

CINEMATIC MULTICAM

Remote control of AMIRA and ALEXA Mini for live TV





"We love using the AMIRA Multicam because of the outstanding images the AMIRAs capture—and the high-standard build of the camera. Technically, the DTS fiber system brings all the features one expects in order to create a really good workflow."

Thomas Bischofer, Ruptly.TV



Ruptly.TV (Berlin, Germany) | News Production

Since it was launched in 2013, Ruptly, a Berlin-based video news agency, has been providing visual news content to a range of media, from large broadcast networks to online content providers. The agency offers edited video packages, video on demand, operational facilities through broadcast services, and direct access to global events via live streaming. When FIFA was looking for coverage of its 2018 World Cup curtain-raising events, it turned to Ruptly. They've been covering news and sporting events live since the beginning, and also offer video editing and other broadcast services. Their Outside Broadcast van and their news studio are equiped with AMIRA Multicam Systems, providing outstanding image quality, vision-mixing facilities, and a versatile and robust workflow.



"The most important advantages of AMIRA are definitely the picture quality and its versatility. In the past, our cameras were separated between multicam or reports on the one side and image films or scenic productions on the other. Now we no longer need two types of cameras, only the AMIRAs."

Andreas Schech, VPS Media



VPS Media (Hoechst im Odenwald, Germany) | Live Concerts, Live Events, Commercials, Corporate Productions

Founded as a film production company in 1999, VPS Media is now a multimedia agency offering a wide range of services: from conceptional design to production, post production, and further special services.

Since 2014, VPS Media has implemented almost 1,000 projects with 9 AMIRAs and 2 ALEXA Minis. These include commercials, multicam productions, event videos, music videos, image films, product videos, documentaries, and reportages. With AMIRA Multicam System they successfully provide eight DAX companies with recordings or live broadcasts for press conferences, management speeches, or annual general meetings. They shoot concerts or film gigantic festivals like World Club Dome for life streaming.

PHOTOCINELIVE

"Our customers are very demanding. They always try to find ways to make their coverage different. What producers want is a real cinematic look."

Albrecht Gerlach, PhotoCineLive



PhotoCineLive (Paris, France) | Live Fashion Shows, Concerts

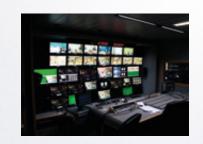
From its headquarters in the center of Paris, PhotoCineLive has become one of France's high-end specialists in multi-camera shooting for concerts and fashion shows, offering customers the best quality digital cinematographic equipment, advice, and support.

The world's top fashion design companies are demanding ever higher standards of coverage for their shows. PhotoCineLive is using ARRI AMIRAs and ALEXA Minis to answer this demand. Knitting together as many as 18 cameras, the Multicam System captures every moment of a show in stunning quality. The system connects by fiber with the OB vans of broadcast service providers, and the shows are often streamed live.



"We preferred AMIRA's large sensor, high resolution, and of course its high dynamic range, which helped us bring some exciting new strength to the show. After shooting with the camera for two seasons, we have gained a lot of valuable experience."

Lihong Zhou, technical director, Hunan Television



lunan Broadcasting System (Hunan, China) | Live TV Production

One of the most influential television networks in China, the Hunan Broadcasting System provides TV programming and a cable TV transmission service with a repertoire of high-quality television series, entertainment shows, commercials, news, and gala events. It boasts industry leading abilities for film and video production and live TV broadcasts.

"I'm a Singer" is one of China's most popular TV programs. The Hunan Broadcasting System has used AMIRA Multicam on two seasons of the reality talent show. They deploy more than 20 cameras combined by robust and flexible technology and workflows, but it was the AMIRA's outstanding image quality that most appealed to them.

MK

"I love the AMIRA pictures; they are the best we have ever had in many years of doing this show."

Christopher Nichols, Rubicon TV



Rubicon TV (Oslo, Norway) | Live TV Production

Rubicon TV is one of the largest production companies in Norway and a part of Endemol Shine Group. Rubicon TV produce scripted and entertainment television programs for all the big Norwegian media houses, and for international companies such as Netflix.

The NRK network commissioned production company Rubicon to make the latest installment of the most popular, competition driven, reality program on Norwegian television. "Eternal Glory" features competitions between retired sports stars and has historically been one of Norway's highest viewed shows. It was shot on location in Portugal using five AMIRAs with B4 mounts fitted and using broadcast lenses for the longer zoom ranges.





















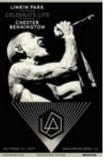




Captured with ARRI Cinematic Multicam

A small selection of the many productions shot on AMIRA and ALEXA Mini in Multicam mode







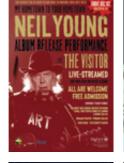


















A list of convinced users























































































Cinematic Multicam

Remote control of AMIRA and ALEXA Mini for live TV

Cinematographers are striving for a cinematic look; producers require efficient and flexible production means. These two requirements often conflict. ARRI's response is a simple to integrate fiber transmission system through a partnership with British manufacturer DTS. The combination of the ARRI cameras and the DTS system lets the production team achieve the established ARRI cinematic look, combined with the efficiency of a live transmission system. Customers can record on-camera for postproduction, finishing or slow motion effects, while simultaneously transmitting live HD or UHD signals to a broadcast facility, stage displays, or social media channel using standard production environments like OB vans or studios. The ARRI Multicam System knits a variety of components together to give program makers flexibility tailored to their very varied needs. A single investment gives renters or owners a system that can be switched from Cinematic Multicam to Documentary to Drama styles, with the same image quality and look options available for all three production types.

System Features

- Live HDR in PQ or HLG, according to Rec 2100
- Wide color space according to Rec 2020
- 4K UHD recording and outputs
- ARRI Look Library & 3D LUT support
- Compatibility with Sony RCP controls

- Long transmission distance, up to 2 km incl. power
- Flexible configuration
- Master Grips integration
- Remote iris control for PL, B4, EF and cine lenses
- Tally interface

- Intercom channels
- Return Video interface *
- Prompter channel
- Genlock support *
- Slow Motion application with onboard recording

* AMIRA only



One camera system for three production types



Cinematic Multicam for various kind of multi-camera productions



Documentary style for magazines, home stories, feeds and more



Drama style for small crews



Ideal camera for all kind of specialized shots



Perfect for applications with steadycam, cranes and remote heads

AMIRA and ALEXA Mini Main Features

- Exceptional ARRI image quality
- Beautiful skin tones and natural colors
- 14+ stop dynamic range and low noise, best for HDR
- Preloaded ARRI Look Library & 3D LUTs
- Up to 200 fps slow motion
- All ProRes codecs up to 4444 XQ

- 4K UHD
- ARRIRAW recording (license)
- Compatibility with PL, EF, B4, LPL Lens Mounts
- Cinematic Multicam support
- FPGA based architecture, allowing product updates on existing systems

