KENTUCKY DEPARTMENT OF EDUCATION
DIVISION OF FACILITIES MANAGEMENT

FORM OF PROPOSAL
April 2000
702 KAR 4:160

Date: 11/26/13 To: (Owner) Kentucky Educational Development Corp.

Project Title: Project Manual for Interactive Classroom Components PV-IC-3012.01

City, County:

Name of Contractor/Supplier: MCPC, Inc.

Mailing Address: 1801 Superior Ave., Ste. 300, Cleveland, Ohio 44114

Business Address: Same Telephone: 800-777-7178

Having carefully examined the Instructions to Bidders, Contract Agreement, General Conditions, Supplemental Conditions, Specifications, and Drawings, on the above referenced project, the undersigned bidder proposes to furnish all labor, materials, equipment, tools, supplies, and temporary devices required to complete the work in accordance with the contract documents and any addenda listed below for the price stated herein.

Addendum One. (Insert the addendum numbers received or the word "none" if no addendum received.)

In lieu of the base bid, alternate bid, unit prices, proposed subcontractors, and manufacturers/materials sections bidders are to complete the packages, supplementary items, and additional questions found on pages 26-29.

BASE BID

For the construction required to complete the work, in accordance with the contract documents, I/We submit the following lump sum price of:

Use Figures

See Pages 26-29 Dollars & Cents

Use Words Use Words

ALTERNATE BIDS (If applicable and denoted in the Supplemental Conditions)

For omission from or addition to those items, services, or construction specified in the Supplemental Conditions by alternate number, the following lump sum price will be added or deducted from the base bid:

Alternate Bid No. 1	(Add/Deduct)	$
Alternate Bid No. 2	(Add/Deduct)	$ See Pages
Alternate Bid No. 3	(Add/Deduct)	$ 26-29
Alternate Bid No. 4	(Add/Deduct)	$

UNIT PRICES

Indicate on the lines below those unit prices to determine any adjustment to the contract price due to changes in work or extra work performed under this contract. The unit prices shall include the furnishing of all labor and materials, cost of all items, and overhead and profit for the Contractor, as well as any subcontractor involved. These unit prices shall be listed in units of work.

	WORK	PRICE	UNIT
1.	See Pages 26-29.	$	/
2.		$	/
3.		$	/
4.		$	/
5.		$	/
6.		$	/
7.		$	/
8.		$	/
9.		$	/
10.		$	/

(Provide attachment for additional unit prices)

NOTE: The bidder shall submit the above list of unit prices with the bid.

LIST OF PROPOSED SUBCONTRACTORS

List on the lines below each major branch of work and major material category for this project and the subcontractor or supplier involved with that portion of work. If the branch of work is to be done by the Contractor, so indicate.

The listing of more than one subcontractor in a work category shall invalidate the bid.

The listing of the bidder as the subcontractor for a work category certifies that the bidder has in current employment, skilled staff and necessary equipment to complete that category. The architect/engineer will evaluate the ability of all listed subcontractors to complete the work and notify the owner. Listing of the bidder as the subcontractor may invalidate the bid should the architect's review indicate bidder does not have skilled staff and equipment to complete the work category at the time the bid was submitted.

	BRANCH OF WORK/MATERIAL CATEGORY	SUBCONTRACTOR/SUPPLIER
1.		
2.		
3.		
4.	See Pages 26-29	
5.		
6.		
7.		
8.		
9.		
10.		

(Provide attachment for additional work/material - subcontractor/supplier)

NOTE: The bidder shall submit the above list of subcontractors with the bid.

LIST OF MATERIALS/MANUFACTURERS

	MATERIAL DESCRIPTION BY SPECIFICATION DIVISION AND CATEGORY	MANUFACTURER
1.		
2.		
3.		
4.		76, 73
5.		
6.	Fence	
7.		
8.	Gate	
9.		
10.		

(Provide attachment for additional material/manufacturers.)

NOTE: The bidder shall submit the above list of materials with the bid.

TIME LIMIT FOR EXECUTION OF CONTRACT DOCUMENTS

In the event that a bidder's proposal is accepted by the Owner and such bidder should fail to execute the contract within ten (10) consecutive days from the date of notification of the awarding of the contract, the Owner, at his option, may determine that the awardee has abandoned the contract. The bidder's proposal shall then become null and void, and the bid bond or certified check which accompanied it shall be forfeited to and become the property of the Owner as liquidated damages for failure to execute the contract.

The bidder hereby agrees that failure to submit herein above all required information and/or prices can cause disqualification of this proposal.

Submitted by:

NAME OF CONTRACTOR: MCPC, Inc.

AUTHORIZED REPRESENTATIVE: Michael Trebilcock
Signature

NAME (typed): Michael Trebilcock

TITLE: President

NOTICE: A bid bond or certified check or cash must accompany this proposal.

This form shall not be modified. Attach supplemental form of proposal information pages for project specific requirements as needed.

INSTRUCTIONS: For each package, indicate the number of rooms for each price level, the total price of all materials listed in the package, the installation price for each package, and the total of the material and standard labor costs. Please submit technical specification sheets for each item bid.

PACKAGE 1: ≥87" INCH BOARD & ≥3000 LUMEN PROJECTOR

See attachments for details

- ≥87" INTERACTIVE WHITE BOARD
- ≥3000 LUMEN PROJECTOR; 4:3 ASPECT RATIO, HDMI READY
- DISTRIBUTION VGA AMP WITH USB POWER
- USB TO CAT 5 EXTENDER
- SINGLE GANG, ANNODIZED ALUMINUM WALLPLATE WITH PASS-THROUGH BARREL CONNECTORS, 1 VGA W/AUDIO, RCA (VIDEO AND L&R) INPUTS
- UNIVERSAL PROJECTOR MOUNT WITH SPIDER ARMS, MULTIPLE HARWARE, 4 ADJUSTABLE LEGS (BLACK, WHITE, SILVER)
- 12" FIXED EXTENSION COLUMN, 1-1/2" NPT
- EASY INSTALLATION, 4 TIE WIRES & SECURITY CABLE, INFINITE ADJUSTMENT, 2 OUTLET KNOCKOUTS, 2'X2' OR 2'X4'
- ALL REQUIRED CABLES AND CONNECTORS

	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
NUMBER OF ROOMS (e.g. 1-5; 5-20, etc.)	1-5 Rooms	6-19 Rooms	20-29 Rooms	30-39 Rooms	40+ Rooms
PACKAGE 1 MATERIALS PRICE/ROOM	$2,984	$2939.23	$2924.46	$2,909.69	$2984.92
INSTALLATION PRICE/ROOM	$865	$860.68	$856.35	$852.03	$847.70
TOTAL PRICE/ROOM	$3,849	$3,799.91	$3,780.81	$3,761.72	$3,742.62

PACKAGE 2: 70+ INCH DUAL TOUCH BOARD & ≥2500 LUMEN PROJECTOR

See Attachments for details

- >70" INTERACTIVE WHITE BOARD DUAL TOUCH/DUAL PEN BOARD
- ≥2500 LUMEN PROJECTOR; 4:3 ASPECT RATIO, HDMI READY
- DISTRIBUTION VGA AMP WITH USB POWER
- USB TO CAT 5 EXTENDER
- SINGLE GANG, ANNODIZED ALUMINUM WALLPLATE WITH PASS-THROUGH BARREL CONNECTORS, 1 VGA W/AUDIO, RCA (VIDEO AND L&R) INPUTS
- UNIVERSAL PROJECTOR MOUNT WITH SPIDER ARMS, MULTIPLE HARWARE, 4 ADJUSTABLE LEGS (BLACK, WHITE, SILVER)
- 12" FIXED EXTENSION COLUMN, 1-1/2" NPT
- EASY INSTALLATION, 4 TIE WIRES & SECURITY CABLE, INFINITE ADJUSTMENT, 2 OUTLET KNOCKOUTS, 2'X2' OR 2'X4'
- ALL REQUIRED CABLES AND CONNECTORS

	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
NUMBER OF ROOMS (e.g. 1-5; 5-20, etc.)	1-5 Rooms	6-19 Rooms	20-29 Rooms	30-39 Rooms	40+ Rooms
PACKAGE 2 MATERIALS PRICE/ROOM	$2607	$2593.97	$2580.93	$2567.90	$2554.86
INSTALLATION PRICE/ROOM	$865	$860.68	$856.35	$852.03	$847.70
TOTAL PRICE/ROOM	$3472	$3454.64	$3437.28	$3419.92	$3402.56

PACKAGE 3: ULTRA SHORT-THROW WALL MOUNTED INTERACTIVE PROJECTOR

- ≥2600 LUMENS, WXGA RESOLUTION; 16:10 ASPECT RATIO, HDMI READY
- MOUNT INCLUDED
- CLASSROOM TEACHING AND LEARNING APPLICATION SOFTWARE
- DISTRIBUTION VGA AMP WITH USB POWER
- USB TO CAT 5 EXTENDER
- SINGLE GANG, ANNODIZED ALUMINUM WALLPLATE WITH PASS-THROUGH BARREL CONNECTORS, 1 VGA W/AUDIO, RCA (VIDEO AND L&R) INPUTS
- ALL REQUIRED CABLES AND CONNECTORS

See Attachments For Details

	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
NUMBER OF ROOMS (e.g. 1-5; 5-20, etc.)	1-5 Rooms	6-19 Rooms	20-29 Rooms	30-39 Rooms	40+ Rooms
PACKAGE 3 MATERIALS PRICE/ROOM	$2090	$2079.55	$2069.10	$2058.65	$2048.20
INSTALLATION PRICE/ROOM	$605	$601.98	$598.95	$595.93	$592.90
TOTAL PRICE/ROOM	$2,695	$2,681.53	$2,668.05	$2,654.58	$2,641.10

PACKAGE 4: 100" DIAGONAL SCREEN & ≥2500 LUMEN PROJECTOR

- ≥2500 LUMEN PROJECTOR; 4:3 ASPECT RATIO, HDMI READY
- 100" DIAGONAL SCREEN, VIDEO FORMAT, HI CONTRAST MATTE WHITE; Controlled Screen Return
- WALL MOUNTING "L" BRACKETS, 6" STAND-OFF, BLACK OR WHITE
- DISTRIBUTION VGA AMP WITH USB POWER
- USB TO CAT 5 EXTENDER
- SINGLE GANG, ANNODIZED ALUMINUM WALLPLATE WITH PASS-THROUGH BARREL CONNECTORS, 1 VGA W/AUDIO, RCA (VIDEO AND L&R) INPUTS
- 12" FIXED EXTENSION COLUMN, 1-1/2" NPT
- UNIVERSAL PROJECTOR MOUNT WITH SPIDER ARMS, MULTIPLE HARWARE, 4 ADJUSTABLE LEGS (BLACK, WHITE, SILVER)
- EASY INSTALLATION, 4 TIE WIRES & SECURITY CABLE, INFINITE ADJUSTMENT, 2 OUTLET KNOCKOUTS, 2'X2' OR 2'X4'
- DOUBLE GANG, ANNODIZED ALUMINUM WALLPLATE WITH PASS-THROUGH BARREL CONNECTORS, 2 VGA W/AUDIO, RCA (VIDEO AND L&R) INPUTS, STEREO MINI JACK LEFT RIGHT SPEAKER AND RJ45
- ALL REQUIRED CABLES AND CONNECTORS

See attachments For Details

	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
NUMBER OF ROOMS (e.g. 1-5; 5-20, etc.)	1-5 Rooms	6-19 Rooms	20-29 Rooms	30-39 Rooms	40+ Rooms
PACKAGE 4 MATERIALS PRICE/ROOM	$1888	$1880.56	$1873.12	$1865.68	$1858.24
INSTALLATION PRICE/ROOM	$605	$601.98	$598.95	$595.93	$592.90
TOTAL PRICE/ROOM	$2483	$2470.59	$2458.17	$2445.78	$2433.34

INSTRUCTIONS: For each item, indicate the number of rooms for each price level and the price of the item. Please submit technical specification sheets for each item bid.

