Combining the compact size and low weight of the popular ALEXA Mini with the large-format ALEXA LF sensor, ALEXA Mini LF is a go-anywhere camera that has a small footprint, but delivers big images. The option to record either large format for the unique large format look or Super 35 for compatibility with existing S35 optics makes the Mini LF a universal tool. The camera records native 4.5K with ARRI's best overall image quality, with improvements on the ALEXA sensor’s famously natural colorimetry, pleasing skin tones, low noise, and suitability for High Dynamic Range (HDR) and Wide Color Gamut (WCG) workflows.

The ALEXA Mini LF is a robust and reliable camera that uses state-of-the-art, cost-effective, and reliable Codex Compact Drives, features internal MXF/ARRIRAW and MXF/Apple ProRes recording, three internal motorized FSND filters, 12 V power input, extra 12 V and 24 V accessory power outputs, compatibility with ALEXA Mini accessories, user and lock buttons, WiFi, built-in microphones, easy access to connectors and media, and the MVF-2 high-contrast HD viewfinder with its unique flip-out monitor.
ALEXA Mini LF

Main Features:
- Compact and lightweight camera
- Robust and reliable
- Large-format sensor for large-format look
- Super 35 recording modes for S35 lens compatibility
- 4.5K with ARRI's best overall image quality
- ARRIRAW or Apple ProRes recording
- Small Codex Compact Drives
- Three internal motorized FSND filters
- MVF-2 high-contrast HD viewfinder with flip-out monitor

Technical Data:

