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4x2 Component with Optical/Digital Coax/Analog Audio Matrix Switcher
AT-COMP-42M

User Manual

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INTRODUCTION

Atlona Technologies' AT-COMP-42M is one of the most innovative Component Video with Optical/Digital Coax/Analog Audio Matrix switcher on the market. The AT-COMP-42M has 4 individual Component (RCA) /Optical/Digital Coax and Stereo Audio inputs and 2 individual outputs. Because it is a matrix switch, any input can be routed to any output; and the same input can be routed to all outputs or any other combination. This switch is ideal for connecting sources including: (VCRs, Camcorders, Video Game Consoles, DVDs, Satellite Receivers, Set Top Boxes, Apple TV, etc.) to desired displays such as: (HDTV, LCDs, Plasma Monitors, Video Projectors, etc.) Selection of inputs can be achieved manually through the Front Panel, an Infrared Remote Control or RS232 serial control input. AT-COMP-42M is a is capable of flawless and crystal-clear distribution of all HDTV video formats up to 1080p as well as Digital and Analog audio signals.

FEATURES:

- 4 inputs to 2 outputs (Matrix Switcher)
- Supported Signals:
    Component Video: YPBPR/YCBCR/RGB(composite)+HV
    Digital: Coaxial S/PDIF Digital Audio (PCM) or Composite Video
    Optical: Toslink
    Audio: Stereo Audio
- Support RS232 interface (comes with control software)
- Control Through IR remote control and Manually via Front Panel Buttons or RS232
- Video Bandwidth : 250MHz, Maximum 325MHz
- Digital Video Bandwidth : 110MHz
- Digital : Coaxial(S/PDIF) Digital Audio (PCM) 10Mbps
- Optical (S/PDIF) in/out: Toslink (PS:OC3=STM1=155.52 Mbps)
- Audio : Stereo Audio (AR/HD, AL/VD)
- Resolutions: 480p, 576p, 720p, 1080i 50/60, 1080p 50/60
- Supports 50Hz or 60Hz (PAL/NTSC)
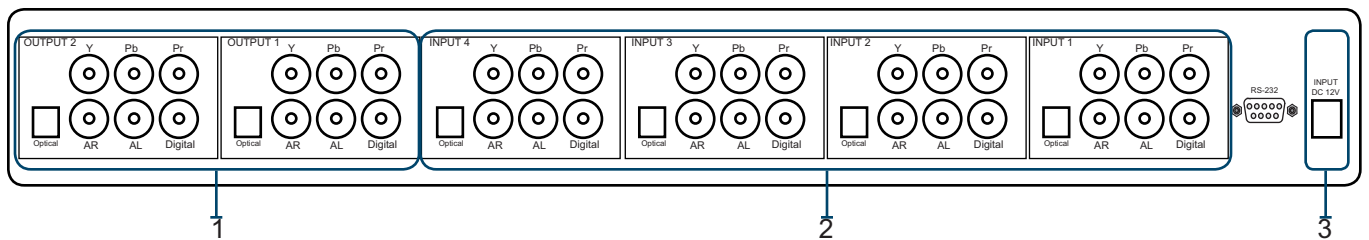- Included 19 inch Ear mounts

PACKAGE CONTENTS:

- AT-COMP-42M Matrix Switcher x 1
- Instruction Manual x 1
- Universal AC Adapter : 12VDC
- RS 232 Software CD x 1
- Rack Mount ears (pair) x 1

1. Front Panel
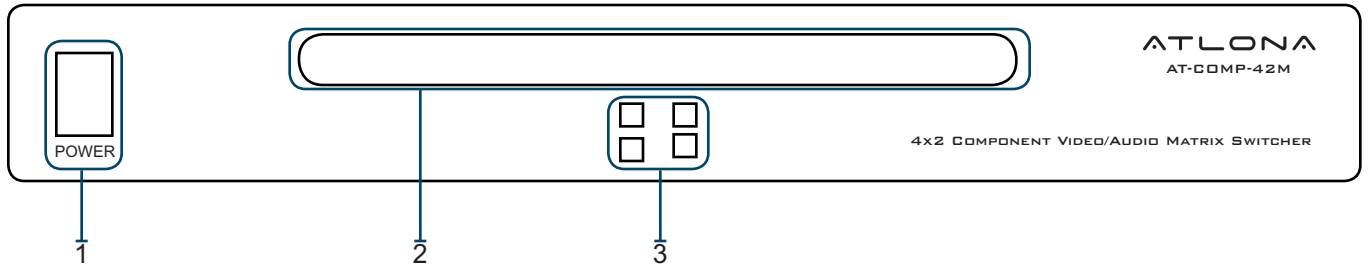
1. Power Switch: Powering Unit ON/OFF
2. LED Display: Displays Input in use with correspond Output
3. Channel Push Buttons: Push to select desired Inputs/Outputs

