PIXFIX Xport and INport

Teleport
Your Video

PIXFIX Xport and **PIXFIX INport**, works in pair for IP Video teleport solution for both entry level and enterprise needs between studios and branches. If you have a point to point connect, this cost effective solution helps you in doing away with traditional OBV and expensive satellite based teleport. With PIXFIX Xport and INport the products are best suited for contribution and distribution encoding across Multi System Operators and Studios for dense multichannel video distribution.

PRODUCT AT A GLANCE

A pair working across controlled network for video distribution between branch and studios.

Capable of ingesting one or more inputs at the branches using Xport and delivers video output through SDI via INport.
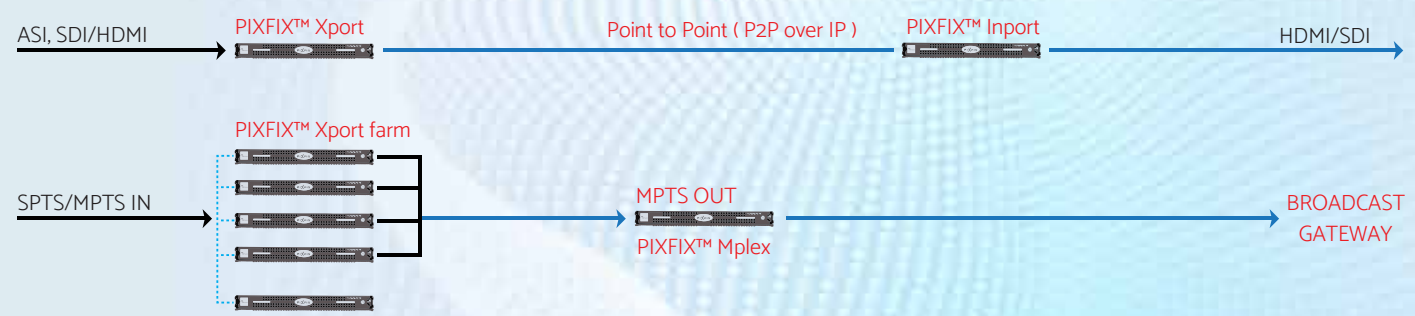
APPLICATIONS

For BROADCASTERS looking for dense contribution and distribution encoding across a HUB and SPOKE delivery and STUDIOS looking for multichannel video distribution, the no frills PIXFIX Xport and PIXFIX INport solution for video teleporting is a boon. Based on RiverSilica's state of the art software defined video processing flexibilities and scalability with PIXFIX SB, EL, HE platform, it is a sure shot cost effective solution.

FEATURES AND BENEFITS

- Highly versatile, Ultra flexible and configurable through state of the art software defined video processing and acceleration using RAFT™, SAND™ and HELM™
- Tightly coupled Teleport solution between PIXFIX Xport and PIXFIX INport pair
- Dynamic bitrate management through PIXABIT™
- Video quality management through PIXIT™
- Configurable for multiple CODECS
- Quick click configuration
- Distribution encoding for denser channels through PIXFIX-HE Series Chassis

PIXFIX™ in Teleport WORK FLOW

ASI, SDI/HDMI	PIXFIX™ Xport	Point to Point (P2P over IP)	PIXFIX™ Inport	HDMI/SDI

SPTS/MPTS IN	PIXFIX™ Xport farm	MPTS OUT / PIXFIX™ Mplex		BROADCAST GATEWAY

General
Specifications for PIXFIX Xport

INPUT INTERFACES
o HDMI with Embedded Audio, ASI, SD/HD-SDI with embedded raw or compressed audio, Multiple Gigabit IP interface, Composite, Component

INPUT STREAM
o TS/ UDP (Unicast and multicast SPTS and MPTS)
o TS/RTP (Unicast and multicast SPTS and MPTS)
o Signal generator

INPUT VIDEO CODECS
o MPEG2-ML/HL 4:2:2
o H.264 – BP/MP/HP – 4:2:2 10Bit
o HEVC
o Fixed and variable frame rate
o Standard and non-standard resolution
o 1080p@60 up to 25Mbps for live delivery
o Error resilience and concealment for erroneous input
o Input video frame skip detection
o Video pass through

INPUT AUDIO CODECS
o MPEG1 Layer2 Y& Layer3
o Dolby™-AC3
o AAC-MPEG2
o MPEG4 (LC, HEAAC, HEAACv2),
o MPEG4 ALS
o LPCM
o Up to 8 channels 24 bit, 96KHz audio
o Up to 96KHz sampling frequency
o Audio pass through

METADATA
o CEA608/708 Closed captioning
o SCTE 35/104 Cuetones

CONTROL MONITORING
o Auto sensing of incoming media, media info
o Input stream view on web console
o Input stream capture
o Web based UI
o Thumbnails preview on web console
o Tile based preview for monitoring
o Express Job Settings
o Jobs scheduling and Prioritization
o Dynamic parameter changing while job is running
o System configuration backup and restore
o Fans and temperature monitoring

PLATFORM SPECS
o Runs on COTS Intel™ Platform
o Based on Mini, 1RU, 2RU chassis
o Optional RPS and RAID
o Upto 6 Gigabit ports & 6 TB local storage

OUTPUT INTERFACES
o Multiple Gigabit IP interface with redundancy, ASI

OUTPUT STREAM
o TS/UDP & TS/RTP Unicast and multicast – SPTS
o MPEG2, H.264 elementary Annex B

