

물 품 규 격 서

- 입찰공고번호 : (학)일송학원 관리국 제2025-200호
- 입찰건명 : 정형외과(수술실) Intra Operative Monitoring System 구매
- 수요기관 : 한림대학교 동탄성심병원
- 납품장소 : 수요기관 희망장소 입고도
- 물품내역 등

연번	품명(영문, 국문)	규격 및 사양	총 구매 예정수량 (Q'TY)	1회 최대 발주수량	Warranty 기간	단위 (Unit)
1	Intra Operative Monitoring System (수술중 신경감시 장치)	하단 참조	1	1	검수(합격)일로부터 3년 종료월 말일까지	SET

□ 공통사항

- 장비의 설치와 작동 및 교육은 무상으로 제공한다.
- 수요기관 담당자 입회하에 계약상대자는 제품의 설치 테스트 및 시험작동을 실시하여야 한다.
- 무상 하자담보 책임기간은 물품 검수(합격)일로부터 3년 종료월 말일 까지를 기본 원칙으로 하며 계약상대자의 추가 제안에 따라 3년을 초과하여 설정할 수 있다.
- 무상 하자담보 책임기간 중 수요기관의 사정으로 인하여 부서 및 장비의 위치가 불가피하게 이동을 필요로 할 경우 설명 및 설치가 무상으로 이루어진다.
- 무상 하자담보 책임기간 중 중 공급된 장비의 부속품이 단종된 경우 수요기관이 인정하는 동등 이상의 장비로 무상 교체가 이루어져야 한다.
- 계약상대자는 어떠한 상황에서도 애프터서비스를 위하여 전문서비스 인력을 제공하여야 하며 애프터서비스를 위하여 교체 부품을 보관하여야 한다.
- 계약상대자는 장비 납품 시 납품일을 기준하여 제품 제조년월이 6개월 이내인 장비를 납품하고 납품장비에 해당 제조년월이 명시되어야 한다.
- 기존 노후 의료장비 철거 및 회수(또는 보상판매) 조건으로 제안할 수 있다.

〈규격 · 사양-A〉

A. Features

1. This systems are scalable from 16 to 32 channels. (Up to 48 channels available)
2. Monophasic, Biphasic, double train, TceMEP or TecMEP mapping Stimulation capabilities.
3. A wide variety of modes that can be run simultaneously are available with system.
Multiple EP (AEP, VEP, SEP, MEP), EMG, EEG are available.
4. There is live video display from microscope and slave monitor or camera option available.
This aids the tech in correlating events with procedures during the surgery.
5. User-friendly data review is easy and real-time remote monitoring is possible.
6. This system is a compact, robust system designed to withstand daily use and the environmental hazards of the operating room.
7. Report form production capacity for convenient data reading and correction
8. Equipment with effective user-friendly software interface

B. Specifications

1. Computer Unit
 - PC unit, Desktop
 - CPU : Dual Core I7
 - OS : WIN10 64 Bit
 - SSD 120GB 1TB HDD more
 - 8GB Memory
2. Amplifier
 - 1) 25KHz per channel / 16 bit or 20KHz/channel, 16 bit
 - 2) Channels : 16~32ch up to 48ch
 - 3) Sensitivity : 0.01uV~10mV/div or 0.1uV~25mV/div
 - 4) Hi-cut Filter : 30Hz~5KHz or 50~4KHz
 - 5) Low-cut Filter : 0.3Hz~100KHz or 1~500Hz
 - 6) Notch filter : 50Hz or 60Hz
 - 7) CMRR : >115dB or > 100 dB
 - 8) Input impedance : >100 Mohm
 - 9) ESU detector available.
3. Electric stimulator
 - 1) Number channels : 10ch ~ 20ch
 - 2) Electric Duration : 0.05-10ms or 0.005-2ms
 - 3) Electric Intensity : 0-100mA
 - 4) Electric stim rate : 100 Hz
4. Aduitory Stimulator
 - 1) Aduitory signal type : click/noise/Tone/burst/
 - 2) intensity : 125dB, SPL more
 - 3) Aduitory polarity : Cond/rare/alt
5. Visual Stimulator
 - 1) LED Goggle type

6. TceMEP Stimulator
 - 1) TceMEP Number Channels: 9 output
 - 2) TceMEP intensity : 0-1000V(max)
 - 3) TceMEP Pulse duration : 50us-500us or 50us-200us
 - 4) TceMEP pulse per Train : 1 to 9
 - 5) TceMEP polarity : Monophasic/biphasic available.
7. Data review & Report system & Remote monitoring
8. Video Camera capture Sync system

