VIVO-XØD32

DIGITAL PROCESSORS & MATRIXES

EclerPLEX Matrix



USER MANUAL

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1. PRECAUTIONS

1.1 Important Notice



WARNING: SHOCK HAZARD - DO NOT OPEN

AVIS: RISQUE DE CHOC ÉLECTRIQUE - NE PAS OUVRIR



The flashing light with an arrowhead symbol inside an equilateral triangle on it is intended to alert the user of the presence of non-insulated “dangerous voltage” within the enclosure, which might be of sufficient magnitude to pose a risk of electric shock to users.



The exclamation mark within an equilateral triangle is intended to alert the user of the requirement for important operating and maintenance (servicing), for which instructions may be found in the literature accompanying the appliance.

WARNING (If applicable): Terminals marked with symbol “ ” may be of sufficient magnitude to pose a risk of electric shock. The external wiring connected to terminals requires installation by a technician, or the use of ready-made leads or cords.

WARNING: To prevent fire or shock hazard, do not expose this equipment to rain or humidity.

WARNING: A device with Class I manufacturing ought to be connected to a mains socket outlet with a protective earthing connection.



WARNING: Ecler products have a long lifetime of more than 10 years. This product must never be discarded as unsorted urban waste, but must be taken to the nearest electrical and electronic waste treatment centre.



This equipment has been tested and found to comply with the limits of a Class A digital device, pursuant to part 15 of the FCC Rules. Such limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference in radio communications. Operation of this equipment in a residential area might cause harmful interference, in which case, the user will be required to correct the interference at his own expense.

1.2 Key Safety Directions

1. Read the following directions.
2. Keep the following directions.
3. Observe all warnings.
4. Follow all instructions.
5. Do not use this device in proximity to water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that may release heat.
9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades, with one being wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, contact a qualified electrician for a replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at the plugs, convenience receptacles, and at the point of exit from the device.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug the device during lightning storms or when unused for long periods.
13. Refer all servicing to qualified personnel. Servicing is required when the device has been damaged in any way, such as power supply cord or plug damage, liquid spillage or objects onto the device, the device has been exposed to rain or humidity, does not operate normally, or has been dropped.
14. Disconnecting from mains: When switching off the POWER switch, all the functions and light indicators of the unit will be stopped, but fully disconnecting the device from mains is done by unplugging the power cable from the mains input socket, therefore, it should always remain easily accessible
15. Equipment is connected to a socket-outlet with an earthing connection by means of a power cord.
16. The marking information is located at the top/rear of the unit.
17. The device shall not be exposed to dripping or splashing liquids, and no liquid-filled objects, such as a filled up glass, shall be placed on top of the device.

1.3 Cleaning Directions

Clean the unit with a soft, dry clean cloth or slightly wet with water and neutral liquid soap only, then dry it with a clean cloth. Be careful that water never gets into the unit through any hole. Never use alcohol, benzine, solvents or abrasive substances to clean this unit.

NEEC AUDIO BARCELONA, S.L. accepts no liability for any damage that may be caused to people, animal, or objects due to failure to comply with the warnings above.

2. WARRANTY & ENVIRONMENT

Thank you for choosing our Ecler VIVO-XØD32!
We greatly value your trust.

It is **VERY IMPORTANT to carefully read this manual and to fully understand its contents before any connecting takes place** in order to make the best use of this equipment, as well as to get the best performance from it.

To ensure optimal operation of this device, **we strongly recommend that its maintenance be carried out by our authorised Technical Services.**

All ECLER products are covered by warranty, please refer to www.ecler.com or the warranty card included with this product for the period of validity and conditions.

Ecler is truly committed with the environment and planet sustainability, energy saving and CO_2 emission reduction. Recycling materials and using non-contaminant components are also top priorities in our green crusade.

Ecler has deeply evaluated and analyzed the environmental impacts of all the processes involved in the production of this product, including packaging, and has alleviated, reduced and/or compensated for them.

3. PACKAGE CONTENTS

- 1 x VIVO-XØD32 unit.
- 1 x EU Mains cord.
- 1 x Multiplug Mains cord.
- 4 x Washers.
- 4 x Rubber feet.
- 1 x Euroblock connector.
- 1 x USB holder.
- 2 x Screws.
- 1 x First Steps Guide.
- 1 x Warranty card.

