

# DATA SHEET

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ACX1MT, ACX1MR, ACX2MT, ACX2MR SERIES

# DKM KVM MODULAR EXTENDERS

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24/7 TECHNICAL SUPPORT AT 877.877.2269 OR VISIT [BLACKBOX.COM](http://BLACKBOX.COM)



# OVERVIEW

## DKM KVM MODULAR EXTENDERS DATA SHEET

### INTRODUCTION

Increase the distance between a source (computer, CPU) and its console (keyboard, mouse, and other peripheral devices). Modular cards using CATx or fiber install in compatible chassis for custom configurations.

### FEATURES

- COMPATIBLE CHASSIS HOUSE 2, 4, 6, OR 21 EXTENDER CARDS.
- CHOOSE FROM A LARGE VARIETY OF TX/RX INTERFACE CARDS TO SUIT YOUR APPLICATION.
- BUILDING YOUR DKM IS A 4-STEP PROCESS: FIRST, PICK YOUR CHASSIS; SECOND, SELECT YOUR EXTENDER CARDS. THIRD, ADD YOUR ACCESSORIES AND UPGRADE KITS. FOURTH, CHOOSE YOUR CONVERTER/SCALER AND REPEATER/CROSS REPEATER CARDS.

## STEP 1: PICK YOUR CHASSIS

Comparison Chart: Chassis

Product Code	Number of TX/RX Cards Supported	Connectors	Primary Power	Optional Secondary Power	Dimensions	Weight
ACXMODH2-R2	2	(1) 2.5-mm barrel connector for power	5 V, 3 A	Not supported	1.7"H x 5.7"W x 5.75"D (4.3 x 14.5 x 14.6 cm)	0.6 lb. (0.3 kg)
ACXMODH2R-R2	2	(2) 2.5-mm barrel connectors for power	5 V, 3 A	5 V, 3 A	1.7"H x 5.7"W x 5.75"D (4.3 x 14.5 x 14.6 cm)	0.6 lb. (0.3 kg)
ACXMODH2R-P-R2	2	(1) 2.5-mm barrel connector for power; (1) IEC320, C14	5 V, 3 A	5 V, 3 A or 5 V, 5 A	1.7"H x 8.75"W x 5.75"D (4.3 x 22.2 x 14.6 cm)	0.8 lb. (0.4 kg)
ACXMODH4-R2	4	(1) 2.5-mm barrel connector for power	5 V, 5 A	Not supported	1.7"H x 11.5"W x 5.75"D (4.3 x 29.2 x 14.6 cm)	0.9 lb. (0.4 kg)
ACXMODH4R-R2	4	(2) 2.5-mm barrel connectors for power	5 V, 5 A	5 V, 5 A	1.7"H x 11.5"W x 5.75"D (4.3 x 29.2 x 14.6 cm)	0.9 lb. (0.4 kg)
ACXMODH6R-R2	6	(1) IEC320 main power input; (1) 2.5-mm barrel connector for redundant power	5 V, 8 A	5 V, 8 A (optional)	1.7"H x 17.5"W x 5.75"D (4.3 x 44.5 x 14.6 cm)	1.75 lb. (0.8 kg)
ACXMODH6BPAC-R2	6	(2) IEC320 main power inputs	5 V, 10 A	5 V, 10 A	1.7"H x 17.5"W x 8"D (4.3 x 44.5 x 20.3 cm)	5.5 lb. (2.5 kg)
ACXMODH6FPAC-R2	6	(2) IEC320 main power inputs	5 V, 10 A	5 V, 10 A	1.7"H x 17.5"W x 8"D (4.3 x 44.5 x 20.3 cm)	5.5 lb. (2.5 kg)
ACXMODH21R	21	(2) IEC320 main power inputs; (21) 20-position headers for cards	5 V, 10 A	5 V, 10 A	7"H x 19"W x 18.25"D (17.8 x 48.3 x 46.4 cm)	16 lb. (7.3 kg)



