

NETWORK CONNECTIVITY SYSTEMS





Triple Play



IP Phones

VoIP ATA Gateway

VoIP Gateway

VoIP Gateway w. SIP Proxy Server

VoIP Gateway w. H.323 Gatekeeper

Modular High Density VoIP Gateway

IP PBX

IP DSLAM

ADSL 2/2+ Routers

IP Camera

IP SetTopBox

IP Phones

Signamax, delivers stable, low-cost and fully featured IP telephones to customers.

065-9013 Signamax VoIP SIP Phone conforms to SIP standard and support ADSL, Cable Modem, LAN and WAN, ideal for both enterprise and home users.

065-9011 is a full-featured IP-based telephone set for home telephony via Ethernet base communication. It supports SIP RFC3261 protocol.

Two 10/100BaseT embedded switch/hub RJ-45 ports allow connect to office LAN and PC on your table. It is easily interface with ADSL/Cable Modem that is provided by ITSP, ISP or Carrier company to provide VoIP services to residential and SOHO application.



Model 065-9013

FUNCTIONS

- Message Waiting Indicator
- Do Not Disturb
- Configurable Ring Tones
- Adjustable Ring Volume
- Full Duplex Speakerphone
- Mute
- Shared Lines
- Multiple Lines
- Multiple Proxies
- Music on Hold
- Backup Setting
- GMT Setting
- Date and Time display (Manual / SNTP)
- Optional: Digital answering machine
- Status Indication: Talk & Idle & Hold & Unregistered
- 200 Names and Numbers Phonebook: 2 Numbers per Contact
- Calling Number with Phonebook Name Matching
- Call Log: Outgoing, Answered and Missed Calls (Each 20 Entries)
- Call Timer
- Speed Dial: 10 Numbers Max
- Redial
- Incoming Call with Number and Name Displaying
- Call Transfer: Attended & Blind
- Call Forwarding: Unconditional & No Answer & on Busy

IP Phones

PART NO.	DESCRIPTION
065-9005	Signamax SIP WiFi Phone 802.11b
065-9011	Signamax VoIP SIP Phone
065-9013	Signamax VoIP SIP Phone Advanced
065-9014	Signamax VoIP SIP Phone with PoE

SPECIFICATIONS

065-9005

PERFORMANCE CHARACTERISTICS

Call Control Protocol: SIP (RFC2543/RFC3261)
Codec: G.711 / G.729a
Battery: 3.6 V, 1,350 mAh Lithium
Battery Life: 3.2 hr talk time, 24 – 26 hours standby
Wireless Access Protocol: CSMA/CA
Frequency Range: 2.4 – 2.497 GHz
Number of Channel: Up to 14 channels
Data Rate: 802.11b Direct Sequence Rate
 Scaling at 1, 2, 5.5, and 11 Mbps
Range RF output: 30 mW peak
Outdoor: 1,000 +ft./300 +m
Indoor: Up to 295 ft./75,5 m

PHYSICAL CHARACTERISTICS

Display LCD: 112 x 64 graphic mode, w/backlight
Notification: Ringer/vibration
Port: Ear-phone jack, mini-USB port

NETWORK CHARACTERISTICS

Protocol: TCP/IP; DHCP; IEEE 802.11b protocol
Security: Wired Equivalent Privacy (WEP) 64 and 128 bit
Accessories: AC adapter with mini-USB cable
Regulatory: EMI/RFI: FCC Class B, CE



Model 065-9005

065-9011

APPLICABLE STANDARDS

WAN interface: One RJ-45 10/100BaseT
LAN interface: One RJ-45 10/100BaseT
Power adapter: 5V DC
LCD Display: 13 characters, 2 lines
Keys: Function 4, Memory 5, Menu control 4
Hand free Speaker phone: with Echo cancellation
Network connect: Fix IP, DHCP, PPPoE
Link Mode (SIP): Proxi mode and Peer to peer mode
Link Mode (H323): Peer to peer, Gatekeeper mode, DDNS mode
Protocol: SIP (RFC3216)
Audio Codec support: G.711U, G.711A, G.723.1, G.729, G.729A

QoS support: WLAN (802.1p/q)

Telephony features: Mute, forward, Hold, Redial, Transfer

Configure management: LCD Front panel Web Browser, Telnet, Welltech's EMS

DTMF (SIP): In-band, RFC 2833 out-band DTMF generation/detection

ENVIRONMENT

Operating Temp: 0° – 40°C
Storage Temp: -10° – 60°C
Humidity: 10-90% non-condensing, operating and non-operating/storage
Dimensions (WxHxD): 200 x 79 x 210 mm
Weight: 830 g

CERTIFICATIONS

FCC Part 15 Class B, CE Class B



Model 065-9011

065-9013

PROTOCOLS

SIP: RFC3261; **DTMF:** inband, RFC2833, SIP Info;
RTP: RFC1889; **RTCP:** RFC3605, RFC3611;
DNS: RFC1035; **FTP:** RFC959;
TFTP: RFC1350; **HTTP:** RFC1945, RFC2616;
SNTP: RFC1361, RFC2030; **SNMP:** RFC1157;
DHCP: RFC2131, RFC2132; **PPPoE:** RFC2516; **NAT:** RFC1631, RFC2663

VOICE QUALITY

VAD – Voice Activity Detection;
CNG – Comfort-Noise Generation;
AEC – Acoustic Echo Cancellation;
QoS – Quality of Service;
Jitter Buffer (optional or dependent on IP telephone system);
Codec Support – G.711, G.723.1, G.729, G.722.

