



Ruijie RG-S1800 Series Unmanaged Switches Datasheet

Ruijie RG-S1800 Series Unmanaged Switches deliver basic network connectivity and reliability for small businesses which are easy on the budget and without all the complexity. These switches provide all of the features, expandability, and investment protection you expect from Ruijie, with no installation software and zero configuration required. Just plug it in, connect your computers and other business equipment, and the device will be ready to use.

Ruijie RG-S1800 Series Unmanaged Switches are a line of unmanaged switches that provide wire-speed Gigabit Ethernet connectivity to connect your small business office. Available in desktop and rack-mount models, these switches are designed to suit any office space with basic network needs and to optimize power efficiency.

The Ruijie RG-S1800 Series Unmanaged Switches are suitable for video surveillance networks and support PoE+. They can be used for parks, office buildings, residential, parking and other video surveillance environments for camera access. The switches have larger port buffer to ensure a smooth video transmission.

FEATURE HIGHLIGHTS

- Affordable 10/100/1000Mbps speeds for even the most bandwidth-hungry applications
- Desktop or rack mountable models with 8 to 26 ports
- Power over Ethernet Plus models to provide power to IP phones, access points, cameras and other devices
- Work right out of the box: plug and play with no setup



Figure 1: RG-S1818G



Figure 2: RG-S1826



Figure 3: RG-S1826G



Figure 4: RG-S1826G-P



Figure 5: RG-S1808



Figure 6: RG-S1810G-P



Figure 7: RG-S1808G



Figure 8: RG-S1809-P

PRODUCT FEATURES

Ease of Use

Ruijie RG-S1800 Unmanaged Series switches work right out of the box, with no software to install and zero configuration required. Each switch port independently sets itself for the optimal speed and determines whether to run in half- or full-duplex mode automatically.

Ruijie RG-S1800 Unmanaged Series switches are also designed to immediately accommodate all of the devices in your network, including:

- Support for 10 Mbps, 100 Mbps, and up to 1 Gbps (1000 Mbps) devices in the same network
- Automatic cable detection, so users do not have to concern about using the wrong cable type
- Compatibility with network devices from other vendors

High Performance in Bandwidth-intensive Video Services

Gigabit Ports and Larger Port Buffer

In the video surveillance environment, each video traffic averages 4-8Mbps, and from the actual traffic analysis with analysis duration of 10ms, the burst traffic of video surveillance can even reach 50Mbps. The traditional switches cannot meet the video surveillance requirement of the large uplink bandwidth. Ordinary unmanaged switches are designed for PC networks, and the cache is typically designed at 128K-512K.

In response to this feature, all of the uplink ports of the RG-S1800 are designed for Gigabit ports and with large port buffer to meet the characteristics of video surveillance burst traffic, thereby preventing the phase lag of the videos.

SFP Support

For video surveillance coverage, the cameras are usually far away from the central telecom room. Due to the costs of the traditional switches, especially the low-end unmanaged switches, they generally do not provide SFP port. Therefore, in the field of surveillance, in order to solve the challenges of long-distance transmission, engineers have to use a large number of photoelectric conversion modules.

On the one hand, the photoelectric conversion modules are active devices. They must be used in pairs, and they require independent power supplies, which result in a large number of receiving end of the photoelectric conversion modules, in the central telecom room and cause difficulty for wiring. On the other hand, the large amount of low-cost photoelectric conversion modules flooding the market may cause a high incidence of failure.

Ruijie RG-S1800 Series supports SFP ports. According to the deployment distance, you can use optical fiber module for fiber optic transmission. It does not only eliminate the cost of purchasing photoelectric converters, but also reduces the failure of the entire solution.



Figure 9: RG-S1826G-P

Safety and Savings from PoE+

RG-S1809-PIRG-S1826G-P switches are available with PoE+ ports. This capability simplifies the deployment of IP telephony, wireless, video surveillance, and other solutions by allowing you to connect and power network endpoints over a single Ethernet cable. With no need to install separate power supplies for IP phones, wireless access points and cameras, you can take advantage of the advanced communications technologies more quickly and at a lower cost.

