## **Questyle M18i**

# Questyle M18i Headphone Amplifier Bluetooth 5.4 Receiver User Manual

Model: M18i | Brand: Questyle

## 1. Introduction and Overview

The Questyle M18i is a high-resolution portable USB DAC and headphone amplifier designed to enhance your audio experience across various devices. Featuring Bluetooth 5.4 connectivity, dual 4.4mm balanced and 3.5mm unbalanced outputs, and support for advanced codecs like LDAC, it delivers lossless audio quality for smartphones, PCs, and laptops. Its compact design integrates cutting-edge technology, including the ESS ES9219Q DAC chip and Questyle's patented Current Mode Amplifier SiP modules, ensuring exceptional sound performance with ultra-low distortion.



Figure 1.1: Questyle M18i Headphone Amplifier

# 2. KEY FEATURES

- Advanced DAC Performance: Equipped with the latest ESS flagship ES9219Q DAC chip, utilizing Questyle
  and ESS's collaborative TTA DAC framework for optimal performance.
- Current Mode Amplification: Features two patented quad-core Current Mode Amplifier SiP modules, providing powerful drive, delicate timbre, and an ultra-low distortion record of 0.0002%.
- Versatile Outputs and Controls: Offers both 3.5mm unbalanced and 4.4mm balanced outputs. Includes manual gain control for various headphones and an MFB button for Bluetooth functions. Volume buttons provide 60 levels of loudness.
- Seamless Bluetooth and USB DAC Modes: Supports seamless switching between lossless Bluetooth and USB DAC modes.
- Qualcomm Snapdragon Sound Technology: Integrates Qualcomm's latest Snapdragon Sound technology
  with Bluetooth 5.4, supporting AAC, SBC, aptX, aptX HD, aptX Adaptive, LE AUDIO, and 24bit/96kHz LDAC
  for wireless lossless audio.
- Enhanced Call Quality: Incorporates Qualcomm's cVc Generation 8.0 call solution with ClearVoice Capture technology and an Infineon flagship microphone for crystal-clear voice calls with noise suppression.

## 3. PACKAGE CONTENTS

Please ensure all items are present in the package:

- Questyle M18i Headphone Amplifier
- USB-C to USB-C Cable

## 4. PRODUCT DIAGRAM AND COMPONENTS

Familiarize yourself with the various parts and connections of your M18i device.



Figure 4.1: M18i Internal Components and PCB Layout

Key components include:

- 1. Patented SP Current Mode Amplifier module: US 9,614,483 B2
- 2. ESS Flagship USB DAC: ES9219Q x 2
- 3. 4.4mm balanced headphone jack
- 4. Torex power management system
- 5. Asynchronous Clock Patented Architecture

- 6. USB Type-C Charging Port
- 7. Infineon's flagship microphone
- 8. USB Type-C Data Port
- 9. 3.5mm headphone jack
- 10. Gain/MFB button: (Multi-function button only for BT Mode)
- 11. Bluetooth & PC/Phone Mode Switch
- 12. XMOS USB DAC
- MCU Controller
- Qualcomm Bluetooth Module
- OLED Display



Figure 4.2: 4.4mm and 3.5mm Dual Outputs

# 5. SETUP

## 5.1 Initial Charging

Before first use, fully charge your M18i. Connect the provided USB-C cable to the M18i's USB Type-C Charging Port and the other end to a compatible USB power source (e.g., computer USB port, wall adapter). The charging time is approximately 2 hours.

## 5.2 Connecting Headphones

The M18i features both 3.5mm unbalanced and 4.4mm balanced headphone jacks. Insert your headphone cable into the appropriate jack. Ensure the connection is secure.

#### **5.3 Device Connection**

The M18i supports connection to various systems including Android, iOS, Windows, and Mac devices. Use the appropriate USB-C cable to connect the M18i to your smartphone, PC, tablet, or laptop.

