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1. Overview

1.1. Product Introduction

QA360 is a high-fidelity digital audio player with lossless audio files as the source and the SD card as the storage medium. The player integrates DAC decoding and headphone amplifier circuit with the built-in large-capacity rechargeable lithium polymer battery, which improves portability. The player is designed with coaxial output and optical output, acting as an absolute digital sound source. Connected with different DAC from the outside, you can enjoy different music styles. Apart from that, it also has analog signal output which can be directly connected to amplifier or preamp.

1.2. Audio Format

- I WAV : 16/24bit, 44.1~192KHz;
- I AIFF: 16/24bit, 44.1~192KHz;
- I FLAC: 16/24bit, 44.1~48KHz, compression levels 0~8;
- I APE : 16bit, 44.1KHz, compression levels: fast and normal;
- I ALAC: 16bit, 44.1KHz;
- I MP3 : 16bit, 44.1~48KHz, 96kbps~320kbps, CBR/VBR/ABR encoding;
- I DIFF: DoPv1.0, DSD64 encoding, 1bit, 2-channel stereo, Sampling frequency: 2.8224MHz;
- I DSF : DoPv1.0, DSD64 encoding, 1bit, 2-channel stereo, Sampling frequency: 2.8224MHz;

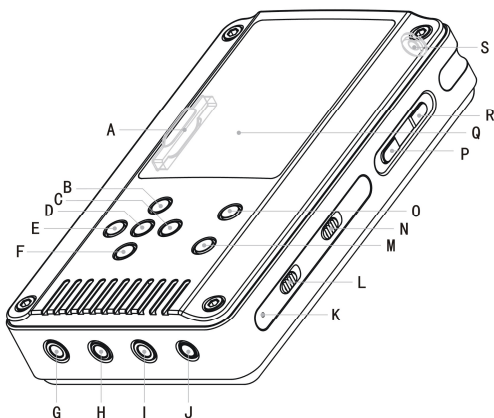
- I SACD: SACD-ISO mirror image files, DoPv1.0, DSD64 encoding, 1bit, 2-channel stereo, Sampling frequency: 2.8224MHz;
- I CUE : WAV/AIFF/FLAC/APE/ALAC can be related to CUE, ANSI/UNICODE/UTF-8 encoding.

1.3. Product Feature

- I SD card was used as the storage medium, supportive of SD/SDHC/SDXC, and the max capacity is 128G;
- I There are various output patterns such as digital output and analog output;
- I It is in favor of DSD hard decoding and SACD ISO direct playing;
- I It is in favor of several playing modes and playing files in different folders;
- I It is in favor of simplified Chinese, traditional Chinese, and English versions.
- I It is in favor of automatic startup playing and memory playing.

2. Functional Interface

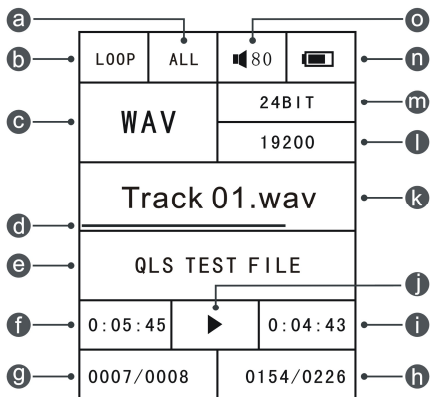
2.1. Player Layout



Mark	Definition	Description 1	Description 2	Description 3
A	SD card slot	Storage Medium		
B	Navigation key	Cursor up	Previous track	Long press for quick song switching
C	Navigation key	Page down	Modify settings	Long press for fast forward
D	Navigation key	Enter	Play/Pause	Long press for Favorites operation

