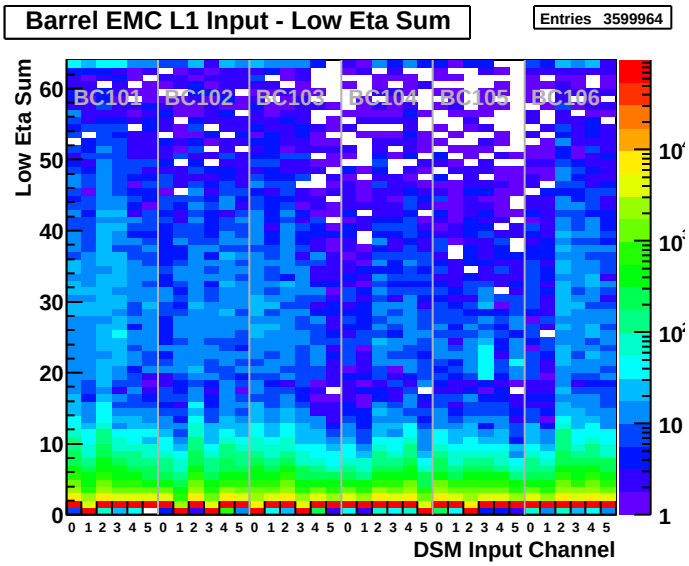
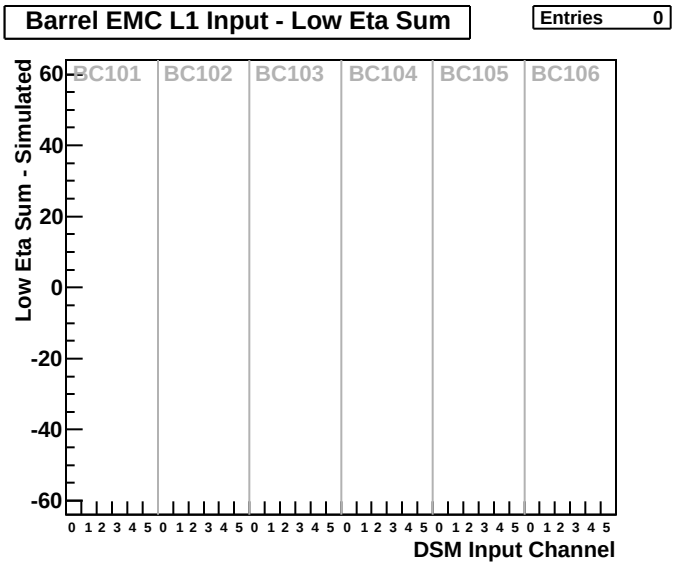
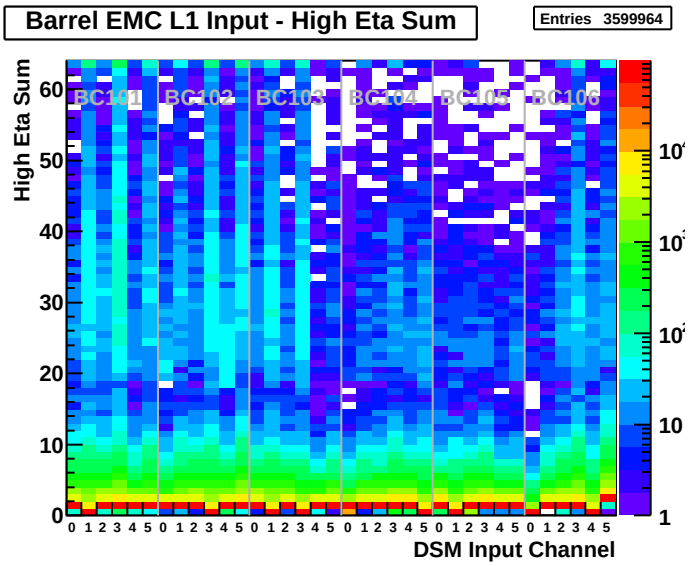
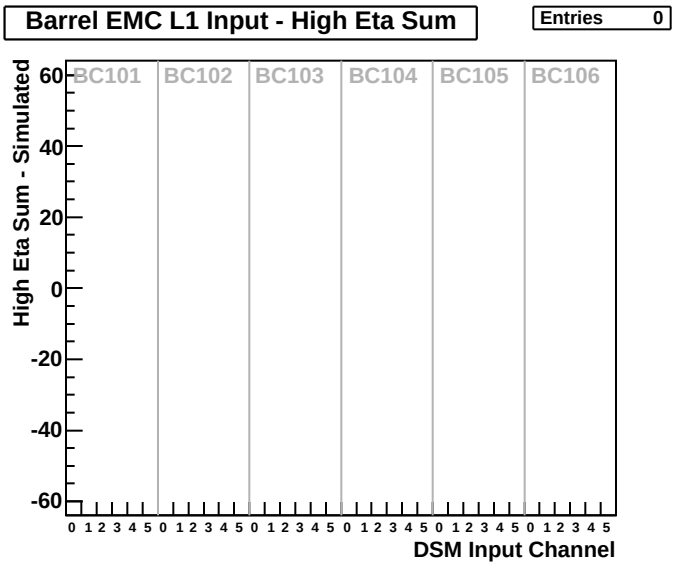
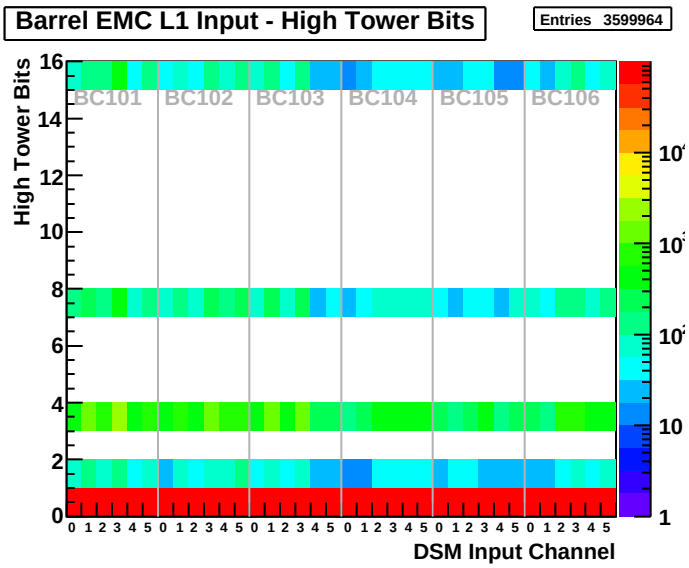
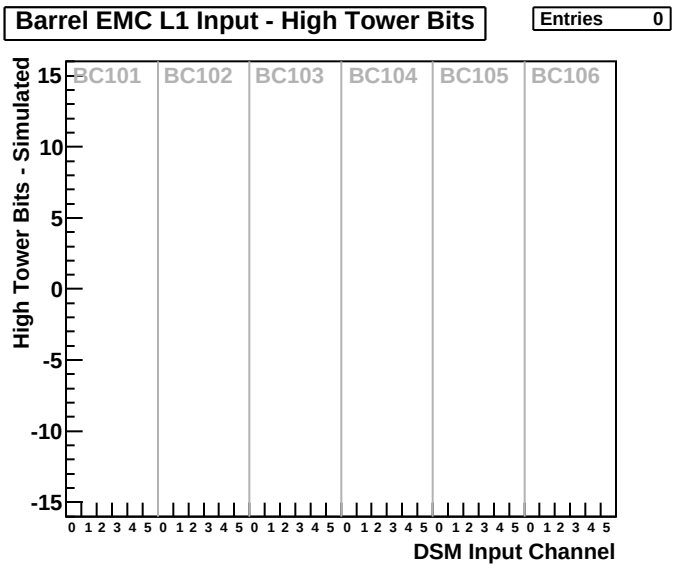

Barrel EMC L1 Input - Low Eta Sum
Entries 3599964
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

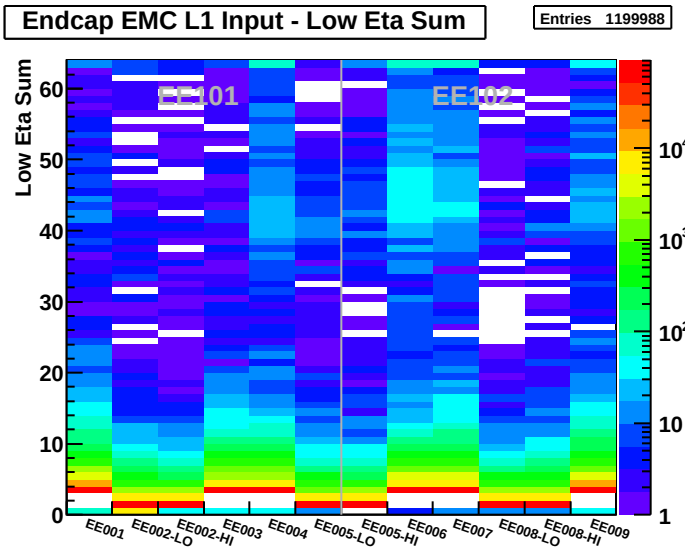

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

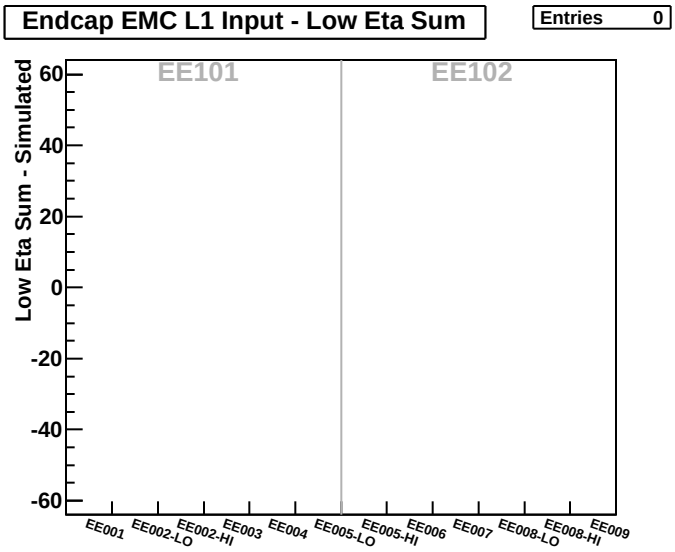

Barrel EMC L1 Input - High Eta Sum
Entries 3599964
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

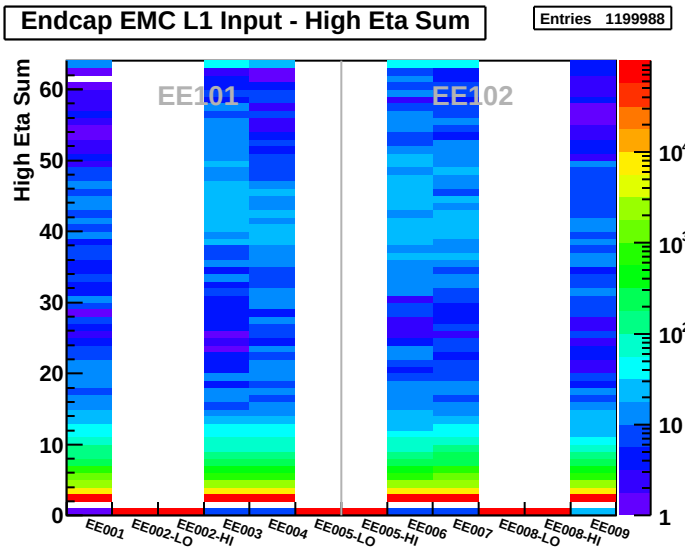

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

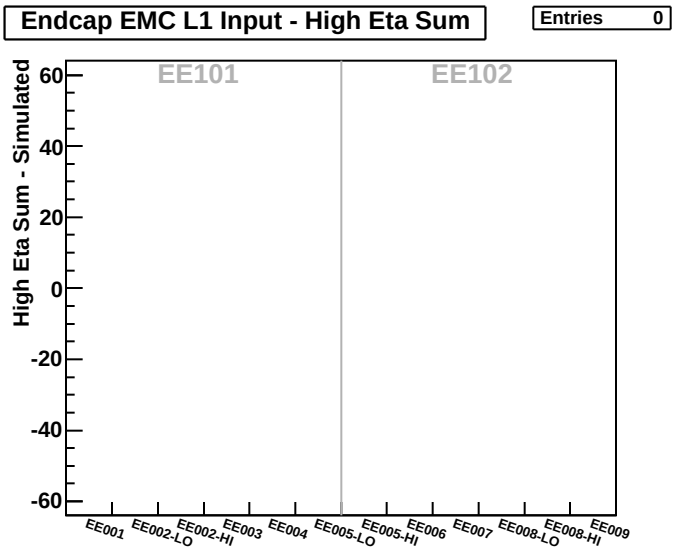

Barrel EMC L1 Input - High Tower Bits
Entries 3599964
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

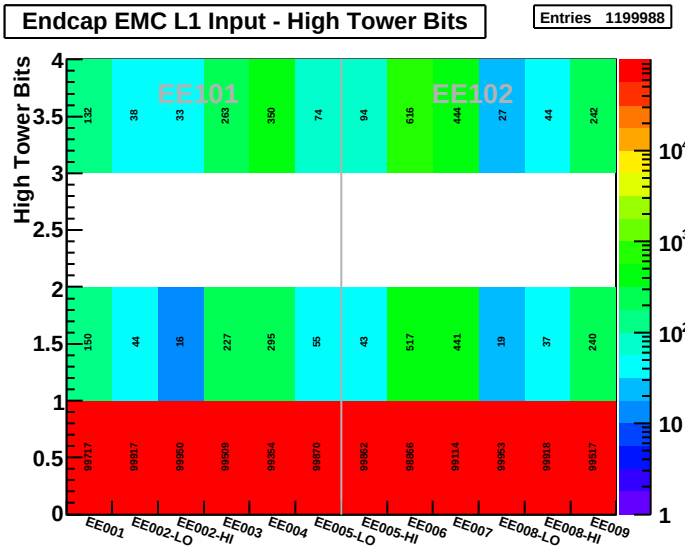

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

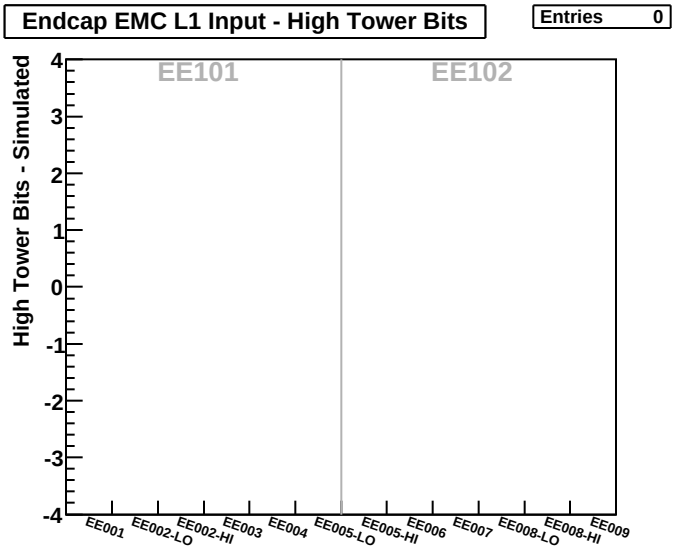

Endcap EMC L1 Input - Low Eta Sum
Entries 1199988
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

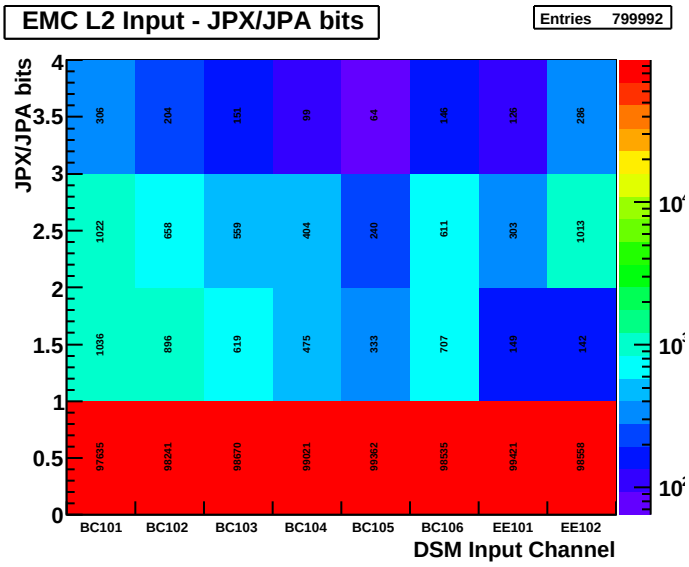

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

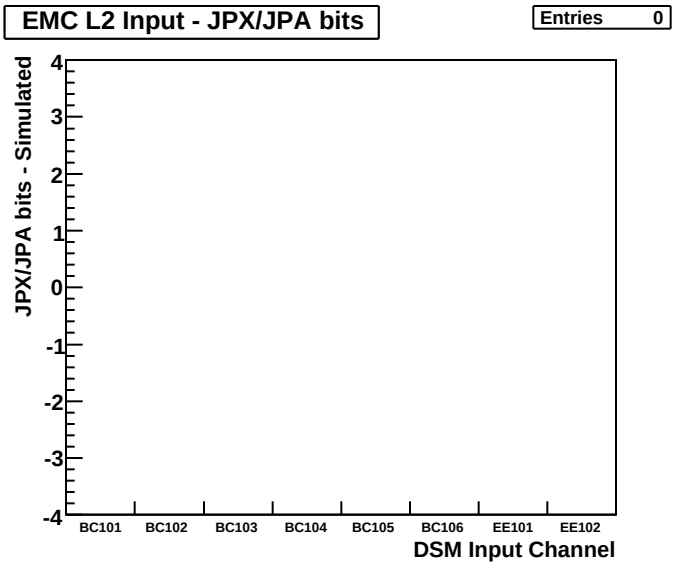

Endcap EMC L1 Input - High Eta Sum
Entries 1199988
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

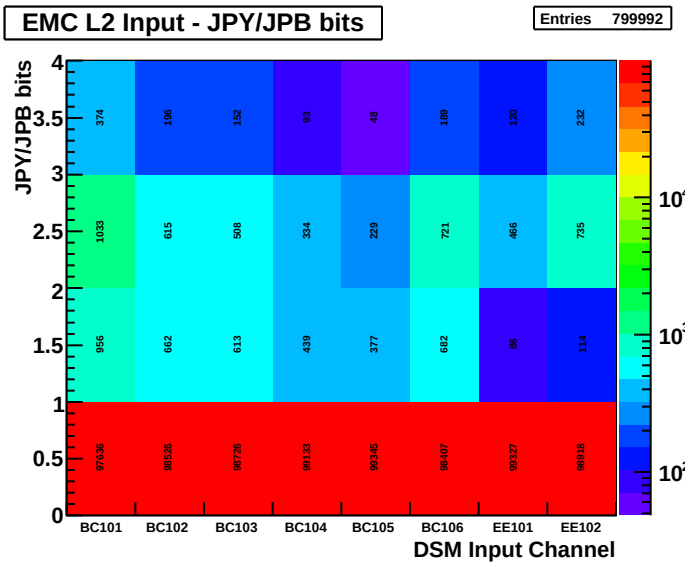

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

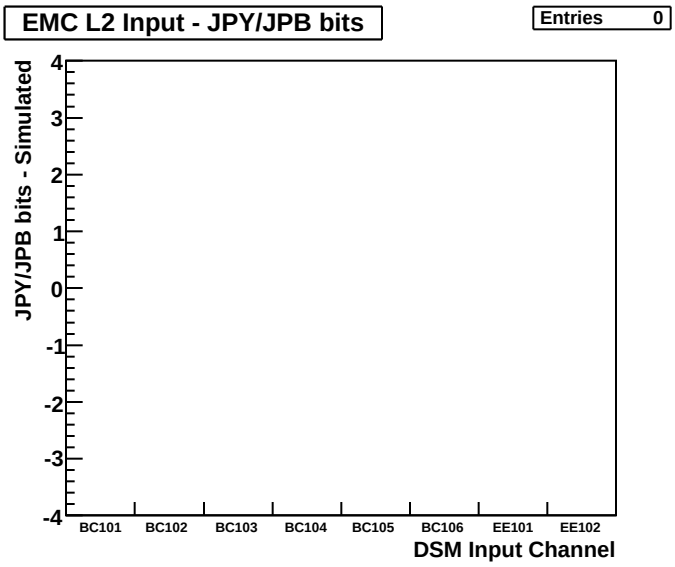

Endcap EMC L1 Input - High Tower Bits
Entries 1199988
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

