

RKS-G4000-PL/ RKS-G4000-PL-L3 Series Quick Installation Guide

Version 1.0, April 2026

Technical Support Contact Information
www.moxa.com/support



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P/N: 1802040000210



Package Checklist

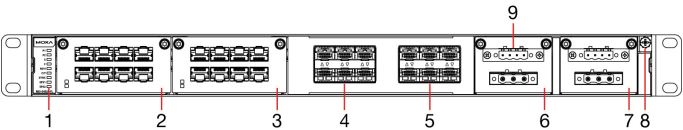
The Moxa RKS-G4000-PL/RKS-G4000-PL-L3 industrial rackmount switch is shipped with the following items. If any of these items are missing or damaged, please contact your customer service representative for assistance.

- RKS-G4000-PL/RKS-G4000-PL-L3 switch
- 6 protective caps for unused SFP ports for RKS-G4030-PL, 12 protective caps for unused SFP ports for RKS-G4028-PL
- 2 rackmount ears
- Quick installation guide (printed)
- Warranty card

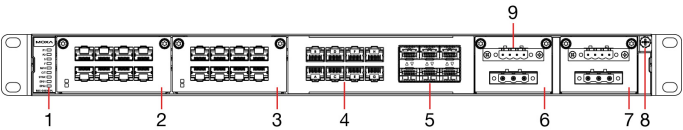
Panel Layouts

Front View

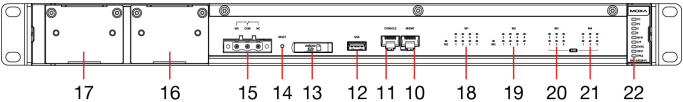
RKS-G4028-PL Series



RKS-G4030-PL Series



Rear View



CABLE SIDE:

1. System status LEDs
2. Module 1 socket
3. Module 2 socket
4. Module 3
5. Module 4
6. Power module 1 socket
7. Power module 2 socket
8. Grounding connector screw
9. EPS (external power supply)

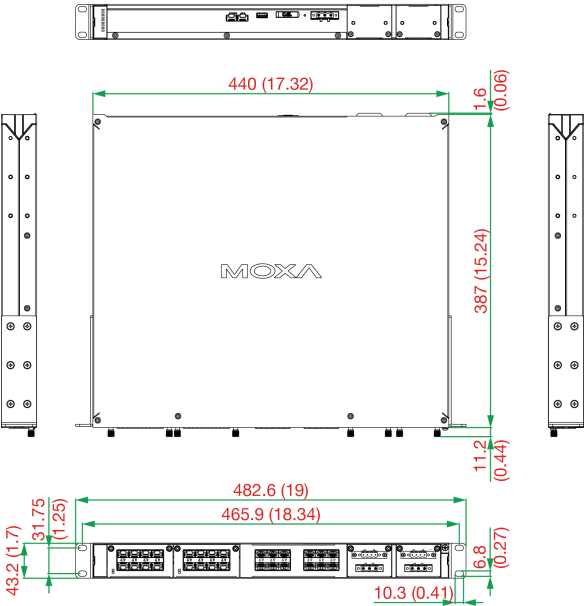
LED SIDE:

10. MGMT Port
11. Console port (RS-232, RJ45)
12. USB host (type A, ABC-02)
13. Micro SD (ABC-03)
14. Reset button
15. Relay output
16. Power module 1 socket
17. Power module 2 socket
18. Module 1 status LEDs
19. Module 2 status LEDs
20. Module 3 status LEDs
21. Module 4 status LEDs
22. System status LEDs

Dimensions

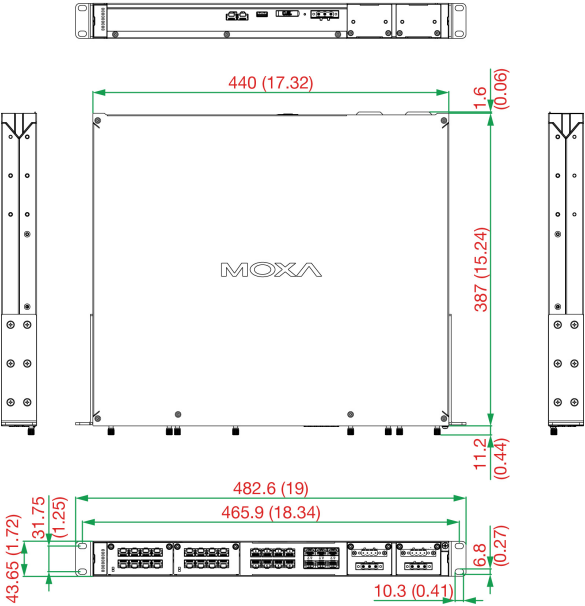
RKS-G4028-PL Series

Unit: mm (inch)



