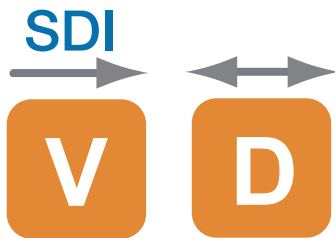


RC-SDV1D1TR Series

1-CHANNEL HD-SDI VIDEO WITH RETURN DATA TRANSCIVER



OVERVIEW

RC-SDV1D1TR Series SDI transmitter and receiver support optical transmission of 1-channel uncompressed and realtime SDI/HD-SDI video signal at data rate up to 1.485Gbps and reverse data (RS485) over one core singlemode or multimode fiber. Fully compliant with SMPTE424M, 292M, 259M and ITU digital video standards, the RC-SDV1D1TR 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.

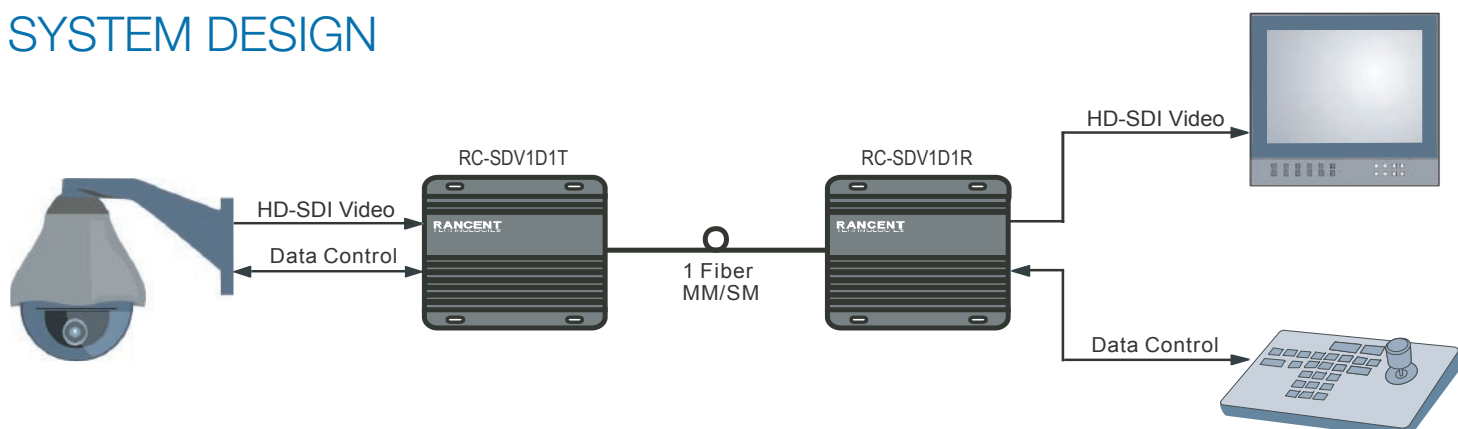
FEATURES

- HD/SD-SDI high definition digital code
- Non-compressed HD-SDI or SD-SDI signal transmission
- Simultaneous Transmission of HD-SDI Video and Data
- Support data rate up to 1.485Gbps
- 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-SDV1D1TR Series

1-Channel HD-SDI Video with Return Data Transceiver

SPECIFICATIONS

Video

| | |
|--------------------|--|
| Signal Type | SDI, HD-SDI |
| Video Resolution | 8 Bit/10Bit Auto |
| Data Rate | 270Mbps~1.485Gbps |
| 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~1.485Gbps |
| 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 |
| Input cable equalization | Up to -30 dB of cable loss |

Video Output

| | |
|-----------------------|----------------------|
| Video Output | BNC (75 ohms) |
| Video Output Channels | 1 |
| Re-clock | 270 Mbps, 1.485 Gbps |
| 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-SDV1D1TS | 1-CH HD-SDI with 1-CH Return Data TX Singlemode | SM | 20dB | 30KM |
| RC-SDV1D1RS | 1-CH HD-SDI with 1-CH Return Data RX Singlemode | SM | 20dB | 30KM |
| RC-SDV1D1TM | 1-CH HD-SDI with 1-CH Return Data TX Multimode | MM | 6dB | 500M |
| RC-SDV1D1RM | 1-CH HD-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.