

# DM-1321 Encoder

## MPEG-2 / MPEG-4 (H.264) Video Encoder



### Description

The DM-1321 offers cost-effective, high-quality, real-time encoding of up to two high-definition (HD) or standard-definition (SD) analog video inputs to MPEG-2 or MPEG-4 H.264, in a compact 1RU 19" form factor. Audio can be encoded to Dolby AC3 or AAC-LC.

The default configuration of the DM-1321 accepts analog component video inputs (480i/480p/720p/1080i) and outputs MPEG-2 transport streams to either UDP or RTP over Gigabit Ethernet. Encoder settings can be configured remotely using SSH or a browser-based configuration utility, or locally using RS-232.



### Benefits

- Migrate your MPEG-2 encoding solution to H.264 to improve bandwidth efficiency without a hardware upgrade
- Accepts standard- or high-definition video from two input sources
- Software upgradeable to support multiple coding formats and custom video applications\*
- Ideal for space-constrained environments, can be wall or rackmounted

### Target Applications

- Digital Program Distribution
- Remote Broadcast
- Networked Video
- IP Television
- Distance Education

### Features

- Real-time encoding of up to two SD/HD analog channels to MPEG-2 or H.264 (user-selectable for each channel)
- Dolby Digital AC3 or AAC-LC stereo audio encoding (user-selectable for each channel)
- Two component video inputs with stereo audio inputs
- Two Gigabit Ethernet outputs
- Auto-sensing to detect video input/resolution (480i/480p/720p/1080i)
- MPEG-2 transport stream output over UDP/IP or RTP/UDP/IP (user-selectable for each channel)
- 1RU 19" rackmount form-factor
- Remote configuration via SSH or web-based GUI control
- Streaming of TS file from USB
- Dual redundant power supplies
- Optional Interfaces include\*: SDI video input, ASI output, QAM RF output, DVB-parallel output



Figure 1. Example Usage for DM-1321 MPEG-2/H.264 Video Encoder

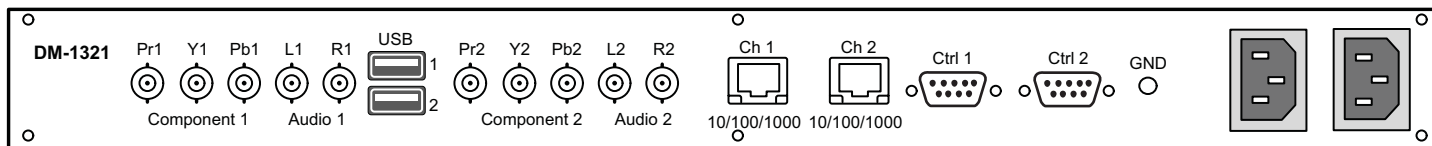


Figure 2. DM-1321 Back Panel (Connector layout may vary)

## Specifications

### [ Video Processing ]

- Video Input Interfaces
  - Component YPbPr (RCA Connectors)
  - USB Storage (playback of prerecorded MPEG TS files)
- Video Input Resolutions and Frame Rates (auto-sensing and reported via web-based GUI)
  - 480i (up to 30fps)
  - 480p (up to 30fps)
  - 720p (up to 60fps)
  - 1080i (up to 30fps)
- Video Encoding Formats
  - Chroma Subsampling: 4:2:2
  - HD: H.264 @ L4.0
  - SD: H.264 @ L3.0
  - HD: MPEG-2 MP @ HL
  - SD: MPEG-2 MP @ ML

### [ Audio Processing ]

- Audio Input Interfaces:
  - Unbalanced analog stereo (RCA connectors)
- Audio Encoding Formats (user-selectable):
  - Dolby Digital (AC3)
  - MPEG (AAC-LC)

### [ Output Processing ]

- ISO/IEC 13818-1 compliant MPEG-2 Transport Stream
  - Audio/Video Mux
  - Configurable PIDs and PCR interval
  - Adjustable constant bit rate (CBR)
    - Min. Video Rate: 1 Mbps
    - Max. Video Rate: 15 Mbps
- Transport Protocols (user-selectable):
  - UDP/IP
  - RTP/UDP/IP
  - Unicast and Multicast
- Output Interface
  - Gigabit Ethernet (RJ-45 Connector)

### [ Physical and Power ]

- Form factor: 19" 1U rackmount
- Dimensions: 1.75" (H) x 19" (W) x 18" (D)
- 115 V/230 VAC, 50/60 Hz power
- Power Consumption: 60 W max, depending on options
- Dual redundant power supplies

### [ Environmental ]

- Operational Temperature: 0°C to 40°C
- Storage Temperature: -20°C to 60°C
- Humidity: 5 to 95% non-condensing, operating

### [ Management Interfaces ]

- Remote configuration via SSH or web-based GUI control via Ethernet
- Local configuration via RS-232
- Software upgradeable via Ethernet
- Remote logging via SysLog

### [ \*Optional (Future) Processing ]

- Transcoding MPEG-2 to MPEG-4 AVC HD/ H.264
- Transcoding MPEG-4 AVC HD/ H.264 to MPEG-2

### [ \*Optional (Future) Input Interfaces ]

- Composite (SD Only), S-Video (SD Only)
- SDI (SD or HD) with embedded audio
- HDMI

### [ \*Optional (Future) Output Interfaces ]

- QAM RF Output
- DVB-ASI Transport Stream Output
- DVB-SPI Output
- 8-bit parallel LVDS

### [ Ordering Information ]

- 901-00056 DM-1321 MPEG-2/MPEG-4 H.264 Video Encoder

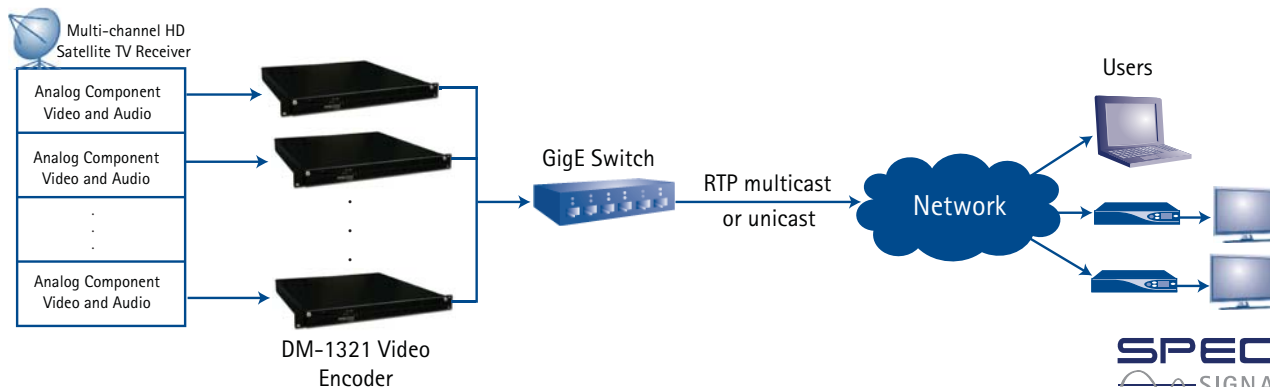


Figure 3. Example DM-1321 Multi-Channel System