C. Consist of(per 1 Set)

1. Desk Top PC Unit	1set
- OS - WIN10 64 Bit	
- CPU : Dual Core i7	
- SSD 256GB 1TB HDD	
- 8GB Memory	
- Keyboard & Mouse	
- LED dual 24" Monitor(Domestic)	
2. Base Module	1ea
3. Cortical Module	1ea
4. Extension 16ch AMP & 9ch TcMEP	1ea
5. Limb Module	2ea
6. LCSwap Switch Matrix for Low Current Stimulator	1ea
7. Insert Earphone	1ea
8. LED Goggles	1ea
9. Safe T cable (10' / 3m, 26' / 8m)	each 2ea
10. Video capture Unit & Software	1ea
11. Fast USB Connection cable	1ea
12. SEP, MEP, VEP, BAEP, D-wave, TOF, DCS software	1system
13. EEG, DSA, CSA, and Trending Software	1ea
14. Free-run EMG software	1ea
15. Fast user Report software	1ea
16. Review software	2ea
17. Cart(Domestic)	1ea
18. Operating and service manual	1ea
19. Review software	1sys
20. Remote Software Networks System	
21. Accessories	
- Disposable subdermal needle electrode(single/24ea/box)	1box
- Disposable subdermal needle electrode(twist/12ea/box)	1box
- connectric Probe	1ea

D. Remarks

- Warranty : 검수(합격)일로부터 3년 종료될 말일

〈규격 · 사양-B〉

A. Features

1. All applications such as EMG, CMAP, MEP, SEP for intraoperative use in one device and simultaneously visible in one screen.
2. Each electrode can be used for different measurements simultaneously.

B. Specifications

1. IOM Amplifiers

- 1) Headbox: 32 recording channels and upgrade possibility to 128 channels
- 2) Display range : 0.005uV/DIV ~ 10V/DIV
- 3) Band width : 0.5 Hz to 5KHz
- 4) Noise : <10uVPP
- 5) CMRR : >100 dB
- 6) Impedance : >100Mohms
- 7) Notch filter : 50 or 60Hz
- 8) Resolution : 16 bit
- 9) Sampling rate : 20KHz/channel
- 10) Blanking time: 1mS ~4mS

2. Averager

- 1) Number of average :1 to 10000
- 2) Arifact of average : 0 to 100% of full scale
- 3) Sweep speed : 0 to 3200ms/div

3. Power input : 100 - 240V, 50 - 60Hz

4. Auditory output : Builtin 2 way speaker

5. Direct Nerve Stimulator

- 1) Stimulation current: 0.01mA ~25mA
- 2) Stimulation frequency :0.1Hz ~ 1kHz
- 3) Stimulation mode: singld pulse and trains
- 4) Polarity: Monophasic negative
- 5) Pulse duration: 50usec ~ 2000uSec
- 6) Inter Stimulus Interval: 1msec ~ 200msec
- 7) Nerve -distance control function: Train stimulation with amplitude reducing
- 8) Current flow control: continuous testing and displaying the delivered current.

6. High Current Electrical stimulator

- 1) Stimulation current: 0.2mA ~250mA
- 2) Stimulation frequency :0.1Hz ~ 1kHz
- 3) Stimulation mode: singld pulse and trains
- 4) Polarity: Monophasic negative and positive, biphasic
- 5) Pulse duration: 50usec ~ 2000uSec
- 6) Number of pulses : 9
- 7) Inter Stimulus Interval: 1msec ~ 50msec
- 8) Double train stimulation for different stimulation outputs
- 9) Current flow control: continuous testing and displaying the delivered current.
- 10) Impedance measurement for all stimulation channel

7. Adaptor sets

- 1) SEP stimulation adaptor
- 2) HI current Stimulation adaptor
- 3) EP adaptor
- 4) EMG adaptor

8. Software sets

- 1) EMG
- 2) SEP
- 3) MEP

C. Consist of(per 1 Set)

1. Monitor PC (including video module and video card)	1 sys
2. Head Box - EMG	1 ea
3. Head Box - EP	1 ea
4. Neuro stimulator	1 ea
5. Adaptor sets	1 set
6. Software sets	1 set

D. Remarks

- . Warranty : 검수(합격)일로부터 3년 종료될 말일