



LDK 6000HD Series
The creative solution
for the HDTV renaissance



PHILIPS

Let's make things better.

LDK 6000HD Series



The multi-format HDTV renaissance

It's tempting to call the Philips LDK 6000HD Series camera a masterpiece. With 9.2 million pixel HD-DPM+™ CCD sensors, it's set to take a leading role in today's broadcasting renaissance:

high-definition television. But with two HDTV formats competing for center stage, each with unique advantages, you're faced with a dilemma: commit to the 1080 interlaced or 720 progressive high-definition format? No problem with the LDK 6000HD system. It's the first 'native' multi-format camera system for studio, EFP and digital cinematography.



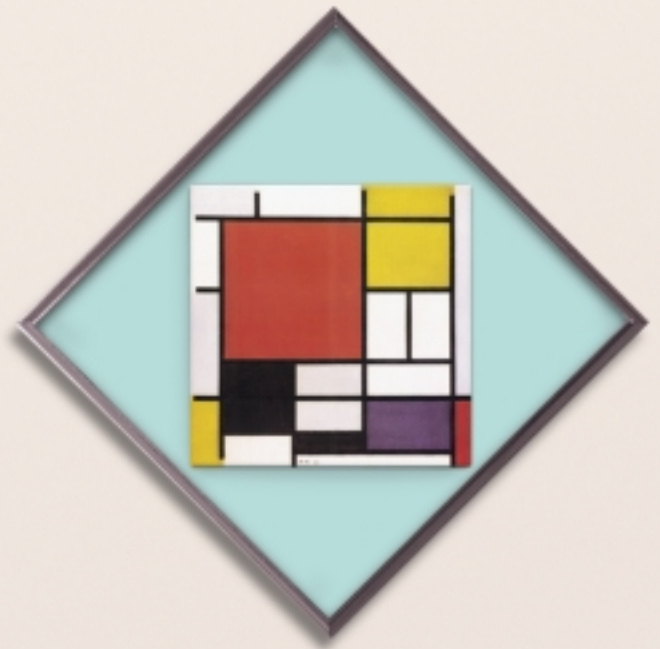
TriaxHD compatibility

Not only is the LDK 6000HD packed with technical innovation, but it also makes good economic sense – not least due to TriaxHD transmission, a further development of the Emmy Award winning Philips' triax transmission system which makes optimum use of your existing triax cables.

A Masterpiece in HDTV Technology

Just look at the technological advances

- Native multi-format for 1080i and 720p HDTV
- 2/3" HD-DPM+™ sensors with 9.2 million pixels
- Simultaneous high-end SDTV down-conversion
- High accuracy 12-bit A-to-D conversion
- 22-bit digital signal processing from end to end
- TriaxHD transmission up to 3300 ft.
- A modular system with a very compact HD Base Station





HD

DP

True creativity is not bound by style, technique or format

From Rembrandt's masterful use of light and shade and Van Gogh's emotional brush strokes to Mondriaan's geometric interpretation and the vivid colors of the Cobra school, the Netherlands has always been a rich source of artistic creativity. In painting, inspiration is independent of style. In high-definition television, your operation should be independent of broadcasting format. It can be – with the

get on with the job. And for the businessman, the LDK 6000HD is a future-protected investment with attractive financial advantages and upgrade possibilities to meet future format requirements. A masterpiece in the Dutch tradition.

Philips LDK 6000HD Series A future-proof investment

Because the LDK 6000HD has true multi-format HDTV capabilities, there's no need to commit to either the interlaced or progressive format or risk inferior cameras using electronic conversion. With simultaneous down-conversion to high-end SDTV that delivers quality equal to anything available today, you can move easily from SDTV to HDTV. And whatever hap-

pens in the future, your cameras will always deliver uncompromized quality. Single format HD-FT versions of the camera are also available – and these can be upgraded to another format or to multi-format HD-DPM+™ specifications later if required.



And by making the camera compatible with industry standard triax cable – instead of using fiber optic cable – you can make use of your existing, reliable and valuable cable inventory. A significant saving considering the thousands of feet of cable this camera can use. Many other standard accessories, such as the Philips Series 9000* Camera Control System, are also compatible, further adding to the cost effectiveness of the Philips solution.

HD **HD**
FT^{1080 i} **FT**^{720P}

Philips LDK 6000HD camera system. Hardly surprising it's also from the Netherlands.

