

# DVI 110

DVI Signal Regenerator



**Extron® Electronics**  
INTERFACING, SWITCHING AND CONTROL

## Safety Instructions • English



This symbol is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.



This symbol is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

### Caution

**Read Instructions** • Read and understand all safety and operating instructions before using the equipment.

**Retain Instructions** • The safety instructions should be kept for future reference.

**Follow Warnings** • Follow all warnings and instructions marked on the equipment or in the user information.

**Avoid Attachments** • Do not use tools or attachments that are not recommended by the equipment manufacturer because they may be hazardous.

## Consignes de Sécurité • Français



Ce symbole sert à avertir l'utilisateur que la documentation fournie avec le matériel contient des instructions importantes concernant l'exploitation et la maintenance (réparation).



Ce symbole sert à avertir l'utilisateur de la présence dans le boîtier de l'appareil de tensions dangereuses non isolées posant des risques d'électrocution.

### Attention

**Lire les instructions** • Prendre connaissance de toutes les consignes de sécurité et d'exploitation avant d'utiliser le matériel.

**Conservier les instructions** • Ranger les consignes de sécurité afin de pouvoir les consulter à l'avenir.

**Respecter les avertissements** • Observer tous les avertissements et consignes marqués sur le matériel ou présentés dans la documentation utilisateur.

**Eviter les pièces de fixation** • Ne pas utiliser de pièces de fixation ni d'outils non recommandés par le fabricant du matériel car cela risquerait de poser certains dangers.

## Sicherheitsanleitungen • Deutsch



Dieses Symbol soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.



Dieses Symbol soll den Benutzer darauf aufmerksam machen, daß im Inneren des Gehäuses dieses Produktes gefährliche Spannungen, die nicht isoliert sind und die einen elektrischen Schock verursachen können, herrschen.

### Achtung

**Lesen der Anleitungen** • Bevor Sie das Gerät zum ersten Mal verwenden, sollten Sie alle Sicherheits- und Bedienungsanleitungen genau durchlesen und verstehen.

**Aufbewahren der Anleitungen** • Die Hinweise zur elektrischen Sicherheit des Produktes sollten Sie aufbewahren, damit Sie im Bedarfsfall darauf zurückgreifen können.

**Befolgen der Warnhinweise** • Befolgen Sie alle Warnhinweise und Anleitungen auf dem Gerät oder in der Benutzerdokumentation.

**Keine Zusatzgeräte** • Verwenden Sie keine Werkzeuge oder Zusatzgeräte, die nicht ausdrücklich vom Hersteller empfohlen wurden, da diese eine Gefahrenquelle darstellen können.

## Instrucciones de seguridad • Español



Este símbolo se utiliza para advertir al usuario sobre instrucciones importantes de operación y mantenimiento (o cambio de partes) que se desean destacar en el contenido de la documentación suministrada con los equipos.



Este símbolo se utiliza para advertir al usuario sobre la presencia de elementos con voltaje peligroso sin protección aislante, que puedan encontrarse dentro de la caja o alojamiento del producto, y que puedan representar riesgo de electrocución.

### Precaucion

**Leer las instrucciones** • Leer y analizar todas las instrucciones de operación y seguridad, antes de usar el equipo.

**Conservar las instrucciones** • Conservar las instrucciones de seguridad para futura consulta.

**Obedecer las advertencias** • Todas las advertencias e instrucciones marcadas en el equipo o en la documentación del usuario, deben ser obedecidas.

**Evitar el uso de accesorios** • No usar herramientas o accesorios que no sean específicamente recomendados por el fabricante, ya que podrían implicar riesgos.

## 安全须知 • 中文



这个符号提示用户该设备用户手册中有重要的操作和维护说明。



这个符号警告用户该设备机壳内有暴露的危险电压，有触电危险。

### 注意

**阅读说明书** • 用户使用该设备前必须阅读并理解所有安全和使用说明。

**保存说明书** • 用户应保存安全说明书以备将来使用。

**遵守警告** • 用户应遵守产品和用户指南上的所有安全和操作说明。

**避免追加** • 不要使用该产品厂商没有推荐的工具或追加设备，以避免危险。

## Warning

**Power sources** • This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature, do not attempt to bypass or disable it.

**Power disconnection** • To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).

**Power cord protection** • Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them.

**Servicing** • Refer all servicing to qualified service personnel. There are no user-serviceable parts inside. To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.

**Slots and openings** • If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. These openings must never be blocked by other objects.

