

GLOBALINX® HT502 Dual FXS Port Analog Telephone Adaptor Users Manual



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1 Welcome

Thank you for purchasing the GLOBALINX® HT502, the affordable, feature rich Digital Telephone Adaptor (DTA). The GLOBALINX® HT502 features the rich audio quality, a broad range of voice codecs, and functionality including two (2) FXS ports each with independent SIP accounts.

This manual will help you learn how to operate and manage your GLOBALINX® HT502 Digital Telephone Adaptor and make the best use of its many upgraded features including simple and quick installation and 3-way conferencing. This HT502 is very easy to manage and configure, and is specifically designed to be an easy to use and affordable VoIP solution for both the residential user and the teleworker.

Safety Compliances

The HT502 DTA complies with FCC/CE and various safety standards. The HT502 power adaptor is compliant with UL standard. Only use the universal power adapter provided with the HT502 package. The manufacturer's warranty does not cover damages to the phone caused by unsupported power adaptors.

Warranty

GLOBALINX® warrants to the original purchaser of this product that it shall be free of defects resulting from workmanship or components for a period of one (1) year from the date of sale. Defects covered by this Limited Warranty shall be corrected either by repair or, at GLOBALINX's discretion, by replacement. In the event of replacement, the replacement unit will be warranted for the remainder of the original one (1) year period or thirty (30) days, whichever is longer. There are no other oral or written warranties expressed or implied, including but not limited to those of merchant ability or fitness for a particular purpose.

This Limited Warranty is nontransferable and does not apply if the product has been damaged by negligence, accident, abuse, misuse, modification, misapplication, shipment, or service by someone other than GLOBALINX®. Transportation and/or shipping charges to GLOBALINX® are not covered by this Limited Warranty. To be eligible for warranty service, the purchaser must have previously spoken with GLOBALINX® Technical Support. Once GLOBALINX® Technical Support has determined that the unit should be replaced, a RMA number will be issued to the purchaser. The defective product must be sent to and received by GLOBALINX® within fourteen (14) months of the date of sale and be accompanied with account number and phone number. GLOBALINX® does not warrant that this product will meet your requirements; it is your sole responsibility to determine the suitability of this product for your purposes.

GLOBALINX® does not warrant the compatibility of this product with your computer or related peripherals, software. GLOBALINX's sole obligation and liability under this warranty is limited to the repair or replacement of a defective product. GLOBALINX® shall not in any event be liable to the purchaser or any third party for any incidental or consequential damages or liability in the tort relating to this product or resulting from its use or possession.

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2 | Connect Your HT502

Equipment Packaging

The HT502 DTA package contains:

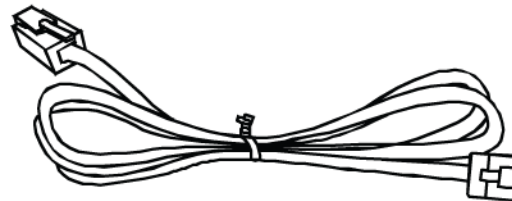
- One HT502 Main Case
- One Universal Power Adaptor
- One Ethernet Cable
- One HT502 Vertical Stand