4. DESCRIPTION & FEATURES

VIVO-XØD32 is an EclerPLEX Host matrix featuring 32 Dante®/AES67 audio input ports and 32 Dante®/AES67 audio output ports. It is scalable via its X-link port, allowing the connection of a single BIO Series expansion unit. As a Host unit within an EclerPLEX deployment, it can run multiple projects simultaneously and provide user control panels for end users.

4.1 Main Features

- EclerPLEX ecosystem host matrix unit.
- 32 Dante®/AES67 digital input ports (16 flows).
- 32 Dante®/AES67 digital output ports (16 flows).
- 1 microSD card slot (for the 4 players).
- 1x X-link audio&control expansion port to locally connect an external BIO Series expansion unit.
- Scalable up to a 40x40 audio matrix size, including:
  - 8x8 analogue audio ports (by adding 1x BIO-X8 or BIO-X8G unit).
  - 8x8 GPIO ports (by adding 1x BIO-X8G unit).
  - 32x32 digital audio ports (Dante®/AES67).
- 2x Ethernet (NET1 control, NET2 Control + Dante®/AES67).
- 1 x RS-232 control port.
- 1 x 1.9" Colour TFT Display.
- Flexible processing structure (allows for custom-size matrix size matrices and custom-DSP power projects).
- Embedded EclerPLEX application that includes:
  - A Workspace, including multiple types of custom-size simultaneous projects running simultaneously, events, calendars, presets and more.
  - An editor, manager and server of User Control Panels.
  - Scripting automation & control system.
  - 4 Internal SW audio players.
  - 2 Internal audio generators.
  - EclerCLOUD monitor and control native device.
  - Auto update feature.

The hardware is designed to support all the features described in this document. Some are available from version 1.0, while others will be enabled progressively through future software updates.

5. INSTALL & CONNECT

5.1 Location, Assembly and Ventilation

VIVO-XØD32 has been **specially designed to be placed in 19" rack structure**, occupying one unit.

It is very important to ensure that the device is neither enclosed nor exposed to extreme temperatures, as it generates heat. Adequate airflow must be maintained through the ventilation holes in the chassis, with the ventilation system directing the airflow from front to back through the unit.

If multiple devices are installed in the same rack or in a cabinet with closed doors, it is highly recommended to install fans at both the upper and lower ends to create a forced airflow from the bottom up. This upward air flow will help to dissipate the heat generated inside.

Regular maintenance of dust removal is highly recommended to ensure optimal performance as dust can impede airflow and hinder heat dissipation.

5.2 Mains Connection

VIVO-XØD32 operate on alternating voltages ranging from 100 to 240V and 50 to 60hz. The device features an oversized power supply that can adapt to the mains voltage of any country in the world without requiring any adjustments.

Connect the device to the mains and press the ON/OFF button of the rear panel.



The device is equipped with a front panel LED indicator that illuminates green when the unit is operational.



5.3 VIVO-XØD32 and BIO Series interconnection

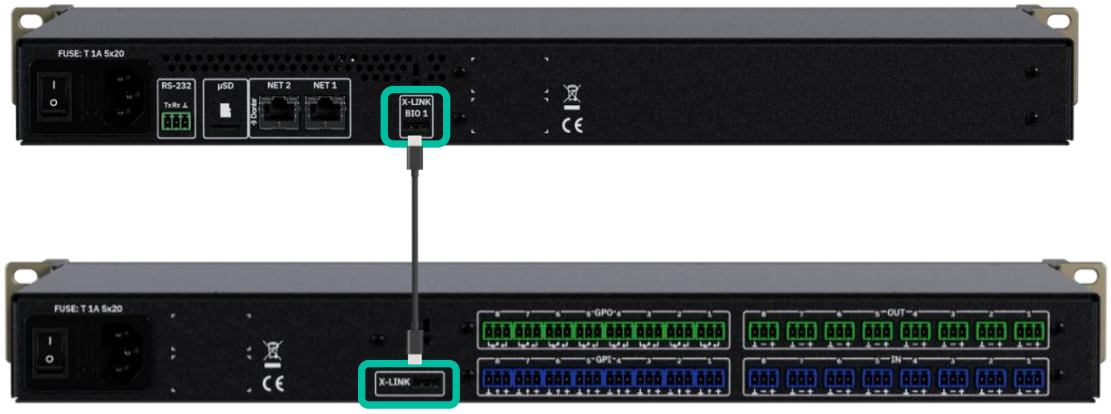
When one BIO Series unit is connected to the VIVO-XØD32, the system expands to a 40 x 40 audio matrix, including:

- **8 x 8 analogue audio ports (when connected to one BIO-X8 or BIO-X8G unit).**
- **8 x 8 GPIO ports (when connected to one BIO-X8G).**
- **32 x 32 digital audio ports (Dante®/AES67).**

Each VIVO-XØD32 unit supports up to one BIO Series units.

