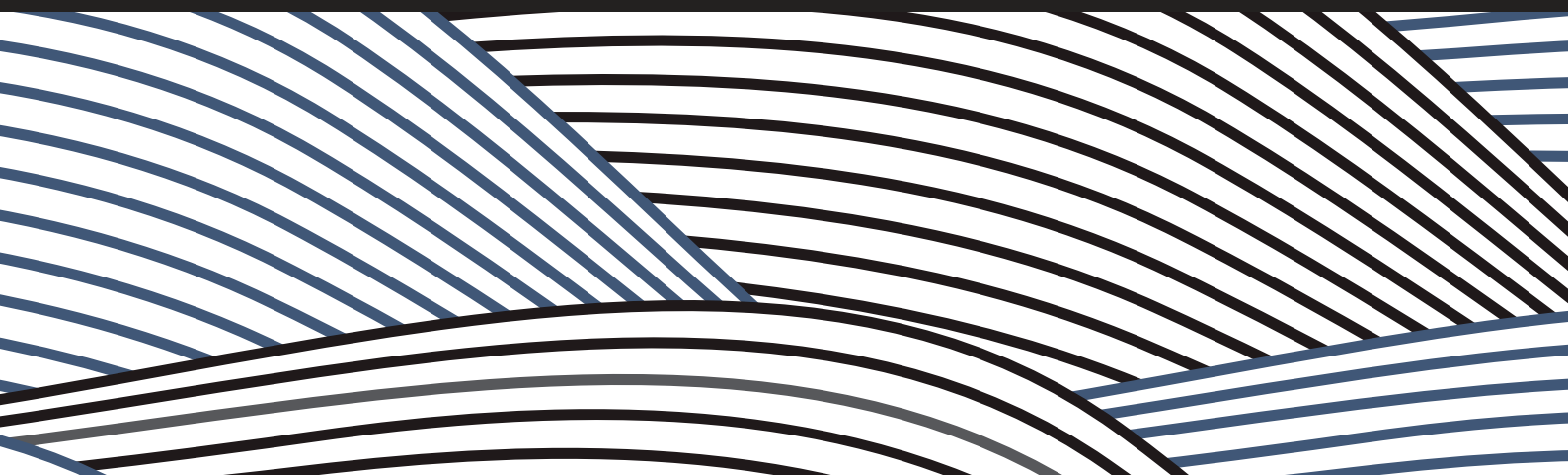
PRODUCT CATALOG

2022/23



MONOCHROME

Resolution (Pixel size)		Line Rate (kHz)				Interface					
		~19	20~39	40~69	70~	Base	Med.	Full	Deca	GigE	CXP
2k (14)	SU2020	•				•					
	SU2025	•				•					
	SU2025GIG	•								•	
	RMSL2K53GE			•						•	
	RMSL2K125CL				•	•	•	•	•		
2k (7)	XCM2085DLMT2				•	•					
4k (7)	RMSL4K25GE		•							•	
	XCM4040DLMT4			•		•	•				
	XCM4085DLMT4				•	•	•				
	RMSL4K76CL				•	•	•				
	RMSL4K76CP				•						•
	XCM40170DLMT2CXP				•						•
	RMSL4K100CL				•	•	•	•	•		
	RMSL4K100CP				•						•
6k (7)	RMSL6K17GE	•								•	
	RMSL6K52CL			•		•	•				
	RMSL6K76CP				•						•
7k (4.7)	SUi7440	•				•					
	SUi7450T2	•				•					
8k (3.5)	RMSL8K39CL		•			•	•				
8k (7)	RMDL8K83CP*1				•						•
	RMSL8K12GE	•								•	
	RMSL8K76CL				•	•	•	•	•		
	RMSL8K76CP				•						•
	XCM8085DLMT8				•	•	•	•			
16k (3.5)	XCM16K80SAT8		•					•			
	RMSL16K76CP*1				•						•

