

INSTITUTE FOR PLASMA RESEARCH

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MINOR FABRICATION WORKS ENQUIRY

Office Copy

ENQUIRY NO :IPR/MFW/18-19/43

Date : 06-08-2019

Due Date : 21-08-2019 13:00 IST

Please send your offer in sealed envelope specifying Inquiry No, Date & Due Date, ALONG WITH your credentials for the following items:

Important Note:

Please note that e-mail quotations are not acceptable however you may send your queries (if any) to **shukla@ipr.res.in**

Please Ensure that your sealed quotation reaches this office not later than above mentioned due date and time.

Kindly go through the following document properly before Quoting which are available on the IPR web portal i.e., <http://www.ipr.res.in/documents/tenders.html/> attached here with.

1. Technical specification as enclosed.
2. Instruction to the bidders & terms and Condition (refer Form NO:**IPR-MFW-01-V1**)
3. Bidding format(refer Biddingformat MFW-Bid.pdf)

GST fro Goods and Services (IGST/CGST/SGST TAX BENEFITS): PLEASE REFER clause no:8 of Form No:**IPR-MFW-01-V1**

QUOTATION SHOULD BE ADDRESSED TO **BRAJ KISHORE SHUKLA** ONLY.

Sr.No.	Description	Quantity	Rate
1	Fabrication of PCB : Preparation of art work, layout for PCB, fabrication of PCBs and component assembly with profession soldering as per attached schematic and bill of material	5	No.

Free Issue Material

Sr.No.	Description	Quantity	Unit	Value
1	NIL	0.00		0.00

Note : Please quote with complete technical details (Technical Compliance sheet and product data sheet)

Encl:As per attachment

Sd/-
BRAJ KISHORE SHUKLA
Scientific Officer-G

Technical Specifications for Power Cards

Scope of Work:

Scope of work includes Preparation of circuit schematic, art work and layout for PCB, fabrication of PCBs and component assembly with profession soldering (Qty: 5Nos) as per attached circuit diagram and bill of material

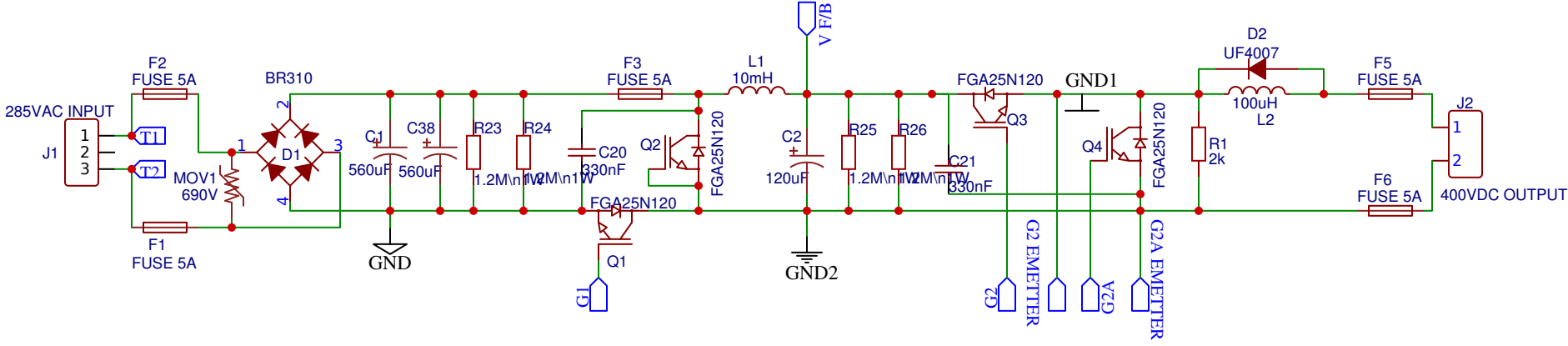
General Instructions:

- Vendor has to prepare Schematic, art work and layout for PCB and shall be submitted for approval.
- On approval of same, PCB Layout shall be prepared. A layout must be as per IPC standards and taking consideration of EMI-EMC.
- A dimension of PCB should be approximately 150 x 250 mm, where Power and Control parts should be isolated by slit in PCB.
- Only on approval of PCB Layout, manufacturing should be commenced.
- PCB should be Double Layer, FR4 type material with thickness of 2mm. A copper thickness should be 60 micron.
- A bare boards shall be submitted for inspection before component stuffing and soldering
- All components shall be purchased according to suggested makes only from reputed sources.