See attachments for details

SUPPLEMENTARY ITEMS

	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
NUMBER OF ROOMS (e.g. 1-5; 5-20, etc.)	1-5 Rooms	6-19 Rooms	20-29 Rooms	30-39 Rooms	40+ Rooms
DOCUMENT CAMERA XGA MECHANICAL ZOOM 20 FRAMES PER SECOND SEPARATE VGA IN AND OUT 32 PAGE MEMORY	$499	$494.01	$489.02	$484.03	$479.04
DOCUMENT CAMERA 1080P, 3.4 MEGAPIXEL CMOS SENSOR, 30 FRAMES PER SECOND, WITH VIDEO STORAGE	$749	$741.51	$734.02	$726.53	$719.04
CLASSROOM RESPONSE SYSTEM ≥ 24 RADIO FREQUENCY UNITS	$749	$741.51	$734.02	$726.53	$719.04
SCALABLE DEVICE CONTROL SYSTEM (IR), UP TO 8 DEVICES,VOLUME CONTROL, DVD/VCR CONTROL MODULE	$349	$345.51	$342.02	$338.53	$335.04
STANDARDIZED DEVICE CONTROL SYSTEM (IR), WALL MOUNT, CUSTOMIZABLE INTERFACE, UP TO 6 DEVICES COMES WITH EMITTER AND A/C ADAPTER	TBD	TBD	TBD	TBD	TBD
100" DIAGONAL, VIDEO FORMAT, AUTOMATIC ELECTRIC SCREEN, MATTE WHITE SURFACE	$799	$791.01	$783.02	$775.03	$767.04
≥35 WATT MIXER AMP	$249	$246.51	$244.02	$241.53	$239.04
DVD/CD PLAYER & HI-FI VCR COMBO, WITH REMOTE	$169	$167.31	$165.62	$163.93	$162.24
2 WAY 100 WATT ROUND CEILING SPEAKERS, 8" TITANIUM-LAMINATE POLYPROPYLENE WOOFER, 1 " TITANIUM-LAMINATE DOME TWEETER	$399	$395.01	$391.02	$387.03	$383.04

CEILING SPEAKER 160 WATTS, PLENUM BACKBOX, FITS INTO STANDARD 2'X2' OR 2'X4' CEILING TILE GRIDS (OR CUT INTO DRYWALL CEILINGS), PROVIDING 360 DEGREES OF HEMISPHERIC SOUND	$349	$345.51	$342.02	$338.53	$335.04
2 MOUNT ON BOARD SPEAKERS 14-WATT, STEREO AMPLIFIED, TWO PORT USB HUB, VOLUME CONTROL	$329	$325.71	$322.42	$319.13	$315.84
AUDIO SYSTEM, W/4 CEILING SPEAKERS OR W/4 WALL SPEAKERS, INFRARED MICROPHONE AND ONE LANYARD MICROPHONE	$1149	$1137.51	$1126.02	$1114.53	$1103.04
WIRELESS SLATE/TABLET – PEN-DRIVEN INTERFACE, CONNECTS WIRELESSLY TO INTERACTIVE BOARD, PC, OR PROJECTOR, BATTERY FREE PEN	TBD	TBD	TBD	TBD	TBD

INSTRUCTIONS: Please provide answers for each item below.

ADDITIONAL QUESTIONS

SECONDARY DISCOUNT PERCENTAGE	1.5
NUMBER OF MANUFACTURERS REPRESENTED	1800
TRAINING RATE (per day)	2,000 (up to 12 students)
MAINTENANCE RATE (per hour)	$49
PROMPT PAY DISCOUNT PERCENTAGE	1% if paid in 5 business days
TOLL-FREE SUPPORT NUMBER	855-222-0804
SUPPORT HOURS OF AVAILABILITY	7am-6pm
COMPANY FOUNDED (YEAR)	2002

	YES	NO
KENTUCKY BASED SUPPORT REPRESENTATIVES	Yes 12+	
KENTUCKY BASED SALES OFFICE	Yes 2	
KENTUCKY BASED INSTALLERS	Yes	
AUTHORIZED TO TRANSACT BUSINESS IN THE STATE OF KENTUCKY	Yes	
FILED CORPORATE INCOME TAX IN KENTUCKY IN THE PAST YEAR	Yes	
MADE PAYMENTS TO THE KENTUCKY UNEMPLOYMENT INSURANCE FUND IN THE PAST YEAR	Yes	
MAINTAINED A KENTUCKY WORKERS' COMPENSATION POLICY IN EFFECT IN THE PAST YEAR	Yes	

Package 1 Submittals

2456 Fortune Drive
Suite 110
Lexington, KY 40509

Integration Proposal For:

Package 1

87"+ Board, 3000+ Lumen Projector (4:3, HDMI Ready), Distribution VGA Amp with USB Power, USB to Cat 5 Extender, Single Gang, annodized aluminum wallplate with pass through barrel connectors (1 VGA w/audio, RCA (video and L&R) inputs, universal projector mount with spider arms, multiple hardware, 4 adjustable legs (black, white silver), 12" fixed extension column, 1-1.5" NPT, easy installation, 4 tie wires and security cable, infinite adjustment, 2 outlet knockouts, 2x2 or 2x4, all required cables & connectors

Qty	Mfg.	Part #	Function	Description	Price Each	Ext. Price
1	Smart Tech	SBM885	Interactive Board - SMART Board	Smart 87" 600 Series Interactive Whiteboard	$ 1,749.00	$ 1,749.00
1	NEC	NP-V311X	Projector	NEC 3000 Lumens DLP Projector (Star Student)	$ 531.00	$ 531.00
1	QVS	MSV12M	Distribution Amp	QVS VGA/XGA Distribution Amplifier (Splitter)	$ 33.00	$ 33.00
1	C2G	40498	Wall Plate	Wall Plate (Single Gang) - (VGA w/ 3.5mm audio, RCA Audio) Aluminum	$ 35.00	$ 35.00
1	Tripp Lite	B202-150	Cat 5 Extender	USB to Cat5 Extender	$ 61.00	$ 61.00
1	Mustang	MV-PROJSP	Projector Mount	Mustang Projector mount with 12+ inch extension column	$ 64.00	$ 64.00
				EQUIPMENT SUBTOTAL		$ 2,473.00

					Price Each	Ext. Price
1	QVS	CC399MA	Projector - Cables	50FT M-M VGA Cable with Audio	$ 60.00	$ 60.00
1	C2G	53654	Junction Box	Single Gang Extra Deep Junction Box, White	$ 22.00	$ 22.00
1	C2G	15235	Patch Cable	50 Ft Cat5e Plenum Patch Cable, Gray	$ 34.00	$ 34.00
1	C2G	40467	Patch Cable	50 Ft Value Series RCA Stereo Audio Cable	$ 19.00	$ 19.00
1	Anixter	DCF10WH-X	Wall Plate - Molding	Panduit Drop Ceiling Fittings for LD10 molding (2 per room)	$ 2.00	$ 2.00
1	Anixter	LD10WH8-A	Wall Plate - Molding	Panduit LD10 Raceway White 6ft	$ 19.00	$ 19.00
1	Anixter	LD10WH8-A	Wall Plate - Molding	Panduit LD10 RacewayWhite 8 ft	$ 25.00	$ 25.00
1	MCPc	MISCELLANEOUS		Misc. Cables, Connectors, Connection Plates, Etc.	$ 300.00	$ 300.00
				CABLES & CONNECTORS SUBTOTAL		$ 481.00

Qty		Job		Per	Labor Price
12	MCPc	AV-INSTALL		$ 65.00	$ 780.00
1	MCPc	AV-PMNT		$ 65.00	$ 65.00
	MCPc	AV-ENGINEERING		$ 125.00	$ -
	MCPc	AV-TRAVEL		$ 65.00	$ -
	MCPc	KPC			$ -
	MCPc	BID/PERFORMANCE BOND (5.5%)			$ -
			LABOR SUBTOTAL		$ 865.00

JOB SUMMARY

EQUIPMENT SUBTOTAL	$ 2,473.00
CABLES & CONNECTORS SUBTOTAL	$ 481.00
LABOR SUB-TOTAL	$ 865.00
GRAND SUBTOTAL	$ 3,819.00
EST SHIPPING CHARGES	$ -
GRAND TOTAL	$ 3,819.00

Quinn $ 6,297.96

Specifications

SMART Board® interactive whiteboard

Model SBM685

Overview

Your SMART Board® M685 interactive whiteboard features a durable interactive surface, two damage-resistant pens and SMART's proprietary DVIT® (Digital Vision Touch) technology. The SBM685 model supports dual touch, dual write and intuitive gestures, such as toss, rotate and zoom, available with multitouch operating systems, such as Windows® 7 or Mac Snow Leopard.

See smarttech.com for more information on this product.

Dimensions and weights[1]

Dimensions

Weight

23.1 kg (51 lb.)

Shipping dimensions

208.3 cm W × 134.6 cm H × 11.4 cm D
(82" × 53" × 4 1/2")

Shipping weight

31.3 kg (69 lb.)

[1]All dimensions ± 1/8" (0.3 cm). All weights ± 2 lb. (0.9 kg).

Certification and compliance

Regulatory certification	CSA (U.S./Canada)
Environmental compliance	
China	EIP
European Union	REACH, RoHS, WEEE, Packaging and ErP Standby
U.S.	Packaging and Conflict Minerals

Purchasing information

Order numbers	
SBM685	221 cm (87") diagonal SMART Board M685 interactive whiteboard with an active pen tray. Includes a SMART Notebook software installation DVD.
SBM685-B	Bulk order of 10 SBM685 units
Optional accessories	See smarttech.com/accessories
Warranty	Two-year limited equipment warranty

smarttech.com/support
smarttech.com/contactsupport

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Empowered by Innovation NEC

NEC V311X

Order Code: 60003637

NEC V311X Value Projector

Get the Ultimate 3D Experience with the V311X DLP®Projector. The compact size in combination with light weight makes it easy to place it wherever you need it. With 3100 ANSI lumens brightness and higher contrast this compact projector is recommended for screen sizes of up to 110" diagonal. V311X is Nvidia certified to ensure plug and play operation especially for 3D gaming and 3D photography.

The V311X is the perfect solution for small meeting rooms as well as classrooms.

DELIVERING GENUINE BENEFITS

Control and Monitoring - via RS-232.

Green EcoMode Button - on remote.

Higher Efficiency, Lower Power Consumption - full ErP compliance.

Long Lamp Life - up to 5000 hrs.

Virtual Remote - for direct PC control.

3D ready - future-proof DLP®-Link™ technology with 120Hz and Top/Bottom, 60Hz.

Free Download of Multi-Display Management Software - with NaViSet Administrator 2 you can manage all your connected display devices from a centralized location.

