# CSIR-Central Scientific Instruments Organisation Chandigarh

To inform you of an extension to the submission deadline for the tender titled LPC NIT No. CSIO/iSenS/LPC-2024/10/15/01 Dated 15-10-2024.

Due to administrative reasons, the tender submission date has been extended to

Date & time of receipt of tender: 29.10.2024

Date & time of opening of Tender: 30.10.2024

Please note that all other terms, conditions, and specifications outlined in the original tender document **remain unchanged**.

Thank you for your continued interest and cooperation.



## सीईएसआईआर-केन्द्रीय वैज्ञानिक उपकरण संगठन

# CSIR-Central Scientific Instruments Organisation सैक्टर 30 सी चंडीगढ Sector-30C, Chandigarh 160 030

ई-मेल / e-mail: gurpreetsingh@csio.res.in

### ई-मेल /रजिस्टर्ड/ स्पीड पोस्ट/ कुरिएर दवारा

एल.पी.सी.एन.आई.टी.सं./LPC NIT No.:	CSIO/iSenS/LPC-2024/10/15/01
दिनांक / Date:	15.10.2024
निविदा प्राप्ति का अंतिम समय एंव दिनांक / Date & time of receipt of tender	25.10.2024 (Forenoon)
निविदा खोलने का समय एंव दिनांक / Date & time of opening of Tender	25.10 .2024 (Afternoon)

महोदय/Sir,

हम उपस्कर/सामग्री खरीदनेके इच्छुक हैं। इससे सम्बंधित नियम व शर्तेव अन्य दस्तावेज संलग्न हैं./We are interest to purchase the below given items/attached items for R&D purpose. The terms and conditions and other documents are attached here with.-

S. No.	Item Name with Complete Specification	Quantity
1.	Fabrication and Assembly of electronics cards	02 Sets
	As per attached Annexure-A	

एकल बोली प्रणाली में मुहरबंद निविदाएं आमंत्रित की जाती हैं। कवर के ऊपर , स्थानीय खरीद समिति (एल पी सी) की एन आई टी, एलपीसी एनआईटी संख्या, नियत तिथि, खोलने की तिथि अंकित होनी चाहिए और निदेशक, सी.एस.आई.आर.-केन्द्रीय वैज्ञानिक उपकरण संगठन, सेक्टर- 30 सी, चंडीगढ़-160030तथा ध्यान-आकर्षण--- प्रमुख, नाम और पदनामको संबोधित होनी चाहिए । मुहरबंद कवर में निम्नलिखित शामिल हैं। बोली ई-मेल के द्वारा भी भेजी जा सकती है । /The sealed tenders are invited in Single bid system. Cover shall be superscribed with NIT of Local Purchase Committee, LPC NIT no., Due date, Date of opening and addressed to the Director, CSIR-Central Scientific Instruments Organisation, Sector- 30 C, Chandigarh-160030 and also mentioned- Kind Attention Mr. Gurpreet Singh ,Technical Officer. The Sealed cover contains the followings.

<u>The bid/quotation may also be submitted through E-mail gurpreetsingh@csio.res.in, CC to baljit.singh@csio.res.in and bhargab.das@csio.res.in Contact: 01722672259</u>

Documents/Papers to be submitted with Bid: (In the absence of these, bid/Quotation will be summarily rejected).

Sl. No.	Documents required
A.	Duly filled, signed and stamped Bid Securing Declaration (BSD) as per <b>Annexure - I</b>
В.	Self-attested copy of duly Signed and stamped <b>Manufacturer's Authorization Form</b> ( <b>Annexure-II</b> ) (In case the bids have been submitted by the Authorized Dealer/Distributor).
C.	Duly filled, signed and stamped Tender acceptance letter as per format Annexure - III
D.	Duly filled, signed and stamped Code of Integrity as per format <b>Annexure - IV</b>
E.	Duly filled, signed and stamped Certificate of Price Reasonability as per <b>Annexure V</b>
F.	<b>Technical Bid along with Technical Literature Document</b> – self-attested copies of technical literature of item(s) with details of specifications.
G.	A copy of self- certification about the products offered in this tender meets local content requirement for Class- I Local supplier (local content minimum 50%) or Class- II Local supplier (local content minimum 20%) or Non- Local supplier (local content less than 20%) as per Make in India Policy No. P-45021/2/2017-PP(BE-II) dt- 16/09/2020. The details of the location(s) at which the local value addition is made should also be mentioned in the self-certification as per Annexure – VI.
H.	A copy of certificate (a model certificate is given in the attached) regarding <b>Restrictions on procurement from a bidder of a country which shares a Land Border with India</b> wherein if any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services or work only if the bidder registered with the competent authority as per <b>Annexure - VII</b>
I.	Copy of duly filled, signed and stamped Bank account details of the firm on their letter head as per our format as per <b>Annexure - VIII</b>
J.	Duly filled, signed and stamped Price Schedule (in INR only) as per Annexure - IX

निविदा प्रस्तुत करने से पहले, कृपया संलग्न नियमों और शर्तों को ध्यान से पढ़ें, जिन पर निविदाएं अवार्ड की जाएंगी और सफल बोलीदाता द्वारा कार्यान्वित किया जाएगा।/ Before submitting the quotation/bid, please go through the enclosed terms and conditions on which the purchase order will be awarded and shall be executed by the successful bidder.

