

# Vision Datum

Large Area Scan Cameras



**GiGE<sup>®</sup>** **10GiGE<sup>®</sup>** **USB<sup>®</sup>**  
VISION VISION VISION

**CAMERA**  
**Link** **CoaXPress<sup>®</sup>**

- Excellent Cost Performance Ratio
- High Resolution, High Precision
- 1.7MP to 600MP Resolution Optional
- Large-size Sensor

GigE										
Model	Sensor	Sensor Size	Resolution [pixel]	Data Bits [bit]	Pixel Size [ $\mu\text{m}^2$ ]	Frame Rate [fps]	Sensor Technology	Color	Lens Interface	No.
Mars1760S-66gm	IMX432	1.1"	1608 × 1104	8/10	9	66	Global	Mono	C	5
Mars1760S-66gc	IMX432	1.1"	1608 × 1104	8/10	9	66	Global	Color	C	5
Mars7MS-17gm	IMX428	1.1"	3208 × 2200	8/10	4.5	17	Global	Mono	C	5
Mars7MS-17gc	IMX428	1.1"	3208 × 2200	8/10	4.5	17	Global	Color	C	5
Mars12MS-9gm-Lite	IMX304	1.1"	4096 × 3000	8/10	3.45	9	Global	Mono	M58	5
Mars12MS-9gc-Lite	IMX304	1.1"	4096 × 3000	8/10	3.45	9	Global	Color	M58	5
Mars12MS-9gm	IMX304	1.1"	4096 × 3000	8/10	3.45	9	Global	Mono	M58	5
Mars12MS-9gc	IMX304	1.1"	4096 × 3000	8/10	3.45	9	Global	Color	M58	5
Mars25MP-4gm	PYTHON25K	23 × 23 mm	5120 × 5120	8/10	4.5	4	Global	Mono	M58	6
Mars25MP-4gc	PYTHON25K	23 × 23 mm	5120 × 5120	8/10	4.5	4	Global	Color	M58	6
Mars25MG-4gm	GMAX0505	1.1"	5120 × 5120	8/10	2.5	4	Global	Mono	M58	6
Mars25MG-4gc	GMAX0505	1.1"	5120 × 5120	8/10	2.5	4	Global	Color	M58	6
Mars31MS-3gm	IMX342	22.3 × 16.6 mm	6464 × 4852	12	3.45	3.6	Global	Mono	M58	6
Mars31MS-3gc	IMX342	22.3 × 16.6 mm	6464 × 4852	12	3.45	3.6	Global	Color	M58	6
Mars46MD-2gm	-	29.9 × 16 mm	9344 × 5000	12	3.2	2.6	Global	Mono	M58	7
Mars46MD-2gc	-	29.9 × 16 mm	9344 × 5000	12	3.2	2.6	Global	Color	M58	7
Mars65MG-2gm	GMAX3265	29.9 × 22.4 mm	9280 × 7000	12	3.2	1.7	Global	Mono	M58	7
Mars65MG-2gc	GMAX3265	29.9 × 22.4 mm	9280 × 7000	12	3.2	1.7	Global	Color	M58	7
LEO 12MS-9gm-Lite	IMX304	1.1"	4096 × 3000	12	3.45	9.4	Global	Mono	C	8
LEO 12MS-9gm	IMX304	1.1"	4096 × 3000	12	3.45	9.4	Global	Mono	C	8
LEO 12MS-9gc	IMX304	1.1"	4096 × 3000	12	3.45	9.4	Global	Color	C	8
LEO 16MD-7gm <b>NEW</b>	-	1.1"	4000 × 4000	12	3.2	7	Global	Mono	C	8
LEO 25MG-5gm	GMAX0505	1.1"	5120 × 5120	12	2.5	4.5	Global	Mono	C	9
LEO 25MG-5gc	GMAX0505	1.1"	5120 × 5120	12	2.5	4.5	Global	Color	C	9
LEO 25MG-5gNIR <b>NEW</b>	GMAX0505	1.1"	5120 × 5120	12	2.5	4.5	Global	NIR	C	9
LEO 31MS-4gm	IMX342	22.3 × 16.7 mm	6464 × 4852	12	3.45	3.9	Global	Mono	M58	9
LEO 31MS-4gc	IMX342	22.3 × 16.7 mm	6464 × 4852	12	3.45	3.9	Global	Color	M58	9

USB3.0										
Model	Sensor	Sensor Size	Resolution [pixel]	Data Bits [bit]	Pixel Size [ $\mu\text{m}^2$ ]	Frame Rate [fps]	Sensor Technology	Color	Lens Interface	No.
Mars12MS-23um	IMX304	1.1"	4096 × 3000	12	3.45	23	Global	Mono	C	10
Mars12MS-23uc	IMX304	1.1"	4096 × 3000	12	3.45	23	Global	Color	C	10
Mars12MS-30um	IMX253	1.1"	4096 × 3000	10	3.45	30	Global	Mono	C	10
Mars12MS-30uc	IMX253	1.1"	4096 × 3000	10	3.45	30	Global	Color	C	10
Mars25MG-14um	GMAX0505	1.1"	5120 × 5120	12	2.5	14	Global	Mono	C	10
Mars25MG-14uc	GMAX0505	1.1"	5120 × 5120	12	2.5	14	Global	Color	C	10
LEO 12MS-23um	IMX304	1.1"	4096 × 3000	12	3.45	23.1	Global	Mono	C	11
LEO 12MS-23uc	IMX304	1.1"	4096 × 3000	12	3.45	23.1	Global	Color	C	11
LEO 12MS-30um	IMX304	1"	4096 × 3000	12	3.45	30.3	Global	Mono	C	11
LEO 12MS-30uc	IMX304	1"	4096 × 3000	12	3.45	30.3	Global	Color	C	11
LEO 25MG-14um	GMAX0505	1.1"	5120 × 5120	12	2.5	14.3	Global	Mono	C	11
LEO 25MG-14uc	GMAX0505	1.1"	5120 × 5120	12	2.5	14.3	Global	Color	C	11
LEO 25MG-14uNIR	GMAX0505	1.1"	5120 × 5120	12	2.5	14.3	Global	NIR	C	11

## 10GigE

Model	Sensor	Sensor Size	Resolution [pixel]	Data Bits [bit]	Pixel Size [ $\mu\text{m}^2$ ]	Frame Rate [fps]	Sensor Technology	Color	Lens Interface	No.
Mars12MS-68Tgm	IMX253	1.1"	4096 x 3000	8/10	3.45	68	Global	Color	M58	12
Mars12MS-68Tgc	IMX253	1.1"	4096 x 3000	8/10	3.45	68	Global	Color	M58	12
Mars25MG-41Tgm	GMAX0505	1.1"	5120 x 5120	12	2.5	41	Global	Mono	M58	12
Mars25MG-41Tgc	GMAX0505	1.1"	5120 x 5120	12	2.5	41	Global	Color	M58	12
Mars25MP-43Tgm	PYTHON25K	23 x 23 mm	5120 x 5120	8/10	4.5	43	Global	Mono	M58	13
Mars25MP-43Tgc	PYTHON25K	23 x 23 mm	5120 x 5120	8/10	4.5	43	Global	Color	M58	13
Mars49MD-18Tgm <b>NEW</b>	-	23 x 23 mm	7008 x 7000	8/10	3.2	17.4	Global	Mono	M58	
Mars49MD-18Tgc <b>NEW</b>	-	23 x 23 mm	7008 x 7000	8/10	3.2	17.4	Global	Color	M58	
Mars65MG-18Tgm	GMAX3265	29.9 x 22.4 mm	9344 x 7000	12	3.2	17.4	Global	Mono	M58	13
Mars65MG-18Tgc	GMAX3265	29.9 x 22.4 mm	9344 x 7000	12	3.2	17.4	Global	Color	M58	13
Mars103MG-11Tgm	GMAX32103	36.1 x 29.4 mm	11264 x 9200	12	3.2	11.25	Global	Mono	M58	
LEO 12MS-68Tgm(V2)	IMX253	1.1"	4096 x 3000	12	3.45	68	Global	Mono	M58	14
LEO 12MS-68Tgc(V2)	IMX253	1.1"	4096 x 3000	12	3.45	68	Global	Color	M58	14
LEO 24MS-35Tgm	IMX540	1.2"	5328 x 4600	12	2.74	35.1	Global	Mono	C / M58	14
LEO 25MD-30Tgm	-	23 x 23 mm	5120 x 5120	12	4.5	31.7	Global	Mono	M58	14
LEO 25MG-40Tgm	GMAX0505	1.1"	5120 x 5120	12	2.5	41.5	Global	Mono	C / M58	15
LEO 25MG-40Tgc	GMAX0505	1.1"	5120 x 5120	12	2.5	41.5	Global	Color	C / M58	15
LEO 25MG-40TgNIR	GMAX0505	1.1"	5120 x 5120	12	2.5	41.5	Global	NIR	M58	15
LEO 31MS-17Tgm	IMX342	24.9 x 16.6 mm	6464 x 4852	8/12	3.45	17.2	Global	Mono	M58	15
LEO 31MS-17Tgc	IMX342	24.9 x 16.6 mm	6464 x 4852	8/12	3.45	17.2	Global	Color	M58	15
LEO 50MG-15Tgm	GMAX	22.4 x 22.4 mm	7008 x 7000	12	3.2	15.5	Global	Mono	M58 / F	16
LEO 50MG-15Tgc	GMAX	22.4 x 22.4 mm	7008 x 7000	12	3.2	15.5	Global	Color	M58	16
LEO 65MG-15Tgm	GMAX3265	29.9 x 22.4 mm	9344 x 7000	12	3.2	15.5	Global	Mono	M58 / F	16
LEO 65MG-15Tgc	GMAX3265	29.9 x 22.4 mm	9344 x 7000	12	3.2	15.5	Global	Color	M58 / F	16
LEO 150MSC-6Tgm	IMX411	66.7 mm	14208 x 10640	12/16	3.76	6.2	Rolling	Mono	M72	16