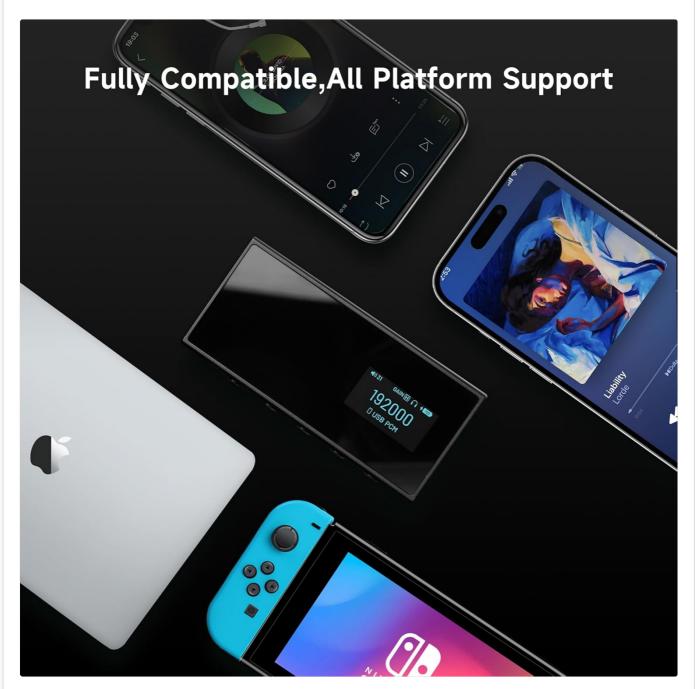


Figure 5.1: M18i Compatibility with Various Platforms

# 6. OPERATING INSTRUCTIONS

## 6.1 Mode Selection (Bluetooth / PC / Phone)

Use the dedicated switch on the M18i to select between Bluetooth, PC, or Phone mode.

#### 6.1.1 Phone Mode

In Phone Mode, the M18i operates using its internal battery for power. The USB audio port is solely for data transfer and does not draw or supply power to the connected phone.

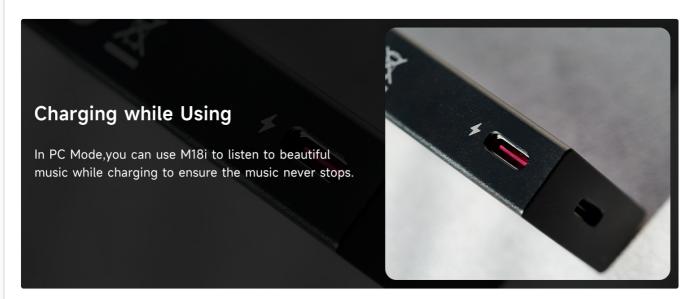


Figure 6.1: M18i in Phone Mode

#### 6.1.2 Bluetooth Mode

In Bluetooth Mode, the M18i also relies exclusively on its battery for power supply. To pair, switch to Bluetooth mode, then search for 'Questyle M18i' on your device's Bluetooth settings and connect.

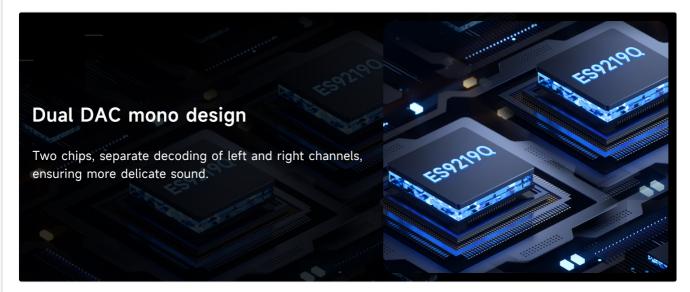


Figure 6.2: M18i in Bluetooth Mode

#### 6.1.3 PC Mode

In PC Mode, the M18i's USB audio port can transfer data and supply power to charge the battery or provide power to the system. When connected to a phone in PC mode, the M18i will consume the phone's battery power.



Figure 6.3: M18i in PC Mode

## 6.2 Gain Switch

In Phone or PC mode, press the "GAIN/MFB" button to switch between HIGH/LOW gain settings. This allows you to match the impedance of different headphones for optimal audio output.

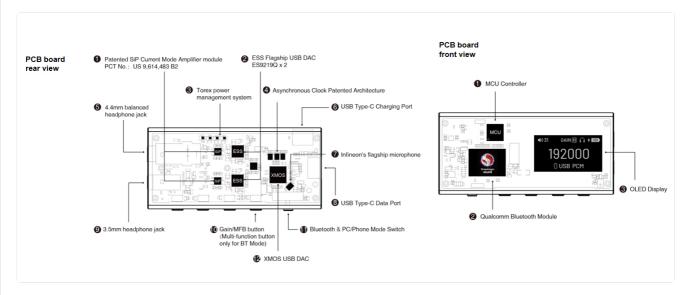


Figure 6.4: Gain Switch Location

# 6.3 MFB Button (Multi-Function Button)

The MFB multi-function button is only operable in Bluetooth mode.

- **Music Playback:** During playback in Bluetooth connected state, click the "MFB" button once to toggle between Pause and Play. Click it twice to skip to the next track.
- Call Management: When a call comes in while playing in Bluetooth connected state, click the "MFB" button once to answer the call. Click it twice to reject the call. During an active call, click it once to end the call.

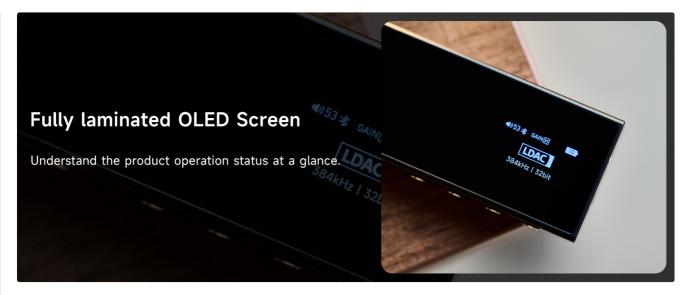


Figure 6.5: MFB Button Location

#### 6.4 Volume Control

Use the dedicated volume buttons (+ and -) on the M18i to adjust the loudness. The device provides 60 levels of volume control.

## 7. MAINTENANCE

To ensure the longevity and optimal performance of your Questyle M18i, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry, lint-free cloth to clean the exterior of the device. Avoid using harsh chemicals, cleaning solvents, or strong detergents, as they may damage the finish or internal components.
- **Storage:** When not in use, store the M18i in a cool, dry place, away from direct sunlight, extreme temperatures, and high humidity.
- **Handling:** Handle the device with care. Avoid dropping it or subjecting it to strong impacts, which can damage internal circuitry.
- Connectivity Ports: Keep the headphone jacks and USB-C ports free from dust and debris. You may use a can of compressed air to gently clear any obstructions.
- **Charging:** Always use the provided cable or a high-quality, compatible USB-C cable for charging to prevent potential damage to the battery or charging port.

## 8. TROUBLESHOOTING

If you encounter issues with your M18i, please refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No sound output	Incorrect mode selected; Loose headphone connection; Low device volume; Device not powered on.	Ensure correct mode (Phone/PC/Bluetooth) is selected. Check headphone connection. Increase volume on M18i and source device. Power on the M18i.

Problem	Possible Cause	Solution
Bluetooth connection issues	M18i not in pairing mode; Interference; Previously paired device interfering.	Ensure M18i is in Bluetooth mode and discoverable. Move closer to the source device. Turn off Bluetooth on other nearby devices. Try forgetting and re-pairing the M18i on your source device.
Poor sound quality (distortion, low volume)	Incorrect gain setting; Low quality audio source; Damaged cable/headphones.	Adjust the gain setting (HIGH/LOW) to match your headphones. Ensure you are playing high-quality audio files. Test with different headphones or cables.
Short battery life	High volume usage; Bluetooth mode (higher power consumption); Old battery.	Reduce volume. Consider using PC mode for extended listening as it can draw power from the host. Ensure the device is fully charged before use.
Device not charging	Faulty cable/charger; Dirty charging port.	Try a different USB-C cable and power adapter. Clean the USB-C charging port gently.

If the problem persists after trying these solutions, please contact Questyle customer support for further assistance.

# 9. Specifications

Specification	Value
Model Name	M18i
Brand	Questyle
Connectivity Technology	Bluetooth, USB
Wireless Communication Technology	Bluetooth 5.4
Headphones Jack	3.5 mm Jack, 4.4 mm Balanced
Compatible Devices	Cellphones, Smartphone, Various systems including Android, iOS, Windows, Mac, and devices like phones, computers, tablets, laptops, audio players, and car audio systems.
Material	Aluminum
Item Weight	0.14 Kilograms (approx. 5 ounces)
Control Method	Push Button
Charging Time	2 Hours
Impedance	300 Ohm
DAC Chip	ESS ES9219Q x 2

Specification	Value
Supported Audio Codecs	AAC, SBC, aptX, aptX HD, aptX Adaptive, LE AUDIO, LDAC
Max Resolution (USB DAC)	PCM 384kHz/DSD256
Microphone	Infineon flagship microphone with cVc Generation 8.0

# 10. WARRANTY AND SUPPORT

The Questyle M18i is sold by Questyle, ensuring direct support from the manufacturer. For specific warranty details, please refer to the warranty card included with your product or visit the official Questyle website. For technical support, troubleshooting assistance beyond this manual, or service inquiries, please contact Questyle customer support through their official channels.