Time and Cost Savings

Electrical wiring involves a series of construction work and tests, which means requiring more human resources, longer implementation period and higher deployment costs. The wiring work sometimes costs even more than that of device purchase. The PoE+ deployment does not only help users to save costs on wiring and labor, but the service also turns up faster than any traditional solutions.

Power Supply Safety

Getting power over electrical wiring features low loss and high efficiency. However, the high power, voltage and current are potential hazards to technicians during installation or maintenance stages. The PoE+ technology carries power on cables (twisted pair) with low voltage, which offers improved safety.

Device Safety

High power is also a threat to devices. With thunderstorm or electromagnetic interference, devices are vulnerable under high current. The PoE device, on the other hand, implements various protection mechanisms. When an IP camera breaks down or short circuit is detected, the device will remain intact under the overcurrent protection.

The device also supports lightning protection up to 6KV, ensuring stable operation under severe weather conditions.

TECHNICAL SPECIFICATIONS

Model	RG-S1808	RG-S1826	RG-S1808G	RG-S1818G	RG-S1826G	RG-S1809-P	RG-S1810G-P	RG-S1826G-P
Ports	8 10/100 BASE-T	24 10/100 BASE-T, 2 10/100/1000 BASE-T and 2 GE SFP (combo)	8 10/100/1000 BASE-T	16 10/100/1000 BASE-T, 2 GE SFP (Non-combo)	24 10/100/1000 BASE-T, 2 GE SFP (Non-combo)	8 10/100 BASE-T, 1 10/100/1000 BASE-T	8 10/100/1000 BASE-T, 2 GE SFP (Non-combo)	24 10/100/1000 BASE-T, 2 GE SFP (Non-combo)
All models support half-duplex, full-duplex, auto-negotiation mode, automatic medium dependent interface (MDI) and MDI crossover (MDI-X)								
Power over Ethernet Plus (PoE+)	N/A	N/A	N/A	N/A	N/A	Support PoE Power Budget: 118W	Support PoE Power Budget: 124W	Support PoE Power Budget: 370W
Port Buffer	768Kbits	4Mbits	1.5Mbits	4Mbits	4Mbits	1.5Mbits	4Mbits	4Mbits
Switching Capacity	1.6Gbps	48Gbps	16Gbps	48Gbps	48Gbps	3.6Gbps	48Gbps	48Gbps
Forwarding Capacity	1.19Mpps	6.60Mpps	11.90Mpps	26.80Mpps	38.70Mpps	2.68Mpps	14.90Mpps	38.70Mpps
MAC Address	4K	8K	4K	8K	8K	4K	8K	8K
Power Supply	DC 5V/550mA	AC 100~240V 50Hz~60Hz	AC 100~240V 50Hz~60Hz	AC 100~240V 50Hz~60Hz	AC 100~240V 50Hz~60Hz	AC 100~240V 50Hz~60Hz	AC 100~240V 50Hz~60Hz	AC 100~240V 50Hz~60Hz
Power Consumption	3W	5.5W	5.3W	8.6W	22.8W	3.5W (w/o PoE)	5W (w/o PoE)	22.8W (w/o PoE)
Surge Protection	4KV	4KV	4KV	4KV	4KV	6KV	6KV	6KV
Fan/Fanless Models	Fanless	Fanless	Fanless	Fanless	Fanless	Fanless	Fanless	Support fan module
Physical Dimensions (W x D x H)	140*76* 27mm	440*205* 44mm	220*160* 44mm	440*205* 44mm	440*205* 44mm	190*100* 28mm	280*180* 43mm	440*205* 44mm
Operating Temperature	0°C~50°C							
Storage Temperature	-40°C~70°C							
Operating Humidity	10%~90% RH							
Storage Humidity	5%~95% RH							
Operating Altitude	-500m to 2,000m							
Safety Standards	EN60950-1							
Emission Standards	EN 55032, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11, EN300 386							

TYPICAL APPLICATION

The RG-S1800 Series Unmanaged Switches include 8 models and offer a broad range of port types, including 8/16/24 100M/1000M copper/SFP ports, which can be used in various security protection and access surveillance scenarios.