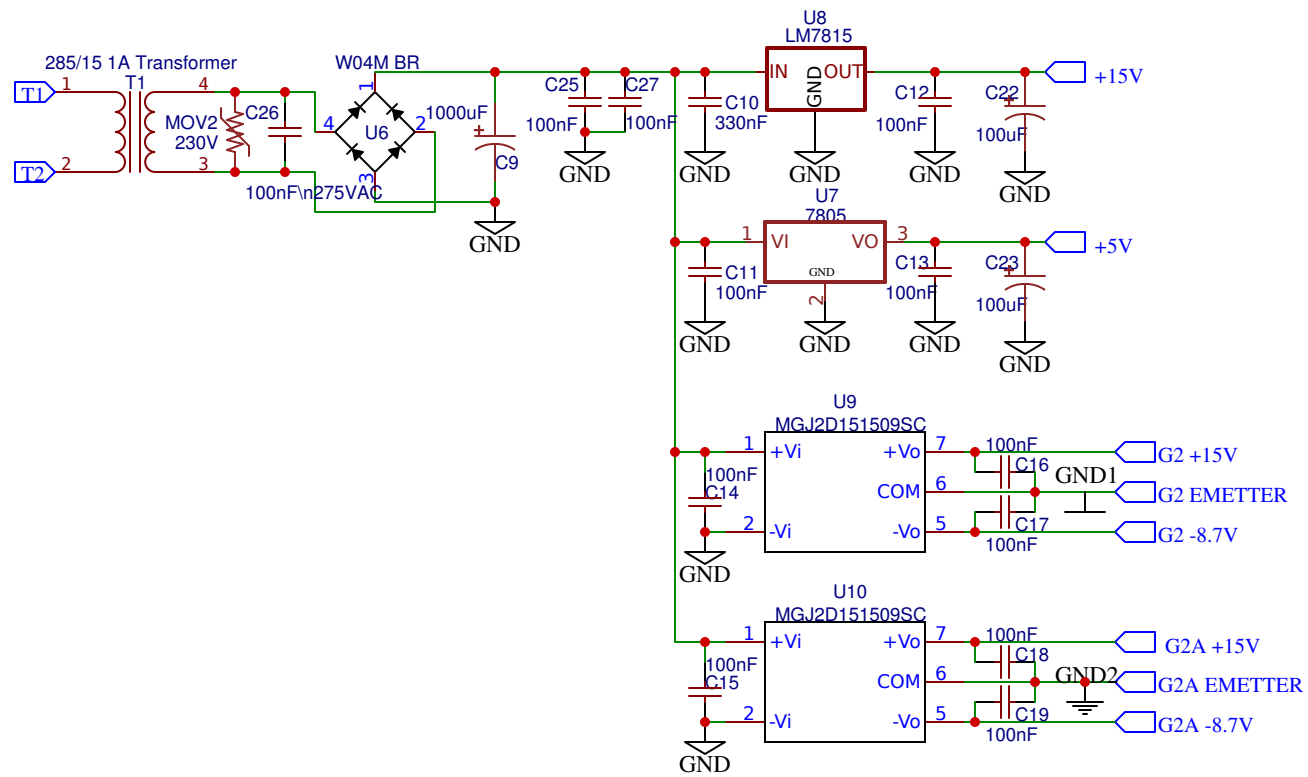
Deliverables:

- 1) 5 Nos. of assembled PCB
- 2) Schematic file – PDF Format
- 3) PCB layout File – To be compactible in form of future bulk manufacturing.

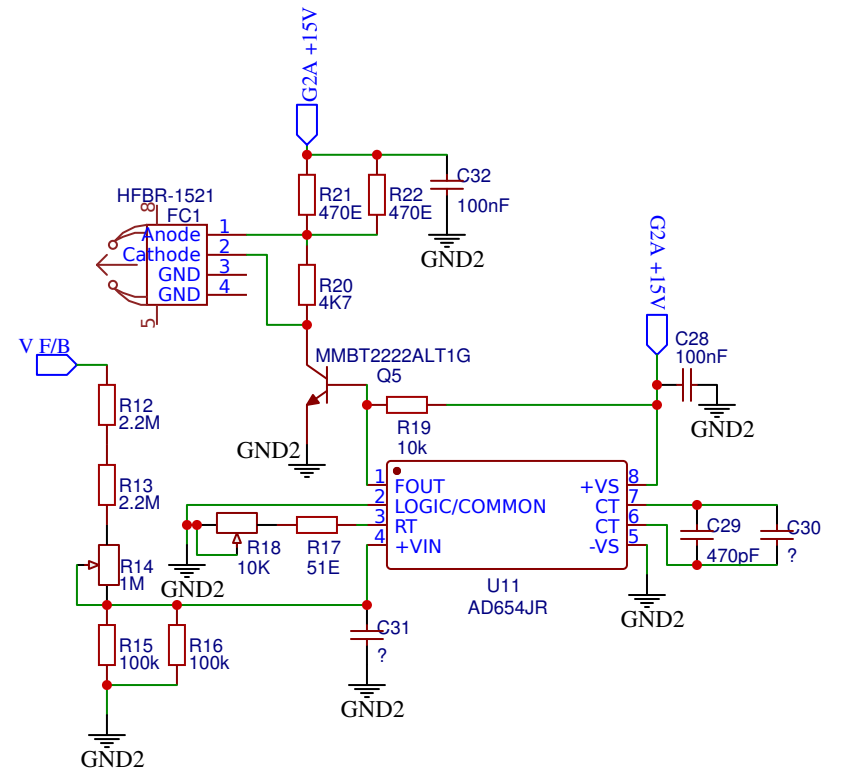
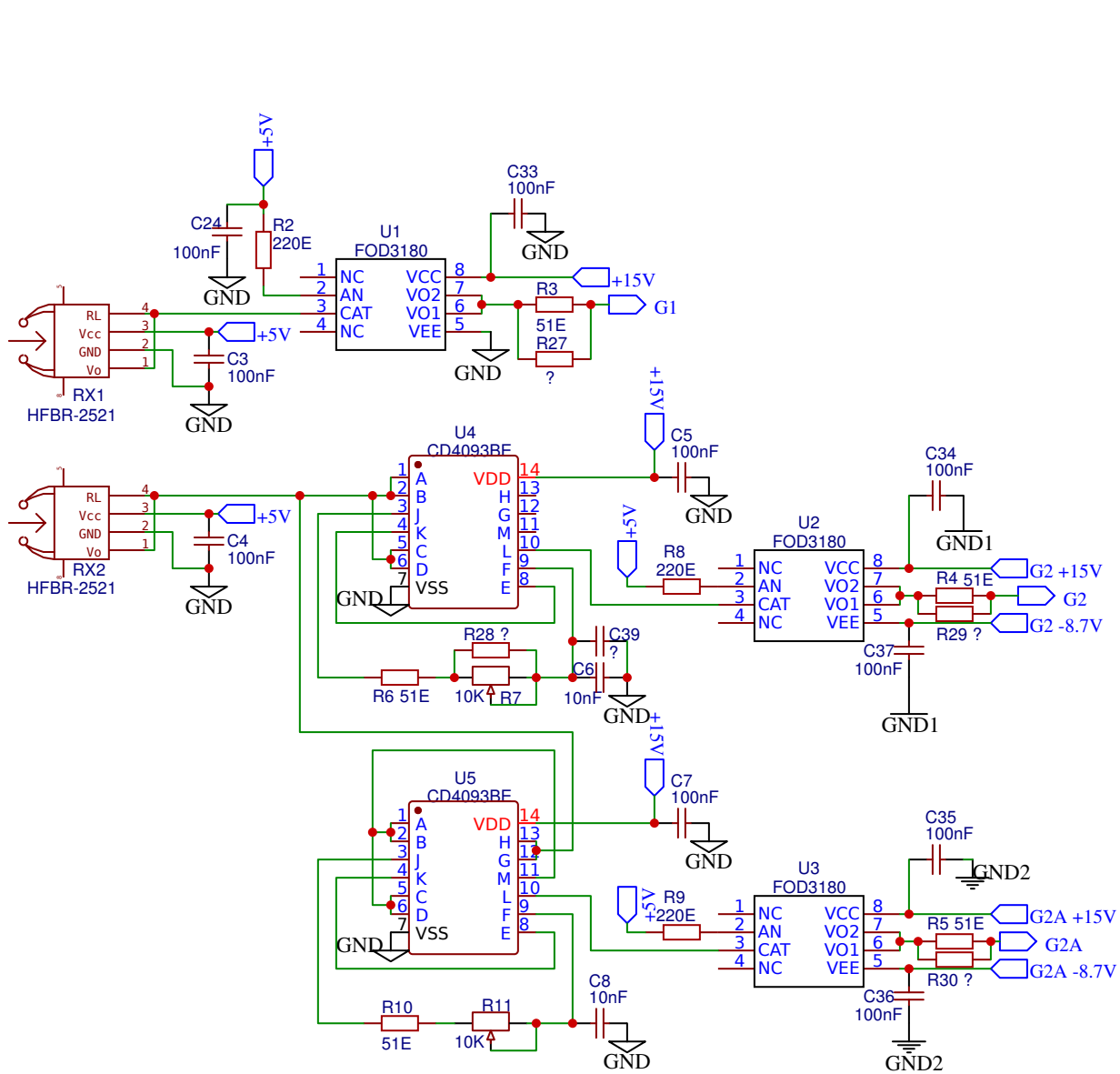
ANNEXURE - I



