

# TASCAM

## MiNiSTUDIO Creator US-42

Audio interface for personal broadcasting



The Tascam MiNiSTUDIO audio interfaces have been developed to enable anyone to broadcast their programs to the world. If you have been involved in personal broadcasting, there is one thing that you have probably thought about in particular. You have probably wondered how you can gain more audience members.

The MiNiSTUDIO series of audio interfaces enable "audio performance" techniques that can make programs more interesting in order to grow your audience. Professional broadcasters call pre-recorded clapping, cheering and other sounds with a press of a button. With the PON function on **MiNiSTUDIO Personal** or **MiNiSTUDIO Creator** you can also add such sounds simply by pressing buttons. In addition, voice effects and reverb allow you to alter the voices of moderators and guests. This way, you can raise the level of excitement of a program.



Audio quality is another important aspect of audio performance. Providing your audience with sound that is easy to follow is also a way to make them feel more welcome. The MiNiSTUDIO series has high-quality audio circuits inherited from music creation devices, so you can capture clear sound just by connecting a mic.

Since this is equipment that you will operate while broadcasting, ease-of-use is very important. We designed a new user interface focused on ease-of-use during personal broadcasting – with as few controls as possible so that they can be used intuitively even by people who are not knowledgeable about audio equipment. In addition, the dedicated software has an EASY page that anyone can use and an EXPERT page for advanced users.



With just the **MiNiSTUDIO Personal**, which is the entry-level model, you can easily enjoy high-quality personal broadcasting. Since this model has a built-in condenser mic, no external mic needs to be purchased. If you have wanted to try personal broadcasting, you will be able to do so quickly with this.

The **MiNiSTUDIO Creator**, which is the more advanced model, also supports audio and video production. Changing the mode automatically changes signal routing. The loopback function, which allows you to stream music from your computer, is always on in BROADCAST mode, but it is turned off in CREATOR mode.

Sound is one key to increasing your audience. Sound should suit the development of the program and voices should be easy to understand. This can be achieved with a single MiNiSTUDIO unit.

Use a MiNiSTUDIO to make your own unique programs.



**From your room to the world, broadcast your own programs live over the Internet!**

Personal broadcasting services have grown in popularity, and anyone can now distribute their own programs to the world. If you have a computer, just connect a **MiNiSTUDIO Personal** and you are ready to go. Use the high-quality built-in mic and broadcast programs about your unique interests, including actual gameplay or animations that you have created.

**Add audio effects to raise the level of your programs. Increase your fans!** Even with personal broadcasting, audiences become bored with just streamed video and audio. Skillful use

of sound and video is necessary to raise the professionalism of your programs and increase your fans. With a **MiNiSTUDIO Creator**, you can both achieve sound with high clarity and use special sound effects. The trigger buttons can be used to play clapping and cheering like on a TV program, and the voice effects can also be used to entertain the audience.

**Invite a guest and use two mics for a serious talk show.** The appearance of guests is standard on popular programs. On talk shows that invite guests, you can use separate condenser mics for the host and the guest and provide clear sound to the audience. Using the built-in voice effects and audio adjustment functions, you can make different settings for each person to make the quality level of your program even higher.

**Broadcast your own singing and playing!**

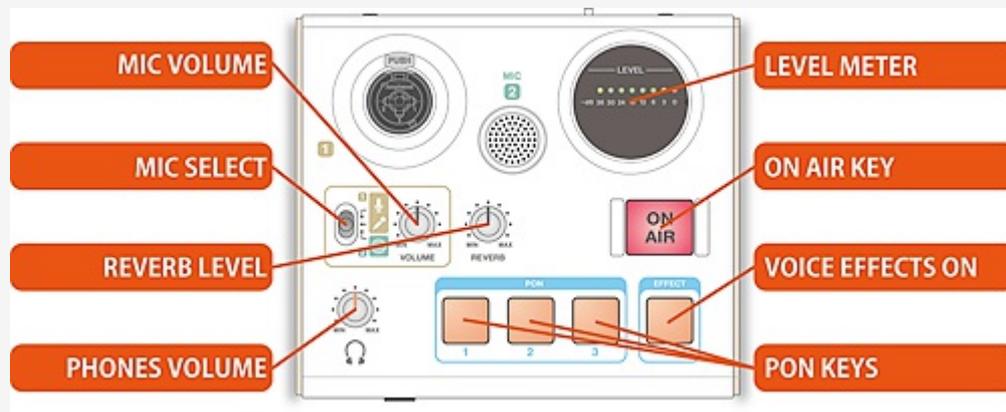
Personal broadcasting of instrument performances and individual singing are also popular contents on the Internet. You can connect a guitar and mic to a **MiNiSTUDIO Creator**, apply a reverb effect and start broadcasting right away. Learn to use the built-in equalizer and compressor for high-quality audio that is like the work of a pro. You can also connect an iPod to the external input jack and sing along with existing recordings. Increasing the number of fans that come to your in-person live performances is not a dream if your online content becomes popular when you respond to audience requests.