3D PROJECTION ERP COMPLIANT NVIDIA 3D VISION NaViSet Administrator 2

OUTSTANDING PERFORMANCE

- **Excellent and Brilliant Colours** - due to VIDI technology
- **Contrast** 3000:1
- **High Brightness** 3100 ANSI lumens
- **Quick Start** - Direct Power Off
- **7W Speaker**
- **Carbon Meter** - indicating the reduced amount of CO_2 emissions by the use of ECO mode

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SPECIAL CHARACTERISTICS

3D ready DLP®-Link™, 120Hz and Top/Bottom, 60Hz, 6-segment Colour Wheel, Auto Power Start, BrilliantColor™ and VIDI technology, Carbon Savings Meter, Crestron RoomView, Intelligent Power Management, Long Life Lamp, Manual vertical Keystone Correction (V= ±40°), NaViSet Administrator 2, Plug & Play, Quick-Start-/Direct-Power-Off Function, Virtual Remote for direct PC control, 100% recyclable packaging, Downloadable manuals, RoHs compliant, ErP compliant, WEEE

Energy Efficiency	Intelligent Power Management
Ecological Materials	100% recyclable packaging; Downloadable manuals
Ecological Standards	RoHs compliant; ErP compliant; WEEE

Technical Specification NEC V311X

IMAGE	
Projection Technology	1 x 1.4 cm (0.55") 2x LVDS DMD Chip
Native Resolution	1024 x 768 (XGA)
Contrast Ratio [1]	3000:1
Brightness [1]	3100 ANSI Lumen
Lamp	225 W AC
Lamp Life [hrs]	3000 (5000 Eco Mode)
Projection Factor	1.94 – 2.13 : 1
Projection Distance [m]	1.2 – 13
Screen Size (diagonal) [cm] / [inch]	Minimum: 76; Maximum: 762
Zoom	Manual
Focus Adjustment	Manual
Supported Resolutions	Up to 1920x1080
Frequency	Horizontal: 15–100 kHz (RGB: 24 kHz– 100 kHz); Vertical: 50 – 120 Hz
CONNECTIVITY	
RGB (analog)	Input: 2 x Mini D-sub 15-pin, compatible to component (YPbPr) Output: 1 x Mini D-sub 15 pin
HDMI™	Input: 1 x HDMI™ (Deep Color, Lip sync)
Video	Input: 1 x RCA
S-Video	Input: 1 x Mini DIN 4-pin
Audio	Input: 2 x 3.5 mm Stereo Mini Jack; 1 x RCA Stereo for Video and S-Video Output: 1 x 3.5 mm Stereo Mini Jack
Control	Input: 1 x D-Sub 9 pin (RS-232) (male)
LAN	1 x RJ45
Video Signals	PAL; PAL60; NTSC; SECAM; NTSC 4.43; PAL-N; PAL-M
REMOTE CONTROL	
Remote Control	Aspect Ratio; Audio Control; Auto Adjust; Automatic Picture Adjustment; Freeze-function; Help-function; ID set; Keystone Correction; Lamp Mode Control; Magnify-function; Picture Adjust; Picture Mode; Picture Mute; Source Select
ELECTRICAL	
Power Supply	100-240 V AC; 50 - 60 Hz
Power Consumption [W]	268 max.; 210 Eco Mode; 0.6 Power Savings Mode
MECHANICAL	
Dimensions (W x H x D) [mm]	310 x 95 x 247 (without lens and feet)
Weight [kg]	2.5
Fan Noise [dB (A)]	33 / 37 (Eco / Normal)
ERGONOMICS	
Safety and Ergonomics	CE; ErP; TÜV GS; RoHS
Speakers [W]	1 x 7 (mono)
WARRANTY	
Projectors	3 years pan-European service
Lamp	6 months, max. 1000 hrs
SHIPPING CONTENT	
Shipping Contents	User Manual on CD-ROM (Russian Manual in Hardcopy); Projector; IR Remote Control (RD-448E); Mini D-SUB Signal Cable (1.8 m); Power Cord; Quick Setup Guide; Lens Cap
OPTIONAL ACCESSORIES	
Optional Accessories	3D Starter Kit (NP01SK3D); DLP-Link 3D Glasses (NP01GL/NP02GL); Lamp (NP18LP); Mouse Receiver (NP01MR); Universal Ceiling Mounts (NP01/02/03/04/05UCM)

[1] Compliance with ISO21118-2005

MUSTANG™

MV-PROJSP

Ceiling Projector Mount

Once you have located all of the hardware and components, you are ready to start installing the MV-PROJSP.

Assemble the suspension rod

1. Attach the mounting plate to the fixing coupler.
2. Attach the top column to the mounting plate and fixing coupler using the M8 x 50 mm socket cap screw and two of the M8 self-locking nylon nuts.
3. Align two holes on the mid column with the suitable two holes on the top column.
4. Attach the mid column to the top column with two of the M8 x 50 mm socket cap screws and two of the M8 self-locking nylon nuts.
5. Align two holes on the bottom column with the suitable two holes on the mid column.
6. Attach the bottom column to the mid column with two of the M8 x 50 mm socket cap screw and two of the M8 self-locking nylon nuts.
7. Connect the shaft to the bottom column slot.
8. Insert the locking hook into the cutting slot.
9. Tighten the shaft and locking hook into place with one of the M8 x 50 mm socket cap screw and a M8 self-locking nylon nut.
10. Fix the cross adapter & mounting plate together with one of the M8 x 65 socket cap screws and a M8 nut.

Install the universal base

1. Determine the screw size needed to mount your projector.
2. Place the pre-assembled universal base plate near the central gravity point of your projector.
3. Select the appropriate extension bracket needed for your installation.
4. Place the appropriate extension brackets near the central gravity point of your projector.

Note: the extension brackets should all point toward the ceoter of the universal base plate. Make sure they do not need to be forcibly attached to the base plate. If they do, you may need to change the size of extension brackets for your installation.

5. Assemble each extension bracket with the appropriately sized bottom spacer and other supplied spacers (as required).

Note: if your extension bracket is more than 50 mm, you will also need to use two square nuts (which are supplied).

6. Assemble the universal base plate with the M6 nut, U-joint bracket and M6 carriage bolts.
7. Align the assembled universal base plate with all of the extension brackets already in place on your projector.
8. Attach the universal base plate to the extension brackets.
9. Install and tighten the M5 button socket cap screws and the M6 serrate flange nuts to finish the assembly.

Install the MV-PROJSP to the ceiling

1. Install the ceiling plate to the ceiling with an M10 bolt (not included).
2. Use the M8 x 15 mm socket cap screws to fix the U-joint bracket and cross adapter properly to attach the universal base and projector to the ceiling plate.
3. Tighten the screws.

Your MV-PROJSP is now installed.

MV-1.5ADAPTER - 1.5" NPT Adapter is available for PROJ-SP. It works with MV-PROJSP series to convert your existing pipe to 1.5".

With its shift, pitch and rotation capabilities, the MVPROJSP spider mount allows for convenient and secure projector installations.

- Dimensions: 5.77" x 8.66" x up to 32"
- Maximum mounting footprint: 9" x 6"
- Weight capacity: up to 33 lbs (15 kg)
- Tilt capability: +20°/-20°
- Adjustable length: 11.42" to 32"
- Pre-assembled for faster installation
- One year warranty

Dimentions

A 5.71 in 145 mm	C 0.98 in 25 mm
B 8.66 in 220 mm	D 1.97 in 50 mm
	E 1 1 .42 in 290 mm

HARDWARE KIT

- 1 Cross adapter
- 1 Locking hook
- 1 Mounting Plate
- 1 Fixing Coupler
- 1 Top Column
- 1 Mid Column
- 1 Bottom Column
- 1 Shaft
- 8 Self-locking Nylon
- Nut M8
- 1 Nut M8
- 4 Bottom Spacar
- 8 Square Nut
- 8 Socket Button Cap
- Screw M5x10
- 2 Carriage Bolt M6x12
- 2 Serrate Flang Nut M6
- 2 Extension Bracket 50mm
- 2 Extension Bracket 75mm
- 2 Extension Bracket 100mm
- 2 Extension Bracket 150mm
- 1 U Joint Bracket
- 1 General Base Plate
- 4 Washer 1mm
- 4 Washer 2mm
- 4 Washer 4mm
- 2 Allen Key
- 36 Truss Head Screw
- 4 Spring washers M8
- 2 Socket cap screw M8 x 15
- 8 Socket cap screw M8 x 50
- 1 Socket cap screw M8 x 65

Package 2 Submittals

MCPc
TECHNOLOGY PRODUCTS AND SOLUTIONS
2456 Fortune Drive
Suite 110
Lexington, KY 40509

Integration Proposal For:
Package 2
70"+ Board, 2500+ Lumen Projector (4:3 HDMI Ready), Distribution VGA Amp with USB Power, USB to Cat 5 Extender, Single Gang, annodized aluminum wallplate with pass through barrel connectors (1 VGA w/audio, RCA (video and L&R) inputs, universal projector mount with spider arms, multiple hardware, 4 adjustable legs (black, white silver), 12" fixed extension column, 1-1.5" NPT, easy installation, 4 tie wires and security cable, infinite adjustment, 2 outlet knockouts, 2x2 or 2x4, all required cables & connectors

Qty	Mfg.	Part #	Function	Description	Price Each	Ext. Price
1	Smart Tech	SBM680	Interactive Board - SMART Board	Smart 77" 600 Series Interactive Whiteboard	$ 1,499.00	$ 1,499.00
1	NEC	NP-VE281X	Projector	NEC 2800 Lumen DLP Projector (Star Student)	$ 434.00	$ 434.00
1	QVS	MSV12M	Distribution Amp	QVS VGA/XGA Distribution Amplifier (Splitter)	$ 33.00	$ 33.00
1	C2G	40498	Wall Plate	Wall Plate (Single Gang) - (VGA w/ 3.5mm audio, RCA Audio) Aluminum	$ 35.00	$ 35.00
1	Tripp Lite	B202-150	Cat 5 Extender	USB to Cat5 Extender	$ 61.00	$ 61.00
1	Mustang	MV-PROJSP	Projector Mount	Mustang Projector mount with 12+ inch extension column	$ 64.00	$ 64.00
				EQUIPMENT SUBTOTAL		$ 2,126.00

					Price Each	Ext. Price
1	QVS	CC388MA	Projector - Cables	50FT M-M VGA Cable with Audio	$ 60.00	$ 60.00
1	C2G	53654	Junction Box	Single Gang Extra Deep Junction Box, White	$ 22.00	$ 22.00
1	C2G	15235	Patch Cable	50 Ft Cat5e Plenum Patch Cable, Gray	$ 34.00	$ 34.00
1	C2G	40467	Patch Cable	50 Ft Value Series RCA Stereo Audio Cable	$ 19.00	$ 19.00
1	Anixter	DCF10WH-X	Wall Plate - Molding	Panduit Drop Ceiling Fittings for LD10 molding (2 per room)	$ 2.00	$ 2.00
1	Anixter	LD10WH8-A	Wall Plate - Molding	Panduit LD10 Raceway White 8ft	$ 19.00	$ 19.00
1	Anixter	LD10WH6-A	Wall Plate - Molding	Panduit LD10 RacewayWhite 8 ft	$ 25.00	$ 25.00
1	MCPc	MISCELLANEOUS		Misc. Cables, Connectors, Connection Plates, Etc.	$ 300.00	$ 300.00
				CABLES & CONNECTORS SUBTOTAL		$ 481.00

Qty		Job		Per Hour	Labor Price
12	MCPc	AV-INSTALL		$ 65.00	$ 780.00
1	MCPc	AV-PMNT		$ 85.00	$ 85.00
	MCPc	AV-ENGINEERING		$ 125.00	$ -
	MCPc	AV-TRAVEL		$ 65.00	$ -
	MCPc	KPC			$ -
	MCPc	BID/PERFORMANCE BOND (5.5%)			$ -
			LABOR SUBTOTAL		$ 865.00

JOB SUMMARY

EQUIPMENT SUBTOTAL	$ 2,126.00
CABLES & CONNECTORS SUBTOTAL	$ 481.00
LABOR SUB-TOTAL	$ 865.00
GRAND SUBTOTAL	$ 3,472.00
EST SHIPPING CHARGES	$ -
GRAND TOTAL	$ 3,472.00

Quinn $ 4,853.07

Specifications

SMART Board® interactive whiteboard

Model SBM680

Overview

Your SMART Board® M680 interactive whiteboard features a durable interactive surface, two damage-resistant pens and SMART's proprietary DVIT® (Digital Vision Touch) technology. The SBM680 model supports dual touch, dual write and intuitive gestures, such as toss, rotate and zoom, available with multitouch operating systems, such as Windows® 7 or Mac Snow Leopard.

See smarttech.com for more information on this product.

Dimensions and weights[1]

Dimensions

Weight

18.5 kg (40 lb. 13 oz.)

Shipping dimensions

181 cm W × 134.6 cm H × 11.4 cm D
(71 1/4" × 53" × 4 1/2")

Shipping weight

23.6 kg (52 lb.)

[1] All dimensions ± 1/8" (0.3 cm). All weights ± 2 lb. (0.9 kg).

Certification and compliance

Regulatory certification	CSA (U.S./Canada)
Environmental compliance	
China	EIP
European Union	REACH, RoHS, WEEE, Packaging and ErP Standby
U.S.	Packaging and Conflict Minerals

Purchasing information

Order numbers	
SBM680	195.6 cm (77") diagonal SMART Board M680 interactive whiteboard with an active pen tray. Includes a SMART Notebook software installation DVD.
SBM680-B	Bulk order of 10 SBM680 units
Optional accessories	See smarttech.com/accessories
Warranty	Two-year limited equipment warranty

smarttech.com/support
smarttech.com/contactsupport

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Empowered by Innovation NEC

NEC VE281X

Order Code: 60003441

NEC VE281X Professional Desktop Display

Affordable projection with essential features, the VE281X is designed to provide brilliant display of information in meeting and conference rooms. Thanks to its compact size and light weight and vertical keystone correction it is also very suitable for mobile applications in changing environments. In addition this projector has strong eco credentials with long lamp life, low power consumption and auto power off.