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For & on behalf of CSIR-CSIO

#### संलग्न/Encl.:

- 1. नियम एवं शर्तें/ Terms & Conditions
- 2. अनुलग्नक-। से IX तक /Annexure- I to IX

### नियम और शर्तें /Terms & Conditions

- 1. The quotation/bid must be in the form furnished by the Purchaser/as per tender specifications and should be free from corrections/erasures. In case there is any unavoidable correction it should be properly attested. If not, the quotation will not be considered. Please refer our complete tender terms & conditions. Ensure to provide the required documents to avoid rejection.
- 2. The rates should be in INR only and also on FOR.CSIO, Chandigarh (Central Stores) basis. Where there is no mention of packing, forwarding, freight, insurance changes, taxes etc.<u>such offer shall be rejected as incomplete</u>. The bidder should also give a clear cut break up of quoted price to facilitate the proper comparison <u>failing which the bid would be summarily ignored/rejected</u>. Our GST No. is 04AAATC2716R1ZN
- 3. The Bidder is expected to examine all instructions, forms, terms & conditions, and specifications in the NIT documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its bid.
- 4. The quotations/ bids will be accepted through offline (Indian post/ courier) preferably as well as through e-mail. If the quotation is submitted through E-mail, then bidder should attach scan copies of all duly filled, signed and stamped required documents (mandatory& others). The tender received in any other mode will not be accepted and will be ignored. It may kindly be noted that your bid should contain all the mandatory documents as mentioned in NIT. If not, the bid will be summarily rejected.
- 5. Bid/ Quotation received after due date and time will not be accepted under any circumstances.
- 6. On the event of award of purchase order in your favour, you need to submit a **Performance Bank Guarantee** (PBG) valid for a period of 60 days beyond the Warranty period of....... (retain only, if applicable). In case of all capital items ( equipment, machine etc.) costing above 2.5 lakh rupees, the successful bidder will have to submit PBG (@3% of total value) within 21 days from the date of issuing purchase order.
- 7. The acceptance of the quotation will rest with the competent authority of **Central Scientific**Instruments Organisation, Sector-30, Chandigarh who does not bind himself to accept the lowest quotation and reserves the right to himself to reject, or partially accept any or all the quotations received without assigning any reason.
- 8. **Bid Validity**: Bid should be valid for a minimum period of **90 days** from the date of opening of the quotation, **failing which the offer will be ignored/rejected**.
- 9. The bidder must submit the Price Schedule asper Annexure-X.
- 10. Technical bid along with Technical Literature/Pamphlets should also be enclosed wherever applicable and only mentioning "YES" in Questionnaire about fulfilling the parameters of specifications will be treated as incomplete and bid will not be accepted. Complete specification with manufacturer's name and address should be given while quoting.
- 11. Prices are required to be quoted in units indicated in the enquiry. When quotations are given in terms of other units, relationship between two sets of units should be furnished. Quantity discounts, if any should also be indicated. The items should be quoted indicating the serial No. of our RFQ/NIT.
- 12. In cases of quoting on behalf of Indian Manufacturer, one dealer/stockist cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one stockist/dealer. There can be only one bid from the Indian authorised dealer on behalf of only one principal/manufacturer.
- 13. Taxes as are applicable should be indicated clearly failing which the offer shall not be considered and rejected. This lab is registered with Dept. of Scientific & Industrial Research, Govt. of India and concessional GST & IGST are levy able vide Govt. Notification No. 45/2017-

- Central Tax (rate) & No. 45/2017-Integrated Tax (rate) dated 14.11.2017 for R& D products . **No Custom duty exemption certificate will be given in any case.**
- 14. <u>Delivery period</u> required for supplying the material should be invariably specified in the quotation. The offered delivery period shall have to be strictly adhered to in case an order is placed.
- 15. Liquidated Damages Clause for delays: The applicable rate is 0.5% per week and maximum deduction is 10% of the contract price. Installation/commissioning: Equipment/Instruments are required to be commissioned/installed/ demonstrated successfully immediately or within 30 days from the date of receipt of the system in CSIO by the manufacturer or by their authorized Agent, failing which the Liquidated Damage Clause will be applicable as mentioned above.
- 16. If the deliveries are not maintained and due to that account the purchaser is forced to buy the material at your risk and cost from elsewhere, the loss or damage that may be sustained there by will be recovered from the defaulting supplier.
- 17. Warranty Period: Please mention the warranty period of equipment, which should be from the date of satisfactory installation. The offer received for lesser warranty, as asked for in the tender, will be rejected/ignored. All supplies are subject to inspection and approval before acceptance. Manufacturer warranty certificates and manufacturer/Government approved lab test certificate shall be furnished along with the supply, wherever applicable.
- 18. Terms of Payment: Our payment term sare100% (hundred percent)within 30 (thirty)days on receipt, acceptance, installation & commissioning (if required), training (if required) and confirmation of PBG (if required)of material at our site in good condition. Please inform your Bank details as per our format for RTGS payment. Banking details should be available on Bill/invoice. Advance payment will be not given in any condition. Other mode of payment may be decided by the by the Committee with the approval of the Director. Should furnish your PAN & GST Number in your quotation & on Invoice. TDS would be recovered as per rules.

#### 19. Reasonability of Prices/Fall Clause

- Quote best minimum prices applicable for a CSIO, Research Institution, leaving no scope for any further negotiations on prices.
- The quoting party should give a certificate to the effect that the quoted prices are the minimum and they have not quoted the same item on lesser rates than those being offered to CSIO to any other customer nor they will do so till the validity of offer or execution of the purchase order, whichever is later.
- Copies of at least two recently supplied orders of the last two years received from other customers along with details of such supply orders in India for the same item/model may be submitted with the offer giving reasons of price difference of their supply order & those quoted to us, if any. The party must give details of identical or similar equipment, if any, supplied to any CSIR lab during the last three years along with the final price paid and Performance certificate from them.
- 20. Certificate of undertaking that the equipment is of latest technology & will not be obsolete within 5 years after warranty will be attached with the offer. All essential spares parts of the offered equipment will available with the manufacturer for a period of at least 5-7 years after warranty period which will be required at later stage.
- 21. **MSME purchase preferences** will be given to the eligible supplier as per the Govt. guidelines subject to submission of proper document as per policy or Udyog Adhar/Udyog Memorandum in respective category.
- 22. Code of Integrity has to be maintained by Bidders/Suppliers/Contractors by maintaining highest standards of ethics in the Procurement process and prohibits corrupt practice/Fraudulent practice/Anti- Competitive practice / Coercive Practice/ Conflict of Interest and Obstructive practice either directly or indirectly during the process of contract.
- 23. Tender conditions (printed on the reverse), if any, or otherwise sent along with the tender shall not be binding on us.

