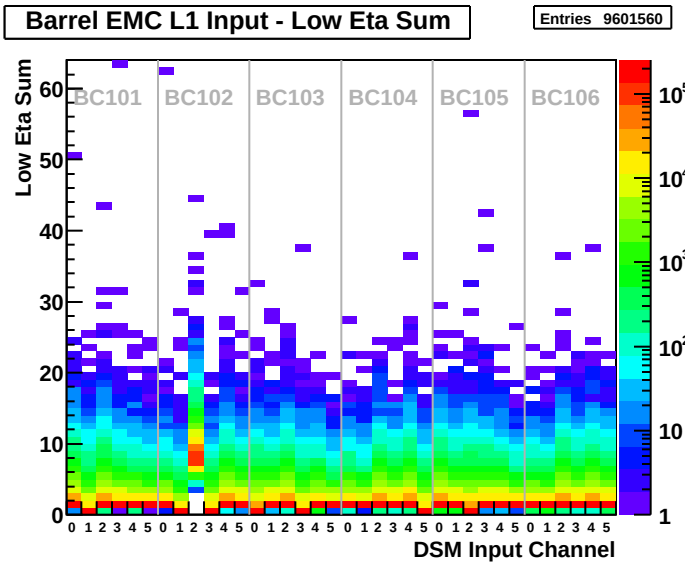
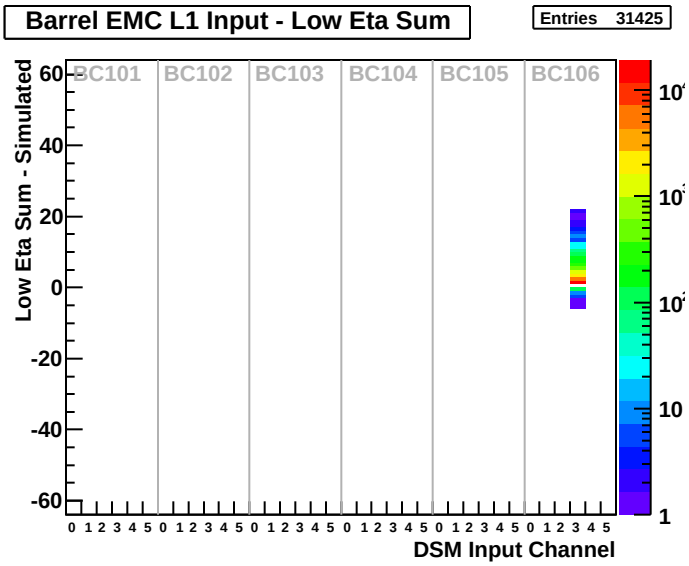
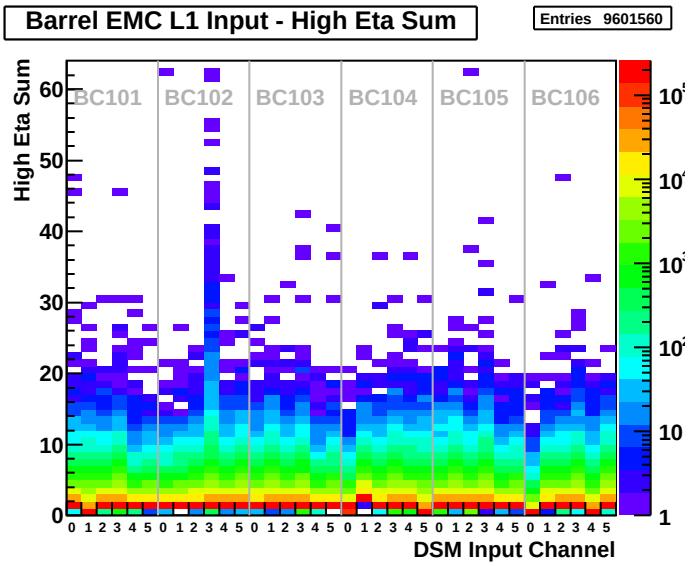
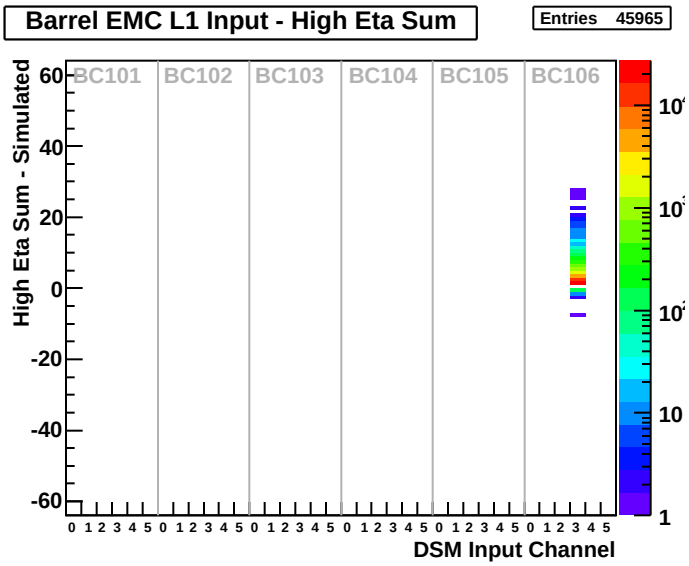
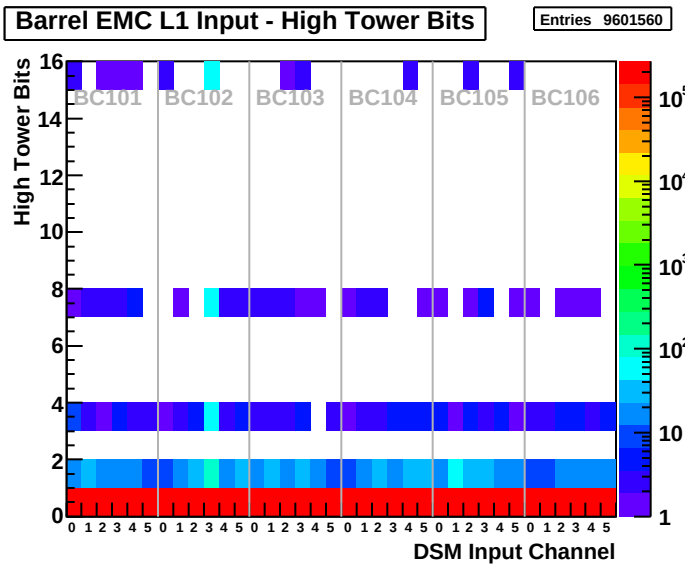
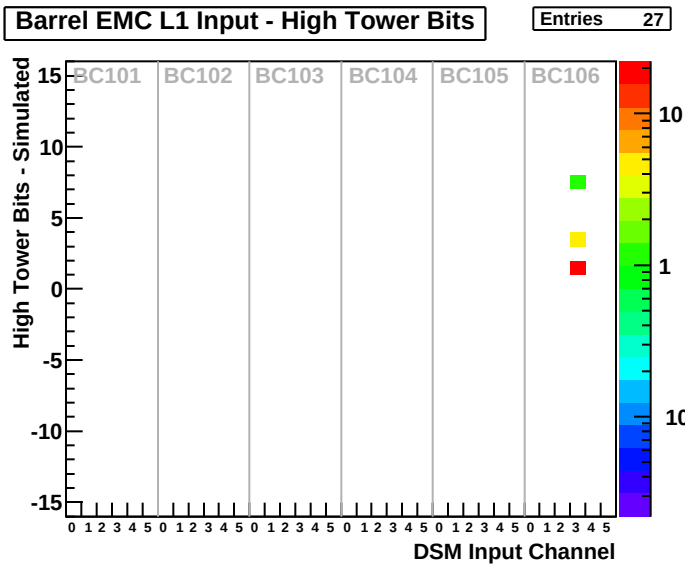

Barrel EMC L1 Input - Low Eta Sum
Entries 9601560
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

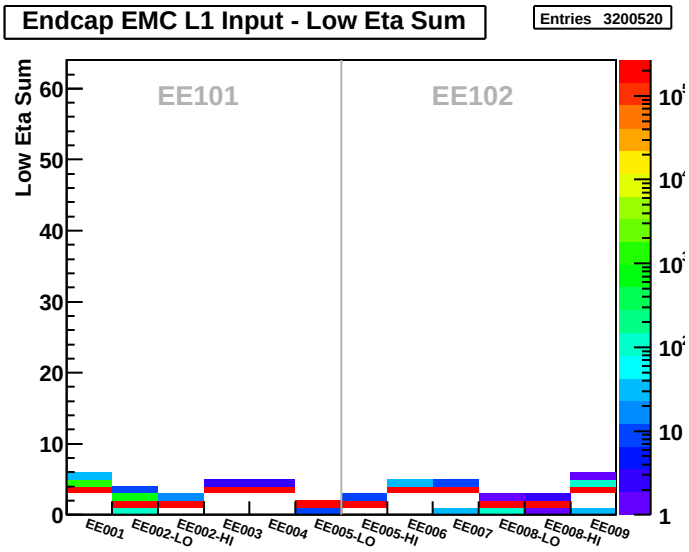

Barrel EMC L1 Input - Low Eta Sum
Entries 31425
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

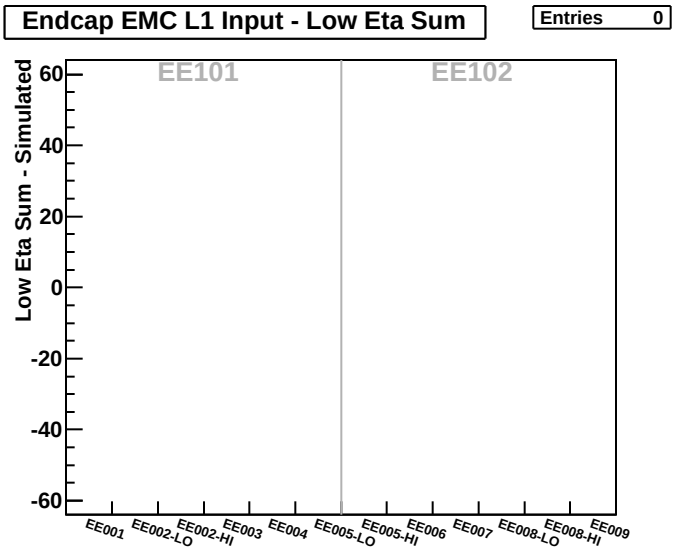

Barrel EMC L1 Input - High Eta Sum
Entries 9601560
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

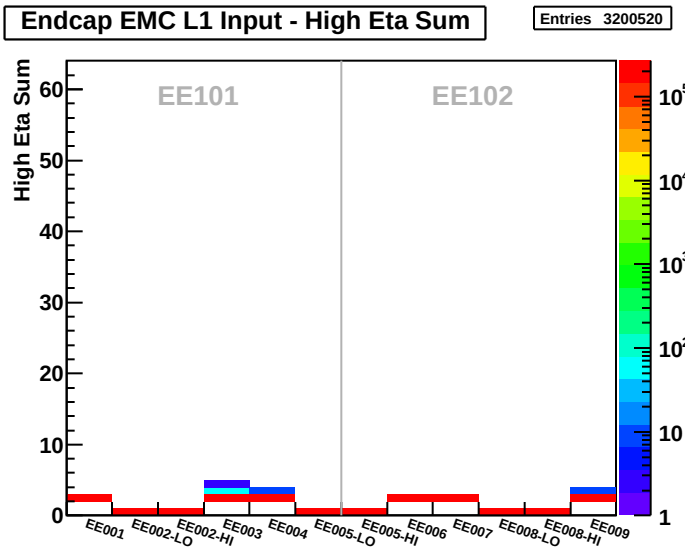

Barrel EMC L1 Input - High Eta Sum
Entries 45965
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

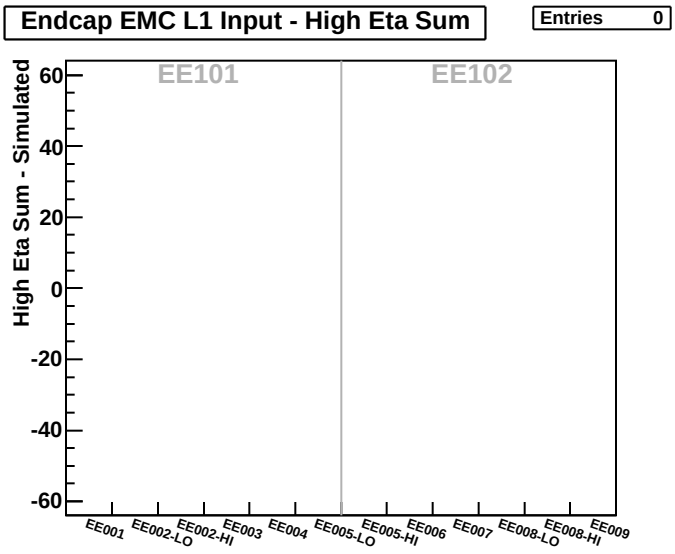

Barrel EMC L1 Input - High Tower Bits
Entries 9601560
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

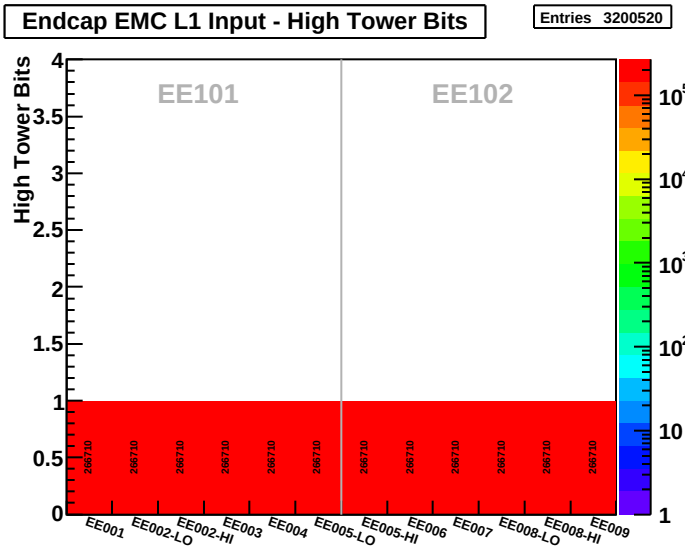

Barrel EMC L1 Input - High Tower Bits
Entries 27
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

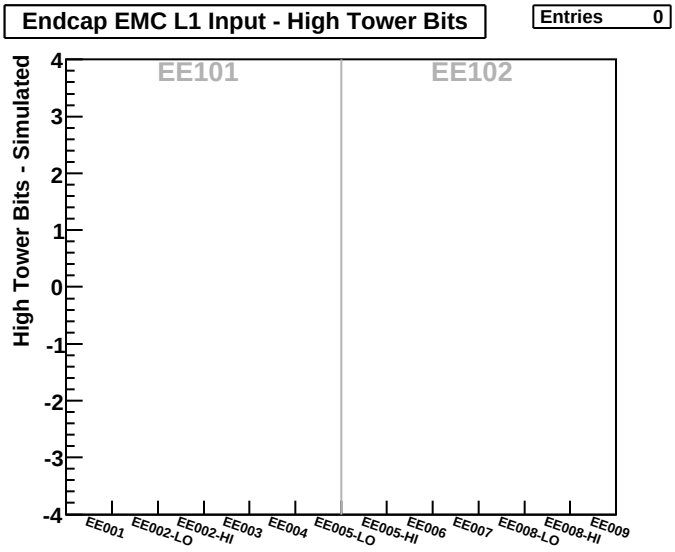

Endcap EMC L1 Input - Low Eta Sum
Entries 3200520
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

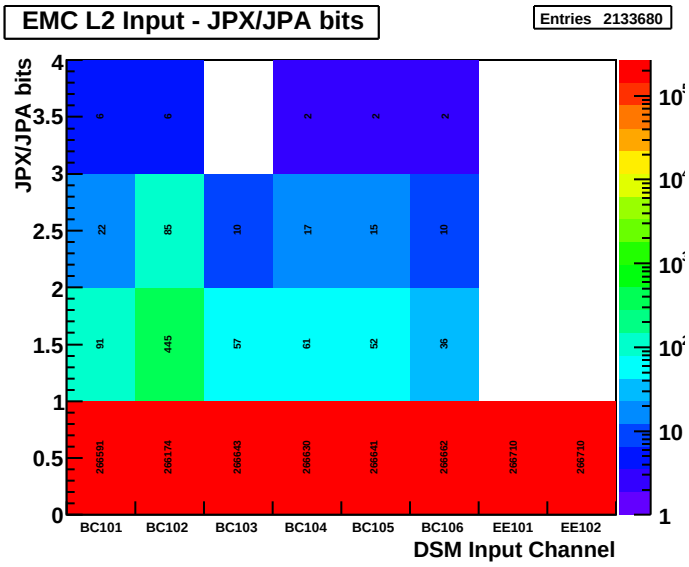

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

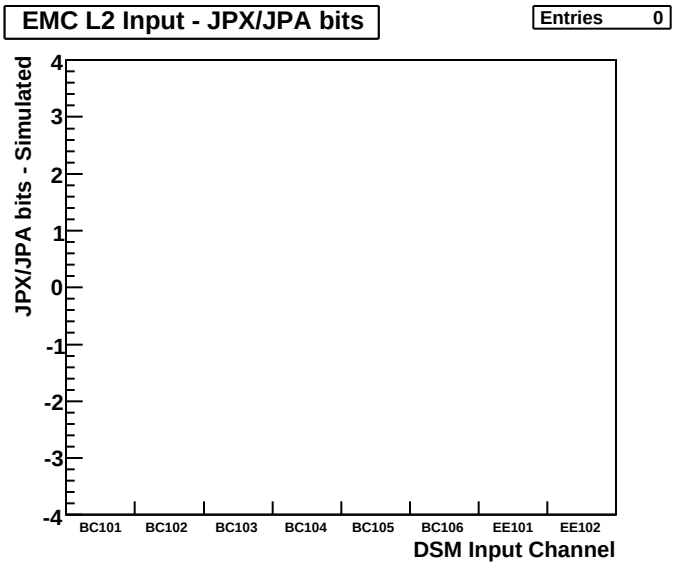

Endcap EMC L1 Input - High Eta Sum
Entries 3200520
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

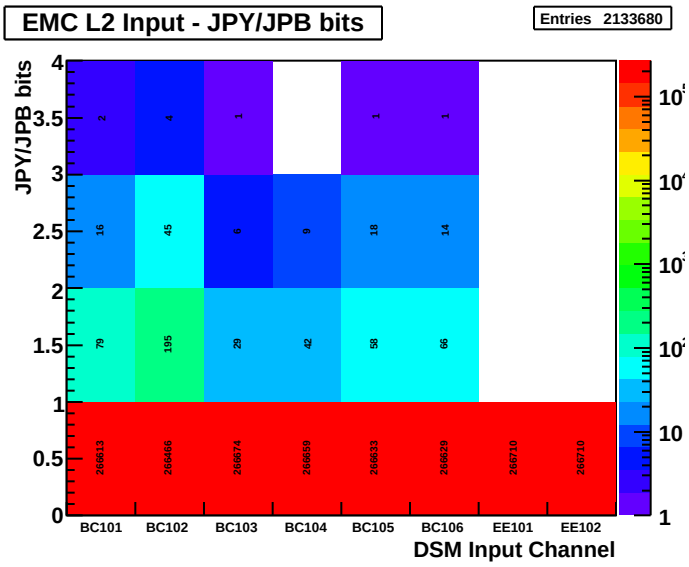

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

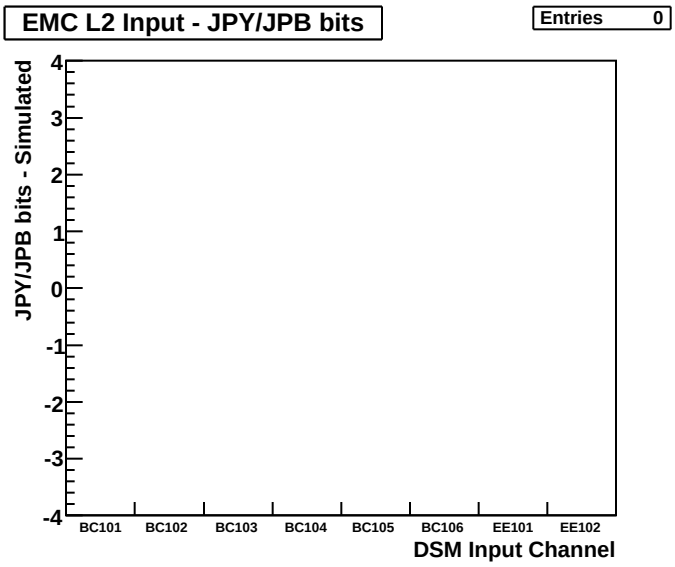

Endcap EMC L1 Input - High Tower Bits
Entries 3200520
High Tower Bits
EE101
EE102
266710
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

