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V. A. Medical Center  
CHIEF, ACQ & MAT'L MGT  
10701 EAST BOULEVARD  
CLEVELAND, OH 44106  
P. O. # 541-B53006

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**INFINIX-I CARDIOTHORACIC 5-AXIS  
FLOOR MOUNTED SYSTEM**

CARDIOTHORACIC VF-I/SP/FD SYSTEM  
WITH CAT-880B HYBRID TABLE

VF-I/SP/FD MAIN SYSTEM FOR USE WITH  
CAT-880B HYBRID TABLE

HYBRID CATHETERIZATION TABLE

ARMRESTS ABOVE HEAD FOR CAT-880B

BASEPLATE FOR CAS-880 1400 MM

21 INCH COLOR MONITOR

VGA CONNECTION ADAPTER

LCD FLAT-PANEL COLOR MONITOR 21

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EQUIPMENT SUMMARY: (continued)

CABLE CARRIER KIT, 8'

ARMREST SET

ARMREST, ONE SIDE

ANTI-FATIGUE FLOOR MAT

SERVICE INSTALLATION COMPONENTS

BIOMED TRAINING - TUITION ONLY -  
INFINIX SERIES (8 CLASS DAYS)

VASCULAR OPTIONS FOR DFP-8000B  
SERIES

INTERVENTIONAL DASHBOARD - SP/DP  
30" SOLUTION

4 MEGA PIXEL (2560 X 1600), 30 INCH WIDE,  
COLOR LCD DISPLAY

LARGE MONITOR MANAGER FOR  
RADIFORCE DUAL MX270W-BK, 8 INPUTS

ADAPTER, DVI TO HDMI (Qty 6)

D-SUB TO D-SUB CABLE, 2M

USB CABLE, 2M (Qty 4)

SINGLELINK DVI-D TO DVI-D 24 PIN, 2M  
(Qty 4)

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USB KEYBOARD AND MOUSE KIT

SELECT WALLMOUNT CABINET, 6U

19" RACKMOUNT POWER STRIP, 6 REAR  
OUTLETS, SWITCHABLE

FAN

19" RACKMOUNT SHELF

19" GRAYSCALE MONITOR (Qty 4)

21 INCH COLOR MONITOR (Qty 2)

VGA CONNECTION ADAPTER (Qty 2)

LCD FLAT-PANEL COLOR MONITOR 21  
(Qty 2)

THIRD MONITOR PORT FOR SINGLE  
PLANE TYPE-S

58" MONITOR FOR SINGLE PLANE AND  
SELECT (Qty 3)

58" LCD MONITOR (Qty 3)

19" GRAYSCALE MONITOR (Qty 3)

MONITOR MOUNT BRACKET ASSEMBLY  
(Qty 3)

INSTALLATION KIT FOR 58" MONITOR  
SINGLE PLANE AND SELECT (Qty 3)

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LMM BOX (Qty 3)

DUAL DVI TRANSMISSION LINK (Qty 6)

BRACKET FOR LMM BOX (Qty 3)

FAN (Qty 9)

ADAPTER, DVI TO HDMI (Qty 6)

10" TOUCH SCREEN CONSOLE (Qty 3)

D-SUB TO D-SUB CABLE,2M (Qty 3)

CABLE SET FOR CAT 7, 100 FT (4 PACK) (Qty 3)

WALL MOUNT BRACKET WITH  
ARTICULATING ARM EXTENSION (Qty 3)

WALL CHANNEL WITH HARDWARE  
(Qty 3)

INSTALLATION CABLES FOR 56/58"  
MONITOR (Qty 3)

NETGEAR 5-PORT SWITCH (Qty 3)

100' VGA CABLE (Qty 3)

10' VGA CABLE (Qty 3)

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100' CABLE FOR TABLESIDE KIT (Qty 3)

VGA SPLITTER WITH AC/DC ADAPTER  
(Qty 3)

MOUNTING BRACKET FOR 10" TOUCH  
SCREEN CONSOLE (Qty 3)

CABINET FOR 56/58" LCD COLOR DISPLAY  
MONITOR (Qty 3)

PROTECTOR FOR 56/58" MONITOR (Qty 3)

UNIVERSAL CONNECTION MODULE (Qty  
3)

ANALOG TO DVI CONVERTER (Qty 3)

DVI EXTENDER AND RECEIVER CABLE  
(Qty 3)

ADAPTER, DVI TO HDMI (Qty 3)

IMAGE CONNECTION MODULE (Qty 9)

DVI SPLITTER, EXTENDER AND  
TRANSMITTER (Qty 9)

CAT7 CABLE, 100 FT (Qty 9)

DVI EXTENDER AND RECEIVER CABLE  
(Qty 9)

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ADAPTER, DVI TO HDMI (Qty 9)

56" MONITOR SUSPENSION FOR IDI RAILS  
FOR VFI AND CFI SP ONLY (Qty 2)

MOUNTING BRACKET FOR  
MONOCHROME MONITOR AND  
CONNECTION HARDWARE (Qty 3)

MONITOR MOUNT BRACKET ASSEMBLY  
(Qty 3)

KRAMER KIT (Qty 3)

CABLE, BNC, 10' (Qty 3)

ROTATIONAL ANGIOGRAPHY  
TECHNOLOGY

SPOT FLUORO

DSA STEPPING

SECONDARY CONTROL BOX WITH STAND  
FOR SINGLE PLANE

AWS 3-D ACQUISITION AND REMOTE KIT  
(ALSO REQUIRES VITREA VL3D PACKAGE)

3-D ANGIO SOFTWARE

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KEYBOARD FOR TABLESIDE KIT

USB OPTICAL MOUSE FOR TABLESIDE KIT

INFINIX KEYBOARD AND MOUSE  
TABLESIDE RAIL MOUNT ASSEMBLY

LCD FLAT-PANEL COLOR MONITOR 21

VIDEO SWITCHER FOR 21" EXAM ROOM  
MONITOR

3-D ANGIO TABLESIDE EXTENDER FOR  
KEYBOARD AND CABLE

EXTENDER FOR KEYBOARD/MOUSE

100' CABLE FOR TABLESIDE KIT

ADDITIONAL ON-SITE APPLICATIONS  
TRAINING - 32 HOURS

LOW CONTRAST IMAGING FOR INFINIX  
AWS

3-D ROADMAP WITH NEEDLE GUIDANCE  
FOR INFINIX AWS

3-D MULTI MODALITY FUSION (CT & MR)  
ROADMAP SOFTWARE FOR INFINIX AWS

AWS QUANTITATIVE ANALYSIS KITS

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BASIC KIT FOR CLINICAL ANALYSIS  
APPLICATION

QUANTITATIVE CORONARY ANALYSIS

QUANTITATIVE VESSEL ANALYSIS

STENT ENHANCER SOFTWARE

3D QUANTITATIVE CORONARY  
ANALYSIS KIT

3D QUANTITATIVE CORONARY  
ANALYSIS

QUANTITATIVE CORONARY ANALYSIS

TAVR SUPPORT KIT 3 MITRAL VALVE  
ANALYSIS

TAVR SUPPORT KIT 3

ADDITIONAL ON-SITE APPLICATIONS  
TRAINING - 32 HOURS

TAVR MITRAL VALVE ANALYSIS FOR  
INFINIX AWS

TAVR LEFT ATRIUM APENDAGE ANALYSIS  
FOR INFINIX AWS

TAVR REGURGITATION ANALYSIS FOR  
INFINIX AWS



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TABLE SIDE RAIL SET (PAIR) FOR CAT-850B  
OR CAT-880B

TABLE EXTENSION FOR CAT-850B OR CAT-  
880B -- REQUIRES XBER-001A

MULTI-FUNCTIONAL FOOTSWITCH FOR  
SINGLE PLANE AND DUAL PLANE

INFINIX HEADHOLDER KIT

CAT-880B HYBRID TABLE ADAPTOR

REMOVABLE ACCESSORY RAIL SET (TWO  
PIECES)

TABLE MOUNTED RADIATION SHIELD  
(Qty 2)

MAGNETIC SHIELDING KIT FOR 12" X 12"  
FPD

MARK 7 ARTERION INJECTOR (TABLE  
MOUNT)

