

CCD, Compact, Lightweight, ENG Camera

HL-53



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The HL-53 is a broadcast colour camera, incorporating newly developed IT (Interline Transfer) CCD image sensors. Ikegami's advanced technology has been fully utilized to achieve not only this compact, lightweight design, but also faithful colour reproduction, enhanced resolution and high S/N ratio. Since a VCR interface is incorporated, the HL-53 can be used in conjunction with a Betacam VCR without the aid of any adaptor.

A newly developed IT CCD with a total number of 480,000 pixels (PAL), 400,000 pixels (NTSC) delivers enhanced picture quality, ensuring satisfactory image quality even in the HI-GAIN position with a dramatic

reduction in fixed pattern noise. Furthermore, great reduction of smear has been achieved by the improvement of CCDs and drive circuits in comparison with existing Inter Line CCD cameras'. The HL-53 also takes full advantage of the characteristics of CCDs such as long service life, reduced image lag, low power consumption, and no burn-in.

The HL-53 delivers high-quality images with a S/N ratio of 60dB (PAL), 62dB (NTSC) and horizontal resolution of 700 lines, and weighs only 3.2kg (6.8 lbs.) including the 1.5" viewfinder, so that greater operational flexibility is assured for the camera operator.



Features

● Optics

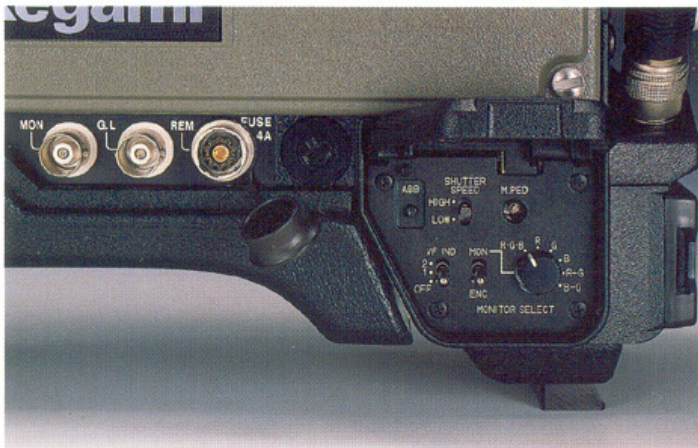
Featuring a newly designed optical system with a high-sensitivity prism, the HL-53 has the excellent spectral characteristics of the HL-79E, HL-95, and HL-55. Ikegami's original CCD mounting technique, not only achieves precision CCD positioning, but also helps preventing from registration errors due to changes in temperature.

● Low-pass filter

A newly developed optical low-pass filter has obtained a considerable reduction in more patterning while making best use of the high modulation factor of a CCD.

● Electronic shutter

Since this camera employs a 6-step electronic shutter, high resolution is assured under various shooting conditions.



● Genlock function

Since the camera head incorporates a genlock circuit, time-code lock operation can be achieved when the HL-53 is docked with a VCR.

● White shading correction

The HL-53 incorporates independent HV-sawtooth and HV-parabola white/black shading correction for R, G, and B. It also has internal circuitry for correcting lens extender induced white shading.

● Dynamic DTL

The dynamic DTL circuit compensates for loss in lens peripheral resolution.

● MIX DTL

The horizontal MIX DTL ensures high-quality picture characteristics at all times.

● Auto black balance

The black level can be easily matched without the aid of instrumentation.

● SMPTE colour bar generator (NTSC only)

The internal SMPTE colour bar generator permits accurate monitor adjustment.

● Audio monitor speaker

Audio output from a VCR can be monitored through a built-in audio monitor speaker.

● Audio level controller

The VCR audio level can be adjusted as appropriate, with the audio level controller, together with the audio level marker displayed in the viewfinder.

● Docking with a VCR

Incorporating a Betacam VCR interface, the HL-53 and a Betacam VCR can be used in combination. This allows easier operation and better mobility in ENG applications.



● Highlight compression

Wide dynamic range for contrasty images, along with the auto knee circuit, permits the optimal reproduction. The knee aperture correction function assures reproduction of high-level images with excellent definition.

● Iris offset

The iris offset function enables shooting in the auto iris mode, even in contrasty backlit scenes.

● VF indicators

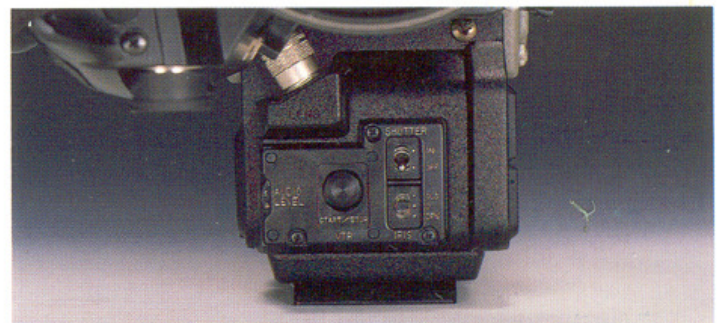
The camera and VCR operating conditions can be checked with the LEDs and character indicators in the viewfinder.

● VF markers

The center and safety area markers can be displayed in the VF to facilitate framing the camera shot. These markers can be turned on and off as necessary.

● Remote control

The HL-53 has a digital remote control terminal which can be used even when docked with a VCR. (The remote controller is an optional item.)