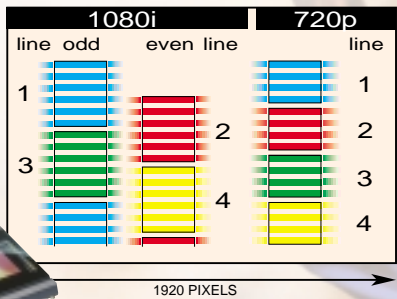
For camera operator and company executives

For the camera operator, the LDK 6000HD is a powerful tool that allows total concentration on creativity. Thoughtful design features like a 2-inch viewfinder, patented focus assist tools, rotary Triax^{HD} connector and personalized Smart-Card system settings let you





M+



Native Multi-Format HDTV imaging is achieved by vertically combining four pixels for 720p or six pixels for 1080i on the 9.2 million pixel CCD sensor. In the 720p mode, high horizontal resolution is maintained by over-sampling on a single 1920-pixel line



The art of digital broadcasting technology

The unique native multi-format capability is realized with innovative 9.2 million pixel 2/3" CCD sensors in the camera. It produces native widescreen pictures in high-definition 1080i/60 and 720p/60 at the touch of a button thanks to Philips HD-DPM+™ (Dynamic Pixel Management™) technology. It doesn't involve any HDTV format conversion during digital signal processing that would inevitably lead to quality degradation.

End-to-end digital

Optimum picture performance is assured with 12-bit analog-to-digital conversion of the CCD output and new 22-bit HD Digital Signal Processing for extremely high accuracy. This allows powerful features like independent dual skin contour circuits to be incorporated, a guaranteed favorite with show presenters. The digital signal processor handles all camera functions, including knee, gamma, contour and variable matrix.

The freedom to focus on your work

With HDTV, focusing is even more critical than before. Apart from its 2-inch viewfinder, the LDK 6000HD has special built-in focusing aids. A patented 'crawler' circuit adds motion to contours of objects in sharp focus, and electronic zoom makes focusing on small details much easier.

Award-winning ergonomics

The lightweight camera – the lightest in its class – has a balanced design for maximum comfort and freedom of movement. A zoom control on the top handle makes ground-level shooting easier, while the rotary TriaxHD connector ensures that the cable does not get in the way. TriaxHD compatibility allows cable lengths of up to 1000 meters (3300 feet) without significant loss of signal quality.



One camera system for all applications

Flexibility is built into the camera, making the LDK 6000HD suitable for all applications. The HD Base

LDK 6000HD multi-f The Dutch tradition for

Today's television companies and equipment rental organizations need to be able to put cameras to multiple uses. Sport one day, back to the studio for drama the next. To make it easier for operators to optimize the cameras for any circumstances personalized operational configurations and picture settings can be stored on low-cost Smart-Cards. These memory cards are used to recall settings or transfer them from one camera to another.



Station, which is the smallest and the most lightweight of its type, is easy to build into a mobile field production facility. The SuperXPander large lens adapter with the optional 7-inch HD



high-resolution viewfinder turns it into a fully featured studio head. And with the optional Multi-Purpose adapter, which serves you with 1.5 Gbps HD SDI output and full-bandwidth component analog HD video, all you need is an LDK 5201 local control panel and an HDTV recorder for a cost-effective basic configuration for HDTV. Extremely long cable runs will be supported in the future by a fiber optic adapter that can be used instead of the



Format HDTV cameras creative interpretation

Triax^{HD} back or you may change the LDK 6000HD into a HDTV camcorder adding a DVCPRO^{HD} recorder on the back (when available).

** Note the Series 9000 model LDK 4607 MCP1 is not suitable for the LDK 6000HD Camera System.*



PRELIMINARY SPECIFICATIONS LDK 6000HD SERIES

GENERAL

Power requirements	Triax powered or DC 12 Volts
Power consumption	34 Watts incl. 2" viewfinder and TriaxHD adapter
Operating temperature	-20°C to 40°C (-4°F to 113°F)
Storage temperature	-20°C to 60°C (-4°F to 140°F)
Weight	5.0 kg (11 lbs.) incl. 2" viewfinder and TriaxHD adapter
Dimensions	197 x 117 x 349 (H x W x L in mm.)
TriaxHD cable length	Y/C transmission over 1,000 m. (3,300 ft.) with 14 mm. cable
Viewfinder CRT	2" or 7" monochrome
2" Viewfinder resolution	>600 TV lines (center)
7" Viewfinder resolution	>800 TV lines (center)

CAMERA SECTION

Pick-up device	3x 2/3" Philips HD-DPM+™ CCDs, 1080i/720p switchable 3x 2/3" Philips HD-FT CCDs, 1080i or 720p
HDTV Aspect Ratio	16:9
Temporal frequency	59.94 Hz. and 60 Hz.
Smear	No vertical smear
Picture elements	1920 (H) x 4320 (V) effective 1080i: 1920 (H) x 1080 (V) 720p: 1920 (H) x 720 (V)
Optical filters on 1st wheel	Clear, 1/4 ND, 1/16 ND, 1/64 ND
Optical filters on 2nd wheel	Clear, 4-point star, 6-point star, soft-focus
Electronic filters	3200 K, 4700 K, 5600 K, 7200 K, FL, 2 AWB presets, Continues Auto White, Color Filter.
Dynamic range	>600%
Digital quantisation	12-bits A-to-D
Digital Signal Processing	> 22-bits
Sensitivity	2000 lux at F7.0 (typical)
Gain	-6 dB to +12 dB in 3 dB steps (user definable presets)
S/N ratio	52 dB in Y (typical, 1080i mode)
Modulation depth	40% at 27 MHz
Exposure control	Down to 1/500 sec.
Clean scanning	60.1 to 151.0 Hz

