pixelplus™

AV OVER IP SOLUTION
Standard 1GbE Network



PixelGrid Flex HD

Scalable 1080p AV-over-IP extension and video wall system

The Pixel Plus PixelGrid Flex HD is an advanced, high-performance AV over IP solution engineered to distribute high-definition video and audio contents to multiple display devices across a standard 100M/1G Network Switch. Utilising highly efficient, low-bandwidth H.265/H.264 compression, this system delivers pristine video quality while optimising network infrastructure overhead.

Featuring integrated multi-layout video wall processing, flexible audio routing, and comprehensive system control interfaces, the PixelGrid Flex HD provides the perfect architectural framework for scalable, cost-effective digital signage, matrix switching environments, and enterprise distributions.

KEY COMPETITIVE ADVANTAGES

- **High-Definition Video Performance**: Supports resolutions up to 1920×1200@60Hz 4:4:4 with a 4.95Gbps video bandwidth, delivering rich colours and ultra-crisp details.
- **HDMI & HDCP Compliance**: Fully compliant with HDMI 1.3 and HDCP 1.4 engineering standards, ensuring reliable handshake protocols and continuous content protection playback.
- **Long-Distance Transmission**: Extends flawless audio/video signals up to 328ft / 100m over a single standard CAT5e/6/6A/7 network infrastructure cable.
- **Dynamic Video Wall Capabilities**: Supports multiple topology deployment options including point-to-point extension, multicast distribution, distributed matrix routing, and comprehensive video walls up to 9×9 configurations.
- **Advanced Audio Architecture**: Supports LPCM 2.0CH (32/44.1/48KHz) audio format. Features versatile independent analog audio embedding and extracting interfaces via a 3-pin Phoenix connector.
- **Flexible Dual-Power Architecture**: Powered seamlessly via integrated Power over Ethernet (PoE 802.3af Class 3, PD mode) or a local 12V/1A locking power connector, eliminating the need for local power supplies at field endpoints.
- **High-Density Rack Architecture**: Engineered for space-saving operations. Supports compact horizontal mounting configurations (up to 8 units in a standard 1U rack space) or vertical positioning (up to 12 units in a 4U enclosure).

SYSTEM CONTROL & NETWORK FLEXIBILITY

Matrix switching and multi-unit configurations are executed efficiently without the mandatory requirement of a centralised hardware processor block.

- Versatile Management Interfaces: Command the network via dynamic front panel hardware buttons with digital LED channel indicators, a built-in interactive Web GUI, or TCP/IP protocol arrays.
- Dual-Streaming Engine: Supports simultaneous main-stream and substream H.265/H.264 encoding modes, enabling direct VLC media player pulling for convenient remote signal monitoring.
- Network Switch Compatibility: Operates seamlessly on standard managed Layer 3 Gigabit switches with Multicast, IGMP Snooping, and unregistered Multicast filtering protocols fully active.less than 60 seconds.

Every effort has been made to ensure the accuracy of this manual; no liability will be accepted for unseen errors.
Stage Audio Works reserves the right to adapt, change, and/or alter this specification sheet without prior notification.

StageAudioWorks™



PixelGrid
Flex HD Encoder



PixelGrid
Flex HD Decoder



PixelGrid
Flex HD Control

TECHNICAL SPECIFICATIONS

System Parameter Specifications

Video Standards	HDMI 1.3, HDCP 1.4
Video Encoding	H.265 / H.264 Standard Compression
Max Resolution	1920×1200 @ 60Hz 4:4:4
Colour Depth	Input: 8/10/12-bit (1080p); Output: 8-bit
Audio Formats	LPCM 2.0CH (32 / 44.1 / 48KHz)
Transmission Distance	100m / 328ft via single Cat5e/6/7 cable
TX Connectors	1x HDMI In, 1x LAN (RJ45 with PoE), 1x Audio In/Out (Phoenix), 1x RS-232
RX Connectors	1x HDMI Out, 1x LAN (RJ45 with PoE), 1x Audio Out (Phoenix), 1x RS-232
Power Consumption	Encoder: 2.88W max | Decoder: 2.88W max
Dimensions	120mm [W] x 95mm [D] x 21.5mm [H]
Enclosure / Weight	Metal Enclosure (Black) / 295g per unit

Every effort has been made to ensure the accuracy of this manual; no liability will be accepted for unseen errors.
Stage Audio Works reserves the right to adapt, change, and/or alter this specification sheet without prior notification.