



# Industrial Rackmount Switch IKS-6726 Series Hardware Installation Guide

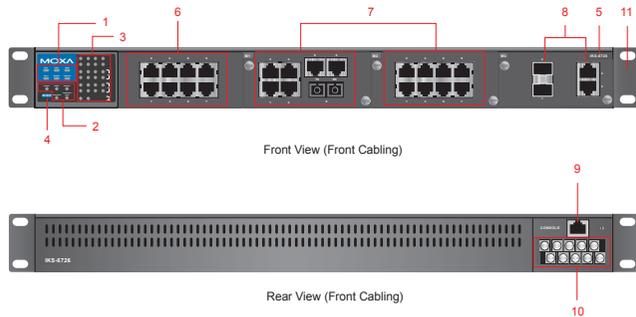
Second Edition, June 2010

## Package Checklist

The Moxa IKS-6726 Series industrial rackmount switches are shipped with the following items. If any of these items are missing or damaged, please contact your customer service representative for assistance.

- 1 Moxa IKS-6726 Switch
- Hardware Installation Guide
- CD-ROM with User's Manual and SNMP MIB file
- Moxa Product Warranty Statement
- RJ45 to DB9 console port cable
- Protective caps for unused ports
- 2 rack-mount ears

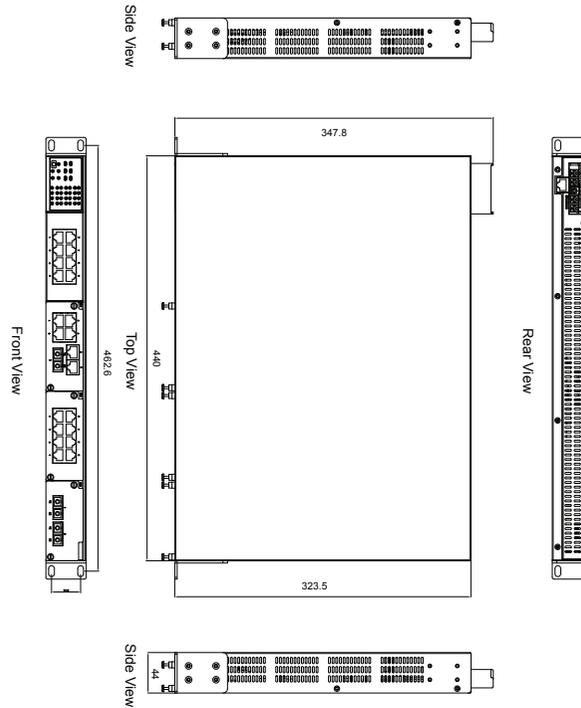
## Panel Layouts



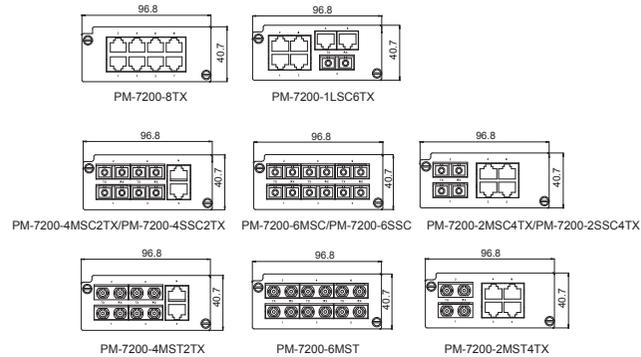
1. System status LEDs
2. Interface Module mode LEDs
3. Interface Module port LEDs
4. Push-button switch to select mode for Interface Module
5. Model Name
6. 10/100BaseT(X) port
7. Fast Ethernet Interface Modules
8. Gigabit Ethernet Interface Modules
9. Serial Console port
10. 10-pin terminal block for power inputs, and relay output
11. Rack Mounting Kit

P/N: 1802067260011

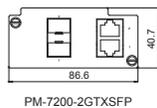
## Dimensions (unit = mm)



## Fast Ethernet Interface Modules (for slots 1 and 2)

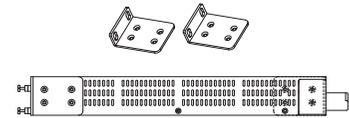


## Gigabit Ethernet Interface Modules (for slot 3)



## Rack Mounting

Use four screws to attach the PT switch to a standard rack.