2. Rear Panel

1. Output: 2 x Component with Optical/Digital/Stereo Audio.
2. Inputs: 4 x Component with Optical/Digital/Stereo Audio.
3. Power DC Input: 12V DC.

DVD Player

Satellite Receiver

VCR Player

HD Player

AT-COMP-42M

HDTV 2

HDTV 1

PC RS232 Control

Audio AMP

Audio AMP

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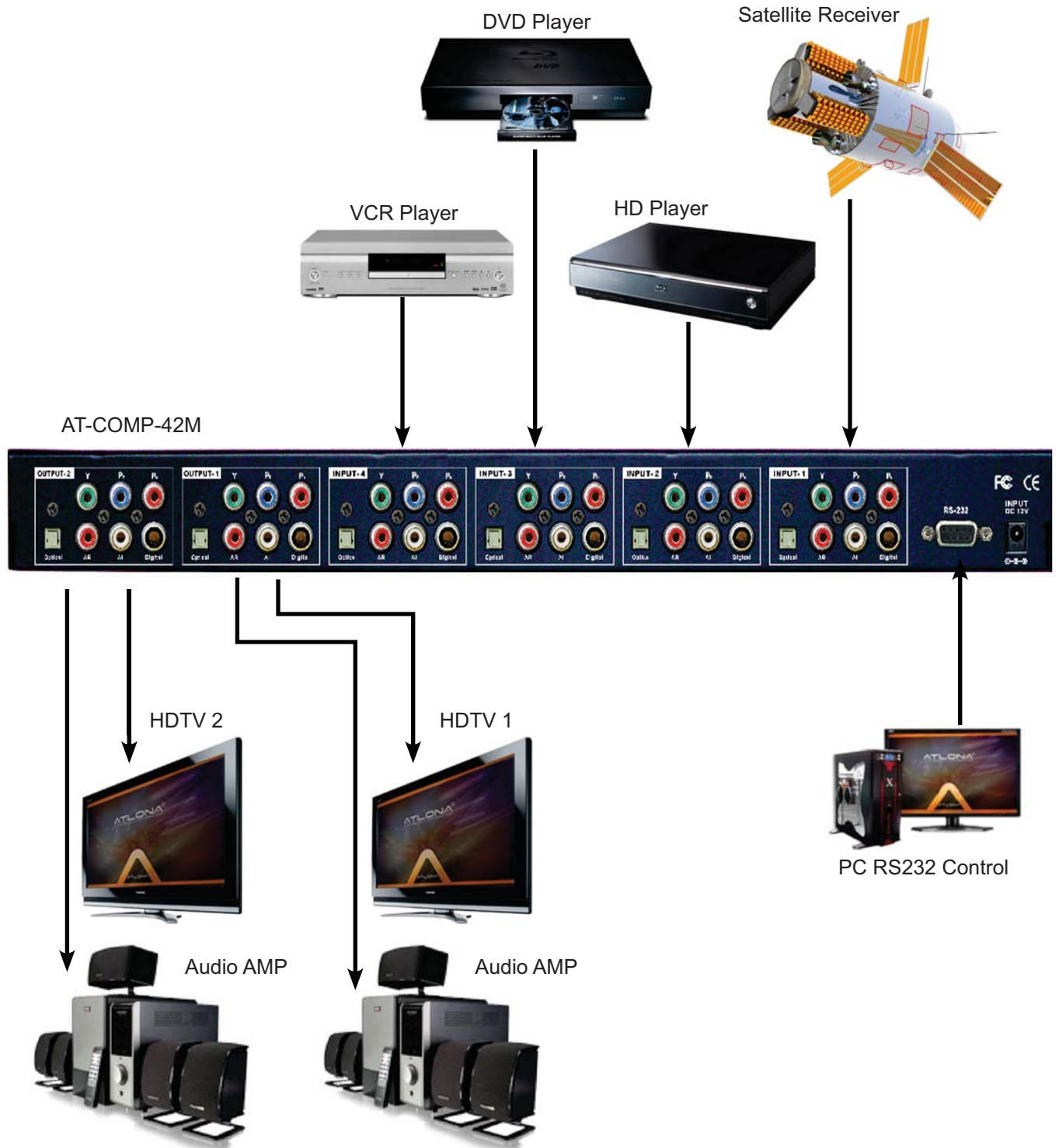
| Input / Output	Y,PB,PR 75 / 1~2Vpp
	Optical. RX VS TX 13.2Mbsps(NRZ Signal)10K Ω
	Digital : Digital Audio(S/PDIF), Composite Video
	Stereo Audio (10KΩ / 6Vp-p)
Video Bandwidth	>250Mhz, Maximum 325MHz (-3db), Full Load.
HDTV Scan Rate	480I, 480P, 576P, 1080I, 720P, 1080P, Support 1920x1080.
Digital Bandwidth	>110Mhz
Audio Frequency Respond	20Hz ~20KHz, + 0.05db.
Supported Signals	Component Video (YUV, RGB, YPrPb, YCrCb)
	Optical
	Digital (S/PDIF)
	Stereo Audio (AR/AL)
Channel switch time	25ns with 1% setting, with -83 db crosstalk,
	with -98 db isolation@5MHz
Industrial Temp. Range	-40°C to +85°C
Hostile Crosstalk	-83db @ 5MHz.
Dimensions (W.D.H.)	17.32" (W) x 7.80" (D) x 1.23" (H)
Net Weight (Unit Only)	2000 GW (with metal case)
Power Consumed	DC+12V, @500mA~2000mA

