

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**

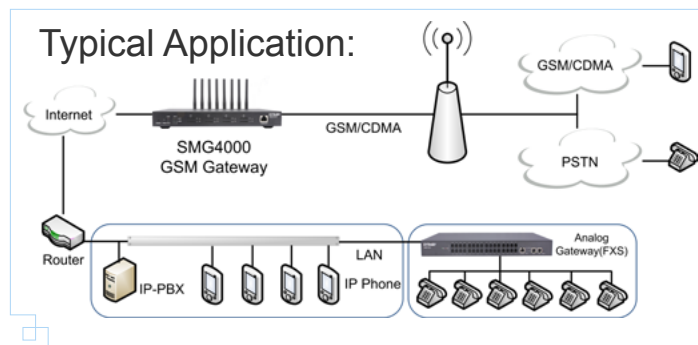
Easy-to-use service Web based UI configuration and management tools could help accelerate service deployment and simplify platform management

- **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 Tracert 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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Technical Specification

- **Dimensions & Weight**

260×153×30mm

Net: 1.2kg

Gross: 1.8kg

- **Environment**

Operating temperature: 0℃ —55℃

Storage temperature: -20℃ —85℃

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



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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.

<https://www.synway.net/Download/Brochure/SMG4004-4008-Datasheet.pdf>

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