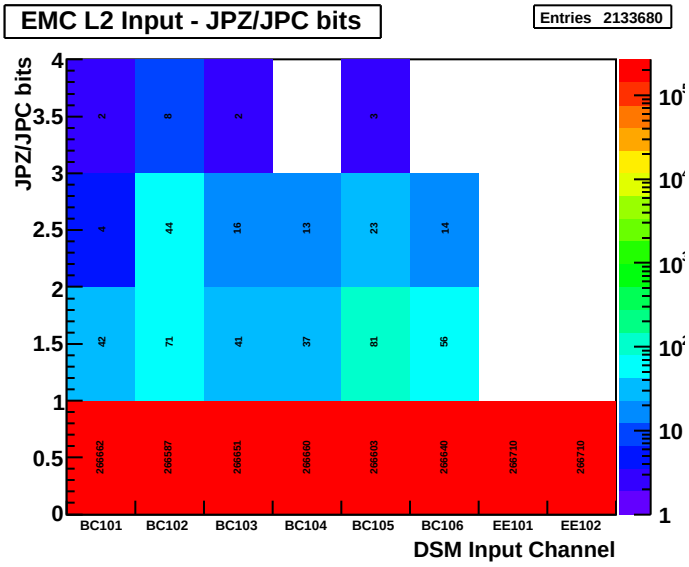

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

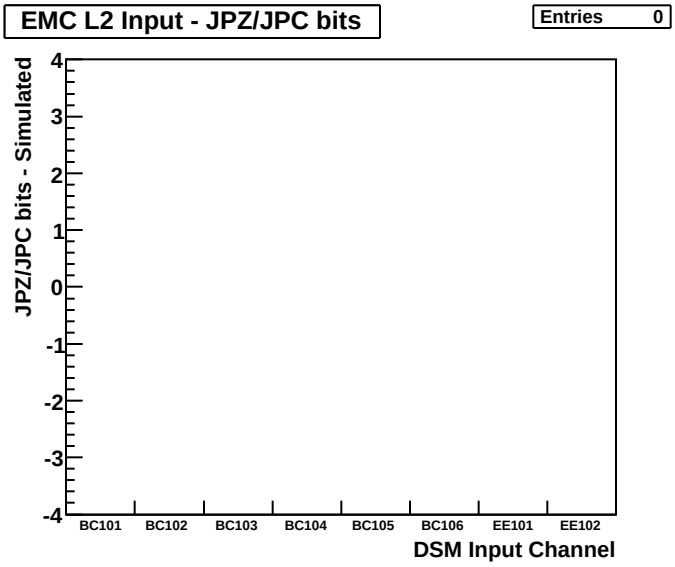

EMC L2 Input - JPX/JPA bits
Entries 2133680
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

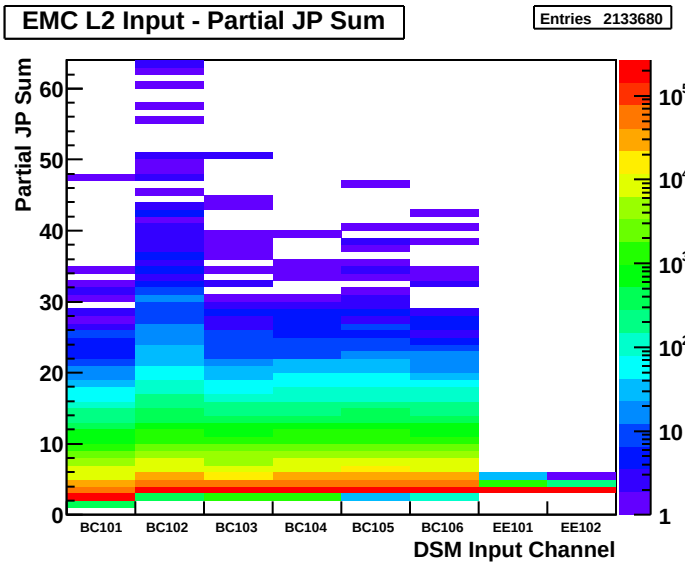

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

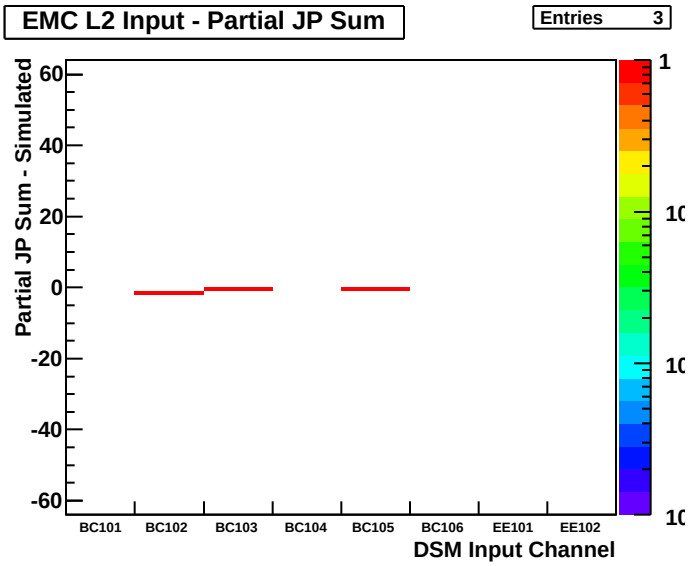

EMC L2 Input - JPY/JPB bits
Entries 2133680
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

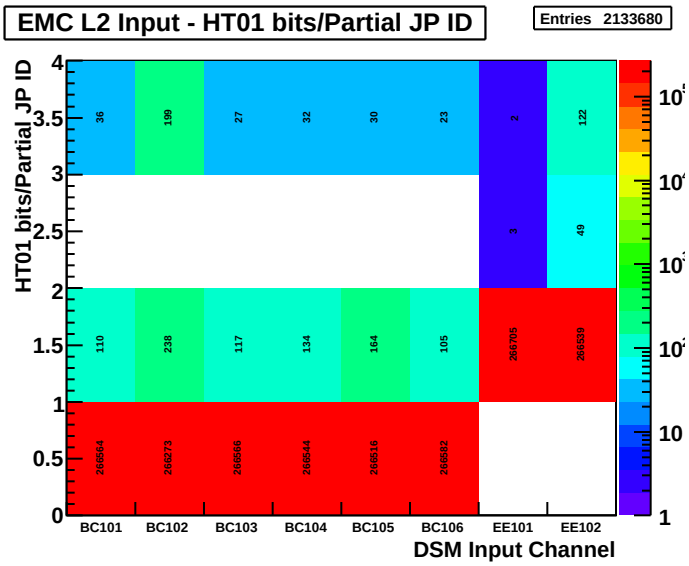

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

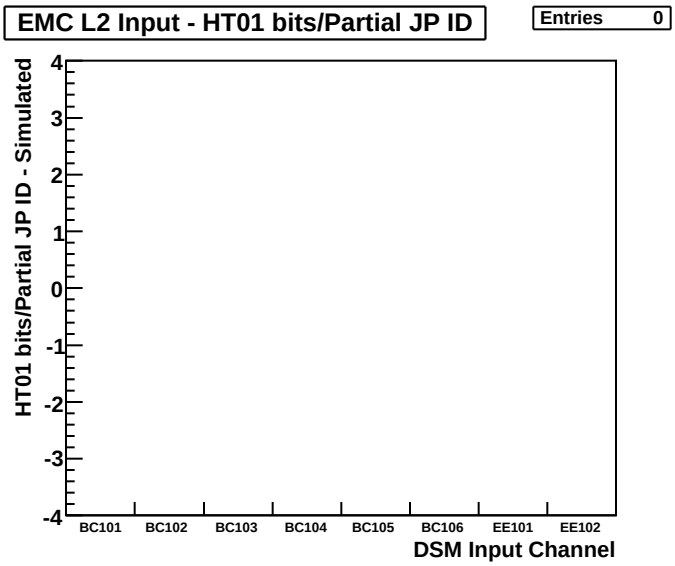

EMC L2 Input - JPZ/JPC bits
Entries 2133680
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

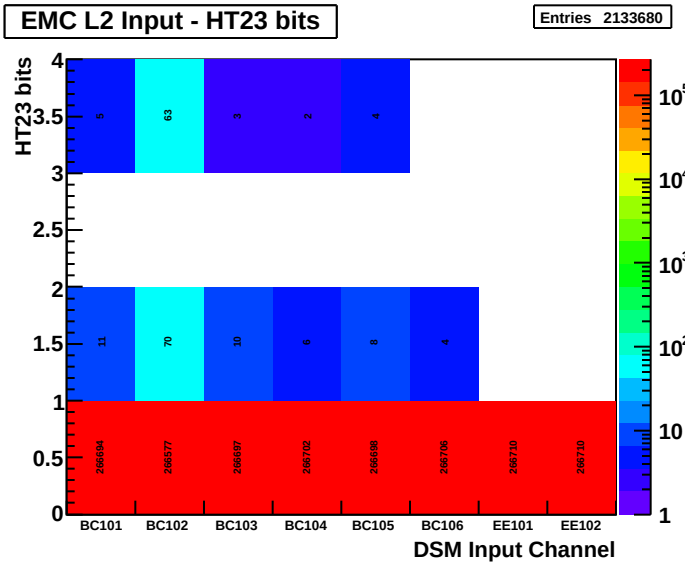

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

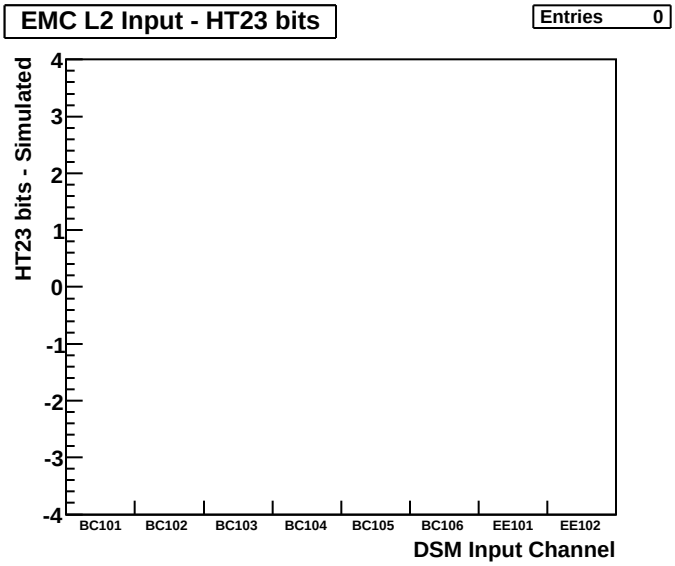

EMC L2 Input - Partial JP Sum
Entries 2133680
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

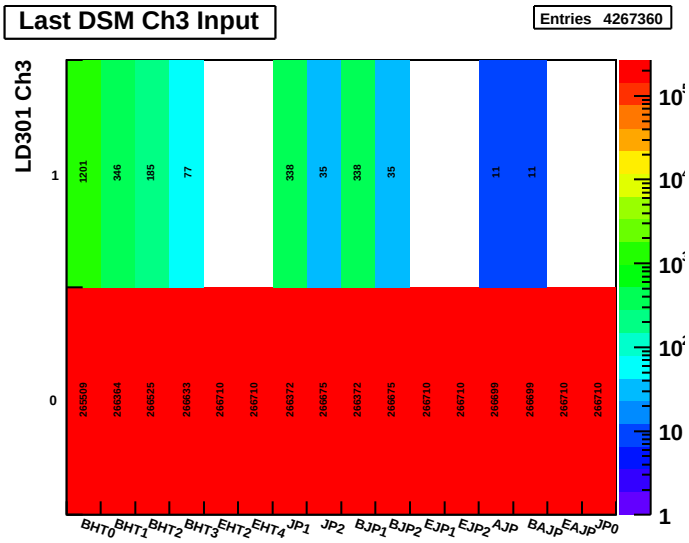

EMC L2 Input - Partial JP Sum
Entries 3
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

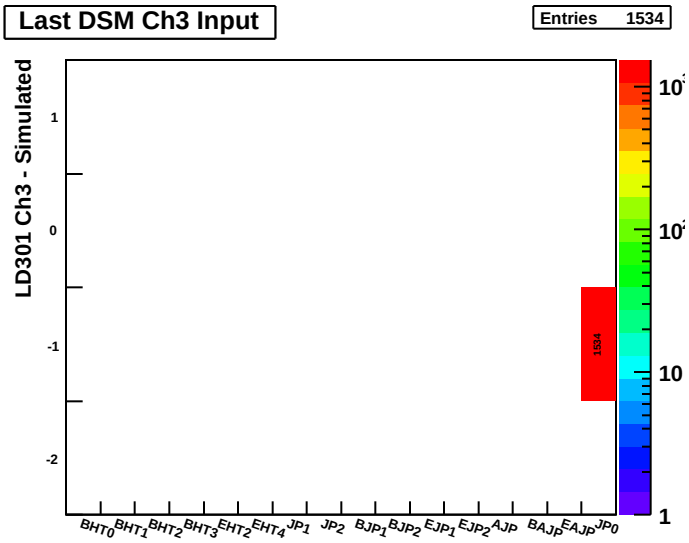

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2133680
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

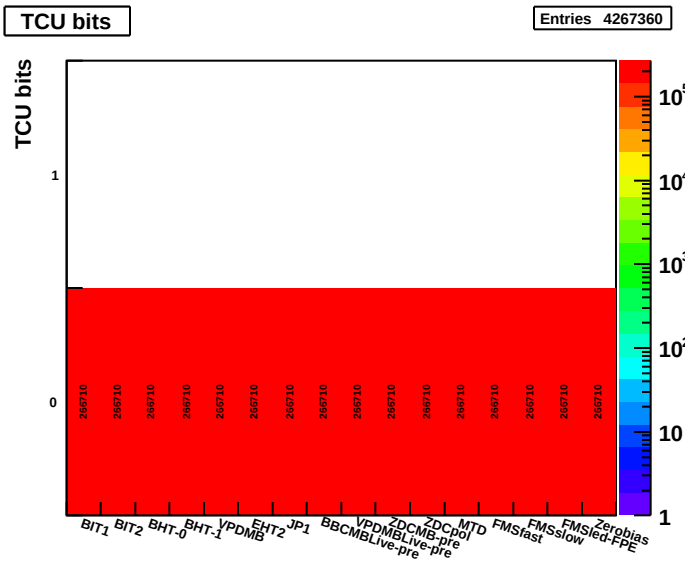

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

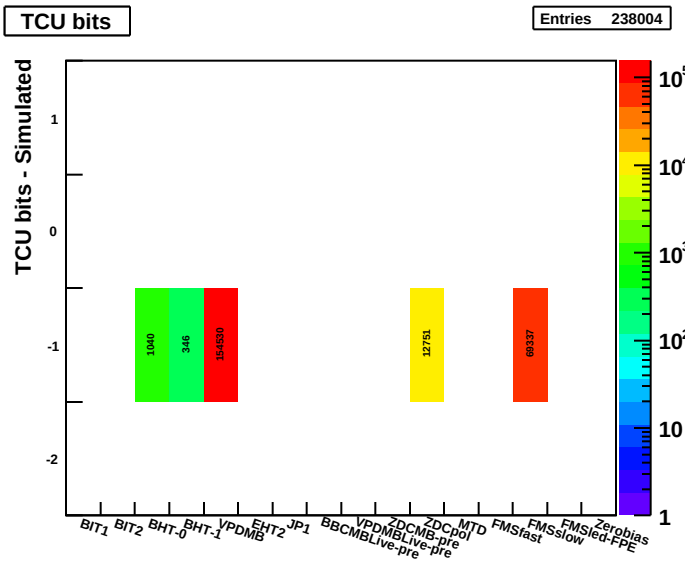

EMC L2 Input - HT23 bits
Entries 2133680
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

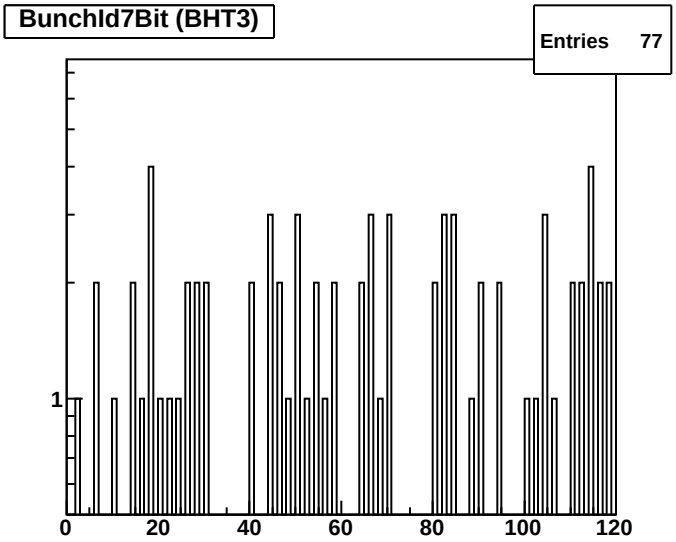

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

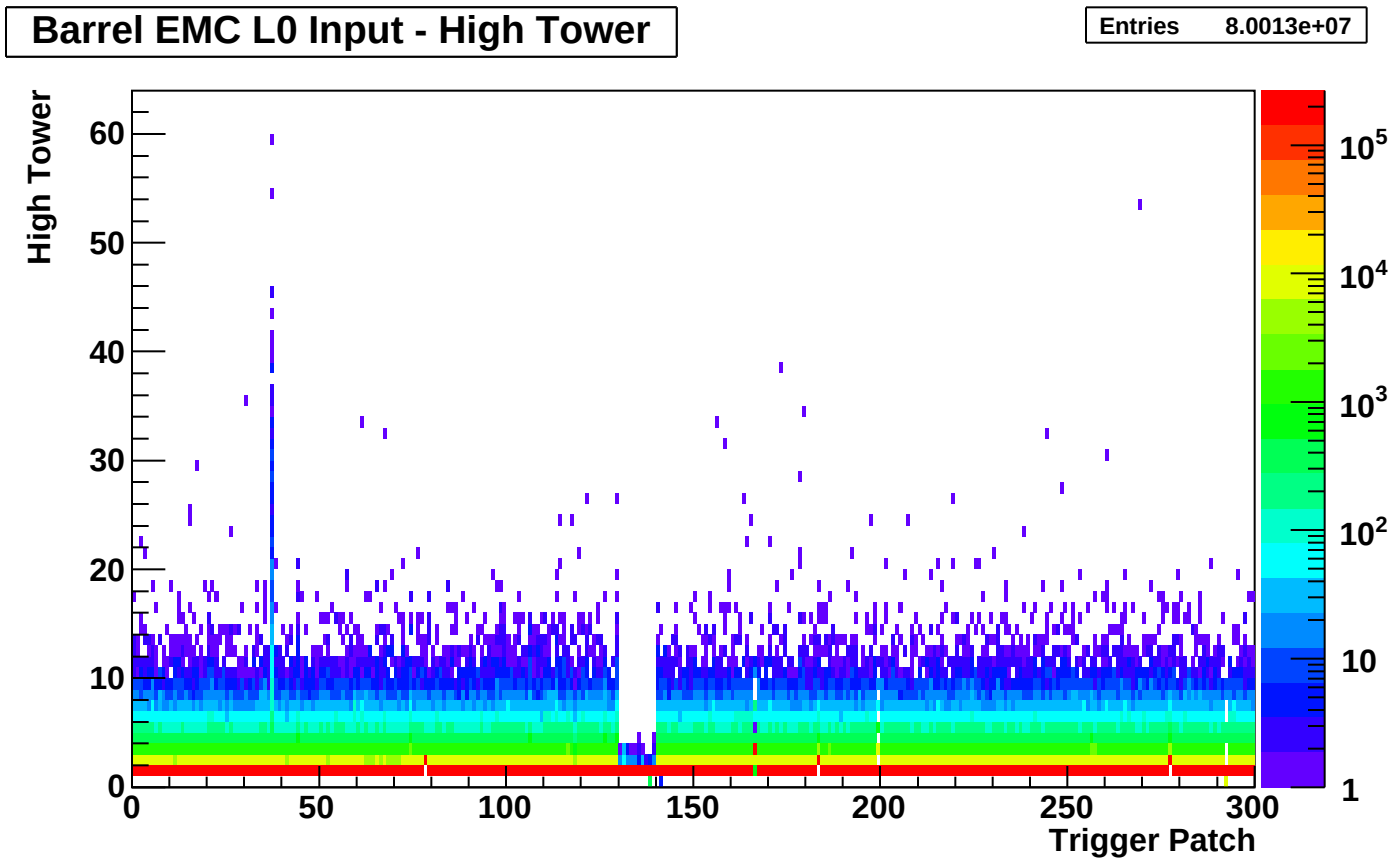

Last DSM Ch3 Input
Entries 4267360
LD301 Ch3
1201
346
185
77
338
35
338
35
11
11
266509
266364
266525
266633
266710
266710
266372
266675
266372
266675
266710
266710
266699
266699
266710
266710
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