COLOR

Resolution (Pixel size)		Line Rate (kHz)				Interface				
		~19	20~39	40~69	70~	Base	Med.	Full	GigE	CXP
1k (7)	XCM1040DLCT3		•			•				
2k (7)	XCM2085DLCT3		•			•				
2k (14)	RCDL2K20CL		•			•				
4k (7)	RCDL4K8GE	•							•	
	XCM3C4080T3	•				•	•			
4k (10)	NUCLi4KA	•				•	•			
	XCM4085TLCT6			•		•	•	•		
7k (10)	NUCLi7370AT6	•				•	•	•		
8k (7)	RCDL8K83CP*1				•					•

WHAT'S NEW

NEW RYUGAN CAMERAS!

- » Five GigE models ranging from 2-8k, including one color model.
- » High speed 2k 125kHz Camera Link model.
- » High speed 4k 100kHz CoaXPress model.
- » New 8k 83kHz and 16k 76kHz CoaXPress models.

Model	Resolution	Pixel size	Line Rate (kHz)	Data Rate (MHz) Output (clock x tap)	Interface
RCDL2K20CL	2048	14 x 7	20	45x3	Camera Link
RMSL2K125CL		14	125.00	80 40x2 / 160 80x2 / 160 40x4 / 320 80x4 / 320 40x8 / 640 80x8	
RMSL4K76CL	4096	7	76.92	80 40x2 / 120 60x2 / 170 85x2 / 160 40x4 / 240 60x4 / 340 85x4	
RMSL4K100CL			100.00	80 40x2 / 160 80x2 / 160 40x4 / 320 80x4 / 320 40x8 / 640 80x8	
RMSL6K52CL	6144		52.63	80 40x2 / 120 60x2 / 170 85x2 / 160 40x4 / 240 60x4 / 340 85x4	
RMSL8K39CL	8192	3.5	39.06	80 40×2 / 120 60×2 / 160 80×2 / 170 85×2 / 160 40×4 / 240 60×4 / 320 80×4 / 340 85×4	
RMSL8K76CL		7	76.92	80 40x2 / 120 60x2 / 170 85x2 / 160 40x4 / 240 60x4 / 340 85x4 / 320 40x8 / 480 60x8 / 680 85x8	

Model	Resolution	Pixel size	Line Rate (kHz)	Mono / Color	Functions	Interface
RMSL2K53GE	2048	14	53.10	Mono	Shading correction Gain/offset/video output control Programmable exposure control Two-phase trigger	GigE Vision
RCDL4K8GE	4096 x 2	7	8.00	Color		
RMSL4K25GE	4096	7	25.50	Mono		
RMSL6K17GE	6144	7	17.80			
RMSL8K12GE	8192	7	12.80			

Model	Resolution	Pixel size	Line Rate (kHz)	Output	Lanes	Interface
RMSL4K76CP	4096	7	76.92	CXP-3x1 | CXP-3x2 | CXP-5x1	1 | 2	CoaXPress
RMSL4K100CP	4096		100.00	CXP-3x1 | CXP-3x2 | CXP-6x1 | CXP-6x2		
RMSL6K76CP	6144		76.92	CXP-3x1 | CXP-3x2 | CXP-5x1 | CXP-5x2		
RMSL8K76CP	8192					
RCDL8K83CP*1	8192 x 2		83	CXP-3×1 | CXP-3×2 | CXP-6×1 | CXP-6×2 | CXP-6×4	1 | 2 | 4	
RMDL8K83CP*1	8192 x 2					
RMSL16K76CP*1	16384	3.5	76.92	CXP-3x1 | 5x1 | 5x2 | 5x4		

MODEL NAMING CONVENTION

Ryugan series	R	M	SL	8K	76	CL
[RMSL8K76CL]	Ryugan	M=Mono C=Color	SL=Single line DL=Dual line	Pixels (x1024)	Line rate (kHz)	CL=Camera Link CP=CoaXPress GE=GigE Vision

