

# TS-1542-C

## 15.6" HD Touch Screen w/DM 8G+<sup>®</sup> Input

- > Modern, high-end appearance
- > Premium metallic construction
- > Full HD 1080p capacitive touch display
- > Multi-touch capable
- > Auto-brightness control
- > Integrated digital graphics engine
- > Enhanced Smart Graphics™ performance
- > Dual-window HD video display
- > 4K DM 8G+<sup>®</sup> video input
- > HDCP 2.2 compliant
- > HD streaming video support
- > Remote annotation support
- > Built-in web browsing<sup>[1]</sup>
- > On-screen keyboard
- > External USB keyboard support
- > Customizable screensaver
- > Built-in microphone and speakers
- > Voice recognition capability<sup>[1]</sup>
- > Full duplex Rava<sup>®</sup> intercom and phone
- > Customizable audio feedback
- > High-speed Ethernet connectivity via DM 8G+
- > 24VDC or PoDM++ powered<sup>[4]</sup>
- > Includes 100-240V universal power pack
- > Choice of surface wall mount or tabletop
- > VESA mount compatible
- > Available in dark gray w/black glass or all white
- > Signature Series custom colors and graphics also available



Featuring enhanced Smart Graphics™ performance and dual-window HD video display, the TS-1542-C delivers an elegant and powerful touch screen control solution for a wide range of applications. Its DM 8G+<sup>®</sup> input provides a single-wire interface carrying high-speed Ethernet, uncompressed 4K video, H.264 streaming video, and PoDM++ power, all over a single CAT type cable. Additional features include the abilities to control any function using voice commands, browse the Internet, annotate over a video image or whiteboard screen, and communicate using built-in VoIP intercom and phone functions.<sup>[1]</sup>

A choice of tabletop, wall, or VESA mounting options afford an integrator-friendly solution that's easy to install and fits perfectly in any space. Standard finishes include either white or dark gray metallic, or choose the Signature Series option to design your own custom finish.

### Sleek, Versatile Design

At just 1-3/4 inches (45 mm) deep, the TS-1542-C can be mounted virtually anywhere using the supplied wall mount kit or a third-party VESA 100 compliant mounting arm, bracket, or stand. A tabletop tilt model (TS-1542-TILT-C) is also offered, which features an ultra-stylish, smooth-tilt base for use on a table, desk, podium, or countertop.

### Smart Graphics™

Crestron touch screens use Smart Graphics to deliver the ultimate user experience *and* the ultimate value by enabling the creation of dynamically rich user interfaces with incredible efficiency and unparalleled functionality. Using Smart Graphics, programmers can swiftly integrate fluid gesture-driven controls, animated feedback, rich metadata, embedded apps and widgets, and full-motion video for a deeply engaging and ultra-intuitive touch screen experience.

### Advanced Touch Screen Control

A Crestron<sup>®</sup> touch screen offers an ideal user-interface for controlling all the technology in your home, boardroom, classroom, courtroom, or command center. Touch screens simplify and enhance the way you use technology, doing away with those piles of remote controls, cluttered wall switches, disparate smartphone apps, and cryptic computer screens. 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 a full-featured media player for an enhanced multiroom entertainment experience.

The Crestron TS-1542-C delivers the ultimate touch screen experience — blending style and function with advanced high-definition graphics. In one slim device, the TS-1542-C integrates a brilliant 15.6" Full HD touch screen display and high-performance digital graphics engine. Its sleek, modern design features premium metallic construction and edge-to-edge glass for a contemporary look that's perfectly at home placed on an executive boardroom table, installed in a high-tech command center, or mounted on the wall in a luxury residence.

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TS-1542-TILT-C-B-S — Rear Side View

Crestron Smart Graphics offers these enhancements and more:

- Cool-looking graphical buttons, sliders, knobs, and gauges that are intuitive and fun to use
- Kinetic effects to enhance the feeling of realism, with lists and toolbars that scroll with momentum at the flick of a fingertip
- Drag-and-drop objects that snap into place, offering an easy way to switch sources
- Dashboard widgets to personalize the touch screen with clocks, weather, news, and other information<sup>[1]</sup>
- A power-saving screensaver, allowing display of time, temperature, and other text content at a reduced brightness level
- Customizable themes allowing a completely different look and feel for every user, event, or season
- Fully-developed SmartObjects® that enable sophisticated control over complex devices with minimal programming
- A consistent look and feel across multiple touch screens of varying sizes

## Auto-Brightness Control

The TS-1542-C maintains optimal visibility under varying lighting conditions by automatically adjusting its display brightness according to changes in the ambient light level in the room.

