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Tender notice no : CBM/AB/Equipment/2019-20/Quote3 dated 23rd October 2019

Sealed quotations, along with all supporting documents, are invited from interested vendors for the following items with the specifications given below under the Indo-FAIR Co-ordination Centre project **CBM-MUCH**

Sl. No.	Item Description	Quantity
1	**GEM-Detector 8-layered joining readout PCB** **Each set consists of 2-PCBs** **PCB1:** 8-layered Sector PCB size 843mm X450mm **PCB2**: 8-layered Sector PCB size 242mm X487mm **Thickness of both the PCBs :** 3.2mm thick, Overlapped top copper sample layout design with reduced size is attached along with in Annexure-I., bottom copper in Annexure-II and 6 layers of inner copper in Annexure-III This PCB contains both normal and blind plated through holes(PTH). These PTHs are about 4000 Nos with 2000Nos of each type (normal and blind PTH) distributed among the two PCBs. **Material** : FR4, Tg170. **SURFACE FINISH :** ENIG • **PCB has about 2000 blind vias** • **Top copper have no green mask. File is also not there in the GERBER bundle** • **All vias should be gas sealed with metal and planarization to be done afterwardsENIG finish in all the above mentioned PCB's (where applicable.) Minimum Track to track and Pad to Pad and track to pad will be 4-mil Minimum finished PTH size will be 20mil**	1 Set

Note:

1) **Final sizes along with GERBER data will be provided at the time of manufacturing. Approximate GERBER data of reduced sizes will be provided on demand for evaluation purposes.**

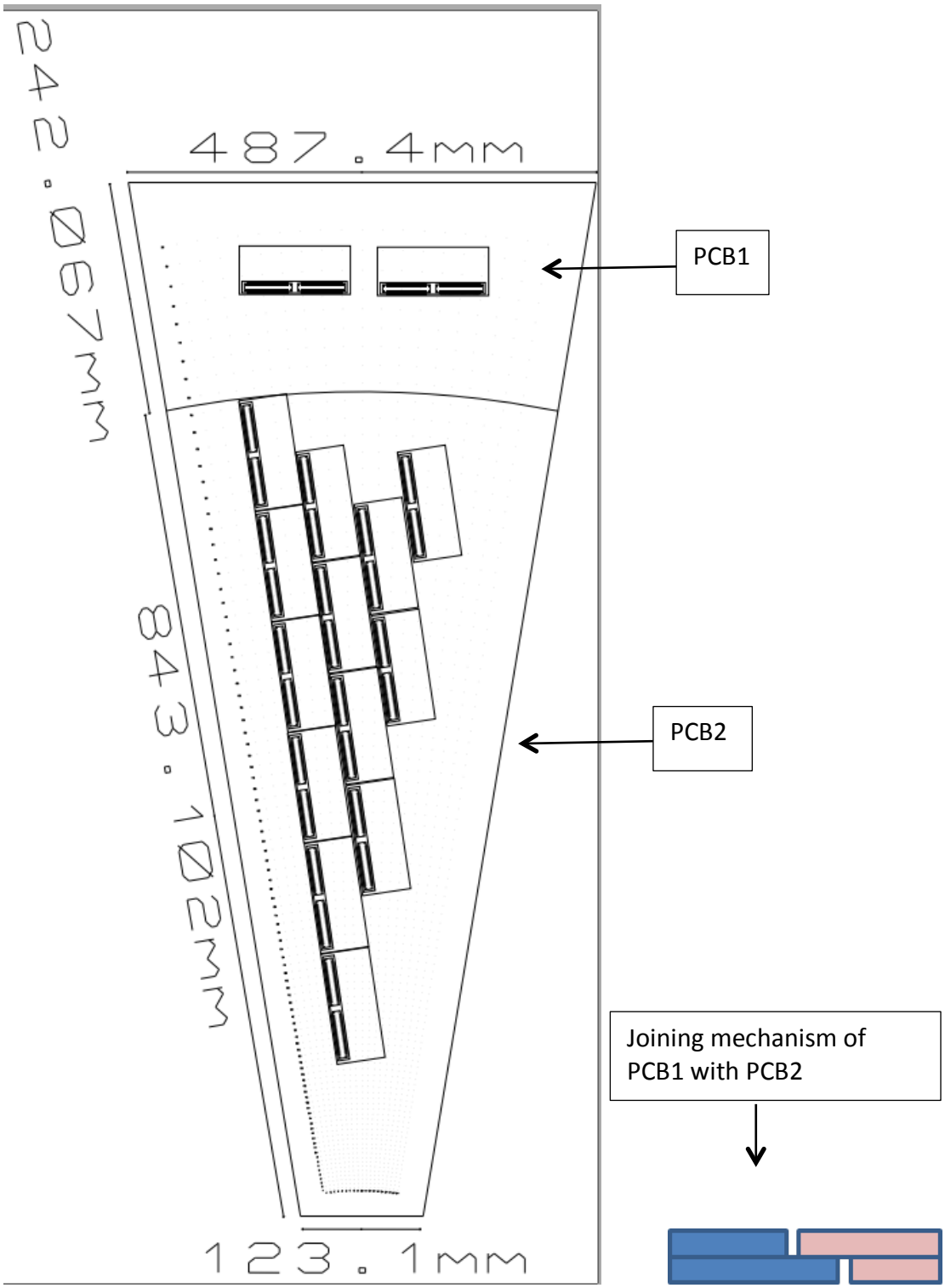
The sealed quotations must reach the undersigned not later than 11th November 2019, 4pm. The quotations will be opened within 2/3 days from the last date of submission. Quotations received after the deadline will not be considered.