# STEP 1: PICK YOUR CHASSIS (CONTINUED)

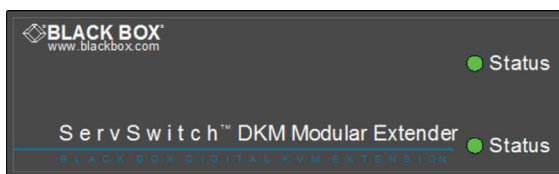
## DKM KVM MODULAR EXTENDERS DATA SHEET

Comparison Chart: Chassis Options

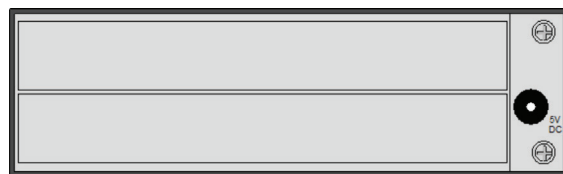
Product Code	Redundant Power Supply	Compatible Blanking Panels	Rackmount Options	Optional Fan
ACXMODH2-R2	Not supported	ACXMODH21-4S or ACXMODH21-8S	ACXMODHEAR2	Not supported
ACXMODH2R-R2	ACXMODH2-PS	ACXMODH21-4S or ACXMODH21-8S	ACXMODHEAR2	Not supported
ACXMODH2R-P-R2	ACXMODH2-PS ( 5 V, 3 A for standard cards); ACXMODH4-PS (5 V, 5 A for load sharing)	ACXMODH21-4S or ACXMODH21-8S	ACXMODHEAR2P	Not supported
ACXMODH4-R2	Not supported	ACXMODH21-4S or ACXMOD21-8S	ACXMODHEAR4	Not supported
ACXMODH4R-R2	ACXMOD4-PS	ACXMODH21-4S or ACXMOD21-8S	ACXMODHEAR4	Not supported
ACXMODH6R-R2	ACXMOD6-PS	ACXMODH21-4S or ACXMOD21-8S	ACXMODHEAR6	Not supported
ACXMODH6BPAC-R2	Included	ACXMODH21-4S or ACXMOD21-8S	ACXMODHEAR6FPAC	ACXMODH6FAN
ACXMODH6FPAC-R2	Included	ACXMODH21-4S or ACXMOD21-8S	ACXMODHEAR6FPAC	ACXMODH6FAN
ACXMODH21R	ACXMODH21-PS	ACXMODH21-4S or ACXMODH21-8S	included	Not supported

## CHASSIS DIAGRAMS

### ACXMODH2-R2

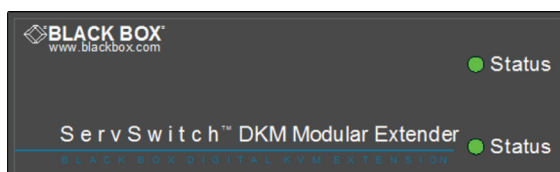


Front view

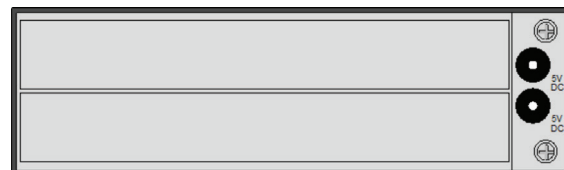


Back view

### ACXMODH2R-R2



Front view



Back view

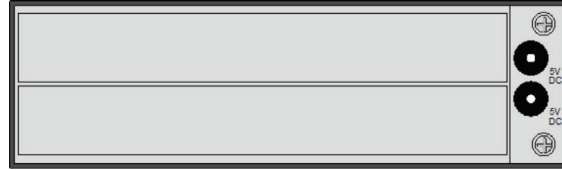
# CHASSIS DIAGRAMS (CONTINUED)