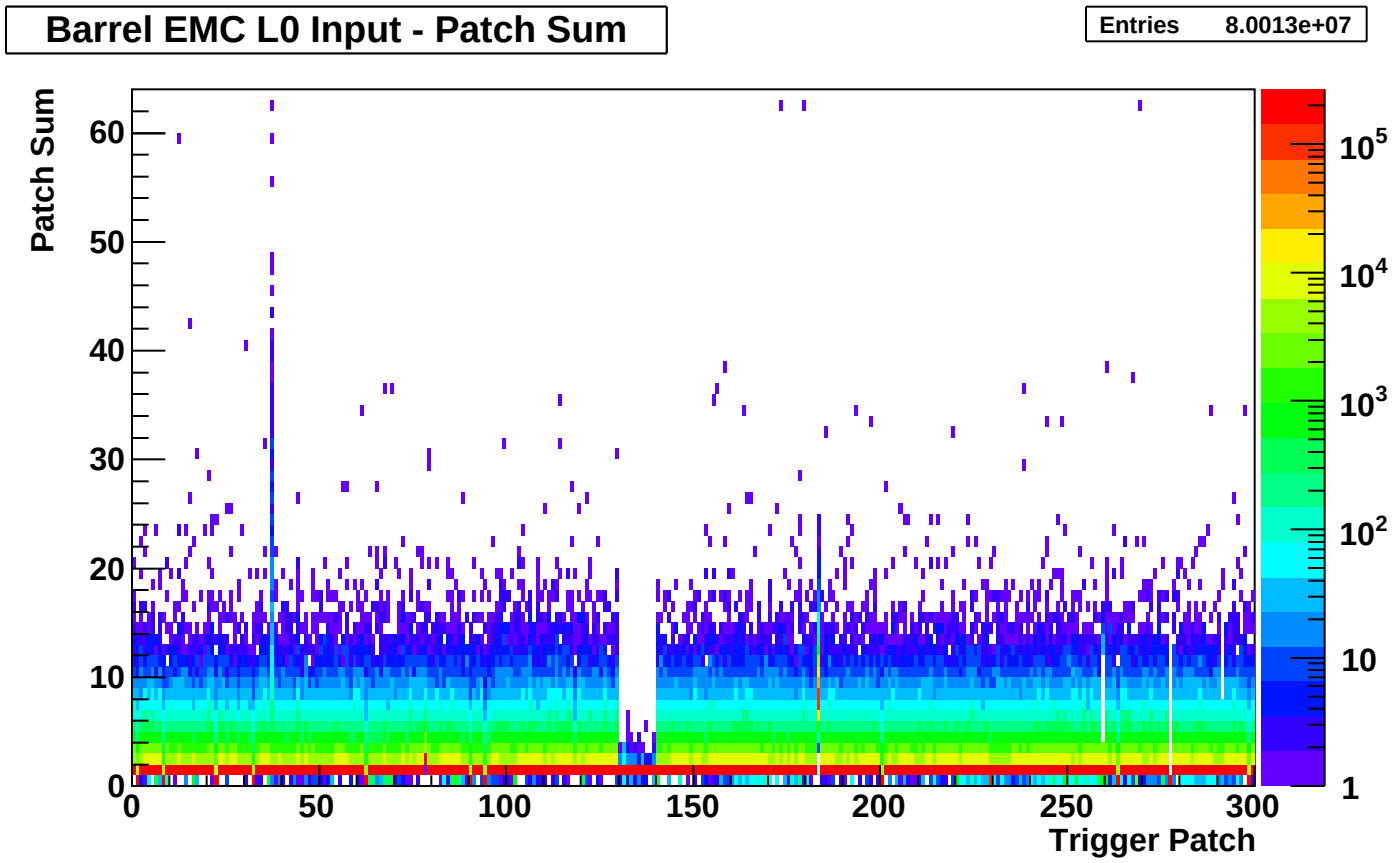

Last DSM Ch3 Input
Entries 1534
LD301 Ch3 - Simulated
1534
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

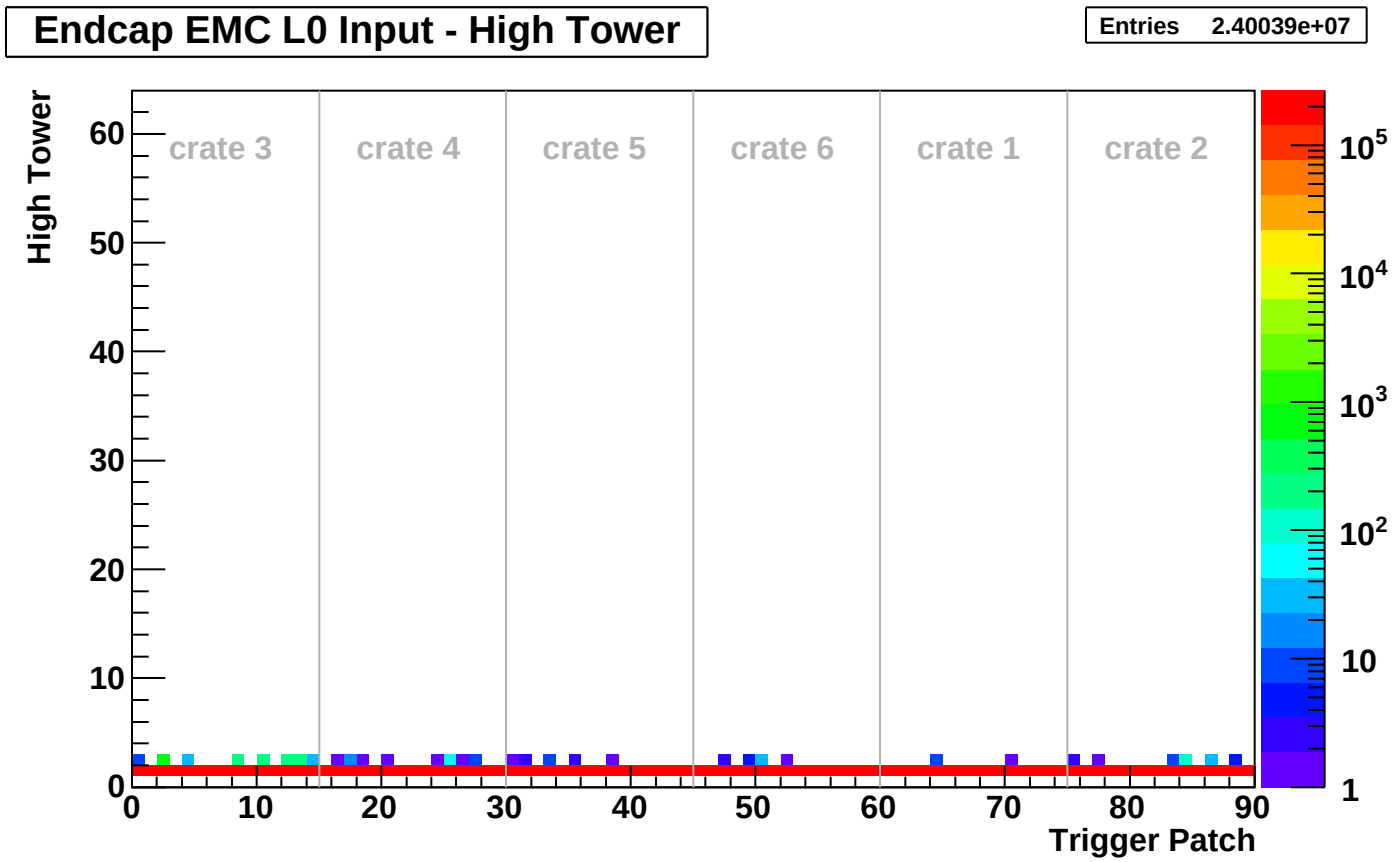

TCU bits
Entries 4267360
TCU bits
266710
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

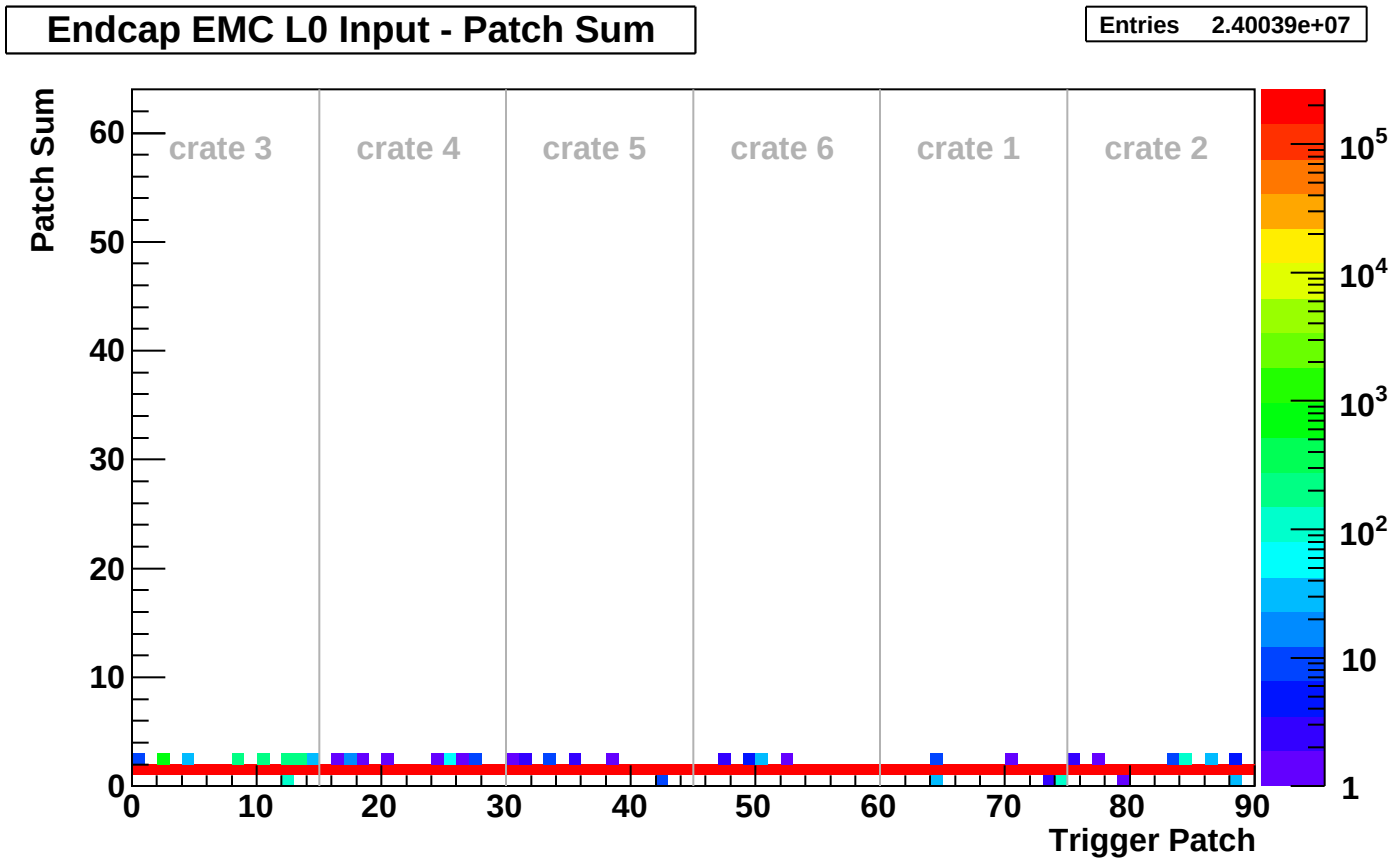

TCU bits
Entries 238004
TCU bits - Simulated
1040
346
154530
12751
68337
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

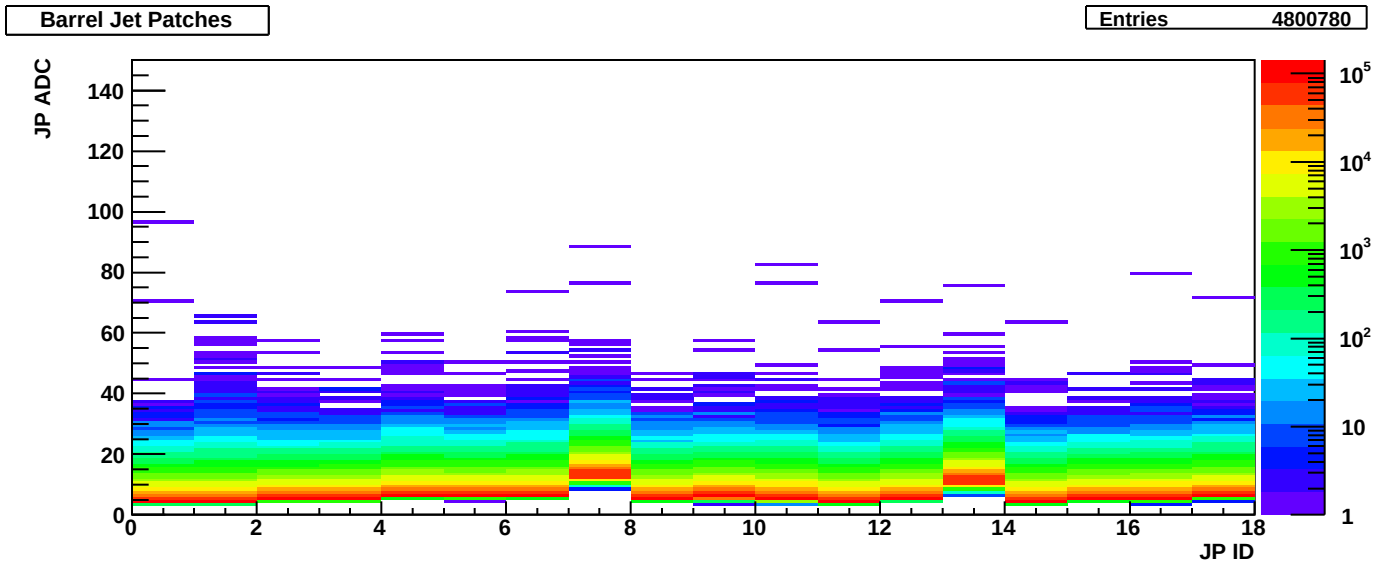

BunchId7Bit (BHT3)
Entries 77
0
20
40
60
80
100
120

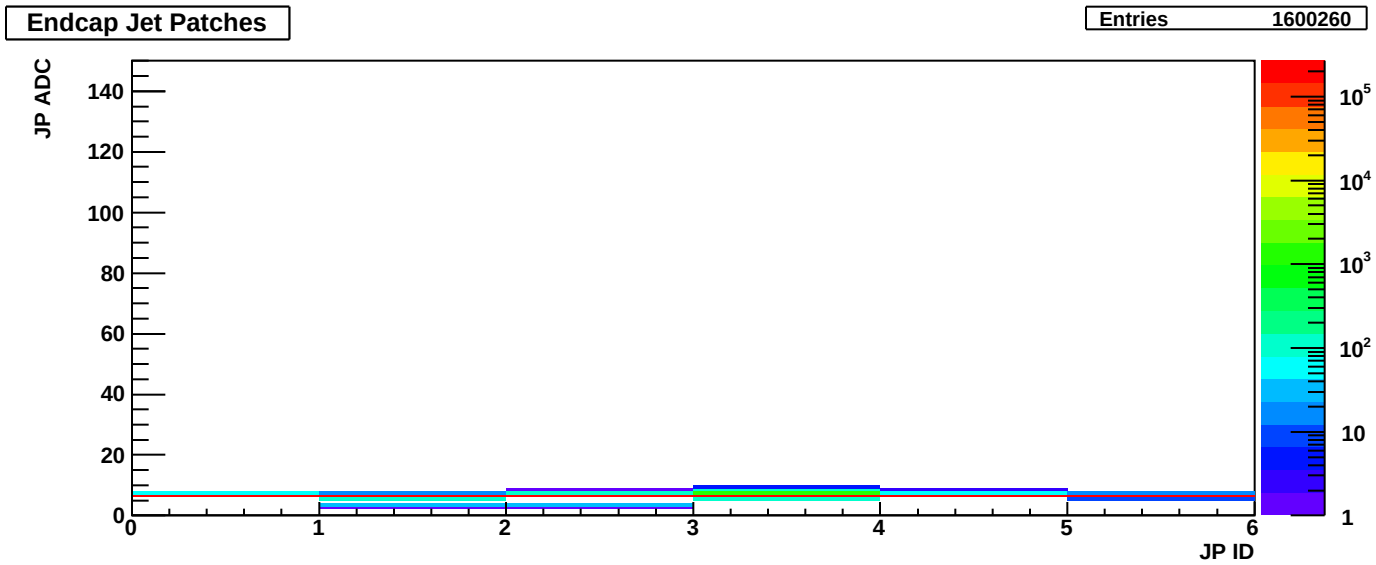

Barrel EMC L0 Input - High Tower
Entries 8.0013e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$

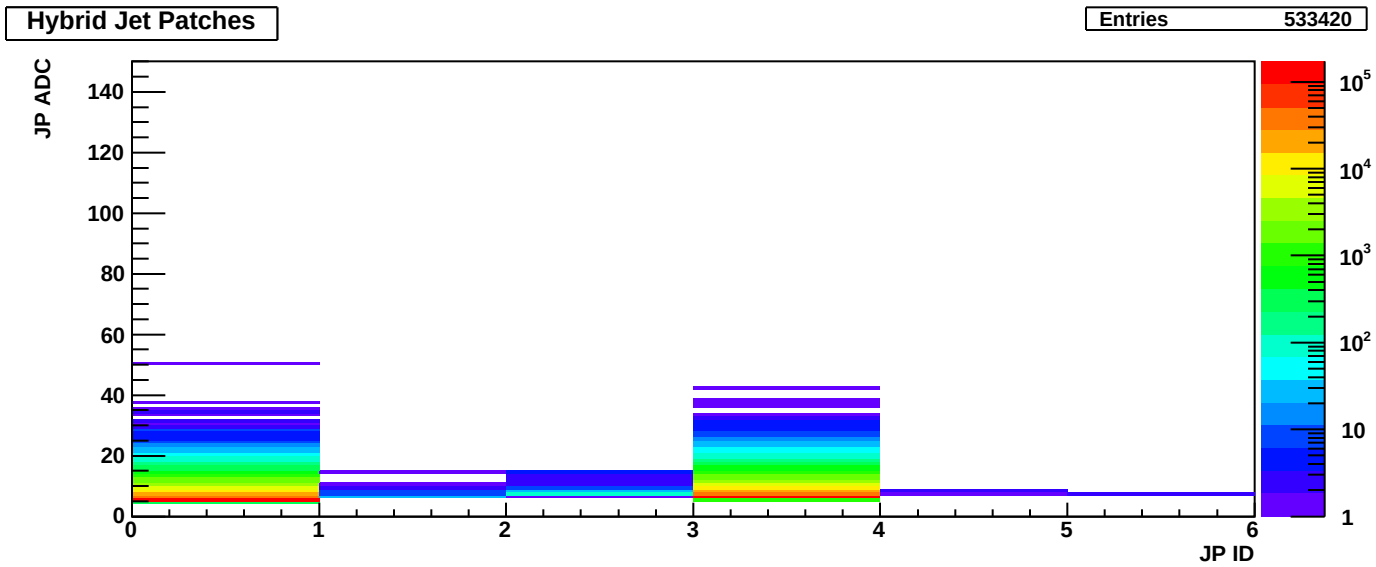

Barrel EMC L0 Input - Patch Sum
Entries 8.0013e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$

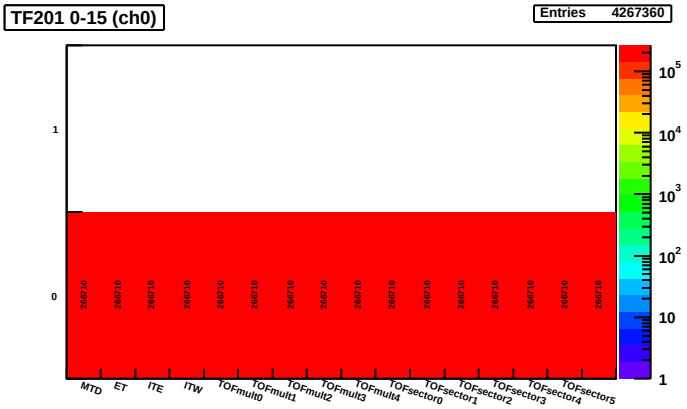

Endcap EMC L0 Input - High Tower
Entries 2.40039e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

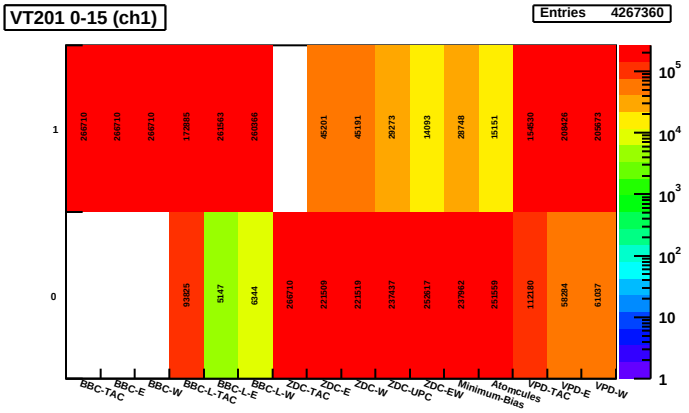

Endcap EMC L0 Input - Patch Sum
Entries 2.40039e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

