

SDI Xtreme6G+

Extend Four SD/HD-SDI Inputs or Two 3G-SDI Inputs



SDI Xtreme6G+ Modules - Transmitter and Receiver

Fiber Optic Video Extension Supporting SMPTE 4K Standards

The SDI Xtreme6G+ extends 4K signals from **four SD/HD-SDI inputs** or **two 3G-SDI inputs** over a single fiber, with no compression, latency, artifacts or lost frames. The SDI Xtreme6G+ is ideally suited for entertainment, medical, events and staging applications requiring high resolution 4K video, such as 4K filming, projection and camera connectivity, video editing, video analysis and simulation.

Product Features

- Low fiber footprint – cost saving and easy to integrate
 - Extend four SD/HD-SDI signals or two 3G-SDI over a single fiber
- Modules are space saving and flexible
 - Small form factor – each module is 1/4RU
 - Modules and optics are hot-swappable
- High performance
 - Industry leading bandwidth - 6.25Gbps
 - Synchronized signals
 - No data loss
 - No compression
- RS-422 for control
- Full family of compatible 6.25Gbps routers
 - VX Routers, scalable from 5 to 640 ports
 - MX Router, compact 3RU chassis, scalable from 16 to 48 ports

Specifications

Operating Temp.:	0°-50°C; (32°-122°F)
Humidity:	5-95% RH, non-condensing
Dimensions:	Height: 1.592" (40.43 mm) Depth: 6.366" (161.69 mm) Width: 3.693" (93.80 mm) (tolerance: $\pm .039$ "; .1000 mm) Weight: 1.5 lbs (0.68 kg) per unit Shipping Weight: 9 lbs (4.08 kg)
Power Consumption:	10 watts per plug-in module
Optical Cable:	Single-mode and multi-mode over one or two fibers, second fiber required for RS-422 Fiber is available, not supplied
Optical Distance:	Up to 50 meters using 62.5/125um, type OM1; Up to 350 meters using 50/125um, type OM2 Up to 750 meters using 50/125um, type OM3; Up to 1000 meters using 50/125um, type OM4; Up to 40 kilometers using 9/125um, type OS2 (single-mode)
Compliance:	Approvals for US, Canada and European Union
Warranty:	12 months from date of shipment - Extended warranties available

TRANSMITTER Specifications (Individual Interface Component):

Number of SDI Inputs:	2 when used as two 3G-SDI inputs 4 when used as four SD/HD-SDI inputs	Number of Loop Outs:	2 when used as two 3G-SDI inputs 0 when used as four SD/HD-SDI inputs
Data Rate Range:	270Mbps to 2.97 Gbps	Number of Optical Outputs:	1
Supported Standards:	SMPTE 424M, 292M, 259M, 372M and 425 level A and B compliant	Signal Level:	800mV $\pm$ 10%
Re-clocked Data Rates:	270 Mbps (SMPTE 259M), 1.485 Gbps (SMPTE 292), 2.97 Gbps (SMPTE 424M)	DC Offset:	0V $\pm$ 0.5V
Equalization:	Automatic up to 140m of Belden 1694A at 3.0 Gbps, 230m at 1.485 Gbps and 350m at 270 Mbps	Overshoot:	< 10% of amplitude
Return Loss:	> 10dB up to 2.97 Gbps	Timing Jitter:	< 0.2 UI at 270 Mbps; < 1.0 UI at 1.485 Gbps; < 0.2 UI at 2.97 Gbps with color bar signal
Optical Fiber Output		Alignment Jitter:	< 0.2 UI at 270 Mbps; < 1.0 UI at 1.485 Gbps; < 0.3 UI at 2.97 Gbps with color bar signal
Connector:	LC	Rise/Fall Time:	< 135 ps at 2.97 Gbps per SMPTE 424M; < 270 ps at 1.485 Gbps per SMPTE 292;
Fiber Type:	Multi-Mode Single Mode	Re-clocking:	0.4 ns to 1.5 ns at 270 Mbps per SMPTE 259M At 270 Mbps, 1.485 Gbps & 2.97 Gbps
Wavelength (nominal):	850nm 1310nm		
Emitter Type:	VCSEL DFB Laser		
Output Power (nominal):	-4dBm -1.5dBm		

RECEIVER Specifications (Individual Interface Component):

Number of SDI Outputs:	2 when used as two 3G-SDI outputs 4 when used as four SD/HD-SDI outputs	Rise/Fall Time:	< 135 ps at 2.97 Gbps per SMPTE 424M; < 270 ps at 1.485 Gbps per SMPTE 292;
Signal Level:	800mV $\pm$ 10%	Re-clocking:	0.4 ns to 1.5 ns at 270 Mbps per SMPTE 259M At 270 Mbps, 1.485 Gbps & 2.97 Gbps
DC Offset:	0V $\pm$ 0.5V		
Overshoot:	< 10% of amplitude		
Timing Jitter:	< 0.2 UI at 270 Mbps; < 1.0 UI at 1.485 Gbps; < 0.2 UI at 2.97 Gbps with color bar signal		
Alignment Jitter:	< 0.2 UI at 270 Mbps; < 1.0 UI at 1.485 Gbps; < 0.3 UI at 2.97 Gbps with color bar signal		
Optical Fiber Input			
Connector:	LC		
Fiber Type:	Multi-Mode Single Mode		
Wavelength:	770 - 860nm 1260 - 1360nm		
Minimum Input Sensitivity:	-12dBm -15dBm		
Maximum Input Power:	0 dBm 0.5dBm		

Ordering Information:

SDM-M104X6-LCTX – SDI Xtreme6G+ Transmitter, Four SD/HD-SDI or Two 3G-SDI Inputs, 6.25Gbps, RS-422, LC
SDM-M104X6-LCRX – SDI Xtreme6G+ Receiver, Four SD/HD-SDI or Two 3G-SDI Outputs, 6.25Gbps, RS-422, LC

One optics package required per module.

VOP-M19 - Multi-mode Optics Package for SDI Xtreme6G+, Transmitter and Receiver, 1000 meters

Each module requires chassis support. Chassis sold separately.

VQS-001300 – Q-Series 1300 Chassis, Supports a single module per chassis

VQS-002300 – Q-Series 2300 Chassis, Supports up to two modules per chassis

VQS-004300 – Q-Series 4300 Chassis, Supports up to four modules per chassis, Redundant power supplies

VTS-Q04200 – T-Series Q-4200 Chassis, Supports up to two modules per chassis, plus an additional KVM T-Series module, Redundant power supplies

For more information contact a Thinklogical Sales Representative at sales@thinklogical.com or (203) 647-8700 or visit www.thinklogical.com



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