

## HandyTone Series Analog Telephone Adaptors



Grandstream HandyTone Analog Telephone Adaptors/IAD series offers a comprehensive line of affordable VoIP access devices based on Grandstream's innovative and proprietary technology. The HandyTone series offers IP telephone users superb audio quality, rich functionalities, interoperability with the leading 3rd party VoIP products, and compatibility with most service providers. The HandyTone series is ultra-compact, works with any PSTN or cordless phone and fax machines and offers the simplicity of plug-and-dial, making it ideal for residential and SOHO users.

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# HandyTone Series-Analog Telephone Adaptors

## HandyTone - 286

HandyTone 286 is a next generation single port analog telephone adapter based on SIP standard. HandyTone 286 is an extraordinary value at an extraordinary price and features market-leading superb sound quality, rich functionalities, and a compact design. HandyTone 286 received numerous prestigious awards and is continually recognized as a market leader by industry experts.

### Benefits

- Full Feature Voice/Fax-over-IP
- Ultra-compact and lightweight
- Universal Plug and Dial
- Highly affordable and effective IP solution



HandyTone 286 Analog Telephone Adaptor

## HandyTone - 386

HandyTone 386 is a next generation dual-port port analog telephone adapter based on SIP standard. It supports two independent SIP accounts or SIP server platforms and a PSTN pass through line for toggling operations between SIP and PSTN networks. HandyTone 386 is an extraordinary value at an extraordinary price and features market-leading superb sound quality, rich functionalities, and a compact design. HandyTone 386 received the "Best of Show" award at the 2005 Internet Telephone Conference & Expo.

### Benefits

- Full Feature Voice/Fax-over-IP
- Universal Plug and Dial
- 2 FXS Ports (Telephone or Fax)
- PSTN Pass-Through port
- Compact and lightweight
- Highly affordable and effective IP solution



HandyTone 386 Analog Telephone Adaptor

## HandyTone - 486

HandyTone 486 is a next generation Internet data, voice, fax and PSTN "all-in-one" integrated access device based on SIP standard. HandyTone 486 is an extraordinary value at an extraordinary price and features a high-level of integration including an integrated router, NAT, DHCP server, 1 port FXS telephone gateway, and a PSTN pass through line for toggling operations between SIP and PSTN networks, market-leading superb sound quality, rich functionalities, and a compact design. HandyTone 486 received the "Best of Show" award at the 2004 Internet Telephone Conference & Expo and "2004 Product of The Year" award from Communications Solutions Magazine.

### Benefits

- All-In-1 VoIP IAD
- Full Feature Voice/Fax-over-IP
- Built-in Router, NAT and Gateway
- 1 FXS port, 1 PSTN pass-through port
- Ultra-compact and lightweight
- Highly affordable and effective IP solution



HandyTone 486 Analog Telephone Adaptor

## HandyTone - 488

HandyTone 488 is a next generation Internet data, voice, fax and PSTN "all-in-one" integrated access device based on SIP standard. HandyTone 488 is an extraordinary value at an extraordinary price and features a high-level of integration including an integrated router, NAT, DHCP server, 1 port FXS telephone gateway, and 1 port fully programmable FXO gateway for toggling operations between SIP and PSTN networks, market-leading superb sound quality, rich functionalities, and a compact design. HandyTone 488 received the "Best of Show" award at the 2005 Internet Telephone Conference & Expo.

### Benefits

- All-In-1 VoIP IAD
- Full Feature Voice/Fax-over-IP
- Built-in Router, NAT and Gateway
- 1 FXO and FXS Gateway
- Compact and lightweight
- Highly affordable and effective IP solution



HandyTone 488 Analog Telephone Adaptor

## HandyTone - 496

HandyTone 496 is a next generation Internet data, voice, fax and PSTN "all-in-one" integrated access device based on SIP standard. HandyTone 496 is an extraordinary value at an extraordinary price and features a high-level of integration including an integrated router, NAT, DHCP server, dual FXS port gateway, market-leading superb sound quality, rich functionalities, and a compact design. HandyTone 496 received the "Best of Show" award at the 2005 Internet Telephone Conference & Expo.

### Benefits

- All-In-1 VoIP IAD
- Full Feature Voice/Fax-over-IP
- Built-in Router, NAT and Gateway
- 2 FXS ports
- Compact and lightweight
- Highly affordable and effective IP solution



