



# MultiTaction® Cell Embedded

Multiuser interactive LCD for single display applications

**MT550W7 MultiTaction Cell 55" Full HD LCD Embedded Windows 7**

**MT420W7 MultiTaction Cell 42" Full HD LCD Embedded Windows 7**



*MultiTaction® Cell 55" Embedded and MultiTaction® Cell 42" Embedded support unlimited number of concurrent touch events and include an integrated full Win 7 PC inside the display for robust single-display installations.*

The MultiTaction® Cell 55" Embedded and The MultiTaction® Cell 42" Embedded are interactive multiuser displays that provide the world's most advanced set of touch capabilities. With their ultra-fast computer vision based touch sensing system, they can accommodate an unlimited number of touches and users simultaneously and even recognize real life objects. MultiTaction displays allow engaging, intuitive user experiences on a large scale.

The Full-HD LCDs are only 10 cm (4 inches) deep in the edges and 20 cm (8 inches) deep in the middle. They include an embedded Windows 7 PC with the Intel Core i7 processor. The all-in-one design allows multi-touch applications to be run without an external computer. Their frameless thin bezel design enable the displays to be embedded in custom-designed furniture without the hassle of an external PC placement.

## MultiTaction Cell 55" Embedded and MultiTaction Cell 42" Embedded

- 55" and 42" Full HD LCDs. Depth only 20 cm (8 inches).
- Computer Vision Through Screen system tracks unlimited touch points, including hands, fingers, fingertips, 2D markers, real-life objects.
- Hybrid tracking mode eliminates external lighting issues.
- Full Windows 7 PC with an Intel Core i7 CPU inside.
- Use as wall or table. Mountable in any position or incline.
- Ultra-fast. Up to 200 fps tracking.
- Frameless thin bezel design with smooth edge-to-edge front safety glass.
- 60,000+ hours expected lifetime, low maintenance.

### /// Unlimited Touch

The MultiTaction Cells provide the world's most advanced set of touch capabilities. They accommodate an unlimited number of users and interact with objects with ultra-fast response time.

### /// Embedded Power

The processing power of the embedded PC allows robust all-in-one single display installations to be placed virtually anywhere with minimal space requirements.

### /// Unlimited Integration

The products have a frameless thin bezel design and can easily be embedded in custom designed furniture, walls and tables.



# MultiTaction® Cell Embedded

LCD panel

Aluminium frame

Backlight

Electronics

Cooling backplate



MULTITACTION® technologies

CVTS – Computer Vision Through Screen

BEC – Integrated Backlight Emitter Camera

MTS – Matrix Tracking System

EHTS – Extensible Hybrid Tracking Engine

MFTO – Multi Format Tracking Output

## MultiTouch Ltd's MultiTaction Technology

- Computer Vision Through Screen (CVTS) recognizes unlimited number of fingertips, fingers, hands and objects simultaneously.
- Extensible Hybrid Tracking System (EHTS) eliminates sensitivity to external lighting.
- Integrated Backlight Emitter Camera (IBEC) modules with embedded Matrix Tracking System (MTS) provide the industry's only touch system integrated into the LCD backlight plane.
- Works on Mac, Linux and Windows environments.
- MultiTaction Engine provides tracking output in all common formats and works with available software development kit to utilize all advanced features.



You can use the Full HD display on a wall or as a table.



Cells are designed to be embedded into custom furniture and structures.



# I Display Specifications

Multiuser interactive LCDs for single display applications

**MT550W7 MultiTaction Cell 55" Full HD LCD Embedded Windows 7**

**MT420W7 MultiTaction Cell 42" Full HD LCD Embedded Windows 7**

Display Specifications	MT550W7 / MT420W7
Display Technology	TFT LCD
Display Size	55" 16:9 Wide / 42" 16:9 Wide
Native Resolution	Full HD 1920 x 1080
Display Colors	16.7 million
Display Active Area	1209 x 680 mm / 930 x 523 mm
Pixel Pitch	0.63 x 0.63 mm / 0.48 x 0.48 mm
Pixel Response Time	8ms grey to grey
Brightness	400 cd/m <sup>2</sup>
Contrast Ratio	4000 :1 typical / 3500 :1 typical
Picture Frame Rate	60 Hz
Backlight	White LED Matrix Array
Viewing Angle	178

Touch Sensing Hardware	
Touch technology	Computer Vision Through Screen
Tracking Speed	Up to 200 fps
IR Source & cameras	Integrated Backlight Emitter Camera modules
IR Wavelength	850 nm

Touch Surface	
Display Safety Glass	Tempered 4mm Optiwhite Glass covering whole front surface

Embedded Computer Specifications	
CPU	Intel Core i7 Quad Core
RAM	8 GB
Hard disk	128 GB SSD
Graphics	NVIDIA GTS450 1GB
Operating system	Windows 7 64-bit ENG

Interfaces	
Video Input	DVI-D, DisplayPort
Control Input	USB B, Ethernet
Auxiliary input for keyboard, mouse, and extra memory	3 x USB A
Audio out	RCA
Power Connector	IEC C14

Electrical Specifications	
Power Supply	100-240 VAC 50/60 Hz
Power Consumption	490W / 480W

