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# THE NEW BROOKLYN ADC

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**MYTEK**

## Owner's Manual



**DSD**  
Direct Stream Digital  
**256**



**DXD**  
Digital eXtreme Definition

**VINYL**  
M/C M/M



Owner's Manual Ver. 1.6 / March 2021  
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The Brooklyn ADC firmware can be easily updated via Mytek USB Control Panel. As the firmware is updated, Mytek Europe will be posting new firmware releases in the support/download section on Mytek Europe website. Firmware may alter details of the device operation and consequently there will be periodic updates to this manual. For news, driver updates, technical support, tips and further product information please visit our website:

[mytek-europe.com](http://mytek-europe.com)

Technical support issues are handled via our online support ticketing system. Please enter details of the ticket in the support/download section on Mytek Europe website.

# hem

Aleje Jerozolimskie 475  
05-800 Pruszków, Poland  
Phone: +48 22 823 72 38

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# 1. Introduction

Thank you for choosing the Brooklyn ADC from Mytek and welcome to the Mytek users community. Over 20 years of experience in building mastering grade converters and other audio equipment has been utilized to create this analog to digital converter. Its state-of-the-art audio path is designed to deliver reference, pristine sound for your master recordings. This is absolutely the best analog-to-digital converter ever created by Mytek Europe.

- Solid state and nickel transformer analog input
- PCM up to 32 bit / 384 kHz.
- DSD64, DSD128, DSD256
- True 32 bits recording via USB

The Brooklyn ADC has been optimized for highest performance under Windows, Mac OS and Linux. Based on a newly developed Mytek Hi-Speed USB (USB2) Audio Class 2 32bit/384kHz Integer Interface, the Brooklyn ADC provides very low latencies as well as extreme stability.

Fast Windows drivers including ASIO & WASAPI are provided. Mac OSX and Linux (however we don't support linux especially by DSD) computers as well as the Linux audio streaming devices do not require a driver.

Enjoy your new Brooklyn ADC!

All the best,  
The HEM Team

## 2. Package Content

- The Brooklyn ADC (black or silver)
- USB 2.0 Cable
- Power cord
- Owner's manual



## 3. Features

- Conversion: up to 384k, true 32bit PCM recording possible (DXD)
- Native DSD recording up to DSD256, DoP recording up to DSD 128 with future Quad DoP for DSD 256
- dual mono ADC chipsets with fully balanced signal path
- high definition metering with simultaneous RMS and PEAK indication
- built-in passive nickel transformers
- 130dB Dynamic Range
- headroom: 13 - 20

### Analog Inputs:

- combo XLR / TRS at the rear panel and TRS at the front panel
- accept balanced and unbalanced sound sources (switchable in menu)
- built-in passive nickel transformers with saturation control

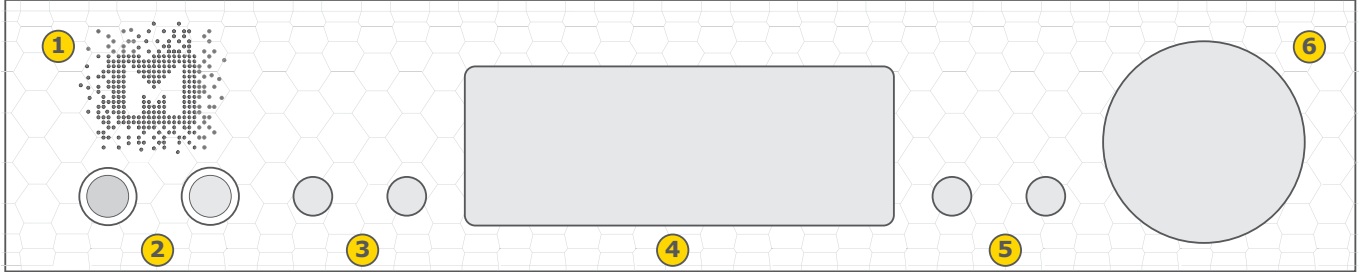
### Digital outputs:

Four digital outputs are fitted (1x AES/EBU, 1x S/PDIF, 1 SDIF, 1x TOSLINK) which allow a widerange of digital devices to be connected.