DELIVERING GENUINE BENEFITS

Innovative new Eco functions - to reduce power consumption.

Minimized cost of ownership - due to long lamp life and filter exchange intervals.

Essential features for ease of use - 2800 ANSI lumens and 3000:1 contrast for recommended screen sizes up to 120"

Low cost of ownership - up to 6000h lamp life, low power consumption

Versatile and mobile - compact and light-weight with HDMI and integrated 7W speaker

OUTSTANDING PERFORMANCE

- **Vertical Keystone Correction** of +/-40° allows more flexibility in positioning the projector.
- **Auto-Power ON/OFF** for ease of operation and increased energy efficiency.
- **3D ready** supporting DLP Link™ technology.

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SPECIAL CHARACTERISTICS

Auto Eco Mode, Carbon Savings Meter, Direct Power-Off Function, Help Function, Manual vertical Keystone Correction (V= ±40°), Manual Wall Color Correction, mouse receiver, Optional User Logo, OSD with 27 languages, Password Security System, Source Select with Beep Function, Timer-Function, Unique Power Saving Functions

Energy Efficiency Auto ECO Mode; Green one touch ECO and AV mute button; ECO scheduler; Intelligent Power Management; Longer lamp life; Reduced power consumption. Only 0.4W stand-by

Ecological Materials 100% recyclable packaging; Downloadable manuals; ECO packaging

Ecological Standards RoHs compliant; ErP compliant

Technical Specification NEC VE281X	
IMAGE	
Display	1 x 1,4 cm (0.55") DDR DMD Chip
Native Resolution	1024 x 768 (XGA)
Contrast Ratio [1]	3000:1
Brightness [1]	2800 ANSI Lumen (approx. 75% in Eco Mode)
Lamp	200 W AC (160 W AC Eco Mode)
Lamp Life [hrs]	4000 (6000 Eco Mode)
Lens	F= 2.41–2.55, f= 21.8–24 mm
Projection Factor	1.93 – 2.16 : 1
Projection Distance [m]	1.18 – 13.2
Screen Size (diagonal) [cm]	Minimum: 76 / 30"; Maximum: 762 / 300"
Zoom	Manual
Focus Adjustment	Manual
Supported Resolutions	1920 x 1080 (HDTV 1,080i/60, HDTV 1,080i/50); 1600 x 1200 (UXGA); 1400 x 1050 (SXGA); 1280 x 1024 (SXGA); 1280 x 720 (HDTV 720p); 1152 x 870 (MAC 21"); 1024 x 768 (XGA); 832 x 624 (MAC 16"); 800 x 600 (SVGA); 720 x 576 (DVD progressive); 720 x 480 SDTV 480p; 720 x 480 (DVD progressive); 640 x 480 (VGA/Mac 13")
Frequency	Horizontal: 15–100 kHz (RGB: 24 kHz); Vertical: 50 ~ 120 Hz
CONNECTIVITY	
RGB (analog)	Input: 1 x Mini D-sub 15-pin, compatible to component (YPbPr)
HDMI™	Input: 1 x HDMI™ (Deep Color, Lip sync)
Video	Input: 1 x RCA
Audio	Input: 1 x 3.5 mm Stereo Mini Jack
PC Control	Input: 1 x D-Sub 9 pin (RS-232) (male)
Video Signals	PAL; PAL60; NTSC; SECAM; NTSC 4.43; PAL-N; PAL-M
REMOTE CONTROL	
Remote Control	Aspect Ratio; Audio Control; Auto Adjust; Freeze-function; HDMI; Help-function; Lamp Mode Control; Magnify-function; Page (up, down); Picture Adjust; Picture Mute; Power (On-OFF); Presentation and Mouse Control; Select (up, down, left, right); Source Select
ELECTRICAL	
Power Supply	100-200 V AC; 50 - 60 Hz
Power Consumption [W]	250 Normal Mode; 205 Eco Mode; 0.4 Power Savings Mode
MECHANICAL	
Dimensions (W x H x D) [mm]	280 x 89.5 x 247 (without lens and feet)
Weight [kg]	2.3
Fan Noise [dB (A)]	33 / 35 (Eco / Normal)
OPTIONAL ACCESSORIES	
Optional Accessories	DLP-Link 3D Glasses (NP02GL); Mouse Receiver (NP01MR)
ERGONOMICS	
Safety and Ergonomics	CE; ErP; TÜV GS; RoHS
Speakers [W]	1 x 7 (mono)
WARRANTY	
Projectors	2 years pan-European service
Lamp	6 months, max. 1000 hrs
SHIPPING CONTENT	
Shipping Contents	Projector; IR Remote Control (adressable RD - 448E); Mini D-SUB Signal Cable; Power Cord; Users Manual on CD-ROM; Quick Setup Guide

[1] Compliance with ISO21118-2005

MUSTANG™

MV-PROJSP

Ceiling Projector Mount

Once you have located all of the hardware and components, you are ready to start installing the MV-PROJSP.

Assemble the suspension rod

1. Attach the mounting plate to the fixing coupler.
2. Attach the top column to the mounting plate and fixing coupler using the M8 x 50 mm socket cap screw and two of the M8 self-locking nylon nuts.
3. Align two holes on the mid column with the suitable two holes on the top column.
4. Attach the mid column to the top column with two of the M8 x 50 mm socket cap screws and two of the M8 self-locking nylon nuts.
5. Align two holes on the bottom column with the suitable two holes on the mid column.
6. Attach the bottom column to the mid column with two of the M8 x 50 mm socket cap screw and two of the M8 self-locking nylon nuts.
7. Connect the shaft to the bottom column slot.
8. Insert the locking hook into the cutting slot.
9. Tighten the shaft and locking hook into place with one of the M8 x 50 mm socket cap screw and a M8 self-locking nylon nut.
10. Fix the cross adapter & mounting plate together with one of the M8 x 65 socket cap screws and a M8 nut.

Install the universal base

1. Determine the screw size needed to mount your projector.
2. Place the pre-assembled universal base plate near the central gravity point of your projector.
3. Select the appropriate extension bracket needed for your installation.
4. Place the appropriate extension brackets near the central gravity point of your projector.

Note: the extension brackets should all point toward the center of the universal base plate. Make sure they do not need to be forcibly attached to the base plate. If they do, you may need to change the size of extension brackets for your installation.

5. Assemble each extension bracket with the appropriately sized bottom spacer and other supplied spacers (as required).

Note: if your extension bracket is more than 50 mm, you will also need to use two square nuts (which are supplied).

6. Assemble the universal base plate with the M6 nut, U-joint bracket and M6 carriage bolts.
7. Align the assembled universal base plate with all of the extension brackets already in place on your projector.
8. Attach the universal base plate to the extension brackets.
9. Install and tighten the M5 button socket cap screws and the M6 serrate flange nuts to finish the assembly.

Install the MV-PROJSP to the ceiling

1. Install the ceiling plate to the ceiling with an M10 bolt (not included).
2. Use the M8 x 15 mm socket cap screws to fix the U-joint bracket and cross adapter properly to attach the universal base and projector to the ceiling plate.
3. Tighten the screws.

Your MV-PROJSP is now installed.

MV-1.5ADAPTER - 1.5" NPT Adapter is available for PROJ-SP. It works with MV-PROJSP series to convert your existing pipe to 1.5".

With its shift, pitch and rotation capabilities, the MVPROJSP spider mount allows for convenient and secure projector installations.

- Dimensions: 5.77" x 8.66" x up to 32"
- Maximum mounting footprint: 9" x 6"
- Weight capacity: up to 33 lbs (15 kg)
- Tilt capability: +20°/-20°
- Adjustable length: 11.42" to 32"
- Pre-assembled for faster installation
- One year warranty

Dimentions

A 5.71 in 145 mm
B 8.66 in 220 mm
C 0.98 in 25 mm
D 1.97 in 50 mm
E 1 1 .42 in 290 mm

HARDWARE KIT

- 1 Cross adapter
- 1 Locking hook
- 1 Mounting Plate
- 1 Fixing Coupler
- 1 Top Column
- 1 Mid Column
- 1 Bottom Column
- 1 Shaft
- 8 Self-locking Nylon
- Nut M8
- 1 Nut M8
- 4 Bottom Spacar
- 8 Square Nut
- 8 Socket Button Cap
- Screw M5x10
- 2 Carriage Bolt M6x12
- 2 Serrate Flang Nut M6
- 2 Extension Bracket 50mm
- 2 Extension Bracket 75mm
- 2 Extension Bracket 100mm
- 2 Extension Bracket 150mm
- 1 U Joint Bracket
- 1 General Base Plate
- 4 Washer 1mm
- 4 Washer 2mm
- 4 Washer 4mm
- 2 Allen Key
- 36 Truss Head Screw
- 4 Spring washers M8
- 2 Socket cap screw M8 x 15
- 8 Socket cap screw M8 x 50
- 1 Socket cap screw M8 x 65

Package 3 Submittals

MCPc
TECHNOLOGY PRODUCTS AND SOLUTIONS
2456 Fortune Drive
Suite 110
Lexington, KY 40509

Integration Proposal For:
Package 3
2600+ Lumen Projector (16:10 aspect ratio, HDMI ready), Mount Included, Classroom teaching and learning application software, Distribution VGA Amp with USB Power, USB to Cat 5 Extender, Single Gang, annodized aluminum wallplate with pass through barrel connectors (1 VGA w/audio, RCA (video and L&R) inputs, all required cables & connectors

Qty	Mfg.	Part #	Function	Description	Price Each	Ext. Price
1	Smart Tech	NEC NP-UM330WI-WK1	Interactive Projector	NEC 3300 Lumen Ultra Short Throw Interactive Projector WXGA, Includes sbeam software	$ 1,580.00	$ 1,580.00
1	QVS	MGV12M	Distribution Amp	QVS VGA/XGA Distribution Amplifier (Splitter)	$ 33.00	$ 33.00
1	C2G	40498	Wall Plate	Wall Plate (Single Gang) - (VGA w/ 3.5mm audio, RCA Audio) Aluminum	$ 35.00	$ 35.00
1	Tripp Lite	B202-150	Cat 5 Extender	USB to Cat5 Extender	$ 61.00	$ 61.00
				EQUIPMENT SUBTOTAL		**$ 1,709.00**

					Price Each	Ext. Price
1	QVS	CC366MA	Projector - Cables	50FT M-M VGA Cable with Audio	$ 60.00	$ 60.00
1	C2G	53654	Junction Box	Single Gang Extra Deep Junction Box, White	$ 22.00	$ 22.00
1	C2G	15235	Patch Cable	50 Ft Cat5e Plenum Patch Cable, Gray	$ 34.00	$ 34.00
1	C2G	40467	Patch Cable	50 Ft Value Series RCA Stereo Audio Cable	$ 19.00	$ 19.00
1	Anixter	DCF10WH-X	Wall Plate - Molding	Panduit Drop Ceiling Fittings for LD10 molding (2 per room)	$ 2.00	$ 2.00
1	Anixter	LD10WH6-A	Wall Plate - Molding	Panduit LD10 Raceway White 6ft	$ 19.00	$ 19.00
1	Anixter	LD10WH8-A	Wall Plate - Molding	Panduit LD10 RacewayWhite 8 ft	$ 25.00	$ 25.00
1	MCPc	MISCELLANEOUS		Misc. Cables, Connectors, Connection Plates, Etc.	$ 200.00	$ 200.00
				CABLES & CONNECTORS SUBTOTAL		**$ 381.00**

Qty		Job		Per Hour	Labor Price
8	MCPc	AV-INSTALL		$ 65.00	$ 520.00
1	MCPc	AV-PMNT		$ 65.00	$ 65.00
	MCPc	AV-ENGINEERING		$ 125.00	$ -
	MCPc	AV-TRAVEL		$ 65.00	$ -
	MCPc	KPC			$ -
	MCPc	BID/PERFORMANCE BOND (5.6%)			$ -
			LABOR SUBTOTAL		**$ 605.00**

JOB SUMMARY

EQUIPMENT SUBTOTAL	$ 1,709.00
CABLES & CONNECTORS SUBTOTAL	$ 381.00
LABOR SUB-TOTAL	$ 605.00
GRAND SUBTOTAL	**$ 2,695.00**
EST SHIPPING CHARGES	$ -
GRAND TOTAL	**$ 2,695.00**

Quinn $ 3,277.42

Portable Projectors

UM Series

UM330Xi-WK1 and UM330Wi-WK1 interactive projectors

The UM330Xi-WK1 and UM330Wi-WK1 interactive projectors bring collaboration to both classrooms and conference rooms alike. Together with a PC or Mac, the teaching tool will increase students' attention and interaction within the classroom, increasing their retention of subject matter.

