

Synamedia Virtual Digital Content Manager (vDCM) Appliance Rack Server



Product Overview

The Synamedia® Virtual Digital Content Manager (Virtual DCM) represents a new generation of virtualized and software-based video processing, providing advanced video, audio, and metadata processing for live multiformat video delivery. It enables broadcasters, content providers, and service providers to deliver best-in-class viewing experiences while meeting their service requirements for premium picture quality, bandwidth efficiency, and multiscreen transcoding.

The Synamedia Virtual DCM rack-based server delivers the highest-quality encoding using market-leading H.264 encoding or full-frame High-Efficiency Video Codec (HEVC) technology developed by Synamedia.

The Synamedia Virtual DCM encoder and transcoder is a fully optimized solution, enabling you to encode from up to 8 HD baseband video feeds, or up to 16 SD baseband video feeds, as well as transcode from compressed video feeds on IP interfaces.

The Virtual DCM comes with an easy-to-use interface, simplifying the configuration of video processing functions across your video sources, and is supported by the Synamedia Video Service Manager (VSM), which enables you to easily provision Virtual DCM instances and even have service portability between the physical DCM and the software-based Virtual DCM.

For detailed information about the various video functions supported on the Virtual DCM rack-based server, please refer to the Synamedia Virtual Digital Content Manager application data sheet.

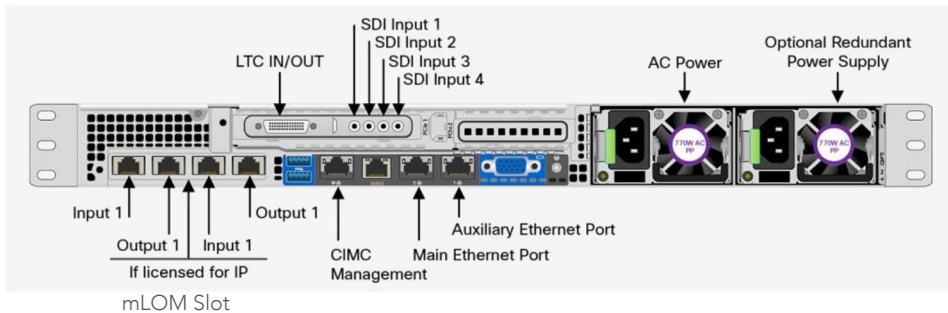
Product specifications

Table 1. Specifications for the Synamedia Virtual DCM

SDI Inputs	
Physical SDI interface:	<ul style="list-style-type: none"> • 1 or 2 interfaces with each: 8 x DIN 1.0/2.3 BNC, 75-ohm, break-out cables to standard BNC included <ul style="list-style-type: none"> ○ Input SDI format: 4 x SMPTE 424M Level-A or Level-B, 1080p (up to 60 fps) for Ultra-HD encoding ○ Input SDI format: SMPTE 424M Level-A or Level-B, 1080p (up to 60 fps) ○ Input HD-SDI format: SMPTE 292M, 1080i or 720p (up to 60 fps) ○ Input: SD-SDI format: SMPTE 259, 480i29.97 or 576i25 fps ○ LTC Input on DIN 1.0/2.3 BNC, 75-ohm, break-out cables to standard BNC included
Ultra-High definition	<ul style="list-style-type: none"> • UHD 3840 x 2160 • Frame rates <ul style="list-style-type: none"> ○ CBR: 25, 29.97, 30, 50, 59.94, and 60 fps
High definition	<ul style="list-style-type: none"> • HD 1920 x 1080, or 1280 x 720 • Frame rates <ul style="list-style-type: none"> ○ CBR and ABR: 24, 25, 29.97, 30, 50, 59.94, and 60 fps
Standard Definition	<ul style="list-style-type: none"> • SD 720 x 480i29.97 or 720 x 576i25
Audio	<ul style="list-style-type: none"> • Embedded audio: SMPTE 299M, up to 8 stereo pairs: PCM or pre-compressed (DD/DD+)
IP Inputs/Outputs	
IP interface	<ul style="list-style-type: none"> • Option 1: Quad GbE IP card in the mLOM (modular LAN-on-motherboard) slot • Option 2: Dual 10Gb in the mLOM (modular LAN-on-motherboard) slot
• Two options	
Redundancy	
	<ul style="list-style-type: none"> • An N:M redundancy with either IP or with SDI (SD or HD) including SDI-router control is supported by the Synamedia Video Service Manager (VSM)
Certifications	
Safety	<ul style="list-style-type: none"> • UL 60950-1: No. 21CFR1040 Second Edition • CAN/CSA: C22.2 no. 60950-1 Second Edition • IEC 60950-1 Second Edition • EN 60950-1 Second Edition • ASINZS 60950-1 • GB4943 2001
EMC	<ul style="list-style-type: none"> • FCC (CFR 47, Part 15) Class A • AS/NZS CISPR22 Class A • CISPR2 2 Class A • EN55022 Class A • ICES003 Class A • VCCI Class A • EN61000-3-2 • EN61000-3-3 • KN22 Class A • CNS 13438 Class A