## DigitalMedia 8G+® & 4K Video

Using DM 8G+ technology, the TS-1542-C achieves complete connectivity over a single CAT type twisted pair cable. The cable connects to a Crestron DM® system (i.e., a DM switcher or transmitter<sup>[2,3]</sup>), which can be located in a central equipment cabinet or some other remote location. The DM system provides the interface for all video, audio, and networking signals to the TS-1542-C. Power for the TS-1542-C can also be carried over the DM 8G+ connection by adding a PoDM++ compatible power source.<sup>[4]</sup>

The DM 8G+ connection transports high-speed Ethernet, uncompressed 4K video, and stereo audio signals from the DM system to the TS-1542-C. Support for 4K video and HDCP 2.2 encryption ensures compatibility with a complete range of video sources. Any video source connected to the DM system, including 4K and Ultra HD sources, can be viewed right on the touch screen, either full screen or in a window.

DM 8G+ supports 1080p, WUXGA, and 2K signals over cable lengths up to 330 feet (100 m) using Crestron DM Ultra or DM 8G Cable, or third-party CAT5e. Higher resolutions up to UHD and 4K are supported at distances up to 330 feet (100 m) using DM Ultra Cable, 230 feet (70 m) using DM 8G Cable, or 165 feet (50 m) using CAT5e.<sup>[5]</sup>

## HD Streaming Video

High-definition streaming video capability makes it possible to view live streaming video from IP cameras and streaming encoders (Crestron CEN-NVS200, DM-TXRX-100-STR, DMC-STRO, or similar<sup>[2]</sup>). Up to two streaming video windows can be displayed simultaneously, or a single streaming window can be displayed alongside a DM 8G+ video window. H.264 and MJPEG streaming formats are supported.

## Voice Recognition

Some things are easier *said* than *done*, so why not just *say* what you want and let Crestron *do* it for you? With built-in voice recognition, the TS-1542-C provides the ability to use spoken commands to control virtually anything. Voice recognition can be used to quickly turn devices on or off, select and play a specific media title or playlist, change the channel, choose a lighting



Color and design shown are just an example

## TS-1542-C Signature Series

The Signature Series allows the TS-1542-C to be transformed into a beautiful showpiece adorned with custom colors and graphics on the tilt base and rear of the touch screen. No design is off limits, as Crestron provides the means for design ideas to be submitted, rendered for approval, and then made real. For more information, please visit: [www.crestron.com/signatureseries](http://www.crestron.com/signatureseries).

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scene, lock the doors, arm the security system, or enter a password. Simply say a command and Crestron does the rest.<sup>[1]</sup>

## Rava<sup>®</sup> SIP Intercom

Rava SIP Intercom Technology enables hands-free VoIP communication with other Rava-enabled touch screens and door stations. Rava works over Ethernet, supporting 2-way intercom, video intercom<sup>[6]</sup>, and paging without requiring any special wiring. VoIP phone capability is also possible through integration with a SIP-compatible IP phone system or SIP server, allowing hands-free telephone functionality complete with speed-dialing, caller ID, custom ringers, and other enhancements. Built-in echo cancellation affords full-duplex performance for clear, seamless voice communication.

## Speakers and Microphone

The built-in speakers and microphone provide clear audio for intercom and phone calls, as well as for listening to multimedia.

## Audio Feedback

Customized audio files can be loaded to add another dimension to the touch screen graphics using personalized sounds, button feedback, and voice prompts.

## Web Browsing

Using its built-in web browser, the TS-1542-C provides quick access to online program guides and other web-based services at the touch of a button, allowing enhanced touch screen control of DVRs and other appliances without having to pick up a separate tablet or smartphone. If a device can be controlled or managed through a web browser, it can be integrated into the Crestron system through the TS-1542-C. Of course, the web browser may also be used to simply browse the Internet, watch online videos, and check up on social media.<sup>[1]</sup>

## Multi-Touch Support

The TS-1542-C's capacitive touch screen affords enhanced capabilities for browsing web pages using multi-touch gestures.