AMIRA Specific Features

- Full audio recording support
- Ergonomic design for smaller crews
- Easy shoulder-mount operation

ALEXA Mini Specific Features

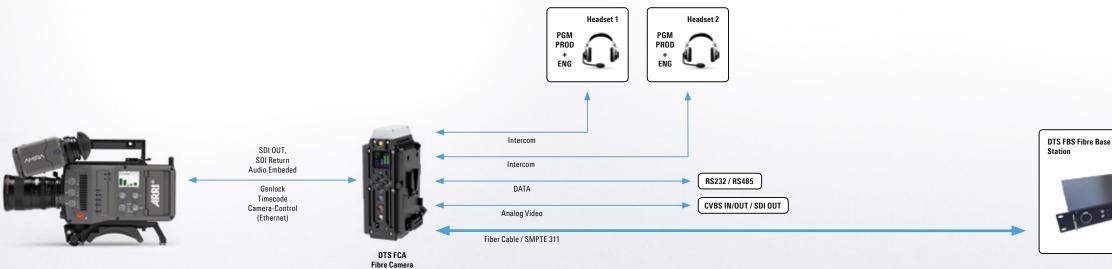
- Compact & lightweight form factor
- 4:3 recording format (license)
- Wide range of accessories for every use case

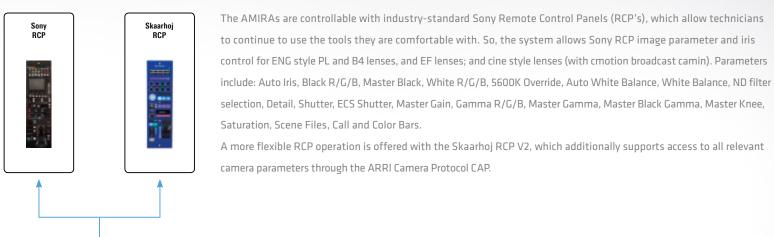


AMIRA Multicam setup

for easy integration into broadcast production environments

AMIRA Multicam easily can be integrated into existing infrastructure, providing interfaces with, for example, PGM Return, Tally (green/red), and Genlock. The system will work with fiber-based transmission types like DTS, Ereca, Protech Nipros, MultiDyne, Sokong, and Telecast, allowing the transport of all video and data signals over a single SMPTE-311 fiber cable, providing power, as well as Wireless (RF) and Ethernet/BNC cable connection. It also allows for on-board recording of any format, including LogC on CFast 2.0 cards in parallel to the live SDI output. LogC recording allows for the retention of all image information throughout the production process but also gives the option of transfer to a color space target either within the camera, or at any later stage of the production process.



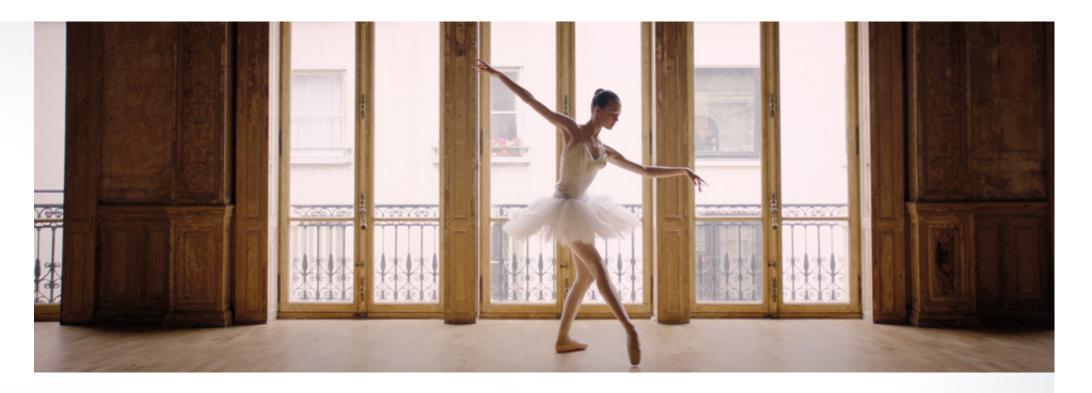


HD Mode: 2x 1,5G/3G 1x PROD IN / PROD OUT 4x 3G/2SI plus configurable 1x ENG IN / ENG OUT 2x SL12G/2SI or 1x DL6G/2SI or 1x analogue Stereo OUT 2x SL6G/2SI 2x AES Audio OUT 2x 1,5G 1080i 1x LTC I/O switchable Red Tally IN Green Tally IN 1x RS485 1x RS232 1x RS422 1x BB or Tri-Level Sync Loop through 1x Ethernet (2 Connectors)



Look Library looks and 3D LUTs Predefined artistic color matrixes

Look Library looks and 3D LUTs (with 33 mesh points and additional metadata) can also be loaded, used, and modified using the Sony or Skaarhoj RCP. They can be predefined by generating a 3D Lut with a grading system and saving this as an ARRI look file. The ARRI Color Tool can be used for importing and exporting 3D LUTs, which enables very precise and sophisticated color adjustments to be made. This helps both with the color matching of cameras and in the creation of specific and high quality looks in multi-camera productions.















The best of HDR

14+ STOPS

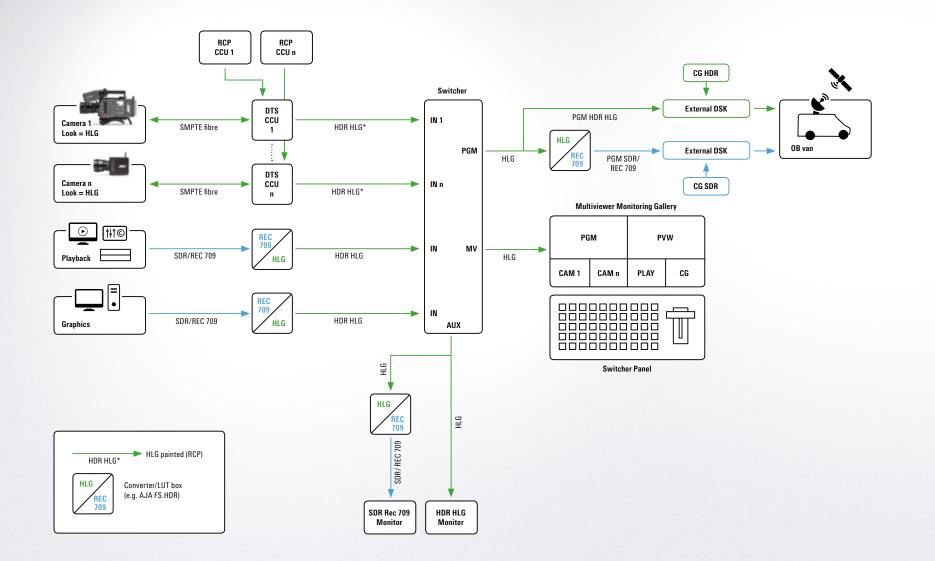
DOLBY PQ

HLG

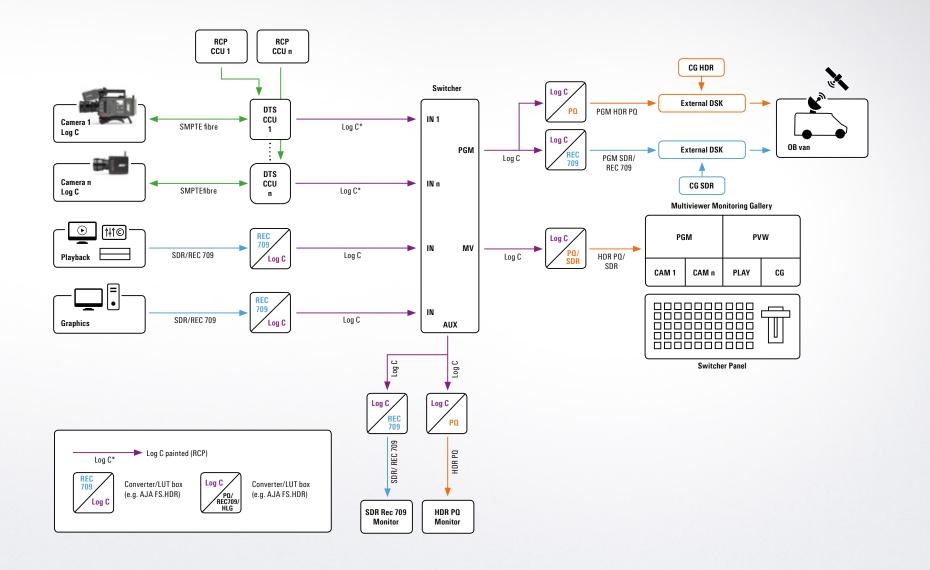
BT.2100

From their inception ARRI digital cameras have always been HDR capable – an important consideration for broadcasters contemplating how the industry might progress beyond HD TV. The AMIRA and ALEXA Mini 14+ stops make it the perfect starting point for HDR distribution in either Dolby PQ or HLG formats, as defined by ITU-R BT.2100. HDR with ARRI cameras allows an even better overall image quality – higher contrast, with deeper blacks and brighter whites; more vibrant colors; more depth; a sharper image, with more detail; and a larger range, which makes more looks possible.

