



Genie™ Nano Cameras

Smaller, faster, stronger, cheaper.

최상의 속도와 이미지 품질을 제공하는 초소형 GigE Vision Camera

Genie Nano는 Teledyne DALSA 제품군 중 가장 저렴하고 강력한 성능을 가진 CMOS Area Scan 카메라로 GigE vision, CameraLink 두 가지의 인터페이스를 지원합니다. Genie Nano는 업계 선도적인 CMOS 센서를 장착하였으며, 더불어 독자적인 카메라 기술을 통한 혁신적인 스피드, 혹독한 환경을 대비한 강건한 바디 설계, 그리고 가격 대비 그 이상의 다양한 기능을 제공합니다.

Teledyne DALSA의 특허인 TurboDrive™ 기술은 Genie Nano가 최상의 이미지 품질을 유지함과 동시에, GigE 카메라의 한계보다 150% 또는 그 이상의 높은 프레임 속도를 가능케 합니다. 모든 Teledyne DALSA의 GigE 카메라와 마찬가지로, Genie Nano는 AIA GigE Vision 표준을 기반으로 카메라를 PC로 직접 연결할 수 있습니다.



TURBODRIVE BY TELEDYNE DALSA

GigE VISION

주요 특징

- 표준 PC의 이더넷 포트와 하드웨어 사용
- 최대 100m 케이블 길이 지원 (CAT-5e 또는 CAT-6)

품질 보증

- CE, FCC 및 RoHS

프로그램 가능성

- Partial 스캔 모드에서 더욱 빠른 프레임 속도
- 노출제어 기능을 탑재한 글로벌 셔터
- 다중 노출 가능
- 멀티 ROI 가능(최대16 ROI)
- MetaData 지원
- IEEE1588 (네트워크 간 정확한 동기화 가능) 지원
- Binning
- Look-up table

안정성

- 내구성을 고려한 강건한 바디 설계
- 3년의 보증기간
- 이미지 신뢰성 진단(Trigger to Image-Reliability) 프레임워크를 활용해 전송된 이미지에 대해 완벽한 시스템 수준의 모니터링과 제어, 진단 가능

