

# KRAMER HEALTHCARE SOLUTIONS

Reliable. Fast. Efficient. IEC 60601-1-2 Certified



### **APPLICATIONS**

Kramer delivers the uncompromising quality and reliability that healthcare providers depend on, all day, every day. With end-to-end solutions that are IEC 60601-1-2 certified for use inside operating rooms, and a decades old commitment to crafting audio-video equipment that meets the rigorous demands of the healthcare industry, you know you can count on Kramer.

#### OPERATING ROOM ENVIRONMENTS

### **Surgical AV Routing & Review**

Operating Rooms (ORs) are the very heart of any healthcare setting. ORs must be able to route and display multiple video sources, simultaneously, in high definition, without delay – both locally and remotely with minimal cable clutter. AV sources include in-light cameras, X-ray machines, ultrasound systems, endoscopes, C-arm units, and more.



#### **Room Control**

Control and coordination of all OR elements is simplified with our revolutionary, cloud-based control and management solution – Kramer Control. With code-free implementation and touch-based drag & drop operation our OR control solution is designed for IT and user satisfaction.



#### Surveillance from Nurse Station

The OR nurse station lies at the center of every surgery department and aims to optimize OR usage. Superior real-time video from each OR is streamed to the nurse station to enable making informed decisions quickly and reliably about every OR in your hospital.



#### **EXTRA-SURGICAL APPLICATIONS**

### **Live Surgery Learning**

Live surgery training rooms enable real-time demonstration of medical treatments streamed directly from the OR to any location in or out of the hospital. Top quality audio and video with no latency enable effective learning with live commentary in training rooms, congress halls and study theaters.



### Multidisciplinary Teamwork & Telestration

Support the ever-growing field of telemedicine, including remote healthcare services, medical education, e-health patient monitoring, wireless health applications, and more. Deliver the most comprehensive patient care with multidisciplinary teams of health professionals from one or more organizations. Multidisciplinary teamwork benefits both patients and healthcare professionals alike.



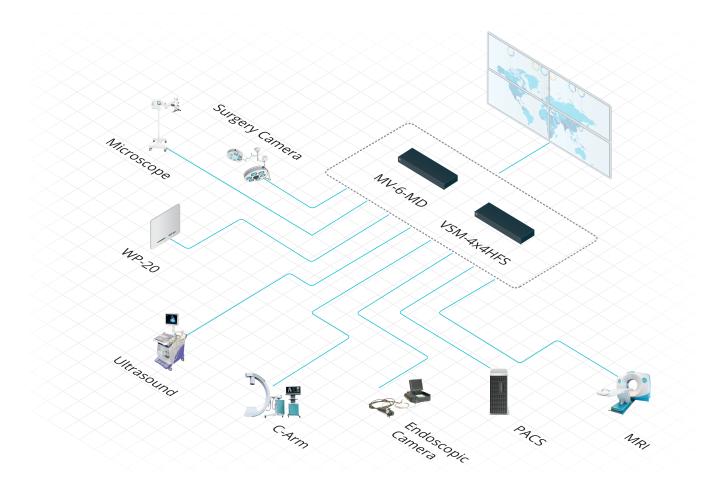
### **Live Consulting & Telementoring**

Consulting by specialists from all disciplines to support the surgeon and telementoring (supervision) during surgery of less experienced surgeons by remotely located experts. Telementoring enables providing real-time guidance during an operation and includes advanced AV teleconferencing, streaming, and telestration (annotation) capabilities.



# SURGICAL AV ROUTING & REVIEW

### **MULTIVIEW SOLUTIONS**



- Reliable & durable connectivity
- User-friendly control & operation
- Simple installation
- Certified for medical applications

#### KRAMER MV-6-MD MULTIVIEWER

Kramer MV-6-MD is a versatile, high-performance multiviewer for 3G HD-SDI video signals, certified for medical applications. MV-6-MD displays up to six inputs in any combination and outputs the image in SDI, HDMI and CV formats. It supports preprogrammed and customizable screen divisions.



### **KRAMER VSM-4X4HFS** MATRIX SWITCHER / MULTI-SCALER

Kramer VSM-4x4HFS is a seamless matrix switcher that can also be used as a 2x2 video wall driver or dual and guad multi-viewers. The unit allows switching between inputs with a clean video cut (frame-to-frame switching with no glitches). VSM-4x4HFS supports HDMI resolutions with deep color, up to eight channels of audio and includes per-port HDCP and EDID settings.



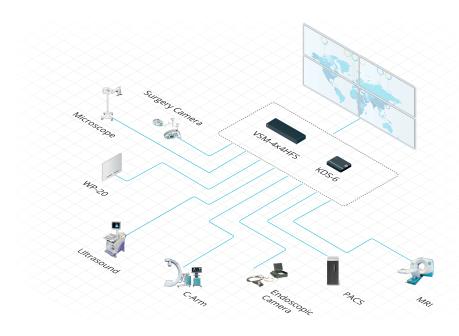
#### **KRAMER WP-20 WALL PLATE**

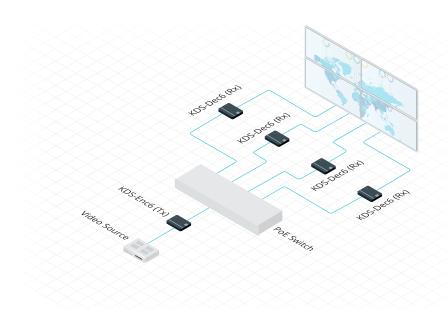
WP-20 is a 4K UHD, HDBaseT active wall plate with step-in auto switcher for HDMI, VGA and analog audio signals that supports resolutions up to 4K@60Hz (4:2:0). The device has EDID management, easy control options and audio embedding. Designed for deployment in any size room, the WP-20 is easy to install with browser-based configuration and single PoE cable for Ethernet connectivity and powering.



# SURGICAL AV ROUTING & REVIEW

### **VIDEO WALL SOLUTIONS**





- Seamless glitch-free switching
- Diverse viewing layouts
- Reliable & durable connectivity
- User-friendly control & operation

- Superior image quality
- Simple installation
- Optional integration with KVM combiners

### KRAMER VSM-4X4HFS MATRIX SWITCHER / **MULTI-SCALER**

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### KRAMER KDS-EN6/DEC6 AV OVER IP STREAMING EXTENSION

Kramer KDS-EN6/DEC6 encoder/decoder provides streaming over an IP network that carries 4K@60Hz (4:2:0) video, audio, IR, RS-232, and USB over IP with HDCP 2.2 in unicast (one-to-one) or multicast (many-to-many) configurations.



#### **KRAMER WP-20 WALL PLATE**

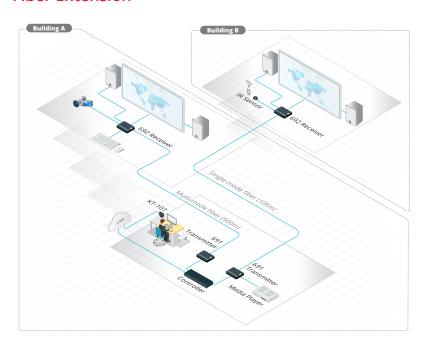
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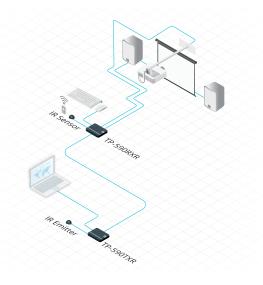
# SURGICAL AV ROUTING & REVIEW

### **EXTENSION SOLUTIONS**

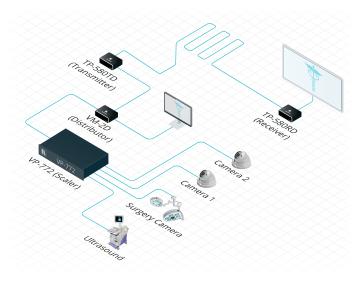
### **Fiber Extension**



### **Copper Extension**



#### **DVI Extension**



- Real-time AV distribution over any distance
- Supports multi-site installations
- Hassle-free single-cable extension

#### FIBER EXTENSION – KRAMER 691/692

Kramer 691/692 is a high-performance HDBaseT 2.0 fiber transmitter/receiver for ultra-reach extension of 4K@60Hz (4:2:0) HDMI, USB, Ethernet, RS-232, IR and stereo audio signals over either multi-mode or single-mode fiber optic. 691 converts all input signals into the transmitted/received HDBaseT 2.0 signal over fiber optics. 692, converts the HDBaseT 2.0 signal back to 4K@60Hz (4:2:0) HDMI, USB 2.0, Ethernet, RS-232, IR and stereo audio output signals.



