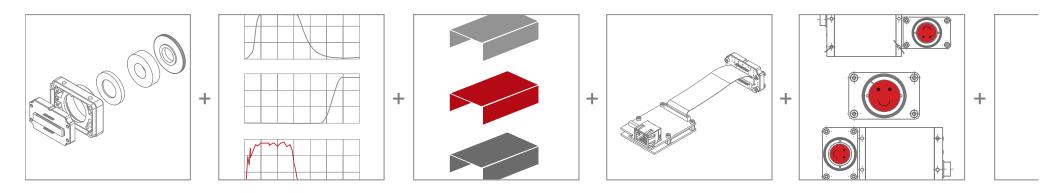


Modular Concept

Bonito PRO, Goldeye G/CL, Mako, Manta, Prosilica GT

V13.0.0 2025-Feb-26



Associated price list: Allied Vision Price List Cameras V2024-Jul-01



Modular Concept at a glance

Benefits

When ordering an Allied Vision camera, the Modular Concept provides a system of hardware options for camera mount, housing design, angled head, sensor surface, optical filter, interface connector, and board level.

Benefits of the Modular Concept options include:

- No customizing effort
- Pre-configured options
- Quick delivery times
- Transparent pricing.

Ordering conditions



Please contact the Allied Vision Sales team for availability, minimum order quantities, and lead time: www.alliedvision.com/en/contact.

Alvium Modular Concept



This document applies to Bonito PRO, Goldeye G/CL, Mako, Manta, Prosilica GT cameras. For Alvium cameras, see the Alvium Modular Concept at www.alliedvision.com/en/support/technical-documentation.

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Document history

Varsian	Data	Document undates
Version V13.0.0	Date 2025-Feb-26	Document updates Manta A: Removed contents (only Manta A models were discontinued, last time buy was on 2024-Aug-31). Manta B models are available.
V13.U.U	2025-Feb-26	
		Prosilica GC : Removed contents (the complete series was discontinued, last time buy was on 2024-Aug-31).
		Prosilica GT : Removed contents for discontinued models (last time buy was on 2024-Aug-31).
		Modular options for filters : Removed IR cut filter Type Schneider 486 and IR pass filters Type IRP RG715, Type IRP RG780, Type IRP RG830.
		Applied editorial changes.
V12.9.0	2024-Aug-21	New document version associated to the price list to be released on 01 July, 2024.
		Modular options and pricing: No changes since document version V12.7.0.
		Updated the addresses of Sales offices.
V12.8.0	2023-Aug-18	New document version associated to the price list to be released on 01 October, 2023.
		Modular options and pricing: No changes since document version V12.7.0.
V12.7.0	2023-Mar-03	Added link to the Alvium Modular Concept.
		Applied editorial changes.
V12.6.1	2023-Feb-16	Bonito PRO, Prosilica GT Large Format: Changed suffix in product codes for RCG camera options.
V12.6.0	2023-Feb-14	Bonito PRO: Added options for RCG (Removed Cover Glass) sensor options.
		Goldeye G/CL: Added options for Goldeye G/CL XSWIR models.
		Prosilica GT Large Format: Added options for RCG (Removed Cover Glass) sensor options.
		Applied editorial changes.
V12.5.0	2022-Oct-01	Manta: Updated advantages of RCG (Removed Cover Glass) option
V12.4.0	2022-Jul-01	Modular options and pricing: No changes since document version V12.3.0.
		This document accompanies the Allied Vision Price List Cameras V2022-Jul-01.
V12.3.0	2022-Apr-08	Manta: Removed I/O cable options for board level cameras.
		Applied editorial changes.
V12.2.1	2021-Dec-07	Applied editorial changes.
V12.2.0	2021-Nov-01	Mako, Manta: Corrected product codes for RG715 and RG830 filter options.
		Applied editorial changes.
V12.1.1	2021-Aug-12	Manta: Corrected the assignment of footnotes for Manta options.

Table 1: Document history (Sheet 1 of 4)



Version	Date	Document updates
V12.1.0	2021-Aug-01	Goldeye G/CL: Corrected naming for BP 1450 filter (from Bi 1450).
		Mako: Added options for Mako G-511, G-811, G-1242 models.
V12.0.0	2021-May-01	Goldeye G/CL: Added options for Goldeye G/CL-030 TEC1 and G/CL-130 TEC1 models.
		Spectral transmission and filters: Added transmission curves for type BP 1450 IR Bandpass and LP 920 Longpass filters.
		Applied editorial changes.
V11.9.0	2021-Jan-01	Guppy PRO: Removed options for Guppy PRO family.
		Manta: Added options for new G-1620, G-2040, and G-2460 models.
		Stingray: Removed options for Stingray family.
V11.8.1	2020-Oct-01	Prosilica GT: Removed option for EF-Mount, Birger.
V11.8.0	2020-Oct-01	Obsolete document version
		Bonito PRO: Removed options for discontinued X-1250 and X-1250B NIR models.
		Mako U: Removed options for discontinued Mako U family.
		Manta: Removed options for discontinued G-223B NIR model.
		Prosilica GT Large Format: Removed options for discontinued GT4090, GT4090NIR, GT4096, and GT4096NIR models.
V11.7.0	2020-Apr-01	Prosilica GT : Removed options for discontinued GT3300 models. Removed sensor glass options for GT1910 and GT2300 models.
		Prosilica GT Large Format: Removed discontinued GT4905, GT4907, and GT6600 models and related sensor options.
V11.6.0	2019-Dec-16	Prosilica GT Large Format: Added new GT4400, GT5400, and GT6400 models with TFL and C-Mount options.
		Applied editorial changes.
V11.5.1	2019-Sep-26	Prosilica GT and GT Large Format: Updated prices for ON Semiconductor KAI sensor options.
		Prosilica GT and GT Large Format: Added notes for discontinuations.
V11.5.0	2019-Oct-01	Obsolete document version
		Prosilica GT and GT LF: Added IR Pass filter options.
V11.4.0	2019-Jul-01	Prosilica GT: Removed several taped cover glass options.
		Spectral transmission and filters: Replaced the transmission curve graphic.
		Changes in Taped Cover Glass options.
V11.3.0	2019-Apr-01	Applied editorial changes.
V11.2.0	2019-Jan-01	Applied editorial changes.

Table 1: Document history (Sheet 2 of 4)



Version	Date	Document updates
V11.1.0	2018-Oct-01	Guppy PRO: Removed Hirose power option.
		Stingray: Removed Hirose Power option.
		Spectral transmission of filters: Provided a new transmission graph.
V11.0.0	2018-Jul-01	Bonito PRO: Introduced newly developed camera family.
		Goldeye: Price adjustment of IRBP 1450 filter for Goldeye models.
		Mako G, Mako U: Removed medical option for both camera families.
		Prosilica GT: Added CS-Mount option for GT2460.
		Editorial improvements: Organized defective pixel definitions by camera model.
V10.1.0	2018-Apr-01	Editorial improvements: Corrected several minor errors, arranged camera families in alphabetical order.
V10.0.0	2018-Jan-01	Pike: All information related to Pike family have been removed.
		Prosilica GB, GE, GS, GX: All information related to Prosilica GB, GE, GS, and GX families have been removed.
		Prosilica GT : Added GT2460. Standard mount for GT1930L was changed from EF-Mount to EF-Mount PA. Removed TCG options for all GT20x0 models.
		Manta: Added released models G-040 and G-158; removed G-609.
		Sensor options: Updated sensor cover glass and quality options.
		Editorial improvements:
		Adjusted defect pixel definition tables for better readability.
		 Replaced the drawings of angled head models (since some of them were erroneous) with valid drawings from the Manta Technical Manual. Removed all statements concerning warranty, terms and conditions, and legal issues.