대표 어플리케이션

- 전자 제품 제조 검사
- 산업용 계측
- ITS(지능형 교통 시스템)
- 스포츠 시뮬레이션
- 의료기기

	Active Resolution	Sensor Model	Frame Rate (Burst Mode)	Pixel Size	Dynamic Range	Max. Image Circle	Data Format	Part Number (for C-mount option)
 M640/M640-NIR	640 x 480	On-Semi Python300	862 fps	4.8 µm	62.1 dB	1/4" Optical Format	8 or 10-Bit Mono	G3-GM10-M0640 G3-GM12-M0640 (NIR)
 C640	640 x 480	On-Semi Python300	862 fps	4.8 µm	62.1 dB	1/4" Optical Format	8 or 10-Bit Bayer/RGB/YUV*	G3-GC10-C0640 G3-GC10-C0640IF (with IR cut-off filter)
 M700	728 x 544	Sony IMX287	311 fps	6.9 µm	73.6 dB	1/3" Optical Format	8 or 12-Bit Mono	G3-GM10-M0700
 C700	728 x 544	Sony IMX287	311 fps	6.9 µm	73.6 dB	1/3" Optical Format	8 or 12-Bit Bayer/RGB/YUV*	G3-GC10-C0700
 M800	800 x 600	On-Semi Python500	566 fps	4.8 µm	62.1 dB	1/3.3" Optical Format	8 or 10-Bit Mono	G3-GM10-M0800
 C800	800 x 600	On-Semi Python500	566 fps	4.8 µm	62.1 dB	1/3.3" Optical Format	8 or 10-Bit Bayer/RGB/YUV*	G3-GC10-C0800 G3-GC10-C0800IF (with IR cut-off filter)
 M810	816 x 624	Sony IMX433	160 fps	9 µm	72.1dB	1/1.7" Optical Format	8 or 12-Bit Mono	G3-GM11-M0810
 C810	816 x 624	Sony IMX433	160 fps	9 µm	72.1 dB	1/1.7" Optical Format	8 or 12-Bit Bayer/RGB/YUV*	G3-GC11-C0810 G3-GC11-C0810IF (with IR cut-off filter)
 M1240	1280 x 1024	On-Semi Python1300 P3	83 fps	4.8 µm	62.1 dB	1/2" Optical Format	8 or 10-Bit Mono	G3-GM11-M1240
 C1240	1280 x 1024	On-Semi Python1300 P3	83 fps	4.8 µm	62.1 dB	1/2" Optical Format	8 or 10-Bit Bayer/RGB/YUV*	G3-GC11-C1240 G3-GC11-C1240IF
 M1280/M1280-NIR	1280 x 1024	On-Semi Python1300	213 fps	4.8 µm	62.1 dB	1/2" Optical Format	8 or 10-Bit Mono	G3-GM10-M1280 G3-GM12-M1280 (NIR)
 C1280	1280 x 1024	On-Semi Python1300	213 fps	4.8 µm	62.1 dB	1/2" Optical Format	8 or 10-Bit Bayer/RGB/YUV*	G3-GC10-C1280 G3-GC10-C1280IF (with IR cut-off filter)
 M1450	1456 x 1080	Sony IMX273	160 fps	3.45 µm	76.4 dB	1/3" Optical Format	8 or 12-Bit Mono	G3-GM10-M1450
 C1450	1456 x 1080	Sony IMX273	160 fps	3.45 µm	76.4 dB	1/3" Optical Format	8 or 12-Bit Bayer/RGB/YUV*	G3-GC10-C1450 G3-GC10-C1450IF (with IR cut-off filter)
 M1610	1608 x 1104	Sony IMX432	90 fps	9 µm	72.1 dB	1.1" Optical Format	8 or 12-Bit Mono	G3-GM11-M1610
 C1610	1608 x 1104	Sony IMX432	90 fps	9 µm	72.1 dB	1.1" Optical Format	8 or 12-Bit Bayer/RGB/YUV*	G3-GC11-C1610 G3-GC11-C1610IF (with IR cut-off filter)
 M1630	1632 x 1248	Sony IMX430	85 fps	4.5 µm	73 dB	1/1.7" Optical Format	8 or 12-Bit Mono	G3-GM11-M1630
 C1630	1632 x 1248	Sony IMX430	85 fps	4.5 µm	73 dB	1/1.7" Optical Format	8 or 12-Bit Bayer/RGB/YUV*	G3-GC11-C1630 G3-GC11-C1630IF (with IR cut-off filter)
 M1920	1920 x 1200	Sony IMX249	39 fps	5.86 µm	75.5 dB	1/1.2" Optical Format	8 or 12-Bit Mono	G3-GM11-M1920
 C1920	1920 x 1200	Sony IMX249	39 fps	5.86 µm	75.5 dB	1/1.2" Optical Format	8 or 12-Bit Bayer/RGB/YUV*	G3-GC11-C1920 G3-GC11-C1920IF (with IR cut-off filter)
 M1940	1920 x 1200	Sony IMX174	84 fps	5.86 µm	68.3 dB	1/1.2" Optical Format	8 or 10-Bit Mono	G3-GM10-M1940
 C1940	1920 x 1200	Sony IMX174	84 fps	5.86 µm	68.3 dB	1/1.2" Optical Format	8 or 10-Bit Bayer/RGB/YUV*	G3-GC10-C1940 G3-GC10-C1940IF (with IR cut-off filter)
 M1930/M1930-NIR	1920 x 1200	On-Semi Python2000	116 fps	4.8 µm	62.1 dB	2/3" Optical Format	8 or 10-Bit Mono	G3-GM10-M1930 G3-GM12-M1930 (NIR)
 C1930	1920 x 1200	On-Semi Python2000	116 fps	4.8 µm	62.1 dB	2/3" Optical Format	8 or 10-Bit Bayer/RGB/YUV*	G3-GC10-C1930 G3-GC10-C1930IF (with IR cut-off filter)
 M1950	1936 x 1216	Sony IMX392	151 fps	3.4 µm	75 dB	1/2.3" Optical Format	8 or 12-Bit Mono	G3-GM10-M1950
 C1950	1936 x 1216	Sony IMX392	151 fps	3.4 µm	75 dB	1/2.3" Optical Format	8 or 12-Bit Bayer/RGB/YUV*	G3-GC10-C1950 G3-GC10-C1950IF (with IR cut-off filter)
 M2020	2048 x 1536	Sony IMX265	55 fps	3.45 µm	76.4 dB	1/1.8" Optical Format	8 or 12-Bit Mono	G3-GM11-M2020
 C2020	2048 x 1536	Sony IMX265	55 fps	3.45 µm	76.4 dB	1/1.8" Optical Format	8 or 12-Bit Bayer/RGB/YUV*	G3-GC11-C2020 G3-GC11-C2020IF (with IR cut-off filter)
 M2050	2048 x 1536	Sony IMX252	140 fps	3.45µm	56.4 dB	1/1.8" Optical Format	8-Bit Mono	G3-GM10-M2050
 C2050	2048 x 1536	Sony IMX252	140 fps	3.45 µm	56.4 dB	1/1.8" Optical Format	8-Bit Bayer/RGB/YUV*	G3-GC10-C2050 G3-GC10-C2050IF (with IR cut-off filter)
 M2420	2448 x 2048	Sony IMX264	35 fps	3.45 µm	76.4 dB	2/3" Optical Format	8 or 12-Bit Mono	G3-GM11-M2420
 C2420	2448 x 2048	Sony IMX264	35 fps	3.45 µm	76.4 dB	2/3" Optical Format	8 or 12-Bit Bayer/RGB/YUV*	G3-GC11-C2420 G3-GC11-C2420IF (with IR cut-off filter)
 M2450	2448 x 2048	Sony IMX250	90 fps	3.45 µm	56.4 dB	2/3" Optical Format	8-Bit Mono	G3-GM10-M2450
 C2450	2448 x 2048	Sony IMX250	90 fps	3.45 µm	56.4 dB	2/3" Optical Format	8-Bit Bayer/RGB/YUV*	G3-GC10-C2450 G3-GC10-C2450IF (with IR cut-off filter)
 M2590/M2590-NIR	2592 x 2048	On-Semi Python5000	51 fps	4.8 µm	62.1 dB	1" Optical Format	8 or 10-Bit Mono	G3-GM10-M2590 G3-GM12-M2590 (NIR)
 C2590	2592 x 2048	On-Semi Python5000	51 fps	4.8 µm	62.1 dB	1" Optical Format	8 or 10-Bit Bayer/RGB/YUV*	G3-GC10-C2590 G3-GC10-C2590IF (with IR cut-off filter)

