

Cardions for safety

Cardions

HD Distribution and Control

HD distribution solutions for Residential / Commercial
Hospitality / Retail and Educational Sectors

Product Guide 2011







MyreSt rm

WyreStorm is a company focused on the development and manufacture of HD distribution products at the forefront of digital technology. Our research and development team are leading specialists in the HD distribution industry, designing and developing innovative solutions to suit the ever growing number of residential and commercial applications.

WyreStorm's development laboratories are based in China and Europe, with our production facilities in Shenzhen China, a key location in cutting edge technologies and the cradle of new trends in the electronics industry.

Our products are manufactured to ISO9001 standards by an HDMI adopter organisation and HDBaseT Alliance member. We provide high quality and reliable solutions for both the residential and commercial markets, with broad applications such as digital signage, custom install, conference and board rooms, retail store fit-outs, as well as super yachts and sports bars. Furthermore, all our Matrix products have full integration with market leading control systems.

What Do We Deliver?

Our product range is wide and encompasses HD splitters, extenders, upscalers and matrices, working on HD distribution over HDMI, coax, Cat5e/6/7 and fibre optic.

All our products are supplied with a comprehensive two year warranty, backed up by dedicated in-house technical support throughout key markets in the world, supporting our network of distribution partners.

















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WyreStorm HDBaseT Matrix Solutions

Our 'flagship' range of Matrix switchers utilise the latest in HDBaseT 'One-Cable' technology and enables unprecedented flexibility for both residential and commercial applications. Technology that delivers HD audio and video, IR and RS232 control, plus high speed internet access all on a single Cat5e/6/7 cable, eliminating the need for additional control and video cables on installations.

All three models feature:

- Each output features integrated single RJ45 outputs
- Each output card offers RS232
- Refined for Custom Install and Home Theatre installations
- Constant HDCP preventing screen drop-outs
- Totally discrete IR source control allowing easy install of duplicate HD sources
- Single cable solution including transmission of full HD audio/video, RS232, 2-Way IR and Ethernet
- 1080p up to 100m range using Cat5e/6/7 UTP (including 3D applications)
- Fully supports 48bit Deep Colour
- HDCP compliant, EDID Management
- Control via front panel IR, remote IR, RS232, RS485 and LAN
- Accessories include: 19" rack ears, IR receiver, IR emitters and matrix remote control
- Open source RS232 drivers available for third party products
- 10.2 Gbps bandwidth output capacity
- Control signals can be sent from matrix to screen via 2-way IR

Full range of analogue Input converters available (see page 10)

RS232 AND IP integration protocols are available with the market leading control systems such as:









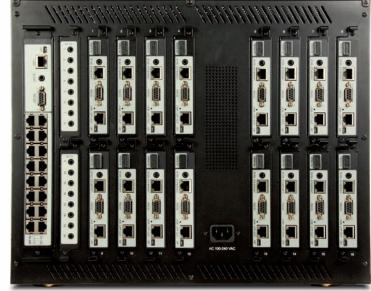








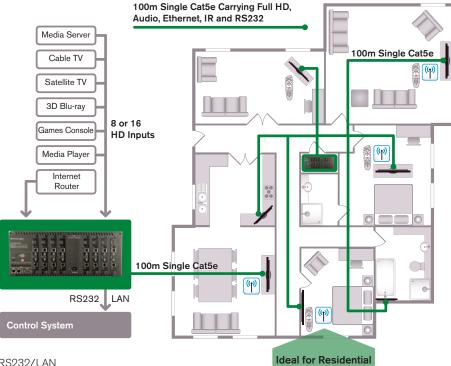




Rear view 16/16 Output Full HD Matrix Switch

and Commercial

applications



Please note: Some supplied drivers use open source RS232/LAN coding and are not always a part of an official integration programme.



WyreStorm HDBaseT Matrix Products







8 / 8 Output **Full HD Matrix Switch**

Dimensions (WxHxD):

440mm x 140mm x 280mm / 17.3" x 5.5 x 11.02"

Weight: 3.4kgs / 7.5lbs

Power Consumption: 35 Watts max

Pack space Required: 4U

Part Number MX0808-HDBT





8 / 16 Output **Full HD Matrix Switch**

Dimensions: (WxHxD):

440mm x 350mm x 390mm / 17.3" x 13.8 x 15.35"

Weight: 18kgs / 39.7lbs

Power Consumption: 60 Watts max

Pack space Required: 9U

Part Number MX0816-HDBT





16 / 16 Output **Full HD Matrix Switch**

Dimensions (WxHxD):

440mm x 350mm x 390mm / 17.3" x 13.8 x 15.35"

Weight: 20kgs / 44lbs

Power Consumption: 60 Watts max

Pack space Required: 9U

Part Number MX-1616-HDBT

HDBaseT - Supported by the HDBaseT Alliance, is a consumer electronic connectivity technology for long distance transmission of uncompressed high definition video, audio, 100BaseT Ethernet, control via IR and RS232 and eventually power, all via 100m Cat5e/6/7 cable and RJ45 connectors.

The HDBaseT Alliance was Incorporated June 14th 2010 by founder members Samsung Electronics, LG Electronics, Sony Pictures and development company Valens. WyreStorm Technology were one of the first Alliance Members to sign up and develop product.

Full HD Uncompressed Video: CE devices must be able to send uncompressed 1080P, 60Hz, 48bits/pixel digital video that is characterized with high throughput over long distance using a single cable that is cheap, easy to install, reliable and standardized. Uncompressed content is important because it supports all video sources, including legacy products, accurately renders gaming graphics and features such as Electronic Program Guides, and does not degrade video quality or add latency.

Audio: Audio is an essential part of every CE device.

100BaseT Ethernet: Across the CE industry, leading players are revamping audio and video equipment for a future centred around the Internet. This is critical for enabling a world in which televisions, stereos, computers and other CE devices can communicate with each other and access all sorts of multimedia content, such as video, pictures and music stored around the house.

Various Control Signals: At the centre of every multimedia distribution system, from basic point-to-point connectivity to a multisource/display system, is the ability to send control signals. Different types of control signals have different purposes, starting from CEC that operates basic functionality such as power-on, power-off and play/stop with a press of a button, to RS232/USB and IR that operate remote equipment even when it is located in a different room. Two way IR supported for distance control of in-room devices.