**Leave your room and broadcast from somewhere else.** When you need material for your next program, hang the MiNiSTUDIO around your neck and head to the world outside. Sit on a bench, open your computer and connect to the Internet. Just connect the MiNiSTUDIO by USB and you are ready. Since iPhone connection is also supported, you can put together a mobile broadcasting system that is even more compact.

**Use high-quality audio when creating original videos for video sharing sites.** Sound presentation is important not only for personal broadcasting, but also when creating video. Switching to the CREATOR mode (on **MiNiSTUDIO Creator** only) automatically changes settings to ready the unit for use in creative work. Sound from vocals and instruments passes through audio circuits inherited from professional equipment, so you can achieve convincing high-quality audio just by connecting mics and instruments to the unit. Connect monitor speakers to check your recordings and get started making original music and audio tracks for videos.

User interface designed for personal broadcasting that anyone can easily operate



Among the features of the MiNiSTUDIO series, the user interface is the biggest difference from audio interfaces design for music creation. We started from scratch and designed these units especially for personal broadcasting, carefully choosing the controls so that even people who are not familiar with audio equipment can use them without trouble.



**Built-in omnidirectional mic that can capture sound in every direction (MiNiSTUDIO Personal only)**

The MiNiSTUDIO Personal has a high-fidelity omnidirectional condenser mic built-in. With it, you can start personal broadcasting without needing to prepare an external mic. Furthermore, since the omnidirectional mic can capture sound from every direction, it can be used not only for solo broadcasting but also for broadcasting with multiple guests.



### **Compatible with both headset mic and 4-pole earphones with mic**

In addition to supporting professional external mic, a MiNiSTUDIO is also compatible with computer headset mics and 4-pole earphones with mic designed for smartphones. You can use equipment that you already have for personal broadcasting with these units. When using a 4-pole earphones with mic, connect it to the dedicated earphones mini-jack.

### **Input sounds can be heard at all times**

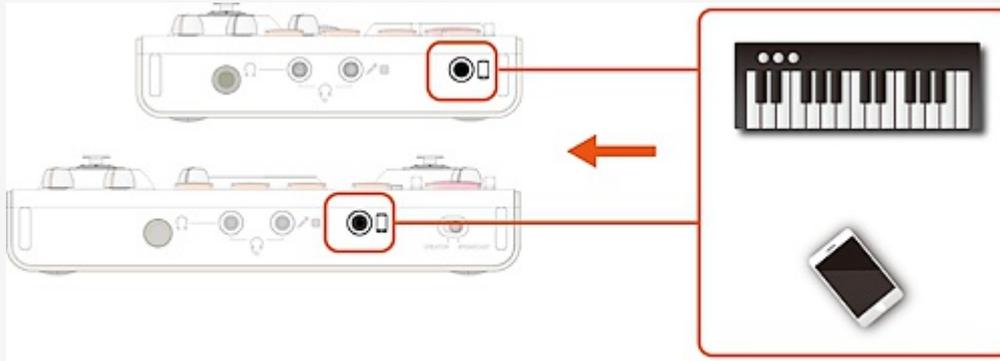
The input monitoring method allows you to listen to the audio using headphones before it is sent to the computer. The input sound is always sent to the headphones output, so no special setting is needed for this.

### **ON AIR button to start sending**

Press the ON AIR button to start sending the sound that you are hearing in the headphones to the computer. The button will light when sound is being sent.

