WELLTECH
[The VoIP Technology Expert]

PRODUCT DATA

WellGate 3512 Wi-Fi VoIP Gateway

Broadband Router

2-port FXS + 1 PSTN VoIP Gateway

Wi-Fi 802.11 b/g Access Point Mode

Wi-Fi 802.11 b/g Client Mode

WDS Repeater Mode

Universal Repeater Mode

Welltech Computer Co., Ltd. was founded in 1988 in Taipei, Taiwan with the aim of linking people and the technologies, and has been an integral part of the community for over a decade. Our company is committed to promoting better Communications and Networking solutions to our customers through our strong knowledge and expertise in Voice over IP.

As the leading company in VoIP in Taiwan and with years of experience in H.323 and SIP protocol, Welltech has successfully developed FXO and FXS gateways, IP-Phone, E1/T1 Trunk gateway, SIP Proxy Server, Value added service server, USB phone and softphone and become a VoIP expert.

The voice quality and total solution providing ability are the reason why Welltech VoIP products are very popular in the market. From CPE side small gateways to CO side Solution, Welltech provided total VoIP solution to SOHO, multi-national corporations (MNCs), ITSP and carrier market. The new product, router integrated with voice over IP functions that support SIP protocol, is compliance with future communication trade.

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Introduction

WellGate 3512 is a Wi-Fi VoIP Gateway, which combined 2-port FXS, 1-port PSTN, 1 WAN / 4 LAN IP Gateway, and 802.11 b/g WLAN together. It support SIPv2 (RFC3261) protocol and with abundant telephony features. The PSTN interface support power failure to switch to PSTN call automatically and specific dial to PSTN call manually. Wireless LAN with both Access Point and Client mode, with automatically site scan and access control by MAC address. Support WDS and Universal Repeater to connect different wireless network together. The Wireless ISP feature support to connect to ISP's wireless network directly.

Benefits

- All-in-One design, to save the equipment purchasing cost.
- Build-in Wi-Fi AP, Wi-Fi Client, IP Gateway, and VoIP, dedicated for Enterprise, SOHO, Home user.
- Support both WDS and Universal Repeater, easy to connect the different wireless network together.
- Wireless ISP, easy set to connect to various ISP's wireless network.
- Support diverse networking connection of ADSL modem, Cable Modem, and Leased line.
- Multiple VPN protocol pass-through, to integrate with existed VPN network.
- Flexible Dial Plan for VoIP, PSTN, and Wireless call.
- Security protect by Firewall and Denial of Service.
- Voice packet (FXS) with higher priority than LAN ports.

Application

WiFi Office IP-PBX

- Support Hand-Over phone call over WDS Repeater.
- Wi-Fi Phone WP-588 talk to other phone
- Moving from one repeater to another, without voice talking disconnection.
- SIP-PBX 6200S/6200GS (for Middle Enterprise and multi-branch)
- ePBX-100A(for Small Enterprise)
- Bundle with WG-2608/35xx FXS gateway to use existed analog phone.
- WG-38xx FXO gateway for call convert to PSTN.

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Application
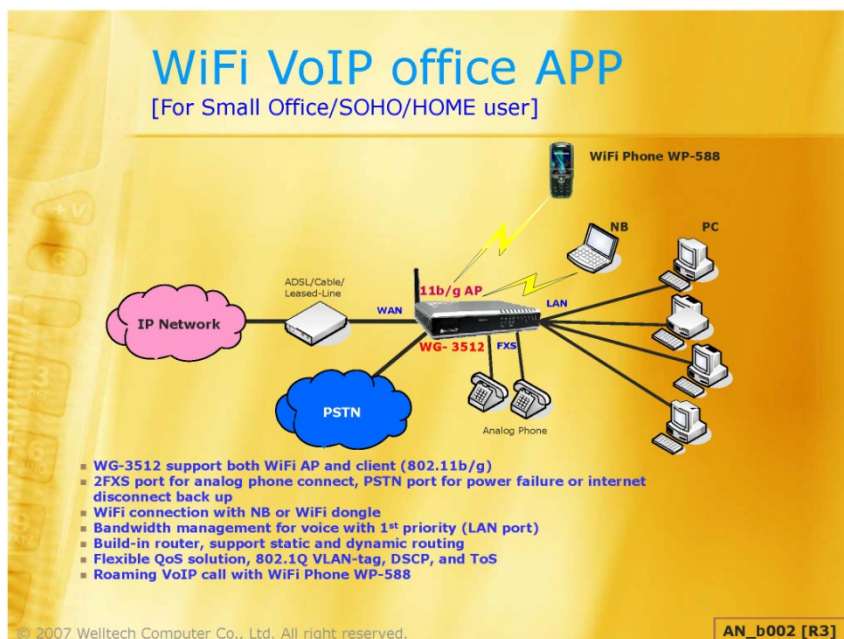
Physical Interface

Ethernet port(RJ-45, 10/100 base-T):
- 1-WAN port, for connecting to router, ADSL modem (ATU-R), Cable modem, and Leased Line.
- 4-LAN port, for PC or other network devices connecting.