## Keyboard Options

Typing in passwords, URLs, and text searches is facilitated using the on-screen multi-language keyboard. A physical USB keyboard (not included) may also be connected.

## Built-in Annotation

Whether conducting a high-level boardroom meeting or training seminar, sharing ideas in a huddle space, or watching sports in your home theater, annotation helps put the fine point on any presentation. Annotation provides the ability to illustrate your thoughts on-the-fly, letting you draw and write over streaming video and computer images, and sketch out ideas on a whiteboard screen.

Native to the TS-1542-C, remote annotation capability allows multiple participants, each with a separate touch screen, to draw with their fingertips over the same video image or whiteboard, enabling enhanced collaboration in a classroom, courtroom, or council chamber. Adding a Crestron Digital Graphics Engine (model [DGE-100](#)<sup>[2]</sup>) connected to the room's main display allows the whole annotation session to be viewed by the entire audience.

## Power Options

The TS-1542-C ships with a 24V DC power pack, which connects to the back of the touch screen and a nearby 100-240V AC outlet. Alternately, the TS-1542-C can be powered remotely from a Cresnet<sup>®</sup> network or power supply.<sup>[7]</sup> For applications requiring a single-wire solution, the TS-1542-C can be powered through its DM 8G+ connection using a PoDM++ injector (model DM-PSU-ULTRA-MIDSPAN<sup>[4]</sup>).

## Interface Module

Each TS-1542-C ships with a compact interface module ([TS-1542-IMCW](#)), which may be used as required to provide an RJ45 DM 8G+ connection for the touch screen. The module can be mounted in a 1-gang electrical box or floor box, under a table, or in a podium or equipment rack. A 6 foot (1.8 meter) long cable is included for connection between the module and touch screen.

*NOTE: When surface mounted using the wall mount kit (included with models TS-1542-C-B-S and TS-1542-C-W-S only), all wiring enters through an electrical box or cut-out and is concealed from view. For this method of installation, the interface module may not be required.*

## SPECIFICATIONS

### Touch Screen Display

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**Display Type:** TFT Active matrix color LCD

**Size:** 15.6 inch (396 mm) diagonal

**Aspect Ratio:** 16:9 Full HD

**Resolution:** 1920 x 1080 pixels

**Brightness:** 400 nits (cd/m<sup>2</sup>)

**Contrast:** 800:1 typical

**Response Time:** 30 ms G-to-G

**Color Depth:** 24-bit, 16.7M colors

**Illumination:** LED w/auto-brightness control

**Viewing Angle:** ±80° horizontal, +80°/-65° vertical

**Touch Screen:** Projected Capacitive, 10-point multi-touch capable

### Graphics Engine

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**Graphics Engine:** Crestron Smart Graphics

**Features:** Local and remote annotation, multi-language web browser<sup>[1]</sup>, multi-language on-screen keyboard, screensaver

**Video Windowing:** Fully-scalable dual video windowing (displays any combination of DM 8G+ and streaming sources)

### Languages

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**Smart Graphics:** Arabic, Chinese (Simplified), Chinese (Traditional), Czech, Danish, Dutch, English (UK), English (US), Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Portuguese (Brazilian), Romanian, Russian, Slovak, Spanish, Swedish, Thai

**On-Screen Keyboard:** Arabic, Chinese (Simplified), Croatian, Czech, Danish, Dutch, English (UK), English (US), Finnish, French (Canada), French (Switzerland), German, Hebrew, Hungarian, Italian, Japanese, Norwegian

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Bokmal, Polish, Portuguese, Russian, Serbian, Spanish, Swedish, Turkish  
**Voice Recognition:** Afrikaans (South Africa); Chinese, Mandarin (China, Simplified); Chinese, Mandarin (Hong Kong, Simplified); Chinese, Mandarin (Taiwan, Traditional); Chinese, Yue (Hong Kong, Traditional); Czech (Czech Republic); Dutch (Netherlands); English (Australia); English (Canada); English (Generic); English (India); English (New Zealand); English (South Africa); English (UK); English (US); French (France); German (Germany); isiZulu (South Africa); Italian (Italy); Japanese (Japan); Korean (South Korea); Polish (Poland); Portuguese (Brazil); Russian (Russia); Spanish (Spain); Turkish (Turkey)