### **Loopback function enables streaming of the computer output sound**

Using the loopback function that mixes in the playback sound from the computer (WDM) and sends it back to the computer, you can play program background music using music playback software (iTunes or Windows Media Player) that is already installed on the computer. Since this loopback function is always on, no special setting is necessary. Moreover, the stereo AUX input mini-jack enables the connection of an iPod or other portable music player to use for playback. You can also connect a synthesizer or other stereo instrument to the AUX input jack using a conversion cable (sold separately).



### **Lightweight design and strap attachments enable use for mobile**

#### **broadcasting**

The lightweight design of the MiNiSTUDIO units means you do not have to hesitate to take one with

you. You can attach a commercially-available camera strap and use the unit hanging from your neck. The mic input jacks use locking mechanisms to avoid disconnection during movement.

### Many possibilities to enhance your audio performance

Multiple audio sound effect functions that are not found in ordinary audio interfaces and sound cards are built-in. With the dedicated software, in addition to making detailed settings, you can also easily operate the unit with the controls assigned to the unit. You can apply effects in real time during a program.



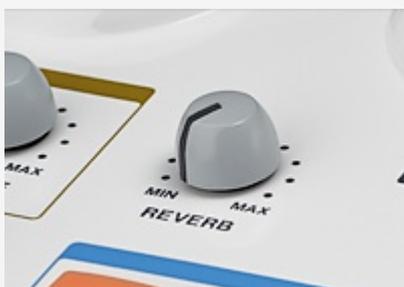
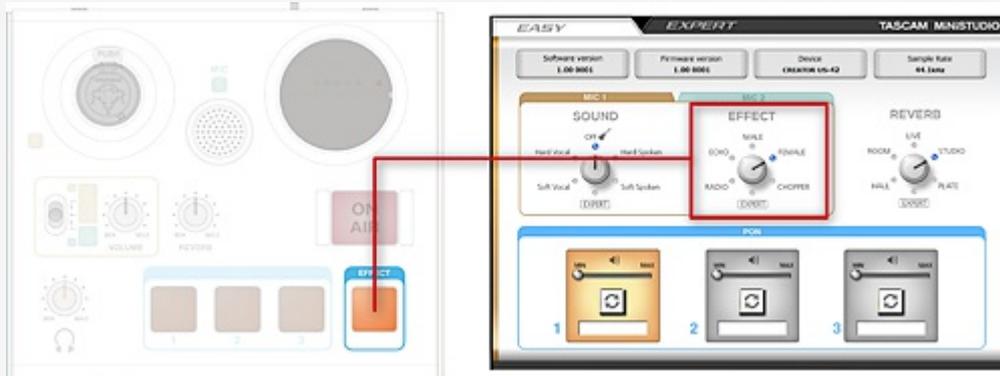
#### Play sound effects just by pressing the PON trigger pads

The unit has three trigger pads (PON). You can press a PON pad to play the sound effect or other audio file assigned to it. You can use the dedicated computer software to assign the desired WAV/MP3 audio files to the trigger pads by dragging and dropping them.

Note: The trigger pads cannot be used when connected to an iOS device.

### Voice effects with presets for speech and vocals

You can use the unit's internal voice effects to change mic input sounds by pressing the EFFECT button. Choose from five types of voice effects according to the purpose for your program.



Reve

rb effect can be adjusted with dedicated knob

Reverb effects that add spatial sound are useful when broadcasting performances with singing and guitars, for example. Turn the knob to add reverb to the input signals. You can change the reverb type and settings using the dedicated software.

### EASY and EXPERT settings

The dedicated software for changing settings has an EASY page that is simple to use and an

EXPERT page that allows you to make advanced settings. On the EASY page, you can change the sound simply by selecting a preset, so you will be able to enjoy using effects easily even if you do not have audio equipment knowledge.



### High-quality audio circuits



We freely applied the audio circuit development techniques that we have gained in making professional broadcasting and music production equipment. We have realized high audio quality that is in a different class from that provided by computer input and output jacks and sound cards. Simply by using the MiNiSTUDIO series, you can enjoy personal broadcasting and audio production with high quality sound without needing to do anything else such as making particular settings.

(Photo at right: Tascam devices are used for triggering sound effects at a broadcast station)



### Low-noise mic inputs that support condenser mics

We applied our expertise gained from the development of professional audio and music creation equipment to the audio circuits, starting with the mic inputs. With them, you can achieve audio that is clearer and has lower noise than is possible using a computer audio input or sound card.

