TAIKO AUDIO

Olympus Server & I/O Complete Manual

Preface

Thank you for buying our Olympus Server and/or Olympus I/O. Taiko Audio is an innovative Dutch high-end audio laboratory. Our mission is to provide the best possible user experience for audiophile music reproduction utilizing the finest components and custom engineering to provide unmatched sound quality, customer service and support.

This manual will help you with installing and using the server. Enjoy your new Olympus Server and/or Olympus I/O and the improvement of audio quality that it brings!

Your Taiko Audio Team.

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1 Available Documentation

Quick Start leaflet

The Olympus Server is supplied with a printed Quick Start leaflet, which can also be downloaded as a PDF from our website. This document contains the bare minimum information to get you started as quickly as possible.

Complete Manual (This Document)

The Complete Manual you are reading covers all the operational and technical aspects, complete with additional information, hints, cautions, and legal information. It contains all the information necessary to properly and safely install, commission, operate, and maintain the server. Please read and understand this manual before using the server, and carefully store this manual for future reference.

Summarized Manual

On our website, we also have a Summarized Manual that covers the essential operations and provides only a subset of the available additional information.

2 About this Document

2.1 Language

This manual is originally written in English. All other languages are translations of the original manual.

2.2 Used symbols

This manual contains safety warnings that may result in injury when ignored. Each safety warning is indicated with a signal word. The signal word corresponds with the level of risk of the described hazardous situation.

Danger!	Indicates a hazardous situation that, if not prevented, will result in death or serious injury or serious damage to the product or the environment.
Warning!	Indicates a hazardous situation that, if not prevented, could result in death or serious injury or serious damage to the product or the environment.
Caution!	Indicates a hazardous situation that, if not prevented, could result in moderate or minor injury or minor damage to the product or the environment.
Notice	Indicates useful information that is not related to hazardous situations.

2.3 Copyright

Taiko Audio Olympus® is a registered trademark of Taiko Audio. Any unauthorized use is illegal. Any other product names used in this manual are the properties of their respective owners and are acknowledged.

3 Olympus Background and Introduction

3.1 Practical implementation of the custom BPS and XDMI

With Olympus, we present the culmination of close to 4 years of research and development. Taiko's relentless pursuit of audio realism and the harnessing of the most modern technologies has led to the creation of our popular Extreme music server 5 years ago, which we have been steadily improving and updating with new technologies over the course of its life cycle. Even to this day, we feel confident in claiming it's holding its ground against the onslaught of new server releases from other companies, and we are committed to keep improving it for years to come.

Olympus embodies the practical implementation of the custom BPS (Battery Power Supply) and the proprietary XDMI (Extreme Direct Music Interface).

Hierarchically, Olympus is positioned above the Extreme. It provides quite a different music experience than the Extreme, or any other server we have heard. Conventional audiophile descriptions such as soundstaging, dynamics, color palette, etc., fall short to describe this difference. The Olympus does not sound digital or analog, but simply closer to the intended (or unintended) performance of the recording engineer.

For the summum in performance, the Olympus Server can be paired with the Olympus I/O, which provides a dedicated enclosure for the XDMI output card and the network card.

3.2 New Technologies

The Olympus Server and Olympus I/O contain newly developed battery power supply technologies. They are highly power-conversion-efficient (90% +), extremely low noise, and very transparent, made possible by utilizing modern GaN FET technology with in-house developments.

The two components also contain a new external interface solution utilizing the ultra-high-speed QSFP-DD interface, which has a 400Gb maximum bandwidth. This allows PCIe cards to be placed in an external chassis, connected via two 800Gbps QSFP-DD Passive Direct Attach Copper Cables, without the usual drawbacks of such a solution, while further improving the performance.

A central part of these two new products is our proprietary XDMI music interface.

XDMI starts with an ASIO driver as input, which directly transports the audio bitstream to the XDMI baseboard over PCIe. There, it is converted to I2S, bypassing multiple stages of processing and conversions which are inherent to other protocols. This is as direct a conversion as possible.

With the Olympus Server, the XDMI system consists of 3 main parts:

1. XDMI Software.
2. An XDMI baseboard which houses the core of the system.
3. XDMI Daughterboards which provide the interface to either your DAC or your Preamplifier.

With the Olympus Server + Olympus I/O combo, the XDMI system consists of 4 main parts:

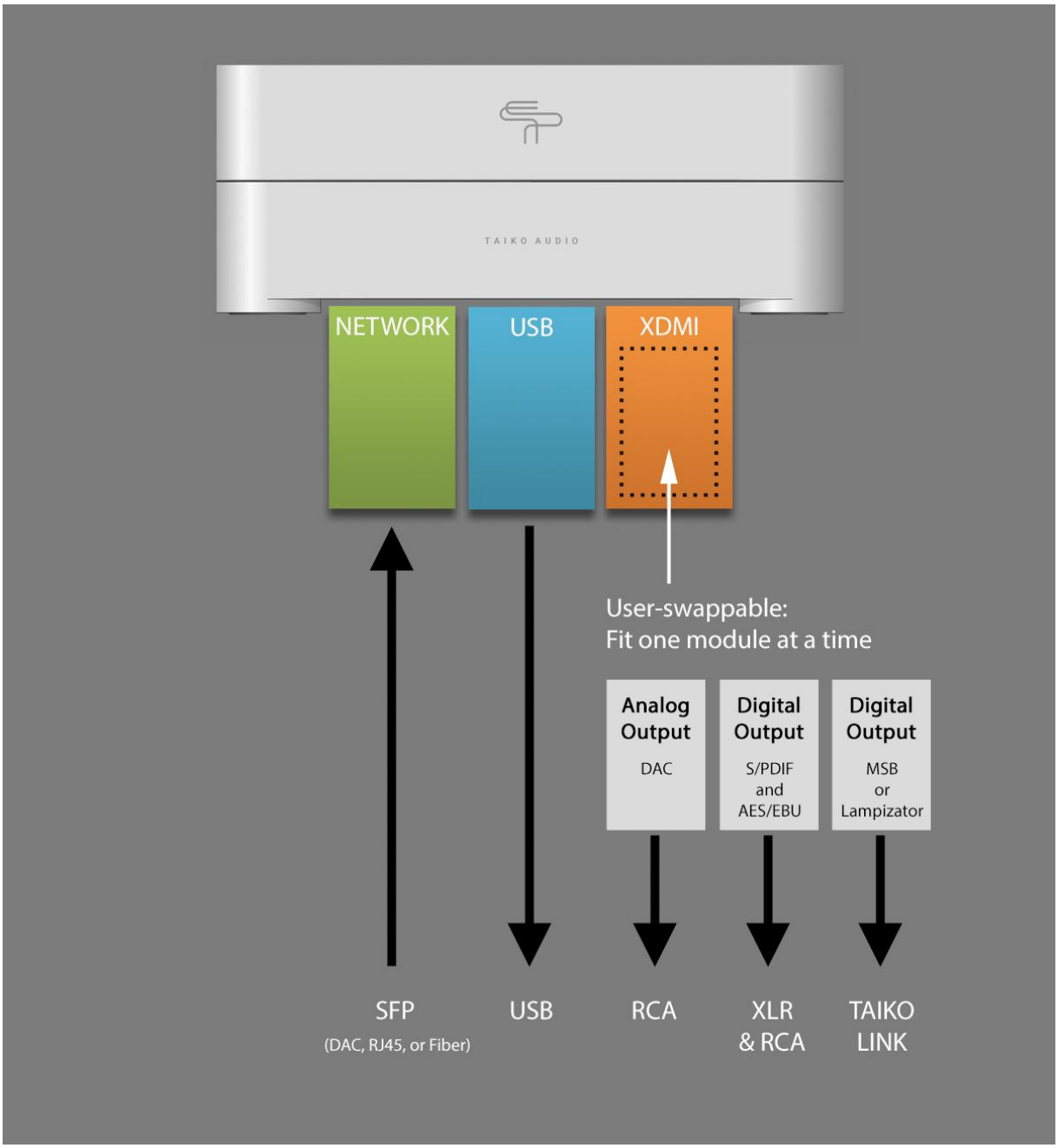
1. XDMI Software.
2. An XDMI baseboard which houses the core of the system.
3. XDMI Daughterboards which provide the interface to either your DAC or your Preamplifier.
4. A transparent 400Gbps QSFP interconnect system that allows placing the XDMI baseboard and daughterboards in an external chassis.

XDMI Output boards are user-swappable. The Olympus server has support for 1 XDMI output module at a time, in concurrence with its non-removable USB connection. The Olympus I/O has support for 1 XDMI output module at a time and has no USB option.

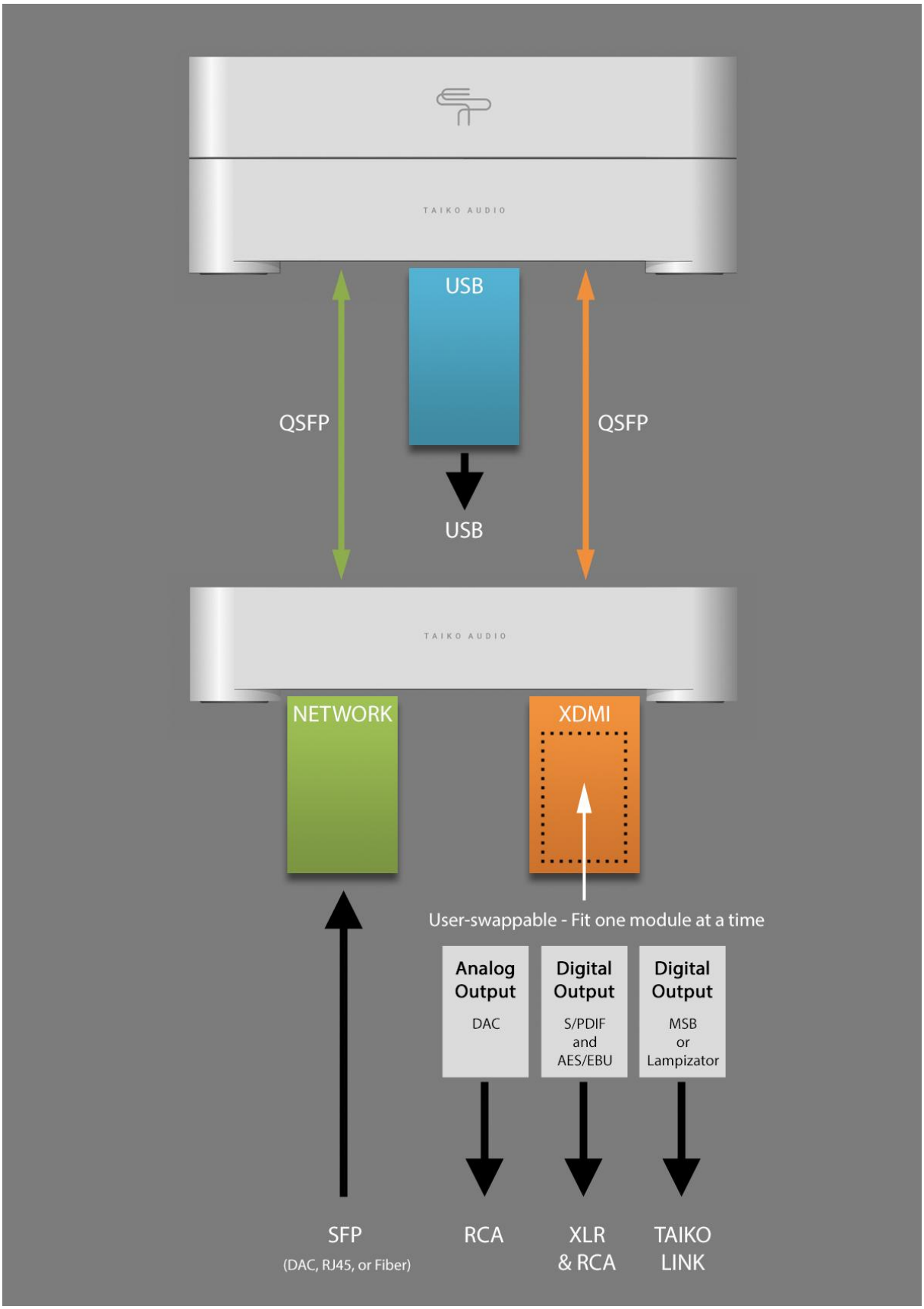
When pairing the Olympus Server with the Olympus I/O, both the XDMI and network cards are relocated from the server to the I/O chassis. This means the network signal will be connected to Olympus I/O first and then pass through to Extreme Server or Olympus Server by QSFP. Therefore, it uses 2 QSFP interconnect systems, which consists of the following 3 parts.

1. A PCIe interface card, providing a QSFP output.
2. A QSFP cable.
3. A receiver card with a QSFP input and a PCIe slot which allows you to connect your XDMI baseboard or network card.

3.3 XDMI Connectivity Diagram – Olympus Server



3.4 XDMI Connectivity Diagram – Olympus Server + I/O



4 About this product

4.1 Intended and unintended use

This product is intended to be used as a high-end music server.

The server is intended for indoor use in household environments for typical digital music playback functions that may also be used by non-expert users for digital music playback.

This server is not intended for installation of additional software by the owner.

4.2 Product Description

Olympus can be ordered as a standalone Music Server or as a two-piece system consisting of the Olympus Server + Olympus I/O.

Olympus Server

The Olympus Server is a music storage and streaming server with a dual Battery Power Supply with custom charger Power Supplies and integrated XDMI Output. The Olympus Server is designed to deliver the most realistic sounding reproduction from stored music files and from streaming services such as Qobuz and Tidal.

XDMI

XDMI (Extreme Direct Music Interface) is a Taiko-proprietary interconnect system that eliminates a large number of intermediate processing steps and conversions, in both hardware and software, for a more direct, more streamlined, more purist "music signal path". XDMI is a modular system that can be user-fitted with a choice of dedicated Output Modules, providing a variation of analog and digital outputs. One module can be fitted at any time. XDMI Output Modules are fitted either in the Olympus Server or in the Olympus I/O. Not in both products simultaneously.

Currently available XDMI modules include an analog output DAC module, an AES/EBU + SPDIF digital module, and custom implementations for MSB or Lampizator DACs. An Aries Cerat interface is being worked on.

In addition to XDMI, the Olympus Server also offers two fixed USB ports that can be used to connect a DAC. Only one DAC can be connected to either of the USB ports at any time. We recommend using XDMI for the best Sound Quality.

With the Olympus Server, XDMI is integrated into a single chassis. When adding the Olympus I/O, the XDMI and the network card are moved from the server to a second chassis with its own dual Battery Power Supply. The two chassis are then fitted with two 400Gbps QSFP interconnect systems and interconnected using two 800Gbps QSFP-DD Passive DAC (Direct Attach Copper) Cables.

Please refer to the Complete Manual for more detailed information about Olympus and XDMI technologies.

Olympus I/O

For the summum in performance, the Olympus I/O can be added to the Olympus Server. The I/O is an external interface unit that contains its own dual Battery Power Supply and charger. When using the I/O, the Network- and the XDMI Output cards are relocated from the Olympus Server to the dedicated I/O chassis, powered from its own internal BPS. The Olympus I/O can be ordered together with the Olympus Server, or added at a later time.

4.3 Battery Power Supply (BPS)

The Olympus Server and I/O each contain two independent Lithium Titanate Oxide battery power supplies powered by internal custom charger Power Supplies. The batteries adhere to the strictest safety levels, do not suffer from memory effects, and last for decades.

The Olympus Server and Olympus I/O are intended to always be connected to the mains power. When disconnected from the mains, the batteries will discharge.

The System and XDMI battery supplies are always operational but configured differently.

The status of the batteries can be checked using the BMS App, which also allows making certain settings. See the Battery Management System (BMS) App section further below for more information.

4.3.1 Olympus Server BPS

The Server contains two independent BPS sections.

The first battery section powers the core system. It is configured such that the battery is constantly charged, combining the technical advantages of battery power with the practical benefits of smaller cell sizes.

The Server's second battery section powers the XDMI Output cards, and is configured to charge in cycles, like a traditional battery. The XDMI battery holds a charge for up to 36 hours, to provide more than enough pure battery power to cover the longest listening sessions.

To maintain an optimal battery charge, always switch the server to standby before disconnecting it from the mains power and make sure to always reconnect the server to the mains power as soon as possible after relocating it.

When the server is disconnected from the mains power and in standby mode with fully charged batteries, the system batteries can hold a charge for up to 6 hours. But when the server is switched on and playing music while disconnected from the mains power, fully charged system batteries will only provide up to 30 minutes of power. For this reason, always switch the server to standby before disconnecting it from the mains power and make sure to always reconnect the server to the mains power as soon as possible after relocating it.

4.3.2 Olympus I/O BPS

When the Olympus I/O is added, the Server's second battery section is reconfigured to power the two QSFP Interface cards that connect the Olympus Server to the I/O.

The Olympus I/O contains two battery power supplies and a custom power supply for charging the battery cells. The first battery section powers the Network Card, and the second section powers the XDMI Output. The batteries are configured to charge in cycles, like a traditional battery. They hold a charge for up to 36 hours, to provide more than enough pure battery power to cover the longest listening sessions.

4.3.3 Charge Cycle

To maintain ideal battery circumstances, there is a pre-programmed charging cycle between 00:00 and 07:00 for the Olympus Server's second battery section and both the Olympus I/O's sections. For these battery sections, the charging period may also be freely adjusted using the BMS App to precisely fit in with your personal schedule. Please note that charging only occurs when the battery charge is below the value set in the Minimum SOC setting.

Please refer to the 'Battery Management System (BMS) App Manual' for more info.

4.4 Battery Management System (BMS) App

The Battery Management System (BMS) App is available in the App Store for iPhone and Play Store for Android. It provides easy access to the Olympus Server and I/O charging circuits. The Bluetooth® connection is always available, even when the server's Operating System is not running, i.e. when the server is set to standby.

The app offers a dashboard showing the essential parameters, such as battery status, at a glance. Additionally, the app allows the user to make changes, such as customizing the charging cycle.

To establish the initial Bluetooth connection, please use PIN code 000000 (6x 0) as the pairing code.

The BMS app is not required in day-to-day use, but it is needed at least once: after initially connecting the Olympus products or when the user has set the products to Shipping Mode.