Table 1: Document history (Sheet 3 of 4)



Version	Date	Document updates
V9.4.0	2017-Jul-31	Manta: Added options for Manta G-895 and Manta G-1236 models released.
		Pearleye: All information to Pearleye has been removed. Camera has been discontinued, last-time-buy date (December 15, 2016).
		Prosilica GT Large Format: Added Prosilica GT4090, GT4096, GT5120 models.
		F-Mount adapter: All information about the F-Mount adapter has been removed. Component has been discontinued.
		Sensor options:
		Improved information on Taped Cover Glass sensor options for
		- Prosilica GT, GT Large Format, GX, and GE cameras
		- Pike cameras.
		 Added link to application note about handling cameras with Cover Glass sensor options. Corrected product codes for sensor options in availability list.
V9.3.0	2016-Sep-02	Goldeye G/CL: Added image for Silver Design in Housing and logo color on page 17.
V 3.3.0	2010 300 02	Manta: Added options for Manta G-319 and G-507 models.
		Prosilica GT, Prosilica GT Large Format
		Removed CS-Mount option for GT1930 model.
		Corrected EF-Mount as standard version for GT1930L model.
		Stingray:
		Deleted Stingray Compact option (discontinued).
		Deleted Stingray GOF (glass optical fiber) option (discontinued).
		F-Mount adapter set: added information on camera pages.
\		Sensor options : Updated product codes, deleted discontinued products. See Removed Cover Glass for Manta on page 22.
V9.2.0	2016-Jun-28	M12-Mount adapter set: Updated information on camera pages and in M12-Mount adapter set on page 16.
		Sensor options
		 Reworked information on sensor surface options on page 22. Reworked tables with defective pixel definitions and following pages.
		Editorial updates:
		Added chapter Document history and conventions.
		Corrected typographical errors, inconsistencies, and terminology.
V9.1.2	2016-Mar-18	Up to this version no document history has been kept.

Table 1: Document history (Sheet 4 of 4)



Document conventions

Camera models and options

Options apply to all models of a camera family, unless otherwise stated.

Typographical styles

To give this manual an easily understood layout and to emphasize important information, the following typographical styles and symbols are used.

Style	Function
Emphasis	Highlighting important things
Web addresses and references	Links to webpages and internal cross references

Table 2: Typographical styles

Symbols and notes



NOTICE

Material damage

Precautions are described.



Practical tip

Additional information helps to understand.



Additional information

Web link or reference to an external source with more information is shown.



Camera options

Bonito PRO



Module	Standard	Options	Product code	
Lens mount	F-Mount	 F-Mount PA¹ (46.5 mm flange focal distance) M58-Mount (12.71 mm flange focal distance) M58-Mount PA¹ (46.5 mm flange focal distance) EF-Mount PA¹ (44.0 mm flange focal distance) M42-Mount PA¹ (45.46 mm flange focal distance) M42-Mount (45.46 mm flange focal distance) 	 Bonito PRO03 Bonito PRO12 Bonito PRO13 Bonito PRO18 Bonito PRO25 Bonito PRO31 	
Optical filter	Monochrome models: No filter Color models: Type IRC30	Type IRC30 (IR cut filter)Protection glass (ASG)	Bonito PRO06Bonito PRO19	
Sensor surface option	Fixed Cover Glass with microlens	Removed Cover Glass with microlens Before operation, remove the cover glass taped to the sensor. See RCG (Removed Cover Glass) sensor option on page 20.	 Bonito PRO X-2620 RCG41 Bonito PRO X-2620NIR RCG41 	
¹ Planarity adju:	sted	· · · · · · · · · · · · · · · · · · ·		

Table 3: Bonito PRO camera options



Further options

Please contact Allied Vision Sales for further options: www.alliedvision.com/en/contact.



