Ikegami

3CCD Multi-Purpose HDTV camera
HDL‑F30

HD High Definition

The HDL-F30 is a top-of-the-line multi-purpose compact 3CCD HDTV camera equipped with high resolution 2.3 million pixel AIT sensors.
The HDL-F30 has super high sensitivity, starting with F10 sensitivity sensors, and offering +54dB gain up, Column Adding, and Frame Accumulation functions.
The super high sensitivity combined with a Digital Extender feature make the HDL-F30 ideal for airborne gyro stabilized ENG and law enforcement use.
Also the Horizontal Reverse and Line Delay features will support 3D video production.

AIT CCD
The HDL-F30 employs AIT (Advanced Interline Transfer) CCD sensors which are the same as Ikegami high end broadcast studio cameras, achieving superb picture quality with high F10 sensitivity and more than 58dB SNR.

+54dB Gain UP
The HDL-F30 has up to +54dB gain up. Frame Accumulation and Column Adding functions are available for additional increase in sensitivity.

Column Adding
Column Adding achieves four times the standard sensitivity by using 2 horizontal and 2 vertical columns for each pixel. Sensitivity is increased without loosing S/N ratio, but with trade-off of reduced horizontal and vertical resolution.

Frame Accumulation
Frame Accumulation from 1/15 sec. to a maximum of 2 sec. is available, increasing sensitivity up to 60 times without loosing S/N ratio, but with trade-off of increased motion blur.

Minimum Illumination of 0.00027 lux
A minimum illumination of 0.00027 lux is possible with +54dB Gain up, Iris F1.4, 2 sec. Frame Accumulation, and 50% video level (calculated data).

Digital Extender
Built-in two or four times digital extender. Up to 320 times zoom when using 40X zoom lens and 2X normal extender and 4 times digital extender. Note: reduced resolution when using digital extender.

Multi Format
1080/59.94i, 1080/50i, 1080/29.97psF, 1080/25psF switchable.
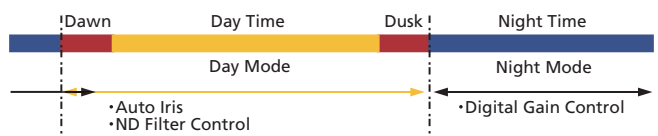(HDL-F31 supports 1080/24psF, 1080/23.98psF)

3D video capable
Built-in Horizontal Reverse and Frame Delay features support 3D video production, and passes them through to a 3D compatible high-definition devices.

AVC (Auto Video-level Control) Function
By synchronized control of Auto Iris, Auto Gain and Servo Filter, video maintains the same level automatically even though lighting conditions change. Especially for continuous outdoor shooting such as a weather camera application, the camera provides stable video level all day long.

Day Mode: Synchronized Auto Iris and ND Filter control
Night Mode: Continuous digital gain control

Dawn	Day Time	Dusk	Night Time
	Day Mode		Night Mode
	•Auto Iris •ND Filter Control		•Digital Gain Control

Note: Day Mode or Night Mode is menu selectable; automatic switching mode is also available.

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HD 3D Capable

■Rating:

Scanning System	1080/59.94i, 1080/50i, 1080/29.97psF, 1080/25psF
	(1080/24psF, 1080/23.98psF: Supported by HDL-F31)
Image Sensor	2/3-inch, 2.3million pixel, AIT CCD
Effective Pixels	1920(H) x 1080(V)
Sensitivity	F10 at 2000lx (1080/59.94i)
White reflection	89.9%
Optical System	2/3-inch, RGB 3CCD, F1.4
Lens Mount	BTA S-1005B
Optical Filter	(Pos.) 1 2 3 4
(w/Motorized filter)	(ND) 100% 25% 6.2% 1.6%
	ECC 3200K / 5600K Selectable
Sampling Frequency	74.1758MHz or 74.25MHz
Quantization	14-bit
Power Requirement	+11VDC~+16VDC (Up to 15m Camera Cable)
	+12VDC~+16VDC (Up to 50m Camera Cable)
Operating Temperature	Camera Head -20 °C~+45 °C / -4°F~113°F
	CCU -10 °C~+45 °C / 14°F~113°F
Storage Temperature	Camera Head -30 °C~+60 °C / -22°F~140°F
	CCU -20 °C~+60 °C / -4°F~140°F
Dimensions	Camera Head W100 x H123 x D80 (mm) / W3.94 x H4.84 x D3.15 (inch)
	CCU W120 x H105 x D180 (mm) / W4.75 x H4.13 x D7.09 (inch)
Weight	Camera Head 1.0 kg / 2.2 lbs. approx.
	CCU 1.5 kg / 3.3 lbs. approx.

