

DUO-NET PLAYER

SOUND SOURCES

Dual Streaming & Media Audio Player



USER MANUAL



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1. IMPORTANT REMARK







WARNING: SHOCK HAZARD - DO NOT OPEN

AVIS: RISQUE DE CHOC ÉLECTRIQUE - NE PAS OUVRIR



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING (If applicable): The terminals marked with symbol of "7" may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the use of ready-made leads or cords.

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

WARNING: An apparatus with Class I construction shall be connected to a mains socket-outlet with a protective earthing connection.

2. IMPORTANT SAFETY INSTRUCTIONS

- 1. Read these instructions.
- **2.** Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- **5.** Do not use this apparatus near water.
- **6.** Clean only with 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 apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one 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, consult an electrician for 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 where they exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer.
- **12.** Unplug the apparatus during lightening sorts or when unused for long periods of time.
- **13.** Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- **14.** Disconnecting from mains: Switching off the POWER switch all the functions and light indicators of the amplifier will be stopped, but fully disconnecting the device from mains is done unplugging the power cord from the mains input socket. For this reason, it always shall remain readily operable.
- **15.** Equipment is connected to a socket-outlet with earthing connection by means of a power cord.
- **16.** The marking information is located at the bottom of apparatus.
- 17. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on apparatus.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These 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 to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



WARNING: This product must not be discarded, under any circumstance, as unsorted urban waste. Take to the nearest electrical and electronic waste treatment centre.

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.



3. IMPORTANT NOTE

Thank you for choosing our Ecler **DUO-NET PLAYER Dual Streaming & Media Audio Player!**

It is **VERY IMPORTANT** to carefully read this manual and to fully understand its contents before any connection in order to maximize your use and get the best performance from this equipment.

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

Ecler DUO-NET PLAYER comes with a 3-year warranty.

4. INTRODUCTION

The DUO-NET PLAYER is a dual audio player/streaming receiver, fully compatible with EclerNet Manager, with the following main features:

- 2 balanced stereo audio outputs: PLAYER A and PLAYER B. Euroblock connector (stereo/mono selection for each output via software).
- 2 independent integrated players, each linked to a balanced stereo output.
- Compatible with MP3, ogg, AAC, WAV and FLAC audio formats.
- 1 USB port and 1 SD card slot for local media access.
- RJ45 Ethernet interface for EclerNet and TP-NET communication, as well as receiving audio streaming from Internet and networked media.
- Fully programmable and controllable through EclerNet Manager, a Windows© application (point to point or via Ethernet).
- System of customizable remote control UCPs (User Control Panels), compatible with "client" devices: computers, tablets, smartphones, etc. (iOS©, Windows© and Android©).
- Compatible with the TP-NET integration protocol via RS-232 and Ethernet interfaces.
- 4 GPI ports (General Purpose Inputs, 0-10VDC), to trigger events directly (4 separate triggers) or using 4-bit combinations (up to 15 separate triggers).
- IR remote control for basic user management.
- Universal external power supply with interchangeable connectors (American, European, British and Chinese).
- Priorities management: messages or other audio files (announcements, warnings, etc.) can override the audio program.



- Internal clock with up to 84h autonomy (without AC adapter) and automatic synchronization with NTP services*.
- Front panel controls and indicators:
 - LCD display.
 - o Digital encoder to navigate in the menus and set the parameters.
 - 7 backlit keys with pre-assigned function: MENU, PLAYER A, PLAYER B,
 STOP, PLAY/PAUSE, NEXT/FF and PREV/RW.
 - o 5 backlit keys with programmable function: F1, F2, F3, F4 and F5.

To setup the DUO-NET PLAYER, you have to use the EclerNet Manager** application. See the EclerNet Manager Application manual for more information.

- * For those applications where punctuality is a must, Ecler strongly recommends to use NTP services.
- **The EclerNet Manager application is available for download from www.ecler.com.

5. INSTALLATION

5.1. Location, set up, ventilation

The PLAYER DUO-NET has been especially designed to be installed in a standard 19" rack, taking up 1U.