Goldeye



Module	Standard	Options	Product code
Lens mount	C-Mount	 F-Mount¹ M42-Mount¹ 	Goldeye G/CL SWIR F-MountGoldeye G/CL SWIR M42-Mount
Optical filter	No filter	 Type IRBP 1450 (IR bandpass filter)², water absorption peak, see Type IRBP 1450 nm on page 19. Type BP 1450 (IR bandpass filter)^{3,4} Type LP 920 (visible cut-off)³ 	 Goldeye G/CL SWIR IRBP 1450 Goldeye G/CL VSWIR BP 1450 Goldeye G/CL VSWIR LP 920
Housing design	Allied Vision standard design	 Silver housing⁵ See M12-Mount adapter set on page 16. 	Goldeye G/CL SWIR silver

¹Goldeye G/CL-030 TEC1, G/CL-130 TEC1, and XSWIR models **on request** | ²**Not for** Goldeye G/CL-030 TEC1, G/CL-130 TEC1, and XSWIR models ³Only for Goldeye G/CL-030 TEC1, G/CL-130 TEC1, and XSWIR models | ⁴Water absorption peak | ⁵Further housing colors on request, such as all black

Table 4: Goldeye G/CL camera options



Further options

Please contact Allied Vision Sales for further options: www.alliedvision.com/en/contact.



Mako



Module	Standard	Options	Product code
Lens mount	C-Mount	• CS-Mount	Mako G CS-Mount
		For M12-Mount option, see M12-Mount adapter set on page 16.	
Optical filter	Monochrome and NIR models: No filter	 Protection glass (ASG) Type IRC Hoya C-5000 (IR cut filter) Type IRC Jenofilt 217 (IR cut filter) See Spectral transmission of filters on page 18.	 Mako G ASG Mako G IRC Hoya Mako G IRC Jenofilt
Optical filter	Color models: Type IRC Hoya C-5000	 Protection glass (ASG) Type IRC Jenofilt 217 (IR cut filter) See Spectral transmission of filters on page 18.	Mako G ASGMako G IRC Jenofilt

Table 5: Mako G camera options



Further options

Please contact Allied Vision Sales for further options: www.alliedvision.com/en/contact.



Manta

Manta G-040, G-158, G-223, G-235, G-282, G-283, G-319, G-419, G-505, G-507, G-895, G-917, G-1236, G-1620, G-2040, G-2460



Module	Standard	Options	Product code
Lens mount	C-Mount	• CS-Mount For M12-Mount option, see M12-Mount adapter set on page 16.	Manta G CS-Mount
Angled head	Standard housing	 W90 housing W90 S90 housing W270 housing W270 S90 housing See Spectral transmission of filters on page 18 for possible options.	 Manta G W90 Manta G W90 S90 Manta G W270 Manta G W270 S90
Optical filter	Monochrome models: Protection glass (ASG) Color models: Type IRC Hoya C-5000 NIR models: No filter	 Protection glass (ASG) Type IRC Jenofilt 217 (IR cut filter) Type IRC Hoya C-5000 (IR cut filter) See Spectral transmission of filters on page 18. See options above.	 Manta G ASG Manta G IRC Jenofilt Manta G IRC Hoya
Housing design	Allied Vision standard design	White medical design See Housing and logo color on page 17.	Manta G medical
Sensor surface option	Fixed Cover Glass with microlens	 Removed Cover Glass with microlens (Manta G-145B only) Before operation, remove the cover glass taped to the sensor. See RCG (Removed Cover Glass) sensor option on page 20. 	Manta G-145 B RCG ¹
Board level		See Ordering a Manta board level camera on page 22.	Manta G BL

Table 6: Manta camera options



Further options

Please contact Allied Vision Sales for further options: www.alliedvision.com/en/contact.



Prosilica GT Standard Format, Extended Format

Prosilica Standard Format: GT2000, GT2000NIR, GT2050, GT2050NIR, GT2460

Prosilica Extended Format: GT3400

See next page for options on **Prosilica GT Large Format**.



Module	Standard	Options	Product code	
Lens mount	C-Mount	 CS-Mount F-Mount M42-Mount (45.46 mm flange focal distance) 	Prosilica GT01Prosilica GT03Prosilica GT31	
Optical filter	Monochrome and NIR models: No filter Color models: Type IRC30	Type IRC30 (IR cut filter)Protection glass (ASG)	Prosilica GT06Prosilica GT19	

Table 7: Prosilica GT Standard Format, Extended Format camera options



Further options

Please contact Allied Vision Sales for further options: www.alliedvision.com/en/contact.

Prosilica GT Large Format

Prosilica GT1930L, GT4400, GT5120¹, GT5400, GT6400



¹Available as monochrome and NIR models only.



