

SIP / MGCP VoIP GATEWAY FAMILY

OCTTEL VoIP gateways support standard SIP or MGCP protocol and are compatible with market leading soft-switches

PRODUCT LINE

SP200/MG200 Series



Protocol: SIP or MGCP
Model: 1FXS, 2FXS, 1FXS1FXO, 1FXS1PSTN, 2FXS1PSTN
Ethernet: 1WAN 1LAN
Telephony Interface: RJ-11 connector

SP8440/MG8440 Series



Protocol: SIP or MGCP
Model: 8FXS, 8FXO, 6FXS2FXO, 4FXS4FXO, 4FXS4PSTN
Ethernet: 1WAN 4LAN
Telephony Interface: RJ-11 connector

SP1632T/MG1632T Series



Protocol: SIP or MGCP
Model: Single T1/E1 ISDN PRI
Ethernet: 1WAN 1LAN
Telephony Interface:
BNC for E1 (Unbalanced)
Terminal Block for T1/E1 (Balanced)

SP4220/MG4220 Series



Protocol: SIP or MGCP
Model: 2FXS, 2FXO, 1FXS1FXO, 4FXS, 4FXO, 2FXS2FXO, 2FXS2PSTN
Ethernet: 1WAN 4LAN
Telephony Interface: RJ-11 connector

SP1632/MG1632 Series



Protocol: SIP or MGCP
Model: 8FXS8FXO, 8FXS8PSTN, 16FXS, 16FXO, 16FXS16FXO, 16FXS16PSTN, 32FXS, 32FXO
Ethernet: 1WAN 1LAN
Telephony Interface:
Centronics cable with RJ-11 connector

SIP CALL FEATURES AND MANAGEMENT

Voice Features

G.711 a / μ -law with G.723.1, G.726, G.729A/B or GSM FR6.10
Silence Suppression & Detection
Comfort Noise Generation (CNG)
Voice Activity Detection (VAD)
Echo Cancellation (G.165/G.168)
Adaptive (Dynamic) Jitter Buffer
Call Progress Tone Generation
Programmable Gain Control

SIP Method Support

ACK, BYE, CANCEL, INFO, INVITE, MESSAGE, NOTIFY, OPTIONS, PING, PRACK, PUBLISH, REFER, REGISTER, SUBSCRIBE, UPDATE

SIP Call Features

Peer to Peer Call
Call Hold / Retrieve
Call Waiting
Call Pick Up
Call Park / Retrieve (SIP Server Required)
Call Forward
Call Transfer
Speed Dialing
Repeat Dialing
Three-way Calling (Media Server Required)

Telephony Specifications

In-Band DTMF, Out-of-Band DTMF Relay (RFC2833) or SIP INFO
DTMF / PULSE Dial Support
Caller ID Generation / Detection:
DTMF
FSK-Bellcore Type 1 & 2
FSK-ETSI Type 1 & 2
Calling Name, Number, Date and Time (FSK)
Polarity Reversal Detection (FXO) and Generation (FXS)
T.30 FAX Bypass to G.711, T.38 Real Time FAX Relay
Failsafe mechanism: Network, Service, Power Failure (FXS relay to FXO / PSTN)
Recordable Greeting Message (FXO models)
Emergency Number Table (FXO / PSTN models)
Modem Over IP Up to V.34
Message Waiting Indication (SIP Notice)
Hot line; Warm Line Support
Receiver Off-Hook (ROH Tone @ 480 Hz)
Loop Current Suppression after Busy Tone (configurable)
Visual Message Waiting Indication (VMWI)

Digital Interface - SP/MG 1632T

PRI Signaling: Euro ISDN NET5, National ISDN-2, 4ESS, 5ESS, DMS100
Line coding:
T1 ISDN PRI: B8ZS
E1 ISDN PRI: HDB3
Line impedance:
T1 100 Ω ,
E1 120 Ω , (Balanced),
75 Ω , (Unbalanced)

SIP Account Management

By port registration
By device registration (share account)
Mixed mode (Hunt number for inbound, by port number for outbound)
Invite with Challenge
Register by SIP Server IP Address or Domain Name

Multiple SIP Proxy Server Registration (Option)

Redundant Mode: Active / Standby Server Registration
Multi-Route Mode: Register to 5 Servers Simultaneously

SIP Call Management

Outbound Proxy Support
SIP Proxy Server Registration Failover
Privacy Mechanism / Private Extensions to SIP
Session Timers (Update / Re-invite)
DNS SRV Support
Call Types: Voice / Modem / FAX
Call Routing by Prefix Number
User Programmable Dial Plan Support
Toll-Free Support (FXO / PSTN models)
Automatic Calling Number Manipulation (VoIP, PSTN)
CDR Client
Phone Book Manager & Manual Peer Table (for P2P calls)
E.164 Numbering, ENUM support
Symmetric RTP

