

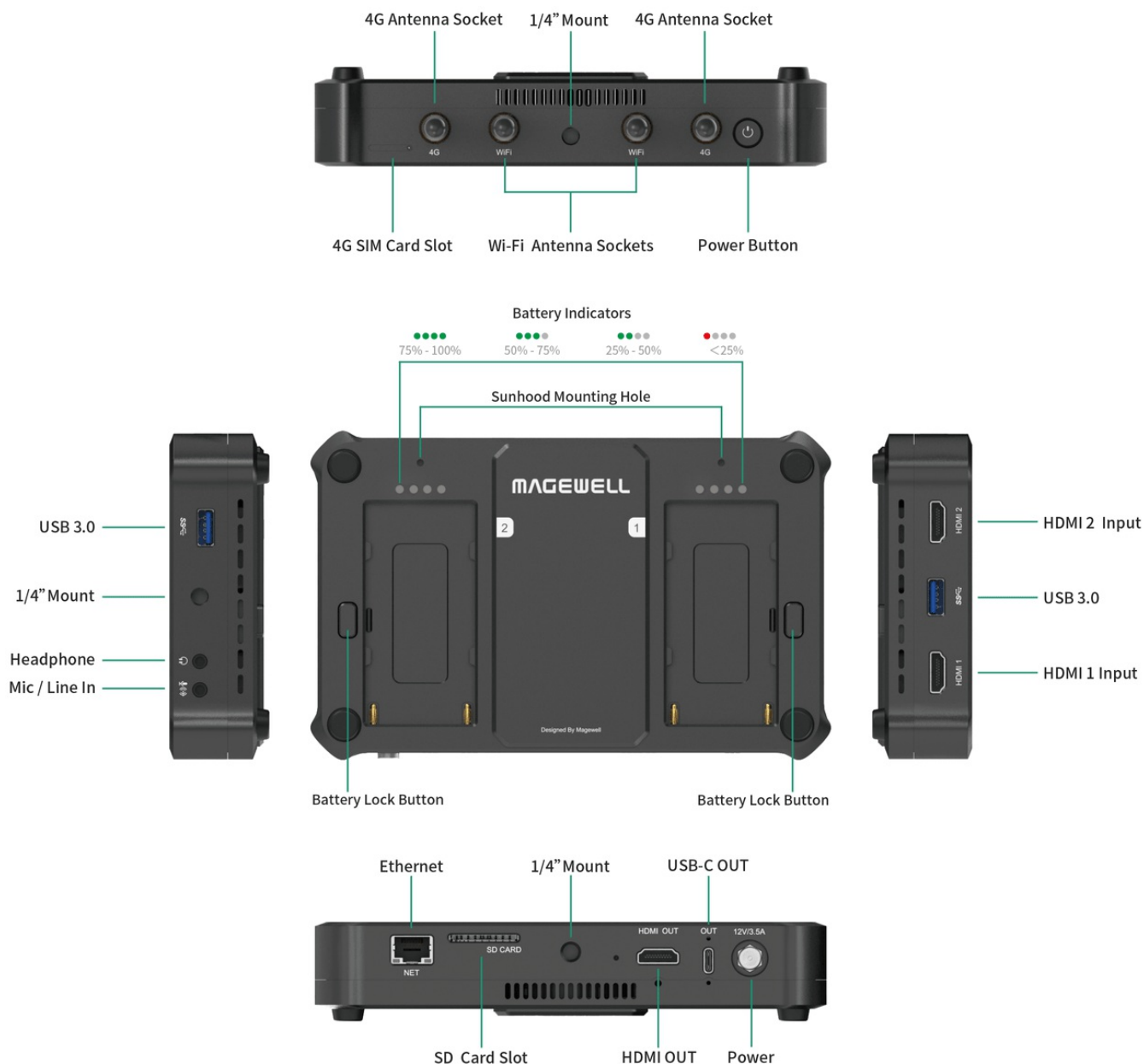
MAGEWELL®

# Director One

A powerful device that does multi-input switching, graphics, streaming and more

SKU: 552600000





## Product Overview

Combining multi-input switching, graphics, streaming, recording, and monitoring in one powerful device, Director One boasts a large 7" touchscreen that provides an expansive view for seamless control and monitoring. Equipped with a built-in 4G modem and both 4G and WiFi antennas, Director One ensures users have stable and reliable network connectivity anytime, anywhere. Designed for versatile production needs, Director One enables operators to produce live events and remote feeds with enhanced visibility and ease.