TITLE: BPS	REV: 1.0
EasyEDA	Company: ITER India IPR
Date: 2019-05-16	Drawn By: niranjanpuri
	Sheet: 1/3



TITLE: BPS		REV: 1.0
Company: ITER India IPR		Sheet: 2/3
Date: 2019-05-16	Drawn By: niranjanpuri	



TITLE: BPS		REV: 1.0
Company: ITER India IPR		Sheet: 3/3
Date: 2019-05-16		Drawn By: niranjanpuri

ANNEXURE - II

ID	Type	Name	Designator	Footprint	Quantity	Manufacturer Part	Manufacturer	Supplier	Supplier Part
1	Though Hole	FUSE 5A	F1,F2,F3,F5,F4	5X20	5	5F 5A 250VACGlass tube fuse	XCFuse	LCSC	C3120
2	Though Hole	285VAC INPUT	J1	HDR-3X1/2.54	1	Header-Female-2.54_1x3	Boom Precision Elec	LCSC	C146243
3	Though Hole	BR310	D1	BRIDGE-BR-3	1	KBPC1010	MDD	LCSC	C3082
4	Though Hole	560uF	C1,C38	CAP-D10.0XF5.0	2	EKYB250ELL102MJ20S	Nippon Chemi-Con	LCSC	C354936
5	Though Hole	120uF	C2	CAP-D10.0XF5.0	1	EKYB250ELL102MJ20S	Nippon Chemi-Con	LCSC	C354936
6	Though Hole	10mH	L1	L-10UH	1	General Inductor(TH)/10uH	ReliaPro	LCSC	C27938
7	Though Hole	FGA25N120	Q1,Q2,Q3,Q4	TO-3P	4	FGA25N120ANTDTU-F109	FAIRCHILD	LCSC	C2713
8	Though Hole	100uH	L2	L-10UH	1	General Inductor(TH)/10uH	ReliaPro	LCSC	C27938
9	Though Hole	2k	R1	AXIAL-1.5	1	EWWR0010J2K20T9	ResistorToday	LCSC	C349107
10	Though Hole	400VDC OUTPUT	J2	HDR-2X1/2.54	1	826629-2	TE Connectivity	LCSC	C86471
11	Though Hole	330nF	C20,C21,C10	CAP-0.2	3	CS1-F6Y5V2B104ZSPW	Guangdong Fenghua Advanced Tech	LCSC	C277965
12	SMD	UF4007	D2	DO-41	1	UF4007	LRC	LCSC	C78762
13	SMD	1.2Mn1W	R23,R24,R25,R26	AXIAL-1.5	4	EWWR0010J2K20T9	ResistorToday	LCSC	C349107
14	Though Hole	690V	MOV1	ROV10H	1	?			
15	Though Hole	285/15 1A Transformer	T1	SILCHAR	1	?			
16	SMD	W04M BR	U6	BRIDGE	1	Bridge Rectifier			
17	Though Hole	1000uF	C9	CAP-D10.0XF5.0	1	EKYB250ELL102MJ20S	Nippon Chemi-Con	LCSC	C354936
18	SMD	7805	U7	TO220H	1	?			
19	SMD	LM7815	U8	TO220	1	?			
