

# JVC

**PROFESSIONAL**

MPEG-2 NETWORK ENCODER

## DM-NE300

MPEG-2 NETWORK DECODER

## DM-ND300

MPEG-4 NETWORK CODEC

## DM-NC40



DM-NC40



DM-NE300

DM-ND300

**PRELIMINARY**

# DM-NE300U (NTSC) MPEG-2 Network Encoder

# DM-NE300E (PAL) MPEG-2 Network Encoder

# DM-ND300U MPEG-2 Network Decoder

*Now you can deliver high-quality MPEG-2 moving pictures and sound over your network in real time.*

Taking advantage of the high-compression picture technology developed for digital broadcasting, JVC has created a network-ready video encoding/decoding system that allows you to easily deliver high-quality, real-time MPEG-2 pictures and sound over a network. Ideal for conferencing, live concert transmission, and remote surveillance systems, these high-performance encoders and decoders offer a reliable, efficient solution for multimedia content delivery.



## FEATURES

### Real-time transmission

Pictures are compressed in real time as high-quality MPEG-2 stream and output to the network (100BASE-TX), ensuring smooth, interactive conversation.

A low-delay mode is incorporated to minimize the delay time used for encoding and decoding.

\* In the low-delay mode, the total delay time for encoding and decoding is approx. 0.3 sec.. In the high-quality picture mode, the delay time is approx. 0.7 sec.. (Not including network delay.)  
\* For two-way conversations, an echo canceller is separately required.

### Broadcast-quality pictures

The MPEG-2 format is currently used for digital broadcasting and DVD, so you can easily set up a broadcast-quality picture transmission system. Optimum bit rate and picture quality can be selected to suit the network transmission rate. (1.0 Mbps – 15 Mbps)

\* The upper limit for the encoding rate is 10 Mbps when the DM-ND300U is used.

### Remote control capability

RS-232C/RS-422 serial interfaces are provided, enabling remote operation of a surveillance camera, switcher or VTR. Proprietary user data can also be transmitted over the network.

\* Various control applications must be developed separately.  
\* Remote control is possible only with the DM-NE300U/E.

### Multicast

In addition to unicasting (in which audio and video data is transmitted

from one sender to one receiver), these units support multicasting in which a single transmitter sends data to more than one receiver (1 to N and M to N). The audience (people who receiving pictures and sound decoded with the DM-ND300) can select one of the DM-NE300s with a remote control unit.

\* Routers that support IGMPv2 are required for an internet multicasting.  
\* The number of encoders and decoders is limited in LAN.

### Easy operation

You can specify encoder settings such as IP address using a Web browser. Once the encoder has been set up, you can start or stop the streaming or change the bit rate or delay mode without using a PC.

\* The IP address must be set via a PC when the system is established.  
\* Use Microsoft® Internet Explorer Ver. 5.5 or higher. (other browsers are not supported.)

### Built-in Web server function

Various DM-NE300 settings can be done with via a Web browser.

### DV connector provided (DM-NE300U/E)

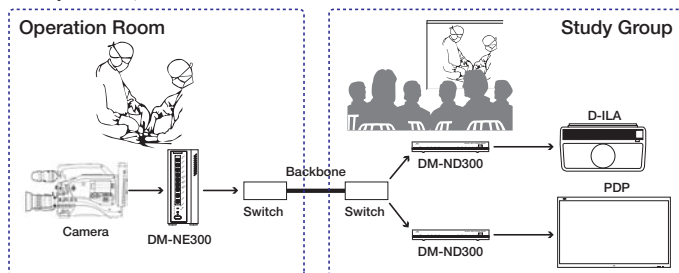
Allows to connect directly to the DV equipment such as a digital video camera.



## APPLICATIONS

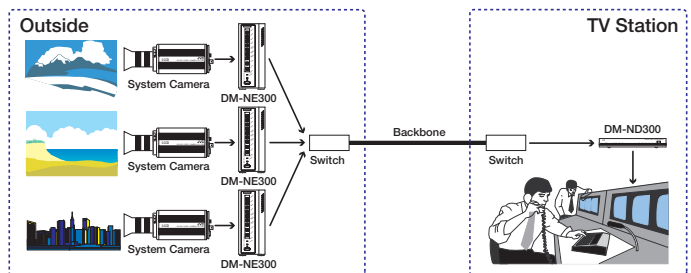
### Distance Learning System

Conferences, hospital training, experiments, external court broadcasts, remote surveillance, external public assembly broadcasts, etc.



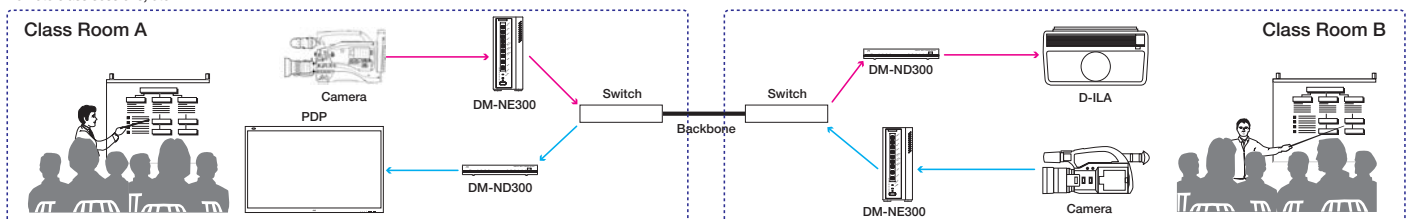
### ENG System

ENG content transmission system, weather report cameras, sports, events, news gathering for public assembly, etc.



