

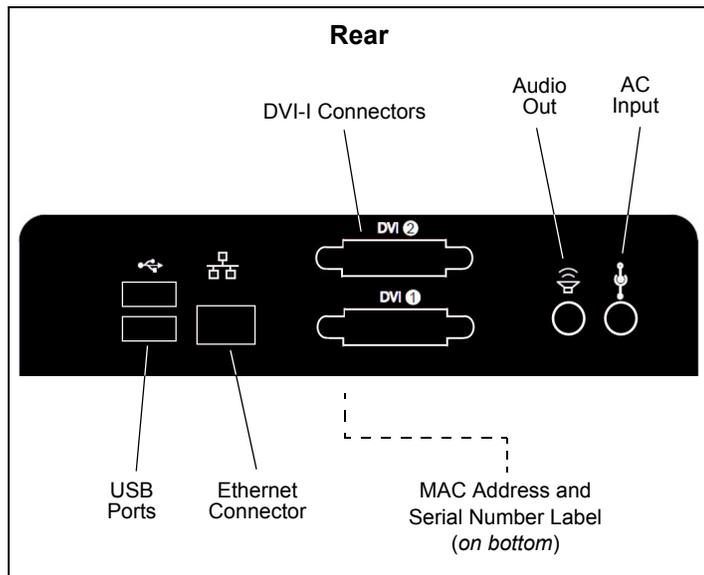
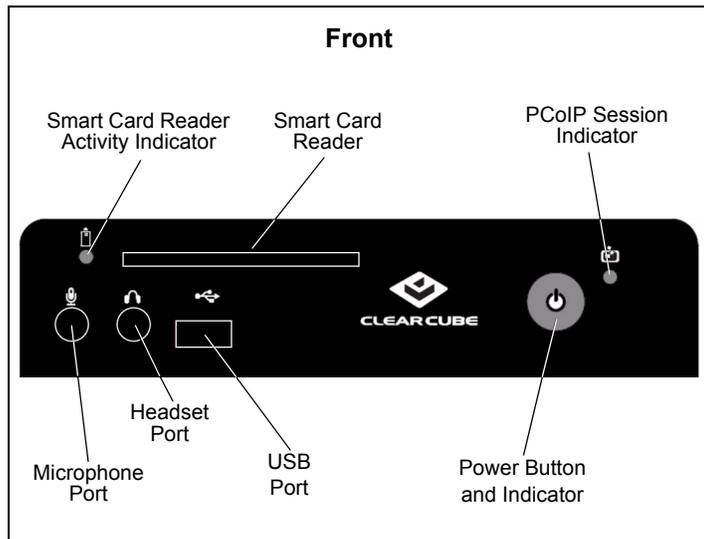
# CD7724T-L2 TEMPEST Bundle Zero Client Quick Start Guide



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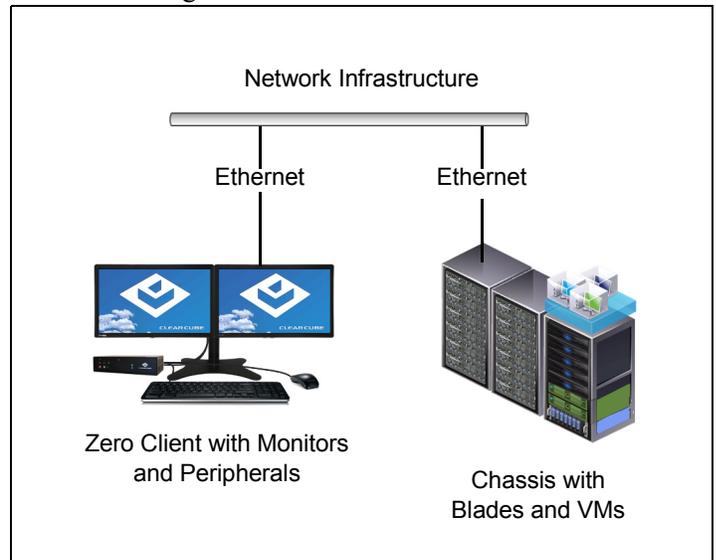
## Package Contents

