

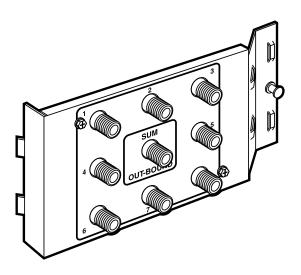
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SEPTEMBER 2003 JPM1107A JPM1108A JPM1109A JPM1120A

# **SOHO Video Modules**



#### CUSTOMER SUPPORT INFORMATION

Order toll-free in the U.S.: Call 877-877-BBOX (outside U.S. call 724-746-5500)
FREE technical support 24 hours a day, 7 days a week: Call 724-746-5500 or fax 724-746-0746
Mailing address: Black Box Corporation, 1000 Park Drive, Lawrence, PA 15055-1018
Web site: www.blackbox.com • E-mail: info@blackbox.com

# FEDERAL COMMUNICATIONS COMMISSION AND INDUSTRY CANADA RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

#### TRADEMARKS USED IN THIS MANUAL

Any trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.

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# 1. Specifications

**Connectors:** JPM1107A: (2) F-Type connectors (video in), (1) F-Type connector (video out);

JPM1108A: (1) F-Type connector (video in), (8) F-Type connectors (video out);

JPM1109A: (1) F-Type connector (video out), (8) F-Type connectors (video in);

JPM1120A: (1) F-Type connector (video in), (1) F-Type connector (video out)

Signal Frequency: All modules: Up to 1 GHz

**Auxiliary Signal:** JPM1107A–JPM1109A: None; JPM1120A: Up to 25 dB over coax

**Power:** JPM1107A, JPM1108A, JPM1109A: From the interface;

JPM1120A: 12 VDC power adapter (included)

**Size:** Each module: 3"H x 6.3"W (7.6 x 16 cm)

**Weight:** 0.5 lb. (0.2 kg)

# 2. Introduction

This manual describes four different SOHO video modules, which can be used with the SOHO Network Boxes (JPM1110A, JPM1111A, and JPM1112A).

The SOHO 2-Port Video Combiner Module (JPM1107A) is used to integrate inbound and outbound video signals—as well as an auxiliary signal, such as digital cable. The module supports signals at frequencies up to 1 GHz.

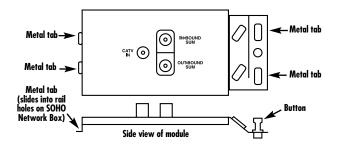


Figure 2-1. 2-Port Video Combiner Module (JPM1107A).

The SOHO 8 to 1 Outbound Video Module (JPM1108A) is used to broadcast outbound video signals to eight F-Type ports. This module can be used with with 8 to 1 Inbound Video Module (described on the next page) and the 2-Port Video Combiner Module (described on the previous page). It can also be used alone as a standard video splitter.

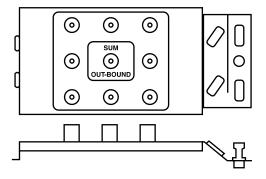


Figure 2-2. 8 to 1 Outbound Video Module (JPM1108A).

The SOHO 8 to 1 Inbound Video Module (JPM1109A) accommodates inbound signals from eight video devices, such as VCRs, digital cable receivers, and DVDs. The module supports signal frequencies of up to 1 GHz.

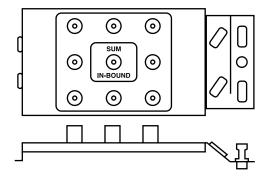


Figure 2-3. 8 to 1 Inbound Video Module (JPM1109A).

The SOHO Video Booster Module (JPM1120A) amplifies video, digital cable, and other auxiliary signals up to 25 dB over coax. It includes a +12 VDC power adapter.

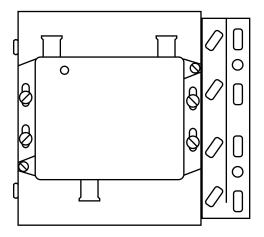


Figure 2-4. Video Booster Module (JPM1120A).

# 3. Installation

#### 3.1 Cable Handling Guidelines

- Do not route data cables through the same cable holes as the AC power cables.
- For safety, separate all data cables from parallel AC power lines by at least 6 inches (15.2 cm) whenever possible.
- Avoid kinking the cable.
- Do not attach cable tie-downs too tightly. The cable-fastening hardware should not compress the cable sheath.
- Do not bend the cable sharply. Be especially careful to place the cables properly in the cable management after passing them through a hole, since the edges of the hole can compress or even damage the cable sheath.
- When installing an individual module in the SOHO Network Box, place it above or below the interfacing module (if possible). This will eliminate excessive cable crossing.