SECURITY

Encrypted (AES/DES) Voice Communication
 Password Protected for Configuration
 MD5 for SIP Authentication

MAINTENANCE

Web Browser Administration via Built-in Web Server,
 Auto-Upgradable via HTTP/FTP

ENVIRONMENT

Operating Temperature: 0° – 50°C
Storage Temperature: -10° – 60°C
Relative Humidity: 10-90% (Non-condensing)

BOX CONTENTS

Signamax VoIP Phone, Power adaptor,
 User's Manual, Quick Installation Guide,
 Optional accessories: RJ-45 Ethernet Cable, Headset, CD

065-9014

PROTOCOLS

SIP v1 (RFC 2543), SIP v2 (RFC 3261), SIP RPORT (RFC 3581),
IP/TCP/UDP/RTP/RTCP, ICMP/ARP/RARP/SNTP,
FTP/DNS/TFTP/DHCP, PPPoE client, HTTP/NAT/DHCP server

VOICE QUALITY

VAD (Voice Activity Detection), CNG (Comfort Noise Generator)
AEC (Acoustic Echo Cancellation) G.168
Packet Loss Compensation, Adaptive Jitter Buffer

CODEC

G.711 64kbit/s (ulaw/alaw), G.723.1 6.3k/5.3k bit/s
G.726 16k/24k/32k/40k bit/s (ADPCM)
G.729A 8k bit/s (CS-ACELP), G.729B (VAD/CNG)

APPLICABLE STANDARDS

Network Interface: RJ45*2 10/100BaseT
NAT Traversal: STUN
Display: 16 characters* 2 lines Backlit, grayscale
Keypad: 40 Keys totally, 9 Soft keys,
 10 Feature keys (Phone Book, Redial, DND, Hold, Transfer,
 Conference, Forward, Voice Message, Intercom, Volume Adjustment)
Tone: Ring Tone, Ring Back Tone, Dial Tone, Busy Tone, Programmable Tone

ADMINISTRATION

Web-Based Configuration
 Telnet Configuration
 Keypad Configuration
 Auto Provisioning on boot

DTMF

In-band DTMF
 RFC2833(Out-of-band DTMF)
 SIP INFO

ENVIRONMENT

Operating Temperature: 0° – 50°C
Storage Temperature: -10° – 60°C
Relative Humidity: 10-90% (Non-condensing)

SECURITY

HTTP 1.1 basic/digest authentication for web setup
 MD5 for SIP authentication (RFC 2069/RFC 2617)

QOS

IEEE 802.1Q VLAN, ToS Field

VoIP ATA Gateway

When you use your high-speed Internet connection to make phone calls, you'll lower your monthly phone bills and add services and features not available with traditional phone service.

The Signamax ATA Gateways enables high-quality feature telephone service through your high speed Internet access (Cable or DSL Internet connection). Just plug Ethernet cable to WAN port of Signamax ATA Gateway and use the one/two standard telephone jacks to connect your existing phones, fax machines or PSTN line. Each phone jack operates independently, with separate phone service and phone numbers -- same like having two phone lines. With an appropriate Internet telephone service provider, you'll get clear telephone reception and reliable fax connections, even while using the Internet at the same time for normal data operations.

There is no necessary to set up any extra device that the embedded NAT function can allow user's PC to gallop on internet directly. Furthermore users can take advantage of many new and exciting IP telephony applications by connecting analog phone to this gateway. It is standard-based communication device that deliver true, next generation voice-over-IP (VoIP) application to residences and small-to medium enterprise in Internet communication environment.



Model 065-9056



Model 065-9055



Model 065-9061



Model 065-9062



Model 065-9066

VoIP Gateway - ATA

PART NO.	DESCRIPTION
065-9055	Signamax VoIP Gateway, 1xWAN, 1xLAN, 1xFXS, 1xPSTN
065-9056	Signamax VoIP Gateway, 1xWAN, 1xLAN, 2xFXS
065-9061	Wireless Router+VoIP, 1xFXS, 1xPSTN
065-9062	Wireless Router+VoIP, 2xFXS
065-9066	Quad-Band GSM over VoIP Gateway

VoIP Gateway

The 065-9200S/065-9400S Series VoIP Gateway is fully both H.323 and SIP standard compliant residential gateway that provides a total solution for integrating voice-data network and PSTN. By simple installation, this revolutionary compact voice over IP (VoIP) gateway could be configured as a 2/4 FXS/FXO VoIP Gateway which provides voice connectivity over the IP network and to the Public Switched Telephone Network (PSTN). Gateway is equipped with a four port Ethernet switch and built-in NAT router function that provides Internet access using only one IP address. Besides, it provides high voice quality and optimized packet voice streaming over managed and public (Internet) IP networks.

The Signamax 065-9800 Series VoIP Gateway is fully H.323/SIP standard compliant residential gateway that provides a total solution for integrating voice-data network and PSTN. By simple installation, this revolutionary compact voice over IP (VoIP) gateway could be configured as 8 channels high density FXS/FXO VoIP Gateway which provides voice connectivity over the IP network and to the Public Switched Telephone Network (PSTN). The Gateway is equipped NAT router function that provides Internet access using only one IP address. Besides, it provides high voice quality and optimized packet voice streaming over managed and public (Internet) IP networks.



Model 065-9404s

SPECIFICATIONS

RJ-45

LAN 1 – 4x for PC connection

RJ-11 PHYSICAL INTERFACE

Up to 8x FXO/FXs voice ports

POWER

Voltage: DC 12V
Current: 1A

LED

WAN: WAN link status indication
LAN: LAN link status indication
Status: VoIP status indication
Power: Power status indication
Phone: Analog phone status indication 5

PROTOCOL

SIP RFC 3261, Outbound proxy, Support IP or domain name for primary and secondary proxy address and auto switching is enabled.