- CD7724T-L2 TEMPEST zero client
- TEMPEST display
- TEMPEST keyboard and mouse
- Zero client power adapter and cable
- Y-cable adapter for single-link-to-dual-link DVI, enabling single 2560 × 1600 display
- This *Quick Start Guide*



## CD7724T-L2 Zero Client Overview

A zero client is a remote computing device that connects a user's monitors, keyboard, mouse, speakers, and other peripherals to remote ClearCube<sup>®</sup> PC blades (computers) and to virtual desktops (VMs). As shown below, computing resources are typically located in remote data centers. Zero clients enable users to work on a blade or VM as if it is a local PC. The connection between the zero client and the remote device is over PCoIP<sup>®</sup> protocol. Inside the remote device, a host card manages the PCoIP session.



*Zero client connected to blade or to VM*

## Zero Client Features

ClearCube CD7724T-L2 zero clients connect to supported ClearCube PC blades containing Tera1 or Tera2 host cards and to virtual machines to provide:

- Three USB ports
- Support for fiber Ethernet media
- Support for independently-configurable monitors
  - 2 DVI monitors up to 1920 × 1200
  - 1 DVI monitor up to 2560 × 1600 (requires single-link-DVI-to-dual-link-DVI Y-cable adapter, included, and Teradici Host Driver software)



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- PC-over-IP (PCoIP™) Tera2 processors, delivering PC video, audio, and USB over an IP network
- Integrated smart card reader
- Headset and microphone ports
- Support for TEMPEST standards USA NSTISSAM-1-92 Level 2 and NATO SDIP-27 Level B (formerly AMMSG 788A)

### Client and Host Firmware Compatibility

ClearCube recommends using the same Teradici® firmware version on PCoIP devices whenever possible.

- CD7724T-L2 zero clients include Tera2 processors, requiring Teradici firmware 4.0.3 and higher.
- If Tera1 devices in a deployment connect to Tera2 devices, the Tera1 devices *must* use Teradici firmware version 4.0.2.
- CD7724T-L2 zero clients do not support connection to Tera1 quad devices.

See *PC-over-IP System User's Guide* and *PCoIP Firmware Support and Compatibility Guide* on the ClearCube Support site for instructions about identifying and updating PCoIP device firmware.

### Buttons and Indicators

The list below shows indicators and front panel button operations:

- **Power Indicator Colors**
  - **Green (solid):** device is powered on.
  - **Green (blinking):** PCoIP session is sleeping. Press any key on the keyboard to wake the session.
  - **Orange:** device is in low-power state and wake-on-LAN (WoL) or wake-on-USB (WoUSB) is enabled. ClearCube Sentral or third-party utilities can provide WoL and WoUSB features for devices.

### Power Button Operations

- **Power on:** when indicator is *orange*, press briefly (indicator turns *green*)
- **Power off:** press and hold for 3 seconds (indicator turns *orange*)

While in session:

- when connected to a PCoIP host card, press to display the Zero Client Control Panel (on monitor) with options to disconnect or power down host device. Press the power button repeatedly to scroll through options or to cancel.
- when connected to a VM, press to disconnect.
- **PCoIP Session Indicator**—shows when a connection, or session, is established between the zero client and a host. The link indicator displays one of the following:
  - **Green**—a session is established between the client and a host.
  - **Off**—there is no session between the client and a host.
- **Smart Card Reader**
  - **Yellow-Green**—smart card reader is powered on.
  - **Red**—smart card has been reset. When red light is flashing, the IC Card is reading or writing.

### Mandatory Setup and Cooling Requirements

- Ambient operating temperature: 0° to 35° C (32° to 95° F).
- Do not stack any objects on top of the zero client or block vents by placing papers, folders, computer speakers, or any other objects on the vents.
- Ensure that adjacent furniture (file drawers, desk supports, chairs) do not block or enclose the zero client.
- Do not place the zero client in enclosed environments such as on a shelf or inside a drawer.
- Ensure that connected cables are adequately supported.



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### Default Settings and Fallback IP Address

- DHCP enabled
- SLP discovery enabled
- Session type: direct to host + SLP discovery
- Fallback IP addresses:
  - **Zero client:** 192.168.1.100
  - **Host card:** 192.168.1.101

By default, zero clients and host cards are configured to receive an IP address from a DHCP server. If a DHCP server does not assign an address within a designated timeout period (120 seconds by default), the zero client uses a default, fallback IP address. Fallback addresses enable devices to always have a known IP address. See *PC-over-IP System User's Guide* for more information.