IR CODES

IR Codes (for use with universal remote control):

IR CODE: 28D7

RS232 - Cable Pin Lines
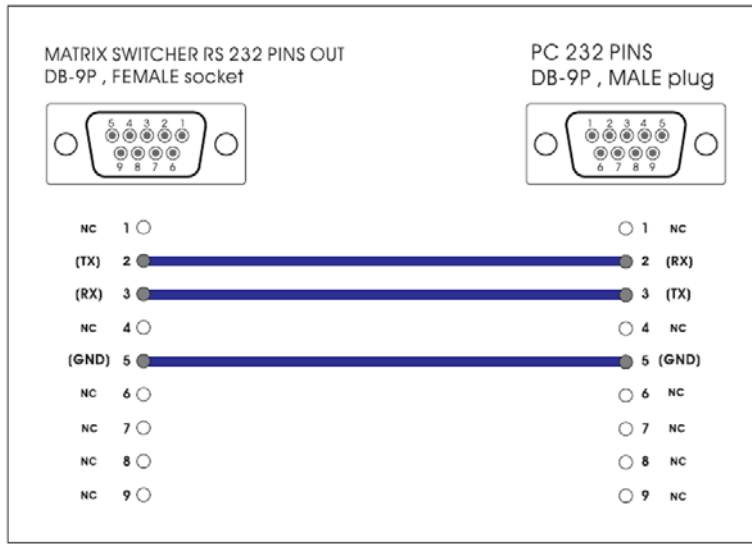
1. Applicable items: AT-COMP-88M, AT-SAV-84M, AT-COMP-42M, AT-PRO82.

2. Transmision rate: 9600 bps

3. Data format: 8 data bits. No parity, 1 start bit, 1 stop bit

4. Flowing control: None

5. Commands are send from the controller as 8 ASCII bytes.

6. Controlling commands (from a controller to)

   The first six ASCII bytes indicate the action of the commands as ASCII format.

   The rest of bytes indicate the action of command as ASCII format.