To maintain an optimal battery charge, the Olympus products are set to Shipping Mode before shipping. When you connect the power, the unit(s) will automatically power on and will follow a pre-programmed charging cycle from 00:00 to 07:00 in your local time zone. However, the local time, date, and zone need to be synced once. This happens automatically via Bluetooth when you connect the BMS app.

If desired, the charging period can be adjusted to fit your personal schedule. If the pre-programmed cycle suits you, there's no need to make any changes.

For more detailed instructions on using the BMS App, please refer to the separate "Taiko Audio Battery Management System (BMS) App Manual", available from the downloads page on the Taiko Audio website.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Taiko Audio is under license.

4.4.1 Battery Charge

The Lithium Titanate Oxide batteries that we use adhere to the strictest safety levels, do not suffer from memory effects, and last for decades. Nevertheless, the batteries will discharge when the server is disconnected from the AC power.

In standby mode with fully charged batteries but no AC power connection, the batteries can hold a charge for up to 6 hours. But when the server is switched on and playing music, fully charged batteries will only provide up to 30 minutes of charge. For this reason, it is recommended to always switch the server to standby before disconnecting it from the mains power and to make sure to always reconnect it to the mains power as soon as possible after relocating it.

When the voltage is below the indicated values below, the batteries should be allowed to recharge more fully before using the unit.

System Battery

- Minimum Operating Voltage is 13.6 V.
- The system will shut down if the voltage dips lower.
- Sound Quality is not affected by higher voltages.

XDMI Battery

- Minimum Operating Voltage is 12 V.
- The cards will stop working if the voltage dips lower.
- Sound Quality is not affected by higher voltages.

Low voltages should only occur when the main power is disconnected for a longer period. If the units remain connected to the main power, they should always be ready for use.

Please note that external USB drives may draw more current than the charging circuit can provide, so do not connect them unless the batteries are sufficiently charged.

For the best sound quality, when using the XDMI output, do not connect any USB devices such as DACs or USB thumb drives, or USB hard drives, even when the batteries are properly charged.

For more detailed instructions on using the BMS App, please refer to the separate “Taiko Audio Battery Management System (BMS) App Manual”, available from the downloads page on the Taiko Audio website.

4.5 Packaging Contents

Check if all contents in the packaging are present and undamaged. The packaging should contain the following parts:

	Olympus Server
1x	Taiko Audio Olympus Server
1x	Selected XDMI Output Card pre-installed in the server
1x	RJ45 to SFP adapter
1x	One or more optional extra XDMI Output Cards that can alternately be installed in the server by the user

	Olympus I/O
1x	Taiko Audio Olympus I/O
1x	Selected XDMI Output Card pre-installed in the I/O
2x	XDMI QSFP Interface Cards pre-installed in the I/O
2x	XDMI QSFP Interface Cards to be mounted (by the user or dealer) in the Extreme or Olympus Server
2x	QSFP-DD Interface Interconnect cables

If parts are missing or damaged, contact your supplier.

4.6 Gigabit Network Only

Please note that the Olympus Server is only compatible with a 1Gb (or faster) Ethernet connection. The server's SFP port does not work with 100Mb/s networks. Some audiophile switches and accessories are known to throttle the speed, these should be avoided. Taiko Audio Switches and Routers are 1-Gigabit-compatible.

4.7 Safety instructions

Warning!

Be careful with aftermarket footers!

Use aftermarket footers only in the intended recesses in the four corners. These have been machined such that they can safely support the weight. Placing footers directly under the bottom panel may cause internal structural damage, especially when used under the I/O with the server stacked on top. Aftermarket Footers can be used directly underneath the mounted acrylic footers, or the acrylic footers may be removed. The recesses are fitted with an M6 (6mm) thread which provides compatibility with M6-equipped aftermarket footers.

4.8 Important Hints

Caution!

4.8.1 Retain the original Packaging

Always transport and store the server in the original packaging. Transporting the server in any other packaging may cause damage to the server and void the warranty. Please see the separate section in this manual for how to set the server in Shipping Mode.

4.8.2 Transport

Transport and store the server in a dry place. Avoid shaking and bumping. Consult the values below for the transport and storage conditions.

- Ambient Temperature: -20°C to 55°C
- Humidity: 20 – 90 % (not condensing)

4.8.3 Lift with two people

The server is very heavy (60 kg). Always lift with two people.

4.8.4 Power Off Procedure

Only use the main power switch at the back of the Server after you have switched the unit off using the front panel button.

4.8.5 Do not use USB sticks/Thumb drives/USB drives

The USB port is not intended for external thumb drives/USB sticks or USB drives. If you want to transfer music, please use samba network transfer via a computer on the same network. For detailed instructions, please refer to our separate “Migrate Storage Guide” that can be found in the Downloads section on the Taiko Audio website.

4.8.6 Software installation prohibited

We have prohibited the installation of other software on the server as that will degrade the audio quality and can increase the support load.

4.8.7 Noise

The server should be completely silent during operation. If there is any noise audible, switch off the server and try to find the cause.

4.8.8 Maintenance

- Never use water to clean the server. Water can cause unrepairable damage to the server.
- Try to keep the room where the server is installed as dust-free as possible. Wipe the server with a clean and soft cloth when it gets dusty.

4.8.9 Children and vulnerable users

Caution!

- This server can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the server in a safe way and understand the hazards involved.
- Children under 8 shall not play with the server.
- Cleaning and user maintenance shall not be done by children without supervision.

5 Installation

The following paragraphs will provide all information needed to install the server and/or I/O in a safe way.

5.1 Installation location

The installation location should comply with the following conditions:

- Flat and stable surface
- Dry environment
- At least 7,5 cm (about 2.95 inch) free and ventilated space at the top; at least 5 cm (about 1.97 inch) on the sides

5.2 Tips for optimum audio quality

To achieve the best audio quality possible with this server, we recommend following these tips:

- Analog and digital interconnect cables inherently have varying characteristics. We recommend experimenting with different digital or analog interconnect cables.
- The Olympus server and I/O are not very sensitive to the quality of the AC power, However, power cables still have an audible impact, due to a modulating of the current draw on a power distributor, through the common ground connection, and by affecting other components in the chain. We recommend using good quality power cables.
- Use a power outlet capable of delivering 2 kW of continuous power without parts of the connection getting warm.
- In countries with Schuko plugs, make sure the connector is in the orientation that sounds best.
- We do not recommend replacing fuses for experimental purposes.
- If a fuse needs to be replaced, the new fuse must be of the same rating.
- Avoid any devices that provide local area network connectivity over the mains wiring.
- Please see also the ‘Recommended Roon Settings’ document on the Taiko Audio website for detailed Roon configurarion recommendations.

5.3 Connecting the Olympus Server

To connect the server, do the following:

1. Connect the power cable to the **power port**.
2. Connect the other end of the power cable to a suitable power source (100 – 250 VAC depending on the country).
3. Connect the Network Cable.
    a. If you will connect the server directly to your Home Router or Switch:
    Connect one end of your Cat.6 or higher network cable to your home network. Connect the other end of the network cable via the the supplied RJ45 to SFP adapter to the **SFP LAN Port**. Note that the adapter has a locking end (where the connections are) and a smooth end. Please make sure to orient it such that the locking end is on the left. When inserted correctly, the adapter clicks in place. If inserted inversed, it will stick out a little bit and it will not click in place.
    b. If you will connect the server to the Taiko Audio Extreme Router or Extreme Switch:
    Use a DAC (Direct Attach Copper) cable. Make sure to orient the SFP connector end with the Cable Tag and connector end on the left. When inserted correctly, the connector clicks in place. If inserted inversed, it will stick out a little bit and it will not click in place.
4. When the XDMI Analog Board is installed, connect analog interlinks to your preamplifier or integrated amplifier. When the XDMI Digital Board is installed, connect digital interlinks to your D-A Converter.
5. The server also contains two USB ports to connect an external D-A Converter. Only one USB DAC can be connected at any time. Please note that we recommend using the server with XDMI for the best sound quality.

The server is now connected to all necessary equipment.

5.3.1 Optional: Grounding Posts

Grounding is not required or recommended but to facilitate certain use cases, the Olympus Server and I/O are fitted with binding posts for grounding purposes.

Olympus Server Grounding posts

Looking at the back, the left binding post next to the AC power inlet connects to the charger AC-DC power supply, which is grounded through the IEC inlet ground pin as well, which is a safety requirement, but the entire AC/DC charger supply does not connect to the rest of the Olympus chassis, it truly floats.

The right grounding post next to the USB ports grounds the chassis which floats by default.

The analog output signal ground is tied to the chassis.

Olympus I/O Grounding post

The ground post on the I/O grounds both the AC battery charging supply and the chassis.

There is no signal ground provision for the I/O.

Grounding Hints

Grounding is not required or recommended. Please note that grounding works differently with the Olympus than with the Extreme Server. We have observed negative SQ effects from grounding, where grounding the Olympus adds grain or veils. The most likely explanation is that the Olympus has evolved to being fully battery-powered. The only function of the AC-DC power supply is to charge the battery cells.

If you want to experiment with grounding, connecting your grounding system or tweak of choice to the AC-DC supply ground will have an effect which may be positive in that particular system or to that particular set of ears.

This would connect the Olympus circuitry to your AC ("safety") ground. In the "grounding universe", there are often different tweaks connecting to AC (safety), chassis or signal ground. Therefore, you would connect AC ground tweaks to the AC ground post (near the AC inlet), and you would connect signal and chassis ground tweaks to the signal/chassis ground post (near the USB connectors).

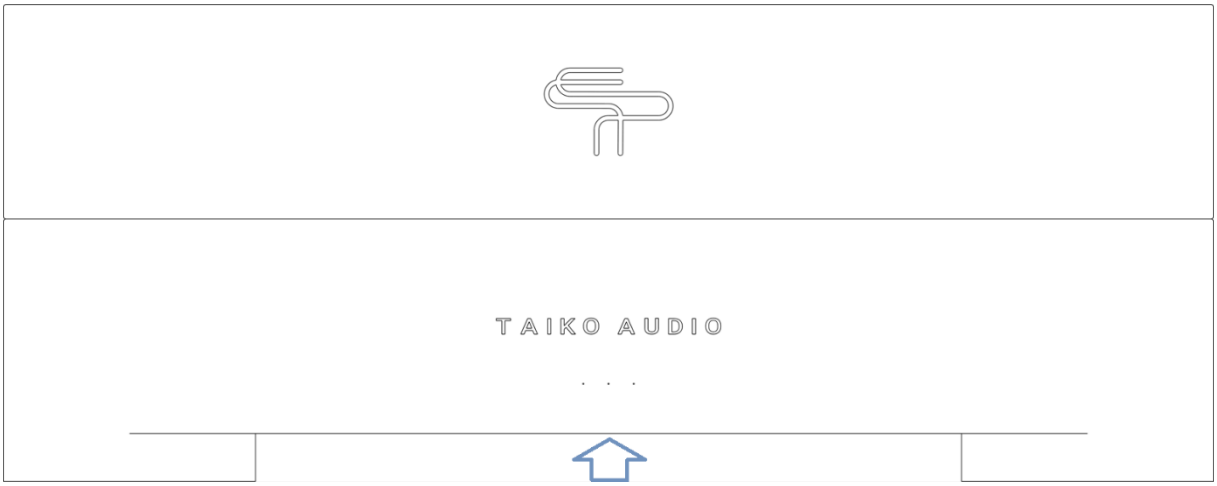
With a floating battery power circuitry, it is usually best to keep this floating, as this is one of its key advantages.

5.4 Power Switch and Standby Button Location

Both the Olympus server and I/O are equipped with a main power switch at the rear.

The Olympus server additionally has an On/Standby button on the underside of the front panel.

The location of the On/Standby button is indicated below by the blue arrow.



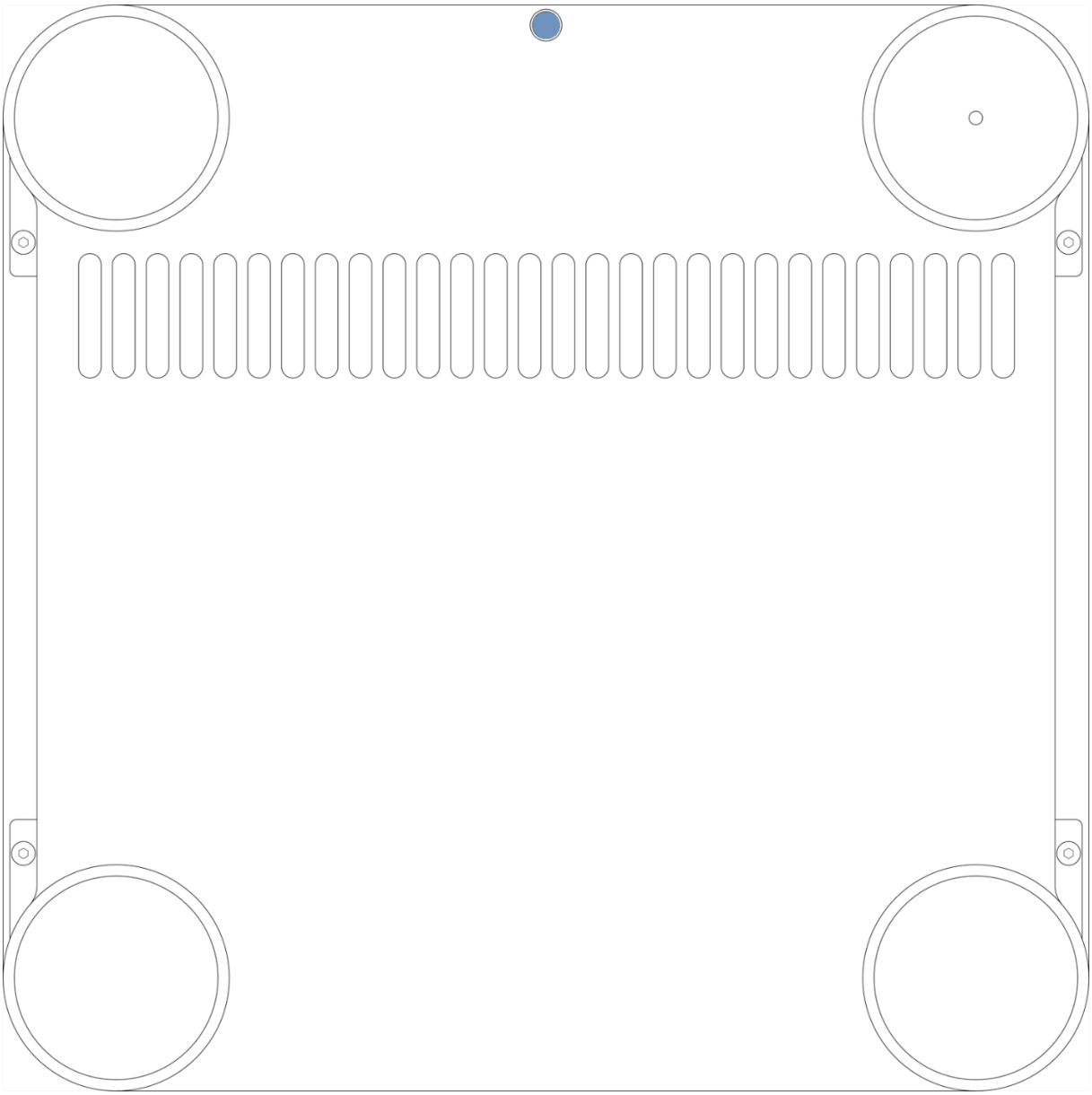
The On/Standby button alternately starts the Operating System or shuts it down and puts the server in a standby state.

In standby, the batteries are still charged. A short momentary push of the button alternately starts the Operating System or shuts it down and puts the server in a standby state. In standby, the batteries are still charged. The time it takes for the server to enter standby after pressing the button varies depending on the system state (mostly what Roon is doing) and shutting down the running applications. Typically, this is only a few seconds. A good way to verify that the server is shutting down is to check the Roon app. After pressing the power button, the Roon remote should lose its connection pretty quick.

A long-press (5 seconds or more) of the button leads to a hard OS shut down, which should normally be avoided.

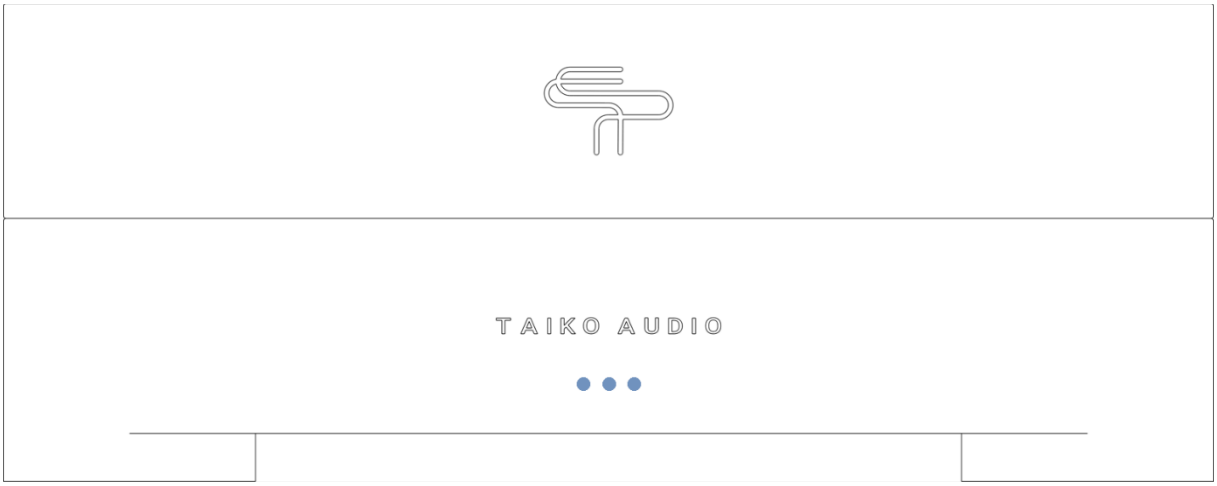
The Server and I/O are both intended to always be connected to the mains power. For normal day-to-day use, only the server's front panel standby button should be used.

The location of the On/Standby button, as seen from the Olympus Server's bottom side, indicated by the blue circle.