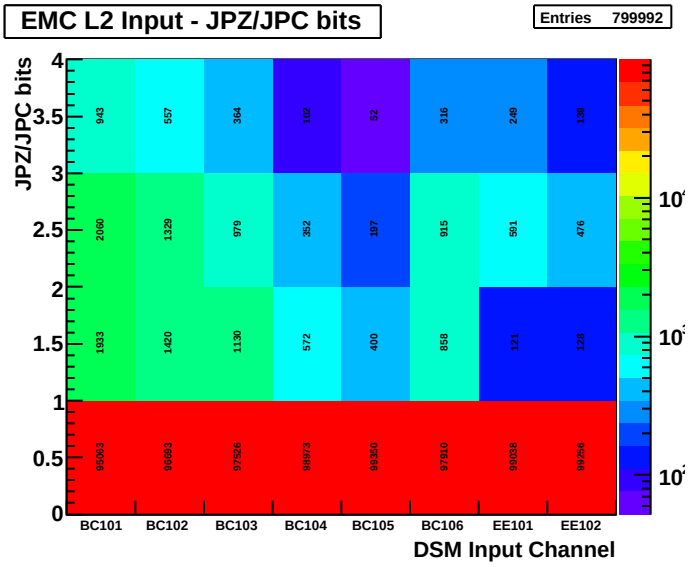

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

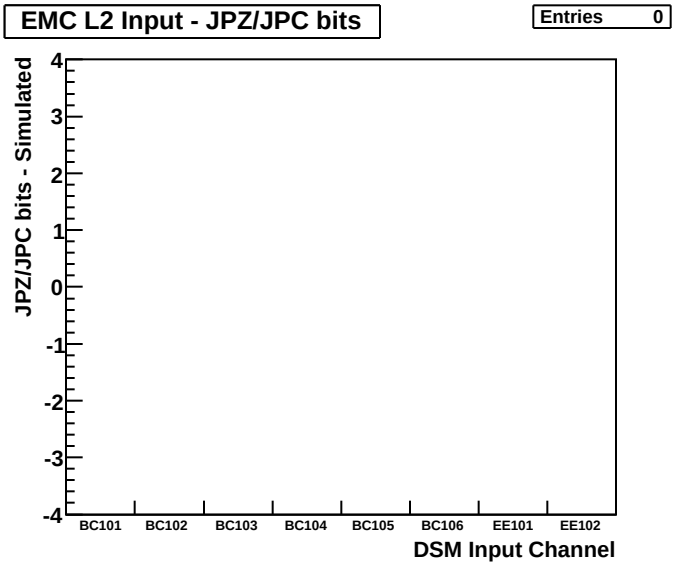

EMC L2 Input - JPX/JPA bits
Entries 799992
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
306 204 151 99 64 146 126 286
1022 658 559 404 240 611 303 1013
1036 896 619 475 333 707 149 142
97635 98241 98670 99021 99362 99535 99421 99558

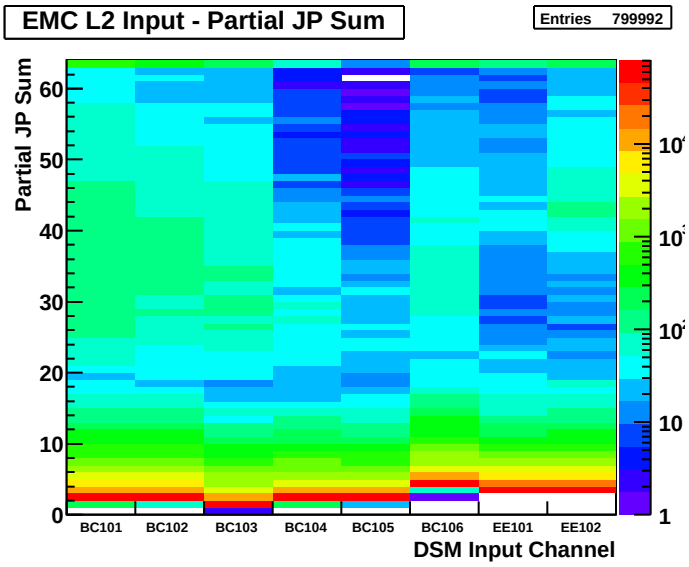

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

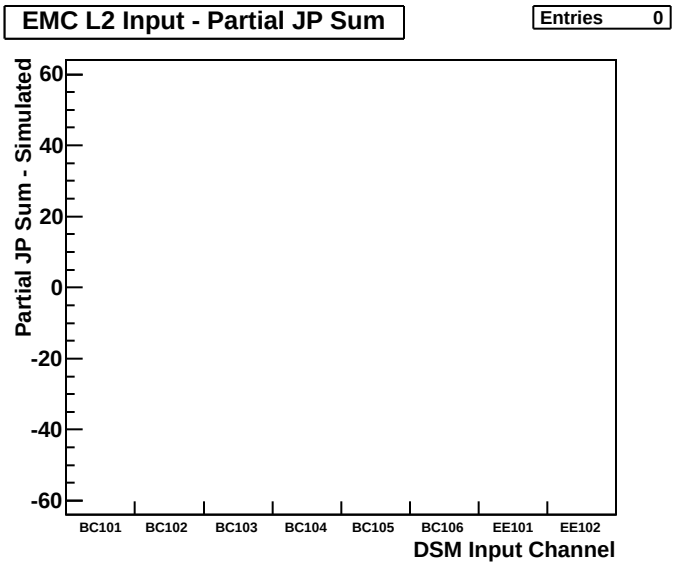

EMC L2 Input - JPY/JPB bits
Entries 799992
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
374 196 152 93 48 189 120 232
1033 615 508 334 229 721 466 735
956 662 613 439 377 682 86 114
97636 98526 98726 99133 99345 99407 99327 99918

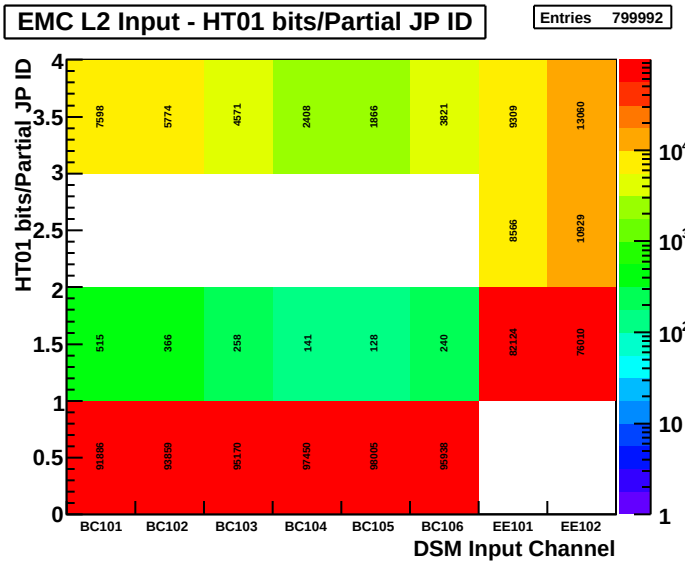

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

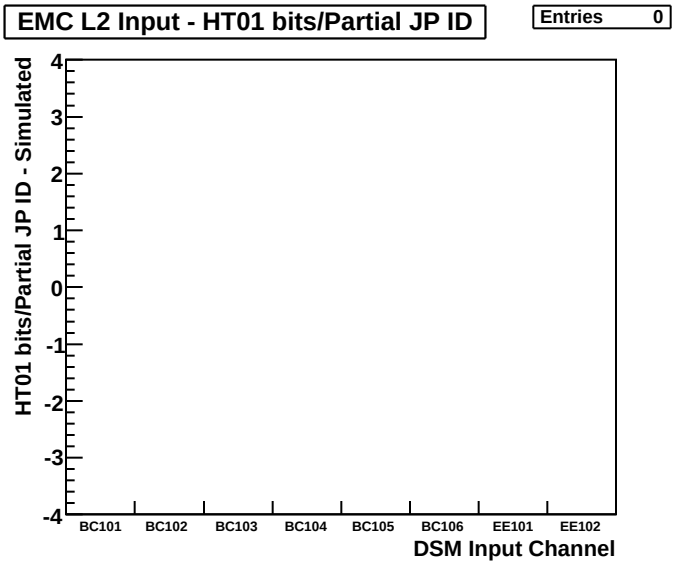

EMC L2 Input - JPZ/JPC bits
Entries 799992
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
943 557 364 102 52 316 249 139
2060 1329 979 352 197 915 591 476
1933 1420 1130 572 400 858 121 128
95063 96693 97526 98973 99350 97910 99038 99256

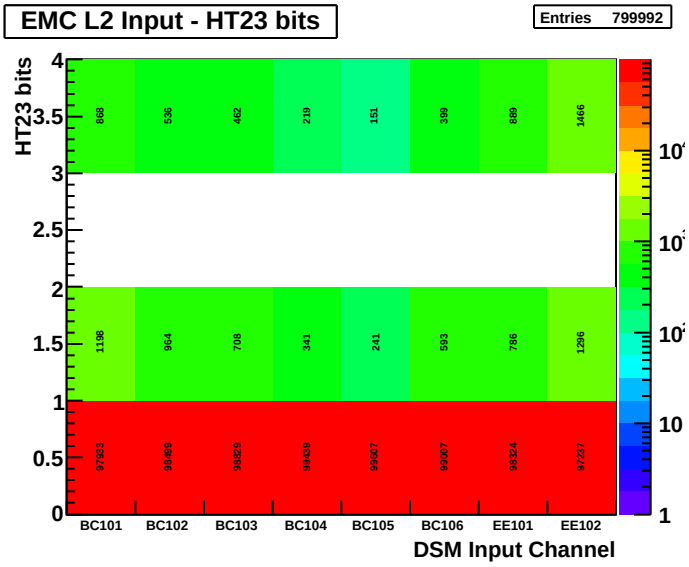

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

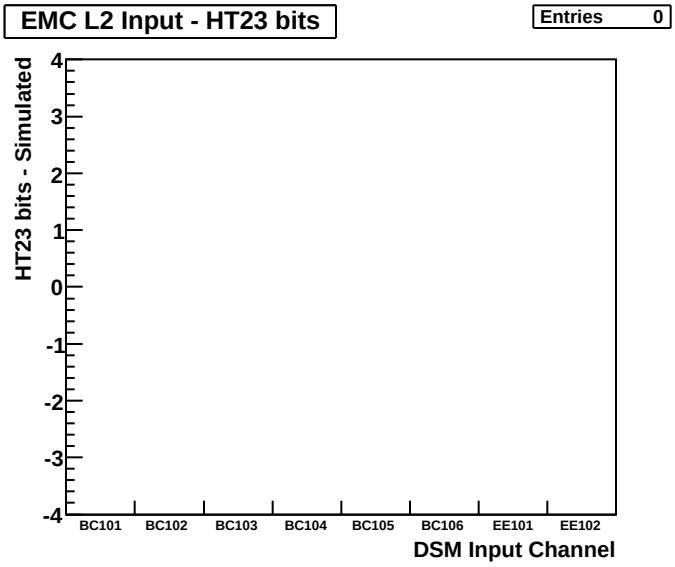

EMC L2 Input - Partial JP Sum
Entries 799992
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

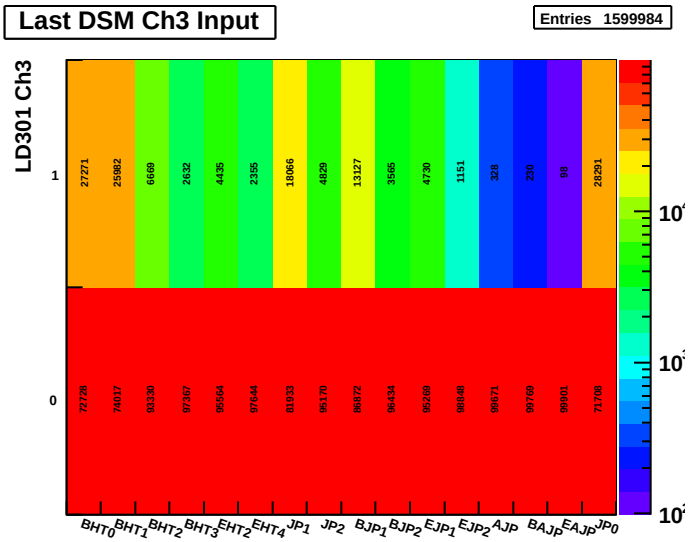

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

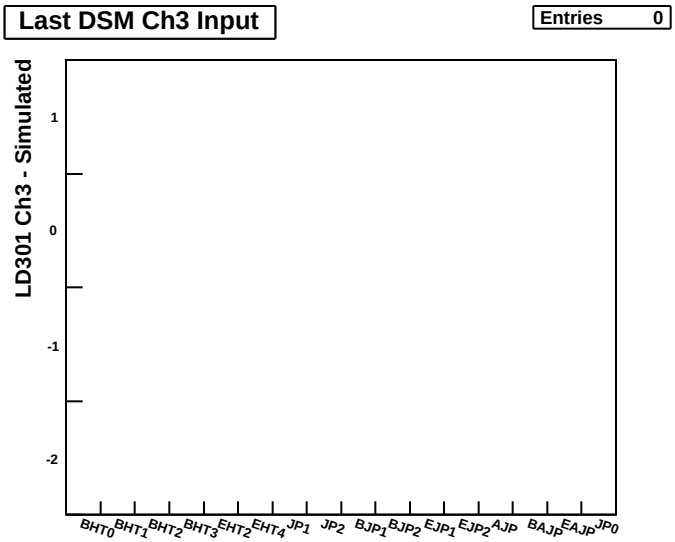

EMC L2 Input - HT01 bits/Partial JP ID
Entries 799992
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

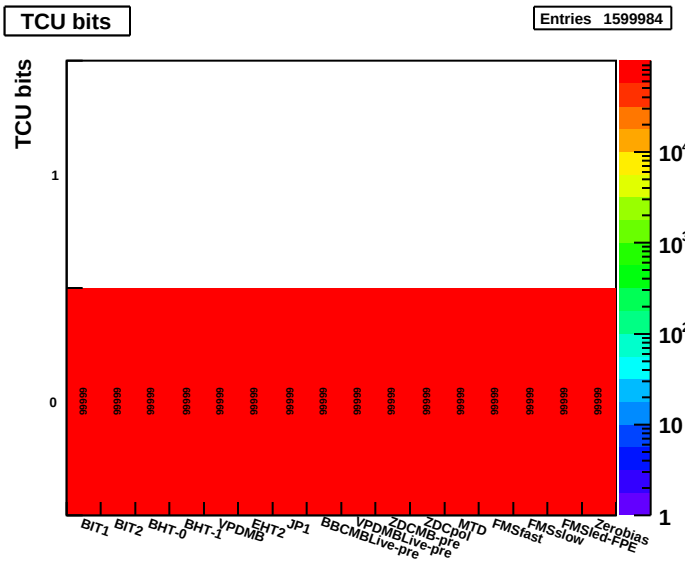

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

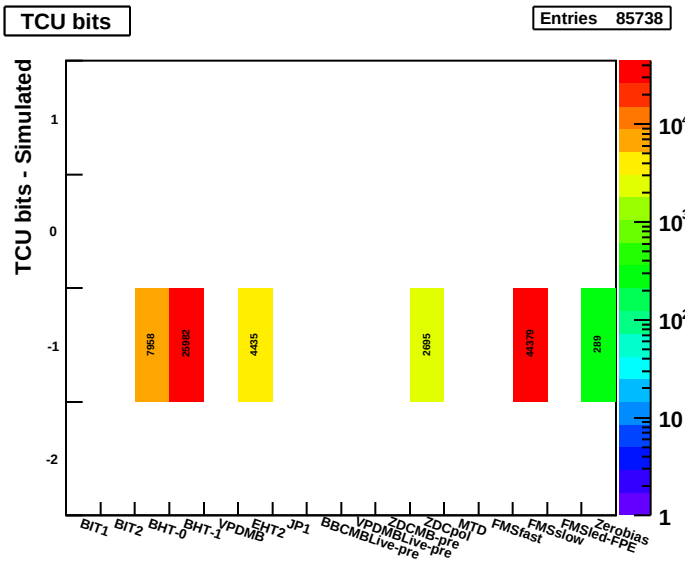

EMC L2 Input - HT23 bits
Entries 799992
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

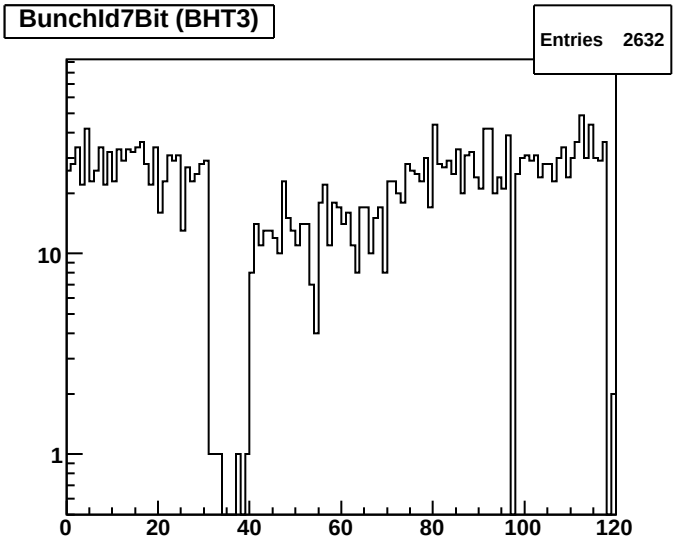

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

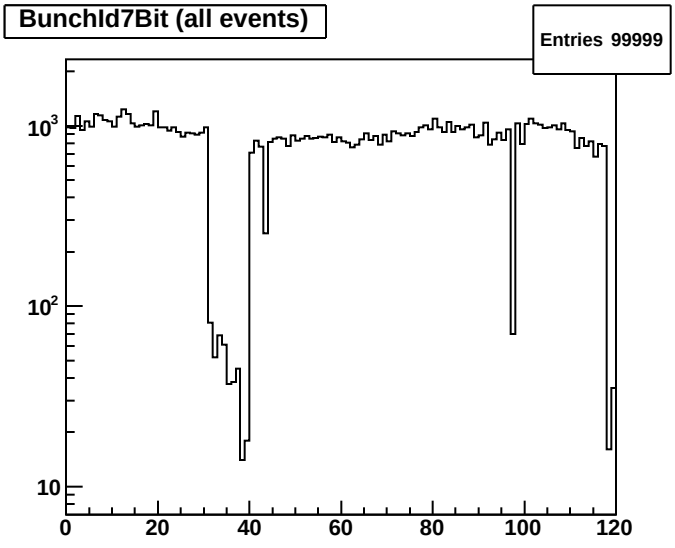

Last DSM Ch3 Input
Entries 1599984
LD301 Ch3
1
0
27271 25982 6669 2632 4435 2355 18066 4829 13127 3565 4730 1151 328 230 98 28291
72728 74017 93330 97367 95564 97644 81933 95170 86872 96434 95269 98848 99671 99769 99901 71708
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

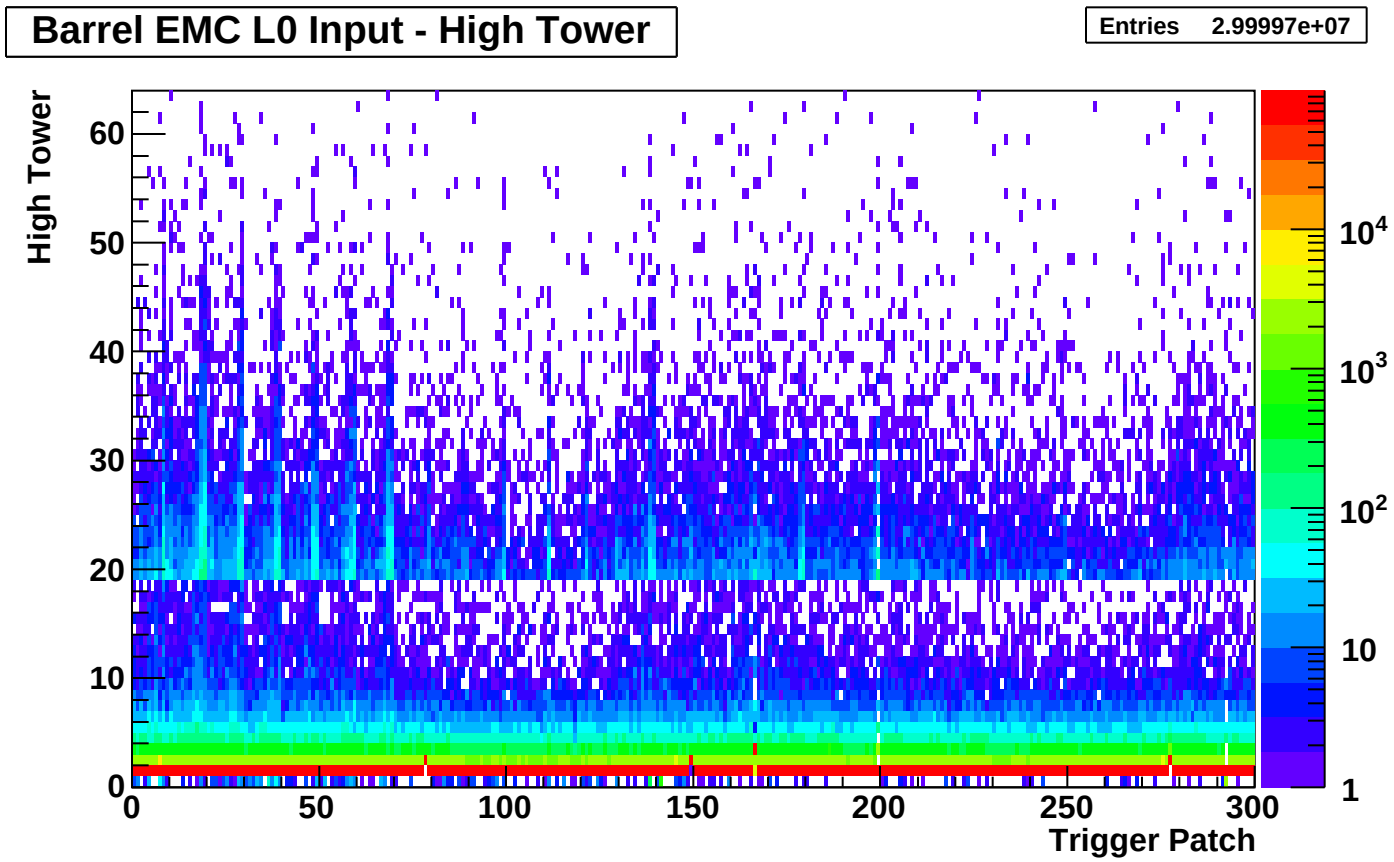

Last DSM Ch3 Input
Entries 0
LD301 Ch3 - Simulated
1
0
-1
-2
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

