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A **BELDEN** BRAND

TLX VIDEO&KVM EXTENSION

TLX Chassis Product Manual

Fiber-Optic Video & KVM Extension Solutions in the CHS-1, CHS-2 & CHS-4 Chassis

Rev. D, March 2020

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thinklogical®   **TLX 10G**

Subject: TLX Chassis Product Manual (CHS-4, CHS-2 and CHS-1)
Revision: D, March 2020

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PREFACE

About Thinklogical A BELDEN BRAND

Thinklogical, A BELDEN BRAND
100 Washington St.
Milford, CT 06460

Thinklogical, a Belden brand, is the leading manufacturer and provider of fiber-optic and CATx video, KVM, audio, and peripheral extension and switching solutions used in video-rich, big-data computing environments.

Thinklogical offers the only fiber-optic KVM Matrix Switches in the world that are accredited to the Common Criteria EAL4, TEMPEST SDIP 24 Level B, and NATO NIAPC Evaluation Scheme: GREEN and the U.S. DoD DISA JITC UCR 2013 APL information assurance standards. And Thinklogical Velocity products are the first system with both KVM and video matrix switching capabilities to be placed on the Unified Capabilities Approved Product List (UC APL) under the Video Distribution System (VDS) category.

Thinklogical products are designed and manufactured in the USA and are certified to the ISO 9001:2015 standard.
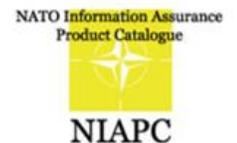
Thinklogical is headquartered in Milford, Connecticut and is owned by Belden, Inc., St. Louis, MO (http://www.belden.com). For more information about Thinklogical products and services, please visit https://www.thinklogical.com.

About this Product Manual

This product manual is divided into five sections to help you find the various topics and procedures. This manual also contains Appendices.

Section 1 – Product Features: **Pg. 5**. Details the features and functions of each of the three TLX Chassis models.

> **CHS-4 - pg. 6**
> **CHS-2 - pg. 8**
> **CHS-1 - pg. 11**

Section 2 – Regulatory and Safety Requirements: **Pg. 15**. Thinklogical® strongly recommends that you read this section prior to starting the hardware assembly.

Section 3 – How to Contact Us: **Pg. 17**. Thinklogical provides the best customer support available. If you have questions or need to contact us for any reason, please refer to this section of the manual.

Appendices – Beginning on **Pg. 18**.

Note and Warning Symbols

Throughout this manual you will notice certain symbols that bring your attention to important information. These are **Notes** and **Warnings**. Examples are shown below.

⚠️ **Note: Important Notes appear in blue text preceded by a yellow exclamation point symbol, as shown here.**

A **note** is meant to call the reader's attention to **helpful or important** information at a point in the text that is relevant to the subject being discussed.

🛑 **Warning! All Warnings appear in red text, followed by blue text, and preceded by a red stop sign, as shown here.**

A **warning** is meant to call the reader's attention to **critical** information at a point in the text that is relevant to the subject being discussed.

Product Serial Number

Thinklogical products have a unique serial number, which includes a date-code, printed on an adhesive label that is affixed to the unit. The format for the date-code is *2 digits for the month*, dash, *2 digits for the year*, plus *at least four digits for a unique unit number*. For example: **12-190648** indicates the unit was built in the **12**th month of **2019** and is unit number **648**.
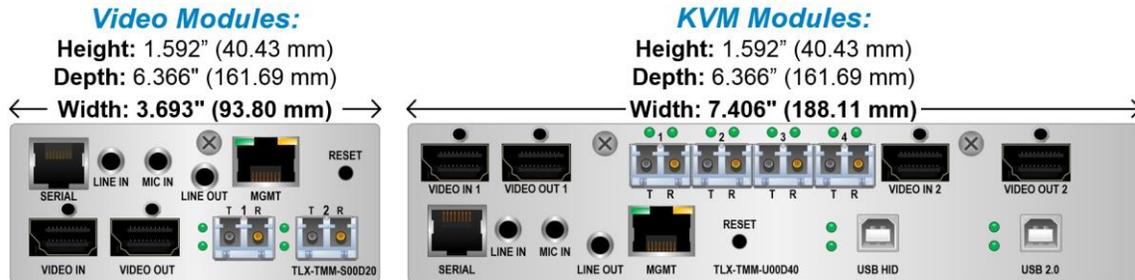
Connection to the Product

Connections and installation hardware for our products use industry-standard devices and methods. All wiring connections to the customer equipment are designed to minimize proprietary or customized connectors and cabling. Power connections are made with regionally appropriate power cords and approved methods.

Section 1: Product Features

Extender Module Form Factor

TLX Extension Systems are available in a modular form factor. The modular extenders and the optical modules, the SFPs, are hot-swappable, so users can field-configure any modular chassis.

To learn more about connecting TLX Video and KVM Extenders to a TLX Chassis, see the Quick Start Guide in *Appendix A*, pg. 18.

Video Modules:
Height: 1.592" (40.43 mm)
Depth: 6.366" (161.69 mm)
Width: 3.693" (93.80 mm)

KVM Modules:
Height: 1.592" (40.43 mm)
Depth: 6.366" (161.69 mm)
Width: 7.406" (188.11 mm)

The TLX Chassis Line

Several chassis types are compatible with all TLX modular extenders, allowing users to mix-and-match chassis types to reduce the overall footprint of the design. Users can choose from the rack mount chassis (housing up to four video extenders or up to two KVM extenders in a single rack unit) with redundant and hot-swappable power supplies, or from our more compact, space-saving designs for desktop applications.

Each TLX Chassis accommodates the full line of TLX Extender Products.