**Web Browser:** Arabic, Bulgarian, Catalan, Chinese, Croatian, Czech, Danish, Dutch, English, Filipino, Finnish, French, German, Greek, Hebrew, Hindi, Hungarian, Indonesian, Italian, Japanese, Korean, Latvian, Lithuanian, Norwegian Bokmal, Pashto, Persian, Polish, Portuguese, Romanian, Romansh, Russian, Serbian, Slovak, Slovenian, Spanish, Swedish, Thai, Turkish, Ukrainian, Vietnamese

## Memory

**DDR3 SDRAM:** 2 GB

**Flash:** 4 GB

**Maximum Project Size:** 1 GB

## Communications

**DigitalMedia™:** DM 8G+, PoDM++, HDCP 2.2, EDID, Ethernet (10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), SNMP, IPv4 or IPv6)

**USB Host:** Supports USB HID compliant keyboard devices

**USB Device:** For computer console (installer setup and firmware update)

## Streaming Decoder

**Video Formats:** H.264 (MPEG-4 part 10 AVC), MJPEG

**Audio Formats:** AAC stereo

**Bitrates:** Up to 25 Mbps<sup>[8]</sup>

**Resolutions:** Up to 1080p60

## Video

**Input Signal Type:** DM 8G+

**Maximum Input Resolutions:**

Scan Type	Resolution	Frame Rate	Color Sampling	Color Depth
Progressive	4096x2160 4K DCI & 3840x2160 Ultra HD	24 Hz	4:4:4	30 bit
		30 Hz	4:4:4	24 bit
		30 Hz	4:2:2	36 bit
		60 Hz	4:2:0	24 bit
	2560x1600 WQXGA	60 Hz	4:4:4	36 bit
1920x1080 HD1080p	60 Hz	4:4:4	36 bit	
Interlaced	1920x1080 HD1080i	30 Hz	4:4:4	36 bit

*NOTE: Common resolutions are shown; other custom input resolutions are supported at pixel clock rates up to 300 MHz*

## Audio

**Features:** Built-in microphone and speakers, Rava<sup>®</sup> SIP Intercom, multi-language voice recognition<sup>[1]</sup>

**Input Signal Type:** DM 8G+

**Input Format:** 2 channel LPCM

**Audio Feedback Formats:** MP3

## Connectors

**24V DC, 1.8 A:** (1) 2-pin 3.5 mm detachable terminal block;

24 Volt DC power input;

Wire Size: 18 AWG maximum;

Connects to the PW-2420RUL power pack (included), or to a Cresnet<sup>®</sup> network or power supply<sup>[7]</sup>

**USB HID:** (1) USB Type A female;

USB 2.0 host port for USB HID-compliant keyboard

**CONSOLE:** (1) USB Type B female;

USB computer console port (for setup)

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

**DM IN:** (1) 8-pin RJ45 female, shielded;

DM 8G+ input & PoDM++ PD (Powered Device) port<sup>[4]</sup>;

Connects to the DM 8G+ output of a DM<sup>®</sup> switcher, transmitter, or other DM device via CAT5e, Crestron DM-CBL-8G, or Crestron DM-CBL-ULTRA cable<sup>[3,5]</sup>;

6 ft (1.8 m) cable and TS-1542-IMCW interface module included

## Buttons & Indicators

**RESET:** (1) Pushbutton at rear connector panel for hardware reset

**DM IN:** (2) LEDs at DM IN connector, green LED indicates DM link status, amber LED indicates video and HDCP signal presence

## Power

**Power Options:** Power pack, Cresnet, or PoDM

**Power Pack (included):** Output: ≥1.8 Amps @ 24 Volts DC;

Input: 1.3 Amps @ 100-240 Volts AC, 50/60 Hz;

Model: PW-2420RUL

Cresnet: 43 Watts @ 24 Volts DC<sup>[7]</sup>

**PoDM (Power over DM):** 36 Watts PoDM++ PD (Powered Device);

Requires connection to a PoDM++ PSE (Power Sourcing Equipment) with 42 Watts available<sup>[4]</sup>

**Power Consumption:** 36 Watts maximum;

33 Watts typical (display brightness 100%);

20 Watts standby (display backlight off)

## Environmental

**Temperature:** 32° to 113° F (0° to 45° C)

**Humidity:** 10% to 90% RH (non-condensing)

**Heat Dissipation:** 113 BTU/hr typical

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## Construction

**Composition:** Aluminum housing with dark gray or white finish (custom colors and graphics also available), edge-to-edge glass with black or white surround