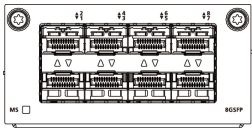
RKS-G4030-PL Series

Unit: mm (inch)

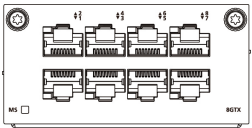


RM-G4000-PL Ethernet Interface Modules

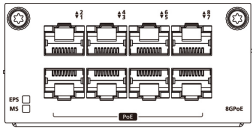
8GSFP



8GTX

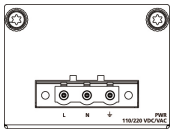


8GPoE

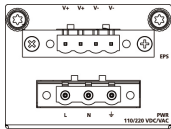


PWR-310 Power Modules

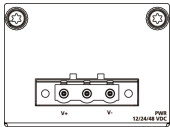
PWR-310-HV



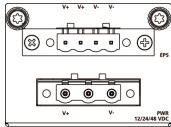
PWR-310-HV-P



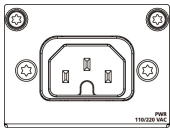
PWR-310-LV



PWR-310-LV-P



PWR-310-HVA



WARNING

When end users are using Optical SFP Communications modules, they must be limited to Laser Class 1.



WARNING

Use of the controls or adjustments or the performance of procedures other than those specified herein may result in hazardous radiation exposure.

CLASS 1 LASER PRODUCT

US Customers: Complies with FDA performance standards for laser products except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019.

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.

NOTE Using a shielded cable achieves better electromagnetic compatibility.

Operating Temperature Limitations

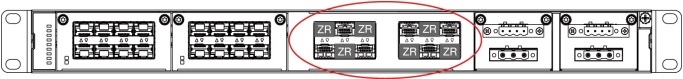
Operating temperature may be limited by the type of power module.

Standard Operating Temperature	-40 to 75°C (-40 to 167°F)
12 VDC Input (PWR-310-LV / LV-P)	-40 to 65°C (-40 to 149°F)

Additionally, operating temperature may be limited by the type and density of SFP modules.

Standard Operating Temperature	-40 to 75°C (-40 to 167°F)
Full Port Load of SFP-10GERLC-T	-40 to 60°C (-40 to 140°F)
Full Port Load of SFP-10GZRLC-T	-40 to 50°C (-40 to 122°F)
Staggered-pattern Port Load of SFP-10GZRLC-T	-40 to 60°C (-40 to 122°F)

Example RKS-G4028-PL Staggered SFP Module Installation



Example RKS-G4030-PL Staggered SFP Module Installation



NOTE Deployments do not need to exactly match staggered module installation examples, provided no two SFP-10GZRLC-T modules are directly adjacent to each other.

Connecting the Power Inputs

NOTE The required power module depends on the choice of RM-G4000-PL module. Refer to the following power/module combination requirements.

- RM-G4000-PL-8GTX/8GSFP: Any power module.
- RM-G4000-PL-8GPoE: PWR-310-HV-P, PWR-310-LV-P only.

NOTE For PoE power consumption exceeding 500 watts:

- Use identical power sources. Connect dual power inputs to same power supply.
- Match voltages exactly. Both power inputs must provide the same voltage.
- Measure first. Use a multimeter to verify identical voltages before connecting and powering on.

This is required for high loads where voltage differences may cause power imbalance. Matching voltages protects your device.

The RKS-G4028-PL/RKS-G4030-PL Series switches support 5 types of modular power supply.

- PWR-310-HV: one 110/220 VAC/VDC (85 to 264 VAC, 88 to 300 VDC).
- PWR-310-HV-P: one 110/220 VAC/VDC (85 to 264 VAC, 88 to 300 VDC), one 48VDC PoE power input for PoE+ ports.
- PWR-310-HVA: one 110/220 VAC (85 to 264 VAC).
- PWR-310-LV: one 12/24/48 VDC (10.8 to 72 VDC).
- PWR-310-LV-P: one 12/24/48 VDC (10.8 to 72 VDC), one 48 VDC PoE power input for PoE+ ports.

For the PWR-310-HV-P, the 110/220 VAC/VDC power supplies provide power to the switch. Separate 48 VDC power supplies are required to provide power to all PoE ports. For PoE+ applications, a minimum of 53 VDC is recommended.

