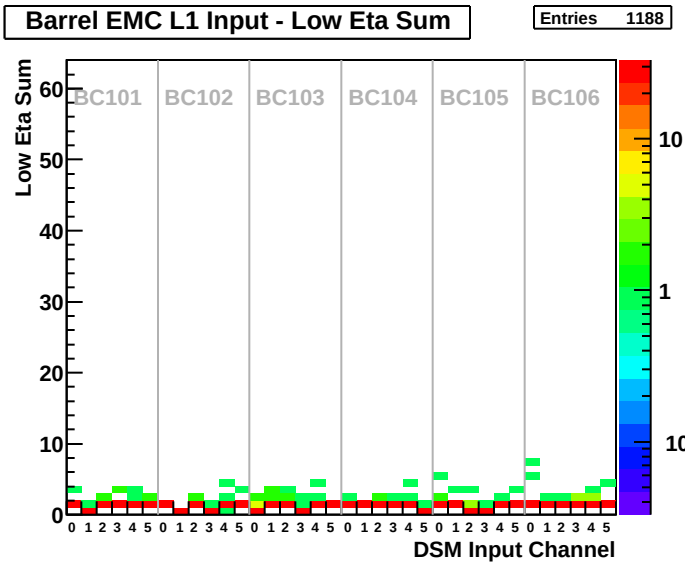
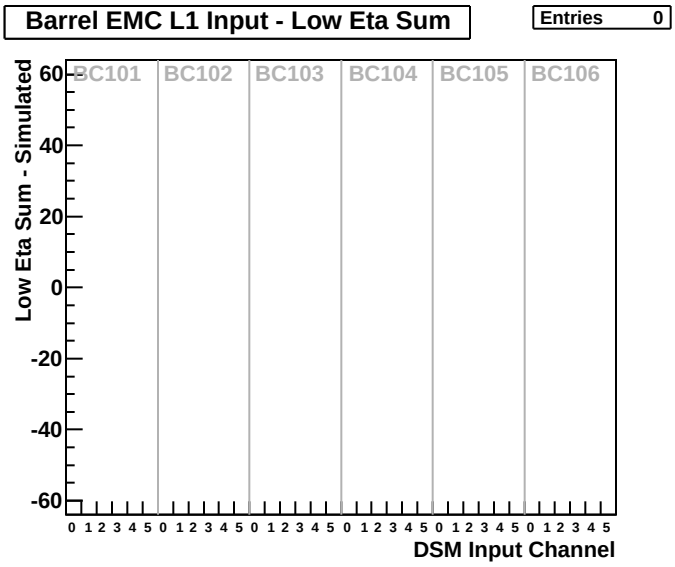
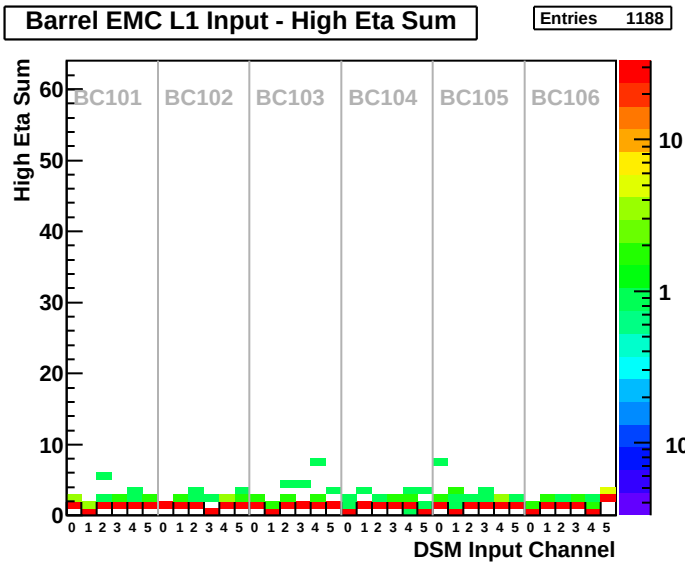
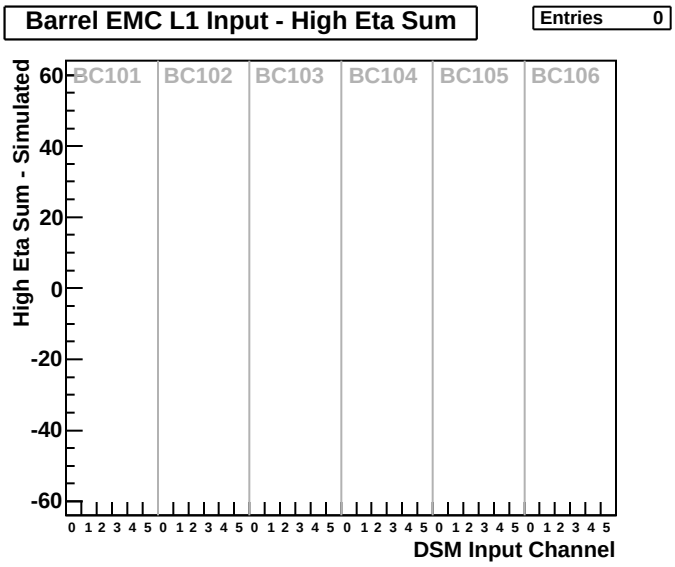
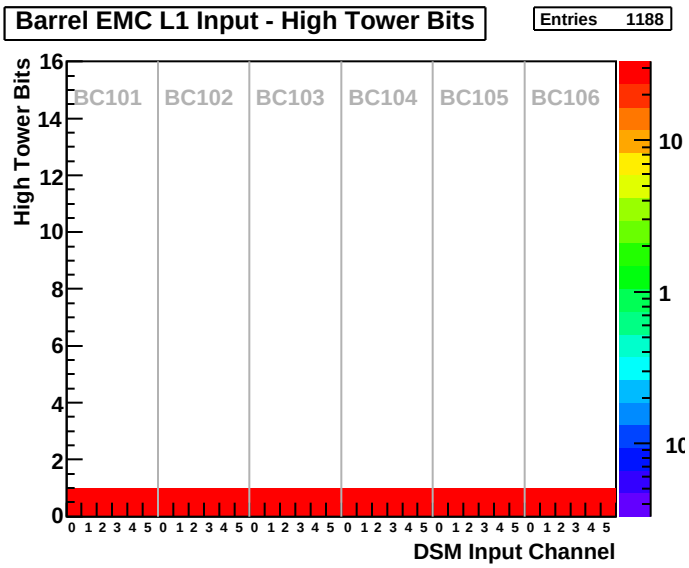
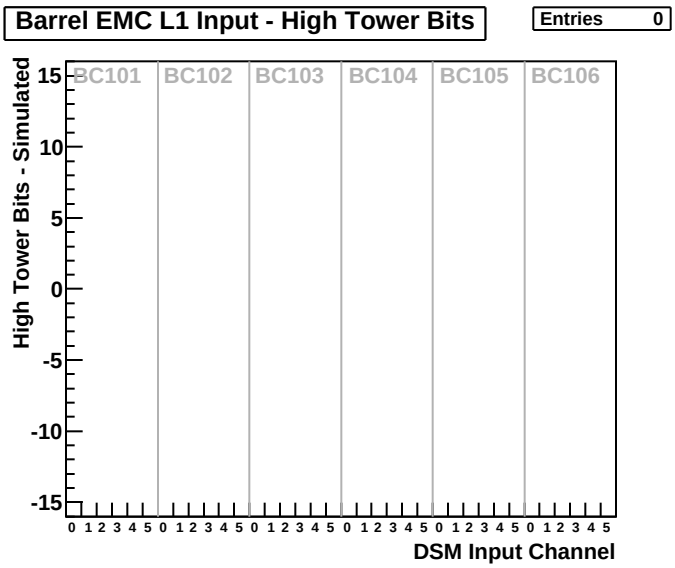

Barrel EMC L1 Input - Low Eta Sum
Entries 1188
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

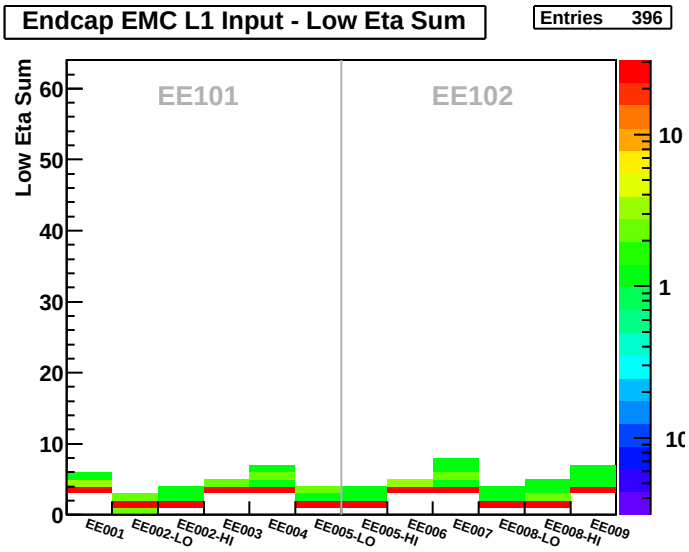

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

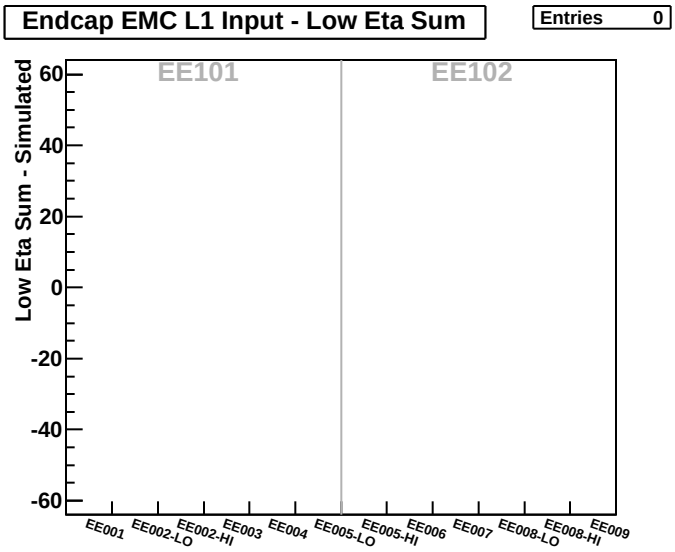

Barrel EMC L1 Input - High Eta Sum
Entries 1188
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

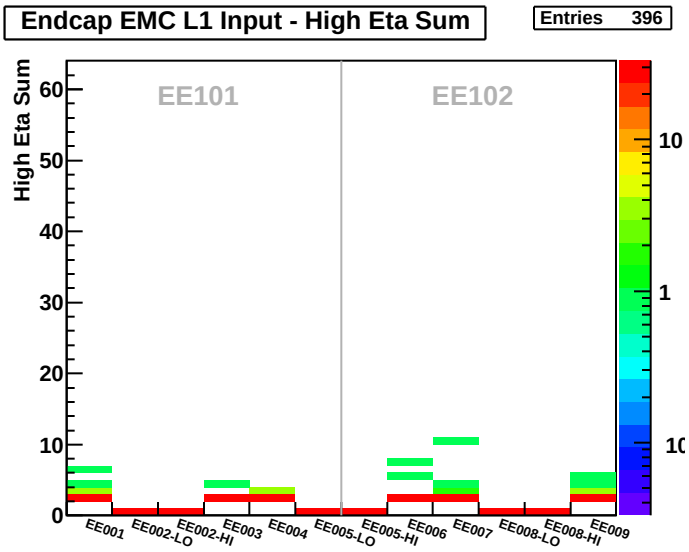

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

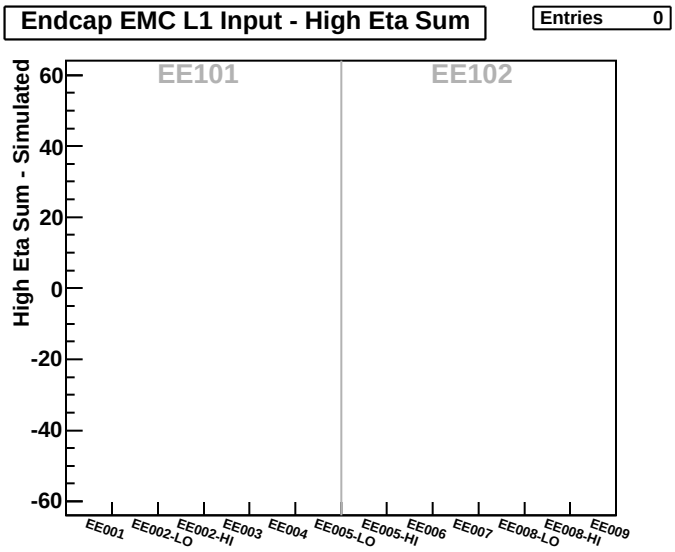

Barrel EMC L1 Input - High Tower Bits
Entries 1188
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

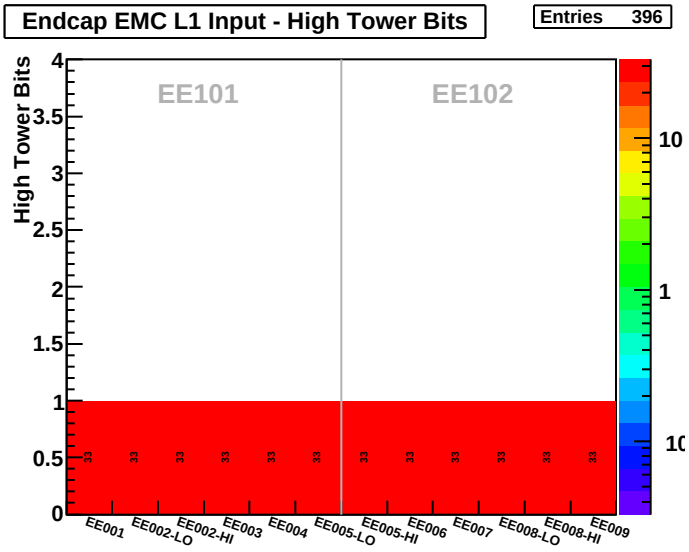

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

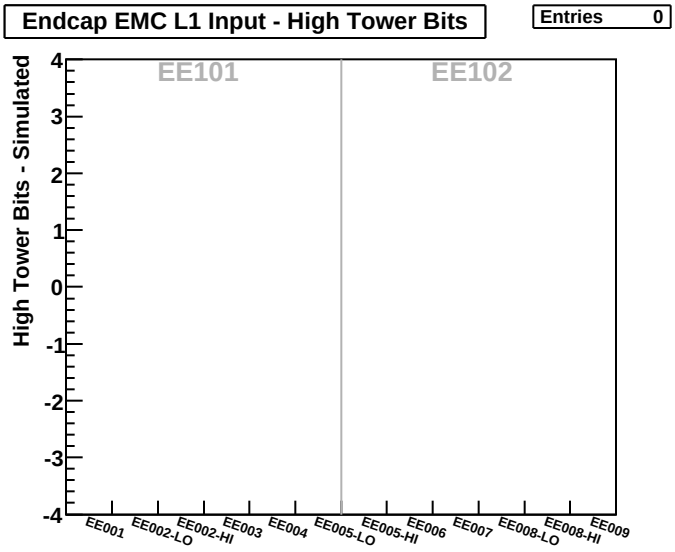

Endcap EMC L1 Input - Low Eta Sum
Entries 396
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

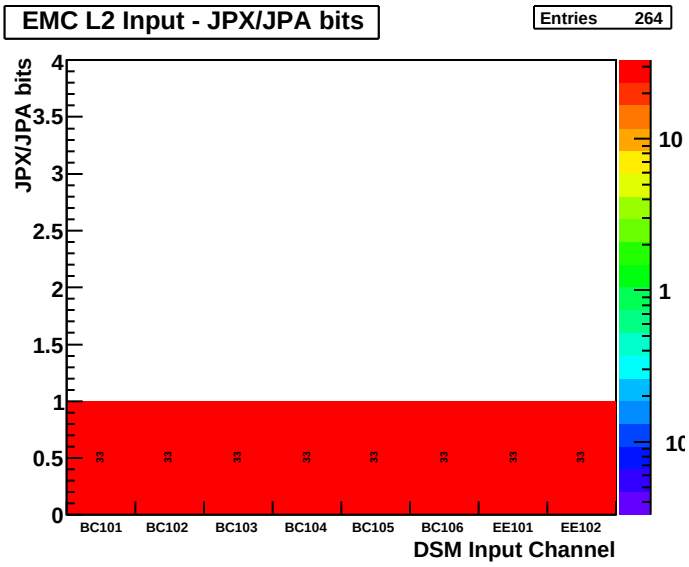

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

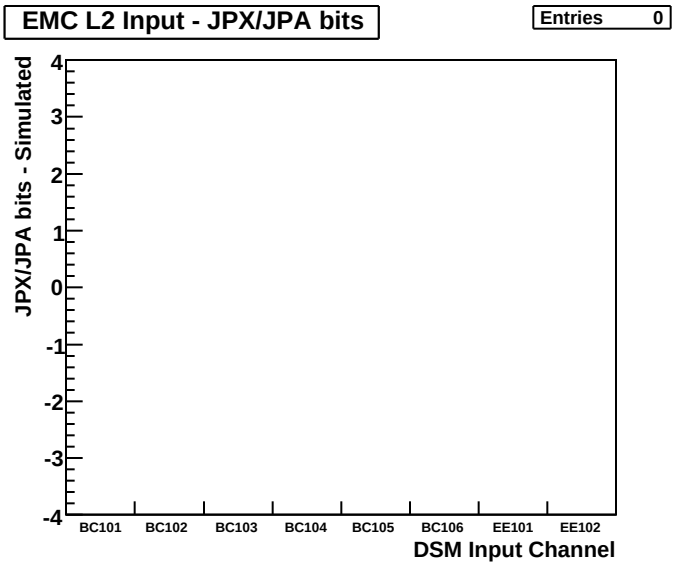

Endcap EMC L1 Input - High Eta Sum
Entries 396
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

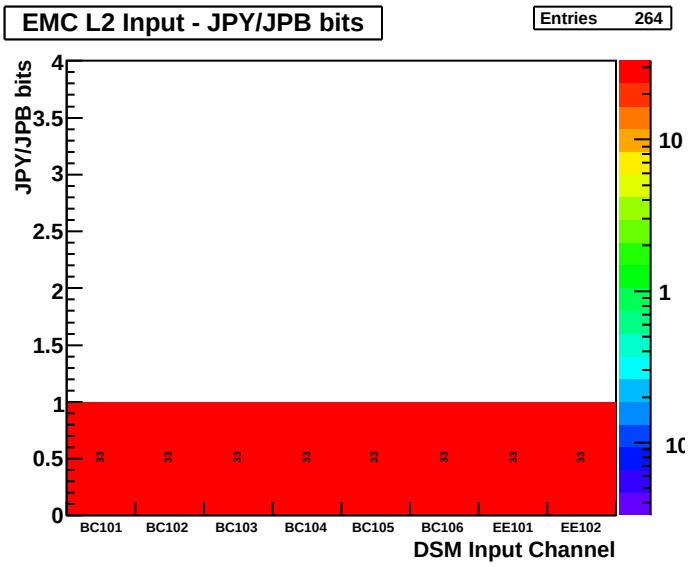

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

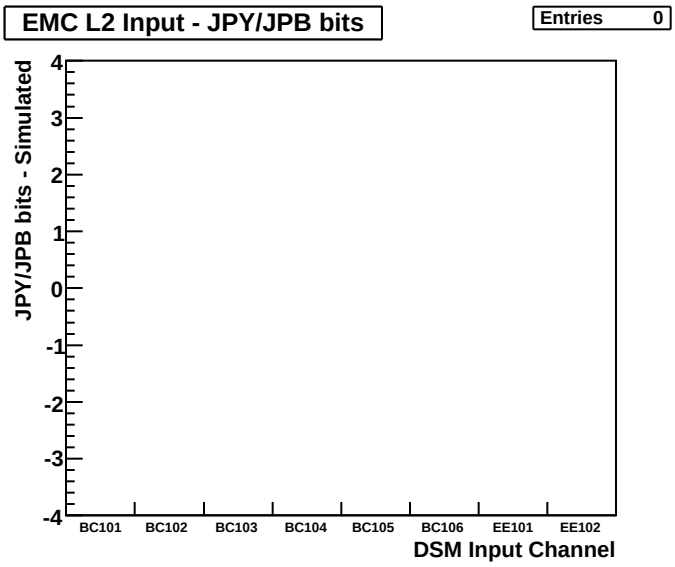

Endcap EMC L1 Input - High Tower Bits
Entries 396
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

