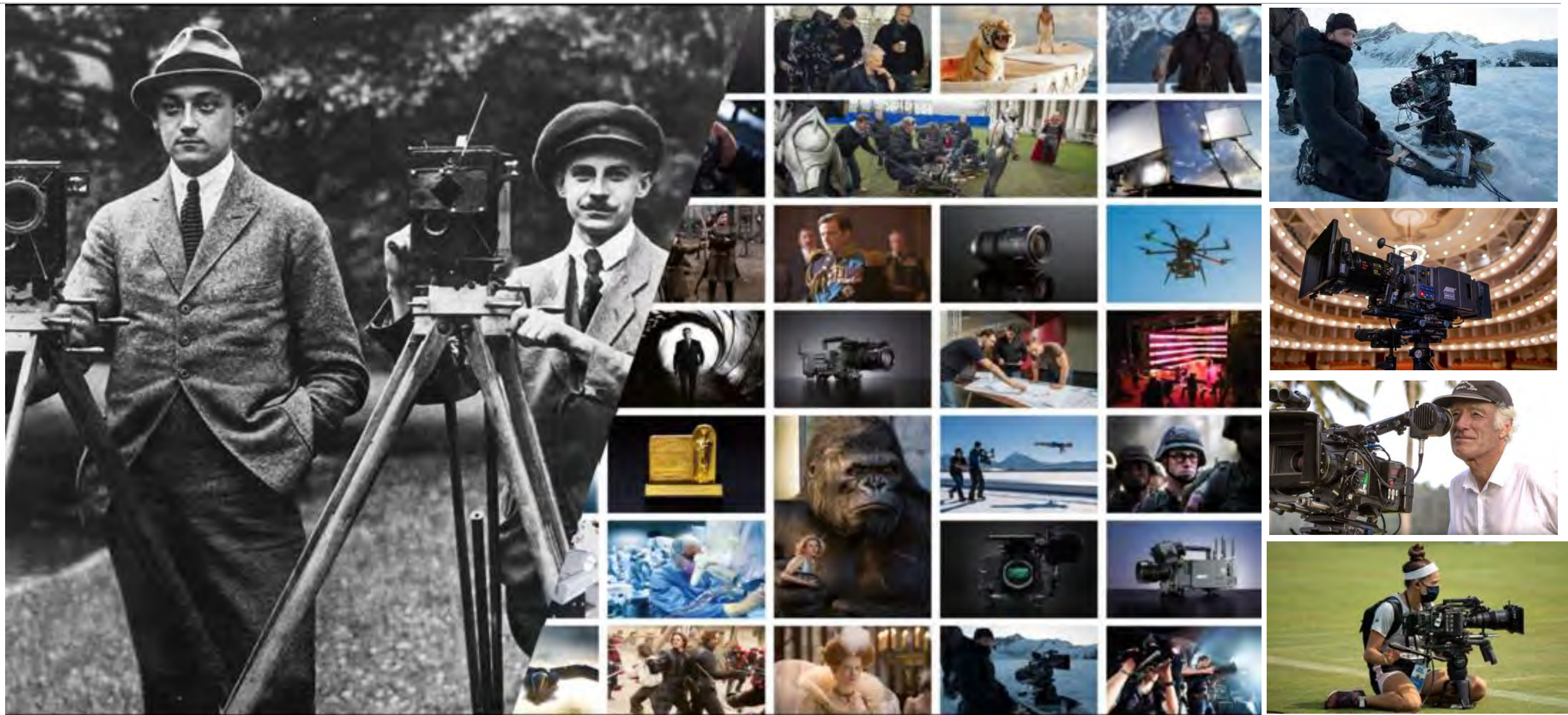# ALEXA 35 Live
- Multicam System

MAF Milan 2024

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Director of Business Development

France, Italy, Benelux, North Africa, Malta

ARRI, 107+ YEARS – wide range of products Film and Broadcast industry

ARRI Business Units
Connecting creativity and future technologies for moving images

| Camera Systems	Lighting	Claypaky	Solutions	Rental
The most complete camera systems ever built	Advanced lighting products with state-of-the-art control options	Advanced lighting products for the entertainment industry	Designing and delivering cutting-edge production environments	Exceptional services and exclusive products

WHY ARRI IN
LIVE PRODUCTION?

ALEXA 35 LIVE - MULTICAM SYSTEM

- **ARRI is the strongest cinematic brand in the world**

  – Global manufacturer of motion picture equipment & provider of services to the motion picture industry

  – ARRI's award winning gear & services are the first choice of leading filmmakers on high-end movies, dramas, commercials and documentaries