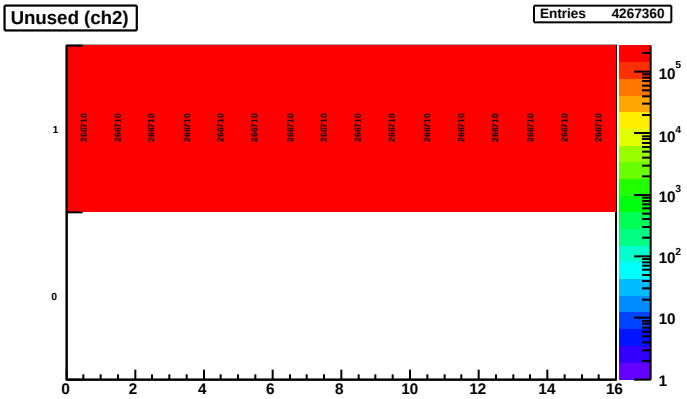

Barrel Jet Patches
Entries 4800780
JP ADC
JP ID

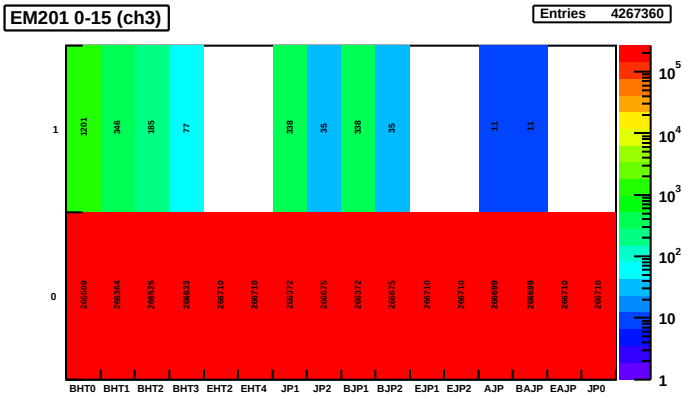

Endcap Jet Patches
Entries 1600260
JP ADC
JP ID

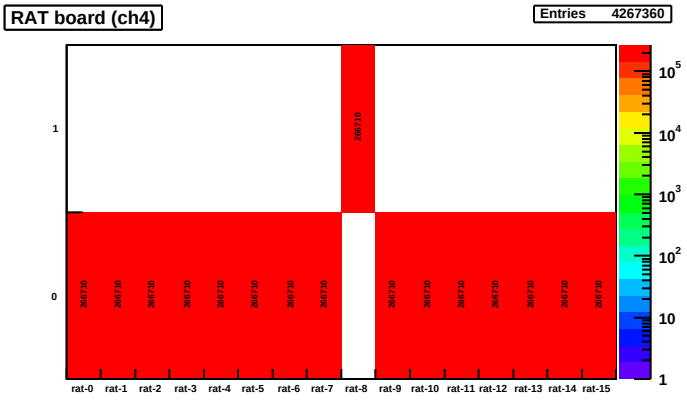

Hybrid Jet Patches
Entries 533420
JP ADC
JP ID

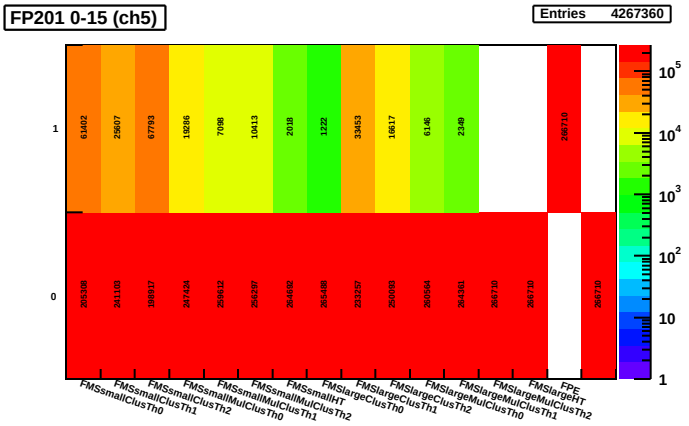

TF201 0-15 (ch0)
Entries 4267360
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5

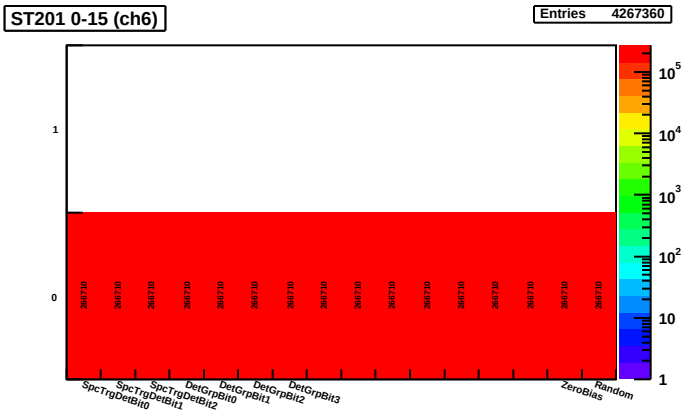

VT201 0-15 (ch1)
Entries 4267360
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-UPC
ZDC-EW
Minimum-Bias
Atomcules
VPD-TAC
VPD-E
VPD-W

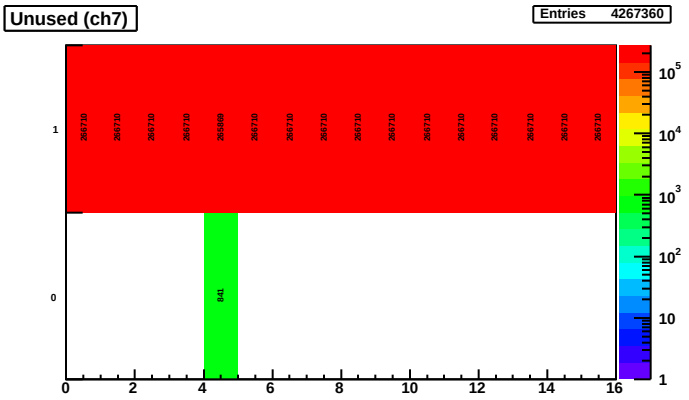

Unused (ch2)
Entries 4267360

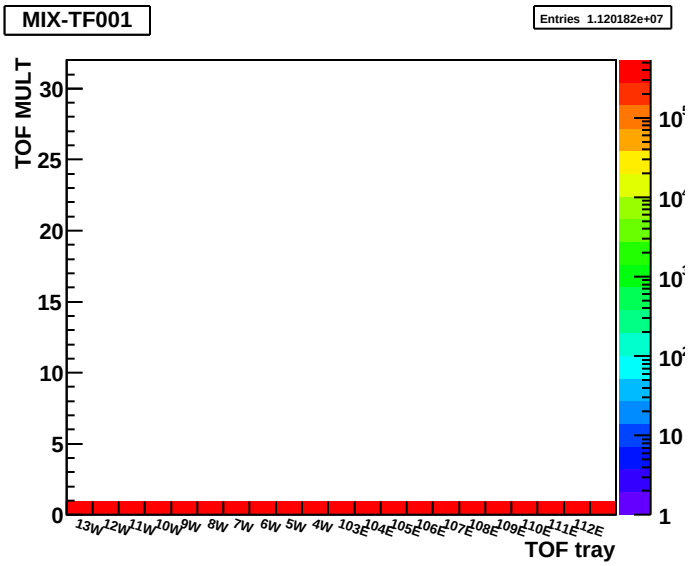

EM201 0-15 (ch3)
Entries 4267360
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
EAJP
JP0

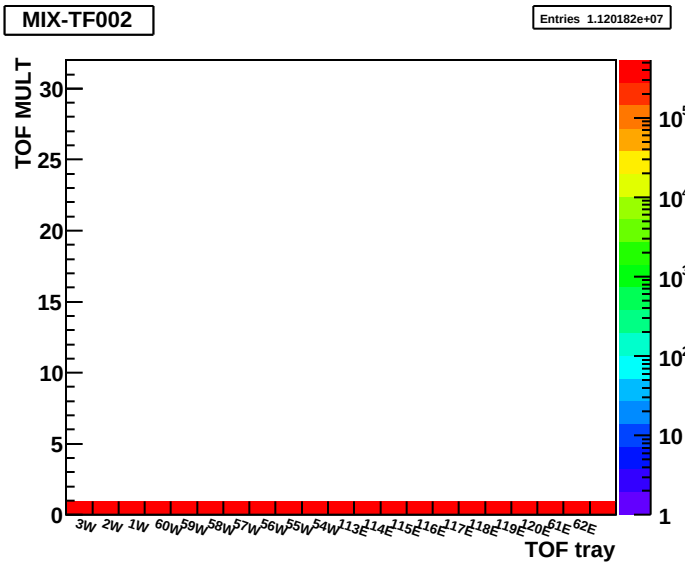

RAT board (ch4)
Entries 4267360
rat-0
rat-1
rat-2
rat-3
rat-4
rat-5
rat-6
rat-7
rat-8
rat-9
rat-10
rat-11
rat-12
rat-13
rat-14
rat-15

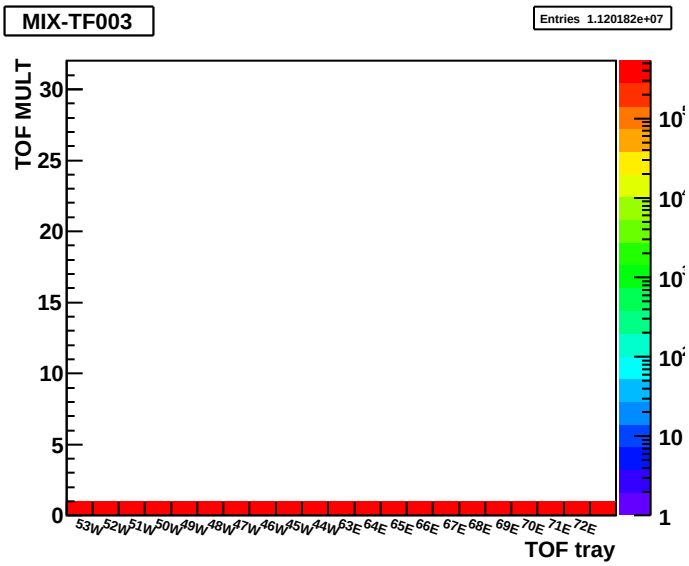

FP201 0-15 (ch5)
Entries 4267360
FMSsmallClusTh0
FMSsmallClusTh1
FMSsmallClusTh2
FMSsmallMulClusTh0
FMSsmallMulClusTh1
FMSsmallMulClusTh2
FMSsmallHT
FMSlargeClusTh0
FMSlargeClusTh1
FMSlargeClusTh2
FMSlargeMulClusTh0
FMSlargeMulClusTh1
FMSlargeMulClusTh2
FMSlargeHT
FPE

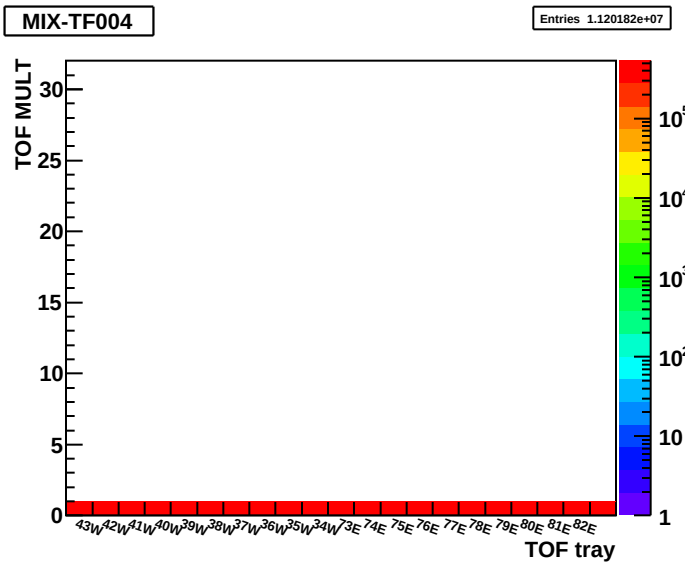

ST201 0-15 (ch6)
Entries 4267360
SpcTrgDetBit0
SpcTrgDetBit1
SpcTrgDetBit2
DetCrpBit0
DetCrpBit1
DetCrpBit2
DetCrpBit3
ZeroBias
Random

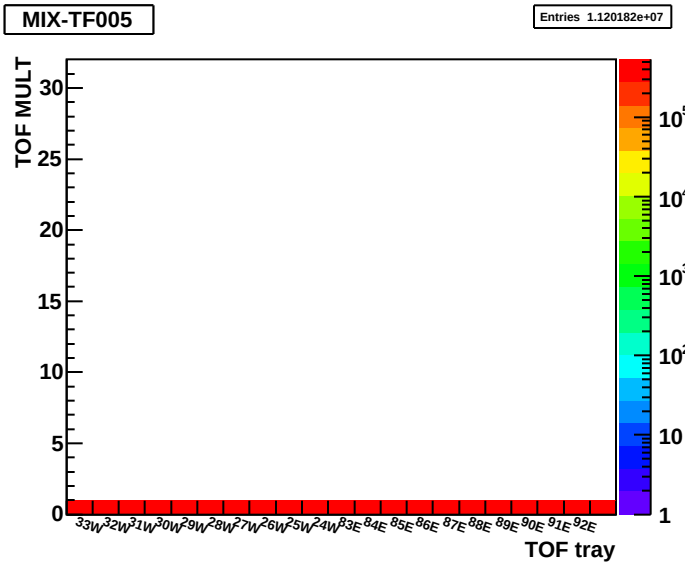

Unused (ch7)
Entries 4267360

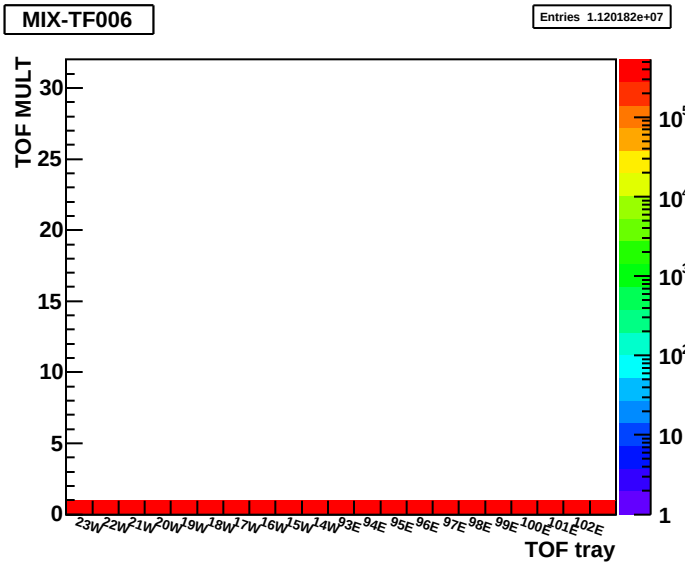

MIX-TF001
Entries 1.120182e+07
TOF MULT
TOF tray

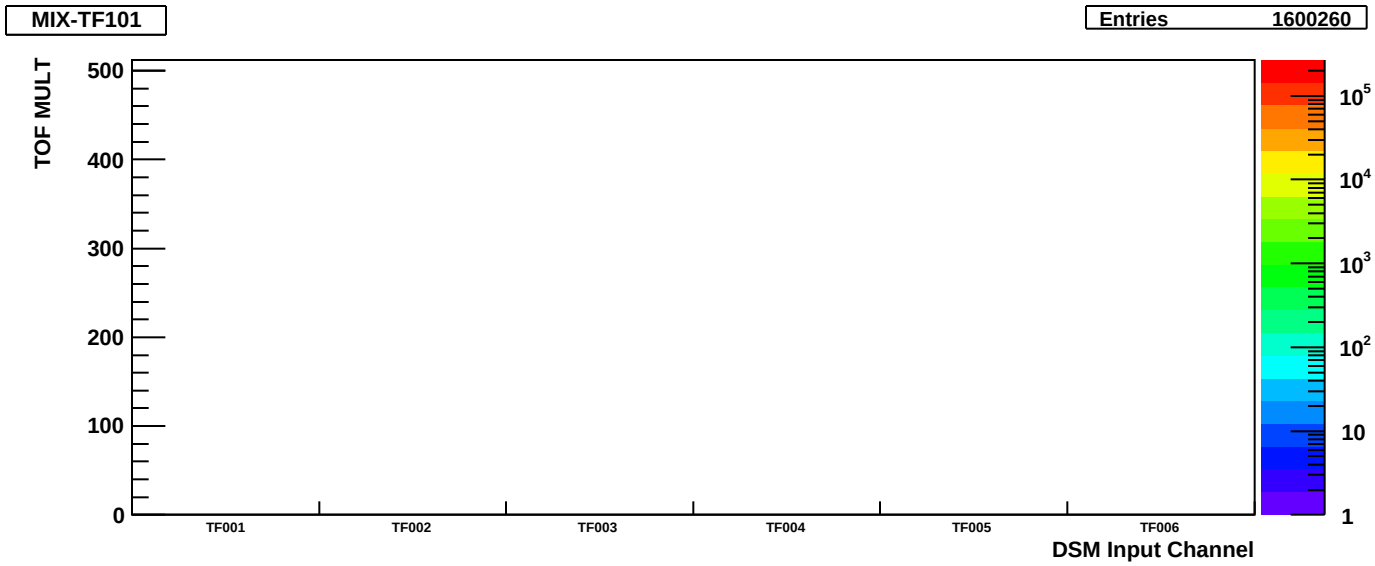

MIX-TF002
Entries 1.120182e+07
TOF MULT
TOF tray

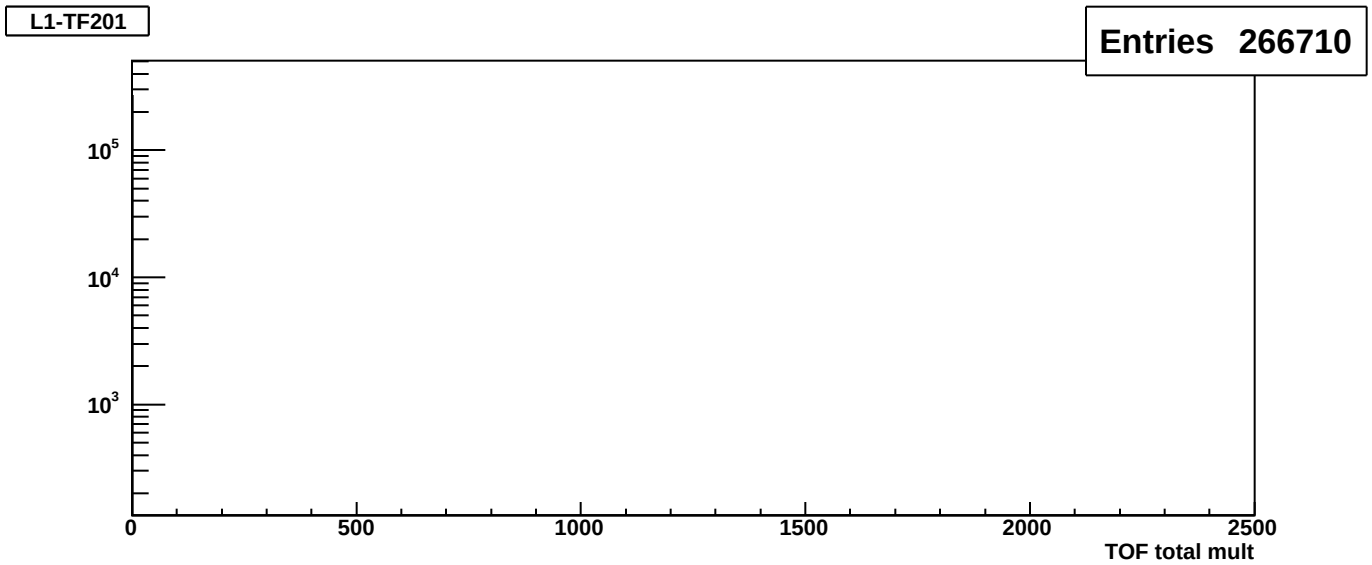

MIX-TF003
Entries 1.120182e+07
TOF MULT
TOF tray

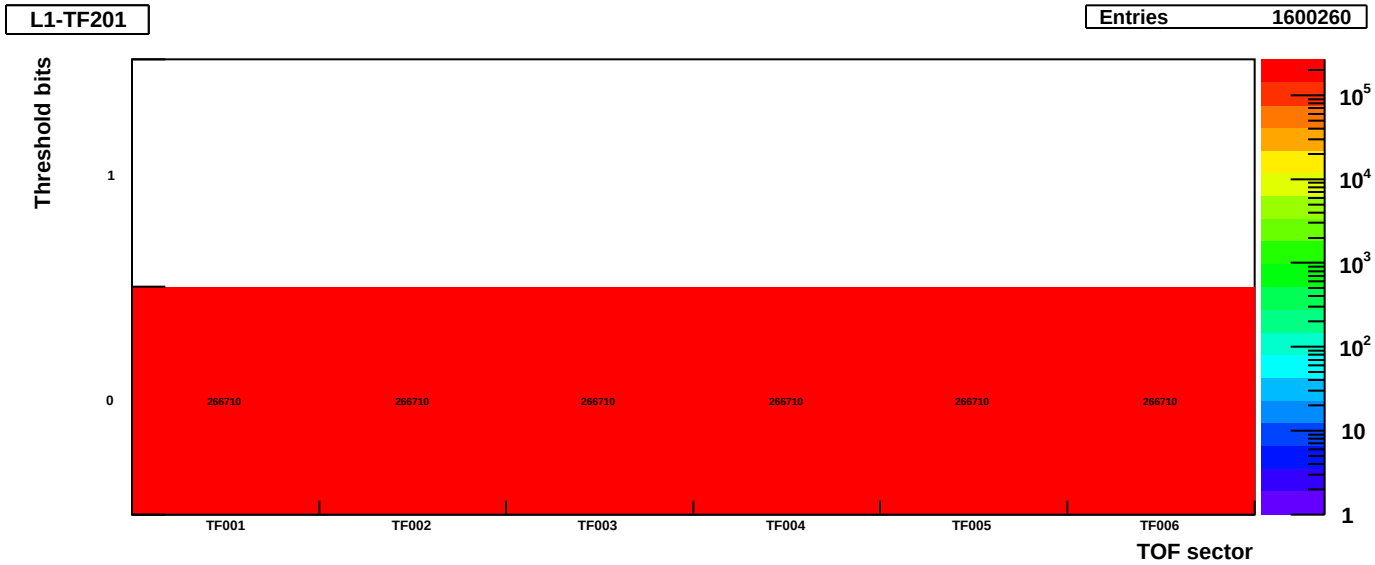

MIX-TF004
Entries 1.120182e+07
TOF MULT
TOF tray

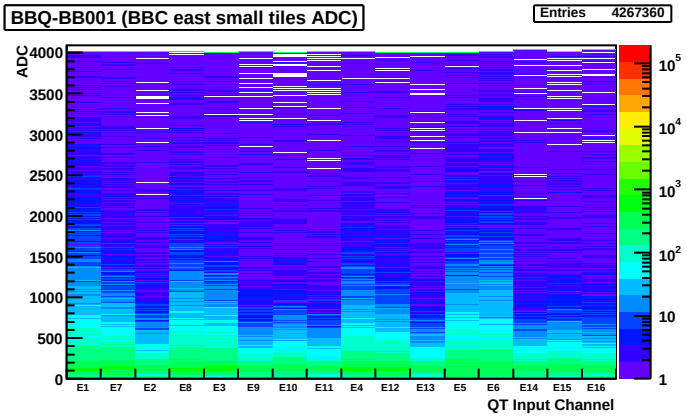

MIX-TF005
Entries 1.120182e+07
TOF MULT
TOF tray

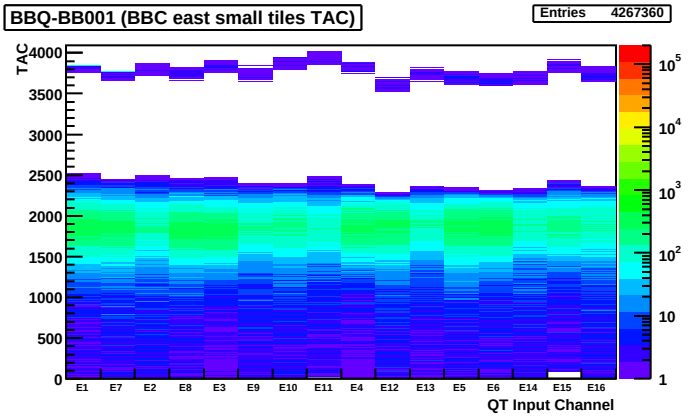

MIX-TF006
Entries 1.120182e+07
TOF MULT
TOF tray

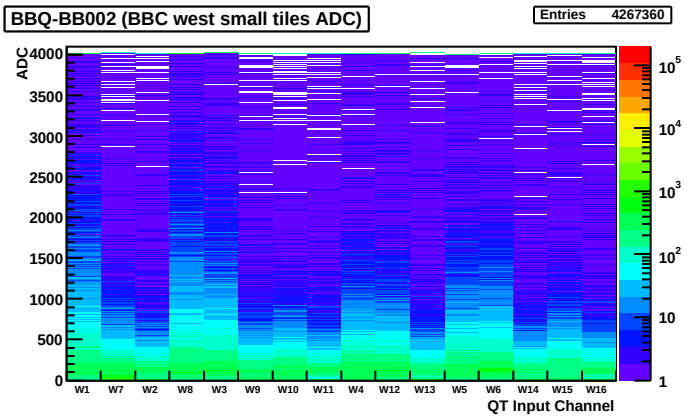

MIX-TF101
Entries 1600260
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
$10^5$
$10^4$
$10^3$
$10^2$
10
1

