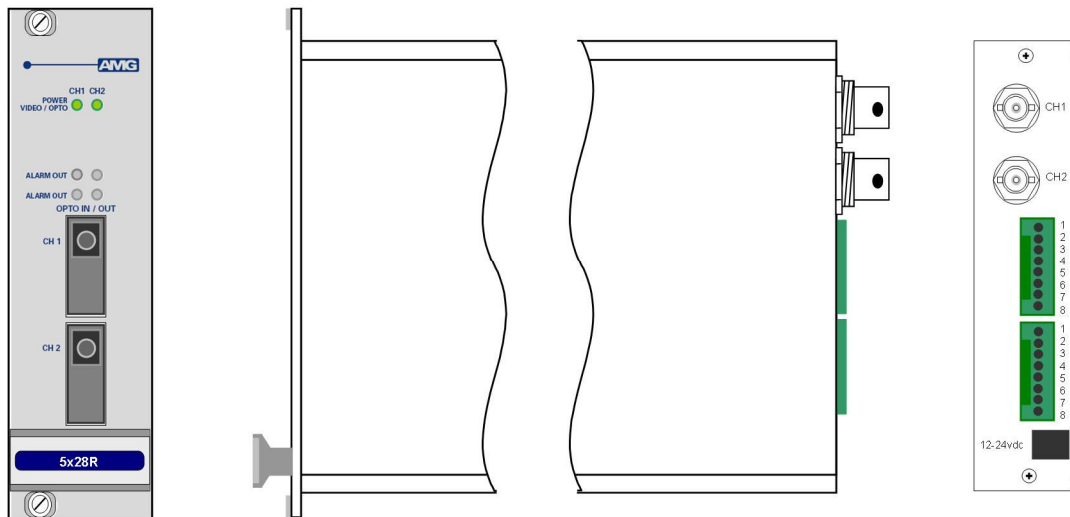


## Dual System with 2x Independent Channels each of :

### [Single Channel Video Receive Unit with two Uni-directional Alarms for a Multimode Fibre Link]



The **AMG5628R** is a **DUAL** rackmount system which provides two independent channels, each designed to receive 1 video signal plus 2 uni-directional alarms over a single Multimode optical fibre.

The **AMG5628R** is designed to plug into an **AMG2005** or **AMG2009** subrack, which in turn fits into a 19" rack system.

The **AMG5628R** is designed to operate with two **AMG5617** single channel or one **AMG5627 / 5627R** dual channel video transmit units in a point to point configuration. The R suffix in the partno. indicates a rackmount configuration.

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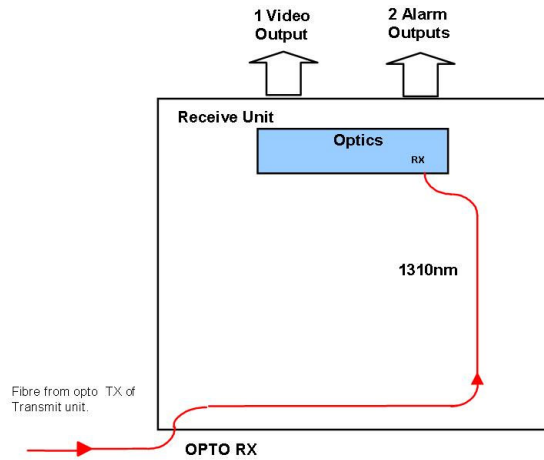
# Introduction

## Unit Functional Schematic

The **AMG5628R** provides two independent, receive channels.