WyreStorm HDBaseT Receivers





Features:

- Cat5e/6/7 to HD, RS232, IR and Ethernet out
- Wide band IR receivers and power supply included
- For use with any of the HDBaseT Matrix switchers
- Typical cable runs up to 100m

Dimensions (WxHxD): 152mm x 31mm x 105mm / 5.98" x 1.22 x 4.13" **Weight:** 0.88kgs / 1.94lbs

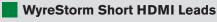
Part Number RX-100IR-HDBT



NEW In-wall HDBaseT Single Cat5e/6/7 **Display Receiver**

- Cat5e/6/7 to HD, RS232, IR and Ethernet out
- Dual American electrical box standard
- · Both inner and outer power connectors provided
- For use with any of the HDBaseT Matrix switchers
- Typical cable runs up to 100m

Part Number RX-100IR-HDBT-IW



Perfect for connection between HD display and RX receivers includes free right angled adaptor

Part Number RX-CBL-HDMI



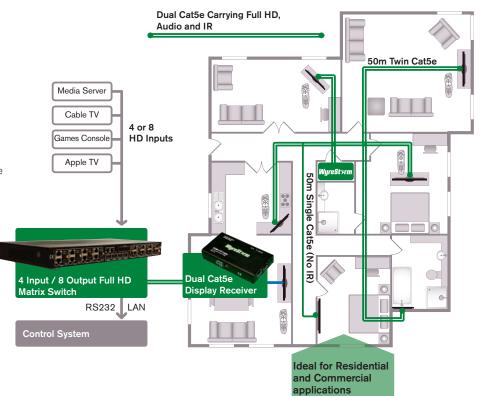


WyreStorm Pro Matrix Switchers

The Pro Matrix range provide distribution of uncompressed Full HD video and non-HD AV source equipment over long distances using Cat5e/6/7 cabling. With refined switching and handling of HDCP and EDID, multiple devices can be independently switched and controlled in multiple locations. Discreet infrared control, RS232 and LAN connections can be made for third party control from the market leading control systems. Ideal for both residential and commercial projects alike, each Pro Matrix also features simultaneous HDMI outputs for potential system expansion, or integration into alternative extender sets such as the coax and fibre options.

Features

- · Each output features integrated RJ45s for both single or dual cable modes with additional fully functioning duplicate standard 19pin HDMI
- · Refined for Custom Install and Home Theatre Installations
- Constant HDCP prevents screen drop-outs
- Totally discrete IR source control allowing easy install of duplicate HD sources
- Single or dual Cat5e/6/7 support (single cable without IR control)
- Full range of analogue input converters available
- 1080p up to 50m range using Cat5e/6/7 (including 3D applications)
- · Longer ranges available with in-line repeater device
- Supports 24bit colour depth (36bit with HDBaseT Extenders)
- HDCP Compliant, EDID management
- Control via front panel IR, remote IR, RS232, RS485 and LAN
- Accessories include: 19" rack ears, IR receiver, IR emitters and matrix remote control
- · 6.75Gbps bandwidth output capacity
- Each output can be split



RS232 AND IP integration protocols are available with the market leading control systems such as:

















Please note: Some supplied drivers use open source RS232/LAN coding and are not always a part of an official integration programme.



4 Input / 2 Output Full HD Matrix Switch

Dimensions (WxHxD):

440mm x 42mm x 202mm / 17.3" x 1.7" x 7.9"

Weight: 2kgs 4.4lbs

Power Consumption: 10 Watts max Pack space Required: 1U

Part Number MX0402-PRO



4 Input / 4 Output Full HD Matrix Switch

Dimensions (WxHxD):

440mm x 42mm x 202mm / 17.3" x 1.7" x 7.9"

Weight: 2kgs 4.4lbs

Power Consumption: 12 Watts max

Pack space Required: 1U

Part Number MX0404-PR0





4 Input / 8 Output Full HD Matrix Switch

Dimensions (WxHxD):

440mm x 42mm x 202mm / 17.3" x 1.7" x 7.9"

Weight: 2kgs 4.4lbs

Power Consumption: 30 Watts Max Pack space Required: 1U

Part Number MX-0408-PRO







8 Input / 8 Output Full HD Matrix Switch

Additional Features

• Open source RS232 drivers available for third party products

Dimensions (WxHxD): 440mm x 140mm x 280mm / 17.3" x 5.5 x 11.02"

Weight: 3.4kgs

Power Consumption: 35 Watts Max

Pack space Required: 4U

Part Number MX-0808-PRO

WyreStorm Receivers

Complimentary to the Pro Matrix products, the display receivers are typically mounted behind the screen.



Single Cat5e/6/7 **Display Receiver**

Features:

- Single Cat5e/6/7 display receiver
- Cat5e/6/7 to HD (no IR support)
- Power supply included
- For use with all Pro Matrix
- Typical cable runs up to 50m

Dimensions (WxHxD):

60mm x 23mm x 115mm / 2.3" x 0.9" x 4.5"

Part Number RX-50-PRO



Dual Cat5e/6/7 Display Receiver

Features:

- Cat5e/6/7 to HD, Wide Band IR receiver
- Power supply and IR receiver supplied
- For use with all Pro Matrix and Cat5e/6/7 splitters
- Typical cable runs up to 50m

Dimensions (WxHxD):

60mm x 23mm x 115mm / 2.3" x 0.9" x 4.5"

Part Number RX-50IR-PRO



NEW In-wall Dual Cat5e/6/7 Display Receiver

Features:

- Cat5e/6/7 to HD, IR receiver
- Single (US style) electrical box standard
- Modular design
- · Using dual Cat5e cable to transmit HDMI signal
- Both inner and outer power connectors provided
- Typical cable runs up to 50m

Part Number RX-50IR-PRO-IW

USB to 5V Cable Available

Developed to enable powering of receivers via TV USB output. Ideal for flat panel TV installations where space is at a premium.



Cannot be used with HDBaseT models





Cat5e/6 HD Distribution Solutions

FAQs

Cat 5e or 6?

While our equipment is tested and graded to Cat 5e cable standard; tests have shown that better results are achieved when using Cat6 cable. The lower gauge, thicker copper cores ensure better signal transfer. Newly installed cabling should always conform to Part P Regulation and BS 7671 (17th Edition), and should be terminated to 568B standard.

Can I use a single Cat 5e cable?

Although conventional transmission is considered to be two Cat 5e cables, it is possible to send the signal down a single cable if necessary. All of our pro-matrix switches and UTP splitters support single UTP mode, however in this mode IR control of sources and matrix switching is not possible. However using HDBaseT transmission; all of the twin cable features are supported with the added benefit of Ethernet and RS232 control.

How far can the signal travel?

Under perfect transmission conditions our HD receivers will operate at 30, 50 or 100m (@1080p) depending on the model used. Perfect conditions mean no electrical interference, straight cable runs with no bends or kinks and no patch panels or wall outlets. If some of the above are factors in your installation then signal strength and bandwidth can be compromised. If a cable run is reaching the upper limit of the receivers' capabilities, then the signal can be boosted by way of an extender set (Rx-TX) or by simply using an in-line repeater. Our transmission signals can be repeated up to 5 times (250m) using a conventional TMDS signal or 7 times (700m) using HDBaseT technology.

What about 3D?

All of our matrix switches and most of our extender products will pass-through a 3D Blu-ray signal. The 30m and Coax extender sets do not support frame sequential 3D (Blu-ray), but will still pass-through interlaced stereo-scopic 3D (Satellite etc.)

How do I control the sources?

Most of our HDMI distribution products support some kind of IR pass-through from point-to-point extender sets to pro and HDBaseT matrices. Most of the range now supports wideband IR meaning it is compatible with any IR device available on the market. Our Pro and HDBaseT matrix range (Cat 5e) has IR pass-through from each of the outputs and has discrete IR outputs at the switch end, meaning you can have multiple identical sources yet the IR would be routed only to the applicable source.

Do I need power at the TV end?

Yes. Our HD display adaptors require a 5v power supply at the TV end to operate. It's important that these are powered locally and do not receive remote power from the rack as there can be issues resulting from voltage drop along the length of cable. Our new USB power cables overcome the problem of having a second mains outlet behind the TV. These useful leads draw the 5v from the USB socket on the TV to power the receiver, this also means that the receiver is only powered when the TV is on making the system more environmentally friendly.

Why do I need to use 2 cables?

Using our conventional pro (TMDS) transmission method the Video & Audio is sent along cable #2, IR and HDCP data is sent along cable #1. Using our HDBaseT technology it's possible to send Audio (up to DTS Master), Video (up to 4k), Ethernet (10/100), and control (RS232 & 2-way IR) down a single Cat 5e cable.

Is your equipment compatible with HDMI 1.4?

HDMI 1.4 refers to a list of "features" that a device is capable of supporting. These features include Ethernet channel, return audio channel, 3D etc. HDMI distribution equipment has no need to be fully 1.4 compliant but instead supports all of the relevant features such as 3D etc.

What happens about screens with different resolution capabilities?

When sending a signal point to point a TV will communicate it's capabilities to the source, then the source will output a suitable signal that compatible (i.e. 1080p Stereo audio). If you were to use a matrix switch with three 1080p screens and one 1080i screen, the resultant image would be 1080i across all screens. The matrix switches do not scale per output but instead negotiate with the source a signal that all screens are capable of supporting.

How does the Matrix cope with HDCP?

HDCP (High Definition Copyright Protection) is a feature built in to HDMI devices to prevent theft of or illegal distribution of HD content. Unlike competing products, WyreStorm matrix switches are legal and comply with HDCP regulations. They do this by assigning a "key" to every display connected to the switch. HDCP "keys" are assigned to a display when connected to a HDMI device normally. This doesn't change when connected to a switch; it just assigns more of them.

I can get 1080i but not 1080p at a TV location

Firstly ensure that both the source is outputting 1080p and that the TV is Full HD 1080p screen. If this is the case then the receiver Cat 5e or Coax may need setting up for long cable mode using the DIP switches. This useful feature uses an alternative Equalisation method to re-sync the signal over longer distances.

I cannot get a signal out from my A/V receiver along a Cat 5e extender set

Check to ensure that the
A/V Receiver isn't adding
CEC (HDMI Control Protocol)
to the outgoing signal,
this can sometimes
have an effect on the
HDMI signal.

EDID

Extended Display

HDMI

High Definition Multimedia Interface

HDCP

High Bandwidth
Digital Content
Protection

TMDS

Transition Minimized Differential Signaling

Cat 5e

Category 5 enhanced

RS232

Recommended Standard 232 control protocol

DTS

Digital Theatre System

THX

Derived from Tomlinson Holman's eXperiment and George Lucas' first movie in 1971: THX-1138

1080i/p

1080 horizontal lines scanned in i (interlaced) or p (progressive) format

DIP (DIP switch)

Dual in-line package

CEC

Consumer electronics
Control

DVI

Digital Video Interface

SDI

Serial Digital Interface

DDC

Display Data Channel (Referring to Pins 17 & 18 in a HDMI plug that handle EDID & CEC)

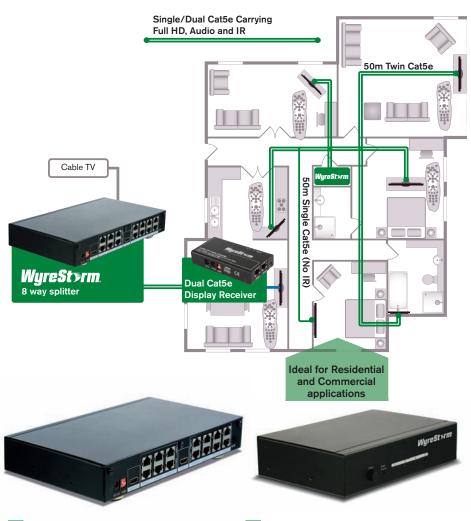
UTP

Unshielded Twisted Pair



WyreStorm 4 and 8 Way Cat5e/6/7 Splitters

These cost effective splitters are ideal for small commercial and multi-dwelling installations. The SP-UTP-0104 and SP-UTP-0108 offer single HD source distribution, providing uncompressed true HD distribution over long distances using Cat5e/6/7 cabling, with the ability to control the source from display locations.



NEW 1 Input / 8 Outputs

- · Single HD input
- Seven integrated dual Cat5e/6/7outputs for connection to your specified display adaptor
- One standard HDMI Output for local display
- IR emitter input for source control from display location
- · EDID management
- Transmission typically 50m using well installed Cat5e/6/7cable

Dimensions (WxHxD):

268mm x 43mm x 153mm / 10.5" x 1.7" x 6"

Weight: 1.0kgs

Power Consumption: 15 Watts

Part Number SP-UTP0108

NEW 1 Input / 4 Outputs

- Single HD input
- Four integrated dual Cat5e/6/7 outputs for connection to your specified display adaptor
- IR emitter input for source control from display location
- EDID management
- Transmission typically 50m using well installed Cat5e/6/7 cable

Dimensions (WxHxD):

175mm x 40mm x 115mm / 6.9" x 1.6" x 4.5"

Weight: 0.4kgs

Power Consumption: 8 Watts

Part Number SP-UTP0104

WyreStorm Receivers



Dual Cat5e/6/7 **Display Receiver**

Features:

- Cat5e/6/7 to HD, Wide Band IR receiver
- Power supply and IR receiver supplied
- For use with all Pro Matrix and Cat5e/6/7 splitters
- Typical cable runs up to 50m

Dimensions (WxHxD):

60mm x 23mm x 115mm / 2.3" x 0.9" x 4.5"

Part Number RX-50IR-PRO



NEW In-wall Dual Cat5e/6/7 Display Receiver

Features:

- Cat5e/6/7 to HD, Wide Band IR receiver
- North American wall plate standard
- Modular design
- · Using dual UTP net cable to transmit HDMI signal
- Both inner and outer power connectors provided
- Typical cable runs up to 50m

Part Number RX-50IR-PRO-IW

USB to 5V Cable Available

Developed to enable powering of receivers via TV USB output. Ideal for flat panel TV installations where space is at a premium.

Part Number CAB-USB-5V

Cannot be used with HDBaseT models



WyreStorm Transmitters

The TX-50-PRO and TX-100-HDBT are ideal compliments to installations of in-wall dual Cat5e/6/7 and HDBaseT receivers where a Matrix may not be required.



NEW TX-50-Pro

Features:

- Up to 50m transmission to in-wall receiver
- IR source control pass through.
- 1080p support
- 3D applications
- 24bit colour depth
- · Mounting brackets supplied
- IR emitter and power supply included

Dimensions (WxHxD) each:

60mm x 23mm x 115mm / 2.3" x 0.9" x 4.5"

Part Number TX-50-Pro



SHDBI

NEW TX-100-HDBT

Features:

- Up to 100m single cable transmission
- Supports up to 48bit colour depth
- 1080P/4K resolution capability (4 times standard HD)
- Delivers uncompressed 7.1 channel digital audio (preserved over the cat5e/6/7 cable transmission).
- DTS-HD Master Audio and Dolby True HD audio pass through
- Full 3D Support
- 10/100 Ethernet in addition to HD/Audio/ video and control.
- IR emitters and power supply included
- · Supports all Vesa formats for mounting.
- Supports refresh rates 24Hz, 30Hz, 50Hz,

Dimensions (WxHxD) each:

152mm x 31mm x 105mm / 5.9" x 1.2" x 4.1"

Part Number TX-100-HDBT

WyreStorm Point to Point Extender Sets

The perfect solution for simple point to point HD distribution, these extender sets offer excellent flexibility in distribution, control and cable lengths. The new HDBaseT (EX-1UTP-IR-100) enables full, high spec HD Distribution, control and Ethernet pass through. The HD over Coax (EX-1COAX-IR-75) and the new HD over Fibre (EX-1FIB-5000) solutions are capable of delivering high specification HD distribution on runs of up to 5 Kilometers (over 3 miles).



NEW 30m IR Dual Cat5e/6/7 **Extender Set**

Features:

- Up to 30m without repeater
- IR Source Control from display
- 1080p support
- 3D applications
- 24bit colour depth
- · Mounting brackets supplied
- IR receiver, emitter and power supply included

Dimensions (WxHxD) each:

46mm x 23mm x 83mm / 1.8" x 0.9" x 3.2"

Part Number EX-2UTP-IR-30



Dual Cat5e/6/7 Point to Point HD Extenders

Features:

- Up to 50m without repeater
- IR source control from display
- 1080p support
- 3D applications
- 24bit colour depth
- · Mounting brackets supplied
- IR receiver, emitter and power supply included
- · Bi-directional IR capability (only when used as part of Extender set)

Dimensions (WxHxD) each:

60mm x 23mm x 115mm / 1.8" x 0.9" x 3.3"

Part Number EX-2UTP-IR-50



Single Cat5e/6/7 **Point to Point HD Extenders**

- Point to Point HD Extenders
- Up to 50m using Cat5e/6/7
- 1080p support
- 3D applications
- 24bit colour depth
- · Mounting brackets supplied
- Power supplies included

Dimensions (WxHxD) each:

60mm x 23mm x 115mm / 2.3" x 0.9" x 4.5"

Part Number EX-1UTP-50



NEW Dual UTP DVI (Dual Link) Extender

- · One pair as a full functional module, no setting up required
- Use UTP LAN cable Cat5e/6/7 to substitute DVI (Dual Link) cable to achieve long distance transmission
- Transmission distance reaches up to 30 meters under the video format of 2560*1600/60fps
- · Auto-adjustment of feedback, equalisation and amplification, the user does not need to worry about the length of the cable
- · Suitable for professional high definition display
- HDCP compliant
- LED indicators to show the power and video signal status
- · Mounting ears supplied

Dimensions (WxHxD) each:

46mm x 23mm x 83mm / 1.8" x 0.9" x 3.2"

Part Number EX-2DVI-30



WyreStorm Point to Point Extender Sets



Single Coax **60m Transmission**

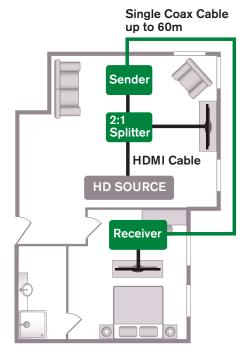
Features:

- 60m single coax transmission (750hm)
- 720p/1080i/1080p resolution
- IR source control via IR receiver (2 Way)
- IR accessories and power supplies included
- Lockable BNC connections

Dimensions (WxHxD) each:

152mm x 31mm x 105mm / 5.9" x 1.2" x 4.1"

Part Number EX-1COAX-IR-75





NEW HD over Fibre

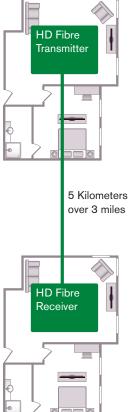
Features:

- · Capable of delivery high spec HD distribution on runs of up to 5Km
- Auto-adjustment of feedback, equalization and amplification.
- HDCP compliant.
- Full HD support: 1080p@60Hz.
- Mounting ears supplied.