  – ARRI products are known for the best cinematic image quality, highest reliability and easy and intuitive workflows
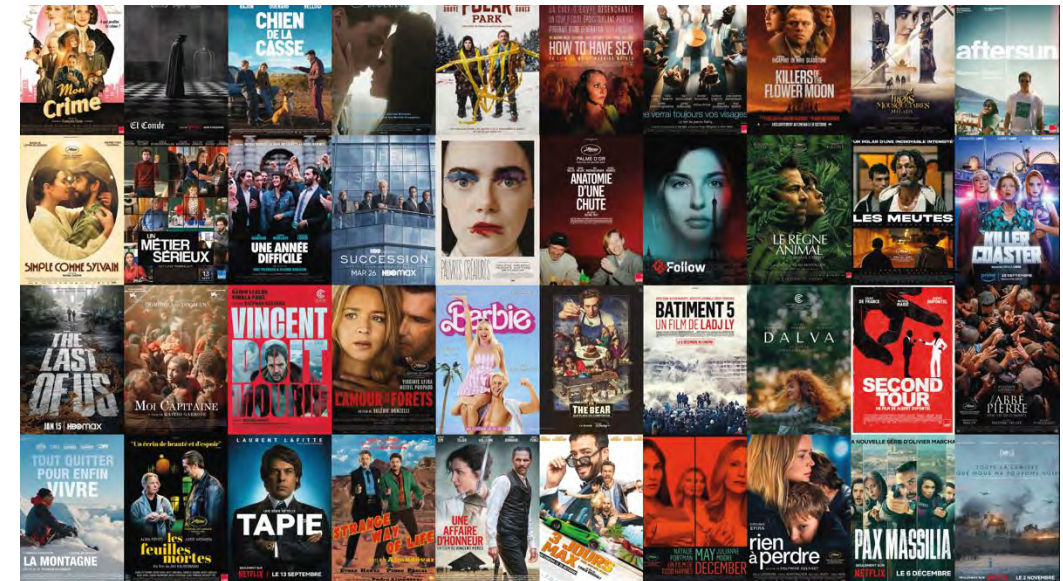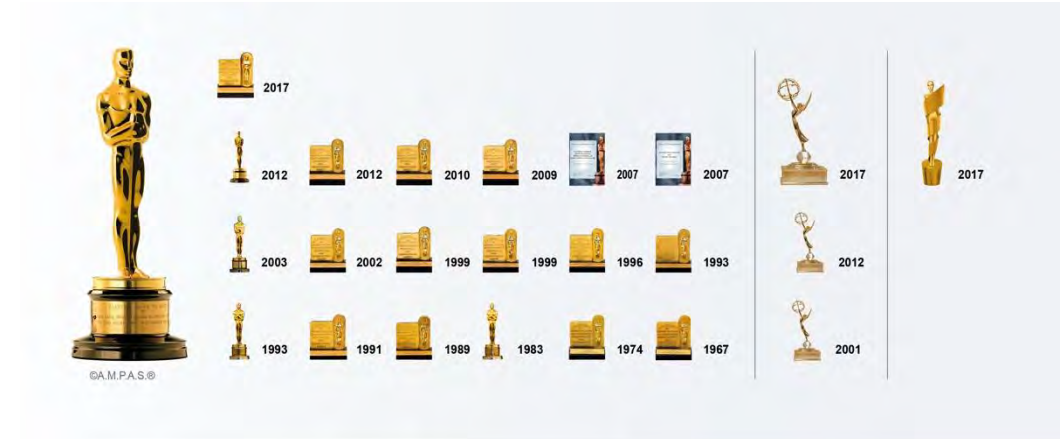
ALEXA 35 LIVE - MULTICAM SYSTEM

ARRI equipment has been used for the last years in prestigious live productions

Concerts: Adele, David Guetta, Coachella Music Festival, Coldplay, Dua Lipa, Ed Sheeran, the Rolling Stones album launch

TV Shows: Netflix Comedy Specials, Amazon

Fashion shows: most prestigious brands Chanel, Balenciaga, Dior, etc…

Sports: NFL go-to choice of cinematic cameras, Nascar, ELF, WRC, Sky Austria Opening Football season

ALEXA 35 LIVE - MULTICAM SYSTEM
ARRI LOOK. SEAMLESS INTEGRATION.

▪ **A major commitment to the live entertainment sector**

▪ **A complete solution**

– The cinematic ARRI Look in Super 35 4K HDR

– Fully featured fiber solution including SMPTE 2110

– Seamless integration into live production environments

– System camera capabilities in a dockable camera setup

ALEXA 35 LIVE - MULTICAM SYSTEM
MAIN COMPONENTS OVERVIEW

ALEXA 35 Live & Fiber Camera Adapter

Fiber Base Station

Skaarhoj Remote Control Panel

ARRI Multicam Accessories

Live Production System LPS-1

ALEXA 35 LIVE - MULTICAM SYSTEM
ALEXA 35 LIVE CAMERA

- **Based on ALEXA 35**
  - ARRI's most popular and most advanced camera to date
  - ALEXA 35 Live has the same hardware as ALEXA 35; same sensor, same image processing ...

- **... same cinematic ARRI look**
  - Super 35 4K sensor: shallow depth of field
  - Exceptional 17 stops of dynamic range: handle any lighting situation
    - Capture the full range of even extremely contrasty concert lighting
    - Capture sports events equally well in bright sun and dark shadows
    - Best for HDR images
  - REVEAL color science: wide gamut and accurate, natural colors
    - Especially good for bright and highly saturated colors and fine color shadings
  - High sensitivity: low noise in low light scenes

- **Result**
  - Best images in any lighting environment
  - The best skin tones in the business makes talent look great

ALEXA 35 LIVE CAMERA

- **Get creative to give the images your own, unique look**

- **ARRI Look Files**
  - In-camera Multicam Looks: tailor-made for typical live production situations (Talk Show, Game Show, Winter Sports, etc.)
  - In-camera ARRI Look Library: 87 pre-made unique cinematic looks that can be activated at the push of a button
  - Custom looks: create your own special look

- **ARRI Textures**
  - Unique to ALEXA 35 and ALEXA 35 Live cameras
  - Sophisticated custom grain and contrast settings
  - In-camera: 8 cine-style ARRI Textures
  - In-camera: 5 new Multicam ARRI Textures with different sharpening levels to match images
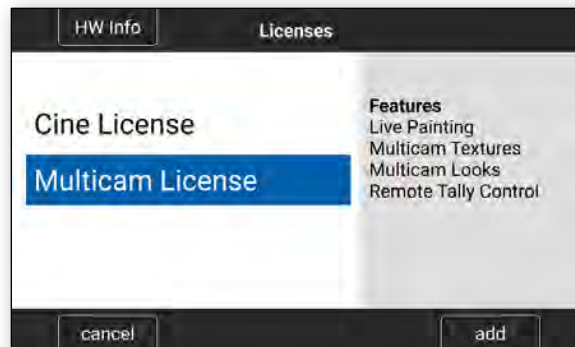 - ARRI website: more ARRI Textures for download