## DKM KVM MODULAR EXTENDERS DATA SHEET

### ACXMODH2R-R2

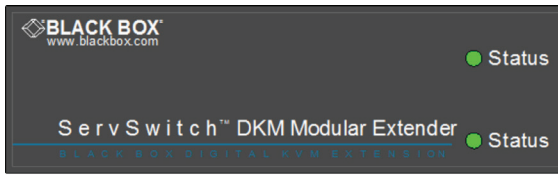


Front view



Back view

### ACXMODH2R-P-R2

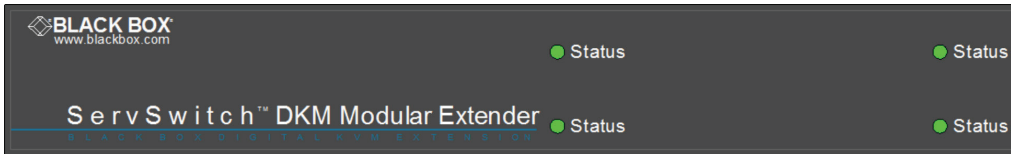


Front view



Back view

### ACXMODH4-R2



Front view

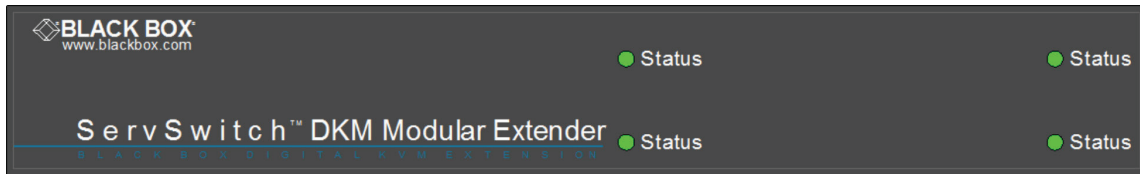


Back view

# CHASSIS DIAGRAMS (CONTINUED)

## DKM KVM MODULAR EXTENDERS DATA SHEET

### ACXMODH4R-R2

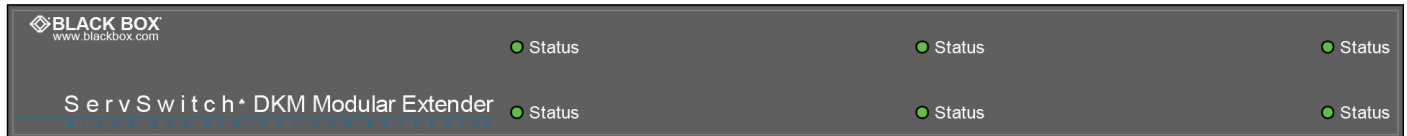


Front view

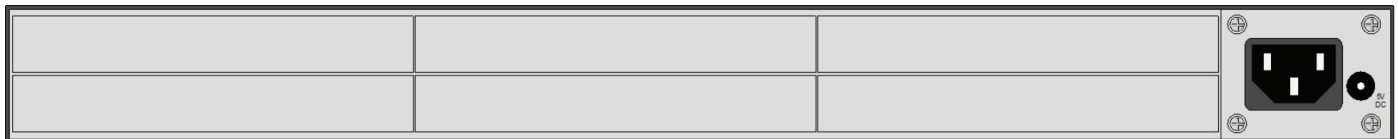


Back view

### ACXMODH6R-R2

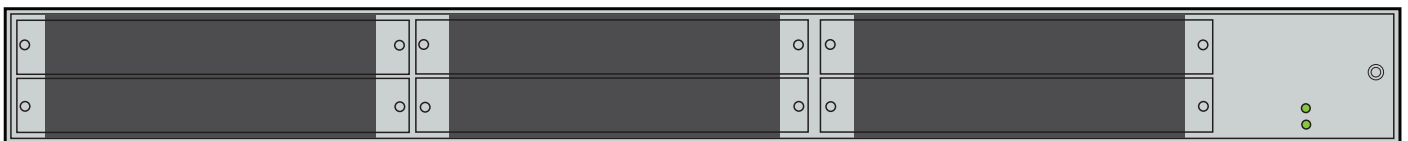


Front view



Back view

### ACXMODH6BPAC-R2



Front view



Back view

# CHASSIS DIAGRAMS (CONTINUED)

## DKM KVM MODULAR EXTENDERS DATA SHEET

### ACXMODH6FPAC-R2

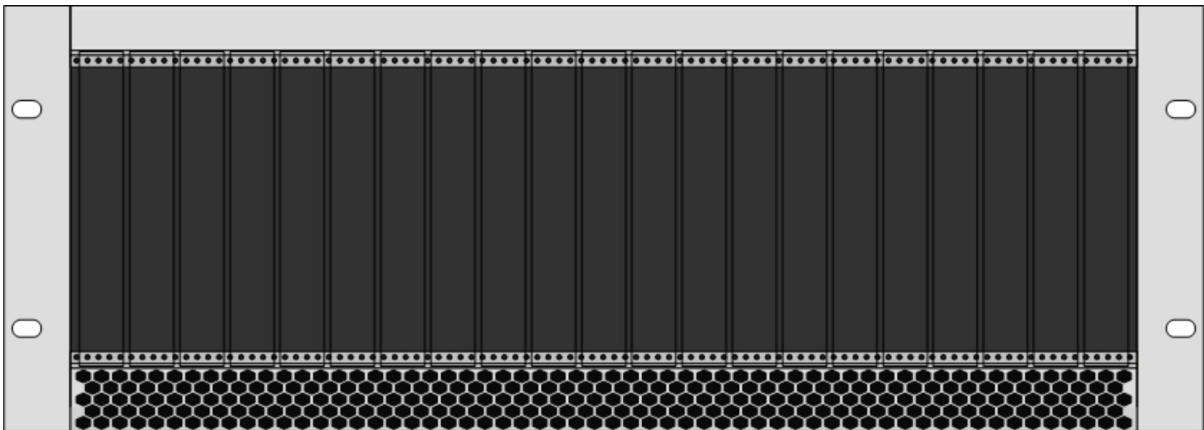


Front view

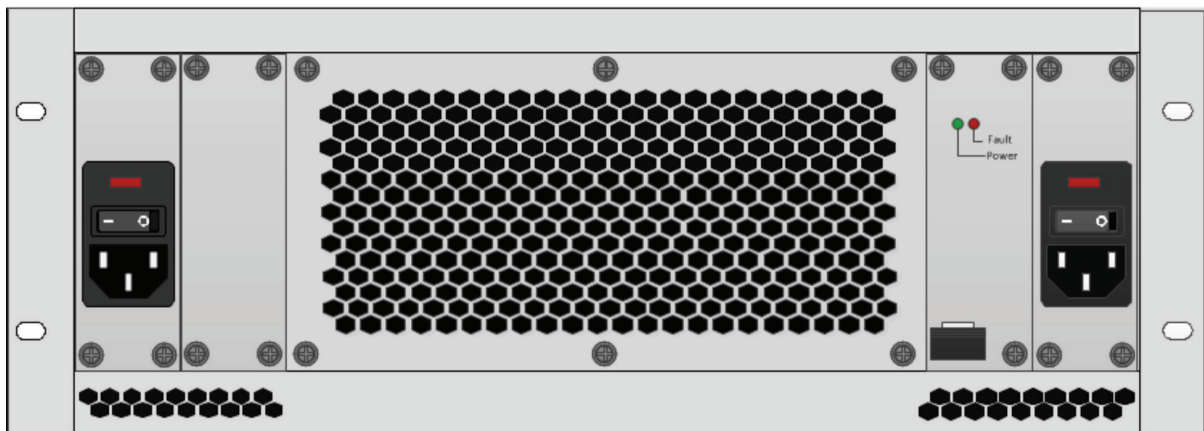


Back view

### ACXMODH21R



Front view



Back view

## STEP 2: SELECT YOUR EXTENDER CARDS

### DKM KVM MODULAR EXTENDERS DATA SHEET

#### Twisted-Pair CPU (TX) and Console (RX) Modules Specifications

Twisted-Pair Interconnect Modules with DVI Video/Audio										
Product Code	CPU or CON	RJ-45 Interconnects	Single-Head or Dual-Head	Single-Link or Dual-Link	Video/Audio	USB Type B	USB Type A (USB-HID)	Mini USB	Resolution	Local Output/Input
ACX1MT-DHID-C	CPU	1	Single	Single	DVI-D female*	1	—	1	1920 x 1200	—
ACX1MR-DHID-C	CON	1			DVI-D female*	—	2	1	1920 x 1200	—
ACX1MT-VDHID-C	CPU	1	Single	Single	DVI-I female**	1	—	1	1920 x 1200	—
ACX1MR-VDHID-C	CON	1			DVI-I female***	—	2	1	1920 x 1200	—
ACX1MT-DHID-2C	CPU	2	Single	Single	DVI-D female*	1	—	1	1920 x 1200	—
ACX1MR-DHID-2C	CON	2			DVI-D female*	—	2	1	1920 x 1200	—
ACX1MT-VDHID-2C	CPU	2	Single	Single	DVI-I female**	1	—	1	1920 x 1200	—
ACX1MR-VDHID-2C	CON	2			DVI-I female**	—	2	1	1920 x 1200	—
ACX1MT-DVHID-C	CPU	1	Single	Single	DVI-I female**	1	—	1	1920 x 1200	—
ACX1MR-DVHID-C	CON	1			DVI-I female**	—	2	1	1920 x 1200	—
Twisted-Pair Interconnect Modules with HDMI Video/Audio										
ACX1MT-HDMI-C	CPU	1	Single	Single	HDMI	1	—	1	1920 x 1200	—
ACX1MR-HDMI-C	CON	1			HDMI	—	2	1	1920 x 1200	—
ACX1MT-HDM2-C	CPU	1	Single	Single	HDMI	1	—	1	1920 x 1200	Local Output: HDMI
ACX1MT-HDM2-2C	CPU	2	Single	Single	HDMI	1	—	1	1920 x 1200	Local Output: HDMI
ACX1MT-HDMI-2C	CPU	2	Single	Single	HDMI	1	—	1	1920 x 1200	—
ACX1MR-HDMI-2C	CON	2	Single	Single	HDMI	—	2	1	1920 x 1200	—
ACX1MR-HDSW-C	CON	1	Single	Single	HDMI	1	2	1	1920 x 1200	Local Input: HDMI
