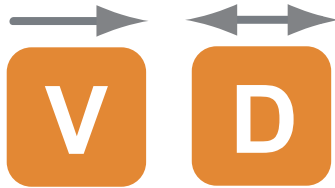


RC-SDV1D13GTR Series

1-CHANNEL 3G SDI VIDEO WITH RETURN DATA TRANSCIVER

3G SDI



OVERVIEW

RC-SDV1D13GTR Series 3G SDI transmitter and receiver support optical transmission of 1-channel uncompressed and realtime SDI/HD-SDI/3G-SDI video signal at data rate up to 2.97Gbps and reverse data (RS485) over one core singlemode or multimode fiber. Fully compliant with SMPTE 424M, 292M, 259M and ITU digital video standards, the RC-SDV1D13GTR ensures the highest performance for most demanding digital broadcast applications. The hot-pluggable and adjustment-free design ensures the convenience of the installation and operation. The modules are available in either standalone or rack mount versions.

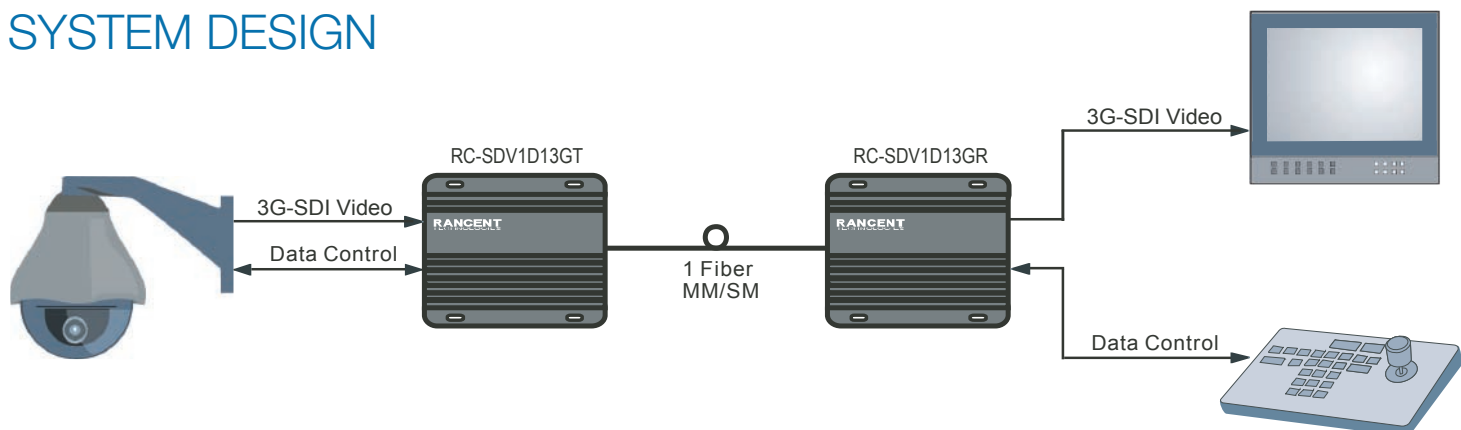
APPLICATIONS

- Digital broadcast application such as studio signal routing and temporary OB or studio links
- Remote broadcast camera links
- Campus digital video distribution
- Very high performance surveillance networks

FEATURES

- Realtime transmission of Multi-Rate SDI / HD-SDI / 3G-SDI (19 Mbps to 2.97Gbps (3G)) over one core fiber
- Non-compressed SDI / HD-SDI / 3G-SDI signal transmission
- Simultaneous Transmission of 3G-SDI Video and Data
- Support data rate up to 2.97Gbps
- Support resolution 720p50/60, 1080i50/60, 1080p25/30
- Support all SMPTE 259M standard in 270Mbps - 360Mbps
- Support SMPTE424M, SMPTE292M, SMPTE259M and ITU-R BT.601, ITU-R BT.1120 standards
- LED indicators for monitoring of system operating status
- Redundant output for preview on local monitor
- Standalone or Rack Mount Version

SYSTEM DESIGN



RC-SDV1D13GTR Series

1-Channel 3G-SDI Video with Return Data Transceiver

SPECIFICATIONS

Video

Signal Type	SDI, HD-SDI and 3G-SDI
Video Resolution	8 Bit/10Bit Auto
Data Rate	270Mbps~2.97Gbps
TV Signal Standard	SMPTE424M, SMPTE292M, SMPTE259M, DVB-ASI, Other Telecom Signals, ITU-R BT.601, ITU-R BT.1120

Video Input

Video Input	BNC (75 ohms)
Video Input Channels	2 (1 for TX / 1 for Local Preview)
Data Rate	19Mbps~2.97Gbps
Nominal Level	0.8 Vp-p
Min/Max level	0.5 V to 1.0 Vp-p
Return loss	≥15 dB @ 5 MHz to 1.5 GHz ≥10 dB @ 1.5 GHz to 3.0 GHz
Input cable equalization	Up to -30 dB of cable loss

Video Output

Video Output	BNC (75 ohms)
Video Output Channels	1
Re-clock	270Mbps/1.485Gbps/2.97Gbps
Nominal Level	0.8 Vp-p
Min/Max level	0.5 V to 1.0 Vp-p
Return loss	<-25 dB @ 100 MHz

Data

Data Protocol	RS485
Data Rate	0~300kps
Data Channels	1 (Return)
Error Rate	10^{-9}

Connector

Optical	LC (SFP)
Video	BNC
Data	Terminal Screws

Optical

Wavelength	1310nm
Optical Emitter	Laser Diode
Optical Fiber	9/125u single mode
Number of Fibers	1
Return Loss	>15dB
Shake	<0.2UI

General

Power Supply	DC5V 2A
Size	152 ×130 ×28.8mm
Construction:	Aluminum
Finish:	Paint
MTBF:	> 100,000 hours
Operating Temp:	-35° C to +65°C
Storage Temp:	-45° C to +85°C

ORDERING INFORMATION

Part Number	Description	Fiber	Optical PWR Budget	Max Distance
RC-SDV1D13GTS	1-CH 3G-SDI with 1-CH Return Data TX Singlemode	SM	20dB	30KM
RC-SDV1D13GRS	1-CH 3G-SDI with 1-CH Return Data RX Singlemode	SM	20dB	30KM
RC-SDV1D13GTM	1-CH 3G-SDI with 1-CH Return Data TX Multimode	MM	6dB	500M
RC-SDV1D13GRM	1-CH 3G-SDI with 1-CH Return Data RX Multimode	MM	6dB	500M

*Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels.