

Full HD Support, Auto Defog, Enhanced Intensity Chassis Camera with 20x Optical Zoom



- Full HD 1080p
- 20x Optical Zoom Lens
- Minimum Sensitivity 0.4lx
- Enhanced Intensity
- Auto Defog

Made in Japan

## Features

# DSP 10 Technology, Clearly Capturing Scenes Invisible to the Naked Eye

The camera's Digital Signal Processor (DSP) uses high speed computation technologies developed by Hitachi for superb definition. Past performance has been maintained while further increasing visibility in dark or foggy environments. This camera is excellent for monitoring in a wide range of applications, both day and night.



### Minimum sensitivity 0.4lx

The sensitive CMOS sensor, lens and Hitachi's unique Digital Signal Processor provide a minimum photo subject illumination of 0.4 lx. They excel in urban monitoring situations such as traffic monitoring, station platforms and busy commercial streets, where lighting conditions change throughout the day.

#### Other low illumination technologies

- Frame Noise Reduction
- Digital Slow Shutter
- White Spot Reduction
- Removable IR Cut Filter

### Enhanced Intensity

Conventional security cameras have difficulty capturing dark areas such as night scenes or unlit areas. The DI-SC221's Enhanced Intensity function brightens dark areas while leaving light areas untouched. This enables it to produce clear images even with people in shadows, providing greater security in low light conditions.

### Auto Defog

The camera's built-in defogging capabilities provides clear images even in foggy areas such as in ship monitoring, high altitude monitoring, airports and highways. The DI-SC221 can be used in a wide range of installation locations for monitoring even in environments with low visibility due to fog or heavy rain.



### Full HD camera with 20x optical zoom lens

The DI-SC221 incorporates a 1920 x 1080 full HD CMOS sensor. It uses Hitachi's unique high speed autofocus system to quickly track subjects and capture images in HD. They can reliably capture important video evidence such as recording the faces of individual people in crowds, or vehicle license plates.



### Other Key Features

- Digital Output
- Motion Detection
- Digital Image Flip
- Privacy Masking
- Wide Dynamic Range
- Low Power Consumption
- RoHS\* Compliant  
(except for Low Voltage Directive and CE mark)  
\* RoHS: Restriction of Hazardous Substances

# Specifications

DI-SC221		
CMOS Image Sensor	Image Size	TYPE 1/2.8 CMOS
	Effective Pixels	2 Megapixels
	Output Pixels, Frame Rate	1920(H) x 1080(V)/30P, 25P
Lens	Optical Zoom	20X
	Practical f-value	4.7 – 94mm
	Practical H.angle	59.6° (w) – 3.2° (t)
	F-value	F1.6 (w) – F3.5 (t)
Focus		Auto/Manual (Far/Near)
	Minimum working distance	10mm(w) – 1000mm(t)
IR Removable		Auto(Pro.AER, Pro.AER+) / Manual
DSP		DSP10
-Serial Interface-	Method : speed	RS-232C : 57.6k / 38.4k / 19.2k / 9.6k / 4.8k bps
	Command Protocol	EAP(Echo control based on Address Protocol)/ AFP(Ack control based on Function Protocol)
-Functions-	RS-232C logic voltage level	3.3V
	Digital Slow Shutter	YES w/o WDR
	Wide Dynamic Range	OFF/WDR+Contrast offset/AD-WDR+Contrast offset/Contrast offset
	Image Freeze	OFF/ON
	Mirror	OFF/ON
	Vertical Invert	OFF/ON
	Image Reverse	OFF/ON
	Privacy Masking	OFF/ON [ 8 zone 3-D(8 masks/screen) ]
	Motion Detect	OFF/ON
	Motion Tracking	YES(area assignable)
	Frame Noise Reduction	OFF/ON
	Various Customizable Settings	YES [ Preset memory store (max. 111) , WB tuning ]
	White Spot Reduction	YES
	Slow AE Response	1x – 254x
	Defog	OFF/ON(Defog-1/Defog-2/Defog-3/Auto)
	Enhanced Intensity	OFF/ON
	Digital Zoom (Zoom Magnification)	OFF/ON (max. 12X)
	Electrical Shutter	Auto
Auto (+ Digital Slow Shutter)		ProAE+(1/2s – 1/30,000s)
Manual (Shutter Priority)		1/1s – 1/30,000s
Iris		Auto/Average Offset/Peak Offset
	BLC	OFF/ON
White Balance		Auto (Normal/Sodium/Mercury) / Manual
Min. Sensitivity (Typ.)	IR-cut ON (1/30s)	0.4 lx
	IR-cut ON (1/8s)	0.1 lx
	IR-cut OFF (1/8s)	0.01 lx
	Condition	F1.6 (at Full Wide), 350mV (50IRE) equivalent
Sync System		Internal
Power	Supplied voltage	9 – 12V DC
	Supplied current (@9V) all motors inactive	270mA ( at 60°C / 2.4W )
	Supplied current (@9V) Focus/Zoom motors active	360mA ( at 60°C / 3.2W )
	Supplied current max. (@9V) Focus/Zoom/IR motors active	590mA ( at 60°C / 5.3W )
Consumption max.(@9V)		5.3W ( at 60°C )
Video Output (Digital)		YUV422 (Serial LVDS)
Dimensions (W x H x D)		50 x 60 x 89.5mm (w/ M-case) (excluding projection)
Weight		Approx. 260g (w/ M-case)
No. of Connectors		2 (30pin Micro Coaxial/24pin FFC)
Operating Temp. (Recommended)		AF: -10 – 60°C MF: 0 – 60°C (0 – 40°C)