Abhijit Bhattacharyya

(ABHIJIT BHATTACHARYYA)
Professor, Department of Physics
Principal Investigator, CBM-MUCH

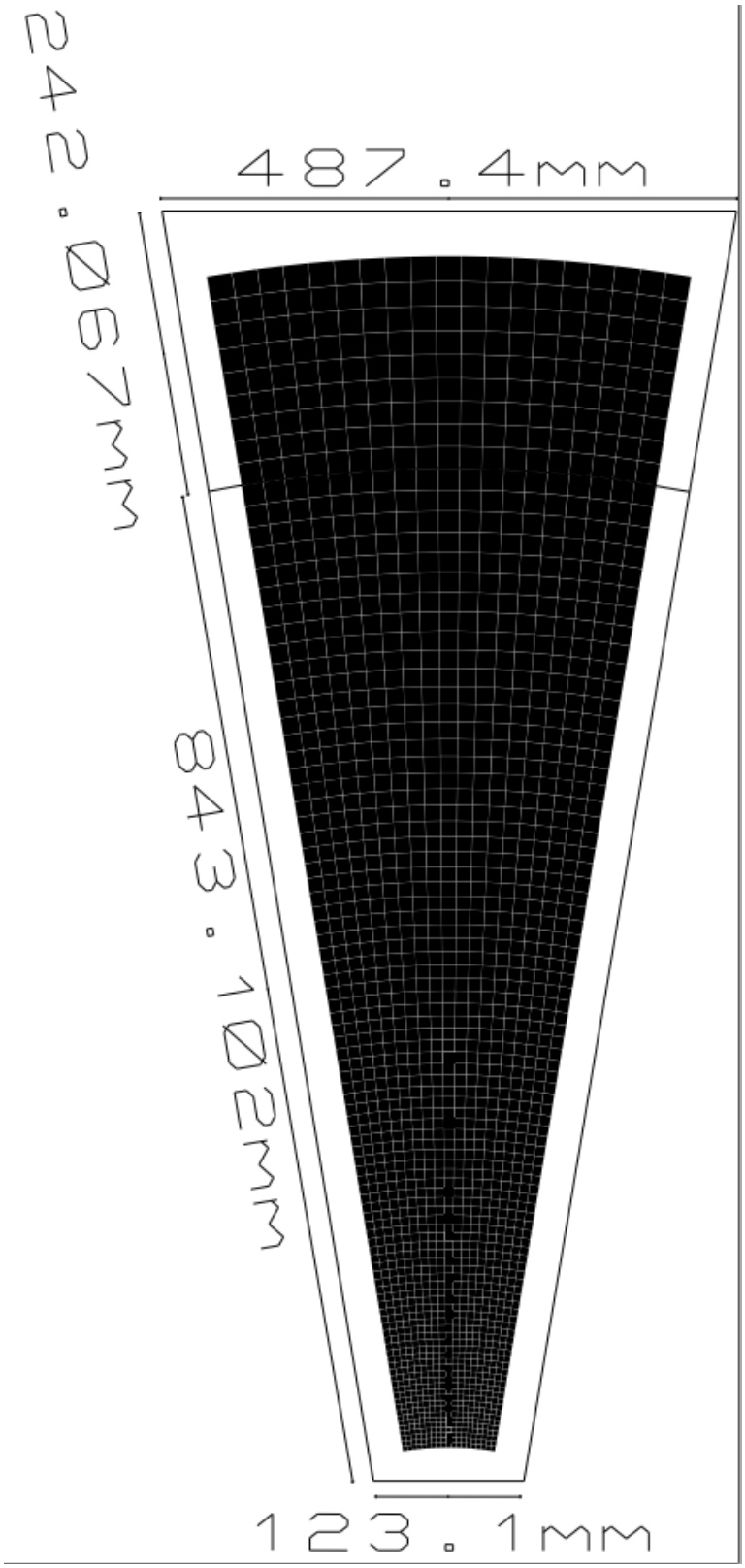
Annexure-1

Sketch of Bottom copper along with bottom silk for illustration and size purposes. These are two PCBs with maximum dimensions of the PCBs as shown in the figure.



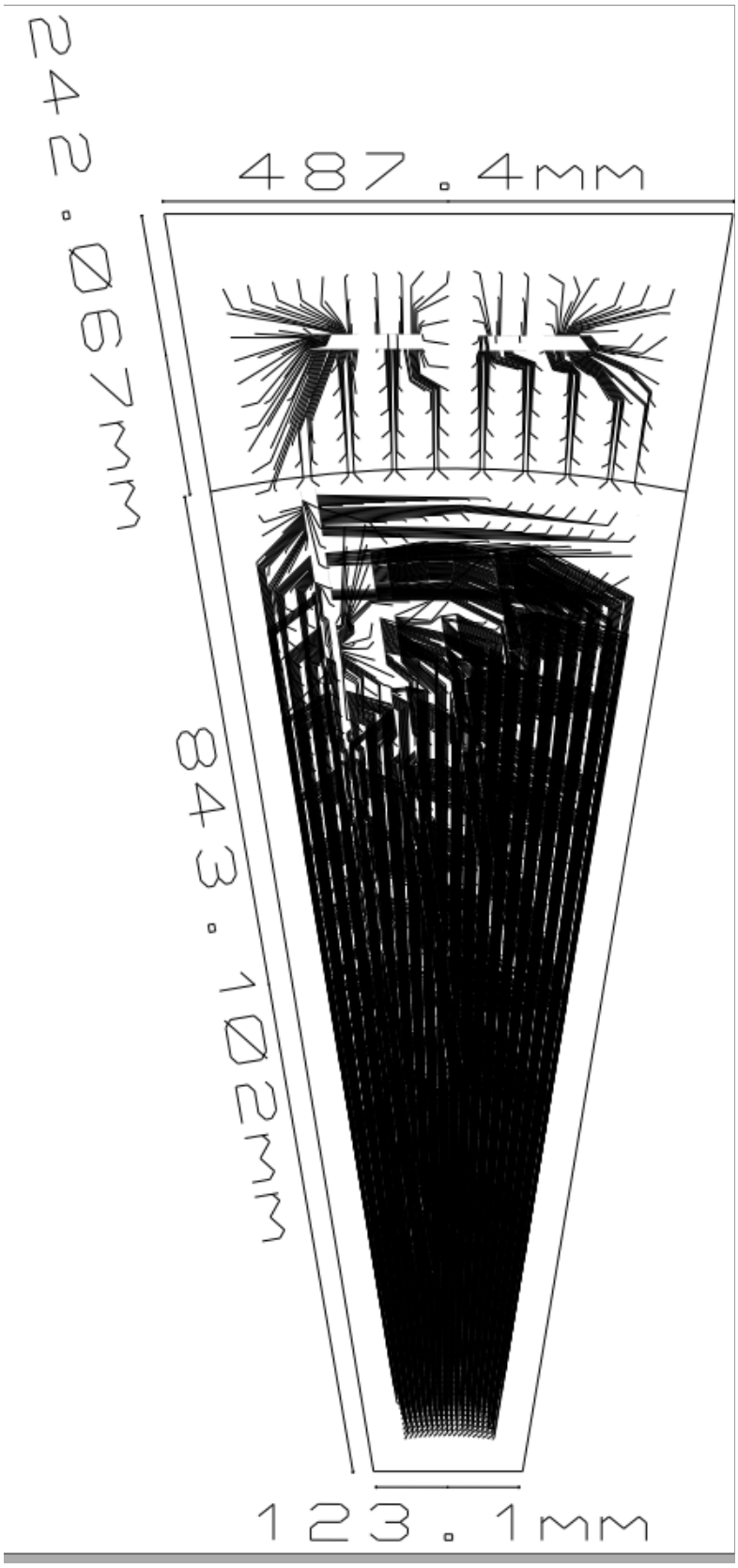
Annexure-2

Top copper with board edge and the readout pads



Annexure-3

Sample layout of inner1, inner2 inner3, inner4, inner5 and inner6 for illustration purposes.



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Tender notice no: CBM/AB/Equipment/2019-20/Quote4 dated 23rd October 2019

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Sl. No.	Item Description	Quantity
1	**6-layered front end board PCB with thermal bonding with anodized Aluminum for cooling** **Each set consists of 2-PCBs** 6-layered PCB size 65mm X110mm **Thickness of both the PCBs:** 2.4mm thick, Overlapped top copper sample layout design with reduced size is attached along with in Annexure-I. This PCB contains both normal and blind plated through holes(PTH). This PCB also contains micro-via with drill size 4mil and finished size of 6mil. **Material**: FR4, Tg170, Polyamide **Grade:** IPC 6013 CLASS 2 **SURFACE FINISH:** ENIG **Special Features:** THERMAL BOND AND CAP PLATING , **ENIG finish in all the above mentioned PCB's (where applicable.) Minimum Track to track and Pad to Pad and track to pad will be 4-mil. Minimum finished PTH size will be 20mil. Minimum micro-via sizes will be finished 6mil.**	25 Nos

Note:

1) **Final sizes along with GERBER data will be provided at the time of manufacturing. Approximate GERBER data of reduced sizes will be provided on demand for evaluation purposes.**

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Professor, Department of Physics
Principal Investigator, CBM-MUCH

Annexure-1

Sample layout file showing sizes and estimate of the work.
Size of flexible part length is 2cms with is between two rigid area