HandyTone 496 Analog Telephone Adaptor

## HandyTone Series - Technical Specifications

Lines/SIP Accounts	1 line/1 SIP account (HT-286, HT486), 2 lines/2 SIP accounts (HT386, HT488, HT496)
Protocol Support	SIP 2.0 (RFC 3261), TCP/UDP/IP, RTP/RTCP, HTTP, ARP/RARP, ICMP, DNS, DHCP, NTP, TFTP, PPPoE protocols
Feature Keys	1 button (for event status, message indication, and configuration)
LAN Interface	RJ45 10 BaseT (all models)
WAN Interface	RJ45 10 BaseT (HT-486/HT-488/HT-496)
Device Management	Web interface or via secure (AES encrypted) central configuration file for mass deployment Support Layer 2 (802.1Q, VLAN, 802.1p) and Layer 3 QoS (ToS, DiffServ, MPLS) Auto/manual provisioning system NAT-friendly remote software upgrade (via TFTP/HTTP)
Audio Features	Advanced Digital Signal Processing (DSP) Dynamic negotiation of codec and voice payload length Support for G.723,1 (5.3K/6.3K), G.729A, G.711 $\mu$ /A, G.726, and iLBC codecs In-band and out-of-band DTMF (in audio, RFC2833, SIP INFO) Silence Suppression, VAD (voice activity detection), CNG (comfort noise generation), ANG (automatic gain control) Adaptive jitter buffer control Packet delay & loss concealment
Call Handling Features	Caller ID display or block, Call waiting caller ID, Flash, Call transfer, hold, forward, mute, 3-way conferencing
Network and Provisioning	Fixed IP or DHCP setup; automated NAT traversal via STUN
Security	DIGEST authentication using MD5/MD5-sess; secure configuration file via AES encryption
Physical Design	Stylish and compact design; small universal power supply, ideal for travel

# HandyTone Series Analog Telephone Adaptors

## HandyTone Series Comparison Chart

Features / Model	HT-286	HT-386	HT-486	HT-488	HT-496
Ethernet Ports	1 RJ45 (LAN) 10Base T	1 RJ45 (LAN) 10Base T	2RJ45 10Base T (LAN/WAN)	2RJ45 10Base T (LAN/WAN)	2RJ45 10Base T (LAN/WAN)
Router/NAT/Gateway and DMZ Port Forwarding	No	No	Yes	Yes	Yes
Bridge Mode Support	No	No	Yes	Yes	Yes
DHCP	Client	Client	Client/Server	Client/Server	Client/Server
FXS Port	1	2	1	1	2
FXO or Port / PSTN Pass-through	No	PSTN Pass-through	PSTN Pass-through	FXO	No
Lifeline	No	Yes	Yes	Yes	No
Voice Mail Indicator	Yes	Yes	Yes	Yes	Yes
Dual SIP Accounts	No	Yes	No	Yes	Yes
Voice Codec	G.711(a-law, u-law), G.723.1(5.3K/6.3K), G.726(32k), G.729A, iLBC, and T.38((tx)				
Remote Configuration	built in IVR, web browser or TFTP/HTTP				
Fax Pass-through	(PCMU and PCMA) and T.38 FoIP				

FXO port allows local and remote PSTN-to-VoIP call origination and VoIP-to-PSTN call termination, automated call routing through PSTN, and power fail-over. PSTN Pass-through allows local PSTN line service for incoming/outgoing call and failover.

## HandyTone Series - Hardware Specifications

Features / Model	HT-286	HT-386	HT-486	HT-488	HT-496
Ethernet Ports	1 RJ45 (LAN) 10Base T	1 RJ45 (LAN) 10Base T	2RJ45 10Base T (LAN/WAN)	2RJ45 10Base T (LAN/WAN)	2RJ45 10Base T (LAN/WAN)
FXS Port	1	2	1	1	2
FXO Port / PSTN Pass-through	No	PSTN Pass-through	PSTN Pass-through	FXO	No
Lifeline	No	Yes	Yes	Yes	No
Universal Switching	Input: 100-240VAC 50-60 Hz	Input: 100-240VAC 50-60 Hz	Input: 100-240VAC 50-60 Hz	Input: 100-240VAC 50-60 Hz	Input: 100-240VAC 50-60 Hz
Power Adaptor	Output: +5VDC, 1200mA / UL Certified	Output: +5VDC, 1200mA / UL Certified	Output: +5VDC, 1200mA / UL Certified	Output: +5VDC, 1200mA / UL Certified	Output: +5VDC, 1200mA / UL Certified
Dimension(mm)	65 (W) x 93 (D) x 27 (H)	70(W) x 130(D) x 27 (H)	70 (W) x 130 (D) x 27 (H)	70(W) x 130 (D) x 27(H)	70 (W) x 130 (D) x 27 (H)
Weight	0.57 lbs (0.26kg)	0.6lbs (0.3kg)	0.6lbs (0.3kg)	0.6lbs (0.3kg)	0.6lbs (0.3kg)
Operation Temperature	40 - 130°F 5 - 45°C	40 - 130°F 5 - 45°C	40 - 130°F 5 - 45°C	40 - 130°F 5 - 45°C	40 - 130°F 5 - 45°C
Humidity	10% - 95% (non-condensing)	10% - 95% (non-condensing)	10% - 95% (non-condensing)	10% - 95% (non-condensing)	10% - 95% (non-condensing)
Compliance	FCC/CE/C-Tick	FCC/CE/C-Tick	FCC/CE/C-Tick/A-Tick	FCC/CE/C-Tick	FCC/CE/C-Tick