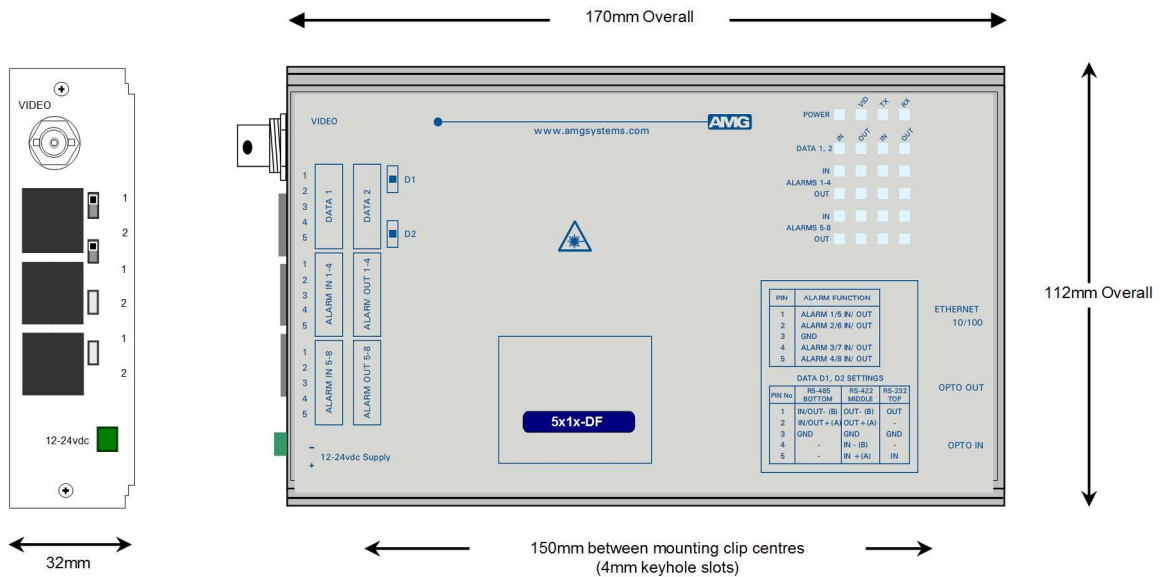




# AMG5812-DF Instruction Manual

## Single Channel Video Receive Unit with Ethernet for a Multimode Dual Fibre Link



The **AMG5812-DF** is a standalone one channel video receive unit designed to receive 1 video signal and provide full duplex 100Base-T Ethernet connectivity over two Multimode optical fibres.

The **AMG5812-DF** is designed to be powered using an **AMG2001** standalone power supply.

The **AMG5812-DF** is designed to operate with an **AMG5811-DF** or **AMG5811R-DF** video transmit unit in a point to point configuration. The R suffix in the partno. indicates a rackmount configuration.

# Contents

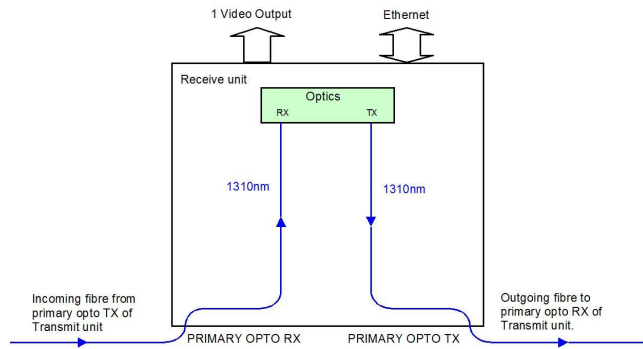
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# Introduction