For the PWR-310-LV-P, the 12/24/48 power supplies provide power to the switch. Separate 48 VDC power supplies are required to provide power to all PoE ports. For PoE+ applications, a minimum of 53 VDC is recommended.

Wiring Requirements



WARNING

Do not disconnect modules or wires unless power has been switched off or the area is known to be non-hazardous. The device may only be connected to the supply voltage shown on the type plate. The device is designed for operation with a Safety Extra-Low Voltage (SELV) or an isolated power supply, which means that they may only be connected to the supply voltage connections and to the signal contact with a SELV or an isolated power supply in compliance with IEC 62368-1/EN 62368-1/UL 62368-1 or UL 61010.

Power Terminal Blocks

The connection for EPS (external power supply) / PWR1 (power supply 1) and PWR2 (power supply 2) are located on the front panel as shown below.

PoE Models



HV Models



LV Models



PoE Models Power Terminal Blocks

1. Insert the negative/positive (-/+) DC wires into the terminals.
2. Insert the terminal block connector prongs into the terminal block receptor.

HV Models Power Terminal Blocks

1. Insert the line/neutral/ground (L/N/Ground) AC/DC wires into the terminals.
2. Insert the terminal block connector prongs into the terminal block receptor.

LV Models Power Terminal Blocks

1. Insert the negative/positive (-/+) DC wires into the terminals.
2. Insert the terminal block connector prongs into the terminal block receptor.

NOTE For higher levels of surge protection, install a surge protector in front of the power input of the PoE-powered device so that it is suitable for use in IEC 61850 conditions.

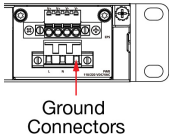
NOTE When wiring the power input, we suggest using 16-20 AWG (1.31-0.519 mm²) wiring and corresponding pin cable terminals. Wiring temperature rating should be at least 105°C.

NOTE When wiring PoE power input, we suggest using 16 AWG (1.31 mm²) wiring and corresponding pin cable terminals. Wiring temperature rating should be at least 105°C.

NOTE When wiring the grounding connector screw, we suggest using 16 AWG (1.31 mm²) wiring and corresponding pin cable terminals. Wiring temperature rating should be at least 105°C. Recommended torque: 6 kgf·cm (0.6 Nm) or above.

NOTE Tighten terminal screws with a torque value of 0.28 N·m (2.5 lbf·in). Use copper conductors only.

NOTE When HV models are connected with to AC power source, make sure the Ground wire is connected correctly.



NOTE When you purchase a device with two power modules, both power units will be activated simultaneously, which will enable power redundancy.

NOTE The reverse power input connection will not activate the device or PoE input.

NOTE PoE requires dual power input ports to be connected to the same power source. Both power inputs must be supplied with the same input voltage. Always use power cables with the same length and wire gauge.

Wiring the Relay Contact

Each power module has one relay output that can be used to detect user-configured events. Two wires are attached to the relay pins with 'Normally Closed' and 'Normally Open' options.

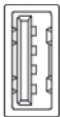
1. Insert the wires into the terminals.
2. Insert the terminal block connector prongs into the terminal block receptor.

FAULT:

The relay contact of the 3-pin terminal block connector is used to detect user-configured events. The two wires attached to the fault contacts form an open circuit when a user-configured event is triggered. If a user-configured event does not occur, the fault circuit remains closed.

USB Connection

Use Moxa USB Automatic Backup Configurator ABC-02-USB to connect to the USB storage port to backup and restore configuration files, auto-load configuration files, upgrade firmware, and backup system log files.



Type A

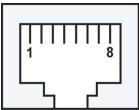
microSD Connection

Use Moxa microSD Automatic Backup Configurator ABC-03-microSD to connect to the microSD port to back up and restore configuration files, auto-load configuration files, upgrade firmware, and back up system log files.

Console Port Connection

The RKS device has one RJ45 console port (RS-232), located on the front panel. Use an RJ45-based cable to connect the RKS’s console port to your PC’s COM port. You may then use a console terminal program, such as Moxa PComm Terminal Emulator, to access the RKS device with a baud rate of 115200. Refer to the following table figure for the pin definition.

Pin	Description
1	DSR
2	–
3	–
4	TxD
5	RxD
6	GND
7	–
8	–



The Reset Button

Depress the Reset button for five continuous seconds to load the factory default settings. Use a pointed object, such as a straightened paper clip or toothpick, to depress the Reset button. When you do so, the STATE LED will start to blink about once per second. Continue to depress the STATE LED until it begins blinking more rapidly; this indicates that the button has been depressed for five seconds and you can release the Reset button to load factory default settings.