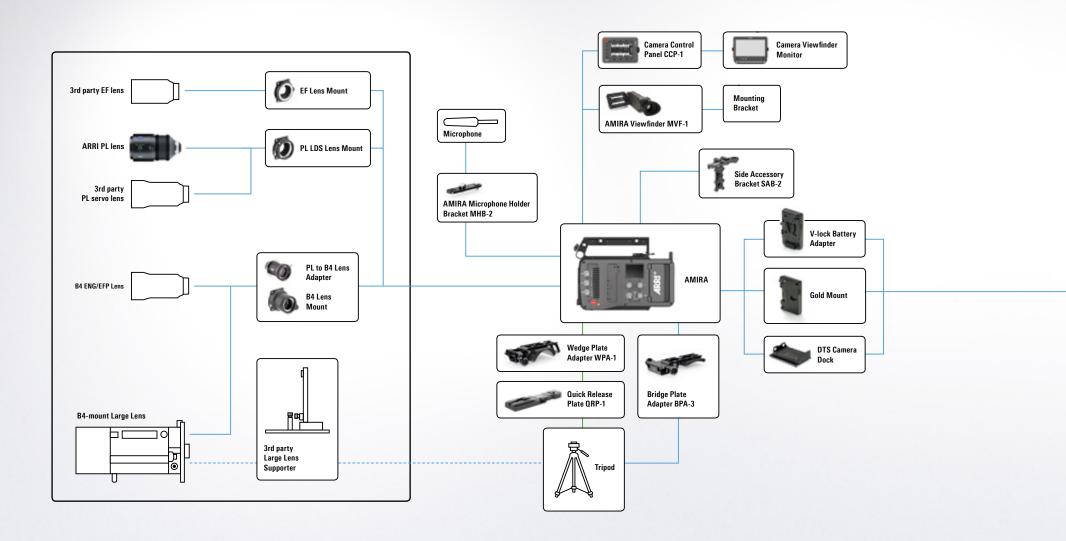
HDR Multicam Workflow for HLG



HDR Multicam Log C based Workflow for PQ and HLG



AMIRA Configuration Overview



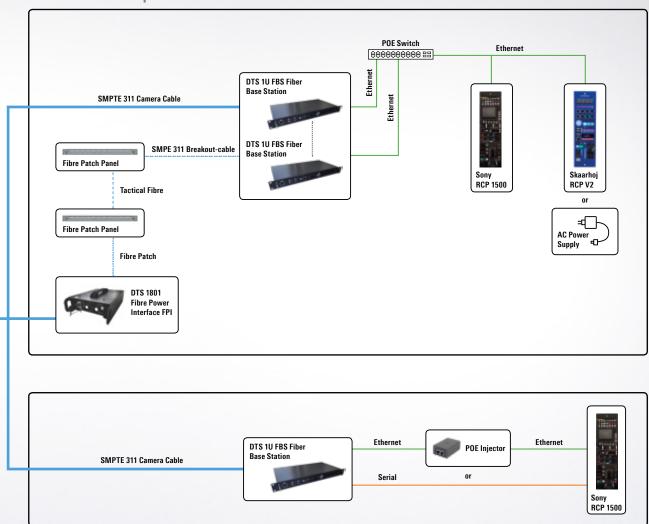
Multi-camera Setup

Mounting Bracket for DTS Cord Control Pod

SMPTE 311 Camera Cable

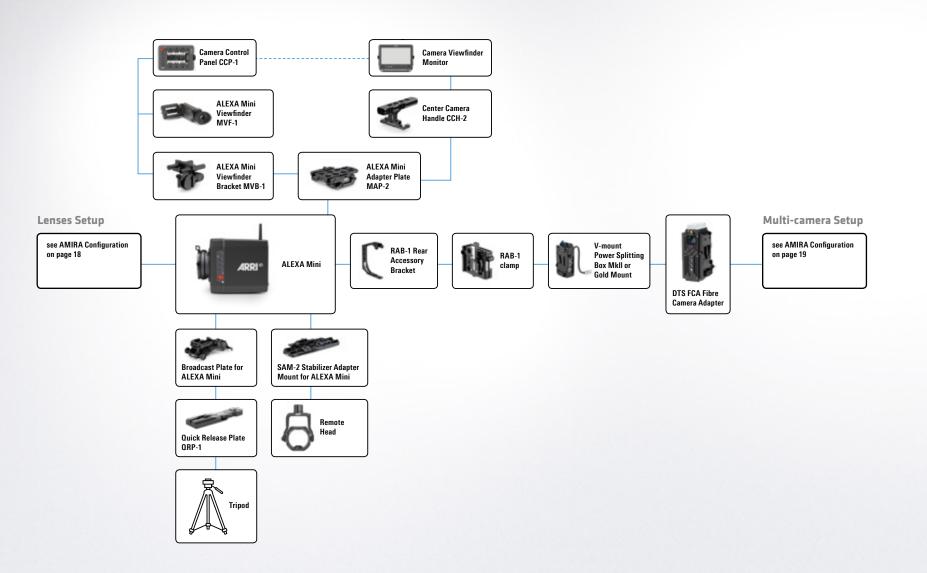
DTS Cord Control Pod

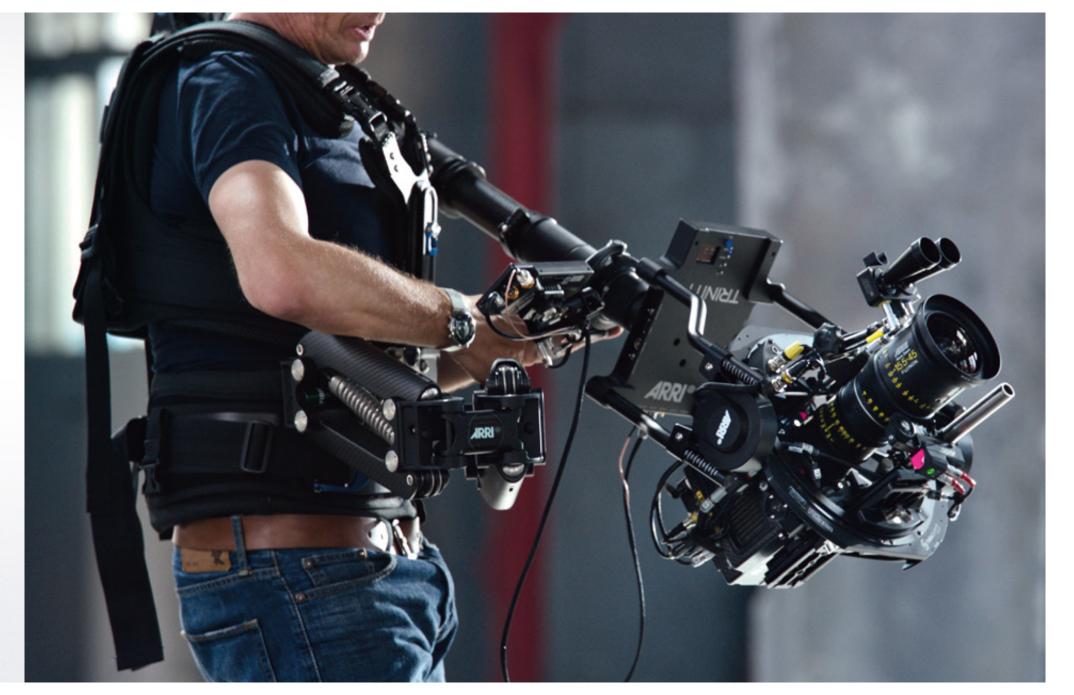
DTS FCA Fibre Camera Adapter



Single-camera Setup

ALEXA Mini Configuration Overview





Components for Multicam setup for efficient and cost-effective workflow



K0.0001090 AMIRA Camera Set Eco

Features: HD 1080i & 1080p; Framerates 0.75-100 fps; Recording formats ProRes 422 (LT) and 422 in Rec709 & Log C; Basic Looks; Unlimited Looks functions; Import Looks; Import custom 3D LUTs; In camera adjustable image parameters for Knee, Gamma, Saturation & other, focus and exposure control tools; Intervalometer; Multicam support; S16 lens mode, Custom 3D LUTs, Camera Remote Control.

Includes:

AMIRA camera body (incl. viewfinder mount, viewfinder cable (short/long), camera handle)

K2.75004.0 AMIRA viewfinder MVF-1

KO.0001091 AMIRA Camera Set Advanced

Features: HD 1080i & 1080p; Framerates 0.75-200 fps; Recording Formats: ProRes 422 (LT), 422, 422 (HQ) in Rec709 & Log C; Unlimited Looks functions; Import Looks; Import custom 3D LUTs; In camera adjustable image parameters for Knee, Gamma, Saturation & other; ASC CDL in-camera grading; focus and exposure control tools; Dynamic Auto Tracking Whitebalance; Bluetooth Audio monitoring; Pre-record function; Intervalometer; Multicam support; S16 lens mode; Camera Remote Control.

Includes:

AMIRA camera body (incl. viewfinder mount, viewfinder cable (short/long), camera handle)

K2.75004.0 AMIRA viewfinder MVF-1

K0.0014798 AMIRA Camera Set Premium

Features: HD 1080i & 1080p; 2K (2048 x 1152); UHD (3840 x 2160); Framerates 0.75-200 fps; Recording Formats ProRes 422 (LT), 422, 422 (HQ), 4444 & 4444 XQ in Rec709 & Log C; Unlimited Looks functions; Import Looks, Import custom 3D LUTs; in camera image parameters for Knee, Gamma, Saturation & other; ASC CDL in-camera grading; focus and exposure control tools; Dynamic Auto Tracking Whitebalance; Camera Remote Control; Bluetooth Audio monitoring; Pre-record function; Intervalometer; Multicam support; S16 lens mode.

Includes:

AMIRA camera body, handle (incl. viewfinder mount, viewfinder cable (short/long), camera handle)

K2.75004.0 AMIRA viewfinder MVF-1 AMIRA UHD license

100.014.641 AMIRA ARRI Look Library License Key



K0.0014799 ALEXA Mini

Features: 35 format film-style digital camera with lightweight and compact carbon body, 4:3/16:9 switchable active sensor area, support for ARRI MVF-1 viewfinder, built-in remote control capabilities via ARRI Electronic Control System and Wi-Fi, support for cforce motors, built-in motorized ND filters, interchangeable lens mounts and ARRI Lens Data System.

Includes:

K1.0003873 ALEXA Mini body

10.0014640 ALEXA Mini ARRI Look Library License Key

K0.0014797 ALEXA Mini with 4:3 and ARRIRAW

Includes:

K1.0003873 ALEXA Mini body

ALEXA Mini ARRIRAW License Kev ALEXA Mini 4:3 License Key

10.0014640 ALEXA Mini ARRI Look Library License Key

Lens Mounts



PL Lens Mount with Hirose connector



K2.0001237 B4 Lens Mount with Hirose connector



EF Lens Mount



PL to B4 Lens Adapter



K2.0003216 Titanium PL mount with L-Bus connector



K2.0018983 LPL Mount with LBUS connector ALEXA Mini/AMIRA



PL-to-LPL Adapter

AMIRA Accessories



Wedge Plate Adapter WPA-1



Compact Bridge Plate CBP-4



Bridge Plate Adapter BPA-3



Ouick Release Baseplate ORP-1



K2.0014088 Side Accessory Bracket SAB-2



K2.75002.0 AMIRA V-Lock Battery Adapter Plate



K2.75001.0 AMIRA Gold Battery Adapter

K2.0022569 DTS Camera Dock

ALEXA Mini Accessories



Ethernet Cable 3m



Center Camera Handle



ALEXA Mini Adapter Plate



ALEXA Mini Viewfinder Bracket



ALEXA Mini Broadcast Plate



K2.0014215 ALEXA Mini Stabilizer Adapter

ALEXA Mini Accessories



K2.0013937 Rear Accessory Bracket RAB-1



K2.0014126 RAB-1 clamp



K2.0014531 ALEXA Mini V-Mount Adapter



K2.0014533 ALEXA Mini Gold Mount Adapter Plate Mk II

Monitors



K0.0010097 AMIRA Camera Control Panel CCP-1 Set



K2.75004.0 AMIRA Viewfinder



K2.0023813 Camera Viewfinder Monitor



K2.0010247 AMIRA Multicam Monitor mount



K2.0005861 ALEXA Mini Viewfinder MVF-1 (cable K2.0008135 0,75m incl.)

Multicam Components



DTS 1U Fibre Base Station FBS



Multicam Components

K2.0022570 DTS 1U FBS Cable Set



K2.0016149 DTS Cord Control Pod with XLR5S connect

K2.0014814
DTS FCA cable set for AMIRA



AMIRA Microphone Holder Bracket



K2.0013653 DTS Sony RCP to DTS1840 cable -3 meter serial cable for Sony RCP



DTS Sony RCP to DTS1840 cable -30m serial cable for Sony RCP



K2.0013648 DTS FCA Fibre Camera Adaptor 12G



K2.0014813 DTS 1820 FCA Lemo Assembly



K2.0014659 DTS FCA Dual Link 6G VideoInput Option



K2.0021324 Mounting Bracket for DTS Cord Control Pod



K2.0013646 DTS HR30 6pin to 5pin XLR Headset Cable



K2.0013652



K2.0023107 DTS 1801 Fibre Power Interface FPI



Skaarhoj RCP V2

Microphone



AMIRA Onboard Microphone set







K2.0003623 SanDisk CFast 2.0 card 128GB



K2.0015640 SanDisk CFast 2.0 card 256GB



K2.0016648 SanDisk CFast 2.0 card 512GB



K2.0021432 Angelbird CFast 2.0 card 256GB

ARRI Camera Systems

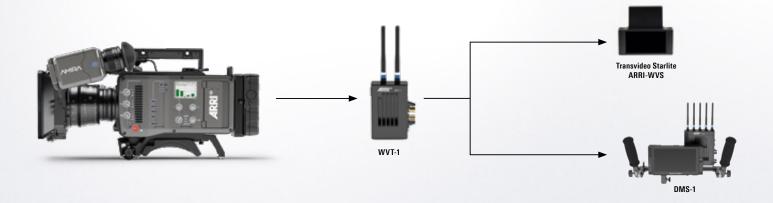
for better control, flexibility, and creative fullfillment

ARRI Wireless Video System

ARRI Wireless Video System (WVS) is comprised of a video transmitter and a stand-alone video receiver that picks up signals from either transmitter. An extensive accessory range includes various mounting brackets, antenna extensions, and the handheld Director's Monitor Support (DMS-1), as well as a specially adapted Transvideo monitor with a built-in receiver for the ARRI transmitters. Whether using this monitor or others, the modular system allows for a compact and efficient setup. An extra power-out on the video receiver, for example, permits a single on-board battery to power both the receiver and an attached handheld monitor. A higher input voltage range allows more flexibility on battery choice.

The high-performance video transmission provides a robust radio link and fast re-link with a long-range, uncompressed, and encrypted signal for safety.

Audio, timecode and REC flag are included in the zero-delay signal, and up to four receivers can be used per transmitter.





Master Grips

ARRI Master Grips combine effective camera stabilization with comprehensive lens and camera control. They provide full control of focus, iris, and zoom settings on cine lenses, including adjustable motor speed, zoom response, and motor limits. They also offer a comfortable way to control the integrated servo motors of ENG and EF lenses. Mounted on tripod pan bars or studio pedestal heads, the Master Grips can be perfectly used as focus and zoom demands for multi-camera setups.

Main Features

- EF, ENG and cine lens control
- Advanced camera control
- Solid mechanical design
- Proven ergonomics
- Intuitive user interface
- Multi-lingual display



Stabilized Remote Head SRH-3

The Stabilized Remote Head SRH-3 is a three-axis fully stabilized remote head allowing for cameras to go where no person can with increased flexibility and ease. Whether it be on set, in a studio, or at an event, the new intelligent and adaptive Stabilized Remote Head SRH-3 has the full force of ARRI technology behind it.

Main Features

- Smart and adaptive system
- Compensation of external centrifugal force
- Remote control by SRH-3 control board, or with optional wheels
- High payload, low weight, compact design
- Budget friendly
- High quality and workmanship
- Future-proof workflows due to perfect compatibility





TRINITY

TRINITY is the first hybrid camera stabilizer that combines classic mechanical stabilization with advanced active electronic stabilization, provided via 32-bit ARM-based gimbal technology. This combination results in five axes of control and enables uniquely fluid, wide-ranging, and precisely controlled movements for unrestricted shooting and total creative freedom.

artemis Cine Broadcast and EFP HD

The ARRI artemis Cine Broadcast and EFP HD are highly modular and upgradable mechanical stabilizers. Available with wide range of different ARRI CSS components and accessories, they cover the entire spectrum of today's film and television requirements.

Besides the traditional functions of artemis HD systems, such as high-capacity wiring and Hot-Swap technology, additions to the Cine Broadcast include three high-quality video lines and both D-Tab and USB power outputs, providing new possibilities and more robust backup options.

The EFP HD supports modern digital cinematography and is designed to work with HD broadcast cameras. It features 12 V high-capacity wiring within the rig, which enables capacities for the camera of up to 15 A. The high-specification wiring also minimizes voltage drop when working with the EFP HD, while the Anton Bauer Hot-Swap technology helps to avoid camera reboots when batteries run low.

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High-quality LED lights for every situation

Lighting design of modern studios in broadcast and media is greatly impacted by the transition to LED technology and the latest developments in camera technologies.