### Preamps with extravagant discrete construction (MiNiSTUDIO Creator only)



The MiNiSTUDIO Creator, which also supports audio creation, uses input circuits of even higher quality. Mic sound quality is dependent on the mic preamplifier. The HDDA (High Definition Discrete Architecture) mic preamps use discrete construction that requires a higher number of components. This distances them from other preamps. We selected all the parts through listening evaluations to tune the sound quality.

### Equalizer and compressor preset for talk programs

The built-in equalizer and compressor, which are functions to adjust the sound, are set for use with a talk show when the unit is shipped new from the factory, so you will be able to achieve clear sound without changing any settings. You can change the sound to a type you like simply by selecting a preset using the dedicated software.

### Two input jacks (MiNiSTUDIO Creator only)

The MiNiSTUDIO Creator has two mic input jacks that can be used for various applications including performances with vocals and instrument or guest interviews. Both support the direct input of condenser and dynamic mics as well as guitars.

### EXPERT page allows advanced settings and sound adjustment

Switch between the EASY tab for basic settings and the EXPERT tab for advanced settings in the dedicated software. On the EXPERT page, in addition to making fine adjustments to equalizer, compressor and other effect settings, you can also change the signal routing.



### 4-band equalizer and serious compressor

The full-featured 4-band equalizer has High and Low shelf bands, and High Mid and Low Mid bands with peaks. The Low band can be changed to a low-cut filter (LCF), which is convenient for cutting low frequencies entering a microphone.

### Adjustable voice effect parameters

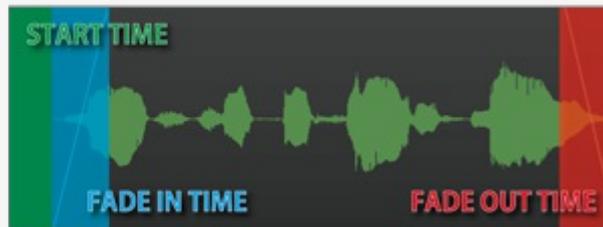
You can adjust the parameters of the voice effects for the mic inputs or switch the effect off independently. For example, to use it only on MIC 1, turn the effect off for MIC 2.

### Detailed settings can be made for the PON trigger pads

You can configure the trigger pads according to your needs. Settings made on the EXPERT page are retained even after switching to the EASY page.

- FADE IN: Sets the fade-in time when played.
- FADE OUT: Sets the fade-out time when played.
- LEVEL: Sets the playback volume.

- **START TIME:** Sets where playback starts in the file. Use this when silence occurs at the beginning of a file.
- **REPEAT:** Switches repeat playback on/off.
- **UNLATCH:** Set to ON to make playback continue only while the PON pad is being pressed. Set to OFF to make playback continue until the pad is pressed again.
- **VELOCITY:** When set to ON, the PON pad is sensitive to how hard it is played and the volume of the playback sound is automatically adjusted.



### Change the signal routing according to use conditions

MiNiSTUDIO units support both ASIO and WDM drivers. By enabling the ASIO driver which is switched off by default, you can apply additional effects using ASIO-capable software on your computer.

You can also set the audio sent to the computer to Mono or Stereo. By default, it is set to Mono. When using streaming software that supports stereo, set it to Stereo to enable high-quality stereo broadcasting.

### CREATOR mode for creating video and music

The MiNiSTUDIO models are designed especially for personal broadcasting, but the MiNiSTUDIO Creator advanced model also supports creative activities. Using the switch on the front of the unit to change the mode automatically changes internal signal routing:

- **BROADCAST** mode is optimal for personal broadcasting. The loopback function is on and the **MIC 1 / MIC 2** inputs are automatically set to mono in this mode. (Be careful with the speaker volume because the signal will loop.)
- **CREATOR** mode is best when using DAW software to create music or video. In this mode, the loopback function is off and the **MIC 1 / MIC 2** inputs are sent to the computer separately.

### Output jacks for monitor speakers



The **LINE OUT** jacks allow monitor speakers to be connected for checking video or music while it is being created. Volume can be adjusted separately from that for the headphone jacks.