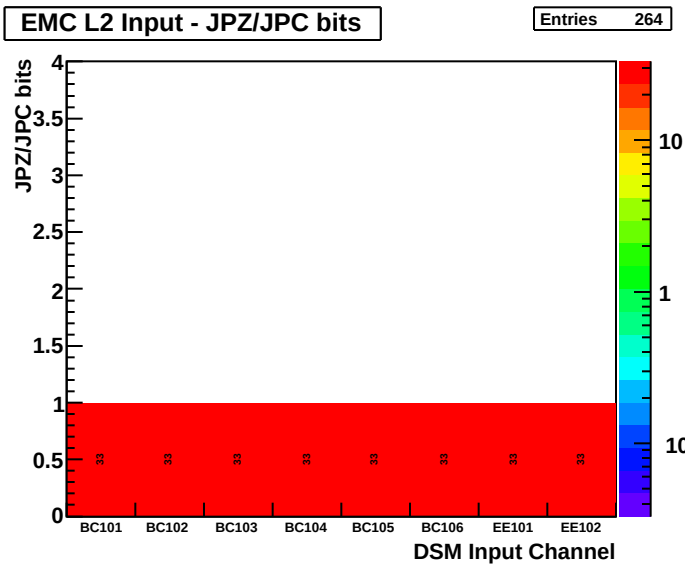

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

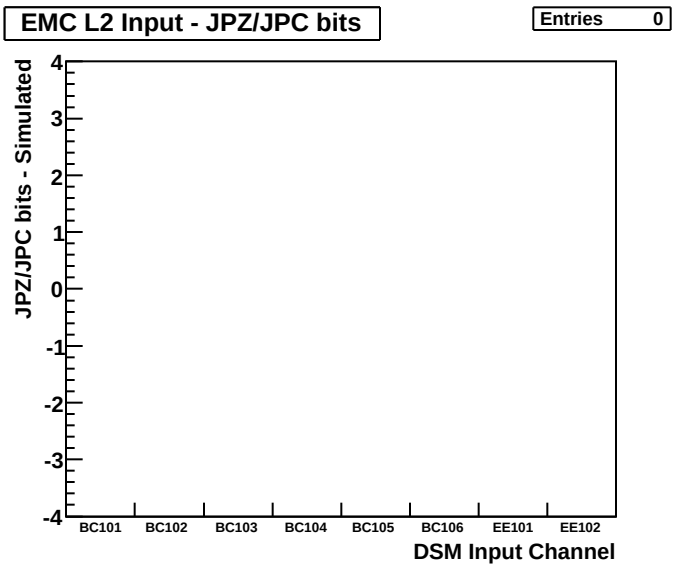

EMC L2 Input - JPX/JPA bits
Entries 264
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

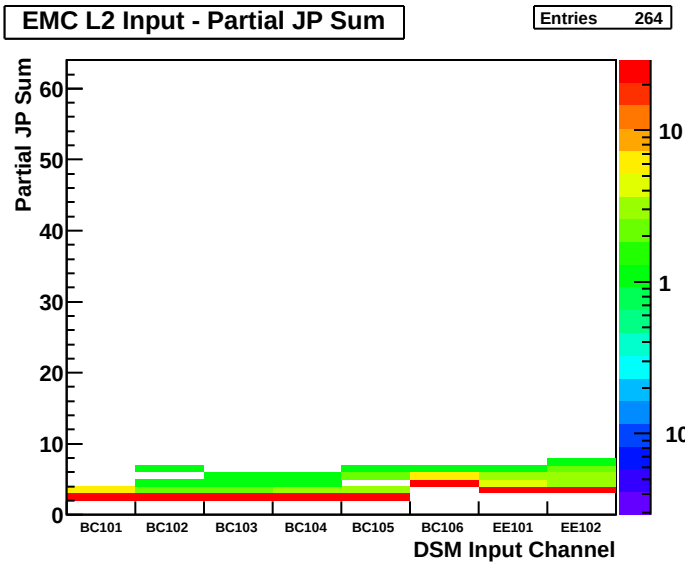

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

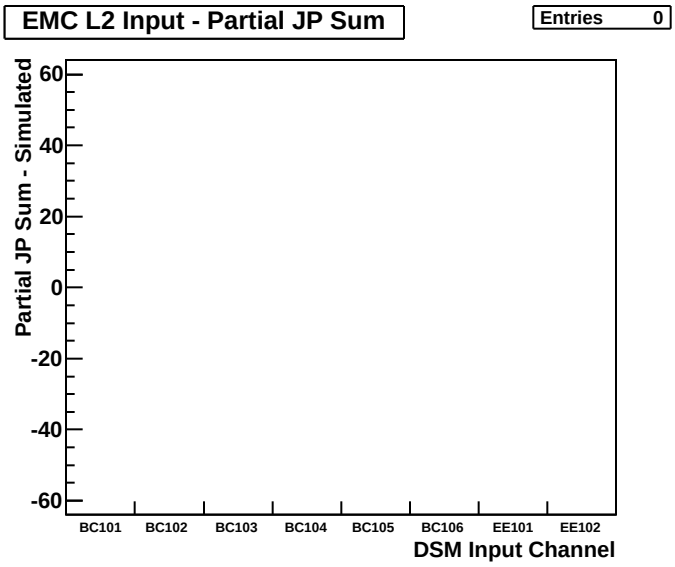

EMC L2 Input - JPY/JPB bits
Entries 264
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

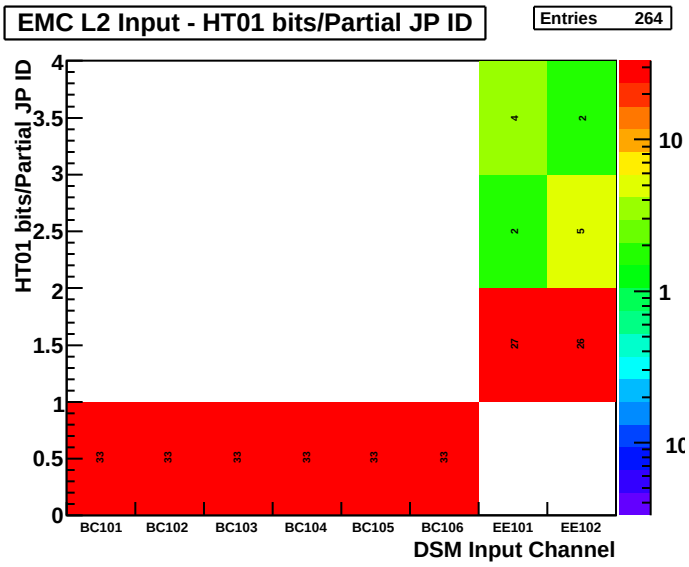

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

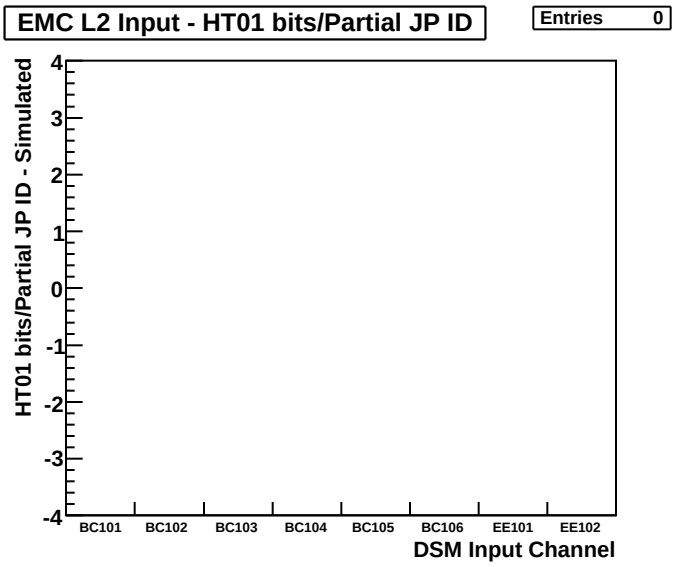

EMC L2 Input - JPZ/JPC bits
Entries 264
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

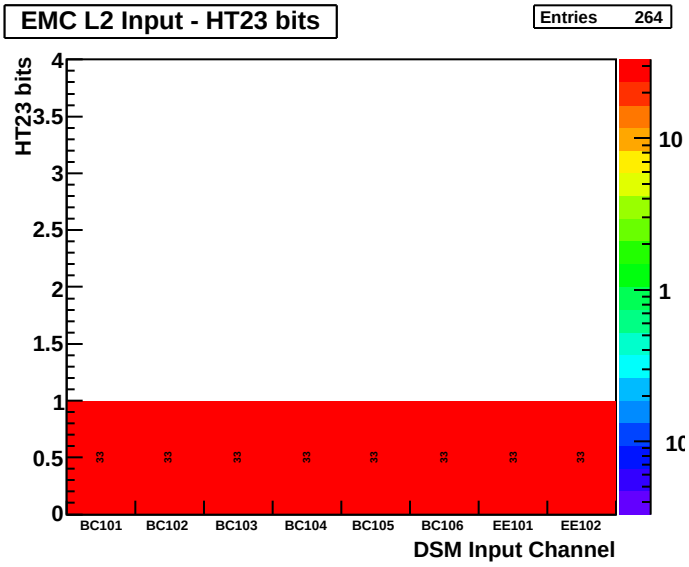

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

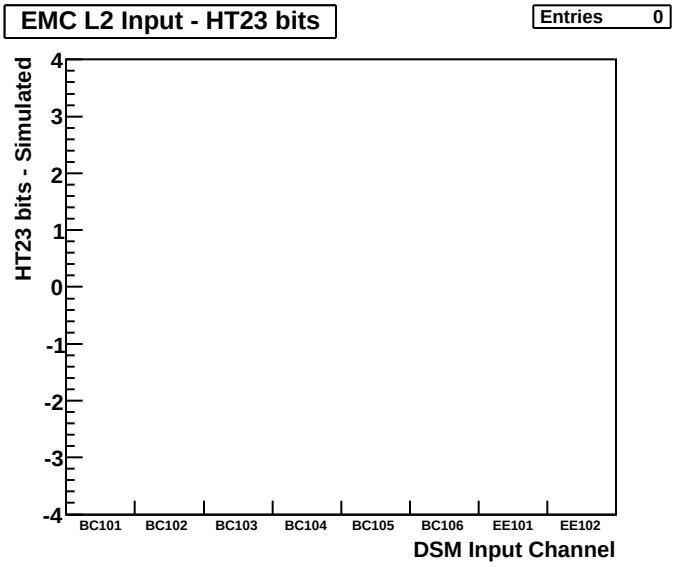

EMC L2 Input - Partial JP Sum
Entries 264
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

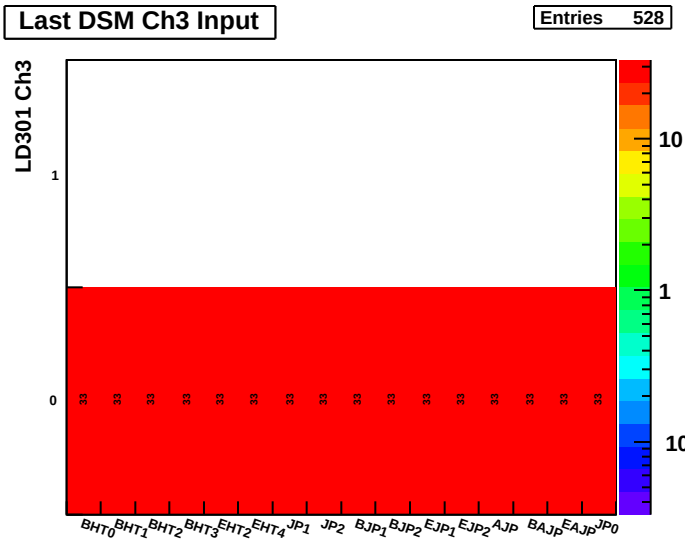

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

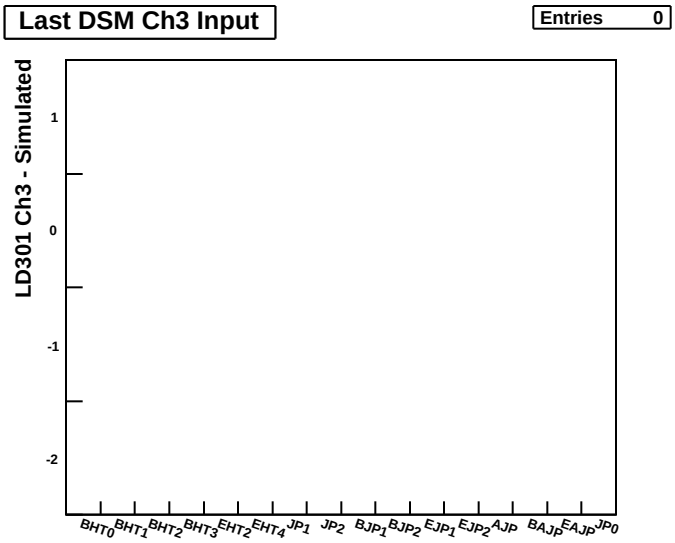

EMC L2 Input - HT01 bits/Partial JP ID
Entries 264
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

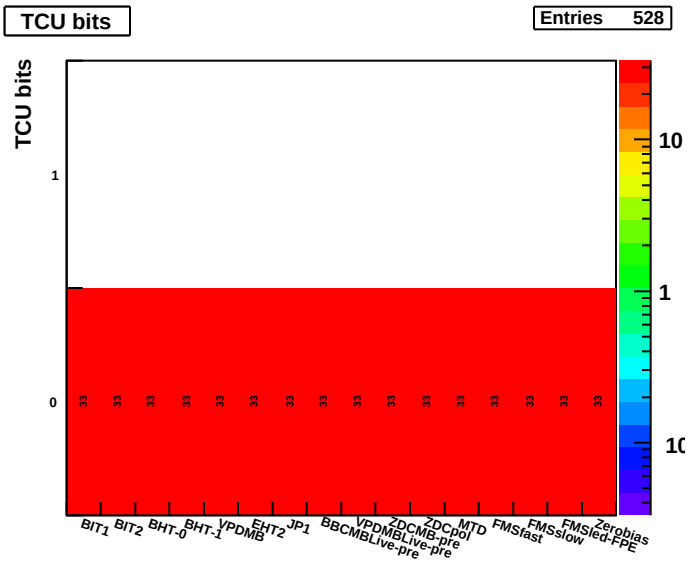

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

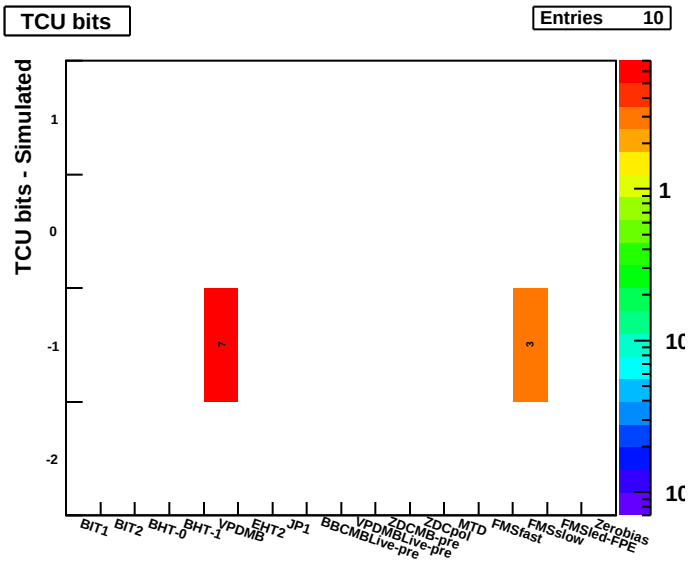

EMC L2 Input - HT23 bits
Entries 264
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

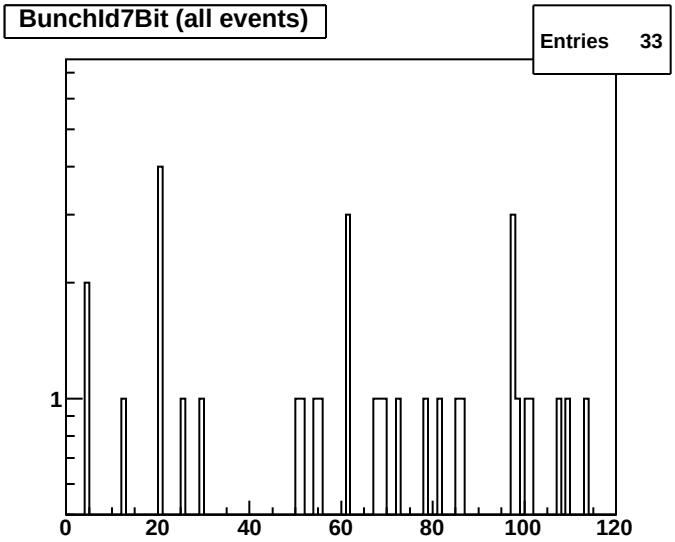

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

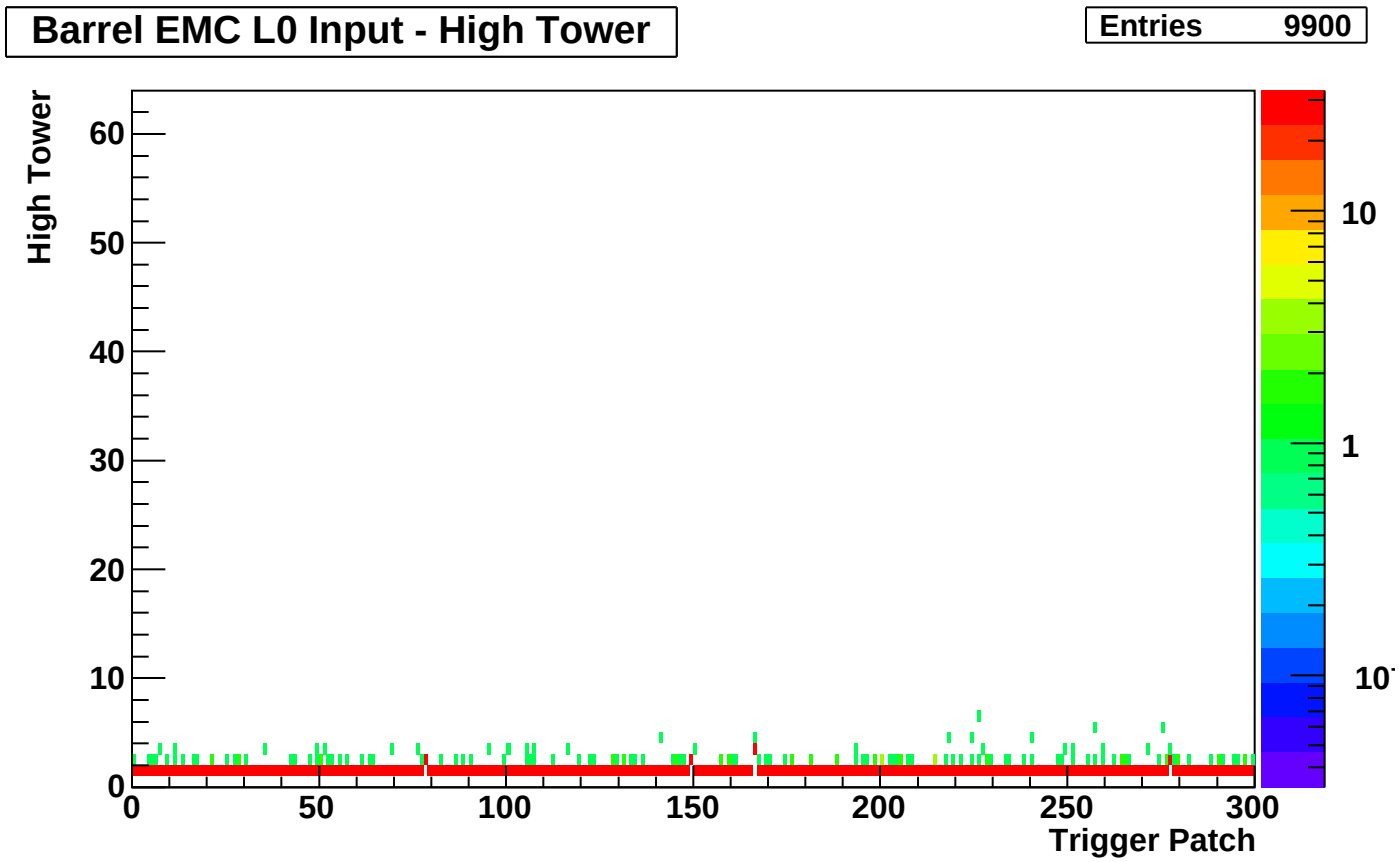

Last DSM Ch3 Input
Entries 528
LD301 Ch3
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

