Quick Start Guide
AutoPatch RGBHV (HD-15) DAD Module

Overview

The RGBHV (HD-15) DAD (Distribution Amplifier Driver) Module has one HD-15 input connector and four HD-15 output connectors for 1:4 distribution of RGBHV analog signals. The single RGBHV input is distributed to four outputs over standard cable runs of up to 100 ft. (30.48 m) over VGA cable and up to 250 ft. (76.2 m) using break-out cable to coax with no additional equipment required.

The input connector is typically cabled to a computer with a VGA graphics card, while the output connectors are cabled to four display devices (monitors, projectors, etc.). Each output can be independently adjusted for gain and peaking to ensure the proper amount of compensation is provided for each cable run. This guide contains complete information for this product.

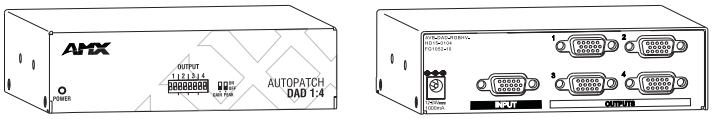


FIG. 1 RGBHV (HD-15) 1:4 DAD Module FG1052-10

Product Specifications

General Specifications	
Approvals	Pending
Power* Consumption (max.) Consumption (typical)	 +12 VDC to +24 VDC, 1 A +12 VDC, 600 mA
Power Connector	2.1 mm DC power jack
Operational Temperature	32° to 110° F (0° to 43° C)
Humidity	0 to 90% non-condensing
Dimensions	5.15 in. (13.08 cm) depth 5.80 in. (14.73 cm) width 1.66 in. (4.22 cm) height without feet
Weight	Approximately 1.5 lbs. (0.7 kg)
Connector Type	HD-15

* RGBHV (HD-15) DAD Modules use a power supply that is provided with the unit.

RGBHV Signal Specifications		
Frequency Response		± 3dB, 450 MHz or better
Signal to Noise Ratio	Vin = 0.7 V, 100% IRE	>65 dB
Input Level Input (max.) Output (max.)		 ± 1.75 V ± 1.75 V
Input Impedance Input Output		 75 ohms 75 ohms
Return Loss		-45 dB @ 5 MHz
Sync Level Input (max.) Output (max.)		 0 V to +5 V 0 V to +5 V
Sync Impedance Input Output		 510 ohms 50 ohms

Gain & Peaking** Specifications	
Gain OFF ON	 Unity +0.75 dB
Peaking OFF ON	 No peaking 8 dB @ 150 MHz 8 dB @ 300 MHz
Cable Length (max.)	VGA cable: 100 ft. (30.48 m) Break-out cable to coax: 250 ft. (76.2 m)

** Gain and peaking are independent switches that allow the user to turn on or off the gain and peaking.

Installation

Mounting Options

Desktop – Attach the rubber feet (included) to the bottom of the module.

V Style Rack Mounting – Mounting brackets and rack trays are also available for these versatile modules (contact your AMX representative).

Typical Setup

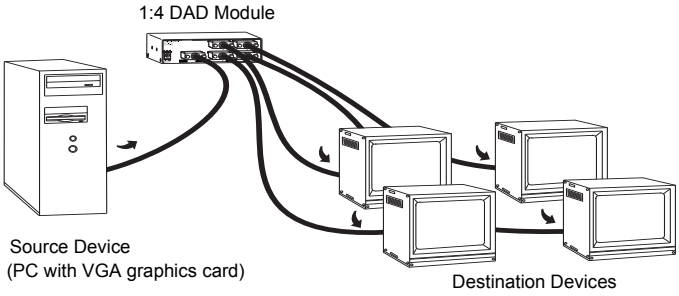


FIG. 2 Typical system setup using 1:4 DAD

Attaching Cables

Optional breakout cables are available for the module; see reverse page.

To attach connectors:

1. Fasten HD-15 connectors onto HD-15 receptacles on the module (FIG. 3).
2. Plug the desktop power supply into the power jack on the module and into an AC external power source.

