AMG5118 Instruction Manual

2 Channel SDI Video + RS422 Transmit and Receive Units for a single Singlemode Fibre Link

The **AMG5118** is a standalone two channel SDI video transmit and receive unit pair designed to transmit 2 SDI video signals together with bi-directional RS422 over one singlemode fibre.

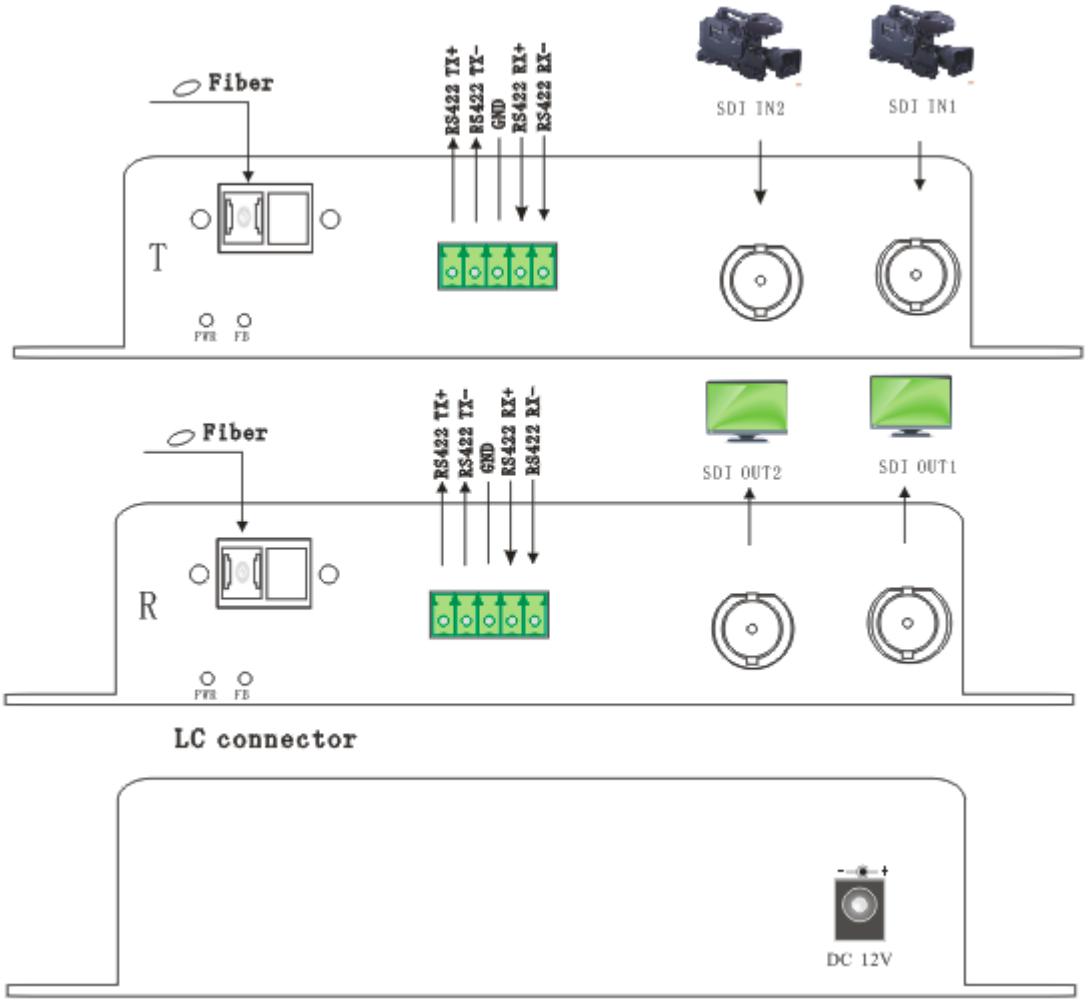
Each **AMG5118** unit is designed to be powered using an included standalone power supplies.

Contents

Introduction

System Connections

The **AMG5118** unit connections are as illustrated below.



Connections

Video Input Connections

No. of Channels 2
Connector .....75 ohm BNC Socket.
Input Impedance .....75 ohm terminated.
Signal Type .....SMPTE 292M, SMPTE 259M, SMPTE 424M
Data Rates .....270Mbits/s – 2.97Gbits/s
Cable Equalization .....Automatic Equalization (Belden 1694A Cable)
250m for 270Mbits/s, 140m for 1.48Gbits/s, 80m for 2.97Gbits/s.