Item	Command	Function	Description
1	SBSYSMON	Power on	System power on
2	SBSYSMOF	Power off	System power off
3	SBIxxO01	Channel 1 setting	1st output comes from xth input, x=(01, 02, ..., 06)
4	SBIxxO02	Channel 2 setting	2st output comes from xth input, x=(01, 02, ..., 06)
5	SBIxxO03	Channel 3 setting	3st output comes from xth input, x=(01, 02, ..., 06)
6	SBIxxO04	Channel 4 setting	4st output comes from xth input, x=(01, 02, ..., 06)
7	SBSYSMLK	Locked toggle On	Is locked toggle on. When Locked on all status are changed by RS232 only
8	SBSYSMUK	Locked toggle Off	Is locked toggle off. When Locked off all status are changed by RS232 only
9	SBALLRST	Reset	Is reset and every output Comes from 1st input.
10	SBASKSTA	Ask Status	Request status information

7, Feedback commands (from a controller)

The 8 ASCII feedback commands are send after receiving the command from a controller

Item	Command	Function	Description
1	SBALONAK	Power on	Responses the system power. On command to the controller
2	SBALOFAK	Power off	Responses the system power. Off command to the controller
3	SBUDxx01	Channel 1 updated	Changes the 1st output signal. **xx** is the selected source xx=(01, 02, ..., 06)
4	SBUDxx02	Channel 2 updated	Changes the 2st output signal. **xx** is the selected source xx=(01, 02, ..., 06)
5	SBUDxx03	Channel 3 updated	Changes the 3st output signal. **xx** is the selected source xx=(01, 02, ..., 06)
6	SBUDxx04	Channel 4 updated	Changes the 4st output signal. **xx** is the selected source xx=(01, 02, ..., 06)
7	SBSYSLOK	Lock on	Is locked on
8	SBSYSULK	Lock off	Is released
9	SBRSTACK	Reset	Responses the reset command.
10	SBSTATAK	Status asknowledge	Responses the ask status Command to the controller

Remark: The device responds to one feedback command for every request except the

<SBASKATA> . After the device receives <SBASKATA>, it will send the 10th, 1/2th, IN/OUT state, 7/8th command sequentially.

Note: Responses IN/OUT state command: SBUD0000XXYY

input port XX=> (01, 02, ..., 06)

output port YY=> (01, 02, ..., 06)

Safeguards

To reduce the risk of electric shock, do not expose this product to rain or moisture.

If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.

Do not modify the wall plug.
Doing so will void the warranty and safety features.

This equipment should be installed near the socket outlet and the device should be easily accessible in case it requires disconnection.

Precautions

FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Operate this product using only the included external power supply. Use of other power supplies could impair performance, damage the product or cause fires.

In the event of an electrostatic discharge, this device may automatically turn off. If this occurs, unplug the device, and plug it back in.

Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful of plug-ins, or cord exit points from this product.

Avoid excessive humidity, sudden temperature changes or temperature extremes.

Keep this product away from wet locations such as bathtubs, sinks, laundries, wet basements and swimming pools.

Use only accessories recommended by ATLONA to avoid fire, shock or other hazards.

Unplug the product before cleaning. Use a damp cloth for cleaning. Do not use cleaning fluid or aerosols, which could enter the unit and cause damage, fire or electrical shock. Some substances may also mar the finish of the product.

Never open or remove unit panels or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause damage to your AT-COMP-42M. Opening the product will void the warranty.

Do not attempt to service the unit. Instead disconnect it and contact your Authorized ATLONA reseller or contact ATLONA directly.

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1. LIMITED WARRANTY

Atlona Technologies warrants that (a) its products (the "Product") will perform substantially in accordance with the accompanying written materials for a period of 3 YEARS from the date of receipt and (b) that the Product will be free from defects in materials and workmanship under normal use and service for a period of 3 years. In the event applicable law imposes any implied warranties, the implied warranty period is limited to 3 years from the date of receipt. Some jurisdictions do not allow such limitations on duration of an implied warranty, so the above limitation may not apply to Customer.

2. CUSTOMER REMEDIES

Atlona Technologies and its suppliers' entire liability and Customer's exclusive remedy shall be, at Atlona Technologies' option, either return of the price paid for the Product, or repair or replacement of the Product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of Customer's receipt. This Limited Warranty is void if failure of the Product has resulted from accident, abuse, or misapplication. Any replacement Product will be warranted for the remainder of the original warranty period or 3 year, whichever is longer.

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