ALEXA 35 LIVE - MULTICAM SYSTEM
ALEXA 35 LIVE CAMERA

- **Other camera features**
  - Up to 60 fps
  - PL Mount (Hirose)
    - Modular lens mounts offer a wide choice of lenses including LPL, PL, EF, B4
  - In-camera full-quality ProRes recording (LogC4)
  - Multicam license included
    - Live painting
    - Multicam looks
    - Multicam textures
    - Remote tally control
  - Optional upgrade available to full ALEXA 35 features with Cine license

Feature	ALEXA 35 Live	ALEXA 35
Fps	0.75 - 60 fps	0.75 - 120 fps
Lens Mount	PL Mount (Hirose)	LPL Mount (LBUS)
Recording Modes	Standard	Standard, Pre-recording
Recording Codecs	ProRes	ProRes, ARRIRAW
Sensor Modes	4K 16:9 4K 2:1 3.8K 16:9 2K 16:9 S16	4.6K 3.2 Open Gate 4.6K 16:9 4K 16:9 4K 2:1 3.8K 16:9 3.3K 6:5 3K 1:1, 2.7K 8:9 2K 16:9 S16
Anamorphic Desqueeze	No	Yes
Color Management	ARRI	ARRI, Custom
Included License	Multicam	Cine

ALEXA 35 LIVE - MULTICAM SYSTEM
ALEXA 35 LIVE CAMERA

- **Stand-alone operation**
  - The features of a system camera in a dockable multicam setup
  - Fiber Camera Adapter can be easily removed for stand-alone use of camera on ARRI TRINITY Live, Spidercam, cranes, gimbals
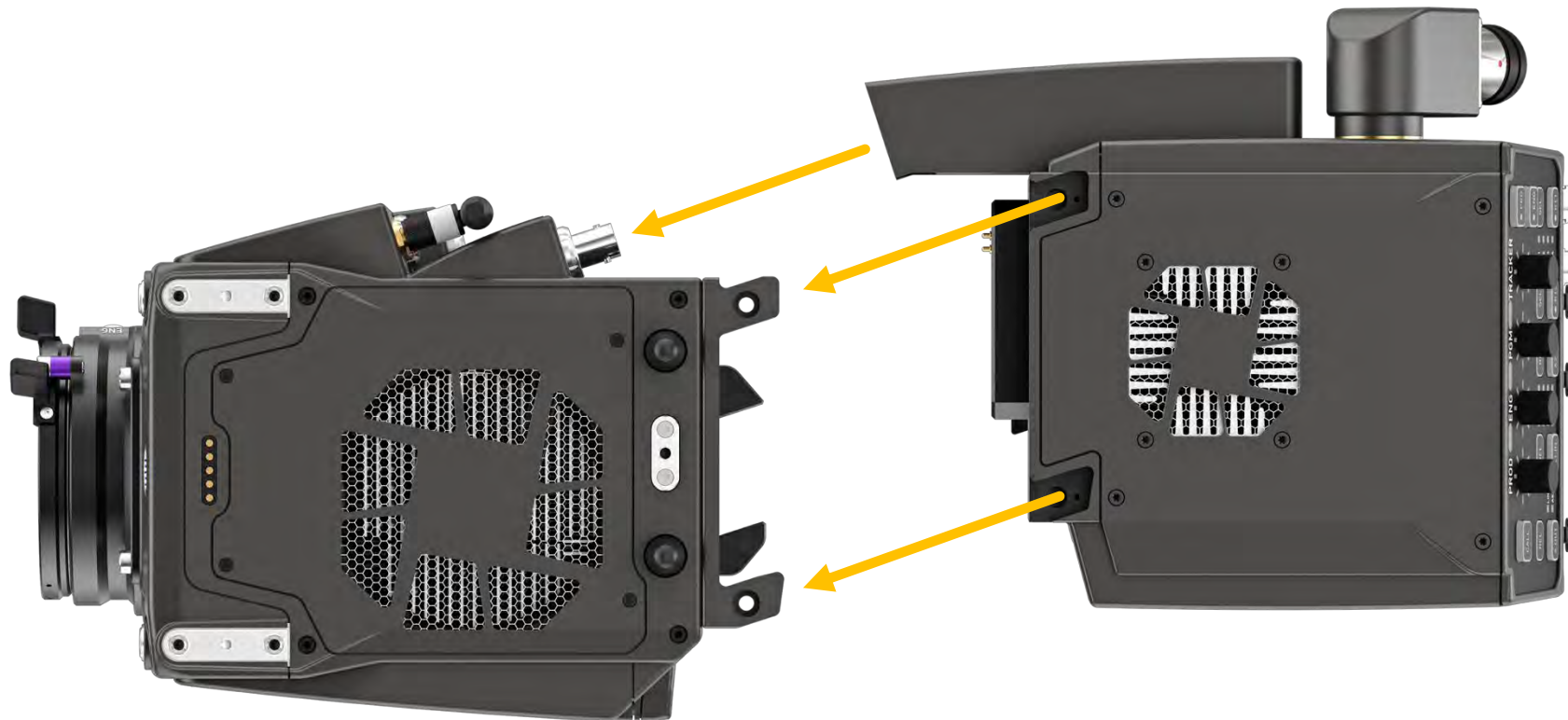 - With in-camera recording and for attaching a wireless transmitter

