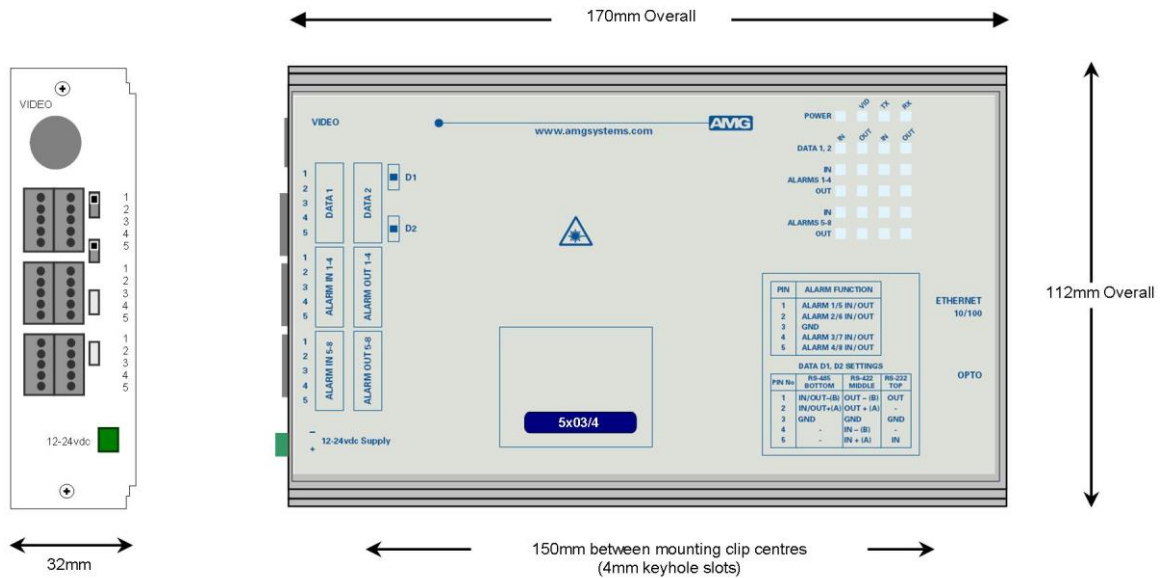




# AMG5801-DF Instruction Manual

## 100BASE-TX Ethernet Media Converter Transmit Unit for a Multimode Dual Fibre Link



The **AMG5801-DF** is a standalone Ethernet Media Converter transmit unit designed to provide 100BASE-TX full duplex Ethernet connectivity over two Multimode fibres.

The **AMG5801-DF** is designed to be powered using an **AMG2001** standalone power supply.

The **AMG5801-DF** is designed to operate with an **AMG5802-DF** standalone or **AMG5802R-DF** rackmount Ethernet data receive unit in a point to point configuration.

# Contents

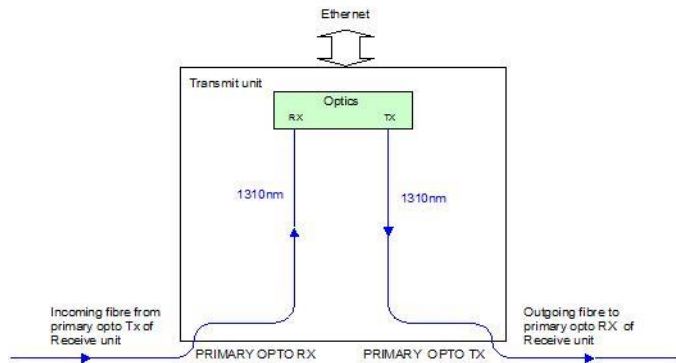
<b>Introduction</b>	<b>3</b>
Unit Functional Schematic.....	3
Optical Connection .....	3
<b>Connections</b>	<b>4</b>
Optical Connection Multimode.....	4
Power Connection .....	4
Ethernet Connection .....	4
<b>Front Panel Indicators</b>	<b>5</b>
Power LED.....	5
Ethernet Data LEDs.....	5
<b>Ethernet Operation</b>	<b>6</b>
<b>Physical Information</b>	<b>7</b>
Dimensions .....	7
Mounting Details .....	7
<b>Safety</b>	<b>7</b>
<b>Maintenance and Repair</b>	<b>7</b>

# Introduction

## Unit Functional Schematic

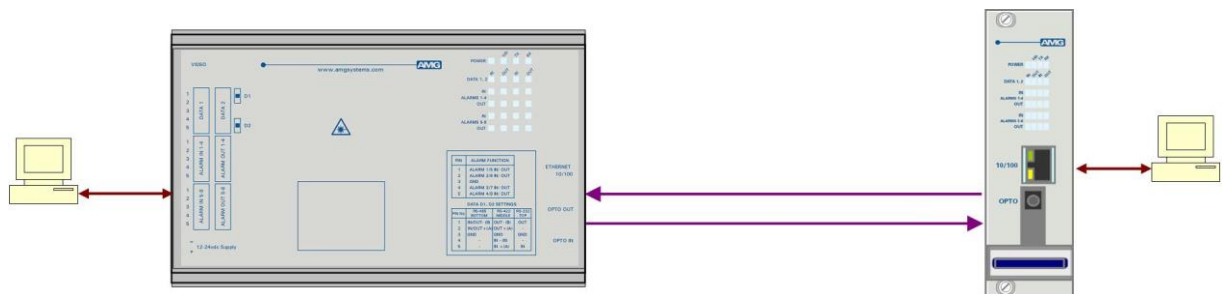
The **AMG5801-DF** transmits Ethernet data to the **AMG5802R-DF** receive unit.

It also receives Ethernet data transmitted from the **AMG5802R-DF**.



## Optical Connection

The **AMG5801-DF** connections are illustrated in the following example which shows an **AMG5801-DF** standalone Media Converter transmit unit together with an **AMG5802R-DF** rackmount Media Converter receive unit configured as a point to point system.



## **Connections**

---

### **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 .....5 Watts

### **Ethernet Connection**

Ethernet Data Connector .....RJ45  
Interface.....Auto MDI/MDIX 100BASE-TX  
Ethernet Data Rate.....Maximum 100Mb/s full duplex

## **Front Panel Indicators**

---

### **Power LED**

POWER .....	Green	-	Power is present
	Off	-	Power is not present
VIDEO .....	Off	-	Not used
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***

---

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**

---

### **Dimensions**

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

## **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.

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

This page is intentionally blank.