TSD-2020

20" HD Touch Screen Display

> High-Definition 20" widescreen touch display

> Full HD 1920 x 1080 display resolution

> Quick-response, multi-touch capacitive touch screen

> Smooth, accurate on-screen writing using the included annotation pen

> High contrast and accurate color reproduction

> Ultra fast 5 ms speed response

> Ultra wide 178 degree viewing angles

> Fully HDCP compliant

> Built-in speakers

> Compatible with DGE-100 and DGE-2 Digital Graphics Engines or the DVPHD Digital Video Processor [1,5]

> Compatible with DigitalMedia™ receivers to support extended wiring distances [3,4]

> Thin, lightweight design

> VESA 100x100 mountable

> Available wall mount kit and back box [1]

The TSD-2020 merges Crestron® touch screen control and high-definition video into one slim, lightweight touch screen display. Its 20" Full HD 1080p display offers a spacious user interface for controlling AV, lighting, climate, and other technologies while simultaneously delivering excellent video performance as an HDTV or computer display. Its high-sensitivity capacitive surface affords exceptional touch response, whether using fingertip gestures or the included annotation pen.

The TSD-2020 is designed for use with a Digital Graphics Engine (DGE-100 or DGE-2 [1]), providing an elegant and powerful touch screen control solution featuring advanced Smart Graphics™, HD video, Web browsing, audio feedback, and annotation. Together with the DGE, the TSD-2020 easily replaces separate touch screens, TV displays, and computer monitors to address a broad range of residential and commercial applications. Its large screen makes it ideal as a home controller and television display in a kitchen or bedroom, as a presentation control panel for a university lecture hall, and as a video control surface for a corporate or government command center. For all kinds of uses, the TSD-2020 provides a perfect fit.

VESA Mounting

Its thin profile and VESA mount compatibility allow the TSD-2020 to be installed virtually anywhere using an off-the-shelf wall mounting bracket, desk stand, or articulating arm. In addition, the TSD-2020 ships with an easel-type stand for tabletop use, and includes a flip-out flap and tabs on its rear panel to allow for use as a low-angled or lay-flat tablet.

Wall Mounting

Using the optional Wall Mount Kit and Back Box (model TSD-2020-WMK-BB [1]) allows the TSD-2020 to be mounted cleanly on the wall with no visible plugs or wires.

Advanced Touch Screen Control

A Crestron touch screen offers an ideal user-interface for controlling all the technology in your home, boardroom, classroom, courtroom, or command center. Touch screens do away with piles of remote controls, cluttered wall switches, and cryptic computer screens, simplifying and enhancing the way you use technology. For controlling audio, video, lighting, shades, HVAC, security, and other systems, Crestron touch screens are fully-customizable with easy-to-use controls and icons, true feedback and real-time status display, full-motion video windows, and advanced navigation of digital media servers, tuners, and other devices.

Digital Graphics Engine

For a typical control application using the TSD-2020, a Digital Graphics Engine (DGE) is also required. The DGE can be installed near the TSD-2020 or tucked away at the central equipment location. Two DGE models are currently offered for use with the TSD-2020, the rack-mountable DGE-2 and the surface-mountable DGE-100. Consult the spec sheet for each DGE model for additional information. [1]

HDMI® & DigitalMedia™

The TSD-2020 features an HDMI input and USB HID port, allowing for direct connection to the DGE over short distances up to approximately 10 ft (3 m). [2] A DigitalMedia 8G+® receiver and transmitter may be used to extend the wiring distance to up to 330 ft (100 m). [1,3,4]

DVPHD Integration

In addition to the DGE-100 and DGE-2, the TSD-2020 is also compatible with the award-winning DVPHD High-Definition Digital Video Processor [1], enabling the display of up to 8 simultaneous video windows along with HD touch screen graphics and annotation. The DVPHD supports high-definition

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video and computer signals from a wide variety of digital and analog sources.[3,5]

Annotation Pen

The TSD-2020 enables smooth, accurate on-screen writing and drawing using the included annotation pen. Palm cancellation technology affords a natural feel while writing on the touch screen surface.

SPECIFICATIONS

Touch Screen Display

Display Type: TFT active matrix color LCD
Size: 19.5 inch (495 mm) diagonal
Aspect Ratio: 16:9 Full HD
Resolution: 1920 x 1080 pixels
Brightness: 250 nits (cd/m²)
Contrast: 3000:1
Response Time: 5 ms G-to-G
Color Depth: 24-bit, 16.7M colors
Illumination: Edgelit LED
Viewing Angle: ±89° horizontal, ±89° vertical
Touch Screen: Capacitive

Annotation Pen

Wireless touch pen, 2 mm wide tip, palm cancellation technology

Buttons & Indicators

Power/Menu: (1) Pushbutton, press to turn power on, press (while power is on) to access the onscreen menu, press for ≥2 seconds to turn power off
Power/Signal: (1) Bi-color LED, green indicates power is on and an input signal is present, orange indicates power is on and no input signal is present

Note: If power is lost while the TSD-2020 is powered on, it will automatically return to the powered on state when power is restored.