- The **CHS-4** is a rack-space-saving, high-reliability rack mount unit for up to 4 modules of HDMI, DVI, RGB or SDI in a compact 1U chassis.
- The **CHS-2** is a desktop solution that accommodates one 7.4" or two 3.7" modules of HDMI, DVI, RGB or SDI in a compact, desktop chassis. 19" rack-mount brackets are available.

Ready for the challenges of demanding applications, both the CHS-4 and CHS-2 Chassis can combine a variety of HDMI, DVI, RGB or SDI modules in transmit/receive units for a space-saving and cost-effective solution.

- The **CHS-1** desktop stand-alone chassis will accommodate one 3.7" TLX video module.

All TLX Chassis are powered by standard 100-240 VAC, 50-60 Hz.

CHS-000004 Chassis: Supports any combination of up to four TLX video modules. Dual interface and current sharing power supplies. Desktop or 19" rack-mount.

CHS-000002 Chassis: Supports up to two TLX video modules. Desktop only. Rack-mounts available.

CHS-000001 Chassis: Supports one TLX video module. Desktop only.

CHASSIS	H	D	W
CHS-000004	1.72"	14.00"	17.47"
CHS-000002	1.72"	10.66"	10.74"
CHS-000001	1.72"	10.66"	4.31"

The CHS-4 Chassis

| Dual Power Supplies | Update Port | LCD and Navigation Buttons |

The CHS-4 Chassis includes the following features:

Desktop/Rack-mount unit can accommodate up to 4 modules in any combination of transmitter or receiver. Features include:

- Dual, current sharing, hot-swappable power supplies
- USB Update Port
- Front panel LCD for status monitoring and control (*See Appendix C, pg. 20*)
- LCD menu navigation buttons
- Hot swappable modules
- Dual AC inputs
- Fully compatible with Thinklogical's TLX, MX and VX line of Matrix Switches.
- Simple plug and play

CHS-4 with three Rx Modules

| 7.4" KVM Module | 3.7" Video Module | 3.7" Video Module | Dual AC IN |
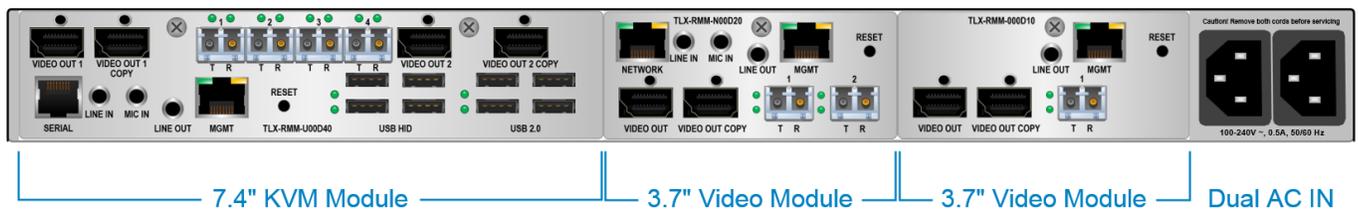
The CHS-4 chassis does not need to be opened or accessed. The sturdy metal case allows units to be stacked as needed **(maximum of four units per stack, with a minimum 2" of clearance between stacks for adequate ventilation)**.

CHS-4 Hot-Swappable Power Supplies

Each CHS-4 Chassis is equipped with dual hot-swappable, current-sharing power supply modules. Each supply has an ON/OFF rocker switch located on the chassis front panel. When the power supply is ON, the LED on the front of the power supply will be lit. **With 4 modules, maximum DC power consumption is 76W at 3A.**

If one power module ever fails, the replacement can be swapped with no interruption in unit functionality. The remaining power supply will keep the unit operational.

To hot-swap a power supply, simply unscrew the affected module, remove it by pulling it straight out of the chassis and replace it with a new one in the same slot. **Spare power supply modules** can be ordered from Thinklogical (part number **PWR-76-R**).

CHS-4 Power Supply Module Fusing

The AC input to each Power Supply Module of the CHS-4 is protected by a replaceable fuse. To access each module's fuse, remove the module by loosening the two captive screws that secure it to the chassis, then pull it straight out by the front handle.

The fuse is a time-lag type glass fuse, 5x20mm, rated for 2A, 250VAC.
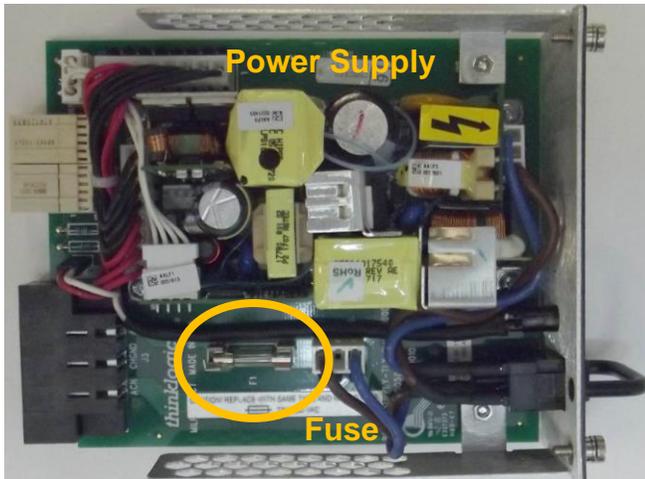
Warning! Always replace the fuse with the same type and rating fuse!

Temperature Regulation

The CHS-4 Chassis uses **four internal DC fans** to move air horizontally through the enclosure.*

*See **Mixing TLX Modules and Non-TLX Modules in a single Chassis** on pg. 10.*

Rack-Mount or Desktop

You may place your **CHS-4 Chassis** on or under a shelf or desktop (rubber feet included, under-desk mounting brackets, Kit ENCA-797 [one chassis] or Kit ENCA-798 [two chassis] available), or rack mount it with the supplied EIA 19" mounting brackets. **In any mounting configuration, the front panel should be visible and unobstructed so that the navigation buttons and LCD display are accessible.** All connections are made to the modules on the rear of the chassis.

See Appendix B, pg. 19-20, for **under-desk mounting** *of the CHS-4 Chassis.*

REMOVING THE RACK-MOUNTING BRACKETS:
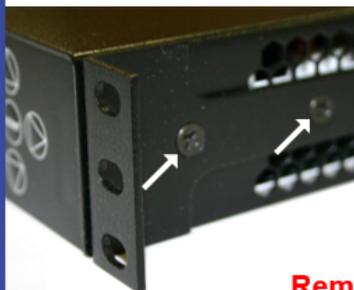
Your chassis will have 1 of 2 bracket types.
2 screws per bracket.
2 brackets per chassis.

Remove power from the unit first!
Each mounting bracket is secured by two Philips screws that can be safely removed for desk-top mounting without removing the cover.
All screws should be reinstalled after the brackets have been removed.
Retain the brackets for future use.

The CHS-2 Chassis

Update Port **LCD and Navigation Buttons**

The CHS-2 Chassis includes the following features:
Desktop/Rack-mount unit can accommodate up to 2 modules in any combination of transmitter or receiver. Features include:

- Desktop Chassis with available 19" Rack-mount Brackets (ENC-001541)
- USB Update Port
- Front panel LCD for status monitoring and control (*See Appendix C, pg. 20*)
- LCD menu navigation buttons
- Hot swappable modules
- AC input with ON/OFF Switch
- Fully compatible with all Thinklogical's TLX, MX and VX line of Matrix Switches.
- Simple plug and play

The CHS-2 chassis does not need to be opened or accessed. The sturdy metal case allows units to be stacked as needed **(maximum of four units per stack, with a minimum 2" of clearance between stacks for adequate ventilation)**.
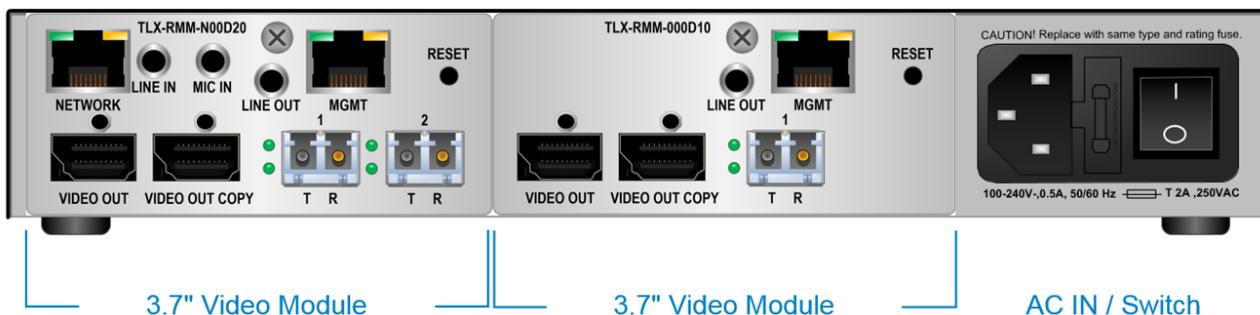
Power Supply

Each CHS-2 Chassis is equipped with an internal power supply PWR-50-R. The supply has an ON/OFF rocker switch located on the rear panel. **With 2 modules, maximum DC power consumption is 40W at 3A.**

CHS-2 with one 7.4" KVM Module

7.4" KVM Module AC IN / Switch
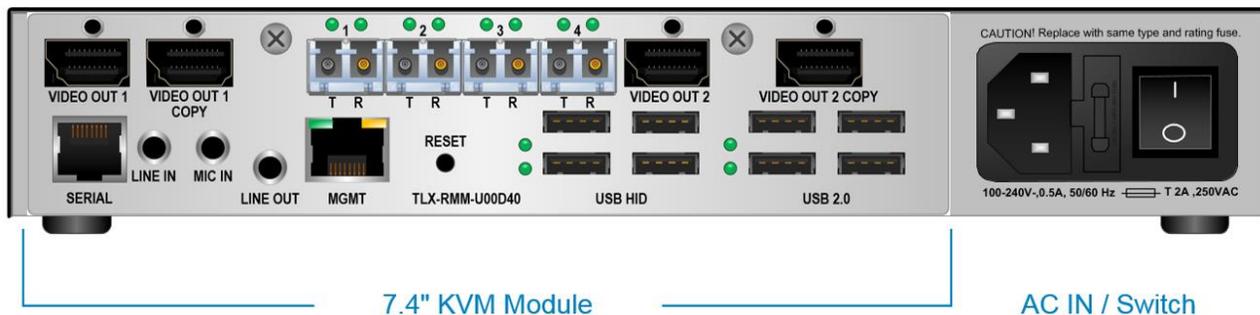
CHS-2 with two 3.7" Video Modules

3.7" Video Module 3.7" Video Module AC IN / Switch

Temperature Regulation

The CHS-2 Chassis uses two internal DC fans to move air horizontally through the enclosure.*

*See **Mixing TLX Modules and Non-TLX Modules in a single Chassis** on pg. 10.*
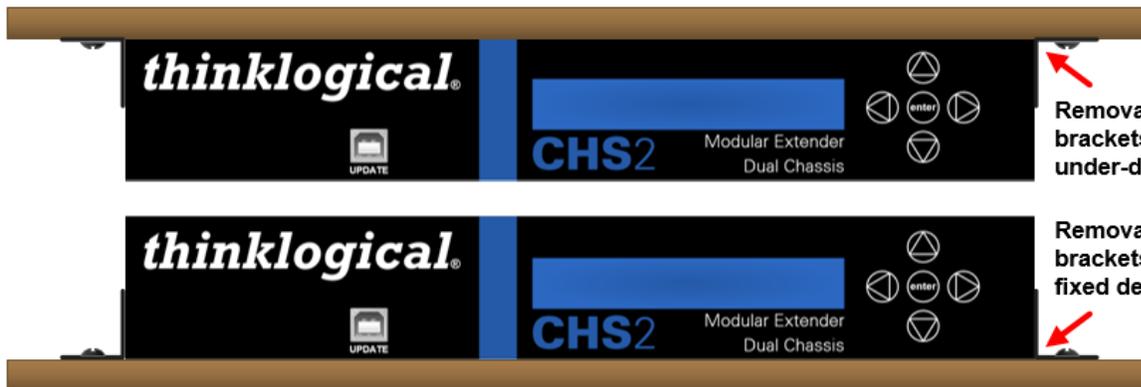
Rack-Mount or Desktop

You may place your CHS-2 Chassis on or under a shelf or desktop (rubber feet and fixed mounting brackets included), or rack mount it with the available EIA 19" mounting brackets (ENC-001541).

In any mounting configuration, the front panel should be visible and unobstructed so that the navigation buttons and LCD display are accessible.
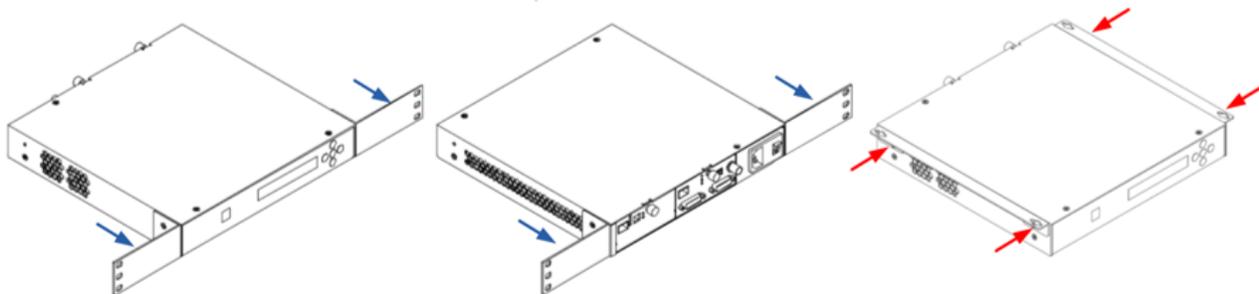
The available 19" rack-mounting brackets (ENC-001541) can be installed to allow access to either the front or rear panels.

The included mounting brackets can be installed for fixed desktop mounting or under-desk mounting simply by moving two screws per bracket.

Removable mounting brackets installed for under-desk mounting.

Removable mounting brackets installed for fixed desktop mounting.

Mixing TLX Modules and Non-TLX Modules in a Single Chassis

Besides TLX products, Thinklogical also carries the Q-Series line of 6G extension products in a modular format. **Non-TLX modules, such as Q-Series (VQM), are fully compatible with the CHS-4, CHS-2 and CHS-1 chassis as well as their own Q-4300, Q-2300 and Q-1300 chassis.** However, because VQM modules generate less heat than TLX modules, they were not deigned to allow air-flow through their enclosures as in TLX modules.

Air-Flow through VQM Modules

To avoid over-heating of TLX modules when mixed with non-TLX modules, the simple solution is to always install all non-TLX modules on the left side of the chassis (as looking from the back where the modules are loaded) **and install all TLX modules on the right side, next to the cooling-air intake fans** (The side next to the power cord receptacles). This will allow proper air-flow over the warmer TLX modules and will prevent over-heating. *This is true for both the CHS-4 and CHS-2 Chassis and for both the Q-4300 and Q-2300 Chassis.*

🛑 **Warning! To avoid over-heating of TLX modules, <u>always install all non-TLX modules on the left side of the chassis</u> (as looking from the back where the modules are loaded) and <u>install all TLX modules on the right side,</u> next to the cooling-air intake fans (The side next to the power cord receptacles).**
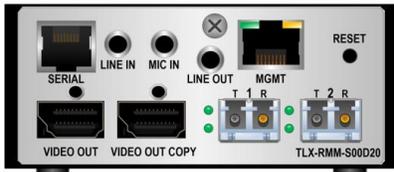
⚠️ **<u>Note:</u> Non-TLX modules, such as Thinklogical's Q-Series (VQM), were not deigned to allow air-flow through their enclosures as in TLX modules.**
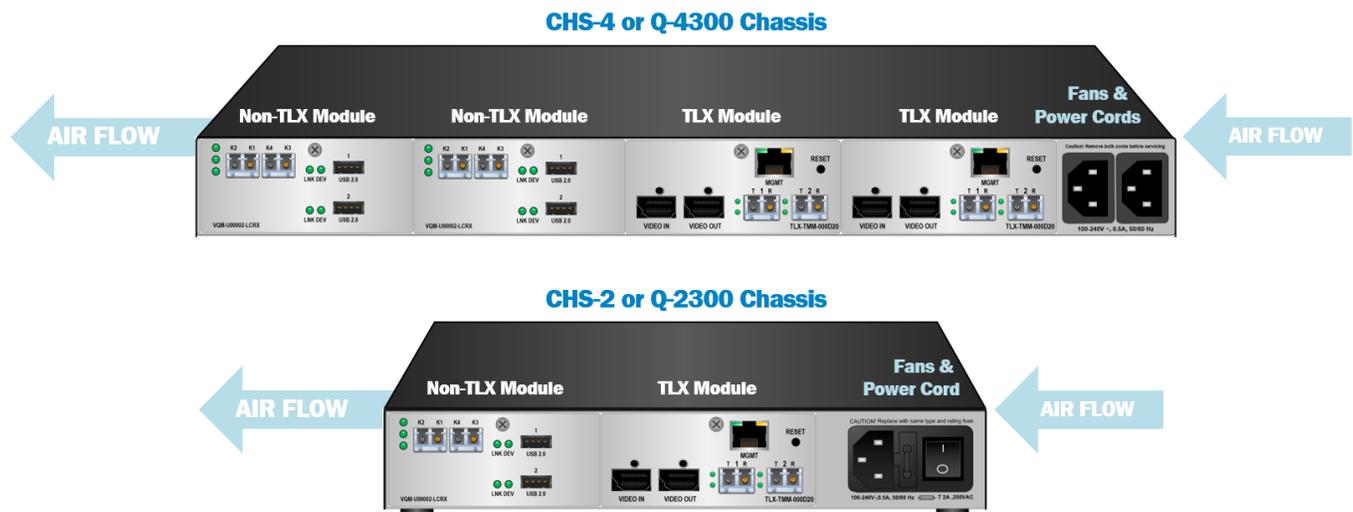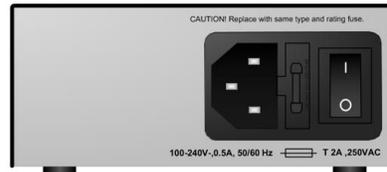

To avoid over-heating, always install all non-TLX modules on the left side of the chassis and install all TLX modules on the right

The CHS-1 Chassis

Front (Module)   **Rear (AC IN)**   10.66"

The CHS-1 Chassis includes the following features:
Desktop unit can accommodate any one TLX Video transmitter or receiver module. Features include:

- Small, convenient form factor
- Hot swappable module
- AC input with ON/OFF Switch
- Fully compatible with all Thinklogical's TLX, MX and VX line of Matrix Switches.
- Simple plug and play
- Configured with the *Terminal Management Interface* (*TLX Video & KVM Module Manual*)).

Power Supply

Each CHS-1 Chassis is equipped with an internal power supply. The supply has an ON/OFF rocker switch located on the rear panel. **Maximum DC power consumption is 24W at 3A**.

Temperature Regulation

The CHS-1 Chassis uses **passive ventilation** through chassis vent holes.

Over- or Under-Desktop Mounting

You may choose to place your **CHS-1 Chassis** on or under a shelf or desktop (rubber feet and mounting brackets, ENC-001394, are included). In any mounting configuration, the module's connector panel should be visible and unobstructed so that the receptacles are accessible. All connections are made to the module on the front of the chassis. The CHS-1 chassis does not need to be opened or accessed. The sturdy metal case allows units to be stacked as needed **(maximum of four units per stack, with a minimum 2" of clearance between stacks for adequate ventilation)**.
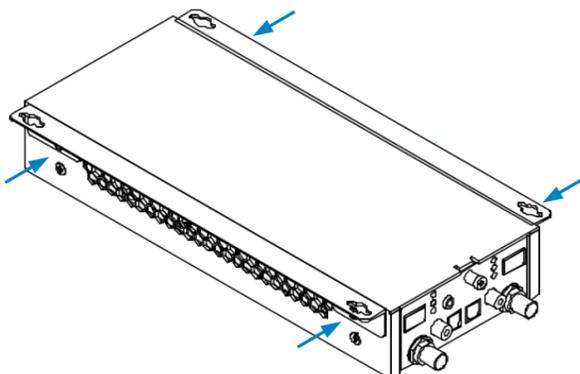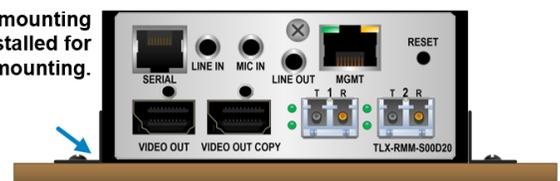

The removable mounting brackets can be installed for fixed desktop mounting or under-desk mounting by moving two screws per bracket.

Removable mounting brackets installed for fixed desktop mounting.

Removable mounting brackets installed for under-desk mounting.

TLX Chassis Technical Specifications

CHS-4

CHS-000004 Rack-Mount Chassis Dimensions	Rack Size: **EIA 19"** Height: **1.72"** (43.7 mm) **1RU** Depth: **14.00"** (355.6 mm) Width: **17.47"** (443.7 mm)
Supply Voltage	**100-240 VAC, 50-60 Hz, Universal AC power supply (2)**
Max. DC Power Consumption	**100W, 1A** (4 modules) *Equal to max. output of a single Power Supply.*
Weight (per unit)	Physical: **15 lbs.** (6.8 kg) Shipping: **30 lbs.** (13.6 kg)

CHS-2

CHS-000002 Desktop Chassis Dimensions	Height: **1.72"** (43.7 mm) **1RU** Depth: **10.66"** (270.8 mm) Width: **10.74"** (272.8 mm)
Supply Voltage	**100-240 VAC, 50-60 Hz, Universal AC power supply**
Max. DC Power Consumption	**50W, .5A** (2 modules) *Equal to max. output of a single Power Supply.*
Weight (per unit)	Physical: **4 lbs.** (1.8 kg) Shipping: **18 lbs.** (8.16 kg)

CHS-1

CHS-000001 Single Desktop Chassis Dimensions	Height: **1.72"** (43.7 mm) **1RU** Depth: **10.66"** (270.8 mm) Width: **4.31"** (109.5 mm)
Supply Voltage	**100-240 VAC, 50-60 Hz, Universal AC power supply**
Max. DC Power Consumption	**25W, .5A** (1 module) *Equal to max. output of a single Power Supply.*
Weight (per unit)	Physical: **1 lb.** (.454 kg) Shipping: **10 lbs.** (4.54 kg)

For all TLX Chassis Models

| Temperature	Operating: **0° to 50°C** (32°F to 122°F) **Ambient** Storage: **-20°C to 70°C** (-4°F to 158°F)
Humidity	Operating: **5% to 95%, non-condensing** Storage: **Unlimited**
Altitude	Operating: **Thinklogical components are rated to 1000m max. elev.** **Max. operating temp. de-rates by 3% for every 330m > 1000m** Storage: **Unlimited**
Thermal	Heat load (BTU/HR): *Equal to DC Power consumption x 3.412* **CHS-4: 341.2 BTU/HR** **CHS-2: 170.6 BTU/HR** **CHS-1: 85.3 BTU/HR**
Regulatory	**US / Canada EN 90650, FCC 47 CFR Part 15, ICES, CE**
Warranty	**One year from date of shipment. Extended warranties available.**

Navigating the LCD Menus

Main Root Menu: At power-up, the initial display identifies the device and software version number.

⚠️ **Note: In the front panel menus, the word RACK is used in place of CHASSIS and the word is CARD used in place of MODULE, but both refer to the same devices described elsewhere throughout this document.**

By pressing the down arrow ⃝ you will enter the main menu. There is a separate root menu for each of the four modules. When a new module is inserted into a CHS-4 or CHS-2 slot, the chassis reads the card automatically. **The main root menu items are displayed with an asterisk *.** They are as follows:
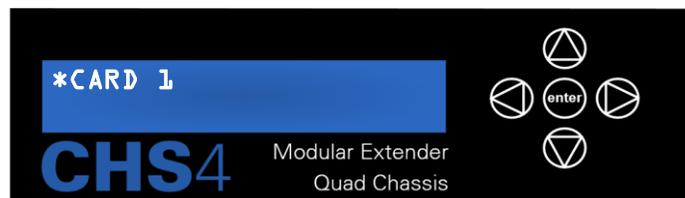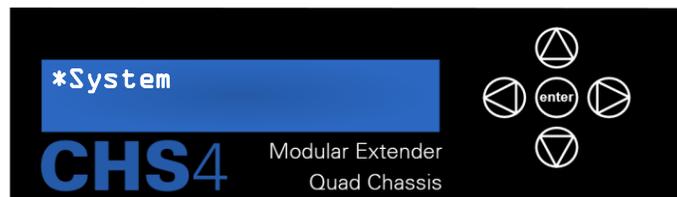


(The root menu displays are similar for cards 2-4)

Once a *root menu item is displayed, use the left arrow ◁ or right arrow ▷ to review settings or make allowable changes.

The LCD will display the CHS-4 root menus for ***System** and up to 4 ***Cards**.

CHS-4 and CHS-2 LCD *root and #sub-menus are displayed and explained in Appendix C, pg. 20.

Firmware and FPGA Updates

FPGA and Firmware Update Applications are available through Thinklogical's® Technical Assistance Department. Please call us at 1-203-647-8700 and we'll be happy to provide you with all the assistance you'll need to keep your system up and running at its optimum performance level.
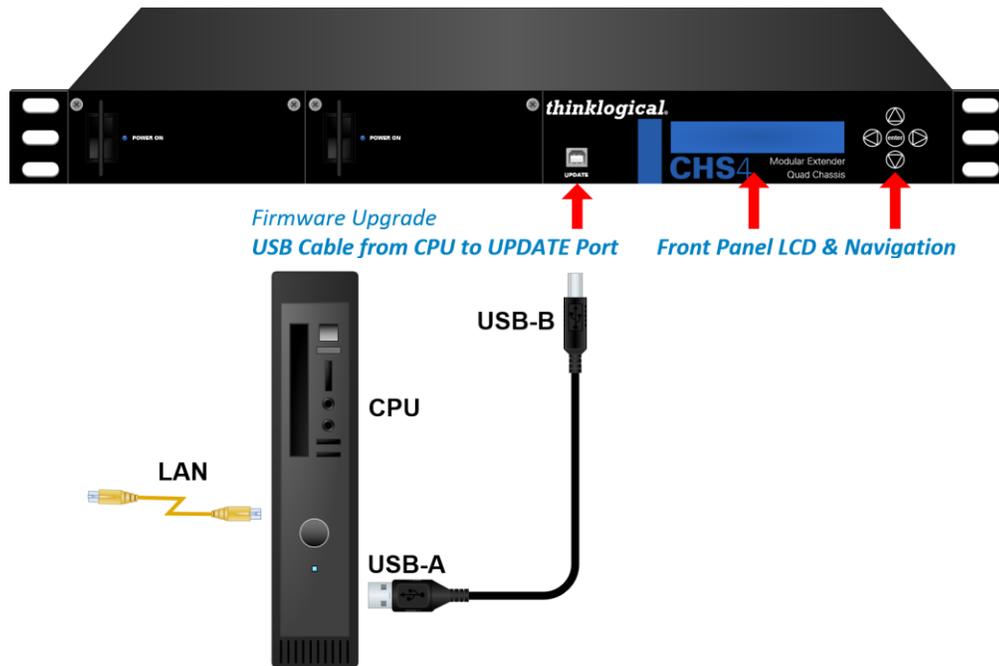
Section 2: Regulatory & Safety Requirements

Symbols Found on Our Products

Markings and labels on our products follow industry-standard conventions. Regulatory markings found on our products comply with all required domestic and many international requirements.

Regulatory Compliance

Thinklogical's® products are designed and made in the U.S.A. These products have been tested by a certified testing laboratory and found compliant with the following standards for both domestic USA and many international locations:

North America

Safety
UL 62368-1:2014Ed.2
CSA C22.2#62368-1:2014Ed.2

LASER Safety
CDRH 21 CFR 1040.10
Class 1 LASER Product
Canadian Radiation Emitting Devices Act, REDR C1370
IEC 60825:2001 Parts 1 and 2
Class 1 LASER Product

Electromagnetic Interference
FCC 47CFR Part 15 Subpart B: 2013 Class A
Industry Canada ICES-003: 2016 Ed. 6

Australia & New Zealand

This is a Class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take corrective action.

European Union

Declaration of Conformity
Manufacturer's Name & Address:

Thinklogical, A **BELDEN** BRAND
100 Washington Street
Milford, Connecticut 06460 USA

Thinklogical's products comply with the requirements of the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU, the WEEE Directive 2012/19/EU and carry the CE marking accordingly.

Standards with Which Our Products Comply

Safety
IEC 62368-1:2014Ed.2+C1
CB Scheme Certificate

Electromagnetic Emissions
CENELEC EN 55022:2010 +AC:2011

Electromagnetic Immunity
EN 55024:2011+A1
CENELEC EN 55032:2015
EN 61000-3-2:2000 Harmonics
EN 61000-3-3:2008 Flicker
EN 61000-4-2:2009 Electro-Static Discharge Test
EN 61000-4-3:2006 A1:2008, A2:2010 Radiated Immunity Field Test
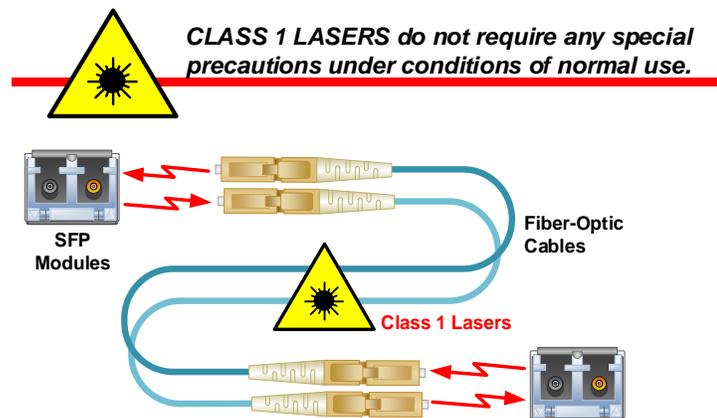EN 61000-4-4:2004 Electrical Fast Transient Test
EN 61000-4-5:2006 Power Supply Surge Test
EN 61000-4-6:2009 Conducted Immunity Test
EN 61000-4-11:2004 Voltage Dips & Interrupts Test

Class 1 Laser Information

TLX Extenders, like all Thinklogical® fiber-optic products, are designed and identified as a **Class 1 LASER products.** This means the maximum permissible exposure (MPE) cannot be exceeded when viewing the laser with the naked eye or with the aid of typical magnifying optics (e.g. telescope or microscope).

CLASS 1 LASERS do not require any special precautions under conditions of normal use.

SFP Modules

Fiber-Optic Cables

Class 1 Lasers

Supplementary Information

The following statements may be appropriate for certain geographical regions and might not apply to your location:

- This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. *Cet appareil numérique de la classe A respecte toutes les exigencies du Règlement sur le matérial brouilleur du Canada.*

- This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take corrective action.

- This equipment has been tested and found compliant with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications in which case the user may be required to make adequate corrective measures at their own expense.

- This Class A digital apparatus complies with Canadian ICES-003 and has been verified as compliant within the Class A limits of the FCC Radio Frequency Device Rules (FCC Title 47, Part 15, Subpart B CLASS A), measured to CISPR 22:1993 limits and methods of measurement of Radio Disturbance Characteristics of Information Technology Equipment.

- The user may notice degraded audio performance in the presence of electro-magnetic fields.

Section 3: How to Contact Us

Customer Support

Website: https://www.thinklogical.com

Check out our website for current products, support documents and useful information about all the products and services we offer, including:

- **Technical Specification Sheets**
- **Quick-Start Guides**
- **Product Manuals** (for viewing online or for download)
- **Chat live with a Technical Service Representative**

Email: mailto:support@thinklogical.com

For product support, technical issues or questions, product repairs and request for Return Merchandise Authorization.

Telephone: 1-203-647-8700

Please contact our expert sales staff in Milford, CT **Monday - Friday from 8:30am to 5:00pm**, Eastern Time Zone. If leaving a voice message, please provide a preferred time to call back.

Fax: 1-203-783-9949

Please indicate the nature of the fax on your cover sheet and provide contact information.

Product Support

Warranty

Thinklogical warrants this product against defects in materials and workmanship for a period of one year from the date of delivery, with longer terms available at time of purchase on most products. Thinklogical and its suppliers disclaim all other warranties. Please refer to your product invoice for the Warranty Terms & Conditions.

Defect remedy shall be the repair or replacement of the product, provided that the defective product is returned to the authorized dealer within a year from the date of delivery.

If you wish to return your device, contact the Thinklogical authorized dealer where you purchased the device, or if you purchased directly, call Thinklogical at **1-800-647-8700**.

Return Authorization

If you must return a product to Thinklogical directly, please contact us at **1-203-647-8700**. Customer Support will ask you to describe the problem and will issue you a **R**eturn **M**erchandise **A**uthorization **number** (RMA#). Pack the device in its original box, if possible, and return it with the RMA# printed on the outside of the box. **DO NOT return a product to Thinklogical without a *Return Merchandise Authorization*.**

Our Address

If you have any product issues or questions or need technical assistance with your Thinklogical system, please call us at **1-203-647-8700** and let us help. If you need to write us or return a product, please use the following address:

Please include the Return Merchandise Authorization number: **Thinklogical,** A **BELDEN** BRAND
100 Washington Street
Milford, CT 06460 USA
Attn: *RMA#*