HT 502



Universal Power Adaptor



Ethernet Cable



Vertical Stand

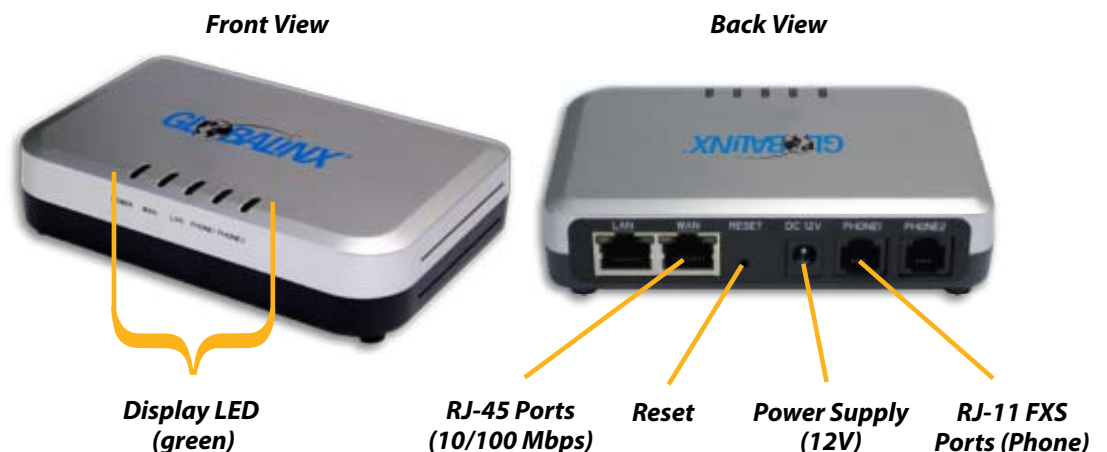
Connecting the HT502

The HT502 is designed for easy configuration and installation. Follow these quick steps to start using your GLOBALINX® service.

1. Connect a standard touch-tone analog telephone to the HT502 port.
2. Insert a standard RJ11 telephone cable into the PHONE 1 port and connect the other end of the telephone cable to the analog telephone.
3. Insert the Ethernet cable into the WAN port of HT502 and connect the other end of the Ethernet cable to an uplink port (a router or a modem, etc.)
4. Connect a PC to the LAN port of HT502 if it is being used as a router.
5. Insert the power adapter into the HT502 and connect it to a wall outlet.

The HT502 Digital Telephone Adaptor is an all-in-one VoIP integrated device designed to be a total solution for GLOBALINX® services. All GLOBALINX® calling features are available using a regular analog telephone.

Figure 1: Connecting the HT502



The HT502 has 2 (RJ-11) FXS ports. Both FXS ports can have separate SIP accounts. This is a key feature of HT502 as it supports simultaneous calls on both FXS ports.

TABLE 1: DEFINITIONS OF THE HT502 CONNECTORS

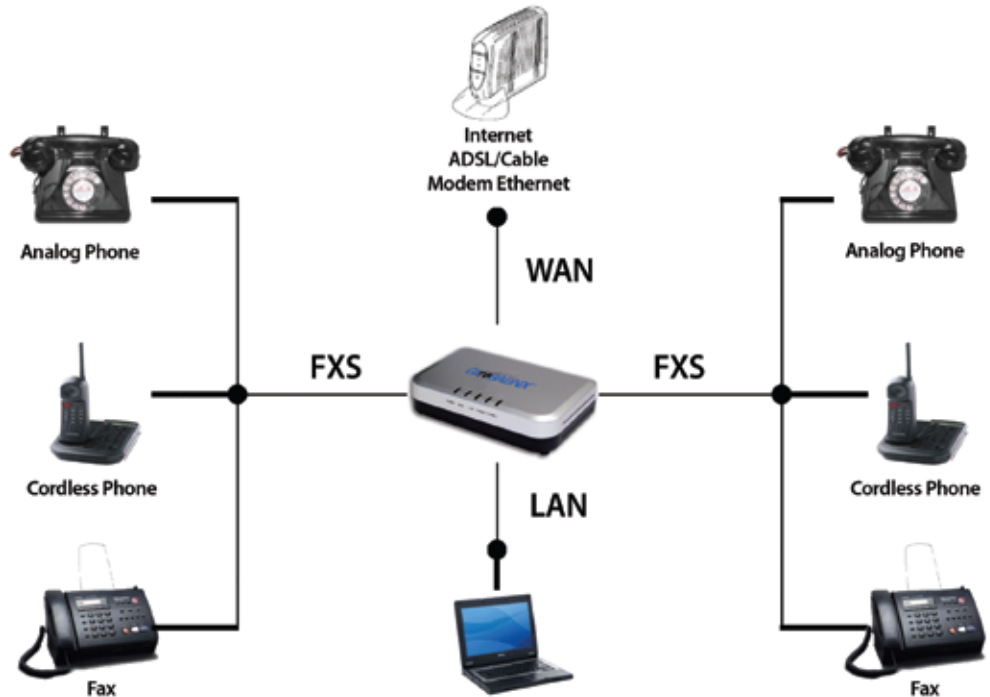
POWER CABLE	Power adapter connection
WAN Port (RJ-45)	Connect to the internal LAN network or router.
LAN Port (RJ-45)	Connect the LAN port with an Ethernet cable to your PC.
RESET	Factory Reset button. Press for 7 seconds to reset factory default settings.
PHONE1 (RJ-11)	FXS port to be connected to analog phones / fax machines.
PHONE2 (RJ-11)	FXS port to be connected to analog phones / fax machines.

