BIDDING DOCUMENTS



PROCUREMENT OF IT EQUIPMENT

(IT-01/2021-22)

Punjab Thermal Power (Pvt.) Limited

Ground Floor, 7/C-1, Gulberg-III, Lahore Phone No.: 042-35711278-80 Fax No.: 042-3570939



Ground Floor, 7-C-1, Gulberg III, Lahore.

Invitation to Bid

PUNJAB THERMAL POWER (PRIVATE) LIMITED "IT Equipment"

Punjab Thermal Power (Private) Limited ("PTPL") hereby invites sealed bids from eligible bidders for supplies at its head office in Lahore as detailed below vide Tender/ Bidding Document No. (IT-01/2021-22)

Sr#	Item No.	Description of Item	Quantity
		Category 1	
1	C-1.1	Laptops (Type-2) i7	28 Nos.
2	C-1.2	Laptops (Type-3) i5	17 Nos.
3	C-1.3	LED 27" Monitor	12 Nos
4	C-1.4	Wireless Keyboard/Mouse (Combo)	12 Nos
		Category 2	
1	C-2.1	Video Conferencing System	02 Nos.
2	C-2.2	Video Conferencing extinction mic (Pairs)	03 Nos.
3	C-2.3	Conferencing Speakerphone (Integration)	01 Nos.
4	C-2.4	Projector	01 Nos.
5	C-2.5	Video Wall	02 Nos.
		Category 3	
1	C-3.1	Printers A4 – Laser Black	02 Nos.
2	C-3.2	Printers A4 – Laser Color	01 Nos.
3	C-3.3	Printers A4 – Laser Black	02 Nos.
4	C-3.4	Photocopier	01 Nos.
5	C-3.5	Original Toner, HP LJ M611dn 25 N	
6	C-3.6	Original Toner (Set of 4) 655A, HP M653	05 Nos.
7	C-3.7	Original Toner HP LaserJet Pro M404dn 05 I	
8	C-3.8	Original Toner (Set of 4) Color LJ M651 03	
9	C-3.9	Original Transfer Kit - Color LJ M651	01 Nos.
10	C-3.10	Original Fuser Kit – Color LJ M651	01 Nos.
11	C-3.11	Original Toner Cartridge TK-6329 for Kyocera	10 Nos.
12	C-3.12	Original Toner: T-3008 (Toshiba e-50008)	10 Nos.
	•	Category 4	•
1	C-4.1	Document Scanner A3 + A4	01 Nos.
2	C-4.2	Fast Document Scanner A4	01 Nos.
3	C-4.3	Document Scanner A4	01 Nos.
		Category 5	•
1	C-5.1	Server	02 Nos.
2	C-5.2	Network Access Points	04 Nos.
3	C-5.3	Network Switches	02 Nos.

Sealed bids are invited from eligible bidders registered with the income tax and sales tax departments / relevant authorities and who are authorized distributor/dealer of the items mentioned above.

Interested bidders may download the Bidding Documents available on the website of Public Procurement Regulatory Authority (PPRA) i.e., https://www.ppra.punjab.gov.pk and website of PTPL i.e. https://www.punjabthermal.com

Bidding Documents can also be obtained upon payment of a non-refundable fee of **Rs. 500**/- from the address given below during office hours, immediately after the publication of this advertisement.

Single Stage Two Envelope procurement procedure as per Punjab Procurement Rules, 2014 will be followed for item wise procurement of above-mentioned IT equipment.

Bid Validity period will be 120 days.

All bids must be accompanied by:

- (i) A Bid Security which is clearly defined in bidding document against each item i.e., within 5% of the estimated price in the shape of CDR / Bank Guarantee in favor of PTPL.
- (ii) Active NTN & GST Certificate of FBR or other relevant Authorities such as PRA, etc.
- (iii) A certificate/undertaking on stamp paper of relevant value that the Bidder or its firm/company is never blacklisted by any Government or Semi-Government Department (i.e. PPRA, FBR, PRA, etc.).
- (iv) Bids should also be accompanied by documentary proof of authorized distributor / dealer of original manufacturer, otherwise the bids shall be rejected.
- (v) Other documentary requirements mentioned in the Bidding Documents/TORs.

Bids must be delivered at the address given below on or before 28th, February 2022 till 03:00 PM. Bids will be opened on the same date at 03:30 PM in the presence of bidders' representatives who choose to attend at the address given below. Late bids will be rejected and returned unopened to bidders.

Manager Administration			
PUNJAB THERMAL POWER (PVT.) LIMITED			
Ground Floor, 7-C-1, Gulberg III, Lahore.	Phone Number: +92 42 35711278-80		

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Ground Floor, 7-C-1, Gulberg III, Lahore.

TENDER DOCUMENTS FOR PROCUREMENT OF "IT EQUIPMENT (IT-01/2021-22)" FOR PUNJAB THERMAL POWER (PRIVATE) LIMITED (PTPL)

INVITATION TO THE TENDER

1. Required Items

Punjab Thermal Power (Pvt.) Limited (PTPL) hereby initiates the procurement process in line with the provisions of Punjab Procurement Rules 2014 (PPRA Rules) for Item wise procurement of following IT Equipment. The requisite Items along with estimated prices and categorization are mentioned in the **Table 1** hereunder:

Table 1

Sr #	Item No.	Description of Item	Quantity	Estimated Cost in PKR		
	Category 1					
1	C-1.1	Laptops (Type-2) i7	28 Nos.	9,052,736/-		
2	C-1.2	Laptops (Type-3) i5	17 Nos.	4,712,400/-		
3	C-1.3	LED 27" Monitor	12 Nos	728,640/-		
4	C-1.4	Wireless Keyboard/Mouse (Combo)	12 Nos	122,496/-		
		Category 2				
1	C-2.1	Video Conferencing System	02 Nos.	596,700/-		
2	C-2.2	Video Conferencing extinction mic (Pairs)	03 Nos.	320,580/-		
3	C-2.3	Conferencing Speakerphone (Integration)	01 Nos.	111,150/-		
4	C-2.4	Projector	01 Nos.	345,150/-		
5	C-2.5	Video Wall	02 Nos.	5,618,582/-		
		Category 3				
1	C-3.1	Printers A4 – Laser Black	02 Nos.	618,930/-		
2	C-3.2	Printers A4 – Laser Color	01 Nos.	605,475/-		
3	C-3.3	Printers A4 – Laser Black	02 Nos.	187,200/-		
4	C-3.4	Photocopier	01 Nos.	625,000/-		
5	C-3.5	Original Toner, HP LJ M611dn	25 Nos.	1,056,218/-		
6	C-3.6	Original Toner (Set of 4) 655A, HP M653	05 Nos.	1,134,929/-		
7	C-3.7	Original Toner HP LaserJet Pro M404dn	05 Nos.	172,520/-		
8	C-3.8	Original Toner (Set of 4) Color LJ M651	03 Nos.	954,632/-		
9	C-3.9	Original Transfer Kit - Color LJ M651	01 Nos.	66,602/-		
10	C-3.10	Original Fuser Kit – Color LJ M651	01 Nos.	55,838/-		
11	C-3.11	Original Toner Cartridge TK-6329 for Kyocera	10 Nos.	260,000/-		
12	C-3.12	Original Toner: T-3008 (Toshiba e-50008)	10 Nos.	314,000/-		
	Category 4					
1	C-4.1	Document Scanner A3 + A4	01 Nos.	750,000/-		
2	C-4.2	Fast Document Scanner A4	01 Nos.	700,000/-		
3	C-4.3	Document Scanner A4	01 Nos.	185,000/-		
	Category 5					
1	C-5.1	Server	02 Nos.	4,100,096/-		
2	C-5.2	Network Access Points	04 Nos.	439,892/-		
3	C-5.3	Network Switches	02 Nos.	537,611/-		

All quantities of the items are described in the Table 1, whereas PTPL shall have the right, at its exclusive discretion, to increase/decrease the quantity of any or all Item(s) without any change in unit price and/or other terms and conditions at the time of order placement. The detailed descriptions/specifications of the above Items are at **Annex-A**.

