## NOTICE INVITING TENDER (E-PROCUREMENT MODE)

## NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR

MAHATMA GANDHI AVENUE
DURGAPUR –713 209, WEST BENGAL, INDIA
Department of Electrical Engineering
Website: www.nitdgp.ac.in
Contact No.: 9434789031

NOTICE INVITING TENDER NO.: **NITD/EE/TEN/31-05-04/2020/01** Date: 04/02//2020

National Institute of Technology Durgapur is in the process of purchasing following item(s) as per details as given as under.

Items	Bulk Purchase of Consumable Electrical and Electronic Components
Earnest Money Deposit to be submitted	Nil
Warranty	6 Months wherever applicable
Performance security	The successful bidder must submit before release of payment a valid bank guarantee payable to "National Institute of Technology Durgapur" through Demand draft/online payment amounting to 10% of the order value towards <b>Performance Security</b> during the warranty period.
Calendar Completion/Delivery Period in Days	Within <b>60 days</b> from the date of issuing Purchase Order/Work Order/Award of Contract.

Tender Documents may be downloaded from ITI e-Wizard Portal of MHRD<a href="https://mhrd.euniwizarde.com">https://mhrd.euniwizarde.com</a> Aspiring Bidders who have not enrolled / registered in e-Wizard should enrol/ register before participating through the website <a href="https://mhrd.euniwizarde.com">https://mhrd.euniwizarde.com</a> . Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.

Tenderers can access tender documents on the NIT DURGAPUR website (https://nitdgp.ac.in)Tenders@NITD.

(For searching in the ITI E-wizard site, kindly go to Department Select option and select 'NIT DURGAPUR'. Thereafter, filling CAPTCHA and Click on "Search" button to view all NIT Durgapur tenders). Select the appropriate tender, fill them with all relevant information, and submit the completed tender document online on the website <a href="https://mhrd.euniwizarde.com">https://mhrd.euniwizarde.com</a> as per the schedule given in the next page. No manual bids will be accepted. All quotation (both Technical and Financial should be submitted in the E-Wizard portal).

# **SCHEDULE**

Name of Organization	National Institute of Technology Durgapur
Tender Type	Open
(Open/Limited/EOI/Auction/Single)	
Tender Category (Services/Goods/works)	Goods
Type/Form of Contract (Work/Supply/	Buy
Auction/Service/Buy/Empanelment/ Sell)	
Product Category (Civil Works/Electrical	Components
Works/Fleet Management/ Computer	
Systems)	
Source of Fund (Institute/Project)	Institute
Is Multi Currency Allowed	YES
Date of Issue/Publishing	04/02/2020
Document Download/Sale Start Date	04/02/2020 (
Document Download/Sale End Date	28/02/2020 (17:30 Hrs.)
Date for Pre-Bid Conference	N/A
Venue of Pre-Bid Conference	N/A
Bid Submission Start Date	04/02/2020
Last Date and Time for Uploading of Bids	28/02/2020 ( 17.35 Hrs.)
Date and Time of Opening of Technical Bids	02/03/2020 (10:00 Hrs.)
Tender Processing Fee	Rs. 885 /- (E-Payment )
EMD	Nil
No. of Covers (1/2/3/4)	02
Bid Validity days (180/120/90/60/45/30)	60 days (From last date of opening of tender)
Address for Communication	HOD,
	Department of Electrical Engineering
	National Institute of Technology, Durgapur
	M. G. Avenue. Durgapur -713209, West Bengal.
	INDIA
Contact No.	+91-9434789039
Email Address	tkbera77@gmail.com
ITI Helpdesk Contact No. and mail address	Helpdesk Number - 011-4960 6060/06122520545
	ewizardhelpdesk@gmail.com
	Mr SK Tariq- 7978416916;
	ewizardtariq@gmail.com
	Mr Siddharth Ghosh – 9355030604
	ewizardsiddharth@gmail.com

### PROCEDURE FOR SUBMISSION OF E-TENDER

The bidders are required to submit soft copies of their bid electronically on the ITI e-Wizard Portal using valid Digital Signature Certificates. Below mentioned instructions are meant to guide the bidders for registration on the e-Wizard Portal, prepare their bids in accordance with the requirements and submit their bids online on the ITI e-Wizard Portal. For more information, bidders may visit the ITI e-Wizard Portal <a href="https://mhrd.euniwizarde.com">https://mhrd.euniwizarde.com</a>

## 1. REGISTRATION PROCESS ON ONLINE PORTAL

- a. Bidders to enroll on the e-Procurement module of the portal <a href="https://mhrd.euniwizarde.com">https://mhrd.euniwizarde.com</a> by clicking on the link "Bidder Enrolment" as per portal norms.
- b. The bidders to choose a unique username and assign a password for their accounts. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the e-Wizard Portal.
- c. Bidders must provide the details of PAN number, registration details etc as applicable and submit the related documents. The user id will be activated only after submission of complete details. The activation process will take minimum 24 working hours. After completion of registration payment, you can also send your acknowledgement copy on our help desk mail id <a href="mailto:ewizardhelpdesk@gmail.com">ewizardhelpdesk@gmail.com</a> for activation of your account.
- d. Bidders to register upon enrolment their valid Digital Signature Certificate (DSC: Class III Certificates with signing key and encryption usage) issued by any Certifying Authority recognized by CCA India with their profile.
- e. A bidder should register only one valid DSC. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others, which may lead to misuse. Foreign bidders are advised to refer "DSC details for Foreign Bidders" for Digital Signature requirements on the portal.
- f. Bidder then logs in to the site through the secured login by entering their user ID/password and the password of the DSC / e-Token.

## 2. Tender Document Search

- a. Various built-in options are available in the e-Wizard Portal to facilitate bidders to search active tenders by several parameters. These parameters include Tender ID, organization, location, date, value, etc.
- b. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, a form of contract, location, date, other keywords, etc. to search for a tender published on the Online Portal.
- c. Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective 'Interested Tenders' folder. This would enable the Online Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- d. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification/help from the Helpdesk.

## 3. Bid Preparation

- a. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- b. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.

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- c. Please note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content of each of the document that needs to be submitted. Any deviations from these may lead to rejection of the bid.
- d. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can be in PDF/XLS/PNG, etc. formats. Documents in PDF format with maximum Five (5) Mb file can be uploaded.

## 4. Bid Submission

- a. Bidder to log into the site well in advance for bid submission so that he/she uploads the bid in time i.e., on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- b. The bidder to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- c. Bidders must pay required payments (Form fee, EMD, Tender Processing Fee etc) as mentioned before submitting the bid
- d. Bidder to select the payment option mode as specified in the Schedule (EMD/FORM FEE Section) to pay the form fee/ EMD wherever applicable and enter details of the instrument.
- e. A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders to note that they should necessarily submit their financial bids in the prescribed format and no other format is acceptable.
- f. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, the opening of bids, etc. The bidders should follow this time during bid submission.
- g. All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data, which cannot be viewed by unauthorized persons until the time of bid opening.
- h. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- i. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- j. Kindly have all relevant documents in a single PDF file.
- k. The off-line tender shall not be accepted and no request in this regard will be entertained whatsoever.

## 5. Amendment of bid document

At any time prior to the deadline for submission of proposals, the institutions reserve the right to add/modify/ delete any portion of this document by the issuance of a Corrigendum, which would be published on the website and will also be made available to the all the Bidder who has been issued the tender document. The Corrigendum shall be binding on all bidders and will form part of the bid documents.

## 6. Instruction to Bidders

a. Process for Bid submission through ITI Ewizard portal is explained in Bidder Manual. Bidders are requested to download Bidder Manual from the home page of website (https://mhrd.euniwizarde.com). Steps are as follows:

(Home page  $\implies$  Downloads  $\implies$  Bidder Manuals).

- b. The tenders will be received online through portal https://mhrd.euniwizarde.com. In the Technical Bids, the bidders are required to upload all the documents in .pdf format.
- c. Possession of Valid Class III Digital Signature Certificate (DSC) in the form of smart card/ e-Token in the company's name is a prerequisite for registration and participating in the bid submission activities through <a href="https://mhrd.euniwizarde.com">https://mhrd.euniwizarde.com</a>. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available on the web site <a href="https://mhrd.euniwizarde.com">https://mhrd.euniwizarde.com</a> under the link 'DSC help'.