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LPS-1 FIBER CAMERA ADAPTER

▪ **Attaches easily and with minimum cabling to ALEXA 35 Live or ALEXA 35**
  – Sturdy angled keys of Fiber Interface Plate FIP-1 securely guide FCA onto camera

ALEXA 35 LIVE - MULTICAM SYSTEM
LPS-1 FIBER CAMERA ADAPTER

- **Attaches easily and with minimum cabling to ALEXA 35 Live or ALEXA 35**
  - Sturdy angled keys of Fiber Interface Plate FIP-1 securely guide FCA onto camera
  - 1x cable: FCA to Ethernet cable

ALEXA 35 LIVE - MULTICAM SYSTEM
LPS-1 FIBER CAMERA ADAPTER

- **Familiar and intuitive controls for camera operators**

- **Full complement of industry-standard interfaces**
  - SMPTE 311 hybrid cable
  - 2 channel intercom
  - Audio in and out, MIC & LINE level, analog & digital, with or without 48V
  - 4 RETURN video inputs selectable on two separate controls
  - GPIO, TRACKER, etc.

- **Unique features**
  - SMPTE 311 cable: uncompressed 4K transmission over 2 km with power
  - Up to 400W available for camera and 12V or 24V accessories
  - Camera can also be powered externally to use tactical fiber of up to 10Km
  - Separate fiber tunnel for additional video, audio or control signals
  - Separate Ethernet tunnel for any Ethernet enabled device like a separate focus assist
  - Local RCP connection

LPS-1 FIBER CAMERA ADAPTER

- **Familiar and intuitive controls for camera operators**
  - CALL   Signals camera operator wants to talk
  - PROD   Volume of production intercom
  - ENG   Volume of engineering intercom
  - PGM   Volume of program audio on intercom
  - TRACKER   Volume of tracker intercom
  - PRD   Enables intercom production channel microphone
  - ENG   Enables intercom engineering channel microphone
  - REL   Push release button to make a change with A OUT button
  - A OUT   Switches between AES or analog line level for A OUT when REL is pushed
  - REL   Push release button to make a change with A1 IN button
  - A1 IN   Switches between MIC 48V/MIC/LINE/AES for A1 IN when REL is pushed
  - REL   Unlocks (releases) the A2 IN button
  - A2 IN   Switches between MIC 48V/MIC/LINE/AES for A2 IN once unlocked
  - SEL   Selects one of the four return in channels for allocation to RET2 button
  - RT2   Switches from PGM video to the selected return in channel
  - SEL   Selects one of the four return in channels for allocation to RET1 button
  - RT1   Switches from PGM video to the selected return in channel

LPS-1 FIBER CAMERA ADAPTER

▪ **Connectors**

- HEADSET — XLR 5-pin socket for intercom headset
- A OUT — XLR 3-pin plug for AES or analog line audio out
- A1 IN — XLR 3-pin socket for audio input 1 (MIC 48V/MIC/LINE/AES)
- A2 IN — XLR 3-pin socket for audio input 2 (MIC 48V/MIC/LINE/AES)
- FIBER — Lemo 3K SMPTE 311M fiber connector (socket)
- AUX FIBER — Neutrik Opticon connector for auxiliary fiber tunnel
- 12V/4A — Lemo EGG socket for 12V accessory power output*
- 12V/2A — Lemo EGG socket for 12V accessory power output
- 12V/2A — Lemo EGG socket for 12V accessory power output
- 24V/4A — ARRI RS Lemo socket for 24V accessory power output*
- GPIO — Hirose 10-pin HR10A connector
- TRACKER — Hirose 20-pin HR10A connector
- SDI1 OUT — BNC Monitor out (= ALEXA 35 SDI 1 out)
- RET OUT — BNC Monitor output of return video in from Fiber Base Station
- RCP PoE — RJ45 Ethernet for direct RCP connection
- ETH — RJ45 for auxiliary 1 Gbit/s Ethernet tunnel
- LLA PoE — RJ45 Ethernet for Large Lens Adapter interface module for future use
- REF OUT — BNC Genlock out
- AUX — BNC Auxiliary/Teleprompter SDI out

* = only available when system is powered by SMPTE 311 fiber (INT)

ALEXA 35 LIVE - MULTICAM SYSTEM
LPS-1 FIBER BASE STATION

- **Designed for seamless integration into live production environments**

- **Full capabilities and interfaces**
  - 4x RETURN IN
  - 15x simultaneous SDI outputs, including 3G, 6G and 12G on single, dual or quad link
  - Simultaneous output of UHD and HD (progressive or interlaced)
  - SMPTE 2110 IP: Video, audio & control signals over Ethernet for cost-savings and easy scalability

- **In live production, reliability is king**
  - Safe through SMPTE 2022-7 redundant network for 2110 IP
  - Reliable operation through hot-swappable, redundant power supplies