In professional installations it is highly recommended to locate the device in the same rack as the sound sources.

Since its power consumption is very low, forced ventilation is not necessary. However, avoid exposing the device to extreme temperature and the environment in which it is placed should be as dry and clean (no dust) as possible



5.2. AC connection and powering on

DUO-NET is powered by alternating current through its external power supply: 100-240 VAC and 50-60 Hz. This external PSU has interchangeable connectors: American, European, British and Chinese.

The work environment must be dry and completely free of dust. Do not expose the appliance to falling water or splashes. Do not place objects with liquid or naked flame sources, such as candles, on top.

If any intervention and / or connection-disconnection is required, the power must be disconnected previously. Inside the device there are no manipulable elements by the user. The power cable must not be mixed with the audio cables, as this could cause buzzing.

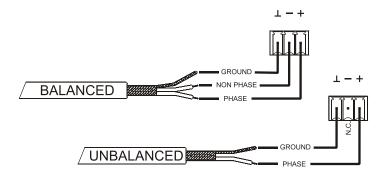
5.3. Audio output connections

The DUO-NET PLAYER features 2 separate balanced stereo outputs (one for each player) on the rear panel.

Signal outputs use 3-position screw terminal blocks (Euroblocks). The wiring is as follows:

Hot or direct signal
 Cold or inverted signal
 Ground
 Terminal Terminal -

For unbalanced connection, don't connect the terminal -.





5.4. ETHERNET port for programming and control

A RJ45 connector (13) allows connecting the device to an Ethernet network:

- Management from the EclerNet Manager application. See the EclerNet Manager Application manual for more information.
- Direct connection (point-to-point) of a computer/WPmSCREEN unit to a DUO-NET PLAYER unit.
- One or more DUO-NET units and other EclerNet devices can be connected to a computer and one or more WPmSCREEN units in order to create an EclerNet project through an Ethernet network composed of one or more Ethernet switches and Ethernet network cabling.
- Connecting to third party devices for remote management and integration to other electronic systems (Crestron, AMX, Vity, Medialon, etc. Trademarks registered by their manufacturers). Used protocol: Ecler TP-NET. Refer to the TP-NET protocol manual for more information.

5.5. GPI remote control ports

The rear panel of the DUO-NET PLAYER offers 4 GPI inputs (14) for 0-10VDC continuous voltage control. Each of these inputs can be connected to an external physical device (contact closure, switch, sensor, etc.) and assigned to a DUO-NET PLAYER function, such as:

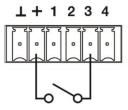
- MUTE or SOLO On/Off using a switch or contact closure
- Recalling a preset using a switch or contact closure
- Triggering pre-recorded messages with or without priority
- Etc.

GPI connectors use 3-position screw terminal blocks (Euroblocks). The wiring is as follows:

Power > Terminal +

GPI terminal > Terminal 1, 2, 3 or 4

• Ground > Terminal \(\pmathcal{L} \)



Example of connection: GPI 3



Connecting cables can be up to 500 meters long with a minimum section of 0.5 mm².

Please consult your ECLER dealer or www.ecler.com about the WPm series remote control wall panels and other accessories available for connection to the GPI/REMOTE/VCA ports.

5.6. RS-232 remote control port

The rear panel RS-232 port allows serial communication between an external device and a DUO-NET PLAYER unit. This connection uses the TP-NET protocol syntax so the external device can obtain the value of any of the DUO-NET PLAYER parameters (using "GET" commands) and/or modify these values ("SET" commands). Refer to the TP-NET protocol manual for more information.

