NAi
TechProducts
A McDONOUGH MEDICAL COMPANY

Connect your current imaging equipment to the DICOM network.

the DiCOM box® CA+
Cine to DICOM

The DiCOM box CA+ is a universal DICOM interface that allows users to review dynamic images and cine loops outside the normal confines of modality workstations. The *CA+* provides real time video acquisition and DICOM conversion from both monochrome and color video sources, capturing at least ten seconds of video data acquired at 30fps in RGB or 1K x 1K monochrome. Acquisition rates are selectable from 3.75 to 30 fps, and record modes include R wave trigger, prospective and retrospective. The *CA+* simplifies the connectivity process and provides cine acquisition, lossless and lossy image compression, DICOM Store, Print, Performed Procedure Step and Storage Commitment for ultrasound fluoroscopic and cardiac angiographic systems. The *CA+* can be fully integrated to HIS/RIS.
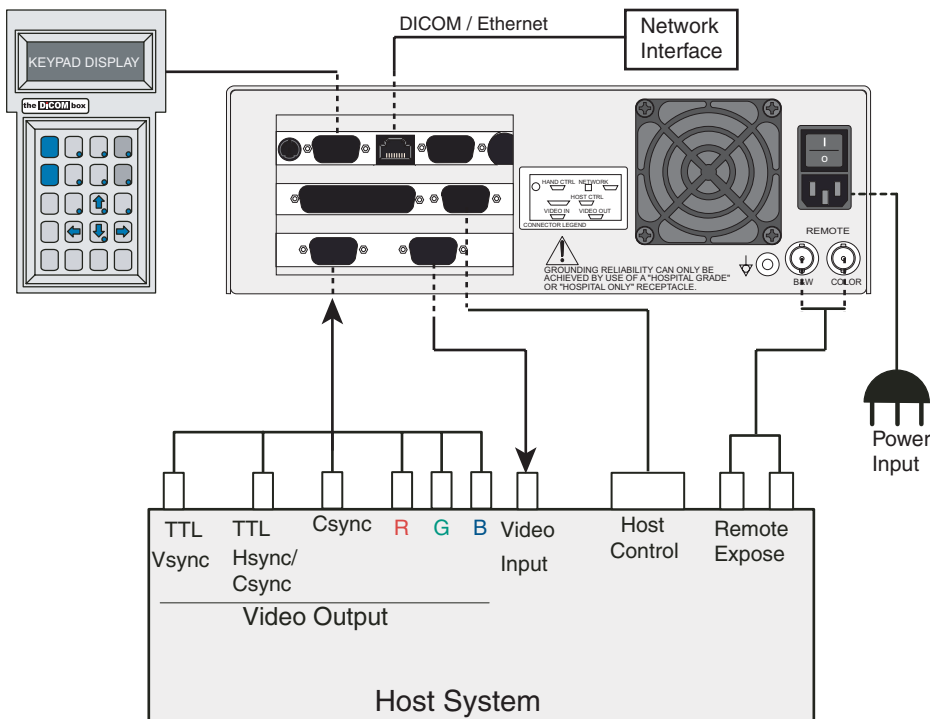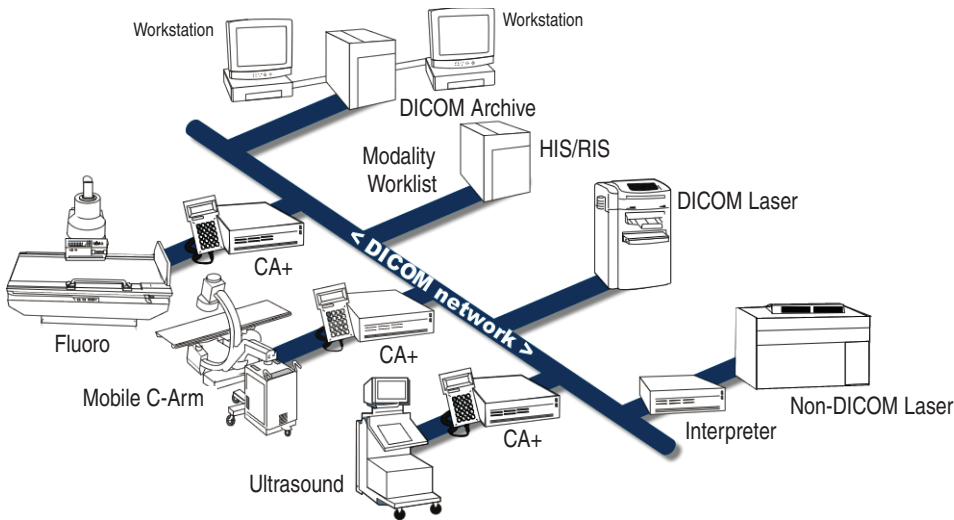
For additional information, contact NAI Tech Products Toll Free at 866-342-6629, or 530-887-1008.