Tenderers are advised to follow the instructions provided in the `User Guide and FAQ' for the e-Submission of the bids online through the ITI e-Wizard Portal for e-Procurement at https://mhrd.euniwizarde.com

- d. The bidder has to "Request the tender" to portal before the "Date for Request tender document", to participate in bid submission.
- **7.** All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.
- **8.** Any order resulting from this e-tender shall be governed by the terms and conditions mentioned therein.
- **9.** No deviation to the technical and commercial terms & conditions allowed.
- **10.** The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of the bids

## NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR

## MAHATMA GANDHI AVENUE DURGAPUR –713 209, WEST BENGAL, INDIA

Website: www.nitdgp.ac.in Contact No.: 9434788118

NOTICE INVITING TENDER NO.: NITD/EE/TEN/31-05-04/2020/01 Date: 04/02/2020

Sub: INVITATION FOR TENDERS FOR SUPPLY Bulk Purchase of Consumable Electrical and Electronic Components In the Department of Electrical Engineering, NIT DURGAPUR

## **Invitation for Tender Offers**

National Institute of Technology Durgapur invites online Bids (Technical bid and Commercial bid) from eligible and experienced OEM (Original Equipment Manufacturer) OR OEM Authorized Dealer for **Consumable Electrical and Electronic Components** (warranty period as stated) on site comprehensive warranty from the date of successful installation of the system as per terms & conditions specified in the tender document, which is available on ITI e-Wizard Portal of MHRD https://mhrd.euniwizarde.com

## TECHNICAL SPECIFICATION:

S. No	Name	Rating	Quantity
1	High voltage probe for oscilloscope	100:1, 2000 Volt, 100 MHz.	02 nos.
2	Voltage Probe for oscilloscope	10:1, 100 MHz	15 nos.
3	Glass Fuse	10A, 8A, 5A, 2A, 1A, 0.5A	50 each
4	Diodes IN 4007	1A/1000V	50
5	Regulator IC 7805	+5V/1.5A	10
6	Regulator IC 7905	-5V/1.5A	10
7	Regulator IC 7809	+9V/1.5A	10
8	Regulator IC 7909	-9V/1.5A	10
9	Regulator IC 7812	+12V/1.5A	10
10	Regulator IC 7912	-12V/1.5A	10
11	Regulator IC 7815	+15V/1.5A	10
12	Regulator IC 7915	-15V/1.5A	10
13	Regulator IC 7818	+18V/1.5A	10
14	Regulator IC 7918	-18V/1.5A	10
15	Regulator IC 7824	+24V/1.5A	10
16	Regulator IC 7924	-24V/1.5A	10
17	Ceramic Capacitor (33pF)	33 pF	50
18	Ceramic Capacitor (3300pF)	3300 pF	50
19	Ceramic Capacitor (47nF)	47nF	50
20	Ceramic Capacitor (0.1µF)	0.1 μF	50

21	Ceramic Capacitor (470nF)	470nF	50
22	Electrolytic Capacitor (1μF)	1μF, 63 V	50
23	Electrolytic Capacitor (10µF)	10μF, 63 V	50
24	Electrolytic Capacitor (47µF)	47μF, 63 V	50
25	Electrolytic Capacitor (100µF)	100μF, 63 V	50
26	Electrolytic Capacitor (470µF)	470μF, 63 V	50
27	Electrolytic Capacitor (1000μF)	1000μF, 63 V	50
28	Capacitor	2200 μF, 63 V	50
29	High precision (1%) resistors (1.0 $\Omega$ )	$1.0\Omega$ , $0.25$ Watt, $1\%$ Tolerance	100
30	High precision (1%) resistors (1.5 $\Omega$ )	$1.5\Omega$ , $0.25$ Watt, $1\%$ Tolerance	100
31	High precision (1%) resistors (2.2 $\Omega$ )	$2.2\Omega$ , $0.25$ Watt, 1% Tolerance	100
32	High precision (1%) resistors (3.3 $\Omega$ )	$3.3\Omega$ , $0.25$ Watt, $1\%$ Tolerance	100
33	High precision (1%) resistors (4.7 $\Omega$ )	4.7Ω, 0.25 Watt, 1% Tolerance	100
34	High precision (1%) resistors (6.8 $\Omega$ )	$6.8\Omega$ , $0.25$ Watt, $1\%$ Tolerance	100
35	High precision (1%) resistors (10 $\Omega$ )	10Ω, 0.25 Watt, 1% Tolerance	100
36	High precision (1%) resistors (15 $\Omega$ )	15Ω, $0.25$ Watt, $1%$ Tolerance	100
37	High precision (1%) resistors (22 $\Omega$ )	22Ω, 0.25 Watt, 1% Tolerance	100
38	High precision (1%) resistors (33 $\Omega$ )	33Ω, 0.25 Watt, 1% Tolerance	100
39	High precision (1%) resistors (47 $\Omega$ )	47Ω, 0.25 Watt, 1% Tolerance	100
40	High precision (1%) resistors (68 $\Omega$ )	68Ω, 0.25 Watt, 1% Tolerance	100
41	High precision (1%) resistors (100 $\Omega$ )	100Ω, $0.25$ Watt, $1%$ Tolerance	100
42	High precision (1%) resistors (150 $\Omega$ )	150Ω, $0.25$ Watt, $1%$ Tolerance	100
43	High precision (1%) resistors (220 $\Omega$ )	$220\Omega$ , 0.25 Watt, 1% Tolerance	100
44	High precision (1%) resistors (330Ω)	330Ω, 0.25 Watt, 1% Tolerance	100
45	High precision (1%) resistors (470 $\Omega$ )	470Ω, 0.25 Watt, 1% Tolerance	100
46	High precision (1%) resistors (680 $\Omega$ )	680Ω, $0.25$ Watt, $1%$ Tolerance	100
47	High precision (1%) resistors (1.0k $\Omega$ )	1.0kΩ, $0.25$ Watt, $1%$ Tolerance	100
48	High precision (1%) resistors (1.5k $\Omega$ )	1.5kΩ, $0.25$ Watt, $1%$ Tolerance	100
49	High precision (1%) resistors (2.2k $\Omega$ )	$2.2k\Omega$ , $0.25$ Watt, 1% Tolerance	100
50	High precision (1%) resistors (3.3k $\Omega$ )	$3.3k\Omega$ , $0.25$ Watt, 1% Tolerance	100
51	High precision (1%) resistors (4.7k $\Omega$ )	4.7kΩ, $0.25$ Watt, $1%$ Tolerance	100
52	High precision (1%) resistors (6.8k)	6.8kΩ, 0.25 Watt, 1% Tolerance	100