HDTV standards, which make extensive use of CMOS technologies and FPGA image processing, demand better lighting quality. Our LED lighting technology represents the culmination of more than a decade of research and development at ARRI. ARRI's L-Series LED Fresnels offer convenient control over the shape, quality, intensity, texture, and color of the light. SkyPanels incorporate features of the L-Series in a compact, ultra-bright LED soft light.



L-Series

At the heart of the L-Series are a few core concepts: ease of use, tuneability, color fidelity, and high quality construction.

The L-Series takes full advantage of LED technology and allows for complete control over the color and intensity of light.

Three knobs control brightness, color temperature and green/magenta point, and a focus knob on the side of each fixture allows for smooth, consistent adjustment of the beam spread. Specifically calibrated for broadcast and digital cinema cameras, L-Series ensures pleasing skin tones and vividly rendered colors.



SkyPanel

SkyPanel is one of the most versatile soft lights on the market, as well as one of the brightest. The SkyPanel 'C' (Color) versions are fully tuneable; correlated color temperature is adjustable between 2,800 K and 10,000 K, with excellent color rendition over the entire range. Full plus and minus green correction can be achieved with the simple turn of a knob.

In addition to CCT adjustments, other control options are available such as: hue and saturation, gel selection, RGBW, source matching, x,y coordinates, and 16 professional lighting effects programmed into every fixture.



The Range of ARRI Lighting System Group Services

- Consultancy
- Concept Design
- 3D Visualizations
- Project Planning
- Integration Management
- Training
- After-sales Care

Professional system integration in a wide array of broadcast and media applications

ARRI's portfolio comprises of Camera Systems, Lighting, Media and Rental. These multiple areas of proficiency provide a deep understanding of the broadcast and media environment from beginning to end. This cross-disciplinary competence is concentrated in the ARRI System Group. Their knowledge of modern studio design influenced the features of the ARRI LED Lighting Series, while advancements in camera technology effect the lighting design for studios.

Headquarters of the ARRI System Group is based in Berlin with offices in London, Dubai, Hong Kong, and in the US to support the worldwide activities. All these comprehensive services are available for projects of any size, from small-scale system upgrades to complete turnkey installations for multi-studio facilities.

Technical Data ARRI cameras

	AMIRA	ALEXA Mini	
Sensor Type	Super 35mm format ARRI ALEV III CMOS sensor with Bayer pattern color filter array		
Sensor Size	28.25 x 18.17 mm / 1.112 x 0.715", Ø 33.59 mm / 1.322"		
Photosite Pitch	8.25 µm		
Sensor Frame Rates	0.75 - 200fps		
Sensor Active Image Area (photo sites)	S16 HD: 1600 x 900 HD: 2880 x 1620 2K: 2868 x 1612 3.2K: 3200 x 1800 4K UHD: 3200 x 1800 ARRIRAW 16:9 2.8K: 2880 x 1620	S16 HD: 1600 x 900 HD: 2880 x 1620 2K: 2868 x 1612 3.2K: 3200 x 1800 4K UHD: 3200 x 1800 4:3 2.8K: 2880 x 2160 2.39:1 2K Ana.: 2560 x 2145 HD Ana.: 1920 x 2160 ARRIRAW 16:9 2.8K: 2880 x 1620	
Sensor Active Image Area (dimensions)	S16 HD: 13.20 x 7.43 mm / 0.520 x 0.292" HD: 23.76 x 13.37 mm / 0.935 x 0.526" 2K: 23.66 x 13.30 mm / 0.932 x 0.524" 3.2K: 26.40 x 14.85 mm / 1.039 x 0.585" 4K UHD: 26.40 x 14.85 mm / 1.039 x 0.585" ARRIRAW 16:9 2.8K: 23.76 x 13.37 mm / 0.935 x 0.526"	Open Gate 3.4K: 3424 x 2202 S16 HD: 13.20 x 7.43 mm / 0.520 x 0.292" HD: 23.76 x 13.37 mm / 0.935 x 0.526" 2K: 23.66 x 13.30 mm / 0.932 x 0.524" 3.2K: 26.40 x 14.85 mm / 1.039 x 0.585" 4K UHD: 26.40 x 14.85 mm / 1.039 x 0.585" 4K: 23.76 x 71.82 mm / 0.935 x 0.702" 2.39:1 2K Ana.: 21.12 x 17.70 mm / 0.831 x 0.697" HD Ana.: 15.84 x 17.82 mm / 0.624 x 0.702" ARRIRAW 16:9 2.8K: 23.76 x 13.37 mm / 0.935 x 0.526" Open Gate 3.4K: 28.25 x 18.17 mm / 1.112 x 0.715"	
Recording File Container Size (pixel)	S16 HD: 1920 x 1080 HD: 1920 x 1080 2K: 2048 x 1152 3.2K: 3200 x 1800 4K UHD: 3840 x 2160 ARRIRAW 16:9 2.8K: 2880 x 1620	S16 HD: 1920 x 1080 HD: 1920 x 1080 2K: 2048 x 1152 3.2K: 3200 x 1800 4K UHD: 3840 x 2160 4:3 2.8K: 2944 x 2160 2.39:1 2K Ana.: 2048 x 858 HD Ana.: 1920 x 1080 ARRIRAW 16:9 2.8K: 2880 x 1620 Open Gate 3.4K: 3424 x 2202	
Recording File Image Content (pixel)	ProRes S16 HD: 1920 x 1080 ProRes HD: 1920 x 1080 ProRes 2K: 2048 x 1152 ProRes 3.2K: 3200 x 1800 ProRes 4K UHD: 3840 x 2160 ARRIRAW 16:9 2.8K: 2880 x 1620	ProRes S16 HD: 1920 x 1080 ProRes HD: 1920 x 1080 ProRes JCK: 2048 x 1152 ProRes 3.2K: 3200 x 1800 ProRes 4K UHD: 3840 x 2160 ProRes 4:3 2.8K: 2880 x 2160 ProRes 4:3 2.8K: 2880 x 2160 ProRes 2.39:1 2K Anamorphic: 1920 x 1080 ProRes 5.39:1 2K Anamorphic: 2048 x 858 ARRIRAW 16:9 2.8K: 2880 x 1620 ARRIRAW Open Gate 3.4K: 3424 x 2202 ARRIRAW 3.2.8K (0G 3.4K): 3424 x 2202 ARRIRAW 16:9 12 K Ana. (0G 3.4K): 3424 x 2202 ARRIRAW 16:9 HD Ana. (0G 3.4K): 3424 x 2202	