To connect a BIO Series unit to a VIVO Series device, use an Ecler certified USB-C to USB-C cable (supplied with each BIO unit) and connect it to the X-LINK connector located on the rear panel of both devices.

VIVO-XØD32



BIO Series

The BIO Series units require a VIVO Series-device to operate, as the VIVO unit serves as the primary/controller while the BIO Series units work as an expansion unit.

When a VIVO-XØD32 unit is interconnected with one BIO Series unit, the X-LINK LED indicator on the front panel of the BIO Series device illuminates white. It blinks during the synchronization process and remains steadily lit once synchronization is complete and stable.



BIO Series

For further information about the BIO Series, please visit www.ecler.com.

5.4 Digital Audio Inputs and Outputs

VIVO-XØD32 supports the reception and transmission of 32 channels of digital audio via Dante/AES67 over an Ethernet network, which is compatible with the Dante/AES67 protocol for digital audio over IP.

The routing of digital audio signals via Dante/AES67 through the Ethernet network, along with the configuration of Dante/AES67 network ports (IP addresses, mask, etc.) for the VIVO-XØD32, is managed by the Dante Controller software application.

For further details, please refer to the developer's documentation: www.audinate.com/products/software/dante-controller.

5.5 Ethernet Ports

VIVO-XØD32 features two RJ-45-type ETHERNET connectors on the rear panel, named NET1 and NET2, which allow the equipment to be connected to an Ethernet network, or directly to a computer or other devices with an Ethernet interface, point-to-point.



1. **NET1 (Control):** WebGUI, user control panels, third party control and other control packages are sent/received over NET1.
2. **NET2 (Control + Dante/AES67):** control and Dante/AES67 Audio perform over the same network.

This connection enables the following within a local network:

- Global programming and management of the VIVO-XØD32 unit using the EclerPLEX embedded web application and a standard web browser running on a computer, tablet, etc.
- Connection to Internet for clock synchronization (calendar events), automatic firmware updates, EclerCLOUD platform and other tools.
- Reception of 32 channels of digital Dante/AES67 and sending of 32 channels of digital audio Dante/AES67.

5.6 Player and microSD card

VIVO-XØD32 integrates a set of stereo audio players (SW embedded) capable of playing audio files from a local storage device (microSD card), suitable for background music or voice messages. It includes playlist management and integration with the device's calendar events for automation. **Customizable user control panels are also available, and the system is fully configurable through the EclerPLEX web application.**



To insert the microSD card, push it into the slot until a click sound is heard. To extract it, push the microSD card inside the slot until a click sound is heard, and it will be released.

5.7 RS-232 Remote Control Port

The RS-232 port, with an Euroblock connector on the rear panel of the VIVO-XØD32, allows an external device to communicate with the unit via serial communication. This connection uses the syntax of the TP-NET protocol so that the external device can obtain the value of some of the parameters of the VIVO-XØD32 unit (by means of "GET" commands) and/or modify these values ("SET" commands).



The serial connection must comply with the following characteristics:

- Baud rate: 115200 (fixed, no auto negotiation)
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow control: None

6. START-UP & OPERATION

6.1 Start Up

Connect the device to the AC mains and press the ON/OFF button of the rear panel.



The device features a front panel LED indicator that lights up when the unit is operational.



6.2 First Steps and Operation

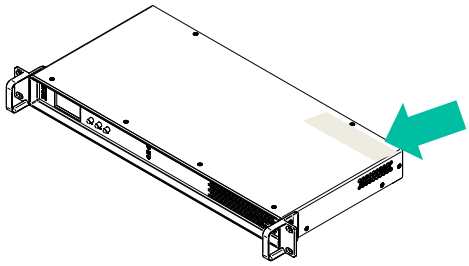
To access the EclerPLEX web application from an external device (computer, tablet, etc.) using a browser, first make sure both devices are physically connected to the same local network (LAN) and configured within the same network range.

