MAGEWELL®

Director Mini Technical Specifications

Specifications are based on current hardware, firmware and software revisions, and are subject to change without notice.

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Video Input

- HDMI
    - Port: 2x HDMI 2.0 Type-A port
    - Typical resolution/frame rate:
        - 4096x2160p/3840x2160p 23.98/24/25/29.97/30/59.94/60
        - 1920x1080p 23.98/24/25/29.97/30/50/59.94/60
        - 1920x1080i 25/29.97/30
        - 1280x720p 23.98/24/25/29.97/30/50/59.94/60
        - 720x576p 50/100
        - 720x576i 25/50
        - 720x480p 59.94/60
        - 720x480i 29.97/30
    - Color depth: 8/10/12-bit
    - Color sampling: RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2
- USB
    - Port: 2x USB 3.0 Type-A port, 1x USB 3.0 Type-C port
    - Format: YUYV, MJPG, NV12, UYUV
    - Resolution/frame rate:
        - Single USB-A input: Up to 1920x1080p, 60fps
        - Single USB-C input: Up to 1920x1080p, 60fps
        - Dual USB-A input: Up to 1920x1080p, 50fps + 1920x1080p, 30fps
        - One USB-A input + one USB-C input: Up to 1920x1080p, 60fps + 1920x1080p, 60fps
- Phone Camera
    - Connection mode: LAN, Wi-Fi
    - Codec: H.264, H.265
    - Resolution/frame rate: Up to 1080p, 60fps
- SRT Caller/Listener
    - Codec: H.264, H.265
    - Resolution/frame rate: Up to 1080p, 60fps
- RTMP Pull/Push
    - Codec: H.264
    - Resolution/frame rate: Up to 1080p, 60fps
- RTSP stream
    - Codec: H.264, H.265
    - Resolution/frame rate: Up to 1080p, 60fps
- NDI® stream
    - NDI HX2, NDI HX3, NDI High Bandwidth
    - Codec: H.264, H.265, SpeedHQ
    - Resolution/frame rate: Up to 1080p, 60fps
- Video
    - Resolution: Up to 4K
    - Codec: H.264, H.265
    - Format: MOV/MP4/WebM
- Picture
    - Format: JPEG/PNG/BMP
- Webpage
    - Supports adding up to 3 webpages as scenes and 7 webpages as GFXs

Audio Input

- Mic/line in: 1x 3.5mm jack, 2-channel, 48 KHz, 16-bit
- Audio input from HDMI port: 2-channel, 48 KHz, 16-bit
- Audio input from USB port: 2-channel, 48 KHz, 16-bit
- Audio input from Bluetooth device: 2-channel, 48 KHz, 16-bit
- Audio input from phone
- Audio from SRT stream
- Audio from RTMP stream
- Audio from RTSP stream
- Audio from NDI stream
- Audio embedded in video files
- Audio from webpages
- Background music (BGM): MP3, M4A, WAV files
- Audio from GFX: webpage, NDI, video

Video Output

- Streaming and recording

  - Codec: H.264, H.265

  - Resolution: 1080p, 720p, 540p, 360p[*]

    [*] 360p is only available for NDI

  - Frame rate: 60/59.94/50/30/29.97/25/24/23.98/15 fps (Encoding options change along with the frame rate of the show.)

  - Bitrate:
    - NDI HX3: up to 62.0Mbps, down to 1.5Mbps
    - Others: up to 30.0Mbps, down to 256kpbs

  - Key frame interval: customizable

  - Profile:
    - H.264: High profile, Main profile, Baseline profile
    - H.265: Main profile
  - Level:
    - H.264: 5.2, 5.1, 5.0, 4.2, 4.1, 4.0, 3.2, 3.1, 3.0
    - H.265: 6.1, 6.0, 5.2, 5.1, 5.0, 4.1, 4.0, 3.1, 3.0

  - Bitrate mode: VBR, CBR

- USB-C
  - Port: 1* USB 3.0 Type-C port
  - Output mode: DP-OUT, UVC 1.1/UAC 1.0
  - Resolution: 1920x1080, 1280x720, 1080x1920, 720x1280
  - Frame rate: 60fps, 50fps
  - Sampling format: RGB24, YUYV, NV12

Audio Output

- Streaming and recording: 2-channel, 16-bit, 48 KHz, aac, 64kbps/96kbps/128kbps
- Headphone output: 1x 3.5mm jack, 2-channel, 48 KHz, 16-bit
- Audio output via Bluetooth device: 2-channel, 48 KHz, 16-bit
- Audio output via USB-C port: 2-channel, 48 KHz, 16-bit
- Audio output via USB-A port: 2-channel, 48 KHz, 16-bit/24-bit/32-bit