Olympus Server front panel - Location of the three Status LEDs

The server has 3 LEDs on the front panel, each indicating the status of a particular section.



LED1 (left) = XDMI Battery
LED2 (middle) = OS State
LED3 (right) = System Battery

In general, a solid-on LED indicates status OK, whereas a blinking LED indicates an attention state, usually booting or charging. The front panel LEDS can indicate various other system states by their blinking behavior. Please refer to the LED Status chapter further below or in the BMS App Manual for the full list.

5.5 Switching Olympus Server On and Off

5.5.1 Switching On the Olympus Server

To switch on the server for the first time, do the following:

1. Before powering on the Server, please make sure that it is connected to the network, with the home Router and/or Extreme Router already powered on.
2. Switch the **main power switch** on the rear to the *ON* position.
3. Press the **front panel button**. The Operating System will start up. The middle LED will start blinking, indicating that Windows is starting. After approximately 20-25 seconds, the middle LED will stop blinking and remains on, indicating that the Operating System is booted. Roon is also started at this time. Depending on your library size, this can take a few minutes. After that, the server is usually fully operational. Shortly after finishing the startup routine, your Roon Control Point app will automatically connect. Now, your server is ready for use.

If the server will not connect to the network:

- Shut down the server using the button under the front panel.
- Ensure that all network connections between home Router and Server are 1Gb or faster.
- Make sure that all network cables are connected.
- Ensure that the home Router and the Extreme Router (if present) are powered on and fully booted before starting the Server. The Extreme Router can take up to 5 minutes to enable Wi-Fi and complete its DHCP process. SFP Ports do not auto negotiate, and the server does not continue checking its network ports once it is fully booted. Therefore, if the Router is restarted after the server was already started, the server may not re-check its network ports, and the Router cannot assign an IP Address.
- Start the Server using the button under the front panel.

Caution!

The unit should be completely silent during operation. If there is any audible noise, switch off the unit, and try to find the cause.

5.5.2 Switching Off the Olympus Server

To switch off the server, do the following:

1. Momentarily press the **front panel button**. Within a few seconds, the middle LED will extinguish, indicating that the OS is shut down, and the server has correctly entered standby mode. The batteries will still be charged.
    a. The exact amount of time varies a bit with the Roon database size and the time it takes for the system to close the various Roon elements and any running tasks. With a small Roon database and no ongoing system tasks, shutdown will take less than 5 seconds.
    b. Once the power button has been pressed, the Roon remote should lose connection pretty quickly, indicating the system is shutting down.
    c. Note that a long-press of the button (more than 5 seconds) leads to a hard OS shut down, which should normally be avoided. This should only be used if the OS has crashed and is unresponsive—a rare situation most users will never encounter.

5.6 Switching Olympus I/O On and Off

5.6.1 Switching On the Olympus I/O

To switch on the I/O, do the following:

1. Switch the **main power switch** on the rear to the *ON* position. There is no booting time; the unit powers on immediately. The front panel LEDs will turn on and indicate the status of each of the two battery sections.
2. Before powering on the I/O, please make sure that it is fully connected to the server and to the network, with the home Router and/or Extreme Router already powered on.
3. Make sure to power the I/O before powering the server on.

If the server and I/O will not connect to the network:

- Shut down the I/O using the back panel switch.
- Shut down the server using the button under the front panel.
- Ensure that all network connections between home Router and the I/O are 1Gb or faster.
- Make sure that all network cables are connected.
- Ensure that the home Router and the Extreme Router (if present) are powered on and fully booted before starting the Server and the I/O. The Extreme Router can take up to 5 minutes to enable Wi-Fi and complete its DHCP process. SFP Ports do not auto negotiate, and the server does not continue checking its network ports once it is fully booted. Therefore, if the Router is restarted after the server was already started, the server may not re-check its network ports, and the Router cannot assign an IP Address.
- Start the I/O using the back panel switch.
- Start the Server using the button under the front panel.

Caution!

The units should be completely silent during operation. If there is any audible noise, switch off the units, and try to find the cause.

Olympus I/O front panel - Location of the two Status LEDs

The I/O has 2 LEDs on the front panel, each indicating the status of a particular section of the unit.

LED1 (left) = XDMI Battery
LED3 (right) = Network Card Battery

In general, a solid-on LED indicates status OK, whereas a blinking LED indicates an attention state, usually booting or charging. The front panel LEDS can indicate various other system states by their blinking behavior. Please refer to the LED Status chapter further below or in the BMS App Manual for the full list.

5.6.2 Switching Off the Olympus I/O

The I/O should normally be left powered on so that the BPS system can maintain the charging cycle.

1. To temporarily power off the I/O, switch the **main power switch** to the *OFF* position. Please note that the batteries will still deplete when the unit is left without mains power for more than a few hours.

5.7 Shipping Mode

If the server or I/O is expected to be disconnected from the main power for over 2 hours, they can be set to Shipping Mode. This is how we ship them. Selecting Shipping Mode will discharge the capacitors and then shut down the motherboard and XDMI cards. After this, the unit(s) can safely be left disconnected indefinitely.

1. Shut down the server's Operating System by pressing the button underneath the front panel. Confirm the middle LED has gone off. This does not apply to the I/O.
2. Power off the unit(s) with the rear switch.
3. Remove the AC Power Cable.
4. IMPORTANT: Wait for approximately 2 minutes for the Battery sections to shut down. (You can check the status by looking through the Server's perforated top, into the front right section, where the green light will go off.)
5. Use the BMS app and select shipping mode for each of the respective unit's independent Battery Sections.

Upon reconnection of mains power, the server will automatically switch out of shipping mode and prepare itself for normal use.

5.8 Connecting Olympus I/O to Olympus Server

When purchased as a bundle, the Server and I/O will be supplied with two QSFP cables to connect the Server and the I/O via the QSFP Interface Expander cards. An XDMI Output Card of your choice will be pre-mounted in the I/O. The only extra step, in this case, is to connect the QSFP cables.

Additional steps are required when the I/O has been added later. Please refer to the next chapter for detailed instructions.

To connect the Olympus Server and Olympus I/O, do the following:

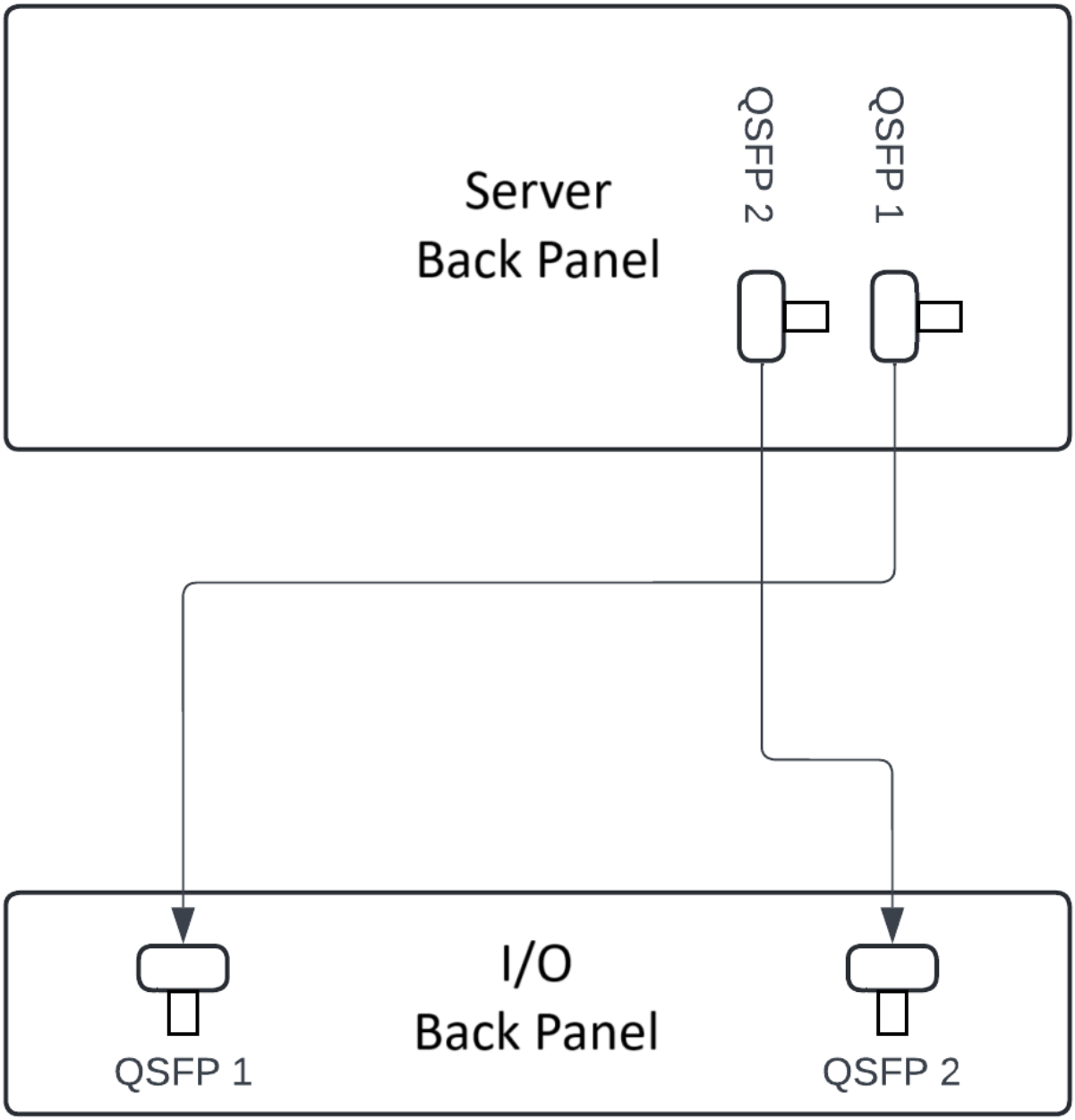
1. Connect the power cable to the I/O's **power port**.
2. Connect the other end of the power cable to a suitable power source (100 – 250 VAC depending on the country).
3. Connect the power cable to the server's **power port**.
4. Connect the other end of the power cable to a suitable power source (100 – 250 VAC depending on the country).
5. Connect the Network Cable to the I/O unit's SFP port.
   If you will connect the server and I/O directly to your Home Router or Switch:
   Connect one end of your Cat.6 or higher network cable to your home network. Connect the other end of the network cable via the the supplied RJ45 to SFP adapter to the I/O unit's **SFP LAN Port**. Note that the adapter has a locking end (where the connections are) and a smooth end. Please make sure to orient it such that the locking end is at the top. When inserted correctly, the adapter clicks in place. If inserted inversed, it will stick out a little bit and it will not click in place.
   If you will connect the server and I/O to the Taiko Audio Extreme Router or Extreme Switch:
   Use a DAC (Direct Attach Copper) cable. Make sure to orient the SFP connector end with the Cable Tag and connector end at the top. When inserted correctly, the connector clicks in place. If inserted inversed, it will stick out a little bit and it will not click in place.
6. When the XDMI Analog Board is installed, connect analog interlinks to your preamplifier or integrated amplifier. When the XDMI Digital Board is installed, connect digital interlinks to your D-A Converter.

5.8.1 Connect the QSFP Cards

After installation, connect the two QSFP Interface cards in the Olympus Server with those in the Olympus I/O using the supplied 2 QSFP DD cables.

Observe the QSFP Connector Orientation!

The QSFP connectors must be inserted in the correct orientation to work. Note the orientatien of the Release Tabs in the diagram below. When inserted correctly, they snap in place. When inserted incorrectly, they do not go in all the way, and they do not lock. In that case, they need to be rotated 180 degrees.



Connect QSFP1 (XDMI audio signal) on the Olympus Server to QSFP1 on the I/O, and connect QSFP2 (network signal) on the server to QSFP2 on the Olympus I/O.

5.8.2 Connect your Preamp, Integrated Amplifier, or DAC

- If the XDMS Analog Output Card is mounted, connect its analog outputs to your preamplifier or integrated amplifier. If your preamplifier only has Balanced XLR inputs, an RCA to XLR Adapter Plug can be used.
- If the XDMS Digital Output Card is mounted, connect the digital connection of your choice to your D-A Converter.

5.9 Adding Olympus I/O to Olympus Server at a later time

There are additional steps to take when the Olympus Server and I/O were not purchased as a bundle, and the I/O is added to the Olympus Server at later time.

The I/O is supplied with 2 external QSFP Interface Expander Cards that need to be mounted in the Olympus Server in place of the XDMI Output board and the Network Card. These cards can technically be repurposed in the Olympus I/O, but to make the process as simple as possible, we provide the Olympus I/O complete with a new Network Card and your choice of XDMI Output Card pre-installed.

To get into the Olympus Server, the top section needs to be removed. The two sections are secured with 4 screws, 2 in the recesses on each side, that need to be unscrewed. They can be accessed using a 4-mm Hex Key while the server remains in place. We recommend covering any equipment underneath with a blanket, in case a tool or screw might fall.

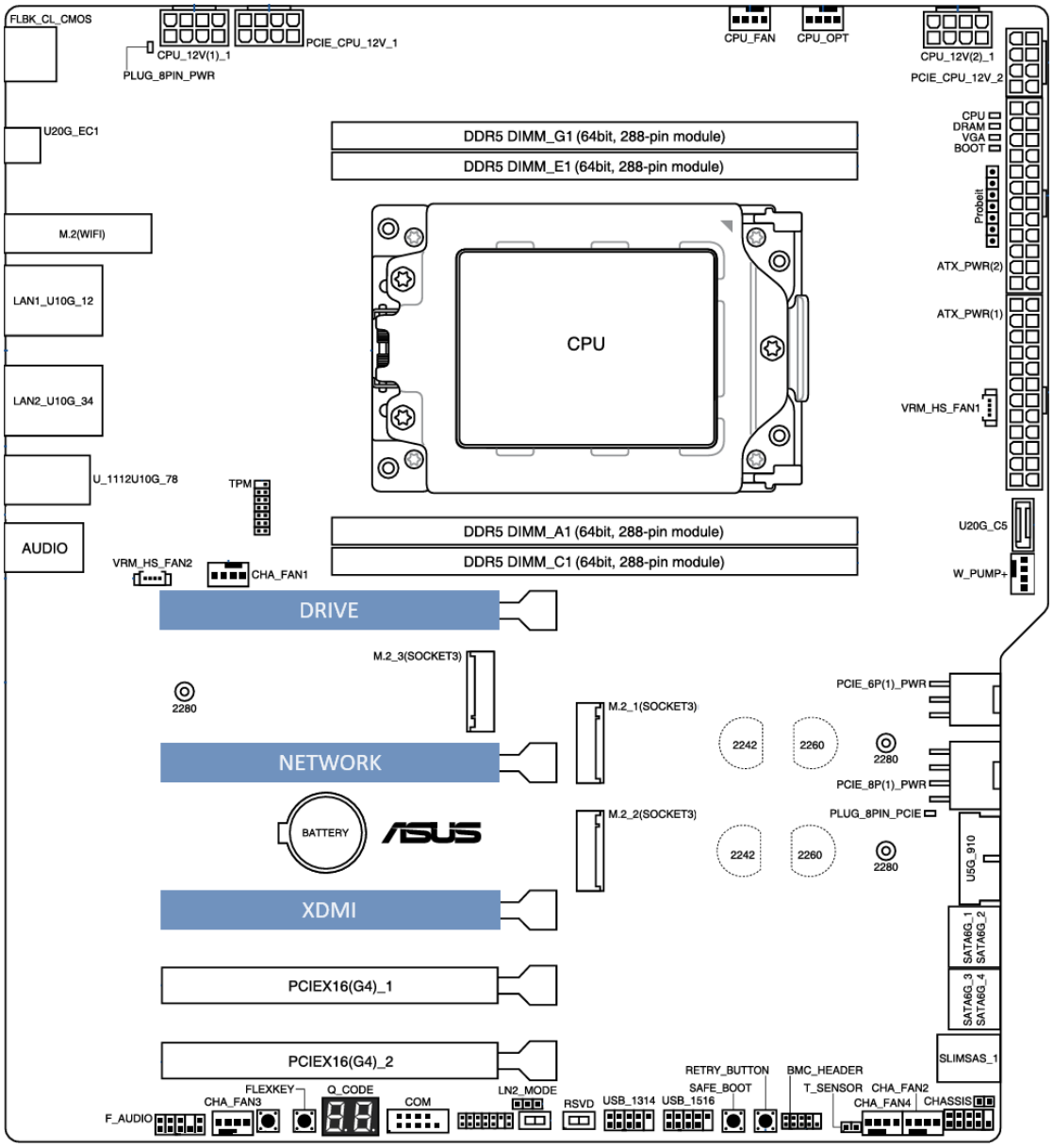
Please refer to chapter 5 for diagrams and screw locations.

5.9.1 Removing the Server's top section

1. Shut down the Server's Operating System by pressing the button underneath the front panel and confirm the middle LED has distinguished.
2. Power off the unit with the rear switch.
3. Remove the AC Power Cable.
4. Wait for approximately 2 minutes for the Battery sections to shut down. You can check this by looking through the unit's perforated top, into the front right section, where the green light will go off.
5. Use the BMS app and select shipping mode for each of the respective unit's independent Battery Sections.
6. Please make sure there is sufficient space around the audio rack for you to have access to all sides. If space is limited, place the server on another sturdy flat surface. Always place the server right side up. Do not place it upside down.
7. Locate the four 6-mm HEX (inbus) screws that secure the server's top half to the bottom section. There are 2 screws at the bottom of each side, underneath the curved-in side panels. For more detailed information, please refer to the Olympus Server Bottom Panel Diagram in the last section of this document.
8. Use a 6-mm Allen Key (Inbussleutel) to remove the four screws. Do not use an American equivalent size. Even if it may appear a good fit, there is a mismatch, and you're likely to damage the screws in the process.
9. Unscrew the two screws on each side.
10. Carefully remove the top section by moving it upward in a straight motion.

Now that you have access, locate the XDMI Output Card and the Network Card.

Please refer to the diagram below for the PCI Slot- and board locations.



Above: Location of Drive, Network Card, and XDMI Output Board in the Olympus Server

5.9.2 PCI Slots – Olympus Server

The Olympus Server has 5 vertical PCIe slots, one of which is for the Music Storage Drive, one for the Network Card, and one for the XDMI Output Card. Slot 4 is free but blocked when the AES/EBU module or MSB Pro ISL module are fitted.