## Camera Link

Model	Sensor	Sensor Size	Resolution [pixel]	Data Bits [bit]	Pixel Size [ $\mu\text{m}^2$ ]	Frame Rate [fps]	Sensor Technology	Color	Lens Interface	No.
Mars12MS-20cm	IMX304	1.1"	4096 x 3000	10	3.45	20	Global	Mono	C	17
Mars12MS-20cc	IMX304	1.1"	4096 x 3000	10	3.45	20	Global	Color	C	17
Mars25MG-30cm	GMAX0505	1.1"	5120 x 5120	10	2.5	30	Global	Mono	C	17
Mars31MS-25cm	IMX342	22.3 x 16.7 mm	6240 x 4848	10	3.45	24.8	Global	Mono	M58	17
Mars31MS-25cc	IMX342	22.3 x 16.7 mm	6240 x 4848	10	3.45	24.8	Global	Color	M58	17
Mars46MD-18cm	-	29.9 x 16.0 mm	9280 x 4992	12	3.2	17.5	Global	Mono	M58	18
Mars46MD-18cc	-	29.9 x 16.0 mm	9280 x 4992	12	3.2	17.5	Global	Color	M58	18
Mars65MG-13cm	GMAX3265	29.9 x 22.4 mm	9280 x 6992	12	3.2	12.5	Global	Mono	M58	18
Mars65MG-13cc	GMAX3265	29.9 x 22.4 mm	9280 x 6992	12	3.2	12.5	Global	Color	M58	18
Mars150MS-5cm	IMX411	53.4 x 40 mm	14208 x 10640	12	3.76	5.1	Rolling	Mono	M72	18
LEO 4000D-180cm	HK	1"	2048 x 2048	8	5.5	180	Global	Mono	C	
LEO 5000S-140cm	IMX250	2/3"	2432 x 2048	8/12	3.45	140	Global	Mono	C	
LEO 5000S-140cc	IMX250	2/3"	2432 x 2048	8/12	3.45	140	Global	Color	C	
LEO 5000S-35cm	IMX264	2/3"	2448 x 2048	8/12	3.45	35	Global	Mono	C	
LEO 12MS-70cm	IMX253	1.1"	3840 x 3000	8	3.45	69.8	Global	Mono	C	19
LEO 12MS-70cc	IMX253	1.1"	3840 x 3000	8	3.45	68.1	Global	Color	C	19
LEO 12MS-23cm	IMX304	1.1"	4096 x 3000	12	3.45	23.4	Global	Mono	C	19
LEO 100MS-8cm	IMX461	55 mm	11648 x 8740	12/16	3.76	8.1	Rolling	Mono	M72	20
LEO 100MSC-8cm	IMX461	55 mm	11648 x 8740	12/16	3.76	8.1	Rolling	Mono	M72	20
LEO 100MSC-8cc	IMX461	55 mm	11648 x 8740	12/16	3.76	8.1	Rolling	Color	M72	20