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Specifications

● Mechanical

Dimensions (WHD)	96 × 230 × 176mm			
	3.7 × 9.0 × 6.1 inches			
Weight	3.2kg (6.8 lbs.) (with 1.5" VF)			
Lens mount	Bayonet (compatible with HL-95/79E)			
Optical filter	1	2	3	4
	3000 K	5600 K	5600 K	5600 K
			+1/4ND	+1/16ND

● Electrical

DC input signal	12V (11~16V)
Power consumption	14W
External sync input signal for genlock	VBS 1Vp-p or BBS 0.45Vp-p
Return video signal	VBS or VS 1Vp-p
MIC input	-60dBm

Tally input

Intercom

Sensitivity

Gain switchable

Power/Contact (with CA-53)

2-wire/4-wire (with CA-53)

2000 lux F 5.6

0, +12, +18dB (STD)

0, +12, +24dB

0, +6, +12dB

0, +6, +18dB

*Selectable by internal links

Signal to Noise Ratio

Resolution

Video output signal

VF video

Monitor output signal

Shutter speeds

60dB (PAL), 62dB (NTSC) (Typical)

H: 700TVL

V: 450TVL (PAL), 400TVL (NTSC)

VBS 1Vp-p, 75Ω, 1 output

Component output 1ch

R.G.B. output 1ch

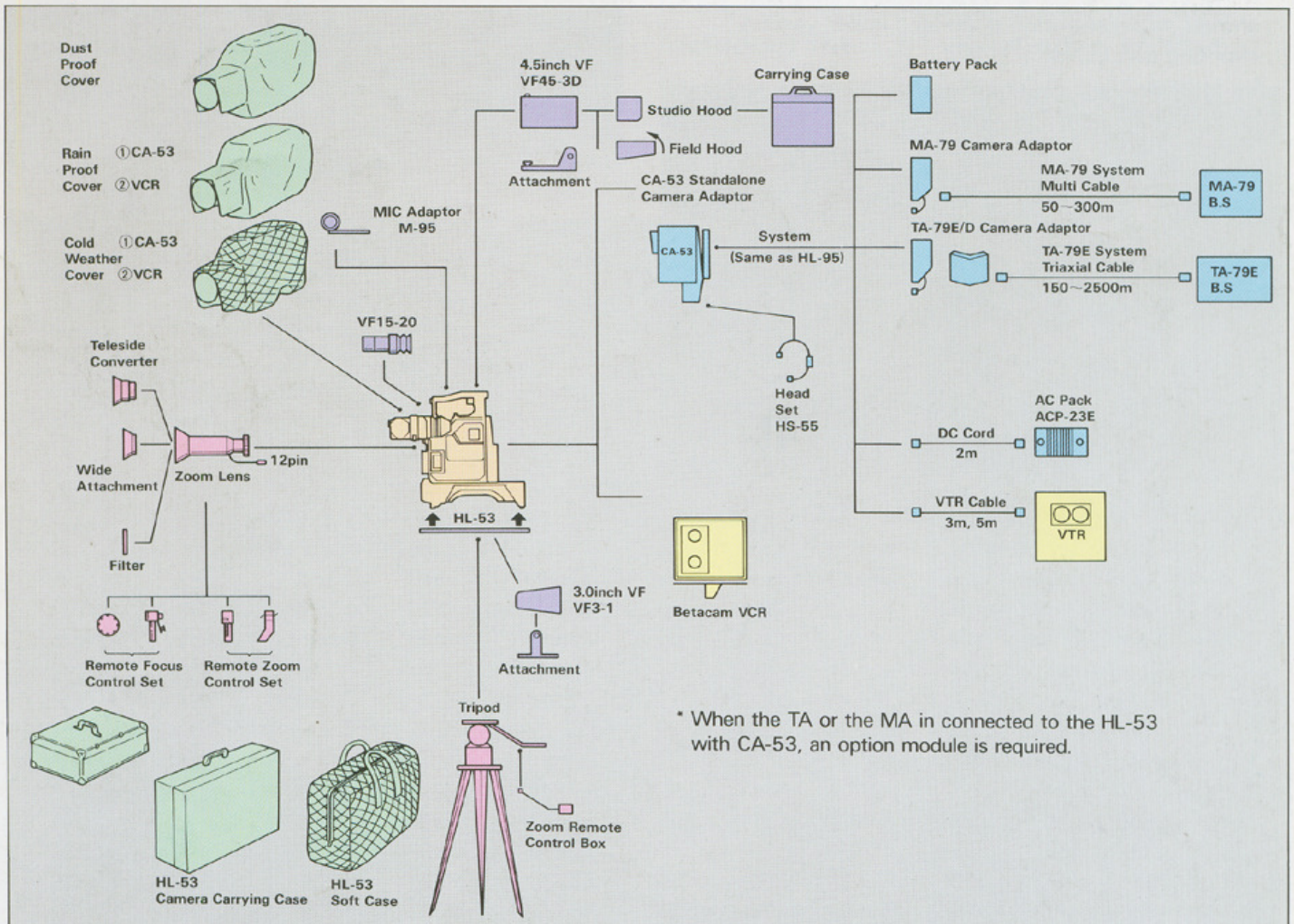
R+G+B (normal) or Monitor output signal selected by the monitor switch

R, G, B, R-G, B-G, R+G+B, ENC

1/100, 1/120, 1/250, 1/500, 1/1000,

1/2000 seconds.

System Setup



Design and specifications are subject to change without notice.

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