There are five (5) LED buttons that help you manage the status of your GLOBALINX® HT502.

TABLE 2: DEFINITIONS OF THE HT502 LEDS

POWER LED	Indicates Power. Remains ON when power is connected
WAN LED	Indicates LAN (or WAN) port activity
LAN LED	Indicates PC (or LAN) port activity
PHONE1 / PHONE2 LED	Indicate status of the respective FXS Ports-PHONE1 / PHONE2 on the back panel Busy – ON (Solid Green) Available – OFF Slow blinking LEDs indicates voicemail for that port.

NOTE: All LEDs display green when ON. Slow blinking of WAN and LAN LED together indicate the product in firmware upgrading or provision state.



3 Product Overview

The HT502 is a full feature voice and fax-over-IP device that offers a high-level of integration including dual 10M/100Mbps Ethernet ports with integrated router, NAT, DHCP server, dual port FXS telephone gateway, market-leading sound quality, rich functionalities, and a compact and lightweight design.

Software Features Overview

- 2 FXS ports
- Two RJ-45 ports
- 2 GLOBALINX® accounts & profiles
- Voice Codecs:
 - G711(a/μ, Annex I & II), G723.1A, G726 (ADPCM with 16/24/32/40 bit rates), G729 A/B/E, iLBC
- Echo Cancellation
- Voice Activation Detection (VAD), Comfort Noise Generation (CNG), and Packet Loss Concealment (PLC)
- Supports PSTN/PBX analog telephone sets


TABLE 3: HT502 TECHNICAL SPECIFICATIONS

Telephone Interfaces	2 FXS ports, 2 SIP accounts
Network Interface	Two (2) 10M/100 Mbps, RJ-45
LED Indicators	Power, WAN, LAN, PHONE1 and PHONE2
Reset Button	Factory Reset button
Voice over Packet Capabilities	Voice Activity Detection (VAD) with CNG (comfort noise generation) and PLC (packet loss concealment), Dynamic Jitter Buffer, Modem detection & auto-switch to G.711, Packetized Voice Protocol Unit (supports RTP/RTCP and AAL2 protocol), G.168 compliant Echo Cancellation, LEC (line echo cancellation) with NLP, Asymmetric RTP stream
Voice Compression	G.711 + Annex I (PLC), Annex II (VAD/CNG format) encoder and decoder, G.723.1A, G.726(ADPCM), G.729A/B/E, iLBC, G.726 provides proprietary VAD, CNG, and signal power estimation, Voice Play Out unit (reordering, fixed and adaptive jitter buffer, clock synchronization), AGC (automatic gain control), Status output, Decoder controlling via voice packet header
DHCP Server/Client	Yes, NAT Router or Switched Mode
Telnet Server	Yes
Fax over IP Compatible	Yes
QoS	Diffserve, TOS, 802.1 P/Q VLAN tagging
IP Transport	RTP/RTCP
DTMF Method	Flexible DTMF transmission method, user interface of In-audio, RFC2833, and/or SIP Info
IP Signaling	SIP (RFC 3261)
Provisioning	TFTP, HTTP, HTTPS
Control	TLS/SIPS, SIP over TCP/TLS
Management	Syslog support, HTTPS and telnet, remote management using Web browser, Support Layer 2 (802.1Q, VLAN, 802.1p) and Layer 3 QoS (Tos, DiffSery, MPLS), Auto/manual provisioning system
Dial Plan	Yes
UPnP	Yes
Power	Output: 12VDC / Input: 100–240 VAC/50-60 Hz
Environmental	Operational: 32o–104oF or 0o–40oC Storage: 10o–130o F / Humidity: 10–90% Non-condensing
Dimensions (H x W x D)	115mm (L) x 75mm (W) x 27mm (H)
Short and long haul	REN3: Up to 150 ft on 24 AWG line
Call Handling Features	Caller ID display or block, Call waiting caller ID, Call waiting/flash, Call transfer, hold, forward, mute, 3-way conferencing, message waiting, Do-Not-Disturb (DND), call-return service
Caller ID	Bellcore Type 1 & 2, ETSI, BT, NTT, and DTMF-based CID
Polarity Reversal / Wink	Yes
EMC	EN55022/EN55024 and FCC part15 Class B
Safety	UL

Hardware Specification

The table below lists the hardware specification of HT502.

TABLE 4: HT502 HARDWARE SPECIFICATION

LAN Interface	<i>2 x RJ45 10/100Mbps (integrated router)</i>
LED	<i>5 LEDs (GREEN)</i>
Universal Switching	<i>Input: 100-240V AC, 50/60Hz, 0.5A Max</i>
Power Adaptor	<i>Output: 12V DC, 1.25A</i>
	<i>UL certified</i>
Dimension	<i>115mm (L) x 75mm (W) x 27mm (H)</i>
Weight	<i>94 g (0.21lbs)</i>
Temperature	<i>32~104°F / 0~40°C</i>
Humidity	<i>10% - 90% (non-condensing)</i>
Compliance	

4 Basic Operation

Placing a Phone Call

Phone or Extension Numbers

1. Dial the number directly and wait for 4 seconds
or
2. Dial the number directly and press #

Call Hold

Place a call on hold by pressing the “flash” button on the analog phone (if the phone has that button). Press the “flash” button again to release the previously held Caller and resume conversation. If no “flash” button is available, use “hook flash” (toggle on-off hook quickly). You may drop a call using hook flash.

Call Waiting

Call waiting tone (3 short beeps) indicates an incoming call, if the call waiting feature is enabled. Toggle between incoming call and current call by pressing the “flash” button. First call is placed on hold. Press the “flash” button to toggle between two active calls.

3-Way Conferencing

The HT502 supports Bellcore style 3-way Conference.

Instructions for 3-way conference:

Assume that call party A and B are in conversation. Caller A(HT502) wants to bring third Caller C into conference:

1. A presses FLASH (on the analog phone, or Hook Flash for old model phones) to get a dial tone.
2. A dials C's number then # (or wait for 4 seconds).
3. If C answers the call, then A presses FLASH to bring B, C in the conference.
4. If C does not answer the call, A can press FLASH back to talk to B.
5. If A presses FLASH during conference, C will be dropped out.
6. If A hangs up, the conference will be terminated for all three parties when configuration "Transfer on Conference Hangup" is set to "No". If the configuration is set to "Yes", A will transfer B to C so that B and C can continue the conversation.

Fax Support

The GLOBALINX® HT502 is compatible with Fax over IP.

CALL FEATURES

The HT502 supports all the traditional and advanced telephony features.

TABLE 6: HT502 CALL FEATURES

Feature	Key	Description
Call Return	*69	Place a call to the number from which last called you
Call Forward	*72 <number>	Forward all calls to the <number> entered after 72
	*73	Cancel forwarding of all calls
	76 #<number>	Forward all busy or unanswered calls to the <number> entered after 76#
	77#	Cancel forwarding of all busy or unanswered calls
	78#	Cancel forwarding No Answer - On
	79#	Cancel forwarding No Answer - Off
	70#	Call forwarding OOS - On
	71#	Call forwarding OOS - Off
	*63 <number>	Selective call Forwarding - On
	*83	Selective call Forwarding - Off
Caller ID	*60	Call Block - On
	*80	Call Block - Off
	*61	Set priority call (Set distinctive ring)
	*67	Block caller ID for outbound calls
	*77	Don't accept calls from anonymous callers (no Caller ID)
	*87	Accept calls from anonymous callers (no Caller ID)
	*88	Privacy Guard - Block calls that do not present Caller ID. Allows caller to record name.
	Caller Trace	*57
Do Not Disturb	*04	Turn on Do Not Disturb (calls go directly to voice mail)
Call Waiting	*70	Disable Call Waiting on all calls (for a fax or modem line)
	*70 <number>	Disable Call Waiting only for this call to <number> (for a single fax or modem call)
	*71 <number>	Enable Call Waiting only for this call to <number>
Speed Dial	74#	Lets you pre-program 7 numbers to call by using numbers below.
	1# - 7#	Lets you call the 7 pre-programmed numbers in your phone
Redial	*07	Redial your last dialed call
Transfer	*08	Transfer your current call to another number or extension
Voice Mail	*09	Transfer incoming call direct to voice mail
DID	Feature	
718-408-1362		Remote call forwarding
718-408-1363		Remote Phone