20	SMD	100nF	C11,C12,C13,C14,C15,C16,C17,C18,C19,C25,C27,C3,C4,C5,C7,	CAP-0.2	23	CS1-F6Y5V2B104ZSPW	Guangdong Fenghua Advanced Tech	LCSC	C277965
21	Though Hole	MGJ2D151509SC	U9,U10	MGJ2D122005	2	MGJ2D122005			
22	Though Hole	100uF	C22,C23	CAP-D10.0XF5.0	2	EKYB250ELL102MJ20S	Nippon Chemi-Con	LCSC	C354936
23	Though Hole	100nF\n275VAC	C26	CAP-0.2	1	CS1-F6Y5V2B104ZSPW	Guangdong Fenghua Advanced Tech	LCSC	C277965
24	Though Hole	230V	MOV2	ROV10H	1	?			
25	Though Hole	HFBR-2521	RX1,RX2	~	2	?			
26	SMD	FOD3180	U1,U2,U3	SMD-8_6.3MM	3	FOD3120SD	FAIRCHILD	LCSC	C15455
27	SMD	220E	R2,R8,R9	AXIAL-1.5	3	EWWR0010J820RT9	ResistorToday	LCSC	C349142
28	SMD	CD4093BE	U4,U5	DIP-14	2	CD4093BE	TI	LCSC	C96504
29	SMD	51E	R3,R4,R5,R6,R10,R17	AXIAL-1.5	6	EWWR0010J820RT9	ResistorToday	LCSC	C349142
30	SMD	10K	R7,R11,R18	RES-ADJ_3296W	3	Precision potentiometer100Ω	ReliaPro	LCSC	C13649
31	SMD	10nF	C6,C8	CAP-0.2	2	CS1-F6Y5V2B104ZSPW	Guangdong Fenghua Advanced Tech	LCSC	C277965
32	SMD	AD654JR	U11	SOIC-8_150MIL	1	AD654JRZ-REEL7	ADI	LCSC	C62353
33	SMD	470pF	C29	CAP-0.2	1	CS1-F6Y5V2B104ZSPW	Guangdong Fenghua Advanced Tech	LCSC	C277965
34	SMD	?	C30,C31,C39	CAP-0.2	3	CS1-F6Y5V2B104ZSPW	Guangdong Fenghua Advanced Tech	LCSC	C277965
35	SMD	2.2M	R12,R13	AXIAL-1.5	2	EWWR0010J820RT9	ResistorToday	LCSC	C349142
36	SMD	100k	R15,R16	AXIAL-1.5	2	EWWR0010J820RT9	ResistorToday	LCSC	C349142
37	SMD	MMBT2222ALT1G	Q5	SOT-23(SOT-23-3)	1	MMBT2222ALT1G	ON	LCSC	C82460
38	SMD	10k	R19	AXIAL-1.5	1	EWWR0010J820RT9	ResistorToday	LCSC	C349142
39	Though Hole	HFBR-1521	FC1	HFBR-1521ETZ	1	HFBR-1521ETZ	AVAGO	LCSC	C39926
40	SMD	4K7	R20	AXIAL-1.5	1	EWWR0010J820RT9	ResistorToday	LCSC	C349142
41	SMD	470E	R21,R22	AXIAL-1.5	2	EWWR0010J820RT9	ResistorToday	LCSC	C349142
42	SMD	1M	R14	RES-ADJ_3296W	1	Precision potentiometer100Ω	ReliaPro	LCSC	C13649
43	SMD	1M	R27,R28,R29,R30	AXIAL-1.5	4	EWWR0010J820RT9	ResistorToday	LCSC	C349142