OUTPUT VIDEO CODECS
o H.264
o HEVC

OUTPUT AUDIO CODECS
o MPEG 1 Layer2/3
o AC3 , EAC3 , Dolby™-E (all pass through)
o AAC-MPEG2
o AAC-MPEG4 (LC, HEAAC, HEAACv2)
o MPEG4 ALS
o Up to 8 channel, 24 bit audio
o Up to 96 KHz sampling frequency
o Loudness Control
o Multi-channel audio coding in single channel

PRE-PROCESSING
o De interlacing through BOB, Motion adaptive, IVTC modes
o Perceptual quality based video scaler
o Standard and non-standard resolution
o Multiple alpha blended logo overlay
o Static/scrolling text overlay
o Clock/Time code overlay
o Cropping/Letter boxing
o Audio equalizer and volume control
o Audio channel, sample rate and bit conversion

ENCODING FEATURES
o Look ahead based encoding
o Low latency encoding & sub-second Glass to Glass delay
o Deblocking filter
o CBR, VBR and constrained VB streams
o Scene change detection & characteristics based encoding
o Encode, Transcode acceleration through RAFT™, HELM™, SAND™ algorithms
o Configurable display aspect ratio and preserving DAR during scaling
o Multi language/track audio coding in a single program
o Upto 8 channel, 24 bit audio encoding

METADATA
o CEA 608/708 pass through
o SCTE Cuetones for TS
o DVB subpicture and subtitle pass through

SYSTEMS
o Web based UI
o Express Job Settings
o Jobs scheduling and Prioritization
o Dynamic parameter changing while job is running
o System configuration backup and restore
o Remote File storage mount – NFS, CIFS
o Auto restart of jobs in unrecoverable errors
o Input Thumbnails preview on web console
o Tile based preview for monitoring
o Logs and Notification alerts
o Real time health statistics
o Input stream available indicator
o SNMP
o Realtime stats of CPU, memory, network, Jobs on Dashboard
o Device manager for autodetecting PnP devices
o Complete network diagnostic for DNS test, Speed test, Tracer

General Specifications for PIXFIX INport

INPUT INTERFACES
o   ASI, Multiple Gigabit IP interface

INPUT STREAM
o   TS/ UDP (Unicast and multicast SPTS and MPTS)
o   TS/RTP (Unicast and multicast SPTS and MPTS)
o   Signal generator

INPUT VIDEO CODECS
o   MPEG2-ML/HL 4:2:2
o   H264 – BP/MP/HP – 4:2:2 10 Bit
o   HEVC
o   Fixed and variable frame rate
o   Standard and non-standard resolution
o   Error resilience and concealment for erroneous input
o   Input video frame skip detection

INPUT AUDIO CODECS
o   MPEG1 Layer2 Y& Layer3
o   Dolby™-AC3
o   AAC-MPEG2
o   MPEG4 (LC, HEAAC, HEAACv2)
o   MPEG4 ALS
o   LPCM
o   Up to 8 channels 24 bit, 96KHz audio
o   Up to 96KHz sampling frequency

CONTROL MONITORING
o   Auto sensing of incoming media, media info
o   Input stream view on web console
o   Web based UI
o   Thumbnails preview on web console
o   Tile based preview for monitoring
o   Express Job Settings
o   Pre and post job scripts
o   Jobs scheduling and Prioritization
o   Dynamic parameter changing while job is running
o   System configuration backup and restore
o   Fans and temperature monitoring

PLATFORM SPECS
o   Runs on COTS Intel™ Platform
o   CentOS
o   Based on Mini, 1RU, 2RU chassis
o   Optional RPS and RAID
o   Upto 6 Gigabit ports & 6 TB local storage

OUTPUT INTERFACES
o   SD/HD-HDMI, SDI, Composite, Component

PRE-PROCESSING
o   Perceptual quality based video scaler
o   Standard and non-standard resolution
o   Cropping/Letter boxing

ENCODING FEATURES
o   Low latency encoding & sub-second Glass to Glass delay
o   Encode, Transcode acceleration through RAFT™, HELM™, SAND™ algorithms

SYSTEMS
o   Express Job Settings
o   Jobs scheduling and Prioritization
o   Dynamic parameter changing while job is running
o   System configuration backup and restore
o   Remote File storage mount – NFS, CIFS
o   Auto restart of jobs in unrecoverable errors
o   Log and Notification alerts
o   Real time health statistics
o   Input stream available indicator
o   SNMP
o   System dashboard with realtime statistics of CPU, Network, Jobs, Memory etc
o   Device manager for autodetecting PnP devices
o   Complete network diagnostic involving DNS test, Speed test, Tracer etc

PIXFIX™ Versa on PIXFIX™ HW platform configuration

S.NO	LICENSE	HW PLATFORM PART NO	CHASSIS	DEPTH	POWER SUPPLY	RPS	ENET	ENET ADDL	HDD SATA	SDI	SDI/HDMI I/P / O/P	INPUT HD IP & or SDI	I/P or O/P HD IP / SDI	OUTPUT FHD
1	PIXFIX™ Xport	EL1000	1RU	HALF	600W	✖	1 X 1 Gig	✖	1TB	✖	1	1	✔	1
2	PIXFIX™ Inport	EL1000	1RU	HALF	350W	✖	1 X 1 Gig	✖	1TB	✖	1	1	✔	1

*   The no of users to be streamed will be dependent on the output bit rates streamed and the network port capacity per PIXFIX™ HW

*   Optional redundancy is possible in 1 + 1 combination with additional PIXFIX™ Visor license in the 1 + 1 box

*   For additional storage beyond 1TB please contact RiverSilica

*   For RPS models please contact RiverSilica