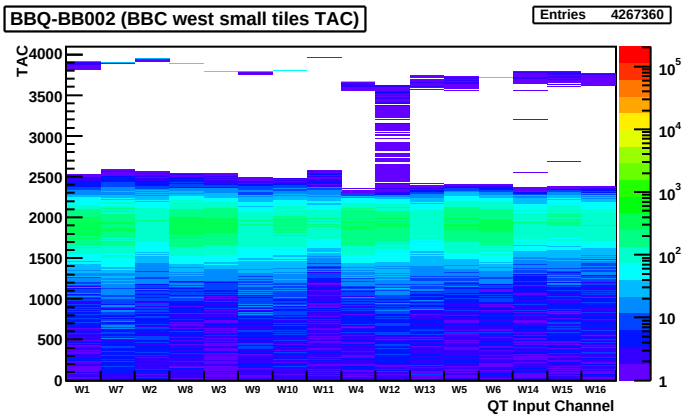

L1-TF201
Entries 266710
$10^5$
$10^4$
$10^3$
0
500
1000
1500
2000
2500
TOF total mult

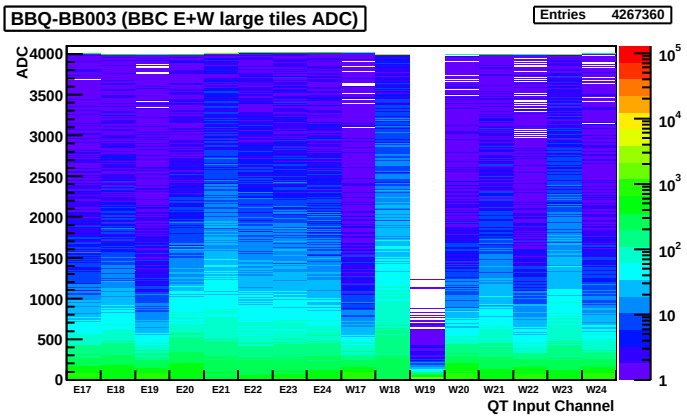

L1-TF201
Entries 1600260
Threshold bits
1
0
266710
266710
266710
266710
266710
266710
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
$10^5$
$10^4$
$10^3$
$10^2$
10
1

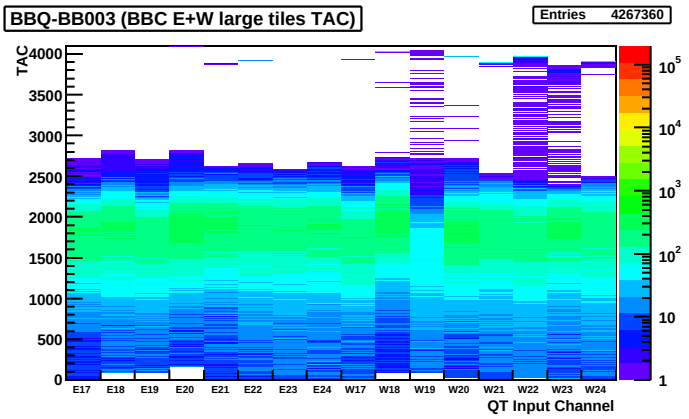

BBQ-BB001 (BBC east small tiles ADC)
Entries 4267360
ADC
QT Input Channel

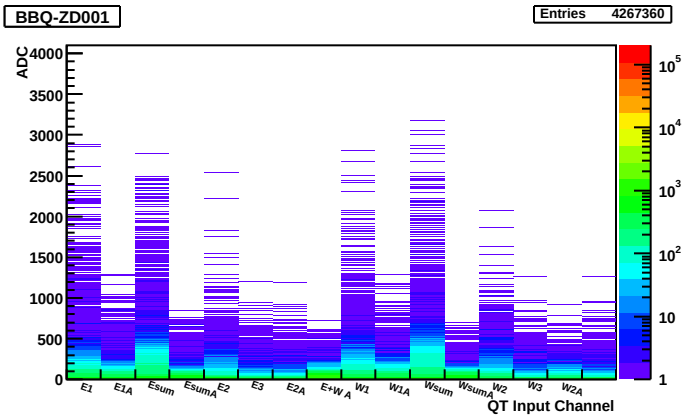

BBQ-BB001 (BBC east small tiles TAC)
Entries 4267360
TAC
QT Input Channel

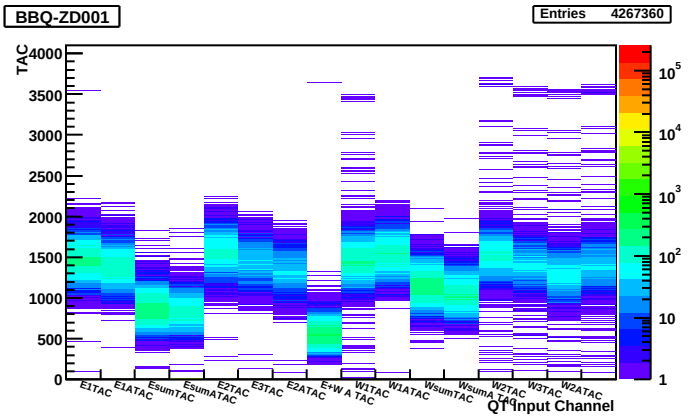

BBQ-BB002 (BBC west small tiles ADC)
Entries 4267360
ADC
QT Input Channel

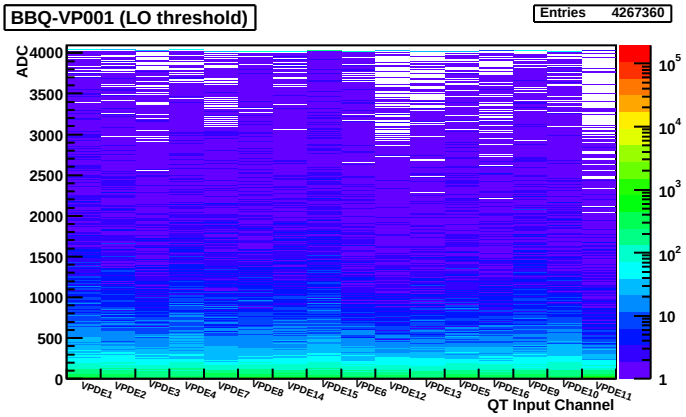

BBQ-BB002 (BBC west small tiles TAC)
Entries 4267360
TAC
QT Input Channel

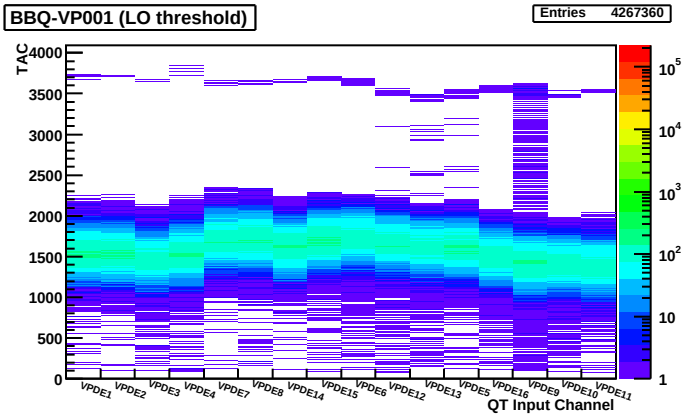

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4267360
ADC
QT Input Channel

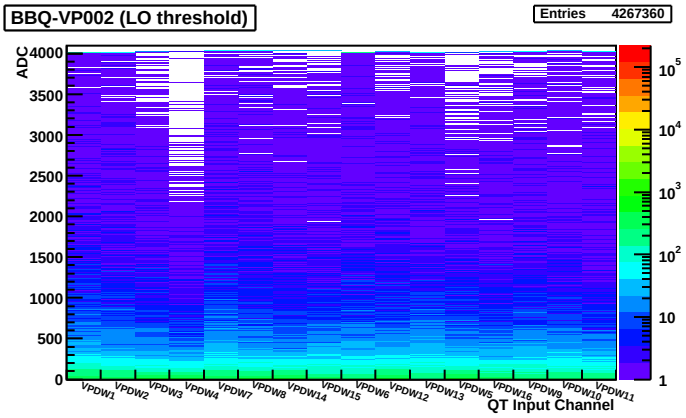

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4267360
TAC
QT Input Channel

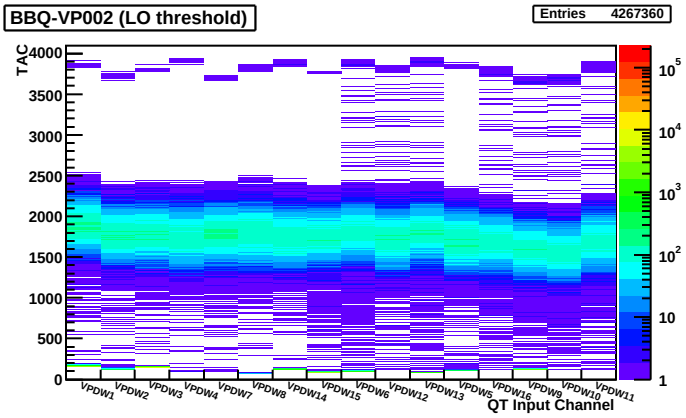

BBQ-ZD001
Entries 4267360
ADC
QT Input Channel

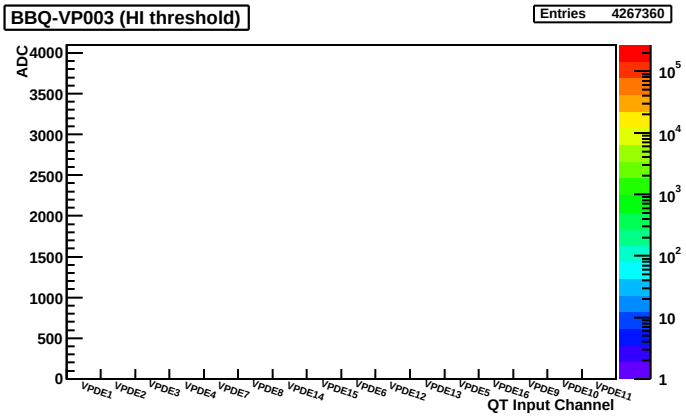

BBQ-ZD001
Entries 4267360
TAC
QT Input Channel

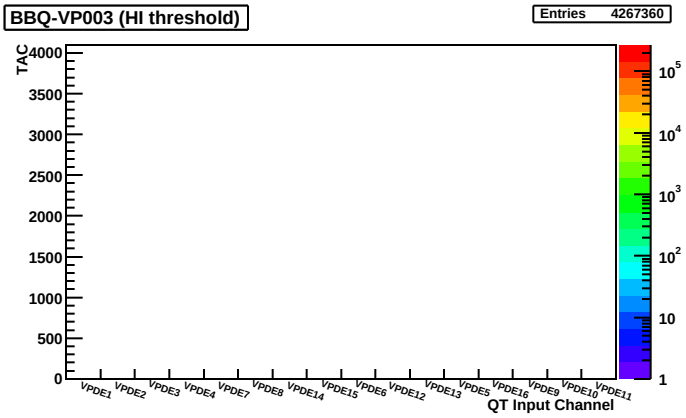

BBQ-VP001 (LO threshold)
Entries 4267360
ADC
QT Input Channel

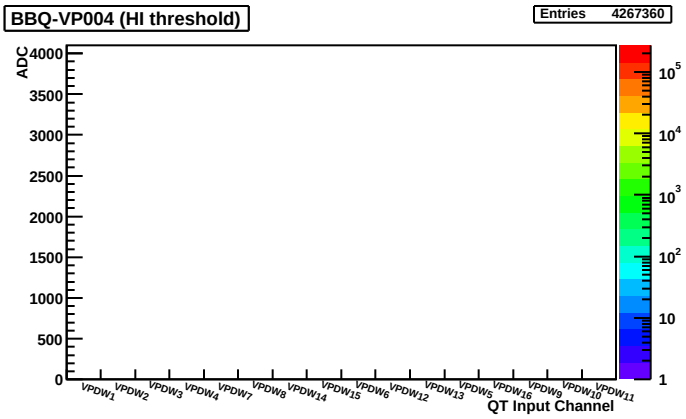

BBQ-VP001 (LO threshold)
Entries 4267360
TAC
QT Input Channel

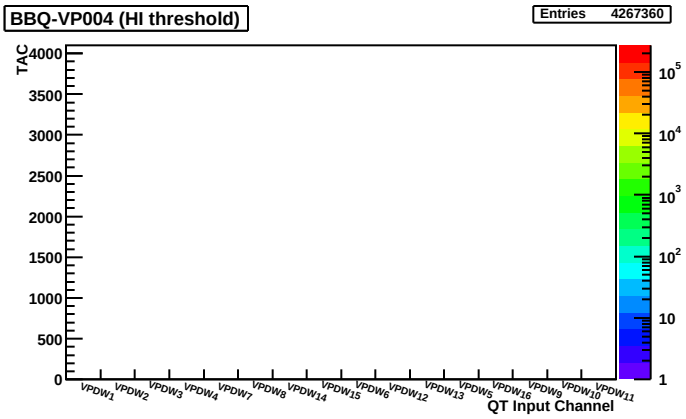

BBQ-VP002 (LO threshold)
Entries 4267360
ADC
QT Input Channel

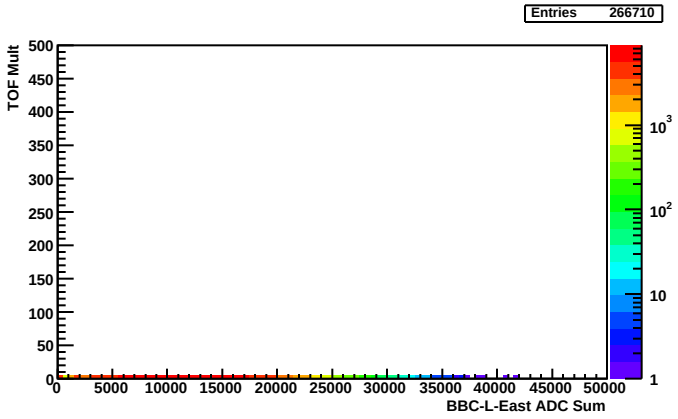

BBQ-VP002 (LO threshold)
Entries 4267360
TAC
QT Input Channel

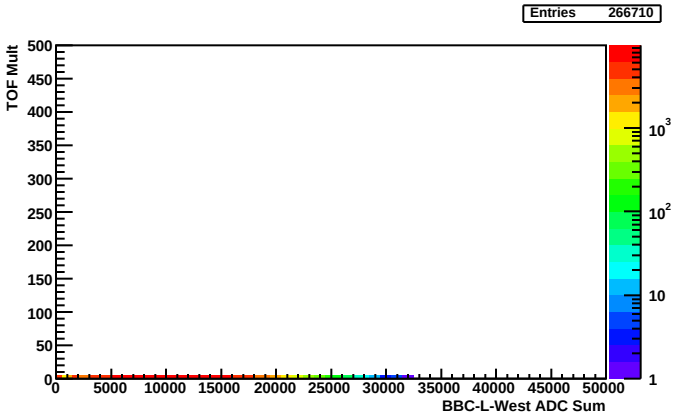

BBQ-VP003 (HI threshold)
Entries 4267360
ADC
QT Input Channel

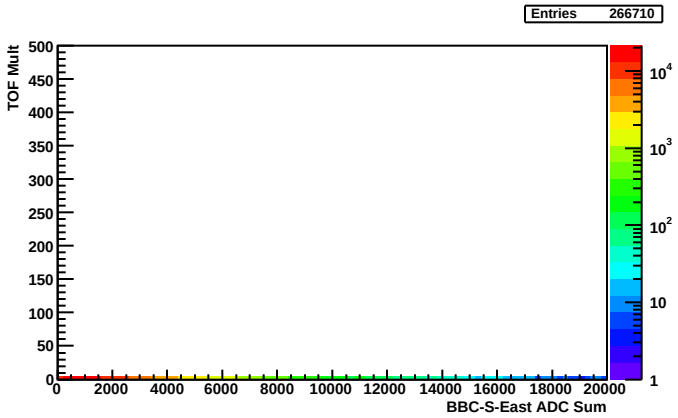

BBQ-VP003 (HI threshold)
Entries 4267360
TAC
QT Input Channel

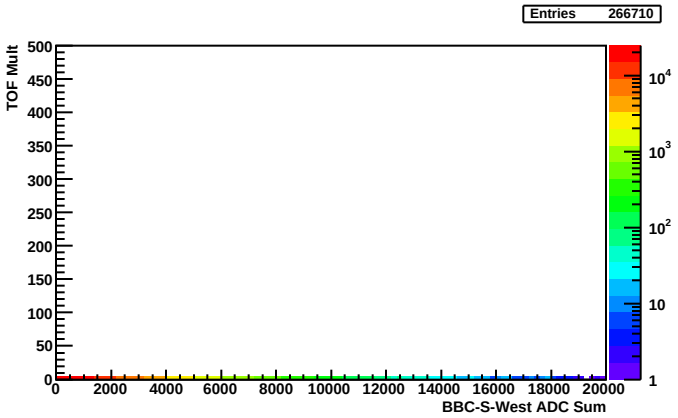

BBQ-VP004 (HI threshold)
Entries 4267360
ADC
QT Input Channel

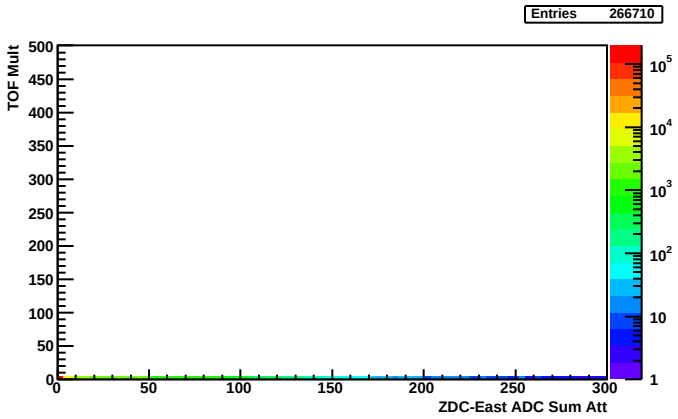

BBQ-VP004 (HI threshold)
Entries 4267360
TAC
QT Input Channel

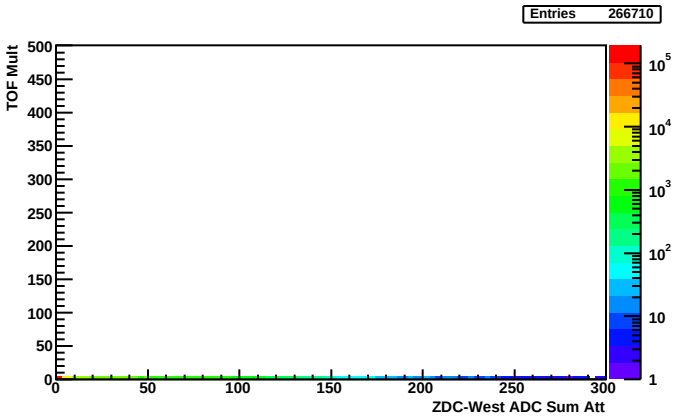

Entries 266710
TOF Mult
BBC-L-East ADC Sum

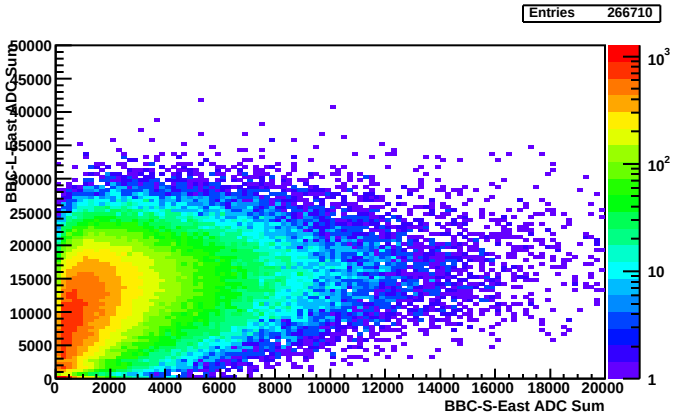

Entries 266710
TOF Mult
BBC-L-West ADC Sum

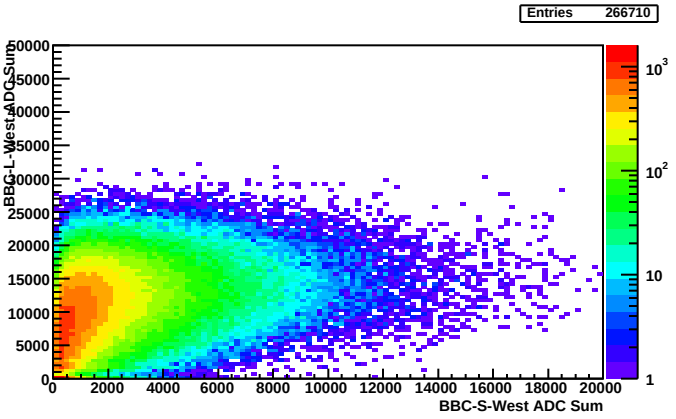

Entries 266710
TOF Mult
BBC-S-East ADC Sum

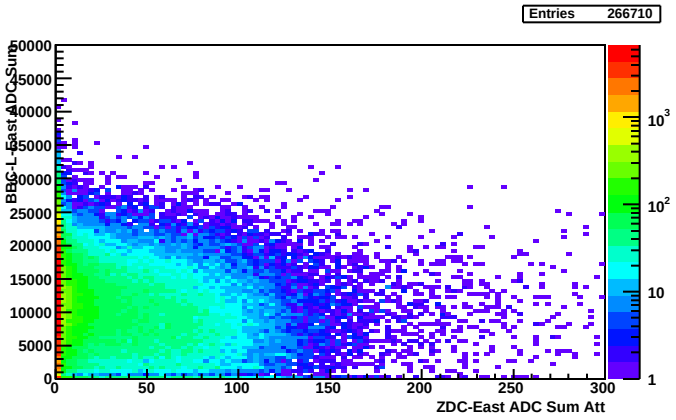

Entries 266710
TOF Mult
BBC-S-West ADC Sum

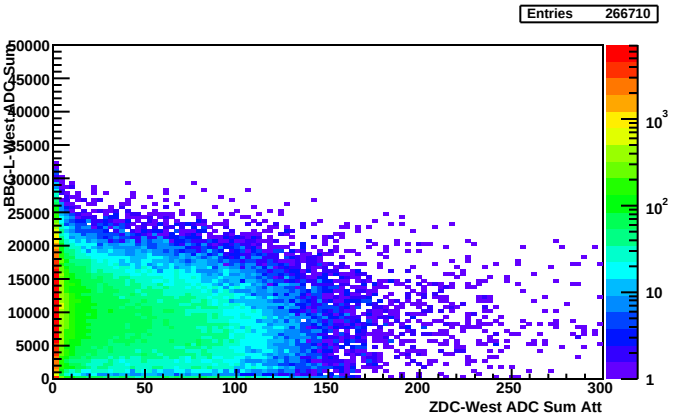

Entries 266710
TOF Mult
ZDC-East ADC Sum Att

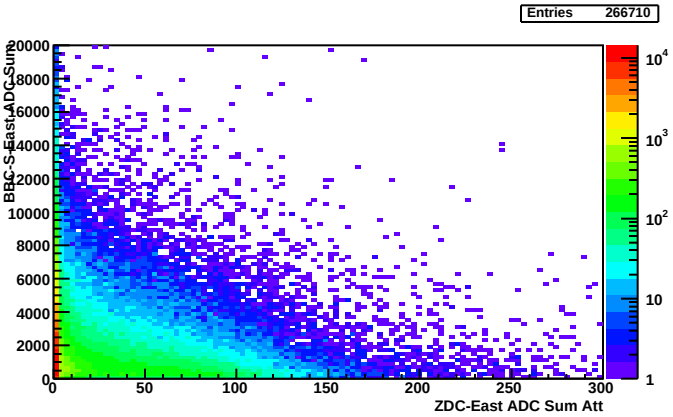

Entries 266710
TOF Mult
ZDC-West ADC Sum Att

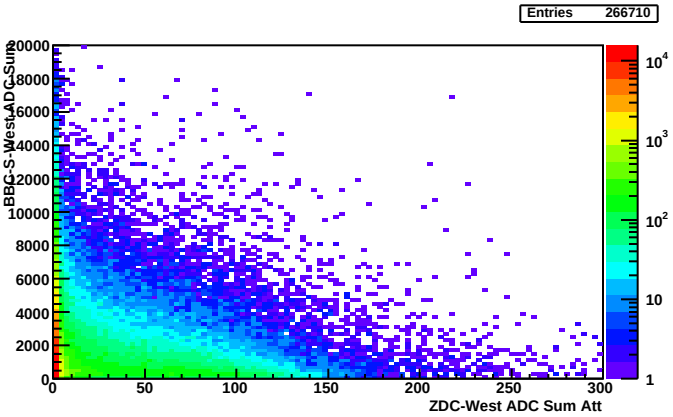

Entries 266710
BBC-L-East ADC Sum
BBC-S-East ADC Sum

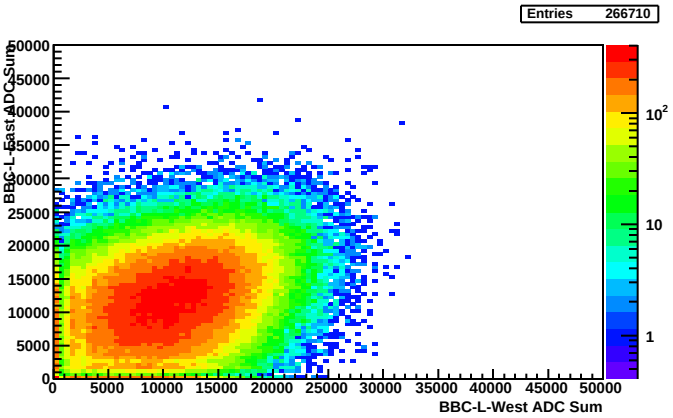

Entries 266710
BBC-L-West ADC Sum
BBC-S-West ADC Sum

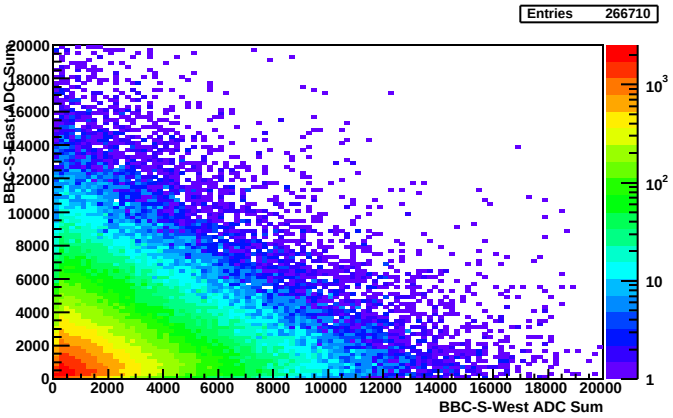

Entries 266710
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

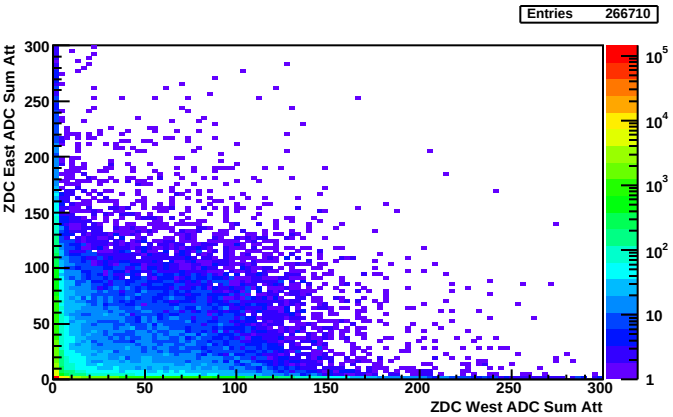

Entries 266710
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

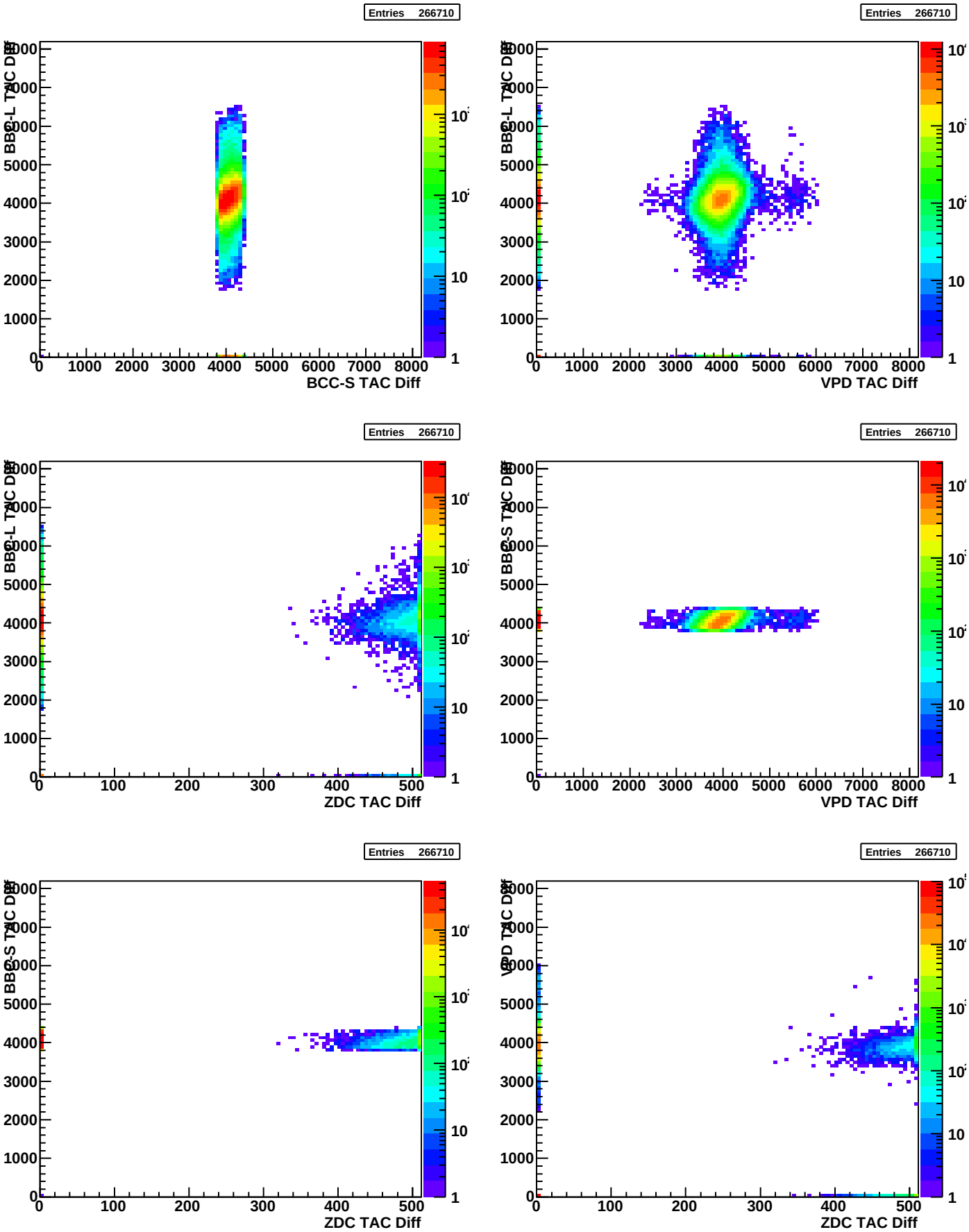

Entries 266710
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

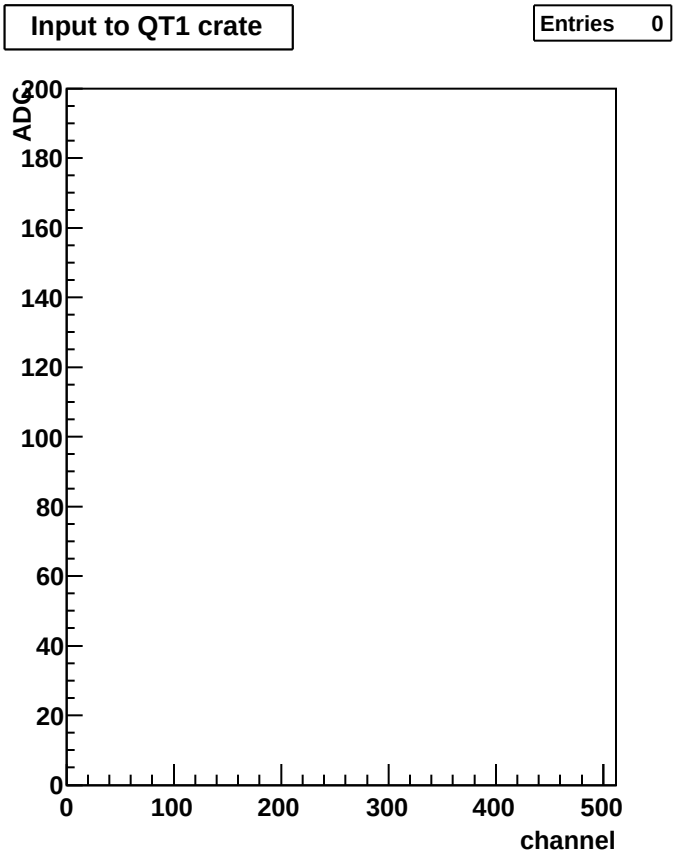

Entries 266710
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

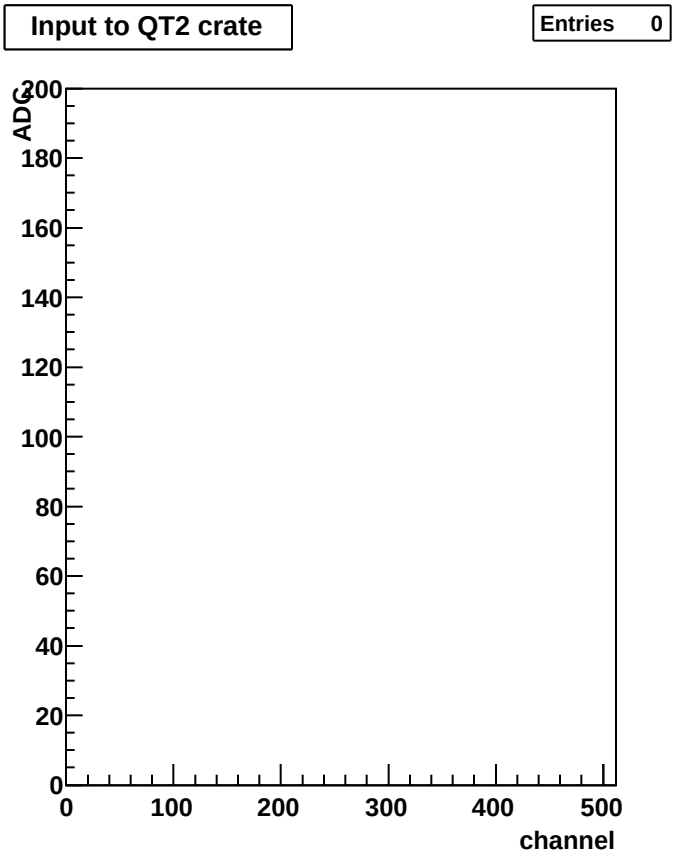

Entries 266710
BBC-L-East ADC Sum
BBC-L-West ADC Sum

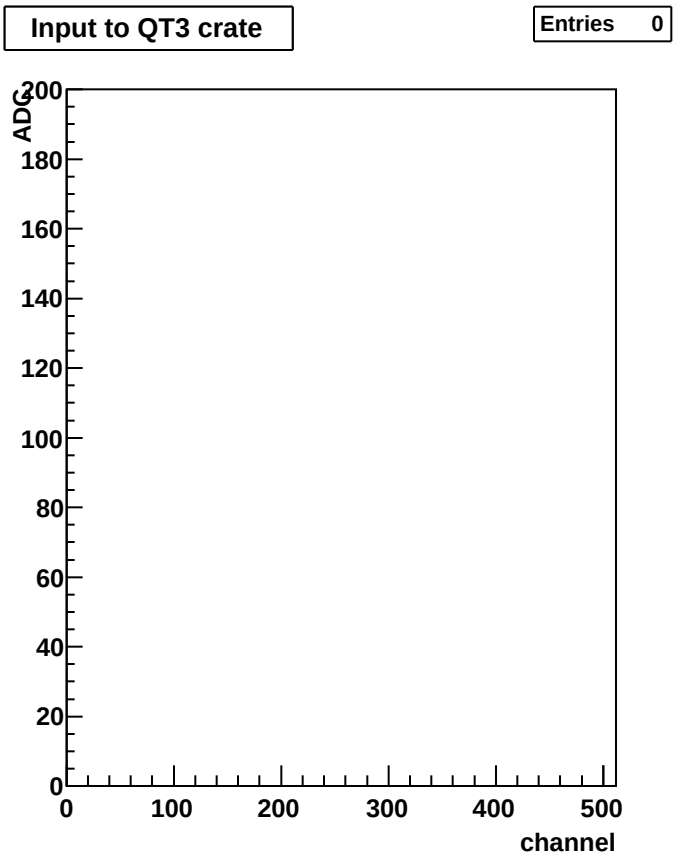

Entries 266710
BBC-S-East ADC Sum
BBC-S-West ADC Sum

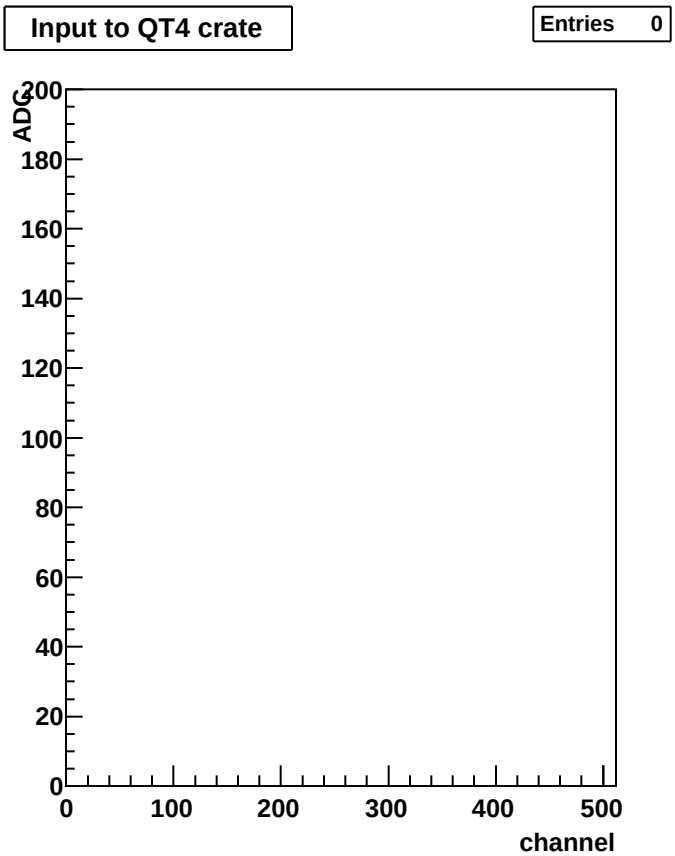

Entries 266710
ZDC East ADC Sum Att
ZDC West ADC Sum Att

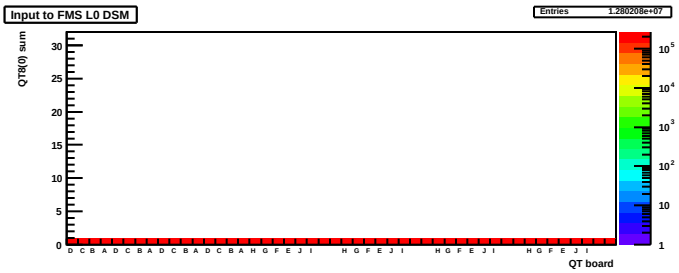

Entries 266710
BBC-L TAC Diff
BCC-S TAC Diff
Entries 266710
BBC-L TAC Diff
VPD TAC Diff
Entries 266710
BBC-L TAC Diff
ZDC TAC Diff
Entries 266710
BBC-S TAC Diff
VPD TAC Diff
Entries 266710
BBC-S TAC Diff
ZDC TAC Diff
Entries 266710
VPD TAC Diff
ZDC TAC Diff

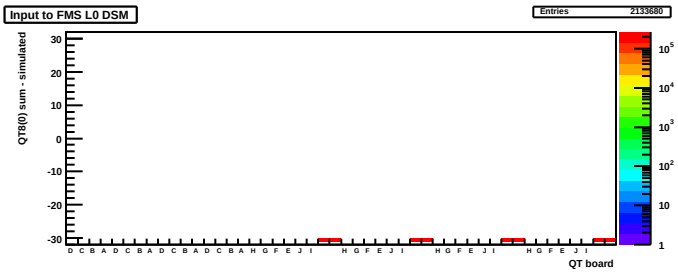

Input to QT1 crate
Entries 0
ADC
200
180
160
140
120
100
80
60
40
20
0
0
100
200
300
400
500
channel