24. A copy of self- certification about the products offered in this tender meets local content requirement for Class- I Local supplier (local content equal to or more than 50% )or Class- II Local supplier (local content more than 20% but less than 50%) as per Make in India Policy No. P-45021/2/2017-PP(BE-II) dt- 16/09/2020, should be attached with bid. The details of the location(s) at which the local value addition is made should also be mentioned in the self-certification.

Exemption will be given as per the policy of Govt of India. Beyond the exemption limit, Non-local supplier will not participate in any tender, their bid will be rejected. Whenever Govt will issue any amendment in this policy, and the same will be applicable accordingly.

- 25. A copy of certificate regarding **Restrictions on procurement from a bidder of a country which shares a Land Border with India** wherein if any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services or work only if the bidder registered with the competent authority, should be attached with bid.
- 26. Above instructions & our standard terms & conditions must be complied failing which your offer may be liable for rejection.
- 27. Director, CSIR-CSIO, Chandigarh reserves the right to reject all or even the lowest quotation without assigning any reason. All disputes shall be settled in the courts of <a href="Chandigarh Jurisdiction">Chandigarh Jurisdiction</a> only

Yours faithfully,

For & on behalf of CSIR-CSIO

# **Bid-Security Declaration Form (BSD)**

(Refer para 5.1.2 (ix)(d) & 6.1.1 (02) of the CSIR Manual-5F)

Da	te:	Bid No
To: (insert complete	name and address of the	e purchaser)
I/We. The unders	igned, declare that:	
I/We understand Declaration.	I that, according to you	ur conditions, bids must be supported by a Bid Securing
-		d from bidding for any contract with you for a period of one We are in a breach of any obligation under the bid conditions,
• •	wn/modified/amended, dity specified in the form	impairs or derogates from the tender, my/our Bid during then of Bid; or
(i) fail or reuse to	•	e of our Bid by the purchaser during the period of bid validity if required, or (ii) fail or refuse to furnish the Performance ons to Bidders.
Bidder, upon the	_	ation shall cease to be valid if I am/we are not the successful of your notification of the name of the successful Bidder; or validity of my/our Bid.
	nature of person whose n signing the Bid Securin	name and capacity are shown) in the capacity of (insert legal g Declaration).
Name: (insert cor	mplete name of person s	igning he Bid Securing Declaration)
Duly authorized t	o sign the bid for an on b	pehalf of : (insert complete name of Bidder)
Dated on	day of	(insert date of signing)
Corporate Seal (v	vhere appropriate)	
	a Joint Venture, the Bid that submits the bid)	Securing Declaration must be in the name of all partners to

### **MANUFACTURERS' AUTHORIZATION FORM (MAF)**

(The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letter head of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.)

Date: (insert date (as day, month and year) of Bid submission)

LPC NIT No: (insert number from Invitation for Bids)

To (insert complete name and address of Purchaser) WHEREAS

We (insert complete name of Manufacturer), who are official manufacturers of

(insert category of goods manufactured), having factories at (insert full address of Manufacturer's factories), do hereby authorize (insert complete name of Bidder) to submit a bid the purpose of which is to provide the Goods, manufactured by us (insert the category of Goods), and to subsequently negotiate to sign the Contract.

We hereby confirm that we shall be solely and fully responsible in case of discrepancy with regard to quality, quantity, Packages or defects at the time of supply/usage. In such cases we shall provide free replacement immediately.

Signed (insert signature(s) of authorized representative(s) of the Manufacturer)
Name: (insert complete name(s) of authorized representative(s) of the
Manufacturer)
Title (insert Title)
Duly authorized to sign this Authorization on behalf of: (insert complete name of Bidder)

#### **TENDER ACCEPTANCE LETTER**

(To be given on Company Letter Head)

Date:

To,	
	Sub: Acceptance of Terms & Conditions of Tender.  LPC NIT No
Dear S	Sir,
1.	I/We have obtained/downloaded the tender document(s) for Tender/work namely:
as per	your LPC NIT.
2.	I/We hereby certify that I/we have read the entire terms & conditions of the tender documents from page no to( including all documents like annexure(s), schedule(s) etc) which form part of the contract agreement and I/we shall abide hereby by the terms/conditions/clauses contained therein.
3.	The corrigendum(s) issued from time to time by your organisation/ department too has also been taken into consideration, while submitting the acceptance letter.
4.	I/ We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. I/ We do hereby declare that our Firm has not been blacklisted / debarred by any Got. Department/ Public sector undertaking.

6. I/ We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/ untrue or found violated, then your organisation/ Department shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money/ security deposit/ PBG deposit absolutely.

Yours faithfully,

Signature of bidder Name of bidder-Official Seal of bidder-

# Format for declaration by the Bidder for Code of Integrity & conflict of interest (On the Letter Head of the Bidder)

	Da	ate	
Ref.No:			
То,			
Sir,			
	ce to yourTenderNo.	_dated	I/We
		orPublicProcurementandhave no co	
		of integrity, if any, with any entity in ar other Procuring Entity are as under:	
а			
b			
С			
We undertak contravention of this		ny punitive action in case of trans	sgression/
Thanking you,			
		Yours sincer	ely,
CSIR-CSIO LPC NIT No _			
		(Signature & Name of Signatory with Company S	
		(Name & address of the Po	urchaser)

#### PRICE REASONABILITY CERTIFICATE

(Should be printed in Company Letter head and signed by the authorized signatory with seal.)

