



**RGW96-1U-RJ45**



**RGW96-2U-RJ45**



**RGW96-1U-RJ21**



**RGW96-2U-RJ21**

Product	RGW96-1U	RGW96-2U
RJ21	24/48 FXS	24/48/72/96 FXS
RJ45	24/48 FXS/FXO 24/48 FXS+FXO	24/48/72/96 FXS/FXO 24/48/72/96 FXS+FXO

## Features

- SIP/MGCP protocols
- 500 routing and number manipulation rules
- Fax over IP using T.38 & G.711 pass-through
- Hot-swappable FXS/FXO interface card
- Dual redundant gigabit Ethernet ports
- Dual AC/DC power supplies available
- PSTN failover
- Auto provisioning
- Remote access via the Redstone Cloud\*
- Management with Redstone or third-party Remote Device Management Systems (TR-069, SNMP)
- Interoperability with popular SIP servers, such as Cisco CallManager/CUCM, Broadsoft, Microsoft Skype for Business (Lync), and Asterisk/Elastix
- Class I lightning protection

\* The Redstone Cloud is based on Amazon.

The RGW96 series is a cost-effective, high-performance VoIP gateway with up to 96 FXS ports, targeting multi-tenant, large contact center and enterprise telephone communication applications, in which reliability and easy maintenance are critical.

Powered by innovative VoIP technology from Redstone, the RGW96 allows users to apply it as an N-to-1 system capable of connecting analog phone, fax and POS machine, IP telephony, and PSTN.

### Comprehensive Feature Set

As an intelligent gateway running on embedded Linux operating system, the RGW96 supports an advanced feature set such as call forward, call transfer, 3-way calling, caller ID, DND, color ringback, call forking, automatic routing, Digitmap and much more, to provide a complete and highly reliable VoIP solution applicable to most scenarios.

### Carrier-class Reliability

RGW96 supports high availability configuration including SIP registration failover, load balance as well as PSTN failover, with reliable 1+1 redundancy of gigabit Ethernet ports and power supplies (optional), ensuring no loss of service and minimizing the communications downtime.

### Easy Remote Management

Embedded with the Redstone Cloud client, the device located behind enterprise NAT or firewall can be easily accessed for maintenance and troubleshooting purpose or by far-end applications. Real time monitoring, alarm notification, remote packet capture and software upgrading can be performed with the Redstone or third-party Remote Device Management Systems connecting over TR-069 or SNMP protocol.

### Investment Protection

Investment protection is a significant part of Redstone VoIP product development focus, providing better returns for the customers who invest in VoIP products by maintaining compatibility with newest VoIP technologies via software upgrading, avoiding repeated investments.



**RGW96-1U**



**RGW96-2U**

## Specification

Protocols	
<b>Call Control</b>	SIP/UDP and SIP/TCP (RFC3261), IMS (3GPP), MGCP (RFC3435)
<b>Network</b>	Telnet, SSH, HTTP, HTTPS, DHCP/PPPoE client, Radius, DNS (A/SRV record), STUN
Media Processing	
<b>Caller ID</b>	Bellcore Type 1&2, ETSI, BT, NTT, and DTMF-based CID
<b>Codec</b>	G.711 (a/μ), G.729a, G.723.1, GSM, iLBC
<b>DTMF</b>	In-band audio, RFC2833, SIP-INFO
<b>Hook-Flash</b>	Local processing, RFC2833, SIP-INFO
<b>Fax over IP</b>	T.38, G.711 pass-through T.38 compliant Group 3 Fax Relay Maximum fax rate of 33,600 bps (pass-through)
<b>Disconnect Modes</b>	Polarity reversal, Busy tone detection, Loop current
<b>Voice Quality Enhancement</b>	Echo cancellation (G.168-2004), Jitter buffer, Silence suppression (VAD, CNG), PLC
Voice	
<b>Call Transfer</b>	Blind transfer, Consultative transfer
<b>Call Forward</b>	Call forward all, Call forward no answer, Call forward busy
<b>Call Recording Storage</b>	Remote recording server for storage
<b>Call Settings</b>	Routing based on the caller or callee number, Digitmap, 3-way calling, Speed dialing, Do not disturb, Call forking, Color ringback tone, Hunt group, Ring cadence, Message Waiting Indicator (MWI)
Security	
<b>User-defined ports</b>	SIP port, RTP port, HTTP/HTTPS port to access the Web GUI
<b>Access List</b>	IP addresses allowed to access HTTP/HTTPS/Telnet/SSH service
<b>VoIP</b>	SIP-allowed IP addresses
<b>Encryption</b>	Encrypted password/PIN
<b>Intrusion Prevention</b>	Ping blocking
QoS	
<b>QoS</b>	DiffServ, TOS, 802.1P/Q VLAN
High Availability	
<b>Redundancy</b>	Primary-Standby, Active-Standby, Load balancing
<b>Failover</b>	PSTN failover upon power or network failure

## Provisioning, Administration and Maintenance

<b>Device Management</b>	Redstone Remote Device Management System, TR069 management (TR-069, TR-104, and TR-106), SNMP
<b>Remote Access over TCP</b>	Redstone Cloud
<b>Auto Provisioning</b>	Download configuration file via TFTP/FTP/HTTP/HTTPS, Obtaining ACS address via DHCP option 66 or redirection
<b>Log Management</b>	8-level logs, Syslog
<b>Status &amp; Statistic</b>	Call status and history, Device status monitoring and statistics collection
<b>Data Capture</b>	Port capture, Packet capture
<b>Upgrade</b>	Firmware upgrade via Web GUI

## Hardware

CPU	1 GHz
Voice DSP module	200 MHz, 3 to 12 modules
RAM	256 MB, DDR3
FLASH	32 MB
Interface card	RGW96-IF-RJ21
Interface card	RGW96-IF-RJ45
H×W×D	85 × 440 × 300mm (2U)
Weight (net)	6.32 kg maximum
Single/Dual AC power supplies	100 to 240 VAC, 50/60 Hz, 2A maximum
Single/Dual DC power supplies	-36 to -72 VDC, 4A
Power consumption	110 W
Mounting	Rack
Operating	Temperature: 0 to 40°C Humidity: 10 to 90% RH (non-condensing)
Storage	Temperature: -40 to 70°C Humidity: 5 to 90% RH (non-condensing)