CALL FUNCTION

Call Forwarding, Call Transfer, Un-connection LED alarm, Call Hold, Calling Number Delivery

VOICE FEATURE

Voice codec, G.711 (A-law/ μ -law), G.723.1, G.729, G.711 FAX pass-through mode, RTP / RTCP, Echo Cancellation G.168, Silence Detection/Suppression, Comfort Noise Generation, DTMF Detection/Generation, Call Tone Generation

NETWORK

Network connection, PPPoE (RFC 2516) a. Account / password can be saved, b. Auto reconnection after disconnection, DHCP client (for WAN port), Static IP, DHCP Server and NAT, Bridge for LAN interface, QoS, ToS, Diff Serv, Support SNTP

SYSTEM MANAGEMENT

Support Web, Telnet for remote control, Username / Password for login to make configuration

FIRMWARE UPDATE / UPGRADING

TFTP / FTP / Web remote update

ENVIRONMENT

AC Power, 110 – 220V \pm 10V, 60 Hz \pm 3Hz, Environment, Temperature: 0° – 40°C, Humidity: 10-90% RH

CERTIFICATION

FCC Part 15, CE Class B, LVD



Model 065-9201s

VoIP Gateway

PART NO.	DESCRIPTION
065-9200s	VoIP Gateway 1xWAN, 4xLAN, 2xFxs
065-9201s	VoIP Gateway 1xWAN, 4xLAN, 1xFxs, 1xFxo
065-9200s	VoIP Gateway, 1xWAN, 4xLAN, 2xFXo
065-9400s	VoIP Gateway 1xWAN, 4xLAN, 4xFxs
065-9401s	VoIP Gateway 1xWAN, 4xLAN, 3xFxs, 1xFxo
065-9402s	VoIP Gateway 1xWAN, 4xLAN, 2xFxs, 2xFxo
065-9404s	VoIP Gateway 1xWAN, 4xLAN, 4xFxo
065-9800s	VoIP Gateway 1xWAN, 4xLAN, 8xFxs
065-9802s	VoIP Gateway 1xWAN, 4xLAN, 6xFxs, 2xFxo
065-9804s	VoIP Gateway 1xWAN, 4xLAN, 4xFxs, 4xFxo
065-9806s	VoIP Gateway 1xWAN, 4xLAN, 2xFxs, 6xFxo
065-9808s	VoIP Gateway 1xWAN, 4xLAN, 8xFxo

VoIP Gateway

This Signamax 065-9400SVR and 065-9200SVR Series SIP Proxy Server is designed as an embedded-based platform. It performs internet telephony services, like registration status, call detail record and security registration policy. The Signamax 065-9400SVR provides a comprehensive, powerful platform for delivering IP telephony applications based on the Session Initiation Protocol (SIP). It also build in VoIP 2/4 voice channels Gateway which support SIP signal protocols.

This 065-9200SK/065-9400SK Gatekeeper is designed as an embedded-based platform. It performs internet telephony services, like registration, call detail record and security registration policy. Besides Gatekeeper function, 065-9200SK/065-9400SK also build in VoIP Gateway which both support H.323 and SIP signal protocols. A variety of H.323 entities including IP phone, gateway, soft phones as well as different vendor's Gatekeepers have been well tested with.



065-9201svr



065-9201sk

VoIP Gateway w. SIP Proxy Server

PART NO.	DESCRIPTION
065-9200svr	VoIP Gateway w. SIP Proxy Server 1xWAN, 4xLAN, 2xFxs
065-9201svr	VoIP Gateway w. SIP Proxy Server 1xWAN, 4xLAN, 1xFxs, 1xFxo
065-9202svr	VoIP Gateway w. SIP Proxy Server 1xWAN, 4xLAN, 2xFXo
065-9400svr	VoIP Gateway w. SIP Proxy Server 1xWAN, 4xLAN, 4xFxs
065-9401svr	VoIP Gateway w. SIP Proxy Server 1xWAN, 4xLAN, 3xFxs, 1xFxo
065-9402svr	VoIP Gateway w. SIP Proxy Server 1xWAN, 4xLAN, 2xFxs, 2xFxo
065-9404svr	VoIP Gateway w. SIP Proxy Server 1xWAN, 4xLAN, 4xFxo

VoIP Gateway w. H.323 Gatekeeper

PART NO.	DESCRIPTION
065-9200sk	VoIP Gateway w. H.323 Gatekeeper 1xWAN, 4xLAN, 2xFxs
065-9201sk	VoIP Gateway w. H.323 Gatekeeper 1xWAN, 4xLAN, 1xFxs, 1xFxo
065-9202sk	VoIP Gateway w. H.323 Gatekeeper 1xWAN, 4xLAN, 2xFXo
065-9400sk	VoIP Gateway w. H.323 Gatekeeper 1xWAN, 4xLAN, 4xFxs
065-9401sk	VoIP Gateway w. H.323 Gatekeeper 1xWAN, 4xLAN, 3xFxs, 1xFxo
065-9402sk	VoIP Gateway w. H.323 Gatekeeper 1xWAN, 4xLAN, 2xFxs, 2xFxo
065-9404sk	VoIP Gateway w. H.323 Gatekeeper 1xWAN, 4xLAN, 4xFxo

SPECIFICATIONS

All models svr/sk

TELEPHONY SPECIFICATION

Voice Codec: G.711, G.729 AB, G.723 (6.3 Kbps / 5.3 Kbps)
 FAX support: T.30 / T.38
 Echo Cancellation: G.165/G168
 FXO Caller ID detection: DTMF and FSK
 Adjustable AC Termination Impedance:
 600 / 900 ohm and complex Impedance
 Life-Line support (IP/ power failure over relay)
 Polarity Reversal: Type I and Type II

IP SPECIFICATIONS

H.323 v2/v3/v4 and SIP (RFC 3261), RAS, SDP (RFC 2327),
 Symmetric RTP, STUN (RFC3489), ENUM (RFC 2916).
 LAN: NAT, Virtual Server, DHCP Server
 WAN: PPPoE client, DHCP client, Fix IP Address, DDNS client
 Network Address Translation: Providing build-in NAT router function
 Smart QoS: Guarantee the voice bandwidth

CALL FEATURES

Voice channels status display; Direct Call Mode: peer to peer call;
 Register Call Mode: register to H.323 Gatekeeper or
 SIP Proxy Server
 Adjustable volume: -9 ~ 9 db
 Silence Compression, Auto Dial for speed, Dynamic Jitter Buffer

CONFIGURATION & MANAGEMENT

Web-based Graphical User Interface
 Remote management over the IP Network
 FTP firmware upgrade, Backup and Restore Configuration file

GENERAL SPECIFICATION

AC power: AC100 ~ 240V, DC12V / 1.5A, 50 ~ 60 Hz
Temperature: 0° ~ 45°C (Operation)
Humidity: up to 90% non-condensing
Emission: FCC Part 15 Class B, CE Mark
Telephone Safety: FCC Part 68
Dimention: 260 x 130 x 35 mm
Weight: 900 g (Aluminum)

NETWORK CONNECTIVITY SYSTEMS

www.signamax.eu

Modular High Density VoIP Gateway

By Modular hardware design 065-9850/065-9854/065-9858 Series makes any combination of the telephone interface. The Signamax 065-9850/065-9854/065-9858 Series VoIP Gateway is fully SIP and /H.323 standard compliant high density gateway that provides a total solution for integrating voice-data network and PSTN. By modular installation, this revolutionary compact voice over IP (VoIP) gateway could be easily configured as 9850/9860/9870 channels high density FXS/FXO VoIP Gateway which provides voice connectivity over the IP network and to the Public Switched Telephone Network (PSTN).

