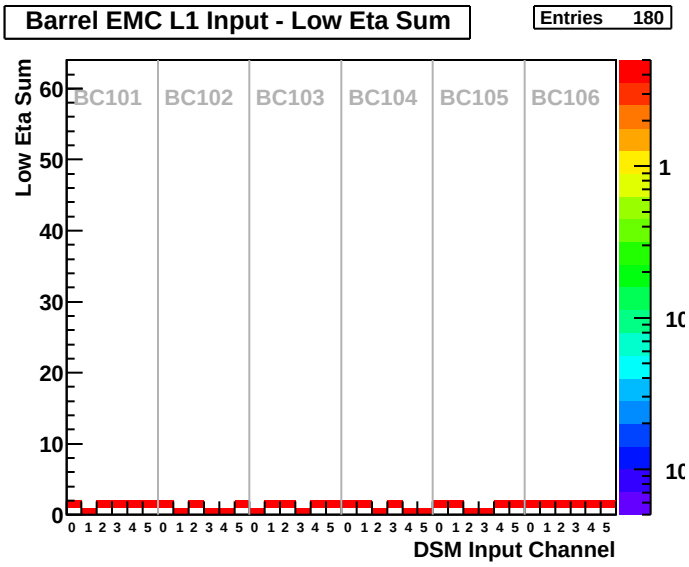
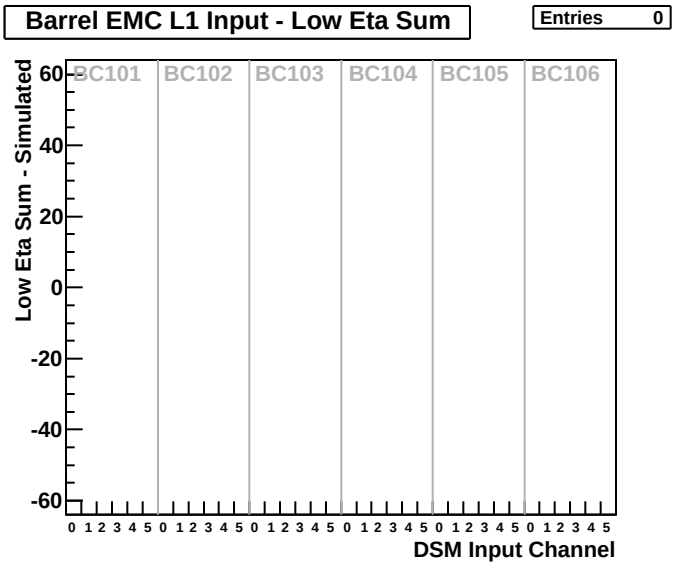
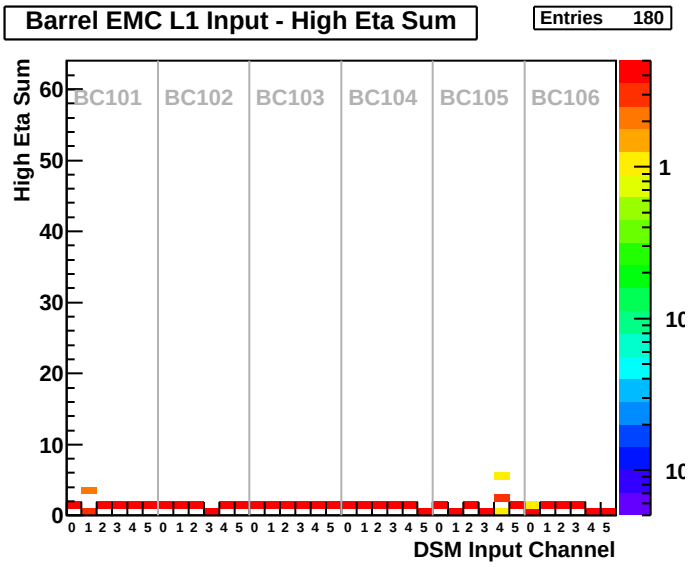
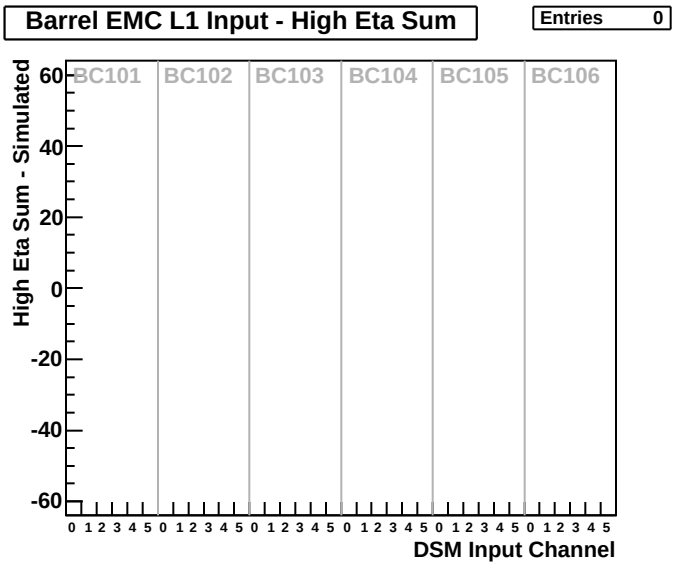
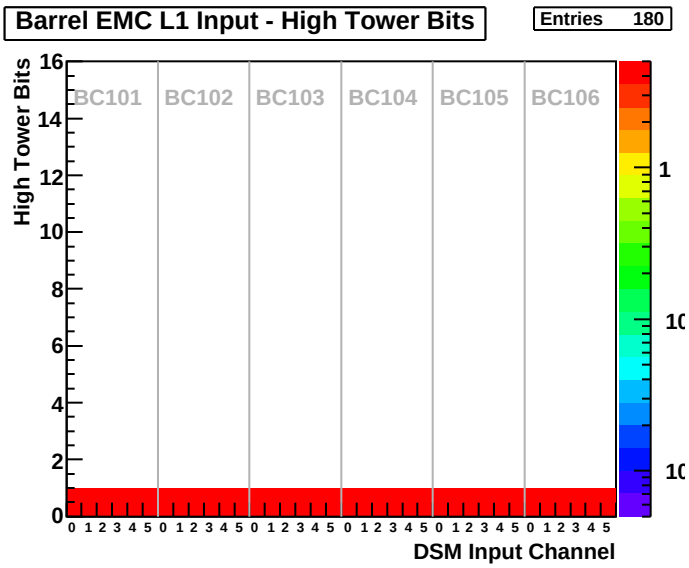
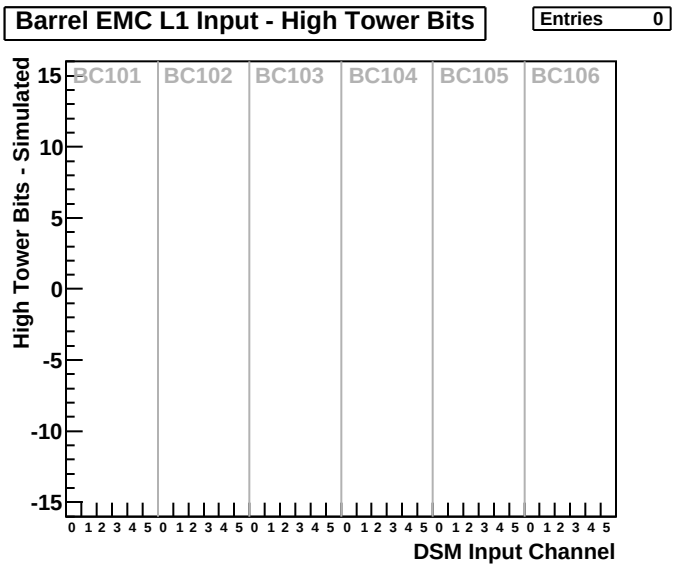

Barrel EMC L1 Input - Low Eta Sum
Entries 180
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

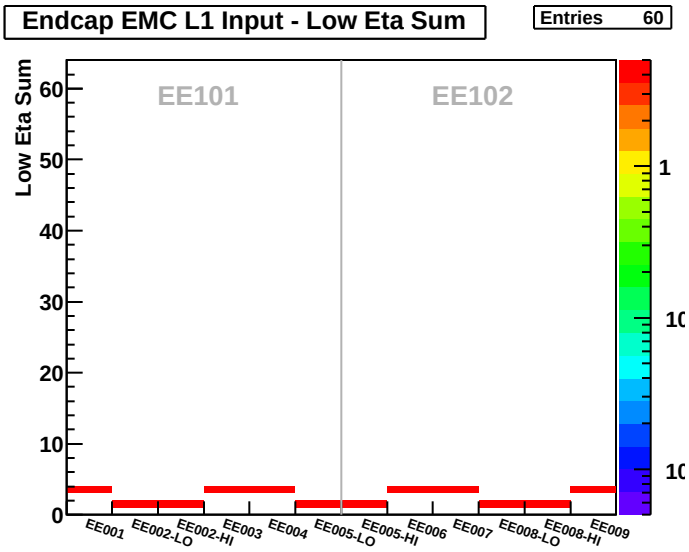

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

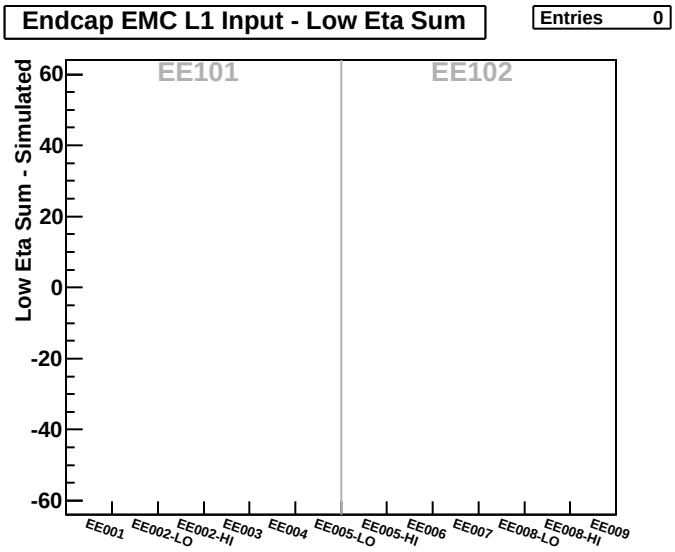

Barrel EMC L1 Input - High Eta Sum
Entries 180
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

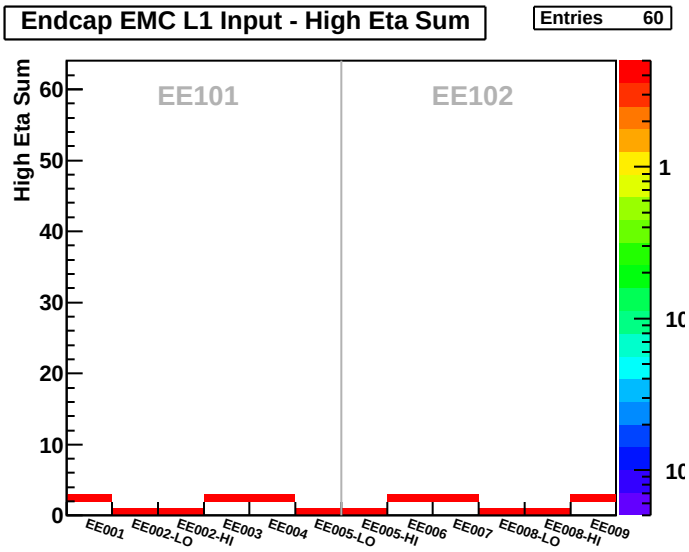

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

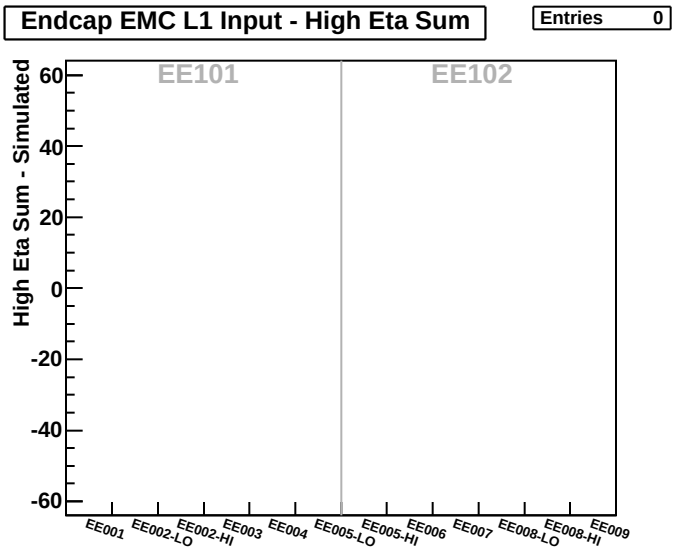

Barrel EMC L1 Input - High Tower Bits
Entries 180
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

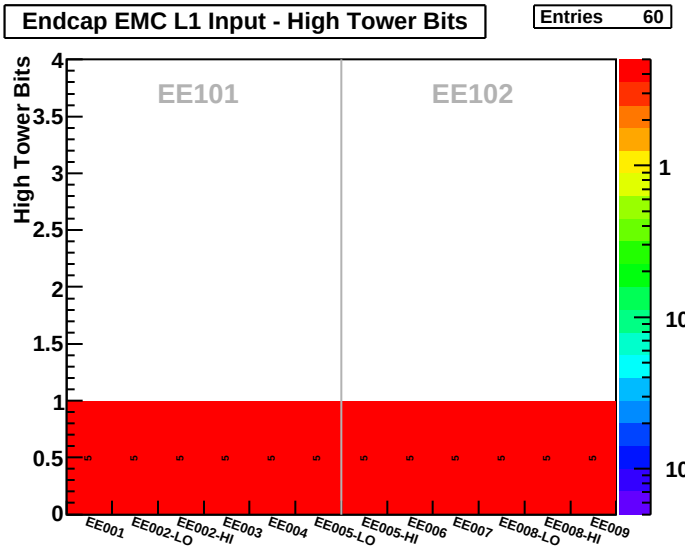

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

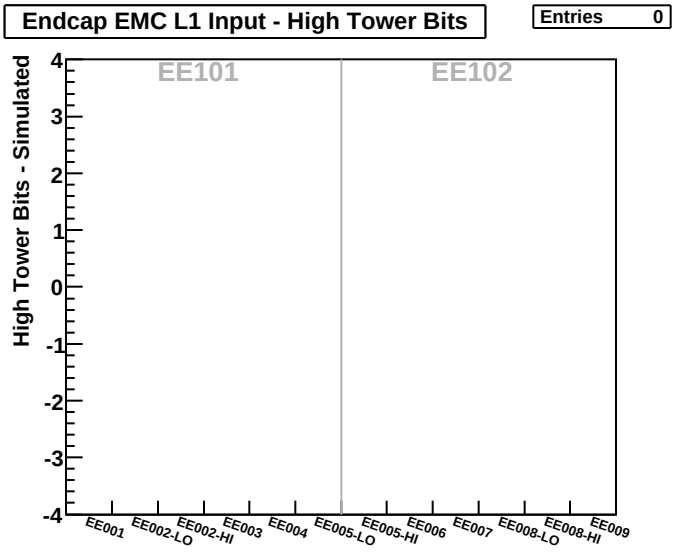

Endcap EMC L1 Input - Low Eta Sum
Entries 60
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

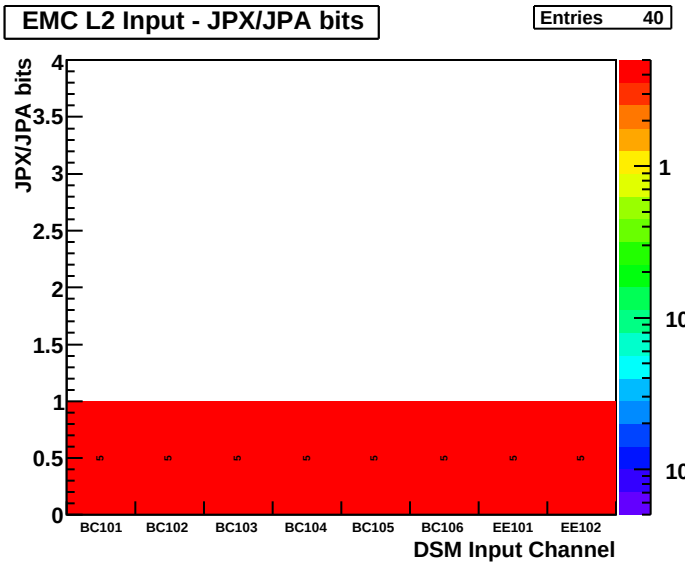

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

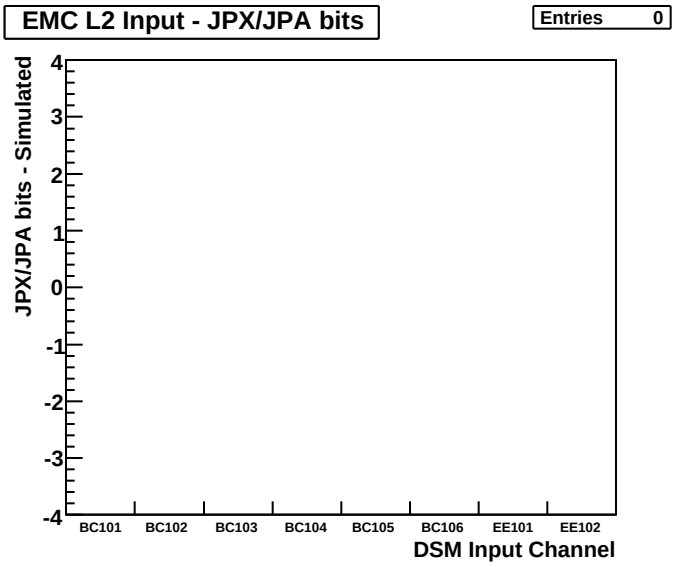

Endcap EMC L1 Input - High Eta Sum
Entries 60
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

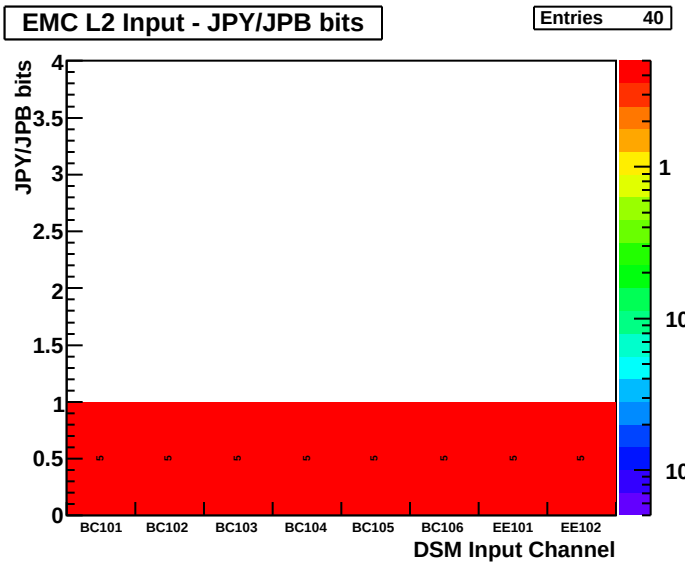

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

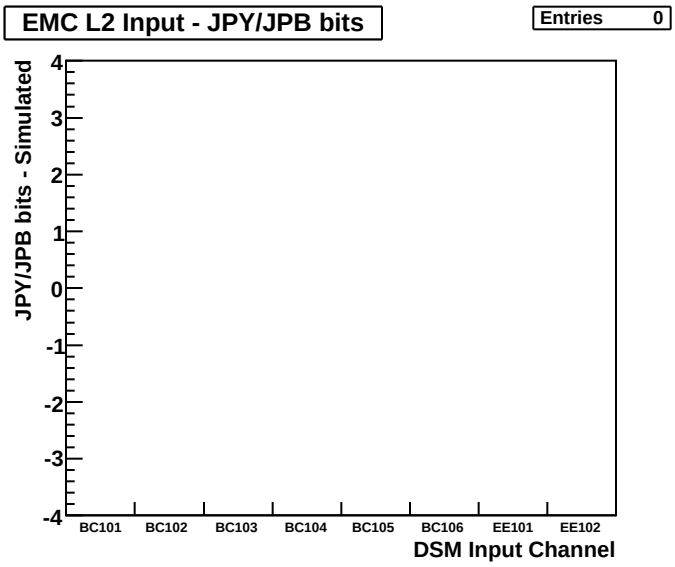

Endcap EMC L1 Input - High Tower Bits
Entries 60
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

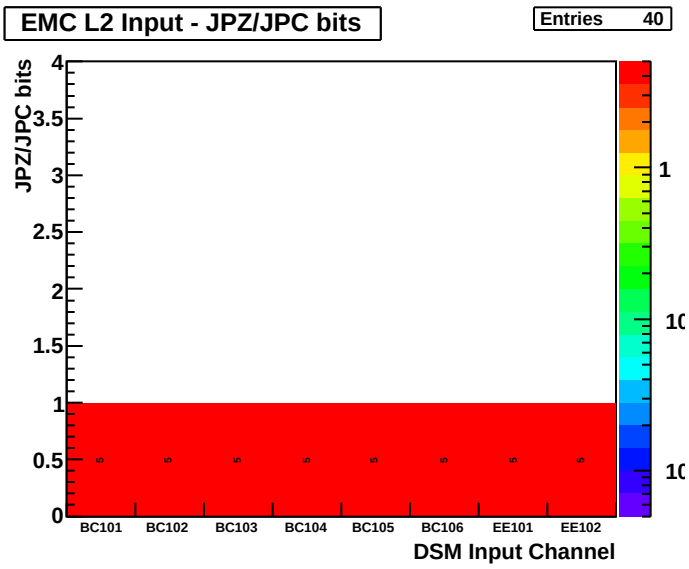

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

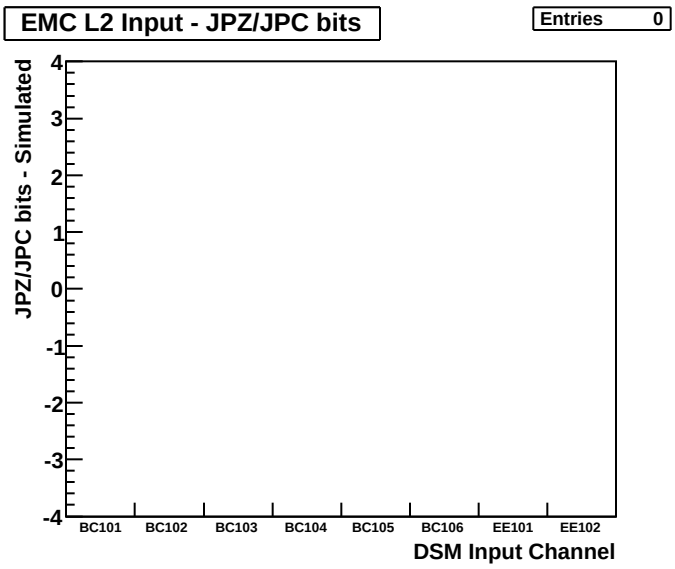

EMC L2 Input - JPX/JPA bits
Entries 40
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