ACX1MR-HDSW-2C	CON	2	Single	Single	HDMI	1	2	1	1920 x 1200	Local Input: HDMI
ACX1MT-HDO-C	CPU	1	Single	Single	HDMI	—	—	1	1920 x 1200	—
ACX1MR-HDO-C	CON	1	Single	Single	HDMI	—	—	1	1920 x 1200	—

\*Physical DVI-I connection, but only supports digital video.

\*\*Supports either digital or analog video signals.

\*\*\*Supports [DVI-D] or [DVI-D and VGA at the same time].



## STEP 2 (CONTINUED): SELECT YOUR EXTENDER CARDS

### DKM KVM MODULAR EXTENDERS DATA SHEET

Twisted-Pair Interconnect Modules with DisplayPort Video/Audio										
Product Code	CPU or CON	RJ-45 Interconnects	Single-Head or Dual-Head	Single-Link or Dual-Link	Video/Audio	USB Type B	USB Type A (USB-HID)	Mini USB	Resolution	Local Output/Input
ACX2MT-DPH-C	CPU	1	Single	4K	DisplayPort	1	—	1	3840 x 2160	—
ACX2MR-DPH-C	CON	1			DisplayPort	—	2	1	3840 x 2160	—
ACX2MT-DPH-2C	CPU	2	Single	4K	DisplayPort	1	—	1	3840 x 2160	—
ACX2MR-DPH-2C	CON	2			DisplayPort	—	2	1	3840 x 2160	—
ACX2MR-DP11H-C	CPU	1	Dual	4K	DisplayPort	1	—	1	3840 x 2160	—
ACX2MT-DP11H-C	CON	1	Dual	4K	DisplayPort	—	2	1	3840 x 2160	—
ACX2MT-DP11H-2C	CPU	2	Dual	4K	DisplayPort	1	—	1	3840 x 2160	—
ACX2MR-DP11H-2C	CON	2	Dual	4K	DisplayPort	—	2	1	3840 x 2160	—