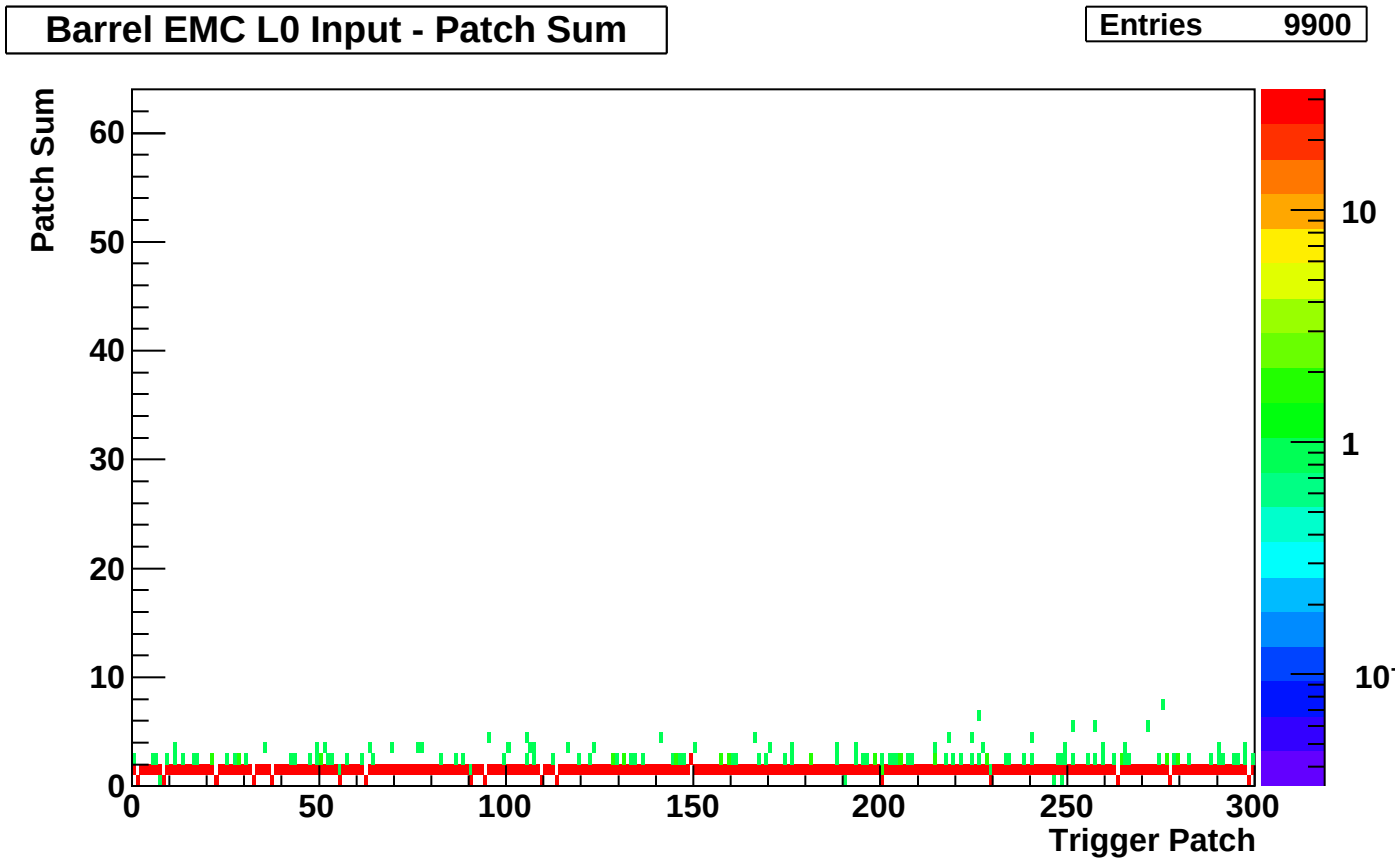

Last DSM Ch3 Input
Entries 0
LD301 Ch3 - Simulated
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

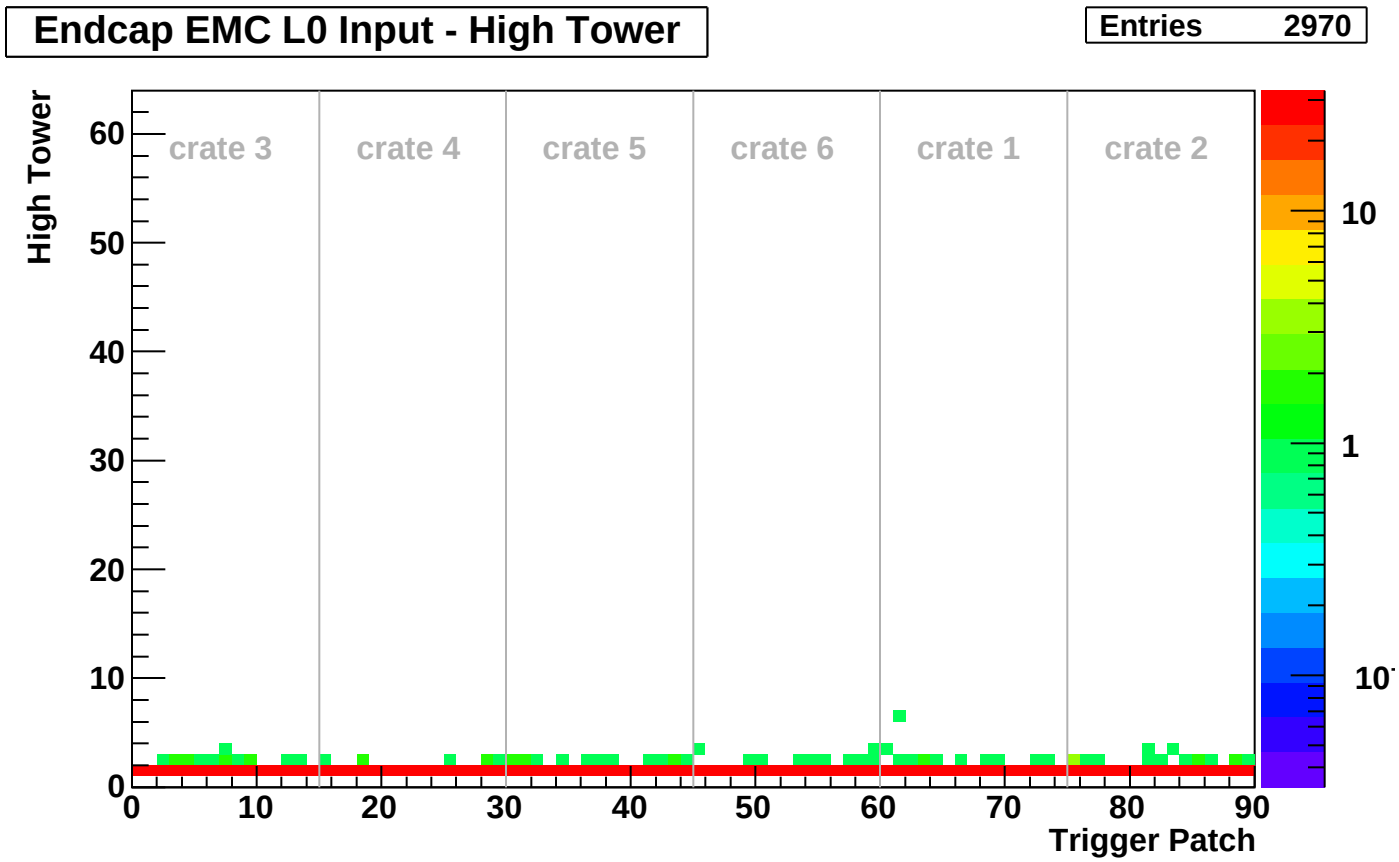

TCU bits
Entries 528
TCU bits
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

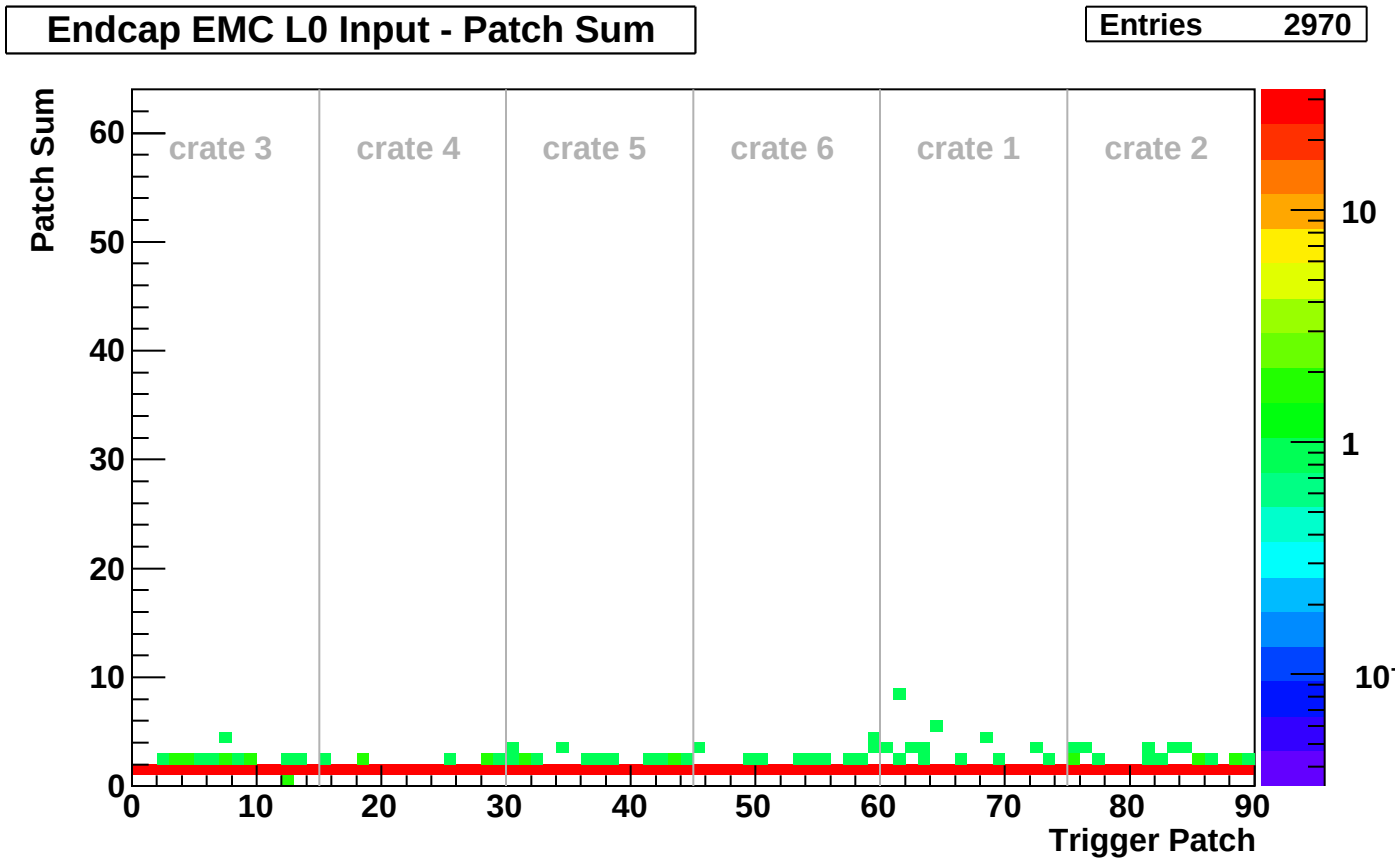

TCU bits
Entries 10
TCU bits - Simulated
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

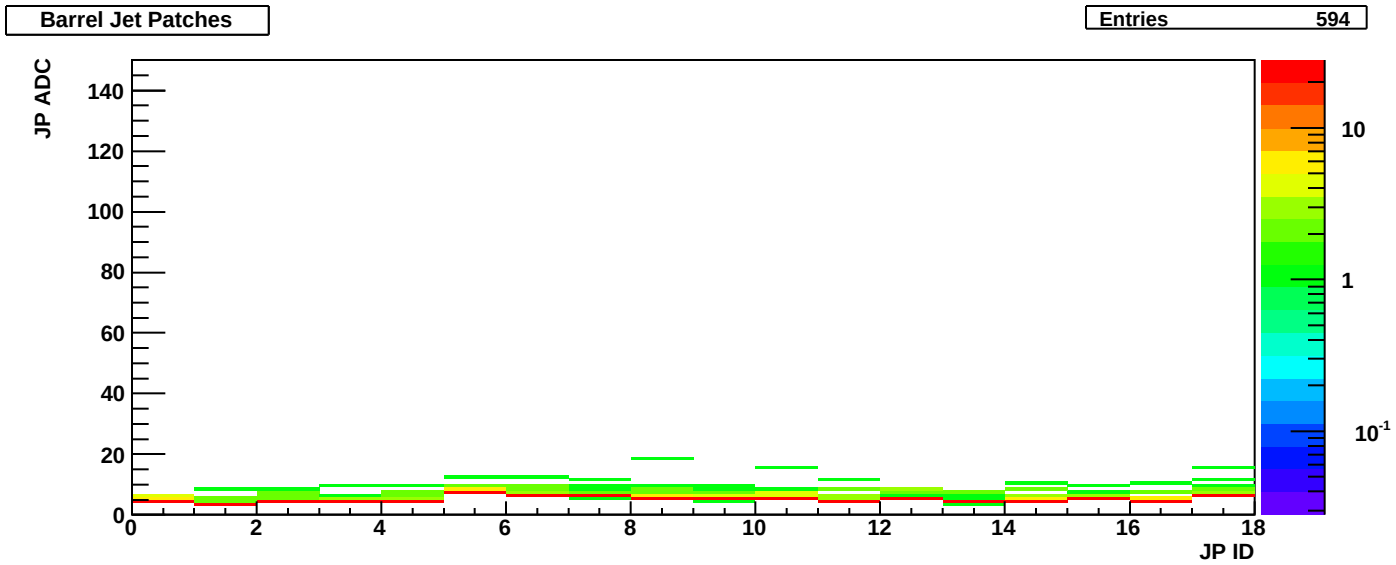

BunchId7Bit (all events)
Entries 33
0 20 40 60 80 100 120

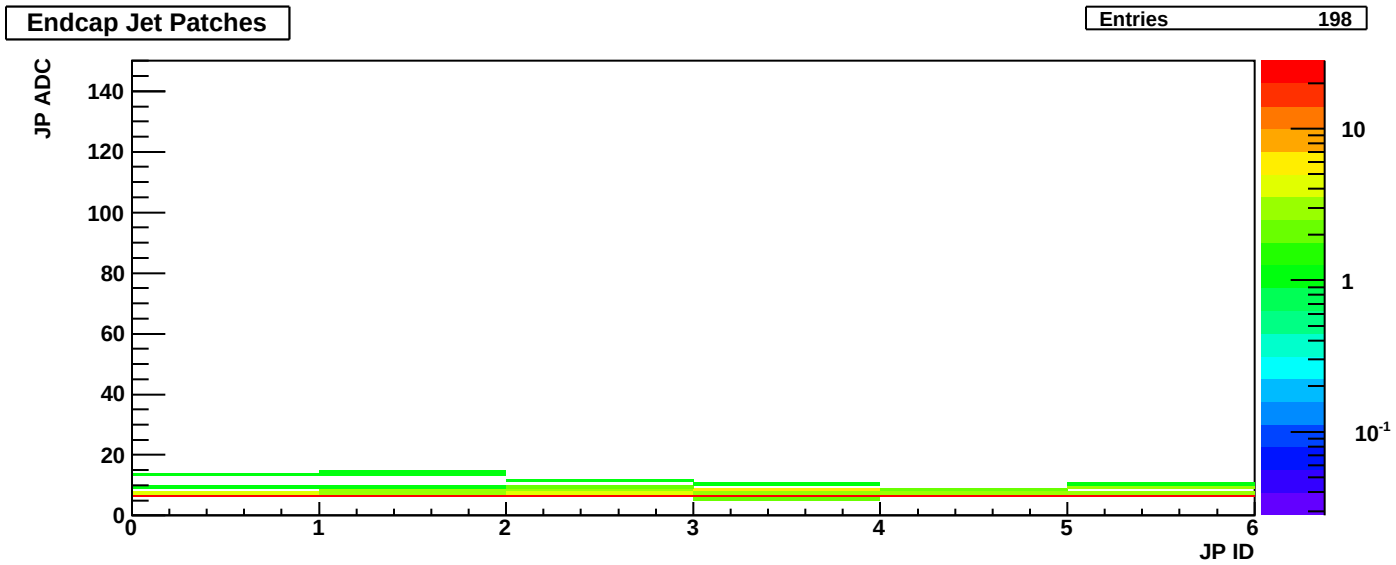

Barrel EMC L0 Input - High Tower
Entries 9900
High Tower
0
10
20
30
40
50
60
0
50
100
150
200
250
300
Trigger Patch
10
1
10

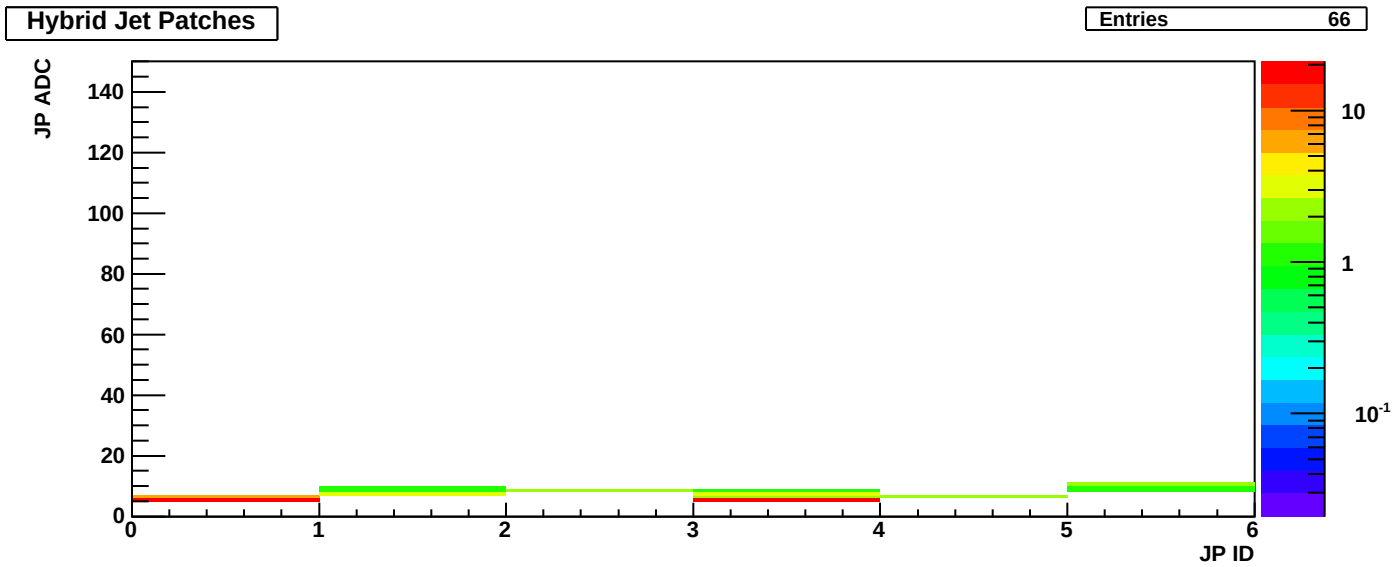

Barrel EMC L0 Input - Patch Sum
Entries 9900
Patch Sum
0
10
20
30
40
50
60
0
50
100
150
200
250
300
Trigger Patch
10
1
10

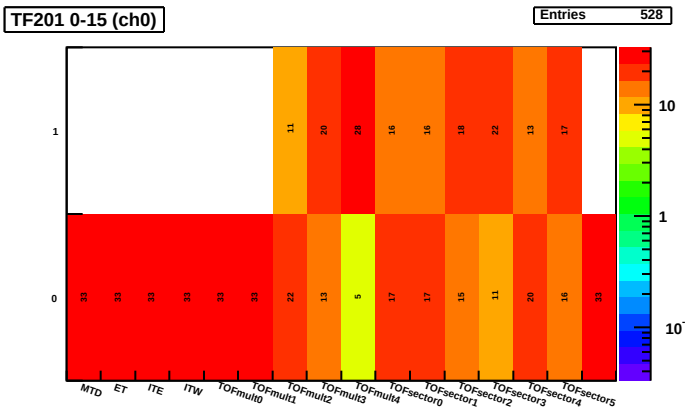

Endcap EMC L0 Input - High Tower
Entries 2970
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

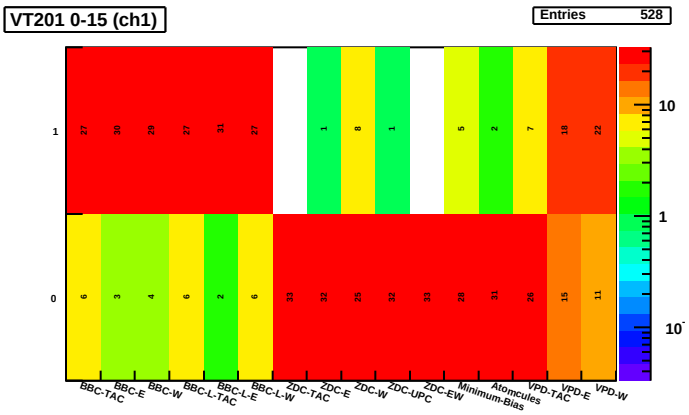

Endcap EMC L0 Input - Patch Sum
Entries 2970
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

