# GRANDSTREAM
CONNECTING THE WORLD

# HA100
## High Availability Kit for UCM6510

## Quick Installation Guide

## Content

## PRECAUTIONS:

• Do not attempt to open, disassemble, or modify the device.

• Do not use a third party power adapter.

• Do not expose this device to temperatures outside the range of 0 °C to +40 °C for operating or -10 °C to +60 °C for storage.

• Do not expose this device to environment outside of the following humidity range: 10-90% RH (non-condensing).

## OVERVIEW

HA100 works with UCM6510 to achieve High Availability function. It contains a set of external ports and splits each of them into two internal ports: Port A and Port B. The ports on the 2 UCM6510s should be connected to each Port A and Port B respectively. The external ports on the HA100 provide PBX service. Powered by an advanced hardware platform and revolutionary software functionality, the connection between the UCM6510 and HA100 offers a breakthrough turnkey solution for converged voice, video, data, fax, security surveillance, and mobility applications out of the box without any extra license fees or recurring costs.

## PACKAGE CONTENTS
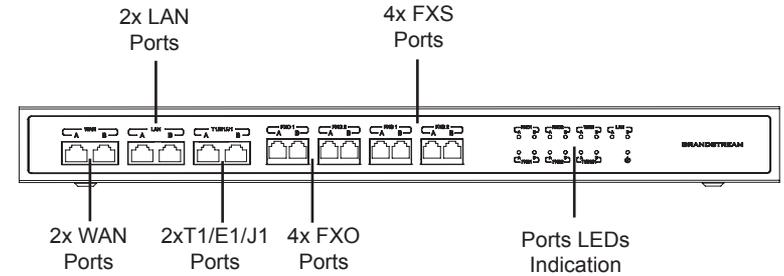


1 x HA100 Main Case

1 x Quick Installation Guide

1 x 12V Power Adapter

2 x USB-to-RS485 Cable

## HA100 INTERFACES

**HA100 Front Panel**



2x LAN Ports

4x FXS Ports

2x WAN Ports

2xT1/E1/J1 Ports

4x FXO Ports

Ports LEDs Indication

The front panel contains the internal HA100 ports:

• 1 pair of internal WAN ports (WAN-A, WAN-B).
• 1 pair of LAN ports (LAN-A, LAN-B).
• 1 pair of T1/E1/J1 ports (T1/E1/J1-A, T1/E1/J1-B).
• 2 pairs of internal FXS ports (FXS 1-A, FXS 1-B, FXS 2-A, FXS 2-B).
• 2 pairs of internal FXO ports (FXO 1-A, FXO 1-B, FXO 2-A, FXO 2-B).

**HA100 Back Panel**



2 x FXO Ports

LAN Port

WAN Port

Ground

RS-485 Ports

2 x FXS Ports

T1/E1/J1 Ports
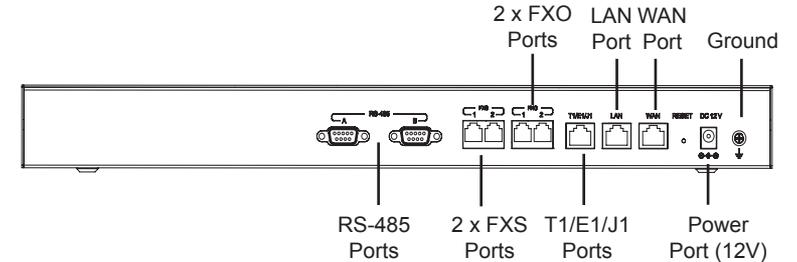
Power Port (12V)

The back panel contains the external HA100 ports:

| | |
|---|---|
| • 2 FXS ports. | • 2 RS-485 Ports. |
| • 2 FXO ports. | • 1 Power Port 12V. |
| • 1 WAN port. | • Reset Pin. |
| • 1 LAN port. | • Ground. |
| • 1 T1/E1/J1 port. | |

## HA100 CONNECTION

### Powering and Connecting the HA100

Please refer to following steps for the basic connection setup of the HA100:
1. Connect one end of the Ethernet cable to the WAN port of the HA100 and the other end to the RJ45 port of uplink of a hub or switch.

2. Connect 12V power adapter to the 12V power port on HA100 and the other end to power jack.



Network Port    Power Port
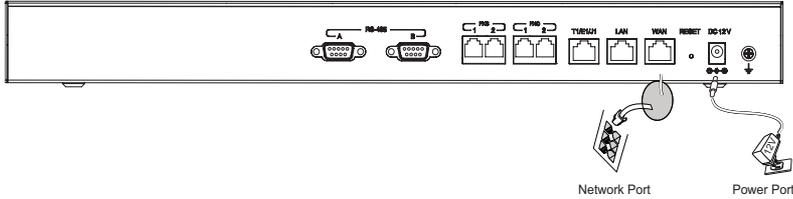
### Optional Connection

1. **For PSTN connection:** Connect a PSTN cable to the FXO external port on HA100.

2. **For Analog phone/Fax connection:** Connect analog phone or FAX machine to the FXS external port on HA100.

3. **For T1/E1/J1 connection:** Connect T1/E1/J1 cable from the service provider side to the T1/E1/J1 external port on HA100.

4. **For LAN connection:** Connect one end of the Ethernet cable to the LAN external port on HA100 and the other end to switch, hub or etc.

## CONNECTING HA100 WITH 2 UCM6510

The following steps and diagram illustrate the connection between the HA100 and 2 UCM6510:

1. Connect the FXO port, FXS port, E1/T1/J1 port, WAN port and LAN port on UCM6510 A to the FXO-A port, FXS-A port, E1/T1/J1-A port, WAN-A port and LAN-A port on HA100.

2. Use the USB-to-RS485 serial cable to connect UCM6510 A's USB port to the RS485-A port on HA100.

3. Connect the FXO port, FXS port, E1/T1/J1 port, WAN port and LAN port on UCM6510 B to the FXO-B port, FXS-B port, E1/T1/J1-B port, WAN-B port and LAN-B port on HA100.

4. Use the USB-to-RS485 serial cable to connect UCM6510 B's USB port to the RS485-B port on HA100.

In this scenario, the HA100 separates the external port into the corresponding internal ports (A and B). By default, Port A is always connected, and Port B is always disconnected. Only one UCM device is connected at any given time. If the primary UCM (UCM6510 A) detects issues within itself, it will signal the HA100 via USB-to-RS485 cable to switch connection from Port A to Port B. The backup UCM (UCM6510 B) will then be successfully connected and resume service. Please refer to following diagram for more details.