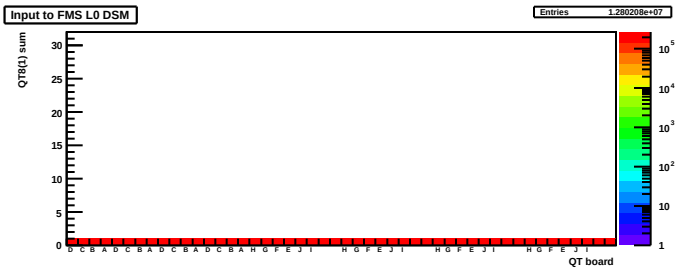

Input to QT2 crate
Entries 0
ADC
200
180
160
140
120
100
80
60
40
20
0
0
100
200
300
400
500
channel

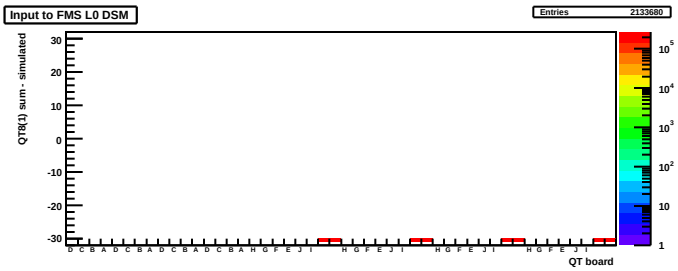

Input to QT3 crate
Entries 0
ADC
200
180
160
140
120
100
80
60
40
20
0
0
100
200
300
400
500
channel

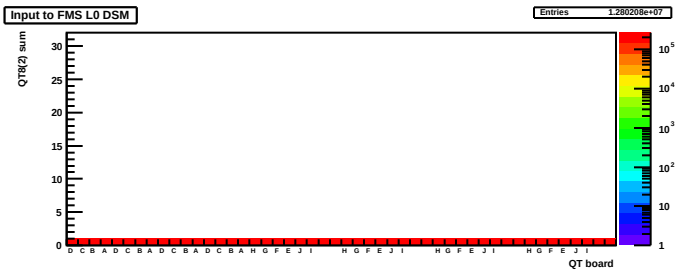

Input to QT4 crate
Entries 0
ADC
200
180
160
140
120
100
80
60
40
20
0
0
100
200
300
400
500
channel

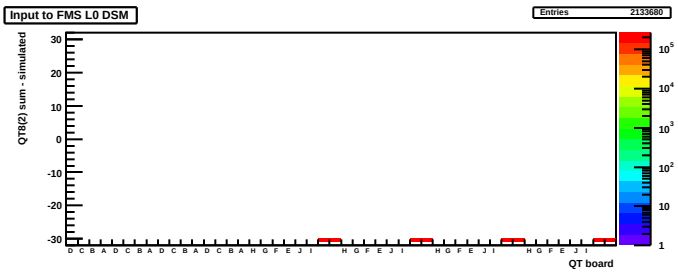

Input to FMS L0 DSM
Entries 1.280208e+07
QT8(0) sum
QT board

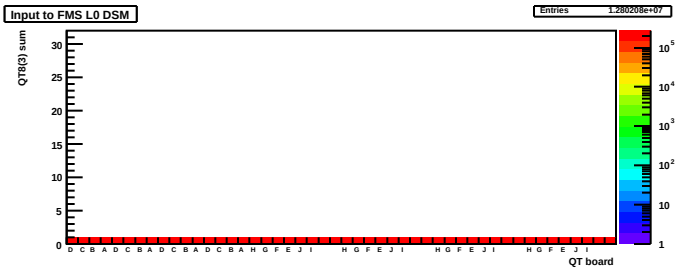

Input to FMS L0 DSM
Entries 2133680
QT8(0) sum - simulated
QT board

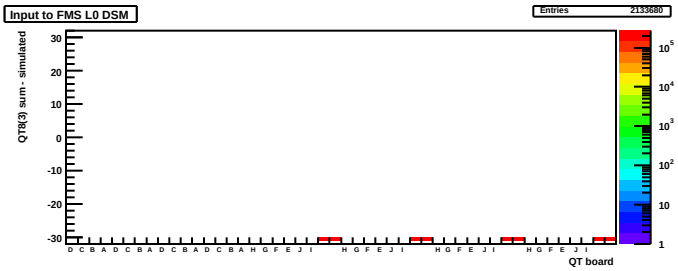

Input to FMS L0 DSM
Entries 1.280208e+07
QT8(1) sum
QT board

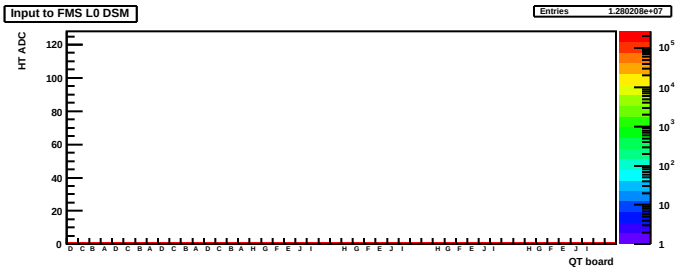

Input to FMS L0 DSM
Entries 2133680
QT8(1) sum - simulated
QT board

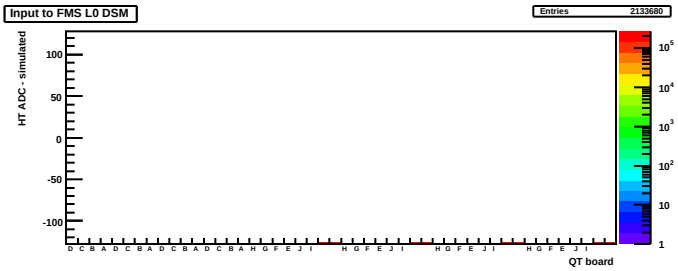

Input to FMS L0 DSM
Entries 1.280208e+07
QT8(2) sum
QT board

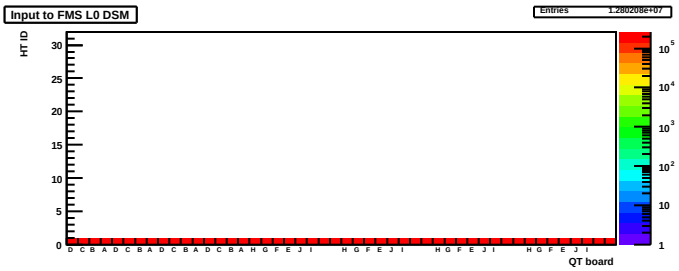

Input to FMS L0 DSM
Entries 2133680
QT8(2) sum - simulated
QT board

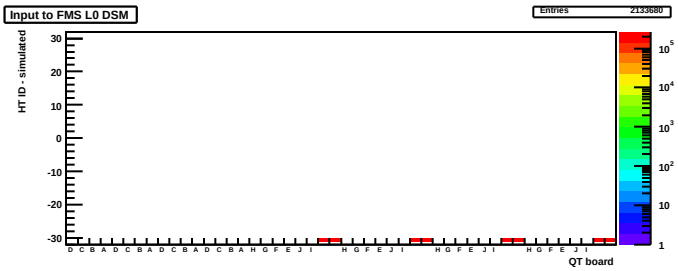

Input to FMS L0 DSM
Entries 1.280208e+07
QT8(3) sum
QT board

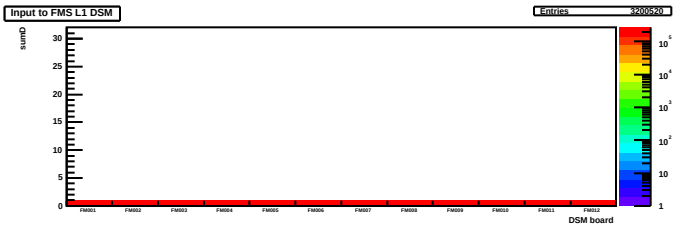

Input to FMS L0 DSM
Entries 2133680
QT8(3) sum - simulated
QT board

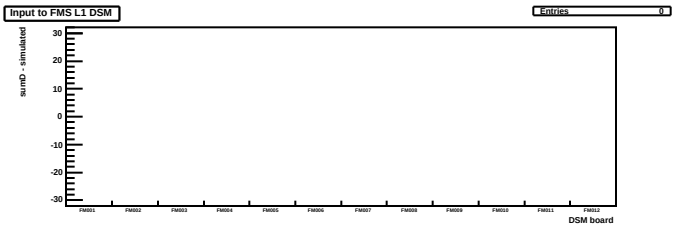

Input to FMS L0 DSM
Entries 1.280208e+07
HT ADC
QT board

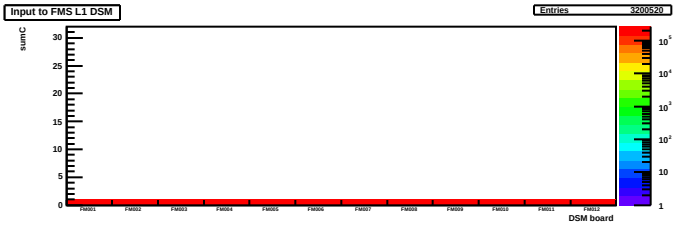

Input to FMS L0 DSM
Entries 2133680
HT ADC - simulated
QT board

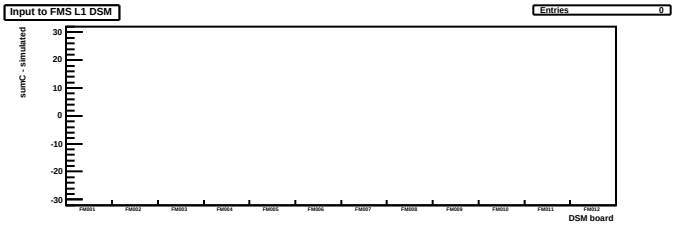

Input to FMS L0 DSM
Entries 1.280208e+07
HT ID
QT board

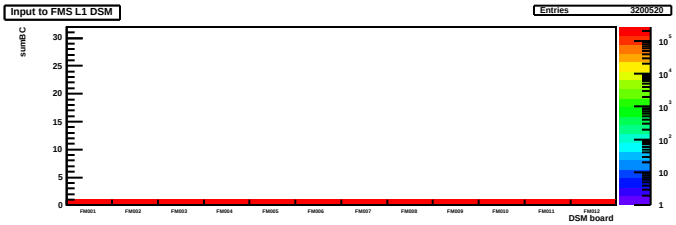

Input to FMS L0 DSM
Entries 2133680
HT ID - simulated
QT board

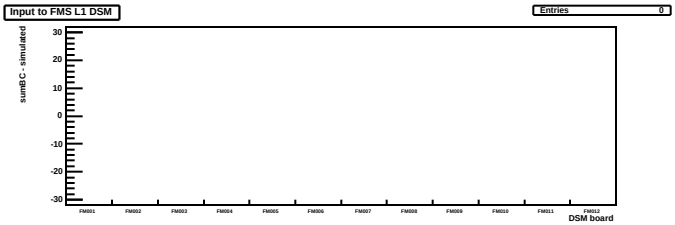

Input to FMS L1 DSM
Entries 3200520
sumD
DSM board

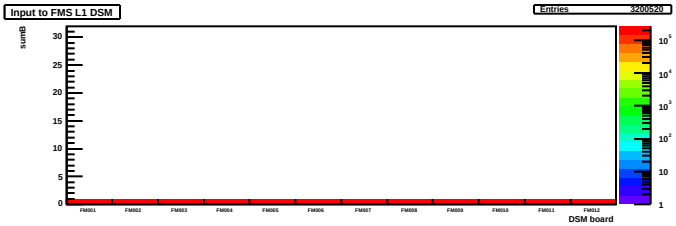

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

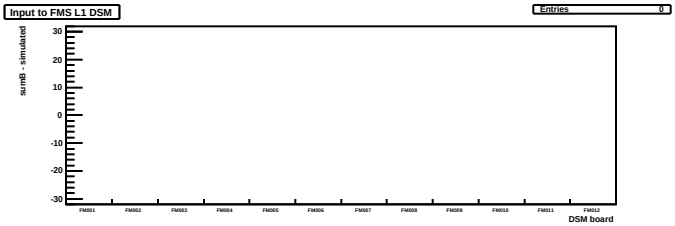

Input to FMS L1 DSM
Entries 3200520
sumC
DSM board

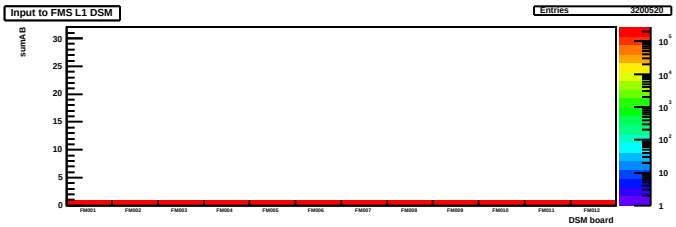

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

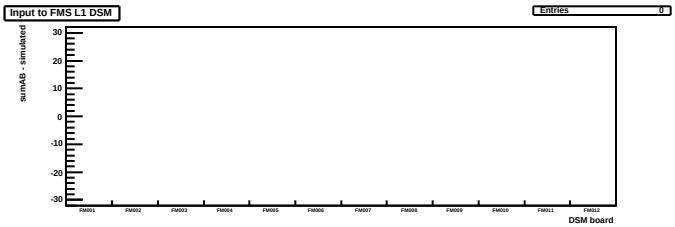

Input to FMS L1 DSM
Entries 3200520
sumBC
DSM board

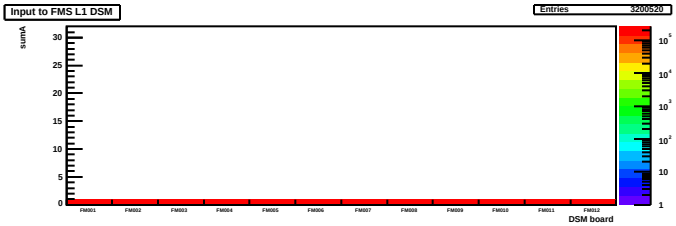

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

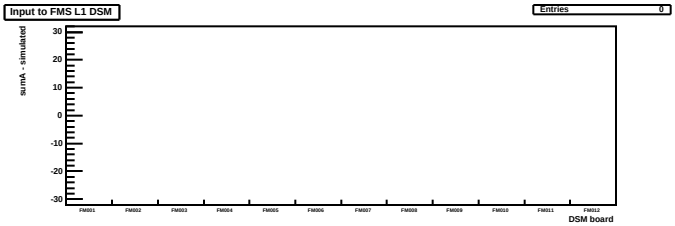

Input to FMS L1 DSM
Entries 3200520
sumB
DSM board

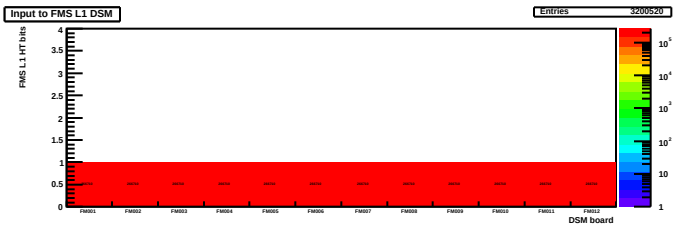

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

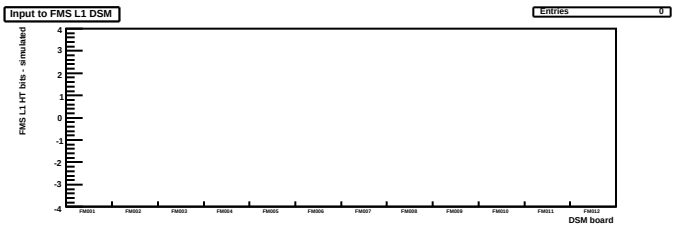

Input to FMS L1 DSM
Entries 3200520
sumAB
DSM board

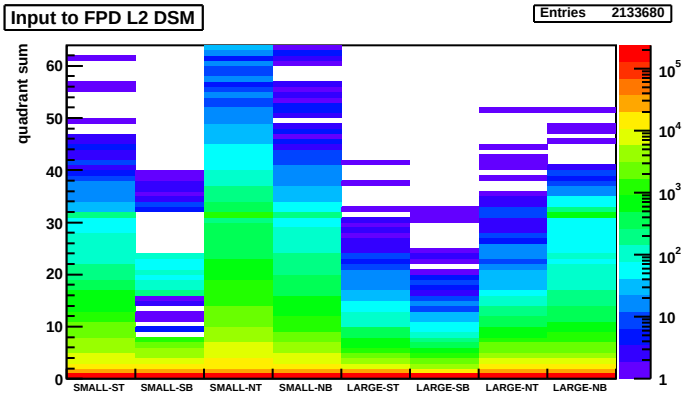

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

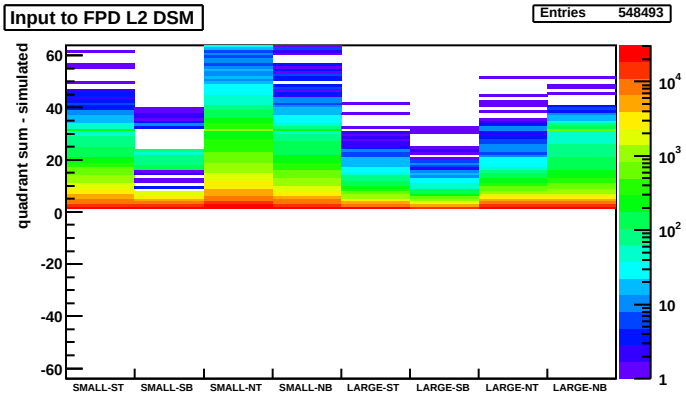

Input to FMS L1 DSM
Entries 3200520
sumA
DSM board

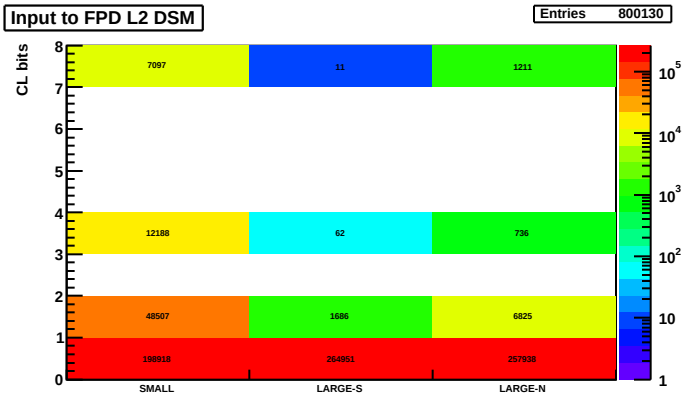

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

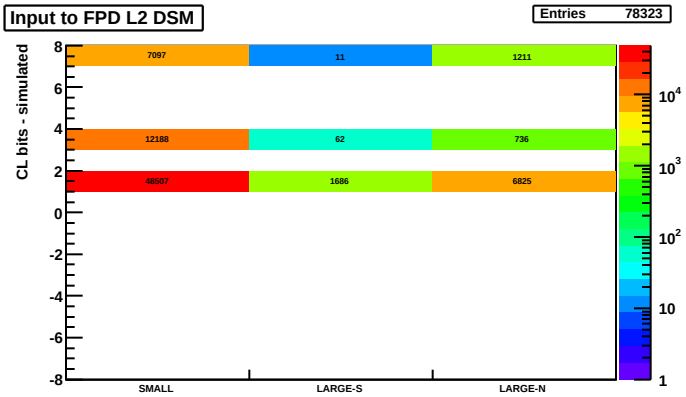

Input to FMS L1 DSM
Entries 3200520
FMS L1 HT bits
DSM board

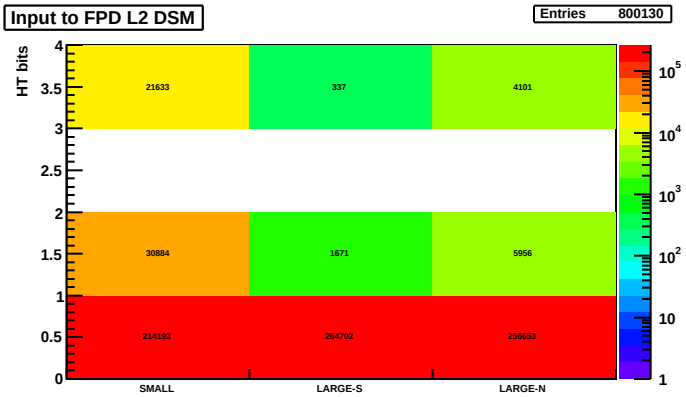

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

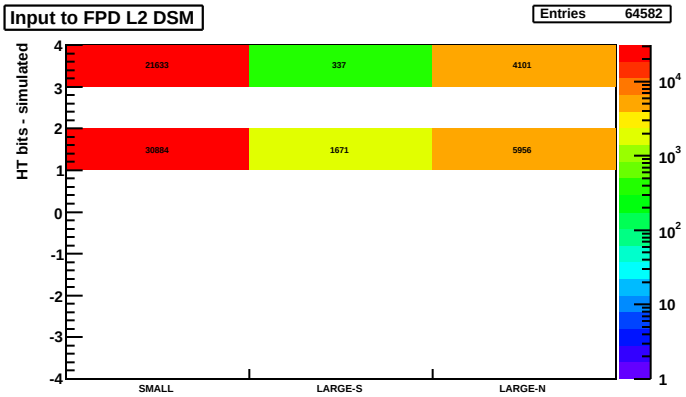

Input to FPD L2 DSM
Entries 2133680
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

