DIGI-HD-XR Installation Manual

The Intelix DIGI-HD-XR transmits HDMI and IR up to 300’ over one *or* two twisted pair cables (depending on installation). In environments with high electromagnetic interference (EMI), shielded twisted pair cables should be used.

Built-in HDshāk® technology provides dynamic HDMI, EDID/DDC and HDCP mode selection, guaranteeing performance and image quality.

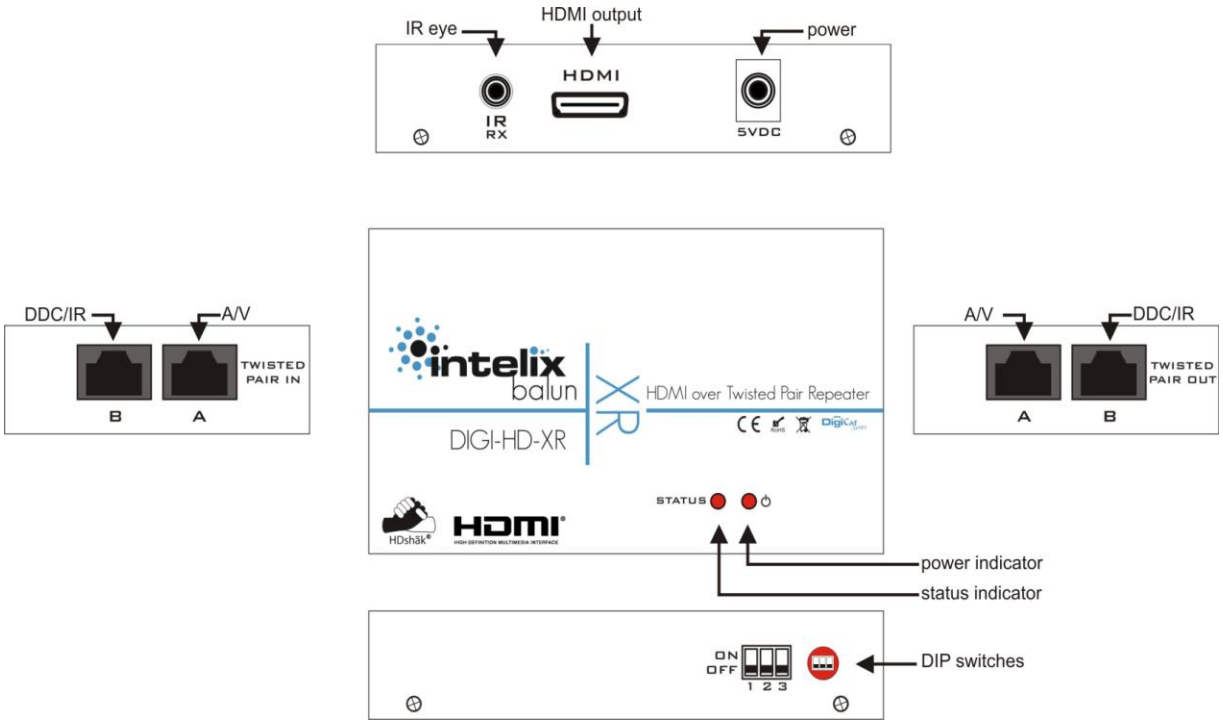
The DIGI-HD-XR features electrostatic discharge (ESD) protection circuitry which safegaurds the HDMI circuit against static electricity and other destructive stray voltage.

Maximum Recommended Distances

	1080p	1080i	720p	576i/p	480i/p
Shielded Cat 6a	150’	300’	300’	300’	300’
Cat 6	110’	220’	220’	220’	220’
Cat 5e	100’	200’	200’	200’	200’

Important notice:

- **Do not attempt to disassemble or alter the extender housing. There are no user-serviceable parts inside the unit. Doing so will void your warranty.**
- **To minimize the possibility of equipment damage from electrostatic discharge (ESD), all source and destination equipment must be powered off during installation.**
- **Do not connect the extender to a telecommunication outlet wired to unrelated equipment. Doing so may damage the unit or any connected equipment. Ensure all connected twisted pair cabling is straight-through (point-to-point).**
- **Allow proper ventilation to reduce the risk of thermal failure.**



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Instructions

1. Turn off power and disconnect the audio/video equipment by following the manufacturer's instructions.
2. Adjust DIP Switches for desired mode.
3. Connect IR Eyes to DIGI-HD-XR and compatible IR extenders. (if desired)
4. Connect IR emitters to transmitter, and apply to source.
5. Connect all twisted pair cables.
6. Connect all HDMI cables.

