

Product Data Sheet

DKM FX Switches

Overview

Provide flexible and super-fast crosspoint switching of Full HD video in KVM enterprises. Establish connections from consoles (monitor, keyboard, mouse, and other peripheral devices) to various sources (computer, CPU). Up to 288 independent ports can be defined and switched either as a console or a CPU.

Features

- CPUs connect directly to the sources (computer, CPU) using the included cables.
- Monitor(s), keyboard and mouse connect to the CON units.
- The DKM FX and the CPU units/CON units communicate over CATx, fiber, or coaxial interconnect cables.
- Compatible with DKM FX Compact Switches and DKM Modular and Standalone Extenders.

Configure your DKM FX Switch in 4 steps:

Step 1: Pick your chassis.

Step 2: Select your I/O boards.

Step 3: Choose the CPU and CON units.

Step 4: Order switch accessories (optional).



Sample DKM Switches (ACX080, ACX160, ACX288)

For a complete list of compatible CPU and CON extender units, as well as modular KVM switches, refer to the following datasheets:

- **DKM KVM Compact Extenders Data Sheet**
- **DKM KVM Extender TX/RX Interface Modules and Compatible Chassis Data Sheet**
- **DKM FX Compact Switches Data Sheet**

For help with choosing your DKM FX Switch and components, contact our FREE 24/7 Technical Support at 877-877-2269 or info@blackbox.com.

DKM FX Switches Data Sheet

STEP 1. Pick your chassis.

Chassis Specifications

Comparison Chart, Chassis: Each Chassis has one CPU board and 6, 10, 20, or 36 I/O boards

Product Code	Number of I/O Boards Supported (not included)	I/O Board Connectors	Number of Power Supply Boards Supported	Number of Fan Tray Units Supported	Dimensions	Weight
ACX288	36, none included	Each I/O Board: (8) RJ-45 CATx, (8) pairs of SFP fiber, or (8) pairs of SFP coax	3 (ACX288-PS), 2 included	2	ACX288: 19"H x 22.8"W x 12"D (48.3 x 57.8 x 33 cm), Shipping box: 25.6"H x 26.8"W x 29.9"D (65 x 68 x 76 cm);	ACX288: 76.2 lb (34.6 kg) fully equipped, Shipping box: 90.6 lb. (41.1 kg)
ACX160	20, none included	Each I/O Board: (8) RJ-45 CATx, (8) pairs of SFP fiber, or (8) pairs of SFP coax	3 (ACX160-PS), 2 included	2	ACX160: 19"H x 15.8"W x 12"D (48.3 x 40 x 33 cm), Shipping box: 25.6"H x 26.8"W x 12"D (65 x 68 x 54 cm)	ACX160: 60 lb. (26.3 kg) fully equipped, Shipping box: 69.9 lb. (31.7 kg)
ACX080	10, none included	Each I/O Board: (8) RJ-45 CATx, (8) pairs of SFP fiber, or (8) pairs of SFP coax	2 (ACX080-PS), 1 included	2	ACX080: 19"H x 7"W x 9.1"D (48.2 x 17.8 x 23.1 cm), Shipping box: 25.2"H x 22.4"W x 21.3"D (64 x 57 x 36 cm)	ACX080: 24.5 lb. (11.1 kg) fully equipped, Shipping box: 34.4 lb. (15.6 kg)
ACX048	6, none included	I/O Boards: (8) RJ-45 CATx, (8) pairs of SFP fiber, or (8) pairs of SFP coax	2 (ACX080-PS), 1 included	2	ACX048: 19"H x 5.3"W x 9.1"D (48.2 x 13.4 x 23.1 cm), Shipping box: 25.2" x 22.4"W x 12.4"D (64 x 57 x 23.1 cm)	ACX048: 19.6 lb. (8.9 kg), Shipping box: 26.7 lb. (12.1 kg)

CPU Board Specifications (CPU board is included with all chassis listed above)

CPU Board connectors and indicators.

