

<b>REQUIRED TECHNICAL SPECIFICATIONS:</b>	<b>PROPOSED TECHNICAL SPECIFICATIONS URIT-8210:</b> <b>Manufacturer: URIT MEDICAL ELECTRONIC (GROUP) CO., Ltd, China</b>	<b>COINCIDING, Reference</b>
<b>GENERAL CHARACTERISTICS:</b>	<b>GENERAL CHARACTERISTICS:</b>	
> 50-70 tests performed simultaneously and min.	330 t/hour, 575 t/hour with ISE.	Yes,
Minimum 3 ion test parameters	Ion test parameters: Fe, Ca, Mg, P, CO2, plus Na, K, Cl	Yes, IFU, page 26
Automatic wash system	Rinsing the inside and outside of aspirating probe with distilled water, and spring type clean the stirrer, washing station of eight-pin-ten-step rinse the cuvettes with detergent, and provides independent path detergent system, separate rinse available among items.	Yes, IFU, page 23
Bidirectional interface	Bidirectional interface	Yes, IFU, page 16
Priority of STAT emergency tests (at any time and in unlimited numbers)	Priority of STAT emergency tests (at any time and in unlimited numbers)	Yes, IFU, page 12, 15, 29
Principle of measuring photometric absorbance, turbidimetry	Principle of measuring photometric absorbance, turbidimetry	Yes, IFU, page 15
Samples used: serum, plasma, urine, CSF	Samples used: serum, plasma, urine, CSF	Yes, IFU, Page 15
The biochemistry analyzer is fully configured	Full-automatic, discrete/optional, STAT priority, with reset function	Yes, IFU, page 15
Methodology: end-point, end-point with blank, fixed-time, kinetic, with one, two, three, four reagents, monochromatic / bichromatic.	Methodology: End point, rate assay(kinetic method), 2-point end point, 2-point rate assay (2-point kinetic method), dual-wavelength, blank method(reagent blank, sample blank and water blank), immune turbidimetry, double reagent, electrode, colorimetric method, sample appearance inspection (serum index, such as jaundice, hemolysis and lipid turbidity, etc.), nonlinear detection, etc.	Yes, IFU, page 15
The analyzer ensures the traceability of reagents, calibrators, controls and run protocols	The analyzer ensures the traceability of reagents, calibrators, controls and run protocols	Yes, IFU, page 15
Programming: open system, defines the profile and calculates chemically	Programming: open system, defines the profile and calculates chemically	Yes, IFU, page 16
<b>List of executed tests:</b>	<b>List of executed tests:</b>	
Hepatic: ALT, AST, ALP, GGT, D Bil, T Bil,	Hepatic: ALT, AST, TP, ALB, TB, DB, ALP, GGT, TBA, CHE, PA, ADA	Yes, IFU, page 232-233