Dimensions (WxHxD) each:

152mm x 31mm x 105mm / 5.9" x 1.2" x 4.1"

Part Number EX-1FIB-5000





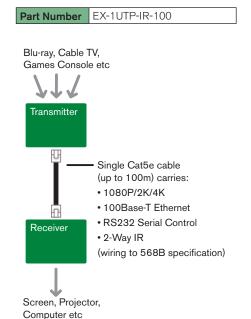
HDBaseT Extender Set

Features:

- Up to 100 single cable transmission - Cat5e/6/7 cable
- Supports up to 48bit colour depth
- Wide Band IR receivers
- 1080P/4K resolution capability (4 times standard HD)
- Delivers uncompressed 7.1 channel digital audio (preserved over the Cat5e/6/7 cable transmission)
- DTS-HD Master Audio and Dolby True HD Audio pass through
- Full 3D support
- Two-way IR control
- RS232 Control
- 10/100 Ethernet in addition to HD/Audio/ Video and Control).
- · IR receivers and emitters included.
- · Supports all Vesa formats for mounting.
- Supports refresh rates: 24Hz, 30Hz, 50Hz, 60Hz

Dimensions (WxHxD) each:

152mm x 31mm x 105mm / 5.9" x 1.2" x 4.1"





WyreStorm HD Switchers and Scalers

With retrofit installations, customer requirements for multiple devices to connect via single HDMI outputs can be complex and difficult to manage, with different formats and connections to be catered for. The WyreStorm Switchers and Scalers provide the perfect "Get out of iail" solutions.



3:1 Switcher and Scaler

Features:

- Compact size
- Auto-switching
- · Manual selection button
- Signaling rates up to 2.25Gbits in support of 1080P display
- · Super receiver equalisation to compensate up to 20m HDMI cable losses
- 3dB driver pre-emphasis to compensate for PCB losses
- Each port supports HDMI or DVI inputs
- HDCP compliant

Dimensions (WxHxD) each:

62mm x 19mm x 62mm / 2.4" x 0.7" x 2.4"

Part Number SW-0301



5:1 Switcher and Scaler

Features

- HDMI 1.3b and HDCP compliant
- Plug and Play, no software required
- Transfer high definition video and digital audio via one HDMI cable
- · Signal transmission rate up to 2.25 Gbps
- HDMI resolution up to 1080P and UXVGA resolution up to 1920 x 1200
- Input discrete IR codes
- Supports full HD 1080p and 1080p/24Hz

Dimensions (WxHxD) each:

162mm x 19mm x 69mm / 6.4" x .75" x 2.7"

Part Number SW-0501



8:1 Switcher and Scaler

Features

- 8 inputs to 1 HDMI output
- 2 x Component, 3 x HDMI, 2 x Composite and 1 x VGA.
- Will de-interlace incoming analogue interlaced signals to progressive
- · Manual switching or via IR receiver eye (remote supplied)
- Suitable for 3D applications
- · Mounting ears supplied

Dimensions (WxHxD) each:

196mm x 70mm x 35mm / 7.7" x 2.7" x 1.4"

Part Number SW-0801



11:2 Switcher and Scaler

Features:

- MS1102-01A supports 1 x VGA source, 1 x S-Video source, 2 x AV sources, 2 x YPBPR sources with analog audio, 4 x HDMI sources and 1 x DVI-I source with analog audio and digital audio by optical
- Digital audio has the priority (if both of the analog and digital audio are connected)
- The analog audio from the input is digitised and outputted to the HDMI connection as well as the digital audio outs
- The HDMI outputs also have separate analog audio output. One of the HDMI input supports audio 5.1
- Allows display to view any source at anytime.
- Supports bypass function under VGA and DVI-I port
- One of the four HDMI inputs support 5.1 channel surround
- DVI-I support both analog and digital input with L/R and optical
- Detached audio output by L/R and optical.
- Delivers uncompressed digital video with zero
- Support high definition resolutions 1080p, 1080i, 720p and standard video format
- Scales to 720p or 1080p
- Can by-pass scaling and output as source
- 10-bit triple-ADC for RGB/YPBPR
- · Double switching modes, IR remote and manual
- Remote controls function with RS232

Part Number SW-1102

WyreStorm HD Format Converters

Providing a solution to integrate older Analogue AV sources into today's newer screens, or feed into Matrix systems.

- High performance analogue to digital HDMI converters
- Upscaling standard definition formats to single cable HD Video and Audio at 720p
- HDCP compliant
- · Compact design



Above: HDMI to DVI Converter

Can be used with a Matrix to integrate into a multi-room audio system

RGB/Composite SCART with Stereo Audio to HDMI (720p)

EU product only

Part Number | CON-SCT-HD

Component YUV with Stereo Audio to HDMI (720p)

Part Number | CON-YUV-HD/US

VGA with Stereo Audio to HDMI (720p) With VGA pass through

Part Number | CON-HD-DVI/US

Composite with Stereo Audio to HDMI (720p)

Part Number CON-CBS-HD

HDMI to DVI with Stereo Audio Breakout

Part Number | CON-HD-DVI/US

HDMI to Composite Converter with Audio Breakout

Part Number | CON-HD-CBS





A low cost stripped down full HD Matrix Switcher providing a perfect solution for Retail AV, Commercial and Hospitality installations.