63         High precision (1%) resistors (10kΩ)         10kΩ, 0.25 Watt, 1% Tolerance         100           54         High precision (1%) resistors (15kΩ)         15kΩ, 0.25 Watt, 1% Tolerance         100           55         High precision (1%) resistors (22kΩ)         22kΩ, 0.25 Watt, 1% Tolerance         100           56         High precision (1%) resistors (47kΩ)         47kΩ, 0.25 Watt, 1% Tolerance         100           57         High precision (1%) resistors (10kΩ)         100kΩ, 0.25 Watt, 1% Tolerance         100           58         High precision (1%) resistors (150kΩ)         150kΩ, 0.25 Watt, 1% Tolerance         100           60         High precision (1%) resistors (330kΩ)         330kΩ, 0.25 Watt, 1% Tolerance         100           61         High precision (1%) resistors (330kΩ)         330kΩ, 0.25 Watt, 1% Tolerance         100           62         High precision (1%) resistors (47kΩ)         470kΩ, 0.25 Watt, 1% Tolerance         100           63         High precision (1%) resistors (680kΩ)         680kΩ, 0.25 Watt, 1% Tolerance         100           64         High precision (1%) resistors (1.0kΩ)         1.0kΩ, 0.25 Watt, 1% Tolerance         100           65         High precision (1%) resistors (1.0kΩ)         1.5kΩ, 0.25 Watt, 1% Tolerance         100           66         High precision (1%) resistors (1.5kΩ)         1				
High precision (1%) resistors (22kΩ)   22kΩ, 0.25 Watt, 1% Tolerance   100	53	High precision (1%) resistors (10k $\Omega$ )	10kΩ, 0.25 Watt, 1% Tolerance	100
High precision (1%) resistors (33kΩ)   33kΩ, 0.25 Watt, 1% Tolerance   100	54	High precision (1%) resistors (15k $\Omega$ )	15kΩ, $0.25$ Watt, $1%$ Tolerance	100
57         High precision (1%) resistors (47kΩ)         47kΩ, 0.25 Watt, 1% Tolerance         100           58         High precision (1%) resistors (100kΩ)         100kΩ, 0.25 Watt, 1% Tolerance         100           59         High precision (1%) resistors (150kΩ)         150kΩ, 0.25 Watt, 1% Tolerance         100           60         High precision (1%) resistors (150kΩ)         150kΩ, 0.25 Watt, 1% Tolerance         100           61         High precision (1%) resistors (330kΩ)         330kΩ, 0.25 Watt, 1% Tolerance         100           62         High precision (1%) resistors (470kΩ)         470kΩ, 0.25 Watt, 1% Tolerance         100           63         High precision (1%) resistors (470kΩ)         470kΩ, 0.25 Watt, 1% Tolerance         100           64         High precision (1%) resistors (1.0kΩ)         1.0MΩ, 0.25 Watt, 1% Tolerance         100           65         High precision (1%) resistors (1.5kΩ)         1.5MΩ, 0.25 Watt, 1% Tolerance         100           66         High precision (1%) resistors (2.2kΩ)         2.2MΩ, 0.25 Watt, 1% Tolerance         100           67         High precision (1%) resistors (4.7kΩ)         3.3MΩ, 0.25 Watt, 1% Tolerance         100           68         High precision (1%) resistors (6.8k)         6.8MΩ, 0.25 Watt, 1% Tolerance         100           69         High precision (1%) resistors (0.8k)	55	High precision (1%) resistors (22k $\Omega$ )	$22k\Omega$ , 0.25 Watt, 1% Tolerance	100
58         High precision (1%) resistors (68kΩ)         68kΩ, 0.25 Watt, 1% Tolerance         100           59         High precision (1%) resistors (100kΩ)         100kΩ, 0.25 Watt, 1% Tolerance         100           60         High precision (1%) resistors (150kΩ)         150kΩ, 0.25 Watt, 1% Tolerance         100           61         High precision (1%) resistors (220kΩ)         220kΩ, 0.25 Watt, 1% Tolerance         100           62         High precision (1%) resistors (470kΩ)         470kΩ, 0.25 Watt, 1% Tolerance         100           63         High precision (1%) resistors (470kΩ)         470kΩ, 0.25 Watt, 1% Tolerance         100           64         High precision (1%) resistors (1.0kΩ)         1.0MΩ, 0.25 Watt, 1% Tolerance         100           65         High precision (1%) resistors (1.5kΩ)         1.5MΩ, 0.25 Watt, 1% Tolerance         100           66         High precision (1%) resistors (2.2kΩ)         2.2MΩ, 0.25 Watt, 1% Tolerance         100           67         High precision (1%) resistors (3.3kΩ)         3.3MΩ, 0.25 Watt, 1% Tolerance         100           68         High precision (1%) resistors (6.8k)         6.8MΩ, 0.25 Watt, 1% Tolerance         100           70         High precision (1%) resistors (10M)         10MΩ, 0.25 Watt, 1% Tolerance         100           71         High precision (1%) resistors (10M) <td< td=""><td>56</td><td>High precision (1%) resistors (33k<math>\Omega</math>)</td><td>33kΩ, 0.25 Watt, 1% Tolerance</td><td>100</td></td<>	56	High precision (1%) resistors (33k $\Omega$ )	33kΩ, 0.25 Watt, 1% Tolerance	100
High precision (1%) resistors (100kΩ) 100kΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (150kΩ) 150kΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (220kΩ) 220kΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (330kΩ) 330kΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (470kΩ) 470kΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (680kΩ) 680kΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (1.0kΩ) 1.0MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (1.0kΩ) 1.5MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (2.2kΩ) 2.2MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (2.2kΩ) 3.3MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (3.3kΩ) 3.3MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (4.7kΩ) 4.7MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (6.8k) 6.8MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (6.8k) 6.8MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (10M) 10MΩ, 0.25 Watt, 1% Tolerance 100 Variable resistor 10 (Blue box type) 0-10Ω, 500mW, 10% Tolerance 5 Variable resistor 10 (Blue box type) 0-50Ω, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 50k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 50k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5 Variable resistor 50k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10MΩ, 500mW, 10% Toler	57	High precision (1%) resistors (47k $\Omega$ )	47kΩ, 0.25 Watt, 1% Tolerance	100
High precision (1%) resistors (220kΩ) 150kΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (220kΩ) 220kΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (330kΩ) 330kΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (470kΩ) 470kΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (680kΩ) 680kΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (1.0kΩ) 1.0MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (1.5kΩ) 1.5MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (2.2kΩ) 2.2MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (2.2kΩ) 2.2MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (3.3kΩ) 3.3MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (4.7kΩ) 4.7MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (4.7kΩ) 4.7MΩ, 0.25 Watt, 1% Tolerance 100 High precision (1%) resistors (6.8k) 6.8MΩ, 0.25 Watt, 1% Tolerance 100 Variable resistor 10 (Blue box type) 0-10Ω, 500mW, 10% Tolerance 5 Variable resistor 10 (Blue box type) 0-10Ω, 500mW, 10% Tolerance 5 Variable resistor 100 (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 50k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5 Variable resistor 50k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance	58	High precision (1%) resistors (68k $\Omega$ )	68kΩ, $0.25$ Watt, $1%$ Tolerance	100
High precision (1%) resistors (220kΩ) 220kΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (330kΩ) 330kΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (470kΩ) 470kΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (680kΩ) 680kΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (1.0kΩ) 1.0MΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (1.0kΩ) 1.5MΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (2.2kΩ) 2.2MΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (3.3kΩ) 3.3MΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (4.7kΩ) 4.7MΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (6.8k) 6.8MΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (10M) 10MΩ, 0.25 Watt, 1% Tolerance 100  Variable resistor 10 (Blue box type) 0-10Ω, 500mW, 10% Tolerance 5  Variable resistor 100 (Blue box type) 0-10Ω, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  1k Ohm 10 Watt, Linear Taper Rotary 10k Ohm, 10 Watt, Linear Taper Rotary 10k Ohm, 10 Watt, Linear Taper Rotary 10k Oh	59	High precision (1%) resistors (100kΩ)	100kΩ, $0.25$ Watt, $1%$ Tolerance	100
62         High precision (1%) resistors (330kΩ)         330kΩ, 0.25 Watt, 1% Tolerance         100           63         High precision (1%) resistors (470kΩ)         470kΩ, 0.25 Watt, 1% Tolerance         100           64         High precision (1%) resistors (1.0kΩ)         1.0MΩ, 0.25 Watt, 1% Tolerance         100           65         High precision (1%) resistors (1.5kΩ)         1.5MΩ, 0.25 Watt, 1% Tolerance         100           66         High precision (1%) resistors (2.2kΩ)         2.2MΩ, 0.25 Watt, 1% Tolerance         100           67         High precision (1%) resistors (3.3kΩ)         3.3MΩ, 0.25 Watt, 1% Tolerance         100           68         High precision (1%) resistors (4.7kΩ)         4.7MΩ, 0.25 Watt, 1% Tolerance         100           69         High precision (1%) resistors (6.8k)         6.8MΩ, 0.25 Watt, 1% Tolerance         100           70         High precision (1%) resistors (10M)         10MΩ, 0.25 Watt, 1% Tolerance         100           71         High precision (1%) resistors (10M)         10MΩ, 0.25 Watt, 1% Tolerance         100           71         High precision (1%) resistors (10M)         10MΩ, 0.25 Watt, 1% Tolerance         5           72         Variable resistor 10 (Blue box type)         0-10Ω, 500mW, 10% Tolerance         5           73         Variable resistor 10k (Blue box type)         0-10Ω, 50	60	High precision (1%) resistors (150k $\Omega$ )	150kΩ, $0.25$ Watt, $1%$ Tolerance	100
High precision (1%) resistors (470kΩ) 470kΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (680kΩ) 680kΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (1.0kΩ) 1.0MΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (1.5kΩ) 1.5MΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (2.2kΩ) 2.2MΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (3.3kΩ) 3.3MΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (4.7kΩ) 4.7MΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (6.8k) 6.8MΩ, 0.25 Watt, 1% Tolerance 100  High precision (1%) resistors (10M) 10MΩ, 0.25 Watt, 1% Tolerance 100  Variable resistor 10 (Blue box type) 0-10Ω, 500mW, 10% Tolerance 5  Variable resistor 50 (Blue box type) 0-50Ω, 500mW, 10% Tolerance 5  Variable resistor 11k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 50k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 10k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5  Variable resistor 100k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5  Variable resistor 50k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5  Variable resistor 50k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5  Variable resistor 100k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5  Variable resistor 100k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5  Variable resistor 100k (Blue box type) 0-100kΩ, 500mW, 10% Tolerance 5  Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  10k Ohm, 10 Watt, Linear Taper Rotary 10k Ohm, 10 Watt, 500mW, 10% Tolerance 5	61	High precision (1%) resistors (220k $\Omega$ )	220kΩ, 0.25 Watt, 1% Tolerance	100
64         High precision (1%) resistors (680kΩ)         680kΩ, 0.25 Watt, 1% Tolerance         100           65         High precision (1%) resistors (1.0kΩ)         1.0MΩ, 0.25 Watt, 1% Tolerance         100           66         High precision (1%) resistors (2.2kΩ)         1.5MΩ, 0.25 Watt, 1% Tolerance         100           67         High precision (1%) resistors (2.2kΩ)         2.2MΩ, 0.25 Watt, 1% Tolerance         100           68         High precision (1%) resistors (3.3kΩ)         3.3MΩ, 0.25 Watt, 1% Tolerance         100           69         High precision (1%) resistors (6.8k)         4.7MΩ, 0.25 Watt, 1% Tolerance         100           70         High precision (1%) resistors (10M)         10MΩ, 0.25 Watt, 1% Tolerance         100           71         High precision (1%) resistors (10M)         10MΩ, 0.25 Watt, 1% Tolerance         100           72         Variable resistor 10 (Blue box type)         0-10Ω, 500mW, 10% Tolerance         5           73         Variable resistor 100 (Blue box type)         0-50Ω, 500mW, 10% Tolerance         5           74         Variable resistor 1k (Blue box type)         0-1kΩ, 500mW, 10% Tolerance         5           75         Variable resistor 10k (Blue box type)         0-10kΩ, 500mW, 10% Tolerance         5           76         Variable resistor 10k (Blue box type)         0-50kΩ, 500mW, 10%	62	High precision (1%) resistors (330k $\Omega$ )	$330k\Omega$ , 0.25 Watt, 1% Tolerance	100
65         High precision (1%) resistors (1.0kΩ)         1.0MΩ, 0.25 Watt, 1% Tolerance         100           66         High precision (1%) resistors (1.5kΩ)         1.5MΩ, 0.25 Watt, 1% Tolerance         100           67         High precision (1%) resistors (2.2kΩ)         2.2MΩ, 0.25 Watt, 1% Tolerance         100           68         High precision (1%) resistors (3.3kΩ)         3.3MΩ, 0.25 Watt, 1% Tolerance         100           69         High precision (1%) resistors (4.7kΩ)         4.7MΩ, 0.25 Watt, 1% Tolerance         100           70         High precision (1%) resistors (6.8k)         6.8MΩ, 0.25 Watt, 1% Tolerance         100           71         High precision (1%) resistors (10M)         10MΩ, 0.25 Watt, 1% Tolerance         100           72         Variable resistor 10 (Blue box type)         0-10Ω, 500mW, 10% Tolerance         5           73         Variable resistor 100 (Blue box type)         0-10Ω, 500mW, 10% Tolerance         5           74         Variable resistor 1k (Blue box type)         0-1kΩ, 500mW, 10% Tolerance         5           75         Variable resistor 10k (Blue box type)         0-10kΩ, 500mW, 10% Tolerance         5           76         Variable resistor 50k (Blue box type)         0-50kΩ, 500mW, 10% Tolerance         5           79         Variable resistor 100k (Blue box type)         0-50kΩ, 500mW, 10%	63	High precision (1%) resistors (470k $\Omega$ )	470kΩ, $0.25$ Watt, $1%$ Tolerance	100