## Unit Functional Schematic

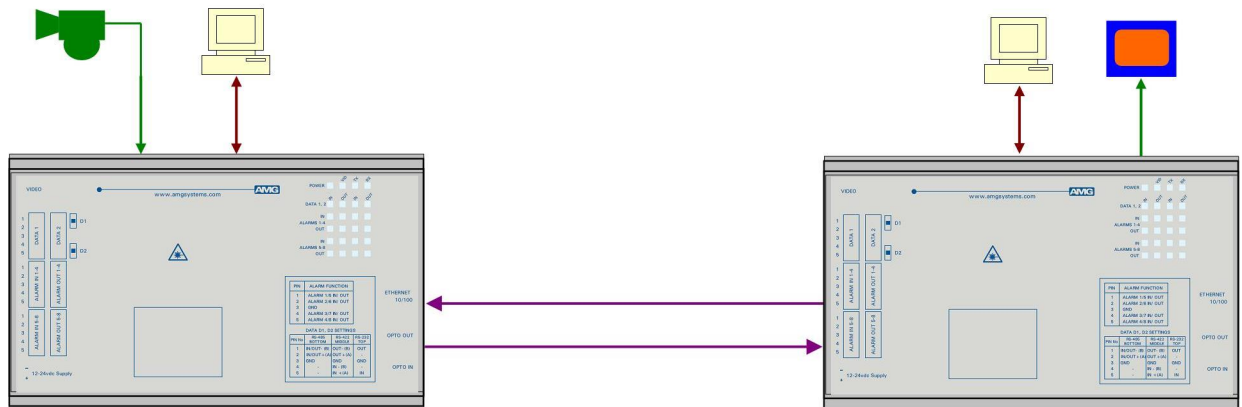
The **AMG5812-DF** receives 1 video channel transmitted from the **AMG5811-DF** transmit unit.

It also provides Ethernet connectivity with the **AMG5811-DF**.



## Optical Connection

The **AMG5812-DF** connections are illustrated in the following example which shows an **AMG5811-DF** transmit unit together with an **AMG5812-DF** standalone receive unit configured as a single channel point to point system.



## **Connections**

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### **Video Output Connections**

Connectors ..... 75 ohm BNC Socket.  
Output Impedance ..... 75 ohm terminated.  
Output Level ..... 1 Volt p-p nominal  
Frequency Response ..... 10Hz to 7MHz.

### **Optical Connection Multimode**

Optical Fibres ..... Multimode 50/125 or 62.5/125\*\*  
Connectors ..... SC/PC

Minimum Optical Launch Power ..... -15dBm  
Transmit Wavelength ..... 1310nm  
Minimum Optical Sensitivity ..... -34dBm  
Receive Wavelength ..... 1310nm  
Minimum Optical Dynamic Range ..... 19dB.

\*\*Note : the maximum transmission distance is 2km. This is limited by the bandwidth of the Multimode optical fibres.

### **Power Connection**

Connector Type ..... Removable 2-pin, 3.81mm, Screw Terminal  
Connector Partno..... Phoenix 1803578  
Supply Voltage..... +12 to +15 Volts DC  
Maximum Power ..... 2.5 Watts

### **Ethernet Connection**

Ethernet Data Connector ..... RJ45  
Interface ..... Auto-negotiation up to 100BASE-TX full duplex  
Ethernet Data Rate ..... Maximum 100Mb/s total Ethernet traffic on fibre

## Front Panel Indicators

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### Power LED

POWER.....	Green	-	Power is present
	Off	-	Power is not present
VIDEO .....	Green	-	Video output signal is present
	Off	-	Video input signal is not present
OPTO TX.....	Green	-	Tx opto. present
	Off	-	Tx opto. is not present
OPTO RX .....	Green	-	Rx opto. sync.
	Off	-	Rx opto. is not sync.

### Ethernet Data LEDs

Link not Present .....	Yellow	-	Link not present
	Off	-	Link is present
Link Integrity .....	Green	-	Link integrity is good, Idle state
	GBlink	-	Data transfer
	Off	-	Link not present

## ***Ethernet Operation***

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The Ethernet interface supports "Auto-Negotiation" and will operate at either 10Mbps/s half duplex or 100Mbit/s full duplex. Data is transmitted from one port the other port with minimum delay or buffering.

The port also implements "Auto MDI/MDIX" i.e. it may be connected with aeither a straight-though or cross-over cable to an appropriate device such as external switch, PC or other DCE/DTE.

Two LED indicators are provided adjacent to the RJ-45 port: Green indicates Link / Data transfer and Yellow when in half-duplex mode.

## **Physical Information**

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### **Dimensions**

Height..... 112mm  
Width..... 170mm (excluding connectors)  
Depth..... 35mm  
Weight..... 200grams

### **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.

## **Safety**

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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**

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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.

Phone	+44 (0) 1767 600 777
Technical Support	+44 (0) 1767 604 491
Email	techsupport@amgsystems.com

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