- Slot 1: OS drive + Music drive
- Slot 2: Network card
- Slot 3: XDMI
- Slot 4: free, but blocked if you are going to use MSB Pro ISL or AES/EBU*
- Slot 5: free
- Slots 4 & 5 may both be needed for future more expansive XDMI options, like for example balanced outputs with volume control.

* AES/EBU is not an independent PCIe card, but the XLR connector extends over the 4th slot, effectively blocking it. The same applies to the 5 pin XLR for the Lampizator link and the MSB Pro ISL fiber module. This does not apply to the I/O.

5.9.3 Removing the XDMI Card

1. Locate the XDMI Output Card (with Daughter Board attached) and remove the DC cable. Note that the entire two-tier PCI Card module needs to be removed from the server. For the Analog Card, there will also be an earth cable connected to the server's chassis. This cable can be removed, and is not required for the other XDMI boards.
2. Locate the 6 2-mm HEX (inbus) screws that hold the PCI Card in place. Note that the XDMI Card is secured from the rear side of the unit, not on top of the bracket. For a more detailed description, please refer to the Olympus Server XDMI Card Diagram in the last section of this document.
3. Use a 2-mm Allen Key (Inbussleutel) to remove the 6 screws. Do not use an American equivalent size. Even if it may appear a good fit, there will be a mismatch, and you're likely to damage the screws in the process.
4. If you are removing the Analog board, also remove the short Ground cable connected between the card's copper plate and the server's back panel.
5. Lift the XDMI Card out of the PCI slot in a straight up motion and set it aside.

5.9.4 Removing the Network Card

1. Locate the Network Card and remove the DC cable.
2. Locate the 2 2-mm HEX (inbus) screws that hold the PCI Card in place. Note that the Network Card is secured from the rear side of the unit, not on top of the bracket. For a more detailed description, please refer to the Olympus Server XDMI Card Diagram in the last section of this document.
3. Use a 2-mm Allen Key (Inbussleutel) to remove the 2 screws. Do not use an American equivalent size. Even if it may appear a good fit, there will be a mismatch, and you're likely to damage the screws in the process.
4. Lift the Network Card out of the PCI slot in a straight up motion and set it aside.

5.9.5 Installing the two QSFP Cards

1. Install one of the two QSFP Interface Expander Cards that came with the Olympus I/O, in place of the removed XDMI Card.
2. Install the other QSFP Expander Card in place of the removed Network Card.
3. Reconnect the two DC connectors (one for each QSFP card)
4. Secure the Cards with the 2-mm HEX screws from the rear of the server, in the same way the XDMI card and Network card were attached.
5. Two blind plates are supplied to cover redundant back panel space. You'll need one after removing the Digital Card, and two after removing the Analog Card.
6. Place the Top Section back on top.
7. Secure the Top Section with the 4 4-mm HEX (inbus) screws using the supplied 4mm Allen Key (inbussleutel).

5.9.6 QSFP Card and Network Cable Connection

1. The two QSFP Interface Expander Cards that you just installed in the Olympus Server must now be inter-connected to the I/O Chassis using the supplied two QSFP cables.
2. Connect QSFP1 (XDMI audio signal) on the server to QSFP1 on the I/O, and connect QSFP2 (network signal) on the server to QSFP2 on the I/O. Please note the order of the two connectors is reversed on the server as opposed to the I/O, as illustrated in the diagram further above.
3. Finally, connect your network cable to the I/O's SFP network port.

Once the Olympus I/O has been added, the Olympus Server's second battery section now powers the QSFP Interface Expander cards connected to the I/O, while the I/O's own battery section powers the Network- and XDMI Output Cards.

5.10 Olympus-specific Network Card and USB Card

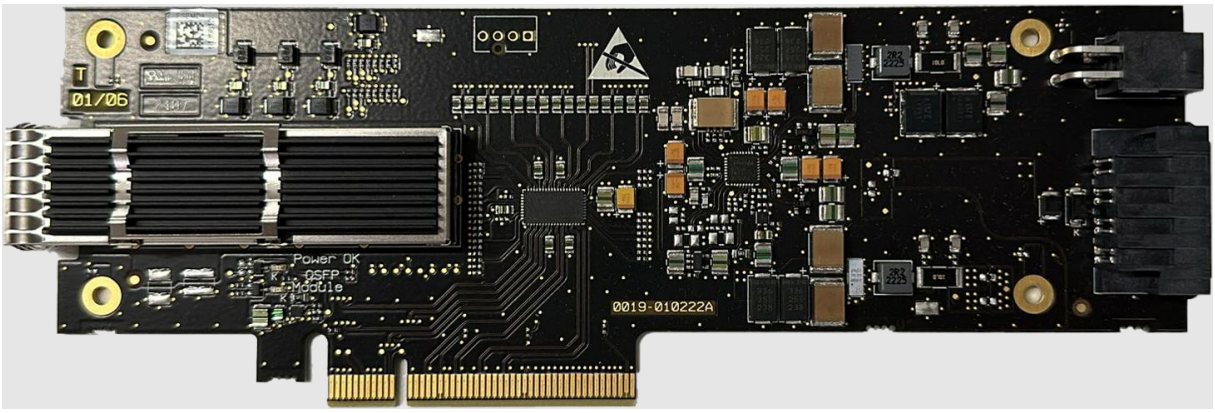
The Extreme and the Olympus are very different designs. As a result, the USB and network cards used in the Extreme Server cannot be used with the Olympus. Instead, we have developed versions especially for this purpose. This card makes use of a newly developed USB Driver which requires no switching of USB profiles.

Please note that the Olympus USB card variant is NOT removable. For the Olympus I/O, there is no USB option.

5.11 Adding Olympus I/O to Extreme Server

The I/O is pre-configured with the XDMI Output Card of your choice and is supplied with 2 external QSFP Interface Expander Cards that need to be mounted in the Extreme Server.

One Interface Expander card goes in place of the Extreme's Network Card and the other goes in place of the Extreme's USB Card. Please note that the Extreme's Network Card and USB card are not compatible with the Olympus.



Above: QSFP Interface Expander Card

After installation, the two XDMI Interface Expander Cards in the Olympus server must be inter-connected to the I/O Chassis using the supplied 2 QSFP cables.

Connect QSFP1 (XDMI) on the server to QSFP1 on the I/O, and connect QSFP2 (network) on the server to QSFP2 on the I/O.

Finally, connect your network cable to the I/O's SFP network port. After adding the I/O, the server's network input will no longer be used.

5.12 Changing the XDMI Daughter Board in the Olympus Server

The XDMI Daughter Boards are user swappable. To swap one for the other, for instance, to change from an Analog module to Digital module, please carry out the following steps.

5.12.1 Removing the Server's top section

1. Shut down the Server's Operating System by pressing the button underneath the front panel and confirm the middle LED has distinguished.
2. Power off the unit with the rear switch.
3. Remove the AC Power Cable.
4. Wait for approximately 2 minutes for the Battery sections to shut down. You can check this by looking through the unit's perforated top, into the front right section, where the green light will go off.
5. Use the BMS app and select shipping mode for each of the respective unit's independent Battery Sections.
6. Please make sure there is sufficient space around the audio rack for you to have access to all sides. If space is limited, place the server on another sturdy flat surface. Always place the server right side up. Do not place it upside down.
7. Locate the four 4-mm HEX (inbus) screws that secure the server's top half to the bottom section. There are 2 screws at the bottom of each side, underneath the curved-in side panels. See the Olympus Server Bottom Panel Diagram in the last section of this document.
8. Use a 4-mm Allen Key (Inbussleutel) to remove the four screws. Do not use an American equivalent size. Even if it may appear a good fit, there is a mismatch, and you're likely to damage the screws in the process.
9. Unscrew the two screws on each side.
10. Carefully remove the top section by moving it upward in a straight motion.

5.12.2 Locating and removing the XDMI Baseboard (PCI Card)

1. Locate the XDMI Output Card (with Daughter Board attached) and remove the DC cable. Note that the entire two-tier PCI Card module needs to be removed from the server, after which the XDMI Daughter Board can be swapped, and the PCI Card re-seated.
2. If it is the Analog board you are removing, remove the short ground cable that is connected between the Analog board's copper plate and the server's back panel. This cable is only required for the analog board. It is not required for the other XDMI boards.
3. Locate the 6 2-mm HEX (inbus) screws that hold the PCI Card in place. Note that the XDMI Card is secured from the rear side of the unit, not on top of the bracket. See the Olympus Server XDMI Card Diagram in the last section of this document.
4. Use a 2-mm Allen Key (Inbussleutel) to remove the 6 screws. Do not use an American equivalent size. Even if it may appear a good fit, there will be a mismatch, and you're likely to damage the screws in the process.
5. Lift the XDMI Card out of the PCI slot in a straight up motion.
6. Remove the four screws that secure the Daughter board to the XDMI Card, pull it up, and set it aside.

5.12.3 Fitting the XDMI Daughter Board

1. Fit the other XDMI Daughter Board on top of the XDMI card, and secure it with the 4 screws.
2. Lower the XDMI Card back into the PCI slot in a straight motion.
3. Secure the XDMI Card with the 6 2-mm HEX screws using an Allen key.
4. Reconnect the DC cable to the XDMI Card. Be careful not to twist the cable too much.
5. If it is the Analog board you are installing, install the short ground cable between the Analog board's copper plate and the server's back panel.
6. Place the Top Section back on top.
7. Secure the Top Section with the 4 4-mm HEX (inbus) screws using a 4mm Allen Key (inbussleutel). Please note that the Analog board requires longer screws than the digital board. The longer screws should be supplied along with the Analog board.
8. If the unit was moved to another surface, place it back in its intended position. Reconnect the network cable, and analog or digital outputs.
9. Reconnect the mains power cable
10. Power on the unit with the rear switch. The unit will automatically come out of Shipping Mode and can be started as normal.
11. Start the Operating System by pressing the button underneath the front panel and confirm the middle LED light has stopped flashing.
12. The server is now ready for use.

5.13 Changing the XDMI Daughter Board in the Olympus I/O

The XDMI Daughter Boards are user swappable. The I/O has two PCI slots, one for the Network Card, and one for the XDMI output Card. The cutouts for the two slots are machined such that the XDMI card only fits its intended slot, and it would not fit in the Network Card slot. The smaller slot is for the Network Card while the larger slot is for the XDMI Output Card.

To change the XDMI Daughter Board in the Olympus I/O, for instance, to swap from analog outputs to digital outputs, please carry out the following steps.

5.13.1 Removing the I/O Bottom Cover Panel

1. Power off the unit with the rear switch.
2. Remove the AC Power Cable.
3. Wait for approximately 2 minutes for the Battery sections to shut down.
4. Use the BMS app and select shipping mode for each of the respective unit's independent Battery Sections.
5. Clear a stable surface such as a table and lay a blanket on it.
6. Place the I/O on the blanket, UPSIDE DOWN, with the back panel facing you.
7. Unscrew the 6 2-mm HEX (inbus) screws that hold the bottom panel in place. There are 3 screws on each opposing side. See the Olympus I/O Bottom Panel Diagram in the last section of this manual.
8. Carefully remove the bottom cover from the chassis' top section by moving it upward in a straight motion.

5.13.2 PCI Slots – Olympus I/O

The Olympus I/O has two horizontal PCI slots, one of which is for the Network Card and one for the XDMI Output Card. The cutouts for the two slots are machined differently. The smaller slot is for the Network Card while the larger slot is for the XDMI Output Card. The XDMI card only fits its intended slot, and it would not fit in the Network Card slot.

- Slot 1: XDMI
- Slot 2: Network card

5.13.3 Locating and Removing the XDMI Card

1. Note that the entire two-tier PCI Card module needs to be removed from the I/O, after which the XDMI Daughter Board can be swapped, and the PCI Card re-seated.
2. Locate the XDMI Output Card (the large module with the copper backplate) and remove the DC cable. The Network Card does not need to be removed.
3. Unscrew the 6 screws on the backpanel that secure the XDMI card's copper panel to the chassis and in the PCI slot. See the Olympus I/O XDMI Card Diagram in the last section of this manual.
4. Lift the XDMI card out of the PCI slot in a sideways motion.
5. Remove the four screws that secure the Daughter Board to the XDMI Card, pull it up, and set it aside.

5.13.4 Fitting the other XDMI Daughter Board

1. Fit the other XDMI Daughter Board on top of the XDMI Card and secure it with the 4 screws. Please note that the Analog board requires longer screws than the digital board. The longer screws should be supplied along with the Analog board.

2. The short ground cable that is normally connected between the Analog board and the server's back panel is not required in the I/O.
3. Position the XDMI Card back into the PCI slot in a sideways motion.
4. Re-fit the 6 screws that secure the XDMI Card from the rear side of the I/O unit.
5. Reconnect the DC cable. Be careful not to twist the cable too much.

5.13.5 Installing the Network Card

The Network Card is removed and installed in the same way as the XDMI Daughter Board.

However, when relocating the Network Card from the Olympus Server to the Olympus I/O, the copper bracket must be changed to a narrower version. This narrow bracket is normally supplied with the card when purchased for use with the I/O.

5.13.6 Re-fit the Bottom Plate

1. Lower the bottom section back onto the chassis' top panel.
2. Re-fit the 6 2-mm HEX (inbus) screws using an Allen key (inbussleutel).
3. Lift the unit, rotate it back to normal straight up position, and place it back in its intended position.
4. Reconnect the Network, Analog or Digital cables.
5. Reconnect the mains power cable.
6. Power on the unit with the rear switch. The unit will automatically come out of Shipping Mode and start as normal.
7. The I/O is now ready for use.

6 Roon setup

6.1 Connecting with the app

To use the server, you need the Roon app:

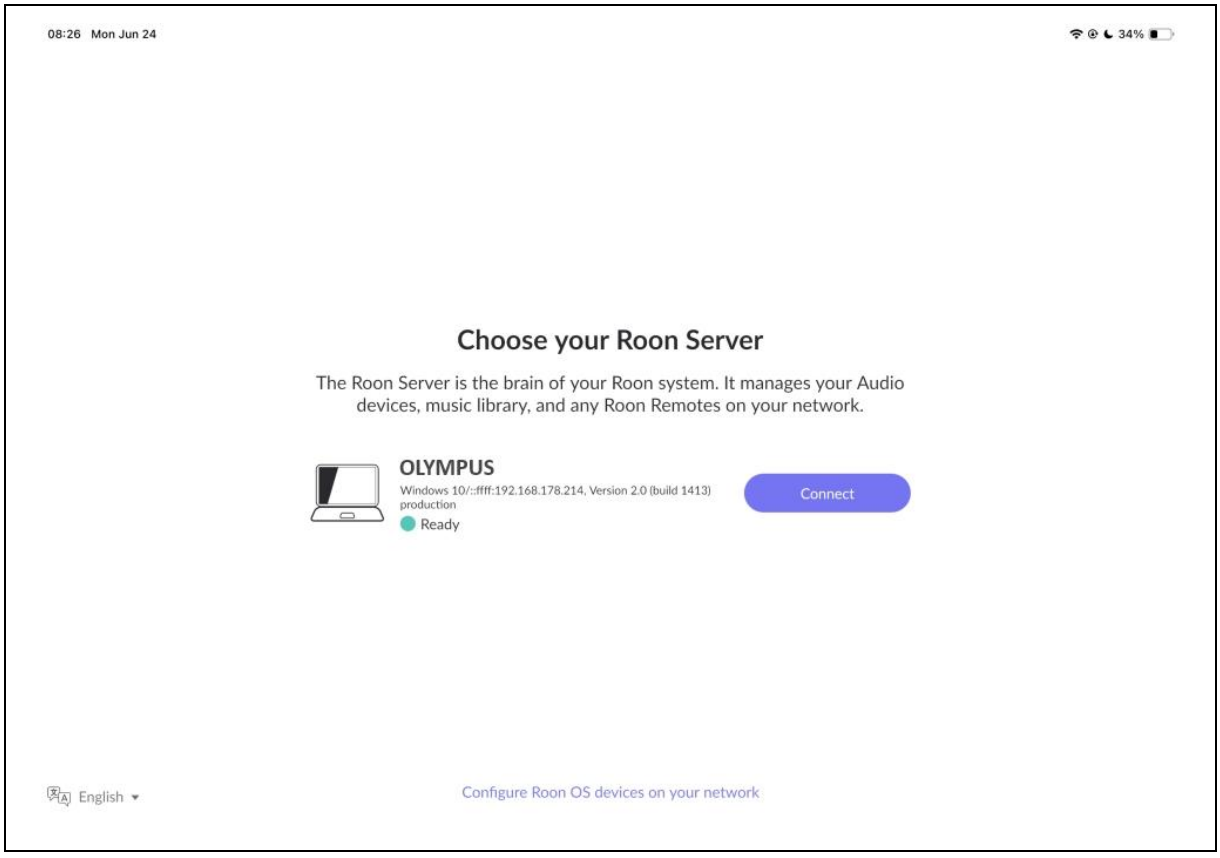
Roon Remote
Roon Labs

Download Roon in the App Store, Play Store, or from www.roonlabs.com. We recommend using an iPad or iPhone. Android mobile devices or MAC and Windows desktops and laptops are also compatible.