**Lithium battery** • There is a danger of explosion if battery is incorrectly replaced. Replace it only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

## Avertissement

**Alimentations** • Ne faire fonctionner ce matériel qu'avec la source d'alimentation indiquée sur l'appareil. Ce matériel doit être utilisé avec une alimentation principale comportant un fil de terre (neutre). Le troisième contact (de mise à la terre) constitue un dispositif de sécurité : n'essayez pas de la contourner ni de la désactiver.

**Déconnexion de l'alimentation** • Pour mettre le matériel hors tension sans danger, déconnectez tous les cordons d'alimentation de l'arrière de l'appareil ou du module d'alimentation de bureau (s'il est amovible) ou encore de la prise secteur.

**Protection du cordon d'alimentation** • Acheminer les cordons d'alimentation de manière à ce que personne ne risque de marcher dessus et à ce qu'ils ne soient pas écrasés ou pincés par des objets.

**Réparation-maintenance** • Faire exécuter toutes les interventions de réparation-maintenance par un technicien qualifié. Aucun des éléments internes ne peut être réparé par l'utilisateur. Afin d'éviter tout danger d'électrocution, l'utilisateur ne doit pas essayer de procéder lui-même à ces opérations car l'ouverture ou le retrait des couvercles risquent de l'exposer à de hautes tensions et autres dangers.

**Fentes et orifices** • Si le boîtier de l'appareil comporte des fentes ou des orifices, ceux-ci servent à empêcher les composants internes sensibles de surchauffer. Ces ouvertures ne doivent jamais être bloquées par des objets.

**Lithium Batterie** • Il y a danger d'explosion s'il y a un remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

## Vorsicht

**Stromquellen** • Dieses Gerät sollte nur über die auf dem Produkt angegebene Stromquelle betrieben werden.

Dieses Gerät wurde für eine Verwendung mit einer Hauptstromleitung mit einem geerdeten (neutralen) Leiter konzipiert. Der dritte Kontakt ist für einen Erdschluß, und stellt eine Sicherheitsfunktion dar. Diese sollte nicht umgangen oder außer Betrieb gesetzt werden.

**Stromunterbrechung** • Um das Gerät auf sichere Weise vom Netz zu trennen, sollten Sie alle Netzkabel aus der Rückseite des Gerätes, aus der externen Stromversorgung (falls dies möglich ist) oder aus der Wandsteckdose ziehen.

**Schutz des Netzkabels** • Netzkabel sollten stets so verlegt werden, daß sie nicht im Weg liegen und niemand darauf treten kann oder Objekte darauf- oder unmittelbar dagegengestellt werden können.

**Wartung** • Alle Wartungsmaßnahmen sollten nur von qualifiziertem Servicepersonal durchgeführt werden.

Die internen Komponenten des Gerätes sind wartungsfrei. Zur Vermeidung eines elektrischen Schocks versuchen Sie in keinem Fall, dieses Gerät selbst öffnen, da beim Entfernen der Abdeckungen die Gefahr eines elektrischen Schlags und/oder andere Gefahren bestehen.

**Schlitze und Öffnungen** • Wenn das Gerät Schlitze oder Löcher im Gehäuse aufweist, dienen diese zur Vermeidung einer Überhitzung der empfindlichen Teile im Inneren. Diese Öffnungen dürfen niemals von anderen Objekten blockiert werden.

**Lithium-Batterie** • Explosionsgefahr, falls die Batterie nicht richtig ersetzt wird. Ersetzen Sie verbrauchte Batterien nur durch den gleichen oder einen vergleichbaren Batterietyp, der auch vom Hersteller empfohlen wird. Entsorgen Sie verbrauchte Batterien bitte gemäß den Herstelleranweisungen.

## Advertencia

**Alimentación eléctrica** • Este equipo debe conectarse únicamente a la fuente/tipo de alimentación eléctrica indicada en el mismo. La alimentación eléctrica de este equipo debe provenir de un sistema de distribución general con conductor neutro a tierra. La tercera pata (puesta a tierra) es una medida de seguridad, no puentearla ni eliminarla.

**Desconexión de alimentación eléctrica** • Para desconectar con seguridad la acometida de alimentación eléctrica al equipo, desenchufar todos los cables de alimentación en el panel trasero del equipo, o desenchufar el módulo de alimentación (si fuera independiente), o desenchufar el cable del receptáculo de la pared.

**Protección de los cables de alimentación** • Los cables de alimentación eléctrica se deben instalar en lugares donde no sean pisados ni apretados por objetos que se puedan apoyar sobre ellos.

**Reparaciones/mantenimiento** • Solicitar siempre los servicios técnicos de personal calificado. En el interior no hay partes a las que el usuario deba acceder. Para evitar riesgo de electrocución, no intentar personalmente la reparación/mantenimiento de este equipo, ya que al abrir o extraer las tapas puede quedar expuesto a voltajes peligrosos u otros riesgos.