## Key Features

- 7" AMOLED touchscreen with 800 nits brightness and 100000:1 contrast ratio
- Supports flexible input sources ranging from AV and IP streams to media files
- Built-in 4G modem and dedicated 4G/WiFi antennas for flexible networking
- Dedicated HDMI output for external screen
- Flexible scene layouts and powerful production tools
- High-quality streaming and recording
- Intuitive user interface, companion app and flexible powerful control options

## Packing List

- 1\* Director One
- 2\* 4G Antennas
- 2\* Wi-Fi Antennas

- 1\* Screw Locking Power Adapter (12V/3.5A)
- 1\* Sunhood
- 2\* Thumb Screws
- 1\* USB-C to USB-A Cable
- 1\* USB-A to USB-C Adapter
- 1\* SIM Card Ejector

## Technical Specifications

Revised on %{month\_rev}/{%{day\_rev}}/{%{year\_rev}}

### 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<sup>®</sup> stream
  - NDI HX2, NDI HX3, NDI High Bandwidth
  - Codec: H.264, H.265
  - 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 a webpage
- 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 (only 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 256kbps
  - Key frame interval: customizable
  - Profile: High profile, Main profile, Baseline profile
  - Bitrate mode: VBR, CBR
- USB-C
  - Port: 1\* USB 3.0 Type-C port
  - Output mode: UVC 1.1/UAC 1.0, DP-OUT
  - Resolution: 1920x1080, 1280x720, 1080x1920, 720x1280
  - Frame rate: 60/59.94/50/30/29.97/25/24/23.98 fps
  - Sampling format: RGB24, YUYV, NV12
- HDMI OUT
  - Port: 1\* HDMI 2.0 Type-A port
  - Resolution: 1920x1080
  - Frame rate: 60fps, 50fps
  - Sampling format: RGB 4:4:4

## 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
- Audio output via HDMI OUT port: 2-channel, 48 KHz, 16-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 a computer
  - 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.
  - MTP mode: Transfer video, picture, audio and other media files, firmware update files, log files, etc.
- Connect to other USB devices, such as USB A/V devices, USB keyboard
- Connect to an external screen (settings required)
  - 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

## Features of HDMI OUT Port

- Connect to an external screen
  - 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
  - Controlling the device via an external touchscreen: Connect the device with an external touchscreen via the HDMI OUT port and USB port and select the Duplicate Screen mode

## Network

- Supports network bonding (not available in China's Mainland)
- Supports Ethernet, Wi-Fi and Cellular
  - Ethernet: 1x RJ45 port, 10/100/1000 Mbps Base-T
  - Wi-Fi: 2.4G/5G, Station and Hotspot modes supported
  - Cellular:
    - 1\* 4G SIM card slot
    - 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 smartphone 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<sup>\*</sup>, phone camera, webpage, text and color
  - <sup>\*</sup> It supports adding up to 3 stream sources 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
- **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).
- **Remote Assistant:** Control Director device remotely
  - View live program image
  - 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
- **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 (V2.1.81 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: 7"
- Type: AMOLED
- Aspect ratio: 16:9
- Resolution (dot): 1920(W)x1080(H)
- Brightness: 800nit
- Contrast ratio: 100000:1
- Color gamut: 100% NTSC
- sRGB: 145%
- DCI-P3: 105%
- Color depth: 10-bit
- PPI: 315
- Refresh rate: 60Hz, 50Hz
- Touchscreen: Capacitive
- Viewing direction: All
- Screen coating: Anti-fingerprint coating

## **Storage**

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

## **Physical Specifications**

- Form factor: 185.2 mm x 117.2 mm x 32.8 mm
- Weight: ≈709g (without antennas)

## **Power**

- AC power
  - Power input: 12V/3.5A
- Battery pack
  - 2x DC 7.4V (NP-F battery packs, not supplied)
  - Hot swappable
- Power consumption:
  - No-load: ≈6W
  - Full-load: ≈27W

## **LED Lights**

Each battery has four LED lights which can be set as battery indicators or NDI tally lights.

- Battery indicators (default)
  - 4\* Green: 75% - 100%
  - 3\* Green: 50% - 75%
  - 2\* Green: 25% - 50%
  - 1\* 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

## Notice

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