X-PLUS Series HD Seamless Mixed Format Routing Switchers

Features

- Sizes: 2×2~8×8   2RU (Single Power)
  2×2~16×16   4RU (Redundant Power)
  2×2~32×32   8RU (Redundant Power)
  2×2~72×72   17RU (Redundant Power)
- 0 frame switching, no black screen/blue screen/signal jittering/flashing/cracking
- Different resolution available in each output: 640×480~1920×1200@60Hz (VESA) or 480i~1080p/60 (HDTV)
- Input signal formats: 3G/HD/SD-SDI, DVI, HDMI, YPbPr, VGA, CVBS, HDBaseT, Fiber DVI, Fiber SDI, IP Stream, S-Video
- Output signal formats: 3G/HD/SD-SDI, DVI, HDMI, YPbPr, VGA, CVBS, HDBaseT, Fiber DVI, Fiber SDI, IP Stream, S-Video
- Audio (independent audio, embedded audio) switch, embedded/deembedded processing
- Optional multi-format Input/Output module, each module is 2 channels as unit
- Input/Output resolution conversion, user can configure output signal resolution
- Data transmission rate up to 3.4Gbps
- EDID information management
- DDC2B protocol, can start display device at any time
- Optional manual and automatic EQ
- Self-contained local control panel, supports various remote control panels
- Modular design: input module, crosspoint switch module, output module, power supply module, control module, cooling module
- Redundant power supply module, control module
- Built-in cooling system
- Multiple frames can cascade via NODE-BUS for larger scale
- Control interfaces: C-BUS, CAN, TCP/IP, RS-232/422

2RU Frame Configuration

2RU frame can be inserted a MPR-XPT-32 crosspoint switch module. It is used in conjunction with 4-channel mixed input module, 4-channel mixed output module to compose 8×8 and below. 2RU frame configuration is as follows:

4RU Frame Configuration

4RU frame can be inserted a MPR-XPT-64 crosspoint switch module. It is used in conjunction with 4-channel mixed input module, 4-channel mixed output module to compose 16×16 and below. 4RU frame configuration is as follows:

8RU Frame Configuration

8RU frame can be inserted a MPR-XPT-128 crosspoint switch module. It is used in conjunction with 4-channel mixed input module, 4-channel mixed output module to compose 32×32 and below. 8RU frame configuration is as follows:
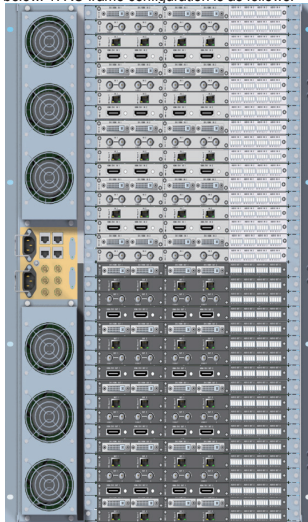

17RU Frame Configuration

17RU frame can be inserted a MPR-XPT-288 crosspoint switch module. It is used in conjunction with 4-channel mixed input module, 4-channel mixed output module to compose 72×72 and below. 17RU frame configuration is as follows:

Specifications

SD-SDI Signal

Input		Output	
Connector	BNC	Connector	BNC
Signal Format	SD-SDI	Signal Format	SD-SDI
Data Rate	50~650Mbps	Impedance	75Ω
Impedance	75Ω	Return Loss	≥15dB@5~270MHz
Return Loss	≥15dB@5~270MHz	Offset	0VDC±0.5V
Cable EQ	300m Belden 1694A or equivalent cable	Relocking	SMTPE259M-143Mbps, 177Mbps, 270Mbps, 360Mbps, 540Mbps
Performance			
Amplitude	800mVp-p±10%	Overshoot	≤10% of signal amplitude
Rise/Fall Time	0.4~1.5ns	Jitter	≤0.2UI

HD-SDI Signal

Input		Output	
Connector	BNC	Connector	BNC
Signal Format	HD-SDI	Signal Format	HD-SDI
Data Rate	Max. 1.5Gbps	Impedance	75Ω
Impedance	75Ω	Return Loss	≥15dB@5MHz~1.5GHz
Return Loss	≥15dB@5MHz~1.5GHz	Offset	0VDC±0.5V
Cable EQ	150m Belden 1694A or equivalent cable	Relocking	Provide clock recovery for 143, 177, 270, 360, 540Mbps and 1.483, 1.485Gbps bitrate signal
Performance			
Amplitude	800mVp-p±10%	Overshoot	≤10% of signal amplitude
Rise/Fall Time	≤270ps(20%~80%)	Jitter	≤0.2UI

3G-SDI Signal

Input		Output	
Connector	BNC	Connector	BNC
Signal Format	3G-SDI	Signal Format	3G-SDI
Data Rate	Max. 3Gbps	Impedance	75Ω
Impedance	75Ω	Return Loss	≥15dB@5MHz~1.5GHz ≥10dB@1.5MHz~3GHz
Return Loss	≥15dB@5MHz~1.5GHz ≥10dB@1.5MHz~3GHz	Offset	0VDC±0.5V
Cable EQ	100m Belden 1694A or equivalent cable	Reclocking	143Mbps, 177Mbps, 270Mbps, 360Mbps, 540Mbps, 1.483Gbps, 1.485Gbps, 2.97Gbps
Performance			
Amplitude	800mVp-p±10%	Overshoot	≤10% of signal amplitude
Rise/Fall Time	≤135ps(20%~80%)	Jitter	≤0.3UI

DVI Signal

Input		Output	
Connector	DVI-D or HDMI	Connector	DVI-D or HDMI
Signal Type	DVI 1.0	Signal Type	DVI 1.0
Min. Level	0.5Vp-p	Impedance	100Ω(TMDS Signal)
Max. Level	1.0Vp-p	Output Level	1Vp-p
Impedance	100Ω(TMDS Signal)	Return Loss	≥15dB@5MHz~1.5GHz
Return Loss	≥15dB@5MHz~1.5GHz	DC Offset	MAX.5mV
Performance			
Gain	0dB	Differential Gain	0.05% (RL=150Ω)
Support Signal	720P, 1080i, 1080P	Data Transmission Rate	250Mbps~3.4Gbps
Differential Phase	0.05° (RL=150Ω)		

VGA Signal

Input		Output	
Connector	HD-15	Connector	HD-15
Signal Format	VGA	Signal Format	VGA
R, G, B Input Amplitude	700mVp-p	R, G, B Amplitude	700mVp-p
H, V Input Amplitude	TTL Level	H, V Amplitude	TTL Level
R, G, B Impedance	75Ω	R, G, B Impedance	75Ω
Performance			
Bandwidth	-3dB@250MHz	Differential Phase	<0.2°(10~90%APL)@4.43MHz
Gain	0dB	Differential Gain	<0.2%(10~90%APL)@4.43MHz
SNR	>75dB unweighted		

Analog Audio Signal

Index			
Gain	0dB	THD+N	<0.1%
Frequency Response	<±0.25dB 20Hz~20KHz	Crosstalk	<-90dB typical values to 20KHz <-85dB worst case to 20KHz
THD	<0.05%	Frequency Response	>75dB

GigaTec Broadcast System