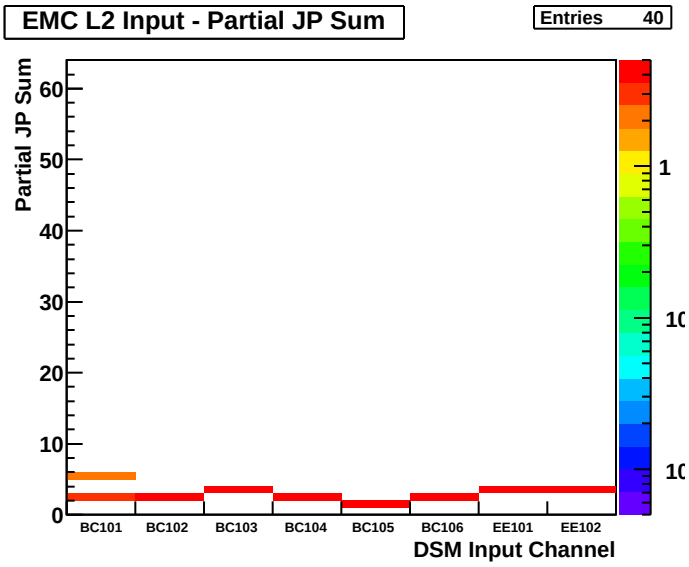

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

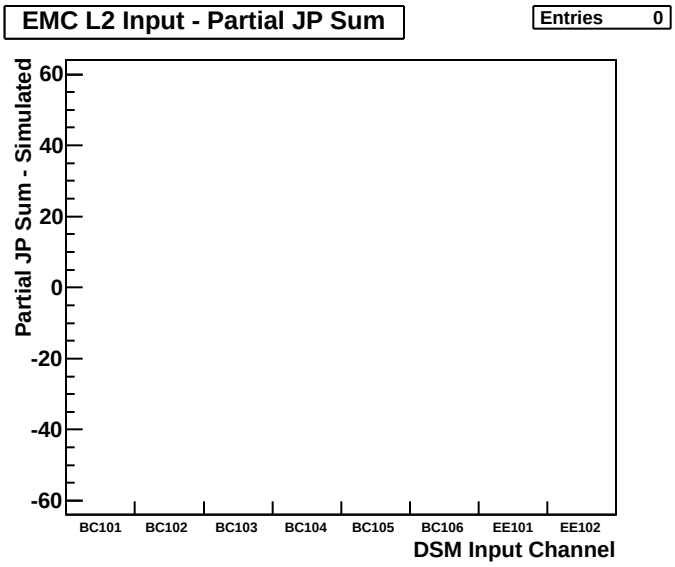

EMC L2 Input - JPY/JPB bits
Entries 40
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

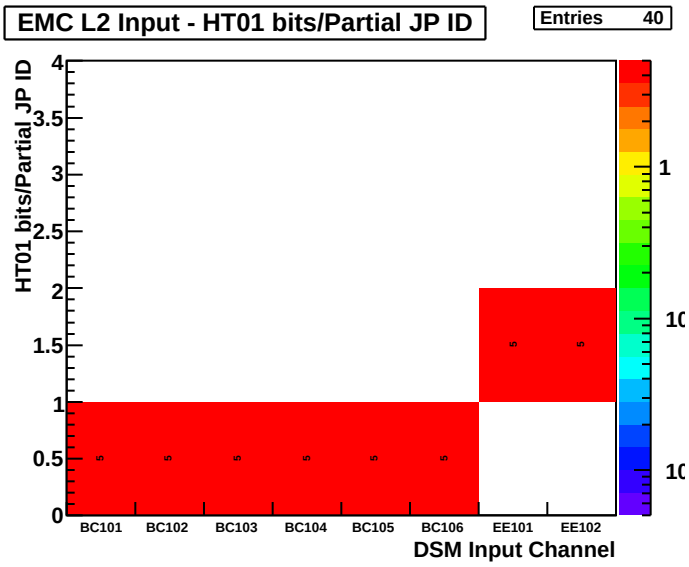

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

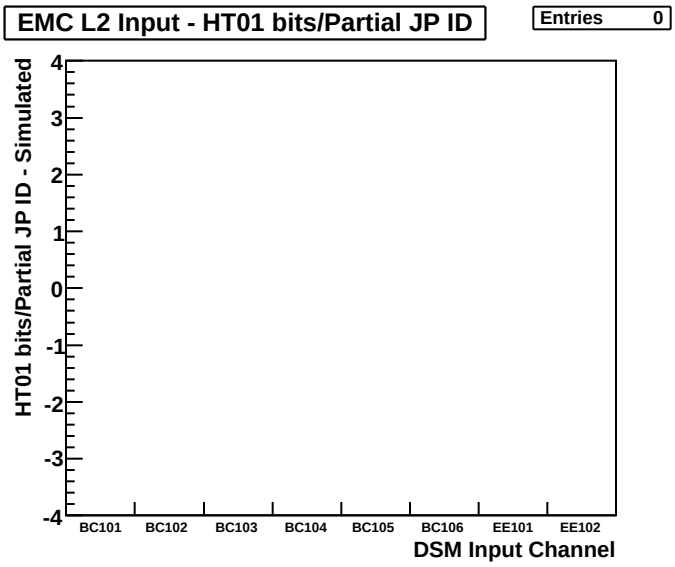

EMC L2 Input - JPZ/JPC bits
Entries 40
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

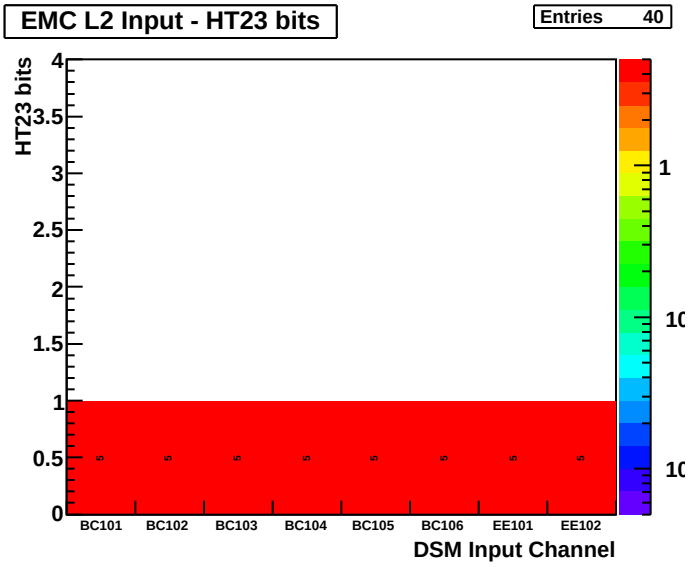

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

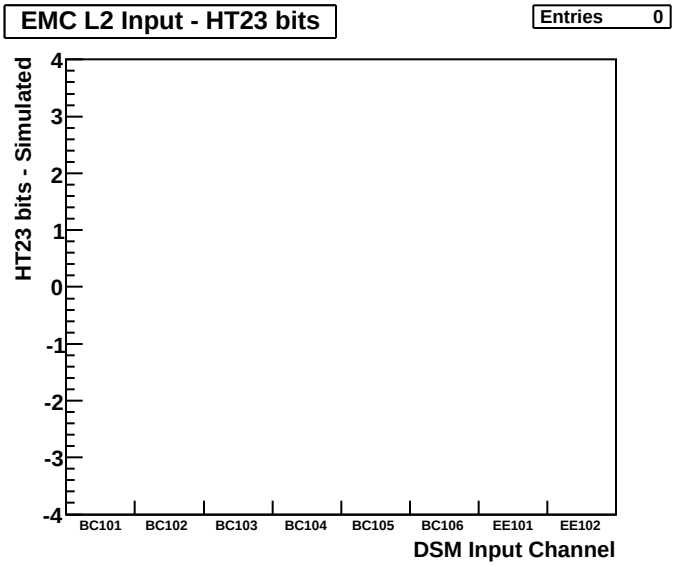

EMC L2 Input - Partial JP Sum
Entries 40
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

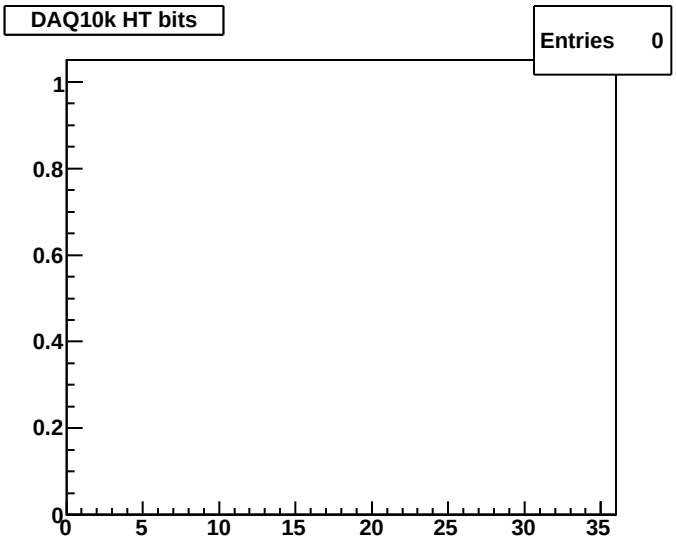

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

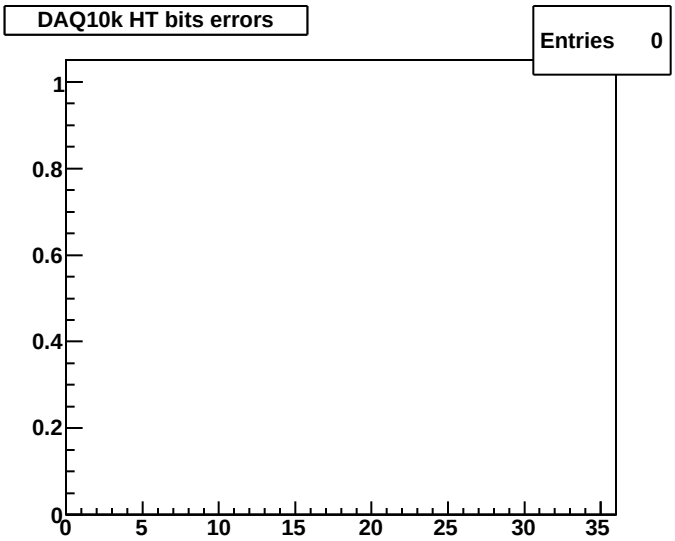

EMC L2 Input - HT01 bits/Partial JP ID
Entries 40
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

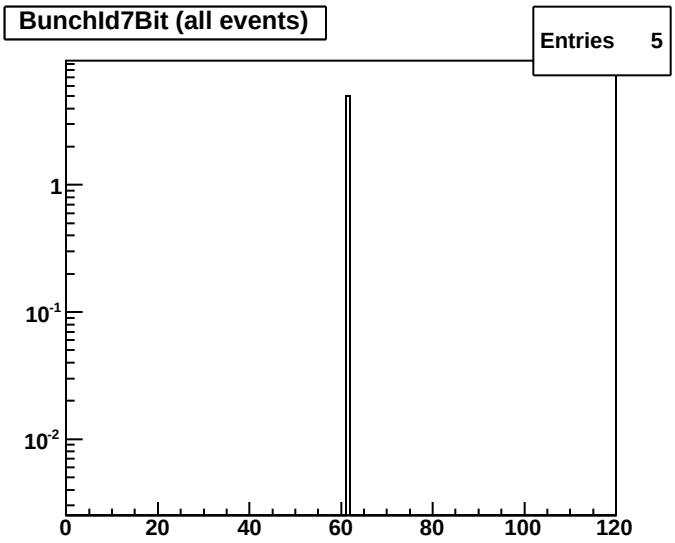

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

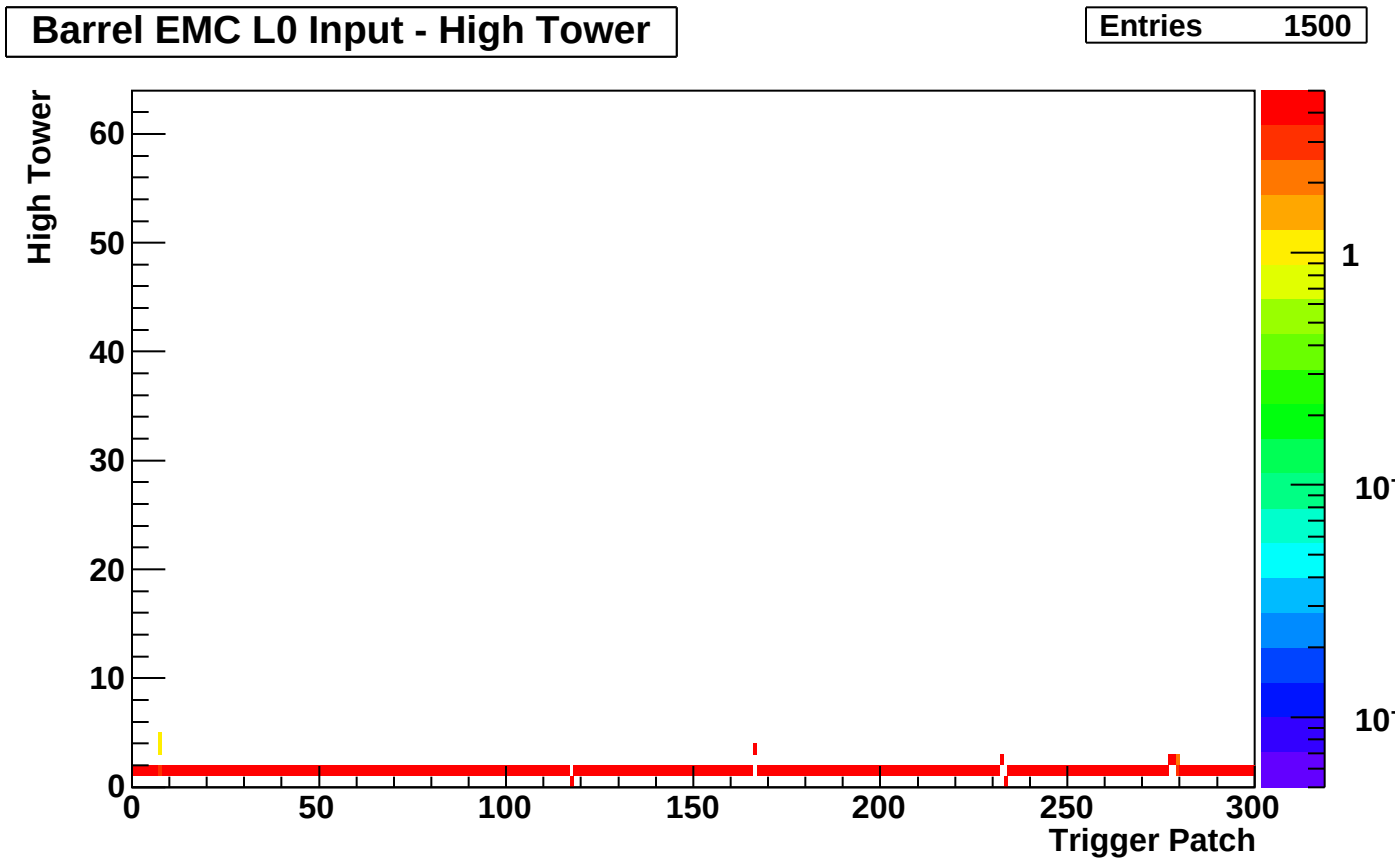

EMC L2 Input - HT23 bits
Entries 40
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

