

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.

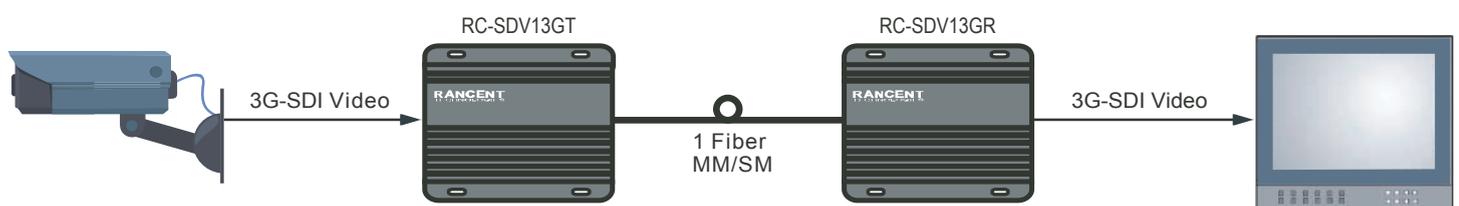
APPLICATIONS

- 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
- 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-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.