FREE STANDING PEDESTAL

UNINTERRUPTIBLE POWER SUPPLY VL 480  
SMALL BATTERY

UPS,3PHASE,CABINET,480V

CABINET,BATTERY,SMALL

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PDU,SLIMLINE VASCULAR,480V

REMOTE MONITOR PANEL KIT FOR UPS

REMOTE MONITOR PANEL FOR UPS

HOT SYNC BRIDGE CARD (FOR USE WITH  
REMOTE DISPLAY PANEL)

ADDITIONAL ON-SITE APPLICATIONS  
TRAINING - 32 HOURS

ADDITIONAL CLINICAL APPLICATIONS -  
IRVINE, CA (Qty 2)

CORNER CABINET COVER

VITREA WORKSTATION ANGIO VL3D  
PACKAGE, INCLUDES 3-D ANGIO AND  
GENERAL VESSEL PROBE, POST  
PROCESSING SOFTWARE, HARDWARE,  
AND EDUCATION TRAINING UNITS

VITREAADVANCED, FX MONITOR  
HARDWARE

VITREA WORKSTATION, FX HARDWARE

VITREA WORKSTATION, TOSHIBA US  
ANGIO XA AND CT PKG

3-D ANGIO TABLESIDE EXTENDER FOR  
KEYBOARD AND CABLE

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EXTENDER FOR KEYBOARD/MOUSE

100' CABLE FOR TABLESIDE KIT

VITREA WORKSTATION, ENDOVASCULAR  
STENT PLANNING APP

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- Includes 12 Month Service Warranty.

## **INFINIX-I CARDIOTHORACIC 5-AXIS FLOOR MOUNTED SYSTEM**

### **PRODUCT OVERVIEW**

Infinix-i standard system includes a robust feature set. The following information provides an overview of the key items.

#### **WorkRite Technology:**

The unique flexibility and design of the C-arm, combined with low-profile FPD housing, offers better ergonomic orientation enabling “line of sight” over the system and patient to view the display monitors.

- Infinix-i systems extensive lateral C-arm movement, at the head end of the table, affords an exceptional advantage when accessing the upper extremities, such as in a radial or brachial procedure.
- The flexible mechanical design provides extensive longitudinal travel to allow full body coverage from the patients head to the toes without panning the table.

#### **Access Halo:**

Infinix-i creates the distinctive Access Halo working area.

- The C-arm has the ability to rotate 270 degrees around the table and image from any position, thus creating 180 degrees of open space at the head end of the table.

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- Enables the clinician and ancillary staff to work unencumbered around the equipment especially while performing procedures that require head-end access.

#### **Dose Management Program**

A comprehensive set of dose management tools including grid controlled pulsed fluoroscopy, variable dose level selection, Optibeam with virtual collimation control using LIH, electronic zoom, retrospective fluoro-store and the possibility to record and display image dose parameters.

#### **CARDIOVASCULAR SYSTEM - 12"x12" SINGLE PLANE, FLOOR MOUNTED**

Meeting the challenges of today's healthcare provider, the Infinix VF-i/SP has the ability to perform comprehensive diagnostic and interventional procedures. Infinix-i features technology designed for ease of use, increased efficiency, and improved safety and quality of care while delivering exceptional image quality with significant dose savings.

Infinix-i 12" x 12" flat-panel detector with floor mounted five-axis C-arm offers hovercraft like movements and accessible Access Halo (180 degree head end access) for enhanced patient and equipment interaction. Ideally suited for cardiac procedures, the system also has the capability to perform other cardiovascular imaging procedures.

The Infinix-i digital processor (Type S, Version W4) expands on Toshiba's proprietary Advanced Imaging Processing (AIP) technology, which generate high-resolution images to enhance wire, stent, and device placement. Built-in features include DSA, enhanced fluoroscopy visualization, and Dynamic Trace imaging. The system's digital processor has multi-tasking capabilities to enhance control room workflow and reduce equipment footprint.

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Infinix-i intuitive tableside controls help keep clinicians beside the patient by allowing for one touch control of mechanical and imaging functions such as positioning of the C-arm, real-time changing of dose levels, managing the monitor display, and archiving patient information.

Infinix is designed to improve the patient experience and clinical effectiveness. The exclusive design of the systems mechanics that enable the C-arm to move around the patient and clinical team leads the industry.

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COMPONENT SUMMARY:

**VASCULAR VF-I/SP/FD SYSTEM WITH CAT-880B HYBRID TABLE**

**VF-I/SP/FD MAIN SYSTEM FOR USE WITH CAT-880B HYBRID TABLE**

**STANDARD SYSTEM COMPONENTS**

- |                 |  |
|-----------------|--|
| • CAS-880A      | Five-Axis C-arm, Floor Mounted             |
| • BLA-900A      | Automatic Rotating Collimator              |
| • DSRX-T7345GFS | X-ray Tube                                 |
| • TFP-1200A     | 12" x 12" Flat Panel Detector              |
| • XGCP-880BA    | Tablesides Control HyperHandle             |
| • CAT-880B      | Hybrid Catheterization Table               |
| • XBFS-880S     | Multi-Function Footswitch                  |
| • XTP-8100G     | High-Frequency X-ray Generator 100 kW      |
| • DFP-8000A/W4  | Multitasking Digital Fluoroscopy Processor |
| • XIDF-MIC802   | Intercom Kit                               |
| • XIDF-MCC80S   | Main Console                               |
| • XIDF-PON801   | Power On Switch Box                        |
| • XIDF-FS801S   | Control Room Footswitch                    |
| • XJDK-001A     | Dose Meter Controller                      |
| • XJDC-016A     | LFOV Dose Chamber                          |

**FIVE-AXIS C-ARM, FLOOR MOUNTED - CAS-880A**

Unique, floor-mounted C-arm performs fluoroscopy, radiography and digital fluorography. It provides all clinical angles for diagnostic and interventional procedures with 6'6" head-to-toe and 6' fingertip-to-fingertip access for maximum patient coverage.

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**Specifications:**

- Variable rotation speeds up to 50 degrees per second for fast C-arm angulation
- Stroke of flat panel detector movement (SID): 350 mm, motor-driven
- Isocenter height: 1110 mm
- $\pm 90^\circ$  column rotation
- $\pm 135^\circ$  floor-base rotation

**Positioning Features to Enhance Workflow**

The floor-mounted five-axis C-arm is designed to enhance workflow. Features include:

**C-Arm Movement**

- Flexible positioner that, combined with low-profile housing of the X-ray tube and FPD, optimizes imaging angles.
- Enables variable-speed axial rotations and isocentric fluoroscopy and fluorography with rotations from:
- RAO 120 degrees to LAO 120 degrees
- CRAN 50 degrees to CAUD 90 degrees (head-end position)

**Auto-Positioning/Auto-Set Functions**

- Specify auto-positioning settings sequentially for each study protocol.
- Quickly initiate C-arm positioning and system settings for the desired imaging requirements.
- Record and reproduce over 64 programs of:
- Angulations and SID
- Initial Field of View (FOV)
- Table heights
- Compensation-filter positions



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### **Auto-Angle**

For acquired images, auto-angle stores the following for one-touch recall (can be customized to site):

- C-arm angle
- SID
- Compensation filter position
- Table height
- Magnification size

### **Control Switch Assembly - HyperHandle**

All system movements are operated from the control switch assembly mounted at the side of the catheterization table. This enables quick positioning with high accuracy.

### **AUTOMATIC ROTATING COLLIMATOR - BLA-900A**

- Four-filter, rotating collimator using industry-standard filtration materials, including multiple beam-dose adjustment filters
  - Aluminum 1.8 mm
  - Copper 0.2 mm
  - Copper 0.3 mm
  - Copper 0.5 mm
- Automatic or manual rotating collimator keeps a heads-up alignment
- +/- 135 degree rotation permits optimized collimation for off-angled imaging
- Compensation filters: Fe 1.2 mm
- Control remotely or manually

### **HIGH-CAPACITY X-RAY TUBE WITH LIQUID METAL BEARING - DSRX-T7345GFS**

Quiet, long-lasting and efficient, this tube ensures high throughput and fail-safe imaging.