Features of USB-A Port

- Connect to a USB A/V device, such as webcam, USB microphone, USB speaker, etc.
- Connect to a USB modem
- Connect to a USB flash drive
  - To transfer video, picture, audio and other media files, firmware update files, log files, etc.
  - Supported system format: FAT32, exFAT and NTFS
- Connect to a USB keyboard for shortcuts

Features of USB-C OUT Port

- Connect to an external screen
  - Connection mode: Connect the device to a monitor with a USB-C to HDMI/VGA/DP adapter
  - A/V display mode options: Program, Preview, Multi-view, Duplicate Screen, Loop HDMI 1, Loop HDMI 2
  - Image rotation: Rotate 90° to left, or rotate 90° to right
  - Supports using an external touchscreen to control the device in the Duplicate Screen mode
- Connect to a computer

  - MTP mode: Transfer video, picture, audio and other media files, firmware update files, log files, etc.

  - UVC/UAC mode[*]: Output audio and video to streaming software

    [*] To transfer video at full frame rate, please use a USB 3.0 cable to connect the USB 3.0 port of your computer.

- Connect to other USB devices, such as USB A/V devices, USB keyboard

Network

- Supports network bonding (not available in China's Mainland)
- Supports Ethernet, WiFi and Cellular
  - Ethernet: 1x RJ45 port, 10/100/1000 Mbps Base-T
  - WiFi: 2.4G/5G, Station and Hotspot modes supported
  - Cellular: USB modem supported (not supplied)
- Supports Bluetooth for audio input or output with Bluetooth devices, and also supports Bluetooth keyboard, etc.
  - Bluetooth: BT 5.0
- Supports USB tethering to share the Internet data connection of a mobile phone by connecting the phone with the device through a USB cable.

Features

- Show
  - Supports creating multiple shows in landscape (16:9) or portrait (9:16) mode, and manage them
  - Supports creating shows at 60/59.94/50/30/29.97/25/24/23.98 fps
- Scenes

  - Supports creating multiple scenes in a show, and managing them

  - Supports adding various sources, including HDMI, WEBCAM, video, picture, RTMP/SRT/RTSP/NDI stream[*], phone camera, webpage, text and color

    [*] It supports adding up to three simultaneous live IP sources (SRT, RTMP, RTSP, NDI® High Bandwidth, NDI® HX2, NDI® HX3) in one show.

  - Supports browsing webpage sources

  - Supports multi-view composition in one scene, providing prebuilt layouts for easy creation

  - Provides lots of editing tools, including chromakey, crop, transition, etc.

  - Supports switch scenes directly or preview at first and then switch

  - Supports switching scenes with an instant cut or various effects, such as Fade, DIP, DVE, etc.

- Audio
  - Supports displaying level and peak through audio meter
  - Supports adjusting the level of each input audio, output and monitor audio
  - Supports global or scene-based settings for audio input sources
  - Supports AFV (Audio-follow-video)
  - Supports solo monitor
  - Supports switching monitor device
- GFX
  - Supports multiple GFX types, including title, lower third, animated text, digital clock, analog clock, bullet list, social media, logo, scoreboard, timer, stopwatch, etc.
  - Supports custom GFX with HDMI source, Webcam source, video, picture, text or PAG (Portable Animated Graphics) file
  - Supports webpage source as GFX
  - Supports NDI stream as GFX
  - Supports displaying multiple GFXs, and managing them
  - Supports controlling scoreboard, timer and stopwatch in real time
- BGM

- - Supports adding BGM for each scene and controlling in real time
    - Supports adding global BGM via Web UI and controlling in real time
  - Pen
    - Annotates on the screen in real time
  - PTZ control
    - Supports controlling PTZ camera via the network, supporting Visca UDP, supported sources including HDMI, WEBCAM (UVC camera), SRT stream, RTMP stream, RTSP stream and NDI stream
  - Phone Camera control
    - Control the phone camera to zoom or focus, and supports more advanced settings
  - Replay
    - Capture some of greatest moments, slow down the action and save highlights.
  - Live stream
    - Natively supports streaming to YouTube, Twitch and Facebook Live
    - Supports selecting RTMP or HLS protocol for streaming to YouTube
    - Supports starting a stream scheduled later for YouTube
    - Supports streaming via SRT, RTMP, RTMPS and RTSP protocols
    - Supports NDI HX3 output, supporting NDI Tally lights
    - Supports customizing encoding parameters and selecting video source (Program, HDMI, WEBCAM, Multi-view) and audio source for ISO streaming
    - Supports streaming to four destinations simultaneously
    - Supports sending live comment as an overlay into the video feed when streaming to social media
  - Record
    - Supports customizing encoding parameters
    - Supports ISO recording, to record two of different video sources simultaneously, or record two-channel images with different quality for one source, combining different audio sources, and supported video sources include Program, HDMI, WEBCAM, Multi-view as well as NDI HX2 and NDI HX3 stream
    - Supports saving recording files in MP4 or MOV format to local storage or SD card
    - Supports saving screenshot files in PNG format to local or SD card
    - Supports splitting recording files by time or size, up to 4 hours or 16G
    - Supports exporting or downloading files through computer, SD card, USB flash drive, App, or Web UI
  - Shortcut
    - Supports connecting USB or Bluetooth keyboards and creating shortcuts for easy control