ALEXA 35 LIVE - MULTICAM SYSTEM
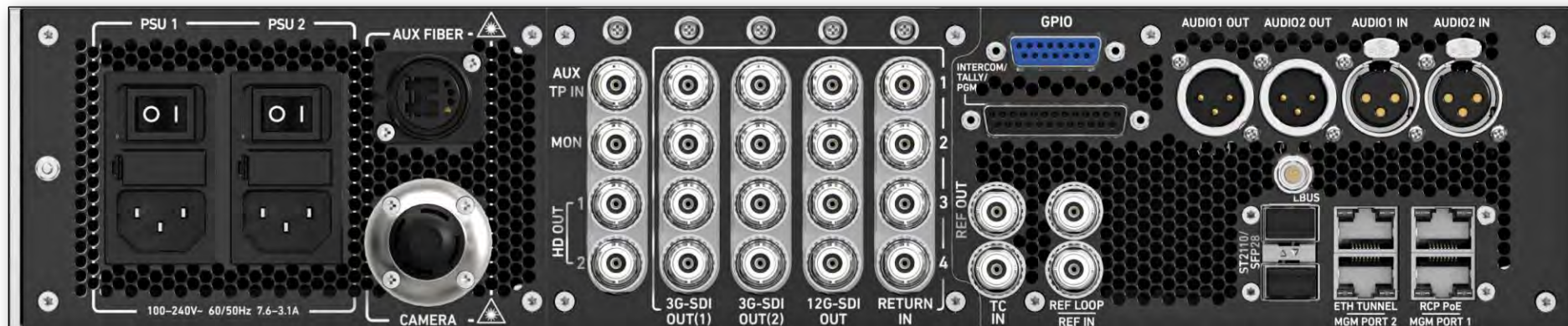# LPS-1 FIBER BASE STATION

- **Connectors & Controls (front)**
  - RCP/MGM PoE   RJ45 for RCP connection (PoE) or web interface
  - TALLY   Red, green and yellow tally indicator

- **Connectors (back)**
  - PSU 1   IEC 320 Universal AC mains power input (100 – 240V, 50/60Hz)
  - PSU 2   IEC 320 Universal AC mains power input (100 – 240V, 50/60Hz)
  - AUX FIBER   Neutrik Opticon connector for auxiliary fiber tunnel
  - CAMERA   Lemo 3K SMPTE 311M fiber connector (plug)
  - AUX TP IN   BNC input auxiliary/teleprompter (SDI up to 12G)
  - MON   BNC output with status overlay (SDI up to 3G)
  - HD OUT 1/2   2x BNC outputs for down converted HD signal (SDI up to 3G), progressive or interlaced
  - 3G-SDI OUT (1) 1-4   4x BNC outputs for 4x single link 3G or 1x quad link 12G
  - 3G-SDI OUT (2) 1-4   4x BNC outputs for 4x single link 3G or 1x quad link 12G

LPS-1 FIBER BASE STATION

▪ **Connectors (back, continued)**

–	12G-SDI	4x BNC outputs for up to 4x single link 12G or 2x dual link 6G
–	RETURN IN 1-4	4x BNC inputs for return video (up to 3G)
–	GPIO	D-sub 15-pin for general purpose I/O
–	INTERCOM/TALLY/PGM	D-sub 25-pin for Intercom audio in/out, PGM audio in and Tally control (SONY style connector and pin-assignments)
–	REF OUT	1x BNC output for active genlock (black burst or tri-level sync) derived from PTP or analog REF IN
–	TC IN	1x BNC input for linear timecode
–	REF LOOP	1x BNC loop output of genlock input signal (black burst or tri-level sync)
–	REF IN	1x BNC input for genlock signal (black burst or tri-level sync)
–	AUDIO1 OUT	XLR 3-pin plug (line level or AES) for balanced analog or digital audio
–	AUDIO2 OUT	XLR 3-pin plug (line level or AES) for balanced analog or digital audio
–	AUDIO1 IN	XLR 3-pin socket (line level or AES) for balanced analog or digital audio
–	AUDIO2 IN	XLR 3-pin socket (line level or AES) for balanced analog or digital audio
–	LBUS	ARRI LBUS connector for future use
–	ST2110/SFP28	SFP28 transceiver modules with LC fiber connector (up to 25G) for SMPTE 2110, primary or redundant
–	ST2110/SFP28	SFP28 transceiver modules with LC fiber connector (up to 25G) for SMPTE 2110, primary or redundant
–	ETH TUNNEL	RJ45 for auxiliary 1 Gbit/s Ethernet tunnel
–	MGM PORT 2	RJ45 for multicam web interface
–	RCP PoE	RJ45 for remote control panels (with power)
–	MGM PORT 1	RJ45 for multicam web interface

ALEXA 35 LIVE - MULTICAM SYSTEM
BE FULLY IN CONTROL

- **We are open to support other established RCPs**

- **Current tool of choice is the Skaarhoj Remote Control Panel (RCP Pro ARRI V2B)**
  - Combines classical RCP handling with a powerful, fully customizable interface
  - Can be powered by PoE (Power over Ethernet)
  - Simple, free of charge SW update by user

- **Live painting as with other RCPs**

- **Extra features not found in other RCPs**
  - Greater camera and image control, including
    - Frame rate
    - REC start/stop for ISO reel in camera
    - Playback: play/pause, select clip, jog, playback speed
    - Select looks, Textures, camera setup files
    - Setting focus and zoom remotely
    - ASC CDL values: RGB slope, offset and power
    - Tint (green/magenta balance)

EASY SETUP & CONFIGURATION

- **Local control of Fiber Camera Adapter and Fiber Base Station**
  - Status and menu for local setup, configuration and diagnostics
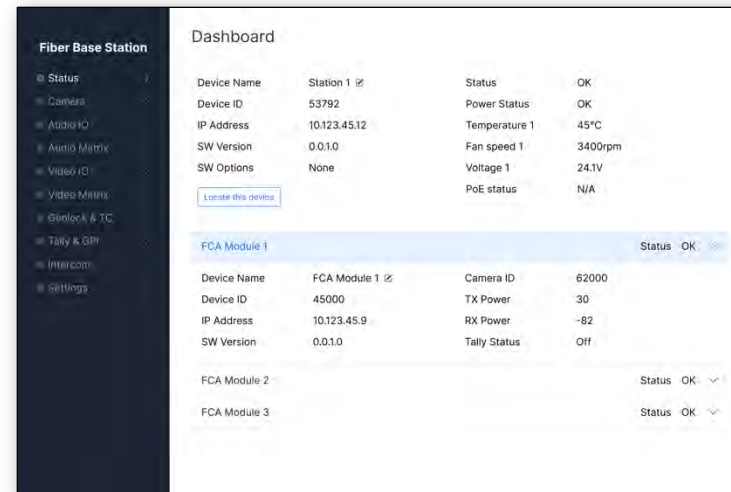
ALEXA 35 LIVE - MULTICAM SYSTEM
EASY SETUP & CONFIGURATION

▪ **Control, configuration, diagnostics and SW updates: when and where you need it**
  – ALEXA 35 Live camera: ARRI Webremote
  – Fiber Camera Adapter and Fiber Base Station: FCA/FBS web interface
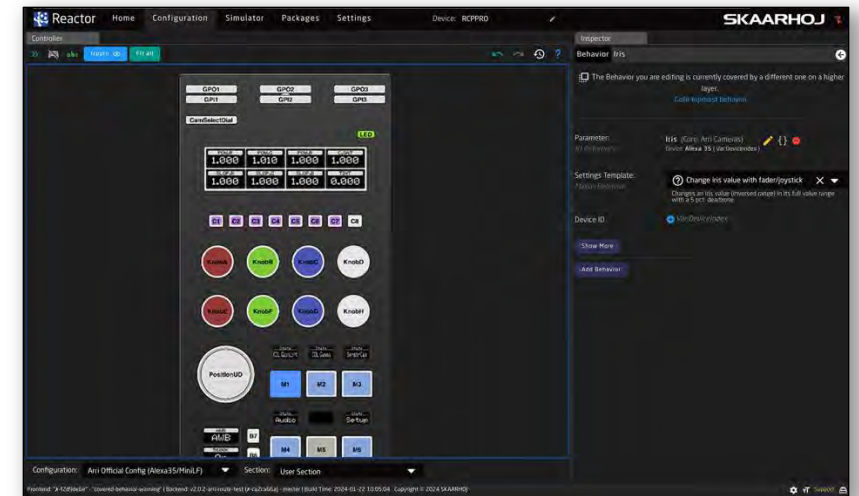 – Skaarhoj RCP: Skaarhoj Reactor web interface

Skaarhoj Reactor Web Interface

ARRI Webremote

FCA/FBS Web Interface

MULTICAM ACCESSORIES

MULTICAM ACCESSORIES

- **Tally Light Module**
  - LBUS tally light with 16-segment camera ID display
  - Mount with RIA-1 bracket, use LBUS cable to camera

- **Live Production Handle LPH-1**
  - Perfect balance and reach with numerous mounting points
  - Compatible with LWS-6 for 15 mm rods
  - Compatible with VMB-5 and MVB-1 viewfinder mountings

- **CCM-1 for Live Production Set**
  - Camera Control Monitor CCM-1
  - Monitor Yoke Support MYS-1L
    - One-handed, counterbalanced, four-axis monitor adjustment

- **ARRI Touchdown System**
  - Lightweight, self-aligning, fast and secure new mounting system
  - Built-in 15 mm rod support, ARRI rosettes and long shoulder pad
  - ARRI Touchdown Base Plate TBP-1
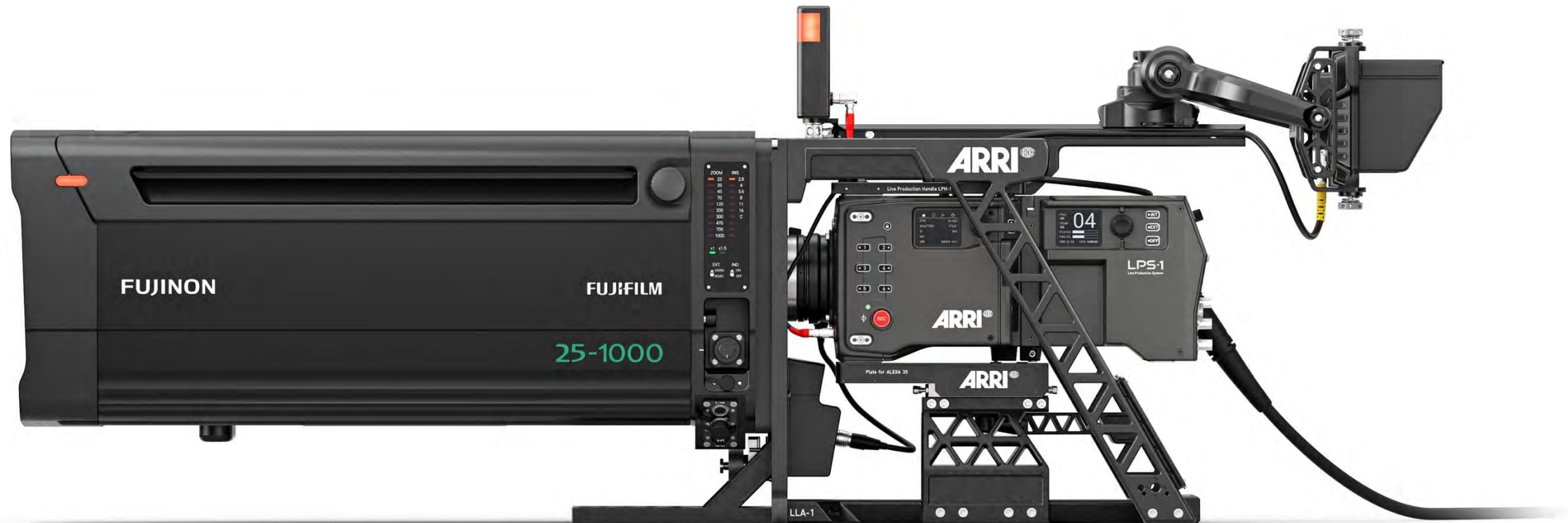 - ARRI Touchdown Receiver Plate TRP-1

