**الموضوع: المواصفات الفنية لعيادة تخطيط الأعصاب**

**Technical Specifications for *EEG***

|  |  |  |
| --- | --- | --- |
| **No.** | **Technical Specifications** | **Min KAUH Requirement** |
| 1 | Manufacturer | Please specify manufacturer and country of origin |
| 2 | Model Number | Please specify model number of the offered equipment |
| 3 | Safety Standard | FDA approval or CE marking |
| 4 | Amplifier | * **256 Channel Amplifier:**Advanced features including the Electrode Continuity Check .
 |
| 5 | System Features | * Online mapping with EEG and ECG artifact filter.
* Wall-mounted junction box with flat screen.
* **User defined views and settings.**
* **Report generation utility** (includes default EEG reports and allows for customization of reports to meet requirement of specific users).
* **Automatic paging mode**.
* **Measurement tools**.
* **Retrospective paper speed, filters and sensitivity rescaling.**
* **Highlight tools** for making key sections of recording.
* **Events marking**
* **Rapid review software** with auto editing of system events and trace annotation.
* **Impedance check** by the EEG software at the amplifier or on screen: Electrode continuity check software identifies bad electrodes or poor connections.
* **Highlight View:** The Highlight View software allows user to define/highlight the EEG segments of interests allowing for more efficient review, archiving, reporting, printing etc. of the recording. User can easily switch between reviewing only the highlights or the complete EEG record.
* **Full motion digital Video software** enables the recording of synchronous EEG and Video, preferably with quantification and highlighting of motion.
* **Audio monitoring:** microphone for audio recording
* **Patient Event Button:** An event button is available and should be used when a seizure is beginning.

**Epilepsy Monitoring Unit (EMU) Software featuring:** * The software must have the ability to provide spikeand seizure detection and EEG trending capabilities, quantitative EEG (SPECTROGRAM) by persyst.
* Noise detection and artifact rejection by persyst software.
* Any extra software features must be mentioned and priced separately .
* Brain mapping (functional cortical mapping).
 |
| 6 | PC requirements | * Operating system: Windows latest
* PC unit branded (original), Operating system with the latest approved Windows version best for system operation.
* Minimum specifications: minimum Intel Core i5 or better, 2 TB SSD[NVMe Gen 4 M.2 (Samsung or equivalent high quality SSD)], 16GB RAM.
* DVD- R+ RW (can be used as CD-RW).
* SSD 256.
 |
| 7 | Data Processing | * Isolated (Isolation unit is supplied).
* Input impedance 100 Mohmor better.
* High-cut filter: 1 Hz to 300 Hz.
* Low- cut filter: 0.5-1 HZ
* A Rejection ratio: 1/25 or more
* CMRR: 105 dB or greater.
* AC filter: 50 and 60 HZ.
* A/D conversion: 16 bits, simultaneous.
* Amplifier Storage rate: up to 2000 Hz.
* High sampling rate.
 |
| 8 | System Composition | * 2-rooms: each room has:
* one- EEG machine (PC and screen) inside.داخل غرفة المريض
* one-PC and two-screens (one for video and the other for EEG) outside, with the required connection.في غرفة المراقبة
* 4 HD cameras with infrared: 2 cameras with infrared (ceiling and wall) per room connected and synchronized with the EEG software.
* Integrated height adjustable/tiltable/rotatable on pole flat screen monitor (minimum).
* Digital Video Software.
* Camera Capture unit.
* Video camera. Color Bullet camera with infrared illumination with flexible arm.
* Convenient Mobile Cart with integrated height adjustable/tiltable/rotatable on pole flat screen monitor, as well as Photic and Video Camera with infrared. With shelf for printer.
* flash lamp assembly.
* Photic stimulator control unit. (Photic stimulator with flexible arm assembly for mounting on the trolley)
* Laser Printer (HP), Local.
* Isolation transformer.
* One server for the 2 EEG machines in the EMU **with ability to read video-EEG remotely; viewing, commenting and reporting.**
* EEG Electrode junction box (Amplifier)
* EEG past 3x 400g.
* Collodion EEG electrodes, Sivler (2 set) for each system.
* Clip limb electrode (4 pcs).
* EEG Gold cup electrode kit, qty (3).
* Earlobe electrode with car clip.
* ECG lead with Ear 2 pcs.
* ECG lead wire electrode kit with snap connector including startup pack disposable electrodes.
 |
| 9 | Main Power  | 220 - 240 VAC , 50 Hz. |

42182308

يوجد مخطط مشابه للموقع في مختبر النوم (SLEEP LAB)

سيتم وضع الاجهزة في غرفتين متلاصقتين

بالنسبة لل (SERVER): سيرفر واحد للجهازين يوضع في الـ(EMU) مع امكانية الوصول الى السيرفر من خارج الـ(EMU) (من مكتب الطبيب او من خارج المستشفى) ليتمكن الطبيب من الاطلاع على التخطيط والتعليق عليه وكتابة التقرير له