SPECIFICATIONS

TELEPHONY SPECIFICATION

Voice Codec: G.711 (A-law /μ-law), G.729 AB, G.723 (6.3 Kbps / 5.3 Kbps), FAX support : T.30 / T.38
Echo Cancellation: G.165/G.168
FXO Caller ID detection: DTMF and FSK (Optional)
FXO Hang up detection / anti-seized:
Tone Learning Automatically / Manual Tone, Learning (Optional)
Answer supervision: Support Battery Reverse Detection and Voice Detection
FXO answer delay time: Support delay 0 - 8000 ms to answer.
Adjustable AC Termination Impedance: 600 / 900 OHM and complex Impedance, Failsafe Mechanism (FXS relay to FXO):
Power failed bypass support / Internet failed bypass / Registered failed bypass / Unconditional bypass 12 KHz and 16 KHz Metering (Customized)

IP SPECIFICATIONS

H.323 v2/v3/v4 and SIP (RFC 3261), SDP (RFC 2327), Symmetric RTP, STUN (RFC3489), ENUM (RFC 2916), RTP Payload for DTMF Digits (RFC2833), Outbound Proxy Support.
LAN: Support Virtual Server, DHCP Server
WAN: Support PPPoE client, DHCP client, Fix IP Address, DDNS client
Network Address Translation: Providing build-in NAT router function
Smart QoS: Guarantee the voice bandwidth
IP TOS (IP Precedence) / DiffServ

CALL FEATURES

Voice channels status display
Direct Dialing Mode: peer to peer call (support IP Address Call or Domain Name Call)
Register Call Mode: register to SIP Proxy Server or H.323 Gatekeeper
Adjustable volume: -9 – 9 db
Silence Compression / VAD
Auto Dial for speed, Dynamic Jitter Buffer, Hot-Line Support

CONFIGURATION & MANAGEMENT

Web-based Graphical User Interface
RS232 for configuration, Remote management over the IP Network
FTP firmware upgrade, Backup and Restore Configuration file
Front LCD Panel for System Status and Management
Syslog client support

GENERAL SPECIFICATION

Standard 50 pin RJ-21 Telco connectors
AC power: AC100 – 240V, DC12V/1.5A, 50/60 Hz
Temperature: 0° – 40°C (Operation)
Humidity: up to 90% non-condensing
Emission: FCC Part 15 Class B, CE Mark
Dimension: 440 x 250 x 45 mm
Weight: 3,500 g

VOIP KEY FEATURES

- Modular design to accommodate various types of telephony interfaces
- Both support SIP and H.323 protocols: SIP Registration and Digest Authentication; H.323 Gatekeeper Registration
- Single Number / Account for multiple ports
- Caller ID Delivery and Detection: FXS support DTMF&FSK Caller ID generation; FXO supports DTMF&FSK Caller ID detection. (Optional)
- Smart VoIP call Dialing Book: VoIP call Book could provide any application VoIP call to any type destination (Domain name / IP address, PSTN or PBX) or hunting number setting
- AC termination Impedance: 600/900 OHM and complex impedance
- Answer Supervision for Polarity Reversal Detection and Voice detection
- NAT traversal: This feature allow gateway to operate behind any NAT/Firewall device. Need not to change any configuration of NAT/Firewall like setting virtual server
- Smart-QoS Guaranteed: This bandwidth management feature provide good voice quality when user place a VoIP call and access internet at the same time
- The gateway will automatically start to reserve bandwidth for voice traffic when VoIP call proceeds
- Call Hunting Facility: This function helps gateway to use the lines effectively. This facility automatically transfers your incoming call to a free line. Subscribers need not indicate numerous numbers of each port of gateway
- Voice channels status display: This function display each port status like as onhook, offhook, calling number callee's number, talk duration, codec
- Pulse Dial support: Support pulse dialing generation and detection. (Optional)
- Flash Detection and Generation Program: FXO support Flash Generation and FXS support Flash Detection
- FXO answer Mode: FXO provides Ringing Answer, Connection Answer and Non Answer for configuration

Modular High Density VoIP Gateway

PART NO.	DESCRIPTION
065-9850	Signamax Modular VoIP Gateway Chassis 1xWAN, 1xLAN, 8xFXs, 1xRS-232, Standard 50pin telco Connector
065-9854	Signamax Modular VoIP Gateway Chassis 1xWAN, 1xLAN, 4xFXs 4xFXo, 1xRS-232, Standard 50pin telco Connector
065-9858	Signamax Modular VoIP Gateway Chassis 1xWAN, 1xLAN, 8xFXo, 1xRS-232, Standard 50pin telco Connector
Modules	
065-9860	Module 8x FXs Ports for Modular Chassis 065-985x
065-9861	Module 4x FXs / 4x FXo Ports for Modular Chassis 065-985x
065-9862	Module 8x FXo Ports for Modular Chassis 065-985x

IP PBX

Full featured Internet Telephone IP PBX System for SOHO and Enterprises!

Signamax 065-9101 combines complete IP-PBX features with standards based SIP for telephony solution that can stand alone or integrate with existing phone systems. 065-9101 is an embedded system with built-in SIP Proxy Server and NAT router for SOHO user not only provide network function but also provide an IP PBX feature in office.

