

Hisense Medical



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Hisense Medical



Medical display

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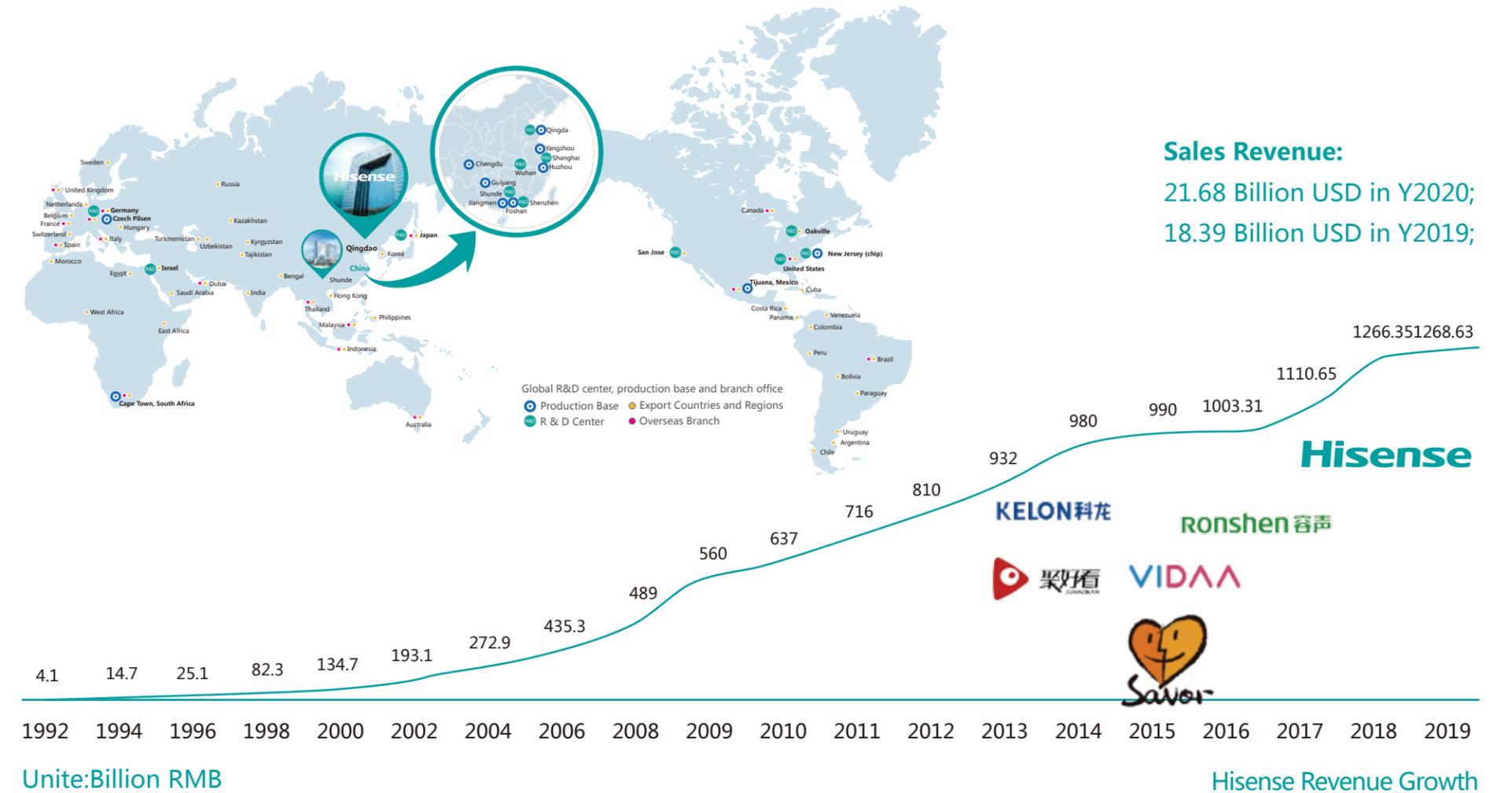
Services