This is to certify that the prices quoted for (Name of the Item offered) are best and minimum and we have not quoted the same on lesser rates than those being offered to CSIR-CSIO to any customer nor we will do till the validity of offer or execution of Purchase Order.

CSIR-CSIO	LPC NIT	No	

Signature

(Name of the Authorized Signatory)

**Company Seal** 

# **Self Certification by the Bidder for Local Content**

(Refer to Order No. P-45021/2/2017-PP (BE-II) dated 16 September 2020) (On the Letter Head of the Bidder)

Ref.No:			Date	
		То:		
_		 (Name & ad	ddress of the Purchaser)	
S.No.	Name of Item	Percentage of Local Content	Location at which value Addition is made	Status of the bidder, whether, Local Supplier I /Local Supplier II or Non-Local Supplier.
minimum  B)I / We cominimum	OR ertify that I / we come 20% OR	under Class-II Local Suppli	ier <b>Category whose goo</b>	ds / services local content is  ds / services local content is  / services local content is less t
( <u>Please Tic</u>	k from A or B or C whic	h is appropriate)		
We state t	hat the value addition	of local content is%	and value addition has	been made by us at (mention the address pleas
I / We her	eby certify that the ab	ove statement is true and	d correct to the best of r	my knowledge. I understand tha
false state	ment / declaration wil	l disqualify / debar me fro	om the process.	
CSIR-CSIC	) LPC NIT No			
			Signati	ure

(Name of the Authorized Signatory)

**Company Seal** 

(Refer to D.O.F. No.6/18/2019-PPD Dated, 28 July, 2020)

## (TO BE FURNISHED ON BIDDER'S LETTER HEAD)

		Date:	
	То		
		<del>_</del>	
		_	
<u>Sub:</u>	Certificate for Restriction on LPC NIT No	procurement from a bidder of a country which	ch shares a Land Border with India
	Name of Bidder:		
	Dear Sir,		
"I ha	ive read the clause regarding	g restrictions on procurement from a bidder	of a country which shares a land
bord	ler with India; I certify that t	his bidder is not from a country or, if from su	ch a country, has been registered
with	the Competent Authority, I h	ereby certify that this bidder fulfills all require	ement in this regard and is eligible
to b	e considered. (Where appli	icable, evidence of valid registration by th	e Competent Authority shall be
atta	ched.)"		
ours	faithfully,		
		(Signaturo 9	Name of the Authorized Signatory
		with Company	,

#### (TO BE FURNISHED ON BIDDER'S LETTER HEAD)

## इलेक्ट्रॉनिक फंड ट्रांसफर खाता विवरण

- 1 खाताधारक का नाम/ Name of account holder
- 2 पता / Address
- 3 ई -मेल आई डी / E-mail ID
- 4 दूरभाष सं / मोबाईल नं / Phone No./Mobile No.
- 5 फैक्स संख्या / Fax No.
- 6 स्थायी खाता नंबर / Permanent Account Number (PAN)
- 7 बैंक खाता का विवरण/ Particular of Bank Account
  - (क) बैंक का नाम / A. Name of the Bank
  - (ख) शाखा का नाम / B. Name of the Branch
  - (ग) शाखा कोड नंबर / C. Branch Code

पता / D. Address

दूरभाष संख्या / E. Telephone No.

खाता संख्या / F. Account No.

खाता का प्रकार / G. Type of Account

आई एफ एस सी कोड (आर टी जी एस / एन ई एफ टी )/ H. IFSC Code (RTGS / NEFT)

(ट ) एम आई सी आर / I. MICR Code

हम / मैं यह घोषित करते / करता हूँ की ऊपर दिए गए विवरण पूर्ण एवम् सत्य हैं अगर अपूर्ण एवम् असत्य जानकारी के कारण कारोबारी में देरी / विफलता होती है तो इसके लिए सी एस आई आर -सी एस आई ओ किसी प्रकार से जिम्मेदार नहीं होगा | We/ | hereby declare that the particulars given above are correct and complete. If the transaction is delayed or lost because of incomplete or incorrect information, | we would not hold CSIO responsible.

खातेदार का हस्ताक्षर/Signature of the account holder

दिनांक :

स्थान : मुहर/seal

## **PRICE SCHEDULE**

Name of the Bidder-

LPC NIT No.-

1	2	3	4	5	6	7	8	9	10	11	12
S.N o	Item Descri ption with HSN code	Country of Origin	t	Quanti	Unit Rate Ex- works, Ex- wareh ouse, Ex- showro om off the shelf price( inclusiv e of all taxes already paid)	Total price Ex- works,E x- wareho use, Ex- showroo m off the shelf price( inclusive of all taxes already paid)5*6	GST & other taxes payabl e, if contra ct is award ed	Packing & forwardi ng up to station if dispatch , if any	Charges for inland transportat ion, insurance upto Lab /Instt. By air/road/ra il (retain one only)	Total price	Installatio n, Commissi oning and training charges, if any

Note:	The cost of optional	items, if ar	ıy shall	be indicated	separately	<b>/</b> .
(1	b) Cost of spares, if a	any				

Total Bid price in Indian	currency ( in numbers)	
	(In words)	
	Signature of Bidder	
	Name of Bidder	
Business Address	,	

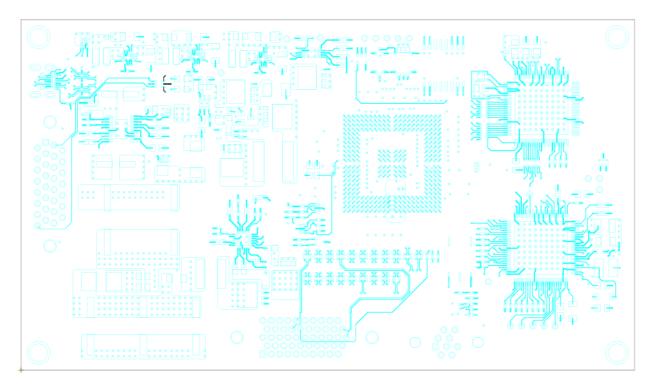
#### Fabrication and assembly of electronics cards