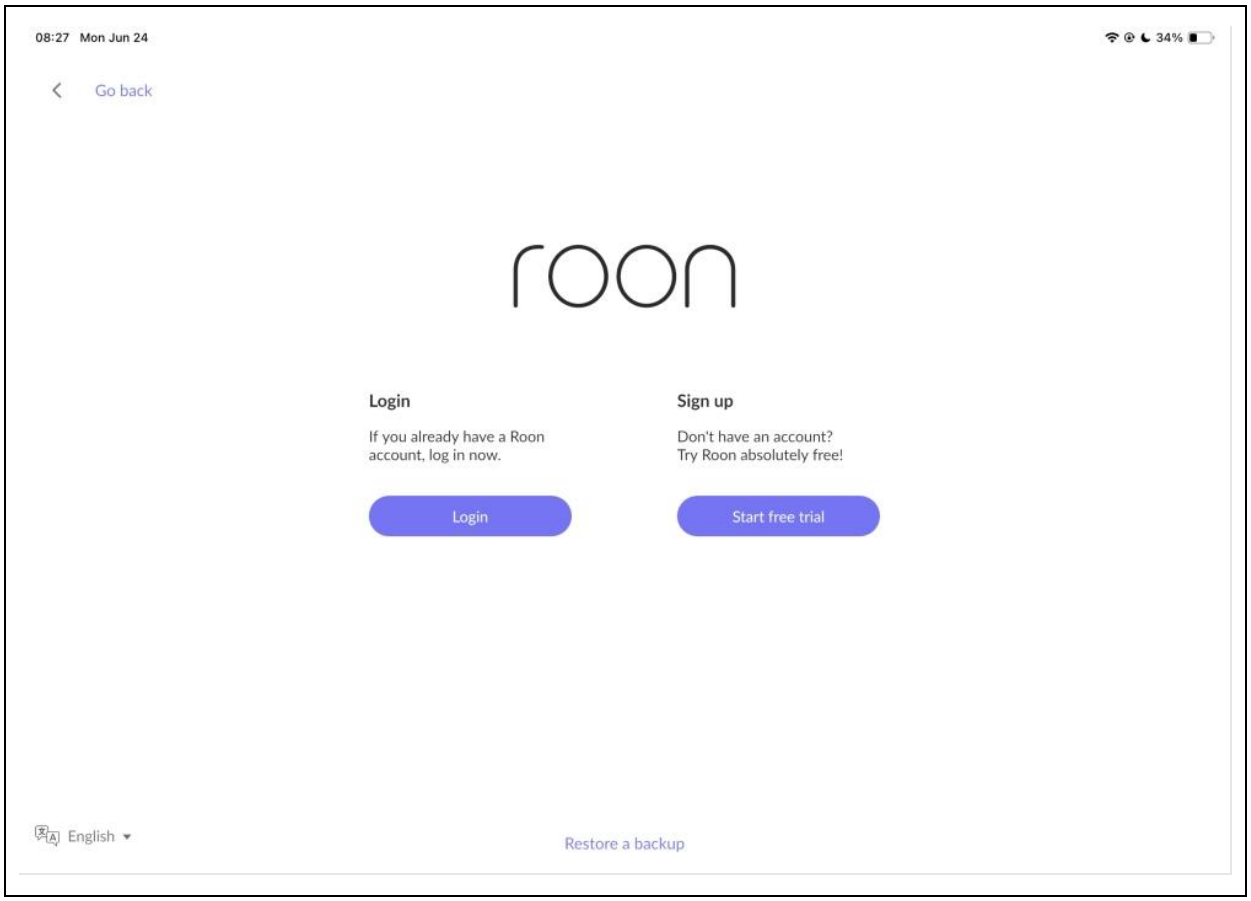
To connect the server with the app, do the following:

1. Switch on the server.
2. Open the Roon app on your control device (usually an iPad). Make sure the device that runs the app is connected to the same network as the server.

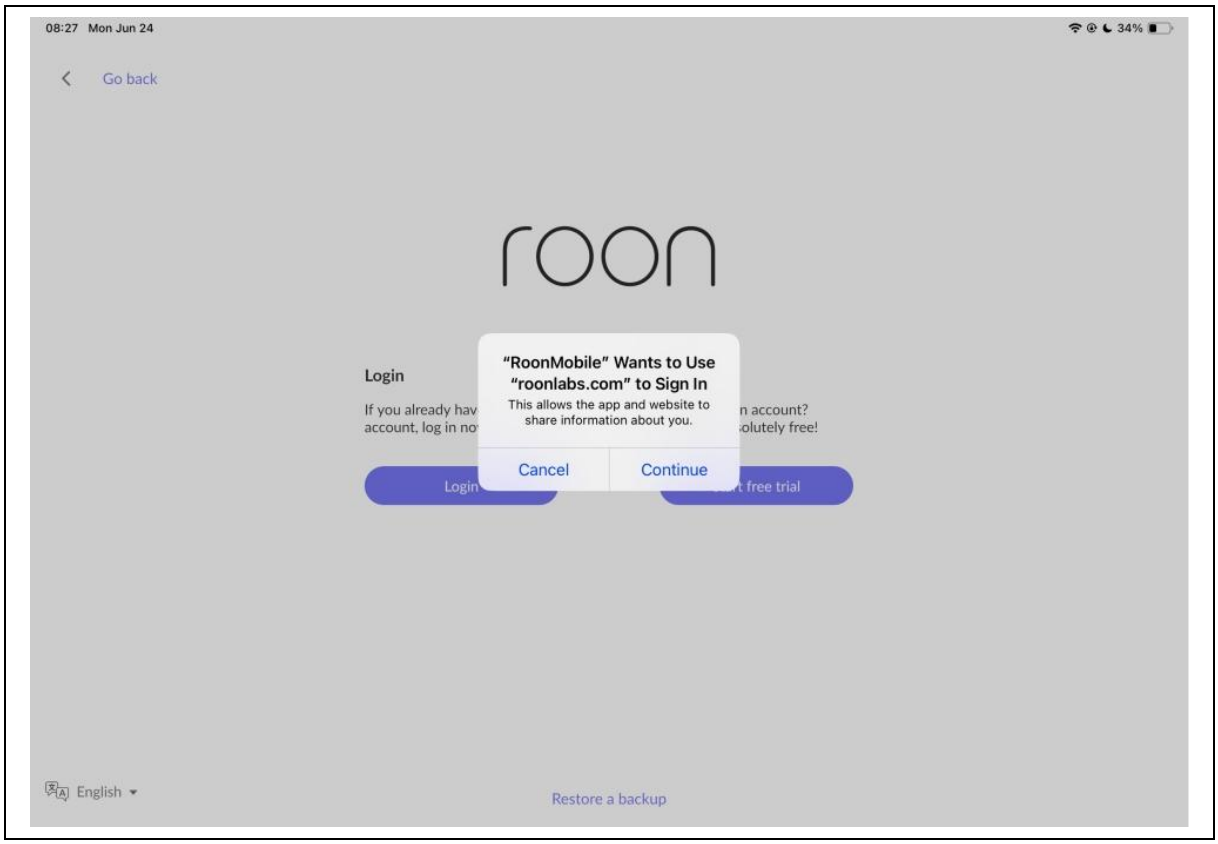
The app starts looking for devices. OLYMPUS••••• appears in the app (for example: OLYMPUS21100).



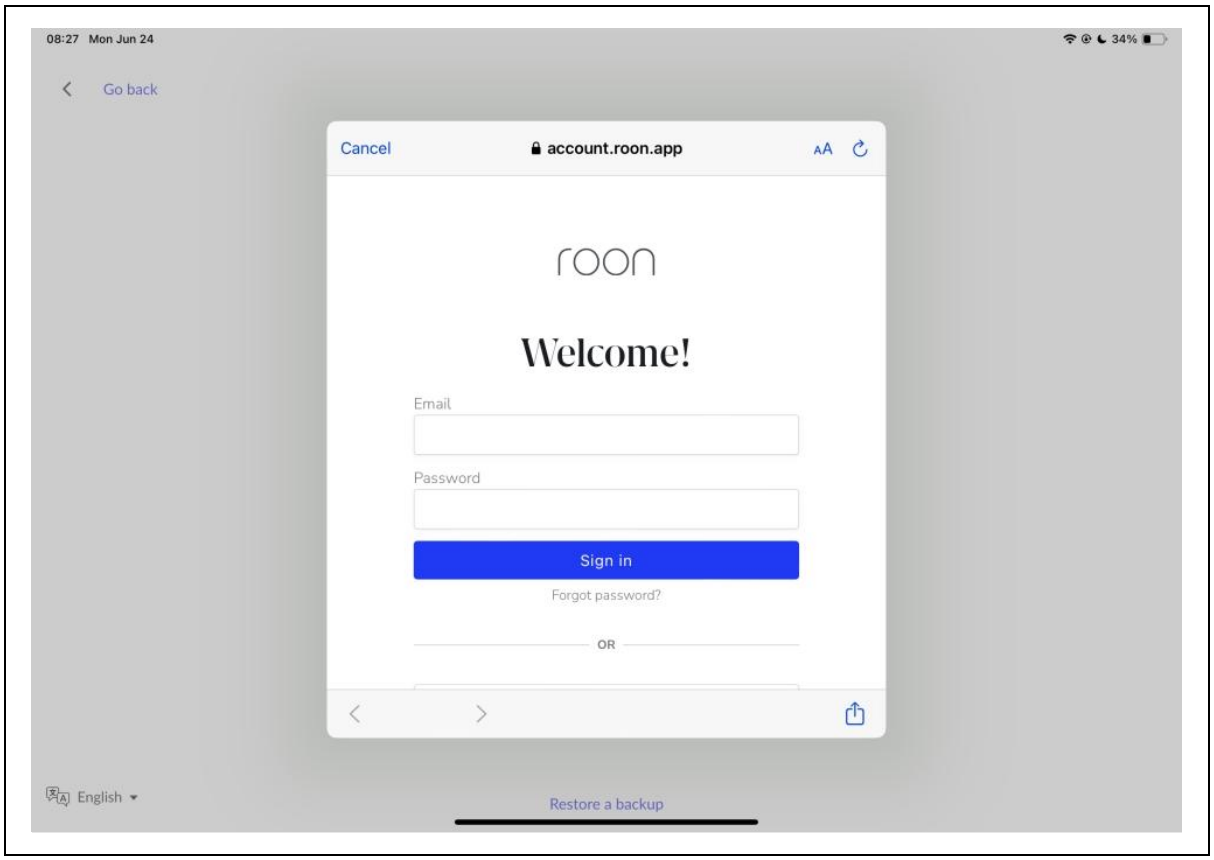
3. Click on *Connect* next to *Olympus*



4. Click on *Login*



5. Click Continue



6. Sign into the Roon app with your e-mail address and password. If you don't have a Roon account, click on *Start Free Trial* in the previous screen and make an account.

The app logs in and shows a setup screen.

Next, the app asks for music file locations. See the next chapter for instructions.

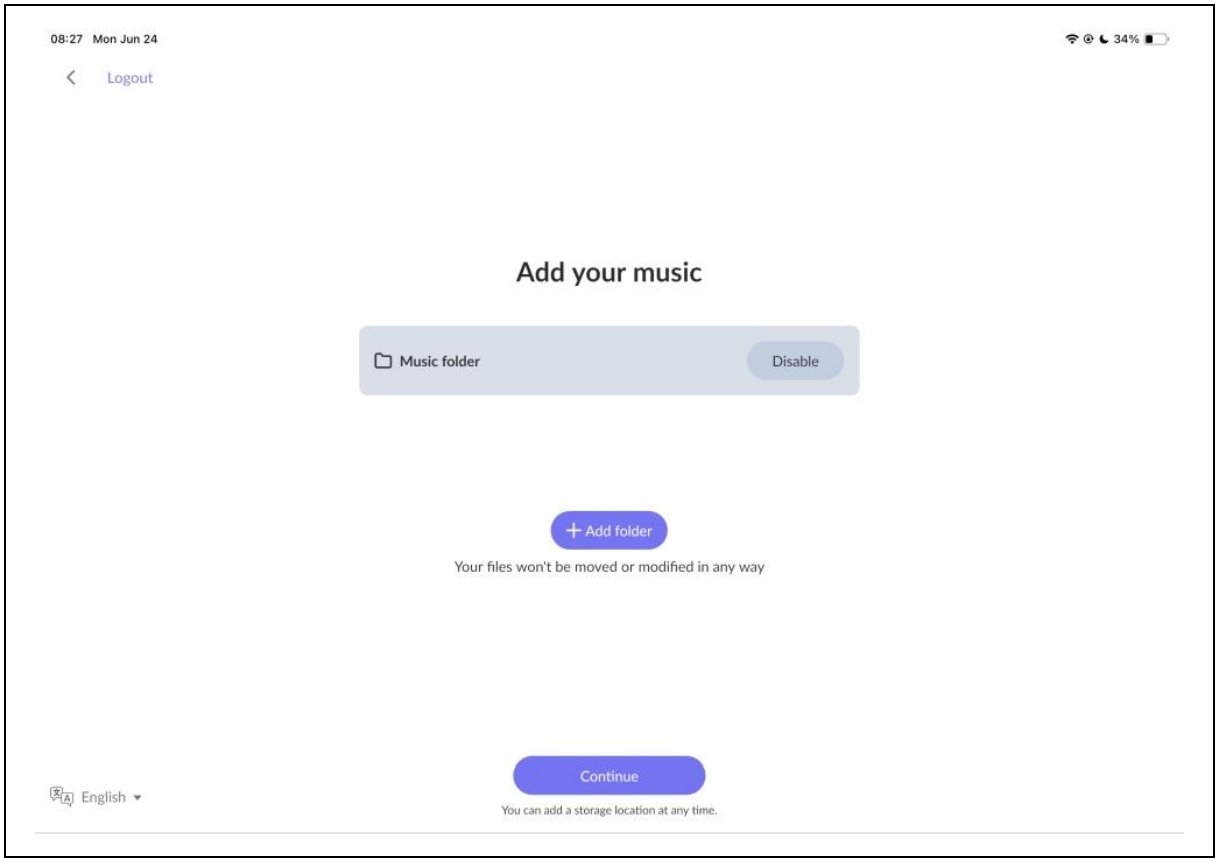
6.2 Music Source and Output Setting

Tip All settings can also be added or edited later.

You may store your music locally on the server's internal drive, or you may play music directly from a NAS. The Olympus sounds just as good playing music either way.

When you want to use the server's internal storage drive, your music will need to be transferred. When you upgraded from Extreme to Olympus, your data will need to be migrated because the drives are not compatible. For detailed instructions, please see our separate "Migrate Storage Guide" that can be found in the Downloads section on the Taiko Audio website.

Now, point Roon to your music storage location(s).



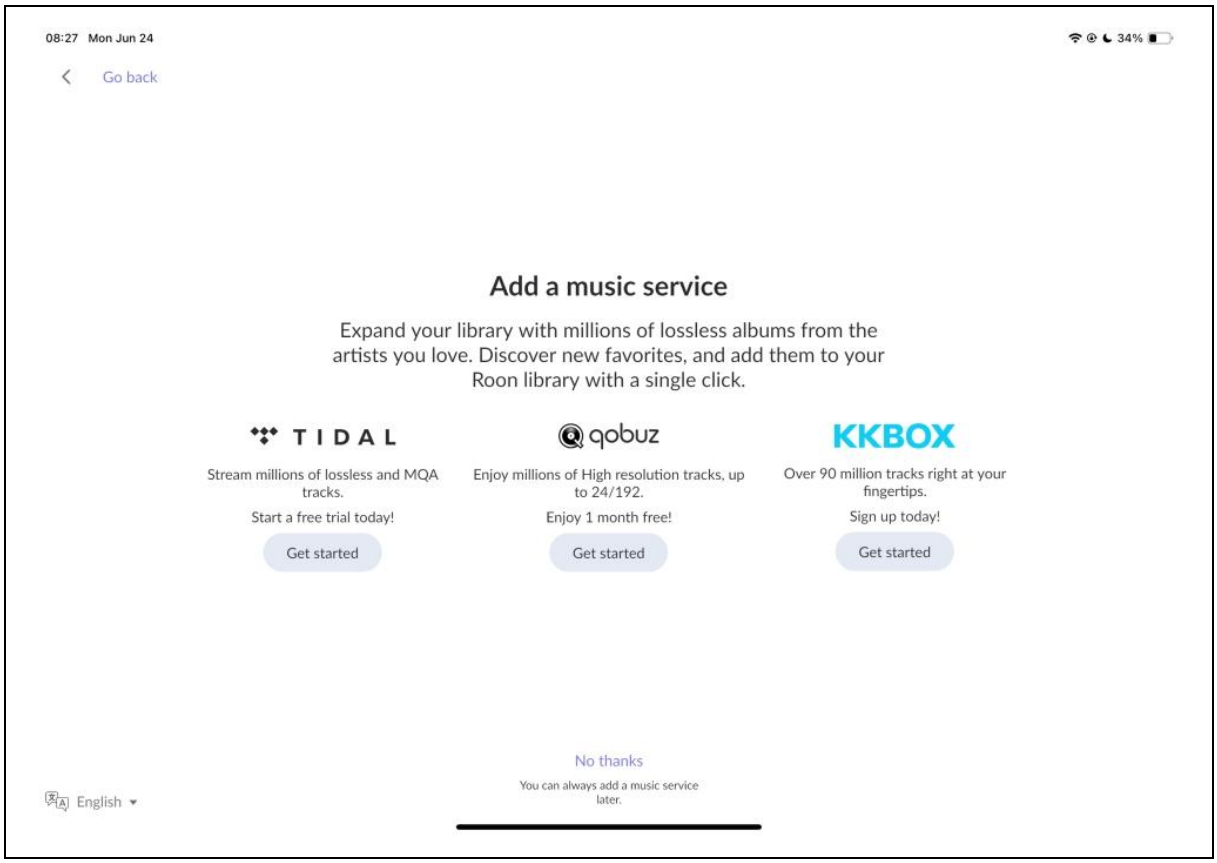
1. Add applicable music file locations:
    a. Disable the Music Folder by clicking on *Disable*.
    b. Click on *Add Folder* to select music stored on the server.
    c. Enter the internal Olympus Music Drive D:
    d. Optionally, click on *Add Network Folder* to add a NAS.
    e. Specify your network path.

2. Click *Next*.

If you have accounts at supported streaming services (like TIDAL or Qobuz), you can now connect the server to those services.

Tip Keep in mind that importing big music libraries can take a lot of time.

The app shows a music streaming service.