- AES/EBU - PCM up to 192 kHz or 384 kHz if connected to Brooklyn DAC+, DSD up to x64 or x128 if connected to Brooklyn Dac+ (DoP)
- S/PDIF - PCM up to 192 kHz or 384 kHz if connected to Brooklyn DAC+, DSD up to x64 or x128 if connected to Brooklyn Dac+ (DoP)
- SDIF3 DSD - up to DSD256
- TOSLINK - PCM up to 192 kHz, DSD up to x64 (DoP)
- USB (Mytek proprietary USB 2.0 Class 2) – PCM 32bit / 384 kHz, DSD x256, llows to send digital data to AES, SPDIF, Toslink amd SDIF outputs.

## 4. Quick Start

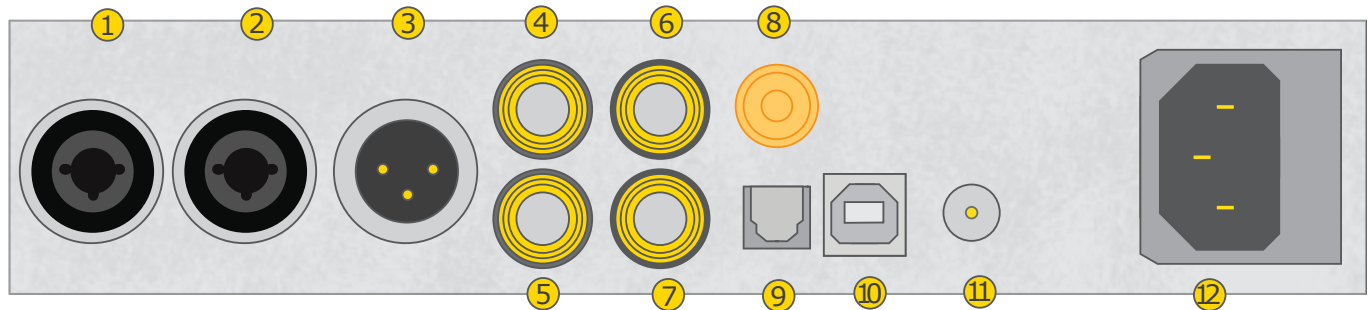
### 4.1 Front Panel



1. Mytek backlit logo. The color and brightness are user adjustable. Color follows the color of the Mytek Control Panel software and may indicate specific functionality when implemented in the future firmware.
2. Front input TRS connectors : left and right channel
3. Functional buttons enable the user to quickly choose an option, change and configure the device's settings.
4. OLED display
5. Functional buttons enable the user to quickly choose an option, change and configure the device's settings.
6. Rotary Encoder Knob. This encoder is both a knob and a button. It's primary function is to change values of each menu. It also functions as MENU navigation.

**Press and hold the main knob to turn the Brooklyn ADC on or off.**

## 4.2 Rear Panel



1. Balanced XLR / TRS Analog Input - right channel
2. Balanced XLR / TRS Analog Input - left channel
3. AES/EBU Digital Output - professional balanced XLR output which sends digital signal up to 192 kHz/24bit, DSD up to x64 (DoP). Sample rate of 384 kHz is possible if the Brooklyn ADC is connected to Brooklyn DAC+. It can also be used to transmit digital audio from computer (USB2).
4. Wordclock BNC Input Can be used for professional clock distribution and for syncing multiple units and as DSD reference clock. Can also be used for connecting the Brooklyn ADC to an external clock. However, we recommend running Mytek on Internal Clock, using the built in Mytek FemtoClock which is by far superior (<1ps jitter) to any clock source connected from outside.
5. Wordclock BNC Output used for professional clock distribution. Feeds up to 384kHz for PCM and DSD reference clock. Clock is derived from Mytek Femtoclock Generator (tm) with 0.82ps internal jitter, allows stacking multiple units for multichannel operation, includes multichannel DSD.
6. SDIF2/3 DSD BNC output, left channel for use with professional DSD recording equipment (such as Tascam Master Recorders).
7. SDIF2/3 DSD BNC output, right channel for use with professional DSD recording equipment (such as Tascam Master Recorders).
8. S/PDIF Digital Output (RCA) - sends digital signal up to 192kHz/24bit, DSD up to DSD64. Sample rate of 384 kHz is possible if the Brooklyn ADC is connected to Brooklyn DAC+. This output can also be used to send digital audio signal from a computer (USB2). To obtain the best results, use a high quality 75 ohm digital RCA cable.
9. S/PDIF Optical Digital Output (Toslink) - sends digital signal up to 192kHz/24bit, DSD up to x64 (DoP). This output can also be used to send digital audio signal from a computer (USB2). For best results use short high quality TOSLINK cable. Special glass fiber Toslink cable allows for longer cable runs and is less jittery than regular plastic fiber.
10. Mytek proprietary USB 2.0 Class 2, up to 32bit/384k, DSD256, llows to send digital data to AES, SPDIF and Toslink outputs.
11. Optional external DC / Battery Power input; 12VDC. Connecting a large external battery or large power supply may have positive impact on sound quality.
12. The build in automatic power supply operates in the range of 100V to 240V AC