Part Number	Description	Connectors on CPU Board	Indicators on CPU board
ACX288-CTL	ServSwitch DKM FX controller card	(1) DVI-D single-link, (2) USB Type A, (1) DB9, (1) RJ-45	(2) LEDs: Status LED 1: CPU registration, Status LED 2: Matrix registration

STEP 2. Select your I/O boards.

I/O Board Specifications

Comparison Chart: I/O Boards.

Part Number	Description	Media Type	Connectors	Status LEDs
ACXIO8-C	8-port CATx input/output (I/O) module	CATx	(8) RJ-45	(4) LEDs: Status LED 1: CPU registration, Status LED 2: Matrix registration, Link Status LEDs 1, 2: Port activation
ACXIO8-SM	8-port single-mode fiber SFP populated input/output (I/O) module	SFP Fiber	(8) pairs of LC	(4) LEDs: Status LED 1: CPU registration, Status LED 2: Matrix registration, Link Status LEDs 1, 2: Port activation
ACXIO8-SFP	8-port SFP empty slots input/output (I/O) module	SFP Coax	(8) Mini SFP coax	(4) LEDs: Status LED 1: CPU registration, Status LED 2: Matrix registration, Link Status LEDs 1, 2: Port activation
ACXSFPS	Single-mode SFP Module for ACXIO8-SFP	SFP SM Fiber	(2) SM SFP	(2) Status LEDs
ACXSFPHS	DKM HD Video and Peripheral Matrix Switch SFP Card for 2.5-Gbps Devices, installs in the ACXIO8-SFP	SFP SM Fiber	(1) LC	(2) Status LEDs
ACXIO8-HS	DKM HD Video and Peripheral Matrix Switch 8-Port I/O Card for High-Speed Devices	SFP Fiber	(8) pairs of LC	(4) LEDs: Status LED 1: CPU registration, Status LED 2: Matrix registration, Link Status LEDs 1, 2: Port activation
ACXIO8-6G	8-Port Universal I/O Card for DKM - Unpopulated	Depends on SFPs	(8) SFP slots	(4) LEDs: Status LED 1: CPU registration, Status LED 2: Matrix registration, Link Status LEDs 1, 2: Port activation
ACXSFPHS	DKM HD Video and Peripheral Matrix Switch SFP Card for 2.5-Gbps Devices, installs in the ACXIO8-SFP	SFP SM Fiber	(1) LC	(2) Status LEDs

Accessories available (accessories listed below work with all chassis listed on the previous page)

Accessories.

Number	Description
ACX048-FIL	Filter for ACX048
ACX080-FIL	Filter for ACX080
ACX288-FIL	Filter for ACX160 or ACX288
ACX080-PS	Power supply for ACX048 and ACX080
ACX160-PS	Power supply for ACX160
ACX288-PS	Power supply for ACX288
ACX080-FAN	Tray for 48/80 port console
ACX288-FAN	Tray for 160/288 port console

DKM FX Switches Data Sheet

STEP 3: Choose the appropriate CPU (computer) and console (CON) extender units.

DKM FX Modular Extenders TX/RX Interface Modules (Twisted-Pair)

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	—
ACX2MT-DLH-C	CPU	1	Single	Dual	Dual-link DVI	1	—	1	2560 x 1600	—
ACX2MR-DLH-C	CON	1			Dual-link DVI	—	2	1	2560 x 1600	—
ACX2MT-DHH-C	CPU	1	Dual	Single	DVI-D	1	—	1	1920 x 1200	—
ACX2MR-DHH-C	CON	1			DVI-D	—	2	1	1920 x 1200	—
ACX2MT-DLH-2C	CPU	2	Single	Single	DVI-D	1	—	1	2560 x 1600	—
ACX2MR-DLH-2C	CON	2			DVI-D	—	2	1	2560 x 1600	—
ACX2MT-DHH-2C	CPU	2	Dual	Single	DVI-D	1	—	1	1920 x 1200	—
ACX2MR-DHH-2C	CON	2			DVI-D	—	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	—
Twisted-Pair Interconnect Modules with DisplayPort Video/Audio										
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	—

STEP 3: (continued)