GENIE NANO INDIVIDUAL MODEL SPECIFICATIONS CONT.

	Active Resolution	Sensor Model	Frame Rate (Burst Mode)	Pixel Size	Dynamic Range	Max. Image Circle	Data Format	Part Number
 M4060	4112 x 2176	Sony IMX255	56 fps	3.45 µm	56.4 dB	1" Optical Format	8-Bit Mono	G3-GM10-M4060
 C4060	4112 x 2176	Sony IMX255	56 fps	3.45 µm	56.4 dB	1" Optical Format	8-Bit Bayer/RGB/YUV*	G3-GC10-C4060 G3-GC10-C4060IF (with IR cut-off filter)
 M4040	4112 x 3012	Sony IMX253	40 fps	3.45 µm	56.4 dB	1.1" Optical Format	8-Bit Mono	G3-GM10-M4040
 C4040	4112 x 3012	Sony IMX253	40 fps	3.45 µm	56.4 dB	1.1" Optical Format	8-Bit Bayer/RGB/YUV*	G3-GC10-C4040 G3-GC10-C4040IF (with IR cut-off filter)
 M4030	4112 x 2176	Sony IMX267	30 fps	3.45 µm	76.4 dB	1" Optical Format	8 or 12-Bit Mono	G3-GM-11-M4030
 C4030	4112 x 2176	Sony IMX267	30 fps	3.45 µm	76.4 dB	1" Optical Format	8 or 12-Bit Bayer/RGB/YUV*	G3-GC-11-C4030 G3-GC-11-C4030IF (with IR cut-off filter)
 M4020	4112 x 3012	Sony IMX304	20 fps	3.45 µm	76.4 dB	1.1" Optical Format	8 or 12-Bit Mono	G3-GM-11-M4020
 C4020	4112 x 3012	Sony IMX304	20 fps	3.45 µm	76.4 dB	1.1" Optical Format	8 or 12-Bit Bayer/RGB/YUV*	G3-GC-11-C4020 G3-GC-11-C4020IF (with IR cut-off filter)
 C4900	4912 x 3684	On-Semi AR1820HS	13 fps	1.25 µm	65.8 dB	1/2.3" Optical Format	User selectable Bayer/RGB/YUV*	G3-GC10-C4900 (for C-mount option)
 XL M4090	4096 x 4096	On-Semi Python 16K	31 fps	4.5 µm	55.2 dB	APS-H Optical Format	8 or 10-Bit Mono	G3-GM30-M4095
 XL C4090	4096 x 4096	On-Semi Python 16K	31 fps	4.5 µm	55.2 dB	APS-H Optical Format	8 or 10-Bit Bayer	G3-GC30-C4095
 XL M5100	5120 x 5120	On-Semi Python 25K	20 fps	4.5 µm	55.2 dB	APS-H Optical Format	8 or 10-Bit Mono	G3-GM30-M5105
 XL C5100	5120 x 5120	On-Semi Python 25K	20 fps	4.5 µm	55.2 dB	APS-H Optical Format	8 or 10-Bit Bayer	G3-GC30-C5105

*User selectable. Refer to user manual for complete configuration detail.

GENIE NANO INDIVIDUAL MODEL SPECIFICATIONS — POLARIZATION

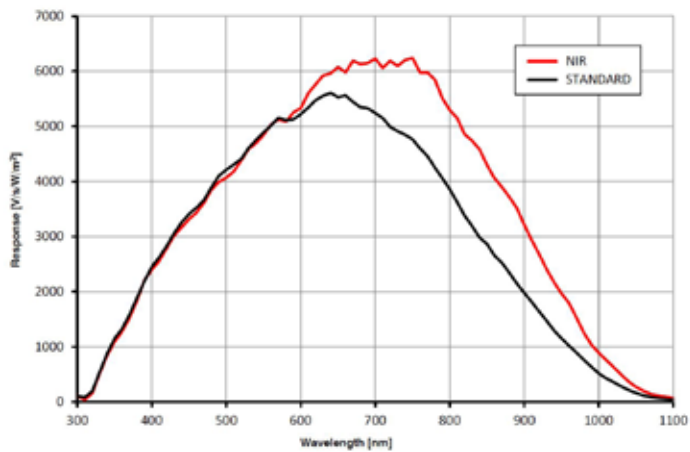
 M2450 POLARIZED	2448 x 2048	Sony IMX250MZR	34.4 fps	3.45 µm	76.4 dB	2/3" Optical Format	8 or 12-Bit Mono	G3-GM14-M2450
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GENIE NANO FAMILY SPECIFICATIONS (COMMON TO ALL MODELS)

GENIE NANO			GENIE NANO XL		
Data Output Transfer			Gigabit Ethernet (1000 Mbit/s) only		
Exposure Control			Automatic, programmable, or via external trigger (Note: C4900 rolling shutter supports only programmable exposure control)		
I/O Ports		2 opto-isolated inputs, 2 opto-isolated outputs, 1 input/3 outputs option available on demand	2 opto-isolated inputs, 3 opto-isolated outputs		
Image Buffers (On-board memory)		90MB for VGA to 5 Mpixel models 200 MB for the 9M, 12M and 18 Mpixels models	500 MB for the 16 and 25 Mpixels models		
Lens Mount		C and CS-Mount available	M42		
Size (L x H x W) (C-mount option)		21.2 mm x 29 mm x 44 mm (no lens adapter or connectors) 38.9 mm x 29 mm x 44 mm (with lens adapter and connectors)	30 mm x 59 mm x 59 mm (no lens adapter or connectors) 30 mm x 59 mm x 59 mm (with lens adapter and connectors)		
Mass		~46 g	~163 g		
Operating Temp			-20 to +60°C (housing temperature)		
Power Supply			10 to 36V or Power Over Ethernet (POE)		
Power Dissipation (model dependent)		3.6 W to 4.6 W (12V) 4.0 W to 4.9 W (PoE)	6.5 W @ 24 Volt Aux.		
Data Connector			Standard or screw mount RJ-45		
Power and I/O Connector			SAMTEC TFM-105 type		
Camera Specification			GigE Vision v1.2 compliant		
Software Platform			Teledyne DALSA Sapera LT 8.0 for Windows, Teledyne DALSA GigE-V for Linux or 3rd Party GenICam compliant SDK		

