User Manual

020-102814-03

Terra Device Configurator

CHRISTIE®

NOTICES

COPYRIGHT AND TRADEMARKS

GENERAL

Every effort has been made to ensure accuracy, however in some cases changes in the products or availability could occur which may not be reflected in this document. Christie reserves the right to make changes to specifications at any time without notice. Performance specifications are typical, but may vary depending on conditions beyond Christie's control such as maintenance of the product in proper working conditions. Performance specifications are based on information available at the time of printing. Christie makes no warranty of any kind with regard to this material, including, but not limited to, implied warranties of fitness for a particular purpose. Christie will not be liable for errors contained herein or for incidental or consequential damages in connection with the performance or use of this material.

WARRANTY

Products are warranted under Christie's standard limited warranty, the complete details of which are available by contacting your Christie dealer or Christie. In addition to the other limitations that may be specified in Christie's standard limited warranty and, to the extent relevant or applicable to your product, the warranty does not cover:

  a) Problems or damage occurring during shipment, in either direction.
  b) Problems or damage caused by combination of a product with non-Christie equipment, such as distribution systems, cameras, DVD players, etc., or use of a product with any non-Christie interface device.
  c) Problems or damage caused by misuse, improper power source, accident, fire, flood, lightning, earthquake or other natural disaster.
  d) Problems or damage caused by improper installation/alignment, or by equipment modification, if by other than Christie service personnel or a Christie authorized repair service provider.
  e) Problems or damage caused by use of a product on a motion platform or other movable device where such product has not been designed, modified, or approved by Christie for such use.
  f) Except where the product is designed for outdoor use, problems or damage caused by use of the product outdoors unless such product is protected from precipitation or other adverse weather or environmental conditions and the ambient temperature is within the recommended ambient temperature set forth in the specifications for such product.
  g) Defects caused by normal wear and tear or otherwise due to normal aging of a product.

The warranty does not apply to any product where the serial number has been removed or obliterated. The warranty also does not apply to any product sold by a reseller to an end user outside of the country where the reseller is located unless (i) Christie has an office in the country where the end user is located or (ii) the required international warranty fee has been paid.

The warranty does not obligate Christie to provide any on-site warranty service at the product site location.

REGULATORY

The product has been tested and found to comply 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 product is operated in a commercial environment. The product 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. Operation of the product in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the user's own expense.

CAN ICES-3 (A) / NMB-3 (A)

이 기기는 업무용 (A급)으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이점을 주의하시기 바라며, 가정 외의 지역에서 사용하는 것을 목적으로 합니다.

ENVIRONMENTAL

The product is designed and manufactured with high-quality materials and components that can be recycled and reused. This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from regular waste. Please dispose of the product appropriately and according to local regulations. In the European Union, there are separate collection systems for used electrical and electronic products. Please help us to conserve the environment we live in!

Content

Important Safeguards

To prevent personal injury and to protect the device from damage, read and follow these safety precautions.

General Safety Precautions

To prevent personal injury and to protect the device from damage, read and follow these safety precautions.

Warning! If not avoided, the following could result in death or serious injury.
  - SHOCK HAZARD! Disconnect the product from AC before moving, servicing, cleaning, removing components, or opening any enclosure.
  - Motors and fans may start without warning.

Power Precautions

Ensure all power precautions are understood before installing the product.

Warning! If not avoided, the following could result in death or serious injury.
  - FIRE AND SHOCK HAZARD! Do not operate the system unless certified power connections, providing the recommended voltage, are used.
  - FIRE AND SHOCK HAZARD! Do not attempt operation unless the power cord, power socket, and power plug meet the appropriate local rating standards.

Caution! If not avoided, the following could result in minor or moderate injury.
  - SHOCK HAZARD! Only use the AC power cord provided with the product or recommended by Christie.
  - TRIP OR FIRE HAZARD! Position all cables where they cannot contact hot surfaces, be pulled, be tripped over, or damaged by persons walking on or objects rolling over the cables.
  - FIRE HAZARD! Do not use a power cord, harness, or cable that appears damaged.
  - FIRE OR SHOCK HAZARD! Do not overload power outlets and extension cords.
  - SHOCK HAZARD! The AC power cord must be inserted into an outlet with grounding.
  - SHOCK HAZARD! Do not attempt operation if the AC supply is not within the specified voltage and power range, as specified on the license label.

Service Warning

All servicing instructions are for use by qualified service personnel only. There are no procedures, exchange, or parts that are inside the unit that are intended to be performed by the user.

Unplug all power and power supply cords from the apparatus before servicing.

Product Overview

The Christie Terra Device Configurator (TDC) software is used to help setup and configure Terra Transmitters and Receivers that are wired together as a standalone extender pair.

For additional information, view the Terra product literature at http://ChristieTerra.

Hardware

Refer to the Terra Transmitter and *Receiver Setup and Install Guide* (020-102814-*nn*) for hardware installation details.

Related Documentation

Access the latest documentation from the Christie website at http://ChristieTerra

Additional information is available in the following documents:

- Terra Transmitter and Receiver Setup and Install Guide (020-102814-*nn*)
- Terra Product Safety Guide (020-102786-*nn*)
- Terra User Guide (020-102838-*nn*)

Install and Setup

Use the following information to configure Terra Transmitters and Receivers for point to point and extension applications.

Extender Applications

Christie Terra Transmitters and Receivers extend audio, video, and control signal up to 4K@60Hz video formats, over fiber connections.

Accessories

Required	Optional
OM3 multimode 850nm fiber cable with duplex LC-LC connectors (300m maximum distance) ⓘ Single mode fiber or Category cable such as CAT-6a can be used with Terra Transmitters and Receivers by substituting compatible 10G SFP+ transceivers and compatible cables. 10G SFP+ Direct Attach Cables or Twinax copper cables with hard wired SFP+ transceivers can also be used.	Audio cable: 3.5 mm stereo mini-jack
HDMI IN cable or DisplayPort cable	Remote control cables: IR transmitter 3.5 mm DC mini-jack cable; IR receiver 3.5 mm stereo mini-jack cable
HDMI out cable	USB 2.0 type-A cable, keyboard, mouse
AV source device	Speaker for analog audio
AV display device (embedded audio ready for HDMI audio)	Computer with an Ethernet port for running the Terra Extension Config Utility.

Transmitters and Receivers Ports and Status Indicators
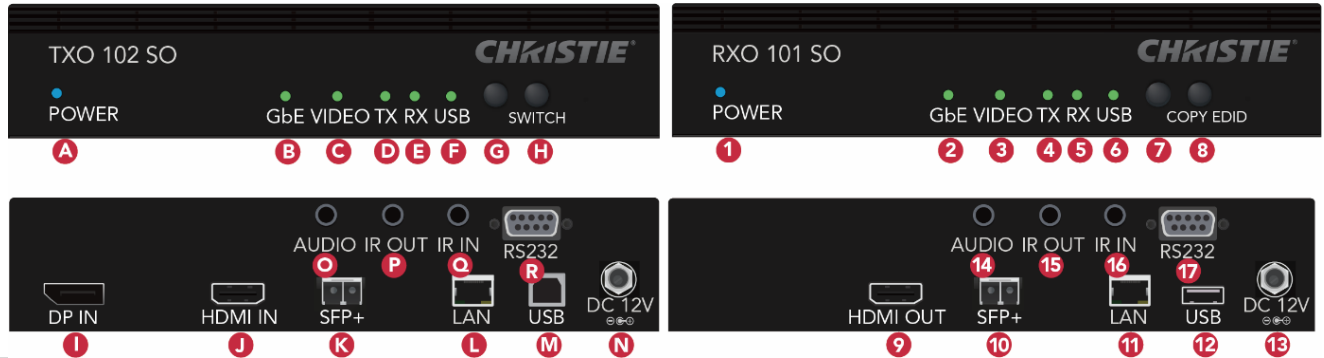
A	Power indicator	1	Power indicator
B-F	Signal and system indicators	2-6	Signal and system indicators
G	Button (currently unused)	7	Button (currently unused)
H	Switch button to switch between inputs; or to reset to factory defaults.	8	Button used to copy EDID to Transmitter; or to reset to factory defaults.
I	DisplayPort 1.2 input port	9	HDMI 2.0 output port
J	HDMI 2.0 input port	10	10G SFP+ Transceiver for with LC-LC port
K	10G SFP+ Transceiver with LC-LC port	11	1G Ethernet (RJ-45) port
L	1G Ethernet (RJ-45) port	12	USB 2.0 type-A port
M	USB 2.0 Type-B port	13	External power port
N	External power port	14	Analog stereo audio (3.5 mm stereo mini-jack) female port
O	Analog stereo audio (3.5 mm stereo mini-jack) female port	15	Serial IR control out (3.5 mm DC mini-jack) female port
P	Serial IR remote control out (3.5 mm DC mini-jack) female port	16	Serial IR control in (3.5 mm stereo mini-jack) female port
Q	Serial IR remote control in (3.5 mm stereo mini-jack) female port	17	Serial RS-232 (9Pin DIN) female port
R	Serial RS-232 (9Pin DIN) female port		

Extension Setup

> For proper ventilation and to prevent damage to the unit, ensure the wiring or other material does not obstruct the air flow to or from the air vents.

1. Power off all equipment and install in a rack or set on a table.
2. Connect AV source to the DP IN (I) or HDMI IN (J) port on the TXO using a DisplayPort cable or HDMI cable.
3. Optionally, connect a stereo analog audio source to the TXO (O) using an audio cable.
4. Connect the TXO and RXO using OM3 multimode 850nm fiber cable with duplex LC-LC connectors on each end by inserting the cable into the SFP+ transceivers on the TXO (K) and RXO (10).
5. Connect an AV display to the HDMI OUT (9) port on the RXO using an HDMI cable.

   ℹ Use the supplied HDMI Cable Lock to secure the HDMI cables to the TXO and RXO.

6. Optionally, to transport IR control commands between units, connect an IR receiver to the IR IN (Q or 16) port on the TXO or RXO near the remote control source; and connect an IR emitter to

the IR OUT (P or 15) port on the opposite (far) TXO or RXO that is near the device you want to control.

7. Optionally, make connections from the source USB connection to the USB (M) on the TXO and connect a mouse and/or keyboard to the USB (12) on the RXO.

8. Supply power to the units by connecting the external power supply to the units (N and 13) and to a power source. The power indicator on the TXO (A) and RXO (1) should light up. Green signal indicators (C-E and 3-5, and optionally F and 6 for USB) light when a signal is present and transported between the TXO and RXO.

> **i** If the source is not displayed, change the source signal that is transmitted (HDMI or DisplayPort) by pressing the SWITCH (H) button on the TXO.

Configuring the Units

For Extension setups, TDC can be used to configure specific settings for devices and maintain these settings through a power cycle.

> **i** TDC should be used when your setup does not include more than one Transmitter and one Receiver.
>
> To control multiple units in one setup, a Terra Controller is required. Refer to the *Terra User Manual* (020-102838-*nn*).

When using TDC, a computer is needed. When a Transmitter and Receiver are directly connected in an Extension setup, an Ethernet cable is connected to a computer and to either the TX or the RX. The network adapter on the computer must be set to DHCP and must have an Automatic Private IP Addressing (APIPA) address.

Using TDC

> **i** When the buttons on the front of the devices are used to set options, these settings are set back to the defaults when the devices are power cycled.
>
> Settings applied using TDC persist during a power cycle.

1. Right click on **Terra Device Configurator.exe** and select **Run as Administrator**. The configurator opens.

> **i** When using this utility:
> - It must be run as an administrator.
> - All actions and selections are saved when the option is selected. There is no Save button.
> - All configured settings for a device are saved when the device is powered off; but the settings are not saved if the device is reset to factory settings.
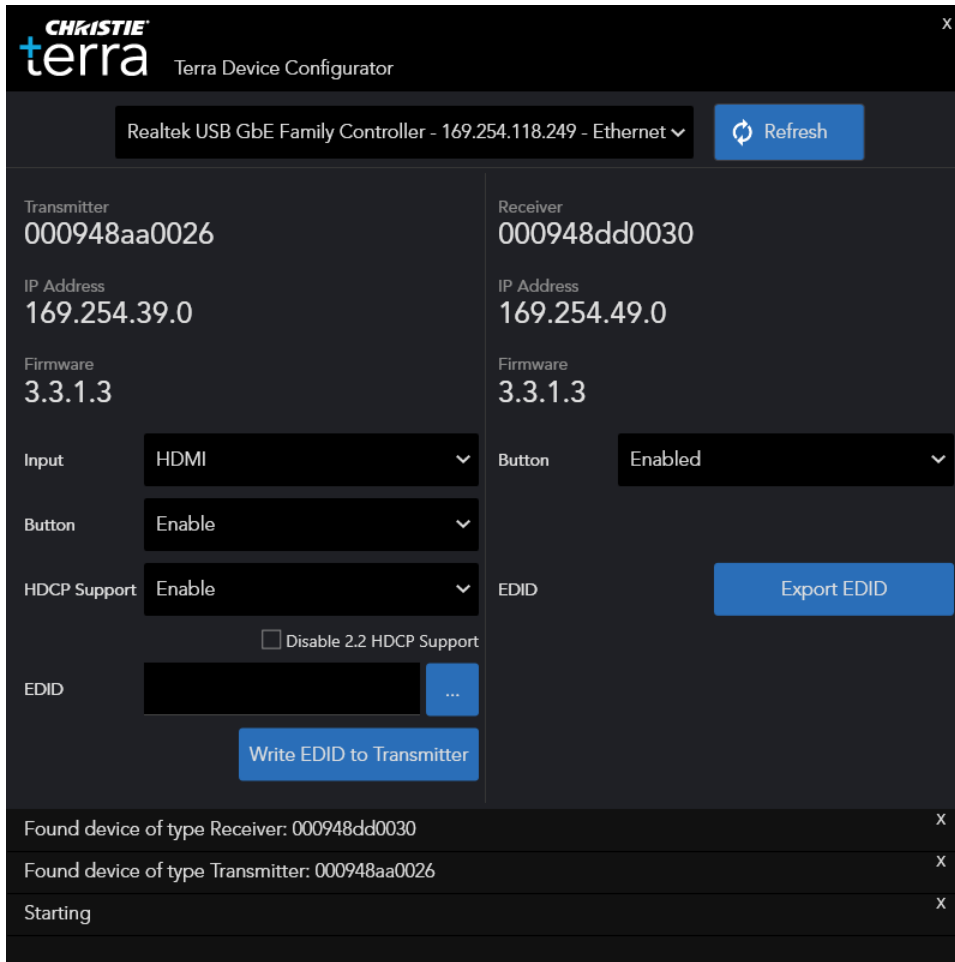
2. Select the network adapter for the connected computer from the dropdown list.
3. Optionally, select the **Refresh** button to discover devices. If devices are connected when TDC is running, they are not automatically discovered.
4. Optionally, from the Transmitter pane perform any of the following to apply settings:
   - Set the default **Input** option for the video port on the TX by selecting the desired option.

     > ℹ️ Additionally, the SWITCH button on the front of the TX can be used to switch between HDMI and DP, but this value is not saved when the device is powered off.

   - Select the **Button** option to enable or disable the SWITCH button on the Transmitter.
   - Set the **HDCP Support** option to enable or disable HDCP support. If disabled, streaming video from a HDCP source to a display will result in black image displayed.

     > ℹ️ Some source devices may encrypt their output even if the source material does not require HDCP encryption, preventing content from being displayed on a non-HDCP compliant display. Disable HDCP to allow the output of the transmitter or receiver to remain unencrypted.
     >
     > Disabling HDCP on the device will prevent encrypted content from streaming (for example, a Blu-ray player), and will result in black image on the display.

   - Select **Disable 2.2 HDCP Support** check box to only enable HDCP 1.4 support.

     > ℹ️ HDCP 2.2 content, (for example, a 4K Blu-ray player) may either result in black image on the display, or outputting 1080p image (source or content dependent).

   - Browse to an EDID file (.txt, .edid, or .dat) to upload the file to the Transmitter and click **Write EDID to Transmitter**.
5. Optionally, from the Receiver pane perform any of the following to apply settings:
   - Select the **Button** option to enable or disable the COPY EDID button on the Receiver.
     When this button is used, the EDID on the TX is automatically overwritten.

Terra Device Configurator   **9**
020-103077-03 Rev. 1 (10-2019)

- Click **Export EDID** to save the EDID from the output attached to the Receiver to the supported formats: .dat, .edid, or .txt.

> **i** There must be a sink attached to the Receiver for an EDID to be exported.
>
> Click **Refresh** if the sink attached to the Receiver has changed so the new EDID is available to export.

Resetting Devices to Factory Defaults

Use the SWITCH button (Transmitter) or COPY EDID button (Receiver) to reset a device to the factory settings. Refer to *Transmitters and Receivers Ports and Status Indicators,* page *7*).

To reset the Transmitters and Receivers:

> **i** Read all the instructions before starting the reset process since power needs to be applied while a button is continually pressed.

1. Unplug the device to power off the unit.

2. Perform one of the following:
   -To reset a Transmitter, press and hold the **SWITCH** button.
   -To reset a Receiver, press and hold the **COPY EDID** button.

3. While continuing to hold the button in, plug in the device to power on the unit.
   Continue holding the button until both the RX/TX LEDs flash green. This may take 20-30 seconds.

4. Release the button.

Corporate offices

USA – Cypress
ph: 714-236-8610

Canada – Kitchener
ph: 519-744-8005

Consultant offices

Italy
ph: +39 (0) 2 9902 1161

Worldwide offices

Australia
ph: +61 (0) 7 3624 4888

Brazil
ph: +55 (11) 2548 4753

China (Beijing)
ph: +86 10 6561 0240

China (Shanghai)
ph: +86 21 6278 7708

Eastern Europe and Russian Federation
ph:+36 (0)14748 100

France
ph: +33 (0)141214404

Germany
ph: +49 2161 664540

India
ph: +91 (080) 6708 9999

Japan (Tokyo)
ph: 81 3 3599 7481

Korea (Seoul)
ph: +82 2 702 1601

Republic of South Africa
ph: +27 (0)11 510 0094

Singapore
ph: +65 6877-8737

Spain
ph: + 34 91 633 9990

United Arab Emirates
ph: +971 4 3206688

United Kingdom
ph: +44 (0) 118 977 80

For the most current technical documentation, please visit www.christiedigital.com

CHRISTIE®