Operating Room Console

1- Monitor Features:

Type and Size: 24" / 16:9
Max. Resolution: 1920x1200
Pixel Pitch: 0.270mm x 0.270mm
Max. Colour: 1.07M
Brightness (cd/m2): 900 nits
Contrast Ratio: 1000/1
Viewing Angle: 160°(H),160°(V)
Backlight MTBF: 50,000 hours

2- Material Features:

Operating Temperature: 0 ~ 60°C
Storage Humidity: 5 ~ 95% (non-condensing)
Body: Heavy Duty Stainless Steel Body
Front Frame: Special Tempered Glass
Weight: Variable According to Screen Size
Dimensions (WxHxD): Variable According to Screen Size
Mounting: Built-in
IP Class: Easy disinfection with IP65 Front Protection Class
Power Source: The device has an isolated leakage current and short circuit-protected medical-grade power supply.

Operating Room Console

3- Integrated PC Features:

CPU: Intel® Icore i5
Cache: 12 mb
Memory: 1 x DDR4 SoDIMM 16 GB 2400MHZ
Video RAM: Intel® UHD 630 Graphics
Chipset: Intel® H110
System Fan: Fanless
Data Storage
HDD / Type: 2.5" in Vibration Resistant Housing
SSD: 64 GB

4- Operating System:

Windows10 Enterprise

5- Software Description:

Designed specifically for sterile environments, the CureVision Operating Console PC empowers healthcare staff with rapid access to retrospective procedures and real-time patient information.

Seamlessly integrating with your current technology network and software, the CureVision OR Console ensures compatibility and configurability for future applications.

Operating Room Console

6- Other Equipment (Keyboard, Mouse, Microphone, Speaker, Camera etc.):

Keyboard: Integrated Antibacterial Keyboard

Mouse: Integrated Antibacterial Mouse

Optical Driver: DVD-RW Optical Driver (Optional)

Wireless LAN: 802.11 b / g / AC (Optional)

Audio: Line in & out (AC'97 codec audio)

Expansion Slot: PCIe/MiniPCIe

RFID Reader: Internal RFID Reader Slot

Barcode Reader: Internal Medical QRCode Reader

7- Front Panel Connector Information:

Front Connectors: 2 x USB with Anti-Bacterial and IP-65

Digital Negatoscope and Telemedicine System

1- Monitor Features:

Type and Size: 46" / 16:9
Max. Resolution: 1920x1080
Pixel Pitch: 0.53025mm x 0.053025mm
Max. Colour: 1073.7 M
Brightness (cd/m2): 700 nits
Contrast Ratio: 4000/1
Viewing Angle: 178°(H),178°(V)
Backlight MTBF: 50,000 Hours
DICOM: DICOM Preset

2- Material Features:

Operating Temperature: 0 ~ 60°C
Storage Humidity: 5 ~ 95% (non-condensing)
Body: Heavy Duty Stainless Steel Body
Front Frame: Special Tempered Glass
Weight: Variable According to Screen Size
Dimensions (WxHxD): Variable According to Screen Size
Mounting: Built-in
IP Class: Easy disinfection with IP65 Front Protection Class
Power Source: The device has an isolated leakage current and short circuit-protected medical-grade power supply.

Digital Negatoscope and Telemedicine System

3- Integrated PC Features:

CPU: Intel® Icore i7 8700
Cache: 12 mb
Memory: 1 x DDR4 SoDIMM 16 GB 2400MHZ
Video RAM: Intel® UHD 630 Graphics
Chipset: Intel® H310
System Fan: Fanless
Data Storage
2.5" in Vibration Resistant Housing
SSD: 64 GB (System)
HDD: 1TB (Telemedicine Video Recording Module)

4- Operating System:

Windows10 Enterprise

5- Software Definition:

The CureVision Digital Negatoscope and Telemedicine System is designed for operating rooms, providing quick and simple access to surgical procedures, PACS images, and other medical information necessary during surgery.

Digital Negatoscope and Telemedicine System

◆ The Telemedicine System enables a seamless exchange of medical information between the operating room and external specialists, facilitating consultations, diagnoses, and training.

◆ It allows hospitals to efficiently incorporate new procedures into their systems by offering consultation for emergent situations.

◆ Surgeons can access and explore new procedures without physically leaving their workplaces.

