

MAX-AOM Audio-Only Module

The MAX-AOM Audio-Only Module (FIG. 1) is a streaming audio playback USB module that distributes up to four stereo outputs (both digital and analog).

The AOM is available either as a single unit (FG 2178-55), or as two units using the optional AOM-EX Expansion Kit (FG 2178-56) that mount side-by-side within a single rack unit. The AOM-EX adds another four audio outputs, to allow up to eight audio-only outputs. Note that the AOM-EX does not include a faceplate.

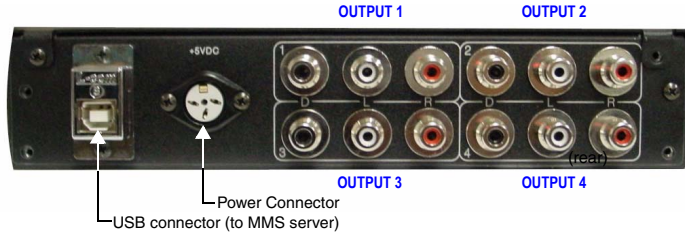


FIG. 1 MAX-AOM Audio-Only Module - rear panel connectors

- The MMS-01S, MMS-02S and MMS-02SB servers feature two built-in audio output channels, and support one MAX-AOM (for a maximum total of six audio output channels).
- The MMS-04S, MMS-12S and MMS-900 servers support two MAX-AOMs (for a maximum total of eight audio output channels).

Note: Do not use a USB hub with MMS servers or AOM modules.

Product Specifications

MAX-AOM (FG 2178-55) Specifications	
Power:	<ul style="list-style-type: none"> 5VDC 0.9A external power supply 110-240 VAC 50/60 Hz
AC Current Draw (AMP):	<ul style="list-style-type: none"> .09A - Bootup/Power Cycle Peak .09A - Normal Usage Peak
Audio Output:	<ul style="list-style-type: none"> 4 audio output channels, each with RCA SPDIF digital, analog stereo Digital audio output: 6-channel Dolby Digital and DTS Analog audio output: stereo 24-bit D/A conversion, 128X over sampling 48kHz sampling rate Output level -10dBV nominal Signal to Noise Ratio 110db A-weighted Frequency Response: 20Hz to 20kHz Dynamic Range: 110dB
Rear Panel Connectors:	<ul style="list-style-type: none"> USB Connector: USB connector (Type B) Power Cable connector: DC 3-pin DIN. Audio Outputs: Four sets of three connectors (see FIG. 1): <ul style="list-style-type: none"> (D): One RCA S/PDIF (coax) connector for digital output. (L, R): Two RCA connectors for stereo analog output.
Dimensions (HWD)	<ul style="list-style-type: none"> MAX-AOM (only): 1.75" x 8.48" x 10.47" (4.44cm x 21.53cm x 26.59cm) Two MAX-AOM(s) with AOM-EX Rack Mount Kit: 1.75" x 19.1" x 12.02" (4.44cm x 48.51cm x 30.53cm)
Weight:	<ul style="list-style-type: none"> MAX-AOM: 10.00 lbs (4.53 kg) MAX-AOM-EX: 8.45 lbs (3.83 kg)
Included Accessories:	<ul style="list-style-type: none"> 5VDC 2.4A external power supply 6' (1.83m) USB (A to B) cable Removable Faceplate
Optional Accessories	<ul style="list-style-type: none"> AOM-EX Expansion Kit (FG 2178-56): includes a second MAX-AOM unit with mounting brackets and hardware.
Certification:	FCC, CE

Adding the MAX-AOM to the MMS Server

In order for AOM(s) to be recognized by the MMS server, they must each be added to the system, via the **Add Output Module** options in the MAX Admin Menu.

Add the AOM(s) to the server (as described below) before physically connecting the module(s).

Since AOMs provide up to four audio outputs per USB port on the MMS server, each of the AOM audio outputs must be associated with a specific output/zone on the MMS server:

Note: The MMS-01S, -02S and 02SB servers feature two built-in audio outputs, which occupy the first two outputs on (internal) USB 1 port for those servers. Refer to the MMS-01S, -02S and -02SB Installation Guides for details on configuring the audio outputs for external AOMs.

- Open the **System Information** tab in WinMAX, and click on the **Server Configuration** button to access the **MAX Admin menu**.
- Go to **Output Module Setup > Add Output Module > AOM** to access the **Enter Output Number** dialog.

- Enter an available server output/zone number (*between 1 - 33*). This is the Output Number that will appear in the WinMAX software.

