

Important Product Information

Please read this manual and all instructions carefully before use, to avoid any possibility of injury.

Limited warranty

Qables warranty is limited. Qables warrants the original purchaser that under normal conditions and use this product is free of material and/or production faults for the period of 1 (one) year after the date of purchase. The receipt or original purchasing invoice is the proof and should always be shown to be able to claim any rights to this warranty.

To claim warranty please refer with the original, dated proof of purchase to the sales channel or shop where you have bought this product or for direct on-line sales please refer to the iQube website www.qables.com and follow the instructions mentioned under the chapter 'warranty & returns'.

Mis- or abuse do not in any way fall under any warranty rights. This is to the sole discretion of Qables.

If you have any questions or if you need any instructions please contact your dealer where you have bought the product or for direct on-line sales go to www.qables.com.

Disposal of waste electrical equipment

Disposal of waste electrical equipment may be regulated in your country. It is your responsibility to comply with the applicable law and restrictions of household waste.

iQube and headphones

The iQube is a portable amplifier to be used with all kind of music sources such as an mp3 player CD player or music servers and to be used with headphones. The iQube can play loud enough to permanently damage your hearing. To protect your hearing when using the iQube and/or headphones always abide the following general rules:

Turn the volume down and then switch the unit on!

Only then put on your headphones!

Keep the volume setting low at all times!

Minimize the time you listen as much as possible!

Even low volumes can damage your hearing when you are listening for many hours. Also replacement- or other headphones may play louder than those originally delivered with your music source. When changing headphones reset the volume setting to zero and start from there on turning the volume slowly up to an acceptable volume.

iQube V5 user instructions

The iQube V5 is designed to work with its own power cell **ONLY!**

The power cell is non-user replaceable. Opening the unit by non-qualified persons will void the manufacturer's warranty

DO NOT install any other power cell or batteries and/or connect the unit to any other device than a PC USB port or a USB charger/wall adapter. Doing so might cause serious injury.

Controls

Front view

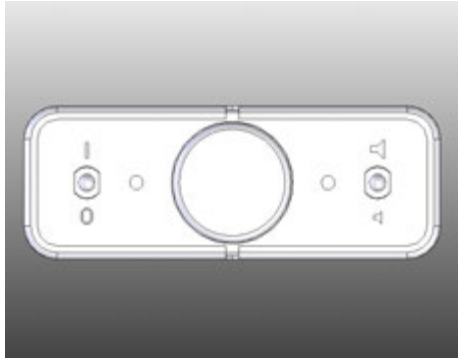


FIG 1

Controls from the left to the right:

ON/Off Switch:

I indicates the On position. O indicates the Off position.

Power/charging LED 1 next to the ON/OFF switch

Digital status LED 2 next to the gain switch at the right side.

The LED status indications table is as follows:

State	Charger	Input switch	Digital present	Locked	Type	Audio?	LED 1 PWR
OFF	x	X	x	x	x	x	OUT
ON	FULL	X	x	x	x	x	green
ON	Charging	X	x	x	x	x	yellow
ON	Empty	X	x	x	x	x	Red
							LED 2 DGT STS
OFF	x	X	x	x	x	x	OUT
ON	x	Analog	NO	x	x	x	OUT
ON	x	Analog	YES	NO	x	x	RED
ON	x	Analog	YES	YES	x	x	Green

ON	x	Optical	YES	NO	x	x	Red
ON	x	Optical	YES	YES	x	x	Green
ON	x	USB	YES	x	PCM	NO	Out
ON	x	USB	YES	x	PCM	YES	green
ON	x	USB	YES	x	DSD	NO	out
ON	x	USB	YES	x	DSD	YES	yellow

X means not applicable

Please note that when the unit is switched OFF but still connected to a power USB port it will charge!

Due to the low voltage protection of the Lithium Ion battery pack the unit switches OFF below a certain voltage and will only come back ON when there is sufficient charge in the battery pack.

Volume control:

This controls the volume output of the iQube. Turn fully counter clockwise for reducing the volume to zero. Turn clockwise to increase the volume. Always start with zero setting and gradually increase the volume to the desired level.

When using High Gain and turning the volume control to zero might the unit might still make sound audible due to the nature of the chosen higher Gain setting. In that case use Low Gain setting.

Gain switch:

The iQube's gain can be adjusted between High- and Low gain to accommodate the use of different impedance headphones.

Low gain is typical for low impedance headphones and High gain is typical for high impedance headphones.

Rear view

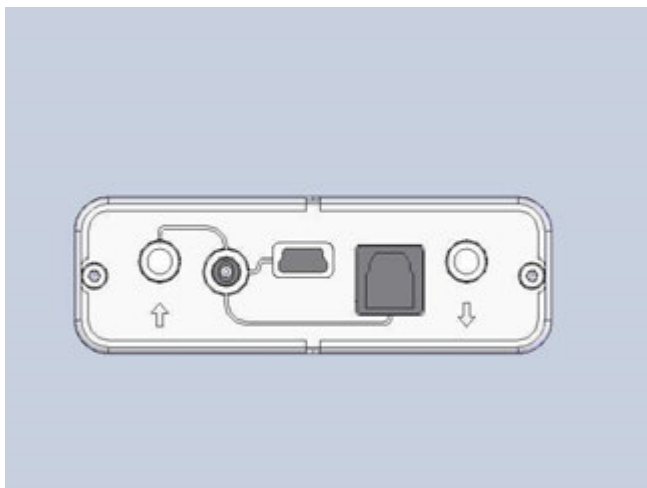


FIG 2

Connection terminals from the left to the right:

3.5mm jack input:

This is a 4-pole input jack.