NOTE Do NOT power off the switch when loading default settings.

Placing the Round Stickers on Module Screws

Moxa provides tamper-evident stickers with each module shipment. These stickers are to be placed on the screws of the modules to avoid unauthorized persons accessing the modules. After installing the module, tamper-evident stickers should be applied to module screws to prevent unauthorized access.

Each module comes with two tamper-evident stickers. If a sticker is broken or removed, it indicates that the module may have been accessed by unauthorized personnel.

Apply the stickers as shown:



1. Use a cloth to clean the surface of the screws with 75% alcohol solution.
2. We suggest you use a tweezer to place the stickers.
3. Press and hold the stickers down at 1 kg/cm² (15 PSI) for at least 15 seconds.
4. Keep the device at room temperature for 24 hours before deployment in harsh environments.

- NOTE**
1. Place the stickers carefully as they are thin and fragile.
 2. The ideal environment for the stickers to be stored in is 22°C (72°F) and 50% relative humidity.
 3. Keep extra stickers in a safe place to prevent unauthorized access.

Installing/Removing the Ethernet Module

The Ethernet modules are hot-swappable with modules of the same type. You can install or remove modules while the device is operating if the module model is identical.

Installation Procedure:

1. Insert the Ethernet module straight into the slot.
2. Fasten the module to the device by tightening the two screws.
3. Recommended torque: 3.5 kgf-cm (0.35 Nm)

Removal Procedure:

1. Loosen the two screws of the module.
2. Pull the module out of the slot.
3. Insert a dummy module into the slot to improve protection against dust and EMI.
4. Fasten the dummy module using two screws.
Recommended torque: 4 kgf-cm (0.40 Nm)

NOTE When replacing a module with a module of a different model:

1. Power off the device if necessary.
2. Remove the existing module.
3. Insert the new module.
4. Reboot the system to apply the new configuration.

Installing/Removing the Power Module

The power supply units are also hot-swappable. However, to ensure safety and prevent electrical damage, please follow the guidelines below carefully.

NOTE Fully install the PSU module before connecting power to the system.

Do not connect the PSU to a live power source and then attach it to the main unit.

Installation Procedure:

1. Insert the power supply unit straight into the slot.
2. Fasten the unit to the device by tightening the two screws.
Recommended torque: 3.5 kgf-cm (0.35 Nm)

Removal Procedure:

1. Loosen the two screws of the power module.
2. Pull the module out of the slot.
3. Insert a dummy module into the slot for better dust and EMI protection.
4. Fasten the dummy module using two screws.
Recommended torque: 4 kgf-cm (0.40 Nm)

LED Indicators

Main Chassis LED (Cabling side)

LED	Color	State	Description
System LEDs			
P1 (PWR1)	Amber	On	Power supplied to main module power input PWR1.
		Off	Power not being supplied to main module power input PWR1.
P2 (PWR2)	Amber	On	Power supplied to main module power input PWR2.
		Off	Power not supplied to main module power input PWR2.
S (STATE)	Green	On	Passed self-diagnosis test on boot up and is ready to run.
		Blinking (1 Hz)	1. Holding the reset button for 5 seconds to reset factory default. 2. System service initializing.
		Blinking (4 Hz)	1. Factory reset in progress after holding reset button for 5 seconds. 2. External storage connected to switch.
	Red	On	Boot failure. Read Fail/EEPROM information error.
F (FAULT)	Red	On	1. Loop protection enabled, network loop detected 2. External storage loading/saving failure 3. Port disabled due to exceeding ingress rate threshold
		Off	Normal operation, user-configured events not triggered.
M/H (MSTR/HEAD)	Green	On	1. The switch is Turbo Ring 1 or Turbo Ring 2 Master. 2. The switch is Turbo Chain Head. 3. The switch is MRP Ring Manager.