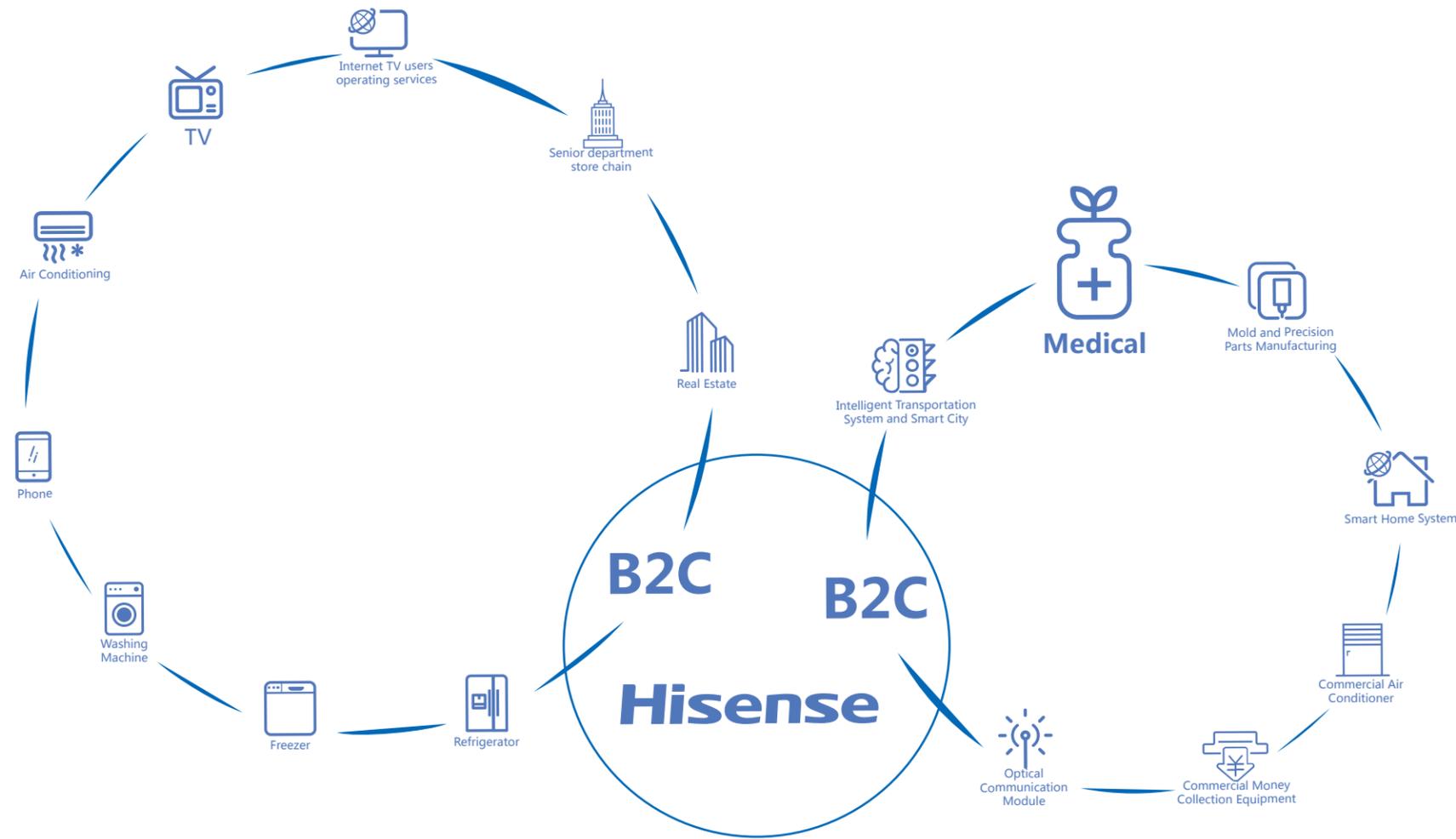
Hisense Corporation profile

Set up Hisense as a century-old enterprise and a famous global brand

Founded in 1969, Hisense has grown into a multibillion-dollar global conglomerate with a workforce of over 90,000 worldwide. Hisense is recognized as a world leading provider of TVs, household appliances, and mobile communications and is recognized as a top 10 player by large global institutions, such as Euromonitor, IDG, and the Consumer Electronics Association. Its 54 subsidiaries are in the multimedia, household appliance, telecommunications, information technology, technology services, and real estate industries, while its products are sold in over 130 countries and regions all over the world.



