

Padova

STATUS OF BMUON CHAMBERS TRIGGER AND CONTROL ELECTRONICS

ASICS:

- BTI

Bunch and Track Identifier

full performance chip	DONE
5 tested prototypes in PLCC68 ceramic package	TESTED
200 tested pcs in TQFP64 plastic package mounted on BTIM1 and tested	
200 tested dies mounted on BTIM2 and tested	
Neutron irradiation tests	DONE
Production:	
ordered	12/00
Prototypes in ceramic package	07/01
54000 kgd	09/01-12/01

- TRACO

Track Correlator

full performance chip Ist ASIC	DONE
50 tested prototypes in QFP240 plastic package	TESTED
full performance chip IInd ASIC	
design with ATMEL library	DONE
design using new library	~03/01
10 tested prototypes in QFP240 plastic package	~09/00
5000 tested pcs in QFP240	~12/01

PCBs and Modules:

- BTIM

BTI multichip module

I prototype: 4 BTIs in plastic package 66mm x 24mm on FR4 substrate 100pins SMT type; 25 pcs test	DONE
simulated tracks	DONE
irradiation in gamma cell 5krad and 10krad	DONE
Steady-State Life test (2000h at 125°C)	
MIL-STD-883E Method 1005.8	DONE
neutron irradiations	DONE
II prototype: 4 BTI dies on LTCC substrate 50mm x 22mm	
80pins SMT type, full performance; 40 pcs	TESTED
neutron irradiation	DONE
Production:	
market survey	DONE
tender	~03/01
prototypes: 50 pcs	~09/01
pre-series: 450 pcs	~12/01
production: 12000 pcs	~12/01-09/03

- 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)	DONE
	full performance board	
	prototypes	TESTED
	IIInd prototype	~03/01
	260 pcs (tender+production)	~03/01-12/02
- PHITRB128	<u>128 channels phi-view Trigger Board</u>	
	full performance board	TESTED
	IIInd prototype	~03/01
	Production: 1000 pcs	~03/01-12/03
- PHITRB32	<u>32 channels phi view Trigger Board</u>	
	full performance board	~09/00
	Production: 90 pcs (tender+production)	~03/01-12/03
- THETATRB	<u>128 channels theta side Trigger Board</u>	
	full performance board	TESTED
	IIInd prototype	~03/01
	Production: 350 pcs (tender+production)	~03/01-12/03
- SB	<u>Server Board</u>	
	I prototype: for TRB test (BO group)	GOING
	II prototype: full performance board	~03/01
	240 pcs (tender+production)	~03/01-09/02

- SCB	<u>Sector Collector Board</u>	
	Ist prototype of Trigger optical link (PAROLI)	DONE
	IInd prototype of Trigger optical link	DONE
	full performance board	~06/01
	Production: 65 pcs (tender+production)	~12/01-12/02
- SCM	<u>Slow Control Master</u>	
	full performance Receiver Board	~06/01
	Production: 20 pcs (tender+production)	~12/01-12/02
 <i>Mechanical parts</i>		
- Minicrate		
	aluminum profile extrusion	DONE
	cooling tests (Trigger and Readout)	~03/01
	First minicrate assembly	~12/01
	Production: 250 pcs (tender+production)	~03/02-03/04