## Wiring Requirements



### WARNING

#### Safety First!

Be sure to disconnect the power cord before installing and/or wiring your Moxa Industrial Rackmount Switch. Calculate the maximum possible current in each power wire and common wire. Observe all electrical codes dictating the maximum current allowable for each wire size.

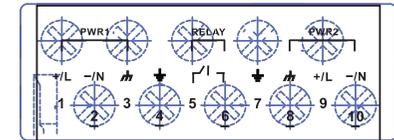
If the current goes above the maximum ratings, the wiring could overheat, causing serious damage to your equipment.

## Grounding the Moxa Industrial Rackmount Switch

Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the ground screw to the grounding surface prior to connecting devices.

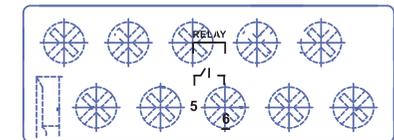
## Wiring the Power Inputs

The IKS series of switches supports dual redundant power supplies: "Power Supply 1 (PWR1)" and "Power Supply 2 (PWR2)". The connections for PWR1, PWR2 and the RELAY are located on the terminal block. The front view of the terminal block connectors are shown below.



## Wiring the Relay Contact

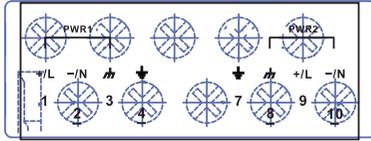
Each IKS switch has one relay output. Refer to the next section for detailed instructions on how to connect the wires to the terminal block connector, and how to attach the terminal block connector to the terminal block receptor.



**FAULT:** The relay contact of the 10-pin terminal block connector are used to detect user-configured events. The two wires attached to the RELAY contacts form an open circuit when a user-configured event is triggered. If a user-configured event does not occur, the RELAY circuit will be closed.

### Wiring the Redundant Power Inputs

Each IKS switch has two sets of power inputs: power input 1 and power input 2.



**STEP 1:** Insert the dual set positive/negative DC wires into PWR1 and PWR2 terminals (+ → pins 1, 9; - → pins 2, 10). Or insert the L/N AC wires into PWR1 and PWR2 terminals (L → pin 1, 9; N → pin 2, 10)

**STEP 2:** To keep the DC or AC wires from pulling loose, use a screwdriver to tighten the wire-clamp screws on the front of the terminal block connector.

### LED Indicators

The front panel of the IKS switch contains several LED indicators. The function of each LED is described in the table below.

LED	Color	State	Description
<b>System LEDs</b>			
STAT	GREEN	On	System has passed self-diagnosis test on boot-up and is ready to run.
		Blinking	System is undergoing the self-diagnosis test.
	RED	On	System failed self-diagnosis on boot-up.
PWR1	AMBER	On	Power is being supplied to the main module's power input PWR1.
		Off	Power is not being supplied to the main module's power input PWR1.
PWR2	AMBER	On	Power is being supplied to the main module's power input PWR2.
		Off	Power is not being supplied to the main module's power input PWR2.
FAULT	RED	On	The corresponding PORT alarm is enabled and a user-configured event has been triggered.
		Off	The corresponding PORT alarm is enabled and a user-configured event has not been triggered, or the corresponding PORT alarm is disabled.
MSTR/HEAD	GREEN	On	The IKS switch is set as the Master of the Turbo Ring, or as the Head of the Turbo Chain.
		Blinking	The IKS switch has become the Ring Master of the Turbo Ring, or the Head of the Turbo Chain, after the Turbo Ring or the Turbo Chain is down.