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2. <u>Eligible Bidders</u>

- i. Bidders who are active taxpayers and have NTN & GST certificates shall be eligible to participate in this bidding process. As a proof of being an active taxpayer, copy of Active Taxpayer List (ATL) showing name and details of the bidder must also be furnished by the bidders.
- ii. Only those Bidders can participate who are working as authorized distributors, resellers, or dealers of manufacture(s) for the items prescribed shall be eligible to submit their bid; and Bidders must attach relevant documentary proofs in this regard, otherwise, bids will not be entertained.
- iii. Bidders should not be under a declaration of ineligibility for corrupt and fraudulent practices issued by any Government (Federal, Provincial), a local body or a public sector organization or have been or being disqualified or blacklisted or is involved in litigation.
- iv. An undertaking on a stamp paper duly attested by the Oath Commissioner of the relevant value that the Bidder has never been blacklisted by any Government Department, PPRA, FBR or any other procuring agency, shall also be submitted with the Bid.

3. Bid Security

Each bidder shall submit Bid Security in the form of a Bank Gaurantee / Call Deposit Receipt (CDR) in favor of "Punjab Thermal Power (Pvt.) Limited" as per the amount mentioned in last column of the below table. The Bid Security instrument must be submitted along with the Technical Proposal.

Sr	Item	Description of Item	Quantity	Bid Security within 5 %
#	No.	1	Quantity	of the Estimated Price
		Category 1		
1	C-1.1	Laptops (Type-2) i7	28 Nos.	271,582/-
2	C-1.2	Laptops (Type-3) i5	17 Nos.	141,372/-
3	C-1.3	LED 27" Monitor	12 Nos	21,859/-
4	C-1.4	Wireless Keyboard/Mouse (Combo)	12 Nos	3,674/-
		Category 2		
1	C-2.1	Video Conferencing System	02 Nos.	17,901/-
2	C-2.2	Video Conferencing extinction mic (Pairs)	03 Nos.	9,617/-
3	C-2.3	Conferencing Speakerphone (Integration)	01 No.	3,334/-
4	C-2.4	Projector	01 No.	10,354/-
5	C-2.5	Video Wall	02 No.	168,557/-
		Category 3		
1	C-3.1	Printers A4 – Laser Black	02 Nos.	18,567/-
2	C-3.2	Printers A4 – Laser Color	01 No.	18,164/-
3	C-3.3	Printers A4 – Laser Black	02 Nos.	5,616/-
4	C-3.4	Photocopier	01 No.	18,750/-
5	C-3.5	Original Toner, HP LJ M611dn	25 Nos.	31,686/-
6	C-3.6	Original Toner (Set of 4) 655A, HP M653	05 Nos.	34,047/-
7	C-3.7	Original Toner HP LaserJet Pro M404dn	05 Nos.	5,175/-
8	C-3.8	Original Toner (Set of 4) Color LJ M651	03 Nos.	28,638/-



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9	C-3.9	Original Transfer Kit - Color LJ M651	01 No.	1,998/-		
10	C-3.10	Original Fuser Kit – Color LJ M651	01 No.	1,675/-		
11	C-3.11	Original Toner Cartridge TK-6329 for Kyocera	10 Nos.	7,800/-		
12	C-3.12	Original Toner: T-3008 (Toshiba e-50008)	10 Nos.	9,420/-		
	Category 4					
1	C-4.1	Document Scanner A3 + A4	01 Nos.	22,500/-		
2	C-4.2	Fast Document Scanner A4	01 Nos.	21,000/-		
3	C-4.3	Document Scanner A4	01 Nos.	5,550/-		
	Category 5					
1	C-5.1	Server	02 Nos.	123,002/-		
2	C-5.2	Network Access Points	04 Nos.	13,196/-		
3	C-5.3	Network Switches	02 Nos.	16,128/-		

4. <u>Procurement Procedure</u>

- i. The procurement procedure for each Item shall be **Single Stage Two Envelope** as per Rule 38(2)(a) of the PPRA Rules. The Bid shall be a single package consisting of two separate envelopes, containing separately the Technical Proposal and the Financial Proposal. A bidder may bid for one, several or all of the Items.
- ii. Interested bidders may participate in open competitive bidding process for one, several or all items from any or all categories. However, the successful bidder will be selected by evaluating technical and financial bids for each Item separately.

5. Bid Submission

- i. The Technical Proposal envelope of a bidder must include one complete set of all documents required for technical evaluation of the Items he is competing for; along with duly filled form for Technical Proposal in the prescribed format given in the bidding document, along with the Technical Conformity undertaking for each item given at FORM-B.
- ii. The Financial Proposal envelope of a bid must contain duly filled form of Financial Proposal for each Item he is competing for, in the prescribed format given at FORM-C.
- iii. Envelopes are required to be clearly marked as "Technical Proposal" and "Financial Proposal" along with the name of the bidder.
- iv. Bids shall be submitted in Pak Rupees only.
- v. Bids quoted and submitted shall be inclusive of all applicable taxes and levies.
- vi. Bidders shall submit Bid in a sealed envelope on or before the closing date i.e. 28th of February, 2022 at 3:00 PM (Bid Submission Deadline) at the prescribed address of PTPL Head Office. Bids shall be opened publicly by PTPL after 30 minutes of the closing date and time in the presence of the Bidders or their Representatives who may choose to be present.



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vii. The bidders must provide all documents/information required under the Bidding Documents including documents mentioned in the Check List given with the Bidding Documents. The Bid Security must be placed in the envelope for Technical Proposal.

6. Bid Validity

i. Rates quoted in Bids must be valid for at least 120 days from the Bid Submission Deadline.

7. <u>Bid Opening</u>

- i. In the first instance, the "Technical Proposal" shall be opened at the given time and place in the presence of bidders or their representatives who may choose to be present. The envelopes marked as "Financial Proposals" shall be retained unopened in the custody of PTPL. PTPL shall evaluate the Technical Proposals in the manner prescribed in the bidding document, without reference to the price and shall reject any proposal which does not conform to the specified requirements.
- ii. During the technical evaluation, no amendments in the Technical Proposal shall be permitted.

8. Return of Bid Security

i. The Bid Security shall be returned to the unsuccessful bidders after the completion of grievance period i.e., 10 Days after the uploading of Bid Evaluation Report on PPRA website.