CONNECTORS LDK 6000HD CAMERA HEAD

Front microphone In	1x XLR-3 female, balanced, +48V, CH1 on HD Base Station
Viewfinder Out	20 pin connector
Lens	12 pin connector
Control input	9 pin, RS-232 compatible

CONNECTORS LDK 6000HD TRIAX ADAPTER

TriaxHD	Trilock
Video CVBS Out	BNC 1x, 1.0 Vp-p, 75 Ω
Video HD SDI Out	BNC 1x, SMPTE 292M, 0.8 Vp-p, 75 Ω, 1.5 Gb/s. (optional)
Monitor Out	BNC 1x, Y-signal of viewfinder or external video, 1.0 Vp-p, 75 Ω
Teleprompter Out	BNC 1x, 1.0 Vp-p, 75 Ω
Rear microphone In (2x)	2x XLR-3 female, balanced, +48V selectable
DC 12 Volts In	XLR-4 male
DC Out	12 Volts, 1.5 Amps., 4 pins Fischer (DC and Tally)
Scriptlight Tracker	12 Volts, 0.25 Amps., 3 pin Fischer
Auxiliary/Data Intercom	11 pins (Comm./Signalling) 11 pins (Private data) 1x XLR-5 female, with channels for Eng/Prod/Program

CONNECTORS LDK 4041 HD BASE STATION

TriaxHD	Trilock
HDTV SDI Out	BNC 3x, SMPTE 292M, 0.8 Vp-p, 75 Ω, 1.5 Gb/s.
SDTV SDI Out	BNC 3x, SMPTE 259M-C, 0.8 Vp-p, 75 Ω, 270 Mb/s.
Video CVBS Out	BNC 1x, 1.0 Vp-p, 75 Ω
Video Analog Component Out	BNC 3x, RGB, YPrPb or 3x CVBS switchable (optional)
VGA Out	15-pin D-connector
Text Out	BNC 1x, 1.0 Vp-p, 75 Ω
HD-PXM / HD-WFM Out	BNC 2x, 1.0 Vp-p, 75 Ω
Audio Out (2x)	2x XLR-3 male
External Video In (2x)	BNC 4x, 1.0 Vp-p, 75 Ω (loop-through)
Teleprompter In	BNC 2x, 1.0 Vp-p, 75 Ω (loop-through)
Genlock In	BNC 2x, 0.6 Vp-p, 75 Ω (loop-through)
Intercom In/Out	Eng/Prod/Program via 15 pin D-connector
Call, Red and Yellow Tally	via 15 pin D-connector
Signalling In/Out	via 15 pin D-connector
Camera control	4 pin data connector
Power In	AC power connector (115 V or 230 V +/- 15%)

SUPPLIED ACCESSORIES

2" monochrome viewfinder	Microphone holder
Rain cover	User Manual
Shoulder strap	1x Owner card
IR Remote control	2x User cards

For more information please contact:

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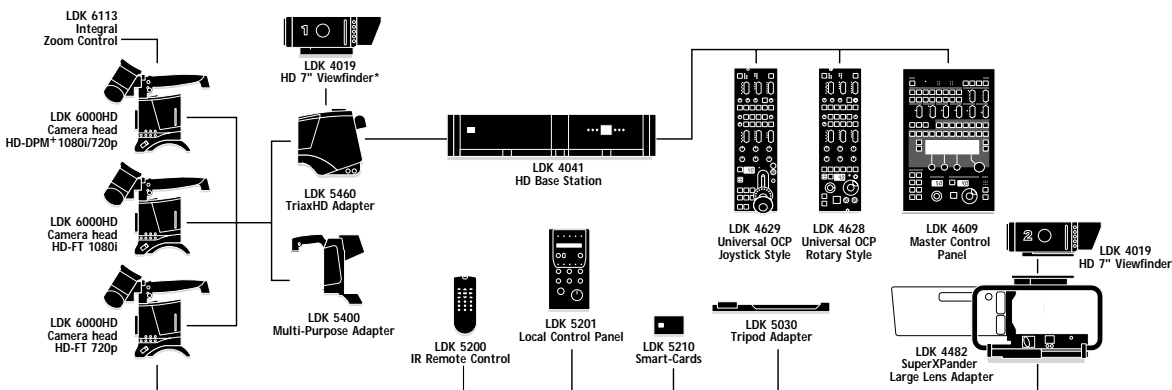
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* Requires LDK 6517 VF Mount

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