

Data Sheet Version 1.0

DP75



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1 BASIC INFORMATION

1.1 Product Information

Product code	N6413800
Product name	DP75
Intended use	This product is used for the purpose of acquiring and saving digital images. Do not use digital images acquired, saved, or analysed with this product for diagnostic purposes.
Long description	1.1 inch, 12.37-megapixel color CMOS camera with global shutter for C-mount adaptor, Peltier cooling, IR cut filter IN/OUT, and USB3.1GEN2 interface. Including DP75 camera head, AC adaptor, and instruction manual.
Available starting from	November, 2023
Difference to predecessor	

1.2 Predecessor Information

Product code	N5667300
Product name	DP74-CU
Long description	1/1.2 inch, 2.35-megapixel color CMOS camera with global shutter for C-mount adaptor, Peltier cooling, and PCI Express interface. Including DP74 camera head and instruction manual.
Sales period	November 2016 - October 2023

Product code	N5667400
Product name	DP74
Long description	1/1.2 inch, 2.35-megapixel color CMOS camera with global shutter for C-mount adaptor, Peltier cooling, and PCI Express interface. Including DP74 camera head, PCIe I/F board, low-profile bracket, interface cable, and instruction manuals.
Sales period	November 2016 - October 2023

2 PRODUCT SPECIFICATIONS

2.1 Specifications

Item		Specifications
Camera method		Single chip color camera
Image sensor	Format	1.1 type 12.37 million pixel color CMOS (total pixels: 12.41 million pixels) Global shutter method RGB primary color on-chip filter (Bayer matrix)
	Pixel pitch	3.45um(H) - 3.45um(V)
	Imaging range	14.13mm(H) - 10.35mm(V)
	Imaging range (diagonal length)	17.52 mm
Cooling		Cooling method: Peltier cooling, natural air cooling
Image size *1		8192 - 6000 (pixel shift) 4096 - 3000 (3CMOS mode *2) 4096 - 3000 (1 - 1) 2048 - 1500 (2 - 2) 1920 - 1080 (1 - 1) *1 ROI (specified area extraction) available *2 3CMOS mode is an application of the pixel shift function, and is able to acquire an image in which each pixel has all colors (RGB).
Image bit depth		16 bit / pixel per color channel R, G, B
Camera mount		C mount
Protective glass (dust-proof glass)		(with dust-proof glass)
IR cut filter		Absorption type filter
Sensitivity		1- / 2- / 4- / 8- / 16- / 32- (ISO 100 / 200 / 400 / 800 / 1600 / 3200 equivalent)
A/D conversion		12 bit native, further enhanced to 14 bit or more through TruAI technology
A/D clock		74.25MHz
Exposure control	Exposure mode	Auto, SFL-Auto, Manual
	AE lock	Yes
	AE pose	Yes
	Exposure correction	Correction range: $\pm 2.0\text{EV}$ 1/3EV steps
	Photometric range	Full Image, 30%, 1%, 0.10%
Exposure time		28 μs + 120s
Binning		2.2
Live fame rate		4096 - 3000 (1 - 1): 22 fps 2048 - 1500 (2 - 2): 22 fps 2048 - 1500 (1 - 1): 44 fps 1920 - 1080 (1 - 1): 60 fps