## STEP 2 (CONTINUED): SELECT YOUR EXTENDER CARDS

### DKM KVM MODULAR EXTENDERS DATA SHEET

#### Fiber CPU (TX) and Console (RX) Modules Specifications

Fiber Interconnect Modules with DVI Video/Audio										
Product Code	CPU or CON	Fiber Interconnect	Single-Head or Dual-Head	Single-Link or Dual-Link	Video/Audio	USB Type B	USB Type A (USB-HID)	Mini USB	Resolution	Local Output/Input
ACX1MT-DHID-SM	CPU	(1) LC SM fiber	Single	Single	DVI-D*	1	—	1	1920 x 1200	—
ACX1MR-DHID-SM	CON	(1) LC SM fiber			DVI-D*	—	2	1	1920 x 1200	—
ACX1MT-DHS-SM	CPU	(1) LC SM fiber	Single	Single	DVI-D*	1	—	1	1920 x 1200	—
ACX1MR-DHS-SM	CON	(1) LC SM fiber			DVI-D*	—	2	1	1920 x 1200	—
ACX1MT-VDHID-SM	CPU	(1) LC SFP	Single	Single	DVI-I**	1	—	1	1920 x 1200	—
ACX1MR-VDHID-SM	CON	(1) LC SFP			DVI-I***	—	2	1	1920 x 1200	—
ACX1MT-DHID-2S	CPU	(2) LC	Single	Single	DVI-D*	1	—	1	1920 x 1200	—
ACX1MR-DHID-2S	CON	(2) LC			DVI-D*	—	2	1	1920 x 1200	—
ACX1MT-DVHID-SM	CPU	1	Single	Single	DVI-I	1	—	1	1920 x 1200	—
ACX1MT-DVHS-SM	CPU	1			DVI-D	—	2	1	1920 x 1200	—
ACX1MR-DVHS-SM	CON	1			DVI-D	1	—	1	1920 x 1200	—
Fiber Interconnect Modules with HDMI Video/Audio										
ACX1MT-HDMI-SM	CPU	1	Single	Single	HDMI	1	—	1	1920 x 1200	—
ACX1MR-HDMI-SM	CON	1			HDMI	—	2	1	1920 x 1200	—
ACX1MT-HDMI-2S	CPU	2	Single	Single	HDMI	1	—	1	1920 x 1200	—
ACX1MR-HDMI-2S	CON	2			HDMI	—	2	1	1920 x 1200	—
ACX1MT-HDM2-SM	CPU	1	Single	Single	HDMI	1	—	1	1920 x 1200	Local Output: HDMI
ACX1MT-HDM2-2S	CPU	2	Single	Single	HDMI	1	—	1	1920 x 1200	Local Output: HDMI
ACX1MR-HDSW-SM	CON	1	Single	Single	HDMI	—	2	1	1920 x 1200	Local Input: HDMI
ACX1MR-HDSW-2S	CON	2	Single	Single	HDMI	—	2	1	1920 x 1200	Local Input: HDMI
ACX1MT-HD0-SM	CPU	1	Single	Single	HDMI	—	—	1	1920 x 1200	—
ACX1MR-HD0-SM	CON	1	Single	Single	HDMI	—	—	1	1920 x 1200	—

\*Physical DVI-I connection, but only supports digital video.

\*\*Supports either digital or analog video signals.

\*\*\*Supports [DVI-D] or [DVI-D and VGA at the same time].



