

**TECHNICAL SPECIFICATIONS FOR
PUBLIC ADDRESS SYSTEM FOR BOARD ROOM**

- The bidder shall completely fill the right-hand compliance column of following specifications table and submit it along with the bid as **Statement Of Compliance (SOC)**.
- Each page of submitted “Statement of Compliance” shall be signed and stamped by the bidder.
- The bidder shall submit the manufacturer’s technical literature for each offered item highlighting all the technical and functional aspects covered in following specification/compliance table. All submitted Technical Literature shall be duly signed and stamped by the bidder.

Clause #	REQUIREMENT		COMPLIANCE (Yes /No or Remarks)
1.	<u>The offered package shall include, but not limited to:</u>		
2.	Controller unit with Transceiver Unit or built in transceiver	1-no.	
3.	Chairman Microphone Unit (Operational)	1-nos.	
4.	Chairman Microphone Unit (Cold standby/spare)	1-nos.	
5.	Delegate Unit	14-nos.	
6.	Charging System for Batteries of Wireless Microphones (14-nos)	1-lot	
7.	Wall Mounted Speakers with Amplifier	1-lot.	
8.	UHF Wireless Microphone system with 2 Collar & 2 Hand Held Wireless Microphones	1-no.	
9.	Installation and Commissioning of Complete system along with All Accessories		
SPECIFICATION FOR CONTROLLER UNIT			
10.	System shall Operate on 2.4 GHz (Full Digital Conference Technology) or UHF		
11.	Shall have ultimate support for at least 100-nos. Microphones units		
12.	Shall support Limit Mode: Limit (1/2/3), FIFO Mode: FIFO (1/2/3), Chairman Only		
13.	Should have LCD display for system information		
14.	Shall control all wireless conference functions through controller panel.		
15.	System shall have SNR > 90 dB		
16.	System shall have THD < 0.1%		
17.	Frequency Response 50Hz – 15kHz		
18.	Controller could adjust following functions independently: 5-band EQ, Bass cut, Noise gate		
SPECIFICATION FOR TRANSCIEVER UNIT			
19.	Carrier Frequency 2.4 GHz or UHF		
20.	Shall cover 360 degrees all-round communication.		
21.	System shall cover Operation distance up to 60 meters or better in normal condition.		
22.	Modulation mode : GMSK or better		

SPECIFICATION FOR DELEGATE / CHAIRMAN MICROPHONE UNITS			
23.	Adopts conference technology without interference		
24.	Intelligent detection of Signal Strength, dynamic display of battery power		
25.	Must have strong anti-mobile phone interference ability, not affected by external driving sources		
26.	Limit Mode (1-3), FIFO Mode (1-3)		
27.	Gain Adjustment & Bass cut function for system tuning		
28.	Portable table moving and microphone with gooseneck arm.		
29.	Electric capacity type microphone, equipped with windshield cover		
30.	LCD display microphone ID, battery level, microphone state, control channel, etc.		
31.	Equipped with microphone on/off key and indicator.		
32.	Microphones shall be operated on their built-in rechargeable batteries.		
33.	Battery life approx. 8 hours or better during speech		
34.	Battery life approx. 16 hours or better when standby.		
35.	Transmission method	Wireless	
36.	Microphone Type	Capacitive	
37.	S/N Ratio	≥90dB	
38.	T.H.D.	<0.1%	
39.	Working Distance/ Transmit Angle	360°	
ADDITIONAL SPECIFICATION FOR CHAIRMAN MICROPHONE UNIT			
40.	Chairman Unit shall have following features in addition to features available in Delegate Unit		
41.	Chairman microphone shall turn on any time as master station		
42.	Priority function: chairman shall turn off delegate microphones any time		
43.	Chairman only mode: Delegate microphone cannot be turned on again after chairman microphone press priority button.		
44.	GENERAL FEATURES for Microphone Units		
45.	Power supply	Rechargeable Battery preferably long life Lithium Battery.	
46.	Consumption Rating	<700mW	
47.			
48.	Operating temperature range	0 - 40 degree-C	
49.	Dimensions	Smart Design maximum 205×155mm table area to be covered by single unit	
SPECIFICATION FOR BATTERY CHARGER			
50.	Input Voltage: AC 110V~220V		
51.	Should Charge 16 batteries simultaneously		
52.	Charging time: < 6 Hours		
53.	Charging status: Dual indication for Charging / Full Charge		

SPECIFICATION FOR COLLAR & HAND HELD WIRELESS MICROPHONE UNIT			
System must have UHF wireless with minimum range of 50 meter			
UHF Frequency Range 500-900 MHz			
Frequency Response 50Hz-15KHz			
S/N $\geq$ 55dB			
Single receiver with dual microphones			
Battery status indicator in transmitter			
Working Time 8 Hours or Better			
SPECIFICATION FOR WALL MOUNTED SPEAKERS WITH AMPLIFIER			
54.	Stand-alone System from other OEM/Brand can be offered which shall be fully compatible with offered PA System		
55.	System shall have Independent Amplifier compatible with complete system		
56.	System shall have 04. nos. ceiling-mounted Speakers each at least of 06-Watt output or better.		
57.	Audio Input fully compatible with supplied PA System.		
58.	All the required cabling (Installation and commissioning of speaker system in all 4-corners of conference room and its connectivity with the quoted PA system shall be responsibility of the supplier)		
59.	System shall have protection from overload, short circuit etc.		
60.	Interconnectivity Diagram with PA System shall be submitted with the technical proposal.		
61.	Amplifier Rated Output	120W or Better	
62.	Amplifier Control	Bass, Treble, Master Volume and Microphone inputs	
63.	Amplifier Frequency Response	50Hz-20kHz	
64.	Amplifier S/N ratio	>60 dB	
65.	Amplifier Distortion	<1% @ rated output power, 1 kHz	
66.	Amplifier Power Requirement	220V- 230VAC, 50/60 Hz	
67.	Speaker Rated Power	6W or better	
68.	Ceiling Speaker Sensitivity	90dB or better	
69.	Speaker Frame Material	ABS or better	
POST DELIVERY TESTING, INSTALLATION AND CONFIGURATION OF SYSTEM			
70.	Post-delivery testing, installation, configuration, hands-on operational training of SNGPL Staff at SNGPL Head Office Lahore shall be responsibility of the supplier. All cabling and accessories involve in installation and functioning of Public Address System is responsibility of Supplier.		
71.	01 (one) year Warranty Period shall start from the successful testing of the system.		