Module	Standard	Options	Product code				
Lens mount	F-Mount GT1930L: EF-Mount PA ²	 F-Mount PA² (46.5 mm flange focal distance) C-Mount³ (17.53 mm flange focal distance) M58-Mount (12.71 mm flange focal distance) M58-Mount PA² (46.5 mm flange focal distance) EF-Mount PA² (44.0 mm flange focal distance) M42-Mount PA² (45.46 mm flange focal distance) M42-Mount (45.46 mm flange focal distance) TFL-Mount⁴ (17.53 mm flange focal distance) 	 Prosilica GT03 Prosilica GT07 Prosilica GT12 Prosilica GT13 Prosilica GT18 Prosilica GT25 Prosilica GT31 Prosilica GT40 				
Optical filter	Monochrome and NIR models: No filter Color models: Type IRC30	Type IRC30 (IR cut filter)Protection glass (ASG)	Prosilica GT06Prosilica GT19				
Sensor surface option	Fixed Cover Glass with microlens	• Removed Cover Glass with microlens Before operation, remove the cover glass taped to the sensor. See RCG (Removed Cover Glass) sensor option on page 20.	 Prosilica GT-4400 RCG41 Prosilica GT-5120 RCG41 Prosilica GT-5120NIR RCG41 Prosilica GT-5400 RCG41 Prosilica GT-6400 RCG41 				
² Planarity adjusted ³ GT4400 and GT5400 cameras only ⁴ GT4400, GT5400, and GT6400 cameras only							

Table 8: Prosilica GT Large Format camera options



Further options

Please contact Allied Vision Sales for further options: www.alliedvision.com/en/contact.



M12-Mount adapter set

The M12-Mount adapter set (product code: E3000115) enables using M12-Mount (S-Mount) lenses with any CS-Mount or C-Mount camera.



NOTICE

Damage to the camera sensor or electronics

Observe your camera's maximum protrusion to avoid damage to the sensor and camera electronics. See the specifications in your camera's technical manual.

To use M12-Mount lenses:

- Order a CS-Mount or C-Mount camera.
- Order the M12-Mount adapter set.
- Attach the lens with the M12-Mount adapter to the camera, as shown below.

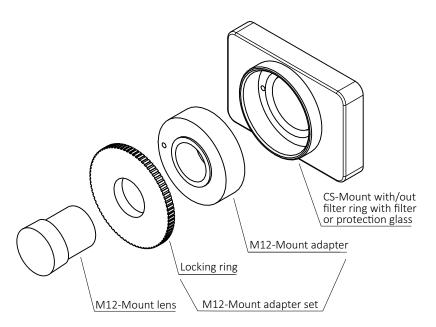


Figure 1: M12-Mount lens adapted to CS-Mount or C-Mount with the M12-Mount adapter set



Housing options: Angled head housing and standard housing

The schematic drawings show the sensor position for Manta G-040, G-158, G-223, G-235, G-319, G-419, G-507, G-895, G-1236, G-1620, G-2040, G-2460.

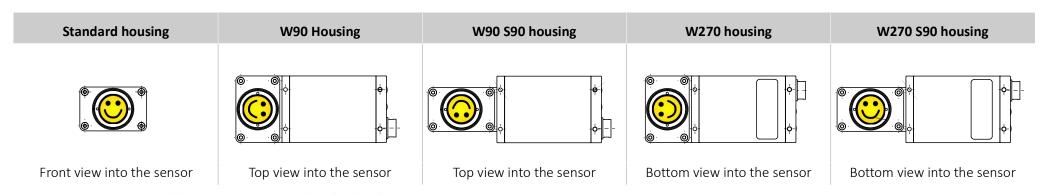


Figure 2: Sensor position of standard housing and angled head options

Housing and logo color

The Allied Vision standard housing is Allied Vision red with white company logo. In addition, for some camera models, you can order the following color options..



Figure 3: Housing and logo color



Spectral transmission of filters

300 to 1700 nm

The following curves show typical transmissions for the named filters. Values may vary slightly by filter lot. All filters are made of optical glass.