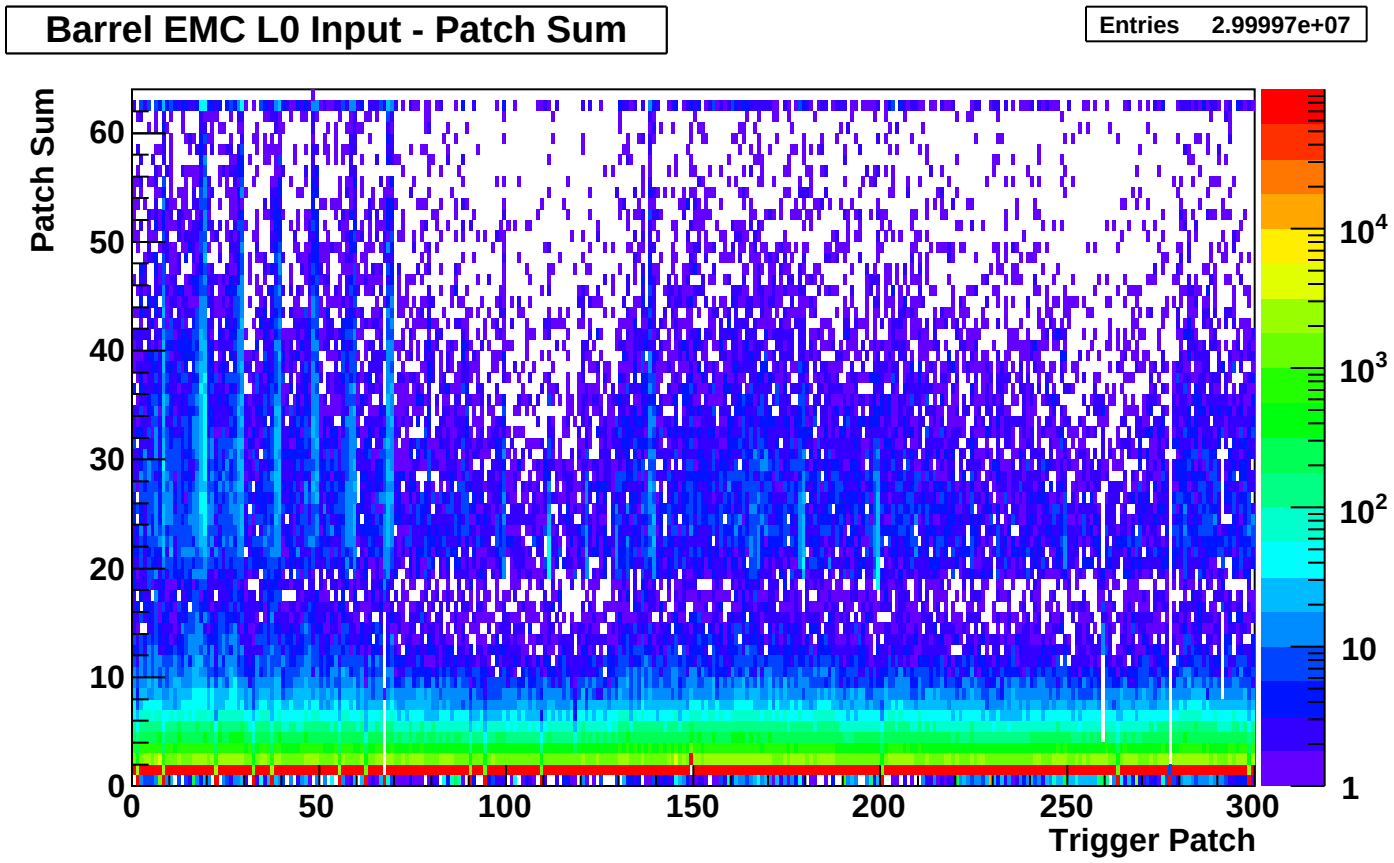

TCU bits
Entries 1599984
TCU bits
1
0
99999 99999 99999 99999 99999 99999 99999 99999 99999 99999 99999 99999 99999 99999 99999 99999
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

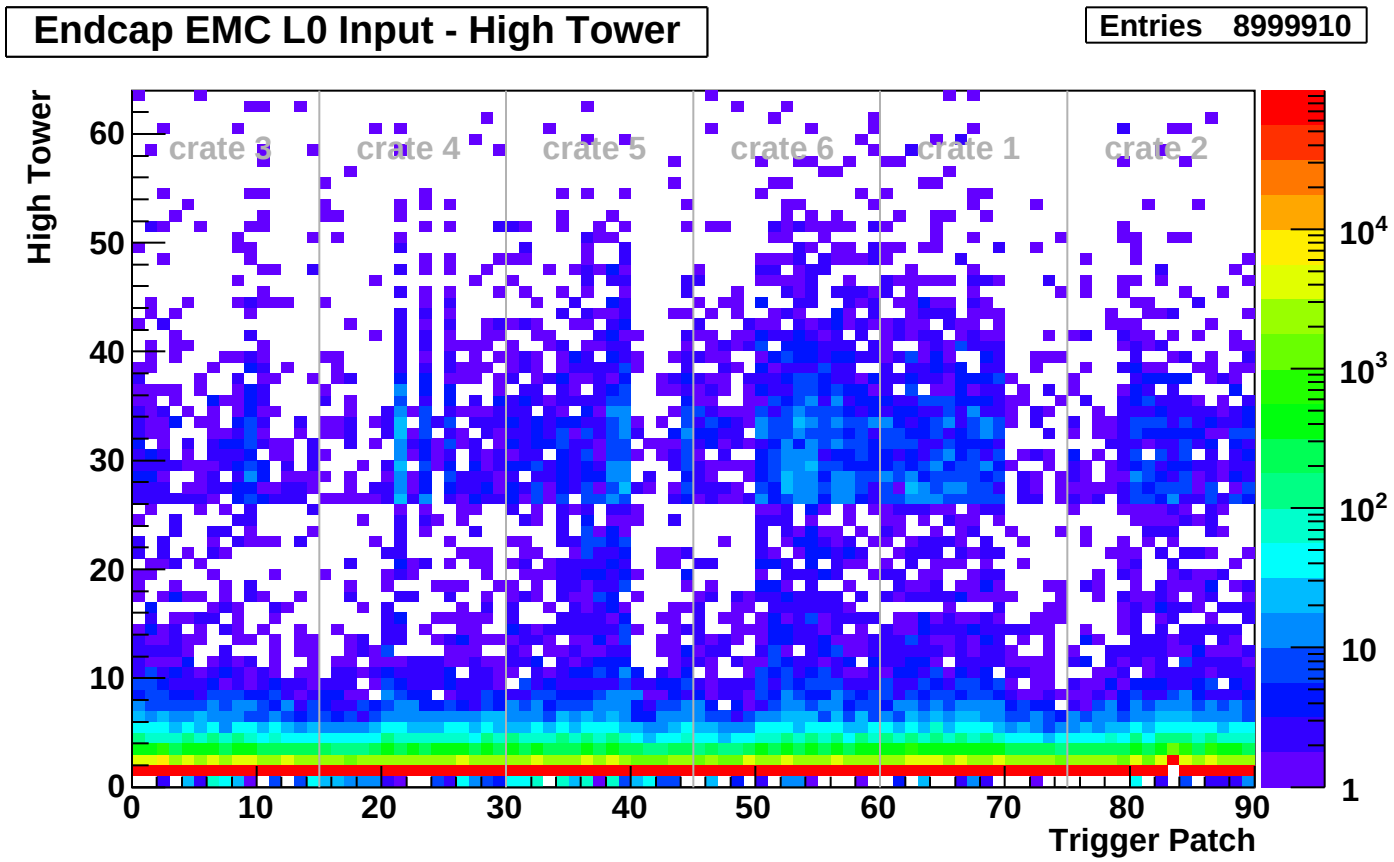

TCU bits
Entries 85738
TCU bits - Simulated
1
0
-1
-2
7958 25982 4435 2695 44379 289
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

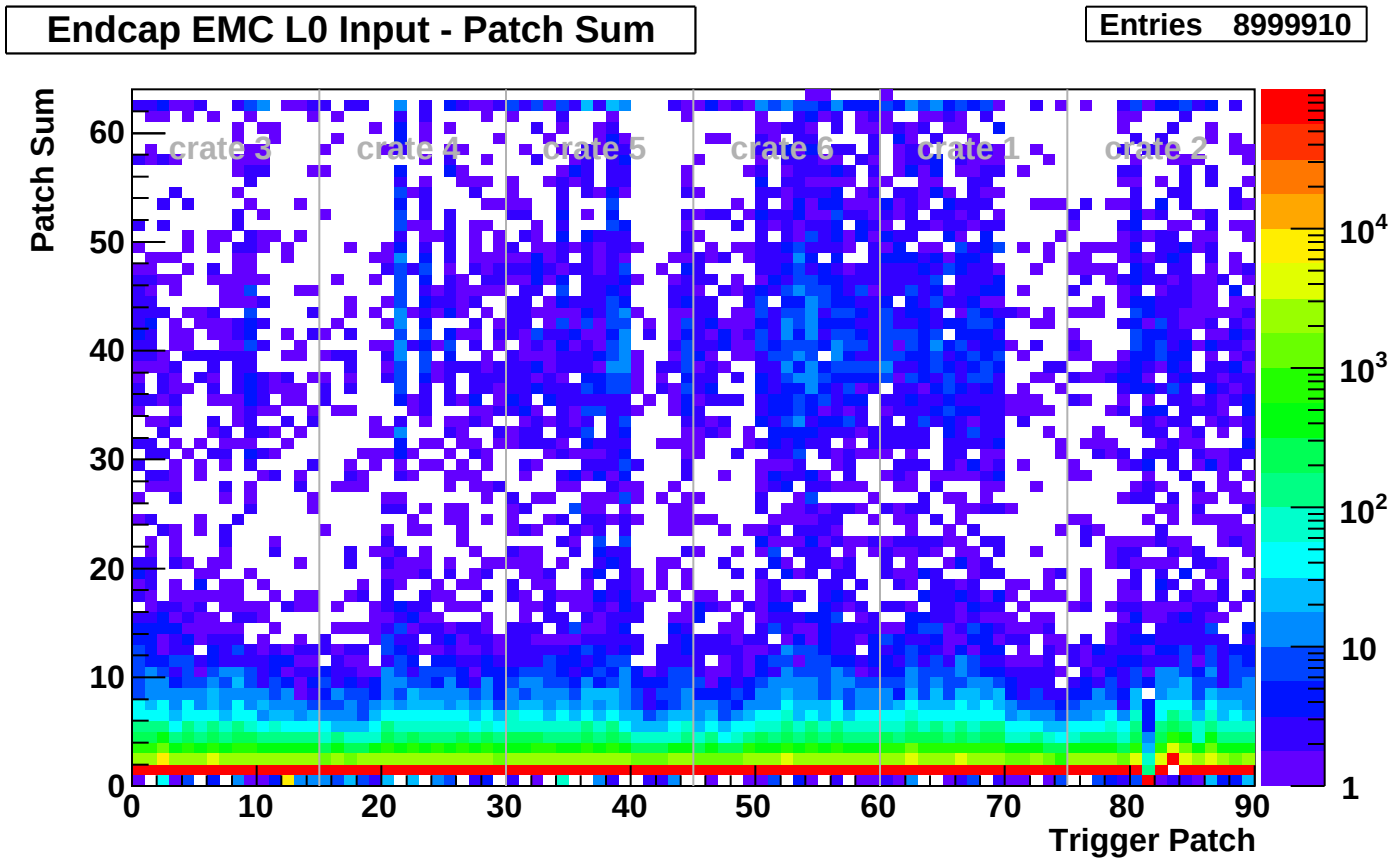

BunchId7Bit (BHT3)
Entries 2632
10
1
0 20 40 60 80 100 120

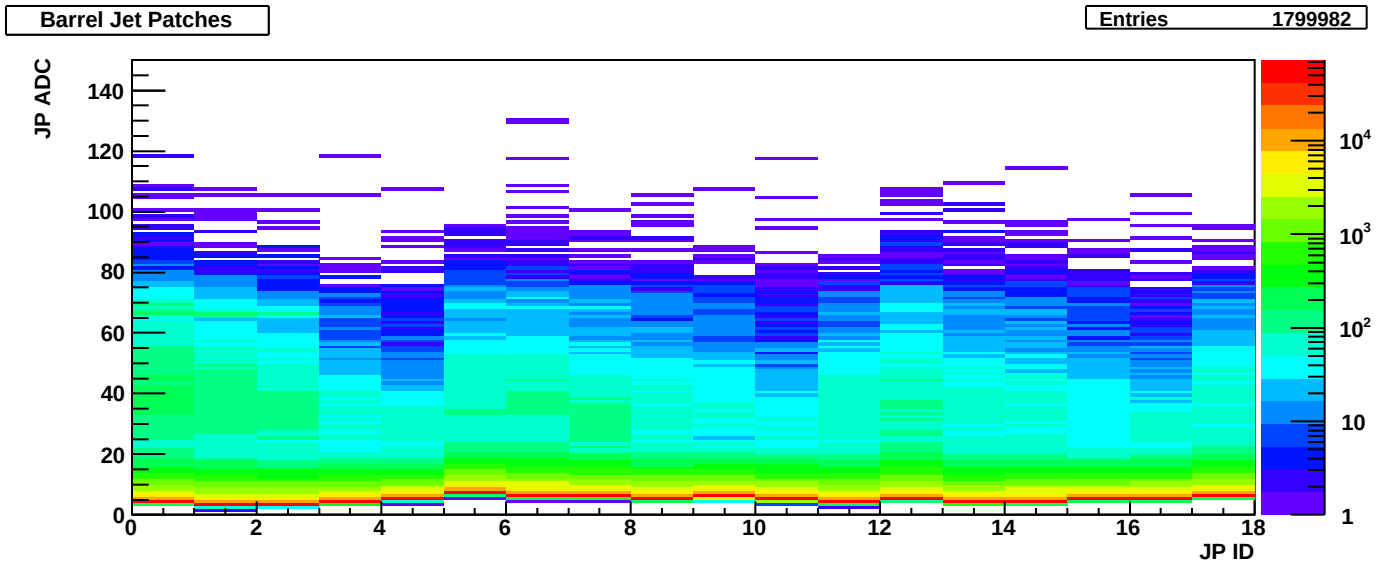

BunchId7Bit (all events)
Entries 99999
10^3
10^2
10
0 20 40 60 80 100 120

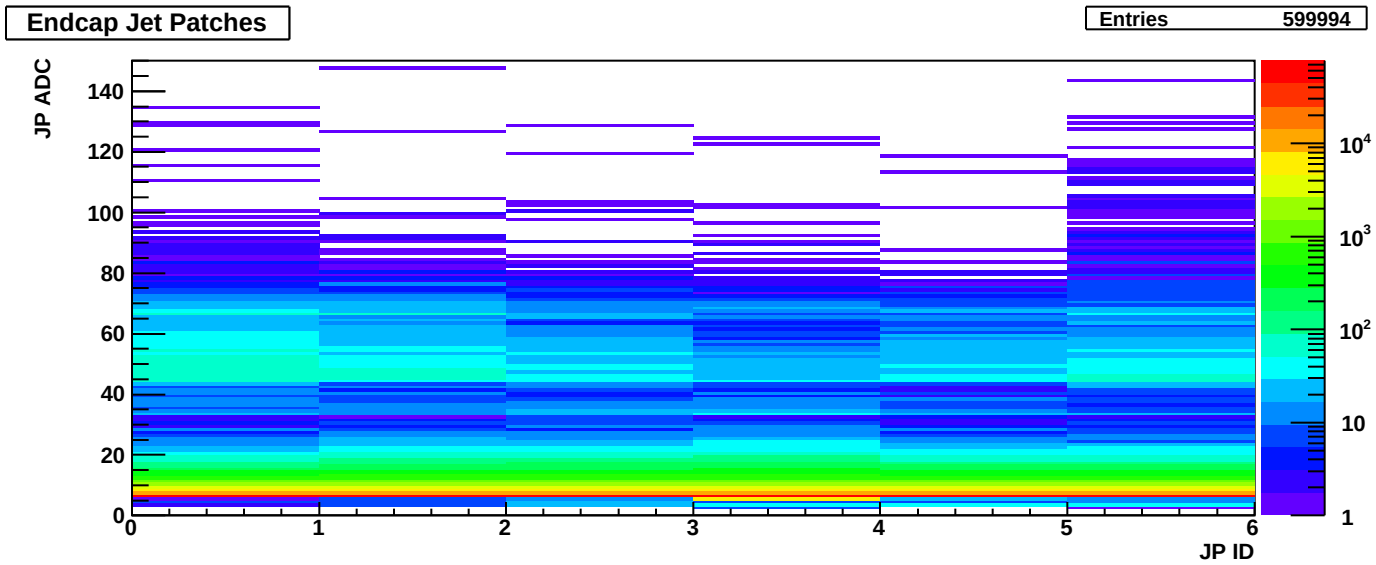

Barrel EMC L0 Input - High Tower
Entries 2.99997e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

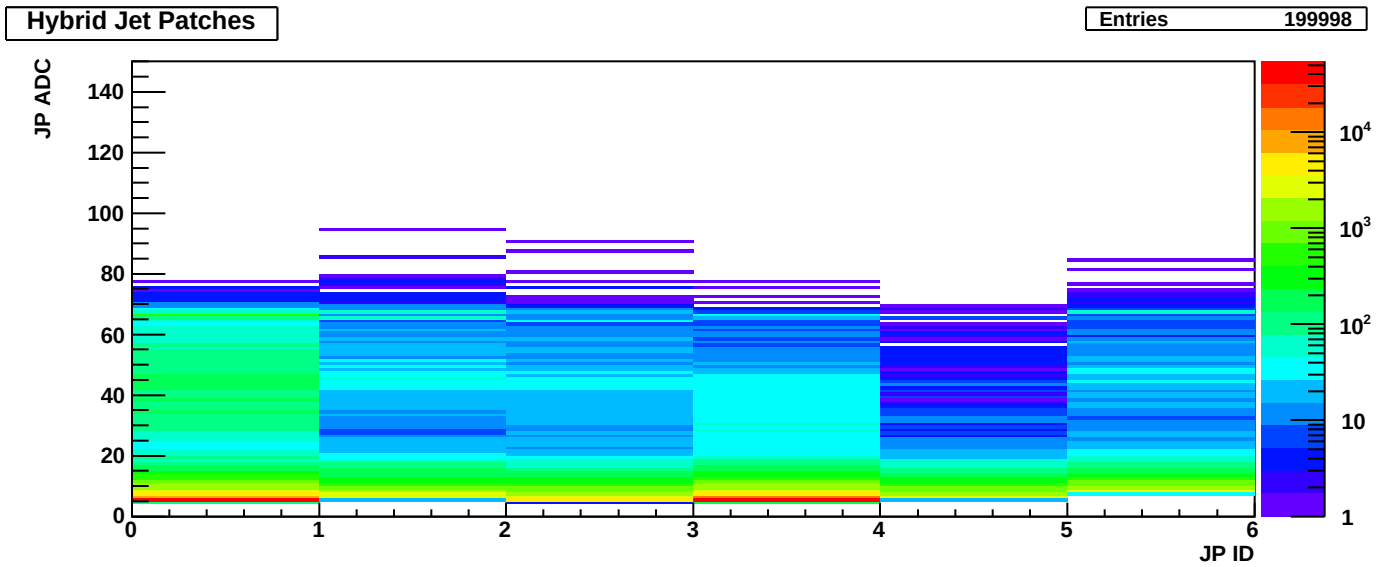

Barrel EMC L0 Input - Patch Sum
Entries 2.99997e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

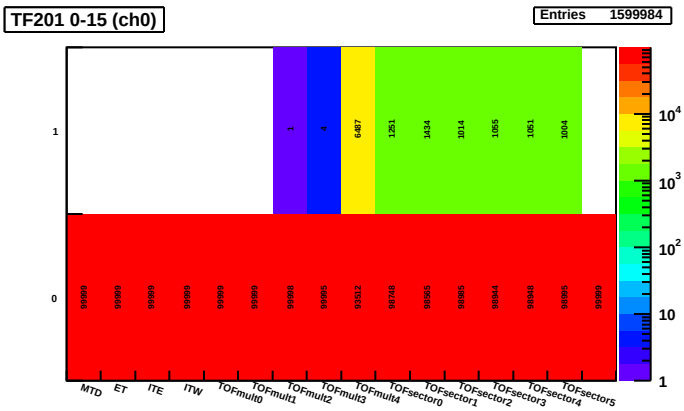

Endcap EMC L0 Input - High Tower
Entries 8999910
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

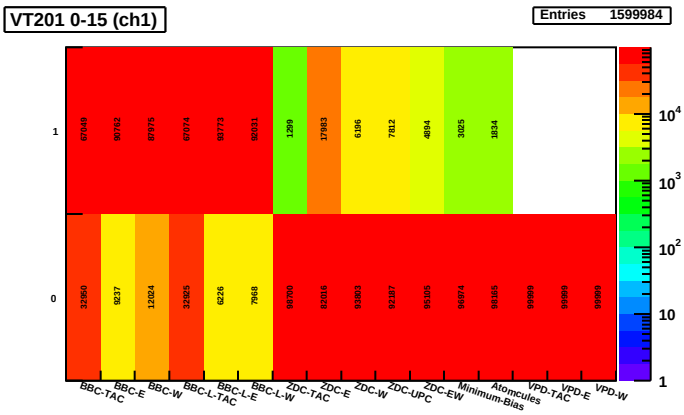

Endcap EMC L0 Input - Patch Sum
Entries 8999910
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

