

# SMG4004/4008

## Wireless VoIP Gateway

Synway  
VoIP Gateway

### Brief Introduction:

Built on decades of IP, multimedia processing and wireless technologies, Synway's GSM/CDMA/LTE wireless gateway, as a part of the Synway gateway family, is used for reliably bridging GSM/CDMA network with the VoIP network. With push-pull SIM card sockets for easily installing the SIM cards, it adopts advanced built-in VoIP processors and GSM/CDMA modules, and enables ISPs and VoIP solution providers to deliver highly available and versatile wireless-to-IP systems, effortlessly and cost-efficiently.



### Key Features and Benefits:

- **Complete Protocols Range**

Support standard Sip protocols, and could be used worldwide; Support both 2G/3G/4G wireless network, 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 2~32 Ports of Wireless-to-IP transmission, and support a diversity of wireless networks in a single system

- **User-friendly GUI**

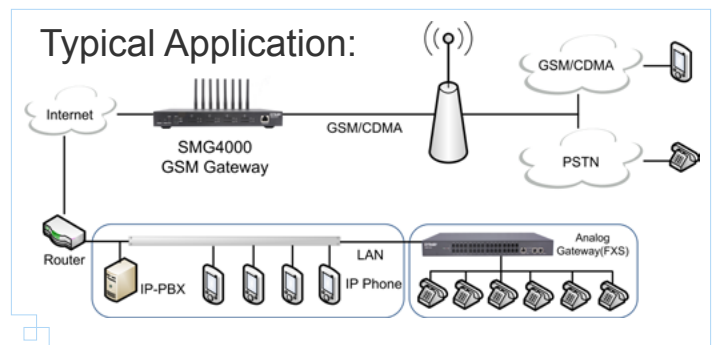
Easy-to-use service Web based UI configuration and management tools could help accelerate service deployment and simplify platform management

- **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  
CDMA: 800MHz  
UMTS: 850/900/1900/2100MHz  
LTE 4G: FDD LTE, TDD LTE  
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: 8/4-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, IP v6, 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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## Wireless VoIP Gateway

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### Technical Specification

- Dimensions & Weight**

260×153×30mm

Net: 1.2kg

Gross: 1.8kg

- 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, IP v6, 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

CDMA: 800MHz

UMTS: 850/900/1900/2100MHz

SMS CODEC: ASCII/UCS2

Model	Frequency
SMG4004-4G/SMG4008-8G	GSM:850/900/1800/1900MHZ
SMG4004-4C/SMG4008-8C	CDMA:800MHZ
SMG4004-4W/SMG4008-8W	GSM:900/1800MHZ UMTS:900/2100MHZ
SMG4004-4WA/SMG4008-8WA	GSM:850/900/1800/1900MHZ UMTS:850/1900MHZ
SMG4004-4WT/SMG4008-8WT	GSM:850/900/1800/1900MHZ, UMTS:850/2100MHZ
SMG4004-4LC/SMG4008-8LC	FDD LTE:B1/B3, TDD LTE:B38/B39/B40/B41 TDSCDMA:B34/B39, WCDMA:B1, CDMA2000:BC0 GSM:1X/EVD, 900/1800MHZ
SMG4004-4LE/SMG4008-8LE	FDD LTE:B1/B3/B5/B7/B8/B20, TDD LTE:B38/B40/B41 WCDMA:B1/B5/B8, GSM:B3/B8
SMG4004-4LV/SMG4008-8LV	FDD LTE: B4/B13
SMG4004-4LT/SMG4008-8LT	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28; LTE TDD: B40 WCDMA: B1/B2/B5/B8; GSM: B2/B3/B5/B8

[www.synway.net](http://www.synway.net)

## Connect Synway



As a major manufacturer and supplier of communication products and solutions, Synway specializes in providing superior Multimedia Gateway, Integrated Multimedia Switch, Telephony Hardware in use for Telecom communications. Since 1995, over 3,000 service providers, software developers and system integrators have deployed Synway's offerings to deliver a broad range of TDM and VoIP-based applications worldwide, including Unified Communications, SIP Trunking, Call Center, Mobile VAS, Faxing, Conferencing, Call Recording as well as Asterisk-based Open Source Applications. With dedicated teammates and well-known premium services, Synway makes consistent efforts to deliver partners with a variety of customizable, high-performance and cost effective voice communications products.

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