

4-Channel 3G-SDI Fiber Optical Transmission



AST200 Series

- 4 channel 3G/HD-SDI video transmission over optic fiber
- Automatic cable equalization to ensure signal integrity
- Automatic reclocking
- Long transmission up to 20 km
- Full digital non-compression broadcast level transmission
- Support 1Ch backwardRS485 and 4Ch Tally

Ascent's AST200 series supports 4-channel HD/3G-SDI standard high-definition video signal and RS485 and Tally signal transmitted via single fiber optical cable. The 3G-SDI Video over Fiber Converters includes one transmitter and one receiver for 1080P 3G-SDI signal. The 3G-SDI Fiber Converters can transmit 4-Ch 3G-SDI Video signal through a single optical fiber, and it support Loop output, 4Ch Tally and backwards RS485. The video quality is non-compressed broadcast level. It's widely used in broadcast field.

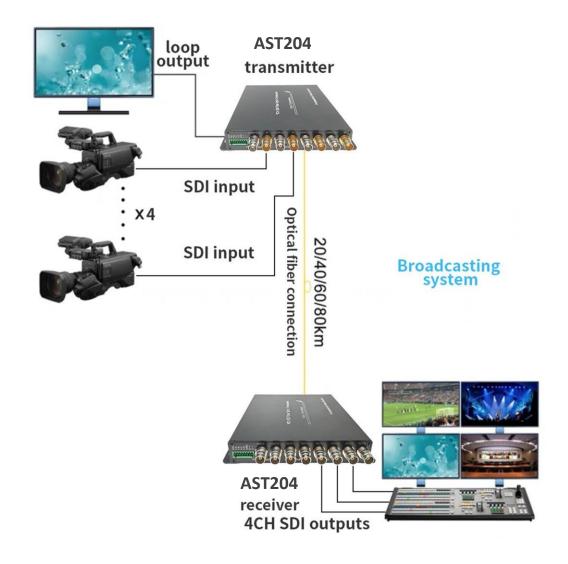
The system comes with standard configuration Fiber Optic Transmitter and Receivers for Serial Digital signals up to 3G-SDI running at 3.0 Gbps. The customized option can also be ordered with any standard CWDM optics channel, longer distance and internal passives are available by request. No configuration or management is needed, as the system automatically adjusts to any input signal type regardless of bit rate or protocol. Easy to connect RS485 and Tally port allows for Signal Detect for all channels. Units come standard with FC/UPC fiber connectors and can be mounted on the wall or rack. Simplified easy to use plug and play saves deployment time and less maintenance required.



Key Features -

- 4 channel 3G/HD-SDI video transmission over optic fiber
- Automatic cable equalization to ensure signal integrity
- Automatic reclocking 270Mbit/s 1.48Gbit/s-3Gbit/s
- Directly compatible with 3G/HD-SDI camera systems and support 4Ch Loop output
- Long transmission up to 20 km (12.5miles) (Other distance Optional)
- Supports 4Ch Tally
- Full digital non-compression broadcast level transmission
- Support 1Ch backward RS485 and 4Ch Tally
- Working temperature range (-10°C to +55°C)

Application Diagram-





Specifications -

ltem	Technique parameters
	SMPTE 424M, SMPTE 292M, SMPTE 259M, DVB-ASI, DVB-SS
	and Telecom/Datacom
SDI Input	270Mbit/s - 1.48Gbit/s – 3Gbit/s
	Input Number: 4
	Reflection Loss: >15dB
	Equilibrium: 0-150m @3Gb/s
	Connector: BNC
Optics	Channel: 1
	Type: Single-mode
	Transmission Distance: 20km (Other distance optional)
	Reflection Loss: > 15dB
	Dithering: < 0.2UI
	Connector: FC/UPC (SC, LC, ST optional)
SDI Output	Output Number:4
	Signal Level: 800mV nominal
	-40 °C to +85 °C
	Rise/Fall Time: 200ps indication
	Overshoot: < 10% amplitude
	Reflection Loss: >15dB
	Dithering: < 0.2UI
	Connector: 75Ω BNC
Data	1Ch RS-485 (full/half duplex) and support NRZ, RZI and
	Manchester
	Max. 57600bps for RS485
	Connector: Industrial standard screw terminal
	4Ch Tally: A, B, C, D
Power and Environmental Indication	Operating Temperature: -10°C to +55°C
	Power Input: 1A@12VDC
	EMI/RFI: Meet FCC Part 15 Class A, EU EMC standard
	Average Time Trouble-Free: >100000 hours
SDI Video Format Supports	625/25PAL, 525/29.97NTSC, 525/23.98NTSC, 720p50,
	720p59.94, 1080P23.98/24/30/50/60, 1080i 23/24/30
	/50/59.94



Ordering Information -

Product Name Product Description

AST204-3G-TX-UF-20-US AST200 series 4-Ch 3G-SDI Video Transmitter with Loop output, RS485 & Tally, SM,

20km, FC/UPC, US Power Adapter included

AST204-3G-RX-UF-20-US AST200 series 4-Ch 3G-SDI Video Receiver, RS485 & Tally, SM, 20km, FC/UPC, US

Power Adapter included

Contact Information -



Ascent Communication Technology Ltd

AUSTRALIA

140 William Street, Melbourne Victoria 3000, AUSTRALIA

Phone: +61-3-8691 2902

CHINA

Unit 1907, 600 Luban Road 200023, Shanghai CHINA Phone: +86-21-60232616

EUROPE

Pfarrer-Bensheimer-Strasse 7a 55129 Mainz, GERMANY

Phone: +49 (0) 6136 926 3246

WEB: www.ascentcomtec.com

HONG KONG SAR

Unit 9, 12th Floor, Wing Tuck Commercial Centre 177 Wing Lok Street, Sheung Wan, HONG KONG

Phone: +852-2851 4722

USA

2710 Thomes Ave

Cheyenne, WY 82001, USA

Phone: +1-203 816 5188

VIETNAM

15 /F TTC Building, Duy Tan Street Cau Giay Dist., Hanoi, VIETNAM

Phone: +84 243 795 5917

EMAIL: sales@ascentcomtec.com

Specifications and product availability are subject to change without notice. Copyright © 2022 Ascent Communication Technology Limited. All rights reserved. Ver. ACT_AST204_3G-SDI_Fiber_Transmission_Datasheet_V1b_Dec_2022