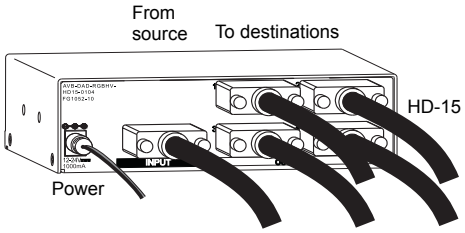
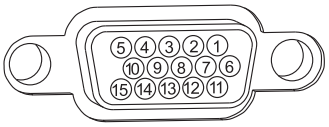


FIG. 3 Attach HD-15 input & output connectors and power

3. Apply power to the source and destination devices.
4. Adjust DIP switches on front if necessary (FIG. 5 on reverse).

Note: *The power indicator LED is on the module's front.*

HD-15 Module Connector Pinout



Input (VESA DDC Compliant)

1. Red	6. Red GND	11. ID Bit
2. Green	7. Green GND	12. DDC SDA
3. Blue	8. Blue GND	13. Horizontal Sync
4. ID Bit	9. +5 V in DDC	14. Vertical Sync
5. GND	10. GND	15. DDC SCL

Output

1. Red	6. Red GND	11. ID Bit
2. Green	7. Green GND	12. ID Bit
3. Blue	8. Blue GND	13. Horizontal Sync
4. ID Bit	9. +5 V out DDC	14. Vertical Sync
5. GND	10. GND	15. ID Bit

FIG. 4 HD-15 input & output module connector pinouts

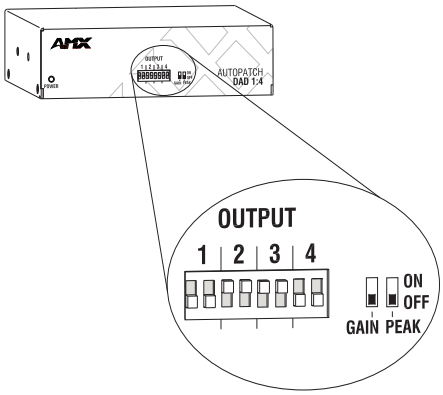
Note: *55 mA supplied on output pin 9; power draw not to exceed 50 mA per port.*

Front Panel DIP Switches

Each DIP switch pair controls the output gain and peak of the same-numbered output signal. The default setting is both switches “Off” (down position; FIG. 5), which represents unity gain and no peaking. The gain and peak adjustments can compensate for long cable runs. To increase brightness of a destination’s video, set the gain DIP switch to “On”. To sharpen a destination’s video, set the peak DIP switch to “On”.

To adjust DIP switches:

1. Using a small screwdriver or paper clip, flip the toggles on the DIP switches up. See table below for values.



Example:
Outputs 1 and 4 are set to OFF / unity
Outputs 2 and 3 are set to ON for gain & peaking

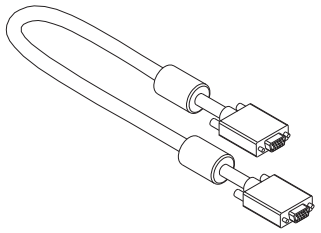
FIG. 5 Adjust DIP switches for gain and peaking

Flip either or both switches “ON” depending on the length of the cable run.

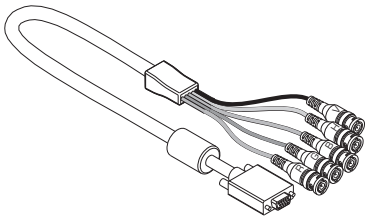
DIP Switch Settings			
	OFF (default)	**ON**	**Result**
Gain	Unity gain	+0.85 dB	Brightens image
Peaking	No peaking	8 dB @ 150 MHz 8 dB @ 300 MHz	Sharpens image

Optional – Breakout Cables

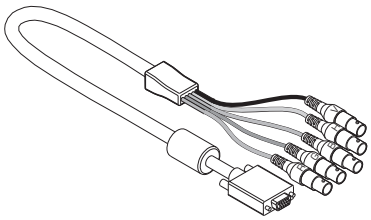
Breakout cables are available in the options shown in FIG. 6. The BNC connectors are color-coded for RGBHV signals. The color code letter (see chart below) is also on the connector housing.



HD15 Male to HD15 Male Cable
FG1090-689 6 ft. (1.8 m)



HD15 Male to BNC Female Breakout Cable
FG1090-511 3 ft. (0.91 m)



HD15 Male to BNC Male Breakout Cable
FG1090-406 6 ft. (1.8 m)

FIG. 6 Optional break-out cables

BNC Color Code	
R	Red
G	Green
B	Blue
H	Gray
V	Black

Note: *The connector examples above are not to scale for cable lengths, which vary.*

For more information on breakout cable options, contact your AMX representative.

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