**Mounting (model TS-1542-C):** Mounts to a flat wall surface over a 2-gang electrical box, horizontally-oriented 1-gang electrical box, 1-gang UK electrical box (BS 4662), 1-gang European electrical box (DIN 49073), or rough cut-out up to 2" H x 3" W (50 mm H x 75 mm W) using wall mount kit provided; VESA 100 x 100 mm mountable with wall mount kit removed

**Mounting (model TS-1542-TILT-C):** Includes tabletop base with 23° to 45° adjustable tilt

## Dimensions – Model TS-1542-C

**Height:** 9.42 in (240 mm)

**Width:** 15.35 in (390 mm)

**Depth:** 1.80 in (46 mm) with wall mount kit;  
1.76 in (45 mm) without wall mount kit (VESA mount)

## Dimensions – Model TS-1542-TILT-C

**Height:** 8.76 in (223 mm) minimum at 45° tilt;  
9.90 in (252 mm) maximum at 23° tilt

**Width:** 15.35 in (390 mm)

**Depth:** 6.80 in (173 mm) minimum at 23° tilt;  
8.15 in (207 mm) maximum at 45° tilt

## Weight

**TS-1542-C:** 7.3 lb (3.4 kg)

**TS-1542-TILT-C:** 10.1 lb (4.6 kg)

## DM 8G+ Maximum Cable Lengths

Cable Type:	DM-CBL-ULTRA DM <sup>®</sup> Ultra Cable	DM-CBL-8G DM 8G <sup>®</sup> Cable	CAT5e (or better) UTP or STP <sup>[5]</sup>
Resolution:			
1080p60 Full HD	330 ft (100 m)	330 ft (100 m)	330 ft (100 m)
1920x1200 WUXGA			
1600x1200 UXGA			
2048x1080 2K DCI		230 ft (70 m)	165 ft (50 m)
2560x1440 WQHD			
2560x1600 WQXGA			
3840x2160 Ultra HD			
4096x2160 4K DCI			