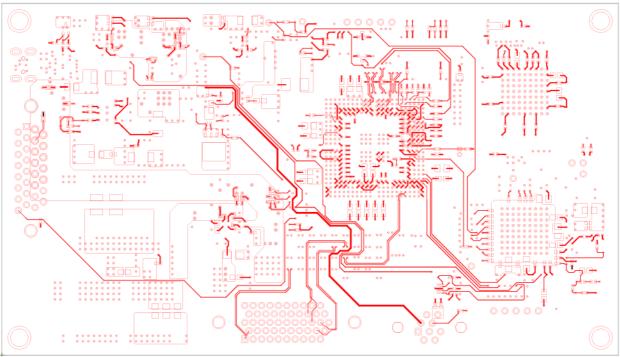
S. No.	PCB Name	Specification		
1.	Fabrication and Assembly of	Reference layout and BoM	Attached	
	<b>DLP Driver Card</b>	PCB Material	FR-4	
	(Qty: 02 No)	No Layers	6	
		Dimension (mm)	140x80	
		Thickness (mm)	1.6	
2.	Fabrication and Assembly of	PCB Reference Design and BoM	Attached	
	DMD Card (Qty: 02 No)	PCB Material	FR-4	
		No of Layer	6	
		Dimension (mm)	90x40	
		Thickness (mm)	1.6	
3.	Fabrication and Assembly of	PCB Reference Design and BoM	Attached	
	LED Card (Qty: 02 No)	PCB Material	Metallic	
		No of Layer	2	
		Dimension (mm)	41x41	
		Thickness (mm)	>1.0	

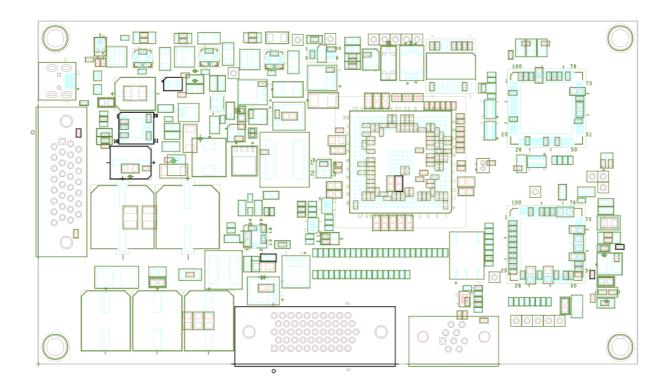
#### Note:

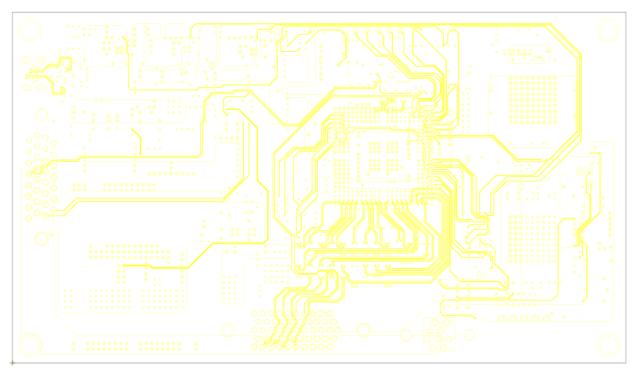
- Gerber files will be shared to lowest quoted bidder
- $\bullet$  All the required components except the  $\mu$ -D Connectors are to be procured by the bidder for the assembly
- L1 will be decided on the total amount of the price bid
- Necessary testing certificate(s) after board bring up
- Bid validity: 90 days
- Delivery: At CSIO, Sector 30 C Chandigarh
- Warranty: 3 Months or more
- Delivery Period: 6 Weeks

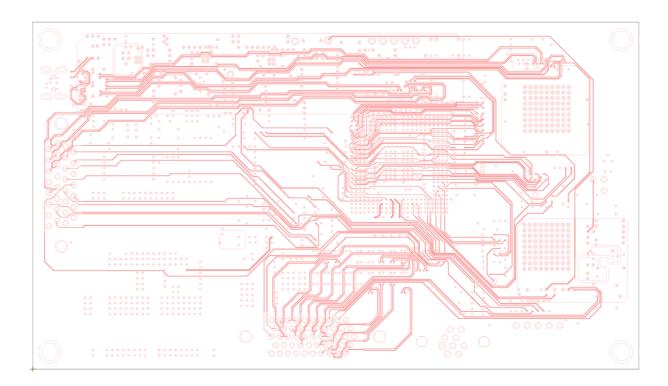
# **DLP CARD**

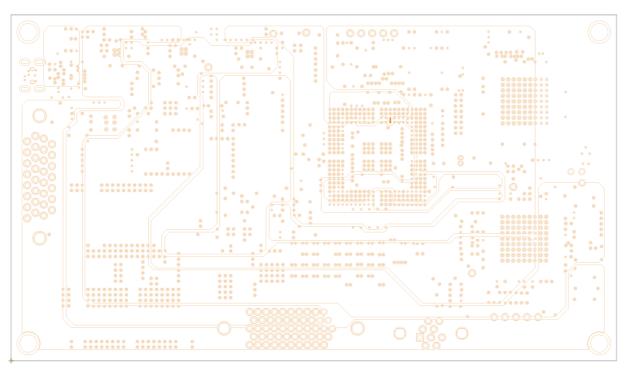












# **BoM of DLP Driver Card**

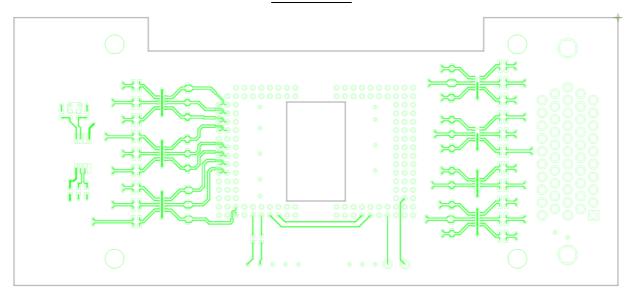
Item	Quantity	Value	Manufacturer	Manufacturer part number
1	1	22pF	TDK	CGA2B2C0G1H220J050BA
2	13	22pF	TDK	CGA2B2C0G1H220J050BA
3	6	2200pF	TDK	CGA2B2X7R1H222K050BA
4	32	0.1uF	Murata	GCM155R71C104KA55D
5	12	2.2 uF	Murata	GCM188R70J225KE22D
6	4	10uF	TDK	CGA4J1X7R0J106K125AC
7	2	0.01uF	Murata	GCM155R71H103KA55D
8	53	0.1uF	Murata	GCM155R71C104KA55D
9	1	15pF	TDK	CGA2B2C0G1H150J050BA
10	1	15pF	TDK	CGA2B2C0G1H150J050BA
11	4	1uF	Murata	GCM188R71C105KA64D
12	7	2.2 uF	TDK	CGA4J3X7R1E225K125AB
13	2	4.7uF	TDK	CGA6P3X7R1H475M250AB
14	4	10uF	Taiyo Yuden	TMK316AB7106KLHT
15	1	680pF	Murata	GCM155R71H681KA37D
16	1	0.47u	TDK	CGA5L2X7R1H474K160AA
17	1	330pF	Murata	GCM155R71H331KA37D
18	2	0.22uF	Murata	GCM188R71E224KA55D
19	2	1uF	Murata	GCM21BR7YA105KA55L
20	1	0.1uF	Murata	GCM188R71H104KA57D
21	3	22uF	Murata	GCM31CR70J226ME23L
22	1	33uF	PANASONIC	EEH-ZC1H330XP
23	1	150uF	United Chemi-Con	HHXA160ARA151MF80G
24	1	0.022uF	Murata	GCM155R71H223KA55D
25	1	150pF	TDK	CGA2B2C0G1H151J050BA
26	1	0.047uF	Murata	GCM188R71H473KA55D
27	2	1000pF	TDK	CGA3E2C0G1H102J080AA
28	1	22uF	Murata	GCM31CR70J226ME23L
29	2	3.3uF	TDK	CGA6P3X7R1H335K250AB
30	2	220uF	Panasonic	EEV-TG1H221Q
31	1	0.1uF	TDK	CGA2B3X7R1H104K050BB
32	1	2.2uF	TDK	CGA3E1X7S1C225M080AC
33	3	0.1uF	TDK	CGA3E2X7R1H104K080AA
34	1	0.0082uF	TDK	CGJ3E2C0G1H822J080AA
35	3	330uF	Vishay BC Components	MAL214699501E3
36	5	3.3uF	TDK	C2012X7R1C335K125AB
37	1	0.068uF	TDK	CGA3E2X7R1H683M080AA
38	1	220nF	TDK	CGJ3E3X7R1H224K080AB
39	1	10pF	TDK	CGA2B2C0G1H100D050BA
40	1	10n	TDK	CGA3E2X7R1H103K080AA
41	1	470p	AVX Corporation	06035C471K4T4A
42	1	0.1uF	Murata	CGA3E2X7R1H104K080AA
L	1		<u> </u>	<u>l</u>