Renal: UREA, CREATE, Microalbumin,	Renal: UREA, CREA, UA, beta2-MG, MALB, Cys-c, CO2, CSF/UTP	Yes, IFU, page 232-233
Electrolytes: K, Na, CO, Cl, Inorganic ions: Ca, Mg, P	Electrolytes: Li, K, Na, Cl, Inorganic ions: Ca, Mg, P, Fe, CO2,	Yes, IFU, page 232-233, 26
Cardiac CK, CK MB, LDH,	Cardiac CK, CK MB, HBDH, LDH, LDH1	Yes, IFU, page 232-233
Lipids: Col TG, HDL-C, LDL-C, APOA 1, APOB, LP (a),	Lipids: TG, CHOL, HDL-, LDL-C, APO A1, APOB, HCRP, LP(a)	Yes, IFU, page 232-233
Lipase or Pancreatic: Alpha AMY, LIP, Pancreatic Amylase, Acid Phosphatase	Lipase or Pancreatic: Alpha AMY, LIP, Pancreatic Amylase, Acid Phosphatase	Yes, IFU, page 232-233
Diabetes: GLU PAP, GLU HK, HbA1 c.	Diabetes: GLU PAP, GLU HK, HbA1 c.	Yes, IFU, page 232-233 HbA1 - can be tested
Rheumatism: CRP, RF, ASO	Rheumatism: CRP, RF, ASO	Yes, IFU, page 232-233
Immune: IgA, IgG, IgM,	Immune: IgA, IgG, IgM, C3, C4	Yes, IFU, page 232-233
Sample positions: + 60-90 positions for primary tubes 5,7,70 ml and sample cups.	Sample positions: 71 sample positions including Detergent, standard, QC, STAT positions	Yes, IFU, page 15-16
Built-in barcode reader for all test positions	Built-in barcode reader for all test positions	Yes, IFU, page 16
Sample volume: 1.5-45 µL from 0.1µl to 0.1µl (mature tubes + pediatric tubes)	Sample volume: 2-100 µl with 0.1µl full increment	Yes, IFU, prospect
Automatic fluid level detection (sample), blood clot detection, alert for haemolyzed, jaundiced and lipemic samples, collision protection, vertical collision detection	Automatic fluid level detection (sample), blood clot detection, alert for haemolyzed, jaundiced and lipemic samples, collision protection, vertical collision detection	Yes, IFU, page 15, 16
Warning about the lack of samples, the on board validity of the samples.	Warning about the lack of samples, the on board validity of the samples.	Yes, IFU, page 16
Continuous loading of samples during the work session	Continuous loading of samples during the work session	Yes, IFU, page 16
Automatic washing of the sample needle, both inside and outside	Automatic washing of the sample needle, both inside and outside	Yes, IFU, page 15
Sample dilution: automatic pre-dilution and post-dilution of samples	Sample dilution: automatic pre-dilution and post-dilution of samples (re-run test and diluted sample).	Yes, IFU, page 113
The dilution of the samples is done in the tank, in case of any abnormality of it - nonlinear samples, insufficient serum,	The dilution of the samples is done in the tank, in case of any abnormality of it - nonlinear samples, insufficient serum, high	Yes, IFU, page 113

high values of concentration, etc.	values of concentration, etc.	
Sample identification: with barcode reader.	Sample identification: with barcode reader (optional)	Yes, IFU, page 15, 27
Warning about the lack of samples, the on board validity of the samples.	Warning about the lack of samples, the on board validity of the samples.	Yes, IFU, page 16
It is allowed to complete the sample volume during the working process	It is allowed to complete the sample volume during the working process	Yes, IFU, page 113
The biochemical analyzer should not require a water treatment station and must be equipped with adapted vessels for H <sub>2</sub> O, wash, wastes.	The biochemical analyzer has a bucket for distilled H <sub>2</sub> O, wash, wastes.	Yes, IFU, page 36, 87
<b>REAGENTS COMPARTMENT:</b>	<b>REAGENTS COMPARTMENT:</b>	
Automatic liquid level detection, automatic calculation of the remaining reagent volume and number of available tests, collision protection.	Automatic liquid level detection, automatic calculation of the remaining reagent volume and number of available tests, collision protection.	Yes, IFU, page 15
Washing of the reagent needles is done automatically, both inside and outside	Washing of the reagent needles is done automatically, both inside and outside	Yes, IFU, page 15
Positions for reagents: + 50-80 positions in the refrigeration compartment 2-10 C	Positions for reagents: 59 reagent positions and 1 detergent position in the refrigeration compartment 2-10o C	Yes, IFU, prospect
Reagent volume: 10 -200 µL. The amount from 0.50 µl to 0.50 µl	Reagent volume: R1 - 10 -500 µL. R2- 10-500 µl, with 0.50 µl increment	Yes, IFU, prospect
Preheat of the reagent before pipetting of the serum	Preheat of the reagent before pipetting of the serum	Yes, IFU, page 15
The analyzer uses standard reagent cuvettes - 10 ml, 25 ml, 50 ml.	The analyzer uses standard reagent cuvettes - 10 ml, 25 ml, 50 ml.	Yes, IFU, page 248 Can use: 20ml, 40ml, 70ml.
<b>Rotor should be reusable, with a capacity of +/- 10000 tests</b>	<b>Rotor should be reusable, with a capacity of +/- 10000 tests</b>	Yes, IFU,
If one of the reagent positions is left without a test reagent, the apparatus will execute the next test, returning to it when the missing reagent is added.	If one of the reagent positions is left without a test reagent, the apparatus will execute the next test, returning to it when the missing reagent is added.	No, can set 3 positions for the same reagent.

