

S.M.S.L



DS20

USER MANUAL

The contents of this manual may be changed with the edition, and are subject to change without notice.

Ver 1.0



Safety Notes

- Install this unit in a well ventilated, cool, dry, clean place-away from direct sunlight, heat sources, vibration, dust, moisture, or cold.
- Use the voltage specified on this unit Only. Using this unit with a higher voltage than specified is dangerous and may cause fire , damage to this unit, or personal injury. Our company will not be held responsible for any damage resulting from the use of this unit with a voltage other than that specified.
- Do not attempt to modify or fix this unit by yourself. Contact a person or customer service when any service is needed. The cabinet should never be opened for any reason.
- When not planning to use this unit for long periods of time (i.e. when going on vacation), disconnect the power cable from the AC wall outlet.

Important note:

The product specifications and information mentioned in this manual are for reference only. The content of this manual is subject to change without notice.



Warranty Terms

1.The Term of Service

Foshan Shuangmusanlin Technology Co., Ltd promises to offer good-quality products. If the product is broken in 7 days after purchasing when you use it normally, you can choose to send it back for return, replacement or repairing (only the product does not affect the second sales can be returned). Repairing for free in one year if you use it normally.

2.Date of purchase is in accordance with the date on invoice or receipt used by seller, and if you buy it on line, you can show the screenshot of trade.

3.If an inappropriate usage causes the unit damaged, the warranty will be void. As below.

- All damages by inappropriate use, including using it under non-normal working environment or without following the instructions.
- Dismantling, refitting, repairing by user in private.
- Causing damage by using some fittings instead of the designative or accredited ones.
- Cannot provide credible proof of purchase.

4.Sending it back to our company for repairing.

5.Contact your S.M.S.L Audio reseller for a return or replacement.



Features

- Using 4 pieces of Cirrus Logic's latest audio decoder chip CS43131!
- PLFC fully balanced ear amplifier circuit design.
- New third-generation XMOS XU-316, PCM support up to 32bit/768kHz, DSD support up to DSD256.
- Support MQA full decoding, 8 x unfolding
- Two modes of USB1.1 and USB2.0 are for selection, USB1.1 is convenient for users to connect to game consoles such as PS5 or Switch.
- Special designed clock processing circuitry for audio, greatly reducing clock jitter.
- Built-in specially designed low-noise power supply.
- Uses a large number of audio-specific audiophile-grade resistors and capacitors.
- Japan Audio Society (JAS) Hi-Res certification.
- Built-in high-capacity and high-efficiency Li-ion battery



Technical Parameters

Input	USB	
Output	3.5mm HP	4.4mm HP
Output level	3.5mm HP Output	3 Vrms
	4.4mm HP Output	6 Vrms
Output Impedance	HP Output	approach 0Ω
Output Power	16Ω	500mW × 2
	32Ω	500mW × 2
	64Ω	350mW × 2
	150Ω	240mW × 2
	300Ω	120mW × 2
	600Ω	60mW × 2
THD+N (UN Weighted)	300Ω	0.0002%
Dynamic range	3.5mm HP Output	126dB
	4.4mm HP Output	126dB
SNR	3.5mm HP Output	126dB
	4.4mm HP Output	126dB

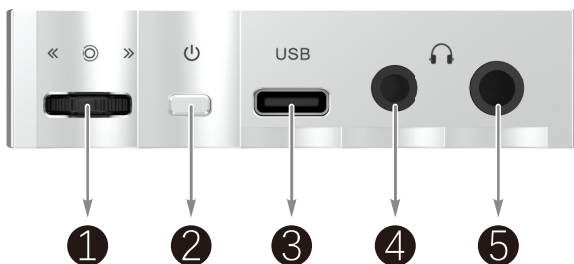
USB transmission	Asynchronous
USB compatibility	Windows 7 / 8 / 8.1 / 10 / 11
	SONY PS4 / PS5 / Nintendo switch
	Android、iOS、Mac OSX、Linux
Bit depth	1bit, 16~32bit
Sampling rate	PCM 44.1~768kHz
	DSD 2.8224~11.2896MHz
Battery capacity	6000mAh(22.2Wh)
Size	71x17x118.5mm (WxHxD)
Weight	275g

SMSL reserves the right to make improvements which may result in specification or feature changes without notice.

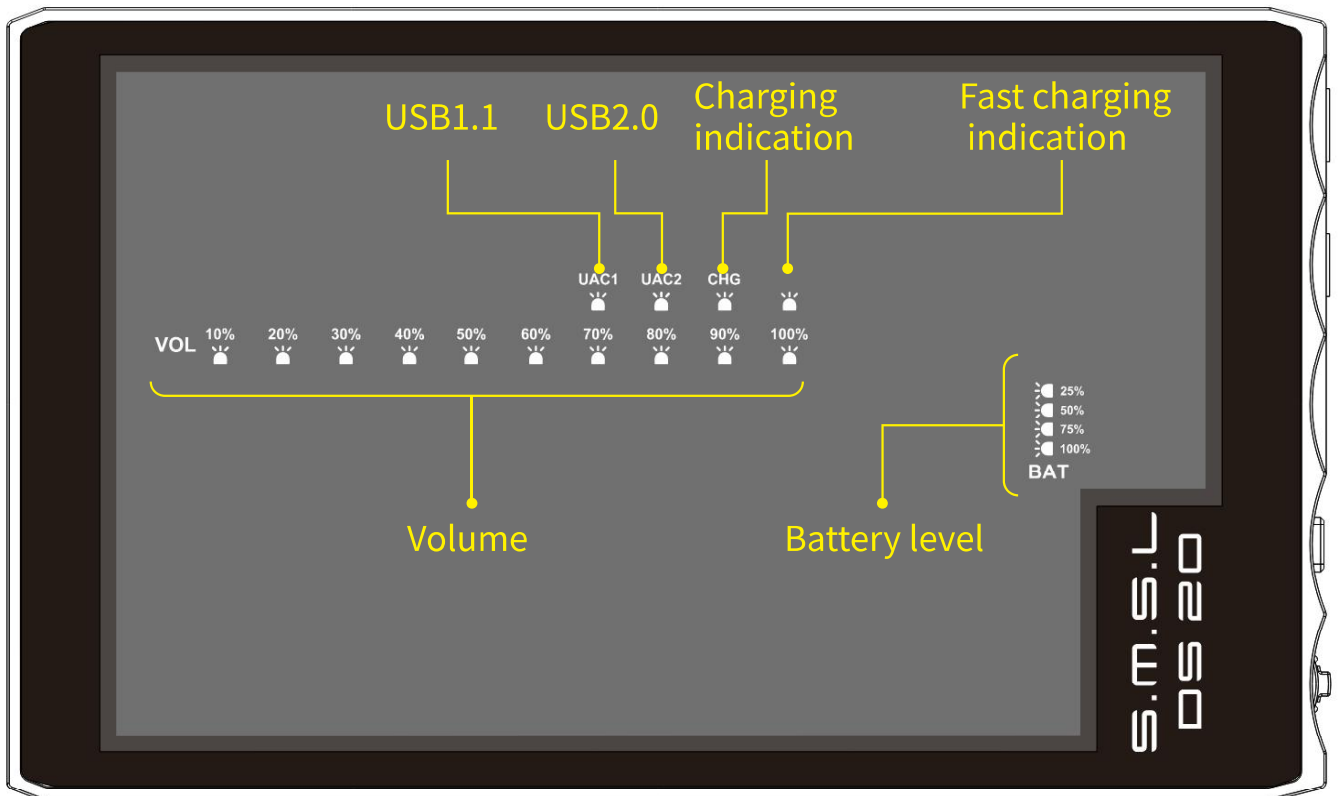
Function buttons

- ❶ Function buttons
- ❷ Power on/off/long press for complete power off
- ❸ USB Input(5V=3A, 9V=2A, 12V=1.5A)
- ❹ 3.5mm headphone jack
- ❺ 4.4mm headphone jack

battery capacity: 3.7V 6000mAh (22.2wh)



Operation Introduction



■ Check the power level:

- Short press [] Check battery level (in standby)

■ Power On/Standby:

- Long press [] Turn on the power, turn on the power and press it briefly to enter the standby mode (the power indicator will be always on when standby and power on)


Note:

- When the Battery power is very low, the power light will not be on;
- When there is no playback signal, the machine will automatically enter standby mode after 3 minutes.

■ Completely shut down (power off):

- Press and hold the power button for 3 seconds to turn off the power and completely disconnect the battery power supply, which is recommended when it is not used for a long time!

■ Switching USB Mode:

- Press and hold [] menu button to enter the USB mode selection, at this time the corresponding indicator light flashes, indicating the adjustment of the relevant functions, through the volume up and down buttons to select the corresponding function.

■ Normal Charging:

- This unit can only be charged in standby mode!
- The charging indicator blinks when charging and lights up normally when full. If fast charging is used, the fast charging indicator light is always on.

■ Charge when completely without power:

- If the DS20 can no longer be turned on when the battery is very low, connecting it to the power supply will automatically charge it until it is turned on (not fully charged), in which case it will then go into standby and charge it to full capacity.



Function Introduction

MQA indicator

- Green: MQA Authentic
- Blue: MQA Studio
- Magenta: MQA OFS
- White: DSD

USB MODE

- UAC2
(Corresponds to USB 2.0 mode, requires driver installation when connecting to WIN systems, supports high specification sampling rate)
- UAC1
(Corresponds to USB 2.0 mode, requires driver installation when connecting to WIN systems, supports high specification sampling rate)
- Note about UAC1

1. Connect all USB devices without driver.
2. Support a variety of game consoles to connect, such as Switch, PS4, PS5
3. Only supports up to 16bit/96kHz.

About MQA

MQA (Master Quality Authenticated) is an award-winning British technology that delivers the sound of the original master recording. The master MQA file is fully authenticated and is small enough to stream or download. The DL200 includes MQA technology, which enables you to playback MQA audio files and streams, delivering the sound of the original master recording.

Visit How it works <https://www.mqa.co.uk/how-it-works> for more information.

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How to play MQA

- This machine's USB support for MQA decoding!
- This machine MQA playback does not require the use of special playback software, such as foobar2000, Audirvanaplus as long as the support for ASIO or WASAPI audio output can be, and
in the playback of MQA audio, it is best to turn the computer's volume to the maximum, in order to make the computer's audio output is the best state.
- When playing MQA files, the sample rate shown on the display is the original sample rate of the audio.



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