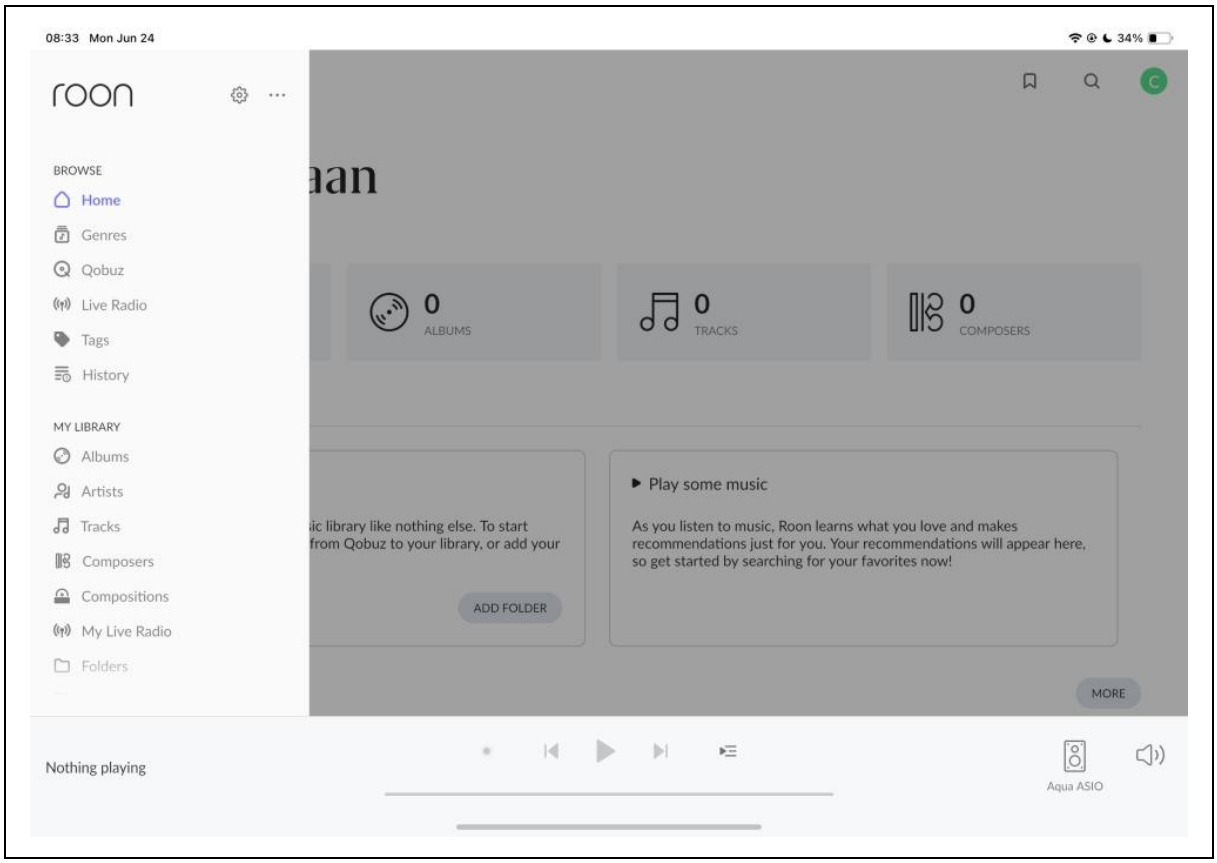
- If you have an account for the streaming service, or want to try it out, click the *get started* button for the selected service.

The initial setup is now complete.

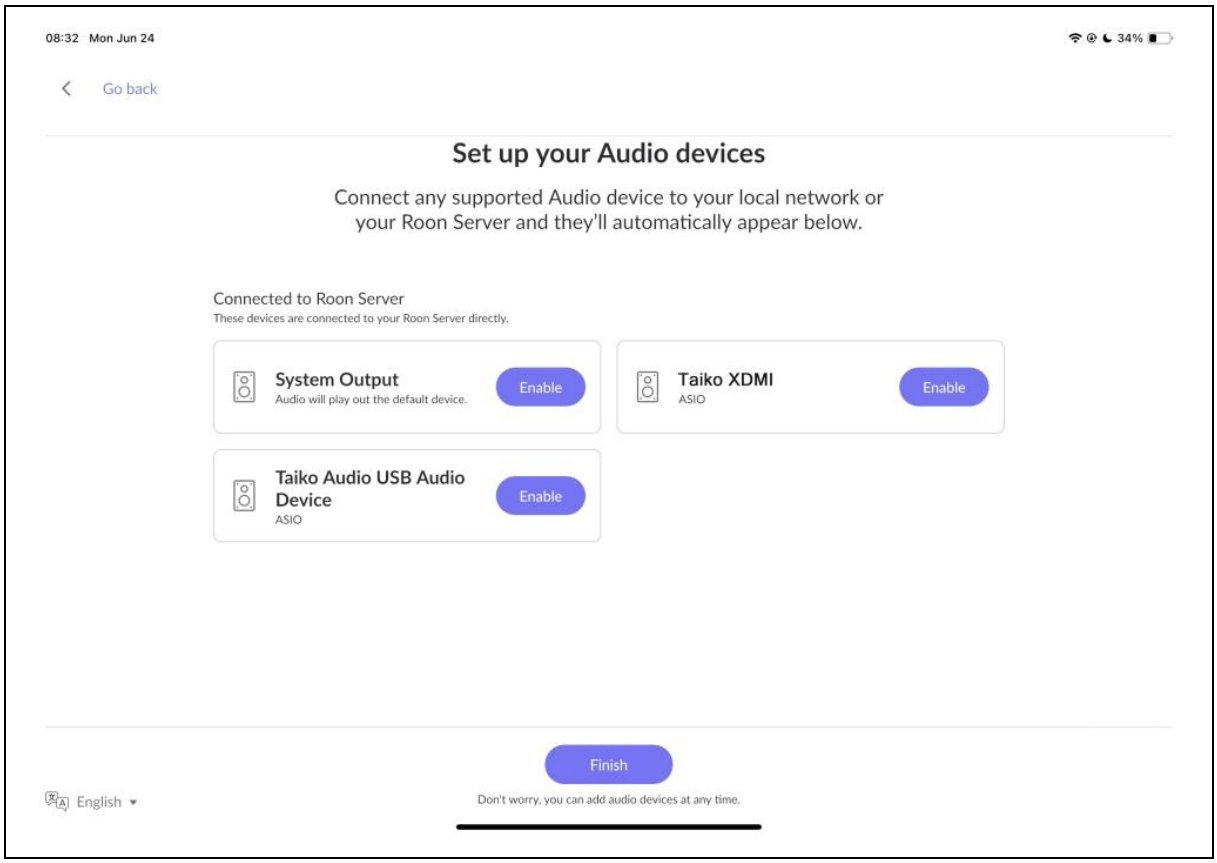
Next, the app starts setting up your music library.

Tip You can already listen to music when the app is still setting up your music library. However, we do not recommend to make a sound evaluation during the setup. The sound quality will not be optimal because the system is busy setting up the library.

When the app has finished setting up your music library, you can connect your DAC to the app. To connect your DAC, do the following:



1. Click the *settings* “Gear Wheel” button at the top.
2. Click *Audio*. The audio settings screen opens and shows all available output zones. You will find your Taiko XDMI output under *Connected to Roon Server*.



3. Locate your desired output and click *enable*.
4. Click *Enable* next to your Taiko XDMI output.
5. Click on *Select an Audio Zone* at the bottom of the screen. The zones screen pops up.
6. Select the preferred zone.

Your Taiko XDMI output is now connected to the app and you can start playing music.

Alternatively, you may select the USB output instead of XDMI, but we recommend using XDMI for its superior sound quality.

Caution!

For the best sound quality, we recommend you enable only one output at a time. Do not link multiple outputs to play at once. This will drastically reduce the sound quality.

Notice

Real-time DSD Upsampling in Roon is not supported.

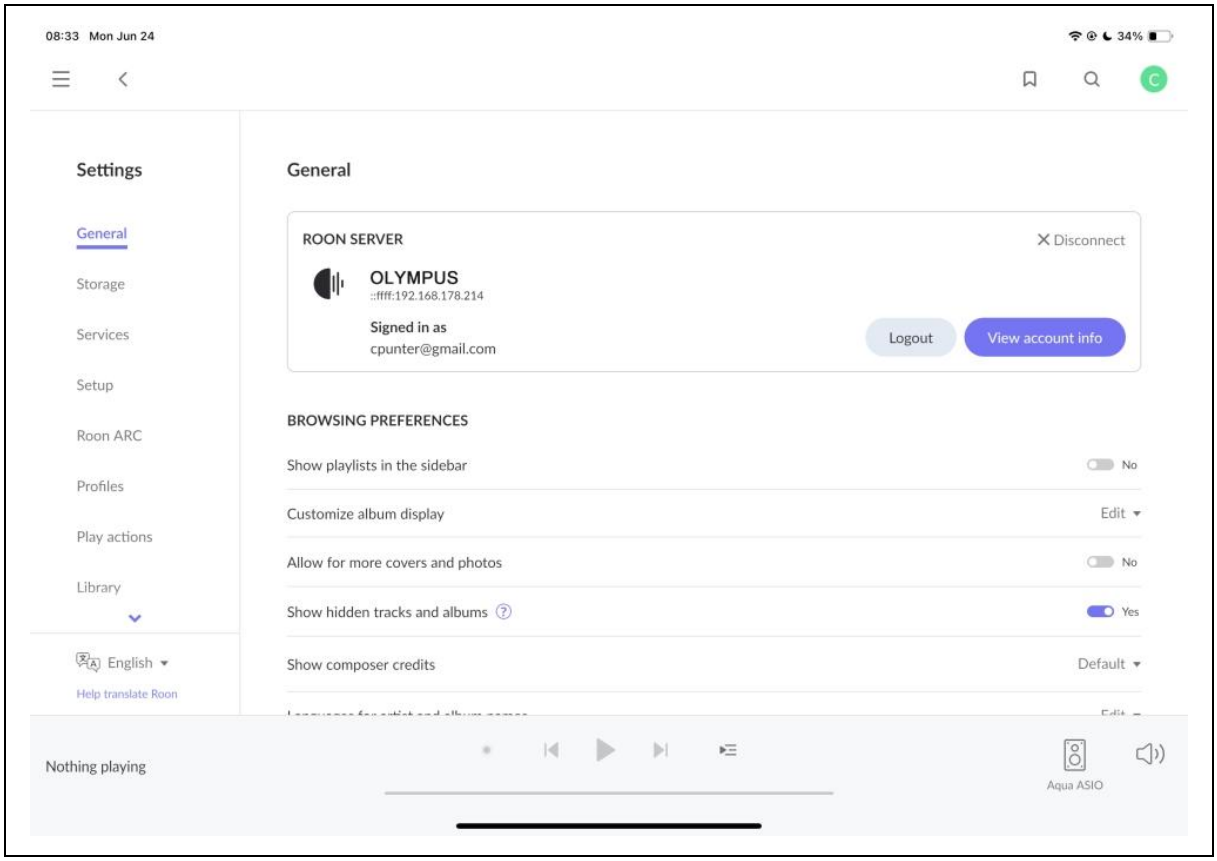
The Olympus and its XDMI interface are bit-perfect designs. While upsampling can be enabled, it will negate most, if not all, of the benefits XDMI has to offer.

Tip Recommended Roon Settings

Additional steps can be taken to maximize Roon Sound Quality. For this, please refer to our separate “Recommended Roon Settings” document which can be found in the Downloads section of the Taiko Audio website.

6.3 Accessing the file structure of the server

By accessing the file structure, you can directly add music to your server's internal drive.



Tip You need the name and IP address of the server. You can find this information in the General section of the Roon app's settings menu, under the Olympus name. You can also find the IP address using an App like Fing.

6.3.1 MacOS

To access the file structure of the server via a MacOS computer, do the following:

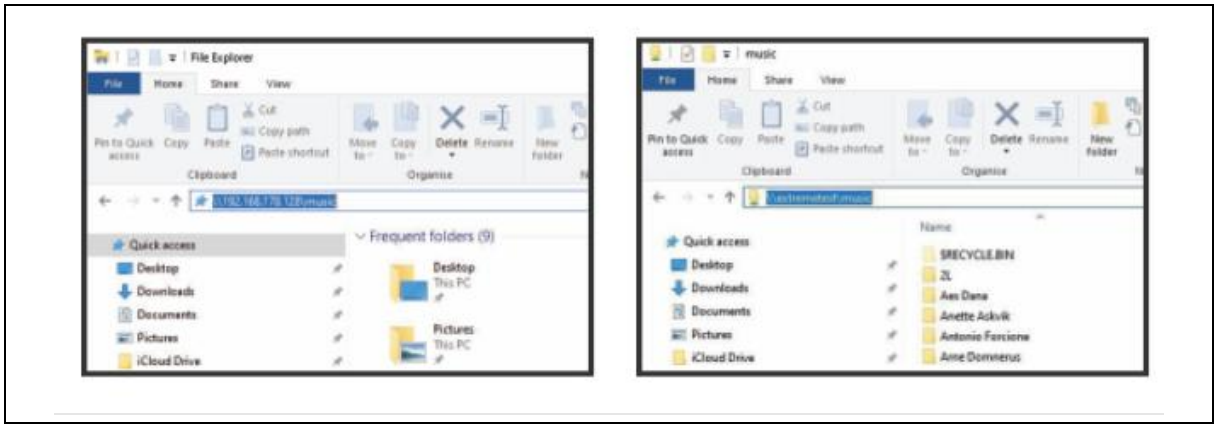
1. Open the Finder.
2. Press *Command* + *K*. A new window pops up.
3. Enter the IP address of the Olympus server as follows: "smb://[IPADDRESS]", for instance: "smb://192.168.1.120"
4. Click *Connect*.
5. Enter the name and password of the server, as follows:
   - Login: Olympus (Note that this is different from the Extreme Login)
   - Password: SoundTest
6. Click *Registered user*.
7. Click *Connect*. The computer makes a connection with the desktop of the server.
8. Select the drive of the server in the Finder.
9. Click on *OK*.

You can now view the folder structure of the server on your computer.

6.3.2 Windows

To access the file structure of the server via a Windows computer, do the following:

1. Open the Explorer.



2. Enter \\ followed by the IP address or name of the server and press the *Enter* key.

3. Enter the name and password of the server.
   - Login: Olympus (Note that this is different from the Extreme Login)
   - Password: SoundTest

You can now access the folder structure of the server on your computer.

6.4 Accessing the desktop of the server

Contrary to the Extreme Server, the Olympus Server does not require access to its desktop or Operating System. Whereas the Extreme Server featured four USB Profiles that could be loaded from the desktop, this is no longer required for the Olympus. Any changes or updates, if required, can be done externally, or with assistance from our Support Team.

6.5 More about Roon

Roon offers far more functionality than we can list in this manual. Visit https://kb.roonlabs.com/ to find all information about Roon.

6.6 Updating the software

The server is supplied with all the required software and drivers. Roon updates are pushed automatically and can be installed via your Roon Control Point. In case a Taiko-specific update needs to be installed, we can remote-connect to perform this for you.

7 Technical Information

7.1 Specifications

Olympus Server Core Specs

AMD Threadripper 24-core
64Gb memory
2x BPS
1x Charger Power Supply
8x Regulator
Large fanless heatsink design, milled from a block of solid aluminum

Olympus I/O Core Specs

2x BPS
1x Charger Power Supply

Storage Info

The Olympus Server can house a single u.3 drive, which is available in sizes from 4 to 60 TB.

Internal Storage is particular to the Olympus, and existing Extreme server storage, which is a m.2 type, cannot be moved physically.

When you upgrade from Extreme to Olympus, your data will need to be migrated. For detailed instructions, please see our separate “Migrate Storage Guide” that can be found in the Downloads section on the Taiko Audio website.

Output Modules

Output Modules can be exchanged easily when new formats have been devised. Currently available are an analog output DAC module, an AES/EBU + SPDIF digital module, and custom implementations for MSB or Lampizator DACs. An Aries Cerat interface is being worked on.

Analog Output Specs

Output Voltage: 2.8V RMS
Output current: 50 mA
Output impedance: 100 Ohm

Connections – Olympus Server

Standard connections include an Olympus-specific USB Card and Olympus-specific Network Card. The Extreme server's USB- and Network cards do not work with the Olympus.

The Olympus Server can also fit a selection of XDMI Output Cards, one at a time. Depending on the XDMI module fitted, you can simultaneously have installed either:

1) USB + XDMI SPDIF on RCA + AES/EBU as 3 operational outputs
2) USB + XDMI Direct DAC interface as 2 operational outputs
3) USB + XDMI Analog out on RCA as 2 operational outputs

Please note that the USB port is not compatible with external thumb drives/USB sticks or USB drives.

For detailed instructions for adding music to the Olympus, please see our separate "Migrate Storage Guide" that can be found in the Downloads section on the Taiko Audio website.

Connections – Olympus Server to Olympus I/O

When the Olympus Server is combined with the I/O, the Server and I/O are each fitted with two 400Gbps QSFP-DD interface cards, which are interconnected via two 800Gbps QSFP-DD Passive Direct Attach Copper Cables.

Connections – Olympus I/O

The Olympus Server and I/O are each fitted with two 400Gbps QSFP-DD interface cards, which are interconnected via two 800Gbps QSFP-DD Passive Direct Attach Copper Cables.

For the Olympus I/O, you can have one active XDMI output at a time. So, you can use either:

1) XDMI SPDIF on RCA + AES/EBU as 2 operational outputs
2) XDMI Analog Out on RCA as 1 operational output
3) XDMI Direct DAC interface (such as Lampizator or MSB) as 1 operational output

In addition, USB also remains available on the Olympus Server

Supported Sample Rates

XDMI Digital Output (AES/EBU):
Up to 24bit/192kHz and up to DSD64 via DoP (AES/EBU does not support Native DSD)

XDMI Analog Output:
Up to DSD512 and PCM 32/768kHz
The DAC supports both DoP and Native DSD

USB connection:
Up to DSD512 Native or DoP in combination with Roon (if supported by your DAC)

Not Supported

DSD upsampling in Roon is not supported

Power Requirement

1x Mains Power input for the Olympus
1x Mains Power input for the Olympus I/O

Fuses

Both the Server and the I/O have two Schurter ceramic fuses with gold-plated caps installed. The two fuses are both actively used. 250V fuses are used for all regions. Schurter fuses can be purchased from many resellers, for instance Farnell.

Dimensions: 5x20mm (2 fuses per device)

Olympus
For 230/240V regions: 2x Schurter 0001.2707.11, 2A, 250V, slow blow
For 110V regions: 2x Schurter 0001.2710.11, 4A, 250V, slow blow

I/O
For 230/240V regions: 2x Schurter 0001.2704.11, 2A, 250V, slow blow
For 110V regions: 2x Schurter 0001.2707.11, 2A, 250V, slow blow

Power Consumption

The Olympus Server's normal power consumption during music playback is 45 watts. The charger's power consumption depends on how the charging behavior is configured. With a very short window to charge the battery packs all at once, this can be up to 150 watts for the Olympus Server and up to 100 watts for the Olympus I/O.