NETWORK FEATURES AND MANAGEMENT

IP Network Specifications

WAN: Static IP, PPPoE, DHCP, PPIP, BigPond
Network Protocol Support:
IP, TCP, UDP, TFTP, FTP, RTP, RTCP, ARP, RARP, ICMP PING, NTP, SNTP, SNMP v1/v2, HTTP, HTTPS, DNS, DNS SRV, Telnet, DHCP Server, DHCP Client, Super-link™, STUN Client, UPnP

NAT Functions

Support up to 255 clients
Port Forwarding (Virtual Servers)
DMZ
Port Triggering

QoS Support:

WAN: DiffServ, IP Precedence
Priority Queue
Upstream Rate Control
802.1Q (VLAN Tagging), 802.1P (Priority Tag)
LAN: Rate Limit (SP/MG 1632 series excluded)

DDNS Support

Dyndns.org (Dynamic and Custom)
TZO, Peanut Hull, 3322.org
802.1Q VID tagging (Option)

Network Security Specifications

PPIP, IP IPSEC VPN (optional)
Port Filtering
IP Filtering
MAC filtering
URL Filter
DIGEST Authentication
MD5 Encryption
DoS Protection

Gateway Management

Web Based configuration
Auto-provisioning (HTTP / HTTPS)
Telnet
IVR
FTP / TFTP / HTTP/HTTPS Software Upgrade

MGCP CALL MANAGEMENT (Optional)

IETF MGCP V.1.0, RFC 2705

Power & Environmental

Power Adaptor: AC 100V~240V 50/60Hz input, DC 12V output
DC -36V~72V input (option) for 1632 series only

Temperature (Operation): 0 °C ~ 45 °C
(Storage): -25 °C ~ 75 °C

Operation Humidity: Up to 90% RH, non-condensing

Dimension (W/D/H):

SP/MG 200 series: 96 x 135 x 38 mm
SP/MG 4220 series: 202 x 172 x 35 mm
SP/MG 8440 series: 302 x 179 x 45 mm
SP/MG 1632 / 1632T series: 442 x 330 x 43 mm

Weight:

SP/MG 200 series: 160 g
SP/MG 4220 series: 430 g
SP/MG 8440 series: 1.2 Kg
SP/MG 1632 series: 4.4 Kg
SP/MG 1632T series: 3.8 Kg

Packing Content

Gateway, Power Adapter, RJ-45 Network cable, RJ-11
Telephony cable, User's Manual CD

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* Specifications, availability and terms of offers may change without notice.



Model	Description						
	SIP / MGCP	WAN	LAN	FXS	FXO	PSTN	VPN
SP200S / MG200S	1	1	1				
SP200SO / MG200SO	1	1	1		1		
SP200SP / MG200SP	1	1	1			1	
SP200DS / MG200DS	1	1	2				
SP200DP / MG200DP	1	1	2			1	
SP4220DXS / MG4220DXS	1	4	2				
SP4220DXO / MG4220DXO	1	4	1		1		
SP4220DX2O / MG4220DX2O	1	4			2		
SP4220DXS+ / MG4220DXS+	1	4	2				V
SP4220S / MG4220S	1	4	4				
SP4220O / MG4220O	1	4			4		
SP4220SO / MG4220SO	1	4	2		2		
SP4220SP / MG4220SP	1	4	2			2	
SP4220S+ / MG4220S+	1	4	4				V
SP8440S / MG8440S	1	4	8				
SP8440O / MG8440O	1	4			8		
SP8440SO / MG8440SO	1	4	6		2		
SP8440QO / MG8440QO	1	4	4		4		
SP8440SP / MG8440SP	1	4	4			4	
SPMG8440S+ / MG8440S+	1	4	8				V
SP1632-16S / MG1632-16S	1	1	16				
SP1632-16O / MG1632-16O	1	1			16		
SP1632-8S8O / MG1632-8S8O	1	1	8		8		
SP1632-8S8P / MG1632-8S8P	1	1	8			8	
SP1632-16S16O / MG1632-16S16O	1	1	16		16		
SP1632-16S16P / MG1632-16S16P	1	1	16			16	
SP1632-32S / MG1632-32S	1	1	32				
SP1632-32O / MG1632-32O	1	1			32		
SP1632T / MG1632T	1	1	T1/E1		T1/E1		