LED	Color	State	Description
		Blinking (4 Hz)	1. The switch is Turbo Ring 1 or Turbo Ring 2 Master, and at least one ring is broken. 2. The switch is a Turbo Ring Member and all of the corresponding ring ports are link down. 3. The switch is the Head of Turbo Chain and the chain is broken. 4. The switch is the Manager of MRP ring and the ring is open. 5. The switch is the Member of Turbo Chain and the corresponding Member Port 1 is link down. 6. The switch is the Turbo Chain Tail and the corresponding Member Port is link down.
		Off	1. The switch is not of Turbo Ring 1 or Turbo Ring 2 Master. 2. The switch is not the Turbo Chain Head. 3. The switch is not the Manager of MRP ring.
C/T (CPLR/ TAIL)	Green	On	1. The switch's ring coupling or dual homing function is enabled. 2. The switch is not Turbo Chain Tail.
		Blinking (4 Hz)	1. The switch is the Turbo Chain Tail and the chain is broken. 2. The switch is Turbo Chain Head and the corresponding Member Port is link down. 3. The switch is Turbo Chain Member and the corresponding Member Port 2 is link down.
		Off	Coupling disabled or Turbo Chain tail.
EPS1/ EPS2 (External Power Supply)	Amber	On	Normal operation.
		Off	No external power supply for PoE.
SYNC	Amber	On	PTP enabled.
		Blinking (4 Hz)	Receiving sync packets, time convergence in-progress.
		Off	PTP not enabled.
	Green	On	The PTP converged successfully.
		Off	PTP not enabled.
System LED (Except PWR)	Green > Red > Amber	Rotate Blinking "ON" (2 Hz) then "Off" Sequentially	Importing/exporting file via external storage.

LED	Color	State	Description
		Blinking (4 Hz)	Locator discovery in-progress.
Module System LEDs			
MS (Module State)	Green	On	Normal operation.
		Off	This module offline.
	Red	On	Module initialization failed (PHY init failed/EEPROM read failed).
EPS (External Power Supply for PoE)	Amber	On	Normal operation.
		Off	No external power supply for PoE.
Ports LEDs			
Copper (10/100/1000 Mbps)	Green	On	Port active with 1 Gbps link.
		Blinking	Data transmitting at 1 Gbps.
		Off	Port inactive or link down.
	Amber	On	Port is active with 10/100 Mbps link.
		Blinking	Data transmitting at 10/100 Mbps.
		Off	Port inactive or link down.
Copper (10/100/1G/2.5G)	Green	On	Port active with 2.5 Gbps link.
		Blinking	Data transmitting at 2.5 Gbps.
		Off	When the port is inactive or link down.
	Amber	On	Port is active with 10/100 Mbps or 1 Gbps link.
		Blinking	Data transmitting at 1 Gbps.
		Off	Port inactive or link down.
SFP+ (1G/2.5G/10G)	Green	On	Port active with 10 Gbps link.
		Blinking	Data transmitting at 10 Gbps.
		Off	Port inactive or link down.
	Amber	On	Port active with 1/2.5 Gbps.
		Blinking	Data transmitting at 1/2.5 Gbps.
		Off	Port inactive or link down.
Ultra PoE (IEEE 802.3bt)	Green	On	Port connected to IEEE 802.3bt-powered device and powered at: - Single signature (PD) Class 5 to 8. - Dual signature (PD) Class 1 to 5. - Force mode.
		Off	1. Power not supplied to a powered device (PD) 2. Port not connected to IEEE 802.3bt-powered device and powered at: - Single signature (PD) Class 5 to 8. - Dual signature (PD) Class 1 to 5. - Force mode.
	Amber	On	Port connected to IEEE 802.3af/at-powered device and powered at: Single signature (PD) 0 to 4.

LED	Color	State	Description
		Blinking (4 Hz)	PoE power been shut off due to low power budget.
		Off	1. Power not supplied to a powered device (PD). 2. Port not connected to an IEEE 802.3af/at PD.

Main Chassis LED (LED side)

LED	Color	State	Description
P1 (PWR1)	Amber	On	Power supplied to main module power input PWR1.
		Off	Power not supplied to main module power input PWR1.
P2 (PWR2)	Amber	On	Power supplied to main module power input PWR2.
		Off	Power not supplied to main module power input PWR2.
S (STATE)	Green	On	Self-diagnostic test passed on boot up and ready to run.
		Blinking (1 Hz)	1. Holding the reset button for 5 seconds to reset factory default 2. System service initialization.
		Blinking (4 Hz)	1. Factory reset in progress after holding reset button for 5 seconds. 2. External storage connected to switch.
	Red	On	The boot-up process failed. • Read Fail/EEPROM information error.
F (FAULT)	Red	On	1. Loop protection enabled, network loop detected 2. External storage Loading/Saving failure. 3. Port disabled due to exceeding ingress rate threshold
		Off	Normal operation, user-configured events not triggered.
M/H (MSTR/HEAD)	Green	On	1. Switch is Turbo Ring 1 or Turbo Ring 2 Master. 2. Switch is of Turbo Chain Head. 3. Switch is MRP Ring Manager.

