

GR1000/GR2000

1/2-Port ATA Router



Features

- Superior voice quality and high performance
- Embedded Stream-Engine™ ideal for today's multimedia homes
- Voice and data services with router/IP sharing capability
- Support for generic or secure APS
- Cyber attack and broadcast storm protection
- Supports rich supplementary call features
- Intelligent Dial Plan and flexible route selection
- Good interoperability for IP Centrex, IP-PBX, and SIP servers
- Auto provisioning, web management, and security enhancement
- PSTN line emergency back-up function
- Support Telephone/FAX/Modem over IP

Product Optional Model

Model	WAN	LAN	FXS	PSTN Port
GR2000	1	1	2	PSTN backup
GR1000	1	1	1	PSTN backup
GR2000ST	1	1	2	None
GR1000ST	1	1	1	None
GR2000P	1	1	2	PSTN Loop Thru*
GR1000P	1	1	1	PSTN Loop Thru*

GR2000/GR1000 ATA Router is a SIP- based advanced IP gateway with embedded router function. It is ideal for residential/SOHO or even SMB (small & medium) VoIP communication use. It supports 2/1 FXS ports for analogue phone or FAX and also provides a simple PSTN backup port. Furthermore, GR2000/GR1000 is compatible with common telephones, facsimiles, voice mail systems, and IVR system.

Besides compact and cost-effective design advantages, it is built with a power router and Stream-Engine™ inside that not only saves money and space, but also offer unbeatable superior voice quality for VoIP calls. This Stream handler will naturally prioritize the voice packets and turbo up transmission as well as offer the same function to video, on-line game, instant message and real-time applications. This makes this product totally different and more valuable than general VoIP routers in the market.



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Specifications

Superior Multimedia Performance

The GR2000/GR1000 provides an embedded intelligent StreamEngine™ that will automatically prioritize real-time sensitive traffic, like voice over IP, video conferencing, on-line game packet, instant messages and etc, and provide fast streaming transmission thru internal Router machine. And they can dynamically adapt to the available uplink bandwidth and perform excellent bandwidth shaping and maximum utilization of the broadband link.

Embedded Router and Switch

GR2000/GR1000 is equipped with 3-port Ethernet switch and fast performance Router inside. The router can be configurable to be a full functioned one, or simple IP sharer with NAT or disabled as bridged mode.

Toll Quality Voice

With the StreamEngine™ support, even under worse traffic condition or DOS attacking, the GR2000/GR1000 can deliver clear, high-quality voice communication in a variety of network conditions.

Standards & Interoperability

By implementing internationally recognized standards of SIP, extensions, and network protocols, the GR2000/GR1000 is widely compliant with the standards. Besides, this device can interoperate well with popular SIP server, Soft switch, IP-Centrex, IP-PBX and SIP terminals.

Auto Provisioning

The GR2000/GR1000 provides the user plug & play function thru auto-provisioning system (APS). And users may easily configure and maintain the device thru the web-based management or Auto-upgrade of APS. A Secure APS server system is optional to improve the security of service for Internet Service Provider.

Large Scale Deployment

The GR2000/1000 offers key features and capabilities for service providers to provide customized service to their subscribers. They can be remotely provisioned and configured. This saves providers the time, technical support, cost and hassle of managing, pre-configuring and re-configuring customer premises equipment.

Affordable

Inexpensive, easy-to-install and simple-to-use, the GR2000/10000 connects standard telephones and/or faxes to IP based networks. The GR2000/1000 can offer the best quality of VoIP service at a very low and attractive cost for SOHO's and residents.

Specifications

Hardware

- Compact Anti-fire ABS plastic housing with wall-mount design
- Housing Dimension: 136 x 96 x 28.5mm
- Temperature: Operating 0° to 45° C, Storage: -20° to 70° C
- Humidity: Operating 15% to 85%, Storage: 10% to 90%

Interface

- 2/1 POTS ports for Analog phone/FAX/modem
- 2-ports 100/10Mbps (IEEE802.3u/802.3) Ethernet (modem reserved)
- LAN ports: Auto MDI/MDXO, Auto-negotiation, VLAN tagging
- 1 Reset button for factory default setting
- 1 DC power input Jack 2.5mm diameter
- 6 LEDs: POWER, FXS1, FXS2, LAN, WAN, PSTN/SYS (LED PSTN/SYS for PSTN call indication and system status)



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Specifications

Power

- External power supply with 2.5mm jack
- Input DC 13V/0.8A

VoIP Protocol Stack

- SIP V2 (RFC3261), SDP (RFC2327) standards
- SIP basic messages: REGISTER, INVITE, ACK, BYE, CANCEL, SUBSCRIBE, NOTIFY, OPTIONS, INFO (RFC2976), UPDATE (RFC3311), OFFER/ANSWER (RFC3264), REFER (RFC3515)
- SIP authentication (HTTP Digest with MD5)
- SIP Symmetric Response Routing (RFC3581)
- SIP advanced messages: SIP Early Session Disposition Type (RFC3960), SIP Early Media and Ringing Tone Generation (RFC3960), SIP "Replaces" Header (RFC3891), SIP Message Waiting Indication Event Package (RFC3842), SIP Reliability of Provisional Responses (RFC3262)

Phone Call Services

- Basic Calls
- Caller ID type I and II
- CLIP / CLIP
- Supplementary features: Call Hold, Call Transfer, Call Forward, Call Waiting, Call Waiting, CWI, 3-way Call Conferencing, Message Waiting
- Indication and more
- Call Waiting Caller ID
- ITU T.30/T.38 FAX support
- FAX Tone detection (Pass Through)
- Flexible Dial Plan support
- PSTN backup line (Emergency, network/power failure)
- IVR Control commands

Audio Codec

- G.711a/u-law (64K)
- G.726 (16K, 24K, 32K, 40K)
- G.729A/B (8K) Optional
- G.723.1 (5.3K, 6.3K) Optional

Voice Features

- Exchange of Codec Capability
- Dynamic Payload
- Adjustable audio frames per packet
- DTMG in-band and Out-of-band (RFC2833)
- Tone/Ring generation configurable
- Dial tone, Special Dial tone, Ring tone, Ring back tone, busy tone, Network busy/congestion Tone, Call Waiting tone,
- Voice Activity Detection (VAD)
- Comfort Noise Generation (CNG)
- Dynamic voice gain controllable
- Line Echo Cancellation ITU G.168 (LEC)
- Adaptive jitter buffering
- Packet loss concealment (PLC)



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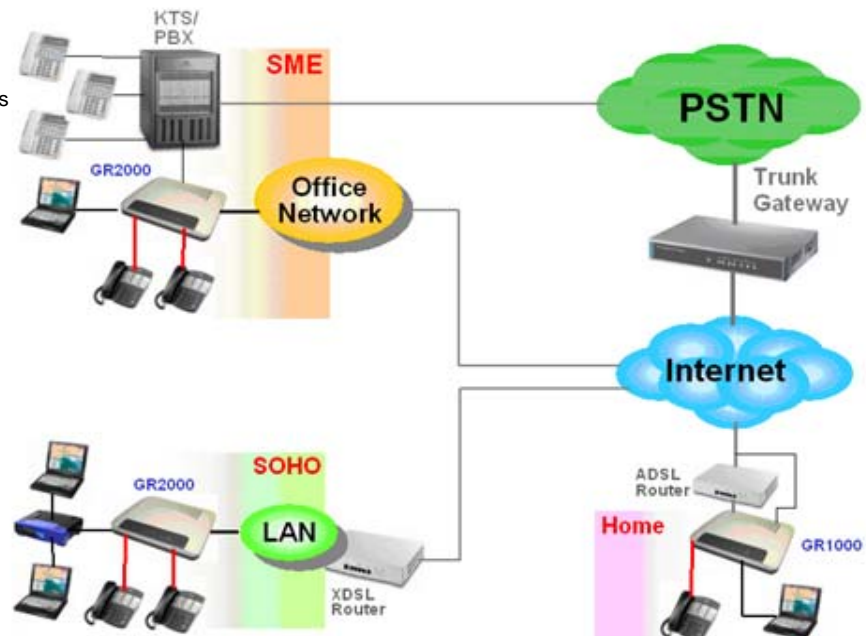
Specifications

Network Protocols

- IPv4 (RFC791), ARP(RFC826), DHCP (RFC2131), PPPoE (RFC2516) ICMP (RFC792), TCP (RFC793), UDP (RFC768), RTP(RFC3550), RTP Profile (RFC3551), RTCP (RFC 3605),
- HTTP Server
- TFTP Client
- Telnet Server
- NAT traversal with STUN (RFC3489)
- Multicast
- IGMP proxy and IGMP snoopy
- Dos attacking secure and broadcast storm protection
- 802.1p/802.1q (VLAN) per port processing
- ToS (RFC791)
- Diffserv (RFC 2475)
- Provisioning, Administration and Management
- Auto-provisioning thru general APS (or option: SecureAPS™ server)
- Boot time or periodic auto-activation of APS
- Remote Firmware and configuration file upgrade
- Highly secure with authentication and encryption (thru SecureAPS™)
- Status and performance monitoring
- Configurable Syslog log level (thru Secure APS™)
- Failsafe Upgrade

WAN Side Access

- DNS resolving for SIP+STUN+TFTP servers
- DNS primary + secondary support
- Obtain DNS server from DHCP
- DNS Relay
- DMZ support
- HTTP Server



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