

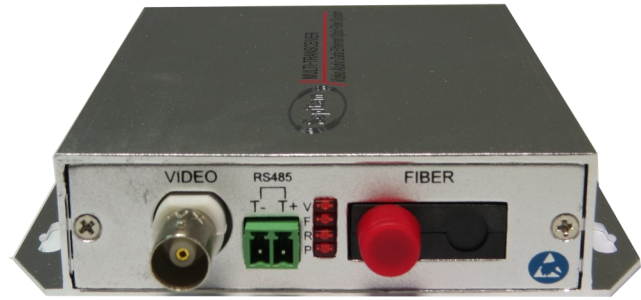


Optical Video Transceiver

TYPE: Sepitam-1V2bA-T/R

One Channel Video Series

Product Introduction



The One Channel Analog Video, and 2 bidirectional channel reverse Audio of our products, use advanced analog and digital technologies for pursuing high performance bidirectional data transmission over fiber optic. The transceiver can send signals more than 100 kilometers on fiber.

This link works properly in critical (very high and too low) temperature environments and work for years without any degradation in expected quality.

This good is fully transparent from front-end video device perspective. Just one fiber core is used to transmit all mentioned signals which can be any kind of fiber cables. The equipment also adopt non-compressed analog (video composite) signal in PAL or NTSC mode.

This Optical Transceiver is easily monitored by virtue of LED indication of working status and without any electrical or optical regulation on site.

This product is released in standalone and rack-mount (2U/4U) packages.

Fundamental Features :

- ◆ FC and SC interface as fiber optic connector for your choice
- ◆ Stand-alone and Rack-mount (2U/4U Card-type) for your choice
- ◆ Sampling rate up to 20MSPS and uncompressed video transmission (NRZ method)
- ◆ supporting any kind of analog video signal
- ◆ Compatible with NTSC,PAL, and SECAM video signals
- ◆ LED indication of working status for monitoring real-time operation
- ◆ Modular industrial design ensuring reliability and flexibility



Environmental Aspects:

- ◆ Working Temperature: -20 °C~+70 °C
- ◆ Storage Temperature: -25 °C~+75 °C
- ◆ Relative humidity: 0~95% (Non-condensing)
- ◆ Input Voltage: AC85-260v/50Hz
- ◆ MTBF: More than 100000 hours
- ◆ Internal power consumption: Less than 2A on +5 volt

Link Budget:

1- Multi mode transmitters:

| Fiber Type | Lose | Maximum Transmission Distance | Link power | Wavelength |
|------------|------------|-------------------------------|----------------|--------------|
| 62.5 um | 1 (dBm/Km) | 500(meter) | -19.5~-16(dBm) | 850、1310(nm) |

2- Single mode transmitters:

| Interface | Input/ Output Impedance | Input/ Output Voltage | Band-width | Sampling | Differential gain | Differential phase | SNR |
|-----------|-------------------------|-------------------------------------|------------|---------------------------------------|---|---|------------------|
| BNC | 75Ω (unbalanced) | Peak value = 1V Max value = 1.2V | 10MHz | Up to 20MHz high speed sampling | (10%-90% APL) DG < 1% (Typical value) | (10%-90%APL) DP <0.8° (Typical value) | S/N ≥ 70dB |

Video Characteristics:

| Directing | Interface terminal | Input/ Output Impedance | Input/ Output Voltage | Band-width | Sampling rate | Input/ Output electric power | Nonlinear distortion coefficient | SNR |
|-----------|-------------------------------|-----------------------------------|-----------------------|--------------------|---------------|------------------------------|----------------------------------|---------------|
| Reverse | Standard industrial connector | 600Ω (balanced/ unbalanced) | Peak value = 2 V | 20Hz ~ 20kHz | 58.6 KHz | 0(dBm) | ≤ 1% | S/N ≥ 85dB |



Audio Characteristics:

| Fiber Type | Lose | Maximum Transmission Distance | Link power | Wavelength |
|------------|--------------|-------------------------------|------------|----------------|
| 9/125um | 0.5 (dBm/Km) | 20(Kilo meter) | -8~-5(dBm) | 1310,1550(nm) |
| 9/125um | 0.5 (dBm/Km) | 40(Kilo meter) | -5~-3(dBm) | 1310、 1550(nm) |
| 9/125um | 0.25(dBm/Km) | 60(Kilo meter) | -3~-1(dBm) | 1310、 1550(nm) |
| 9/125um | 0.25(dBm/Km) | 100(Kilo meter) | 0~+3(dBm) | 1310、 1550(nm) |

Applications:

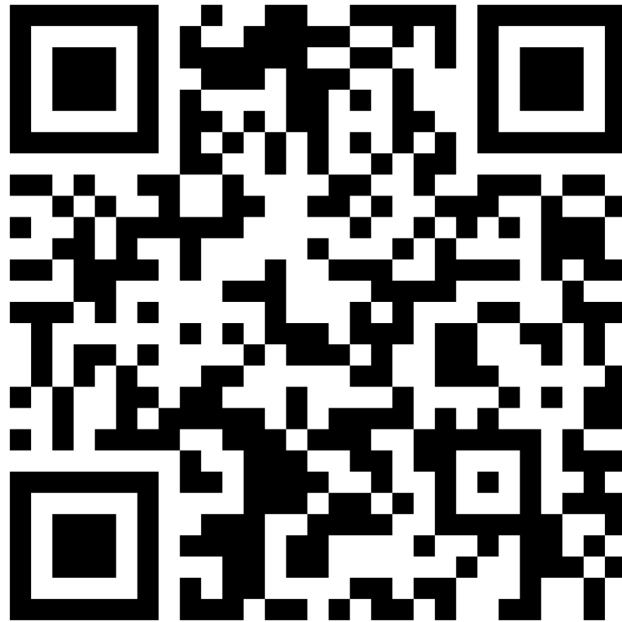
- ◆ CCTV and Security protection system
- ◆ Tele-Communication System
- ◆ Intelligent transportation supervisory system (ITS)
- ◆ Telemedicine
- ◆ E-learning& Campus monitoring
- ◆ Skyscraper Security Protection system
- ◆ Military Tele-Com projects
- ◆ Paging systems in big arena and stadium



Technical Specification of

Sepitam-1V2bA-T/R

شرکت سپیتام



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