# STEP 2 (CONTINUED): SELECT YOUR EXTENDER CARDS

## DKM KVM MODULAR EXTENDERS DATA SHEET

### Fiber CPU (TX) and Console (RX) Modules Specifications (continued)

Fiber Interconnect Modules with DisplayPort Video/Audio									
Product Code	CPU or CON	Interconnect	Single- or Dual-Head	Single or Dual-Link	Video/Audio	USB Type B	USB Type A (USB-HID)	Mini USB	Resolution
ACX2MT-DPH-SM	CPU	1	Single	4K30	DisplayPort 4K	1	—	1	3840 x 2160 @ 30Hz
ACX2MR-DPH-SM	CON	1	Single	4K30	DisplayPort 4K	—	2	1	3840 x 2160 @ 30Hz
ACX2MT-DPHS-SM	CPU	1	Single	4K30	DisplayPort 4K	1	—	1	3840 x 2160 @ 30Hz
ACX2MR-DPHS-SM	CON	1	Single	4K30	DisplayPort 4K	—	2	1	3840 x 2160 @ 30Hz
ACX2MT-DPH-2S	CPU	2	Single	4K30	DisplayPort 4K	1	—	1	3840 x 2160 @ 30Hz
ACX2MR-DPH-2S	CON	2	Single	4K30	DisplayPort 4K	—	2	1	3840 x 2160 @ 30Hz
ACX2MT-DPHS-2S	CPU	2	Single	4K30	DisplayPort 4K	1	—	1	3840 x 2160 @ 30Hz
ACX2MR-DPHS-2S	CON	2	Single	4K30	DisplayPort 4K	—	2	1	3840 x 2160 @ 30Hz
ACX2MT-DP11H-SM	CPU		Dual	4K30	DisplayPort 4K	1	—	1	3840 x 2160 @ 30Hz
ACX2MR-DP11H-SM	CON		Dual	4K30	DisplayPort 4K	—	2	1	3840 x 2160 @ 30Hz
ACX2MT-DP11HS-SM	CPU		Dual	4K30	DisplayPort 4K	1	—	1	3840 x 2160 @ 30Hz
ACX2MR-DP11HS-SM	CON		Dual	4K30	DisplayPort 4K	—	2	1	3840 x 2160 @ 30Hz
ACX2MT-DP11H-2S	CPU		Dual	4K30	DisplayPort 4K	1	—	1	3840 x 2160 @ 30Hz
ACX2MR-DP11H-2S	CON		Dual	4K30	DisplayPort 4K	—	2	1	3840 x 2160 @ 30Hz
Fiber Interconnect Modules with DisplayPort 4K Video/Audio									
ACX2MT-DP4KHS-SM	CPU	1	Single	4K60	DisplayPort 4K	1	—	1	3840 x 2160 @60Hz
ACX2MR-DP4KHS-SM	CON	1	Single	4K60	DisplayPort 4K	—	2	1	3840 x 2160 @60Hz

### CPU (TX) and Console (RX) Modules Example Diagrams

#### Twisted-Pair



CPU Unit  
(ACX1MT-DHID-C or  
ACX1MT-VDHID-C)



CON Unit  
(ACX1MR-DHID-C or  
ACX1MR-VDHID-C)

#### Fiber



CPU Unit  
(ACX1MT-HDMI-2S)



CON Unit  
(ACX1MR-HDMI-2S)

## STEP 3: ADD YOUR UPGRADE KITS AND ACCESSORIES

### DKM KVM MODULAR EXTENDERS DATA SHEET

#### Upgrade Kits Ordering Information

##### Upgrade kits.

Part Number	Description
ACXMODH-RMK	19"/1U rackmount kit for 2-, 4-, and 6-fold chassis (for older non-R2 chassis)
ACXMODH-DMK	Fastening strips for screw or snap on for 2-, 4-, and 6-fold chassis
ACXMODH-R	Retrolifting for redundant power supply option (without power supply) for 4-fold chassis
ACXMODH2-PS	Power supply for 2-fold chassis (spare or redundant), 5-VDC, 3-A
ACXMODH4-PS	Power supply for 4-fold chassis (spare or redundant), 5-VDC, 5-A
ACXMODH6-PS	Power supply for 6-fold chassis (spare or redundant), 5-VDC, 8-A
ACXMODH21-4S	Blind plate 3U/4HP for 2-, 4-, and 6-fold chassis
ACXMODH21-8S	Blind plate 3U/8HP for 2-, 4-, and 6-fold chassis

#### Accessories Ordering Information

##### Accessories.

Part Number	Description
BC00200	6-foot (1.8-m) serial RS-232 cable
USB05-0006	6-foot (1.8-m) USB Type A to B cable
EVNDVI04-0006	6-foot (1.8-m) VGA cable (VGA to DVI-I)
EVNDVI02-0006	6-foot (1.8-m) DVI-D cable (DVI-D)
ACXSPL12	DVI-D splitter cable
EJ110-0005	5-foot (1.5-m) 3.5-mm stereo jack cable
EJ514-0005-MM	5-foot (1.5-m) RCA cable (Cinch male connector)
EFJ04-001M	3-foot (1-m) TOSLINK cable (F05 male connector)
Contact Tech Support at 877-877-2269 or info@blackbox.com.	6-foot (1.8-m) Mini-XLR cable (3-pole)



## STEP 3 (CONTINUED): ADD YOUR UPGRADE KITS AND ACCESSORIES

### DKM KVM MODULAR EXTENDERS DATA SHEET

#### Upgrade Modules Ordering Information

Upgrade modules.

