



## Record high-resolution video to DVD in a DICOM format.

### Technology Designed for Medicine™

MDR is the first and only medical DVD recorder to provide high resolution video recording of dynamic and static image series in a DICOM format. With its proprietary "Relevant-IQ" recapture feature and DICOM recording format, MDR provides image records of unparalleled quality. Each DVD (or CD) is recorded in DICOM format from a high resolution monochrome, RGB, or SVGA video source. MDR is not limited to recording from lower resolution S-Video or Composite connections. Instead, data is received and recorded at the highest bandwidth output from the modality. Images recorded by MDR are far superior to S-VHS, S-Video and MPEG formats. The superior image quality is particularly beneficial for use in speech pathology, cardiology, angio, vascular and orthopedic applications as well as for any portable imaging modality.

### Relevant-IQ - Improving Workflow

MDR's proprietary Relevant-IQ capability allows you to save only the clinically relevant data of any exam. Relevant-IQ simplifies the video recording process, allowing you to record still images, loops and cine with a touch of a button or remote footswitch. Retrospective and prospective record modes support the capture of user specified seconds or minutes of image data immediately preceding or following the desired event. MDR also allows continuous linear recording of long dynamic runs or one-button capture of single frames directly from streaming video data. Relevant-IQ maximizes your efficiency during the review process. MDR recorded disks eliminate the tedious and time consuming review and rewinding to get to a few seconds of important data.

### Why MDR?

- First DICOM video recorder to include a high-capacity hard drive
- Captures high-resolution video of dynamic and static images in native DICOM format
- Highest image quality - the recording is equivalent to the original exam data
- Data can be recorded from the highest data source available - not limited to S-Video
- Relevant-IQ allows you to record only the clinically relevant data of an exam, improving workflow
- MDR media is DICOM part 10 compatible for use with any PACS
- Record digital still images, loops and cine with the touch of a button
- Compact and rugged design - "drop in" upgrade for mobile devices currently using S-VHS recorders
- Always in receive mode: ready to capture exam data to its internal hard drive
- DICOM viewer included on disk - makes DICOM images totally portable, using any Windows® PC or laptop

## Specifications

**DICOM Part 10 compatibility for recorded disks**

**Ethernet 10/100Base T**

**HIPAA compliant**

**Video Input/Output:**

- NTSC/PAL 525lines 60Hz/625lines 50Hz
- S-video
- Color composite
- High resolution monochrome to 120Mhz pixel clock frequency
- High resolution RGB to 50 Mhz pixel clock frequency
- Interlaced and non-interlaced formats up to 1600x1200 pixels
- Video output locked to input specifications

**Video record rates:**

User selectable frame rates; full, 1/2, 1/3, 1/4, 1/5, 1/6, 1/7

**Video Record Modes:**

- Retrospective\* - User defined limits, time and frame rate
- Prospective - User defined limits, time and frame rate
- Sequential - Conventional, Record Start, Pause, Stop control
- Snapshot - High resolution still frames from streaming video

**Image compression:**

- Lossy and lossless formats
- JPEG
- JPEG 2000\*
- MPEG\*

**Audio Input/Output:** Standard L/R RCA input/output

**Control:**

- Front panel user interface
- Console control serial interface compatible with existing video tape recorder control formats
- Remote input foot switch or interface cable (sold separately)

**ACR - Automatic Character Recognition**

- Patient Name
- Patient ID
- Accession Number

**Media Formats:**

- DVD+R (12cm 4.7GB) Typical data record rate 21.6MB/s
- DVD+RW (12cm 4.7GB) Typical data record rate 10.8MB/s
- DVD-R (12cm 4.7GB) Typical data record rate 21.6MB/s
- DVD-RW (12cm 4.7GB) Typical data record rate 10.8MB/s
- CD-R (12cm 700MB) Typical data record rate 2.4MB/s
- CD-RW (12cm 700MB) Typical data record rate 2.4MB/s

**Storage capability:** All image data is cached to MDR's internal 120 GB (minimum) hard drive providing always record-ready performance and hours of video recording capacity. Maximum record length for DVD between 17.5 minutes to more than 120 minutes dependent on the incoming video source specifications, frame rate, compression type and compression quality settings selected by the operator.

**Playback compatibility:** Windows® PC with appropriate format drive, images accessible using any DICOM workstation with multi-frame playback capability or by using the MDR DICOM viewer written to MDR recorded media. MPEG encoded DVD compatible with most DVD media players

**MDR DICOM viewer:**

- Allows review of MDR recorded images in a DICOM format from any Windows® PC
- Supports playback of extended multiframe series and single images
- Provides measurement tools and annotation capabilities
- File export capabilities including storage in DICOM and non-DICOM formats
- Windows® printing and e-mail utilities

**Physical characteristics:**

Dimensions: H W D 132mm (5.6") x 270mm (10.6") x 366mm (14.5")

Weight: 5.45kg (12lbs.)

**Power input:**

100-240 V~, ± 10%, 47-63Hz, 126 VA

\*planned for release in 2005



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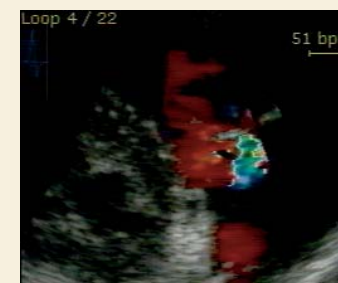
www.dicombox.com

## Superior Image Quality

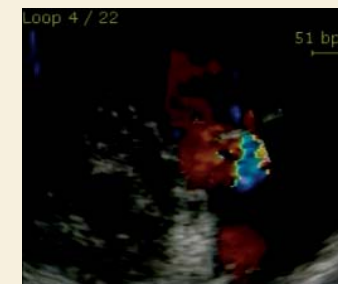
compare the MDR image quality, clarity and details with its competitors:



MDR RGB input to DICOM output



S-VHS PLAYBACK



MEDICAL DVD RECORDER, S-VIDEO INPUT TO MPEG OUTPUT

MDR offers an improvement of more than 5 to 1 over standard S-video recorders