Bring Interactivity to the Classroom

The interactive eBeam module (NP02Wi) connects directly to the computer, using IR to determine the included pen's position within the image for accurate control and annotation.

- A complete software package designed specifically for the NP02Wi includes the eBeam Education Suite, eBeam Scrapbook, eBeam Tool Palette and eBeam Home. eBeam Workspace is ideal for corporate customers
- Annotation tools include pen, shapes, highlighter, eraser, redo/undo and save buttons, providing users with endless possibilities on the screen
- Broadcast and share material over an intranet or the Internet
- Mouse functionality allows the user to control the desktop from the board with the included stylus pen. Open files, browse the Internet and much more.
- A dedicated button brings up a File>Open window that allows the user to quickly open up PowerPoint files in Slideshow mode
- Three different interactive tools to choose from:
  - **SCRAPBOOK application.** This turns the image on the whiteboard surface into a digital workspace. Multiple tools within the application allow the user to record notes digitally, import screen shots and other files as background images, save scrapbook files and use layers to hide and show elements of a page
  - **Desktop palette.** This allows quick selection of major functions, including annotation and a pop-up keyboard.
  - **PowerPoint palette.** This allows annotation and navigation from slide presentations.

Versatile Features and Powerful Performance

- Powerful 16-watt speaker provides volume needed for large rooms
- Variable audio-out enables remote control to be used to adjust volume of self-powered external speakers that are connected to the projector. In stand-by mode, the audio-out stays active, allowing the last input used to pass to the self-powered external speakers.
- Virtual Remote™ (DDC/CI) over the VGA cable or via the network connection (wired/wireless) allows you to control the projector directly from a computer without the need for additional control cables
- Native XGA and WXGA resolution projectors automatically sync with higher-resolution computers
- Flexible input panel connects with dual HDMI, computer, composite video, S-Video and component video (using optional 15-pin adapter cable)
- USB Viewer uses the presentation conversion software included with your projector to convert presentations into .jpgs for playback using a USB flash drive (not included)

Essential Features for Ease of Use

- Intuitive remote control provides one-touch source changes and complete menu control
- Integrated RJ45 connection for quick connection to the LAN (10/100 base-T capability
- Wireless LAN (optional) allows for image transmission from a computer or directly from an iPad, lowering the cost of the installation while providing collaboration with your audience
- Remote diagnostics enable the user to monitor and make adjustments to the projector remotely

Designed with the Environment in Mind

- Extended lamp life with ECO Mode™ technology increases lamp life up to 6000 hours, while lowering power consumption and maintenance costs
- Power management enables projector to automatically turn off when an incoming signal is not detected from any of the inputs
- Auto Power On, using the Direct Power On mode, turns on the projector when AC power is supplied
- Quick start (20 seconds) lets you begin presenting in seconds while quick shutdown (immediate power off with no cooling required after shutdown) ensures efficient energy usage

UNIQUE FEATURES

ECO Mode technology extends lamp life, lowers audible noise and reduces total cost of ownership.

Built-in closed captioning enables decoding and display of text information from a video

Kensington lock slot enables security cable to be attached to projector.

10-step image magnification with location control

WARRANTY

Registered owners receive a 2-year parts and labor warranty including the first year of InstaCare. The lamp is covered for one year or 500 hours - whichever comes first. InstaCare provides the original owner one year of either limited 3-business-day repair/return or next-business-day exchange.

SHIPS WITH

Remote control, batteries, RGB cable, power cord, user's manual, product registration card, wall mount kit (NP04WK1) and interactive eBeam module and pen (NP02WI)

ORDERING MODEL NUMBERS

NP-UM330Xi-WK1
NP-UM330Wi-WK1

Specifications for UM330Xi-WK1/UM330Wi-WK1

OPTICAL	
Display Technology	UM330Xi-WK1: 0.63" LCD with MLA UM330Wi-WK1: 0.59" LCD with MLA
Lamp Capacity (Lumens)	3300
Resolution	
Native	UM330Xi-WK1: XGA 1024 x 768 UM330Wi-WK1: WXGA 1280 x 800
Max. Image	UXGA 1600 x 1200
Contrast Ratio (Full On/Full Off)	3000:1
Lamp Power	265W AC
Lamp Life (Hours)	3000 hours normal / 6000 hours eco
Screen Size (Diagonal)	UM330Xi-WK1: 61.5 to 116.6 in. / 1562 to 2962mm UM310Wi-WK1: 58 to 110 in. / 1473 to 2794mm
Throw Ratio	0.36:1
Projection Distance	17.6 to 33.6 in. / 448 to 854mm
Horizontal Offset	UM330Xi-WK1: 53.1° UM330Wi-WK1: 49.2°
Lens	
Zoom	1 - 1.4
Focus	Manual
Lens	F=1.80, f=4.78mm
Keystone Correction	+/- 10°
SIGNAL COMPATIBILITY/CONNECTIVITY	
Scan Rate	
Horizontal	15 - 100 kHz
Vertical	50 - 120 Hz
Supported Video Standards	NTSC, NTSC4.43, PAL, PAL-M, PAL-N, PAL 60, SECAM
SDTV/HDTV Video Signal Compatibility	480i, 480p, 576i, 576p, 720p, 1080i, 1080p
PC Signal Compatibility	VGA, SVGA, XGA, WXGA, WXGA+, SXGA, SXGA+, UXGA
Macintosh Compatibility	Yes
Input/Output Terminals	
RGB (analog)	15-pin, component video using ADP-CV1E adapter
RGB2 (digital)	HDMI
RGB3 (digital)	HDMI
RGB4 (digital)	USB A Type
Video 1	RCA
Video 2	S-Video
Audio 1	1/8 in. stereo
Audio 2	1/8 in. stereo
Audio 3	L/R RCA (shared by video sources)
Audio Out	Yes (variable)
Monitor Out	Yes
Mic In	1/8 in. stereo
Wireless LAN	Optional
Audio	16W speaker
Ethernet Control	RS-232, IR, Wired LAN, Wireless LAN (optional), USB
Sync Compatibility	Separate Sync / Composite Sync / Sync on G
ELECTRICAL	
Power Requirements	100 - 240V AC, 50/60 Hz
Input Current	4.0A / 2.0A
Power Consumption	
Normal Mode / ECO Mode / Standby	344W / 233W / 8W / 0.2W
MECHANICAL	
Installation Orientation	Table/Front, Table/Rear, Ceiling/Front, Ceiling/Rear
Dimensions (W x H x D)	26 x 20 x 22 in. / 660 x 508 x 559mm
Net Weight	49 lbs. / 22.2 kg
Acoustics	35 dB normal / 32 dB eco
Regulations	USA UL 60950-1 FCC Class B, C-UL CSA 60950-1 ICES-003 Class B
ENVIRONMENTAL	
Operating Temp	41° - 104°F / 5° - 40°C
Humidity	20-80% non-condensing
Storage	-4° - 122°F / -20° - 50°C
OPTIONAL ACCESSORIES	
Wireless	802.11b/g/n wireless LAN adapter
NP-UM330	Replacement lamp
SPK330	Amplified 30-watt speaker
Stylus	Stylus pen
RMT-PJ1	Replacement remote control
Security	Security cable for connection to projector
CeilingLite	Lightweight adjustable suspended ceiling plate for use with NEC ceiling mounts
ADP-CV1E	Component video adapter converts component video to D-sub 15-pin
PWR-CB-US	Power cable
RGB-CB-MP	RGB cable
NEC-PWR-3YR	Extends term of parts and labor warranty to 3 years
NEC-PWR-4YR	Extends term of parts and labor warranty to 4 years
ATA-PJ-INF-2YR	Extends term of InstaCare service program to 2 years
ATA-PJ-INF-3YR	Extends term of InstaCare service program to 3 years

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NEC Display Solutions
500 Park Boulevard, Suite 1100
Itasca, IL 60143
866-NEC-MORE

necdisplay.com

Package 4 Submittals

MCPc
TECHNOLOGY PRODUCTS AND SOLUTIONS
2456 Fortune Drive
Suite 110
Lexington, KY 40509

Integration Proposal For:

Package 4

2500+ Lumen Projector (4:3, HDMI Ready), 100"+ diagonal screen, video format, hi contract matte white, controlled screen return, wall mounting "L" brakets, 6" stand-off, black or white, distribution, Distribution VGA Amp with USB Power, USB to Cat 5 Extender, Single Gang, annodized aluminum wallplate with pass through barrel connectors (1 VGA w/audio, RCA (video and L&R) inputs, universal projector mount with spider arms, multiple hardware, 4 adjustable legs (black, white silver), 12" fixed extension column, 1-1.5" NPT, easy installation, 4 tie wires and security cable, infinite adjustment, 2 outlet knockouts, 2x2 or 2x4, double gang, annodized aluminum wallplate with pass through barrel connectors, 2 VGA w/ audio, RCA (Video and L&R) inputs, stereo mini jack left right speaker and RJ45, all required cables & connectors

Qty	Mfg.	Part #	Function	Description	Price Each	Ext. Price
1	NEC	NP-VE281X	Projector	NEC 2800 Lumen DLP Projector (Star Student)	$ 434.00	$ 434.00
1	DaLite	85316	Motorized Screen	DaLite Model B w/CSR 100" Diagonal Video Format	$ 218.00	$ 218.00
1	DaLite		Screen Brackets	Number 6 Brackets	$ 15.00	$ 15.00
1	QVS	MSV12M	Distribution Amp	QVS VGA/XGA Distribution Amplifier (Splitter)	$ 33.00	$ 33.00
1	C2G	40498	Wall Plate	Wall Plate (Single Gang) - (VGA w/ 3.5mm audio, RCA Audio) Aluminum	$ 28.00	$ 28.00
1	Liberty	MCPc-WQ269659	Wall Plate	Wall Plate (Double Gang), Aluminum	$ 104.00	$ 104.00
1	Tripp Lite	B202-150	Cat 5 Extender	USB to Cat5 Extender	$ 61.00	$ 61.00
1	Mustang	MV-PROJSP	Projector Mount	Mustang Projector mount with 12+ inch extension column	$ 64.00	$ 64.00
				EQUIPMENT SUBTOTAL		**$ 957.00**

					Price Each	Ext. Price
1	QVS	CC388MA	Projector - Cables	50FT M-M VGA Cable with Audio	$ 60.00	$ 60.00
1	C2G	53654	Junction Box	Single Gang Extra Deep Junction Box, White	$ 22.00	$ 22.00
1	C2G	15235	Patch Cable	50 Ft Cat5e Plenum Patch Cable, Gray	$ 34.00	$ 34.00
1	C2G	40467	Patch Cable	50 Ft Value Series RCA Stereo Audio Cable	$ 19.00	$ 19.00
1	Anixter	DCF10WH-X	Wall Plate - Mounting	Panduit Drop Ceiling Fittings for LD10 molding (2 per room)	$ 2.00	$ 2.00
1	Anixter	LD10WH6-A	Wall Plate - Mounting	Panduit LD10 Raceway White 6ft	$ 19.00	$ 19.00
1	Anixter	LD10WH6-A	Wall Plate - Mounting	Panduit LD10 RacewayWhite 6 ft	$ 25.00	$ 25.00
1	MCPc	MISCELLANEOUS		Misc. Cables, Connectors, Connection Plates, Etc.	$ 350.00	$ 350.00
				CABLES & CONNECTORS SUBTOTAL		**$ 531.00**

Qty		Job		Per Hour	Labor Price
14	MCPc	AV-INSTALL		$ 65.00	$ 910.00
1	MCPc	AV-PMNT		$ 85.00	$ 85.00
	MCPc	AV-ENGINEERING		$ 125.00	$ -
	MCPc	AV-TRAVEL		$ 65.00	$ -
	MCPc	KPC			$ -
	MCPc	BID/PERFORMANCE BOND (5.5%)			$ -
			LABOR SUBTOTAL		**$ 995.00**

JOB SUMMARY

EQUIPMENT SUBTOTAL	$ 957.00
CABLES & CONNECTORS SUBTOTAL	$ 531.00
LABOR SUB-TOTAL	$ 995.00
GRAND SUBTOTAL	**$ 2,483.00**
EST SHIPPING CHARGES	$ -
GRAND TOTAL	**$ 2,483.00**

Quinn $ 3,522.08

Empowered by Innovation NEC

NEC VE281X

Order Code: 60003441

NEC VE281X Professional Desktop Display

Affordable projection with essential features, the VE281X is designed to provide brilliant display of information in meeting and conference rooms. Thanks to its compact size and light weight and vertical keystone correction it is also very suitable for mobile applications in changing environments. In addition this projector has strong eco credentials with long lamp life, low power consumption and auto power off.