Physical	
Physical and Power	<ul style="list-style-type: none"> • Dimensions (H x W x D) 1.7 x 16.9 x 31 in. (4.32 x 43 x 78.7 cm) (1 rack unit [1RU]) • 770W power supply (optional redundant power supply available) • AC input voltage range 90 to 264 VAC (self-ranging, 100 to 240 VAC nominal) • AC input frequency range: 47 to 63 Hz (single phase, 50 to 60 Hz nominal) <ul style="list-style-type: none"> ○ AC line input current (typical) 5.50A at 100 VAC/2.64A at 208 VAC ○ AC line input current (maximum 100% CPU load) 6.16A at 100 VAC/2.96A at 208 VAC • Connectivity: two 1-Gbps Ethernet ports (10/100/1000BASE-T Ethernet)
Temperature	<ul style="list-style-type: none"> • Operating temperature: 41 to 95°F (5 to 35°C) • Nonoperating (storage): -40 to 149°F (-40 to 65°C)
Humidity	<ul style="list-style-type: none"> • Operating: 10 to 90% noncondensing
Control	
	<ul style="list-style-type: none"> • Remote web-based GUI • Front-panel connector: one KVM console connector (supplies 2 USB, 1 VGA, and 1 serial connector) • Standard connectivity: one 10/100/1000BASE-T Ethernet

Figure 1. Rear View of Synamedia Virtual DCM with a Quad SDI Input Card and a Quad GE Card Mounted in



The Synamedia Integrated Management Controller Interface is a standard feature on all Virtual DCM Xcoders

Warranty Information

Find warranty information on Virtual DCM solution page on Synamedia.Com.

Ordering Information

See Table 2. To place an order or download software, visit the Synamedia Ordering Portal Home Page.

Table 2. Ordering Information

Product Name	Part Number
Synamedia Virtual DCM Platform Gen4 The Synamedia Virtual DCM comes standard with: <ul style="list-style-type: none"> • 64 GB RAM • Dual hot-pluggable, sled-mounted, 600 GB HDD • One power supply 	VDCM-K9
The Virtual DCM can be configured with different input/output configurations: <ul style="list-style-type: none"> • With one or two 8 port SDI combined with quad GbE card for IP input transcoding • With one or two 8 port SDI combined with a dual 10Gb for IP input transcoding • With IP input/output: <ul style="list-style-type: none"> ○ Quad GbE only, or ○ Quad GbE combined with a dual 10Gig for IP input transcoding 	SDI: VDCM-OEM-CVD88 IP: VDCM-MLOM-IRJ45 VDCM-MLOM-CSC-02
The Synamedia Virtual DCM has two CPU options: <ul style="list-style-type: none"> • 2 multicore Intel Xeon processor E5-2697 v4 series CPUs • 2 multicore Intel Xeon processor E5-2699 v4 series CPUs 	VDCM-CPU-E52697E VDCM-CPU-E52699E
Optionally, the Synamedia Virtual DCM can be ordered with: <ul style="list-style-type: none"> • A 2nd power supply 	VDCM-PSU1-770W-1 VDCM-PSUV2-1050DC
Product Name	Part Number
Virtual DCM Software – Installed in factory <ul style="list-style-type: none"> • Virtual DCM Software Package • Virtual DCM Platform License 	SW-VDCM-U-Vxx-K9 L-VDCM-PLATFORM
Virtual DCM Transcoding Licenses: options enabling transcode functionality <ul style="list-style-type: none"> • Virtual DCM Video XCode License, 1 credit (AVC/MP2 1st screen) • Virtual DCM Video XCode License, 1 credit (HEVC 1st screen and ABR) • Virtual DCM Video XCode License, 1 credit (AVC ABR) • Virtual DCM Audio XCode License, 1 credit 	L-VDCM-V-XCODE-P1 L-VDCM-V-XCODE-P2 L-VDCM-V-XCODE-P3 L-VDCM-A-XCODE-P1
Virtual DCM Ingress/Egress Licenses: options enabling I/O, multiplexing, FEC and statmux functionality <ul style="list-style-type: none"> • Virtual DCM XGress License, 1 credit 	L-VDCM-XGRESS-P1
Virtual DCM XCrypt Licenses: options enabling scrambling functionality <ul style="list-style-type: none"> • Virtual DCM XCrypt License, 1 credit 	L-VDCM-XCRYPT-P1

For more information

For more information about Synamedia video solutions, visit www.synamedia.com.



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