#### COPPER EXTENSION – KRAMER TP-590TXR/RXR

Kramer TP-590TXR/RXR is a high-performance, extended-reach HDBaseT 2.0 transmitter/receiver for 4K@60Hz (4:2:0) HDMI, USB, Ethernet, RS-232, IR and stereo audio signals over twisted pair. TP-590TXR/RXR converts all input signals into/from the transmitted HDBaseT 2.0 signal. It extends video signals to up 100m (330ft) over CAT copper cables at up to 4K@60Hz (4:2:0) 24bpp video resolution and provides even further reach for lower HD video resolutions.



#### DVI EXTENSION - KRAMER TP-580TD/RD

Kramer TP-580TD/RD is a high-performance, long-reach HDBaseT transmitter/receiver for 4K@60Hz (4:2:0) HDMI, RS-232 and IR signals over twisted pair, via single-link DVI-I connection. The TP-580TD/RD converts all input signals into/from the transmitted HDBaseT signal. It extends video signals to up to 40m (130ft) over CAT copper cables at up to 4K@60Hz (4:2:0) 24bpp video resolution and provides even further reach for lower HD video resolutions.



### DVI DISTRIBUTION AMPLIFIER (DA) -**KRAMER VM-2D**

The VM-2D is a 1:2 distribution amplifier for up to 4K@60Hz (4:2:0) HDMI 2.0 signals, complying with HDCP 1.4 content protection standard, via single-link DVI-I connections. The unit takes one DVI input, equalizes and reclocks the signal, and distributes it to two identical outputs.



### ROOM CONTROL

#### KT-107

### 7-Inch Wall & Table Mount PoE Touch Panel for **Room Control**

Kramer KT-107 is a 7-inch IPS multi-touch, powerful touch panel with 1280x800 resolution. This portable touch panel can be deployed either tabletop or on-wall, mounted inside standard inwall junction boxes. KT-107 is an Android-based touch panel that supports wired PoE and advanced Wi-Fi connectivity options. It is ideal for any 24/7 Kramer-supported commercial AV or control application and features a user-friendly, fully customizable graphical user interface configured by Kramer software.



#### KRAMER CONTROL

### **Cloud-Based Control & Management Platform**

Kramer Control is an enterprise-class, revolutionary, userfriendly, cloud-based control and management solution providing IT/AV managers an easy way to control, monitor and support AV systems, infrastructures and any third party devices. By leveraging existing IP network infrastructures, and due to its distributed architecture, Kramer Control is highly scalable and has no single point of failure. Designed for enhanced scalability, Kramer Control's cloud-based architecture frees you from the rigidness of programming. Setup your control system, modify and extend it from anywhere without the need to be physically on-site.



#### **SL-240C**

### Compact 16-Port Master / Room Controller (Kramer Control Brain) with PoE

Kramer SL-240C can operate over Ethernet with control interfaces that include: four bidirectional RS-232, four IR, four GPI/O, and four relays. It controls devices such as scalers, video displays, audio amplifiers, Blu-ray players, sensors, screens, shades, door locks, and lights. Multiple Kramer Ethernet control gateways can be used to add remote I/O ports.