**Ranuras y aberturas** • Si el equipo posee ranuras o orificios en su caja/alojamiento, es para evitar el sobrecalentamiento de componentes internos sensibles. Estas aberturas nunca se deben obstruir con otros objetos.

**Batería de litio** • Existe riesgo de explosión si esta batería se coloca en la posición incorrecta. Cambiar esta batería únicamente con el mismo tipo (o su equivalente) recomendado por el fabricante. Desachar las baterías usadas siguiendo las instrucciones del fabricante.

## 警告

**电源** • 该设备只能使用产品上标明的电源。设备必须使用有地线的供电系统供电。第三条线（地线）是安全设施，不能不用或跳过。

**拔掉电源** • 为安全地从设备拔掉电源，请拔掉所有设备后或桌面电源的电源线，或任何接到市电系统的电源线。

**电源线保护** • 妥善布线，避免被踩踏，或重物挤压。

**维护** • 所有维修必须由认证的维修人员进行。设备内部没有用户可以更换的零件。为避免出现触电危险不要自己试图打开设备盖子维修该设备。

**通风孔** • 有些设备机壳上有通风槽或孔，它们是用来防止机内敏感元件过热。不要用任何东西挡住通风孔。

**锂电池** • 不正确的更换电池会有爆炸的危险。必须使用与厂家推荐的相同或相近型号的电池。按照生产厂家的建议处理废弃电池。

## FCC Class A Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

The Class A 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. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

**NOTE:** This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance with FCC emissions limits.  
For more information on safety guidelines, regulatory compliances, EMI/EMF compliance, accessibility, and related topics, [click here](#).

## Notational Conventions Used in this Guide

**TIP:** A tip provides a suggestion to make setting up or working with the device easier.

**NOTE:** A note draws attention to important information.

**CAUTION:** A caution warns of things or actions that might damage the equipment.

**WARNING:** A warning warns of things or actions that might cause injury, death, or other severe consequences.

## Copyright

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## Trademarks

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# Introduction

This section gives an overview of the Extron DVI 110 Signal Regenerator and provides application examples. The following topics are covered:

- [About this Guide](#)
- [About the DVI 110 Signal Regenerator](#)
- [Application Diagrams](#)

## About this Guide

This guide describes the functionality of the DVI 110 and provides procedures for connecting and operating it.

In the guide, the terms "regenerator" and "DVI 110" are used interchangeably to refer to the product.

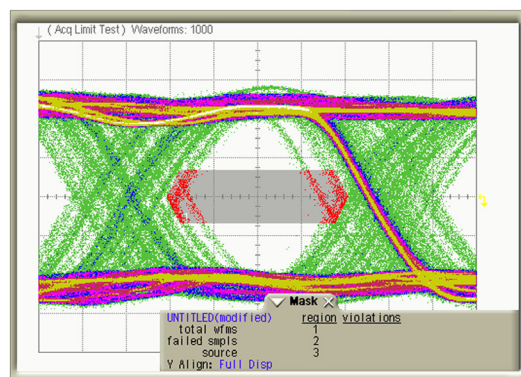
## About the DVI 110 Signal Regenerator

The Extron DVI 110 is a compact, 1 inch (2.5 cm) high, one-eighth rack wide DVI signal regenerator that maximizes the quality of a digital signal at the beginning of its path by regenerating the signal. The DVI 110 reshapes a poor quality output signal, providing optimal image quality for HDTV signals.

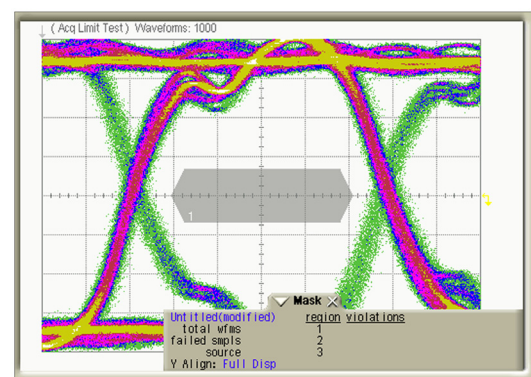
## Signal Eye Pattern

The following illustrations show the "eye pattern" of DVI output from a test generator before and after regeneration via a DVI 110. An eye pattern is a representation of a digital signal on an oscilloscope in which a digital data signal is repetitively sampled. Distortion in the signal waveform due to interference and noise appears as a "closing" of the eye pattern, as shown in the "Before Regeneration" illustration, below on the left.

After the signal passes through the DVI 110 and is regenerated (shown in the "After Regeneration" illustration, below on the right), the "eye" appears more open, indicating a clear, undistorted signal.



Before Regeneration



After Regeneration

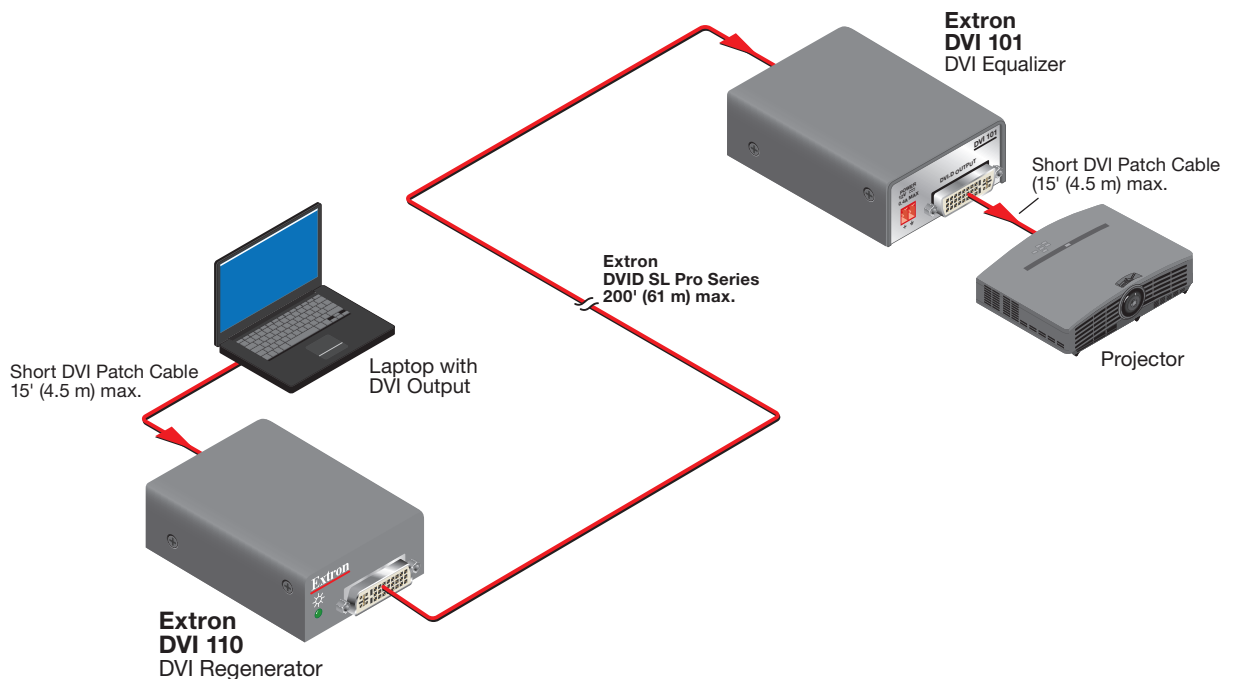
**Figure 1.** Eye Pattern of a Signal Before and After Regeneration via the DVI 110

## Features

- **Output resolutions** — Supports resolutions up to 1080p at 60 Hz and computer video signals up to 1920x1200.
- **Power/Signal indicator** — The bicolored LED on the front panel lights amber to indicate that power is on and green to indicate source signal presence.
- **Data rates** — Supports data rates of up to 4.95 Gbps; 1.65 Gbps per color.
- **Supports DDC and HDCP** — DDC channels are buffered, allowing pass-through of EDID and HDCP information between the source and the display.
- **Enclosure** — Compact 1 inch (2.5 cm) high, one-eighth rack wide, and 3 inches (7.6 cm) deep metal enclosure
- **Rack and furniture mounting** — The regenerator can be mounted on a rack shelf or under a desk or podium.
- **Power supply (included)** — An external universal UL energy verified 12 VDC, LPS, Class 2, 1 A power supply accepts 100 to 240 VAC current, providing worldwide compatibility and low power consumption.
- **HDMI signal support** — Fully supports HDMI signals, including embedded audio, when used with an optional Extron HDMI-to-DVI adapter.

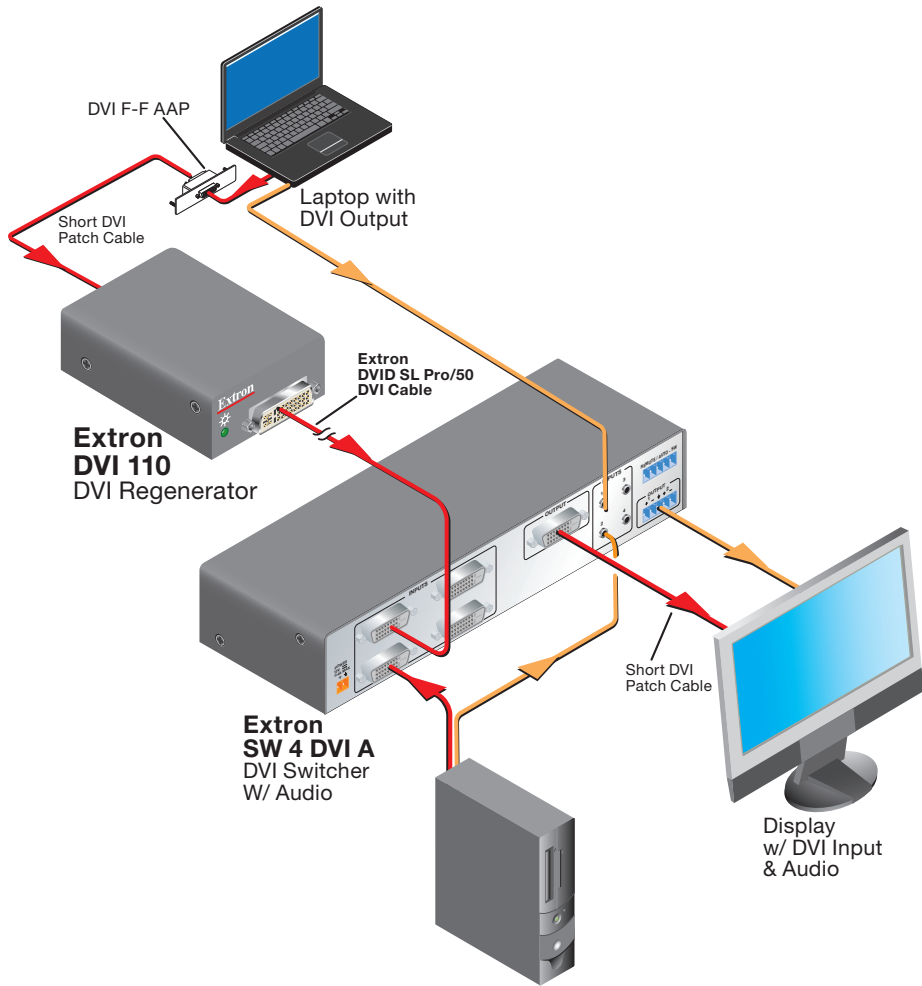
## Application Diagrams

The following diagrams show examples of how the DVI 110 can be connected.



**Figure 2.** Using the DVI 110 with a DVI 101 Equalizer





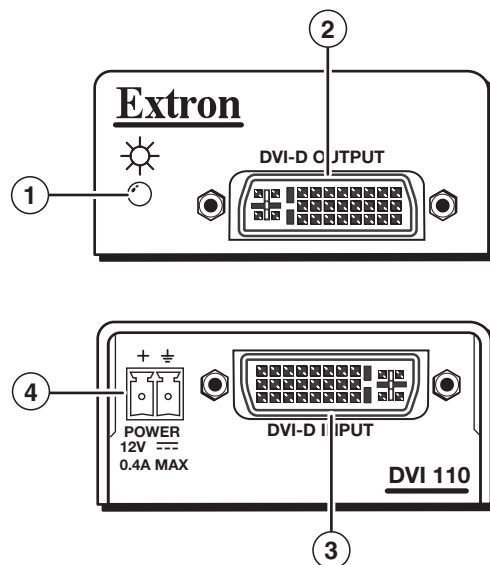
**Figure 3.** Using the DVI 110 with a DVI Switcher

# Installation

This section describes the features of the DVI 110 front and rear panels and provides instructions for cabling. It covers the following topics:

- [Front and Rear Panel Features and Connections](#)
- [Connecting the DVI 110](#)

## Front and Rear Panel Features and Connections



**Figure 4.** DVI 110 Front and Rear Panels

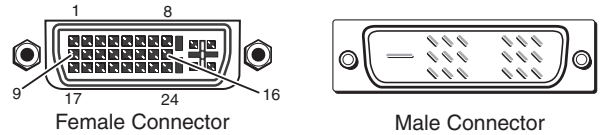
- ① **Power and signal status LED** — This dual-color LED lights amber when the DVI 110 is receiving power. When a DVI input signal is present, the LED lights green.

**NOTE:** Use the provided external power supply to power the unit. The DVI 110 cannot receive power from the input device.

- ② **DVI-D output connector** — Plug the cable from this single link format DVI-I connector into a DVI output device. Output signals are digital only. (See the pin assignment table on the next page.)

**NOTES:**

- For the output, use cables that are 15 feet (4.5 m) or less.
- Although this is actually a DVI-I connector, its analog pins are not enabled. Only DVI-D signals are accepted.



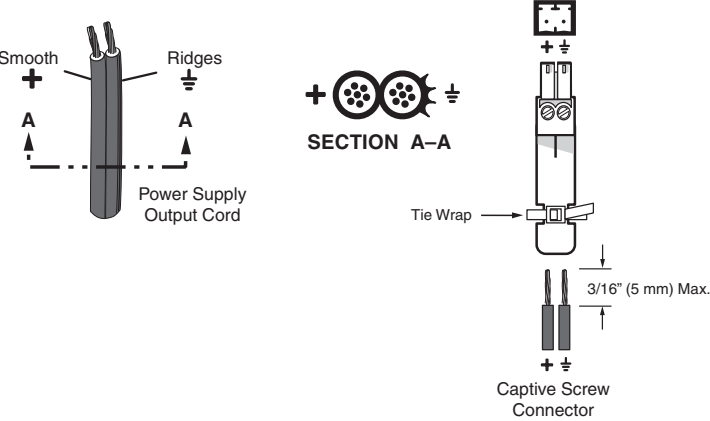
Pin	Signal	Pin	Signal	Pin	Signal
1	TMDS data 2-	9	TMDS data 1-	17	TMDS data 0-
2	TMDS data 2+	10	TMDS data 1+	18	TMDS data 0+
3	TMDS data 2 shield	11	TMDS data 1 shield	19	TMDS data 0 shield
4	Spare	12	Spare	20	Spare
5	Spare	13	Spare	21	Spare
6	DDC clock	14	+5 V power	22	TMDS clock shield
7	DDC data	15	Ground (+5 V)	23	TMDS clock+
8	CEC control	16	Hot plug detect	24	TMDS clock-

**Figure 5. DVI Connector Pin Assignments**

③ **DVI-D input connector** — Plug the cable from the source device into this single link format female DVI connector. The table above shows the DVI pin configuration.

**NOTE:** Although this is actually a DVI-I connector, its analog pins are not enabled. Only DVI-D signals are accepted.

④ **Power connector** — Plug the external 12 V power supply (provided with the unit) into this 2-pole captive screw connector. The figure below shows how to wire the connector.



**Figure 6. Wiring the Power Connector**

**WARNING:** Keep the two power cord wires separate while the power supply is plugged in. Remove power before continuing.

- CAUTIONS:**
- When you are connecting the power supply, voltage polarity is extremely important. Applying power with incorrect voltage polarity could damage the power supply and the regenerator. Identify the negative lead by the ridges on the side of the cord (see the [illustration on page 5](#)). To verify the polarity before connection, plug in the power supply with no load and check the output with a voltmeter.
  - Do not tin the stripped power supply leads before attaching the captive screw connector. Tinned wires are not secure in the captive screw connectors and could be pulled out.
  - Do not permanently fix the power supply to the building structure or similar structures.
  - Do not place the power supply within environmental air handling spaces or the wall cavity.
  - The installation must be in accordance with the applicable provisions of the *National Electrical Code ANSI/NFPA 70, Article 725* and the *Canadian Electrical Code, Part 1, Section 16*.
  - The power supply must be located within the same vicinity as the Extron A/V processing equipment in an ordinary location, Pollution Degree 2, and secured to a podium, a desk, or an equipment rack within a dedicated closet.
  - Always use a power supply specified by Extron for the DVI 110. Use of an unauthorized power supply voids all regulatory compliance certification and may cause damage to the power supply and the unit.

## Connecting the DVI 110

For best results, connect the DVI 110 near the DVI source device in the system. The input and output cables to and from the DVI 110 should be 15 feet (4.5 m) or less.

To ensure transmission integrity in a long cable run, place an Extron DVI 101 cable equalizer at the end of the run, immediately preceding the output device.

**NOTE:** Pairing the DVI 110 at the beginning of the cable run with a DVI 101 at the end of the run ensures transmission integrity for up to 200 feet (61 m).

# Reference Information

This section reference information for the DVI 110 signal regenerator. Topics that are covered include:

- [Specifications](#)
- [Part Numbers](#)
- [Mounting the DVI 110](#)

## Specifications

**NOTE:** \*Appropriate DVI-D to HDMI cables or adapters are required for HDMI signal input and output.

### Video

Maximum data rate.....	4.95 Gbps (1.65 Gbps per color)
Maximum pixel clock.....	165 MHz
Resolution range .....	Up to 1920x1200 or 1080p @ 60 Hz
Formats.....	RGB and YCbCr digital video
Standards.....	DVI 1.0, HDMI 1.2

### Video input

Number/signal type .....	1 single link DVI-D (or HDMI*)
Connectors .....	1 female DVI-I
Input cable length .....	Up to 15' (4.5 m) at 1920x1200 or 1080p @ 60 Hz

### Video output

Number/signal type .....	1 single link DVI-D (or HDMI*)
Connectors .....	1 female DVI-I

### General

Power .....	Supplied by an external power supply
External power supply .....	100 VAC to 240 VAC, 50-60 Hz, external; to 12 VDC, LPS, Class 2, 1 A, regulated
Power input requirements .....	12 VDC, 0.4 A from an external power supply
Temperature/humidity .....	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Cooling.....	Convection, no vents
Mounting	
Rack mount .....	Yes, with optional rack shelf kit
Furniture mount .....	Yes, with optional mounting kit
Enclosure type.....	Metal
Enclosure dimensions .....	1.0" H x 2.2" W x 3.0" D (one-eighth rack wide) (2.5 cm H x 5.6 cm W x 7.6 cm D)
Product weight.....	0.4 lbs (0.2 kg)
Shipping weight.....	2 lbs (1 kg)

Vibration .....	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety .....	CE, c-UL, UL
EMI/EMC .....	CE, C-tick, FCC Class A, ICES, VCCI
MTBF .....	30,000 hours
Warranty.....	3 years parts and labor

**NOTES:** All nominal levels are at  $\pm 10\%$ .  
Specifications are subject to change without notice.

## Part Numbers

### Included Parts

These items are included with DVI 110:

Included Parts	Replacement Part Numbers
DVI 110 DVI Signal Regenerator	60-1145-01
PS 1210 C,12 VDC, LPS, Class 2, 1 A external power supply with captive screw connector	70-775-01
IEC power cord	
<i>DVI 110 Setup Card</i>	
Rubber feet, self-adhesive (4, not attached)	

### Optional Accessories

These items are optional and may be ordered separately:

Accessories	Part Numbers
DVI 101 Cable Equalizer	60-873-01
RSU 129 9.5" deep 1U Universal Rack Shelf Kit	60-190-01
RSB 129 9.5" deep 1U Basic Rack Shelf	60-604-02
RSU 126 6" deep 1U Universal Rack Shelf Kit	60-190-10
RSB 126 6" deep Basic 1U Basic Rack Shelf	60-604-11
RSF 123 3.5" deep 1U Rack Shelf Kit	60-190-20
RSB 123 3.5" deep 1U Basic Rack Shelf	60-604-21
MBU 125 Under-desk mounting kit	70-077-01
MBB 100 Back of the Rack Kit	70-367-01

### Cables and Adapters

The following table lists cables and adapters that are available for the DVI 110. For a complete listing of cables, visit the Extron web site at [www.extron.com](http://www.extron.com).

Cable or Adapter	Part Number
IN9700 Series DVI	26-584-xx
HDMI DVI-D Series, HDMI to DVI-D (up to 50' in length)	26-614-xx
HDMIF-DVIDM, HDMI female to DVI-D male adapter	26-616-01
HDMIM-DVIDF, HDMI male to DVI-D female adapter	26-617-01
HDMIF-DVIDF, HDMI female to DVI-D female adapter	26-618-01
DVID SL Series DVI (up to 200' in length)	26-649-xx
HDMI M-M Series, HDMI male to HDMI male (up to 200' in length)	26-650-xx

## Mounting the DVI 110

The DVI 110 can be mounted on a rack shelf or under furniture, or it can be placed on a table top. Extron has a variety of optional rack shelf and furniture mounting kits that can be used with the DVI 110. See "[Optional Accessories](#)" in the "Reference Information" section for information on the mounting products available for the DVI 110.

### Tabletop Use

Four self-adhesive rubber feet are included with the DVI 110. For tabletop use, attach one foot at each corner on the bottom surface of the unit.

### Rack Mounting

#### UL rack mounting guidelines

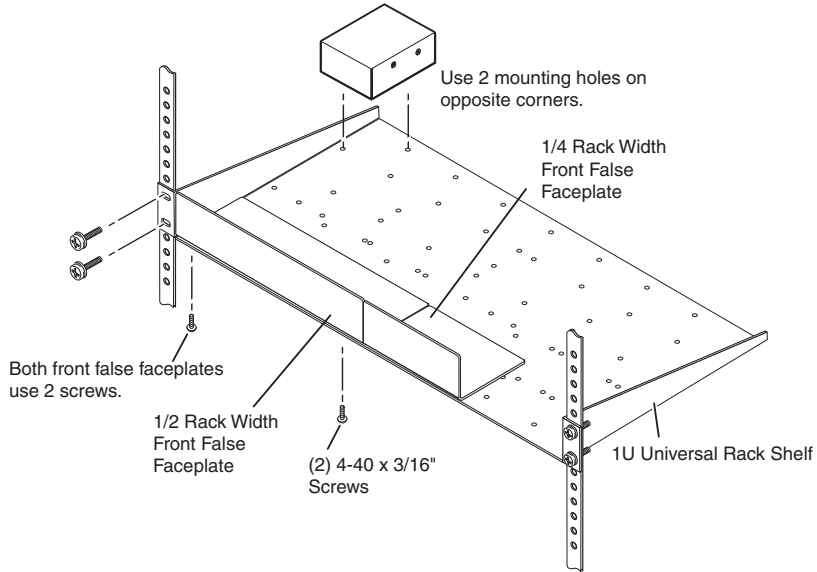
The following Underwriters Laboratories (UL) guidelines apply to the safe installation of the equipment in a rack.

- 1. Elevated operating ambient temperature** — If the equipment is installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, install the equipment in an environment compatible with the maximum ambient temperature specified by Extron (T<sub>ma</sub> = +122 °F, +50 °C).
- 2. Reduced air flow** — Install the equipment in a rack so that the amount of air flow required for safe operation of the equipment is not compromised.
- 3. Mechanical loading** — When mounting the equipment in the rack, ensure that uneven mechanical loading does not cause a hazardous condition.
- 4. Circuit overloading** — When connecting the equipment to the supply circuit, consider the effect that circuit overloading might have on overcurrent protection and supply wiring. Consider the equipment nameplate ratings when addressing this concern.
- 5. Reliable earthing (grounding)** — Maintain reliable grounding of rack mounted equipment. Pay particular attention to supply connections other than direct connections to the branch circuit (for example, use of power strips).



## Rack mounting procedure

For optional rack mounting, mount the DVI 110 on one of the available rack shelves. On the standard 9.5 or 6 inches deep rack shelf, the DVI 110 mounts in one of eight possible locations to the rear of the rack.



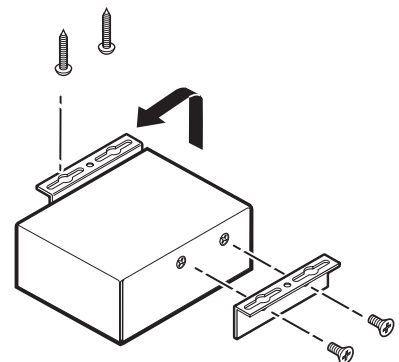
**Figure 7. Mounting the DVI 110 on a Standard 9.5 Inches Deep Rack Shelf**

1. If rubber feet are attached to the bottom of the unit, remove them.
2. Secure the DVI 110 to the rack shelf, using two 4-40 x 3/16-inch screws in opposite (diagonal) corners.
3. Install blank panels or other units on the rack shelf as desired.
4. Insert the shelf into the rack, aligning the holes in the shelf with those of the rack.
5. Secure the shelf to the rack using the supplied machine screws. This shelf can be mounted in the front or in the rear of the rack.

## Furniture Mounting

To mount the DVI 110 under a desk top, podium, or other furniture, use the optional MBU 125 Under-desk Mounting Kit (part number 70-077-01), as follows:

1. If rubber feet are attached to the bottom of the unit, remove them.
2. Remove the screws from one side of the DVI 110. Retain the screws for possible later reassembly.
3. Attach one bracket to the side of the unit, using the provided machine screws (see the illustration at right).
4. Repeat steps **2** and **3** on the other side of the DVI 110.
5. Hold the unit with the attached brackets against the underside of the table or other furniture. On the mounting surface, mark the locations of the bracket screw holes.
6. Drill pilot holes 3/32 inch (2 mm) in diameter, 1/4 inch (6.3 mm) deep in the mounting surface at the marked screw locations.



- 7.** Insert #8 wood screws into the four pilot holes. Tighten each screw into the mounting surface until slightly less than 1/4 inch of the screw head protrudes.
- 8.** Align the mounting screws with the slots in the brackets and place the unit against the surface, with the screws through the bracket slots.
- 9.** Slide the unit slightly forward or back, then tighten all four screws to secure it in place.

# Extron® Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of three years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

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1001 East Ball Road  
Anaheim, CA 92805  
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Singapore 368363  
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This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions, or if modifications were made to the product that were not authorized by Extron.

**NOTE:** If a product is defective, please call Extron and ask for an Application Engineer to receive an RA (Return Authorization) number. This begins the repair process.

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**Asia:** +65.6383.4400

**Europe:** +31.33.453.4040  
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Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

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