Industrial layout



Hisense Medical Equipment Co., Ltd.

With strong R&D capabilities, we create professional high quality medical equipments

Hisense Medical has been engaged in the research and application of medical electronics information technology for many years, has powerful R&D strength, and has undertaken a number of state-level research projects. Currently the company has more than 100 medical researchers. More than 80% of them held doctor or master degree and 60% of them have been engaged in the R&D of medical devices and solutions for more than 10 years. Hisense Medical has established close cooperation with many well-known domestic and foreign research institutions. The company has developed medical displays, color doppler ultrasound, computer assisted surgery systems and other products and solutions.



Hisense Medical Display Technology and Advantage

With more than 50 years experience in the display and image processing technology, Hisense Medical has deeply engaged in medical display technology for many years.

Product Quality Assurance Guarantee



Production Capacity Guarantee

- Dust-free clean workshop
- Advanced automated production equipment
- Standard production operations
- One-by-one debugging and 100% test



Multiple display module related patents lay a professional and reliable foundation of Hisense

Hisense's R&D Center is a nationally recognized enterprise technology center with strong research and development strength. At present, there are more than 4,400 inventions in display technology, and more than 2,400 are authorized.



LDOU : Lossless Digital Optical Uniformity

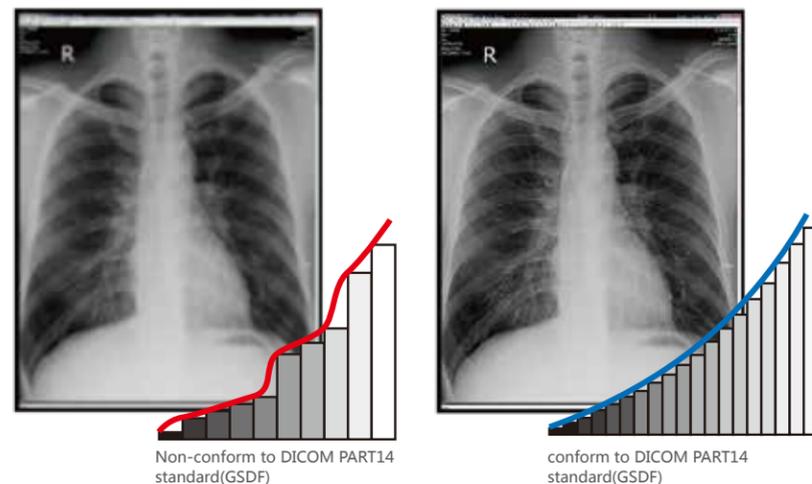
The uniformity of Hisense medical display are 15% higher than ordinary ones.



Through Hisense's unique grayscale uniformity compensation technology, the uniformity of the display far exceeds that of ordinary medical displays, and the image display is more uniform and delicate.

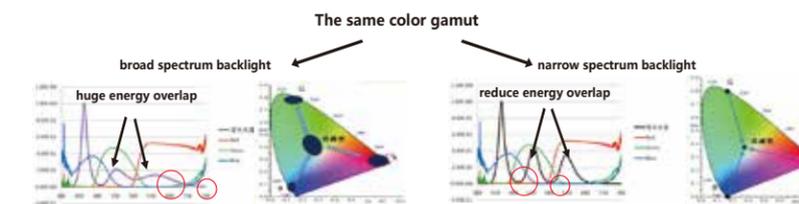
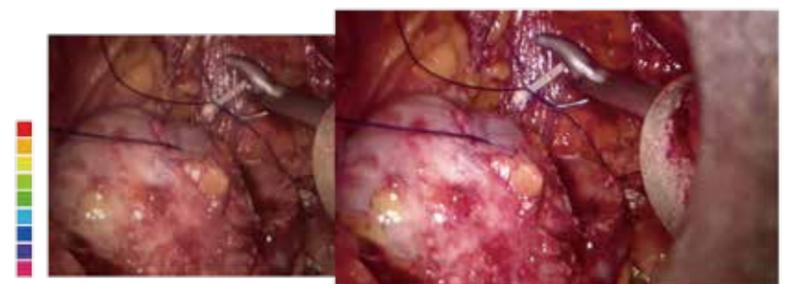
Continuous DICOM Conformity

CDC technology are benefit to provide sharper and more delicate images.



PCR : Precise Color Reproduce

Thanks to Hisense proprietary Narrow Spectrum & High Color Gamut Technology, we can provide more vivid imaging with precise color reproduction.

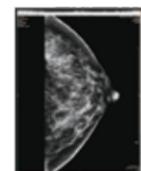


The patented narrow-spectrum high color gamut technology enables the display to achieve a larger color display range, achieves the basic color purity, presents more color details, and more realistically reproduces the actual color effect.

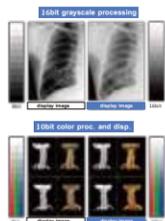
Clinical Review & Diagnosis

Help doctors make accurate diagnosis quickly

DPI High Definition **Gamma** 10bit Grayscale & Color Display



2048x2560



Gamma Intelligent Gamma Calibration technology are benefit to accurately display images with grayscale and color simultaneously



DICOM Automatic DICOM Calibration technology can provide high consistency of images with the help of front sensor



前置式前置传感器

Consultation & Training

Provide informational diagnostic platform for remote consultation.

DPI Ultra high definition display



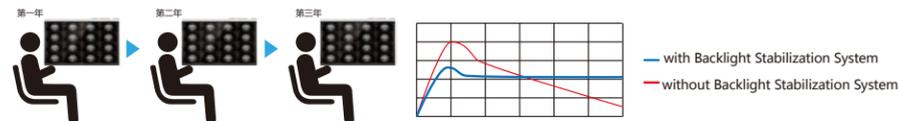
Gamma Intelligent touch Meeting whiteboard



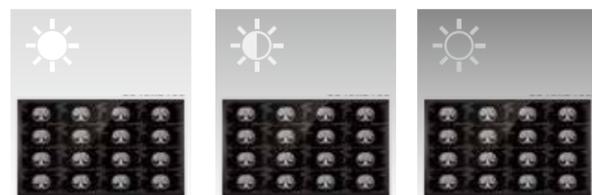
Gamma Intelligent Gamma Calibration technology are benefit to accurately display images with grayscale and color simultaneously.



Gamma Rapid Brightness Stability Backlight Stabilization System



Gamma Ambient Light Auto-adaptation



Surgery & OR Display

Dedicated for variety of surgical images

CGM Color Gamut Mapping(CGM)

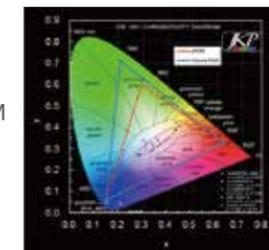
CGM helps to match appropriate color gamut for variety of signals with corresponding color space.



Without CGM



With CGM



RPE Real-time Picture Enhancement(RPE)

For dynamic medical images, RPE can tremendously optimize sharpness and contrast ratio frame by frame to enhance the realism and presence.



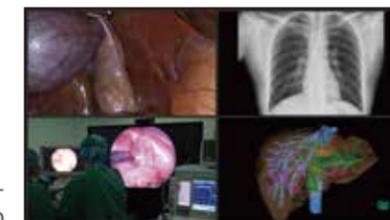
Original Image



RPE Image

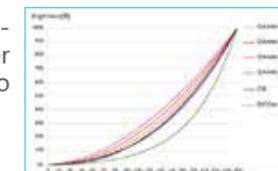
Gamma Four independent display windows, multi-channel treated separately

Multi-interface, support multiple input sources. Build-in PIP/PBP/POP function, which could easily display different image information on a screen during surgery operation. Support signal automatic identification, which could support up to four independent display windows simultaneously. In each window GAMMA curve could be independently adjusted to match the characteristics of each source, to meet a variety of surgical display requirements.



Gamma Multi-modality adaptive hybrid Gamma compatible display

Hisense multi-modality Gamma curve adaptive technology supports DICOM and other color Gamma curves in the same screen, to represent variety of multi-modality images.