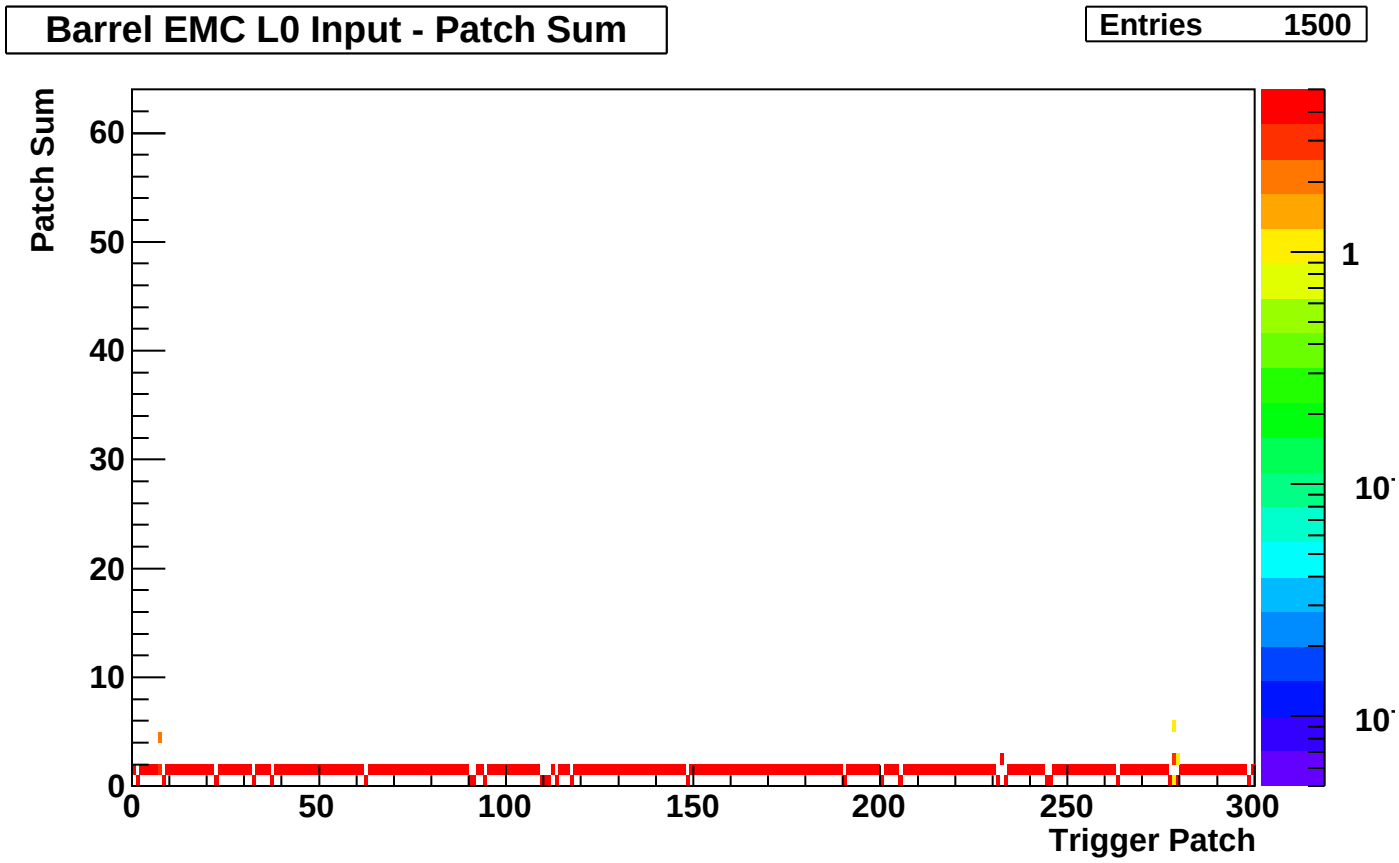

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

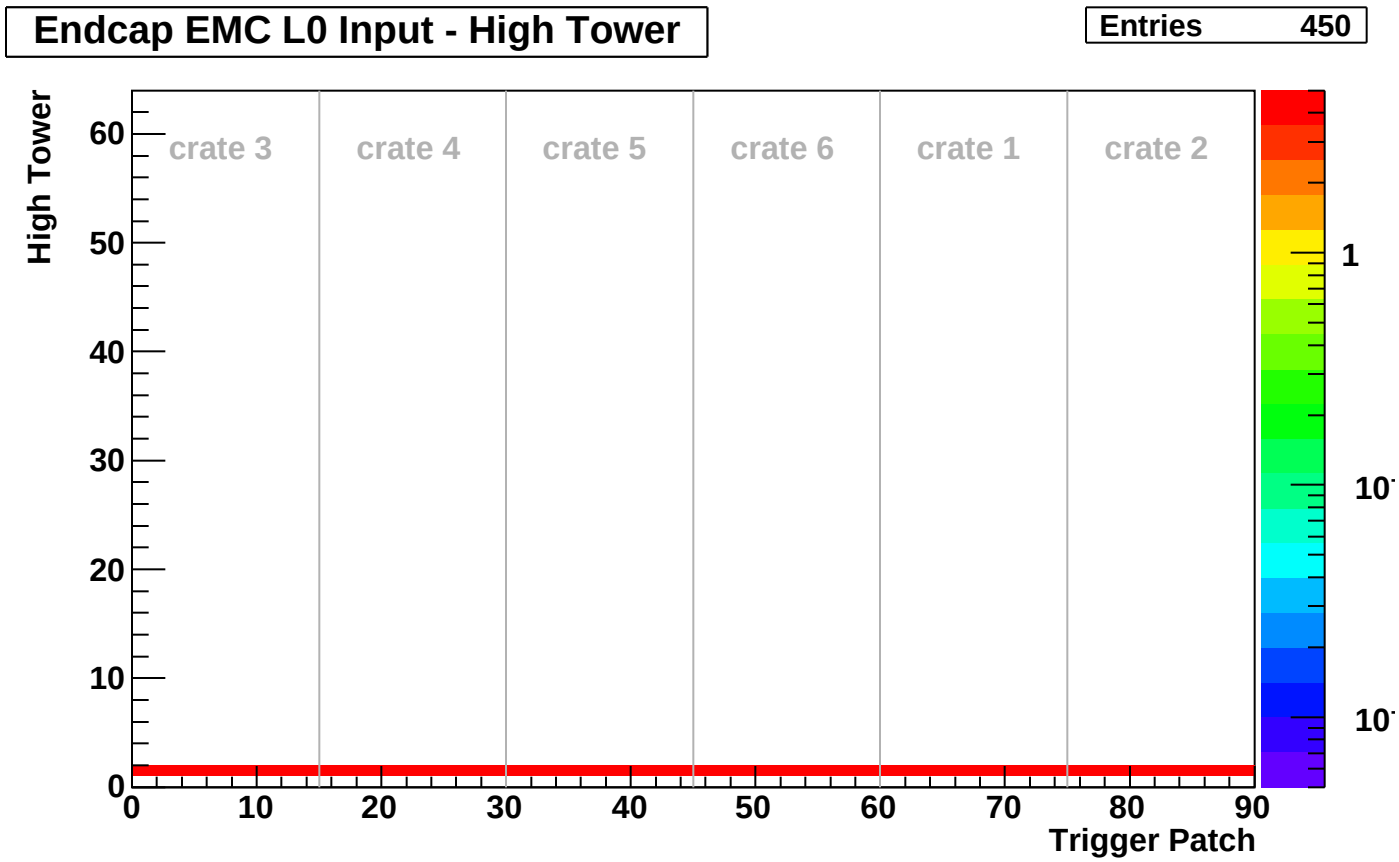

DAQ10k HT bits
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

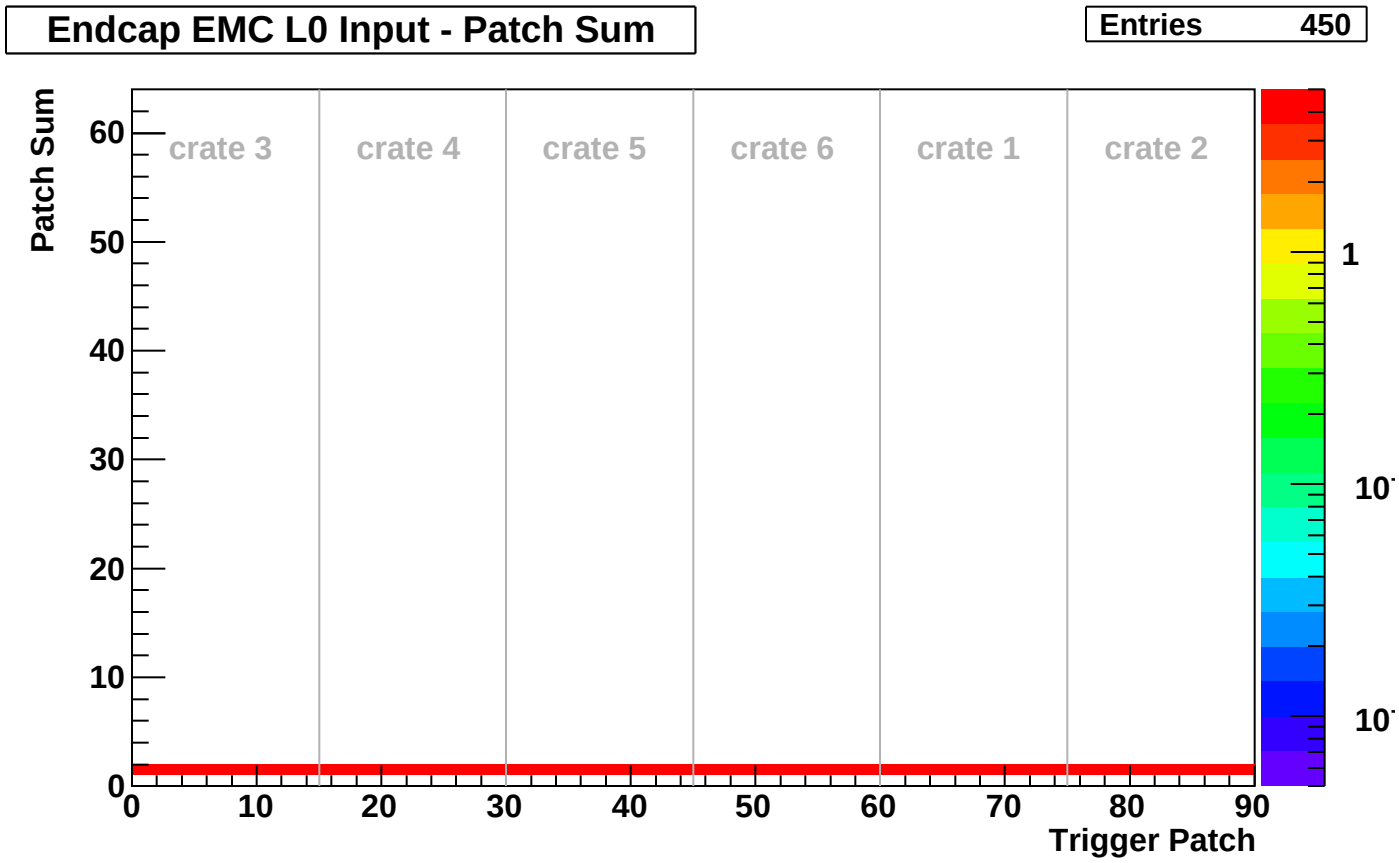

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

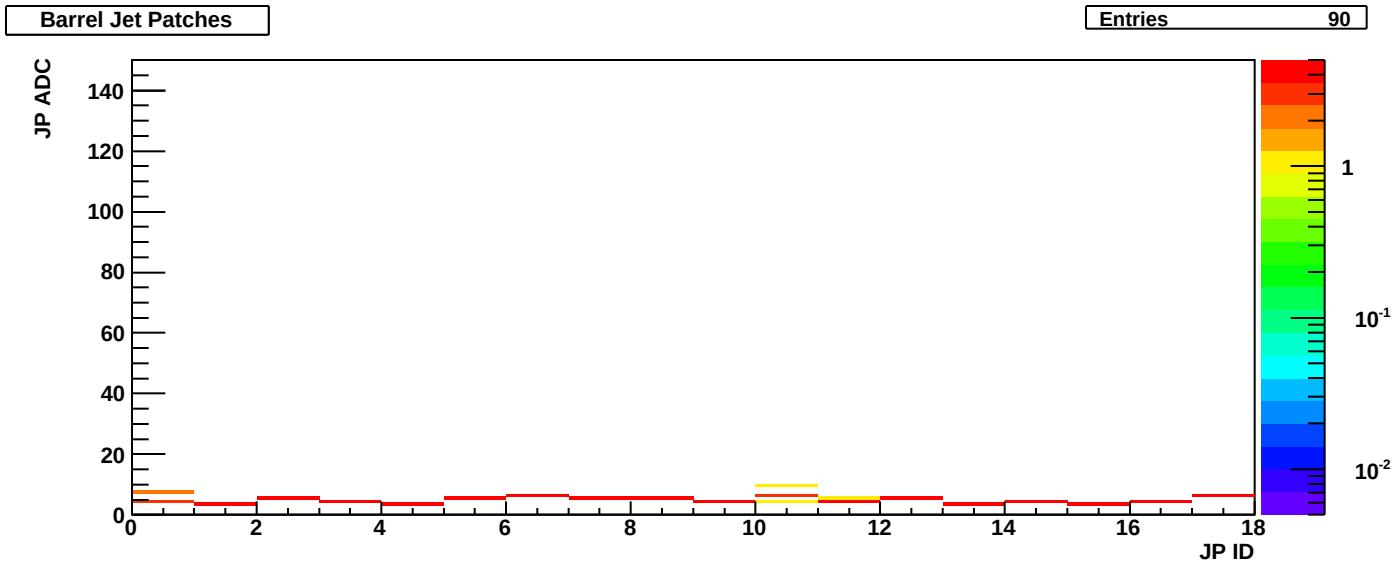

BunchId7Bit (all events)
Entries 5
1
10-1
10-2
0 20 40 60 80 100 120

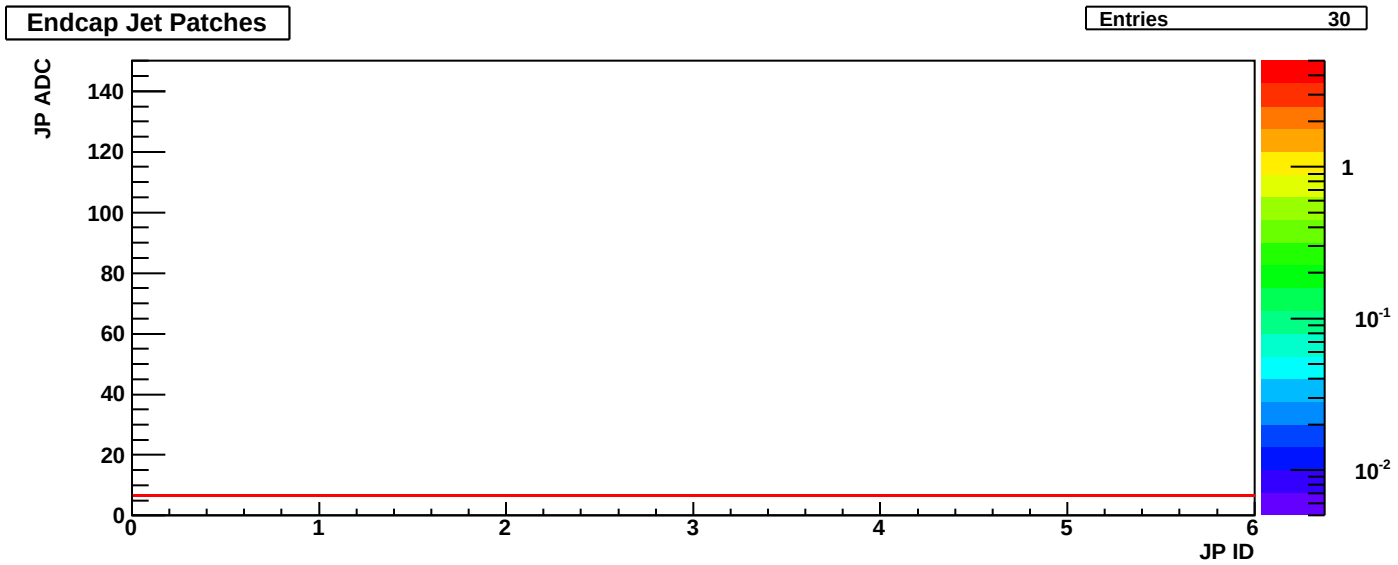

Barrel EMC L0 Input - High Tower
Entries 1500
High Tower
0
10
20
30
40
50
60
0
50
100
150
200
250
300
Trigger Patch
1

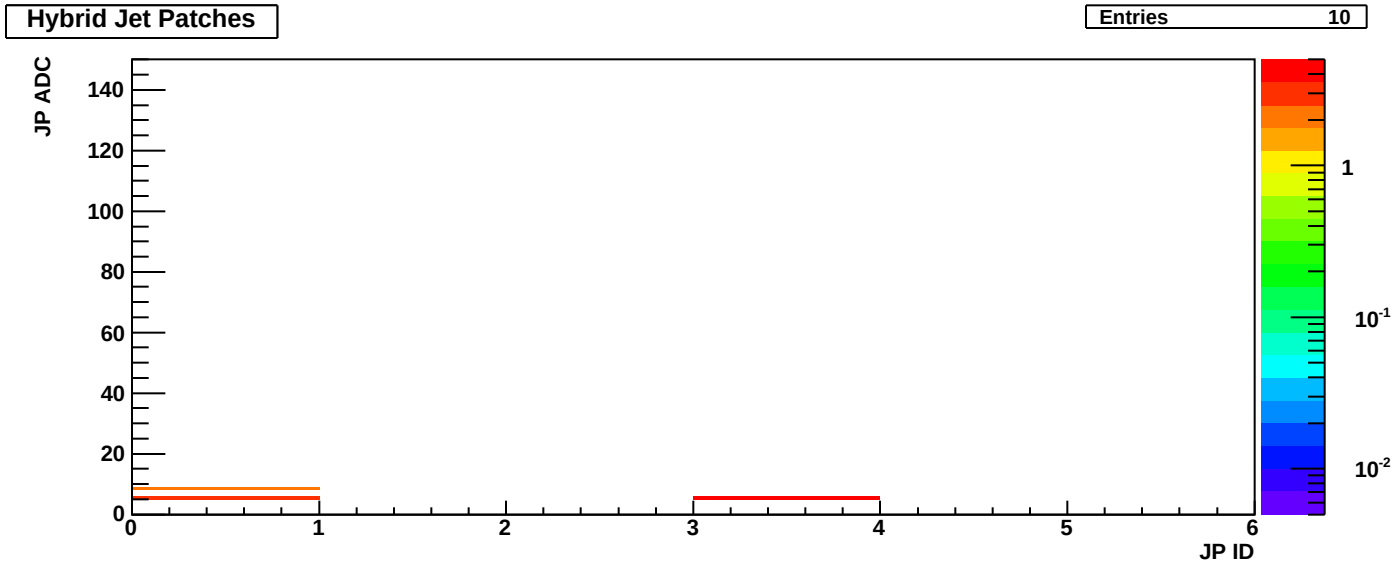

Barrel EMC L0 Input - Patch Sum
Entries 1500
Patch Sum
0
10
20
30
40
50
60
0
50
100
150
200
250
300
Trigger Patch
1

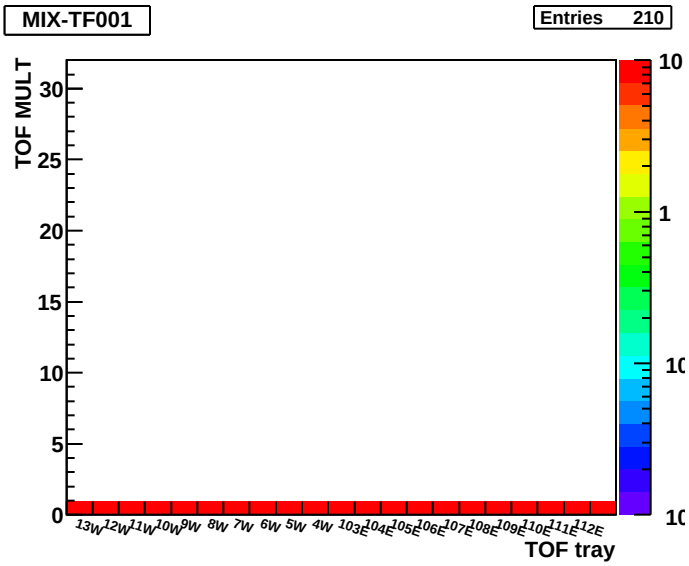

Endcap EMC L0 Input - High Tower
Entries 450
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

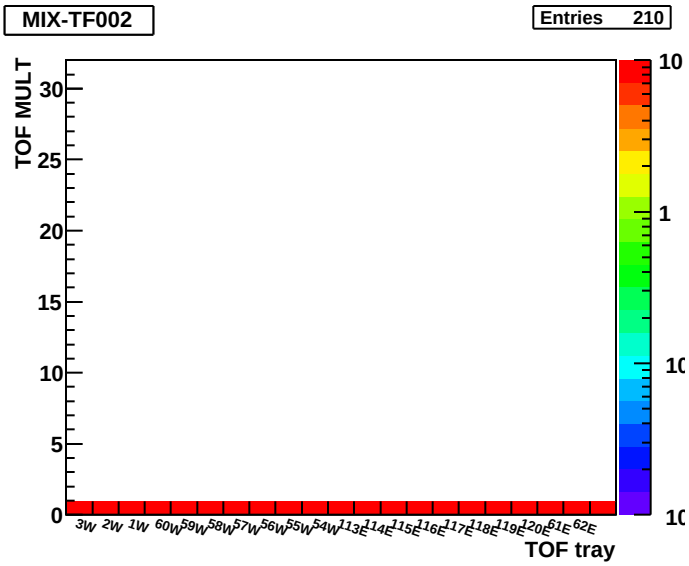

Endcap EMC L0 Input - Patch Sum
Entries 450
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