9. Evaluation of the Bids

- i. In the first instance, the "Technical Proposal" shall be opened at the given address in the presence of bidders or their representatives who wish to attend.
- ii. Bids of those bidders will be technically qualified and declared as responsive which fulfills the specifications of items and requirements as given in the bidding document.
- iii. After the evaluation of the Technical Proposals, PTPL shall invite Bidders who have submitted Technical Proposals to attend the opening of the Financial Proposal. The date, time, and location of the opening of Financial Proposal will be communicated by PTPL. Bidders shall be given at least a one day notice of the opening of Financial Proposal
- iv. PTPL shall open the Financial Proposals of the technically responsive bids/bidders, publicly at the time, date and venue, so announced.
- v. No downward deviation will be accepted and any such deviation will lead to disqualification/ technically non-responsiveness of the bidder.
- vi. The lowest evaluated technically responsive Bidder(s), on the basis of Itemwise Unit Price (inclusive of applicablel taxes) shall be considered as the Successful Bidder.



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10. Successful Bidder

- i. Upon issuance of Purchase Order(s) by PTPL, the Successful Bidder(s) shall supply the Items as per the Specifications attached with these bidding documents within provided timeframe.
- ii. The Successful Bidder(s) will be responsible for supply of the Items, configuration, installation and complete in all respect as per specifications approved by PTPL.
- iii. The Successful Bidder(s) shall deem to warrant to PTPL that the Goods/Services supplied by the Bidder(s), under the Purchase Order are genuine, brand new, non-refurbished, un-altered in any way.
- iv. The Successful Bidder shall submit valid warranty cards for each Item supplied to PTPL. Warranty of each Item shall must be locally claimable by PTPL. Warranty must be as per the specifications of Items provided and must be verifiable from the manufacturer's resources.
- v. The Successful Bidder will be allowed a maximum of 48 hours' downtime for all components in warranty claim including replacement of whole unit.

11. <u>Performance Security</u>

i. At the time of payment against Invoice, 10% amount shall be withheld as Performance Security for Warranty Period and will be returned after lapse of Item-wise warranty period. The Warranty Period shall start from the date of installation / configuration / deployment of the Items, as required, at PTPL Head Office.

12. Delivery of the Items

- i. The Items shall be required to be provided at the office of PTPL on immediate basis after the award of Purchase Order(s) without any extra cost including transportation, installation etc.
- ii. In case of non-delivery of Items and / or delivery not as per specifications given herein within 45 days after award of Purchase Order, the PTPL shall be entitled to forfeit the Bid Security and terminate the Purchase Order via written notice for termination of the same. However, PTPL may extend the delivery time for the reasons beyond the reasonable control of the Successful Bidder and submission of all the documents in this regard.
- iii. PTPL's representative will inspect the Items within one week of supply. Any discrepancies found during inspection must be removed within 03 working days by the Successful Bidder / Supplier.

13. General Conditions

i. The Bidder should have a registered office in Lahore at the date of submission of Bid. Sufficient local and relevant resources must also be



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available in the said office to cater for all the after-sales support and services.

- ii. PTPL can accept or reject all Bids at any stage as per PPRA Rules.
- iii. All Bids received late, found incomplete, unsigned, ambiguous, conditional or over-written will not be accepted and shall be rejected.
- iv. The scope of this procurement process shall include the supply of the Items, configuration and installation as required and specified in Annex-A.
- v. The end user licenses, end user warranties and end user contracting support services shall be in the name of PTPL, for the Items supplied under the Purchase Order.
- vi. Payments shall be made after the clearance by PTPL's representative who is responsible for inspection of the goods.
- vii. Taxes will be deducted as per applicable Government Rules / Policy.
- viii. Without prejudice to any other rights and remedies available to PTPL, the Performance Guarantee shall be forfeited by the Purchaser, on occurrence of any/all of the following conditions:
 - a. If the Supplier commits a default under the Purchase Order;
 - b. If the Supplier fails to fulfill any of the obligation under the Purchase Order or bidding documents;
 - c. If the Supplier violated any of the terms and conditions of the Purchase Order or bidding documents.

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ANNEX- A SPECIFICATIONS OF IT EQUIPMENT

C-1.1

1- LAPTOPS (Type - 1) QTY 28 PCS

- 1. Processor: Intel® CoreTM i7 1165G7 (4M Cache 4.7 GHz) TPM 2.0 integrated in chipset or above
- 2. RAM: 16GB DDR4, 3200 Minimum Supported RAM 48GB or above
- 3. SSD: 512GB Solid State Drive PCIe NVMe PCIe x4 or above
- 4. Integrated Intel® Iris Xe Graphics or above
- 5. Integrated 720p Camera with Shutter and Mic
- 6. Display: 14" Antiglare Display 250 nits IPS
- 7. Stereo speakers, 2W x2, Dolby® AudioTM, Dual far-field microphones
- 8. Wireless Connectivity: Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- 9. Backlight Keyboard, Fingerprint Reader, TrackPoint pointing device
- 10. Integrated Li-Polymer Battery, 50Wh, 65W AC Adapter USB Type C, Rapid Charge
- 11. Weight: Proposed Model Weight should be less than 1.6kg
- 12. Windows 10 Pro Licensed
- 13. Carrying case original/genuine

14. 3 Years Local Warranty On-Site Backed by OEM

15. Ports: 1x USB 3.2 Gen 1 (Always On), 2x Thunderbolt 4, 1x HDMI 2.0, Headphone/mic combo, MicroSD card reader, Built-in Ethernet (RJ-45). Kensington lock slot

<u>C-1.2</u>

<u>2- LAPTOPS (Type - 2)</u> <u>QTY 17 PCS</u>

- 1. Processor: Intel® CoreTM i5 1135G7 (4M Cache 4.7 GHz) TPM 2.0 integrated in chipset or above
- 2. RAM: 16GB DDR4, 3200 Minimum Supported RAM 48GB or above
- 3. SSD: 512GB Solid State Drive PCIe NVMe PCIe x4 or above
- 4. Integrated Intel® Iris Xe Graphics or above
- 5. Integrated 720p Camera with Shutter and Mic
- 6. Display: 14" Antiglare Display 250 nits IPS
- 7. Stereo speakers, 2W x2, Dolby® AudioTM, Dual far-field microphones
- 8. Wireless Connectivity: Intel Wi-Fi® 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.2
- 9. Backlight Keyboard, Fingerprint Reader, TrackPoint pointing device
- 10. Integrated Li-Polymer Battery, 50Wh, 65W AC Adapter USB Type C, Rapid Charge
- 11. Weight: Proposed Model Weight should be less than 1.6kg
- 12. Windows 10 Pro Licensed
- 13. Carrying case original/genuine

14. 3 Years Local Warranty On-Site Backed by OEM

15. Ports: 1x USB 3.2 Gen 1 (Always On), 2x Thunderbolt 4, 1x HDMI 2.0, Headphone/mic combo, MicroSD card reader, Built-in Ethernet (RJ-45). Kensington lock slot