Signamax 065-912x / 065-914x Series Full Featured Internet Telephone IP PBX System for SMB! There is no requirement to replace current analog PBX infrastructure. As a result, VoIP will be viewed as attainable by more businesses, providing greater opportunities for resellers to offer VoIP as part of their portfolio. The 065-912x / 065-914x series emphasizes open architecture, scalability and higher Return on Investment. The 065-912x / 065-914x series offers a multitude of features including extensive PBX functionality, integrated voicemail, cost saving call routing functionality, IP routing, SIP call signaling and much more.

Signamax 065-9155 is designed and optimized for SMB enterprise daily communications with easy configuration and cost advantages. Designed as a highly reliable, stable, and open telephony solution. It provides the advanced features of telephony which are required for around 200 users on their telecommunication needs.

The 065-9155 is an embedded system with built-in SIP Proxy/Registrar Server and NAT traversal that make it perfect for SMB enterprise usage. The 065-9155 provides not only basic call functions like Call Forward, Call Transfer on traditional PBX System, but also many advanced functions including Meet-Me Conference, Call Parking, and Voice Mail System with E-mail Notification and Attachment etc. These advanced functions are impossible on traditional PBX. The 065-9155 provides IP-based communications, 3-layer IVR, Meet-Me Conference, Call Parking, Voice Mail System with E-mail Notification and Attachment, and Web GUI Management. The 065-9155 also provides 2 PCI slots that can insert FXO, FXS or ISDN BRI module cards, so enterprise can seamlessly integrate with existing traditional PBX. With the 065-9155, standard SIP phones can be easily integrated in your office.

065-9155 is established by a very stable embedded system platform. All the System Configurations, Voice Mail and Call Detail Record are stored in the flash disk. Administrators could backup the system configuration file to their own computer through web GUI. If the system is damaged, administrator only have to restore the configuration file to a new 065-9155. No more re-configuration is needed and minimizes the maintenance effort.

VoIP IP PBX System

PART NO.	DESCRIPTION
065-9101	Signamax VoIP IP PBX, 1xWAN, 1xLAN
065-9120	Signamax VoIP IP PBX, 1xWAN, 4xLAN, 2xFXS
065-9122	Signamax VoIP IP PBX, 1xWAN, 4xLAN, 2xFXO
065-9140	Signamax VoIP IP PBX, 1xWAN, 4xLAN, 4xFXS
065-9144	Signamax VoIP IP PBX, 1xWAN, 4xLAN, 4xFXO
065-9155	Signamax Modular VoIP IP PBX, 1xWAN, 1xLAN, Rack Mount
Modules	
065-9160	Module 4xFXS Ports for 065-915x Chassis
065-9161	Module 4xFXO Ports for 065-915x Chassis
065-9162	Module 4x ISDN BRI Ports for 065-915x Chassis

IP DSLAM

065-9074/8 Series IP DSLAM has 24/48 ports subscriber line interface with POTS splitter built-in achieved 1U height space saving design. 065-9074/8 Series came with unique bandwidth management, flow prioritization and data flow security control key feature. 065-9074/8 Series provided QoS (quality of service) capability to meet triple play (voice, data, video) requirement, support ADSL/ADSL2/ADSL2+/G.SHDSL interface, stackable up to 8 065-9074/8 can be cascaded. No matters in features, performance, and cost wise, 065-9074/8 Series is the best choice for NSP (network service provider).

IP DSLAM

PART NO.	DESCRIPTION
065-9074	Signamax IP DSLAM ADSL/ADSL2+, 24 ports, 2x1000Base-TX Uplink
065-9078	Signamax IP DSLAM, ADSL/ADSL2+, 48 ports, 2x1000Base-TX Uplink
065-9081	Signamax IP DSLAM Uplink Module 1x100Base-TX + 2x1000Base-TX
065-9082	Signamax IP DSLAM Uplink Module 1x100Base-TX + 1x1000Base-TX + 1x1000LX
065-9083	Signamax IP DSLAM Uplink Module 1x100Base-TX + 1x1000Base-TX + 1x1000LX
065-9094	Signamax IP DSLAM G.SHDSL.bis CPE unit, 4port switch, 4 wires
065-9098	Signamax IP DSLAM G.SHDSL.bis CPE unit, 4port switch, 8wires

SPECIFICATIONS

SYSTEM FEATURES

48/24 ports interface ADSL/2/2+ subscriber interface with built-in POTS Splitter
 48/24 ports G.SHDSL/G.SHDSL.bis subscriber interface (optional)
 One 100Base-T MGNT+ Two 1000Base-T or one Giga LX Uplink/Subtend
 Interface optional, Stackable up to 8 units to be cascaded
 Centronic 50 pin connector for line in and out
 8 VCs per xDSL port, 128 MAC address per xDSL port
 48*128 MAC address, Packet size 64 byte to 1,522 byte
 PPPoE Intermediate Agent, DHCP Relay Agent
 Inter-Working: IPOA to IPOE Trunneling, PPPoA to PPPoE
 inter-working, Multiple mechanisms of prioritizing traffic

MULTICAST

1. Up to 256 multicast addresses
2. IGMP v1, v2, v3
3. Multicast VLAN mapping: Independent VLAN multicast (IVM), Shared VLAN Multicast (SVM)
4. Handle PPPoE Encapsulated IGMP packets

BRIDGING

1. Ethernet Bridging - Broadcast, Flooding/Dropping
2. VLAN bridging: 512 VLAN support, Static VLAN, VLAN Stacking, VLAN Trunking

ADSL/ADSL2/ADSL2+ INTERFACE

ADSL/ADSL2/ADSL2+: Downstream DMT data rate 32 Kb/s up to 25 Mbps;
 Upstream DMT data rate 32 Kb/s up to 1 Mbps
 Comply with ITU G.992.1 (G.DMT); G.DMT.bis; ITU G.992.2 (G.Lite);
 ANSI T1.413 issue 2; ITU G.994.1 (G.handshake) for ADSL,
 G.992.3 for ADSL2, and G.992.5 for ADSL2+
 Extended power management capabilities to optimize power consumption
 for each application, Distance up to 18 kft

G.SHDSL/G.SHDSL.BIS INTERFACE

G.SHDSL: Symmetric transmission rate up to 2.3 Mbps (2-wire)
 G.SHDSL.bis: Symmetric transmission rate up to 5.7 Mbps (2-wire)
 Comply with G.991.2