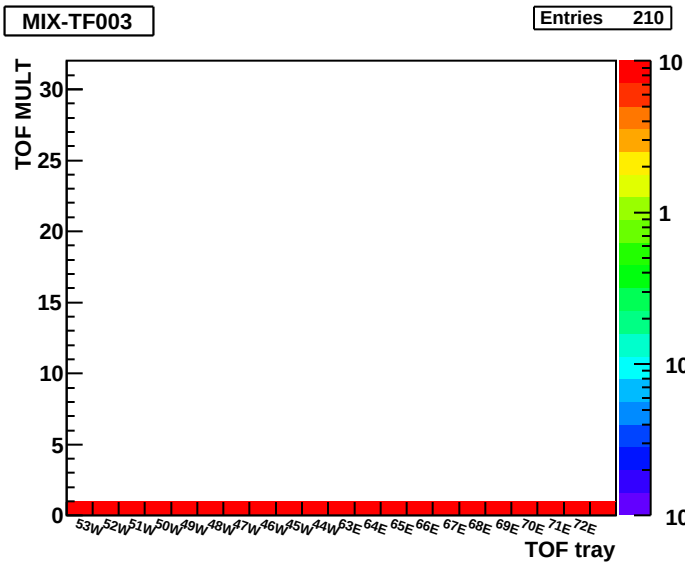

Barrel Jet Patches
Entries 90
JP ADC
JP ID

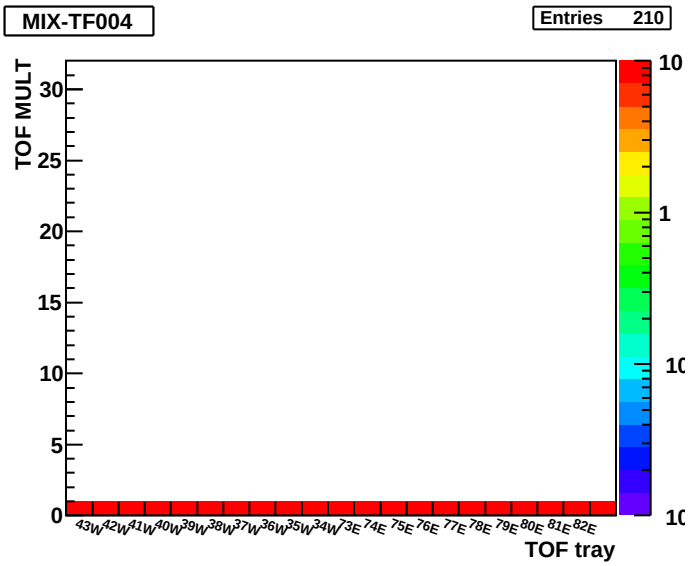

Endcap Jet Patches
Entries 30
JP ADC
JP ID

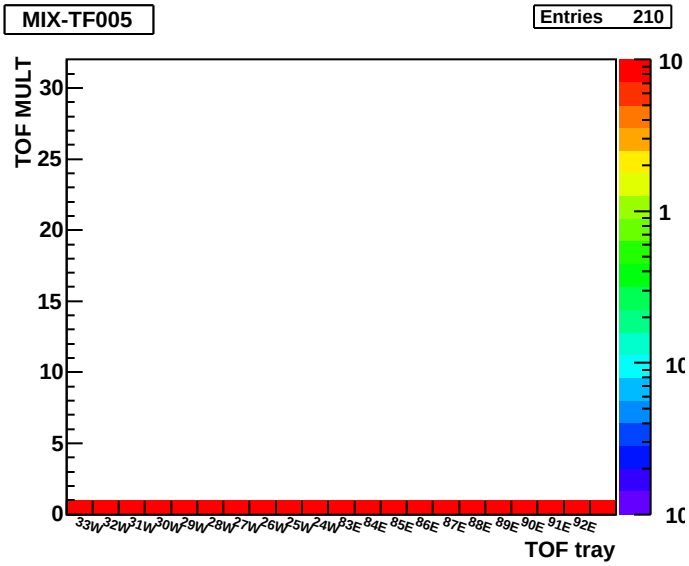

Hybrid Jet Patches
Entries 10
JP ADC
JP ID

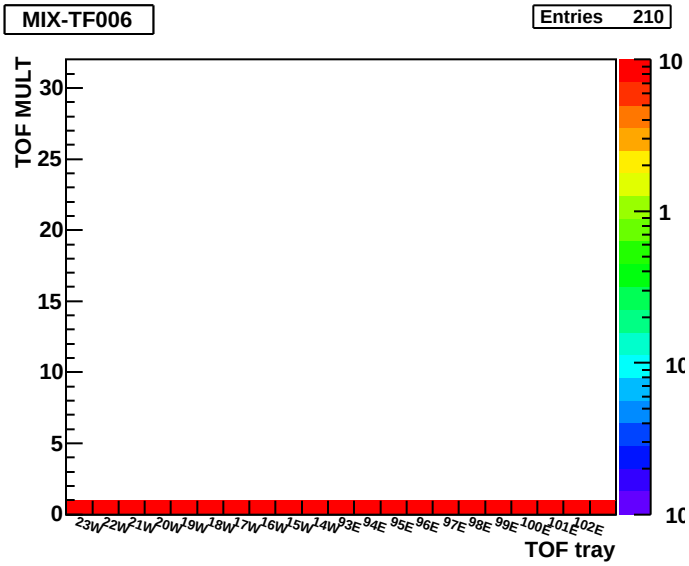

MIX-TF001
Entries 210
TOF MULT
TOF tray

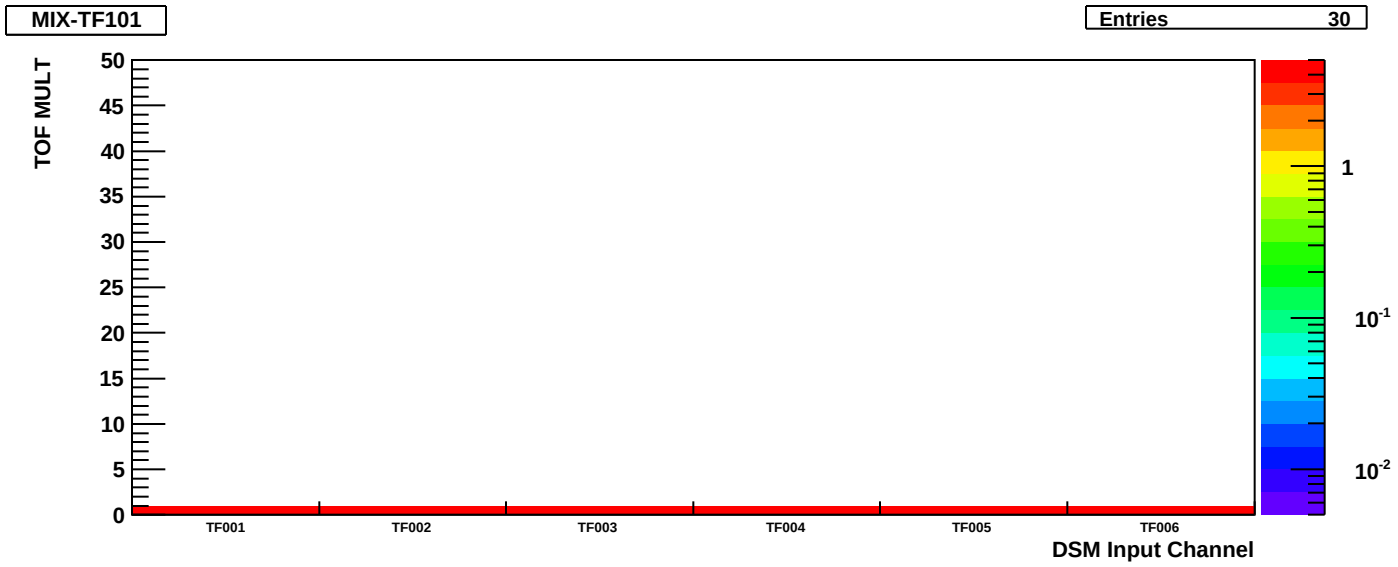

MIX-TF002
Entries 210
TOF MULT
TOF tray

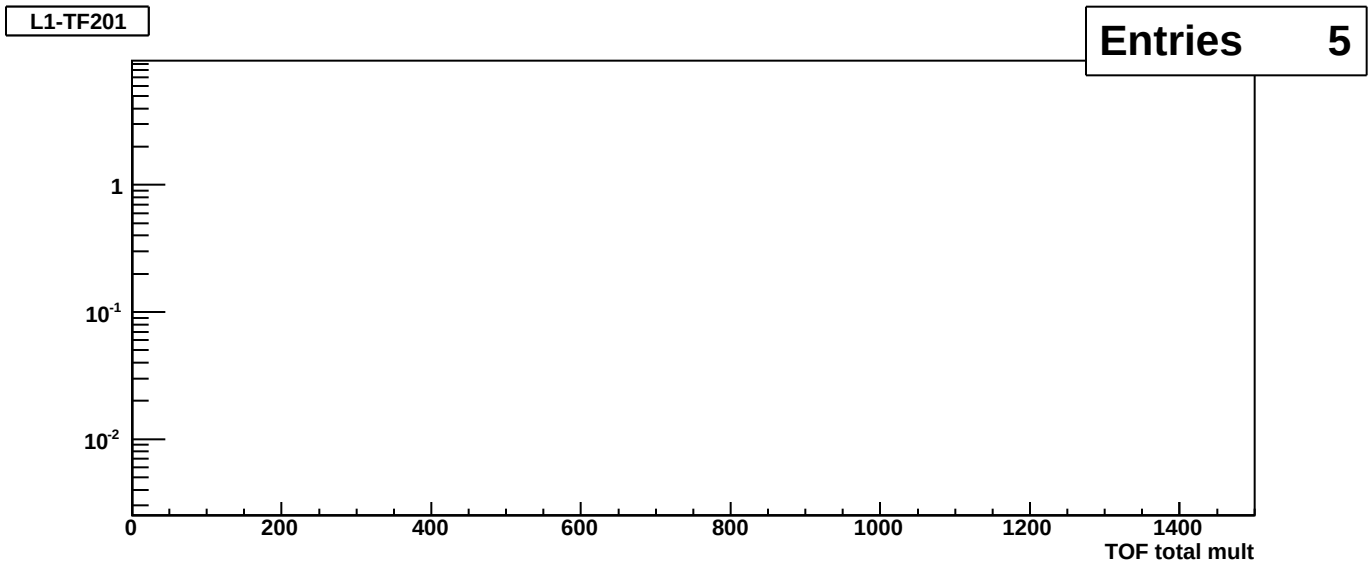

MIX-TF003
Entries 210
TOF MULT
TOF tray

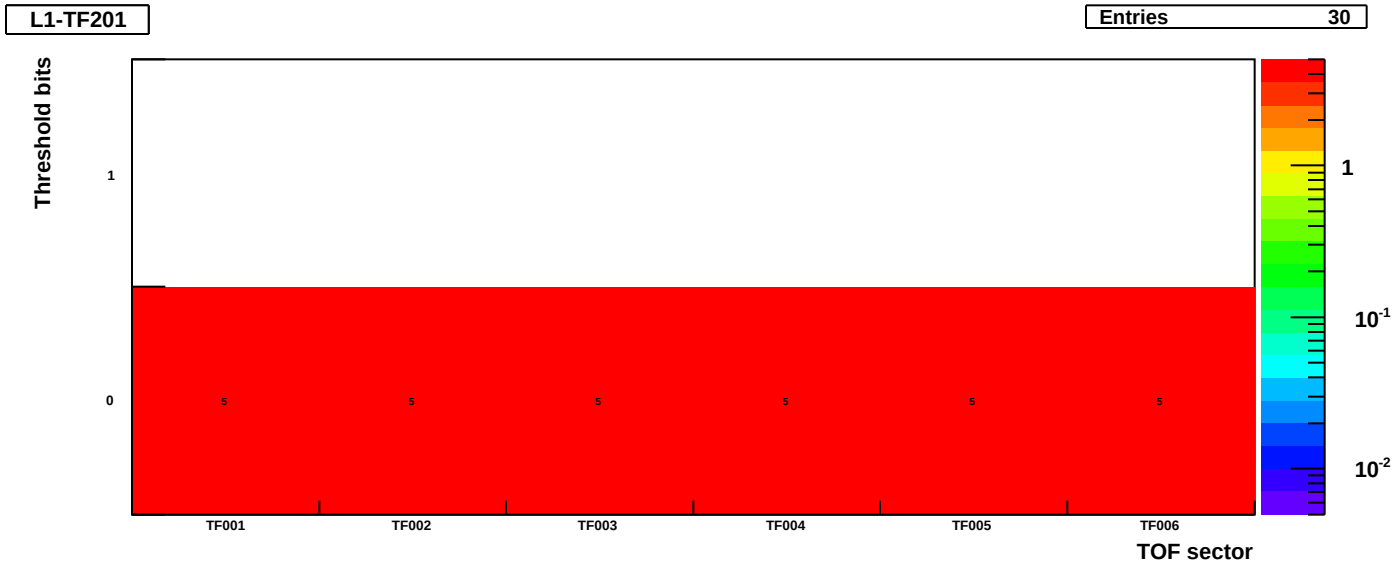

MIX-TF004
Entries 210
TOF MULT
TOF tray

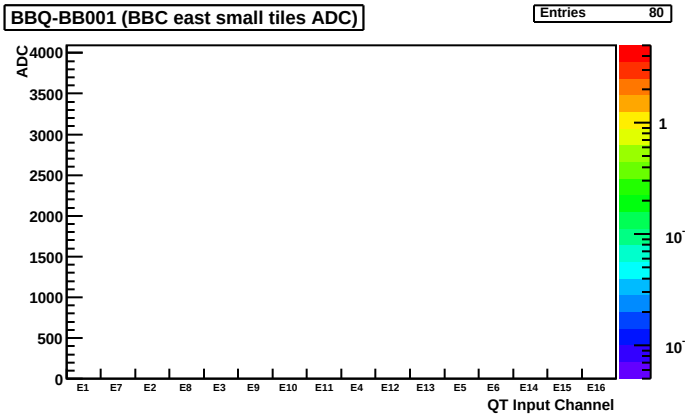

MIX-TF005
Entries 210
TOF MULT
TOF tray

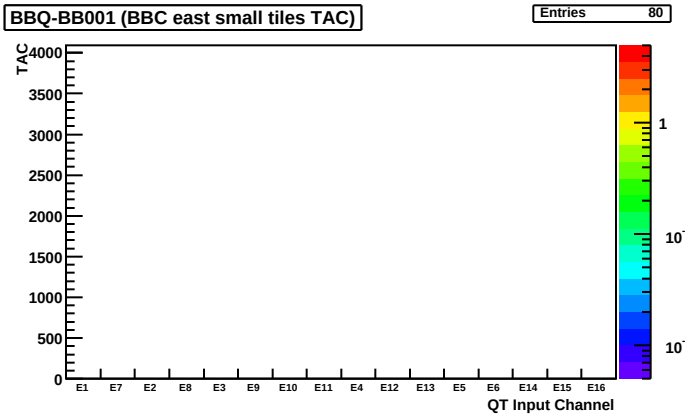

MIX-TF006
Entries 210
TOF MULT
TOF tray

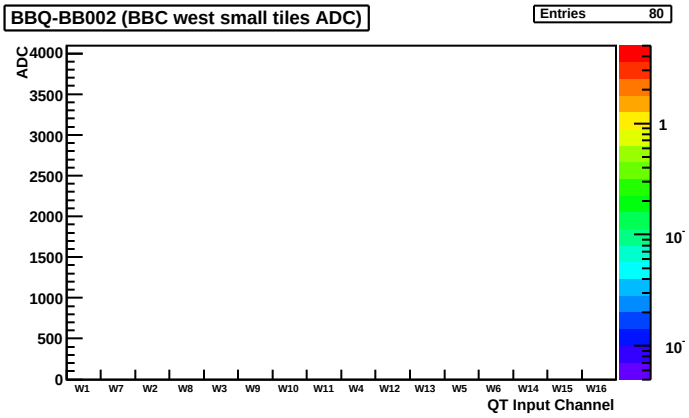

MIX-TF101
Entries 30
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
1
10^{-1}
10^{-2}

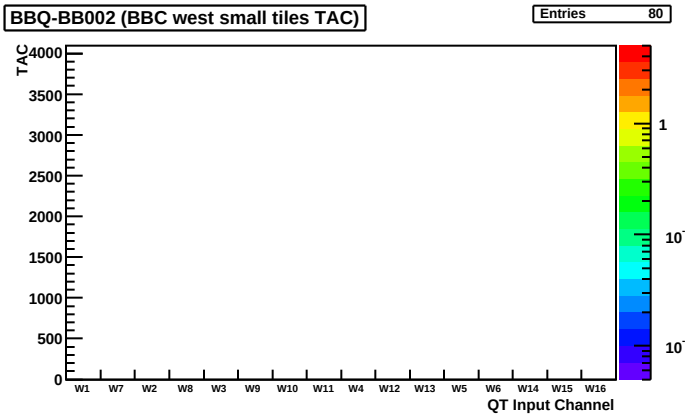

L1-TF201
Entries 5
1
10^{-1}
10^{-2}
0
200
400
600
800
1000
1200
1400
TOF total mult

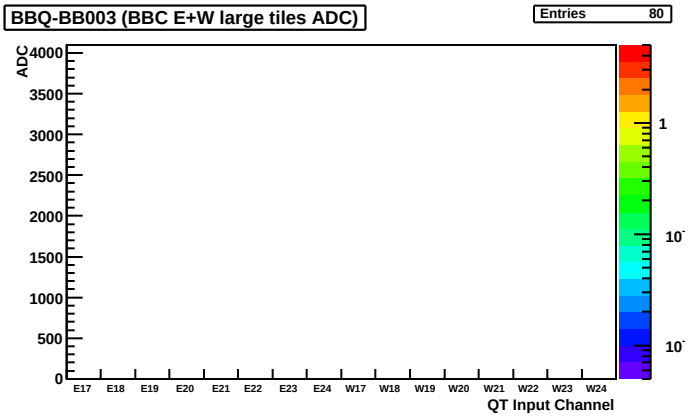

L1-TF201
Entries 30
Threshold bits
1
0
5
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
1
10^{-1}
10^{-2}

