



Ministry of Health
Directorate of Biomedical Engineering
Technical Specifications



Item Description:

Automated Clinical Chemistry Analyzer
(Health Centers - High Load)

Quantity (40)

No	Technical Specifications	MIN. MOH Requirement
1	Manufacturer	Please specify manufacturer, country of origin and country of manufacture of the offered equipment
2	Model Number	Please specify model number of the offered equipment
3	Safety Standard	FDA approval or CE marking or EC-IVD
4	Starting Production Year (Hardware)	Not more than 8 years
5	Reference Centers	Please specify reference centers in Jordan and Middle East
6	Configuration	Floor type
7	Application	Random access analyzer
8	Method	Photometric, electrolyte and whole blood
9	Throughput, test / hour	<ul style="list-style-type: none"> Photometric only not less than 300 tests / hour Electrolytes only not less than 200 tests / hour HbA1c only not less than 50 tests / hour
10	Electrolytes Channel	<ul style="list-style-type: none"> Built in Sodium, potassium and chloride Liquid level and air bubbles (foam) detection
11	Measurement Tests	See attached annex 1
12	Sample Compartment	<ul style="list-style-type: none"> Not less than 30 position with continuous loading ability Serum, plasma and whole blood Primary tubes with different tube size STAT functionality required Liquid level and clot detection Sample identifications
13	Reaction Compartment	Reusable reaction cells or cuvettes (please specify replacement period)
14	Reagent Compartment	<ul style="list-style-type: none"> Refrigerated Not less than 30 positions with continuous loading ability Liquid level and air bubbles (foam) detection Reagent identifications
15	Optical Unit	<ul style="list-style-type: none"> Monochromatic and biochromatic modes Multiple wavelengths
16	Auto Wash	<ul style="list-style-type: none"> For Sample / reagent probes Reaction cells or cuvettes
17	Dilution	Auto sample pre-dilution (when needed)
18	Calibration and Quality Control	<ul style="list-style-type: none"> Automated Calibrators / controls identifications
19	Barcode Reader	Must supplied external hand-held barcode reader
20	Control Unit	PC control with screen and original software

No	Technical Specifications	MIN. MOH Requirement
21	Analyzer Software	<ul style="list-style-type: none"> Friendly and easy to use Reagent management (lot number, expiry date, volume level (number of tests), inventory data...) Quality control monitoring Ability to hold abnormal results and if there is QC issue Full control and data processing Administrator (supervisor) password Ability to export results Sample tracking Real time patient result Errors log
22	Alarm System (audible or visual)	<ul style="list-style-type: none"> Hardware failures Reagent expired Reagent low / high temperature Sample / reagent volume level Water level (ready to use wash) Reagent air bubbles (foam) Sample clot
23	Printer	High quality external laser printer, (A4 paper)
24	Uninterruptible Power Supply	Required on-line and minimum enough for 30 minutes
25	RO System with Softener or Ready to use wash reagents	<ul style="list-style-type: none"> Any brands RO system whether international or national (locally) Must be approved by manufacture (official letter from manufacturer) If used ready to use wash reagents must be provided (FOC) for all period of contract
26	Startup	Minimum one kit for all tests for each analyzer and must be provided (FOC) with enough consumables, controls and calibrators
27	Interfaces	<ul style="list-style-type: none"> Bidirectional HIS/LIS interface and must be compatible and connected with Hakeem system USB ports Network interface
28	Power Supply	220 V / 50 Hz