DHCP is the default network configuration mode. If you have a router/switch with a DHCP server (see the specifications for your device), network configuration is automatic so there is no need to do any re-configuration.

There are two ways to connect to the embedded VIVO host unit web application.

6.2.1 Automatic Connection Using a Computer

1. Connect the VIVO-XØD32 device to the router/switch using a CAT5 or higher cable (NET1 or NET2 Ethernet port).
2. Connect your browser equipped device (computer, tablet, etc.) to the same local network (router/switch). You can do this over a wired or WiFi connection, depending on your network device and computer/tablet.
3. Enter into your browser the web address shown on the top panel of the device or on the packaging (http:// vivo-x0d32-xxxx.local). The last four digits of the web address correspond to the MAC address of the device.



6.2.2 Manual Connection

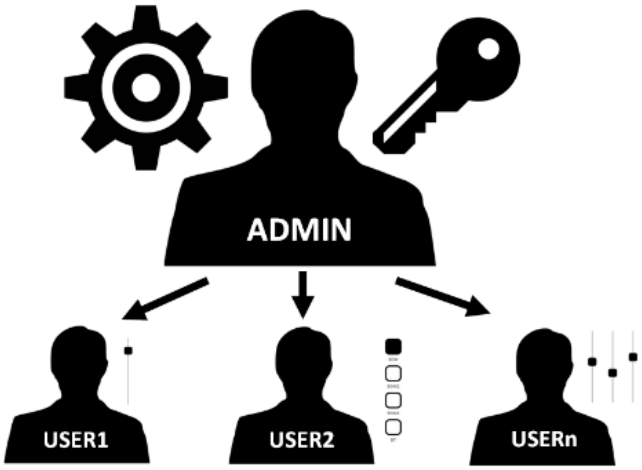
If you do not have a DHCP server, are unsure whether you have one, or just want to establish a point-to-point connection with a computer:

1. Connect the VIVO-XØD32 device to the computer using a CAT5 cable or higher (NET1 or NET2 Ethernet port).
2. If the VIVO-XØD32 device cannot find a DHCP server, it will be able to connect to an automatic private IP addressing (APIPA) and subnet mask from NET1; the device will select its own IP address in the address range 169.254.1.0 to 169.254.254.255 and will also be reachable via the mDNS service.
3. Otherwise, the device will also remain accessible via the auxiliary IP. Enter NET1 or NET2 IP address in the browser and configure:
   - Using NET1:
     - IP: 192.168.0.100
     - Mask: 255.255.255.0
     - Gate: 192.168.0.1
     - UDP Port: 2210
   - Or using NET2:
     - IP: 192.168.0.101
     - Mask: 255.255.255.0
     - Gate: 192.168.0.1
     - UDP Port: 2210

6.2.3 Login

There are two profiles that can access the app:

1. **Administrator:** An administrator has access to all functions of the VIVO-XØD32 device and can configure any matrix parameter, event, peripherals, etc. An administrator creates users and control panels for the EclerPLEX user app.
2. **User:** users (non-administrator users or end-users of the system) have limited access. The only functions available to normal users are controls (e.g. controlling the volume of an output) but no configuration functions.



Administrator and user access are password-protected. The default administrator access credentials are:

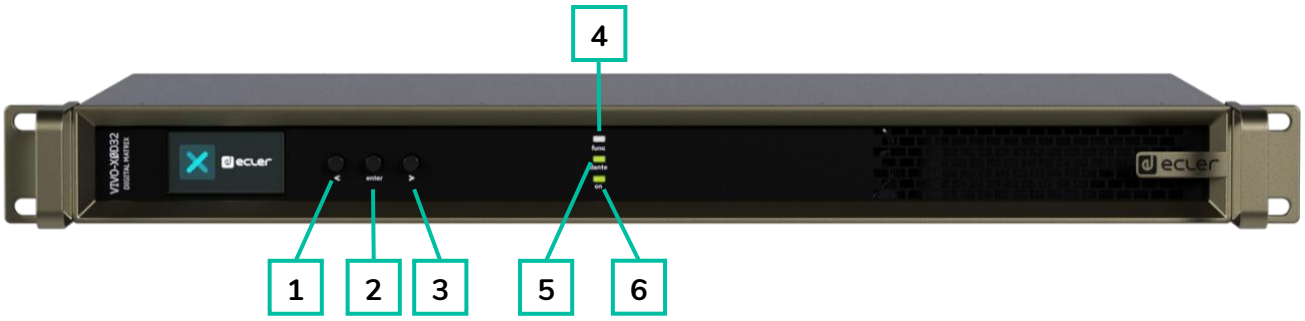
- **Username**: admin
- **Password**: admin

An administrator can change their access password in the EclerPLEX web app and manage users and passwords.