The serial connection must meet the following characteristics:

Baud rate: 57600 (fixed, no auto negotiation)

Data bits: 8

Parity: None

Stop bits: 1

Flow control: None

RS232 - DB9 WIRING				
RS232	DB9			
Tx	Terminal 2 (RxD)			
Rx	Terminal 3 (TxD)			
Gnd	Terminal 5 (Signal Gnd)			

6. FRONT PANEL

The following elements are available on the DUO-NET PLAYER front panel:

- USB 2.0 port with LED indicator showing data activity (1): to play local media (audio content). Up to 32GB. FAT16/32 format.
- SD/SDHC slot with LED indicator showing data activity (2): to play local media (audio content). Up to 32GB. FAT16/32 format.
- IR receiver (3): to control the basic functions of the device from a remote control (included).
- DATA LED (4): shows data reception via the (Internet or LAN) network.
- PLAYER A key (5): displays PLAYER A current settings (URL, tags, playing time, random/repeat mode, etc.) and assigns the other keys (PLAY/PAUSE, STOP, NEXT, PREV and 5 programmable keys) to the PLAYER A.
- PLAYER B key (6): same as above, but for PLAYER B.



- LCD display (7): displays menus, player information, etc.
- CONTROL digital encoder (8): to navigate through menus, select parameters, access to sub-menus, etc.
- MENU key (9): allows access to the main menu of the device. Returns to the main menu from a sub-menu or exit the main menu (if pressed from the main menu).
- PREV/RW key () skips to the previous song in the player playlist. Hold the key pressed for fast rewind (RW) on the same track.
- STOP key (■): stops the current playing.
- PLAY/PAUSE key (II ▶): starts/stops playback of the selected playlist/track.
- NEXT/FF key (►): skips to the next song in the player playlist. Hold the key pressed for fast forward (FW) on the same track.
- Programmable keys (F1-F5) (11): trigger the event scheduled for each key. By
 default, F1 key loads files from the USB device inserted into the player. F2 key
 loads the files from the SD card inserted into the player. F1 to F5 keys have many
 other event triggering options (selection of audio tracks/local or networked
 playlists, selection of playlists/Internet streams, playback of pre-recorded
 messages, setup preset recall, etc.), programmable through EclerNet Manager
 Application. See the EclerNet Manager application manual for more information.

7. STARTUP

The DUO-NET PLAYER has been designed so that it can be used as a local media player, without additional software. However, to use it to its full potential, it has to be integrated into an EclerNet device network. That is why Ecler strongly recommends using the DUO-NET PLAYER with the EclerNet Manager application to enjoy all its features. Please refer to the EclerNet Manager manual to know all the functionality it offers.

7.1. Local media playback

7.1.1. Playing files stored on USB storage devices

Insert a USB device containing audio files in the USB port (1). Then select PLAYER A or B (keys 5 or 6) to playback the content. By default, the F1 key (11) is assigned to USB content playback. So you just have to press F1 to access content stored on the USB device. The display shows the selected media (USB). Press ▶ in the transport bar (10) to start playing content.



The LED next to the USB port starts flashing (blue) indicating that an audio file on this media is played back. You can check the audio output from the selected player by looking at the level meter (vertical bar) on the display of the corresponding player.



DUO-NET PLAYER playing a file in PLAYER A

Turning the CONTROL digital encoder (8) adjusts the volume of the selected player. Pressing it mutes (MUTE ON) the player.

By default, the display shows summary information for both players. Pressing once a player key (5 or 6) gives you access to detailed information about the current playback. Pressing it a second time leads you to another level of information. Pressing it a third time returns to the screen with information concerning both players (A and B).



Detailed information about the current playback and playlist

7.1.2. Playing files stored on SD/SDHC memory cards

Insert a SD/SDHC card containing audio files in the slot (2). Then select PLAYER A or B (keys 5 or 6) to playback the content. By default, the F2 key (11) is assigned to SD/SDHC card content playback. So you just have to press F2 to access content stored on the card. The display shows the selected media (SD). Press in the transport bar (10) to start playing content. The LED next to the SD/SDHC card slot starts flashing (blue) indicating that an audio file on this media is played back. You can check the audio output from the selected player by looking at the level meter (vertical bar) on the display of the corresponding player.

Turning the CONTROL digital encoder (8) adjusts the volume of the selected player. Pressing it mutes (MUTE ON) the player.