■Performance:

S/N Ratio	58dB or more (1080/59.94i)
Modulation Depth	40% or more at 800TVL, 27.5MHz
Horizontal Resolution	1000TVL
Gain (dB)	-6, -3, 0, 3, 6, +9, +12, +18, +24, +30, +36, +42, +48, +54 (dB)
	(1080psF: Max +12dB)
	Gamma OFF, 0.35, 0.40, 0.45
Electronic Shutter	1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000 (Sec.)
Column added	Horizontal 2 column adding, Vertical 2 column adding
	*Only vertical column adding is not available together with electric shutter, frame accumulation and at 1080psF.
Frame Accumulation	1/15, 1/10, 1/8, 1/6, 1/5, 1/4, 1/3, 1/2, 1, 2 (Sec.)
Digital Extender	x1.5, x2, x3, x4
Power Consumption	25W approx.
Output Signals	Digital Video 2ch HD-SDI (SMPTE292M)
Analog Video	R, G, B/Y, Pb/Pr Selectable (Multi-pin Connector)
Input Signal External Sync.	HDTV: PS 1Vp-p, Sync 0.6Vp-p
	SDTV: VBS 1Vp-p, BBS 0.3Vp-p

Sample Applications
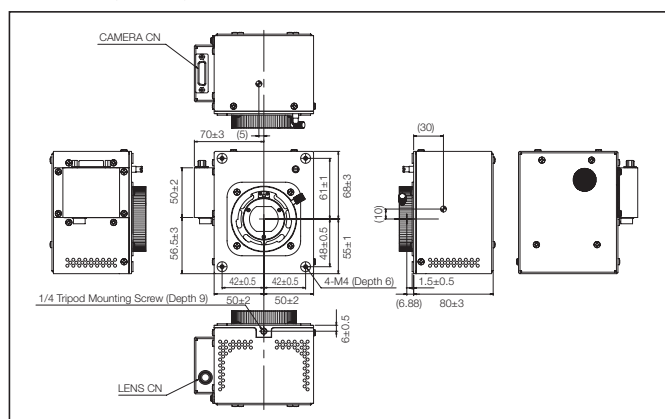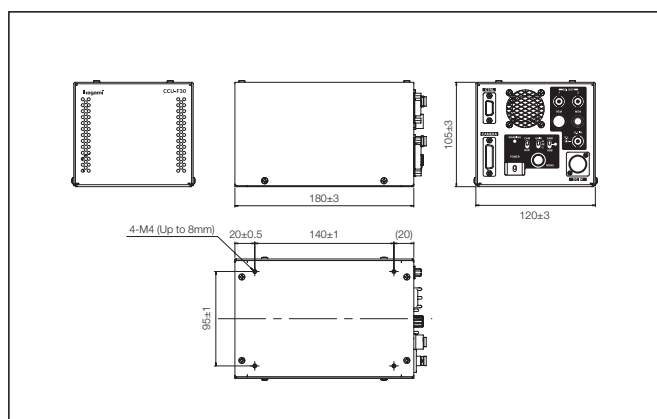
- 3D video rigs
- Airborne gyro
- Law enforcement
- Pole camera
- Surveillance

CCU-F30 Rear Panel

■HDL-F30 (Unit : mm)

■CCU-F30 (Unit : mm)

Design and specifications are subject to change without notice.