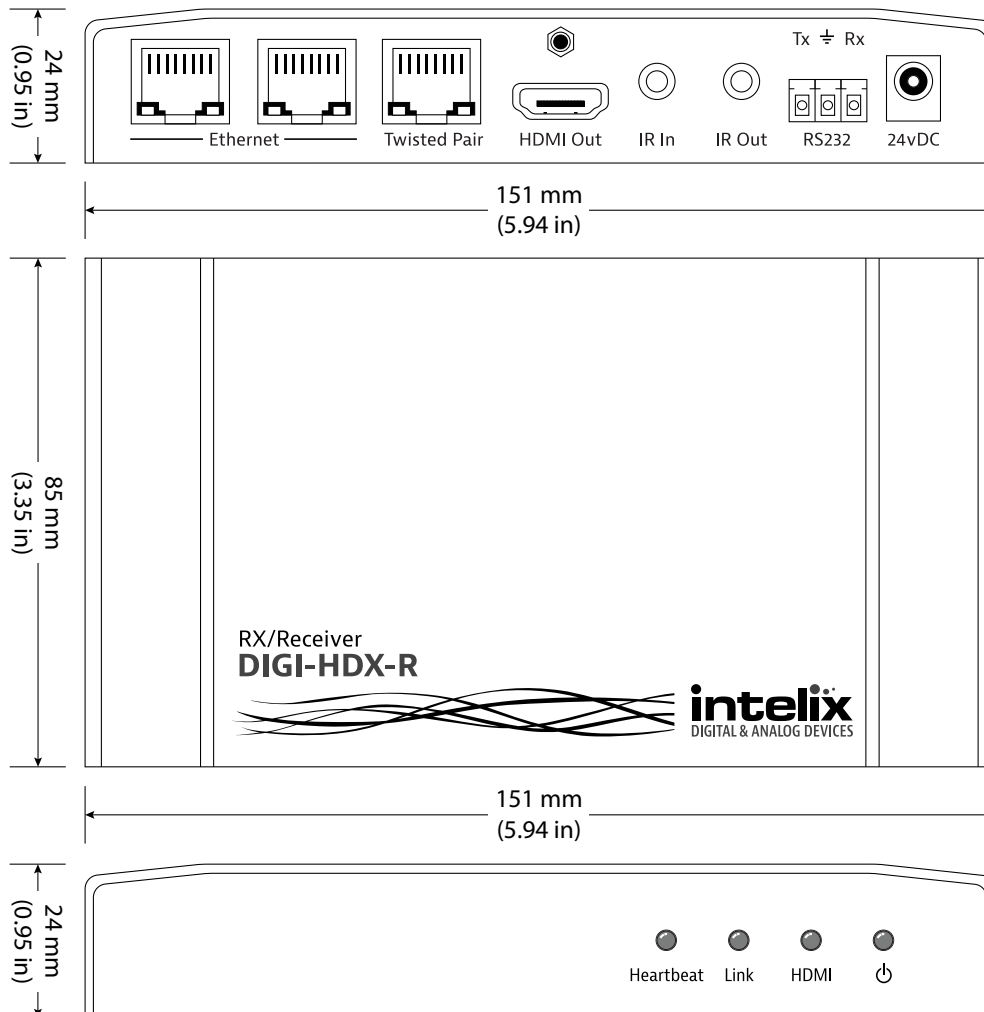# DIGI-HDX-R Technical Specifications

90m HDMI, IR, RS232, and Ethernet with Flexible Power Receiver Using HDBaseT

Rev 150421

The Intelix DIGI-HDX-R extends HDMI over a single cable by incorporating HDBaseT technology. The DIGI-HDX-R supports 1080p, full 3D or 4k x 2k video signals up to 90 meters (295 feet) including multichannel audio. Built-in surge protection and diagnostic LEDs ensure hassle-free and robust installations. Key features of the new extender series include local HDMI output on the transmitter, power over Ethernet (PoE), bidirectional IR, bidirectional RS232, and Ethernet pass-through with a 2-port network switch on the receiver.

Flexible power design allows the DIGI-HDX series extenders to be powered at either the TX or RX end, and only one power supply is required. The power supply (PS-24D-25) is sold separately. The bidirectional wideband IR, bidirectional RS232, and Ethernet pass-through capabilities make the DIGI-HDX compatible with most control systems. The IR emitter (DIGIB-EMT) and IR receiver (DIGIB-EYE) are sold separately. The two-port network switch on the DIGI-HDX-R allows a second device to share the 100BaseT Ethernet pass-through connection without adding additional hardware to the installation.

The DIGI-HDX series extenders are compatible with all Intelix HDBaseT product offerings and any product that meets the HDBaseT specifications.

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Input/Output Connections	
HDMI Output	One (1) HDMI Type A Receptacle
Twisted Pair (HDBaseT)	One (1) Shielded RJ45 Female
RS232	One (1) 3-Pole Euroblock connector
Ethernet	Two (2) Shielded RJ45 Female
IR Input	One (1) 3.5mm TRS
IR Output	One (1) 3.5mm TS
24V DC Power	One (1) 5.5 mm Outside Diameter, 2.1 mm Inside Diameter Barrel
Supported Audio, Video, and Control	
Maximum Video Compatibility	Deep Color 48/36/30/24 Bit at 1080p, 3D, 4k x 2k (UHD) up to 30 Hz: RGB, YCbCr 4:4:4, YCbCr 4:2:2; up to 60 Hz: YCbCr 4:2:0
Supported 3D Formats	Field Alternative (interlaced), Frame Packing, Line Alternative Full, Side-By-Side Half, Side-By-Side Full, 2D + Depth, 2D + Depth + Graphics + Depth
Video Compliance	HDMI, HDCP, and CEC (Consumer Electronics Control)
Embedded Audio	Up to PCM 8 channel, Dolby Digital TrueHD, and DTS-HD Master Audio
Input DDC Signal	5.0 volts p-p (TTL)
Input Video Signal	0.5 to 1.0 volts p-p
IR Carrier Frequency Range	33-55kHz at 5 volts
Ethernet	100BaseT
RS232 Baud Rate	Up to 115200 baud
HDBaseT Signal Characteristics	
Maximum Distance	90 m
Cable Requirements	Solid core shielded Category 5e, Category 6 or greater with TIA/EIA-568B crimp pattern
Bandwidth	10.2 Gbps
Gain	0 dB – 10 dB at 100 MHz
Signal to Noise Ratio (SNR)	> 70 dB at 100 MHz over 100 m
Return Loss	< -30 dB at 5 KHz
Total Harmonic Distortion (THD)	< 0.005% at 1 KHz
Min-Max Signal Level	< 0.3 V – 1.45 Vp-p
Differential Phase Error	±10° at 135 MHz over 100 m
Chassis and Environmental	
Enclosure	Painted steel
Dimensions	85 mm x 151 mm x 24 mm (3.35 in x 5.94 in x 0.95 in)
Shipping Weight	0.5 kg (1.1 lbs.)
Operating Temperature (Environment)	0° to +40° C (+32° to +104° F)
Operating Temperature (Chassis)	31° C (88° F) (S); 38° C (100° F) (R)
Operating Humidity (Environment)	20% to 90%, Non-condensing
Storage Temperature (Environment)	-10° to +60° C (+14° to +140° F)
Storage Humidity (Environment)	20% to 90%, Non-condensing
Power, ESD, and Regulatory	
PoE Standard (Twisted Pair [HDBaseT] port) to extender	802.3af
Maximum Power Consumption	22 watts
Power Supply (Not Included)	24vDC / 1.5 Amp
ESD Protection	15kV
Regulatory	CE, RoHS
Other	
Standard Warranty	2 years
Diagnostic Indicators	Heartbeat, Link, HDMI, and power LEDs
Included Accessories	Installation Guide
Compatible Transmitters (AV and PoE)	DIGI-HD60-S
Compatible Transmitters (AV and Control)	FLX-BO4A, DIGI-44B, DIGI-88B
Compatible Transmitters (AV, PoE and Control)	DIGI-HDX-S, DIGI-HD60C-S, DIGI-P52, FLX-44, ASW-WP
Accessories	
Power Supply	PS-24D-25
IR Emitter	DIGIB-EMT
IR Receiver	DIGIB-EYE

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

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