Features:

- DICOM Print, DICOM Store
- Modality Worklist
- Modality Performed Procedure Step (MPPS)
- Storage Commitment
- Real-time video acquisition up to 10 seconds RGB color or monochrome
- R-wave trigger 1 to multiple cycles
- Prospective and retrospective record modes from every frame to every seventh frame
- Playback review through host display or attached VGA/NTSC display (not included)
- DICOM compliant JPEG lossy compression or non-compressed transfer
- Interlaced or non-interlaced video input
- Software and option upgradability in the field
- Remote administration via telnet & FTP

the DiCOM box
CA+ - Cine to DICOM

Workstation
Workstation
DICOM Archive
Modality Worklist
HIS/RIS
DICOM Laser
CA+
Fluoro
Mobile C-Arm
CA+
< DiCOM network >
Non-DICOM Laser
Interpreter
CA+
Ultrasound

KEYPAD DISPLAY
the DiCOM box
DICOM / Ethernet
Network Interface
HAND CTRL   NETWORK
HOST CTRL
VIDEO IN   VIDEO OUT
CONNECTOR LEGEND
GROUNDING RELIABILITY CAN ONLY BE ACHIEVED BY USE OF A "HOSPITAL GRADE" OR "HOSPITAL ONLY" RECEPTACLE.
REMOTE
B&W   COLOR
Power Input

TTL Vsync | TTL Hsync/Csync | Csync | R | G | B | Video Input | Host Control | Remote Expose
Video Output
Host System

Specifications

- **DICOM Service Classes**
  DICOM Print
  DICOM Store
  DICOM Modality Worklist
  Modality Performed Procedure Step
  Storage Commitment
- **Video Input (terminated, 75 ohms)**
  Red, Green, Blue (RGB) and composite sync
  Monochrome composite video on green video input
  TTL composite or seperate sync
  Nominal 525/625lines 30/25 fps
  interlaced or non-interlaced
  Pixel Clock Minimum: 7 MHz.
  Pixel Clock Max: 40 MHz / RGB
  $\qquad\qquad$ 120 MHz Monochrome
  Image Matrix Max: 1024 x 1024 Monochrome
  $\qquad\qquad$ 800 x 600 RGB
  Video Output locked to video input, or VGA
- **Video Acquisition**
  Approximately 10 seconds at 30/25fps
  384MB video acquisition RAM
  30, 15,10, 7.5, 6, 5, 4, 3 fps acquisition rates
- **Acquisition modes**
  Retrospective, Prospective,
  R Wave Trigger - 1 to multiple cycles
- **Image Review**
  Configurable for image playback through host display
  Variable frame rate playback freeze frame to 30fps
- **Network**
  Ethernet 10/100 base T - selectable
- **Image Compression**
  JPEG lossy, or uncompressed
- **Connectors**
  Video I/O High Density DB15, Female pins
  Network: 8 pin modular jack (RJ45)
  Operator Interface Keypad: DB9, Male pins
  Host Control Input: DB9, Male pins
  Remote Capture Input: BNC, Female pins
- **Power Input**
  115-230 Volts, ±15% 47-63 Hz, 120 VA
- **Physical Characteristics**
  Module
  Height: 3.25 inches (8.25 cm)
  Width: 10.125 inches (25.72 cm)
  Depth: 14.125 inches (35.88 cm)
  Weight: 8 pounds (3.68 kg)
  Keypad
  Height: 7.15 inches (18.16 cm)
  Width: 4.10 inches (10.41 cm)
  Depth: 0.95 inches (2.41 cm)
  Weight: 8 ounces (227g)
- **Environmental Operating**
  Temperature: +50°F to +104°F, (+10°C +40°C)
  Barometric pressure: 700 hPa to 1060 hPa
  Relative Humidity: 5% to 80% non condensing
- **Transit**
  Temperature: +14°F to +122°F (-10°C to +50°C)
  Relative Humidity: 5% to 85% non condensing
- **Clearance Requirements**
  3 inches (7.6cm) for rear panel cable connection
  Do not obstruct ventilation airflow at
  front and rear of module
- **Agency Approvals / Classification**
  UL 2601-1; IEC601-1; IEC601-1-2
  CSA601.1
  FCC part 15

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