		Off	The IKS switch is not the Master of this Turbo Ring or is set as the Member of the Turbo Chain.
CPLR/TAI L	GREEN	On	The IKS switch coupling function is enabled to form a back-up path, or it is set as the Tail of the Turbo Chain.
		Blinking	Turbo Chain is down.
		Off	The coupling function of this IKS switch is disabled.
<b>Mode LEDs</b>			
LNK/ ACT	GREEN	On	The corresponding module port's link is active.
		Blinking	The corresponding module port's data is being transmitted.
		Off	The corresponding module port's link is inactive.
SPEED	GREEN	Off	The corresponding module port's data is being transmitted at 10 Mbps.
		On	The corresponding module port's data is being transmitted at 100 Mbps.
		Blinking	The corresponding module port's data is being transmitted at 1000 Mbps.
FDX/ HDX	GREEN	On	The corresponding module port's data is being transmitted in full duplex mode.
		Off	The corresponding module port's data is being transmitted in half duplex mode.
RING PORT	GREEN	On	The corresponding module's port is the ring port of this IKS switch.
		Off	The corresponding module's port is not the ring port of this IKS switch.
COUPLER PORT	GREEN	On	The corresponding module's port is the coupler port of this IKS switch.
		Off	The corresponding module's port is not the coupler port of this IKS switch.

### Specifications

<b>Technology Standards</b>	IEEE 802.3, 802.3u, 802.3ab, 802.3z, 802.3x, 802.1D, 802.1W, 802.1Q, 802.1p, 802.1X, 802.3ad
Flow control	IEEE 802.3x flow control, back pressure flow control
<b>Interface</b>	
Fast Ethernet	Slot 1 and 2 for any combination of 8-, 7-, or 6-port PM-7200 fast Ethernet modules with 10/100BaseT(X) or 100BaseFX (SC/ST connector)
Gigabit Ethernet	Slot 3 for 2-port PM-7200 Gigabit Ethernet combo module with 10/100/1000BaseT(X), 1000Base SFP slots (SFP slot, LC connector)
System LED Indicators	STAT, PWR1, PWR2, FAULT, MSTR/HEAD, CPLR/TAI
Module LED	LNK/ACT, FDX/HDX, SPEED, RING PORT,

Indicators	COUPLER PORT
Alarm Contact	One relay output with current carrying capacity of 3A @ 30 VDC or 3A @ 240 VAC

### Optical Fiber (100BaseFX)

Distance	<u>Multi-mode</u> 0 to 5 km, 1300 nm (50/125µm, 800 MHz*km) 0 to 4 km, 1300 nm (62.5/125µm, 500 MHz*km) <u>Single-mode</u> 0 to 40 km, 1310 nm (9/125µm, 3.5 PS/(nm*km))
Min. TX Output	Multi-mode: -20 dBm; single-mode: -5 dbm
Max. TX Output	Multi-mode: -10 dBm; single-mode: 0 dbm
RX Sensitivity	Multi-mode: -32 dBm; single-mode: -34 dbm
<b>Power</b>	
Input Voltage	24 VDC (18 to 36V) or 48 VDC (36 to 72V) or 110/220 VDC/VAC (88 to 300 VDC and 85 to 264 VAC)
Input Current	Max. 1.11A @ 24VDC; Max. 0.56A @ 48VDC Max. 0.56/0.28A @ 110/220VDC Max. 0.56/0.28A @ 110/220VAC

### Physical Characteristics

Housing	IP 30 protection, metal case
Dimensions (W x H x D)	440 x 44 x 325 mm (17.32 x 1.73 x 12.80 in.)
Weight	4700 g
Installation	19" rack mounting

### Regulatory Approvals

Safety	UL60950-1, CSA C22.2 No. 60950-1
Road Traffic	NEMA TS2
Maritime	DNV (Pending), GL (Pending)
Rail Traffic	EN50121-4
EMI	FCC Part 15, CISPR (EN55022) class A

### Environmental Limits

Operating Temp.	-40 to 75°C (-40 to 167°F) for -T models
Storage Temp.	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity.	5 to 95% (non-condensing)

**Warranty** 5 years

Note: A shielded cable is required for EN50121-4

**MOXA**

Click here for online support:  
[www.moxa.com/support](http://www.moxa.com/support)

The Americas: +1-714-528-6777 (toll-free: 1-888-669-2872)  
Europe: +49-89-3 70 03 99-0  
Asia-Pacific: +886-2-8919-1230  
China: +86-21-5258-9955 (toll-free: 800-820-5036)

© 2010 Moxa Inc., all rights reserved.  
Reproduction without permission is prohibited.