By default, the display shows summary information for both players. Pressing once a player key (5 or 6) gives you access to detailed information about the current playback. Pressing it a second time leads you to another level of information. Pressing it a third time returns to the screen with information concerning both players (A and B).



7.2. Playing networked (LAN) files

The DUO-NET PLAYER can playback audio files from remote devices on the same local network (LAN). To access these files, you must previously create one or more playlists using EclerNet Manager Application. Please refer to the EclerNet Manager manual for more information on how to create playlists on networked devices.

Once playlists are created, the DUO-NET PLAYER gives you local access to such content. To access them, first make sure the DUO-NET PLAYER is connected to the same local network as the device the content is stored on. Then select the player A or B where to load the playlist (keys 5 or 6). Next press the selected player key again to access detailed information. At this point, press the MENU key (9). Within the PLAYER menu, select LOAD PLAYLIST. To do this, press the digital encoder (8). Turning the encoder allows to browse the 99 playlists a DUO-NET PLAYER can memorize*. Select the desired playlist by pressing the encoder. Press ▶ to start playing content. Press MENU →EXIT to exit the menu.



Loading a playlist

*The DUO-NET PLAYER locally stores Internet or local network addresses. It never stores audio content.

7.3. Playing (Internet) streams

The DUO-NET PLAYER can play Internet audio streams. To access these files, you must previously create one or more playlists using EclerNet Manager application. Please refer to the EclerNet Manager manual for more information on how to create playlists on networked devices.

Once playlists are created, the DUO-NET PLAYER gives you local access to such content. To access them, first make sure the PLAYER DUO-NET is configured to access the Internet (IP address, subnet mask and gateway). Then select the player A or B where to load the playlist (keys 5 or 6). Next press the selected player key again to access detailed information. At this point, press the MENU key (9). Within the PLAYER menu, select LOAD PLAYLIST. To do this, press the digital encoder (8). Turning the encoder allows to browse the 99 playlists a DUO-NET PLAYER can memorize*. Select the desired playlist by pressing the encoder. Press ▶ to start playing content. Press MENU →EXIT to exit the menu.



*The DUO-NET PLAYER locally stores Internet or local network addresses. It never stores audio content.

7.4. Main menu

Press the MENU key from the screen with information concerning both players (A and B) to access the main menu. The following sub-menus appear in this menu:

- LOAD PRESET: allows you to load presets or configuration memories (up to 20)
 previously programmed in EclerNet Manager (see EclerNet Manager manual for
 more information).
- **DISPLAY:** LCD adjustment settings.
 - o **LCD MODE**: display operation in idle or low power consumption mode.
 - **ON**: the display is always lit
 - Dimmed: the display brightness dims after a few seconds without using the unit controls. Pressing any key returns the set brightness level.
 - OFF: the display turns off after a few seconds without using the unit controls. All LEDs and keys also turn off except the selected PLAYER (A or B).
 - o **BACKLIGHT**: allows a manual adjustment of LCD brightness.
 - CONTRAST: allows a manual adjustment of LCD contrast.
- NETWORK: displays network information about the device.
 - o **IP**: IP address.
 - o MASK: subnet mask.
 - o GATE: gateway.
- **DEFAULT**: restores the factory settings. Deletes all information stored on the device (configuration, network addresses, etc.).
- INFO: displays the firmware version of the device.



Main menu



7.5. Player menu

Pressing the PLAYER (A or B) key displays detailed information about current playback. If you then press the MENU key, you access the PLAYER MENU. It consists of the following sub-menus:

