



IKS-G6524/G6824 Series Hardware Installation Guide

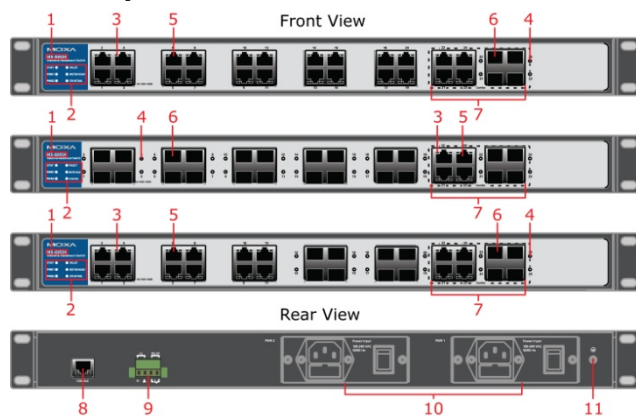
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Package Checklist

The Moxa IKS-G6524/G6824 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.

- IKS-G6524/G6824 switch
- RJ45 to DB9 console port cable
- 2 power cords
- Protective caps for unused ports
- 2 rackmount ears
- Documentation and software CD
- Hardware installation guide (printed)
- Warranty card

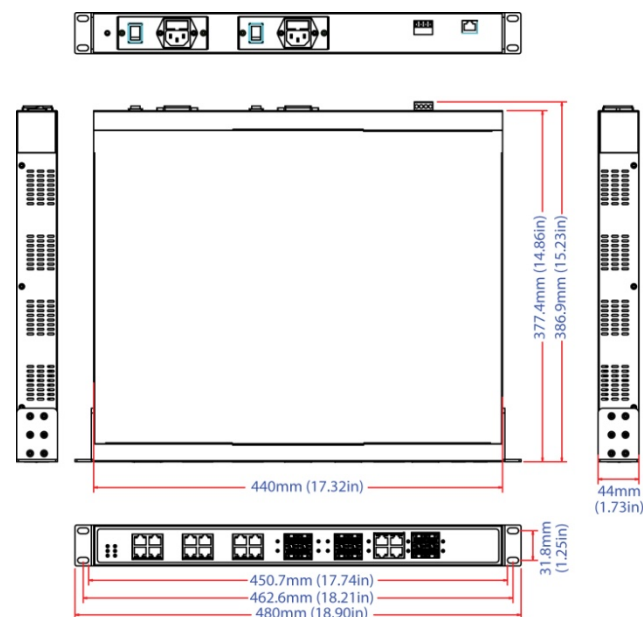
Panel Layouts



1. Model Name
2. System status LEDs
3. 10/100/1000 BaseT(X) port status LEDs
4. 100/1000Base SFP port status LEDs
5. 10/100/1000 BaseT(X) port
6. 100/1000Base SFP slot
7. 10/100/1000 BaseT(X) or 100/1000Base SFP slot combo ports
8. Serial Console port
9. Terminal block for Relay Output, Digital Input
10. AC power sockets for power inputs
11. Grounding screw

P/N: 1802068240010

Dimensions (unit = mm)



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.

Connecting the Power Inputs

The IKS-G6524/G6824 series of switches supports dual redundant power supplies: *Power Supply 1 (PWR1)* and *Power Supply 2 (PWR2)*. The connections for PWR1 and PWR2 are located on the rear side (shown below). Be sure to use a standard power cord with an IEC C13 connector, which is compatible with the AC power inlet.



LED Indicators

The front panel of the IKS-G6524/G6824 Series switch contains several LED indicators. The function of each LED is described in the table below.

LED	Color	State	Description
System LEDs			
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	System is in the event of failure, or is under quick inspection.
		Off	System is in normal operation.
MSTR/ HEAD	GREEN	On	When the IKS-G6524/G6824 is set as the Master of the Turbo Ring, or as the Head of the Turbo Chain.
		Blinking	The IKS-G6524/G6824 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-G6524/G6824 is not the Master of this Turbo Ring or is set as a Member of the Turbo Chain
CPLR/ TAIL	GREEN	On	When the IKS-G6524/G6824 coupling function is enabled to form a back-up path, or when it's set as the Tail of the Turbo Chain.
		Blinking	When the Turbo Chain is down
		Off	When this IKS-G6524/G6824 switch disables the coupling function.

