# Grandstream HandyTone Series



HandyTone series of products are award-winning next generation analog telephone adapters and Internet data, voice, fax and PSTN "all-in-1" integrated access devices (IAD) based on SIP standard. Built upon Grandstream' s innovative and proprietary technology, HandyTone products feature market leading superb sound quality, rich functionalities, high level integration, compactness, and great affordability. HandyTone products received numerous prestigious awards from some well known organizations and magazines

Affordable IP Telephony





















## HandyTone-286

HandyTone 286 is a next generation single port analog telephone adapter based on SIP standard. Built upon Grandstream's innovative and proprietary technology, HandyTone 286 features market leading superb sound quality, rich functionalities, ultra compactness (size of a credit card), unbeatable price and value. HandyTone 286 received a number of prestigious awards from the industry including the "Best of Show" award at the 2003 Internet Telephone Conference and Expo, the 2003 "Product of The Year" award from Internet Telephone magazine, and the 2003 "Innovation Award" from TMC Labs.

## HandyTone-386

HandyTone 386 is a next generation 2-port analog telephone adapter based on SIP standard. It supports 2 independent SIP accounts or SIP server platforms as well as a PSTN pass through line for toggling operations between SIP and PSTN network. Built upon Grandstream's innovative and proprietary technology, HandyTone 386 features market leading superb sound quality, rich functionalities, compact design (size of a wallet), unbeatable price and value. HandyTone 386 received the prestigious "Best of Show" award at the 2005 Internet Telephone Conference and Expo.

## HandyTone-486

HandyTone 486 is a next generation Internet data, voice, fax and PSTN "all-in-1" integrated access device based on SIP standard. Built upon Grandstream's innovative and proprletary technology, HandyTone 486 features market leading superb sound quality, rich functionalities, high level integration (integrated router, NAT, DHCP server, 1 port FXS telephone gateway, and a PSTN line for toggling operations between SIP and PSTN network), compact design (size of a wallet), and unbeatable price and value. HandyTone 486 received a number of prestigious awards from the industry including the "Best of Show" award at the 2004 Internet Telephone Conference and Expo, the 2004 "Product of The Year" award from Communications Solutions Magazine.

#### HandyTone-286 diagram



#### HandyTone-386 diagram



#### HandyTone-486 diagram





## HandyTone-488

HandyTone 488 is a next generation Internet data, voice, fax and PSTN "all-in-1" integrated access device based on SIP standard. Built upon Grandstream's innovative and proprietary technology, HandyTone 486 features market leading superb sound quality, rich functionalities, high level integration (integrated router, NAT, DHCP server, 1 port FXS telephone gateway, and 1 port fully programmable FXO gateway for advanced toggling operations between SIP and PSTN network), compact design (size of a wallet), and unbeatable price and value. HandyTone 488 received the prestigious "Best of Show" award at the 2004 Internet Telephone Conference and Expo

## HandyTone-496

HandyTone 496 is a next generation 2-port Internet data, voice, fax "all-in-1" integrated access device based on SIP standard. Built upon Grandstream's innovative and proprietary technology, HandyTone 496 features market leading superb sound quality, rich functionalities, high level integration (integrated router, NAT, DHCP server, and dual port FXS telephone gateway), compact design (size of a wallet), and unbeatable price and value. HandyTone 496 received the prestigious "Best of Show" award at the 2004 Internet Telephone Conference and Expo

#### HandyTone-488 diagram

**PSTN** 







HandyTone 286 rear view



HandyTone 286 side view



HandyTone 386 rear view



HandyTone 486/488 side view



HandyTone 486/488 rear view



HandyTone 496 side view

# Grandstream HandyTone Series

### **Key Features**

- Support SIP (RFC3261), TCP/UDP/IP, RTP/RTCP, HTTP, ICMP, ARP/RARP, DNS (SRV and A-record), DHCP, NTP, PPPOE, STUN, TFTP
- Advanced Digital Signal Processing (DSP) to ensure superb high fidelity voice quality
- Support advanced jitter buffer control, packet delay and loss concealment technology
- Support various popular voice codecs including G.711, G.723, G.729A/B, G.726, G.728, and ILBC
- Support integrated routers, DHCP server, and NAT with DMZ and port forwarding capabilities on all HandyTone 4xx models. HandyTone 486 also supports bridge mode.
- Support caller ID display or block, hold, call waiting, Flash, call transfer (blind or attended), call forward (unconditional, on busy, or no answer), 3-way conference
- Support dial plan, in-band and out-of-band DTMF (RFC2833, SIP INFO, in-audio), polarity reversal, T.38 fax, VAD/CNG/AGC, and G.168 line echo cancellation (32ms tail length)
- Support DIGEST encryption and authentication using MD5 and MD5-sess
- Support layer 2 (802.1Q VLAN, 802.1p) and layer 3 (DiffServ, ToS) QoS
- Support automated intelligent NAT traversal without end user manipulating firewall configuration
- Support remote and automated provisioning and monitoring, as well as remote firmware upgrade using tftp/http
- Support device configuration using standard telephone and voice prompt, Web browser, or secure (128-bit AES encrypted) central configuration file for mass deployment
- Stylish and compact design (size of a credit card or wallet), with a small universal power supply

## **Hardware Specification**

Features/Model	HT-286	HT-386	HT-486	HT-488	HT-496
Ethernet Port(s)	1X10Base-T	1X10Base-T	2X10Base-T	2X10Base-T	2X10Base-T
DHCP/NAT/Router	No	No	Yes	Yes	Yes
FXS Port(s)	1	2	1		2
FXO/PSTN Pass-through(*)	No	PSTN Pass-through	PSTN Pass-through	FXO	No
Lifeline	No	Yes	Yes	Yes	No
Fax	T.38	T.38	T.38	T.38	T.38
Remote Configuration	TFTP/HTTP	TFTP/HTTP	TFTP/HTTP	TFTP/HTTP	TFTP/HTTP
Weight	0.6lbs(0.3kg)	0.8lbs(0.36kg)	0.8lbs(0.36kg)	0.8lbs(0.36kg)	0.8lbs(0.36kg)
Dimension	56mm(W) 90mm(D) 27mm(H)	74mm(W) 105mm(D) 27mm(H)	74mm(W) 105mm(D) 27mm(H)	74mm(W) 105mm(D) 27mm(H)	74mm(W) 105mm(D) 27mm(H)
Operation Temperature	32-104°F(0-40°C)				
Humidity	10%-95%				
Universal Swiching Power Adaptor	In:100-240V AC Out:+5V DC,1.2A				
Compliance	FCC/CE/C-Tick,UL(Power Adaptor),A-Tick(Pending)				

<sup>\*</sup>FXO port allows fully programmable PSTN-to-VoIP and VoIP-to-PSTN call termination both locally and remotely. PSTN pass-through allows PSTN line service for local incoming/outbound call

## **Grandstream Networks,Inc.**