CoaXPRESS										
Model	Sensor	Sensor Size	Resolution [pixel]	Data Bits [bit]	Pixel Size [ $\mu\text{m}^2$ ]	Frame Rate [fps]	Sensor Technology	Color	Lens Interface	No.
Mars12MC-188xm	CMV12000	22.5 × 16.9 mm	4092 × 3072	10	5.5	188	Global	Mono	M58 / F / M42	21
Mars12MC-188xc	CMV12000	22.5 × 16.9 mm	4092 × 3072	10	5.5	188	Global	Color	M58 / F / M42	21
Mars12MC-330xm	CMV12000	22.5 × 16.9 mm	4092 × 3072	12	5.5	330	Global	Mono	M58	21
Mars12MC-330xc	CMV12000	22.5 × 16.9 mm	4092 × 3072	12	5.5	330	Global	Color	M58	21
Mars18MG-64xm <b>NEW</b>	GMAX2518	11.27 × 10.24 mm	4496 × 4096	12	5.5	64	Global	Mono	C	
Mars21MG-220xm	Gsprint4521	23.0 × 18.4 mm	5120 × 4096	12	4.5	219	Global	Mono	M58	21
Mars25MG-41xm <b>NEW</b>	GMAX0505	1.1"	5120 × 5120	12	2.5	41.8	Global	Mono	C	
Mars25MG-41xc <b>NEW</b>	GMAX0505	1.1"	5120 × 5120	12	2.5	41.8	Global	Color	C	
Mars25MG-90xm	GMAX0505	1.1"	5120 × 5120	10	2.5	41.8	Global	Mono	C	
Mars25MG-90xc	GMAX0505	1.1"	5120 × 5120	10	2.5	41.8	Global	Color	C	
Mars25MG-90xm	GMAX0505	1.1"	5120 × 5120	10	2.5	90	Global	Mono	M58	22
Mars25MG-90xc	GMAX0505	1.1"	5120 × 5120	10	2.5	90	Global	Color	M58	22
Mars25MG-150xm	GMAX0505	1.1"	5120 × 5120	10	2.5	150	Global	Mono	M58 / M42	22
Mars25MG-150xc	GMAX0505	1.1"	5120 × 5120	10	2.5	150	Global	Color	M58 / M42	22
Mars25MG-42xm	GMAX0505	1.1"	5120 × 5120	10	2.5	42	Global	Mono	C	22
Mars50MC-30xm	CMV50000	36.4 × 27.6 mm	7920 × 6004	12	4.6	30	Global	Mono	M58 / F	23
Mars50MC-30xc	CMV50000	36.4 × 27.6 mm	7920 × 6004	12	4.6	30	Global	Color	M58 / F	23
Mars46MD-44xm	-	29.9 × 16.0 mm	9344 × 5000	12	3.2	44	Global	Mono	M58	23
Mars46MD-44xc	-	36.4 × 27.6 mm	9344 × 5000	12	3.2	44	Global	Color	M58	23
Mars65MG-31xm	GMAX3265	29.9 × 22.4 mm	9344 × 7000	12	3.2	31	Global	Mono	M58	23
Mars65MG-31xc	GMAX3265	29.9 × 22.4 mm	9344 × 7000	12	3.2	31	Global	Color	M58	23
Mars65MG-71xm	GMAX3265	29.9 × 22.4 mm	9344 × 7000	10	3.2	71	Global	Mono	M58	23
Mars65MG-71xc	GMAX3265	29.9 × 22.4 mm	9344 × 7000	10	3.2	71	Global	Color	M58	23
Mars150MS-6xm	IMX411	66.7 mm	14192 × 10640	12	3.76	6.1	Rolling	Mono	M72	24
Mars150MS-6xc	IMX411	66.7 mm	14192 × 10640	12	3.76	6.1	Rolling	Color	M72	24
Mars150MSC-6xm	IMX411	53.36 × 40.01mm	14192 × 10640	12	3.76	6.1	Rolling	Mono	M72	24
Mars150MSC-6xc	IMX411	53.36 × 40.01mm	14192 × 10640	12	3.76	6.1	Rolling	Color	M72	24
Mars604MS-2xm	IMX411	66.7 mm	28384 × 21280	8	3.76	1.55	Rolling	Mono	M72	
Mars604MS-2xc	IMX411	66.7 mm	28384 × 21280	8	3.76	1.55	Rolling	Color	M72	
LEO 5MG-210xm	GMAX2505	1/2"	2592 × 2160	8/12	2.5	213	Global	Mono	C	
LEO 12MC-188xm	CMV12000	22.5 × 16.9 mm	4092 × 3072	8	5.5	188	Global	Mono	M58	
LEO 12MC-330xm	CMV12000	22.5 × 16.9 mm	4092 × 3072	8	5.5	330	Global	Mono	M58	
LEO 21MG-220xm	Gsprint4521	23.04 × 18.4 mm	5120 × 4096	8/12	4.5	222	Global	Mono	M58	25
LEO 21MG-220xc	Gsprint4521	23.04 × 18.4 mm	5120 × 4096	8/12	4.5	222	Global	Color	M58	25
LEO 25MG-150xm	GMAX0505	1.1"	5120 × 5120	10	2.5	150	Global	Mono	M58 / C	25
LEO 25MG-150xc	GMAX0505	1.1"	5120 × 5120	10	2.5	150	Global	Color	M58	25
LEO 25MG-41xm <b>NEW</b>	GMAX0505	1.1"	5120 × 5120	10	2.5	41.5	Global	Mono	C	25
LEO 65MG-32xm	GMAX3265	29.9 × 22.4 mm	9344 × 7000	12	3.2	31.5	Global	Mono	M58	26
LEO 65MG-32xc	GMAX3265	29.9 × 22.4 mm	9344 × 7000	12	3.2	31.5	Global	Color	M58	26
LEO 65MG-71xm	GMAX3265	29.9 × 22.4 mm	9344 × 7000	10	3.2	71	Global	Mono	M58	26
LEO 65MG-71xc	GMAX3265	29.9 × 22.4 mm	9344 × 7000	10	3.2	71	Global	Color	M58	26
LEO 150MS-6xm	IMX411	66.7mm	14208 × 10640	12/16	3.76	6.2	Rolling	Mono	M72	27
LEO 150MS-6xc	IMX411	66.7mm	14208 × 10640	12/16	3.76	6.2	Rolling	Color	M72	27
LEO 150MSC-6xm	IMX411	66.7mm	14208 × 10640	12/16	3.76	6.2	Rolling	Mono	M72	27
LEO 150MSC-6xc	IMX411	66.7mm	14208 × 10640	12/16	3.76	6.2	Rolling	Color	M72	27
LEO 600MS-2xm	IMX411	66.7mm	14208 × 10640	12/16	3.76	1.45	Rolling	Mono	M72	27

	Mars1760S-66gm/gc	Mars7MS-17gm/gc	Mars12MS-9gm/gc	Mars12MS-9gm/gc-Lite
<b>Camera</b>				
Resolution[H*V pixels]	1604 × 1100	3208 × 2200	4096 × 3000	
Sensor	IMX432	IMX428	IMX304	
Sensor Size[Optical]	1.1"	1.1"	1.1"	
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Global	
Pixel Size [μm]	9 x 9	4.5 x 4.5	3.45 x 3.45	
Frame Rate [FPS]	66	17	9	
Data Bits	12 bit	12 bit	12 bit	
Exposure Time	1μs~1s	1μs~1s	48μs~1s	
Dynamic Range	>70dB	>70dB	>70dB	
Mono/Color	Mono / Color	Mono / Color	Mono / Color	
Image Format	Mono:Mono8/10/10Packed Color:Mono8,BayerRG8/10/10Packed, BayerGB8/10/10Packed,YUV422Packed		Mono:Mono8/10/10Packed/12/12Packed Color:Mono8/BayerRG8/10/10Packed, BayerGB8/10/10Packed,YUV422 Packed	
Interface	Gigabit Ethernet (1000 Mbit/s)			
Synchronization	Via hardware trigger, software trigger or free run			
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction			
<b>Electrical</b>				
Housing Size	29 × 44 × 58 mm(100g)		29 × 29 × 42 mm(100g)	
Operating Temperature	-30~80 ° C (Storage), -30~50° C (Working)			
Lens Mount	C-Mount			
Digital I/O	6Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O			
Power Input	DC 9-24V; PoE			
Power Consumption	12V@3.2W			
<b>Software</b>				
Driver	Mars Series camera Software Suite (iCentral) or 3rd party GigE Vision Software			
Operating System	Windows, Linux			
Conformity	GigE Vision, GenICam			



	Mars25MP-4gm/gc	Mars25MG-4gm/gc	Mars31MS-3gm/gc
<b>Camera</b>			
Resolution[H*V pixels]	5120 x 5120	5120 x 5120	6464 × 4852
Sensor	PYTHON25K	Gpixel	IMX342
Sensor 尺寸	23.0 × 23.0 mm	1.1"	22.3 mm × 16.7 mm
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Global
Pixel Size [μm]	4.5 x 4.5	2.5 x 2.5	3.45 x 3.45
Frame Rate [FPS]	4	4	3.6
Data Bits	10 bit	12 bit	12 bit
Exposure Time	35μs~1s	5μs~1s	3μs~15s
Dynamic Range	58dB	>64dB	73dB
Mono/Color	Mono / Color	Mono / Color	Mono / Color
Image Format	Mono:Mono8/10/10Packed Color:Mono8,BayerRG8/10/10Packed,BayerGB8/10/10Packed,YUV422Packed	Mono:Mono8/10/10Packed/12/12Packed Color:Mono8,BayerRG8/10/10Packed/12/12Packed,BayerGB8/10/10Packed/12/12Packed,YUV422Packed	
Interface	Gigabit Ethernet (1000 Mbit/s)		
Synchronization	Via hardware trigger, software trigger or free run		
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction		
<b>Electrical</b>			
Housing Size	76 × 76 × 42.5 mm(370g)	29 × 44 × 58 mm(100g)	72 × 72 × 64 mm(487g)
Operating Temperature	-30~80 ° C (Storage), -30~50° C (Working)		
Lens Mount	M58*0.75(FBL:11.48±0.15)	C-Mount	M58*0.75(FBL:11.48±0.15)
Digital I/O	12Pin:3 opto-isolated input, 3 opto-isolated output, 1 RS232	6Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O	12Pin:3 opto-isolated input, 3 opto-isolated output, 1 RS232
Power Input	DC 12-24V	DC 9-24V; PoE	DC 12-24V
Power Consumption	24V@9W	12V@4W	24V@7.8W
<b>Software</b>			
Driver	Mars Series camera Software Suite (iCentral) or 3rd party GigE Vision Software		
Operating System	Windows, Linux		
Conformity	GigE Vision, GenICam		