- **Stabilizer Adapter Mounts (SAM)**
  - Fast mounting of camera onto camera stabilizing systems

**Tally Light Module
TLM-1**

**Live Production Handle
LPH-1**

**Camera Control Monitor
CCM-1**

**Monitor Yoke Support
MYS-1L**

**ARRI Touchdown System
TBP-1 & TRP-1**

Stabilizer Adapter Mounts

ALEXA 35 LIVE - MULTICAM SYSTEM
LARGE LENS ADAPTER LLA-1

ALEXA 35 LIVE - MULTICAM SYSTEM
LARGE LENS ADAPTER LLA-1

- **Large Lens Adapter**
  - Quick-fit clamping mechanism for fast camera mounting
  - Precision mounting plates for different cameras
  - Lightweight and strong, multiple mounting points
- **Compatibility**
  - Fits all PL or B4 box lenses
  - Clamping mechanism range also fits with PL/B4 adapter
- **Cable Hirose to Box Lens**
  - Connection between PL Mount (Hirose) and Box lens
- **LLA-1 Control Module**
  - Planned for Q3 2024
  - Replaces Cable Hirose to Box Lens
  - Additional connections for ECS controllers
- **camRade rainCover OB/EFP Large**
- **LLA-1 Case**

**Cable Hirose
to Box Lens**

**LLA-1
Control Module**

**Large Lens Adapter
LLA-1**

**LLA-1 Plate for
ALEXA 35**

**LLA-1 Plate for
Mini/LF**

**LLA-1 Plate for
AMIRA Live**

**camRade rainCover
OB/EFP Large**

LLA-1 Case

ALEXA 35 LIVE - MULTICAM SYSTEM
ROBUST AND RELIABLE

- **Reliability is mission critical during live productions**

- **ARRI cameras have stood the test of time on even the roughest remote locations**
  - LPS-1 FCA is specified and tested like any ARRI camera
  - Sturdy aluminum housing with strict separation of cooling and electronics
  - Splashproof, dust proof and silent
  - Largest operating temperature range in the industry: -20º C to +45º C / -4° F to +113° F

- **Dependable, established global ARRI service network**
  - Single point of contact for support; same manufacturer supports the camera, FCA, FBS and accessories
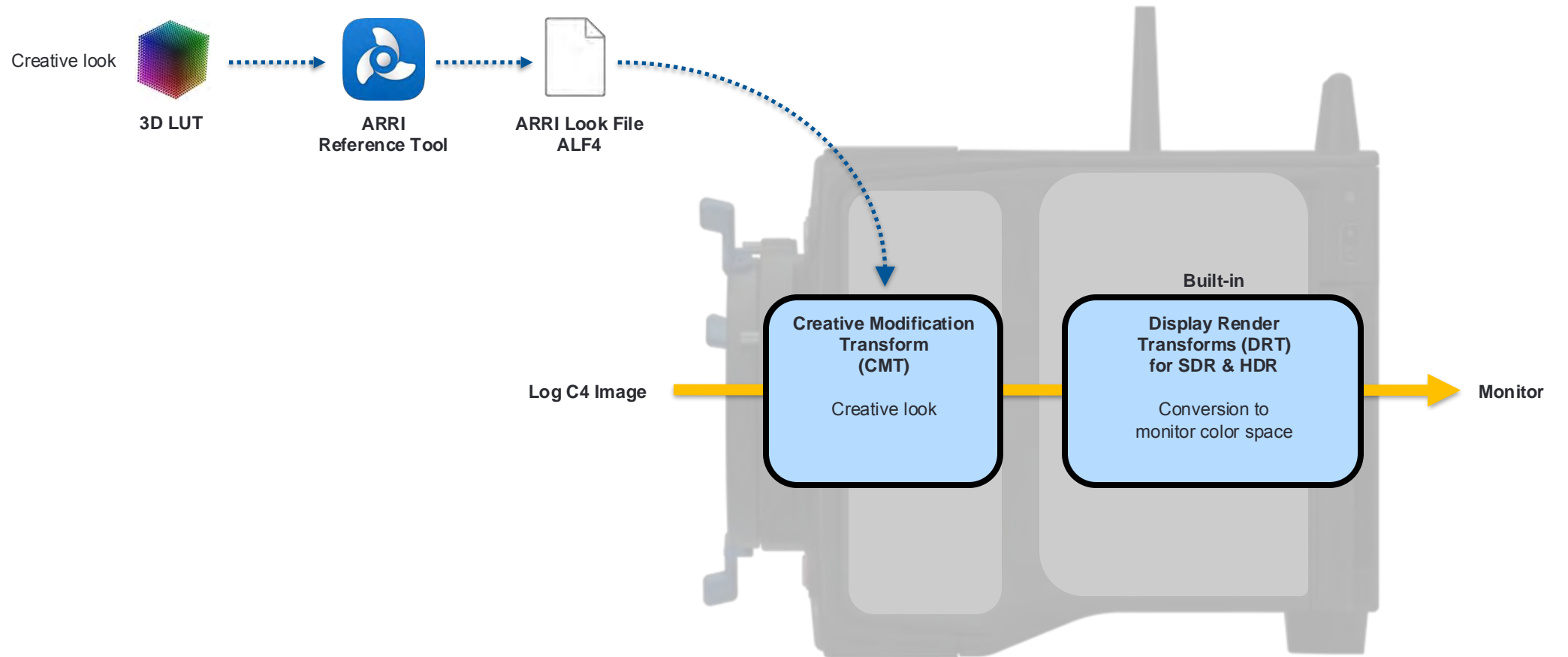 - Live production service contracts