Director Utility App

- **OS version**: iOS 13 and later, Android 7.0 and later
- **Remote Assistant**: Control Director device remotely
  - View live program image
  - Create, switch and manage scenes, set switch mode and effect, implement FTB, freeze scene, and control PTZ camera and phone camera
  - Switch and manage GFX, edit GFX text and picture in real time, and control scoreboard, timer and stopwatch
  - Control audio, including adjusting audio level, switch monitor device, mute audio and monitor audio exclusively
  - Start/stop recording, take screenshots, and manage album files
  - Set streaming servers, start/stop streaming, view streaming status, and send live comment as overlay
  - Control replay and share event files to other apps
  - Control and manage BGM
  - Create, manage and execute shortcuts functions
  - View input information
  - View real-time device status
  - Power off the device remotely
- **Phone Camera**: Use a mobile device (phone or tablet) as a camera
  - Stream images taken by the mobile device to Director device
  - Record images taken by the mobile device to its local storage
  - Stream images taken by the mobile device to a destination via SRT
  - Supports Pro Mode to customize white balance, ISO, exposure, focus, etc.
  - Supports selecting the USB camera connected to the iPad with a USB-C port (iPadOS 17 and above).
- **External Screen**: Suitable for tablets equipped with a USB-C interface (USB 3.0 and above). For iPads, iPadOS17 and above are required.
  - Display different images including program, preview, multi-view, duplicate screen, loop HDMI 1, and loop HDMI 2.
  - Record or take screenshots of the displayed content and save them to the tablet
  - Control the device via the tablet using the "Duplicate Screen" function

Web UI

- Set and manage device, view input information, configure networks, update firmware, etc.
- Preview and monitor the show, switch and manage shows, scenes and GFXs, control audio, set shortcuts, send live

comment as overlay, control replay, etc.
- Set encoding parameters
- Set streaming servers, start/stop streaming, view streaming status
- Start/stop recording, take screenshots and manage album files
- Control and manage global BGM and scene's private BGM
- Manage media files
- Supports registering Magewell Control Hub (V2.1.20 and later) for centralized management
- System requirement: Windows 10 19H1 and above, macOS 10.12 and above, Linux

Magewell Director Plugin for Stream Deck

- Control Director device effortlessly at fingertips to enable efficient creative production.

API

- Provides basic APIs for 3rd party control system

OSC

- Supports OSC for 3rd party Apps to control the device

Screen

- Size: 5.44"
- Type: AMOLED
- Aspect ratio: 16:9
- Resolution: 1920x1080
- Brightness: 350nit
- Color depth: 8-bit
- Contrast ratio: 6000:1
- Color gamut: 105% NTSC
- Refresh rate: 60Hz
- Viewing direction: All
- PPI: 405
- Touchscreen: Capacitive
- Screen coating: Anti-fingerprint coating

Storage

- Local storage: 64 GB
- SD card (not supplied): FAT32 (Under 128G), NTFS, exFAT

Physical Specifications

- Form factor: 147.2 mm x 90 mm x 28.5 mm
- Weight: ≈404g

Power

- AC power

  - Power supply: 12V/3.5A

    [*] The power adapter has been changed to 12V/3.5A from 12V/1.5A since August 2024.

  - Maximum power consumption: 15W

- Battery pack
  - 2x DC 7.4V (NP-F battery packs, not supplied)
  - Hot swappable

LED Lights

The two back LED lights can be set as battery indicators or NDI tally lights.

- Battery indicators (default)
    - Green: 50% - 100%
    - Orange: 25% - 50%
    - Red: <25%
    - Off: depleted
- NDI tally lights
    - Red: the NDI streaming signal is in PGM view.
    - Green: the NDI streaming signal is in PVW view.

Working Environment

- Operating temperature: –10 to 50 deg C (AC power)
- Storage temperature: –20 to 70 deg C
- Relative humidity: 5% to 90% non-condensing