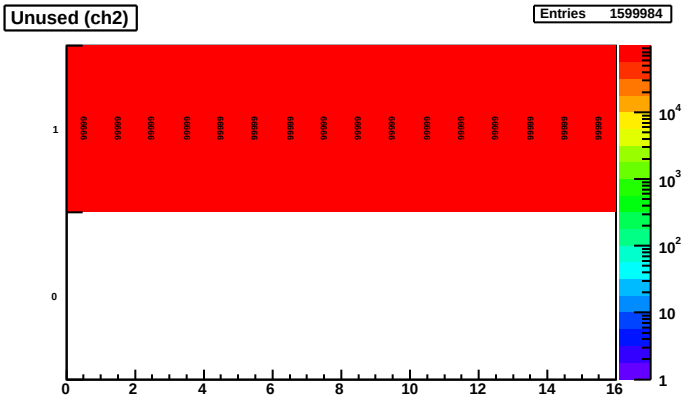

Barrel Jet Patches
Entries 1799982
JP ADC
JP ID

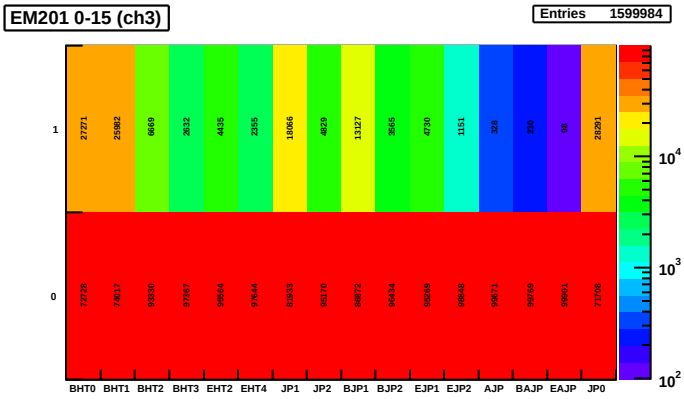

Endcap Jet Patches
Entries 599994
JP ADC
JP ID

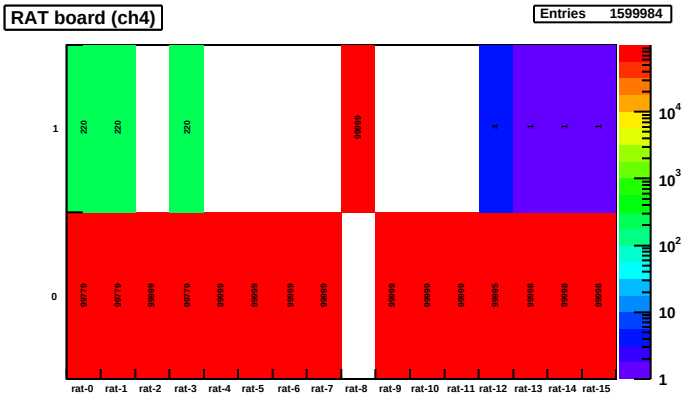

Hybrid Jet Patches
Entries 199998
JP ADC
JP ID

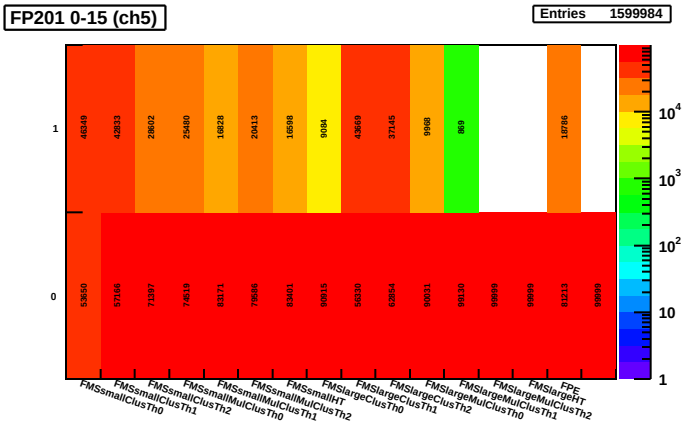

TF201 0-15 (ch0)
Entries 1599984
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

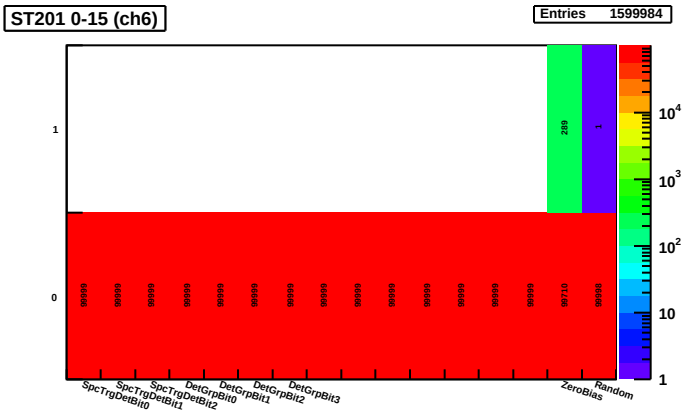

VT201 0-15 (ch1)
Entries 1599984
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

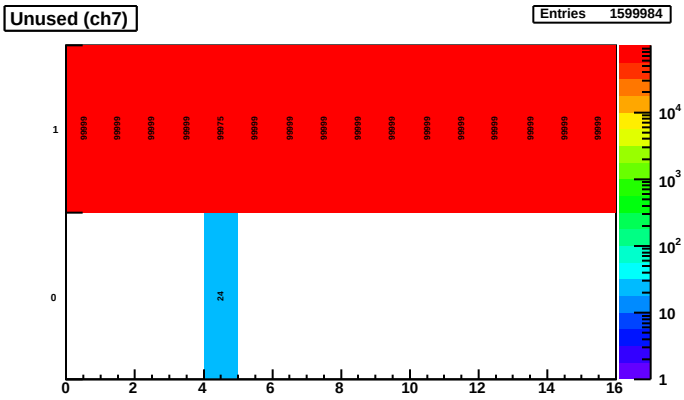

Unused (ch2)
Entries 1599984

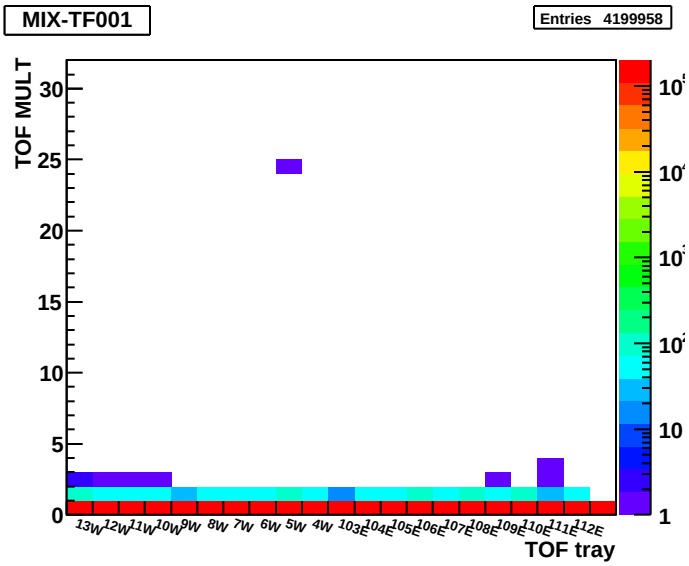

EM201 0-15 (ch3)
Entries 1599984
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

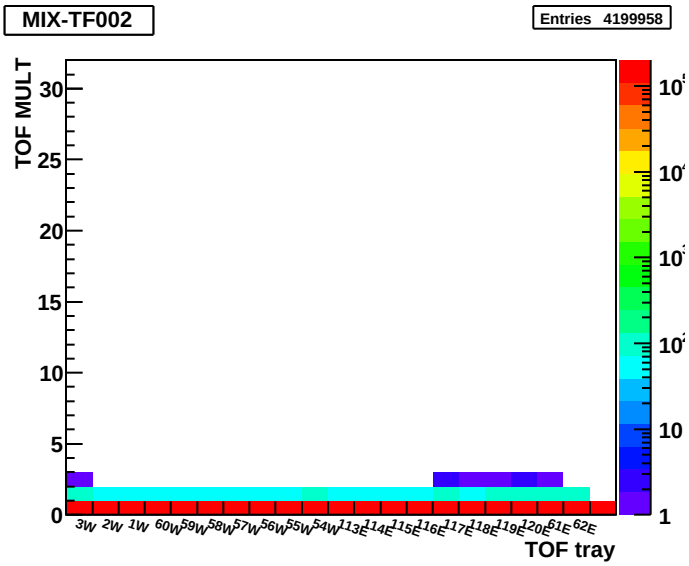

RAT board (ch4)
Entries 1599984
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

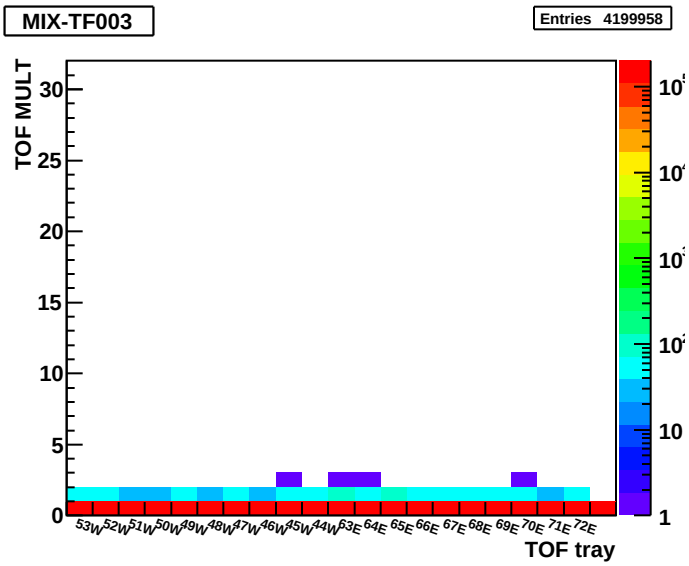

FP201 0-15 (ch5)
Entries 1599984
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

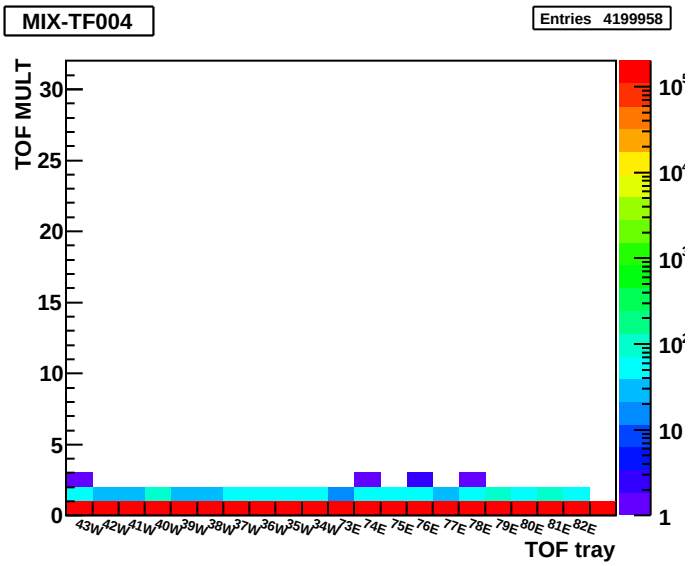

ST201 0-15 (ch6)
Entries 1599984
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random