LED	Color	State	Description
		Blinking (4 Hz)	- Switch is Turbo Ring 1 or Turbo Ring 2 Master, and at least one ring is broken. - Switch is Turbo Ring Member and all corresponding ring ports are down. - Switch is Turbo Chain Head and chain is broken. - Switch is MRP ring Manager and the ring is open. - Switch is Turbo Chain Member and corresponding Member Port 1 is down. - Switch is Turbo Chain Tail and the corresponding Member Port is down.
		Off	- Switch is not Turbo Ring 1 or Turbo Ring 2 Master. - Switch is not Turbo Chain Head. - Switch is not MRP ring Manager.
C/T (CPLR/ TAIL)	Green	On	- Switch ring coupling or dual homing function enabled. - Switch is Turbo Chain Tail.
		Blinking (4 Hz)	- Switch is Turbo Chain Tail and the chain is broken. - Switch is Turbo Chain Head and the corresponding Member Port is down. - Switch is Turbo Chain Member and the corresponding Member Port 2 is down.
		Off	Switch coupling disabled or Turbo Chain tail.
EPS1/ EPS2 (External Power Supply)	Amber	On	Normal operation.
		Off	No external power supply for PoE.
SYNC	Amber	On	PTP function enabled.
		Blinking (4 Hz)	Receiving sync packets, time convergence in-progress.
		Off	PTP not enabled.
	Green	On	PTP successful converged successfully.
		Off	PTP not enabled.
System LED (Except PWR)	Green > Red > Amber	Blinking (2 Hz)	Importing/exporting file via external storage.
		Blinking (4 Hz)	Locator discovery in-progress.

LED on Ethernet Module Port

LED	Color	State	Description
RM-G4000-PL-8GTX	Green	On	Port active with 1 Gbps link.
		Blinking	Data transmitting at 1 Gbps.
	Amber	On	Port active at 10/100 Mbps.
		Blinking	Data transmitting at 10/100 Mbps.
	Off		Port inactive or down.
RM-G4000-PL-8GSFP	Green	On	Port active with 1 Gbps link.
		Blinking	Data transmitting at 1 Gbps.
	Amber	On	Port active with 10/100 Mbps link.
		Blinking	Data transmitting at 100/10 Mbps.
	Off		Port inactive or down.
RM-G4000-PL-8GpoE (Ethernet)	Green	On	Port active with 1 Gbps link.
		Blinking	Data transmitting at 1 Gbps.
	Amber	On	Port active with 10/100 Gbps link.
		Blinking	Data transmitting at 10/100 Gbps.
	Off		Port inactive or down.
RM-G4000-PL-8GpoE (PoE)	Green	On	Port connected to IEEE 802.3bt powered device and powered at: • Single signature (PD) Class 5 to 8. • Dual signature (PD) Class 1 to 5. • Force mode.
	Amber	On	Port connected to IEEE 802.3af/at powered device and powered at: • Single signature (PD) 0 to 4.
		Blinking (4 Hz)	PoE power shut due to low power budget.
	Off		1. Power not supplied to a powered device (PD). 2. Port not connected to IEEE 802.3bt/at/af powered device and powered normally.

Specifications

Interface	
1000/2500/10000 BaseSFP fixed Ports	RKS-G4028-PL models: 12 RKS-G4030-PL models: 6
100/1000/2500 BaseT(X) fixed Ports	RKS-G4030-PL models: 8
100/1000BaseT(X) slots	RKS-G4028-PL models: 2
100/1000Base SFP slots	RKS-G4030-PL models: 2
Modules	There are 2 module slots on the switch. Users can select different types of modules to insert into the switch. The modules that can be selected include 8-port module with 10/100/1000BaseT(X), 100/1000BaseSFP interfaces.
Note: Half-duplex transmission not supported. All Ethernet ports (including module ports) operate in full-duplex mode only.	
Alarm Contact Channels	1 relay output with current carrying capacity of 2 A @ 30 VDC, 0.5 A @ 125 VAC
Console Port	RS-232 (RJ45 connector)
Storage Port	USB Type A, microSD card
Buttons	Reset button
LED Indicators	PWR1, PWR2, STATE, FAULT, MSTR/HEAD, CPLR/TAIL, SYNC, EPS
PoE Information	
Total PoE Power Budget	PoE systems and one power supply: Max 360 W, 48 VDC input PoE+ systems and one power supply: Max 500 W, 53 to 57 VDC PoE+ systems and two power supplies: Max 720 W, 53 to 57 VDC
Max. PoE Power Output per Port	IEEE 802.3af: 15.4 W IEEE 802.3at: 30 W* IEEE 802.3bt: 90 W *The power consumption tested for UL certification.
Max. PoE Power Output per Module	240 W
Power Parameters	
Input Voltage	Isolated Power Module: - PWR-310-HV: 110/220 VDC, 110/220 VAC - PWR-310-HVA: 110/220 VAC Isolated Power Module with PoE EPS: - PWR-310-HV-P: 110/220 VAC, 110/220 VDC, EPS Input: 48 to 57 VDC - PWR-310-LV-P: 12/24/48 VDC, EPS Input: 48 to 57 VDC <i>(For PoE+ applications, a minimum of 53 VDC is recommended.)</i>

