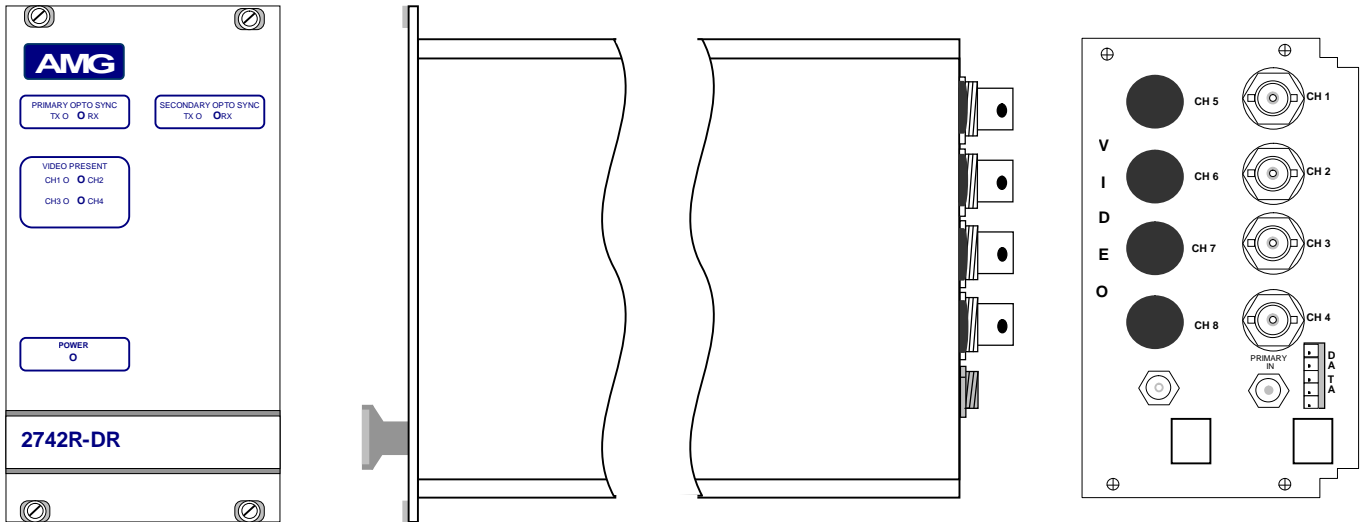




AMG2742R-DR Instruction Manual

Four Channel Video RX Unit with Dual Optical Input for Dual Redundant Operation



The **AMG2742R-DR** is a four channel video only receive unit designed to receive four video signals either of from two Singlemode fibres, a primary route fibre and a secondary route fibre, for dual redundant operation. The **AMG2741R** is designed to plug into an **AMG2000** or an **AMG2005** Subrack which in turn fits into a 19" rack system.

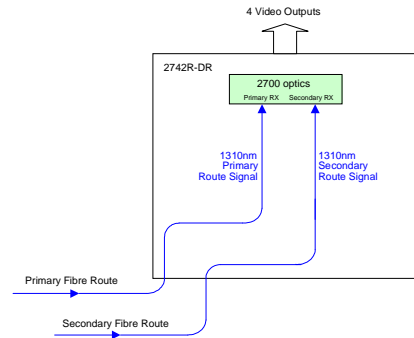
The **AMG2742R-DR** is designed to operate with an **AMG2741R-DR** dual redundant four channel video only receive unit or with an **AMG2741R** unit fed through an **AMG2781R-1550-WDM-DR** which would create the two optical paths.

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Introduction

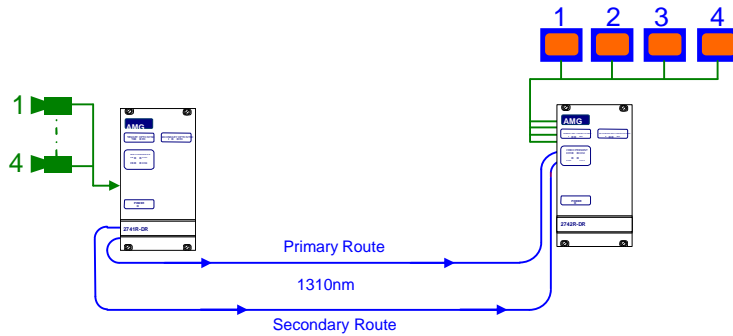
Unit Functional Schematic

The unit receives optical signal at from two fibre optic paths. The unit then demultiplexes the four video signals on the 1310nm primary optical fibre route. If no signal is present on the primary optical fibre route the unit then demultiplexes the four video signals on the 1310nm secondary optical fibre route.