*Specifications subject to change 1To be released

Interface	Series	Model	Resolution (px)	Pixel Size (µm)	Mono or Color	Lens Mount	Data Rate (MHz)	Clock Speed	Taps	Lanes	Max. Line Rate (kHz)	Sensitivity (V/lx·s)	Bit Depth	Interface	Power Over	Dimensions (mm)	Weight (g)
	Ryugan	RCDL2K20CL	2048	14 x 7	Color	F-mount	45 x 3	40	RGB	-	20	60	24 bit RGB	Base	-	60x100x76	380
		RMSL2K125CL	2048	14	Mono	C | F-mount	320	40 | 80	2 | 4 | 8	-	125.00	90	8 | 10	B | M | F | D	-	60x100x74	450
		RMSL4K76CL	4096	7	Mono	F-mount	340	40 | 60 | 85	2 | 4	-	76.92	100	8 | 10	B | M	-	60x100x70	380
		RMSL4K100CL	4096	7	Mono	F-mount	640	40 | 80	2 | 4 | 8	-	100.00	75	8 | 10	B | M | F | D	-	60x100x74	450
		RMSL6K52CL	6144	7	Mono	F-mount	340	40 | 60 | 85	2 | 4	-	52.63	100	8 | 10	B | M	-	60x100x70	380
		RMSL8K39CL	8192	3.5	Mono	F-mount	340	40 | 60 | 80 | 85	2 | 4	-	39.06	50	8 | 10	B | M	-	60x100x70	380
		RMSL8K76CL	8192	7	Mono	M72 x 0.75	680	40 | 60 | 85	2 | 4 | 8	-	76.92	100	8 | 10	B | M | F | D	-	80x120x65	600
	CLISBee-A	XCM1040DLCT3	1024 x 2	14	Color	C | F-mount	85 x 3	40	RGB	-	35.84	60	24 bit RGB	Base	-	60x60x49	170
		XCM2085DLCT3	2048 x 2	7	Color	C | F-mount	85 x 3	40 | 85	RGB	-	39.55	60	24 bit RGB	Base	-	60x60x49	170
		XCM2085DLMT2	2048 x 2	7	Mono	C | F-mount	80 | 170	40 | 85	1 | 2	-	75.69	100	8 | 10	Base	-	60x60x49	170
		XCM4040DLMT4	4096 x 2	7	Mono	F-mount	80 | 160	40	2 | 4	-	35.94	125	8 | 10	B | M	-	60x100x76	400
		XCM4085DLMT4	4096 x 2	7	Mono	F-mount	170 | 340	85	2 | 4	-	76.50	125	8 | 10	B | M	-	60x100x76	400
		XCM8085DLMT8	8192 x 2	7	Mono	M72 x 0.75	170 | 340 | 680	40 | 85	2 | 4 | 8	-	77.55	125	8 | 10	B | M | F	-	80x110x62	630
		XCM16K80SAT8	16384	3.5	Mono	M72 x 0.75	640	80	8	-	36.33	45.2	8	Full	-	80x130x67	680
	SU (CCD)	SU2020 (CCD)	2048	14	Mono	F-mount	20	20	1	-	9.10	90	8 | 10 | 12	Base	-	64x70x92	410
		SU2025 (CCD)	2048	14	Mono	F-mount	25	25	1	-	11.40	90	8 | 10 | 12	Base	-	64x70x92	410
		SUi7440 (CCD)	7400	4.7	Mono	F-mount	40	40	1	-	5.20	120	8 | 10 | 12	Base	-	64x70x90	380