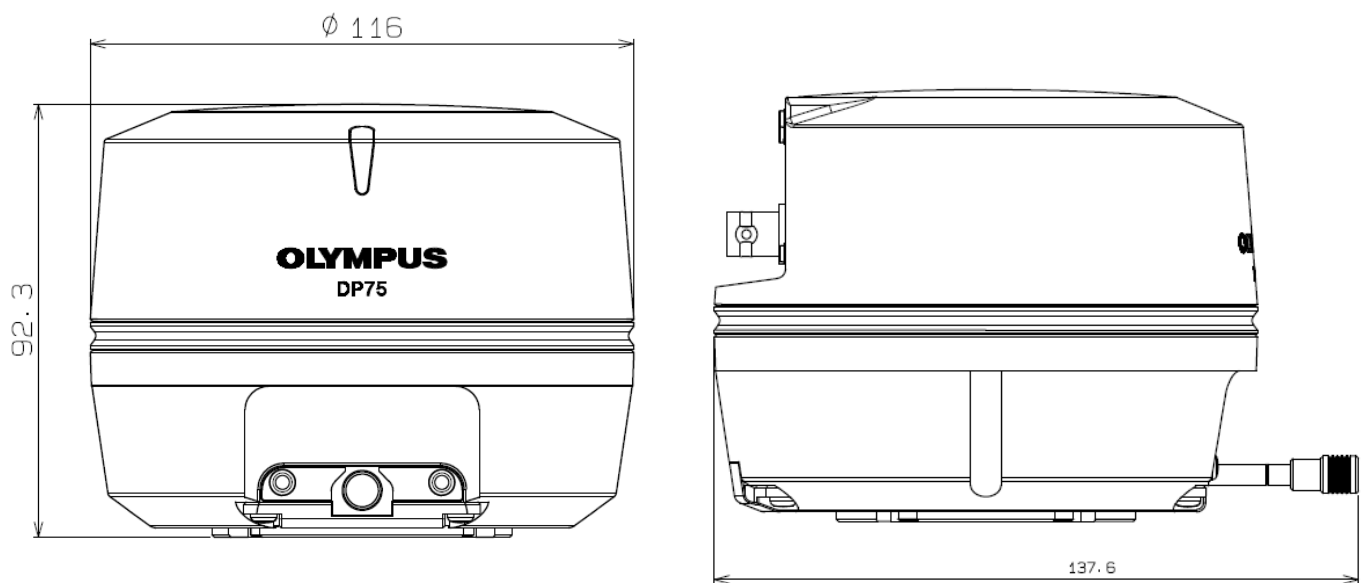
ANEXA 10

Still image capturing time (from start of capturing to display)		8192 - 6000 (pixel shift): about 3 seconds 4096 - 3000 (3CMOS mode): about 2 seconds 4096 - 3000 (1 - 1): about 1.2 seconds 2048 - 1500 (2 - 2): about 1.0 seconds 1920 - 1080 (1 - 1): about 0.4 seconds
Color mode		Color Standard monochrome Custom monochrome : Select combination of addition ON/OFF for each [R]/[G]/[B] channel
External trigger		Input: Edge trigger input / Level trigger input Output: Trigger output With open delay (0 to 2s, 10ms step) TTL compatible
Image integration	Mode	Average
	Cumulative number	64 times
White balance		Manual/ ROI (Area designation)
Black balance		Manual/ ROI (Area designation)
Contrast mode		Low (standard setting), Medium, High, Linear
Sharpness filter		Weak, Standard, Strong 1 / Strong 2 / Strong 3
Preset mode designation		No
Color space designation		sRGB, Adobe RGB
Focus indicator		Contrast bar, line profile
Pixel defect correction		Always ON
Shading correction		Yes
Pixel shift fading correction		Yes
LiveHDR		Yes
Live noise reduction		Yes
Position navigator		Yes
Scene recognition		No
Instant MIA		Yes
Interval shooting		Interval time: 1s to 24h59m59s Number of images taken: 3000
Image file format		<DP2-TWAIN> By TWAIN compatible application software <cellSens> TIFF/JPEG/JPEG2000/BMP/PDS/PNG/AVI/VSI/GIF <PRECIv> TIFF/JPEG/JPEG2000/BMP/PNG/AVI/VSI/POIR
Preview image quality mode (*1)		Standard, Medium, High
PC Interface		USB3.1gen2 (Type-C)
Applicable OS		Windows10 Pro (64bit) Windows11 Pro (64bit)

2.3 Packing List

Item	Quantity
DP75 Camera head	1
IR cut filter switchable knob	1
USB interface cable	1
AC adaptor	1
Instruction manual	1

3 PRODUCT DRAWINGS



Length is 118.6mm when IRC filter is inserted.