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- Triple-focus design provides small-focal-spot redundancy for uninterrupted procedure in the event of fluoro filament failure
- Highly efficient, pulsed fluoroscopy with built-in, beam-hardening filters reduces dose
- Continuous, high-speed (9000 rpm) anode rotation provides immediate display of fluoroscopic and fluorographic images

**Other features include:**

- Grid switched
- Maximum kV: 125 kV
- Focal spot: 0.3/0.6/1.0 mm
- Maximum ratings: 17/48/100 kW
- Target angle: 11 degrees
- Maximum anode heat storage: 3000 kHU
- Maximum housing heat storage: 2890 kHU
- Maximum cooling rate anode: 462 kHU/min
- Maximum cooling rate housing: 296 kHU/min
- Heat exchanger: water cooled
- Anode rotation: 9000 rpm

**12" X 12" FLAT PANEL DETECTOR - TFP-1200A**

State of the art flat panel detector technology enhances low dose imaging, offers exceptional image quality, and features Digital Subtracted Angiography (DSA) standard with superior contrast and dynamic resolution.

**Specifications:**

- Multiple Fields of View
  - 12"x12"
  - 8"x8"
  - 7" x 7"
  - 6" x 6"

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- 1536x11536 detector matrix
- Frame rates up to 60 FPS
- 194 micron pixel size
- Removable Grid
- 14-bit pixel depth for extended dynamic range
- Rotation of  $\pm 135^\circ$

#### **TABLESIDE CONTROL HYPERHANDLE - XGCP-880BA**

Adjustable, rail-mounted, tableside control provides functional control of component movement and interface with digital console. Control features a slim profile and ergonomic design with tactile control buttons, enhancing the user experience.

#### **HYBRID CATHETERIZATION TABLE - CAT-880B**

Facilitates catheterization of cardiac, cerebral, abdominal and peripheral areas. As a Hybrid Catheterization Table, can also support some open surgical procedures. Micro-processor-controlled longitudinal movement enables table to be used for numerous radiographic techniques. Flat surface eases movement of patient on and off the table.

#### **Specifications**

- Sliding movements (manual):
  - Longitudinal stroke: 1,350 mm (53.1")
  - Lateral stroke:  $\pm 200$  mm ( $\pm 7.9$ ")
- Vertical movement (motor-driven):
  - 754 mm to 1054 mm (29.7" to 41.5") (from floor level)
- Tilt:
  - 16 degrees (head up) and 16 degrees (head down) (motor-drive for Longitudinal shift when tilted)

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- Lateral Tilt:
  - 16 degrees Left and 16 degrees Right (Manual lateral panning is possible, even when tilted laterally)
- Tabletop rotation range (manual pivot):
  - +90 to 0 degrees
  - 0 to -90 degrees
- Maximum patient weight:
  - 551 lbs. (250 kg IEC) at maximum table extension
  - Can support additional loading of up to 220 lbs. (100 kg) for cardiopulmonary resuscitation (CPR)
- Tabletop Material:
  - Carbon fiber reinforced plastic (CFRP)
- Standard accessories:
  - Tabletop mat
  - Drip infusion stand
  - Arm support, acrylic
  - Armrest, CFRP

**MULTI-FUNCTION BI-PLANE FOOTSWITCH - XBFS-880S**

Provides various image acquisition and other programmable functions via foot pedals and buttons, freeing the clinician's hands and allowing more focus on the patient and image display.

**HIGH-FREQUENCY X-RAY GENERATOR 100 kW - XTP-8100G**

Uses dual-inverter method for increased reliability with redundant inverter. Operates in normal/standard mode, low-dose mode and high-dose mode fluoroscopy.

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**Includes:**

- Control console
- Control cabinet
- Power cabinet with high-speed starter
- Fluoroscopy control cabinet
- System power source cabinet

**Fluorographic Ratings**

- 125 kV, 800 mA (0.1 s)
- 100 kV, 1000 mA (0.1 s)
- 80 kV, 1250 mA (0.1 s)

**Pulsed Fluoroscopy Function**

- Fluoroscopic tube voltage range: 50 kV to 120 kV
- Fluoroscopic tube current range: 200 mA peak
- Pulse width: 1.0 ms to 13 ms
- Repetition pulse rate: 30, 20, 15, 10, 7.5, 5, 3, 2, 1 exp/s (can be selected at the time of installation)
- ABC (auto brightness control) function: provides the automatic adjustment of the tube voltage or the tube voltage and tube current to maintain uniform monitor brightness

**Digital Subtraction Angiography (DSA) Functions**

- Tube voltage range: 50 kV to 125 kV
- Tube current range: maximum 1250 mA (may be restricted depending on the rating of the X-ray tube assembly)
- Pulse width: 1.0 ms to 100 ms

**Digital Angiography (DA) Functions**

- Tube voltage range: 50 kV to 125 kV
- Tube current range: maximum 1250 mA (may be restricted depending on the rating of the X-ray tube assembly)
- Pulse width: 1.0 ms to 25 ms

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### **Acquisition Modes**

#### DA Acquisitions:

- 30, 15, 10, 7.5, 5, 3, 2, 1 FPS at 1024x1024 x 8, 10 or 12-bits
- 60 FPS at 512<sup>2</sup> x 8, 10 or 12 bits (available in 8" FOV or less)

#### DSA Acquisitions:

- 30, 15, 10, 6, 3, 2, 1, 0.5, 0.3 FPS at 1024x1024 x 12-bits

#### Fluoro Acquisitions:

- 30, 20, 15, 10, 7.5, 5, 3, 2, 1 FPS at 1024x1024 x 10 bits

### **MULTITASKING DIGITAL FLUOROSCOPY PROCESSOR - DFP-8000A/W4**

Toshiba's digital processor provides a variety of features to enhance workflow and image processing.

### **Common Graphic User Interface**

The new digital platform comes with a graphic user interface that is common across modalities on all Toshiba devices for more intuitive operation of all systems.

### **Advanced Image Processor (AIP)**

Toshiba's exclusive imaging technology – AIP (advanced image processing) – is a combination of software, filters and proprietary hardware. AIP enables enhanced visualization of small devices and structures while providing real-time response to optimize the collection of critical imaging information during the most demanding procedures.

### **Advantages Over Conventional Imaging**

- Virtually instant-on fluoroscopy: to help capture critical information at fluoro initiation.
- Noise and anti-blooming suppression technology: to provide a more uniform, high-resolution presentation of the image during fluoroscopy.

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- Virtually zero lag during fluoroscopic imaging: to further enhance visualization during movement and while manipulating wires.

### **Proprietary Technology**

AIP proprietary computing technology brings a new dimension to the overall performance of the system, adding specific functions for either targeted or general anatomical imaging to advance treatment planning and intervention. This includes:

- **Dynamic Pattern Recognition Filter (DPRF):** enhances visibility with digital recognition of devices to differentiate devices from anatomy.
- **Dynamic Digital Compensation Filter (DDCF):** improves exam efficiency and decreases dose by reducing the need for acrylic filters.
- **Super Noise Reduction Filters (SNRF):** allows for better visualization of anatomy and device by reducing noise, even with acute angulations. These enhancements reduce the amount of noise and lag in digital imaging for both digital angiography (DA) and fluoroscopy.

### **Dynamic Trace**

- Use in a panning mode while imaging the lower extremities, and for Bolus Chase examinations, for a more uniform image display and background compression. This provides greater vessel detail even when vessels overlap bone.

### **Guideview Subtracted 2-D Roadmap Fluoro**

Toshiba's proprietary Guideview technology is particularly useful during roadmap imaging and can reduce the amount of contrast injections and dose. Guideview provides the ability to:

- Fade background vs. vessel
- Reverse blacks and whites
- The combination of these two features provides the ability to better distinguish and visualize guide wires within the vessel

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- Landmark image
- Adjust brightness and contrast realtime
- Create using LIH or acquired image

**Features include:**

- Peak Pixel Roadmap – provides the optimal, live, peak, fluoroscopic-subtracted roadmap image for enhanced treatment and device deployment.
- Add Subtracted Fluoroscopy – provides a completely subtracted display to better visualize live contrast injections or embolic materials.
- CO<sub>2</sub> DSA – provides the optimal, live, CO<sub>2</sub> (low-density pixel), fluoroscopic subtracted roadmap image for enhanced treatment and device deployment without the use of iodinated contrast media.

**Fluoro Record and Fluoro Store**

Enables the easy use of fluoro store and playback to further study regions of interest, potentially reducing overall radiation dose. Ideal for pediatric imaging.

- Tableside, one button control
- 90 seconds or 1020 frames of prospective recording
- 60 seconds or 900 frames of retrospective recording

**Digital Live Zoom**

Live zoom digitally enlarges images in real time during both fluoroscopy and digital acquisition (DA) and offers the capability to provide a dose savings alternative compared to traditional field of view (FOV) magnifications.



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**Length / Diameter Measurement**

Enables quick measurement from tableside or control booth. Up to 26 measurements can be made on one image. Calibration (three methods) can be performed by using; System Auto-calibration based from iso-center, or catheter French size, or object of known diameter or length.

**Virtual Collimation using Last Image Hold**

Provides an electronic outline to position the collimator and acrylic filter without fluoroscopy, further reducing dose.

**DA and DSA**

The user-friendly, icon-driven platform provides intuitive, rapid, tableside control over image processing and data management.

**Radiographic "One Shot" Mode**

Allows the capture of a single image at radiographic technique level. Image can be used as a mask for functions such as "Guideview" subtracted roadmap fluoro.

**Simultaneity**

True multi-tasking including:

- Image retrieval
- Image acquisition
- Post processing
- Archiving
- Printing

**Prevision**

Enables retrieval and display of previously acquired Infinix i-series images as reference during follow-up procedures.

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#### **Post-Processing Software**

- Auto-window
- Roam and zoom
- Distance measurement and stenosis ratio measurement
- Spatial filtering (edge enhancement)
- Brightness/contrast control
- Landmarking percent
- Peak trace
- CO2 trace
- Shutter control
- Annotation
- Image rotation
- Pixel shift
- Panaramic view (available with S-DSA)

#### **Image Recording Unit**

High-capacity, high-speed disk (RAID Level 3):

- Maximum recording number:
  - 1024x1024 8/10/12-bits: 118,800/95,000/79,200 loss-less compression
- Online recording
- DVD-R and CD-R Recording
- DICOM 3.0, 512x512 or 1024x1024 8/10/12-bits, JPEG loss-less compression
- Up to 4,800 frames at 512x512 x 8 bits

#### **DICOM Conformance and Dose Reporting**

- DICOM Store/Store Commitment, Query/Retrieve
- DICOM MWM and MPPS
- DICOM Structured Dose Reporting provides a comprehensive data set of procedural dose information that is available for output to further analyze and track dose information.

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#### **MAIN CONSOLE - XIDF-MCC80S**

Control room console with similar functions as exam room console, which enhances workflow due to a more intuitive use of the system. From inside the control room a user can:

- Operate the ring menu
- Use pre-programmed functions
- Control collimator and filters
- Review and manipulate images

#### **POWER ON SWITCH BOX - XIDF-PON801**

The Power On Switch attaches to the DFP monitor and includes system power on and off switches, an emergency power off switch and handheld controller for in control room digital acquisitions.

#### **INTERCOM KIT - XIDF-MIC802**

- Includes noise-reduction transformer
- Remote operator activates microphone/speaker with footswitch
- In-room microphone/speaker mounts on monitor support

#### **FOOTSWITCH FOR CONTROL ROOM - XIDF-FS801S**

Footswitch that enables fluoroscopy to be initiated from inside the control room.

#### **DOSE METER CONTROLLER - XJDK-001A**

Manages dose when combined with a dose chamber (part XJDC-009A or XJDC-016A) on the front of the beam-limiting device.

**Sends the following data to the digital fluoroscopy processor:**

- Exposure time
- Dose area product (DAP) in  $\mu\text{Gycm}^2$
- Dose area product rate (DAP) in  $\mu\text{Gycm}^2/\text{s}$
- Calculated surface dose in mGy
- Calculated surface dose in mGy/s

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**LFOV DOSE CHAMBER - XJDC-016A**

For cardiovascular tube. Mounted on top of the collimator to enable dose data for real-time display.

**IMAGE MAKER EXPRESS**

Image Maker Express is an online marketing resource that helps Toshiba customers build demand for imaging service by growing their referring physician and patient relationships. Image Maker Express includes:

- Easy-to-use marketing resources and tools developed exclusively for Toshiba customers to bring together effective marketing strategies and tactics.
- A wealth of collaterals and content to create high-quality brochures, print ads and more to help market the Toshiba customer's new imaging capabilities.

Image Maker Express Materials available include:

- Product images and logos
- Clinical images and videos
- PowerPoint presentations and promotional videos
- Brochure samples
- Customizable press releases and media tips
- Marketing strategy tutorials

*\*Offerings may vary per product*

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### **APPLICATION TRAINING**

Toshiba provides an outstanding training package with the purchase of each system to ensure users are proficient in the Infinix-i technology. Each system includes three phases of operator training.

**Phase I:** A four (4) day, off-site intensive course on the system operation.

- Conducted at the Toshiba Education Center in Irvine, California
- Accredited for continuing education by the ASRT Education Foundation
- Two attendance vouchers include course tuition and travel expenses provided with each system
- One technologist must attend prior to system installation
- The second voucher is valid for one year following installation
- Additional vouchers available for

**Phase II:** 32 hours of training that builds on the Phase I academy training.

- On-site at client facility (imaging patients required)
- Training for up to four technologists
- Technologists who attend the academy course must attend Phase II

**Phase III:** 16 hours of follow-up training.

- On-site at client facility
- Approximately 8-10 weeks after Phase II training

### **Additional On-Site Training:**

Additional On-site training available for purchase.

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### **CUSTOMER CARE SERVICES**

Developed with customer input, Toshiba's innovative support programs have resulted in increased customer satisfaction. The following support programs are available to customers covered under warranty:

#### **InTouch Center®**

This centralized service facility provides applications and service support 24 hours a day, seven days a week.

#### **InnerVision™ Plus**

Remote system diagnostics are available around the clock to help identify problems and provide potential solutions before care is interrupted.

#### **Technical Assistance**

Customer support specialists are available 24/7 to help resolve technical issues in real time.

#### **Local Customer Teams**

A single call mobilizes a local team of Toshiba customer engineers. With an average of over 10 years of Toshiba experience and more than 100 hours of specialized training, they can resolve any performance issue.

#### **Parts Support**

A complete inventory of product parts maintained in 34 parts depot locations throughout the country for shipment when and where they are needed, any time of day or night.

### **INTOUCH SERVICE MAINTENANCE AGREEMENTS**

Toshiba offers a variety of customizable service plans ranging from shared risk to full security maintenance agreements that provide complete system coverage.

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### **HYBRID CATHETERIZATION TABLE**

Facilitates catheterization of cardiac, cerebral, abdominal and peripheral areas. As a Hybrid Catheterization Table, can also support some open surgical procedures. Micro-processor-controlled longitudinal movement enables table to be used for numerous radiographic techniques. Flat surface eases movement of patient on and off the table.

#### **Please Note:**

When combined with the Infinix DP-i, the tilt function of CAT-880B is not available when using the floor mounted c-arm positioner. Only available when using the ceiling mounted 12"x16" panel mounted c-arm.

#### Sliding movements (manual):

- Longitudinal stroke: 1,350 mm (53.1")
- Lateral stroke:  $\pm 200$  mm ( $\pm 7.8$ ")

#### Vertical movement (motor-driven):

- -750 mm to 1050 mm (-29.5" to 41.3") (from floor level)

#### Tilt:

- 16 degrees (head up) and 16 degrees (head down) (motor-drive for Longitudinal shift when tilted)

#### Lateral Tilt:

- 16 degrees Left and 16 degrees Right (Manual lateral panning is possible, even when tilted laterally)

#### Tabletop rotation range (manual pivot):

- +90 to 0 degrees
- 0 to -90 degrees

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Maximum patient weight:

- 550 lbs. (250 kg IEC) at maximum table extension
- Can support additional loading of up to 220 lbs. (100 kg) for cardiopulmonary resuscitation (CPR)

Material:

- Carbon fiber reinforced plastic (CFRP)

Standard accessories:

- Tabletop mat
- Drip infusion stand
- Arm support, acrylic
- Armrest, CFRP

**ARMRESTS ABOVE HEAD FOR CAT-880B**

This armrest allows the patient's arms to rest comfortably when they are positioned above the patient's head.

*For use with CAT-880B Table*

**BASEPLATE FOR CAS-880 1400 MM**

**21 INCH COLOR MONITOR**

**VGA CONNECTION ADAPTER**

**LCD FLAT-PANEL COLOR MONITOR 21**

- 21.3" LCD monitor
- 1600x1200 display matrix
- 420 cd/m<sup>2</sup> luminance (typical)



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**CABLE CARRIER KIT, 8'**

**ARMREST SET**

Table mounted arm rest enables support for both arms.

**ARMREST, ONE SIDE**

Carbon fiber arm rest for the right or left side. One is included standard with CAT-850B table.