Input connector

C15

Grounding posts Olympus Server

Grounding is not required or recommended but to facilitate certain use cases, the Olympus Server is fitted with 2 binding posts for grounding purposes.

Looking at the back, the left binding post next to the AC power inlet connects to the charger AC-DC power supply, which is grounded through the IEC inlet ground pin as well, which is a safety requirement, but the entire AC/DC charger supply does not connect to the rest of the Olympus chassis, it truly floats.

The right grounding post next to the USB ports grounds the chassis which floats by default.

The analog output signal ground is tied to the chassis.

Grounding post Olympus I/O

The ground post on the I/O grounds both the AC battery charging supply as the chassis.

There is no signal ground provision for the I/O.

Modular Footers

The Olympus and Olympus I/O come with adjustable and removable footers. Both chassis have four recesses, 8mm (about 0.31 in) deep and with a 90mm (about 3.54 in) diameter. The footers are made of Acrylic material with a diameter of 50 mm (1.97 in), and screw into the chassis. The screw used to attach the footers is an M6x12, using a 4mm HEX/Allen key.

The distance between the center points (screw holes) of the footers is 380 mm (about 14.96 in). The recesses are fitted with an M6 (6mm) thread (standard "coarse" 1-mm DIN thread). The M6 thread provides compatibility with M6-equipped aftermarket footers.

Warning! Aftermarket Footer Placement

Use aftermarket footers only in the intended recesses in the four corners. These have been machined such that they can safely support the weight. Placing footers directly under the bottom panel may cause internal structural damage, especially when used under the I/O with the server stacked on top. Aftermarket Footers can be used directly underneath the mounted acrylic footers, or the acrylic footers may be removed. The recesses are fitted with an M6 (6mm) thread which provides compatibility with M6-equipped aftermarket footers.

Finish

Silver Anodized or Black Anodized

Olympus Server Dimensions

Height: 190 mm (7.48 in) including removable footers
Width: 480 mm (18.90 in)
Depth: 480 mm (18.90 in)

Olympus I/O Dimensions

Height: 105 mm (4.13 in) including removable footers
Width: 480 mm (18.90 in)
Depth: 480 mm (18.90 in)

Olympus Server Weight

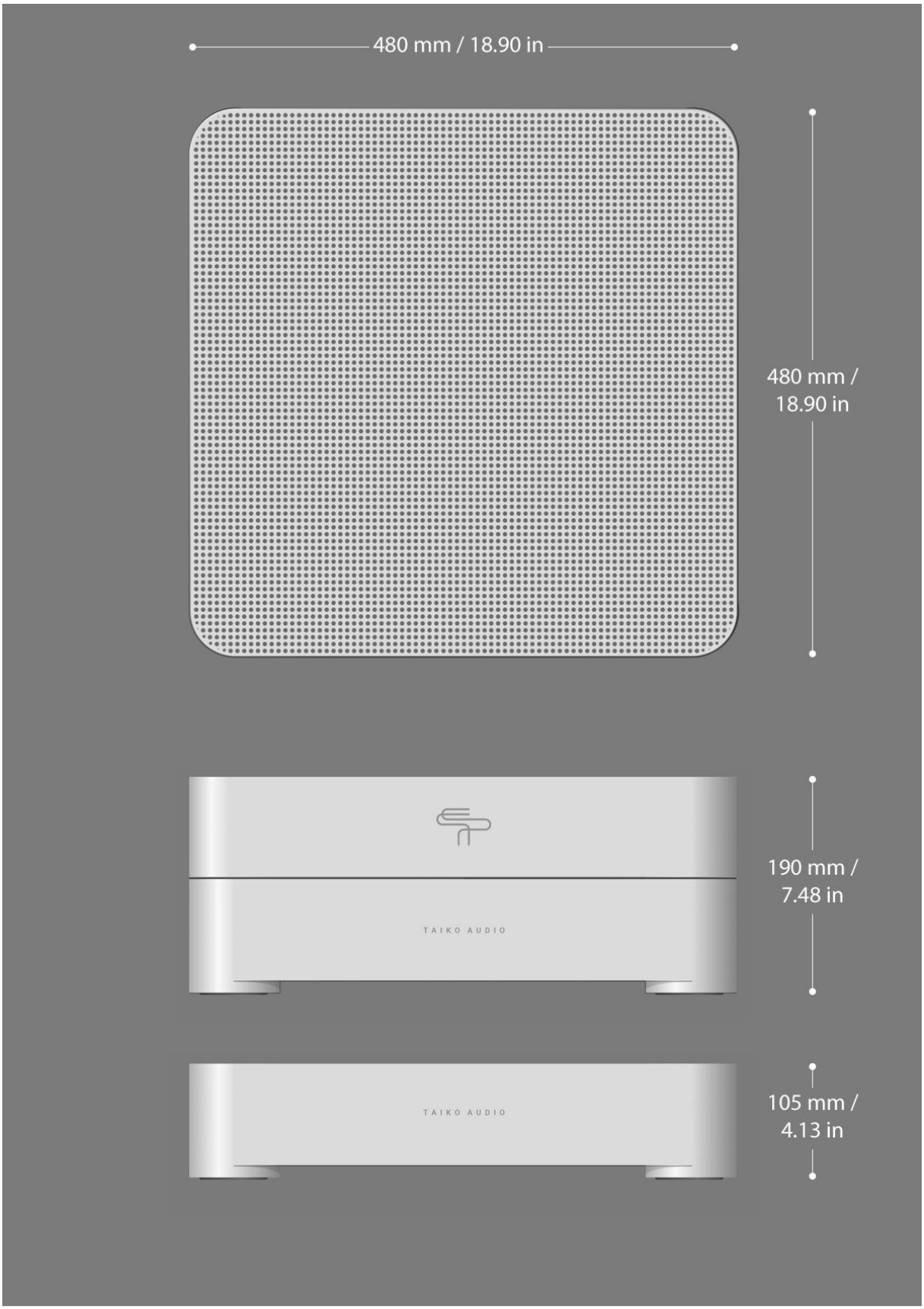
~ 60 kg

Olympus I/O Weight

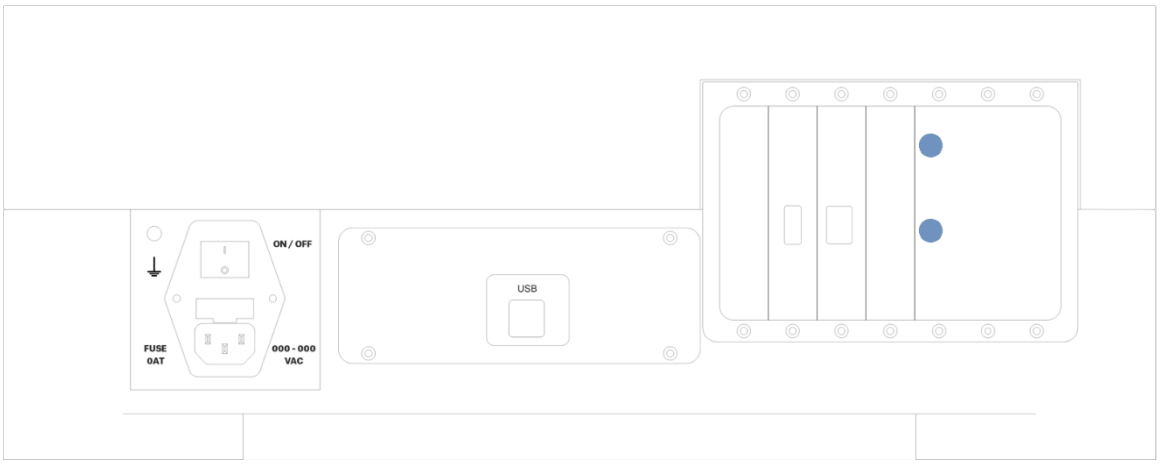
~ 25 kg

Caution! The installation of 3rd party software would degrade the audio quality and is therefore prohibited. Cleaning and removing user installed software may incur service charges.

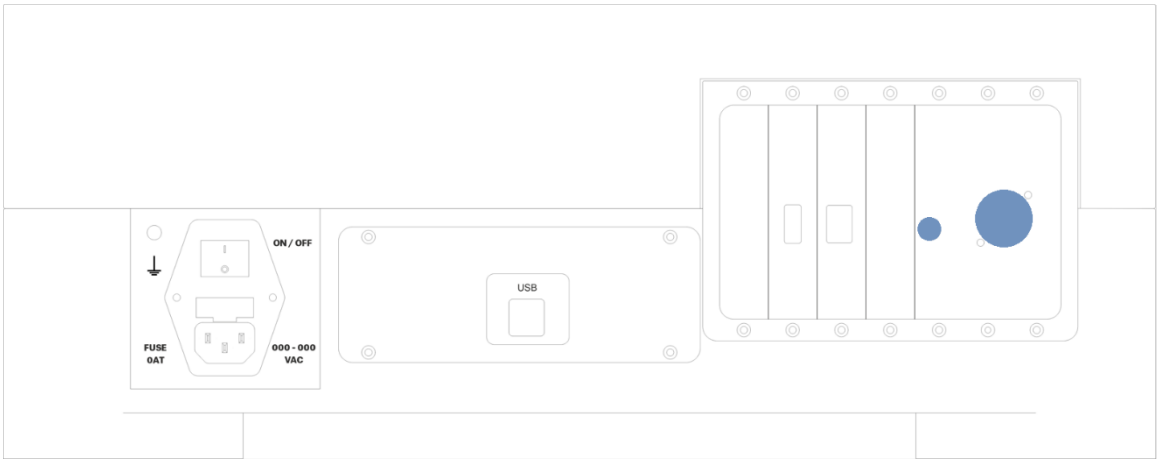
7.2 Dimensions



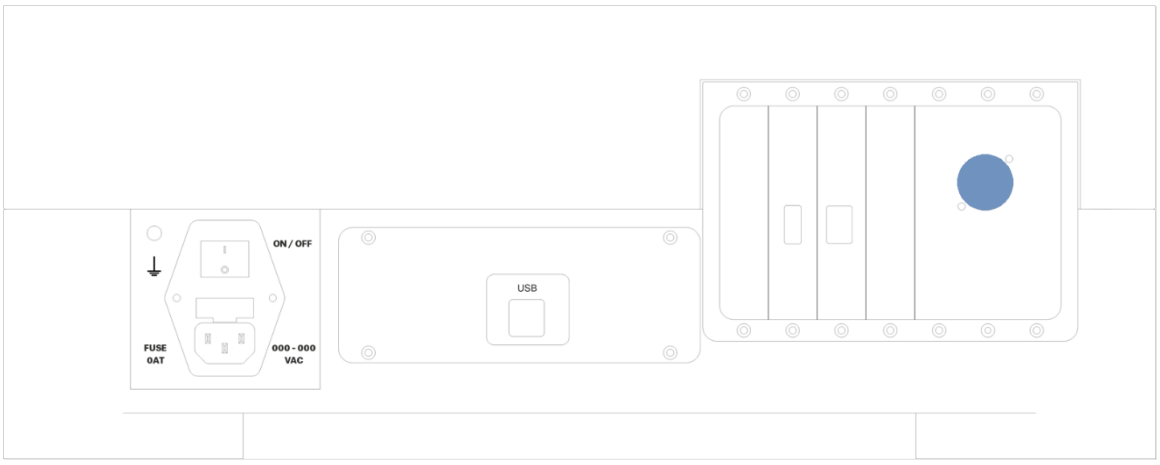
7.3 Back Panel Diagram – Olympus Server



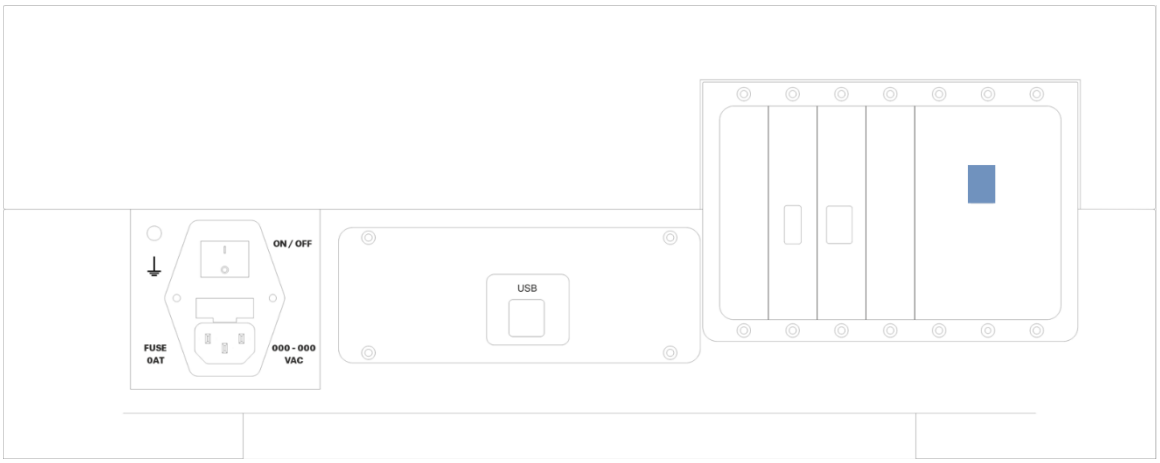
Above: Olympus back panels with Analog Output XDMI card mounted



Above: Olympus back panels with Digital AES/SPDIF Output XDMI card mounted



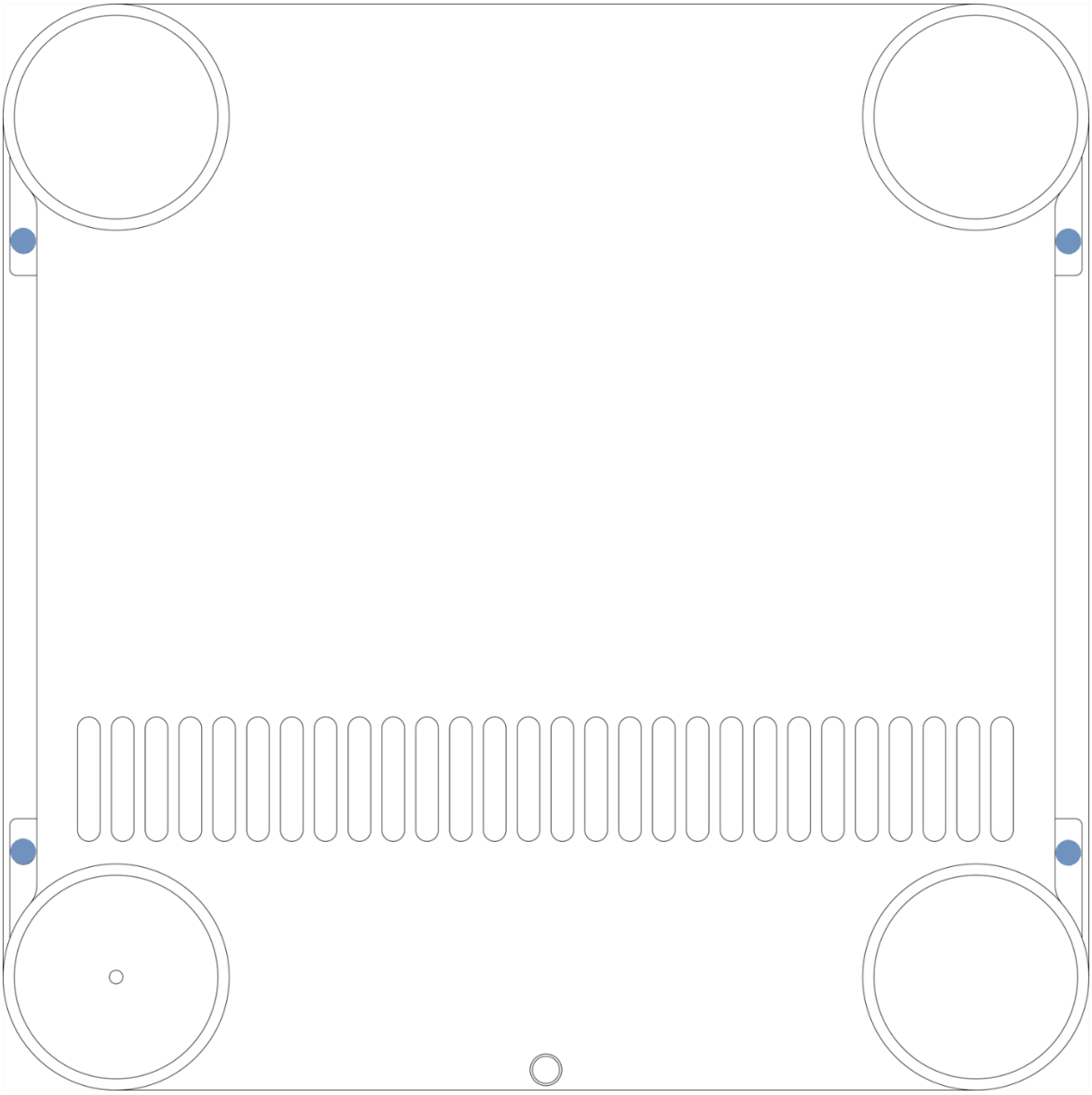
Above: Olympus back panels with Lampizator XDMI card mounted



Above: Olympus back panels with MSB Pro ISL Output XDMI card mounted

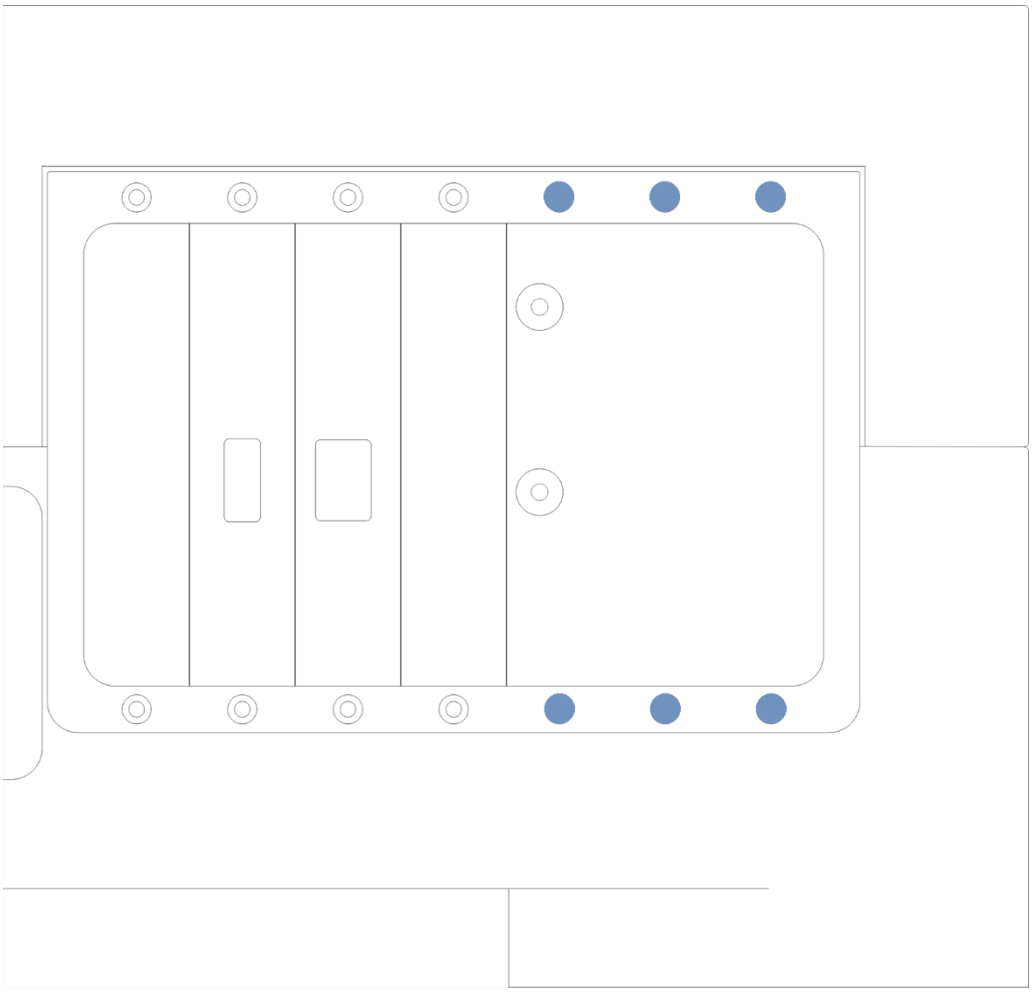
7.4 Olympus Server Bottom Panel Diagram

Location of the four 4-mm Hex (inbus) screws that secure the server's top and bottom sections.