Questyle Official Website: www.questyle.com

Please retain your proof of purchase for warranty claims.

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#### **Related Documents**



## Questyle SIGMA Portable DAC with Headphone Amplifier - User Guide

Comprehensive guide to the Questyle SIGMA, a portable DAC and headphone amplifier featuring high-resolution audio, multiple input options, and advanced amplification circuits. Learn about its features, components, controls, and specifications.



#### Questyle M15: Portable Lossless DAC and Headphone Amplifier for Hi-Res Audio

Experience ultimate mobile Hi-Fi with the Questyle M15, a compact lossless DAC and headphone amplifier featuring advanced CMA SiP technology, ESS ES9281AC DAC, and MQA support. Enjoy pure sound anywhere.



#### Questyle CMA18 Portable DAC with Headphone Amplifier - Quick Start Guide

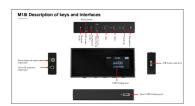
Explore the Questyle CMA18 Portable, a high-performance portable DAC and headphone amplifier. This guide covers its features, connectivity, operation, and specifications for an exceptional audio experience.



#### QCC Dongle Pro: Lossless Bluetooth Transmitter with Snapdragon Sound

Discover the QCC Dongle Pro, a lossless Bluetooth transmitter by Questyle featuring Qualcomm Snapdragon Sound. Enjoy high-quality, low-latency audio with support for aptX, aptX HD, aptX Adaptive, LDAC, and LE Audio for music and gaming.

#### Documents - Questyle - M18i



#### [pdf] User Manual Instructions

PowerPoint andyz User Manual Questyle Audio Technology Co Ltd M18I Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18I m18i

M18i Description of keys and interfaces Mode Switch Microphone Power key VOL VOL - Mult-function /Gain Adj. Key Smartphone mode PC mode Blutooth mode 4.4mm balanced earphone output jack 3.5mm SE earphone output jack USB Audio input port OLED Display area Type-C USB Charging port M18i Audio I... lang:en score:43 filesize: 294.71 K page\_count: 10 document date: 2024-08-21



### [pdf] Test Report SAR Rating

leon chen RF Exposure Questyle Audio Technology Co Ltd M18I Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18I m18i

- Page 1 of 9 - Report No.: HB20240816009E-03 RF EXPOSURE Test Report Product: Mobile Headphone Amplifier with DAC Trade Mark: Questyle Model Number: **M18i** FCC ID: 2AEKH-**M18l** Prepared for Questyle Audio Technology Co., Ltd Room No.13A, Floor 13, Yunsong Building, The 8th Tairan Road, Futian Distri... lang:tl score:37 filesize: 989.84 K page count: 9 document date: 2024-12-17



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zhouyongbang Attestation of Cover List Questyle Audio Technology Co Ltd M18I Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18I m18i

Questyle Audio Technology Co., Ltd Federal Communications Commission
Authorization and Evaluation Division 7435 Oakland Mills Road Columbia, MD 21046
USA Date: 2024-12-17 FCC ID: 2AEKH-**M18I** Ref. #1: Attestation Statements Part
2.911 d 5 i Filing Questyle Audio Technology Co., Ltd certifies that t...

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#### [pdf] Test Report

leon chen Test Report Questyle Audio Technology Co Ltd M18I Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18I m18i

- Page 1 of 50 - Report No.: HB20240816009E-01 Test Report Product: Mobile Headphone Amplifier with DAC Trade Mark: Questyle Model Number: **M18i** FCC ID: 2AEKH-**M18i** Prepared for Questyle Audio Technology Co., Ltd Room No.13A, Floor 13, Yunsong Building, The 8th Tairan Road, Futian District, Shenzhen... lang:tl score:36 filesize: 5.21 M page count: 50 document date: 2024-12-17



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Adria Galin Pons US Agent Questyle Audio Technology Co Ltd M18I Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18I m18i

HOPEK CORPORATION INC US Agent for Service of Process LETTER OF ATTESTATION TO: Office of Engineeri ... Description: Mobile Headphone Amplifier with DAC FRN: 0024513806 Grantee Code: 2AEKH FCC ID: 2AEKH-**M18I** Contact Name: Natalie wu Address: Room No.13A, Floor 13, Yunsong Building, The 8th Tairan Road....