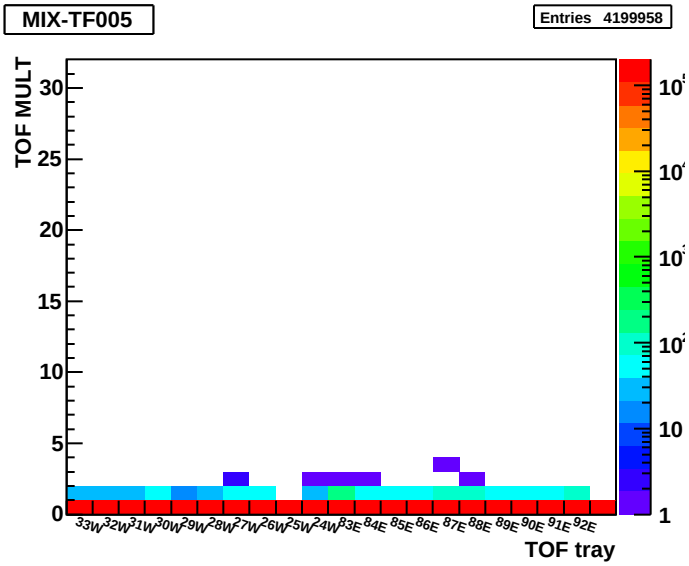

Unused (ch7)
Entries 1599984

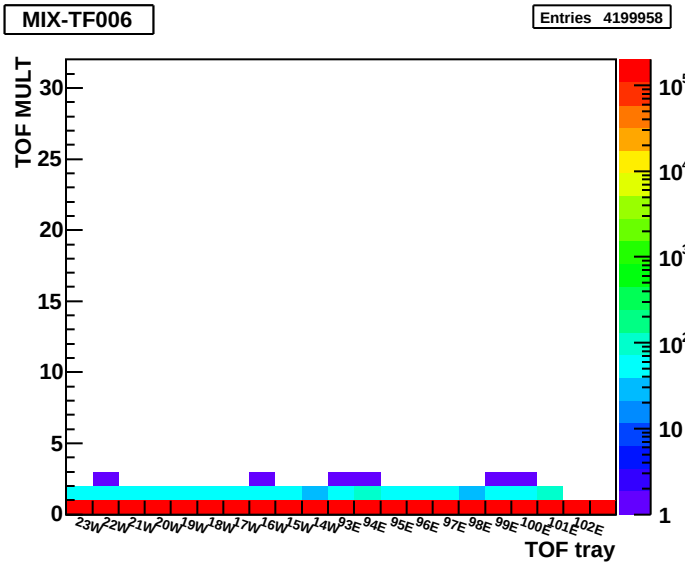

MIX-TF001
Entries 4199958
TOF MULT
TOF tray

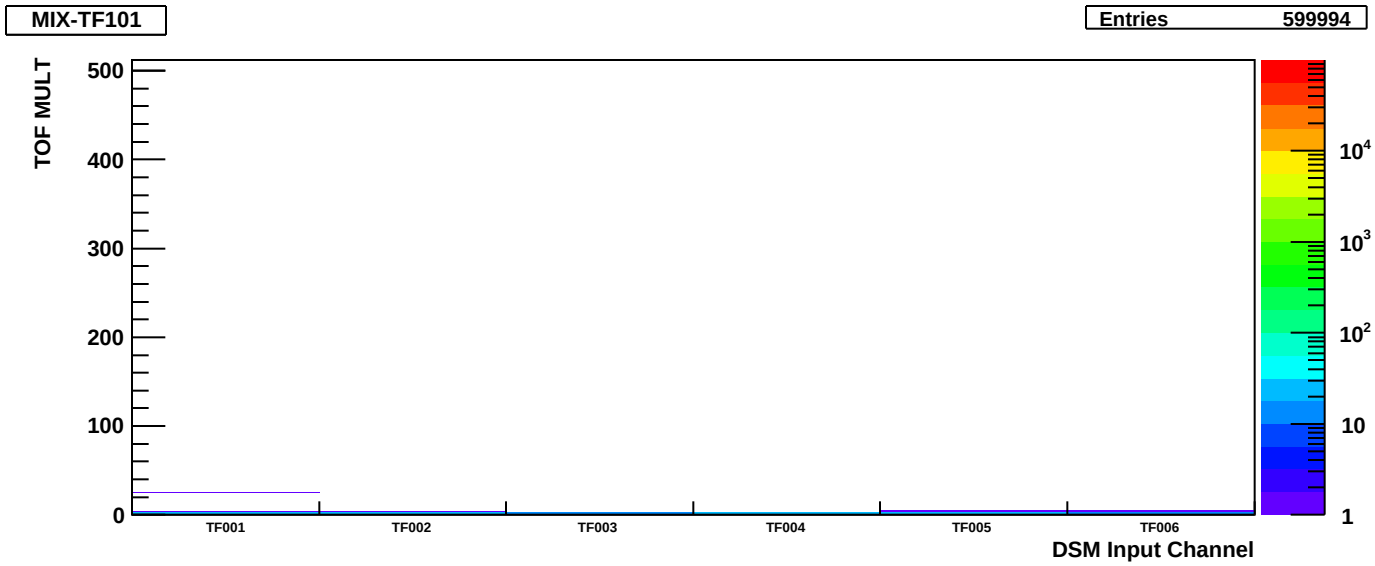

MIX-TF002
Entries 4199958
TOF MULT
TOF tray

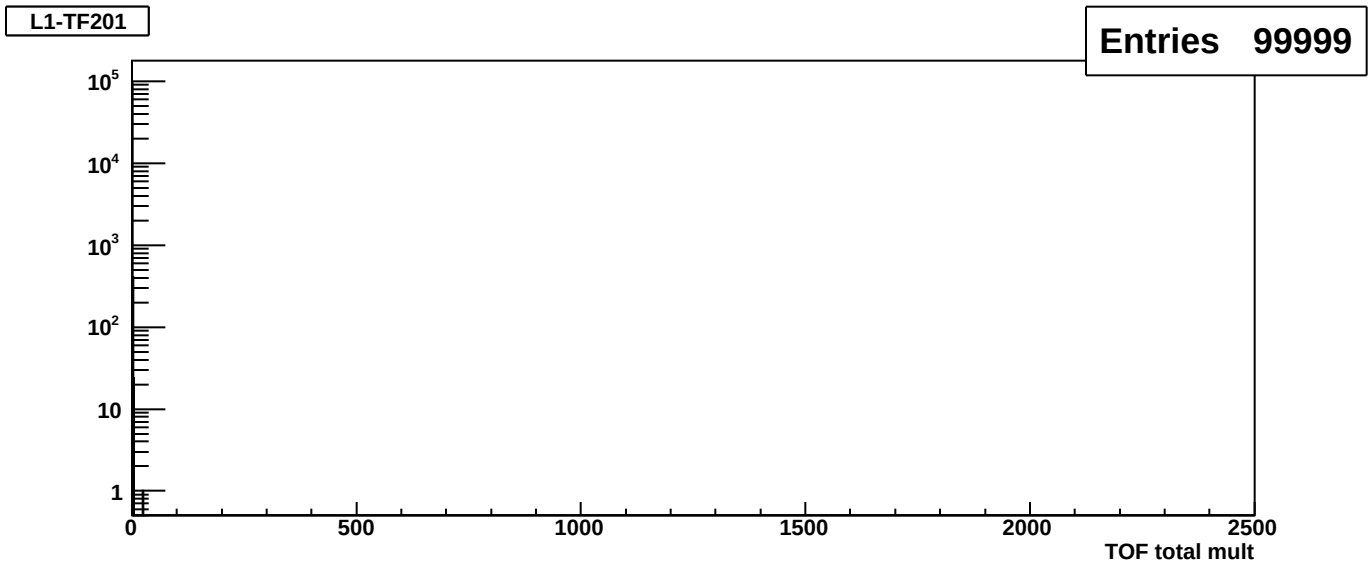

MIX-TF003
Entries 4199958
TOF MULT
TOF tray

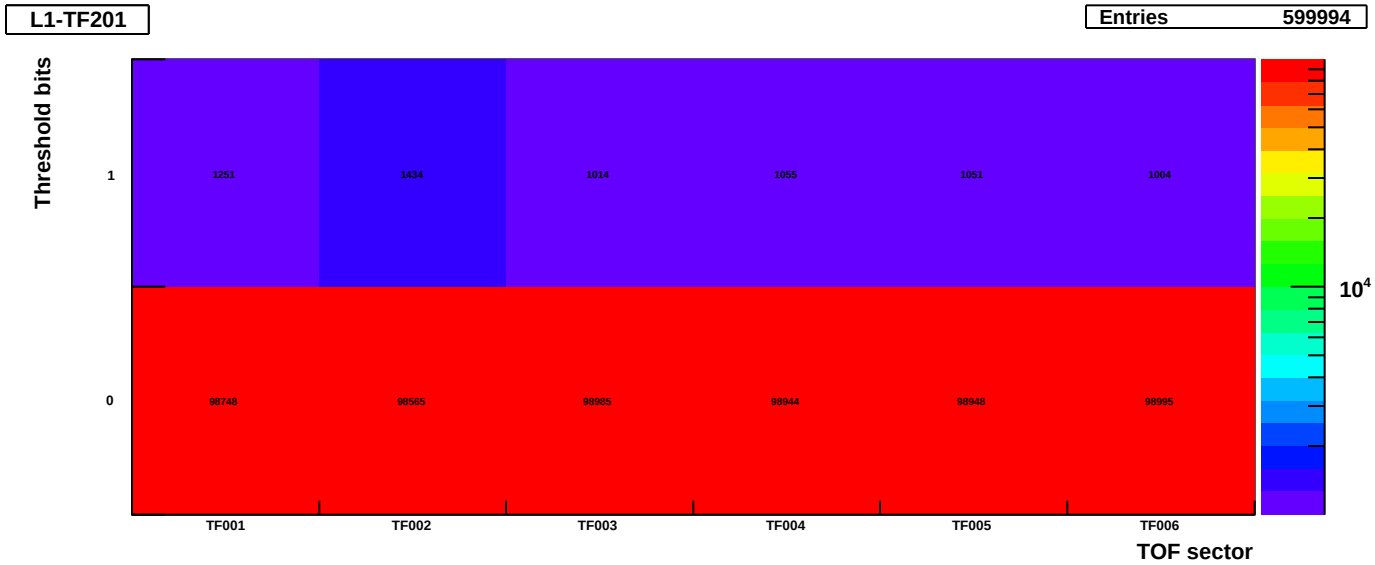

MIX-TF004
Entries 4199958
TOF MULT
TOF tray

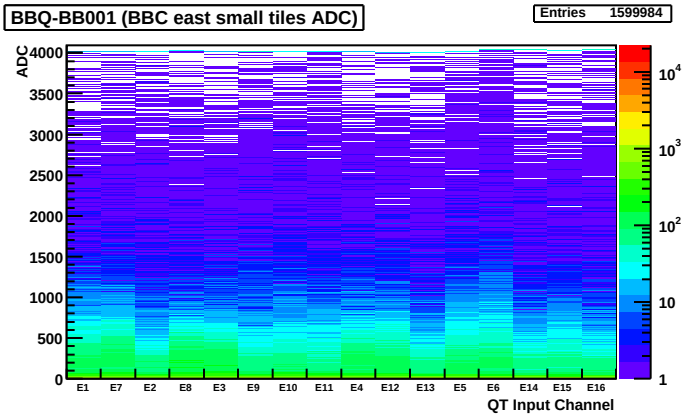

MIX-TF005
Entries 4199958
TOF MULT
TOF tray

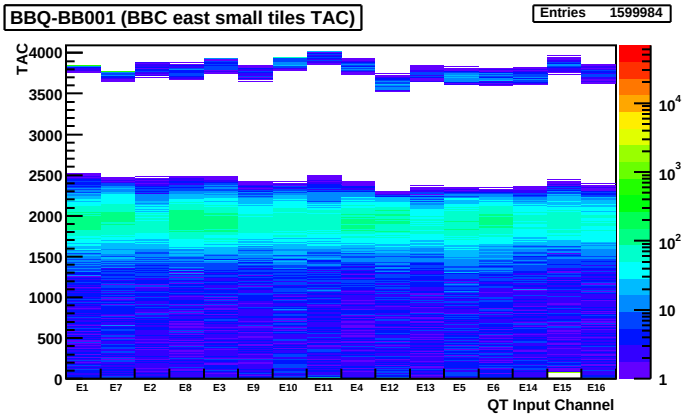

MIX-TF006
Entries 4199958
TOF MULT
TOF tray

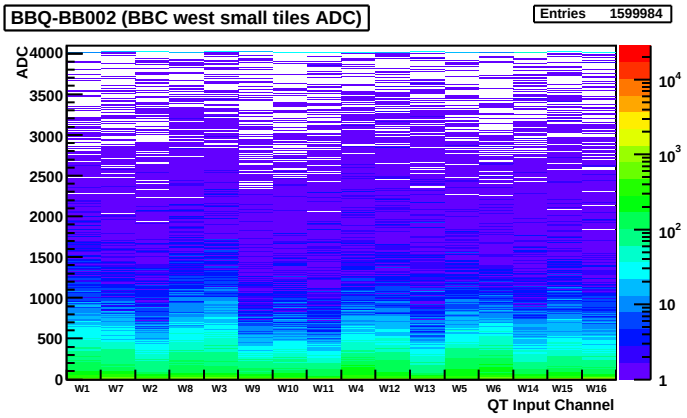

MIX-TF101
Entries 599994
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

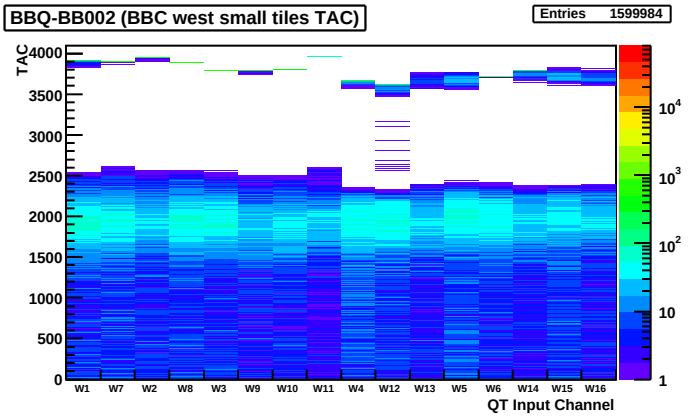

L1-TF201
Entries 99999
10^5
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

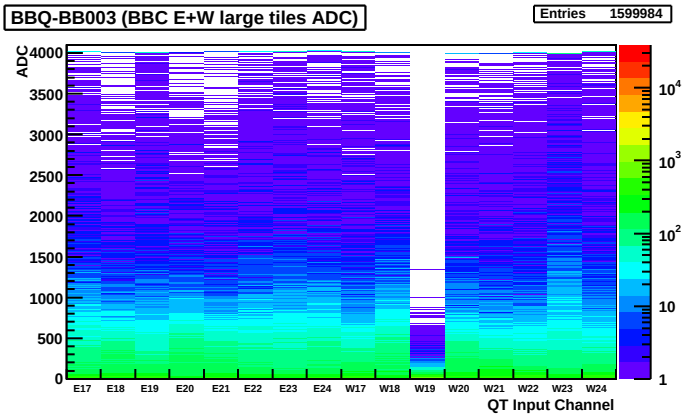

L1-TF201
Entries 599994
Threshold bits
1
0
1251
1434
1014
1055
1051
1004
98748
98565
98985
98944
98948
98995
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

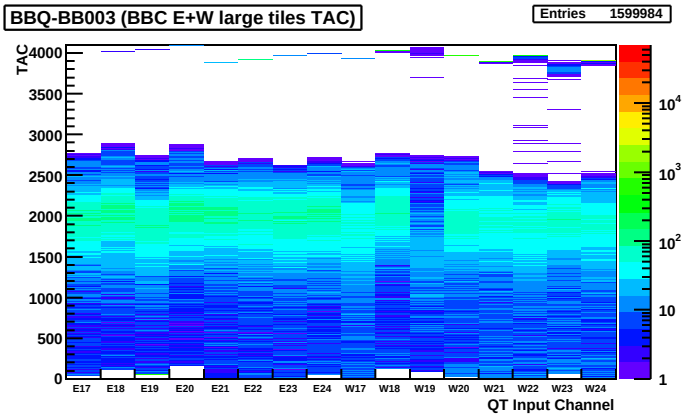

BBQ-BB001 (BBC east small tiles ADC)
Entries 1599984
ADC
QT Input Channel

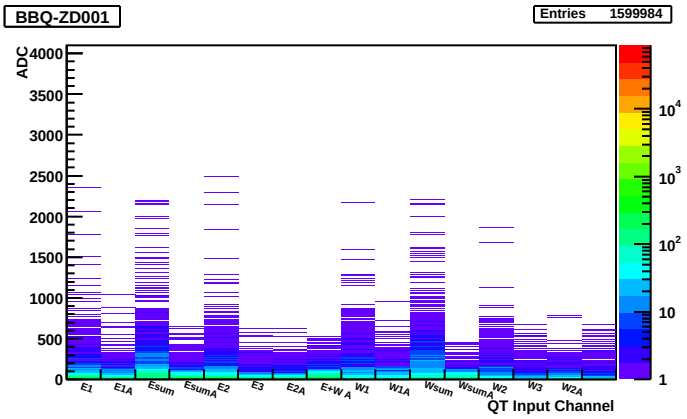

BBQ-BB001 (BBC east small tiles TAC)
Entries 1599984
TAC
QT Input Channel

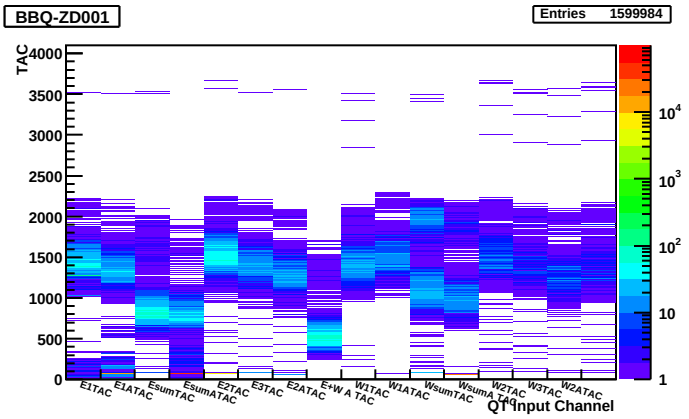

BBQ-BB002 (BBC west small tiles ADC)
Entries 1599984
ADC
QT Input Channel

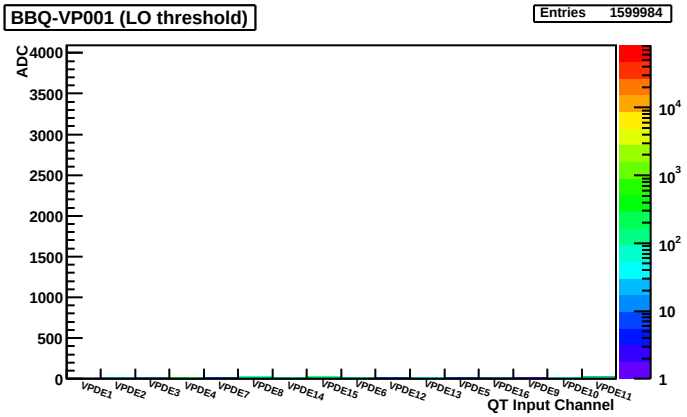

BBQ-BB002 (BBC west small tiles TAC)
Entries 1599984
TAC
QT Input Channel

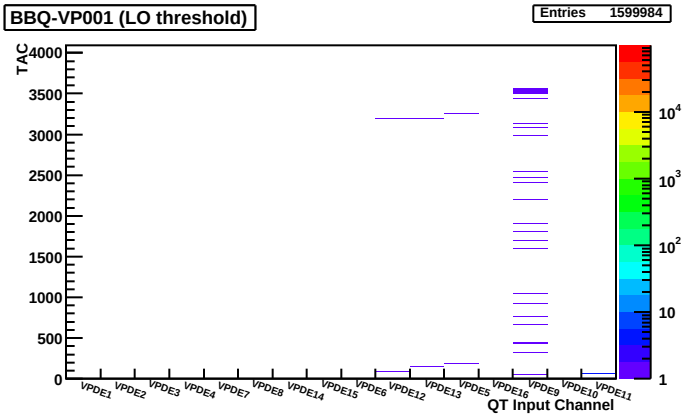

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1599984
ADC
QT Input Channel

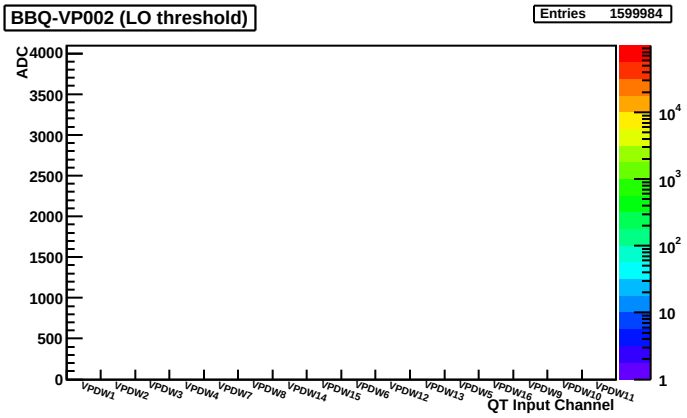

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1599984
TAC
QT Input Channel