Usernames and passwords are case-sensitive.

7. PANEL FUNCTIONS

7.1 Front Panel



1. **<:** This button allows moving through the display different screens.
2. **Enter:** Enter button.
3. **>:** This button allows moving around the display different screens.
4. **Func LED:** Programable LED. Can be programmed by the user via EclerPLEX.
5. **Dante LED:** Lights up when there is a connection with Dante, according following:

LED colour	Status
Red	PTP error / no PTP sync / PTP disabled
Orange	PTP synchronization in progress.
Green (solid)	PTP follower , with PTP sync
Green (flashing)	PTP leader

6. **On LED:** Lights up in green if the unit is on.

7.2 Rear Panel



1. **Power Switch:** Unit Power ON switch.
2. **Mains socket** base.
3. **RS-232:** Euroblock connector for remote control via TP-NET protocol, RS-232.
4. **µSD:** microSD card slot.
5. **NET1 / NET2:** RJ-45 ethernet network ports, NET1-2.
6. **X-LINK port:** USB-C port for connection to one BIO Series expansion unit.

8. TECHNICAL DATA

8.1 Technical Specifications

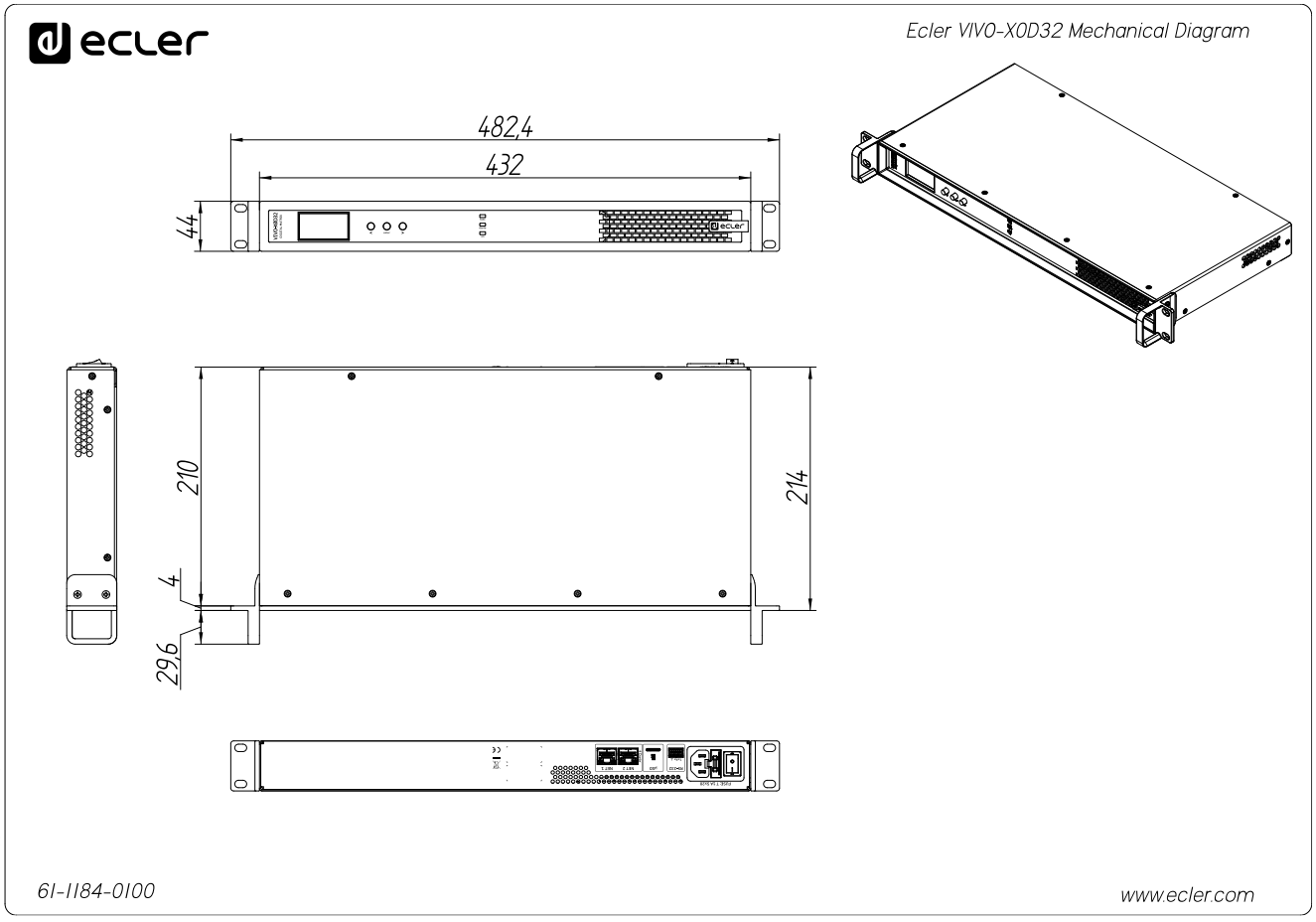
VIVO-XØD32

Digital Engine	
Processor	Quad core 64bits 1,5GHz
Audio Converters	
Sampling rate	48 kHz
Resolution	32 bit
Latency	3.87ms
Frequency response	10Hz to 20kHz (-0,5 dB)
Dynamic range	ADC:115dB, DAC: 115dB
Audio Over IP	
Protocols	Dante® / AES67 (16/16 flows)
Number of digital input ports	32
Number of digital output ports	32
Interfaces	1 x RJ-45 - NET2
Connectivity	
Ethernet	2, RJ-45 connector NET1 & NET2 (no switch capability) Ethernet Base-Tx 10 /100Mb, 1Gb Auto X-Over
Serial port	RS-232, Euroblock, 3-pin connector
Programming and control	EclerPLEX (Web application), TPNET (UDP/RS232), UCP control panels
X-LINK	1, X-LINK port. USB-C connector
Real-Time Clock	
Retention time	> 5 years
