

2.2 Specifications

Spec.	MU-A040M/K-523	MU-A160M/K-226	MU-A320M/K-118	MU-A320M/K-55	MU-A500M/K-35	MU-A121M/K-23	MU-A121R/L-31	MU-A201R/L-18
Sensor	0.4M	1.58M	3.2M	3.2M	5M	12M	12.1M	20.1M
	IMX287LLR(LQR)	IIMX273LLR(LQR)	IMX252LLR(LQR)	IMX265LLR(LQR)	IMX264 LL(Q)R	IMX304LL(Q)R-C	IMX226CL(Q)J-C	IMX183CL(Q)J-C
Sensor Format	1/2.9"	1/2.9"	1/1.8"	1/1.8"	2/3"	1.1"	1/1.7"	1"
Pixel Size(um)	3.45 x 3.45	6.90 x 6.90	3.45 x 3.45	3.45 x 3.45	3.45 x 3.45	3.45 x 3.45	1.85 x 1.85	2.4 x 2.4
Active Pixels	728 x 544	1456 x 1088	2064 x 1544	2064 x 1544	2464 x 2056	4112 x 3008	4072 x 3046	5496 x 3672
Frame Rate (Max)*	523fps	226fps	118ps	55fps	35fps	23fps	30fps	18fps
Exposure Time	1us ~ 3sec (* Exposure Offset Excluded)						Min.99us	Min.141us
Scanning Method	Full / ROI(Horizontal+Vertical) / Reverse(X,Y,All) / Decimation(Horizontal+Vertical)						Full / Reverse(X,Y,All) ROI(Horizontal+Vertical)	
Binning	X	O (Only Mono Model)	O (Only Mono Model)	X	X	X	X	X
ADC Bit Depth	8, 12bit	8, 10, 12bit	8, 10, 12bit	12bit	12bit	12bit	10, 12bit	10, 12bit
Sync. System	Internal(Freerun), External(6-pin Circular port), Software trigger via PC							
Trigger Mode	Timed, Trigger Width							
Shutter	Global Shutter						Rolling Shutter / Global Reset	
Gain Abs	Analog : 0dB ~ 48dB (1x ~ 251x) Digital : 0dB ~ 18dB (1x ~ 8x)						Analog : 0dB ~ 27dB (1x ~ 22.5x) Digital : 0dB ~ 18dB (1x ~ 8x)	
Black Level (Analog)	Analog : 0 ~ 4095 (12bit) Digital : 0 ~ 4095 (12bit)						Analog : 0 ~ 255 (8bit) Digital : 0 ~ 4095 (12bit)	
LUT	Adjustable LUT (12bit to 12bit)							
Gamma	Gamma Correction(0 ~ 3.999)							
Auto White Balance	Off / Once / Continuous (Only Color Models)							
Auto Gain/Exposure	Off / Once / Continuous Auto Exposure(Gain) Lower Limit / Auto Exposure(Gain) Upper Limit							
ROI	Horizontal / Vertical ROI Support							
Video I/F	USB3.1 Gen.1 (USB 3 Vision Standard 1.1)							
Video Format	Mono Model : Mono8/10/12 Color Model : Mono8/10/12, BayerRG8/10/12, RGB8, BGR8							
Communication	USB 3 Vision Standard 1.1							
SNR								B/W : 41dB Color : 41dB
Function Control	GainAuto, ExposureAuto, BalanceWhiteAuto Acquisition Frame Rate(Adjustable), Line Debouncer, Defective Pixel Correction, Shading Correction(FFC), Noise Reduction Filter, Pattern Noise Removal, Color Transformation							
Lens mount	C mount							
Optical accuracy	Optical center ≤ ± 0.1 mm							
Power Supply	DC(5V ~ 13.2V) or USB3 BUS							
Consumption	DC							< 4W (Typical 3.6W)
	USB							< 4W (Typical 3.6W)
Weight	< 44g							
Dimension	29 x 29 x 29 mm (Without mount, Connector)							
Operating / Storage	0°C ~ +40°C (with < 20~80% RH) / -20°C ~ +60°C							
Vibration / Shock	98 m/s ² (10.0 G) / 490 m/s ² (50.0 G)							

Standard Compliance	CE (EN61326-1; 2006 년; Class A)
Environments	RoHS / WEEE