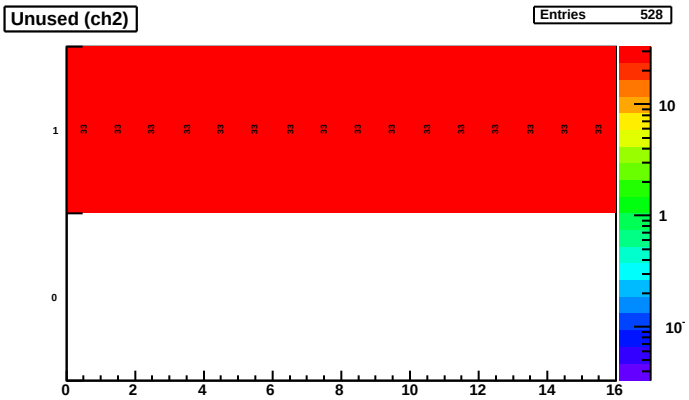

Barrel Jet Patches
Entries 594
JP ADC
JP ID

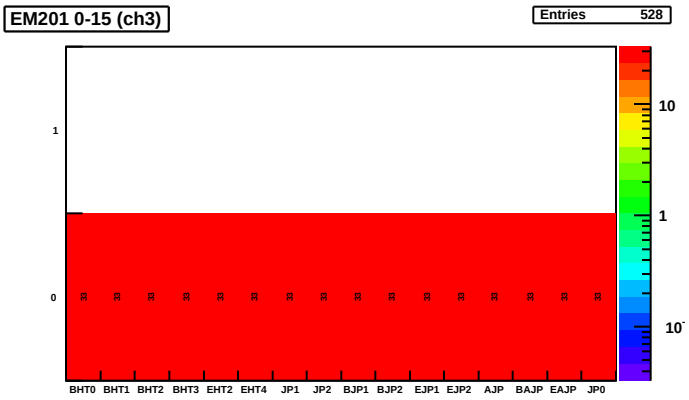

Endcap Jet Patches
Entries 198
JP ADC
JP ID

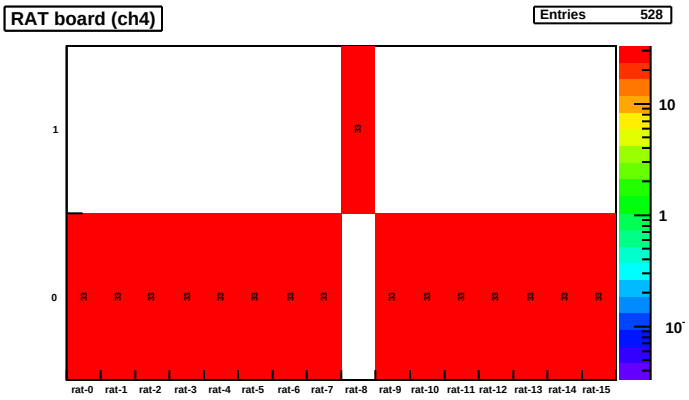

Hybrid Jet Patches
Entries 66
JP ADC
JP ID

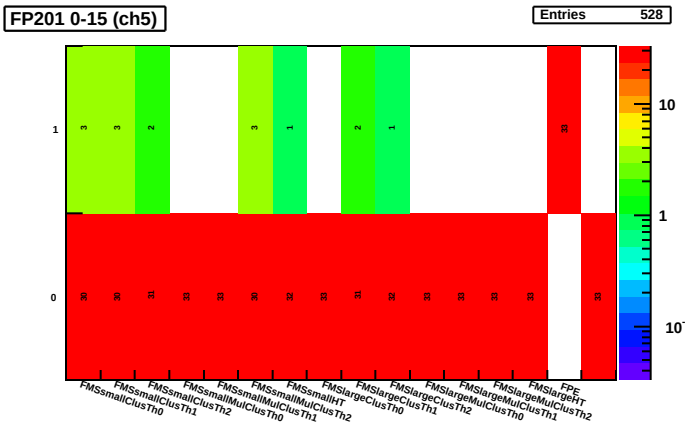

TF201 0-15 (ch0)
Entries 528
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

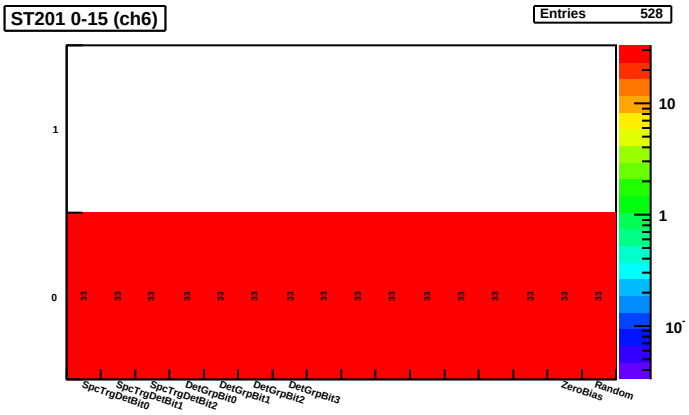

VT201 0-15 (ch1)
Entries 528
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

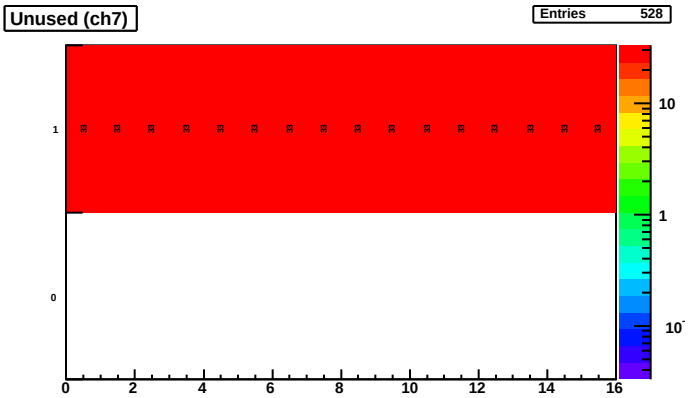

Unused (ch2)
Entries 528

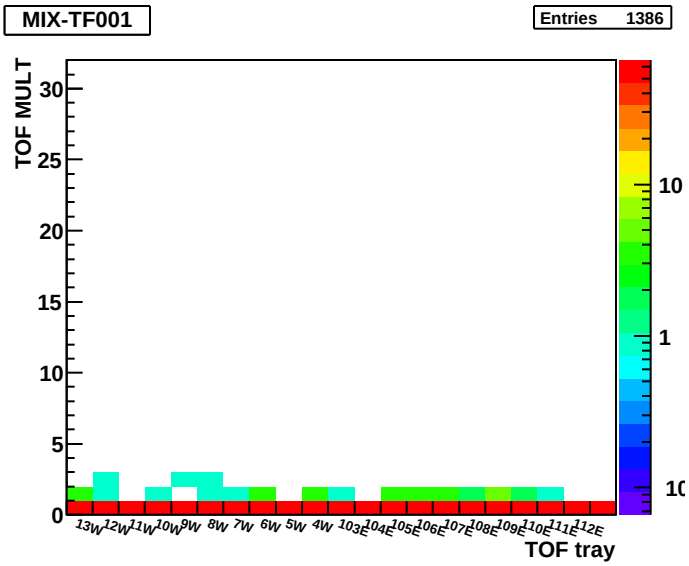

EM201 0-15 (ch3)
Entries 528
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

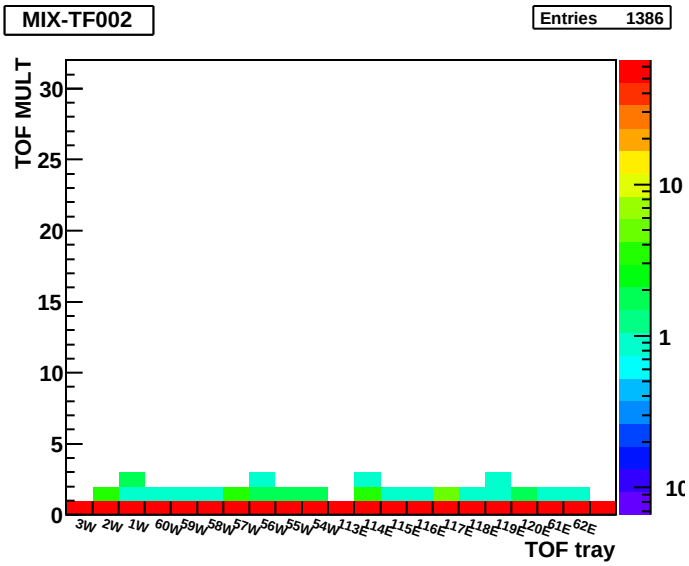

RAT board (ch4)
Entries 528
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

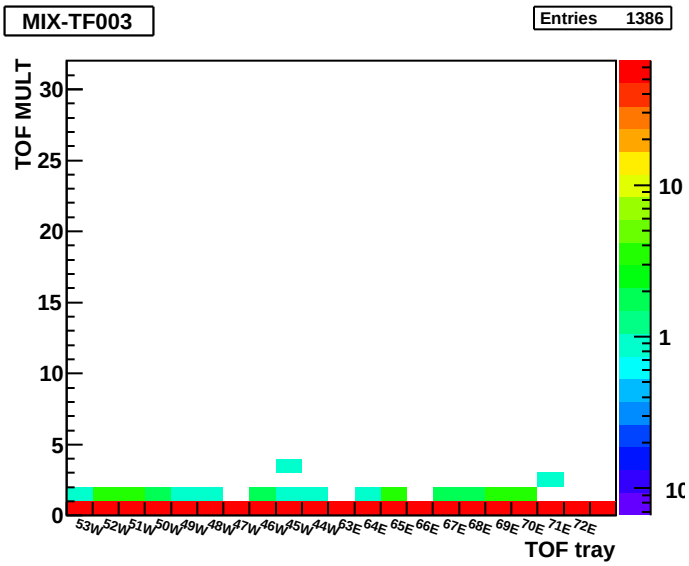

FP201 0-15 (ch5)
Entries 528
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

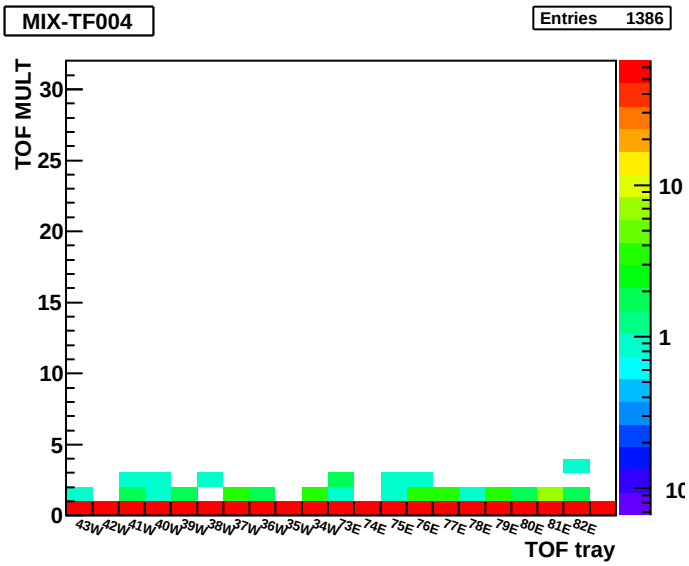

ST201 0-15 (ch6)
Entries 528
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetCrpBit0 DetCrpBit1 DetCrpBit2 DetCrpBit3 ZeroBias Random

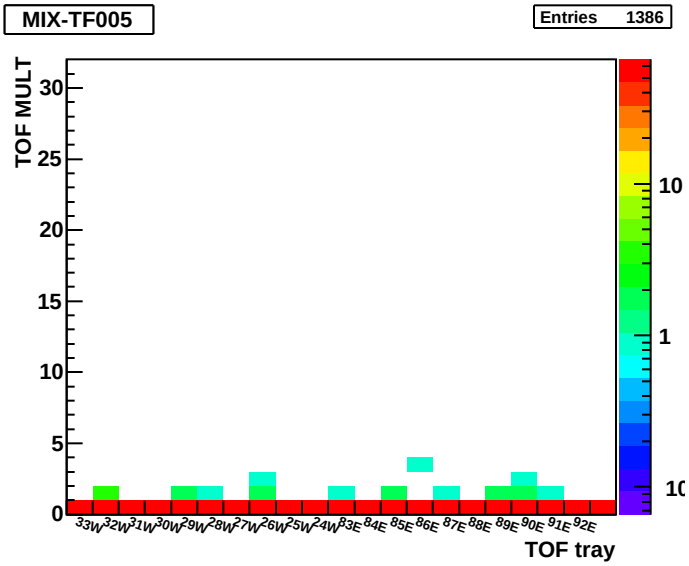

Unused (ch7)
Entries 528

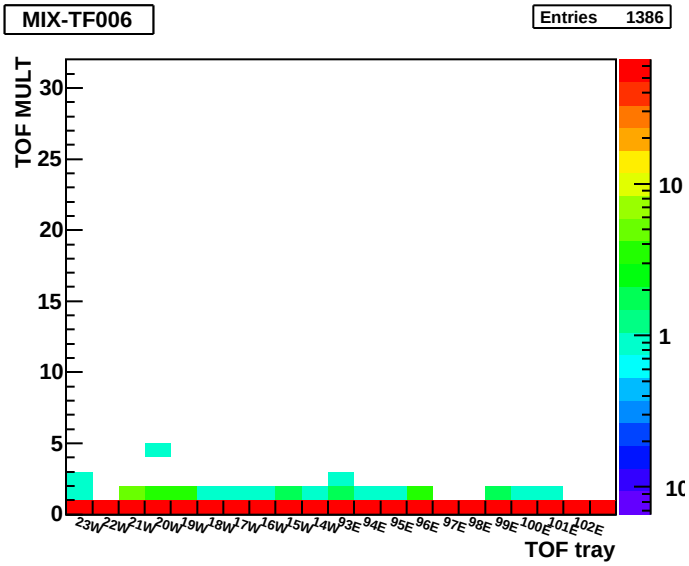

MIX-TF001
Entries 1386
TOF MULT
TOF tray

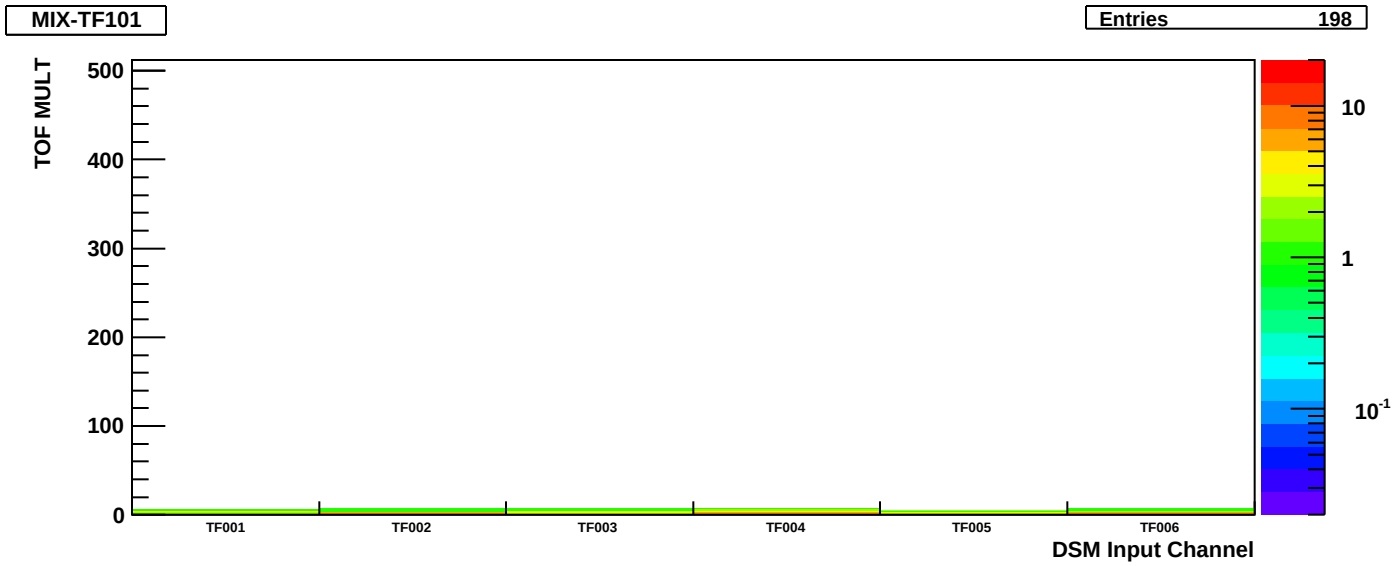

MIX-TF002
Entries 1386
TOF MULT
TOF tray

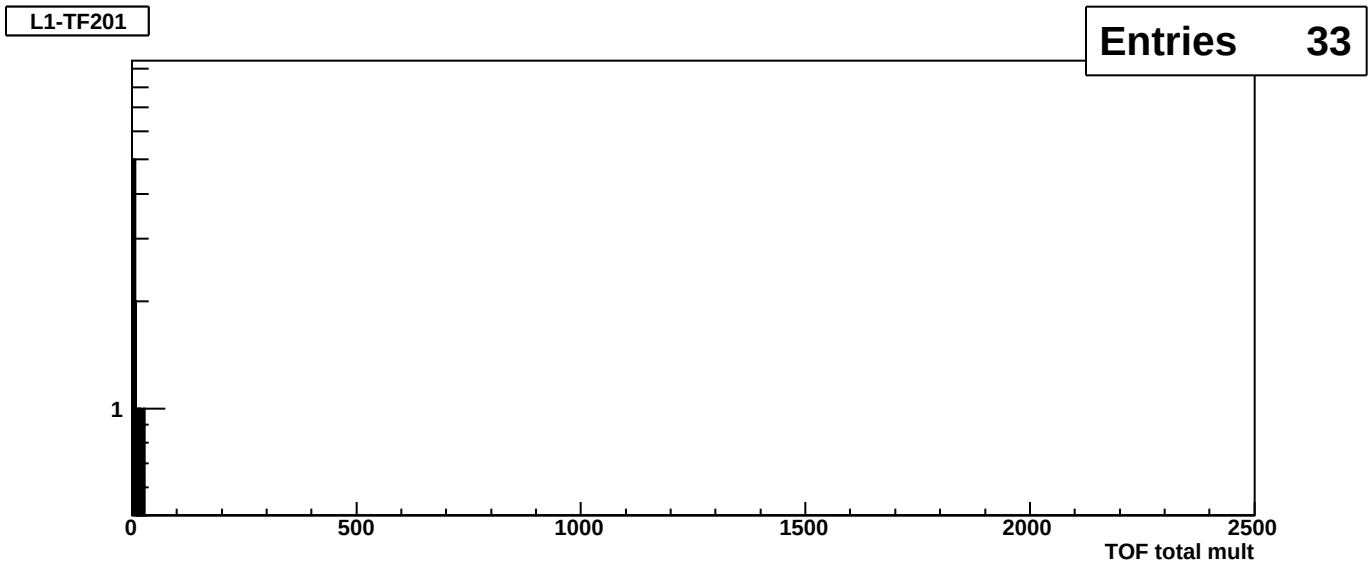

MIX-TF003
Entries 1386
TOF MULT
TOF tray

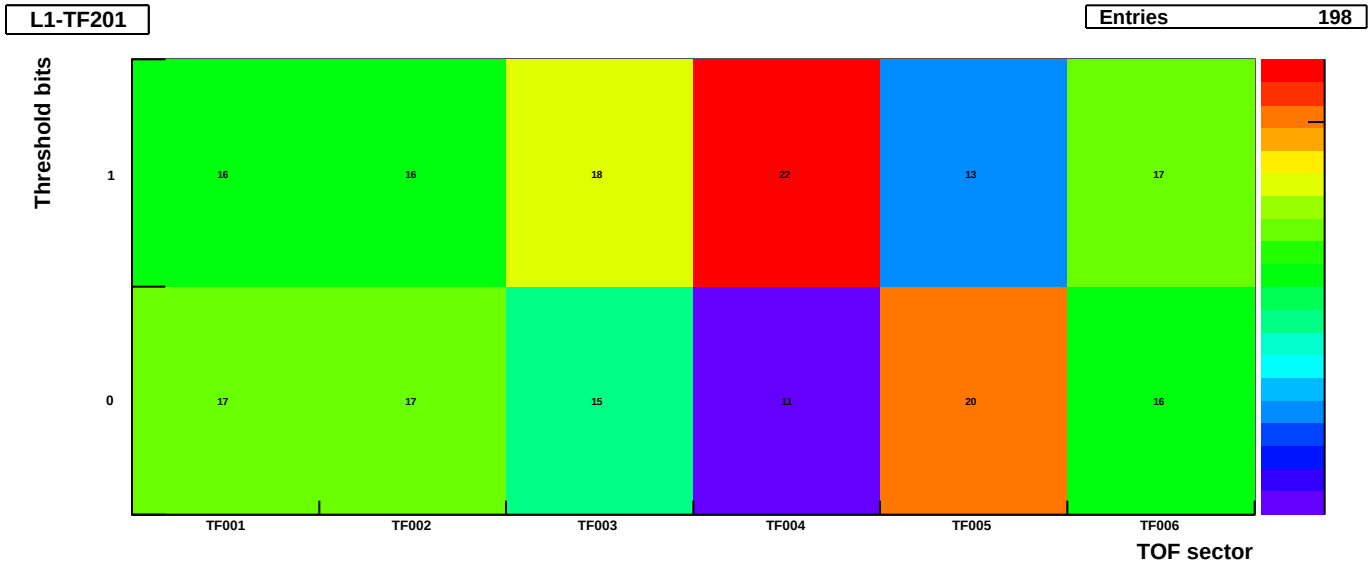

MIX-TF004
Entries 1386
TOF MULT
TOF tray

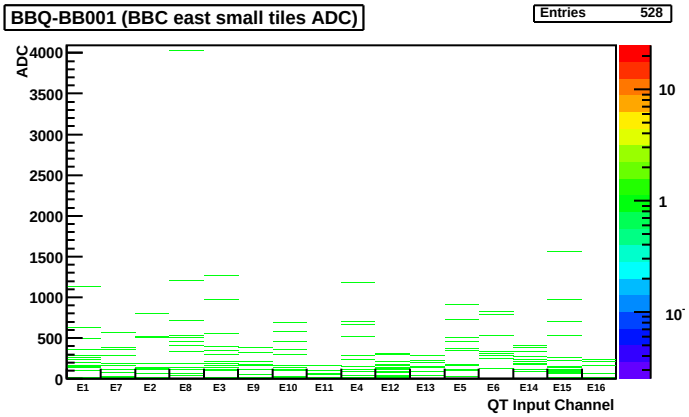

MIX-TF005
Entries 1386
TOF MULT
TOF tray

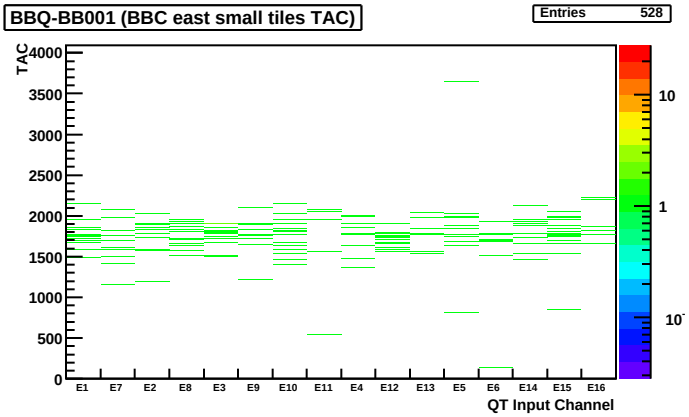

MIX-TF006
Entries 1386
TOF MULT
TOF tray

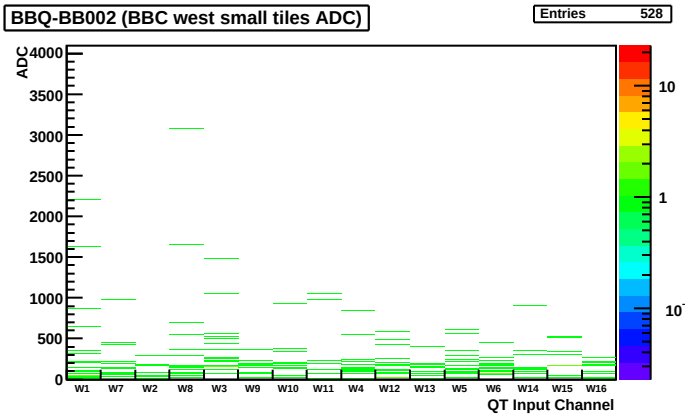

MIX-TF101
Entries 198
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10
1
10^{-1}