Available reagent volume monitoring system	Available reagent volume monitoring system	Yes, IFU, page 16
Alarm system in case of small volumes, expired reagents or in case of lack of reagents	Alarm system in case of small volumes, expired reagents or in case of lack of reagents	Yes, IFU, page 15-16
The device provides information referring to the number of tests that can be performed with the volume of reagent on board	The device provides information referring to the number of tests that can be performed with the volume of reagent on board	Yes, IFU, page 15-16
Built-in barcode reader for reagents	Built-in barcode reader for reagents	Yes, IFU, page 15-16
<b>REACTION SYSTEM:</b>	<b>REACTION SYSTEM:</b>	
Reaction rotor - reusable. Cuvette: optical length 5 mm. Reaction volume: minimum 100 and maximum 300 µl. Operating temperature: 37 + 0.1 oC	Reaction rotor - reusable. Cuvette: optical length 5 mm. Reaction volume: minimum 100 and maximum 300 µl. Operating temperature: 37 + 0.1 oC	Yes, IFU, page 44 Reaction cup optical path: 7mm. page 21
Mixing system: independent mixing through the 2 systems	Mixing system: independent mixing through the 2 systems	Yes, IFU, page 44
<b>OPTICAL SYSTEM:</b>	<b>OPTICAL SYSTEM:</b>	
Light source: halogen -tungsten lamp	Light source: halogen lamp 12V/20W	Yes, IFU, prospect
Photometry: optical reversion, place for static photometric fiber	Optical system: high-resolution filter and halogen light. The photoelectric system is full-closed, static, concave holographic aberration-reduced grating, rear light-splitting optical system.	Yes, IFU, page 17, 25
Wavelengths (12): 340 nm, 380 nm, 412 nm, 450 nm, 505 nm, 546 nm, 570 nm, 605 nm, 660 nm, 700 nm, 740 nm, 800 nm.	Wavelengths (10): (340nm, 405nm, 450nm, 492nm, 510nm, 546nm, 578nm, 630nm, 700nm, 800nm). And there are two blank position alternatives to choose.	Yes - partially, IFU, page 17
Absorption range: from 0 to 3.3 abs (10 mm conv.). Resolution: 0.0001 Abs	Absorption range: from 0 to 3.2 abs (10 mm conv.). Resolution: 0.0001 Abs	Yes, Prospect

<b>MODULE ISE Parameters - Na, K, Cl, Li, CO</b>	<b>MODULE ISE Parameters - Na, K, Cl, Li</b>	cannot be tested CO
Sample type: serum, plasma, urine	Sample type: serum, plasma, urine	Yes, IFU, page
Sample volume used - serum and plasma 70 µl, diluted urine 140 µl. Reagent pack Na / K / Cl, CO.	Sample volume used - serum and plasma 70 µl, diluted urine 140 µl. Reagent pack (includes Na <sup>+</sup> ion, K <sup>+</sup> ion and Cl <sup>-</sup> ion, Li-ion), reference electrode, injection and test passageway, syringe and waste solution emission components. Use special reagents pack	Yes, IFU, page 26 Need ADD Li-ion electrode to user manual page # 26.
Washing solutions + ion module control	Washing solutions + ion module control	Yes, IFU, page Need ADD to user manual page # 26.
<b>CONTROL AND CALIBRATION:</b>	<b>CONTROL AND CALIBRATION:</b>	
Calibration mode: One point linear, two point linear, multi-point Linear, Logit-Log4P, Logit Log 5P, Exponential, Polynomial, Parabola, Spline	Calibration mode: One point linear, two point linear, multi-point Linear, Logit-Log4P, Logit Log 5P, Exponential, Polynomial, Parabola, Spline	Yes, IFU, page 15, 139, 173
Calibrations can be archived, so that new calibrations can be compared with measured data.	Calibrations can be archived, so that new calibrations can be compared with measured data.	Yes, IFU, page 15, 174
QC is a daily, mandatory test, at least 1 per day	QC is a daily, mandatory test, at least 1 per day	Yes, IFU, page 15, 173
Quality Control software: Westgard multirule, cumulative sum checking, duple plot.	Quality Control software: <b>Levey-jennings method</b> , Westgard multirule, cumulative sum checking, duple plot.	Yes, IFU, page 15, 173
It is possible to define 2 types of controls per test	It is possible to define 2 types of controls per test	Yes, IFU, page 139
<b>PRINTING RESULTS AND DATA MANAGEMENT:</b>	<b>PRINTING RESULTS AND DATA MANAGEMENT:</b>	
Printer included	Printer included optional	Yes, IFU, page 170

