Ruijie | Cybrey

# Power Modules



Ruijie Networks Co., Ltd.
All Rights Reserved.

**Datasheet**
V1.0

# Product Overview

## Introduction

The Cybrey series switches feature two pluggable power module slots with 1+1 redundancy. When both power modules are installed and the PoE remains within the capacity of a single module, either module can be replaced without interrupting traffic forwarding or power delivery to connected devices. This eliminates the need for a maintenance window during power module replacement.The four AC power modules covered in this datasheet address power requirements of Cybrey access and aggregation switches, ranging from a 150 W module for fixed switches to a 1,000 W PoE module capable of supporting the full port density of Class 8 (90 W) PoE ports. With consistent protection mechanisms, conformal coating, and management capabilities, these modules simplify planning and enable scalable deployment across the product portfolio.

**RG-PA150IB-FC**

The RG-PA150IB-FC is an AC power module with AC input and DC output, delivering up to 150 W of output power. It supports an input voltage range of 100–240 V AC and a maximum input current of 3 A. It is ideal for fixed-configuration access and aggregation switches that do not require PoE power.

**RG-PA550I-FC**

The RG-PA550I-FC is an AC power module with AC input and DC output, delivering up to 550 W of output power. It supports the same 100–240 V AC input voltage range as other modules in the product family, with a maximum input current of 7.2 A. This allows it to be deployed using the same power supply infrastructure and cabling standards as the RG-PA150IB-FC.

**RG-PA1000I-P-FC**

The RG-PA1000I-P-FC is an AC power module with AC input and DC output, delivering up to 930 W at an input voltage of 100–130 V AC and up to 1,000 W at 200–240 V AC. Its maximum input current is 12 A at the lower voltage range and 8 A at the higher voltage range. This enables the module to deliver its full PoE power budget even in regions with 110 V AC mains power.

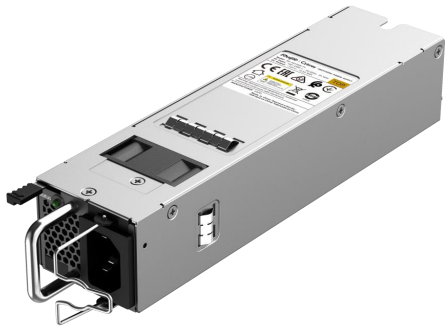
**RG-PA600I-P-FC**

The RG-PA600I-P-FC is an AC power module with AC input and DC output, delivering up to 600 W of output power. With a maximum input current of 8 A, it provides a suitable PoE power budget for medium-density PoE deployments. It can also be paired with the RG-PA1000I-P-FC in the same chassis to accommodate growing PoE power demands.

# Product Appearance

Each module is a pluggable unit with an integrated handle, a front-panel power socket, a status LED, and a captive power cord retention clip. Module dimensions vary by power rating and are provided in Product Specifications.

## RG-PA150IB-FC



## RG-PA550I-FC



RG-PA1000I-P-FC



RG-PA600I-P-FC



# Product Features

**Power Supply Redundancy**

Two power modules installed on the same switch operate in parallel with load sharing. When the PoE load stays within the capacity of a single module, the pair provides 1+1 redundancy, ensuring that a single module failure does not interrupt switch operation or PoE power delivery. Unlike standby redundancy designs, both modules actively share the load, allowing them to operate within their optimal efficiency ranges while providing power redundancy.

**Hot Swapping**

A redundant power module can be disconnected from the external power source and replaced while the switch is powered on. With a plug-and-play design, a failed module can be replaced within minutes without requiring a maintenance window or interrupting power delivery to connected PoE devices.

**Comprehensive Protection**

Each power module incorporates multiple protection mechanisms, including input undervoltage protection, output overcurrent protection, output overvoltage protection, and output short-circuit protection. These protections isolate faults at the module level, preventing them from propagating to the switch backplane and safeguarding both the chassis and connected PoE-powered devices.

**Conformal Coating**

A factory-applied conformal coating protects internal circuitry against moisture, mold, and electrical shock and leakage. This extends service life in humid, dusty, and coastal environments, where condensation and salt spray can accelerate power supply degradation.

**I2C Communication**

The switch communicates with each power module via the I2C interface, enabling it to retrieve module status and identification information, such as the module model. This makes power supply health and module information accessible via the network management system, reducing the need for onsite inspection.

**Power Supply Alarm**

When a power supply fault occurs, the corresponding output status LED turns off, providing on-site personnel with an immediate visual indication of the faulty module. This simplifies fault identification and replacement, helping reduce mean time to repair (MTTR).