Appendix A: *TLX Video & KVM Module Quick Start Guide*

**Single Chassis Under-desk
Mounting Bracket**

Kit ENCA-797

**Two Chassis Under-desk
Mounting Bracket**

Kit ENCA-798
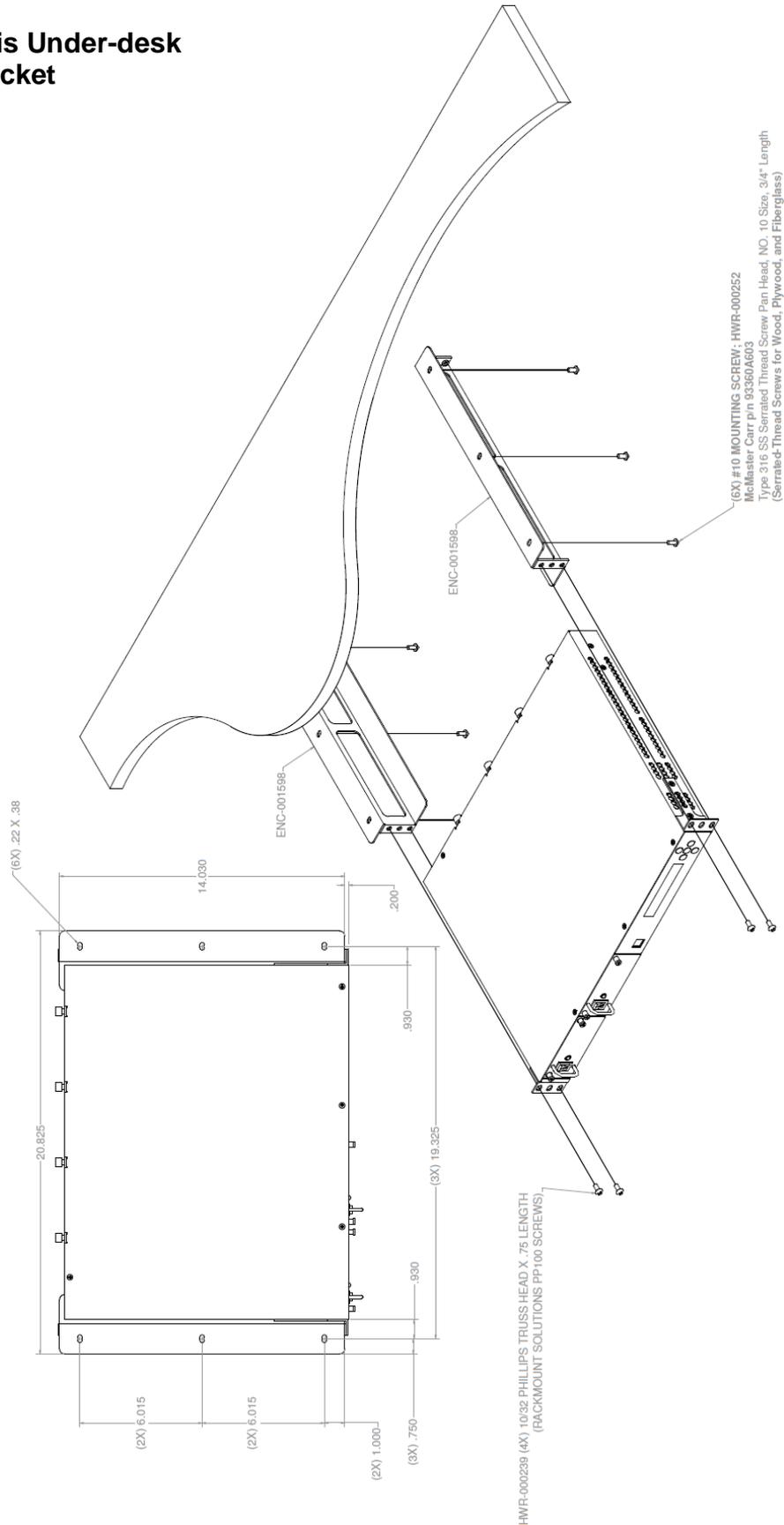
Appendix C: *CHS-4 & CHS-2 LCD Menus*

CHS-4 & CHS-2 Chassis Front Panel LCD Display	Modifiable	Description
Thinklogical **CHS-000004 V23-21**	NO	▽ △ At turn-on, displays chassis type and current revision. (Scroll Up or Down to access top level *Menus.)
*System	NO	◁ ▷ **Root menu for System settings.** Scroll Left or Right to access the settings.
Rack Serial Number **S/N = 11-160273**	NO	◁ ▷ The Serial Number of the Chassis. (MM-YY1234)
Allow FPGA Update **Yes/No = Yes**	YES	◁ ▷ Select Yes/No to allow updates to the FPGA. Change using the up/down and enter buttons
Ctrl Temp in C **41**	NO	◁ ▷ Displays the current temperature of the Control PCB inside the chassis.
Fan Status F4 F3 F2 F1 **1 1 1 1**	NO	◁ ▷ Displays the status of each chassis fan. 1=OK, 0=failure
Card Pres. C4 C3 C2 C1 **0 1 0 1**	NO	◁ ▷ Reports which card slots have a card installed. (Cards in slots 1 and 3 in this example.)
Alarm Stat- Fs C4 C3 C2 C1 Mn **Alrm Act= 0 0 0 0 0 0**	NO	◁ ▷ Reports Alarm Status for Fans, Cards in slots 1-4 and Main PCB. (1 = active alarm condition)
Pwr Supp Pres. P1 P2 **1 1**	NO	◁ ▷ Indicates presence of Power Supplies 1 and 2.
*Card4 (near Pwr Cord) **TLX_RxK**	NO	▽ △ **Root display for Card 4.** Identifies position and module type.
Card4 TLX_RxK **U/D = menus, L/R = Exit**	NO	◁ ▷ *Scroll Left/Right to enter Card 4 menus. Scroll Up/Down, Left/Right within menus.
		***Card menus are only available for slots with an installed module.**
#Card3	NO	▽ △ **Root display for Card 3.** Identifies module type.
#Card2	NO	▽ △ **Root display for Card 2.** Identifies module type.
#Card1 (Oppos. Pwr Cord)	NO	▽ △ **Root display for Card 1.** Identifies position and module type.