- LOAD PLAYLIST: to load one of the 99 playlists (preset with EclerNet Manager). By default, playlists 01 and 02 respectively correspond to USB port and SD slot, but can be reconfigured with EclerNet Manager software.
- VOLUME: manual adjustment of the player volume setting.
- VARISPEED: manual adjustment of the current playback speed. This option is not available for streaming.
- PLAYMODE: playback mode.
 - SEQUENTIAL: sequential playback (same alphanumeric order as the storage device).
 - o RANDOM: random playback.
- REPEAT MODE: repeat mode.
 - PLAY ALL: plays (without repeating) all items (tracks or playlists) within a playlist.
 - o **PLAY ONE**: plays (without repeating) the selected item.
 - REPEAT ALL: repeats all the items within a playlist in loop mode. At the end of the last item, playback restarts from the first, etc.
 - o **REPEAT ONE**: repeats the selected item.
- FADE MODE: transition mode between audio tracks inside the playlist.
 - NO FADE: transition without fades. Once a track ends, the next track in the playlist starts playing.
 - CROSSFADE: the transition between tracks progressively reduces the volume level of the ending track as the next track volume level gradually increases, merging both tracks for a short time until the starting track reaches its nominal volume level.
 - FADE: the outgoing track fades out. After this, the next track fades in until it reaches its nominal volume level. There's no crossfade between tracks.
 - HALF-FADE: the transition between tracks progressively reduces the volume of the ending track as the next track starts playing at its nominal volume level before the outgoing track reaches its minimum value.



Player menu



8. REMOTE CONTROL

The DUO-NET PLAYER includes an IR (infrared) remote control to facilitate user management. This remote control is divided into 2 sections: PLAYER A and PLAYER B, both being identical, except that they control their respective player.

- ON/STBY: turns off the display. All LEDs and keys also turn off except the selected PLAYER (A or B). Pressing it again turns on the display and the LEDs.
- **F1-F5 keys**: programmable through EclerNet software. Refer to the EclerNet manual for more information.
- **SRC**: repeatedly pressing it cycles through the first five playlist memories (1, 2, 3, 4, 5, 1, 2, 3, 4, 5, 1, etc.) of the DUO-NET unit to select the playback source.
- **INFO**: to navigate through the different information screens about the player (A or B).
- VARISPEED: changes the tempo of the playing track (S + to increase the tempo,> S < to restore the original tempo and S- to decrease the tempo).
- Transport keys (PLAY/PAUSE/STOP/REW/FF): similar to the front panel keys.
- **VOLUME**: increases or decreases the player volume level.
- MUTE key: mutes the player.

9. CLEANING

The front panel should not be cleaned with dissolvent or abrasive substances because silk-printing could be damaged. To clean it, use a soft cloth slightly wet with water and neutral liquid soap; dry it with a clean cloth. Be careful that water never gets into the unit through the holes of the front panel.



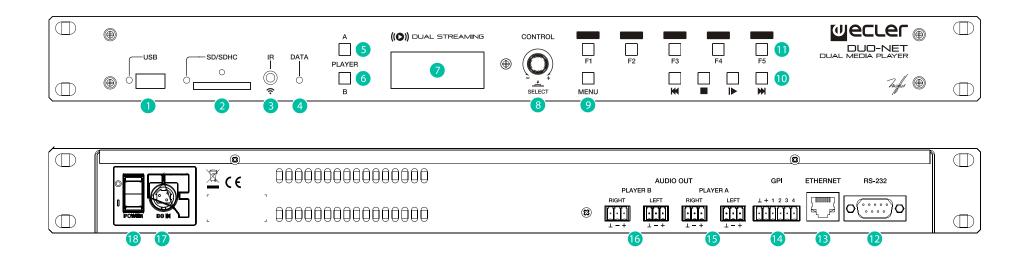


10. FUNCTION LIST

- 1. USB port with LED indicator showing data activity
- 2. SD/SDHC card slot with LED indicator showing data activity
- 3. IR receiver
- 4. DATA LED indicating network traffic
- 5. PLAYER A key
- 6. PLAYER B key
- 7. LCD display
- 8. CONTROL digital encoder
- 9. MENU key
- 10. Transport bar (PREV/RW, STOP, PLAY/PAUSE and NEXT/FF)
- 11. Programmable function keys (F1-F5)
- 12. Remote control, RS-232 port
- 13. RJ45 connector, Ethernet
- 14. GPI ports
- 15. PLAYER A balanced stereo output
- 16. PLAYER B balanced stereo output
- 17. External PSU connector
- 18. Mains switch, POWER



11. FUNCTION DIAGRAM





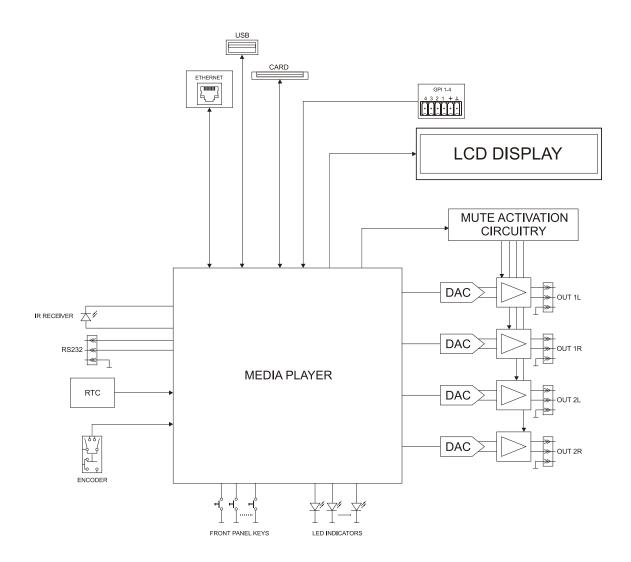
12. TECHNICAL CHARACTERISTICS

ETHERNET	
Connector / Speed	RJ45 / 10/100Mbps
AUDIO OUTPUT	1010/10/1001/1000
Nominal Output Level	+6dB (balanced) / 0db (unbalanced)
Max Output Level / Minimum Load	+12dBV / 5kΩ
Frequency response	5Hz - 24kHz (-3dB)
Balanced output header / Out	
impedance	, x o pin communicative coo
MEDIA PLAYER	
Audio DAC	24bit / 48kHz
Output noise floor (FFT)	-100dB (from 20Hz to 20kHz)
THD + Noise	< 0.005% (1kHz, 1Vrms)
Compatible file formats	mp3, ogg, WAV, AAC, FLAC, OPUS
SOURCES	, , , , , , , , , , , , , , , , , ,
Network locations (Samba protocol)	
USB content	
SD content	
Internet Radio Streams	
GPI	
Number / input voltage	4 ports / 0 - 10VDC
Output header	6 pin Terminal block
RS232	·
SubD female connector 9 pin	TP-net protocol
RTC	·
Time and date retention (battery) / F	RTC 84 hours aprox. / ±1 minute / month
accuracy	
PANEL	
MATRIX DISPLAY	160x64 pixels
Led indicator	USB, SD, NETWORK, PLAYER A/B, F1-F5,
	PLAY/PAUSE
Direct buttons	ENCODER, F1-F5,MENU,PREV,NEXT, PLAY, STOP,
	PLAYER A/B
SUPPLY	
DC power supply	±17.5 VDC
Mains	100÷240VAC 50/60Hz
Power consumption	15VA
MECHANICAL	
Dimensions WxHxD / Weight	482.6x44x120mm / 1800gr
USB and SD card interfaces	
USB host interface	USB 2.0 Full Speed (480 Mbps)
	Supports mass storage class devices Up to 32GB
Micro SD card interface	Supports SD ver1.0, SDHC
FAT and files analysis	Supports FAT16, FAT 32 and VFAT
	Multi-partition up to 1
	65354 playable folders
	65354 playable folders within each folder



	65354 playable files within each folder
Folder hierarchy	up to 8 containing the root directory
Playable extensions	mp3, wav, ogg, aac, flac
Sorting in alphabetical order UNICODE	up to 100 folders
	up to 100 files by folder
	folders/files over 100 sorted in the FAT
	order)
ACCESSORIES SUPPLIED	
Main power cable, IR remote control unit, Remote control battery	te 2 x AAA, LR-03 1,5V

13. BLOCK DIAGRAM







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.

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