

# BenQ

## Education Projectors

Innovative Interactive Solutions  
for 21<sup>st</sup> Century Education Transformation



Flip your classrooms and future-proof your school with  
BenQ's education projectors today!

To find out more, visit [www.BenQ.com](http://www.BenQ.com).



BenQ Education Projectors

<p><b>Headquarters</b> BenQ Corporation 16 Jihu Road, Neihu, Taipei 114, Taiwan Tel: +886-2-2727-8899 Fax: +886-2-2797-9288</p>	<p><b>Asia Pacific</b> BenQ Asia Pacific Corp. 12 Jihu Road, Neihu, Taipei 114, Taiwan Tel: +886-2-2727-8899 Fax: +886-2-2656-2438</p>	<p><b>China</b> BenQ (IT) CO., Ltd 268 Shishan Road, Suzhou 215011, China Tel: +86-512-6807-8800 Fax: +86-512-6824-1351</p>	<p><b>North America</b> BenQ America Corp. 3200 Park Center Drive, Suite150, costa Mesa, CA 92626 U.S.A. Tel: +1-714-559-4900 Fax: +1-714-557-0200</p>	<p><b>Europe</b> BenQ Europe B.V. Meerenakkerweg 1-17 5652 AR Eindhoven Tel: +31-88-888-9200 Fax: +31-88-888-9299</p>	<p><b>Latin and Central America</b> BenQ Latin America Corp. 8200 N.W. 33 Street, Suite 301 West Side Plaza III Miami, FL 33122 U.S.A. Tel: +1-305-4211200 Fax: +1-305-4211201</p>
---	--	---	--	---	--

© Copyright 2014 BenQ Corporation. All rights reserved. Corporate names and trademarks are the property of their respective companies. Specifications subject to change without notice. Doc No: PRJ\_EDU\_BR\_EN\_0525\_V1

BenQ Ultra Show-Throw Projector Range  
MX854UST/ MV855UST/ MH856UST

## Bring the Class to Life



**MH856UST**  
BenQ 1st 1080p Ultra Show-Throw Projector



Because it matters





## High Brightness and Excellent Image Quality



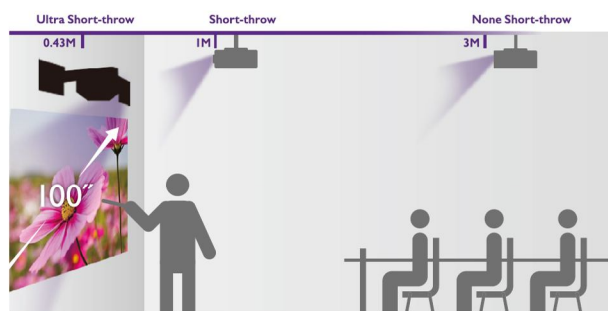
### 3,500 ANSI Lumens

With a high brightness of 3,500 ANSI lumens, the projector can deliver clearer and sharper images and text even in large-sized classrooms with some ambient light. It also enables teachers to keep the lights on while teaching so students can take better notes in class.



### Full HD Resolution

BenQ offers a variety of ultra short-throw models that come with different resolutions to complete its education display solution for schools. Its full HD ultra short-throw projectors are built to offer classrooms crisp-clear and faithfully delivered Full HD image quality, like the MH856UST, which empowers teachers to intrigue their class with magnificently rendered multimedia contents in every class.



### Amazing Big Picture in Ultra Short Distance

With an ultra short-throw projector, teachers can captivate students' attention in class with a stunning 100" large projection image in a mere distance of 0.43 meters.

## Foster Active Learning Through PointWrite™ Interactivity



### Dual Screen with Multiple Touch Capabilities

A first in the world, BenQ's Dual Screen feature allows teachers to create an immersive learning experience by connecting two PointWrite interactive projectors to project two seamlessly merged screens. This creates a super-sized screen for learning the solar system, story time in the galaxy, virtual field trips around the world, or simply a great big canvas for co-creation.

Furthermore, PointWrite interactive solution support native win8 multi touch capability, teacher can easily use 2 fingers to pinch zoom in to enlarge the object or pinch zoom out to shrink it, he can also invite up to 4 students to the screen for co-creation work in QWrite software or win8 paint application directly, make lesson fun and inspired.



### Turn Your Classroom Projector Into an Interactive Solution

By adding a PointWrite module\* to a BenQ education projector, you can create an interactive whiteboard instantly. All you need is an empty surface to sharing ideas in the classroom! As you teach, you can use the PointWrite Pen or your finger as a mouse, zoom in and out of a displayed image using simple gestures, and encourage collaborative work amongst students using the QWrite software. The PointWrite module is a fun and easy way to spark creativity and imagination that requires little effort to set up. It's a cost-efficient and affordable choice for every classroom!

- Supports up to 4 pens/ fingers
- Effortless setup with 1-second auto calibration\*\*
- An ultra-fast 0.016-second response time
- Supports Windows 8 native multi-touch and gesture

\*Available as optional purchase.

\*\*Calibration speed may vary by your operating system

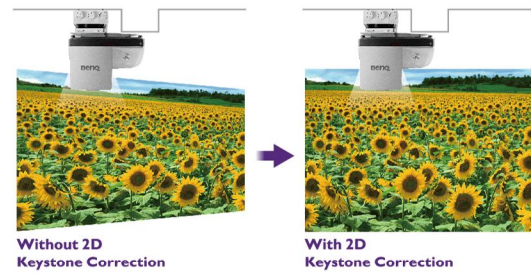
### Maximizing Class Participation with QWrite

The QWrite software enables multi-user on-screen collaboration with annotation tools to edit, highlight and co-create various documents together. All the work created can be effortlessly saved as a QWrite file or as a JPEG, PNG, BMP or PDF file on your computer. There is also the option to make video and screen recordings of your lessons for easy sharing. You can also import and upload images from your computer by creating a shortcut to access the local storage.

- Floating menu system design for easy access
- Windows Mode for direct document editing and co-creation
- Teaching templates readily available for writing exercises



## Easy Installation and Adjustment



Without 2D Keystone Correction

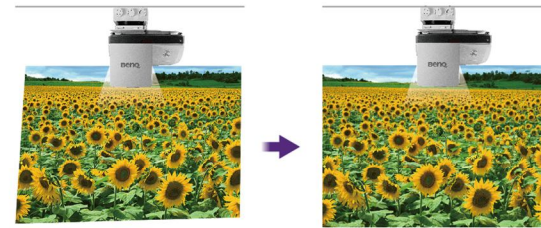
With 2D Keystone Correction

### Corner Fit Correction

Corner Fit is the go-to feature for when the projector is used to project on restricted or uneven space, such as within a certain frame. It is a flexible and convenient way to correct each distorted corner to get a perfect rectangular image.

### 2D Keystone Correction

A great feature for adjusting the projection image when your classroom projector is placed off-center, the 2D keystone correction feature gives you a wider projector installation or placement area, freeing you from space constraints. By correcting the trapezoid effect using horizontal and vertical adjustments, this handy feature compensates for any angle or position compromises that you may otherwise have to make. A proper image means less distraction and more viewing clarity.



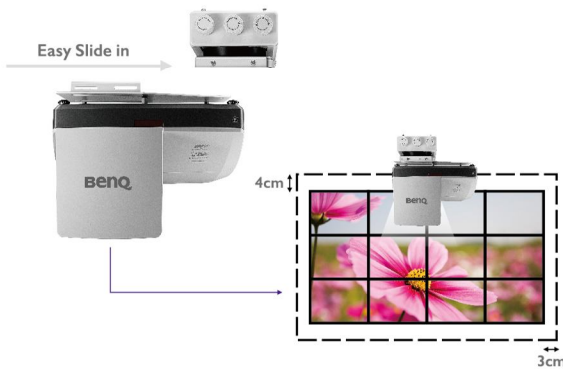
Without Corner Fit Correction

With Corner Fit Correction

### Simple Steps to Installing BenQ's Wall Mount

Designed to help ensure a fail-proof projector installation, BenQ has implemented extra help into its wall mount design. This installer-friendly ultra short-throw projector wall mount features an installation chart and a measuring ruler to help you find the most suitable projector-screen alignment and image position for your classroom.

1. Slide in the projector to connect with the wall mount.
2. Use the three knobs on the wall mount to correct image distortion. Shift the wall mount and the projector to move the projection image vertically by up to 4cm and horizontally by up to 3cm.