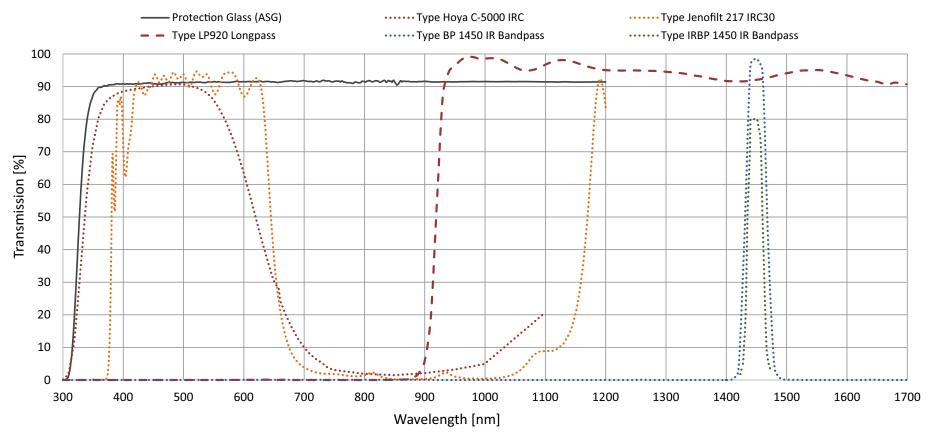


Figure 4: Spectral transmission of filters 300 to 1700 nm (exemplary curves)



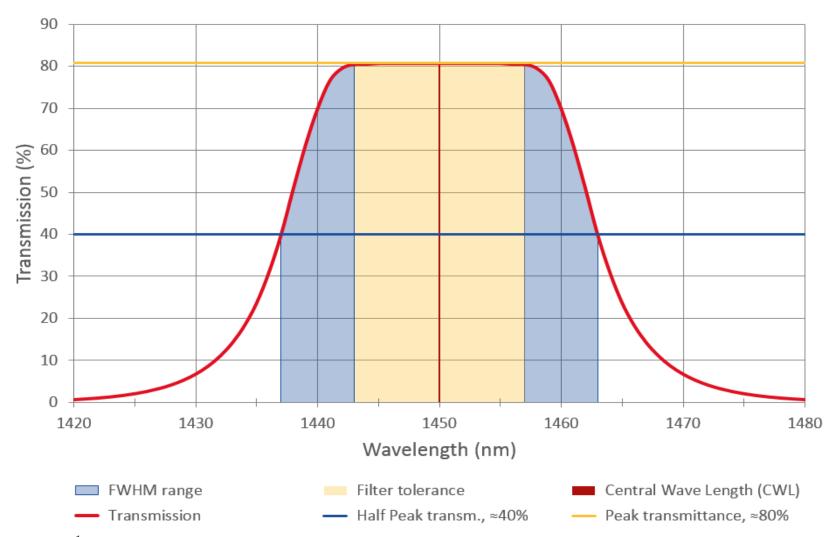
Further options

Please contact Allied Vision Sales for further options: www.alliedvision.com/en/contact.



Type IRBP 1450 nm

The following curve shows the typical transmission for the Type IRBP 1450 nm filter. Values may vary slightly by filter lot. Filters are made of optical glass.



¹HW: Half width, spectral range for 50% of the maximum spectral transmission; in this case 40% from 80%

Figure 5: Spectral transmission of Type IRBP 1450 nm (exemplary curve)



RCG (Removed Cover Glass) sensor option

Sensors without cover glass are suitable for several applications, to:

- Increase overall quantum efficiency
- Attach fiber optic arrays directly to the sensor, for example in connection with an image intensifier
- Prevent disturbing reflections or interferences caused by the sensor cover glass.



Handling of cameras with RCG sensor option

Before handling cameras with removed cover glass, read the following application note:

www.alliedvision.com/fileadmin/content/documents/products/cameras/various/appnote/various/TCG-RCG_Sensor-Handling.pdf.