Features

- 2 or 4 output models via standard HDMI outs
- · 4 HDMI inputs with EDID management feature
- 6.75Gbps output bandwidth
- 1080p compatible
- · Control via front panel IR, manual switching or display location (dedicated IR lead required)
- · Remote control, IR accessories and mounting brackets supplied
- HDCP compliant
- Source control via dedicated cable (not discreet)



4 Input / 2 Output

Dimensions (WxHxD):

204mm x 29mm x 95mm / 8.0" x 1.1" x 3.7"

Weight: 45kgs 1lbs

Power Consumption: 10 Watts Max

Part Number MX-0402-STD

4 Input / 4 Output

Dimensions (WxHxD) each:

290mm x 26mm x 100mm / 11.4" x 1.0" x 3.9"

Part Number MX-0404-STD



Rack-mounted 4x4 HDMI with RS232

Features

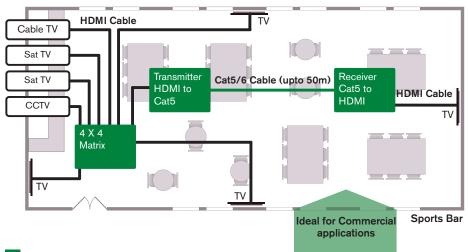
- 4 HDMI inputs with EDID management feature
- 4 HDMI outputs
- Multiple control methods IR on front and rear, IR via UTP Sync, RS232 (using extender sets)
- Constant HDCP
- Key locking to avoid accidental operation
- · Special fixing nuts for HDMI cable
- 19" standard, 1U size.
- Supplied with 19" rack ears
- IR accessories, source remote and power supplies provided

Dimensions (WxHxD) each:

442mm x 44.5mm x 203mm / 17.4" x 1.75" x 8"

Weight: 2Kgs/4.4lbs

Part Number MX0404-STD-RS232



WyreStorm Extender

Provides the ability to extend cable lengths by up to 50m. With UTP through put together with HDMI break out, the RP-2UTP-50IR is a highly flexible product for commercial applications with daisy chain wiring.



In-Line Dual Cable Repeater

Features:

- · Increasing transmission and IR control
- 5V power supply included
- · For use with all Pro Matrix, splitters and extenders

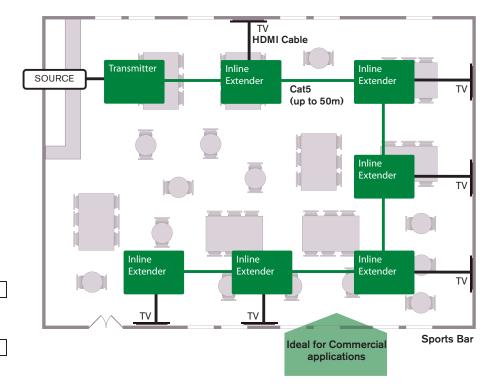
Dimensions (WxHxD) each:

60mm x 23mm x 115mm / 2.3" x 0.9" x 4.5"

Part Number RP-2UTP-50IR Single UTP version

(does not support IR Source Control)

Part Number RP-1UTP-50IR





WyreStorm Standard HD Splitter Range

Professional grade single and dual input splitters perfect for Retail AV, Commercial and Hospitality installation. Providing distribution of HD input to many duplicate displays. Given the fact our R&D team work on all of the products across the range, it is possible to mix and match HD Splitters with extender sets to cover large screen installations.

Features

- · Professional grade
- Full 1080p support
- HDCP compliant
- · Range of models to suit install
- Can be cascaded to make large distribution system
- Compact design with mounting brackets supplied.

1 Input / 2 Output

Dimensions (WxHxD):

88m x 28mm x 68mm / 3.4" x 1.1" x 2.7"

Part Number SP-0102

1 Input / 4 Output

Dimensions (WxHxD):

175mm x 24mm x 113mm / 6.9" x 0.9" x 4.4"

Part Number SP-0104

1 Input / 8 Output

Dimensions (WxHxD):

234 x 31 x 130mm / 9.2" x 1.2" x 5.1"

Part Number SP-0108

1 Input / 12 Output

Dimensions (WxHxD):

322mm x 31mm x 160mm / 12.7" x 1.2" x 6.3"

Part Number SP-0112

2 Input / 8 Output

Features

· Manual or IR switching control

Dimensions (WxHxD):

450mm x 92mm x 231mm / 17.7" x 3.6" x 9"

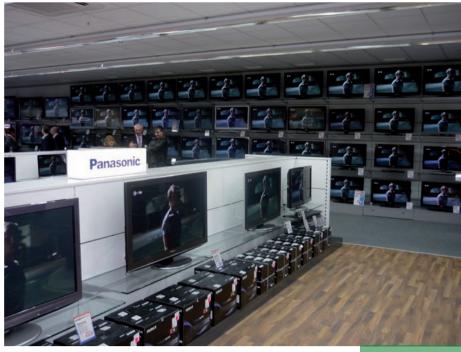
Part Number SP-0208



Some PC based signage applications may require scaling to traditional screen ratio's. Consider using SW-1102 for this requirement.

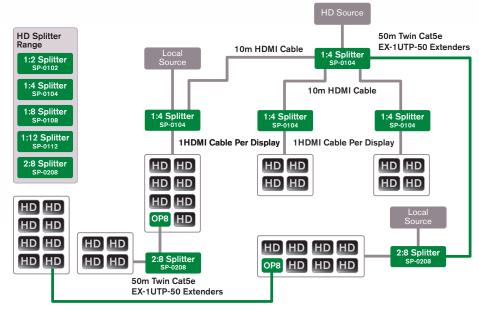
11:2 Switcher and Scaler

Part Number SW-1102



Ideal for Retail AV, Commercial and Hospitality applications







WyreStorm HD Test Equipment

The WyreStorm test range has been developed to assist commercial and residential integrators with the ability to diagnose AV systems and digital connectivity on installations. A particularly useful tool for assessing existing cabling prior to installation.



TEST MONITOR

The 7" Test Monitor was designed to provide digital audio and video feedback on signal outputs in real time. With the ability to replicate EDID information from any display, the TTMONITOR will recognize any HDMI or DVI sources up to 1080p or 1920x1200 and provide a readout of display output.

Dimensions (WxHxD) each:

177mm x 114mm x 30mm x 7" ×4.5" ×1.2"

Part Number TTMONITOR



SIGNAL GENERATOR

Capable of sending high resolution 2D test patterns the Signal Pattern generator provides EDID on screen readout via the Display Data Channel (DDC). Ideal for pinpointing any issues of interoperability via sources, switches, matrices etc.