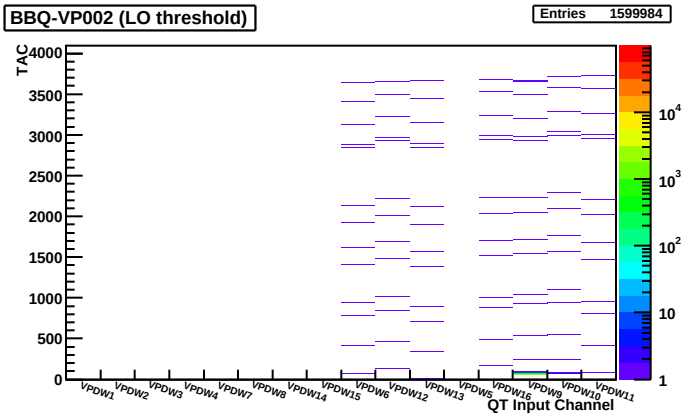

BBQ-ZD001
Entries 1599984
ADC
QT Input Channel

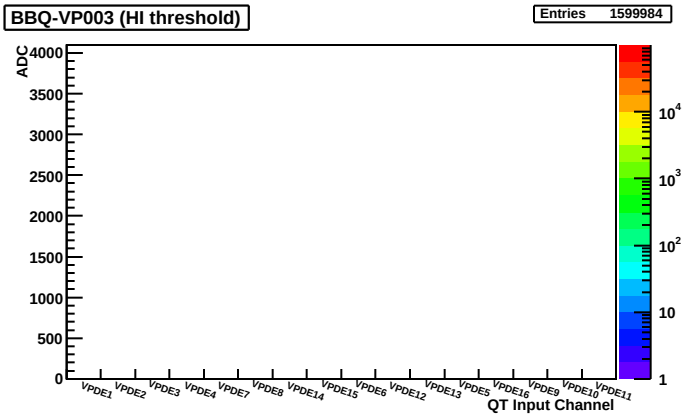

BBQ-ZD001
Entries 1599984
TAC
QT Input Channel

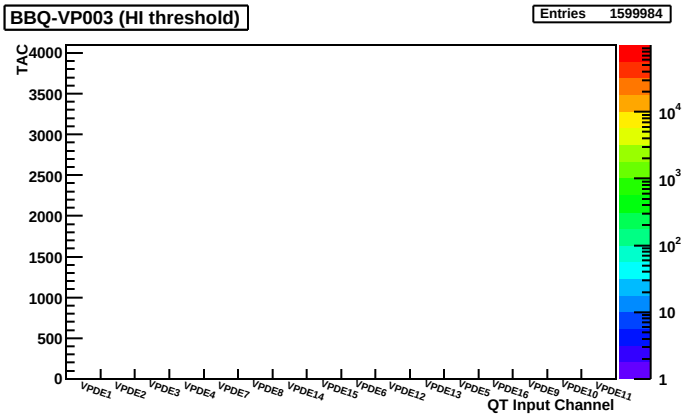

BBQ-VP001 (LO threshold)
Entries 1599984
ADC
QT Input Channel

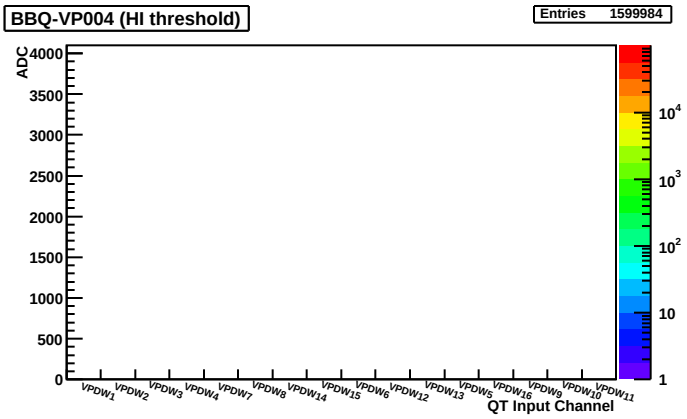

BBQ-VP001 (LO threshold)
Entries 1599984
TAC
QT Input Channel

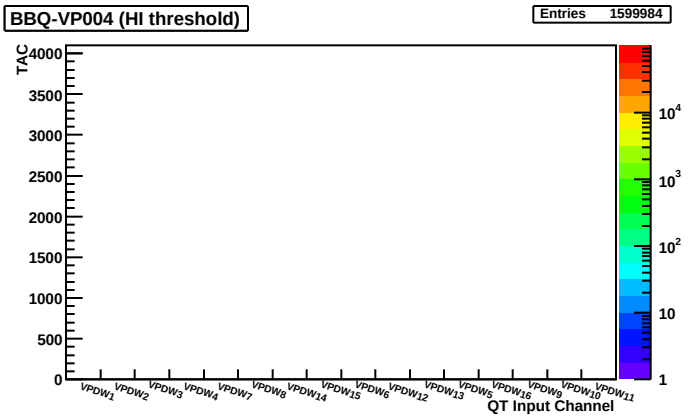

BBQ-VP002 (LO threshold)
Entries 1599984
ADC
QT Input Channel

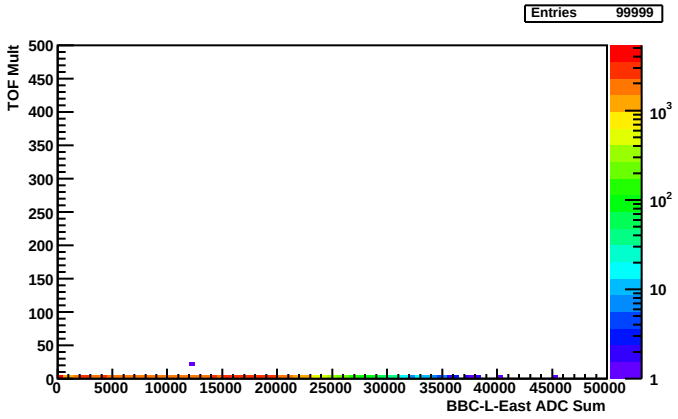

BBQ-VP002 (LO threshold)
Entries 1599984
TAC
QT Input Channel

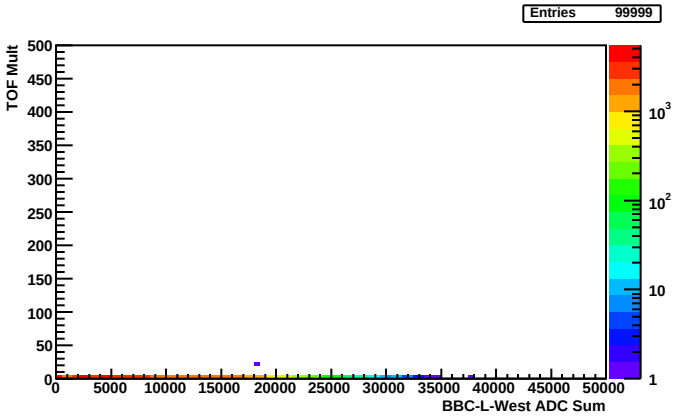

BBQ-VP003 (HI threshold)
Entries 1599984
ADC
QT Input Channel

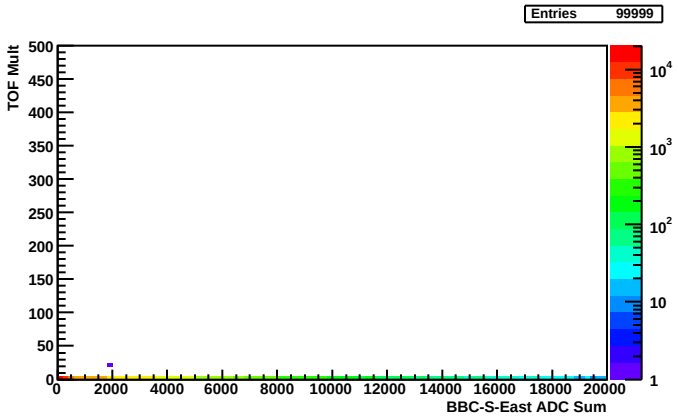

BBQ-VP003 (HI threshold)
Entries 1599984
TAC
QT Input Channel

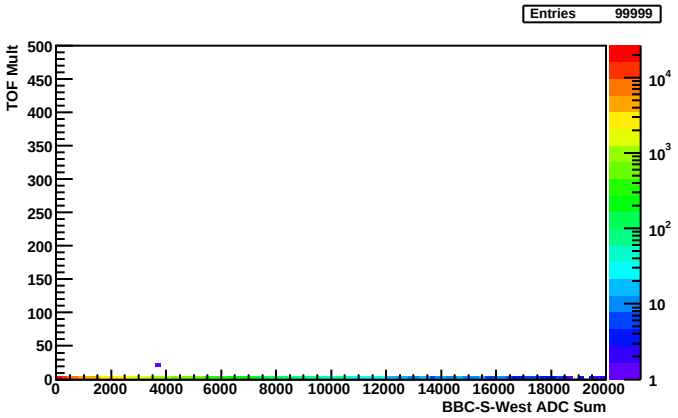

BBQ-VP004 (HI threshold)
Entries 1599984
ADC
QT Input Channel

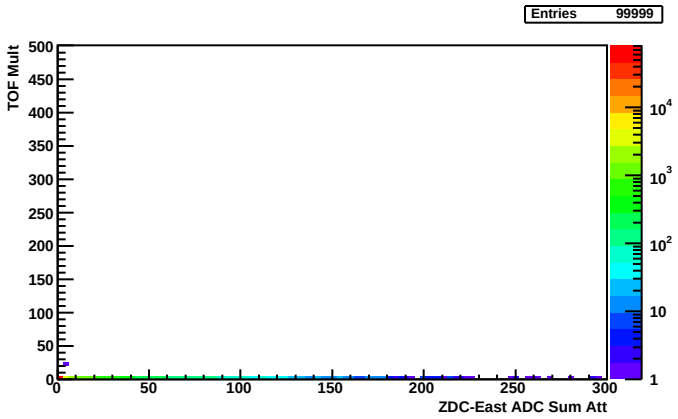

BBQ-VP004 (HI threshold)
Entries 1599984
TAC
QT Input Channel

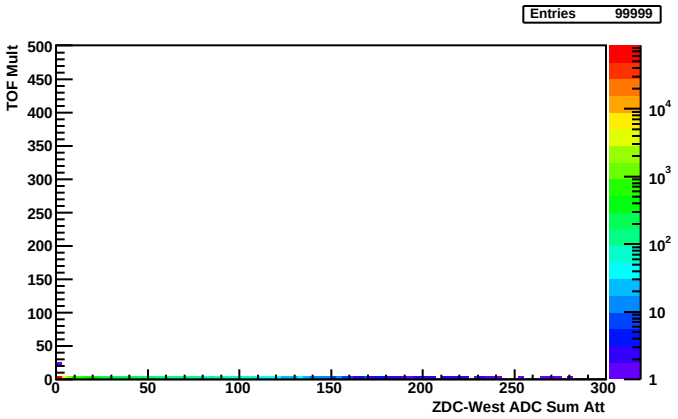

Entries 99999
TOF Mult
BBC-L-East ADC Sum

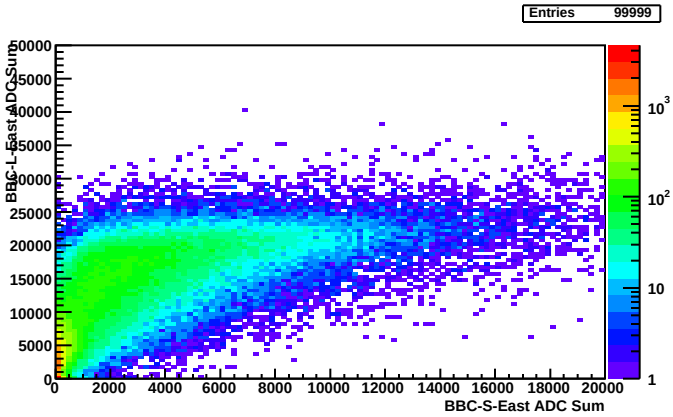

Entries 99999
TOF Mult
BBC-L-West ADC Sum

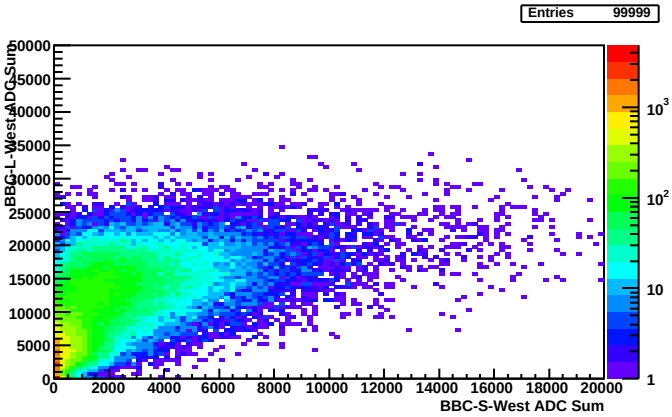

Entries 99999
TOF Mult
BBC-S-East ADC Sum

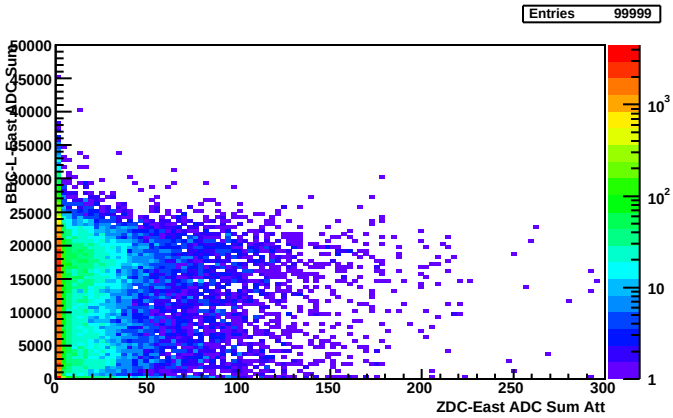

Entries 99999
TOF Mult
BBC-S-West ADC Sum

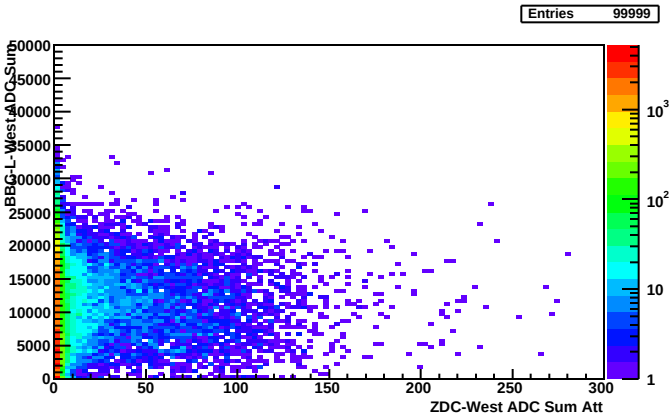

Entries 99999
TOF Mult
ZDC-East ADC Sum Att

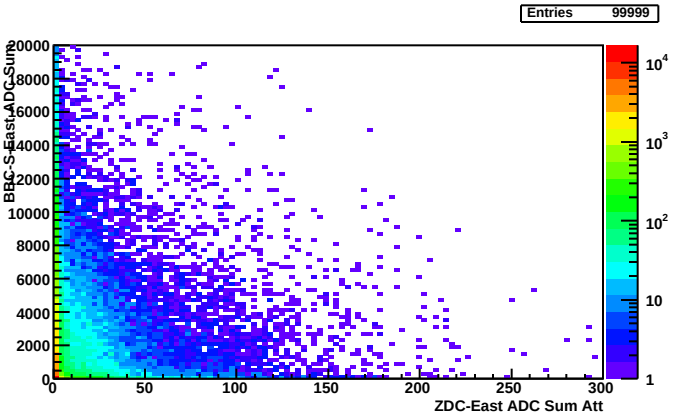

Entries 99999
TOF Mult
ZDC-West ADC Sum Att

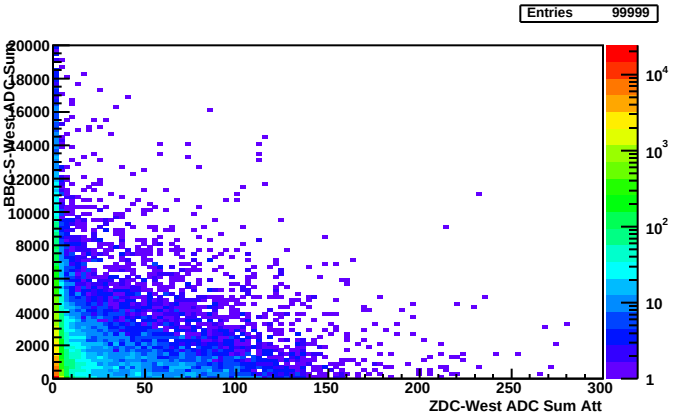

Entries 99999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

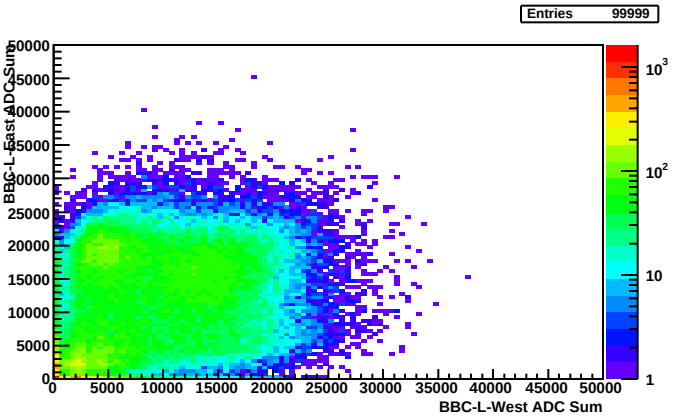

Entries 99999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

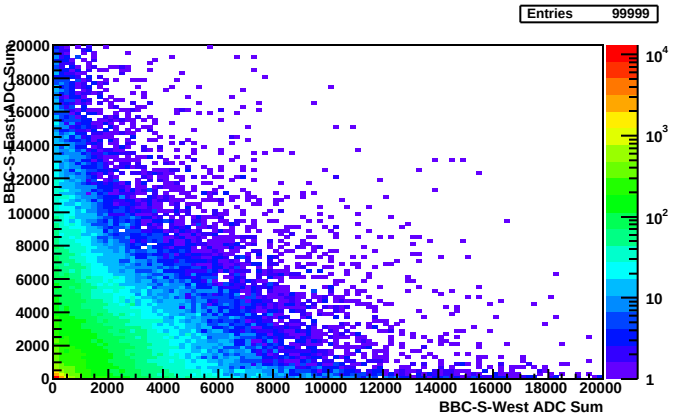

Entries 99999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

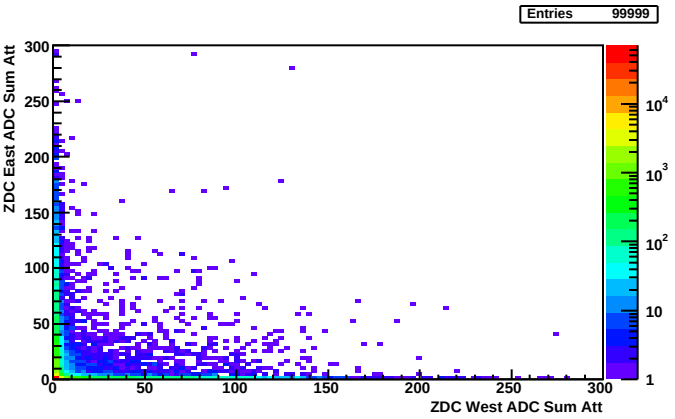

Entries 99999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

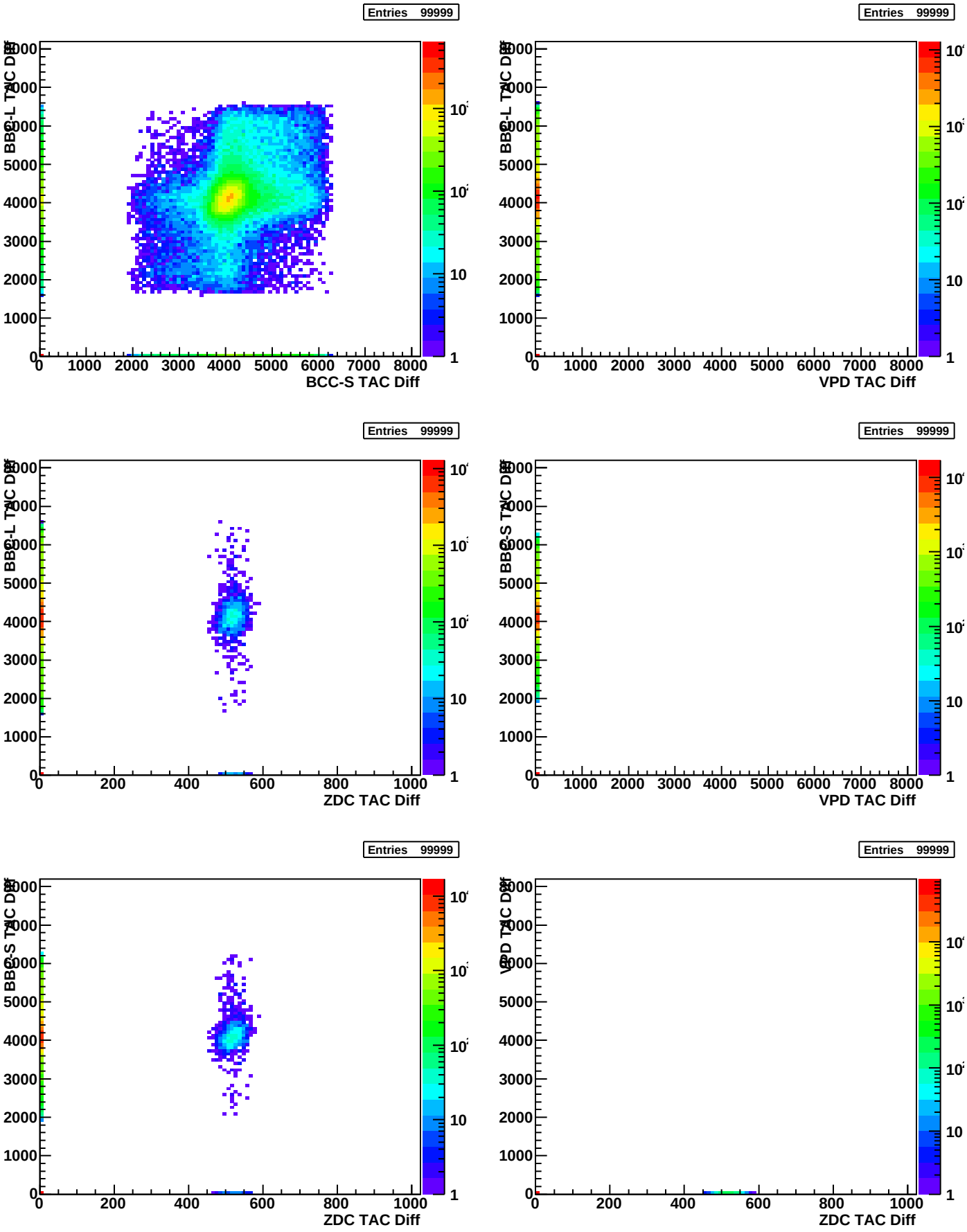

Entries 99999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

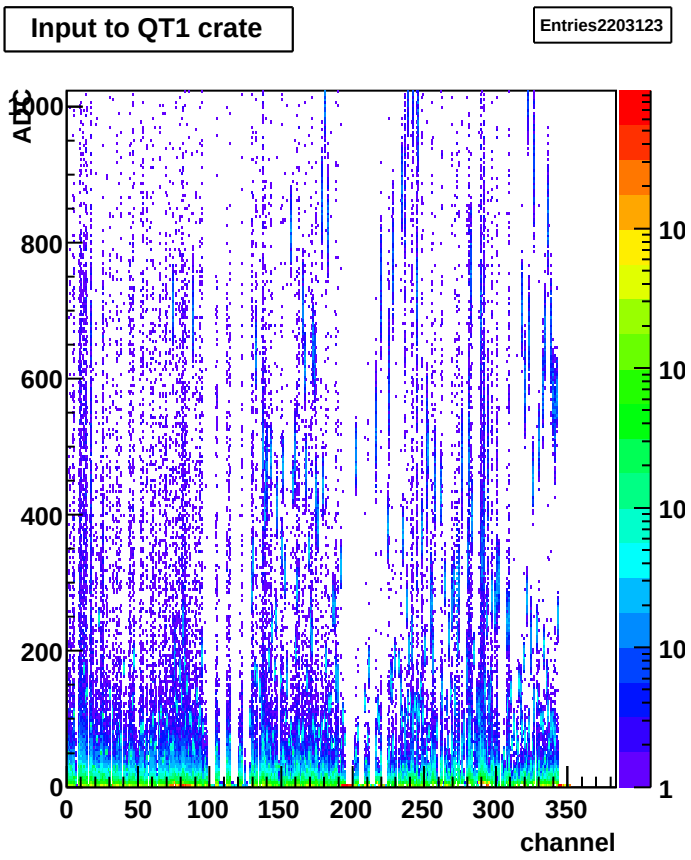

Entries 99999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

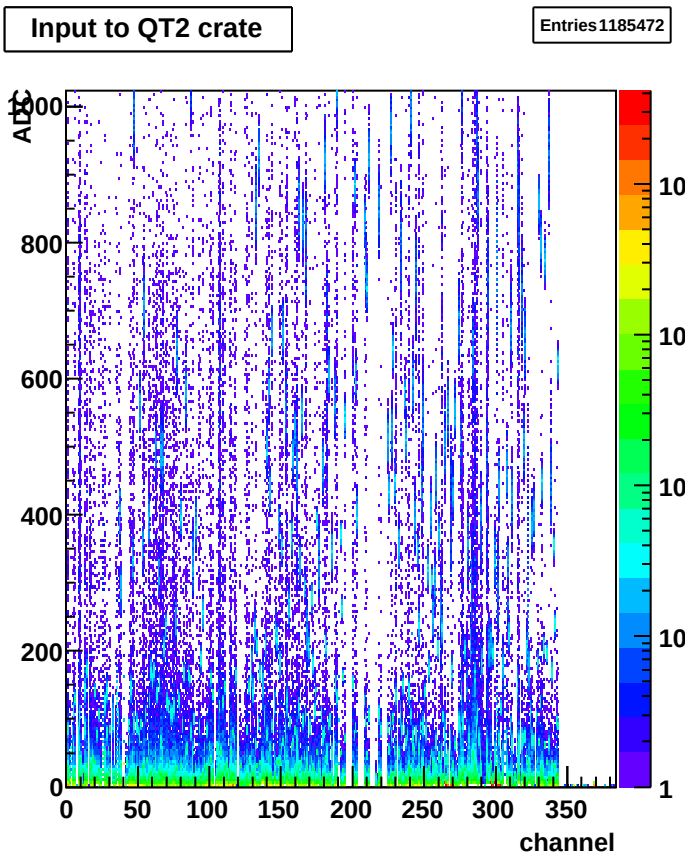

Entries 99999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

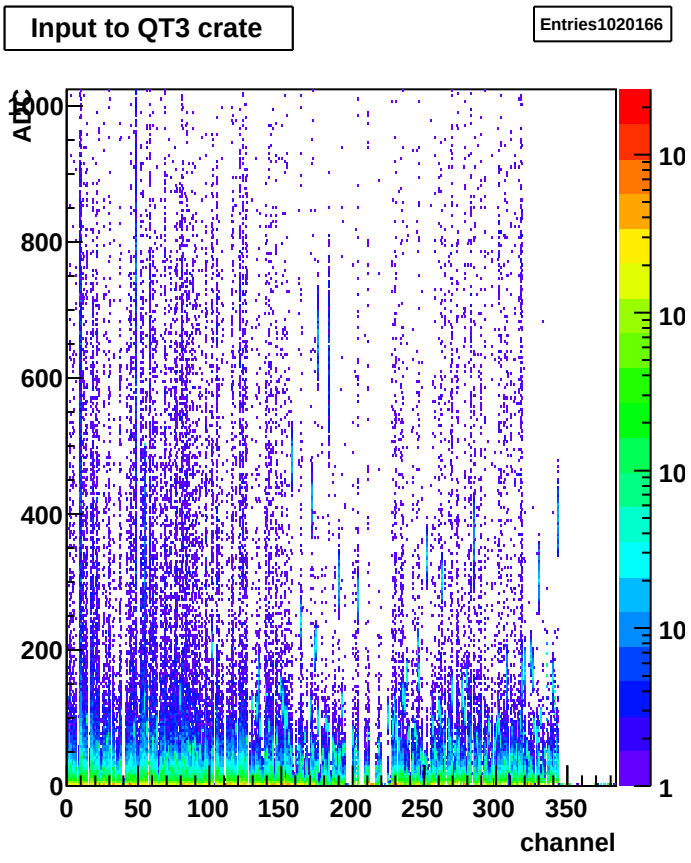

Entries 99999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

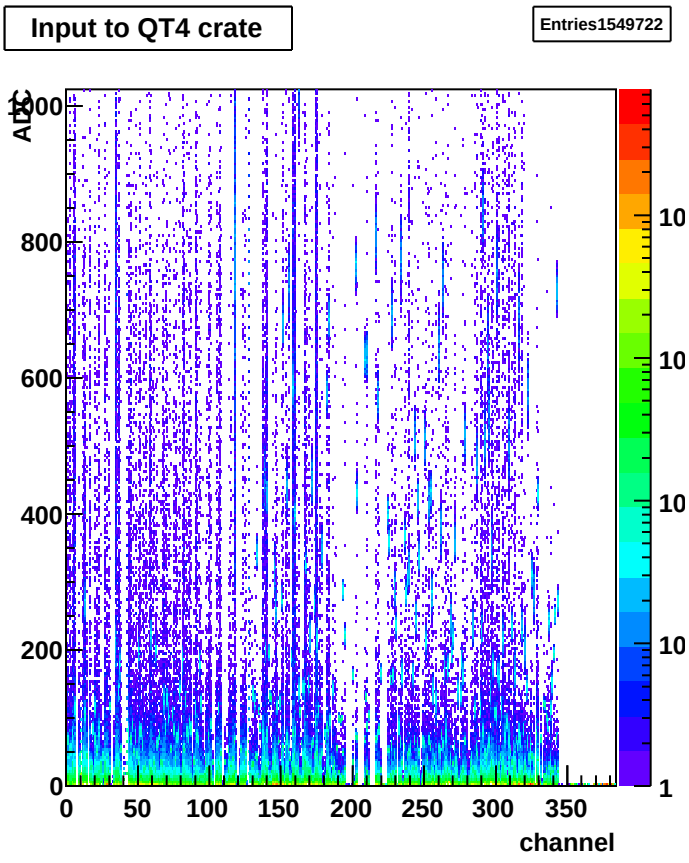

Entries 99999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

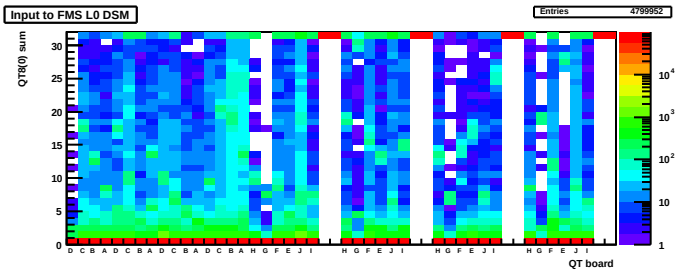

Entries 99999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 99999
BBC-L TAC Diff
VPD TAC Diff
Entries 99999
BBC-L TAC Diff
ZDC TAC Diff
Entries 99999
BBC-S TAC Diff
VPD TAC Diff
Entries 99999
BBC-S TAC Diff
ZDC TAC Diff
Entries 99999
VPD TAC Diff
ZDC TAC Diff