# Product Specifications

| Model | RG-PA150IB-FC | RG-PA550I-FC | RG-PA600I-P-FC | RG-PA1000I-P-FC |
|---|---|---|---|---|
| **Power Supply and Consumption** | | | | |
| Rated voltage range | 100 V to 240 V | 100 V to 240 V | 100 V to 240 V | 100 V to 240 V |
| Maximum voltage range | 90 V to 264 V | 90 V to 264 V | 90 V to 264 V | 90 V to 264 V |
| Maximum output power | 150 W | 550 W | 600 W | 100 VAC to 130 VAC: 930 W<br>200 VAC to 240 VAC: 1000 W |
| Input current | 3 A | 7.2 A | 8 A | 100 VAC to 130 VAC: 12 A<br>200 VAC to 240 VAC: 8 A |
| Output voltage | 12 V | 12 V | 56 V | 56 V |
| Maximum output current | 12.5 A | 45 A | 10.72 A | 100 V to 130 V: 16.61 A<br>200 V to 240 V: 17.86 A |
| Leakage current | 3.5 mA | 3.5 mA | 3.5 mA | 3.5 mA |
| **Interface Specifications** | | | | |
| LED | 1 x Status LED | 1 x Status LED | 1 x Status LED | 1 x Status LED |
| **Dimensions and Weight** | | | | |
| Dimensions (W x D x H) | 196 mm x 50.5 mm x 40 mm (7.72 in. x 1.99 in. x 1.57 in.) | 185 mm x 73.5 mm x 39 mm (7.28 in. x 2.89 in. x 1.54 in.) | 196 mm x 90 mm x 40 mm (7.72 in. x 3.54 in. x 1.57 in.) | 196 mm x 90 mm x 40 mm (7.72 in. x 3.54 in. x 1.57 in.) |
| Net weight | 0.80 kg (1.76 lbs) | 1.21 kg (2.67 lbs) | 1.08 kg (2.38 lbs) | 1.25 kg (2.76 lbs) |
| Shipping weight | 3.75 kg (8.27 lbs) | 2.94 kg (6.48 lbs) | 2.56 kg (5.64 lbs) | 2.9 kg (6.39 lbs) |
| **Environment and Reliability** | | | | |
| Airflow direction | Rear-to-front: Air intake from the connector and air outlet from the front panel | Rear-to-front: Air intake from the connector and air outlet from the front panel | Rear-to-front: Air intake from the connector and air outlet from the front panel | Rear-to-front: Air intake from the connector and air outlet from the front panel |
| Operating temperature | –10° C to +55° C (–14° F to +131° F) | –10° C to +55° C (–14° F to +131° F) | –10° C to +55° C (–14° F to +131° F) | –10° C to +55° C (–14° F to +131° F) |
| Storage temperature | –40°C to +70°C (–40° F to +158° F) | –40°C to +70°C (–40° F to +158° F) | –40°C to +70°C (–40° F to +158° F) | –40°C to +70°C (–40° F to +158° F) |
| Operating humidity | 10% to 90% RH (non-condensing) | 10% to 90% RH (non-condensing) | 10% to 90% RH (non-condensing) | 10% to 90% RH (non-condensing) |
| Storage humidity | 10% to 90% RH (non-condensing) | 5% to 95% RH (non-condensing) | 5% to 95% RH (non-condensing) | 5% to 95% RH (non-condensing) |
| Operating altitude | –500 m to +5000 m (–1640.42 ft. to +16404.20 ft.) | –500 m to +5000 m (–1640.42 ft. to +16404.20 ft.) | –500 m to +5000 m (–1640.42 ft. to +16404.20 ft.) | –500 m to +5000 m (–1640.42 ft. to +16404.20 ft.) |
| Power cord | 10 A power cord | 10 A power cord | 10 A power cord | 10 A power cord |
| **Compliance and Certification** | | | | |
| Compliance and certification | CE CB | CE CB | CE CB | CE CB |

# Ordering Information

| Model | Description |
| --- | --- |
| **RG-PA150IB-FC** | 150 W AC power module, AC input and DC output, hot swapping |
| **RG-PA550I-FC** | 550 W AC power module, AC input and DC output, hot swapping |
| **RG-PA1000I-P-FC** | 1000 W AC PoE power module, dual AC input range, hot swapping |
| **RG-PA600I-P-FC** | 600 W AC PoE power module, hot swapping |

## Applicable Switches

| Series | Switch Model | Supported Power Module |
| --- | --- | --- |
| **RG-CS65 series** | RG-CS65-24SFP/8GT4XS-D<br>RG-CS65-12XS4VS2QXS-D | RG-PA150IB-FC |
| **RG-CS65 series** | RG-CS65-24XS8VS2QXS-D | RG-PA550I-FC |
| **RG-CS63 series** | RG-CS63-24MG4XS-UPD | RG-PA600I-P-FC<br>RG-PA1000I-P-FC |

# Warranty

For more information about warranty terms and period, contact your local sales agency:

- Warranty terms: https://www.ruijie.com/support/servicepolicy
- Warranty period: https://www.ruijie.com/support/servicepolicy/Service-Support-Summary/

*Note: The warranty terms are subject to the terms of different countries and distributors.*

# More Information

For more information about Ruijie Networks, visit the official Ruijie website or contact your local sales agency:

Ruijie Networks official website: https://www.ruijie.com/

Online support: https://www.ruijie.com/support

Hotline support: https://www.ruijie.com/support/hotline

Email support: service_rj@ruijie.com


Ruijie
Cybrey