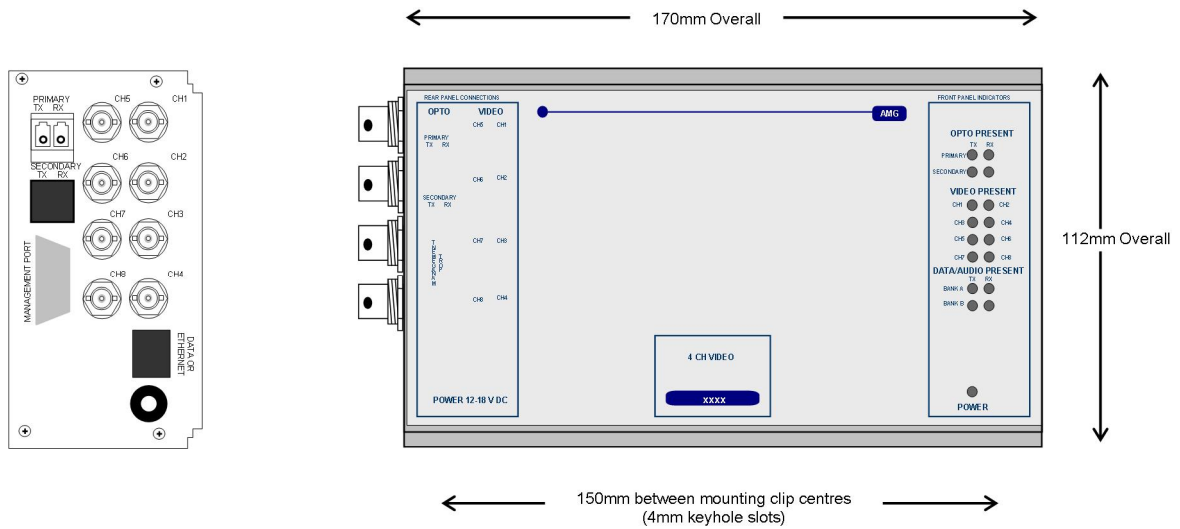




AMG4642 Instruction Manual

4 Channel Video Receive Unit for a Multimode Fibre Link



The **AMG4642** is a standalone four channel video receive unit designed to receive 4 video signals over one Multimode fibre.

The **AMG4642** is designed to be powered using an **AMG2003** standalone power supply.

The **AMG4642** is designed to operate with **AMG4641** or rackmount equivalent **AMG4641R** four channel video transmit unit in a point to point configuration.

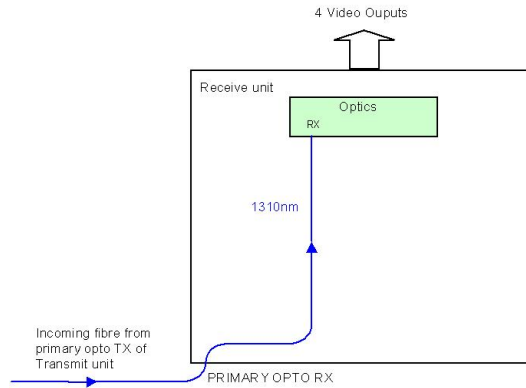
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Introduction