**NOTE:** If you use the fallback addresses and have DHCP enabled, you must wait 120 seconds before you can connect to a host. If you use the direct connect methodology in your environment, ClearCube recommends disabling the client's DHCP setting to eliminate the need to wait 120 seconds before connecting. See *PC-over-IP System User's Guide* at [www.clearcube.com/support](http://www.clearcube.com/support) for more information.

### Smart Card Reader Setup



Prevent ESD (electrostatic discharge) damage to smart card readers by always discharging your body and smart card before using a reader (for example, by touching a grounded, unpainted, metal object). ESD can vary depending on many environmental conditions, including clothing that users wear and how users handle smart cards. ESD damage can potentially cause unsupported card reader behavior including failure. Always perform ESD prevention steps before using the card reader.

To use the smart card reader, you must install a driver for the reader on the blade to which you connect and ensure that the card reader service is running on the blade. Download the driver to install on blades from the blade's Drivers section of

ClearCube Support site. The download file contains drivers for all supported operating systems and installation instructions.

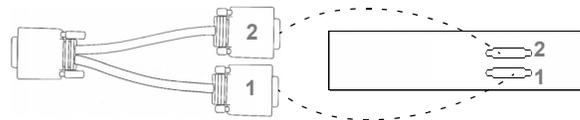
### Setting up a Zero Client

Perform the following steps to connect peripherals, a network cable, and a power supply to the zero client. These steps assume that the zero client and host card are on the same network with a DHCP server.

1. Power on the remote PC blade or VM containing the host card to which you are going to connect.
2. Connect a TEMPEST monitor cable to each port on the zero client and to your monitors. For alternate configurations:
  - **To use a single monitor:** enable the host driver function on the peer host card and install Teradici Host Driver software. See *Tech Bulletin TB00274: Configuring Dual-Monitor Systems for Single-Monitor Use* on ClearCube Support for information.
  - **To use 2560 × 1600 monitors:** connect the included dual-link DVI cable adapter (Y-cable) to the zero client and to the monitor(s) as shown below.

**NOTE:** You must install Teradici PCoIP Host Software, available from ClearCube Support, on each host device to support single-monitor use and to support 2560 × 1600 monitors.

Note indicators **1** and **2** on the Y-cable and connect them to the corresponding connectors on the zero client.



3. Connect a network cable to the connector located on the rear of the zero client, and then connect the other end of the cable to the appropriate network infrastructure device (such as a network switch, fiber transceiver, or router).
4. Connect a TEMPEST keyboard and a TEMPEST mouse to the USB ports on the front or on the rear of the zero client.
5. Connect the AC power adapter to the power cable (included with the zero client).



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6. Connect the power adapter to the rear of the client, and then plug the power cable into a power outlet. Ensure that the zero client and the host card are on the same network.

See “Buttons and Indicators” for information about powering the zero client on and off.

From your monitor, you can now click **Connect** and select the host card to connect to from the list displayed on the zero client’s on-screen display (OSD).

### Configuration Steps and Additional Information

See *PC-over-IP System User’s Guide* and *PCoIP Firmware Support and Compatibility Guide* at [www.clearcube.com](http://www.clearcube.com) for information about zero client deployment, configuration, and administration. If you are using ClearCube Sentral in your environment, see *Sentral Administrator’s Guide* for information about connection brokering, device administration, and more.

Web site: [www.clearcube.com/support](http://www.clearcube.com/support)

Email: [support@clearcube.com](mailto:support@clearcube.com)

Toll-free: (866) 652-3400

Phone: (512) 652-3400

#### WEEE Disposal Guidelines

In the European Union, this electronic product is under European Directive (2002/96/EC) WEEE. When this product reaches the end of its useful life or is no longer used, do not discard it with conventional waste. Recycle this product at an approved, designated recycling or treatment facility. Check with local authorities for proper disposal instructions. For assistance, contact [recycle@clearcube.com](mailto:recycle@clearcube.com).