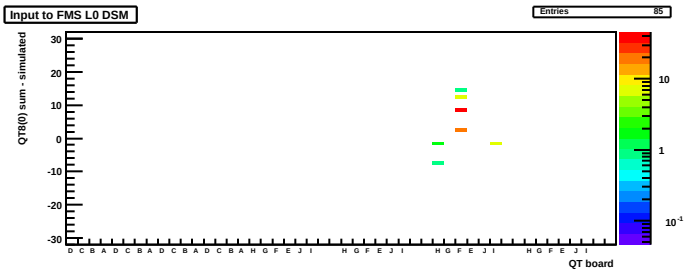

Input to QT1 crate
Entries2203123
ADC
channel

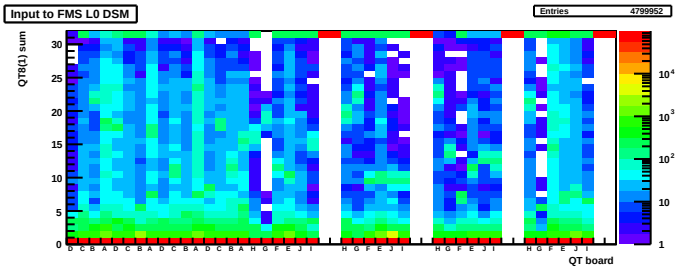

Input to QT2 crate
Entries1185472
ADC
channel

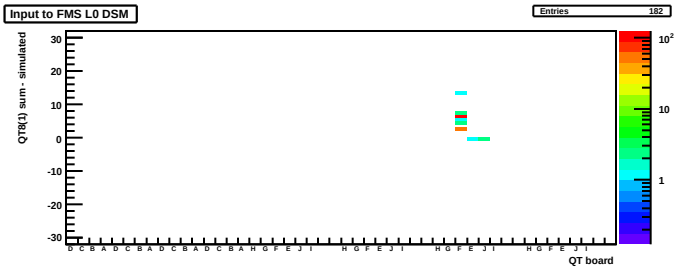

Input to QT3 crate
Entries1020166
ADC
channel

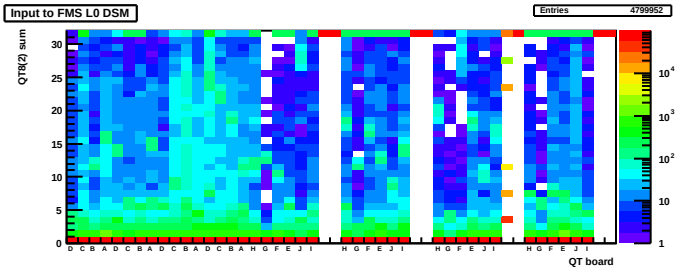

Input to QT4 crate
Entries1549722
ADC
channel

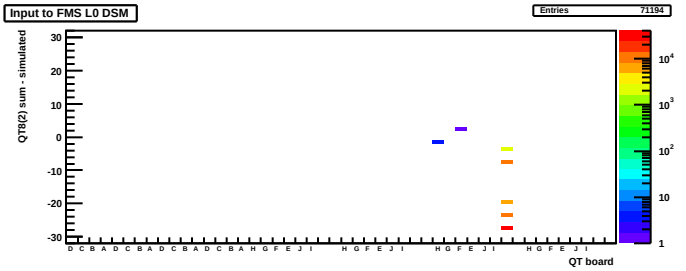

Input to FMS L0 DSM
Entries 4799952
QT8(0) sum
QT board

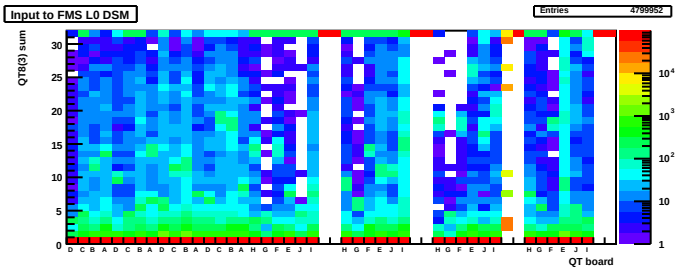

Input to FMS L0 DSM
Entries 85
QT8(0) sum - simulated
QT board

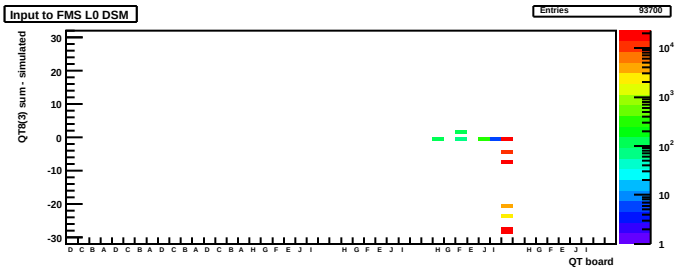

Input to FMS L0 DSM
Entries 4799952
QT8(1) sum
QT board

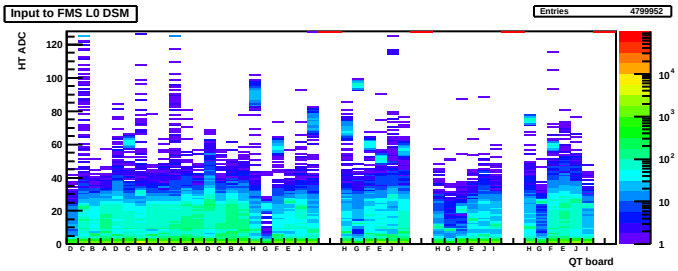

Input to FMS L0 DSM
Entries 182
QT8(1) sum - simulated
QT board

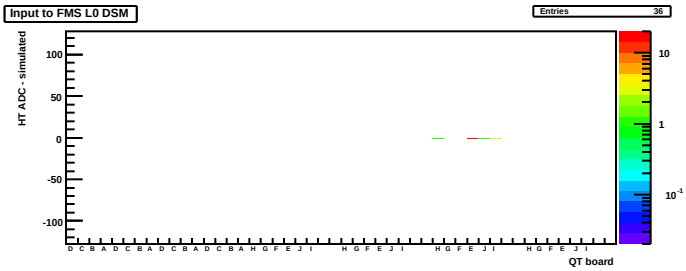

Input to FMS L0 DSM
Entries 4799952
QT8(2) sum
QT board

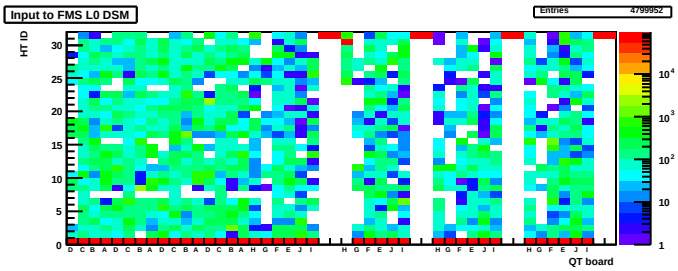

Input to FMS L0 DSM
Entries 71194
QT8(2) sum - simulated
QT board

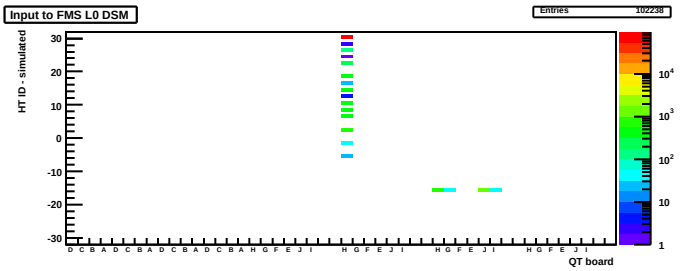

Input to FMS L0 DSM
Entries 4799952
QT8(3) sum
QT board

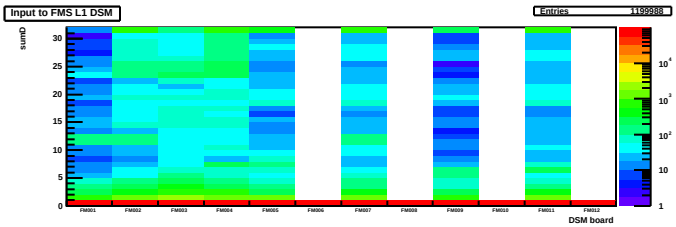

Input to FMS L0 DSM
Entries 93700
QT8(3) sum - simulated
QT board

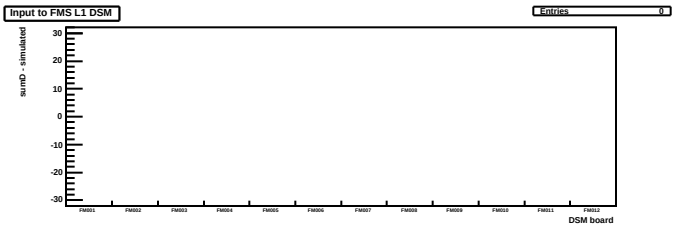

Input to FMS L0 DSM
Entries 4799952
HT ADC
QT board

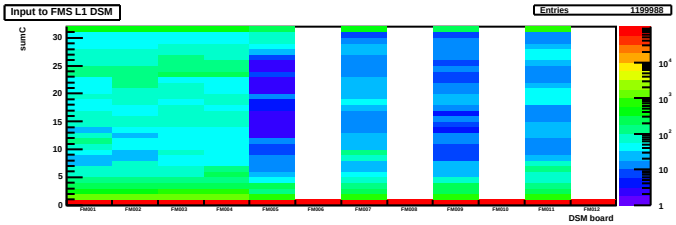

Input to FMS L0 DSM
Entries 36
HT ADC - simulated
QT board

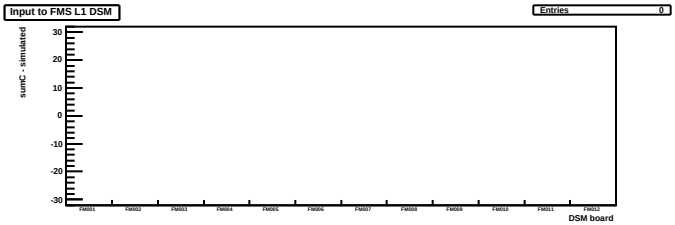

Input to FMS L0 DSM
Entries 4799952
HT ID
QT board

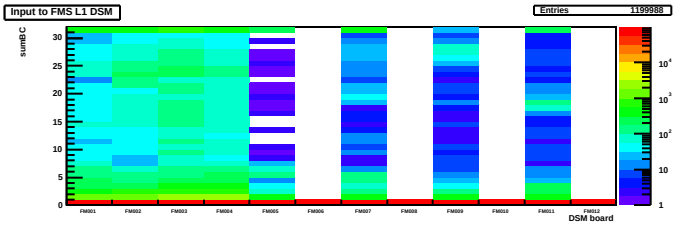

Input to FMS L0 DSM
Entries 102238
HT ID - simulated
QT board

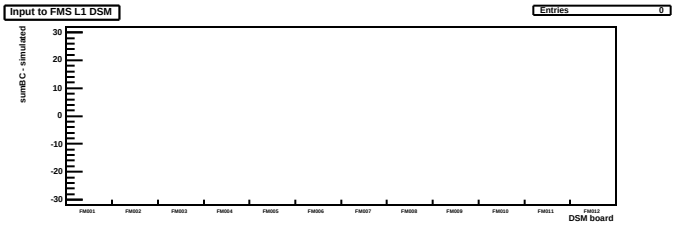

Input to FMS L1 DSM
Entries 1199988
sumD
DSM board

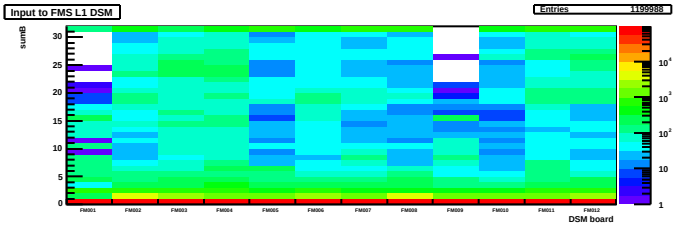

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

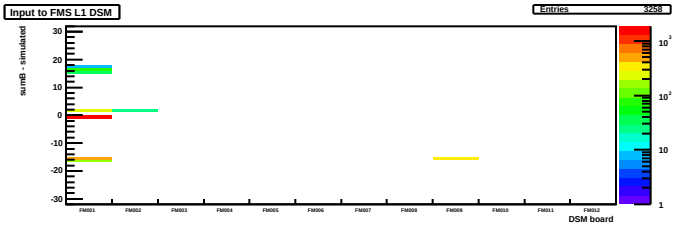

Input to FMS L1 DSM
Entries 1199988
sumC
DSM board

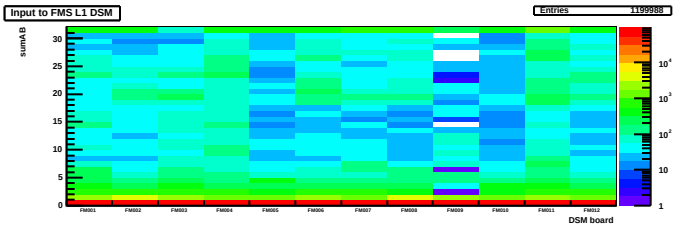

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

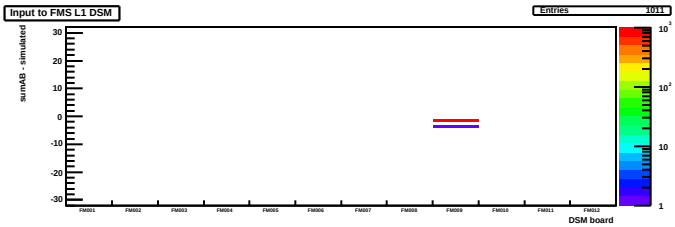

Input to FMS L1 DSM
Entries 1199988
sumBC
DSM board

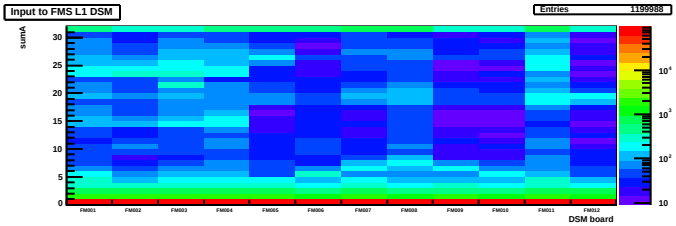

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

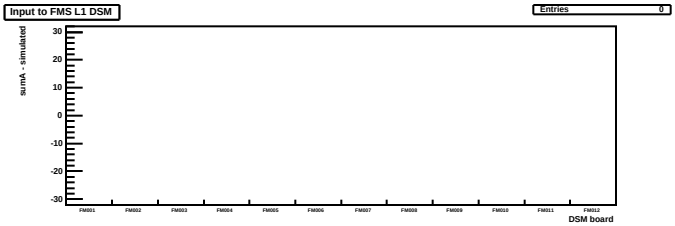

Input to FMS L1 DSM
Entries 1199988
sumB
DSM board

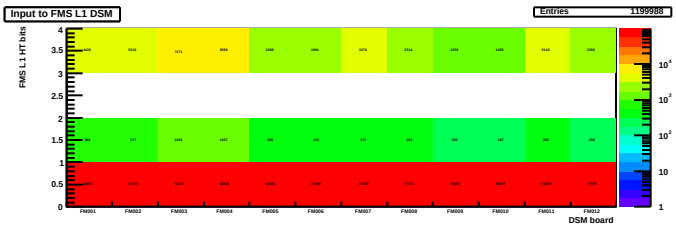

Input to FMS L1 DSM
Entries 3258
sumB - simulated
DSM board

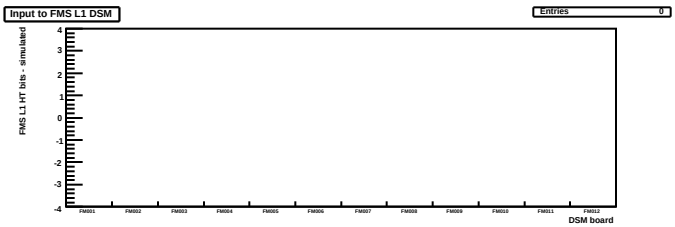

Input to FMS L1 DSM
Entries 1199988
sumAB
DSM board

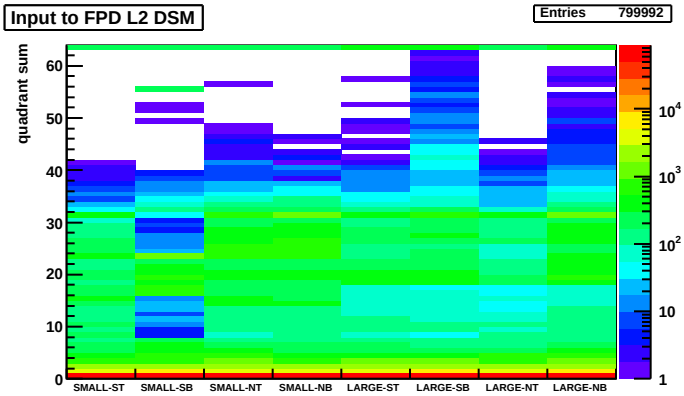

Input to FMS L1 DSM
Entries 1011
sumAB - simulated
DSM board

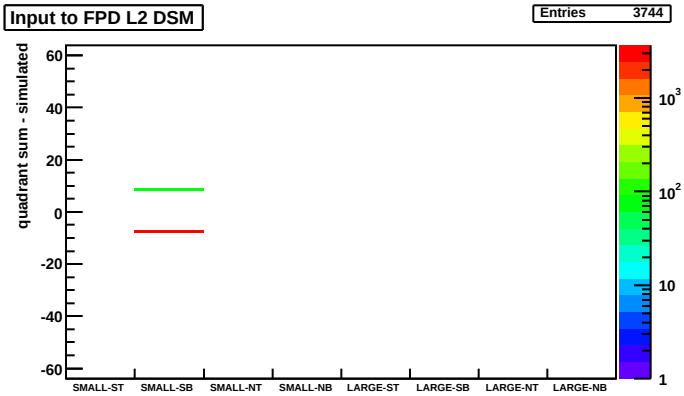

Input to FMS L1 DSM
Entries 1199988
sumA
DSM board

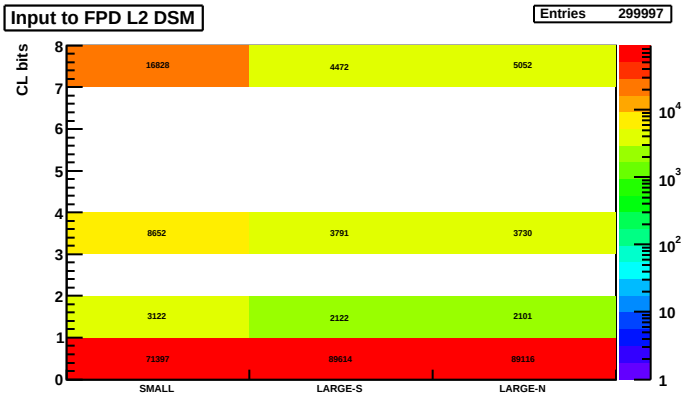

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

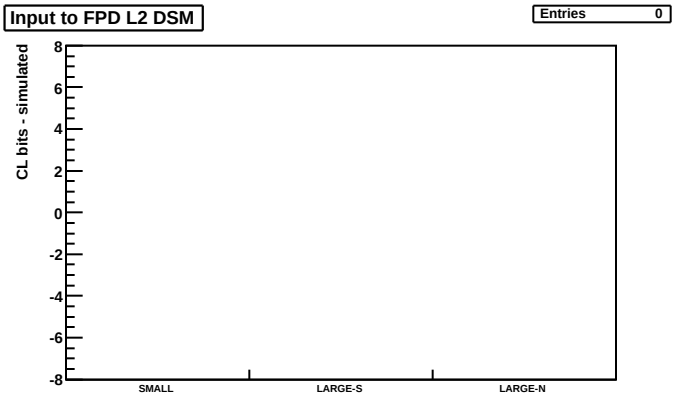

Input to FMS L1 DSM
Entries 1199988
FMS L1 HT bits
DSM board

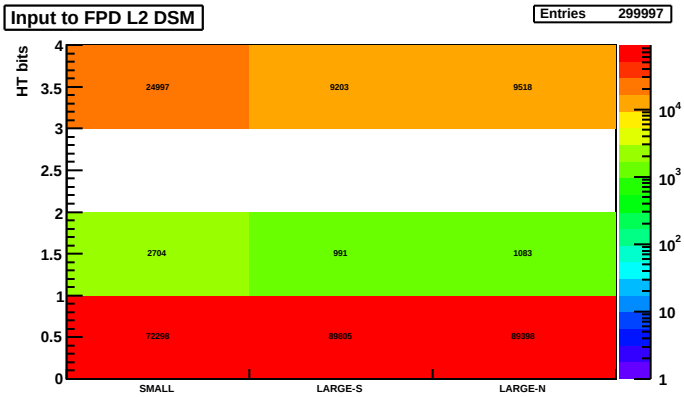

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

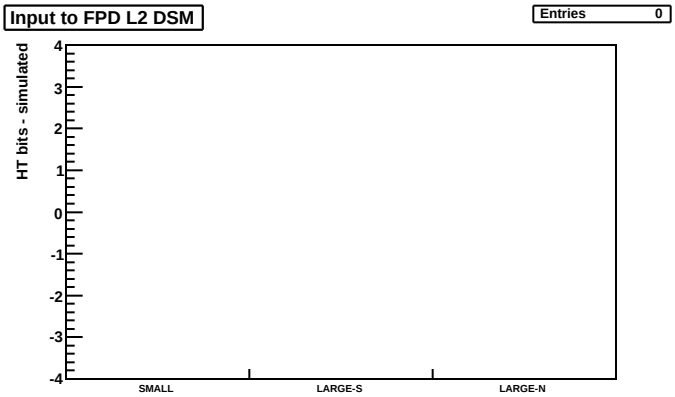

Input to FPD L2 DSM
Entries 799992
quadrant sum
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