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#### [pdf] Test Report

leon chen Test Report Questyle Audio Technology Co Ltd M18I Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18I m18i

- Page 1 of 61 - Report No.: HB20240816009E-02 Test Report Product: Mobile Headphone Amplifier with DAC Trade Mark: Questyle Model Number: **M18i** FCC ID: 2AEKH-**M18i** Prepared for Questyle Audio Technology Co., Ltd Room No.13A, Floor 13, Yunsong Building, The 8th Tairan Road, Futian District, Shenzhe... lang:tl score:35 filesize: 5.58 M page\_count: 61 document date: 2024-12-17



#### [pdf] Agent Authorization

TIMCO Engineering Inc admin Agent Authorization Letter Template Questyle Audio Technology Co Ltd M18I Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18I m18i

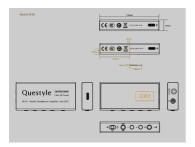
DateDec. 17, 2024 Questyle Audio Technology Co., Ltd Product Model Number: Mobile Headphone Amplifier with DAC FCC ID: 2AEKH-**M18I** To whom it may concern, Re: Product Certification Representative Authorization Letter We authorize QAI Laboratories Ltd. 3980 North Fraser Way, Burnaby B.C. Canada V5J... lang:en score:35 filesize: 192.9 K page\_count: 1 document date: 2024-12-17



#### [pdf] Confidentiality Request Letter

emc FCC Short Long Term Confidentiality Request Questyle Audio Technology Co Ltd M18I Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18I m18i

Questyle Audio Technology Co., Ltd Office of Engineering Technology Federal Communications Commission 7435 Oakland Mills Road Columbia, MD 21046 USA Date: December 17, 2024 Subject; Request for Confidentiality FCC ID: 2AEKH-**M18I** To Whom It May Concern, Pursuant to the provisions of the Commission s ... lang:en score:34 filesize: 182.17 K page count: 1 document date: 2024-12-17



#### [pdf] Label

M18i 240827 wa Label Information Questyle Audio Technology Co Ltd M18l Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18l m18i

Model: **M18i** 6.26mm 75.00mm FCC ID: 2AEKH-**M18i** 2.45mm FCC ID: 2AEKH-**M18i** 37.60mm 1.28mm 2AEKH-**M18i** 15.42mm 13.8mm ...

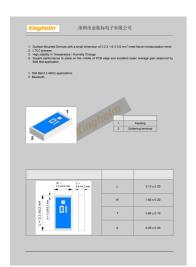
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#### [pdf] Product Photos

ATTACHMENT PHOTOGRAPHS OF EUT Test Setup Photos Questyle Audio Technology Co Ltd M18I Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18I m18i

- Page 1 of 2 - Test Setup Photos Model:**M18i** Radiated Emission Below 1GHz Radiated Emission Above 1GHz - Page 2 of 2 - Conducted Emission ... lang:en score:25 filesize: 225 K page\_count: 2 document date: 2024-12-17

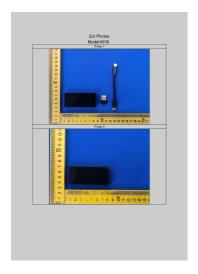


#### [pdf] Specifications Dimension Guide

Microsoft Word ASC RFECA3216060A1T V09 ADMIN Antenna Report Questyle Audio Technology Co Ltd M18I Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18I m18i

Approval sheet FEATURES 1. Surface Mounted Devices with a small dimension of 3.2 X 1.6 X 0.6 mm3 meet future miniaturization trend. 2. LTCC process. 3. High stability in Temperature / Humidity Change. 4. Superb performance to place on the middle of PCB edge and excellent peak/ average gain observ...

lang:en score:22 filesize: 1.03 M page\_count: 11 document date: 2024-09-09



#### [pdf] Product Photos

External Photos Questyle Audio Technology Co Ltd M18I Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18I m18i

Ext Photos Model:**M18i** Photo 1 Photo 2 Photo 3 Photo 4 Photo 5 Photo 6 Photo 7 ... lang:en score:15 filesize: 936.82 K page\_count: 4 document date: 2024-12-17



## [pdf] Product Photos Teardown

Internal Photos Questyle Audio Technology Co Ltd M18I Mobile Headphone Amplifier with DAC 2AEKH 2AEKHM18I m18i

Int Photo Model:**M18i** Photo 1 Photo 2 Photo 3 Photo 4 Photo 5 ANT ... lang:en score:15 filesize: 1.28 M page\_count: 3 document date: 2024-12-17