7.5 Olympus Server XDMI Card Diagram

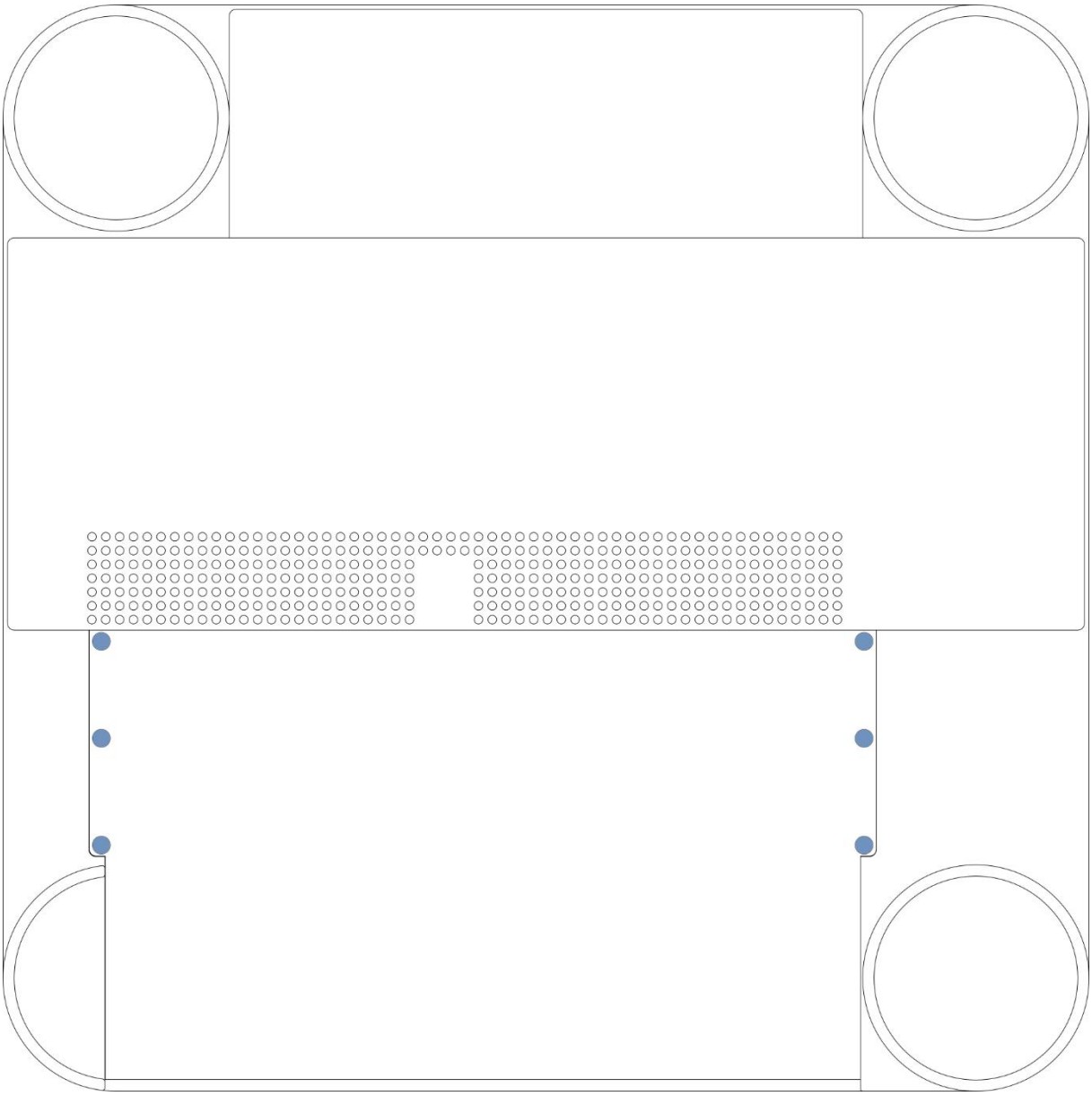
Location of the six 2-mm Hex (inbus) screws that secure the XDMI Card.



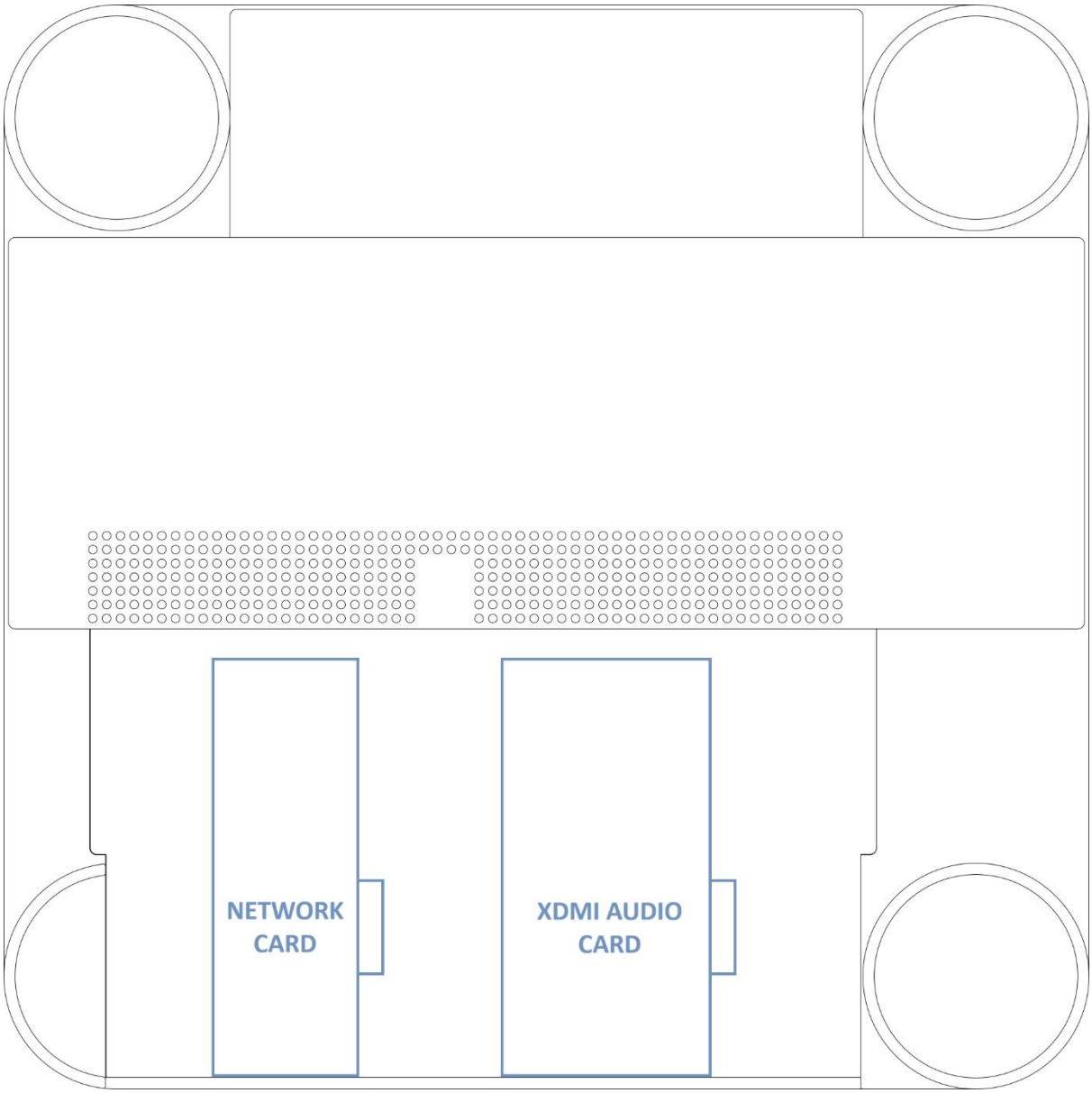
The Analog XDMI Board has an extra-wide back panel and is located on the far right.

7.6 Olympus I/O Bottom Panel Diagram

Location of the six M3, 2-mm Hex (inbus) screws that secure the I/O's bottom panel.



Seen from this angle, underneath the bottom panel, the Network Card is located on the left and the XDMI audio card is located on the right.



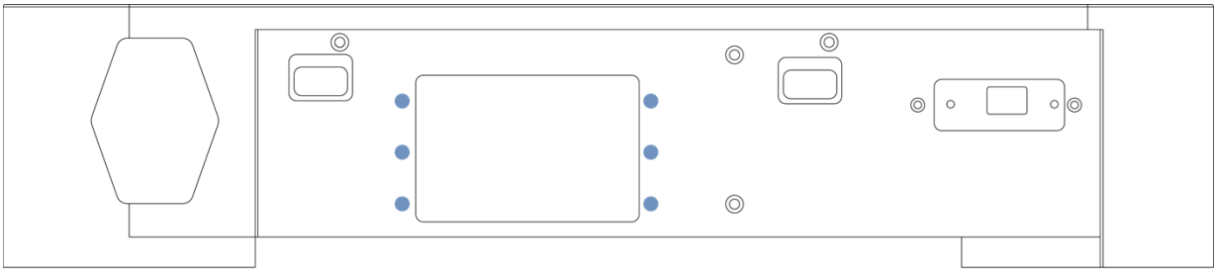
Olympus I/O shown with the bottom cover panel removed.

The Network Card is located on the left and the XDMI audio card is located on the right.

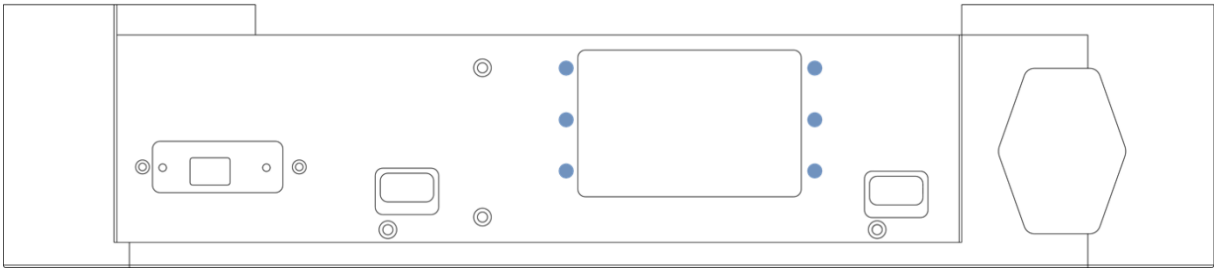
7.7 Olympus I/O XDMI Card Diagram

Location of the 6 screws on the backpanel that secure the XDMI card in the PCI slot.

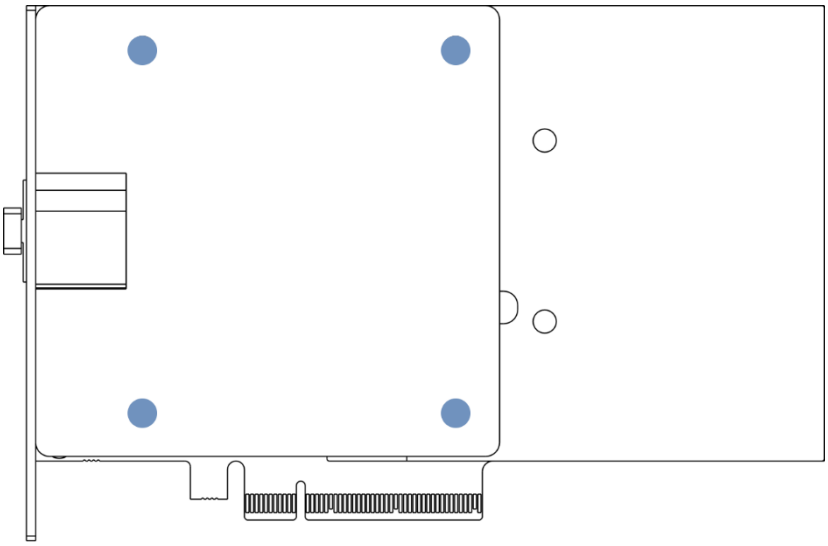
Unit standing on its feet:



Unit turned upside down (for easy access):



7.8 XDMI Card with Daughter Board Diagram



Above: a schematic of an XDMI Card, showing the XDMI PCI base board with a Daughter Board on top, showing the locations of the 4 screws that secure the Daughter Board to the XDMI base board.

Please note that the analog Daughter Board requires different length screws than the digital Daughter Boards. If ordered separately, these longer screws are delivered along with the analog board.

7.9 Conformity

The Taiko Audio Olympus server and Olympus I/O are designed and tested according to the following regulations and directives:

- EMC directive 2014/30/EU
- NEN-EN 55032:2015
- NEN-EN 55035:2017
- IEC 62368-1
- Low voltage directive 2014/35/EU
- Add regulations/approval for the Battery Sections?

Follow this link for access to the complete declaration of conformity:

https://taikoaudio.com/taiko-2020/conformity

8 Safety

8.1 Safety symbols on the server

The following symbols are present on the server:

	FCC – This symbol indicates the server emits electromagnetic interference under the limits approved by the Federal Communications Commission.
	RoHS – This symbol indicates that the server is free of restricted materials which are hazardous to the environment, pollute landfills, and dangerous in terms of occupational exposure during manufacturing and recycling.
	CE – This symbol indicates that the server is assessed before being placed on the market and that it meets EU safety, health and environmental protection requirements.
	Risk of electric shock – This symbol indicates that the server has risk of electric shock.

9 LED Status

LED Status	Status	Action	Notes
Blinking in regular on/off intervals	Software error / Bluetooth error	Wait for at least 1 minute, if no change, enter Shipping Mode, selected via app menu button, with AC mains power connected)	Should only happen at boot and certainly not for a longer period.
Off	Battery Fully Empty / Shipment mode	Connect AC Mains power	
Fast Blinking (5Hz) and mostly on	Charging error (AC mains power not connected)	Connect AC mains power or Select discharging in app	Will stay in this mode until AC is connected or "Discharging" is selected in App.
Fast Blinking (5Hz) and mostly off	Battery Empty	Connect AC mains power	
On	Discharging if factory charging modus is set to auto. Charging if factory charging modus is set to always charging.		If factory charging modus is set to always charging, the state will remain unchanged, unless AC Mains is disconnected.
Slow Blinking (1Hz) mostly off	Charging		

Slow Blinking (1Hz) and mostly on	Discharging if factory charging modus is set to always charging		Not normally applicable. for factory charging, the modus is set to auto. Only If “User Discharge” mode is selected, the server will stay in this mode until the batteries are empty, or the mode is deselected.
NOTES REGARDING LED BLINKING SPEED			LED blinking speed can vary +/- 20%, which can cause the slow blinking speed to visibly vary slightly by day. However, the intended slow signalling speed remains easily recognizable by its 1Hz speed. Fast blinking, by contrast, has a much faster 5Hz speed.

Tip You can contact the Taiko Audio Team any time via support@taikoaudio.com for help.

10 Disposal

If your server is defective, contact Taiko Audio. We can possibly repair it or give it a second life. If you have to dispose of the server, dispose of it according to the locally applicable guidelines.

11 Warranty

The server has a two-year warranty for parts and labor of the replacement of any item or component that fails during normal operation in an adequately ventilated space with a temperature less than 32 °C.

Should you experience any problem, do not hesitate to email your contact info to Taiko Audio at support@taikoaudio.com and suggest a call time for a Taiko representative to get in touch with you and carry out remote examination / diagnostics of the server.

12 Contact

E-mail:	support@taikoaudio.com
Website:	www.taikoaudio.com
Adres:	Zandbreeweg 6 7577BZ Oldenzaal The Netherlands