DIP Switch Settings

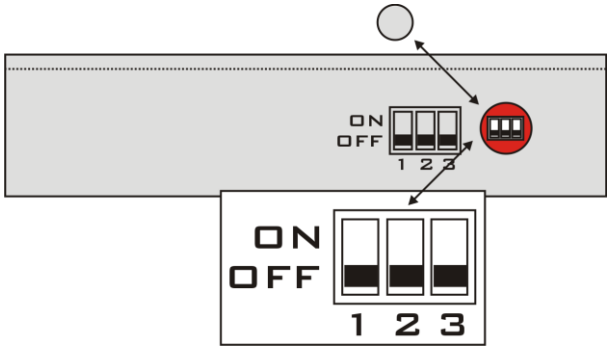
1. Dual/Single UTP mode – Use this DIP switch to select the mode compatible with the other extender products you are using.
   a. Dual mode will allow you to utilize the included IR pickup to transfer IR remote codes back to the source. Dual mode will also allow you to dynamically utilize the EDID from connected displays. You will need to attach [2] twisted pair cables between the "A/B" Twisted Pair Input and a compatible transmitter (Intelix HDMI twisted pair matrix or an IR2/3 transmitter)
   b. Single mode will eliminate the ability to use the IR pickup, and will also eliminate dynamic EDID management. You will need to attach [1] twisted pair cable between the "A" Twisted Pair Input and a compatible transmitter (HD Matrix or a UHR2 transmitter)
2. Normal/Compatibility Mode – Certain sources may create an unstable video image. This may include some cable/satellite receivers. Try this setting if you witness an image that flashes on/off approximately every 2 seconds.
3. FILO/AutoMix Mode – Use this DIP switch to control what set of EDID is presented to the source. This will determine what video resolution and audio format the source will send. Either mode are only applicable when using Single UTP mode, EDID must be emulated by the Send Extender (or Intelix HDMI twisted pair matrix) when using Single UTP mode.
   a. FILO mode transfers all EDID from *one* display to the source. This works in a First-In, Last-Out format. EDID from the attached display of the extender that is powered on first will be presented to the source. All other displays in extender chain must be compatible. Removing power from transmitter or *all* receivers will reset the memory.
   b. AutoMix mode will examine EDID information of ALL attached displays in the extender chain. The source will then be presented with an EDID table that includes the highest compatible resolution/audio. For instance, if you have a [3] 1080p TVs, and [1] TV that accepts 720p as the highest resolution, the source will transmit 720p.

DIGI-HD-XR Dip Switch Settings

DIP Switch	Position	Function
1	Off	Dual UTP Mode
	On	Single UTP Mode
2	Off	Normal Mode
	On	Compatibility Mode
3	Off	EDID FILO Mode (First In, Last Out)
	On	EDID AutoMix Mode

***The DIGI-HD-XR system must be power cycled for the changes to take effect. Please remove ALL cables from extender, change DIP switches then reconnect.**

Note: DIP switches are located under the cap on the side of the unit.



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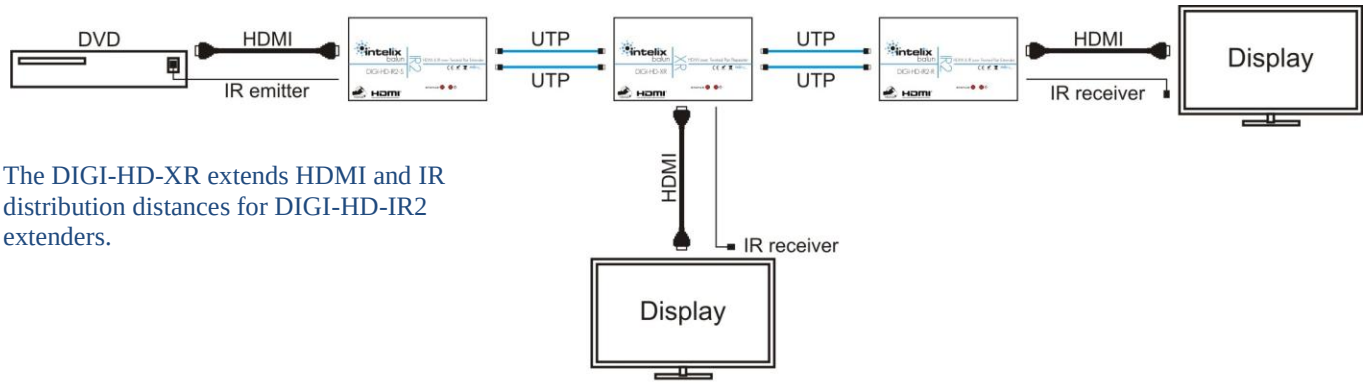
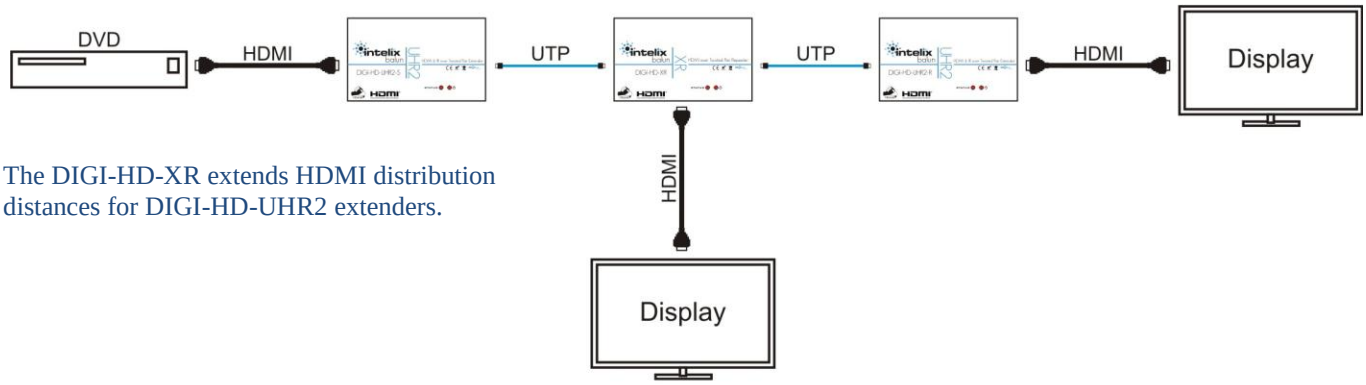
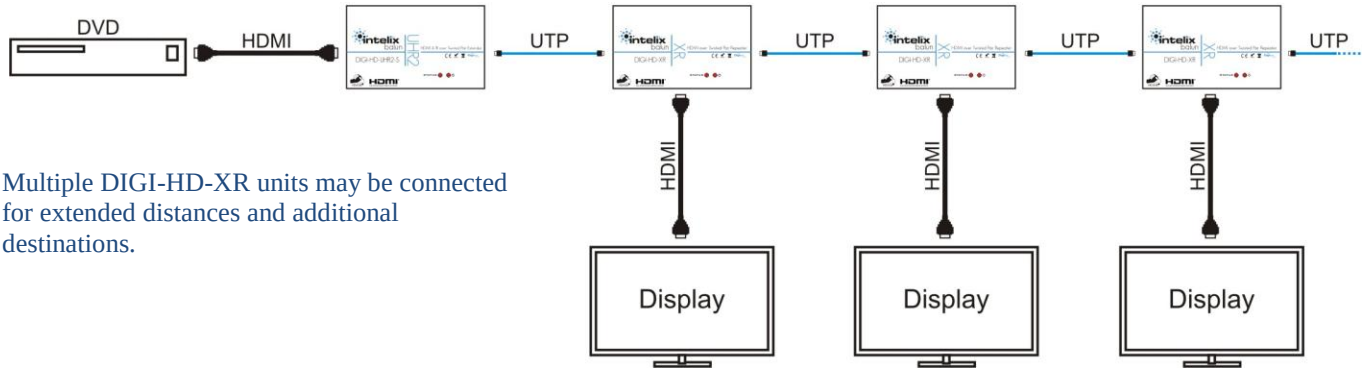
APPLICATION DIAGRAMS



The DIGI-HD-XR extends HDMI and IR distribution distances for DIGI-HD-IR2 extenders.



The DIGI-HD-XR extends HDMI distribution distances for DIGI-HD-UHR2 extenders.



Multiple DIGI-HD-XR units may be connected for extended distances and additional destinations.

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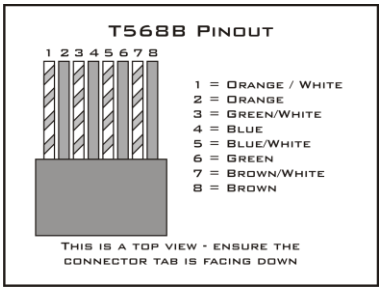
Troubleshooting

Symptom	Possible Solutions
No signal Status LED is off	Verify that both ends of the twisted pair cables use 568B crimp pattern. Swap the twisted pair cables in the A and B RJ45 inputs on the receive balun. Verify HDMI cables and source and destination HDMI ports are operational.
No signal	Verify the power supplies are connected to both the send and receive baluns. Verify the power LEDs on both the send and receive units are brightly illuminated.
Unusual colors in the video	Power off the destination device and power it back on to force renegotiation. Unplug and re-plug the HDMI cable from receive balun to force renegotiation.
No signal Screen is completely snowy Speckling in the video image Occasional signal dropouts Video without audio	Use shorter runs of twisted pair cabling. Drop the HDMI signal to the next lower resolution; i.e., decrease resolution from 1080p to 1080i, etc. Replace the twisted pair cable with a higher grade twisted pair cable; i.e., replace Cat 5e with Cat 6.
Speckling in the video image	If the destination device is incapable of displaying the video signal, alter the source signal; i.e., decrease resolution from 1080p to 1080i, etc.
Video without audio	Change source device to output PCM other than Bitstream audio. Enable PCM down sampling if supported by your source device.

The Intelix DIGI-HD-XR conforms to HDMI and HDCP specifications. Intelix does not guarantee operation with devices that do not conform to these specifications. The Intelix DIGI-HD-XR passes HDCP signals and does not manipulate them in any way.

Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches.

Twisted Pair extender cables must be crimped using the T568B standard! T568A is not supported and can cause video loss.



Technical Specifications

Maximum Distance per Linked Unit (Cat 5e)	1080p: 100' 1080i/720p: 200' 480i/480p/576i/576p: 200'
Maximum Distance per Linked Unit (Shielded Cat6a)	1080p: 150' 1080i/720p: 300' 480i/480p/576i/576p: 300'
Maximum Linked Units	5
Supported Video Resolutions	480i, 480p, 576i, 576p, 720p, 1080i, 1080p
Supported Audio	Dolby TrueHD 7.1, Dolby TrueHD 5.1, Dolby Digital 5.1, DTS-HD Master Audio 7.1, DTS-HD Master Audio 5.1, DTS 5.1, PCM 2.0, PCM 5.1
3D Support	Side by side half frame Top and bottom half frame
Video Amplifier Bandwidth	1.65 Gbps
Output Video	HDMI 1.3 with HDCP
Compliancy	HDMI 1.3b
Input DDC Signal	5.0 volts p-p (TTL)
Input Video Signal	0.5 to 1.0 volts p-p
Supported IR Carrier Frequency	36 – 40 kHz
IR Wavelength	940 nm IR
IR Frequency	38 kHz
Cabling	HDMI: One Cat5e UTP cable HDMI & IR: Two Cat5e UTP cables
Connectors	Two (2) Shielded RJ45 inputs Two (2) Shielded RJ45 outputs One (1) IR input One (1) HDMI output
Enclosure	Painted Steel
Maximum Power Consumption	5 watts
Dimensions	110mm x 66mm x 23mm
Power Supply	5 VDC / 1A
Operating Temperature	38 ° C
Regulatory	CE, RoHS
Shipping Weight	1 lbs.
ESD Protection	16kV
Diagnostic Indicators	Status and power LEDs
Warranty	2 years
Includes	DIGI-HD-XR, Power Supply, IR eye, Mounting brackets (2)

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