	Mars46MD-2gm/gc	Mars65MG-2gm/gc
<b>Camera</b>		
Resolution[H*V pixels]	9344 x 5000	9344 x 7000
Sensor	-	GMAX3265
Sensor 尺寸	29.9 x 16.0 mm	29.9 x 22.4 mm
Sensor Technology	CMOS, Global	CMOS, Global
Pixel Size [ $\mu\text{m}$ ]	3.2 x 3.2	3.2 x 3.2
Frame Rate [FPS]	2.6	1.7
Data Bits	12 bit	12 bit
Exposure Time	16 $\mu\text{s}$ ~15s	16 $\mu\text{s}$ ~15s
Dynamic Range	66dB	66dB
Mono/Color	Mono / Color	Mono / Color
Image Format	Mono:Mono8/10/10Packed/12/12Packed Color:Mono8,BayerRG8/10/12/10Packed/12Packed,BayerGB8/10/12/10Packed/12Packed, YUV422 Packed/YUV422_8	
Interface	Gigabit Ethernet (1000 Mbit/s)	
Synchronization	Via hardware trigger, software trigger or free run	
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction	
<b>Electrical</b>		
Housing Size	72 x 72 x 65 mm(482g)	
Operating Temperature	-30~80 ° C (Storage), -30~50° C (Working)	
Lens Mount	M58*0.75(FBL:11.48±0.15)	
Digital I/O	12Pin:3 opto-isolated input, 3 opto-isolated output, 1 RS232	
Power Input	DC 12-24V	
Power Consumption	24V@8.4W	
<b>Software</b>		
Driver	Mars Series camera Software Suite (iCentral) or 3rd party GigE Vision Software	
Operating System	Windows, Linux	
Conformity	GigE Vision, GenICam	

	LEO 12MS-9gm-Lite	LEO 12MS-9gm/gc	LEO 16MD-7gm
<b>Camera</b>			
Resolution[H*V pixels]	4096 × 3000		4000 × 4000
Sensor	IMX304		-
Sensor 尺寸	1.1"		1.1"
Sensor Technology	CMOS, Global		CMOS, Global
Pixel Size [μm]	3.45 × 3.45		3.2 × 3.2
Frame Rate [FPS]	9.4		7.25
Data Bits	12 bit		8 / 10 / 12 bit
Exposure Time	Ultra Short Exposure Mode:1μs~14μs 15μs~10s		12μs~10s
Dynamic Range	>70dB		65dB
Mono/Color	Mono	Mono / Color	Mono
Image Format	Mono: Mono8/10/10p/12/12p Color:Mono 8/10/12,Bayer RG 8/10/10p/12/12p, YUV422Packed,YUV422_YUYV_Packed,RGB 8,BGR 8		Mono8/10/12
Interface	Gigabit Ethernet (1000 Mbit/s)		
Synchronization	Via hardware trigger, software trigger or free run		
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction		
<b>Electrical</b>			
Housing Size	42 × 29 × 29 mm(100g)	44 × 29 × 59 mm(100g)	
Operating Temperature	-30~70 ° C (Storage), -10~50° C (Working)		
Lens Mount	C-Mount	C-Mount	C-Mount
Digital I/O	6Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O		
Power Input	DC 9-24V;PoE	DC 9-24V;PoE	DC 9-24V;PoE
Power Consumption	12V @2.9W	Mono12V @2.9W Color12V @3W	12V @3.72W
<b>Software</b>			
Driver	LEO series camera software suite or third-party GigE vision protocol software		
Operating System	Windows, Linux		
Conformity	GigE Vision, GenICam		



	LEO 25MP-5gm/gc/gNIR	LEO 31MS-4gm/gc
<b>Camera</b>		
Resolution[H*V pixels]	5120 × 5120	6464 × 4852
Sensor	GMAX0505	IMX342
Sensor 尺寸	1.1"	22.3 mm × 16.7 mm
Sensor Technology	CMOS, Global	CMOS, Global
Pixel Size [μm]	2.5 × 2.5	3.45 × 3.45
Frame Rate [FPS]	4.5	3.9
Data Bits	8 / 10 / 12 bit	8 / 10 / 12 bit
Exposure Time	12μs~10s	Ultra Short Exposure Mode:3s~33μs 36μs~2s(Color36μs~10s)
Dynamic Range	63dB	73dB
Mono/Color	Mono / Color / NIR	Mono / Color
Image Format	Mono / NIR: Mono8/10/10p/12/12p Color:Mono 8/10/12,Bayer RG 8/10/10p/12/12p YUV422Packed,YUV422_YUYV_Packed,RGB 8,BGR 8	
Interface	Gigabit Ethernet (1000 Mbit/s)	
Synchronization	Via hardware trigger, software trigger or free run	
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction	
<b>Electrical</b>		
Housing Size	44 × 29 × 59 mm(100g)	F:74 × 74 × 80.1 mm(600g) M58:74 × 74 × 74.3 mm(550g)
Operating Temperature	-30~70 ° C (Storage), 0~50° C (Working)	
Lens Mount	C-Mount	F(FBL:46.5mm) / M58*0.75(FBL:11.48mm)
Digital I/O	6Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O	12Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O,1 RS232
Power Input	DC 9-24V;PoE	DC 9-24V
Power Consumption	Mono/NIR12V @3.1W Color12V @3.2W	12V @9W
<b>Software</b>		
Driver	LEO series camera software suite or third-party GigE vision protocol software	
Operating System	Windows, Linux	
Conformity	GigE Vision, GenICam	

	Mars12MS-23um/uc	Mars12MS-30um/uc	Mars25MG-14um/uc
<b>Camera</b>			
Resolution[H*V pixels]	4096 × 3000	4096 × 3000	5120 × 5120
Sensor	IMX304	IMX253	Gpixel
Sensor 尺寸	1.1"	1.1"	1.1"
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Global
Pixel Size [μm]	3.45 × 3.45	3.45 × 3.45	2.5 × 2.5
Frame Rate [FPS]	23.4	30	14
Data Bits	8 / 10bit	8 / 10bit	8 / 10bit
Exposure Time	29μs~1s	26μs~1s	5μs~1s
Dynamic Range	>70dB	>70dB	>64dB
Mono/Color	Mono / Color	Mono / Color	Mono / Color
Image Format	Mono: Mono8/10/10p Color:Bayer RG 8/10/10p,Bayer GB 8/10/10p		
Interface	USB 3.0		
Synchronization	Via hardware trigger, software trigger or free run		
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction		
<b>Electrical</b>			
Housing Size	44 × 29 × 58 mm(100g)	44 × 29 × 58 mm(100g)	44 × 29 × 58 mm(100g)
Operating Temperature	-30~80 ° C (Storage), -30~50° C (Working)		
Lens Mount	C-Mount		
Digital I/O	6Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O		
Power Input	DC 9-24V / USB3.0	DC 9-24V / USB3.0	DC 9-24V / USB3.0
Power Consumption	12V @4W	12V @4.2W	12V @4W
<b>Software</b>			
Driver	Mars Series camera Software Suite (iCentral) or 3rd party USB3 Vision Software		
Operating System	Windows, Linux		
Conformity	USB3 Vision, GenICam		

	LEO 12MS-23um/uc	LEO 12MS-30um/uc	LEO 25MG-14um/uc
<b>Camera</b>			
Resolution[H*V pixels]	4096 × 3000	4096 × 3000	5120 × 5120
Sensor	IMX304	IMX304	GMAX0505
Sensor 尺寸	1.1"	1.1"	1.1"
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Global
Pixel Size [μm]	3.45 × 3.45	3.45 × 3.45	2.5 × 2.5
Frame Rate [FPS]	30.5	30.3	14
Data Bits	8 / 10 / 12bit	8 / 10 / 12bit	8 / 10 / 12bit
Exposure Time	Ultra Short Exposure Mode:1s~14μs 15μs~10s	Ultra Short Exposure Mode:1s~14μs 15μs~10s	12μs~10s
Dynamic Range	>72dB	>72dB	63dB
Mono/Color	Mono / Color	Mono / Color	Mono / Color
Image Format	MonoMono8/10/10p/12/12p Color:Mono 8/10/12,Bayer RG 8/10/10p/12/12p, YUV422Packed,YUV422_YUYV_Packed,RGB 8,BGR 8		MonoMono8/10/10p/12/12p Color:Mono 8/10/12, Bayer BG 8/10/10Packed/12/12 Packed,YUV422Packed,YUV422_ YUYV_Packed,RGB 8,BGR 8
Interface	USB 3.0		
Synchronization	Via hardware trigger, software trigger or free run		
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction		
<b>Electrical</b>			
Housing Size	44 × 29 × 59 mm(100g)	44 × 29 × 59 mm(100g)	44 × 29 × 59 mm(100g)
Operating Temperature	-30~70 ° C (Storage), 0~50° C (Working)		-30~70 ° C (Storage), 10~50° C (Working)
Lens Mount	C-Mount		
Digital I/O	6Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O		
Power Input	DC 9-24V / USB3.0	DC 9-24V / USB3.0	DC 12-24V / USB3.0
Power Consumption	Mono5V @2.9W Color5V @3.2W	Mono5V @4.67W Color5V @4.7W	5V @3.6W
<b>Software</b>			
Driver	LEO series camera software suite or third-party USB3 vision protocol software		
Operating System	Windows, Linux		
Conformity	USB3 Vision, GenICam		