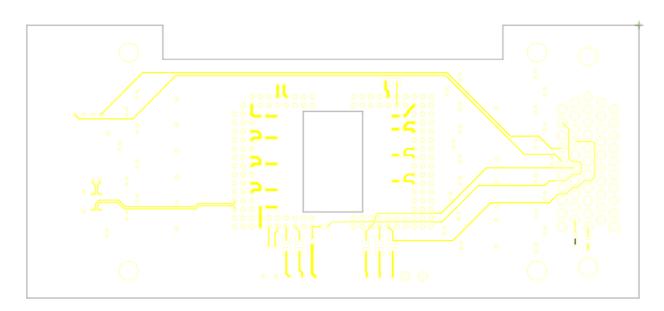
43	1	1uF	Murata	GCM21BR71H105KA03L
44	2	0.01uF	TDK	CGA3E2X7R1H103K080AA
45	2	1000pF	Murata	GCJ188R71H102KA01D
46	1	0.1uF	Murata	GCM155R71C104KA55D
47	1	0.47uF	Murata	GCM188R71E474KA64D
48	1	SZMM5Z6V2T1G	ON Semiconductor	SZMM5Z6V2T1G
49	1	MBR0540	ON Semiconductor	MBR0540
50	2	PMEG10030ELPX	Nexperia	PMEG10030ELPX
51	2	LED, GREEN	Lite-On	LTST-C171KGKT
52	1	LED, RED	Lite-On	LTST-C171KRKT
53	1	SDM160S1FQ-7	Diodes	SDM160S1FQ-7
54	1	NRVTS1545EMFST1G	ON Semiconductor	NRVTS1545EMFST1G
55	1	NSR0320MW2T1G	ON Semiconductor	NSR0320MW2T1G
56	1	BZX84-C12,215	Nexperia	BZX84-C12,215
57	4	600 Ohm	TDK	MMZ2012R601ATD25
58	1	MicroD Connector 31 PIN	NA	MDA231S74RCPG3
59	1	MICRO HDMI CONN	Wurth	6.85119E+11
60	1	μ-D Connector 51 PIN		MDA251S74RCPG3
61	1	5015680207	MOLEX	5015680207
62	1	μ-D Connector 9 PIN	NA	MDA209S74RCPG3
63	9	1000HM, DCR=35mOHM	Taiyo Yuden	FBMH1608HM101-TV
64	3	1200HM @ 100MHZ	TDK	MMZ1005Y121CTD25
65	1	10uH	Taiyo Yuden	NRS4018T100MDGJV
66	3	2.2uH	Coilcraft	XFL4020-222ME
67	1	1000HM @ 100MHZ	TDK	MPZ2012S101ATD25
68	1	15uH	Bourns	SRP7050TA-150M
69	1	1.80uH	Coilcraft	XAL7070-182MEB
70	1	560hms @ 100MHz	Wurth	74279223560
71	1	15uH	Coilcraft	XAL1010-153MEB
72	1	1000HM, DCR=35mOHM	Taiyo Yuden	FBMH1608HM101-TV
73	1	NX3008NBKW,115	NXP Semiconductors	NX3008NBKW,115
74	2	DMT6010LFG-7	Diodes Incoporated	DMT6010LFG-7
75	2	NVMFS5C670NLWFAFT1G	ON Semiconductor	NVMFS5C670NLWFAFT1G
76	1	SQJ463EP-T1_GE3	Vishay Siliconix	SQJ463EP-T1_GE3
77	1	SQJ148EP-T1_GE3	Vishay Siliconix	SQJ148EP-T1_GE3
78	1	DMN3023L-7	Diodes Incorporated	DMN3023L-7
79	2	SQJ148EP-T1_GE3	Vishay Siliconix	SQJ148EP-T1_GE3
80	3	33	Panasonic	EXB-2HV330JV
81	12	1K	Stackpole	RMCF0402FT1K00
82	46	10K	Panasonic	ERJ-2GEJ103X
83	6 2	75 2.24	Panasonic	ERJ-2GEJ750X
84 85	6	3.3K	Panasonic Panasonic	ERJ-2GEJ332X ERJ-2RKF33R0X
85	14	33 10K	Panasonic	ERJ-2RKF33RUX ERJ-2GEJ103X
87	61	33	Panasonic	ERJ-2GEJ103X ERJ-2RKF33R0X
88	11	2.2K	Stackpole	RMCF0402JT2K20
89	2	2.2K	Stackpole	RMCF0402JT2K20
90	1	1K	Stackpole	RMCF0402FT1K00
91	3	42.2K	Panasonic	ERJ-2RKF4222X
	1	<u>ı</u>	<u> </u>	<u>ı</u>

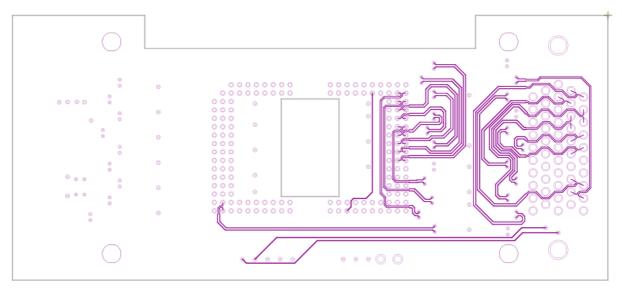
92	1	1M	Panasonic	ERJ-2GEJ105X
93	1	3K	Panasonic	ERJ-2RKF3001X
94	1	162	Panasonic	ERJ-2RKF1620X
95	1	18K	Panasonic	ERJ-2RKF1802X
96	1	10	Panasonic	ERJ-2GEJ100X
97	1	20K	Panasonic	ERJ-2GEJ203X
98	1	30K	Panasonic	ERJ-2RKF3002X
99	1	10K	Panasonic	ERJ-2RKF1002X
100	1	100K	Panasonic	ERJ-2GEJ104X
101	2	51k	Panasonic	ERJ-2GEJ513X
102	1	0.01	Rohm	PMR10EZPFU10L0
103	1	562K	Panasonic	ERJ-2RKF5623X
104	2	43k	Panasonic	ERJ-2RKF4302X
105	3	2.4	Panasonic	ERJ-2GEJ2R4X
106	1	180K	Panasonic	ERJ-2RKF1803X
107	1	15k	Panasonic	ERJ-2RKF1502X
108	1	13k	Panasonic	ERJ-2RKF1302X
109	1	6.2k	Panasonic	ERJ-2RKF6201X
110	3	1	Panasonic	ERJ-2GEJ1R0X
111	1	50m	Panasonic	ERJ-L06KF50MV
112	1	4.32k	Panasonic	ERJ-2RKF4321X
113	2	0.01	Rohm	PMR10EZPFU10L0
114	1	187K	Panasonic	ERJ-2RKF1873X
115	2	150K	Panasonic	ERJ-2RKF1503X
116	2	150	Panasonic	ERJ-2GEJ151X
117	1	56.2K	Panasonic	ERJ-2RKF5622X
118	7	0	Panasonic	ERJ-2GE0R00X
119	1	36k	Panasonic	ERJ-2GEJ363X
120	4	10K	Panasonic	ERJ-2GEJ103X
121	1	10.5	Panasonic	ERJ-3EKF10R5V
122	1	7m	Rohm	PMR18EZPFU7L00
123	2	0	Panasonic	ERJ-3GEY0R00V
124	1	82k	Panasonic	ERJ-2GEJ823X
125	1	22K	Panasonic	ERJ-2RKF2202X
126	2	40.2	Panasonic	ERJ-2RKF40R2X
127	2	10m	Stackpole	CSNL2010FT10L0
128	1	6.8K	Panasonic	ERJ-2RKF6801X
129	1	62K	Panasonic	ERJ-2RKF6202X
130	1	44.2K	Panasonic	ERJ-2GEJ823X
131	1	10K	Panasonic	ERJ-2GEJ823X
132	1	2.2K	Stackpole	RMCF0402JT2K20
133	1	CVS-03TB	Copal Electronics Inc	CVS-03TB
134	2	CVS-01TB	Copal Electronics Inc	CVS-01TB
135	1	GT12MSABETR	C&K Comp	GT12MSABETR
136	14	Test Via		NOT A PART
137	3	Probe-Testpoint	Harwin	S1751-46R
138	1	TPD2E2U06Q	Texas Instruments	TPD2E2U06QDCKRQ1
139	3	TPD4E05U06	Texas Instruments	TPD4E05U06QDQARQ1

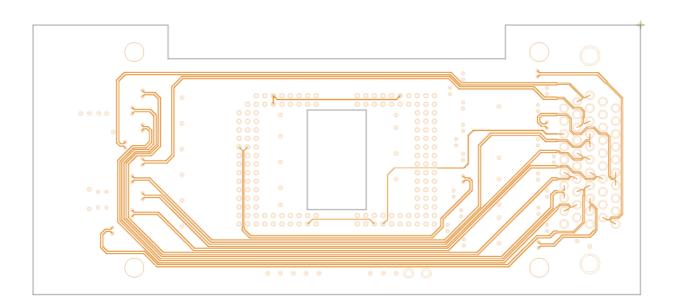
140	1	DLPC230	DLPC230 Texas Instruments	
141	5	PCMF2HDMI2S	Nexperia	PCMF2HDMI2SZ
142	1	TFP401AIPZPRQ1	Texas Instruments	TFP401AIPZPRQ1
143	1	M24C02	ST Micro	M24C02-DRMF3TG/K
144	1	TPD2E2U06	Texas Instruments	TPD2E2U06QDCKRQ1
145	1	MX25L12835FMI-10G	Macronix	MX25L12835FMI-10G
146	1	74CBTLV1G125	Texas Instruments	74CBTLV1G125DBVRQ1
147	1	TPS99000	Texas Instruments	TPS9900TPZPQ1
148	3	TPS62150AQRGTRQ1	Texas Instruments	TPS62150AQRGTRQ1
149	1	LM25118Q1MHE/NOPB	Texas Instruments	LM25118Q1MHE/NOPB
150	1	SN74LVC2G06	Texas Instruments	SN74LVC2G06QDCKRQ1
151	1	LP38693SD-3.3/NOPB	Texas Instruments	LP38693SD-3.3/NOPB
152	1	LM25141	Texas Instruments	LM25141QRGETQ1
153	1	LM3409QMY/NOPB	Texas Instruments	LM3409QMY/NOPB

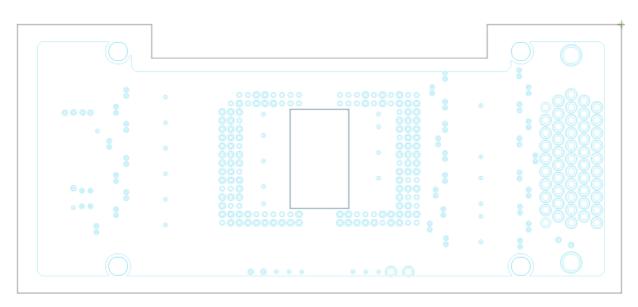
# **DMD Card**

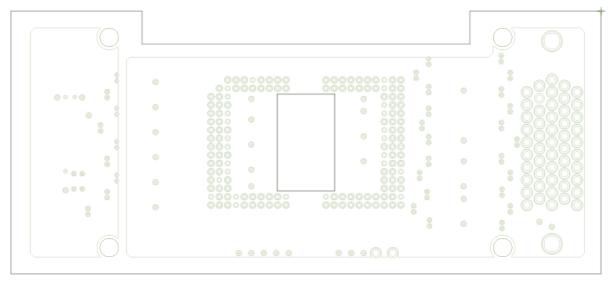








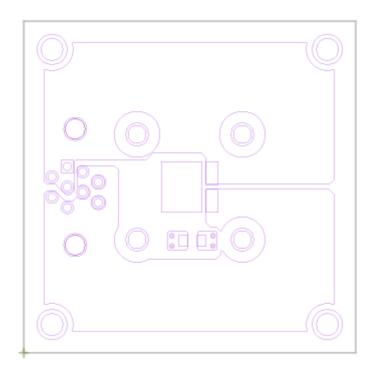




## **BoM of DMD Card**

Item	Quantity	Value	Manufacturer	Manufacturer part number
1	6	0.22uF	Murata	GCM188R71E224KA55D
2	11	0.1uF	Murata	GCM155R71C104KA55D
3	1	100pF	TDK	CGA2B2C0G1H101J050BA
4	1	μ-D Connector 51 PIN	NA	MDA251S75RCPG3
5	68	33	Panasonic	ERJ-2RKF33R0X
6	1	2.2K	Stackpole	RMCF0402JT2K20
7	2	1K	Stackpole	RMCF0402FT1K00
8	2	56	Panasonic	ERJ-2GEJ560X
9	2	Test Via	NA	NOT A PART
10	1	DLP553X Socket	Foxconn	PL14927-1542-01F
11	1	TMP411A	Texas Instruments	TMP411AQDGKRQ1
12	7	PCMF3HDMI2 SZ	Nexperia USA Inc.	PCMF3HDMI2SZ
13	1	DMD	Texas Instruments	DLP5534AFYKQ1 or DLP5530AFYKQ1

# **LED Module**



LED PCB BoM							
Item	Quantity	Value	Manufacturer	MFR part number	package		
1	1	GREEN_LECG POAQ	ams OSRAM	LE CG POAQ	SMD		
2	1	Photo DIODE	NA	NA	NA		
3	1	μ-D Connector 9 PIN	MDA209S75RCPG3	MDA209S75RCPG3	TH		

