

DGE-1

Digital Graphics Engine w/DigitalMedia™ CAT Connectivity

- > Touch screen graphics and video processing for V-Panels™
- > Installs out-of-sight at the central equipment location
- > Eliminates bulky, unsightly wiring at the V-Panel location
- > Connects to the V-Panel via a single DigitalMedia™ cable^(2,3)
- > High-Definition 24-bit touch screen graphics
- > DNav menu objects with gestures
- > WAV file customizable audio feedback
- > Multi-format streaming video and audio
- > Single-window full-motion video
- > Auto-sensing composite or S-Video input
- > 2-way intercom over IP or Crestron Home® wiring
- > Embedded PC applications for Web browsing, playing or streaming digital media, viewing digital documents, and accessing and controlling external computers
- > Supports interactive annotation amongst multiple touch screens
- > Provides power to the V-Panel touch screen display
- > USB keyboard/mouse port plus onscreen keyboard and mouse capability
- > Balanced analog audio input and output
- > Crestron Home (CH) CAT5 bidirectional audio port
- > High-Speed Ethernet and Cresnet®
- > Single space rack-mountable

Designed for use with a Crestron® V-Panel™ HD Touch Screen Display^(1,2), the DGE-1 Digital Graphics Engine allows for a very streamlined touch screen installation by placing the bulk of the electronics at the central equipment location. Mounted within an equipment rack, the DGE-1 connects directly to the head end AV sources, switchers, and control network, while the V-Panel display can be up to 150 feet (45 meters) away with just a single cable between them⁽³⁾.

The DGE-1 features 24-bit graphics, with single-window video display, embedded PC applications and Web browsing, streaming video and audio, and IP Intercom. Connectivity includes one composite or S-Video input, balanced stereo audio in/out, Crestron Home® CAT5 Balanced Audio, Cresnet®, and high-speed Ethernet. A DigitalMedia CAT output provides the connection to the V-Panel display.

Gestures Navigation

Adjust AV and lighting settings, surf the Internet, and browse your music and movie libraries with a natural sweep of the finger using DNav gestures. Crestron DNav technology affords enhanced touch screen functionality, providing dynamic navigation control objects for scrolling effortlessly through all your touch screen apps, cover art, and favorite channels.

Embedded PC

The DGE-1's embedded PC engine combines rock solid touch screen graphics performance with built-in Windows Media® Player and RealPlayer®, Internet Explorer®, Adobe® Acrobat® Reader, and Microsoft® Word, Excel®, and PowerPoint® document viewers. While simultaneously



controlling the home, boardroom, or lecture hall, the DGE-1 provides everything needed for enjoying online music and movies, viewing Web pages and accessing most types of digital media without necessitating a separate computer. In addition, VNC Viewer support delivers enhanced cross-platform interaction with computers over the network or Internet, allowing remote access and control of desktop applications to unleash all kinds of new presentation and system integration possibilities.

Full-Motion Video

The DGE-1 supports the display of standard-definition video from an external composite or S-Video source. The video image can be displayed full-screen or in a fully-scalable window anywhere on the V-Panel touch-screen. External audio signals are handled by a single analog line input.

Streaming Video

Through its embedded Web browser and media players, the DGE-1 supports streaming and downloadable video in a variety of formats, enabling access to all kinds of media from online sources and network servers. Additional support for the motion-JPEG streaming format allows the display of live video from a Web camera or network video streamer (Crestron [CEN-NVS100](#)⁽¹⁾, [CEN-NVS200](#)⁽¹⁾, or equivalent).

IP Intercom

Using the microphone and speakers built into the V-Panel display⁽¹⁾, the DGE-1 supports 2-way voice communication via a choice of IP or Crestron Home (CH) CAT5 wired intercom. Crestron IP intercom eliminates the need for dedicated audio wiring, enabling 2-way speech and room monitoring over Ethernet with other compatible Crestron touch screens. Wired intercom is also supported through a dedicated CAT5 audio connection to a [C2N-IADS30X24](#)⁽¹⁾ or other CH CAT5 switcher or processor.

