

Digital Graphics Engine w/DigitalMedia™ CAT Connectivity

- > Touch screen graphics and video processing for V-Panels™
- > High-Definition 24-bit touch screen graphics
- > DNav menu objects with gestures
- > MJPEG streaming video display
- > Single-window full-motion video display
- > Auto-sensing composite or S-Video input
- > Remote annotation capability
- > Customizable audio feedback
- > Crestron® IP intercom and wired analog intercom capability^[5]
- > Balanced analog audio input and output
- > Crestron Home® (CH) CAT5 bidirectional audio port
- > USB keyboard/mouse port
- > Onscreen keyboard and mouse capability
- > High-Speed Ethernet and Cresnet®
- > One-wire DigitalMedia™ cable connection to V-Panel™^[2,3]
- > 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 out of sight 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, streaming video, and Crestron 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, or browse your music and movie libraries, all 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 controls, media cover art, and favorite channels.

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

Streaming video capability makes it possible to view security cameras and other video sources over the network right on the touch screen. Native support for the MJPEG format allows the DGE-1 to display live video images from IP cameras and servers such as the Crestron [CEN-NVS200](#) Network Video Streamer^[1].

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 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 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.

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

Graphics 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

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DGE-1 – Rear View

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

Video

Input Signal Types: S-Video (Y/C), composite (NTSC or PAL)
Output Signal Types: DM CAT (to V-Panel display)
Input Resolutions: 480i, 576i
Output Resolutions: 800x600@60Hz, 1280x768@60Hz
Color Depth: 24-bit, 16.7M colors
Streaming Format: MJPEG

Audio

Features: Internal volume control and audio mixer, Crestron IP Intercom
Input Signal Types: analog stereo, CH CAT5
Output Signal Types: DM CAT (to V-Panel display), analog stereo, CH CAT5
Audio Feedback: WAV format, 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, 10Base-T/100Base-TX 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

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

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

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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, black finish, vented top and sides

Faceplate: Metal, 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: Connector for DM-CBL

CRESNET-NP: Cresnet® Control Cable, non-plenum

CRESNET-P: Cresnet® Control Cable, plenum

CRESNET-HP-NP: Cresnet® "High-Power" Control Cable, non-plenum

CEN-NVS200: 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).

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.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

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