LED	Color	State	Description
Port Status LEDs			
10/100/1000M (TP ports)	GREEN	On	The corresponding port's link is active.
		Blinking	The corresponding port's data is being transmitted.
		Off	The corresponding port's link is inactive.
100/1000M (Fiber Optic ports)	GREEN	On	Fiber optic port's 1000 Mbps link is active.
		Blinking	Data is being transmitted at 1000 Mbps.
		Off	Fiber Optic port's 1000 Mbps link is inactive.
	AMBER	On	Fiber optic port's 100 Mbps link is active.
		Blinking	Data is being transmitted at 100 Mbps.
		Off	Fiber Optic port's 100 Mbps link is inactive.

Specifications

Technology	
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3ab for 1000BaseT(X) IEEE 802.3z for 1000BaseSX/LX/LHX/ZX IEEE 802.3x for Flow Control IEEE 802.1D for Spanning Tree Protocol IEEE 802.1w for Rapid STP IEEE 802.1Q for VLAN Tagging IEEE 802.1p for Class of Service IEEE 802.1X for Authentication IEEE 802.3ad for Port Trunk with LACP
Protocols	IGMPv1/v2 device, GMRP, GVRP, SNMPv1/v2c/v3, DHCP Server/Client, DHCP Option 82, BootP, TFTP, SNMP, SMTP, RARP, RMON, HTTP, HTTPS, Telnet, SSH, Syslog
Layer 3 Switching	Static routing, RIP V1/V2, OSPF, VRRP for router redundancy (IKS-G6824 only)
MIB	MIB-II, Ethernet-like MIB, P-BRIDGE MIB, Q-BRIDGE MIB, Bridge MIB, RSTP MIB, RMON MIB Groups 1, 2, 3, 9
Flow Control	IEEE 802.3x flow control, back pressure flow control

Interface	
Gigabit Ethernet	10/100/1000BaseT(X) or 100/1000BaseSFP slot
Console Port	RS-232 (RJ45 connector)
LED Indicators	STAT, PWR1, PWR2, FAULT, MSTR/HEAD, CPLR/TAIL
Alarm Contact	1 relay output with current carrying capacity of 2 A @ 30 VDC
Digital Inputs	1 input with the same ground, but electrically isolated from the electronics. • +13 to +30V for state "1" • -30 to +3V for state "0" • Max.input current: 8 mA
Power Requirements	
Input Voltage	110/220 VAC (85 to 264 VAC)
Input Current	Max. 0.79/0.44 A @ 110/220 VAC
Overload Current Protection	Present
Reverse Polarity Protection	Present
Physical Characteristics	
Housing	IP 30 protection
Dimensions	440 x 44 x 386.9 mm (17.32 x 1.73 x 15.23 in)
Installation	19" rack mounting
Environmental Limits	
Operating Temp.	Standard Models: 0 to 60°C (32 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temp.	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity.	5 to 95% (non-condensing)
Standards and Certifications	
Safety	UL 60950-1 (Pending), EN 60950-1 (Pending)
EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
Rail Traffic	EN50121-4
Warranty	
Warranty Period	5 years
Details	See www.moxa.com/warranty

Rack Mounting Instructions

- Elevated Operating Ambient:** If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T_{ma}) specified by the manufacturer.
- Reduced Air Flow:** Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
- Mechanical Loading:** Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- Circuit Overloading:** Consideration should be given to the connection of the equipment to the supply circuit and the

effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

- Reliable Earthing:** Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips)."

Restricted Access Locations



- This equipment is intended to be used in Restricted Access Locations, such as a computer room, with access limited to SERVICE PERSONAL or USERS who have been instructed on how to handle the metal chassis of equipment that is so hot that special protection may be needed before touching it. The location should only be accessible with a key or through a security identity system.
- External metal parts of this equipment are extremely hot!! Before touching the equipment, you must take special precautions to protect your hands and body from serious injury.

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