MANAGEMENT

Microsoft windows based GUI MSE
 Local RS-232 CLI and Ethernet SNMP/TELNET management
 Remote in-band SNMP/TELNET management
 Firmware upgradeable via FTP or TFTP, Support SNMP v1, v2c

PROTOCOLS SUPPORT

STP; IGMP snooping, GMRP, GVRP, LACP,
 SNMP/UDP/IP/MAC/Ethernet

OPERATING REQUIREMENTS

Operating Temperature: 0° – 50 °C
 Storage Temperature: -30° – 70 °C
 Operating Humidity: 5-90% RH non-condensing
 Dimension (D x W x H): 400 x 440 x 44 mm
 Weight: 6.8 kg
 AC power model: 90 – 240V AC, 50 – 60 Hz
 DC power model: -42 to -56 VDC
 Power Consumption: 100 Watts

UPLINK UPGRADEABLE MODULE INTERFACE

1*1000Base-T-MGNT+2*1000Base-T
 1*1000Base-T-MGNT+1*1000Base-T+
 1*1000Fx (SX/LX/LH/ZX)

QoS

Input Rate Limiting (IRL) on a per-AAL5 interface
 Output Rate Limiting (ORL) on a per ATM-port
 and Ethernet basis
 Rate Limiting

SECURITY

Throttling Control, Sticky Bridge Ports
 MAC Address Access Control List,
 IP Address Access Control List

ADSL 2/2+ Routers

Signamax ADSL routers are designed to provide a simple and cost-effective ADSL Internet connection for a private Ethernet network. The ADSL (Asymmetric Digital Subscriber Line) connection is made using ordinary telephone line. Signamax provide latest ADSL 2+ standards for high speed Internet access (up to 24Mbps for Downstream). With a built-in 4-Port switch (065-9088/065-9089), up to four computers or devices can simultaneously be connected and share Internet access.

Signamax offers the advanced security enhancements (IP/MAC Filter, Application Filter and URL Filter) to protect your network from unwanted intruders breaking into your system by malicious agents from outside of your network. Signamax brings you advanced features as VLAN support, QoS, Port Mapping and many others. Routers also provide full IGMP as well and that is why they are the best choice for Triple Play applications specially IPTV distributed via ADSL 2+ line.

You can configure Signamax ADSL routers not only via common html (Web Management) access but also you can use external easy setup utility software on CD, too. Signamax Router compliance to supported ADSL standards: ANSI T1.413 Issue 2, ITU-T G.992.1 (G.dmt), ITU-T G.992.2 (G.lite), ITU-T G.992.3 (G.dmt.bis/ADSL2), and ITU-T G.992.5 (ADSL2+) specification. Both Annex A (ADSL over POTS) and Annex B (ADSL over ISDN) are supported.



Model 065-9089

ADSL 2/2+ Routers

PART NO.	DESCRIPTION
065-9087	Signamax ADSL2/2+ Modem Router 1xLAN, AnnexB
065-9087A	Signamax ADSL2/2+ Modem Router 1xLAN, AnnexA
065-9088	Signamax ADSL2/2+ Modem Router 4xLAN, AnnexB
065-9088A	Signamax ADSL2/2+ Modem Router 4xLAN, AnnexA
065-9089	Signamax ADSL2/2+ WiFi Modem Router 4xLAN, 802.11b/g, AnnexB
065-9089A	Signamax ADSL2/2+ WiFi Modem Router 4xLAN, 802.11b/g, AnnexA
065-9085	ADSL Splitter, 3xRJ-11, AnnexB
065-9086	ADSL Splitter, 3xRJ-11, AnnexA

SPECIFICATIONS

ADSL COMPLIANCE

- Full-rate ANSI T1.413 Issue 2
- ITU G.992.1 (G.dmt) Annex A and B
- Splitterless ITU G.992.2 (G.lite) specification
- ITU G.992.5 (ADSL2plus)
- ITU G.994.1 (G.hs), ITU G.992.3 (G.dmt.bis / ADSL2)
- Supports splitterless ADSL implementation
- Supports Dying Gasp

ATM SUBSYSTEM

- PPP over ATM (RFC 2364), Bridged IP over ATM (RFC 1483)
- PPP over Ethernet (RFC 2516), ATM Forum UNI 3.1/4.0 PVC
- Multiprotocol Encapsulation over AAL5 (RFC 2684)
- Supports up to 8 Virtual Channel Connections (VCCs)
- Supports UBR, CBR, and VBR service classes
- Support OAM F4/F5 look-back, AIS and RDI OAM cells

FEATURES

- IP Alias, User Datagram Protocol (UDP)
- Transmission Control Protocol (TCP)
- Internet Control Message Protocol (ICMP)
- Internet Group Management Protocol (IGMP)
- PPP over PAP (RFC1334), PPP over CHAP (RFC1994)
- MIB II support (RFC1213), NAT (Network Address Translation)
- Transparent bridging as specified in IEEE 802.1D
- Dynamic Host Configuration Protocol (DHCP)
- Dynamic DNS support
- Routing Information Protocol (RIP) v1 and v2
- Supports Virtual LAN (VLAN)
- Supports Quality of Service (QoS)

MANAGEMENT

- TFTP client and server
- FTP server and client, Universal Plug and Play (UPnP) support
- Web-based Graphical User Interface (GUI) enabling end-user device configuration via HTTP
- DHCP client and server
- Update of boot image or configuration data via TFTP/ FTP
- Syslog, Built-in Diagnostic Tools
- SNMP MIB support

ETHERNET INTERFACE

- IEEE 802.3, 10/100 Mbps
- Ethernet interface supporting up to 64 LAN hosts

VISUAL INDICATORS

- PWR – on when power on
- DSL LINK – on when ADSL is connected, flashing when attempting connection
- DSL ACT – on when transmitting/receiving data on the WAN
- LAN LINK – on when Physical Ethernet link is up

IP Camera

Signamax 065-9001 Internet Camera and 065-9003 Internet Wireless Camera, a camera device that can be connected directly to an Ethernet or Fast Ethernet network also supported by the wireless transmission based on the IEEE 802.11g standard 065-9003. Compared to the conventional PC Camera, the Internet Camera features a built-in CPU and web-based solutions that can provide a cost-effective solution to transmit real-time high-quality video images and sounds for monitoring. This Internet Camera can be managed remotely, accessed and controlled from any PC/Notebook over the Intranet or Internet via a web browser. The simple installation procedures and webbased interface allow you to integrate it into your network easily. With comprehensive applications supported, this Signamax Internet Camera is your best solution for remote monitor, high quality, and high performance video images.