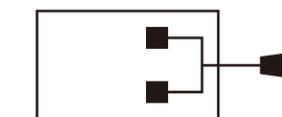
Gamma High screen uniformity, high image quality

Independent developed Demura brightness uniformity enhancement technology, could do brightness correction, compensate for uneven brightness due to factors as LCD glass, backlight and conductive materials, enhance uniformity of brightness and gray scale, so as to ensure real reduction of medical images, to meet the needs of surgical display.



Gamma Dual power safety backup design

Equipped with redundant power supply with seamless switching function, to guaranty high reliable operation.



Hisense Medical Display Products

Clinical Review & Audit Display

Application Scenario

Hisense clinical review display are strictly conformed to DICOM standard, which can be widely used in clinical diagnosis, video browsing and image audit purpose.



Ultra-fine grayscale processing

With ultra-fine grayscale processing technology, we can provide more delicate medical images which conform to DICOM Part 14 standard.

Integrated dual screen display

Under the help of dual-core processing technology, images input from independent source or same source with integrated color and grayscale information can be accurately represented, so as to provide a reliable and accurate reference for doctors.

Wide Viewing Angle

The wide viewing angle of 178 degrees can ensure same image quality at different viewing angles.

Multiple sizes optional

Multiple sizes are optional to meet the variety of requirements.

Precise color reproduction

Precise color reproduction technology can help to provide more color details and reproduce more realistic effect.

Energy-saving and Environmental protection design

We adopt environmentally friendly LED-backlit LCD panel plus fan-free design to realize low power consumption, long life and less heat dissipation, to make the working environment more comfortable.

4M

| Model | | HMS4C27 |
|------------------|-------------------|-----------------|
| Color/Monochrome | | Color |
| Panel | Resolution | 2560×1440 |
| | Panel type | IPS |
| | Backlight source | LED |
| | Dimensions(inch) | 27 |
| | Pixel pitch(mm) | 0.2331×0.2331 |
| | Brightness(cd/m2) | 350 |
| | Contrast ratio | 1000:1 |
| | Viewing angle | 178°,178° |
| | Response time(ms) | 12 |
| | Grey/color bits | 14bit |
| Sensors | Backlight sensor | √ |
| | Front sensor | √ |
| | Ambient light | √ |
| Input interface | | HDMI, DVI×2, DP |

Diagnostic Display

Application Scenario

CR/DR X-RAY MRI PET/CT DSA/RF
 Digital mammary gland 3D Imaging Image Fusion
 Nuclear Medicine



Conform to DICOM Part14 standard
 The DICOM-compliant display accurately represents the subtle shading of medical images, which is more in line with the needs of doctors. The DICOM-calibrated display guarantees consistent display over time in different terminals. In the production process, Hisense independently tests and adjusts each monitor to ensure the conformity to DICOM Part 14 standard before delivery.

High Definition
 Different medical images contain different information, and a display with suitable resolution can perfectly represent corresponding details. Digital breast image will generally exceed 5 million pixels. Using 2048x2560 resolution display, the distortion rate can be minimized to help doctors distinguish the smallest image differences.

Wide Viewing Angle
 The wide viewing angle of 178 degrees can ensure that users from different angles can obtain the same image quality without color cast.

High Grayscale and Color Processing
 Using high-gray processing technology, you can obtain more smoother and precise images.

Intelligent Gamma Calibration technology are benefit to accurately display images with grayscale and color simultaneously.
 Hisense patented Intelligent GAMMA Calibration technology is suitable for reading grayscale and color images on the same screen simultaneously, which will tremendously improve the overall reading accuracy and work efficiency of doctors.

Front Sensor Verification and DICOM Calibration
 Each monitor is adjusted strictly according to DICOM Part 14 standard. With the help of imported front sensor, we are able to control the accuracy within 10% to provide constant image quality.

Eye-protection and Energy-saving
 Continuously monitor ambient brightness and adjust screen accordingly in time to reduce visual fatigue and enhance reading experiences.

Rapid Brightness Stability Technology
 Quickly reach the brightness steady state within 10s after starting up, to ensure that the doctor can quickly carry out the diagnosis work.