Other Benefits of CureVision Digital Negatoscope and Telemedicine System;

◆ Patient Safety

◆ More Efficient Use of Operating Room Staff

◆ Cost Reduction Time, Material, and Billing Management

◆ Increasing Success Rates in Surgery

◆ Increasing Patient Satisfaction in Parallel

◆ Increasing Preference and Usage Rate of the Operating Room

◆ Establishment of Hospital Archives for Education and Congress Purposes

Product Features

◆ Display Function

◆ Camera and Video Management

◆ Recording and Archiving Function

Digital Negatoscope and Telemedicine System

6- Other Equipment (Keyboard, Mouse, Microphone, Speaker, Camera etc.):

Keyboard: Integrated Antibacterial Keyboard
Mouse: Integrated Antibacterial Mouse
Optical Driver: DVD-RW Optical Driver
Wireless LAN: 802.11 b / g / AC (Optional)
Audio: Line in & out (AC'97 codec audio) + Wireless RF Microphone
Expansion Slot: PCIe/MiniPCIe

7- Front Panel Connector/ Port Information:

Front Connectors: 2 x USB with Anti-Bacterial and IP-65

8- Port Features:

Serial Port: (1 x RS-232/422/485, 1 x RS-232)
USB Port: 4 x USB 2.0 , 4 x USB 3.0
LAN: 2 x LAN Intel® I217V Ethernet

Image Input:

4 Channel Camera Video Input
2 x SDI In/Out + 1 x DP 2 x DVI 1 x VGA + S-Video In/Out + CVBS In/Out + CVBS In/
Out YPbPr / XsRGB In/ Out
(Telemedicine – Video Management and Recording Module)

Digital Negatoscope and Telemedicine System

1- Recorder Software:

MEDICAL VIDEO RECORDING AND ARCHIVING SOFTWARE

The software enables seamless storage of recorded contents in DICOM format within PACS archive storage units, ensuring efficient management and accessibility of medical data.

a) The system seamlessly transmits video recordings in DICOM format to the PACS server, ensuring the inclusion of accurate and relevant METADATA. This streamlined process guarantees that the recorded videos are efficiently stored and organized within the PACS system, enhancing accessibility and facilitating comprehensive patient data management.

b) Users can enter metadata at the beginning of each recording, allowing for the inclusion of relevant information related to the specific recording session.

c) By utilizing action keys, users can input information effortlessly and automatically during the recording process, ensuring timely and accurate data entry. This feature allows for the seamless integration of relevant details into the recording at the precise moment.

d) The software can overlay text, date-time, and a specified image onto recorded videos. This feature allows users to add contextual information directly onto the video, enhancing its comprehensibility and facilitating a better understanding of the recorded content.

e) The software can maintain a comprehensive log of every log file and the corresponding operations conducted on each file; this ensures a detailed record of all actions and modifications made throughout the system, enabling traceability and accurate auditing.

f) The recorded clips can be conveniently played back using the HIS PACS viewer, allowing seamless access and playback of the captured content.

g) The recording software features a user-friendly interface that provides a seamless and intuitive user experience.

h) The recording software is compatible with and supports high-definition image formats such as 1080i and 720p.

Digital Negatoscope and Telemedicine System

i) The software can record Full HD video concurrently from up to four video sources, ensuring high-quality output in HD H264 format compliant with DICOM standards.

j) DICOM supports both audio and video data in the MPEG4 format.

k) Before initiating the recording, the software can preview the image, allowing users to review and verify the desired content before commencing the recording process; this ensures greater accuracy and control over the recorded material.

l) The software's user interface displays real-time performance metrics such as CPU usage, RAM utilization, HDD storage status, and data transfer rates.

m) The software possesses the capability to assign names to recorded files automatically. When naming the files, it can utilize essential details such as the recording date, time, and the name of the recording machine. This automatic naming functionality ensures efficient organization and easy retrieval of recorded content.

n) The software has comprehensive multilanguage support, allowing users to seamlessly switch between different languages based on their preferences and needs.

o) The software seamlessly integrates with the Hospital Information System (HIS), enabling the retrieval of Work List data from the HIS and utilizing it as metadata for the recorded content files. This integration ensures the recorded content can be conveniently accessed through the HIS PACS viewing software. Users can search for media files based on specified criteria such as date and time. All files containing images within that interval can be sorted and viewed accordingly by inputting the desired time interval. This functionality simplifies locating and reviewing relevant recorded content, enhancing workflow efficiency and data accessibility.

p) Users can conveniently access Telemedicine archives using the HIS PACS viewing application.