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C-1.3

Anel Size: 27 inches
 Resolution: 1920 x 1080

3. Panel Type: In-Plane Switching

4. Backlight: WLED
5. Aspect Ratio: 16:9
6. AMD Free SyncTM: Yes

7. Response Time (gray to gray): 4ms(extreme mode) 6ms(normal mode)

8. Contrast Ratio (typical): 1000:1

9. Dynamic Contrast Ratio (typical): 3M:1

10. Connectivity: 1VGA, 1HDMI 1.4 or above 1 Audio Out,

11. Refresh Rate 75Hz

12. Viewing Angle (H x V) $178^{\circ}/178^{\circ}$

13. Color Gamut 72% NTSC

14. Color Support 16.7M

15. Anti-Glare Yes

16. Stand: Tilt Angle $(-5^{\circ}/22^{\circ})$

17. VESA Mount Capability: 100 x 100mm

18. TÜV Eye Comfort: Yes

19. Hydraulic / Black will be preferred

20. HDMI Cable / Power Cable and along with all accessories

21. Same Brand as above C-1.2 or better quality will be preferred

22. Warranty: One year or above

C-1.4

4 - Wireless Keyboard/Mouse

QTY 12 PCS

- 1. 2 in 1 Convenience: plug and play micro wireless receiver easily connects both keyboard and mouse (combo)
- 2. 2-year battery life with LED indicators
- 3. The keyboard has a Full-size 3-zone layout
- 4. One-touch dedicated media controls
- 5. Adjustable tilt legs and Spill-resistant design
- 6. Mouse has an efficient laser sensor for precision tracking,
- 7. Ambidextrous five-button design for both left and right-hand comfort,
- 8. 4-way scrolling through spreadsheets and documents
- 9. Color Black will be preferable
- 10. Same Brand as above C-1.2 or better quality will be preferable
- 11. Along with all stander accessories
- 12. Warranty: One year or above

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C-2.1

1 - VIDEO CONFERENCING SYSTEM QTY 02 PCS

CAMERA:

- 1. Resolution: (16:9) 1920 x 1080
- 2. Smart-Frame for automatic FOV adjustment to fit all participants
- 3. Innovative Preset Framing: Follow presenter based on preset areas
- 4. True WDR up to 120dB: Superb backlight compensation technology for optimizing light balance in high-contrast conditions
- 5. 18X total zoom (12X optical zoom)
- 6. Field of view(D/H/V) 84.5°/76°/48°
- 7. Pan: $\pm 170^{\circ}$ Tilt: $+90^{\circ}$ (up) -30° (down)
- 8. 10 camera presets (via remote control)
- 9. 3.1 Gen 1 Type-B, backward compatible with USB 2.0
- 10. Lens focal length: 3.9mm (wide) ~ 47.3mm(tele)
- 11. Lens F#: 1.8 (wide) ~ 2.8 (tele)
- 12. Mirror, Flip, AE, white balance: auto, manual
- 13. Minimum focus distance: 1.5m

REMOTE CONTROL

- 1. Camera, speakerphone, and call control
- 2. 5 camera presets
- 3. IR 8.5 m/28-foot range

SPEAKERPHONE

- 1. Full-duplex performance
- 2. Bridge phone-in and USB into one call
- 3. Noise reduction technology
- 4. Ultra-wideband audio Full duplex microphone array with echo cancellation
- 5. Speaker: 6W, Adjustable to 90dB SPL at 0.5 m
- 6. Touch controls for volume down/up, mute, phone input, call, and hang-up

CABLES / POWER

- 1. Under-table mounting adhesive
- 2. One cable to camera: 5 m / 16 ft
- 3. One cable to speakerphone: 5 m /16 ft
- 4. One USB cable for connection to PC/Mac 2 m
- 5. AC Power adapter with UK plugs
- 6. Power cable and power adapter

MOUNT

1. Dual-purpose bracket works for both wall mounting and tabletop elevation

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COMPATIBILITY AND CERTIFICATIONS

- 2. Plug-and-play USB connectivity
- 3. Certified for Skype for Business and ready for Teams
- 4. Zoom Certified
- 5. Fuze Certified
- 6. Compatible with Google Meet
- 7. Intel® UniteTM, RingCentral, BlueJeans, V-Cube, LiveOn, CyberLink U Meeting®,

Warranty: One year or above

C-2.2

2 - Video Conferencing Expansion Microphone (Pairs)

QTY 03 PAIRS

MICROPHONES

- 1. Pickup range with 360° at up to 15'
- 2. Frequency response: 100Hz 11KHz
- 3. Sensitivity: -28dB +/-3dB
- 4. Distortion: <5% from 200H
- 5. A 16.4' Cat 6 speakerphone cable is included.
- 6. Pick up voice within 360° at up to 15', giving you configuration flexibility regardless of your room design or seating arrangements in meeting rooms and classrooms.
- 7. Integration with existing equipment
- 8. Warranty: One year or above

C-2.3

3 - Conferencing Speakerphone integration

QTY 01 PCS

- 1. Full-duplex microphone array with echo cancellation
- 2. Advanced noise suppression
- 3. Dual-omnidirectional microphone array, Speaker: 6W, Adjustable to 90dB SPL at 0.5 m
- 4. Touch controls for volume down/up, mute,
- 5. Integration with existing equipment.
- 6. Microphone sensitivity: -32± 2 dBV @1KHz, 94dBSPL
- 7. Microphone support range: Diameter 6M
- 8. Speaker Sensitivity: $81 \pm 2 dBSPL@1W/1m$
- 9. Warranty: One year or above

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C-2.4

4 - Projector QTY 01 PCS

- 1. 3LCD Technology,
- 2. Output 4,400 lumen or higher
- 3. Resolution XGA, 1024 x 768, 4:3 Contrast Ratio 15,000 : 1, Lamp, 5,500 h durability, 12,000 h durability (economy mode) or higher
- 4. Keystone Correction Auto vertical: $\pm 30^{\circ}$, Manual horizontal $\pm 30^{\circ}$
- 5. Color Reproduction Up to 1.07 billion colors
- 6. Projection Ratio 1.38 2.24:1
- 7. Zoom Manual, Factor: 1.6
- 8. Image Size 30 inches 300 inches
- 9. Projection Distance Wide/Tele 1.69m 2.75m (60-inch screen)
- 10. Projection Lens F Number 1.51 1.99
- 11. Focal Distance 18.2mm 29.2 mm
- 12. Focus Manual/auto will prefer
- 13. Offset 8.6: 1
- 14. USB Display Function 2 in 1: Image / Mouse
- 15. Interfaces VGA in (2x), HDMI in (2x), Composite in, MHL, USB 2.0 Type A, USB 2.0 Type B, RS-232C, Ethernet interface (100 Base-TX / 10 Base-T), Wireless LAN IEEE 802.11b/g/n original dongle, VGA out, Stereo mini-jack audio out, Stereo mini-jack audio in (2x), Cinch audio in
- 16. Security Kensington lock, Security cable hole, Wireless LAN unit lock, Password protection
- 17. AV mute slide, Automatic keystone correction, Built-in speaker, Horizontal and vertical, keystone correction, Long lamp life, MHL audio/video interface, Quick Corner, Split-Screen-Function
- 18. Blackboard, Cinema, Dynamic, Presentation, sRGB
- 19. Noise Level Normal: 37 dB (A) Economy: 28 dB (A) or batter
- 20. Projector Management Software
- 21. Loudspeaker 16 W or higher
- 22. Warranty: One year or above



Ground Floor, 7-C-1, Gulberg III, Lahore.