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	—		
ACX2MT-DLH-SM	CPU	1	Single	Dual	DVI-D	1	—	1	2560 x 1600	—
ACX2MR-DLH-SM	CON	1			DVI-D	—	2	1	2560 x 1600	—
ACX2MT-DLHS-SM	CPU	1	Single	Dual	DVI-D	1	—	1	2560 x 1600	—
ACX2MR-DLHS-SM	CON	1			DVI-D	—	2	1	2560 x 1600	—
ACX2MT-DHHS-SM	CPU	1	Dual	Single	DVI-D	1	—	1	1920 x 1200	—
ACX2MR-DHHS-SM	CON	1			DVI-D	—	2	1	1920 x 1200	—
ACX2MT-DHH-SM	CPU	1	Dual	Single	DVI-D	1	—	1	1920 x 1200	—
ACX2MR-DHH-SM	CON	1			DVI-D	—	2	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			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			HDMI	—	2	1	1920 x 1200	Local Input: HDMI
ACX1MT-HDO-SM	CPU	1	Single	Single	HDMI	—	—	1	1920 x 1200	—
ACX1MR-HDO-SM	CON	1			HDMI	—	—	1	1920 x 1200	—

STEP 3 (continued)

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
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

For complete specifications for the compatible DKM FX Modular Extenders Interface Modules listed on the previous two pages and this page, refer to the following datasheet:

- **DKM KVM Extender TX/RX Interface Modules and Compatible Chassis Data Sheet**

For details, contact our **FREE 24/7 Technical Support** at **877-877-2269** or **info@blackbox.com**.

STEP 4. Order switch accessories (optional).**Optional Accessories (accessories listed below work with all chassis listed in STEP 1)**

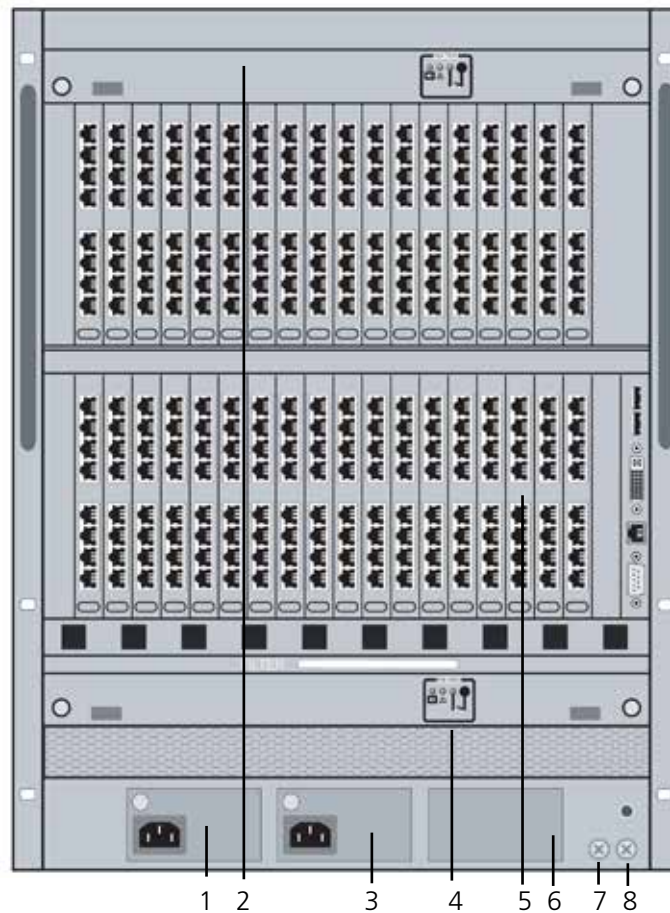
Accessories.

Number	Description
ACX048-FIL	Filter for ACX048
ACX080-FIL	Filter for ACX080
ACX288-FIL	Filter for ACX160 or ACX288
ACX080-PS	Power supply for ACX048 and ACX080
ACX160-PS	Power supply for ACX160
ACX288-PS	Power supply for ACX288
ACX080-FAN	Tray for 48/80 port console
ACX288-FAN	Tray for 160/288 port console

The device views on this page and the next two pages show how the DKM FX modular components might look when installed in the DKM Switch Chassis.