		SUi7450T2 (CCD)	7400	4.7	Mono	F-mount	100	50	2	-	12.50	67	8 | 10 | 12	Base	-	64x70x90	380
	Rainbow	NUCLi4KA (CCD)	4096 x 3	10	Color	F-mount	80 x 3	80	RGB	-	17.70	130	24 | 30 bit RGB	B | M	-	150x100x70	900
		XCM4085TLCT6	4096 x 3	10	Color	F-mount	170 x 3	85	RGB x 1|2	-	40.00	100	24 | 30 bit RGB	B | M | F	-	62x100x72	400
		NUCLi7370AT6 (CCD)	7300 x 3	10	Color	M84.5	140 x 3	70	RGB x 1|2	-	17.50	130	24 | 30 bit RGB	B | M | F	-	108x150x60	800
		XCM3C4080T3	4096 x 3	7	Color	F-mount	80 x 3	80	RGB	-	18.65	40	24 | 30 bit RGB	B | M	-	100x100x123	1100
CoaXPress	Ryugan	RMSL4K76CP	4096	7	Mono	F-mount	340	-	-	1 | 2	76.92	100	8 | 10	CXP-3|5	Pwr over CXP	80x120x86	600
		RMSL4K100CP	4096	7	Mono	F-mount	409	-	-	1 | 2	100.00	75	8 | 10	CXP-3|6	-	60x100x84	450
		RMSL6K76CP	6144	7	Mono	F-mount	510	-	-	1 | 2	76.92	100	8 | 10	CXP-3|5	Pwr over CXP	80x120x86	600
		RCDL8K83CP*1	8192 x 2	7	Color	M72 x 0.75	1440	-	-	1 | 2 | 4	83	100	8 | 10	CXP-3|6	Pwr over CXP	80x120x44	665
		RMDL8K83CP*1	8192 x 2	7	Mono	M72 x 0.75	1440	-	-	1 | 2 | 4	83	100	8 | 10	CXP-3|6	Pwr over CXP	80x120x44	665
		RMSL8K76CP	8192	7	Mono	M72 x 0.75	680	-	-	1 | 2	76.92	100	8 | 10	CXP-3|5	Pwr over CXP	80x120x72	610
		RMSL16K76CP*1	16384	3.5	Mono	M72 x 0.75	1360	-	-	1 | 2 | 4	76.92	50	8 | 10	CXP-3|5	Pwr over CXP	80x120x44	700
	CLISBee-A	XCM40170DLMT2CXP	4096 x 2	7	Mono	F-mount	340	-	-	1 | 2	77.56	100	8 | 10	CXP-2	-	60x100x87	450
GiGE VISION	Ryugan	RMSL2K53GE	2048	14	Mono	F-mount	125	-	-	-	53.10	100	8 | 10	GigE Vision	-	60x100x83	455
		RCDL4K8GE	4096 x 2	7	Color	F-mount	125	-	-	-	8.00	100	8	GigE Vision	-	60x100x83	455
		RMSL4K25GE	4096	7	Mono	F-mount	125	-	-	-	25.50	100	8 | 10	GigE Vision	-	60x100x83	455
		RMSL6K17GE	6144	7	Mono	F-mount	125	-	-	-	17.80	100	8 | 10	GigE Vision	-	60x100x83	460
		RMSL8K12GE	8192	7	Mono	M72 x 0.75	125	-	-	-	12.80	100	8 | 10	GigE Vision	-	80x120x69	720
	SU (CCD)	SU2025GIG (CCD)	2048	14	Mono	F-mount	25	-	-	-	11.40	50	8 | 10	GigE Vision	-	64x70x118	450

