

Padova

STATUS OF BMUON CHAMBERS TRIGGER AND CONTROL ELECTRONICS

ASICS:

- BTI	<u>Bunch and Track Identifier</u>	
	full performance chip	DONE
	5 tested prototypes in PLCC68 ceramic package	TESTED
	200 tested pcs in TQFP64 plastic package	TESTED
	200 tested dies	ARRIVED
	54000 kgd (tender+production)	6/00-12/01 !!
- TRACO	<u>Track Correlator</u>	
	full performance chip	DONE
	50 tested prototypes in QFP240 plastic package	ARRIVED
	full performance chip IInd submission	6/00
	50 tested prototypes in QFP240 plastic package	9/00
	5100 tested pcs in QFP240 (tender+production)	1-12/01 !!

PCBs and Modules:

- BTIM	<u>BTI multichip module</u>	
	I prototype: 4 BTIs in plastic package 66mm x 24mm on FR4 substrate 100pins SMT type; 25 pcs	DONE
	test with simulated tracks	DONE
	irradiation tests in gamma cell 5krad and 10krad	DONE
	Steady-State Life test (2000h at 125°C)	
	MIL-STD-883E Method 1005.8	DONE
	irradiation tests (neutrons)	DONE
	II prototype: 4 BTI dies on LTCC substrate 50mm x 22mm	
	80pins SMT type, full performance; 40 pcs	ARRIVED
	test with simulated tracks	12/99
	irradiation and reliability tests	10/99-7/00
	12000 pcs (tender+production)	9/00-3/03 !!
- CB	<u>Control Board</u>	
	I prototype with test pulse, clock distribution, monitoring and JTAG controller; 1 piece	DONE
	I prototype test	DONE
	II prototype for chamber control during production and irradiation tests	DONE
	Slow Control optical link test	DONE
	irradiation tests (neutrons)	5-12/99
	full performance board	6/00
	test on DTBX	9-12/00
	irradiation and reliability tests	9-12/00
	260 pcs (tender+production)	1/01-6/02
- BTI BOARD	Ist prototype: 4 BTIs in ceramic package with FIFOs	
	1 piece	DONE
	test with simulated tracks	DONE
	II prototype: 2 BTIM (16cm x 1 SL)	DONE
	test with simulated tracks	DONE
	test on MB96 with cosmics; 3pcs	DONE
	test on Q4 with beam	DONE

- PHITRB128	<u>128 channels phi view Trigger Board</u>	
	full performance with 5V/3.3V mixed power supply	12/99
	test with simulated tracks	3/00
	test on DTBX	3-9/00
	irradiation and reliability tests	4-7/00
	1000 pcs (tender+production)	3/01-9/03
- PHITRB32	<u>32 channels phi view Trigger Board</u>	
	full performance	3/00
	test with simulated tracks	6/00
	test on DTBX	6-12/00
	90 pcs (tender+production)	3/01-3/02
- THETATRB	<u>128 channels theta side Trigger Board</u>	
	full performance	12/00
	test on DTBX	6-12/00
	350 pcs (tender+production)	3/01-9/03
- SB	<u>Server Board</u>	
	I prototype: for TRB test	skipped
	II prototype: full performance board	6/00
	test on DTBX	9-12/00
	irradiation and reliability tests	9-12/00
	240 pcs (tender+production)	3/01-9/02
- SCB	<u>Sector Collector Board</u>	
	Ist prototype of Trigger optical link (PAROLI)	GOING
	IInd prototype of Trigger optical link	12/99
	full performance board	6/00
	test on DTBX	9-12/00
	irradiation and reliability tests	9-12/00
	65 pcs (tender+production)	6/01-12/02
- SCR	<u>Slow Control Receiver</u>	
	full performance board	6/00
	test on DTBX	9-12/00
	20 pcs (tender+production)	6/03-6/04

Mechanical parts – Minicrate design

- Minicrate	aluminum profile extrusion	12/99
	cooling tests (Trigger and Readout)	3-6/00
	MB1 minicrate assembly	6/00
	Tender+production	6/01-9/03