	AMIRA	ALEXA Mini
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, ProRes 4444 XQ, ProRes 4444, ProRes 422 (HQ), ProRes 422, ProRes 422 (LT), MPEG-2 HD	MXF/ARRIRAW, ProRes 4444 XQ, ProRes 4444, ProRes 422 (HQ), ProRes 422, ProRes 422 (LT)
Recording Media	CFast 2.0 Cards	
Recording Frame Rates	ProRes HD: 0.75 - 200 fps ProRes S16 HD: 0.75 - 200 fps ProRes 2K: 0.75 - 200 fps ProRes 3.XE: 0.75 - 60 fps ProRes UHD: 0.75 - 60 fps MFX/ARRIRAW 16:9 2.8K: 0.75 - 48 fps MPEG-2 HD: 23.976 - 59.94 fps	ProRes HD: 0.75 - 200 fps ProRes SI6 HD: 0.75 - 200 fps ProRes SK: 0.75 - 200 fps ProRes 3.2K: 0.75 - 60 fps ProRes UHD: 0.75 - 60 fps ProRes 4:3 2.8K: 0.75 - 50 fps ProRes 2:39:1 2K Ana.: 0.75 - 120 fps ProRes HD Ana.: 0.75 - 120 fps MFX/ARRIRAW 16:9 2.8K: 0.75 - 48 fps MFX/ARRIRAW 3.4K Open Gate: 0.75 - 30 fps
Recording Modes	Standard real-time recording, Pre-recording, Intervalometer, Stop Motion	
/iewfinder Type	Multi Viewfinder MVF-1 with 3,2" flip-out monitor, Camera Control Panel (CCI	P-1) with option to daisy-chain MVF-1
/iewfinder Technology	OLED viewfinder, LCD fold out monitor	
/iewfinder Resolution (pixel)	1280 x 720	
/iewfinder 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) Knee, gamma, saturation, black gamma, saturation by hue Support of ARRI Look Library	
White Balance	Manual and auto white balance, adjustable from 2000K to 11000K in 10K ste Color correction adjustable range from -16 to +16 CC. 1 CC corresponds to 035	
ilters	Built-in motorized ND filters 0.6, 1.2, 2.1, Fixed optical low pass, UV, IR filter	
mage Outputs	1x proprietary signal output for MVF-1 viewfinder 2x SDI Out: 1,5G (SMPTE ST292-1), 3G (SMPTE ST425-1, ST425-3), 6G & DL 6G	(SMPTE ST2081-10, ST2081-11), uncompressed video with embedded audio and metadata
ens Squeeze Factor	1.00, 1.30	1.00, 1.30, 2.00
xposure and Focus Tools	False Color, Zebra, Zoom, Waveform, Aperture and Color Peaking	
Audio Input	2x XLR 3pin Mic/Line Input with 48V Phantom Power, switchable to AES3 1x XLR 5pin Mic/Line Input with 48V Phantom Power (Line input max. level +24dBu correlating to 0dBFS) Bluetooth whisper track	1x LEMO 5pin balanced stereo line in (Line input max. level +24dBu correlating to 0dBFS)
Audio Output	3,5mm stereo headphone jack, Bluetooth audio, SDI (embedded)	SDI (embedded)
Audio Recording	4 channel linear PCM, 24 bit 48 kHz, 1 channel Bluetooth whisper track	2 channel linear PCM. 24 bit 48 kHz

