
Entries 48000
sumBC
DSM board

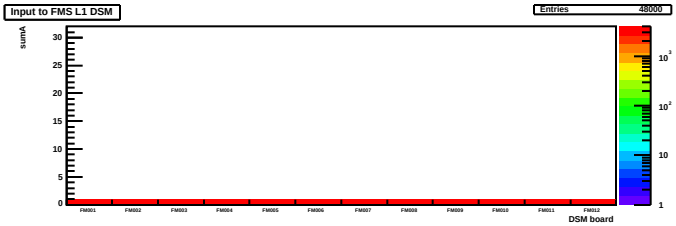

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

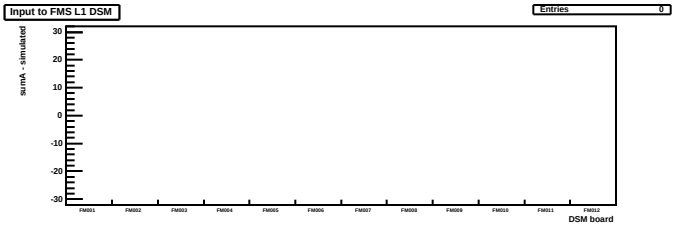

Input to FMS L1 DSM
Entries 48000
sumB
DSM board

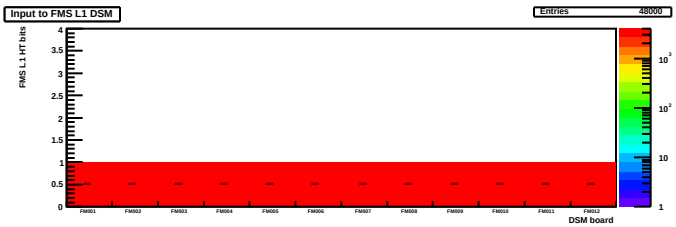

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

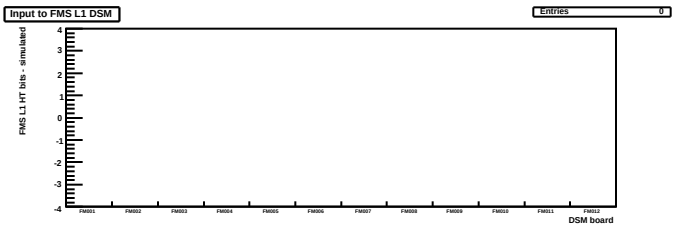

Input to FMS L1 DSM
Entries 48000
sumAB
DSM board

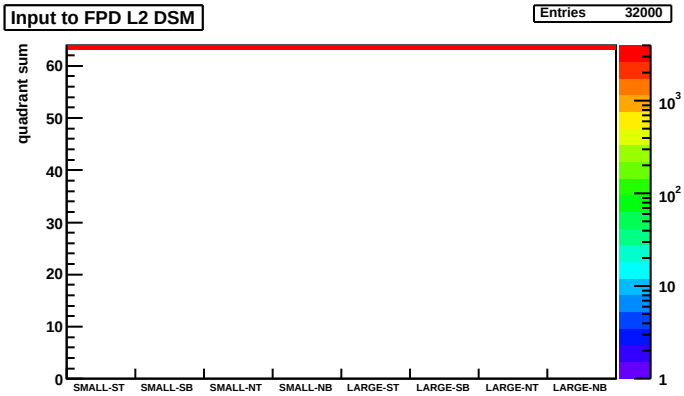

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

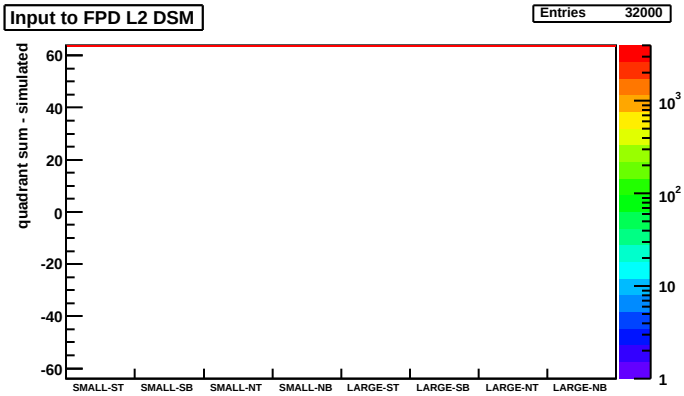

Input to FMS L1 DSM
Entries 48000
sumA
DSM board