#### **KRAMER NETWORK**

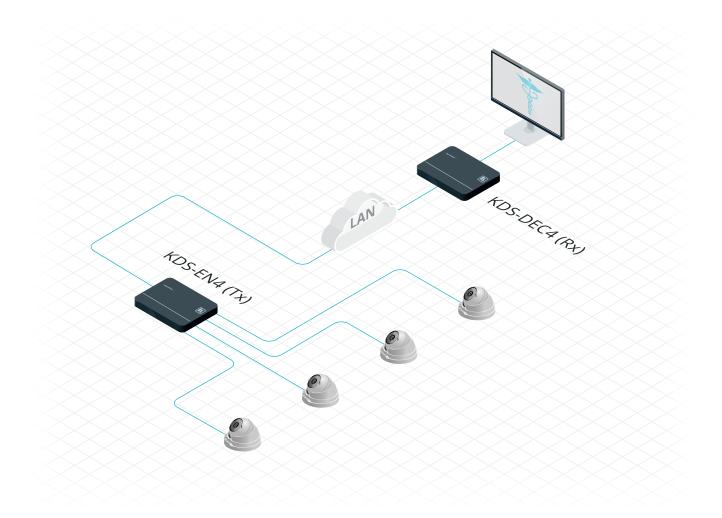
### **Enterprise Management Platform**

Kramer Network is a powerful, all-encompassing, modular enterprise software platform that lets you easily operate, manage and maintain all your Pro AV, IT, and IP streaming in one simple single-point web-based interface. Kramer Network provides a centralized view of all hospital devices for IT managers.



- Comprehensive Pro AV / IP device configuration and management including FW upgrade
- Detailed analysis of devices usage
- Speedy ROI with code-free drag & drop design
- Highly scalable & inherently aware distributed architecture
- Simple installation
- Intuitive, user-friendly operation

# SURVEILLANCE FROM NURSE STATION



- Real-time AV distribution over any distance
- Supports multi-site installations
- Hassle-free single-cable extension
- Remote, user-friendly operation & management

### KRAMER KDS-EN4/DEC4 AV OVER IP **STREAMING**

KDS-EN4/DEC4 is an H.264 encoder/decoder for HDMI signals up to 1920x1080p60. It provides high-quality and fully-featured end-to-end video and audio over IP. KDS-EN4/DEC4 includes AVC support for H.264/MPEG-4 and AAC codec, open encoding that enables decoding through VLC® player software and unicast streaming through RTSP. Manageable by Kramer Network.



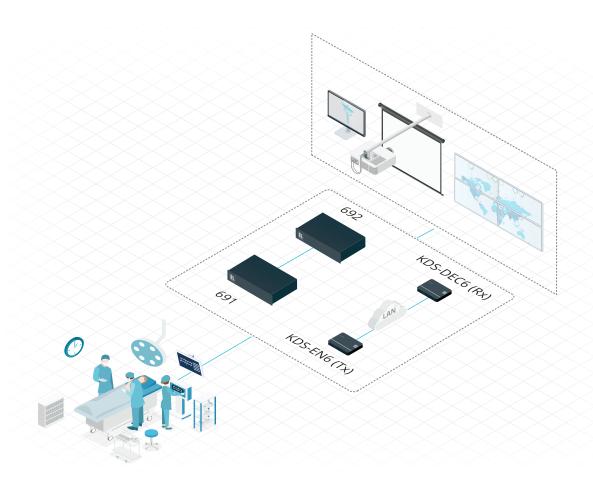


### KRAMER NETWORK ENTERPRISE MANAGEMENT PLATFORM

Kramer Network is a powerful, all-encompassing, modular Enterprise software platform that lets you easily operate, manage and maintain all your Pro AV, IT, and IP streaming in one simple single-point web-based interface.



# LIVE SURGERY LEARNING



- Real-time AV distribution over any distance
- Supports multi-site installations
- Hassle-free single-cable extension

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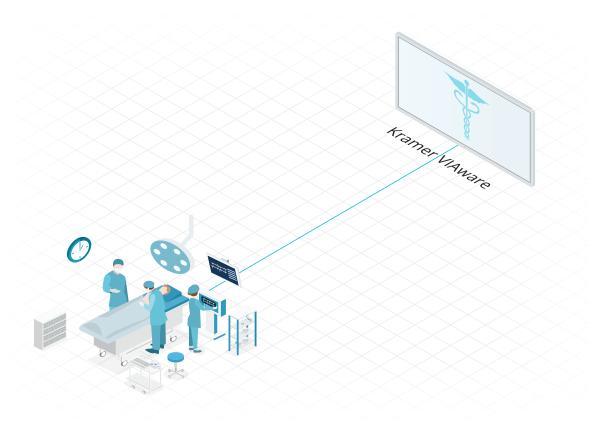


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## MULTIDISCIPLINARY TEAMWORK & TELESTRATION



- Engaging & powerful collaboration
- Complete BYOD connectivity
- Real-time AV distribution over any distance
- Supports multi-site installations
- Hassle-free single-cable extension