Device Views

ServSwitch DKM FX 288-Port (part number ACX288)

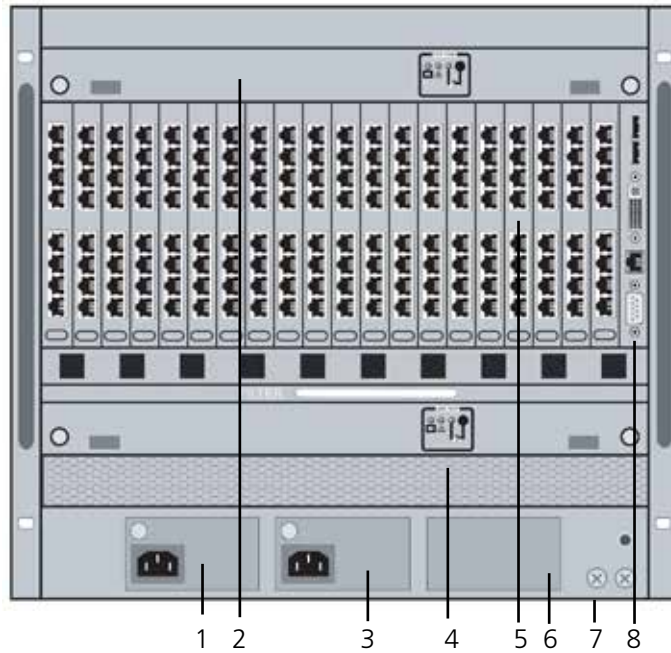


ACX288 components.

Number	Component
1	Slot for Power Supply Unit 1
2	Slot for Fan Tray 1
3	Slot for Power Supply Unit 2
4	Slot for Fan Tray 2
5	Slot for I/O Boards 1-36
6	Slot for Power Supply Unit 3
7	Slot for CPU board
8	Grounding

Device Views (continued)

ServSwitch DKM FX 160-Port



Front view, ACX160.

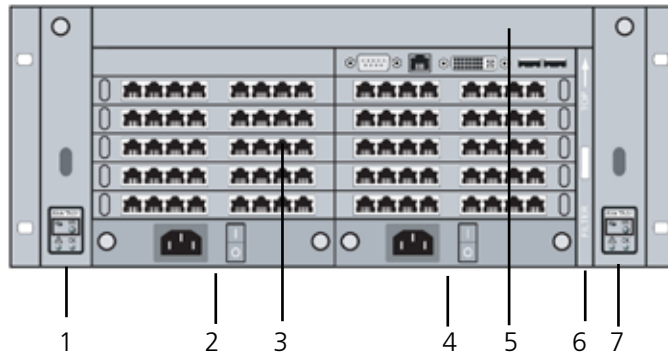
ACX160 components.

Number	Component
1	Slot for Power Supply Unit 1
2	Slot for Fan Tray 1
3	Slot for Power Supply Unit 2
4	Slot for Fan Tray 2
5	Slot for I/O Boards 1–36
6	Slot for Power Supply Unit 3
7	Slot for CPU board
8	Grounding

DKM FX Switches Data Sheet

Device Views (continued)

ServSwitch DKM FX 80-Port (part number ACX080)

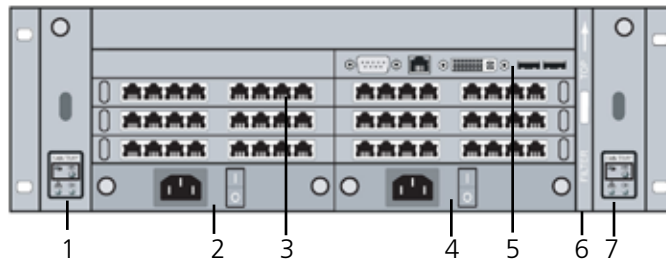


Front view, ACX080.

ACX080 components.