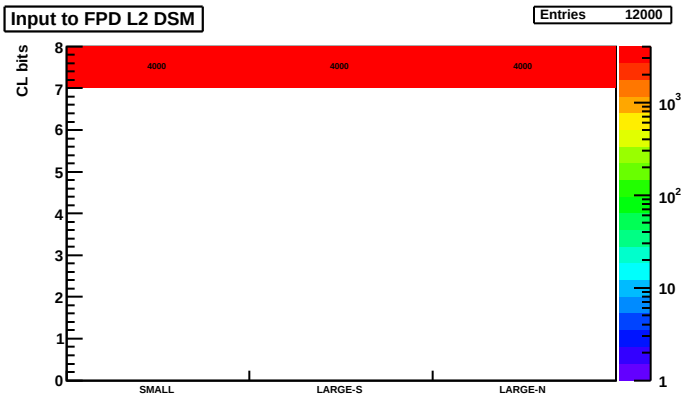

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

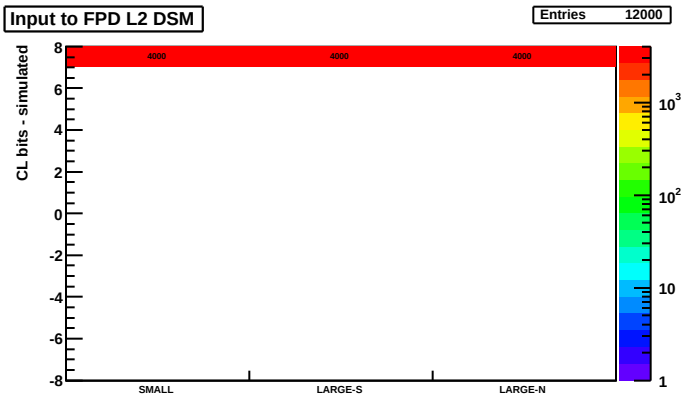

Input to FMS L1 DSM
Entries 48000
FMS L1 HT bits
DSM board

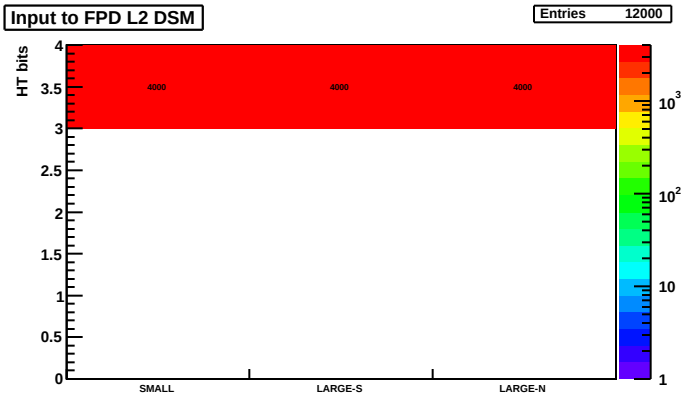

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

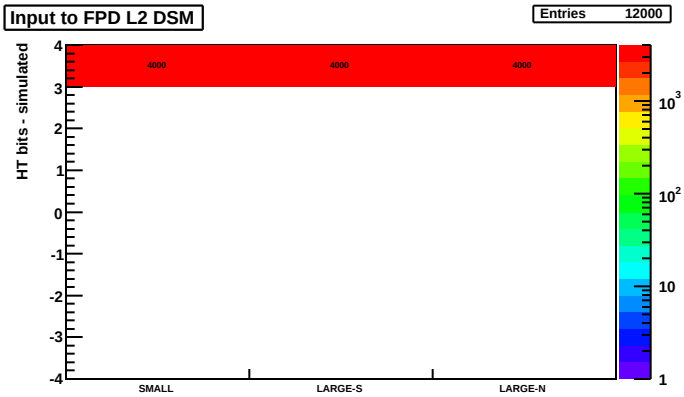

Input to FPD L2 DSM
Entries 32000
quadrant sum
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

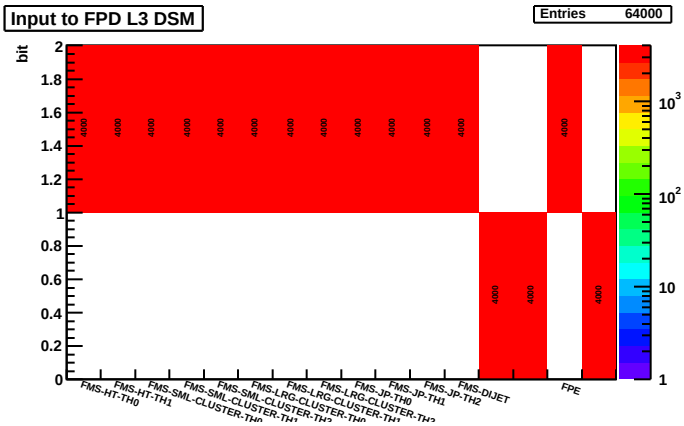

Input to FPD L2 DSM
Entries 32000
quadrant sum - simulated
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