OTHER SETS & ARTICLES

- **Recommended Add-ons**
  - Skaarhoj RCP Pro ARRI V2B
  - CCM-1 for Live Production Set
  - MVF-2 Viewfinder Set & Viewfinder Mounting Set VMB-5 or Viewfinder Mounting Set Cross Pipe
  - If you own an ALEXA 35 Live: ARRI LPL Lens Mount (LBUS) & ARRI PL-to-LPL-Adapter
  - If you own an ALEXA 35: PL Mount (Hirose)

- **Also available separately**
  - ALEXA 35 Multicam Support Set
    - Touchdown Base Plate, Touchdown Receiver Plate, Live Production Handle
  - Tally Light Module TLM-1, RIA-1 Bracket, Cable LBUS - LBUS (0.5m/1.5ft)
  - Large Lens Adapter Set (Basic, Regular)

- **Media, ARRI Signature lenses, TRINITY Live, 360 EVO remote head, ARRI and Claypaky lighting and many other products ...**

- **Planned**
  - Live Production Monitor LPM-1 Set
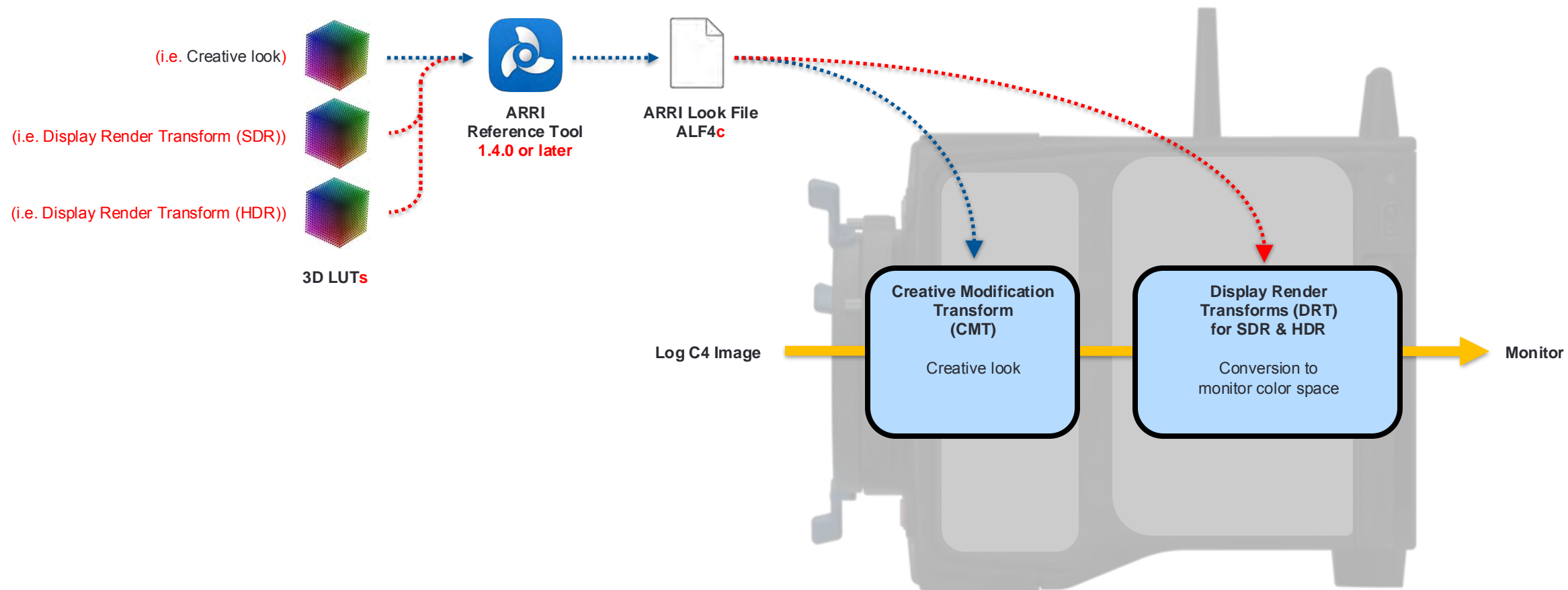 - LLA-1 Control Module

ALEXA 35 ONLY
CUSTOM COLOR MANAGEMENT

(i.e. Creative look)

(i.e. Display Render Transform (SDR))

(i.e. Display Render Transform (HDR))

3D LUTs

ARRI Reference Tool 1.4.0 or later

ARRI Look File ALF4c

Log C4 Image

Creative Modification Transform (CMT)

Creative look

Display Render Transforms (DRT) for SDR & HDR

Conversion to monitor color space

Monitor

ALEXA 35 LIVE - MULTICAM SYSTEM
SUMMARY

- **A complete production toolset for the requirements of live content producers**

- **Cinematic ARRI look**

- **Seamless integration into existing live production infrastructures**

Thanks!