*Specifications subject to change [1]To be released

RYUGAN

Ryugan (“dragon eye” in Japanese) is a new series of high speed line scan cameras from NED. Having all the high qualities as NED’s standard cameras, the Ryugan series add greater speeds for high demanding applications.
New models are constantly added to the Ryugan series and it now includes five GigE models.

Model	Resolution	Pixel Size	Line Rate (kHz)	Interface
RCDL2K20CL	2048	14 x 7	20	Camera Link
RMSL2K125CL	2048	14	125.00	
RMSL4K76CL	4096	7	76.92	
RMSL4K100CL			100.00	
RMSL6K52CL	6144		52.63	
RMSL8K39CL	8192	3.5	39.06	
RMSL8K76CL		7	76.92	
RMSL4K76CP	4096	7	76.92	CoaXPress
RMSL4K100CP			100.00	
RMSL6K76CP	6144		76.92	
RMSL8K76CP	8192		76.92	
RCDL8K83CP*1	8192 x 2		83	
RMDL8K83CP*1			83	
RMSL16K76CP*1	16384	3.5	76.92	
RMSL2K53GE	2048	14	53.10	GigE
RCDL4K8GE	4096 x 2	7	8.00	
RMSL4K25GE	4096	7	25.50	
RMSL6K17GE	6144		17.80	
RMSL8K12GE	8192		12.80	

CLISBee-A

NED’s CLISBee-A series offers high sensitivity, high speed and low noise cameras to a reasonable cost. The series includes both single and dual line sensors. Having implemented new functions that utilizes the advantages of multi-line sensors makes it possible for you to find the perfect model for your project!

Model	Resolution	Pixel Size	Line Rate (kHz)	Interface
XCM1040DLCT3	1024 x 2	7	35.84	Camera Link
XCM2085DLCT3	2048 x 2		39.55	
XCM2085DLMT2			75.69	
XCM4040DLMT4	4096 x 2		35.94	
XCM4085DLMT4			76.50	
XCM8085DLMT8	8192 x 2		77.55	
XCM16K80SAT8	16384	3.5	36.33	
XCM40170DLMT2CXP	4096 x 2	7	77.56	CoaXPress

SU SERIES

The SU series consist of NED’s lowest priced cameras using CCD sensors for price sensitive applications.

Model	Resolution	Pixel Size	Line Rate (kHz)	Interface
SU2020 (CCD)	2048	14	9.10	Camera Link
SU2025 (CCD)			11.40	
SUi7440 (CCD)	7400	4.7	5.20	
SUi7450T2 (CCD)			12.50	
SU2025GIG (CCD)	2048	14	11.40	GigE

RAINBOW

Add color to your solution with NED’s Rainbow series. Dual line and trilinear sensor models offer great value for money. Prism-based XCM3C series is the right choice where high precision color is a must.

Model	Resolution	Pixel Size	Line Rate (kHz)	Interface
NUCLi4KA (CCD)	4096 x 3	10	17.70	Camera Link
XCM3C4080T3		7	18.65	
XCM4085TLCT6		10	40.00	
NUCLi7370AT6 (CCD)	7300 x 3		17.50	

*Specifications subject to change ¹To be released

COMPANY PROFILE

Nippon Electro-Sensory Devices Corporation
Founded 1975
ISO 9001, 14001 certified
6 offices in Japan

Development, design, manufacture and sales of:
- High speed line scan cameras
- Controllers for cameras, image processing and grabber boards
- Systems for image processing and image processing software
- Other products for optronics and mechatronics applications

NED HISTORY

1975	NIPPON ELECS Devices Corp. formed
1985	First development of Line Scan Cameras [Analog RS422 CCD S Series · H Series]
1986	Line scan camera controller development [MEGA3]
1990	Color line scan camera development [CL series 0.5K · 1.7K]
1991	Development of 3CCD Colour Line Camera
1996	Development of high speed frame grabber boards and wafer inspection devices
2005	In-house development of high speed CLISBee CMOS line sensors begins
2010	Member of the CoaXPress Consortium developing the next-generation CoaXPress interface
2011	Release of low cost SU series
2013	Release of first CoaXPress line scan camera
2014	Release of first CCD and CMOS GigE vision camera
2015	Release of CLISBee-A series using multi-line sensors
2018	Release of high speed Ryugan series
2019	Release of Ryugan GigE models

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