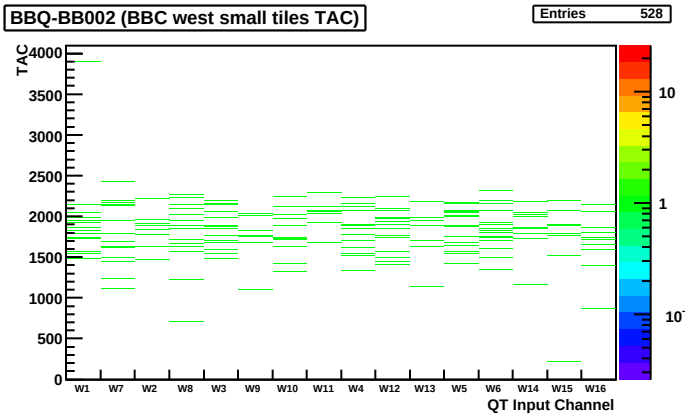

L1-TF201
Entries 33
1
0
500
1000
1500
2000
2500
TOF total mult

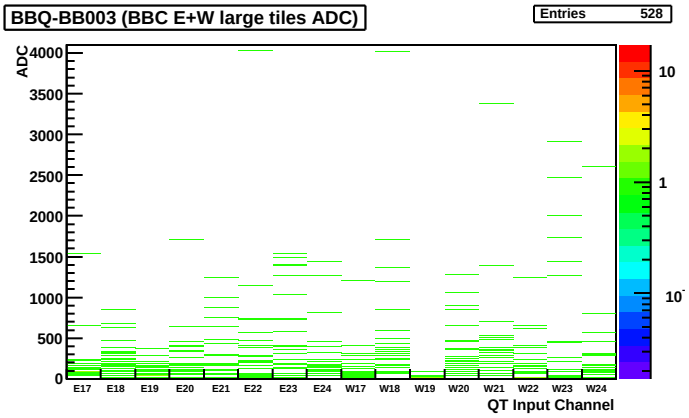

L1-TF201
Entries 198
Threshold bits
1
0
16
16
18
22
13
17
17
17
15
11
20
16
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

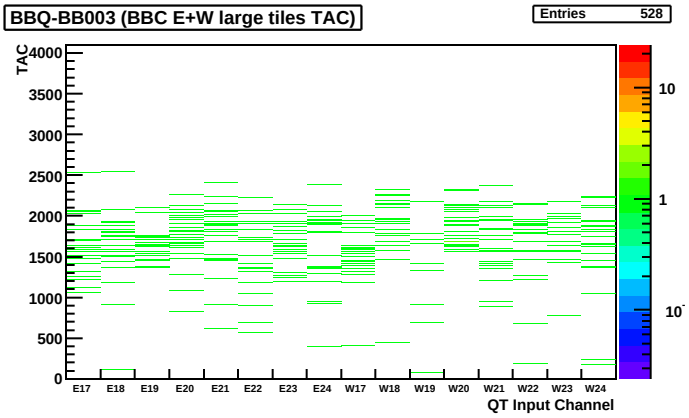

BBQ-BB001 (BBC east small tiles ADC)
Entries 528
ADC
QT Input Channel

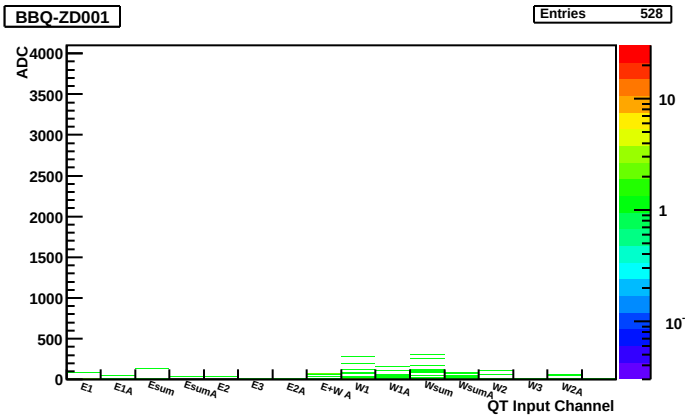

BBQ-BB001 (BBC east small tiles TAC)
Entries 528
TAC
QT Input Channel

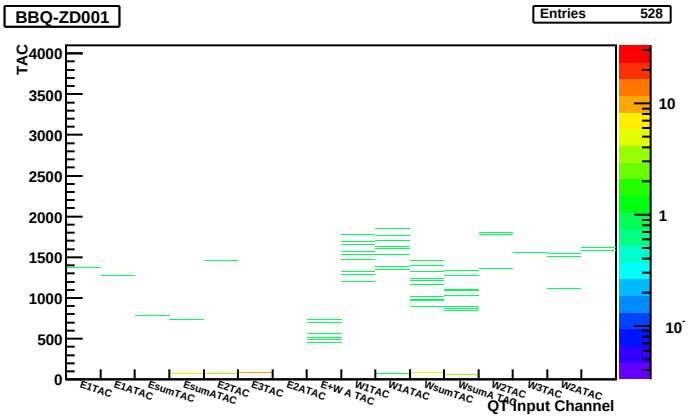

BBQ-BB002 (BBC west small tiles ADC)
Entries 528
ADC
QT Input Channel

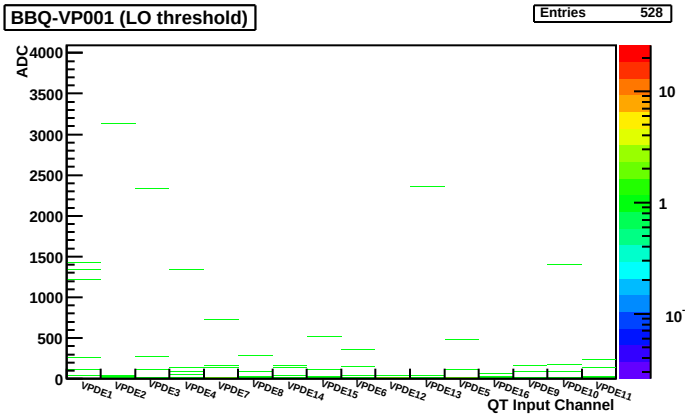

BBQ-BB002 (BBC west small tiles TAC)
Entries 528
TAC
QT Input Channel

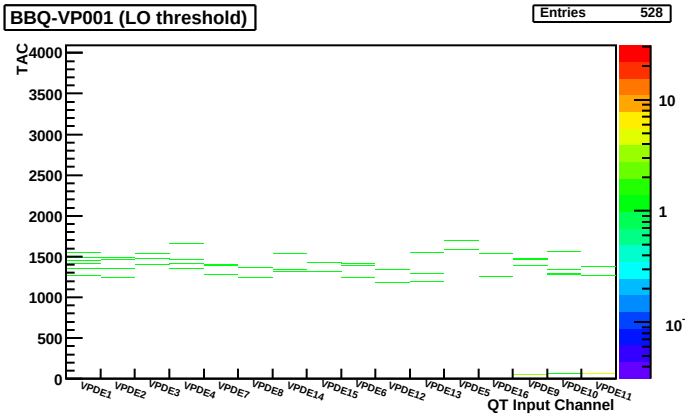

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 528
ADC
QT Input Channel

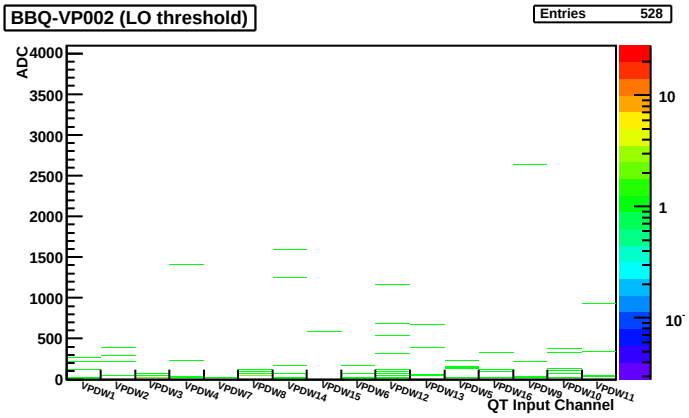

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 528
TAC
QT Input Channel

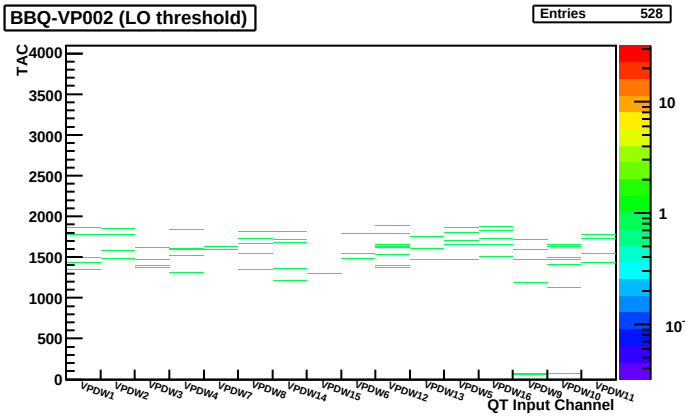

BBQ-ZD001
Entries 528
ADC
QT Input Channel

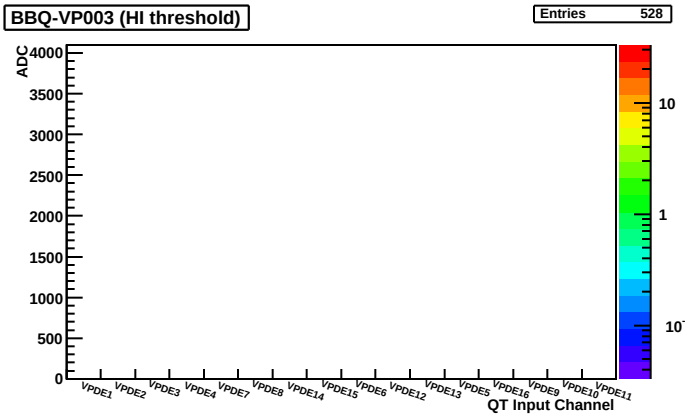

BBQ-ZD001
Entries 528
TAC
QT Input Channel

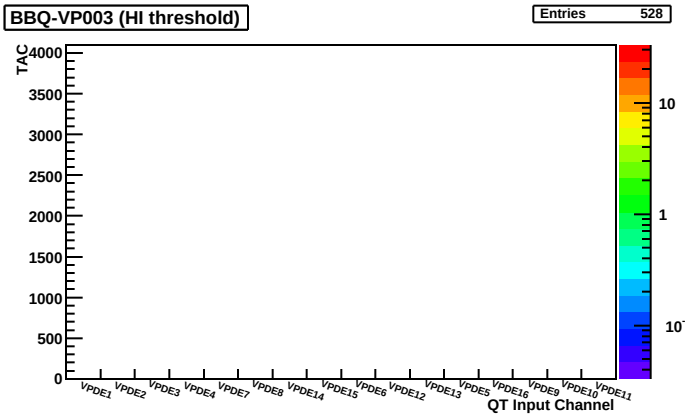

BBQ-VP001 (LO threshold)
Entries 528
ADC
QT Input Channel

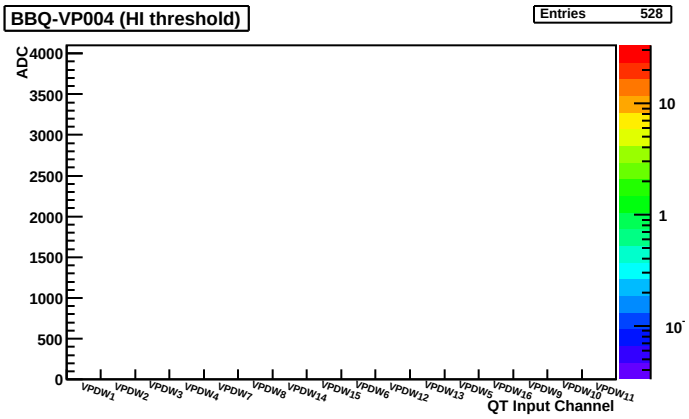

BBQ-VP001 (LO threshold)
Entries 528
TAC
QT Input Channel

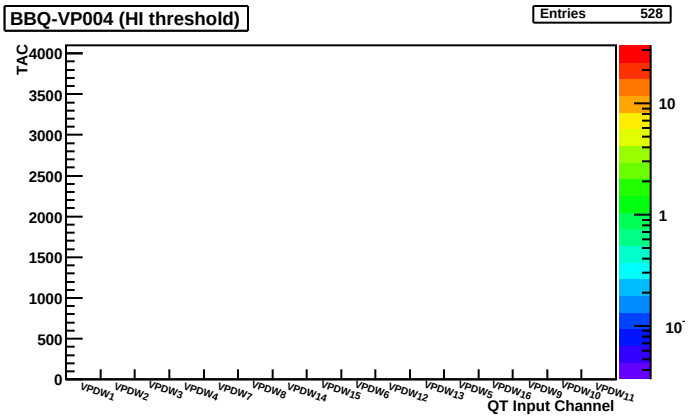

BBQ-VP002 (LO threshold)
Entries 528
ADC
QT Input Channel

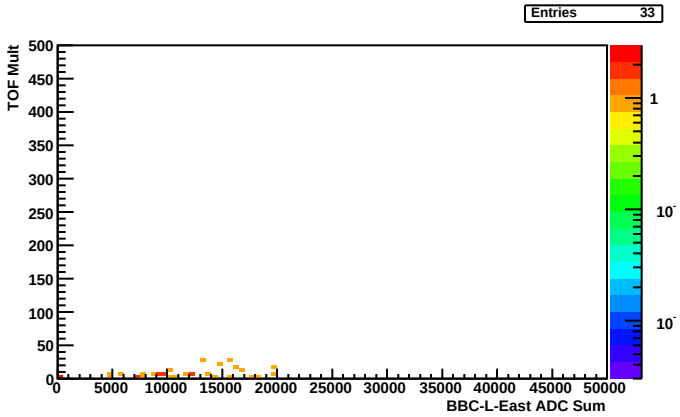

BBQ-VP002 (LO threshold)
Entries 528
TAC
QT Input Channel

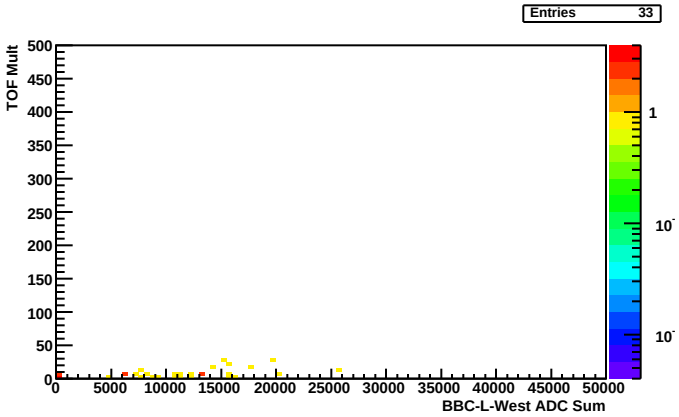

BBQ-VP003 (HI threshold)
Entries 528
ADC
QT Input Channel

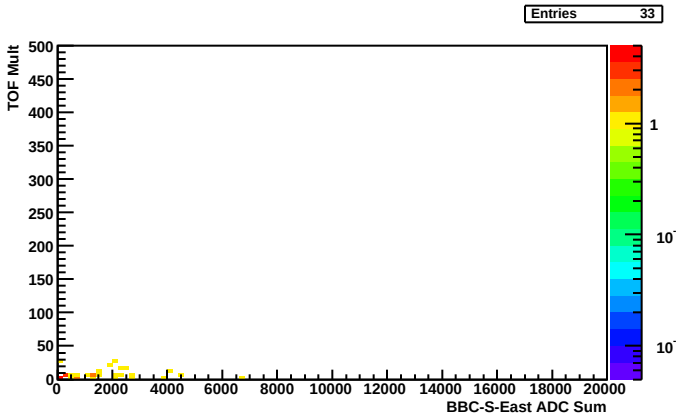

BBQ-VP003 (HI threshold)
Entries 528
TAC
QT Input Channel

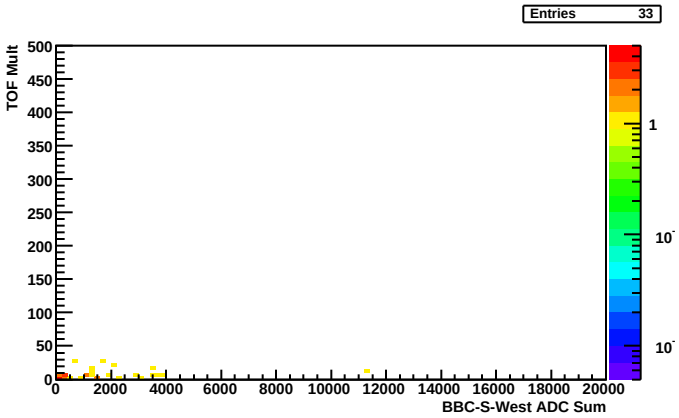

BBQ-VP004 (HI threshold)
Entries 528
ADC
QT Input Channel

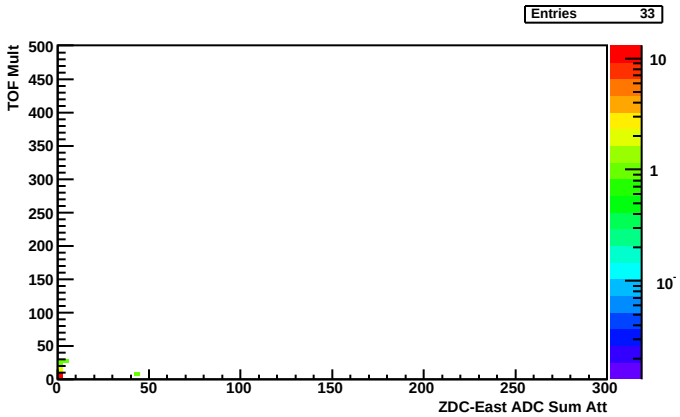

BBQ-VP004 (HI threshold)
Entries 528
TAC
QT Input Channel

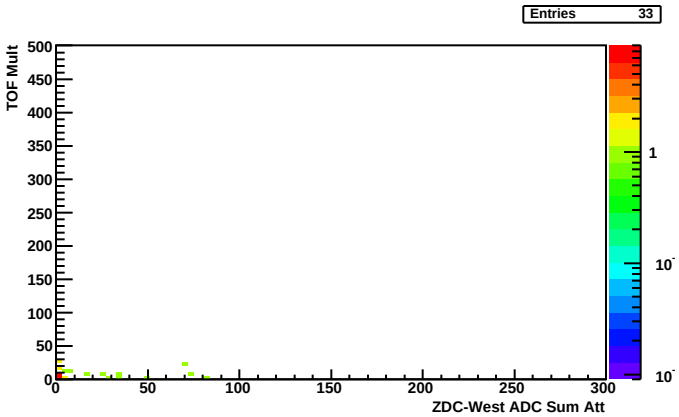

Entries 33
TOF Mult
BBC-L-East ADC Sum

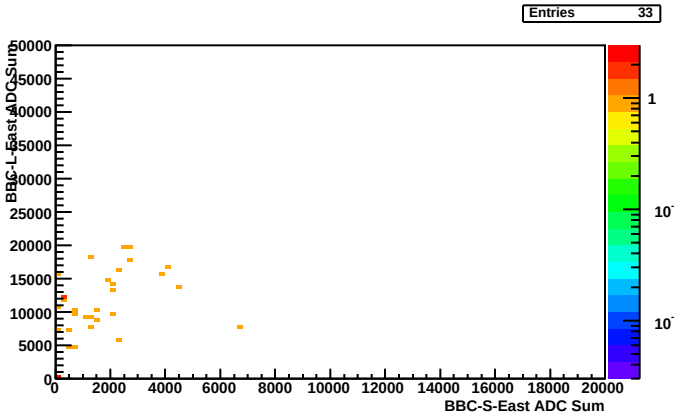

Entries 33
TOF Mult
BBC-L-West ADC Sum

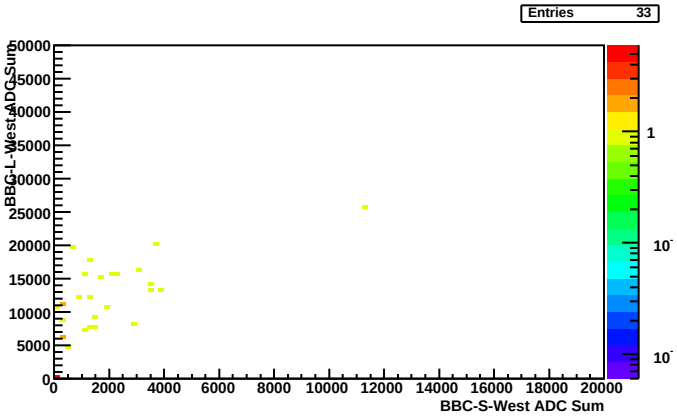

Entries 33
TOF Mult
BBC-S-East ADC Sum

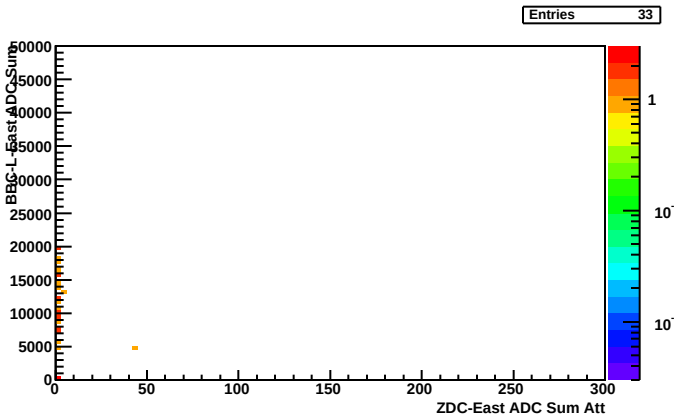

Entries 33
TOF Mult
BBC-S-West ADC Sum

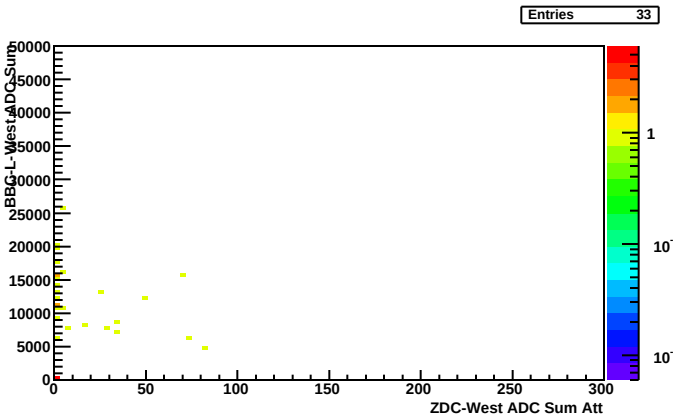

Entries 33
TOF Mult
ZDC-East ADC Sum Att

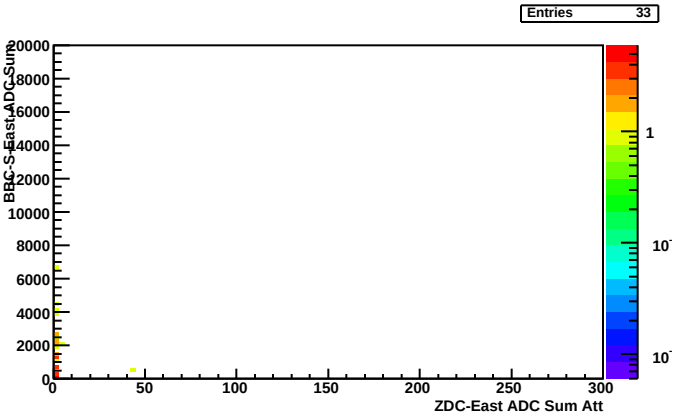

Entries 33
TOF Mult
ZDC-West ADC Sum Att

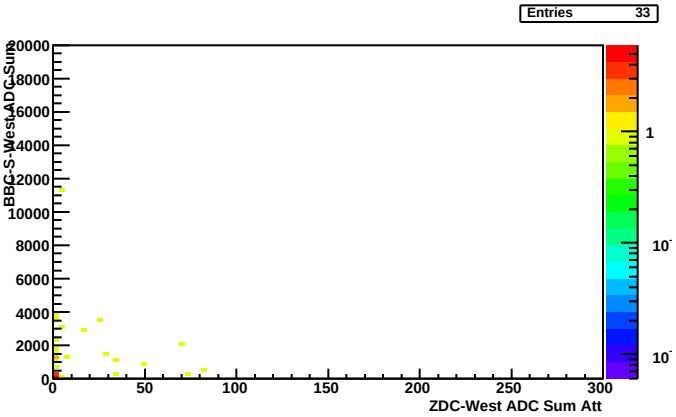

Entries 33
BBC-L-East ADC Sum
BBC-S-East ADC Sum

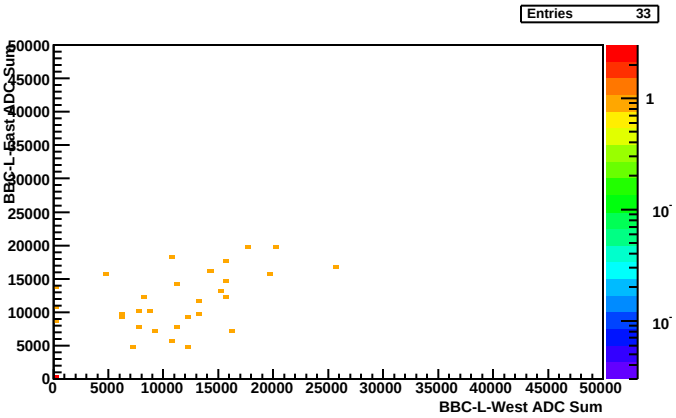

Entries 33
BBC-L-West ADC Sum
BBC-S-West ADC Sum

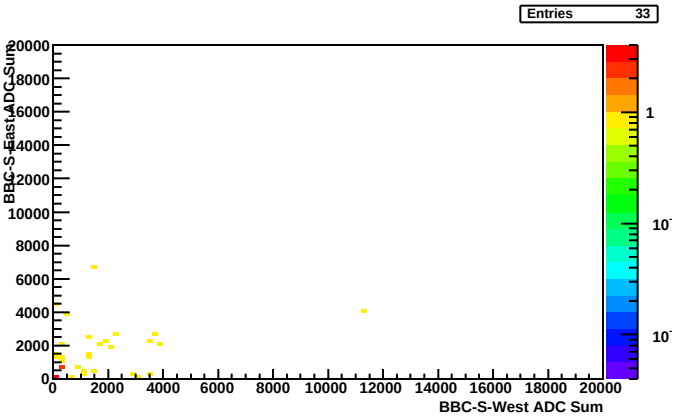

Entries 33
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

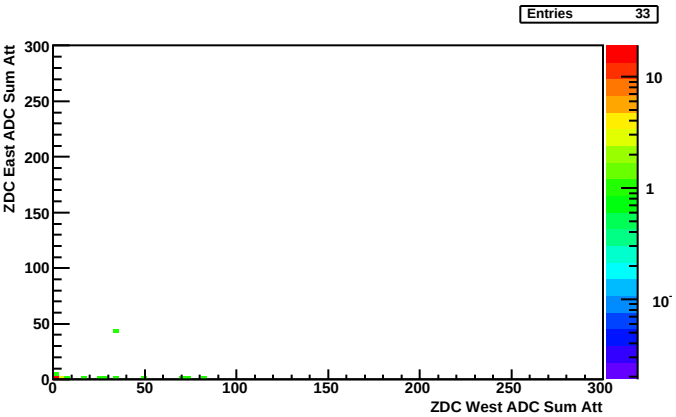

Entries 33
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

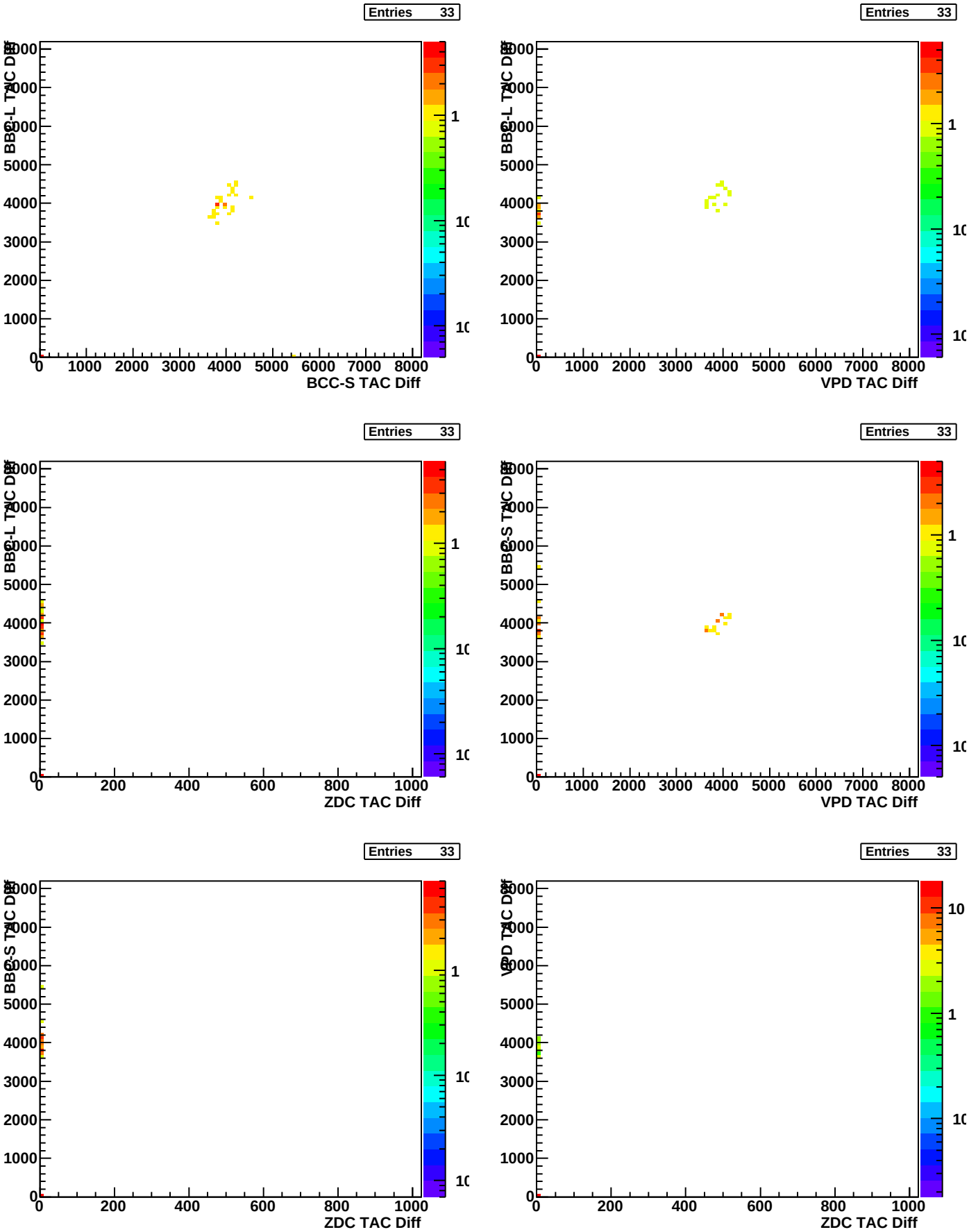

Entries 33
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

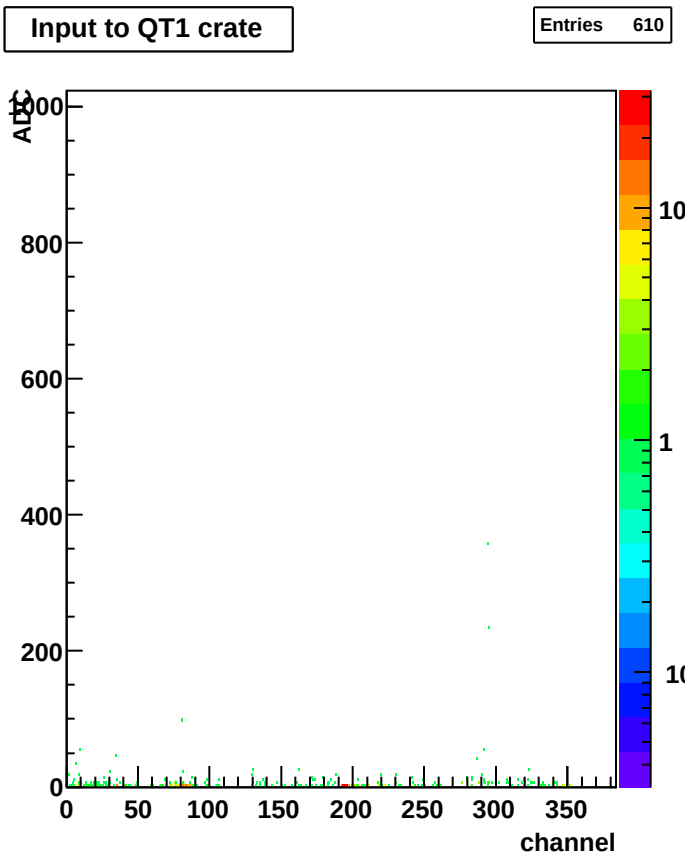

Entries 33
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

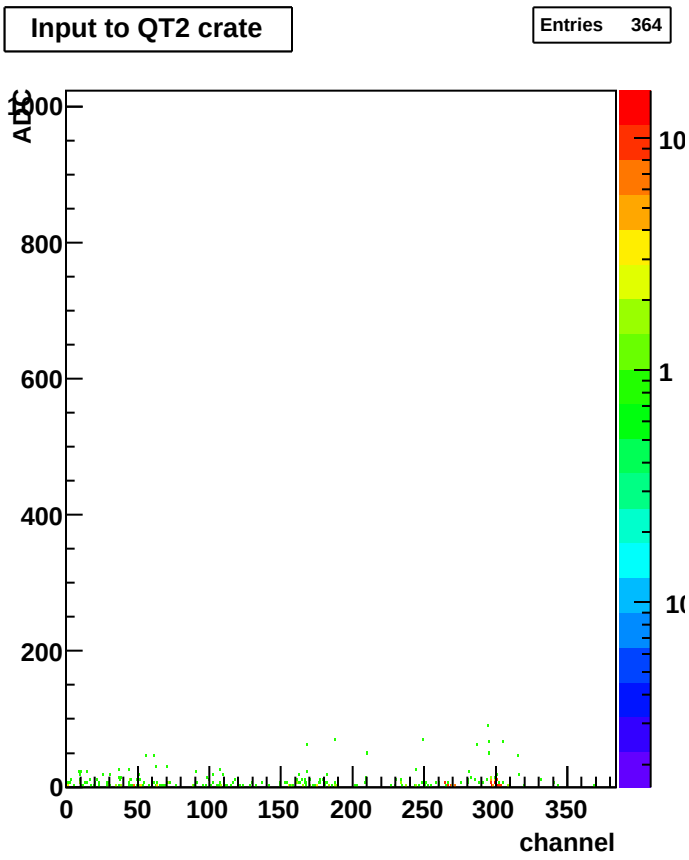

Entries 33
BBC-L-East ADC Sum
BBC-L-West ADC Sum

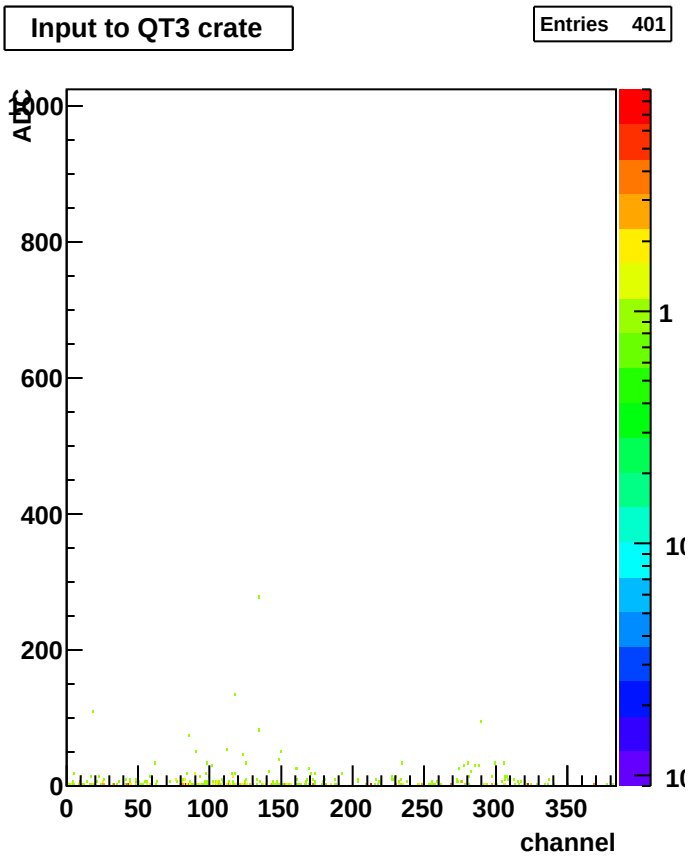

Entries 33
BBC-S-East ADC Sum
BBC-S-West ADC Sum

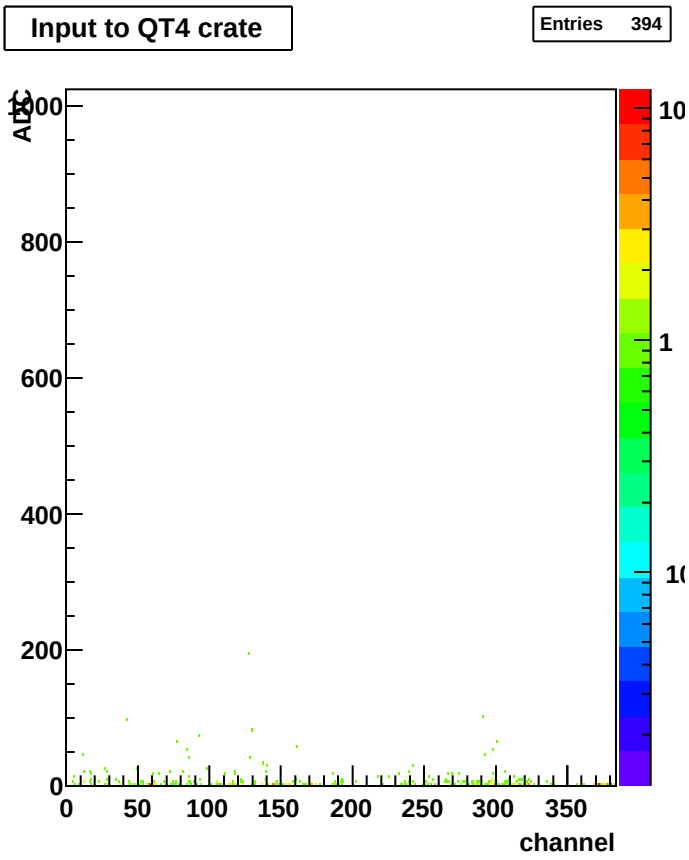

Entries 33
ZDC East ADC Sum Att
ZDC West ADC Sum Att

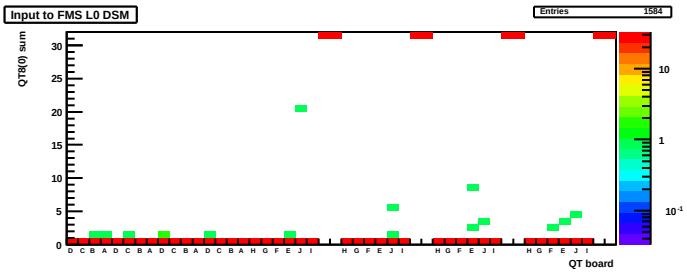

Entries 33
BBC-L TAC Diff
BCC-S TAC Diff
Entries 33
BBC-L TAC Diff
VPD TAC Diff
Entries 33
BBC-L TAC Diff
ZDC TAC Diff
Entries 33
BBC-S TAC Diff
VPD TAC Diff
Entries 33
BBC-S TAC Diff
ZDC TAC Diff
Entries 33
VPD TAC Diff
ZDC TAC Diff

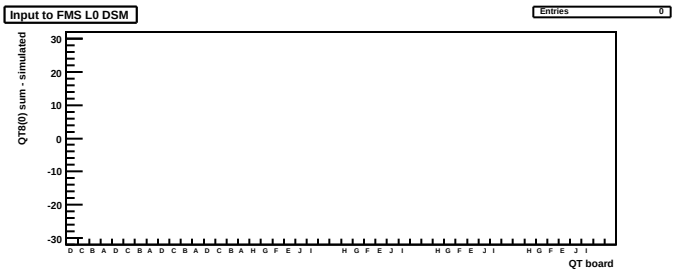

Input to QT1 crate
Entries 610
ADC
channel

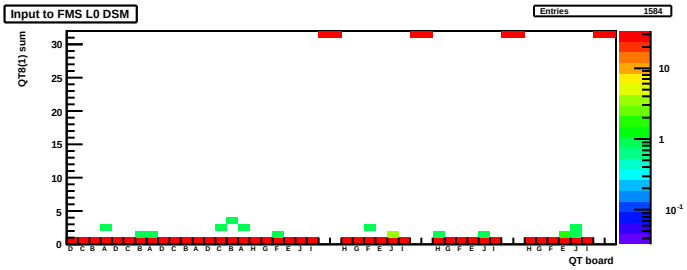

Input to QT2 crate
Entries 364
ADC
channel

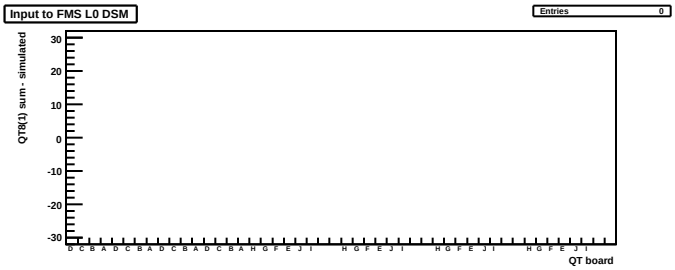

Input to QT3 crate
Entries 401
ADC
channel

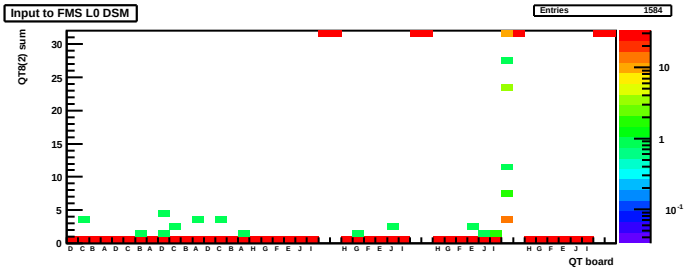

Input to QT4 crate
Entries 394
ADC
channel

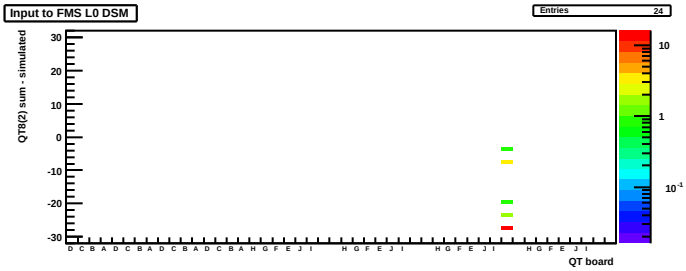

Input to FMS L0 DSM
Entries 1584
QT8(0) sum
QT board

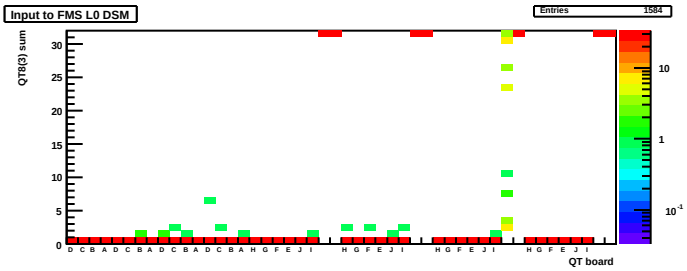

Input to FMS L0 DSM
Entries 0
QT8(0) sum - simulated
QT board

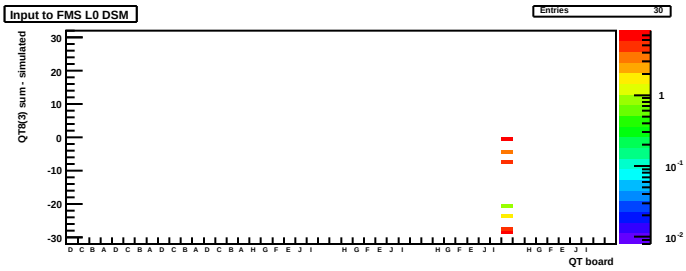

Input to FMS L0 DSM
Entries 1584
QT8(1) sum
QT board

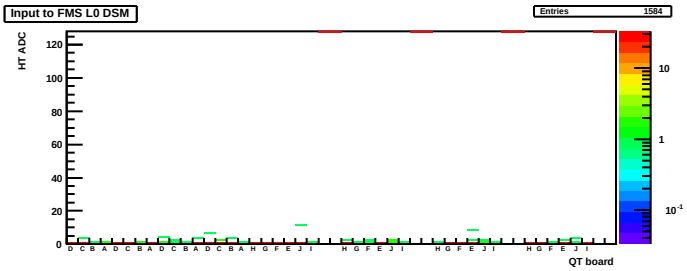

Input to FMS L0 DSM
Entries 0
QT8(1) sum - simulated
QT board

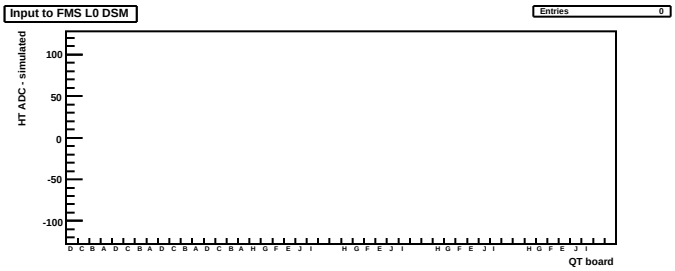

Input to FMS L0 DSM
Entries 1584
QT8(2) sum
QT board

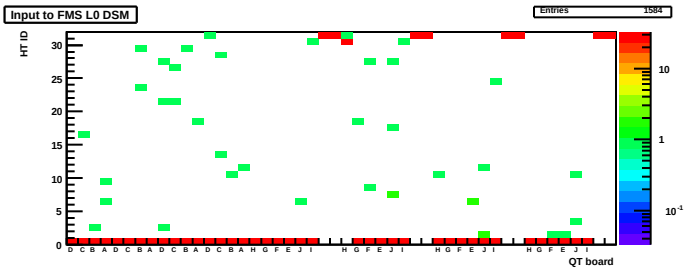

Input to FMS L0 DSM
Entries 24
QT8(2) sum - simulated
QT board

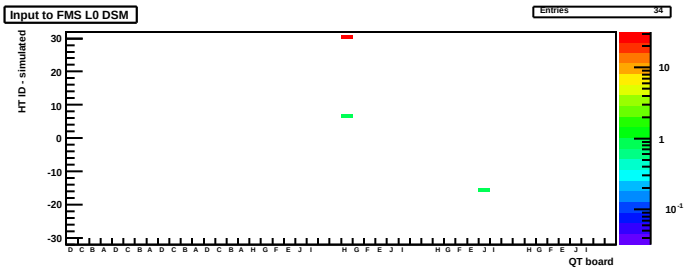

Input to FMS L0 DSM
Entries 1584
QT8(3) sum
QT board

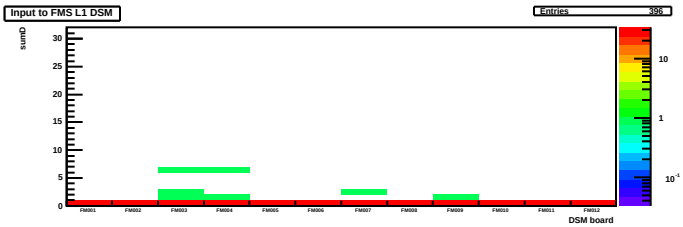

Input to FMS L0 DSM
Entries 30
QT8(3) sum - simulated
QT board

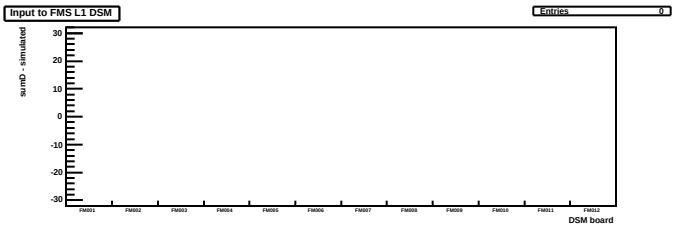

Input to FMS L0 DSM
Entries 1584
HT ADC
QT board

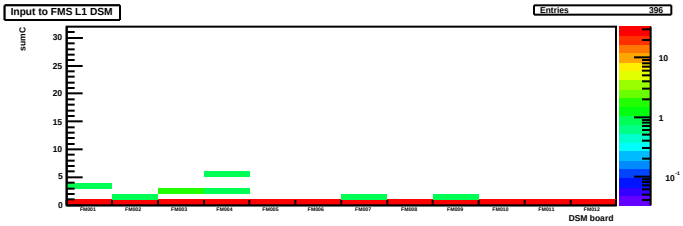

Input to FMS L0 DSM
Entries 0
HT ADC - simulated
QT board

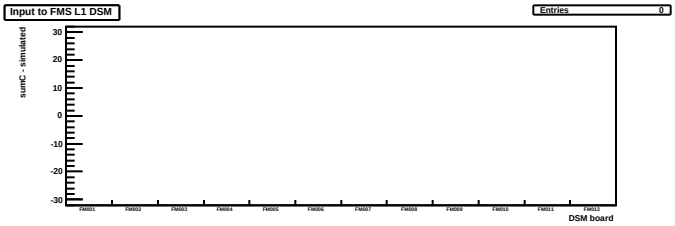

Input to FMS L0 DSM
Entries 1584
HT ID
QT board

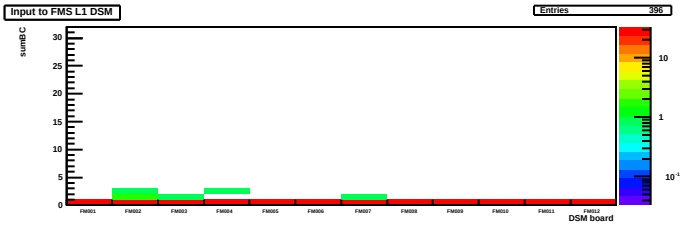

Input to FMS L0 DSM
Entries 34
HT ID - simulated
QT board

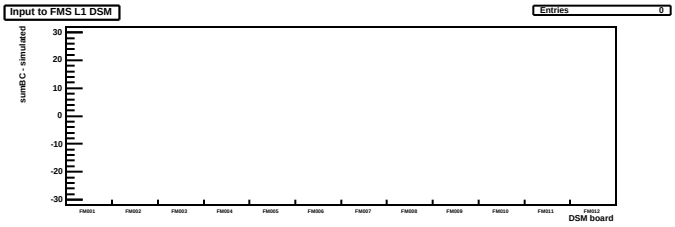

Input to FMS L1 DSM
Entries 396
sumD
DSM board

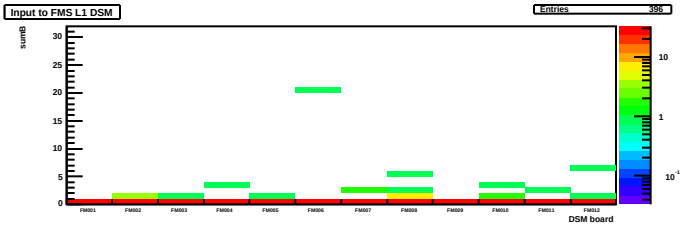

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

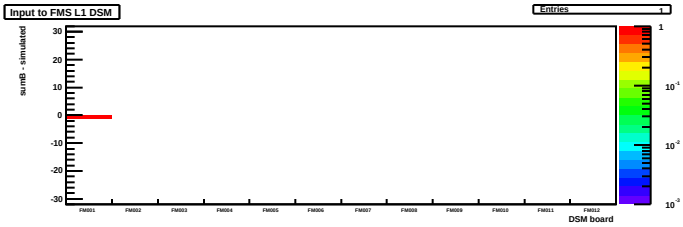

Input to FMS L1 DSM
Entries 396
sumC
DSM board

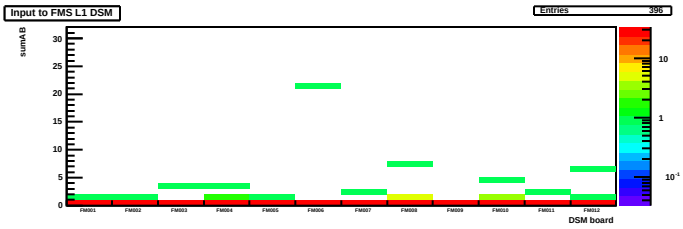

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

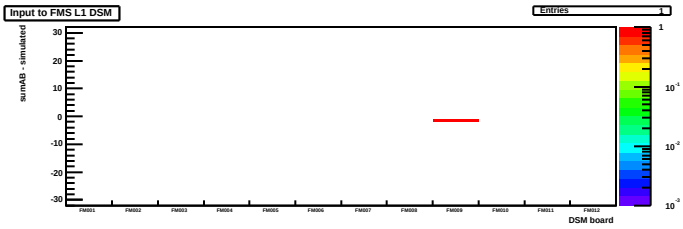

Input to FMS L1 DSM
Entries 396
sumBC
DSM board

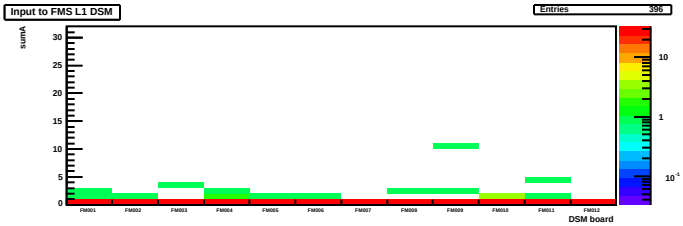

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

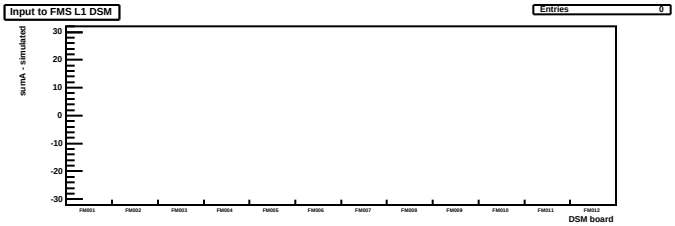

Input to FMS L1 DSM
Entries 396
sumB
DSM board

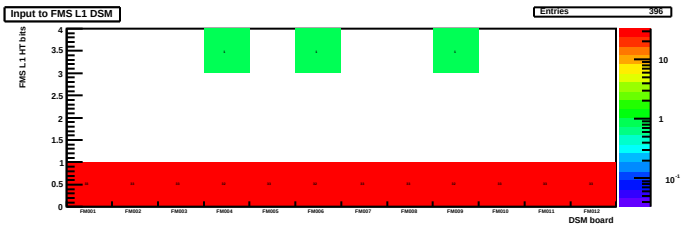

Input to FMS L1 DSM
Entries 1
sumB - simulated
DSM board

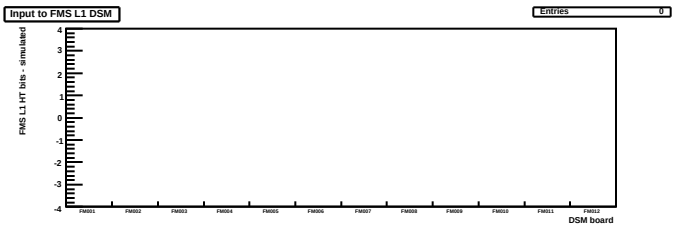

Input to FMS L1 DSM
Entries 396
sumAB
DSM board

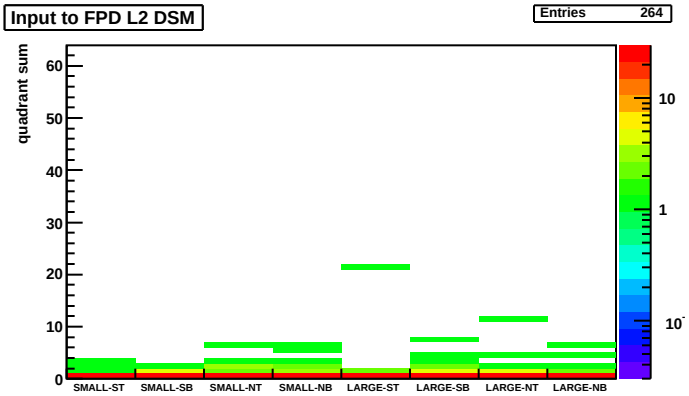

Input to FMS L1 DSM
Entries 1
sumAB - simulated
DSM board

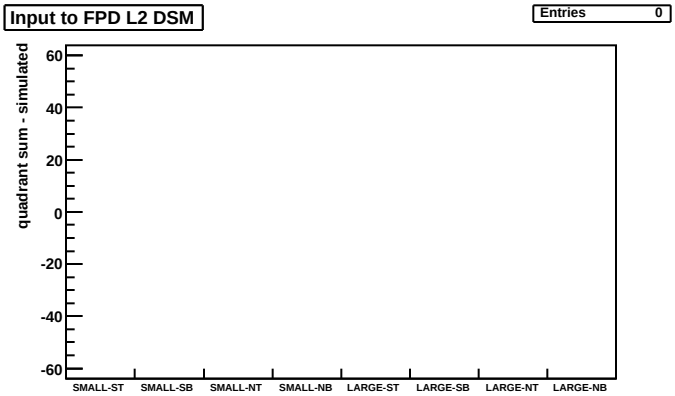

Input to FMS L1 DSM
Entries 396
sumA
DSM board

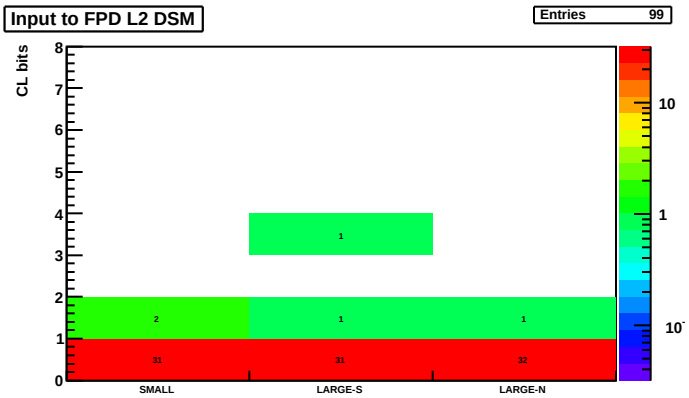

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

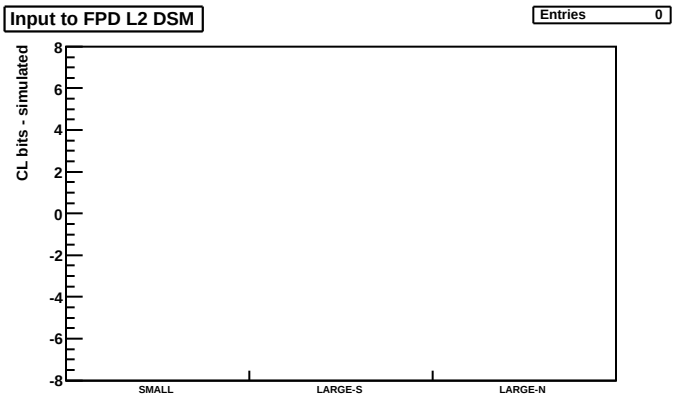

Input to FMS L1 DSM
Entries 396
FMS L1 HT bits
DSM board

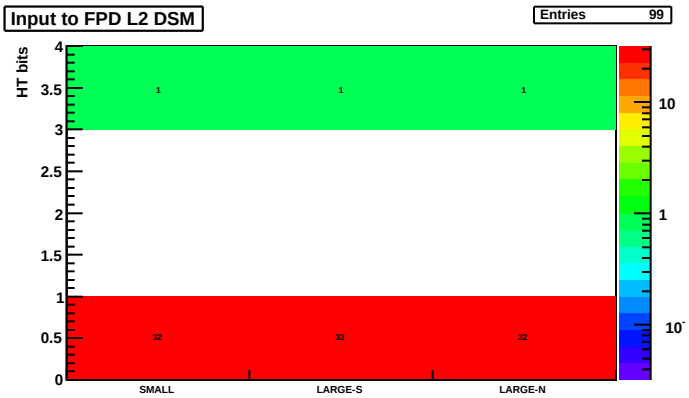

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

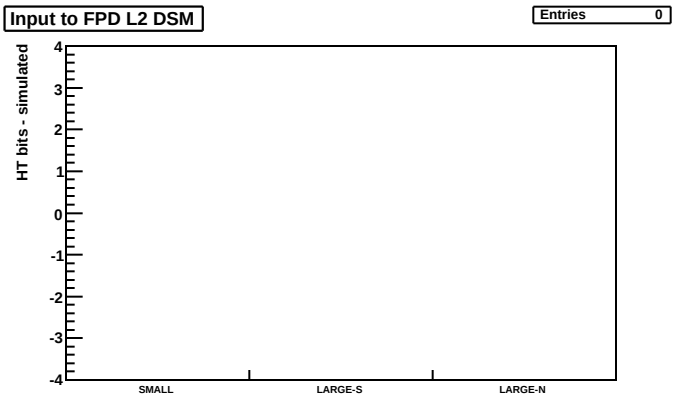

Input to FPD L2 DSM
Entries 264
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

