



REPUBLIC OF THE PHILIPPINES  
Department of Health  
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**SECTION VII**

**Technical Specifications**

PUBLIC BIDDING FOR THE SUPPLY, DELIVERY, INSTALLATION, TESTING AND  
COMMISSIONING OF BRAND-NEW POLYSOMNOGRAPHY MACHINE FOR SLEEP

CLINIC CY 2024

IB No. E-009-2024-PB

**INSTRUCTION:** Bidders must state here either “Comply” or “Not Comply” against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of “Comply” or “Not Comply” must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer’s un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the provisions of ITB Clause 3.1(a) (ii) and/or GCC Clause 2.1(a)(ii).

Item	Specification	Statement of Compliance	Supporting Documents for the Statement of Compliance (if applicable)
1	<b>Supply, Delivery, Installation, Testing and Commissioning of a Brand-New Polysomnography Machine for Sleep Clinic CY 2024</b>		
	<b>GENERAL SPECIFICATIONS:</b>		
	1) Designed for the acquisition of EEG and Polysomnography (PSG) data		
	2) Software allows recording, displaying, analysis, printing, and storage of physiological signals to assists in the diagnosis of various sleep disorders and sleep related respiratory disorders.		
	3) Automated analysis of physiological signals.		
	4) Audio/visual alert for user-defined threshold on calibrated DC input.		

5) Sleep report templates are provided that summarize the recorded and scored sleep data ranges for trended values.		
<b>AMPLIFIER SPECIFICATIONS:</b>		
1) AC Channels: 64 AC Channels		
2) Referential Inputs: 40 referential (additional 24 referential channels programmable to differential channels)		
3) Programmable up to 12 Differential inputs		
4) With 6 Sensor Inputs dedicated for chest effort, abdominal effort, snore, airflow, pressure, and position sensors		
5) With up to 11 derived traces		
6) DC Channels up to 16 channels		
7) With 8-bit TTL digital timer		
8) Pulse Oximetry monitoring includes SpO2, Pulse Rate, Photoplethysmogram (PPG), and Pulse Quality		
9) Input Impedance - Common Mode $\geq 1 \text{ G } \Omega$		
10) Input Impedance - Differential Mode: $40 \text{ M } \Omega / 280\text{pF}$ +/- 20%		
11) Input Noise - $\leq 2 \text{ uV}$ pk-to-pk (0.1Hz to 70 Hz), $\leq 40\text{nVsqr}(\text{Hz})$ wideband		
12) Common Mode Rejection Ratio (CMMR) $\geq 106 \text{ dB}$ min		
13) Sampling Rates - 256, 512, 1024, 2048, 4096		
14) Bandwidth - DC to $\sim 1/3$ of sample rate selected or 1600 Hz max. programmable (default 0.08Hz)		
15) Input Signal Range - 20mV pk-to-pk, +/-0.3VDC		
<b>HOST INTERFACE</b>		
1) With network connection of Gigabit Ethernet DHCP		
2) Direct Connection: USB 2.0 Hi-Speed, Gigabit Ethernet		

	<b>ENVIRONMENTAL CONDITIONS</b>		
	Operating Environmental Limits		
	1) Temperature: 10°C to 30°C (50°F to 86°F)		
	2) Relative Humidity: 30%–75%		
	3) Atmospheric Pressure: 70 kPa–106 kPa		
	<b>TRANSPORT AND STORAGE</b>		
	1) Temperature: -25°C to 60°C (-13°F to 140°F)		
	2) Relative Humidity: 10%–95%		
	3) Atmospheric Pressure - 50 kPa to 106 kPa		
	<b>AMPLIFIER AND BASE UNIT FEATURES AND USAGE</b>		
	1) Amplifier use a proprietary 3-dimensional body position pod to gather and generate position and activity data from the patient.		
	2) The base unit provides a potential equalization conductor		
	3) The amplifier has luer lock allows the connection of a cannula to allow recording of airflow via pressure sensor.		
	<b>SOFTWARE FEATURES</b>		
	1) Capable to determine which toolbars appear on screen		
	2) Acquisition Mode must include the following (Montage, Note, Protocol, Video, Camera, Workflow, Stopwatch, Sleep Summary, Flow Volume Loop, Status Bar, Dock toolbars). Review mode must include the following (Montage, Note, Video, Review, Staging, Study, Sleep Summary, Flow Volume Loop, Status Bar, Dock Toolbars)		
	3) With Flow-Volume Loop Toolbar which displays exhaled flow plotted upwards and exhaled volume to the right.		
	4) With Stopwatch Toolbar which measures and displays elapsed time or event duration.		
	5) With Heads Up Display Toolbar used to display parameters recorded during collection or in review		

	6) With Frequency Tool used to display FFT information and data statistics in the frequency domain during review. The Spectrum graph and detail options are configurable and can be saved as an event for later review or copied to the clipboard as an image for insertion into another application.		
	7) Capable to create and/or edit montage (Montage Creation Tool)		
	8) With Montage Conversion Tool used to convert a montage originally created for one headbox to work with a different one (Import / Export).		
	9) With Sleep event analyzers designed to help medical professionals and technologists with the identification of events of interest in study recordings. These analyzers are set to factory default settings and can be customized.		
	10) The following analyzers are available: aEEG, Amplitude, Apnea, Arousal, Auto-Staging, Bradycardia, Breath Rate, Central Apnea, DSA, Data Trends, Heart Rate, Hypopnea, Limb Movement, Obstructive Apnea, Oxygen Desaturation, QEEG, Snoring, Stellate ICTA-D, Stellate ICTA-S, Tachycardia		
	<b>INCLUDED ACCESSORIES</b>		
	1) Base unit		
	2) Breakout Box		
	3) Breakout to Base Cable		
	4) Replacement Fuse for Base Unit		
	5) USB-to-Ethernet Adaptor		
	6) Quantum Nonin Oximeter Adapter Cable		
	7) Nonin Reusable Soft Sensor, Medium, model 8000SM		
	8) Patient Event Button, 5ft (1.5m)		
	9) Isolation Transformer		
	10) Nasal Cannulas 72in (183cm)		
	11) Airflow Thermistor 78in (198cm)		
	12) Snoring Sensor 78in (198cm)		

	13) Gold EEG Cup Electrodes 10MM, 1.5M, TP		
	14) Body Positioning Pod		
	15) Reusable Belt - Small Abdomen 78" cable length		
	16) Reusable Belt - Small Thorax 78" cable length		
	17) Reusable Belt - Medium Abdomen 78" cable length		
	18) Reusable Belt - Medium Thorax 78" cable length		
	19) Large Abdomen 78" cable length		
	20) Large Thorax 78" cable length		
<b>CONFORME:</b>			
<i>(Company Name)</i>			
<i>(Name and Signature of Authorized Representative)</i>			