<table>
<thead>
<tr>
<th>Sensor Type</th>
<th>Large Format ARRI ALEV III (A2X) CMOS sensor with Bayer pattern color filter array</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor Size</td>
<td>4448 x 3096</td>
</tr>
<tr>
<td>Photosite Pitch</td>
<td>8.26 μm</td>
</tr>
<tr>
<td>Sensor Frame Rates</td>
<td>0.75 - 100 fps</td>
</tr>
<tr>
<td>Sensor Active Image Area (photo sites)</td>
<td></td>
</tr>
<tr>
<td>ARRIRAW 4.5K LF 2:3 Open Gate - 4.5K:</td>
<td>4448 x 3096</td>
</tr>
<tr>
<td>ARRIRAW 4.5K LF 2.39:1 - 4.5K:</td>
<td>4448 x 1856</td>
</tr>
<tr>
<td>ARRIRAW 3.8K LF 16:9 - UHD:</td>
<td>3840 x 2160</td>
</tr>
<tr>
<td>ARRIRAW 2.8K LF 1:1 - 2.8K:</td>
<td>2880 x 2880</td>
</tr>
<tr>
<td>ARRIRAW 3.4K S35 3:2 - 3.4K:</td>
<td>3424 x 2202</td>
</tr>
<tr>
<td>Apple ProRes 4.5K LF 3:2 Open Gate - 4.5K:</td>
<td>4448 x 3096</td>
</tr>
<tr>
<td>Apple ProRes 4.5K LF 2.39:1 - 4.5K:</td>
<td>4448 x 1856</td>
</tr>
<tr>
<td>Apple ProRes 4.3K LF 16:9 - UHD:</td>
<td>4320 x 2430</td>
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<tr>
<td>Apple ProRes 4.3K LF 16:9 - HD:</td>
<td>4320 x 2430</td>
</tr>
<tr>
<td>Apple ProRes 3.8K LF 16:9 - UHD:</td>
<td>3840 x 2160</td>
</tr>
<tr>
<td>Apple ProRes 3.8K LF 16:9 - 2K:</td>
<td>3840 x 2160</td>
</tr>
<tr>
<td>Apple ProRes 3.8K LF 16:9 - HD:</td>
<td>3840 x 2160</td>
</tr>
<tr>
<td>Apple ProRes 2.8K LF 1:1 - 2.8K:</td>
<td>2880 x 2880</td>
</tr>
<tr>
<td>Apple ProRes 3.2K S35 16:9 - 3.2K:</td>
<td>3200 x 1800</td>
</tr>
<tr>
<td>Apple ProRes 2.8K S35 4:3 - 2.8K:</td>
<td>2880 x 2160</td>
</tr>
<tr>
<td>Apple ProRes 2.8K S35 16:9 - HD:</td>
<td>2880 x 1620</td>
</tr>
<tr>
<td>Sensor Active Image Area (dimensions)</td>
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<tr>
<td>ARRIRAW 4.5K LF 2:3 Open Gate - 4.5K:</td>
<td>36.70 x 25.54 mm / 1.445 x 1.006&quot;</td>
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<tr>
<td>ARRIRAW 4.5K LF 2.39:1 - 4.5K:</td>
<td>36.70 x 15.31 mm / 1.445 x 0.603&quot;</td>
</tr>
<tr>
<td>ARRIRAW 3.8K LF 16:9 - UHD:</td>
<td>31.68 x 17.82 mm / 1.247 x 0.702&quot;</td>
</tr>
<tr>
<td>ARRIRAW 2.8K LF 1:1 - 2.8K:</td>
<td>23.76 x 13.37 mm / 0.935 x 0.526&quot;</td>
</tr>
<tr>
<td>ARRIRAW 3.4K S35 3:2 - 3.4K:</td>
<td>26.40 x 14.85 mm / 1.039 x 0.585&quot;</td>
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<tr>
<td>Apple ProRes 4.5K LF 2:3 Open Gate - 4.5K:</td>
<td>36.70 x 25.54 mm / 1.445 x 1.006&quot;</td>
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<tr>
<td>Apple ProRes 4.3K LF 16:9 - UHD:</td>
<td>35.64 x 20.05 mm / 1.403 x 0.789&quot;</td>
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<tr>
<td>Apple ProRes 3.8K LF 16:9 - UHD:</td>
<td>31.68 x 17.82 mm / 1.247 x 0.702&quot;</td>
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<tr>
<td>Apple ProRes 3.8K LF 16:9 - HD:</td>
<td>31.68 x 17.82 mm / 1.247 x 0.702&quot;</td>
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<tr>
<td>Apple ProRes 2.8K LF 1:1 - 2.8K:</td>
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<tr>
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<td>Apple ProRes 2.8K S35 4:3 - 2.8K:</td>
<td>23.76 x 13.37 mm / 0.935 x 0.526&quot;</td>
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<tr>
<td>Apple ProRes 2.8K S35 16:9 - HD:</td>
<td>23.76 x 13.37 mm / 0.935 x 0.526&quot;</td>
</tr>
<tr>
<td>Recording File Container Size (pixels)</td>
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<tr>
<td>ARRIRAW 4.5K LF 2:3 Open Gate - 4.5K:</td>
<td>4448 x 3096</td>
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<tr>
<td>ARRIRAW 4.5K LF 2.39:1 - 4.5K:</td>
<td>4448 x 1856</td>
</tr>
<tr>
<td>ARRIRAW 3.8K LF 16:9 - UHD:</td>
<td>3840 x 2160</td>
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<tr>
<td>ARRIRAW 2.8K LF 1:1 - 2.8K:</td>
<td>2880 x 2880</td>
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<td>ARRIRAW 3.4K S35 3:2 - 3.4K:</td>
<td>3424 x 2202</td>
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<td>Apple ProRes 4.5K LF 3:2 Open Gate - 4.5K:</td>
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<tr>
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<td>Apple ProRes 4.3K LF 16:9 - UHD:</td>
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<tr>
<td>Apple ProRes 4.3K LF 16:9 - HD:</td>
<td>3840 x 2160</td>
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<td>Apple ProRes 3.8K LF 16:9 - UHD:</td>
<td>1920 x 1080</td>
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<td>Apple ProRes 3.8K LF 16:9 - HD:</td>
<td>1920 x 1080</td>
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<td>Apple ProRes 2.8K LF 1:1 - 2.8K:</td>
<td>3072 x 2880</td>
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<td>Apple ProRes 3.2K S35 16:9 - 3.2K:</td>
<td>3200 x 1800</td>
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<td>Apple ProRes 2.8K S35 4:3 - 2.8K:</td>
<td>2880 x 2160</td>
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<tr>
<td>Apple ProRes 2.8K S35 16:9 - HD:</td>
<td>1920 x 1080</td>
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</tbody>
</table>
### Technical Data:

#### Recording File Image Content (pixels)

<table>
<thead>
<tr>
<th>Recording Format</th>
<th>Resolution</th>
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<tbody>
<tr>
<td>ARRIRAW 4.5K LF 3:2 Open Gate</td>
<td>4448 x 3096</td>
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<tr>
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<td>4448 x 1856</td>
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<tr>
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<td>3840 x 2160</td>
</tr>
<tr>
<td>ARRIRAW 2.8K LF 1:1 - 2.8K</td>
<td>2880 x 2880</td>
</tr>
<tr>
<td>ARRIRAW 3.4K S35 3:2 - 3.4K</td>
<td>3242 x 2202</td>
</tr>
<tr>
<td>Apple ProRes 4.5K LF 3:2 Open Gate</td>
<td>4448 x 3096</td>
</tr>
<tr>
<td>Apple ProRes 4.5K LF 2.39:1 - 4.5K</td>
<td>4448 x 1856</td>
</tr>
<tr>
<td>Apple ProRes 3.8K LF 16:9 - UHD</td>
<td>3840 x 2160</td>
</tr>
<tr>
<td>Apple ProRes 3.8K LF 16:9 - HD</td>
<td>1920 x 1080</td>
</tr>
<tr>
<td>Apple ProRes 3.8K LF 16:9 - 2K</td>
<td>2048 x 1152</td>
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<tr>
<td>Apple ProRes 3.8K LF 16:9 - HD</td>
<td>1920 x 1080</td>
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<tr>
<td>Apple ProRes 2.8K LF 1:1 - 2.8K</td>
<td>2880 x 2880</td>
</tr>
<tr>
<td>Apple ProRes 3.2K S35 16:9 - 3.2K</td>
<td>3200 x 1800</td>
</tr>
<tr>
<td>Apple ProRes 2.8K S35 4:3 - 2.8K</td>
<td>2880 x 2160</td>
</tr>
<tr>
<td>Apple ProRes 2.8K S35 16:9 - HD</td>
<td>1920 x 1080</td>
</tr>
</tbody>
</table>

#### Exposure Latitude

14+ stops over the entire sensitivity range from EI 160 to EI 3200 as measured with the ARRI Dynamic Range Test Chart (DRTC-1).

#### Exposure Index

Adjustable from EI 160-3200 in 1/3 stops, EI 800 base sensitivity.

#### Shutter

Electronic shutter, 5.0° - 356° or 1s - 1/8000s.

#### Recording Formats

- MXF/ARRIRAW
- MXF/Apple ProRes 4444 XQ
- MXF/Apple ProRes 4444
- MXF/Apple ProRes 422 HQ

#### Recording Media

Codex Compact Drives

#### Recording Frame Rates

<table>
<thead>
<tr>
<th>Recording Format</th>
<th>Frame Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARRIRAW 4.5K LF 3:2 Open Gate</td>
<td>0.75 - 40 fps</td>
</tr>
<tr>
<td>ARRIRAW 4.5K LF 2.39:1 - 4.5K</td>
<td>0.75 - 60 fps</td>
</tr>
<tr>
<td>ARRIRAW 3.8K LF 16:9 - UHD</td>
<td>0.75 - 60 fps</td>
</tr>
<tr>
<td>ARRIRAW 2.8K LF 1:1 - 2.8K</td>
<td>0.75 - 60 fps</td>
</tr>
<tr>
<td>ARRIRAW 3.4K S35 3:2 - 3.4K</td>
<td>0.75 - 60 fps</td>
</tr>
<tr>
<td>Apple ProRes 4.5K LF 3:2 Open Gate</td>
<td>0.75 - 40 fps</td>
</tr>
<tr>
<td>Apple ProRes 4.5K LF 2.39:1 - 4.5K</td>
<td>0.75 - 60 fps</td>
</tr>
<tr>
<td>Apple ProRes 3.8K LF 16:9 - UHD</td>
<td>0.75 - 75 fps</td>
</tr>
<tr>
<td>Apple ProRes 3.8K LF 16:9 - HD</td>
<td>0.75 - 75 fps</td>
</tr>
<tr>
<td>Apple ProRes 3.8K LF 16:9 - 2K</td>
<td>0.75 - 90 fps</td>
</tr>
<tr>
<td>Apple ProRes 3.8K LF 16:9 - HD</td>
<td>0.75 - 90 fps</td>
</tr>
<tr>
<td>Apple ProRes 2.8K LF 1:1 - 2.8K</td>
<td>0.75 - 60 fps</td>
</tr>
<tr>
<td>Apple ProRes 3.2K S35 16:9 - 3.2K</td>
<td>0.75 - 75 fps</td>
</tr>
<tr>
<td>Apple ProRes 2.8K S35 4:3 - 2.8K</td>
<td>0.75 - 75 fps</td>
</tr>
<tr>
<td>Apple ProRes 2.8K S35 16:9 - HD</td>
<td>0.75 - 100 fps</td>
</tr>
</tbody>
</table>

#### Recording Modes

Standard real-time recording, no Pre-recording, no Intervalometer.

#### Viewfinder Type

Multi Viewfinder MVF-2 with 4" flip-out monitor.

#### Viewfinder Technology

OLED viewfinder display, LCD fold out monitor.

#### Viewfinder Resolution (pixel)

1920 x 1080

#### Viewfinder Diopter

Adjustable from -5 to +5 diopters.

#### Color Output

Rec 709, Rec 2020, Log C, Custom Look (ARRI Look File ALF-2)

#### Look Control

Import of custom 3D LUT

ASC CDL parameters (slope, offset, power, saturation)

#### White Balance

Manual and auto white balance, adjustable from 2000K to 11000K in 10K steps

Color correction adjustable range from -16 to +16 CC

1 CC corresponds to 035 Kodak CC values or 1/8 Rosco values

#### Filters

Built-in motorized ND filters 0.6, 1.2, 1.8, fixed optical low pass, UV, IR filter

#### Image Outputs

1x proprietary signal output for MVF-2 viewfinder on VF CoaXPress connector (video, audio, power, control signals)

- SDI 1:
  - HD only, Processed or Clean, with or without a look file applied
  - 1.5G 422 HD (SMPT ST292-1, up to 30 fps, progressive (p) or progressive segmented frame (psf)
  - 3G 444 HD (SMPT ST425-1, up to 60 fps, p)
- SDI 2:
  - HD or UHD, Clean only, with or without a look file applied, or SDI 1 clone
  - 1.5G 422 HD (SMPT ST292-1, up to 30 fps, p or psf)
  - 3G 422 HD (SMPT ST425-1, up to 60 fps, p)
  - 3G 444 HD (SMPT ST425-3, up to 30 fps, p)

“Clean” is an image without surround view or overlays (status, false color, zebra, framelines, etc.)

“Processed” is an image with surround view or overlays.