Model 065-9003

FEATURES

- Simple to use just plug and view the image from the Internet Camera with a valid IP address
- Embedded Web UI configuration with Administrator ID/Password protection
- Secured User Management by ID and Password
- Allows remote access from web browser for live image viewing
- Supports TCP/IP networking, UPnP, SMTP e-mail, HTTP and other Internet related protocols
- Powerful application software for image capture and video recording:
 - Multiple Video Window Simultaneously,
 - Motion Detection with alert and E-mail sending,
 - Recording triggered by Motion Detection, Schedule, and Manual,
 - Single Frame Image Snap shot.
- Digital Zoom and Mirror function supported
- Support 10/BaseT/100BaseTX Ethernet with Auto-MDI/MDIX

IP Camera

PART NO.	DESCRIPTION
065-9001	LAN IP Camera
065-9003	Wireless IP Camera

SPECIFICATIONS

IMAGE SENSOR

Sensor resolution: 640 x 480 pixel
Sensor: Color CMOS Sensor
Lens: f: 6.0 mm, F: 1.8

IMAGE (VIDEO SETTING)

JPEG still image compression
Image frame rate: QCIF@30fps, 25fps@CIF, 10fps@VGA
Compression Rate selection: 5 levels, very low, low, middle, high, very high
Frame rate setting: 1, 5, 7, 15, 20, auto (depends on the video format)
Video resolution: 160 x 120, 320 x 240, 640 x 480
Automatic Gain control Yes
Automatic Exposure Yes
Automatic White Balance Yes
Digital Zoom Yes
Upside down and Mirror Yes

COMMUNICATION

LAN port: RJ-45, 10/100M auto-sensed, AUTO-MDIX
Communication protocol: HTTP, FTP, TCP/IP, UDP, ARP, ICMP, BOOTP, DHCP, PPPoE, SMTP, DDNS, UPnP

SYSTEM

CPU: RDC R2880
RAM: 8 MByte
Flash ROM: 2 MByte
OS: RTOS

SOFTWARE

Browser: Internet Explorer 5.0 or above, Netscape 6.0 or above
Application Software: IPview application software
OS supported: Microsoft Windows 98 SE, ME, NT 4.0, 2000, XP

FEATURES

System: Server Name, Location, Admin ID and Password
LED Control: Normal/OFF/Dummy

TCP/IP

Static IP Address: IP Address, Subnet Mask, Default Gateway
Dynamic IP Address: DHCP, BOOTP, PPPoE (Service Name, User ID, User Password)
Primary DNS Address, Secondary DNS Address

Users

Add User: 64 users account maximum, User Name, User Password, Delete User

Date/Time Setting

Date: Year/Month/Day (Default: 2001:10:01)
Time: Hour/Minute/Second (Default: 08:30:00)
NTP Protocol, NTP Server Address, Time Zone

Image

Compressing Rate: 5 levels, very low/low/medium/high/very high
Frame Rate: 1/5/7/15/20/Auto
Video Resolution: 160 x 120, 320 x 240/640 x 480
Brightness Control Yes
Contrast Control Yes
Saturation Control Yes
Light Frequency 50/60 Hz
Digital Zoom Yes
Upside down and Mirror Yes
Anti-Flicker Yes

Upload configuration

FTP Server, Time Schedule, Manual Operation

Dynamic DNS

Service, User Name, Password, Domain Name

Others

Reset, Factory Reset to Default setting

Web Browser Supported

Internet Explorer 5.0 or above
Netscape 6.0 or above

POWER

Power: DC 5V, switching type power supply
Power consumption: 3.5 Watt (700 mA x 5V)

LED

Power LED: Blue color
Activity LED: Orange color

OPERATING ENVIRONMENT

Operating temperature: 5° – 40°C
Storage temperature: 25° – 50°C
Humidity: 5-95% non-condensing

EMI

FCC / CE / VCCI class B



Model 065-9001



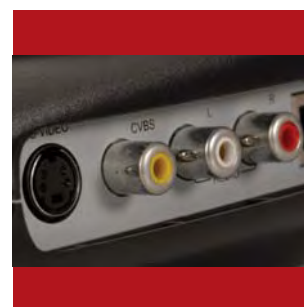
Model 065-9001 back



Model 065-9003 back

IP Set Top Box

065-9021 is an IP STB fully compatible with ISMA standard. It is widely used in communities, hotels and broadband environment for receiving MPEG-4 liveprogram and VOD. Meanwhile, with the support of head-end system, 065-9021 can be used for video shopping, network games, support EPG and so on.



Model Model 065-9021



Model 065-9021

FEATURES

- Video Format: MPEG-4 SP/ASP Video Decoding
- Audio Formats: MP3 and AAC
- Picture Formats: JPEG, BMP, PNG and GIF animated picture formats
- Network Interfaces: 1x10/100MBase-T RJ45
- Browser: Embedded browser, supports HTML network surfing
- Supports IGMP Multicast, which is capable of Receiving channelized of multicast programs
- Transport Standard: Open International Streaming Standard ISMA 1.0/1.1 and TS stream
- Games: JavaScript based network games
- VOD: Video/Audio programs on demand

IP Set Top Box

PART NO.	DESCRIPTION
065-9021	Signamax IP Set Top Box MPEG-4
065-9022	Signamax IP Set Top Box MPEG2
065-9023	Signamax IP Set Top Box MPEG2&4

