

BI MD 2012 REQUESTS

LSWG 08-Dec-2012

BI MD Requests 2012

Monitor	Description	Remarks	E	Beam Types			Time
				p/bunch	Patterns	Emit	
BCT FBCT	Test new FBCT prototype to be installed during xstmas shut-down, in order to verify -bunch length dependence -beam orbit dependence	-Possibly included in BI blocks to maximize studies in parallel -Variable bunch length -Bumps	450+ 3500	xx	xx	any	xx
BPM	Non linearity for each BPM type, by mapping a H/V grid with bumps	-Results have a direct impact on aperture measurements, so it would be advisable to foresee these studies very early in the run	450	xx	1	any	8h
	BPM offset and polarity checks			xx	1	any	8h
	BPMSW relative phasing	-Requested but not completed in 2011 -Possibly included in BI blocks to maximize studies in parallel	450	xx	1+1	any	2h
	BPMWF response to different orbit modes			xx	xx	any	2h
	K-mod of triplet BPMs and other critical locations	-determine BPM center -done after each TS (not MD time?)	450	probe	1	any	4x1h
BGI	Magnetic field impact on the image Absolute calibration with bumps Sensitivity vs pressure and energy Pressure Evaluation around BGI with BLMs	-Possibly included in BI blocks to maximize studies in parallel -Bumps -gas injection	450+ 3500	xx	xx	Uniform over bunches	xx
BSRT	Calibration B1 system vs WS, re-check B2	-Not completed 2011 -Bumps -Possibly included in BI blocks to maximize studies in parallel	450+ 3500	variable	variable	variable	>=3h
	Additional studies about detectors response vs bunch intensity, camera gains, color filters						xx
	Study response to hor slits						>=2h
MATCHING	Establish minimum beam intensity for allowing enough signal/noise with present system	Inj and Dump into empty machine with variable bunch intensities, up to maximum allowed	450	variable	1	variable	>=2h

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BLM	Direct Dump BLMs calibration	-Not finished in 2011 -inj and dump	450	variable	1	any	2h
LDM	Study response to variable beam sizes	Possibly included in BI blocks to maximize studies in parallel	450+ 3500	xx	xx	variable	xx
WS	Emittance comparison between SPS and LHC at injection	bunch by bunch is being tested in the SPS BWS 416	450	variable	xx	variable	xx
	test of automated settings determination for the PMT gain and filter	When available during the year Turn mode at first, later 40 MHz	450+ 3500	variable	xx	variable	xx
Q-Meas	Co-existence of the tune measurement and the damper systems (test various Q/Q' diagnostics schemes)	Complementary to W.Hofle MD	450+ 3500	xx	1	any	3x4h
Q/Q' meas	Lifetime and emittance dependence on Q/Q'	- $dQ < 0.001$ and $dQ' < 1$, not met by present systems -Determine whether we can relax the requirements on Q/Q' control, e.g. lower FB bandwidth, larger Q', etc.	450+ 3500	xx	xx	variable	2x8h
OFC/OFSU	-validate new and/or modified OFC/OFSU schemes and Settings. -test new control aspects to verify new OFC/OFSU versions which we are not allowed to deploy operationally otherwise	Can be done during commissioning (not MD) ?	450+ 3500	probe	1	any	4x4h