<p>The printing of the results can be done automatically or on request, the possibility of fast reporting</p> <p>The results can be printed on the system printer or on a network printer</p> <p>Provide statistical data about the number of tests / calibrations / controls / repetitions / dilutions performed daily and at period of time</p>	<p>The printing of the results can be done automatically or on request, the possibility of fast reporting</p> <p>The results can be printed on the system printer or on a network printer</p> <p>Provide statistical data about the number of tests / calibrations / controls / repetitions / dilutions performed daily and at period of time</p>	<p>Yes, IFU, page 170</p> <p>Yes, IFU, page 170</p> <p>Yes, IFU, page 170</p>
<p><b>OPERATING UNIT:</b></p> <p>Original operating system: Windows 8 64-BIT</p> <p>Interface: RS 232. Network Port. USB / parallel port</p> <p>Original software for operating protocols of technological processes of working with reagents // controls // calibrators</p> <p>Manual data entering, using keyboard, mouse, barcode reader – optional, or using online connection to LIS</p> <p>Calculator // monitor (all-in-one) built-in monobloc</p> <p>Touch screen monitor built into the analyzer</p> <p>The navigation / operation of touch screen must be integrated, and must be from the identical manufacturer</p>	<p><b>OPERATING UNIT:</b></p> <p>Original operating system: Windows 7, Windows XP</p> <p>Interface: RS 232. Network Port. USB / parallel port</p> <p>Original software for operating protocols of technological processes of working with reagents // controls // calibrators</p> <p>Manual data entering, using keyboard, mouse, barcode reader – optional, or using online connection to LIS</p> <p>Calculator // monitor (all-in-one) built-in monobloc</p> <p>Touch screen monitor built into the analyzer</p> <p>The navigation / operation of touch screen must be integrated, and must be from the identical manufacturer</p>	<p>Yes, IFU, page 15</p> <p>Yes, IFU, page 15-16</p> <p>Yes, IFU, page 15</p> <p>Yes, IFU, page 15</p> <p>Separate: PC, device and monitor</p> <p>No, External computer</p> <p>External PC: separate system unit and monitor</p> <p>Yes, IFU, page 15 prospect</p> <p>Need to buy separately UPS with the requested ones. specifications (2 batteries)</p>
<p>Working conditions, power sources: Ac 200v +/-10%; 50/60 Hz, Ups Battery Included 2</p>	<p>Working conditions, power sources: Ac 110/230 v +/-10%; 50/60 Hz, 500 VA Ups Battery Included 2</p>	<p>Need to buy separately UPS with the requested ones. specifications (2 batteries)</p>

<p>Temperature: 15-30 oC Humidity: 35-85 %, 0 Kva</p> <p><b>Special requirements:</b> The medical equipment (automatic biochemical analyzer) will be pre-tested during 15 days in laboratory of District Hospital Hirncești before to sign of the contract</p>	<p>Temperature: 10-30 oC Humidity: till 85 %, 86-106kPa</p> <p><b>Special requirements:</b> The medical equipment (automatic biochemical analyzer) will be pre-tested during 15 days in laboratory of District Hospital Hirncești before to sign of the contract</p>	<p>Yes, IFU, prospect</p> <p>Yes, Declaration of supplier is attached</p>
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URIT MEDICAL ELECTRONIC (GROUP) CO. LTD

Jack Huang



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