- Follow all warnings on the products.
- For your safety, do not use this or any electrical product near water (unless it is specifically designed for wet areas).
- Do not install wiring during thunder and lightning storms.
- Use caution when handling or installing any computer, telephone, video, or electrical devices.

## 3.2 Installing a Module in the SOHO Network Box

- 1. Determine the area for installation.
- 2. Position the metal tabs on the left side of the module at a 45-degree angle and slide them into the rail holes on the SOHO Network Box (see Figure 2-1).
- 3. Insert the metal tabs on the right side of the module into the rail.
- Press the button to fasten the module to the SOHO Network Box.

#### NOTE

When mounting an individual module in the SOHO Network Box, install it above or below the interfacing module (when possible). This will eliminate excessive cable crossing.

### 3.3 Removing a Module from the SOHO Network Box

- Press the button and hold it in while pulling the module from the SOHO Network Box.
- 2. Swing the module out.

## 3.4 Connecting the Cable to the Coaxial Video Modules

Use the video modules alone or in groups of two or more, in any combination, depending on your individual needs.

#### 3.4.1 CONFIGURATION USING A SINGLE MODULE

The installation shown in Figure 3-1 involves taking a single inbound video line and splitting it out to eight individual outlets.

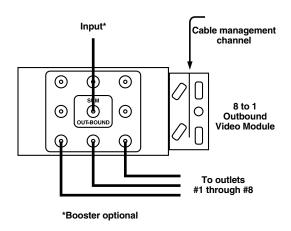


Figure 3-1. Using a single module.

1. You'll need the SOHO 8 to 1 Outbound Video Module only. Take the inbound video line (digital cable, VCR, etc.) and connect it to the center inbound post on the module.

- 2. Connect the outbound connectors to the individual outlets (the module supports up to eight outlets).
- 3. Place the cables properly in the cable management using the cable management channel anchoring points.

#### 3.4.2 MULTIPLE MODULE CONFIGURATION

A configuration using several different modules is shown in Figure 3-2. Use this configuration (or a similar one) if you need to combine multiple video input devices such as DVD players, VCRs, or surveillance cameras and distribute them to eight individual outlets.

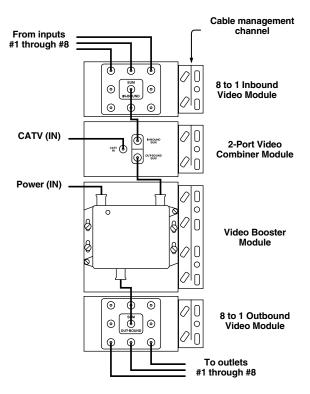


Figure 3-2. Configuration using several different modules.

You'll be using a combination of SOHO 2-Port Video Combiner Modules, 8 to 1 Outbound Video Modules, 8 to 1 Inbound Video Modules, and Video Booster Modules.

For best results, start from the top and work down.

- 1. Install the 8 to 1 Inbound Video Module and connect all incoming devices on inputs #1–8.
- 2. Next, install the 2-Port Video Combiner Module and connect a coax jumper cable from the center post of the 8 to 1 Inbound Video Module to the inbound post of the Video Combiner Module.
- Connect digital or analog cable to the CATV IN post on the 2-Port Video Combiner Module.
- Install the Video Booster Module. Connect a cable from the 2-Port Video Combiner Module outbound post to the booster input.
- 5. Install the 8 to 1 Outbound Video Module.

- 6. From the Video Booster Module signal output, connect to the center post of the 8 to 1 Outbound Video Module and then connect the outbound cables leading to the outlets (remember, the booster module supports up to eight outlets).
- 7. Place the cables properly in the cable management using the cable management channel anchoring points.
- 8. Connect the power adapter to the power input on the booster. Once the connections are secure, plug the adapter into the 110 power outlet.

#### NOTE

Ground the booster to the bottom of the box by using a grounding wire (16 AWG). Do not connect the power to the booster until all connections are made.

# 4. Troubleshooting

## 4.1 Calling Black Box

If you determine that your SOHO 2-Port Video Combiner Module, 8 to 1 Outbound Video Module, 8 to 1 Inbound Video Module, or Video Booster Module is malfunctioning, do not attempt to alter or repair the unit. It contains no user-serviceable parts. Contact Black Box at 724-746-5500.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem.
- when the problem occurs.
- the components involved in the problem.
- any particular application that, when used, appears to create the problem or make it worse.

# 4.2 Shipping and Packaging

If you need to transport or ship your video module:

- Package it carefully. We recommend that you use the original container.
- If you are shipping the module for repair, make sure you include everything that came in the original package. Before you ship, contact Black Box to get a Return Authorization (RA) number.