**ANTI-FATIGUE FLOOR MAT**

**SERVICE INSTALLATION COMPONENTS**

**BIOMED TRAINING - TUITION ONLY - INFINIX SERIES (8 CLASS DAYS)**

The Infinix Series training course is for biomed customer engineers who will have the responsibility to provide support for any of the Infinix-I Series Vascular X-ray system configurations including Angio and Cardiac. The training course will focus on the Infinix theory of operation, diagnostic procedures, calibration, preventative maintenance, and repair.

This course will also cover the Flat Panel Display technology.

This course will be conducted with a blend of instructor-led classroom discussions and laboratory hands-on practice.

This course includes KXO 8100G and Vascular Positioner.

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As part of the requirements to pass this course, all biomed students will be required to participate in lab exercises. There will also be review sections during the class that will be used to check comprehension of various course modules.

***Prerequisites***

- Basic X-Ray and Fundamental Knowledge (VA110)
- Vascular Introduction Study Guide (VA111)

Students must bring notebook computers equipped with Pentium-class CPUs, 1GB or more of available hard disk space, Windows 2000 or XP, Office 97 or later, CD-ROM drive, serial port RS232, and network connectivity. Laptops are not available to borrow or rent during class.

**VASCULAR OPTIONS FOR DFP-8000B SERIES**

**INTERVENTIONAL DASHBOARD - SP/DP 30" SOLUTION**

The Interventional Dashboard brings your important computer based tools to your fingertips. Up to eight (8) different systems can be interfaced into the Interventional Dashboard, providing a single collaborative workstation with one keyboard and one mouse.

Easily modify screen inputs and video sizes for optimal customization based on clinical need or preference. One system can be controlled at a time so you can update patient charts while viewing the information you need at the same workstation.

**Includes:**

One Color LCD Display

- 4.0 mega pixel (2560 x 1600)
- 30 inch diagonal (~596 x 335 mm, H x W)
- 300 cd/m<sup>2</sup> typical luminescence rating

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Connection Hardware

- Interface module
- Cabling to connect Live and Reference x-ray images
- Cabling to connect four external sources

Keyboard and Mouse

*Note: The monitor/ device is not for use for screening or diagnostic mammography*

**4 MEGA PIXEL (2560 X 1600), 30 INCH WIDE, COLOR LCD DISPLAY**

Color LCD Display for use with the Interventional Dashboard 30" monitor solution.

- 4 mega pixel (2560 x 1600)
- 30 inch diagonal (~641 x 400 mm, H x W)
- 1000 cd/m<sup>2</sup> typical luminescence rating

*Note: The monitor/ device is not for use for screening or diagnostic mammography*

**LARGE MONITOR MANAGER FOR RADIFORCE DUAL MX270W-BK, 8 INPUTS**

**ADAPTER, DVI TO HDMI (Qty 6)**

**D-SUB TO D-SUB CABLE, 2M**

**USB CABLE, 2M (Qty 4)**

**SINGLELINK DVI-D TO DVI-D 24 PIN, 2M (Qty 4)**

**USB KEYBOARD AND MOUSE KIT**

**SELECT WALLMOUNT CABINET, 6U**

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**19" RACKMOUNT POWER STRIP, 6 REAR OUTLETS, SWITCHABLE  
FAN**

**19" RACKMOUNT SHELF**

**19" GRAYSCALE MONITOR (Qty 4)**

Grayscale flat panel display monitor.

- 1 mega pixel (1280 x 1024)
- 19 inch diagonal
- High contrast ratio 900:1 and luminance 1000 cd/m<sup>2</sup>

**21 INCH COLOR MONITOR (Qty 2)**

**VGA CONNECTION ADAPTER (Qty 2)**

**LCD FLAT-PANEL COLOR MONITOR 21 (Qty 2)**

- 21.3" LCD monitor
- 1600x1200 display matrix
- 420 cd/m<sup>2</sup> luminance (typical)

**THIRD MONITOR PORT FOR SINGLE PLANE TYPE-S**

**58" MONITOR FOR SINGLE PLANE AND SELECT (Qty 3)**

The 58" monitor displays critical patient information on one display and allows easy image display size, content or pattern changes with the joystick function on the Infinix tableside control.

The 58" monitor display system:

- Combined with Infinix-i imaging capabilities and the monitor suspension system, enhances the clinical environment and provides more critical patient information in one display.

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- Improves the working space by reducing the profile of the monitor assembly and connection cabling.
- Provides and displays both patient information and anatomical images in a variety of sizes and patterns.
- Can quickly change from one enlarged image to six different displays, or choose from a multitude of display combinations.
- LMM Box is an ancillary component of the Eizo Video Integration Solution that enables video connectivity of multiple devices for display on the 58" monitor.
- Package includes a video scaler to accommodate automatic recognition of variable video resolution formats includes VGA, DVI, BNC and S-Video connectors for external Video input of mobile devices (i.e. Ultrasound) used during the case.
- One (1) 19" Monochrome backup monitor is included.

#### **Components**

- High-resolution 58" monitor display
- Monitor guard
- Digital processor with up to 27 inputs to manage image display sizes and patterns
- Programmable touch panel to change and arrange image sizes and display patterns based on clinical preferences
- Video scaler and DVI extender for connection of mobile devices at tableside.

*Monitor suspension sold separately*

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### **58" LCD MONITOR (Qty 3)**

### **19" GRAYSCALE MONITOR (Qty 3)**

Grayscale flat panel display monitor.

- 1 mega pixel (1280 x 1024)
- 19 inch diagonal
- High contrast ratio 900:1 and luminance 1000 cd/m<sup>2</sup>

### **MONITOR MOUNT BRACKET ASSEMBLY (Qty 3)**

Mounts one smaller monitor, typically 19", on the rear of a 56" monitor suspension unit.

- Bracket holds one smaller monitor (typically non-fluoro) with a 100 VESA mount
- Mounts to rear on either side of the VVIEW suspension assembly to provide additional location for alternate monitor (maximum of two monitors, one for each side)

*Note: Total weight of each monitor must not exceed 20 lbs each. Maximum weight of combined optional items may not exceed 155 lbs. Consult with your Toshiba representative to determine total weight payload.*

*Alternate monitor sold separately.*

### **INSTALLATION KIT FOR 58" MONITOR SINGLE PLANE AND SELECT (Qty 3)**

The 58" monitor displays critical patient information on one display and allows easy image display size, content or pattern changes with the joystick function on the Infinix tableside control.

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#### **Components**

- High-resolution 58" monitor display
- Monitor guard
- Digital processor with up to 27 inputs to manage image display sizes and patterns
- Programmable touch panel to change and arrange image sizes and display patterns based on clinical preferences
- Video scaler and DVI extender for connection of mobile devices at tableside.

*Monitor suspension sold separately*

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**LMM BOX (Qty 3)**

**DUAL DVI TRANSMISSION LINK (Qty 6)**

**BRACKET FOR LMM BOX (Qty 3)**

**FAN (Qty 9)**

**ADAPTER, DVI TO HDMI (Qty 6)**

**10" TOUCH SCREEN CONSOLE (Qty 3)**

**D-SUB TO D-SUB CABLE,2M (Qty 3)**

**CABLE SET FOR CAT 7, 100 FT (4 PACK) (Qty 3)**

**WALL MOUNT BRACKET WITH ARTICULATING ARM EXTENSION  
(Qty 3)**

**WALL CHANNEL WITH HARDWARE (Qty 3)**

**INSTALLATION CABLES FOR 56/58" MONITOR (Qty 3)**

**NETGEAR 5-PORT SWITCH (Qty 3)**

**100' VGA CABLE (Qty 3)**

**10' VGA CABLE (Qty 3)**

**100' CABLE FOR TABLESIDE KIT (Qty 3)**

**VGA SPLITTER WITH AC/DC ADAPTER (Qty 3)**

**MOUNTING BRACKET FOR 10" TOUCH SCREEN CONSOLE (Qty 3)**



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**CABINET FOR 56/58" LCD COLOR DISPLAY MONITOR (Qty 3)**

Wall or floor mounted storage unit to house VVIEW electronic components.

**PROTECTOR FOR 56/58" MONITOR (Qty 3)**

Provides protection for the 56" monitor glass. This commercially available device is easy to install and remove at a moment's notice, allowing greater flexibility for the medical staff to have individual preference when deciding when to use or not use the 56" monitor protection device.

**UNIVERSAL CONNECTION MODULE (Qty 3)**

The UCM enables connection of a variety of mobile medical devices for video input on the 56/58" monitor. This unique design is capable of accepting and converting video signal from; DVI, VGA, BNC, and S-Video. Only one video signal can be input at a time.

**ANALOG TO DVI CONVERTER (Qty 3)**

**DVI EXTENDER AND RECEIVER CABLE (Qty 3)**

**ADAPTER, DVI TO HDMI (Qty 3)**

**IMAGE CONNECTION MODULE (Qty 9)**

The ICM enables extension of a single DVI video output, maximum resolution 1920x1200@60Hz, providing the ability to interface ancillary medical devices for display on the 56/58" monitor. The ICM typically resides in the control room, where one ICM is needed for each video output intended to be displayed on the 56/58" monitor.

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**DVI SPLITTER, EXTENDER AND TRANSMITTER (Qty 9)**

**CAT7 CABLE, 100 FT (Qty 9)**

**DVI EXTENDER AND RECEIVER CABLE (Qty 9)**

**ADAPTER, DVI TO HDMI (Qty 9)**

**56" MONITOR SUSPENSION FOR IDI RAILS FOR VFI AND CFI SP ONLY (Qty 2)**

Optimizes monitor positioning around the patient table with an articulating arm for vertical height adjustments and a column that allows virtually 360 degree rotation. The transverse provides ample side-to-side positioning with a 60-inch movement range.

- Holds one VVIEW/56 monitor with a VESA 400 mount
- Total weight payload: 155 lbs (70.45 kg)
- Complete assembly included:
  - Bridge
  - Interface
  - IDI rails: 17' 8"
  - Rail assembly: 17' 8"
- Accommodates up to two monitor mount bracket assemblies or mounting brackets for monochrome monitors to rear-mount smaller monitors (typically 19")
- Includes attachments and grounding hardware including a 100-foot AC power cable

Other optional devices will add payload weight. Please consult with a Toshiba representative regarding adding items to this assembly.

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**VVIEW/BRACKET.100      MOUNTING BRACKET FOR MONOCHROME MONITOR AND  
CONNECTION HARDWARE (Qty 3)**

Mounts one 19" monochrome monitor (Toshiba Model # SMD19102TCS) at the rear of the VVIEW suspension assembly for use in fluoroscopic imaging.

Connection hardware included.

**MONITOR MOUNT BRACKET ASSEMBLY (Qty 3)**

Mounts one smaller monitor, typically 19", on the rear of a 56" monitor suspension unit.

- Bracket holds one smaller monitor (typically non-fluoro) with a 100 VESA mount
- Mounts to rear on either side of the VVIEW suspension assembly to provide additional location for alternate monitor (maximum of two monitors, one for each side)

*Note: Total weight of each monitor must not exceed 20 lbs each. Maximum weight of combined optional items may not exceed 155 lbs. Consult with your Toshiba representative to determine total weight payload.*

*Alternate monitor sold separately.*

**KRAMER KIT (Qty 3)**

**CABLE, BNC, 10' (Qty 3)**

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## **XIDF-ROT801**

## **ROTATIONAL ANGIOGRAPHY TECHNOLOGY**

The system has integrated multiple forms of rotation technology to include high-speed C-arm rotation for 3-D acquisition and 2-D rotational capabilities. High-speed rotation provides acquisition frame rates ideal for high-resolution 3-D reconstructions.

### **Specifications**

- Image size: 1024x1024; 12-bit
- Image rate (FPS): Up to 25 FPS at 1024x1024 matrix
- Acquires images throughout and up to a 200-degree C-arm arc
- X-ray exposure timing: angle trigger method
- Provides 3-D color image display for enhanced diagnosis, treatment planning and interventional procedures.

### **Rotational DSA**

- Programmable single-axis rotation (manual or auto) to optimize display area

## **SPOT FLUORO**

Spot Fluoro software takes collimation to a new level by enabling asymmetric collimation and Last Image Hold (LIH) Overlay.

With asymmetric collimation a desired region of interest (ROI) can be specified anywhere in the field of view. This off-center, free spot, collimation capability enhances workflow by allowing the collimator blades to work around the patient so repositioning is eliminated.

LIH Overlay merges the collimated live fluoro onto the full field of view LIH, on a single monitor. Reference anatomy or landmarks remain on the same monitor, enabling collimation when traditional methods restricted its use.

***Note: This software is not compatible with a Dual Plane system or with a floor mounted 12" x 16" c-arm.***

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### **DSA STEPPING**

Software that provides micro processor control of stepping functions, and real-time display of DSA images. Stepping is user controlled. Ideal for use during lower-extremity contrast-injected examination.

#### **Specifications**

- Image size: 1024x1024; 12-bit
- Image rate (FPS): 15, 10, 6, 3, 2, 1 can be selected at the time of installation
- Stages: 8 (7 steps)
- Speed: 1.7 sec/step
- Stroke:
  - 120 mm (4.7") minimum
  - 220 mm (8.6") maximum
- Maximum sweep: 1350 mm (53.1")
- Three sweeps:
  - Set up exposures at fluoro dose levels (abdomen to feet)
  - Mask acquisition (feet to abdomen)
  - DSA exposures (abdomen to feet)

### **SECONDARY CONTROL BOX WITH STAND FOR SINGLE PLANE**

Second control unit (satellite console) for all Infinix-i single plane floor mount systems. Joystick control and function buttons virtually duplicates all functions on the HyperHandle tableside control and includes roll around mounting stand.

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#### **AWS-ANGIO-KIT.100**

#### **AWS 3-D ACQUISITION AND REMOTE KIT (ALSO REQUIRES VITREA VL3D PACKAGE)**

This option for Infinix-i systems provides the necessary hardware and software for acquisition, reconstruction and display of 3-Dimensional Angiographic image data. From the head-end approach to the patient table, the c-arm can be programmed to acquire a serial acquisition over a 200-degree arc around the target area. A special high-speed reconstruction PC provides fast transfer and display of the 3-D images on the Vitrea VL 3-D software. The included 3-D Angio Tableside Kit provides for tableside display and manipulation of the 3-D image data.

This option is integral and a prerequisite for the optional Low Contrast Imaging (CT-like data) and Roadmapping options.

#### **3-D ANGIO SOFTWARE**

#### **KEYBOARD FOR TABLESIDE KIT**

#### **USB OPTICAL MOUSE FOR TABLESIDE KIT**

#### **INFINIX KEYBOARD AND MOUSE TABLESIDE RAIL MOUNT ASSEMBLY**

Designed to mount on any Infinix-i tableside rail set. Easily attaches to the tableside rails and provides an adjustable platform to hold a keyboard and mouse.

The assembly has multiple pivot points to accommodate a variety of positions to provide an ergonomic friendly setup. Enables the ability to conveniently place a keyboard and mouse right at tableside to interface with exam room monitors

Also the assembly is designed to alternately mount a touch screen of monitor at tableside. Components are included to enable this attachment.

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### **LCD FLAT-PANEL COLOR MONITOR 21**

- 21.3" LCD monitor
- 1600x1200 display matrix
- 420 cd/m<sup>2</sup> luminance (typical)

### **VIDEO SWITCHER FOR 21" EXAM ROOM MONITOR**

2-port desktop KVM switching for PS/2 or USB CPUs.

### **3-D ANGIO TABLESIDE EXTENDER FOR KEYBOARD AND CABLE**

Remote table side kit provides remote control of 3-D solutions at the exam table.

- The KVM extender solution carries relative keyboard, video and mouse signals from the 3D solution inside the control room to the color LCD display, keyboard and mouse that are added at tableside to allow full control of the 3D operations in the exam room.
- Placing a transparent sterile drape over mouse (and keyboard if desired, but not necessary) allows control by scrubbed-in personnel.

### **EXTENDER FOR KEYBOARD/MOUSE**

Provides long-distance transmission of video signal in various formats:

- 1600 x 1200 up to 200 meters
- 1280 x 1024 up to 300 meters

### **100' CABLE FOR TABLESIDE KIT**

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#### **APPS-ONSITE-32**

#### **ADDITIONAL ON-SITE APPLICATIONS TRAINING - 32 HOURS**

- Four (4) consecutive days (32 hours) additional on-site applications support for all modalities.
- (trainer's expenses included)
- Training is held Monday through Friday only, with Monday mornings and Friday afternoons scheduled as travel time for trainers

#### **LOW CONTRAST IMAGING FOR INFINIX AWS**

This feature provides for the acquisition and display of "CT-like" imaging.