Optical Connections

Connector .....single LC/PC
Optical Dynamic Range .....10dB minimum
Wavelength 1310nm, 1490nm, 1500nm, 1610nm
Optical Fibre .....Singlemode
Distance 10km

Power Connection

Connector Type .....5.5 x 2.5 DC power jack – centre positive
Supply Voltage.....nominally 12 Volts DC (Range 5 to 28 volts dc).
Maximum Power .....6 Watts

Data Channel Connection

No. of Channels 1
Data Protocol RS422
Data Connector.....5 pin plug-in screw terminal
Data Rate.....0 - 200kbits/s

Optical Power

Individual wavelength Signals (not combined)

Optical Launch Power.....-5dBm to 0dBm per wavelength
Optical Receiver Sensitivity .....<-18dBm per wavelength.
Receiver Saturation .....>0dBm per wavelength.
Optical Link Budget
not including optical
Multiplexor losses .....>13dB

including optical
Multiplexor losses .....>10dB

Front Panel Indicators

Power LED

Power	Red	-	unit powered
	Off	-	no power applied to unit

SDI in/out LED

SDI.....	Green	-	SDI signal present on input BNC
	Flashing Green		SDI signal NOT present on input BNC

Fibre Optic LED's

FB	Green	-	optical fibre connected
	Flashing Green	-	optical fibre NOT connected

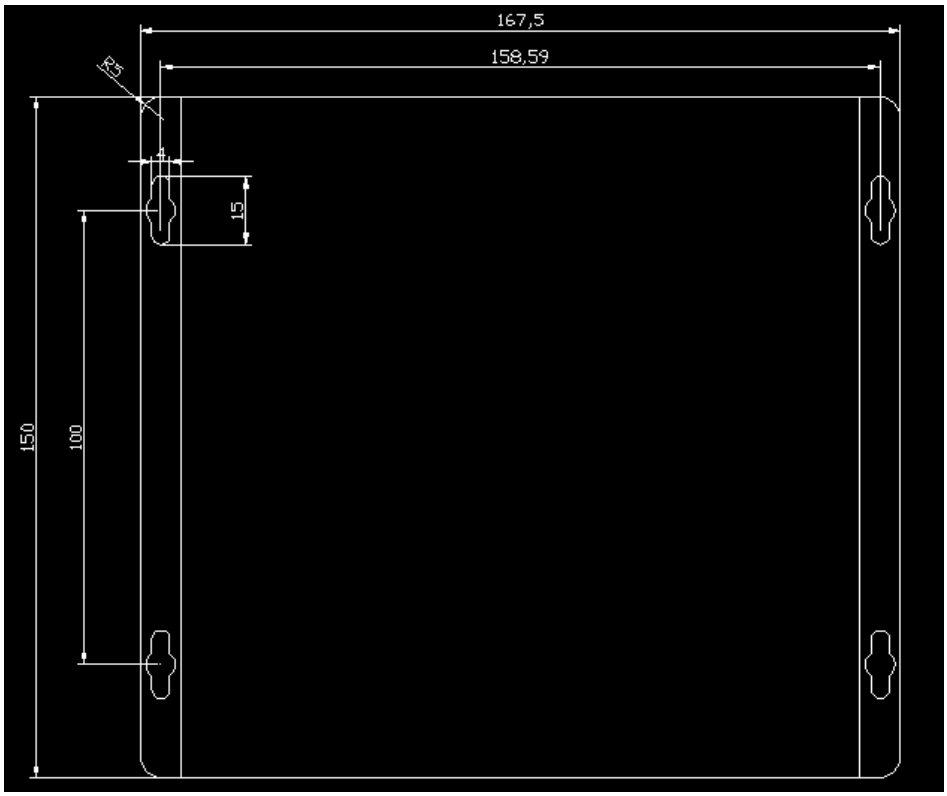
Note: The SDI and FB LEDs indicate when signals are not present. The FB LED does not indicate the optical power level is within the operation range. It is important to operate within a 10dB Link budget.

Physical Information

Height	45mm
Width	168mm
Depth	154mm
Weight	1250grams
Case Material	Aluminium
Operating Temperature	-26C to 70C
Storage Temperature	-40C to 85C

Mounting Details

There are 4 off mounting holes, positioned as per below.



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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