RESPONSIVITY GRAPHS

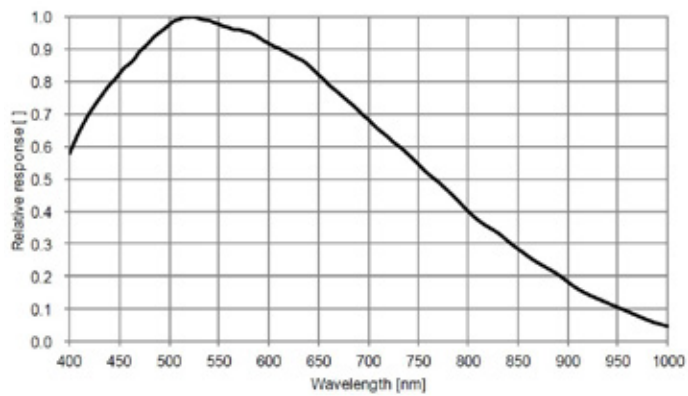
Spectral Response Standard Monochrome Models



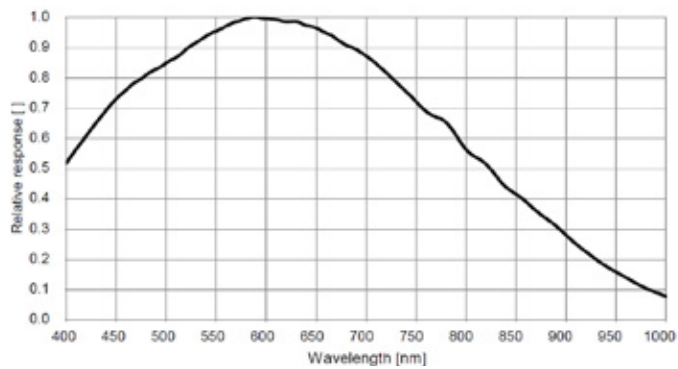
M640/NIR
M800/NIR
M1280/NIR
M2590/NIR
M1930/NIR
M4090
M5100



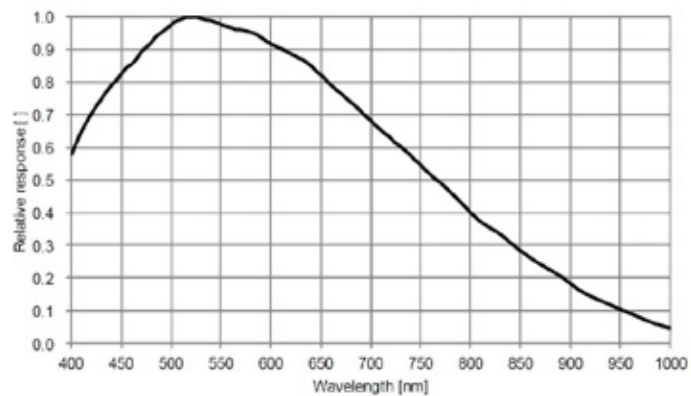
(Excludes lens characteristics and light source characteristics.)