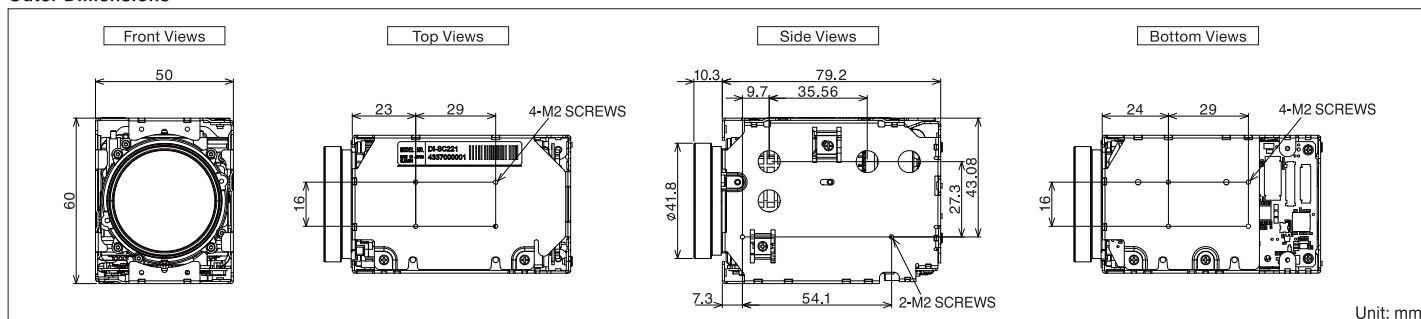
Micro coaxial connector uses KEL CORPORATION's Connector. Pin No.1 is a right edge.

Micro Coaxial  
30pin Connector  
KEL CORPORATION  
USLS00-30

FFC  
24pin Connector  
KYOCERA Connector  
Products Corporation  
04-6299-024-020-846+

Pin No.	Name	Pin No.	Name
1	NC	1	GND
2	NC	2	TxOUT3+
3	NC	3	TxOUT3-
4	NC	4	GND
5	NC	5	TxCLKOUT+
6	LVDS_PWRDWN	6	TxCLKOUT-
7	GND	7	GND
8	GND	8	TxOUT2+
9	GND	9	TxOUT2-
10	GND	10	GND
11	GND	11	TxOUT1+
12	GND	12	TxOUT1-
13	DC IN 9-12V	13	GND
14	DC IN 9-12V	14	TxOUT0+
15	DC IN 9-12V	15	TxOUT0-
16	DC IN 9-12V	16	GND (for power)
17	DC IN 9-12V	17	GND (for power)
18	RD 3.3V(for RS232C)	18	GND (for power)
19	SD 3.3V(for RS232C)	19	LVDS_PWRDWN
20	GND	20	DC IN 9-12V
21	TxOUT0-	21	DC IN 9-12V
22	TxOUT0+	22	DC IN 9-12V
23	TxOUT1-	23	SD 3.3V(for RS232C)
24	TxOUT1+	24	RD 3.3V(for RS232C)
25	TxOUT2-		
26	TxOUT2+		
27	TxCLKOUT-		
28	TxCLKOUT+		
29	TxOUT3-		
30	TxOUT3+		

## Outer Dimensions



\*Design and specifications are subject to change without notice. \*The expanded image and comparison photos in this catalog are simulations.

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