



AMG1321 Video Amplifier

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Introduction

The AMG1321 is a single channel adaptive video equaliser designed to automatically compensate for long runs of RG59 or other types of 75 ohm cable. It will produce a high a quality video output with no user interaction. The AMG1321 will equalize up to 1600metres of RG59 cable and compensate for high frequency cable losses of up to 60dB at 5MHz.

Connections

Video Connection

Video Input (after the cable run)75ohm BNC
Differential AC coupled input with internal DC restoration

Video Output (restored video).....75ohm BNC
Single ended output
(Coax screen should be grounded locally – either via BNC video terminating equipment or using a separate connection to ground)

Power Connection

Connector TypeRemovable 2-pin, 3.81mm, Screw Terminal
Connector Part no.....Phoenix 1803578
Supply Voltage.....+12 to +15 Volts DC
Maximum Power1.5 Watts

Safety Earth Connection

Connector TypeScrew Terminal
Connect to Safety ground – used to dissipate large voltage surges (>90volt) coming in on the Video input connector.
(not connected to any signal ground)

Front Panel Indicators

Power LED

POWER	Green	-	Power is present
	Off	-	Power is not present
LOCK	Blue	-	Video Gain Locked (see below for description)

Video Gain Lock Operation

MODE 1

Slide the switch towards the power connector. When the input cable transmitting a video signal is connected to the video input, the Amplifier will automatically calibrate its gain to output a high quality compensated video signal. It will maintain this setting, even if the video input connection is removed, until the AMG1321 is re-powered or the slide switch is changed to MODE 2 and back to MODE 1. Note the LOCK light will be illuminated blue when the unit is locked. THIS SHOULD BE USED FOR NORMAL OPERATION.

MODE 2

Slide the switch away from the power connector. When the input cable transmitting a video signal is connected to the video input, the Amplifier will automatically calibrate its gain to output a high quality compensated video signal. It will continue to recalibrate continually. This setting should NOT be used for normal operation.

Physical Information

Dimensions

Height.....25mm
Width.....50mm
Depth.....100 including connectors
Weight.....150grams

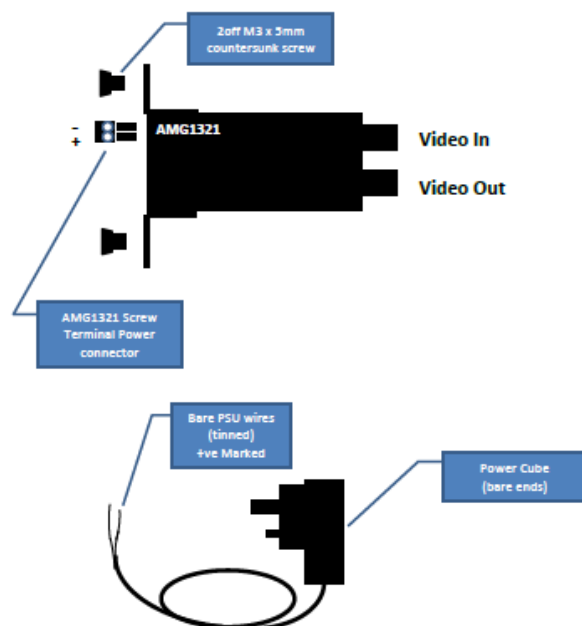
Mounting Details

The AMG1321 unit is supplied without any mounting hardware.

The AMG1320 Video Amplifier Rack is a 1U panel with mounting holes and mounting brackets for up to 6 off AMG2321 Amplifiers.

Installation & Commissioning

The AMG1321 is supplied as shown:



1. Attach the AMG1321 to the AMG1320 1U panel using the supplied M3 x 5mm countersunk screws.
2. Connect the bare ends of the Power Cube to the screw terminal power connector as shown. The marked wire sleeve is +ve. The connector terminal towards the centre of the unit is +ve.
3. Connect the power cube to 240v mains outlet.
4. Ensure power ON LED goes to Green. (if not check PSU supply)
5. Provide Safety ground wire between the screw terminal on the front of the unit and a local chassis ground.
6. Slide the Mode switch to the left (MODE 1).
7. Connect video input cable.
8. Ensure LOCK LED goes blue. (if not check video present on the incoming cable)
9. Connect video output to the required video connection.
10. Ensure the screen connection of the video output is connected to a local ground.

Fault Finding, Maintenance and Repair

Power light does not come onSwap the power supply unit.
If still does not come on swap the unit.

Lock light does not come onCheck the incoming cable has a video signal present on it.
If yes – swap the unit.

Video picture breaking upCheck the MODE switch is in MODE 1

Video picture is darkToggle the MODE switch from MODE 1 to MODE 2 to MODE1.