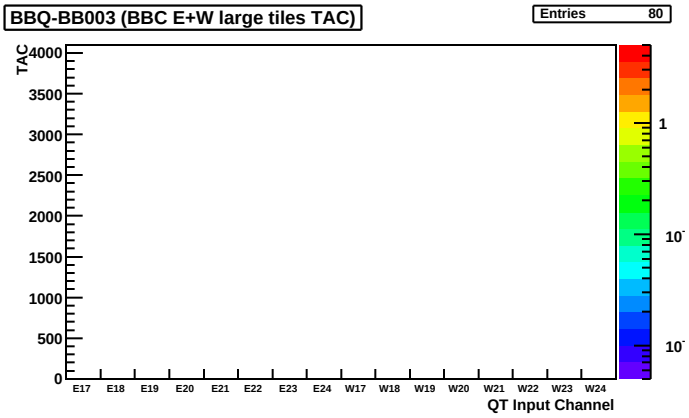

BBQ-BB001 (BBC east small tiles ADC)
Entries 80
ADC
QT Input Channel

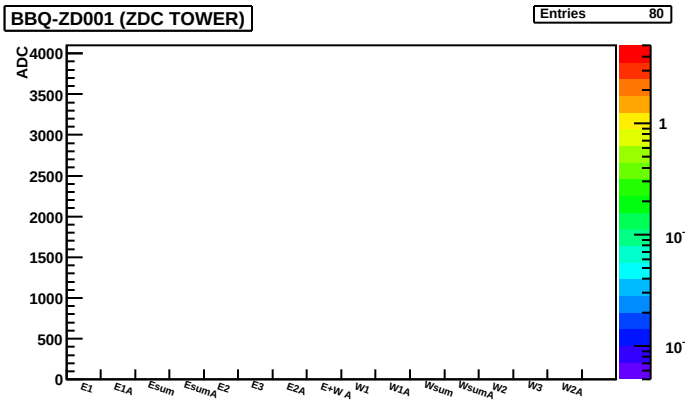

BBQ-BB001 (BBC east small tiles TAC)
Entries 80
TAC
QT Input Channel

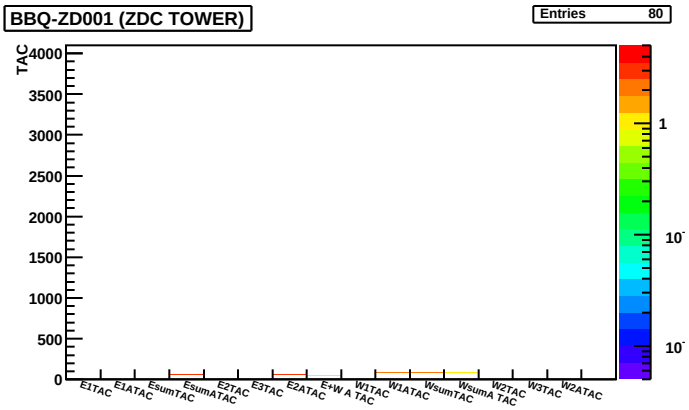

BBQ-BB002 (BBC west small tiles ADC)
Entries 80
ADC
QT Input Channel

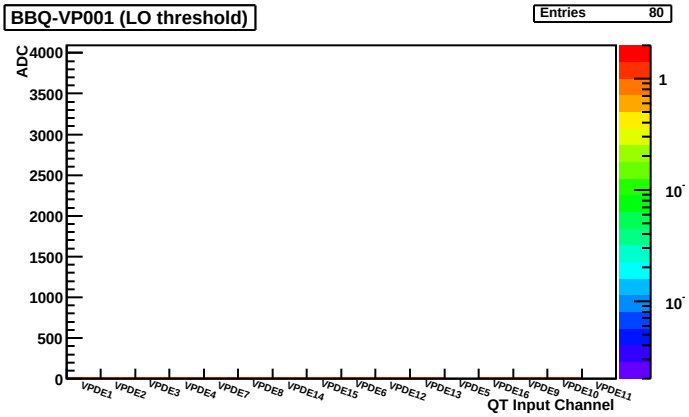

BBQ-BB002 (BBC west small tiles TAC)
Entries 80
TAC
QT Input Channel

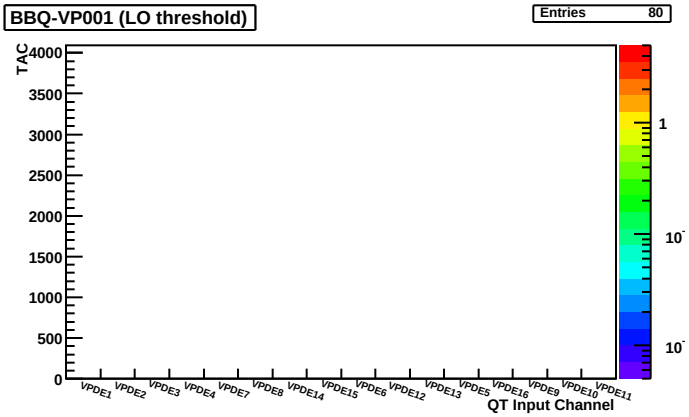

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 80
ADC
QT Input Channel

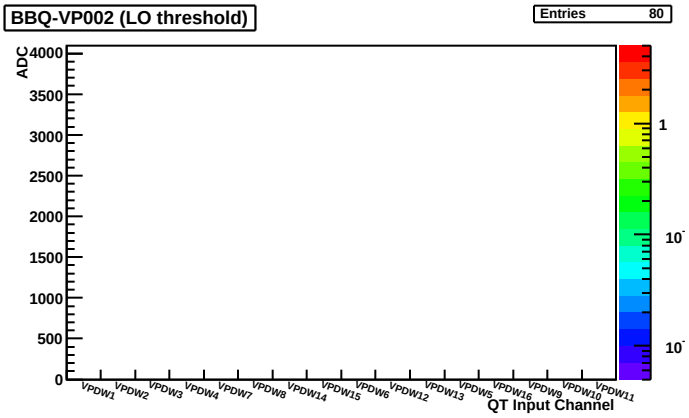

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 80
TAC
QT Input Channel

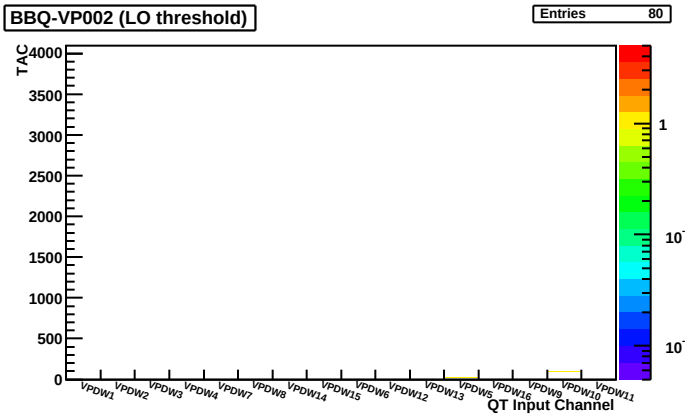

BBQ-ZD001 (ZDC TOWER)
Entries 80
ADC

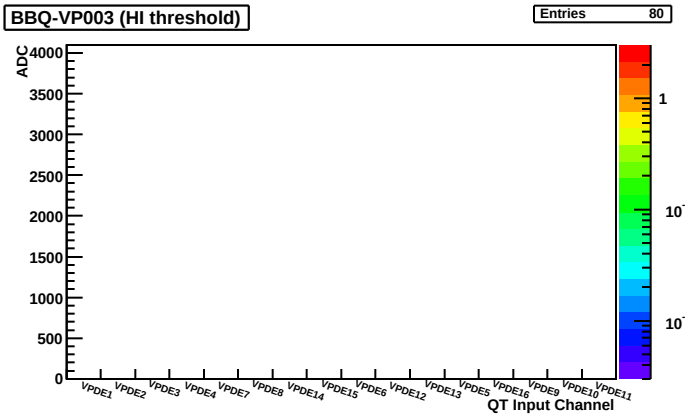

BBQ-ZD001 (ZDC TOWER)
Entries 80
TAC

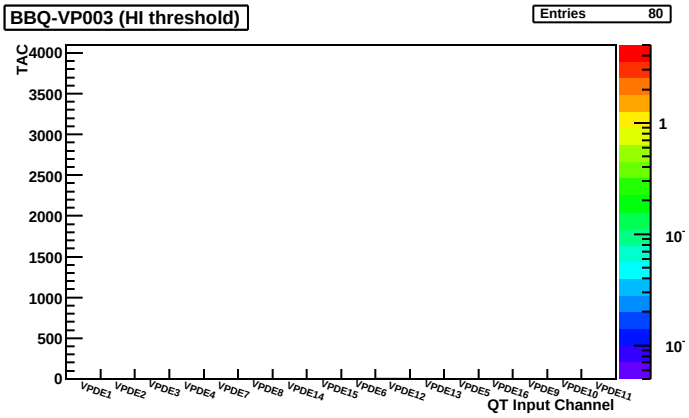

BBQ-VP001 (LO threshold)
Entries 80
ADC
QT Input Channel

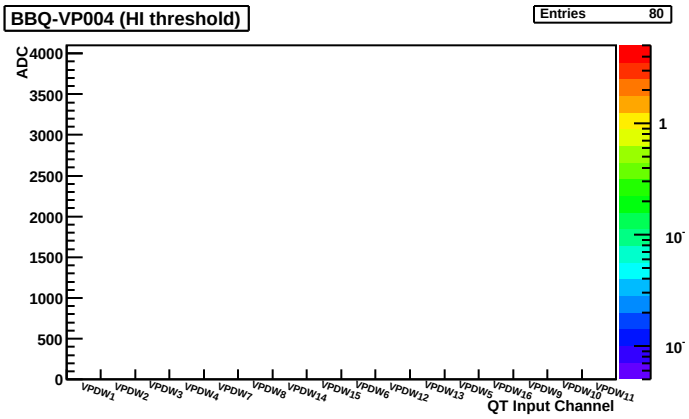

BBQ-VP001 (LO threshold)
Entries 80
TAC
QT Input Channel

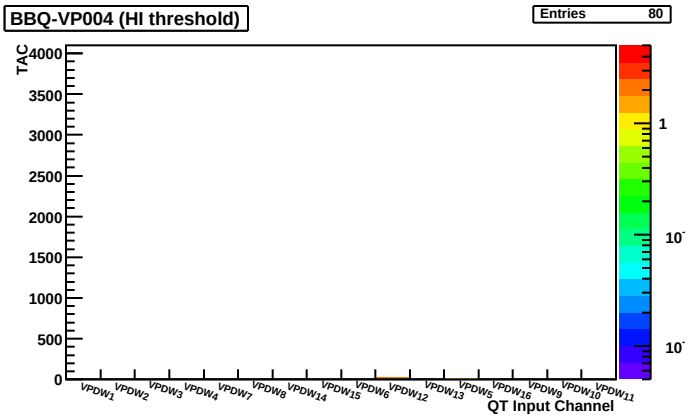

BBQ-VP002 (LO threshold)
Entries 80
ADC
QT Input Channel

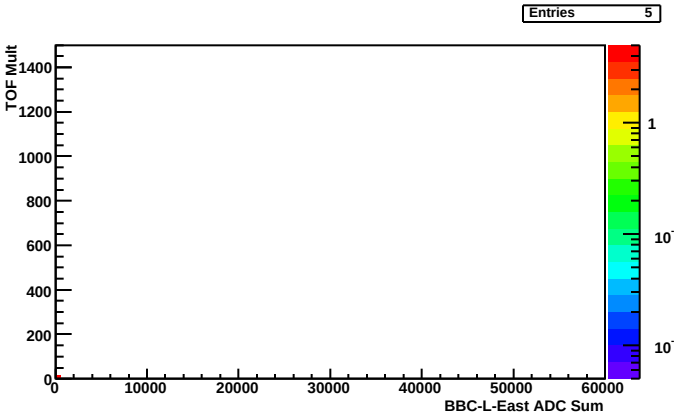

BBQ-VP002 (LO threshold)
Entries 80
TAC
QT Input Channel

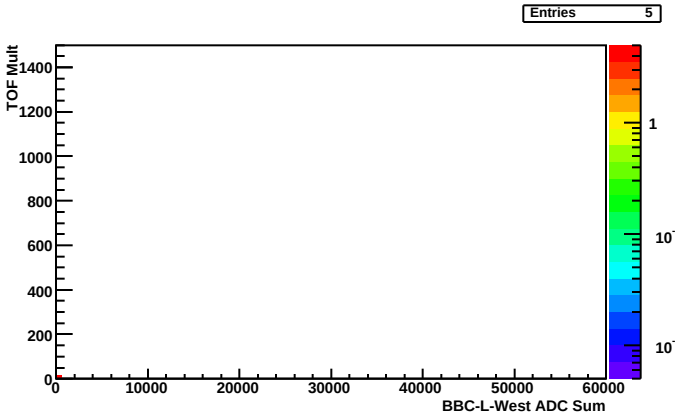

BBQ-VP003 (HI threshold)
Entries 80
ADC
QT Input Channel

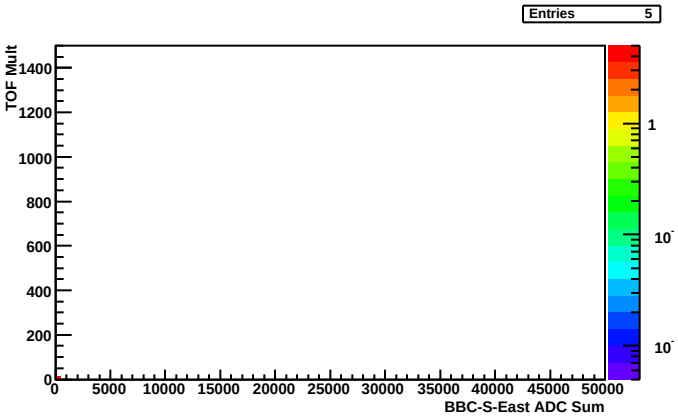

BBQ-VP003 (HI threshold)
Entries 80
TAC
QT Input Channel

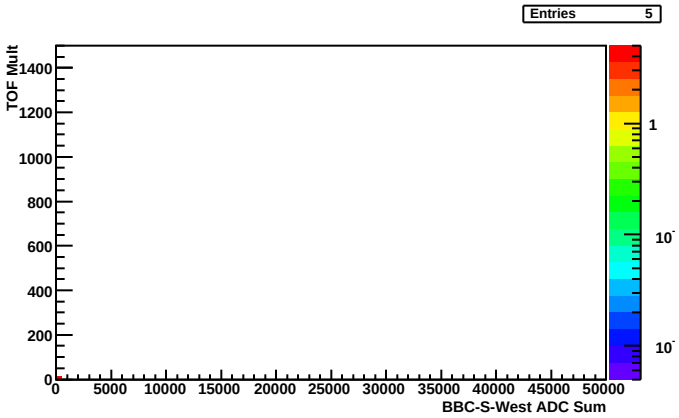

BBQ-VP004 (HI threshold)
Entries 80
ADC
QT Input Channel

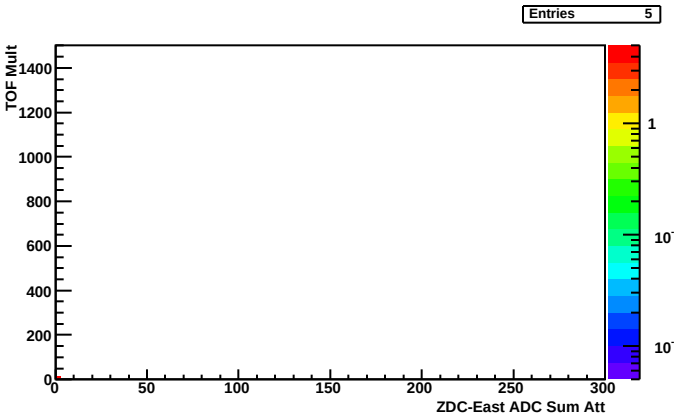

BBQ-VP004 (HI threshold)
Entries 80
TAC
QT Input Channel

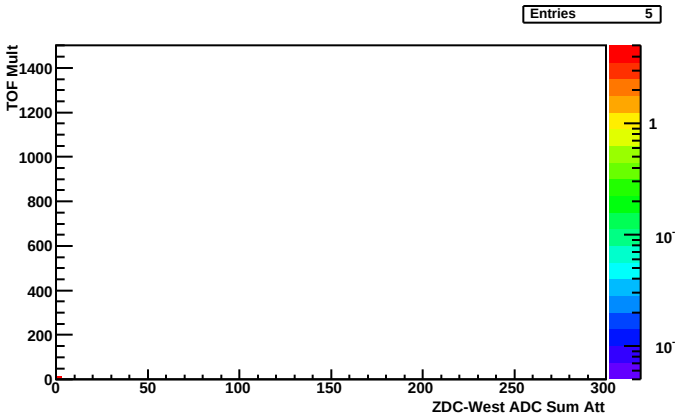

Entries 5
TOF Mult
BBC-L-East ADC Sum

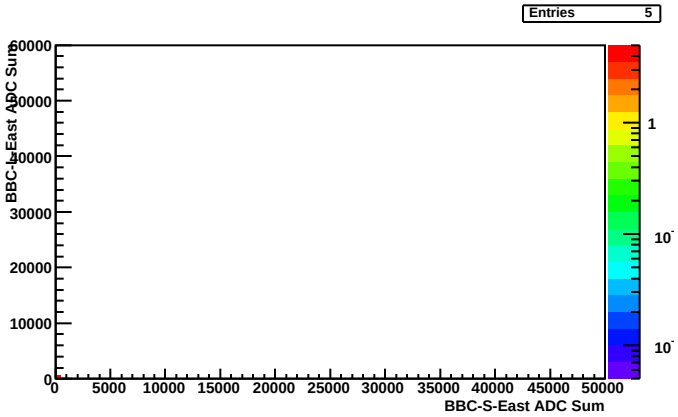

Entries 5
TOF Mult
BBC-L-West ADC Sum

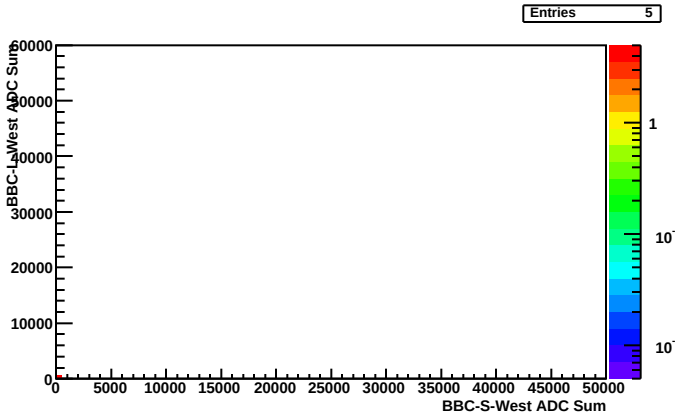

Entries 5
TOF Mult
BBC-S-East ADC Sum

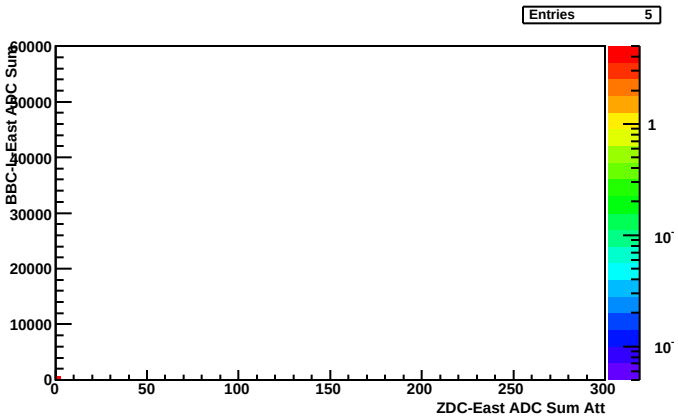

Entries 5
TOF Mult
BBC-S-West ADC Sum

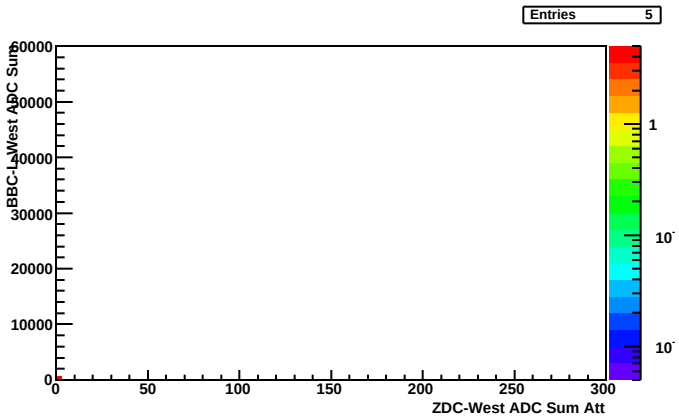

Entries 5
TOF Mult
ZDC-East ADC Sum Att

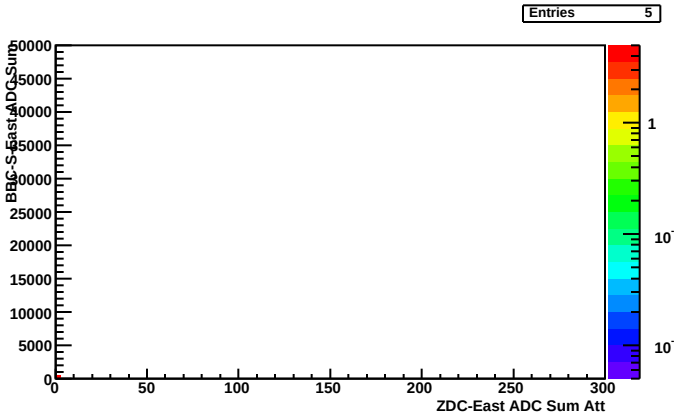

Entries 5
TOF Mult
ZDC-West ADC Sum Att

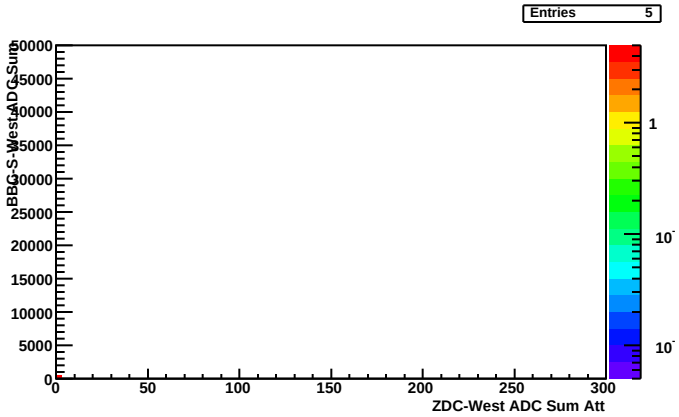

Entries 5
BBC-L-East ADC Sum
BBC-S-East ADC Sum

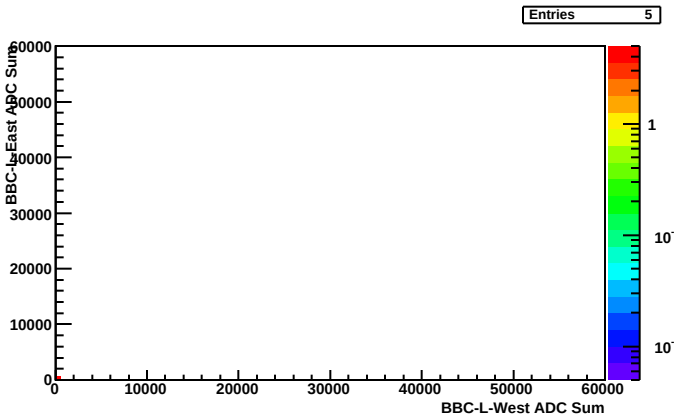

Entries 5
BBC-L-West ADC Sum
BBC-S-West ADC Sum

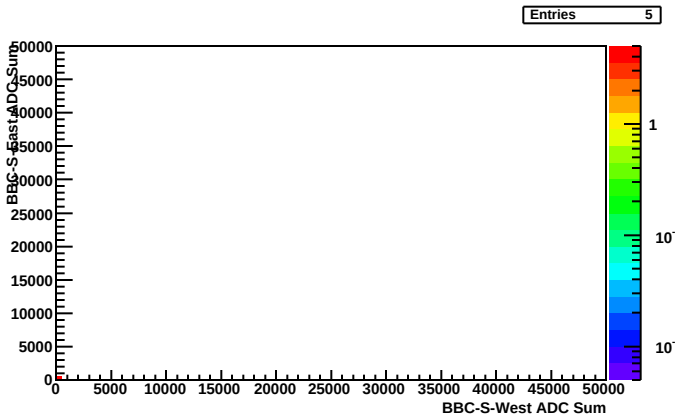

Entries 5
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

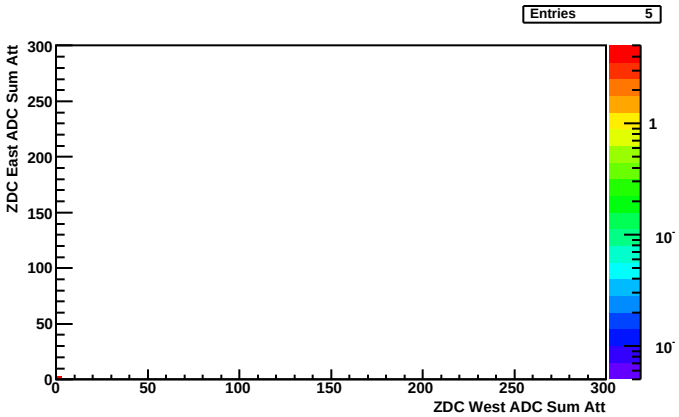

Entries 5
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

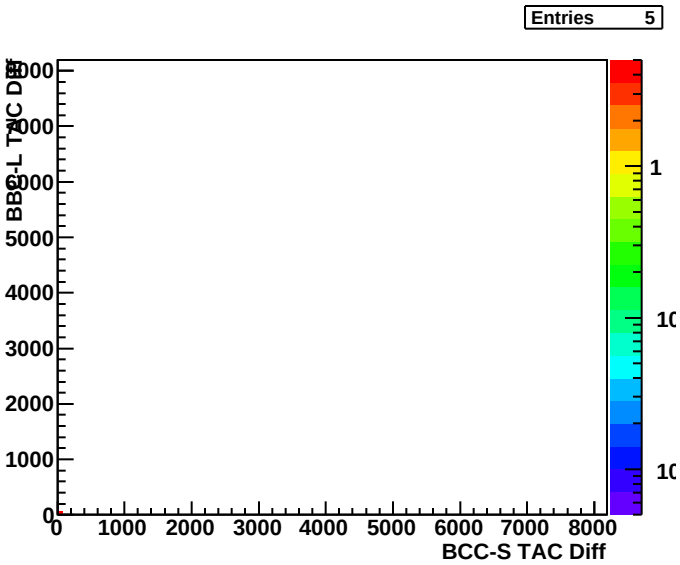

Entries 5
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

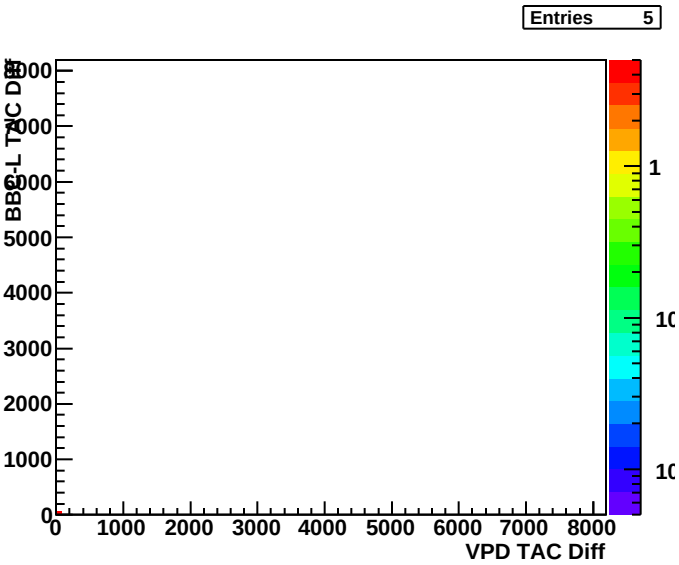

Entries 5
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

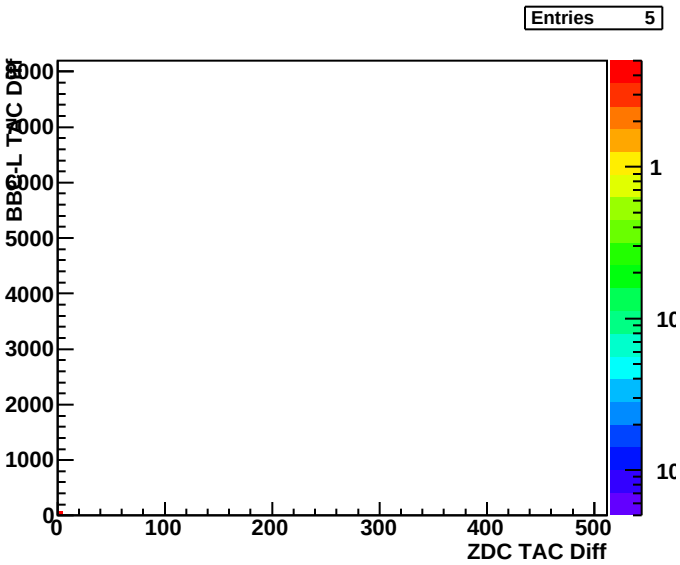

Entries 5
BBC-L-East ADC Sum
BBC-L-West ADC Sum

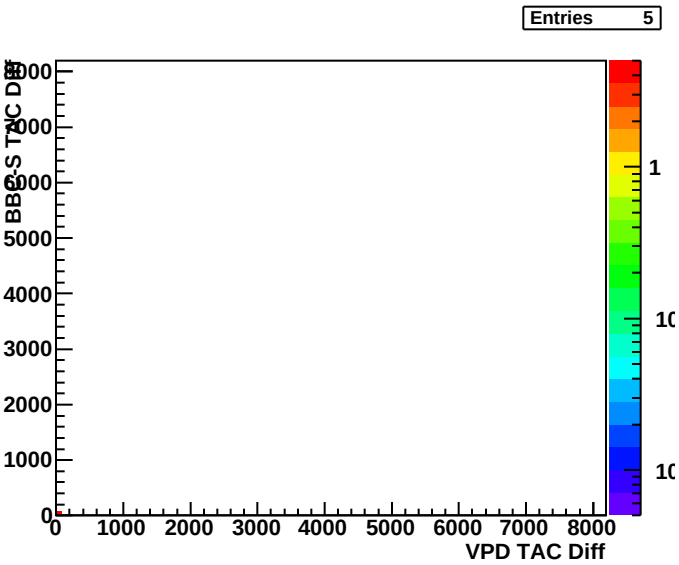

Entries 5
BBC-S-East ADC Sum
BBC-S-West ADC Sum

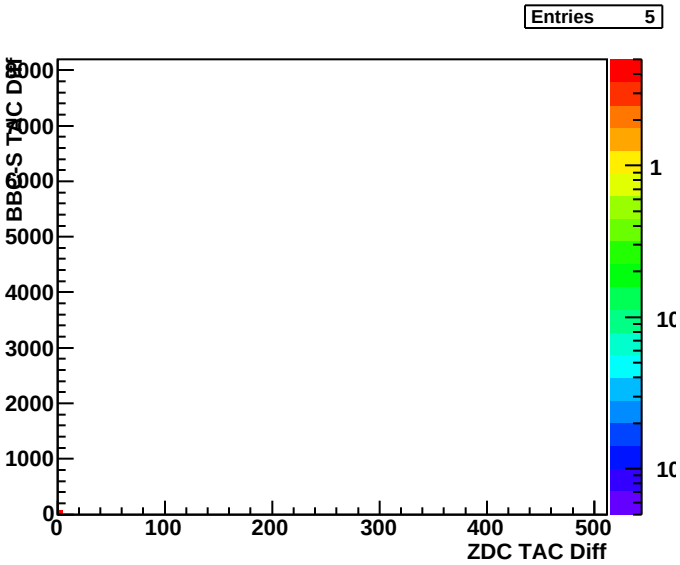

Entries 5
ZDC East ADC Sum Att
ZDC West ADC Sum Att

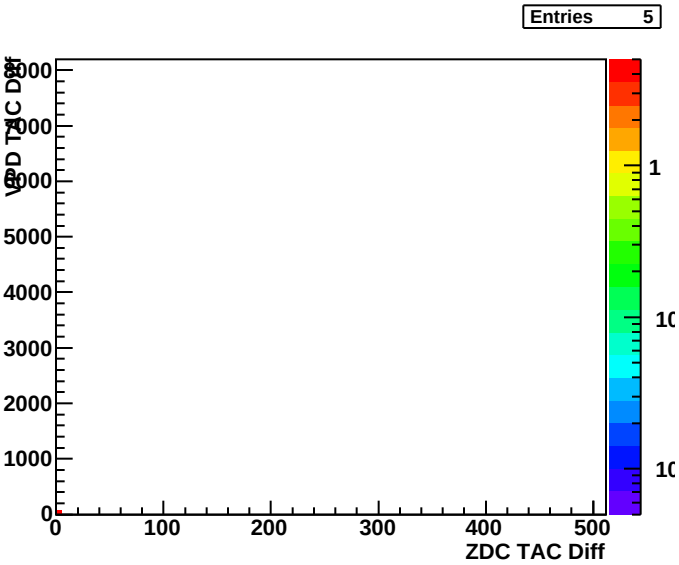

Entries 5
BBC-L TAC Diff
BCC-S TAC Diff

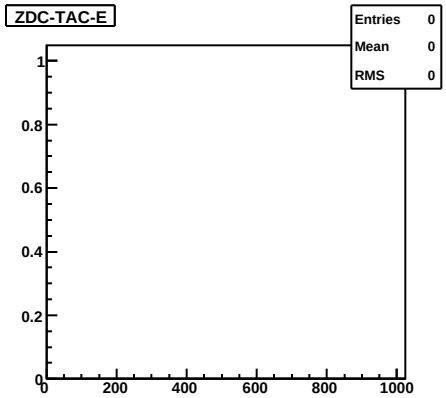

Entries 5
BBC-L TAC Diff
VPD TAC Diff

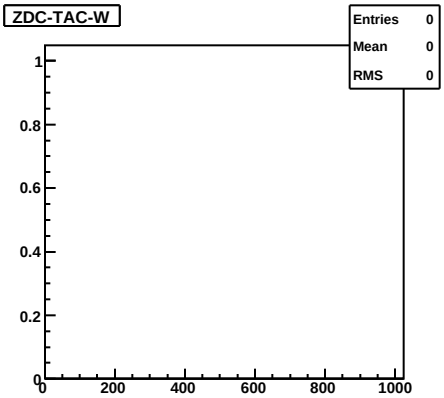

Entries 5
BBC-L TAC Diff
ZDC TAC Diff

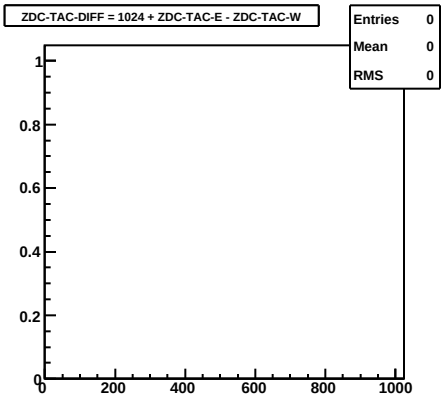

Entries 5
BBC-S TAC Diff
VPD TAC Diff

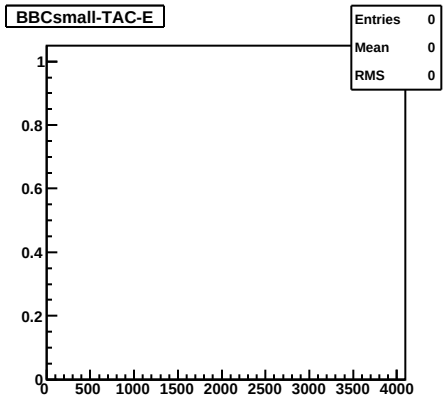

Entries 5
BBC-S TAC Diff
ZDC TAC Diff

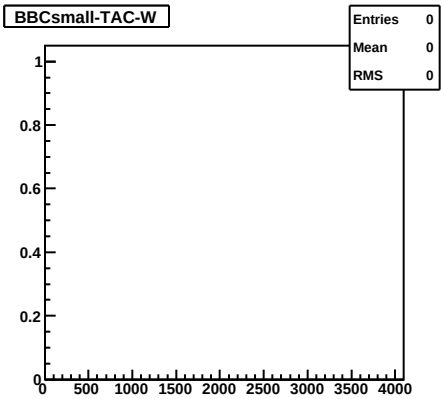

Entries 5
VPD TAC Diff
ZDC TAC Diff

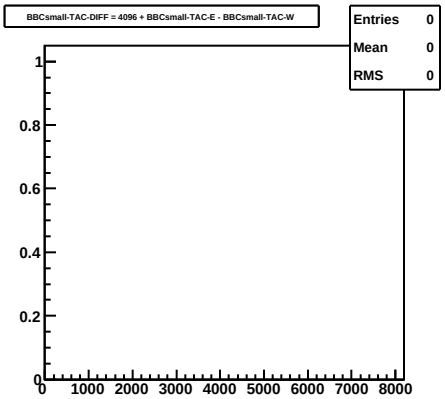

ZDC-TAC-E
Entries 0
Mean 0
RMS 0

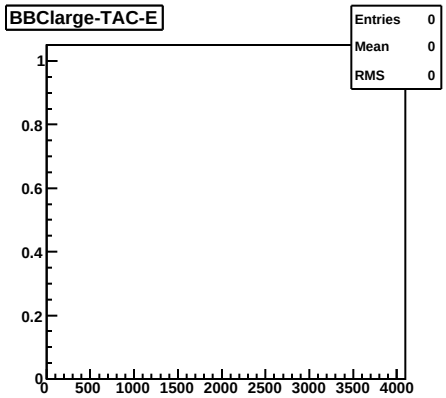

ZDC-TAC-W
Entries 0
Mean 0
RMS 0

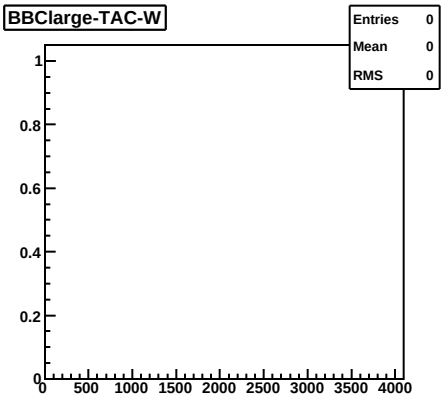

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 0
Mean 0
RMS 0

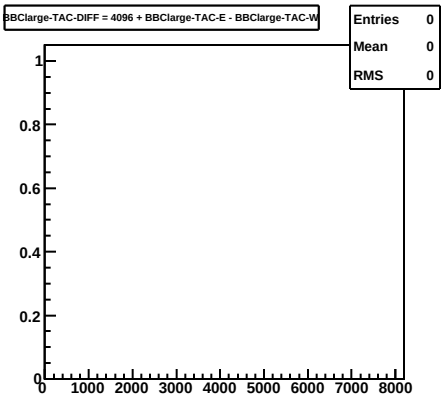

BBCsmall-TAC-E
Entries 0
Mean 0
RMS 0

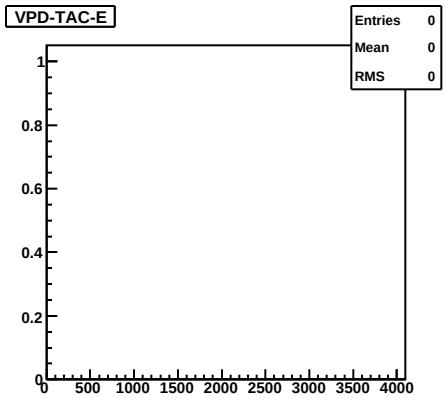

BBCsmall-TAC-W
Entries 0
Mean 0
RMS 0

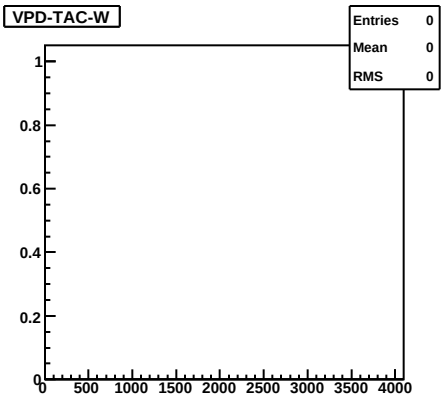

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 0
Mean 0
RMS 0

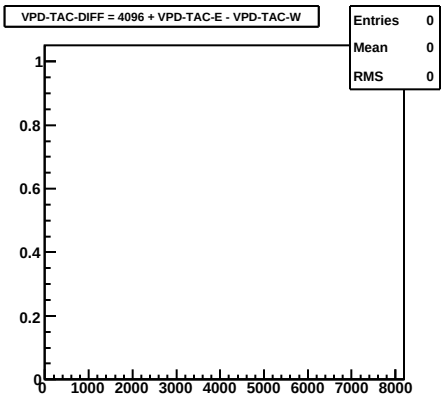

BBClarge-TAC-E
Entries 0
Mean 0
RMS 0

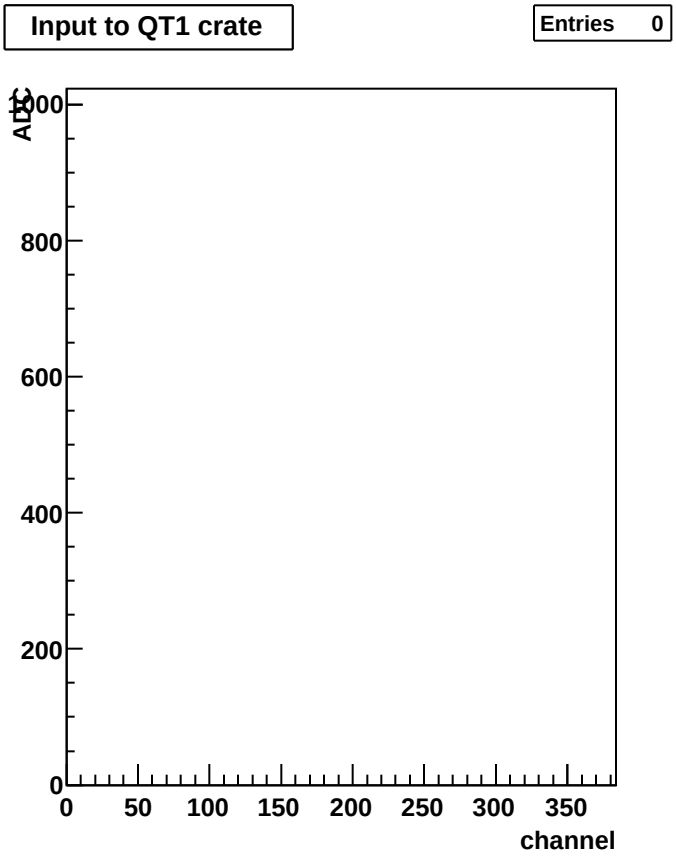

BBClarge-TAC-W
Entries 0
Mean 0
RMS 0

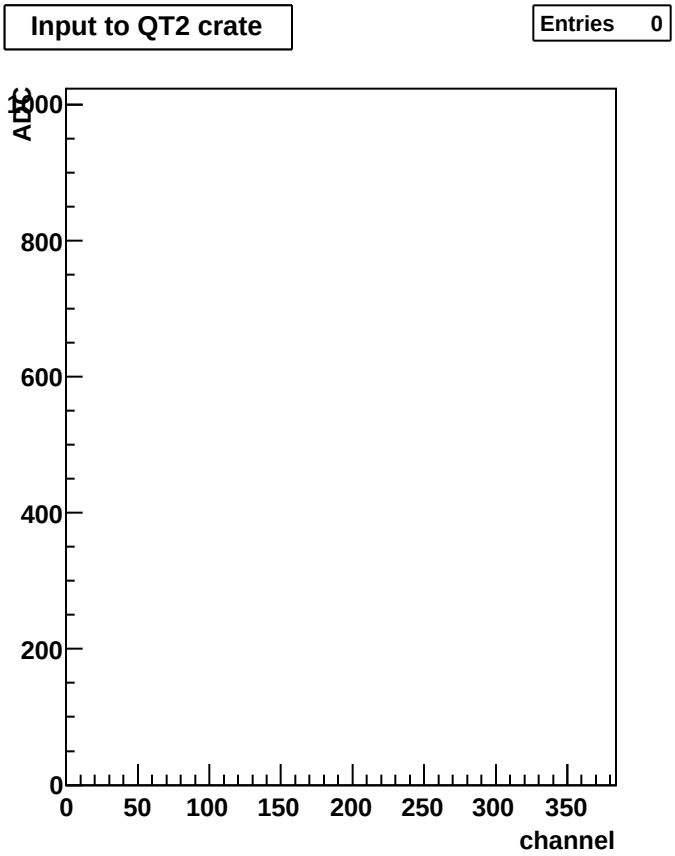

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 0
Mean 0
RMS 0

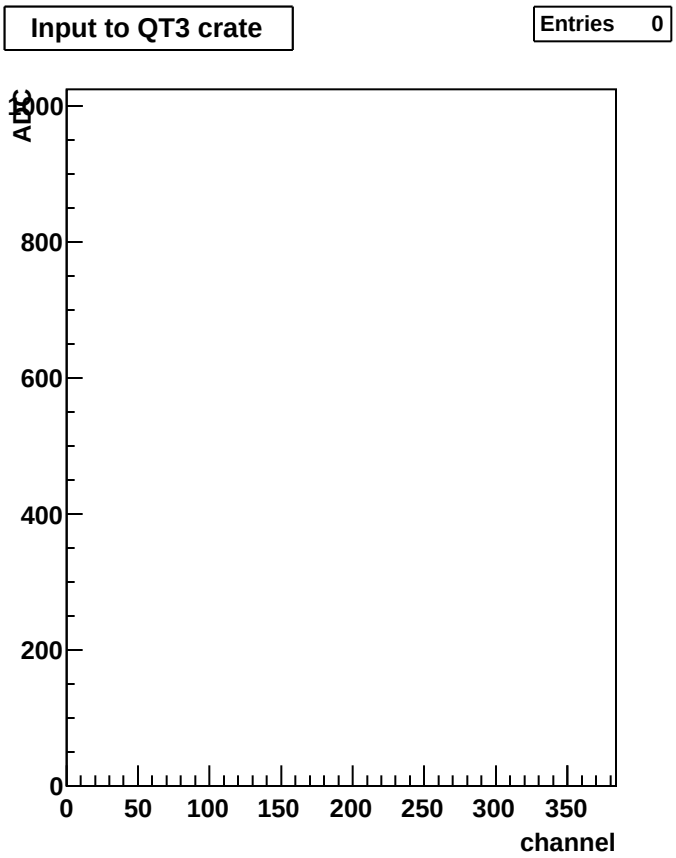

VPD-TAC-E
Entries 0
Mean 0
RMS 0

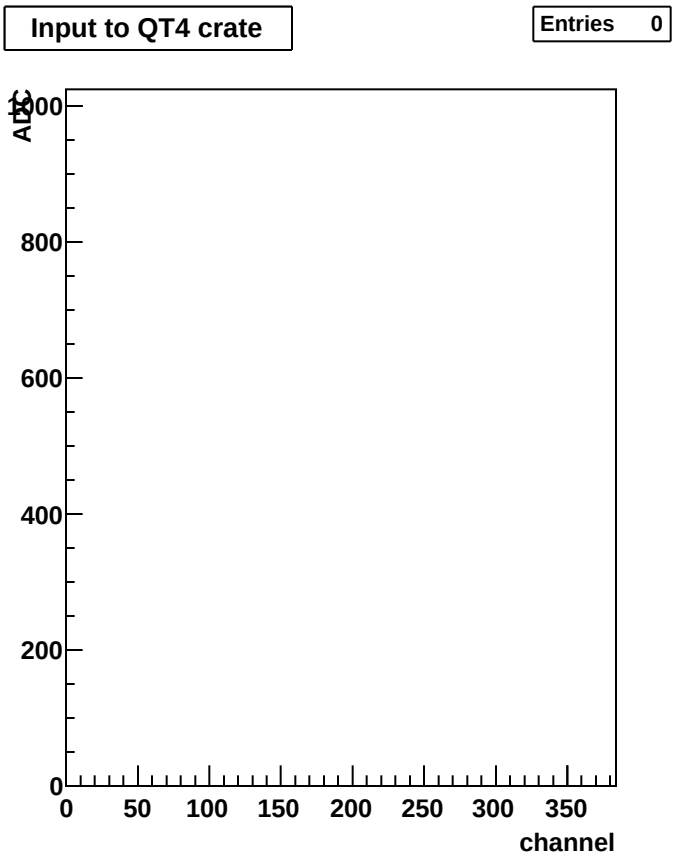

VPD-TAC-W
Entries 0
Mean 0
RMS 0

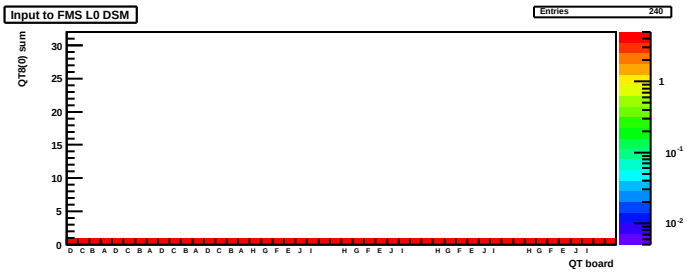

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 0
Mean 0
RMS 0

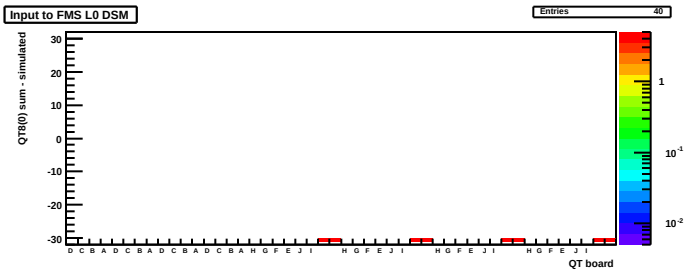

Input to QT1 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

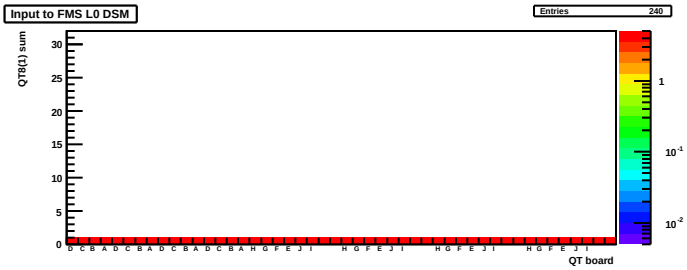

Input to QT2 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

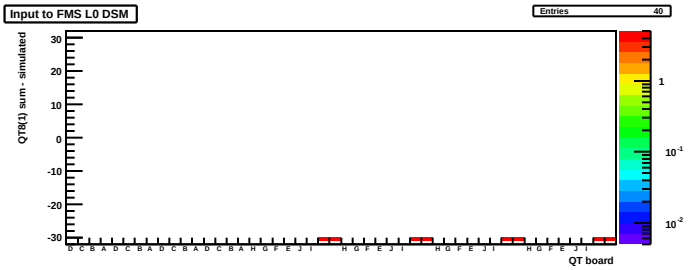

Input to QT3 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

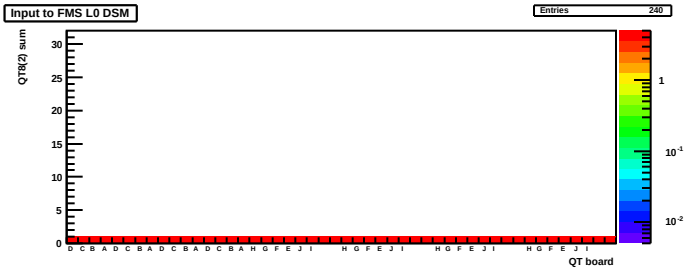

Input to QT4 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

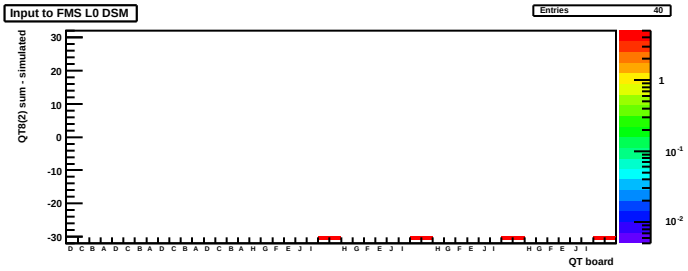

Input to FMS L0 DSM
Entries 240
QT8(0) sum
QT board

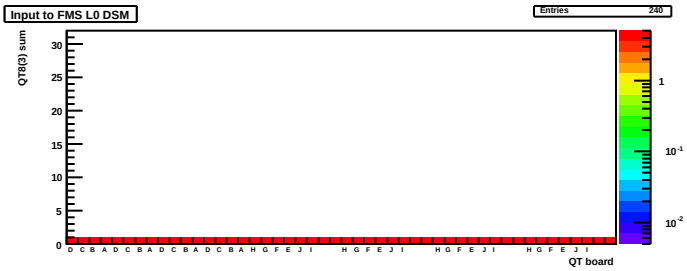

Input to FMS L0 DSM
Entries 40
QT8(0) sum - simulated
QT board

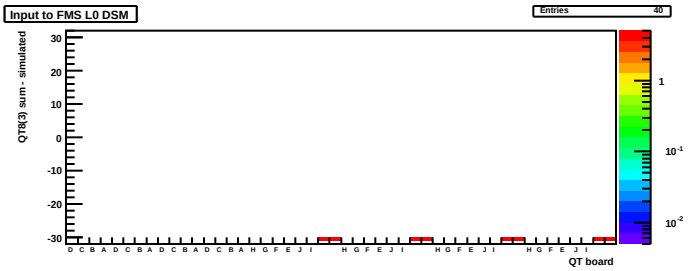

Input to FMS L0 DSM
Entries 240
QT8(1) sum
QT board

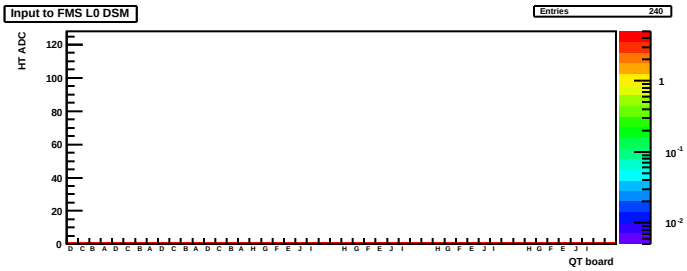

Input to FMS L0 DSM
Entries 40
QT8(1) sum - simulated
QT board

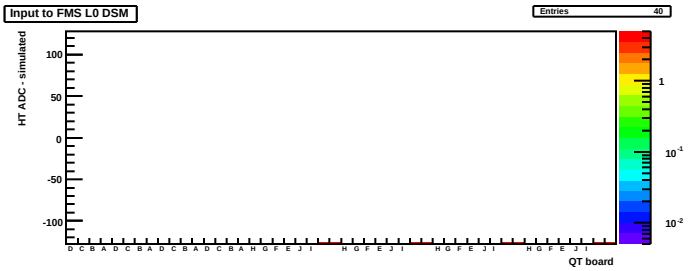

Input to FMS L0 DSM
Entries 240
QT8(2) sum
QT board

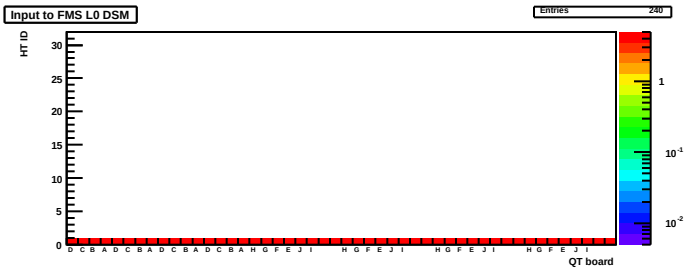

Input to FMS L0 DSM
Entries 40
QT8(2) sum - simulated
QT board

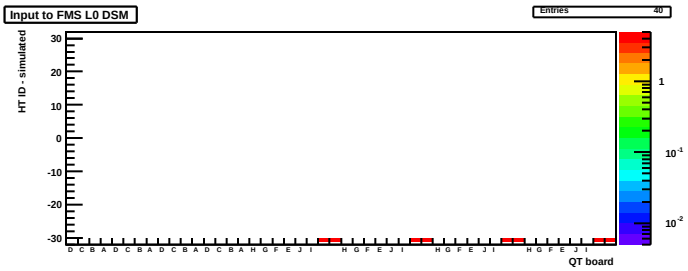

Input to FMS L0 DSM
Entries 240
QT8(3) sum
QT board

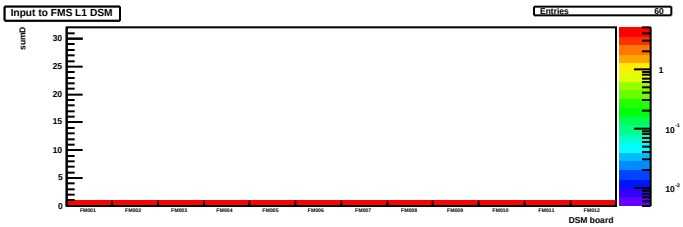

Input to FMS L0 DSM
Entries 40
QT8(3) sum - simulated
QT board

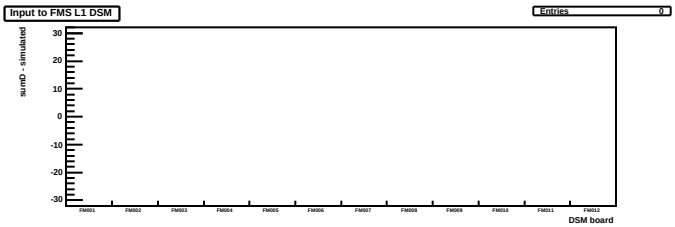

Input to FMS L0 DSM
Entries 240
HT ADC
QT board

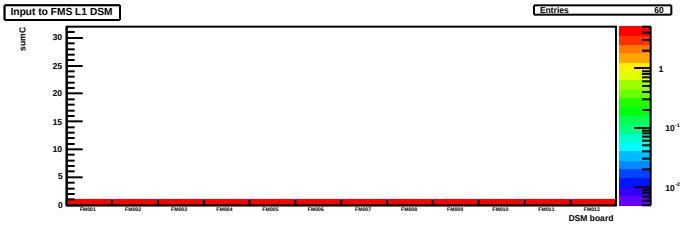

Input to FMS L0 DSM
Entries 40
HT ADC - simulated
QT board

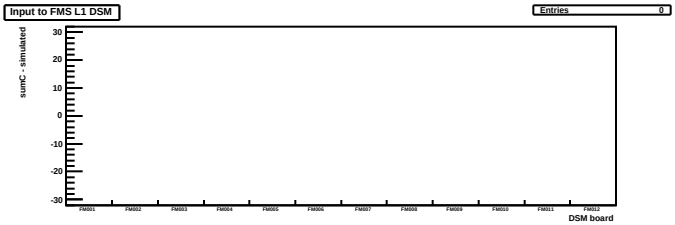

Input to FMS L0 DSM
Entries 240
HT ID
QT board

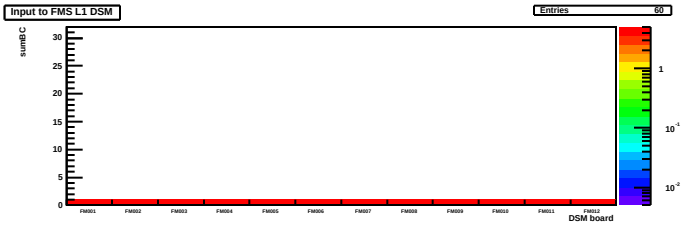

Input to FMS L0 DSM
Entries 40
HT ID - simulated
QT board

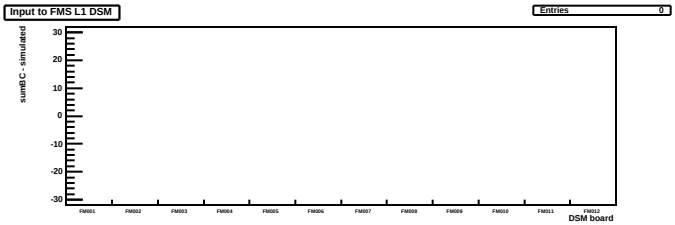

Input to FMS L1 DSM
Entries 60
sumD
DSM board

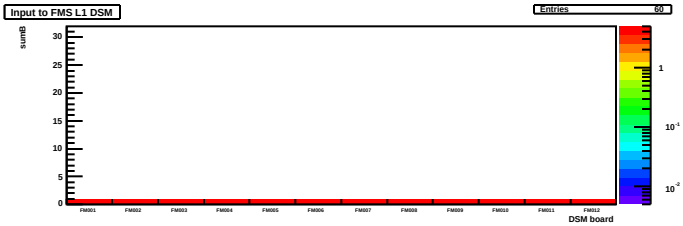

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

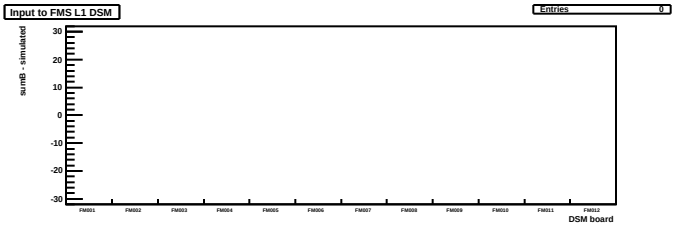

Input to FMS L1 DSM
Entries 60
sumC
DSM board

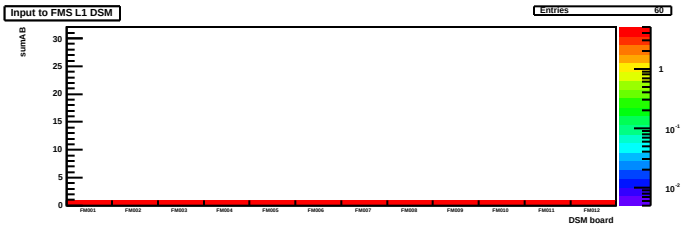

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

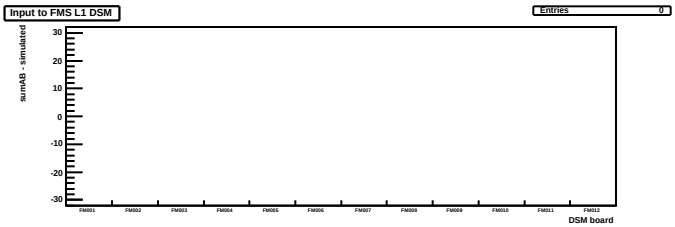

Input to FMS L1 DSM
Entries 60
sumBC
DSM board

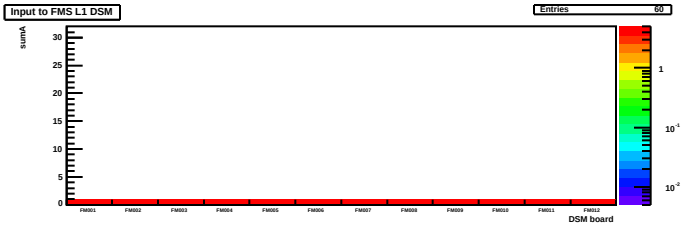

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

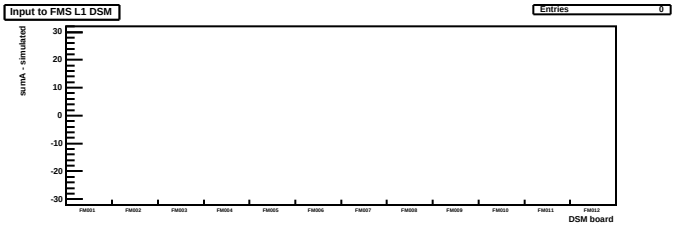

Input to FMS L1 DSM
Entries 60
sumB
DSM board

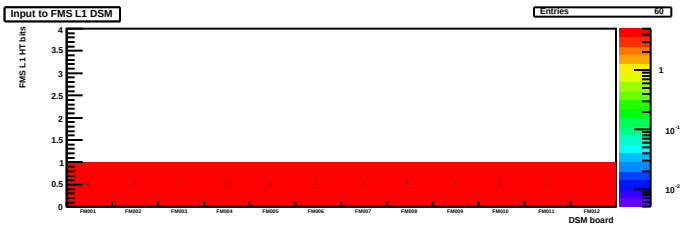

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

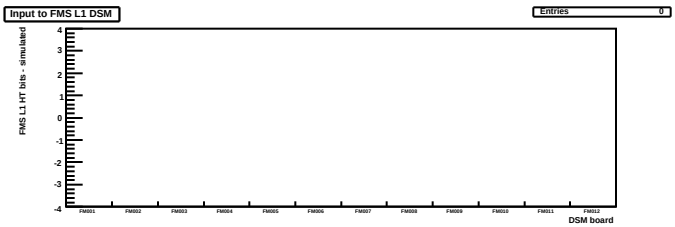

Input to FMS L1 DSM
Entries 60
sumAB
DSM board

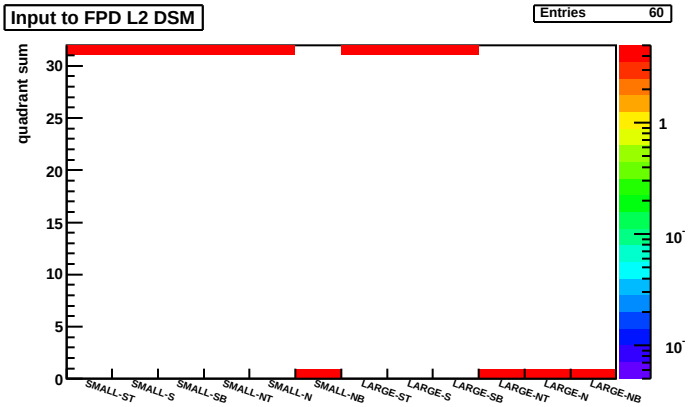

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

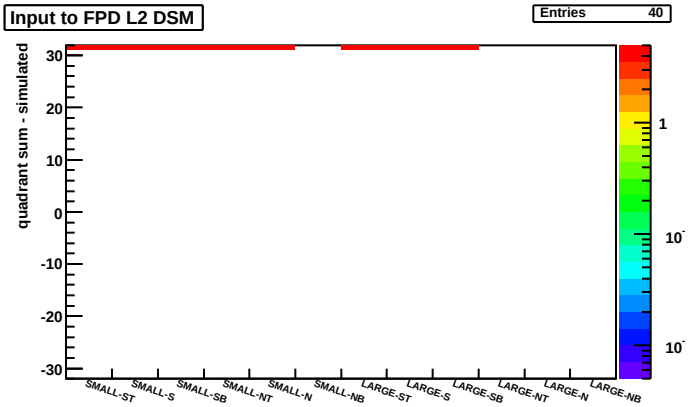

Input to FMS L1 DSM
Entries 60
sumA
DSM board

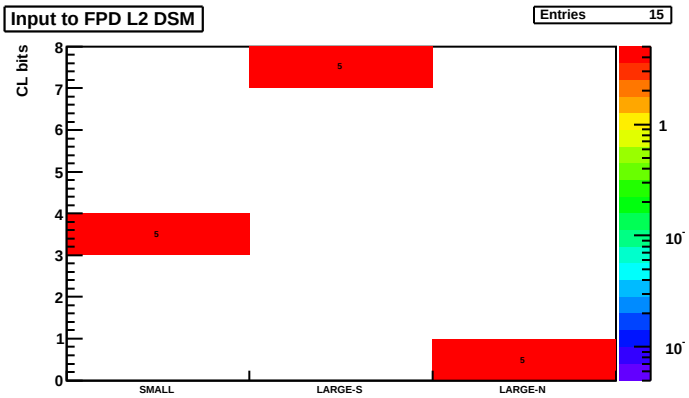

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

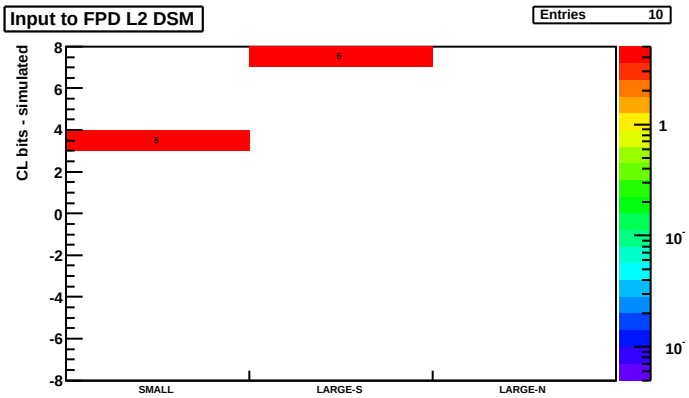

Input to FMS L1 DSM
Entries 60
FMS L1 HT bits
DSM board

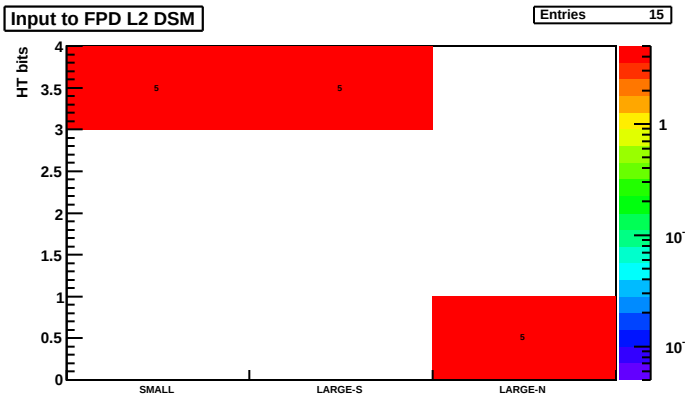

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

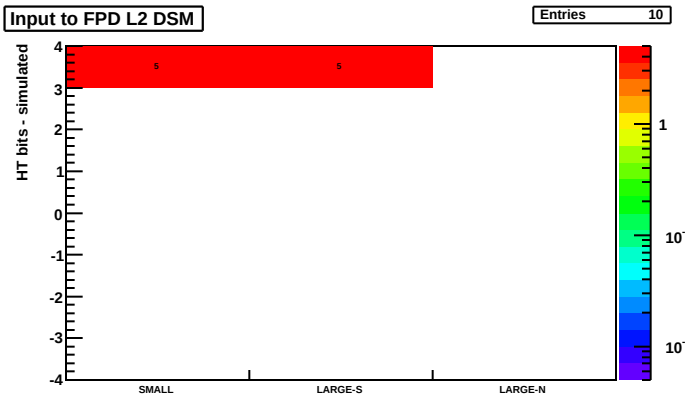

Input to FPD L2 DSM
Entries 60
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

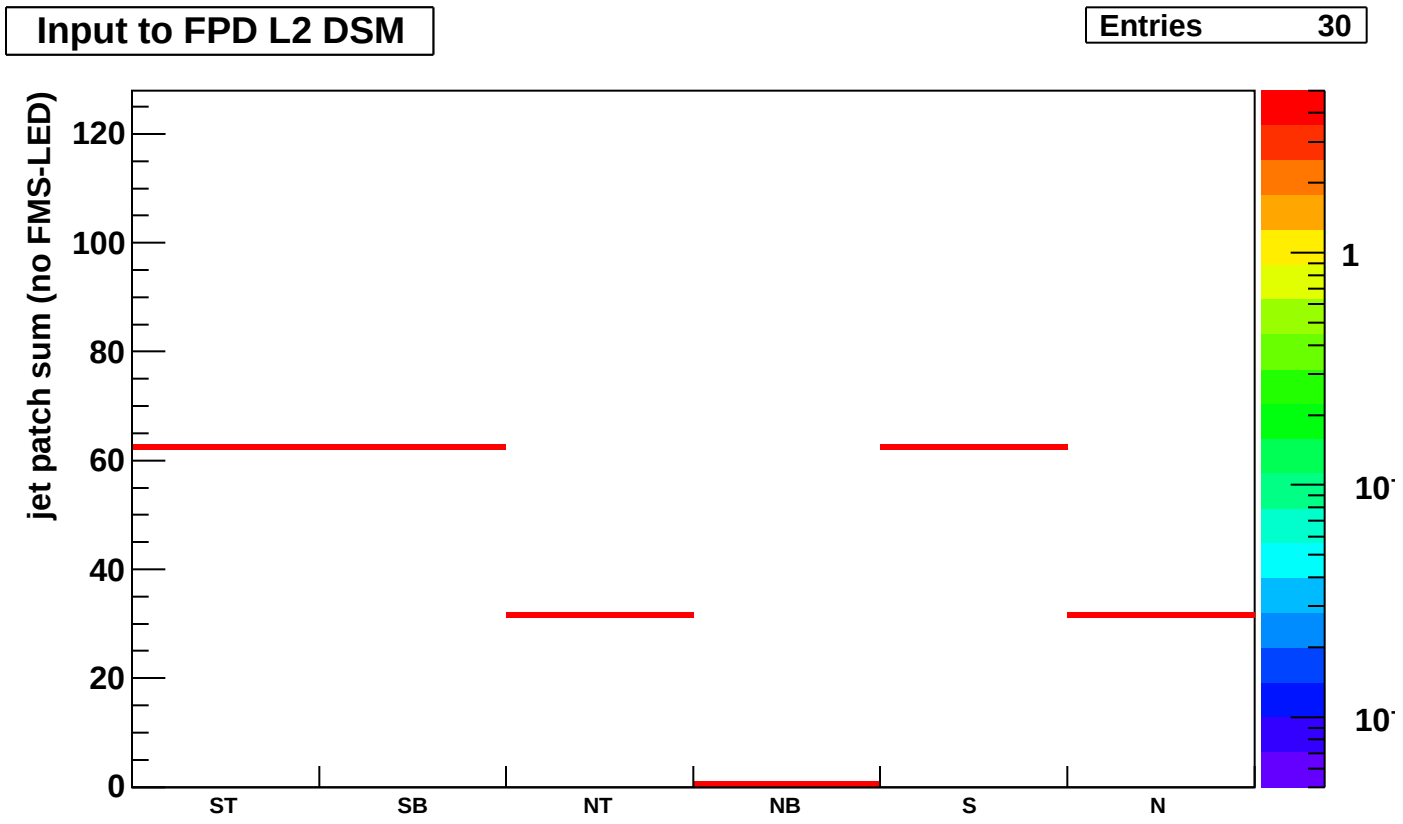

Input to FPD L2 DSM
Entries 40
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

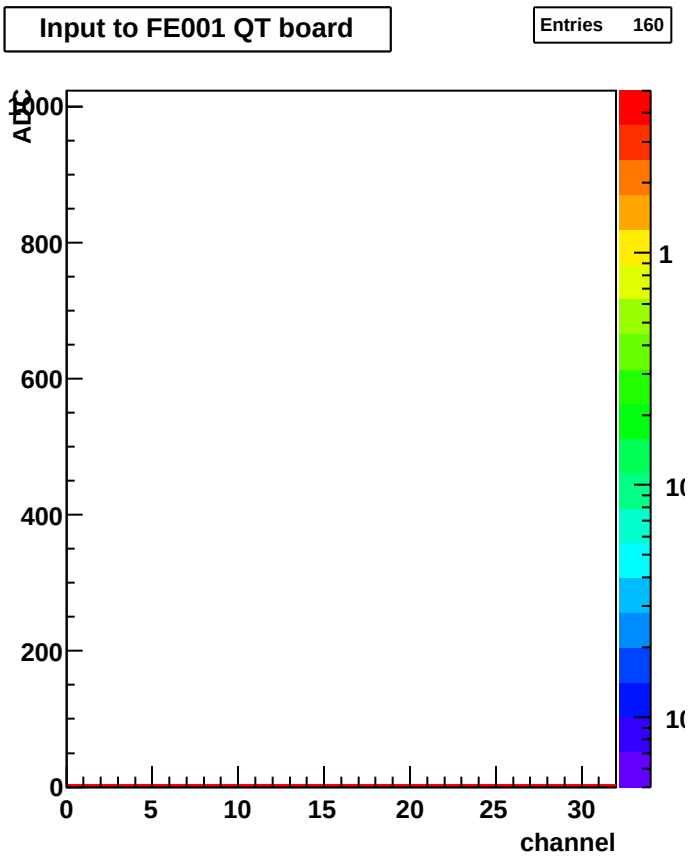

Input to FPD L2 DSM
Entries 15
CL bits
SMALL
LARGE-S
LARGE-N

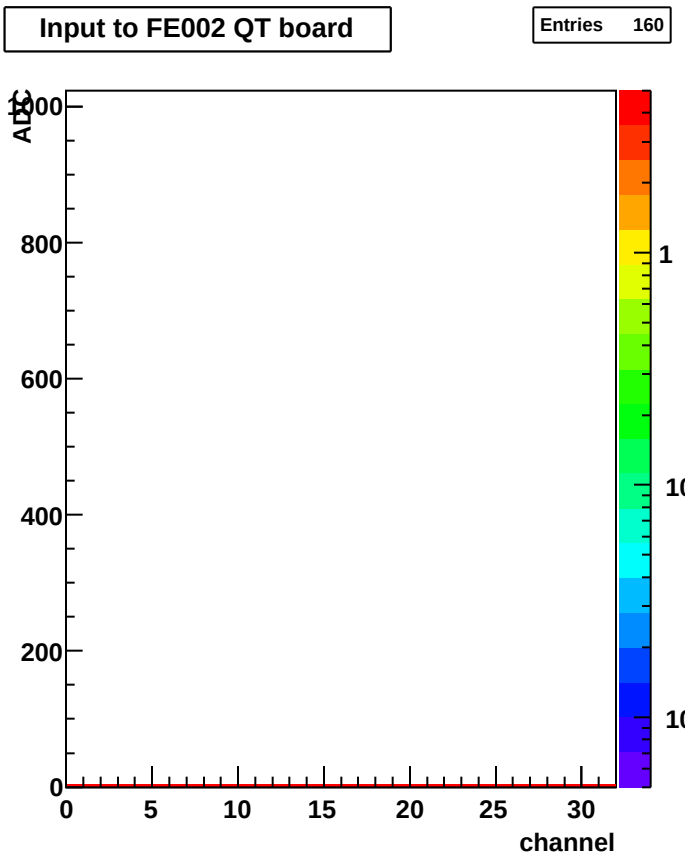

Input to FPD L2 DSM
Entries 10
CL bits - simulated
SMALL
LARGE-S
LARGE-N

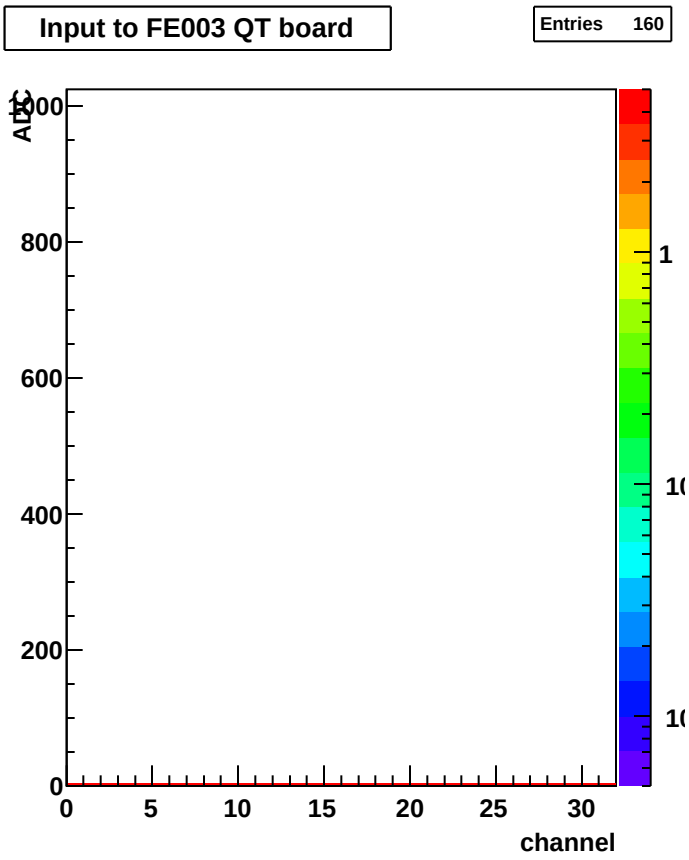

Input to FPD L2 DSM
Entries 15
HT bits
SMALL
LARGE-S
LARGE-N

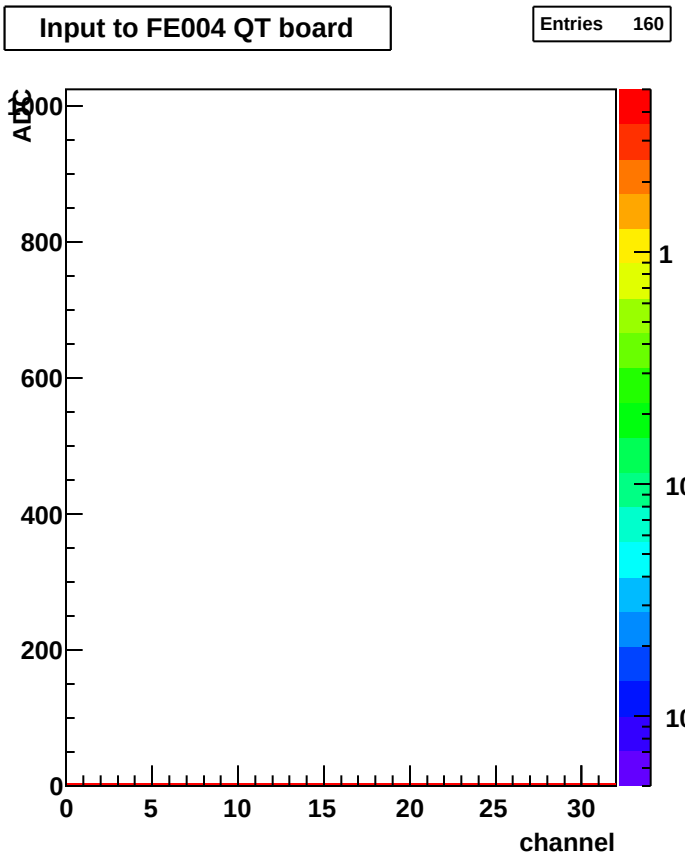

Input to FPD L2 DSM
Entries 10
HT bits - simulated
SMALL
LARGE-S
LARGE-N

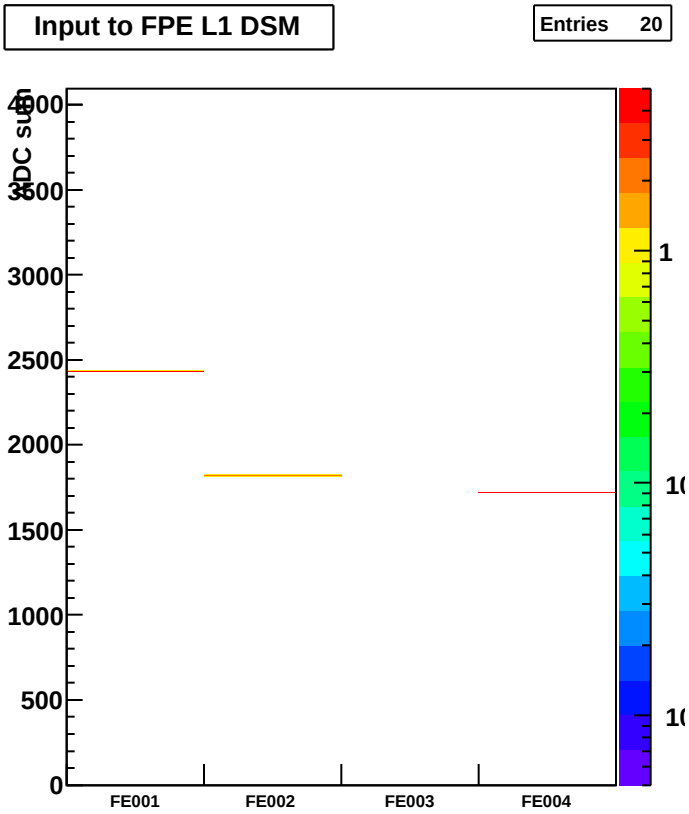

Input to FPD L2 DSM
Entries 30
jet patch sum (no FMS-LED)
120
100
80
60
40
20
0
ST
SB
NT
NB
S
N
1

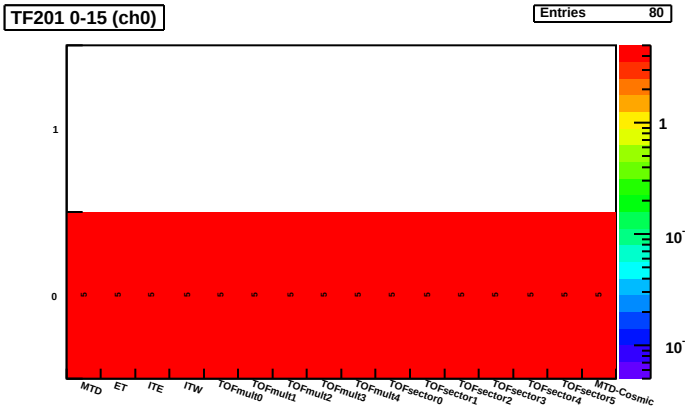

Input to FE001 QT board
Entries 160
ADC
channel

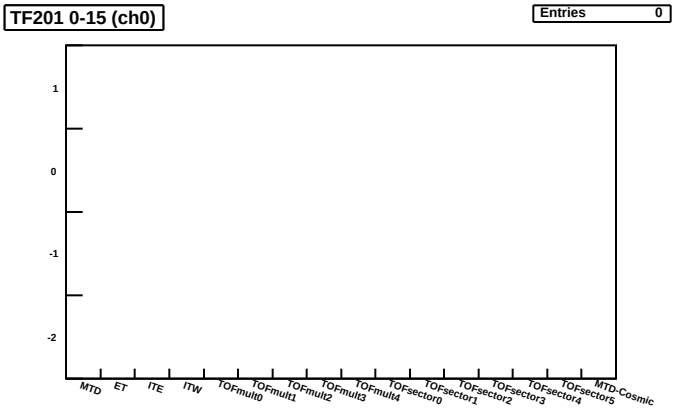

Input to FE002 QT board
Entries 160
ADC
channel

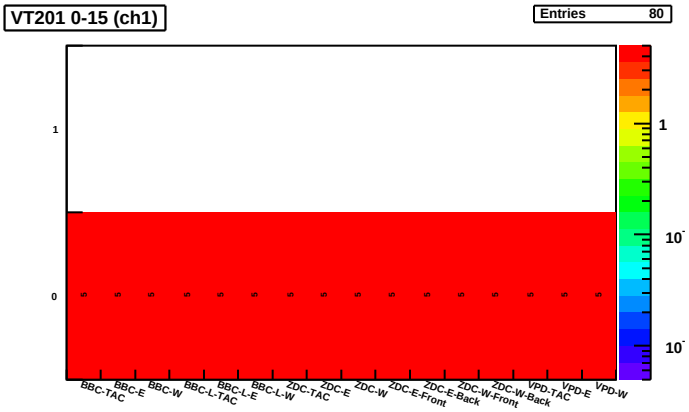

Input to FE003 QT board
Entries 160
ADC
channel

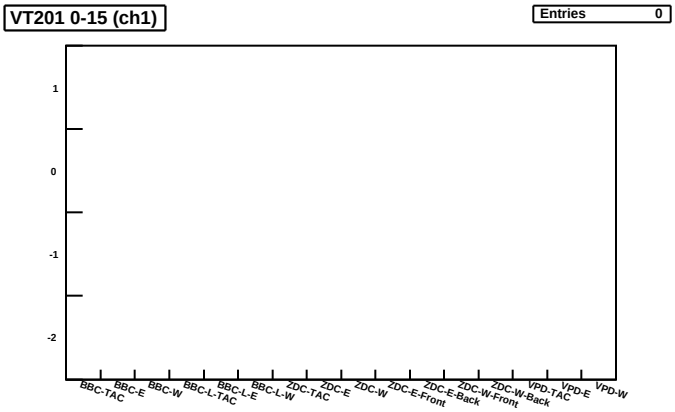

Input to FE004 QT board
Entries 160
ADC
channel

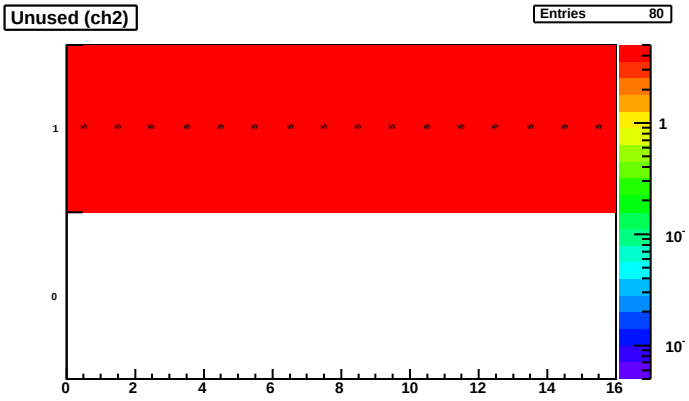

Input to FPE L1 DSM
Entries 20
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
1
10
10

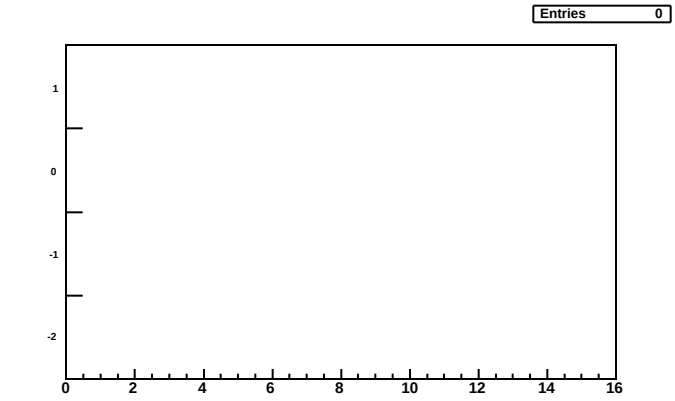

TF201 0-15 (ch0)
Entries 80
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

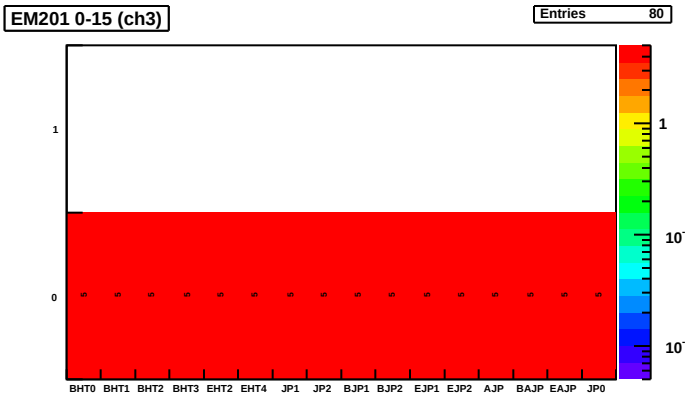

TF201 0-15 (ch0)
Entries 0
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

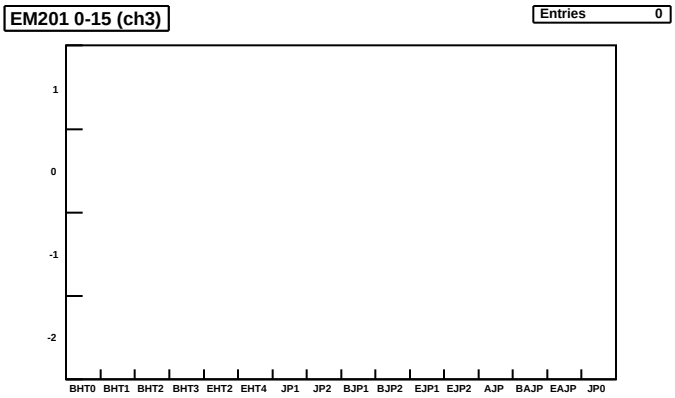

VT201 0-15 (ch1)
Entries 80
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 0
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

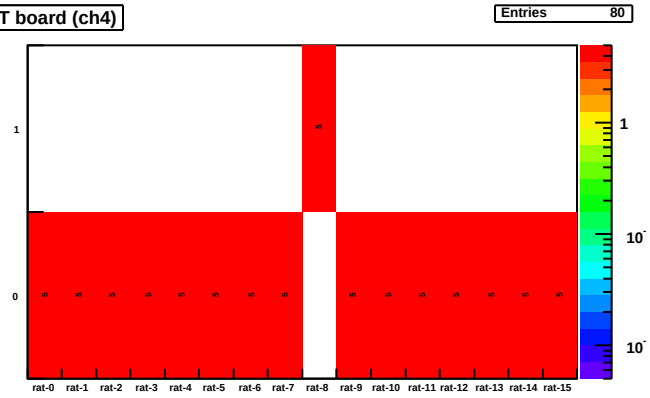

Unused (ch2)
Entries 80

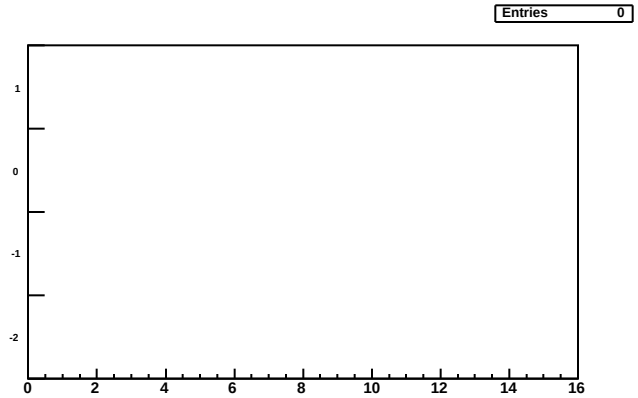

Entries 0


EM201 0-15 (ch3)
Entries 80
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

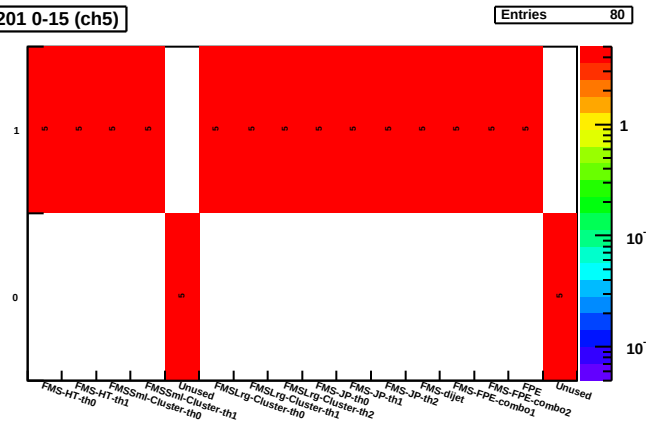

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

RAT board (ch4)

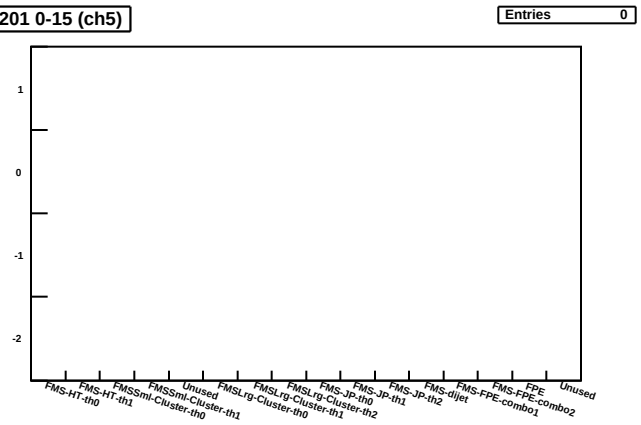




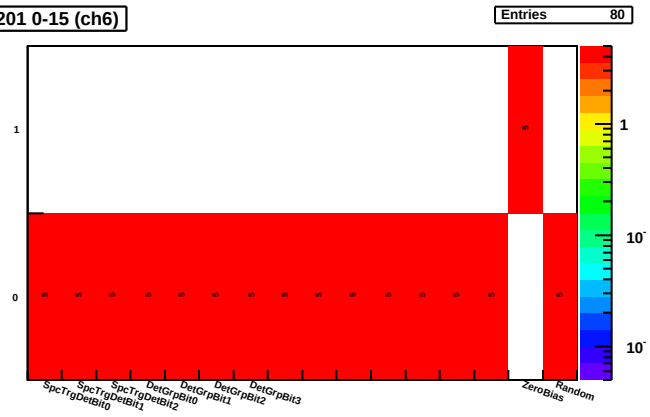
FP201 0-15 (ch5)

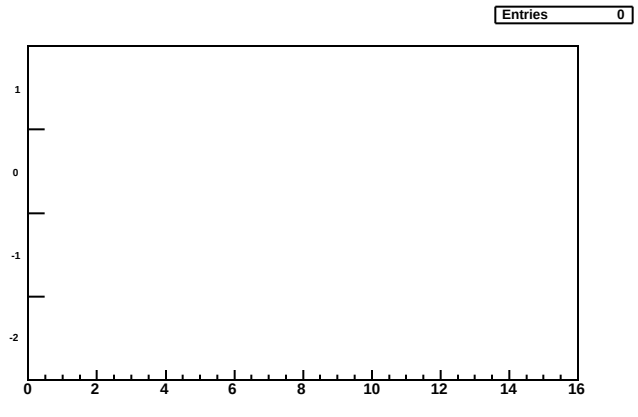
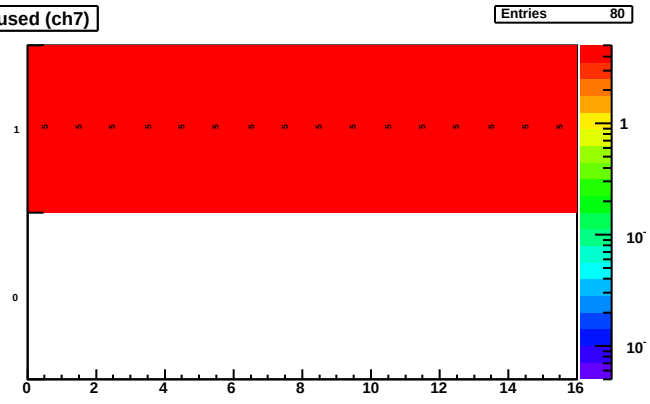
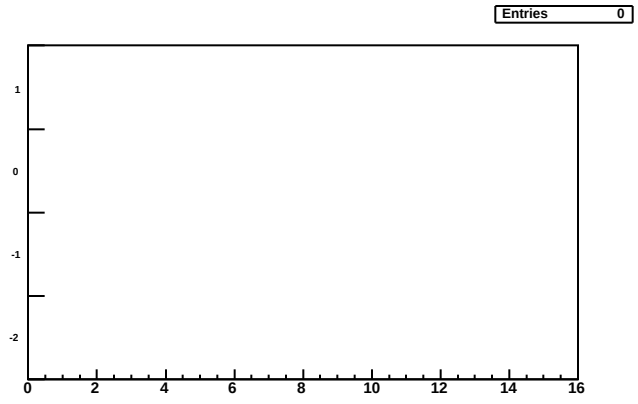


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)