FUNCTIONS

- **Media On demand:** Plays the video program in the playlist of EPG, supports play/stop/ pause/fast forwarding and backward/mute/volume up/volume down/Left and Right Audio channel/Stereo. It supports progress indication as well. It can also plays MP3 program in the play list of EPG supports play, stop, pause, mute, volume up, volume down and progress indication.
- **Multicast program:** Gets the channel information from the EPG and supports channel lineup. It does not support fast forwarding, fast backward, and pause. It supports mute, volume up, volume down, left and right Audio channels and stereo.
- **WEB Browsing:** Browses the Internet web pages of HTML 4.0 and Javascript 1.5 with the embedded browser.
- **Electronic Program Guide:** Enters the main EPG screen of the operator. Gets the information of the program and the playlist. Supports EPG dynamic upgrade, VOD, music on demand, picture viewing and network games.
- **Parameter configuration and display:** Supports PPPoE dialing through STB (modem bridge connection mode). Supports statically and dynamically obtain IP address. Configures the network parameter such as user name, password, DNS server, subnet mask, gateway and static IP address. Configures HTTP upgrade server, default PG server and default URL address. Modifies Password. Configures TV mode. Displays product information. Configures NTP server address. Configures Time Zone.

SPECIFICATIONS

Model 065-9021

MEDIA FORMATS

Video Formats: MPEG-4 ISO/IEC 14496-2 Advance simple profile without GMC and QPEL
Audio Formats: MP3 and AAC
Picture Formats: JPEF and GIF static pictures

STREAMING PROTOCOLS

Internet Streaming Media Alliance (ISMA) Implementation Specification version 1.0, including the following: Transport Protocols:
RTP: A Transport Protocol for Real-Time Applications, IETF RFC 1889;
RTP Profile for Audio and Video Conferences with Minimal Control, IETF RFC 1890; Transmission Control Protocol, IETF RFC793;
UDP: User Datagram Protocol IETF RFC768.
RTP Payload formats: RTP Payload Format for Transport of MPEG-4 Elementary Streams, IETF RFC 3640
Content distribution: MPEG-4 MP4 Format – ISO/IEC 14496-1:2000(E)
Media controls: Real Time Streaming Protocol (RTSP), IETF RFC 2326
Media Announce: SDP: Session Description Protocol, IETF RFC2327

Model 065-9022

VIDEO DECODING

Decoding Standard: ISO/IEC 13818-2 MPEG-2 MP@ML
Video Format: PAL/NTSC/SECAM
Aspect Ratio: 4:3, 16:9
Output Definition: 720 x 480 or 720 x 576 SD

AUDIO DECODING

Decoding Standards: ISO/IEC 13818-3
Decoding Formats: MPEG-1, 2, 3
Sample Rates: 32, 44.1, 22.05, 24 and 48 KHz
Output Modes: Single and dual audio channels

PROTOCOLS SUPPORTED

IP protocol: IP v4
Network Protocols: HTTP 1.0/1.1, DHCP, IGMP v1/v2, TCP/IP, DNS, PPPoE and NTP
Streaming Media Protocols: RTP/RTCP/RTSP/SDP

Model 065-9023

MEDIA FORMATS

Video Formats: MPEG-4 ISO/IEC 14496-2 Advance simple profile without GMC and QPEL
Audio Formats: MP3 and AAC
Picture Formats: JPEF and GIF static pictures

VIDEO DECODING

Decoding Standards: ISO/IEC 13818-2 MPEG-2 MP@ML, ISO/IEC 14496-10, MPEG-4 MP@L3
Video Format: PAL/NTSC, Aspect Ratio: 4:3, 16: 9
Output Definition: 720 x 480 or 720 x 576 SD

AUDIO DECODING

Decoding Standards: ISO/IEC 13818-3, ATSC A/52 and ISO/IEC 14496-3
Decoding Formats: MPEG Layer1/2/3, AC3, MPEG-2/4 AAC (ADTS)
Sample Rate: 32, 44.1, 22.05, 24 and 48 KHz

PROTOCOLS SUPPORTED

IP protocol: IP v4
Network Protocols: HTTP 1.0/1.1, DHCP, IGMP v1/v2, TCP/IP, DNS, SNMP v2, PPPoE and NTP
Streaming Media Protocols: RTP/RTCP/RTSP/SDP

NETWORK PROTOCOLS

HTTP 1.0/1.1, DHCP, NTP1.1 and IGMPV1/V2.,
Supports IPv4

ACCESSORIES

IPSTB Box: 1
Audio/Vido line: 1 suit
Net line: 1
Power Supply: 1
User Instruction: 1
Remote Control: 1
Batteries: 1 pair

TECHNICAL SPECIFICATIONS

Audio: MP3, AAC
Video: MPEG-4 ASP, SP, 4:3 and 16:9-aspect ratio
NTSC/PAL TV signal, 720 x 480 or 720 x 576 SD output
Sample Rate: 32, 44.1, 48, 88.2 and 96 KHz
Picture formats: GIF and JPEG
OSD: 256 colors, 16 level alpha blending

SYSTEM MAINTENANCE

Upgrade: Manual/Automatic application software upgrade
System Configuration: Manual/Automatic configuration

PICTURE FORMAT

Static pictures: JPEG, BMP, PNG
Animated picture: GIF

INTERFACES

Input Interface: RJ45
Output Interfaces: RCA, S-Video
Network Interface: 1x10/100M Base-T
IR Interface: NEC

OSD

Color: 32-bit true color
Alpha blending: 256 levels

THIRD PARTY SOFTWARE SUPPORTED

Browser: Ant or iPanel
Games: JavaScript games

PICTURE FORMAT

Static pictures: JPEG, BMP, PNG
Animated picture: GIF

INTERFACES

Input Interface: RJ45
Output Interfaces: RCA S-Video, SCART, and S/P DIF
Network Interface: 1x10/100M Base-T
IR Interface: NEC/RC5

OSD

Color: 32-bit true color
Alpha blending: 256 levels

THIRD PARTY SOFTWARE SUPPORTED

Browser: Ant or iPanel
Middleware: International leading middleware
Games: JavaScript games

SYSTEM MAINTENANCE

Upgrade: Manual/Automatic application software upgrade
System Configuration: Manual/Automatic configuration