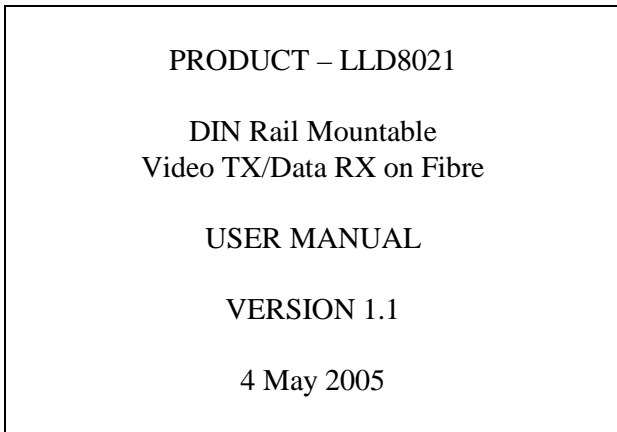


OS8021
 Author: W.D.
 Issue 1.0

USER MANUAL



1 PRODUCT DESCRIPTION

1.1 General

The LLD8021 is a Data Receiver and Video Transmitter.

The Data Receiver is used in Video Systems for low speed data communication interfaces over Fibre. It is compatible with LL232 which is a RS232 to fibre interface and the LL422 or LL8422 which is a RS422 or RS485 to fibre interface.

The Video Transmitter converts an composite video signal from a BNC connector to optical signal transmitted on fibre. When the video signal is present a led indicator will light up. This unit are to be mounted on a Din Rail at the PTZ Camera.

This unit operates autonomously.

1.2 Basic System Description

The main purpose of this unit is to provide a cost effective fibre optic interface for PTZ Camera installations. (Pan Tilt Zoom)

The Data Receiver is used to control the camera. It converts the optical converted RS422 or RS232, one directional data, signal back to an electrical signal and transmits it on the copper lines. The Video Transmitter converts the composite video signal into an optical signal.

Features

- Repeat data without interference.
- Interface directly to the LL8023 Dual channel RS422 Transmitter and Video Receiver.
- Compatible with standard composite video.

Uses

- Ideally suited for Pan tilt zoom systems in video applications.

1.3 Indications

Data TX - Data Receiver on Fibre
 Video RX - Video Transmitter on Fibre

Product: LLD8021	RS	Model:	
Serial Number:		JOB No :	
TEST	CRITERIA	RESULT	
Power Indicator	Functional		
Video Indicator	Functional		
RX Data Indicator	Functional		
RS422 Operation	Functional		
TX Optic Level	- dB		
RX Optic Level	- dB		
Budget			

Date: Tested By:

2 PRODUCT STOCK CODES

LLD8021__/RS422 - Dual RS422 Receiver and Video Transmitter on Fibre.

LLD8021__/RS232 – Dual RS232 Receiver and Video Transmitter on Fibre.

3 PREPARATION FOR USE

3.1 Unpacking

Each LLD8021 is shipped factory tested, and packed in a protective packaging.
Inspect the packaging for any visual damage.

The manufacturer is not liable for damage during shipment.

3.2 Connecting to Copper Cables

Connect the fibres to the unit at the appropriate connectors taking care not to bend the fibres.

The data connector is numbered from Left to Right when looking into the open wire clamp with screws on top.

Option	Data Connector	
	Pin 1	Pin 2
RS422 TX	RS422-	RS422+
RS232 TX	Ground	RS232 TX

For the video link connect the BNC connector to connector indicated for video.

Use Figure 1 for indication of connections and indications.

3.3 Installation

Ensure that the link loss over the fibre cable is within the power budget of the equipment.

4 OPERATOR’S INSTRUCTION

The unit needs no operator intervention to function.

If a fault arises, it is necessary to observe the alarm indications and to perform such procedures as first line maintenance as described in the proceeding chapter.

5 MAINTENANCE INSTRUCTIONS

No routine maintenance is required on this equipment.

5.1 First Line Maintenance

5.1.1 Instrument and tools required

- Optic power meter
- Multi-meter
- Oscilloscope.

5.1.2 Maintenance Procedure

When arriving at a suspect unit it is necessary to check that all connections are correctly made.

Check that all fibre connectors are plugged in correctly and that the fibre is undamaged.

The first thing to check after that is the power supply.

Use the optic power meter and measure the optic level coming out of the unit. Do this by disconnecting the ST connector and connect the Optic power meter using a short patch cord and check the optic emission level. If this level is to low or not present the unit must be faulty or the video signal is not present.

The next thing to check is the signal coming out of the fibre. Do this by disconnecting the fibre from the unit and connect it to the optic power meter. If this signal is to low or not present the fibre connection must be broken.

If all these tests have been done and the system is still not operational the supplier must be notified.

6 ORDERING INFORMATION

LLD8021 [Optic Option][Optic Connector Option]/Data Format Option

Optic Option	Wavelength	Range	Budget distance	Connector
AB	850nm	Short	3.5km	ST or SMA
BB	1300nm	Medium	12km	ST or SMA

7 SPECIFICATIONS

7.1 Electrical Characteristics

Power Supply

Power Connector -	2 Pin Screw Terminal
Supply Voltage -	9 to 18VDC
Supply Current -	100mA (max)

Video

Video Input Connector -	BNC Female
Input Impedance -	75 Ohms
System Bandwidth -	100 Hz to 10 MHz
Signal/Noise Ratio -	52 dB minimum

Data

Data Output Connector-	2Pin Screw Terminal
Data Transmission Standard-	RS422 or RS485 (one direction) Or RS232 (one direction)

7.2 Optical Characteristics

Connector -	ST or SMA
Reception Wavelength -	820 nm or 1300nm
Responsivity -	7 mV/μW Typical or 13mV/μW
Fibre Compatibility -	50/125 μm diameter
Minimum Receive Level-	-30dB

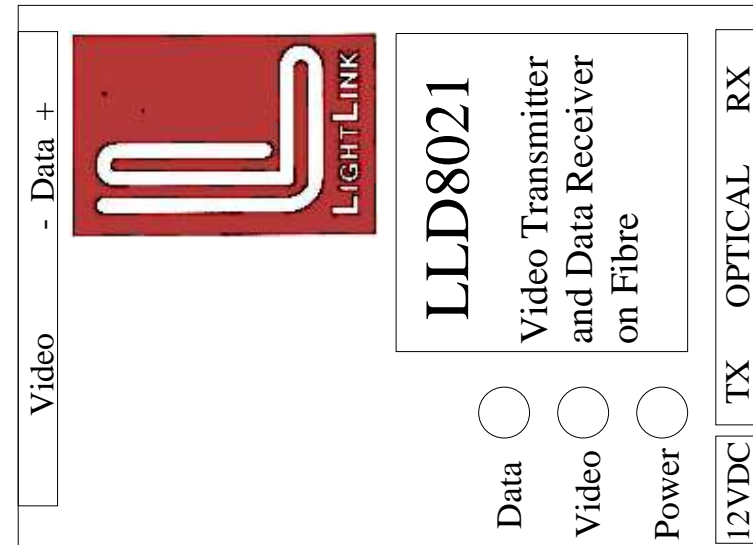
7.3 Physical Characteristics

Overall Unit Dimensions -	Length -	100 mm
	Width -	70mm
	Height -	50mm
Weight -	150 g (max)	

8 NOTES

Other Optic Options for single mode fibre available on request.

9 Figure 1



Notes:

10 Contact Details

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