Board level camera options for Manta

The Modular Concept provides several options for board level cameras, for example, different lengths for the flex cables. The following pages describe how to order a Manta board level camera.

Benefits of board level cameras

Board level cameras provide certain benefits to the end user, some of which (but not all) are listed below.

- Option to use the camera in applications where space is an issue.
- Due to the flex cable-attached sensor board (with optional lens mount), the sensor board can be oriented separately from the camera boards.
- Board level cameras share similar lens mounts and filters as housed models.

Ordering a Manta board level camera step by step



Ordering conditions

Please contact the Allied Vision Sales team for availability, minimum order quantities, and lead time: www.alliedvision.com/en/contact.

Follow the instructions and order your board level camera by components:

- 1. Interface type
- 2. Flex cable length
- 3. Lens mounting type (optional)
- 4. Interface cable (optional)

CE, FCC, and ICES

Board level models are designed for integration and are delivered without housing. Because housing design is critical to the electromagnetic compatibility (EMC) of a camera, no CE, FCC, or ICES certification tests regarding electromagnetic interference have been performed for board level models. Users who design board level models into their systems should perform appropriate testing regarding EMC after the product design is completed.





Ordering a Manta board level camera

Manta G-040, G-158, G-223, G-235, G-319, G-419, G-507, G-895, G-1236, G-1620, G-2040, G-2460

Step 1: Select the interface type	Step 2: Select the flex cable length	Step 3: Select the lens mount and filt	er
Basic camera	Flex cable Length	Lens mount:	CS-Mount
Sensor board, main board(s), I/O board, thermal conductive film, and cooling plate	Ordering flex cables Flex cables are not sold separately!	Each mounting type is equipped with:Type IRC Hoya C-5000 orProtection glass (ASG)	NIR models NIR models are not equipped with filter or protection glass.
 Interface type Manta GBL Manta GBL PoE (Power over Ethernet) 	Flex cable Manta type A Flex cable 56 mm FC56 Flex cable 110 mm FC110 Flex cable 152 mm FC152 Flex cable 200 mm FC200	MountC-MountCS-Mount (M12 option available)	
	Flex cable Manta type B Flex cable 60 mm FC60 Flex cable 110 mm FC110 Flex cable 150 mm FC150 Flex cable 200 mm FC200	 Filter Protection glass (ASG) Type IRC Jenofilt 217 (IR cut filter) Type IRC Hoya C-5000 (IR cut filter) For filter details, see Spectral transmiss 	Manta G IRC Hoya

Table 9: Ordering a Manta board level camera in (steps 1 to 3)





Ordering a Manta board level camera

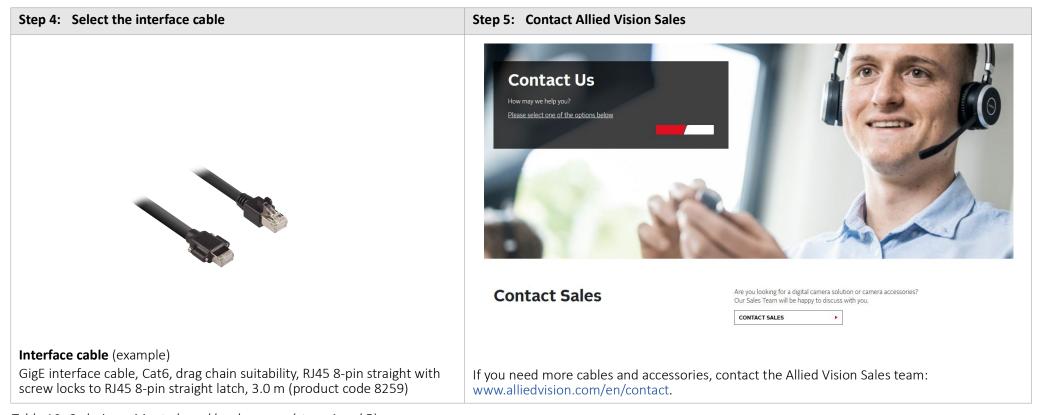


Table 10: Ordering a Manta board level camera (steps 4 and 5)