M4060
M4040
M4030
M4020
M2020
M2050
M2420
M2450



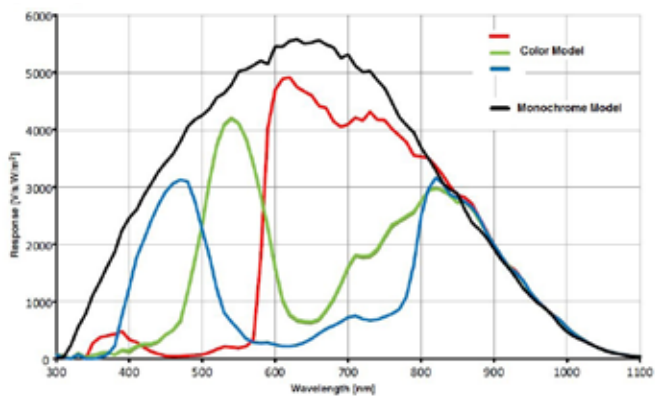
M810
M1610
M1630



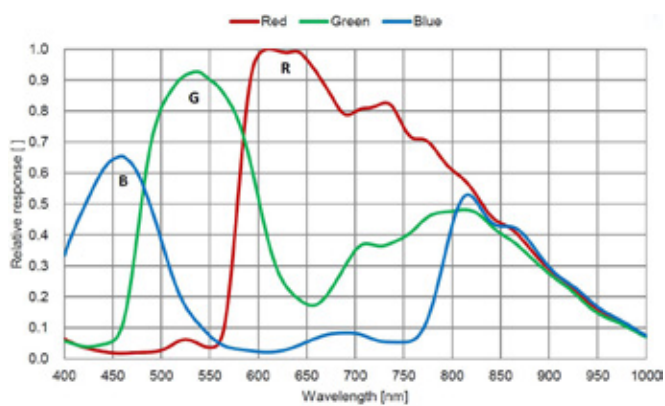
M1920
M1940

RESPONSIVITY GRAPHS

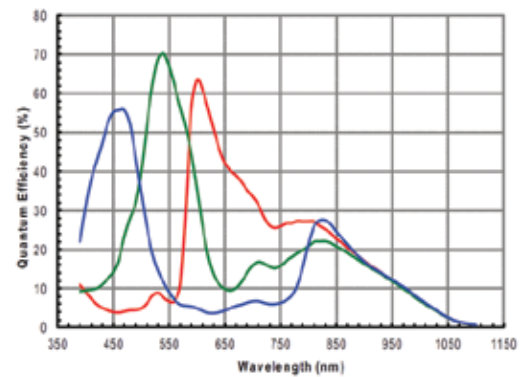
Spectral Response Standard Colour Models



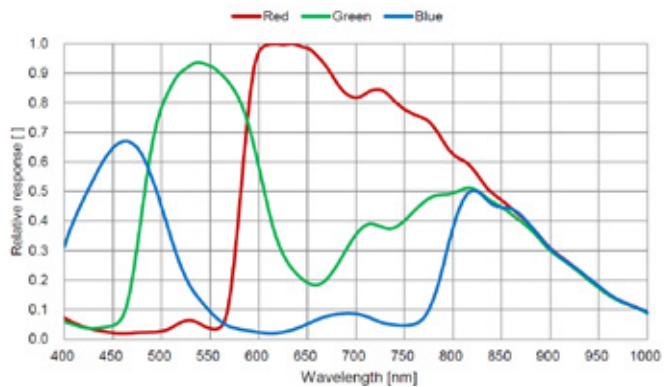
C640
C800
C1280
C1930
C2590
C4090
C5100



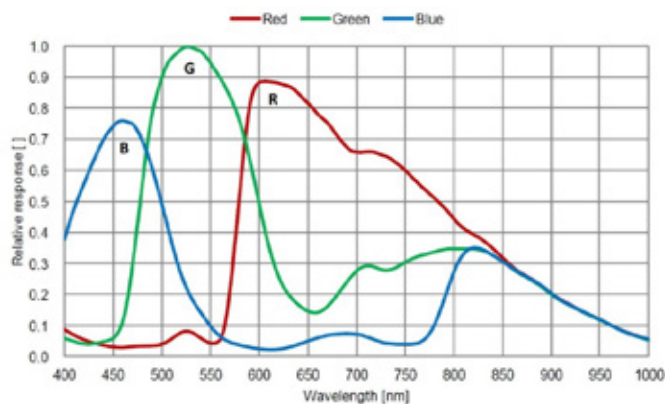
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C4040
C4030
C4020
C2020
C2050
C2420
C2450