### Features at a glance

#### Audio interface features

- Support for high-resolution recording formats up to 24-bit/96 kHz
- Supports Windows (ASIO/WDM) and Mac (Core Audio)
- USB 2.0 computer connection
- Compliant with USB audio 2.0
- Can be connected to an iOS device using an
- Voice effect parameter adjustment
- Five reverb presets
- Reverb type and parameter setting (HALL/ROOM/LIVE/STUDIO/PLATE)
- Buffer size can be set (64/128/256/512/1024, Windows only)
- Mic input can be switched MONO/STEREO (MONO in BROADCAST mode, STEREO in

Apple Lightning-USB camera adapter (sold separately)

- USB bus power operation supported when connected to a computer
- Operation confirmed with major DAW software including Sonar, ProTools, Cubase, Live, Studio One and GarageBand
- Operation confirmed with major streaming and calling software

#### Hardware features

- Two HDDA (High Definition Discrete Architecture) mic preamps
- Two XLR/TRS input jacks support balanced input and can provide +48V phantom power
- Mini-jack mic input (MIC 1)
- 4-pole earphones with mic can be connected
- Stereo mini-jack AUX input to connect portable audio players and game devices
- Support for direct guitar input
- Support for low-level dynamic mic input signals
- DSP effects (equalizer, compressor and reverb)
- Input monitoring function allows input sounds to always be heard before they are transmitted
- Stereo analogue RCA output jacks suitable for connection to powered monitors
- Three self-lighting and velocity-sensitive PON trigger pads
- REVERB knob to adjust the amount of reverb effect
- Voice effect on/off button
- ON AIR button starts transmission to the computer
- Stereo mini-jack headphones output
- 6.3-mm standard headphones output
- Separate controls for line and headphones output volumes
- BROADCAST/CREATOR mode switch

#### Software features

- Dedicated software has EASY and EXPERT tabs
- Audio files can be assigned to PON trigger pads by dragging and dropping
- Velocity can be turned on/off for PON trigger pads
- PON trigger pad volume adjustment
- PON trigger pad repeat ON/OFF
- PON trigger pad fade in/out setting
- PON trigger pad start time setting
- Four sound presets with equalizer and compressor settings
- Five voice effect presets

#### CREATOR mode)

- Transmitted signal can be switched MONO/STEREO
- ASIO ON/OFF switch that allows mic audio to be transmitted after effect processing (Windows only)
- Loopback function that mixes computer audio with transmitted audio (automatically OFF in CREATOR mode)
- Volume adjustment for PC output sound and audio transmitted to PC

#### Other features

- Lightweight design convenient for mobile use
- Two strap attachment points allow commercially-available camera straps to be attached

#### Restrictions when connecting iOS devices

- PON trigger pads do not function
- Effect type settings cannot be changed
- External power supply is necessary
- This unit will not provide power to the iOS device
- You will need an Apple Lightning to USB Camera Adapter (sold separately) for connection

#### New function with firmware version 1.10

- A direct monitoring setting has been added (STEREO, MONO or OFF)

#### New functions with firmware version 1.20

- At 44.1 kHz or 48 kHz, a delay can now be set for USB Output (setting range: 0–500 ms)
- In order to provide compatibility with major communication applications, an additional Windows playback/recording device has been added
- Mode presets have been added for different operation scenarios (Windows only):
  - Creator: The default setting for usual operation using DAW software
  - Karaoke: This preset is suitable for internet karaoke
  - Talking: This preset is suitable for using Skype and other communication applications

#### New functions with firmware version 2.00

- A function that shows information about the product has been added
- Updates available for the product are now shown automatically and can be installed easily by clicking "Update now"
- A ducking function has been added to the Extra Effects menu; it can automatically lower the volume of background music, for example, in response to mic input
- The file name will now be shown when the cursor is moved to the PON file name display area. This allows you to view file names that are longer than can be shown in the display area.

#### New function with firmware version 2.10

- A new preset "Talking with PON/BGM"

**enables the optimal signal route and  
switches off direct monitoring automatically**

## Supported operating systems

### Windows

Windows 10 (October 2018 Update)      Windows 10 (April 2018 Update)      Windows 8.1  
Windows 8      Windows 7

### Mac

macOS Mojave      macOS High Sierra (10.13)      macOS Sierra (10.12)      OS X El Capitan (10.11)  
OS X Yosemite (10.10)      OS X Mavericks (10.9)

### iOS

iOS 12      iOS 11      iOS 10      iOS 9      iOS 8      iOS 7

## Specifications

### Audio specifications

Sampling frequencies	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
Quantization bit depth	16/24 bit