- Select acquisition of 2-D image data sets of approximately 250, 400 or 600 images/projections. Approximate acquisition times:
  - 250 images: 10 seconds
  - 400 images: 15 seconds
  - 600 images: 20 seconds
- The higher the image number, the better the resolution of the resulting 3- D volume and MPR's (Multi-Planar Reformations).
- Image display parameters are optimized to low-contrast image densities, and are particularly useful for soft-tissue diagnosis.
- LCI images are transferred and displayed on the 3-D workstation automatically from the DFP-8000 upon completion of acquisition.

*Prerequisite: 3D-ANGIO*

#### **3-D ROADMAP WITH NEEDLE GUIDANCE FOR INFINIX AWS**

Infinix-i software option to provide 3-D Angio image super-imposed over live fluoroscopy

- Superimposed 3-D image is linked to all system mechanical movements to maintain accurate alignment of 3-D image with fluoroscopy projection as c-arm or table position changes
- Device enhance processing improves visualization of fine metallic interventional devices



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- Simple, convenient user interface for manual adjustment, if desired
- Multiple display modes, solid or hollow vessel with transparency adjustment
- Needle Guidance
  - Included as standard with Toshiba's Volume Navigation 3-D Roadmap is a Needle Guidance application, which provides pathway planning and real-time guidance for percutaneous interventions

***Prerequisite:***

- 3-D Angio, including XIDF-3DI801 and XIDF-AWS801 software and hardware.
- Modality image which the Needle Guidance application can fuse:
  - 3D-Angio (3D-DA, 3D-DSA) included as standard
  - LCI (Low Contrast Imaging, Requires option XIDF-LCI801
  - CT Requires option XIDF-3DP803

**3-D MULTI MODALITY FUSION (CT & MR) ROADMAP SOFTWARE FOR INFINIX AWS**

3-D Multi-Modality Fusion Roadmap is a software application that enables overlay of live 2-D fluoro images, with previously acquired 3-D image data sets, to enhance 3-D anatomical reference. The previously acquired 3-D data sets can be rendered from either a CT or MR scanner or the Toshiba Infinix systems using LCI or 3-D Angio.

3-D volumes are reconstructed using the Angio Work Station PC, then projected on the Infinix exam room monitor where it is overlaid by live 2-D fluoro images. This functionality enables real-time integration of 3-D anatomical information to better aid clinical guidance and procedure planning. Automated c-arm positioning is integrated with the 3-D anatomical reference image for enhanced clinical workflow.

***Requires DFP-8000B/B2 and XIDF-AWS801/B1 or later, 3D-ANGIOKIT and 3D Roadmap software. LCI software is required when customer desires to perform tableside CT-like imaging for creating a 3D model of the LA for ablations as well as using previously acquired CT datasets.***

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## **AWS QUANTITATIVE ANALYSIS KITS**

### **BASIC KIT FOR CLINICAL ANALYSIS APPLICATION**

This is platform software to operate the clinical analysis applications, such as QCA, QVA, LVA, LVA-BP, RVA, QCA3D and Stent Enhancer.

Features:

- DICOM Viewer for 2D XA images.

### **QUANTITATIVE CORONARY ANALYSIS**

Quantitative Coronary Analysis (QCA) software package for use in clinical practice and research. This software features automatic contour detection of the coronary artery of interest and analysis of its dimensions.

Features:

- Automatic contour detection is supported for QCA.
- Various calibration methods such as catheter calibration, sphere calibration, and distance calibration are available.
- Report files of QCA can be transferred to DFP-8000B or PACS server, and can be referred in the examination room and control room.

### **QUANTITATIVE VESSEL ANALYSIS**

Quantitative Vessel Analysis (QVA) software package for use in clinical practice and research. The QVA software is used for quantitative analysis of blood vessels such as the aorta, iliac arteries, renal arteries, etc. QVA supports automatic contour detection for vessels up to 50 mm in diameter.

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Features:

- Automatic contour detection is supported for QVA.
- Various calibration methods such as catheter calibration, sphere calibration, and distance calibration are available.
- Report files of QVA can be transferred to DFP-8000B or PACS server, and can be referred in the examination room and control room.

### **STENT ENHANCER SOFTWARE**

Stent Enhancement Software Package for use in clinical practice and research. This software supports depiction of the stent by suppressing anatomical structures and background noise in a single XA image acquired while the delivery balloon is still in place after deployment of the stent.

Features:

- Automatic and user-specified marker detections are supported.
- Enhanced images can be transferred to DFP-8000B or PACS server as capture file, and can be referred in the examination room and control room.

### **3D QUANTITATIVE CORONARY ANALYSIS KIT**

#### **3D QUANTITATIVE CORONARY ANALYSIS**

#### **QUANTITATIVE CORONARY ANALYSIS**

Quantitative Coronary Analysis (QCA) software package for use in clinical practice and research. This software features automatic contour detection of the coronary artery of interest and analysis of its dimensions.

Features:

- Automatic contour detection is supported for QCA.
- Various calibration methods such as catheter calibration, sphere calibration, and distance calibration are available.

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- Report files of QCA can be transferred to DFP-8000B or PACS server, and can be referred in the examination room and control room.

### **TAVR SUPPORT KIT 3 MITRAL VALVE ANALYSIS**

#### **TAVR SUPPORT KIT 3**

#### **ADDITIONAL ON-SITE APPLICATIONS TRAINING - 32 HOURS**

- Four (4) consecutive days (32 hours) additional on-site applications support for all modalities.
- (trainer's expenses included)
- Training is held Monday through Friday only, with Monday mornings and Friday afternoons scheduled as travel time for trainers

### **TAVR MITRAL VALVE ANALYSIS FOR INFINIX AWS**

This allows the feasibility of a mitral valve replacement procedure to be assessed. This can combine 2D scan slices into comprehensive 3D models of the patient, and can display X-ray Angio data. Auto angle of the C-arm is available.

***Prerequisite: DFP-8000B/B2, Angio Workstation (v6.0 or greater) and XIDF-TAV803/A1***

### **TAVR LEFT ATRIUM APENDAGE ANALYSIS FOR INFINIX AWS**

Allows the feasibility of a left atrium appendage closure procedure to be assessed. Can combine 2D scan slices into comprehensive 3D models of the patient, and can display X-ray Angio data. Auto angle of the C-arm is available.

***Prerequisite: DFP-8000B/B2, Angio Workstation (v6.0 or greater) and XIDF-TAV803/A1***

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#### **XIDF-TAV806/A1**

#### **TAVR REGURGITATION ANALYSIS FOR INFINIX AWS**

Allows the quantification of aortic regurgitation after TAVR procedure by using 2D images.

*Prerequisite: DFP-8000B/B2, Angio Workstation (v6.0 or greater) and XIDF-TAV803/A1*

#### **TABLE SIDE RAIL SET (PAIR) FOR CAT-850B OR CAT-880B**

- Designed for application with the CAT-850B or CAT-880B tables only
  - Tableside rail set (2), one for each side
- Designed to accommodate Infinix table controls and common accessories (i.e., I.V. pole)

#### **TABLE EXTENSION FOR CAT-850B OR CAT-880B -- REQUIRES XBER-001A**

Auxiliary table extension installed at the foot end of the table. Easily folds over on to the foot end of the table when not in use.

#### **MULTI-FUNCTIONAL FOOTSWITCH FOR SINGLE PLANE AND DUAL PLANE**

Second tableside footswitch for use with Single Plane or Dual Plane systems. Offers the same functionality as the included footswitch. Up to two may be connected to each Infinix system.

#### **INFINIX HEADHOLDER KIT**

Effective immobilization and comfortable positioning tool for a patient's head during vascular imaging procedures. Vinyl-coated foam positioning sponges. Kit includes:

- 9408 Headholder
- 9402 Mandibular support pads

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- 9403 Forehead pad and strap
- 9404 Chin strap
- 9405 Neck wedges, set of 3 (different sizes for different-sized heads)

#### **CAT-880B HYBRID TABLE ADAPTOR**

The 9434 is specifically designed for the 5-axis hybrid catheterization table and its head-to-toe and lateral tilt movement. Dimensions: 22" x 51.33" x .22"

ORDERED SEPARATELY: either the 9431, 9415 or 9438 rails depending on procedure.