Accuracy	±1 minute / month
Local Storage	
microSD	SDXC
Capacity	Up to 2TB
File system	FAT16, FAT 32, VFAT (read/write) NTFS (read) Multi-partition up to 1
Playable audio files	mp3, ogg, WAV, FLAC, AIFF
Files analysis	65354 playable folders 65354 playable folders within each folder 65354 playable files within each folder
Folder hierarchy	Up to 8 containing the root directory
Sorting	UNICODE, in alphabetical order Up to 100 folders / files by folder Folders/files over 100 sorted in the FAT order
Electrical	
Power supply	Internal Universal, regulated switching mode supply
AC mains requirement	100-240 VAC @ 50-60Hz
AC mains connector	IEC C14 inlet
Power consumption	5.8 W 11.6 VA
Heat load	<65 BTU/h Typ, <80 BTU/h Max
Ventilation	FAN

Physical	
Operating temperature	Min: 0°C / 32°F Max: 50°C / 122°F
Operating humidity	5 - 85% RH, non-condensing
Storage temperature	Min: 0°C / 32°F Max: 50°C / 122°F
Storage humidity	5 - 85% RH, non-condensing
Installation options	Desktop, 19" racks (1RU)
Included accessories	1x EU Mains cord, 1x Multiplug Mains cord, 4x Washers, 4x Rubber feet, 1x Euroblock connectors (green colour), 1 USB holder, 2x Screws.
Dimensions (WxHxD)	482.4 x 44 x 214 mm / 18.99 x 1.73 x 8.43 in.
Weight	2.82 kg / 6.22 lb
Shipping dimensions (WxHxD)	585 x 385 x 75 mm / 23.03 x 15.15 x 2.95 in.
Shipping weight	4.27 kg/ 9.41 lb

8.2 Mechanical Diagram

All measurements are **in mm.**



All product characteristics are subject to variation due to production tolerances
NEEC AUDIO BARCELONA S.L. reserves the right to make changes or improvements in the design or manufacturing that may affect these product specifications.
For technical queries contact your supplier, distributor or complete the contact form on our website, in **Support / Technical requests.**