	Mars12MS-68Tgm/Tgc	Mars25MG-41Tgm/Tgc
<b>Camera</b>		
Resolution[H*V pixels]	4096 × 3000	5120 × 5120
Sensor	IMX253	GMAX0505
Sensor 尺寸	1.1"	1.1"
Sensor Technology	CMOS, Global	CMOS, Global
Pixel Size [μm]	3.45 x 3.45	2.5 x 2.5
Frame Rate [FPS]	68	41
Data Bits	10 bit	12 bit
Exposure Time	1μs~15s	35μs~15s
Dynamic Range	>71dB	63dB
Mono/Color	Mono/Color	Mono/Color
Image Format	MonoMono8/10/10p ColorBayerRG8/10/10p, BayerGB8/10/10p	MonoMono8/10/10p/12/12p ColorBayerRG8/10/10p/12/12p, BayerGB8/10/10p/12/12p
Interface	10 GigE	
Synchronization	Via hardware trigger, software trigger or free run	
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction	
<b>Electrical</b>		
Housing Size	72 × 72 × 78 mm(585g)	72 × 72 × 79 mm(600g)
Operating Temperature	-30~80 ° C (Storage), -30~50° C (Working)	
Lens Mount	M58*0.75(FBL:11.48mm)	
Digital I/O	12Pin:3 opto-isolated input, 3 opto-isolated output, 1 RS232	
Power Input	DC 24V	DC 24V
Power Consumption	24V@18.7W	24V@19.4W
<b>Software</b>		
Driver	Mars Series camera Software Suite (iCentral) or 3rd party GigE Vision Software	
Operating System	Windows	
Conformity	GigE Vision, GenICam	

	Mars25MP-43Tgm/gc	Mars65MG-18Tgm/gc
<b>Camera</b>		
Resolution[H*V pixels]	5120 × 5120	9344 × 7000
Sensor	PYTHON25K	GMAX3265
Sensor 尺寸	23 × 23 mm	29.9 × 22.4 mm
Sensor Technology	CMOS, Global	CMOS, Global
Pixel Size [μm]	4.5 × 4.5	3.2 × 3.2
Frame Rate [FPS]	43	17.4
Data Bits	10 bit	12 bit
Exposure Time	35μs~15s	16μs~15s
Dynamic Range	58dB	66dB
Mono/Color	Mono/Color	Mono/Color
Image Format	MonoMono8/10/10Packed ColorBayerRG8/10/10p, BayerGB8/10/10p	MonoMono8 ColorBayerRG8/BayerGB8
Interface	10 GigE	
Synchronization	Via hardware trigger, software trigger or free run	
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction	
<b>Electrical</b>		
Housing Size	72 × 72 × 78.5 mm(585g)	72 × 72 × 80 mm(600g)
Operating Temperature	-30~80 ° C (Storage), -30~50° C (Working)	
Lens Mount	M58*0.75(FBL:11.48mm)	
Digital I/O	12Pin:3 opto-isolated input, 3 opto-isolated output, 1 RS232	
Power Input	DC 24V	DC 9-24V
Power Consumption	24V@21.6W	24V@20.16W
<b>Software</b>		
Driver	Mars Series camera Software Suite (iCentral) or 3rd party GigE Vision Software	
Operating System	Windows	
Conformity	GigE Vision, GenICam	

	LEO 12MS-68Tgm/Tgc(V2)	LEO 24MS-35Tgm	LEO 25MD-30Tgm
<b>Camera</b>			
Resolution[H*V pixels]	4096 × 3000	5328 × 4600	5120 × 5120
Sensor	IMX253	IMX540	-
Sensor 尺寸	1.1"	1.2"	23 mm× 23 mm
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Global
Pixel Size [μm]	3.45 × 3.45	2.74 x 2.74	4.5 x 4.5
Frame Rate [FPS]	68.3	35.1	31.7
Data Bits	8 / 10 / 12 bit	8 / 10 / 12 bit	8 / 10 / 12 bit
Exposure Time	Ultra Short Exposure Mode:2s~14μs 15μs~10s	Ultra Short Exposure Mode:1s~7μs 8μs~10s	15μs~10s
Dynamic Range	>71dB	71dB	66dB
Mono/Color	Mono / Color	Mono	Mono
Image Format	Mono: Mono8/10/10p/12/12p ColorMono 8,Bayer RG 8,YUV422Packed,YUYV422_YUYV_Packed,RGB 8,BGR 8		
Interface	10 GigE		
Synchronization	Via hardware trigger, software trigger or free run		
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction		
<b>Electrical</b>			
Housing Size	74 × 74 × 72.4 mm(550g)	84 × 84 × 62.5 mm(600g)	74 × 74 × 78.8 mm(550g)
Operating Temperature	-30~70 ° C (Storage), 0~50° C (Working)		
Lens Mount	M58*0.75(FBL11.48mm)	C-Mount(FBL17.52mm) M58*0.75(FBL11.48mm)	M58*0.75(FBL11.48mm)
Digital I/O	12Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O,1 RS232		
Power Input	DC 9-24V	DC 9-24V	DC 12-24V
Power Consumption	Mono24V @9.6W Color24V @10.1W	12V @10W	12V @15.1W
<b>Software</b>			
Driver	LEO series camera software suite or third-party GigE vision protocol software		
Operating System	Windows		
Conformity	GigE Vision, GenICam		



	LEO 25MG-40Tgm/Tgc/TgNIR	LEO 31MS-17Tgm/gc
<b>Camera</b>		
Resolution[H*V pixels]	5120 × 5120	6464 × 4852
Sensor	GMAX0505	IMX342
Sensor 尺寸	1.1"	22.3 mm × 16.7 mm
Sensor Technology	CMOS, Global	CMOS, Global
Pixel Size [μm]	2.5 × 2.5	3.45 × 3.45
Frame Rate [FPS]	41.5	17.2
Data Bits	8 / 10 / 12 bit	8 / 10 / 12 bit
Exposure Time	13μs~10s	4μs~10s
Dynamic Range	63dB	73dB
Mono/Color	Mono / Color /NIR	Mono / Color
Image Format	Mono /NIR: Mono8/10/10p/12/12p Color:Mono 8/10/12, Bayer BG 8/10/10Packed/12/12Packed, YUV422Packed, YUV422_YUYV_Packed,RGB 8, BGR 8	Mono:Mono8/10/10p/12/12p Color:Mono 8/10/12, Bayer RG 8/10/10Packed/12/12Packed. YUV422Packed,YUV422_YUYV_Packed,RGB 8,BGR 8
Interface	10 GigE	
Synchronization	Via hardware trigger, software trigger or free run	
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction	
<b>Electrical</b>		
Housing Size	74 × 74 × 78.8 mm(550g)	74 × 74 × 64.4 mm(560g)
Operating Temperature	-30~70 ° C (Storage), 0~50° C (Working)	
Lens Mount	C(FBL17.52mm) M58*0.75(FBL11.48mm)	M58*0.75(FBL11.48mm)
Digital I/O	12Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O,1 RS232	
Power Input	DC 9-24V	DC 9-24V
Power Consumption	Mono12V @9.7W Color12V @10W	Mono12V @11.5W Color12V @11.4W
<b>Software</b>		
Driver	LEO series camera software suite or third-party GigE vision protocol software	
Operating System	Windows	
Conformity	GigE Vision, GenICam	

	LEO 50MG-15Tgm/Tgc	LEO 65MG-15Tgm/gc	LEO 150MSC-6Tgm
<b>Camera</b>			
Resolution[H*V pixels]	7008 × 7000	9344 × 7000	14208 × 10640
Sensor	GMAX	GMAX3265	IMX411
Sensor 尺寸	22.4 mm × 22.4 mm	29.9 mm × 22.4 mm	66.7 mm
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Rolling
Pixel Size [μm]	3.2 × 3.2	3.2 × 3.2	3.76 × 3.76
Frame Rate [FPS]	15.5	17.2	6.2
Data Bits	8 / 10 / 12 bit	8 / 10 / 12 bit	12/16 bit
Exposure Time	15μs~10s	18μs~10s	15μs~10s
Dynamic Range	66dB	66dB	>78dB
Mono/Color	Mono / Color	Mono / Color	Mono
Image Format	Mono:Mono8/10/10p/12/12p Color:Mono 8/10/12,Bayer BG 8/10/10Packed/12/12Packed, YUV422Packed,YUV422_YUYV_ Packed,RGB 8,BGR 8	Mono:Mono8/10/10p/12/12p Color:Mono 8/10/12,Bayer RG 8/10/10Packed/12/12Packed, YUV422Packed,YUV422_YUYV_ Packed,RGB 8,BGR 8	Mono 8/10/10Packed/ 12/12Packed/16
Interface	10 GigE		
Synchronization	Via hardware trigger, software trigger or free run		
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction		
<b>Electrical</b>			
Housing Size	M58:74 × 74 × 78.8 mm(550g) F:74 × 74 × 84.8 mm(600g)		120 × 120 × 89 mm(2500g)
Operating Temperature	-30~70 ° C (Storage), 0~50° C (Working)		
Lens Mount	F(FBL:46.5mm) / M58*0.75(FBL:11.48mm)		M72*0.75(FBL:19.55 mm)
Digital I/O	12Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O,1 RS232		
Power Input	DC 9-24V	DC 9-24V	DC 24V
Power Consumption	Mono12V @11W Color12V @12W	Mono12V @10.2W Color12V @12W	24V @11.28W(Without TEC) 24V @48.96W(TEC)
<b>Software</b>			
Driver	LEO series camera software suite or third-party GigE vision protocol software		
Operating System	Windows		
Conformity	GigE Vision, GenICam		



	Mars12MS-20cm/cc	Mars25MG-30cm	Mars31MS-25cm/cc
<b>Camera</b>			
Resolution[H*V pixels]	4096 × 3000	5120 × 5120	6240 × 4848
Sensor	IMX304	Gpixel	IMX342
Sensor 尺寸	1.1"	1.1"	22.3 × 16.7 mm
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Global
Pixel Size [μm]	3.45 × 3.45	2.5 × 2.5	3.45 × 3.45
Frame Rate [FPS]	20	30	24.8 (80M,10TAP)
Data Bits	10 bit	30 bit	10 bit
Exposure Time	29μs~1s	35μs~1s	3us ~ 15s
Dynamic Range	>70dB	>64dB	73dB
Mono/Color	Mono / Color	Mono	Mono / Color
Image Format	Mono:Mono8/10/10Packed Color:BayerRG8/10	Mono8/10	Mono:Mono8/10/12 Color:BayerRG8/10/12, BayerGB8/10/12
Mode	Base	Base/Medium/Full/Deca	-
Pixel Clock	34M/51M/68M/85M	34M/51M/68M/85M	-
Interface	Cameralink		
Synchronization	Via hardware trigger, software trigger or free run		
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction		
<b>Electrical</b>			
Housing Size	43.8 x 29 x 29 mm(80g)	58 x 29 x 44 mm(100g)	72 x 72 x 64.1 mm(500g)
Operating Temperature	-30~80 ° C (Storage), -30~50° C (Working)		
Lens Mount	C-Mount	C-Mount	M58*0.75(FBL:11.48mm)
Digital I/O	6Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O		12Pin:3 opto-isolated input, 3 opto-isolated output, 1 RS232
Power Input	PoCL/ DC 9V~24V	PoCL/ DC 9V~24V	DC 24V
Power Consumption	12V @2.4W	12V @4W	24V @16.8W
<b>Software</b>			
Driver	Mars Series camera Software Suite or frame grabber software meeting with GenICam Protocol		
Operating System	Windows		
Conformity	CameraLink , GenICam		



	Mars46MD-18cm/cc	Mars65MG-13cm/cc	Mars150MS-5cm
<b>Camera</b>			
Resolution[H*V pixels]	9280 × 4992	9280 × 6992	14160 × 10640
Sensor	GMAX3265		IMX411
Sensor 尺寸	29.9 × 16.0 mm	29.9 × 22.4 mm	53.4 × 40.0 mm
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Rolling
Pixel Size [μm]	3.2 × 3.2	3.2 × 3.2	3.76 × 3.76
Frame Rate [FPS]	17.5 (85M,10TAP)	12.5 (85M,10TAP)	5.1 (80M,10TAP)
Data Bits	12bit	12bit	12bit
Exposure Time	16μs ~ 15s	16μs ~ 15s	3μs ~ 15s
Dynamic Range	66dB	66dB	90dB
Mono/Color	Mono/Color	Mono / Color	Mono
Image Format	Mono:Mono8 Color:BayerGB8,BayerRG8		Mono8/10/12
Mode	Base/Medium/Full/Deca	Base/Medium/Full/Deca	Base/Medium/Full/Deca
Pixel Clock	34M/51M/68M/85M	34M/51M/68M/85M	34M/51M/68M/85M
Interface	CameraLink		
Synchronization	Via hardware trigger, software trigger or free run		
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction		
<b>Electrical</b>			
Housing Size	72 x 72 x 65 mm(490g)		100 × 100 × 65.7 mm(890g)
Operating Temperature	-30~80 ° C (Storage), -10~50° C (Working)		
Lens Mount	M58*0.75(FBL:11.48mm)	M58*0.75(FBL:11.48mm)	M72*0.75(FBL:19.55 mm)
Digital I/O	12Pin:3 opto-isolated input, 3 opto-isolated output, 1 RS232		
Power Input	DC 12-24V	DC 12-24V	DC 24V
Power Consumption	24V @6.83W	24V @6.83W	24V @18W
<b>Software</b>			
Driver	Mars Series camera Software Suite or frame grabber software meeting with GenICam Protocol		
Operating System	Windows		
Conformity	CameraLink , GenICam		



	LEO 12MS-70cm/cc	LEO 12MS-23cm
<b>Camera</b>		
Resolution[H*V pixels]	3840 × 3000	4096 × 3000
Sensor	IMX253	IMX304
Sensor 尺寸	1.1"	1.1"
Sensor Technology	CMOS, Global	CMOS, Global
Pixel Size [μm]	3.45 × 3.45	3.45 × 3.45
Frame Rate [FPS]	68.1	23.4
Data Bits	12bit	12bit
Exposure Time	1μs ~ 10s	Ultra Short Exposure Mode:1s~14μs 15μs~10s
Dynamic Range	>71dB	>72dB
Mono/Color	Mono / Color	Mono
Image Format	MonoMono 8/10/12 ColorBayer RG 8/10/12,RGB 8	Mono 8/10/12
Mode	Base、Medium、Full、80-bit	Base、Medium
Pixel Clock	Mono60 MHz, 70 MHz, 85 MHz Color40 MHz, 60 MHz, 70 MHz, 85 MHz	40 MHz, 66 MHz, 85 MHz
Interface	CameraLink	
Synchronization	Via hardware trigger, software trigger or free run	
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction	
<b>Electrical</b>		
Housing Size	44 mm × 29 mm × 59 mm(100g)	
Operating Temperature	-30~70 ° C (Storage), 0~50° C (Working)	
Lens Mount	C-Mount	C-Mount
Digital I/O	6Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O	
Power Input	DC 9-24V	DC 9-24V
Power Consumption	12V @4.5W	12V @3.48W
<b>Software</b>		
Driver	LEO Series camera Software Suite or frame grabber software meeting with GenICam Protocol	
Operating System	Windows	
Conformity	CameraLink , GenICam	



