PRODUCT - OS803T

3 CHANNEL VIDEO ON FIBRE TRANSMITTER WITH AGC

USER MANUAL

VERSION 1.0

13 JULY 1999

USER MANUAL

1. PRODUCT DESCRIPTION

1.1 General

The OS803T is a three channel Video to Fibre Transmitter unit.
This unit converts an composite video signal that is received from a BNC connector into an optical signal that is transmitted into a the Fibre. When the optic signal is present an led indicator will light up. Each card uses 3 Optic Transmitters

This unit is designed to fit into a OS800 19" sub rack system. The card is a standard eurocard size.

This unit operates autonomously.

1.2 Basic System Description

The unit consists out of 3 video to fibre transmitters and one voltage regulating circuit.
The power for this unit comes in trough an edge connector at the back of the unit. This edge connector plugs into a OS800 frame that is fitted with the correct backplane edge connectors.

Only one of the video to fibre transmitters is described due to the fact that the other two are exactly the same.

The Video signal is received by an BNC connector on the back of the card. The video input is 75Ω terminated.
This signal is the fed into a video to fibre converter.
On the output stage the video signal is converted to an optical signal and transmitted into the fibre on the front of the card.

Features

- Compatible with standard composite video.
- Compact design allows large concentration of video signals.
- Up to 3 channels per card.
- Multiple cards fit into OS800 - 19" rack system.
- Interface directly to the OS802 Single channel video receiver on fibre.

Uses

- Security systems.
- Long distance noise free video transmission.

1.3 Indications

Video signal - Indicates Video signal present.

2. PRODUCT STOCK CODES

OS803TAB 3 Channel Video on Fibre Transmitter with 850nm optics and ST optic connectors.

3. PREPARATION FOR USE

3.1 Unpacking

Check for physical damage caused during transportation. Return any damaged equipment.

3.2 Configuration of the links.

No links to be configure.

3.3 Installation.

It is not necessary to remove the cards from the sub rack.
Connect the fibres to the front of the card taking care not to bend the fibres.
Connect the BNC connectors to the back of the card.

4. OPERATOR'S INSTRUCTIONS

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 described in the first line maintenance chapter.

5. MAINTENANCE INSTRUCTIONS

No routine maintenance is required on this equipment.

5.1 First line maintenance.

5.1.1 Instruments 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. Check that the power to the OS800 is switched on. Then check the OS800 Power Supply for the voltage indicators(+V and -V) on the frontpannel. If none of the voltage indicator are working check the fuse on the back of

the OS800. If the fuse is replaced and the unit is still not working even without an load the OS800 power supply is faulty and must be replaced.

Check that the Video signal source is switched on and connected properly and that the video signal is present.

The next thing to check is the signal coming into the unit. Do this by connecting the ground of your oscilloscope to the GND testpin on the suspect unit. Then connect the probe to the Video input testpin on the back of the suspect channel. Measure this video signal to see if the signal is OK. This test pin is just below the BNC connector.

Use the optic power meter and measure the optic level coming out of the unit by connecting a short fibre to the output and to the Optic power meter and check the optic emission level. If this level is to low or not present the unit is faulty and must be replaced.

If all these tests have been done and the system is still not operational the unit must be returned to the supplier for repair.

6. Ordering Information:

Stock Code selection:

OS803 T [x][x][x]/[ver]

- [ver] — Version.(not specifically required for ordering)
- [x] — Power supply option.
- [x] — Optic Connector Option.
- [x] — Optic option.

OPTIC OPTION	WAVELENGTH	RANGE	BUDGET DISTANCE	OPTIC CONNECTOR OPTION		POWER SUPPLY OPTION	
A	850nm	Short range multi mode	3.5km	**A**	SMA	_	220VAC
B	1300nm	Medium range multi mode	12km	**B**	ST	_	110VAC
G	1300nm	Short range multi/single mode	8/12km			_	24V DC

7. SPECIFICATIONS

7.1 Electrical Characteristics

Power Supply

Power Connector - 20 Pin Double Sided Edge Connector
Supply Voltage - 12V ± 10% DC
Supply Current - 250 mA (max)

Power Dissipation - 3 Watt (max)

Video Input

Video Input Connector - BNC Female
Output Impedance - 75 Ohms
System Bandwidth - 100 Hz to 10 MHz
Signal/Noise Ratio - 52 dB minimum
Differential Gain - 2 % typical
Differential Phase - 2º typical

7.2 Optical Characteristics

Connector - ST or SMA
Reception Wavelength - 820 nm or 1300nm
Output Power - -18dB With video signal connected.
Fibre Compatibility - 50/125 μm diameter

7.3 Physical Characteristics

Space Consumption in 19" rack - rack height x 25 mm
Overall Unit Dimensions - Length - 171 mm
Width - 128.5 mm with frontplate for frame
Height - 25 mm with frontplate for frame

Weight - 150 g (max)