Telephony port(RJ-11)
- 2-FXS ports, to connect with analog phone(POTS)
- 1-PSTN port, to connect with PSTN line for backup

Antenna RF connector
Power Jack: DC12V, 1.5A
Reset button (Factory Default)
Status indicated LED: Indicates WAN, LAN, FXS, PSTN, WLAN, and Power status

Specification

IP Network connection
  Broadband Router (IP Gateway)
    IPv4 (RFC 791)
    MAC Address (IEEE 802.3)
    TCP/UDP (RFC 793/768)
    RTP/RTCP (RFC 1889/1890)
    ICMP (RFC 792)
    ARP (RFC 826)
    Static IP (WAN)
    DHCP Client (RFC 2131)
    DHCP Server (RFC 2131)
    PPPoE Client (RFC 2516)
    DNS Client
    DNS Relay
    Dynamic DNS

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Specification

NAT/NAPT (RFC 1631)
Virtual DMZ
Firewall:
- IP Filtering
- Port Filtering
- MAC Filtering
- URL Filtering
- Port Forwarding
- DoS: Denial of Service

Bridge Mode
VPN Pass-Through: IPSec, PPTP, L2TP
NAT Traversal:
- UPnP IGD
- STUN Client

SNTP Client (RFC 2030)
HTTP Server
Quality of Service
- 802.1Q VLAN Tag
DiffServ (RFC 2475)

Wireless LAN
Standard: IEEE 802.11 b/g compliant
Band: 2.4GHz (B) / 2.4GHz (G) / 2.4GHz (B+G)
Mode:
- **Wi-Fi AP Mode,**
- **Wi-Fi Client Mode,**
- **WDS Repeater Mode,**
- **Wi-Fi AP+WDS Repeater Mode**
- **Universal Repeater Mode**

SSID / Broadcast SSID
Channel: Ch 1 ~ 11, 13 for Europe (ETSI), 14 for Japan
Authentication Type: Open System / Shared Key
Data Rate: 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, 54M
Wireless ISP: Bridged WAN and LAN together, Wi-Fi Client connect to ISP's AP.
802.1x Encryption and Authentication
- Encryption: WEP (64/128bits), WPA/WPA2-TKIP/AES, Mixed WPA and WPA2
- WPA Authentication: PSK: Pre-Shared Key (Personal) / Radius (Enterprise)
Wireless Access Control by MAC address (Allow/Deny)
802.11f, IAPP (Inter Access Point Protocol)
Support Network Type: Infrastructure and Ad-Hoc mode
Support Site survey scan and Manual connect
Up-to 8 WDS AP List

IP Telephony (VoIP)
SIPv2 (RFC 3261):
- Outbound proxy setting for increasing performance, productivity, and security.
Voice Codecs:
- G.711 (a-Law/u-Law): 64 bits (PCM)
- G.723.1: 6.3k/5.3k bits
- G.726: G.726: 16/24/32/40K bits (ADPCM)
- G.729A: 8k bits (CS-SCELP)
- G.729B: adds VAD and CNG to G.729

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Specification

VAD – Voice Activity Detection with Silence Suppression
CNG – Comfortable Noise Generation
Voice Gain Adjustable
Automatic Gain Control
Line Echo Cancelation
Adaptive Jitter Buffer
Packet Loss compensation - increasing voice quality
DTMF: In-band, Out-of-band (RFC 2833), and SIP Info
Caller ID:
- Caller ID Generation DTMF, FSK (Bellcore, ETSI, BT, NTT)
- Call Waiting Caller ID
- Short Ring / Dual Tone before Caller ID
FAX transmission:
- Tone Detection
- G.711 pass-through
T.38 Fax relay protocol
Modem transmission:
- Tone Detection
- G.711 pass-through
Tone Generation (upto 13 countries localized tone selectable)
- Ringing Tone
- Ring Back Tone
- Dial Tone
- Programming Tone
- Customized Ring Cadence
Call Features
- Call Hold
- Call Transfer (Blind)
- Call Forward (Unconditional/No Answer/Busy)
- Call Conference (3-ways)
- DND (Do Not Disturb)
Dial Plan
- Proxy routing call
- Direct IP call
- PSTN call
- Speed Dial
- HotLine
- Prefix Insert/Drop

Security

802.1x Wireless Encryption and Authentication
Build-in Firewall / Denial of Service
MD5 for SIP authentication (RFC 2069 / 2617)
Password protected Admin access authority

Setting and Maintenance

- Configure & Update method: Web Browser (HTTP)
- Access password setting and change
- IVR annoucement of IP address
- System Status indication
- System Statistic
- Save / Reload Setting parameter
- System Log Saving locally and remotely
- Date & Time setting

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Environmental

Dimension(W*H*D): 175*32*126 mm

Weight: 250g (Unit)

Operating Temp. & Humidity

Temp.: 0℃~45℃ (32℉~113℉)

Humidity: 10%~85% relative humidity, non-condensing

Storage Temp. & Humidity

Temp.: 0℃~55℃ (32℉ ~131℉)

Humidity: 10%~95% relative humidity, non-condensing

AC Power Adaptor:

INPUT: AC100V~240V, 50-60Hz

OUTPUT: DC 12V, 1.5A

Regulatory: FCC (Part 15, Class B) & CE Processing

Disclaimer
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