	LEO 100MS-8cm	LEO 100MSC-8cm/cc
<b>Camera</b>		
Resolution[H*V pixels]	11520 × 8740	11520 × 8740
Sensor	IMX461	IMX461
Sensor 尺寸	55 mm	55 mm
Sensor Technology	CMOS, Rolling	CMOS, Rolling
Pixel Size [μm]	3.76 × 3.76	3.76 × 3.76
Frame Rate [FPS]	8.1	8.1
Data Bits	12bit	12bit
Exposure Time	14μs ~ 10s	14μs ~ 10s
Dynamic Range	78dB	78dB
Mono/Color	Mono	Mono / Color
Image Format	ADC 12bit : Mono 8/10/12 ADC 16bit : Mono 8/10/12/16	MonoADC 12bit : Mono 8/10/12 MonoADC 16bit : Mono 8/10/12/16 ColorBayer RG 8/10/12/16
Mode	Base、Medium、Full、80-bit	
Pixel Clock	40 MHz, 60 MHz, 70 MHz, 85 MHz	
Interface	Cameralink	
Synchronization	Via hardware trigger, software trigger or free run	
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction	
<b>Electrical</b>		
Housing Size	90 × 90 × 71.5 mm(790g)	100 × 100 × 87.2 mm(1700g)
Operating Temperature	-30~70 ° C (Storage), 0~50° C (Working)	
Lens Mount	M72*0.75(FBL:19.55mm)	
Digital I/O	12Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O,1 RS232	
Power Input	DC 12~24 V	DC 24 V
Power Consumption	24V @14W	24V @14W(Without TEC) 24V @48W(TEC)
<b>Software</b>		
Driver	LEO Series camera Software Suite or frame grabber software meeting with GenICam Protocol	
Operating System	Windows	
Conformity	CameraLink Vision, GenICam	





	Mars12MC-188xm/xc	Mars12MC-330xm/xc	Mars21MG-220xm
<b>Camera</b>			
Resolution[H*V pixels]	4096 × 3072	4096 × 3072	5120 × 4096
Sensor	CMV12000	CMV12000	GSPRINT4521
Sensor 尺寸	22.5 × 16.9 mm	22.5 × 16.9 mm	23.0 × 18.4 mm
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Global
Pixel Size [μm]	5.5 × 5.5	5.5 × 5.5	4.5 × 4.5
Frame Rate [FPS]	188	330	219
Data Bits	10bit	12bit	12bit
Exposure Time	50μs~5s	50μs~5s	4μs~5s
Dynamic Range	60dB	60dB	69dB
Mono/Color	Mono / Color	Mono / Color	Mono
Image Format	Mono:Mono8/10/12 Color:BayerGR8/10/12,BayerRG8/10/12,BayerGB8/10/12,BayerBG8/10/12		
Interface	CXP-6(DIN)	CXP-12(Micro-BNC)	CXP-12(Micro-BNC)
Synchronization	Via hardware trigger, software trigger or free run		
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction		
<b>Electrical</b>			
Housing Size	M58/F:72 × 72 × 72 mm(720g) M42:80 × 80 × 47mm(720g)	80 × 80 × 72.3mm(790g)	80 × 80 × 75 mm(780g)
Operating Temperature	-30~80 ° C (Storage), -30~50° C (Working)		
Lens Mount	M58*0.75(FBL:11.48mm) M42*1(FBL:11.48mm) F(FBL:46.5mm)	M58*0.75(FBL:11.48mm)	M58*0.75(FBL:11.48mm)
Digital I/O	12Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O,1 RS232		
Power Input	DC 24V		DC 24V
Power Consumption	24V@15W	24V@24W	24V@34.5W
<b>Software</b>			
Driver	Frame grabber software meeting with CoaXPRESS Protocol		
Operating System	Windows		
Conformity	CoaxPress , GenICam		

	Mars25MG-90xm/xc	Mars25MG-150xm/xc	Mars25MG-42xm
<b>Camera</b>			
Resolution[H*V pixels]	5120× 5120	5120 × 5120	5120 × 5120
Sensor	GMAX0505	GMAX0505	GMAX0505
Sensor 尺寸	1.1"	1.1"	1.1"
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Global
Pixel Size [μm]	2.5 x 2.5	2.5 x 2.5	2.5 x 2.5
Frame Rate [FPS]	90	150	42
Data Bits	10 bit	8 bit	12 bit
Exposure Time	15μs~5s	15μs~5s	25μs~5s
Dynamic Range	63dB	63dB	63dB
Mono/Color	Mono / Color	Mono / Color	Mono
Image Format	Mono: Mono8/10/12 Color: BayerGR8/10/12, BayerRG8/10/12, BayerGB8/10/12, BayerBG8/10/12		
Interface	CXP-6(DIN)	CXP-12(Micro-BNC)	CXP-6(DIN)
Synchronization	Via hardware trigger, software trigger or free run		
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction		
<b>Electrical</b>			
Housing Size	72 × 72 × 70 mm(720g)	M58:80 × 80 × 72 mm(890g) M42:80 × 80 × 65.3 mm(890g)	50 × 50 × 45 mm(240g)
Operating Temperature	-30~80 ° C (Storage), -30~50° C (Working)		
Lens Mount	M58*0.75(FBL:11.48mm)	M58*0.75(FBL:11.48mm) M42*1(FBL:11.48mm)	C-Mount
Digital I/O	12Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O		
Power Input	DC 12-24V;PoCXP	DC 24V;PoCXP	DC 24V;PoCXP
Power Consumption	24V@13W	24V@19.4W	24V @8W
<b>Software</b>			
Driver	Frame grabber software meeting with CoaXPress Protocol		
Operating System	Windows		
Conformity	CoaxPress , GenICam		



	Mars50MC-30xm/xc	Mars46MD-44xm/xc	Mars65MG-31xm/xc	Mars65MG-71xm/xc
<b>Camera</b>				
Resolution[H*V pixels]	7920 × 6004	9344 × 5000	9216 × 7000	9216 × 7000
Sensor	CMV50000	-	GMAX3265	GMAX3265
Sensor 尺寸	36.4 × 27.6 mm	29.9 × 16.0 mm	29.9 × 22.4 mm	29.9 × 22.4 mm
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Global	CMOS, Global
Pixel Size [μm]	4.6 × 4.6	3.2 × 3.2	3.2 × 3.2	3.2 × 3.2
Frame Rate [FPS]	30	44	31	71
Data Bits	12 bit	12 bit	12 bit	10 bit
Exposure Time	50μs~5s	27μs~5s	27μs~5s	27μs~5s
Dynamic Range	64dB	60dB	66dB	66dB
Mono/Color	Mono / Color	Mono / Color	Mono / Color	Mono / Color
Image Format	Mono:Mono8/10/12 Color:BayerBG8/10/12	Mono: Mono8/10/12 Color:BayerRG8/10/12	Mono: Mono8/10/12 Color:BayerRG8/10/12	Mono: Mono8/10/12 Color:BayerGB8/10/12
Interface	CXP-6(DIN)	CXP-6(DIN)	CXP-6(DIN)	CXP-12(Micro-BNC)
Synchronization	Via hardware trigger, software trigger or free run			
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction			
<b>Electrical</b>				
Housing Size	M58/F: 72 × 72 × 91 mm(720g)	72 × 72 × 69.8 mm(690g)		80 × 80 × 73.4 mm(790g)
Operating Temperature	-30~80 ° C (Storage), -30~50° C (Working)			
Lens Mount	M58*0.75(FBL:11.48mm) F(FBL:46.5mm)		M58*0.75(FBL:11.48mm)	
Digital I/O	6Pin:3 bidirectional custom non-isolation I/O	12Pin:3 opto-isolated input, 3 opto-isolated output,1 RS232		
Power Input	DC 12-24V;PoCXP		DC 24V;PoCXP	
Power Consumption	24V @15W	24V@21.6W		24V@24W
<b>Software</b>				
Driver	Frame grabber software meeting with CoaXPress Protocol			
Operating System	Windows			
Conformity	CoaxPress , GenICam			