Operating Voltage	• PWR-310-LV/PWR-310-LV-P models: 10.8 to 72 VDC • PWR-310-HV/PWR-310-HV-P models: 88 to 300 VDC, 85 to 264 VAC • PWR-310-HVA models: 85 to 264 VAC • PoE models: 46 to 57 VDC (for the PoE system) For power input design, use Input Voltage.
Overload Current Protection	Supported
Reverse Polarity Protection	Supported
Input Current*	PWR-310-LV/PWR-310-LV-P models: • Max. 8 A @ 12 VDC • Max. 3.08 A @ 24 VDC • Max. 1.52 A @ 48 VDC PWR-310-HV/PWR-310-HV-P models: • Max. 0.67 A @ 110 VDC • Max. 0.33 A @ 220 VDC • Max. 0.79 A @ 110 VAC • Max. 0.35 A @ 220 VAC PWR-310-HVA models: • Max. 0.79 A @ 110 VAC • Max. 0.35 A @ 220 VAC EPS (PoE models only): • Max. 12 A @ 48 to 57 VDC
*Input current values reflect maximum ratings certified at full load.	
Power Consumption (Max.) (Full modules installed)	RKS-G4030-PL with PWR-310 LV and LV-P Modules: • Max. 92.81W @ 12VDC • Max. 78.65W @ 24VDC • Max. 77.55W @ 48VDC RKS-G4030-PL with PWR-310 HV and HV-P Modules: • Max. 78.21 W @ 110 VDC • Max. 77.55 W @ 220 VDC • Max. 77.11 W @ 110 VAC • Max. 76.01 W @ 220 VAC RKS-G4030-PL with PWR-310 HVA Modules: • Max. 77.11 W @ 110 VAC • Max. 76.01 W @ 220 VAC RKS-G4028-PL with PWR-310 LV and LV-P Modules: • Max. 96.06 W @ 12 VDC • Max. 81.4 W @ 24 VDC • Max. 80.3 W @ 48 VDC RKS-G4028-PL with PWR-310 HV and HV-P Modules: • Max.80.96 W @ 110 VDC • Max.80.3 W @ 220 VDC • Max.79.86 W @ 110 VAC • Max.78.76 W @ 220 VAC RKS-G4028-PL with PWR-310 HVA Modules: • Max.79.86 W @ 110 VAC • Max.78.76 W @ 220 VAC

Physical Characteristics	
IP Rating	IP40
Note: Populate or cap all ports to maintain IP40 protection.	
Dimensions	440 x 44 x 387 mm (17.32 x 1.72 x 15.24 in)
Weight	RKS-G4030-PL-PoE-8QGT-6XGS-T: 5.49 kg (12.1 lbs) RKS-G4030-PL-L3-PoE-8QGT-6XGS-T: 5.49 kg (12.1 lbs) RKS-G4030-PL-8QGT-6XGS-T: 5.44 kg (11.99 lbs) RKS-G4030-PL-L3-8QGT-6XGS-T: 5.44 kg (11.99 lbs) RKS-G4028-PL-PoE-12XGS-T: 5.41 kg (11.92 kg) RKS-G4028-PL-L3-PoE-12XGS-T: 5.41 kg (11.92 kg) RKS-G4028-PL-12XGS-T: 5.45 kg (11.93 lbs) RKS-G4028-PL-L3-12XGS-T: 5.45 kg (11.93 lbs)
Installation	Rack mounting
Environmental Limits	
Operating Temperature	-40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Standards and Certifications	
Safety	EN IEC 62368-1, IEC 62368-1, UL 62368-1, UL61010-1, UL-61010-2-201
EMC	EN 55032/35, EN 61000-6-2/-6-4, IEC 61000-4-8 PFMF 1000 A/m 1s, IEC 61000-4-11 AC Voltage Dips and Interruptions, IEC 61000-4-29 DC Voltage Dips and Interruptions
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 35 V/m IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power: 4 kV; Signal: 4 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF IEC 61000-4-11 Voltage Dips and Interruptions
Power Substation	IEC 61850-3 Edition 2, IEC 61850-90-4 , IEEE 1613 Class 2 (EMC)
Railway	EN 50121-4
Traffic Control	NEMA TS2
Industrial Cybersecurity	IEC 62443-4-1, IEC 62443-4-2
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6
Package Drop Test	ISTA 1A