SIP, Voice and FAX related

RFC1889 RTP: A Transport Protocol for Real-Time Applications.
 RFC2543 SIP: Session Initiation Protocol
 RFC2833 RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals
 RFC2880 Internet Fax T.30 Feature Mapping
 RFC2976 The SIP INFO Method
 RFC3261 SIP: Session Initiation Protocol
 RFC3262 Reliability of Provisional Responses in Session Initiation Protocol (SIP)
 RFC3263 Session Initiation Protocol (SIP): Locating SIP Servers
 RFC3264 An Offer/Answer Model with Session Description Protocol (SDP)
 RFC3265 Session Initiation Protocol (SIP)-Specific Event Notification
 RFC3311 The Session Initiation Protocol (SIP) UPDATE Method
 RFC3323 A Privacy Mechanism for the Session Initiation Protocol (SIP)
 RFC3325 Private Extensions to the Session Initiation Protocol (SIP) for Asserted Identity within Trusted Networks
 RFC3362 Real-time Facsimile (T.38) - image/t38 MIME Sub-type Registration
 RFC3515 The Session Initiation Protocol (SIP) Refer Method
 RFC3550 RTP: A Transport Protocol for Real-Time Applications. July 2003
 RFC3665 Session Initiation Protocol (SIP) Basic Call Flow Examples
 RFC3824 Using E.164 numbers with the Session Initiation Protocol (SIP)
 RFC3841 Caller Preferences for the Session Initiation Protocol (SIP)
 RFC3842 A Message Summary and Message Waiting Indication Event Package for the Session Initiation Protocol (SIP)
 RFC3891 The Session Initiation Protocol (SIP) "Replaces" Header
 RFC3892 The Session Initiation Protocol (SIP) Referred-By Mechanism
 RFC3960 Early Media and Ringing Tone Generation in the Session Initiation Protocol (SIP)
 RFC3986 Uniform Resource Identifier (URI): Generic Syntax
 RFC4028 Session Timers in the Session Initiation Protocol (SIP)
 RFC2327 SDP: Session Description Protocol
 Draft-ietf-sipping-service-examples-08 for call features

Network

RFC318 Telnet Protocols
 RFC791 Internet Protocol
 RFC792 Internet Control Message Protocol
 RFC793 Transmission Control Protocol
 RFC768 User Datagram Protocol
 RFC826 Ethernet Address Resolution Protocol
 RFC959 File Transfer Protocol
 RFC1034 Domain Names - concepts and facilities
 RFC1035 Domain Names - implementation and specification
 RFC1058 Routing Information Protocol
 RFC1305 Network Time Protocol (NTP)
 RFC1349 Type of Service in the Internet Protocol Suite
 RFC1350 The TFTP Protocol (Revision 2)
 RFC1661 The Point-to-Point Protocol (PPP)
 RFC1738 Uniform Resource Locators (URL)
 RFC2854 The 'text/html' Media Type
 RFC2131 Dynamic Host Configuration Protocol
 RFC2453 RIP Version 2
 RFC2474 Definition of the Differentiated Services Field (DS Field)
 RFC2516 A Method for Transmitting PPP Over Ethernet
 RFC2616 Hypertext Transfer Protocol - HTTP/1.1
 RFC2617 HTTP Authentication: Basic and Digest Access Authentication
 RFC2637 Point-to-Point Tunneling Protocol
 RFC2766 Network Address Translation - Protocol Translation (NAT-PT)
 RFC2916 E.164 number and DNS
 RFC3022 Traditional IP Network Address Translator
 RFC3489 STUN - Simple Traversal of User Datagram Protocol (UDP) Through Network Address Translators (NATs)
 RFC3525 DigitMap
 UPnP Device Architecture Version 1.0

VoIP GATEWAY AUTO PROVISIONING SYSTEM

System Specifications

Server Specifications

Support Standard:
 RFC 791 - Internet Protocol
 RFC 793 - Transmission Control Protocol
 RFC 768 - User Datagram Protocol
 RFC 959 - File Transfer Protocol
 RFC 1350 - Trivial File Transfer Protocol (Revision 2)
 RFC 2616 - Hypertext Transfer Protocol -- HTTP/1.1
 RFC 2660 - Secure Hypertext Transfer Protocol
 SSL - Secure Socket Layer
 SSH - Secure Shell

System Capacity

Basic Version: up to 2,000 VoIP gateways
 Advance Version: up to 10,000 VoIP gateways
 Premium Version: up to 50,000 VoIP gateways

Server Functions

Configuration Management

SQL based provisioning
 By gateway, group, or all gateways configurations
 By gateway, group, or all gateways firmware control via web browser
 Scheduled or immediate automatic firmware upgrade
 Set up gateway by Profiles
 Flexible profile rules
 Off-line profile Editor
 On-line profile viewer
 Provision over HTTP / HTTPS, Download by HTTP, HTTPS, TFTP or FTP
 Optimized TFTP server ensures operation behind NAT
 View profile and gateway settings with WEB browser
 Suspend gateway service from server
 Gateway checks for update when,
 Power on or restart by request
 Update interval expires (update interval configurable)

Fault Management

Syslog Server
 By gateway update log
 E-mail Alert

Security Management

Password controlled server access
 3 level login account authorization
 Data encrypted before transmission
 Identify gateway by IP and (or) MAC address
 Single session per account
 Automatic session inactivity timeout

System Application

