

# RC-V1BD1A1T/R-C Series

1-CHANNEL DIGITALLY ENCODED VIDEO/  
1-CHANNEL BI-DIRECTIONAL DATA/  
1-CHANNEL BI-DIRECTIONAL AUDIO  
TRANSMITTER AND RECEIVER MODULE



## OVERVIEW

RC-V1BD1A1T/R-C series transmitter and receiver card module incorporates an all-digital encoding technology that transmits 1-channel 8-bit digitally encoded video, 1-channel bi-directional data and 1-channel bi-directional audio over one core singlemode or multimode fiber. The model is available as rack mountable cards that can be installed in Rancent's RC-300C 19" rack mount chassis. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations for different video transmission applications. The hot-pluggable and adjustment-free design ensures the convenience of the installation and operation.

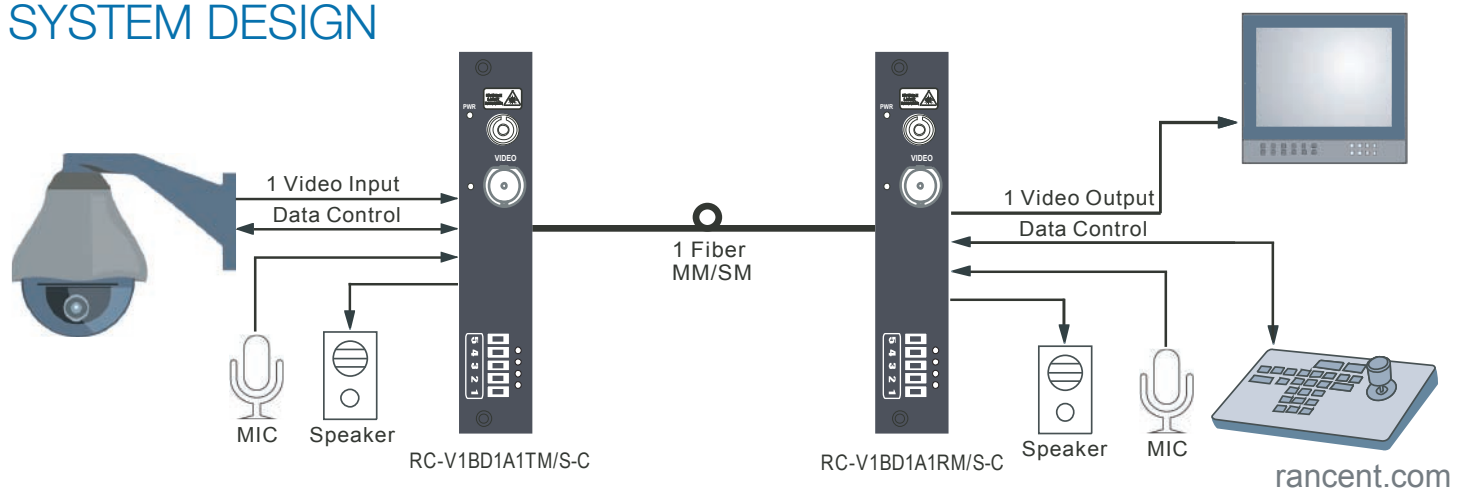
## APPLICATIONS

- CCTV(Fixed Video)
- Intelligent transportation systems (ITS)
- Security and surveillance
- Access Control

## FEATURES

- 8-Bit Digitally Encoded Uncompressed Transmission
- 24-Bit Digitally Encoded Audio Transmission
- Compatible with NTSC, PAL or SECAM Video Standards
- Simultaneous Transmission of Video, Data and Audio
- High Performance Laser-based Optics
- Plug-and-play Design with No Adjustment Required
- Local LED Indicators to Monitor System Status
- Wide Optical Dynamic Range
- No EMI, RFI, Cross Talk and Video Distortion
- Support up to 30KM
- No Video Degradation and Optical Attenuation
- Multimode or Singlemode Fiber
- Standalone or Rack Mount Options

## SYSTEM DESIGN



# RC-V1BD1A1TR-C Series

1-Channel Digital Encoded Video/1-channel Bi-directional Data /  
1-Channel Bi-directional Audio Transmitter and Receiver Module

## SPECIFICATIONS

### Video

Video Input	1 volt pk-pk (75 ohms)
Video Voltage Range	0.6~2.0Vp-p
Video Input/Output Channels	1
Bandwidth	5 Hz to 8 MHz
Bit Resolution	8-bit
Differential Gain	1%
Differential Phase	<1°
Tilt	< 1%
S/N Ratio	> 60dB (Weighted)

### Data

Data Protocol	RS485/RS422/RS232
Data Rate	0~300kps
Error Rate	10

### Audio

Audio Impedance	600 Ohms
Max Input/Output Voltage	2.0Vp-p
Frequency Response	10Hz ~ 20KHz
Bit Resolution	24-bit
S/N Ratio	> 95dB (Weighted)

### Indicating LEDs

Power Present  
Video Present

### Optical

Wavelength	850/1310nm, MM 1310/1550nm, SM
Optical Emitter	Laser Diode
Number of Fibers	1

### Connectors

Optical	ST or SC
Video	BNC
Data/Audio/Contact	Terminal Screws
Ethernet	Shielded RJ45

### General

Power Supply	DC5V 2A
Size	170 x 129 x 20.5mm
Construction:	Aluminum
Finish:	Paint
MTBF:	> 100,000 hours
Operating Temp	-35° C to + 65°C
Storage Temp	-40° C to +85°C

## ORDERING INFORMATION

Part Number	Description	Fiber	Optical PWR Budget	Max Distance
RC-V1BD1A1TS-C	1 Video/1 Bi Data/1 Bi Audio TX Module	Singlemode	20dB	30KM
RC-V1BD1A1RS-C	1 Video/1 Bi Data/1 Bi Audio RX Module	Singlemode	20dB	30KM
RC-V1BD1A1TM-C	1 Video/1 Bi Data/1 Bi Audio TX Module	Multimode	14dB	3KM
RC-V1BD1A1RM-C	1 Video/1 Bi Data/1 Bi Audio RX Module	Multimode	14dB	3KM

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