

# RC-SDV13GTR Series

1-CHANNEL 3G SDI VIDEO TRANSCEIVER



## OVERVIEW

RC-SDV13GTR Series video transmitter and receiver support highest-quality transmission of 1-channel uncompressed and realtime SDI/HD-SDI/3G-SDI video signal at data rate up to 2.97Gbps over one core single mode or multimode fiber. Fully compliant with SMPTE424M, 292M, 259M and ITU digital video standards, the RC-SDV13GTR ensures the highest performance for most demanding 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.

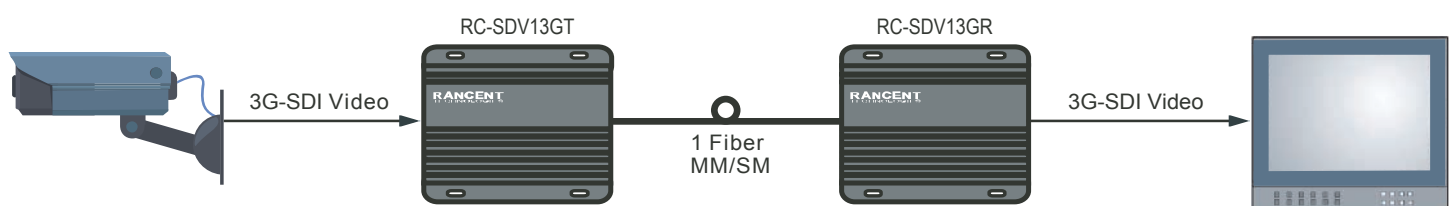
## FEATURES

- 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
- 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

## 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

## SYSTEM DESIGN



# RC-SDV13GTR Series

## 1-Channel 3G SDI Video Transceiver

### SPECIFICATIONS

#### Video

Signal Type	SDI, HD-SDI and 3G-HDI
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

#### Connector

Optical	LC (SFP)
Video	BNC

#### Video Output

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

#### 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-SDV13GTS	1-Channel 3G-SDI TX	Singlemode	20dB	30KM
RC-SDV13GRS	1-Channel 3G-SDI RX	Singlemode	20dB	30KM
RC-SDV13GTM	1-Channel 3G-SDI TX	Multimode	6dB	500M
RC-SDV13GRM	1-Channel 3G-SDI RX	Multimode	6dB	500M

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