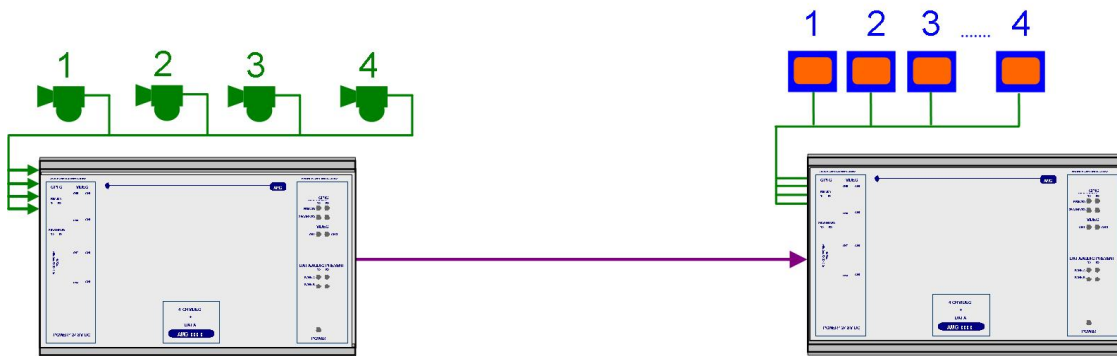
Unit Functional Schematic

The **AMG4642** receives up to 4 video signals from the **AMG4641**.



Optical Connection

The **AMG4642** is connected as illustrated below when used with an **AMG4641** 4-channel transmit unit acting as a point to point system.



Connections

Video Output Connections

No. of channels4
Connectors75 ohm BNC Socket.
Output Impedance75 ohm terminated.
Output Level1 Volt p-p nominal
Frequency Response.....10Hz to 7MHz.

Optical Connections

PRIMARY OPTO IN

ConnectorLC/PC
Primary Optical Sensitivity-22dBm
Wavelength1310nm
Optical FibreMultimode 50/125 or 62.5/125**

**Note: the transmission distance is limited by the bandwidth of the Multimode optical fibre. The optical data rate is 1.25Gbits/s. The maximum bandwidth specification at this data rate for Multimode fibre is 2km. although in most cases the units will operate successfully over longer fibre lengths. It is advisable however for distances greater than 2km, to have the optical fibre tested.

Power Connection

Connector Type2.1mm screw lock long power jack – centre positive
Connector Partno.....Switchcraft S761K, AMG G16125-00
Supply Voltage.....13.5 to 18.0 Volts DC.
Maximum Power10 Watts

Front Panel Indicators

Power LED

Power	Green	-	unit powered
	Off	-	no power applied to unit

Video Output LED's

Video Present CH1-4	Green	-	video signal present on output BNC
	Org	-	channel present but no video on O/P BNC
	Off	-	no video channel present

Fibre Optic LED's

Primary Opto Sync TX.....	Green	-	optical channel transmitting
	Off	-	optical channel not transmitting
Primary Opto Sync RX	Green	-	optical channel receiving
	Org	-	optical channel receiving but not sync.
	Off	-	optical channel not transmitting

Physical Information

Dimensions

Height..... 112mm
Width..... 170mm (excluding connectors)
Depth 70mm
Weight..... 1000grams

Mounting Details

The AMG unit is supplied with a clip-on mounting bracket which should be attached to a panel or wall using 2 off 4.0mm screws, see diagram on page 1 for dimensions. The unit is clipped into the mounting bracket, and is then held firmly in position.

Removal / replacement from / to the Case

Note: - The AMG unit PCB's are static sensitive. Handle with proper care and use normal electrostatic discharge (ESD) procedures. Use properly grounded protection (for example, wrist straps) when handling the PCB.

To remove units from the case to access the data expansion boards and the daughter boards, remove the 2 or 4 fixing screws on the rear panel and slide the PCB's out of the case. Ensure that the fibres do not snag or get trapped.

To replace the PCB's into the case, slide the PCB's gently into the case aligning the boards with the appropriate slots. Ensure that the fibre do not snag or get trapped.

Safety

AMG Optical Fibre Products use Class 1 laser systems in accordance with EN 60825-2:2000.

It is always advisable to follow good practice when working with optical fibre systems. This includes:

- Do not stare with unprotected eyes or with any unapproved collimating device at fibre ends or connector faces, or point them at other people.
- Use only approved filtered or attenuating viewing aids

For other safety issues and advice on good practice associated with optical fibre systems, please see EN 60825-2:2000 or your local safety officer.

Maintenance and Repair

There are no user serviceable parts within AMG products. See unit data sheet for full specification.

In case of problem or failure, please call your local support centre or contact: **AMG Systems Ltd.** at 3 The Omega Centre, Stratton Business Park, Biggleswade, Beds., SG18 8QB, UK.

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