## MODELS & ACCESSORIES

### Available Models

**TS-1542-C-B-S:** 15.6" HD Touch Screen w/DM 8G+<sup>®</sup> Input, Wall Mount or VESA, Black Smooth

**TS-1542-C-W-S:** 15.6" HD Touch Screen w/DM 8G+<sup>®</sup> Input, Wall Mount or VESA, White Smooth

**TS-1542-TILT-C-B-S:** 15.6" HD Touch Screen w/DM 8G+<sup>®</sup> Input, Tabletop Tilt, Black Smooth

**TS-1542-TILT-C-W-S:** 15.6" HD Touch Screen w/DM 8G+<sup>®</sup> Input, Tabletop Tilt, White Smooth

**TS-1542-TILT-C-SSB:** 15.6" HD Touch Screen w/DM 8G+<sup>®</sup> Input, Tabletop Tilt, Signature Series Black

**TS-1542-TILT-C-SSW:** 15.6" HD Touch Screen w/DM 8G+<sup>®</sup> Input, Tabletop Tilt, Signature Series White

### Included Accessories

**TS-1542-IMCW:** Interface Module (Qty. 1 included)

**PW-2420RUL:** Desktop Power Pack, 24VDC, 2A, Flying Leads, Universal (Qty. 1 included)

### Available Accessories

**DM-PSU-ULTRA-MIDSPAN:** DigitalMedia™ Ultra Midspan PoDM++ Injector

**DM-CBL-ULTRA:** DigitalMedia™ Ultra Cable

**DM-CONN:** Connector for DM-CBL-ULTRA

**DM-CBL-8G:** DigitalMedia 8G™ Cable

**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

**CEN-NVS200:** Network Video Streamer

**DM-TXRX-100-STR:** HD Streaming Transmitter/Receiver

### Notes:

- Voice recognition, web browsing, weather information, and certain other functions require an internet connection.
- Item(s) sold separately.
- The DM device to which the TS-1542-C is connected must have an Ethernet connection to a Crestron control system.