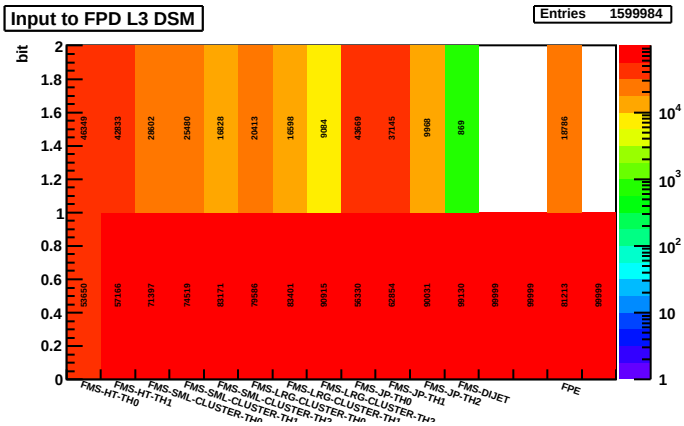

Input to FPD L2 DSM
Entries 3744
quadrant sum - simulated
SMALL-ST SMALL-SB SMALL-NT SMALL-NB LARGE-ST LARGE-SB LARGE-NT LARGE-NB

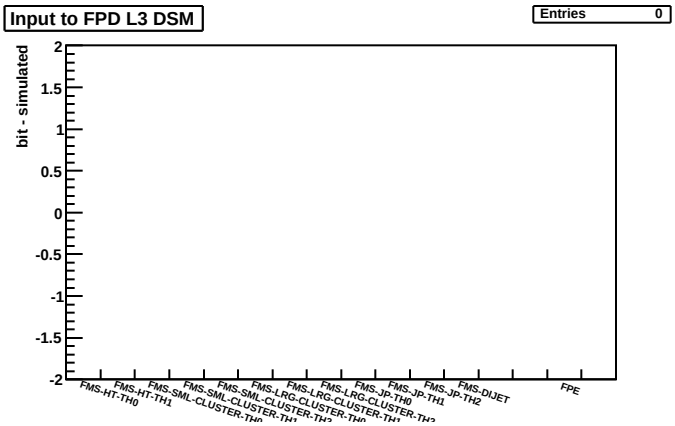

Input to FPD L2 DSM
Entries 299997
CL bits
16828 4472 5052
8652 3791 3730
3122 2122 2101
71397 89614 89116
SMALL LARGE-S LARGE-N

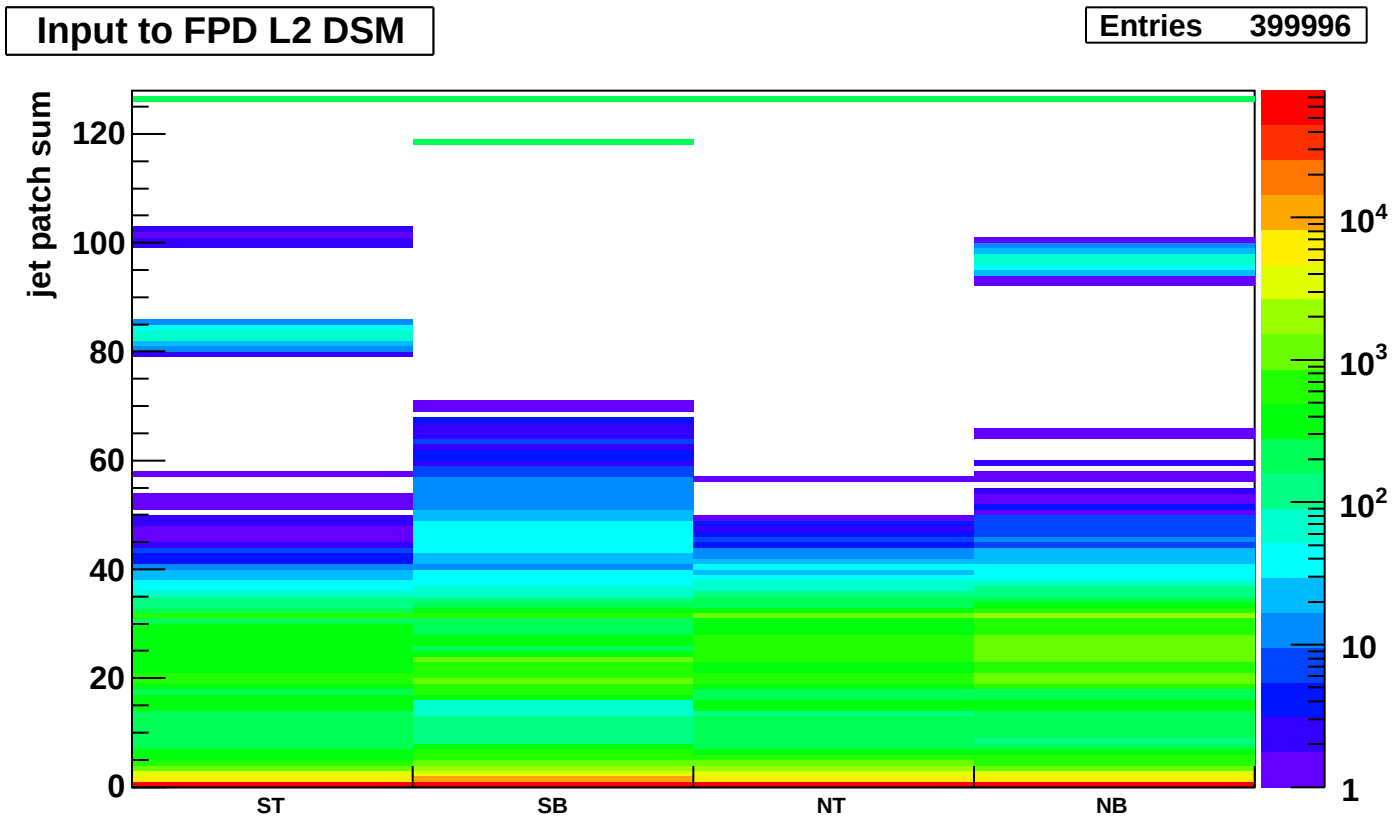

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL LARGE-S LARGE-N

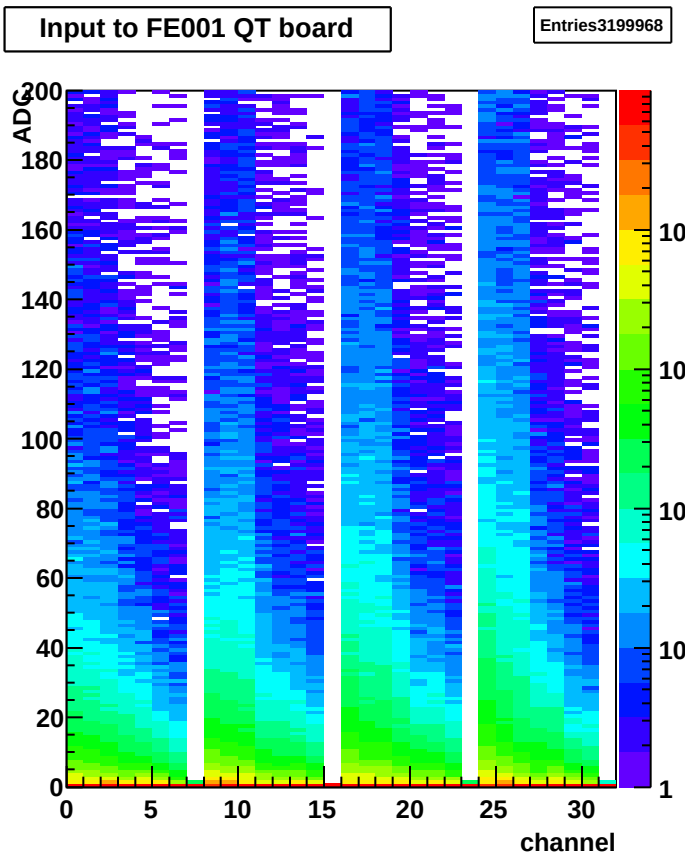

Input to FPD L2 DSM
Entries 299997
HT bits
24997 9203 9518
2704 991 1083
72298 89805 89398
SMALL LARGE-S LARGE-N

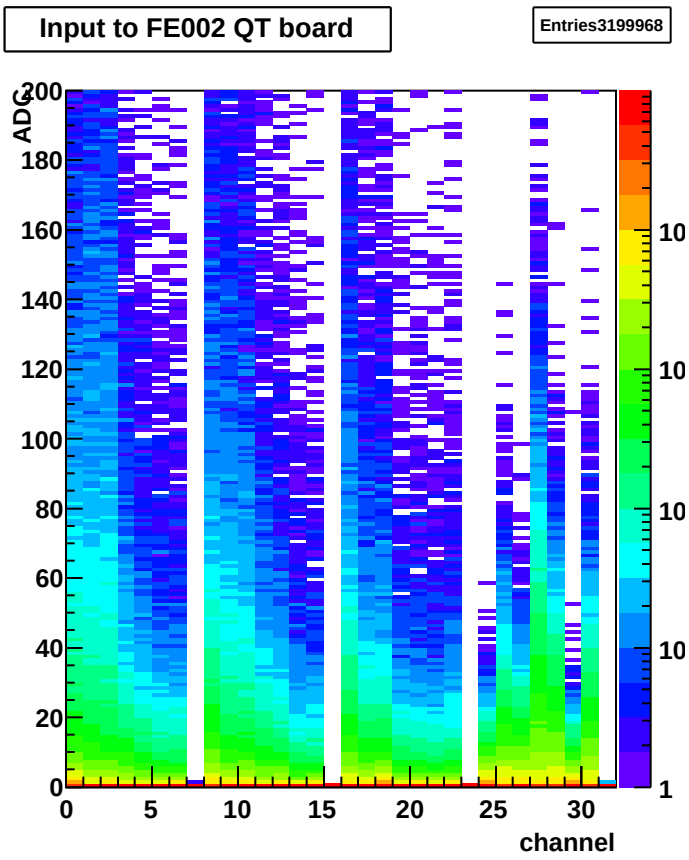

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL LARGE-S LARGE-N

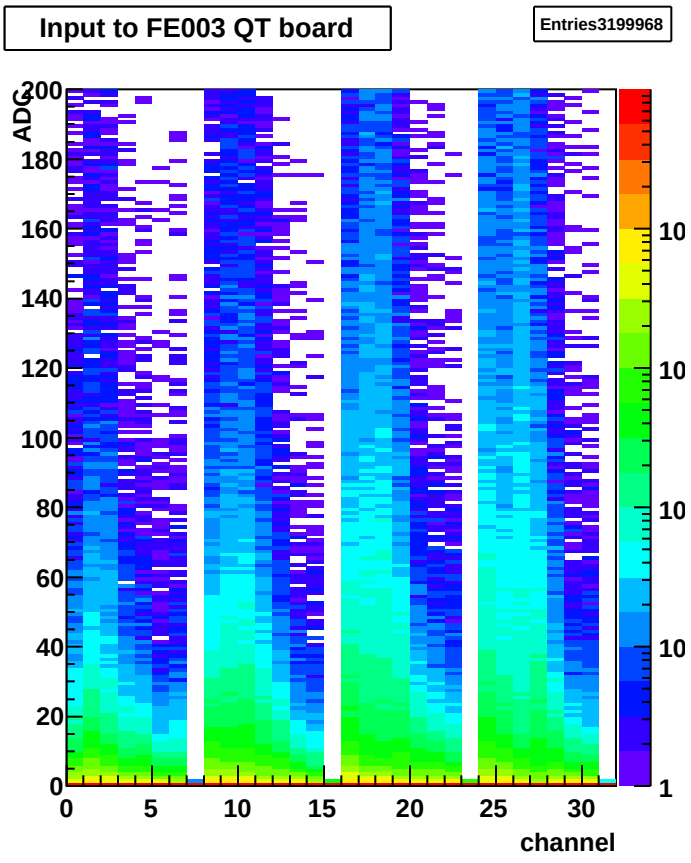

Input to FPD L3 DSM
Entries 1599984
bit
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

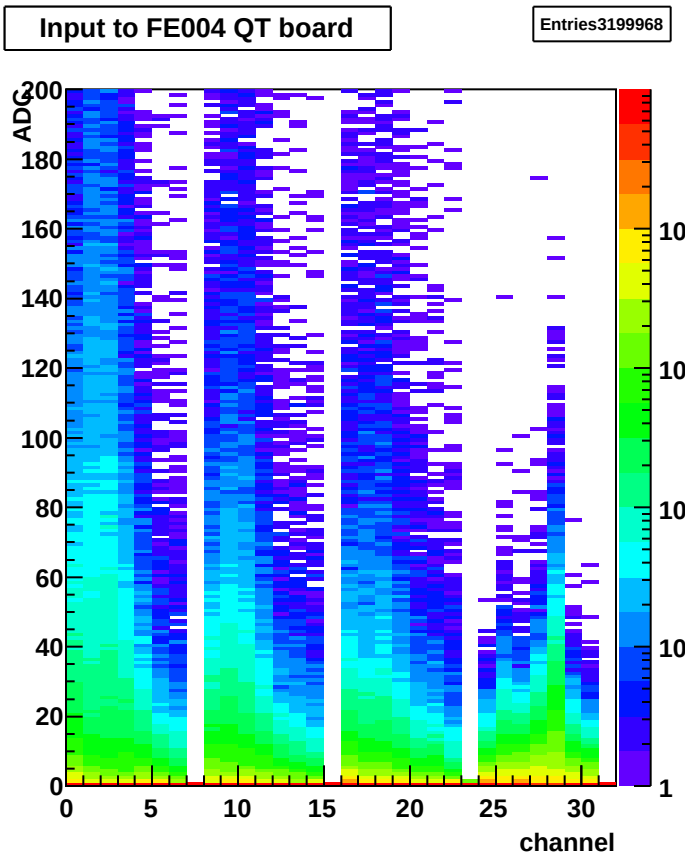

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0 FMS-HT-TH1 FMS-SML-CLUSTER-TH0 FMS-SML-CLUSTER-TH1 FMS-SML-CLUSTER-TH2 FMS-LRG-CLUSTER-TH0 FMS-LRG-CLUSTER-TH1 FMS-LRG-CLUSTER-TH2 FMS-JP-TH0 FMS-JP-TH1 FMS-JP-TH2 FMS-DIJET FPE

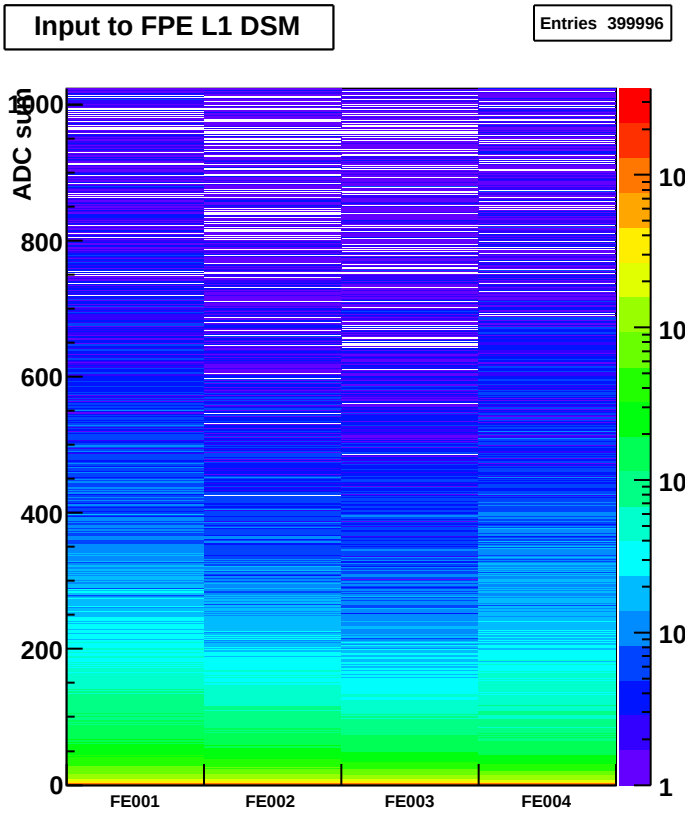

Input to FPD L2 DSM
Entries 399996
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4

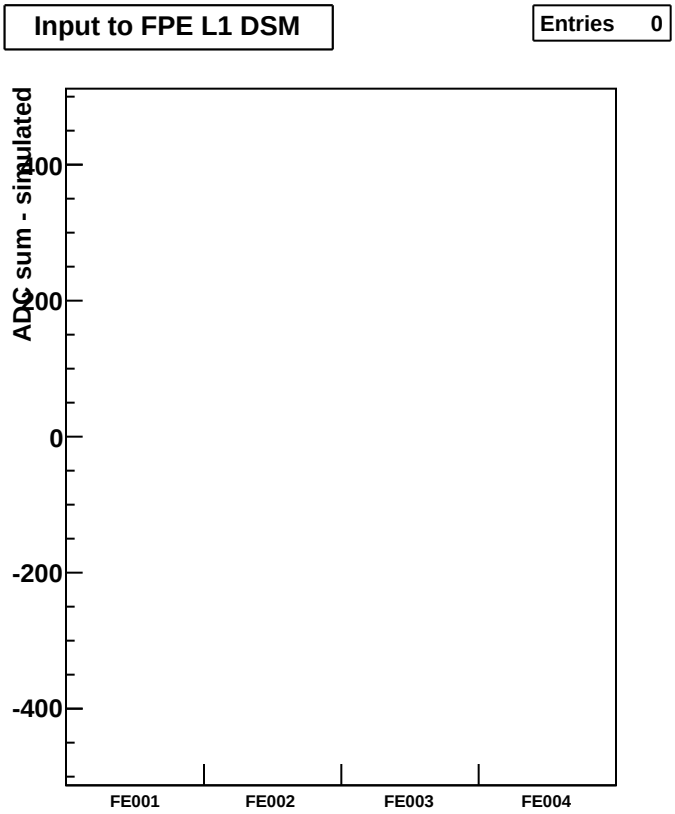

Input to FE001 QT board
Entries3199968
ADC
channel

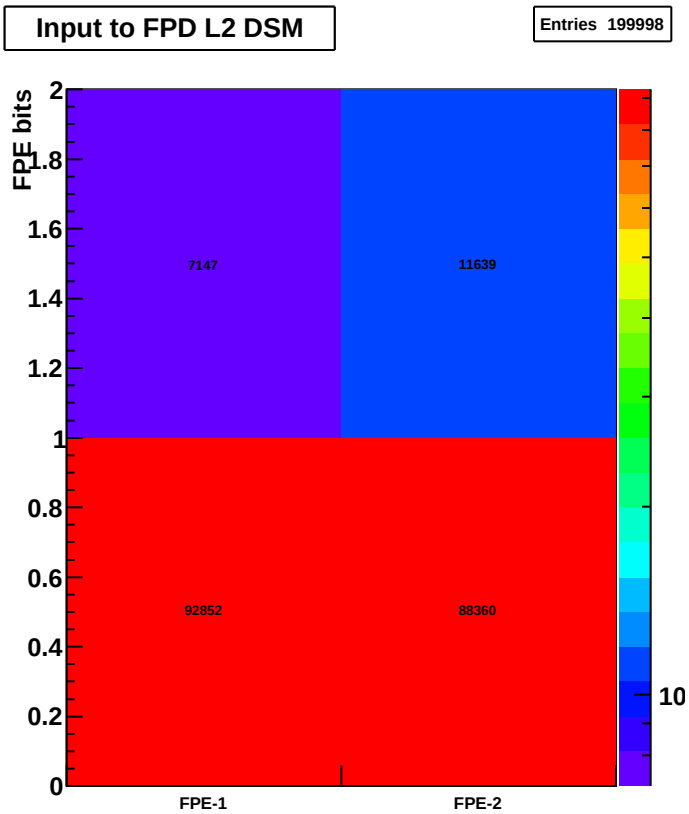

Input to FE002 QT board
Entries3199968
ADC
channel

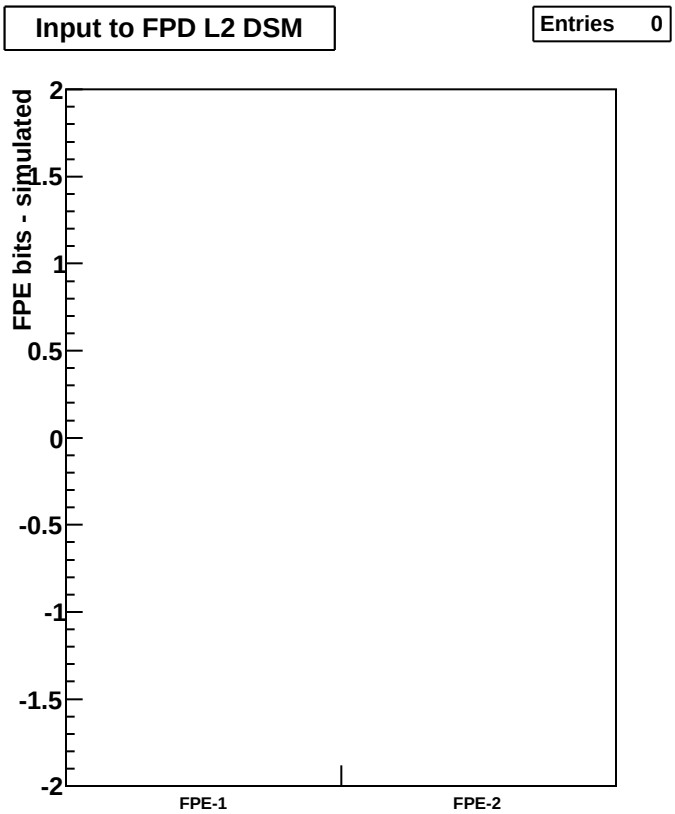

Input to FE003 QT board
Entries3199968
ADC
channel


Input to FE004 QT board
Entries3199968
ADC
channel


Input to FPE L1 DSM
Entries 399996
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
1


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


Input to FPD L2 DSM
Entries 199998
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
7147
11639
92852
88360
FPE-1
FPE-2
10


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