<u>C-2.5</u>

5 - Video Wall

QTY 02

SN	Description for 01 Unit	Qty.
1	55-inch 3.5mm LCD Display Unit,1080P,500cd/m², bezel width: 3.5mm, Input: VGA/DVI/DP/HDMI, output: DP/HDMI, support 4K input and loop up to 30 screens with HDMI/DP interface, support VESA. AV Input: HDMI × 1, DVI × 1, VGA × 1, DP× 1, USB × 1 AV Output: DP × 1, HDMI× 1 Power Consumption =< 187 W	4
2	Front-maintenance Wall-mounted Bracket, Suitable for 55" LCD models. Sold Steel Structure Cold-rolled steel plate (SPCC)	4
3	Adopting the structure of main control board plus input and output board, and supporting mixed insertion of input and output boards, supports displaying multiple dynamic images on multiple display terminals at the same time. A signal source can be displayed on the $M \times N$ ($M \ge 1$, $N \ge 1$) display units. Multiple signal sources are supported, including VGA, DVI, HDMI, DP and IP. Supports $4K@60$ Hz input, transmission and output.	1
4	4 x HDMI output board: each board supports 4 x HDMI and 444 output. Supports HDMI video composite output. Supported output resolution: 1920*1200@60Hz, 1600*1200@60Hz, 1920×1080@60Hz, 1680×1050@60Hz, 1280×720@60Hz, 1280×1024@60Hz, 1024×768@60Hz Supports LED screen and custom resolution output.	1
5	A signal source can be displayed on the $M \times N$ ($M \ge 1$, $N \ge 1$) display units Multiple signal sources are supported, including VGA, DVI, HDMI, SDI, YpbPr, DP, HDBaseT. Up to $3840 \times 2160@30$ Hz resolution is supported for HDMI, DP and HDBaseT signal inputs. Distributed network signal sources configurable to raise the signal source capacity and transmission distance Live view in the roaming window and live view list Bus Type: 10 Gigabit network switching Warranty One year or above Complete installation at the required places	1



Ground Floor, 7-C-1, Gulberg III, Lahore.

C-3.1

1 - PRINTER LASER JET BLACK AND WHITE

QTY 02 PCS

Print speed: 65 ppm
Printer page yield: Black
First page out (ready) black: 5.0 sec

• Resolution (black): 1200 x 1200 dpi

• Resolution technology: Normal FastRes 1200; Fine Lines (1200 x 1200 dpi),

Quickveiw (300 x 300 dpi), Economode (600 x

600 dpi)

Monthly duty cycle: 275,000 pages

Monthly page volume: 25000Print Technology: Laser

• Display: 4.3-in (10.92 cm) Color Graphics Display (CGD)

Processor speed: 1.2 GHzNumber of print cartridges: 1 (black)

• Print languages: PCL 6, PCL 5, postscript level 3 emulation, native

PDF printing(v 1.7), Apple AirPrintTM

• Paper trays: 2

Mobile Printing Capability: ePrint; Apple AirPrintTM; Google Cloud PrintTM;
 MopriaTM Certified; ROAM optional for easy printing

•

- Windows OS (32/64 bit), Mobile OS-, iOS, Android, MacOS, PCL6 Printer, Driver, PS Printer Drivers
- Memory: 1.5 GB
- Supported network protocols: TCP/IP, IPv4, IPv6; Print: TCP-IP port 9100 Direct Mode, LPD (raw queue support only), Web Services Printing, IPP 2.0, Apple AirPrintTM, ePrint, FTP Print, Google Cloud Print; DISCOVERY: SLP, Bonjour, Web Services Discovery; IP CONFIG: IPv4 (BootP, DHCP, AutoIP, Manual, TFTP Config, ARP-Ping), IPv6 (Stateless Link-Local and via Router, Statefull via DHCPv6); Management: SNMPv2/v3, HTTP/HTTPs, Telnet, TFTP Config, FTP FW Download, Syslog; Security: SNMPv3, SSL Cert Management, Firewall,
- ACL, 802.1x
- Hard disk Support
- Paper handling input: 100-sheet multipurpose feeder, 550-sheet input feeder
- Paper handling output: 500 sheet output bin
- Duplex printing: Automatic (standard)
- Media sizes supported: 100-sheet multipurpose
- Tray 1: A4, A5, A6, RA4, B5 (JIS), B6 (JIS), 10 x 15 cm, Oficio (216 x 340), 16K (195 x 270), 16K (184 x 260), 16K (197 x 273), Postcard (JIS), Dpostcard (JIS), Envelope: B5, C5, C6, DL; 550- sheet input

•

- Tray 2: A4, A5, A6, RA4, B5 (JIS), B6 (JIS), 10 x 15 cm, Oficio (216 x 340), 16K (195 x 270), 16K (184 x 260), 16K (197 x 273), Postcard (JIS),
- Dpostcard (JIS); 550-sheet optional feeder: A4, A5, A6, RA4, B5 (JIS), B6 (JIS), 10 x 15 cm, Oficio (216 x 340), 16K (195 x 270), 16K (184 x 260), 16K (197 x



Ground Floor, 7-C-1, Gulberg III, Lahore.

273), Postcard (JIS), Dpostcard (JIS); 2000-sheet optional HCI: A4; 75-sheet optional envelope feeder: B5, C5, C6, DL

- Power consumption: 821 watts (printing), 14.98 watts (ready), 4.28 watts (sleep), < 0.1 watts (Auto Off/Manual On), < 0.1 watts (Manual Off)
- Energy efficiency: ENERGY STAR® qualified
- Warranty: One Year or above

<u>C-3.2</u>

2 - PRINTER LASER JET COLOR QTY 01 PCS

Print speed: 60 ppm

Printer page yield: Color ISO/IEC 19752

First page out (ready) black: 5.7 sec First page out (ready) color: 5.7 sec

Resolution (black): 1200 x 1200 dpi **Resolution (color):** 1200 x 1200 dpi **Monthly duty cycle:** 120,000 pages

Monthly page volume: 17,000 Print Technology: Laser

Display: 4.3-in (10.92 cm) Color Graphics Display (CGD)

with touchscreen. rotating (adjustable angle)

Processor speed: 1.2 GHz

Number of print cartridges: 4 (1 each black, cyan, magenta, yellow)

Print languages: PCL 6; PCL 5c; postscript level 3 emulation, native

PDF printing (v 1.7), URF (AirPrint)

Automatic paper sensor: Yes **Paper trays:** 2

Mobile Printing Capability: ePrint; Apple AirPrintTM; Mopria-certified **Compatible operating systems:** Android, Linux, UNIX, Windows 32- & 64-bit

Memory: 3 GB

Supported network protocols: TCP/IP, IPv4, IPv6; Print: TCP-IP port 9100 Direct

Mode, LPD (raw queue support only), Web Services Printing, IPP 2.0, Apple AirPrintTM, ePrint, FTP Print, Google Cloud Print; Discovery: SLP, Bonjour, Web Services Discovery; IP Config: IPv4 (BootP, DHCP, AutoIP, Manual, TFTP Config, ARP-Ping), IPv6 (Stateless Link-Local and via Router, Statefull via DHCPv6); Management: SNMPv2/v3, HTTP/HTTPs, Telnet, TFTP Config, FTP FW Download, Syslog; Security: SNMPv3, SL

Cert Management, Firewall, ACL, 802.1x

Hard disk Support

Paper handling input: 100-sheet multi-purpose tray, 550-sheet input tray 2

Paper handling output: 500-sheet output bin Duplex printing: Automatic (standard)

Media sizes supported: Tray 1: A4, A5, A6, RA4, B5, B6, 16k, 10 x 15 cm,

Oficio,postcards (JIS single and double) envelopes (DL, C5, B5, C6); Tray 2: A4, A5, A6, RA4, B5, B6,

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Ground Floor, 7-C-1, Gulberg III, Lahore.

