

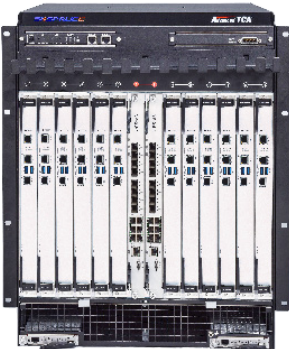
# SKG10000-101

Multi-service gateway

Datasheet



SKG10000-101 with SK-PP-4 card



SKG10000-101 with SK-PP-8 card

## Highly scalable carrier-class Wi-Fi solution

The SKG10000-101 is a carrier-class multi-service gateway that functions as a high-performance router, switch, WLAN gateway, and access point controller. Designed for next-generation mobile networks that require high bandwidth, excellent scalability, and industry-leading carrier Wi-Fi performance, the SKG10000-101 can meet multiple service requirements for over 2.6 million users across 120,000 Wi-Fi access points.

The SKG10000-101 integrates seamlessly into the core mobile network, allowing network operators to leverage Wi-Fi to cost-effectively expand the coverage and capacity of 3G/4G networks in dense urban areas, such as transit centers, campuses, and retail malls. With transparent extension of the cellular network via Wi-Fi and support for industry standards, the SKG10000-101 ensures a superior quality of experience for users.

The SKG10000-101 can also generate advanced statistics and data analysis of user behavior through its intelligent services and management (ISM) package. The SKSpruce ISM (Intelligent Service and Management) cloud platform provides tools to help network operators monetize the use of Wi-Fi by delivering value-added services and applications to businesses operating in the service area.

## Features

### Integrates seamlessly into the core mobile network

- High volume offloading of 3G/4G data to Wi-Fi frees up licensed capacity
- Scalable to 120,000 Wi-Fi access points
- Supports up to 2,640,000 device users
- L2/L3 roaming, load balancing, and RF control
- Complies to Advanced Telecom Computing Architecture (ATCA) standards
- Supports industry standards, such as Hotspot 2.0 (only available on SK-PP-4 line cards)

### Superior quality of experience for users

- Excellent coverage in dense urban areas
- Multi-core, multi-thread processing power delivers industry-leading capacity
- Up to 16,800 user-per-second DHCP request processing
- Up to 16,800 users-per-second authentication request processing
- Up to 3,072,000 MAC address entries supported
- Seamless switching between 3G/4G and Wi-Fi service zones
- Seamless authentication and roaming

### Flexible network architecture and data forwarding option

- Configurable for centralized or local data forwarding
- Centralized data forwarding routes all control and data traffic through the gateway for maximum control
- Local data forwarding provides lower latency and higher bandwidth, while maintaining centralized user management and security—optimal for large-scale deployments

# SKG1000-101 multi-service gateway

## Physical Specifications

Parameter	SK-PP-4	SK-PP-8
Data ports (single line card)	8 x 10 GE ports 2 x 40 GE ports	With RTMA: 6 x 10GE ports plus 4 x GE ports With RTMB: 4 x 40GE ports
Line card slots	12	
RTM slots	12	
Switch card slots	2	
Power consumption (fully loaded)	4000 W	
Power supply	-40.5 V to -72 V DC	
Max. throughput	480 Gbps	
Dimensions (H x W x D)	22.52" x 19.02" x 19.96" (572 mm x 483 mm x 507 mm)	
Weight (fully loaded)	188.72 lb (85.6 kg)	191.36 lb (86.8 kg)
Operating temperature	41°F to 104°F (5°C to 40°C)	
Storage temperature	-40°F to +185°F (-40°C to +85°C)	
Relative humidity	5%–80% noncondensing	
Max. DHCP processing	16,800 users per second	
Max. Web authentication ability	14,400 users per second	16,800 users per second
VLANs	4096	
MAC addresses	3,072,000	
Max. access points (central forwarding)	48,000	60,000
Max. access points (local forwarding)	120,000	120,000
Max. users (central forwarding)	1,536,000	1,920,000
Max. users (local forwarding)	2,640,000	2,640,000

## Software Specifications

Type	Content
Wireless security	Open system, Shared-Key WEP 64/128 WPA/WPA2-PSK-TKIP, WPA/WPA2-PSK-CCMP, WPA/WPA2-802.1X-TKIP, WPA/WPA2-802.1X-CCMP WAPI-PSK/CA (optional) MAC/Port1X/Portal/Transparent authentication AAA server backup Dynamic RADIUS attributes delivery L2 isolation of wireless users WIDS/WIPS
Redundancy	1:1 active-standby redundancy

L2 & L3 functions	VLAN Static MAC IPv4 & IPv6 dual stack ARP, Proxy ARP, Local Proxy ARP, ARP with DHCP snooping Static routing, policy-based routing OSPF VRRP DHCP server/relay/snooping
WLAN	Central forwarding and local forwarding modes AC discovery based on DNS/DHCP Option 43/ broadcast/static IP address NAT through CAPWAP tunnel CAPWAP tunnel encryption Intelligent service holding Support for 802.11 protocol family Hidden SSID, Chinese SSID Configurable country code Static/dynamic channel, power setting and adjustment Band steering L2/L3 roaming Hotspot 2.0

Note: Specifications are subject to change.

## Ordering

Product	Description
SK-CHAS-13U-14SL	Chassis
SK-PP-4 <sup>a^b^</sup>	Line card plus RTM
SK-PP-8 <sup>a^b^</sup>	Line card plus RTM
SK-SHM-6SL&14SL <sup>b^</sup>	Chassis management card
SK-SB-1 <sup>b</sup>	Switch card
SK-P-AC-2000 <sup>c^</sup>	1 U, 4-slot AC power supply (two SK-P-AC-2KM modules; input current, ≤12.5 A)
SK-P-AC-2KM <sup>d^</sup>	AC power module (power, 2000 W; input voltage, 100–240 V AC; input current ≤12.5 A)
SK-P-AC-2004 <sup>c^</sup>	1 U, 4-slot AC power supply (four SK-P-AC-2KM)

License	Description
JadeOS-LIC-AP-100 <sup>a^e^f^</sup>	Licenses a line card to manage 100 additional access points
JadeOS-LIC-AP-500 <sup>e^f^</sup>	Licenses a line card to manage 500 additional access points
JadeOS-LIC-AP-1000 <sup>e^f^</sup>	Licenses a line card to manage 1,000 additional access points
JadeOS-LIC-AP-5000 <sup>e^f^</sup>	Licenses a line card to manage 5,000 additional access points

<sup>a^</sup> The number of access points a line card can manage is license-controlled. By default, a card has no license.

<sup>b^</sup> Expansion or backup

<sup>c^</sup> Alternative AC power supply

<sup>d^</sup> Backup

<sup>e^</sup> For upgrade

<sup>f^</sup> Once the upgrade license is imported, the total number of access points that the card can manage is increased by the number authorized by the license.



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