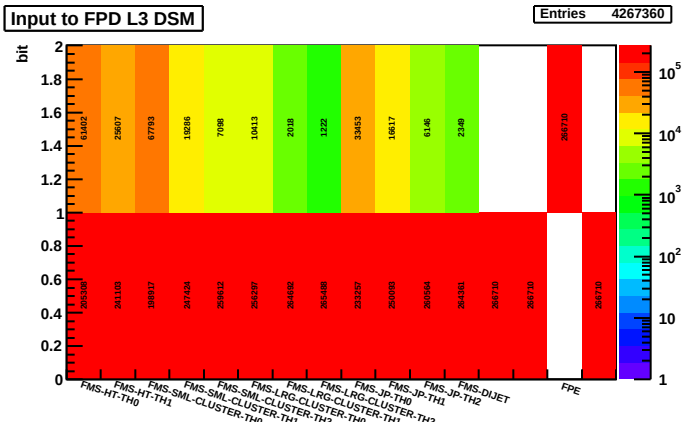

Input to FPD L2 DSM
Entries 548493
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

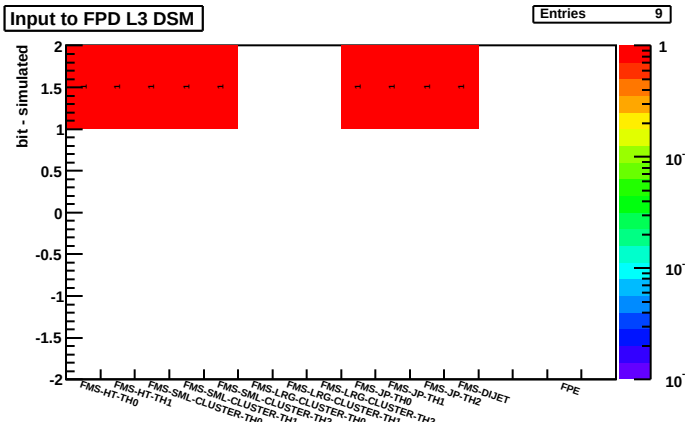

Input to FPD L2 DSM
Entries 800130
CL bits
7097
11
1211
12188
62
736
48507
1686
6825
198918
264951
257938
SMALL
LARGE-S
LARGE-N

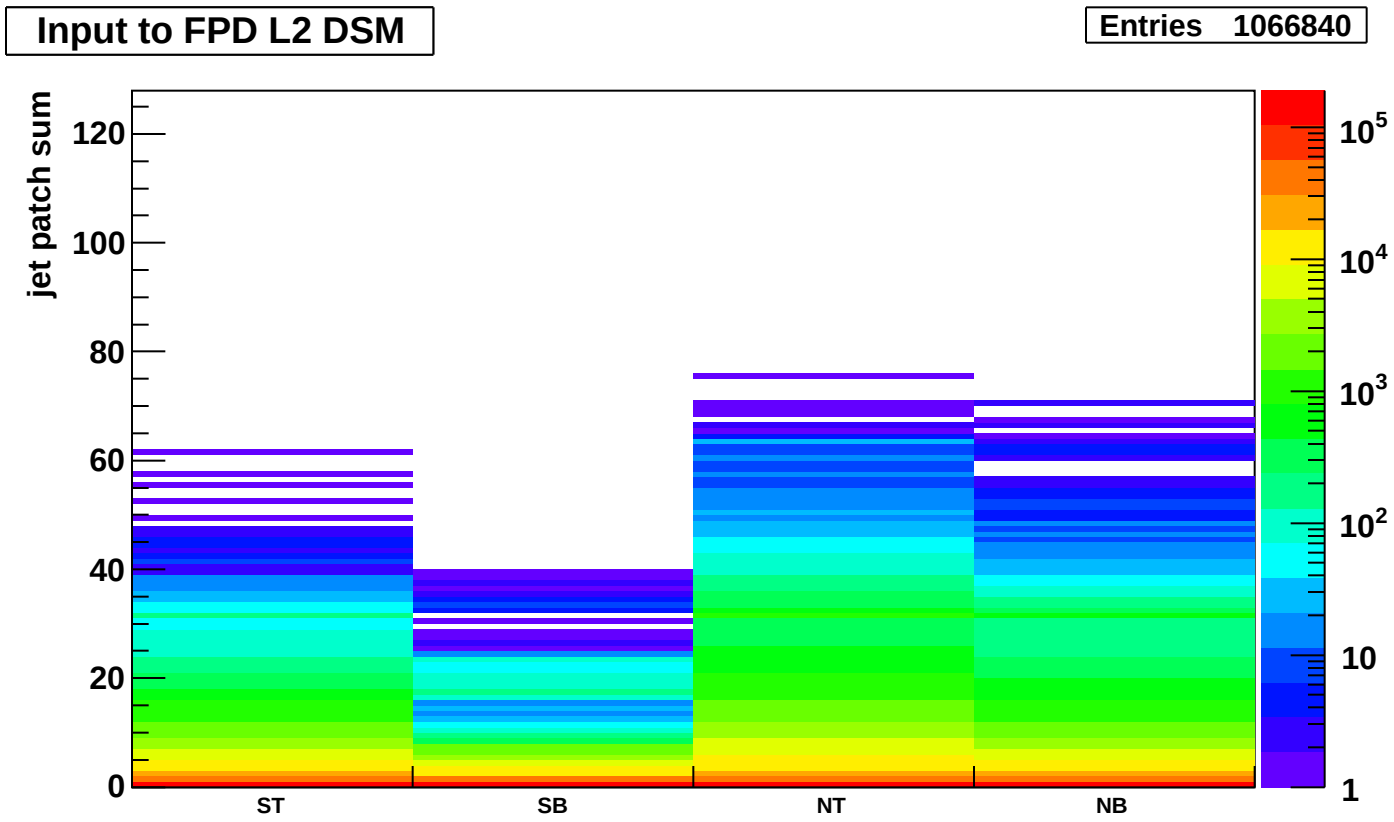

Input to FPD L2 DSM
Entries 78323
CL bits - simulated
7097
11
1211
12188
62
736
48507
1686
6825
SMALL
LARGE-S
LARGE-N

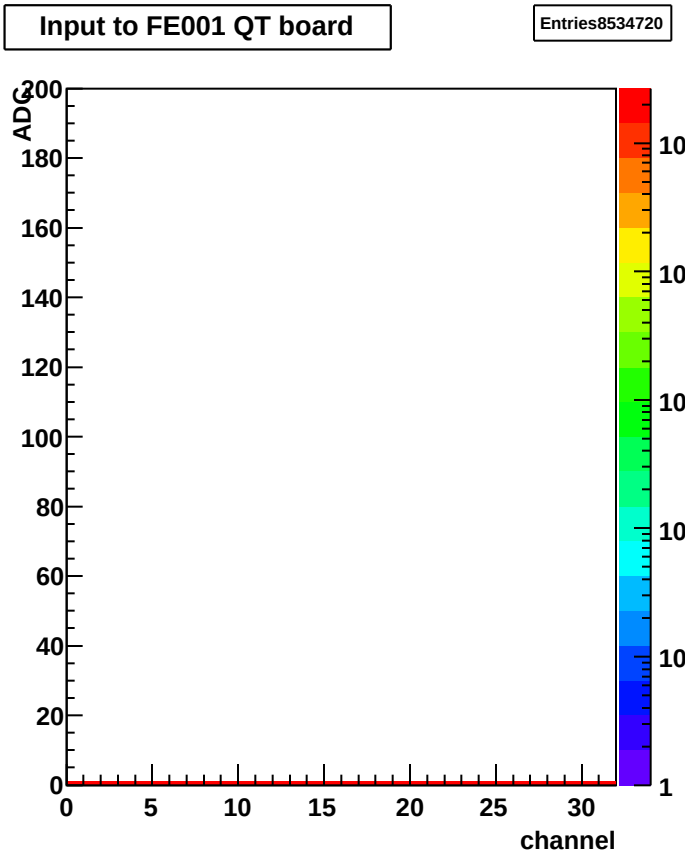

Input to FPD L2 DSM
Entries 800130
HT bits
21633
337
4101
30884
1671
5956
214193
264702
256653
SMALL
LARGE-S
LARGE-N

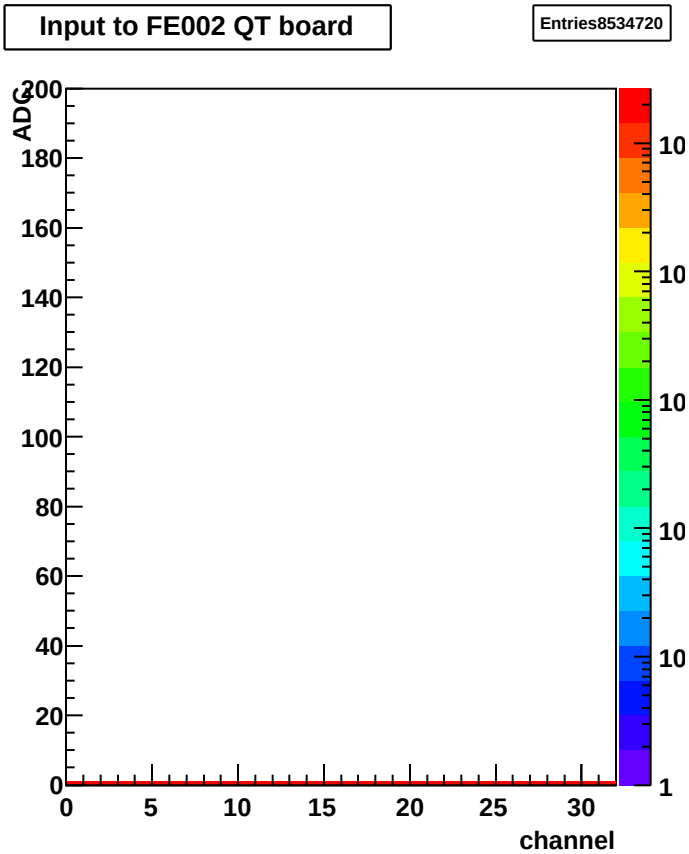

Input to FPD L2 DSM
Entries 64582
HT bits - simulated
21633
337
4101
30884
1671
5956
SMALL
LARGE-S
LARGE-N

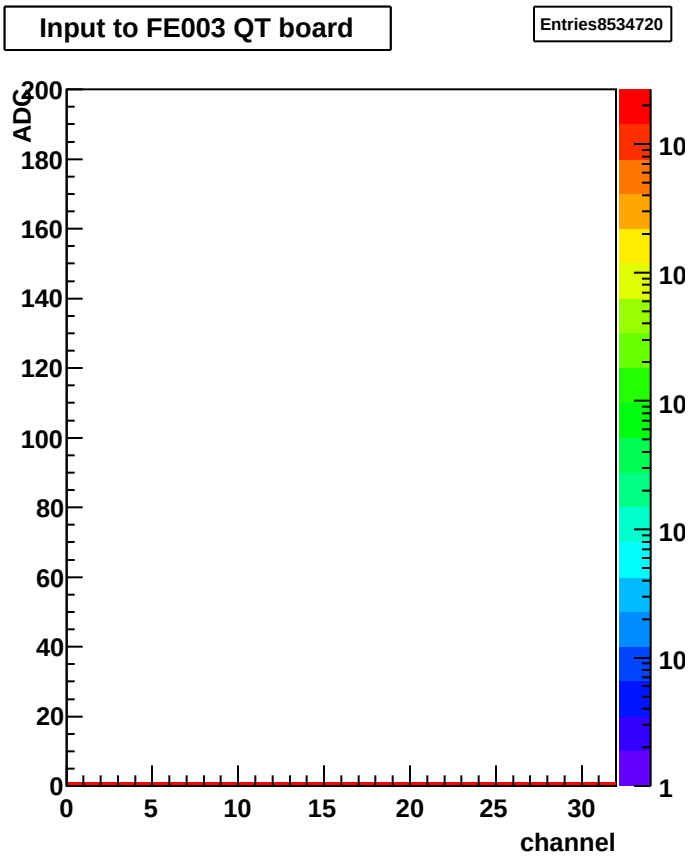

Input to FPD L3 DSM
Entries 4267360
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

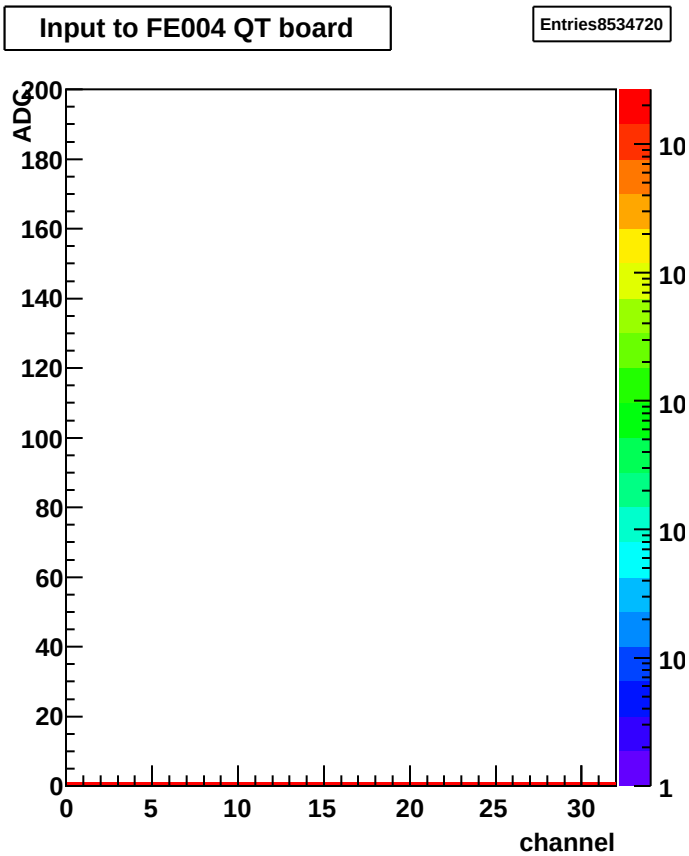

Input to FPD L3 DSM
Entries 9
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

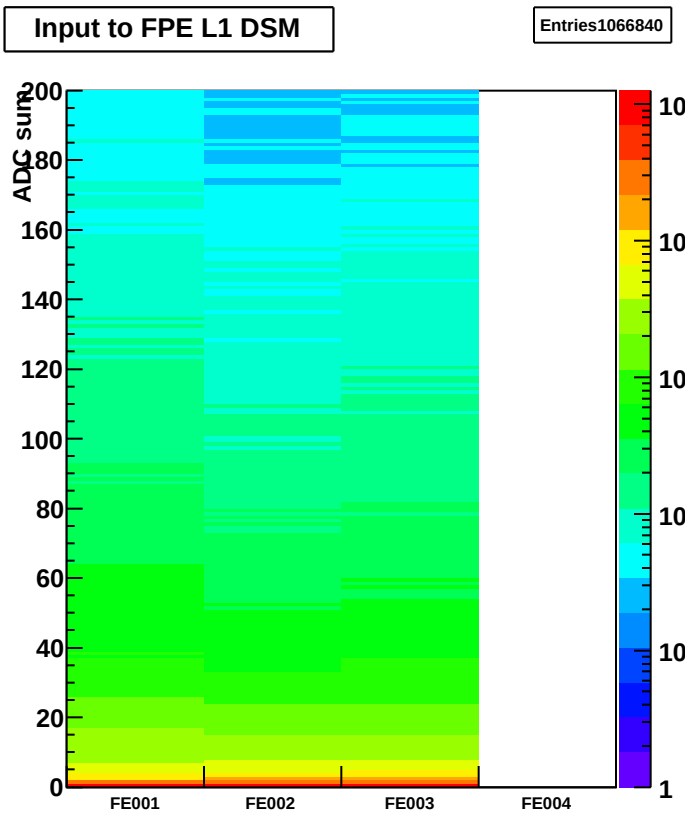

Input to FPD L2 DSM
Entries 1066840
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
$10^2$
$10^3$
$10^4$
$10^5$

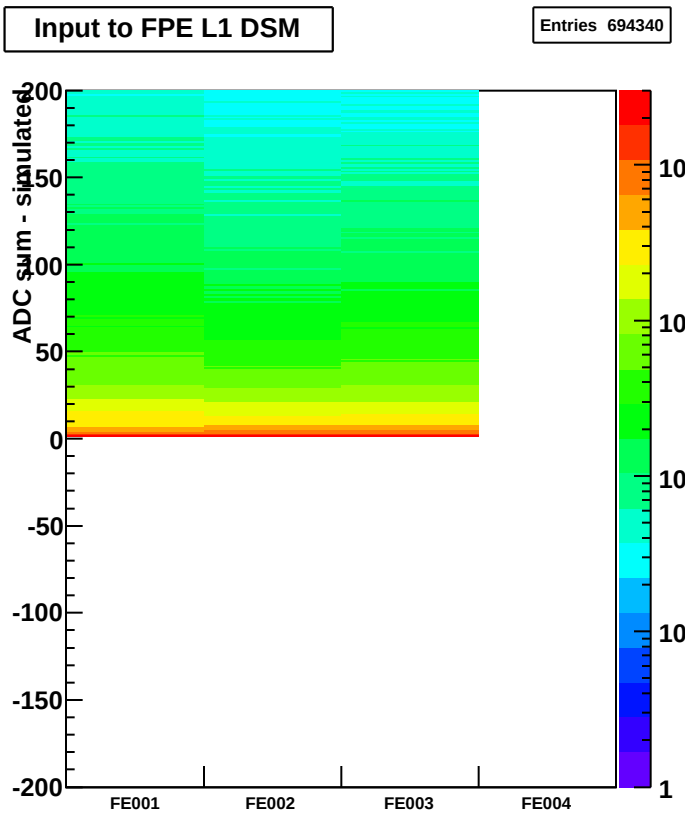

Input to FE001 QT board
Entries8534720
ADC
channel

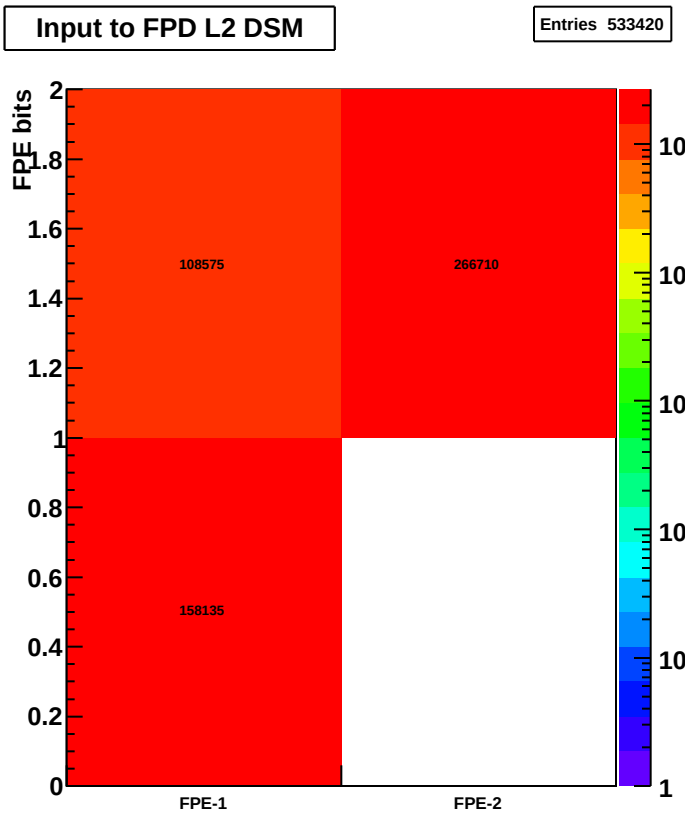

Input to FE002 QT board
Entries8534720
ADC
channel

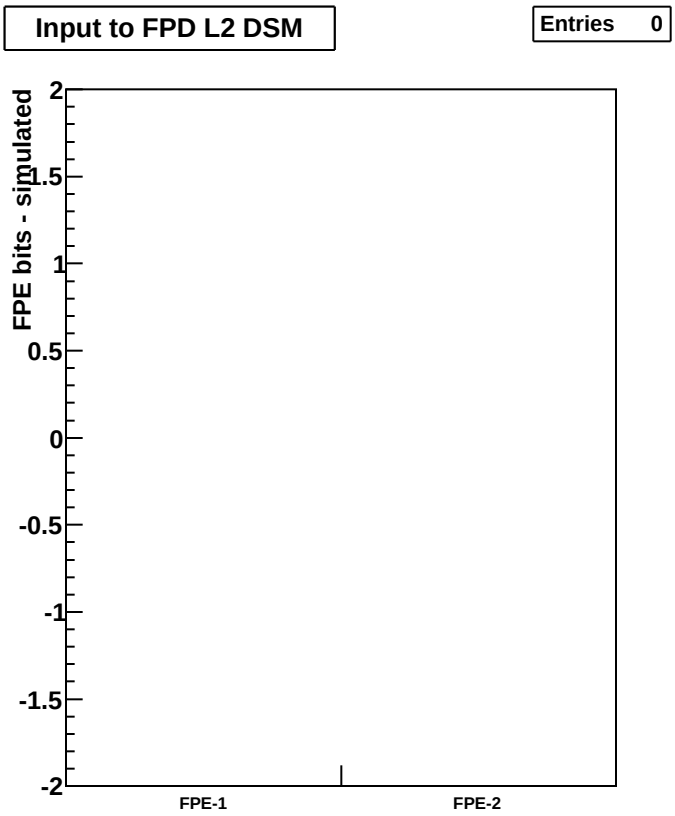

Input to FE003 QT board
Entries8534720
ADC
channel


Input to FE004 QT board
Entries8534720
ADC
channel


Input to FPE L1 DSM
Entries1066840
ADC sum
FE001
FE002
FE003
FE004


Input to FPE L1 DSM
Entries 694340
ADC sum - simulated
FE001
FE002
FE003
FE004


Input to FPD L2 DSM
Entries 533420
FPE bits
108575
266710
158135
FPE-1
FPE-2


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