### Analogue audio inputs

Mic inputs 1/2 (balanced)	XLR-3-31 (1: GND, 2: HOT, 3: COLD) 6.3-mm standard TRS stereo jack (Tip: HOT, Ring: COLD, Sleeve: GND)
Input impedance	2.4 k $\Omega$
Nominal input level (VOLUME at MAX)	-65 dBu (0.0004 Vrms)
Nominal input level (VOLUME at MAX)	-20 dBu (0.0775 Vrms)
Maximum gain	45 dB
Instrument inputs 1/2 (unbalanced)	6.3mm standard TS jacks (Tip: HOT, Sleeve: GND)
Input impedance	1 M $\Omega$ or higher
Maximum gain	45 dB
External mic inputs (can provide plug-in power)	3.5-mm 4-pole mini jack 3.5-mm mini jack
Input impedance	5 k $\Omega$ or higher
Maximum gain	45 dB
External input jack	3.5-mm stereo mini jack
Input impedance	5 k $\Omega$ or higher
Maximum input level	+7.7 dBV (2.427 Vrms)

### Analogue audio outputs

Line outputs (unbalanced, LINE OUT R/L)	RCA pin jacks
Output impedance	200 $\Omega$ or higher
Nominal output level	-10 dBu (0.316 Vrms)
Maximum output level	+6 dBu (1.995 Vrms)
Headphones outputs	Standard 6.3-mm stereo jack 3.5-mm 4-pole mini jack 3.5-mm stereo mini jack
Maximum output power	15 mW + 15 mW or higher (THD+N 0.1% or less, 32 $\Omega$ )

### Other inputs and outputs

USB	4-pin USB B-type
Transfer rate	USB 2.0 Hi-speed (480 MHz)
Power supply (DC IN 5V)	USB Micro B type

Audio performance	
Mic preamp EIN (equivalent input noise)	-120 dBu or less (150 Ω termination, VOLUME at MAX)
Frequency response (IN 1 / IN 2 to LINE OUT/headphones output (6.3-mm stereo jack))	
44.1/48 kHz	20 Hz: +0/-1 dB (JEITA) 20 kHz: +0/-1 dB (JEITA) 20 kHz: +0 /-3 dB (headphones output, JEITA)
88.2/96 kHz	20 Hz: +0/-1 dB (JEITA) 40 kHz: +0/-1 dB (JEITA) 40 kHz: +0 /-3 dB (headphones output, JEITA)
S/N ratio	100 dB or higher (IN 1 / IN 2 to LINE OUT, VOLUME at MIN, JEITA)
Distortion	0.005 % or less (IN 1 / IN 2 to LINE OUT, 1 kHz sine wave, nominal input level, maximum output level, JEITA)
Crosstalk	95 dB or more (IN 1 / IN 2 to LINE OUT, 1 kHz sine wave, JEITA)

Operation requirements	
Windows	
Computer hardware requirements	Windows-compatible computer with a USB 2.0 port
CPU/processor speed	2 GHz or faster dual core processor (x86)
Memory	2 GB or more
Supported audio driver	ASIO 2.0, WDM
Mac	
Computer hardware requirements	Mac with a USB 2.0 port
CPU/processor speed	2 GHz or faster dual core processor
Memory	2 GB or more
Supported audio driver	Core Audio

Power supply and other specifications	
Power supply	
Used with a computer	USB bus power
Used with an iOS device	USB power adapter (that can supply 5 V and a current of at least 700 mA) <sup>1</sup> External battery pack (that can supply 5 V and a current of at least 700 mA) <sup>2</sup>
<p><sup>1</sup> We strongly recommend using the USB power adapter included with the iPad/iPhone. No USB power adapter is included with an iPod Touch. To use it with an iPod Touch, purchase a genuine Apple USB power adapter (that can supply 5 V and a current of at least 700 mA) separately.</p> <p><sup>2</sup> We strongly recommend using a <b>Tascam BP-6AA</b> external battery pack. If using another external battery pack or mobile battery, purchase one that can supply 5 V and a current of at least 700 mA.</p>	
Power consumption	2.5 W
Dimensions (H × W × D, without protrusions)	40 mm × 200 mm × 130 mm
Weight	500 g
Operating temperature range	5-35 °C

Design and specifications subject to change without notice.

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