	Mars150MS-6xm/xc	Mars150MSC-6xm/xc
<b>Camera</b>		
Resolution[H*V pixels]	14192 × 10640	14192 × 10640
Sensor	IMX411	IMX411
Sensor 尺寸	53.4 × 40mm	53.4 × 40mm
Sensor Technology	CMOS, Rolling	CMOS, Rolling
Pixel Size [μm]	3.76 × 3.76	3.76 × 3.76
Frame Rate [FPS]	6.1	6.2
Data Bits	12 bit	12 bit
Exposure Time	30μs~6.5s	30μs~5s
Dynamic Range	90dB	78dB
Mono/Color	Mono /Color	Mono /Color
Image Format	Mono:Mono8/10/12 Color:BayerRG8/10/12, BayerBG8/10/12	Mono:Mono8/10/12 Color:Bayer 8/10/12
Interface	CXP-6(DIN)	CXP-6(DIN)
Synchronization	Via hardware trigger, software trigger or free run	
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction	
<b>Electrical</b>		
Housing Size	100 × 100 × 65.7 mm(890g)	100 × 100 × 90.1mm(1000g)
Operating Temperature	-30~80 ° C (Storage), -30~50° C (Working)	
Lens Mount	M72*0.75(FBL:19.55mm)	M72*0.75(FBL:19.55mm)
Digital I/O	12Pin:3 opto-isolated input, 3 opto-isolated output, 1 RS232	
Power Input	DC 24V;PoCXP	DC 24V;PoCXP
Power Consumption	24V @18W	24V @51.6W
<b>Software</b>		
Driver	Frame grabber software meeting with CoaXPress Protocol	
Operating System	Windows	
Conformity	CoaPress , GenICam	



	LEO 21MG-220xm/xc	LEO 25MG-150xm/xc	LEO 25MG-41xm
<b>Camera</b>			
Resolution[H*V pixels]	5120 × 4096	5120 × 5120	5120 × 5120
Sensor	Gsprint4521	GMAX0505	GMAX0505
Sensor 尺寸	23.04 × 18.43 mm	1.1"	1.1"
Sensor Technology	CMOS, Global	CMOS, Global	CMOS, Global
Pixel Size [μm]	4.5 × 4.5	2.5 × 2.5	2.5 × 2.5
Frame Rate [FPS]	222	150	41.5
Data Bits	8 / 10 / 12bit	8 / 10 / 12bit	8 bit
Exposure Time	4μs~10s	13μs~10s	13μs~10s
Dynamic Range	65dB	63dB	65dB
Mono/Color	Mono /Color	Mono /Color	Mono
Image Format	Mono:Mono8/10/12 Color:Bayer GB8/10/12	Mono: Mono8/10/12 Color:Bayer 8/10/12	Mono8/10/12
Interface	CXP-12(Micro-BNC)	CXP-12(Micro-BNC)	CXP-6(DIN)
Synchronization	Via hardware trigger, software trigger or free run		
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction		
<b>Electrical</b>			
Housing Size	M58: 84 × 84 × 62.5 mm(650g)	C : 80 × 80 × 80 mm(530g) M58: 80 × 80 × 80 mm(540g)	50 × 50 × 45 mm(210g)
Operating Temperature	-30~70 ° C (Storage), 0~50° C (Working)		
Lens Mount	M58*0.75(FBL:11.48mm)	C(FBL:17.52mm) M58*0.75(FBL:11.48mm)	C(FBL:17.52mm)
Digital I/O	12Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O,1 RS232		
Power Input	DC 12-24 V;PoCXP	DC 9-24V;PoCXP	DC 9-24V;PoCXP
Power Consumption	Mono:24V @18W Color:24V @16.3W	12V @13.7W	12V @7W
<b>Software</b>			
Driver	Frame grabber software meeting with CoaXPress Protocol		
Operating System	Windows		
Conformity	CoaPress , GenICam		

	LEO 65MG-32xm/xc	LEO 65MG-71xm/xc
<b>Camera</b>		
Resolution[H*V pixels]	9216 × 7000	9216 × 7000
Sensor	GMAX3265	GMAX3265
Sensor 尺寸	29.9 × 22.4 mm	29.9 × 22.4 mm
Sensor Technology	CMOS, Global	CMOS, Global
Pixel Size [μm]	3.2 × 3.2	3.2 × 3.2
Frame Rate [FPS]	31.5	71
Data Bits	8 / 10 / 12bit	8 / 10 / 12bit
Exposure Time	14μs ~ 10s	14μs ~ 10s
Dynamic Range	66dB	66dB
Mono/Color	Mono / Color	Mono / Color
Image Format	MonoMono 8/10/12 ColorBayer BG 8/10/12	MonoMono 8/10/12 ColorBayer BG 8/10/12
Interface	CXP-6(DIN)	CXP-12(Micro-BNC)
Synchronization	Via hardware trigger, software trigger or free run	
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction	
<b>Electrical</b>		
Housing Size	M58: 74 × 74 × 70.4 mm(470g) F : 74 × 74 × 76.4 mm(500g)	84 × 84 × 62.5 mm(650g)
Operating Temperature	-30~70 ° C (Storage), 0~50° C (Working)	
Lens Mount	M58*0.75(FBL:11.48mm) F(FBL:46.5mm)	M58*0.75(FBL:11.48mm)
Digital I/O	12Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O,1 RS232	
Power Input	DC 9-24 V;PoCXP	DC 9-24 V;PoCXP
Power Consumption	24V@10.5 W	Mono24V@13 W Color24V@13.2 W
<b>Software</b>		
Driver	Frame grabber software meeting with CoaXPress Protocol	
Operating System	Windows	
Conformity	CoaXPress, GenICam	





	LEO 150MS-6xm/xc	LEO 150MSC-6xm/xc	LEO 600MS-2xm
<b>Camera</b>			
Resolution[H*V pixels]	14208 × 10640	14208 × 10640	28416 × 21280
Sensor	IMX411	IMX411	IMX411
Sensor 尺寸	66.7 mm	66.7 mm	66.7 mm
Sensor Technology	CMOS, Rolling	CMOS, Rolling	CMOS, Rolling
Pixel Size [μm]	3.76 × 3.76	3.76 × 3.76	3.76 × 3.76
Frame Rate [FPS]	6.2	6.2	1.45
Data Bits	8 / 10 / 12 / 16bit	8 / 10 / 12 / 16bit	8 / 10 / 12 / 16bit
Exposure Time	15μs~10s	15μs~10s	15μs~1s
Dynamic Range	>78dB	>78dB	>78dB
Mono/Color	Mono/Color	Mono/Color	Mono
Image Format	Mono:Mono 8/10/12/16 Color:Mono 8/10/12/16,Bayer RG 8/10/12/16, RGB 8		
Interface	CXP-6(DIN)	CXP-6(DIN)	CXP-6(DIN)
Synchronization	Via hardware trigger, software trigger or free run		
Programmable Control [ISP]	Image Resolution, RGB gain, Exposure Time, Contrast, Gamma Chart, Image Rollover, Raw, LUT, Black Level Correction		
<b>Electrical</b>			
Housing Size	100 × 100 × 74.3 mm(1000g)	120 × 120 × 84.6 mm(1900g)	100 × 100 × 128.5 mm(1400g)
Operating Temperature	-30~70 °C (Storage), 0~50° C (Working)		
Lens Mount	M72*0.72(FBL:19.55mm)	M72*0.72(FBL:19.55mm)	M72*0.72(FBL:19.55mm)
Digital I/O	12Pin:1 opto-isolated input, 1 opto-isolated output,1 bidirectional custom non-isolation I/O,1 RS232		
Power Input	12-24 VDC	24 VDC	24 VDC
Power Consumption	Mono:24V@18W Color:24V@21W	Mono 24V@21W(Without TEC) 24V@55W(TEC) Color 24V@22W(Without TEC) 24V@60W(TEC)	24V@15W
<b>Software</b>			
Driver	Frame grabber software meeting with CoaXPress Protocol		
Operating System	Windows		
Conformity	CoaXPress, GenICam		

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