Note: The server will not allow you to assign an audio output to an output/zone that is already in use. To determine which server outputs are already being used, select **View** from the **Output Module Setup** menu.

- If other output modules (AOM or AVM) have already been added to the server, then assign the AOM to the next available output. For example, if you had already added 10 output modules to the server, then this AOM should be assigned to output 11.
- Note that AOMs use up to 4 outputs on the MMS server, while AVMs use only one.
- If you are adding only one AOM module to the server, then you'll specify up to four server output/zones (one for each of the four possible audio outputs on the AOM). If you are adding two AOMs (MMS-04S, -12S and -900 servers only), you'll specify up to eight outputs (four per AOM), as indicated in the following table.

MMS Output/Zone (1-33)	USB port connection (1-2)	AOM Audio output (1-4)
1	AOM 1 (on USB 1)	AOM 1 - Audio Output 1
2	AOM 1 (on USB 1)	AOM 1 - Audio Output 2
3	AOM 1 (on USB 1)	AOM 1 - Audio Output 3
4	AOM 1 (on USB 1)	AOM 1 - Audio Output 4
5	AOM 2 (on USB 2)	AOM 2 - Audio Output 1
6	AOM 2 (on USB 2)	AOM 2 - Audio Output 2
7	AOM 2 (on USB 2)	AOM 2 - Audio Output 3
8	AOM 2 (on USB 2)	AOM 2 - Audio Output 4
9	AVM 1	
10	AVM 2	
11...(to 33)	AVM 3...	

- In the **Enter USB port number** field, enter the number of the USB port on the MMS server that this AOM will be connected to (*range = 1 - 2*). If you are using a MMS-01S, -02S or -02SB server, this number should always be set to 1 (since these servers have only one USB port). Click **OK** to proceed.
- In the **Enter AOM output number** field, specify which of the four available audio outputs on the AOM you are adding (*range = 1 - 4*) to the MMS server output number specified in step 1.
- The system will notify you that the module has been added to the system. Click **OK** to return to the **Output Module Setup** menu.

Once the module has been added, select **View** from the **Output Module Setup** menu. The module you just added should appear in the list of **Installed Output Modules**. AOM modules are listed by MMS output /zone number assignment, USB port number and AOM output number.

- Select **View** from the Admin menu to view a list of all output modules (AOMs and AVMs) already in the system.
- Select **Remove** to remove an existing output module from the system.

Connecting to MMS Servers

Once the AOM has been added to the server, you can connect it to the MMS server and audio system(s):

- Connect the AOM(s) to an audio system (amplifier, switcher, etc.) using one of two options:
 - Use stereo RCA cables for analog audio output.
 - Use a coaxial cable for digital audio output.
- Connect the included power supply to the rear panel power connector on the AOM to apply power to the module.
- Use the supplied 6' USB cable to connect a USB port on the rear panel of the MMS server to the USB port on the rear panel of the MAX-AOM module.

Additional Information on USB Ports 1 and 2 (on the MMS-04S, MMS-12S and MMS-900 Servers)

If you are using both USB connectors on the MMS server, be sure to note which audio zones are associated with the AOM connected to each USB port:

- The USB 1 port is for audio outputs 1 through 4.
- The USB 2 port is for audio outputs 5 through 8.

In this scenario, if the AOM connected to USB port 1 on the server (providing AOM outputs 1-4) is unplugged or experiences any other failure, then USB port 2 takes over and behaves like port 1.

As a result, the AOM connected to USB port 2 will switch from providing audio output/zones 5-8 to providing audio output/zones 1-4, the next time the server is rebooted.

Mounting the MAX-AOM

Note: Static electricity can damage electronic circuitry. Before mounting the AOM(s), discharge any accumulated static electricity from your body and screwdriver by touching a grounded metal object.

The MAX-AOM includes hardware for mounting the unit in a standard 19" equipment rack. A single AOM takes up one-half of the width of a single rack unit, so you can mount two AOMs side by side in a single RU by using the (optional) AOM-EX Expansion Kit (FG 2178-56). Refer to the next page for details.

Using the AOM-EX Expansion Kit

The optional AOM-EX Expansion Kit (FG 2178-56) includes a MAX-AOM, a Side Mounting Bracket, Short Rack-Mounting Bracket, and mounting hardware (FIG. 2). Use the Expansion Kit to mount a second AOM next to the first one, in a single rack space.