Communications

USB: USB 1.1 Human Interface Device

Video

Input Signal Types: HDMI®, DisplayPort
Input Resolutions: 640x480@60Hz, 800x600@60Hz, 720x480@60Hz, 720x576@50Hz, 1024x768@60Hz, 1280x720@50Hz, 1280x720@60Hz, 1920x1080@50Hz, 1920x1080@60Hz

Refer to DGE-100, DGE-2, or DVPHD specifications for additional information.

Audio

Input Signal Types: HDMI, DisplayPort
Hardware Features: Built-in rear-facing amplified speakers
Amplification: 1 Watt x 2 channels

Refer to DGE-100 or DGE-2 specifications for additional information.

Connectors

Headphone: (1) 3.5 mm TRS mini phone jack; Unbalanced stereo line-level or headphone audio output

HDMI: (1) 19-pin Type A HDMI female; HDMI digital video/audio input, also supports DVI [6]

DisplayPort: (1) 20-pin DisplayPort female; DisplayPort digital video/audio input [7]

Micro-USB: (1) micro-USB type B, female; USB 1.1 device port, 6 ft (1.8 m) micro-USB type B male to USB type A male cable included

DC-IN 19V: (1) DC power connector; 19 Volt DC power input, power pack included

Power Requirements

Power Pack: 19 Volts DC; 100-240 Volt AC, 50/60Hz power pack included

Environmental

Temperature: 32° to 95° F (0° to 35° C)
Humidity: 20% to 80% RH (non-condensing)
Heat Dissipation: 89 BTU/hr

Enclosure

Plastic case, VESA 100x100 mm mountable (M4 screw size), 75° angled easel-type tabletop stand included, flip-out flap and tabs for 10° angled or lay-flat use, optional wall mount kit and back box available separately

Dimensions

Height: 10.82 in (275 mm)
Width: 18.26 in (464 mm)
Depth: 1.07 in (27 mm)

Weight

5.1 lb (2.3 kg); 6.4 lb (2.9 kg) with tabletop stand

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MODELS & ACCESSORIES

Available Models

TSD-2020-B: 20" HD Touch Screen Display, Black

Available Accessories

TSD-2020-WMK-BB: Wall Mount Kit and Back Box for TSD-2020

TSD-2020-PMK: Pre-Construction Mounting Kit for TSD-2020-WMK-BB

DGE-100: Digital Graphics Engine 100

DGE-2: Digital Graphics Engine w/HDMI® and DM® CAT Connectivity

CBL Series: Crestron® Certified Interface Cables

DM-RMC-SCALER-C: DigitalMedia 8G+® Receiver & Room Controller w/Scaler

DM-TX-201-C: DigitalMedia 8G+® Transmitter 201

DM-CBL-8G-NP: DigitalMedia 8G™ Cable, non-plenum

DM-CBL-8G-P: DigitalMedia 8G™ Cable, plenum

DM-8G-CONN: Connector for DM-CBL-8G

DM-8G-CRIMP: Crimping Tool for DM-8G-CONN

DM-8G-CONN-WG: Connector with Wire Guide for DM-CBL-8G

DM-8G-CRIMP-WG: Crimping Tool for DM-8G-CONN-WG

MP-WP181-C: Media Presentation Wall Plate - Crestron DigitalMedia 8G+®

MPI-WP181-C: Media Presentation Wall Plate - International Version - Crestron DigitalMedia 8G+®

Notes:

1. Item(s) sold separately.
2. Ships with a 6 ft (1.8 m) USB cable only. HDMI cable sold separately.
3. For connection to a DGE-2, DGE-100, or DVPHD via DigitalMedia 8G+ (DM 8G+®), use a DM 8G+ receiver (DM-RMC-SCALER-C) at the touch screen location, and a DM 8G+ transmitter (DM-TX-201-C) at the DGE or DVPHD. For connection to a DM switcher, any type of DM receiver may be used provided the receiver includes a USB HID host port. Besides DM 8G+, Crestron offers other ways to extend HDMI and USB signals. Consult the Crestron Website or contact a Crestron representative for additional options.
4. For DigitalMedia 8G+ (DM 8G+) wiring, use Crestron DM-CBL-8G DigitalMedia 8G Cable or third-party CAT5e (or better) UTP or STP. The maximum wire length for DM 8G+ is 330 ft (100 m). Refer to the Crestron DigitalMedia Design Guide, Doc. #4546 for DM system design guidelines.
5. The DVPHD does not support audio, streaming video, or Web browsing.
6. The HDMI input requires an appropriate adapter or interface cable to accommodate a DVI signal. CBL-HD-DVI interface cables are available separately.
7. The DisplayPort input only supports native DisplayPort signals. To connect an HDMI source to this input, an active HDMI-to-DisplayPort converter must be used. The DisplayPort input automatically overrides the HDMI input when a DisplayPort signal is connected.

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.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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