

1/7/09

## ProtoBrick Construction and Preparation for the Beam Test

#	Item	Description	Need ed	in hand s	To Order	Cost	Notes	Design	Fabricati on	Assembl y
		<b>Pads</b>								
1	PMMtester	Pads carrier board for testing	4		4	\$700		100% BNL	0%	0%
2	CAR8v2	Pads carrier board for EM1&2	21	15	11	\$3,500	Decided that all CAR8 should be of the same length	100%	60%	60%
3	CAR10v2	Pads carrier board fod HAD	0	8	0					
4	INTC	Interconnect	240	240	0		Finally delivered!	100%	100%	100%
5	Foil	Gold plated foil	1m <sup>2</sup>		1m <sup>2</sup>	\$200	One sheet is in Dubna, good for 180 INTC. Additional sheet is in preparation	N/A	N/A	50%
6	Spacer	Ceramic spacer	240	300	0	\$500		100%	100%	100%
7	Cover	Thin PCB 62x62x0.2mm	168		0	\$200	Fabricated at Dubna	0%	100%	100%
8	MicroModule	Sensor + INTC + Spacer + Cover	240				Assembly started at Dubna	100%	100%	5%
9	Summing Cable EM0	Backplane flex boards (3 SC)	6		6	\$700		0% Dubna	0%	0%
10	Summing Cable EM1,2	Backplane flex boards (9 SC)	12		12	\$1,000		0% Dubna	0%	0%
11	FlexCables	Flex cables with JMD connectors	>12	90	30	\$1,500	In staffing.	100%	100%	10%
12	PAMP-4K	Current preamps with gain 4 Kohm	40	28	28	\$800	Order placed for fab. of 1 panels, and order prepared for sruffing 2 panels	100%	50%	50%
13	PAMP-40K	Current preamps with gain 40 Kohm	20	28	28	\$800	In hands	100%	100%	100%
14	MBPAMP	Motherboard for preamps	>6	6	0		Need to press-fit connectors	100%	100%	80%
15	Crate		1	1	0			100%	100%	100%
16	Backplane	Backplane for crate	1		2	\$300		0% Dubna	0%	0%
17	ADC			144	0		Provided by Chi	100%	100%	100%
18	Brick Skins		3					BNL	0%	0%

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Strips											
19	SpRC	Strip readout card	32		40	\$6,400	First design too expensive, second version is in preparation	100%	0%	0%	
20	StripCAR	Strip carrier board	2		2	\$800	Concept design	10% Dubna	0%	0%	
21	FlexCables	Same as for pads	4		0			100%	100%		
22	Cover	Ceramic 62x62x0.4mm	32		32	?		BNL	0%	0%	
23	Foil		32		32	?		BNL	0%	0%	
24	FEM		3		0	?	2 tested, 2 spares fabricated	100%			
25	ProbeCard	Probe card for sensors	1		1		Manufacturer contacted, quotation requested	50%	0%	0%	
Test Beam											
26	SMMTester	Single sensor carrier with LEDs	6				The same as for strips	Dubna	0%	0%	
27	SpRC		4								
28	Mechanics		1m2						+		
29	FEM		2 ports	2		?			100%	50%	
30	HV systems		25x10uA			\$0		4 modules of Astakhov system or NIM modules from the pool	BNL	0%	0%
31	N3C	ColdFire MPU	4	2	2	\$320		100%	100%		

**Total \$17,720**

## Color Coding

### Color coding

	Full set is available
	Most of the items are available. The set is not complete.
	Work in progress on a non-critical part
	Critical part