- Optional PoDM++ injector, model DM-PSU-ULTRA-MIDSPAN, sold separately. Any wiring carrying PoDM is for intra-building use only and should not be connected to a line that runs outside of the building in which the PoDM PSE (power sourcing equipment) is located.
- The maximum cable length for DigitalMedia 8G+ (DM 8G+) is dependent upon the type of cable and resolution of the video signal. Refer to the "DM 8G+ Maximum Cable Lengths" table for a detailed overview. Crestron legacy cable models **DM-CBL** DigitalMedia Cable and **DM-CBL-D** DigitalMedia D Cable support the same resolutions and cable lengths as CAT5e. Shielded cable and connectors are recommended to safeguard against unpredictable environmental electrical noise which may impact performance at resolutions above 1080p. Refer to the [Crestron DigitalMedia Design Guide, Doc. #4546](#) for complete DM system design guidelines. All wire and cables are sold separately unless noted otherwise.
- H.264 compatible IP camera required.
- Connection to a Cresnet network or power supply is for power only. Does not support Cresnet data communications.
- Supports up to two simultaneous streaming inputs with a maximum combined total bitrate of 25 Mbps.

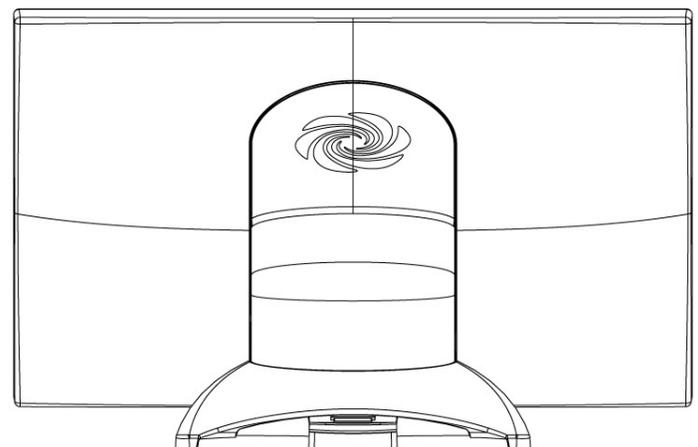
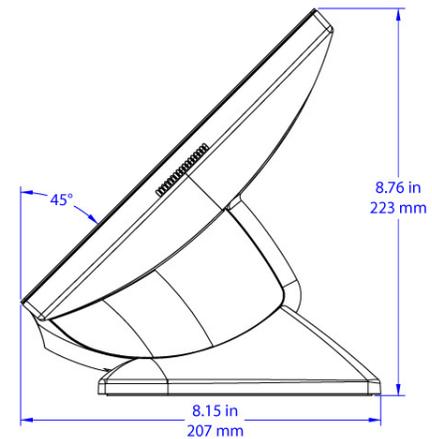
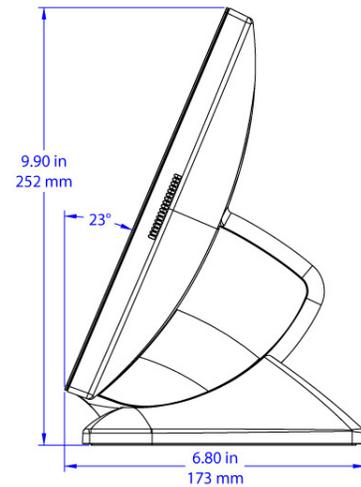
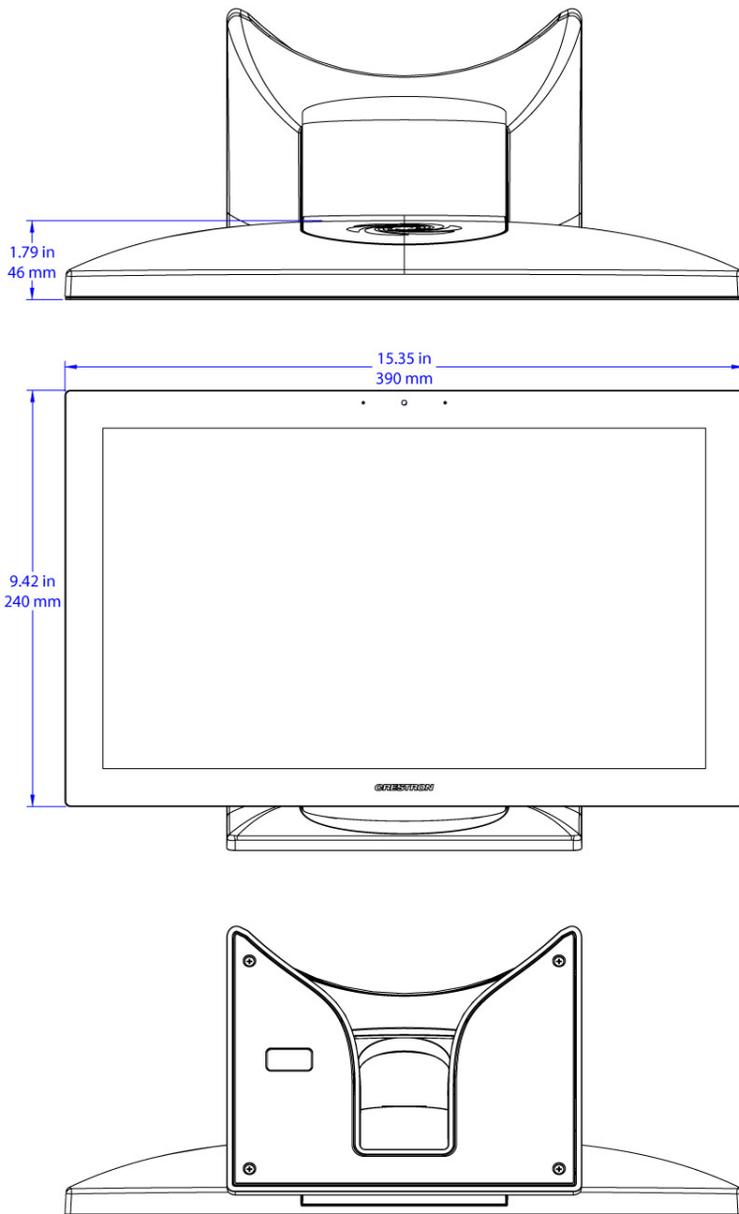
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This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at [www.crestron.com/salesreps](http://www.crestron.com/salesreps)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