66 High precision (1%) resistors (1.5kΩ) 1.5MΩ, 0.25 Watt, 1% Tolerance 100 67 High precision (1%) resistors (2.2kΩ) 2.2MΩ, 0.25 Watt, 1% Tolerance 100 68 High precision (1%) resistors (3.3kΩ) 3.3MΩ, 0.25 Watt, 1% Tolerance 100 69 High precision (1%) resistors (4.7kΩ) 4.7MΩ, 0.25 Watt, 1% Tolerance 100 70 High precision (1%) resistors (6.8k) 6.8MΩ, 0.25 Watt, 1% Tolerance 100 71 High precision (1%) resistors (10M) 10MΩ, 0.25 Watt, 1% Tolerance 100 72 Variable resistor 10 (Blue box type) 0-10Ω, 500mW, 10% Tolerance 5 73 Variable resistor 50 (Blue box type) 0-50Ω, 500mW, 10% Tolerance 5 74 Variable resistor 100 (Blue box type) 0-10Ω, 500mW, 10% Tolerance 5 75 Variable resistor 1k (Blue box type) 0-10kΩ, 500mW, 10% Tolerance 5 76 Variable resistor 10k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5 77 Variable resistor 50k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5 78 Variable resistor 100k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5 79 Variable resistor 100k (Blue box type) 0-500kΩ, 500mW, 10% Tolerance 5 80 Variable resistor 1M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 81 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 82 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 83 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 84 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 85 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 86 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 87 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 88 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 89 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 80 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5 80 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5	64	High precision (1%) resistors (680k $\Omega$ )	680kΩ, $0.25$ Watt, $1%$ Tolerance	100
67       High precision (1%) resistors (2.2kΩ)       2.2MΩ, 0.25 Watt, 1% Tolerance       100         68       High precision (1%) resistors (3.3kΩ)       3.3MΩ, 0.25 Watt, 1% Tolerance       100         69       High precision (1%) resistors (4.7kΩ)       4.7MΩ, 0.25 Watt, 1% Tolerance       100         70       High precision (1%) resistors (6.8k)       6.8MΩ, 0.25 Watt, 1% Tolerance       100         71       High precision (1%) resistors (10M)       10MΩ, 0.25 Watt, 1% Tolerance       100         72       Variable resistor 10 (Blue box type)       0-10Ω, 500mW, 10% Tolerance       5         73       Variable resistor 50 (Blue box type)       0-50Ω, 500mW, 10% Tolerance       5         74       Variable resistor 100 (Blue box type)       0-1kΩ, 500mW, 10% Tolerance       5         75       Variable resistor 10k (Blue box type)       0-10kΩ, 500mW, 10% Tolerance       5         76       Variable resistor 10k (Blue box type)       0-50kΩ, 500mW, 10% Tolerance       5         78       Variable resistor 50k (Blue box type)       0-10kΩ, 500mW, 10% Tolerance       5         80       Variable resistor 10M (Blue box type)       0-500kΩ, 500mW, 10% Tolerance       5         80       Variable resistor 10M (Blue box type)       0-10MΩ, 500mW, 10% Tolerance       5         81       Variable resistor 10M	65	High precision (1%) resistors (1.0k $\Omega$ )	$1.0 \mathrm{M}\Omega,0.25$ Watt, $1\%$ Tolerance	100
68       High precision (1%) resistors (3.3kΩ)       3.3MΩ, 0.25 Watt, 1% Tolerance       100         69       High precision (1%) resistors (4.7kΩ)       4.7MΩ, 0.25 Watt, 1% Tolerance       100         70       High precision (1%) resistors (6.8k)       6.8MΩ, 0.25 Watt, 1% Tolerance       100         71       High precision (1%) resistors (10M)       10MΩ, 0.25 Watt, 1% Tolerance       100         72       Variable resistor 10 (Blue box type)       0-10Ω, 500mW, 10% Tolerance       5         73       Variable resistor 50 (Blue box type)       0-50Ω, 500mW, 10% Tolerance       5         74       Variable resistor 100 (Blue box type)       0-10Ω, 500mW, 10% Tolerance       5         75       Variable resistor 10k (Blue box type)       0-10kΩ, 500mW, 10% Tolerance       5         76       Variable resistor 50k (Blue box type)       0-50kΩ, 500mW, 10% Tolerance       5         78       Variable resistor 100k (Blue box type)       0-100kΩ, 500mW, 10% Tolerance       5         79       Variable resistor 500k (Blue box type)       0-500kΩ, 500mW, 10% Tolerance       5         80       Variable resistor 10M (Blue box type)       0-10MΩ, 500mW, 10% Tolerance       5         81       Variable resistor 10M (Blue box type)       0-10MΩ, 500mW, 10% Tolerance       5         82       1k Ohm, 10 Watt, Linea	66	High precision (1%) resistors (1.5k $\Omega$ )	$1.5 \mathrm{M}\Omega,0.25$ Watt, 1% Tolerance	100
69       High precision (1%) resistors (4.7kΩ)       4.7MΩ, 0.25 Watt, 1% Tolerance       100         70       High precision (1%) resistors (6.8k)       6.8MΩ, 0.25 Watt, 1% Tolerance       100         71       High precision (1%) resistors (10M)       10MΩ, 0.25 Watt, 1% Tolerance       100         72       Variable resistor 10 (Blue box type)       0-10Ω, 500mW, 10% Tolerance       5         73       Variable resistor 50 (Blue box type)       0-50Ω, 500mW, 10% Tolerance       5         74       Variable resistor 100 (Blue box type)       0-1kΩ, 500mW, 10% Tolerance       5         75       Variable resistor 10k (Blue box type)       0-10kΩ, 500mW, 10% Tolerance       5         76       Variable resistor 50k (Blue box type)       0-50kΩ, 500mW, 10% Tolerance       5         78       Variable resistor 100k (Blue box type)       0-100kΩ, 500mW, 10% Tolerance       5         79       Variable resistor 500k (Blue box type)       0-500kΩ, 500mW, 10% Tolerance       5         80       Variable resistor 10M (Blue box type)       0-10MΩ, 500mW, 10% Tolerance       5         81       Variable resistor 10M (Blue box type)       0-10MΩ, 500mW, 10% Tolerance       5         82       1k Ohm 10 Watt, Linear Taper Rotary Potentiometer       10k Ohm, 10 Watt, Linear Taper Rotary       10k Ohm, 10 Watt, Linear Taper Rotary       10k Oh	67	High precision (1%) resistors (2.2k $\Omega$ )	2.2MΩ, 0.25 Watt, 1% Tolerance	100
70       High precision (1%) resistors (6.8k)       6.8MΩ, 0.25 Watt, 1% Tolerance       100         71       High precision (1%) resistors (10M)       10MΩ, 0.25 Watt, 1% Tolerance       100         72       Variable resistor 10 (Blue box type)       0-10Ω, 500mW, 10% Tolerance       5         73       Variable resistor 50 (Blue box type)       0-50Ω, 500mW, 10% Tolerance       5         74       Variable resistor 100 (Blue box type)       0-10Ω, 500mW, 10% Tolerance       5         75       Variable resistor 1k (Blue box type)       0-10kΩ, 500mW, 10% Tolerance       5         76       Variable resistor 10k (Blue box type)       0-50kΩ, 500mW, 10% Tolerance       5         77       Variable resistor 50k (Blue box type)       0-100kΩ, 500mW, 10% Tolerance       5         78       Variable resistor 100k (Blue box type)       0-500kΩ, 500mW, 10% Tolerance       5         80       Variable resistor 1M (Blue box type)       0-1MΩ, 500mW, 10% Tolerance       5         81       Variable resistor 10M (Blue box type)       0-10MΩ, 500mW, 10% Tolerance       5         82       1k Ohm 10 Watt, Linear Taper Rotary Potentiometer       1k Ohm, 10 Watt, Linear Taper Rotary 10k Oh	68	High precision (1%) resistors (3.3k $\Omega$ )	$3.3M\Omega$ , $0.25$ Watt, $1\%$ Tolerance	100
71       High precision (1%) resistors (10M)       10MΩ, 0.25 Watt, 1% Tolerance       100         72       Variable resistor 10 (Blue box type)       0-10Ω, 500mW, 10% Tolerance       5         73       Variable resistor 50 (Blue box type)       0-50Ω, 500mW, 10% Tolerance       5         74       Variable resistor 100 (Blue box type)       0-100Ω, 500mW, 10% Tolerance       5         75       Variable resistor 1k (Blue box type)       0-1kΩ, 500mW, 10% Tolerance       5         76       Variable resistor 50k (Blue box type)       0-50kΩ, 500mW, 10% Tolerance       5         77       Variable resistor 100k (Blue box type)       0-100kΩ, 500mW, 10% Tolerance       5         78       Variable resistor 100k (Blue box type)       0-500kΩ, 500mW, 10% Tolerance       5         80       Variable resistor 1M (Blue box type)       0-10MΩ, 500mW, 10% Tolerance       5         81       Variable resistor 10M (Blue box type)       0-10MΩ, 500mW, 10% Tolerance       5         82       1k Ohm 10 Watt, Linear Taper Rotary Potentiometer       10k Ohm, 10 Watt, Linear Taper Rotary       10k Ohm, 10 Watt, Linear Taper Rotary       10k Ohm, 10 Watt, Linear Taper Rotary       10k Ohm, 10 Watt       5	69	High precision (1%) resistors (4.7k $\Omega$ )	4.7M $Ω$ , $0.25$ Watt, $1%$ Tolerance	100
Variable resistor 10 (Blue box type)  0-10Ω, 500mW, 10% Tolerance  5  Variable resistor 50 (Blue box type)  0-50Ω, 500mW, 10% Tolerance  5  Variable resistor 100 (Blue box type)  0-100Ω, 500mW, 10% Tolerance  5  Variable resistor 1k (Blue box type)  0-1kΩ, 500mW, 10% Tolerance  5  Variable resistor 10k (Blue box type)  0-10kΩ, 500mW, 10% Tolerance  5  Variable resistor 50k (Blue box type)  0-50kΩ, 500mW, 10% Tolerance  5  Variable resistor 100k (Blue box type)  0-100kΩ, 500mW, 10% Tolerance  5  Variable resistor 500k (Blue box type)  0-500kΩ, 500mW, 10% Tolerance  5  Variable resistor 500k (Blue box type)  0-500kΩ, 500mW, 10% Tolerance  5  Variable resistor 1M (Blue box type)  0-10MΩ, 500mW, 10% Tolerance  5  Variable resistor 10M (Blue box type)  10 -10MΩ, 500mW, 10% Tolerance  5  1k Ohm 10 Watt, Linear Taper Rotary Potentiometer  1k Ohm, 10 Watt, Linear Taper Rotary Potentiometer  10k Ohm, 10 Watt,  5	70	High precision (1%) resistors (6.8k)	6.8MΩ, 0.25 Watt, 1% Tolerance	100
Variable resistor 50 (Blue box type)  0-50Ω, 500mW, 10% Tolerance  5  Variable resistor 100 (Blue box type)  0-100Ω, 500mW, 10% Tolerance  5  Variable resistor 1k (Blue box type)  0-1kΩ, 500mW, 10% Tolerance  5  Variable resistor 10k (Blue box type)  0-10kΩ, 500mW, 10% Tolerance  5  Variable resistor 50k (Blue box type)  0-50kΩ, 500mW, 10% Tolerance  5  Variable resistor 100k (Blue box type)  0-100kΩ, 500mW, 10% Tolerance  5  Variable resistor 500k (Blue box type)  0-500kΩ, 500mW, 10% Tolerance  5  Variable resistor 500k (Blue box type)  0-500kΩ, 500mW, 10% Tolerance  5  Variable resistor 1M (Blue box type)  0-10MΩ, 500mW, 10% Tolerance  5  Variable resistor 10M (Blue box type)  0-10MΩ, 500mW, 10% Tolerance  5  1k Ohm 10 Watt, Linear Taper Rotary Potentiometer  1k Ohm, 10 Watt, Linear Taper Rotary Potentiometer  10k Ohm, 10 Watt, Linear Taper Rotary	71	High precision (1%) resistors (10M)	10MΩ, 0.25 Watt, 1% Tolerance	100
Variable resistor 100 (Blue box type)  0-100Ω, 500mW, 10% Tolerance  5  Variable resistor 1k (Blue box type)  0-1kΩ, 500mW, 10% Tolerance  5  Variable resistor 10k (Blue box type)  0-10kΩ, 500mW, 10% Tolerance  5  Variable resistor 50k (Blue box type)  0-50kΩ, 500mW, 10% Tolerance  5  Variable resistor 100k (Blue box type)  0-100kΩ, 500mW, 10% Tolerance  5  Variable resistor 500k (Blue box type)  0-500kΩ, 500mW, 10% Tolerance  5  Variable resistor 500k (Blue box type)  0-100kΩ, 500mW, 10% Tolerance  5  Variable resistor 1M (Blue box type)  0-1MΩ, 500mW, 10% Tolerance  5  Variable resistor 10M (Blue box type)  0-10MΩ, 500mW, 10% Tolerance  5  1k Ohm 10 Watt, Linear Taper Rotary Potentiometer  10k Ohm, 10 Watt, Linear Taper Rotary Potentiometer  10k Ohm, 10 Watt, Linear Taper Rotary Potentiometer	72	Variable resistor 10 (Blue box type)	0-10Ω, 500mW, 10% Tolerance	5
Variable resistor 1k (Blue box type)  0-1kΩ, 500mW, 10% Tolerance  5  Variable resistor 10k (Blue box type)  0-10kΩ, 500mW, 10% Tolerance  5  Variable resistor 50k (Blue box type)  0-50kΩ, 500mW, 10% Tolerance  5  Variable resistor 100k (Blue box type)  0-100kΩ, 500mW, 10% Tolerance  5  Variable resistor 500k (Blue box type)  0-500kΩ, 500mW, 10% Tolerance  5  Variable resistor 500k (Blue box type)  0-10MΩ, 500mW, 10% Tolerance  5  Variable resistor 1M (Blue box type)  0-10MΩ, 500mW, 10% Tolerance  5  Variable resistor 10M (Blue box type)  0-10MΩ, 500mW, 10% Tolerance  5  1k Ohm 10 Watt, Linear Taper Rotary Potentiometer  1k Ohm, 10 Watt, Linear Taper Rotary Potentiometer  10k Ohm, 10 Watt, Linear Taper Rotary  10k Ohm, 10 Watt	73	Variable resistor 50 (Blue box type)	0-50Ω, 500mW, 10% Tolerance	5
Variable resistor 10k (Blue box type)  O-10kΩ, 500mW, 10% Tolerance  Variable resistor 50k (Blue box type)  O-50kΩ, 500mW, 10% Tolerance  Variable resistor 100k (Blue box type)  O-100kΩ, 500mW, 10% Tolerance  Variable resistor 500k (Blue box type)  O-500kΩ, 500mW, 10% Tolerance  Variable resistor 1M (Blue box type)  O-1MΩ, 500mW, 10% Tolerance  Variable resistor 10M (Blue box type)  Variable resistor 10M (Blue box type)  O-10MΩ, 500mW, 10% Tolerance  Variable resistor 10M (Blue box type)  Variable resistor 10M (Blue box type)  Variable resistor 10M (Blue box type)  O-10MΩ, 500mW, 10% Tolerance  Variable resistor 10M (Blue box type)  O-10MΩ, 500mW, 10% Tolerance  Variable resistor 10M (Blue box type)  O-10MΩ, 500mW, 10% Tolerance  Variable resistor 10M (Blue box type)  O-10MΩ, 500mW, 10% Tolerance  Variable resistor 10M (Blue box type)  O-10MΩ, 500mW, 10% Tolerance  Variable resistor 10M (Blue box type)  O-10MΩ, 500mW, 10% Tolerance  O-10MΩ, 500mW, 10% Tolerance  Variable resistor 10M (Blue box type)  O-10MΩ, 500mW, 10% Tolerance	74	Variable resistor 100 (Blue box type)	0-100Ω, 500mW, 10% Tolerance	5
Variable resistor 50k (Blue box type) 0-50kΩ, 500mW, 10% Tolerance 5  Variable resistor 100k (Blue box type) 0-100kΩ, 500mW, 10% Tolerance 5  Variable resistor 500k (Blue box type) 0-500kΩ, 500mW, 10% Tolerance 5  Variable resistor 1M (Blue box type) 0-1MΩ, 500mW, 10% Tolerance 5  Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5	75	Variable resistor 1k (Blue box type)	0-1kΩ, 500mW, 10% Tolerance	5
<ul> <li>Variable resistor 100k (Blue box type)</li> <li>Variable resistor 500k (Blue box type)</li> <li>Variable resistor 500k (Blue box type)</li> <li>Variable resistor 1M (Blue box type)</li> <li>Variable resistor 1M (Blue box type)</li> <li>Variable resistor 10M (Blue box type)</li> <li>Variable resis</li></ul>	76	Variable resistor 10k (Blue box type)	0-10kΩ, 500mW, 10% Tolerance	5
79 Variable resistor 500k (Blue box type) 0-500kΩ, 500mW, 10% Tolerance 5  80 Variable resistor 1M (Blue box type) 0-1MΩ, 500mW, 10% Tolerance 5  81 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  82 1k Ohm 10 Watt, Linear Taper Rotary Potentiometer 1k Ohm, 10 Watt, 5  83 10k Ohm, 10 Watt, Linear Taper Rotary 10k Ohm, 10 Watt	77	Variable resistor 50k (Blue box type)	0-50kΩ, 500mW, 10% Tolerance	5
Variable resistor 1M (Blue box type)  0-1MΩ, 500mW, 10% Tolerance  5  Variable resistor 10M (Blue box type)  0-10MΩ, 500mW, 10% Tolerance  5  1k Ohm 10 Watt, Linear Taper Rotary Potentiometer  1k Ohm, 10 Watt,  1k Ohm, 10 Watt,  5  10k Ohm, 10 Watt	78	Variable resistor 100k (Blue box type)	0-100kΩ, 500mW, 10% Tolerance	5
81 Variable resistor 10M (Blue box type) 0-10MΩ, 500mW, 10% Tolerance 5  82 1k Ohm 10 Watt, Linear Taper Rotary Potentiometer 1k Ohm, 10 Watt, 5  83 10k Ohm, 10 Watt, Linear Taper Rotary 10k Ohm, 10 Watt	79	Variable resistor 500k (Blue box type)	$0-500$ k $\Omega$ , $500$ mW, $10\%$ Tolerance	5
82 1k Ohm 10 Watt, Linear Taper Rotary Potentiometer 1k Ohm, 10 Watt,  5  10k Ohm, 10 Watt, Linear Taper Rotary 10k Ohm, 10 Watt	80	Variable resistor 1M (Blue box type)	0-1MΩ, 500mW, 10% Tolerance	5
Potentiometer 1 R Ohm, 10 Watt, 5  10k Ohm, 10 Watt, Linear Taper Rotary 10k Ohm, 10 Watt 5	81	Variable resistor 10M (Blue box type)	0-10MΩ, 500mW, 10% Tolerance	5
10k Ohm, 10 Watt, Linear Taper Rotary 10k Ohm, 10 Watt	82		1k Ohm, 10 Watt,	5
	83	10k Ohm, 10 Watt, Linear Taper Rotary	10k Ohm, 10 Watt,	5

