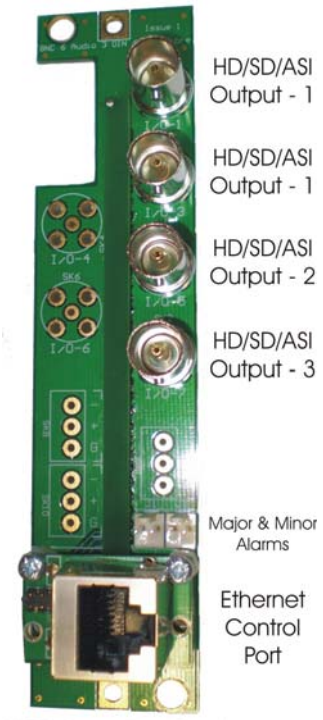
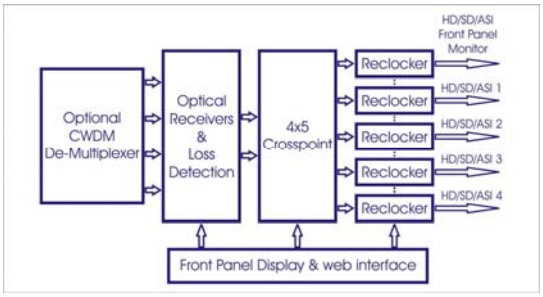
Digital Video Optical Receiver

SBC

Preliminary Specifications



NOTE - shown without Decal



Features

- Supports HD/SDI & ASI signals
- Non-inverting outputs
- Available in 1,2 or 4 channel versions
- Configurable as non-reclocking or re-clocking (143,270,1438,1485 Mbps)
- Input routing or failure switching with 4x4 crosspoint (multichannel versions)
- Front panel BNC monitoring
- Graphical Front Panel
- Web based monitoring & control

Description

The Digital Video Receiver is the complement of the Digital Video Transmitter. This receiver supports the short haul transmission of SD, HD & ASI formats over single mode fiber optic cable. The module can support up to four independent optical receivers operating on different wavelengths. The individual wavelengths are separated using an onboard passive optical de-multiplexer. Each channel is entirely independent; therefore, each channel can be of different data rate or format. This multiplexing technique avoids the channel restriction and jitter issues associated with time division multiplexing (TDM) methods. . A total aggregate data rate of 6Gbit/s is possible (4 x HD). Additionally, each channel could contain up to 4 SDI/ASI channels using HD encapsulation, thus providing a maximum of 16 channels of SDI/ASI over a single fiber. For multichannel implementations with greater redundancy, each module could be constructed with a single receiver and the optical input split using an external passive de-multiplexer. The front panel or web control allows control over input to output routing, behavior upon input loss and the enabling of re-clocking functions. The Digital Video Receiver is especially suited to mixed data rate environments or installations that may change in the future.

Specifications

Optical Inputs	
Number of Inputs	1
Fiber	Single Mode 9/125um
Sensitivity	-24dBm typical (depends configuration)
Connector	SC/PC (other types upon request)
APD Wavelength	1200-1600nm
Electrical Outputs	
Number of Outputs	Up to 4
Data Rate	143, 270 1483 & 1485 Mbps
Re-clocking	selectable (ON or OFF)
Return Loss	>15dB (5MHz – 1.5GHz)
Cable Slew Rate.	Automatic
Impedance	75 ohm
Connectors	75 ohm BNC female

Alarm & Control Interface

Graphical front panel display
Embedded Web server with 10/100 UTP Ethernet
RJ45 UTP on rear assembly
Major & minor alarm relay contacts (rear assembly)

Supported Standards

SMPTE - 259M (270Mbit/s), 292M (1483, 1485Mbit/s) 305M (SDTI) 310M
DVB-ASI - EN50083-9 (270Mbit/s)

Compatibility

Compatible with all SBC modules supporting digital video interfaces
Compatible with SBC 3RU, 84HP Eurocard frame
Compatibility with third party frames upon request.

Notes

This method can be scaled using external passive optical de-multiplexers and alternate laser wavelengths to provide up to 16 independent channels.

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