#### Lens Squeeze Factor

1.00, 1.25, 1.30, 1.50, 1.65, 2.00

#### Exposure and Focus Tools

False Color, Zebra, Zoom, Aperture and Color Peaking
ALEXA Mini LF

**Technical Data:**

<table>
<thead>
<tr>
<th>Audio Input</th>
<th>1x LEMO 6pin balanced stereo line in with 12V power output (Line input max. level +24dBu correlating to 0dBFS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Output</td>
<td>SDI (embedded)</td>
</tr>
<tr>
<td>Audio Recording</td>
<td>2 channel linear PCM, 24 bit 48 kHz</td>
</tr>
<tr>
<td>Remote Control Options</td>
<td>MVF-2 viewfinder can act as wired remote control with 10m/33ft cable</td>
</tr>
<tr>
<td></td>
<td>Web-based remote control from smart phones, tablets and laptops via WiFi &amp; Ethernet (beta version)</td>
</tr>
<tr>
<td></td>
<td>Camera Access Protocol (CAP) via Ethernet &amp; WiFi</td>
</tr>
<tr>
<td></td>
<td>GPIO interface for integration with custom control interfaces</td>
</tr>
<tr>
<td></td>
<td>WCU-4 hand-unit with control over lens motors and operational parameters via built-in white radio</td>
</tr>
<tr>
<td></td>
<td>SXU-1 hand-unit with control over one lens channel</td>
</tr>
<tr>
<td></td>
<td>OCU-1 and Master Grip control of lens and user buttons</td>
</tr>
<tr>
<td>Interfaces</td>
<td>1x LEMO 5pin LTC Timecode In/Out</td>
</tr>
<tr>
<td></td>
<td>1x LEMO 10pin Ethernet for remote control and service</td>
</tr>
<tr>
<td></td>
<td>1x BNC SYNC IN</td>
</tr>
<tr>
<td></td>
<td>1x LEMO 7pin EXT multi purpose accessory interface w. RS pin and 24V power output</td>
</tr>
<tr>
<td></td>
<td>1x LEMO 4pin LBUS (on lens mount) for lens motors, daisy chainable</td>
</tr>
<tr>
<td></td>
<td>1x USB 2.0 in media bay (for user setups, look files etc)</td>
</tr>
<tr>
<td>Wireless Interface</td>
<td>Built-in WiFi module (IEEE 802.11b/g)</td>
</tr>
<tr>
<td>Lens Mount</td>
<td>ARRI LPL Mount (LBUS)</td>
</tr>
<tr>
<td></td>
<td>ARRI PL-to-LPL adapter</td>
</tr>
<tr>
<td></td>
<td>ARRI EF Mount (LBUS)</td>
</tr>
<tr>
<td></td>
<td>Leitz M mount (available from Leitz)</td>
</tr>
<tr>
<td>Flange Focal Depth</td>
<td>LPL mount: 44 mm, with PL-to-LPL adapter: 52 mm</td>
</tr>
<tr>
<td>Power Input</td>
<td>1x LEMO 8pin (11-34 V DC)</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>Around 65 W when recording ARRIRAW at 24 fps with MVF-2 attached (preliminary information)</td>
</tr>
<tr>
<td>Power Outputs</td>
<td>1x Fischer 3pin 24V RS</td>
</tr>
<tr>
<td></td>
<td>1x LEMO 2pin 12V</td>
</tr>
<tr>
<td>Measurements (HxWxL)</td>
<td>140 x 143 x 188 mm / 5.5 x 5.6 x 7.4” (camera body with LPL lens mount)</td>
</tr>
<tr>
<td>Weight</td>
<td>~2.6 kg / ~5.7 lbs (camera body with LPL lens mount)</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-20°C to +45°C / -4°F to +113°F @ 95% relative humidity max, non condensing, splash and dust proof through sealed electronics</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-30°C to +70°C / -22°F to +158°F</td>
</tr>
<tr>
<td>Sound Level</td>
<td>&lt; 20 dB(A) at 24fps</td>
</tr>
</tbody>
</table>

Technical data subject to change without further notice. Date: September 17th, 2021 © ARRI/2021
Arnold & Richter Cine Technik GmbH & Co. Betriebs KG · Herbert-Bayer-Str. 10, 80807 Munich · Tel +49 89 3809 0 · www.arri.com