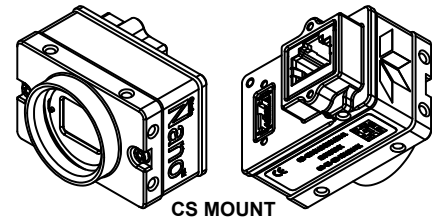
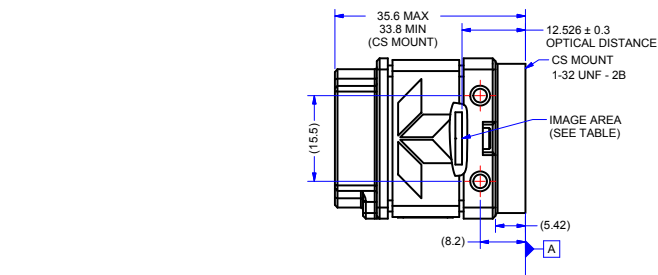
C4900



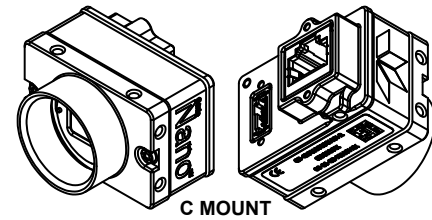
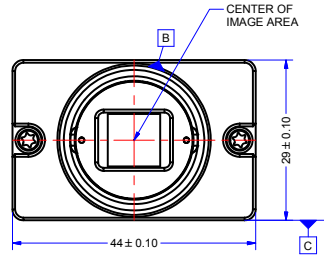
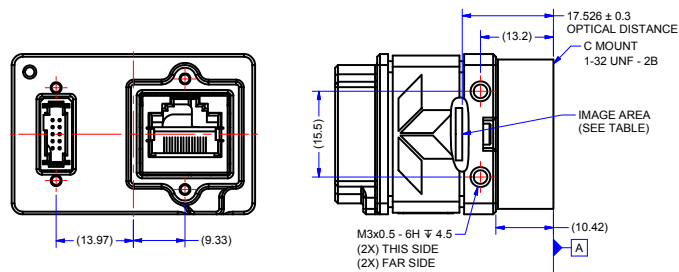
C810
C1610
C1630



C1920
C1940

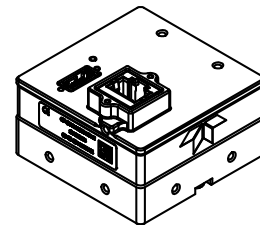
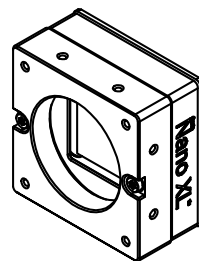
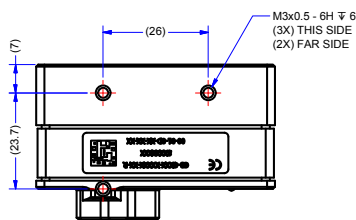
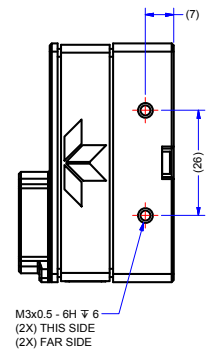
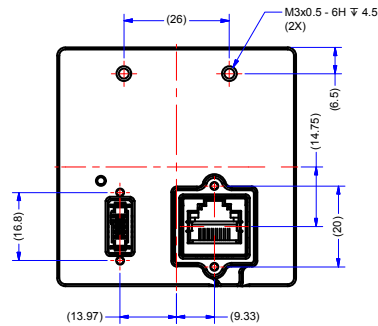
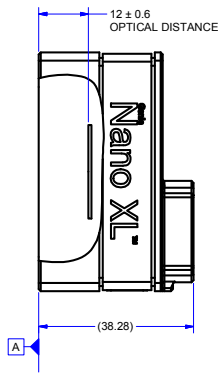
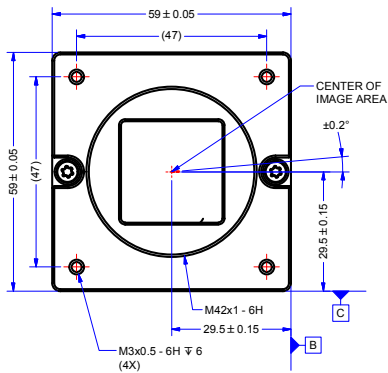


CS MOUNT



C MOUNT

NOTES:
1. UNITS: MILLIMETERS.
2. IMAGE AREA IS ALIGNED TO DATUMS **A**, **B** & **C**



(주)바이렉스 www.virex.co.kr

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