# **Specifications**

# SMART Document Camera™

## Model SDC-450

## Physical specifications

Size

Folded 10" W × 2 3/4" H × 12" D

 $(25.4 \text{ cm} \times 7 \text{ cm} \times 30.5 \text{ cm})$ 

Set up 8" W × 21 3/4" H × 15" D

 $(20.3 \text{ cm} \times 55 \text{ cm} \times 38 \text{ cm})$ 

**Weight** 5.4 lb (2.45 kg)

Shipping size  $19" \text{ W} \times 5 3/4" \text{ H} \times 12 5/8" \text{ D}$ 

 $(48.2 \text{ cm} \times 14.5 \text{ cm} \times 32 \text{ cm})$ 

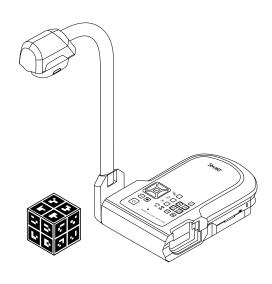
Shipping weight 10 lb (4.5 kg)

Mixed reality cube

Size 2 1/8" W × 2 1/8" H × 2 1/8" D

 $(5.5 \text{ cm} \times 5.5 \text{ cm} \times 5.5 \text{ cm})$ 

Weight 2 oz (57 g)



All dimensions +/- 1/8" (0.3 cm). All weights +/- 1 oz. (30 g).

#### Standard features

Flexible camera arm with rotational movement for easy positioning and storage.

**Lighting** Built-in LED illumination lamp

Lens with manual and automatic focus f 6.26 (~30.75 mm); f 3.2 (wide) f 6.8 (tele)

**Zoom** 8× optical, 10× digital, 80× total magnification

**Resolution** 5MP sensor and resolution

Frame rate 30 fps max.

**Brightness** Automatic and manual brightness control

control

Lens



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**Shooting area** Max. 15 3/4" × 11 3/4" (40 cm × 30 cm)

Input/output connections

Video format Analog composite format PAL/NTSC selectable 2-position switch; using RCA connector

with supplied RS-232 / composite video cable

**VGA output** Analog RGB output 0.7V 75Ω unbalanced

XGA: 1024 × 768 60 Hz

SXGA: 1280 × 1024 60 Hz

HDTV 720p: 1280 × 720 60 Hz

HDTV 1080p: 1920 × 1080 60 Hz

**DVI-I** Provides both analog and digital output formats

HD 1080p 60 Hz; HD 720p 60 Hz; XGA 60 Hz, SXGA 60 Hz

VGA input D-sub 15 pin pass through

**USB** connection USB mini-B (connect to computer)

SD memory card 1GB to 32GB

slot

Mass storage Change from camera to mass storage mode using on-screen display (OSD) to access the

**mode** SD card and internal memory via USB.

**Internal memory** Internal memory for storage of up to 240 images

Video recording Onto USB flash drive / SD / SDHC

**Audio connections** 

Audio In

(microphone)

3.5 mm jack

Audio Out 3.5 mm jack

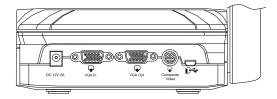
Microphone Built-in microphone for voiceover during video recording

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### **Connection panels**

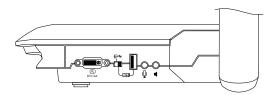
Rear panel

The rear connection panel has DC 12V 2A, VGA In, VGA Out, Composite Video out and USB mini-B connectors.



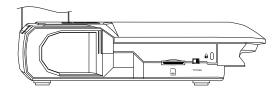
Left panel

The left connector panel has a DVI output, a switch for selecting either computer or USB flash drive and audio in and out connections.



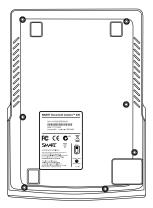
Right panel

The right connector panel has a SD/SDHC memory card slot, a switch for selecting VGA-DVI or composite video output and a security lock slot.



**Bottom panel** 

The bottom panel has a NTSC-PAL switch to change the format of the composite video output for your television and a resolution reset button to reset the VGA/DVI resolution output to XGA.



#### **SPECIFICATIONS**

SMART Document Camera - Model SDC-450

Power

Max. 21.6 W

consumption

**Energy efficiency** Level V Energy Star energy efficiency rating

**Power source** 100 - 240V, 50/60 Hz

DC power supply 12V, 2A

5.5 mm, no center pin DC power socket

Includes plug adapters for power supply for North America, the United Kingdom, the

European Union and Australia.

Cables 5' (1.5 m) power cable

5' 9" (1.8 m) USB-A to USB mini-B

5' 9" (1.8 m) VGA cable, HD15, M-M

Composite video adapter cable (RS-232 / composite video)

**Software** SMART Notebook <sup>™</sup> collaborative learning software and Mixed Reality Tools for the

SMART Document Camera are available from <u>smarttech.com/software</u>. SMART Notebook 11 SP1 software or later is required for Mixed Reality Tools. See the SMART Notebook

software release notes for a complete list of system requirements.

Mixed Reality Tools enables you to manipulate 3D models in .notebook files using your

SMART Document Camera and mixed reality cube. For more information, see the

SMART Document Camera 450 user's guide (smarttech.com/kb/170279).

Supported operating

systems

Windows® XP (32-bit), Windows Vista® (32-bit, 64-bit), Windows 7 (32-bit, 64-bit), Windows

8 (32-bit, 64-bit), Mac OS X 10.6 and later—Intel® only (PowerPC® not supported)

Also includes

Mixed reality cube

Anti-glare sheet

Microscope adapter

**Documentation** 

Included with the product: registration card, warranty sheet, cautions and warnings and quick

connect guide. The user's guide is available online.

Warranty

Five-year limited equipment warranty. See warranty document for details.

Environmental compliance

EU RoHS, EU WEEE

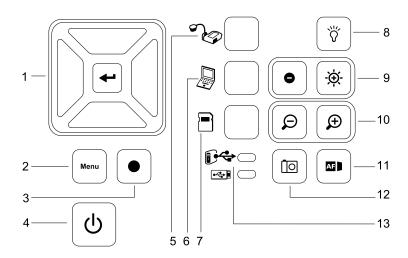
Regulatory certification

CB, CE, C-Tick, FCC

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### User interfaces

#### Control panel



- 1 Select/Enter
- 2 Menu
- 3 Record video
- 4 Power ON/OFF
- 5 Select camera
- 6 Select computer pass-through

- 7 Select Playback
- 8 LED Lamp ON/OFF
- 9 Image brightness
- 10 Zoom IN/OUT
- 11 Auto-focus
- Capture to SMART Notebook software or to local memory
- 13 USB usage indicator: computer or memory stick
- **OSD** There are four tabs on the OSD menu: Image, Presentation, Setting and System.

#### Camera mode

# Image settings

- o Brightness: adjust the brightness level manually between 0 63
- o Contrast: adjust the contrast level manually between 0 255
- Mode: select from six types of image settings (Sharp, Graphics, Motion, Microscope, Macro and Infinite)
- Effect: convert the image into color, black/white or film negative
- o Mirror: select to flip the image
- o Advanced: select to set the Auto Image, Exposure and White Balance
- Focus: adjust the focus manually
- Rotate: select to rotate the image by 90° in Camera mode only

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Camera mode	
Presentation	<ul> <li>Picture in Picture (PIP): shows a thumbnail image of captured picture/video from the memory in the corner of the screen in Camera mode</li> <li>Split Screen: divides screen into two</li> <li>Timer: on-screen countdown timer</li> </ul>
Setting	<ul> <li>Capture: set captured image options (resolution, quality and single/continuous)</li> <li>Recording: set recorded video quality</li> <li>Storage: select SD memory card, USB flash drive or built-in memory</li> <li>Format: delete all data from the selected memory</li> <li>USB to PC: select the mode of your document camera</li> <li>Flicker: select refresh rate between 50 Hz - 60 Hz</li> </ul>
System	<ul> <li>Language: select or change language</li> <li>Output Display: set the resolution to display the image on screen</li> <li>Backup: copy images from the built-in memory to a SD card or USB flash drive</li> <li>Save Setting: save current setting in the selected profile number</li> <li>Recall Setting: restore the setting back to the selected profile number</li> <li>Information: display product information</li> <li>Default: restore all settings to factory default settings</li> </ul>

#### Microscope

Microscope mode is supported with included adapter.

# Operating specifications

**Temperature** 32°F to 95°F (0°C to 35°C)

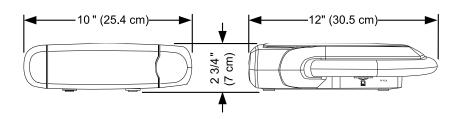
**Humidity** 30% to 85% humidity, non-condensing

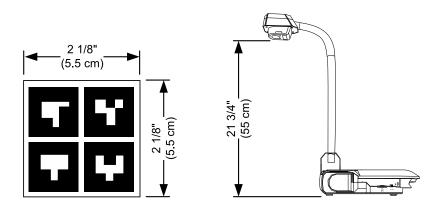
### **SMART** order numbers

SDC-450 SMART Document Camera 450
 FRU-CUBE Replacement mixed reality cube
 1013550 Mixed reality collaboration cube

# Physical dimensions

Front view Side view (folded)





Mixed reality cube

Side view (set up)

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