**All analog inputs (XLR/TRS) and digital outputs (AES, S/PDIF, Toslink, SDIF) can be used in a DAW simultaneously.**



## 4.3 Quick Start – Immediate recording / playback

### 4.3.1 ADC Mode (device operates as stand-alone ADC)

1. Connect an analog audio source to Brooklyn ADC analog inputs by using TRS or XLR connectors.
2. Connect your digital equipment to digital output (USB, AES, SPDIF, Toslink). In „ADC“ / stand-alone mode converted signal is present on all digital outputs simultaneously, so all digital outputs can be used at the same time if necessary.
3. Connect WordClock cables if you use this protocol for clocking. Note that clocking via AES, SPDIF, Toslink is also possible. Next turn the Brooklyn ADC on and set clock mode to internal / master [INT] or external / slave [WCK] mode.
4. If the ADC operates as master device set desired sample rate in the „Sample Rate“ menu. If the ADC operates as slave device it follows Sample Rate set in an external device.
5. Depending on your analog source level select proper input mode (balanced / unbalanced) as well as headroom value.

### 4.3.2 PC Mode (device is connected to computer via USB port)

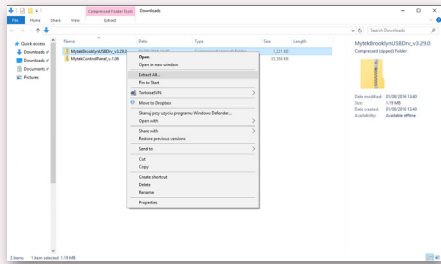
1. Connect an analog audio source to Brooklyn ADC analog inputs by using TRS or XLR connectors.
2. Install the latest Windows driver available on our support page: <https://mytekdigital.com/professional/support/> No driver is required on MAC OS-based computers.
3. Connect the Brooklyn ADC to computer via USB and turn it on.
4. Connect external devices to Brooklyn ADC's digital outputs if necessary and connect WordClock cables if necessary.
5. Brooklyn ADC operates as master device when „INT“ setting is chosen in „Clock Source“ menu. For the best sound quality this setting is highly recommended. With this setting (INT) selected Brooklyn ADC transmits master clocking signal to all digital outputs as well as to WordClock output. All devices connected to the ADC's digital outputs should be switched to slave mode in this case.
6. For PCM recordings and Native DSD select „Ntv“ option in „SR/Format“ menu.
7. Open recording software and select „Mytek USB Audio“ ASIO driver (Windows only) or CoreAudio on MAC OS.
8. The Brooklyn ADC will follow the sample rate chosen in recording software (Project Sample Rate).

## 5. Windows installation and configuration

For proper operation the USB2 driver (Windows only) and Mytek Control application must be installed. Both of these have separate installers available at:

<https://mytekdigital.com/hifi/support/>

1. Locate the MytekUSB2Drv.v3.xx.x.zip file and extract the contents of the archive by right clicking on the zip archive icon and selecting „Extract Here”.

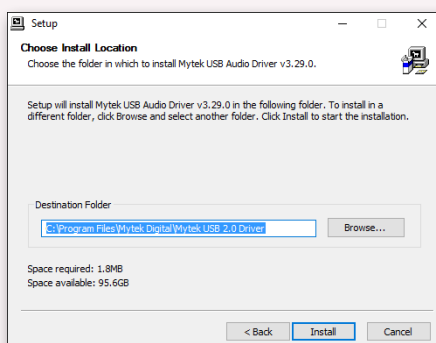


2. Installation works automatically by a double-click on MytekUSB2Drv.v3.xx.x.exe file.

3. Once the Setup.exe opens click „Next”.

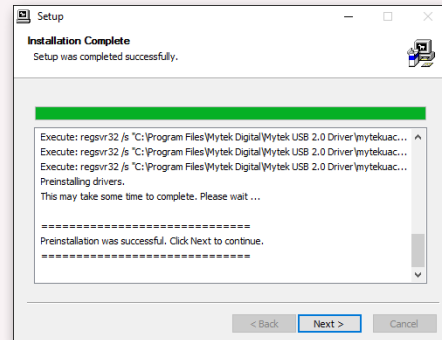


4. Choose the location of installation. Default location is „C:\Program Files\Mytek Digital\Mytek USB 2.0 Driver”. We recommend leaving this as it is. If you wish to customize the install choose the location by selecting browse. Click „Install”.



5. Setup.exe will now install the Mytek Driver. This process may take a few minutes.

6. Upon completion of „Setup.exe” press the „Next” button.



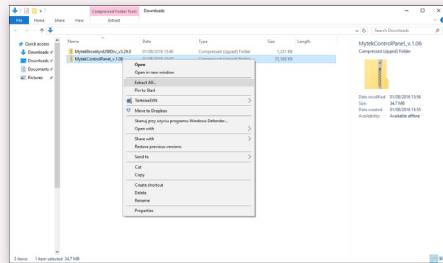
7. To complete installation of the driver simply click the „Finish” button.



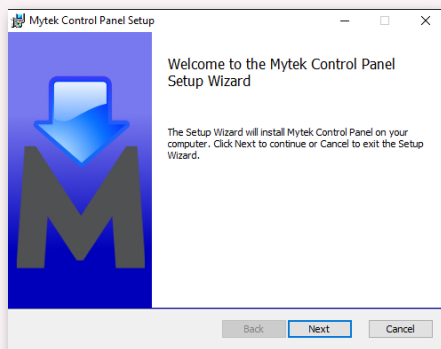
8. Connect the Brooklyn ADC to USB2 port in your computer.

## 5.2 Windows – Mytek Control Panel installation process

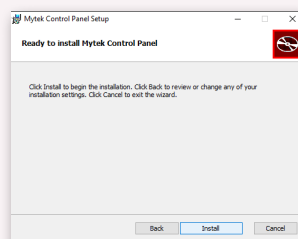
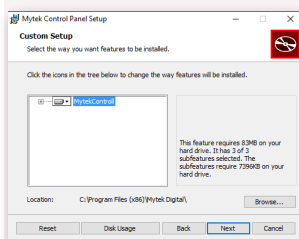
1. Locate the MytekControl.zip file and extract the content by right clicking on the zip archive icon and selecting "Extract Here".



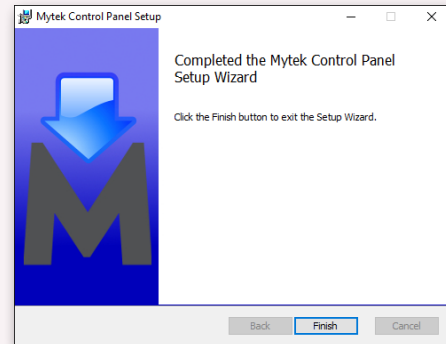
2. To install The Mytek Control double click the extracted Windows Installer Package file. When MytekControl Setup Wizard appears click „Next” then accept license and click „Next” again.



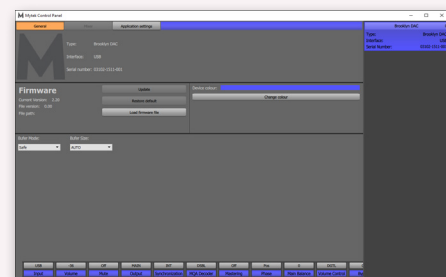
3. All options should be chosen in „Custom Setup” menu. To confirm the installation of each option select „Will be installed on local hard drive” then click „Next” and „Install” to begin the installation.