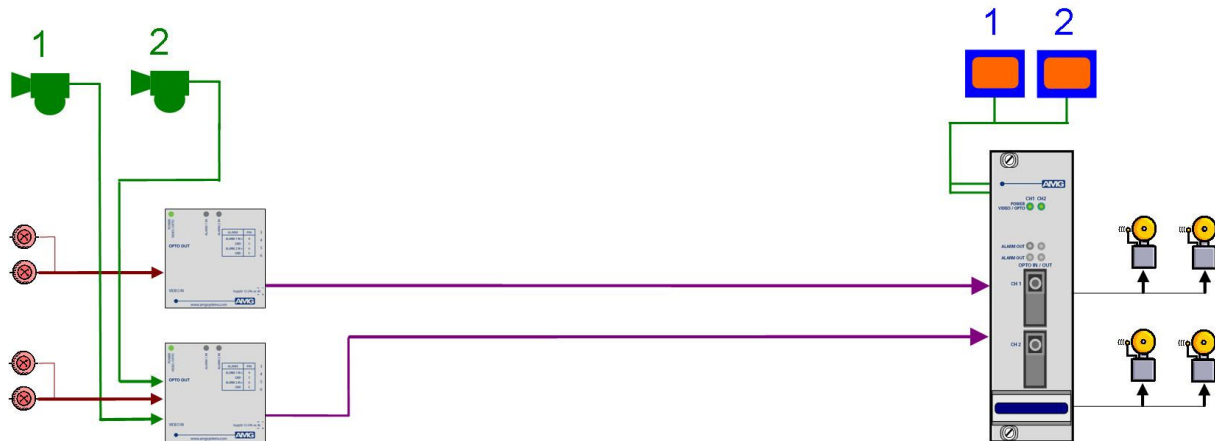
Each channel receives 1 video signal plus 2 uni-directional alarm signals from up to two **AMG5617** transmit units.

The schematic diagram shows one of the two available channels of the **AMG5628R**



## Optical Connection

The **AMG5628R** connections are illustrated in the following example which shows two **AMG5617** single channel transmit units together with an **AMG5628R** configured as a dual channel point to point system.



## **Connections**

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### **Video Output Connections**

No. of channels .....2 independent video channels  
Connectors .....75 ohm BNC Socket.  
Output Impedance .....75 ohm terminated.  
Output Level .....1 Volt p-p nominal  
Frequency Response.....10Hz to 7MHz.

### **Optical Connections Multimode**

No. of Optical Connections .....1 per video channel  
Optical Fibre .....Multimode 50/125 or 62.5/125\*\*  
Connector .....SC/PC

Minimum Optical Launch Power .....-10dBm  
Transmit Wavelength.....1310nm

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 155Mbps/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.

### **Alarm Channel Connections**

No. of Alarm Outputs .....2 per video channel.  
Connectors .....Removable 8-pin, 2.5mm, Screw Terminal  
Connector Partno.....Phoenix 1881383  
Alarm Outputs.....Solid-state Relay, maximum 150mA at 125Vac/dc, Ron < 6.5Ω

## Alarm Channel Configuration

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### Alarm Channel Configuration

The **AMG5628R** provides 2 uni-directional alarm outputs per video channel.

Each alarm output provides a set of contacts from a solid state relay.

**Alarm Output 1** : Provides a pair of normally open, volt-free contacts from a solid-state relay.

**Alarm Output 2** : Provides a normally open, switched contact to 0V/GND from a solid-state relay.

### Alarm Interface Connections

#### Video Channels 1 & 2

Connector Pin No.	Alarm Interface	
	Alarm 1	Alarm 2
1		
2		
3		ALARM 2 GND
4		ALARM 2 OUT +
5	ALARM 1 OUT -	
6	ALARM 1 OUT +	
7		
8		

## Front Panel Indicators

---

### Power LED

Power / Video / Opto .....	Green	-	Video present & opto sync.
	R/G	-	Opto sync. but no video present.
	Red	-	No opto sync.
	Off	-	No power applied to unit.

### Alarm LEDs

#### Channel 1

ALARM 1 OUT.....	Green	-	Alarm ON / Contacts closed.
	Off	-	Alarm OFF / Contacts open.

ALARM 2 OUT.....	Green	-	Alarm ON / Contacts closed.
	Off	-	Alarm OFF / Contacts open.

#### Channel 2

ALARM 1 OUT.....	Green	-	Alarm ON / Contacts closed.
	Off	-	Alarm OFF / Contacts open.

ALARM 2 OUT.....	Green	-	Alarm ON / Contacts closed.
	Off	-	Alarm OFF / Contacts open.

## **Physical Information**

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### **Dimensions**

Height.....3U Plug-in  
Width.....7HP  
Depth .....170mm excluding connectors  
Weight.....600grams

### **Mounting Details**

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

### **Removal / replacement from / to the Case**

Note: - The AMG unit PCB is 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 out of the case.

To remove the PCB from the case for example to access a Low Speed Data mode switch, remove the 2 fixing screws on the rear panel and slide the PCB sufficiently out of the case to enable access to the switch.

To replace the PCB into the case, slide the PCB gently into the case, if necessary aligning the board with the appropriate slots.

## **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.

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