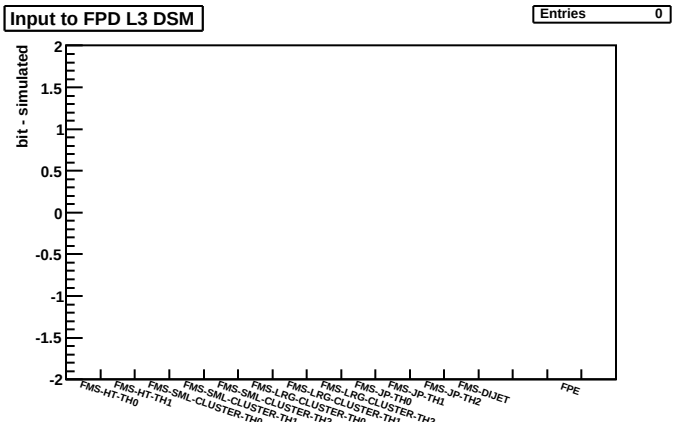

Input to FPD L2 DSM
Entries 12000
CL bits
SMALL LARGE-S LARGE-N

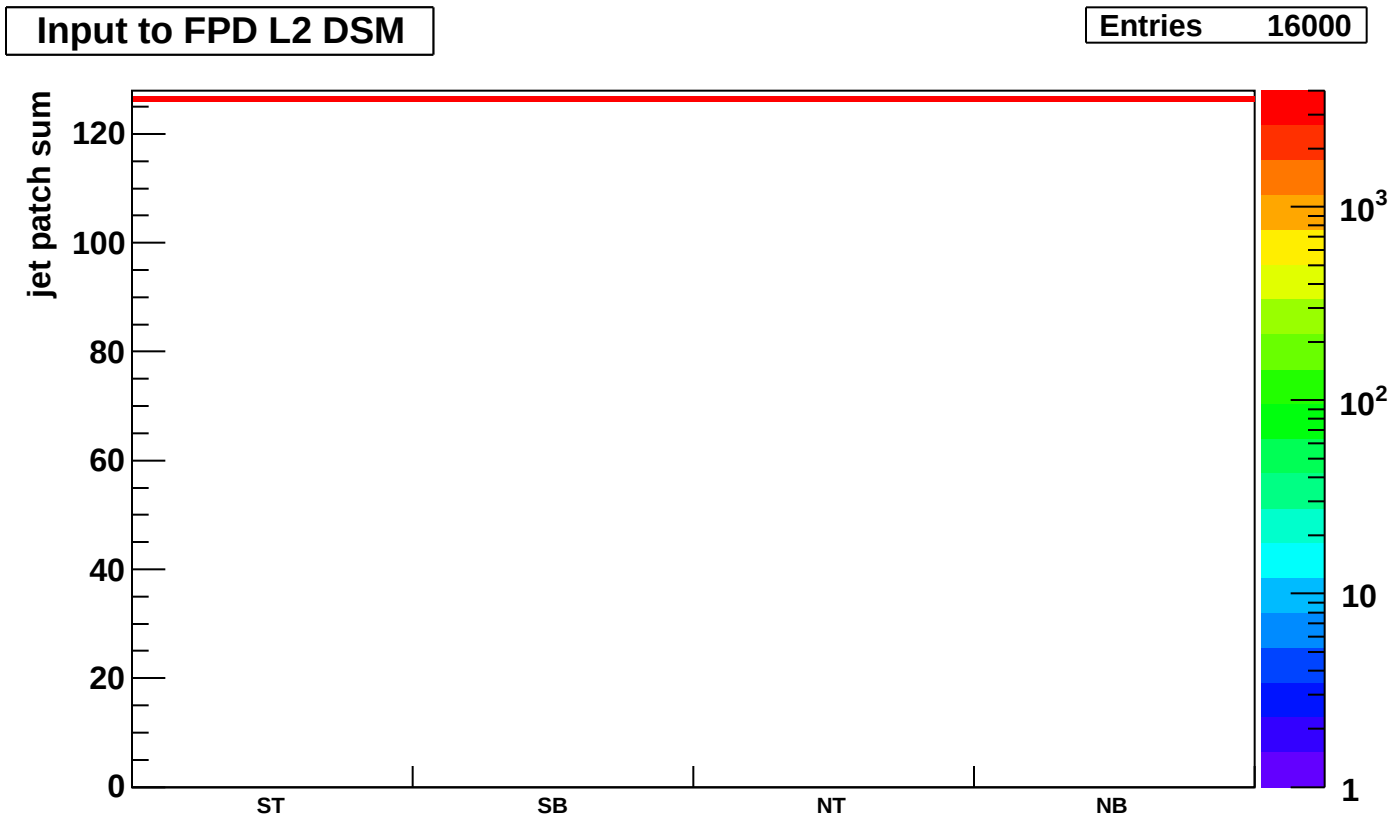

Input to FPD L2 DSM
Entries 12000
CL bits - simulated
SMALL LARGE-S LARGE-N

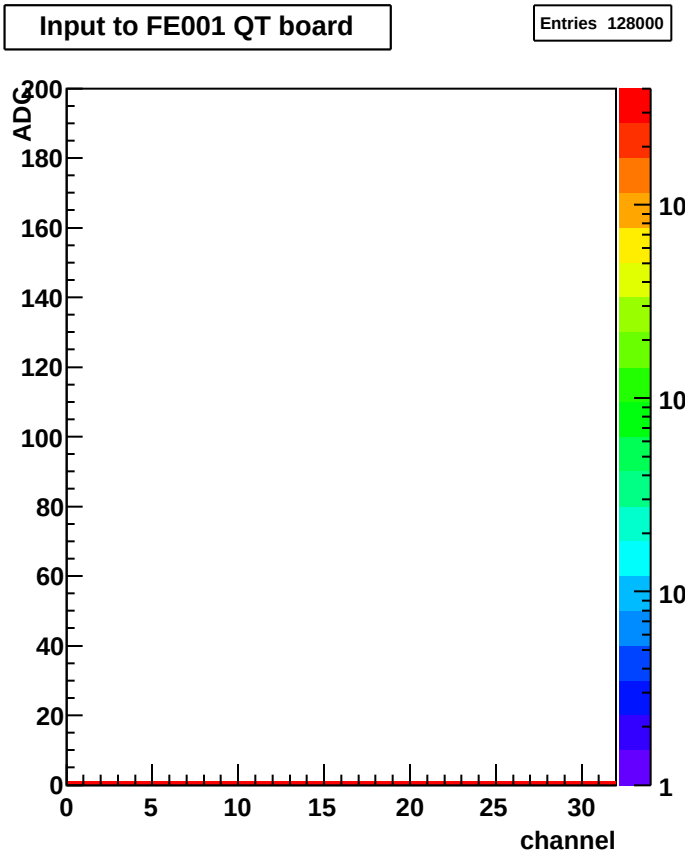

Input to FPD L2 DSM
Entries 12000
HT bits
SMALL LARGE-S LARGE-N

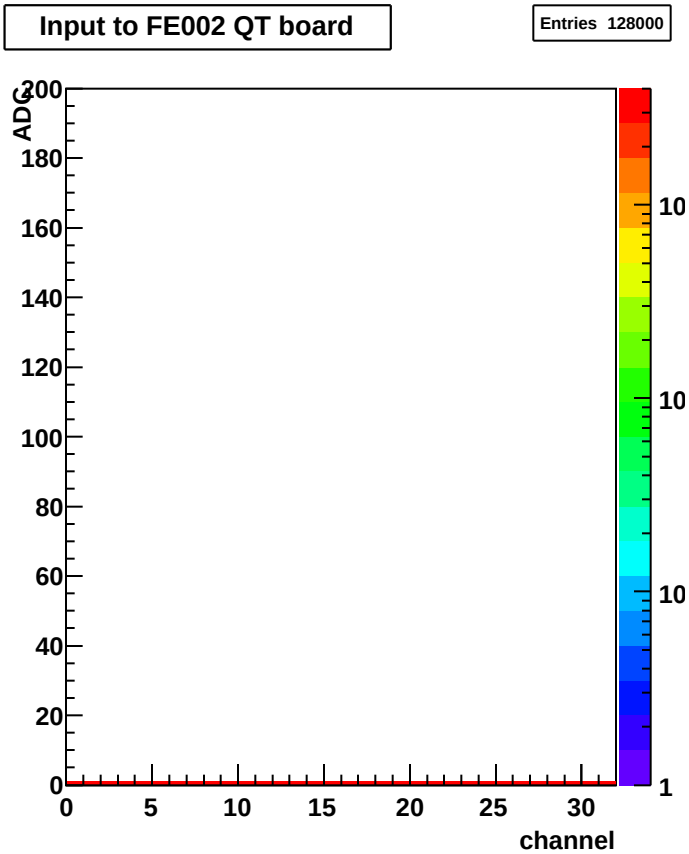

Input to FPD L2 DSM