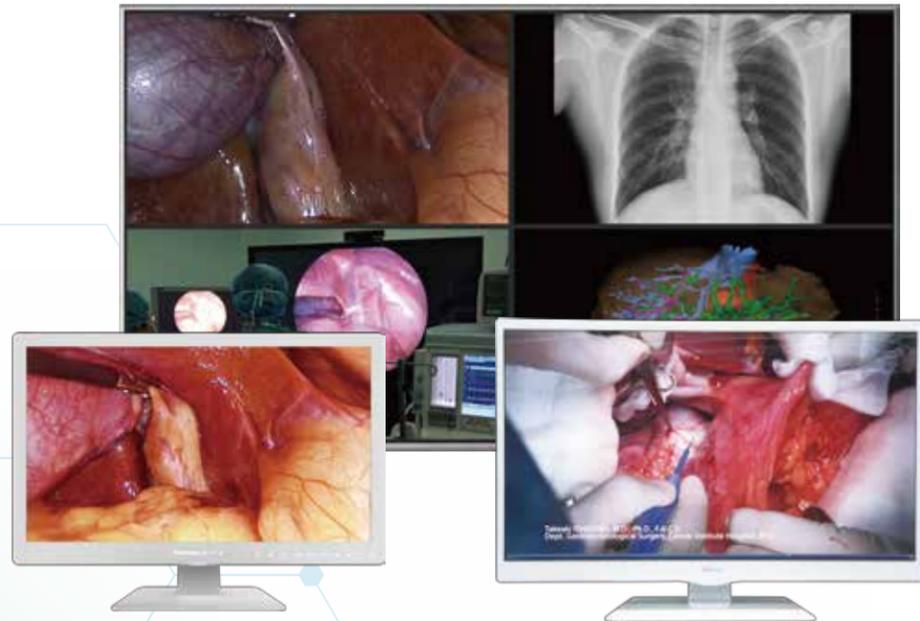
| Model | | 2M | 2M | 3M | 3M | 4M | 5M | 5M | 6M |
|------------------|-------------------|--------------|--------------|---------------|--------------|-----------------------|--------------|--------------|-----------------------|
| Color/Monochrome | | Color | Monochrome | Color | Monochrome | Color | Monochrome | Color | Color |
| Panel | Resolution | 1200×1600 | 1200×1600 | 1536×2048 | 1536×2048 | 2560×1440 | 2048×2560 | 2048×2560 | 3280×2048 |
| | Panel type | IPS | IPS | IPS | IPS | IPS | IPS | IPS | IPS |
| | Backlight source | LED | LED | LED | LED | LED | LED | LED | LED |
| | Dimensions(inch) | 21.3 | 21.3 | 21.3 | 21.3 | 27 | 21.3 | 21.3 | 30 |
| | Pixel pitch(mm) | 0.270×0.270 | 0.270×0.270 | 0.2115×0.2115 | 0.270×0.270 | 0.233×0.233 | 0.165×0.165 | 0.165×0.165 | 0.197×0.197 |
| | Brightness(cd/m2) | 1000 | 1900 | 1000 | 2000 | 550 | 3000 | 1150 | 1050 |
| | Contrast ratio | 1800:1 | 1800:1 | 1500:1 | 1500:1 | 1000:1 | 2000:1 | 2000:1 | 1000:1 |
| | Viewing angle | 178°,178° | 178°,178° | 178°,178° | 170°,170° | 178°,178° | 178°,178° | 178°,178° | 170°,170° |
| | Response time(ms) | TR8+TF8 | TR10+TF9 | TR15+TF10 | TR15+TF13 | TR8+TF8 | TR11+TF14 | TR11+TF14 | TR15+TF15 |
| | Grey/color bits | 14bit | 14bit | 16bit | 16bit | 16bit | 16bit | 16bit | 16bit |
| Sensor | Backlight sensor | √ | √ | √ | √ | √ | √ | √ | √ |
| | Front sensor | √ | √ | √ | √ | √ | √ | √ | √ |
| | Ambient light | √ | √ | √ | √ | √ | √ | √ | √ |
| Other | Input interface | DVI-D×1,DP×1 | DVI-D×1,DP×1 | DVI-D×1,DP×1 | DVI-D×1,DP×1 | DVI-D×2, DP×2, HDMI×1 | DVI-D×1,DP×1 | DVI-D×1,DP×1 | DVI-D×2, DP×2, HDMI×1 |

Surgery/OR Display

Application Scenario

Surgery monitor can be widely used for variety of medical scenes such as surgery and minimally invasive surgery.