10 x 15 cm, Oficio, 16k, Dpostcard; Optional 550-sheet trays 3,4, 5: A4, A5, A6, RA4, B5, B6, 10 x 15 cm, Oficio, 16k, Dpostcard; Optional 2,000-sheet

high-capacity Tray 4: A4

Power consumption: 780 watts (printing), 31 watts (ready), 0.7 watts

(sleep), 0.7 watts (Auto Off/Manual On), 0.1 (Manual Off)• Energy efficiency: ENERGY

STAR® qualified

Warranty: One Year or above

<u>C-3.3</u>

3 - PRINTER LASER JET BLACK AND WHITE

QTY 02 PCS

Print speed: 40 ppm (default), 42 ppm (High Speed)

First page out: (ready) black: 6.1 sec

Resolution (black): Fine Lines (1200 x 1200 dpi)

Monthly duty cycle: 80,000 pages

Monthly page volume: 4000 Print Technology: Laser

Display: 2-line backlit LCD graphic display

Processor speed: 1200 MHz

Number of print cartridges: 1 (black)

Print languages: PCL 6, postscript level 3 emulation, PDF, URF, PWG

Raster

Paper trays: 2

Mobile Printing Capability: ePrint; Apple AirPrintTM; Google Cloud PrintTM;

Mobile Apps; MopriaTM Certified; ROAM capable for easy

printing

Connectivity: 1 Hi-Speed USB 2.0; 1 host USB at rear side; Gigabit

Ethernet10/100/1000BASE-T network; 802.3az(EEE)

Compatible operating systems: Windows, MacOS, UPD PCL6 / PS Printer Drivers,

Supported Operating systems,

Memory: 256 MB

Supported network protocols: TCP/IP, IPv4, IPv6; Print: TCP-IP port 9100 Direct

Warranty One year or above

THE WALL FOWER ITS

PUNJAB THERMAL POWER (PVT.) LTD.

Ground Floor, 7-C-1, Gulberg III, Lahore.

<u>C-3.4</u>

4 - PHOTOCOPIER QTY 01 PCS

- 1. Requirements: STANDARD NETWORK + MOBILE + PRINTING + COPY + PRINT + COLOR SCAN
- 2. Speed: 50 Pages Per minute or above
- 3. Scanning: (A4) 300dpi Dual Scan Document Feeder DSDF; Simplex 100/100 ipm; Duplex 180/180 ipm
- 4. General Type: Monochrome multifunction for A3 format
- 5. Memory: 4GB, 8 GB SSD + 320 HDD or above
- 6. Time to first copy: Approx. 3.7 second or less
- 7. Resolution: 600 x 600 dpi: 4800x 1200; 1200 x1200 dpi
- 8. Drum life: 550,000 copies or above
- 9. Developer Life: 550,000 copies or above
- 10. Paper Supply: Dual 500 Sheets, 150 Sheets MPT, and Auto selection/Switching
- 11. Duplex unit: Duplex as Standard
- 12. Paper Size: Min A5 to A3 or above
- 13. Document Feeder: Yes, One-path duplex scanning and copying for minimum 260 sheets
- 14. Display: Touch screen control panel
- 15. Scan & Print: Direct from USB
- 16. Continues copy: 1-999
- 17. Warranty One year or above

<u>C-3</u>

TONERS/CARTRIDGES

	SN#	Item Description	Qty
C-3.5	5	Original Toner, HP LJ M611dn	25 Nos.
C-3.6	6	Original Toner (Set of 4) 655A, HP M653	05 Nos.
C-3.7	7	Original Toner HP LaserJet Pro M404dn	05 Nos.
C-3.8	8	Original Toner (Set of 4) Color LJ M651	03 Nos.
C-3.9	9	Original Transfer Kit - Color LJ M651	01 Nos.
C-3.10	10	Original Fuser Kit – Color LJ M651	01 Nos.
C-3.11	11	Original Toner Cartridge TK-6329 for Kyocera	10 Nos.
C-3.12	12	Original Toner: T-3008 (Toshiba e-50008)	10 Nos.



Ground Floor, 7-C-1, Gulberg III, Lahore.

$\frac{\text{C-4.1}}{\text{Document Scanner A3 + A4}}$ $\frac{\text{QTY 01 PCS}}{\text{QTS 01 PCS}}$

Warranty One year or above

Throughput Speeds	(Color) 60ppm/120ipm color at 300 dpi Duplex
Imaging Technology	Dual CIS, Grayscale output bit depth is 256 levels (8-bit); color output bit depth is 24 bits (8 x 3) Paper Thickness and Weight Minimum 27 For Thin Documents like Bank Deposit slips & Maximum 433 g/m² For Thick documents like Hard Card educational certificate (7.2–160 lb. cover stock)
ID card thickness:	up to 1.4 mm (0.55 in.
Processor	Embedded Dual Core Cortex A15 Processors (1.5GHz) with Dual DSP (750 MHz) Image Processors with Multiple Cortex M4 Subprocessors.
Operator Control Panel	3.5-inch/89 mm color touch screen LCD
Paper path	Straight Paper Path
Daily duty Cycle	8500 pages per day.
Document Feeding Capacity	Up to 80 sheets of 80 g/m2 (20 lb.) paper Handles small documents such as A8, ID cards, embossed hard cards, and insurance cards (portrait and landscape orientations)
Connectivity	USB 3.1 GEN1, Wireless Network 802.11 b/g/n and 10/100 Ethernet WLAN Security- WEP 64/128 Bit, WPA-PSK, WPA2-PSK, MSCHAPv2, EAP-TLS with Built-in Wifi, Mobile App and LAN.
File Format Outputs	Single and multi-page TIFF, JPEG, RTF, BMP, PDF, searchable PDF, TXT, PNG, CSV, Word and Excel

THE WALL POWER IN

PUNJAB THERMAL POWER (PVT.) LTD.

Ground Floor, 7-C-1, Gulberg III, Lahore.

<u>C-4.2</u>

Fast Document Scanner A4

QTY 01 PCS

Throughput Speeds: 80ppm/160 ipm at 300 dpi in color in portrait Mode
 Operator Control Panel: 6raphical display for instant look on the details of

setting for operator's convince.