E	Navigation key	Page up	Modify settings	Long press for fast back
F	Navigation key	Cursor down	Next track	Long press for quick song switching
G	3.5 Headphone jack	Headphone signal output		
H	3.5 Line/Optical jack	Line signal output	Optical signal output	
I	3.5 Coaxial jack	Coaxial signal output		
J	3.5 Power jack	Power input		
K	Indicator	Charging status indication		
L	Power switch	Startup and shutdown		
M	Back key	Pages switching	Long press for song deletion	
N	Locking key	Key locking		
O	Setting key	Enter the setting page	Exit setting page	Long press to recover the default
P	Volume key	Decrease the volume	Long press to the next track	
Q	2.4-inch LCD screen	Show information		
R	Volume key	Increase the volume	Long press to the previous track	
S	Remote control extension wire jack	Remote-control extension input		

2. 2. Interface Layout



Mark	Interface Definition
a	Current playing range
b	Current playing mode
c	Audio format
d	Progress bar
e	Folder name
f	Current elapsed time of track
g	Folder index/total number of folders
h	Track index/total number of tracks
i	Total time of the track
j	Play/Pause
k	Track name
l	Sampling rate (DSD64 indicates 2.8224MHz)
m	Sampling digits (Bit rate for MP3)
n	Battery capacity
o	Volume

3. Operating Instructions

3.1. Startup

Turn on the power by pushing the switch upwards on the right side of the player, and turn off the power downwards.

3.2. Files Browsing

The player consists of the main interface, folder list, track list, CUE list, favorites list and playing interface. The BACK key can be used to switch interfaces. The UP/DOWN keys can be used to move the cursor. The LEFT/RIGHT keys can be used to turn the pages up and down. The ENTER key can be used to enter the page of the next level.

3.3. Music Playing

Once the target song is selected, you can play a song by pressing the ENTER key. On the playing interface, you can press ENTER key to play or pause, press UP/DOWN keys to switch songs, and long press LEFT/RIGHT keys for fast forward and fast back.

3.4. CUE Operation

Select the CUE file, enter the list, and select songs to play. The CUE mode is supportive of such playing modes as loop, random, single loop, playing once and reverse. The current playing scope is limited to the current CUE

list with the playing interface showing "album".

3.5. Favorites

How to add and delete songs from the favorites?

(1). In the folder list, track list and playing interface, if you press the ENTER key for 1 to 2 seconds, then it will show "Add to favorites", select "OK" to add the selected folder or song. The maximum capacity is 99.

(2). In the favorites list, if you press ENTER key for 1 to 2 seconds, it will show "Delete from favorites", select "OK" to delete song.

Note: The Favorites is supportive of such playing modes as loop, random, single loop, playing once and reverse. The playing scope is limited to the current favorite list with the playing interface showing "Favorites".

3.6. Song Deleting

In the list of songs or playing interface, if you select the track you want to delete and press the BACK key for 1 to 2 seconds, it will show "Delete Song", select "OK" to delete.

Note: The song is deleted permanently from the SD card. Please take caution as it is unrecoverable.

3.7. Volume Operation

Momentary press or long press of the volume key can adjust the volume within the range of 0 to 150 cells. You can set volume protection and left-and-right channels

balance, and the volume is unadjustable under the locking status.

3. 8. Key Lock

In order to prevent pushing the keys by mistake, you can push the LOCK key upwards to lock the player, vice versa.

Note: In order to realize blind operation, when the keys are locked, you can adjust the volume by momentarily pressing the volume keys, and switching songs by long pressing the volume keys. (Note: this is under the non-volume-adjusting state).

4. Function Settings

4. 1. Playing Mode

The playing mode includes LOOP, RANDOM, SINGLE LOOP, ONCE, and REVERSE.

4. 2. Playing Range

ALL : All songs on the SD card can be effective files.

FOLDER: Only the songs under the current folder can be played, and you can only select the songs under this folder as well.

Note: The player is supportive of 2-level catalogue. In order to locate songs quickly, it is suggested that you name the master folder with the singer name, and name the subsidiary folders with the albums of this singer. Each subsidiary folder should only store one album.

4. 3. Memory Play/Auto Play

OFF : Turn off the memory mode, and the master interface will show after startup.