Keyboard/Mouse Options

On-screen keyboard and mouse capabilities enable complete control of the DGE-1's embedded Web browser and other applications, and can also be used to control external network devices like the Crestron [ADMS](#) Intermedia Delivery System™ as well as computers running TouchPoint™ Virtual Mouse & Keyboard Software ([VMK-WIN](#)). USB ports are also provided on the DGE-1 and on the V-Panel display⁽¹⁾, allowing for the connection of a physical keyboard and mouse.

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Remote Annotation

Remote annotation capability allows multiple touch screen users to draw with their fingertips over the same video image or whiteboard screen, enabling enhanced interaction between several participants in a courtroom, classroom, or council chamber.

SPECIFICATIONS

Graphic Engine

24-bit non-palette graphics + 8-bit alpha channel transparency, 16.7 million colors, DNav dynamic menu objects, multi-mode objects, dynamic graphics and text, PNG translucency, full-motion (60 fps) animation, transition effects, color key video windowing, remote annotation

Embedded Applications

Microsoft® Internet Explorer® w/Adobe® Flash® plug-in and Java® Runtime plug-in, Windows Media® Player, RealPlayer®, Crestron MJPEG Viewer, NetMeeting®, Remote Desktop, VNC Viewer, Crestron MediaMarker™ Notebook, Crestron Keyboard, Adobe Acrobat® Reader, WordPad, MS Word Viewer 2007, Excel® Viewer 2007, PowerPoint® Viewer 2007^[4]

Memory

SDRAM: 512 MB

Flash: 2 GB

Maximum Project Size: 120 MB

Communications

Ethernet: 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, for control and console

Cresnet: Cresnet slave mode for control and console

USB: USB 2.0 host, supports USB HID class devices and USB flash drives^[4]

DigitalMedia: DM CAT, DMNet®, for connection to a single V-Panel display only

Video

Input Signal Types: S-Video (Y/C), composite

Output Signal Types: DM CAT (to V-Panel display)

Formats: NTSC or PAL

Input Resolutions: 480i, 576i

Output Resolutions: 800x600@60Hz, 1280x768@60Hz

Color Depth: 24-bit, 16.7M colors

Streaming/File Formats: MJPEG via Crestron MJPEG Viewer, plus all formats supported by the embedded media player applications^[4]

Audio

Features: Internal volume control and audio mixer, IP Intercom

Input Signal Types: analog stereo, CH CAT5

Output Signal Types: DM CAT (to V-Panel display), analog stereo, CH CAT5

Streaming/File Formats: All formats supported by the embedded media player applications^[4]

Audio Feedback (WAV): 8 & 16 bit PCM, mono & stereo, 8 – 44.1 kHz sampling rates

Connectors

VIDEO IN, COMP/C & Y: (1) auto-sensing analog video input comprised of (2) BNC female;

Signal Types: S-Video (Y/C) or composite input;

Input Level: 1 Vp-p nominal;

Input Impedance: 75 Ohms nominal

AUDIO: (1) 8-pin RJ45 female, shielded;

Bidirectional CAT5 balanced stereo audio port;

Paralleled to AUDIO IN and AUDIO OUT connectors;

Connects to any other Crestron “CH” CAT5 balanced audio port via CresCAT cable;

Maximum Cable Length: 1000 feet

AUDIO IN: (1) 5-pin 3.5mm detachable terminal block;

Balanced/unbalanced stereo line-level input;

Input Impedance: 20k Ohms balanced, 10k Ohms unbalanced;

Maximum Input Level: 4 Vrms balanced, 2 Vrms unbalanced;

AUDIO OUT: (1) 5-pin 3.5mm detachable terminal block;

Balanced/unbalanced stereo line-level output;

Output Impedance: 200 Ohms balanced, 100 Ohms unbalanced;

Maximum Output Level: 4 Vrms balanced, 2 Vrms unbalanced

TO PANEL, DM OUT, D & M: (1) DM CAT output composed of (2) 8-pin RJ45 female, shielded;

Connects to DM CAT input of a V-Panel display via DM-CBL cable^[3]

TO PANEL, DM OUT, 24 A B G: (1) 4-pin 3.5mm detachable terminal block, DMNet port;