3. Flatbed: A4 or higher

4. Image Sensor: Contact Image Sensor/ CCD
5. Paper Path: U-Turn and Straight Paper Path

6. Paper Thickness and Weight: 50–400 g/m²

7. Document Feeding Capacity: 300 to 350 sheets of 80 gsm or Higher8. Connectivity: USB & Ethernet 100/1000 or higher

9. OS Compatibility: Win 10,11

10. File Format Outputs: TIFF, JPEG, RTF, **11. Warranty:** 01 Years or above

Document Scanner A4 OTY 01 PCS

- Color/Black-and-white/grayscale:
- 60 ppm/120 ipm at 200 and 300 dpi, or above
- Dual CIS Technology Grayscale output bit depth is 256 levels (8-bit);
- color output bit depth is 24 bits (8 x 3)& Straight Paper Path,
- Recommended daily volume 9,000 pages per day,
- Operator Control Panel: 3.5- inch/89 mm color touch screen LCD Color Graphical display Customizable profiling,
- profile name customization,
- 0063profile image customization,
- Illumination
- Dual LED Minimum Document Size: 2.5x 2.56in Maximum document size 8.5"x14", long documentation mode 3m. Output Resolution 100 / 150 / 200 / 240 / 250 / 300 / 400 / 600 / 1200 dpi.
- Processor: Embedded Dual Core Cortex A15 Processors (1.5GHz) with Dual DSP (750 MHz) Image Processors with Multiple Cortex M4 Subprocessors,
- Automatic Document Feeder 80 sheets (20 lb./80 g/m2) paper;
- handles small documents such as ID cards,
- embossed hard cards, business cards and insurance cards, labels, envelopes,
- insurance, embossed plastic ID,
- Paper Thickness and Weight 27–433 g/m2 (9 to 110 lb.) paper,
- ID card thickness: up to 1.4 mm (0.55 in.)
- Document Sensing Ultrasonic multi-feed detection;
- Intelligent Document Protection, Connectivity USB 3.1 GEN1,
- Wireless Network 802.11 b/g/n and 10/100 Ethernet WLAN Security- WEP 64/128 Bit, WPA-PSK, WPA2-PSK, MSCHAPv2, EAP-TLS, Bundled Software TWAIN, ISIS,



Ground Floor, 7-C-1, Gulberg III, Lahore.

WIA Drivers Alaris Info Input Express Limited Edition, LINUX (TWAIN and SANE) drivers (through web

- Capture Pro Software and Asset Management Software.
- File Format Outputs Single and multi-page TIFF, JPEG, RTF, BMP, PDF,
- searchable PDF, TXT, PNG, CSV, Word and Excel in small file size.
- Supported Operating Systems WINDOWS 7 SP1 (32 Bit and 64 Bit), WINDOWS 8,10 (32 Bit and 64 Bit), WINDOWS Server 2012/2016 X64 Editions, LINUX UBUNTU and SUSE, CITRIX Certified.
- Warranty One year or above

<u>C-5.1</u>

<u>Servers</u> OTY 02 PCS

QTY 02 PCS	
Details	Qty
 1U, Rack Mount Processors: 3rd Gen Single Intel Xeon 2.1GHz or above Processor, 12C, 18M Cache or better 2.5" Chassis with provision of minimum 8 Hot Plug HDD Server should support 10x 2.5" HDDs, SSDs or NVMe drives chassis 64GB (2x 32GB) RDIMM, 3200MT/s, Dual Rank. At least 50% Memory slots must be available for future. Hard Drives 5x 1.2TB Hard Drive SAS 12Gbps 10k 512n 2x 960GB SSD 6Gbps 512 RAID Controller with 4GB Cache should be capable of RAID 0, 1, 5, 6, 10, 50, 60, Maximum drives support without SAS expander: 16 drives per controller Standard Fans Standard Bezel Network Ports: 2x Quad Port 1GbE BASE-T Adapter 2x 1GB Base-T LOM Card Support independent remote management through graphical user interfaces. Users can access the server remotely and take control including SSL encryption, PK authentication, IP blocking, FIPS 140-2, Customizable Security Policy Banner - login page, Power control, Boot control, Power Supply – Memory – CPU – RAID & HD (enclosure) monitoring, Remote agent-free update, Remote OS deployment, Remote configuration, Server Configuration Profile in GUI, Server Configuration Restore, and BIOS Recovery Power Supply: Dual, Hot-plug, Power Supply Fault Tolerant Redundant, 800W or higher Compatible Power Cords/ Connectivity Cables, Sliding Rails with Cable Management Arm, and other standard accessories 3 years 24*7 NBD support + Warranty 	2
	 • 1U, Rack Mount • Processors: 3rd Gen Single Intel Xeon 2.1GHz or above Processor, 12C, 18M Cache or better • 2.5" Chassis with provision of minimum 8 Hot Plug HDD Server should support 10x 2.5" HDDs, SSDs or NVMe drives chassis • 64GB (2x 32GB) RDIMM, 3200MT/s, Dual Rank. At least 50% Memory slots must be available for future. • Hard Drives 5x 1.2TB Hard Drive SAS 12Gbps 10k 512n 2x 960GB SSD 6Gbps 512 • RAID Controller with 4GB Cache should be capable of RAID 0, 1, 5, 6, 10, 50, 60, Maximum drives support without SAS expander: 16 drives per controller • Standard Fans • Standard Bezel • Network Ports: 2x Quad Port 1GbE BASE-T Adapter 2x 1GB Base-T LOM Card • Support independent remote management through graphical user interfaces. Users can access the server remotely and take control including SSL encryption, PK authentication, IP blocking, FIPS 140-2, Customizable Security Policy Banner - login page, Power control, Boot control, Power Supply – Memory – CPU – RAID & HD (enclosure) monitoring, Remote agent-free update, Remote OS deployment, Remote configuration, Server Configuration Profile in GUI, Server Configuration Restore, and BIOS Recovery • Power Supply: Dual, Hot-plug, Power Supply Fault Tolerant Redundant, 800W or higher • Compatible Power Cords/ Connectivity Cables, Sliding Rails with Cable Management Arm, and other standard accessories



Ground Floor, 7-C-1, Gulberg III, Lahore.

<u>C-5.2</u>

Network Access Points OTY 02 PCS

Sr. No	Items / Descriptions	
1	Support dual radio 2x2:2 Spatial streams 802.11ax (Wifi 6) access point.	
2	Support.2.4GHz and 5Ghz with a maximum concurrent data rate of 1.2 Gbps Mbps in the 5GHz band and 574 Mbps in the 2.4GHz band.	
3	Support for up to 255 associated client devices per radio, and up to 16 BSSID per radio.	
4	Support for OFDMA	
5	Support for all Mandatory 802.11ax features	
6	Support dynamic frequency selection (DFS) optimizes the use of available RF spectrum	
7	One x 10/100/1000 Rj45 interface	
8	Operating temperature: 0 degree Celsius to +50 degrees Celsius	
9	Operating humidity: 5% to 93% non-condensing	
10	Support Transmit beamforming	
11	Support airtime fairness	
12	Support for 1024 QAM	
13	Support Advanced Cellular Filtering for co-existence with DAS	
14	Support channel width configure flexibility (20/40/80Mhz)	
15	Wall Mount / Ceiling mount	
16	Ability to use the same AP in a controller based or controller-less deployment	
17	Support Bluetooth Low-Energy (BLE) radio.	
18	CE/FCC compliant	
19	Support deep packet inspection (DPI) engine that provides visibility to over 3000 applications	
20	Support User-role based service/device policy enforcement	
21	Principal warranty software / Hardware 1 year or above	



Ground Floor, 7-C-1, Gulberg III, Lahore.