4. To complete the installation of the driver simply click the „Finish” button.



5. Confirm the installation by launching the Mytek Control Panel application. Installation was successful if the MytekControl application shows the Brooklyn ADC with serial number and permits access to all options.



## 6. Brooklyn ADC OSX installation

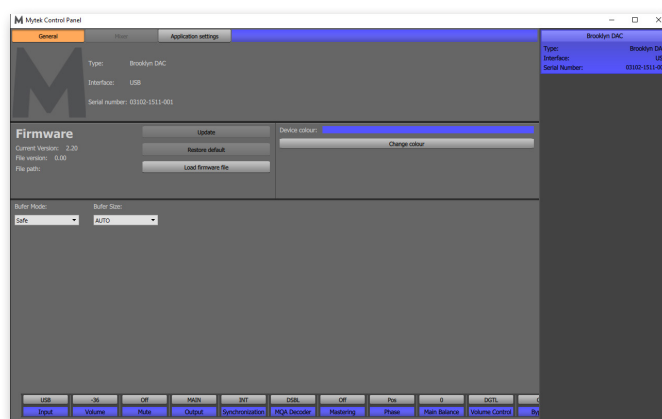
### 6.1 OSX – USB 2.0 - no driver required

The Brooklyn ADC custom designed USB2 controller supports **driverless** operation on MAC. It means that no extra drivers are required. Driverless operation basically means „**plug and play**“. The Brooklyn ADC will automatically show up in your computer's list of supported audio devices as „Brooklyn ADC“. Simply choose that as your default audio playback device and the system will work.

### 6.2 OSX – Mytek Control Panel installation.

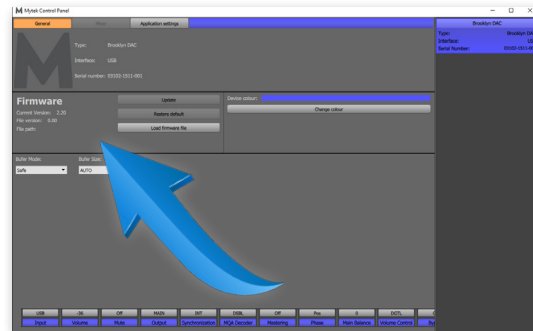
To install the Mytek Control Panel simply drag and drop Mytek application file (located in Mytek\_ControlPanel\_v.1.xx.dmg file) to „Applications“ system folder. Follow the link to download the latest version of the Mytek Control Panel application.

<https://mytekdigital.com/professional/support/>



## 7. Firmware update [Windows and OS X]

The current revision of the Brooklyn ADC firmware is shown in the MytekControl „General“ tab.



- The firmware can be updated by using USB2 port and Mytek Control Panel application. It requires already installed USB2 driver (PC only) and Mytek Control Panel application. To download the current firmware as well as drivers please visit <https://mytekdigital.com/hifi/support/>

### Follow the steps below to update the firmware:

1. Download the latest firmware (\*.mfb) file from our support page mentioned above.
2. Click „Load firmware file“ button and browse to the new firmware file then click „Open“.
3. Press the „Update“ button to confirm uploading the firmware file to device's memory.
4. Confirm your choice by clicking „Yes“ when warning dialog appears. A progress bar will indicate when the flash process is finished.
5. When the update is finished the ADC will reset and start itself in sleep mode. To switch it on press the knob once. Once the ADC has been restarted the firmware update is complete. A reboot of the computer is not necessary.

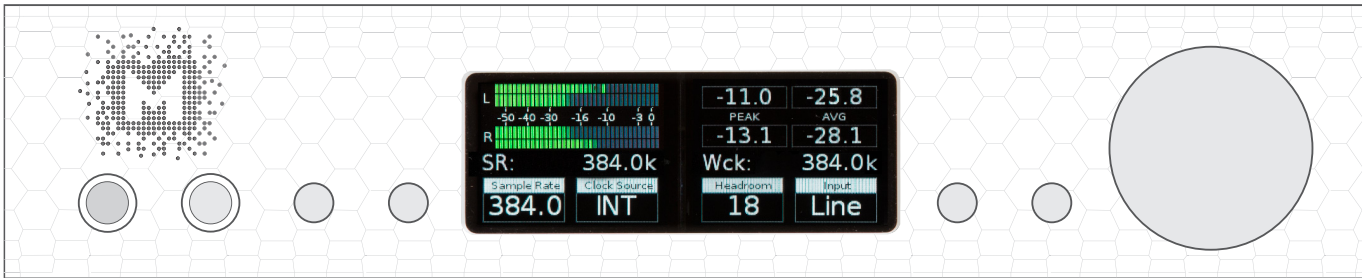
### When the update fails:

1. Disconnect power cord.
2. Press and hold the first (from the left) button and connect the power cord again.
3. The ADC runs in Bootloader mode. The logo becomes white and blinks constantly.
4. The update process should then be tried again.

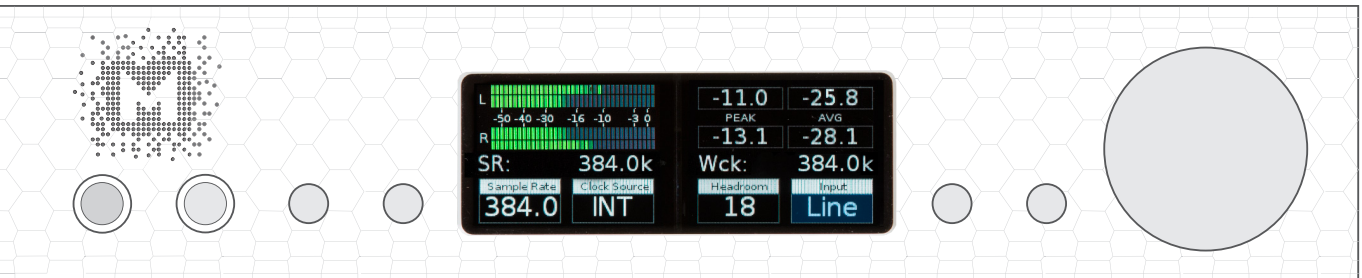
# 8. Menu

## 8.1 Menu Navigation

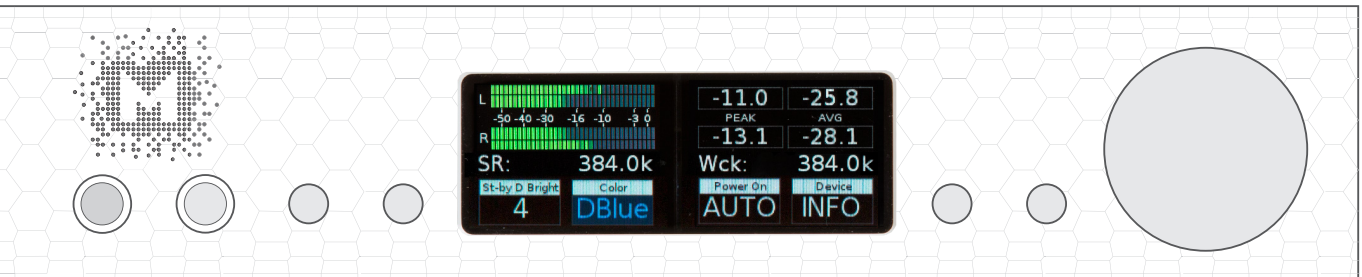
The four buttons, one encoder and the high-resolution display enable the user to quickly change and configure the device’s settings. There are always four parameters fields shown at the bottom of the display. There are also 4 pushbuttons, each corresponding to one parameter field.



To change a parameter in one of the 4 fields shown on the display, press the corresponding button. This will highlight the field in the colour of logo. To change the value rotate the knob until you see the option / value you need. Pressing the button again unhighlights the field. When no field is highlighted, turning the knob, turns the menu page to next one showing next set of control fields.



Turn the knob round to navigate between all available parameters.



Press and hold the knob to switch the Brooklyn ADC off / on.

## 8.2 Menu Operation

**8.2.1 SR / Format** - sets the sample / DSD rate of the AD conversion. Variety of settings shown in this menu depends on the mode selected in the „Mode“ menu.

