

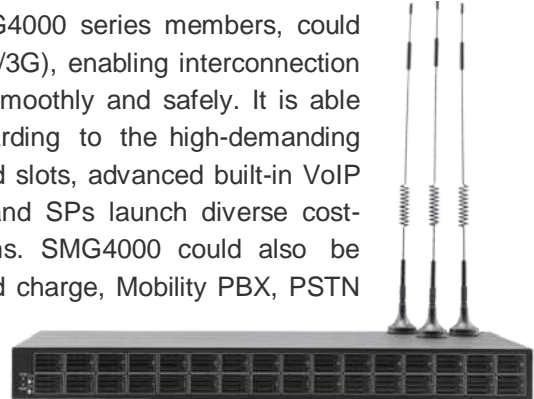
SMG4016/4032

Wireless VoIP Gateway

Synway
VoIP Gateway

Brief Introduction:

Synway SMG4016/4032 Wireless Gateway, the latest SMG4000 series members, could be compliant with a variety of wireless/mobile protocols (2G/3G), enabling interconnection between GSM/CDMA/WCDMA network and VoIP network smoothly and safely. It is able to bridge wireless network with IP networks efficiently, regarding to the high-demanding user requirements. GSM4000 adapts self-propelled SIM card slots, advanced built-in VoIP processors and wireless modules, and helps enterprises and SPs launch diverse cost-efficient and flexible Wireless-to-IP communication systems. SMG4000 could also be applied into a range of systems, including remote billing and charge, Mobility PBX, PSTN backup lines, VoIP localization, SMS platform and more.



Key Features and Benefits:

- **DSP-based Algorithm**

DSP-enabled voice optimization to assure crystal voice quality and maximize bandwidth efficiency; High-speed response and connectivity in the extreme network environments, with better run efficiency; Telco-grade reliability and continuous high performance in fully loaded capacity and in the long run;

- **High security**

High security and privacy for users via automatic-exchange of different SIM cards and Networks. In specific environments, SMG4016/SMG4032 could use and activate multiple SIM cards circularly, improve system security, make full use of bandwidth, and increase ROI.

- **Complete Protocols Range**

Support standard SIP protocols, and could be used worldwide; Support both 2G/3G wireless network (in different versions), including both GSM/CDMA/LTE and More

- **High Voice Optimization Capability**

Adopt Synway's homegrown voice optimization technologies to ensure crystal clear communication, including DSP-based 128mc echo cancellation

- **High Flexibility and Scalability**

Could be configured from 16 or 32 Ports of Wireless-to-IP transmission, and support a diversity of wireless networks in a single system

- **User-friendly GUI**

Easy-to-use service Web based UI configuration and management tools could help accelerate service deployment and simplify platform management

- **High Interoperability with Terminals**

Compliant with all brands of terminal mobile devices and a complete range of SIP trunking worldwide, support auto-provision in complex network environment

- **Telco-Grade Reliability**

Adopts telco-grade standards and components to design and manufacture, and certified and approved by most telecom operators worldwide

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Functional Description

- **Basic Features:**

GSM (850/900/1800/1900MHz) supported respectively by different models
Multiple voice encoding formats supported
SMS CODEC: ASCII/UCS2
Open and programmable API
PIN management
Call time restriction: SIM Card/Single Call
Operator locking
BCCH management
Call hold
Call transfer

- **Voice**

Silence suppression and detection
CNG (Comfort Noise Generator) support
VAD (Voice Activity Detection) support
Echo cancellation (G.168), up to 128ms
Self-adaptive dynamic buffering
Call progress tone generation
AGC (Automatic Gain Control) support

- **Protocol**

SIP V2.0 RFC3261
SDP RFC2327
Session Timer RFC4028
RTP/RTCP RFC3551
SIP registration
SIP trunk (Point-to-Point)
SIP trunk group
Ringback (Immediate/normal)
SIP/GSM release cause configurable
DNS SRV/A query
Out-of-stack agent
DTMF mode: Signal/RFC2833
NAT traversal
Dynamic NAT, Static NAT, STUN

- **Physical Interface**

SIM Card Socket: 64/128-port
Ethernet interface: RJ45, 2 ETH, 10/100M Base
CONSOLE: RJ45, RS232, 115200bps
Antenna interface: SMA
Status indicator: PWR, RUN, ALM, Channel state, Signal strength, ACT per network, LINK status.
Reset button

- **Network Protocol**

IP v4, UDP/TCP, PPPoE, DHCP
FTP/TFTP ARP, RARP, NTP
HTTP, Telnet

- **Management**

Configuration management based on WEB
Configuration backup/restore
Interface in Chinese/English
Firmware upgrade via HTTP/TFTP
Password modification for WEB sign-in
Factory settings restore
CDR and tracking information output
Syslog
Ping and Tracet tests based on WEB
Transport Protocol Count: TCP, UDP, RTP
VoIP Call Count
PSTN Count: ASR, ACD, PDD
Voice loopback test
IVR Customizable
System Log
Centralized cloud-platform integrated management



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Functional Description

- **Product Models**

SMG40016-16G: GSM:850/900/1800/1900MHZ

SMG4016-4C: CDMA:800MHz

SMG4016-16W: GSM:900/1800MHz
UMTS:900/2100MHz

SMG4016-16WA: GSM:850/900/1800/1900MHz
UMTS:850/1900MHz

SMG40032-32G: GSM:850/900/1800/1900MHZ

SMG4032-32C: CDMA:800MHz

SMG4032-32W: GSM:900/1800MHz
UMTS:900/2100MHz

SMG4032-32WA: GSM:850/900/1800/1900MHz
UMTS:850/1900MHz

- **Dimensions**

440x44x200mm

- **Weight**

Net: 3.5kg

- **Environment**

Operating temperature: 0°C —55°C

Storage temperature: -20°C —85°C

Humidity: 8%— 90% non-condensing

Storage humidity: 8%— 90% non-condensing

- **LAN**

Amount: 2 (10/100 BASE-TX (RJ-45))

Self-adaptive bandwidth supported

Auto MDI/MDIX supported

- **Console Port**

Amount: 1 RJ-45 (RS-232)

Baud rate: 115200bps

Data bits: 8 bits

Stop bit: 1 bit

Parity unsupported

Flow control unsupported

- **Power Requirements**

Input voltage: DC 12V ± 10%

Input current: ≥3A

- **Signaling Protocol:**

SIP V2.0 RFC3261

- **Network Protocol**

IP v4, UDP/TCP, PPPoE, DHCP

FTP/TFTP ARP, RARP, NTP

HTTP, Telnet

- **Audio Encoding & Decoding**

G.711A 64 kbps

G.711U 64 kbps

G.729 A/B 8 kbps

G.723 5.3/6.3 kbps

G.722 64 kbps

AMR 4.75 kbps

iLBC 13.3/15.2 kbps

- **Sampling Rate**

8kHz

- **Wireless Feature**

Frequency band:

GSM: 850/900/1800/1900MHz

SMS CODEC: ASCII/UCS2

Typical Application:

