

## Bits to 24-bit Scalers - 2012, 500 GeV

The 7-bit bunch-crossing counter will occupy bits 17-23 in each 24-bit board:

BX202IN	0	SCALERXX	17
BX202IN	1	SCALERXX	18
BX202IN	2	SCALERXX	19
BX202IN	3	SCALERXX	20
BX202IN	4	SCALERXX	21
BX202IN	5	SCALERXX	22
BX202IN	6	SCALERXX	23

**Boards 10 and 11** serve local polarimetry with the ZDC West and East, respectively.

Board 10 (as e.g. in the scaler map post run13076038):

'Z-SMD-W-H'0	SCALERA0	0	)	
'Z-SMD-W-H'1	SCALERA0	1	)	
'Z-SMD-W-H'2	SCALERA0	2	)	ZDC-SMD highest slat (H,V)
'Z-SMD-W-V'0	SCALERA0	3	)	
'Z-SMD-W-V'1	SCALERA0	4	)	
'Z-SMD-W-V'2	SCALERA0	5	)	
ZD101IN	3	SCALERA0	6	)
ZD101IN	4	SCALERA0	7	) ZDC Truncated ADC-sum-W
ZD101IN	5	SCALERA0	8	)
ZD101IN	14	SCALERA0	9	) ZDC Front-ADC-W > th0
ZD101IN	15	SCALERA0	10	) ZDC Back-ADC-W > th0
ZD101IN	7	SCALERA0	11	) ZDC Good-TAC-W
BBCWIN	3	SCALERA0	12	)
BBCWIN	4	SCALERA0	13	) BBC-W individual inner small tiles
BBCWIN	11	SCALERA0	14	)
BBCWIN	12	SCALERA0	15	)
VT201IN	0	SCALERA0	16	) BBC small-tile TAC in window

Board 11 (as e.g. in the scaler map post run13076038):

'Z-SMD-E-H'	0	SCALERB0	0	)	
'Z-SMD-E-H'	1	SCALERB0	1	)	
'Z-SMD-E-H'	2	SCALERB0	2	)	ZDC-SMD highest slat (H,V)
'Z-SMD-E-V'	0	SCALERB0	3	)	
'Z-SMD-E-V'	1	SCALERB0	4	)	
'Z-SMD-E-V'	2	SCALERB0	5	)	
ZD101IN	0	SCALERB0	6	)	
ZD101IN	1	SCALERB0	7	)	ZDC Truncated ADC-sum-E
ZD101IN	2	SCALERB0	8	)	
ZD101IN	12	SCALERB0	9	)	ZDC Front-ADC-E > th0
ZD101IN	13	SCALERB0	10	)	ZDC Back-ADC-E > th0
ZD101IN	6	SCALERB0	11	)	ZDC Good-TAC-E
BBCEIN	3	SCALERB0	12	)	
BBCEIN	4	SCALERB0	13	)	BBC-E individual inner small tiles
BBCEIN	11	SCALERB0	14	)	
BBCEIN	12	SCALERB0	15	)	
VT201IN	0	SCALERB0	16	)	BBC small-tile TAC in window

Boards 10 and 11 will integrate for the duration of each run.

**Boards 12** serves luminosity measurements with BBC, VPD and ZDC.

VP101IN	14	SCALERC0	0	VPD East ADC > th
VP101IN	15	SCALERC0	1	VPD West ADC > th
VT201IN	11	SCALERC0	2	VPD coincidence in TAC
VT201IN	0	SCALERC0	3	BBC coincidence in TAC
VT201IN	1	SCALERC0	4	)
VT201IN	2	SCALERC0	5	) BBC vertex (delta-t) bits
VT201IN	3	SCALERC0	6	)
VT201IN	4	SCALERC0	7	)
VT201IN	0	SCALERC0	8	BBC coincidence in TAC
ZD101IN	10	SCALERC0	9	ZDC East ADC > th
ZD101IN	11	SCALERC0	10	ZDC West ADC > th
VT201IN	6	SCALERC0	11	ZDC coincidence in TAC
ZD101IN	12	SCALERC0	12	ZDC-front East ADC > th
ZD101IN	14	SCALERC0	13	ZDC-front West ADC > th

BB101IN	14	SCALERC0	14	BBC East ADC > th
BB101IN	15	SCALERC0	15	BBC West ADC > th
VT201IN	0	SCALERC0	16	BBC coincidence in TAC