Features

- 32 preset patterns
- 16 preset resolutions, 7 user-defined resolutions and 1 auto resolution
- · Support change audio sample frequency and audio sample data resolution.
- Support change output signal type (HDMI /
- Support change output signal HDCP function
- · Support change output signal colour space and deep colour

Dimensions (WxHxD) each:

177mm x 114mm x 30mm x 7" ×4.5" ×1.2"

Part Number TTSIGNAL



CAT6 TEST CABLES

This pre-terminated 30m Cat6 UTP cable has been tested and approved for use with the WyreStorm pattern generator and 7" test monitor to assist integrators with simple testing of extenders and receivers the internal wiring as part of trouble shooting and site surveys.

Part Number TTCAT6-30

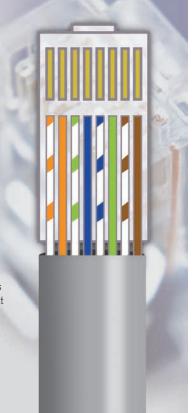
Hints & Tips

for HD over Cat5e/6/7

When using the HD Extender Sets, please consider the following hints and tips to ensure the highest quality Video distribution and control:

- The WyreStorm range conforms to TIA 568B wiring standards.
- Keep the cables as far away as possible from potential sources of EMI (Electrical cables, transformers, light fixtures etc). Cables should have at least 12" separation from power cables.
- Our products are specified to perform on either Cat5e UTP, however we recommend for best performance, cabling with cat6.
- Make only gradual bends in the cable where necessary to maintain minimum bend radius. Don't forget, with 1080P signals, the cable will be passing up to 10.2Gb/s so cable tolerance is essential.
- Always ensure that external receivers are fixed using the fitting brackets provided. Particularly important when mounting around adjustable brackets.

- Dress the cables using low to moderate pressure to ensure smooth signal transmission.
- Always label cable runs to ensure ease of maintenance in trouble shooting.
- Leave extra slack behind walls to ensure cables are not taught.
- When working with existing wiring in a property, look to use extender sets together with the WyreStorm test equipment to ensure you can achieve full signal transmission to each location.
- 10) If testing with extenders shows up IR control our screen resolution issues with standard transmitters and receivers, look to try the HDBaseT models that have extra distance capability and built in filtering against EMI and access all sorts of multimedia content, such as video, pictures and music stored around the house.









COMING SOON

ScreenTech In-Wall Waterproof Televisions

All ScreenTech televisions are built to the latest regulations in safety and waterproofing and are designed to integrate into a bathroom or any other room where moisture is an issue, such as kitchens, swimming pools, spas, saunas and garden environments. All models feature heated screen areas to prevent display misting in humid conditions and come with master and waterproof/floatable remote controls. ScreenTech have one of the largest ranges of waterproof, flush in-wall televisions on the market, with all models containing RS232 interfaces for connection to home automation systems. They also include a wide range of inputs and features specifically designed for the custom install market, helping to create the ultimate wow factor for hotel rooms and any new build development. All their televisions are of the highest quality with either HD Ready or Full HD screens combined with full 178 x 178 viewing angles.

Features

- WyreStorm Matrix integration
- Full HD or HD Ready*
- Widescreen (16:9) *
- Full 178 x 178 viewing angles
- RS232 Control
 - * depending on model



Perfect for use with a matrix installation



NEW ScreenTech In-Wall Waterproof Televisions





Available in:

White, Mirror or Black Part Number WS19HDI-WH (White) WS19HDI-MI (Mirror)

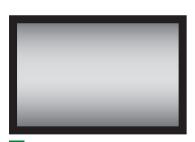
WS19HDI-BL (Black)



ScreenTech 19" ScreenTech 26"

Available in: White, Mirror or Black

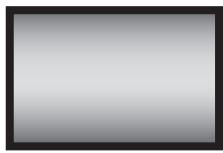
Part Number WS26HDI-WH (White) WS26HDI-MI (Mirror) WS26HDI-BL (Black)



ScreenTech 32"

Available in: White, Mirror or Black

Part Number WS32HDI-WH (White) WS32HDI-MI (Mirror) WS32HDI-BL (Black)



ScreenTech 40"

Available in: Mirror only

Part Number WS40HDI-MI (Mirror)

Features

	ScreenTech 19"	ScreenTech 26"	ScreenTech 32"	ScreenTech 40"					
Screen Size	18.5"	26"	31.5"	40"					
Overall size (Hmm X Wmm)	371 x 516	492 x 722	571 x 854	692 x 1049					
Cut-Out Size (Hmm X Wmm)	362 x 507	483 x 713	562 x 845	683 x 1040					
Depth	90	115	120	120					
Active Area	410 x 230	576 x 324	698 x 392	885 x 498					
Aspect Ratio	16:09:00	16:09:00	16:09:00	16:09:00					
Viewing Angle U/D	89° x 89°	88° x 88°	89° x 89°	89° x 89°					
Viewing Angle Left/Right	89° x 89°	88° x 88°	89° x 89°	89° x 89°					
Brightness	500 Cd/m2	500 Cd/m2	500 Cd/m2	450 Cd/m2					
Contrast	1000:01:00	600:01:00	1600:01:00	5000:01:00					
Back Light Life >50%	50,000 Hours	50,000 Hours	50,000 Hours	30,000 Hours					
Display Colours	8 Bit,16.7 Million	8 Bit, 16.7 Million							
Number Of Pixels	1366 x 768	1920 x 1200	1920 x 1080	1920 x 1080					
Analogue Tuner	√	√	$\sqrt{}$	√					
Digital Tuner	V	√	$\sqrt{}$	V					
Full SCART (R,G,B)	√	√	$\sqrt{}$	√					
Component Video	V	√	\checkmark	V					
HDMI	2	2	2	2					
Sky Through IR	V	√	$\sqrt{}$	√					
RS232 Control	√	√	$\sqrt{}$	√					
Hard Wired Switch Panel	Optional	Optional	Optional	Optional					
Power	24v DC			, .					
RF In	TV coax input								
HDMI for IPTV	X 1								
RGB (Y, Pb, Pr) Component	5 x phono plugs, R	, G, B, L & R (X 2)							
HDMI	HDMI (X 2)								
Audio (IN) (above Y/Pb/Pr)	Audio Input For Component Video Input								
Accessory Socket	For interfacing with WyreStorm equipment								
Vol Dep Audio out	Volume dependant low level stereo audio output								
IR in/IR out	3.5MM jacks for IR signal relay etc.								
RS232	Facility to control the screen via RS232 protocol*								
RS232	I denity to control t	110 0010011 110 110202	P. C. C. C.						



WyreStorm Serial Digital Interface Solutions



COMING SOON SD/HD/3G-SDI to HDMI Converter

Converts HD-SDI source input to HDMI output devices. When the source, display and the scaler are powered and connected, video signals are converted to the correct format.

Features:

- 10-bit resolution for greater precision and dynamic range
- Proprietary 10-bit motion adaptive video de-interlacing with edge interpolation for HD / SD formats.
- Advanced noise reduction and detail enhancement
- Maximum active image size of 2048 samples x 2048 lines PBP processing for various combinations of video and graphics with alpha blending
- Fully integrated sprite based multi-plane OSD controller.
- Frame rate conversion to / from any refresh rate
- Pattern mode w/colour bars and cross hatch patterns
- Colour correction
- Noise reduction
- Detail enhancement
- · Brightness adjustment
- Gamma selection
- · Aspect ratio select
- Custom timing output mode
- · Gen-lock on board
- Audio transfer from HD-SDI to HDMI

Power Consumption: 20 Watts

Part Number | CON-SDI-HD



COMING SOON SD/HD/3G-SDI 1-to-4 Distributor

4Port SDI Splitter allows a single SDI, HD-SDI or 3G-SDI video source to be distributed to as many as 4 Hi-Def SDI/HD-SDI/3G-SDI devices at the same time without loss of signal. Crisp, highly defined visuals are generated in NTSC or PAL formats supporting standard and high definition resolutions up to 1080p. Full HD at 60Hz.

Features

- High Resolution Digital Multiplexer (HD-SDI / HDMI Input)
- Multi-Video output: 1920x1080, 1280x1024, 1280x720, 1024x768
- Simultaneous output (HDMI, D-SUB, HD-SDI)
- · Multi language supported
- Auto system recovery

Power Consumption: 55 Watts

Part Number SP-SDI-0104



8 Port SDI Splitter allows a single SDI, HD-SDI or 3G-SDI video source to be distributed to as many as 8 Hi-Def SDI/HD-SDI/3G-SDI devices at the same time without loss of signal. Crisp, highly defined visuals are generated in NTSC or PAL formats supporting standard and high definition resolutions up to 1080p. Full HD at 60Hz.

Features:

- High Resolution Digital Multiplexer (HD-SDI Input)
- Multi-Video output1920x1080(60Hz)
- Simultaneous output (HDMI, DVI, D-SUB), Loop Out
- Multi language supported
- Auto system recovery
- Control screen mode via LAN

Power Consumption: 70 Watts

Part Number SP-SDI-0108

COMING SOON CON-HD-SDI

Converter for importing unrestricted (no HDCP) HD content from HDMI cameras and other video sources to HD-SDI devices such as HD Encoders and file servers. Audio output is available as embedded audio and via S/PDIF.

Features:

- Converts HDMI to HD-SDI in real time including embedded audio + TC
- · Compatible with cameras and decks with HDV, DV and AVCHD formats
- Supports 720/60p, 1080i/60i, 486i and 576i HDMI
- Supports YUV 4:2:2 or RGB 4:4:4 HDMI/DVI • 50Hz and 59.94/60 Hz compatible
- 900 12 and 99.947 00 112 compatib
- Output SMPTE 292M (HD)
- Supports 720p and 1080i (HD)
- Assists long-GOP i.e HDV/AVCHD Editing
- Embedded audio on HDSDI or de-embedded audio via S/PDIF audio output (RCA)

Power Consumption: 70 Watts

Part Number | CON-HD-SDI

Extending HDMI via Cat5e/6

30m, 50m, 100m solutions

The guide below helps you select the correct extender for your project. Please note that any reference to distance is a guide only the actual length achieved depends on the quality of Cat5e/6, quality of FJ45 termination, effects of EMI (Electro Magnetic Interference) and fully dependent on the amount of interconnections within the system

We always recommend the use of solid copper, Cat5e/6 installation cable. Distances can not be guaranteed when using stranded copper patching cables.



1080p	1080i

Part No	Cat5e	Distance	IR	HDBaseT
EX-2UTP-IR-30	2 Cables	30m	Yes	No
EX-1UTP-50	1 Cables	50m	No	No
EX-2UTP-IR-50	2 Cables	50m	Yes	No
EX-1UTP-IR-100	1 Cables	100m	Yes	Yes

Extending HDMI using Single Coax

٤	im	10m	15m	٦	20m 2	25m	30m	35m	40m	45m	50m	60m	70m	80m	90m	100m
Ш	R Du	al Cat5	ie/6/7	Ext	ender S	et										
E	X-10	I-XAO	R-75		1080p											
Г		l	П	П					П	П	П	П	П		П	

1080p		1080i
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Part No	Coax	Distance	IR	HDBaseT
FX-1COAX-IR-75	1 (750hm)	75M	2W IR	No

Extending DVI

5m 10m 15m 20m 25m 30m	35m	40m	45m	50m	60m	70m	80m	90m	100m
Dual UTP DVI (Dual Link) Extender			1 1	1 1				1 1	1 1
EX-2DVI-30 1080p			1 1	1 1				1 1	1 1

2K 1080P

Part No	Cat5e	Distance	IR	HDBaseT
EX-2DVI-30	2 Cables	30M	No	Yes

Extending HD over Fibre

50m 100m	200m	300m	400m	500m	600m	700m	800m	900m	1k	2k	3k	4k	5k
HD over Fibre	е												
EX-1FIB-500	0	108	0p										
	1 1				1 1		1 1	1 1	1		11	11	

1080p 1080i

Part No	Fibre	Distance	IR	HDBaseT
EX-1FIB-5000	1 Cable	5k	No	No





US Office: 6991 Appling Farms Parkway, Suite 104, Memphis, TN 38133 Tel: + 901 384 3575 Fax: + 901 384 3574

European Office: 6 Basepoint Business Centre, Rivermead Drive, Swindon, SN5 7EX, UK Tel: +44 (0) 1793 230 343 Fax: +44 (0) 1793 230 583 www.wyrestorm.com

Your local supplier is

We reserve the right to change specification or product dimensions at any time.