Operating Room(OR) display is suitable for DOR, DSA, training and video broadcast.



Perfect Image Quality

With FHD and 4K resolution, it can represent richer image details and more accurate color reproduction effects, to help surgeons improve surgical efficiency.

Professional AR coating

Reduce the adverse influences of various ambient light in OR.

Optical Bonding

Optical bonding can effectively eliminate image ghosting and make the image more clear.

Optical Bonding

It employs high-efficient long-life LCD panel with LED backlight which can meet variety of requirements such as lower noise as well as cleanliness.

The best window-split technique

It support physical quad-window split function, with independent adjustment capability of each window input source to meet the requirement of DOR.

Excellent industrial design, full consideration of space compatibility

With a slim exterior and ultra-narrow bezel design, you have the flexibility to choose the installation solution (suspension/embedded wall).

Abundant I/O design to make your field of vision in OR more focused

Support multi-channel HD and UHD signal input and output, providing you with flexible window layout mode, fully meeting the requirements of DOR.

Dual power supply design for safe operation

In the process of surgery, in order to ensure safety requirements, we provide dual power supply system.If one power system fails, the display will switch to another power system seamlessly and in real time,without affecting the operation process.

| Model | 2M HME2C26 | 2M HME2C26P | 8M HME8C32 | 8M HME8C55S | 8M HME8C55E | 8M HME8C58 | |
|-------------------------|--|--|--|---------------------------------------|--|---|-------------------------------|
| Color/Monochrome | Color | Color | Color | Color | Color | Color | |
| Panel | Resolution | 1920×1080 | 1920×1080 | 3840×2160 | 3840×2160 | 3840×2160 | |
| | Backlight source | LED | LED | LED | LED | LED | |
| | Dimensions(inch) | 26 | 26 | 32 | 55 | 55 | 58 |
| | Brightness(cd/m2) | 900 | 450 | 700 | min700 peaking1000 | min700 peaking1000 | 700 |
| | Contrast ratio(typical) | 1400:1 | 1400:1 | 1350 : 1 | 4000 : 1 | 4000 : 1 | 4000 : 1 |
| | Viewing angle | 178°,178° | 178°,178° | 178°,178° | 178°,178° | 178°,178° | 176° , 176° |
| | Response time(ms) | 18 | 18 | 18 | 6 | 6 | 9.5 |
| Image Signal | Input | DVI-D×2 3G-SDI/HD-SDI SMPTE-424M×1 VGA×1 YPbPr×1 | DVI-D×2 3G-SDI/HD-SDI SMPTE-424M×1 VGA×1 YPbPr×1 | DVI-D×1 3G-SDI×5 HDMI×1 DP×1 | DVI×4/HDMI×1/ DP×1/VGA×1/ SOG×2/3G-SDI/ RS485 | HDMI/DP/ 3G_SDI×4(4K)/ 3G(HD)-SDI/ DVI×2/VGA/RS485 | DVI×2/DP×1/3 G-SDI×1/VGA×1 |
| | Output | DVI-D×1 3G-SDI/HD-SDI×1 | DVI-D×1 3G-SDI/HD-SDI×1 | DVI-D×1 3G-SDI×5 | 3G-SDI/HDMI | 3G-SDI×5/HDMI | DVI×2/ 3G-SDI×1/VGA×1 |
| Power | AC100V-AC240V 50/60Hz DC 24V.6.25A | AC100V-AC240V 50/60Hz DC 24V.6.25A | AC100V-AC240V 50/60Hz | AC100V-AC240V 50/60Hz | AC100V-AC240V 50/60Hz | AC100V-AC240V 50/60Hz | |
| Other | Language | English, Chinese | English, Chinese | English, Chinese | English, Chinese | English, Chinese | |

Consultation Display

Application Scenario

- ◇ Single clinical reading, morning meeting, consultation of various sections in hospital such as radiology / breast / neurosurgery / hepatobiliary / orthopedic surgery / oncology surgery
- ◇ Professional consultation area of multi-disciplinary in-hospital imaging center
- ◇ Remote consultation and teaching training for graded clinics, regional imaging centers, and independent imaging centers
- ◇ Consultation Area in Smart Reading Center
- ◇ Medical imaging professional conferences, technical seminars, teaching and training, teaching seminars, etc.