A 3-pole analogue jack will connect an analogue input source, for example a mp3 player or a CD player.

An accessory cable 4-pole mini jack to female cinch is provided with the iQube V3 to connect a digital coaxial SPDIF input signal to the iQube V3. The iQube will automatically detect a digital signal and switch from analogue to digital input state.

Micro switch 3-position, input selection switch

This switch serves to select between the three inputs 3.5mm input, USB input or Optical SPDIF input.

Top position: 3.5mm jack input selected

Mid position: mini USB input selected

Bottom position: Optical SPDIF input selected

Mini USB digital input and charge input:

This is to connect your unit to the USB output of a computer or laptop.

The unit can be charged continuously while any input is selected.

Charging will also continue while the unit is switched OFF. ***The charging LED will be off when the unit is switched OFF.***

Please allow for overnight charging to reach maximum charge.

You can also use this input to only charge the unit by using the same cable and connect it to a wall adapter having a USB charger output.

Do not connect the unit to any other source than an USB output or a USB wall charger as this may cause harm to the unit.

This input is a High Resolution USB input and can only be used when the designated XMOSS drivers are installed (not valid for apple systems).

Please visit www.qables.com/download and download the iQube V5 XMOS driver.

Run the file (best in administrator mode) and follow the on screen instruction.

The unit should be charged, connected to the PC and switched ON.

This input can also be used with for example the Apple camera and connection kit or an OTG cable to work with phones. For this a special 15 cm mini USB to USB cable is provided.

When this adapter cable is used **the unit will not be charged!**

Please note that the units is guaranteed to work with Apple's camera connection kit but the use and correct working of Android devices is depending on the hardware and software of the device connected.

Optical SPDIF input.

This is to connect a digital SPDIF input by means of an optical cable, JEITA Standard CP-1212n (Toslink fiber optic cables)

To indicate a lock with the digital signal the ON/OFF LED on the front will blink for about 10 seconds.

Output:

A 3.5mm 3-pole jack to connect your headphones.

iQube V5 specifications:

Lightweight, portable Headphone amplifier

High efficiency (90-95%) Class D amplifier

Built in USB receiver and separate DAC

Ultra low jitter clock driving an asynchronous USB receiver

Runs on a single Li-ion power cell 2500mAh.

8-fold output buffer for a (near to) load independent output behaviour

4th order feedback loop for minimum distortion

Fixed, phase-shifted carrier wave oscillator decreases inter-channel distortion

Ultra low noise front end accepts any line level source without the need for impedance matching

Top A-grade components used:

Medical graded quadruple layer epoxy using HOFC (High Oxygen Free Copper)

Optimised board design enhances signal quality

Alps potentiometer

Vishay series 036 decoupling capacitors throughout

Panasonic stack film capacitors

Carbon signal resistors

Lumberg I/O connectors

Fully RoHS compliant

Retro art design, CNC machined aluminium casing

Rubber touch feel painted covers

Technical Specifications

Analogue Input impedance:

10k ohm

- THD+n at 200mV output (typ) 0.0045%, max output 0.025%
- Frequency response @ 200mV into a 16 ohm load: Analogue input 5 – 50kHz (-1dB)
- Power 160mW_16 ohm, 80mW_32 ohm, 12mW_200 ohm
- Zout: <0.1 ohm @ f<5kHz, <1,5 ohm @ 20kHz
- Output noise: 7uV (unweighted)
- DAC type CS4392, 24 bit delta sigma, 114dB dynamic range
- USB PCM audio 24 bit 44.1/48/88.2/96/176.4/192 kHz asynchronous
- USB DSD single (DSD64) and dual Rate (DSD128) over DoP (0x05/0xFA) and dCS (xAA)
- SPDIF through 4-pole mini input: up to 24 bit 192kHz
- SPDIF through Toslink optical input: 24 bit 96kHz.

Playing time when fully charged:

- Analogue input >= 70 hrs
- Digital input >= 30 hrs

DAC type CS4344, 24 bit delta sigma, 105dB dynamic range

On board Sample rate converter

Ultra low jitter clock synchronously driving USB receiver, sample rate converter, DAC and class D circuitry

Voltage gain:

low gain: 0

high gain 6

Frequency response @ 200 mV into a 16 Ohm load:
Analogue input 5 - 50 kHz. (-1 dB)
Maximum output power per channel from 20-20,000Hz:
160 mW_16 ohm
80 mW_32 ohm
12 mW_200 ohm
Output impedance:
<0,1 ohm @ f<5kHz
< 1,5 ohm @ 20kHz
THD at 200mV output (typ) 0.0075%:
Analogue input (max) 0.03%.
Output noise:
10uV (unweighted)

Charge input: (mini USB input)
USB mini input, DC voltage 5V +/- 5%, polarity protected
Max. charger current consumption @ 5Vdc input: 0,4A
Battery charge current: 0,3A

Dimensions:Height (thick): 23 mm
Width: 70 mm
Length: 126 mm (incl volume knob)

Weight: 190gr
Weight when packed: appr. 390gr