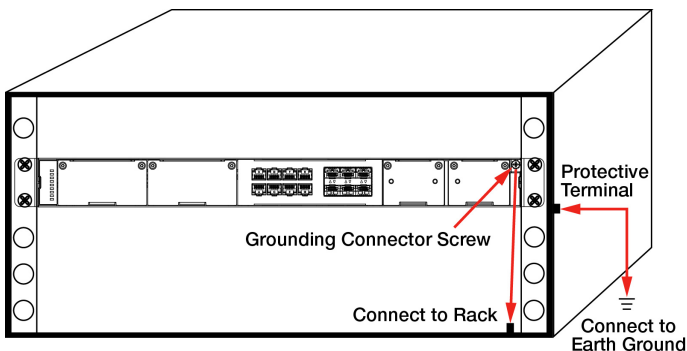
Package Vibration Test	ISTA 1A
Warranty	
Warranty Period	5 years
Details	See www.moxa.com/warranty

Rack Mounting Instructions

- 1. 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 (Tma) specified by the manufacturer.

NOTE To ensure reliable operations, please make sure the operating temperature of the environment does not exceed the spec. When mounting an RKS-G4000-PL rack-mounted switch with other operating units in a cabinet without forced ventilation, it is recommended that 1U of space is reserved between each rack-mounted switch and/or device.

- 2. 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.
- 3. Mechanical Loading:** Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- 4. 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.
- 5. Reliable Grounding:** Reliable grounding 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). Make sure the grounding screw of the device has been connected by a 16 AWG (min.) green-and-yellow wire to the rack, and the protective terminal of the rack has connected to the earth ground.





ATTENTION

When installing the device onto a rack, make sure that the input terminal block and protective terminal do not connect, or it may cause an electric shock.



ATTENTION

The EUT with other operating units must be mounted in minimum spacing of 1U on both sides and above/below or standalone.

NOTE The rackmount ears can be equipped on the front or rear of Moxa RKS-G4000-PL switch.

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.



ATTENTION

- To protect against the risk of fire, only replace the fuse with one that has the same type and rating.
- It is recommended to incorporate a readily accessible disconnect device into the building installation wiring. Importantly, ensure the power supply is disconnected before performing any maintenance.
- This equipment is designed to connect the earthed conductor of the D.C supply circuit to the equipment's earthing conductor.
- It is recommended to keep the PoE network indoors when using Information Technology Equipment.

BSMI Information

限用物質含有情況標示聲明書

Declaration of the Presence Condition of the Restricted Substances Marking

設備名稱： Equipment name	型號（型式）： Type designation (Type)
單元 Unit	限用物質及其化學符號

(如適用)	Restricted substances and its chemical symbols					
	鉛 Lead (Pb)	汞 Mercury (Hg)	鎘 Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr ⁺⁶)	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
外殼	○	○	○	○	○	○
印刷電路板及其電子組件	—	○	○	○	○	○
電纜/電線/連接器	—	○	○	○	○	○
機械部件-金屬	—	○	○	○	○	○
機械部件-非金屬	○	○	○	○	○	○
備考 1. “超出 0.1 wt %”及 “超出 0.01 wt %”係指限用物質之百分比含量超出百分比含量基準值。 Note 1: “Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition. 備考 2. “○”係指該項限用物質之百分比含量未超出百分比含量基準值。 Note 2: “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence. 備考 3. “—”係指該項限用物質為排除項目。 Note 3: The “—” indicates that the restricted substance corresponds to the exemption.						

NOTE 為避免電磁干擾，本產品不應安裝或使用於住宅環境。

Safety

NOTE The installation that the safety of any system incorporating the equipment is the responsibility of the assembler of the system.

NOTE If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired