

FLX-64 Technical Specifications

Six Input to Four Output HDMI/HDBaseT Matrix Switcher

Rev 150515

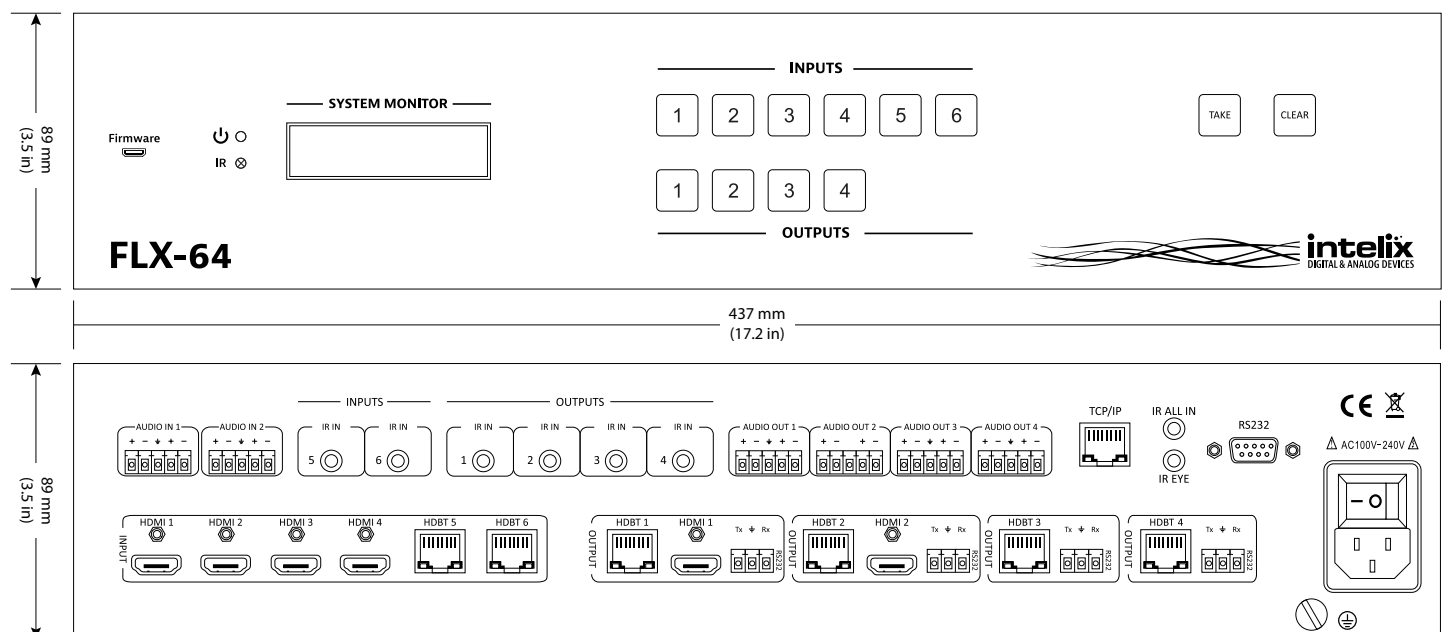
The Intelix FLX-64 was designed for use in conference rooms that have two in-room inputs extended to the rack, a few local sources at the rack, two discrete displays, a VTC codec, and a recorder.

The FLX-64 features four HDMI inputs, of which two allow analog audio embedding on balanced inputs. Two HDBaseT inputs are also provided. The HDBaseT inputs support 1080p HDMI video with audio, wide-band IR tunneling (for IR control of sources), RS232 routing, and HDCP up to 60 meters (196 feet). Each HDBaseT input port supplies power to the attached extender, eliminating the need for a power supply at the source end. All inputs feature selectable HDCP compliance and advanced EDID handling to address challenging system design parameters.

The FLX-64 features HDBaseT twisted pair extension for each output, and simultaneous HDMI on the first two outputs, allowing the same signal to be routed to the HDMI connector and a remote destination with an HDBaseT receiver. The HDBaseT ports support 1080p HDMI video with audio, wide-band IR tunneling (for IR control of displays), RS232 tunneling and routing, and HDCP up to 60 meters (196 feet). Each output features a stereo audio de-embedder for balanced connection to amplifiers or DSPs. Audio outputs feature breakaway capabilities, allowing audio from the sources to be sent to any output. Each HDBaseT output port supplies power to the attached extender, eliminating the need for a power supply at the display end.

The FLX-64 can be controlled via front panel buttons, front panel IR, external IR, remote IR through HDBaseT extenders, RS232, and Ethernet. Clear button caps provide legible text on the front panel, which can be customized for each installation. The matrix includes a simple IR remote control to allow IR switching. This IR remote control can be learned into universal remotes and IR based control systems. An IR All In port is provided, which allows one IR connection to control all four remote displays.

The matrix also features a full command set for RS232 and Ethernet control with third party control systems, plus control and system configuration via a web browser. RS232 commands to remote displays can also be embedded in the control stream through the matrix from both the RS232 and Ethernet control ports, which will reduce the number of serial ports required for the control system.



Input/Output Connections	
HDMI Inputs (Inputs 1 through 4)	Four (4) HDMI Type A Receptacle
HDBaseT Inputs (Inputs 5 and 6)	Two (2) 8P8C Port (Shielded RJ45 Female)
Balanced Analog Audio Inputs (Inputs 1 and 2 only)	Two (2) 5-Pole/3.5mm Euroblock
IR Input Tunnel (Inputs 5 and 6 only)	Two (2) 3.5mm TRS
IR Outputs (Inputs 1 through 4)	Four (4) 3.5mm TRS
HDMI Outputs (Outputs 1 and 2 only)	Two (2) HDMI Type A Receptacle
HDBaseT Outputs	Four (4) 8P8C Port (Shielded RJ45 Female)
Balanced Analog Audio Outputs	Four (4) 5-Pole/3.5mm Euroblock
RS232 Output Tunnel	Four (4) 3-Pole/3.5mm Euroblock
IR All In	One (1) 3.5mm TRS
IR Eye	One (1) 3.5mm TRS
TCP/IP	One (1) 8P8C Port (Shielded RJ45 Female)
RS232	One (1) DE9 Port Female
AC Power Inlet	IEC C14
Supported Audio, Video, and Control	
Maximum Video Compatibility at 60 m	Deep Color 36/30/24 Bit at 1080p
Maximum Video Compatibility at 35 m	Deep Color 48 Bit at 1080p and 3D
Maximum Passive HDMI Cable Distance	5 m (16.4 ft)
Video Compliance	HDMI and HDCP
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
Analog Audio Pinout	Left +, Left -, Ground, Right +, Right -
TCP/IP Speed	100BaseT
RS232 Baud Rate	9600, 19200, 38400, and 115200 baud
IR Carrier Frequency Range	33-55kHz at 5 volts
HDBaseT Signal Characteristics	
Maximum Distance	60 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

Control Parameters	
IR Carrier Frequency Range	33-55kHz at 5 volts
Ethernet	100BaseT
RS232 Baud Rate	Up to 115200 baud
Chassis and Environmental	
Enclosure	Painted Aluminum
Dimensions	89 mm x 437 mm x 332 mm (3.5 in x 17.2 in x 13.1 in) – 2 RU
Shipping Weight	6.5 kg (14.4 lbs.)
Operating Temperature	0° to +48° C (+32° to +120° F)
Operating Humidity	10% to 90%, Non-condensing
Storage Temperature	-20° to +70° C (+14° to +158° F)
Storage Humidity	10% to 85%, Non-condensing
Power, ESD, and Regulatory	
Power Supply Input	100V-240VAC / 50-60 Hz / 0.8A
Power Supply Output	24VDC / 1.25A
Power Consumption	200 watts (max)
ESD Protection	15kV
Product Regulatory	FCC, CE, RoHS
Power Supply Regulatory	CE, RoHS
Other	
Standard Warranty	2 years
Diagnostic Indicators	Power LED, System LCD
Included Accessories	Installation Guide, IR Remote, IR Eye, Rack Mounting Ears with Screws, Rubber Feet, US Power Cable, Straight-Through DE9 Male to Female RS232 Cable, Six (6) 3.5 mm TRS to 3.5 mm TR IR Cable
Compatible Transmitters (AV and Control)	DIGI-P52, DIGI-P123
Compatible Transmitters (AV and Power)	DIGI-HD60-S
Compatible Transmitters (AV, Control, and Power)	AS-1H1DP, AS-1H1DP-WP, AS-1H1V, AS-1H1V-WP, AS-2H, AS-2H-WP, DIGI-HD60C-S, DIGI-HDX-S
Compatible Receivers (AV and Power)	DIGI-HD60-R
Compatible Receivers (AV, Control, and Power)	DIGI-HD60C-R, DIGI-HDX-R

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