Part Number	Description
ACX1MT-HID	Upgrade module with (2) USB-HID
ACX1MR-HID	
ACX1MT-EU	Upgrade module with (2) USB 2.0
ACX1MR-EU	
ACX1MT-AR	Upgrade module with analog audio/serial (bidirectional)
ACX1MR-AR	
ACX1MT-ARP	Upgrade module with Analog Audio / Serial RS-232 (bidirectional) and PS/2
ACX1MR-ARP	
ACX1MT-DA	Upgrade module with digital audio (unidirectional)
ACX1MR-DA	
ACX1MT-ARH	Upgrade module with analog audio/serial (bidirectional) and (2) USB-HID
ACX1MR-ARH	
ACX1MT-DAH	Upgrade module with digital audio (unidirectional) and (2) USB-HID
ACX1MR-DAH	
ACX1MT-ARE	Upgrade module with Analog Audio/Serial RS232 (bidirectional) and (2) USB 2.0
ACX1MR-ARE	
ACX1MT-DAE	Upgrade module with Digital Audio (unidirectional) and (2) USB 2.0
ACX1MR-DAE	
ACX1MT-DAX	Upgrade module with digital audio (bidirectional)
ACX1MR-DAX	
ACX1MR-ARD	Upgrade module with digital audio (unidirectional) and analog audio/serial (bidirectional)
ACX1MT-ARD	
ACX1MT-U2-C	USB 2.0 upgrade module with (4) USB 2.0
ACX1MR-U2-C	
ACX1MT-U2-SM	USB 2.0 upgrade module with (4) USB 2.0
ACX1MR-U2-SM	
ACX1MT-R4E	USB 2.0 upgrade module with USB 2.0 and analog audio/RS-422
ACX1MR-R4E	
ACX1MT-RGB	Upgrade module with RGBHV
ACX1MT-SDI	Upgrade module with SDI and HDSDI
ACX1MT-EGA	Upgrade module for EGA, S-Video, Component, and Composite
ACX1MT-422	Upgrade module with analog audio/RS-422 Receiver Card
ACX1MR-422	
ACX1MR-CCO	DKM CON Daughter Card to activate the OSD



## STEP 4: CHOOSE YOUR CONVERTER/SCALER AND REPEATER CARDS

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### DKM KVM MODULAR EXTENDERS DATA SHEET

#### DKM FX Modular Converter/Scaler Cards

Use these cards in the chassis above. These cards will convert the input video type to a DVI-D output. These cards do NOT have an RJ-45 or LC interconnect and must be used with the ACX1MT-DHID-C/SM.

##### DKM FX Modular Converter/Scaler Cards.

Part Number	Description
ACX1MT-VGA	VGA/DVI to DVI-D Converter, 1-Slot Card
ACX1MT-EVGA	VGA/DVI/EGA/CGA to DVI-D Converter, 2-Slot Card
ACX1MT-RGB	VGA/DVI/RGB to DVI-D Converter, 2-Slot Card
ACX1MT-SDI	VGA/DVI/SDI to Converter, 2-Slot Card

#### DKM FX Modular Repeaters/Cross Repeater Cards

Use these cards to address medium change, or to double the distance of a specific run.

##### DKM FX Modular Repeaters/Cross Repeater Cards.

Part Number	Description
ACX1M-CC	CATx Repeater Board
ACX1M-SS	Fiber Repeater Board
ACX1M-2C2C	Dual CATx Repeater Board
ACX1M-2S2S	Dual Fiber Repeater Board
ACX1M-CS	Cross Repeater Board
ACX1M-2C2S	Dual Cross Repeater Board



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Black Box is a world leading technology solutions provider specializing in complete high-performance KVM, professional A/V signal distribution and extension and switching solutions for mission-critical applications. Black Box is dedicated to delivering superior project engineering, technical support, and 24/7 customer service you can rely on for your most critical operations.

Every day, our customers trust us to design, integrate, and maintain reliable control room solutions for broadcasting, post-production, stadiums & arenas, medical, air traffic control, oil & gas, government & military, and utility industries. Leave the tech to us and our comprehensive technology solutions will deliver secure connections, fast-response times, real-time collaboration and more.

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Any other trademarks mentioned in this document are acknowledged to be the property of the trademark owners.

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