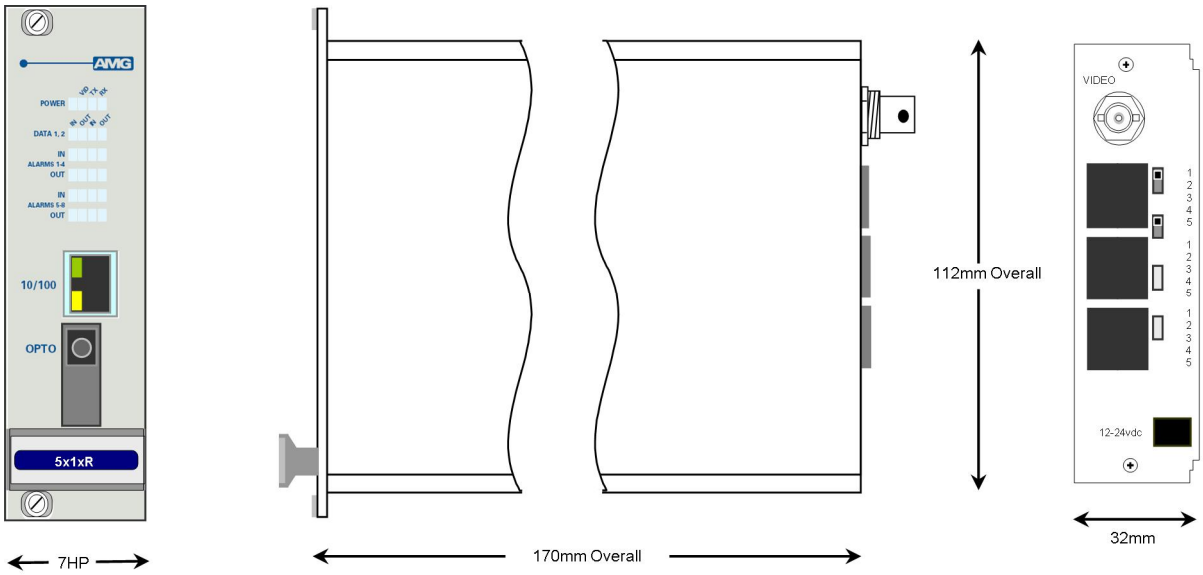
Single Channel Video Receive Unit plus Ethernet for a Multimode Fibre Link



The **AMG5812R** is a rackmount one channel video receive unit designed to receive 1 video signal and provide full duplex 100Base-T Ethernet connectivity over one Multimode optical fibre.

The **AMG5812R** is designed to plug into an **AMG2009** or **AMG2015** subrack, which in turn fits into a 19" rack system.

The **AMG5812R** is designed to operate with an **AMG5811** or **AMG5811R** video transmit unit in a point to point configuration. The R suffix in the partno. indicates a rackmount configuration.

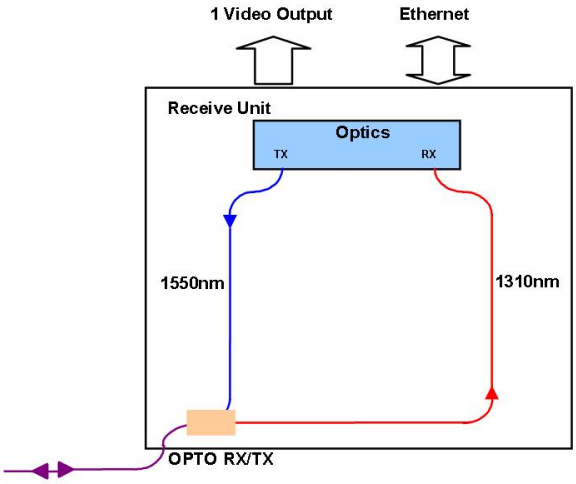
Contents

Introduction

Unit Functional Schematic

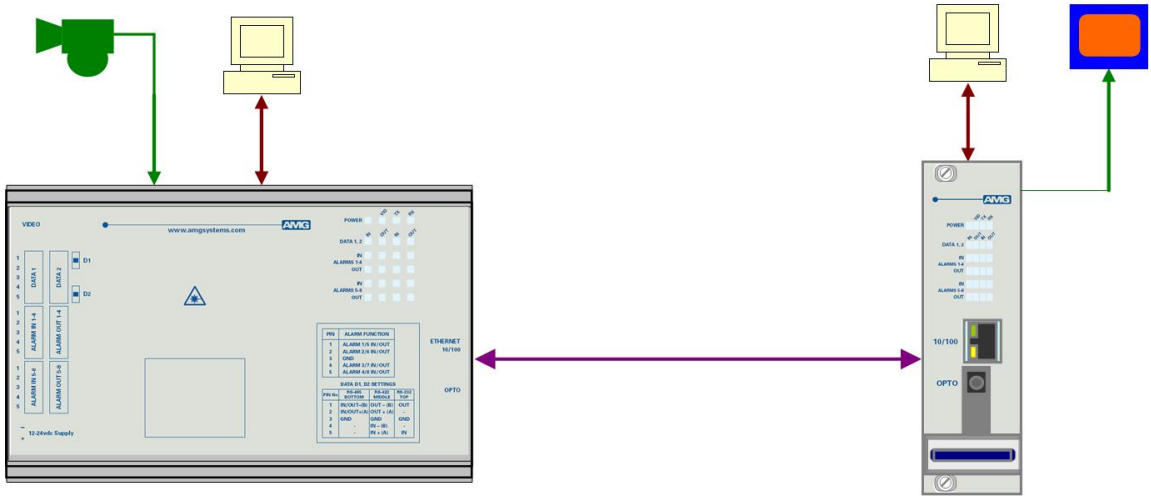
The **AMG5812R** receives 1 video channel from the **AMG5811** transmit unit.

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



Optical Connection

The **AMG5812R** connections are illustrated in the following example which shows an **AMG5811** single channel transmit unit together with a **AMG5812R** configured as a point to point system.



Connections

Video Output Connection

Connector .....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 Fibre .....Multimode 50/125 or 62.5/125**
Connector .....SC/PC

Minimum Optical Launch Power.....-10dBm
Transmit Wavelength.....1550nm
Minimum Optical Sensitivity.....-30dBm
Receive Wavelength.....1310nm
Minimum Optical Dynamic Range .....20dB.

**Note: the transmission distance is limited by the bandwidth of the Multimode optical fibre. The optical data rate is 155Mbits/s, which may restrict operation to a maximum fibre length of 7km, although in most cases the units will operate successfully over longer fibre lengths. It is advisable however for distances greater than 7km, to have the optical fibre tested.

Power Connection

Power supply .....From plug in connection on the AMG2009 or AMG2015 subrack
Power consumption .....2.5 Watts max.

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

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

The Ethernet interface supports "Auto-Negotiation" and will operate at either 10Mbits/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 ..... 3U Plug-in
Width 7HP
Depth ..... 170mm excluding connectors
Weight 200grams

Mounting Details

The unit is designed to be mounted within an AMG2009 or AMG2015 Subrack on standard card guides.

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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