DELIVERING GENUINE BENEFITS

Innovative new Eco functions - to reduce power consumption.

Minimized cost of ownership - due to long lamp life and filter exchange intervals.

Essential features for ease of use - 2800 ANSI lumens and 3000:1 contrast for recommended screen sizes up to 120"

Low cost of ownership - up to 6000h lamp life, low power consumption

Versatile and mobile - compact and light-weight with HDMI and integrated 7W speaker

OUTSTANDING PERFORMANCE

- **Vertical Keystone Correction** of +/-40° allows more flexibility in positioning the projector.
- **Auto-Power ON/OFF** for ease of operation and increased energy efficiency.
- **3D ready** supporting DLP Link™ technology.

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SPECIAL CHARACTERISTICS

Auto Eco Mode, Carbon Savings Meter, Direct Power-Off Function, Help Function, Manual vertical Keystone Correction (V= ±40°), Manual Wall Color Correction, mouse receiver, Optional User Logo, OSD with 27 languages, Password Security System, Source Select with Beep Function, Timer-Function, Unique Power Saving Functions

Energy Efficiency Auto ECO Mode; Green one touch ECO and AV mute button; ECO scheduler; Intelligent Power Management; Longer lamp life; Reduced power consumption. Only 0.4W stand-by

Ecological Materials 100% recyclable packaging; Downloadable manuals; ECO packaging

Ecological Standards RoHs compliant; ErP compliant

Technical Specification NEC VE281X	
IMAGE	
Display	1 x 1.4 cm (0.55") DDR DMD Chip
Native Resolution	1024 x 768 (XGA)
Contrast Ratio [1]	3000:1
Brightness [1]	2800 ANSI Lumen (approx. 75% in Eco Mode)
Lamp	200 W AC (160 W AC Eco Mode)
Lamp Life [hrs]	4000 (6000 Eco Mode)
Lens	F= 2.41–2.55, f= 21.8–24 mm
Projection Factor	1.93 – 2.16 : 1
Projection Distance [m]	1.18 – 13.2
Screen Size (diagonal) [cm]	Minimum: 76 / 30"; Maximum: 762 / 300"
Zoom	Manual
Focus Adjustment	Manual
Supported Resolutions	1920 x 1080 (HDTV 1,080i/60, HDTV 1,080i/50); 1600 x 1200 (UXGA); 1400 x 1050 (SXGA); 1280 x 1024 (SXGA); 1280 x 720 (HDTV 720p); 1152 x 870 (MAC 21"); 1024 x 768 (XGA); 832 x 624 (MAC 16"); 800 x 600 (SVGA); 720 x 576 (DVD progressive); 720 x 480 SDTV 480p; 720 x 480 (DVD progressive); 640 x 480 (VGA/Mac 13")
Frequency	Horizontal: 15–100 kHz (RGB: 24 kHz); Vertical: 50 – 120 Hz
CONNECTIVITY	
RGB (analog)	Input: 1 x Mini D-sub 15-pin, compatible to component (YPbPr)
HDMI™	Input: 1 x HDMI™ (Deep Color, Lip sync)
Video	Input: 1 x RCA
Audio	Input: 1 x 3.5 mm Stereo Mini Jack
PC Control	Input: 1 x D-Sub 9 pin (RS-232) (male)
Video Signals	PAL ; PAL 60; NTSC; SECAM; NTSC 4.43; PAL-N; PAL-M
REMOTE CONTROL	
Remote Control	Aspect Ratio; Audio Control; Auto Adjust; Freeze-function; HDMI; Help-function; Lamp Mode Control; Magnify-function; Page (up, down); Picture Adjust; Picture Mute; Power (On-OFF); Presentation and Mouse Control; Select (up, down, left, right); Source Select
ELECTRICAL	
Power Supply	100-200 V AC; 50 - 60 Hz
Power Consumption [W]	250 Normal Mode; 206 Eco Mode; 0.4 Power Savings Mode
MECHANICAL	
Dimensions (W x H x D) [mm]	260 x 89.5 x 247 (without lens and feet)
Weight [kg]	2.3
Fan Noise [dB (A)]	33 / 35 (Eco / Normal)
OPTIONAL ACCESSORIES	
Optional Accessories	DLP-Link 3D Glasses (NP02GL); Mouse Receiver (NP01MR)
ERGONOMICS	
Safety and Ergonomics	CE; ErP; TÜV GS; RoHS
Speakers [W]	1 x 7 (mono)
WARRANTY	
Projectors	2 years pan-European service
Lamp	6 months, max. 1000 hrs
SHIPPING CONTENT	
Shipping Contents	Projector; IR Remote Control (adressable RD - 448E); Mini D-SUB Signal Cable; Power Cord; Users Manual on CD-ROM; Quick Setup Guide

[1] Compliance with ISO21118-2005

MV-PROJSP

Ceiling Projector Mount

Once you have located all of the hardware and components, you are ready to start installing the MV-PROJSP.

Assemble the suspension rod

1. Attach the mounting plate to the fixing coupler.
2. Attach the top column to the mounting plate and fixing coupler using the M8 x 50 mm socket cap screw and two of the M8 self-locking nylon nuts.
3. Align two holes on the mid column with the suitable two holes on the top column.
4. Attach the mid column to the top column with two of the M8 x 50 mm socket cap screws and two of the M8 self-locking nylon nuts.
5. Align two holes on the bottom column with the suitable two holes on the mid column.
6. Attach the bottom column to the mid column with two of the M8 x 50 mm socket cap screw and two of the M8 self-locking nylon nuts.
7. Connect the shaft to the bottom column slot.
8. Insert the locking hook into the cutting slot.
9. Tighten the shaft and locking hook into place with one of the M8 x 50 mm socket cap screw and a M8 self-locking nylon nut.
10. Fix the cross adapter & mounting plate together with one of the M8 x 65 socket cap screws and a M8 nut.

Install the universal base

1. Determine the screw size needed to mount your projector.
2. Place the pre-assembled universal base plate near the central gravity point of your projector.
3. Select the appropriate extension bracket needed for your installation.
4. Place the appropriate extension brackets near the central gravity point of your projector.

Note: the extension brackets should all point toward the center of the universal base plate. Make sure they do not need to be forcibly attached to the base plate. If they do, you may need to change the size of extension brackets for your installation.

5. Assemble each extension bracket with the appropriately sized bottom spacer and other supplied spacers (as required).

Note: if your extension bracket is more than 50 mm, you will also need to use two square nuts (which are supplied).

6. Assemble the universal base plate with the M6 nut, U-joint bracket and M6 carriage bolts.
7. Align the assembled universal base plate with all of the extension brackets already in place on your projector.
8. Attach the universal base plate to the extension brackets.
9. Install and tighten the M5 button socket cap screws and the M6 serrate flange nuts to finish the assembly.

Install the MV-PROJSP to the ceiling

1. Install the ceiling plate to the ceiling with an M10 bolt (not included).
2. Use the M8 x 15 mm socket cap screws to fix the U-joint bracket and cross adapter properly to attach the universal base and projector to the ceiling plate.
3. Tighten the screws.

Your MV-PROJSP is now installed.

MV-1.5ADAPTER - 1.5" NPT Adapter is available for PROJ-SP. It works with MV-PROJSP series to convert your existing pipe to 1.5".

With its shift, pitch and rotation capabilities, the MVPROJSP spider mount allows for convenient and secure projector installations.

- Dimensions: 5.77" x 8.66" x up to 32"
- Maximum mounting footprint: 9" x 6"
- Weight capacity: up to 33 lbs (15 kg)
- Tilt capability: +20°/-20°
- Adjustable length: 11.42" to 32"
- Pre-assembled for faster installation
- One year warranty

Dimentions

A 5.71 in 145 mm
B 8.66 in 220 mm
C 0.98 in 25 mm
D 1.97 in 50 mm
E 1 1 .42 in 290 mm

HARDWARE KIT

- 1 Cross adapter
- 1 Locking hook
- 1 Mounting Plate
- 1 Fixing Coupler
- 1 Top Column
- 1 Mid Column
- 1 Bottom Column
- 1 Shaft
- 8 Self-locking Nylon
- Nut M8
- 1 Nut M8
- 4 Bottom Spacar
- 8 Square Nut
- 8 Socket Button Cap
- Screw M5x10
- 2 Carriage Bolt M6x12
- 2 Serrate Flang Nut M6
- 2 Extension Bracket 50mm
- 2 Extension Bracket 75mm
- 2 Extension Bracket 100mm
- 2 Extension Bracket 150mm
- 1 U Joint Bracket
- 1 General Base Plate
- 4 Washer 1mm
- 4 Washer 2mm
- 4 Washer 4mm
- 2 Allen Key
- 36 Truss Head Screw
- 4 Spring washers M8
- 2 Socket cap screw M8 x 15
- 8 Socket cap screw M8 x 50
- 1 Socket cap screw M8 x 65

MODEL B® WITH CSR (Controlled Screen Return)

Durable Manual Wall or Ceiling Screen

- Perfect for classroom and meeting room facilities.
- Nylon bearings provide smooth quiet operation for the life of the screen.
- Case design allows flush mounting to the ceiling or wall.
- CSR is a feature offered exclusively by Da-Lite to assist in the quiet controlled return of the screen into the case.
- Pull cord included on all sizes.

Available Screen Surfaces: Matte White, High Contrast Matte White, Video Spectra 1.5, High Power® and High Contrast High Power®.

See pages 6-10 for surface descriptions.