84	50k Ohm 2 Watt, Linear Taper Rotary Potentiometer	50k Ohm, 2 Watt,	5
85	100k Ohm, 10 Watt, Linear Taper Rotary Potentiometer	100k Ohm, 2 Watt,	5
86	500k Ohm 10 Watt, Linear Taper Rotary Potentiometer	500k Ohm, 2 Watt,	5
87	1M Ohm, 10 Watt, Linear Taper Rotary Potentiometer	1M Ohm, 2 Watt,	5
88	SLB Works Brand New 20Pcs B1K 2K 5K 10K 20K 50K100K 250K 500K 1M Ohm Linear Potentiometer each 2 Pcs	B1K 2K 5K 10K 20K 50K100K 250K 500K 1M	1 Set
89	Heat Sink for Regulator ICs	Heatsink ;Material : Aluminium	20
90	Bread Board	General Purpose	20
91	JST 2-pin male-female connectors with connection wire	General Purpose	20
92	Jumper Wires Male to Male, male to female, female to female, 120 Pieces	Length 20cm or 8-inch, 0.1 inch (2.54mm) headers	3 Set
93	20Pcs 100mH 100mA 6x8mm 10% Tolerance Shielded Radial Inductor Black	100mH 100mA	10
94	Yobett 0307 0. 1uH - 1mH 24 value 240pcs DIP Color Wheel Inductor Assorted Kit 1/4W 0. 25W	0. 1uH - 1mH, 0. 25W	1 Set
95	Yobett 0.47uH - 1mH 39 value 390pcs 0410 DIP Color Wheel Inductor Assorted Kit 1/2W 10%	0.47uH - 1mH, 1/2W, 10%	1 Set
96	RISHIL WORLD 10pcs 330uH 3A Toroid Core Inductor Wire Wind Wound	330uH, 3A	1 Set
97	Generic 10Pcs Toroid Core Inductor Wire Wind Wound Mah-100uH 6A Rohs Cc	100uH, 6A	1 Set
98	Zener Diode	5V, 9V, 12V, 15V	5 each
99	SPST Switch	2A/250V, 3A/250V, 6A/250V	20
100	DPDT Switch	2A/250V, 3A/250V, 6A/250V	20
101	TLC274 IC	DIP	5
102	LM324 IC	DIP Inductor: 33mH, 47mH, 100mH, 220 mH.( 10 no for each valued)	5
103	Network Analysis and Synthesis Laboratory components	Capacitor: 0.1μF, 0.2μF, 0.47μF, 1μF ( 10 no for each valued)	1 set
		Resistor(variable): $5 \text{ k}\Omega$ , $10 \text{ k}\Omega$ ( $10 \text{ no for each valued}$ )	-
104	Resistance	Wire Wound, 50Ω, 100W	2
105	Inductance	150mH, 2A	2
106	Capacitance	Electrolytic, 220V, 900µF	2
107	Glass fuse	5A	1 packet
108	Banana connector	19A, 1.5 sq-mm wire connector	100pcs

**Delivery Period**: **60** days from the date of placement of purchase order

Place of Delivery: Dept. of Electrical Engineering, NIT Durgapur

**Installation** / **commissioning** / **demonstration requirement**: Installation, commissioning, complete demonstration and successful running at Dept. of Electrical Engineering, NIT Durgapur.

A complete set of tender documents may be downloaded by prospective bidders from the website ITI e-Wizard Portal of MHRD <a href="https://mhrd.euniwizarde.com">https://mhrd.euniwizarde.com</a>

## **Documents to be submitted in the Technical Folder:**

- 1. Digitally signed copy of the filled in Notice Inviting Tender (NIT). Along with NIT, bidders should submit the technical specification of the items.
- 2. List of Other Important Documents (Serial Nos. are as per CPPP portal)

Sl. No.	Category	Sub Category	Sub Category Description	
1	Certificate	Affidavit regarding No Near	Affidavit regarding No Near	
	Details	Relative working in department	Relative working in department	
		GST Registration Certificate	GST Registration Certificate	
		Partnership Deed (If applicable)	Partnership Deed	
		Permanent Account Number	Permanent Account Number Details	
		Power of Attorney (If applicable)	Power of Attorney	
		Registration Certificate	Registration Certificate Details	
2	Financial Details	Annual Turn Over Details	Annual Turn Over Details	
		Audited Profit and Loss Account and Balance Sheet Details for last 3 Years	Audited Profit and Loss Account and Balance Sheet Details for last 3 Years	
3	Work Details	Existing Commitments	Existing Commitments Details	
		Works Completed	Works Completed Details (Credential should be 40% of same type of works/supply)	

## **Terms & Conditions Details**

Sl. No.	Particulars / Specification
1	<b>Due date</b> : The tender has to be submitted on-line before the due date. The offers received after the due date and time will not be considered. No manual bids will be considered.
2	<b>Preparation of Bids</b> : The offer/bid should be submitted in two bid systems (i.e.) Technical bid and financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. Financial bid should indicate total price inclusive of all taxes for the items mentioned in the technical bid in the given format. The Technical bid and the financial bid should be submitted Online.
3	<b>EMD</b> ( <b>if applicable</b> ): The tenderer should submit an EMD amount through E-Payment. The Technical Bid without EMD would be considered as UNRESPONSIVE and will not be accepted. The EMD will be refunded without any interest to the unsuccessful bidders after the award of contract.
4	<b>Refund of EMD</b> : The EMD will be returned to unsuccessful Tenderer only after the Tenders are finalized. In case of successful Tenderer, it will be retained till the successful and complete installation of the equipment.
5	<b>Opening of the tender</b> : The online bid will be opened by a committee duly constituted for this purpose. Online bids (complete in all respect) received along with EMD (if any) will be opened as mentioned at "Annexure: Schedule" in presence of bidders representative if available. Only one representative will be allowed to participate in the tender opening. Bid received without EMD (if present) will be rejected straight way. The technical bid will be opened online first and it will be examined by a technical committee (as per specification and requirement). The financial offer/bid will be opened only for the offer/bid which technically meets all requirements as per the specification, and will be opened in the presence of the vendor's representatives subsequently for further evaluation. The bidders if interested may participate on the tender opening Date and Time. The bidder should produce authorization letter from their company to participate in the tender opening.
6	Acceptance/ Rejection of bids: The Committee reserves the right to reject any or all offers.
7	Pre-qualification criteria:  (i) Bidders should be the manufacturer / authorized dealer. Letter of Authorization from original