UHD resolution

3840*2160 resolution can meet variety of requirements of medical images.

wide viewing angle

The wide viewing angle of 178 degrees can ensure that users can read the medical images from different angles. or multiple users at the same time can obtain the same image quality without color cast

Display calibration

Rapid Brightness stability and built-in sensor can ensure stable and consistent brightness throughout the entire-lifetime of the display, ensuring the conformity to DICOM Part14 standard.

Auto-adaptive to ambient light

Continuously monitor ambient light and adjust screen backlit in time to enhance reading experience

Both grayscale and color medical images are displayed properly with the help of Smart Gamma technology

Integrated smart GAMMA correction function can properly recognise grayscale and color images and drive with the corresponding GAMMA curve, which can further improve doctor's overall reading accuracy and work efficiency.

Intelligent "five-finger elves", "Control As Want"

Built-in intelligent "five-finger Elves" can achieve full touch control of OSD menu, and tremendously improve the working efficiency.

Meeting whiteboard, free comment, instant storage

The conference whiteboard can be called up at any time to facilitate the doctor to discuss and comment directly on the PACS image at will. Support instant storage, and one can share meeting records by scanning QR code for further discussion.

support one-key image transmission and image loop function

Doctors can use one-key transmission function to put images in mobile phones and notebooks onto the consultation display at any time, to conduct in-depth discussion and communication. During large-scale video conference including teaching and training, the display supports loop-through output, which can record the images and whiteboard annotations onto other display equipments such as laser projector, splicing screen, etc. in real time for conference and teaching.

| Model | | 8M HMC8C65TOA | 8M HMC8C86TOA | 8M HMC8C98TO | 8M HMC8C100 |
|-------------------------|---------------------|-----------------------------------|-----------------------------------|---------------|-----------------|
| Color/Monochrome | | Color | Color | Color | Color |
| Panel | Backlight Source | LED | LED | LED | Laser |
| | Screen Size | 65 | 86 | 98 | 100 , 120 , 150 |
| | Resolution | 3840×2160 | 3840×2160 | 3840×2160 | 3840×2160 |
| | Brightness(typ.) | 550 | 550 | 500 | 500 |
| | Contrast Ratio | 4000:1 | 1200:1 | 1300:1 | 1500:1 |
| | Response Time(ms) | 8 | 8 | 8 | 0.01 |
| | Viewing Angle | 178° , 178° | 178° , 178° | 178° , 178° | 160° , 160° |
| Core function | Sound | √ | √ | √ | √ |
| | Touch screen | √ | √ | - | - |
| | Touch points | 20 | 20 | 10 | - |
| | White board | √ | √ | - | - |
| | wireless projection | √ | √ | - | - |
| Others | Input interfaces | OPS/HDMI/DVI/DP/VGA/Net work port | OPS/HDMI/DVI/DP/VGA/Net work port | DP/DVI-D/HDMI | HDMI×2/DVI |

Services

Hisense Medical provides you with a full range of medical display system services, from consulting, sales, installation to after-sales, so that you can rest assured in your buying and using.



Efficient one-stop service to meet customer needs and able to provide long-term quality service to our customers.

Service Mission: Customer First, Fair Service
 Pledge: Once promise, keep it a hundred years

Relying on the strong marketing and service strength of Hisense Group, Qingdao Hisense Medical Equipment Co., Ltd. gradually integrated the third-party service providers of Hisense Group and more than 2,000 advantageous service resources, established a nationwide marketing and service network, and introduced the internationally advanced "NPS" Service management method, implementation of standardized services to meet customer needs.