The specific patents that cover Crestron products are listed online at: [patents.crestron.com](http://patents.crestron.com).

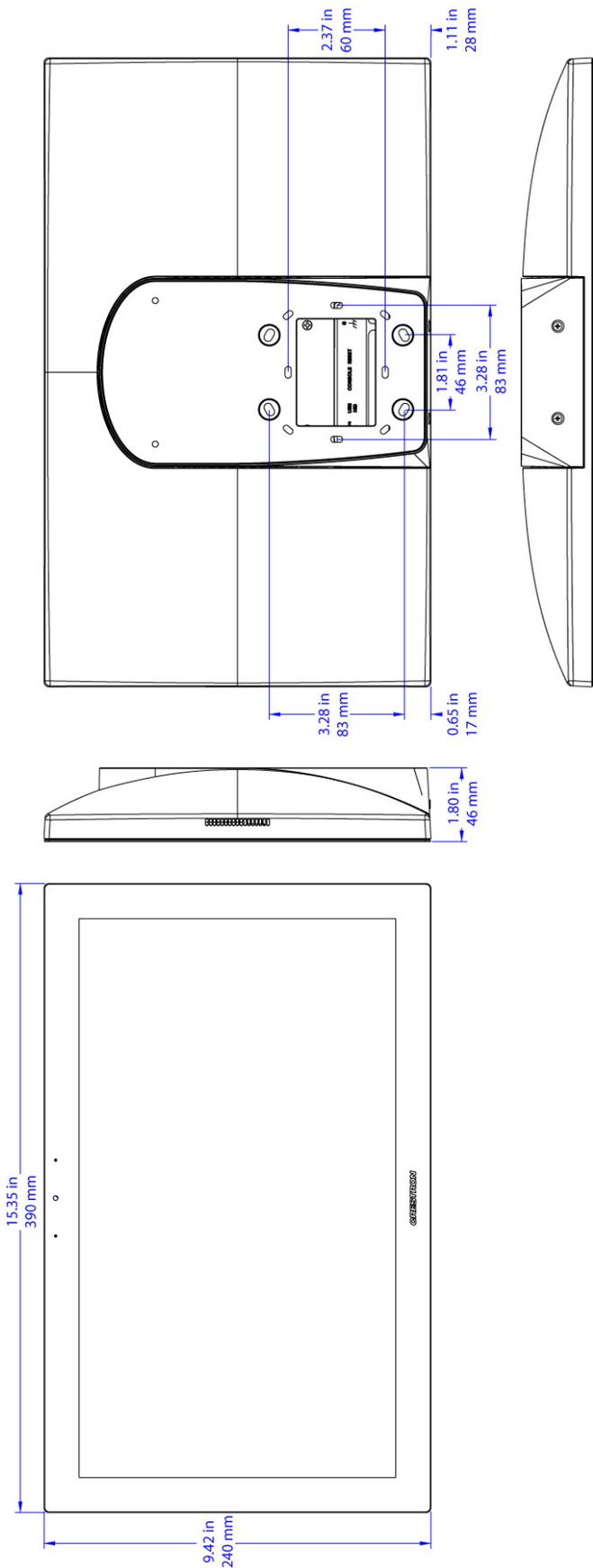
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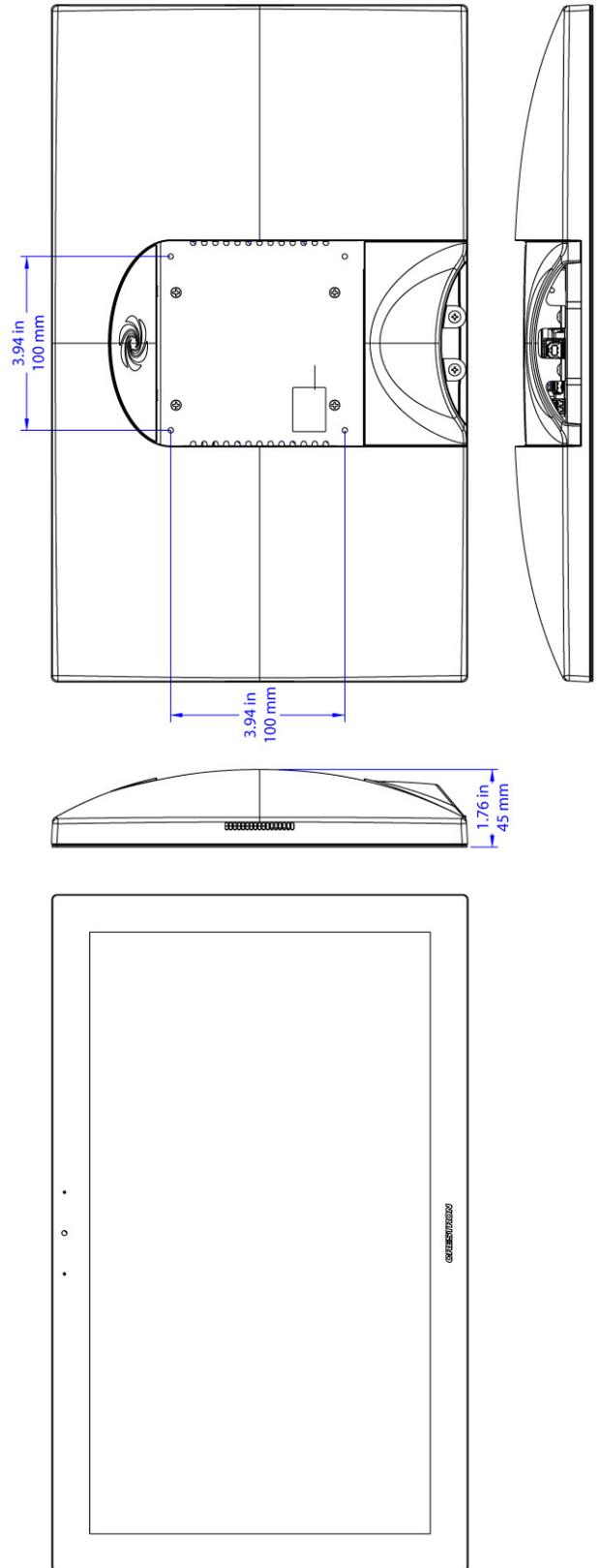


TS-1542-TILT-C

# TS-1542-C 15.6" HD Touch Screen w/DM 8G+<sup>®</sup> Input



TS-1542-C w/Wall Mount Kit



TS-1542-C VESA Mount