<u>C-5.3</u>

Network Switches OTY 02 PCS

Sr. No	Items / Descriptions
1	Layer 3 Stackable and programmable switches
2	1G PoE Copper ports - 24 at least
3	10G SFP+ ports: 4 at least
4	PoE: 370W
5	Processor - Quad Core @ 1.8 Ghz or better
6	RAM: 8GB DDR4 or better
7	Flash: 16GB eMMC or better
8	Packet Buffer: 8MB or better
9	Switching Capacity (Not Box/System capacity) must be ≥ 128 Gbps or better
10	Forwarding performance: 95 Mpps
11	Should support stacking of at least 8 switches
12	MAC Address table capacity: 16,000 or better
13	Should support IPv4 and IPv6 dual-stack
14	Should support OSPF/OSPFv3
15	Should support IPv4/IPv6 static routing
16	Should support TACACS+
17	Should support 802.1x, multiuser authentication
18	Should support MAC authentication
19	Should support Radius Change of Authorization (CoA)
20	Should support Voice Vlan
21	Support for STP/RSTP/MSTP/RPVST+
22	Principal warranty software / Hardware 1 year or above



Ground Floor, 7-C-1, Gulberg III, Lahore.

<u>FORM-A</u> <u>MANDATORY REQUIREMENT ELIGIBILITY EVALUATION CRITERIA</u>

	dders shall be required to provide e technical proposal: -	e the following in	formation/documents, which are mandatory along		
1.	CNIC (Copy) of the Authorized Representative of Bidder Firm/Company				
2.	Receipt of purchase of Bidding	Documents			
3.	Bid Security as Bank Guarantee (placed inside the envelope of				
4.	Non-Blacklisting Certificate on	a stamp paper d	uly attested by the Oath Commissioner		
5.	Income Tax Registration Certif	icate			
6.	Sales Tax Registration Certificate				
7.	Manufacture/Supplier/Reseller/Importers/Exporters Certificate (Latest/Valid) in favor of the Bidder				
8.	Bidding Documents attested by	the authorized r	epresentative of the Bidder		
9.	Application/Technical & Financial Proposals on the Letter Head of the Bidder (Company or Firm) with Address, Contact No. etc.				
10.	Letter of Authorization of person	on representing th	ne Bidder		
		Signature:			
		Firm:			
		(Stamp):			
		Address:			
		Witness: Name:			
		Signature:			

Address:



Ground Floor, 7-C-1, Gulberg III, Lahore.

FORM-B

TECHNICAL PROPOSAL Date of Opening: --.-.2022

Specifications Required (by the procuring agency)				Specifications Offered (by the Bidder)		
Category	Sr.	Stores	Specifications	Stores	Specifications	
	1	Laptop (Type-1) i7	As provided in Annex-A to Bidding Documents			
	2	Laptop (Type-2) i5				
1	3	LED 27" Monitor				
	4	Wireless Keyboard/ Mouse (Combo)				
	1	Video Conferencing System				
	2	Video Conferencing Extinction Mic (Pairs)				
2	3	Conferencing Speakerphone Integration				
	4	Projector				
	5	Video Wall				

It is certified that the stores, to be supplied, shall be in	conformity with the	above-mentioned specif	fications
Sig	nature:		
Nan	me:		
Fir	m :		
Stam	ıp:		



Ground Floor, 7-C-1, Gulberg III, Lahore.

FORM-B

TECHNICAL PROPOSAL Date of Opening: --.--.2022

Specifications Required (by the procuring agency)				Specifications Offered (by the Bidder)		
Category		Stores	Specifications	Stores	Specifications	
	1	Printers A4 – Laser Black				
	2	Printers A4 – Laser Color				
	3	Printers A4 – Laser Black				
	4	Toner, HP LJ M611dn				
	5	Toner (Set of 4) 655A, HP M653	As provided in Annex-A to Bidding Documents			
3	6	Toner 107A (W1107A)				
	7	Toner (Set of 4) Color LJ M651				
	8	Transfer Kit - Color LJ M651				
	9	Fuser Kit – Color LJ M651				
	10	Photocopiers				
	11	Toner (Photocopier Toshiba)				
	12	Toner: T-3008 (Photocopier Toshiba)	-			

	(Thotocopici Toshiba)					
It is certified	that the stores, to be supplied, sh	all be in conformity	with	the above-mention	ned specifications	3.
		Signature:	••••			••
		Name:				••
		Firm:				
		Stamp:				



Ground Floor, 7-C-1, Gulberg III, Lahore.

FORM-B

TECHNICAL PROPOSAL Date of Opening: --.--.2022

Specifications Required (by the procuring agency)				Specifications Offered (by the Bidder)		
Lot #	Sr.	Stores	Specifications	Stores	Specifications	
	1	Document Scanner A3 +A4				
4	2	Fast Document Scanner A4				
	3	Document Scanner A4	As provided in Annex-A to Bidding Documents			
5	1	Server				
	2	Network Access Points				
	3	Network Switches				

						1
It is cert	tified tha	at the stores, to be supplied, sh	all be in conformity	with	the above-mentioned	I specifications.
			Signature:	••••		
			Name:			
			Firm:			
			Stamp:			



Ground Floor, 7-C-1, Gulberg III, Lahore.

FORM-C FINANCIAL PROPOSAL

Sr #	Item No.	Description of Item	Quantity	Per Unit Cost in PKR (Inclusive of all Taxes)	Total Cost In PKR (Inclusive of all Taxes)
		Category 1		I	1
1	C-1.1	Laptops (Type-2) i7	28 Nos.		
2	C-1.2	Laptops (Type-3) i5	17 Nos.		
3	C-1.3	LED 27" Monitor	12 Nos		
4	C-1.4	Wireless Keyboard/Mouse (Combo)	12 Nos		
1	C 2.1	Category 2	02 Nos.		
1 2	C-2.1 C-2.2	Video Conferencing System Video Conferencing extinction mic (Pairs)	02 Nos. 03 Nos.		
<u>2</u> 3	C-2.2 C-2.3	Conferencing Speakerphone (Integration)	03 Nos.		
<u>3</u> 4	C-2.3	Projector	01 No.		
5	C-2.5	Video Wall	02 No.		
	0 2.0	Category 3	021101		1
1	C-3.1	Printers A4 – Laser Black	02 Nos.		
2	C-3.2	Printers A4 – Laser Color	01 No.		
3	C-3.3	Printers A4 – Laser Black	02 Nos.		
4	C-3.4	Photocopier	01 No.		
5	C-3.5	Original Toner, HP LJ M611dn	25 Nos.		
6	C-3.6	Original Toner (Set of 4) 655A, HP M653	05 Nos.		
7	C-3.7	Original Toner HP LaserJet Pro M404dn	05 Nos.		
8	C-3.8	Original Toner (Set of 4) Color LJ M651	03 Nos.		
9	C-3.9	Original Transfer Kit - Color LJ M651	01 No.		
10	C-3.10	Original Fuser Kit – Color LJ M651	01 No.		
11	C-3.11	Original Toner Cartridge TK-6329 for Kyocera	10 Nos.		
12	C-3.12	Original Toner: T-3008 (Toshiba e-50008)	10 Nos.		
		Category 4			T
1	C-4.1	Document Scanner A3 + A4	01 Nos.		
2	C-4.2	Fast Document Scanner A4	01 Nos.		
3	C-4.3	Document Scanner A4	01 Nos.		
1	C 5 1	Category 5	02 N		1
1	C-5.1	Server	02 Nos.		
		Network Access Points Network Switches as shall be inclusive of all applicable taxes,			
<u>etw</u>	een Unit	and Total Price, the Unit Price shall be con-		a evaluation.	
		Signat			
		Name	:		