Optical System Connection

The units are designed to be connected a point to point dual redundant system as shown below.

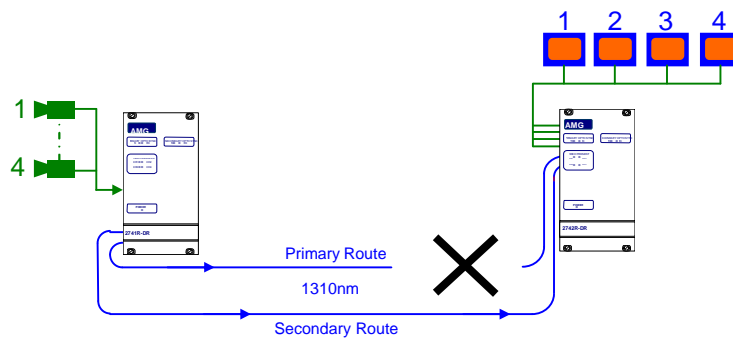


The schematic above shows 4 channel operations. For use with AMG2782R-1550-WDM-DR for 12 channel systems see AMG2782R-1550-WDM-DR Instruction Sheet.

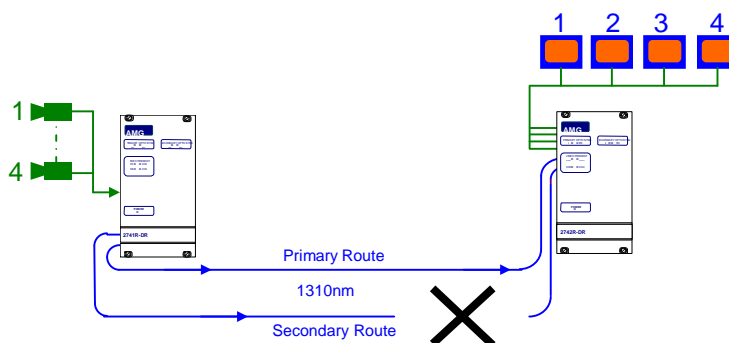
Dual Redundant Operation

The optical signal is transmitted simultaneously along both the primary optical route and the secondary optical route. In the event of a break in either the primary optical route or the secondary optical route the transmission of the 4 video channels will not be affected and no video signals will be lost at the receiver. See below.

Primary Route Break



Secondary Route Break



Connections

Video Output Connections

No of Channels	4
Connectors	75 ohm BNC Socket.
Output Impedance	75 ohm terminated.
Output Level	1 volt p-p nominal
Frequency Response	10Hz to 5.75MHz min.

Optical Connections

OPTO IN PRIMARY

Connector	FC/PC
Min. Optical Receive Power	-22dBm
Wavelength	1310nm

OPTO IN SECONDARY

Connector	FC/PC
Min. Optical Receive Power	-22dBm
Wavelength	1310nm

Power Connection

Power supply	from plug in connection on the 2000 or 2005 subrack
Power consumption	15 Watts max.

Indicators

Power	Green	– unit powered
	Off	– no power applied to unit
Primary Opto Sync RX	Green	– Primary Optical Channel Receiving
	Off	– Primary Optical Channel not Receiving
Primary Opto Sync TX	Not used	
Secondary Opto Sync RX	Green	– Secondary Optical Channel Receiving
	Off	– Secondary Optical Channel not Receiving
Secondary Opto Sync TX	Not used	
Video Present	Green	– video signal present on video the channel indicated.
	Red/Green	– video channel available on the fibre but no video signal being transmitted
	Off	– no video channel available on the fibre.

Physical Information

Dimensions

Height	3U Plug-in
Width	14HP
Depth	170mm excluding connectors
Weight	900grams

Mounting Details

The unit is designed to be mounted within a 2000 or 2005 Subrack on standard card guides. Note the AMG standard racks are supplied with guide rails every 7HP. In order to fit this unit in the subrack, 1 set of card guides have to be removed by pulling gently on the card guides.

The 2000 series Subrack is fitted with a 50 watt power supply. A maximum of 3 units may be fitted into one 2000 series Subrack.

The 2005 series Subrack is fitted with a 100 watt power supply. A maximum of 5 units may be fitted into one 2005 series Subrack limited by the 70HP rack space.

Safety

The 2700 series of products uses a Class 1 laser system 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 the optical fibres systems see EN 60825-2:2000 or your local safety officer.

Maintenance and Repair

There are no user serviceable parts within the AMG2700 products.

In case of problem or failure contact your local support centre or AMG Systems Ltd, Technical Support Department on tel. +44 (0) 1767 600777.

See unit data sheet for full specification.