- equipment manufacturer (OEM) on the same and specific to the tender should be enclosed.
- (ii) An undertaking from the OEM is required stating that they would facilitate the bidder on a regular basis with technology/product updates and extend support for the warranty as well. (Ref. Annexure-II)
- (iii) OEM should be internationally reputed Branded Company.
- (iv) Non-compliance of tender terms, non-submission of required documents, lack of clarity of the specifications, contradiction between bidder specification and supporting documents etc. may lead to rejection of the bid.
- (v) In the tender, either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.
- (vi) If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
- Performance Security: The supplier shall require to submit the performance security in the form of irrevocable bank guarantee issued by any Indian Nationalized Bank for an amount which is stated in the tender document, within 21 days from the date of receipt of the purchase order/LC and should be kept valid for a period of 60 days beyond the date of completion of warranty period.
  - **Force Majeure:** The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
    - For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
    - If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 10 **Risk Purchase Clause**: In event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from the other source on the total risk of the supplier under risk purchase clause.
- Packing Instructions: Each package will be marked on three sides with proper paint/indelible ink, the following:
  - i. Item Nomenclature
  - ii. Order/Contract No.
  - iii. Country of Origin of Goods
  - iv. Supplier's Name and Address
  - v. Consignee details
  - vi. Packing list reference number

## 12 **Delivery and Documents:**

Delivery of the goods should be made within a **60 days** from the date of placement of purchase order and the opening of LC. Within 24 hours of shipment, the supplier shall notify the purchaser and the insurance company by cable/telex/fax/e mail the full details of the shipment including contract number, railway receipt number/ AAP etc. and date, description of goods, quantity, name of the consignee, invoice etc. The supplier shall mail the following documents to the purchaser with a copy to the insurance company:

- 1. 4 Copies of the Supplier invoice showing contract number, goods' description, quantity
- 2. unit price, total amount;
- 3. Insurance Certificate if applicable;
- 4. Manufacturer's/Supplier's warranty certificate;
- 5. Inspection Certificate issued by the nominated inspection agency, if any
- 6. Supplier's factory inspection report; and
- 7. Certificate of Origin (if possible by the beneficiary);
- 8. Two copies of the packing list identifying the contents of each package.
- 9. The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses

13 **Delayed delivery:** If the delivery is not made within the due date for any reason, the Committee will have the right to impose penalty 1% per week and the maximum deduction is 10% of the contract value / price. 14 **Prices**: The price should be quoted in net per unit (after breakup) and must include all packing and delivery charges. The offer/bid should be exclusive of taxes and duties, which will be paid by the purchaser as applicable. However, the percentage of taxes & duties shall be clearly indicated. The price should be quoted without custom duty and excise duty, since NIT Durgapur is exempted from payment of Excise Duty and is eligible for concessional rate of custom duty. Necessary certificate will be issued on demand. In case of imports, the price should be quoted on FOB/FCA origin Airport Basis only. Under special circumstances (e.g. perishable chemicals), when the item is imported on CIF/CIP, please indicate CIF/CIP charges separately up toNIT Durgapur indicating the mode of shipment. NIT Durgapurwill make necessary arrangements for the clearance of imported goods at the Airport/Seaport. Hence the price should not include the above charges. At any circumstances, it is the responsibility of theforeign supplier to handover the material to our forwarder at the origin airport after completingall the inland clearing. No Ex- Works consignment will be entertained. "In case of CIF/CIP shipments, kindly provide the shipment information at least 2 days in advance before landing the shipment along with the documents i.e. invoice, packing list, forwarder Name, address, contact No. in India to save penalty/demurrage charges (imposed by Indian Customs). Otherwise these charges will be recovered from the supplier/Indian Agent." 15 Notices: For the purpose of all notices, the following shall be the address of the Purchaser and Supplier. Purchaser: Dr. T K Bera Department of Electrical Engineering National Institute of Technology, Durgapur M. G. Avenue. Durgapur -713209, West Bengal. **Supplier:** (To be filled in by the supplier) (All supplier's should submit its supplies information as per Annexure-II). 16 **Progress of Supply:** Wherever applicable, supplier shall regularly intimate progress of supply, in writing, to the Purchaser as under: 1. Quantity offered for inspection and date; 2. Quantity accepted/rejected by inspecting agency and date; 3. Quantity dispatched/delivered to consignees and date; 4. Quantity where incidental services have been satisfactorily completed with date; 5. Quantity where rectification/repair/replacement effected/completed on receipt of any communication from consignee/Purchaser with date; 6. Date of completion of entire Contract including incidental services, if any; and 7. Date of receipt of entire payments under the Contract (In case of stage-wise inspection, details required may also be specified). **Inspection and Tests:** Inspection and tests prior to shipment of Goods and at final acceptance are 17 as follows: After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications attached to the purchase order. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser shall be present at the supplier's premises during such inspection and testing if need is felt. The location where the inspection is required to be conducted should be clearly indicated. The supplier shall inform the purchaser about the site preparation, if any, needed for installation of the goods at the purchaser's site at the time of submission of order acceptance. The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified. In the event of the ordered item failing to pass the acceptance test, a period not exceeding one weeks will be given to rectify the defects and clear the acceptance test, failing which the

	Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser.
18	<ul> <li>Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.</li> <li>Resolution of Disputes: The dispute resolution mechanism to be applied pursuant shall be as follows:</li> </ul>
	• In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled inaccordance with the Indian Arbitration& Conciliation Act, 1996, the rules there under and anystatutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The disputeshall be referred to the Director, National Institute of Technology Durgapur and if he is unable orunwilling to act, to the sole arbitration of some other person
	appointed by him willing to act as suchArbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
	<ul> <li>In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.</li> <li>The venue of the arbitration shall be the place from where the order is issued.</li> </ul>
19	Applicable Law:Settlement of any dispute will be made under the jurisdiction of Durgapur Court.
20	Right to Use Defective Goods
	If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.
21	Supplier Integrity  The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.
22	<b>Training</b> The Supplier is required to provide training to the designated Purchaser's technical and end user personnel to enable them to effectively operate the total equipment.
23	Installation & Demonstration
	The supplier is required to done the installation and demonstration of the equipment within one month of the arrival of materials at the NITDurgapur site of installation, otherwise the penalty clause will be the same as per the supply of materials.
	In case of any missappearing/damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier has to replace it with new equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. NITDurgapur will not be liable to any type of losses in any form.
24	Insurance: For delivery of goods at the purchaser's premises, the insurance shall be obtained by the supplier in an amount equal to 110% of the value of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurance shall be valid for a period of not less than 3 months after installation and commissioning. In case of orders placed onFOB/FCA basis, the purchaser shall arrange Insurance. If orders placed on CIF/CIP basis, theinsurance should be up to NIT DURGAPUR
25	<ul> <li>Incidental services: The incidental services also include:</li> <li>□ Furnishing of 01 set of detailed operations &amp; maintenance manual.</li> <li>□ Arranging the shifting/moving of the item to their location of final installation within NITD premises at the cost of Supplier through their Indian representatives.</li> </ul>
26	Warranty:  (i) Warranty period shall be from date of installation of Goods at the NITD site of installation. The Supplier shall, in addition, comply with the performance and/orconsumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall at its discretion make suchchanges, modifications, and/or additions to the Goods or any part thereof as may be necessary inorder to attain the contractual guarantees specified in the Contract at its own cost and expense andto carry out further performance tests. The warranty should be comprehensive on site.

- (ii) The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall immediately within in 02 days arrange to repair or replace the defective goods or parts thereof free of cost at the ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Purchaser for the replaced parts/goods thereafter. The period for correction of defects in the warranty period is 02 days. If the supplier having been notified fails to remedy the defects within 02 days, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which the purchaser may have against the supplier under the contract. (iii) The warranty period should be clearly mentioned. The maintenance charges (AMC) under different schemes after the expiry of the warranty should also be mentioned. The comprehensive warranty will commence from the date of the satisfactory installation/commissioning of the equipment against the defect of any manufacturing, workmanship and poor quality of the
- components.
- (iv) After the warranty period is over, Annual Maintenance Contract (AMC)/Comprehensive Maintenance Contract (CMC) up to next two years should be started. The AMC/CMC charges will not be included in computing the total cost of the equipment.

### 27 **Governing Language**

The contract shall be written in English language. English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the same language.

### 28 Applicable Law

The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction.