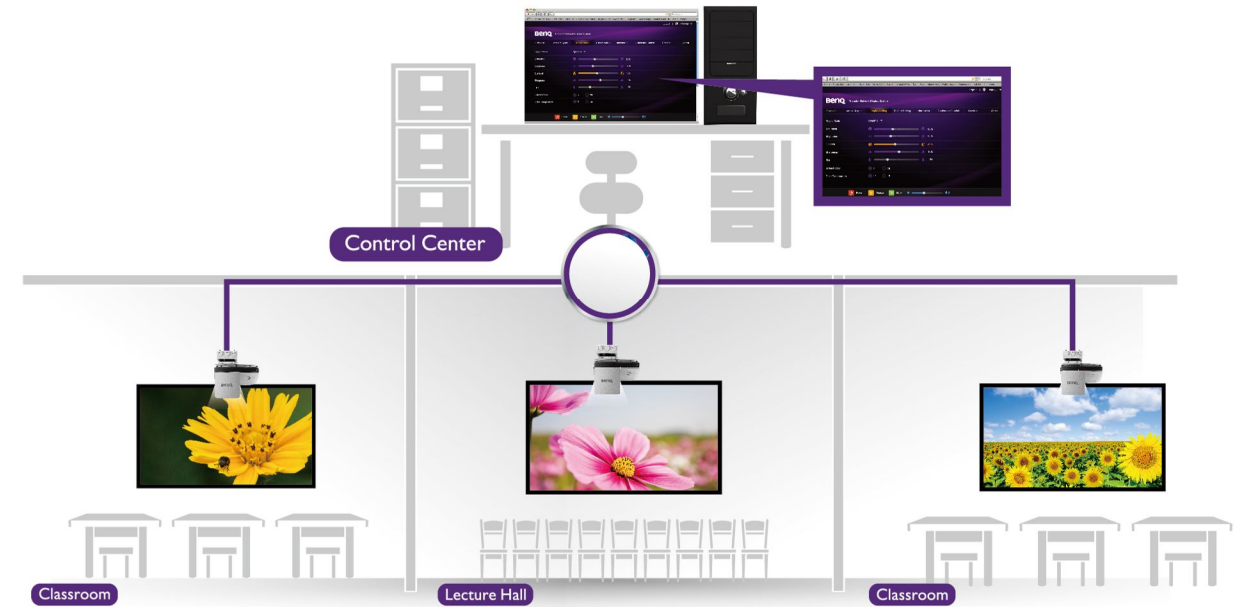


### Vertical Lens Shift for Extra Room for Minor Miscalculations

Vertical lens shift offers the extra flexibility to overcome any minor miscalculations during projector installation. All you have to do is adjust the switch to shift the projected image up or down by 4%. With this helpful feature, you'll never have to worry about positioning the projector slightly out of place again!



## Hassle-Free Projector Maintenance



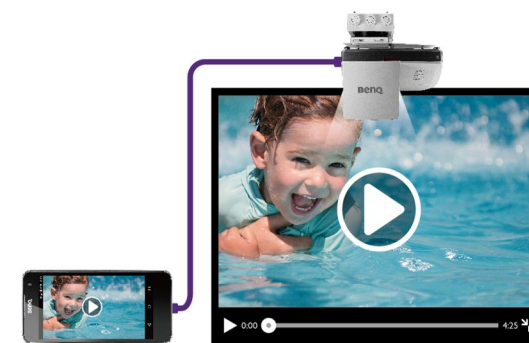
### Monitor and Control via LAN

Projectors built with network capabilities can be linked together and managed through LAN Control, allowing projector managers to work efficiently with 24/7 centralized access and control.

BenQ offers a wide selection of network education projectors that mesh seamlessly with your original LAN Control setting –

whether it's Crestron, or AMX. These projectors also come with a built-in projector network control system uniquely designed by BenQ to encourage schools that are new to LAN Control to give it a try. \* Supported system may vary by model.

## Simple, Powerful Tools for PC-Less Classroom Instruction



### MHL Connectivity

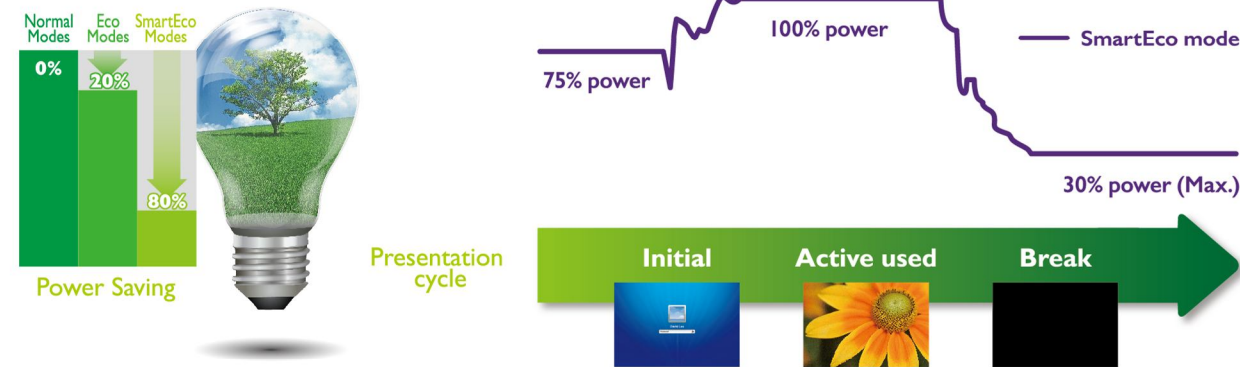
With the support of MHL technology, teachers and students can share photos, videos, websites and even games from their Android smartphone or tablet instantly. Simply connect the smart device to a classroom projector via a MHL cable and watch the flawless mirroring of contents expanded onto the projector screen.



# Advancing a Brighter, Greener Future the SmartEco™ Way

## SmartEco Mode: Power Smarter

By detecting the input content to determine the amount of brightness required for optimum color and contrast performance, the SmartEco Mode is able to reduce lamp power while delivering the finest image quality. No compromise!



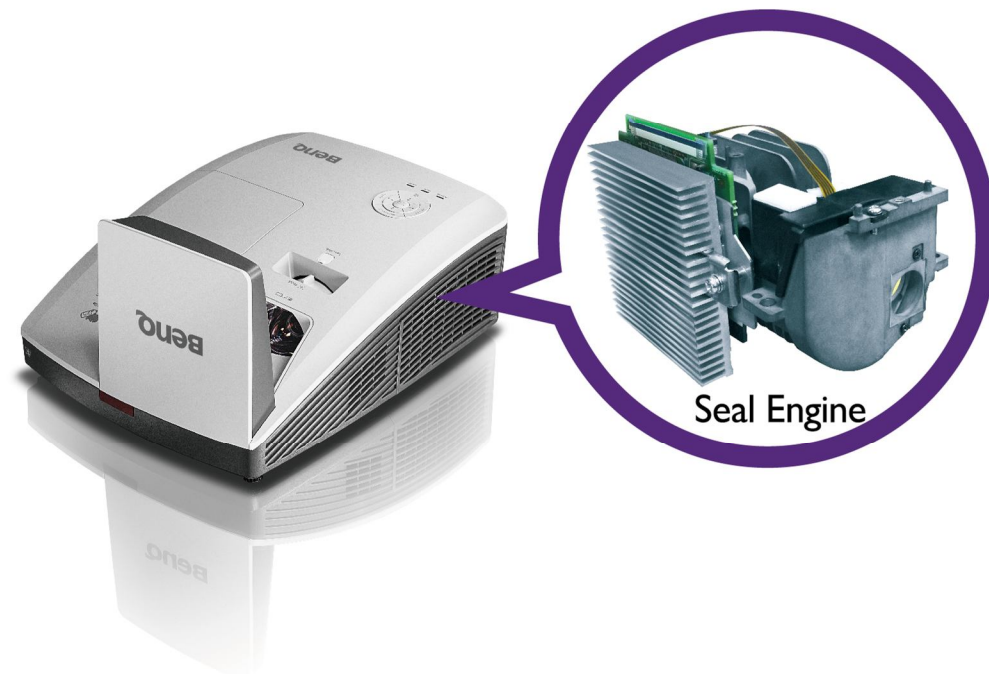
\* SmartEco Mode, the dynamic power saving mode, can save at least 70% power based on the projection content level.

## Seal engine design provide a dust proof capability

BenQ MH856UST series model are designed by seal engine which protect optical engine free from the damage of dust.

To help school to against environment with severe dust problem.

School doesn't need to replace the filter regularly to make maintenance work simple and efficient.



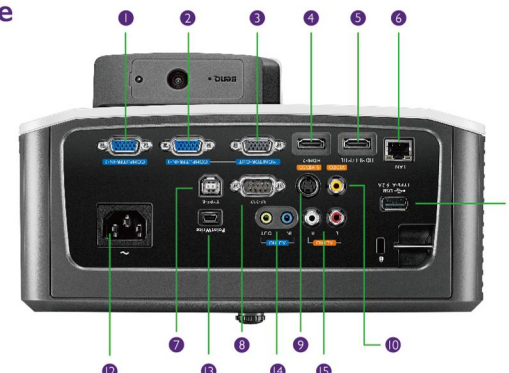
## BenQ MX854UST/ MW855UST/ MH856UST Specification



Model Name	MX854UST	MW855UST	MH856UST
<b>Projector System</b>	DLP	DLP	DLP
<b>Native Resolution</b>	XGA (1024 x 768)	WXGA (1280 x 800)	1080p (1920 x 1080)
<b>Brightness</b>	3,500 ANSI Lumens	3,500 ANSI Lumens	3,500 ANSI Lumens
<b>Contrast Ratio</b>	10,000:1	10,000:1	10,000:1
<b>Display Color</b>	1.07 Billion Colors	1.07 Billion Colors	1.07 Billion Colors
<b>Lens (mm)</b>	F2.5, f=5.1mm	F2.5, f=5.1mm	F2.5, f=5.1mm
<b>Aspect Ratio</b>	Native 4:3 (5 aspect ratio selectable)	Native 16:10 (6 aspect ratio selectable)	Native 16:9 (6 aspect ratio selectable)
<b>Throw Ratio</b>	0.43	0.35	0.33
<b>Image Size (Diagonal)</b>	68"-85"	80"-100"	88.9"-110"
<b>Zoom Ratio</b>	Fixed	Fixed	Fixed
<b>Lamp Wattage</b>	240W	240W	280W
<b>Lamp Life* (Normal/ Economic/ SmartEco Mode)</b>	3,000/ 4,000/ 6,000 hours	3,000/ 4,000/ 6,000 hours	3,000/ 4,000/ 7,000 hours
<b>Keystone Adjustment</b>	2D, Vertical/ Horizontal +/- 30 degrees	2D, Vertical/ Horizontal +/- 30 degrees	2D, Vertical/ Horizontal +/- 30 degrees
<b>Lens Shift</b>	4%	4%	N/A
<b>Projection Offset</b>	118%-122%	120%-124%	125%
<b>Resolution Support</b>	VGA (640 x 480) to UXGA (1600 x 1200)	VGA (640 x 480) to UXGA (1600 x 1200)	VGA (640 x 480) to UXGA (1600 x 1200)
<b>Horizontal Frequency</b>	15-102KHz	15-102KHz	15-102KHz
<b>Vertical Scan Rate</b>	23-120Hz	23-120Hz	23-120Hz
<b>Compatibility</b>			
HDTV Compatibility	480i, 480p, 576i, 576p, 720p, 1080i, 1080p	480i, 480p, 576i, 576p, 720p, 1080i, 1080p	480i, 480p, 576i, 576p, 720p, 1080i, 1080p
Video Compatibility	NTSC, PAL, SECAM	NTSC, PAL, SECAM	NTSC, PAL, SECAM
<b>Interface</b>			
Computer In (D-sub 15pin)	x 2 (Shared with component)	x 2 (Shared with component)	x 2 (Shared with component)
Monitor Out (D-sub 15pin)	x 1	x 1	x 1
HDMI (v1.4a)	x 2 (HDMI 1 with MHL)	x 2 (HDMI 1 with MHL)	x 2 (HDMI 1 with MHL)
Composite Video In (RCA)	x 1	x 1	x 1
S-Video In (Mini DIN 4pin)	x 1	x 1	x 1
Audio In (Mini Jack)	x 1	x 1	x 1
Audio L/R In (RCA)	x 1	x 1	x 1
Audio Out (Mini Jack)	x 1	x 1	x 1
Speaker	10W x 2	10W x 2	10W x 2
LAN (RJ45)	x 1 (LAN control)	x 1 (LAN control)	x 1 (LAN control)
USB (Type A)	x 1 (5V 2A Power for PT02 Touch module)	x 1 (5V 2A Power for PT02 Touch module)	x 1 (5V 2A Power for PT02 Touch module)
USB (Type B)	x 1 (FW download)	x 1 (FW download)	x 1 (FW download)
USB (Type Mini B)	x 1 (PointWrite interactive module)	x 1 (PointWrite interactive module)	x 1 (PointWrite interactive module)
RS232 (DB-9pin)	x 1	x 1	x 1
IR Receiver	x 1 (Front)	x 1 (Front)	x 1 (Front)
<b>Dimensions</b>			
Dimensions (W x H x D) mm	373.3 x 287.5 x 130.2mm (w/o Mirror)	373.3 x 287.5 x 130.2mm (w/o Mirror)	373.3 x 287.5 x 130.2mm (w/o Mirror)
Weight	373.3 x 287.5 x 201mm (w Mirror)	373.3 x 287.5 x 201mm (w Mirror)	373.3 x 287.5 x 201mm (w Mirror)
	5kg (w/o wall mount)	5kg (w/o wall mount)	5kg (w/o wall mount)
<b>Power</b>			
Power Supply	AC 100V to 240V, 50 to 60Hz	AC 100V to 240V, 50 to 60Hz	AC 100V to 240V, 50 to 60Hz
Power Consumption	Typical 320W, standby power < 0.5W	Typical 320W, standby power < 0.5W	Typical 380W, standby power < 0.5W
<b>Audible Noise</b>	34/ 29 dBA (Normal/ Economic mode)	34/ 29 dBA (Normal/ Economic mode)	37/ 33 dBA (Normal/ Economic mode)
<b>On-Screen Display Languages</b>	Arabic/ Bulgarian/ Croatian/ Czech/ Danish/ Dutch/ English/ Finnish/ French/ German/ Greek/ Hindi/ Hungarian/ Italian/ Indonesian/ Japanese/ Korean/ Norwegian/ Polish/ Portuguese/ Romanian/ Russian/ Simplified Chinese/ Spanish/ Swedish/ Turkish/ Thai/ Traditional Chinese (28 Languages)	Arabic/ Bulgarian/ Croatian/ Czech/ Danish/ Dutch/ English/ Finnish/ French/ German/ Greek/ Hindi/ Hungarian/ Italian/ Indonesian/ Japanese/ Korean/ Norwegian/ Polish/ Portuguese/ Romanian/ Russian/ Simplified Chinese/ Spanish/ Swedish/ Turkish/ Thai/ Traditional Chinese (28 Languages)	Arabic/ Bulgarian/ Croatian/ Czech/ Danish/ Dutch/ English/ Finnish/ French/ German/ Greek/ Hindi/ Hungarian/ Italian/ Indonesian/ Japanese/ Korean/ Norwegian/ Polish/ Portuguese/ Romanian/ Russian/ Simplified Chinese/ Spanish/ Swedish/ Turkish/ Thai/ Traditional Chinese (28 Languages)
<b>Accessories (Standard)</b>			
Remote Control	x 1	x 1	x 1
Power Cord (By Region)	2.9M	2.9M	2.9M
User Manual CD	x 1	x 1	x 1
Quick Start Guide	x 1	x 1	x 1
Warranty Card (By Region)	x 1	x 1	x 1
VGA (D-sub 15pin) Cable	x 1	x 1	x 1
Wall Mount Kit (Installation Guide)	x 1	x 1	x 1
<b>Accessories (Optional)</b>			
Spare Lamp Kit	Yes	Yes	Yes
Wall Mount	WM04G4	WM04G4	WM04G4
3D Glasses	DGD24	DGD24	DGD24
Document Camera	S30	S30	S30
PointWrite Kit	PW01U	PW01U	PW01U
PointWrite Touch Module	PT02	PT02	PT02

\*\*Lamp life results will vary depending on environmental conditions and usage. Actual product's features and specifications are subject to change without notice.

## Interface



- 1 Computer 2
- 2 Computer 1
- 3 Monitor out
- 4 HDMI 2
- 5 HDMI I/ MHL
- 6 LAN (RJ-45)
- 7 USB 2.0 Type B
- 8 RS232
- 9 S-Video
- 10 Video in
- 11 USB 2.0 Type A
- 12 Power
- 13 PointWrite
- 14 Audio input/ output
- 15 Audio (L/R) input