Touch Sensing Details	
Tracking Software	Embedded MultiTaction Extensible Hybrid Tracking Engine
Touch Input Types	Single finger, multiple fingers, single hand, multiple hands and users, objects with optical markers. Click, hold and drag.
Hand Recognition	Each finger identified to certain hand
Object Recognition	Supported with 2D fiducial markers
Number of Simultaneous Touch Inputs	Unlimited <sup>1)</sup>
Number of Simultaneous Users	Unlimited (separate hands) <sup>1)</sup>
Positional accuracy	2mm, directional compensation
Relative accuracy	Sub-pixel accuracy
Touch Latency	10 ms typical <sup>2)</sup>
Tracking Data Outputs/APIs	Multi-Format Tracking Output: Low level C++, TUIO, XML stream, Windows 7 Touch
Operating System Support	Windows 7. (Linux, Mac OS X with external computer)
Development Environment Support	Most major programming languages and environments (e.g. MS Surface 2 SDK, Win 7 tools, TUIO-compatible systems) <sup>3)</sup>

Software Development Kit	Cornerstone SDK available for C++/OpenGL (Windows 7, Linux, Mac OS X)
Stackability	Up to 24 Cells can be connected to run a single Multi-touch application with external computer

Environment Specifications	
Operating Temperature	0 to +35 degrees C
Storage Temperature	-10 to +60 degrees C <sup>4)</sup>
Relative Humidity	Non-condensing 80%

Dimensions and Weight	
Physical Dimensions	1204 x 715 x 199 mm / 965 x 557 x 200 mm
Bezel width	16 mm (bottom & sides), 17 mm (top)
Weight	40 kg / 32 kg (+5 kg for two legs)
Color	Black
Shipping Dimensions	tbd
Shipping Weight	tbd

Display Mounting	
VESA Mount	800 x 400 mm, M8 screws / 600 x 200 mm, M8 screws
Mounting positions	Vertical Horizontal Angled position Table position

Cooling	
Cooling system	Forced Air
Convection method	Low Noise Variable Speed Internal Fans
Noise Level	15 - 25 dBA

Miscellaneous	
Agency Approvals	CE
RoHS Compliant	Yes
Expected Life-time	Over 60,000 h
Warranty	1 Year

Sales Package Contents	
Display Unit	1
Power Cords	5 m, EUR, US, GB
Digital Video Cable	DVI-D 5 m
USB A-B Cable	5 m
Cat5e Ethernet Cable	5 m
Display stand	Table stand for landscape/portrait use
Protective/autocalibration sheet	1
Mounting rail bits	4 pcs
Warranty Card	
Quick Start Guide	
Product Manual	English version

- 1) Practically limited by how many people can fit next to display array.
- 2) Measured from touch to processed tracking data output. Overall latency is more and depends on the computer, operating system and application used.
- 3) See Cornerstone data sheet for more details.
- 4) Allow at least two hours for temperature normalization before switching on

Specifications subject to change without notice.

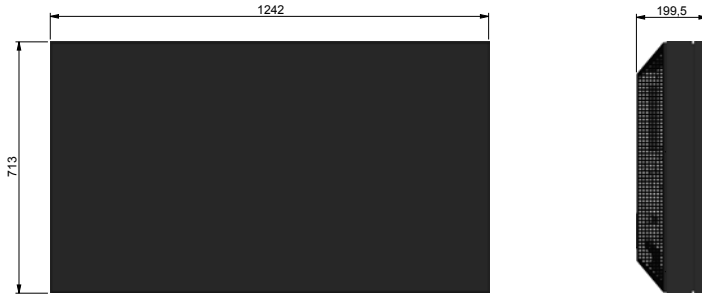


# Dimensions

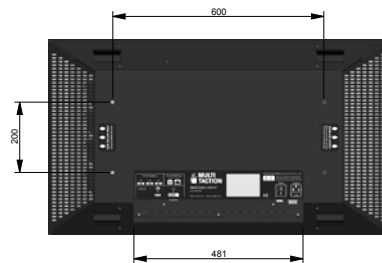
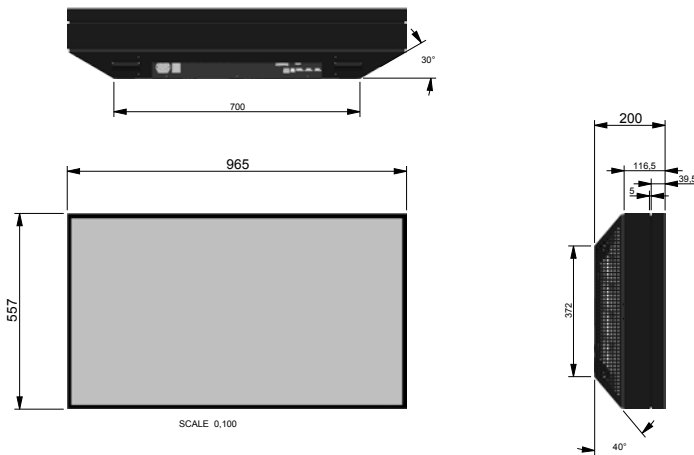
## MT550W7 and MT420W7



### MT550W7 Dimensions



### MT420W7 Dimensions



All dimensions in millimeters

#### Official MultiTaction® Cell video:

<http://www.youtube.com/multitouchfi#p/a/u/0/7ve44jMgrvk>

#### MultiTaction® Cell Technology video:

<http://www.youtube.com/multitouchfi#p/a/u/1/klwpc1PDQWY>

## /// For commercial enquiries, please contact:

MultiTouch Ltd:  
Email: [sales@multitouch.fi](mailto:sales@multitouch.fi)  
Phone: +358 45 630 8580

MultiTouch Americas:  
Email: [sales-us@multitouch.ch](mailto:sales-us@multitouch.ch)  
Phone: (888) 716 8584

MultiTouch Asia  
Email: [sales-asia@multitouch.ch](mailto:sales-asia@multitouch.ch)

Official MultiTouch Resellers  
in your area:  
[www.multitouch.fi/partners](http://www.multitouch.fi/partners)