4:3 VIDEO FORMAT DIMENSIONS

Viewing Area H x W in.	Viewing Area H x W cm	Nominal Diagonal in.	Nominal Diagonal cm	Overall Case Length in.	Overall Case Length cm
43" x 57"	109 x 145	72"	183	63⅜"	161
50" x 67"	127 x 170	84"	213	73⅜"	186
57" x 77"	145 x 196	96"	244	84⅜"	214
60" x 80"	152 x 203	100"	254	87⅜"	222
69" x 92"	175 x 234	120"	305	99⅜"	252

16:9 HDTV FORMAT DIMENSIONS

Viewing Area H x W in.	Viewing Area H x W cm	Nominal Diagonal in.	Nominal Diagonal cm	Overall Case Length in.	Overall Case Length cm
37½" x 67"	95 x 170	77"	196	73⅜"	186
45" x 80"	114 x 203	92"	234	87⅜"	222
52" x 92"	132 x 234	106"	269	99⅜"	252

16:10 WIDE FORMAT

Viewing Area H x W in.	Viewing Area H x W cm	Nominal Diagonal in.	Nominal Diagonal cm	Overall Case Length in.	Overall Case Length cm
50" x 80"	127 x 203	94"	239	87⅜"	222
57½" x 92"	146 x 234	109"	277	99⅜"	252

SQUARE FORMAT DIMENSIONS

Size H x W in.	Size H x W cm	Overall Case Length in.	Overall Case Length cm
60" x 60"	152 x 152	63⅜"	161
70" x 70"	178 x 178	73⅜"	186
84" x 84"	213 x 213	87⅜"	222
96" x 96"	244 x 244	99⅜"	252

Supplementary Items Submittals

Supplementary Items

Type	Description	Model	Level 1 Price *1-5 Rooms*	Level 2 Price *6-19 Rooms*	Level 3 Price *20-29 Rooms*	Level 4 Price *30-39 Rooms*	Level 5 Price *40+ Rooms*
Document Camera	XGA Mechanical zoom, 20 frames per second, separate vga in and out, 32 page memory	Lumens DC170	$ 499.00	$ 494.01	$ 489.02	$ 484.03	$ 479.04
Document Camera	1080P, 3.4 MP CMOS Sensor, 30 Frames per second, with video storage	SMART Document Camera SDC-450	$ 749.00	$ 741.51	$ 734.02	$ 726.53	$ 719.04
Student Response	Classroom Response Systems 24+ radio frequence units	SMART Response LE (24 remotes)	$ 749.00	$ 741.51	$ 734.02	$ 726.53	$ 719.04
Scalable Device Control	IR, up to 8 devices, volume control, dvd/vcr control module	SP Control PX2-MD-IR	$ 349.00	$ 345.51	$ 342.02	$ 338.53	$ 335.04
Standardized Device Control	Wall mount, customizable interface, up to 6 devices comes with emitter and a/c adapter	SP Control PXE-DCM+	TBD	TBD	TBD	TBD	TBD
Electric Screen	100" diagonal, video format, automatic electric screen, matte white surface	Dalite 40782L 100" Video Format Electric Screen/LVC	$ 799.00	$ 791.01	$ 783.02	$ 775.03	$ 767.04
Amp	35+ watt mixer amp	Atlas AA35	$ 249.00	$ 246.51	$ 244.02	$ 241.53	$ 239.04
DVD/VCR	dvd/cd player & hifi vcr combo with remote	Philips DVP3345VB DVD/VCR Combo	$ 169.00	$ 167.31	$ 165.62	$ 163.93	$ 162.24
Ceiling Speakers	2 way 100 watt round ceiling speakers, 8" titanium-laminate polypropylene woofer, 1" titanium laminate dome tweeter	JBL SP-8CII Speakers	$ 399.00	$ 395.01	$ 391.02	$ 387.03	$ 383.04
Ceiling Speakers	160 watt, plenum backbox, fits into standard 2x2 or 2x4 ceiling tile grids (or cut into drywall ceilings), providing 360 degrees of hemispheric sound	Pro Accoustics SD4	$ 349.00	$ 345.51	$ 342.02	$ 338.53	$ 335.04
On Board Speakers	2 mount on board speakers 14 watt, stereo amplified, 2 port usb hub and volume control	SMART SBA Speakers	$ 329.00	$ 325.71	$ 322.42	$ 319.13	$ 315.84
Audio System	4 ceiling speakers or wall speakers, infrared microphone and one lanyard mic	Audio Enhancement LA20 Audio System with WX-LT150 Mic	$ 1,149.00	$ 1,137.51	$ 1,126.02	$ 1,114.53	$ 1,103.04
Wireless Slate/Tablet	Pen driven interface, connects wireless to interactive board, pc or projector, battery free pen	TBD	TBD	TBD	TBD	TBD	TBD

DC170 Ladibug™

High-Definition Document Camera

Lumens™
Brighter Teaching

The Lumens™ DC170 document camera is equipped with a specialized 2x Sensor zoom and a professional image sensor to deliver vivid colors at Full HD, 1080p output resolutions with 30 frames per second. It transmits a streaming image smoothly in real time without delays. The internal memory stores up to 240 images and is supported SD card memory device. One-touch video recording allows recording of standalone presentations without the need for a PC. The jointless, highly flexible gooseneck enables a 360° viewing angle and object viewing from just 1.6" (4 cm) to observe an object's finer details. The adjustable side lamp design prevents reflections. Press one button to get the perfect image quality every time. The Lumens DC170 makes presentations and teaching more interactive and attractive.

Key Features

- Full HD, 1080p Output Resolution
- High Speed 30fps Dynamic Image
- VGA Output / HDMI Output
- Professional 2x Sensor Zoom
- Digital Zoom 12x
- Superior Sensor Delivery and Crystal Image Quality
- Built-in Microphone
- One-Touch Synchronous Audio/Video Recording
- Built-in SD card slot, support SDHC, SDXC, expandable to 64GB
- Jointless, Highly Flexible Gooseneck
- Plug and Play
- Unique Image Optimization-Auto Tune
- Innovative Built-in Power Supply
- Compatible with All Major Brands of Interactive Whiteboards
- 5-Year Unlimited Replacement Warranty

More Details

Excellent Image Quality

The DC170 is equipped with a professional image sensor with low noise and vivid color reproduction. It supports Full HD 1080p, SXGA, and various signal formats for crystal-clear images.

Video / Audio Recording and Extra Storage

The DC170 has a built-in microphone and just one-button to record video and audio synchronously on-board directly without a PC. The SD card storage is convenient for recording trainings, meetings, seminars and lectures.

Built-in Power

The DC170 has a more stable power supply and less items to detach for consistent image and data flow.

HDMI Interface

The DC170 utilizes a standard HDMI interface for the highest quality digital video transmission and simple system integration.

Anti-Reflection

With the Lumens™ side lamp gooseneck design, the direction of the light source can be adjusted according to the environment to prevent reflections.

Auto Tune

The DC170 has a convenient button to automatically adjust the clarity, brightness and color according to the actual environment.

Extremely Smooth Dynamic Image

With 30 fps, the DC170 captures every tiny movement during playback without delays. Even flapping insect wings can be clearly observed in great detail.

Jointless Gooseneck

The highly flexible, jointless gooseneck design ensures smooth quality without vibration. It is easy to use and has a 360° viewing angle.

Specifications

Zoom	2x Sensor zoom
Digital Zoom	12x
Mechanical Zoom	9x
Output Resolution	XGA, SXGA(1280x960), WXGA, 1080p
High Color Reproduction	ΔC*ab 13.5 max
SNR	51 dB
Sharpness	MTF 1023 lines
Frame Rate	30 fps
Shooting Area Max.	17.4" x 13" (442 x 331 mm) > A3 size
Close-up	1.6"(4 cm)
Lamp	1. LED side lamp supported by gooseneck 2. Built-in LED on camera head

Power Supply	Internal Power Supply, 100-240VAC
USB Image Transmission	USB 2.0 (480 Mbps) high speed transmission
Video/Audio Recording	One Touch, record image and sound synchronously
Built-in Microphone	Yes
Image Capture	Single or continuous capturing
Auto Tune	One button for image optimization
Image Rotation	0°, 180°, Flip, Mirror
Anti-Theft	Kensington anti-theft lock slot
Free Lumens™ Software	Supports PC Windows 8, 7, XP, Vista and Mac OSX ; WIA & TWAIN interface

User Interface

Lumens™
Brighter Teaching

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Fax: 510.252.1366
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Apr.2013

SMART

Specifications
SMART Document Camera™
Model SDC-450

Physical specifications

Size	
Folded	10" W × 2 3/4" H × 12" D (25.4 cm × 7 cm × 30.5 cm)
Set up	8" W × 21 3/4" H × 15" D (20.3 cm × 55 cm × 38 cm)
Weight	5.4 lb (2.45 kg)
Shipping size	19" W × 5 3/4" H × 12 5/8" D (48.2 cm × 14.5 cm × 32 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 cm × 5.5 cm × 5.5 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	Lens with manual and automatic focus, f 6.26 (~30.75 mm); f 3.2 (wide angle) to f 6.8 (telephoto)
Zoom	8 × optical, 10 × digital, 80 × total magnification
Resolution	5 MP sensor and resolution
Frame rate	Max. 30 fps
Brightness control	Automatic and manual brightness control
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 0.7 V at 75 Ω 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 (see note below)
USB connection	USB mini-B (connect to computer)
SD memory card slot	1 GB to 32 GB
Mass storage mode	Change from camera to mass storage mode using on-screen display (OSD) to access the SD card and internal memory via USB.
Internal memory	Internal memory for storage of up to 240 images
Video recording	Onto USB drive / SD / SDHC

NOTE

The SMART Document Camera video switching feature might not operate as expected if you use it with displays or projection devices not provided by SMART.

Audio connections

Audio In (microphone)	3.5 mm jack
Audio Out	3.5 mm jack
Microphone	Built-in microphone for voiceover during video recording

Connection panels

Rear panel

The rear connection panel has DC 12 V, 2 A, 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 an 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 an 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.

Power consumption	Max. 21.6 W
Energy efficiency	Level V Energy Star energy efficiency rating
Power source	100–240 V, 50/60 Hz
DC power supply	12 V, 2 A 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™ collaborative learning software and Mixed Reality Tools for the SMART Document Camera are available from smarttech.com/software. 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

User interfaces

Control panel

1	Select/Enter	7	Select Playback
2	Menu	8	LED Lamp ON/OFF
3	Record video	9	Image brightness
4	Power ON/OFF	10	Zoom IN/OUT
5	Select camera	11	Auto-focus
6	Select computer pass-through	12	Capture to SMART Notebook software or to local memory
		13	USB usage indicator: computer or USB drive

OSD

There are four tabs on the OSD menu: Image, Presentation, Setting and System.

Camera mode	
Image settings	○ Brightness: adjust the brightness level manually between 0–63 ○ 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 ○ Mirror: select to flip the image ○ 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

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

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)

smarttech.com/support
smarttech.com/contactsupport

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PLEASE THINK BEFORE YOU PRINT

Specifications

SMART Response LE Interactive Response System

Receiver and Clicker

Physical Specifications

Receiver Size	4 3/4" W × 7/8" H × 2 1/4" D (12 cm × 2.2 cm × 5.7 cm)
Receiver Weight	5 3/4 oz. (165 g)
Clicker Size	2 1/4" W × 5 5/8" H × 1 1/8" D (5.7 cm × 14.2 cm × 2.8 cm)
Clicker Weight	7 1/4 oz. (200 g) without batteries
Shipping Size	
24 Clicker System (SRP-LE-24)	22 5/8" W × 7 3/4" H × 13 5/8" D (57.5 cm × 19.8 cm × 34.5 cm)
18 and 12 Clicker System (SRP-LE-18/SRP-LE-12)	17 1/2" W × 11" H × 8 3/8" D (44.4 cm × 27.9 cm × 21.1 cm)
Shipping Weight	SRP-LE-24 – 12 lb. (5.4 kg) SRP-LE-18 – 10 lb. (4.5 kg) SRP-LE-12 – 8 lb. (3.7 kg)

All dimensions +/- 1/8" (0.3 cm). All weights +/- 2 lb. (0.9 kg).

Standard Features

Software	SMART Response 2009 assessment software, including SMART Notebook software 10 for Windows® and Mac computers is included on the CD. Software upgrades are available at http://www.smarttech.com/Downloads.
Technology	RF 802.15.4
Radio Frequency	2.40 GHz to 2.50 GHz ISM band
Capacity	Supports up to 60 clickers with Model 1.1.3 receiver

SMART Response Software Computer Requirements

Windows Operating Systems

Pentium® III 750 MHz or higher processor

512 MB of RAM (1 GB recommended)

750 MB of free hard disk space (minimum installation requirements)

2150 MB for full installation with Gallery content

Windows XP SP2 or later, Windows Vista® SP1 or Windows 7 operating system

Internet Explorer® Internet browser 6.0

Adobe® Flash® Player 10 or later

Adobe Reader® 8

Windows Media® Player 9 (required for SMART Recorder)

DirectX® technology 8.1 (required for SMART Video Player)

Mac Operating System Software

1 GHz Power PC® G4 or G5 or Intel® processor with 512 MB RAM

700 MB of free hard disk space (minimum installation requirements)

1500 MB for full installation with Gallery content

Mac OS X operating system software 10.5.x or 10.6.x

Safari application program 3.0.4 or later

Adobe Flash Player 10 or later

NOTE
SMART Response assessment software runs on 32-bit Windows and Mac operating systems only.