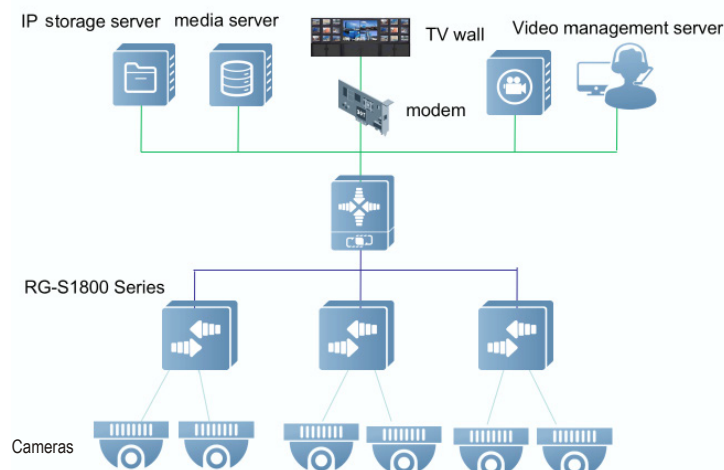


Figure 10: Security Protection and Access Surveillance Scenario

ORDERING INFORMATION

Model	Description
RG-S1808	Unmanaged Switch 8 10/100BASE-T
RG-S1826	Unmanaged Switch 24 10/100BASE-T, 2 10/100/1000BASE-T and 2 GE SFP (combo)
RG-S1808G	Unmanaged Switch 8 10/100/1000BASE-T
RG-S1818G	Unmanaged Switch 16 10/100/1000BASE-T, 2 GE SFP (Non-combo)
RG-S1826G	Unmanaged Switch 24 10/100/1000BASE-T, 2 GE SFP (Non-combo)
RG-S1809-P	Unmanaged Switch 8 10/100BASE-T, 1 10/100/1000BASE-T Number of PoE+ Ports: 1-8 PoE Power Budget: 118 watts
RG-S1810G-P	Unmanaged Switch 8 10/100/1000BASE-T, 2 GE SFP(Non-combo) Number of PoE+ Ports: 1-8 PoE Power Budget: 124 watts
RG-S1826G-P	Unmanaged Switch 24 10/100/1000BASE-T, 2 GE SFP (Non-combo) Number of PoE+ Ports: 1-24 PoE Power Budget: 370 watts
MINI-GBIC-GT	1000BASE-TX, SFP Transceiver (100m)
MINI-GBIC-SX-MM850	1000BASE-SX, SFP Transceiver, MM (850nm, 550m, LC)
MINI-GBIC-LX-SM1310	1000BASE-LX, SFP Transceiver, SM (1310nm, 10km, LC)
MINI-GBIC-LH40-SM1310	1000BASE-LH, SFP Transceiver, SM (1310nm, 40km, LC)
MINI-GBIC-ZX50-SM1550	1000BASE-ZX, SFP Transceiver, SM (1550nm, 50km, LC)
MINI-GBIC-ZX80-SM1550	1000BASE-ZX, SFP Transceiver, SM (1550nm, 80km, LC)
MINI-GBIC-ZX100-SM1550	1000BASE-ZX, SFP Transceiver, SM (1550nm, 100km, LC)



Innovation · Simplicity · Experience

For further information, please visit our website: <http://www.ruijienetworks.com>

Copyright © 2018 Ruijie Networks Co., Ltd. All rights reserved. Ruijie reserves the rights to change, modify, transfer, or otherwise revise this publication without notice, and the most current version of the publication shall be applicable. If there is any inconsistency or ambiguity between this datasheet and the website, the information on the website shall prevail.