When „ADC“ (stand-alone) mode is selected following settings are available:

- PCM: 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384 kHz
- DSD: x64, x128, x256

Analog input signal is present on all digital outputs at the same time and device can be clocked to internal, precise clock or an external source via WordClock.

When „PC“ (personal computer) mode is selected following settings are available:

- Ntv (native) – use this setting if you need to record DSD natively. This setting is also recommended for PCM recordings – when device operates as typical playback / recording interface. Device follows sample rate chosen in recording software and the rate is shown on display if Brooklyn ADC is locked properly.
- DoP (DSD over PCM) – use this setting if you need to record DSD via DoP.
- QdoP – use this setting if you need to record DSD x256 via DoP.

The Brooklyn ADC is capable to record true (not floating point) 32bit files.

### 8.2.2 Clock Source

There is only one master device in digital world. The others have to operate as a slave. That is why external digital devices such as digital speaker systems, preamps, synthesizers, recorders etc. have to be also configured properly. Otherwise clicks, drops, distortions might appear in the final signal. Following sync options are available:

- **INT** (Internal) / USB / outcoming signal is synced to the converter's ultra-low jitter internal crystal oscillator. This choice assures the best ADC performance and is superior to any (even Atomic) clock supplied from outside because of its close proximity to ADC clocking chipset. The ADC operates as a master device. WordClock OUT transmits master clock signal
- **WCK** (Word Clock) / available for USB, AES, SPDIF, Toslink, SDIF / the ADC can operate as a master or slave device.

*Word Clock Physical connections examples:*

- A. The **Brooklyn ADC is a master** and the external device is a slave: Brooklyn ADC WCK OUT -> external device WCK IN  
B. The **Brooklyn ADC is a slave** and the external device is a master: Brooklyn ADC WCK IN -> external device WCK OUT

**8.2.3 Headroom** - determines available headroom.

**8.2.4 Input Gain (0dB, 6dB)**

### 8.2.5 Input Mode

- **Unbal (unbalanced)** – for unbalanced signal sources - solid state signal path
- **Bal (balanced)** – for balanced signal sources - solid state signal path
- **T3:1, T2:1, T1:1** - transformer saturation level - nickel transformer is engaged in AD signal path. For use with unbalanced sources shortening negative with ground on the connector is needed.

### 8.2.6 Mode (Device Mode)

Brooklyn DAC has two operating modes:

- **ADC** (standalone mode) device is connected to external devices via AES, SPDIF, SDIF or TOSLINK connectors.
- **PC** (personal computer) when connected to computer via USB port.

### 8.2.7 Disp Auto Off (Display Auto Off) - sets the interval when the display is turned off. It is still possible to listen to music while the display is off. To return to the main screen press any button on the frontpanel (including Vol knob).

### 8.2.8 Display Bright (Display Brightness) - this allows to adjust the brightness of the display.

### 8.2.9 Diode Bright (Diode Brightness) - sets the brightness of the logo (0 – 16 steps).

### 8.2.10 St-by D Bright (Standby Diode Brightness) - sets the brightness of the logo in Standby mode.

### 8.2.11 Colour (Logo Colour) - Sets the colour of the logo, 16 colours are available.

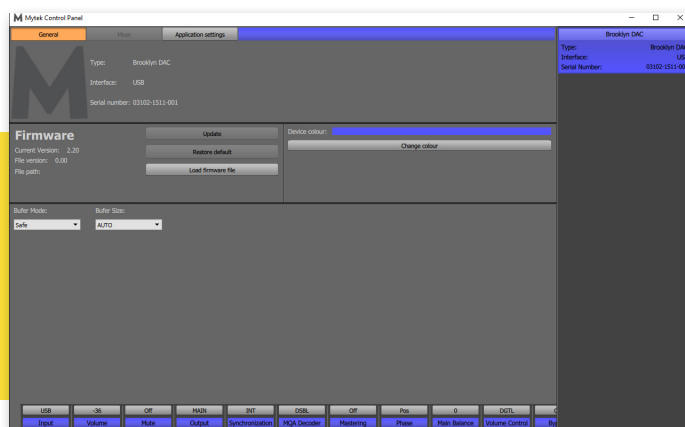
### 8.2.12 Power On - (when the power cord is attached to the ADC)

- **WORK** - the ADC activates itself in standard working mode
- **STBY** – the ADC activates itself in standby mode
- **AUTO** – the ADC remembers last mode

### 8.2.13 Device (Device Info)

- **INFO**- shows firmware version and unique serial number of the unit.
- **RESTORE** – restores to default factory settings.

**Note! All above settings can also be changed by using the Mytek Control Panel application.**





## 9. Technical Specification

### ANALOG

- Analog Inputs Connectors: 2 XLR / TRS balanced. TRS inputs accessible from both back and front panels.
- Resolution AD: PCM 32bit / DSD up to 256 (11.2 Mhz)
- PCM Sample Rate: 44,1 / 48 / 88,2 / 96 / 176,4 / 192 / 384 Khz
- Transparent line level (electronic) or passive nickel transformer with saturation control

### DIGITAL

- Computer Audio I/O: 2.0 Hi-Speed, data stream up to 480Mbits/384kHz, Type B, driverless.
- AES/EBU Output: XLR, PCM 24Bits / up to 384 kHz, DSD up to x128 (DoP)
- TOSLINK Optical Output: PCM up to 192kHz single wire, DSD x64 (DoP)
- S/PDIF Coaxial Output: PCM up to 384kHz single wire, DSD up to x128 (DoP)
- SDIF DSD Output: DSD x64, x128, x256
- WordClock I/O: BNC, 75 Ohm
- Clock: <1ps jitter Mytek Femtoclock (tm) generator.

### GENERAL

- Firmware: upgradable via USB Control panel, updates available online, periodic feature upgrades
- MQA Kernel(tm) Built in (MQA compliant filters and dithering)
- Power Supply: Worldwide 30W power supply 100-240V 50/60 Hz.
- Optional 12VDC power input (2.5mm, inner +)
- External power supply input: 12VDC, 4 - 6A / (inner pin +)
- External power supply connector dimensions: 5,5 mm / 2,5 mm (inner pin)
- Dimensions [W x H x D]: 8.5" x 8.5" x 1U / 218 x 44 x 206 mm / 1U half rack
- Weight: 4 lbs (2kg)

## 10. Warranty

Each individual Brooklyn ADC undergoes comprehensive quality control and a complete test before shipping. This Brooklyn ADC is warranted by Mytek Europe to the original purchaser against defects in workmanship and materials used in manufacture for a period of two years from the date of purchase.

Faults due to customer misuse, unauthorized modifications or accidents are not covered by this warranty. Removal of serial number sticker voids warranty. No other warranty is expressed or implied.

If you suspect that your product is faulty, please contact your local retailer. Prior to shipping customer or retailer must obtain an RMA number from Mytek Europe for warranty services. Units sent without RMA number will not be accepted.

Mytek extends affordable repair service for all units manufactured to date that are not covered by this Warranty. Mytek Europe repair center is located in Pruszków / Poland.

## Important Safety Information

- Read, keep and follow these instructions.
- Connect all your devices before powering the unit.
- Do not expose this device to moisture, rain and liquid of any kind.
- Clean only with dry cloth.
- If any form of liquid or a foreign object enter the device switch it off and unplug it from the power source. Do not operate device until the foreign object is removed or the liquid has completely dried. If in doubt please contact Mytek Digital.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

## Warning

Excessive sound pressure from speakers and headphones can cause hearing loss. In order to use this product safely, avoid prolonged listening at excessive sound pressure levels.

For the customers in the U.S.A.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This product with the CE marking complies with the EMC Directive issued by the Commission of the European Community. Compliance with this directive implies conformity to the following European standards:

- EN55103-1 : Electromagnetic Interference (Emission)
- EN55103-2 : Electromagnetic Susceptibility (Immunity)

This product is intended for use in the following Electromagnetic Environments: E1 (residential), E2 (commercial and light industrial), E3 (urban outdoors), E4 (controlled EMC environment, ex. TV studio).

## Information on Disposal for Users of Waste Electrical & Electronic Equipment(private households).

The Wheelie Bin symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste. Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment.

To properly dispose harmful substances and recycle the product, the user is obliged to return it at the point of collection of electrical and electronic equipment waste. For more information please contact your local authorities, waste disposal units or retailer.