Digital Negatoscope and Telemedicine System

2- Recorder Hardware:

The Telemedicine System records medical videos in DICOM MPEG4 format, which can be efficiently transferred to the HIS PACS archive storage servers. It's worth noting that archiving is not mandatory for every recording, providing flexibility based on specific needs and requirements.

3- DICOM-PACS Integration:

The software seamlessly integrates with the Hospital Information System (HIS), allowing it to extract work list data and utilize it as Metadata for the recorded content files. The saved archive files are then transferred to the PACS archive using DICOM as the modality.
This integrated approach enables easy access to the recorded content through the HIS PACS viewing software. Users can search for specific media files based on criteria such as date and time. All files containing images within that interval can be conveniently sorted and viewed by specifying a particular time interval. This functionality enhances the efficiency of retrieving and reviewing recorded content, facilitating streamlined workflow and effective data management.

4- Video Conference Software:

The video control application includes a powerful live broadcast feature that allows seamless streaming over the web. With the image control application on the device, users can effortlessly select desired image sources and stream them in real-time, adjusting the resolution and frame playback rate (FPS) as per their preferences. This feature supports up to four channels of video and audio broadcasting simultaneously. The application offers one-to-one and one-to-many broadcast capabilities, enabling users to engage in private, individual streams or reach a broader audience by broadcasting to multiple recipients. This versatility empowers users to share live video content efficiently and effectively, expanding the possibilities for remote collaboration, education, and communication in various fields.

Digital Negatoscope and Telemedicine System

5- Video Management Features:

The device incorporates image control software developed by the manufacturer, allowing for seamless control of images from a minimum of four camera inputs. This embedded application comes pre-installed with the device, eliminating the need for any additional license fees.

The image control application empowers users to select desired images from the four-channel video inputs. These images can be displayed in full screen or separate windows of customizable sizes and positions on the screen. Users have the flexibility to open both image windows and PACS application windows simultaneously, enabling the concurrent operation of multiple applications.

Additionally, the image control application offers an image orientation function, which allows the screen image of a selected image source or the current device to be directed to an external monitor whenever needed.

The video control application facilitates on-demand recording of the desired video channels. Starting and stopping recording operations are designed to be user-friendly and straightforward. The system supports simultaneous recording from up to four channels, and the recording quality can be adjusted according to specific requirements.

Audio recording can be captured from the system's audio input. Furthermore, the system is equipped with a wireless microphone, designed to be worn under the surgical gown for each operating room.

Recorded image files, enriched with desired Metadata such as file name, patient name, recording date, operating room number, doctor, and responsible name, can be stored on the internal hard disk with a generous 1 TB capacity. These files can be conveniently sent online for archiving to PACS servers in DICOM format when needed.

Moreover, the system features a Picture-in-Picture (PIP) capability, allowing users to display multiple images simultaneously, enhancing the viewing experience and facilitating efficient comparison and analysis.

6- Connectors on Pendant:

4 HDMI Channel Camera Image Input can be taken on the operating room wall or pendant using an HDMI socket.

7- Documents and Certificates

◆ ISO 9001 (2015) DESIGN, PRODUCTION, AFTER-SALES SERVICES QUALITY MANAGEMENT SYSTEM CERTIFICATE

◆ ISO 13485 (2016) MEDICAL DIGITAL IMAGING AND INFORMATION SYSTEMS PRODUCTION AND TECHNICAL SERVICES OF DEVICES QUALITY MANAGEMENT SYSTEM CERTIFICATE

◆ ISO 27001 (2013) INFORMATION SECURITY MANAGEMENT SYSTEM CERTIFICATE

◆ ISO 10002 (2018) CUSTOMER SATISFACTION AND ACTIVE INFORMATION MANAGEMENT SYSTEM CERTIFICATE

◆ ISO 45001 (2018) OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE

◆ After Sales Service Competence Certificate for Computer and Peripherals, TS12498 from TSE

◆ Manufacturing qualification certificate from the Ministry of Industry, Built-in Sterile Panel Computer in Operating Room, Operating Room Telemedicine (PACS) Panel Display and Computer

◆ "Capacity Report" documenting the production of Sterile Panel Computer, Operating Room Telemedicine (PACS) Panel Display and Computer from the Ministry of Industry

◆ PACS Monitor and Computer, TS EN 60601-1-2 EMC and TS EN 60601-1 LVD, Electrical medical equipment -Compliance test report with general rules for basic safety and required performance

◆ PACS Monitor and Computer, ISO17025 accredited Pharmaceutical, Cosmetic and Medical Device R&D Analysis Laboratory, Operating Room Hygiene Compliance Report