### Bi-Directional Remote Class Session

Remote class sessions, etc.



# DM-NC40U MPEG-4 Network Codec

## Real-time MPEG-4 network moving picture and sound transmission and reception.

JVC's MPEG-4 network codec allows you to transmit or receive MPEG-4 moving pictures and sound in real time over a network. For example, lessons can be sent to the students who are in different classrooms. It's also possible to set up a remote surveillance system that can be operated and monitored via a network.



### FEATURES

#### High-quality MPEG-4 codec

- The DM-NC40 is a high-quality codec that can encode signals at up to 2 Mbps in the MPEG-4 format. Moving pictures can be displayed at the standard video frame rate of up to 30fps with resolution of 352 x 240.
- An echo canceller is built into the main unit. This makes setting up a high-quality TV conferencing system on an IP network easy and affordable.

#### Remote surveillance system

- CCTV equipment can be controlled via the control connectors (RS-232C/RS-485).
- Picture-in-picture (PiP) enables signals from 2 cameras to be displayed on a PC or monitor. When the DM-NC40 is used as a decoder, sound can be sent bi-directionally.
- With the built-in compact flash Type I slot for JPEG recording.



\*To display video on a PC, use the standard viewer or multi-camera browser. To display video on a monitor, use the DM-NC40 as a decoder.

#### ISMA (Internet Streaming Media Alliance) streaming

- The DM-NC40 can send streams conforming to the ISMA standard.
- As a result, various popular players including MediaPlayer, RealPlayer and QuickTime Player can play back pictures and sound.
- When the DM-NC40 is combined with a streaming server conforming to ISMA, a large-scale content providing system can be established.

#### Easy operation

To ensure stable encoding/decoding, the DM-NC40 can only be started by turning the power ON. By setting the system when the DM-NC40 is introduced, a streaming system can be established that doesn't require a PC.

#### Maintenance

Upgrading the version for the DM-NC40 can be performed with a compact flash memory.

#### JPEG support

In addition to the MPEG-4 transmission, JPEG picture transmission is possible. The DM-NC40 has no JPEG decoding function. JPEG data can be displayed with a web browser.

#### Unicast and multicast transmission supported

In addition to unicast transmission, multicast transmission is supported, allowing incorporation of the DM-NC40 in a large-scale system.

\*Multicast transmission requires a multicast-ready network (IGMPv2).

#### Built-in Web server function

Various DM-NC40 settings can be done with via a Web browser. Preset values suitable for various applications are available, making setup easier.



#### Pass-through function

When a DM-NC40 is used to control external devices, the DM-NC40's serial port can be used as a pass-through connector, allowing remote control of external equipment.

\*Various control applications must be developed separately.

#### Alarm input/Pin output

4 input terminals able to detect high or low level of TTL signals are provided. These input terminals can be linked with JPEG recordings. 8 output terminals are provided to output high or low TTL signals.

\*An external application software is separately required for the output.

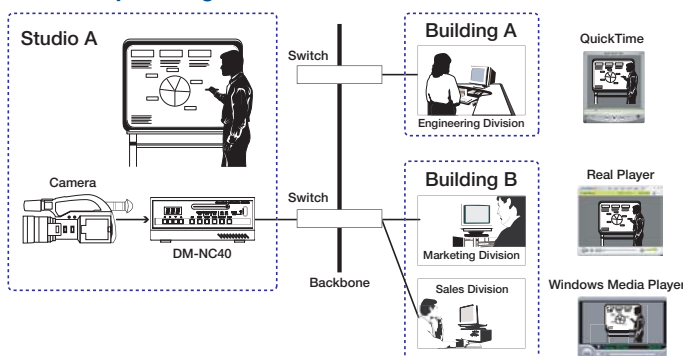
#### Decode and capture software for DM-NC40

Live display function: Decodes streams from the DM-NC40 on PC and displays them live.

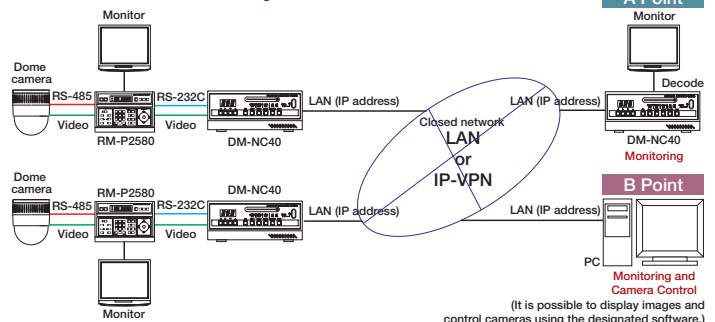
Live recording function: Records streams from the DM-NC40 on a hard disk in the PC.

### APPLICATIONS

#### Content providing mode



#### Remote surveillance system



#### Network requirements for DM series

- Megabyte-class bandwidth (more than 3Mb) required.
- Physical and logical lease line recommended.
- Connect to the 100M SW-HUB (not repeater HUB).
- VLAN or QoS (Quality of Service) recommended.
- When signals are sent via router, check for influence of jitter, multicast routing, etc.