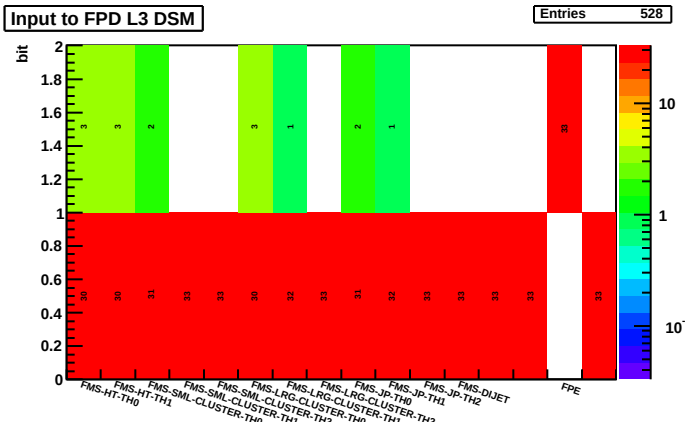

Input to FPD L2 DSM
Entries 0
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

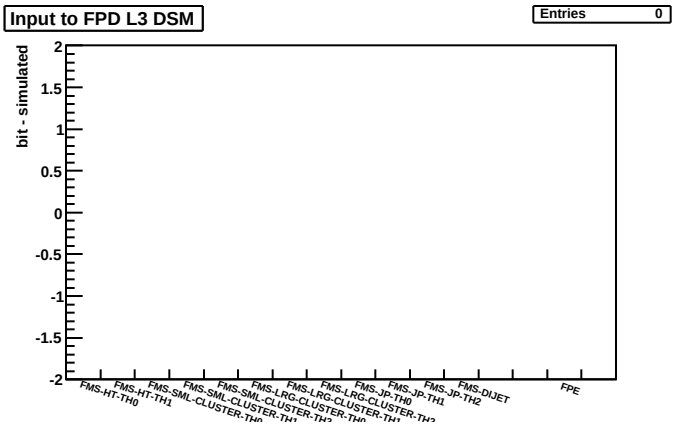

Input to FPD L2 DSM
Entries 99
CL bits
SMALL
LARGE-S
LARGE-N

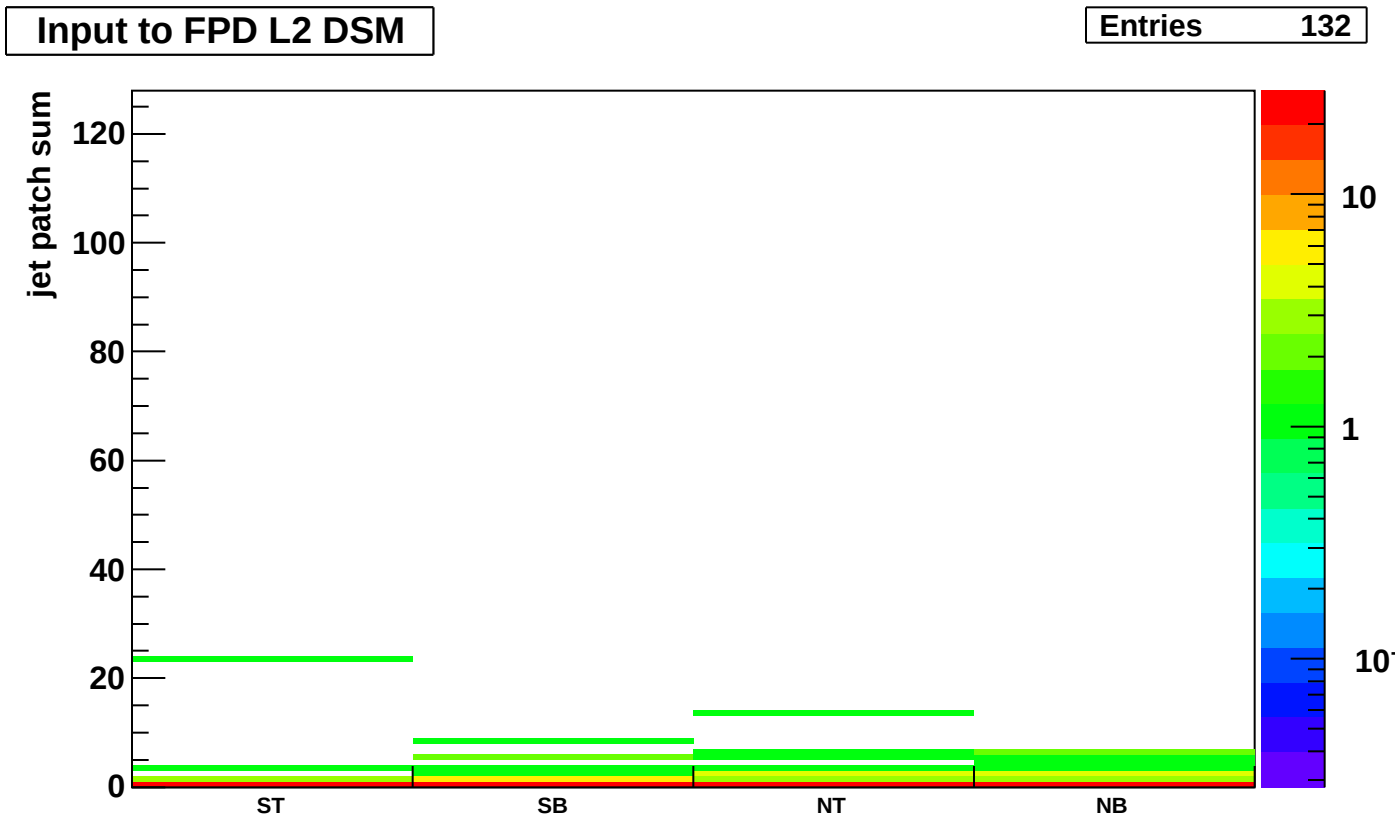

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

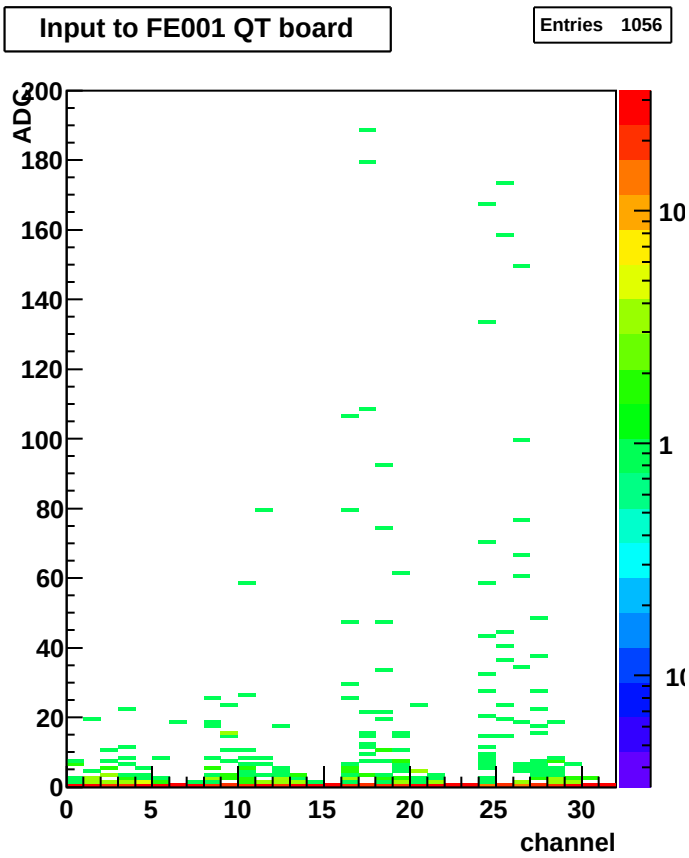

Input to FPD L2 DSM
Entries 99
HT bits
SMALL
LARGE-S
LARGE-N

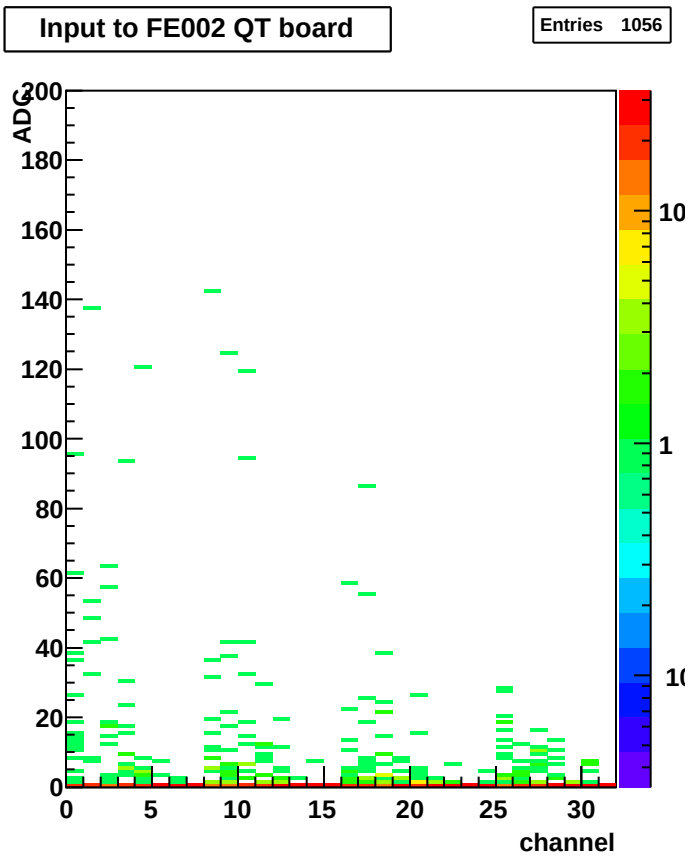

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

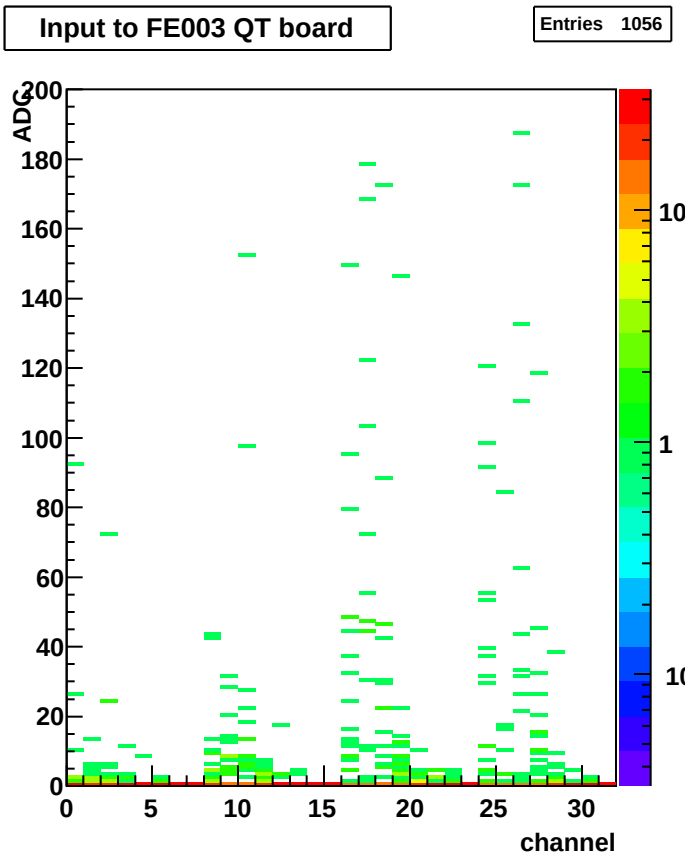

Input to FPD L3 DSM
Entries 528
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

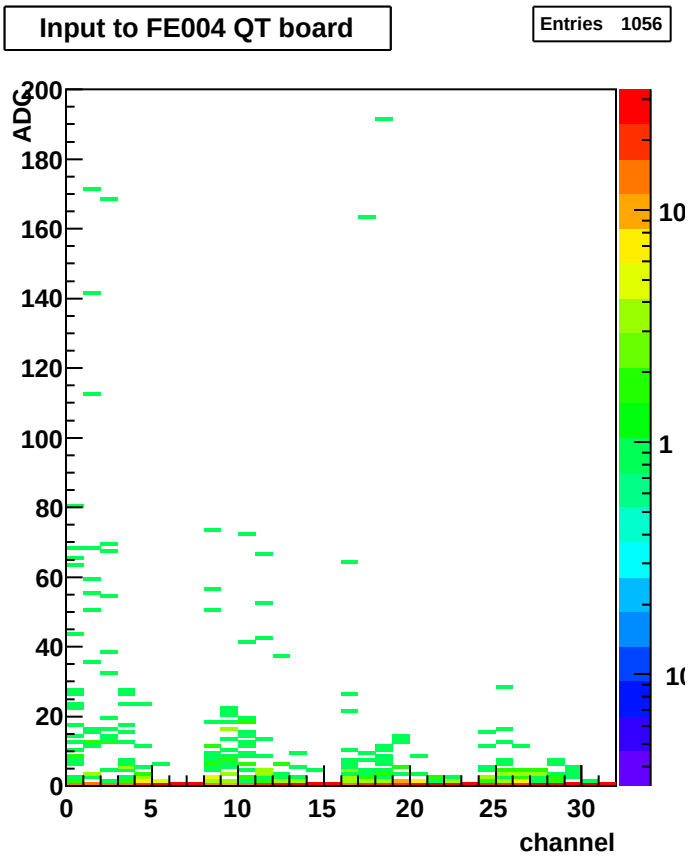

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

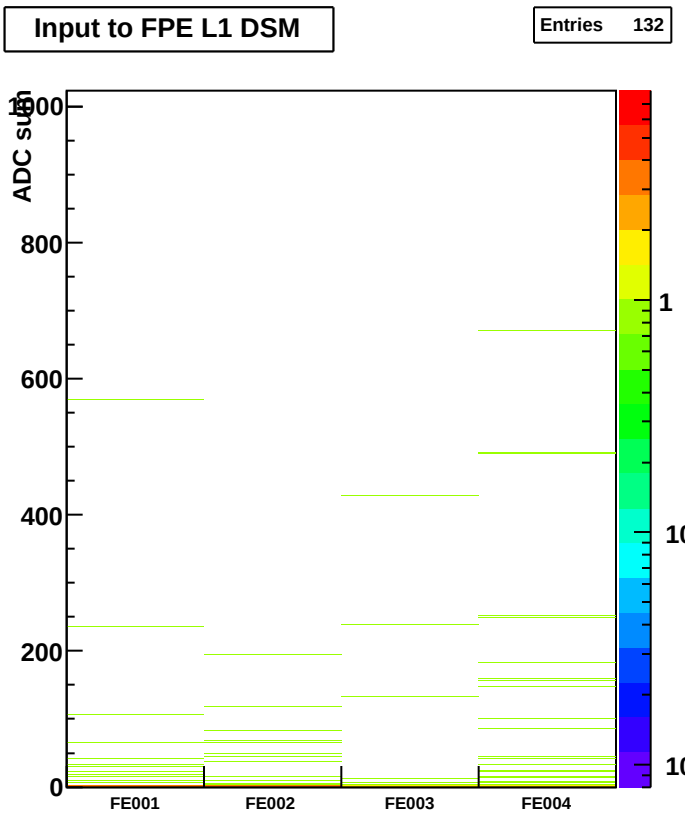

Input to FPD L2 DSM
Entries 132
jet patch sum
120
100
80
60
40
20
0
ST
SB
NT
NB
10
1

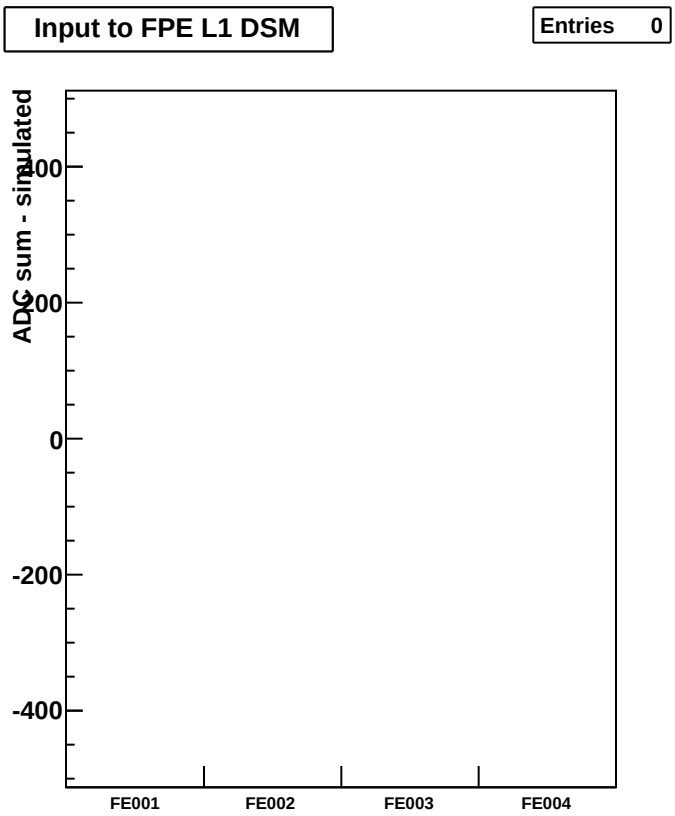

Input to FE001 QT board
Entries 1056
ADC
channel

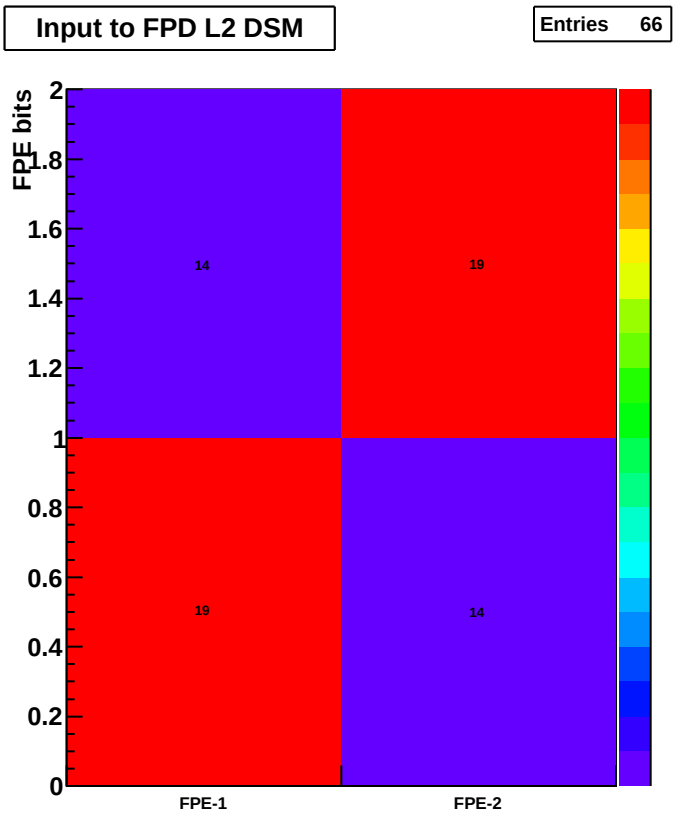

Input to FE002 QT board
Entries 1056
ADC
channel

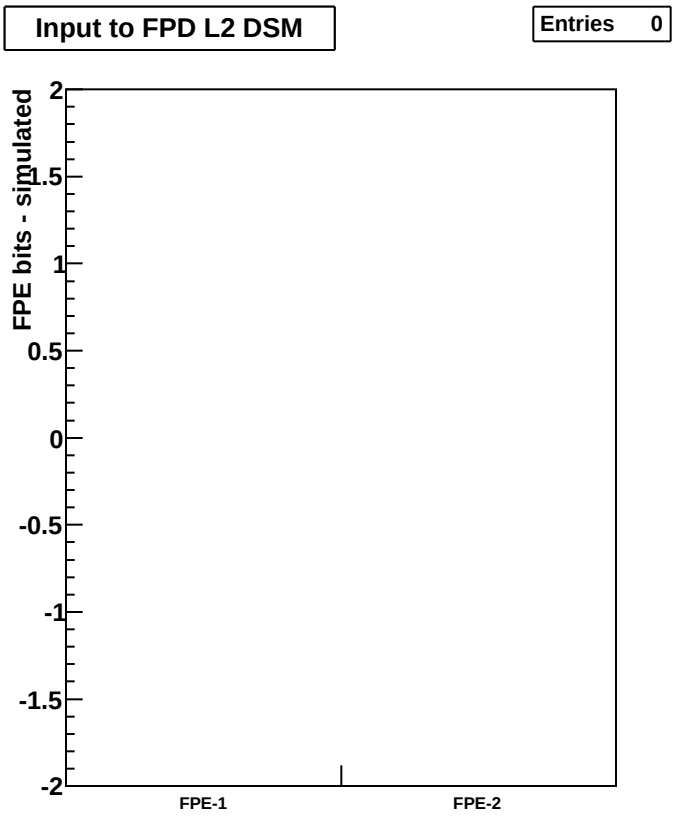

Input to FE003 QT board
Entries 1056
ADC
channel


Input to FE004 QT board
Entries 1056
ADC
channel


Input to FPE L1 DSM
Entries 132
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
1


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


Input to FPD L2 DSM
Entries 66
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
14
19
19
14
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