#### **REMOVABLE ACCESSORY RAIL SET (TWO PIECES)**

9.4 mm x 28.5 mm x 28" Removable Accessory Rail with Clark Socket Notch. For use with the 9434 Table Extender (will work with all Toshiba table extenders). Set of two, notch on rails should locate between middle clamp and head end of table.

#### **TABLE MOUNTED RADIATION SHIELD (Qty 2)**

Provides additional radiation protection from direct and scatter X-ray exposure.

- Mounts on Toshiba Infinix-i tableside rails, reversible for right or left side mounting
- Three-piece radiation shield assembly:
  - Main shield: 181 mm x 645 mm
  - Angled side shield: 700 mm x 645 mm
  - Tabletop scatter shield: 700 mm x 700 mm (removes to facilitate patient loading)
- Wall storage holders:
  - Upper shield: 600 mm
  - Lower shield: 460 mm
- Includes mini-rail for mounting table-function controls, if desired.

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### **MAGNETIC SHIELDING KIT FOR 12" X 12" FPD**

The Magnetic Shielding Kit for 12" x 12" Flat Panel Detector (FPD) available for the Infinix-i series INFx-8000V, INFx-8000C and INFx-8000H systems, is to be used in conjunction with 3D electro-anatomical mapping systems such as the Biosense Webster Carto™ system. It is designed to be attached to the front of the Flat Panel Display (FPD), and reduces the effect of the magnetic field exposure to the Flat Panel Display (FPD) thus reducing the image noise caused the magnetic field. The combined kit can reduce patient dosage.

The magnet shielding material is 0.1 mm thickness Permalloy, with dimensions 328 mm x 338 mm.

### **MARK 7 ARTERION INJECTOR (TABLE MOUNT)**

The Mark 7 Arterion Table Mount injector takes advantage of latest technologies, making it light, maneuverable and easy to use.

Includes:

- Table rail mount
- Ergonomic injector head handle for easier maneuverability
- Unique front-load syringe
- Desk type display control unit
- Imaging system interface
- Injector installation by Medrad included

### **FREE STANDING PEDESTAL**

Provides convenient storage location for the injector head when it is necessary to get the injector head off the table rail.

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#### **UNINTERRUPTIBLE POWER SUPPLY VL 480 SMALL BATTERY**

Uninterrupted power supply provides up to 5 minutes of backup system power when facility power loss has occurred.

- Designed for 480 VAC input
- Battery system provides up to 5 minutes of full system power
- Provides integrated power conditioning and voltage regulation
- Designed to handle power input from +10% to -15% and maintain steady input power to the system

**UPS,3PHASE,CABINET,480V**

**CABINET,BATTERY,SMALL**

**PDU,SLIMLINE VASCULAR,480V**

#### **REMOTE MONITOR PANEL KIT FOR UPS**

A display device providing real-time operating status of the UPS battery. It can be mounted anywhere in the operating area or control room.

***NOTE: To install this device in an existing lab could incur extra renovation cost due to cables and conduit running in between the RMP and the UPS battery cabinet. Site inspection beforehand is necessary.***

#### **REMOTE MONITOR PANEL FOR UPS**

**HOT SYNC BRIDGE CARD (FOR USE WITH REMOTE DISPLAY PANEL)**



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#### **APPS-ONSITE-32**

#### **ADDITIONAL ON-SITE APPLICATIONS TRAINING - 32 HOURS**

- Four (4) consecutive days (32 hours) additional on-site applications support for all modalities.
- 
- Training is held Monday through Friday only, with Monday mornings and Friday afternoons scheduled as travel time for trainers

#### **ADDITIONAL CLINICAL APPLICATIONS - IRVINE, CA (Qty 2)**

On-site training at Toshiba's Education Center in Irvine, California. The Education Center's full complement of classrooms and labs are equipped with advanced products. Accredited courses are taught in CT, MR and Vascular.

- This four-day intensive course is held Monday through Thursday, 8 a.m. to 5 p.m.
- per student including airfare, lodging, meal coupons, and transportation to and from the hotel and education center.

#### **CORNER CABINET COVER**

This part is required for installations to store peripheral units.

*Note: Only for DFP-8000B and later versions.*

#### **VITREA WORKSTATION ANGIO VL3D PACKAGE, INCLUDES 3-D ANGIO AND GENERAL VESSEL PROBE, POST PROCESSING SOFTWARE, HARDWARE, AND EDUCATION TRAINING UNITS**

**VITREA WORKSTATION ANGIO VL 3D PACKAGE**, includes 3D Angio and General Vessel Probe post processing Software, Workstation Hardware, and Education Training Units

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VitreWorkstation is an intuitive, multi-modality advanced visualization solution. It provides rich clinical tools for viewing human anatomy in 2D, 3D and 4D for efficient and effective patient care. It increases scanner productivity by extending workflow beyond the console and optimizing time and resources to produce clinical results.

#### **VL 3D-Angio software**

Vitre's VL 3D-Angio software provides visualization and analysis tools for rotational images acquired in angiography labs. 3D angiography provides enhanced 3D views of complex anatomy.

#### **Key Features:**

- Digital subtraction angiography (DSA) protocol with preset visualization settings for 3D evaluation of vessels
- Multi-volume fusion for displays of vessels, device and bone
- Standard 3D tools for dataset work
- Single-click segmentation, with automatic centerline and lumen boundaries, on DSA and digital angiography (DA) cases
- Display of clinical angles (CRA or CAU, RAO or LAO), which update automatically as volume view rotates
- Clinical angles back to X-ray system for positioning of the C-arm with a single click\*

#### **Additional Features**

- A minimum version of Vitrea software may be required.
- Low contrast imaging (LCI) protocol to better visualize soft tissue densities in target anatomy or pathology (Requires Infinix LCI acquisition package)\*
- DA protocol with preset visualizations and optimal settings for vascular tool set

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- Standard archival tools for saving, exporting and printing the 3D
- acquisition with movies, batches and snapshots

**\*Toshiba Infinix labs only**

#### **Vessel Probe Software**

Vessel Probe is a visualization tool used for identifying and segmenting particular vessels of interest. This tool allows users to examine multiple vessels and easily calculate stenosis.

- Highlighted vessel view in 3-D viewer
- Automatic centerline generation
- Multi-planar reformats
- Automatic orthogonal cross-sections
- Synchronized crosshair tracking

#### **VitreAACCESS**

The VitreaACCESS option is intended to enable access to the Vitrea application's features cost-effectively, by allowing you to float licenses to multiple qualified workstations or access them remotely through your institution's Virtual Private Network (VPN) solution.

With the VitreaACCESS— package, you have the ability to float your licenses and options to multiple workstations or access points across your Local Area Network (LAN). This package allows you to:

- Define and setup workstation access points that meet Vitrea's minimum hardware and software requirements
- Configure a centralized license server to monitor and track all the floating licenses and options throughout your environment
- Share your license investment with several access points to enable usage of the Vitrea application<sup>1</sup>, one user at time
- In addition, the system may not be compatible with a limited number of Vital Images third-party software options

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### **Vital U Education**

Vital U education units are included with each Vitrea workstation.  
Each system includes two, 2-day training sessions.

- Initial Training: two days, at customer site
- Follow-Up Training: two days at customer site

A Vital Images representative will contact the customer to set up training.

### **VITREAADVANCED, FX MONITOR HARDWARE**

### **VITREA WORKSTATION, FX HARDWARE**

### **VITREA WORKSTATION, TOSHIBA US ANGIO XA AND CT PKG**

### **3-D ANGIO TABLESIDE EXTENDER FOR KEYBOARD AND CABLE**

Remote table side kit provides remote control of 3-D solutions at the exam table.

- The KVM extender solution carries relative keyboard, video and mouse signals from the 3D solution inside the control room to the color LCD display, keyboard and mouse that are added at tableside to allow full control of the 3D operations in the exam room.
- Placing a transparent sterile drape over mouse (and keyboard if desired, but not necessary) allows control by scrubbed-in personnel.

### **EXTENDER FOR KEYBOARD/MOUSE**

Provides long-distance transmission of video signal in various formats:

- 1600 x 1200 up to 200 meters
- 1280 x 1024 up to 300 meters

### **100' CABLE FOR TABLESIDE KIT**

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**VI-VIT-CTEVSP**

**VITREA WORKSTATION, ENDOVASCULAR STENT PLANNING APP**

CT Cardiac EP Planning enables analysis and assessment of the left atrium and pulmonary veins. The application provides optimized 2D and 3D views with tools for quantitative measurements and 3D model export capabilities.