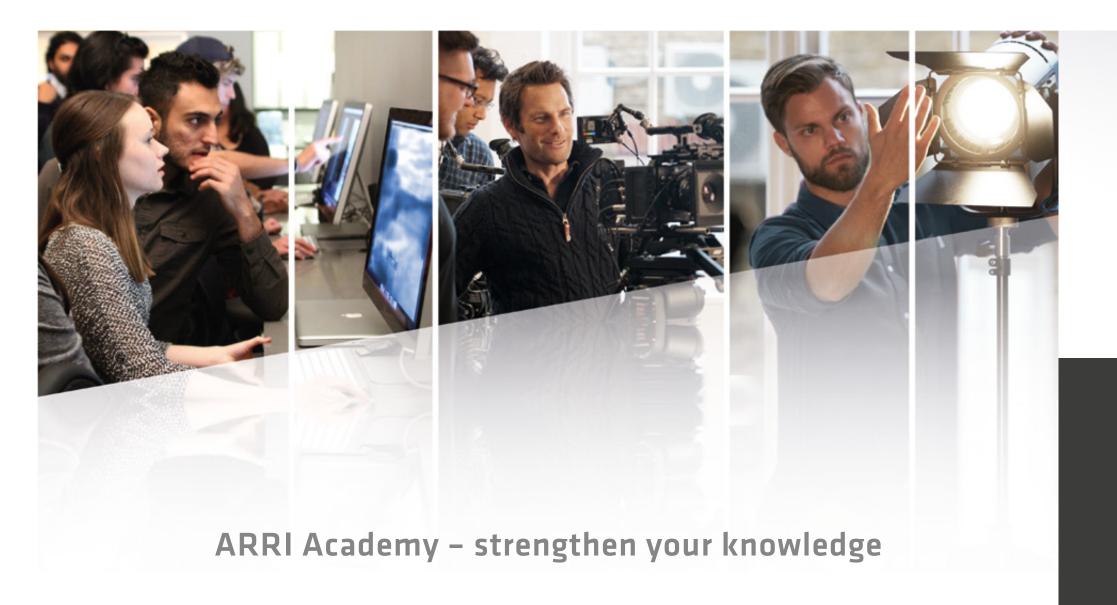
Technical Data ARRI cameras

	AMIRA	ALEXA Mini
Remote Control Options	Web-based remote control from phones, tablets and laptops via WiFi & Ethernet Camera Access Protocol via Ethernet & WiFi GPIO interface for integration with custom control interfaces	Web-based remote control from phones, tablets and laptops via WiFi & Ethernet Camera Access Protocol via Ethernet & WiFi GPIO interface for integration with custom control interfaces WCU-4 hand-unit with control over lens motors and operational parameters via built-in white radio
Interfaces	1x BNC LTC Timecode In/Out 1x BNC SDI Ret/Sync In (opt. separate analog Genlock In) 1x LEMO 6pin EXT multi purpose accessory interface 1x Hirose 12pin (on PL lens mount) 1x RJ45 Ethernet for remote control and service 2x USB 2.0 (for user setups, look files etc)	1x LEMO 5pin LTC Timecode In/Out 1x LEMO 10pin Ethernet for remote control and service 1x BNC Sync In (optional activation through ARRI Service) 1x LEMO 7pin EXT multi purpose accessory interface w. RS pin and unregulated power output (outputs battery voltage) 1x LEMO 4pin LBUS (on lens mount) for lens motors, daisy chainable 1x USB 2.0 (for user setups, look files etc)
Wireless Interface	Built-in WiFi module (IEEE 802.11b/g), Built-in Bluetooth module	Built-in WiFi module (IEEE 802.11b/g), Built-in White Radio for ARRI lens and camera remote control
Lens Mount	PL mount with Hirose connector and LDS EF mount B4 mount with Hirose connector LPL mount with LBUS connector Leitz Cine Wetzlar M mount	Titanium PL mount with L-Bus connector LPL mount with LBUS connector PL mount with Hirose connector EF mount B4 mount with Hirose connector Leitz Cine Wetzlar M mount
Flange Focal Depth	PL mount 52 mm, LPL mount 44 mm	
Power Input	1x LEMO 8pin (10.5-34 V DC) 1x On-board battery interface (10.5-24 V DC)	1x LEMO 8pin (10.5-34 V DC)
Power Consumption	min. 52W, max. 84W (Camera body with MVF-1)	min. 43W, max. 84W, (Camera body)
Power Outputs	1x Fischer 3pin 24V RS 1x LEMO 2pin 12V 1x Hirose 4pin 12V 1x LEMO 6pin EXT 24V	1x LEMO 7pin EXT unregulated power output (outputs battery voltage) with max. 1.1 A
Power Management	Active ORing between BAT connector and onboard battery adapters	•
Measurements (HxWxL)	149 x 139 x 309 mm / 5.8 x 5.4 x 12.1" (camera body with PL lens mount)	140 x 125 x 185 mm / 5.5 x 4.9 x 7.3" (camera body with PL lens mount)
Weigh	~ 4.1 kg / ~ 9.2 lbs (camera body with PL lens mount)	~ 2.3 kg / ~ 5 lbs (camera body with titanium PL lens mount)
Operating Temperature	-20° C to +50° C / -4° F to +122° F @ 95% relative humidity max, non condensing, splash and dust proof through sealed electronics	-20° C to +45° C / -4° F to +113° F @ 95% relative humidity max, non condensing, splash and dust proof through sealed electronics
Storage Temperature	-30° C to +70° C / -22° F to 158° F	
Sound Level	< 20 dB(A) at 24fps	
Software License Keys	AMIRA Advanced, AMIRA Premium, AMIRA 4K UHD, AMIRA ARRIRAW, ARRI Look Library (weekly or permanent)	ALEXA Mini 4:3, ALEXA Mini ARRIRAW, ARRI Look Library

Technical Data DTS1800 Fiber System

Mech/Power	
Cable Length	2000 Metres
Camera Power	100W Camera Power (150W total internal power.)
Fibre Adaptor Weight	1.1 kg
Fibre Adaptor Volume	1110 cm ³
Base Station Weight	2.1 kg
Base Station Dimensions (HxWxL)	43 x 429 x 275 mm
Fiber Adaptor Dimensions (HxWxL)	189 x 105 x 65 mm
Base Station Volume	4644 cm ³
Base Video Out (with AMIRA)	
QL3G 4K@60P, DL3G, 2 x SL3G	4 x BNC
2 x SL12G, DL6G, 2 x SL6G & 2x SL3G	2 x 12G BNC (option)
2 x 1.5G Monitor Out	2 x BNC
2 x Composite Video Out	2 x BNC
Base Video Inputs	
1.5G Ret Video & Sync	1 X BNC
2 x Analogue Genlock Black/Burst/ Tri Level	2 X BNC
Composite Return For QTV/Teleprompt	1 x BNC
Base Audio Out	
Embedded Audio On all Programme video Out	-
Analogue Audio	XLR5 Male (option)
2 x AES Audio	2 x BNC (option)
Base I/O	
LTC Timecode In/Out	1 x BNC
RS232/RS422/RS485 (Accessories/ Cam/Lens Control.)	2 x 9W-D & 1 x 15W-D
Ethernet. Cam control	2 x RJ45
Intercom PD/ENG (2 Channels) & Call	1 x 15W-D
Red & Green Tally	1 x 9W-D
Fibre Adaptor Inputs (With AMIRA)	
DL6G, SL6G, DL3G, 2 x SL3G & 2 x 1.5G In	Din 1.0/2.3
Composite Video Monitor Channel	BNC
External 12-17V IN Camera powered locally	V-Lock or Gold Mount
Fibre Adaptor Out	
2 x Red & Green Tally	12W HR-30 & 10W HR-30
Composite video QTV/Teleprompt Out	12W HR-30 or 10W HR-30

1.5G Return Video/Sync Out	Din 1.0/2.3	
Analogue GL Black & Burst/Tri level	1 x BNC	
2.45514 11. 0.1	Din 1.0/2.3	
2 x 1.5G Monitor Out	Din 1.0/2.3 Return Switch BNC Clean	
+12V VF Power12V/24W Viewfinder Power Out	12W HR-30	
+12V AUX Power 12V/50W Power Output	3W HR-30	
Program Audio AES Out	10W HR-30	
Camera Power Out	V-Lock, Gold Mount or Internal	
Fibre Adaptor I/O		
LTC Timecode	BNC	
RS232/RS422/RS485 (Accessories/Cam/ Lens Control)	10W HRS, 12W HRS & 6W HRS	
Ethernet. Cam control	RJ45	
Intercom PD & ENG (2 Channels)	2 × 6W HRS	



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ARRI Academy is the best route for users of all abilities to gain hands-on knowledge of ARRI products and workflows, and build their on-set confidence.
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- Gain hands-on knowledge
- Explore efficient workflows
- Learn from industry professionals





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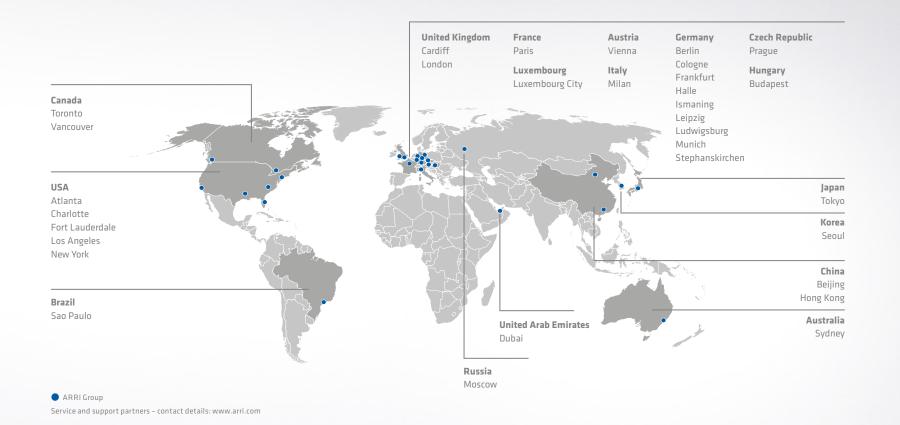
The integration in conventional live production is seamless, the learning curve is simple, and the system is sustained by ARRI's global support network.

ARRI products are renowned all over the world for their precision and durability. Nevertheless, ARRI values the trust of its customers in after-sales service and support as highly as their trust in the equipment itself. With service centers covering the entire globe, we are never too far away to provide the support you need, wherever you might be.









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