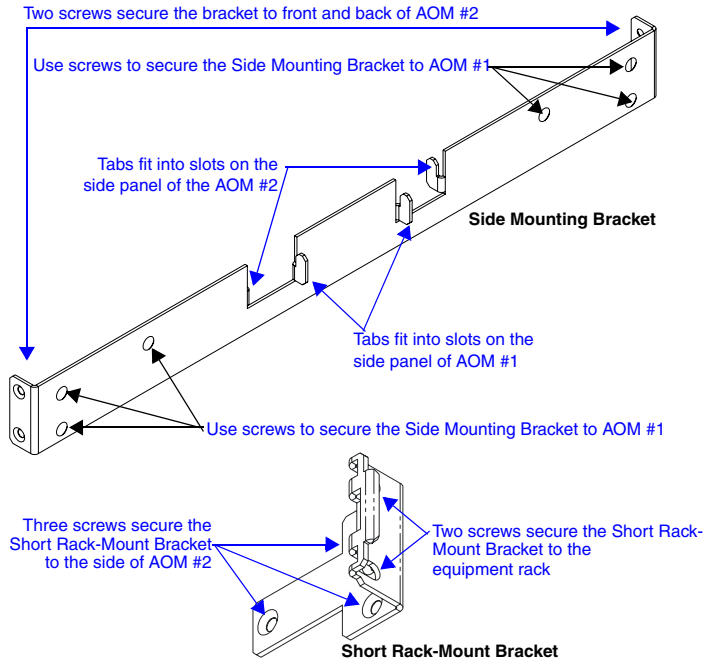


FIG. 2 MAX-AOM-EX brackets

The *Side Mounting Bracket* uses a set of six screws to connect to bracket to the side panel of AOM #1. The bracket features tabs to ensure proper positioning and alignment of the two AOMs, and four screws (two on the front and two on the rear) to secure the AOM #1/side bracket assembly to AOM #2.

The *Short Rack-Mounting Bracket* uses three screws to attach to the AOM #2 enclosure, and two screws to secure the left side of the MAX-AOM-EX assembly to the equipment rack.

FIG. 3 describes using the MAX-AOM-EX kit:

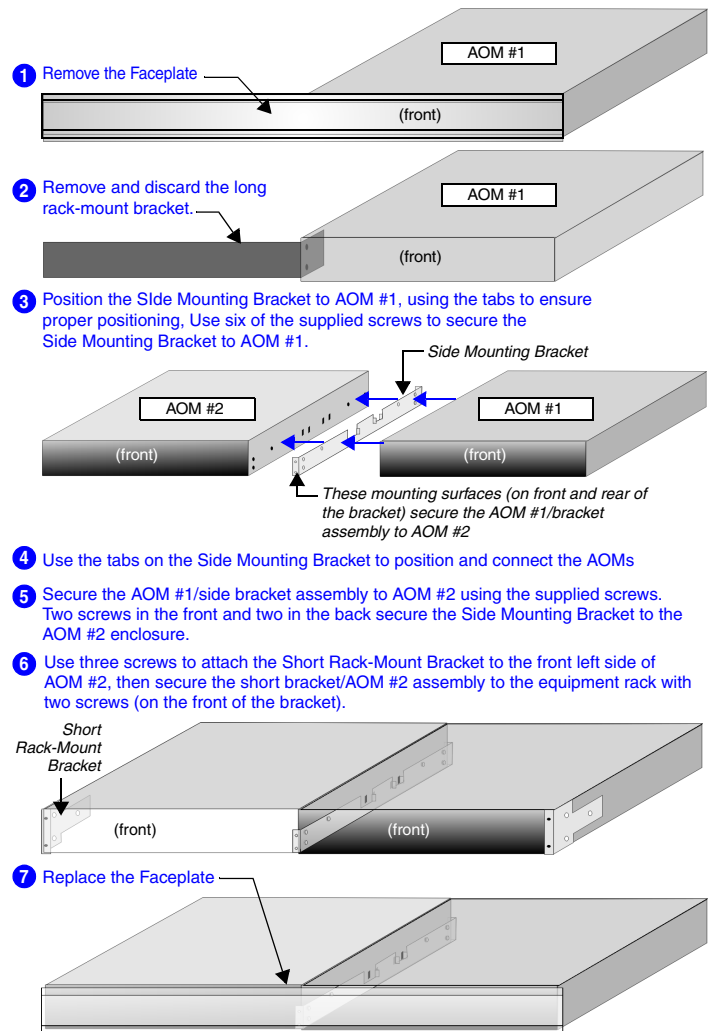


FIG. 3 Using the optional MAX-AOM-EX Expansion Kit to mount two AOMs in a single rack space.

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