#### 29 **Notices**

- Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, FAX or e mail and confirmed in writing to the other party's address.
- A notice shall be effective when delivered or on the notice's effective date, whichever is later.

#### 30 Taxes

Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser. However, GST in respect of the transaction between the Purchaser and the Supplier shall be payable extra, if so stipulated in the order.

### 31 **Duties**

NIT Durgapur is exempted from paying custom duty and necessary "Custom Duty Exemption Certificate" can be issued after providing following information and Custom Duty Exemption Certificate will be issued to the shipment in the name of the Institute, (no certificate will be issued to third party): The procured product should be used for teaching, scientific and research work only.

- a) Shipping details i.e. Master Airway Bill No. and House Airway No. (if exists)
- b) Forwarder details i.e. Name, Contact No., etc.

NIT Durgapur is exempted from paying Excise Duty and necessary Excise Duty Exemption Certificate will be provided for which following information are required.

- b) Quotation with details of Basic Price, Rate, Tax & Amount on which ED is applicable
- c) Supply Order Copy
- d) Performa-Invoice Copy.
- **Agency Commission**: Agency commission if any will be paid to the Indian agent in Rupees on receipt of the equipment and after satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances. The details should be explicitly shown in Tender even in case of Nil commission. The tenderer should indicate the percentage of agency commission to be paid to the Indian agent.

#### 33 **Payment:**

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(i) For imported items Payment will be made through irrevocable Letter of Credit (LC) Cash Against Documents (CAD)/Against delivery/after satisfactory installation by T.T. Letter of Credit (LC)will be established in favour of foreign Supplier after the submission of performance security. The letter of credit (LC) will be established on the exchange rates as applicable on the date ofestablishment. For Imports, LC will be opened for 100% FOB/CIF value. 80% of the LC amountshall be released on presentation of complete and clear shipping documents and 20% of the LCamount shall be released after the installation and demonstration of the equipment at the INST site of installation in faultless working condition for period of 60 days from the date of the satisfactoryinstallation and subject to the production of unconditional performance bank guarantee as specified in Clause 8 of tender terms and conditions. (ii) For Indigenous supplies, 100% payment shall be made by the Purchaser against delivery, inspection, successful installation, commissioning and acceptance of the equipment at NITDurgapur in good condition and to the entire satisfaction of the Purchaser and on production of unconditional performance bank guarantee as specified in Clause 9 of tender terms and conditions. (iii) Indian Agency commission (IAC), if any shall be paid after satisfactory installation & commissioning of the goods at the destination at the exchange rate prevailing on the date of negotiation of LC documents, subject to DGS&D registration for restricted items. (iv) All the bank charges within India will be borne by the Institute and outside India will be borne by the supplier 34 User list: Brochure detailing technical specifications and performance, list of industrial and Educational establishments where the items enquired have been supplied must be provided. (Ref.Annexure-III) 35 **Manuals and Drawings** (i) Before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals. These shall be in such details as will enable the Purchaser tooperate, maintain, adjust and repair all parts of the works as stated in the specifications. (ii) The Manuals shall be in the ruling language (English) in such form and numbers as stated in the contract. (iii) Unless and otherwise agreed, the goods equipment shall not be considered to be completed for the purposes of taking over until such manuals and drawing have been supplied to the Purchaser. **Application Specialist**: The Tenderer should mention in the Techno-Commercial bid the 36 availability and names of Application Specialist and Service Engineers in the nearest regional office. (Ref. to Annexure-III) **Site Preparation**: The supplier shall inform to the Institute about the site preparation, if any, 37 needed for the installation of equipment, immediately after the receipt of the purchase order. The supplier must provide complete details regarding space and all the other infrastructural requirements needed for the equipment, which the Institute should arrange before the arrival of the equipment to ensure its timely installation and smooth operation thereafter. The supplier shall visit the Institute and see the site where the equipment is to be installed and may offer his advice and render assistance to the Institute in the preparation of the site and other pre installation requirements. 38 **Spare Parts** The Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier: i. Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and ii. In the event of termination of production of the spare parts: iii. Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and iv. Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested. Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods, such as gaskets, plugs, washers, belts etc. Other spare parts and components shall be supplied as promptly as possible but in any case within six months of placement of order. 39 **Defective Equipment**: If any of the equipment supplied by the Tenderer is found to be substandard, refurbished, un-merchantable or not in accordance with the description/specification or otherwise faulty, the committee will have the right to reject the equipment or its part. The prices

of such equipment shall be refunded by the Tenderer with 18% interest if such payments for such

	equipment have already been made. All damaged or unapproved goods shall be returned at suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, shall be replaced within 30days on receipt of the intimation from this office at the cost and risk of supplier including all other charges. In case supplier fails to replace above item as per above terms & conditions, NIT Durgapur may consider "Banning" the supplier.
40	Termination for Default
10	The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:  i. If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser; or  ii If the Supplier fails to perform any other obligation(s) under the Contract.  iii If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.  For the purpose of this Clause:  i. "Corrupt practice" means the offering, giving, receiving or soliciting of anything ofvalue to influence the action of a public official in the procurement process or in contract execution.
	ii. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition;"  In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.
41	<b>Shifting</b> : After 1-3 years, the supplier may need to shift and reinstall the equipments to other building within the NIT Campus at free of cost (if required).
42	<b>Downtime:</b> During the warranty period not more than 5% downtime will be permissible. For everyday exceeding permissible downtime, penalty of 1/365 of the 5% FOB value will be imposed. Downtime will be counted from the date and time of the filing of complaint with in the business
	hours.
43	<b>Training of Personnel:</b> The supplier shall be required to undertake to provide the technical training to the personnel involved in the use of the equipment at the Institute premises, immediately after completing the installation of the equipment for a minimum period of one week at the supplier's cost.
44	<b>Disputes and Jurisdiction</b> : Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located in Durgapur
45	Compliancy certificate: This certificate must be provided indicating conformity to the technical specifications. (Annexure-I)
46	Detailed technical specifications and literature/drawings/manuals of the goods/services to be supplied

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# **COMPLIANCE SHEET**

Item No.	Components of the item	Specification of the components	Quantity In Units	COMPLIANCE Y/N
Name				

I have also enclosed all relevant documents in support of my claims, (as above) in the following pages.

Signature of Bidder with date

Name:

**Designation:** 

**Organization Name:** 

**Contact No.:** 

E-mail Id:

## **ANNEXURE-II**

# <<Organization Letter Head>>

### **DECLARATION SHEET**

DEC	
We,	hereby certify that all the information and data
furnished by our organization with regard to t	his tender specification are true and complete to the best of our
knowledge. I have gone through the specifica	tion, conditions and stipulations in details and agree to comply
with the requirements and intent of specificati	on.
Tender. We further certified that our organiza	een authorized (Copy attached) by the OEM to participate in ation meets all the conditions of eligibility criteria laid down in agreed to support on regular basis with technology / product
The prices quoted in the financial bids are sub	sidized due to academic discount given to NIT Durgapur.
TV C /1 'C' 11 /'C /1 /	NAME O ADDDESS OF THE V. 1 /M. C.

We, further specifically certify that our NAME & ADDRESS OF THE Vendor/ Manufacturer organization has not been Black Listed/De / Agent Listed or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking in the last three years. Phone No.: Fax E-mail Contact Person Name Mobile Number TIN Number PAN Number (In case of on-line payment of Tender Fees) UTR No. (For Tender Fee) (In case of on-line payment of EMD) UTR

No. (Fo	or EMD)				
(Signat	ture of the Tenderer with date)				
Name:					
Seal of	the Company				
			ANNEXURE-	III	
	LIST OF GOVT	. ORGANIZATION/DE	PTT		
List of	Government Organizations for who	m the Bidder has undertaken si	ich work during last		
2150 01	_		den work daring last		
Sl. No.	Name of the organization with addre	Name of Contact Person	Contact No.		
110.					
Name	of application specialist / Service Eng	gineer who have the technical co	ompetency to handle		
C1					
Sl. No.	Name of the organization with addre	Name of Contact Person	Contact No.		
Signati	ure of Bidder with date				
Name:		ANNEXURE-III  LIST OF GOVT. ORGANIZATION/DEPTT  Inment Organizations for whom the Bidder has undertaken such work during last three years (must be supported with work orders)  to of the organization with address			
Design	ation:				
Organi	ization Name:				
Contact No.:					
E-mail	Id:				

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# **SUBMISSION OF BID**

The Online bids (complete in all respect) must be uploaded online in **two** Envelopes as explained below:

<b>Envelope</b> − <b>1</b> (Following documents to be provided as single PDF file)						
Sl. No.	Documents	Content	File Types			
1	TECHNICAL	Compliance Sheet as per Annexure - I	.PDF			
2	BID	Organization Declaration Sheet as per Annexure - II	.PDF			
3		List of organizations/ clients where the same products .PDF				
		have been supplied (in last two years) along with their				
		Contact number(s). (Annexure-III)				
4		Technical supporting documents in support of all claims	.PDF			
Envelope – 2						
Sl. No.	TYPES	Content	File Types			
1	Financial Bid	Price bid should be submitted in .xls format	.xls			