#### KRAMER VIAWARE COLLABORATION SOLUTION

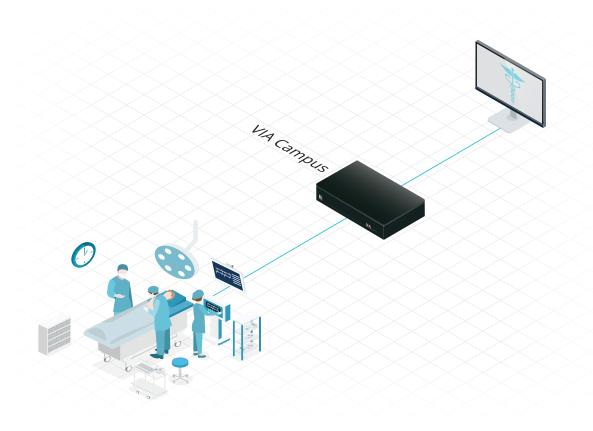
Kramer VIAware provides the ideal solution for discussing cases with remote specialists and physicians in multidisciplinary rooms and competence centers - even collaborating with surgeons in operating rooms.

All the advanced wireless presentation and collaboration tools offered by VIA Campus can now be used on any PC to enhance collaborative meetings, interactive learning and training in Corporate, Education and Healthcare environments. VIAware can show up to six user screens on one main display or up to 12 screens on two displays (hardware-dependent) and features iOS mirroring for MacBook, iPad, and iPhone as well as native mirroring for Chromebook, Android, and Windows phone. Remote students can easily join the class and collaborate in real time with embedded 3rd-party video conferencing and office apps.

VIAware delivers the same security offered by all VIA devices and can be installed on any computer running Windows 10 64 bit OS, providing IT managers the versatility they need.



# LIVE CONSULTING & TELEMENTORING



- Engaging & powerful collaboration
- Complete BYOD connectivity
- Embedded video conferencing client
- Real-time AV distribution over any distance

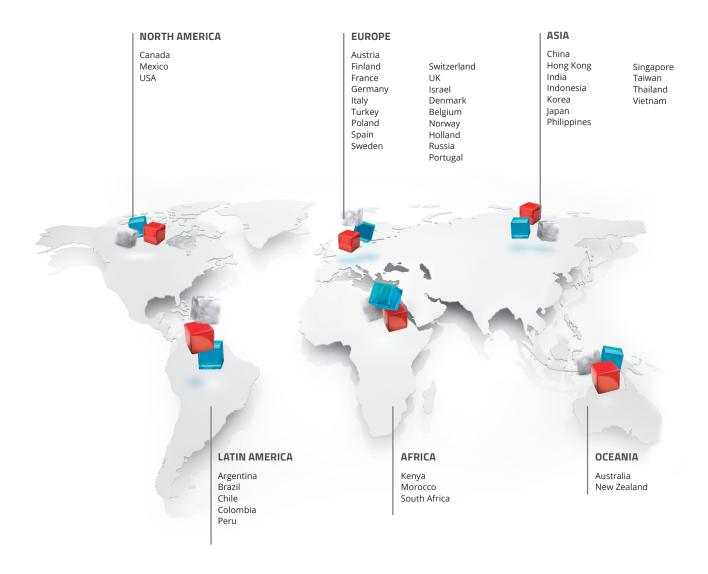
#### KRAMER VIA CAMPUS COLLABORATION

Kramer VIA Campus offers industry leading collaboration and engagement tools that enhance interactive learning in hospital training environments. From any laptop or mobile device, any in-room meeting participant can view the main display, edit documents together in real time, share any size file, turn the main display into a digital whiteboard, and more.

VIA Campus provides wireless connectivity and collaboration and can show up to six user screens on one main display or up to 12 screens on two displays. The solution features iOS mirroring for MacBook, iPad, iPhone, Windows phone, Chromebook and Android mirroring (Lollipop OS 5.0 or newer). Remote students / mentors can easily join the session and collaborate in real time with embedded 3rd-party video conferencing and office apps.



### **ABOUT KRAMER**



In 1981, Kramer was founded with passion and resolve to innovate in the video era. Since then, we have consistently grown and evolved with an industry that has raced forward at lightning speed. Today, along with our partners and distributors, we passionately serve Pro AV customers on six continents with innovative solutions powered by cutting-edge cloud technologies, advanced software applications and industry-leading hardware.