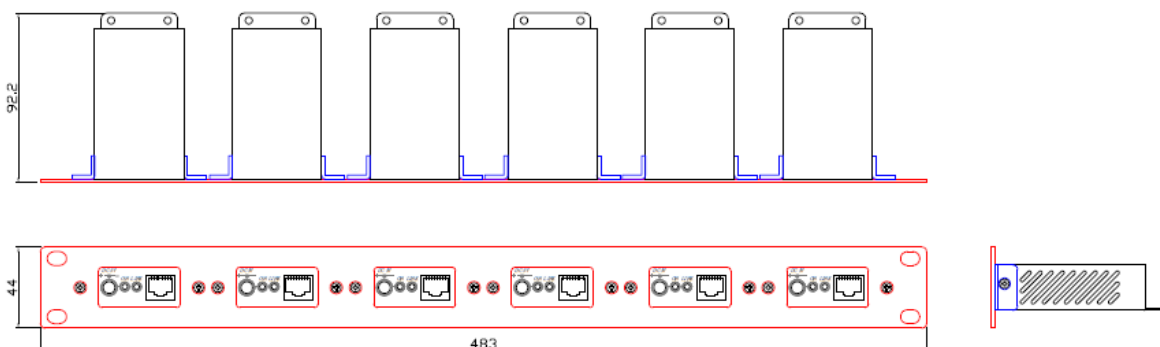
There are no user serviceable parts within AMG1321

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

AMG1320 – 6 slot 1U 19” Rack Mounting Panel

The AMG1320 6 slot 1U 19” Rack Mount Panel can accommodate up to 6 AMG1321 Amplifiers. See below for dimensions (cage nuts, screws and cup washers not provided).

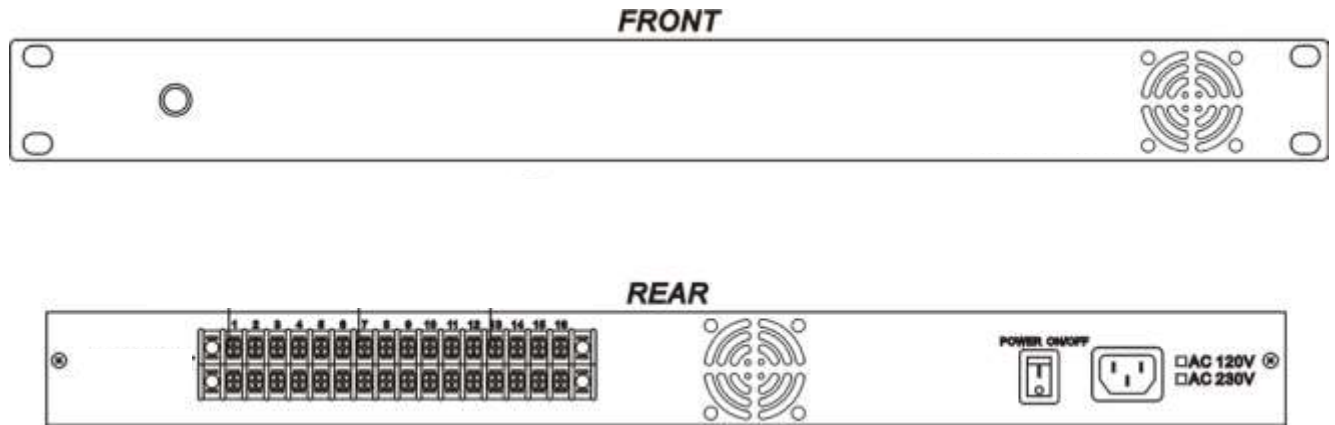


AMG1325 – 16 Way 1U 19" Rack Mounting Power Unit

The AMG1325 is a 16 Way 1U 19" Rack Mount Power Unit capable of powering up to 16 AMG1321 Amplifiers.

Power Connection

Input240V AC 50Hz
Output Voltage+12 volt DC
Output Current1.1Amp Max per port (PTC short circuit protection on each port)
Maximum Combined Current8 Amps



Operation

Each power port is fitted with a resettable fuse which will go open circuit if the port is shorted. This will reset on removal of the short circuit.

Connect one device to one port only



Product Specification

Video

Bandwidth	5MHz
Differential Gain	1%
Differential Phase.....	1 deg.
Min. correctable P-P swing	0.7 V (measure before cable losses)
Max. correctable P-P swing	1.5 V (measure before cable losses)
Max. Common Mode input swing	4 V
Signal to Noise (weighted rms)	-67dB (0 metre)
	-67dB (300 metre)
	-65dB (600 metre)
	-61dB (1000 metre)

Environmental

Dry Heat and Vibration.....	TR2130C:2002
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EMC

Standard	EN50293:2012
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