Entries 12000
HT bits - simulated
SMALL LARGE-S LARGE-N

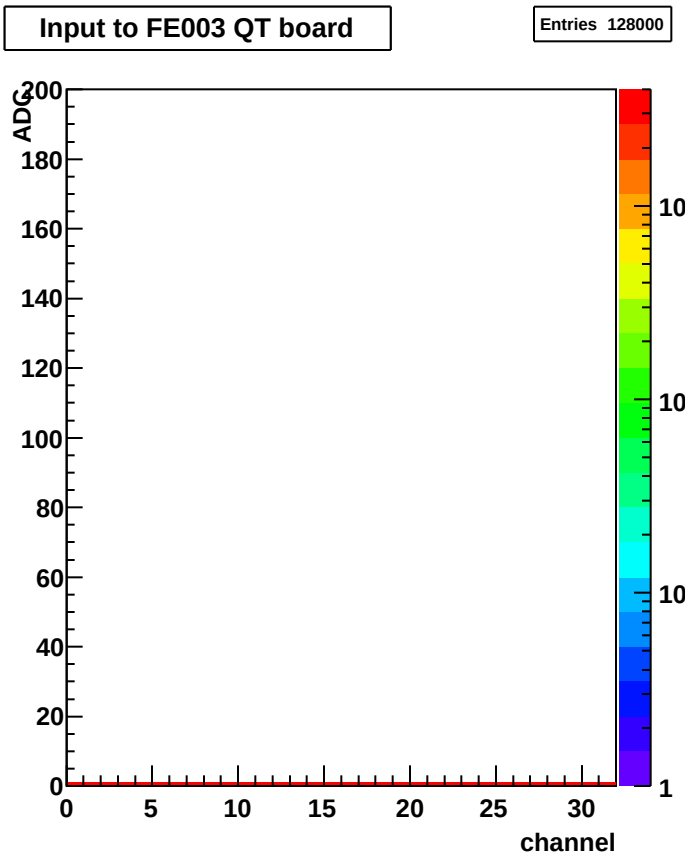

Input to FPD L3 DSM
Entries 64000
bit
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

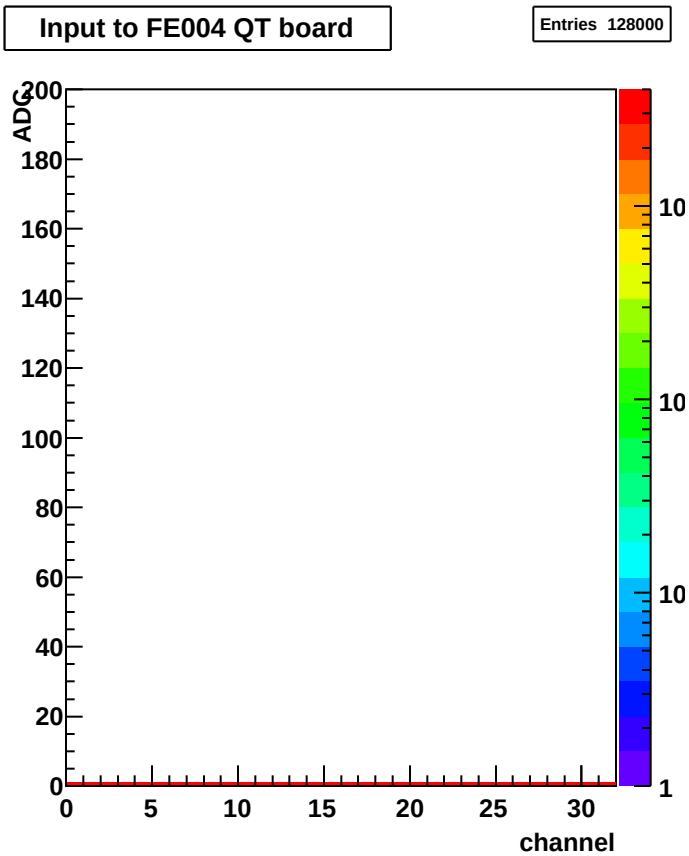

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

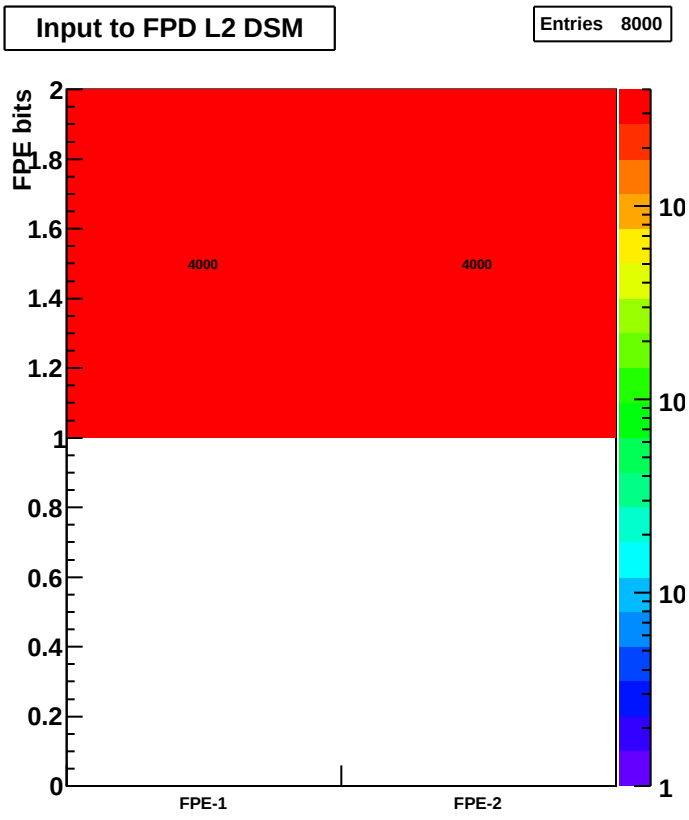

Input to FPD L2 DSM
Entries 16000
jet patch sum
120
100
80
60
40
20
0
ST
SB
NT
NB
10^3
10^2
10
1

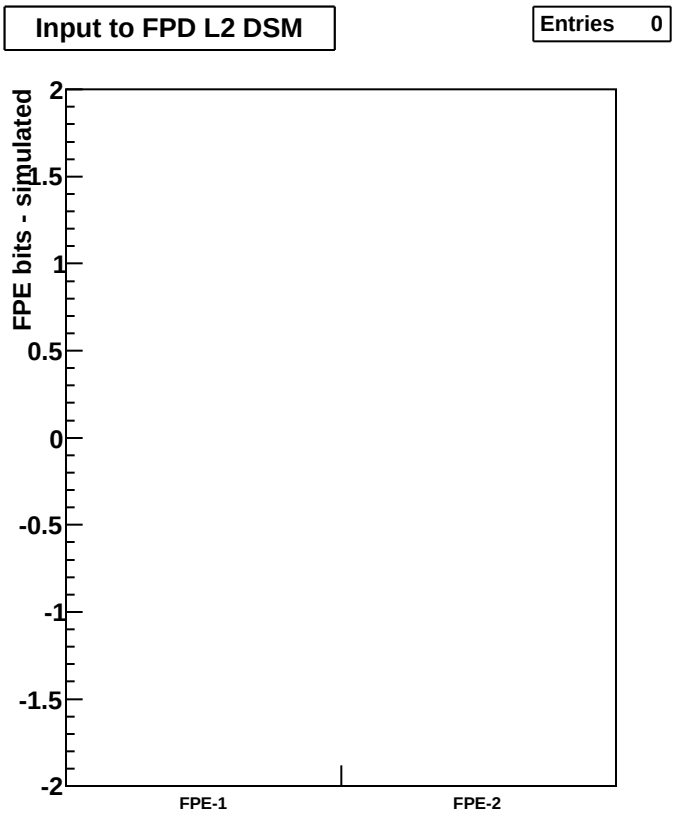

Input to FE001 QT board
Entries 128000
ADC
channel


Input to FE002 QT board
Entries 128000
ADC
channel


Input to FE003 QT board
Entries 128000
ADC
channel


Input to FE004 QT board
Entries 128000
ADC
channel


Input to FPD L2 DSM
Entries 8000
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
4000
4000
10
10
10
1
FPE-1
FPE-2


Input to FPD L2 DSM
Entries 0
FPE bits - simulated
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
FPE-1
FPE-2