Number	Component
1	Slot for fan tray
2	Slot for Power Supply Unit 1
3	Slot for I/O Boards 1–10
4	Slot for Power Supply Unit 2
5	Slot for CPU board
6	Slot for air filter
7	Slot for Fan Tray 2

ServSwitch DKM FX 48-Port (part number ACX048)



Front view, ACX048.

ACX048 components.

Number	Component
1	Slot for fan tray
2	Slot for Power Supply Unit 1
3	Slot for I/O Boards 1–6
4	Slot for Power Supply Unit 2
5	Slot for CPU board
6	Slot for air filter
7	Slot for Fan Tray 2

Compatible DKM FX Compact Extenders not covered in this datasheet:

DKM FX Compact Extenders (Twisted-Pair and Fiber)

Twisted-Pair Compact Extenders with DVI Video and USB HID (analog/digital audio & USB 2.0 are not supported on all units)		Fiber Compact Extenders with DVI Video and USB HID (analog/digital audio & USB 2.0 are not supported on all units)	
Product Code	CPU or CON	Product Code	CPU or CON
ACX1T-11-C	CPU	ACX1T-11HS-SM	CPU
ACX1R-11-C	CON	ACX1R-11HS-SM	CON
ACX1T-11V-C	CPU	ACX1T-11-SM	CPU
ACX1R-11V-C	CON	ACX1R-11-SM	CON
ACX1T-12A-C	CPU	ACX1T-11VHS-SM	CPU
ACX1R-12A-C	CON	ACX1R-11VHS-SM	CON
ACX1T-12D-C	CPU	ACX1T-11V-SM	CPU
ACX1R-12D-C	CON	ACX1R-11V-SM	CON
ACX1T-13-C	CPU	ACX1T-12A-SM	CPU
ACX1R-13-C	CON	ACX1R-12A-SM	CON
ACX1T-14A-C	CPU	ACX1T-12D-SM	CPU
ACX1R-14A-C	CON	ACX1R-12D-SM	CON
ACX1T-22-C	CPU	ACX1T-13-SM	CPU
ACX1R-22-C	CON	ACX1R-13-SM	CON
—	—	ACX1T-13HS-SM	CPU
—	—	ACX1R-13HS-SM	CON
—	—	ACX1T-14AHS-SM	CPU
—	—	ACX1R-14AHS-SM	CON
—	—	ACX1T-14A-SM	CPU
—	—	ACX1R-14A-SM	CON
—	—	ACX1T-22HS-SM	CPU
—	—	ACX1R-22HS-SM	CON
—	—	ACX1T-22-SM	CPU
—	—	ACX1R-22-SM	CON

NOTE: While the Compact Extenders listed above do not install in the DKM FX Switch Chassis, they can be used at the other end of the link between a DKM FX Modular Extender card installed in the DKM FX Switch Chassis.

For complete specifications for the compatible DKM FX Compact Extenders listed above, refer to the following datasheet:

- **DKM KVM Compact Extenders Data Sheet**

For details, contact our **FREE 24/7 Technical Support** at **877-877-2269** or **info@blackbox.com**.

Compatible DKM FX Compact Switches not covered in this datasheet:

DKM FX Compact Switches (Twisted-Pair and Fiber)

Twisted-Pair Compact Switches	Fiber Compact Switches
Product Code	Product Code
ACXC08	ACXC16F
ACXC16	ACXC32F
ACXC32	ACXC48F
ACXC48	ACXC64F
ACXC64	ACXC80F
ACXC8	ACXC8F
ACXC80	—

For complete specifications, see the [DKM FX Compact Switches Data Sheet](#).

For details, contact our [FREE 24/7 Technical Support at 877-877-2269 or \[info@blackbox.com\]\(mailto:info@blackbox.com\)](#).

For complete specifications for compatible DKM FX modular and compact CPU and CON extender units, as well as compact KVM switches, refer to the following datasheets:

- [DKM KVM Extender TX/RX Interface Modules and Compatible Chassis Data Sheet](#)
- [DKM KVM Compact Extenders Data Sheet](#)
- [DKM FX Compact Switches Data Sheet](#)

For details, contact our FREE 24/7 Technical Support at 877-877-2269 or info@blackbox.com.

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