Connects to DMNet port of a V-Panel display via DM-CBL cable^[3]

REMOTE RESET: (1) 2-pin 3.5mm detachable terminal block;

Contact closure sensing input for hardware reset

LAN: (1) 8-wire RJ45 female, 10BaseT/100BaseTX Ethernet port

NET: (2) 4-pin 3.5mm detachable terminal blocks;

Cresnet Slave Ports, paralleled

G: (1) 6-32 screw, chassis ground lug

USB (front): (1) USB Type A female;

USB 2.0 host port for connection of a USB HID-compliant mouse/keyboard or USB flash drive^[4]

Controls & Indicators

PWR: (1) Green LED, indicates DC power supplied from Cresnet Control Network

NET: (1) Amber LED, indicates communication with Cresnet system

RESET: (1) Recessed miniature pushbutton, resets the DGE

DM LINK: (1) Green LED, indicates connection to a V-Panel

LAN (rear): (2) LEDs, green LED indicates Ethernet link status, amber LED indicates Ethernet activity

SETUP (rear): (1) Recessed miniature pushbutton and red LED for Ethernet auto-discovery and TSID

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Power Requirements

Cresnet Power Usage:

- 16 Watts (0.67 Amps at 24 Volts DC);
- 46 Watts (1.92 Amps at 24 Volts DC) with V12 display;
- 58 Watts (2.42 Amps at 24 Volts DC) with V15 display

Environmental

- Temperature: 41° to 113°F (5° to 45°C)
- Humidity: 10% to 90% RH (non-condensing)
- Heat Dissipation: 55 BTU/Hr

Enclosure

- Chassis: Metal, matte black finish, vented top and sides
- Faceplate: Extruded aluminum, matte black finish, polycarbonate label overlay
- Mounting: Freestanding or 1U 19-inch rack-mountable (adhesive feet and rack ears included)

Dimensions

- Height: 1.80 in (46 mm), 1.70 in (44 mm) without feet
- Width: 17.07 in (434 mm), 19.00 in (483 mm) with ears
- Depth: 10.70 in (271 mm)

Weight

- 4.3 lb (2.0 kg)

MODELS & ACCESSORIES

Available Models

DGE-1: Digital Graphics Engine w/DigitalMedia™ CAT Connectivity

Available Accessories

- V12: V-Panel™ 12" VESA Mount HD Touch Screen Display, DM CAT
- V12-TILT: V-Panel™ 12" Tilt HD Touch Screen Display, DM CAT
- V12-WALL: V-Panel™ 12" Wall Mount HD Touch Screen Display, DM CAT
- V15: V-Panel™ 15" VESA Mount HD Touch Screen Display, DM CAT
- V15-TILT: V-Panel™ 15" Tilt HD Touch Screen Display, DM CAT
- V15-WALL: V-Panel™ 15" Wall Mount HD Touch Screen Display, DM CAT
- DM-CBL-NP: DigitalMedia™ Cable, non-plenum
- DM-CBL-P: DigitalMedia™ Cable, plenum-rated
- DM-CBL-D-NP: DigitalMedia™ D Cable, non-plenum
- DM-CBL-D-P: DigitalMedia™ D Cable, plenum
- DM-CONN-20: DigitalMedia™ Cable Connectors, 20-Pack
- CRESNET-NP: Cresnet® Control Cable, non-plenum
- CRESNET-P: Cresnet® Control Cable, plenum
- CRESNET-HP-NP: Cresnet® "High-Power" Control Cable, non-plenum
- CEN-NVS100: Network Video Streamer
- VMK-WIN: TouchPoint™ Virtual Mouse & Keyboard Software for Windows®

Notes:

1. Item(s) sold separately.
2. The V-Panel touch screen must be equipped with a DM CAT type interface for connection to the DGE-1. Contact your Crestron representative for additional design assistance.
3. For wiring between the DGE-1 and V-Panel, use [DM-CBL](#) DigitalMedia Cable. The maximum allowable cable length is 150 ft (45 m).
4. Consult Crestron for a current list of compatible devices and embedded applications. To ensure reliable performance, new device drivers and applications are available only from Crestron through firmware updates.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

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