Receiver Features

Transmission Power	6 dBm with a typical range of 100' (30 m)
Antenna	Integrated antenna
Host Interface	USB 2.0 full-speed (12 Mbps) with a 6' (1.8 m) captive cable
LED Indicators	Red and green LED indicate power, transmit data, receive data and link status.
Configuration	Plug and play (SMART Response software required)

Clicker Features

Transmission Power	6 dBm with a typical range of 100' (30 m)
Antenna	Integrated antenna
LCD Display	1 5/8" W × 1" H (41.6 mm × 24.6 mm), 60° to 80° viewing angle and a contrast ratio of 5:1
Key Pad	Buttons include: GREEN/CIRCLE, RED/TRIANGLE, BLUE/SQUARE, YELLOW/STAR, PURPLE/DIAMOND, ? (QUESTION MARK), UP, DOWN, HOME, ENTER, POWER
Configuration	Plug and play (no additional software required)
Batteries	2 × AA alkaline
Regulatory Certification	IC (Industry Canada), C-Tick, CE, FCC, SRRC (Pending), NOM (Pending)
Environmental Compliance	EU WEEE, RoHS (Europe), US CPSIA, US Packaging, China EIP
Warranty	Two-year limited equipment warranty

Storage and Operating Specifications

Operating Temperature	41°F to 95°F (5°C to 35°C)
Operating Humidity	5% to 85% relative humidity (non-condensing)
Storage Temperature	-40°F to 131°F (-40°C to 55°C)
Storage Humidity	5% to 90% relative humidity (non-condensing)

SMART Order Numbers

SRP-LE-24	Includes 1 receiver, 24 clickers, carrying case for 40 clickers, Phillips® No. 1 screwdriver, 48 AA batteries, Quick Start Guide and software CD
SRP-LE-18	Includes 1 receiver, 18 clickers, carrying case for 20 clickers, Phillips No. 1 screwdriver, 36 AA batteries, Quick Start Guide and software CD
SRP-LE-12	Includes 1 receiver, 12 clickers, carrying case for 20 clickers, Phillips No. 1 screwdriver, 24 AA batteries, Quick Start Guide and software CD

Optional Accessories

SRP-LE-RMT-5	Includes 5 clickers and 10 AA batteries
SRP-LE-RMT-1	Includes 1 clicker and 2 AA batteries
SRP-LE-RCV-1	Includes a receiver and software CD
SRP-LE-CC	Carrying case for 1 receiver and 40 clickers
SRP-LE-CC-SM	Carrying case for 1 receiver and 20 clickers

Physical Dimensions

Clicker Left Side View

Clicker Front View

Receiver Side View

Receiver Top View

Viewing Angle

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COSMOPOLITAN® ELECTROL®

4:3 VIDEO FORMAT DIMENSIONS

Viewing Area H x W		Nominal Diagonal		Overall Case Length	
in.	cm	in.	cm	in.	cm
43" x 57"	109 x 145	72"	183	68"	173
50" x 67"	127 x 170	84"	213	78"	198
57" x 77"	145 x 196	96"	244	92"	234
60" x 80"	152 x 203	100"	254	92"	234
69" x 92"	175 x 234	120"	305	104"	264
87" x 116"	221 x 295	150"	381	128"	325
105" x 140"	267 x 356	180"	457	152"	386

16:9 HDTV FORMAT DIMENSIONS

Viewing Area H x W		Nominal Diagonal		Overall Case Length	
in.	cm	in.	cm	in.	cm
45" x 80"	114 x 203	92"	234	92"	234
52" x 92"	132 x 234	106"	269	104"	264
54" x 96"	137 x 244	110"	279	108"	274
58" x 104"	147 x 264	119"	302	116"	295
65" x 116"	165 x 295	133"	338	128"	325
78" x 139"	198 x 353	159"	404	152"	386

16:10 WIDE FORMAT DIMENSIONS

Viewing Area H x W		Nominal Diagonal		Overall Case Length	
in.	cm	in.	cm	in.	cm
50" x 80"	127 x 203	94"	239	92"	234
57½" x 92"	146 x 234	109"	277	104"	264
60" x 96"	152 x 244	113"	287	108"	274
65" x 104"	165 x 264	123"	312	116"	295
69" x 110"	175 x 279	130"	330	122"	310
72½" x 116"	184 x 295	137"	348	128"	325
87" x 139"	221 x 353	164"	417	152"	386

SQUARE FORMAT DIMENSIONS

Size H x W		Overall Case Length	
in.	cm	in.	cm
50" x 50"	127 x 127	58"	147
60" x 60"	152 x 152	68"	172
70" x 70"	178 x 178	78"	198
84" x 84"	213 x 213	92"	234
6' x 8'	183 x 244	104"	264
8' x 8'	244 x 244	104"	264
7' x 9'	213 x 274	116"	295
9' x 9'	274 x 274	116"	295
8' x 10'	244 x 305	128"	325
10' x 10'	305 x 305	128"	325
9' x 12'	274 x 366	152"	386

Wall and Ceiling Mounted Electric Screen

- Ideal for applications where a recessed installation is not desired or feasible.
- Patented in-the-roller motor mounting system for quiet operation.
- Handsome white case blends with any decor.
- An optional choice of seven veneer finishes are also available for the screen case for a warm, elegant look.

Available Screen Surfaces: Matte White, High Contrast Matte White, Video Spectra 1.5, Silver Lite 2.5, High Power® and High Contrast High Power®.

See pages 6-10 for surface descriptions.

Optional floating mounting bracket allows screen to be mounted onto wall or ceiling studs and aligned left or right.

For Ceiling Trim Kit for Cosmopolitan® Electrol® sizes up to 9' x 12', see accessories on page 64.

See page 64 for veneer choices.

Built-in control options on page 44. Additional control options on pages 62-63.

The RA101 Specifications
20 Watt Classroom Audio System

Audio Power	20Watts, 30W Peak <1% THD 50Hz to 15kHz
Frequency Response	50 Hz to 15 kHz +/- 2dB
Power Requirements	24 Vdc, 0.75 amps (Power supply included)
Receiving Frequencies	Teacher 1: 2.30 MHZ
ReceiverType	TRF (Tuned Radio Frequency)
Signal-to-Noise	>90db
External Sensors	Up to 7 Sensors (Additional sensor couplers may be required)
Front Panel Controls	1-Teacher Volume Control 1-Line/Auxiliary Volume Control 1-Power Switch
Rear Panel Controls	1-Feedback Blocker On/Off Switch
Rear Panel Connections	4-Auxiliary Inputs for TV/DVD, CD, Computer & MP3 4-8 Ohm Speaker Connections DC Power Connector IR Sensor Connector Signal Ground Terminal
Image Rejection	>40dB
Reception Selectivity	+40kHz
Dimensions	2.17 H x 8.27 x 8.67 in.
Speaker	CS-09 (See speaker spec sheet)

Speaker back can meets UL (2043) criteria for Plenum installation.

The RA101 Specifications
20 Watt Classroom Audio System

AUDIO ENHANCEMENT®
Engage | Interact | Educate
800.383.9362 • AudioEnhancement.com

Front of Amplifier

Teacher Microphone Volume Control - Adjusts the volume of the teacher infrared microphone.

Line Input Volume Control - Allows the teacher to adjust the level of the Line/Auxillary input sources connected to the input terminals on the back of the amplifier.

IR SIGNAL Indicator - Is illuminated whenever the Teacher Microphone is turned on and successfully received .

Feedback Blocker Indicator - Is illuminated whenever the Feedback Blocker is activated.

Back of Amplifier

Sensor Input Terminal - Up to 7 sensors can be connected via the F-connector and coaxial cable for the infrared wireless sensor(s), which provides signal and power. (Additional sensor couplers may be required)

Auxiliary Inputs - These inputs allow other media sources such as DVD, TV, CD, and MP3 player to be connected to the RA101 amplifier.

Feedback Blocker - Turns the Feedback Blocker feature on and off.

Speaker Outputs - The amplifier allows up to 4 speakers to be connected to the amplifier.

CASIO.

CASIO LAMP FREE PROJECTORS

- Low Total Cost of Ownership
- Eco Friendly
- Lamp Change "Down Time" Eliminated
- Extended Operating Life

SIGNATURE | XJ-M140

2500 LUMENS • XGA (1024 X 768) • 1.5X ZOOM

The Casio Signature Series Projectors provide high brightness and connectivity for use in large and small rooms.

By combining a laser, a fluorescent element and LED's Casio has created an original mercury-free hybrid light source capable of generating high brightness.

Red is emitted by a high-lumen red LED. Blue is from a Blue laser. Green is achieved by converting blue laser light using a phosphor element.

QUICK STARTUP

Each projector reaches its maximum brightness in about eight seconds and requires no cooling period at shutdown.

AUTOMATIC BRIGHTNESS ADJUSTMENT

saving automatic use of ECO mode and proper brightness for reduced eye fatigue.

3-D READY

3D is not just for scientists or movie fans. It can provide dramatic impact for business presentations– and research has shown that it can help students better engage with their lessons and it can lead to better academic performance. All Casio Signature models include 3D capability. Optional 2D-3D software can help you convert standard presentations to 3D. (3D glasses and software required and sold separately.)

SUPERIOR COLOR

One of the benefits of the hybrid light sources is an increased color gamut – these projectors will show about 50% more of the spectrum (compared to our previous mercury lamp projectors), for more accurate renditions, subtle shadings. Images appear brighter as well.

3-YEAR WARRANTY

3 year warranty on the projector and 3 years or 6,000-hour usage on the light source.

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LASER & LED HYBRID

SPECIFICATIONS | XJ-M140

Brightness		2500 Lumens
Contrast Ratio	Telephoto Mode	1800:1
Zoom		1.5x Manual
Focus		Manual Focus
Lens Offset		100%
Light Source		Casio Laser & LED Hybrid
Estimated Operating Life		Up to 20,000 Hours (Warranty 3 years or 6,000 Hrs)
Projection Screen Size		30 to 300-inch Diagonal
Projection Range	60-inch Screen	6.6 ~ 9.9 ft
	100-inch Screen	11.2 ~ 14.8 ft
	Minimum	3.3 ft
	Projection Ratio	1.64-2.46:1
Projection System		DLP®
	Device Type	0.55-inch DLP Chip
	Native Resolution	1024 X 768
	Native Aspect Ratio	4:3
Color Reproduction		Full Color (16.77 million colors)
Keystone Correction		Vertical +30° (Auto) Vertical + or - 30° (Manual)
Dimension	Including Projections	12.24 X 9.61 X 3.31 inches
	Excluding Projections	12.24 X 9.61 X 3.23 inches
Weight		8.6 lbs.
Power Source		AC100-240V, 50/60Hz
Power Consumption	Operating	Operating power: 150W (with Eco Mode "Eco 1" selected), 190W (with Eco Mode Off "Bright" selected)
	Standby	0.4 w (LAN OFF), 4.8 w (LAN ON)
Security Compatibility	Kensington Compatible	Yes
	Power On Password	Yes
Ceiling Mount		Mount optional and available separately from 3rd party vendors
Mounting Screw Size and Quantity		M3 Qty. 3 (Optional and sold separately)
Manufactured In		China

OTHER INFORMATION

Usage Environment	Operating Temperature	41~95°F
	Operating Humidity	20-80% (non condensation)
	High Altitude Mode	Yes (for operation 3,300-6,600 ft)
Remote Control Range		16.5 ft Maximum
Limited Warranty		3 years Parts And Labor plus 3 years or 6,000 hours light source, see Warranty Statement included with product for complete details.
Included Accessories		Wireless remote control, 6' RGB cable, 6' AV cable, 6' AC Power Cord, Carry Bag, Manual on CD-ROM & booklet
Optional Accessories		Active Shutter 3D Glasses (YA-G30)/ 2D-3D Conversion Software (YA-D30)
Packing Information	Carton Dimensions	16.5" L X 14.5" W X 6.5" H
	Carton Weight	14.1 lbs.

I/O CONNECTIVITY

RGB/Component Video Input		mini D-Sub 15 Pin x 1 Also use as YCbCr/YPbPr input— commercially available adapter required
Native Resolution		(1024 x 768) 786,432 pixels
Digital Input		HDMI Type A x 1 (Locking Type)
Audio	Input	RCA (R/L) x1, Stereo mini x 1
	Output	Stereo mini x 1
	Speaker	5W Monaural Speaker
Video Signal Compatability	Video Systems	NTSC/ PAL/ PAL-N/ PAL-M/ PAL60/ SECAM
	DTV/HDTV	480i/480P/576i/576P/720P/1080i/1080p
Video Input		Composite Video (RCA) x 1, S-Video x 1
Control Terminal		RS-232C (Mini D sub 9 Pin) x 1