PAUSE: Turn on the memory mode, and the playing interface will show after startup, ready for the user to play.

AUTO : Turn on the memory mode, the playing interface will show after startup, and songs in memory will be played.

4. 4. Gap Between Tracks

You can set the time gap between tracks as 0, 500, 1000, 1500 and 2000 ms.

4. 5. Track Name Rolling

You can set the rolling frequency of file names as "static, one second, two seconds, and three seconds".

4. 6. Digital Output

You can set coaxial or fiber optical digital output on or off. If it is seldom used, you may turn it off to save power.

4. 7. Filtering Mode

The slow descent or roll-off of digital filtering can be selected from the menu, which will filter the out-of-band noise far away higher than the audio frequency, releasing two sound styles.

4. 8. DSD Filtering

You can decide whether the DSD signal will go through the digital filter by selecting in the menu with two DSD sound styles.

4. 9. Volume Lock

The volume can be set as ON or OFF.

4. 10. Volume Intensity

The current volume intensity can be set ranging from 0 to 150 cells.

4. 11. Volume Protection

The max adjustable volume can be set for protection.

4. 12. Volume Balance

The left and right channels are respectively adjustable with 10 cells available and 5dB maximum attenuation.

4. 13. Cursor Color

The color of the selected font can be set.

4. 14. Main Color

The color of the main font can be set.

4. 15. Interface Color

There are 27 kinds of colors can be set for the interface.

4. 16. Interface Style

There are 23 kinds of styles can be set for the interface.

4. 17. Display Brightness

The brightness of the LCD display can be set as three levels - 10, 20 and 30.

4. 18. Automatic Off-screen

The Automatic off-screen time options are "No, 10s, 20s, and 30s".

It will save power and improve sound quality to turn off the display.

4. 19. Automatic shutdown

The automatic shutdown time can be set as 30, 60, 90, 120 minutes. It will function after you press the SETTING key and exit. A reminder will pop up before 10s of the automatic shutdown, and during the last 5 seconds the player will be muted. The player will be shut down with the timer counting down.

4. 20. Key Reaction Speed

The key reaction speed mainly refers to the processing speed of long press, such as the speed of moving the cursor upwards and downwards, FF/FB, etc.

Options are 10, 20, 30, 40, 50, 60, 70, 80, 90, and 100.

4. 21. Charging Switch

The charging switch will control the ON/OFF charging status of battery. If you often use an external power, please select OFF to extend the battery life.

4. 22. Language

The GBK encoding font library is adopted supportive of 20,000 national words with three languages - Simplified Chinese, traditional Chinese and English.

4. 23. System Information

Enter this menu to check the current system information:

```
I Model      : QA360
I Version    : APP-V1.0
I Data       : 2014.06.01
I Design By  : QLS-HiFi
I Run Timers: 10: 00: 00
I Shutdown   : --: --: --
```

4. 24. Factory Settings Reset

In the Settings menu, you can press the SETTING key for 1 to 2 seconds to reset the factory settings, and remove all the songs in Favorites.

5. Firmware Update

The applications and font library can be updated in the following steps:

- (1) Copy the updated file to the SD card.
- (2) Insert the SD card into the player, long press the LEFT key and turn on the power switch, thus, the updating mode is entered.
- (3) Select the updated file in the updating list and press the ENTER key to start updating, and restart the power after completion.

Please visit our website <http://en.qlshifi.com> for the latest updated files.

Appendix I: Product Warranty Card

Please fill this form carefully and send it back to us along with the damaged product.

Product Name	QA360 Digital Audio Player	Serial Number	
Purchasing Date	(DD-MM-YY)		
User Name		Zip Code	
Mobile Number		Tel	
Shipping Address			
Feedback of Abnormal Situation			
Cause Analysis and Solution	(This Part should be filled by the manufacturer)		
Remarks			

ShenZhen QLS Electronic Technology Co., Ltd(QLS-Hi Fi)

Contact: Chen Xue Qian(Clark)

E-mail : cxqmcu@cxqmcu.com